RECAPP Facility Evaluation Report

Sturgeon School Div #24

Sturgeon Composite High School

B3816A

Namao

Report run on: January 11, 2012 12:00 AM

Facility Details

Building Name: Sturgeon Composite High S
Address: P. O. Box 100
Location: Namao

Building Id: B3816A
Gross Area (sq. m): 12,163.19
Replacement Cost: $36,174,000
Construction Year: 1976

Evaluation Details

Evaluation Company: Robert Irlam Consulting Inc.
Evaluation Date: August 16 2011
Evaluator Name: J. R. Irlam

Total Maintenance Events Next 5 years: **$6,903,000**
5 year Facility Condition Index (FCI): **19.08%**

General Summary:

The 12163m2 Sturgeon Composite High School was constructed in several phases.
The original 9309m2 school was built in 1976 primarily as a single storey building with a small section of two storey at the mezzanine level in the gym.
In 1980 there were five separate additions and infill developments for classrooms and vocational classes totaling 1804m2.
At this tome 4 portable classrooms erected on the north west corner of the school.
In 1993 the school was expanded by 1050m2 by: the addition of a gym constructed on the north west corner of the school; expansion and renovation of cafeteria and the kitchen; addition of two science class rooms at the south east corner of the school.
The 4 portable class rooms at the north west corner of the school were relocated to the north east corner and two additional portables were added to this pod.
In 1995 two portable class rooms were installed at the south east corner of the school
The student enrolment is reported to be approximately 1000 with 51 teachers.

Structural Summary:

The structure of the original school consists of precast concrete double tees spanning between reinforced concrete block walls.
The long spans over both the original gym and the new gym are achieved with open web steel trusses spanning reinforced concrete block walls.
The only two storey section of the facility is at the mezzanine level which is part of the original gym building.
The precast concrete double tees form the floor of the two storey section where the roof structure is open web steel joists.

The structural condition of the school is good.

Envelope Summary:

The exterior brick walls and pre-cast concrete cladding are in good condition.
Approximately half of the school needs re-roofing.
There are few windows in the facility many of which need the sealed units replacing.
The skylights are a continual problem with leaks.
Re-caulking has been carried out and provides a temporary fix for a year or two.

Despite the deficiencies noted above, the overall condition of the building envelop of the school is acceptable.

Interior Summary:

The original terrazzo floors have provided a durable surface in heavy use corridor areas.
There are some sections of wall and floor finishes which require repair or replacement.
Carpet in the staff room and library should be replaced. There are some splits in the sheet vinyl floors which require repair.

The original painted concrete block interior partitions have also survived the rigors of high school usage.
Painted concrete block has also been used for toilet partitions resulting in little or no damage to this component.

There are some unique features in the school.
One of the enclosed courtyards has been developed as a tropical garden.
There is also a sunken lounge area for students in the 1980 additions.
The use of skylights and internal courtyards brings natural light into the interiors.

The overall condition of the school interior is acceptable.

Mechanical Summary:

A branch water main from the municipal service water connection west of the school and north of Highway 37 enters the south face of the facility and is metered in Room 102. From this room services extend throughout the facility via the ceiling space to service the domestic and Mechanical Room process loads.

Plumbing fixtures are floor mounted flush valve and tank type water closets, floor-mounted urinals, countertop and wall-hung lavatories and stainless steel sinks.

Waste from the various plumbing fixtures drains to cast iron piping under the main floor that exits the building east face at the 600 Wing, the Vocational Wing, and the Fieldhouse and connects to a septic tank east of the building. Outfall from the septic tank drains to a lagoon north of the building.

Storm drainage from the various roof hoppers drain via a cast iron storm drainage main located under the floor slab where it exits the building at the northwest corner of the school and the east end of the 600 Wing to spillways north of the facility.

A fire hydrant is provided from the municipal system at the west property line.

Natural gas is metered outside of the building at the north face of where it is routed to the Main Mechanical Room and extended via the roof to serve natural gas fired equipment in other Mechanical Rooms, and the Portable furnaces. A buried service also connects the the gas-fired mechanical equipment in the Fieldhouse north of the school.

The building is heated by hydronic boilers located Mechanical Rooms 313 and 211. A perimeter hot water distribution system is provided to heat the various zones of the school. Steam boilers are provided to serve the steam grid humidifiers in the ventilation units during the heating season.

Nine air handling units provide ventilation air to the various rooms of the facility. Make-up air units are provided for the process loads in the Vocational Wing and for the Kitchen area.

Fire protection consists of a hose and standpipe system. Fire extinguishers are also provided throughout.

Facilities Management is currently installing a new Building Management Control System to be completed in September 2011.

Overall, the school is well maintained, and the mechanical systems are currently in an acceptable condition.

A major heating and ventilation mechanical upgrade may be unavoidable within the next 6 to 8 years, due to the majority of the mechanical equipment and systems now exceeding their anticipated life expectancy.

Electrical Summary:

Service to the School is 1600A, 347/600V from the Utility-owned oil-filled transformer just outside of the Electrical Room to the 2000A, 347/600V, 3 phase, 4 wire Service and Distribution Switchboard. The 347/600V main distribution is used for lighting and major mechanical equipment. The secondary distribution is 120/208V via secondary transformers to distribution and branch circuit panelboards throughout the school. A 60 kW natural gas generator provides the emergency power which includes emergency and exit lighting, heating, life safety and essential communication systems.

The interior lighting system is predominantly fluorescent, consisting of electronic ballasts and T8 lamps, except in the main gymnasium which uses T5 lamps. Some incandescent lights remain but are mostly outfitted with compact fluorescent lamps. The only metal halide lighting is in the north gymnasium. Exterior lighting is now totally high pressure sodium with wall packs along the perimeter and pole lights in the parking lots.

The Simplex fire alarm system control panel was upgraded in 1993 but the field devices remain from previous eras. The Intrusion alarm, public address and video surveillance systems are state-of-the-art having been replaced recently. The local area network provides an extensive data distribution throughout the school as computer services are in increasing demand, including Smart Boards.

The overall condition of the electrical systems is considered to be good.

Rating Guide	
Condition Rating	**Performance**
1 - Critical	Unsafe, high risk of injury or critical system failure.
2 - Poor	Does not meet requirements, has significant deficiencies. May have high operating/maintenance costs.
3 - Marginal	Meets minimum requirements, has significant deficiencies. May have above average operating maintenance costs.
4 - Acceptable	Meets present requirements, minor deficiencies. Average operating/maintenance costs.
5 - Good	Meets all present requirements. No deficiencies.
6 - Excellent	As new/state of the art, meets present and foreseeable requirements.

S1 STRUCTURAL

A1010 Standard Foundations*

The original 1976 school foundation system consists of 405mm and 500mm diameter reinforced concrete piles with 1400mm diameter bells to depths ranging from 6.8m to 10.6m carrying 200mm and 355mm wide reinforced concrete grade beams of varying depths.

The foundation system for 1980 additions on the north and south sides consist of 400mm and 500mm diameter piles up to 9m in depth carrying 610mm wide reinforced concrete grade beams with depths of 200mm and 355mm.

The 1993 additions of a new gym and science class rooms have foundation systems consisting of reinforced concrete piles with diameters of 400mm, 500m and 600mm to depths of 7m with bell diameters ranging from 600mm to 1500mm.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

A1030 Slab on Grade*

The original 1976 school has a 100mm poured concrete slab with 150mm x 150mm welded wire mesh on poly vapour barrier on 150mm compacted granular fill. Concrete slabs in the shop areas are 125mm thick.

The slabs in 1980 additions are 100mm150mm x 150mm welded wire mesh on poly vapour barrier on 150mm compacted granular fill.

The 1993 gym and science class room additions have 125 mm concrete slabs with reinforcing at 300 mm centres each way on compacted fill.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

B1010.01 Floor Structural Frame (Building Frame)*

The original 1976 school has pre-cast pre-stressed concrete double tees spanning reinforced concrete block walls and pre-cast concrete columns. There are also open web steel joists spanning the gym spanning reinforced concrete block walls.

The 1980 additions consist of open web steel joists spanning concrete block walls and hollow section steel columns.

The 1993 gym and class room additions have open web steel joists ranging from 350mm to 1050mm deep spanning reinforced concrete block walls or steel beams.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

B1010.02 Structural Interior Walls Supporting Floors (or Roof)*

The original school building has structural interior walls constructed of reinforced concrete block supporting the pre-cast concrete tee roof structure.

There is a double interior reinforced concrete block wall carried on a poured reinforced concrete beam which separates the 1993 gym from the mezzanine and change room area.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

B1010.03 Floor Decks, Slabs, and Toppings*

Floor decks are formed on the main level by the concrete slab on grade which has a trowelled finish. Upper floor levels have a trowelled 50mm concrete topping on the precast concrete double Tees and concrete topping on metal deck.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

B1010.05 Mezzanine Construction*

The mezzanine in the old gym where the bleachers are located is constructed from the pre-cast concrete double tees which are cantilevered 900mm beyond the interior concrete block bearing wall underneath. The floor deck of the mezzanine mechanical room floors are concrete topping on metal deck.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

B1010.07 Exterior Stairs*

There is an 8 riser flight of concrete exterior stairs on the north west corner of the 1993 gym with steel pipe hand rails.

Rating	Installed	Design Life	Updated
4 - Acceptable	1993	0	JAN-12

B1010.09 Floor Construction Fireproofing*

6The upper floor in the original 1976 school which accommodates the mechanical room and 2 class rooms is constructed of non-combustible pre-cast concrete double Tees.

Fire proofing to the floors of two storey sections in the 1980 additions is provided by 16mm fire guard gypsum board suspended from the structure above and the open web steel joist and metal deck structure for the second floor are sprayed with fire rated mineral fibre.

The 1993 gym has a two storey section along the west side which accommodates a mechanical room on the upper floor and change and shower area on the main floor. The second floor in this section is supported on open web steel joists which have a sprayed on one hour fire proofing.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

B1010.10 Floor Construction Firestopping*

There is fire stopping where floors are penetrated by pipes and other services.

Rating	Installed	Design Life	Updated
3 - Marginal	1976	0	JAN-12

Event: Install fire stopping in 6 locations

Concern:
There are some locations where where fire stopping is missing where data and other communications systems have been installed subsequent to the original construction.

Recommendation:
Install missing fire stopping.

Consequences of Deferral:
The construction will continue to be non-compliant with Code.

Type	Year	Cost	Priority
Code Repair	2012	$1,000	Medium

Updated: JAN-12

Missing fire stopping in electrical room

B1020.01 Roof Structural Frame*

The structural frame for the roof in the original 1976 school building consists of precast concrete double tees carried on reinforced concrete block walls. The gym roof in this section consists of open web steel joists supported on reinforced concrete block walls.

The roof structural frame in the 1980 additions consists of open web steel joists carried on reinforced concrete block walls.

The roof structural frame of the 1993 gym also consists of 1050mm deep open web steel joists at 2m centres carried on reinforced concrete block walls.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

B1020.04 Canopies*

The main entrance canopy is constructed of pre-cast concrete double tees spanning precast concrete beams which form the canopy fascia on external brick columns. The double tees are tied into the wall structure over the entrance doors. The roof is built up membrane roof.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

B1020.06 Roof Construction Fireproofing*

The two storey sections of the gym have fire rated gypsum board under the steel joists in the 1976 section.

The open web steel joist roof structure of the 1980 additions has fire rated mineral fibre sprayed to the underside of the metal roof deck and on the open web steel joists.

The roof of the 1993 gym is a non-combustible steel structure and has no fire proofing.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

S2 ENVELOPE

B2010.01.01 Precast Concrete: Exterior Wall Skin*

The original 1976 school building has a continuous 100mm thick by 1600mm deep pre-cast concrete flush fascia carried on a steel angle bolted to the reinforced concrete block exterior walls and bolted at the top to the pre-cast concrete double tees.

The 1980 additions also have a 100 mm thick by 1600 deep precast concrete fascia carried on a steel angle bolted to the exterior reinforced concrete block walls.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

B2010.01.02.01 Brick Masonry: Ext. Wall Skin*

All three phases of building have oversize brick exterior cladding consisting of 90mm brick skin, 25mm air space, 50mm rigid insulation over a vapour barrier on a reinforced concrete block back wall.

Rating	Installed	Design Life	Updated
5 - Good	1976	0	JAN-12

B2010.01.05 Exterior Insulation and Finish Systems (EIFS)*

The 1993 gym has an exterior insulation and finish system with 75mm exterior rigid insulation system and vapour barrier with concrete block back walls.

Rating	Installed	Design Life	Updated
4 - Acceptable	1993	0	JAN-12

B2010.01.08 Cement Plaster (Stucco): Ext. Wall*

The 1993 gym and class rooms has an exterior stone dash stucco fascia band along the upper part of the exterior walls consisting of stucco on galvanizes wire mesh on vertical Z bars at 610mm centres with 75mm rigid insulation on a vapour barrier on a concrete block back wall.

Rating	Installed	Design Life	Updated
4 - Acceptable	1993	0	JAN-12

B2010.01.09 Expansion Control: Ext. Wall*

The 1980 and 1993 additions have expansion joints designed into exterior brick skin and stucco.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-12

B2010.01.11 Joint Sealers (caulking): Ext. Wall**

All three phases of construction have caulking where the window, grille and door frames meet the exterior walls.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	20	JAN-12

Event: Replace 300m caulking

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$10,000	Unassigned

Updated: JAN-12

B2010.03 Exterior Wall Vapour Retarders, Air Barriers, and Insulation*

The walls of the original 1976 school have rigid wall insulation. No vapour barrier is indicated on the construction drawings.

The exterior walls of the 1980 additions have 50 mm rigid insulation. No vapour barrier is indicated on the constriction drawings.

The 1993 gym has a mix of insulation types which include 50 mm and 75 mm rigid as well as an exterior insulation system. Batt insulation is also called for on the drawings where rigid insulation would be difficult to install. These exterior walls also include a vapour barrier.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

B2010.06 Exterior Louvers, Grilles, and Screens*

There are exterior louvres in exterior walls for air intakes and outlets for mechanical systems.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

B2010.09 Exterior Soffits*

There are exterior soffits over recesses in the exterior walls where entrances are located at the perimeter of the school. They consist of stucco on metal lath on a metal suspension system with rigid insulation.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

B2020.01.01.02 Aluminum Windows (Glass & Frame)** - 1976 Section

There are exterior aluminum windows in the 1976 building with a thermal break and sealed units.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	40	JAN-12

Event: Replace 75m2 aluminum windows

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$75,000	Unassigned

Updated: JAN-12

B2020.01.01.02 Aluminum Windows (Glass & Frame)** - 1980 Section

There are double glazed aluminum windows in this section of the school with lower Glasweld window panels. There are Venetian blinds between the two panes of glass.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	40	JAN-12

Event: Replace 70m2 aluminum windows

Type	Year	Cost	Priority
Lifecycle Replacement	2020	$70,000	Unassigned

Updated: JAN-12

B2020.01.01.02 Aluminum Windows (Glass & Frame)** - 1993 Section

There are aluminum windows in this section of the school with thermally broken frames.

Rating	Installed	Design Life	Updated
4 - Acceptable	1993	40	JAN-12

Event: Replace 50m2 aluminum windows

Type	Year	Cost	Priority
Lifecycle Replacement	2033	$50,000	Unassigned

Updated: JAN-12

B2030.01.01 Aluminum-Framed Storefronts: Doors**

There are aluminum store front sliding doors units in the open courtyards in the 1976 school. There are also aluminum storefront doors to the main entrance and the staff lounge on the north side of the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	30	JAN-12

Event: Replace 12 aluminum store front doors

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$40,000	Unassigned

Updated: JAN-12

B2030.01.02 Steel-Framed Storefronts: Doors**

There are double hollow metal doors in pressed steel store frames with side lights and transom lights in the 1976 and 1980 sections of the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	30	JAN-12

Event: Replace 3 sets double store front doors

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$6,000	Unassigned

Updated: JAN-12

B2030.02 Exterior Utility Doors** - 1976 Section

There are hollow metal doors in pressed steel frames in this section of the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	40	JAN-12

Event: Replace 10 hollow metal utility doors

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$8,000	Unassigned

Updated: JAN-12

B2030.02 Exterior Utility Doors** - 1980 Section

There are hollow metal utility doors in pressed steel frames in this section of the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	40	JAN-12

Event: Replace 6 hollow metal utility doors

Type	Year	Cost	Priority
Lifecycle Replacement	2020	$5,000	Unassigned

Updated: JAN-12

B2030.02 Exterior Utility Doors** - 1993 Section

There are hollow metal utility doors in a pressed steel frame to this section of the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	1993	40	JAN-12

Event: Replace 1 metal utility door

Type	Year	Cost	Priority
Lifecycle Replacement	2033	$1,000	Unassigned

Updated: JAN-12

B2030.03 Large Exterior Special Doors (Overhead)*

There are 9 overhead doors to the 1976 shop areas and a further 5 in the 1980 additions leading to automotive and fabrication areas.

Rating	Installed	Design Life	Updated
4 - Acceptable	2010	0	JAN-12

B3010.01 Deck Vapour Retarder and Insulation*

The roof of the 1976 section consists of a built up membrane on rigid insulation on a vapour barrier on metal deck or pre-cast concrete double Tees.

The roof of the 1980 section is an inverted roof consisting of gravel ballast over 75mm rigid insulation on a 4-ply membrane on 13mm gypsum board on metal deck.

The roof of the 1993 section consists of 4-ply built up membrane on 25mm fibre board on rigid insulation on a vapour barrier over 13mm exterior grade gypsum board on metal deck.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

B3010.04.01 Built-up Bituminous Roofing (Asphalt & Gravel)** - 1976 Section

The roof of the 1976 section consists of a built up membrane on rigid insulation on a vapour barrier on metal deck or pre-cast concrete double Tees.

Rating	Installed	Design Life	Updated
3 - Marginal	1976	25	JAN-12

Event: Replace 8300m2 built up roofing with SBS

Concern:
The roof is leaking and has deteriorated requiring replacement.

Recommendation:
Replace built up membrane roof with SBS.

Consequences of Deferral:
Leaking will persist and roof will deteriorate further.

Type	Year	Cost	Priority
Failure Replacement	2012	$1,400,000	Medium

Updated: JAN-12

B3010.04.01 Built-up Bituminous Roofing (Asphalt & Gravel)** - 1993 Section

The roof of the 1993 section consists of 4-ply built up membrane on 25mm fibre board on rigid insulation on a vapour barrier over 13mm exterior grade gypsum board on metal deck.

Rating	Installed	Design Life	Updated
4 - Acceptable	1993	25	JAN-12

Event: Replace 1000m2 built up roofing with SBS

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$165,000	Unassigned

Updated: JAN-12

B3010.04.08 Membrane Roofing (Inverted/Protected)** - 1980 Section

The roof of the 1980 section is an inverted roof consisting of gravel ballast over 75mm rigid insulation on a 4-ply membrane on 13mm gypsum board on metal deck.

Rating	Installed	Design Life	Updated
3 - Marginal	1980	25	JAN-12

Event: Replace 1700m2 inverted roof with SBS

Concern:
The roof is leaking, is patched and has deteriorated requiring replacement.

Recommendation:
Replace inverted roof with SBS.

Consequences of Deferral:
Leaking will persist and roof will deteriorate further.

Type	Year	Cost	Priority
Failure Replacement	2012	$300,000	Medium

Updated: JAN-12

B3020.01 Skylights** - 1976 Section

In the 1976 section there are pyramidal glass skylights with an aluminum frame over the two south courtyards and four sections of glass skylights in aluminum frames and stucco sides sloping to a central point over the intersection of the main school corridors.

There is also a plastic barrel vault in an aluminum frame over the corridor adjacent to the cafeteria.

Skylights form an important design feature in the interior of the original 1976 school. There are four sloped glazed sky lights over the intersection of the corridors to the general office and the entrance hallway. These skylights consist of glass in an aluminum frame.

There are also skylights over the enclosed court yard with a similar construction in the 1976 building.

There is also a barrel vault over the main entrance corridor in the 1977 building.

The north east 1980 classroom addition has one piece plastic skylight over the sunken lounge.

Rating	Installed	Design Life	Updated
3 - Marginal	1976	25	JAN-12

Event: Replace 250m2 sky lights

Concern:
The skylights over the corridor intersections and the barrel vault leak onto the terrazzo floor and create a slipping hazard.

Recommendation:
Replacing the barrel vault and the skylights over the corridor intersection is recommended.

Consequences of Deferral:
Skylights will continue to leak.

Type	Year	Cost	Priority
Failure Replacement	2012	$200,000	Medium

Updated: JAN-12

B3020.01 Skylights** - 1980 Section

There are three plastic dome double skin skylights on square aluminum frames over the staff lounge in the east section of the school and a skylights over the central seating area.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	25	JAN-12

Event: Replace 8m2 plastic skylights

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$20,000	Unassigned

Updated: JAN-12

B3020.01 Skylights** - 1993 Section

There were 2 skylights installed over the mezzanine art room in the renovated section of the 1976 building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1993	25	JAN-12

Event: Replace 10m2 skylights

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$25,000	Unassigned

Updated: JAN-12

B3020.02 Other Roofing Openings (Hatch, Vent, etc)*

There is a metal door onto the roof from the second floor mechanical room. Roof penetrations for mechanical equipment, exhausts and vent pipes have galvanized and lead flashings and cappings.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

S3 INTERIOR

C1010.01 Interior Fixed Partitions*

Interior partitions throughout the school are predominantly reinforced concrete block. Rooms over 1976 stage have steel stud and gypsum board partitions.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

C1010.04 Interior Balustrades and Screens, Interior Railings*

There is a painted steel guard rail for the spectator's gallery in the original 1976 school gym.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

Event: Modify 30m hand rail to comply with Code

Concern:
The height of the guard rail for the gallery in the gym does not comply with the current Code.
Recommendation:
Modify hand rail to comply with current Code.
Consequences of Deferral:
The gallery will continue to be in breach of the Code.

Type	Year	Cost	Priority
Code Upgrade	2012	$10,000	Medium

Updated: JAN-12

Steel guard rail

C1010.05 Interior Windows*

There are interior windows consisting of clear glass in pressed steel frames in the and music room, cafeteria and internal offices in shop areas for auto, mechanical, welding, graphics .

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

C1010.06 Interior Glazed Partitions and Storefronts*

There are aluminum store fronts to the interior courtyard in the 1977 school building, the general office and computer room adjacent to the library.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

C1010.07 Interior Partition Firestopping*

There was no missing fire stopping observed nor reported during the building audit.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

C1020.01 Interior Swinging Doors (& Hardware)*

Interior swinging doors throughout the school are typically solid core in pressed steel frames.

Rating	Installed	Design Life	Updated
3 - Marginal	1976	0	JAN-12

Event: Replace 15 solid core doors

Concern:
There are doors throughout the facility which are damaged, appear unsightly and require replacement.
Recommendation:
Replace damaged doors.
Consequences of Deferral:
Damaged doors will deteriorate further.

Type	Year	Cost	Priority
Failure Replacement	2012	$10,000	Low

Updated: JAN-12

C1020.03 Interior Fire Doors*

Corridor doors are solid core in pressed steel store front frames with hold open devices tied into the fire alarm system.

Doors into mechanical rooms are hollow metal in pressed steel frames.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

C1030.01 Visual Display Boards**

There are green boards, white boards and tack boards in classrooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1995	20	JAN-12

Event: Replace 250 visual display boards

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$100,000	Unassigned

Updated: JAN-12

C1030.02 Fabricated Compartments (Toilets/Showers)** - 1976

There are fabricated toilet compartments in staff wash rooms and student wash rooms including barrier free extra large compartments with grab bars.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	30	JAN-12

Event: Replace 23 toilet partitions

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$20,000	Unassigned

Updated: JAN-12

C1030.02 Fabricated Compartments (Toilets/Showers)** - 1993

There are fabricated shower compartments and toilet compartments in the north gym. There are both extra large toilet and shower compartments with grab bars for barrier free use.

Rating	Installed	Design Life	Updated
4 - Acceptable	1993	30	JAN-12

Event: Replace 5 shower & 2 toilet compartments

Type	Year	Cost	Priority
Lifecycle Replacement	2023	$10,000	Unassigned

Updated: JAN-12

C1030.08 Interior Identifying Devices*

There are metal signs on doors with room numbers and room designations.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

C1030.10 Lockers**

There are lockers in corridors and in change room areas.

Rating	Installed	Design Life	Updated
4 - Acceptable	1985	30	JAN-12

Event: Replace 900 lockers

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$420,000	Unassigned

Updated: JAN-12

C1030.12 Storage Shelving*

There is wood storage shelving in classrooms and storage rooms throughout the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

C1030.14 Toilet, Bath, and Laundry Accessories*

There are soap and paper towel dispensers, hand blowers, toilet roll dispensers and mirrors in staff and student wash rooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	0	JAN-12

C2010 Stair Construction*

There are two sets of poured concrete stairs from the main floor to the mezzanine bleachers and a third stair from the mezzanine up to the upper stage area with wood handrails fixed to the concrete block side walls. There are wood stairs to the stage and steel exterior steps from the mechanical room to the roof. There is also a steel cat ladder to access the hatch on the 1993 gym roof.
There is a steel stair to the upper floor over the automotive shop with concrete filled metal pans and fire rated gypsum board on the soffit.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

C2020.05 Resilient Stair Finishes**

There are rubber treads and risers on stairs.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	20	JAN-12

Event: Replace 20m2 resilient stair finish

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$2,000	Unassigned

Updated: JAN-12

C2020.08 Stair Railings and Balustrades*

There are wood handrails on the stairs to the stage office and the stairs to the gym galleries.

Rating	Installed	Design Life	Updated
5 - Good	1976	0	JAN-12

C3010.01 Concrete Wall Finishes (Unpainted)*

There are painted concrete block walls in the classrooms and the two gymnasia. The corridors, class rooms, offices and other areas have concrete block walls with a textured glazed finish Desco epoxy finish.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

C3010.04 Gypsum Board Wall Finishes (Unpainted)*

There are gypsum board walls finishes throughout the school including sections of corridors, offices, music room, drama room, graphics area and mezzanine.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

C3010.06 Tile Wall Finishes**

There are glazed ceramic tiles in wash rooms, shower and change areas and on sink surrounds in janitor rooms.

Rating	Installed	Design Life	Updated
3 - Marginal	1976	40	JAN-12

Event: Replace 20m2 ceramic wall tiles

Concern:
There are wall tiles in student wash rooms which are damaged and require replacement.
Recommendation:
Replace damaged wall tiles.
Consequences of Deferral:
Wall tiles will deteriorate further.

Type	Year	Cost	Priority
Failure Replacement	2012	$5,000	Low

Updated: JAN-12

Event: Replace 300m2 ceramic wall tiles

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$70,000	Unassigned

Updated: JAN-12

C3010.09 Acoustical Wall Treatment**

There are acoustic tiles consisting of fabric panels over insulation material on the walls in the music room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1993	20	JAN-12

Event: Replace 50m2 acoustic panels

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$10,000	Unassigned

Updated: JAN-12

C3010.11 Interior Wall Painting*

interior concrete block and gypsum board wall surfaces are painted.

Information provided by facility staff: Rooms 701, 702, 703, 413 and Hallway were upgraded in 2010.

Rating	Installed	Design Life	Updated
4 - Acceptable	1998	0	JAN-12

C3020.02 Tile Floor Finishes**

There are ceramic mosaic floor tiles in student wash rooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	50	JAN-12

Event: Replace 200m2 ceramic floor tiles

Type	Year	Cost	Priority
Lifecycle Replacement	2026	$30,000	Unassigned

Updated: JAN-12

C3020.03 Terrazzo Floor Finishes*

There are terrazzo floors in corridors and vestibules.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

C3020.04 Wood Flooring** - 1976 Section

The 1976 gym has a maple wood strip floor (called Perma Cushion wood floor system on the contract documents). The stage in this gym has a painted wood sheet floor.

The carpentry shop in the 1976 school has a hard wood mosaic floor.

Facility staff advise that the gymnasia floors are re-varnished every year.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	30	JAN-12

Event: Replace 1000m2 wood floors

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$200,000	Unassigned

Updated: JAN-12

C3020.04 Wood Flooring** - 1993 Section

The 1993 gym has a 26 mm thick 44 mm wide hard wood floor on 38 mm x 64 mm wood sleepers on resilient pads on a vapour barrier over the 125mm concrete slab on grade on vapour barrier on compacted granular fill.

Facility staff advise that the gymnasia floors are re-varnished every year.

Rating	Installed	Design Life	Updated
4 - Acceptable	1993	30	JAN-12

Event: Replace 550m2 hard wood gym floor

Type	Year	Cost	Priority
Lifecycle Replacement	2023	$135,000	Unassigned

Updated: JAN-12

C3020.07 Resilient Flooring** - 1976 Section

There is resilient sheet vinyl and vinyl tile flooring throughout the school including class rooms, janitor rooms and corridors.

Rating	Installed	Design Life	Updated
3 - Marginal	1976	20	JAN-12

Event: Replace 2000m2 resilient flooring

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$160,000	Unassigned

Updated: JAN-12

Event: Replace 500m2 resilient flooring

Concern:
There is damaged and deteriorated resilient flooring throughout the school.

Recommendation:
Replacement of the damaged or deteriorated resilient flooring is recommended.

Consequences of Deferral:
The resilient flooring will deteriorate further.


Split seam in resilient floor finish

Type	Year	Cost	Priority
Failure Replacement	2012	$40,000	Low

Updated: JAN-12

C3020.07 Resilient Flooring** - 1980 Section

There is sheet vinyl in class rooms and corridors in this section of the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	20	JAN-12

Event: Replace 1000m2 resilient flooring

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$80,000	Unassigned

Updated: JAN-12

C3020.07 Resilient Flooring** - 1993 Section

There are vinyl tile floor finishes in this section of the school in class rooms, corridors and the renovations to the cafeteria.

Rating	Installed	Design Life	Updated
4 - Acceptable	1993	20	JAN-12

Event: Replace 2000m2 vinyl tiles

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$100,000	Unassigned

Updated: JAN-12

C3020.08 Carpet Flooring** - 1990

There is carpet in the library, administration suite, music and practice rooms and some classrooms and other rooms throughout the school.

Rating	Installed	Design Life	Updated
3 - Marginal	1990	15	JAN-12

Event: Replace 2000m2 carpet

Concern:
There is carpet throughout the school which has deteriorated, is damaged and requires replacement including the staff lounge, drama room and music room.

Recommendation:
Replace damaged and worn carpet.

Consequences of Deferral:
The carpet will continue to deteriorate.


Stained and damaged carpet

Type	Year	Cost	Priority
Failure Replacement	2012	$200,000	Medium

Updated: JAN-12

C3020.08 Carpet Flooring** - 2010

In 2010 carpet was installed including the library, general office area and work room, conference room, mail room, counseling area.

Rating	Installed	Design Life	Updated
5 - Good	2010	15	JAN-12

Event: Replace 2000m2 carpet

Type	Year	Cost	Priority
Lifecycle Replacement	2025	$200,000	Unassigned

Updated: JAN-12

C3030.02 Ceiling Paneling (Wood)*

There are wood strip ceilings throughout the school including the library, staff lounge, drama room, offices and corridors.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

C3030.04 Gypsum Board Ceiling Finishes (Unpainted)*

There are some areas of gypsum board ceilings such as the stairs to the mezzanine and under the mezzanine overhang into the 1976 gym. Some teaching areas also have gypsum board ceilings such as the original ceramics room in the 1976 section.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

C3030.06 Acoustic Ceiling Treatment (Susp. T-Bar)**

There are acoustic tile ceilings in T-bar grid throughout the school including corridors, classrooms, staff room, cafeteria, office areas and music room.

Rating	Installed	Design Life	Updated
3 - Marginal	1976	25	JAN-12

Event: Replace 200m2 ceiling tiles

Concern:
T-bar ceiling tiles throughout the school are damaged and require replacement including the main entrance corridor and cafeteria.

Recommendation:
Replace damaged ceiling tiles.

Consequences of Deferral:
Tiles will receive further damage and deterioration will continue.

Type	Year	Cost	Priority
Failure Replacement	2012	$10,000	Low

Updated: JAN-12

T-bar ceiling showing damaged area

Event: Replace 3000m2 acoustic ceiling tiles

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$135,000	Unassigned

Updated: JAN-12

C3030.07 Interior Ceiling Painting*

The soffits of the precast concrete double tees are painted where exposed to form ceilings of the spaces below such as the shop areas.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

S4 MECHANICAL

D2010.04 Sinks** - 1976

For the 1976 original school there are 42 single compartment stainless steel sinks, 6 double compartment stainless steel sinks, 1 single compartment stainless steel deep commercial sink, 1 double compartment stainless steel deep commercial sink, 4 beauty salon sinks, 5 half Bradley sinks, and 2 janitor mop service basins.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	30	JAN-12

Event: Replace 61 Sinks

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$104,000	Unassigned

Updated: JAN-12

D2010.04 Sinks** - 1980

For the 1980 addition there are 5 double compartment stainless steel sinks, 1 half Bradley, and 1 janitor mop service basin.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	30	JAN-12

Event: Replace 7 Sinks

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$12,000	Unassigned

Updated: JAN-12

D2010.04 Sinks** - 1993

For the 1993 addition there are 16 single compartment stainless steel sinks installed.

Rating	Installed	Design Life	Updated
4 - Acceptable	1993	30	JAN-12

Event: Replace 16 Sinks

Type	Year	Cost	Priority
Lifecycle Replacement	2023	$23,000	Unassigned

Updated: JAN-12

D2010.05 Showers** - 1976

There are 10 institutional type showers installed in the 1976 original school.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	30	JAN-12

Capacity Size	Capacity Unit
16	number

Event: Replace 10 Showers

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$15,000	Unassigned

Updated: JAN-12

D2010.05 Showers** - 1993

There are 5 institutional type showers installed in the 1993 addition.

Rating	Installed	Design Life	Updated
4 - Acceptable	1993	30	JAN-12

Event: Replace 5 Showers

Type	Year	Cost	Priority
Lifecycle Replacement	2023	$8,000	Unassigned

Updated: JAN-12

D2010.08 Drinking Fountains/Coolers** - 1976

There are 4 wall hung ceramic drinking fountains installed in the 1976 original building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	35	JAN-12

Event: Replace 4 Drinking Fountains

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$14,000	Unassigned

Updated: JAN-12

D2010.08 Drinking Fountains/Coolers** - 1980

In the 1980 addition, there was 1 wall mounted ceramic drinking fountain installed.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	35	JAN-12

Event: Replace 1 Drinking Fountain

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$3,000	Unassigned

Updated: JAN-12

D2010.09 Other Plumbing Fixtures*

There is a 3-way mixing valve for the showers installed in the Instructors Office in the 1993 addition.

Rating	Installed	Design Life	Updated
4 - Acceptable	1993	0	JAN-12

D2010.10 Washroom Fixtures (WC, Lav, Urnl)** - 1976

There are 21 floor mounted tank type water closets, 7 porcelain steel countertop lavatories, 3 ceramic wall hung lavatories and 10 stall type urinals installed in the original building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	35	JAN-12

Event: Replace (21) WCs (10) Lavs (10) Urinals

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$77,000	Unassigned

Updated: JAN-12

D2010.10 Washroom Fixtures (WC, Lav, Urnl)** - 1980

There are 10 floor mounted tank type water closets, 3 stall type urinals and 7 stainless steel countertop lavatories installed in 1980.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	35	JAN-12

Event: Replace (10) WCs (3) Urin (7) Lavs

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$36,000	Unassigned

Updated: JAN-12

D2010.10 Washroom Fixtures (WC, Lav, Urnl)** - 1993

There are 2 floor mounted flush valve waterclosets, and 17 stainless steel countertop lavatories installed in the 1993 addition and as replacements for some older lavatories.

Rating	Installed	Design Life	Updated
4 - Acceptable	1993	35	JAN-12

Event: Replace (2) WCs (17) Lavs

Type	Year	Cost	Priority
Lifecycle Replacement	2028	$30,000	Unassigned

Updated: JAN-12

D2020.01.01 Pipes and Tubes: Domestic Water*

A 4" buried water main from the municipal service west of the facility enters the south face to the Metering Room where it is metered. A copper water main in the ceiling space branches throughout the facility to service the various domestic and process loads in the facility.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

D2020.01.02 Valves: Domestic Water**

Valves are provided for the domestic hot and cold water services throughout the facility.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	40	JAN-12

Event: Replace 250 1/2" to 2" Valves

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$65,000	Unassigned

Updated: JAN-12

D2020.01.03 Piping Specialties (Backflow Preventers)**

Backflow devices are provided for the boiler make-up water and the standpipe system. Vacuum breakers are also provided for the janitor mop service basin faucets.

Rating	Installed	Design Life	Updated
4 - Acceptable	1993	20	JAN-12

Event: Replace 4 Backflow Preventers

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$12,000	Unassigned

Updated: JAN-12

D2020.02.02 Plumbing Pumps: Domestic Water**

A Grundfos Model UP26-64F in-line pump is provided in the 1977 Mechanical Room and also at the hot water storage tank in the upper Gymnasium area.

Rating	Installed	Design Life	Updated
4 - Acceptable	1987	20	JAN-12

Event: Replace 2 Hot Water Recirculaton Pumps

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$2,500	Unassigned

Updated: JAN-12

D2020.02.04 Domestic Water Conditioning Equipment**

There is a small domestic type water softener located in Mechanical Room 205 for the steam humidification system.

Rating	Installed	Design Life	Updated
4 - Acceptable	1996	20	JAN-12

Event: Replace Water Softener

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$2,000	Unassigned

Updated: JAN-12

D2020.02.06 Domestic Water Heaters** - 1976 Fieldhouse

A domestic type John Woods Model JW302 domestic hot water heater is located in the Pumphouse change room north of the school building. This unit is rated for 22.4 gph recovery with 32000 btuh input on natural gas.

Rating	Installed	Design Life	Updated
3 - Marginal	1976	20	JAN-12

Event: Replace Domestic Hot Water Heater

Concern:
This change room is used in the winter for the outside ice skating rink. The hot water heater has exceeded its life expectancy and does not provide sufficient heat.

Recommendation:
Replace domestic hot water tank.

Type	Year	Cost	Priority
Failure Replacement	2013	$1,500	Low

Updated: JAN-12

D2020.02.06 Domestic Water Heaters** - 2009

Installed circa 2009 in the 2nd floor Emergency Generator Room there is a Bradford White Model D80T199 domestic water heater rated for 80 gallons of storage and 174.5 gph recovery with 179,999 btuh input on natural gas for the south Gymnasium Locker Rooms. An ASME vertical 800 gallon hot water storage tank is also provided.

Installed circa 2009 in the main 1976 Mechanical Room 313 there is a Bradford White Model D80T-72-53-N domestic water heater rated for 80 gallons of storage and 606 gph recovery with 652,500 btuh input on natural gas for the main facility.

Rating	Installed	Design Life	Updated
4 - Acceptable	2009	20	JAN-12

Event: Replace 2 Hot Waters Heater and 1 Tank

Type	Year	Cost	Priority
Lifecycle Replacement	2029	$26,000	Unassigned

Updated: JAN-12

D2020.03 Water Supply Insulation: Domestic*

Where observed insulation and canvas jacketing is provided for the domestic water lines.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

D2030.01 Waste and Vent Piping*

Where observed, mechanical jointed cast iron waste lines and copper vent lines are provided.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

D2030.02.04 Floor Drains*

Floor drains with brass trim are provided throughout the school in mechanical rooms and wash rooms. Trench drains with oil interceptors are provided in the Automotive Shop area.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

D2030.03 Waste Piping Equipment*

There are two grease interceptors located in the kitchen. There is a sanitary sump pit and pump located in the Fieldhouse to pump the sanitary waste from this location to the septic tank.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

D2040.01 Rain Water Drainage Piping Systems*

Mechanically jointed cast iron piping is provided from the roof drains to the underslab storm drainage system.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

D2040.02.04 Roof Drains*

4" and 6" roof drains with cast iron strainers are provided throughout as required.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

D2090.01 Compressed Air Systems (Non Controls)**

A 2005 Simplex two cylinder tank-mounted air compressor with a 15 HP motor is installed in the Vocational Wing Mechanical Room 500 to serve the Shops areas.

Rating	Installed	Design Life	Updated
4 - Acceptable	2005	30	JAN-12

Event: Replace Air Compressor for Vocational Wing

Type	Year	Cost	Priority
Lifecycle Replacement	2035	$8,000	Unassigned

Updated: JAN-12

D3010.02 Gas Supply Systems*

A branch steel natural gas line from the municipal service buried adjacent to Highway 37 travels along the east side of the school and is metered at the north face in a metering shed. From this location natural gas service enters the main 1976 Mechanical Room to serve the natural gas fired equipment in this room. A branch steel line to the roof of the facility serves the other mechanical rooms, the rooftop equipment, the Science Room natural gas outlets and the furnaces for the portable class rooms. A buried gas line north of the school connects to the Fieldhouse to serve the hot water tank and furnace at that location.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

D3020.01.01 Heating Boilers & Accessories: Steam** - 1976

In Mechanical Room 313 there is one Bryan Model F450-5 steam boiler for the humidification system. This boiler is rated for 450,000 btuh input on natural gas.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	35	JAN-12

Event: Replace 1 Low Pressure Steam Boiler

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$15,000	Unassigned

Updated: JAN-12

D3020.01.01 Heating Boilers & Accessories: Steam** - 2003

There is one Bryan Model F-250-S-15-G1 low pressure steam boiler for the humidification system installed in Mechanical Room 205. This boiler is rated for 225,000 btuh input on natural gas.

Rating	Installed	Design Life	Updated
4 - Acceptable	2003	35	JAN-12

Event: Replace 1 Low Pressure Steam Boiler

Type	Year	Cost	Priority
Lifecycle Replacement	2038	$8,000	Unassigned

Updated: JAN-12

D3020.01.03 Chimneys (& Comb. Air): Steam Boilers** - 1976

There is a 12" Type 'B' gas vent provided up through the roof of the Mechanical Room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	35	JAN-12

Event: Replace 10m of 12" Type 'B' Gas Vent

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$3,000	Unassigned

Updated: JAN-12

D3020.01.03 Chimneys (& Comb. Air): Steam Boilers** - 2003

There is a 8" Type 'B' gas vent provided up through the roof of the Mechanical Room.

Rating	Installed	Design Life	Updated
4 - Acceptable	2003	35	JAN-12

Event: Replace 10m of 8" Type 'B' Gas Vent

Type	Year	Cost	Priority
Lifecycle Replacement	2038	$2,000	Unassigned

Updated: JAN-12

D3020.01.04 Water Treatment: Steam Boilers*

A regular water treatment program is maintained by the Facilities Management staff. Chemical feeders are located in the Mechanical Rooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

D3020.02.01 Heating Boilers and Accessories: H.W.** - 1976 Boilers

There are two copper water tube hot water heating boilers in Mechanical Room 313 to serve the main school. Each boiler is a Raytherm Model E4001-WTD-N2P rated for 3,600,000 btuh input on natural gas.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	35	JAN-12

Event: Replace 2 HWH Boilers

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$150,000	Unassigned

Updated: JAN-12

D3020.02.01 Heating Boilers and Accessories: H.W.** - 1976 Pumps

There are two B&G base mounted hot water circulation pumps installed in Mechanical Room 313 to serve the hot water heating system.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	35	JAN-12

Event: Replace 2 Hot Water Heating Pumps

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$10,000	Unassigned

Updated: JAN-12

D3020.02.01 Heating Boilers and Accessories: H.W.** - 1993 Boiler

There is one Raypak Model E1826 WTD-N-2P boiler installed in the 1993 North Gymnasium Mechanical Room 211. The boiler is rated for 1,642,950 btuh input on natural gas.

Rating	Installed	Design Life	Updated
4 - Acceptable	1993	35	JAN-12

Capacity Size	Capacity Unit
770	kW

Event: Replace 1 HWH Boiler

Type	Year	Cost	Priority
Lifecycle Replacement	2028	$40,000	Unassigned

Updated: JAN-12

D3020.02.01 Heating Boilers and Accessories: H.W.** - Pumps

In Mechanical Room 211 there are two Grundfos Model UPS 65-160 in-line hot water heating pumps and two Grundfos Model UPC65-160 heating glycol pumps. For the two air handling units in Mechanical Room 205 there are two Grundfos Model UP-26-64F in-line pumps for the air handling unit coils.

Rating	Installed	Design Life	Updated
4 - Acceptable	1997	35	JAN-12

Event: Replace 6 HWH Pumps

Type	Year	Cost	Priority
Lifecycle Replacement	2032	$24,000	Unassigned

Updated: JAN-12

D3020.02.02 Chimneys (& Comb. Air): H.W. Boiler** - 1976

Insulated and canvas jacketed 30" breeching from each boiler combine into a common 36" Type 'B' gas vent up through the roof of the Mechanical Room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	35	JAN-12

Event: Replace 15m of Type 'B' Gas Vent & Breeching

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$20,000	Unassigned

Updated: JAN-12

D3020.02.02 Chimneys (& Comb. Air): H.W. Boiler** - 1993

There is a 20" Type 'B' Gas Vent up through the roof of the Mechanical Room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1993	35	JAN-12

Event: Replace 6m of Type 'B' Gas Vent

Type	Year	Cost	Priority
Lifecycle Replacement	2028	$4,000	Unassigned

Updated: JAN-12

D3020.02.03 Water Treatment: H. W. Boiler*

A regular water treatment program is maintained by the Facilities Management staff. Chemical feeders are provided in the Mechanical Rooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

D3020.03.01 Furnaces**

There is a Lennox Model G8-105 furnace rated for 105,000 btuh input on natural gas installed in the Fieldhouse/Pumphouse to service the heating needs of the Fieldhouse Changeroom when used in the winter months.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	25	JAN-12

Event: Replace Natural Gas Furnace

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$4,000	Unassigned

Updated: JAN-12

D3020.03.02 Chimneys (& Comb. Air): Furnace*

There is a 5" Type 'B' gas vent installed from the furnace up through the roof of the Pumphouse.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

D3020.04.03 Fuel-Fired Unit Heaters**

There is an Olsen Model KAS-100H horizontal gas fired unit heater installed in the Fieldhouse/Pumphouse north of the school. This unit is rated for 90,000 btuh input on natural gas.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	30	JAN-12

Event: Replace 1 Gas Fired Unit Heater

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$3,000	Unassigned

Updated: JAN-12

D3020.04.04 Chimney (& Comb. Air): Fuel-Fired Heater*

A 4" Type 'B' gas vent is provided from the unit heater up through the Pumphouse roof.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

D3030.06.02 Refrigerant Condensing Units** - 1976

There is one 1976 Carrier Model 38AD014100 condensing unit operating on R-22 on the roof outside Mechanical Room 205 to serve the cooling coil for the South Gymnasium air handling unit.
There is one 1976 Carrier Model 38AD034100 condensing unit operating on R-22 on the roof outside Mechanical Room 205 to serve the cooling coil for the South Gymnasium Mezzanine Floor air handling unit.
There are two 1976 Carrier Model 38AE064100 condensing units operating on R-22 on the ground level outside Mechanical Room 313 to serve the cooling coils for the two air handling units serving the north and south Classroom wings of the original school.
There is one 1980 Carrier Model 38AF014100 condensing unit operating on R-22 on the roof above Mechanical Room 611 to serve the cooling coil for the 600 Wing air handling unit.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	25	JAN-12

Event: Replace 5 Condensing Units

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$300,000	Unassigned

Updated: JAN-12

D3030.06.02 Refrigerant Condensing Units** - 1993

There is one 1993 Trane (model and refrigerant unknown) condensing unit on the roof above the 800 Wing Mechanical Room to serve the cooling coil for the air handling unit serving Classrooms 801 and 802.
There is one 1993 Trane Model RAUCC405EH03D condensing unit operating on R-22 on the north Gymnasium roof to serve the cooling coil for the air handling unit in Mechanical Room 211 serving the North Gymnasium
There is one 1993 Trane Model RAUCC255EH03D condensing unit operating on R-22 on the north Gymnasium roof to serve the cooling coil for the air handling unit in Mechanical Room 211 serving the Cafeteria.
There is one 2000 Lennox Model HS29-036-9X condensing unit operating on HCFC-22 on the roof to serve the Art Room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1993	25	JAN-12

Event: Replace 4 Condensing Units

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$65,000	Unassigned

Updated: JAN-12

D3040.01.01 Air Handling Units: Air Distribution** - 1976 Original School

Note: Facilities Management is in the process of re-numbering the various air handling units. References are to areas served only as the new air handling unit numbers are not available at the time of inspection.

There are two air handling units in the main Mechanical Room 313. One unit serves the north 300 Wing and Cafeteria area and the other serves the south portion 400 Wing and Library. Each unit consists of an axial return air fan, mixing box section, 2" disposable filter section, hot water heating coil, DX cooling coil, supply air fan, and a steam grid humidifier. Each unit is a Markhot Model WE-607S.

There are two air handling units in the South Gymnasium Mechanical Room 215. One unit serves the South Gymnasium and the other serves the 2nd floor Mezzanine area of the South Gymnasium. Each unit consists of a return air heating coil, a return air fan, mixing box section, 2" disposable filter section, DX cooling coil, a supply air fan and a steam grid humidifier.

There is one air handling unit located in Mechanical Room 500. This unit serves the Vocational Wing of the facility and consists of a return air fan, exhaust air damper, hot water heating coil, mix air section, 2" disposable filter section, supply air fan, and a Nortec Model ES-400 electric steam grid humidifier.

There are two natural gas direct fired make-up air units installed for the original Vocational Wing of the facility. One unit serves the Welding Area (Engineered Air Model HE-70 at 25000 cfm) and one unit provides make-up air for the Automotive Shop tailpipe exhaust system (engineered Air Model HE-40 at 3000 cfm).

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	30	JAN-12

Event: Replace 5 Air Handling Units & 2 Make-Up Air Units

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$320,000	Unassigned

Updated: JAN-12

D3040.01.01 Air Handling Units: Air Distribution** - 1980 Addition

Note: Facilities Management is in the process of re-numbering the various air handling units. References are to areas served only as the new air handling unit number was not available at the time of inspection.

There is one air handling unit installed in 1980 in Mechanical Room 611 to serve the 600 Wing. This unit provides approximately 4400 cfm of conditioned air and consists of an Engineered Air return air fan, mixing box section, 2" disposable filter section, cooling coil, and a Markhot Model 73-006-I96 supply air fan.

There are four direct fired make-up air units installed for the 1980 addition to the Vocational Wing. In the Fabrication Area addition to the Building Construction Lab there is an Engineered Air natural gas fired unit to serve the Paint Spray area (1950 cfm) and an adjacent Engineered Air natural gas fired unit for general ventilation (5400 cfm), in the Metals area there is an Engineered Air natural gas direct fired unit (5700 cfm), and to serve the addition to the Automotives Shop, there is a roof mounted Engineered Air Model Model HE-16 direct fired make-up air unit rated for 217,800 btuh on natural gas (1650 cfm).

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	30	JAN-12

Event: Replace 1 Air Handling Unit & 4 Make-Up Air Units

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$40,000	Unassigned

Updated: JAN-12

D3040.01.01 Air Handling Units: Air Distribution** - 1993 Addition

Note: Facilities Management is in the process of re-numbering the various air handling units. References are to areas served only as the new air handling unit number was not available at the time of inspection.

There are two air handling units in the upper level Mechanical Room 211. A Trane custom air handling unit rated for 15,500 cfm serves the North Gymnasium addition to the building. A Trane custom air handling unit rated for 9650 cfm serves the addition to the Cafeteria. Each unit is complete with a return air fan, mixing box section, 2" disposable filter section, glycol heating coil, humidification section, DX cooling coil, and a supply air fan.

There is one Trane custom air handling unit installed in the 800 Wing Mechanical Room to serve the two Classroom additions. The unit is rated for 6400 cfm and is provided with a return air fan, mixing box section, 2" disposable filter section, heating coil, cooling coil, evaporative humidifier, and a supply air fan. This system has been designed with a future capacity and has had the air volume reduced by Facilities Management staff to meet current needs.

Rating	Installed	Design Life	Updated
4 - Acceptable	1993	30	JAN-12

Event: Replace 3 Air Handling Units

Type	Year	Cost	Priority
Lifecycle Replacement	2023	$70,000	Unassigned

Updated: JAN-12

D3040.01.03 Air Cleaning Devices: Air Distribution*

A Murphy Sawdust collector is installed outside the Vocational Wing Building Construction Lab to extract sawdust from the woodworking equipment.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-12

D3040.01.04 Ducts: Air Distribution*

Low pressure galvanized supply air ducts are provided throughout the facility in the ceiling spaces.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

D3040.01.07 Air Outlets & Inlets: Air Distribution*

Square cone ceiling diffusers and high sidewall mounted linear air grilles are provided throughout as required. High sidewall mounted drum type diffusers are installed for the North Gymnasium, and round cone ceiling level diffusers are installed for the South Gymnasium.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

D3040.03.01 Hot Water Distribution Systems**

A steel piped perimeter hot water heating distribution system is provided throughout the facility to supply heat to the perimeter radiation, unit heaters and forceflows.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	40	JAN-12

Event: Replace Perimeter Heating System (12000 m2 gfa)

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$1,115,000	Unassigned

Updated: JAN-12

D3040.04.01 Fans: Exhaust**

For the 1976 and the 1980 portions of the facility there are 39 Delhi and dome type roof mounted exhaust fans. There are 3 interior centrifugal exhaust fans installed in the Vocational Wing areas for the welding exhaust and the automotives tailpipe exhaust systems.

For the 1993 addition, there are 2 roof mounted exhaust fans installed and 1 interior centrifugal fan to serve the change room areas.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	30	JAN-12

Capacity Size	Capacity Unit
11	number

Event: Replace 45 Exhaust Fans

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$78,000	Unassigned

Updated: JAN-12

D3040.04.03 Ducts: Exhaust*

The low pressure galvanized steel exhaust ductwork is provided in the ceiling space up to the exhaust fans located on the roof. Galvanized round spiral ducting with blast gates and direct exhaust connections are provided for the equipment in the Woodworking Area.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

D3040.04.05 Air Outlets and Inlets: Exhaust*

There are eggcrate type ceiling mounted exhaust grille throughout the school. Elephant trunks are provided for the automotive tailpipe exhaust system. Enclosed booths with exhausts are provided for the Welding areas.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

D3040.05 Heat Exchangers**

A hot water to hot glycol plate type heat exchanger is provided in Mechanical Room 211 to serve the heating coils on the North Gymnasium and Cafeteria Addition air handling units.

Rating	Installed	Design Life	Updated
4 - Acceptable	1993	30	JAN-12

Event: Replace 1 Plate Type Heat Exchanger

Type	Year	Cost	Priority
Lifecycle Replacement	2023	$5,000	Unassigned

Updated: JAN-12

D3050.01.02 Packaged Rooftop Air Conditioning Units (& Heating Units)** - Pyramid

In 2006, a Lennox packaged roof top unit was installed on the central pyramid skylight roof to replace the original 1976 unit. This unit provides heating cooling and ventilation to the central corridor area of the facility.

Rating	Installed	Design Life	Updated
4 - Acceptable	2006	30	JAN-12

Event: Replace 1 Rooftop Packaged Unit

Type	Year	Cost	Priority
Lifecycle Replacement	2036	$30,000	Unassigned

Updated: JAN-12

D3050.02 Air Coils** - 1976 Original School

There are 24 reheat coils on the ventilation systems for the original school: 6 on the lower floor Gymnasium area, 1 on the upper Gymnasium area, 5 on the north school zone, 9 on the south school zone, and 3 on the Vocational Wing.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	30	JAN-12

Event: Replace 24 Airside Duct Reheat Coils

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$48,000	Unassigned

Updated: JAN-12

D3050.02 Air Coils** - 1993 Addition

There are reheat coils installed in the ventilation ductwork for the 1993 addition: 3 are in the ducting in the Gymnasium/Cafeteria area and 3 are in the ductwork in the 800 Wing addition.

Rating	Installed	Design Life	Updated
4 - Acceptable	1993	30	JAN-12

Event: Replace 6 Airside Reheat Coils

Type	Year	Cost	Priority
Lifecycle Replacement	2023	$12,000	Unassigned

Updated: JAN-12

D3050.05.02 Fan Coil Units**

There are 16 above ceiling fan coil units installed in the 1976 original school to serve the vestibule entranceways and to serve as reheat boxes in some of the interior zones.

There are 3 above ceiling fan coil units installed in the 1980 addition to the school to serve the vestibule entranceways.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	30	JAN-12

Event: Replace 19 Fan Coils Units

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$95,000	Unassigned

Updated: JAN-12

D3050.05.03 Finned Tube Radiation**

Perimeter finned type radiation is provided throughout the facility.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	40	JAN-12

Event: Replace Finned Tube Radiation (12000 m2 gfa)

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$560,000	Unassigned

Updated: JAN-12

D3050.05.06 Unit Heaters**

There are 14 hot water horizontal and vertical unit heaters installed in the Mechanical Rooms and in the Vocational Wing areas.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	30	JAN-12

Event: Replace 14 Unit Heaters

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$45,000	Unassigned

Updated: JAN-12

D3050.05.08 Radiant Heating (Ceiling & Floor)**

Ceiling radiant ceiling panels are provided in the 800 Wing additional to the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	1993	35	JAN-12

Event: Replace 50m of Radiant Ceiling Panels

Type	Year	Cost	Priority
Lifecycle Replacement	2028	$35,000	Unassigned

Updated: JAN-12

D3060.02.01 Electric and Electronic Controls**

There are 33 line voltage thermostats provided for the fan coil units and the unit heaters.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	30	JAN-12

Event: Replace 33 Electric Controllers

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$13,000	Unassigned

Updated: JAN-12

D3060.02.02 Pneumatic Controls**

Pneumatic controls are provided throughout for the zone controls. A construction contract to replace the pneumatic controllers in the Mechanical Rooms to digital was underway at the time of the inspection, to be completed in September 2011.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	40	JAN-12

Event: Replace Pneumatic Controllers (12000 m2 gfa)

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$70,000	Unassigned

Updated: JAN-12

D3060.02.05 Building Systems Controls (BMCS, EMCS)**

Facilities Management has a construction contract in place to replace all the Mechanical Room HVAC pneumatic dampers and controllers with digital with a front-end communication package and I/P transducers to communicate with the existing pneumatic room thermostat controllers. This contract will be completed September 2011.

Rating	Installed	Design Life	Updated
4 - Acceptable	2011	20	JAN-12

Event: Replace Digital Controls (12000 m2 gfa)

Type	Year	Cost	Priority
Lifecycle Replacement	2031	$260,000	Unassigned

Updated: JAN-12

D4020 Standpipes*

A hose and standpipe system is provided throughout the facility.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

D4030.01 Fire Extinguisher, Cabinets and Accessories*

Universal Type ABC fire extinguishers are provided throughout the facility.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

D4090.03 Clean Agent Extinguishing Systems**

A Kidde Model WHDR-600 wet chemical fire protection system is provided for the Kitchen area rangehoods.

Rating	Installed	Design Life	Updated
4 - Acceptable	1993	40	JAN-12

Event: Replace Kitchen Rangehood Fire Suppression System

Type	Year	Cost	Priority
Lifecycle Replacement	2033	$12,000	Unassigned

Updated: JAN-12

D4090.07 Fire Pumps & Water Storage Tanks*

An underground water storage tank is built into the building foundation in Room 102. A small fire pump connected to the hose and standpipe system is also installed in the room. This storage tank is available but is no longer used by the facility.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

Capacity Size	Capacity Unit
760	m3

S5 ELECTRICAL

D5010.01.02 Main Electrical Transformers (Utility Owned)*

The Utility's oil-filled power transformer is located at the northeast section of the school building adjacent to building construction shop in the same chain-link fence enclosure as the cooling towers. The primary feeder is underground directly south from the power distribution line on Highway 37. 4 sets of 4 X 500MCM underground cables feed the main switchboard.

Rating	Installed	Design Life	Updated
5 - Good	1993	0	JAN-12

Capacity Size	Capacity Unit
500	kVA

D5010.02 Secondary Electrical Transformers (Interior)**

The secondary transformers are 600V - 208/120V delta-wye connected, naturally ventilated, dry type transformers (FPE):300 kVA, 225 kVA, 112.5 kVA, 112.5 kVA (1980), 75kVA (1981, outdoor), 50 kVA (in the Fieldhouse) & 15 kVA (emergency power).

Rating	Installed	Design Life	Updated
5 - Good	1976	40	JAN-12

Capacity Size	Capacity Unit
Varies	N/A

Event: Replace 7 Dry Type Transformers

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$100,000	Unassigned

Updated: JAN-12

D5010.03 Main Electrical Switchboards (Main Distribution)**

The main switchboard, located in the Electrical Room, is a 2000A, 347/600V, 3 phase, 4 wire, free-standing, wall supported, Service and Distribution Switchboard by Federal Pioneer, with a 1600A molded case thermal magnetic main breaker and distribution circuit breakers, also thermal magnetic, ranging from 50A to 600A.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	40	JAN-12

Capacity Size	Capacity Unit
2000A, 347/600V	N/A

Event: Replace Service and Distribution Switchboard

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$160,000	Unassigned

Updated: JAN-12

D5010.05 Electrical Branch Circuit Panelboards (Main Distribution)**

Distribution Panelboards are the circuit breaker type (CDP by FPE), and include:
-347/600V, 3 phase, 4 wire Panelboards, rated 400A & 600A.
-120/208V, 3 phase, 4 wire Panelboards, rated 600A, 600A(1980), 800A & 1200A.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	30	JAN-12

Capacity Size	Capacity Unit
Varies	N/A

Event: Replace Distribution Panelboards (2 - 347/600V & 4 - 120/208V Panels)

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$48,000	Unassigned

Updated: JAN-12

D5010.05 Electrical Branch Circuit Panelboards (Secondary Distribution)** - 1976

There are numerous branch circuit panelboards, circuit breaker type (by FPE), of both voltages throughout the School:
-347/600V, 3 phase, 4 wire Panelboards are surface or flush mounted, rated 225A, 30 or 42 circuits.
-120/208V, 3 phase, 4 wire Panelboards are surface or flush mounted, rated 100A or 225A, 30 or 42 circuits, single or double tubs.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	30	JAN-12

Capacity Size	Capacity Unit
Varies	N/A

Event: Replace Branch Circuit Panelboards (11-347/600V & 16-120/208V Panels)

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$130,000	Unassigned

Updated: JAN-12

D5010.05 Electrical Branch Circuit Panelboards (Secondary Distribution)** - 1980

There are branch circuit panelboards, circuit breaker type (by FPE), of both voltages from this period:
-347/600V, 3 phase, 4 wire Panelboards are surface or flush mounted, rated 225A, 42 circuits.
-120/208V, 3 phase, 4 wire Panelboards are surface or flush mounted, rated 225A, 30 or 42 circuits, single or double tubs.
-120/208V, 3 phase, 4 wire Panelboards in weatherproof enclosure in the parking lot (originally from 1976, modified in 1980).

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	30	JAN-12

Capacity Size	Capacity Unit
Varies	N/A

Event: Replace Branch Circuit Panelboards (4-347/600V & 7-120/208V Panels)

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$50,000	Unassigned

Updated: JAN-12

D5010.05 Electrical Branch Circuit Panelboards (Secondary Distribution)** - 1993

Additional branch circuit panelboards (by FPE) of 347/600V and 120/208V, 3 phase, 4 wire are provided for this period of renovation and addition, including a 400A, 120/208V, 3 phase, 4 wire Distribution Panelboard.

Rating	Installed	Design Life	Updated
5 - Good	1993	30	JAN-12

Capacity Size	Capacity Unit
Varies	N/A

Event: Replace Branch Circuit Panelboards (3-347/600V, 3-120/208V Panels)

Type	Year	Cost	Priority
Lifecycle Replacement	2023	$28,000	Unassigned

Updated: JAN-12

D5010.07.02 Motor Starters and Accessories** - 1976

Magnetic starters (by Westinghouse) are used for the control of 600V, 3 phase motors, complete with overload relays, pilot lights and HOA selector switches. Manual starters, with overload and pilot lights are used for 120V, single phase motors. (including those from 1980)

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	30	JAN-12

Event: Replace 19 Magnetic Starters & 17 Manual Starters

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$32,000	Unassigned

Updated: JAN-12

D5010.07.02 Motor Starters and Accessories** - 1993

Combination magnetic starters (by Siemens) are 600V 3 phase, with fusible disconnect switches, overload relays, pilot lights & HOA switches. Manual starters, with overload and pilot light, are used with small, 120V single phase equipment.

Rating	Installed	Design Life	Updated
5 - Good	1993	30	JAN-12

Capacity Size	Capacity Unit
N/A	N/A

Event: Replace 9 Combination Magnetic Starters & 3 Manual Starters

Type	Year	Cost	Priority
Lifecycle Replacement	2023	$23,000	Unassigned

Updated: JAN-12

D5020.01 Electrical Branch Wiring*

The wiring method throughout the school is cables in conduits, concealed in finished areas and surface mounted in utility areas. Conductors are copper.
Under floor wiring is used in the Gymnasium and shop areas. To bring wiring from the ceiling to desk levels, pac poles have also been employed.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

Capacity Size	Capacity Unit
N/A	N/A

D5020.02.01 Lighting Accessories: Interior (Lighting Controls)*

Interior lighting control is provided locally by line voltage switches or by a low voltage switching system (GE), either locally or collectively (in lighting control panels). Low Voltage Relay cabinets are typically located adjacent to the 347/600V lighting panels.

Rating	Installed	Design Life	Updated
5 - Good	1976	0	JAN-12

Capacity Size	Capacity Unit
N/A	N/A

D5020.02.02.01 Interior Incandescent Fixtures*

Incandescent lights include wall lights and suspended PAR lamps along the main corridors, pot lights and wall lights in the Staff Room and corridor and display track lights in various locations. Those that are not dimmable have been replaced with self-contained compact fluorescent lamps.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

Capacity Size	Capacity Unit
N/A	N/A

D5020.02.02.02 Interior Fluorescent Fixtures** - 2001

The fluorescent lighting system have been converted to the energy efficient type in 2001, consisting of electronic ballasts and T8 lamps. Fixtures include 1 X 4 & 2 X4 recessed types with lay-in acrylic lenses, 1 X 4 surface mounted type with lay-in or wrap around acrylic lenses, 1 X 4 and 4 X 4 with diffused lenses in the Cafeteria, and strip lights with or without wireguards.

Rating	Installed	Design Life	Updated
5 - Good	2001	30	JAN-12

Capacity Size	Capacity Unit
N/A	N/A

Event: Replace Fluorescent Fixtures (2000)

Type	Year	Cost	Priority
Lifecycle Replacement	2031	$600,000	Unassigned

Updated: JAN-12

D5020.02.02.02 Interior Fluorescent Fixtures** - 2011

The Gymnasium fluorescent lighting is now the electronic ballast type with T5 lamps, suspended 2 X 4 surface mounted fixtures with impact resistant acrylic lenses, arranged in 4 rows of 3.

Rating	Installed	Design Life	Updated
5 - Good	2011	30	JAN-12

Capacity Size	Capacity Unit
N/A	N/A

Event: Replace Gymnasium Fluorescent Fixtures (12)

Type	Year	Cost	Priority
Lifecycle Replacement	2041	$6,000	Unassigned

Updated: JAN-12

D5020.02.02.03 Interior Metal Halide Fixtures*

Industrial type, pendant mounted 400W metal halide fixtures, with remote ballasts, are the main lighting system (supplemented by fluorescent for instant on feature) for the north gymnasium.

Rating	Installed	Design Life	Updated
5 - Good	1993	0	JAN-12

Capacity Size	Capacity Unit
N/A	N/A

D5020.02.03.02 Emergency Lighting Battery Packs**

There is an emergency battery pack with a twin lighting head in the Generator Room and in a Science Room.

Rating	Installed	Design Life	Updated
5 - Good	1976	20	JAN-12

Capacity Size	Capacity Unit
N/A	N/A

Event: Replace Emergency Lighting Battery Packs (2)

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$1,000	Unassigned

Updated: JAN-12

D5020.02.03.03 Exit Signs*

Exit signs are internally illuminated exit lights, installed through different construction periods, but all have been converted to LED lamps.

Rating	Installed	Design Life	Updated
5 - Good	1993	0	JAN-12

Capacity Size	Capacity Unit
N/A	N/A

D5020.02.05 Special Purpose Lighting*

There is a substantial stage lighting system (incandescent) used in the main gymnasium with a dimmer bank and controller.

Rating	Installed	Design Life	Updated
5 - Good	1976	0	JAN-12

Capacity Size	Capacity Unit
N/A	N/A

D5020.03.01.01 Exterior Incandescent Fixtures*

Incandescent wall lights, flood lights and planter lights are used in the Courtyards.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

Capacity Size	Capacity Unit
N/A	N/A

D5020.03.01.04 Exterior H.P. Sodium Fixtures*

High pressure sodium wall lights are provided along the perimeter of the building and at entrances and exits. There are high pressure sodium pole mounted fixtures in the parking lots.

Rating	Installed	Design Life	Updated
5 - Good	2001	0	JAN-12

Capacity Size	Capacity Unit
N/A	N/A

D5020.03.02 Lighting Accessories: Exterior (Lighting Controls)*

Exterior lighting is controlled by photoelectric cell and time clock.

Rating	Installed	Design Life	Updated
5 - Good	1976	0	JAN-12

Capacity Size	Capacity Unit
N/A	N/A

D5030.01 Detection and Fire Alarm**

The fire alarm system is a single stage, hard wired and zoned system. The system was upgraded in 1993 with the replacement of the control panel (Simplex 4002), located in the Custodian's Office, the remote annunciator at the front entrance, and additional devices for the renovation and addition. The system uses manual stations, heat and smoke detectors as detection devices and audio only (bells) signaling devices.

Rating	Installed	Design Life	Updated
5 - Good	1993	25	JAN-12

Capacity Size	Capacity Unit
N/A	N/A

Event: Replace Fire Alarm System (12163m2 gfa)

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$100,000	Unassigned

Updated: JAN-12

D5030.02.02 Intrusion Detection**

The school has a DSC MaxSys intrusion alarm system using mainly infrared motion sensors, and door contacts. Entry key pads are located at the east and west entrances. The system is monitored by a private company.

Rating	Installed	Design Life	Updated
5 - Good	2002	25	JAN-12

Capacity Size	Capacity Unit
N/A	N/A

Event: Replace Intrusion Alarm System (12163m2 gfa)

Type	Year	Cost	Priority
Lifecycle Replacement	2027	$20,000	Unassigned

Updated: JAN-12

D5030.02.04 Video Surveillance**

The video surveillance system is a computer based Digital Video Recording (DVR) system (by Speco Technologies), with 16 indoor and outdoor cameras. Automated digital recording is motion activated. The system is privately monitored.

Rating	Installed	Design Life	Updated
6 - Excellent	2005	25	JAN-12

Capacity Size	Capacity Unit
N/A	N/A

Event: Replace Video Surveillance System (12163m2 gfa)

Type	Year	Cost	Priority
Lifecycle Replacement	2030	$16,000	Unassigned

Updated: JAN-12

D5030.03 Clock and Program Systems*

The classroom change program signal is provided by the Bogen sound system through the same loudspeakers. Clocks are battery operated from various manufacturers.

Rating	Installed	Design Life	Updated
5 - Good	2009	0	JAN-12

Capacity Size	Capacity Unit
N/A	N/A

D5030.04.01 Telephone Systems*

A Cisco MCS 7800 Series telephone system has been provided. Telephone system uses voice over internet protocol (VOIP) technology. Telephone sets have been provided in each office.

Rating	Installed	Design Life	Updated
5 - Good	2005	0	JAN-12

D5030.04.04 Data Systems*

Cat 5e data cabling has been provided throughout the school. Data outlets have been provided in each class room and in the administration area.

Rating	Installed	Design Life	Updated
5 - Good	2002	0	JAN-12

Capacity Size	Capacity Unit
N/A	N/A

D5030.04.05 Local Area Network Systems*

A local area network provides the data distribution within the school. Switching and server equipment, backed up by a 1500W UPS, is located in the Electrical Room. There is a SuperNet connection in the school. In addition to the computer rooms, computer services are provided to all teaching and administration staff, library and every classroom. A Smartnet cabling upgrade was performed in 2010.

Rating	Installed	Design Life	Updated
5 - Good	2010	0	JAN-12

Capacity Size	Capacity Unit
N/A	N/A

D5030.05 Public Address and Music Systems**

The Bogen sound equipment in the Electrical Room provides the overall public address and music interface, classroom intercommunication and classroom change signals in the School. While the two position (Privacy-Call) switches in the classrooms were changed, most of the loudspeakers remain from previous constructions. There is a separate and independent sound system in the main Gymnasium.

Rating	Installed	Design Life	Updated
5 - Good	2009	20	JAN-12

Capacity Size	Capacity Unit
N/A	N/A

Event: Replace Sound System (12613m2 gfa)

Type	Year	Cost	Priority
Lifecycle Replacement	2029	$60,000	Unassigned

Updated: JAN-12

D5030.06 Television Systems*

Classrooms are provided with television sets with or without DVD players. They have fallen into disuse and are disconnected as they are replaced by Smart Boards.
There is a television monitor message board at the Cafeteria and it is P/C based.

Rating	Installed	Design Life	Updated
4 - Acceptable	1993	0	JAN-12

Capacity Size	Capacity Unit
N/A	N/A

D5090.02 Packaged Engine Generator Systems (Emergency Power System)**

The emergency power system is provided by a natural gas fueled, radiator cooled, engine-generator set manufactured by Harway with a Dynamic Corporation of America (DCA) engine and a Lima Electric alternator, located on the mezzanine of the Gymnasium. It is rated 60kW (75 kVA @.8% P.F), 347/600V, 3 phase, 4 wire with a 90A line breaker at the output. The 100A automatic transfer switch is located in the Electrical Room.
The emergency distribution system includes a 347/600V panel, 15 kVA transformers and 2 - 120/208V panels. Loads include emergency lights, exit lights, heating system and mechanical control equipment, life safety and essential communication systems.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	35	JAN-12

Capacity Size	Capacity Unit
60	kW

Event: Repair emergency generator starter

Concern:
The generator will not start during routine testing.
Recommendation:
Repair starter.
Consequences of Deferral:
Life and safety systems will be compromised in the event of a power outage.

Type	Year	Cost	Priority
Repair	2012	$10,000	High

Updated: JAN-12

Event: Replace 60 kW Generator & Transfer Switch

Concern:
Generator fails to start during routine testing.
Recommendation:
Replace emergency generator.
Consequences of Deferral:
Life and safety systems will be compromised in the event of a power outage.

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$150,000	Unassigned

Updated: JAN-12

S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION

E1020.02 Library Equipment*

The library is equipped with scanning equipment at the exit for inventory control.

Rating	Installed	Design Life	Updated
4 - Acceptable	1993	0	JAN-12

E1020.03 Theatre and Stage Equipment*

The 1976 gym has a wood stage with proscenium curtain, side curtains and back drop. There is also a cat walk above the stage to access the stage lighting. There are front of house spot lights in the gym and over stage lighting.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

E1020.07 Laboratory Equipment*

The science classrooms are equipped with chemical resistant laminated benches with stainless steel sinks and electrical and gas outlets.

Rating	Installed	Design Life	Updated
3 - Marginal	1976	0	JAN-12

Event: Replace 250m laminate counters

Concern:

There is acid resistant plastic laminate finish on the work tables and benches in the science classrooms which has chipped, delaminated, looks unsightly and requires replacement.

Recommendation:

Replace chipped and delaminated finish to the laboratory casework.

Consequences of Deferral:

The casework will deteriorate further.

Type	Year	Cost	Priority
Failure Replacement	2012	$25,000	Medium

Updated: JAN-12

E1030.01 Vehicle Service Equipment*

The automotive shop is equipped with 3 car lifts, tool boxes, tire removal stand, engine lifts and metal topped work benches with peg boards on walls for tool storage..

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

E1090.03 Food Service Equipment*

There is a commercial kitchen serving the cafeteria which is equipped with stainless steel casework. The kitchen was renovated in 1993 and some new equipment was installed and existing equipment reused. The equipment is summarized as follows:

- Garland griddle and hob
- Quest griddle
- Garland hot water table
- Diamond display cooler
- Russell dish washer and wand pot wash
- Garland and Quest deep fryers
- Cleveland steam oven
- Cleveland soup kettle
- Chest freezer
- Coldstream walk in cooler
- Walk in freezer

There is also a commercial training kitchen associated with the main kitchen which is divided into four work stations each equipped with stainless steel counters with laminate cupboards under, gas range, double stainless steel sink. There are also two stainless steel wall ovens, Bakers Pride oven, Hobart mixer, Globe mixer and Cleveland kettle.
The stainless steel servery has lockable stainless steel grilles over the openings to the cafeteria as well as chrome turn styles.

There is also a Food Science room 616 which is divided into 5 work stations each equipped with an electric range, microwave oven, double stainless steel sink in a laminate counter with cupboards under and over. This area is also equipped with a washer and dryer.

The staff lounge has a kitchenette equipped with a laminate counter with stainless steel sink with cupboards above and below, 3 microwave ovens, dish washer and 2 fridges.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

E1090.04 Residential Equipment*

There is a life skills area with open wash room with privacy curtain and teaching kitchen with electric range and laminate counter with cupboards above and below.

There are four cubicles in the infirmary with upholstered plinths with privacy curtains on a ceiling hung track.

Rating	Installed	Design Life	Updated
4 - Acceptable	1993	0	JAN-12

E1090.07 Athletic, Recreational, and Therapeutic Equipment*

Both the 1976 gym and the 1993 gym are equipped with 6 retractable basket ball hoops and back boards as well as floor markings for various floor games.

There is also a fitness centre located on the upper floor of the 1976 gym stage area. It is equipped with a universal gym, weight stands, free weights, benches, scales, stationary bicycles and rubber floor mats.

Information provided by facility staff: Gymnasium Motorized Backstop Upgrade 2010

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

E2010.02 Fixed Casework** - 2010

The laminate kitchen cabinetry in the Food Sciences room was replaced in 2010.

Rating	Installed	Design Life	Updated
5 - Good	2010	35	JAN-12

Event: Replace fixed casework (150m2 gfa)

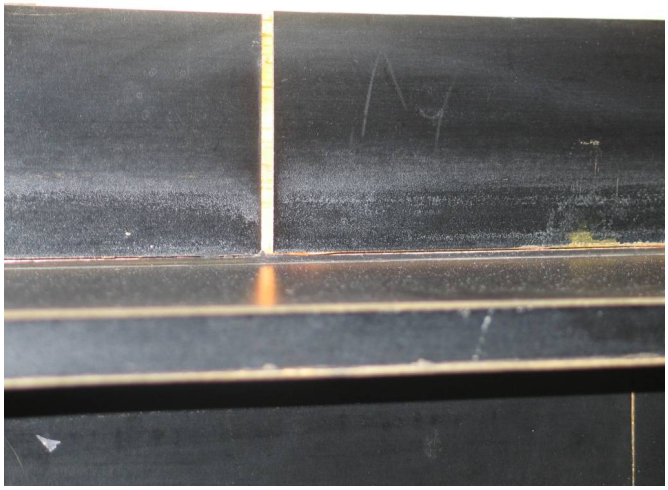
Type	Year	Cost	Priority
Lifecycle Replacement	2045	$15,000	Unassigned

Updated: JAN-12

E2010.02 Fixed Casework** - General

There is fixed casework throughout the school including study carrels in the library, book shelves in the classrooms and library, laminate counter in science rooms and vanities in wash rooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	35	JAN-12



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Event: Replace 200m fixed case work

Concern:
There are sections of laminate casework which are damaged and counters chipped and delaminated.

Recommendation:
Replace damaged casework.

Consequences of Deferral:
Casework will continue to deteriorate.

Type	Year	Cost	Priority
Failure Replacement	2012	$100,000	Medium

Updated: JAN-12

Event: Replace fixed case work (12000m2 gfa)

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$1,000,000	Unassigned

Updated: JAN-12

E2010.03.01 Blinds**

There are blinds throughout the school including roller blinds to the counseling rooms, life skills room, vertical vinyl blinds in class rooms as well as Venetian blinds integral with the double glazing in the 1980 section.

Information provided by facility staff: There are blinds inside the double glazing. Repaired 2010

Rating	Installed	Design Life	Updated
3 - Marginal	1977	30	JAN-12

Event: Replace 100m2 blinds

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$10,000	Unassigned

Updated: JAN-12

Event: Replace 20m2 blinds

Concern:
There are blinds throughout the facility which are unoperable and require replacement.
Recommendation:
Replace unoperable blinds.

Consequences of Deferral:
Blinds will deteriorate further.

Type	Year	Cost	Priority
Failure Replacement	2012	$2,000	Low

Updated: JAN-12

E2010.05 Fixed Multiple Seating**

There is fixed multiple seating in the cafeteria with laminate tables combined with plastic seats on a steel leg frame.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	35	JAN-12

Event: Replace 20 sets of 4 seats

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$20,000	Unassigned

Updated: JAN-12

F1010.02.04 Portable and Mobile Buildings** - 1976

These four 1976 portables with a gross area of 430m2 were constructed in 1976 and originally located at the north west corner of the school in 1980. They are part of a pod of 6 portable class rooms at this location.

Architectural:
The foundations consist of concrete piles carrying a hollow section steel base frame carrying wood floor joists. The class rooms have Glulam beams with a gypsum board ceiling infill. The exterior walls are 50mm x 100mm wood studs with a pebble dash stucco on a mesh over building paper on ply wood sheathing with an interior finish of gypsum board over a ply vapour barrier. The roof consists of wood joists spanning the wood stud walls. Windows are aluminum with awning opening lights with insect screens and vertical vinyl blinds.
Ceilings are acoustic tiles in a Tee bar grid and floor finishes are sheet vinyl. Doors to the furnace rooms and storage closet are hollow metal in pressed steel frames. Doors into the class rooms are solid core wood doors. There are laminate counters along one wall with wood shelves underneath.

Electrical:
The panelboard is Stab-Lok by FPE, 200A, 120/240V, single phase, with a 50A 2 pole main breaker. The lighting is the energy efficient type (electronic ballasts and T8 lamps), converted in 2001, 2-lamp, surface mounted fixtures with wrap around acrylic lenses.
These classrooms have the same amenities as regular classrooms - P.A, Computer outlets, television sets, Smart Boards.

Mechanical:
These portables class rooms are provided with circa 2000 Carrier Model 58ST-A090-14 furnaces rated for 88,000 btuh on natural gas. Each furnace is equipped with a mix air section and a 4" Type 'B' gas vent up through the roof. Air is distributed throughout the rooms via countertop supply air grilles and a high sidewall return air grille. Each portable class room is provided with a roof mounted dome type exhaust fan.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	30	JAN-12

Event: Replace 300m2 sheet vinyl flooring

Concern:
The sheet vinyl in corridors and class rooms has deteriorated and requires replacement.
Recommendation:
Replace deteriorated sheet vinyl flooring.
Consequences of Deferral:
Flooring will deteriorate further.

Type	Year	Cost	Priority
Failure Replacement	2012	$25,000	Low

Updated: JAN-12

Event: Replace Building Envelope:315m2 exterior stucco, 430m2 SBS roof, 3 sets double doors, 6m2 windows

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$240,000	Unassigned

Updated: JAN-12

Event: Replace Electrical System (430m2 gfa)

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$40,000	Unassigned

Updated: JAN-12

Event: Replace Interiors: 430m2 sheet vinyl, 12 interior doors, 430m2 acoustic tile ceilings, 16 display boards, 120m wood shelves

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$45,000	Unassigned

Updated: JAN-12

Event: Replace Mechanical System (430m2 gfa)

Type	Year	Cost	Priority
Lifecycle Replacement	2025	$45,000	Unassigned

Updated: JAN-12

F1010.02.04 Portable and Mobile Buildings** - 1993

These 2 portables with a gross area of 215m2 were constructed on site and installed in 1993. They are part of a pod of 6 portable class rooms.

Architectural:
The foundations consist of concrete piles carrying a hollow section steel base frame carrying wood floor joists. The exterior walls are 50mm x 100mm wood studs with a pebble dash stucco on a mesh over building paper on ply wood sheathing with an interior finish of gypsum board over a ply vapour barrier. The roof consists of wood joists spanning the wood stud walls. Windows are aluminum with awning opening lights with insect screens and vertical vinyl blinds. Ceilings are acoustic tiles in a Tee bar grid and floor finishes are sheet vinyl. Doors to the furnace rooms and storage closet are hollow metal in pressed steel frames. Doors into the class rooms are solid core wood doors. There are laminate counters along one wall with wood shelves underneath.

Electrical:
The panelboard is Stab-Lok by FPE, 125A, 120/240V single phase with 24 circuits. The lighting is the energy efficient type fluorescent (electronic ballasts & T8 lamps), converted in 2001, 3 - lamp, 2 X 4 recessed fixtures with drop-in acrylic lenses. These portable classrooms have the same amenities as those in the school proper - P.A., computer outlets, television sets, Smart Boards.

Mechanical:
These portables class rooms are provided with a Carrier Model 58ST-A090-14 furnaces rated for 88,000 btuh on natural gas. Each furnace is equipped with a mix air section and a 4" Type 'B' gas vent up through the roof. Air is distributed throughout the rooms via countertop supply air grilles and a high sidewall return air grille.

Rating	Installed	Design Life	Updated
4 - Acceptable	1993	30	JAN-12

Event: Replace Building Envelope:175m2 exterior stucco, 215m2 SBS roof, 2 sets double doors, 4m2 windows

Type	Year	Cost	Priority
Lifecycle Replacement	2023	$120,000	Unassigned

Updated: JAN-12

Event: Replace Interiors: 215m2 sheet vinyl, 6 interior doors, 215m2 acoustic tile ceilings, 8 display boards, 60m wood shelves

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$25,000	Unassigned

Updated: JAN-12

Event: Replace electrical systems (215m2 gfa)

Type	Year	Cost	Priority
Lifecycle Replacement	2023	$20,000	Unassigned

Updated: JAN-12

Event: Replace mechanical system (215m2 gfa)

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$20,000	Unassigned

Updated: JAN-12

F1010.02.04 Portable and Mobile Buildings** - 1995

This pod of 2 portable class rooms at the south east corner of the school were constructed and installed in 1995.

Architectural:
The foundations consist of concrete piles carrying Glulam main beams carrying floor joists with batt insulation and a ply sheathing soffit. The exterior walls are 50mm x 100mm wood studs with a pebble dash stucco on a mesh over building paper on ply wood sheathing with an interior finish of gypsum board over a ply vapour barrier. The roof consists of wood joists spanning the wood stud walls. Windows are aluminum with awning opening lights with insect screens and vertical vinyl blinds. Ceilings are acoustic tiles in a Tee bar grid and floor finishes are sheet vinyl. Doors are hollow metal in pressed steel frames. There are laminate counters along one wall with wood shelves underneath.

Electrical:
The lighting is the energy efficient type fluorescent (electronic ballasts and T8 lamps), converted in 2001, 3-lamp, 2 X 4 recessed fixtures with acrylic lenses. There are 2 emergency lighting battery packs, an exit light, P.A. speakers and fire alarm devices. A recessed panel board is located in the corridor and is 100A, 120/240V, single phase, feeding corridor equipment and classroom panels.
Panel boards in the class rooms are Stab-Lok by FPE, 125A, 120/240V, single phase.
Portable classrooms have the same services as those in the school proper - P.A., computer outlets, television sets, Smart Boards.

Mechanical:
These portable class rooms are provided with circa a Lennox Diplomat Model 80MGF3-75A furnaces rated for 75,000 btuh input on natural gas. Each furnace is equipped with a mix air section and a 4" Type 'B' gas vent up through the roof. Air is distributed throughout the rooms via sloped countertop supply air grilles and a high sidewall return air grille.

Rating	Installed	Design Life	Updated
4 - Acceptable	1995	30	JAN-12

Event: Replace 185m2 vinyl floor & 185m2 ceiling tiles

Concern:
The sheet vinyl flooring and the acoustic ceiling tiles are damaged in the 2 portable class rooms at the south east corner of the school requiring replacement.

Recommendation:
Replace damaged floor sheet goods and ceiling tiles.

Consequences of Deferral:
Floors and ceilings will deteriorate further.

Type	Year	Cost	Priority
Failure Replacement	2012	$25,000	Medium

Updated: JAN-12

Event: Replace Building Envelope:175m2 exterior stucco, 215m2 SBS roof, 2 sets double doors, 4m2 windows

Type	Year	Cost	Priority
Lifecycle Replacement	2025	$120,000	Unassigned

Updated: JAN-12

Event: Replace Electrical System (215m2 gfa)

Type	Year	Cost	Priority
Lifecycle Replacement	2025	$20,000	Unassigned

Updated: JAN-12

Event: Replace Interiors: 215m2 sheet vinyl, 6 interior doors, 215m2 acoustic tile ceilings, 8 display boards, 60m wood shelves

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$25,000	Unassigned

Updated: JAN-12

Event: Replace Mechanical System (215m2 gfa)

Type	Year	Cost	Priority
Lifecycle Replacement	2020	$20,000	Unassigned

Updated: JAN-12

F1010.02.05 Grandstands and Bleachers** - 1976

There is fixed bleacher seating on the mezzanine overlooking the 1977 gym consisting of 14mm fir ply on 50mm x 150mm wood framing built up on top of the precast concrete double Tees with a vinyl finish and wood seats.

Rating	Installed	Design Life	Updated
3 - Marginal	1976	30	JAN-12

Event: Replace 75m wood seating

Concern:
The original wood seating is damaged, worn and requires replacement.
Recommendation:
Replace wood seating.
Consequences of Deferral:
The seating will deteriorate further.

Type	Year	Cost	Priority
Failure Replacement	2012	$10,000	Low

Updated: JAN-12

F1010.02.05 Grandstands and Bleachers** - 2000

There is also an electrically operated telescopic bleachers in the 1976 gym with a steel frame and plastic seats in 3 tiers and ply wood deck.

Rating	Installed	Design Life	Updated
4 - Acceptable	2000	30	JAN-12

Event: Replace telescopic bleachers

Type	Year	Cost	Priority
Lifecycle Replacement	2030	$50,000	Unassigned

Updated: JAN-12

F1020.02.13 Paint Booths*

There is a paint booth in the industrial arts class room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	NOV-06

F1030.05 Other Special Construction Systems*

There are welding booths with plastic and fabric curtains in the industrial arts shop.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-12

F1040.02 Ice Rinks*

The open air ice rink is unused and in a state of disrepair. There is no desire on the part of the School Division to use this rink at this time.

Information provided by facility staff: The school division will need to determine whether the ice rink will be used in the future or whether they will demolish the rink.

Rating	Installed	Design Life	Updated
2 - Poor	1977	0	JAN-12

S8 SPECIAL ASSESSMENT

K4010.01 Barrier Free Route: Parking to Entrance*

The route from the parking lot to the main school entrance is barrier free with curb cuts.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

K4010.02 Barrier Free Entrances*

The concrete sidewalk on the west side of the school ramps up to the gym entrance and the west school entrance. There is also an expanded metal ramp on the north side of the gym and an expanded metal ramp to the portable class rooms at the north east corner of the school. There is no automatic door opener.

Rating	Installed	Design Life	Updated
3 - Marginal	1976	0	JAN-12

Event: Install automatic door opener

Concern:
There is no automatic door opener for barrier free access to the school.

Recommendation:
Install automatic door opener with push plate to entrance door.

Consequences of Deferral:
The school will not be barrier free accessible.

Type	Year	Cost	Priority
Barrier Free Access Upgrade	2012	$15,000	Medium

Updated: JAN-12

K4010.03 Barrier Free Interior Circulation*

There is barrier free internal circulation. One flight of stairs to the 1976 bleachers has an electric person stair lift.

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	0	JAN-12

K4010.04 Barrier Free Washrooms*

All phases of building have barrier free wash rooms for students with extra large toilet cubicles and grab bars.

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	0	JAN-12

K4030.01 Asbestos*

Floor tiles in store rooms and electrical rooms throughout the school appear to contain asbestos. The tiles have been encapsulated with numerous coats of wax as part of the routine upkeep of the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	1977	0	JAN-12

K4030.02 PCBs*

The fluorescent lighting throughout the school consists of T8 lamps with electronic ballasts which do not contain PCBs.

See K4030.09 Other Hazardous Materials below for a recommendation for a comprehensive hazardous material survey of the school including PCBs

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

K4030.04 Mould*

There was no mould observed or reported during the audit inspection.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	NOV-06

K4030.07 Ozone Depleting Substances (CFC's, HCFC's, Halon)*

There is cooling equipment in the school which uses ozone depleting CFCs in the coolant.

See K4030.09 Other Hazardous Materials below for a recommendation for a comprehensive hazardous material survey of the school including CFCs.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

K4030.09 Other Hazardous Materials*

There were no other hazardous material observed or reported to the audit team during the inspection.

See K4030.09 Other Hazardous Materials below for recommendation for a hazardous materials survey of the school including asbestos.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

K5010.01 Site Documentation*

The Sturgeon Composite High School was constructed in several phases.
The original school was built in 1976 primarily as a single storey building with a small section of two storey at the mezzanine level in the gym.
In 1980 there were five separate additions and infill developments for classrooms and vocational classes.
This development also included 4 portable classrooms attached to the north west corner of the school.
In 1993 an additional gym was constructed on the north west corner of the school where the portables were located.
These 4 portable class rooms were then relocated to the north east corner of the school and two additional portables were added to this pod.
The cafeteria was also expanded and the kitchen renovated and two science class rooms added at the south east corner of the school.

This facility evaluation was carried out by Robert Irlam Consulting Inc. on August 16, 2011.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

Event: **Drawings**

Type	Year	Cost	Priority
Study	2011	$0	Unassigned

Updated: JAN-12

B3816A Sturgeon High School GOOGLE Site Plan.JPG

K5010.02 Building Documentation*

The Sturgeon Composite High School was constructed in several phases.
The original school was built in 1976 primarily as a single storey building with a small section of two storey at the mezzanine level in the gym.
In 1980 there were five separate additions and infill developments for classrooms and vocational classes.
This development also included 4 portable classrooms attached to the north west corner of the school.
In 1993 an additional gym was constructed on the north west corner of the school where the portables were located.
These 4 portable class rooms were then relocated to the north east corner of the school and two additional portables were added to this pod.
The cafeteria was also expanded and the kitchen renovated and two science class rooms added at the south east corner of the school.

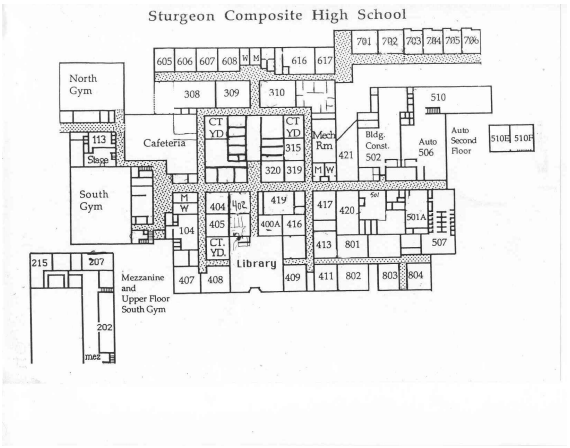
This facility evaluation was carried out by Robert Irlam Consulting Inc. on August 16, 2011.

Rating	Installed	Design Life	Updated
4 - Acceptable	1976	0	JAN-12

Event: **Drawings**

Type	Year	Cost	Priority
Study	2011	$0	Unassigned

Updated: JAN-12



B3816A Sturgeon High School Floor Plan.jpg