RECAPP Facility Evaluation Report

Edmonton School District No. 7

Ross Sheppard Composite High School

B3264A

Edmonton

Report run on: March 19, 2009 11:58 AM

Facility Details

Building Name:	Ross Sheppard Composite H
Address:	13546 - 111 Avenue
Location:	Edmonton
Building Id:	B3264A
Gross Area (sq. m):	20,520.00
Replacement Cost:	$46,862,622
Construction Year:	1956

Evaluation Details

Evaluation Company:	Lotus Architecture
Evaluation Date:	May 31 2006
Evaluator Name:	Tonu Mitra

Total Maintenance Events Next 5 years:	**$26,959,167**
5 year Facility Condition Index (FCI):	**57.53%**

General Summary:

Ross Sheppard Composite High School is located at the north-west side of 135 Street and 111 Avenue intersection. It is a two storey building with brick exterior and flat roof. The facility comprises of five two storey wings enclosing two internal courtyards - the east, middle and west wings are oriented north-south and the north and south wings are oriented east-west. The north wing is designed as a split level structure with full basement and all other wings have full crawl spaces. Two Gymnasiums are located on the south-east corner with perimeter crawl spaces and partial basement under the Stage. The school was built in several phases, as follows:

In 1956, the 11,490m2 original school was built, comprising of east, middle and south wings and two Gymnasium with ancillary spaces.
In 1958, the 2,656m2 the west wing addition was built.
In 1962, the 4,846m2 partial north wing addition was built which is now the west-central part of north wing.
In 1968, the 1,527.1m2 addition was completed on the east end of north wing.

Major upgrading and renovations include: 1979 - renovations in Home Economics program areas. 1981 - asbestos abatement program. 1989 - re-roofing of two Gymnasiums. 1992 - re-roofing of south wing. 1995 - various fire code upgrading. 1996 - re-roofing of east and middle wings. 1998 - creation of Fitness Centre and 2001- creation of Visual Arts/Communication Centre and barrier free upgrading. In addition, there has been ongoing minor renovations almost on yearly basis related to carpet replacements, painting, furnishings and minor interior modifications. 2006 - quarry tile flooring in basement of north wing.

Current gross area of building: 20,521m2; current student capacity: 2,100 and current enrollment: 2,100 students.

Structural Summary:

Foundations: Concrete strip footings and perimeter concrete foundation or basement walls and concrete pad footings for interior columns. 2100mm high crawl spaces in 1956 and 1958 sections and perimeter crawl spaces with pipe chases under two Gymnasiums. Super structure: Reinforced concrete frame structure. Basement concrete slab on grade and reinforced concrete slab upper floors, supported by concrete beams and columns. Main floor in north wing is reinforced concrete with cast-in-place concrete baffles. Roof structure:Steel joists, steel pan and concrete infill decks. Large roof girders, steel beams and steel joists in large Gymnasium.
Minor structural settlement has occurred over the years. Minor settlement of basement concrete slab in Cafeteria. Crawl spaces contain asbestos debris and piping incorporate asbestos containing materials which are recommended to be removed.

Overall condition of building structure is Good.

Envelope Summary:

Exterior walls: Majority of exterior walls are built with exterior brick skin. Porcelain enamel panels skins under windows in south facade and field stone skin at curved feature south wall of Library. Backup walls comprise of concrete block, hollow clay tiles or solid brick walls. 25mm rock wool insulation from inside in majority of walls of 1956 and 1958 Sections. Cavities of concrete block backup walls of Gymnasiums are filled with granular insulation. 50mm rigid insulation, applied from inside of backup walls in north wing. Interior faces of all exterior walls finished with 25mm gypsum lath and plaster. Acoustic plaster, containing asbestos, are incorporated in top portions of exterior walls.

Exterior doors: Except main entrance and main Gymnasium entrance, all exterior doors and frames are painted wood with wired glazed upper section, transom and sidelites. The main entrance and the main Gymnasium entrance incorporate clear anodized frame, fully glazed doors, wired glass transom and sidelites.

Windows: All windows in 1956 and 1958 sections are wood with hopper sections.Glass block above all wood windows.

Industrial type, metal windows in north wing with hopper sections. Glass blocks in other openings such as Boiler Rooms. Plastic dome skylights above second story annex to north wing. Clear anodized aluminum frame curtain walls on east and west ends of curved feature wall of Library/Book Loft.

Roof: Original built-up roof in 1958 (west wing) addition and in 1962 portion of north wing addition. Roof of the two Gymnasiums were replaced in 1989 with built-up roof. Roof of south, east and middle wings of 1956 Sections were replaced in 1992 with 2 ply SBS membrane roofing and the roof of the 1968 portion of north wing was re-roofed with 2 ply SBS membrane in 1996. All built-up roofs incorporate 50mm rigid insulation and 75mm rigid insulation incorporated in all SBS roofing.

Except portions of roof, all envelope components of this facility are original. Wood windows have rotted and should be replaced as soon as possible. Metal windows in north wing and curtain walls in curved feature walls are of poor quality and should be replaced. Glass block joints have deteriorated, blocks are broken or in poor condition and should also be replaced. Exterior wood doors and frames are also in poor condition and should be replaced. Walls are in good condition but insulation levels are low by current standards. All original built-up roofing, and above Gymnasiums (re-roofed in1989), should be replaced.

Overall condition of building envelope is Marginal.

Interior Summary:

Interior partitions: Majority of interior partitions are wood stud with painted gypsum lath and plaster. Other partitions are painted or bare concrete block walls, hollow clay tiles with painted gypsum lath and plaster. Short partitions of steel or wood studs with painted gypsum boards were installed during various minor interior modifications over the years. Walls in hallways, stairs, in all Boys' and Girls' Washrooms, Locker areas, large Gymnasium and Book Loft incorporate built-in structural ceramic tiles. Surface applied ceramic wall tiles in Locker Room shower areas and in Washrooms of north wing. Ceramic mosaic tiles in stairs of north wing. Fully glazed sliding partitions were installed in 1996 in Visual Communication Arts area in north wing, and in 2003, in Conference Room in south wing. Original large folding wood partitions in large Gymnasium and in Stage.

Interior doors and windows: Majority of interior doors are clear finish solid core wood on painted steel frames. Interior windows are painted wood frames. Fire doors are solid core wood and metal, on steel frames. During the major fire code upgrading in 1995, north wing hallway doors were replaced and hardware in various hallway doors in 1956 and 1958 Sections were upgraded to meet codes.
Stairs: Concrete stairs, terrazzo finish. East stair of north wing has rubber tiles. Service stairs are mostly bare concrete finish or painted. Steel ladders in Stage area and Fitness Centre.

Floors: Terrazzo finish in all hallways and lobbies. Quarry tile flooring in all Boys' and Girls' Washrooms and Locker Rooms in 1956 and 1958 Sections. Ceramic mosaic tiles in north wing washrooms and in Staff Washrooms and in shower areas of 1956 Section. Majority of classrooms and ancillary spaces have original vinyl asbestos tiles or linoleum flooring. Carpet in Library, Book Loft, Administration areas, Music Rooms, Drama Room, all Computer Rooms and Language Lab. Wood flooring in Gymnasiums. Painted concrete in Boiler and Janitor Rooms. In 2006, porcelain tiles were installed in 80% of the basement area in north wing.

Ceilings: Majority of original ceilings in 1956 and 1958 Sections are acoustic plaster, containing asbestos. In 1981, as part of asbestos abatement program, suspended ceilings were added in all hallways and Administration areas and painting of ceilings undertaken incrementally in classrooms over the years. Original suspended ceilings in all areas of north wing; ceiling tiles in 1962 portion contain asbestos. Original cellulose fibre tiles, glued to gypsum board or gypsum lath ceilings in Gymnasium and Library.

Original washroom partitions and lockers. One stall in each of Boys' and Girls" Washrooms were modified to accommodate wheelchair and stair climbers in north wing, wheelchair lift in middle wing and platform lifts were added in 2000 and 2001 as part of barrier free upgrading program. Majority of built-in casework is original.

Over 90% of interior components of this facility is original. Several long lasting components, such as terrazzo flooring, built-in structural ceramic clay tiles, lath and plaster walls are in acceptable condition. All other components are showing signs of wear or have deteriorated. Most of them have been recommended for replacement or upgrading. New suspended ceilings have been recommended in classrooms of 1956 and 1958 Section.

Overall condition of building interior is Marginal.

Mechanical Summary:

Original school built in 1956 with additions in 1962 and 1968. Heating system consists of two heating plants consisting

of three (3) low pressure steam boilers installed in 1956 and two (2) low pressure steam boilers installed in 1962 addition. The 1956 original school has low pressure steam distribution to heating terminal units. The 1962 and 1968 additions have hot water distribution to heating terminal units. Ten (10) low velocity air systems and exterior wall unit ventilators provide ventilation for the building. Controls are pneumatic and BMCS panels are installed. Exhaust fans expel foul odors. Plumbing fixtures and brass are commercial quality. Fire protection consists of wet standpipe and fire hose cabinets. Portion of building has wet sprinkler system, fire extinguishers. Mechanical systems and components are in marginal condition.

Items found during review which should be addressed are:
- Replace janitor sinks.
- Install new heating plants.
- Install new hot water distribution system and terminal transfer units.
- Install fume hood make up air.
- Install air conditioning in computer rooms and server room.
- Install humidification.
- Install new air systems and distribution ductwork.
- Upgrade BMCS.
- Replace dated plumbing fixtures.
- Install ventilation in rooms where deficient.
- Upgrade building exhaust.

Electrical Summary:

Three 4160 - 120/208volt open style transformers peovide power to the building. (1956) Metallic and flexible conduit system throughout c/w copper conductors. Computer room plugs added in 1988,1992 and 2003. Line voltage switching throughout. Florescent Fixtures Upgraded to electronic ballasts and T-5 and T-8 lamps throughout. Designated fixtures throughout school controlled from emergency generator. Photo cell controlled exterior lighting. Edwards EST fire alarm c/w manual pull stations,smoke/heat/duct detectors, combination horn-strobe signaling devices. Security provide by Magnum Alert system c/w motion detectors, door contacts. Magnum Alert key pads throughout. Dedicated Micro's head end c/w 16 camera's. Simplex master clock system . Nortel Norstar phone system c/w hand sets throughout. Call system Integrated with phone system. Data server rooms c/w data racks, hubs and UPS. Cat 5 and 5e cabling throughout. Fiber optic network installed in 2002. Rauland Public Address and Music Systems system located in the sound room. Co-ax cabling throughout. Supernet installed. APC 2200 and a 3000va UPS protecting servers. Onan 15KW natural gas fired generator.

Overall Rating: Marginal (3)

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*

(1956)(1958) Exterior walls: 254mm thick reinforced concrete foundation walls on concrete strip footing; combined with concrete piers with concrete pad footing at columns. Interior: Concrete piers on reinforced concrete pad footing.
(1962)(1968) Exterior walls: 300mm thick concrete foundation walls on 600mm dia. concrete bell piles. The foundation walls incorporate continuous 127mm wide concrete ledge beams at grade level to support brick veneer walls. Interior: Concrete bell piles and pile caps at interior columns. NE and NW Annex basements: 300mm thick concrete walls with waterproofing on concrete bell piles.
Minor foundation settlements in isolated areas, as evident from cracks on infill walls in superstructure.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	MAR-08

A1030 Slab on Grade*

(1956) 200mm thick concrete slab on grade in basements under Stage areas with a sump pit, Boiler, Electrical and Storage Rooms. 127mm thick concrete slab on grade in small and large Gymnasiums.
(1962)(1968) 100mm thick concrete slab on grade in basement throughout and 127mm thick concrete slab on grade in the basement of the east Annex. Slabs incorporate a three-compartment sump pit in Mechanical Room and in basement under the east Annex. Large crack in Kitchenette (attached to the basement Staff Room). Evidence of minor slab settlement in Cafeteria. Hair line cracks in loading area slab.
Brass and stainless steel expansion joints between various additions and in Cafeteria slab.

Rating	Installed	Design Life	Updated
5 - Good	0	100	MAR-08

A2020 Basement Walls (& Crawl Space)*

(1956)(1958) 300mm thick reinforced concrete basement walls. Crawl spaces in all areas, except under two Gymnasiums. Tunnels / pipe chases along the west and south walls of large Gymnasium. All crawl spaces are 2100mm high and all areas are easily accessible, however, access is restricted due to the presence of asbestos. East basement wall under the Stage area was repaired in 2001 for water leaks.
(1962)(1968) 300mm thick reinforced concrete walls, including basement walls of the two Annex. Weeping tile drains. Evidence of water leak at NW corner of basement Fan Room (under east Annex), however, no leak has been reported recently. Hair line cracks on the west basement wall on 1962 section (near exterior ramp).

Rating	Installed	Design Life	Updated
2 - Poor	0	100	MAR-08

Event: Remove asbestos in crawl spaces.

Concern:

Crawl spaces contain asbestos materials in piping and in debris throughout. Access to crawl spaces is currently restricted. Access is required to implement major mechanical and electrical upgrading work. Combustible materials, such as furniture, card board boxes and paint containers are stored in portions of crawl spaces.

Recommendation:

Remove all asbestos containing materials from floors and piping. Seal crawl space floors with poly sheets and lean concrete mix. Approximate area: 6,500 m2. Remove combustible materials.

Type	Year	Cost	Priority
Hazardous Material Management Upgrade	2008	$915,200	High

Updated: APR-08

B1010.01 Floor Structural Frame (Building Frame)*

(1956)(1958) Reinforced concrete columns and beams and load bearing concrete block walls.
(1962)(1968) Reinforced concrete frame structure, supplemented by steel columns and beams.

Rating	Installed	Design Life	Updated
5 - Good	0	100	MAR-08

B1010.03 Floor Decks, Slabs, and Toppings*

(1956)(1958) Main floor slabs, above basements and crawl spaces:150mm thick reinforced concrete structural slabs - hair line cracks have developed in hallways, appear to be shrinkage, rather than structural. Second floor: 64mm thick concrete topping on steel pans. Tiered seating, built with wood frame structure on concrete slabs in Lecture Rooms in east wing (1956) and west wing (1958).
(1962)(1968) Main floor slab above basement: 75mm thick reinforced concrete slab, poured with ribbed concrete beams. Second floor: 64mm thick concrete topping on steel pans. Floor slab of second level bridge connections: 180mm thick structural concrete slabs.

Metal floor expansion joints provided throughout.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	MAR-08

B1010.05 Mezzanine Construction*

(1956) 100mm thick structural concrete slab, stepped profile, for upper level tiered spectator seating on the north and south sides of large Gymnasium; supported by sloped concrete beams and concrete columns. Originally spectator gallery mezzanine along the south portion of small Gymnasium (now enclosed storage rooms): 190mm thick structural concrete slab supported by concrete block walls and concrete beam. Walkway along the west side of large Gymnasium truss space: 114mm thick structural concrete slab, supported by steel beams and concrete columns. Small mezzanine in north potion of stage in large Gymnasium: 114 thick concrete slab supported by concrete block walls, and a small steel grated mezzanine floor with steel grated trap door.
(1998) Mezzanine added in Fitness Centre (in the SE corner of 1956 section): steel deck, supported by steel frame structure.

Rating	Installed	Design Life	Updated
5 - Good	0	100	MAR-08

B1010.06 Ramps: Exterior*

(1962) 127mm thick, heated, concrete loading dock ramp at NW corner, complete with area drain at the bottom landing and concrete sidewalk on one side. The ramp is not used most of the time because it is narrow for most delivery trucks.
(2001) Concrete barrier free ramp added to the main entrance.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	40	MAR-08

B1010.07 Exterior Stairs*

(1956) Short concrete stair and landing in enclosed courtyard at SE corner of large Gymnasium (used strictly as fire escape from Drama area). Concrete steps and pads at south secondary / courtyard entrances. Concrete step and landing on the south-east exit from large Gymnasium - minor spalling / surface deteriorations should be patched as regular maintenance.
(2001) Concrete steps at the main entrance and west (main) entrance of large Gymnasium, exposed aggregate finish.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	40	MAR-08

B1010.09 Floor Construction Fireproofing*

(1956)(1958)(1962)(1968) Concrete floors.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	MAR-08

B1010.10 Floor Construction Firestopping*

(1956)(1958)(1962)(1968)

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	MAR-08

B1010.11 Other Floor Construction*

Concrete slab loading dock platform on the east side of large Gymnasium / Drama. The loading dock platform is not used and the area is enclosed with fence.

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	50	MAR-08

B1020.01 Roof Structural Frame*

(1956)(1958) 600mm open web steel joists with steel pan decks in most areas, supported by concrete frame structure. 1000mm deep trusses in small Gymnasium and large 3000mm deep trusses in large Gymnasium, with steel deck, supported by framework of steel girders, concrete beams and columns. 114mm thick structural concrete roof slabs above one-storey portions on the west side of large Gymnasium and east side of Stage; supported by load bearing concrete block walls and concrete beams and columns. Walkway on the west side of large Gymnasium ceiling space: 200mm deep steel beams at 430mm on centre, steel deck, supported by steel columns and concrete block wall.
(1962)(1968) Roof structure, including roof of the three second floor Annex/Bridges: 457mm open web steel joists, steel pans forms and 64mm concrete topping; supported by concrete frame structure. 127mm thick structural concrete roof slab of the east Annex basement (Fan Room) acts as the concrete pad for the main floor, east secondary entrance and incorporates waterproofing membrane.

Rating	Installed	Design Life	Updated
5 - Good	0	100	MAR-08

B1020.04 Canopies*

900mm cantilevered concrete slab canopy at the main entrance and courtyard secondary entrances. 900mm continuous concrete slab roof deck projection above one-storey west entrance block of large Gymnasium.

Rating	Installed	Design Life	Updated
5 - Good	1956	50	MAR-08

B1020.06 Roof Construction Fireproofing*

(1956)(1958)(1962)(1968) Steel trusses in both Gymnasiums are enclosed with plaster ceilings and supporting steel members are encased in concrete or covered with fire proofing materials. In all other areas 64mm thick concrete topping provided on steel deck and plaster ceilings.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	MAR-08

B1020.08 Other Roof Construction (Catwalks)*

600mm wide catwalk is made of wood planks, loosely laid between large trusses of the large Gymnasium to access Stage and Gymnasium lighting and sound equipment.
Steel frame catwalk with grated steel floor in Stage area.

Rating	Installed	Design Life	Updated
3 - Marginal	1956	40	MAR-08

Event: Install catwalks in large Gymnasium roof structure.

Concern:
The existing catwalk does not have railings and wood planks loosely secured, pose safety hazard.

Recommendation:
Build new catwalks, as required to access Stage lighting and sound equipment and according to building codes. Secure catwalks to 3000mm deep steel trusses of large Gymnasium (estimate ranges from $60,000 to $150,000, depending on the number of catwalks required).

Type	Year	Cost	Priority
Code Repair	2009	$105,248	Medium

Updated: APR-08

Catwalks in large Gymnasium truss spaces - loosely laid planks are unsafe.

S2 ENVELOPE

B2010.01.02.01 Brick Masonry: Ext. Wall Skin*

(1956)(1958) 100mm brick exterior skin, forming part of the cavity wall system - every sixth course (header course) tied to back-up walls.
(1962)(1968) 100mm brick exterior skin, forming part of the cavity wall system.
Isolated areas of brick facades have been painted over to cover graffiti.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	75	MAR-08

B2010.01.03 Stone Assemblies: Exterior Wall Skin*

150mm thick ashlar cut field stone skin at the curved south wall of Library / Book Loft. Main floor of the entire south facade incorporate sand stone columns between windows with sand stone sills - caulking has deteriorated (see B2010.01.11).

Rating	Installed	Design Life	Updated
5 - Good	1956	75	MAR-08

B2010.01.06.03 Metal Siding**

(1956)(1958) Panels below windows on south walls and panels in east and west curtain walls of Library / Book Loft: porcelain enamel steel panels with plywood and zinc backing; mounted on wood stud infill back-up walls.
(1996) Prefinished corrugated metal panel on the brick face of south wall of 1968 addition, above the east bridge roof.

Rating	Installed	Design Life	Updated
3 - Marginal	0	40	MAR-08

Event: Replace porcelain panels on south walls.

Concern:
Panels below widows appear dated, colour has faded and several panels have canned. Panels have served their useful life. Caulking has deteriorated. Very little insulation in wood stud back-up walls. Unit vents will be removed during mechanical upgrading and openings will have to be repaired.

Recommendation:
Remove porcelain panels under windows in south walls. Remove wood stud back-up and insulation. Build new walls under windows with brick skin to match existing, rigid insulation, concrete block back-up and plaster interior to match existing (approximately 67 windows). For Porcelain enamel panels in curtain walls, see B2020.03. Work to be coordinated with window replacement.

Type	Year	Cost	Priority
Failure Replacement	2008	$109,824	Medium

Updated: MAR-08

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

(1958) Cement plaster finish wall surfaces above and below second floor window at SW entrance.
(1962) Cement plaster finish wall surfaces above and below second floor window on west wall.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	75	MAR-08

B2010.01.09 Expansion Control: Exterior Wall Skin*

Brick skin expansion joint on the south walls, between 1956 and 1958; and between 1962 and 1968 sections - caulking has deteriorated, see B2010.01.11.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	75	MAR-08

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

(1958) Original caulking in sand stone pillars and sills on south wall.
(1968) Original caulking at expansion joints on the south wall brick skins, between 1956 & 1958 sections and between 1962 & 1968 sections.

Rating	Installed	Design Life	Updated
2 - Poor	0	20	MAR-08

Event: Replace caulking on exterior skin joints.

Concern:
Caulking on joints are either original, or has not been replaced for a long time. Caulking has hardened, cracked, weathered and in some cases pulled away.

Recommendation:
Remove and replace caulking at sand stone pilasters and sills; complete with new foam rod at brick expansion joints (approximately 350m).

Type	Year	Cost	Priority
Failure Replacement	2008	$6,864	Medium

Updated: APR-08

B2010.01.13 Paints (& Stains): Exterior Wall**

Cement plaster finishes on the west walls around second floor windows; and the west and east concrete wall surfaces of the three bridge connections are painted.

Rating	Installed	Design Life	Updated
4 - Acceptable	1998	15	MAR-09

Event: Repaint walls and soffits of annexes and west window sills.

Recommendation:
Approximately 628m2.

Type	Year	Cost	Priority
Lifecycle Replacement	2013	$26,000	Unassigned

Updated: MAR-09

B2010.01.99 Other Exterior Wall Skin*

(1962)(1968) 50x100mm ceramic mosaic tiles cement screed on walls besides entrance doors at NE and NW secondary entrances - several tiles have fallen off and should be replaced and steel corner guards should be installed as regular maintenance to prevent future damage.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	MAR-08

B2010.02.01 Cast-in-place Concrete:Ext.Wall Const*

(1956)(1958) Exterior walls of stairs contain 254mm thick reinforced concrete back-up walls.
(1962)(1968) East and west exterior walls of the two bridges, and the west air intake back-up wall under the east bridge are 178mm thick reinforced concrete. 254mm thick reinforced concrete back-up walls / beams above windows at north and south walls.

Rating	Installed	Design Life	Updated
5 - Good	0	100	MAR-08

B2010.02.03 Masonry Units: Ext. Wall Const.*

(1956)(1958) Gymnasium walls: 200mm concrete block back-up walls - hair line cracks on west wall of small Gymnasium at concrete columns. Ancillary rooms and Art Room walls: 200mm hollow clay tiles back-up walls. Classroom and Administration wings: 200mm concrete block and hollow clay tiles back-up walls. The curved south wall of Library has 300mm solid brick back-up wall.
(1962)(1968) 200mm concrete block back-up walls - cracks along concrete frame structures in CTS Room and Music Office.
Majority of walls are non-load bearing.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	MAR-08

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

(1956)(1958) Except Gymnasium walls, all exterior walls are insulated from the interior with 50mm thick rock wool batt insulation. Interior surfaces incorporate 25mm cement plaster, painted, acting as air / vapour barrier. Gymnasium wall cavities are filled with vermiculite insulation.
(1962)(1968) Exterior walls are insulated from the interior with 50mm rigid insulation with vapour barrier from inside. Surfaces are sealed with painted 25mm cement plaster.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	30	MAR-08

B2010.06 Exterior Louvers, Grilles, and Screens - Unit Ventilators*

(1956)(1958)(1962)(1968) Aluminum grilles for unit ventilators throughout the building.

Rating	Installed	Design Life	Updated
3 - Marginal	0	50	MAR-08

Event: Remove unit vent grilles and repair walls.

Concern:
Unit ventilators draw dust and fumes and cold air / condensation which result in lifting of floor tiles. Unit ventilators are proposed to be abandoned. Repair/patching required to exterior walls to prevent air infiltration / exfiltration.

Recommendation:
Remove unit vent grilles. Fill openings with matching bricks on exterior skin. Remove ducts and fill openings in back-up walls. Provide insulation and air/vapour barrier and seal from inside with cement plaster, painted to match with existing (approximately 72 unit vent grilles).

Type	Year	Cost	Priority
Repair	2008	$41,184	Medium

Updated: APR-08

B2010.06 Exterior Louvers, Grilles, and Screens*

(1956)(1958) Aluminum air intake grilles at exterior wall of basement Boiler Room. Metal screens at openings for crawl space ventilation throughout - minor rust.
(1962)(1968) Aluminum air intake grilles at north exterior wall of basement Boiler Room of the 1962 addition - grilles draw dust and exhaust fumes - see mechanical engineering report. Aluminum grilles at air intake shaft near east link. A large aluminum grille at the south wall of Fan Room on second floor.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	MAR-08

B2010.07.01 Exterior Sun Control Devices

(1956)(1962) Continuous sun shade screens above windows on south walls of south and north wings. It is made of painted wood slats on painted metal frames.

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	MAR-09

Event: Repaint sun shade screens.

Concern:
Original paint on all sun screens have deteriorated (approximately 290m2).

Recommendation:
Clean and repaint sun screens.

Type	Year	Cost	Priority
Repair	2010	$16,000	Medium

Updated: MAR-09

B2010.09 Exterior Soffits*

(1956)(1958)(1962)(1968) Cement plaster soffits throughout. Most soffits are painted. Minor hair lines cracks and water mark on the soffit at SW secondary entrance from previous roof leak.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	MAR-08

B2020.01.01.02 Aluminum Windows (Glass & Frame) (1962 & 1968 Sections)**

(1962)(1968) Windows of the north additions are industrial profile, narrow aluminum frame windows, painted. Double glazing. Upper floor, large windows contain one hopper section per window unit. Basement windows incorporate wired glass. Steel security grilles installed on north basement windows. Between 1986 and 1996, several basement windows and upper floor window glazing units were replaced with lexan units. Several glazing sections have been removed and incorporate air condition units on plywood panels. Precast concrete sills. A small section of wood window in Science Preparation Room on the main floor of east wing were replaced with aluminum window after water damage from the original leaky window.

Rating	Installed	Design Life	Updated
2 - Poor	0	40	MAR-08

Event: Replace aluminum windows in north wing sections.

Concern:

Aluminum windows are poorly built, inefficient and past their service life. Majority of them leak; infiltration of dust, diesel fumes, water and cold air is a major concern. Most hopper sections do not operate and have been sealed with screws. Several hopper section have dislodged from frames. No insect screens. Condensation evident on glazing units of many windows.

Recommendation:

Replace all aluminum windows in north additions with new aluminum windows, complete with sealed and operable units and insect screens (approximately 135 window units of various sizes).

Type	Year	Cost	Priority
Failure Replacement	2008	$386,672	High

Updated: MAR-08

B2020.01.01.05 Wood Windows (Glass & Frame) - (1956 & 1958 Sections)**

(1956)(1958) Painted wood windows with hopper sections throughout. Double glazing - several windows in stairs incorporate frosted glass. Painted metal covered wood sills. Large fixed wood widows above secondary entrances with intermediate mullions.

Rating	Installed	Design Life	Updated
2 - Poor	0	35	MAR-08

Event: Replace wood windows.

Concern:

Wood windows are rotted and beyond repair. They are well past their service life. Several hopper sections have fallen and opening sealed with plywood. Several broken panes have been sealed with taped plastic sheets. These are safety concerns on second floors. Blowing snow, rain and cold air infiltration through many windows. Adjacent wall surfaces have deteriorated in some areas due to moisture. No insect screens.

Recommendation:

Replace all windows with aluminum windows, complete with sealed double glazing and awning sections with screens. Rebuild window sills. (Approximately 334 window units of various sizes).

Typical deterioration of wood window frames.

Type	Year	Cost	Priority
Failure Replacement	2008	$804,232	High

Updated: APR-08

B2020.01.01.06 Vinyl, Fibreglass &Plastic Windows**

(1990) Original wood windows in Fitness Centre were replaced with vinyl windows with awning sections and screens.
(1991) Original wood windows in Arts Room on second floor were replaced with vinyl windows with awning sections and screens - some leakage around the top of windows reported. It should be investigated and repaired as regular maintenance.
(1999) Fibreglass window on east wall of NE stair of east wing. Vinyl awning section with screen in Office of Student Services area.
(2001) Vinyl awning sections with screens were added to the original strip window in Phys Ed offices.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	40	MAR-09

Event: Replace vinyl and fibreglass windows.

Recommendation:

Approximately 88m2.

Type	Year	Cost	Priority
Lifecycle Replacement	2035	$68,000	Unassigned

Updated: MAR-09

B2020.03 Glazed Curtain Wall**

Site built curtain walls on the east and west sides of the curved south wall of Library. Made out of wood frame structure with anodized aluminum covered wood mullions. Anodized aluminum frame windows between mullions. Double glazing.
Porcelain enamel metal spandrel panels on plywood backing and installed on wood stud framing with 50mm batt insulation.
Clear anodized aluminum curtain wall frame box window in south wall of Archives Room. Double glazing.

Rating	Installed	Design Life	Updated
3 - Marginal	1956	40	MAR-08

Event: Replace curtain wall in Library.

Concern:

Original curtain walls in Library / Book Loft are site built from wood frame structure and is well past it's service life. Metal spandrels have started to buckle; joints opening up and colour has faded. Caulking has deteriorated. Narrow frame aluminum windows are inefficient. Cold air and water infiltration have caused some moisture / condensation damages to adjacent walls in the past. Very little insulation. No operable sections. Broken seals / condensation.
Curtain wall in boxed window of Archives Room has exceeded life expectancy. Framing members are not thermally broken (condensation) and sealed units are broken.

Recommendation:

Replace east and west curtain walls in Library \ Book Loft with new aluminum frame curtain walls, complete with sealed double glazing, with operable sections and insulated metal spandrel panels. ($98,000).
Replace curtain wall in Archives Room box window with new thermally broken aluminum frame sections and insulating glass. (22,000).

Deteriorated panels of curtain walls and aluminum covered site built mullions.

Type	Year	Cost	Priority
Failure Replacement	2008	$137,280	High

Updated: APR-08

B2020.04 Other Exterior Windows (Glass Blocks) (1956 & 1958 Sections)*

(1956)(1958) Large glass block sections above windows in all Classroom and Administrative wings. Glass block windows in large and small Gymnasium and Boiler Room walls.

Rating	Installed	Design Life	Updated
3 - Marginal	0	40	MAR-08

Event: Replace glass blocks above windows.

Concern:

All glass blocks are original and served past their theoretical service life. Translucence of glass blocks have diminished considerably. Sealant on glass blocks on all south and west walls has deteriorated completely. Glass blocks along all of south wall have been sealed from inside with painted plywood (and heat build up may have contributed to deterioration of caulking). Several glass blocks are cracked and several others were replaced recently.

Recommendation:

Replace all glass blocks above windows with prefinished insulated metal panels (approximately 800m2). Work should be undertaken with window replacement. Repoint all other glass blocks joints. Replace broken units.

Deteriorated caulking.

Type	Year	Cost	Priority
Failure Replacement	2008	$369,512	High

Updated: MAY-08

B2030.01.01 Aluminum-Framed Storefronts**

Clear anodized aluminum frame storefronts at the main entrance and the west (main) entrance of large Gymnasium. Single leaf, fully glazed aluminum doors and transom. Double glazing with wired glass outer pane.

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	30	MAR-08

Event: Replace main and Gym entrance storefronts.

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$34,320	Unassigned

Updated: APR-08

B2030.01.06 Automatic Entrance Doors**

During the major upgrading for barrier free accessibility, automatic door openers with remote actuators were installed on existing doors at the main entrance and east secondary entrance (breeze way, NE corner).

Rating	Installed	Design Life	Updated
4 - Acceptable	2001	30	MAR-09

Event: Replace auto door openers.

Recommendation:
Four auto openers.

Type	Year	Cost	Priority
Lifecycle Replacement	2031	$40,000	Unassigned

Updated: MAR-09

B2030.01.10 Wood Entrance Door**

(1956)(1958)(1962)(1968) All doors at secondary entrances are original solid core wood doors with wire glazing in upper half, painted. Wood frames with wired glass transom. Doors to courtyards of east, middle and west wings are double leaf with sidelites and transom. The south entrance doors of north wing additions incorporate steel frames with removable mullions.

Rating	Installed	Design Life	Updated
3 - Marginal	0	30	MAR-08

Event: Replace all wood entrance doors.

Concern:
Wood entrance doors have served well past their theoretical lives. Doors have been painted many times over the years. Doors and frames do not have weather stripping. Door surfaces have cracked and beyond refinishing capability - many doors now incorporate stainless steel sheet covers in bottom half of door surfaces. Several doors are warped making locking and closer operation difficult. Doors infiltrate cold air and frost builds up. Many glazing panels were broken and replaced with painted plywood. Wood frames are rotting at bases and surfaces have cracked. Door hardware is original - some closers do not function properly (leak oil, broken etc.).

Recommendation:
Replace all wood entrance doors and wood frames at all secondary entrances with insulated steel frames and steel doors. Provide new hardware. Reuse all automatic door openers. (14 entrances - average size approximately 13.26m2).

Type	Year	Cost	Priority
Failure Replacement	2008	$205,920	High

Updated: APR-08

B2030.02 Exterior Utility Doors**

(1956) Steel double exit doors on steel frames in small Gymnasium and SE corner of Stage (to Courtyard). Steel double man doors on steel frame in north wall of Boiler / Electrical Room. Three single leaf solid core wood doors on wood frame at SE fire exit from large Gymnasium and two single leaf wood doors at SW fire exit - wired glass in upper half and wood frame. Single leaf steel roof access door on wood frame.
(1962) Single leaf, solid core wood man door, on wood frame in Kitchen loading dock area.
(2001) One set double doors (Receiving area) was replaced with steel double doors.

Rating	Installed	Design Life	Updated
2 - Poor	0	40	MAR-08

Event: Replace all exterior utility doors.

Concern:

All exterior doors have performed beyond theoretical life span and all doors are in poor condition. All steel doors are of very thin guage metal and not insulated. No weather stripping. Frost build up and cold air infiltration has deteriorated door surfaces in small Gymnasium and doors do not close properly which is security concern. Wood door and frame surfaces have cracked and warped. No weather stripping. All hardware is original and components are hard to find. Several closers do not operate.

Recommendation:

Replace all exterior wood and steel doors with new insulated steel doors and frames, complete with new hardware (four single leaf and five double leaf steel doors).

Type	Year	Cost	Priority
Failure Replacement	2008	$40,040	High

Updated: APR-08

B2030.03 Large Exterior Special Doors (Overhead) (1962 Section)*

2.74 x 1.82m, four section overhead door in Kitchen Loading Dock; manual lift operation with throw bolt. Standard steel tracks. Outside face of door sections are painted wood and inside faces are lined with galvanized iron. Wood frame.

Rating	Installed	Design Life	Updated
3 - Marginal	1962	30	MAR-08

Event: Replace overhead door in Kitchen loading dock.

Concern:

The original door has exceeded service life. Painted exterior wood surface has cracked and warped. Door sections are not insulated and there is no weather stripping. Wood frame has started to crack and paint peeling.

Recommendation:

Replace overhead door in Kitchen loading dock with new insulated sectional overhead door, complete with weather stripping and steel framing.

Type	Year	Cost	Priority
Failure Replacement	2010	$6,864	Medium

Updated: APR-08

B3010.01 Deck Vapor Retarder and Insulation*

(1958) (1962) Original deck vapor retarder and 50mm rigid insulation in most of the west addition and all of 1962, north addition - recommended to be replaced with new roofing, see B3010.04.01.
(1989) Original deck vapor retarders and rigid insulation were replaced in small Gymnasium and large Gymnasium areas - recommended to be replaced again with new roofing, see B3010.04.01.
(1992) Vapor retarder and 75mm rigid insulation in all of south wing re-roofed area, including the south portion of west (1956) wing.
(1996) Vapor retarder and 75mm rigid insulation in all re-roofed areas.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	25	MAR-08

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

(1958) Original 20 year bonded, R&G built-up roofing in 75% of west wing addition.
(1962) Original built-up roofing in all of 1962, north wing addition.
(1989) Built-up roofing (re-roofed in 1989) in all of small and large Gymnasiums and ancillary areas.
Internal roof drains in all areas.

Rating	Installed	Design Life	Updated
3 - Marginal	0	25	MAR-09

Event: Replace all built-up roofing.

Concern:

Original built roofing in 1956 and 1962 wings have performed well past their service life. Roof leaks have damaged ceilings and walls in both areas of the building. Insulation level is low by current standards. Gravel washed away in 1956 roof and the 1962 roof has several patches from previous repairs.
The 1989 re-roofed areas, above small and large Gymnasiums are also in poor condition. Large air pockets have been observed and roof leaks have been reported. This roof has also exceeded service life.

Recommendation:

Replace all built-up roofing areas with new 2 ply SBS roofing, complete with new insulation (to current standards), vapor retarder and new roof drains.
(Approximate area: 8,100m2 - work can be completed in phases).

Type	Year	Cost	Priority
Failure Replacement	2009	$1,052,480	Medium

Updated: APR-08

B3010.04.04 Modified Bituminous Membrane Roofing (SBS)**

(1992) Original roof in south wing of 1956 and 1958 sections were replaced with 2 ply SBS membrane roofing.
(1996) Original roof in east and middle wings of the 1956 section and in 1968 section of north wing were replaced with 2 ply SBS membrane roofing.
All areas internal roof drains.

Rating	Installed	Design Life	Updated
3 - Marginal	0	25	MAR-08

Event: Repair SBS roof.

Concern:
Roof leaks have been reported above Archives and near Student Services in south wing and in SE corner of the 1968 section. Roof drain above Library roof is high. Air pockets observed in south wing roof. The SBS roof above east bridge has no roof drain which could result in premature deterioration of membrane. Several strainer domes missing from roof drains.

Recommendation:
Cut, repair and patch roof for water leaks, as required. Reset roof drain above Library. Install a roof drain on the roof of east bridge connection.

Type	Year	Cost	Priority
Repair	2009	$17,160	Medium

Updated: APR-08

B3010.09 Roof Specialties and Accessories*

(1956)(1962)(1968) Steel roof ladders to all high parts of roof. One ladder on the roof in Library area has been pulled away from wall and should be re-installed as regular maintenance.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	MAR-08

B3020.01 Skylights**

Two original acrylic bubble skylights on the roof of east Annex bridge. Interior horizontal pane is wired glass.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	25	MAR-09

Event: Replace acrylic skylights.

Recommendation:
Two acrylic skylights.

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$3,000	Unassigned

Updated: MAR-09

B3020.02.03 Roof Windows (Clearstory)

Four clear story glass block windows, on the north wall of large Gymnasium has been sealed with plywood.

Rating	Installed	Design Life	Updated
3 - Marginal	1956	35	MAR-08

Event: Remove plywood and glass blocks. Seal openings

Concern:

Lighting from clearstory glass blocks is no longer required. Opening has been sealed with plywood. Some leaks reported from this area and plywood seal is not energy efficient.

Recommendation:

Remove plywood and glass blocks. Seal openings with prefinished insulated metal panels.

Type	Year	Cost	Priority
Failure Replacement	2009	$11,440	Medium

Updated: MAY-08

S3 INTERIOR

C1010.01 Interior Fixed Partitions (1956, 1958, 1962, 1968Sections)*

(1956)(1958) Majority of interior partitions are hollow clay tiles with 25mm thick lath and plaster - cracks (mostly on second floor) on plaster surfaces indicate minor structure settlement / movement (see also C3010.03). Interior stair walls and Boiler Room walls - cast in place concrete. 150 and 200mm thick concrete block walls in hallways, Gymnasium and basement rooms - crack in block wall in SW portion of 1958 section (IB Office).
(1962)(1968) Concrete block walls in hallways, rated rooms and in loading dock areas. 90mm steel studs and lath and plaster partitions between Classrooms. Concrete interior walls of stairs and basement rooms.
Original walls between classrooms and hallways in all Sections have air transfer grilles and only north wing walls (1962 and 1968 Sections) incorporate fire dampers.

Wood or steel stud partitions have been added over the years to create new rooms in specific areas of upgrading - see C3010.04.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	MAR-08

C1010.01 Interior Fixed Partitions (Staff kitchen, 1980 and 1983 Sections)*

(1962) Wood frame partition with painted plaster finish between Staff Kitchen and Electrical Room in basement of 1962 Section.
(1980) Mezzanine / gallery on the south side of small Gymnasium was enclosed and storage rooms created with wood frame walls and painted plywood.
(1983) Wood frame partition, fully glazed in Office (Languages) on the second floor, SE location of 1958 addition.

Rating	Installed	Design Life	Updated
2 - Poor	0	50	MAR-08

Event: Extend or seal top of partition between Staff Kitchen and Electrical Room to underside of floor slab in basement

Concern:

Existing partition (fire separation) between Staff Kitchen and Electrical Room does not extend to underside of floor slab.
Wood partitions (to create storage spaces in the mezzanine of small Gymnasium) are not fire rated.
The office is located in the fire exit stair lobby, opening directly on to the the exit stair. The wood partition, with large glazed areas, is not rated.

Recommendation:

Extend or seal top of partition between Staff Kitchen and Electrical Room to underside of floor slab in basement of 1962 Section ($2000).
Replace wood partitions in storage spaces with fire rated steel stud walls, complete with fire rated doors in the mezzanine of small Gymnasium ($36,000).
Remove existing partition in Office (224A) on the second floor of the 1958 addition. Re-build with fire rated partition, complete fire rated door ($4,000).

Type	Year	Cost	Priority
Code Repair	2008	$48,048	High

Updated: MAY-08

C1010.03 Interior Operable Folding Panel Partitions**

A large painted wood folding partition in large Gymnasium, on heavy duty steel track, mounted on steel beam. Motor operated.

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	30	MAR-09

Event: Replace Interior Operable Folding Panel Partitions

Recommendation:
Approximately 327m2.

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$610,000	Unassigned

Updated: MAR-09

C1010.04 Interior Balustrades and Screens, Interior Railings*

(1956) Painted metal handrails and balustrades in spectator mezzanine areas of large Gymnasium and in mezzanines, north of Stage.
(1998) Metal handrail and balustrades in mezzanine of Fitness Centre.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	40	MAR-08

C1010.05 Interior Windows*

(1956) Wood frame window with one-way mirror between Drama Teacher's Room and Stage. Wood frame window with wired glass between Administration and Hallway. Painted wood frame window in Library.
(1958) Large wood frame windows with translucent fluted glass on second floor between Lotte Office and Hallway.
(1962)(1968) Wood frame window with intermediate mullions in Teachers' Work Room, Office within Computer Lab., Storage and Communication Studies, Offices in Fashion Studies in north wing. Aluminum frame pass-thru window between Student Union and Hallway.
(1996) Wood frame interior window on subdivided classroom (Hydrotherapy) wall in north wing, second floor.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	80	MAR-08

C1010.06 Interior Glazed Partitions and Storefronts*

(1996) Fully glazed, clear anodized aluminum sliding door partition in Communication Studies in 1968 Section.
(2003) Fully glazed, clear anodized aluminum frame partition between Student Services and Conference Room (main floor, south wing of 1956 section).

Rating	Installed	Design Life	Updated
4 - Acceptable	0	80	MAR-08

C1010.07 Interior Partition Firestopping*

(1956)(1958)(1962)(1968) Majority of walls terminate under concrete floors and roof deck.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	MAR-08

C1020.01 Interior Swinging Doors*

(1956)(1958) Majority of doors are original single leaf, birch veneer clear finish doors on steel frames. Several doors are painted in newer renovated sections (between 1982-1990). Several doors have wired glazing in upper half portion. Many doors incorporate grilles at the bottom. Original hardware. Four sets of of double doors with steel frames and central mullions in large Gymnasium and single pair in small Gymnasium.
(1962)(1968) Majority of doors in north wing are original, painted, single leaf solid core wood on steel frames. Classroom doors with wired glass sidelites and many doors incorporate wired glass in upper half portions. Two section dutch wood door between Hydrotherapy and Classroom with throw bolt.
(2001) New clear finish wood door and frame in Resource Office.

Rating	Installed	Design Life	Updated
3 - Marginal	0	40	MAR-08

Event: Replace solid core wood doors.

Concern:
Doors are nearing the end of their service lives. Veneers of many doors are chipped and cracked. Most classroom door bottoms are stained /damaged. Original hardware in many doors do not function properly.

Recommendation:
Replace approximately 70% of doors, complete with new hardware (220 single leaf doors and 7 double doors: $345,000). Refinish 30% of doors and provide new hardware (110 single leaf doors: $25,000).

Type	Year	Cost	Priority
Failure Replacement	2009	$423,280	Medium

Updated: APR-08

C1020.02 Interior Entrance Doors*

(1956) Main entrance and west large Gymnasium entrance: single leaf, fully glazed, clear anodized aluminum entrance doors on aluminum frames with sidelites and transom. Auto opener was installed at the main entrance in 2001.

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	0	MAR-09

C1020.02 Interior Entrance Doors*

(1956)(1962)(1968) Single leaf, painted hollow metal doors with wired glass in upper half, on steel frames with wired glass sidelites and transom. Most hardware is original. Some newer closers. Automatic openers were installed during barrier free upgrading in 2001.

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	MAR-08

Event: Replace steel interior entrance doors.

Concern:

All steel interior entrance doors are original and past or nearing the end of life cycle. Doors and hardware appear dated and some hardware do not function properly. Frames are damaged at the bottom.

Recommendation:

Replace all interior entrance doors and frames to match with proposed new entrance doors. Provide new hardware. Reuse auto openers.

Type	Year	Cost	Priority
Failure Replacement	2008	$171,600	Medium

Updated: APR-08

C1020.03 Interior Fire Doors*

(1956)(1958)(1962)(1968) Majority of doors in fire separations are original and are solid core wood or hollow metal, on steel frames. Doors and framing with glazing incorporate wired glass. Original hardware. Crawl space access doors are a mixture of hollow core, plywood and solid core wood and hollow metal. Steel frames. No door in crawl space opening under middle stair of north wing.
(1995) Fire/stair doors in basement and main floor of north wing (1962 Section) were replaced with hollow metal doors with wired glass in upper half, on steel frames. Magnetic hold open devices installed in all hallway doors as part of fire code upgrading in 1995.
(2004) Hallway doors in Gymnasium area, second floor, were upgraded, complete with auto openers.

Rating	Installed	Design Life	Updated
2 - Poor	0	50	MAR-09

Event: Replace all doors and frames in fire separations

Concern:

Doors have reached or nearing life expectancy. Most doors are in poor condition and dated. Metal doors are of thin gauge and wood doors are not labeled. Door frames are of old design and not labeled. Most hardware is original, inadequate and many do not function properly. Closers leak and some have been ripped out from door surfaces. Interior doors of the north secondary entrance of the middle wing (also used for barrier free access to the north wing) are equipped with auto openers only. During day, the doors are kept open by duct tapes on buttons. Doors on the NE and NW secondary entrances are equipped with magnetic hold open devices but have no auto openers. Both cases contravene Codes for proper exiting. Math offices on the second floor (west of large Gymnasium) have only one exit.

Recommendation:

Replace all doors and frames in fire separations, including hallway and crawl space doors. Provide new hardware as per code requirements. Reuse auto openers and magnetic hold open devices - redo configuration on doors at all three north secondary entrances to ensure code compliance for exiting (six doors). Provide a new exit door on south end of math offices.
(Approximately 73 single and 17 double leaf doors; 27 hallway separations and 10 crawl space doors).

Type	Year	Cost	Priority
Failure Replacement	2008	$821,392	High

Updated: MAR-09

C1020.04 Interior Sliding and Folding Doors - 1956 Section*

Insulated steel bi-parting sliding door/curtain in Stage - manual operation. Folding accordian door in Custodial Staff Room in basement of 1956 Section.

Rating	Installed	Design Life	Updated
3 - Marginal	1956	25	MAR-09

Event: Replace Stgae door/curtain.

Concern:
The original Stage door/curtain is heavy and hard to move. Counter balance breaks frequently.

Recommendation:
Install light weight insulated folding Stage curtain, motor operated.

Type	Year	Cost	Priority
Preventative Maintenance	2010	$91,520	Low

Updated: MAR-09

C1020.04 Interior Sliding and Folding Doors*

(1996) Aluminum frame sliding glass doors in Communication Studies.
(2003) Aluminum frame sliding glass doors in store front between Student Services and Conference Room on main floor of 1958 Section.

Rating	Installed	Design Life	Updated
5 - Good	0	25	MAR-08

C1020.05 Interior Large Doors - General*

A large steel sliding door with lintel level steel track, located on the second floor in Gymnasium hallway area. Manual operation. Very old design; not functional. This door and the room are not used very much.

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	40	MAR-08

C1020.05 Interior Large Doors - Kitchen/Cafeteria*

Three large stainless steel rolling shutters, complete with stainless steel sills and jambs between Kitchen and hallway of Cafeteria - doors are not in regular use.

Rating	Installed	Design Life	Updated
4 - Acceptable	1985	0	MAR-08

C1020.07 Other Interior Doors*

(1956) Original 1200x900mm wood trap door to Stage floor from small basement Storage (not used). 900x900mm steel grated trap door to small mezzanine in Stage area. Original steel panel, vault type door to Incinerator Room on steel channel frame (not used).
(1996) Circular light trap vestibule and door in Dark Room of Communication Studies in 1968 Section, second floor.

Rating	Installed	Design Life	Updated
4 - Acceptable	1996	0	MAR-08

C1030.01 Visual Display Boards**

(1956)(1958)(1962)(1968) Original green boards only in many Classrooms of 1956 and 1958 Sections; basement Classrooms of 1962 Section and Home Economics (1962 Section) and Communication Studies (1968 Section). A number of Labs., and Classrooms in 1968 and 1962 Sections incorporate large, aluminum frame green boards with vertically sliding sections on chain and tracks; manual operation.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	20	MAR-09

Event: Provide white boards in all Classrooms

Concern:
Green boards are being phased out and many Classrooms in all Sections do not have white boards. Large sectional sliding green boards are heavy for manual operations and most are in disrepair.

Recommendation:
Provide white boards in all Classrooms that do not have white boards as part of modernization. Replace all large green boards with white and green boards.(Total approximately 62).

Type	Year	Cost	Priority
Operating Efficiency Upgrade	2010	$57,200	Low

Updated: MAY-08

C1030.01 Visual Display Boards**

(1995) to (2005) Originally all green boards. White boards installed over the years on as needed basis. In many rooms, installed over existing green boards. White boards installed in majority of Classrooms, Labs., Staff Rooms, Conference, Student Services, CTS, Music Office and Global Gym. Original tack boards in most rooms. New tack boards in Principal, Vice Principal, Administration area, Library, Student Services, Global Gym., and Math Office.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	20	MAR-09

Event: Replace Visual Display Boards

Recommendation:
Approximately 126 white boards and 136 tack boards.

Type	Year	Cost	Priority
Lifecycle Replacement	2020	$196,000	Unassigned

Updated: MAR-09

C1030.02 Fabricated Compartments(Toilets/Showers) - (1956 and 1958 Sections)**

(1956)(1958) 90% of metal toilet partitions and shower stalls are original.

Rating	Installed	Design Life	Updated
2 - Poor	0	30	MAR-08

Event: Replace all original toilet and shower partitions.

Concern:
Partitions are well past their service life and appear dated. Many are dented, loose, broken and have been patched and repaired. No barrier free stalls; a few existing stalls have been modified to accommodate wheelchair but are inadequate.

Recommendation:
Replace all original toilet and shower partitions in 1956, 1958 and 1962 Sections. Provide handicapped stalls. (Approximately 50 toilet partitions, 14 barrier free stalls and 9 shower stalls).

Type	Year	Cost	Priority
Failure Replacement	2008	$122,408	High

Updated: APR-08

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

New metal partitions in Washrooms of north wing (1962 Section). Barrier free stalls provided. New metal partitions in Girls' Washroom on second floor and in basement (Custodians' area) Washroom in 1956 Section.

Rating	Installed	Design Life	Updated
5 - Good	2001	30	MAR-09

Event: Replace toilet partitions.

Recommendation:
Approximately 25 stalls.

Type	Year	Cost	Priority
Lifecycle Replacement	2031	$30,000	Unassigned

Updated: MAR-09

C1030.08 Interior Identifying Devices*

(1956)(1958) Most signs are original cast aluminum. Newer lamicoid signs in washrooms.
(1962)(1968) Mostly lamicoid signs, some cast aluminum.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	20	MAR-08

C1030.10 Lockers**

(1956)(1958) Two tier metal lockers in two sided free standing banks in all Boys' and Girls' Change Rooms of both Gymnasiums.
(1989) Some lockers in Boys' Change Room were replaced.
(1956)(1958)(1961)(1968) Recessed, single tier metal lockers in hallways of all additions and Phs Ed Staff Change Rooms. Lockers on south walls (both floors) of 1956 Section hallways were removed for various recessed display cases in 1987, 1991 and 2001.
All lockers are original.
(2003) Two single tier metal lockers in Resource Officer's area.

Rating	Installed	Design Life	Updated
3 - Marginal	0	30	MAR-09

Event: Replace lockers in all Change Rooms.

Concern:

Lockers in Change Rooms are well past their service life. Doors are bent and surfaces damaged. Lockers are not wide enough to accommodate team gears.

Recommendation:

Replace all lockers in Boys' and Girls' Change Rooms in both Gymnasiums and in Gymnasium Staff Change Rooms (approximately 330 lockers). Provide one bank of wide two tier lockers each in four Change Rooms (approximately 104 lockers).

Type	Year	Cost	Priority
Failure Replacement	2008	$343,200	Low

Updated: APR-08

Event: Replace student lockers in hallways.

Concern:

All metal lockers in hallways are original and well past their service life and appear dated. Doors have been replaced of many lockers. Some are still bent and dented. Old design does not permit adequate ventilation.

Recommendation:

Replace all lockers in hallways of all additions (approximately 2400 lockers). Work can be implemented in phases, starting with 1956 Section.

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$1,825,824	Medium

Updated: MAR-09

C1030.12 Storage Shelving - General*

(1956)(1958)(1961)(1968) Majority of shelves are original painted wood shelving in most Storage, Utility and Janitor Rooms and Teacher Preparation Rooms. Steel shelving in Gym Storage, Supply Storage, Kitchen and Copy Room. Old plywood large paper/poster storage cabinets in Arts Room and Arts Storage. Full height, painted storage cabinets in Science Preparation Room, Home Economics, Classrooms 236 and 238, Science Preparation rooms in basement of 1968 wing and Music Office.
Large wood shelving units for lumber and sheet goods in CTS (under Stage) and in basement Maintenance Storage.
Wood and steel storage shelves have been added over the years on as required basis.

Rating	Installed	Design Life	Updated
3 - Marginal	0	30	MAR-08

Event: Replace storage shelving.

Concern:
Original shelving are dated and many are poorly built with lumber and plywood.

Recommendation:
As part of modernization, it may be necessary to replace or upgrade storage shelving. Additional units may be needed. A budget allowance of $30,000.00 is recommended.

Type	Year	Cost	Priority
Failure Replacement	2009	$34,320	Low

Updated: MAR-08

C1030.12 Storage Shelving*

(1998) Full height, deep wood storage cabinets with lockable diamond mesh doors for instruments storage in Music Room.
(2001) Two tier guitar storage cabinet, clear finish, in small Music Room, stereo cabinet in small Gymnasium and lots of painted book shelves in Book Storage.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	30	MAR-09

C1030.14 Toilet, Bath, and Laundry Accessories*

(1956) to (2000) Washroom accessories have been replaced and added over the years on as needed basis. Items include tissue paper holders (old and newer), plastic or metal paper tower dispensers (old and newer), soap dispensers, air dryers, mirrors, tampon dispensers and waste baskets. Full height dressing mirror in Female Staff Washroom.
(2001) Grab bars added in barrier free stalls and washrooms. Large mirror provided in Girls' Change Room.
.

Rating	Installed	Design Life	Updated
3 - Marginal	0	20	MAR-09

Event: Repair washroom accessories.

Concern:
Older accessories appear dated and are past service life. Several mirror frames have rusted and there are no tilted mirrors for the handicapped.

Recommendation:
As part of modernization, it is recommended that all old accessories be replaced and new accessories added. A budget allowance of $15,000 is recommended.

Type	Year	Cost	Priority
Repair	2009	$17,160	Low

Updated: MAR-09

C1030.17 Other Fittings*

(1990) Large wall mounted mirror in Drama Room.
(1998) Full height mirrors on walls of Fitness Centre.

Rating	Installed	Design Life	Updated
5 - Good	0	0	MAR-08

C2010 Stair Construction*

(1956)(1958) Concrete stairs at all fire exits. Concrete stair from basement in Stage area and from basement Boiler Room. Steel ladder to mezzanine in Stage area and one 7m high steel ladder with cages in Stage rigging area. Concrete steps to Library. Wood steps to Stages in large Gymnasium and Drama Room. Concrete steps in corridor to loading area in Kitchen. Concrete steps and steel ladders to crawl space doors from basement.
(1962)(1968) Three concrete stairs and concrete steps to basement Fan Room. Steel steps with grated steel landing to basement Mechanical room. All in north wing.
(1998) Steel ladder to mezzanine in Fitness Centre in 1956 Section..

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	MAR-08

C2020.02 Terrazzo Stair Finishes*

(1956)(1958) All concrete stairs and landings and concrete steps in Library are finished with terrazzo, complete with non-slip nosing strips - nosing strips are starting to wear.
(1962) The east and central stairs and landings in north wing are finished with terrazzo, complete with carborundum nosing strips..

Rating	Installed	Design Life	Updated
4 - Acceptable	0	80	MAR-08

C2020.05 Resilient Stair Finishes**

Original vinyl tiles were replaced with rubber tile (Mondo) flooring in stair and landings (on the main and second levels) of east stair of north wing (!968 Section).

Rating	Installed	Design Life	Updated
4 - Acceptable	1995	20	MAR-09

Event: Replace rubber tile flooring on east stair of north wing.

Recommendation:
Approximately 80m2.

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$30,000	Unassigned

Updated: MAR-09

C2020.06 Carpet Stair Finishes**

Wooden steps to Stage in Drama Room and concrete stair from basement to Stage area are covered with carpet - carpet on concrete stair is starting to wear.

Rating	Installed	Design Life	Updated
4 - Acceptable	1992	10	MAR-09

Event: Replace carpet in stairs in Drama and Stage.

Recommendation:
Approximately 10m2.

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$1,000	Unassigned

Updated: MAR-09

C2020.08 Stair Railings and Balustrades*

(1956) Painted pipe rail, wall mounted on east stair (#8); wall mounted, stainless steel pipe rails at all other stairs. Painted pipe rails at various steps - should be repainted as regular maintenance. Wall mounted, flat aluminum rails at steps to Library.
(1958) Wall mounted stainless steel pipe railings at both stairs.
(1962)(1968) Wall mounted, vinyl clad, flat metal rails at all three stairs of north wing.
(1998) Painted pipe handrails on steel ladder to mezzanine in Fitness Centre.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	40	MAR-08

C2020.11 Other Stair Finishes*

(1956)(1968) The top level of stair near large Gymnasium (providing access to Gym ceiling area and roof) has concrete hardener. Stained wood steps to the Stage. Concrete stair in Boiler Room and concrete steps to Fan Room are painted. All other concrete steps are trowelled concrete surfaces.
(1998) Concrete filled treads on steel ladder to mezzanine in Fitness Room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1998	0	MAR-08

C2030.01 Ramp Construction*

A wood ramp built for the barrier free evacuation on top floor of west exit stair of north (1962) wing.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	100	MAR-08

C2030.02 Ramp Finishes*

Carpet finish on wood ramp in north wing - carpet is dirty but the ramp is seldom used.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	30	MAR-08

C2030.03 Ramp Railings*

Pipe railing at wooden ramp in north wing.

Rating	Installed	Design Life	Updated
4 - Acceptable	1990	50	MAR-08

C3010.01 Concrete Wall Finishes*

(1956)(1958)(1962)(1968) Basement concrete walls are either bare concrete or painted - see item C3010.11. Painted plaster finish on concrete walls of exit stairs.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	MAR-08

C3010.02 Wall Paneling**

Original painted plywood panels on exterior walls of basement Cafeteria and adjacent Room #8.

Rating	Installed	Design Life	Updated
3 - Marginal	1962	30	MAR-09

Event: Lifecycle Replacement

Concern:
Panels have exceeded service life. Surfaces have been painted several times over the years. Panels appear dated and there are water stains. Insulation behind panels not adequate.

Recommendation:
Replace wall panels in Cafeteria exterior walls, complete with new rigid insulation and strapping (approximately 148m2).

Type	Year	Cost	Priority
Failure Replacement	2011	$23,000	Medium

Updated: MAR-09

C3010.02 Wall Paneling**

(1987)(1991)(2001) Stained oak ply panels below display cases in hallways of south wing.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	30	MAR-09

Event: Replace panels under trophy cases.

Recommendation:
Approximately 178m2.

Type	Year	Cost	Priority
Lifecycle Replacement	2024	$17,000	Unassigned

Updated: MAR-09

C3010.03 Plaster Wall Finishes*

(1956)(1958)(1962)(1968) Majority of original interior walls are finished with 25mm lath and plaster - wall surfaces in many locations are stained or cracked due to past water leaks and structural movements. Plaster surfaces on walls above suspended plaster ceilings in 1956 and 1958 Sections contain asbestos.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	60	MAR-08

C3010.04 Gypsum Board Wall Finishes*

Upgrading in small areas were completed in different locations over the years. Small rooms / offices were created with gypsum board partitions:
(1979)(1986) Renovations to Home Economics and Graphic / Communication Studies in 1968 Section.
(1988) Renovations to General Office area in 1956 Section.
(1990) Modification for Student Services suite in 1956 Section.
(1993) Renovations for Music Room in 1962 Section.
(1998) Renovations to English Social Resources in 1956 Section.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	60	MAR-08

C3010.06 Tile Wall Finishes**

(1956)(1958) 100x200x50mm thick structural ceramic tiles to 2100 height in all hallways, all exit stairs, Staff Change Room, large Gymnasium walls, Boys' and Girls' Washrooms and Boys' and Girls' Change Rooms and Showers of small Gymnasium (full height).
(1962) 25x50mm ceramic mosaic tiles, full height, in west and central stairs of north wing.
(1962)(1968) Spectraglaze tiles to 2100mm height in hallways of main and second levels of north wing.
(2001) 100x100mm ceramic tiles provided behind urinals in washrooms and in the walls of Boys' and Girls' Showers of large Gymnasium (full height). Ceramic tiles in new barrier free washroom of Special Needs area in 1968 Section.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	40	MAR-09

Event: Replace ceramic and mosaic tiles.

Recommendation:
Approximately 877m2.

Type	Year	Cost	Priority
Lifecycle Replacement	2022	$207,000	Unassigned

Updated: MAR-09

C3010.09 Acoustical Wall Treatment **

(1962) East wall of Classroom #001, adjacent to Cafeteria in basement of 1962 Section is covered with batt insulation, burlap and stained wood siding.
(1982) West wall of Art Room (originally Music) was upgraded to include saw toothed west wall surface, made of batt insulation, burlap and stained wood slats.

Rating	Installed	Design Life	Updated
3 - Marginal	0	20	MAR-09

Event: Remove acoustic wall surfaces in Art Room and Classroom #001.

Concern:
Acoustic wall surfaces are in poor condition. Burlaps are stained and torn. Stain on wood surfaces are deteriorating. Acoustic wall surfaces are not needed since functions of the rooms have changed.

Recommendation:
Demolish acoustic wall surfaces in Art Room of 1956 Section and basement Classroom of 1961 Section. Patch wall surfaces as required and finish with painted gypsum boards.

Type	Year	Cost	Priority
Failure Replacement	2009	$6,864	Low

Updated: APR-08

C3010.09 Acoustical Wall Treatment**

(1993) Walls of Music Room (second floor of 1962 Section).
(1998) Fabric covered acoustic wall panels in small Music Room on second floor in 1962 Section.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	20	MAR-09

Event: Replace acoustic panels in Music Rooms.

Recommendation:
Approximately 125m2.

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$21,000	Unassigned

Updated: MAR-09

C3010.11 Interior Wall Painting **

(2001)(2002)(2003)(2004)(2006) Small areas and individual rooms have been repainted on as required basis over the years. Approximately 30% of wall surfaces have been repainted within the past five years.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	15	MAR-09

C3010.11 Interior Wall Painting**

(1980)(1990)(1996)(1998) Approximately 70% of the total painted surfaces are old.

Rating	Installed	Design Life	Updated
3 - Marginal	0	15	MAR-09

Event: Repaint (old painted) wall surfaces of the entire school

Concern:

Old painted surfaces on walls appear dated and contribute to dreary look. There are also many water stained wall surfaces from previous leaks, dirty wall surfaces (specifically in basement areas) and many cracks.

Recommendation:

Repaint (old painted) wall surfaces of the entire school, except areas that were repainted within the last five years. Clean wall surfaces, seal cracks, sand and prepare stained areas before repainting.

Type	Year	Cost	Priority
Preventative Maintenance	2009	$164,736	Medium

Updated: MAY-08

C3010.14 Other Wall Finishes*

(1956)(1958) Brick veneer on walls of secondary and courtyard entrances of 1956 and 1958 sections.
(1996) The walls of basement hallway of the north wing were repainted with Desco acrylic texture coating.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	MAR-08

C3020.01.02 Paint Concrete Floor Finishes*

(1956)(1958)(1962)(1968) Painted concrete floors in most Storage, Utility and Janitor Rooms; Boiler, Mechanical and Fan Rooms, Kitchen loading area and basement Dressing Rooms under the Stage in 1956 Section. Floor paint is original.

Rating	Installed	Design Life	Updated
3 - Marginal	0	10	MAR-08

Event: Repaint concrete floors.

Concern:
All concrete floor paint is original and in poor condition. Painted surfaces are worn and Boiler Room, Mechanical Room floor surfaces are very dusty. Cracks and chipped floor surfaces at many locations.

Recommendation:
Clean and repair concrete floor surfaces. Repaint all concrete floors (approximately 1,800m2).

Type	Year	Cost	Priority
Preventative Maintenance	2009	$51,480	Medium

Updated: APR-08

C3020.02 Tile Floor Finishes**

(2003) Ceramic mosaic tiles in unisex washroom on the main floor of south wing.
(2006) Basement of north wing was flooded and flooring materials were replaced with new porcelain tiles in major spaces, including Cafetria, hallways Science Rooms and Classrooms.

Rating	Installed	Design Life	Updated
5 - Good	0	50	MAR-09

Event: Replace quarry tile and mosaic floor tiles.

Recommendation:
Approximately 1,400m2.

Type	Year	Cost	Priority
Lifecycle Replacement	2056	$390,000	Unassigned

Updated: MAR-09

C3020.02 Tile Floor Finishes**

(1956)(1958)
- 100x100mm quarry tile floors in all Boys' Washrooms, locker areas and washrooms of both Gymnasiums and courtyard entrances of middle wing.
- Ceramic mosaic tile floors in Shower areas, all Staff Washrooms, Girls' locker, Washroom and Shower areas of small Gymnasium; all Girls' Washrooms in 1956 and 1958 Sections, Men and Women Washrooms for custodian staff in the basement of 1956 Section.
(1962)(1968)
- 100x100mm quarry tile floors in Kitchen and in hallway to loading area.
- Ceramic mosaic tiles in Washrooms for Kitchen Staff and all Boys' and Girls' Washrooms in north wing.
All floor tiles are original.

Rating	Installed	Design Life	Updated
3 - Marginal	0	50	MAR-09

Event: Power clean tile joints and quarry tile surfaces

Concern:
Quarry tile floors in all Washrooms and Locker Rooms are old and dirty (unhygienic).
Recommendation:
Power clean tile joints and quarry tile surfaces and seal in all Washrooms and Locker Rooms (555m2).

Type	Year	Cost	Priority
Preventative Maintenance	2009	$129,272	Low

Updated: MAY-08

Event: Replace Kitchen and Washroom floor tiles.

Concern:
- Quarry tile floors in Kitchen and adjacent hallway are original and in poor condition. Tiles are dirty and some have cracked. Tile joints are not sealed and are dirty (unhygienic conditions).

- Ceramic mosaic tiles in the basement Boys' and Girls' Washrooms fo the 1962 Section are broken and damaged, exposing bare concrete substrate around urinals (unhygienic concditions). Replacement tiles will not match existing due to age and wear.
Recommendation:
- Replace quarry tile flooring in Kitchen and adjacent hallway with non-slip epoxy flooring material (217m2).
- Replace ceramic mosaic flooring in basement Boys' and Girls' Washrooms of north wing with porcelain tiles or seamless flooring material (55m2).

Type	Year	Cost	Priority
Failure Replacement	2009	$98,384	High

Updated: APR-08

Event: Replace all quarry tile and ceramic mosaic tile flooring.

Recommendation:

Quarry tile (555m2) and ceramic mosaic tiles (887m2).

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$417,560	Unassigned

Updated: APR-08

C3020.03 Terrazzo Floor Finishes*

(1956)(1958) Terrazzo flooring in all hallways, entrances and lobbies - hair line cracks have developed over the years. Large cracks in hallway of 1956 Section and in Storage/ Staff Change Room under south bleacher should be routed and filled with matching grout as regular maintenance.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	75	MAR-08

C3020.04 Wood Flooring - Small Gym & Lecture Rooms**

- Tiered seating floors in Science Lecture Rooms - wood frame structure and plywood, covered with resilient flooring.
- Maple strip floor on wood sleepers in small Gymnasium. Surface was rebuffed in 2001.

Area: 780m2. Note: Plans to expand the small Gymnasium is now underway which may result in new wood flooring - see K10: Site Issues.

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	30	MAR-09

C3020.04 Wood Flooring - large Gym**

Maple strip wood flooring on wood sleepers in large Gymnasium - last refinished in 1995.

Rating	Installed	Design Life	Updated
3 - Marginal	1956	30	MAR-08

Event: Replace wood floor in large Gymnasium.

Concern:
Wood flooring in large Gymnasium is original and has long exceeded it's service life. This Gymnasium is used very heavily. Wood surface has been sanded and refinished many times over the years and thickness of wood strips have reduced significantly. The floor is wavy, squeaks and has dead spots.

Recommendation:
Replace wood flooring in large Gymnasium, complete with new sub floor construction (1,226m2).

Type	Year	Cost	Priority
Failure Replacement	2010	$400,400	Low

Updated: APR-08

C3020.07 Resilient Flooring **

(1998) Rubber flooring on the main floor of Fitness Centre. Marmoleum flooring in mezzanine of Fitness Centre and Art Room in 1956 Section. Vinyl composite tiles in Social Studies/ English Resource area in South Wing of 1956 Section and in vestibule of Music Room in !962 Section of North Wing.
(2001) Vinyl composite tiles in Science Labs, Student Union Office,Teacher Preparation and Computer Staff Room on the upper floor of North Wing. Vinyl composite tiles in Communication Studies area and a Staff Room, on the second floor of 1968 Section of North wing.
(2004) New vinyl composite tiles in Book Storage near Library and Utility Room on second floor of North Wing, 1968 Section. Marmoleum floor in Hydrotherapy Room and Washroom of Special Needs area in 1968 Section of North Wing.

Rating	Installed	Design Life	Updated
5 - Good	0	20	MAR-09

Event: Replace resilient flooring.

Recommendation:
Rubber flooring - 100m2, marmoleum flooring - 178m2, vinyl composite tile flooring - 897m2.

Type	Year	Cost	Priority
Lifecycle Replacement	2023	$79,000	Unassigned

Updated: MAR-09

C3020.07 Resilient Flooring**

(1956)(1958) Original vinyl asbestos tiles - in Science Rooms, Classrooms, Teacher Preparation and Storage Rooms on the main floor of East Wing and Resource Officer's area and Storage Rooms on the main floor of South Wing; Classrooms, Teacher Preparation, Storage, Off Campus Office, IB Office and International Languages Office on the second floor of West Wing. Custodian Staff's Room, Washroom and Change Rooms in the basement of 1956 Section.
Original battleship linoleum flooring - Head Custodian's Office, Phys Ed Instructor's Office near small Gymnasium; Classrooms, Teacher Preparation and Storage Rooms on the main floor of Middle and West Wings. Classrooms, Teacher Preparation and Storage Rooms on the second floors of East, Middle and South Wings. See also C3020.08 - Carpet Flooring.

(1962)(1968) Original vinyl asbestos tiles - Classrooms and Science/Teacher Preparation Rooms in basement of North Wing. Classrooms, Computer Labs and Special Needs Room in upper floor of North Wing. Classrooms, Sewing/ Fashion Studies Rooms and Offices, Home Economics Rooms and Offices, Music Office and Storage Rooms on the second floor of North Wing.

Rating	Installed	Design Life	Updated
3 - Marginal	0	20	MAR-09

Event: Replace original resilient flooring.

Concern:

- Original vinyl asbestos tiles have long passed their theoretical service life. Tiles appear dull and dated and are curled, broken and joints are separated in several locations. Tiles contain asbestos.
- Original battleship linoleum flooring is dated, curled and seams are tearing. It has served past it's useful service life.

Recommendation:

- Replace all original vinyl asbestos floor tiles (approximately 2,725m2) with marmoleum flooring (estimate of $311,000, includes asbestos removal).
- Replace all original battleship linoleum flooring (approximately 2,330m2) with new marmoleum flooring ($220,000).

Flooring can be replaced in phases.

Type	Year	Cost	Priority
Failure Replacement	2009	$531,000	Medium

Updated: MAR-09

C3020.08 Carpet Flooring**

(1998) Carpet in Phys Ed Intstructors' Office (under south bleacher), Drama Room and Stage (original vinyl asbestos tiles removed), Principal, Vice-Principal Offices and lobby and Administration areas.
(2001) Carpet in Global Gym Room, Drama Teacher's Office, Classroom in east wing and carpet with cushion in small Music Room in north wing.
(2003) Carpet in Book Storage near Library (original vinyl asbestos tiles removed), Sports Therapy Room and Lounge near large Gym and in Math Offices on the second floor of 1956 Section.
(2004) Carpet in Library - original vinyl asbestos tiles removed.
Carpet in Drama Teacher's Office, Math Offices and in Classroom in east wing are installed over existing vinyl asbestos tiles.

Rating	Installed	Design Life	Updated
5 - Good	0	15	MAR-09

C3020.08 Carpet Flooring**

(1991) Carpet in three Classrooms in 1958 Section.
(1993) Carpet in Staff Room and Book Loft in south wing.
(1994) Carpet in Computer area in Book Loft.
(1996) Carpet in Computer Classroom and Office, Hydrothrapy in Special Needs area, all in north wing.
(1998) Carpet in Music Room and Practice Rooms in north wing, Student Record in south wing and Language Lab in middle wing.
Majority of carpet installed over original vinyl asbestos tiles or original linoleum flooring.

Rating	Installed	Design Life	Updated
3 - Marginal	0	15	MAR-09

Event: Replace carpets.

Concern:

Carpet in most cases has exceeded service life and in poor condition (worn, stained, loose joints, torn etc.). In many instances they are laid over original vinyl asbestos tiles and battleship linoleum and not adhered properly.

Recommendation:

Replace old carpet with marmoleum in Classrooms (235m2) and with new carpet in other areas (920m2). Remove original vinyl asbestos tiles and battleship linoleum flooring from underneath existing carpet (950m2).

Type	Year	Cost	Priority
Failure Replacement	2009	$125,000	High

Updated: MAR-09

C3030.01 Concrete Ceiling Finishes*

(1956) Concrete ceilings in Global Gymnasium Room, Fitness Centre, Phys Ed Instructors' Room under south bleacher, Gym Storage Rooms, all Rooms in basement under the Stage area, second floor Mechanical Room, basement Custodian Storage, Maintenance Storage and Boiler Room.
(1962) Concrete ceilings in Storage Rooms under west and central stairs of north wing.
(1968) Concrete ceilings in Utility Room and basement Fan Room in north wing.
Majority of ceilings are painted - see C3030.07 Interior Ceiling painting.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	MAR-09

C3030.03 Plaster Ceiling Finishes*(Acoustic Plaster)

(1956)(1958) Acoustic plaster ceilings on furring channels in all Classrooms, all Science Labs., all hallways of the 1956 and 1958 sections. In addition, acoustic plaster ceilings are located in Art Room, Copy Room, Book Loft and computer area (on rated gypsum board), Storage and Teacher Preparation Rooms, Staff Washrooms, Principal, Vice-Principal and Student Record Rooms, Conference Room, Resource Office and Administration area.
(1962)(1968) Acoustic plaster ceilings in borders of Cafeteria ceiling, hallway ceiling near Cafeteria, two basement rooms and a Teacher Preparation Room. Acoustic plaster sprayed on concrete ceiling in basement Boiler Room in north wing.
Acoustic plaster ceilings contain asbestos. Approximately 45% of the acoustic plaster ceiling areas have been painted between 1994 and 2004; 38% of ceiling is now covered with suspended ceiling tiles (see C3030.06) and under drywall celings at three stairs of north wing; and 17% of ceiling is original exposed acoustic plaster.
(1998) Acoustic Plaster ceilings containing asbestos were removed in Drama Room and Stage.
(2004) Acoustic plaster ceilings containing asbestos were removed in two Math Classrooms on the second floor of south wing.

Rating	Installed	Design Life	Updated
3 - Marginal	0	60	MAR-09

Event: Cover all exposed acoustic plaster ceilings with suspended acoustic ceilings.

Concern:

Exposed asbestos ceilings are a liability. Friable particles in the ceiling can be released in the air and any time anything is attached to ceilings (overhead projectors, conduits etc.), special procedures must be followed, requiring expense and time. Also, original ceilings (unpainted and exposed) make interior appear darker. Over the years, ceilings have been painted in white color (for asbestos abatement and to brighten the interior) and suspended acoustic tiles and gypsum board ceilings have been installed over the years, in various parts, based on availability of funds.

Recommendation:

At minimum, all exposed acoustic plaster ceilings (unpainted and painted) should be be covered with suspended ceiling (approximate area: 4060m2). Ideally, all acoustic plaster ceilings should be demolished - see also F2020.01.

Type	Year	Cost	Priority
Hazardous Materials Abatement	2009	$337,000	High

Updated: MAR-09

C3030.03 Plaster Ceiling Finishes*(Gypsum Lath)

(1956)(1958) Smooth gypsum lath and plaster ceilings on furring channels in all Locker Rooms, all Washrooms, all fire exit stairs and entrance vestibules, Book Storage Rooms (near Library), basement Custodian Storage, Change Room and Washrooms, Sports Lounge and Sports Therapy Rooms near large Gymnasium and majority of Storage, Utility and Janitor Rooms of the 1956 and 1962 Sections - plaster ceilings are painted (see C3030.07, Interior Ceiling Painting). Gypsum plaster ceilings with glued-on, 300x300mm cellulose fibre ceiling tiles in Library and Entrance Annex and stair at the north end of the middle wing of 1956 Section.
(1962)(1968) Smooth gypsum lath and plaster ceilings on furring channels in all Washrooms and Stroage Rooms in north wing - ceilings are painted.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	60	MAR-09

C3030.04 Gypsum Board Ceiling Finishes*

Gypsum board ceiling in Drama and Stage; sprayed texture finish.

Rating	Installed	Design Life	Updated
4 - Acceptable	1998	50	MAR-09

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

Over the years, suspended acoustic tile ceilings were installed in 1956 and 1958 Sections to minimize disturbance to asbestos containing original acoustic plaster ceilings. In 1962 and 1968 Sections (north wing), original ceiling tiles were replaced as part of upgrading of room/area. Summarized, as follows:

(1981) As part of asbestos abatement program, suspended acoustic tile ceilings were installed in all hallways of 1956 and 1958 Sections; main entrance vestibule and large Gymnasium entrance lobby. In addition, suspended ceilings installed in two Offices in 1958 Section (west wing, second floor) and Custodian Staff Room and Washroom areas in basement of 1956 Section.
(1986) Suspended ceilings in Home Economics (Fashion Studies) and Office, 1962 Section (third floor, north wing); Hallway of 1968 Section (third floor, north wing).
(1990) Suspended acoustic tile ceiling in Administration wing.
(1991) Suspended acoustic tile ceiling in Classrooms #115 and #116 in 1958 Section (west wing, main floor).
(1993) Suspended ceiling with decorative acoustic tile in Reception area of Book Loft.
(1996) Suspended acoustic tile ceiling in Hydrotherapy Room in 1968 Section (north wing, second floor) and Classroom #240 (1968 Section, third floor, north wing); suspended ceiling with decorative tiles in Archives in 1956 Section (south wing, main floor).
(1998) Suspended acoustic tile ceiling in Music Room (1962 Section, third floor, north wing).
(2001) Suspended acoustic tile ceilings in Classrooms #3, #5 and Science Room #7 all in 1968 Section (basement, north wing); Science Lab #138 (1968 Section, main floor, north wing), Visual Communication Studies area #241, Special Needs Room #239 and Office all in 1968 Section (third floor, north wing).
(2003) Suspended acoustic tile ceilings in Staff Room #239 and Classroom #211(1956 Section, second floor, south wing); Counseling and Student Services, including small Offices (1956 Section, main floor, south wing), Classroom #120 (1958 Section, main floor, west wing).
(2004) Suspended ceilings in Math Classrooms #207 and #208 (1956 Section, second floor, south wing).

All of the above noted ceiling tiles do not contain asbestos.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	25	MAR-09

Event: Replace acoustic ceiling tiles.

Recommendation:
Approximate area: 4,186m2.

Type	Year	Cost	Priority
Lifecycle Replacement	2018	$189,000	Unassigned

Updated: MAR-09

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

1) (1968) Original suspended acoustic tile ceilings (with no asbestos) are located in Classroom #4, #6 Science Preparation Rooms and Teacher Rooms, all in basemnt, north wing.

2) Original suspended ceilings with random pinhole tiles, containing asbestos are located, as follows:
(1962) Cafeteria (600x600mm tiles) and Science Staff Room in basement of 1962 Section (north wing); all Classrooms, Staff Rooms and Hallway on the main floor of 1962 Section (north wing). Classrooms #230, 232, 236, 238, Music Office and Small Music Room and Hallway on third floor of 1962 Section (north wing).
(1968) Except Science Lab (#138), all Classrooms, Staff Room and Hallway on the main floor of 1968 Section (north wing).
(1979) Home Economics (Food) and Classroom #233 on third floor of 1968 Section (north wing).

Rating	Installed	Design Life	Updated
4 - Acceptable	0	25	MAR-09

Event: Replace acousitc ceiling tiles

Concern:

1) Original acoustic tiles have served well past their service life. Tiles appear dated.
2) Original tiles have served well past their service life, appear dated, and contain asbestos.

Recommendation:

1) Replace original acoustic ceiling tiles with new (approximate area: 235m2).
2) Replace original acoustic ceiling tiles containing asbestos (approximate area; 3034m2).

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$229,000	Medium

Updated: MAR-09

C3030.07 Interior Ceiling Painting*

(1956)(1958)(1962)(1968) All gypsum lath and plaster ceilings and 99% of concrete ceilings are painted.
(1994 to 2004) Over the years exposed acoustic plaster ceilings have been painted as part of asbestos abatement work.

Rating	Installed	Design Life	Updated
3 - Marginal	0	20	MAR-09

Event: Prepare surfaces and repaint lath and plaster ceiling

Concern:
Majority of paint on gypsum lath and concrete ceilings are original. Paint has deteriorated. In many cases surfaces are dirty and are stained with previous water leaks.

Recommendation:
Prepare surfaces and repaint all gypsum lath and plaster ceiling and concrete ceiling surfaces (approximate area: 3,115m2). Library ceiling is recommended to be painted - see C3030.09.

Type	Year	Cost	Priority
Failure Replacement	2010	$27,000	Low

Updated: MAR-09

C3030.09 Other Ceiling Finishes*

Gypsum board ceiling on furring channels with glue-on acoustic tiles in Library. Two layers of stone boards on furring channels with glue-on acoustic tiles in large and small Gymnasiums. Sloped ceilings in large Gymnasium are made of transite boards, containing asbestos, with glue-on acoustic tiles and a portion of the ceiling, near the Stage, is retractable with track lighting for Stage.

Rating	Installed	Design Life	Updated
3 - Marginal	1956	0	MAR-09

Event: Provide new ceiling finishes.

Concern:
Original acoustic (cellulose fiber) tiles are all dirty and appear dated. Tiles in large and small Gymnasiums are falling.

Recommendation:
Provide mineral fiber board ceiling tiles, mechanically fastened to existing ceilings of large and small Gymnasiums (approximate area: 1,630m2). Paint Library ceiling tile surfaces (approximate area: 115m2).

Type	Year	Cost	Priority
Failure Replacement	2010	$148,000	High

Updated: MAR-09

D1010.02 Lifts**

- Lift for the handicapped: One platform lift, RAM Manufacturing Ltd., two persons, 1500 lbs. capacity; travel: main and second floor. Location: south of middle wing of 1956 Section. The shaft was also built in 2001.
- Platform lift in Library: One wheelchair open platform lift with rails to negotiate 1.2m. Drop in floor level.
- Stair climbers: Four stair climbers, located two each on the main and upper levels of west and central stairs of north wing. Model: Concord, Capacity: 227kg.(500lbs), key pad and call buttons - often not useable because of frequent breakdowns.
- Portable chair lift in Drama Room, used for both wheelchair and carrying chairs to the main stage, approximately 1.2m above Drama Room floor. A new door to the Stage was also created in 2001.

Rating	Installed	Design Life	Updated
4 - Acceptable	2001	25	MAR-09

S4 MECHANICAL

D2010.01 Water Closets 1956

Wall hung and floor, flush valve, open front seat (50).

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	35	MAR-07

Event: Replace wataer closets.

Concern:
Water closets are past their service life and dated.

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$168,854	Unassigned

Updated: APR-08

D2010.01 Water Closets 1962

Wall hung, flush valve, open front seat (16).

Rating	Installed	Design Life	Updated
4 - Acceptable	1962	35	MAR-07

Event: Replace water closets.

Concern:
Water closets are past their service life and dated.

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$56,285	Unassigned

Updated: APR-08

D2010.01 Water Closets 1968

Wall hung, flush valve. Added into 1962 addition washroom (7).

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	35	MAR-07

Event: Replace water closet.

Concern:
Water closets are past their service life and dated.

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$23,921	Unassigned

Updated: APR-08

D2010.02 Urinals 1956

Stall urinals, flush tank motion activated solenoid (25).

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	35	MAR-07

Event: Replace urinals.

Concern:
Urinals have exceeded service life, some are chipped and most are dated.

Recommendation:
Replace urinals to match with overall wash room upgrading.

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$168,854	Unassigned

Updated: APR-08

D2010.02 Urinals 1962

Wall hung, flush valve (12).

Rating	Installed	Design Life	Updated
4 - Acceptable	1962	35	MAR-07

Event: Replace urinals.

Concern:
Urinals have exceeded service life, some are chipped and most are dated.

Recommendation:
Replace urinals to match with overall wash room upgrading.

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$42,214	Unassigned

Updated: APR-08

D2010.02 Urinals 1968

Wall hung, flush valve. Added into 1962 addition washroom (8).

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	35	MAR-07

Event: Replace urinals.

Concern:
Urinals have exceeded service life, some are chipped and most are dated.

Recommendation:
Replace urinals to match with overall wash room upgrading.

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$27,017	Unassigned

Updated: APR-08

D2010.03 Lavatories 1956

Wall hung, on/off and spring loaded brass (35).

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	35	MAR-07

Event: Replace lavatories.

Concern:
Lavatories have exceeded service life. Some are chipped and most dated.

Recommendation:
Provide vanity mount stainless steel lavatories with touchless faucets to co-ordinate with washroom modernization.

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$118,198	Unassigned

Updated: APR-08

D2010.03 Lavatories 1962

Wall hung, on/off and spring loaded brass (15).

Rating	Installed	Design Life	Updated
4 - Acceptable	1962	35	MAR-07

Event: Replace lavatories.

Concern:
Lavatories have exceeded service life. Some are chipped and most dated.

Recommendation:
Provide vanity mount stainless steel lavatories with touchless faucets to co-ordinate with washroom modernization.

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$50,656	Unassigned

Updated: APR-08

D2010.03 Lavatories 1968

Wall hung, on/off brass. Added into 1962 addition (9).

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	35	MAR-07

Event: Replace lavatories.

Concern:
Lavatories have exceeded service life. Some are chipped and most dated.

Recommendation:
Provide vanity mount stainless steel lavatories with touchless faucets to co-ordinate with washroom modernization.

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$28,142	Unassigned

Updated: MAR-07

D2010.04 Sinks 1956**

Stainless steel sinks with swing spout (15).

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	30	MAR-07

Event: Replace sinks.

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$25,328	Unassigned

Updated: MAR-07

D2010.04 Sinks 1962**

Stainless steel sinks with swing spout (10).

Rating	Installed	Design Life	Updated
4 - Acceptable	1962	30	MAR-07

Event: Replace sinks.

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$16,885	Unassigned

Updated: APR-08

D2010.04 Sinks 1968**

Stainless steel sinks with swing spout (70).

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	30	MAR-07

Event: Replace sinks.

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$118,198	Unassigned

Updated: APR-08

D2010.04 Sinks 1968**

Stainless steel lab sinks.

Rating	Installed	Design Life	Updated
2 - Poor	1968	30	MAR-07

Event: Replace lab brass, repair leakage.

Concern:
Sink brass missing, brass damaged, drain line leakage.
Recommendation:
Install new brass and repair leaks.

Type	Year	Cost	Priority
Failure Replacement	2008	$49,249	Medium

Updated: APR-08

D2010.05 Showers 1956**

On/off valves control mix valve in student area. Pressure balance valve in instructor's shower.

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	30	MAR-07

Event: Replace showers

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$84,427	Unassigned

Updated: APR-08

D2010.08 Drinking Fountains / Coolers 1956**

Vitreous china, non refrigerated.

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	35	MAR-07

Event: Replace drinking fountains.

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$11,257	Unassigned

Updated: MAR-07

D2010.08 Drinking Fountains / Coolers 1962**

Vitreous china, non refrigerated.

Rating	Installed	Design Life	Updated
4 - Acceptable	1962	35	MAR-07

Event: Replace drinking fountains/coolers

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$8,443	Unassigned

Updated: APR-08

D2010.08 Drinking Fountains / Coolers 1998**

Wall hung, refrigerated.

Rating	Installed	Design Life	Updated
4 - Acceptable	1998	35	MAR-07

D2010.09 Other Plumbing Fixtures 1956*

Raised cast iron sink in janitor rooms. No vacuum breaker on brass.

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	0	MAR-07

Event: Install floor janitor sink.

Concern:
Raised cast iron janitor sinks. No vacuum breaker on brass.
Difficult to empty buckets.
Recommendation:
Install floor sink and new brass.

Type	Year	Cost	Priority
Operating Efficiency Upgrade	2008	$22,514	Medium

Updated: MAR-07

D2010.09 Other Plumbing Fixtures 1962*

Raised cast iron janitor sinks. No vacuum breaker on brass. Difficult to empty buckets.

Rating	Installed	Design Life	Updated
4 - Acceptable	1962	0	MAR-07

Event: Install floor janitor sink

Concern:
Raised cast iron janitor sinks. No vacuum breaker on brass.
Difficult to empty buckets.

Recommendation:
Install floor sink and new brass.

Type	Year	Cost	Priority
Operating Efficiency Upgrade	2008	$22,514	Medium

Updated: MAR-07

D2020.01.01 Pipes and Tubes: Domestic Water 1956*

Copper piping and fittings.

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	40	MAR-07

D2020.01.01 Pipes and Tubes: Domestic Water 1962*

Copper piping and fittings.

Rating	Installed	Design Life	Updated
4 - Acceptable	1962	40	MAR-07

D2020.01.01 Pipes and Tubes: Domestic Water 1968*

Copper piping and fittings.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	40	MAR-07

D2020.01.02 Valves: Domestic Water 1956**

Operation of valves suspect. Many do not hold or operate.

Rating	Installed	Design Life	Updated
3 - Marginal	1956	40	MAR-07

Event: Replace valves.

Concern:
Operation of valves suspect, do not hold or operate.
Recommendation:
Replace valves throughout.

Type	Year	Cost	Priority
Failure Replacement	2008	$28,142	High

Updated: MAR-07

D2020.01.02 Valves: Domestic Water 1962**

Operation of valves suspect. Many do not hold or operate.

Rating	Installed	Design Life	Updated
3 - Marginal	1962	40	MAR-07

Event: Replace valves

Concern:
Operation of valves suspect. Do not hold or operate.
Recommendation:
Replace valves throughout.

Type	Year	Cost	Priority
Failure Replacement	2008	$28,142	High

Updated: APR-08

D2020.01.02 Valves: Domestic Water 1968**

Operation of valves suspect. Do not hold or operate.

Rating	Installed	Design Life	Updated
3 - Marginal	1968	40	MAR-07

Event: Replace valves.

Concern:
Operation of valves suspect. Do not hold or operate.
Recommendation:
Replace valves throughout.

Type	Year	Cost	Priority
Failure Replacement	2008	$14,071	High

Updated: APR-08

D2020.01.03 Piping Specialties (Backflow Preventors)**

In 1956 mechanical room backflow preventors installed on fire lines (valves chained, not monitored); make up line to boilers; water service.

Rating	Installed	Design Life	Updated
4 - Acceptable	2002	20	MAR-07

D2020.01.03 Piping Specialties (Backflow Preventors)**

In 1962 mechanical room backflow preventors installed on fire lines; water service; make up line to condensate receiver, make up water to heating system.

Rating	Installed	Design Life	Updated
4 - Acceptable	2002	20	MAR-07

D2020.02.02 Plumbing Pumps: Domestic Water**

Inline recirculation pump.

Rating	Installed	Design Life	Updated
4 - Acceptable	2002	20	MAR-07

D2020.02.02 Plumbing Pumps: Domestic Water**

Inline recirculation pump.

Rating	Installed	Design Life	Updated
4 - Acceptable	1998	20	MAR-07

D2020.02.06 Domestic Water Heaters**

In 1956 mechanical room two natural draft with flue damper.

Rating	Installed	Design Life	Updated
5 - Good	2004	20	MAR-07

D2020.02.06 Domestic Water Heaters**

In 1962 mechanical room two natural draft with flue damper.

Rating	Installed	Design Life	Updated
5 - Good	2004	20	MAR-07

D2020.03 Water Supply Insulation: Domestic*

Majority of domestic hot, cold recirculation piping insulated.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	40	MAR-07

D2020.03 Water Supply Insulation: Domestic*

Majority of domestic hot, cold recirculation piping insulated.

Rating	Installed	Design Life	Updated
4 - Acceptable	1962	40	MAR-07

D2020.03 Water Supply Insulation: Domestic*

Majority of domestic hot, cold, recirculation piping insulated.

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	40	MAR-07

D2030.01 Waste and Vent Piping 1956*

Cast iron and galvanized drain lines, galvanized vent piping, limited amount of copper piping.

Rating	Installed	Design Life	Updated
3 - Marginal	1956	50	MAR-07

Event: Replace sewer lines.

Concern:
Piping sections have been replaced. Failure imminent.
Recommendation:
Replace sewer lines as required.

Type	Year	Cost	Priority
Failure Replacement	2008	$281,424	Medium

Updated: APR-08

D2030.01 Waste and Vent Piping 1968*

Cast iron and copper.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	50	MAR-07

D2030.01 Waste and Vent Piping*

Kitchen and washroom underground drainage.

Rating	Installed	Design Life	Updated
2 - Poor	1962	50	MAR-07

Event: Clean sanitary sewer piping.

Concern:
Sewer drainage slow.
Recommendation:
Clean sanitary sewer piping.

Type	Year	Cost	Priority
Operating Efficiency Upgrade	2008	$22,514	High

Updated: APR-08

D2030.01 Waste and Vent Piping*

Cast iron and galvanized drain lines, galvanized vent piping, limited amount of copper piping.

Rating	Installed	Design Life	Updated
4 - Acceptable	1962	50	MAR-07

D2030.01 Waste and Vent Piping*

Cast iron underground piping.

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	50	MAR-07

Event: Video underground sewer lines.

Concern:
Existing underground piping varies in age up to 50 years.
Recommendation:
Video underground sewer lines in all sections to determine condition of piping.

Type	Year	Cost	Priority
Preventative Maintenance	2008	$28,142	Medium

Updated: APR-08

D2030.02 Waste Piping Specialties 1956

Solids interceptor in art room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	0	MAR-07

D2030.02 Waste Piping Specialties 1962

Kitchen grease interceptor.

Rating	Installed	Design Life	Updated
4 - Acceptable	1962	0	MAR-07

D2030.02 Waste Piping Specialties 1968

Bottle traps science room sinks.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	0	MAR-07

D2030.03 Waste Piping Equipment 1968*

Two compartment dilution acid sump in fan room. Lift pump discharges waste to sewer.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	30	MAR-07

D2040.01 Rain Water Drainage Piping Systems 1962*

Cast iron piping. Underground drainage.

Rating	Installed	Design Life	Updated
4 - Acceptable	1962	50	MAR-07

D2040.01 Rain Water Drainage Piping Systems 1956*

Cast iron piping. Underground drainage.

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	50	MAR-07

D2040.01 Rain Water Drainage Piping Systems 1968*

Cast iron piping. Underground drainage.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	50	MAR-07

D2040.02.04 Roof Drains 1962*

Full flow, cast iron dome in roof of 1962 addition.

Rating	Installed	Design Life	Updated
3 - Marginal	1962	40	MAR-07

Event: Replace roof drains.

Concern:
Numbers of roof drains inadequate; strainers missing on some drains.

Recommendation:
Replace roof drains with new roofing (4) - see architectural.

Type	Year	Cost	Priority
Repair	2008	$6,754	Medium

Updated: APR-08

D2040.02.04 Roof Drains 1926*

Full flow, cast iron dome in roof of 1956 building.

Rating	Installed	Design Life	Updated
3 - Marginal	1989	40	MAR-07

Event: Replace roof drains.

Concern:
Numbers of roof drains inadequate; strainers missing on some drains.

Recommendation:
Replace roof drains with new roofing (16) - see architectural.

Type	Year	Cost	Priority
Repair	2008	$28,142	Medium

Updated: MAR-07

D2040.02.04 Roof Drains 1958*

Full flow, cast iron dome in roof of 1958 addition.

Rating	Installed	Design Life	Updated
3 - Marginal	1958	40	MAR-07

Event: Replace roof drains.

Concern:
Numbers of roof drains inadequate; strainers missing on some drains.

Recommendation:
Replace roof drains with new roofing (4) - see architectural.

Type	Year	Cost	Priority
Repair	2008	$6,754	Medium

Updated: APR-08

D2040.02.04 Roof Drains 1996*

Full flow, cast iron dome (1968 addition, partial 1956 addition).

Rating	Installed	Design Life	Updated
4 - Acceptable	1996	40	MAR-07

D2040.02.04 Roof Drains South Wing*

Full flow, cast iron dome (south wing).

Rating	Installed	Design Life	Updated
4 - Acceptable	1992	40	MAR-07

D3010.02 Gas Supply Systems 1956*

Gas distribution piping to heating boilers, domestic hot water heaters.

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	60	MAR-07

D3010.02 Gas Supply Systems 1962*

Gas piping to heating boilers, domestic hot water heaters, 1956 boiler room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1962	60	MAR-07

D3010.02 Gas Supply Systems 1968*

Gas supply to lab gas turrets. System de-activated.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	60	MAR-07

D3020.01.01 Heating Boilers & Accessories: Steam 1956**

Three (3) Reliance low pressure steam boilers. Complete with low water cut off, auxiliary low water cut off, pressure relief valve.

Rating	Installed	Design Life	Updated
3 - Marginal	1956	35	MAR-07

Event: Install new heating plant, distribution piping, terminal heating units.- 1956

Concern:

Water leakage, energy inefficient, high maintenance, tube failures, insufficient steam pressure, water levels of boilers differ. Difficult to maintain chemical treatment levels, insufficient heat during cold weather. Frequent blowdown required to reduce scale build up. Chemical treatment level high. Smaller boiler floods due to difference in water levels. Boilers have to be de-energized due to overheating in school.

Recommendation:

Install new hot water heating plant, distribution piping, terminal heating units.

Type	Year	Cost	Priority
Failure Replacement	2008	$3,377,088	High

Updated: APR-08

D3020.01.01 Heating Boilers & Accessories: Steam 1962 **

Two (2) Reliance low pressure steam boilers. Complete with low water cut off, auxiliary low water cut off, pressure relief valve.

Rating	Installed	Design Life	Updated
3 - Marginal	1962	35	MAR-07

Event: Install new heating plant. - 1962

Concern:
Energy inefficient, high maintenance. Frequent blowdown required to reduce scale build up. Chemical treatment level high. Water leakage at plugs.

Recommendation:
Install new hot water heating plant.

Type	Year	Cost	Priority
Failure Replacement	2008	$1,125,696	High

Updated: APR-08

D3020.01.03 Chimneys (&Comb. Air) : Steam Boilers 1962**

Masonry chimney. Motorized dampers installed in combustion air duct. Additional combustion air added to resolve backdraft conditions.

Rating	Installed	Design Life	Updated
4 - Acceptable	1962	35	MAR-07

Event: Replace steam boiler chimney

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$56,285	Unassigned

Updated: APR-08

D3020.01.03 Chimneys (&Comb. Air) : Steam Boilers - 1956**

Masonry chimney.

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	35	MAR-07

Event: Replace steam boiler chimney

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$56,285	Unassigned

Updated: APR-08

D3020.01.04 Water Treatment: Steam Boilers 1956*

Condensate receiver complete with funnel for chemical addition. Chemical injection pump.

Rating	Installed	Design Life	Updated
3 - Marginal	1956	35	MAR-07

Event: Replace condensate tank.

Concern:
Condensate tank corrosion excessive. Failure imminent.
Recommendation:
Replace condensate tank.

Type	Year	Cost	Priority
Failure Replacement	2008	$28,142	High

Updated: APR-08

D3020.01.04 Water Treatment: Steam Boilers 1962*

Condensate receiver complete with funnel for chemical addition. Chemical injection pump.

Rating	Installed	Design Life	Updated
3 - Marginal	1962	35	MAR-07

Event: Replace condenate tank.

Concern:
Condensate tank corrosion excessive. Failure imminent.
Recommendation:
Replace condensate tank.

Type	Year	Cost	Priority
Failure Replacement	2008	$28,142	High

Updated: MAR-07

D3020.02.03 Water Treatment: H. W. Boiler 1962*

Chemical pot feeder, side stream filter on heating system distribution.

Rating	Installed	Design Life	Updated
4 - Acceptable	1962	30	MAR-07

D3020.02.03 Water Treatment: H. W. Boiler 1968*

Chemical pot feeder, side stream filter on heating system distribution.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	30	MAR-07

D3020.05 Auxiliary Equipment: Heat Generation 1962*

Three (3) air cushion expansion tanks.

Rating	Installed	Design Life	Updated
4 - Acceptable	1962	30	MAR-07

D3020.05 Auxiliary Equipment: Heat Generation 1968*

Air cushion expansion tank.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	30	MAR-07

D3030.08 Other Refrigeration Systems*

Kitchen freezer and cooler air cooled. Replaced in 2002.

Rating	Installed	Design Life	Updated
5 - Good	2002	0	MAR-07

D3040.01 Air Distribution Systems

No ventilation provided in various rooms. Art room office, second floor offices adjacent to small gym, hallways, work room office, janitor rooms and others.

Rating	Installed	Design Life	Updated
3 - Marginal	1956	0	MAR-07

Event: Install ventilation in rooms where deficient.

Concern:
No ventilation provided in various rooms. Art room office, second floor offices adjacent to small gym, hallways, work room office, janitor rooms and others.

Recommendation:
Install ventilation in rooms where deficient.

Type	Year	Cost	Priority
Code Upgrade	2008	$56,285	Medium

Updated: APR-08

D3040.01 Air Distribution Systems -1962

Built up air system consists of motorized fresh, return, exhaust air dampers, roll filter bank, steam heating coil, low velocity duct distribution, return air fan.

Rating	Installed	Design Life	Updated
3 - Marginal	1962	0	MAR-07

Event: Indoor Air Quality Upgrade - Kitchen

Concern:
No ventilation provided in various rooms. Kitchen dry goods, kitchen.

Recommendation:
Install ventilation in rooms where deficient.

Type	Year	Cost	Priority
Indoor Air Quality Upgrade	2008	$28,142	Medium

Updated: MAR-07

Event: Replace existing air system.

Concern:
Air bypass occurring on filters. Roll filter access poor for change out. Automobile exhaust drawn into fresh air intake. Damper bushings worn, no seal on dampers, loose and damaged internal insulation.

Recommendation:
Replace existing air system and ductwork distribution with new.

Type	Year	Cost	Priority
Failure Replacement	2008	$351,780	High

Updated: MAR-07

D3040.01.01 Air Handling Units: Air Distribution - 1968**

Built up multi-zone air system consisting of motorized fresh, return, exhaust air dampers, filter bank, steam heating coils, supply fan, low velocity ducted distribution, return fan, face and bypass damper.

Rating	Installed	Design Life	Updated
3 - Marginal	1968	30	MAR-07

Event: Replace existing air system

Concern:
Air bypass occurring on filters. Damper bushings worn, no seal on dampers, loose and damaged internal insulation. Out flow of fresh air to exhaust not adequate.

Recommendation:
Replace existing air system and ductwork distribution with new. Air system could be rooftop or indoor unit.

Type	Year	Cost	Priority
Failure Replacement	2008	$351,780	High

Updated: APR-08

D3040.01.01 Air Handling Units: Air Distribution 1962**

Seven (7) air systems of similar configuration. Built up air systems consist of motorized fresh, return, exhaust air dampers, filter bank, steam heating coil, supply fan, low velocity duct distribution, return air fan. Access to gymnasium air systems poor.

Rating	Installed	Design Life	Updated
3 - Marginal	1956	30	MAR-07

Event: Replace existing air systems.

Concern:
Freeze up of steam coils has occurred. Air bypass occurring on filters. Damper bushings worn, no seal on dampers, loose and damaged internal insulated. Small gym air system de-energized during exams due to noise.

Recommendation:
Replace existing air systems and distribution ductwork with new. Air systems could be rooftop or indoor units.

Type	Year	Cost	Priority
Failure Replacement	2008	$2,462,460	High

Updated: APR-08

D3040.01.02 Fans: Air Distribution*

Circulation fans installed in weight room, computer room loft.

Rating	Installed	Design Life	Updated
4 - Acceptable	1998	30	MAR-07

D3040.01.04 Ducts: Air Distribution 1956*

Low velocity supply air ductwork to air outlets.

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	50	MAR-07

D3040.01.04 Ducts: Air Distribution 1962*

Low velocity supply air ductwork to air outlets. Ducted return air.

Rating	Installed	Design Life	Updated
4 - Acceptable	1962	50	MAR-07

D3040.01.04 Ducts: Air Distribution 1968*

Low velocity supply air ductwork to air outlets. Ducted return air.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	50	MAR-07

D3040.01.07 Air Outlets & Inlets:Air Distribution 1956*

Vary as to type. Round diffusers, linear return air. Several air outlets were installed in 1988 during renovations.

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	30	MAR-07

D3040.01.07 Air Outlets & Inlets:Air Distribution 1962*

Vary as to type. Square diffusers, linear return air.

Rating	Installed	Design Life	Updated
4 - Acceptable	1962	30	MAR-07

D3040.01.07 Air Outlets & Inlets:Air Distribution 1968*

Vary as to type. Square diffusers.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	30	MAR-07

D3040.02 Steam Distribution Systems: Piping/Pumps - 1968**

Low pressure steam and condensate piping to shell and tube heat exchanger. See D3020.01.01 for replacement costs.

Rating	Installed	Design Life	Updated
3 - Marginal	1968	30	MAR-07

D3040.02 Steam Distribution Systems: Piping/Pumps 1956 **

Low pressure steam and condensate piping to three (3) shell and tube heat exchanger. Condensate receiver complete with three (3) condensate pumps. See D3020.01.01 for replacement costs.

Rating	Installed	Design Life	Updated
3 - Marginal	1956	40	MAR-07

D3040.02 Steam Distribution Systems: Piping/Pumps 1962 **

Low pressure steam and condensate piping to two (2) shell and tube heat exchanger. Condensate receiver complete with two (2) condensate pumps. See D3020.01.01 for replacement costs.

Rating	Installed	Design Life	Updated
3 - Marginal	1962	40	MAR-07

D3040.03.01 Hot Water Distribution Systems 1962**

Three (3) base mounted pumps circulate heated water from heat exchangers to radiation, unit ventilators, entrance heaters.

Rating	Installed	Design Life	Updated
4 - Acceptable	1962	40	MAR-07

Event: Replace hot water distribution.

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$84,427	Unassigned

Updated: APR-08

D3040.03.01 Hot Water Distribution Systems 1968**

Two (2) base mount pumps circulate heating water from heat exchangers via black iron piping to radiation and unit ventilators.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	40	MAR-07

Event: Replace hot water distribution.

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$84,427	Unassigned

Updated: MAR-07

D3040.04 Special Exhaust Systems - Science Rooms

Science rooms have five (5) fume hoods connected to common rooftop exhaust fan.

Rating	Installed	Design Life	Updated
2 - Poor	1968	0	MAR-07

Event: Upgrade fume hood exhaust/make up air.

Concern:
Exhaust fan appears grossly over sized for application. Could not determine source of make up air. Unable to activate fume hoods below -5 degrees Celsius. Down draft of boilers occurs. Flexible connection requires replacement.

Recommendation:
Upgrade fume hood exhaust and make up air. Install individual fume hood exhaust fans and make up air unit.

Type	Year	Cost	Priority
Failure Replacement	2008	$196,997	High

Updated: APR-08

D3040.04 Special Exhaust Systems - kiln

Kiln exhaust.

Rating	Installed	Design Life	Updated
2 - Poor	1996	0	MAR-07

Event: Replace exhaust fan.

Concern:
No exhaust and transfer air into kiln room.

Recommendation:
Replace exhaust fan and install transfer air.

Type	Year	Cost	Priority
Failure Replacement	2008	$4,221	High

Updated: APR-08

D3040.04.01 Fans: Exhaust - 1968**

Two (2) dome exhaust fans.

Rating	Installed	Design Life	Updated
3 - Marginal	1968	30	MAR-07

Event: Replace exhaust fans.

Concern:
Fan cover missing.
Recommendation:
Replace exhaust fan.

Type	Year	Cost	Priority
Failure Replacement	2008	$5,628	Unassigned

Updated: APR-08

D3040.04.01 Fans: Exhaust 1956**

Inline internal exhaust fans and dome roof exhaust fans for unit ventilator, general exhaust, washroom exhaust. Fans vary in age depending on renovations.

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	30	MAR-07

Event: Replace exhaust fans

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$42,214	Unassigned

Updated: APR-08

D3040.04.01 Fans: Exhaust**

Five (5) inline interior exhaust fans for kitchen, west washroom, centre washroom, unit ventilator two speed exhaust fans.

Rating	Installed	Design Life	Updated
4 - Acceptable	1962	30	MAR-07

Event: Replace exhaust fans

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$21,107	Unassigned

Updated: APR-08

D3040.04.03 Ducts: Exhaust*

Low velocity ductwork to exhaust air grilles and fans.

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	50	MAR-07

D3040.04.03 Ducts: Exhaust*

Low velocity ductwork to exhaust air grilles and fans.

Rating	Installed	Design Life	Updated
4 - Acceptable	1962	50	MAR-07

D3040.04.03 Ducts: Exhaust*

Exhaust ductwork.

Rating	Installed	Design Life	Updated
3 - Marginal	1956	50	MAR-07

Event: Revise building exhaust.

Concern:
Rooms without plumbing fixtures connected to washroom exhaust fan.

Recommendation:
Install new roof mounted exhaust fan and related ductwork for rooms requiring exhaust with no plumbing fixtures.

Type	Year	Cost	Priority
Code Upgrade	2008	$42,214	Medium

Updated: APR-08

D3040.04.05 Air Outlets and Inlets: Exhaust*

Linear bar grilles. Grilles dust laden.

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	30	MAR-07

D3040.04.05 Air Outlets and Inlets: Exhaust*

Linear bar grilles.

Rating	Installed	Design Life	Updated
4 - Acceptable	1962	30	MAR-07

D3040.05 Heat Exchangers 1962**

Three (3) shell and tube. (unit ventilator; force flo's; cafeteria)

Rating	Installed	Design Life	Updated
4 - Acceptable	1962	30	MAR-07

Event: Replace heat exchanger

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$70,356	Unassigned

Updated: APR-08

D3040.05 Heat Exchangers 1968**

One (1) shell and tube.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	30	MAR-07

Event: Replace heat exchanger

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$2,251	Unassigned

Updated: APR-08

D3050.01.01 Computer Room Air Conditioning Units - Server Room**

Server room temperature excessive.

Rating	Installed	Design Life	Updated
2 - Poor	0	30	MAR-07

Event: Install air conditioning

Concern:
Room temperatures excessive.
Recommendation:
Install air conditioning.

Type	Year	Cost	Priority
Indoor Air Quality Upgrade	2008	$35,178	High

Updated: APR-08

D3050.01.01 Computer Room Air Conditioning Units**

Computer room temperature excessive.

Rating	Installed	Design Life	Updated
2 - Poor	0	30	MAR-07

Event: Install air conditioning

Concern:
Room temperatures excessive.
Recommendation:
Install air conditioning in three (3) computer labs (rooms 125, 136, 206).

Type	Year	Cost	Priority
Indoor Air Quality Upgrade	2008	$126,641	High

Updated: APR-08

D3050.01.04 Unit Air Conditioners**

Window air conditioning units in Administration Wing, several other rooms. Total of fourteen (14).

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	30	MAR-07

D3050.03 Humidifiers**

No humidification.

Rating	Installed	Design Life	Updated
3 - Marginal	0	25	MAR-07

Event: Install humidification

Concern:
No humidification.
Recommendation:
Install humidification for (8) proposed new air systems. Install water softener.

Type	Year	Cost	Priority
Indoor Air Quality Upgrade	2008	$450,278	Medium

Updated: APR-08

D3050.05.01 Convectors**

Steam limited number installed. Cost included in D3040.02.

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	40	MAR-07

D3050.05.02 Fan Coil Units 1962**

Hot water units installed in entrance (4).

Rating	Installed	Design Life	Updated
4 - Acceptable	1962	30	MAR-07

Event: Replace fan coil units

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$28,142	Unassigned

Updated: MAR-07

D3050.05.02 Fan Coil Units 1956**

Steam units installed in entrances. Cost included in D3040.02.

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	30	MAR-07

D3050.05.03 Finned Tube Radiation 1956**

Steam radiation enclosure damaged in some rooms. Limited amount of wall fin installed. Cost included in D3040.02.

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	40	MAR-07

D3050.05.03 Finned Tube Radiation 1962**

Hot water perimeter radiation.

Rating	Installed	Design Life	Updated
4 - Acceptable	1962	40	MAR-07

Event: Replace radiation.

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$112,570	Unassigned

Updated: APR-08

D3050.05.03 Finned Tube Radiation 1968**

Hot water radiation installed in classrooms without unit ventilators and other rooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	40	MAR-07

Event: Replace radiation

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$112,570	Unassigned

Updated: MAR-07

D3050.05.06 Unit Heaters**

Vertical unit heater in stairwell.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	30	MAR-07

Event: Replace unit heaters

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$5,628	Unassigned

Updated: APR-08

D3050.05.07 Unit Ventilators 1956**

Perimeter steam unit ventilators.

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	30	MAR-07

Event: Remove unit ventilators.

Concern:

Unit ventilators de-activated by occupants due to noise. Dampers stick. Poor temperature control. Freeze up of coils has occurred causing floor finish damage. Damper bushings worn, no seal on dampers. Minimum occupant outside air volume not maintained. Inadequate filtration.

Recommendation:

Remove unit ventilators and install new air systems with distribution ductwork. Air systems could be rooftop or indoor units. Propose six (6) air systems.

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$2,110,680	High

Updated: APR-08

D3050.05.07 Unit Ventilators 1962**

Perimeter hot water unit ventilators.

Rating	Installed	Design Life	Updated
4 - Acceptable	1962	30	MAR-07

Event: Replace unit ventilators

Concern:
Unit ventilators de-activated by occupants due to noise. Poor temperature control. Damper bushings worn. Occupant outside air volume not maintained. Inadequate filtration. Cold drafts in winter.

Recommendation:
Remove unit ventilators and install air system with distribution ductwork. Air system could be rooftop of indoor.

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$351,780	High

Updated: APR-08

D3060.02.01 Electric and Electronic Controls - 1989 **

Frequency drives installed for six (6) unit ventilator general exhaust fans.

Rating	Installed	Design Life	Updated
2 - Poor	1989	30	MAR-07

Event: Replace failed frequency drives.

Concern:
Frequency drives failed resulting in poor building pressurization control.

Recommendation:
Replace failed frequency drives.

Type	Year	Cost	Priority
Failure Replacement	2008	$98,498	Unassigned

Updated: APR-08

D3060.02.01 Electric and Electronic Controls -1968**

Electric thermostat cycles entrance unit heater.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	30	MAR-07

Event: Replace electric controls

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$14,071	Unassigned

Updated: APR-08

D3060.02.02 Pneumatic Controls - 1956 Ducting**

Pneumatic thermostats, control valves, damper motors.

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	40	MAR-07

Event: Replace pneumatic controls.

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$211,068	Unassigned

Updated: APR-08

D3060.02.02 Pneumatic Controls -1962 Ducting**

Pneumatic thermostats, control valves, damper motors.

Rating	Installed	Design Life	Updated
4 - Acceptable	1962	40	MAR-07

Event: Replace pneumatic controls.

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$211,068	Unassigned

Updated: APR-08

D3060.02.02 Pneumatic Controls 1956/1962**

Two (2) Simplex air compressor, air dryer, auto drain. Installed in 1962 boiler room and 1956 fan room.

Rating	Installed	Design Life	Updated
5 - Good	2002	40	MAR-07

D3060.02.02 Pneumatic Controls 1968 Ducting**

Pneumatic thermostats, control valves, damper motors.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	40	MAR-07

Event: Replace pneumatic controls

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$281,424	Unassigned

Updated: APR-08

D3060.02.03 Pneumatic and Electric Controls*

Transducers to integrate pneumatic with BMCS.

Rating	Installed	Design Life	Updated
4 - Acceptable	1989	0	MAR-07

D3060.02.04 Self-Powered Controls 1962*

Limited number of Danfoss radiation control valves.

Rating	Installed	Design Life	Updated
2 - Poor	1962	30	MAR-07

Event: Replace failed control valves.

Concern:
Uncontrolled heat due to failed valves.
Recommendation:
Replace failed valves.

Type	Year	Cost	Priority
Failure Replacement	2008	$8,443	High

Updated: APR-08

D3060.02.04 Self-Powered Controls - 1956*

Limited number of Danfoss radiation control valves.

Rating	Installed	Design Life	Updated
2 - Poor	1956	30	MAR-07

Event: Replace failed control valves.

Concern:
Uncontrolled heat due to failed valves.
Recommendation:
Replace failed valves.

Type	Year	Cost	Priority
Failure Replacement	2008	$11,257	High

Updated: APR-08

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

Burke BMCS panels.

Rating	Installed	Design Life	Updated
3 - Marginal	1989	20	MAR-07

Event: Upgrade control panels.

Concern:
BMCS parts not available. Failure imminent.
Recommendation:
Replace panels and install new panels for proposed mechanical upgrades.

Type	Year	Cost	Priority
Failure Replacement	2008	$450,278	High

Updated: APR-08

D3090 Other Special HVAC Systems and Equipment*

Science room fume hoods.

Rating	Installed	Design Life	Updated
5 - Good	2002	0	MAR-07

D4010 Sprinklers: Fire Protection*

Partial wet sprinkler. Installed in basement and main floor stage area.

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	60	MAR-07

D4020 Standpipes*

Wet standpipe to fire hose cabinets.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	100	MAR-07

D4020 Standpipes*

Wet standpipe, fire hose cabinet complete with 40 mm valve, hose and nozzle, ABC fire extinguisher.

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	100	MAR-07

D4020 Standpipes*

Wet standpipe to fire hose cabinets.

Rating	Installed	Design Life	Updated
4 - Acceptable	1962	100	MAR-07

D4030.01 Fire Extinguisher, Cabinets and Accessories -1962*

ABC fire extinguishers installed in fire hose cabinets, wall brackets, cabinets pump tank extinguishers.

Rating	Installed	Design Life	Updated
4 - Acceptable	1962	30	MAR-07

Event: Replace fire extinguishers.

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$5,628	Unassigned

Updated: MAR-07

D4030.01 Fire Extinguisher, Cabinets and Accessories 1956*

ABC fire extinguishers installed in fire hose cabinets, wall brackets, cabinets pump tank extinguishers.

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	30	MAR-07

Event: Replace fire extinguishers

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$5,628	Unassigned

Updated: APR-08

D4030.01 Fire Extinguisher, Cabinets and Accessories 1968*

ABC fire extinguishers installed on wall hooks, in fire hose cabinets.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	30	MAR-07

Event: Replace fire extinguishers

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$2,814	Unassigned

Updated: APR-08

D4090 Other Fire Protection Systems 1962

Kitchen range hood complete with dry chemical fire suppression system.

Rating	Installed	Design Life	Updated
4 - Acceptable	1962	0	MAR-07

D4090 Other Fire Protection Systems 1968

Flammable storage.

Rating	Installed	Design Life	Updated
3 - Marginal	1968	0	MAR-07

Event: Install metal flammable storage.

Concern:
Flammable storage cabinet is wood construction.
Recommendation:
Install metal flammable storage cabinets.

Type	Year	Cost	Priority
Code Upgrade	2008	$4,221	Unassigned

Updated: APR-08

S5 ELECTRICAL

D5010.01 Main Electrical Transformers**

Three 4160 - 120/208volt open style transformers located in vault within the building.

Rating	Installed	Design Life	Updated
3 - Marginal	1967	40	MAR-08

Capacity Size	Capacity Unit
333	kVA

Event: Upgrade Transformers

Concern:
Safety concerns, with an open style transformer, live terminals with no barriers.

Recommendation:
Remove transformers from within the school and replace with a pad mount transformer.

Consequences of Deferral:
These costs are typically covered by the local utility company.

Type	Year	Cost	Priority
Code Upgrade	2008	$11,440	Low

Updated: APR-08

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

(1956) FPE 3000amp 120/208volt 3phase 4wire MDP c/w 1600amp main breaker. (1968) FPE 3000amp 120/208volt 3phase 4wire MDP section.

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	40	MAR-08

Capacity Size	Capacity Unit
3000	amps

Event: Replace Main Electrical Switchboards

Concern:
Main Distribution has gone beyond the manufactures theoretical recommended life expectancy.

Recommendation:
Replace with new.

Consequences of Deferral:
Higher than normal maintenance costs and availability of parts.

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$91,520	Medium

Updated: APR-08

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

(1956) (1968) FPE 24 - 42cct, 100 - 225amp, 120/208volt, 3phase 4wire panels located throughout.
(1987) Commander 42cct, 225amp, 120/208volt, 3phase 4wire panels associated with the 1987 renovation.

Rating	Installed	Design Life	Updated
2 - Poor	0	30	MAR-08

Capacity Size	Capacity Unit
100 - 225	amps

Event: Replace Branch Circuit Panels

Concern:
Most branch circuit panelboards have gone beyond the manufactures theoretical recommended life expectancy. No spaces remaining for any additional circuits. Breakers tripping on overload. Panel directories are missing in most panels.

Recommendation:
Replace with new.

Consequences of Deferral:
Higher than normal maintenance costs and availability of parts.

Type	Year	Cost	Priority
Failure Replacement	2008	$85,800	Medium

Updated: MAR-08

D5010.07.01 Switchboards, Panelboards, and Motor Control Centers**

Cutler-Hammer 120/208volt 2 section, c/w 17 starters controlling mechanical loads

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	30	APR-08

Capacity Size	Capacity Unit
208volt	N/A

Event: Replace MCC

Concern:
MCC has gone beyond the manufactures theoretical recommended life expectancy.

Recommendation:
Replace with new.

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$62,920	Medium

Updated: MAR-08

D5010.07.02 Motor Starters and Accessories**

GE and Canadian Controls loose, 120/208volt wall mounted starters controlling mechanical loads.

Rating	Installed	Design Life	Updated
4 - Acceptable	1967	30	MAR-08

Event: Replace Loose Starters

Concern:
Starters have gone beyond the manufactures theoretical recommended life expectancy.
Recommendation:
Replace with new.

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$22,880	Medium

Updated: APR-08

D5010.07.03 Variable Frequency Drives**

Toshiba and Magnateck VFD's controlling exhaust fans throughout.

Rating	Installed	Design Life	Updated
5 - Good	2001	30	MAR-08

Event: Replace VFD's

Concern:
VFD's have gone beyond the manufactures theoretical recommended life expectancy.
Recommendation:
Replace with new.

Type	Year	Cost	Priority
Lifecycle Replacement	2031	$34,320	Unassigned

Updated: APR-08

D5020.01 Electrical Branch Wiring*

(1956)(1958)(1962)(1968)(1985)(1991)(1995)(2001)(2004) A metallic and flexible conduit system throughout c/w copper conductors.

Rating	Installed	Design Life	Updated
4 - Acceptable	1967	50	MAR-08

D5020.01.03 Wiring Devices

Duplex receptacles throughout c/w S.S. and plastic coverplates. Computer room plugs added in (1988)(1992).

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	0	MAR-08

Event: Install Classroom Receptacles

Concern:

Insufficient classroom receptacles resulting in the use of extension cords, some receptacles are in need of replacement.

Recommendation:

Remove all extension cords and install approximately 4 receptacles per classroom. 200-400 needed.

Consequences of Deferral:

Extensive use of extension cords could result in tripping hazards and /or fire.

Type	Year	Cost	Priority
Program Functional Upgrade	2008	$80,538	Low

Updated: MAR-08

D5020.02.01 Lighting Accessories (Lighting Controls)*

(1956)(1958)(1962)(1968)(2003) Line voltage switching throughout.

Rating	Installed	Design Life	Updated
5 - Good	0	30	MAR-08

D5020.02.02.01 Interior Incandescent Fixtures*

Upgraded to compact PL florescent lamps throughout.

Rating	Installed	Design Life	Updated
5 - Good	2003	30	MAR-08

D5020.02.02.02 Interior Florescent Fixtures**

Upgraded to electronic ballasts and T-5 and T-8 lamps throughout.

Rating	Installed	Design Life	Updated
5 - Good	2003	30	MAR-08

D5020.02.02.03 Interior Metal Halide Fixture*

100watt metal halide low bay fixtures located in the fitness centre.

Rating	Installed	Design Life	Updated
5 - Good	2003	30	MAR-08

D5020.02.03.01 Emergency Lighting Built-in*

Designated fixtures throughout school controlled from EM generator.

Rating	Installed	Design Life	Updated
5 - Good	2003	35	MAR-08

D5020.02.03.02 Emergency Lighting Battery Packs**

Wall mount battery packs c/w integral and remote heads.

Rating	Installed	Design Life	Updated
5 - Good	2003	20	MAR-08

Event: Replace Emergency Lighting Battery Packs

Type	Year	Cost	Priority
Lifecycle Replacement	2023	$4,004	Unassigned

Updated: MAR-08

D5020.02.03.03 Exit Signs*

Upgraded to LED style.

Rating	Installed	Design Life	Updated
5 - Good	2003	30	MAR-08

D5020.03.01.04 Exterior H.P. Sodium Fixtures*

1000watt roof mounted HPS fixtures.

Rating	Installed	Design Life	Updated
4 - Acceptable	1994	30	MAR-08

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

Photo cell controlled exterior lighting.

Rating	Installed	Design Life	Updated
4 - Acceptable	1994	30	MAR-08

D5030.01 Detection and Fire Alarm**

Edwards EST system c/w manual pull stations,smoke/heat/duct detectors, combination horn-strobe signaling devices.

Rating	Installed	Design Life	Updated
5 - Good	1997	25	MAR-08

D5030.02.01 Door Answering*

Push button located at main entrance, rings throughout.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	25	MAR-08

D5030.02.02 Intrusion Detection**

Magnum Alert system c/w motion detectors, door contacts.

Rating	Installed	Design Life	Updated
5 - Good	1998	25	MAR-08

D5030.02.03 Security Access**

Magnum Alert key pads throughout.

Rating	Installed	Design Life	Updated
5 - Good	1998	25	MAR-08

D5030.02.04 Video Surveillance**

Dedicated Micro's head end c/w 16 camera's.

Rating	Installed	Design Life	Updated
5 - Good	2002	25	MAR-08

D5030.03 Clock and Program Systems*

Simplex master clock system .

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	25	MAR-08

Event: **Replace Clock and Program System**

Concern:
Clock and Program System has reached it's theoretical life cycle expectancy, and has been modified to ring bells only.

Recommendation:
Replace with new.

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$51,480	High

Updated: MAR-08

D5030.04.01 Telephone Systems*

Nortel Norstar system c/w hand sets throughout.

Rating	Installed	Design Life	Updated
5 - Good	1999	25	MAR-08

D5030.04.03 Call Systems**

Integrated with phone system.

Rating	Installed	Design Life	Updated
5 - Good	1999	25	MAR-08

D5030.04.04 Data Systems*

Data server rooms c/w data racks, hubs and UPS. Cat 5 and 5e cabling throughout. Fiber optic network installed in 2002.

Rating	Installed	Design Life	Updated
5 - Good	1994	25	MAR-08

D5030.05 Public Address and Music Systems**

Rauland Public Address and Music Systems system located in the sound room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	20	MAR-08

Event: Replace Public Address/Music Syatem

Concern:
System has gone beyond the manufactures theoretical recommended life expectancy.

Recommendation:
Replace with new.

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$8,580	Medium

Updated: APR-08

D5030.06 Television Systems*

Co-ax cabling throughout.

Rating	Installed	Design Life	Updated
4 - Acceptable	1988	20	MAR-08

D5030.07 Other Communications and Security Systems*

Supernet installed.

Rating	Installed	Design Life	Updated
5 - Good	2005	0	MAR-08

D5090.01 Uninterruptible Power Supply Systems**

APC 2200 and a 3000va protecting servers.

Rating	Installed	Design Life	Updated
5 - Good	2002	30	MAR-08

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

Onan 15KW natural gas fired generator.

Rating	Installed	Design Life	Updated
3 - Marginal	1970	35	MAR-08

Capacity Size	Capacity Unit
15	kW

Event: Upgrade Generator

Concern:
Code stipulates generator must have an independent fuel supply. Eg: Diesel fuel supply

Recommendation:
Upgrade fuel supply system to diesel.

Type	Year	Cost	Priority
Code Repair	2008	$17,160	Unassigned

Updated: APR-08

S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION

E1020.02 Library Equipment*

Electronic detection equipment and turn stiles.

Rating	Installed	Design Life	Updated
5 - Good	1996	25	MAR-09

E1020.03 Theater and Stage Equipment*

(1956) Professional stage lighting (including lighting mounted on retractable Gymnasium ceiling) and sound system in Large Gymnasium - stage lighting system was upgraded in 1994 but most components are original.
(2001) Portable sound unit was added in small Gymnasium.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	25	MAR-09

E1020.03 Theater and Stage Equipment*

Stage in large Gymnasium has large curtains and movable folding screen. Curtain is operated by elaborate original counter weight rigging system with steel caged walls 12m high, complete with permanent steel ladders and steel grate platforms - minor modifications to the rigging system were completed in 2003.

Rating	Installed	Design Life	Updated
3 - Marginal	1956	25	MAR-09

Stage counter weight and rigging system.

Event: Upgrade / replace stage curtain rigging system.

Concern:

The original stage curtain operation mechanism appears to be old technology and cumbersome. Most of the time, the counter weight system does not work and immediate remedial measures are very difficult due to the elaborate rigging.

Recommendation:

Upgrade or replace the Stage counter weight system to simplified current standards (budget allowance: $85,000).

Type	Year	Cost	Priority
Operating Efficiency Upgrade	2010	$50,000	Medium

Updated: MAR-09

E1020.05 Audiovisual Equipment*

(1983)(1986)(1990)(1991)(1996)(1998)(2001)(2003) Projection screen with overhead projector and mobile TV in every classroom, Science lab, Computer Lab, Language Lab, Home Economics, Graphic Communication, Global Classroom, Art Room, Drama Room, Music Room, Conference Room, Archives, Book Loft and Library.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	MAR-09

E1020.07 Laboratory Equipment*

(1968) Original eye wash station and first aid station, and counter top plant grow equipment in Science Preparation Rooms (main floor, 1968 Section, north wing).
(1982) Clay kiln for Art (relocated in Arts Storage Room with new exhaust in 1993).
(2000) Fume hoods (replaced or upgraded): Science Lab #104 (east wing, main floor, 1956 Section) and in all four Science labs in basement and main floor of 1968 Section (north wing).
(2001)(2002) Spray wash unit with lexan door, Dark Room equipment and two light tables in Visual Communication Lab (upper floor, 1968 Section, north wing).
(2005) New fume hood in Science Lab #103 (east wing, main floor, 1956 Section).

Rating	Installed	Design Life	Updated
3 - Marginal	0	25	MAR-09

Event: Replace five fume hoods in science lab

Concern:
Eye wash station does not work and most fume hoods are in disrepair due variety of problems such as cracked bottom, gas and sulphuric acid leaks, blowing fuses repeatedly.

Recommendation:
Upgrade or replace five fume hoods in Science Labs and replace eye wash equipment (budget allowance: $102,000.00).

Type	Year	Cost	Priority
Failure Replacement	2010	$102,000	Medium

Updated: MAR-09

E1090.03 Food Service Equipment*

(1962)(1991(1998)(2000)(2002) Cafeteria and Kitchen: full compliment of stainless steel commercial cooking equipment, including deep fryers, gas stoves, hot plates, large exhaust hood, dishwasher unit with belt, plate and trays shelves, fountain drink dispensers, food warming units, hot food trays, snack dispensers, coffee makers.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	25	MAR-09

E1090.04 Residential Equipment*

(1968 to present) Staff Room (south wing): fridge, coffee machine, microwave and water cooler. Kitchenette attached to Social Studies/English Resource(south wing): fridge, microwave coffee machine. English/Social Studies Office and IB Office (west wing): fridge, water cooler, microwave. Conference (south wing): under counter fridge, coffee maker and water cooler. Book Storage adjacent to Library (south wing): under counter fridge. Kitchenette attached to Science Staff Room (north wing): fridge, microwave, toaster, coffee machine. Science Preparation Rooms (north wing): fridge, under counter dishwasher. Computer Staff Room (north wing): fridge, microwave. Graphic Communication Studies (north wing): fridge. Special Needs (CTS) (north wing): fridge, dishwasher, two stoves. Home Economics (food) (north wing): seven stoves with range hoods, four fridges, four microwave ovens. Storage attached to Home Economics: washer and dryer. Home Economics (food) (north wing): two fridges, two stoves with exhaust hoods, microwave. Utility Room (north wing): washer and dryer. Custodian Staff Room (basement): coffee machine, microwave, water cooler. Sports Therapy Room (near large Gymnasium): two fridges, ice making machine.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	25	MAR-09

E1090.07 Athletic, Recreational, and Therapeutic Equipment*

(1968)(1980)(1992)(1998)(2001)(2004) Full compliment of equipment in both Gymnasiums for basketball, volleyball, badminton, floor hockey and gymnastics - see also K20. Full compliment of cardio, weight and other exercise equipment was installed in 1998 in Fitness Centre.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	15	MAR-09

E2010.02 Fixed Casework**

(1956) Wood benches (stained) on metal frames in all Locker Rooms. Original painted wood coat rod and shelves, plywood cabinets, large work tables and wood shelving in basement Costume Storage, Dressing and Prop Making area under the Stage. Attached Kitchenette to English and Social Studies Resources: metal frame painted cabinets, linoleum counter top with sink and metal frame painted cupboards. Custodian Staff Room and storage area (basement, 1956 Section): painted cabinets, linoleum tops with sink and painted cupboards.
(1962) Science Staff Room and attached Kitchenette (basement, north wing): painted cabinets, plastic laminate tops and painted open shelf cupboards. Built-in staff work stations.
(1956)(1958)(1962)(1968) Extensive original built-in millwork items in classrooms and lecture rooms throughout the facility. All are painted wood. Classrooms in 1956 and 1958 Sections typically include: perimeter bookcases incorporating univents with plastic laminate or vinyl tops, painted cabinets or recessed storage cabinets along corridor walls with painted sliding or swing doors. Many classrooms incorporate larger recessed storage units with wood or glass doors - majority are not used in classrooms and covered up with white boards and tack boards. North wing classrooms typically incorporate painted perimeter bookcases or cabinets with plastic laminate tops. Science Labs in east wing (1956 Section) and north wing (1968 Section) typically incorporate fixed large student work stations with painted cabinets, linoleum or plastic laminate tops, power and sinks, and 50% with gas outlets - work stations in two Science Labs in north wing were replaced in 2001. Science Labs and Science Lecture Rooms typically incorporate fixed teacher stations with sink and power outlets, painted cabinets with drawers. Science Labs also include perimeter cabinets with plastic laminate or linoleum tops with sinks and cupboards with open shelving or glass doors. Teacher / Science Preparation Rooms typically incorporate painted cabinets with linoleum or painted tops, painted open shelf cupboards or with glass sliding doors.
(1962) Painted cabinets with open shelving, plastic laminate counter top, under Servery in the Kitchen.
(1979) Home Economics - Food (second floor, north wing): 'U' shaped work stations, plastic laminate tops with sink and power outlets, painted cabinets and cupboards. Painted cabinets, plastic laminate tops with sink and painted cupboards in Storage.
(1980) Perimeter fixed desks and open shelving in Physical Education Staff Room.

Rating	Installed	Design Life	Updated
3 - Marginal	0	35	MAR-09

Event: Replace or repair casework components.

Concern:

(1) Wood benches in Locker Rooms are damaged, worn out and appear dated. Original paint on all millwork in basement Dressing Rooms, closets and washrooms have deteriorated.
(2) Kitchen casework units in Social Studies/ English Resource, Custodian Staff Room, Science Staff Room and Home Economics (Food) #233 are original, damaged and appear very dated. Doors of cabinets cupboards are damaged in Home Economics (Food) #233 and #235.
(3) Original plastic laminate counter tops are damaged in Servery Counter and in cabinet under Servery window.
(4) Built-in teacher work stations in Phys Ed Instructors' and Science Staff are small and dated; some work top surfaces are damaged.
(5) Counter tops of majority of cabinets and casework in Teacher Preparation Rooms in 1956 and 1958 Sections; and except two Science Rooms, all perimeter counter tops in Science Rooms and work tops in Science Preparation Rooms (in all Sections) are original and consist of linoleum, painted surfaces or plastic laminate. Majority of them appear dated and many surfaces are damaged.
(6) All bookcases in 1956 and 1958 Sections are original and appeared to have been repainted many times. Thick coats of paint are damaged and appear dated. Bookcases incorporate univents which are to be abandoned, see Mechanical report. In order to be able to properly seal openings on exterior walls, univents and associated piping should be removed.
(7) Original ceramic wall mounted lavatory sinks in all washrooms - these are to be replaced with stainless steel

sinks, see Mechanical report.
(8) Except two Science Labs in north wing, student and teacher work stations in all Science Labs are original, damaged and dated.

Recommendation:

(1) Replace all wood benches and metal frames in Locker Rooms with new benches of fibreglass or another durable, non-rusting equivalent material. Paint all millwork items in basement Dressing Rooms, closets and washrooms ($86,000).
(2) Replace kitchen units in attached kitchenettes of Social Studies/English Resource and Science Staff Rooms; two in Custodian Staff Rooms and two in Home Economics (Food) #233. Replace doors of cabinets, cupboards and drawer fronts in Home Economics (Food) #233 and 235 ($64,000).
(3) Replace Servery counter with stainless steel and cabinet counter top (under Servery window) with stainless steel counter top ($36,000).
(4) Demolish and rebuild teachers' work stations, complete with drawer units, overhead shelves and dividers with tackable surface in Phys Ed Instructors' Room (13 stations) and Science Staff Room (10 stations) ($46,000).
(5) Replace all original counter tops in classroom cabinets and casework in Teacher Preparation Rooms in 1956 and 1958 Sections. Replace original tops with acid resistant tops in Science Rooms and Science Preparation Rooms in all Sections ($210,000).
(6) As part of modernization, all original bookcases, along perimeter walls of 1956 and 1958 Sections should be replaced - existing univents and piping to be removed and wall surfaces to be repaired (included in B2010.06) ($424,000).
(7) Provide vanities in all washrooms ($101,000).
(8) Except in two Science Labs in north wing, replace all original student and teacher work stations in all Science Labs and teacher work stations in all Science Lecture Rooms ($133,000).

Type	Year	Cost	Priority
Failure Replacement	2010	$1,100,000	Low

Updated: MAR-09

E2010.02 Fixed Casework**

(1956) Library: recessed book shelves (repainted in 1996). Hallways (south wing): Clear finish, recessed oak display cases with sliding glass fronts.
(1962)(1968) Hallways (north wing): recessed display cases with sliding glass fronts and painted shelves. Home Economics - Fashion Studies (second floor, north wing): recessed case with glass doors and peg board for tools. Home Economics - Food (second floor, north wing): Recessed cutlery cabinet with glass doors. Classrooms: perimeter bookshelves, painted with plastic laminate tops.
(1968) Science Labs (north wing): perimeter cabinets with sinks.
(1979) Home Economics - Fashion Studies (second floor, north wing): large central work top surface, plastic laminate, with back to back painted cabinets
(1983) Visual Communication Studies (second floor, north wing): painted cabinets with stainless steel top with sink, painted cupboards. Painted sink cabinet, plastic laminate counter with sink and painted cupboards in storage.
(1986) Perimeter cabinets, painted and plastic laminate tops with sinks and painted cupboards in Classroom #136 (upper floor, north wing). Home Economics - Food (second floor, north wing): painted cabinets, plastic laminate top with sink, painted cupboards.
(1987) Special Needs Classroom #239 (second floor, north wing): Painted cabinets with sink plastic laminate top, painted cupboard. Kitchenette in Staff Common Room: Painted cabinet with plastic laminate counter top with sink, painted cupboard with open shelves.
(1988) Administration (main floor, south wing): Painted cabinets and cupboards, plastic laminate top with sink. Painted cabinets with sliding doors, painted shelves and storage unit in Conference Room. Fabric covered modular reception desk, plastic laminate work top.
(1990) Student Services (south wing, main floor): painted cabinet with plastic laminate top and painted cupboards.
(1991) Kitchenette attached to Room #115 (1956 Section, main floor): painted cabinets with drawers, plastic laminate counter top with sink, painted cupboards.
(1993) Music (second floor, north wing): recessed music instrument storage units, clear finish with diamond mesh doors and painted door frames.
(1996) Library: modular librarian's desk, plastic laminate finish. Hydrotherapy and Barrier Free Washroom #240 (second floor, north wing): prefinished wood cabinets, cupboards, plastic laminate top with sink. Sink cabinet, plastic laminate in washroom. Archives (south wing, main floor): recessed clear finish oak display cabinets, full height, with sliding glass doors.
(1998) Off Campus Office (1958 Section, second floor): Clear fir cabinets with plastic laminate tops and clear fir cupboards. Student Record (1956 Section, main floor, south wing): painted cabinets with drawers and plastic laminate finish counter top. Science Rooms #137 and #138 (upper floor, north wing): perimeter painted cabinets, plastic laminate tops with sinks. Classroom #230 (second floor, north wing): clear finish cabinets and cupboards, plastic laminate top with sink. Small Music Room #232 (second floor, north wing): clear finish string instruments storage racks.
(2000) Small vanities (plastic laminate), each with chrome legs and one stainless steel sink were added to majority of Boys' and Girls' washrooms, as part of barrier free upgrades. Science Lab #103 (east wing, main floor): glass chemical storage units. Sports Therapy Room (main floor, 1956 Section): clear finish cabinets and cupboards, plastic laminate top with sink.
(2001) Reception in Principal / Vice Principal area: modular reception desk, plastic laminate finish. Science Lab #07 (basement, north wing) and Science Room #138 (upper floor, north wing): student work stations with sink cabinets, plastic laminate and painted metal legs. Teacher stations similar. Science Preparation Rooms (basement, north wing): wide stainless steel top work counter with sink and open shelving below for plant growing. Visual Communication Studies (second floor, north wing): large work table, plastic laminate with drawer cabinets; plastic laminate perimeter work counter and plastic laminate counter with clear birch cabinets and cupboards in office. Archives (south wing, main floor): clear finish oak display units.
(2002) Administration (south wing, main floor): upper cabinets, painted.
(2003) Unisex Barrier Free Washroom (south wing, main floor): Plastic laminate vanity with chrome legs. Conference (south wing, main floor): painted sink cabinet with plastic laminate top.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	35	MAR-09

Event: Replace casework.

Recommendation:

(1) Replace original recessed cabinet doors in classrooms and science rooms of 1956 and 1958 Sections:
Lower cabinet doors: approximately 564.
Upper cabinet doors: approximately 345.

(2) Replace cabinets and cupboards: approximately 210m.
(3) Replace cabinets with sinks in Science Rooms and Science Lecture Rooms: approximately 110m.
(4) Replace Kitchen units: approximately 70m.
(5) Replace perimeter bookcases / cabinets in north wing: approximately 138m.
(6) Replace student and teacher work stations in two Science Labs and one Science Lecture Room in north wing: 20 student work stations and 3 teacher work stations.
(7) Miscellaneous: replace vanities: approximately: 12m, replace work top counters: approximately 15m, replace modular reception desks: 3, replace large central work station in Fashion Studies: 1.5mx6m., replace wood storage cabinets: approximately: 14m.

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$1,217,000	Unassigned

Updated: MAR-09

E2010.03.01 Blinds**

(1994) Metal blinds: Book Loft (second floor, south wing).
(1996) Cloth face vertical vinyl louvers in Library and Book Storage.
(1998) Metal blind: interior windows, Computer Labs #125 & #128 (upper floor, north wing). Vinyl vertical lovers: Fitness Centre (1956 Section). Cloth face, vinyl vertical louvers in Music Room (second floor, north wing).
(2001) Metal blinds: interior windows in Administration; International Languages Room #224A (second floor, west wing).
(2003) Cloth face vertical vinyl louvers in Principal and Vice Principal's offices, Student Record; Student Services and three small Offices (main floor, south wing).

Rating	Installed	Design Life	Updated
4 - Acceptable	0	30	MAR-09

Event: Replace blinds.

Recommendation:
Approximately 205m2.

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

Updated: MAR-09

E2010.03.01 Blinds**

(1962) Metal blinds: Resource Officer's Room, Classroom #111 and Storage (main floor, south wing); Teacher's Work Room #125A and Classroom #124 (main floor, north wing). Classrooms ##236 and #238 (second floor, north wing).
(1968) Original metal blinds: Special Needs' Room and Classroom #240 (second floor, north wing).
(1970) Metal blinds: Classroom #219 (middle wing , second floor),

Rating	Installed	Design Life	Updated
3 - Marginal	0	30	MAR-09

Event: Replace original blinds.

Concern:
Original venetian blinds are well past their service life. Most are inoperable and some are broken.

Recommendation:
Replace all original metal venetian blinds with roller shades to match with existing (approximately 98m2).

Type	Year	Cost	Priority
Failure Replacement	2011	$22,000	Medium

Updated: MAR-09

E2010.03.03 Shades*

Deteriorated original black out drapes were replaced over the years in 1956 and 1958 Sections, as follows:
(1993) Roller shades: Classrooms #214, 219 and 229 (second floor, middle wing).
(1994) Roller shades: Computer area near Book Loft (second floor, south wing).
(1997) Roller shades: Phys Ed Staff Office (1956 Section).
(1998) Roller shades: Classrooms #201, 202, 203, 204 (full height), 205 (full height) and 206 (second floor, east wing).
(1999) Roller shades: Classrooms #101(full height), 102 (full height), 103 (full height),104 (full height), 105 (full height), 106 (full height) and two Teacher Preparation Rooms (main floor, east wing). Classrooms #109, Language Lab 110 and Classroom #113 (main floor, middle wing). Classroom #120 and Teacher Preparation room 120A (main floor, west wing).
(2000) Roller shades: Classrooms #209, 210 and 211 (second floor, south wing). Classrooms #204, 221, 222, 224 and 227 (second floor, west wing).
(2001) Roller shades: Visual Communication Lab 241 (second floor, north wing). Sports Lounge (1956 Section). Pleated shades: small offices near Off Campus (second floor, west wing); Room #008 (basement, north wing) and Archives (main floor, south wing).
(2003) Roller Shades: Conference Room 108 (full height) (main floor, south wing).
(2004) Roller shades: Math Classrooms #207 and 208 (second floor, south wing).

(Note: full height roller shades are large and cover glass blocks above windows. They should be resized to cover windows after windows have been replaced and glass blocks removed - see B2020.01.01.05 and B2020.04).

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	MAR-09

E2010.03.06 Curtains and Drapes**

(1956) Original black out drapes: Art Room (second floor, 1956 Section), Classrooms #201, 202 and 206 (second floor, east wing), Copy Room (second floor, south wing), Classrooms # 214, 215, 216, 217, 218 (second floor, middle wing), Classrooms #224, 225, 226, 227, 228 (second floor, west wing), Classrooms #109, 112, 113 and 114 (main floor, middle wing), Classrooms #115, 116, 118, 119, 121, 122 and 123 (main floor, west wing).
(1962) Original dark blue drapes: Classroom #001 and Science Staff Room (basement, north wing). Computer Room #125, Classrooms #127, 128, 129, 130, 131, 132 and 133 (main floor, north wing); Music Office, Small Music Room, Classrooms #230, 233, 235 and Fashion Studies #237 (second floor, north wing).
(1968) Original dark blue drapes: Classroom #004 and Science Lab. #007 (basement, north wing); Classrooms #134, 135, 136 and 138 (main floor, north wing); Classroom #239 (second floor, north wing).
(1993) Shear drapes: Staff Room (second floor, south wing).
(1999) Shear drapes: Classrooms #003 and 005 (basement, north wing).

Rating	Installed	Design Life	Updated
3 - Marginal	0	30	MAR-09

Event: Replace original curtains and drapes.

Concern:

Original black out and dark blue drapes are in poor condition and well past their service life. Drapes are torn, brittle, sun burnt and some are rotted. Black out drapes in 1956 and 1958 Sections are large (covering windows and glass blocks above) and hard to operate. Shear drapes are nearing the end of service life.
Original black out drapes on several windows of 1956 and 1958 Sections deteriorated and removed but were not replaced with new window coverings.
On several windows, large black out drapes remain even after installation of roller shades.

Recommendation:

Replace black out, dark blue and shear drapes with roller shades to match with existing (approximate total area: 594m2). Provide roller shades on windows that do not have any window covering (approximate area: 190m2). Remove black out drapes from windows where roller shades were added (approximately 78m2).
(Note: drape areas are based on assumption that glass blocks, above windows in 1956 and 1958 Sections will be removed - see B2020.04).

Type	Year	Cost	Priority
Failure Replacement	2011	$165,000	Medium

Updated: MAR-09

E2010.05 Fixed Multiple Seating**

Clear finish, fixed wood chairs in north and south mezzanine spectator galleries in large Gymnasium.

Rating	Installed	Design Life	Updated
3 - Marginal	1956	35	MAR-09

Event: Replace specatator gallery seating in large Gymnasium.

Concern:

Fixed wood chairs in the two spectator galleries are original and past service life. Chairs are broken, damaged and generally in poor condition.

Recommendation:

Replace seating in two mezzanine spectator galleries in large Gymnasium (approximately 924 seats).

Type	Year	Cost	Priority
Failure Replacement	2011	$285,000	High

Updated: MAR-09

E2020.02.02 Systems Furniture*

(1991)(1994)(1996)(2001) Plastic laminate finish classroom desks and fibreglass chairs on metal frames, chrome finish, in 15 classrooms - replaced incrementally over the years.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	MAR-09

Event: Replace classroom desks and chairs.

Recommendation:

Approximately 525 desks and chairs sets.

Type	Year	Cost	Priority
Lifecycle Replacement	2016	$63,000	Unassigned

Updated: MAR-09

E2020.02.02 Systems Furniture*

(1956)(1958)(1962)(1968) Classroom integral desks and chairs in 43 classrooms - painted metal frames and clear finish wood chairs and desks, some with book shelves.

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	MAR-09

Event: Replace original classroom desk sets.

Concern:
Original classroom desk and chair sets have served well beyond service life. Majority of them are damaged and some are broken and appear very dated.

Recommendation:
Replace all original classroom desk and chair sets (approximately 1,500 desks and chairs).

Type	Year	Cost	Priority
Failure Replacement	2011	$180,000	High

Updated: MAR-09

F1010.02.05 Grandstands and Bleachers**

Metal frame, wood bench, folding spectator bleachers at north and south ends of large Gymnasium.

Rating	Installed	Design Life	Updated
4 - Acceptable	1956	30	MAR-09

Event: Replace bleachers in large Gymnasium.

Recommendation:
Four bleachers, each with 96 seats.

Type	Year	Cost	Priority
Lifecycle Replacement	2012	$105,000	Unassigned

Updated: MAR-09

F1020.02 Special Purpose Rooms

Dark Room with light trap door (installed in 2001) in Visual Communication Studies area (second floor, north wing).

Rating	Installed	Design Life	Updated
4 - Acceptable	1979	50	MAR-09

F1020.02.04 Cold Storage Rooms*

Prefab walk-in cooler in Kitchen Storage.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	50	MAR-09

F2020.01 Asbestos*

1956 and 1958 Sections
(1) Original acoustic plaster ceiling contains asbestos and is located in approximately 80% of the 1956 and 1958 Sections.

(2) Portions of walls above glass blocks in 1956 and 1958 Sections are treated with acoustic plaster, containing asbestos - wall surfaces are not disturbed.
(3) Original vinyl floor tiles contain asbestos and recommended to be replaced - see C3020.07.
(4) Crawl space contain asbestos debris and asbestos containing pipe insulation and parging materials which are recommended to be replaced - see A2020.
(5) Transite boards behind cellulose ceiling tiles in sloped ceilings of large Gymnasium contain asbestos - boards are not disturbed.

1962 and 1996 Sections:
(1) Acoustic plaster ceilings are located in portions of Cafeteria ceiling and in all three fire exit stairs - see C3030.03.
(2) Original acoustic tiles, containing asbestos in suspended ceilings are located in 1962 Section of the north wing and recommended to be replaced - see C3030.06.
(3) Original vinyl floor tiles in north wing contain asbestos and recommended to be replaced - see C3020.07.

(1981)(1993)(1996) Partial asbestos abatement and removal work were undertaken over the years which included encapsulation of boilers and piping insulation and parging materials, painting of acoustic plaster ceilings, removal of floor tiles and installation of suspended ceilings in 1956 and 1958 Sections.

(1998) Acoustic Plaster ceilings containing asbestos were removed in Drama Room and Stage (1956 Section).

(1999) An Asbestos Building Material Survey Report was completed by PHH Environmental Ltd.

(2004) Acoustic plaster ceilings containing asbestos were removed in two Math Classrooms on the second floor of south wing (1956 Section).

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	MAR-09

Event: Hazardous Materials Abatement

Concern:
(1) Acoustic plaster ceilings: Major mechanical and electrical upgrading work have been proposed and asbestos in acoustic plaster ceilings will become a major impediment to future work, as well as any additional work or maintenance required in the long term.

Recommendation:
(1) Ideally, before any proposed major upgrading is initiated, asbestos containing ceiling materials should be removed from the area. At minimum, acoustic plaster ceilings can be removed from all classrooms, Science Laboratories and Book Loft/Computer Room in 1956 and 1958 Sections. Approximate area: 3,435m2 or $323,000.00 (cost does not include new ceilings or removal of ceilings installed below acoustic plaster). Total area of all acoustic plaster ceilings with asbestos in the building: approximately 6,575m2.

Type	Year	Cost	Priority
Hazardous Materials Abatement	2009	$323,000	Low

Updated: MAR-09

F2020.03 Mercury*

Not known or reported.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	MAR-09

F2020.04 Mould*

Not known or reported.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	MAR-09

S8 FUNCTIONAL ASSESSMENT

K10 Site Issues

1) Parking lots are located on the SE corner and immediately to the north of small Gymnasium.
2) Access roadways: City built a paved access road in 1970's, running east-west along the north side of north wing of the school. It provides access to the City's curling rink and swimming pool from 135 Street.
3) Loading areas: Concrete loading ramp, at NE corner of the school, from the City access road leads to basement loading dock for Cafeteria goods delivery. Loading and delivery of all other school materials are carried out at the secondary access near the north entrance to the two Gymnasiums. This area is reached via an access road along the east building wall of the school and connects to the City's access road to north.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	MAR-09

Event: Miscellaneous site upgrades for vehicular traffic.

Concern:

1) Parking lots: Planning is underway to expand the small Gymnasium north ward, taking up most of the current north staff parking lot. Also, access to the SE staff parking from 135 Street is very difficult and hazardous because it is located very close to the very busy intersection. Cost of $747,000.
2) Access road: City's access road is also used by parents to drop off students (parking lots of curling rink and swimming pool are used as drop-off and turn around points); delivery trucks and school buses. As a result, this road gets extremely busy; and combined with hundreds of students taking short cuts to and from parking lots and the City's bus terminal at north-east corner, there is always the potential for accidents. Stop signs have been added and a resident police officer monitors traffic during rush hour. Exhaust fumes enter basement areas of north wing and vibrations are felt in basement classrooms of the north wing when large vehicles pass by. Also, this road has effectively separated playing fields (located to the north) from the school. No cost associated with action.
3) Loading areas: Ramp is too narrow for large and medium trucks, so the trucks park on the City's access road (on top end of the ramp) blocking all other traffic. Access to the second loading area may be affected due to the proposed expansion of small Gymnasium. Cost of $80,000.

Recommendation:

1) Parking lots: Both concerns could result in creation of a new combined parking lot along the east and south-east. Access roads from 135 Street and 111 Avenue to be located as far away as possible from the busy intersection at SE corner (approximately $747,000.00).
2) Access road: Negotiations are underway with the City to abandon this road and to build a new road for public on the west side of the school from 111 Avenue; no action is required.
3) Provide adequate space for delivery truck parking for Cafeteria goods and re-build the loading area, may be with a scissor lift (budget amount: $80,000.00). No action required for the second loading area until Gymnasium expansion plans are finalized and the new City access road on the west side is confirmed.

City's public access road to community swimming pool and curling rink.

Type	Year	Cost	Priority
Operating Efficiency Upgrade	2013	$827,000	Low

Updated: MAR-09

K20 Program Planning Issues

Music Room was relocated in 1982 from current Art Room, above Drama (due to insufficient space) to the second floor in north wing

Rating	Installed	Design Life	Updated
3 - Marginal	1982	0	MAR-09

Event: Establish scope of work for Music Room sound isolation.

Concern:

Noise / sound transfer from Music Room in north wing second floor to adjacent classrooms is an ongoing concern.

Recommendation:

A detail anayses of the extent of the problem by an acoustic consultant is recommended, together with recommendations and costs. Solution may include an option of addition / expansion of the current Art (original Music) Room for relocation (budget amount for study $10,000.00).

Type	Year	Cost	Priority
Study	2009	$10,000	High

Updated: MAR-09

K20 Program Planning Issues

1) Staff washrooms in north wing are located in the main level; and in 1956 and 1958 Sections they are scattered in small units in south wing.
2) Storage spaces for the two Gymnasiums are located in small Gymnasium and in converted spaces on the second floor, south side of small Gymnasium.

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	MAR-09

Event: Miscellaneous upgrading.

Concern:

1) Staff washrooms are inadequate in north wing. In 1956 and 1958 Sections staff washrooms are marginally adequate.
2) Gymnasium storage spaces are inadequate. Vinyl floor cover for the large Gymnasium floor is rolled and stored in hallway, compromising fire exiting.

Recommendation:

1) Provide full set of male and female staff washrooms in north wing and south wing ($48,000.00).
2) It is expected that additional Gym Storage spaces will be provided with proposed addition to small Gymnasium; no action is required at this time.

Type	Year	Cost	Priority
Program Functional Upgrade	2009	$48,000	Medium

Updated: MAR-09

K4010.01 Barrier Free Route: Parking to Entrance*

Two barrier free stalls are located in north parking lot. Paved and concrete walk access to all entrance doors. Special Needs student use school buses, parked in City's swimming pool lot at the north-west corner. Sidewalk link to entrances. Curb cuts provided.

Rating	Installed	Design Life	Updated
4 - Acceptable	1968	0	MAR-09

K4010.02 Barrier Free Entrances*

West (main) entrance to large Gymnasium is approximately 600mm above grade. The north entrance to Gymnasiums is at grade and used more frequently.

Rating	Installed	Design Life	Updated
3 - Marginal	1956	0	MAR-09

Event: Barrier free access at main (west) Gymnasium entrance.

Concern:

The two Gymnasiums are used after hours by the community. The main entrance has no barrier free ramp and entrance doors are not equipped with auto openers. North entrance is at grade and used more heavily but this could change if the proposed addition to small Gymnasium is realized and a new parking lot is built to the east and south sides - see K10.

Recommendation:

Construct a barrier free ramp at the main (west) Gymnasium entrance. Install auto openers on entrance doors with actuators ($46,000.00).

Type	Year	Cost	Priority
Barrier Free Access Upgrade	2013	$46,000	Low

Updated: MAR-09

K4010.02 Barrier Free Entrances*

(1956)(1958)(1962)(1968) Except courtyard entrances and the main (south) and Gymnasium (west) entrances, all entrances are at grade with minor asphalt stoops. Concrete ramp was added to the main (south) entrance in 2001. Except west Gymnasium entrance, all entrance doors were equipped with auto openers in 2001.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	MAR-09

K4010.03 Barrier Free Interior Circulation*

Special Needs students are accommodated on the east portion of second floor in north wing.

Rating	Installed	Design Life	Updated
2 - Poor	1979	0	MAR-09

Event: Barrier Free Access Upgrade in north wing.

Concern:

Most of the student in Special Needs area require wheelchair and other forms of assistance. Current location is difficult to negotiate. Four stair climbers, on two stairwells were installed in 2001 but stair climbers fail frequently and the students and staff have to negotiate long and indirect path from west wing to the middle wing, where the lift is located, then to north wing. During fire, students are taken to a holding area on the west end of the north wing.

Recommendation:

Add one hydraulic elevator (for wheelchair and goods) in north wing. Cheaper and more practical solution would be to relocate Special Needs area near the north entrance of the west wing.

Type	Year	Cost	Priority
Barrier Free Access Upgrade	2010	$185,000	High

Updated: MAR-09

K4010.03 Barrier Free Interior Circulation*

Major upgrading for barrier free circulation was undertaken in 2000 and 2001. It included installation of a wheelchair lift in the middle wing, platform lifts in Library and Drama Room, new barrier free washrooms and installation of automatic door openers in hallways of the middle wing.
All areas of the 1956 and 1958 Sections are accessible. The north wing (1962 and 1968 Sections) is designed as a split level structure. Access to north wing from older sections, therefore, is not barrier free. In 2001, four stair climbers were added on two levels each, of the west and middle stairs in north wing to provide access for the Special Needs students, located on the east end of the second floor. A wooden ramp was added in 2001, on the second level of west stair for holding area and quick access to the 1956 Section.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	MAR-09

K4010.04 Barrier Free Washrooms*

Boys' and Girls' washrooms throughout the school were upgraded to include a barrier free stall and one vanity at each washroom. A unisex barrier free unit was added on the main floor of the 1956 Section and two in Special Needs area.

Rating	Installed	Design Life	Updated
4 - Acceptable	2000	0	MAR-09

K4010.04 Barrier Free Washrooms*

There no barrier free washrooms for public use.

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	MAR-09

Event: Provide a unisex, barrier free washroom in gym

Concern:

Large and small Gymnasiums are often used after hours by the community. There are no barrier free washrooms for the public.

Recommendation:

Provide a unisex dedicated barrier free washroom in Gymnasium area ($ 8,000.00).

Type	Year	Cost	Priority
Barrier Free Access Upgrade	2010	$8,000	Low

Updated: MAR-09

K4020 Building Code

1) Fitness Centre and CTS area in basement under the Stage are capable of accommodating up to 60 people. CTS area also contains lumber and paint for prop making. Sprinklers were installed in this area in 1995.
2) A Storage/Workshop area for the maintenance staff is located in basement of 1956 Section, adjacent to Custodial Staff Room. Student Union Office is located on second floor of north wing and part of the activity in this area involves poster making and related work, involving spray paint.
3) Crawl space throughout under the 1956 and 1958 Sections are accessible from many areas. Doors to crawl spaces vary in size and materials.

Rating	Installed	Design Life	Updated
2 - Poor	0	0	MAR-09

Event: Miscellaneous fire safety upgrades.

Concern:

1) No direct second exit from Fitness Centre in upper level of large Gymnasium and no direct exit from basement CTS area under Stage.
2) Large amount of flammable / combustible materials are stored in basement of 1956 Section and storage shelves in Student Union Office also contain considerable number of paint spray cans.
3) A lot of discarded furniture, lumber and plastic pales are stored in crawl spaces. In most cases, doors to crawl spaces are not rated.

Recommendation:

1) Add a steel exterior fire escape from Fitness Area, at the SE corner, complete with collapsible lower portion and a new fire exit door ($28,000). Create a short exit corridor in the middle of the basement area under the Stage and an exterior concrete basement fire exit on the east side ($92,000).The two required exits can be combined or separated.
2) Consideration should be given to adding sprinkler system in the basement Storage/Workshop area ($15,000.00). During the mechanical system upgrading of the school, consideration should be given to incorporate manually operated exhaust in Student Union Office during painting activities.
3) Doors and frames to crawl spaces are recommended to be replaced - see C1020.03. Combustible materials should be removed from crawl spaces as maintenance item.

Type	Year	Cost	Priority
Code Upgrade	2009	$135,000	High

Updated: MAR-09