RECAPP Facility Evaluation Report

Medicine Hat High School

B3772A

Medicine Hat

Report run on: January 30, 2006 1:25 PM

Facility Details

Building Name: Medicine Hat High School
Address: 200 - 7 Street S. W.
Location: Medicine Hat

Building Id: B3772A
Gross Area (sq. m): 0.00
Replacement Cost: $61,062,612
Construction Year: 0

Evaluation Details

Evaluation Company: Baird & Bergum Architects
Evaluation Date: December 1 2004
Evaluator Name: Mr. Robert Baird

Total Maintenance Events Next 5 years: **$4,860,000**
5 year Facility Condition Index (FCI): **7.96%**

General Summary:

Medicine Hat High School serves grades 9 to 12. The original, 3,940 sq.m., one story, building was constructed in 1952. A three story, 11,148 sq. m. addition was built to the east of the original building in 1953. Additional third floor space, of 840 sq.m., was added in 1957. In 1962, a separate, 14,471 sq. m., two story building was constructed to the south. The second floor of the 1962 building is connected to the north buildings' second floors by two skywalks, constructed as part of the 1962 building. In 1965 two separate, two story buildings, totaling 2,225 sq.m., were constructed. One, a two story shop building, was connected to the S.W. corner of the original 1952 building. The other, a two story drama/band building, was built in the central area between the north and south buildings and the two skywalks. A 500 sq.m., two story additon, was added to the east side of the 1965 drama/band building in 1993. A small 162 sq.m. one story, expansion to the cafeteria, was built in 2000. The resulting total area of the school is 33,286 sq.m. There has been minor interior renovations and boiler upgrading in 1966/77/78. A small 1981 modenization renovated the 1962 building's cosmetology classroom and replaced flooring in the upper corridors of the 1953/57/62 buildings. The windows in the 1953/57 building were replaced in 1983. There was a boiler replacement in 1988. A 1992/93 major modernization, replaced the 1952 building's exterior doors and windows, and totally renovated the 1952 building's interior into a science area, the 1965 drama/band building's lecture classroom into a theatre in conjunction with an addition. The N.E. washrooms of the 1962 building were also replaced in 1993, with barier free washrooms on both floor levels. In 1998/99 new foods classrooms were created from former, general classroom areas in the 1962 building and the S.E. main floor washrooms, were renovated and made barrier free, and south entry lobby retiled. Major modernizations in 2000 totally renovated the 1962's south gymnasium, adjacent change/shower rooms, cafeteria, and central, main floor corridor. 2001 major renovations were done to the 1953 building's north entry lobby, gymnasium, change/shower rooms, fitness centre and student washrooms. An elevator was also installed. Eventhough some major modernizations have been done, most of the 1953/57and 1962 buildings still have original interior finishes, millwork, doors and hardware, and they should be replaced. An elevator needs to be installed in the 1962 building.

The high school site is mainly covered by buildings and asphalt paved areas. There are landscaped and irrigated grassed areas in front of the north and south buildings, and around the north and west sides of the central drama/band building. Concrete sidewalks, steps and ramps to all, but the north building's main entry, are in acceptable condition. All asphalt areas require resurfacing. The irrigated, grass playing field area is shared by an adjacent elementary school, and the high school's portion is too small. Sections of the chainlink fencing need replacement. Underground mechanical and electrical utilities are supplied by the City and are in acceptable to good condition. Car plug-ins and site lighting are in acceptable condition.

The 1993 and 2000 additons and areas modernized from 1993 to 2001 are in good to excellent condition, the remainder of the school is in poor to marginal condition.

Structural Summary:

The original 1952, one story building has standard concrete foundations and footings, a concrete slab on grade floor, masonry walls, steel columns, beams and steel joists, with structural wood roof decking. The 1953 (1957 top floor addition) building construction is standard concrete foundations and footings, concrete slab on grade, masonry walls, cast-in-place concrete columns, and beams, with cast-in-place concrete floors and roof slabs. The 1953 building has a mechanical service tunnel, constructed of cast-in-place concrete walls, around the slab on grade gymnasium. The gymnasium roof is wood shiplap boards on wood purlins on steel beams supported by steel columns. Adjacent south change room roof is 75mm concrete slab on steel joists, supported by masonry walls. The 1962, two story building has a concrete pile and grade beam foundation, concrete slab on grade main floor, masonry walls, with precast concrete columns, and beams. The floor and roof are precast concrete double tee joists, with concrete topping on the floor joists. In 1965, two separate, two story buildings, were constructed of masonry walls with steel columns, beams and joists. The shop building's second floor is metal decking with concrete topping. The roof is steel joists with wood decking. The 1965 drama/band building has a cast-in-place second floor slab. the roof is steel joists with wood decking. In 1993, a two story addition to the drama/band building was constructed with standard concrete foundations, concrete slab on grade lower floor. The second floor is metal decking and concrete topping, supported by load bearing concrete block walls, steel beams and steel channel floor joists.

It has a steel joist with metal decking roof. In 2000, a small, one story addition was built onto the 1962 building's cafeteria. It is constructed with a standard concrete foundation, slab on grade floor, loadbearing concrete block pony wall with HSS structural steel columns and roof joists, supporting vertical and sloped glass. Overall, the school's building structures are in generally acceptable to good condition.

Envelope Summary:

The original buildings have brick masonry, precast and cast-in-place concrete exteriors with brick and concrete block backup walls. Original wall insulation and vapor barriers are non-existent or poor. Additions in 1993 and 2000 have brick veneer with cavity wall insulation, on air/vapor barrier adhesive, on backup concrete block walls. The windows and doors in the 1952 building were replaced in 1993, with new aluminun doors and windows. Exterior doors, hardware and windows in all of the 1962/65 buildings need replacing. EPDM and BUR reroofing and roof insulation upgrading has been done in 1992-1998. Additional roofing and insulation upgrading needs to be done to the remaining areas of the 1953/1957 and 1962 buildings. Except for recent additions and reroofing, the building envelopes are in marginal to acceptable condition.

Interior Summary:

The interior of the 1952 building was modernized in 1993 into a science area, with porcelain tile flooring in corridors, linoleum in classrooms and suspended T-bar ceilings. The classrooms and prep areas have varnished birch cabinets with acid resistant plastic laminate tops. An enclosed handicapped lift, and two wheelchair platform lifts were installed, in this area and the adjacent building, to improve barrier free access in this part of the school. An additional enclosed lift needs to be installed to provide access to the lower floor. A 1993 addition and modernization, renovated a former 1965 building lecture classroom into a theatre with carpeted concrete risers and a sprung, hardboard, floor level, stage area with adjacent rehearsal and dressing areas. Modernizations in 1993,1998/99, 2000 and 2001 to other areas of the school, renovated the washrooms to provide barrier free access. Most of the washrooms have individual, concrete block toilet closets with porcelain tile floor, ceramic tile wall finishes and birch doors. The totally renovated north and south change/shower rooms have porcelain tile flooring and ceramic tile walls, T-bar ceilings, prefinished steel toilet compartment and lockers. The south gymnasium was extensively renovated in 2000, with a new acoustic metal deck ceiling, vinyl divider curtain, and retracable bleachers. The stage in the north gymnasium was removed and cushioned rubber flooring installed to create an exercise area. The lower floor fitness centre also has cushioned rubber flooring. An enclosed lift was installed to access this area by wheelchairs. The cafeteria and adjacent lobby and corridor have porcelain tile flooring and T-bar ceilings, installed in 2000. Two foods labs were renovated in 1998/99 with porcelain tile flooring, and birch cabinets with plastic laminate countertops. A hydraulic elevator was installed in th 953/57 building to provide barrier free access to all three levels. An additional elevator is required in the two story 1962 building to completely provide barrier free access to the entire school. Most of the other 1953/1957/1962 and 1965 have original finishes, millwork, doors and hardware, all requiring replacement or upgrading.
The interiors in renovated areas are in good to excellent condition. The interiors that are still original, are in marginal condition.

Mechanical Summary:

The school is served by two boiler plants located on the north side of the 1962 addition and in the 1952 original building. The 1952 building plant was replaced in 1988 with two large water tube boilers and a plate and frame heat exchanger for coil isolation. The domestic water boiler was replaced in 1988 as well. The 1962 addition plant was replaced in 1986 and consists of two very large fire tube boilers. The domestic water boiler was built in 1962 and should be replaced.

1952 original building had a major modernization in 1993. New VAV air handler with D/X cooling, VAV air terminals with reheat, perimeter radiation, and an EMCS were all installed. The above grade hydronic heating and plumbing was replaced. Fire protection is provided by fire hose cabinets and fire extinguishers. The mezzanine mechanical room has a wet pipe sprinkler system. The 1952 building is in good condition.

The hydronic plumbing and perimeter heating was replaced in the 1953 addition in 1981. Washrooms and locker rooms were redone in 2000 complete with new fixtures. The air handlers are 1953 vintage and are in need of some repair. The above grade waste plumbing should be replaced as several failures have occurred. The controls system is pneumatic and should be replaced. Fire protection is provided by fire hose cabinets and fire extinguishers.

The 1962 addition has all original equipment excluding the washrooms which were renovated in 2000 and D/X cooling added to the north air handlers. The hydronic heating should be replaced as the piping has failed several times and valves do not work to isolate sections of pipe. The air handlers are located in three plenum rooms which draw return air from the corridors. Return air ductwork should be added to bring this up to code and acoustically insulating the room

would help the noise transfer to the corridor. The control system is pneumatic and should be replaced. Fire protection is provided by fire hose cabinets and fire extinguishers.

The 1965 buildings remain original. HVAC in both buildings is provided by a coiled multizone until located in penthouses. The Drama/Band building has cooling. An addition was constructed to the Drama/Band Building and HVAC is provided by a single zone coiled air handler. The control systems are pneumatic. Fire protection is provided by fire hose cabinets and fire extinguishers.

Overall the mechanical equipment and systems are acceptable.

Electrical Summary:

The school has a high voltage switchgear and is primary metered. There are two main electrical distributions in the 1952 Bld. and the 1962 Add. with sizes of 2000A and 1600A 208V 3ph 4w respectively. The school board office feeder is feed from one of these distributions and is causing voltage drop problems. A new service should be brought into the school board office.

The lighting is T8 fluorescent in the 1952 Bld. with dimming ballasts. The ballasts do not work properly and cause the tubes to burn out prematurely. The ballasts should be replaced. The remainder of the school is mostly lit with T12 fluorescent and magnetic ballasts which should be replaced due to their high energy consumption. The mercury vapour lighting in the 1953 gymnasium should also be replaced. Emergency and exit lighting should also be retrofitted throughout.

Two of the three fire alarm systems should be replaced in the building as parts are no longer available. The clock program system should be replaced as it no longer works properly.

Overall the electrical equipment and systems are marginal.

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*

1950, 1953 1965 1993,2000: Cast-in-place concrete foundation walls on continuous footings. Concrete pad footings under interior columns and strip footings under interior masonry walls, and interior concrete crawlspace and service tunnel walls.

Rating	Installed	Design Life	Updated
5 - Good	0	100	DEC-04

A1020 Special Foundations

1962: "Franki" piles, cast-in-place concrete pile caps and grade beams to south building.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

A1030 Slab on Grade*

Concrete slabs on grade to all the lower floors.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	DEC-04

A2020 Basement Walls*

1953,1965, 1993: North and partial east and west walls are below grade. 1953: Crawlspace and service tunnel below building's west wing. Service tunnel around building's gymnasium and small basement area at east end of gymnasium. Basement walls are cast-in-place concrete.

Rating	Installed	Design Life	Updated
5 - Good	0	100	DEC-04

B1010.01 Floor Structural Frame*(Building Frame)

1953/57: Cast-in-place concrete exterior and interior columns, beams and floor slabs. Concrete slabs have clay tile fillers. 1962: Precast concrete exterior and interior columns,beams and precast double tees floor structure. Skywalks have precast concrete beams and 150mm precast concrete joists. 1965 (Drama/ band building): Steel columns, beams and masonry walls supporting cast-in-place concrete floor slab. 1965: (Shop building): Steel columns, beams and joists. 1993: Concrete block walls, steel beams and steel channel joists.

Rating	Installed	Design Life	Updated
5 - Good	0	100	DEC-04

B1010.02 Structural Interior Walls Supporting Floors*

1953/57: brick masonry stairwell walls. 1993: Concrete block walls.

Rating	Installed	Design Life	Updated
5 - Good	0	100	DEC-04

B1010.03 Floor Decks, Slabs, and Toppings*

1953: 32mm concrete topping on concrete floor slabs. 1962: 50mm lightweight concrete topping on precast concrete double tees. Skywalks have 50mm concrete topping on 50mm rigid insulation on precast concrete double tees. 1965 (Shop building): Metal deck with 75mm concrete topping on steel joists. 1993: Metal deck with concrete topping.

Rating	Installed	Design Life	Updated
5 - Good	0	100	DEC-04

B1010.05 Mezzanine Construction*

1952: Steel columns, beams and joists with wood decking. 1953: masonry walls with wood decking. 1962: Precast concrete columns, beams and double tee joists.

Rating	Installed	Design Life	Updated
5 - Good	0	100	DEC-04

B1010.06 Ramps: Exterior*

2000: Cast-in-place concrete ramps to south 1962 building entry 1993: Cast-in-place concrete ramps to N.W. 1953 building entry. Painted steel pipe handrails and guardrails, to both ramps.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	40	DEC-04

B1010.07 Exterior Stairs*

1962: Concrete steps, with cast iron nosings, to south building's south and east entries. 1965: Concrete steps to drama/band building's north entry. 1993?: Concrete steps to N.W. 1953 building entry. 1993: Painted, steel stairs to upper floor exit door on south side of drama/band building. All: Painted steel pipe handrails and guardrails.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	40	DEC-04

B1020.01 Roof Structural Frame*

1952:Steel columns, beams, and joists, with wood roof decking. 1953: Wood joists, with wood shiplap decking over low administration area. 1953: Steel columns and beams with wood purlins and shiplap decking to gymnasium roof. Masonry walls, steel joists and 75mm concrete roof to change rooms south of gymnasium. 1953/57:Cast-in-place concrete columns, beams, and roof slab, to west and south classroom wings. 1962: Precast concrete columns, beams and double tee roof joists. 1962: Skywalk roofs are 150mm precast concrete slabs supported by precast concrete beams and columns. 1965: Steel columns, beams and joists with wood roof decking. 1993: Load bearing concrete block walls, steel beams and joists with metal, roof decking. 2000: Low, loadbearing concrete block walls, with steel HSS columns,steel beams, steel channel roof joists, and metal decking.

Rating	Installed	Design Life	Updated
5 - Good	0	100	DEC-04

B1020.04 Canopies*

1962: Precast concrete columns, beams and roof joists to south entry and N.W. entry canopies. 1965: Steel columns, beams and steel angles with 40mm wood decking.

Rating	Installed	Design Life	Updated
5 - Good	0	100	DEC-04

B1020.06 Roof Construction Fireproofing*

1993: Fire retardant coating sprayed on underside of wood roof decking, in 1965 drama/band building. 1993: Intumescent paint sprayed to underside ofwood decking in 1952 building, prior to suspended T-bar ceiling installation.

Rating	Installed	Design Life	Updated
5 - Good	0	100	DEC-04

S2 ENVELOPE

B2010.01.01 Precast Concrete: Exterior Wall Skin*

1962: Exposed precast concrete columns and beams.

Rating	Installed	Design Life	Updated
5 - Good	0	75	DEC-04

B2010.01.02.01 Brick Masonry: Ext. Wall Skin*

1952,1953/57,1962, 1965, 1993, 2000: Brick exterior.

Rating	Installed	Design Life	Updated
5 - Good	0	75	DEC-04

B2010.01.06.03 Metal Siding*

1993: Prefinshed metal siding on north and west walls of roof penthouse.

Rating	Installed	Design Life	Updated
5 - Good	0	40	DEC-04

B2010.01.08 Portland Cement Plaster: Ext. Wall*

1965: Roof penthouse - Stucco exterior finish.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	75	DEC-04

B2010.01.09 Expansion Control: Exterior Wall Skin*

1962: Joints between precast concrete components.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

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

1962: Caulked expansion joints between precast concrete components and around windows abutting precast concrete.

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	DEC-04

Event: Recaulk control joints.

Concern:
Precast concrete component's control joint and window perimeter caulking is missing and/or deteriorated.

Recommendation:
Recaulk control joints.

Type	Year	Cost	Priority
Repair	2005	$5,400	Low

Updated: February 23 2005

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

1952: Painted, cast-in-place concrete below windows. 1953,1965,1993: Exposed portion of lower floor foundation/basement walls.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	DEC-04

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

1952: 90mm brick exterior with 90mm brick interior. 1953: 90mm brick exterior, 90mm concrete block backup, and 90mm brick interior wall to gymnasium. 1953/57: Classroom wings - 90mm brick exterior, 90mm clay tile backup, 90mm brick interior wall, and 190 brick exterior, 90mm clay tile with 19mm wood lath and 22mm plaster interior finish. 1962 and 1965: 90mm brick exterior, 25mm insulation,90mm brick interior wall. 1962: Skywalk walls are 90mm brick exterior, 90mm block, 25 insulation and 90mm brick interior wall. 1993: 90mm brick exterior, air space, 64mm insulation, air barriier adhesive on 190mm concrete block interior wall.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	DEC-04

B2010.02.05 Wood Framing*: Ext. Wall Const.

1965: Roof penthouse - Stucco with metal lath over wax paper on 13mm plywood on 38x89 wood studs with 50mm batt insulation, gypsum board interior finish. 2000: Small, horizontal strip of acrylic stucco on metal lath on building paper on 13mm plywood on wood studs, above sloped glass cafeteria addition.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	DEC-04

B2010.02.99 Other Exterior Wall Construction*

2000: Metal studs with 13mm gypsum board, steel girts and 50mm semi-rigid insulation, 10mm OSB sheathing, building paper and acrylic stucco finish, to upper wall above sloped glass cafeteria addition.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

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

1952,1953,1957: No wall insulation or air/vapor barriers. 1962,1965: 25mm rigid insulation in masonry wall cavities. No air/vapor barriers. 1962: 25mm insulation on inside face of concrete grade beams. 1993: 64mm semi-rigid insulation with air/vapor barrier adhesive on concrete block backup wall. and 64mm semi-rigid insulation on foil faced gypsum board on metal studs to penthouse walls with metal siding. 2000: 50mm semi-rigid insulation with air/vapor barrier adhesive on concrete block backup, lower wall. 50mm semi-rigid insulation with air/vapor barrier adhesive on gypsum board, upper wall

Rating	Installed	Design Life	Updated
4 - Acceptable	0	20	DEC-04

B2010.06 Exterior Louvers, Grilles, and Screens*

1953/57: Galvanized steel channels, horizontal sunscreen louvres mounted above windows on all floors, in west and south walls. 1962: Precast concrete louvres, supported by precast concrete columns and beams above first and second floor windows in south wall.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	20	DEC-04

B2010.09 Exterior Soffits*

1962: Exposed, precast concrete double tees. 1965: Painted wood, (repainting less than $1,000).

Rating	Installed	Design Life	Updated
4 - Acceptable	0	20	DEC-04

B2020.01.01.01 Steel Windows*

1965: Two, single glazed, painted steel windows in drama/band building.

Rating	Installed	Design Life	Updated
3 - Marginal	0	20	DEC-04

Event: Replace two, small steel windows.

Concern:
Painted steel frame is not thermally broken and windows have only single glazing.

Recommendation:
Replace two, small steel windows.

Type	Year	Cost	Priority
Energy Efficiency Upgrade	2007	$2,160	Low

Updated: February 23 2005

B2020.01.01.02 Aluminum Windows*-1952 Building

1993: Fixed and awning units with sealed, doubled glazing, in thermally broken frames in 1952 building

Rating	Installed	Design Life	Updated
5 - Good	0	35	DEC-04

B2020.01.01.02 Aluminum Windows*-1953/57 Building

1983: Double glazed horizontal sliders in thermally broken, aluminum frames in classrooms, vertical sliders in corridors and fitness room of 1953/1957 building. Insulated, aluminum panels with baked enamel finish above.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	35	DEC-04

B2020.01.01.02 Aluminum Windows*-1962 Building

1962: Sealed (~6mm air space), double glazing, and insulated aluminum panels, with baked enamel finish, in non-thermally broken aluminum frames. Fixed and opening casement units.

Rating	Installed	Design Life	Updated
2 - Poor	0	35	DEC-04

Event: Replace windows.

Concern:
Windows leaks, frames are not thermally broken, sealed glazing is failing (condesation in glass cavity). Hardware is worn and replacement parts are difficult to obtain.

Recommendation:
Replace windows with fixed, sealed glazing, internal blinds and interior sash, in thermally broken aluminum frames. Mechanical ventilation and cooling to be installed, (see mechanical report) to eliminate need for opening units, (approx. 400 windows).

Type	Year	Cost	Priority
Failure Replacement	2005	$540,000	Low

Updated: February 23 2005

B2020.01.01.05 Wood Windows*

1965: Large, west window in drama/band building.

Rating	Installed	Design Life	Updated
3 - Marginal	0	20	DEC-04

Event: Replace wood window.

Concern:
Wood is deteriorated and window is only single glazing.

Recommendation:
Replace large, wood window with a fixed, sealed, double glazed unit in a thermally broken aluminum frame. Remove and dispose of deteriorated wood, louvred sunscreen, which is covering window.

Type	Year	Cost	Priority
Failure Replacement	2007	$5,400	Low

Updated: February 23 2005

B2020.02.02 Steel-Framed Storefronts

1965: Original painted steel frames and sidelights with single glazing to drama/band building entries. 1981: Painted steel frames and sidelights with sealed double glazing and insulated metal panels to 1953 building entries..

Rating	Installed	Design Life	Updated
4 - Acceptable	0	35	DEC-04

B2020.03 Glazed Curtain Wall*

2000: Vertical and sloped, sealed double glazing in thermally broken, aluminum frames, to cafeteria addition.

Rating	Installed	Design Life	Updated
5 - Good	0	35	DEC-04

B2030.01.01 Aluminum-Framed Storefronts*

1962: Sealed, double glazing, and insulated aluminum panels, with baked enamel finish, in non-thermally broken aluminum frames to south entry.

Rating	Installed	Design Life	Updated
N/A	0	30	DEC-04

Event: Replace storefront.

Concern:
Sealed glazing is failing (condensation problems), and aluminum frames are not thermally broken.

Recommendation:
Replace storefront.

Type	Year	Cost	Priority
Failure Replacement	2005	$6,480	Low

Updated: February 23 2005

B2030.01.10 Wood Entrance Door*

1962: Painted wood doors with vision panels, in aluminum frames. panic hardware and closers. 1965: Painted wood doors with vision panels, in painted steel frames. panic hardware and closers.

Rating	Installed	Design Life	Updated
2 - Poor	0	30	DEC-04

Event: Replace wood doors, aluminum frames, and hardware.

Concern:
Doors are chipped, split and damaged. Hardware is worn and high maintence to keep operatonal. Aluminum frames are structurally weakened, and have been reinforced with steel plates and bolts. Poor appearance for both doors and frames.

Recommendation:
Replace wood doors, aluminum frames, and hardware, (27 doors and hardware, 10 aluminum frames).

Type	Year	Cost	Priority
Failure Replacement	2005	$43,200	Low

Updated: February 23 2005

B2030.02 Exterior Utility Doors*

All buildings: Painted wood and metal in painted steel frames.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

B2030.03 Large Exterior Special Doors*-1962

1962: Industrial arts shops have electric motor operated, overhead, sectional wood doors, with glass vision panels and swinging man doors cut into them. 1965: Manually operated, overhead, sectional wood doors.

Rating	Installed	Design Life	Updated
2 - Poor	0	30	DEC-04

Event: Replace overhead sectional doors.

Concern:
Wood doors are badly deteriorated, of poor insulation value and drafty. Tracks are worn. Replacement part are unavailable. Electric motor operators are high maintenance.

Recommendation:
Replace four, electric motor operated shop doors and two manually, chain operated overhead doors with insulated, prefinished steel, sectional, overhead doors.

Type	Year	Cost	Priority
Failure Replacement	2005	$27,000	Low

Updated: February 23 2005

B2030.03 Large Exterior Special Doors*-1993

1993: One, wood overhead sectional door, in 1962 building automotive repair shop, was replaced with a prefinished, insulated steel, sectional door and new electric motor operator in 1993.

Rating	Installed	Design Life	Updated
5 - Good	0	20	DEC-04

B2030.05 Other Exterior Doors*-Aluminum

1993: Aluminum doors with sealed, double glazing in upper half and lower half has sealed double glazing or insulated aluminum panels, in aluminum frames, in entries to 1952 building and 1993 addition to 1965 drama/band building. Panic hardware and closers. 1995: Aluminum doors with sealed, double glazing in upper half and lower half has insulated aluminum panel, in painted steel frames to entries in 1953 building. Panic hardware and closers,

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

B2030.05 Other Exterior Doors*-Wood

1953: Large,wood clad swinging doors in east wall of storage area behind former stage location, repainting required, (less than $1,000).

Rating	Installed	Design Life	Updated
4 - Acceptable	0	20	DEC-04

B3010.01 Deck Vapor Retarder and Insulation*

1953: Original roofs have 25mm rigid insulation, vapor barrier unknown. 1992 EPDM reroofing of some 1953 building areas have 75mm rigid insulation on two ply, asphalt coated felts, vapor barrier. 1993/1995 BUR reroofing to 1952 and 1965 buildings, and 1993 addition roof have 75mm rigid insulation plus 13mm fiberboard, two layers of asphalt coated kraft paper, vapor barrier. 1962: original roofs have 50mm rigid insulation, vapor barrier type unknown. 1992/1995/1998 EPDM reroofing of some areas have 75mm rigid insulation on vapor barrier. Areas to be reroofed would have insulation increased (see B3010.04.01).

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

B3010.04.01 Built-up Bituminous Roofing (Asphalt & Gravel)*-1953/1957/1962Buildings

1953: Original BUR asphalt and gravel roof on gymnasium and lower, north administration area. 1957: Original BUR asphalt and gravel roof on south classroom wing. 1962: Original BUR asphalt and gravel roof on both skywalks, west shop area and N.E. classroom area.

Rating	Installed	Design Life	Updated
2 - Poor	0	25	DEC-04

Event: Replace roofing.

Concern:
Original BUR roofing is deteriorated and leaking.

Recommendation:
Replace with additional 50mm insulation and two ply SBS roofing, (5,810 sq.m.).

Type	Year	Cost	Priority
Failure Replacement	2005	$702,000	Low

Updated: February 23 2005

B3010.04.01 Built-up Bituminous Roofing (Asphalt & Gravel)*1952/1965 Buildings

1993,1995: Four ply builtup roofing and gravel, on 1952 and both 1965 buildings.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	25	DEC-04

B3010.04.04 Modified Bituminous Membrane Roofing (SBS)*

2000: Two ply SBS roofing on cafeteria addition.

Rating	Installed	Design Life	Updated
6 - Excellent	0	25	DEC-04

B3010.04.05 Membrane Roofing (Single Ply, EPDM, PVC, TPO)*

1992: Single ply EPDM roofing with gravel ballast on west wing and S.E. shower area roofs of 1953 building. 1992: Single ply EPDM roofing with gravel ballast on gymnasium and library areas of 1962 building. 1995: Single ply EPDM roofing with gravel ballast on lower, N.W. roof of 1962 building. 1998: Single ply EPDM roofing with gravel ballast on roof at S.E. corner of 1962 building.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	25	DEC-04

B3010.09 Roof Specialties and Accessories*

1953,1957,1965: Wall mounted, painted steel ladders, to access higher roofs from lower roofs.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	25	DEC-04

B3020.01.01 Unit Skylights

1962,1965: Double domed, acryliic skylights.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

B3020.01.02 Metal-Framed Skylights

1993: Sloped, sealed, double glazing in thermally broken aluminum frames on roof of 1952 building.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

B3020.02 Other Roofing Openings*

1962: Sheet metal covered wood, roof access hatch.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

S3 INTERIOR

C1010.01 Interior Fixed Partitions*

Variety of brick, concrete block, wood stud and metal stud partitions.

Rating	Installed	Design Life	Updated
5 - Good	0	50	DEC-04

C1010.03 Interior Operable Folding Panel Partitions*

1993: Moveable, acoustic walls in two science classrooms.

Rating	Installed	Design Life	Updated
5 - Good	0	30	DEC-04

C1010.04 Interior Balustrades and Screens, Interior Railings*

1962: Painted steel pipe mezzanine guardrails.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	40	DEC-04

C1010.05 Interior Windows*

Single glazing in varnished and painted wood, and painted metal frames.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	40	DEC-04

C1010.06 Interior Glazed Partitions and Storefronts*-Wood

1953: Varnished fir framing with single glazed sidelights, transoms and fir doors to administration area and in corridors.
1965: Painted wood framing with single glazed sidelights, transoms and painted wood doors to administration area.

Rating	Installed	Design Life	Updated
2 - Poor	0	40	DEC-04

Event: Replace corridor storefronts.

Concern:

Original wood doors and wood frames are damaged, splintered and chipped. Dated appearance. Hardware is worn, high maintainence and parts are difficult to obtain.

Recommendation:

Replace wood storefront framing and doors with painted steel storefront framing, aluminum/glass doors and new hardware, (four sets).

Type	Year	Cost	Priority
Failure Replacement	2005	$32,400	Low

Updated: February 23 2005

C1010.06.02 Aluminum-Framed Storefronts

2000: Aluminum and glass doors in aluminum framing with glass sidelights and transoms at north and south ends of central corridor in 1962 building.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

C1020.01 Interior Swinging Doors*-1953/1962 Building

1953: Varnished fir doors in fir frames, original hardware. 1962: Painted wood doors in painted steel frames, original hardware.

Rating	Installed	Design Life	Updated
2 - Poor	0	50	DEC-04

Event: Replace doors and hardware.

Concern:
Original wood doors and wood frames are damaged, splintered and chipped. Dated appearance. Hardware is worn, high maintainence and parts are difficult to obtain.

Recommendation:
Replace wood doors, wood frames (with steel frames), and hardware, (approx.120 doors and 45 wood frames).

Type	Year	Cost	Priority
Failure Replacement	2006	$324,000	Low

Updated: February 23 2005

C1020.01 Interior Swinging Doors*-1993 to 2001

1993-2001: Varnished birch doors, in painted steel frames. Lever handle locksets, dull chrome finishes.

Rating	Installed	Design Life	Updated
5 - Good	0	40	DEC-04

C1020.03 Interior Fire Doors*

1993/ 2000/2001 Painted, rated steel and varnished, rated mineral core wood doors with rated hardware, in painted steel frames.

Rating	Installed	Design Life	Updated
5 - Good	0	50	DEC-04

C1020.04 Interior Sliding and Folding Doors*

1981?: Vinyl covered metal, accordion, folding acoustic door in library. Metal edge trim has pulled loose and needs to be repaired, (less than $1,000). 1993: Vinyl covered metal, accordion, folding acoustic doors in two science classrooms.

Rating	Installed	Design Life	Updated
5 - Good	0	40	DEC-04

C1020.05 Interior Large Doors*

1962?: Two large, overhead, coiling aluminum shutters to cafeteria servery counter.

Rating	Installed	Design Life	Updated
3 - Marginal	0	40	DEC-04

Event: Replace cafeteria servery counter shutters.

Concern:
Two large, overhead, coiling aluminum shutters to cafeteria servery counter worn and difficult to operate and reported to be requiring frequent repairs.

Recommendation:
Replace the two cafeteria servery counter shutters, with neww aluminum shutters.

Type	Year	Cost	Priority
Failure Replacement	2007	$10,800	Low

Updated: February 23 2005

C1020.07 Other Interior Doors*

Small, wood slat rollup shutter to concession counter in 1953 building. Small aluminum slat, rollup shutter to concession counter in 1962 building.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

C1030.01 Visual Display Boards*-1953/1957/1962

1953/1957/1962: Original chalk and tackboards. Varnished fir frames and chalkrails in 1953/1957 classrooms and aluminum frames and chalkrails in 1962 classrooms.

Rating	Installed	Design Life	Updated
3 - Marginal	0	10	DEC-04

Event: Replace chalk and tackboards.

Concern:
Original chalk and tackboard surfaces are deteriorated.

Recommendation:
Replace chalk and tackboards, (approx. 40 classrooms).

Type	Year	Cost	Priority
Failure Replacement	2008	$75,600	Low

Updated: February 23 2005

C1030.01 Visual Display Boards*-1993/1998/1999

Aluminum framed, whiteboards and vinyl covered tackboards in renovated areas.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

C1030.02 Fabricated Compartments(Toilets/Showers)*

1993/2000/2001: Prefinished metal, floor mounted, overhead braced toilet partitions in S.W. washrooms in 1962 building and changerooms off both gymnasiums.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

C1030.05 Wall and Corner Guards*

A few stainless steel corner guards.

Rating	Installed	Design Life	Updated
5 - Good	0	15	DEC-04

C1030.06 Handrails*- Painted Steel

1962: Painted steel pipe guardrails to shop mezzanines. 2000: Removable, painted steel pipe guardrails to stage in south gymnasium.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	DEC-04

C1030.06 Handrails*-Stainless Steel

2000: Fixed, stainless steel traffic rails in cafeteria, for servery lineup.

Rating	Installed	Design Life	Updated
6 - Excellent	0	50	DEC-04

C1030.08 Interior Identifying Devices*

Various ages of engraved plastic, door mounted signs. 1993/2000/2001: Painted plexiglass, door mounted signs. Washroom signage is painted on walls.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

C1030.10 Lockers*-Corridors

Prepainted steel lockers.

Rating	Installed	Design Life	Updated
3 - Marginal	0	30	DEC-04

Event: Replace damaged lockers.

Concern:
Some lockers and dented and damaged.

Recommendation:
Replace damaged lockers, (approx. 200).

Type	Year	Cost	Priority
Failure Replacement	2007	$32,400	Low

Updated: February 23 2005

C1030.10 Lockers*Shower/Change Rooms

2000/2001: Prepainted steel lockers in change rooms.

Rating	Installed	Design Life	Updated
6 - Excellent	0	30	DEC-04

C1030.14 Toilet, Bath, and Laundry Accessories*

Stainless steel, double roll toilet tissue dispensers. Stainless steel grab bars. Enameled steel, roll paper towel dispensers and electric hand dryers. Plastic, liquid soap dispensers. Stainless steel framed, glass mirrrors. Free standing, galvanized steel, trash cans

Rating	Installed	Design Life	Updated
5 - Good	0	20	DEC-04

C1030.17 Other Fittings*-Changeroom Benches

2000,2001: Change room benches are 38x140 varnished wood boards, on galvanized steel angles and support post, anchored to the floor.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

C1030.17 Other Fittings*-Corridor Benches

1962: Wall mounted painted steel brackets with 38x140, painted wood board benches,on south entry lobby wall, and along both sides of skywalk walls.

Rating	Installed	Design Life	Updated
2 - Poor	0	0	DEC-04

Event: Repair wood benches.

Concern:
Painted wood boards are badly worn and splintered.

Recommendation:
Replace with new, varnished boards. Repaint steel support brackets.

Type	Year	Cost	Priority
Repair	2006	$5,400	Low

Updated: February 23 2005

C1030.17 Other Fittings*1993 Corridor Benches.

1993: Painted, 100x150 HSS steel tube bench, supported be wall mounted 38x38 painted HSS steel tube brackets, in science area corridor.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

C2010 Stair Construction*

Concrete stairs, in all areas, (with cast iron nosings in 1953/1957/1962 buildings),except steel stairs to mezzanines in 1962 building's shop areas, 1993 drama/band addition, and to mezzanine (stairs installed in 2001) at west end of 1953 gymnasium.

Rating	Installed	Design Life	Updated
5 - Good	0	100	DEC-04

C2020.01 Tile Stair Finishes*

1962: 150x150 quarry tile on 1962 building's concrete stairs and landings. 1993: 300x300 porcelain tile on concrete steps in 1952/1953/1965 buildings.

Rating	Installed	Design Life	Updated
5 - Good	0	30	DEC-04

C2020.02 Terrazzo Stair Finishes*

1953: Main stair off north entry lobby has terrazo finish on treads, risers, stringers and landings.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	DEC-04

C2020.05 Resilient Stair Finishes*

1993/2001: Rubber stair treads with abrasive nosing strips to steel stairs in 1993 drama/band addition, and to mezzanine stairs, (installed in 2001) at west end of 1953 gymnasium. Also to concrete stairs in S.E. entry to 1953 building. Some abrasive strips need to be repaired/replaced, (less than $1,000).

Rating	Installed	Design Life	Updated
5 - Good	0	20	DEC-04

C2020.08 Stair Railings and Balustrades*

Painted steel pipe handrails and guardrials in all stairs.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	DEC-04

C2020.11 Other Stair Finishes*

Painted, concrete stairs in 1953/1957 building.

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	DEC-04

Event: Install resilient stair treads.

Concern:
Paint finish in 1953/1957 stairs is worn off, but repainting is not being done, as it is reported to be slippery, and doesn't wear well. Cast iron nosings are worn smooth.

Recommendation:
Install rubber, non-slip treads to west and south stairs.

Type	Year	Cost	Priority
Repair	2006	$32,400	Medium

Updated: February 23 2005

C3010.01 Concrete Wall Finishes*

Painted concrete in lower floor storage rooms. Unfinished in service tunnels.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	100	DEC-04

C3010.02 Wall Paneling*

A few walls have prefinished, masonite wall panelling in 1962 building offices, south entry and adjacent corridor.

Rating	Installed	Design Life	Updated
3 - Marginal	0	30	DEC-04

Event: Replace wall paneling.

Concern:
Paneling is poor quality, possible fire hazard and dated in appearance.

Recommendation:
Replace wall paneling with a more appropriate, durable and fire resistant material, such as tiled gypsum board.

Type	Year	Cost	Priority
Hazardous Material Management Upgrade	2005	$5,400	Low

Updated: February 23 2005

C3010.03 Plaster Wall Finishes*

1953: Painted plaster on some brick partition walls.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	40	DEC-04

C3010.06 Tile Wall Finishes*

1962/1993/2000/2001: 100x100 glazed ceramic wall tile in cafeteria kitchen, walk-in cooler, washrooms, individual toilet closets (walls and inside face of wood doors), change rooms and shower areas.

Rating	Installed	Design Life	Updated
5 - Good	0	50	DEC-04

C3010.09 Acoustical Wall Treatment*

1993: Fabric covered, plastic framed, semi-rigid, fiberglass insulated wall panels in seating area of theatre.

Rating	Installed	Design Life	Updated
5 - Good	0	15	DEC-04

C3020.01 Concrete Floor Finishes*

Painted concrete in janitor and service rooms, unpainted in mechanical rooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	75	DEC-04

C3020.02 Tile Floor Finishes*

1962: 150x150 quarry tile in south entry vestibule and cafeteria kitchen. 1993/2000/2001: 300x300 porcelain tile in washrooms and change rooms, 1952 building's corridors, and 1962 building's south lobby,central corridor and cafeteria.

Rating	Installed	Design Life	Updated
5 - Good	0	30	DEC-04

C3020.04 Wood Flooring*-1953 Building

1953: North gymnasium floor is 20mm maple on 19 shiplap on wood sleepers.

Rating	Installed	Design Life	Updated
3 - Marginal	0	10	DEC-04

Event: Replace 1953 gymnasium floor.

Concern:
Gymnasium floor is worn, joints opening and has "soft spots" where flooring is failing.

Recommendation:
Replace 1953 gymnasium floor, (615 sq.m.).

Type	Year	Cost	Priority
Failure Replacement	2009	$156,600	Low

Updated: February 23 2005

C3020.04 Wood Flooring*-1962 Building

1962: Maple flooring in carpentry shop. 20mm maple, on 19 shiplap, on wood sleepers in south gymnasium.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	25	DEC-04

C3020.04 Wood Flooring*-Drama

1993: Drama floor is 6mm painted hardboard, on 19mm plywood, on 38x89wood sleepers.

Rating	Installed	Design Life	Updated
5 - Good	0	10	DEC-04

C3020.07.01 Resilient Tile Flooring-225x225 VAT

1953: 225x225 vinyl asbestos tile in north entry lobby, administration area, and lower floor corridor in 1953 building. 1962: 225x225 vinyl asbestos tile in main floor corridors, classrooms and administration areas, cafeteria kitchen storage room, and east,second floor classrooms.

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	DEC-04

Event: Replace vinyl asbestos floor tile.

Concern:

Vinyl asbestos tile is chipped and cracked in corridors and kitchen storage room. Replacement tiles, used for patching, are various, non-matching colors. Tiles in lobby and classrooms are dated in appearance. Rubber base is missing in several corridor locations

Recommendation:

Replace corridor vinyl asbestos floor tile with low maintenance, porcelain tile, and rubber base, as per the other renovated corridors, (approx. 1,200 sq.m.). Replace classroom vinyl asbestos floor tile with linoleum, and rubber base, (1,700 sq.m.). Removal and disposal of asbestos containing tiles to meet current regulations.

Type	Year	Cost	Priority
Failure Replacement	2007	$280,800	Low

Updated: February 23 2005

C3020.07.01 Resilient Tile Flooring-300x300 VCT

1993/2000/2001: 300x300 vinyl composition tile and rubber base in storage and service rooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

C3020.07.02 Resilient Sheet Flooring- Rubber

2001: Cushioned, sheet rubber flooring in fitness centre and east end of north gymnasium, where stage was removed.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

C3020.07.02 Resilient Sheet Flooring-Linoleum

1993: Linoleum in science area classrooms.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

C3020.07.02 Resilient Sheet Flooring-Vinyl

1981?: Main floor corridors of 1953 building and second floor corridors and west classrooms of 1962 building.

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	DEC-04

Event: Replace sheet vinyl flooring.

Concern:
Sheet vinyl is stained and discolored in corridors and damaged, with patches in cosmetology classroom. Linoleum in second floor classrooms of 1962 building is acceptable.

Recommendation:
Replace corridor and skywalk sheet vinyl with low maintenance, porcelain tile, as per the other renovated corridors, (approx.1,600 sq.m.) . Replace cosmetology sheet vinyl with linoleum, (190 sq.m.).

Type	Year	Cost	Priority
Failure Replacement	2006	$216,000	Low

Updated: February 23 2005

C3020.08 Carpet Flooring*-Band Room

1985?: Band room and one classroom.

Rating	Installed	Design Life	Updated
3 - Marginal	0	10	DEC-04

Event: Replace carpet.

Concern:
Carpet in band room and one classroom is worn, seams frayed.

Recommendation:
Replace band room and classroom carpet and rubber base, (200 sq.m.).

Type	Year	Cost	Priority
Failure Replacement	2006	$16,200	Low

Updated: February 23 2005

C3020.08 Carpet Flooring*-Library

1993: Library, principal's office, staff room and theatre.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	10	DEC-04

C3030.03 Plaster Ceiling Finishes*

1962: Painted plaster in cafeteria kitchen.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	DEC-04

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

1990?: Suspended, T-Bar, acoustic tile ceilings in 1962 building corridors. 1993/2000/2001: Suspended, T-bar, acoustic tile ceilings in science areas, cafeteria and washrooms, shower/change rooms.

Rating	Installed	Design Life	Updated
5 - Good	0	25	DEC-04

C3030.07 Interior Ceiling Painting*

Painted plaster in cafeteria kitchen. Some painted wood deck, metal deck and exposed concrete tees in 1953/1962,1965 and 1993 buildings.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	10	DEC-04

C3030.09 Other Ceiling Finishes*- Metal Deck

1993: Painted exposed deck in 1993 addition to drama/band building. 2000: Painted, acoustic metal deck ceiling, installed in 2000 in 1962 building's south gymnasium.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

C3030.09 Other Ceiling Finishes*-300x300 Acoustic Tile

1953,1957: 300x300 acoustic tiles stapled to wood furring, supported by suspended wood framing in corridors, classrooms and administration areas. 1962: 300x300 acoustic tiles glued to suspended panels, between exposed precast concrete tees, in classrooms and administration areas.

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	DEC-04

Event: Install suspended T-bar acoustic ceilings.

Concern:

Ceiling tiles in corridors are broken, missing and stained. Ceiling tiles and wood supports have to be removed to install mechanical ductwork, sprinklers and lighting fixtures.

Recommendation:

Remove ceiling tiles and related wood supports and install suspended T-bar acoustic tile ceilings in conjunction with mechanical and electrical upgrading, (approx. 7,800 sq.m.). Costs for mechanical and electrical work is in their respective components.

Type	Year	Cost	Priority
Failure Replacement	2007	$486,000	Low

Updated: February 23 2005

C3030.09 Other Ceiling Finishes*-North Gymnasium

1953: 300x300 acoustic tiles glued on to gypsum board ceiling.

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	DEC-04

Event: Replace acoustic tile ceiling.

Concern:
Acoustic tiles fall off and get damaged by activities in the gymnasium. Exposed screws have been used to refasten tiles.

Recommendation:
Cover tiles with painted, acoustic metal decking, as per south gymnasium.

Type	Year	Cost	Priority
Failure Replacement	2008	$64,800	Low

Updated: February 23 2005

D1010.01.02 Hydraulic Passenger Elevators*

2001: Hydralic elevator installed in 1953/1957 building serves all three floors.

Rating	Installed	Design Life	Updated
6 - Excellent	0	30	DEC-04

D1010.02 Lifts*

1993: Enclosed H/C lift in science area serves second level mezzanine. Two wheelchair platform lifts in stepped corridors, (approx.1200mm change floor levels). 2001: Enclosed H/C lift in S.E. entry of 1953 building provides barrier free access from lower level fitness area to main floor of 1953 building.

Rating	Installed	Design Life	Updated
6 - Excellent	0	25	DEC-04

S4 MECHANICAL

D2010.01 Water Closets*-1952 Bld.

1993: Floor mounted, vitreous china, with infrared operated flush valve.

Rating	Installed	Design Life	Updated
6 - Excellent	0	30	DEC-04

D2010.01 Water Closets*-1953 Add./1962 Add.

2000: Floor mounted, vitreous china. 1953 Add. have manual flush valves and the 1962 Add. has battery operated infrared flush valves.

Rating	Installed	Design Life	Updated
6 - Excellent	0	30	DEC-04

D2010.02 Urinals*-1952 Bld.

1993: Wall hung, vitreous china, with EMCS driven, solenoid flush valve.

Rating	Installed	Design Life	Updated
5 - Good	0	30	DEC-04

D2010.02 Urinals*-1953 Add./1962 Add.

2000: 1953 Add. has wall mounted vitreous china urinals with soleniod operated washout. 1962 Add. has recessed floor mounted, vitreous china, washout urinals with soleniod operator.

Rating	Installed	Design Life	Updated
6 - Excellent	0	30	DEC-04

D2010.03 Lavatories*-1952 Bld.

1993: Vanity mounted, vitreous china, with infrared faucets. One vanity in each washroom is barrier free.

Rating	Installed	Design Life	Updated
5 - Good	0	30	DEC-04

D2010.03 Lavatories*-1953 Add./1962 Add.

2000: Vitreous china, vanity mounted. 1953 Add. has mechanical timed mixed water faucets and the 1962 Add has battery operated infrared faucets. Some Bradley wall mounted lavatory stations with infrared operators.

Rating	Installed	Design Life	Updated
6 - Excellent	0	30	DEC-04

D2010.04 Sinks*-1952 Bld.

1993: Floor mounted mop sinks with wall mounted trim. Stainless steel, single bowl, with gooseneck faucets in Science rooms. One sink in each Science room has an emergency eyewash station attached to the faucet.

Rating	Installed	Design Life	Updated
5 - Good	0	30	DEC-04

D2010.05 Showers*-1952 Bld.

1993: Wall mounted trim for emergency shower (not a listed shower) in the Science Prep Room includes hand shower, wall mounted showerhead, and mixing valve.

Rating	Installed	Design Life	Updated
N/A	0	30	DEC-04

D2010.05 Showers*-1953 Add./1962 Add.

2000: Wall mounted vandel resistant showerheads with soleniod operated mixed water and electronic timer buttons.

Rating	Installed	Design Life	Updated
6 - Excellent	0	30	DEC-04

D2010.08 Drinking Fountains / Coolers*-1952

1993: Wall mounted, stainless steel, with electric refrigeration coolers.

Rating	Installed	Design Life	Updated
5 - Good	0	30	DEC-04

D2010.08 Drinking Fountains / Coolers*-1953 Add./1962 Add.

2000: Wall mounted, stainless steel tops, electric cooled.

Rating	Installed	Design Life	Updated
6 - Excellent	0	30	DEC-04

D2020.01.01 Pipes and Tubes: Domestic Water*-1952 Bld.

Copper piping, with ball valves for sizes 50mm and less.

Rating	Installed	Design Life	Updated
6 - Excellent	0	40	DEC-04

D2020.01.01 Pipes and Tubes: Domestic Water*-1953 Add./1962 Add./1965 Blds.

1953/1962/1965: Copper tubing

Rating	Installed	Design Life	Updated
4 - Acceptable	0	40	DEC-04

D2020.01.03 Piping Specialties (Backflow Preventors)*-1952 Bld.

1993: Double check provided for 75mm sprinkler line, reduced pressure protects 50mm fire hose standpipe.

Rating	Installed	Design Life	Updated
2 - Poor	0	0	DEC-04

Event: Add backflow preventor.

Concern:
No backflow preventor on the domestic water service.

Recommendation:
Install double check valve backflow preventor.

Type	Year	Cost	Priority
Code Upgrade	2005	$2,700	Medium

Updated: February 28 2005

D2020.01.03 Piping Specialties (Backflow Preventors)*-1962

1962: No backflow protection on building water service or irrigation connection.

Rating	Installed	Design Life	Updated
1 - Critical	0	0	DEC-04

Event: Install backflow preventors.

Concern:
No backflow protection on building water service or irrigation water connection.

Recommendation:
Add two double check backflow preventors.

Type	Year	Cost	Priority
Code Upgrade	2005	$5,400	Medium

Updated: February 28 2005

D2020.02.02 Plumbing Pumps: Domestic Water*-1952 Bld.

1993: Inline circulators used for domestic hot water circulation.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	20	DEC-04

D2020.02.02 Plumbing Pumps: Domestic Water*-1962 Add.

1995: Inline circulators at hot water boiler provide domestic hot water circulation.

Rating	Installed	Design Life	Updated
5 - Good	0	20	DEC-04

D2020.02.06 Domestic Water Heaters*-1952 Bld.

1993: A.O. Smith copper water tube domestic water boiler, 76.8kW input with two AO Smith model TJV-120M 450 litre hot water storage tanks. Storage tanks were replaced in 1998. Provides domestic water for the 1952 Bld., 1953 Add., and 1965 Drama/Band Bld.

Rating	Installed	Design Life	Updated
5 - Good	0	20	DEC-04

D2020.02.06 Domestic Water Heaters*-1962 Add.

1962: Patterson Kelly model NATLB010849 large horizontal boiler and storage vessel. Capacity unknown, heating input 420kW. Provides domestic hot water for 1962 Add. and 1965 Shops Bld.

Rating	Installed	Design Life	Updated
1 - Critical	0	20	DEC-04

Event: Replace domestic water plant.

Concern:
Boiler flue is heavily corroded, storage capacity is large and probably oversized. The boiler has conditioned untreated domestic water for 43 years it is surely heavily scaled and very inefficient.

Recommendation:
Replace boiler/storage tank assembly with condensing water heaters.

Type	Year	Cost	Priority
Energy Efficiency Upgrade	2005	$54,000	Low

Updated: February 28 2005

D2020.03 Water Supply Insulation*: Domestic-1952 Bld.

Fibreglass wrap insulation canvas covered in mechanical room.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

D2020.03.01 Piping Insulation: Domestic Water-1953 Add./1962 Add./1965 Blds.

1953/1962/1965: Fibreglass wrap

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

D2030.01 Waste and Vent Piping*-1952 Bld. Above Grade

1993: Cast iron and DWV.

Rating	Installed	Design Life	Updated
6 - Excellent	0	50	DEC-04

D2030.01 Waste and Vent Piping*-1952 Bld./1962 Add./1965 Add.s Below Grade

1952: Underground sanitary is probably clay tile.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	DEC-04

D2030.01 Waste and Vent Piping*-1953 Add. Above Grade

1953: Cast iron.

Rating	Installed	Design Life	Updated
2 - Poor	0	50	DEC-04

Event: Replace above grade waste and vent piping.

Concern:
Cast iron piping has rotted out in several places casing foul odours in the school until the breeches were found.

Recommendation:
Replace all the original cast iron sanitary plumbing.

Type	Year	Cost	Priority
Failure Replacement	2005	$108,000	Medium

Updated: February 28 2005

D2030.01 Waste and Vent Piping*-1962 Add./1965 Blds.

1962/1965: Cast iron and DWV copper.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	DEC-04

D2030.02 Waste Piping Specialties*-1952 Bld.

1993: Dillution traps on all Science Room Sinks.

Rating	Installed	Design Life	Updated
5 - Good	0	50	DEC-04

D2040.01 Rain Water Drainage Piping Systems*-1952 Bld.

1993: Cast iron above grade.

Rating	Installed	Design Life	Updated
6 - Excellent	0	50	DEC-04

D2040.01 Rain Water Drainage Piping Systems*-1953 Add./1962 Add./1965 Blds.

1953/1962/1965: Cast iron above grade.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	DEC-04

D2040.02.04 Roof Drains*-1952 Bld.

1993: Basket type debris stops.

Rating	Installed	Design Life	Updated
5 - Good	0	40	DEC-04

D2040.02.04 Roof Drains*-1953 Add./1962 Add./1965 Blds.

1953/1962/1965

Rating	Installed	Design Life	Updated
2 - Poor	0	40	DEC-04

Event: Install debris stops.

Concern:
Many of the roof drains debris stops are non existent or severely damaged by vandalism.

Recommendation:
Install new basket debris stops.

Type	Year	Cost	Priority
Repair	2005	$5,400	Low

Updated: February 28 2005

D2090.01 Compressed Air Systems*

1962: Compressed air system installed in shops. Large reciprocating air compressor installed in room off the main school foyer. Air compressor is very noisy and should be relocated to one of the shop areas.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

D3010.02 Gas Supply Systems*

High pressure gas meter and regulator on the north side of the 1962 Add. Distributed to 1952 Bld. mechanical room underground and directly into the 1962 Bld. mechanical room. Steel piping throughout.

Rating	Installed	Design Life	Updated
5 - Good	0	50	DEC-04

D3020.02.01 Heating Boilers and Accessories: H.W.*-1952 Bld.

1986: Two Unilux model 500W, forced draft, watertube boilers with capacity of 1464kW each. Boiler plant in the 1952 Building serves the 1952 Bld. 1953 Add., and 1965 Drama/Band Bld.

Rating	Installed	Design Life	Updated
5 - Good	0	30	DEC-04

D3020.02.01 Heating Boilers and Accessories: H.W.*-1962 Add.

1988: Two Cleaver Brooks model CB700-250 firetube boilers with capacity of 3063kW each. Provides heating for the 1962 Add. and 1965 Shops Bld.

Rating	Installed	Design Life	Updated
5 - Good	0	30	DEC-04

D3020.02.02 Chimneys (&Comb. Air): H.W. Boiler*-1952 Bld.

1986: Galvanized sheet metal combustion air duct with trap. Insulated breeching and type B vent through roof.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

D3020.02.03 Water Treatment: H. W. Boiler*-1952 Bld.

1986: Chemical pot feeder, bypass micron filter and flow indicator.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

D3020.03.01 Furnaces*

1985: Engineered air HE unit provides make up air for various added shop exhaust. Welding fume hoods, paint mixing hood, and general exhaust risers.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	25	DEC-04

D3030.04 Rotary-Screw Water Chillers*

1962: South mechanical room of the 1962 addition has a water cooled screw chiller.

Rating	Installed	Design Life	Updated
2 - Poor	0	30	DEC-04

Event: Replace chiller.

Concern:
Chiller is 43 years old, uses refrigerant that is no longer available and replacement and service parts are no longer available.

Recommendation:
Replace with a roof mounted air cooled chiller.

Type	Year	Cost	Priority
Failure Replacement	2005	$64,800	Low

Updated: February 28 2005

D3030.05.01 Packaged Cooling Towers-1962 Add.

1962: Draw through evaporative cooling tower provides condensor water to water cooled chiller in south mechanical room of the 1962 Add.

Rating	Installed	Design Life	Updated
2 - Poor	0	0	DEC-04

Event: Replace cooling tower (refer to D3030.04).

Concern:
Cooling tower is heavily corroded, pads are built up with minerals.

Recommendation:
Replace cooling tower, with air cooled chiller refer to D3030.04 for requried chiller work.

Type	Year	Cost	Priority
Failure Replacement	2005	$0	Low

Updated: February 28 2005

D3030.06.02 Refrigerant Condensing Units*-1952 Bld.

1993: Trane model RUA00806BC032DF9 condensing unit serves direct expansion cooling coil in VAV air handler.

Rating	Installed	Design Life	Updated
5 - Good	0	25	DEC-04

D3030.06.02 Refrigerant Condensing Units*-1962 Add.

1980: South mechanical room classroom air handler is served by a roof mounted air cooled condensing unit.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	25	DEC-04

D3030.06.02 Refrigerant Condensing Units*-1965 Band Drama Bld.

1965: Air cooled, roof mounted, coupled to direct expansion cooling coil in the penthouse air handler.

Rating	Installed	Design Life	Updated
2 - Poor	0	25	DEC-04

Event: Replace condensing unit.

Concern:
Compressors use R-11 refrigerant, unit is corroded from exposure to weather. Age of compressors suggest they will fail soon replacement parts are no longer available.

Recommendation:
Replace condensing unit.

Type	Year	Cost	Priority
Failure Replacement	2005	$32,400	Low

Updated: February 28 2005

D3030.06.02 Refrigerant Condensing Units*-1965 Band/Drama Bld. Theatre Add.

1993: Trane model RAU0030GBG03D serves direct expansion cooling coil in penthouse air handler.

Rating	Installed	Design Life	Updated
5 - Good	0	25	DEC-04

D3030.08 Other Refrigeration Systems*

1962: Compressor for cooler in kitchen.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

D3040.01.01 Air Handling Units: Air Distribution*-1952 Bld.

1993: Engineered Air LM-26-C with 13,188 l/s supply air fan, 11,775 l/s return air fan, gylcol heating coil, direct expansion cooling coil, 50mm filter section and mixing plenum with intake and exhaust air. Unit is VAV controlled by variable speed drives on the supply and return fans.

Rating	Installed	Design Life	Updated
6 - Excellent	0	30	DEC-04

D3040.01.01 Air Handling Units: Air Distribution*-1953 Add.

1953: Ventilation units installed in tunnels for classroom, gymnasium and fitness room ventilation. Classroom unit is a large site constructed unit with supply and return fans, room is the mixing plenum, filters heating coil for tempering ventilation, and wet cell humidifier. Gymansium and fitness room units use the room as a plenum have heating coils, supply and return fans.

Rating	Installed	Design Life	Updated
2 - Poor	0	30	DEC-04

Event: Replace humidifier.

Concern:
Wet cell humidifier is a recirculating type system which is not used due to high maintenance costs and bateria concerns.

Recommendation:
Replace the humidifier pads and install a once through water system.

Type	Year	Cost	Priority
Repair	2005	$10,800	Low

Updated: February 28 2005

D3040.01.01 Air Handling Units: Air Distribution*-1962 Add. North Mech Room

1962: Three units installed in north mechanical room. System uses corridor for return air and room as a mixing chamber. Units serve the south and east classrooms, north and east classrooms and gymnasium. The units are constant volume and all have, mixing, return air and supply air fans, and gylcol heating coils for tempering the supply air. The classroom units have had D/X cooling coils installed. Sizes and capacities unknown.

Rating	Installed	Design Life	Updated
3 - Marginal	0	30	DEC-04

Event: Acoustically insulate mechanical room.

Concern:
All fans are exposed in the mechanical room and it is very noisy.

Recommendation:
Acoustically insulated mechanical room.

Type	Year	Cost	Priority
Program Functional Upgrade	2005	$32,400	Low

Updated: February 28 2005

Event: Add return air ductwork

Concern:
Air handlers use the corridor as a return air plenum.

Recommendation:
Install return air ductwork or ceiling plenum.

Type	Year	Cost	Priority
Code Upgrade	2005	$162,000	Low

Updated: February 28 2005

D3040.01.01 Air Handling Units: Air Distribution*-1962 Add. South Mech. Rm

1962: Three units installed in south mechanical room. System uses corridor for return air and room as a mixing chamber. Units serve the south classrooms, library and cafeteria. The units are constant volume and all have, mixing, return air and supply air fans, and gylcol heating coils for tempering the supply air. The classroom unit has a cooling coil installed. Sizes and capacities unknown.

Rating	Installed	Design Life	Updated
3 - Marginal	0	30	DEC-04

Event: Acoustically insulate room.

Concern:
High noise levels from open fans in the mechanical room.

Recommendation:
Acoustically insulate the mechanical room.

Type	Year	Cost	Priority
Program Functional Upgrade	2005	$32,400	Low

Updated: February 28 2005

Event: Add return air ductwork

Concern:
System uses the corridor for return air.

Recommendation:
Install return air ductwork.

Type	Year	Cost	Priority
Code Upgrade	2005	$162,000	Low

Updated: February 28 2005

D3040.01.01 Air Handling Units: Air Distribution*-1962 Add. West Mech. Rm.

1962: Two units installed in west mechanical room. System uses corridor for return air and room as a mixing chamber. Units serve the shops. The units are constant volume and all have, mixing, return air and supply air fans, and heating coils for tempering the supply air. Sizes and capacities unknown.

Rating	Installed	Design Life	Updated
3 - Marginal	0	30	DEC-04

Event: Acoustically insulate room.

Concern:
High noise levels from open fans in the mechanical room.

Recommendation:
Insulate mechanical room.

Type	Year	Cost	Priority
Program Functional Upgrade	2005	$27,000	Low

Updated: February 28 2005

Event: Install return air.

Concern:
Air handlers use the corridor for return air.

Recommendation:
Install return air ductwork.

Type	Year	Cost	Priority
Code Upgrade	2005	$54,000	Low

Updated: February 28 2005

D3040.01.01 Air Handling Units: Air Distribution*-1965 Band/Drama Bld.

1965: Carrier model 39W9AS100 hot water coiled multizone unit with supply and return fans, D/X cooling coil, heating coil and mixing section.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	30	DEC-04

D3040.01.01 Air Handling Units: Air Distribution*-1965 Band/Drama Bld. Theatre Add.

1993: Engineered Air model LM-8-C constant volume unit with supply and return fans. Unit has a mixing box, filters, heating coil, and D/X cooling coil.

Rating	Installed	Design Life	Updated
5 - Good	0	30	DEC-04

D3040.01.01 Air Handling Units: Air Distribution*-1965 Shops Bld.

1965: Armstrong hot water coiled multizone unit with supply and return fans, D/X cooling coil, heating coil and mixing section.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	30	DEC-04

D3040.01.03 Air Cleaning Devices:Air Distribution*

1985: Murphy bag type, air recirculating, dust collectors. One dust collector connected to woodworking tools and the other dust collector is connected to the metal grinders.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

D3040.01.04 Ducts: Air Distribution*-1952 Bld.

1993: Galvanized steel, insulated supply air throughout.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	DEC-04

D3040.01.04 Ducts: Air Distribution*-1953 Add./1962 Add./1965 Blds.

1953/1962/1965: Galvanized steel uninsulated.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	DEC-04

D3040.01.05 Duct Accessories: Air Distribution*-1952 Bld.

1993: Fire and balance dampers.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

D3040.01.06 Air Terminal Units: Air Distribution*-1952 Bld.

1993: VAV air terminals with reheat coils. Electronically controlled.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

D3040.01.07 Air Outlets & Inlets:Air Distribution*-1952 Bld.

1993: Generally lay-in ceiling diffusers and eggcrate return grilles into ceiling plenum.

Rating	Installed	Design Life	Updated
5 - Good	0	50	DEC-04

D3040.03.01 Hot Water Distribution Systems*-1952 Bld.

1993: Steel and copper plumbing with fibreglass insulation throughout. Insulation is cavas covered in mechanical room. Inline centrifugal pumps circulate hot water to permiter radiation, heat exchanger and air handling unit coils.

Rating	Installed	Design Life	Updated
5 - Good	0	40	DEC-04

D3040.03.01 Hot Water Distribution Systems*-1953 Add.

1981: Steel and copper insulated piping.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

D3040.03.01 Hot Water Distribution Systems*-1962 Add./1965 Bld.s

1962/1965: Steel insulated piping.

Rating	Installed	Design Life	Updated
2 - Poor	0	0	DEC-04

Event: Replace hydronic plumbing.

Concern:
Maintenance has to repair frequent pipe leaks. Valves no longer work leaks can't be isolated.

Recommendation:
Replace hydronic plumbing.

Type	Year	Cost	Priority
Failure Replacement	2005	$324,000	Low

Updated: February 28 2005

D3040.04.01 Fans*: Exhaust-1952 Bld.

1993: Several spun aluminium roof exhausters for Science Classroom general exhaust and washroom exhaust.

Rating	Installed	Design Life	Updated
5 - Good	0	30	DEC-04

D3040.04.03 Ducts*: Exhaust-1952 Bld.

1993: Galvanized sheet metal.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

D3040.04.05 Air Outlets and Inlets*: Exhaust-1952 Bld.

1993: Eggcrate style ceiling and wall mounted grilles.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

D3040.05 Heat Exchangers*-1952 Bld.

1993: Superchanger model UX-206-HP-127, plate and frame type, hot water to glycol, heat exchanger protects air handling unit coils.

Rating	Installed	Design Life	Updated
5 - Good	0	30	DEC-04

D3050.05.02 Fan Coil Units*-1952 Bld.

1993: Cabinet heaters installed in entrances.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

D3050.05.03 Finned Tube Radiation*-1952 Bld.

1993: Slope top in hallways. Classrooms are combinations of finned tubes installed in slope top cabinets and millwork with grilles.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

D3050.05.06 Unit Heaters*-1952 Bld.

1993: Ducted unit heaters with hot water coils and centrifugal blowers serve the main entrance.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

D3060.02.01 Electric and Electronic Controls*-1952 Bld.

1993: Johnson Controls Metasys energy management and control system. Controls boiler plant, air handler, air terminals, perimeter radiation, and lighting (through relay panels).

Rating	Installed	Design Life	Updated
5 - Good	0	30	DEC-04

D3060.02.02 Pneumatic Controls*-1953 Add./1962 Bld./1965 Blds.

1952/1962/1965: Two air compressors provide air for pneumatic valves, damper operators and room thermostats.

Rating	Installed	Design Life	Updated
2 - Poor	0	40	DEC-04

Event: Replace pneumatic controls

Concern:
Pneumatic controls fail regularily, sticking valves uncalibrated room thermostats, and part replacement consumes excessive maintenance.

Recommendation:
Replace pnuematic system with an EMCS.

Type	Year	Cost	Priority
Failure Replacement	2005	$216,000	Low

Updated: February 28 2005

D3060.02.05 Building Systems Controls(BMCS, EMCS)*-1952 Bld.

1993: Johnson Controls Metasys energy management and control system. Controls boiler plant, air handler, air terminals, perimeter radiation, and lighting (through relay panels).

Rating	Installed	Design Life	Updated
N/A	0	30	DEC-04

D3060.02.05 Building Systems Controls(BMCS, EMCS)*-1962 Add.

1988: Johnson Controls DSC-8500 acts as a glorified timeclock for enabling ventilation units and preforms some boiler plant control. Should be replaced with EMCS refer to D3060.02.02 for costs.

Rating	Installed	Design Life	Updated
3 - Marginal	0	25	DEC-04

D3090 Other Special HVAC Systems and Equipment*-1952 Bld.

1993: Fume hood installed in Science Prep Room.

Rating	Installed	Design Life	Updated
6 - Excellent	0	0	DEC-04

D4010 Sprinklers: Fire Protection*

1993: Mezzanine air handler room has fire sprinklers.

Rating	Installed	Design Life	Updated
1 - Critical	0	50	DEC-04

Event: Install sprinklers.

Concern:
Building area is well over the allowable unsprinklered area. City of Medicine Hat (AHJ) has mandated the installation of sprinklers in the school should any renovations or additions take place.

Recommendation:
Install sprinklers throughout the school if it is renovated.

Type	Year	Cost	Priority
Code Upgrade	2005	$405,000	High

Updated: February 28 2005

D4020 Standpipes*

Fire hose racks in recessed cabinets in corridors.

Rating	Installed	Design Life	Updated
5 - Good	0	50	DEC-04

D4030.01 Fire Extinguisher, Cabinets and Accessories*

Dry type fire extinguishers installed in semi recessed cabinets in corridors.

Rating	Installed	Design Life	Updated
5 - Good	0	30	DEC-04

S5 ELECTRICAL

D5010.03 Main Electrical Switchboards (Main Distribution)*-1952 Bld.

1993: FPE 2000A 208V three phase four wire service for the 1952, 1953, 1965 and school board office buildings. Branch breakers protect central distribution panels.

Rating	Installed	Design Life	Updated
5 - Good	0	40	DEC-04

Event: Extend distribution.

Concern:
School board office electrical is supplied from this main distribution and voltage drop has caused concerns. Transformer is tapped to the highest level causing phase voltage at near 130V at the distribution and 110V at the school board office. High and low voltages could damage equipment.

Recommendation:
Install a 13.8kV service to the school board office.

Type	Year	Cost	Priority
Failure Replacement	2005	$108,000	Medium

Updated: March 2 2005

D5010.03 Main Electrical Switchboards (Main Distribution)*-1962

1962: 1600A 208V three phase, four wire, switchboard.

Rating	Installed	Design Life	Updated
3 - Marginal	0	40	DEC-04

Event: Replace main distribution.

Concern:
Parts are no longer availabled for the switchboard.

Recommendation:
Replace switchboard.

Type	Year	Cost	Priority
Failure Replacement	2005	$54,000	Low

Updated: March 2 2005

D5010.05 Electrical Branch Circuit Panelboards (Secondary Distribution)*-1952 Bld.

1993: Bolt on branch breaker panelboards.

Rating	Installed	Design Life	Updated
6 - Excellent	0	25	DEC-04

D5010.05 Electrical Branch Circuit Panelboards (Secondary Distribution)*-1953 Add./1962 Add./1965 Blds.

1953/1962/1962: Bolt on branch breaker panelboards.

Rating	Installed	Design Life	Updated
3 - Marginal	0	30	DEC-04

D5010.07 Motor Control Centers (Motor Control)*

1962: MCC installed in welding shop.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

D5010.07.02 Motor Starters and Accessories*

Various loose starters of different ages installed throughout the school.

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	DEC-04

Event: Replace starters.

Concern:
Parts are not available for older starters.

Recommendation:
Replace older starters.

Type	Year	Cost	Priority
Failure Replacement	2005	$43,200	Low

Updated: March 2 2005

D5010.07.03 Variable Frequency Drives*

1993: Two Siemens variable speed drives installed on 1952 Building air handler supply and return fans.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

D5020.01 Electrical Branch Wiring*

Original wiring and wiring devices. Additional receptacles have been added in some locations for computers.

Rating	Installed	Design Life	Updated
3 - Marginal	0	50	DEC-04

Event: Add computer grade circuits.

Concern:
Older wiring and receptacles are not suited to harmonics from electronic equipment.

Recommendation:
Install computer grade isolated ground circuits.

Type	Year	Cost	Priority
Program Functional Upgrade	2005	$162,000	Low

Updated: March 2 2005

D5020.01 Electrical Branch Wiring*-1952 Bld.

1993: Wiring and wiring devices.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	50	DEC-04

D5020.02.01 Lighting Accessories (Lighting Controls)*-1952 Bld.

GE lighting control relay panels controlled by the EMCS.

Rating	Installed	Design Life	Updated
5 - Good	0	30	DEC-04

D5020.02.02.01 Interior Incandescent Fixtures*

1953: Some incandescent potlights installed in the gymnasium ceiling. Only used for temporary lighting.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	30	DEC-04

D5020.02.02.02 Interior Florescent Fixtures*-1952 Bld.

1993: T8 lighting with electronic dimming ballasts.

Rating	Installed	Design Life	Updated
3 - Marginal	0	30	DEC-04

Event: Replace ballasts.

Concern:
First generation dimming ballasts burn out tube prematurely.

Recommendation:
Replace ballasts with modern electronic dimming ballasts.

Type	Year	Cost	Priority
Failure Replacement	2005	$54,000	Low

Updated: March 2 2005

D5020.02.02.02 Interior Florescent Fixtures*-1953 Add./1962 Add./1965 Add.

1970: T12 fluorescents with magentic ballasts.

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	DEC-04

Event: Replace fluorescent lighting.

Concern:
Poor efficacy using T12 lamps and magnetic ballasts.

Recommendation:
Replace fixtures with fixtures designed for T8 or T5 lamps and electronic ballasts

Type	Year	Cost	Priority
Energy Efficiency Upgrade	2005	$972,000	Low

Updated: March 2 2005

D5020.02.02.03 Interior Metal Halide Fixture*

1990: Metal halide high bays in main gymnasium of the 1962 Add.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

D5020.02.02.05 Other Interior Fixtures*

1953: Mercury vapour high bays in gymnasium.

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	DEC-04

Event: Replace mercury vapour lights

Concern:
Mercury vapour lights have poor colour rendering and consume excessive energy.

Recommendation:
Replace with metal halide high bays with pulse start ballasts.

Type	Year	Cost	Priority
Energy Efficiency Upgrade	2005	$32,400	Low

Updated: March 2 2005

D5020.02.03 Emergency Lighting*-1952 Bld.

1993: Distributed battery packs and incandescent exit lights.

Rating	Installed	Design Life	Updated
3 - Marginal	0	30	DEC-04

Event: Replace exit lights

Concern:
Incandescent light bulbs consume excessive energy and continually burn out.

Recommendation:
Replace incandescent exit lights with LED lights.

Type	Year	Cost	Priority
Energy Efficiency Upgrade	2005	$4,320	Medium

Updated: March 2 2005

D5020.02.03 Emergency Lighting*-1953 Add./1962 Add./1965 Add.

1981: Distributed battery packs with remote heads and incandescent exit lights.

Rating	Installed	Design Life	Updated
2 - Poor	0	0	DEC-04

Event: Replace emergency lighting.

Concern:
Batteries are too old to hold a proper charge incandescent exit lighting requires constant bulb replacement.

Recommendation:
Replace emergency battery packs and exit lights with LED style.

Type	Year	Cost	Priority
Failure Replacement	2005	$129,600	Medium

Updated: March 2 2005

D5020.02.05 Special Purpose Lighting*

1993: Theatre lighting in 1993 Addition to the 1965 Band/Drama Bld.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

D5020.03.01.04 Exterior H.P. Sodium Fixtures*

Various ages and styles of area and security lighting on the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	30	DEC-04

D5030.01 Detection and Alarm Fire Alarm*-1952 Bld.

1952 Bld. Edwards 2280 control panel.

Rating	Installed	Design Life	Updated
2 - Poor	0	25	DEC-04

Event: Replace fire alarm system.

Concern:
Panel is out of date and replacement parts are not available.

Recommendation:
Replace fire alarm system.

Type	Year	Cost	Priority
Failure Replacement	2005	$32,400	Medium

Updated: March 2 2005

D5030.01 Detection and Alarm Fire Alarm*-1953 Add.

2004: Edwards EST2 conventional system with original devices.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	25	DEC-04

D5030.01 Detection and Alarm Fire Alarm*-1962 Bld.

1981: Edwards 2280 control panel monitors two other fire alarm panels and the 1962 Bld.

Rating	Installed	Design Life	Updated
2 - Poor	0	25	DEC-04

Event: Replace fire alarm system.

Concern:
Parts are not available for 2280 system.

Recommendation:
Replace fire alarm system. Replace bells with bell strobe lights.

Type	Year	Cost	Priority
Failure Replacement	2005	$32,400	Medium

Updated: March 2 2005

D5030.02.02 Intrusion Detection*

Three intrusion detection systems monitor different areas of the school. Infrared detectors monitor hallways and some doors are alarmed with door contacts.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	25	DEC-04

D5030.02.03 Security Access*

Numeric keypads installed at main entrances.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	25	DEC-04

D5030.03 Clock and Program Systems*

1983: Master time clock system used to set time on corridor clocks.

Rating	Installed	Design Life	Updated
2 - Poor	0	25	DEC-04

Event: Replace clock system

Concern:
Clock program system is a combination of two systems. Neither system keeps proper time and replacement parts are no longer available.

Recommendation:
Replace clock programming system.

Type	Year	Cost	Priority
Failure Replacement	2005	$32,400	Low

Updated: March 2 2005

D5030.04.01 Telephone Systems*

1990: Telephones installed in every classroom and in the administration offices. Phone switch is located in the administration area of the 1962 Add.

Rating	Installed	Design Life	Updated
5 - Good	0	25	DEC-04

D5030.04.05 Local Area Network Systems*

1990-2004: Local area network brought to all classroms and computer labs. Large server room. Mostly catagory 5 copper with some fibre backbone wiring.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

D5030.05 Public Address and Music Systems*

1990: Public address system located in the administration area. Classrooms have speakers some with the ability to talk back. Used as a PA system only staff relies on telephones for intercommunication.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

D5030.06 Television Systems*

1990: Some CCTV for message broadcasting in the two main lobbies.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

D5090.06 Lightning Protection Systems*

No surge supression installed.

Rating	Installed	Design Life	Updated
1 - Critical	0	25	DEC-04

Event: Install surge protection.

Concern:
No surge protection on main distribution panels to protect from utility power spikes. Sensitive equipment could be badly damaged.

Recommendation:
Install surge suppression on the main distribution panels.

Type	Year	Cost	Priority
Program Functional Upgrade	2005	$32,400	Low

Updated: March 2 2005

S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION

E1020.02 Library Equipment*

1993: Electronic book theft security system.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

E1020.03 Theater and Stage Equipment*

1993: Steel pipe ceiling lighting grid. 2004: drapes and curtains.

Rating	Installed	Design Life	Updated
6 - Excellent	0	0	DEC-04

E1020.07 Laboratory Equipment*

1993: Science preperation room has premanufactured fume hoods, safety showers and eye wash equipment.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

E1030.01 Vehicle Service Equipment*

1993: Two, freestanding hoists/engine lifts in auto repair shop.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

E1090 Other Equipment

1979: Sawdust collection system in carpentry shop. Sawdust storage tank located outside, adjacent to building.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

E1090.03 Food Service Equipment*

1962?: Stainless steel kitchen equipment, counters, tables, and range hood. Freezers and food preparation appliances. Walk-in cooler is built in place with prefabricated door, (see F1020.04).

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

E1090.04 Residential Equipment*

1998/99: Foods classrooms have residential type stoves, refrigerators, dishwashers and washer/dryers.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

E1090.07 Athletic, Recreational, and Therapeutic Equipment*

Both gymnasiums have padded, glass, main court basketball backboards, with electric motor operated, retractable, painted steel support framing, (south gymnasium glass backboards installed in 2000). Crosscourt backboards are painted plywood on fixed, wall mounted, painted steel frames. 2000: Vinyl, electric motor operated, drop down, gymnasium divider curtain in south gymnasium. Two electric scoreboards in south gymnasium (older scoreboard in north gymnasium). All equipment is in acceptable to good condition, except the 1953 north gymnasium has an original, electric motor operated, folding panel gymnasium divider.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

Event: Replace north gymnasium folding room divider.

Concern:
North gymnasium room divider is in poor condition, and track is worn. Divider is difficult to keep operational. Panel and motor repairs are high maintence.

Recommendation:
Replace north gymnasium folding room divider with motorized, drop down, vinyl curtain.

Type	Year	Cost	Priority
Failure Replacement	2005	$27,000	Low

Updated: February 23 2005

E2010.02.05 Educational Facility Casework*

1953/1957/1962: Classrooms have original varnished fir plywood cabinets and shelving.

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	DEC-04

Event: Replace classroom millwork.

Concern:
Original, 1953,1957 & 1962, varnished fir plywood cabinets and shelving is worn, splintered, chipped and dated in appearance.

Recommendation:
Replace classroom millwork, (51 classrooms).

Type	Year	Cost	Priority
Failure Replacement	2007	$432,000	Low

Updated: February 23 2005

E2010.02.07 Kitchen Casework*

1998/1999: Foods classrooms have varnished birch cabinets and cupboards. Countertops are plastic laminate with solid birch nosings.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

E2010.02.08 Laboratory Casework*

1993: Science classrooms and prep rooms have varnished birch cabinets and cupboards. Countertops have acid resistant plastic laminate. Prefabricated, prefinished metal wall cabinets with sliding glass doors.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

E2010.02.09 Library Casework*

1962: Varnished fir plywood shelving. Varnished wood checkout counter. with vertica, varnished wood battens on front. Countertop has a plastic laminate surface with wood edging.

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	DEC-04

Event: Refinish checkout counter.

Concern:
Plastic laminate countertop and wood edging is worn.

Recommendation:
Resurface countertop and refinish edging.

Type	Year	Cost	Priority
Repair	2008	$2,160	Low

Updated: February 23 2005

Event: Replace library shelving.

Concern:
Original, 1962, varnished fir plywood shelving is worn, splintered, chipped and dated in appearance.

Recommendation:
Replace library shelving.

Type	Year	Cost	Priority
Failure Replacement	2008	$16,200	Low

Updated: February 23 2005

E2010.02.99 Other Casework*-Administration

1953: Notrh administration office has varnished fir plywood cabinets and shelving. 1962/1978?: Main, south administration office has varnished wood and plastic laminate countertops with wood edging.

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	DEC-04

Event: Replace administration office millwork.

Concern:
The original millwork is worn and dated in appearance.

Recommendation:
Replace administration office millwork.

Type	Year	Cost	Priority
Failure Replacement	2008	$21,600	Low

Updated: February 23 2005

E2010.02.99 Other Casework*-Carpentry

1962: Workbenches with painted metal bases and laminated hardwood tops, in carpentry shop.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

E2010.02.99 Other Casework*-Greenhouse

1993: Geeenhouse work benches are 38x89 cedar framing, plastic laminate covered plywood recessed countertop, with galvanized steel liner.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

E2010.02.99 Other Casework*-Sewing

1962: Sewing classroom has original, varnished wood cabinets, shelving and work tables. Work tables have newer plastic laminate countertops with hardwood edging.

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	DEC-04

Event: Replace sewing room millwork.

Concern:
Original varnished fir plywood cabinets and worktables are worn and dated in appearance.

Recommendation:
Replace cabinets and worktable bases. Reuse countertops.

Type	Year	Cost	Priority
Failure Replacement	2008	$37,800	Low

Updated: February 23 2005

E2010.02.99 Other Casework*-Vanities

1993,2000,2001: Washroom vanities are plastic laminate covered plywood.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

E2010.03.01 Blinds*

2000?: Horizonal, prefinished metal, venetian blinds on interior windows.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

E2010.03.01 Blinds*-Exterior Windows

1983?: PVC, vertical blinds in exterior windows of 1953/57 and 1962 building.

Rating	Installed	Design Life	Updated
3 - Marginal	0	10	DEC-04

Event: Replace exterior window blinds.

Concern:
PVC blinds are faded and aged, becoming brittle

Recommendation:
Replace exterior window blinds in 1953/57 building. Blinds in 1962 building would be replaced as part of the window replacement, (cost for blinds, incorporated within the glazing, is included in the replacement window cost).

Type	Year	Cost	Priority
Failure Replacement	2007	$10,800	Low

Updated: February 23 2005

E2010.03.06 Curtains and Drapes*

Some library windows have fabric drapes.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

E2010.04 Fixed Floor Grilles and Mats

Aluminum floor mat grilles in recessed mat wells in, 1962 building, south entry.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

E2020 Moveable Furnishings*

Various ages and types of desks, tables, and chairs. Older style hairdressing chairs in cosmetology classroom were reupholstered in 2005.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

F1010.02.05 Grandstands and Bleachers*

2000: Retractable steel and wood bleachers with plastic seating caps, in south gymnasium.

Rating	Installed	Design Life	Updated
6 - Excellent	0	0	DEC-04

F1020.02 Special Purpose Rooms*-Greenhouse

1993: Science area has an Interior, glass and painted structural steel framed greenhouse, with roof skylight above.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

F1020.02 Special Purpose Rooms*-Paint Storage

1993: Explosion proof, fire-rated room for paint and autobody material storage, in autobody classroom, upgrade in 1993.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

F1020.02 Special Purpose Rooms*-Welding Booths

Painted, steel, welding booths with vertical, vinyl strip curtains and ducted exhaust system, in welding shop. Welding gas cylinders stored in special purpose, exterior storage room.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

F1020.02.04 Cold Storage Rooms*

1962: Walk-in cooler in cafeteria kitchen has ceramic tiled floor and walls, painted fiberboard ceiling, premanufactured, insulated metal door.

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	DEC-04

Event: Replace walk-in cooler ceiling.

Concern:
Existing, painted fibreboard ceiling is sagging and stained.

Recommendation:
Remove deteriorated fibreboard and replace with insulated, prefinished, washable ceiling panels.

Type	Year	Cost	Priority
Failure Replacement	2007	$2,160	Low

Updated: February 23 2005

F1020.02.13 Paint Booths*

1962?: Premanufactured, sprinklered, vehicle spray painting booth, in 1962 building I.A. autobody shop.

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	DEC-04

Event: Replace spray paint booth.

Concern:
Existing 1962 paint booth is reported to provide poor ventilation and may not meet current health and safety regulations.

Recommendation:
Replace spray paint booth.

Type	Year	Cost	Priority
Indoor Air Quality Upgrade	2006	$86,400	Medium

Updated: February 23 2005

F2020.01 Asbestos*

Known asbestos in vinyl floor tiles and on mechanical pipe elbows in 1962 & 1965 buildings, is contained. Asbestos on pipe elbows in 1952/1953 buildings was removed during previous renovations. Remaining asbestos containing materials would have to be removed and disposed of, to current regulations, if disturbed by renovations.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

Facility Details

Building Name: Medicine Hat High School
Address:
Location: Medicine Hat

Building Id: S3772
Gross Area (sq. m): 0.00
Replacement Cost: $0
Construction Year: 0

Evaluation Details

Evaluation Company: Baird & Bergum Architects
Evaluation Date: December 1 2004
Evaluator Name: Mr. Robert Baird

Total Maintenance Events Next 5 years: **$282,960**
5 year Facility Condition Index (FCI): **0%**

General Summary:

The high school site is mainly covered by buildings and asphalt paved areas. There are landscaped and irrigated grassed areas in front of the north and south buildings, and around the north and west sides of the central drama/band building. Concrete sidewalks, steps and ramps to all, but the north building's main entry, are in acceptable condition. All asphalt areas require resurfacing. The irrigated, grass playing field area is shared by an adjacent elementary school, and the high school's portion is too small. Sections of the chainlink fencing need replacement. Underground mechanical and electrical utilities are supplied by the City and are in acceptable to good condition. Car plug-ins and site lighting are in acceptable condition.

Structural Summary:

Envelope Summary:

Interior Summary:

Mechanical Summary:

Electrical Summary:

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.

S7 SITE

G2010.02.02 Flexible Pavement Roadway (Asphalt)*

Asphalt paved access to east parking lots, along west side of school and between north and south buildings, connecting east and west paved areas.

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	DEC-04

Event: Resurface asphalt roadways.

Concern:
All roadway areas are worn, and cracked with numerous patches.

Recommendation:
Resurface asphalt roadways, (approx. 3,500 sq.m.).

Type	Year	Cost	Priority
Repair	2006	$81,000	Low

Updated: February 19 2005

G2010.06 Roadway Appurtenances*

Low, painted steel pipe barricades with padlocked chains, at each end of roadway going between north and south buildings, (under skywalks), to prevent unauthorized vehicle traffic. Pedestrians can walk through spaces in barricades or step over chains. Pipes need to be repainted, (less than $1000).

Rating	Installed	Design Life	Updated
4 - Acceptable	0	15	DEC-04

G2020.02.02 Flexible Paving Parking Lots(Asphalt)*

Asphalt paved east staff/student parking lot. Asphalt paved N.W. staff parking lot. Enclosed asphalt paved parking area adjacent to industrial arts shops used for access to overhead doors to shops and storage of vehicles and small sheds being constructed by students.

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	DEC-04

Event: Resurface asphalt parking lots.

Concern:
All parking areas are worn, and cracked with numerous patches.

Recommendation:
Resurface asphalt parking lots, (approx. 6,150 sq.m.). Repaint parking stall lines

Type	Year	Cost	Priority
Repair	2006	$145,800	Low

Updated: February 19 2005

G2020.06.01 Traffic Barriers*

Precast concrete barriers along driveway to east, staff and student parking lots.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

G2020.06.02 Parking Bumpers*

Precast concrete wheelstops in east, staff and student parking stalls.

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	DEC-04

Event: Replace deteriorated wheelstops.

Concern:
Several precast concrete wheelstops are deteriorated.

Recommendation:
Replace deteriorated wheelstops, (approx. 30).

Type	Year	Cost	Priority
Failure Replacement	2006	$3,240	Low

Updated: February 19 2005

G2020.06.03 Parking Lot Signs*

Numerous, painted metal signs mounted on buildings and steel pipe posts, identifying parking regulations.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

G2020.06.04 Pavement Markings*

Painted parking stall lines. To be repainted when parking lots repaved, (see G2020.02.02).

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	DEC-04

G2030.04 Rigid Pedestrian Pavement (Concrete)*

Concrete pad under N.E. seating area. Concrete sidewalks to entries are in acceptable condition, except to main entry to north building, and N.E. gymnasium exit.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

Event: Replace concrete sidewalks.

Concern:
Concrete sidewalk to main entry of the north building is cracked and settled.

Recommendation:
Replace concrete sidewals, (120 sq.m.).

Type	Year	Cost	Priority
Failure Replacement	2005	$18,360	Low

Updated: February 19 2005

G2030.06 Exterior Steps and Ramps*

Long flight of concrete steps to drama/band building. Painted steel pipe handrails and guardrails.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

G2040.02 Fences and Gates*

1800mm high chainlink fence along property lines abutting grassed playing field, and along east side of playing field. No gates, just openings in the fence. 1800mm high chainlink fence, with large gates, around industrial arts exterior storage compound. Vinyl strips woven in chainlink fence along south side of industrial arts compound, to screen storage area from the street. Also a short section of freestanding, decorative brick and precast concrete fence along south side of industrial arts storage compound.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

Event: Replace sections of chainlink fencing.

Concern:
Sections of chainlink fencing are damaged.

Recommendation:
Replace sections of chainlink fencing, (approx. 280 meters).

Type	Year	Cost	Priority
Failure Replacement	2007	$27,000	Low

Updated: February 19 2005

G2040.03 Athletic and Recreational Surfaces*

Shale infield baseball diamond. Shale should be upgraded, (less than $1,000). Basketball area in asphalt paved roadway between north and south buildings, (see G2010.02.02 for resurfacing of asphalt).

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	DEC-04

G2040.04 Athletic and Recreational Equipment*

Fiberglass basketball backboards on painted steel posts in asphalt roadway area between north and south buildings. Painted steel pipe soccer goals in grassed playing field.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	25	DEC-04

G2040.04.01.01 Athletic or Recreational Screening

Small, painted steel pipe baseball backstop with chainlink fabric and painted wood boards.

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	DEC-04

Event: Replace with larger baseball backstop.

Concern:
Backstop is in poor condition, and too small.

Recommendation:
Replace with larger baseball backstop.

Type	Year	Cost	Priority
Failure Replacement	2007	$3,240	Low

Updated: February 19 2005

G2040.04.01.04 Sports Goals and Equipment*

Painted steel football goal posts, with uprights.

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	DEC-04

Event: Replace goal posts.

Concern:
Football goal posts are rusted and deteriorating.

Recommendation:
Replace the two football goal posts.

Type	Year	Cost	Priority
Failure Replacement	2007	$4,320	Low

Updated: February 19 2005

G2040.05 Site and Street Furnishings*

Prefinished metal benches and trash receptacle, anchored to concrete pad, in seating area in N.E. corner of site, near bus loading area. Fixed, painted steel frame and wood slat, trash can holder near south entry. Freestanding, large, painted steel oil drums used for trash receptacles at secondary entries. Painted steel bike racks near north entry.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

G2040.06 Exterior Signs*

Name of school in individual aluminum letters mounted on the brick building wall adjacent to north entry, and individual, prepainted painted metal letters, on prepainted backing plate, mounted on south face of canopy above south entry.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

G2040.08 Flagpoles*

Freestanding, painted steel flagpole, in grassed area, in front of the north building entry. Freestanding, aluminum flagpole, in grassed area, in front of the south building entry.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

G2040.09 Covers and Shelters*

Protection to ground level pedestrian traffic between buildings is provided by the two, second floor skywalks, above, connecting north and south buildings. Construction of skywalks is in the building report.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

G2040.11 Retaining Walls*

Cast-in- place concrete retaining wall along side of south stairs to drama/band building. Small section of low retaining wall, constructed of decorative concrete block, along S.E. sidewalk.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

G2050.01 Irrigation Systems*

Underground irrigation to grassed and planter areas.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

G2050.04 Lawns and Grasses*

Irrigated grass areas in front of north and south buildings, and in interior courtyard of south building. Large, Irrigated grass playing field, which has to be shared with adjacent elementary school. However, the portion available for the high school's use is too small.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

G2050.05 Trees, Plants and Ground Covers*

Large evergreen and deciduous trees in front of north and south buildings, in interior courtyard of south building, and around drama/band building. Deciduous bushes in planting beds, adjacent to north and south building foundations. Large evergreen and deciduous trees, and deciduous bushes along chainlink fence between west, asphalt paved area and grassed playing field.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

G2050.07 Planting Accessories*

Wood timber planter area near drama/band building. Decorative concrete block planter at S.E. corner of site. Raised brick planter with concrete cap, in interior courtyard of south building.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

G3010.02 Site Domestic Water Distribution*

Three underground water services from the City of Medicine Hat

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

G3010.03 Site Fire Protection Water Distribution*

Fire hydrants surround site.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

G3020.01 Sanitary Sewage Collection*

Underground service from the City of Medicine Hat.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

G3030.01 Storm Water Collection*

Roof drains connect to underground City of Medicine Hat storm water main.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

G3030.02 Storm Water Equipment*

Area drains and catch basins located in hardscaped areas.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

G3060.01 Gas Distribution*

Underground steel natural gas service provided by the City of Medicine Hat.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

G4010.01 Electrical Substations*

North pad mounted distribution transformer and south pad mounted distribution transformer. Both transformers have 13,800V primaries and 120/208V secondaries.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

G4010.02 Electrical Power Distribution Lines*

1993: Underground primary lines from high voltage overhead feed off school property. 13,800V underground lines from high voltage switchgear to two distribution transformers.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

G4010.03 Electrical Power Distribution Equipment*

1993: Primary metered service with 13,800V switchgear supplying distribution transformers on site.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

G4010.04 Car Plugs-ins*

Pedestal and wall mounted, weatherproof receptacles for staff parking. Receptacles are controlled by a time clock and thermostat. Thermostat has three settings. When the outside temperature is low the receptacles are energized continuously, at intermediate temperatures, the receptacles cycle on/off, and above the set point, the receptacles are deactivated.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

G4020.01 Area Lighting*

HID, pole mounted parking lot lighting.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

S8 FUNCTIONAL ASSESSMENT

K3020 Indoor Environment

Both gymnasiums have painted brick and/or block walls, with no acoustic treatment.

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	DEC-04

Event: Install wall acoustics in both gymnasiums.

Concern:
Both gymnasiums have painted brick and/or block walls, with no acoustic treatment. Gymnasiums are reported to be noisy.

Recommendation:
Install wall acoustics in both gymnasiums.

Type	Year	Cost	Priority
Program Functional Upgrade	2007	$54,000	Low

Updated: February 23 2005

K40 Current Code Issues

All buildings appear to have been built to codes at time of construction, and major modernizations have installed sprinklers and improved fire separations to meet current code. Sprinklers have to be installed in future major renovation areas.

Rating	Installed	Design Life	Updated
4 - Acceptable	0	0	DEC-04

K4010.01 Barrier Free Route: Parking to Entrance

Level sidewalk with curbcut from City sidewalk to north entry. Ramp from City sidewalk to south entry. Access from staff and student parking lots to lower east entries of north and south buildings is level and asphalt paved.

Rating	Installed	Design Life	Updated
5 - Good	0	0	DEC-04

K4010.02 Barrier Free Entrances

2001/2003: Power operators installed to both north, main entry doors, and lower south entry door of 1953 building, and lower, N.E. entry door to 1962 building.

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	DEC-04

Event: Install power operators to entry doors.

Concern:
Doors to main, south entry of 1962 building do not have power operators.

Recommendation:
Install power operators to one set of exterior and vestibule entry doors to 1962 building's south main entry, (total 2 doors).

Type	Year	Cost	Priority
Barrier Free Access Upgrade	2005	$8,640	Low

Updated: February 23 2005

K4010.03 Barrier Free Interior Circulation

An elevator , two enclosed wheelchair lifts, and two, open, wheelchair platform lifts, in the north building, provide barrier free access to all areas in the north building, except to the lower floor art and CTS areas in the west wing of the north building. No barrier free access between the main and second floors of the south building, No barrier free access between main and lower floors of drama/band building.

Rating	Installed	Design Life	Updated
2 - Poor	0	0	DEC-04

Event: Install elevator and two enclosed wheelchair lifts.

Concern:

No barrier free access between main and second floors of the south building, or to the lower floor art and CTS areas in the west wing of the north building. No barrier free access between main and lower floors of drama/band building.

Recommendation:

Install an elevator in south building, an enclosed wheelchair lift, in the drama/band building, and another enclosed wheelchair lift in west wing of the north building, to provide access to the art and CTS areas.

Type	Year	Cost	Priority
Barrier Free Access Upgrade	2006	$216,000	Low

Updated: February 23 2005

K4010.04 Barrier Free Washrooms

Barrier free washrooms installed in the south building in 1993 and in the north building in 1993/2001. No barrier free washrooms in the drama/music building.

Rating	Installed	Design Life	Updated
3 - Marginal	0	0	DEC-04

Event: Provide barriier free washrooms in the drama/band building.

Concern:

No barrier free washrooms in the drama/band building.

Recommendation:

Renovate public washrooms in the drama portion of the drama/band building, to provide barrier free washrooms.

Type	Year	Cost	Priority
Barrier Free Access Upgrade	2006	$27,000	Low

Updated: February 23 2005