RECAPP Facility Evaluation Report

Medicine Hat S Dist #76

Crescent Heights High School

B3763A

Medicine Hat

Report run on: January 31, 2005 3:55 PM

Facility Details

Building Name: Crescent Heights High Scho
Address: 1201 Division Avenue N. E.
Location: Medicine Hat

Building Id: B3763A
Gross Area (sq. m): 14,686.32
Replacement Cost: $26,447,469
Construction Year: 0

Evaluation Details

Evaluation Company: Baird & Bergum Architects Ltd.
Evaluation Date: May 1 2004
Evaluator Name: Mr. Robert Baird
Evaluator Phone: (403) 517-8111

Total Maintenance Events Next 5 years: **$667,000**
5 year Facility Condition Index (FCI): **2.52%**

General Summary:

The school has been added onto extensively since 1992 and completely modernized from 1996 to 2003, and is in very good condition. The school was orginally constructed in 1958, as a small, 928 sq.m., elementary school. A 2,868 sq.m.addition in 1959 expanded the school into a junior high school. Additions of 2,610 sq.m. and4,606 in 1962 and 1967 further expanded the school into a junior/senior high school for grades 7 to 12, which it presently is. Additions were added from 1981 to 1999 totalling another 4,951sq.m. In 2003 a 953 sq.m., 300 seat theatre and drama facility was added for a total area of 16,916 sq.m. The mechanical and electrical systems have been upgraded throughout. One boiler requires replacement, fire alarm bells/strobes and the lighting in the mechanics shop is recommended to be replaced.

Structural Summary:

The structural components appear to be in good condition. The original building and the additions have standard, reinforced concrete foundation walls on strip footings with concrete slabs-on-grade. The originial 1958 building, 1959, 1962 and 1967 additions have roof and small second floor/mezzanine (1959 & 1962) construction of steel columns and beams, and load bearing masonry walls, with structural, tongue and groove wood decking. The 1981, 1988, 1989, 1992 , 1994 and 2003 additions have roof and second floor (2003) construction of steel columns and beams, and load bearing concrete block walls, with steel roof decking (concrete topping on steel deck for second floor in 2003 addition).

Envelope Summary:

The building envelope has been upgraded and/or added onto since 1992 and is in very good condition. The exterior walls are brick with some prefinished metal panels and siding, insulated cavity space with air barrier on concrete block or gypsum board sheathing on steel stud backup walls. Roofing is a combination of builtup asphalt and gravel roofing and 2 ply SBS roofing on insulated, structural wood or steel decking. Many of the older, asphalt and gravel roofs are deteriorated (some are leaking) and need to be replaced with upgraded insulation and SBS roofing. During the 1996 through 2003 modernizations, the windows have been replaced with thermally broken, clear anodized aluminum windows with sealed, tinted glazing in fixed and venting awning units. There are numerous skylights and sloped clerestory windows, also with sealed glazing in thermally broken, clear anodized aluminum frames. Exterior and vestibule entry doors are clear anodized aluminum with 6mm tempered glass. the main, south entry has automatic, bi-parting, sliding aluminum doors.

Interior Summary:

Since the 1992 additions, almost all of the interior finishes in the original building, and previous additions, were updated in 1996 and 2003, and are in very good condition. . The classroom flooring is sheet vinyl or linoleum with rubber base. Offices, meeting rooms, computer rooms, and the library have carpet with rubber base. The carpet in the offices and computer rooms is badly worn and needs to be replaced. Entries, lobbies, hallways, cafeteria, washrooms and janitor rooms are porcelain tile with porclain tile or rubber base. Shower/ changerooms have ceramic tile flooring and base. There is hardwood flooring in both the gymnasiums and the fitness centre. Walls are typically painted concrete block, brick and gypsum board. There are some feature walls with vinyl wall fabric. Washroom, shower and change room walls have glazed ceramic tile. Acoustic wall panels are in the gymnasiums, cafeteria and the theatre. Ceilings throughout are typically suspended, acoustic T-bar, with painted gypsum board bulkheads. There are painted gypsum board ceilings in the individual toilet/urinal rooms, and service rooms. Exposed wood and steel roof decking are painted in gymnasiums, fitness centre and some art classrooms. Overall interior finishes are in excellent condition.

Mechanical Summary:

All domestic plumbing and waste systems are in good condition throughout the school. The school is sprinklered with fire hose cabinets and fire extinguishers in the hallways.

The HVAC plants consist of central modular boiler heating plants and one large watertube boiler. The watertube boiler should be replaced as it has operated past it's life expectancy. Two large air cooled water chillers provide cooling to all areas of the school except the Administration area which is served by a D/X condensing unit.

Steel and copper piping systems transfer hydronic heating and cooling water and glycol mixtures to the perimeter radiation and coils. Some PVC piping is located on the roof for chilled glycol distribution. Joints on the roll grooved piping in a portion of the school should be replaced to prevent leaking. Perimeter radiation and supplemental heating offset shell loss in all portions of the school. Large force flow heaters serve the main entrance to the school.

Ventilation, outside air conditioning, and cooling are provided by cooled VAV air handlers except in the Gymnasiums and Theatre where single zone coiled air handlers supply the zone conditioning. A large indirect fired air handler supports the exhaust in the CTS and Mechanics area This make up air unit should be replaced because it is nearing the end of its life.

A Johnson Control's EMCS controls the mechanical systems in the school.

Electrical Summary:

The school electrical systems are in good condition. The school has a large 1200A 600/347V electrical service fed from a 1000kVA transformer. The power is well distributed throughout the school. A large MCC central to the large mechanical motor loads houses the motor starters.

The lighting is 347V excluding the mechanics shop area which is 120V T12 lighting. The lighting in the mechanics area should be changed to more efficient T8 347V lighting as per the rest of the school. Most of the 347V lighting is controlled by Douglas low voltage lighting relay panels and EMCS interlocks. The emergency and exit lighting is powered by large invertors located throughout the school.

Communications systems are in good condition. Category 5 LAN is provided to all classrooms, offices, and computer rooms. The PA system is in good condition. The telephone system is large and distributed to all classrooms and administration areas. The fire alarm system was recently verified and is operating well, but the panel should be replaced due to phase out of parts and several bell zones should be upgraded to horn strobes.

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*

Reinforced concrete foundation walls on reinforced concrete spread footings.

Rating	Installed	Design Life	Updated
6	0	100	October 2004

A1030 Slab on Grade*

Reinforced concrete slab on grade to all main floor areas.

Rating	Installed	Design Life	Updated
6	0	100	October 2004

B1010.01 Floor Structural Frame*(Building Frame)

(1959 & 1962) Structural steel columns and beams. Structural, tongue & groove, wood deck floor.

Rating	Installed	Design Life	Updated
5	0	100	October 2004

B1010.05 Mezzanine Construction*

(1962) Structural steel columns and beams. Structural, tongue & groove, wood deck floor.

Rating	Installed	Design Life	Updated
5	0	80	October 2004

B1020.01 Roof Structural Frame*

(1959,1962, 1967) Steel columns and beams with structural, tongue & groove, wood roof decking.

(1958/1959) Wood joists with wood sheathing roof deck. Load bearing masonry walls.

Rating	Installed	Design Life	Updated
5	0	100	November 2004

B1020.01 Roof Structural Frame*

(1981, 1988,1989,1992,1994,2003) Structural steel columns and beams with open web steel joists and steel roof decking.

Rating	Installed	Design Life	Updated
6	0	100	October 2004

B1020.04 Canopies*

(1992,1994) Structural steel columns and beams with open web steel joists and metal roof decking.

Rating	Installed	Design Life	Updated
6	0	50	October 2004

S2 ENVELOPE

B2010.01.02.01 Brick Masonry: Ext. Wall Skin*

Most exterior wall finishes are brick to all areas.

Rating	Installed	Design Life	Updated
6	0	75	October 2004

B2010.01.06.03 Metal Siding*

(1992,1994) Prepainted, heavy gauge steel panels to upper walls and fascias to entry canopies . Caulked horizontal and vertical joints between panels. Paint fading.

Rating	Installed	Design Life	Updated
4	0	40	October 2004

B2010.01.06.03 Metal Siding*

(2003) Prepainted, vertical metal siding with concealed fasteners, to upper high walls and second floor mechanical room walls.

Rating	Installed	Design Life	Updated
6	0	40	October 2004

B2010.01.09 Expansion Control: Exterior Wall Skin*

Caulked brick control joints.

Rating	Installed	Design Life	Updated
4	0	0	October 2004

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

(1992,1994) Caulked, horizontal and vertical joints between metal fascia panels.

Rating	Installed	Design Life	Updated
4	0	20	October 2004

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

(2003) Lower portion of exposed exterior wall below main floor elevation is sandblasted concrete with rigid insulation sandwitched between interior cast-in-place concrete wall

Rating	Installed	Design Life	Updated
6	0	100	October 2004

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

(1981,1988,1989,1992,1994,2003) Brick veneer, air space, rigid insulation, " peel-and-stick membrane airbarrier on gypsum sheathing with metal studs and interior gypsum board, or trowelled -on air barrier on concrete block interior wall.

Rating	Installed	Design Life	Updated
6	0	0	October 2004

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

(1959,1967) Load bearing brick walls. E,xterior and interior exposed brick, rigid insulation in-between.

Rating	Installed	Design Life	Updated
5	0	0	October 2004

B2010.06 Exterior Louvers, Grilles, and Screens*

Prepainted steel or natural aluminum louvers.

Rating	Installed	Design Life	Updated
5	0	30	October 2004

B2010.09 Exterior Soffits*

(1992, 1994) Prefinished, vented metal soffit

Rating	Installed	Design Life	Updated
6	0	30	October 2004

B2020.01.01.02 Aluminum Windows*

(1992, 1994,1996,2003) Thermally broken, Clear anodized aluminum frames, with 25mm (6mm glass both sides of 13mm air space) sealed glazing. Sloped and vertical fixed units and awning venting units. Exterior pane of glass is tinted with Low-E coating. Most vertical units have an additional 6mm removable interior pane of glass with motorized blinds in between the two glazing systems.

Rating	Installed	Design Life	Updated
6	0	35	October 2004

B2030.01 Exterior Entrance Doors

Swinging entry doors are clear anodized aluminum frames with 6mm tempered glass. Thermally broken, aluminum framed sidelights with sealed glazing. Swinging secondary and service doors are painted, insulated steel, with painted steel frames.

Rating	Installed	Design Life	Updated
5	0	30	October 2004

B2030.01.06 Automatic Entrance Doors*

(1992,1994) Power assisted swinging aluminumand glass door to N.W. entry. Bi-parting, motorized,sliding aluminum and glass doors to main entry.

Rating	Installed	Design Life	Updated
4	0	15	October 2004

B2030.02 Exterior Utility Doors*

(2003) Electric motor operated, overhead, sectional , insulated steel doors to automotive shop and theatre loading area. Theatre door is manually, chain operated.

Rating	Installed	Design Life	Updated
6	0	15	October 2004

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

(1981,1988,1989) Original roofs.

Rating	Installed	Design Life	Updated
4	0	25	October 2004

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

(1992,1994) Original roofs.

Rating	Installed	Design Life	Updated
5	0	25	October 2004

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

Roofs over some 1962 addition areas are badly deteriorated and leaking. 1,325 sq.m. of roofing should be replaced with new insulation and 2 ply, SBS roofing.

Rating	Installed	Design Life	Updated
2	0	25	October 2004

Event: Replace deteriorated roofing.

Concern:
Roofing is badly deteriorated and leaking.

Recommendation:
Replace 3,248 sq. m. of existing roofing with new insulation and 2 ply, SBS roofing.

Type	Year	Cost	Priority
Lifecycle Replacement	2005	$258,000	Medium

Updated: October 7 2004

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

Roofs over 1959 and some 1967 addition areas are deteriorated. 4,475 sq.m. of roofing should be replaced with new insulation and 2 ply, SBS roofing.

Rating	Installed	Design Life	Updated
3	0	25	October 2004

Event: Replace deteriorating roofing.

Concern:
Existing roofing is deteriorating.

Recommendation:
Replace 2,905 sq.m. of existing roofing with new insulation and 2 ply, SBS roofing.

Type	Year	Cost	Priority
Lifecycle Replacement	2008	$231,000	Low

Updated: October 7 2004

B3010.04.04 Modified Bituminous Membrane Roofing (SBS)*

(1996) 2 ply SBS over 76mm insulation.

Rating	Installed	Design Life	Updated
5	0	25	October 2004

B3010.04.04 Modified Bituminous Membrane Roofing (SBS)*

(2003) 2 ply SBS over 76mm insulation.

Rating	Installed	Design Life	Updated
6	0	25	October 2004

B3020.01 Skylights*

(1992,!994,2003) Sealed glazing (6mm laminated glass, 13mm air space, 6mm tempered glass) in thermally broken, clear anodized aluminum frames. 60 degree. single sloped clearstoreys and 45 degree, double sloped skylights and pyramidal skylight.

Rating	Installed	Design Life	Updated
5	0	20	October 2004

S3 INTERIOR

C1010.01 Interior Fixed Partitions*

Painted concrete block, brick or gypsum board on metal studs.

Rating	Installed	Design Life	Updated
5	0	50	October 2004

C1010.03 Interior Operable Folding Panel Partitions*

(1996) Vinyl clad, manually moveable, sound isolation walls dividing computer classrooms.

Rating	Installed	Design Life	Updated
5	0	30	October 2004

C1010.04 Interior Balustrades and Screens, Interior Railings*

Painted steel handrails on ramps.

Rating	Installed	Design Life	Updated
5	0	40	October 2004

C1010.05 Interior Windows*

6mm glazing in painted steel frames from classrooms to corridors. Windows between classrooms, and between classrooms and workrooms, for observation purposes, have double glazing with motorized blinds between the glass, in painted steel frames. Windows to administration area off the main entry lobby are 6mm glazing in clear anodized aluminum frames.

Rating	Installed	Design Life	Updated
5	0	40	October 2004

C1020.01 Interior Swinging Doors*

Varnished, solid core, birch doors in painted steel frames to classrooms, offices, meeting rooms, etc. Painted steel doors in painted steel frames to service rooms. Clear anodized aluminum doors with 6mm tempered glass to main administration area.

Rating	Installed	Design Life	Updated
5	0	40	October 2004

C1020.04 Interior Sliding and Folding Doors*

(1996) Clear anodized aluminum and glass, manually sliding and stackable doors dividing the main entry lobby from the cafeteria.

Rating	Installed	Design Life	Updated
4	0	25	October 2004

C1020.05.01 Coiling Doors and Grilles

(1992) Coiling aluminum slat shutter to concession window. (1996) Coiling aluminum slat shutters to openings from cafeteria to kitchen.

Rating	Installed	Design Life	Updated
5	0	0	October 2004

C1030.01 Visual Display Boards*

(1992,1994,1996,2003) Whiteboards, vinyl covered tackboards.

Rating	Installed	Design Life	Updated
5	0	10	October 2004

C1030.02 Fabricated Compartments(Toilets/Showers)*

(1992) Prefinished steel toilel stalls in public washrooms and student shower/change rooms off gymnasiums.

Rating	Installed	Design Life	Updated
4	0	20	October 2004

C1030.08 Interior Identifying Devices*

Laminated, plexiglass signs adhered to walls, doors or window frames. Wood framed directory map in main entry lobby with clear plexiglas cover.

Rating	Installed	Design Life	Updated
4	0	20	October 2004

C1030.10 Lockers*

(1992,1994,1996,2003) prefinished steel lockers in hallways and change rooms.

Rating	Installed	Design Life	Updated
5	0	30	October 2004

C1030.12 Storage Shelving*

(1988) Mobile, steel shelving system in art room.

Rating	Installed	Design Life	Updated
4	0	20	October 2004

C1030.14 Toilet, Bath, and Laundry Accessories*

Stainless steel washroom accessories and grab bars.

Rating	Installed	Design Life	Updated
5	0	20	October 2004

C2010 Stair Construction*

Wood stairs, with resilient treads, to upper storage area in fabrication shop. Painted steel stairs to mezzanine in automotive shop. Painted steel stairs in service room to roof level access doors.

Rating	Installed	Design Life	Updated
5	0	100	October 2004

C2020.01 Tile Stair Finishes*

Porcelain tile to steps in cafeteria and theatre clasroom area.

Rating	Installed	Design Life	Updated
5	0	30	October 2004

C2020.05 Resilient Stair Finishes*

(1996) Resilient tread covering to wood stairs in fabrication shop.

Rating	Installed	Design Life	Updated
5	0	20	October 2004

C2020.06 Carpet Stair Finishes*

(2003) Carpet on steps from seating area to backstage area in theatre.

Rating	Installed	Design Life	Updated
5	0	10	October 2004

C2020.08 Stair Railings and Balustrades*

Painted steel handrails and guardrails to mezzanine in automotive shop. Painted steel railings to ramps and steps in theatre addition.

Rating	Installed	Design Life	Updated
5	0	50	October 2004

C2020.11 Other Stair Finishes*

(2003) Exposed concrete in steel pan treads on stairs to mechanical room and catwalk in theatre.

Rating	Installed	Design Life	Updated
6	0	0	October 2004

C3010.04 Gypsum Board Wall Finishes*

Painted gypsum board in administration areas, offices and on exterior steel stud walls.

Rating	Installed	Design Life	Updated
4	0	40	October 2004

C3010.06 Tile Wall Finishes*

Glazed, ceramic wall tile in washrooom, shower rooms and individual toilet/urinal rooms. Porcelain tile wainscot on cafeteria walls.

Rating	Installed	Design Life	Updated
5	0	50	October 2004

C3010.09 Acoustical Wall Treatment*

Fabric stretched over acoustic insulation in plasic track on upper walls in both gymnasiums, cafeteria and back wall of the theatre.

Rating	Installed	Design Life	Updated
4	0	15	October 2004

C3010.10 Wall Carpet*

(2003) Carpet wainscot in seating area of the theatre.

Rating	Installed	Design Life	Updated
5	0	0	October 2004

C3010.11 Interior Wall Painting*

Most walls are painted concrete block, brick or gypsum board.

Rating	Installed	Design Life	Updated
4	0	5	October 2004

C3010.12 Wall Coverings*

Vinyl wall fabric in some meeting rooms and main entry lobby.

Rating	Installed	Design Life	Updated
4	0	10	October 2004

C3020.01 Concrete Floor Finishes*

Sealed concrete in mechanical and service rooms and backstage area of theatre. Painted concrete in automotive shop.

Rating	Installed	Design Life	Updated
4	0	20	October 2004

C3020.02 Tile Floor Finishes*

Porcelain tile in entries, lobbies, corridors and washrooms. Mosaic tile in shower areas.

Rating	Installed	Design Life	Updated
5	0	30	October 2004

C3020.04 Wood Flooring*

(1992) Hardwood floor in east gymnasium and fitness room. (2003) Hardwood floor in west gymnasium and power tool area of the fabrication shop was refinished.

Rating	Installed	Design Life	Updated
5	0	10	October 2004

C3020.07 Resilient Flooring*

Sheet vinyl or linoleum in classrooms, with heat welded seams. Vinyl tile in janitor and storage rooms. Rubber base.

Rating	Installed	Design Life	Updated
5	0	20	October 2004

C3020.08 Carpet Flooring*

(2003) Tiered theate seating area is carpetted with carpet base/wainscot.

Rating	Installed	Design Life	Updated
5	0	10	October 2004

C3020.08 Carpet Flooring*

(1994,1996) Carpet in computer classrooms and administration areas is badly deteriorated due to chair movement. Carpet in computer classrooms should be replaced with linoleum (650 sq.m.). Carpet in administration areas should be replaced with new carpet (233 sq.m.) and protector pads used under chairs.

Rating	Installed	Design Life	Updated
2	0	10	October 2004

Event: Replace deteriorated carpet.

Concern:
Carpet is damaged and badly worn.

Recommendation:
Replace carpet in computer rooms with linoleum (650 sq.m.) and carpet in administration areas with new carpet (233 sq.m.) and use protector pads under chairs.

Type	Year	Cost	Priority
Failure Replacement	2005	$63,000	Medium

Updated: October 7 2004

C3020.08 Carpet Flooring*

(1992, 1996) Carpet in meeting rooms and library.

Rating	Installed	Design Life	Updated
4	0	10	October 2004

C3030.04 Gypsum Board Ceiling Finishes*

Painted gypsum board in some washrooms, service rooms, theatre seating area, and individual toilet/urinal rooms.

Rating	Installed	Design Life	Updated
5	0	50	October 2004

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

610x1220 acoustic tile in corridors, classrooms, library, administration areas, cafeteria and open washroom areas.

Rating	Installed	Design Life	Updated
5	0	15	October 2004

C3030.09 Other Ceiling Finishes*

Painted, exposed steel joists and metal deck in east gymnasium and theatre stage area. Painted, exposed steel beams and wood deck in west gymnasium, shops and art classrooms.

Rating	Installed	Design Life	Updated
4	0	0	October 2004

D1010.02 Lifts*

(2003) Enclosed, wheelchair lift in exit lobby, from lower seating area in theatre, to stage level.

Rating	Installed	Design Life	Updated
6	0	25	October 2004

S4 MECHANICAL

D2010.01 Water Closets*

Floor mounted, vitreous china with flush valves.

Rating	Installed	Design Life	Updated
5	0	30	September 2004

D2010.02 Urinals*

Combination of washout urinal banks with EMCS operated soleniod washout controls and stall type with flush valves. All urinals are vitreous china.

Rating	Installed	Design Life	Updated
5	0	30	September 2004

D2010.03 Lavatories*

Vanity mounted vitreous china basins with hands free infrared sensors and mixing valves.

Rating	Installed	Design Life	Updated
5	0	30	September 2004

D2010.04 Sinks*

Stainless steel with swing type faucets.

Rating	Installed	Design Life	Updated
5	0	30	September 2004

D2010.05 Showers*

(2003) Common thermostatic mixing valve, chrome vandal resistant institutional trim. Showerheads are controlled by electronic time switches and soleniod valves.

Rating	Installed	Design Life	Updated
6	0	30	September 2004

D2010.08 Drinking Fountains / Coolers*

Refrigerated stainless steel drinking fountains.

Rating	Installed	Design Life	Updated
5	0	30	September 2004

D2020.01.01 Pipes and Tubes: Domestic Water*

(>1992) Plumbing systems have been upgraded with the additions and renovations some existing copper tubing was reused because it was not accessible.

Rating	Installed	Design Life	Updated
5	0	40	September 2004

D2020.01.02 Valves: Domestic Water

(>1992) Valves have been replaced in renovation areas. Some existing (1958) valves remain.

Rating	Installed	Design Life	Updated
5	0	40	September 2004

D2020.01.03 Piping Specialties (Backflow Preventors)*

Backflow preventors on all boiler feedwater connections and sprinkler tree.

Rating	Installed	Design Life	Updated
5	0	0	September 2004

D2020.02.02 Plumbing Pumps: Domestic Water*

Inline mounted domestic hot water circulation pumps.

Rating	Installed	Design Life	Updated
5	0	20	September 2004

D2020.02.06 Domestic Water Heaters*

South portion of the school is fed by an AO Smith vertical copper tube boiler with a capacity of 420,000 Btu/hr and horizontal steel storage tank. System is probably 1980 or older.

(1986) The north portion of the school is supplied domestic hot water from an AO Smith BC-300H-794S 300,000 Btu/hr vertical copper tube boiler and vertical steel storage tank.

Rating	Installed	Design Life	Updated
4	0	20	November 2004

D2020.03 Water Supply Insulation*: Domestic

Generally insulation is in good condition. Insulation was installed new with pipe in the major renovation areas.

Rating	Installed	Design Life	Updated
5	0	0	September 2004

D2030.01 Waste and Vent Piping*

Cast iron, DWV and plastic throughout.

Rating	Installed	Design Life	Updated
4	0	50	September 2004

D2030.02 Waste Piping Specialties*

Dillution traps on laboratory sinks.

Rating	Installed	Design Life	Updated
	0	50	September 2004

D2040.01 Rain Water Drainage Piping Systems*

Cast iron pipe drains roof to piping below grade. Stormwater is connected to the City infrastructure under the street.

Rating	Installed	Design Life	Updated
5	0	50	September 2004

D2040.02.04 Roof Drains*

Cast iron roof drains with basket type gravel stops.

Rating	Installed	Design Life	Updated
5	0	40	September 2004

D3010.02.01.01 Metering & Regulating Equip:Nat.Gas

City of Medicine Hat gas service located on the north side of the school. Regulator and turbine type meter.

Rating	Installed	Design Life	Updated
5	0	0	September 2004

D3010.02.01.04 Distribution Piping: Natural Gas

Steel piping located througout the school. Piping in the ceiling plenum is minimal.

Rating	Installed	Design Life	Updated
5	0	0	September 2004

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

(1967) North boiler room contains a 3,570,000 Btu/hr Peerless model 210-18-W watertube boiler CRN A-450-42.

Rating	Installed	Design Life	Updated
2	0	30	September 2004

Event: Boiler replacement.

Concern:
Boiler has operated past it's life expectancy.

Recommendation:
Replace the boiler with modular or high efficiency boilers that will fit through the existing door.

Type	Year	Cost	Priority
Failure Replacement	2006	$40,000	Medium

Updated: September 29 2004

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

(1997) Northwest boiler room. Modular Hydrotherm boilers, two banks at 1,800,000 Btu/hr each.

(1992) Eight Weil McLain PFG-8PIN serve the south end of the school. North boiler room modular boilers. Glycol plant consists of two banks of Hydrotherm boilers 2,400,000 Btu/hr each. The hot water plant consists of two banks of Hydrotherm boilers 1,500,000 Btu/hr each.

Rating	Installed	Design Life	Updated
5	0	30	November 2004

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

Ducted combustion air with sheet metal traps in all boiler rooms. All breeching is insulated.

Rating	Installed	Design Life	Updated
5	0	30	September 2004

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

Chemical treatment systems for all boiler plants. Treatment stations consist of a bypass filter, flow restrictor, and chemical potfeeder.

Rating	Installed	Design Life	Updated
5	0	30	September 2004

D3030.03 Reciprocating Water Chillers*

(1992) 150 ton Carrier air cooled chiller mounted on grade on the north side of the school.

Rating	Installed	Design Life	Updated
5	0	25	September 2004

D3030.03 Reciprocating Water Chillers*

(2003) 150 ton York air cooled water chiller mounted on grade on the north side of the school.

Rating	Installed	Design Life	Updated
6	0	25	September 2004

D3030.06.02 Refrigerant Condensing Units*

(1992) Remote condensing unit serves Administration VAV air handler D/X coil.

Rating	Installed	Design Life	Updated
5	0	25	September 2004

D3040.01.01 Air Handling Units: Air Distribution*

(<1984) Make up air in CTS and Mechanics. Engineered Air unit with modular indirect duct heaters.

Rating	Installed	Design Life	Updated
3	0	30	September 2004

Event: Make up air unit replacement.

Concern:
Make up air unit is nearing the end of it's life. Corroded or cracked heat exchangers could become a problem.

Recommendation:
Replace the makeup air unit with a new indirect fired unit.

Type	Year	Cost	Priority
Failure Replacement	2006	$35,000	Low

Updated: September 29 2004

D3040.01.01 Air Handling Units: Air Distribution*

(2003) Constant volume, single zone, air handler serves West Gymnasium. Engineered Air LM-18 consists of a full economizer mixing box with gravity relief, filter section, glycol heating coil, glycol cooling coil, and supply air fan.

VAV air handler serves SE classroom area. Engineered Air LM-18 consists of a return fan, full economizer mixing box, filter section, glycol heating coil, gylcol cooling coil, and supply air fan. Fans are controlled by variable speed drives.

VAV air handler serves former Drama Room and surrounding area. Engineered Air LM-6 consists of a return fan, full economizer mixing box, filter section, glycol heating coil, glycol cooling coil, and supply air fan. Fans are controlled by variable speed drives.

Constant volume, single zone, air handler serves Theatre classroom. Engineered Air LM-1 consists of a full economizer mixing box with gravity relief, filter section, glycol heating coil, glycol cooling coil, and supply air fan.

Constant volume, single zone, air handler serves the Theatre. Engineered Air LM-13-C consists of a full economizer mixing box with gravity relief, filter section, glycol heating coil, glycol cooling coil, and supply air fan.

Rating	Installed	Design Life	Updated
6	0	30	November 2004

D3040.01.01 Air Handling Units: Air Distribution*

(1992) VAV system serves North West Classroom Area. Engineered Air LM-8 consists of return fan, full econmizer mixing box, filter section, glycol heating coil, glycol cooling coil, and supply air fan. Fans are controlled by variable speed drives.

(1992) VAV system serves East side of school. Engineered Air LM-18 consists of return fan, full econmizer mixing box, filter section, glycol heating coil, glycol cooling coil, and supply air fan. Fans are controlled by variable speed drives.

(1994) VAV air handler serves Administration area. Engineered Air LM-10 consists of return fan, full econmizer mixing box, filter section, glycol heating coil, D/X cooling coil, and supply air fan. Fans are controlled by variable speed drives.

(1996) VAV system serves north central side of school. Engineered Air LM-21 consists of return fan, full econmizer mixing box, filter section, glycol heating coil, glycol cooling coil, and supply air fan. Fans are controlled by variable speed drives.

(1996) VAV system serves north central side of school. Engineered Air LM-38 consists of return fan, full econmizer mixing box, filter section, glycol heating coil, glycol cooling coil, and supply air fan. Fans are controlled by variable speed drives.

(2003) Constant volume, single zone, air handler serves East Gymnasium. Engineered Air LM-8 consists of a full economizer mixing box with gravity relief, filter section, glycol heating coil, glycol cooling coil, and supply air fan.

Rating	Installed	Design Life	Updated
5	0	30	November 2004

D3040.01.03 Air Cleaning Devices:Air Distribution*

Combination of 50mm thick disposable filters and bag filters.

Rating	Installed	Design Life	Updated
5	0	0	September 2004

D3040.01.04 Ducts: Air Distribution*

Galvanized sheet metal cold ducts insulated throughout.

Rating	Installed	Design Life	Updated
5	0	50	September 2004

D3040.01.06 Air Terminal Units: Air Distribution*

VAV air terminals all have hot water reheat coils. Most air terminals are EH Price.

Rating	Installed	Design Life	Updated
5	0	0	September 2004

D3040.01.07 Air Outlets & Inlets:Air Distribution*

Square and round diffusers, double deflection grilles and linear slot grilles are used for supply air. Predominatly eggcrate style return air and exhaust grilles.

Rating	Installed	Design Life	Updated
5	0	0	September 2004

D3040.03.01 Hot Water Distribution Systems*

Various ages of steel and copper througout the school. Joints need to be refitted on some leaking roll grooved piping.

Rating	Installed	Design Life	Updated
5	0	0	September 2004

Event: Replace roll grooved couplings.

Concern:
Boilers can not be shut off in the south portion of the school or roll grooved piping joints fail when the piping contracts.

Recommendation:
Remove couplings, clean and replace seals. This has solved the problem in the past.

Type	Year	Cost	Priority
Failure Replacement	2004	$15,000	Medium

Updated: September 29 2004

D3040.04.02 Air Cleaning Devices: Exhaust

CTS area exhausted to dust collection system via centrifugal fan. The filtered air is recirculated to the CTS area.

Rating	Installed	Design Life	Updated
5	0	0	September 2004

D3050.05.02 Fan Coil Units*

Vestibules have ceiling mounted, ducted hot water coiled fan coil units to provide supplementary heating.

Rating	Installed	Design Life	Updated
5	0	30	September 2004

D3050.05.03 Finned Tube Radiation*

Some perimeter baseboard in school to offset shell heat loss.

Rating	Installed	Design Life	Updated
5	0	35	September 2004

D3050.05.06 Unit Heaters*

Unit heaters provide heat for the CTS areas.

Rating	Installed	Design Life	Updated
4	0	30	September 2004

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

(>1992) All mechanical systems are controlled by a Johnson Controls energy management and control system.

Rating	Installed	Design Life	Updated
5	0	25	September 2004

D4010 Sprinklers: Fire Protection*

(>1992) Entire building is fire sprinkled with a wet pipe system.

Rating	Installed	Design Life	Updated
5	0	50	September 2004

D4030.01 Fire Extinguisher, Cabinets and Accessories*

Fire hose cabinets and extinguishers located in corridors throughout the school.

Rating	Installed	Design Life	Updated
5	0	30	September 2004

S5 ELECTRICAL

D5010.01 Main Electrical Transformers*

1000 kVA 347/600V 3 phase pad mounted City of Medicine Hat transformer.

Rating	Installed	Design Life	Updated
5	0	40	September 2004

D5010.02 Secondary Electrical Transformers (Interior)*

600V delta / 120/208V wye stepdown transfromer located in the Theatre addition.

Rating	Installed	Design Life	Updated
5	0	40	September 2004

D5010.03 Main Electrical Switchboards (Main Distribution)*

Westinghouse 1200A 600/347V central distribution panel. Two stacks, one with 1200A main breaker and utility meter current transformers and one branch breaker stack.

Rating	Installed	Design Life	Updated
5	0	40	September 2004

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

120/208 3 phase 4wire panels with bolt on branch breakers. Isolated ground buses for most computer circuits. Panels are of varying ages but most panels are post 1992.

Rating	Installed	Design Life	Updated
5	0	30	September 2004

D5010.05.01 Switchboards, Panelboards and Control Centers

Three main 120/208 CDP located in the Science wing, Theatre addition, and SW electrical room. 347/600V CDP in the Theatre addition.

Rating	Installed	Design Life	Updated
5	0	0	September 2004

D5010.07 Motor Control Centers (Motor Control)*

600/347V Cutler Hammer MCC located in the main electrical room. 600A horizontal and entrance bussing and four 300 amp vertical stacks.

Rating	Installed	Design Life	Updated
5	0	25	September 2004

D5010.07.02 Motor Starters and Accessories*

FVNR motor starters with breaker short circuit protection generally located in motor control centre. Most starters are controlled by the EMCS.

Rating	Installed	Design Life	Updated
5	0	0	September 2004

D5020.01 Electrical Branch Wiring*

General noncombustible wiring methods. EMT conduit, armoured cable and RW90XLPE wire. School lighting and most motor loads are 347V and receptacles are supplied at 120V.

Rating	Installed	Design Life	Updated
5	0	50	September 2004

D5020.02.01 Lighting Accessories (Lighting Controls)*

Low voltage switching with EMCS override in most of the school. Douglas Lighitng relay panels.

Rating	Installed	Design Life	Updated
5	0	0	September 2004

D5020.02.02.02 Interior Florescent Fixtures*

(2002) T8 fluorescent lighting throughout excluding the mechanics shop area. Most fixtures are lay in troffers wired with 4 lamp ballasts in master slave format to two lamp fixtures.

Rating	Installed	Design Life	Updated
5	0	0	September 2004

Event: T12 lighting replacement.

Concern:

T12 fluorescnet lights with magnetic ballasts consume too much electricity. Lighting is inadquate in the mechanics shop.

Recommendation:

Replace the remaining T12 lamps with T8 lamps and electronic ballasts. Add fixtures where addtional task lighting is needed for small part assembly tasks.

Type	Year	Cost	Priority
Energy Efficiency Upgrade	2006	$20,000	Low

Updated: September 29 2004

D5020.02.03 Emergency Lighting*

(1992) Large Daul Lite central invertors power selected fluorescent fixtures and exit lights throughout the school.

Rating	Installed	Design Life	Updated
4	0	0	September 2004

D5020.02.05 Special Purpose Lighting*

(2003) Incandescent theatrical stage lighting on overhead light bars controlled by reused Strand CD80 Supervisor lighting controller (2000).

Rating	Installed	Design Life	Updated
6	0	0	September 2004

D5020.03.01.03 Exterior Metal Halide Fixtures*

Wall mounted wall pack style fixtures.

Rating	Installed	Design Life	Updated
5	0	0	September 2004

D5020.03.01.04 Exterior H.P. Sodium Fixtures*

Wall mounted wall pack style fixtures.

Rating	Installed	Design Life	Updated
5	0	0	September 2004

D5030.01 Detection and Alarm Fire Alarm*

(1992) Edwards ESA 2000 central control panel. Heat detectors, smoke detectors, and pull stations throughout school. System was verified in 2003.

Rating	Installed	Design Life	Updated
3	0	25	September 2004

Event: Replace fire alarm control panel and older bells.

Concern:
Excessive maintenance on the ESA-2000 panel. The older bells are barely loud enough to pass inspection and have no visual devices.

Recommendation:
Replace the Edwards ESA-2000 with an Edwards addressible / conventional panel. Replace the older bell circuit with new horn / strobes.

Type	Year	Cost	Priority
Lifecycle Replacement	2006	$25,000	Medium

Updated: September 29 2004

D5030.02.02 Intrusion Detection*

DSC passive infrared motion detectors throughout hallways and door contacts on all exterior doors. Central control panel is monitored by All Knight Security.

Rating	Installed	Design Life	Updated
5	0	25	September 2004

D5030.02.03 Security Access*

DSC security access keypad at main entrance.

Rating	Installed	Design Life	Updated
5	0	25	September 2004

D5030.04.01 Telephone Systems*

Large Northern Telcomm Norstar phone system serves administration area and classrooms. System has 14 expansion modules and is located in the SW electrical room. Each classroom and office has a telephone.

Rating	Installed	Design Life	Updated
5	0	15	September 2004

D5030.04.02 Paging Systems*

Rauland MCA 100 system. Distributed to all classrooms, office areas, gymansiums, and hallways.

Rating	Installed	Design Life	Updated
5	0	15	September 2004

D5030.04.03 Call Systems*

Call switches in classrooms and administration areas.

Rating	Installed	Design Life	Updated
4	0	15	September 2004

D5030.04.05 Local Area Network Systems*

Category 5 cable with RJ45 modular jacks. Data in every classroom and computer area. Distribution hubs located throughout school and connected to the central server.

Rating	Installed	Design Life	Updated
5	0	15	September 2004

S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION

E1020.02 Library Equipment*

Electronic book monitoring and security entry/exit system.

Rating	Installed	Design Life	Updated
5	0	0	October 2004

E1020.03 Theater and Stage Equipment*

(2003)Theatre curtains and portable stage extension.

Rating	Installed	Design Life	Updated
6	0	0	October 2004

E1020.05 Audiovisual Equipment

(2003) Large, remote controlled, electric projection screen in theatre.

Rating	Installed	Design Life	Updated
6	0	0	October 2004

E1020.07 Laboratory Equipment*

(1992) Fume hood in one science room.

Rating	Installed	Design Life	Updated
4	0	0	October 2004

E1090.01.01 Vacuum Cleaning Systems*

(2003) Central vacuum system in theatre seating area.

Rating	Installed	Design Life	Updated
5	0	0	October 2004

E1090.03 Food Service Equipment*

(1992) Commercial kitchen equipment and exhaust hood in cafeteria kitchen.

Rating	Installed	Design Life	Updated
4	0	0	October 2004

E1090.04 Residential Equipment*

(1992) Electric ranges, ovens, dishwashers, refridgerators, and washer/dryers in foods classroom.

Rating	Installed	Design Life	Updated
4	0	10	October 2004

E1090.07 Athletic, Recreational, and Therapeutic Equipment*

(1992) East gym has motorized, glass, main basketball backboards and divider curtain. Pull-out wood bleachers.

Rating	Installed	Design Life	Updated
4	0	15	October 2004

E1090.07 Athletic, Recreational, and Therapeutic Equipment*

(2003) West gym renovated with motorized, glass, main basketball backboards and divider curtain. Pull-out wood bleacherswith plastic bench seats.

Rating	Installed	Design Life	Updated
5	0	15	October 2004

E2010.02.05 Educational Facility Casework*

(1992,1994,1996,2003) Varnished, birch millwork, plastic laminate countertops with birch edging.

Rating	Installed	Design Life	Updated
5	0	0	October 2004

E2010.02.08 Laboratory Casework*

(1992) Prefinished metal upper storage cabinets, with sliding glass doors. Imperial stone countertops on varnished birch cupboards in science areas. (2003) Acid resistant plastic laminate countertops in modernized science areas.

Rating	Installed	Design Life	Updated
5	0	0	October 2004

E2010.03.01 Blinds*

(1992,1994,2003) Remote controlled, motorized, horizontal blinds, between the glass in the exteior windows.

Rating	Installed	Design Life	Updated
4	0	10	October 2004

E2010.03.01 Blinds*

(1994,2003) Vertical louvres in administration areas and offices.

Rating	Installed	Design Life	Updated
5	0	10	October 2004

E2010.03.03 Shades

(1992,1994,2003) Remote controlled, motorized sunshades on interior side of sloped exterior windows.

Rating	Installed	Design Life	Updated
4	0	0	October 2004

E2010.05 Fixed Multiple Seating*

(2003) Upholstered theatre seating.

Rating	Installed	Design Life	Updated
5	0	25	October 2004

E2010.06 Fixed Interior Landscaping*

(1992,1994) Raised, concrete block and ceramic tile planters and seating areas in main entry and student gathering areas.

Rating	Installed	Design Life	Updated
4	0	10	October 2004

F1020.02.13 Paint Booths*

Small, spray painting enclosure with exhaust hood in fire-rated room.

Rating	Installed	Design Life	Updated
4	0	0	October 2004

F2020 Hazardous Components Abatement

(1992,1994,1996,2003) Asbestos has been removed as part of past upgrading work. Light fixtures have been replaced.

Rating	Installed	Design Life	Updated
6	0	0	October 2004

S8 FUNCTIONAL ASSESSMENT

K3020 Indoor Environment

(1992, 1994, 1996,2003) Ventilation systems new at time of construction or replaced as part of renovation work.

Rating	Installed	Design Life	Updated
5	0	0	October 2004

K40 Current Code Issues

Access to exits is good except travel distances from center of school exceeds code. This is acceptable to code officials as building has a standpipe system, as well as sprinklers.

Rating	Installed	Design Life	Updated
4	0	0	October 2004

K40 Current Code Issues

Storage and mechanical rooms are fire-rated, with rated doors and hardware.

Building is non-combustible, except for structural wood decking. Entire building is sprinklered and has a standpipe/hose system.

Rating	Installed	Design Life	Updated
5	0	0	November 2004

K4010.01 Barrier Free Route: Parking to Entrance

Dedicated parking stalls adjacent to main entries. Curbcuts and ramps from parking lots to entries.

Rating	Installed	Design Life	Updated
6	0	0	October 2004

K4010.02 Barrier Free Entrances

Main, south entry has automatic sliding doors. N.W. entry has power assisted swinging doors.

Rating	Installed	Design Life	Updated
6	0	0	October 2004

K4010.03 Barrier Free Interior Circulation

All areas requiring public access are on ground level. Variations in floor levels have properly designed ramps for wheelchairs. Theatre has a semi-enclosed, wheelchair lift in backstage area, for wheelchair access from lower seating area to stage level.

Rating	Installed	Design Life	Updated
6	0	0	October 2004

K4010.04 Barrier Free Washrooms

Barrier free facilities in all student and staff washrooms and shower areas.

Rating	Installed	Design Life	Updated
6	0	0	October 2004

Facility Details

Building Name: Crescent Heights High Scho
Address:
Location: Medicine Hat

Building Id: S3763
Gross Area (sq. m): 0.00
Replacement Cost: $0
Construction Year: 0

Evaluation Details

Evaluation Company:
Evaluation Date:
Evaluator Name:
Evaluator Phone:

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

General Summary:

Large, 10.5 hectare (26 acre) site on the corner of two main City streets in a residential area. Site is well landscaped with irrigation to all areas. Grass spectator seating berm along north side of the lighted soccer field, and on the south side of a outdoor, six lane, shale running track, and other related track and field facitities. Two baseball diamonds, four soccer fields (one with lights and some bleachers). All roadways and parking lots are asphalt paved and in good, to very good condition. Site is fully serviced by City utilities, telephone and cable T.V.

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 driveways off south and west streets provide drop-off access to main south and secondary N.W entrances and access to parking lots.

Rating	Installed	Design Life	Updated
5	0	20	November 2004

G2010.05 Roadway Curbs and Gutters*

Reinforced concrete curbs.

Rating	Installed	Design Life	Updated
5	0	30	November 2004

G2020.02.02 Flexible Paving Parking Lots(Asphalt)*

Asphalt paved staff and student parking lots along the north, east, and south sides of the school, with asphalt speed bumps.

Rating	Installed	Design Life	Updated
5	0	10	November 2004

G2020.05 Parking Lot Curbs and Gutters*

Concrete curbs to sidewalk sides of parking lots. Wheelchair curbcuts provided at entries. Asphalt level with adjacent grass for drainage in some areas to suit slope of site.

Rating	Installed	Design Life	Updated
5	0	30	November 2004

G2020.06.01 Traffic Barriers*

Precast concrete barricades along east side of N.E. parking lot and painted wood posts along east roadway, to prevent vehicles from driving onto grass areas.

Rating	Installed	Design Life	Updated
5	0	0	November 2004

G2020.06.02 Parking Bumpers*

Precast concrete wheel stops.

Rating	Installed	Design Life	Updated
5	0	0	November 2004

G2020.06.03 Parking Lot Signs*

Painted metal signs on steel posts and mounted on building walls identifying parking restrictions.

Rating	Installed	Design Life	Updated
5	0	0	November 2004

G2020.06.04 Pavement Markings*

Yellow painted stall lines and handicapped symbols.

Rating	Installed	Design Life	Updated
5	0	0	November 2004

G2030.04 Rigid Pedestrian Pavement (Concrete)*

Concrete sidewalks to all building entrance doors. Most installed in 1991/92, 1994 and 2003.

Rating	Installed	Design Life	Updated
5	0	30	November 2004

G2030.06 Exterior Steps and Ramps*

(2003) Concrete steps with painted steel handrails in tiered south parking lot. Step nosings painted yellow for visibility/ contrast. Concrete steps and landing with painted steel handrails/guardrails to east exit door from 2003 addition. (1994) Concrete steps with painted steel handrails to main, south entry. Low slope concrete ramp from south visitor's and staff parking area along front of school leading to main, south entry.

Rating	Installed	Design Life	Updated
4	0	25	November 2004

G2040.02 Fences and Gates*

Wood posts along east side of east roadway. Chainlink fencing around playing fields, Sawdust collector, and large chiller compound, with service gates.

Rating	Installed	Design Life	Updated
5	0	30	November 2004

G2040.03 Athletic and Recreational Surfaces*

(1990) Major site upgrading with new irrigation system, six lane, shale running track, sand track and field long jump pits, grass soccer/football fields and baseball diamonds with shale infields and grass outfields.

Rating	Installed	Design Life	Updated
5	0	25	November 2004

G2040.04.01.05 Bleachers

Two, small sections of moveable, painted steel framed bleachers with wood plank seating on south side of lighted soccer field.

Rating	Installed	Design Life	Updated
4	0	0	November 2004

G2040.05 Site and Street Furnishings*

Prefinished metal benches and trash receptacles in concrete paved student area at S.W. corner of school. Painted steel, moveable bicycle racks on asphalt paved area, east of main entry.

Rating	Installed	Design Life	Updated
4	0	20	November 2004

G2040.06 Exterior Signs*

Name of school in non-illuminated, individual, prepainted, metal letters on face of entry canopy.

Rating	Installed	Design Life	Updated
5	0	15	November 2004

G2040.08 Flagpoles*

(1994) Row of three aluminum flagpoles with internal halyards, on concrete bases, in planter along front of school, adjacent to the main entry. Abandoned, painted steel flagpole adjacent to east entry doors.

Rating	Installed	Design Life	Updated
5	0	25	November 2004

G2040.10 Site Equipment

Free-standing , galvanized steel, transmission tower with concrete base. Sawdust collector, mounted on concrete pad in chainlink fenced enclosure.

Rating	Installed	Design Life	Updated
4	0	0	November 2004

G2040.11 Retaining Walls*

(2003) Low, reinforced concrete retaining walls in south, tiered parking lot.

Rating	Installed	Design Life	Updated
6	0	40	November 2004

G2050.01 Irrigation Systems*

(1990) Underground irrigation system, with automatic controller, to all grass areas and planters. Sprinkler head and piping layout modified in locations of 1994 and 2003 additions. Site irrigation fed from south and north boiler rooms.

Rating	Installed	Design Life	Updated
5	0	0	November 2004

G2050.04 Lawns and Grasses*

Irrigated grass playing fields and open area at S.W. corner of site in front of school. Grass berm along north side of large soccer field, south of running track.

Rating	Installed	Design Life	Updated
5	0	30	November 2004

G2050.05 Trees, Plants and Ground Covers*

Variety of trees and shrubs along streets and in landscaped grass and planter areas around building perimeter.

Rating	Installed	Design Life	Updated
5	0	0	November 2004

G3010.02 Site Domestic Water Distribution*

150mm water service from the City of Medicine Hat underground utilities. Water service provides fire protection and domestic water to the school.

Rating	Installed	Design Life	Updated
4	0	50	November 2004

G3010.03 Site Fire Protection Water Distribution*

Fire department connection mounted on building and plumbed to the fire sprikler system. City of Medicine Hat fire hydrants are located near the property.

Rating	Installed	Design Life	Updated
4	0	50	November 2004

G3020.01 Sanitary Sewage Collection*

The underground collection system is connected to the City of Medicine Hat main in the street. Sewage is treated off site by the City of Medicine Hat.

Rating	Installed	Design Life	Updated
4	0	0	November 2004

G3030.01 Storm Water Collection*

Storm water is diverted within the building from roof drains to an underground collection system. The collection system ties into the City of Medicine Hat storm sewer system in the street.

Rating	Installed	Design Life	Updated
4	0	50	November 2004

G3060.01.01 Natural Gas Distribution

Gas service is located on the north side of the school. Gas is supplied by the City of Medicine Hat and is rotary metered.

Rating	Installed	Design Life	Updated
4	0	0	November 2004

G4010.01.02 Transformers

Electricity is provided to the school from a pad mounted City of Medicine Hat transformer located on the north side of the building. The transformer is 1000 kVA with a 600V 3 phase 4 wire secondary.

Rating	Installed	Design Life	Updated
4	0	0	November 2004

G4010.02 Electrical Power Distribution Lines*

City of Medicine Hat high voltage electrical service buried on site.

Rating	Installed	Design Life	Updated
4	0	0	November 2004

G4020.01 Area Lighting*

Pole mounted high intensity fixtures light the playing fields and parking lots.

Rating	Installed	Design Life	Updated
4	0	30	November 2004

G4020.03 Building Illumination

Wall mounted high intensity discharge fixtures provide security lighting around the building.

Rating	Installed	Design Life	Updated
4	0	0	November 2004

G4030.02 Site Voice and Data*

Telephone and internet service provided by Telus. Internet also provided by wireless transmission via school district's wide area network system. Cable T.V. provided by Shaw. Telephone and cable T.V.services enter school underground.

Rating	Installed	Design Life	Updated
5	0	0	November 2004