RECAPP Facility Evaluation Report

Edmonton RCSSD #7

St. Martha Catholic Elementary School

B3315A
Edmonton

Report run on: February 20, 2008 5:22 PM

Facility Details

Building Name: St. Martha Catholic Elementa
Address: 7240 - 180 Street
Location: Edmonton

Building Id: B3315A
Gross Area (sq. m): 2,982.40
Replacement Cost: $6,500,059
Construction Year: 1980

Evaluation Details

Evaluation Company: Robert Irlam Consulting Inc.
Evaluation Date: June 27 2007
Evaluator Name: Peter Clements

Total Maintenance Events Next 5 years: **$1,071,650**
5 year Facility Condition Index (FCI): **16.49%**

General Summary:

The original school building of 1980 was enlarged by the addition of portable classrooms between 1981 and 1994. It features a centralized plan with classrooms and administration areas to the north and west of the the gymnasium. The building is constructed of hollow block work and a steel roof structure and clad in a skin of brick. There is a low proportion of fenestration, with a general reliance on permanent supplementary artificial lighting. There are extensive playing fields, the overall site area being 2.65 hectares.

Structural Summary:

On a foundation system of poured concrete, the school is constructed of 200mm and 300mm thick concrete blocks, supporting an open web steel beam system.

The condition of the structure is good.

Envelope Summary:

The block work wall structure is clad in facing brick externally and painted internally. The roof has metal decking with rigid insulation and a S.B.S. Membrane. Windows are modular aluminum and double-glazed.

The building envelope is in good condition and requires only minimal maintenance work.

Interior Summary:

Inside, the building typically has a vinyl tiled floor, an acoustic T-bar ceiling and painted concrete block walls. There is extensive provision of casework in all teaching rooms.

Overall the interior of the school has been well maintained and, apart from some wall and ceiling tiles, the replacement requirements concern fixed casework.

The conclusions of a Hazardous Materials Study, undertaken in 2006, are included in the report.

Mechanical Summary:

Two hot water boilers provide heat to the main building via a reverse return perimeter radiation system with individual zones in the classroom and the administrative areas, and force flows in the entry vestibules.
Hot water is also provided to the heating coils in the ventilation units.

There are two ventilation systems. One system provides ventilation to the classroom and administrative areas via a corridor distribution system. The second system provides ventilation to the gymnasium area.

A central DDC control panel has been added to the building to allow remote monitoring of the mechanical systems. This panel is now obsolete and new replacement parts are not readily available. Facilities Maintenance salvages spare parts from other facilities as the panels in the other facilities are replaced.

Domestic hot water is provided from a single hot water storage tank in the mechanical room to the various washrooms in the school.

Overall, the facility mechanical systems are in a satisfactory operating condition.

Electrical Summary:

This building contains an FPE 1000amp 120/208volt 3phase 4wire main distribution panel with a main 600amp breaker. FPE 120/208volt 225amp 42cct branch panels supply mechanical and power loads.
Westinghouse loose wall mounted starters control the mechanical loads. There is a metallic and flexible conduit system throughout with copper conductors. There is line voltage switching throughout except for low voltage switching in the gymnasium and corridors.
There are inefficient T-12 lamps with magnetic ballasts throughout. The wall mount battery packs have integral and remote heads. Old style, inefficient incandescent exit light fixtures are located strategically throughout the school.
There are theatre style par fixtures located above the stage. Exterior lighting is provided by 100 watt wall mount high pressure sodium controlled by a timer and photo electric cells.
An Edwards 6500 main fire alarm control panel has manual pull stations, heat/smoke detectors and bells. The Partners Premier alarm system has a keypad at the main entrance, door contacts and motion detectors throughout. The Bogen system that only rings the bells and the ac clocks are adjusted manually.
The phone system throughout the school is Nitsuko with handsets. The data server room has data racks, hubs and UPS. Data cabling is Cat 5 and 5e cabling throughout.
The push button located at main entrance is audible throughout.
The PA system is Bogen with a CD player and speakers throughout. Cable TV is distributed throughout school. Supernet is installed. A Compaq 1000va and a 2500va UPS protects the servers.

Overall the electrical systems are acceptable.

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* - 1980 Section

Foundations are typically reinforced poured concrete strip footings at bearing level (1500mm below top of ground slab), with reinforced poured concrete walls below grade. Strip footings are all 300mm thick and between 600mm and 800mm wide, depending on the thickness of the reinforced concrete wall above which varies between 200mm, 300mm, 350mm and 385mm.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08

A1030 Slab on Grade* - 1980 Section

The ground floor is a 125mm thick poured concrete slab on gravel bed. 38mm rigid insulation is provided at the perimeter, extending 600mm vertically and horizontally.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08

B1010.02 Structural Interior Walls Supporting Floors (or Roof)* - 1980 Section

Internal structural walls are 200mmm or 300mm hollow concrete block with painted finish, built from slab level.

Rating	Installed	Design Life	Updated
5 - Good	1980	0	JAN-08

B1010.03 Floor Decks, Slabs, and Toppings* - 1980 Section

There are two raised floors in the school: the Mechanical Room, adjacent to the north wall of the Gymnasium, and the Stage Area, raised approximately 1m above gymnasium floor level.

Mechanical Room Floor: 200mm painted mesh reinforced concrete slab spanning 4.6m between the supporting 300mm thick hollow concrete block walls of the gymnasium and service rooms below.
Stage Floor: 125mm mesh reinforced concrete slab spanning 2400mm between reinforced concrete walls to ground slab level.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08

B1010.05 Mezzanine Construction* - 1980 Section

There is a wood mezzanine floor in the Gymnasium Store, installed since initial school construction. Plywood decking is laid on 300mm x 50mm wood joists at 400mm centers spanning 3m between supporting concrete block walls, with a line of bridging mid-span.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08

B1010.09 Floor Construction Fireproofing* - 1980 Section

Stage and Mechanical Room Floors are of poured concrete and are inherently fireproof.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08

B1010.10 Floor Construction Firestopping* - 1980 Section

There are service pipes which penetrate the concrete floor of the Mechanical Room.

Rating	Installed	Design Life	Updated
3 - Marginal	1980	0	JAN-08

Event: Repair firestopping 6 locations

Concern:
Service pipes penetrating the concrete floor of the Mechanical Room lack a secure seal and are not be adequately fire-stopped.

Recommendation:
Install fire stopping in 6 locations.

Consequences of Deferral:
Potential fire transmission remains possible.

Type	Year	Cost	Priority
Code Repair	2008	$1,000	Medium

Updated: JAN-08

B1020.01 Roof Structural Frame* - 1980 Section

38mm metal roof decking is supported typically by open web steel joists at 2000mm centers. Joist depths vary with span from 310mm for 4.6m span over the mechanical room to 910mm for the 17.2m span of the pitched section of the roof and 1070mm for the 18.2m span over the Gymnasium. There is steel diagonal bridging.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08

B1020.04 Canopies* - 1980 Section

There is a small canopy over the main school entrance, which is constructed by an extension of the roof of the administration area using open web steel joists to provide a 1m cantilever beyond the entrance wall. The canopy is framed in steel and there is a fascia of vertical metal sidings (which provides a 'canvas' for the school mural) and a painted metal soffit with flyscreens in the gaps between panels.

Rating	Installed	Design Life	Updated
3 - Marginal	1980	0	JAN-08

Event: Replace 10m2 soffit boards & trim

Concern:

As the main entrance to the building the soffit and fascia (mural) edge appears rough and untidy, creating an poor first impression.

Recommendation:

Provide a new soffit in wood boarding, reinstate lighting and ventilation grills and install a pre-finished aluminum trim to the junction of the soffit with the base of the mural cladding.

Consequences of Deferral:

Continued poor condition.

Type	Year	Cost	Priority
Failure Replacement	2008	$1,500	Low

Updated: JAN-08

S2 ENVELOPE

B2010.01.02.01 Brick Masonry: Ext. Wall Skin* - 1980 Section

There is a brick masonry skin to all elevations apart from the Gymnasium external walls. The construction consists of 90mm brick skin, 25mm air space, 50mm rigid insulation on vapor barrier applied to the structural wall of 200mm or 300mm hollow concrete block.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	75	JAN-08

B2010.01.05 Exterior Insulation and Finish Systems (EIFS)* - 1980 Section

The Gymnasium external walls and the walls of the high level Mechanical Room are provided with a proprietary insulation and finish system ("Insulor"). The system consist of stucco plaster on expanded metal on 50mm rigid insulation and vapor barrier applied to a structural wall of 300mm hollow concrete block.

Rating	Installed	Design Life	Updated
3 - Marginal	1980	75	JAN-08

Event: Repair 30m2 external stucco finish

Concern:
Though overall quality of finish is good, there is splitting and damage to sections of the plaster finish.

Recommendation:
Carry out minor repairs to exterior plaster finish as required (allow 30m2).

Consequences of Deferral:
Further degradation of the stucco finish is likely.

Type	Year	Cost	Priority
Repair	2008	$2,000	Low

Updated: JAN-08

B2010.01.06 Siding Panels - 1980 Section

There are pre-colored vertical metal siding panels above window and door locations on the north, west and south elevations of the school.

Rating	Installed	Design Life	Updated
2 - Poor	1980	40	JAN-08

Event: Replace all metal siding (70m2)

Concern:
All metal sidings are badly pitted.
Recommendation:
Replace 70m2 of metal siding.
Consequences of Deferral:
Unsightly panels will remain, to the detriment of the school's visual appearance.

Type	Year	Cost	Priority
All Events	2008	$7,500	Medium

Updated: JAN-08

B2010.01.09 Expansion Control: Exterior Wall Skin* - 1980 Section

Expansion control joints are provided at regular intervals throughout the external wall construction, in the brick skin and the stucco plaster gymnasium wall.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08

B2010.01.11 Joint Sealers (caulking): Ext. Wall** - 1980 Section

Caulked joint sealing is applied to all brick skin expansion control joints, around door and window frames and around metal ventilation grills. There are caulked joints also between the bays of stucco finish to the gymnasium external walls.

Rating	Installed	Design Life	Updated
3 - Marginal	1980	20	JAN-08

Event: Recaulk 60m expansion joints

Concern:
Caulking has failed in many areas of the brick skin expansion control joints and is absent from some of the metal ventilation grills.
Recommendation:
Rake out and re-caulk all brick skin expansion joints (60m) and check the sealing around ventilation grills.
Consequences of Deferral:
Possible water ingress at joints.

Type	Year	Cost	Priority
Failure Replacement	2008	$1,100	Low

Updated: JAN-08

Event: Replace 400m caulking

Type	Year	Cost	Priority
Repair	2011	$6,000	Unassigned

Updated: JAN-08

B2010.01.13 Paints (& Stains): Exterior Wall** - 1980 Section

The exterior brick skin has a painted finish.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	15	JAN-08

Event: Repaint 800m2

Type	Year	Cost	Priority
Repair	2011	$10,000	Unassigned

Updated: JAN-08

B2010.02.03.02 Concrete Masonry: Ext. Wall Const.

There are 200mm or 300mm thick painted concrete block partitions throughout the school.

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

B2010.03 Exterior Wall Vapor Retarders, Air Barriers, and Insulation* - 1980 Section

There are vapor barriers applied to the structural concrete block external walls of the school with 50mm rigid insulation throughout as part of the gymnasium wall EIFS or the brick skin.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08

B2010.06 Exterior Louvers, Grilles, and Screens* - 1980 Section

There are metal ventilation grills in the external wall and large metal grills in the walls of the Mechanical Room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08

B2010.09 Exterior Soffits* - 1980 Section

Prefinished metal soffit panels,with flyscreens between, are provided to the underside of the main school entrance canopy.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08

B2020.01 Exterior Standard Windows - 1980 Section

Standard window sizes comprise single and double modules of the same window type, 800mm wide x 1400mm high and 1600mm x 1400mm. There are 4 No. double module windows and 8 No. single module. All are double glazed pre-finished aluminum with a 400mm x 800mm bottom opener and integral horizontal blinds. On the less secure north and west elevations, windows are protected with a painted steel mesh.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	40	JAN-08

Event: Replace 12 windows

Type	Year	Cost	Priority
Lifecycle Replacement	2020	$16,000	Unassigned

Updated: JAN-08

B2030.01.02 Steel-Framed Storefronts: Doors**

There are three sets of double exterior entrance doors. All external doors are set in pressed steel frames.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	30	JAN-08

Event: Replace 3 pairs entrance doors

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$13,500	Unassigned

Updated: JAN-08

B2030.02 Exterior Utility Doors** - 1980 Section

There are 3 single utility doors, two to one classroom and one to the garden store on the north elevation. In addition there is a set of double exit doors from the Gymnasium, located on the east elevation. All external utility doors are painted insulated hollow metal doors in pressed steel frames.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	40	JAN-08

Event: Replace 5 utility doors

Type	Year	Cost	Priority
Lifecycle Replacement	2020	$4,000	Unassigned

Updated: JAN-08

B3010.01 Deck Vapor Retarder and Insulation* - 1980 Section

The roof deck is made up of S.B.S. membrane on 75mm rigid insulation laid on poly vapor barrier on 12mm drywall on 38mm steel decking.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08

B3010.04.04 Modified Bituminous Membrane Roofing (SBS)** 1980 Section

The roof membrane is S.B.S., recently applied throughout the main school building. At the roof edges there is a pre-finished aluminum parapet.

Rating	Installed	Design Life	Updated
5 - Good	2000	25	JAN-08

Event: Replace 2400m2SBS roof membrane

Type	Year	Cost	Priority
Lifecycle Replacement	2025	$276,000	Unassigned

Updated: JAN-08

B3020.02 Other Roofing Openings (Hatch,Vent, etc)* - 1980 Section

A variety of roof penetrations relating to mechanical services protrude through the roof membrane with metal caps and flashings.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08

S3 INTERIOR

C1010.01.07 Framed Partitions (Stud)* -

Wood and steel stud partitions are used in the staff and administration areas (where minor alterations in the partitioning were made in 1988) and between classrooms. They have a drywall finish both sides.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08

C1010.02 Interior Demountable Partitions* -

A removable partition has been added to the proscenium opening of the Stage Area. It comprises a wood frame with fibre-glass insulation, finished both sides with birch-faced plywood panels in 12 sections with battened joints.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08

C1010.04 Interior Balustrades and Screens, Interior Railings* -

There are painted 40mm diameter tubular steel rails to the Stage stairs and landings.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08

C1010.05 Interior Windows* -

There is an interior window, 1800mm wide x 1200mm high, with wired glass in a pressed steel frame, between the General office and the adjacent corridor.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08

C1010.07 Interior Partition Firestopping* -

Typically the junction between the concrete block partition and the underside of the metal roof decking is achieved by the application of 'Dural' adhesive.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08

C1020.01 Interior Swinging Doors (& Hardware)* -

There are 45 single interior swing doors in the 1980 section of the school and 9 pairs of double swing doors, two pairs of which were formerly external until the attachment of portable links. Typically, classrooms have rated solid core wood doors in pressed steel frames. Doors from the corridor to the mechanical room, resource room and storage rooms are rated hollow metal in steel frames. Double swing doors are generally metal with door closers and kick plates.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	40	JAN-08

C1020.03 Interior Fire Doors* -

Interior fire doors are labeled with their fire rating and are either solid core or hollow metal. Doors and frames in the area of the mechanical room are rated at 11/2 hours.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08

C1030.01 Visual Display Boards** -

There are tack boards and green boards throughout the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	20	JAN-08

Event: Replace 250m2 visual display board

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$17,000	Unassigned

Updated: JAN-08

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

There are 14 metal cubicles provided in six wash rooms. An enlarged toilet cubicle is provided in both wash rooms near the gymnasium.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	30	JAN-08

Event: Replace 14 toiet cubicles

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$16,800	Unassigned

Updated: JAN-08

C1030.06 Handrails* -

Painted tubular steel handrails are provided to the Stage Area stairs and landing and to the access stair to the Mechanical Room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08

C1030.08 Interior Identifying Devices* -

Metal door signs are used throughout the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08

C1030.12 Storage Shelving* -

There is extensive provision of storage shelving in the classroom and corridor areas combined with cupboard and countertop assemblies.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08

C1030.14 Toilet, Bath, and Laundry Accessories* -

There are sinks set in vanity tops. Mirrors and soap/towel dispensers are also provided in wash rooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08

C2010 Stair Construction*

There are two short flights of concrete stairs, giving access to the stage level from adjacent lobbies, finished with vinyl tiles/nosings and steel tube handrails. From the main corridor near the gymnasium, separated by a hollow steel fire door, there is a metal stair to the mechanical room. This has metal grill treads, open risers, steel strings and steel tube handrails both sides, fixed to adjacent concrete block walls.

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

C3010.06 Tile Wall Finishes** -

Ceramic tile splash backs are provided behind urinals in the boys wash rooms.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	40	JAN-08

Event: Replace 12m2 ceramicwall tiling

Type	Year	Cost	Priority
Lifecycle Replacement	2020	$3,000	Unassigned

Updated: JAN-08

C3010.09 Acoustical Wall Treatment** -

There is a continuous line of fabric covered acoustic panels at high level in the Gymnasium. Panels are 2400mm high and 1200mm wide.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	20	JAN-08

Event: Replace 200m2 acoustic wall panels

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$33,800	Unassigned

Updated: JAN-08

C3010.11 Interior Wall Painting* -

All interior fair-faced concrete block walls, drywall panels and, where applicable, undersides of metal roof decks are painted.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	10	JAN-08

C3020.01.01 Epoxy Concrete Floor Finishes* -

Epoxy floor finishes are provided to the two major entrance vestibules on the east side of the school and to the lobbies at the rear of the Stage Area.

Rating	Installed	Design Life	Updated
3 - Marginal	1980	0	JAN-08

Event: Install 65m2 vinyl tiles

Concern:
In all cases, there is evidence of cracking and splitting of floor around the edges. This may be due to slab settlement.
Recommendation:
Level the floor and provide new vinyl tile finish (75m2).
Consequences of Deferral:
Floor damage in heavily used areas will ensue.

Type	Year	Cost	Priority
Failure Replacement	2008	$3,500	Low

Updated: JAN-08

C3020.01.02 Paint Concrete Floor Finishes* -

There are painted finishes to concrete floors in the meter room, the mechanical room and the small storeroom directly below it.

Rating	Installed	Design Life	Updated
3 - Marginal	1980	10	JAN-08

Event: Repaint 95m2 concrete floor

Concern:
Painted finish has deteriorated.
Recommendation:
Repaint 95m2 concrete floor (@ $21/m2)
Consequences of Deferral:
Unsatisfactory finish will be subject to further degradation.

Type	Year	Cost	Priority
Failure Replacement	2008	$2,000	Low

Updated: JAN-08

C3020.04 Wood Flooring**

The Gymnasium floor consists of 6mm wood parquet floor on 2 layers of 9mm plywood on rubber blocks laid on the concrete slab on grade.

Rating	Installed	Design Life	Updated
3 - Marginal	1980	30	JAN-08

Event: Repair 5m2 gym floor

Concern:
Settlement of the slab has caused a breakdown in the floor finish at the junction between the gymnasium and the entrance vestibule.

Recommendation:
Remove area of floor affected by settlement and repair concrete slab; reinstate new plywood backing and parquet floor to match existing, and provide varnish finish.

Type	Year	Cost	Priority
Repair	2008	$1,000	Low

Updated: JAN-08

Event: Replace 340m2 with resilient gym floor

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$55,000	Unassigned

Updated: JAN-08

C3020.07 Resilient Flooring** -

Flooring throughout the school, excepting the Gymnasium and the floors of service rooms, are typically vinyl or vinyl asbestos tiles.

Rating	Installed	Design Life	Updated
3 - Marginal	1980	20	JAN-08

Event: Replace 1750m2 vinyl tiles

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$78,750	Unassigned

Updated: JAN-08

Event: Replace 85m2 vinyl tiles

Concern:
In a number of locations (e.g. wash rooms, janitors rooms, classroom 106), vinyl floor tiles are worn,damaged or unmatched.

Recommendation:
Allow for replacement of 5% of vinyl floor tiles (85m2)

Consequences of Deferral:
Areas of sub-standard flooring will remain.

Type	Year	Cost	Priority
Failure Replacement	2008	$4,000	Medium

Updated: JAN-08

C3020.08 Carpet Flooring** -

Carpets are provided to administration rooms, library and two teaching rooms: ECS and the adjacent resource room.

Rating	Installed	Design Life	Updated
3 - Marginal	1980	15	JAN-08

Event: Replace 50m2 carpet

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$4,500	Unassigned

Updated: JAN-08

Event: Replace 70m2 carpet

Concern:
Carpets in the teaching rooms (ECS and the adjacent resource room 101) are excessively worn.
Recommendation:
Replace the carpets in ECS and 101 with vinyl tiles (70m2).
Consequences of Deferral:
Continued wear and sub-standard floor finish will ensue.

Type	Year	Cost	Priority
Failure Replacement	2008	$3,500	Low

Updated: JAN-08

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

Acoustic tiles suspended from metal T-bar grid is provided for the ceilings in school classrooms, library and staff room, an area of approximately 1200m2.

Rating	Installed	Design Life	Updated
3 - Marginal	1980	25	JAN-08

Event: Replace 1200m2 ceiling tiles

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$54,000	Unassigned

Updated: JAN-08

Event: Replace 120m2 ceiling tiles

Concern:
A proportion of tiles are stained as a result of previous roof defects, while others are damaged or dislodged.
Recommendation:
Allow for replacement of 10% of tiles (120m2)
Consequences of Deferral:
A detrimental effect on school appearance will remain.

Type	Year	Cost	Priority
Failure Replacement	2008	$5,400	Medium

Updated: JAN-08

S4 MECHANICAL

D2010.04 Sinks** -

A single compartment stainless steel sink is located in the staff room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	30	JAN-08

Event: Replace Stainless Steel Sink

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$1,200	Unassigned

Updated: JAN-08

D2010.08 Drinking Fountains / Coolers** -

Vitreous China wall hung drinking fountains located throughout.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	35	JAN-08

Event: Replace 3 Drinking Fountains

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

Updated: JAN-08

D2010.09 Other Plumbing Fixtures* -

Sediment interceptor located in the Art Room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08

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

There are 18 water closets (flush valves in student areas, flush tanks in staff areas), 15 enamel steel lavatories, and 6 wall hung urinals located throughout the facility.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	30	JAN-08

Event: Replace 18 WCs, 15 Lavatories, 6 urinals

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$48,100	Unassigned

Updated: JAN-08

D2020.01.01 Pipes and Tubes: Domestic Water* -

Insulated copper domestic water lines in the corridor ceiling space service the various plumbing fixtures.

Rating	Installed	Design Life	Updated
5 - Good	1980	0	JAN-08

D2020.01.02 Valves: Domestic Water** -

12mm to 50mm bronze domestic water valves isolate each washroom, plus valving at the water meter and mechanical room

Rating	Installed	Design Life	Updated
5 - Good	1980	40	JAN-08

Event: Replace water valves throughout

Type	Year	Cost	Priority
Lifecycle Replacement	2020	$15,600	Unassigned

Updated: JAN-08

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

A backflow preventor is located on the domestic water feed to the boilers.

Rating	Installed	Design Life	Updated
5 - Good	1980	20	JAN-08

Event: Replace Backflow Preventor

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$3,200	Low

Updated: JAN-08

D2020.02.02 Plumbing Pumps: Domestic Water** -

A 20mm domestic hot water recirc pump is located in the mechanical room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	20	JAN-08

Event: Replace 20mm recirc. pump

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$1,200	Unassigned

Updated: JAN-08

D2020.02.06 Domestic Water Heaters** -

DHW heater is a State SBT-75 NE1DCGA. Nameplate reads 75 US Gal (280 liter) storage, 67,590 btuh (20KW) input, 56.8 Usgph (210 lph) recovery. Unit is a replacement estimated installation year 2002.

Rating	Installed	Design Life	Updated
5 - Good	2002	20	JAN-08

Event: Replace 280 litre water heater

Type	Year	Cost	Priority
Lifecycle Replacement	2022	$1,900	Unassigned

Updated: JAN-08

D2020.03 Water Supply Insulation: Domestic* -

Insulation appears to be fiberglass with painted canvas jacket.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08

D2030.01 Waste and Vent Piping* -

Cast iron waste and vent piping throughout facility.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	FEB-08

D2040.01 Rain Water Drainage Piping Systems* -

150mm roof drains connect to a 250mm buried storm drain exiting the east face of the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08

D2040.02.04 Roof Drains* -

Roof drains are 150mm cast iron with cages.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	40	JAN-08

D3010.02 Gas Supply Systems* -

Gas enters the east side of the building to the meter room and supplies the boilers with a 100mm gas main. A gas line at the roof level maintains service to the portables.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	60	JAN-08

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

Heating boilers B-1 and B-2 are Raytherm 750-WTD hot water boilers, 749,800 btuh (220KW) input on natural gas.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	35	JAN-08

Event: Replace 2 Hot Water Heating Boilers.

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$46,000	Unassigned

Updated: JAN-08

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

300mm and 600mm Type B gas vents galvanized steel through to roof from mechanical room. Combustion air intake at the roof is 450mm x 250mm.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	30	JAN-08

Event: Replace 300mm and 600mm vents

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$6,800	Low

Updated: JAN-08

D3020.03.01 Furnaces** -

7 furnaces installed in portables. The 4 furnaces in the west portables are circa 1981, portables 185 & 186 are circa 1982, and portable 223 in circa 1986. All are Palm Air units.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	25	JAN-08

Event: Replace 7 furnaces

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$28,000	Unassigned

Updated: JAN-08

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

Type 'B' gas vents to each portable roof. There is a 600mm and 300mm Type 'B' gas vent through the roof from the boiler room, and a 450 x 250 combustion air gooseneck from the roof to the mechanical room

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08

D3030.06.02 Refrigerant Condensing Units** -

A Carrier 38CKC060529 condensing unit is installed on the roof for the computer room air conditioning

Rating	Installed	Design Life	Updated
4 - Acceptable	2000	25	JAN-08

Event: Replace Condensing Unit

Type	Year	Cost	Priority
Lifecycle Replacement	2025	$4,000	Unassigned

Updated: JAN-08

D3040.01.01 Air Handling Unit - Gymnasium**

Supply Air Fan F-3 supplies 3600 lps mixed air to ceiling ducts mounted in the gymnasium joist space. Return fan F-4 returns 3160 lps to the system. Fans are Trane cabinet fans, F-3 is a Trane T14LPHCTH and F-4 is a Trane T14LPHFTH.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	30	JAN-08

Event: Replace Gymnasium Supply and Return Fans

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$50,000	Low

Updated: JAN-08

D3040.01.01 Air Handling Unit - School**

Supply Fan F-1 distributes 3455 lps of mixed air from the mechanical room to a corridor distribution system to the various classroom and administration areas. Return Fan F-2 sized for 2630 lps returns air through a corridor ceiling plenum and duct system to the outside air/ exhaust mixing box at the air handling unit. Fan F-1 is a Trane T14LPHFTH, fan F-2 is a Trane Cabinet fan, unknown model number.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	30	JAN-08

Capacity Size	Capacity Unit
3455	L/s

Event: Replace Supply and Return fans

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$50,000	Low

Updated: JAN-08

D3040.01.04 Ducts: Air Distribution* -

Air is supplied through a corridor distribution system to the classroom and administrative areas and to the gymnasium through a ducting system located in the ceiling joists.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08

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

There are 360 degree square cone ceiling diffusers installed in the classroom and administrative areas. Louvred face supply grilles are installed in the exposed ceiling ducts in the gymnasium. 1600mm x 400mm louvred fresh are intakes for the make-up air units are installed in the east wall of the mechanical room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08

D3040.03.01 Hot Water Distribution System - Pumps**

There are two Armstrong 1-25D 4040 base mounted heating pumps c/w 1.5hp 1750rpm motors. The capacity of each pump is 40 US gpm.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	40	JAN-08

Event: Replace 2 hydronic pumps

Type	Year	Cost	Priority
Lifecycle Replacement	2020	$13,200	Unassigned

Updated: JAN-08

D3040.03.01 Hot Water Distribution Systems** - Piping

Insulated steel 65mm reverse return piping system located in the corridor ceiling space delivers heating water from the mechanical room to the AHU heating coils, perimeter wall-fin radiation system, and entranceway force flow units.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	40	JAN-08

Event: Replace hot water piping

Recommendation:
Costing based on building area.

Type	Year	Cost	Priority
Lifecycle Replacement	2020	$246,000	Low

Updated: JAN-08

D3040.04.01 Fans: Exhaust** -

Exhaust fans F-5 and F-6 are located on the NE corner of the roof and exhaust air from the main student washrooms and janitor room areas. Individual exhaust fans #8 and #9 discharge from the washrooms adjacent to the gymnasium to goosenecks located on the roof.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	30	JAN-08

Event: Replace 4 Exhaust Fans

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$4,000	Low

Updated: JAN-08

D3040.04.03 Ducts: Exhaust* -

4 sheet metal exhaust ducts run from washroom areas to either rooftop fans or goose necks at the roof.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08

D3040.04.05 Air Outlets and Inlets: Exhaust* -

Standard metal ceiling grilles in each washroom area.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08

D3050.02 Air Coils** -

The Gymnasium AHU has two heating coils, one in the return air, and one in the supply air. The school AHU has one heating coil in the supply air discharge to the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	30	JAN-08

Event: Replace 3 Air Heating Coils

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$13,000	Low

Updated: JAN-08

D3050.03 Humidifiers** -

There are two steam humidifiers, one for each air handling unit. Humidifiers are Nortec ES600 105KW units.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	25	JAN-08

Event: Replace 2 humidifiers

Recommendation:
The facility manager reported that the humidifiers are not normally used in operation of the school.

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$8,000	Low

Updated: JAN-08

D3050.05.02 Fan Coil Units** -

There are cabinet fan coil units installed in each of the four vestibules in the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	30	JAN-08

Event: Replace 4 Fan Coil Units

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$8,000	Unassigned

Updated: JAN-08

D3050.05.03 Finned Tube Radiation** -

Finned tube radiation zoned throughout the perimeter of the building, located behind cabinets with countertop linear diffusers.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	40	JAN-08

Event: Replace 200m Finned Tube Radiation

Type	Year	Cost	Priority
Lifecycle Replacement	2020	$81,000	Low

Updated: JAN-08

D3050.05.06 Unit Heaters**

There are two ceiling mounted unit heaters in the gym and one in the mechanical room.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	30	JAN-08

Event: Replace 3 unit heaters

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$10,800	Low

Updated: JAN-08

D3060.02 HVAC Instrumentation and Controls -

Temperature is maintained in each classroom and administrative area by zone thermostatic controllers that modulate a heating control valve on the zone radiation.

The school board has added mass air sensors in the individual zones which are controlled remotely through a Andover AC256M control panel.

The school AHU is controlled by the return fan activation by a day/night setting, which switches on the supply fan, and the two washroom exhaust fans. Discharge air temperature is reset by an outdoor air controller and minimum fresh air is set at 20% at all times.

The gymnasium AHU is controlled by the return fan activation which switches on the supply fan, and the gym washroom exhaust fan. Minimum fresh air is maintained at 15%. A room temperature controller modulates heating coil valves to maintain setpoint conditions. On night cycle the fresh air and exhaust dampers are fully closed and the return damper is fully open.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	30	JAN-08

Event: Replace [D3060.02 HVAC Instrumentation and Controls -]

Recommendation:
Replacement of controls assumes 30 points plus a new control panel for remote access.

Type	Year	Cost	Priority
Lifecycle Replacement	2010	$51,000	Unassigned

Updated: JAN-08

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

Remote operation of the air handling units has been added by the school board through the Andover DDC panel. Existing controllers are pneumatic and are actuated through I/P transducers in the DDC panel.

Remote operation of the perimeter heating zones has also been added with mass air sensors in each zone connected to the DDC panel.

Rating	Installed	Design Life	Updated
4 - Acceptable	1995	20	JAN-08

Event: Replace central control panel

Concern:
The Andover control panel is now obsolete and parts are commercially unavailable. However, the school board salvages spare parts from other facilities where these panels have been replaced through an ongoing upgrade program

Type	Year	Cost	Priority
Lifecycle Replacement	2015	$9,000	Low

Updated: JAN-08

D3090 Other Special HVAC Systems and Equipment* -

A duplex Honeywell control air compressor with a refrigerated after dryer is located in the mechanical room and maintains air supply to the pneumatic control system and to a sports ball inflator in the the gymnasium storage area.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08

D4030.01 Fire Extinguisher, Cabinets and Accessories* -

Type ABC dry chemical type fire extinguishers are located throughout the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	30	JAN-08

S5 ELECTRICAL

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

The main distribution panel is an FPE 1000amp 120/208volt 3phase 4wire with a 600amp main breaker.

Rating	Installed	Design Life	Updated
5 - Good	1980	40	JAN-08

Event: Replace Main Electrical Switchboard

Type	Year	Cost	Priority
Lifecycle Replacement	2020	$50,000	Unassigned

Updated: JAN-08

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

FPE 120/208volt 225amp 42cct branch panels supplying mechanical and power loads.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	30	JAN-08

Event: Replace 6 Electrical Branch Circuit Panelboards

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$48,000	Unassigned

Updated: JAN-08

D5010.07.02 Motor Starters and Accessories** -

There are Westinghouse loose wall mounted starters controlling mechanical loads.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	30	JAN-08

Event: Replace 8 Motor Starters

Recommendation:
Replace with new.

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$8,000	Unassigned

Updated: JAN-08

D5020.01 Electrical Branch Wiring* -

The conduit system throughout is metallic and flexible with copper conductors.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08

D5020.02.01 Lighting Accessories (Lighting Controls)* -

There is line voltage switching throughout except for low voltage switching in the gymnasium and corridors.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08

D5020.02.02.02 Interior Florescent Fixtures** -

The fluorescent lighting is provided by T-12 lamps with magnetic ballasts throughout the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	30	JAN-08

Event: Replace 600 Interior Florescent Fixtures

Concern:
Current fixtures and lamps are old inefficient technology and expensive to operate.
Recommendation:
Replace existing fixtures with new efficient T-8 lamps and electronic ballasts throughout.

The estimated pay back is 3 to 4 years.
Consequences of Deferral:
High energy and maintenance costs will persist.

Type	Year	Cost	Priority
Lifecycle Replacement	2008	$120,000	Low

Updated: JAN-08

Event: Replace 600 fluorescent fixtures

Type	Year	Cost	Priority
Lifecycle Replacement	2038	$120,000	Unassigned

Updated: JAN-08

D5020.02.03.02 Emergency Lighting Battery Packs** -

The wall mount battery packs have integral and remote heads.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	20	JAN-08

Event: Replace 8 Emergency Lighting Battery Packs

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$9,000	Unassigned

Updated: JAN-08

D5020.02.03.03 Exit Signs* -

Old style incandescent exit light fixtures are located throughout.

Rating	Installed	Design Life	Updated
3 - Marginal	1980	0	JAN-08

Event: Upgrade 6 Exit Signs

Concern:
Exit lights are old style incandescent which are wasteful of energy.
Recommendation:
Retrofit fixtures with LED.

The pay back period is estimated to be 3 to 4 years.
Consequences of Deferral:
Higher maintenance and energy costs will persist.

Type	Year	Cost	Priority
Energy Efficiency Upgrade	2008	$2,000	Low

Updated: JAN-08

D5020.02.05 Special Purpose Lighting* -

Theater style par fixtures are located above the stage.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08

Capacity Size	Capacity Unit
300	watts

D5020.03.01.04 Exterior H.P. Sodium Fixtures* -

There are wall mounted and lamp standards with HP sodium fixtures at the front of the school.

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

D5020.03.02 Lighting Accessories: Exterior (Lighting Controls)* - Exterior lighting is controlled via contactor/time

Exterior lighting is controlled by a timer and photo electric cells.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08

D5030.01 Detection and Fire Alarm** -

Edwards 6500 main fire alarm control panel c/w manual pull stations, heat/smoke detectors, bells.

Rating	Installed	Design Life	Updated
3 - Marginal	1980	25	JAN-08

Event: Replace Detection and Fire Alarm

Concern:
Fire alarm control panel has reached it's theoretical life cycle expectancy.
Recommendation:
Replace main fire alarm control panel.
Consequences of Deferral:
Higher than normal cost of maintaining this obsolete panel and/or system failure.

Type	Year	Cost	Priority
Failure Replacement	2009	$35,000	Unassigned

Updated: JAN-08

D5030.02.02 Intrusion Detection** -

Partner Premier system c/w motion detectors, door contacts. Keypad located at main entrance.

Rating	Installed	Design Life	Updated
5 - Good	2003	25	JAN-08

Event: Replace Intrusion Detection System ($10/m2)

Type	Year	Cost	Priority
Lifecycle Replacement	2028	$20,000	Unassigned

Updated: JAN-08

D5030.03 Clock and Program Systems* -

The Bogen MCP 35A system rings the bell schedule.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	25	JAN-08

D5030.04.01 Telephone Systems* -

The phone system is a Nitsuko with handsets throughout the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	25	JAN-08

D5030.04.05 Local Area Nework Systems* -

The data server room houses data racks, hubs and UPS. Cabling throughout the school is Cat 5 and 5e.

Rating	Installed	Design Life	Updated
4 - Acceptable	1995	0	JAN-08

D5030.05 Public Address and Music Systems** -

The PA system is a Bogen with a CD player and speakers throughout and is integrated with phones.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	20	JAN-08

Event: Replace PA and Music Systems ($5/m2)

Recommendation:
Replace with new.

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$10,000	Unassigned

Updated: JAN-08

D5030.06 Television Systems* -

CATV is distributed throughout the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08

D5030.07 Other Communications and Security Systems

Supernet installed throughout the school.

Rating	Installed	Design Life	Updated
5 - Good	2005	0	JAN-08

D5090.01 Uninterruptible Power Supply Systems**

A Compaq 1000va and a 2500va UPS protects the servers.

Rating	Installed	Design Life	Updated
5 - Good	1995	30	JAN-08

Event: Replace UPS System

Type	Year	Cost	Priority
Lifecycle Replacement	2025	$4,000	Unassigned

Updated: JAN-08

S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION

E1020.02 Library Equipment* -

The library is well provided with laminate topped tube-framed tables, plastic chairs with steel tube leg frames, wood shelving units, white board, new sink unit with cupbards below, reception desk, TV housing and computer provision.

Rating	Installed	Design Life	Updated
5 - Good	1980	0	JAN-08

E1020.03 Theater and Stage Equipment* -

The Stage Area has a proscenium curtain and a batten of stage lights.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08

E1090.07 Athletic, Recreational, and Therapeutic Equipment* -

There are steel basketball gantries and fold-away wood climbing frames in the gymnasium.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08

E2010.02 Fixed Casework** -

Extensive shelving and cupboards are provided throughout teaching areas and there are corridor shelf units for coats and shoe storage.

Rating	Installed	Design Life	Updated
3 - Marginal	1980	35	JAN-08

Event: Replace 100m fixed casework

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

Updated: JAN-08

Event: Replace 68m miscellaneous shelving & art sinks

Concern:
Much of the casework in the corridors is damaged or has deteriorated, particularly the lower level shelving.
Recommendation:
Replace 43 lin.m of cloaks shelving in the main corridors. Replace 23m long x 900mm deep benching with 2no. sinks in the art room (107) and replace 2m of full height shelving in the store adjacent to room 106.
Consequences of Deferral:
Inadequate casework provision will continue.

Type	Year	Cost	Priority
Failure Replacement	2008	$33,500	Medium

Updated: JAN-08

E2010.02.99 Cloakroom Equipment

There are 3 and 4 layer sloping metal boot racks in the school entrance vestibules.

Rating	Installed	Design Life	Updated
3 - Marginal	1980	0	JAN-08

Event: Replace 48m metal boot racks

Concern:
The metal boot racks in the east entrance vestibule and the link corridor to the west portable classrooms are damaged and deformed.
Recommendation:
Allow for replacement of 48m of metal boot racking (estimated at $100/m).
Consequences of Deferral:
Further damage to heavily used equipment will be sustained.

Type	Year	Cost	Priority
Failure Replacement	2008	$5,000	Medium

Updated: JAN-08

E2010.03.01 Blinds** -

All windows have integral horizontal blinds between the double glazed units.

Rating	Installed	Design Life	Updated
3 - Marginal	1980	30	JAN-08

Event: Replace 12 blinds

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$6,750	Unassigned

Updated: JAN-08

Event: Replace 4 blinds

Concern:
Some blinds are missing or non functional.
Recommendation:
Allow for replacement of four integral horizontal blinds.
Consequences of Deferral:
There is a minor effect on environmental comfort.

Type	Year	Cost	Priority
Failure Replacement	2008	$2,250	Low

Updated: JAN-08

F1010.02.04 Portable and Mobile Buildings* -

There are two sets of portable classrooms, one to the west and the other to the north, each attached to the main school building by a portable link corridor. The north block contains three classrooms, 185,186 and 223, and its corridor link has a ramped floor. The west block has four classrooms, 163, 164, 165 and 166, and its corridor link has three steps up to the portable floor level. In each block, classrooms are planned either side of a central corridor which is a continuation of the link corridor.

[Warning: numbers on the outside of the portables do not correspond with those on the reference plan; numbers quoted in this report are based on the reference plan.]

Construction is typically wood framing on foundations consisting of 250mmx 250mm wood beams on concrete piles. Wall cladding of horizontal wood siding has a painted finish and there is a fascia at high level around the perimeter of vertical wood siding which is stained or painted. The roof has an S.B.S membrane on plywood decking, supported by wood joists with insulation. An edge gutter and central downspout dispose of rainwater.

Internally, the walls are clad with drywall, battened at joints, and the ceiling is acoustic tile in T-bar suspension grid. The floor finish is vinyl tiles, apart from the ramped floor of the north corridor link, which is carpeted.. There are extensive wall cupboards occupying the full length of the longer walls of each classroom, from floor to sill level, with a counter top. Additionally there are cloakrooms situated at the entrance to each classroom, which are provided with hook and shelf fittings, and a furnace room adjacent.

From each classroom there is a single door, typically of hollow metal construction, discharging to a wood platform and steps. There are double swing doors, with closers, from the central corridor directly to the outside (again to a wood platform and steps) and double and single doors from the corridor links near their junction with the main school building.

There are two aluminum windows to each classroom, 1500mm x 1200mm, with a bottom opener, a painted steel security grill externally and vertical blinds internally. Under each window externally there is a panel of stained or painted diagonal boarding.

7 furnaces are installed in the portables. The 4 furnaces in the west portables are circa 1981, portables 185 & 186 are circa 1982, and portable 223 in circa 1986. All are Palm Air units.Type 'B' gas vents are provided to each portable roof and standard counter-top louvred face air supply grilles are provided to each furnace room. There are occasional small boxes, with grills, attached to the base of the portables to provide underfloor ventilation.

Rating	Installed	Design Life	Updated
3 - Marginal	1980	0	JAN-08

Event: Replace/ repair according to schedule below

Concern:

[Warning: External labeling of classroom numbers is incorrect and does not correspond with the reference plan (e.g. 186 on the reference plan is labeled 185 on the exterior of the portable classroom). Numbers quoted below refer to the reference plan]

External:

General:

Apart from classroom 223, which has recently been re-roofed, the roof membrane to all portable classrooms and corridor links has deteriorated.
Base condition of rain water pipes needs repair.

North Portables (185,186 & 223):

Horizontal boarding to link around fire doors (12m2) and diagonal boarding below windows of 185 (8m2) has

deteriorated.
Plywood skirting to base of 185 & 223 (6m2) is in poor condition.
External doors to185 and the central and link corridor have deteriorated (6 units.).
The platforms to 185 exit and the central corridor exit are potentially unsafe.

External:

West Portables (163, 164, 165 & 166):

External doors to 163, 164 & 165 and to the exit of the link corridor have deteriorated (5 units.).
All platforms to classroom exits are potentially unsafe (4 units.).

Internal:

North Portables (185, 186 & 223):

In the corridor link the carpet to ramped floor is worn.
Some acoustic ceiling tiles are stained.
The window to classroom 223 is leaking.
Shelving units along window wall in each classroom is in poor condition.

West Portables (163, 164, 165 & 166):

In the corridor link, double external doors to the outside are badly weathered and the internal metal boot racks are in poor condition
In classroom 163, there is extensive staining of acoustic ceiling tiles along one edge of the room and the cloakroom shelving is in poor condition with de-laminating of the ply veneer.
In classrooms 163 -166, the window wall shelving units are in poor condition.

Recommendation:
External:

Re-label the external classroom number signs to correspond with the reference plan.....[$200]
Replace the roofing membrane to all portables, except classroom 223 (575m2).....[$70000]
Renew rain water outlets and roof edge trims to replaced portable roof system.....[$3000]
Reorganize the rain water disposal system at ground level to provide efficient soakaway.....[$8000]
Replace & refinish 20m2 horizontal and diagonal boarding.....[$2000]
Replace 6m2 plywood/ metal grille base to 185/223 ensuring under floor ventilation.....[$1000]
Replace 11 metal external doors.....
..... [$7700]

Replace 6 external platforms/steps providing safe balustrades and level access to portables. [$7000]

Internal:

Replace 20% of the acoustic ceiling tiles in existing T-bar suspension system (50m2).....[$4500]
Replace window wall shelving in each classroom (70 lin.m. 900mm high x 450mm deep)..... [$35000]
Replace 1500mm x1200mm aluminum window in classroom 223..... .[$1000]
Replace cloakroom shelving in classroom 163 (6 lin.m).....[$3000]
Replace carpet to ramped floor of north corridor link.....[$2600]
Replace double external doors to west corridor link.....[$1500]

Consequences of Deferral:
Further deterioration of a vulnerable component of the school building complex will occur.

Type	Year	Cost	Priority
Failure Replacement	2008	$146,500	Medium

Updated: JAN-08

F2020.01 Asbestos* - `

A hazardous materials survey was undertaken By Golder Associates Ltd., Edmonton, dated July 18th, 2006. The consultants identified asbestos in the school.

Rating	Installed	Design Life	Updated
3 - Marginal	1980	0	JAN-08

Event: Replace 1000m2 floor tiles encapsulate insulation, stucco

Concern:

The report determined the presence of asbestos as follows:

"Based on the survey, laboratory analysis and visual identification, asbestos was confirmed to be present in the following materials:

• floor tiles observed throughout the Site were found to contain Chrysotile asbestos;
• pipe fitting insulation throughout the Site was found to contain Chrysotile asbestos;
• parging cement on the boiler exhaust header was found to contain Chrysotile asbestos;
• incandescent light fixture paper backing observed in various locations throughout the Site
was found to contain Chrysotile asbestos;
• duct mastic located on the mechanical ducts throughout the Site was found to contain
Chrysotile asbestos; and
• the exterior stucco was found to contain Chrysotile asbestos."

Recommendation:

A 2006 consultants report identified asbestos in building materials in the school and made the following recommendations:

"A program should be developed to implement an Asbestos Management Plan. The program
should provide details to support the implementation of an Asbestos Management Plan. The
following key elements should be reviewed as part of the program:

• delegation of responsibilities;
• communication of asbestos awareness;
• employee training requirements;
• repair and maintenance of asbestos-containing materials;
• posting of signs warning of asbestos hazard and restricted areas;
• inspections and air monitoring; and
• design and implementation of asbestos handling and emergency response plans.

Asbestos-containing materials that are accessible and out of the public view should be

appropriately labelled to identify it as asbestos-containing. If specific knowledge of an
inaccessible ACM is available the location, walls, equipment or other restricting surfaces should
also be labelled."

[Source: Golder Associates Ltd., July 18th 2006
Hazardous Building Materials Survey
Edmonton Catholic Schools
St. Martha School, Edmonton, Alberta

The recommendation of this report is to encapsulate all asbestos containing materials where feasible and remove where not feasible.

Consequences of Deferral:
Asbestos will continue to be a health risk in the school.

Type	Year	Cost	Priority
Hazardous Materials Abatement	2008	$50,000	High

Updated: JAN-08

S8 FUNCTIONAL ASSESSMENT

K4010.01 Barrier Free Route: Parking to Entrance* -

Level access is available from car drop-off to school entrance.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08

K4010.02 Barrier Free Entrances* -

Entrance widths are sufficient for barrier free access with no steps.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08

K4010.03 Barrier Free Interior Circulation* -

Internal corridors and classroom doors are generally of sufficient width for barrier free access. However, the west portable link has three steps up the to floor level of the portable classrooms and there are steps up 1m to the gymnasium stage level, which serves as a computer teaching room. It is not feasible to install a ramp for gym access here.

Rating	Installed	Design Life	Updated
3 - Marginal	1980	0	JAN-08

Event: Install exterior ramp to portable classroom

Concern:
A portable classroom has access steps and is not barrier free.
Recommendation:
Install exterior concrete ramp to classroom.
Consequences of Deferral:
Class room will continue to be barrier free.

Type	Year	Cost	Priority
Barrier Free Access Upgrade	2008	$2,000	Medium

Updated: JAN-08

K4010.04 Barrier Free Washrooms* -

Boys and Girls wash rooms located close to the Gymnasium have one enlarged cubicle.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08

RECAPP Facility Evaluation Report

St. Martha Catholic Elementary School

S3315

Edmonton

Report run on: February 25, 2008 3:07 PM

Facility Details

Building Name: St. Martha Catholic Elementa
Address:
Location: Edmonton

Building Id: S3315
Gross Area (sq. m): 0.00
Replacement Cost: $0
Construction Year: 0

Evaluation Details

Evaluation Company: Robert Irlam Consulting Inc.
Evaluation Date: June 27 2007
Evaluator Name: Peter Clements

Total Maintenance Events Next 5 years: **$181,100**
5 year Facility Condition Index (FCI): **0%**

General Summary:

The site extends to 2.65 hectares, with the school occupying its south-east corner. The school and its main entrance face east to 180 street from where there is pedestrian and vehicular access. There is a drop-off road and a car park for 25 cars. In front of the entrance is a paved gathering space, well equipped with benches and planters. There are mature trees along the school frontage and a prominent school sign. In the remaining part of the site to the rear of the school, there are generous playing fields playfields to the rear, where bike racks, benches and games fixtures are provided.

The condition of the site is variable. To the public face (east frontage), despite some attention needed to hard landscape surfaces, the impression is very good. However, around the rear of the school and the area immediately outside the portable classrooms, the landscaping shows room for improvement.

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)** -

There is a short asphalt roadway from the public highway to the car park.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	25	JAN-08

Event: Resurface 110m2 asphalt roadway

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$3,000	Unassigned

Updated: JAN-08

G2010.04 Rigid Roadway Pavement (Concrete)**

A 6m wide poured concrete roadway, cast in 3m square bays, into the site provides a drop-off facility close to the school entrance.

Rating	Installed	Design Life	Updated
3 - Marginal	1980	25	JAN-08

Event: Replace 63m2 concrete roadway

Concern:
Sections of concrete road are badly cracked and damaged.
Recommendation:
Replace 7 No. 3m x 3m bays of poured concrete roadway.
Consequences of Deferral:
Hazardous road surface will persist.

Type	Year	Cost	Priority
Failure Replacement	2008	$7,000	Medium

Updated: JAN-08

G2010.05 Roadway Curbs and Gutters* -

Standard poured curbs are provided to the east side only of the car park access road.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08

G2020.02.02 Flexible Paving Parking Lots(Asphalt)** -

The school car park has been enlarged to double its original width and is now approximately 24m x 90m.

Rating	Installed	Design Life	Updated
3 - Marginal	1980	25	JAN-08

Event: Resuface 2200m2 asphalt car park

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$57,200	Unassigned

Updated: JAN-08

Event: Resurface 1100m2 asphalt car park

Concern:

The asphalt surface of the original car park is worn and uneven. In addition the edge of the more recently laid asphalt area of the car park to the south of the original has no curb edging and has failed in parts, causing an uneven and unsatisfactory perimeter.

Recommendation:

Re-surface the worn section of the car park (1100m2) and provde adequate curb edging to the southern edge (90m).

Consequences of Deferral:

Unevenness of asphalt surfacing will cause pooling and further damage.

Type	Year	Cost	Priority
Failure Replacement	2008	$38,000	Medium

Updated: JAN-08

G2020.05 Parking Lot Curbs and Gutters* -

Standard poured curbs are provided to the north edge of the car park and conventional raised curbs on the south.

Rating	Installed	Design Life	Updated
3 - Marginal	1980	0	JAN-08

Event: Replace 5 bollards & Install 20m curb

Concern:
There are damaged wood bollards near the garbage compound at the car park entrance and poor edging to the asphalt surface.

Recommendation:
Replace 5 wood bollards and provide 20m curb edging to asphalt surface.

Consequences of Deferral:
Further damage to that area of the car park is likely from heavy garbage collection vehicles.

Type	Year	Cost	Priority
Failure Replacement	2008	$5,000	Low

Updated: JAN-08

G2020.06.01 Traffic Barriers* -

There is a continuous traffic barrier on the north boundary of the car park, consisting of 75mm x 300mm wood beams supported by H-section steel stanchions set into the adjacent grass verge.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08

G2020.06.03 Parking Lot Signs* -

Signage in the car park is provided on steel posts.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08

G2020.06.04 Pavement Markings* -

There are game markings on the surface of the asphalt hard play area to the west of the car park.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08

G2030.02.02 Asphalt Pedestrain Pavement**

There is a large (650m2) asphalt hard play area to the west of the car park with surface game markings.

Rating	Installed	Design Life	Updated
3 - Marginal	1980	20	JAN-08

Event: Resurface 650m2 asphalt games area

Concern:
The surface is badly worn and without proper edging. Adjacent to the edge of the school building and the portables, there are weeds growing through.

Recommendation:
Re-surface 650m2 of asphalt hard play area with 50mm thickness. Reinstate game markings

Consequences of Deferral:
Further deterioration will result in hazardous playing surface.

Type	Year	Cost	Priority
Failure Replacement	2008	$17,500	Medium

Updated: JAN-08

G2030.03.03 Concrete Pavers

There are concrete paving slabs providing access routes at various locations around the school perimeter - around the portables and from the drop-off road to the north-east entrance.

Rating	Installed	Design Life	Updated
3 - Marginal	1980	0	JAN-08

Event: Install 140m2 poured concrete paving

Concern:
There are two areas of concern, the path to the north-west entrance which is badly cracked and the area around portables 165/166,which has cracked pavers and a poorly defined walkway.

Recommendation:
Replace paving slabs with poured concrete pathway (140m2). [North-west entrance path - 20m x 2m, portables 165/166 path - 50m x 2m.]

Consequences of Deferral:
Hazardous footpaths will remain.

Type	Year	Cost	Priority
Failure Replacement	2008	$16,000	Medium

Updated: JAN-08

G2030.04 Rigid Pedestrian Pavement (Concrete)** -

Poured concrete pedestrian paving of different widths are provided : along the north,south and east perimeters of the building; to the gathering area in front of the school main entrance; to the double entrance doors at the north corridor link.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	25	JAN-08

Event: Replace 200m2 concrete paving

Type	Year	Cost	Priority
Lifecycle Replacement	2011	$34,400	Unassigned

Updated: JAN-08

G2040.05 Site and Street Furnishings* -

Pre-cast concrete benching, waste bins and planters are provided in the external gathering space in front of the main school entrance.

Rating	Installed	Design Life	Updated
5 - Good	1980	0	JAN-08

G2040.06 Exterior Signs* -

A large wood framed school sign set on a concrete planter base is located on the grass verge in front of the school entrance

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08

G2040.08 Flagpoles* -

There is a steel flagpole set on a low concrete plinth outside the school entrance.

Rating	Installed	Design Life	Updated
3 - Marginal	1980	0	JAN-08

Event: Repaint flagpole

Concern:
The paint finish on the steel flagpole is deteriorating.
Recommendation:
Repaint steel flagpole.
Consequences of Deferral:
There is a minor consequence for visual amenity.

Type	Year	Cost	Priority
Preventative Maintenance	2008	$1,000	Low

Updated: JAN-08

G2040.09 Covers and Shelters* -

Compounds are provided on the site for garbage storage and transformer housing. A wood framed and fenced compound for garbage is located on the south-east corner of the site, close to the access road. To the west of the car park is a corrugated metal shed. In front of the school, there is a transformer housing protected by a tubular steel rail.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08

G2050.04 Lawns and Grasses* -

In the immediate vicinity of the school, landscaping includes tended grass verges. On the remaining site there are the extensive grassed areas of the school playing fields.

Rating	Installed	Design Life	Updated
3 - Marginal	1980	0	JAN-08

Event: Regrade 50m2 grassed area.

Concern:
Outside portable classroom 223, there is a grassed area badly affected by water.

Recommendation:
Regrade an area of 50m2 and provide satisfactory land drainage.

Consequences of Deferral:
Hazardous conditions will develop.

Type	Year	Cost	Priority
Preventative Maintenance	2008	$2,000	Low

Updated: JAN-08

G2050.05 Trees, Plants and Ground Covers* -

Cedars and Lombardy poplars are planted on the front (east) grass verge of the school. Shrub plantings occupy a bark mulch border against the gymnasium wall. In addition, there are occasional fir trees in the grounds of the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08

G3010.02 Site Domestic Water Distribution* -

A 100mm domestic water line enters the building from the south to the meter room in the SE portion of the facility.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08

G3020.01 Sanitary Sewage Collection* -

A 150mm sanitary sewer exits the east face of the SE corner of the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08

G3030.01 Storm Water Collection* -

100mm and 150mm roof hoppers drain to a 250mm storm drain that exits the east face of the SE corner of the building.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08

G3060.01 Gas Distribution* -

Natural Gas is supplied via a buried main to the south face of the meter room in the SE corner of the building. A 100mm gas line extends to the mechanical room. A 50mm gas main leaves the south face of the mechanical room to the roof area to provide service to the portables.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	FEB-08

G4010.02 Electrical Power Distribution Lines* -

There is an underground feed from the Utility owned switching cubical.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08

G4010.03 Electrical Power Distribution Equipment* -

The Utility owned, pad mount (size unknown) transformer is located on the south side of the school.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08

G4010.04 Car Plugs-ins* -

Currently there are 32 stalls with 8 plug-ins with duplex receptacles and a weather proof cover, controlled via timer, mounted on a wood rail, supported by steel channel directly into the ground.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08

G4020.01 Area Lighting* -

There is a pole mounted 250watt HPS lighting the parking lot.

Rating	Installed	Design Life	Updated
4 - Acceptable	1980	0	JAN-08