RECAPP Facility Evaluation Report

Wild Rose School Div #66



Maintenance / Transportation Shops B5779A Rocky Mountain House

Facility Details

Building Name: Maintenance / Transportation

Address: 4915 - 43 Street **Location:** Rocky Mountain House

Building Id: B5779A
Gross Area (sq. m): 1,110.19
Replacement Cost: \$0

Construction Year: 1976

Evaluation Details

Evaluation Company: John Hull Architect

Evaluation Date: November 4 2005

Evaluator Name: Ms. Sherri Turpin

Total Maintenance Events Next 5 years: \$288,365 5 year Facility Condition Index (FCI): 0%

General Summary:

The original single storey structure was constructed in 1976 with an addition of a wash bay and storage area in 1982. There is also a 12m x 18m storage garage at the east end of the site that was constructed in 1987.

Structural Summary:

The building is a pre-engineered structure by Behlen. The design is based on a wave in the panels which give them their strength. The building is on concrete foundation walls and spread footings. The shop building is in acceptable condition.

The east storage garage is pre-engineered wood trusses on wood stud walls. The storage garage is in good condition.

Envelope Summary:

The wall envelope consists of the metal structure with an inner layer of vinyl wrapped strammit (straw) insulation. The roof is galvanized metal over structural metal panels with blown-in insulation in the attic space. The envelope is in marginal condition. Upgrading the inner wall layer is recommended. The roofing also needs to be upgraded.

The storage garage has insulation and vapour barrier only in the paint booth room. It is clad in pre-finished metal panels and has asphalt shingles. It is in good condition.

Interior Summary:

The interior

Mechanical Summary:

Mechanically, the two buildings that comprise the shops are in generally poor condition. Most of the air handling (ventilation) requirements are piecemealed together by staff, and while they are functioning, they are inefficient and old. The general air quality in both the maintenance shops, transportation shop and especially the paint booth area are well below Code requirements. The dual boilers, relocated from other sites, are oversized and inefficient. Aside from the plumbing fixtures and condensing units, most of the typical systems are in need of attention. However, given the condition of the building envelope itself, investing heavily into upgraded mechanical equipment does not, in our opinion, make much sense.

Electrical Summary:

From an electrical point of view, this building is in reasonably good shape, although the existing 225A, 120/208V-3P main service has limited spare capacity for any expansion. Aside from some T8 lamp lighting fixture upgrades, very little work is needed. However, in our opinion, given the condition of the Behlen envelope of this building and related structural issues, no significant capital dollars are warranted to be used on this facility. A new building would seem to make more sense.

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*

(1976 & 1882) Reinforced concrete foundation walls and footings.

RatingInstalledDesign LifeUpdated4 - Acceptable1976100NOV-05

A1030 Slab on Grade*

(1976 & 1882) Reinforced concrete slab on grade in all areas except the wood shop. (2001) Reinforced concrete slab on grade in the storage garage.

RatingInstalledDesign LifeUpdated4 - Acceptable1976100NOV-05

A2020 Basement Walls (& Crawl Space)*

(1976) Shallow crawl space with dirt floor below wood shop.

RatingInstalledDesign LifeUpdated4 - Acceptable1976100NOV-05

B1010.01 Floor Structural Frame*(Building Frame)

(1976) The floor over the crawl space is 38mm x 235mm wood joists and wood beams on concrete pads.

RatingInstalledDesign LifeUpdated4 - Acceptable1976100NOV-05

B1010.03 Floor Decks, Slabs, and Toppings*

(1976) 38mm x 140mm T&G spruce/pine over crawl space.

RatingInstalledDesign LifeUpdated4 - Acceptable1976100NOV-05

B1010.05 Mezzanine Construction*

(1976 & 1882) There are several different mezzanines throughout the building. They are constructed with a 19mm plywood deck on wood joists on loadbearing wood stud walls and built-up wood beams.

RatingInstalledDesign LifeUpdated4 - Acceptable1976100NOV-05

B1010.09 Floor Construction Fireproofing*

The mezannines off the wood shop are protected with gypsum board on the underside.

RatingInstalledDesign LifeUpdated4 - Acceptable197650NOV-05

B1020.01 Roof Structural Frame* 1976 & 1982

(1976 & 1882) The roof and exterior loadbearing walls supporting the roof are a Behlen pre-engineered, pre-finished steel structural system. This system consists of bolted-together panels that have a large wave-like corrugated profile. Each wave is approximately 460mm wide. Roof is arched top layer with a ribbed horizontal bottom layer forming ceiling.

RatingInstalledDesign LifeUpdated4 - Acceptable1976100NOV-05

B1020.01 Roof Structural Frame* 1987

(1987)The storage garage at the rear of the property is constructed with pre-engineered wood trusses and wood stud walls on. There is a 38mm x 235mm wood joist lean-to on the one side.

<u>Rating</u>	<u>Installed</u>	Design Life	<u>Updated</u>
5 - Good	1976	100	NOV-05

S2 ENVELOPE

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

(2001) Exterior walls of storage garage are OSB sheathing on wood stud.

RatingInstalledDesign LifeUpdated5 - Good1976100NOV-05

B2010.02.99 Other Exterior Wall Construction*

(1976 & 1982) The Behlen building exteror walls are the structural pre-finished metal structural panels with an inner layer of vinyl wrapped strammit panels.

RatingInstalledDesign LifeUpdated3 - Marginal1976100NOV-05

Event: Paint exterior shop walls.

Concern:

Paint finish is fading on exterior of shop, some rusty bolts and spots along the bottom.

Recommendation:

Paint exterior of shop walls. Approximately 1,000 s.m. surface area.

TypeYearCostPriorityFailure Replacement2008\$32,100Medium

Updated: February 21 2006

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

(1976 & 1982) The inner wall is vinyl wrapped strammit (straw) panels, approixmately 50-60mm thick. The thermal resistance may be about an R10. The vapour barrier is the vinyl.

RatingInstalledDesign LifeUpdated3 - Marginal197620NOV-05

Event: Repair and upgrading of wall system.

Concern:

There are a number of locations where the insulation panels have been compromised or failed. The thermal resistance values are poor.

Recommendation:

Repair specific locations, and implement phased upgrading of the interior wall layer. Remove and replace panels with 38 x 140mm wood stud walls, R20+ fibreglass batt insulation, poly vapour barrier and gypsum board finish (or pre-finished metal panel finish as required by area use). 1,000 s.m. surface area.

TypeYearCostPriorityEnergy Efficiency Upgrade2006\$53,500High

Updated: February 21 2006



B2010.06 Exterior Louvers, Grilles, and Screens*

Galvanized metal mechanical grilles.

RatingInstalledDesign LifeUpdated4 - Acceptable197620NOV-05

B2010.09 Exterior Soffits*

(2001) Perforated pre-finished metal soffit on storage garage.

RatingInstalledDesign LifeUpdated5 - Good197620NOV-05

B2020.01.01.02 Aluminum Windows (Glass & Frame)**

(1982) Double glazed aluminum frame window with fixed and awning sections in the repair shop.

RatingInstalledDesign LifeUpdated4 - Acceptable197635NOV-05

B2020.01.01.05 Wood Windows (Glass & Frame)**

Double glazed wood frame windows with awning operators.

RatingInstalledDesign LifeUpdated3 - Marginal197635NOV-05

Event: Replace windows.

Concern:

Windows are in poor condition, sills are damaged.

Recommendation:

Replace windows - \$1,000 x 5 windows

TypeYearCostPriorityFailure Replacement2007\$5,350Medium

Updated: February 21 2006

B2020.01.01.06 Vinyl, Fibreglass &Plastic Windows**

(2001) Vinyl casement inserts in wood frames.

RatingInstalledDesign LifeUpdated4 - Acceptable197635NOV-05

B2030.02 Exterior Utility Doors**

Insulated steel doors in steel frames.

RatingInstalledDesign LifeUpdated4 - Acceptable197615NOV-05

B2030.03 Large Exterior Special Doors* 1976 & 1982

(1976 & 1982) Insulated overhead vehicle doors.

Rating Installed Design Life Updated
4 - Acceptable 1976 30 NOV-05

B2030.03 Large Exterior Special Doors* 1997

(1997) Insulated metal overhead door for machine shop - Therm-O-Door by Steel-Craft

RatingInstalledDesign LifeUpdated5 - Good197630NOV-05

B3010.01 Deck Vapor Retarder and Insulation*

Blow in fibreglass insulation in attic space between the two layers of structural steel panels. Varies in thicknes due to the wave design of the structure. The vapour barrier is the steel panels, which are compromised by bolt holes.

RatingInstalledDesign LifeUpdated4 - Acceptable197650NOV-05

B3010.02.01.01 Asphalt Shingles**

(1987) Asphalt shingles on storage garage.

RatingInstalledDesign LifeUpdated5 - Good197625NOV-05

B3010.07 Sheet Metal Roofing**

Single arch galvanized metal roofing system, bolted together leak through bolt holes.

RatingInstalledDesign LifeUpdated2 - Poor197640NOV-05

Event: Repair roof due to leaks

Concern:

In extreme rainfall conditions, the roof leaks through the bolt holes of the pre-engineered system, damaging interior finishes.

Recommendation:

Provide an additional layer of weatherproof protection over the existing galvanized metal roof. Options may include polyurethene spray coating or SBS roofing on plywood deck or mechanically fastened single membrane roofing system. \$60/s.m. x 1,200 s.m.

TypeYearCostPriorityPreventative Maintenance2006\$77,040Medium

Updated: February 21 2006

B3010.08.02 Metal Gutters and Downspouts**

Pre-finished metal eavestrough and downspouts. Leak at joints.

RatingInstalledDesign LifeUpdated3 - Marginal197625NOV-05

Event: Repair rainwater leaders.

Concern:

Downspouts are leaky at the joints.

Recommendation:

Repair rainwater leaders. Replace some sections over doors.

TypeYearCostPriorityFailure Replacement2006\$1,070Medium

Updated: February 21 2006

S3 INTERIOR

C1010.01 Interior Fixed Partitions*

Wood stud partitions for transportation shop coffee rooms, washrooms and offices.

RatingInstalledDesign LifeUpdated4 - Acceptable197650NOV-05

C1010.02 Interior Demountable Partitions*

(2001) Vinyl wrapped gypsum board on steel studs in main office area.

RatingInstalledDesign LifeUpdated5 - Good197630NOV-05

C1010.04 Interior Balustrades and Screens, Interior Railings*

Mezzanine balustrades are unfinished 38mm x 89mm wood. Recommend painting.

RatingInstalledDesign LifeUpdated4 - Acceptable197640NOV-05

C1020.01 Interior Swinging Doors**

Transportation shop: wood doors and frames on washroom and lunch rooms, wood door in steel frame to office, steel door in steel frame to other office.

RatingInstalledDesign LifeUpdated4 - Acceptable197640NOV-05

C1020.01 Interior Swinging Doors** 2001

(2001) Steel doors and frames, some with glazing in top half in main office.

RatingInstalledDesign LifeUpdated5 - Good197650NOV-05

C1030.01 Visual Display Boards**

Tack boards in office areas.

RatingInstalledDesign LifeUpdated5 - Good197610NOV-05

C1030.12 Storage Shelving*

There are a variety of plywood shelving units as well as metal racks.

RatingInstalledDesign LifeUpdated4 - Acceptable197620NOV-05

C1030.14 Toilet, Bath, and Laundry Accessories*

Surface mounted soap dispensers, toilet paper holders, paper towel dispensers and mirrors.

RatingInstalledDesign LifeUpdated4 - Acceptable197620NOV-05

C2010 Stair Construction*

Unfinished wood treads and stringers. Transportation mezzaninie stairs have closed risers.

RatingInstalledDesign LifeUpdated4 - Acceptable1976100NOV-05

C2020.05 Resilient Stair Finishes**

None of the mezzanine stairs are not finished. Finish is recommended.

RatingInstalledDesign LifeUpdated3 - Marginal197620NOV-05

Event: Provide finish to stair treads.

Concern:

None of the wood stair treads are not finished/sealed. They will absorb moisture, grease and dirt and be more easily damaged.

Recommendation:

Protect stair treads with rubber treads/nosings. Three sets of stairs, approximately 40 treads.

TypeYearCostPriorityPreventative Maintenance2006\$2,140Low

Updated: February 21 2006

C2020.08 Stair Railings and Balustrades*

Mezzanine stair handrail and landing balustrades are unfinished 38mm x 89mm wood. Transportation stairs have no handrails.

RatingInstalledDesign LifeUpdated3 - Marginal197650NOV-05

C3010.04 Gypsum Board Wall Finishes*

Gypsum board on wood stud partitions in the electrical parts storage room and the Transportation Shop coffee rooms, washrooms and offices.

RatingInstalledDesign LifeUpdated3 - Marginal197640NOV-05

Event: Tape and finish gypsum board partitions.

Concern:

Boarding in the electrical parts room needs to be taped and finished. Various corners throughout are not finished.

Recommendation:

Tape and finish gypsum board partitions in electrical parts room and other areas.

TypeYearCostPriorityRepair2007\$5,350Low

Updated: February 21 2006

C3010.11 Interior Wall Painting**

Paint on gypsum board partitions. Not all gypsum board is painted.

RatingInstalledDesign LifeUpdated3 - Marginal19765NOV-05

Event: Paint gypsum partitions.

Concern:

Gypsum board partitions should be finished and sealed.

Recommendation:

Paint gypsum board walls in various locations throughout.

TypeYearCostPriorityRepair2007\$10,700Medium

Updated: February 21 2006

C3010.12 Wall Coverings**

(2001) Vinyl wrapped gypsum board in main office area.

RatingInstalledDesign LifeUpdated5 - Good197610NOV-05

C3010.14 Other Wall Finishes**

Interor walls of the wash bay are finished with pre-finished metal.

RatingInstalledDesign LifeUpdated2 - Poor19760NOV-05

Event: Replace metal wall panels.

Concern:

The walls are corroding from the high humidity environment.

Recommendation:

Replace pre-finished metal wall panels on exterior walls of the wash bay. \$85/s.m. 100 s.m.

TypeYearCostPriorityFailure Replacement2007\$9,630High

Updated: February 21 2006

C3020.01 Concrete Floor Finishes (Paint)*

Painted concrete floors in shop areas.

RatingInstalledDesign LifeUpdated3 - Marginal197675NOV-05

Event: Repaint concrete floors.

Concern:

Paint finish in all shops is poor

Recommendation:Repaint concrete floors.

TypeYearCostPriorityFailure Replacement2008\$26,750Low

Updated: February 21 2006

C3020.07 Resilient Flooring**

(2001) Vinyl composite tile in main office area and Transportation lunch room.

RatingInstalledDesign LifeUpdated5 - Good197620NOV-05

C3030.04 Gypsum Board Ceiling Finishes*

Gypsum board ceiling in the electrical room and wood shop washrooms. Stipple ceiling in Transportation lunch room and washrooms.

RatingInstalledDesign LifeUpdated3 - Marginal197650NOV-05

Event: Finish gypsum board ceiling

Concern:

Taping and finishing is required on the ceiling of the electrical room.

Recommendation:

Finish taping and finishing the gypsum board ceiling - approximately 150 s.m.

TypeYearCostPriorityRepair2007\$3,210Low

Updated: February 21 2006

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

(2001) 610mm x 1220 square lay-in suspended acoustic tile in the main office area.

RatingInstalledDesign LifeUpdated5 - Good197625NOV-05

C3030.07 Interior Ceiling Painting**

Gypsum board ceilings are painted except in electrical parts room. In the Repair Shop the galvanized metal ceiling is painted.

RatingInstalledDesign LifeUpdated3 - Marginal197610NOV-05

Event: Paint ceilings.

Concern:

Ceiling is not painted or otherwise finished in the electrical parts room. The paint on the ceiling in the repair shop is peeling above the installation of infrared heaters.

Recommendation:

Paint ceiling in electrical parts room. Repaint ceiling in repair shop.

TypeYearCostPriorityPreventative Maintenance2007\$5,350Low

Updated: February 21 2006

S4 MECHANICAL

D2010.01 Water Closets**

Typically floor mounted, vitreous china, tanked toilets.

RatingInstalledDesign LifeUpdated4 - Acceptable197630NOV-05

D2010.03 Lavatories**

(2001) New office wing has stainless steel, countertop (vanity) lavatories. Older shop washrooms have acrylic units. None with handicapped trims.

RatingInstalledDesign LifeUpdated4 - Acceptable197630NOV-05

D2010.04 Sinks**

Old, cast iron general use utility sink in shop.

RatingInstalledDesign LifeUpdated4 - Acceptable197630NOV-05

D2020.01.01 Pipes and Tubes: Domestic Water*

Standard copper water lines.

RatingInstalledDesign LifeUpdated4 - Acceptable197640NOV-05

D2020.01.03 Piping Specialties (Backflow Preventors)**

No backflow prevention device in place. A BFP is required.

RatingInstalledDesign LifeUpdated2 - Poor197630NOV-05

Event: Add a BFP device to domestic water service.

Concern:

No BFP in place on domestic water line.

Recommendation:

Add a double check valve to water service.

TypeYearCostPriorityCode Upgrade2006\$2,140High

Updated: February 21 2006

D2020.02.02 Plumbing Pumps: Domestic Water**

No domestic circulation pump noted. A new system with pump is recommended.

RatingInstalledDesign LifeUpdated3 - Marginal197620NOV-05

Event: Add a DHW recirculation pump.

Concern:

No recirculation pump in place.

Recommendation:

Add a pump and recirc line.

TypeYearCostPriorityOperating Efficiency Upgrade 2006\$4,280Medium

Updated: February 21 2006

D2020.02.06 Domestic Water Heaters**

A nominal 30 year old, GSW, nominal 33 gallon, gas fired hot water tank. Very inefficient, with replacement needed.

RatingInstalledDesign LifeUpdated3 - Marginal197620NOV-05

Event: Replace hot water tank.

Concern:

Old and inefficient hot water tank in use.

Recommendation:

Replace with new, more efficient unit, complete with recirculation pump.

TypeYearCostPriorityEnergy Efficiency Upgrade2006\$3,745Medium

Updated: February 21 2006

D2020.03 Water Supply Insulation*: Domestic

Standard fibre-glass jacket insulation. Several lengths of run without insulation cover.

RatingInstalledDesign LifeUpdated4 - Acceptable197630NOV-05

D2030.01 Waste and Vent Piping*

Cast iron waste lines in the original building. Several sections with ABS and PVC wastes. Vents are typically DWV grade copper and ABS.

RatingInstalledDesign LifeUpdated4 - Acceptable197650NOV-05

D2040.01 Rain Water Drainage Piping Systems*

Rain water handled by surface mounted downspouts. No interior drainage piping with the Behlen structure.

RatingInstalledDesign LifeUpdated4 - Acceptable197650NOV-05

D2090.01 Compressed Air Systems**

Black iron and copper compressed air lines in maintenance and transporation shops. Older compressor causing some maintenance headaches, and should be replaced.

RatingInstalledDesign LifeUpdated3 - Marginal19760NOV-05

Event: Replace repair shop compressor.

Concern:

Older (30 year) compressor, giving function hiccups.

Recommendation:

Replace the compressor.

TypeYearCostPriorityPreventative Maintenance2006\$5,350Medium

Updated: February 21 2006

D3010.01 Oil Supply Systems (Fuel, Diesel)*

Oil supply lines on hose reels and service pumps for engine repair work.

RatingInstalledDesign LifeUpdated4 - Acceptable19760NOV-05

D3010.02 Gas Supply Systems*

Standard schedule 40 black iron, threaded joint distribution piping from external meter and regulator.

RatingInstalledDesign LifeUpdated4 - Acceptable197650NOV-05

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

One Weil-McLain PAFG-8 gas fired hot water boiler, more than 30 years of age. One Superhot AAE1320M gas fired hot water boiler, approximately 25 years old. Units are inefficient, and significantly oversized for the areas served, but have been pieced together by staff to function reasonably well. Replacement to a properly sized pair of units is warranted, subject to our comments in the general asset narrative.

RatingInstalledDesign LifeUpdated3 - Marginal197630NOV-05

Event: Replace makeshift boilers.

Concern:

Older, inefficient boilers, that are oversized.

Recommendation:

Replace units with two new units, sized specifically for the building.

TypeYearCostPriorityEnergy Efficiency Upgrade2006\$37,450High

Updated: February 21 2006

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

Chimneys are amply sized for units. Combustion air undersized, but general room enables functionality without major problems. Change in boiler size will suffice for current lack of combustion air duct size.

RatingInstalledDesign LifeUpdated4 - Acceptable197630NOV-05

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

Chemical pot feeder, with rust inhibiters and minor glycol ratios introduced.

RatingInstalledDesign LifeUpdated4 - Acceptable197630NOV-05

D3030.05.05 Water Treatment Equipment*

(2002) Novatek EM water softening system for washbay use, tied into Epps 312K Model 5400 hot water washing heater.

Rating Installed Design Life Updated
4 - Acceptable 1976 0 NOV-05

D3030.06.02 Refrigerant Condensing Units**

Two remoted, grade mounted condensing units. One Armstrong Air SCU10B36B-2 (3 ton) and one SCU10B60B-2 (5 ton) unit feeding the fan coil units serving the Transportation office and Maintenance office respectively.

RatingInstalledDesign LifeUpdated4 - Acceptable197625NOV-05

D3040.01.02 Fans: Air Distribution*

Standard ceiling circulation fans in maintenance and transportation area shops.

Rating Installed Design Life Updated
4 - Acceptable 1976 30 NOV-05

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D3040.01.03 Air Cleaning Devices: Air Distribution*

Replaceable media filter banks in all fan coil units. The woodworking shop also has a Murphy VVML-10 dust collector, that is mediocre at best. Replacement of the dust collector is warranted. The filter bank in the Paint Booth is too small to meet Code, and should be upgraded.

RatingInstalledDesign LifeUpdated3 - Marginal197630NOV-05

Event: Replace dust collector.

Concern:

Older, inefficient unit, resulting in poor air quality.

Recommendation:

Replace the dust collector.

TypeYearCostPriorityIndoor Air Quality Upgrade2006\$12,840Medium

Updated: February 21 2006

Event: Replace paint booth filter bank.

Concern:

System is too small to meet Code air movements.

Recommendation:

Replace filter bank in paint booth.

TypeYearCostPriorityIndoor Air Quality Upgrade2006\$5,350Medium

Updated: February 21 2006

D3040.01.04 Ducts: Air Distribution*

SMACNA standard galvanized sheet metal ducting. Under floor dust collector system needs to be upgraded.

RatingInstalledDesign LifeUpdated3 - Marginal197650NOV-05

Event: Replace dust collector ductwork.

Concern:

System configuration is poor, with undersized ducts.

Recommendation:

Replace dust collector system ductwork.

TypeYearCostPriorityIndoor Air Quality Upgrade2006\$5,350Medium

Updated: February 21 2006

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D3040.01.07 Air Outlets & Inlets:Air Distribution*

Enameled steel ceiling diffusers in new offices. Older steel grilles and registers in original spaces.

RatingInstalledDesign LifeUpdated4 - Acceptable197630NOV-05

D3040.03.01 Hot Water Distribution Systems**

Standard schedule 40 black iron piping to copper fixture connections. General system in need of minor repairs to maintain integrity.

RatingInstalledDesign LifeUpdated3 - Marginal197640NOV-05

Event: Replace specific sections of distribution piping.

Concern:

Ongoing minor leaking problems.

Recommendation:

Replace majority of distribution piping.

TypeYearCostPriorityFailure Replacement2006\$16,050Medium

Updated: February 21 2006

D3040.04.01 Fans: Exhaust**

Mixed variety of fans throughout both buildings. General washroom fans are fine, but all shop and washbay fans are old and inefficient units. Paint booth exhaust fan and filter system is far below current standards. General upgrades to all shop and paint booth areas is required.

RatingInstalledDesign LifeUpdated2 - Poor197630NOV-05

Event: Upgrade all shop fans.

Concern:

All larger volume fans are in poor condition, with air movement levels far below Code standards.

Recommendation:

Replace shop fans and makeup air systems.

TypeYearCostPriorityIndoor Air Quality Upgrade2006\$90,950High

Updated: February 21 2006

D3040.04.03 Ducts: Exhaust*

Limited quantities of exhaust ductwork in shop area, with the exception of dust collector system. Washroom fans have small diameter sheet metal ducts, with flexible end connections. Upgrades to dust collector system ducts required.

RatingInstalledDesign LifeUpdated3 - Marginal19760NOV-05

Event: Replace dust collector ductwork.

Concern:

Improperly sized for upgraded dust collector.

Recommendation:

Replace ducts.

TypeYearCostPriorityIndoor Air Quality Upgrade2006\$5,350Medium

Updated: February 21 2006

D3040.04.05 Air Outlets and Inlets: Exhaust*

Plastic grilles on washroom fans. Shop fans with standard bird screens and weatherhoods.

RatingInstalledDesign LifeUpdated4 - Acceptable19760NOV-05

D3050.02 Air Coils**

Copper tube hydronic coils and selected units with DX cooling coils.

RatingInstalledDesign LifeUpdated4 - Acceptable197630NOV-05

D3050.05.02 Fan Coil Units**

Total of four various sized and configured fan coil heating units. Two units service the maintenance shop and transportation offices, and one tandem unit services the spray booth area within the remote storage building. These units have typically been piecemealed together, and while they are functioning quite well, given the age of the parts, replacement with new units or a general redesign is warranted.

RatingInstalledDesign LifeUpdated3 - Marginal197630NOV-05

Event: Replace fan coil units.

Concern:

Older equipment, with difficulty in obtaining replacement parts.

Recommendation:

Replace fan coils in 4 units.

TypeYearCostPriorityFailure Replacement2006\$42,800Medium

Updated: February 21 2006

D3050.05.03 Finned Tube Radiation**

Small quantities of finned tube units in maintenance storage room and transportation office areas. Units are functioning, but have been damaged and are inefficient, with probable leaking concerns.

RatingInstalledDesign LifeUpdated3 - Marginal197640NOV-05

Event: Replace sections of finned tube baseboard.

Concern:

Damage to several sections of hydronic baseboard.

Recommendation:

Replace finned tube radiation.

TypeYearCostPriorityFailure Replacement2006\$8,025Medium

Updated: February 21 2006

D3050.05.05 Infrared Heaters*

Standard low intensity, gas fired infrared units in Transportation maintenance repair shop and washbay. Units are badly rusting and the ceiling is probably too low for such units to suit buses. Replacement is warranted, but a radiant slab is apt to be a better solution if this building is maintained.

RatingInstalledDesign LifeUpdated2 - Poor197630NOV-05

Event: Replace older, and poorly functioning infrared

units.

Concern:

Proximity and rusting concerns.

Recommendation:

Replace units with new radiant floor slab heating system.

TypeYearCostPriorityFailure Replacement2006\$37,450High

Updated: February 21 2006

D3050.05.06 Unit Heaters**

Hydronic fed unit heaters.

RatingInstalledDesign LifeUpdated4 - Acceptable197630NOV-05

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

(2001) Maintenance office areas outfitted with hydronic fed radiant ceiling panels.

RatingInstalledDesign LifeUpdated5 - Good197630NOV-05

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D3060.02.01 Electric and Electronic Controls**

Basic electronic thermostats and Tekmar boiler controls.

RatingInstalledDesign LifeUpdated4 - Acceptable197630NOV-05

D4030.01 Fire Extinguisher, Cabinets and Accessories**

Wall mounted type ABC extinguishers. General coverage is adequate.

Rating	<u>Installed</u>	Design Life	<u>Updated</u>
4 - Acceptable	1976	30	NOV-05

S5 ELECTRICAL

D5010.01 Main Electrical Transformers**

Pole mounted, 3 phase transformers.

RatingInstalledDesign LifeUpdated4 - Acceptable197640NOV-05

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

225A, 120/208V 3 Phase combination main panel, with exterior meter.

RatingInstalledDesign LifeUpdated4 - Acceptable197640NOV-05

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

Sub-panels located in maintenance office, shop and transportation shop. Limited spare circuiting capacity, but no additional loads or outlets required. Main service panel is a newer units, with plenty of spare breakers.

RatingInstalledDesign LifeUpdated4 - Acceptable197625NOV-05

D5010.07.02 Motor Starters and Accessories**

Various sized magnetic starters, typically noted as Allen-Bradley models.

RatingInstalledDesign LifeUpdated4 - Acceptable19760NOV-05

D5020.01 Electrical Branch Wiring*

(2001) Electrical wiring upgrades completed. General system is functioning well.

RatingInstalledDesign LifeUpdated4 - Acceptable197650NOV-05

D5020.02.01 Lighting Accessories (Lighting Controls)*

Standard toggle switch lighting controls throughout.

RatingInstalledDesign LifeUpdated4 - Acceptable197630NOV-05

D5020.02.02.01 Interior Incandescent Fixtures*

Limited number of small wattage incandescent units in mechanical spaces. General upgrade to retrofit compact fluorescent units recommended as part of regular maintenance.

RatingInstalledDesign LifeUpdated4 - Acceptable197630NOV-05

D5020.02.02.02 Interior Florescent Fixtures**

(2001) Office addition includes current technology T8 lamps and electronic ballasted units. Older sections of the shop and transportation areas still have some T12 lamp/magnetic ballast units that should be replaced for energy efficiency. Note: we have included a cost for replacement, but refer to general asset narrative for capital dollar expenditure concerns with this facility.

RatingInstalledDesign LifeUpdated3 - Marginal197630NOV-05

Event: Replace old T12 fixtures.

Concern:

Older, inefficient T12 fixtures in most of the shop areas.

Recommendation:

Replace the units with 20 more efficient T8 units. Expected payback in 4 to 5 years.

TypeYearCostPriorityEnergy Efficiency Upgrade2006\$6,420Medium

Updated: February 21 2006

D5020.02.03 Emergency Lighting*

Incandescent exit and emergency lights/battery packs in required locations.

RatingInstalledDesign LifeUpdated4 - Acceptable19760NOV-05

D5020.03.01.04 Exterior H.P. Sodium Fixtures*

Wall mounted HPS area lights, of various wattages.

RatingInstalledDesign LifeUpdated4 - Acceptable197625NOV-05

D5020.03.02 Lighting Accessories (Lighting Controls)*

Standard photocell exterior lighting controls.

RatingInstalledDesign LifeUpdated4 - Acceptable197625NOV-05

D5030.02.02 Intrusion Detection**

Silent Knight 4821 security system, with motion detectors.

RatingInstalledDesign LifeUpdated4 - Acceptable197625NOV-05

D5030.02.03 Security Access**

System keypads at maintenance office and transportation shop entrance doors.

RatingInstalledDesign LifeUpdated4 - Acceptable197625NOV-05

D5030.03 Clock and Program Systems**

Battery clocks throughout, as applicable.

RatingInstalledDesign LifeUpdated4 - Acceptable197625NOV-05

D5030.04.01 Telephone Systems**

Panasonic 4CD/8EXT telephone system and gear.

RatingInstalledDesign LifeUpdated5 - Good197625NOV-05

D5030.04.04 Data Systems**

Cat5e data lines, in free air, with no cable trays. Conduits in office wall cavities.

RatingInstalledDesign LifeUpdated4 - Acceptable197625NOV-05

D5030.04.05 Local Area Network Systems*

Fibre optics Supernet connection in place.

RatingInstalledDesign LifeUpdated5 - Good197625NOV-05

S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION

E1030.01 Vehicle Service Equipment*

Overhead crane engine hoist in the machine shop area.

RatingInstalledDesign LifeUpdated5 - Good197625NOV-05

E1090.04 Residential Equipment*

Office kitchen has a refrigerator and a microwave. Transportation coffee room has a refrigerator, microwave, and a water cooler.

RatingInstalledDesign LifeUpdated5 - Good197625NOV-05

E2010.02.07 Kitchen Casework*

(2001) Plastic laminate top with clear lacquered birch plywood upper and lower casework.

RatingInstalledDesign LifeUpdated5 - Good197635NOV-05

E2010.02.99 Other Casework*

(2001) Plastic laminate with clear lacquered birch plywood vanity cabinets and reception counter. Transportation washroom vanities are moulded plastic tops/sinks with melamine cabinets.

RatingInstalledDesign LifeUpdated5 - Good19760NOV-05

E2010.03.01 Blinds**

(2001) 50mm vertical blinds in the office area. Horizontal mini-blinds in Transportation

RatingInstalledDesign LifeUpdated5 - Good197635NOV-05

F1020.02.13 Paint Booths*

There is an insulated paint booth in the storage garage.

RatingInstalledDesign LifeUpdated4 - Acceptable197650NOV-05

F2020.01 Asbestos*

No visible or reported evidence of asbestos however testing should be done prior to any major modifications.

RatingInstalledDesign LifeUpdated4 - Acceptable19760NOV-05

F2020.04 Mould*

High humidity in the wood shop crawl space could potentially encourage mould growth.

RatingInstalledDesign LifeUpdated3 - Marginal19760NOV-05

S8 FUNCTIONAL ASSESSMENT

K40 Current Code Issues

Machine shop mezzanine balustrade does not comply with current codes with respect to the size of the openings.

RatingInstalledDesign LifeUpdated3 - Marginal19760NOV-05

Event: Enclose guard.

Concern:

The guard rails for the machine shop mezzanine which does not comply with current codes for the size of openings.

Recommendation:

Add more vertical pickets or enclose guards with plywood or gypsum board.

TypeYearCostPriorityCode Upgrade2007\$2,140Medium

Updated: February 21 2006

K4010.01 Barrier Free Route: Parking to Entrance

Path of travel from parking to entrances are barrier free.

RatingInstalledDesign LifeUpdated4 - Acceptable19760NOV-05

K4010.02 Barrier Free Entrances

There are no automatic door operators however they are not required in this type of occupancy. Round knob locksets should be changed to lever style for barrier free access.

RatingInstalledDesign LifeUpdated4 - Acceptable19760NOV-05

K4010.03 Barrier Free Interior Circulation

The interior spaces are all on one level and at grade except for the storage mezzanines which are not required to be barrier free.

RatingInstalledDesign LifeUpdated4 - Acceptable19760NOV-05

K4010.04 Barrier Free Washrooms

None of the washrooms are not barrier free. A special washroom should be constructed.

RatingInstalledDesign LifeUpdated3 - Marginal19760NOV-05

Event: Modify a washroom for barrier free.

Concern:

None of the washrooms are barrier free.

Recommendation:

Change the toilet, add grab bars and provide an accessible sink/vanity in the transportation garage washroom for barrier free access. This location was selected because it is the largest one and would not require modification of partitions.

TypeYearCostPriorityBarrier Free Access Upgrade 2009\$3,210Low

Updated: February 21 2006

RECAPP Facility Evaluation Report



Maintenance / Transportation Shops \$5779 Rocky Mountain House

Facility Details

Building Name: Maintenance / Transportation

Address:

Location: Rocky Mountain House

Building Id: \$5779

Gross Area (sq. m): 2.00

Replacement Cost: \$0

Construction Year: 0

Evaluation Details

Evaluation Company:

Evaluation Date: October 26 2005

Evaluator Name:

Total Maintenance Events Next 5 years: \$3,210 5 year Facility Condition Index (FCI): 0%

General Summary:

The site is mostly asphalt with a gravel area on the east end and wild grass on the south side of the building. The site is serviced with underground gas, water and sewer and overhead power. The site is in good condition.

Structural Summary:

Envelope Summary:

Interior Summary:

Mechanical Summary:

Electrical Summary:

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

S7 SITE

G2020.02.01 Aggregate Parking Lots (Gravel)**

Gravel storage area at east end of site.

RatingInstalledDesign LifeUpdated4 - Acceptable010OCT-05

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

The north yard and central yard area are asphalt.

RatingInstalledDesign LifeUpdated5 - Good00 OCT-05

G2040.02 Fences and Gates**

1800mm chain link fence with barbed wire along the top around entire perimeter with gate access.

RatingInstalledDesign LifeUpdated4 - Acceptable00OCT-05

G2040.06 Exterior Signs*

Freestanding steel pole with hanging painted plywood building sign.

RatingInstalledDesign LifeUpdated4 - Acceptable00OCT-05

G2050.04 Lawns and Grasses*

Wild grass area at the west street front and along south side yard.

RatingInstalledDesign LifeUpdated4 - Acceptable00OCT-05

G3010.02 Site Domestic Water Distribution*

Municipal water main feeding domestic water service line.

RatingInstalledDesign LifeUpdated4 - Acceptable00OCT-05

G3010.03 Site Fire Protection Water Distribution*

Municipal watermain feeding hydrants, withint general Code distance requirements.

RatingInstalledDesign LifeUpdated4 - Acceptable00OCT-05

G3020.01 Sanitary Sewage Collection*

Municipal sanitary sewer within adjacent municipal roadways.

RatingInstalledDesign LifeUpdated4 - Acceptable00OCT-05

G3020.02 Septic Systems*

Original septic tanks on site, but no longer used due to municipal services.

RatingInstalledDesign LifeUpdated4 - Acceptable00OCT-05

G3020.03 Sanitary Sewage Equipment*

Municipal system manholes.

RatingInstalledDesign LifeUpdated4 - Acceptable00OCT-05

G3030.01 Storm Water Collection*

Overland runoff to ditches and swales. No local municipal storm sewer in the area. General grading pattern is reasonably good.

RatingInstalledDesign LifeUpdated4 - Acceptable00OCT-05

G3030.03 Storm Water Ponds and Reservoirs*

No on site stormwater detention.

RatingInstalledDesign LifeUpdated4 - Acceptable00OCT-05

G3060.01 Gas Distribution*

Underground mains in municipal streets and ROWs.

RatingInstalledDesign LifeUpdated4 - Acceptable00OCT-05

G4010.02 Electrical Power Distribution Lines*

Overhead power lines across yard and at adjacent municipal street to the east.

RatingInstalledDesign LifeUpdated4 - Acceptable00OCT-05

G4010.03 Electrical Power Distribution Equipment*

Pole mounted transformer.

RatingInstalledDesign LifeUpdated4 - Acceptable00OCT-05

G4010.04 Car Plugs-ins*

Surface mounted vehicle plugs on the building. No thermostat or timeclock controls in place, while some weatherproof covers are missing. Upgraded controls and unit repairs are warranted.

RatingInstalledDesign LifeUpdated3 - Marginal00OCT-05

Event: Repair plugs and upgrade controls.

Concern:

Several plugs missing weatherproof covers. No timeclock controls.

Recommendation:

Repair plugs and introduce timeclock control.

 Type
 Year
 Cost
 Priority

 Repair
 2006
 \$3,210
 Medium

Updated: February 22 2006

G4020.01 Area Lighting*

Building HID wall packs and yard pole mounted HID units, together with adjacent municipal street lighting are adequate.

Rating	Installed Design Life	e <u>Updated</u>
4 - Acceptable	0 0	OCT-05