# **RECAPP Facility Evaluation Report**

**Battle River Reg Div #31** 



C. W. Sears Elementary School
B4181A
Tofield

# Tofield - C. W. Sears Elementary School (B4181A)

## **Facility Details**

Building Name: C. W. Sears Elementary Sch

Address: 5716 - 47 Street

Location: Tofield

Building Id: B4181A Gross Area (sq. m): 0.00

Replacement Cost: \$5,783,801

Construction Year: 0

#### **Evaluation Details**

Evaluation Company: Wade Engineering Ltd.

Evaluation Date: December 9 2006

Evaluator Name: Ron Shannon

Total Maintenance Events Next 5 years: \$353,600 5 year Facility Condition Index (FCI): 6.11%

#### **General Summary:**

Located in Tofield, Alberta. Current enrollment is 267 (K to 4). Gross area is 2,369.13 m2. Built in 1979, with attached portables and additional portables in 1986. Masonry construction with brick veneer and aluminum windows and flat roofing. A large sloped glazed aluminum skylight over hallway between portables and school on rear elevation. Interior finishes have been upgraded over the years at various times. Large, relatively flat site has some minor drainage concerns. The plasticity of the soil causes recurring slab movement throughout the school, a geotechnical study is recommended to determine cause of concern and interior slab and wall repairs are required. Asphalt driveway at front elevation requires replacement, gravel parking lot in good condition.

#### **Structural Summary:**

Slab on grade with block construction throughout. OWSJ and steel Q-deck, flat roofing. Recurring problems with floor slab cracking and minor movement due to high plasticized soil substrates. A study is recommended and repairs are required to flooring and walls in localized areas.

Overall condition is acceptable.

#### **Envelope Summary:**

100mm face brick on all exterior finishes with metal clad canopies and soffits. Bronze anodized commercial aluminum window frames, pressed steel storefront and entry doors. Roofing consists of 2-ply SBS membrane on main school (1998) with 4-ply A&G roofing on 1986 portables which are due for replacement. Large aluminum frame skylight over portable wing.

Overall condition is good.

#### **Interior Summary:**

Interior finishes have been upgraded over the years. All flooring is 5 to 10 years old. Paint has been redone in last 5 years. Some original cabinetry remains and is scheduled for life cycle replacement. Some flooring repairs and replacement are required. Acoustical ceiling tiles have been replaced in hallways. Classrooms are due for replacement.

Overall condition is acceptable.

## **Mechanical Summary:**

The original school section was heated by two (2) hot water boilers and perimeter finned tube radiation. The portable school section was heated and ventilated by individual furnaces installed from 1994 to 2005. One (1) multizone air handling unit provides ventilation for the original school section and two Lennox furnaces installed in 2002 provide ventilation for the Gym. The multizone air handling unit need to be replaced due to life cycle replacement. The control system is DDC.

Overall, the mechanical system is in acceptable conditions.

#### **Electrical Summary:**

Incoming service is 800 amp, 120/208V, 3 phase in good condition. Branch circuit panelboards are located throughout the facility with limited spare capacity. The interior lighting is T8 fluorescent technology. All exit lights are LED. Fire alarm system is an outdated Edwards 2280 system. Telephone system has recently been replaced with a new Cisco Systems internet phone.

Overall, the building is in good condition with the exception of the following areas of improvement:

- Fire alarm system should be replaced with new addressable system

Report run on: March 5, 2007 10:28 AM Page 2 of 29

# Tofield - C. W. Sears Elementary School (B4181A)

Rating Guide			
<b>Condition Rating</b>	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\*

Assumed to be grade beam and/or pile foundation.

RatingInstalledDesign LifeUpdated4 - Acceptable0100MAR-07

## A1030 Slab on Grade\*

Slab on grade throughout.

RatingInstalledDesign LifeUpdated3 - Marginal0100MAR-07

#### **Event: Geotechnical Study**

#### Concern:

Slab movement and cracking due to poor soil substrate conditions.

#### Recommendation:

Conduct soil surveys and take slab samples to determine cause of recurring movement and develop scope of work for repairs.

#### **Consequences of Deferral:**

Continued movement and increased repair costs.

TypeYearCostPriorityStudy2007\$7,500Unassigned

**Updated: MAR-07** 

#### **Event: Slab on Grade Repair**

#### Concern:

Continued cracking and marginal movement of floor slab due to poor soil substrate.

#### Recommendation:

Following a geotechnical study, recommend stabilizing floor slab with chemical grout, and completing crack repairs and floor leveling where required.

#### **Consequences of Deferral:**

Continued movement and increased repair costs.

TypeYearCostPriorityRepair2008\$12,000Unassigned

Updated: MAR-07

#### B1010.02 Structural Interior Walls Supporting Floors (or Roof)\*

Concrete block load bearing and partition walls.

<u>Rating</u>	<u>Installed</u>	Design Life	<u>Updated</u>
4 - Acceptable	0	100	MAR-07

## B1010.06 Ramps: Exterior\*\*

Wood barrier-free ramp to portable wing with wood handrails.

RatingInstalledDesign LifeUpdated4 - Acceptable198640MAR-07

## B1010.07 Exterior Stairs\*\*

Concrete stairs to south entry portable wing.

RatingInstalledDesign LifeUpdated4 - Acceptable198640MAR-07

## **B1010.10 Floor Construction Firestopping\***

RatingInstalledDesign LifeUpdated4 - Acceptable050MAR-07

## B1020.01 Roof Structural Frame\*

OWSJ and steel Q-deck throughout.

RatingInstalledDesign LifeUpdated4 - Acceptable0100MAR-07

## B1020.04 Canopies\*

Metal clad flat roof canopy over entry doors.

RatingInstalledDesign LifeUpdated4 - Acceptable050MAR-07

#### B1020.06 Roof Construction Fireproofing\*

Firestopping in place where viewed.

RatingInstalledDesign LifeUpdated4 - Acceptable050MAR-07

## **S2 ENVELOPE**

#### B2010.01.02.01 Brick Masonry: Ext. Wall Skin\*

100mm face brick.

RatingInstalledDesign LifeUpdated5 - Good075MAR-07

## B2010.01.06.03 Metal Siding\*\*

Medium gauge pre-finished siding on canopies.

RatingInstalledDesign LifeUpdated4 - Acceptable197940MAR-07

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

Sealant detailing at window to wall and masonry control joints.

RatingInstalledDesign LifeUpdated3 - Marginal197920MAR-07

#### **Event: Sealant Replacement**

Concern:

Sealant failures throughout on windows and masonry joints.

Recommendation:

Cut out and replace with new construction grade urethane

sealant.

**Consequences of Deferral:** 

Potential water entry concerns.

TypeYearCostPriorityFailure Replacement2007\$3,000High

Updated: MAR-07

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

Concrete block construction.

RatingInstalledDesign LifeUpdated4 - Acceptable0100MAR-07

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

Unknown assembly.

RatingInstalledDesign LifeUpdated4 - Acceptable030MAR-07

#### B2010.06 Exterior Louvers, Grilles, and Screens\*

Aluminum louvers for mechanical room.

Rating Installed Design Life Updated 4 - Acceptable 0 30 MAR-07

#### B2010.09 Exterior Soffits\*

Metal soffit.

Rating Installed Design Life Updated 4 - Acceptable 0 30 MAR-07

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

Bronze anodized aluminum frame windows. Venting units in classroom have internal blinds.

Rating	<u>Installed</u>	Design Life	<b>Updated</b>
3 - Marginal	1979	40	MAR-07

#### Event: Replace glazing

#### Concern:

Full wall glazing in staff room has been modified with insulation panels behind glass to reduce heat loads. Improper design has resulted in continual glass breakage due to heat loads.

#### Recommendation:

Replace upper glass with insulated spandrel panels and install solar reflective glass on bottom row.

## **Consequences of Deferral:**

Continued heat problems and increased maintenance costs.

Type	<u>Year</u>	Cost	<u>Priority</u>
Failure Replacement	2009	\$12,000	Medium

Updated: MAR-07





## B2020.02 Storefronts\*\*

Painted pressed steel frames with side lights and steel entry doors.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	1979	40	MAR-07

#### B2030.05 Other Exterior Doors\*\*

Steel utility doors at fire exits.

Rating	<u>Installed</u>	Design Life	<u>Updated</u>
4 - Acceptable	1979	30	MAR-07

#### B3010.01 Deck Vapor Retarder and Insulation\*

Unknown assembly.

RatingInstalledDesign LifeUpdated4 - Acceptable025MAR-07

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

A&G roofing on 1986 portables.

RatingInstalledDesign LifeUpdated2 - Poor198625MAR-07

## **Event:** Replace roofing on 1986 portables (148m2)

Concern:

Roofing in poor condition with numerous blisters and leaks.

**Recommendation:** 

Replace with new SBS roofing. Upgrade to R20 insulation.

TypeYearCostPriorityFailure Replacement2007\$17,600Unassigned

**Updated: MAR-07** 

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

2-ply SBS membrane on 1979 building, 1978 portables and 1990 portables.

RatingInstalledDesign LifeUpdated5 - Good199825MAR-07

## B3010.07 Sheet Metal Roofing\*\*

Standing seam metal roof on hallway link to portables.

RatingInstalledDesign LifeUpdated4 - Acceptable198640MAR-07

#### B3020.01 Skylights\*\*

Glazed anodized aluminum frame sloped design over hallway to 1986 portables and an acrylic dome skylight.

RatingInstalledDesign LifeUpdated4 - Acceptable198620MAR-07

# B3020.02 Other Roofing Openings (Hatch, Vent, etc)\*

Roof hatch, mechanical and electrical penetrations.

Rating	<u>Installed</u>	Design Life	<u>Updated</u>
4 - Acceptable	0	25	MAR-07

## S3 INTERIOR

#### C1010.01 Interior Fixed Partitions\*

Concrete block and steel stud. Rooms 128 and 129 require repair. See C3010.06 Tile Wall Finishes.

RatingInstalledDesign LifeUpdated4 - Acceptable050MAR-07

#### C1010.06 Interior Glazed Partitions and Storefronts\*

Pressed steel frames with single glazed lites in offices, library and staff room.

RatingInstalledDesign LifeUpdated4 - Acceptable197930MAR-07

## C1010.07 Interior Partition Firestopping\*

Rating	<u>Installed</u>	Design Life	<u>Updated</u>
4 - Acceptable	0	50	MAR-07

## C1020.01 Interior Swinging Doors\*\*

Solid core wood doors with pressed steel frames.

RatingInstalledDesign LifeUpdated4 - Acceptable197940MAR-07

#### C1020.03 Interior Fire Doors\*

Standard fire rated steel doors in required areas.

RatingInstalledDesign LifeUpdated4 - Acceptable050MAR-07

## C1030.01 Visual Display Boards\*\*

Whiteboards and tack boards throughout.

RatingInstalledDesign LifeUpdated4 - Acceptable197920MAR-07

**Event:** Replace Visual Display Boards (14 classrooms)

TypeYearCostPriorityLifecycle Replacement2010\$21,000Low

Updated: MAR-07

## C1030.02 Fabricated Compartments(Toilets/Showers)\*\*

Standard steel enclosures.

RatingInstalledDesign LifeUpdated5 - Good200030MAR-07

## C1030.08 Interior Identifying Devices\*

Door signage, hallway directional signage and exit signs.

RatingInstalledDesign LifeUpdated5 - Good020MAR-07

#### C1030.12 Storage Shelving\*

Fixed and adjustable metal and wood shelving.

RatingInstalledDesign LifeUpdated4 - Acceptable020MAR-07

## C1030.14 Toilet, Bath, and Laundry Accessories\*

Standard metal fittings, toilet, paper and soap dispensers.

RatingInstalledDesign LifeUpdated4 - Acceptable020MAR-07

#### C1030.17 Other Fittings\*

Folding metal boot racks.

RatingInstalledDesign LifeUpdated4 - Acceptable010MAR-07

#### C2030.01 Ramp Construction\*

Wood ramp to portable sections.

RatingInstalledDesign LifeUpdated4 - Acceptable0100MAR-07

## C2030.02 Ramp Finishes\*

Heavy-duty textured PVC flooring.

Rating	<u>Installed</u>	Design Life	<u>Updated</u>
4 - Acceptable	0	0	MAR-07

#### C2030.03 Ramp Railings\*

Wood railing.

RatingInstalledDesign LifeUpdated4 - Acceptable050MAR-07

## C3010.04 Gypsum Board Wall Finishes\*

Various partition walls.

RatingInstalledDesign LifeUpdated4 - Acceptable060MAR-07

## C3010.06 Tile Wall Finishes\*\*

Washrooms.

RatingInstalledDesign LifeUpdated3 - Marginal197940MAR-07

## **Event:** Replace ceramic tiles (55m2)

Recommendation:

Schedule with repairs to Rooms 128 and 129.

TypeYearCostPriorityLifecycle Replacement2008\$12,000Low

**Updated: MAR-07** 

#### Event: Tile/Wall Repair (14m2)

Concern:

Slab movement has resulted in cracked walls and settling.

Recommendation:

Following repair of floor slab, replace damaged gypsum board and/or concrete block and ceramic tiles on partition wall between main washroom and library offices (rooms 128 & 129).

TypeYearCostPriorityRepair2008\$5,000Unassigned

Updated: MAR-07

## C3010.11 Interior Wall Painting\*\*

Latex paint throughout.

RatingInstalledDesign LifeUpdated4 - Acceptable199810MAR-07

#### C3020.01.02 Paint Concrete Floor Finishes\*\*

Mechanical room only.

RatingInstalledDesign LifeUpdated4 - Acceptable198610MAR-07

**Event:** Repaint floor (68m2)

TypeYearCostPriorityLifecycle Replacement2010\$4,000Low

Updated: MAR-07

## C3020.02 Tile Floor Finishes\*\*

Washrooms.

RatingInstalledDesign LifeUpdated4 - Acceptable197950MAR-07

## C3020.04 Wood Flooring\*\*

Hardwood sports floor in gymnasium.

RatingInstalledDesign LifeUpdated4 - Acceptable197930MAR-07

**Event: Refinish gymnasium floor (407m2)** 

TypeYearCostPriorityLifecycle Replacement2010\$32,600Low

Updated: MAR-07

## C3020.07 Resilient Flooring\*\*

Sheet linoleum and VC tile throughout. Some area replacement will be required when concrete slab is repaired. Costs are carried in A1030 Slab on Grade.

RatingInstalledDesign LifeUpdated5 - Good199620MAR-07

Event: Replace linoleum (70 m2)

TypeYearCostPriorityLifecycle Replacement2010\$5,700Low

Updated: MAR-07

Report run on: March 5, 2007 10:28 AM Page 13 of 29

#### C3020.08 Carpet Flooring\*\*

Carpet in staff room.

RatingInstalledDesign LifeUpdated3 - Marginal198615MAR-07

**Event: Replace carpet (18m2)** 

Concern:

Carpet has exceeded its life cycle with many areas worn and

damaged.

Recommendation:

Replace with new medium density carpet.

TypeYearCostPriorityFailure Replacement2008\$1,200Medium

Updated: MAR-07

## C3030.04 Gypsum Board Ceiling Finishes\*

Store rooms, mechanical rooms and washrooms.

RatingInstalledDesign LifeUpdated4 - Acceptable050MAR-07

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

All areas, hallways were replaced in 2000, remaining areas to be replaced 820 sq M.

RatingInstalledDesign LifeUpdated4 - Acceptable025MAR-07

Event: Replace acoustic ceiling tiles (820m2)

TypeYearCostPriorityLifecycle Replacement2010\$32,000Low

**Updated: MAR-07** 

#### C3030.07 Interior Ceiling Painting\*\*

Latex paint throughout.

RatingInstalledDesign LifeUpdated4 - Acceptable200020MAR-07

Report run on: March 5, 2007 10:28 AM Page 14 of 29

## **S4 MECHANICAL**

#### D2010.01 Water Closets\*\*

Floor mounted, flush valve, open front seats.

RatingInstalledDesign LifeUpdated4 - Acceptable197935MAR-07

## D2010.02 Urinals\*\*

Wall hung urinals, flush valve.

RatingInstalledDesign LifeUpdated4 - Acceptable197935MAR-07

#### D2010.03 Lavatories\*\*

Porcelain steel bowl. On/off brass.

RatingInstalledDesign LifeUpdated4 - Acceptable197935MAR-07

#### D2010.04 Sinks\*\*

Stainless steel sinks.

RatingInstalledDesign LifeUpdated5 - Good197930MAR-07

**Event:** Replace 3 stainless steel sinks

TypeYearCostPriorityLifecycle Replacement2010\$2,100Low

Updated: MAR-07

## D2010.08 Drinking Fountains / Coolers\*\*

Wall hung non-refrigerated fountains installed in 1979 and 1986.

RatingInstalledDesign LifeUpdated4 - Acceptable197935MAR-07

#### D2020.01.01 Pipes and Tubes: Domestic Water\*

Copper piping and fittings.

RatingInstalledDesign LifeUpdated4 - Acceptable197940MAR-07

#### D2020.01.02 Valves: Domestic Water\*\*

Gate isolation valves.

RatingInstalledDesign LifeUpdated4 - Acceptable197940MAR-07

## D2020.01.03 Piping Specialties (Backflow Preventors)\*\*

Installed on heating system cold water make up line.

RatingInstalledDesign LifeUpdated4 - Acceptable197920MAR-07

**Event: Backflow Preventor Replacement** 

TypeYearCostPriorityLifecycle Replacement2010\$3,000Low

Updated: MAR-07

## D2020.02.02 Plumbing Pumps: Domestic Water\*\*

Inline domestic hot water recirculation pump.

RatingInstalledDesign LifeUpdated4 - Acceptable197920MAR-07

**Event:** Pump Replacement

TypeYearCostPriorityLifecycle Replacement2010\$1,000Low

**Updated: MAR-07** 

## D2020.02.06 Domestic Water Heaters\*\*

A.O Smith domestic hot water heater (model BT500H-860S, input 450,000 Btu/hr).

RatingInstalledDesign LifeUpdated4 - Acceptable197920MAR-07

**Event: Domestic Hot Water Heater Replacement** 

TypeYearCostPriorityLifecycle Replacement2010\$11,900Low

**Updated:** MAR-07

#### D2020.03 Water Supply Insulation: Domestic\*

All domestic cold, hot water and recirculation piping insulated.

RatingInstalledDesign LifeUpdated4 - Acceptable197930MAR-07

## D2030.01 Waste and Vent Piping\*

Underground piping is plastic. Above ground piping is cast iron or copper.

RatingInstalledDesign LifeUpdated4 - Acceptable197950MAR-07

#### D2040.02.04 Roof Drains\*\*

Full open flow roof drains installed throughout all phases of school.

RatingInstalledDesign LifeUpdated4 - Acceptable197940MAR-07

## D3010.02 Gas Supply Systems\*

Gas distribution piping to heating boilers, domestic hot water heater and furnaces.

RatingInstalledDesign LifeUpdated4 - Acceptable197960MAR-07

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

Two gas fired hot water boilers (Allied Engineering Company, Model AA-480-M, Input 168,000 Btu/hr).

RatingInstalledDesign LifeUpdated4 - Acceptable197935MAR-07

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

Two chimneys were installed in 1979.

RatingInstalledDesign LifeUpdated4 - Acceptable197930MAR-07

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

Chemical pot feeder.

RatingInstalledDesign LifeUpdated4 - Acceptable197930MAR-07

#### D3020.03.01 Furntaces\*\*

Two Lennox furnaces installed in 2002 provide ventilation for the Gym. Nine (9) individual furnaces installed from 1994 to 2005 provide heating and ventilation for the portable school section..

RatingInstalledDesign LifeUpdated4 - Acceptable199425MAR-07

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

The furnace chimneys were installed from 1994 to 2005.

RatingInstalledDesign LifeUpdated4 - Acceptable199430MAR-07

#### D3040.01.01 Air Handling Units: Air Distribution\*\*

One Climate Master multizone air handling unit (model: FLMI - 11-630, Max input 630,000 Btu/hr, Max CFM 14,000) installed in 1979 provides ventilation for the original school section. Two lennox furnaces installed in 2002 service the Gym.

RatingInstalledDesign LifeUpdated4 - Acceptable197930MAR-07

## **Event: Multizone Air Handling Unit Replacement**

TypeYearCostPriorityLifecycle Replacement2010\$57,900Low

Updated: MAR-07

## D3040.01.02 Fans: Air Distribution\*

Low speed fans were installed in furnaces from 1994 to 2005.

RatingInstalledDesign LifeUpdated4 - Acceptable199430MAR-07

#### D3040.01.03 Air Cleaning Devices:Air Distribution\*

Each air system completes with replaceable filter media.

RatingInstalledDesign LifeUpdated4 - Acceptable197930MAR-07

#### D3040.01.04 Ducts: Air Distribution\*

Each air system completes with low velocity supply air ductwork to diffusers or grilles.

RatingInstalledDesign LifeUpdated4 - Acceptable197950MAR-07

#### D3040.01.07 Air Outlets & Inlets:Air Distribution\*

Air outlets vary as to type. Fixed pattern square diffusers, adjustable bar side wall, round, fixed bar, egg crate.

RatingInstalledDesign LifeUpdated4 - Acceptable197930MAR-07

#### D3040.03.01 Hot Water Distribution Systems\*\*

Two inline pumps circulate heated water to wall finned tube radiation and fan coils.

RatingInstalledDesign LifeUpdated4 - Acceptable197940MAR-07

## D3040.04.01 Fans: Exhaust\*\*

Exhaust fans vary as to type, inline, dome etc.

RatingInstalledDesign LifeUpdated4 - Acceptable197930MAR-07

## **Event:** Replace 4 exaust fans

TypeYearCostPriorityLifecycle Replacement2010\$12,000Low

**Updated:** MAR-07

#### D3040.04.03 Ducts: Exhaust\*

Low velocity exhaust air ductwork to exhaust air outlets and fans.

RatingInstalledDesign LifeUpdated4 - Acceptable197950MAR-07

#### D3040.04.05 Air Outlets and Inlets: Exhaust\*

Egg crate and linear bar exhaust air grilles throughout, which were installed from 1979 to 2005.

RatingInstalledDesign LifeUpdated4 - Acceptable197930MAR-07

#### D3050.01.01 Computer Room Air Conditioning Units\*\*

Air conditioner was installed for the computer lab and server room in 2003.

RatingInstalledDesign LifeUpdated5 - Good200330MAR-07

#### D3050.05.02 Fan Coil Units\*\*

Hot water fan coil units installed at building entrances.

RatingInstalledDesign LifeUpdated4 - Acceptable197930MAR-07

#### D3050.05.03 Finned Tube Radiation\*\*

Wall finned tube radiation was installed in 1979 for original school section.

RatingInstalledDesign LifeUpdated4 - Acceptable197940MAR-07

## D3060.02.02 Pneumatic Controls\*\*

Pneumatic control system was installed in 1986 for dampers in portable school section.

RatingInstalledDesign LifeUpdated4 - Acceptable198640MAR-07

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

Siemens building DDC control system was installed in 2003.

RatingInstalledDesign LifeUpdated5 - Good200325MAR-07

## D4030.01 Fire Extinguisher, Cabinets and Accessories\*\*

Fire extinguishers installed from 1979 to 2005 are located throughout the school and are accessible.

RatingInstalledDesign LifeUpdated4 - Acceptable197930MAR-07

#### D4090.06 Smoke Protection & Exhaust Fans\*\*

Some duct detectors were installed for the multizone air handling unit.

RatingInstalledDesign LifeUpdated4 - Acceptable197950MAR-07

#### S5 ELECTRICAL

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

800A, 120/208V, 3 phase, 4 wire Westinghouse main distribution complete with 800A main disconnect. Lots of spare capacity.

RatingInstalledDesign LifeUpdated4 - Acceptable197940MAR-07

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

Westinghouse 120/208V, 225A, 42 cct branch circuit panels located throughout school. Panels reaching capacity.

RatingInstalledDesign LifeUpdated4 - Acceptable197930MAR-07

**Event:** Lifecycle replacement

TypeYearCostPriorityLifecycle Replacement2011\$26,500Low

Updated: MAR-07

#### D5010.07.02 Motor Starters and Accessories\*\*

Wallmounted motor starters located in main mechanical room.

RatingInstalledDesign LifeUpdated4 - Acceptable197930MAR-07

**Event: Lifecycle repalcement** 

TypeYearCostPriorityLifecycle Replacement2011\$21,000Low

Updated: MAR-07

## D5020.01 Electrical Branch Wiring\*

Conduit and BX throughout. Some surface wiremold for computer and additional receptacles in classrooms.

RatingInstalledDesign LifeUpdated4 - Acceptable197950MAR-07

## D5020.02.02.02 Interior Florescent Fixtures\*\*

All lighting recently retrofit to T8 fluorescent lamps and electronic ballasts in 2003. New T5HO fluorescent hi-bays installed in gymnasium in 2006.

RatingInstalledDesign LifeUpdated5 - Good200330MAR-07

Report run on: March 5, 2007 10:28 AM Page 21 of 29

## D5020.02.03.02 Emergency Lighting Battery Packs\*\*

Emergency battery packs complete with remote heads located throughout the school.

RatingInstalledDesign LifeUpdated4 - Acceptable197920MAR-07

**Event: Lifecycle Replacement** 

TypeYearCostPriorityLifecycle Replacement2011\$15,000Low

Updated: MAR-07

## D5020.02.03.03 Exit Signs\*

Exit signs have been recently converted to LED lamps.

RatingInstalledDesign LifeUpdated4 - Acceptable030MAR-07

## D5020.03.01.02 Exterior Florescent Fixtures\*

CFL lamps retrofit into front entrance canopy.

RatingInstalledDesign LifeUpdated4 - Acceptable030MAR-07

#### D5020.03.01.04 Exterior H.P. Sodium Fixtures\*

250W HPS wallpacks around perimeter and 400W polemount for parkade.

RatingInstalledDesign LifeUpdated4 - Acceptable030MAR-07

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

All exterior lighting on photocell control.

RatingInstalledDesign LifeUpdated4 - Acceptable030MAR-07

#### D5030.01 Detection and Fire Alarm\*\*

Edwards 2280 zoned fire alarm system. 5 of 8 zones used. No strobe notification devices for the hearing impaired.

RatingInstalledDesign LifeUpdated3 - Marginal197925MAR-07

## **Event:** Lifecycle repalcement

#### Recommendation:

Replace with new addressable system with strobe notification devices.

TypeYearCostPriorityLifecycle Replacement2010\$70,000Medium

Updated: MAR-07

#### D5030.02.02 Intrusion Detection\*\*

Silent knight Regency security system with PIR motion sensors throughout. Keypad access at front entrance.

RatingInstalledDesign LifeUpdated4 - Acceptable200125MAR-07

## D5030.04.01 Telephone Systems\*\*

Cisco Systems 7900 series IP phone system over the data network.

RatingInstalledDesign LifeUpdated4 - Acceptable200525MAR-07

#### D5030.04.04 Data Systems\*\*

Cat 5 cable installed throughout the school in 1998. Server cabinet consists of two racks containing switches and hubs. Stand-alone UPS units give back-up power.

RatingInstalledDesign LifeUpdated4 - Acceptable199525MAR-07

## D5030.05 Public Address and Music Systems\*\*

New Telcor XL PA system installed in 2003. Controls timing for bells.

RatingInstalledDesign LifeUpdated4 - Acceptable200320MAR-07

# D5090.01 Uninterruptible Power Supply Systems\*\*

Stand-alone APC 1400 Smart-UPS units provide back-up power for the server equipment

Rating	<u>Installed</u>	Design Life	<u>Updated</u>
4 - Acceptable	1995	30	MAR-07

# **S6 EQUIPMENT, FURNISHINGS AND SPECIAL CONSTRUCTION**

#### E1020.02 Library Equipment\*

Wall mounted and free standing wood book shelves and circulation desk.

RatingInstalledDesign LifeUpdated4 - Acceptable025MAR-07

#### E1090.04 Residential Equipment\*

Refrigerator, stove and microwave in staffroom and lunchroom.

RatingInstalledDesign LifeUpdated4 - Acceptable025MAR-07

#### E1090.07 Athletic, Recreational, and Therapeutic Equipment\*

Two winch operated folding basketball nets and four fixed nets. Various sporting equipment and floor mats.

RatingInstalledDesign LifeUpdated5 - Good015MAR-07

#### E2010.02 Fixed Casework\*\*

Various ages. Standard birch cabinetry with laminate countertops.

RatingInstalledDesign LifeUpdated3 - Marginal197935MAR-07

## **Event: Replace laminate countertops (31m2)**

Concern:

Laminate tops in poor conditions in Rooms 131, staff room and

library.

Recommendation:

Install new laminate countertops.

TypeYearCostPriorityFailure Replacement2008\$10,300Medium

Updated: MAR-07

#### E2010.03.01 Blinds\*\*

Horizontal aluminum blinds and fabric shades in staff room.

RatingInstalledDesign LifeUpdated4 - Acceptable198630MAR-07

#### E2020 Moveable Furnishings\*

Standard classroom desks and mixture of wood and metal office furniture.

RatingInstalledDesign LifeUpdated4 - Acceptable020MAR-07

#### F1010.02.04 Portable and Mobile Buildings\* 1978

Two portables original to school site with ramp to main building. Wood frame construction on piles with ventilated crawlspace and SBS roofing (1998). Exterior finish with metal siding (R20 walls). Windows aluminum frame with internal blinds. Interior finishes include resilient flooring, vinyl covered gypsum board, dropped acoustic ceiling panels with florescent fixtures (T8). Whiteboards, tack boards and standard furnishings throughout. Open faced wood cabinet with laminate top on one wall. Small cloak room with coat hooks and book cubby. Forced-air furnaces (Lennox) approximately 5 years old. Fire exits provided on south elevation with wood steps.

RatingInstalledDesign LifeUpdated3 - Marginal19780MAR-07

**Event:** Replace acoustic ceiling tile (130 m2)

TypeYearCostPriorityLifecycle Replacement2010\$5,000Low

Updated: MAR-07

Event: Replace casework (8 m2)

TypeYearCostPriorityLifecycle Replacement2010\$5,200Low

Updated: MAR-07

**Event: Replace resilient flooring (140m2)** 

Type Year Cost Priority
Lifecycle Replacement 2010 \$11,400 Low

Updated: MAR-07

**Event: Replace windows (6 m2)** 

TypeYearCostPriorityLifecycle Replacement2010\$3,200Low

**Updated:** MAR-07

#### F1010.02.04 Portable and Mobile Buildings\* 1986

Four portables added at south end of school with hallway link and sloped metal roofing with skylight over hallway in 1986. Wood frame construction on piles with ventilated crawlspace and flat A&G roofing which requires replacement. Exterior finish is metal siding (R20 walls). Windows - PVC with horizontal blinds. Interior finishes include resilient flooring, vinyl covered gypsum board with batten strips, dropped acoustic ceiling panels with florescent fixtures (T8). Whiteboards, tack boards and standard furnishings throughout. Open faced wood cabinet with laminate top on one wall. Small cloak room with coat hooks and book cubby. Forced-air furnaces (Lennox) approximately 5 years old.

<u>Rating</u>	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
3 - Marginal	0	0	MAR-07

## **Event:** Flooring repair

#### Concern:

Water damage from roof leak has resulted in wood rot in subfloor on exterior wall.

#### Recommendation:

Cut out and replace approximately 13 m2 of linoleum and flooring and replace in kind, patch in replacement linoleum.

Inspect for mould contamination and treat as required during repair.

#### **Consequences of Deferral:**

Increased costs for repair and potential for mycological activity.

<u>Type</u>	<u>Year</u>	<u>Cos</u> t	<b>Priority</b>
Repair	2007	\$2,500	High

Updated: MAR-07

## F1010.02.04 Portable and Mobile Buildings\* 1990

Two portables were added (approx. 1990) at north end of 1978 portables with hallway link and SBS roofing. Wood frame construction on piles with ventilated crawlspace and flat A&G roofing which requires replacement. Exterior finish is metal siding (R20 walls). Windows - PVC with horizontal blinds. Interior finishes include resilient flooring, vinyl covered gypsum board with batten strips, dropped acoustic ceiling panels with florescent fixtures (T8). Whiteboards, tack boards and standard furnishings throughout. Open faced wood cabinet with laminate top on one wall. Small cloak room with coat hooks and book cubby. Forced-air furnaces (Lennox) approximately 5 years old.

Rating	<u>Installed</u>	Design Life	<u>Updated</u>
4 - Acceptable	0	25	MAR-07

#### F1010.02.05 Grandstands and Bleachers\*\*

3 tier band risers, steel with carpet finish (8 in total).

Rating	<u>Installed</u>	Design Life	<u>Updated</u>
4 - Acceptable	1986	50	MAR-07

Report run on: March 5, 2007 10:28 AM Page 27 of 29

## F2020.01 Asbestos\*

2004 asbestos report indicates asbestos present in vinyl flooring in corridors, sheet flooring in cupboards of portables and in some 12" floor tiles in various classrooms. Asbestos in pipe insulation on mechanical room boiler.

Rating	<u>Installed</u>	<u>Design Life</u>	<u>Updated</u>
4 - Acceptable	0	0	MAR-07

## **S8 FUNCTIONAL ASSESSMENT**

#### K4010.01 Barrier Free Route: Parking to Entrance

No restrictions to access.

RatingInstalledDesign LifeUpdated4 - Acceptable00MAR-07

## K4010.02 Barrier Free Entrances

No power-assists on entry doors.

RatingInstalledDesign LifeUpdated3 - Marginal00MAR-07

Event: Install power assist on entry door

TypeYearCostPriorityBarrier Free Access Upgrade 2008\$3,500Medium

Updated: MAR-07

## K4010.03 Barrier Free Interior Circulation

No restrictions to access.

RatingInstalledDesign LifeUpdated4 - Acceptable00MAR-07

#### K4010.04 Barrier Free Washrooms

Handicap washrooms provided. Minor deficiencies in compliance.

RatingInstalledDesign LifeUpdated4 - Acceptable00MAR-07

# **RECAPP Facility Evaluation Report**



C. W. Sears Elementary School S4181 Tofield

## Tofield - C. W. Sears Elementary School (S4181)

## **Facility Details**

Building Name: C. W. Sears Elementary Sch

Address:

Location: Tofield

Building Id: \$4181
Gross Area (sq. m): 0.00
Replacement Cost: \$0
Construction Year: 0

## **Evaluation Details**

**Evaluation Company:** Wade Engineering Ltd.

Evaluation Date: December 7 2006

**Evaluator Name:** Ron Shannon

Total Maintenance Events Next 5 years: \$218,000 5 year Facility Condition Index (FCI): 0%

#### **General Summary:**

School has front street on east elevation and lane access on south elevation. Large asphalt driveway with bus lane at front, requires replacement. Gravel parking lot with 40 stalls including plug-ins on north elevation. Large grassed site shared with high school, mature trees, play structures and asphalt surface play area. Roofs drain to grade adjacent to foundations, overall grading is relatively flat with localized ponding problems in two locations. Overall condition is acceptable.

## **Structural Summary:**

## **Envelope Summary:**

## **Interior Summary:**

## **Mechanical Summary:**

#### **Electrical Summary:**

Rating Guide			
<b>Condition Rating</b>	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.		

Page 3 of 7

## S7 SITE

#### G1030 Site Earthwork (Site Grading)\*

Relatively level site, drains from south to north, lawns and evergreen trees on site.

RatingInstalledDesign LifeUpdated3 - Marginal050MAR-07

## **Event:** Grade repairs

#### Concern:

Standing water and ice formations at southeast corner from roof drainage and also rear elevation by entry.

#### Recommendation:

Southeast corner - cut in drainage trench and install large 1" washed rock and a french drain to remove standing water. Rear entry - add additional topsoil from edge of asphalt play area to north corner of building to create positive slope, add 2" lift of asphalt on play surface.

#### **Consequences of Deferral:**

Safety concern.

TypeYearCostPriorityRepair2008\$5,000Medium

Updated: MAR-07

#### G2010.02.02 Flexible Pavement Roadway (Asphalt)\*\*

Large u-shaped drive at front elevation, has been resurfaced once.

RatingInstalledDesign LifeUpdated2 - Poor197925MAR-07

## Event: Replace driveway (1475 m2)

#### Concern:

Driveway in marginal condition overall, however elevation is too high with no room for resurfacing. Height of asphalt causes drainage problems at entry and southeast corner.

#### Recommendation:

Strip asphalt, excavate and re-establish proper elevations to manage drainage and repave.

## **Consequences of Deferral:**

Continued ponding problems and safety concerns.

TypeYearCostPriorityLifecycle Replacement2010\$161,000High

**Updated:** MAR-07

#### G2010.05 Roadway Curbs and Gutters\*

Standard curb detail on east side of drive. Will be replaced with driveway replacement.

RatingInstalledDesign LifeUpdated4 - Acceptable197925MAR-07

## G2020.02.01 Aggregate Parking Lots (Gravel)\*\*

Gravel parking for 30 staff with plug-ins and 10 visitor stalls unserviced.

RatingInstalledDesign LifeUpdated4 - Acceptable197910MAR-07

**Event: Regrade parking lot** 

TypeYearCostPriorityLifecycle Replacement2010\$28,000Low

Updated: MAR-07

## G2020.05 Parking Lot Curbs and Gutters\*

Precast curb stops.

RatingInstalledDesign LifeUpdated4 - Acceptable025MAR-07

#### G2020.06.02 Parking Bumpers\*

Painted steel pipe parking barriers.

RatingInstalledDesign LifeUpdated5 - Good025MAR-07

#### G2020.06.03 Parking Lot Signs\*

Standard pole mounted signage for handicap, staff and visitor parking and bus drop-off.

RatingInstalledDesign LifeUpdated5 - Good025MAR-07

#### G2030.04 Rigid Pedestrian Pavement (Concrete)\*\*

Large walkway on east and south elevations.

RatingInstalledDesign LifeUpdated5 - Good200215MAR-07

#### G2040.03 Athletic and Recreational Surfaces\*\*

Asphalt play court at rear elevation.

RatingInstalledDesign LifeUpdated3 - Marginal197925MAR-07

#### **Event: Asphalt Repair**

#### Concern:

Grading problem results in ponding and ice conditions on surface.

#### Recommendation:

Add 50 mm to 75 mm of asphalt overlay to create positive slope. Schedule with driveway replacement.

TypeYearCostPriorityRepair2008\$24,000Medium

**Updated: MAR-07** 

## G2040.06 Exterior Signs\*

Wall mounted school identification and exterior sign board.

RatingInstalledDesign LifeUpdated5 - Good025MAR-07

## G2040.08 Flagpoles\*

One flag pole.

RatingInstalledDesign LifeUpdated5 - Good030MAR-07

#### G2050.04 Lawns and Grasses\*

RatingInstalledDesign LifeUpdated4 - Acceptable015MAR-07

#### G2050.05 Trees, Plants and Ground Covers\*

Deciduous and evergreen trees on site.

RatingInstalledDesign LifeUpdated4 - Acceptable010MAR-07

#### G3010.02 Site Domestic Water Distribution\*

Town service.

 Rating
 Installed
 Design Life
 Updated

 5 - Good
 0
 50
 MAR-07

#### G3010.03 Site Fire Protection Water Distribution\*

Fire hydrant within 90m of school.

RatingInstalledDesign LifeUpdated5 - Good050MAR-07

## G3020.01 Sanitary Sewage Collection\*

Town service.

RatingInstalledDesign LifeUpdated4 - Acceptable050MAR-07

## G3030.01 Storm Water Collection\*

Surface drainage.

RatingInstalledDesign LifeUpdated4 - Acceptable050MAR-07

## G3060.01 Gas Distribution\*

Town service - natural gas.

RatingInstalledDesign LifeUpdated4 - Acceptable050MAR-07

#### G4010.04 Car Plugs-ins\*

30 stalls.

RatingInstalledDesign LifeUpdated4 - Acceptable025MAR-07

## G4020.01 Area Lighting\*

Pole mounted HPS fixtures.

RatingInstalledDesign LifeUpdated4 - Acceptable025MAR-07

# G4030.03 Site Communications Reception

Tower for internet connection.

Rating	<u>Installed</u>	Design Life	<u>Updated</u>
5 - Good	0	50	MAR-07