	School Name:	Donnan Elementary and Junior High School				School Code:	3020
	Location:	7803 - 87 Street, Edmc, Alberta				Facility Code:	1298
	Region:	Edmonton				Superindendent:	Mr. Emery Dosdall
	Jurisdiction:	Edmonton Public Schools				Contact Person:	Mr. Bob Clark
		District #7				Telephone:	(780) 429-8511
	Grades:	K-9				School Capacity:	490

Building Section	Year of Compl.	No. of Floors	Gross Bldg Area (Sq.M.)	Type of Construction (i.e., structure, roof, cladding)	Description of Mechanical Systems (incl. major upgrades)	Comments/Notes
Original Building	1949	1	2591.5	Wood stud, stucco and face brick, concrete strip foundation and flat roof.	Heated by two steam boilers and steam convectors. Ventilated by central air handler.	
Additions/ Expansions	1954	1	1481.6	Wood stud, stucco and face brick, concrete strip foundation and flat roof.	One steam boiler added and interconnected to the 1949 steam plant. Heating and ventilation by unit ventilators.	
	1955	1	374.60	Industrial Arts building. Concrete block, concrete strip foundation and flat roof.	Heated by two Lennox furnaces in tandem with mixed air. Ventilation by a ceiling hung make-up air unit and several exhaust fans.	

						Evaluator's Name:	Tonu Mitra
						& Company:	Lotus Architecture

Upgrading/ Modernization (identify whether minor or major)	1996-97			Complete re-roofing.		Some interior finishes upgraded over the years. Exterior doors are to be replaced and library space is to be converted to library and computer lab. In 2000-2001.
Portable Struct. (identify whether attached/perman. or free-standing/ relocatable)	N/A		N/A	No portables.		
List of Reports/ Supplementary Information	Updated mini-plans. No other reports available.					

	Evaluation Components	Summary Assessment		Estim. Cost
1	**Site Conditions**	- Site regrading, including catch basins, top soil and seeding. - Parking lot upgrading and mudjacking concrete slabs at entrances. - Barrier free ramps and re-building a portion of front sidewalk for barrier free access.		$ 115,000.00
2	**Building Exterior**	- Exterior doors replacement. - Complete window replacement and pre-finished caps on precast sills all around. - Replacement of glass block panels above windows with stucco finished wood panels.		$ 408,600.00
3	**Building Interior**	- New flooring and new ceilings. - Basement doors replacement. - Barrier free washroom and interior ramp.		$ 260,300.00
4	**Mechanical Systems**	The plumbing piping is original and requires replacement. Plumbing fixtures are old and also require replacement. Additional catch basins are required for site drainage and backflow prevention is required for outdoor hose bibbs. Portable fire extinguishers should be checked for size and type. Heating plant is steam (original building). the heating plant, piping, convectors and room controls should be replaced with a new hot water system. The 1949 central ventilation fans, coils, dampers and humidifier should be replaced and the duct work cleaned. The unit ventilators in the 1954 portion should be replaced with a central ventilation system. The heating furnaces in the 1955 Industrial Arts building also require replacement. All mechanical insulation should be checked for asbestos.		$ 1,121,500.00
5	**Electrical Systems**	Electrical systems are in good condition. Provide surge suppression. Relocate existing lighting fixtures and add new fixtures, as required in new ceilings. Reinstall and provide new car plug-ins on new rails.		$ 93,200.00
6	**Portable Buildings**	There are no protables on site.		N/A
7	**Space Adequacy:**			
	7.1 Classrooms	Excessive	+27.70	
	7.2 Science Rooms/Labs	Excessive	+21.90	
	7.3 Ancillary Areas	Deficient	-197.20	
	7.4 Gymnasium	Deficient	-234.00	
	7.5 Library/Resource Areas	Excessive	+15.80	
	7.6 Administration/Staff Areas	Excessive	+33.00	
	7.7 CTS Areas	Deficient	-137.80	
	7.8 Other Non-Instructional Areas (incl. gross-up)	Excessive	+475.60	
	Overall School Conditions & Estim. Costs	Excessive	+5.60	$ 1,998,600.00

Section 1	Site Conditions	Rating	Comments/Concerns	Estim. Cost
1.1	**General Site Conditions**			
1.1.1	Overall site size.	4	Adequate.	
1.1.2	Outdoor athletic areas.	4	Soccer fields and baseball diamonds. Grass in good condition.	
1.1.3	Outdoor playground areas, including condition of equipment and base.	4	Share city's adjacent play equipment. Good condition. Sand base adequate. School's play equipment was removed from south side. Ground is unsafe and needs repair (see 1.1.8).	
1.1.4	Site landscaping.	4	Front yard is landscaped.	
1.1.5	Site accessories (i.e., perimeter and other fencing, guard rails, bike stands, flag poles).	4	Chain link fence provided all around - good condition. Bike stands located on north and east sides - adequate. Flag pole mounted on the building.	
1.1.6	Surface drainage conditions (i.e., drains away from building, signs of ponding).	3	Ground has settled all along building walls. Should be regraded and seeded. Courtyard, to the south of annex should be regraded. Two catch basins required to tie in to an existing catch basin on east side. Basement and crawl spaces were flooded in 1998.	$ 54,000.00
1.1.7	Evidence of sub-soil problems.	3	High water table suspected (near Millcreek ravine). Exterior concrete slabs at all north and south entrances have settled and should be mudjacked. North portion of west wing has settled (see 2.1). Cracks in foundation walls allow water to enter crawl spaces.	$ 6,500.00
1.1.8	Safety and security concerns due to site conditions.	3	Ground, from where the school's play equipment was removed last year, has not been restored and is unsafe. It should be regraded with top soil and seeded.	$ 1,200.00
Other				

Section 1	Site Conditions	Rating	Comments/Concerns	Estim. Cost
1.2	**Access/Drop-Off Areas/Roadways/Bus Lanes**			
1.2.1	Vehicular and pedestrian access points (i.e., size, number, visibility, safety).	4	Two pedestrian accesses from front (87Street). Driveway to the parking lot from 79th. Avenue (north).	
1.2.2	Surfacing of on-site road network (note whether asphalt or gravel).	3	Asphalt driveway to the parking lot should be upgraded (see1.3.3).	Included in 1.3.3
1.2.3	Bus lanes/drop-off areas (note whether on-site or off-site).	4	Busses park on 87 Street (front). The street gets very crowded for parents to pick up children. Small busses drop off children with behaviour problems in the parking lot which creates conflict with staff parking.	
1.2.4	Fire vehicle access.	4	Access is available around the building.	
1.2.5	Signage.	4	Original sign, mounted on the front (gymnasium) wall and a free standing sign provided in front.	
Other				

Section 1	Site Conditions	Rating	Comments/Concerns	Estim. Cost
1.3	**Parking Lots and Sidewalks**			
1.3.1	Number of parking spaces for staff, students and visitors (including stalls for disabled persons).	4	20 stalls in paved area with plugs on building walls. 8 stalls are located in grass/gravel area, without plugs. A total of 30 stalls are required. No stalls for the handicapped. Visitors park on the street. Acceptable.	
1.3.2	Layout and safety of parking lots.	3	See 1.2.3. Damages to existing brick surfaces on the walls are evident because of no curbs or guard rails.	Included in 1.3.3
1.3.3	Surfacing and drainage of parking lots (note whether asphalt or gravel).	3	Asphalt parking lot and driveway slope to the side street - slope is adequate. Asphalt surfaces have deteriorated. A large central portion has settled. Grass and gravel areas should be paved. New asphalt surfaces, complete with concrete curbs, guard rails and plug-ins are required. Soft areas should be repaired.	$ 48,000.00
1.3.4	Layout and safety of sidewalks.	4	No problems.	
1.3.5	Surfacing and drainage of sidewalks (note type of material).	3	Concrete surfaces. A portion of sidewalk on south side will have to be demolished and re-built to suit new site grading and slopes.	Included in 1.1.6
1.3.6	Curb cuts and ramps for barrier free access.	3	No barrier free access. Demolish concrete steps (next to city sidewalk) and rebuild sidewalk to ramp like slope. Build a new concrete exterior ramp at south east entrance of annex.	$ 5,300.00
Other				
	Overall Site Conditions & Estimated Costs			$ 115,000.00

Section 2	Building Exterior	Rating	Comments/Concerns		Estim. Cost
2.1	**Overall Structure**		**Bldg. Section**	**Description/Condition**	
2.1.1	Floor structure and beams (i.e., signs of bending, cracking, heaving, settlement, voids, rust, stains).		1949	Concrete floor with crawl spaces. Annex - concrete floor with basement.	
			1954	Wood floor with crawl spaces.	
		4	1955	Concrete slab on grade - good condition.	
2.1.2	Wall structure and columns (i.e., signs of bending, cracking, settlement, voids, rust, stains).	F.I.	1949 1954	Wood frame load bearing walls. North portion of west wing (1949) appeared to have settled. Cracks are evident on stucco, face brick and foundation wall (now patched). Not known if this is an ongoing condition. Some cracks on foundation walls on west side of east wing (1954).	
		4	1955	Concrete block painted; minor settlement crack at north-west corner (see 2.3.1).	
2.1.3	Roof structure (i.e., signs of bending, cracking, voids, rust, stains).	4	1949 1954	Wood joists and wood deck. Gymnasium - laminated beams and wood deck.	
		4	1955	Open web steel joists and wood deck, painted.	
Other					

Section 2	Building Exterior	Rating	Comments/Concerns		Estim. Cost
2.2	**Roofing and Skylights** ***Identify the availability of an up-to-date inspection report or roofing program. Note if roof sections are of different ages and/or in varying states of repair.***		**Bldg. Section or Roof Section**	**Description/Condition/Age**	
2.2.1	Based on the inspection report (and to the extent possible, direct observation), assess and rate roof conditions and estimate costs for required improvements (i.e., covering materials, membrane, insulation, other components).	5	All	Completely re-roofed in 1996-97.	
2.2.2	Roof accessories (i.e., ladders, stairs, hatches, masts, exhaust hoods, chimneys, gutters, downspouts, splashpads).	4	All	Roof access hatches provided and all other accessories are in good condition.	
2.2.3	Control of ice and snow falling from roof.	4	All	No problems.	
2.2.4	Skylights (i.e., signs of distress, leaks, ice build-up, condensation, deteriorated materials/seals).	N/A		No skylights.	
Other					

Section 2	Building Exterior	Rating	Comments/Concerns		Estim. Cost
2.3	**Exterior Walls/Building Envelope**		**Bldg. Section**	**Description/Condition**	
2.3.1	Exterior wall finishes (i.e., signs of deterioration, cracks, brick spalling, effluorescence, water stains).	4	All	Generally in good condition. The following can be done as maintenance work: -Repair damages to corners of foundation walls and face bricks on north sides of east and west wings. -Replace damaged face bricks around parking lot. -Repairs to mortar joints at south west entrance of annex. -Repairs to settlement cracks in concrete block at north-west corner of Industrial Arts building. Precast sill joints are deteriorating and falling off (see2.3.3).	
2.3.2	Fascias, soffits, parapets (i.e., signs of looseness, stains, rust, peeling paint).	4	All	New prefinished metal fascia throughout - good condition. Stucco soffits on plywood - good condition.	
2.3.3	Building envelope (i.e., evidence of air infiltration/ exfiltration through the exterior wall or ice build up on wall, eaves, canopy).	2	1949 1954	Window frames and sills have deteriorated (see 2.4.4). Mortar in joints of continuous precast sills have deteriorated and are falling out. It appears that many attempts have been made in the past to seal joints with a variety of materials. Provide continuous preformed sill cover flashings with window upgrades (2.4.4).	$ 6,500.00
2.3.4	Interface of roof drainage and ground drainage systems.	4	All	Interior roof drains tied to City main.	
2.3.5	Inside faces of exterior walls (i.e., signs of cracks, water stains, dust spots).	4	1949 1954	Cracks related to settlement of north portion of west wing visible. Foundation cracks visible from crawl space. No other signs of stress or deterioration.	
Other					

Section 2	Building Exterior	Rating	Comments/Concerns		Estim. Cost
2.4	**Exterior Doors and Windows**		**Bldg. Section**	**Description/Condition**	
2.4.1	Doors (i.e., signs of deterioration, rusting metal, glass cracks, peeling paint, damaged seals, sealed unit failure).	3	1949 1954	Original wood doors and frames. These doors are 50 years old; hard to maintain and are a security concern. All exterior doors should be replaced.	$ 26,500.00
2.4.2	Door accessories (i.e., latches, hardware, screens, locks, alarms, holders, closers, security devices).	3	1949 1954	New hardware should be provided for all new exterior doors (see 2.4.1).	Included in 2.4.1
2.4.3	Exit door hardware (i.e., safety and/or code concerns).	4	All	Exterior doors - see 2.4.1 and 2.4.2. Interior exit doors are old but in fair condition.	
2.4.4	Windows (i.e., signs of deterioration, rusting metal, glass cracks, peeling paint, damaged seals, sealed unit failure).	2	1949 1954 1955	All original wood window sills and frames have rotted beyond repair. Some operable sections are warped and leak air. Some windows do not close properly. Replace all windows. Joints of glass block panels, above windows have deteriorated and leak water and air. Several glass block panels have already been replaced with wood walls and stucco. Remaining glass block panels should be replaced the same way. Wood window frames on Industrial Arts building have warped and in some cases held together with nails. Replace all windows.	$ 375,600.00
2.4.5	Window accessories (i.e., latches, hardware, screens, locks, alarms, holders, closers, security devices).	2	All	Provide new accessories with new windows - see 2.4.4.	Included in 2.4.4
2.4.6	Building envelope (i.e., signs of heavy condensation on doors or windows).	4	All	No visible sign of condensation or deterioration.	
Other					
	Overall Bldg Exterior Condition & Estim Costs				$ 408,600.00

Section 3	Building Interior - Overall Conditions	Rating	Comments/Concerns		Estim. Cost
3.1	**Interior Structure**		**Bldg. Section**	**Description/Condition**	
3.1.1	Interior walls and partitions (i.e., signs of cracks, spalling, paint peeling).	4	1949 1954 1955	Wood stud walls, plaster or drywall painted - good condition. Basement - concrete or solid brick walls - good condition. Concrete block painted - good condition.	
3.1.2	Floors (i.e., signs of cracks, heaving, settlement).	3	1949 1954 1955	Concrete floor - north portion of west wing has cracked (see2.1.2), otherwise in good condition. The basement concrete slab in annex is covered with sulphate on south side due to flooding. It has started to destroy concrete surfaces and bottoms of steel door frames. The floor should be painted after the water leakage problem has been addressed and a new sump pump installed (see mechanical). Also, the upper landing of steel stair is made of plywood. It should be replaced with a new steel grated landing. Wood floor - good condition. Concrete slab on grade - good condition.	$ 1,200.00
Other					
3.2	**Materials and Finishes**		**Bldg. Section**	**Description/Condition**	
3.2.1	Floor materials and finishes.	3	1949 1954 1955	Terazzo, battleship linoleum, carpet and vinyl tiles. Hairline cracks on terazzo, otherwise in good condition. Linoleum is old and worn out - replace. Carpets in fair condition. Gymnasium - wood floor. Old but in fair condition. Vinyl tiles in hallways and linoleum in classrooms. Poor condition. There are three layers of resilient flooring underneath in hallways which are becoming soft and causing vinyl tile joints to separate. Remove all flooring down to subfloors. Provide plywood underlay and new flooring. Vinyl tiles - good condition.	$ 142,300.00
3.2.2	Wall materials and finishes.	4	1949 1954 1955	Plaster or drywall, painted - good condition. Concrete block painted - good condition.	
3.2.3	Ceiling materials and finishes.	3	1949 1954 1955	Sprayed-on acoustic ceilings and glued-on acoustic tiles, painted. Materials may contain asbestos (see3.3.6). Provide new suspended ceilings throughout with mechanical and electrical upgrading. Open web steel joists and exposed wood deck, painted - good condition.	$ 93,300.00

Section 3	Building Interior - Overall Conditions	Rating	Comments/Concerns		Estim. Cost
3.2	**Materials and Finishes (cont'd)**		**Bldg. Section**	**Description/Condition**	
3.2.4	Interior doors and hardware.	2		Solid core wood doors on wood or pressed steel frames. Hardware being repaired or replaced regularly - fair condition. Replace all doors and frames in basement mechanical rooms. Doors are in poor condition and do not meet code requirements.	$ 10,200.00
3.2.5	Millwork	4		Original millwork in classrooms and science room. Ongoing maintenance provided - acceptable condition.	
3.2.6	Fixed/wall mounted equipment (i.e., writing boards, tackboards, display boards, signs).	4		Original chalkboards with painted wooden chalk trays. Tackboards provided. Adequate.	
3.2.7	Any other fixed/mounted specialty items (i.e., CTS equipment, gymnasium equipment).	4	1949 1954 1955	Basket ball hoops, climbing apparatus are in good condition. Lockers are old and some are dented but functional. Equipment in Industrial Arts building not in use. Most have been removed.	
3.2.8	Washroom materials and finishes.	3		Cubicles are old but in fair condition. Sinks are wall mounted. New sinks with vanities should be provided. No barrier free washrooms or stalls (see 3.3.5). Terazzo floors - good condition. Sprayed-on acoustic ceilings (see 3.2.3).	$ 1,300.00
Other					

Section 3	Building Interior - Overall Conditions	Rating	Comments/Concerns		Estim. Cost
3.3	**Health and Safety Concerns --- *Intent is to identify renovations considered necessary to meet applicable codes, primarily due to safety concerns. Basis of evaluation should be an up-to-date inspection report from the authority having jurisdiction together with direct observations as appropriate. Evaluator should note if in his opinion a comprehensive code evaluation is required.***		**Bldg. Section**	**Description/Condition**	
3.3.1	Building construction type - combustible or non-combustible, sprinklered or non-sprinklered.	4		Combustible, non-sprinklered.	
3.3.2	Fire separations (i.e., between buildings, wings, zones if non-sprinklered).	4		Appears to be in place.	
3.3.3	Fire resistance rating of materials (i.e., corridor walls and doors).	4		Appear to be in place, except all doors and frames in basement mechanical rooms should be replaced (see 3.2.4).	
3.3.4	Exiting distances and access to exits.	4		Appears to be compliant.	
3.3.5	Barrier-free access.	3		Barrier free washrooms should be provided. An interior wooden ramp in the main lobby should be provided. An exterior concrete ramp required (see 1.3.6).	$ 12,000.00
3.3.6	Availability of hazardous materials audit (i.e., evidence of safety concerns with respect to asbestos, PCB's, chemicals).	F.I.	1949 1954	Asbestos may be present in boiler jackets; piping, including piping in crawl spaces, sprayed-on acoustic and glued-on acoustic tile ceilings, original flooring materials and on boards in dado behind stage in gymnasium. No audit has been completed to date.	
3.3.7	Other health and safety concerns (i.e., evidence of excessive noise conditions, air quality problems)	F.I.	1949 1955	Tunnels in crawl spaces are used as return air spaces. Conditions are unhealthy - mold suspected (moisture in crawl spaces due to water leaks), frayed asbestos in piping, inadequate ventilation and lighting.	
Other					
	Overall Bldg Interior Condition & Estim Costs				$ 260,300.00

Section 4	Mechanical Systems	Rating	Comments/Concerns		Estim. Cost
4.1	**Mechanical Site Services**				
4.1.1	Site drainage systems (i.e., surface and underground systems, catch basins).	3	1949 1954 1955	There are no catch basins on-site. There is one catch basin on the adjoining east city property (used as a soccer field). Roof drains appear to be controlled flow type with overflow scuppers. Roof drains are collected inside the building and are taken to the City mains. Add two new catch basins and connect to the City sewer system. See Section 1.1.6 for site drainage.	$ 35,600.00
4.1.2	Exterior plumbing systems (i.e., irrigation systems, hose bibs).	3	1949 1954 1955	No irrigation system. Several non-freeze hose bibbs along school perimeter. Some need repair. Add backflow prevention or individual vaccum breakers to hose bibbs.	$ 3,900.00
4.1.3	Outside storage tanks.	N/A	1949 1954 1955	No known tanks.	
Other					
4.2	**Fire Suppression Systems**		**Bldg. Section**	**Description/Condition**	
4.2.1	Fire hydrants and Siamese connections.	N/A	1949 1954 1955	No hydrants and no Siamese on-site.	
4.2.2	Fire suppression systems (i.e., pumps, sprinklers, piping, reservoirs, hoses, stand pipes, CO2 systems).	N/A	1949 1954 1955	No central fire suppression systems.	
4.2.3	Hand extinguishers, blankets and showers (i.e., in CTS areas).	3	1949 1954 1955	Portable hand extinguishers located throughout. Check charge, type and suitability for occupancy and use.	$ 500.00
4.2.4	Other special situations (e.g., flammable storage areas, science labs, CTS areas).	N/A		None.	
Other					

Section 4	Mechanical Systems	Rating	Comments/Concerns		Estim. Cost
4.3	**Water Supply and Plumbing Systems**		**Bldg. Section**	**Description/Condition**	
4.3.1	Domestic water supply (i.e., pressure, volume, quality - note whether municipal or well supply).	4	1949 1954 1955	Water from City of Edmonton main. Pressure and volume are adequate.	
4.3.2	Water treatment system(s).	N/A	1949 1954 1955	No water treatment.	
4.3.3	Pumps and valves (including backflow prevention valves).	N/A	1949 1954 1955	No main pumps. DHW recirculation - See 4.3.6. Backflow prevention - See 4.1.2. Valves - See 4.3.4.	
4.3.4	Piping and fittings.	2	1949 1954 1955	Drainage piping is cast iron Bell & Spigot. Water piping is copper with possibly lead solder joints. The piping is approximately 50 years old and sanitary pipe leaks have become an on-going maintenance problem. Some repairs have been completed and new leaks are currently present. Some of the isolation valves on the domestic piping are "frozen" and others do not close properly. Both the domestic water and drainage piping should be replaced.	$ 267,000.00
4.3.5	Plumbing fixtures (i.e., toilets, urinals, sinks)	2	1949 1954 1955	Plumbing fixtures are old and replacement parts for the water closets are difficult to obtain. Water closets - flush tanks, urinals - flush tanks, wall hung lavatories spring return faucets. The water closets and the lavatory faucets should be replaced. A timer actuated solenoid valve should be added to the urinal flush tanks.	$ 40,000.00
4.3.6	Domestic hot water system (i.e., heater, storage tanks, failure alarms, pressure, volume, recirculation).	4	1949 1954 1955	The domestic water heaters have been recently replaced (last 5 years) and are in reasonable condition. The domestic water recirculation pump motors have also been replaced. There are three water heaters; one in the 1949 building, one in the 1954 mechanical room and one in the 1955 I.A. building. Heater capacity - 1949: 50 USG capacity and 42 USG recovery.	
4.3.7	Sanitary and storm sewers, including sumps and pits (note whether sewage system is municipal or septic).	3	1949 1954 1955	Sanitary and storm drain to municipal sewer. Submersible pump in the boiler room sump does not have sufficient capacity. Boiler room floods under certain conditions. Replace sump pump with larger unit.	$ 1,000.00
Other					

Section 4	Mechanical Systems	Rating	Comments/Concerns		Estim. Cost
4.4	**Heating Systems**		**Bldg. Section**	**Description/Condition**	
4.4.1	Heating capacity and reliability (including backup capacity).	1	1949 1954	Heating is provided by 3 steam boilers manufactured by Reliance Welding Works Edmonton. The boilers are original (50 years old). Unable to determine capacity (nameplate removed or covered), but the boilers seems to have sufficient capacity. Two boilers are located in 1949 mechanical room and one in 1955 mechanical room. Steam is piped to convectors in the 1949 building and unit ventilators in the 1955 building. Boilers are nearing end of service life and require tube repairs regularly. One boiler has been re-insulated. Other 2 boilers have insulation which possibly contains asbestos. Boilers should be replaced with a new hot water heating system.	$ 378,000.00
4.4.2	Heating controls (including use of current energy management technology.	2	1949 1954	Boiler stop/start is controlled from DDC systems based on steam pressure. Pressure gauges on boilers require replacement/calibration. Pneumatic space thermostats and steam zone control valves are used in all classrooms. Some are original building components and failures are on-going causing improper temperature control of the classrooms. Maintenance costs are high. Replace valves and thermostats.	Included in 4.4.1
4.4.3	Fresh air for combustion and condition of the combustion chimney.	4	1949	A fan unit interlocked with the boiler controls is used to mix outdoor air with boiler room return air for combustion.	
		4	1955	A combustion air duct provides combustion air to the mechanical room.	
4.4.4	Treatment of water used in heating systems.	4	1949 1954	Chemical treatment is provided in each boiler room. (Pot feeder, blow down and sample cooler.)	
4.4.5	Low water cutoff/pressure relief valves and failure alarms (i.e., hot water heating).	3	1949 1954	Boilers have low water cut-offs and pressure relief valves. Relief valve at boiler #1 leaks. (1949 Building). Replace leaking relief valve.	Included in 4.4.1
4.4.6	Heating air filtration systems and filters.	N/A		See 4.5.8.	
4.4.7	Heating humidification systems and components.	N/A		See 4.5.9.	

Section 4	Mechanical Systems	Rating	Comments/Concerns		Estim. Cost
4.4	**Heating Systems (cont'd)**		**Bldg. Section**	**Description/Condition**	
4.4.8	Heating distribution systems (i.e., piping, ductwork) and associated components (i.e., diffusers, radiators).	1	1949 1954	Steam and condensate piping is run in the crawl space. The piping is 50 years old and on-going problems with leaks are being experienced. Steam system and piping should be replaced with a new hot water system. Several heating valves do not fully close and also some do not operate.	Included in 4.4.1
4.4.9	Heating piping, valve and/or duct insulation.	F.I.	1949 1954	There is a high probability that all heating piping and boiler insulation contains asbestos. One boiler has been re-insulated. Some heating piping runs in the crawl space which is also used as a return air plenum. Instances of frayed pipe insulation have been noted. Piping and insulation should be replaced.	
4.4.10	Heat exchangers.	N/A		None.	
4.4.11	Heating mixing boxes, dampers and linkages.	N/A		Not applicable.	
4.4.12	Heating distribution/circulation in larger spaces (i.e., user comfort, temperature of outside wall surfaces).	2	1949 1954	Space temperatures are inconsistent in many classrooms and other areas. Frequent failures of steam traps, control valves and thermostats are experienced - see 4.4.2.	Included in 4.4.1
4.4.13	Zone/unit heaters and controls.	2	1954	This portion of the building is heated and ventilated by unit ventilators which have steam heating coils and are capable of drawing air from the outdoors. Frequent repairs are required at the unit ventilator. The unit ventilators should be replaced with a new hot water heating system and a new central ventilation system.	$ 93,000.00
Other					

Section 4	Mechanical Systems	Rating	Comments/Concerns		Estim. Cost
4.5	**Ventilation Systems**		**Bldg. Section**	**Description/Condition**	
4.5.1	Air handling units capacity and condition.	2	1949	A central supply fan is used; Trane B1 SWS1 #54 with a 5 HP motor. Capacity is unknown. Unit has steam heating coils and a mixed air section. Air supply system is 50 years old and should be replaced. Exiting supply ductwork may be re-used.	$ 120,000.00
		2	1954	Classrooms are ventilated by unit ventilators. Capacity unknown. See 4.4.13. Replace unit ventilators with a new central ventilation system.	Included in 4.4.13
		3	1955	The I.A. and Home Economics building are heated by two Lennox 120,000 BTUH tandem upflow furnaces. The furnaces have a mixed air section and are controlled by a time clock. The furnaces are old and should be replaced.	$ 10,000.00
4.5.2	Outside air for the occupant load (if possible, reference CFM/occupant).	F.I.	1949 1954 1955	Outdoor air quantity is unknown. Outdoor air dampers at 1949 central fan were opened approximately15% and return dampers opened 85%.	
4.5.3	Air distribution system (if possible, reference number of air changes/hour).	F.I.	1949 1954 1955	Air change rate is unknown.	
4.5.4	Exhaust systems capacity and condition.	F.I.	1949 1954 1955	Washrooms have exhaust fans. Capacities are unknown.	
4.5.5	Separation of out flow from air intakes.	4	1949	The main outdoor air intake is in a penthouse at the top of the building. No known or observed problems.	
		4	1954	Unit ventilators draw outdoor air through sidewall louvers. No known or observed problems.	
4.5.6	Special/dedicated ventilation and/or exhaust systems (i.e., kitchen, labs, CTS areas).	4	1955	The industrial arts area has a make-up air unit which was recently replaced and is in good condition. This area also has a dust collector and several local exhausts. The home economics area has several local exhaust fans.	
Other		F.I.	1954	A transfer grille has been provided in each classroom which is used to transfer air from the classrooms to the crawl space when the unit ventilator operates in the outdoor air ventilation mode. The 1954 crawl space has a dirt floor. The 1949 crawl space which is used as a return air plenum, appears to have a concrete floor. All though there are small relief vents in the 1954 crawl space, when the unit ventilator operates in the outdoor air mode, the 1954 crawl space becomes pressurized with air movement into the 1949 return air plenum. Both crawl spaces have heating pipes with frayed insulation possibly containing asbestos.	

Section 4	Mechanical Systems	Rating	Comments/Concerns		Estim. Cost
4.5	**Ventilation Systems (cont'd)**		**Bldg. Section**	**Description/Condition**	
	Note: Only complete the following items if there are separate ventilation and heating systems.				
4.5.7	Ventilation controls (including use of current energy management technology).	3	1949 1954	The ventilation system is controlled by a DDC system. Some of the dampers, sensors and actuators are old and should be replaced.	Included in 4.7.1
4.5.8	Air filtration systems and filters.	3	1949 1954	The air filters are low efficiency and should be upgraded.	$ 15,000.00
4.5.9	Humidification system and components.	3	1949	The central air system pan humidifier has been abandoned. The 1954 and 1955 buildings do not have humidification. New gas fired unitized steam humidifiers should be provided.	$ 16,000.00
4.5.10	Heat exchangers.	N/A	1949 1954 1955	No heat exchanger.	
4.5.11	Ventilation distribution system and components (i.e., ductwork, diffusers, mixing boxes, dampers, linkages).	2	1949 1954 1955	All ductwork in the building requires cleaning.	$ 8,000.00
Other					

Section 4	Mechanical Systems	Rating	Comments/Concerns		Estim. Cost
4.6	**Cooling Systems**		**Bldg. Section**	**Description/Condition**	
4.6.1	Cooling system capacity and condition (i.e., chillers, cooling towers, condensers).	N/A	1949 1954 1955	No cooling system.	
4.6.2	Cooling distribution system and components (i.e., ductwork, diffusers, mixing boxes, dampers, linkages)	N/A	1949 1954 1955	No cooling system.	
4.6.3	Cooling system controls (including use of current energy management technology).	N/A	1949 1954 1955	No cooling system.	
4.6.4	Special/dedicated cooling systems (i.e., labs, CTS areas).	N/A	1949 1954 1955	No cooling system.	
Other					
4.7	**Building Control Systems**		**Bldg. Section**	**Description/Condition**	
4.7.1	Building wide/system wide control systems and/or energy management systems.	3	1949 1954	The DDC system controls the air system, the boilers, reset of the unit ventilators, car plugs and the domestic hot water recirculation pump. The system also provides some alarms. The DDC system should be upgraded to an EMCS system controlling all major systems in the building. Compressed air for the building controls is provided by a simplex compressor. Another air compressor should be added or the existing compressor replaced with a duplex compressor and a refrigerated air dryer.	$ 133,500.00
	Overall Mech Systems Condition & Estim. Costs				$ 1,121,500.00

Section 5	Electrical Systems	Rating	Comments/Concerns		Estim. Cost
5.1	**Site Services**				
5.1.1	Primary service capacity and reliability (i.e., access, location, components, installation, bus sizes - note whether overhead or underground).	4		Underground service from on-site pad mounted transformer. Installation is satisfactory. Main Switchboard: 800A, 120/208V, 3Ph., 4W, c/w 800A main breaker.. Ample spare breaker capacity.	
5.1.2	Site and building exterior lighting (i.e., safety concerns).	4		Building mounted fixtures. Fixture are of the H..I.D. type. Coverage is adequate and no safety concerns expressed.	
5.1.3	Vehicle plug-ins (i.e., number, capacity, condition).	3		Approx. 20 energized parking stalls have been provided and 8 stalls have no plug-ins. Plug-ins are wall mounted. Reinstall plug-ins on new rails (see 1.3.3). Plug-ins are time-clock and temperature controlled.	$ 3,000.00
Other					
5.2	**Life Safety Systems**		**Bldg. Section**	**Description/Condition**	
5.2.1	Fire and smoke alarm systems (i.e., safety concerns, up-to-date technology, regularly tested).	4	All	Mirtone 73201 system. Zoned, supervised and monitored. . Condition is good and system is tested annually, and device coverage and location are satisfactory.	
5.2.2	Emergency lighting systems (i.e., safety concerns, condition).	4	All	Emergency lighting is provided by battery packs and remote heads. Coverage is satisfactory. All packs operational.	
5.2.3	Exit lighting and signage (i.e., safety concerns, condition).	4	All	Illuminated exit signs have been provided over each required exit as per the requirements of the building code. Exit lights are of the incandescent type and coverage is satisfactory. Many of the units require re-lamping.	
Other					

Section 5	Electrical Systems	Rating	Comments/Concerns		Estim. Cost
5.3	**Power Supply and Distribution**		**Bldg. Section**	**Description/Condition**	
5.3.1	Power service surge protection.	3		None provided; concern expressed about power spikes.	$ 3,500.00
5.3.2	Panels and wireways capacity and condition.	4	All	Breaker panels have been provided throughout the school for utilization of power. All panels are in satisfactory condition, well identified, and c/w directories. Most panels have spare breaker spaces.	
5.3.3	Emergency generator capacity and condition and/or UPS (if applicable).			N/A	
5.3.4	General wiring devices and methods.	4	All	Receptacles of the duplex type have been provided throughout the school including classrooms. Receptacles are in satisfactory condition. Adequate number of receptacles have been provided,	
5.3.5	Motor controls.	4		Wall mounted starters have been provided for motor control. Installation and operation satisfactory.	
Other					

Section 5	Electrical Systems	Rating	Comments/Concerns		Estim. Cost
5.4	**Lighting Systems**		**Bldg. Section**	**Description/Condition**	
5.4.1	Interior lighting systems and components (i.e., illumination levels, conditions, controls).	3	All	Fluorescent fixtures have been provided throughout the school. Fluorescent fixtures are c/w T12 lamps and standard ballasts. Fixtures are in generally good condition and operation is satisfactory. . Illumination levels are as follows: Classrooms: 40 to 65 fc Hallways: 25 to 30 fc Washrooms: 20 fc Staff Rooms: 40 fc Gymnasium: 30 to 40 fc Administration: 50 to 60 fc.. Relocate existing lighting and provide additional new fixtures as required in new suspended ceilings (see 3.2.3). Increase lighting in crawl spaces.	$ 83,700.00
5.4.2	Replacement of ballasts (i.e., health and safety concerns).	4	All	Standard ballasts. Unlikely that any ballasts contain PCB's. No safety concerns expressed.	
5.4.3	Implementation of energy efficiency measures and recommendations.	4	All	Recommend to replace old fixtures with new ones utilizing T8 lamps and electronic ballasts as existing fixtures fail and need replacing. As existing exit lights fail and need replacing, they should be replaced with new LED type exit lights.	
Other					

Section 5	Electrical Systems	Rating	Comments/Concerns		Estim. Cost
5.5	**Network and Communication Systems**		**Bldg. Section**	**Description/Condition**	
5.5.1	Telephone system and components (i.e., capacity, reliability, condition).	4		Nortel telephone system has been provided. System is adequate, no concerns expressed.	
5.5.2	Other communication systems (i.e., public address, intercom, CCTV, satellite or cable TV).	4	All	PA/intercom system function is accomplished via the telephone system. Each classroom has been provided with a telephone handset. System operation is satisfactory.	
5.5.3	Network cabling (if available, should be category 5 or better).	4	All	Cat 5 cabling has been provided; data outlets have been provided in classrooms.	
5.5.4	Network cabling installation (i.e., in conduit, secured to walls or tables).	4		Data cabling installation is satisfactory.	
5.5.5	Wiring and telecommunication closets (i.e., size, security, ventilation/cooling, capacity for growth).	4		Data patch panels are wall mounted in the staff workroom area.	
5.5.6	Provision for dedicated circuits for network equipment (i.e., hubs, switches, computers).	4		Dedicated circuits have been provided for data equipment.	
Other					

Section 5	Electrical Systems	Rating	Comments/Concerns		Estim. Cost
5.6	**Miscellaneous Systems**		**Bldg. Section**	**Description/Condition**	
5.6.1	Site and building surveillance system (if applicable).			N/A	
5.6.2	Intrusion alarms (if applicable).	3	All	Intrusion alarm has been provided. System consists of motion sensors, door contacts, etc. System is monitored and operation is satisfactory. Reinstall alarm in all new exterior doors (see 2.4.1).	$ 3,000.00
5.6.3	Master clock system (if applicable).	4	All	No master clock system provided. Electric clocks have been provided in all areas.	
Other					
5.7	**Elevators/Disabled Lifts (If applicable)**				
5.7.1	Elevator/lift size, access and operating features (i.e., sensing devices, buttons, phones, detectors).			N/A	
5.7.2	Condition of elevators/lifts.			N/A	
5.7.3	Lighting and ventilation of elevators/lifts.			N/A	
Other					
	Overall Elect. Systems Condition & Estim Costs				$ 93,200.00

Section 6	Portable Buildings	Rating	Comments/Concerns	Estim. Cost
	Note: Separate sheets can be completed, if necessary, for portable buildings of different ages and/or conditions.	N/A	No portables.	
6.1.1	Foundation and structure (i.e., signs of bending, cracking, settlement, rust, voids, stains).			
6.1.2	Roof materials and components (i.e., signs of deterioration, leaks, ice build-up).			
6.1.3	Exterior wall finishes (i.e., signs of deterioration, cracks, water stains).			
6.1.4	Doors and windows (i.e., signs of deterioration, rusting hardware, glass cracks, peeling paint, damaged seals).			
6.1.5	Interior finishes (i.e., floors, walls, ceiling).			
6.1.6	Millwork (i.e., counters, shelving, vanities, cabinets).			
6.1.7	Fixed/wall mounted equipment (i.e., writing boards, tackboards, display boards, signs)			
6.1.8	Heating system.			
6.1.9	Ventilation system.			
6.1.10	Electrical, communication and data network systems.			
6.1.11	Health and safety concerns (i.e., fire and smoke alarms, fire protection systems, exiting, fire resistance rating of materials).			
6.1.12	Barrier-free access.			
	Overall Portable Bldgs Condition & Estim Costs			

Section 7	Space Adequacy	This Facility			Equiv. New Facility			Surplus/ Deficiency	Comments/Concerns
		No.	Size	Total Area	No.	Size	Total Area		
7.1	Classrooms	14		1,147.70	14	80	1,120.00	27.70	
7.2	Science Rooms/Labs	2		211.90	2	95	190	21.90	
7.3	Ancillary Areas (i.e., Art, Computer Labs, Drama, Music,)	3		202.80	1 3	130 90	400	-197.20	
7.4	Gymnasium (incl. gym storage)	1 1	225.70 13.30	239.00	1 1	430 43	473	-234.00	
7.5	Library/Resource Areas	1 1	150.60 81.20	231.80	1		216	15.80	
7.6	Administration/Staff, Physical Education, Storage Areas			409.90			376.36	33.00	
7.7	CTS Areas								
	7.7.1 Business Education								
	7.7.2 Home Economics	1		117.90	1		160	-42.10	
	7.7.3 Industrial Arts	1		184.30	1		280	-95.70	
	7.7.4 Other CTS Programs								
7.8	Other Non-Instructional Areas (i.e., circulation, wall area, crush space, wc area)			1,702.40			1,226.80	475.60	
	Overall Space Adequacy Assessment			4,447.70			4,442.10	5.60	

Evaluation Component/ Sub-Component	Additional Notes and Comments

Evaluation Component/ Sub-Component	Additional Notes and Comments

Evaluation Component/ Sub-Component	Additional Notes and Comments

Evaluation Component/ Sub-Component	Additional Notes and Comments

Evaluation Component/ Sub-Component	Additional Notes and Comments

Evaluation Component/ Sub-Component	Additional Notes and Comments