

School Facility Evaluation Project  
Part IV - Additional Notes and Comments

School Name:	Queen Elizabeth Composite High School			School Code:	806	
Location:	512 18 Street N.W.			Facility Code:	1645	
Region:	South			Superintendent:	Dr Donna Michaels	
Jurisdiction:	Calgary Public School Board			Contact Person:	Leanne Soligo	
	District No. 19			Telephone:	214-1123	
Grades:	7 to 12			School Capacity:	1405	
<b>Building Section</b>	<b>Year of Compl.</b>	<b>No. of Floors</b>	<b>Gross Bldg Area (Sq.M.)</b>	<b>Type of Construction (i.e., structure, roof, cladding)</b>	<b>Description of Mechanical Systems (incl. major upgrades)</b>	<b>Comments/Notes</b>
<b>Original Building</b>	1930	2	2,614.30	Concrete frame, concrete floors in corridors, wood floor structure in classrooms, wood roof structure, brick cladding	Central low pressure steam boiler with perimeter steam heating. Air system added in 1968.	
<b>Additions/ Expansions</b>	1946	2	689.4	Concrete frame, concrete floors in corridors, wood floor structure in classrooms, wood roof structure, brick cladding		
	1952	2	6044.2	Concrete frame, concrete floors in corridors, wood floor structure in classrooms, wood roof structure, brick cladding	Central low steam boiler, unit ventilators in classrooms, steam heating gym air systems. Boiler replaced in 1998 along with new air system on main floor only. CTS area updated in 1998.	
	1963	1	570.5	Concrete floor, side walls and roof of concrete structural T's, end walls of concrete block	Tied to 1930 boiler heating with separate air system.	
	1963	1	299.0	Wood frame floor and roof, brick walls		
	1968	2	2697.6	Concrete floors and columns, roof of open web steel joists with steel deck	Central steam boiler convert to hot water for heating with central air system.	
<b>Total</b>			12,194.70			
				Evaluator's Name:	Doug Campbell	
				& Company:	Carruthers & Associates Architects Inc	

Upgrading/ Modernization (identify whether minor or major)						
Portable Struct. (identify whether attached/perman. or free-standing/ relocatable)						
List of Reports/ Supplementary Information	Asbestos report prepared April 18, 1999.					

	Evaluation Components	Summary Assessment	Estim. Cost
1	Site Conditions	Various upgrades to parking areas and paved surfaces required	\$105,000
2	Building Exterior	Exterior windows and doors to be replaced or refurbished	\$189,000
3	Building Interior	Various areas, finishes to be replaced or refurbished throughout entire school.	\$1,365,000
4	Mechanical Systems	Systems require updating in several areas including new boilers and controls.	\$885,000
5	Electrical Systems	Upgrade distribution, life safety, lighting and telephone	\$704,390
6	Portable Buildings	N/A	\$0
7	Space Adequacy:		
	7.1 Classrooms	Deficiency: 436.4m <sup>2</sup>	
	7.2 Science Rooms/Labs	Surplus: 92.9m <sup>2</sup>	
	7.3 Ancillary Areas	Surplus: 465.1m <sup>2</sup>	
	7.4 Gymnasium	Deficiency: 561.9m <sup>2</sup>	
	7.5 Library/Resource Areas	Surplus: 287.8m <sup>2</sup>	
	7.6 Administration/Staff Areas	Deficiency: 672.3m <sup>2</sup>	
	7.7 CTS Areas	Deficiency: 1169.3m <sup>2</sup>	
	7.8 Other Non-Instructional Areas (incl. gross-up)	Deficiency: 514.2m <sup>2</sup>	
	Overall School Conditions & Estim. Costs		\$3,248,390

Section 1	Site Conditions	Rating	Comments/Concerns	Estim. Cost
1.1	General Site Conditions			
1.1.1	Overall site size.	4	Total site area is 69,727.37 (6.97 Ha. = 17.2 Ac.). This is shared between the composite high school and Queen Elizabeth Elementary School. This is adequate	
1.1.2	Outdoor athletic areas.	2	There are 4 baseball diamonds and 2 soccer pitches on the playing fields, and an outdoor basketball court on the paved northeast courtyard. The basketball court asphalt is cracked and uneven and should be resurfaced.	\$8,500
1.1.3	Outdoor playground areas, including condition of equipment and base.	2	Concrete paving in the north and south interior courtyards is cracked and uneven, with several trip ledges - resurface - 1,500 sq. m.	\$16,000
1.1.4	Site landscaping.	4	Primarily grass, with shrubs and trees along the west side - generally good condition.	
1.1.5	Site accessories (i.e., perimeter and other fencing, guard rails, bike stands, flag poles).	3	Steel picket fence along the east and north sides should be repainted - 260 m.	\$11,000
1.1.6	Surface drainage conditions (i.e., drains away from building, signs of ponding).	4	Site slopes away from the building on all sides.	
1.1.7	Evidence of sub-soil problems.	4	No problems evident	
1.1.8	Safety and security concerns due to site conditions.	3	Some secluded areas in the parking area (under the library) and between the high and elementary schools require improved lighting	\$10,000
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	Good vehicle and pedestrian access provided to both front entries from 17th Street N.W. Pedestrian access to 1930 1952 and 1960 wings through south and east parking lots.	
1.2.2	Surfacing of on-site road network (note whether asphalt or gravel).	N/A	There are no on-site roads apart from the parking lot access lanes.	
1.2.3	Bus lanes/drop-off areas (note whether on-site or off-site).	4	No dedicated bus drop-off area. Bus drop-off occurs along 17th Street N.W. This is a narrow street, but has adequate width and is not heavily used.	
1.2.4	Fire vehicle access.	4	Two streets: 17th Street and 5th Avenue N.W. Access to the east side is provided by the parking lot drive lane, but there is no turn-around. Provide removable bollards to allow trucks into yard for turn-around.	
1.2.5	Signage.	2	Improved signs facing 5th Avenue N.W. are required. Also, signs at all entries indicating building location and direction to main entry would help visitors find their way in this large, rambling school.	\$10,000
Other				

Section 1	Site Conditions	Rating	Comments/Concerns	Estim. Cost
1.3	<b>Parking Lots and Sidewalks</b>			
1.3.1	Number of parking spaces for staff, students and visitors (including stalls for disabled persons).	4	Staff parking lot under the southwest library has 56 stalls, including 3 guest stalls. No handicapped stalls are marked. Student lot at the northeast side has 86 stalls.	
1.3.2	Layout and safety of parking lots.	3	Both lots are somewhat secluded. Improved lights with motion-detector switches are needed.	\$16,000
1.3.3	Surfacing and drainage of parking lots (note whether asphalt or gravel).	3	Staff lot is asphalt with catch basins. Surface is cracked - patch. Student lot is gravel - pave with asphalt, with catch basins. 2,500 sq. m.	\$18,000
1.3.4	Layout and safety of sidewalks.	4	Sidewalks on 17th Street, 5th Avenue N.W. and along the east sides give good access around the building.	
1.3.5	Surfacing and drainage of sidewalks (note type of material).	3	Sidewalks are of concrete. Generally the condition is adequate. However, the southeast entry walk is broken and should be repaved - 30 sq. m.	\$9,000
1.3.6	Curb cuts and ramps for barrier free access.	2	No curb cut at main entry.	\$6,500
Other				
	<b>Overall Site Conditions &amp; Estimated Costs</b>			\$105,000

Section 2	Building Exterior	Rating	Comments/Concerns		Estim. Cost
2.1	Overall Structure		<u>Bldg. Section</u>	<u>Description/Condition</u>	
2.1.1	Floor structure and beams (i.e., signs of bending, cracking, heaving, settlement, voids, rust, stains).	4	All	Concrete foundations show minor cracking - no evidence of structural problems or settlement	
2.1.2	Wall structure and columns (i.e., signs of bending, cracking, settlement, voids, rust, stains).	4	All	No evidence of structural failure or settlement.	
2.1.3	Roof structure (i.e., signs of bending, cracking, voids, rust, stains).	4	All	No evidence of problems.	
Other					

Section 2	Building Exterior	Rating	Comments/Concerns		Estim. Cost
2.2	<b>Roofing and Skylights</b> <i>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</i>			<u>Description/Condition/Age</u>	
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).	F. I.	All	The date of the existing roof is unknown, and no direct inspection was made. East wall - parapet flashings bent in some areas - check when roof inspection is done.	
2.2.2	Roof accessories (i.e., ladders, stairs, hatches, masts, exhaust hoods, chimneys, gutters, downspouts, splashpads).	F. I.	All	No inspection was done.	
2.2.3	Control of ice and snow falling from roof.	N/A	All	All roofs are flat	
2.2.4	Skylights (i.e., signs of distress, leaks, ice build-up, condensation, deteriorated materials/seals).	N/A			
Other					



Section 2	Building Exterior	Rating	Comments/Concerns		Estim. Cost
2.3	Exterior Walls/Building Envelope			<u>Description/Condition</u>	
2.3.1	Exterior wall finishes (i.e., signs of deterioration, cracks, brick spalling, effluorescence, water stains).	2	1930 1952 1963	Several precast concrete window sills cracked, and paint peeling on all - Remove paint from all, patch concrete and repaint East wall - parging and some concrete broken away from concrete foundation wall - patch approximately 20 m. East and west faces - paint is peeling from concrete window sills - clean and repaint. NW and SW corners - repair chipped concrete exterior walls to a height of 3 m.	\$12,000
2.3.2	Fascias, soffits, parapets (i.e., signs of looseness, stains, rust, peeling paint).	2	1952	East wall exterior of Room 112 - brick is broken at parapet - reset and repoint 3 m.	\$5,000
2.3.3	Building envelope (i.e., evidence of air infiltration/exfiltration through the exterior wall or ice build up on wall, eaves, canopy).	4	All	No undue problems	
2.3.4	Interface of roof drainage and ground drainage systems.	4	All	Interior drains from flat roofs	
2.3.5	Inside faces of exterior walls (i.e., signs of cracks, water stains, dust spots).	4	All	Generally good	
Other					

Section 2	Building Exterior	Rating	Comments/Concerns		Estim. Cost
2.4	Exterior Doors and Windows		<b>Bldg. Section</b>	<b>Description/Condition</b>	
2.4.1	Doors (i.e., signs of deterioration, rusting metal, glass cracks, peeling paint, damaged seals, sealed unit failure).	2	1930 1946 1952	Original wood doors in wood frames - worn and cracked - replace	\$48,000
2.4.2	Door accessories (i.e., latches, hardware, screens, locks, alarms, holders, closers, security devices).	2	1930 1946 1952	Original hardware has passed its usable life - replace with doors.	\$12,000
2.4.3	Exit door hardware (i.e., safety and/or code concerns).	2	1930 1946 1952	Original hardware has passed its usable life - replace with doors.	\$10,000
2.4.4	Windows (i.e., signs of deterioration, rusting metal, glass cracks, peeling paint, damaged seals, sealed unit failure).	2	1930 1946 1952 east wing and Rooms 117 and 124.	Original wood windows in wood frames - extensive peeling paint and wood deterioration - replace windows and frames with new aluminum units to match the 1952 west wing.	\$102,000
2.4.5	Window accessories (i.e., latches, hardware, screens, locks, alarms, holders, closers, security devices).	2	1930 1946 1952 east wing and Rooms 117 and 124.	Window accessories have worn out - replace together with the windows. See 2.4.4	
2.4.6	Building envelope (i.e., signs of heavy condensation on doors or windows).	4	All	Generally good - minor leaks around windows and doors will be remedied by replacement of these units.	
Other					
	<b>Overall Bldg Exterior Condition &amp; Estim Costs</b>				\$189,000

Section 3	Building Interior - Overall Conditions	Rating	Comments/Concerns		Estim. Cost
3.1	Interior Structure		<u>Bldg. Section</u>	<u>Description/Condition</u>	
3.1.1	Interior walls and partitions (i.e., signs of cracks, spalling, paint peeling).	4	All	No evidence of structural problems	
3.1.2	Floors (i.e., signs of cracks, heaving, settlement).	4	All	Floors appear to be sound	
Other					
3.2	Materials and Finishes		<u>Bldg. Section</u>	<u>Description/Condition</u>	
3.2.1	Floor materials and finishes.	2	1930 1946 1952 main & upper  1930 & 1946 basement	Corridor and classroom floors were resurfaced with new linoleum flooring within the past two years. Gymnasium floors are wood - acceptable condition. Industrial Arts (Room 111) - refinish existing original wood floor with non-slip surface.  Basement cafeteria and corridors have original VAT flooring. This is worn - replace with lino to match the main and upper floors.	\$20,000
3.2.2	Wall materials and finishes.	2	1930 & 1946  1952  1963	Corridors and classrooms have painted plaster walls - repair minor cracks, clean and repaint all, including link to 1968 wing.  Basement - repaint all concrete corridor and cafeteria walls. Main floor east corridor - parged concrete block walls are badly chipped and uneven - patch, skim coat and repaint.  Gymnasium - Clean and repaint concrete block end walls and upper hardboard side walls, sand and refinish varnished wood side wall panels (2 m. high).	\$70,000
3.2.3	Ceiling materials and finishes.	2	1930 & 1946  1952	Basement - acoustic tile ceiling is worn and unsuitable for a cafeteria - replace with a painted GWB ceiling Main and upper floors - corridors have suspended T-bar and acoustic tile ceilings - replace approximately 75% of panels; Classrooms have acoustic tile ceilings - approximately 30% are loose or broken and should be replaced.  Upper floor classrooms and corridors have sprayed stipple-texture ceilings - contains asbestos - enclose with new painted GWB ceiling. Gymnasium - many acoustic ceiling tiles are loose or broken - replace with more durable MDF or wood ceiling.	\$120,000

Section 3	Building Interior - Overall Conditions	Rating	Comments/Concerns		Estim. Cost
3.2	Materials and Finishes (cont'd)		<b>Bldg. Section</b>	<b>Description/Condition</b>	
3.2.4	Interior doors and hardware.	3	1930, 1946 & 1963 1952 & 1969	Classroom doors are original wood doors in wood frames with original round knobs. All are beyond their usable life - replace with new solid core wood doors in steel frames with new hardware including lever handles.  Classroom doors are new wood units in steel frames - good condition	\$250,000
3.2.5	Millwork	2	1930 & 1946; South classes of 1952 wing	Original wood cabinets are worn and chipped - patch, refinish and provide new p-lam tops.	\$330,000
3.2.6	Fixed/wall mounted equipment (i.e., writing boards, tackboards, display boards, signs).	3	1930, 1946, 1952 1930, 1946, 1952 main floor east corridor	New whiteboards with aluminum frames installed in original wood frames - refinish wood  Many lockers are bent and chipped - replace 50%	\$220,000
3.2.7	Any other fixed/mounted specialty items (i.e., CTS equipment, gymnasium equipment).	4	1952, 1963 1930	Gymnasiums have retractable basketball hoops, 1952 gymnasium stage has been developed with a well-equipped climbing wall.  Drama room requires black-out curtains for windows	
3.2.8	Washroom materials and finishes.	2	1930 1952 1968	Replace all washroom finishes rooms 005 and 007  Main and upper floor washrooms 129, 144 and 222 have mosaic tile floors, ceramic tile walls to 1.5 m. with painted plaster above, painted plaster ceilings. All surfaces are worn, and paint is peeling and stained. Provide new floor and wall tiles, strip, patch and repaint upper walls and ceilings.  Washrooms 248,249 - repair cracks in terrazzo floor, paint concrete block walls, replace acoustic tile ceiling with painted GWB.	\$245,000
Other		3		Work accommodate boiler replacement.	\$50,000

Section 3	Building Interior - Overall Conditions	Rating	Comments/Concerns		Estim. Cost
3.3	<p><b>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.</b></p> <p>3.3.1 Building construction type - combustible or non-combustible, sprinklered or non-sprinklered.</p> <p>3.3.2 Fire separations (i.e., between buildings, wings, zones if non-sprinklered).</p> <p>3.3.3 Fire resistance rating of materials (i.e., corridor walls and doors).</p> <p>3.3.4 Exiting distances and access to exits.</p> <p>3.3.5 Barrier-free access.</p> <p>3.3.6 Availability of hazardous materials audit (i.e., evidence of safety concerns with respect to)</p> <p>3.3.7 Other health and safety concerns (i.e., evidence of excessive noise conditions, air quality problems)</p> <p>Other</p>		<b>Bldg. Section</b>	<b>Description/Condition</b>	
		4	1930, 1946 1952 1963 1968	Combustible - concrete corridor floors, wood classroom floors and roof, masonry exterior walls, wood frame interior walls; non-sprinklered. Combustible - concrete corridor floors, wood classroom floors and roof, masonry exterior walls, wood frame interior walls; non-sprinklered. Non-combustible - concrete floor, concrete block and structural T walls, concrete structural T roof. Non-sprinklered Non-combustible - concrete frame, open web steel joist/steel deck floor and roof, non-sprinklered	
		FI	1968 All	There are no stairwell doors to provide a separation between floors in the southeast stairwell - provide rated doors. Separations are present between major wings, but most appear to be unrated - further investigation is needed.	
		F. I.	1930, 1946, 1952	Corridors appear to be of wood frame construction. Further investigation is needed to determine ratings. Replacement of corridor doors is noted in 3.2.4 above	
		F.I.	All	Exiting distances appear acceptable, but further detailed investigation is recommended.	
		3	All	Two elevators are provided - one in the 1952 wing west corridor and one in the link to the 1968 addition. Handicapped accessible washroom stalls are provided in the 1952 west wing. At least 2 others are needed.	\$20,000
		4	All	Asbestos audit dated April 18 1999 is attached.	
		2	1930	Noise from the dance studio (Room 108) is distracting to adjacent classes - provide sound damping in studio and sound seals around doors of adjacent classes.  Exit doors at the end of the east corridor of the 1952 wing are locked from the inside.	\$40,000
	<b>Overall Bldg Interior Condition &amp; Estim Costs</b>				<b>\$1,365,000</b>

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).	4		Site drainage consists of grading to swales and catch basins tied to City services.	
4.1.2	Exterior plumbing systems (i.e., irrigation systems, hose bibs).	4		Building has exterior hose bibbs.	
4.1.3	Outside storage tanks.	N/A		Not applicable.	
Other					
4.2	Fire Suppression Systems		Bldg. Section	Description/Condition	
4.2.1	Fire hydrants and siamese connections.	4		Street fire hydrant is located adjacent to school.	
4.2.2	Fire suppression systems (i.e., pumps, sprinklers, piping, reservoirs, hoses, stand pipes, CO2 systems).	4		Fire protection consists of 40 mm hose and hose cabinets tied to building service.	
4.2.3	Hand extinguishers, blankets and showers (i.e., in CTS areas).	4		Hand extinguishers located throughout.	
4.2.4	Other special situations (e.g., flammable storage areas, science labs, CTS areas).	N/A		Not applicable.	
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		Has two 100 mm service from street, service runs to meter. Service to building tied to municipal service.	
4.3.2	Water treatment system(s).	N/A		Not applicable.	
4.3.3	Pumps and valves (including backflow prevention valves).	4		Backflow protection on services provided.	
4.3.4	Piping and fittings.	4		All piping on domestic is copper and is in good shape for age of the facility.	
4.3.5	Plumbing fixtures (i.e., toilets, urinals, sinks)	4		Fixtures are adequate. Require on going maintenance as necessary.	
4.3.6	Domestic hot water system (i.e., heater, storage tanks, failure alarms, pressure, volume, recirculation).	4		Has two - 179,000 BTUH heaters in 1952 portion and one - 179,000 BTUH heater in 1930 portion.	
4.3.7	Sanitary and storm sewers, including sumps and pits (note whether sewage system is municipal or septic).	4		Services tied to municipal mains.	
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).	3		* 1930 portion has original low pressure steam boiler which should be replaced. * 1952 portion has a new low pressure steam boiler installed in 1998. * 1968 portion has one low pressure steam boiler which converts thru heat exchangers to serve hot water and glycol coils in the 1968 portion of the school. Costs are for replacement of 1968 steam boiler and 1930 steam boiler and associated systems.	\$225,000
4.4.2	Heating controls (including use of current energy management technology).	3		Controls are all pneumatic and for the most part systems are started manually. See 4.7.1	
4.4.3	Fresh air for combustion and condition of the combustion chimney.	4		Combustion air is in place and acceptable.	
4.4.4	Treatment of water used in heating systems.	4		Treatment systems are current.	
4.4.5	Low water cutoff/pressure relief valves and failure alarms (i.e., hot water heating).	4		Acceptable.	
4.4.6	Heating air filtration systems and filters.	N/A			
4.4.7	Heating humidification systems and components.	N/A			



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	3		1968 and portions of 1952 are in good shape however, old 1930 portion piping should be replaced along with boiler. See 4.4.1	
4.4.9	Heating piping, valve and/or duct insulation.	4		Generally piping insulated throughout.	
4.4.10	Heat exchangers.	4		Heat exchangers in 1952 retrofit and 1968 portion are still good.	
4.4.11	Heating mixing boxes, dampers and linkages.	3		Unit ventilators in 1952 portion, second level, should be replaced. See 4.5.1	
4.4.12	Heating distribution/circulation in larger spaces (i.e., user comfort, temperature of outside wall surfaces).	4		Generally control is good.	
4.4.13	Zone/unit heaters and controls.	4		Generally ok.	
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.	3		Building has numerous air systems. * 1952 general office and associated areas on main floor has new system installed in 1998. * Second Level of 1952 needs new air system to replace unit ventilators. * 1952 gym and 1963 gym each have separate air systems with adequate air change. 1952 gym needs improved air outlets and update to locker room supply air. * 1952 CTS area has new roof mounted air system with air conditioning, in good shape. * Basement level of 1930 wing has two small air systems which are old and should be replaced. * The two classroom floors of the 1930 wing have a roof mounted air system added in 1968 which is old and should be replaced. * 1968 addition has a central air handling unit with evaporative humidifier. Humidifier is corroded and in need of repair. Rest of system is okay. * The Art room on second floor of 1952 wing has a new roof mounted air system. <del>Costs have been estimated for the costs to upgrade existing systems.</del>	\$325,000
4.5.2	Outside air for the occupant load (if possible, reference CFM/occupant).	3		Design quantities are being met in some areas but not in total. See 4.5.1.	
4.5.3	Air distribution system (if possible, reference number of air changes/hour).	3		Design of the air system would give 6 to 8 air changes in renovated and updated areas only. See 4.5.1	
4.5.4	Exhaust systems capacity and condition.	3		Exhaust systems generally are acceptable. Some upgrades can be anticipated, specifically in 1952 and 1930 portions.	\$50,000
4.5.5	Separation of out flow from air intakes	3		Acceptable except for air system serving 1930 classrooms. Intake too close to locker room exhaust.	\$20,000
4.5.6	Special/dedicated ventilation and/or exhaust systems (i.e., kitchen, labs, CTS areas).	4		Exhaust systems in CTS, labs and shop are acceptable. Fume hoods are provided and also dust collection systems.	
Other					

Section 4	Mechanical Systems	Rating	Comments/Concerns		Estim. Cost
4.5	Ventilation Systems (cont'd)		Bldg. Section	Description/Condition	
	<i>Note: Only complete the following items if there are separate ventilation and heating systems.</i>				
4.5.7	Ventilation controls (including use of current energy management technology).	3		School has ventilation controls of pneumatic design, which for the most part are manually operated. See 4.7.1	
4.5.8	Air filtration systems and filters.	4		Systems has fiberglass filters.	
4.5.9	Humidification system and components.	3		See 4.5.1	
4.5.10	Heat exchangers.	N/A			
4.5.11	Ventilation distribution system and components (i.e., ductwork, diffusers, mixing boxes, dampers, linkages).	4		Distribution ductwork is in good shape.	
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).	4		Cooling is provided only in the CTS classrooms which is served by a package roof top unit.	
4.6.2	Cooling distribution system and components (i.e., ductwork, diffusers, mixing boxes, dampers, linkages)	N/A			
4.6.3	Cooling system controls (including use of current energy management technology).	4		System control is by manual remote mounted on-off panel in classroom.	
4.6.4	Special/dedicated cooling systems (i.e., labs, CTS areas).	N/A			
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		Building controls are pneumatic and for most part old, or non existent beyond manual start/ stop and room thermostats.	\$265,000
	Overall Mech Systems Condition & Estim. Costs				\$885,000
				Evaluator: Dale Way, Hemisphere Engineering	

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		The primary service is underground fed from pad mounted transformer. 120/208 volt, 3 phase, 4 wire, 3000 amp capacity.	
5.1.2	Site and building exterior lighting (i.e., safety concerns).	3		Additional lighting should be installed for safety.	\$8,000
5.1.3	Vehicle plug-ins (i.e., number, capacity, condition).	3		Additional vehicle plug-ins for staff.	\$9,500
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).	3		Additional bells and strobes are needed in CTS areas.	\$2,000
5.2.2	Emergency lighting systems (i.e., safety concerns, condition).	3		Additional emergency lighting in hallways.	\$4,000
5.2.3	Exit lighting and signage (i.e., safety concerns, condition).	3		Additional exit lights required with back-up D.C. power.	\$4,500
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		No surge protection.	\$1,500
5.3.2	Panels and wireways capacity and condition.	2		Panels are at capacity and additional ones should be installed.	\$42,500
5.3.3	Emergency generator capacity and condition and/or UPS (if applicable).	N/A		No emergency generator.	
5.3.4	General wiring devices and methods.	3		Additional receptacles are needed in hallways.	\$5,500
5.3.5	Motor controls.	3		Replace older starters because of age and unreliability.	\$5,500
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		Illumination levels were taken. Some areas do not meet recommended levels: gym +28 ft/can, administration +77 ft/can, classroom +50 ft/can, CTS areas =67 ft/can, and library +50 ft/can. Cost in 5.4.2	
5.4.2	Replacement of ballasts (i.e., health and safety concerns).	3		Because of age of building and fixtures there is a possibility of PCBs in ballasts of fixtures.	\$604,390
5.4.3	Implementation of energy efficiency measures and recommendations.	3		Change T12 lamps and ballast to new T8 lamps and electronic ballast. Cost in 5.4.2.	
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).	3		Telephones are not reliable. They are having trouble with telephone system.	\$4,500
5.5.2	Other communication systems (i.e., public address, intercom, CCTV, satellite or cable TV).	4		Public address system is in good condition.	
5.5.3	Network cabling (if available, should be category 5 or better).	4		Network cabling is of category 5.	
5.5.4	Network cabling installation (i.e., in conduit, secured to walls or tables).	3		Better securing is needed for cabling.	\$3,000
5.5.5	Wiring and telecommunication closets (i.e., size, security, ventilation/cooling, capacity for growth).	4		No cooling is required at this time.	
5.5.6	Provision for dedicated circuits for network equipment (i.e., hubs, switches, computers).	3		There are no dedicated circuits for hubs and computers.	\$4,500
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		Not applicable at this time.	
5.6.2	Intrusion alarms (if applicable).	4		Security system has door contacts and motion detectors.	
5.6.3	Master clock system (if applicable).	3		School has master clock system. However, some clocks need repair.	\$2,000
Other					
5.7	Elevators/Disabled Lifts (If applicable)			Total of two elevators.	
5.7.1	Elevator/lift size, access and operating features (i.e., sensing devices, buttons, phones, detectors).	4		Elevators are 2 man with buttons and phones.	
5.7.2	Condition of elevators/lifts.	4		Elevator is new and in good condition.	
5.7.3	Lighting and ventilation of elevators/lifts.	3		No ventilation of elevators.	\$3,000
Other					
	Overall Elect. Systems Condition & Estim Costs				\$704,390
				Evaluator: Gary Mctighe, Stebnicki, Robertson & Associates	

Section 6	Portable Buildings	Rating	Comments/Concerns	Estim. Cost
	<i>Note: Separate sheets can be completed, if necessary, for portable buildings of different ages and/or conditions.</i>	N/A		
6.1.1	Foundation and structure (i.e., signs of bending, cracking, settlement, rust, voids, stains).	N/A		
6.1.2	Roof materials and components (i.e., signs of deterioration, leaks, ice build-up).	N/A		
6.1.3	Exterior wall finishes (i.e., signs of deterioration, cracks, water stains).	N/A		
6.1.4	Doors and windows (i.e., signs of deterioration, rusting hardware, glass cracks, peeling paint, damaged seals).	N/A		
6.1.5	Interior finishes (i.e., floors, walls, ceiling).	N/A		
6.1.6	Millwork (i.e., counters, shelving, vanities, cabinets).	N/A		
6.1.7	Fixed/wall mounted equipment (i.e., writing boards, tackboards, display boards, signs)	N/A		
6.1.8	Heating system.	N/A		
6.1.9	Ventilation system.	N/A		
6.1.10	Electrical, communication and data network systems.	N/A		
6.1.11	Health and safety concerns (i.e., fire and smoke alarms, fire protection systems, exiting, fire resistance rating of materials).	N/A		
6.1.12	Barrier-free access.	N/A		
	<b>Overall Portable Bldgs Condition &amp; Estim Costs</b>			\$0

Section 7	Space Adequacy	This Facility			Equiv. New Facility			Surplus/ Deficiency	Comments/Concerns
		No.	Size	Total Area	No.	Size	Total Area		
7.1	Classrooms	30	78.787	2363.6	35	80	2800	-436.4	Average size is indicated for all spaces.
7.2	Science Rooms/Labs	9	103.66	932.9	7	120	840	92.9	
7.3	Ancillary Areas (i.e., Art, Computer Labs, Drama, Music,)	8	169.39	1355.1	2 7	130 90	890	465.1	
7.4	Gymnasium (incl. gym storage)	2	606.55	1213.1	2	1675 100	1775	-561.9	
7.5	Library/Resource Areas	1	962.8	962.8	1	675	675	287.8	
7.6	Administration/Staff, Physical Education, Storage Areas			1420.7		855 290 264	2093	-672.3	
7.7	CTS Areas							0	
	7.7.1 Business Education	3	75.2	225.6	5	115	575	-349.4	
	7.7.2 Home Economics	2	117.5	235	1 1	160 100	260	-25	
	7.7.3 Industrial Arts	4	167.53	670.1	1 1 1 1	280 375 300 510	1465	-794.9	
	7.7.4 Other CTS Programs							0	
7.8	Other Non-Instructional Areas (i.e., circulation, wall area, crush space, wc area)			2815.8		1889 907 366 168	3330	-514.2	
	<b>Overall Space Adequacy Assessment</b>	59		12194.7	65		14703	-2508.3	

Evaluation Component/ Sub-Component	Additional Notes and Comments