	School Name:	**M.E. Lazerte Composite High School**				School Code:	**7063**
	Location:	**Edmonton, Alberta**				Facility Code:	**1149**
	Region:	**North**				Superindendent:	**Dr. E. Dosdall**
	Jurisdiction:	**Edmonton School District No. 7**				Contact Person:	**Mr. Bob Clark**
						Telephone:	**(780) 429-8511**
	Grades:	**X - XII**				School Capacity:	**2385**

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	1968	2	24239	Masonry	Two glycol boilers and chiller systems with 16 air handling units service the school.	
Additions/ Expansions				None		

						Evaluator's Name:	**James Triscott**
						& Company:	**Bennett Architect Inc.**

Upgrading/ Modernization (identify whether minor or major)	1977 1998			Major Modernization		Major renovations to the Science, CTS, and Administration Areas; along with minor work done in other locations around the building.
Portable Struct. (identify whether attached/perman. or free-standing/ relocatable)						
List of Reports/ Supplementary Information	Kitchen Reports: Capital Health, Environmental Health Inspections Report - Dated September 02, 1998 Capital Health, Community Care and Public Health Inspections notes - Dated September 13, 1999 M.E. Lazerte Internal Memo - Dated September 15, 1999 Portion of Alberta Public Health Act Mini Plans Photographs					

	Evaluation Components	Summary Assessment	Estim. Cost
1	**Site Conditions**	Major components are generally in good condition. A number of individual items need attention, such as; two areas of site ponding; surface of parking lot; spot sidewalk repairs; crosswalk lights; signage requires upgrading.	$ 95,000.00
2	**Building Exterior**	Major elements of the building exterior are in good condition, however, select items require attention such as roof over vocational wing needs replacing; second floor corridor walls need a retrofit; greenhouse windows need maintenance.	$ 268,000.00
3	**Building Interior**	The buiding was modernized in 1998, therefore, most of the interior finishes are in very good condition. However, there is a major health and safety issure regarding the cafeteria kitchen; and acoustic problems in the Arts and Fashion area.	$ 427,000.00
4	**Mechanical Systems**	New catch basin system on site. Add backflow prevention for exterior hose bibbs. New siamese connection. Replace kitchen hood fire suppression system. Replace isolation valves for domestic water piping. Replace hairdressing sinks. Remove asbestos insulation and reinsulate piping. Replace grease trap. Replace control air compressors. Replace roof top unit. Replace heating isolation and control valves. Rebalance ventilation systems. Replace washroom exhaust systems.Replace kitchen hood exhaust systems. Replace chiller refrigerant system. Replace cooling tower. Provide tamper alarms and flow switches for fire hose cabinets.	$ 465,000.00
5	**Electrical Systems**	Some fluorescent luminaires should be retrofitted to implement energy efficiency throughout the school	$ 355,000.00
6	**Portable Buildings**	None	$ -
7	**Space Adequacy:**		
	7.1 Classrooms		
	7.2 Science Rooms/Labs		
	7.3 Ancillary Areas		
	7.4 Gymnasium		
	7.5 Library/Resource Areas		
	7.6 Administration/Staff Areas		
	7.7 CTS Areas		
	7.8 Other Non-Instructional Areas (incl. gross-up)		
	Overall School Conditions & Estim. Costs		$ 1,610,000.00

Section 1	Site Conditions	Rating	Comments/Concerns	Estim. Cost
1.1	**General Site Conditions**			
1.1.1	Overall site size.	5	The site is large enough for a school of this size. Shares area with Londonderry Elementary School and the Londonderry Leisure Centre.	$ -
1.1.2	Outdoor athletic areas.	4	There is presently three soccer fields, three baseball diamonds, and one football field.	$ -
1.1.3	Outdoor playground areas, including condition of equipment and base.	4	Good	$ -
1.1.4	Site landscaping.	4	Large planting and flower bed on east and south sides of the building.	$ -
1.1.5	Site accessories (i.e., perimeter and other fencing, guard rails, bike stands, flag poles).	4	Good	$ -
1.1.6	Surface drainage conditions (i.e., drains away from building, signs of ponding).	3	Generally, surface design of the site is good, however, there are specific areas areas of the building where water is ponding and / or flowing towards the buliding. **See Figure #1. See 4.1.1**	**See 4.1.1**
1.1.7	Evidence of sub-soil problems.	4	Good	$ -
1.1.8	Safety and security concerns due to site conditions.	4	Good	$ -
Other		4	Underground sprinklers system - reported to be in operating condition.	$ -

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).	3	Vehicular - Good, one major traffic access point from 66th street. Pedestrian - Marginal, two pedestrian street crossings between the school and the Londonderry Shopping centre. Pavement markings only, require flashing caution lights. Needs coordination with the City of Edmonton. F.I. $ 1000.00	$ 10,000.00
1.2.2	Surfacing of on-site road network (note whether asphalt or gravel).	5	Site road network excellent. **See 1.3.3** for physical condition.	$ -
1.2.3	Bus lanes/drop-off areas (note whether on-site or off-site).	5	Off-site bus drop-off.	$ -
1.2.4	Fire vehicle access.	5	Excellent	$ -
1.2.5	Signage.	3	Marginal - abundant signage, but chaotic to understand. Needs reworking to be comprehendable.	$ 5,000.00
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	Student and visitor parking - 132 stalls. Staff parking - 91 stalls. Automotive Shop - 38 stalls.	$ -
1.3.2	Layout and safety of parking lots.	4	Good.	$ -
1.3.3	Surfacing and drainage of parking lots (note whether asphalt or gravel).	2	Poor - parking lots are asphalt. All parking lots require patching and resurfacing. **See Figure #2.**	$ 70,000.00
1.3.4	Layout and safety of sidewalks.	3	Generally good, some areas of grass worn due to foot traffic and more sidewalks and / or repaired landscaping could be used.	$ 5,000.00
1.3.5	Surfacing and drainage of sidewalks (note type of material).	2	Sidewalks area all concrete. Along building, there is a space between the building and the sidewalks themselves due to water / soil movement. Repairs required. **See Figure #3.**	$ 5,000.00
1.3.6	Curb cuts and ramps for barrier free access.	5	Excellent	$ -
Other				
	Overall Site Conditions & Estimated Costs			$ 95,000.00

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).	4	All	Good.	$ -
2.1.2	Wall structure and columns (i.e., signs of bending, cracking, settlement, voids, rust, stains).	4	All	Good.	$ -
2.1.3	Roof structure (i.e., signs of bending, cracking, voids, rust, stains).	4	All	Good	$ -
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***		**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).	2		**1.** The roof areas over the two storey portion of the building and over the gymnasium received a new two ply roofing membrane in 1998. There are areas of ponding in all zones of the roof **(See Figure #4)**, particularily severe over the lobby area between the two storey portion of the structure and the gymnasium **(See Figure #5)**. Because of the poor drainage, the maximum performance of the new roofing membrane should not be expected. **2.** The one storey "Vocational Wing" has the the original building four ply built-up roofing membrane (1968). it leaks regularily. Signs of severe deterioration of the membrane observed **(See Figure #6)**. Needs replacing.	$ 30,000.00
2.2.2	Roof accessories (i.e., ladders, stairs, hatches, masts, exhaust hoods, chimneys, gutters, downspouts, splashpads).	4		Good	$ -
2.2.3	Control of ice and snow falling from roof.	4		Good	$ -
2.2.4	Skylights (i.e., signs of distress, leaks, ice build-up, condensation, deteriorated materials/seals).	4		Good	$ -
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).	3	All	Generally, the wall finishes are good with no signs of deterioration or cracking. Moisture problems were noted in specific areas. **See 2.3.1.1**	$ 5,000.00
2.3.2	Fascias, soffits, parapets (i.e., signs of looseness, stains, rust, peeling paint).	3	All	Exposed metal, notably the metal flashings, need painting.	$ 7,000.00
2.3.3	Building envelope (i.e., evidence of air infiltration/ exfiltration through the exterior wall or ice build up on wall, eaves, canopy).	3	All	**See 2.3.5**	$ 160,000.00
2.3.4	Interface of roof drainage and ground drainage systems.	4	All	Good	$ -
2.3.5	Inside faces of exterior walls (i.e., signs of cracks, water stains, dust spots).	4	All	Generally, the interior wall surfaces are in good condition. Walls are not highly insulated. Condensation, infiltration and paint spalling were reported on the second floor perimeter walkway. **See 2.3.5.1** **See 2.3.3 for pricing.**	$ -
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).	4		Good. Worn hardware being exchanged by regular maintenance.	$ -
2.4.2	Door accessories (i.e., latches, hardware, screens, locks, alarms, holders, closers, security devices).	4		Good. Worn items being exchanged by regular maintenance.	$ -
2.4.3	Exit door hardware (i.e., safety and/or code concerns).	4		Good. Worn items being exchanged by regular maintenance.	$ -
2.4.4	Windows (i.e., signs of deterioration, rusting metal, glass cracks, peeling paint, damaged seals, sealed unit failure).	2		Exterior doors in one storey Vocational wing need painting. **See Figure #7** Aluminum windows in rest of building - good condition.	$ 6,000.00
2.4.5	Window accessories (i.e., latches, hardware, screens, locks, alarms, holders, closers, security devices).	4		Window hardware worn, but opening windows not used because the air conditioning system is operating.	$ -
2.4.6	Building envelope (i.e., signs of heavy condensation on doors or windows).	4		**See 2.3.5.1** **See 2.3.3 for pricing**	$ -
Other		2		Windows and walls in greenhouse area leaking, and stops coming loose. Needs retrofitting. **See Figure #9**	$ 60,000.00
	Overall Bldg Exterior Condition & Estim Costs				$ 268,000.00

Section 3	Building Interior - Overall Conditions	Rating	Bldg. Section	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		Good. Some areas of the corridor walls and infill panels above lockers appear to have a wood or cementious cladding (possibly asbestos). These panels should be investigated from the point of view of hazardous materials and Alberta Building Code requirements. F.I. $1000.00	$ -
3.1.2	Floors (i.e., signs of cracks, heaving, settlement).	4		Good, no cracking, heaving or settlement observed.	$ -
Other					
3.2	**Materials and Finishes**		**Bldg. Section**	**Description/Condition**	
3.2.1	Floor materials and finishes.	3		*Typical 1st Floor Corridor*: Vinyl Composite Tile - Good condition *Typical 2nd Floor Corridor:* Sheet Flooring (marmoleum) - Marginal *Typical Classroom*: Sheet Flooring (marmoleum) - Good condition *Computer Room:* Carpet - Good condition *Small Gym (North):* Wood floor (needs yearly finishing) - Good condition *Large Gym (South):* Wood floor (needs yearly finishing) - Good condition *Sports Mezz:* Carpet - Good condition *Library:* Carpet - Good condition *Administration*: Carpet - Good condition *Beauty Culture:* Sheet Flooring - Good condition *Food Studies*: Sheet Flooring - Good condition *Kitchen:* Ceramic Tile **See Section 3 Other** *Automotive:* Painted concrete. **See Additional 3.2.1.1.13.1** **See Section 3 Other** *Woodshop:* Wood floor - Good condition *Drama Room:* Wood, carpet & concrete. **See Additional 3.3.1.15.1 & 3.3.1.15.2** - Marginal *Music Room:* Carpet - Good condition *Art Room:* Painted Concrete Floor - Good condition *Cafeteria:* Sheet Flooring - Good condition *Small Dining:* Carpet - Good condition *Gym Lockers:* Sheet Flooring (marmoleum) and 150 x 150 ceramic floor tile in wet areas - Good conditio *[illegible]* Painted Concrete Floor **See Section 3 Other** Marginal **See Additional 3.2.2.1** *Mechanical Room (2 storey bldg):* Concrete floor. Needs sealing and cracks caulked to prevent any liquid spillage into the classrooms below. Marginal	$ 22,000.00

Section 3	Building Interior - Overall Conditions	Rating		Comments/Concerns	Estim. Cost
3.2.2	Wall materials and finishes.	3		*Typical 1st Floor Corridor:* Painted concrete block & gypsum board - good *Typical 2nd Floor Corridor:* Painted gypsum board / masonite above lockers - good *Typical Classroom:* Painted gypsum board, tack and whiteboards - good *Computer Room:* Painted gypsumboard and demountable partitions- good *Small Gym (North):* Painted concrete block- good *Large Gym (South):* Painted concrete block- good *Sports Mezz:* Painted concrete block and gypsum board- good *Library*: Painted concrete block and gypsum board - Excellent *Administration:* Painted concrete block and gypsum board- good *Beauty Culture:* Painted concrete block and gypsum board - good *Food Studies:* Painted concrete block and gypsum board - good *Kitchen:* Painted concrete block and gypsum board **See Section 3 Other** *Automotive:* Painted concrete block - good *Woodshop:* Painted concrete block and gypsum board - good *Drama Room:* Painted concrete block and gypsum board - good *Music Room:* Painted concrete block and acoustic panels - good *Art Room:* Painted concrete block - good *Cafeteria:* Painted concrete block and gypsum board - good *Small Dining:* Painted concrete block and gypsum board - good *Gymnasium:* Painted concrete block and full height ceramic tile in showers - good *Fashion:* Painted concrete block - good **See Additional Notes and Comments 3.2.2.1** *Mechanical Room (2 storey bldg):* Good	$ 6,000.00
3.2.3	Ceiling materials and finishes.	3		*Typical 1st Floor Corridor:* Suspended acoustic tile - good *Typical 2nd Floor Corridor:* Suspended acoustic tile - good *Typical Classroom:* Suspended acoustic tile - good *Computer Room:* Suspended acoustic tile - good *Small Gym (North):* Exposed OWSJ and Metal Deck (Painted) - good *Large Gym (South)*: Exposed OWSJ and Metal Deck (Painted) - good *Sports Mezz:* Suspended acoustic ceiling tile - good *Library:* Suspended acoustic ceiling tile - Excellent *Administration*: Suspended acoustic ceiling tile - good *Beauty Culture:* Suspended acoustic ceiling tile - good *Food Studies:* Suspended acoustic ceiling tile - good *Kitchen:* Painted gypsum board **See Section 3 Other** *Automotive:* Exposed concrete structure - good *Woodshop:* Exposed concrete structure - good *Drama Room:* Special ceiling - good *Music Room:* Suspended acoustic ceiling tile - good *Art Room:* Exposed concrete ceiling - good *Cafeteria:* Exposed concrete ceiling with soft sprayed on acoustic material. See Additional 3.2.3.18.1 **See 3.3.7** *Small Dining:* Suspended acoustic ceiling tile and painted gypsum board - good *Gymnasium:* Painted gypsum board - good *Fashion:* Exposed concrete ceiling - good **See Additional Noted and Comments 3.2.3.22.1** *Mechanical Room (2 storey bldg.):* Concrete - good	$ 3,000.00

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.	4	All	Good. Noted that solid core wood doors and metal frames are not labeled. Glazing is clear glazing, not wired. Code violation. F.I. $ 1000.00	$ -
3.2.5	Millwork	4	All	Good	$ -
3.2.6	Fixed/wall mounted equipment (i.e., writing boards, tackboards, display boards, signs).	4	All	Good	$ -
3.2.7	Any other fixed/mounted specialty items (i.e., CTS equipment, gymnasium equipment).	4	All	Good.	$ -
3.2.8	Washroom materials and finishes.	4	All	Floor - Sheet floor and 150 x 150 ceramic tile. Walls - Painted concrete block and ceramic wall tile. Ceiling - painted gypsum board.	$ -
Other		1		Automotives 408: Paint concrete floor Fashion Area 404: Paint concrete floor Fashion Area 404: New ceiling Art Room 407: Seal Floor Art Room 407: New ceiling	$ 23,000.00

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***		**Bldg. Section**	**Description/Condition**	
3.3.1	Building construction type - combustible or non-combustible, sprinklered or non-sprinklered.	4	All	Masonry; non-combustible and non sprinklered.	$ -
3.3.2	Fire separations (i.e., between buildings, wings, zones if non-sprinklered).	4	All	Good.	$ -
3.3.3	Fire resistance rating of materials (i.e., corridor walls and doors).				$ -
3.3.4	Exiting distances and access to exits.	4	All	Good.	$ -
3.3.5	Barrier-free access.	4	All	Good.	$ -
3.3.6	Availability of hazardous materials audit (i.e., evidence of safety concerns with respect to asbestos, PCB's, chemicals).	4	All	Building was investigated for hazardous materials and asbestos in all areas and the materials removed except the mechanical rooms. The mechanical room asbestos remains. Removal plans unknown. F.I. $1000	$ -
3.3.7	Other health and safety concerns (i.e., evidence of excessive noise conditions, air quality problems)	1		**Cafeteria kitchen and food preparation. See 3.3.7.1** **Cafeteria - See 3.2.3.18.1** Drama 100: Access stage lighting F.I. $1000.00	$ 373,000.00
Other		4		Some questions relating to building design versus use were brought to the authors attention by maintenance staff and teachers. **See 3.3.8.1, 3.3.8.2, 3.3.8.3**	$ -
	Overall Bldg Interior Condition & Estim Costs				$ 427,000.00

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).	2	1968	Rain water leaders connect to underground storm sewer system. Catch basins around the site. Water ponding around certain part of the site without proper drainage. Provide catch basins with piping.	$30,000.00
4.1.2	Exterior plumbing systems (i.e., irrigation systems, hose bibs).	2	1968	Lawn sprinkler system at the front of building with backflow prevention. Some exterior hose bibbs with and without backflow prevention. Add backflow prevention to hose bibbs.	$1,000
4.1.3	Outside storage tanks.	4	1968	Underground used oil storage tank.	$0.00
Other					
4.2	**Fire Suppression Systems**	**Rating**	**Bldg. Section**	**Description/Condition**	
4.2.1	Fire hydrants and siamese connections.	1	1968	Fire hydrants located around the site. No siamese connection. Provide siamese connection for fire hose cabinets.	$5,000.00
4.2.2	Fire suppression systems (i.e., pumps, sprinklers, piping, reservoirs, hoses, stand pipes, CO2 systems).	1	1968	Kitchen exhaust hood fire suppression system. System is old and not to code and require replacement.	$5,000.00
4.2.3	Hand extinguishers, blankets and showers (i.e., in CTS areas).	4	1968	Fire hose cabinets with portable fire extinguishers are located throughout.	$0.00
4.2.4	Other special situations (e.g., flammable storage areas, science labs, CTS areas).	4	1968	Gas turrets in science labs. Flammable storage for vocational training area.	$0.00
Other					

Section 4	Mechanical Systems	Rating	Comments/Concerns		Estim. Cost
4.3	**Water Supply and Plumbing Systems**	**Rating**	**Bldg. Section**	**Description/Condition**	
4.3.1	Domestic water supply (i.e., pressure, volume, quality - note whether municipal or well supply).	4	1968	Water from city. Pressure/volume reasonable. No known problems.	$0.00
4.3.2	Water treatment system(s).	4	1968	Not applicable.	$0.00
4.3.3	Pumps and valves (including backflow prevention valves).	4	1968	Backflow prevention installed for chiller makeup water, fire hose cabinets, lawn sprinkler and kitchen hood washdown. No known problems.	$0.00
4.3.4	Piping and fittings.	2	1968	Water - copper pipes. Sanitary - cast iron. Piping behind the stove are badly corroded and isolation valves for domestic water are in poor conditions.	$40,000.00
4.3.5	Plumbing fixtures (i.e., toilets, urinals, sinks)	2	1968	Water closets - flush valve. Urinals - flush valve. Lavatories - stainless steel. Hairdressing sink are in poor conditions.	$5,000.00
4.3.6	Domestic hot water system (i.e., heater, storage tanks, failure alarms, pressure, volume, recirculation).	4	1968	Raypak boiler (1364 MBH, output) with storage tank & recirculating pumps. (F.I) Further investigation require on the condition of storage tank. ($1,000.00)	$0.00
4.3.7	Sanitary and storm sewers, including sumps and pits (note whether sewage system is municipal or septic).	4	1968	Sanitary sewer connected to municipal. No known problems.	$0.00
Other		1	1968	Kitchen sink grease trap badly corroded and to be replaced. Tamper alarms and flow switches to be installed for fire hose cabinets.	$5,000.00

Section 4	Mechanical Systems	Rating	Comments/Concerns		Estim. Cost
4.4	**Heating Systems**	**Rating**	**Bldg. Section**	**Description/Condition**	
4.4.1	Heating capacity and reliability (including backup capacity).	4	1968	Two Cleaver Brooks boilers (20,922 MBH, input) serving the whole building.	$0.00
4.4.2	Heating controls (including use of current energy management technology.	2	1968	New Barber-Colman EMCS installed with existing pneumatic control for all mechanical equipments. Control air compressors in the main mechanical room, end of life expectancy. No known problems of control air compressors in vocational training mechanical room.	$10,000.00
4.4.3	Fresh air for combustion and condition of the combustion chimney.	4	1968	Combustion air provided. Chimney are insulated and is in good condition.	$0.00
4.4.4	Treatment of water used in heating systems.	4	1968	Boiler system has a pot feeder for glycol treatment and treatment is been provided.	$0.00
4.4.5	Low water cutoff/pressure relief valves and failure alarms (i.e., hot water heating).	4	1968	Boiler system has low water cutoff valve, pressure relief valve and interlock to EMCS.	$0.00
4.4.6	Heating air filtration systems and filters.	4	1968	50 mm thick roll filters for the two main air handling units. 50 mm thick filters for the rest of the fourteen air handling units.	$0.00
4.4.7	Heating humidification systems and components.	4	1968	Wet media humidification provided from the two main air handling units. No known problems.	$0.00

Section 4	Mechanical Systems	Rating	Comments/Concerns		Estim. Cost
4.4	**Heating Systems (cont'd)**	**Rating**	**Bldg. Section**	**Description/Condition**	
4.4.8	Heating distribution systems (i.e., piping, ductwork) and associated components (i.e., diffusers, radiators).	2	1968	Two Canadian Buffalo AHUs with reheat coils, R/A fans service the main building with wall or ceiling diffusers/grilles. - Good condition Three Trane AHUs with reheat coils, R/A fans service the gymnasiums, change rooms and offices with floor or ceiling diffusers/grilles. - Good condition One Lennox RTU with reheat coil service the lobby with ceiling diffusers. End of life expectancy. - Poor	$7,000.00
4.4.9	Heating piping, valve and/or duct insulation.	3	1968	Piping is insulated. Ductwork is insulated. - Good condition. Isolation valves and control valves are in poor conditions. - Marginal	$125,000.00
4.4.10	Heat exchangers.	4	1968	Heat exchanger abandoned.	$0.00
4.4.11	Heating mixing boxes, dampers and linkages.	4	1968	Mixing boxes/dampers/linkages are in good conditions. No known problems.	$0.00
4.4.12	Heating distribution/circulation in larger spaces (i.e., user comfort, temperature of outside wall surfaces).	2	1968	Drama room is cold	$2,000.00
4.4.13	Zone/unit heaters and controls.	4	1968	Force flow heaters at entrances with thermostats on/off fan control. Unit heaters in mechanical rooms, storage room, vehicle department, woodwork and link corridor with thermostats.	$0.00
Other	4.4.8 Heating distribution systems (continued)	4	1968	Ten Trane AHUs with reheat coils, some with preheat coils, R/A fans servicing the vocational building with ceiling, wall, duct diffusers/grilles. Wall fins radiations cabinets in corridors.	$0.00

Section 4	Mechanical Systems	Rating	Comments/Concerns		Estim. Cost
4.5	**Ventilation Systems**	**Rating**	**Bldg. Section**	**Description/Condition**	
4.5.1	Air handling units capacity and condition.	4	1968	See item 4.4.8	$0.00
4.5.2	Outside air for the occupant load (if possible, reference CFM/occupant).	3	1968	Unknown outdoor air quantity. Outdoor air intake dampers close for the two main AHUs. Require rebalancing.	$2,000.00
4.5.3	Air distribution system (if possible, reference number of air changes/hour).	3	1968	Unknown air change rate. Main building over pressurization, require rebalancing.	$10,000.00
4.5.4	Exhaust systems capacity and condition.	3	1968	Washroom exhaust system is in poor condition. Upgrade system.	$10,000.00
4.5.5	Separation of out flow from air intakes.	4	1968	No known or observed problems.	$0.00
4.5.6	Special/dedicated ventilation and/or exhaust systems (i.e., kitchen, labs, CTS areas).	2	1968	Kitchen exhaust fans not to code, to be replaced. - Poor condition (F.I) Further investigation require for paint booths exhaust fan motors for explosion proof. ($1,000.00) Vehicle exhaust systems. No known problems. - Good condition Welding exhaust systems. No known problems. - Good condition	$8,000.00
Other	4.5.6 Special/dedicated ventilation and/or exhaust systems (continued)	4	1968	Murphy dust collection system. No known problems. Silk screen exhaust systems. No known problems. Molten metal exhaust systems. No known problems. Photographics exhaust systems. No known problems.	$0.00

Section 4	Mechanical Systems	Rating	Comments/Concerns		Estim. Cost
4.5	**Ventilation Systems (cont'd)**	**Rating**	**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).	4	1968	See item 4.4.2	$0.00
4.5.8	Air filtration systems and filters.	4	1968	See item 4.4.6	$0.00
4.5.9	Humidification system and components.	4	1968	See item 4.4.7	$0.00
4.5.10	Heat exchangers.	N/A	1968	Not applicable.	$0.00
4.5.11	Ventilation distribution system and components (i.e., ductwork, diffusers, mixing boxes, dampers, linkages).	4	1968	See item 4.4.11	$0.00
Other					

Section 4	Mechanical Systems	Rating	Comments/Concerns		Estim. Cost
4.6	**Cooling Systems**	**Rating**	**Bldg. Section**	**Description/Condition**	
4.6.1	Cooling system capacity and condition (i.e., chillers, cooling towers, condensers).	3	1968	Trane chiller (540 TR) with cooling tower. End of life expectancy for cooling tower and converting old refrigerant to new ozone friendly refrigerant.	$200,000.00
4.6.2	Cooling distribution system and components (i.e., ductwork, diffusers, mixing boxes, dampers, linkages)	4	1968	Chilled water being supplied to the two main air handling units for the main building.	$0.00
4.6.3	Cooling system controls (including use of current energy management technology).	4	1968	See item 4.4.2	$0.00
4.6.4	Special/dedicated cooling systems (i.e., labs, CTS areas).	N/A	1968	Not applicable.	$0.00
Other					
4.7	**Building Control Systems**	**Rating**	**Bldg. Section**	**Description/Condition**	
4.7.1	Building wide/system wide control systems and/or energy management systems.	4	1968	Barber-Colman EMCS installed.	$0.00
	Overall Mech Systems Condition & Estim. Costs				$465,000

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	1968	Underground service from EPCOR Utility padmounted transformer located South of Electrical Room in the Penthouse. 600A 3 Phase **4** Wire (3000 kVA) 13.8 KV-600/347V 60 Hz service. Federal Pacific Electric main distribution V41266. Max. demand 880.4 KVA (~30% of load capacity).	$ -
5.1.2	Site and building exterior lighting (i.e., safety concerns).	3	1968	There is sufficient lighting in the perimeter of the school and at every exit and entrance door. Light standard poles are available in the public parking area, and maintained by the City of Edmonton. Exterior lighting is controlled by photoelectric cell and time clock. Exterior lighting is mercury vapour and are not vandal-proof	$ 12,500.00
5.1.3	Vehicle plug-ins (i.e., number, capacity, condition).	4	1968	Parking stalls have one-hundred and twenty-five (125) 15 Amp duplex car plug-ins controlled by three (3) contactors located in Mechanical/Electrical Room. Time clock and outdoor thermostat controls through DDC Barber-Colman. No damaged car plug receptacles.	$ -
Other		4	1968	The 3000 kVA 13.8KV-600/347 Volts transformer is producing unacceptable sound level and some vibration from the 600 kVA transformer. This equipment, including the circuit breakers, should be serviced and worn out parts replaced (F.I. $8,000.00).	**$ -**
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).	5	1968	Fire alarm control panel - Addressable Simplex 4020 complete with six (6) active zones. System in good working condition. Installed in 1999.	$ -
5.2.2	Emergency lighting systems (i.e., safety concerns, condition).	4	1968	Emergency lights are evenly distributed throughout the school. Powered by the Emergency Generator.	$ -
5.2.3	Exit lighting and signage (i.e., safety concerns, condition).	3	1968	Exit lights are installed where required by Code. 10% of exit lights retrofitted with LED lamps and powered by emergency generator located in Main Electrical Room Penthouse. Retrofit remaining exit lights to obtain energy efficiency and minimize the maintenance of replacing burnt out lamps.	$ 7,500.00
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.	4	1968	The surge protection is a PTY suppression system.	$ -
5.3.2	Panels and wireways capacity and condition.	4	1968	Panelboards are in good condition with capacity for additional loads. Power supplies are evenly distributed throughout the school. Panelboards are Westinghouse type NQB/CDP/NHIB and Siemens S1.	$ -
5.3.3	Emergency generator capacity and condition and/or UPS (if applicable).	4	1968	Kohler Generator Set in good working condition 347/600V 40 kW (50 kVA) 482 Amps. Model 45-R78-7822,185.29.42 Serial No. 304757. UPS Model 2200 (for telephone system).	$ -
5.3.4	General wiring devices and methods.	4	1968	In good working condition.	$ -
5.3.5	Motor controls.	4	1968	In good working condition. Allen Bradley/TeleMecanique/Canadian Controllers Limited motor starters and Canadian Controller Limited/Square D motor protection switches. Keyed switches in public areas. Motor Control Center located in Mechanical Penthouse and Mechanical Room 314.	$ -
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).	4	1968	Average illumination levels (Lux) are as follows: Classrooms - 723; Library (reading area) - 490; Library (book stacks) - 500;Offices - 600; Computer (VDT Area) - 422; South Gymnasium - 445; North Gymnasium - 530; Washrooms - 547; Corridors - 560; Laboratories - 1052; Concession/Cafeteria -1023; Lockers/Showers - 818; Kitchen - 535; Staff Lounge/room - 650; Custodian/Storage - 600; Work Room - 565; Cosmetology - 770; Home Economics - 800; Drafting/Graphics Room - 700; Mechanical Rooms -480; Career Centre - 508; Weight Room - 501; Wood Working - 923; Music Room - 706; Conference - 669; Automotive - 860; Main Electrical Room - 635; Theatre - 816. Note: Readings were taken at 762mm above finished floor on April 4, 2000 between 8:30 a.m. and 12:00 p.m.	$ -
5.4.2	Replacement of ballasts (i.e., health and safety concerns).	3	1968	Approximately 10% of the fluorescent lighting ballasts have PCB's. Note: Refer to item 5.4.3 for cost estimate. **See 5.4.3**	**See 5.4.3**
5.4.3	Implementation of energy efficiency measures and recommendations.	3	1968	50% of fluorescent fixtures have been replaced with T8 and electronic ballasts. Incandescent lamps should be replaced with PL lamps. Approximately - 50% of the fluorescent fixtures would have to be retrofitted with T8 and electronic ballasts. Provide motion sensors in washrooms and night lighting in corridors after hours for custodial work.	$ 315,000.00
Other		3	1968	The following rooms do not meet the minimum lighting requirement: Paint Room does not have an explosion proof type fixture; Stage Theatre lighting components are obsolete.	$ 20,000.00

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	1968	An underground 101mm conduit c/w 100 pair 24 AWG telephone conductors services the school. The main telephone backboard is located in Police Resource Room and Sub Panel Room 235. The switching panel is a Nortel Norstar/Circa Telecom. There is no present requirement for additional telephone lines. A UPS system back-up is available (APC Model 2200).	$ -
5.5.2	Other communication systems (i.e., public address, intercom, CCTV, satellite or cable TV).	4	1968	Public address and intercom system Bogen Multicom 2000 is in good working condition. Installed in 1999. Cable TV service entrance is Blonden Tongue Laboratories. No CCTV system. TV satellite and antenna not working.	$ -
5.5.3	Network cabling (if available, should be category 5 or better).	4		Existing data cable is Category 5.	$ -
5.5.4	Network cabling installation (i.e., in conduit, secured to walls or tables).	4		Network cabling is FT4 rated, mounted in conduit and loose in ceiling space.	$ -
5.5.5	Wiring and telecommunication closets (i.e., size, security, ventilation/cooling, capacity for growth).	4		Computer data rack is located in Learning Centre 149/Server 238A and Library 148 (Main Server). Computer Data Hub located in Communication Room 235 and Room 238 Closet. A centralized data rack in a separate room is recommended for security, to accommodate future growth and maintain ease of cable management.	$ -
5.5.6	Provision for dedicated circuits for network equipment (i.e., hubs, switches, computers).	4		Existing circuits for network equipment adequate.	$ -
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).	4		Existing intrusion alarm in good condition. Security control located Room 235, Magnum Alert NAPCO/Main Panel Keypad in Storage 137.	$ -
5.6.3	Master clock system (if applicable).	4		No master clock system. Clocks are 120 Volt or battery operated. Wall mounted clocks in the school are manufactured by Edwards and Westclox.	$ -
Other					
5.7	**Elevators/Disabled Lifts (If applicable)**			**No Existing Elevators / Disabled Lifts**	
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	4			$ 355,000.00

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.		**None**	
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. 1988			$ -
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	30	75	2700	52	80	4160	-1460	
7.2	Science Rooms/Labs	14	100	1260	10	120	1200	60	
7.3	Ancillary Areas (i.e., Art, Computer Labs, Drama, Music,)	5		1100	2 9	130 90	1070	30	
7.4	Gymnasium (incl. gym storage)	3	823 777 500.1	2100		-	1775	325	Large weight room in Vocational Wing and two conventional gymnasiums.
7.5	Library/Resource Areas		800 300	1100		-	900	200	
7.6	Administration/Staff, Physical Education, Storage Areas			1550			1774	-224	
7.7	CTS Areas								
	7.7.1 Business Education			0	7	115	805	-805	Unidentified locations - included in 7.1
	7.7.2 Home Economics			296.70			0	296.7	The existing area includes Fashion and Food Studies.
	7.7.3 Industrial Arts			1856.20			0	1856.2	This existing area includes Automotives, Woodworking and Greenhouse.
	7.7.4 Other CTS Programs			1386.10			0	1386.1	This existing area includes Communications Lab, Beauty Culture and welding.
7.8	Other Non-Instructional Areas (i.e., circulation, wall area, crush space, wc area)			10890			4387	6503	This existing area includes Cafeteria, Lunch Room, Kitchen and Food Prep areas, Theatre, Playschool circulation including ramp and stairwells.
	Overall Space Adequacy Assessment			24239.00			16071*	8168	* The School Building Area Guideline for Senior High School with a capacity of 2000 students does not provide any directions regarding Home Economics, Industrial Arts or CTS programs.

Evaluation Component/ Sub-Component	Additional Notes and Comments
2.3.5.1	Second Floor - Perimeter Corridor Walls: The existing walls are composed of exterior stucco, metal studs and gypsum board with very little insulation reported. The window assemblies and wall / window junction leak air. Condensation and frosting occur yearly in the winter, causing the painted walls to flake. Most notable are in locations where there is no heat source. Floor soffit construction unknown. These perimeter walls are not performing and should be retrofitted. Exterior stucco / insulation cladding or a complete wall replacement should be considered. **See Figures #8 and 9.** F.I. $ 5000.00
2.3.1.1	Small Gymnasium 310 - Northwest Wall: Signs of paint spalling on exterior of Masonry block walls due to past moisture problems. Wall must be dried prior to further painting. **See Figure #10**
3.2.2.1.22	Walls: Walls marked and dirty in all secondary entries to building. Needs repainting (rating 3) **See 3.2.2**
3.2.1.1.22	Miscellaneous flooring worn in all secondary entries to building, new flooring required. **See 3.2.1**
3.2.1.1.13.1	Automotives 408: Floor needs painting and sealing. **See Section 3, Other**
3.2.1.1.15.1	Drama Stage 103: Curtain slot a trip hazard. New guider required. **See 3.2.1**
3.2.1.1.15.2	Drama Stage 103: Floor sound control on stage poor. Needs some carpet flooring behind stage. **See 3.2.1**
3.2.1.17.1	Art Room 407: Painted concrete floor needs sealer. **See Section 3, Other**

Evaluation Component/ Sub-Component	Additional Notes and Comments
3.2.1.21.1	Fashion Area 404: The existing painted concrete floor needs sealer. Presently, when cloth brushed the floor, the paint pigment from the floor dusts off onto the cloth, dirtying and staining the material. **See Section 3, Other**
3.2.1.21.2	Fashion Area 404: The existing painted concrete floor is very noisy where the lecture area is located. An area carpet or carpet tiles could be used to reduce "furniture noise".
5.6 Other	Maintenance staff stated that M.E. Lazerte High School is a designated Community Emergency Centre. The Consultant Team noted that the emergency generator (which is activated in case of a power failure) is designated only for the capacity of the emergency lighting and could not accomodate the building lighting or heating system. A larger generator would be required. F.I. $ 5000.00
7.7.4.1	Building Construction 418: Staff indicated the need for an exterior storage building, environmentally controlled (heated) for storage and curing of bulk wood products to be used by the students in their classes. F.I. $1000.00
3.3.8.3	Communications / Design Studies: Author observed there are such training areas as black and white photo development , silk screen and paper art work. Currently, the lab has eight aging computers. The new communication technology is rapidly changing. Planning, with both technology and financial, should be undertaken for future continuous upgrades of the new electronics system to maintain this facility in current and relevant condition. F.I. $5000.00
3.2.3.22.1	Ceilings in all secondary entries to building are marked and dirty and need refinishing. **See 3.2.3**
3.2.3.18.1	Cafeteria 151: Exposed concrete ceiling structure has a loose sprayed on finish (probably for appearance and sound control). Loose fibres falling onto people and food below. Not a clean situation. Needs to be removed and ceiling refinished with paint and acoustic tile. **See 3.3.7**
3.2.3.22.2	Drama 100: Stage lighting is poor and difficult to access (self standing and very tall ladders). Safety is a concern. **See 3.3.7**

Evaluation Component/ Sub-Component	Additional Notes and Comments
3.2.3.17.1	Art Room 407: The ceiling of the art room is exposed concrete, so are the walls and floors. Therefore, there is no sound absorbing surfaces in the room producing a very noisy teaching environment. The teachers complain they have a hard time being heard and understood by the students. This is definately hindering the learning process. A basic acoustic ceiling, some acoustic wall panels and possibly baffels would greatly improve the situation. **See Section 3, Other**
3.2.3.21.1	Fashion Area 404: The ceiling of the art room is exposed concrete, so are the walls and floors. Therefore, there is no sound absorbing surfaces in the room producing a very noisy teaching environment. The teachers complain they have a hard time being heard and understood by the students. This is definately hindering the learning process. A basic acoustic ceiling, some acoustic wall panels and possibly baffels would greatly improve the situation. **See Section 3, Other**
1.1.6.1	Along the north elevation of the two storey portion of the building, the existing topograph / slopes towards the building producing ponding. Sidewalk movement was observed and facilties management personnel mentioned past floor slab movement occured in these areas. The solution is to reconstruct the grade topograph to induce improved water flow towards catch basins, both existing and new. Two new catch basins are required; one at the northeast corner and one at the northwest corners of the two storey building. Improved site drainage is required in the west side of the small gymnasium and at the north lobby entrance. **Refer to Section 4.1.1for catch basin information.**
3.3.7.1	Cafeteria Kitchen 101 and Food Preparation 149 are in critical condition. The Capital Health Inspection reports have noted over a dozen health violations which can be categorized as operational, maintenance and design failures. See the attached list of reports / supplementary information kitchen reports. Operational defects are beyond the scope of this report, but many of the health violations are directly attributed to the design and condition of the physical environment and equipment. The author observed and kitchen and maintenance staff noted the following: 1. The walls and ceiling are in critical condition and need cleaning and painting. 2. The floor is in need of cleaning and maintenance. 3. Laundry machine in food preparation area - against regulation. 4. Booster boiler in kitchen needs replacing. 5. Refridgerant in coolers needs replacing - environmentally hostile. 6. Fire suppression system obsolete - needs replacing. 7. Grease trap not working and corroded - health hazard. 8. Dish washer system obsolete - illegal by todays regulations, and inefficient. 9. Kitchen exhaust hood - incorrect design. 10. Cleaning of facility poor due to design of equipment, lack of cleaning staff, and lack of training of the same. 11. The poor design of the kitchen and food preparation area produces the following: .1 facility difficult to clean .2 a facility with poor sight lines, producing poor staff supervision for safety, instruction and coordination of activities .3 lack of a lecture room, thus hindering instruction .4 poor functional relations between activity areas causing work inefficiency. .5 generally, the millwork is obsolete .6 some of the major equipment (dishwasher, cooler, sinks and fire suppression) is obsolete and worn. A complete remodeling of the kitchen and food preparation area is critically needed in the interest of health, safety and functionality of this facility. F.I. $10,000.00 **See 3.3.7**

Evaluation Component/ Sub-Component	Additional Notes and Comments