School Name:	Grandin School	School Code:	8202
Location:	9844 110 Street	Facility Code:	2006
	Edmonton, Alberta		
Region:	Central	Superintendent:	Dr. Dale W. Ripley
Jurisdiction:	Edmonton RCSSD No. 40	Contact Person:	Mr. Garnet McKee
		Telephone:	1-780-453-4500 (Garnet)
Grades:	K to 6	School Capacity:	575

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	1914	Two	1835.5	Wood structure and load-bearing masonry on cast-in-place concrete foundations. Exterior walls are solid brick with painted plaster interior finish. Interior walls are a either wood frame or clay tile finished with painted plaster in either case. This section has a built-up asphalt and gravel roof with no insulation.	Hot water radiant heating system, with new boiler. There is no humidification in this section and there is no air conditioning.	Air system should be upgraded.
Additions/ Expansions	1954	Two	1089.3	Wood structure and load-bearing masonry on cast-in-place concrete foundations. Exterior walls are concrete block, with painted interior surfaces and brick veneer exterior finish. Interior walls appear to be wood frame with painted plaster finish. This section has a built-up asphalt and gravel roof.	Hot water radiant heating system. There is no humidification in this section and there is no air conditioning.	

Evaluator's Name:	Merv Weiss and James Dykes
& Company:	**Kasian Kennedy**

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
	1962	Two	1734.2	Post and beam wood structure with load bearing masonry on cast-in-place concrete foundations. Exterior walls are concrete block with brick veneer exterior finish. Interior surfaces of exterior walls within stairwells and vestibules are spectra glaze block. Interior surfaces of exterior walls within classrooms are painted. Interior walls are primarily painted concrete block but some are wood frame finished with painted gypsum board.	Forced air handling system. There is a humidification system in this section, but it is not working and there is no air conditioning.	
Total Area - Sq.M			**4,659.0**			
Upgrading/ Modernization (identify whether minor or major)	1999			Security safe installed in the 1914 section		Minor Upgrading
	1999				A new boiler has been installed in the 1914 section.	Minor Upgrading
Portable Structure (identify whether attached/permanent or free-standing/ relocatable)				N/A		
List of Reports/ Supplementary Information						
	Leased out area = 292.10 Sq.M.					
	Gross Capacity = 575 - 165 for leased and other exemptions = 410 net capacity					
	Current enrolment = 174 or 42.44% of net capacity					

School Facility Evaluation Project

Part II - Physical Condition

	Evaluation Components	Summary Assessment	Estimated Cost
1	**Site Conditions**	The site is in good condition throughout with no notable deficiencies.	$10,100
2	**Building Exterior**	Some re-pointing of the brick veneer is required, but otherwise the exterior is in very good condition.	$26,300
3	**Building Interior**	Flooring is badly worn at a number of locations but, particularly throughout the 1954 section. Many of the ceilings in the 1962 section have been treated with a sprayed mineral fiber. This material is badly discolored as it collects dust and is a concern insofar as it contributes to the poor air quality in the building.	$94,400
4	**Mechanical Systems**	With the exception of the ventilation system and lack of humidification in the building, the mechanical systems are in reasonably good condition	$67,500
5	**Electrical Systems**	It is recommended that the existing service be upgraded to 120/208V, 3 phase, 4 wire; estimated 800 amps. To improve energy efficiency, upgrading is recommended to install T8 lamps, electronic ballast, LED exit lights, time clock on car plug-ins and provide HID lighting in the gym, "Metal halide" source.	$154,823
6	**Portable Buildings**	N/A	
7	**Space Adequacy:**	in Square meters	
	7.1 Classrooms	(+) 285 (current enrolment is only 42.44% of net capacity)	
	7.2 Science Rooms/Labs	(-) 86	
	7.3 Ancillary Areas	(-) 400	
	7.4 Gymnasium	(-) 44.6	
	7.5 Library/Resource Areas	(+) 16	
	7.6 Administration/Staff Areas	(+) 285	
	7.7 CTS Areas	N/A	
	7.8 Other Non-Instructional Areas (incl. gross-up)	(+) 171.8	
	Overall Space Adequacy Assessment	**(+) 279.0 (Leased out area = 292.10 Sq.M.)**	
	Overall School Conditions & Estim. Costs	For buildings of this age, these facilities have been well maintained and are in reasonably good condition. This facility has no air conditioning or humidification and the cost to provide these systems is not included in the estimate.	**$353,123**

Condition Ratings: 1-Emergency/Critical 2-Poor/Unsatisfactory 3-Marginal 4-Good 5-Excellent F.I.-Further investigation required

Section 1	Site Conditions	Rating	Comments/Concerns	Estimated Cost
1.1	**General Site Conditions**			**$0**
1.1.1	Overall site size.	4	The playground area seems quite small for a school of this size.	
1.1.2	Outdoor athletic areas.	4	There is a grassed area with no fixed goals or back stops. There is an asphalt area with two basketball hoops / backboards. All are in good condition.	
1.1.3	Outdoor playground areas, including condition of equipment and base.	4	There is a playground with swings, slides and a climbing apparatus, all in an area with a sand base. All are in good condition.	
1.1.4	Site landscaping.	4	There are no notable problems with site landscaping.	
1.1.5	Site accessories (i.e., perimeter and other fencing, guard rails, bike stands, flag poles).	4	Site fencing and accessories are in good condition with no notable deficiencies.	
1.1.6	Surface drainage conditions (i.e., drains away from building, signs of ponding).	4	The site is well planned with respect to surface drainage. No evidence of ponding or icing were evident at the time of the inspection.	
1.1.7	Evidence of sub-soil problems.	4	None to report	
1.1.8	Safety and security concerns due to site conditions.	4	None to report.	
Other				

Section 1	Site Conditions	Rating	Comments/Concerns	Estimated Cost
1.2	**Access/Drop-Off Areas/Roadways/Bus Lanes**			**$0**
1.2.1	Vehicular and pedestrian access points (i.e., size, number, visibility, safety).	4	There are no on-site vehicle pull-off zones with the exception of the on-site staff parking area.	
1.2.2	Surfacing of on-site road network (note whether asphalt or gravel).	4	The on-site parking area has an asphalt surface. It has no evident drainage concerns.	
1.2.3	Bus lanes/drop-off areas (note whether on-site or off-site).	4	There are no on-site bus lanes and drop-off areas. 99th Avenue is used for this purpose.	
1.2.4	Fire vehicle access.	4	The north and east sides of the school structure are bordered by city streets. Access to the east side of the building can be attained via the staff parking lot (from 111th Street). The south side of the building faces a city park from which access could be achieved in an emergency.	
1.2.5	Signage.	4	Building identification signage exists at the north and east entrances to the building. Access is no longer permitted via the east doors of the original 1914 section of the building. Identification signage at this location could not easily be removed.	
Other				

Section 1	Site Conditions	Rating	Comments/Concerns	Estimated Cost
1.3	**Parking Lots and Sidewalks**			**$10,100**
1.3.1	Number of parking spaces for staff, students and visitors (including stalls for disabled persons).	4	There are 31 parking stalls on site including 6 which are designated for visitors. All but the 6 visitors stalls are energized. There are no designated parking stalls for disabled persons.	
1.3.2	Layout and safety of parking lots.	4	No problems to report.	
1.3.3	Surfacing and drainage of parking lots (note whether asphalt or gravel).	4	The entire staff and visitors parking lot has an asphalt surface. There is no evidence of poor drainage.	
1.3.4	Layout and safety of sidewalks.	3	There are very few sidewalks on site. Those that exist are perpendicular to the city sidewalks bordering the site and connect directly to the school entrance vestibules. All such sidewalks seen to drain well. There is a stoop at the west exit from the 1954 section which should be replaced. Photo No. 1 shows its condition.	$100
1.3.5	Surfacing and drainage of sidewalks (note type of material).	4	Sidewalks are all cast-in-place concrete. All sidewalks have positive drainage (cross-fall) and there was no evidence of icing.	
1.3.6	Curb cuts and ramps for barrier free access.	2	There are curb cuts in the city sidewalks surrounding the site. Wheelchair access to the 1954 section of the building (which houses the gymnasium) is available. Wheelchair access is not available to either the 1914 section or the 1962 section of the building.	$10,000
Other				
	Overall Site Conditions & Estimated Costs			**$10,100**

Section 2	Building Exterior	Rating	Comments/Concerns		Estimated Cost
2.1	**Overall Structure**		**Building Section**	**Description/Condition**	**$0**
2.1.1	Floor structure and beams (i.e., signs of bending, cracking, heaving, settlement, voids, rust, stains).	4	1914	The 1914 section is a wood structure on load-bearing masonry walls, set on cast-in-place concrete foundations. Exterior walls are solid brick with painted plaster interior finish. Interior walls are a either wood frame or clay tile finished with painted plaster in either case. This section has a built-up asphalt and gravel roof with no insulation.	
			1954	The 1954 section is a combination wood / steel frame structure on cast-in-place concrete foundations. There is little or no evidence of settlement.	
			1962	The 1962 section is a combination wood / steel structure with load-bearing concrete block walls on cast-in-place concrete structure. There is some evidence of settlement at the threshold of the north doors to the gymnasium. Photo No. 1 shows this condition.	
2.1.2	Wall structure and columns (i.e., signs of bending, cracking, settlement, voids, rust, stains).	4	1914	Exterior walls are solid brick. Some bricks are badly chipped, but there is no evidence of major cracks. Some parts have been re-pointed, but in general the exterior walls are in good condition for a building of this age.	
			1954	There are some occurrences of cracking in the Library (1954 Section) primarily at the ceiling / wall juncture. Photo No. 2 shows one condition of this nature.	
			1962	No evidence of structural problems	
2.1.3	Roof structure (i.e., signs of bending, cracking, voids, rust, stains).	4	All	No evidence of structural problems with roof assemblies.	
Other					

Section 2	Building Exterior	Rating	Comments/Concerns		Estimated 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.***		**Building Section or Roof Section**	**Description/Condition/Age**	**$3,800**
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).	4	1914 & 1954	The 1914 and 1954 sections of the building were re-roofed in 1982. At some point between then and present two repairs were made at the perimeter of the 1914 section. These repairs were made with an SBS / MBM roof system, even though this roof is a built-up asphalt and gravel roof assembly. These roof areas are in very good condition.	
			1962	The 1962 section was re-roofed in 1991. The new roof is an SBS / MBM system and is in very good condition.	
2.2.2	Roof accessories (i.e., ladders, stairs, hatches, masts, exhaust hoods, chimneys, gutters, downspouts, splashpads).	3		Roof accessories are in good condition throughout. Roof access is via a two storey exterior metal ladder on the west elevation of the building. An interior access would be much more convenient.	$800
2.2.3	Control of ice and snow falling from roof.	4		No areas of concern.	
2.2.4	Skylights (i.e., signs of distress, leaks, ice build-up, condensation, deteriorated materials/seals).	2	1914	The skylight near the center of the 1914 section of the building is in very poor condition. Most panes of glass are broken and are being held in place with duct tape. Photo No. 2 shows this skylight from the interior. Photo No. 3 shows this skylight from the exterior.	$3,000
Other					

Section 2	Building Exterior	Rating	Comments/Concerns		Estimated Cost
2.3	**Exterior Walls/Building Envelope**		**Building Section**	**Description/Condition**	**$0**
2.3.1	Exterior wall finishes (i.e., signs of deterioration, cracks, brick spalling, efflorescence, water stains).	4		Some re-pointing of brick and stone masonry to the 1914 section of the building is required.	
2.3.2	Fascias, soffits, parapets (i.e., signs of looseness, stains, rust, peeling paint).	4		No problems to report.	
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		No problems to report.	
2.3.4	Interface of roof drainage and ground drainage systems.	4		No problems to report.	
2.3.5	Inside faces of exterior walls (i.e., signs of cracks, water stains, dust spots).	4		No problems to report.	
Other					

Section 2	Building Exterior	Rating	Comments/Concerns		Estimated Cost
2.4	**Exterior Doors and Windows**		**Building Section**	**Description/Condition**	**$22,500**
2.4.1	Doors (i.e., signs of deterioration, rusting metal, glass cracks, peeling paint, damaged seals, sealed unit failure).	4		Routine general maintenance (painting) of exterior wood doors is required. All are in good condition.	
2.4.2	Door accessories (i.e., latches, hardware, screens, locks, alarms, holders, closers, security devices).	4		No problems to report.	
2.4.3	Exit door hardware (i.e., safety and/or code concerns).	4		No problems to report.	
2.4.4	Windows (i.e., signs of deterioration, rusting metal, glass cracks, peeling paint, damaged seals, sealed unit failure).	2	1914 & 1962	Most windows in the building are double run sliding windows. Most of these in the 1962 section of the building do not close and latch properly and as a result are left slightly open all the time. There is a similar problem at the west facing windows at the south end of the 1914 section of the building.	$20,000
2.4.5	Window accessories (i.e., latches, hardware, screens, locks, alarms, holders, closers, security devices).	2		The latching devices and interlock of all windows in the building should be examined. Virtually all of the windows from the west facing second floor areas of the building have a problem. Sliding sections bind at the interlock preventing the windows from being closed completely. Latching devices are loose and non-functional or are mission altogether.	$2,500
2.4.6	Building envelope (i.e., signs of heavy condensation on doors or windows).	4		No problems to report.	
Other					
	Overall Building Exterior Condition & Estimated Costs				**$26,300**

Section 3	Building Interior - Overall Conditions	Rating	Comments/Concerns		Estimated Cost
3.1	**Interior Structure**		**Building Section**	**Description/Condition**	**$8,000**
3.1.1	Interior walls and partitions (i.e., signs of cracks, spalling, paint peeling).	4		There are some isolated conditions of cracked plaster in the 1914 section of the building. These are not yet a cause of concern and can be dealt with as part of the routine maintenance program.	
3.1.2	Floors (i.e., signs of cracks, heaving, settlement).	3		There are some locations where the basement (first floor) grade supported slab has heaved and caused some damage to the finishes in the area. This is mainly evidenced in the washrooms as is shown in Photo No. 4.	$8,000
Other					

Section 3	Building Interior - Overall Conditions	Rating	Comments/Concerns		Estimated Cost
3.2	**Materials and Finishes**		**Building Section**	**Description/Condition**	**$76,400**
3.2.1	Floor materials and finishes.	2	1954	Sheet flooring throughout the 1954 section of the building should be replaced. Virtually all seams are separating and lifting. Photo Numbers 5 and 6 show conditions which are typical throughout this section of the building.	$17,500
			1954	The gymnasium floor is a wood floor on sleepers - a cushion floor of some type. The spaces between the sleepers must be vented in order for floors of this nature to perform properly. Such venting is not present in this gymnasium.	$2,500
3.2.2	Wall materials and finishes.	3		There are isolated areas where the plaster wall finish is cracking and where the ceramic wall tile (in washrooms) is broken. The cracking plaster can more or less be dealt with as part of the routine maintenance program. The broken ceramic tiles should be replaced as they will most likely come free and fall off the walls as moisture invades behind them.	$20,000
3.2.3	Ceiling materials and finishes.	2	1962	The sprayed fibre ceilings throughout the 1962 section of the building are a cause of concern. These ceilings collect dust, which may contribute to poor air quality in the building. These ceilings also discolor readily and appear to be quite unsanitary. Suspended ceilings should be installed below these ceilings. Photo No. 8 shows the typical condition of this type of ceiling.	$24,200
			1954 & 1962	Many suspended exposed t-bar ceilings are in poor condition in both in the 1954 section and the 1962 sections of the building. Some of these are to the point where the light fixtures may fall out. Both the grid system and the acoustic tiles should be replaced in some areas. The acoustic tiles should be replaced throughout. Photo No. 9 shows an example where both the grid and the tile require attention.	$11,200
3.2.4	Interior doors and hardware.	4		No problems to report.	
3.2.5	Millwork	4		No problems to report.	
3.2.6	Fixed/wall mounted equipment (i.e., writing boards, tackboards, display boards, signs).	3	1962	The chalk rails to boards throughout the 1962 section of the building are wooden and are not wide enough to be practical. Some are broken. These should be replaced. Photo No. 7 shows an example of this condition.	$1,000
3.2.7	Any other fixed/mounted specialty items (i.e., CTS equipment, gymnasium equipment).	4		No problems to report.	
3.2.8	Washroom materials and finishes.	4		Washroom finishes are appropriate and are only in need of attention where slab movement has broken ceramic tiles (basement / first floor). Photo No. 4 shows and example of this.	
Other					

Section 3	Building Interior - Overall Conditions	Rating	Comments/Concerns		Estimated 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.***		**Building Section**	**Description/Condition**	**$10,000**
3.3.1	Building construction type - combustible or non-combustible, sprinklered or non-sprinklered.	4	1914	The 1914 section of the building is wood frame and load bearing masonry on cast-in-place concrete foundations. This section is not sprinklered.	
			1954	The 1954 section of the building is wood frame and load bearing masonry on cast-in-place concrete foundations. This section is not sprinklered.	
			1962	The 1962 section of the building is wood frame and load bearing masonry on cast-in-place concrete foundations. This section is not sprinklered.	
3.3.2	Fire separations (i.e., between buildings, wings, zones if non-sprinklered).	4		Each section of the building is isolated from adjacent sections of the building by a glazed door / sidelite / transom assembly. These assemblies bear no fire resistance rating but doors have self closing devices on them and are sidelites are glazed with wired glass.	
3.3.3	Fire resistance rating of materials (i.e., corridor walls and doors).	4		Classroom and Ancillary room doors are wood and do not bear a fire resistance rating and are not fitted with self closing devices. Doors to Custodial Rooms are fitted with self closing devices but do not bear fire resistance labels. Doors to Mechanical rooms are fitted with self closing devices and in most cases bear fire resistance labels.	
3.3.4	Exiting distances and access to exits.	4		Conforms to code.	
3.3.5	Barrier-free access.	2		Barrier free access is available to the 1954 section of the building only. The other sections of the building are of a split entry design where it is necessary to go down a flight of stairs to the basement (or first floor) and up a flight of stairs to the second floor. Ramps should be installed to provide barrier free access to these sections.	$10,000
3.3.6	Availability of hazardous materials audit (i.e., evidence of safety concerns with respect to asbestos, PCB's, chemicals).	4		There were no hazardous materials audits available at the time of the inspection. It is not known whether the sprayed fibre applied to ceilings in the 1962 section contains asbestos or is a product used to encapsulate asbestos contained in the sub-strate.	

Section 3	Building Interior - Overall Conditions	Rating	Comments/Concerns		Estimated Cost
3.3.7	Other health and safety concerns (i.e., evidence of excessive noise conditions, air quality problems)	N/A			
Other					
	Overall Building Interior Condition & Estimated Costs				**$94,400**

Section 4	Mechanical Systems	Rating	Comments/Concerns		Estimated Cost
4.1	**Mechanical Site Services**		**Building Section**	**Description/Condition**	**$0**
4.1.1	Site drainage systems (i.e., surface and underground systems, catch basins).	4	1914 1954 1962	Parking lot drainage through catch basins.	
4.1.2	Exterior plumbing systems (i.e., irrigation systems, hose bibs).	4	1914 1954 1962	Complete system of exterior hose bibbs.	
4.1.3	Outside storage tanks.	N/A	All		
Other		N/A	All		
4.2	**Fire Suppression Systems**		**Building Section**	**Description/Condition**	**$0**
4.2.1	Fire hydrants and siamese connections.	4	Site	City fire hydrant located across from school.	
4.2.2	Fire suppression systems (i.e., pumps, sprinklers, piping, reservoirs, hoses, stand pipes, CO2 systems).	4	1914 1954 1962	Standpipe hose system throughout all additions	
4.2.3	Hand extinguishers, blankets and showers (i.e., in CTS areas).	4	1914 1954 1962	Adequate extinguishers are throughout all additions.	
4.2.4	Other special situations (e.g., flammable storage areas, science labs, CTS areas).	N/A			
Other					

Section 4	Mechanical Systems	Rating	Comments/Concerns		Estimated Cost
4.3	**Water Supply and Plumbing Systems**		**Building Section**	**Description/Condition**	**$0**
4.3.1	Domestic water supply (i.e., pressure, volume, quality - note whether municipal or well supply).	4	1914	N/A	
			1954	4" water service (2-1/2 double check for standpipe)	
			1962	N/A	
4.3.2	Water treatment system(s).	N/A	All	N/A	
4.3.3	Pumps and valves (including backflow prevention valves).	4	1914	Grundfos #UP-26-96 (domestic recirc)	
			1914	4 heating water pumps in good condition	
			1954	Grundfos #UP-96-BP (domestic recirc)/1954 - 4 heating pumps/4 zones	
			1962	N/A	
4.3.4	Piping and fittings.	4	All	Insulation/fittings appear to be okay	
4.3.5	Plumbing fixtures (i.e., toilets, urinals, sinks)	4	All	Old but working okay	
4.3.6	Domestic hot water system (i.e., heater, storage tanks, failure alarms, pressure, volume, recirculation).	5	1914	Jetglas #M85-168-JSB-3N, water heater in good shape	
			1954	State #SBT075-155 NE7F, in good shape, 162,500 input	
			1962	N/A	
4.3.7	Sanitary and storm sewers, including sumps and pits (note whether sewage system is municipal or septic).	4	1914	Municipal sanitary storm system	
			1954	Municipal sanitary storm system	
			1962	N/A (through 1904 system)	
Other		4	1914	Gas service (boiler room) 3" diameter in - 4" diameter out.	

Section 4	Mechanical Systems	Rating	Comments/Concerns		Estimated Cost
4.4	**Heating Systems**		**Building Section**	**Description/Condition**	**$0**
4.4.1	Heating capacity and reliability (including backup capacity).	4	1914	Rudd 296,000 input (good shape); Raytherm 1.2 minimum in (good shape)	
			1914	RBI boiler,1.08 m input (brand new)	
			1954	Nation vs radiator 2.75 input, 2.2 out (in good shape)	
			1962	N/A	
4.4.2	Heating controls (including use of current energy management technology.	4	1914	Okay	
			1954	Individual room control	
			1962	Individual room control	
4.4.3	Fresh air for combustion and condition of the combustion chimney.	4	1914	Appears to be adequate (O/A); chimney in good shape	
			1954	C/A appears to be adequate; chimney in good shape	
			1962	N/A	
4.4.4	Treatment of water used in heating systems.	4	1914	Done on a regular basis	
			1954	Done on a regular basis	
			1962	N/A	
4.4.5	Low water cutoff/pressure relief valves and failure alarms (i.e., hot water heating)	4	1914	Okay	
			1954	Okay	
			1962	N/A	
4.4.6	Heating air filtration systems and filters.	4	1914	N/A	
			1954	Filters changed regularly	
			1962	Filters changed regularly (heating air system)	
4.4.7	Heating humidification systems and components.	1	1914	N/A	
			1954	No humidification	Refer 4.5.9
			1962	Humidification installed, but not working.	Refer 4.5.9

Section 4	Mechanical Systems	Rating	Comments/Concerns		Estimated Cost
4.4	**Heating Systems (cont'd)**		**Building Section**	**Description/Condition**	**$0**
4.4.8	Heating distribution systems (i.e., piping, ductwork) and associated components (i.e., diffusers, radiators).	4	1914	Heating radiation	
			1954	Heating radiation	
			1962	All air heating.	
4.4.9	Heating piping, valve and/or duct insulation.	4	All	In good shape, no leaking.	
4.4.10	Heat exchangers.	N/A	All		
4.4.11	Heating mixing boxes, dampers and linkages.	4	1914	N/A	
			1954	Seems adequate	
			1962	Seems adequate	
4.4.12	Heating distribution/circulation in larger spaces (i.e., user comfort, temperature of outside wall surfaces).	4	All	No problems with cold/hot spots	
4.4.13	Zone/unit heaters and controls.	4	1914	Okay	
			1954	Okay	
			1962	Heating appears to be working well	
Other					

Section 4	Mechanical Systems	Rating	Comments/Concerns		Estimated Cost
4.5	**Ventilation Systems**		**Building Section**	**Description/Condition**	**$30,000**
4.5.1	Air handling units capacity and condition.	3	1914	Refer to other listed below	
			1954	Air system Dunham Bush, Model No. HU218VF, Serial #43814. System should be upgraded.	$30,000
			1962	Multizone unit, Canadian Sirocco (no nameplate)	
4.5.2	Outside air for the occupant load (if possible, reference CFM/occupant).	1	1914	100% outside air (acceptable)	
			1954	Minimum fresh air	
			1962	Minimum fresh air	Refer to 4.5.1
4.5.3	Air distribution system (if possible, reference number of air changes/hour).	4	1914	Minimum distribution ductwork	
			1954	S/A duct distribution to all rooms, seems adequate	
			1962	S/A to gymnasium (underslab) grilles in poor condition (gym). S/A to all classrooms	
4.5.4	Exhaust systems capacity and condition.	1	1914	Poor washroom exhaust, very little air movement	Refer to 4.5.1
			1954	Appears to be adequate.	
			1962	N/A	
4.5.5	Separation of out flow from air intakes.	4	1914	Roof area, adequate separation	
			1954	Adequate separation	
			1962	Adequate separation	
4.5.6	Special/dedicated ventilation and/or exhaust systems (i.e., kitchen, labs, CTS areas).	N/A			
Other		4	1914	MUA unit (south Engineered Air HE-18 (HMCO), 2000 cfm at 75 deg.F; 25 esp. MUA unit (north) Engineered Air HE-18 (HMCO), 2000 cfm at 75 deg.F; 25 esp Exhaust fan south (nameplate not readable), 2000 cfm Exhaust fan north (nameplate not readable), 2000 cfm	

Section 4	Mechanical Systems	Rating	Comments/Concerns		Estimated Cost
4.5	**Ventilation Systems (cont'd)**		**Building Section**	**Description/Condition**	**$37,500**
	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	1914	DDC	
			1954	DDC	
			1962	Devilbis controls compressor C-825 (whole building)	
4.5.8	Air filtration systems and filters.	4	1914	Filters clean (changed regularly)	
			1954	Filters clean (changed regularly)	
			1962	Filters clean (changed regularly)	
4.5.9	Humidification system and components.	1	1914	N/A	
			1954	No humidification	$30,000
			1962	Humidifier not working	
4.5.10	Heat exchangers.	N/A	All		
4.5.11	Ventilation distribution system and components (i.e., ductwork, diffusers,	3	1914	Minimum distribution ductwork (acceptable)	
			1954	Adequate distribution system.	
			1962	Some poor fitting ductwork/grilles are missing.	$7,500
Other					

Section 4	Mechanical Systems	Rating	Comments/Concerns		Estimated Cost
4.6	**Cooling Systems**		**Building Section**	**Description/Condition**	**$0**
4.6.1	Cooling system capacity and condition (i.e., chillers, cooling towers, condensers).	N/A			
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).	N/A			
4.6.4	Special/dedicated cooling systems (i.e., labs, CTS areas).	N/A			
Other					
4.7	**Building Control Systems**		**Building Section**	**Description/Condition**	**$0**
4.7.1	Building wide/system wide control systems and/or energy management systems.	4	1914 1954 1962	DDC Andover system #AC256M Plus	
	Overall Mechanical Systems Condition & Estimated Costs				**$67,500**

Section 5	Electrical Systems	Rating	Comments/Concerns		Estimated Cost
5.1	**Site Services**		**Building Section**	**Description/Condition**	**$30,000**
5.1.1	Primary service capacity and reliability (i.e., access, location, components, installation, bus sizes - note whether overhead or underground).	3		Underground secondary service located to the north. 600 amp, 120/240v, 1 phase, 3 wire as manufactured by Canadian Westinghouse. 1-2P space; located in vestibule closet at west entry, 1954 portion. Main breaker trip set at 500 amps. Refer to comments	$30,000
5.1.2	Site and building exterior lighting (i.e., safety concerns).	4		All mandoors and parking lot adequate.	
5.1.3	Vehicle plug-ins (i.e., number, capacity, condition).	4		10 receptacles; panel in parking lot complete with meter.	
Other					
5.2	**Life Safety Systems**		**Building Section**	**Description/Condition**	**$0**
5.2.1	Fire and smoke alarm systems (i.e., safety concerns, up-to-date technology, regularly tested).	4		Edwards 6500/12 zones complete with 3 spare hardwired system verified August 27, 1999. Location in stairwell, main floor 1914 portion. Audible signals only no visuals. Remote annunciator System is 17 years old.	
5.2.2	Emergency lighting systems (i.e., safety concerns, condition).	4		Sufficient to meet Code.	
5.2.3	Exit lighting and signage (i.e., safety concerns, condition).	4		Exit lights tied to DC power source; sufficient.	
Other					

Section 5	Electrical Systems	Rating	Comments/Concerns		Estimated Cost
5.3	**Power Supply and Distribution**		**Building Section**	**Description/Condition**	**$7,710**
5.3.1	Power service surge protection.	3		Not present Recommend TVSS	$4,000
5.3.2	Panels and wireways capacity and condition.	4		Panels are generally full. Majority of panels are dated as manufactured by Federal	
5.3.3	Emergency generator capacity and condition and/or UPS (if applicable).	N/A			
5.3.4	General wiring devices and methods.	3		Surface conduit for fire alarm upgrade and emergency lighting battery pack. Coax cable for TV run surface throughout school.	
			1962	Breakers tripping at hallways; circuits main floor.	
			1962	Lack of clean plugs in corridor of the 1962 portion.	$210
5.3.5	Motor controls.	3		Local starters some dated.	$3,500
Other					

Section 5	**Electrical Systems**	**Rating**	**Comments/Concerns**		**Estimated Cost**
5.4	**Lighting Systems**		**Building Section**	**Description/Condition**	**$112,113**
5.4.1	Interior lighting systems and components (i.e., illumination levels, conditions, controls).	3		Classrooms, surface mounted, 2 lamp fixture c/w wrap around lends, T12 lamps, line voltage control, two levels, some lens are cracked and yellowed. Lighting levels are adequate as per Alberta Infrastructure Guidelines except in the following areas: gym - 250 lux; music room 440 - lux; all corridor 150-200 lux - 1914/1954/1962.	Ref 5.4.3
		F1		Branch circuit wiring for lighting to be checked for 90 deg. XL wiring to meet code.	
5.4.2	Replacement of ballasts (i.e., health and safety concerns).	F1	1914 & 1954	1914 & 1954 portions of the school should be checked for PCB's in light fixtures.	
5.4.3	Implementation of energy efficiency measures and recommendations.	3	All	No energy upgrade; recommend T8 lamps, electronic ballast, LED exit lights, time clock on car plug-ins. Provide HID lighting in the gym, "Metal halide" source.	$112,113
Other					

Section 5	Electrical Systems	Rating	Comments/Concerns		Estimated Cost
5.5	**Network and Communication Systems**		**Building Section**	**Description/Condition**	**$5,000**
5.5.1	Telephone system and components (i.e., capacity, reliability, condition).	4	All	Main entry in the 1962 portion sub terminal cabinets throughout; Meridian system located in basement 1954 portion.	
5.5.2	Other communication systems (i.e., public address, intercom, CCTV, satellite or cable TV).	3	All	PA system as manufactured by Petcom 2000 zoning problems. TV cable minimal, 3 cable plus terminal cabinet in main office; CCTV N/A	$2,500
5.5.3	Network cabling (if available, should be category 5 or better).	4	All	Office admin networked plus three teachers computer lab networked by itself; 1914 portion Cat. 5 cable; Servery room main floor.	
5.5.4	Network cabling installation (i.e., in conduit, secured to walls or tables).	4	All	Computer lab Cat. 5 cabling running loose on the floor.	
5.5.5	Wiring and telecommunication closets (i.e., size, security, ventilation/cooling, capacity for growth).	4		Telephone system has sub-terminal cabinet; Main entry in 1962; Sub in basement 1959 complete with Meridian equipment; Computer room (small); no future growth, as security.	
5.5.6	Provision for dedicated circuits for network equipment (i.e., hubs, switches, computers).	4		Panel outside of computer lab. No dedicated power.	$2,500
Other					

Section 5	Electrical Systems	Rating	Comments/Concerns		Estimated Cost
5.6	**Miscellaneous Systems**		**Building Section**	**Description/Condition**	**$0**
5.6.1	Site and building surveillance system (if applicable).	N/A			
5.6.2	Intrusion alarms (if applicable).	4		Upgraded 1999, Telsco	
5.6.3	Master clock system (if applicable).	4		120V Plugs type; no master.	
Other					
5.7	**Elevators/Disabled Lifts (If applicable)**		**Building Section**	**Description/Condition**	**$0**
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 Electrical Systems Condition & Estimated Costs				**$154,823**

Section 6	Portable Buildings	Rating	Comments/Concerns	Estimated Cost
	Note: Separate sheets can be completed, if necessary, for portable buildings of different ages and/or conditions.		**No Portables at Grandin School**	
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 Buildings Condition & Estimated 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			1,645.0			1,360.0	285.0	Gross Capacity = 575 - 165 for leased and other exemptions = 410 net capacity
		4	46.2						Current enrollment = 174 or 42.44% of net capacity
		4	63.0						
		8	104.0						
		3	88.0						
		1	70.2						
		1	42.0						
7.2	Science Rooms/Labs	1	104.0	104.0			190.0	-86.0	
7.3	Ancillary Areas (i.e., Art, Computer Labs, Drama, Music,)						400.0	-400.0	
		1	180.0	288.0					
		1	108.0						
7.4	Gymnasium (incl. gym storage)	1	428.4	428.4			473.0	-44.6	
7.5	Library/Resource Areas	1	256.0	256.0			240.0	16.0	
7.6	Administration/Staff, Physical Education, Storage Areas			691.8			520.0	171.8	
7.7	CTS Areas								
	7.7.1 Business Education								
	7.7.2 Home Economics								
	7.7.3 Industrial Arts								
	7.7.4 Other CTS Programs								
7.8	Other Non-Instructional Areas (i.e., circulation, wall area, crush space, wc area)			1,245.8			1,197.0	48.8	
	Overall Space Adequacy Assessment			4,659.0			4,380.0	279.0	Leased out area = 292.10 Sq.M.

Evaluation Component/ Sub-Component	**Additional Notes and Comments**
Site Services	Conversation with EPCOR the existing demand is 320 amps which represents 53% of the existing service is being used. To be consistent with the recommended mechanical upgrades and electrical load increase, we recommend existing service be upgraded to 120/208V, 3phase, 4 wire; estimated 800 amps.
Power Supply and Distribution	Conversation with maintenance staff - breakers trip when using cleaning equipment off of corridor receptacles.
Power Distribution	Main distribution panel and branch circuit panels are antiquated/obsolete; parts no longer available.
Network and Communication System	At all sub-terminal locations a majority of wiring has been abandoned. PA system - conversation with users, system has problem with zoning for all call.