School Name:	St. Andrew School	School Code:	8209
Location:	11342 127 Street	Facility Code:	2013
	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	Capacity:	350

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	1946	Two	1170.0	Conventional wood frame walls, floors, and roofs. Cast-in-place concrete foundation walls, footings and piers. Built up asphalt and gravel roof surfaces. Stucco and pre-finished metal wall cladding.	All sections are connected to stream heating with 2 low pressure steam boilers. The 5 heating zones for the entire school are controlled by a central DDC system.	Space is currently leased out and is not used by the school.
Additions/ Expansions	1951	Two	1080.0	Conventional wood frame walls, floors, and roofs. Cast-in-place concrete foundation walls, footings and piers. Built up asphalt and gravel roof surfaces. Stucco and pre-finished metal wall cladding.	There are continuous piping leaks reported in the steam heating and condensate return system. Overheating is occurring in all areas, except during severe winter conditions.	There is no air conditioning or humidification in this school
	1961	One	225.6	Conventional wood frame walls, floors, and roof. Cast-in-place concrete foundation walls, footings and piers. Built up asphalt and gravel roof surfaces. Stucco and pre-finished metal wall cladding.	There is no supply air ventilation system. Some areas have exhaust only.	

Evaluator's Name:	Merv Weiss & 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
Additions /Expansions (cont'd)	1971	One	275.0	Pre-engineered steel frame building. Concrete foundation with grade-supported slab. Pre-finished standing seam metal roof. Pre-finished metal cladding.	See above	
Total Area - Sq. M.			**2750.6**			
Upgrading/Modernization (identify whether minor or major)	1993			Urinals and Lavatories replaced throughout.		Minor Upgrade
	1995			Vinyl tile replaced in the original (1946) building.		Major Modernization
	1994 (Est.)			Windows replaced throughout		Major Modernization
Portable Structures (identify whether attached/permanent or free-standing/ relocatable)				N/A		
List of Reports/ Supplementary Information	394.80 Sq. M of space is leased out.					
	Gross capacity is 350 - 155 for lease exemptions = Net Capacity of 195					
	Current enrollment is at 96 or 49.23% of net capacity					

	Evaluation Components	Summary Assessment	Estimated Cost
1	**Site Conditions**	Generally in good condition	$5,260
2	**Building Exterior**	It is primarily the roof surfaces which contribute to this assessment. Few of the roof surfaces slope properly to the drains, primarily because of the settlement of the 1946 section and inadequate built-in slopes to the 1951 and 1961 sections. Further investigation is required to determine the best method of correction for the settlement problem.	$15,250
3	**Building Interior**	Doors and hardware in the 1946 section of the school are a continuous source of required maintenance and repair. The settlement of the 1946 building is constantly causing doors to require adjustment. None of the classroom floors in the 1946 section are level - they all slope down toward the exterior walls. The same is true of the second floor area in this section. All of this is a direct result of settlement of the building and are isolated to the 1946 section. It is likely that the floor tile used in the 1971 (gymnasium) section is vinyl asbestos tile. The carpet throughout the second floor needs to be replaced. No fire separation exists between these crawl spaces and the classrooms above.	$186,455
4	**Mechanical Systems**	Surface drainage slopes to streets and there are no catch basins on site. Piping is in poor condition with many leaks and blockages. Continuous piping leaks have been reported in the steam heating and condensate return system. Overheating occurring in all areas except during severe winter conditions. The Gymnasium is consistently cold. There is no supply air ventilation system. Some areas have exhaust only.	$304,000
5	**Electrical Systems**	Lighting is poor at most exits. Interior lighting is the older style fluorescent wrap around with original ballasts which likely contain PCBs. The main distribution panel has only 6 breaker spaces for future use. Some of the panels have been upgraded to new panels in the 1946 and 1951 sections. The remaining original panels are obsolete with no space for additions. There is no isolation between equipment/mechanical and technology (user) loads. There are local interconnected hubs in various locations. They have been added in a piecemeal, non-structured manner, without dedicated closets/hub rooms. There are dedicated circuits only in the recently renovated computer room, library areas.	$122,200
6	**Portable Buildings**	N/A	
7	**Space Adequacy:**		
	7.1 Classrooms	477 Sq. M Deficiency, however the current enrollment is only at 49.23% of net capacity	
	7.2 Science Rooms/Labs	133 Sq. M Surplus	
	7.3 Ancillary Areas	209.68 Sq. M Deficiency	
	7.4 Gymnasium	295 Sq. M Deficiency	
	7.5 Library/Resource Areas	20.4Sq. M Surplus	
	7.6 Administration/Staff Areas	33.76Sq. M Surplus	
	7.7 CTS Areas		
	7.8 Other Non-Instructional Areas (incl. gross-up)	520.12 Sq. M Surplus	
	Overall Space Adequacy Assessment	**(-) 274.4**	
	Overall School Conditions & Estimated Costs	This school requires costly upgrading and with a very low enrolment to capacity ratio, the future use of this school should be carefully considered before commencing any major upgrades. Estimate does not include cost to correct settlement of the 1946 section.	**$633,165**

Section 1	Site Conditions	Rating	Comments/Concerns	Estimated Cost
1.1	**General Site Conditions**			**$5,260**
1.1.1	Overall site size.	4		
1.1.2	Outdoor athletic areas.	4	There is one climbing apparatus within a sand base. It is in good condition.	
1.1.3	Outdoor playground areas, including condition of equipment and base.	4	There is one soccer / football field with goals, and two softball diamonds with backstops. Backstops are of the type which are integral with the perimeter fencing. All are in good condition.	
1.1.4	Site landscaping.	4		
1.1.5	Site accessories (i.e., perimeter and other fencing, guard rails, bike stands, flag poles).	4		
1.1.6	Surface drainage conditions (i.e., drains away from building, signs of ponding).	3	The original (1946) building is settling. This causes the grassed areas adjacent to the perimeter walls of this section to sink. Earth is being placed against the building on an ongoing basis to achieve a positive slope away from the building. The wells at the crawl space vents on the south face of the section have been blocked with earth. Photo No. 16 shows the blocked vents wells.	$200
1.1.7	Evidence of sub-soil problems.	2	The original (1946) building has a serious foundation / settlement problem. Detailed structural review is required	$5,000
1.1.8	Safety and security concerns due to site conditions.	3	The concrete stoop and stairs at the north west corner of the courtyard (between the 1946 and 1962 sections) are spalling and pose a trip hazard. Photo No. 15 shows the condition of this stair and landing.	$60
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 vehicle pull-off zones. This does not pose a problem because, with the exception of 127 street, the surrounding streets are not busy. Pedestrian access points are obvious and are in good condition.	
1.2.2	Surfacing of on-site road network (note whether asphalt or gravel).	4	The on-site parking area is a gravel surface. It has positive drainage toward the City service lane to its south. Both the parking surface and the service lane are in good condition.	
1.2.3	Bus lanes/drop-off areas (note whether on-site or off-site).	4	There are no on-site bus lanes or drop-off zones. It appears that 128 Street as well as the City service lane to the south of the 1951 / 1961 sections serve this purpose.	
1.2.4	Fire vehicle access.	4	The entire perimeter of the site is bordered by City streets and service lanes. All sections have at least one building face which faces a street or service lane.	
1.2.5	Signage.	4		
Other				

Section 1	Site Conditions	Rating	Comments/Concerns	Estimated Cost
1.3	**Parking Lots and Sidewalks**			**$0**
1.3.1	Number of parking spaces for staff, students and visitors (including stalls for disabled persons).	4	There are 14 parking stalls available for staff and visitors. These are situated south of the 1951 and 1961 sections and east of the 1971 (gymnasium) section.	
1.3.2	Layout and safety of parking lots.	4		
1.3.3	Surfacing and drainage of parking lots (note whether asphalt or gravel).	4	The parking lot is a gravel surfaced lot. It has positive drainage down to the City service lane south of it. There appear to be no visibility concerns.	
1.3.4	Layout and safety of sidewalks.	4	Sidewalks have been laid out so that pedestrians are visible to traffic in the area. There are no safety concerns.	
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.	4	A curb cut exists to the west of the original (1946) section - in the east curb of 128 Street. This curb cut provides access from the parallel parking lane on the east side of 128 Street and not from a pull-off zone or designated handicapped parking stall.	
Other				
	Overall Site Conditions & Estimated Costs			**$5,260**

Section 2	Building Exterior	Rating		Comments/Concerns	Estimated Cost
2.1	**Overall Structure**		**Building Section**	**Description/Condition**	**$5,000**
2.1.1	Floor structure and beams (i.e., signs of bending, cracking, heaving, settlement, voids, rust, stains).	2	1946	The original (1946) building perimeter walls are settling. Photo No. 3 and Photo No. 4 show the evidence of this on the interior of the building. All floors in this section slope down toward the exterior walls. Refer to 1.1.7 for cost of study	ref. 1 1 7
2.1.2	Wall structure and columns (i.e., signs of bending, cracking, settlement, voids, rust, stains).	4	1946	The settlement problem noted in 2.1.1 (above) has not, as yet caused significant damage to walls and columns.	
2.1.3	Roof structure (i.e., signs of bending, cracking, voids, rust, stains).	2	1946	The settlement problem noted in 2.1.1 (above) is causing a lot of roofing problems. Roof drains which were at one time in the lowest sections of the roof are no longer. Much ponding occurs as a result. Photo No. 18 shows an example of this.	ref. 1 1 7
			1951	There is a major ponding problem in the south east corner of the 1951 section of the building. This appears to be the result of inadequate slope built into the roof originally. Photo No. 19 shows this condition.	
2.1.4	Control/expansion joints.	1	1946	The flashing reglet at the base of the 1946 section second floor walls is opening to the point where water will readily pass into the interior surfaces of the wall. This is likely the direct result of the settlement problems being experienced by this section of the building. Photo No. 21 shows this condition. This should be repaired	$5,000
Other					

Section 2	Building Exterior	Rating		Comments/Concerns	Estimated Cost
2.2	**Roofing and Skylights**		**Building Section**	**Description/Condition**	**$6,500**
	Identify availability of an up-to-date inspection report. Note if sections of the roof are of different ages and/or in varying states of repair.				
2.2.1	Based on the inspection report and/or direct observation, assess and rate roof conditions and estimate costs for required improvements (i.e., covering materials, membrane, insulation, other components).	2		No recent roofing reports were available for review. Records show that the lower roof surfaces of the 1946 section was attended to in 1980 and that the lower roof surfaces of the 1951 and 1961 sections were attended to in 1983. The roof surfaces of all three of these sections need to be examined and repaired again. There are many locations where the gravel ballast is nearly non-existent. Photo No. 20 shows one such location.	$4,500
2.2.2	Roof accessories (i.e., ladders, stairs, hatches, masts, exhaust hoods, chimneys, gutters, downspouts, splashpads).	2		Few roof drains function as stated earlier. They are no longer situated at the low points of the roof areas. A plumbing vent termination is missing in the lower roof area of the 1946 section.	$2,000
2.2.3	Control of ice and snow falling from roof.	4			
2.2.4	Skylights (i.e., signs of distress, leaks, ice build-up, condensation, deteriorated materials/seals).	N/A		There are no skylights.	
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			
2.3.2	Fascias, soffits, parapets (i.e., signs of looseness, stains, rust, peeling paint).	4		Metal fascias beneath the relatively new cap flashings are slightly stained. This however, is no cause for concern at this time. It is relatively minor.	
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		There is no evidence of building envelope failure as far as walls are concerned. There is the potential for the roof surfaces to begin to fail if the problems noted previously are not checked.	
2.3.4	Interface of roof drainage and ground drainage systems.	4			
2.3.5	Inside faces of exterior walls (i.e., signs of cracks, water stains, dust spots).	4			
Other					

Section 2	Building Exterior	Rating		Comments/Concerns	Estimated Cost
2.4	**Exterior Doors and Windows**		**Building Section**	**Description/Condition**	**$3,750**
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. Windows have all been replaced recently with pre-finished aluminum and are in very good condition.	
2.4.2	Door accessories (i.e., latches, hardware, screens, locks, alarms, holders, closers, security devices).	3	1946	Doors in the 1946 section are a source of continuous maintenance. As the building settles, hardware adjustments are necessary. Maintenance staff have been doing a great job of keeping all of the doors in the building functioning. Once the settlement problem is corrected, all new doors and frames will be required	$3,750
2.4.3	Exit door hardware (i.e., safety and/or code concerns).	4			
2.4.4	Windows (i.e., signs of deterioration, rusting metal, glass cracks, peeling paint, damaged seals, sealed unit failure).	5		Windows are all in like new condition.	
2.4.5	Window accessories (i.e., latches, hardware, screens, locks, alarms, holders, closers, security devices).	5		Windows are all in like new condition.	
2.4.6	Building envelope (i.e., signs of heavy condensation on doors or windows).	4		There is no evidence whatsoever of the wall components of the building envelope failing.	
Other					
	Overall Building Exterior Condition & Estimated Costs				**$15,250**

Section 3	Building Interior - Overall Conditions	Rating		Comments/Concerns	Estimated Cost
3.1	**Interior Structure**		**Building Section**	**Description/Condition**	**$100,035**
3.1.1	Interior walls and partitions (i.e., signs of cracks, spalling, paint peeling).	3	1946	Interior walls which intersect exterior walls are sagging in the 1946 section of the school. Photo No. 3 and Photo No. 4 show this condition evidenced by the header over the opening against the exterior wall	$52,650
3.1.2	Floors (i.e., signs of cracks, heaving, settlement).	2	1946	All classroom floors in the 1946 section of the school have settled so that they obviously slope down toward the exterior wall. This is also true of the second floor structure in this section.	$47,385
Other					
3.2	**Materials and Finishes**		**Building Section**	**Description/Condition**	**$30,220**
3.2.1	Floor materials and finishes.	2	1946	The carpet throughout the second floor area of the 1946 section of the school needs to be replaced. Photo No. 17 shows the existing stained and worn carpet.	$4,860
			1951	The carpet throughout the second floor area of the 1951 section of the school needs to be replaced. Photo No. 10 and Photo No. 11 shows the existing stained and worn carpet.	$4,860
3.2.2	Wall materials and finishes.	4			
3.2.3	Ceiling materials and finishes.	4			
3.2.4	Interior doors and hardware.	3	1946	Doors and hardware in the 1946 section of the school are a continuous source of required maintenance and repair. The settlement of the building is constantly causing doors to require adjustment.	$20,500
3.2.5	Millwork	4			
3.2.6	Fixed/wall mounted equipment (i.e., writing boards, tackboards, display boards, signs)	4			
3.2.7	Any other fixed/mounted specialty items (i.e., CTS equipment, gymnasium equipment).	4			
3.2.8	Washroom materials and finishes.	4	1946	A portion of the washroom at the west end of the 1946 section has been transformed into a storage area. Finishes throughout washrooms are in very good condition.	
Other					

Section 3	Building Interior - Overall Conditions	Rating		Comments/Concerns	Estimated Cost
3.3	**Health and Safety**		**Building Section**	**Description/Condition**	**$56,200**
	The intent is to identify where renovations are considered necessary to meet current applicable codes, primarily due to safety concerns. An up-to-date Fire Marshall's inspection report should form the basis for this evaluation together with direct observations as appropriate. If in the opinion of the evaluator a comprehensive code evaluation is required, it should be noted.				
3.3.1	Building construction type - combustible or non-combustible, sprinklered or non-sprinklered.	4	All	The 1946, 1951, and 1961 sections of the school are of combustible construction and are non-sprinklered.	
			1971	The 1971 section (gymnasium) section of the school is of non-combustible construction and is non-sprinklered.	
3.3.2	Fire separations (i.e., between buildings, wings, zones if non-sprinklered).	3	All	Classrooms are separated from corridors by full height walls which act as fire separations. Building mechanical rooms are separated from adjacent spaces by full height walls which act as fire separations. Crawl spaces beneath the classrooms in the 1951 section of the building are being used extensively as storage rooms. No fire separation exists between these crawl spaces and the classrooms above.	$35,200
3.3.3	Fire resistance rating of materials (i.e., corridor walls and doors).	3	1946 & 1951	Classroom doors do not bear a fire resistance label, but are solid core wood construction. Mechanical room doors are labeled fire doors. The fusible link on the shutter of the east door of the mechanical room between the 1946 and 1951 sections has been tampered with and is not functioning.	Ref - 3.2.4
3.3.4	Exiting distances and access to exits.	4			
3.3.5	Barrier-free access.	4		Barrier free access is provided to the building via the 128 Street entrance. The ramp within the building is not to current codes but, appears to be serving the purpose for which it is intended. Photo No. 6 shows the ramp.	
3.3.6	Availability of hazardous materials audit (i.e., are there safety concerns with respect to asbestos, PCB's, air quality, chemicals, excessive noise).	3	1971	It is likely that the floor tile used in the 1971 (gymnasium) section is vinyl asbestos tile. There were no hazardous materials audits available however to confirm this assessment, but asbestos tile was widely used at the time of installation. It should be replaced.	$21,000
Other					
	Overall Building Interior Condition & Estimated Costs				**$186,455**

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	All	Surface drainage slopes to streets; no catch basins on site.	
4.1.2	Exterior plumbing systems (i.e., irrigation systems, hose bibs).	4	All	Non-freeze hose bibbs around perimeter.	
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	All	Fire hydrant across street on north and east sides of building.	
4.2.2	Fire suppression systems (i.e., pumps, sprinklers, piping, reservoirs, hoses, stand pipes, CO2 systems).	4	1946, 1951	Some hose stations provided, on second level.	
4.2.3	Hand extinguishers, blankets and showers (i.e., in CTS areas).	4	1946, 1951, 1961, 1971	Adequate hand extinguishers are distributed throughout school (current service tags).	
4.2.4	Other special situations (e.g., flammable storage areas, science labs, CTS areas).	N/A	All		
Other		N/A	All		

Section 4	Mechanical Systems	Rating	Comments/Concerns		Estimated Cost
4.3	**Water Supply and Plumbing Systems**		**Building Section**	**Description/Condition**	**$61,500**
4.3.1	Domestic water supply (i.e., pressure, volume, quality - note whether municipal or well supply).	4	1946	4" water service to whole school.	
4.3.2	Water treatment system(s).	N/A			
4.3.3	Pumps and valves (including backflow prevention valves).	2	All	No backflow prevention devices installed	$1,500
4.3.4	Piping and fittings.	2	All	Many leaks and blockages reported. Piping in poor condition.	$60,000
4.3.5	Plumbing fixtures (i.e., toilets, urinals, sinks)	4	All	Fixtures are in good condition and are all operable.	
4.3.6	Domestic hot water system (i.e., heater, storage tanks, failure alarms, pressure, volume, recirculation).	4	1946, 1971	Jetglass N65-420-IB-3N, 45,000 btuh input; recently replaced, natural gas storage, no recirc; State PRV 40 NORS 970 DGGA, 31500 input	
4.3.7	Sanitary and storm sewers, including sumps and pits (note whether sewage system is municipal or septic).	4	All	Roof drains to outside rainwater leaders to splash pads; sanitary sewer to City utility mains.	
Other		N/A			

Section 4	Mechanical Systems	Rating	Comments/Concerns		Estimated Cost
4.4	**Heating Systems**		**Building Section**	**Description/Condition**	**$100,000**
4.4.1	Heating capacity and reliability (including backup capacity).	4	All	All sections connected to stream heating; 2 low pressure steam boilers; Weil McLean -nameplate unreadable.	
4.4.2	Heating controls (including use of current energy management technology.	4	All	5 heating zones in entire school controlled by central DDC system.	
4.4.3	Fresh air for combustion and condition of the combustion chimney.	4	1946	Adequate combustion air; no evidence of chimney deterioration	
		4	1971	Adequate combustion air; no evidence of chimney deterioration.	
4.4.4	Treatment of water used in heating systems.	4	1946	Evidence of continuous make-up water treatment	
4.4.5	Low water cutoff/pressure relief valves and failure alarms (i.e., hot water heating).	4	1946	Presently appears if recently replaced.	
4.4.6	Heating air filtration systems and filters.	4	1971	Filters in place on furnace systems; clean.	
		N/A	Other Sections		
4.4.7	Heating humidification systems and components.	1	All	No backflow prevention devices installed	$10,000

Section 4	Mechanical Systems	Rating	Comments/Concerns		Estimated Cost
4.4	**Heating Systems (cont'd)**		**Bldg. Section**	**Description/Condition**	
4.4.8	Heating distribution systems (i.e., piping, ductwork) and associated components (i.e., diffusers, radiators).	2	All	Many leaks and blockages reported. Piping in poor condition. Continuous piping leaks reported in steam heating and condensate return system.	$40,000
4.4.9	Heating piping, valve and/or duct insulation.	3	All	Piping partially insulated. Appears to have been removed when leaks fixed and not replaced. Others all deteriorated.	$10,000
4.4.10	Heat exchangers.	N/A	All		
4.4.11	Heating mixing boxes, dampers and linkages.	N/A	All		
4.4.12	Heating distribution/circulation in larger spaces (i.e., user comfort, temperature of outside wall surfaces).	3	All, except 1971	Overheating occurring in all areas except during severe winter conditions.	$30,000
			1971	Gymnasium consistently cold. Distribution system is appropriate.	$10,000
4.4.13	Zone/unit heaters and controls.	4	All	Pneumatic control on all unit heaters.	
Other		N/A			

Section 4	Mechanical Systems	Rating	Comments/Concerns		Estimated Cost
4.5	**Ventilation Systems**		**Building Section**	**Description/Condition**	**$142,500**
4.5.1	Air handling units capacity and condition.	1	1946, 1951, 1961	No supply air ventilation system. Some areas have exhaust only.	$137,500
			1971	Furnace system in good condition.	
4.5.2	Outside air for the occupant load (if possible, reference CFM/occupant).	1	1946, 1951, 1961	Some mechanical exhaust only. No control of outside air into school.	Ref 4.5.1
			1971	Furnace system appears to have adequate outdoor air.	
4.5.3	Air distribution system (if possible, reference number of air changes/hour).	1	1946, 1951, 1961	Inadequate.	Ref 4.5.1
			1971	Marginal as distribution system inappropriate.	
4.5.4	Exhaust systems capacity and condition.	1	1946, 1951, 1961	Some washrooms have mechanical exhaust, others do not within the same section.	$5,000
			1971	Adequate exhaust system.	
4.5.5	Separation of out flow from air intakes.	N/A	1946, 1951, 1961		
		4	1971	Adequate separation	
4.5.6	Special/dedicated ventilation and/or exhaust systems (i.e., kitchen, labs, CTS areas).	N/A			
Other					

Section 4	Mechanical Systems	Rating	Comments/Concerns		Estimated Cost
4.5	**Ventilation Systems (cont'd)**		**Building 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	All	Pneumatic controls compressor - nameplate unreadable. Andover Energy Management system for heaters system and exhaust system.	
4.5.8	Air filtration systems and filters.	N/A			
4.5.9	Humidification system and components.	N/A			
4.5.10	Heat exchangers.	N/A			
4.5.11	Ventilation distribution system and components (i.e., ductwork, diffusers, mixing boxes, dampers, linkages).	N/A			
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	All	Andover AC256M plus Energy Management and Control system.	
	Overall Mechanical Systems Condition & Estimated Costs				**$304,000**

Section 5	Electrical Systems	Rating	Comments/Concerns		Estimated Cost
5.1	**Site Services**		**Building Section**	**Description/Condition**	**$43,200**
5.1.1	Primary service capacity and reliability (i.e., access, location, components, installation, bus sizes - note whether overhead or underground).	3	1951	Main distribution, 300A, 1 phase, 240/120 VAC, approx. 6 breaker spaces for future. Underground feeders to pole mounted transformer. Main CDP Westinghouse 400A, no spaces for future; splitter added for recent panel services. Meter peak demand 42 KVA (assessed capacity 72 KVA).	$40,000
5.1.2	Site and building exterior lighting (i.e., safety concerns).	3	All	HPS or LPS wall units, canopy and door incandescent luminaries. Poor lighting at most exits.	$3,200
5.1.3	Vehicle plug-ins (i.e., number, capacity, condition).	4	All	Electrified plugs for approximately most of parking area, separate panel.	
Other		4	All	Telephone service overhead and via crawlspace to main backboard in general office (recent installation upgrade).	
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	All	Simplex 2001 system, non addressable. 6 zones in use, space for 2 additional device zones. Annunciator and graphic mimic at main entry. Generally devices exist where required in storage rooms, IA areas, etc. Recently verified.	
5.2.2	Emergency lighting systems (i.e., safety concerns, condition).	4	All	Dual head battery packs in key corridors, gymnasium, and in mechanical rooms. Tested every 3 months.	
5.2.3	Exit lighting and signage (i.e., safety concerns, condition).	4	All	Exit luminaries generally where required. Most exits have battery back-up which is non-operational. Exits are incandescent.	
Other					

Section 5	Electrical Systems	Rating	Comments/Concerns		Estimated Cost
5.3	**Power Supply and Distribution**		**Building Section**	**Description/Condition**	**$27,000**
5.3.1	Power service surge protection.	3		None. No isolation between equipment/mechanical and technology (user) loads.	$3,000
5.3.2	Panels and wireways capacity and condition.	4	1971	Components still available - not obsolete (acceptable). Approximately one-third space in most panels.	
		3	1946 1961	Some of the panels have been upgraded to new panels in the 1946 and 1951 sections. Remaining original panels are obsolete with no space for additions.	$18,000
5.3.3	Emergency generator capacity and condition and/or UPS (if applicable).	N/A		None	
5.3.4	General wiring devices and methods.	4	1971	Recently renovated spaces utilize new panels, pak poles, surface conduit, etc.	
			1946 1951 1961	Recent upgrade to ensure minimum of 3 receptacles per classroom. Some surface conduit and wiring. Some circuits are overloaded causing breakers to trip.	
5.3.5	Motor controls.	3	1946 1951 1962 1971	Motor services and controls are generally splitter/disconnect/starter configurations. Obsolete components and panels. Newer starters and services for more recent additions. (acceptable).	$6,000
Other					

Section 5	Electrical Systems	Rating	Comments/Concerns		Estimated Cost
5.4	**Lighting Systems**		**Building Section**	**Description/Condition**	**$20,000**
5.4.1	Interior lighting systems and components (i.e., illumination levels, conditions, controls).	4	1961 1946 1951 1961 1972	CTS/Library utilizes newer type recessed and suspended luminaries. All other areas surface fluorescent with wrap around lensing, T12 lamps, standard ballasts All line voltage switched; block (row) switching Illumination Levels: Classrooms - 700 - 1000 lux Corridors - 400 - 500 lux Offices - 650 - 700 lux Gymnasium - approximately 300 lux (under lit) Library - 500 - 700 lux	
5.4.2	Replacement of ballasts (i.e., health and safety concerns).	FI	1946 1951 1961	Vintage of older style fluorescent wrap around is not known; may be pre 1968 and original ballasts would contain PCB.	
5.4.3	Implementation of energy efficiency measures and recommendations.	3	All	Use of F34 with lamps is in place. Remainder all T12 lamps and standard ballasts; upgrade to T8 and electronic ballasts. Upgrade exits to full LED type. Upgrade gymnasium to HID lighting.	$20,000
Other					

Section 5	Electrical Systems	Rating	Comments/Concerns		Estimated Cost
5.5	**Network and Communication Systems**		**Building Section**	**Description/Condition**	**$32,000**
5.5.1	Telephone system and components (i.e., capacity, reliability, condition).	4	All	Recently upgraded telephone system Nitsuko DX. Incoming multiline (25 pair) cable. Older style terminal blocks mixed with new BIX blocks; unused wiring should be removed and consistent termination approach applied.	
5.5.2	Other communication systems (i.e., public address, intercom, CCTV, satellite or cable TV).	4	All	Classroom call and PA system Dukane Petcom 2200; surface speakers in classrooms and corridors with exposed cable. RFTV distribution to all classrooms. Local VCR and TV's installed in most classrooms. Mix of recessed and exposed conduit/boxes/cabling for .	
5.5.3	Network cabling (if available, should be category 5 or better).	4	All	Category 5 system (recently upgraded). One dual outlet assembly in each classroom; also in teacher's office. Multi outlet assemblies in computer room and library.	
5.5.4	Network cabling installation (i.e., in conduit, secured to walls or tables).	4	All	Exposed conduit and surface plastic mold; also wiring via crawlspace. Use of pak poles for computer rooms and library clusters.	
5.5.5	Wiring and telecommunication closets (i.e., size, security, ventilation/cooling, capacity for growth).	3	All	Local hubs in various locations interconnected. Piecemeal, non-structured without dedicated closets/hub rooms.	$30,000
5.5.6	Provision for dedicated circuits for network equipment (i.e., hubs, switches, computers).	3		Dedicated circuits only in recently renovated computer room, library areas.	$2,000
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).		All	None	
5.6.2	Intrusion alarms (if applicable).	4	All	Custom security system common to all ECS Schools. 10 zones, 4 spare (all intrusion detectors). LED annunciator and graphic mimic at main entry.	
5.6.3	Master clock system (if applicable).	4		All other building sections utilize local electric clocks.	
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 & Estimates Costs				**$122,200**

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 St. Andrew 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 Building 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	56.4	323.00			800	-477.00	Gross capacity is 350 - 155 for lease exemptions = Net Capacity of 195
		4	53.6						Current enrollment is at 96 or 49.23% of net capacity
		1	52.2						
7.2	Science Rooms/Labs	5	45.6	228.00			95	133.00	
7.3	Ancillary Areas (i.e., Art, Computer Labs, Drama, Music,)	1	45.6	100.32			310	-209.68	
		1	54.72						
7.4	Gymnasium (incl. gym storage)	1	178	178.00	1	473	473	-295.00	
7.5	Library/Resource Areas	1	180.4	180.40	1	160	160	20.40	
7.6	Administration/Staff, Physical Education, Storage Areas			413.76			380	33.76	
7.7	CTS Areas							N/A	
	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)			1,327.12			807	520.12	
	Overall Space Adequacy Assessment			**2,750.60**			**3,025.00**	**-274.40**	394.80 Sq. M of space is leased out

Evaluation Component/ Sub-Component	Additional Notes and Comments
Structure	The original (1946) building perimeter walls have serious settlement problems. This has caused major sloping problems with the floors and numerous leakage problems with the roof.