FACILITY CONDITION ASSESSMENT

Prepared for

Town of Dedham Schools
100 Whiting Avenue
Dedham, Massachusetts 02026

FACILITY CONDITION ASSESSMENT

OF

DEDHAM – ECEC CAPEN SCHOOL
322 SPRAGUE STREET
DEDHAM, MASSACHUSETTS 02026

PREPARED BY:
EMG
10461 Mill Run Circle, Suite 1100
Owings Mills, Maryland 21117
800.733.0660
www.EMGcorp.com

EMG CONTACT:
Bill Champion
Program Manager
800.733.0660 x6234
bchampion@emgcorp.com

EMG PROJECT #:
121711.16R000-005.322

DATE OF REPORT:
December 12, 2016

ONSITE DATE:
November 7, 2016

Immediate Repairs Report
ECEC Capen School
12/12/2016

Location Name	EMG Renamed Item Number	ID	Cost Description	Quantity	Unit	Unit Cost	Subtotal	Deficiency Repair Estimate *
ECEC Capen School	1.3	525604	P000X Engineer, Environmental, Mold Remediation, Evaluate/Report	1	EA	$3,162.50	$3,163	**$3,163**
ECEC Capen School	1.3	513789	P000X Engineer, Electrical, Design	1	EA	$3,162.50	$3,163	**$3,163**
ECEC Capen School	1.3	525602	P000X Engineer, Mechanical, Design	1	EA	$3,162.50	$3,163	**$3,163**
ECEC Capen School	3.1	525607	Z108X ADA, Restroom, Full Reconfiguration, Renovate	1	EA	$15,180.00	$15,180	**$15,180**
ECEC Capen School	5.5	517843	D5022 Flood Light, Exterior, 100 W, Replace	8	EA	$995.47	$7,964	**$7,964**
ECEC Capen School	6.6	513534	B2021 Window, Aluminum Double-Glazed 12 SF, 3+ Stories, Replace	77	EA	$648.58	$49,941	**$49,941**
ECEC Capen School	6.6	513536	B2021 Window, Aluminum Double-Glazed 24 SF, 3+ Stories, Replace	76	EA	$934.82	$71,047	**$71,047**
ECEC Capen School	7.4	514586	D5012 Distribution Panel, 208 Y, 120 V, 400 Amp, Replace	1	EA	$9,487.85	$9,488	**$9,488**
ECEC Capen School	8.1	514696	C3024 Interior Floor Finish, Vinyl Tile (VCT), Replace	8000	SF	$4.80	$38,405	**$38,405**
ECEC Capen School	8.1	514697	C3032 Interior Ceiling Finish, Acoustical Tile (ACT) Dropped Fiberglass, Replace	400	SF	$5.05	$2,019	**$2,019**
Immediate Repairs Total								**$203,530**

* Location Factor included in totals.

Replacement Reserves Report

ECEC Capen School

12/12/2016

Location Name	EMG Renamed Item Number	ID	Cost Description	Lifespan (EUL)	EAge	RUL	Quantity	Unit	Unit Cost	Subtotal	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	Deficiency Repair Estimate
ECEC Capen School	1.3	525604	Engineer, Environmental, Mold Remediation, Evaluate/Report	0	0	0	1	EA	$3,162.50	$3,163	$3,163																				**$3,163**
ECEC Capen School	1.3	513789	Engineer, Electrical, Design	0	0	0	1	EA	$3,162.50	$3,163	$3,163																				**$3,163**
ECEC Capen School	1.3	525602	Engineer, Mechanical, Design	0	0	0	1	EA	$3,162.50	$3,163	$3,163																				**$3,163**
ECEC Capen School	3.1	513606	ADA, Door, Lever Handle Hardware, Install	0	26	* 0	6	EA	$202.40	$1,214		$1,214																			**$1,214**
ECEC Capen School	3.1	513604	ADA, Kitchen, Faucet Hardware, Modify	0	0	* 0	3	EA	$506.00	$1,518		$1,518																			**$1,518**
ECEC Capen School	3.1	513610	ADA, Miscellaneous, Drinking Fountain, Interior Wall-Mounted, Install	0	6	* 0	1	EA	$5,439.50	$5,440		$5,440																			**$5,440**
ECEC Capen School	3.1	525607	ADA, Restroom, Full Reconfiguration, Renovate	0	0	0	1	EA	$15,180.00	$15,180	$15,180																				**$15,180**
ECEC Capen School	3.1	513619	ADA, Restroom, Grab Bars & Blocking, Modify	0	16	* 0	2	EA	$1,328.25	$2,657		$2,657																			**$2,657**
ECEC Capen School	3.1	513621	ADA, Restroom, Lavatory Pipe Wraps, Install	0	16	* 0	2	EA	$75.90	$152		$152																			**$152**
ECEC Capen School	3.1	513622	ADA, Site, Playing Surface, Replace	0	16	* 0	10000	SF	$18.98	$189,750		$189,750																			**$189,750**
ECEC Capen School	5.2	513664	Parking Lots, Asphalt Pavement, Mill & Overlay	25	26	* 0	18000	SF	$3.28	$59,047		$59,047																			**$59,047**
ECEC Capen School	5.2	513672	Parking Lots, Asphalt Pavement, Seal & Stripe	5	11	* 0	18000	SF	$0.38	$6,831							$6,831					$6,831					$6,831				**$20,493**
ECEC Capen School	5.5	517843	Flood Light, Exterior, 100 W, New	20	20	0	8	EA	$995.47	$7,964	$7,964																				**$7,964**
ECEC Capen School	5.5	513788	Halogen Lighting Fixture, 250 W, Replace	20	26	* 0	2	EA	$1,048.84	$2,098		$2,098																			**$2,098**
ECEC Capen School	5.5	513787	Flood Light, Exterior, 100 W, Replace	20	26	* 0	1	EA	$995.47	$995		$995																			**$995**
ECEC Capen School	5.5	513743	Fences & Gates, Chain Link, 4' High, Install	30	36	* 0	500	LF	$30.51	$15,256		$15,256																			**$15,256**
ECEC Capen School	5.5	514130	Dumpster Accessories, Enclosures, Wood/Metal Gates, Replace	20	18	2	2	EA	$1,581.25	$3,163			$3,163																		**$3,163**
ECEC Capen School	5.5	513736	Pole Light, Exterior, 105 to 200 W LED (Fixture & Bracket Arm Only), Replace	20	36	* 0	3	EA	$3,303.00	$9,909		$9,909																			**$9,909**
ECEC Capen School	6.1	517901	Basement Wall, Skim Coating/Parging, Repair	0	114	* 0	200	SF	$11.07	$2,214		$2,214																			**$2,214**
ECEC Capen School	6.3	513792	Roof, Asphalt Shingle, Replace	20	23	* 0	3650	SF	$3.42	$12,485		$12,485																			**$12,485**
ECEC Capen School	6.3	513795	Roof, Metal, Repair	0	8	* 0	300	SF	$0.31	$93							$93														**$93**
ECEC Capen School	6.3	513793	Roof, Single-Ply EPDM Membrane, Replace	20	10	10	14300	SF	$10.52	$150,436											$150,436										**$150,436**
ECEC Capen School	6.3	513794	Roof Hatch, Metal, Replace	30	28	2	1	EA	$1,213.44	$1,213			$1,213																		**$1,213**
ECEC Capen School	6.4	513595	Exterior Wall, Painted Surface, 1-2 Stories, Prep & Paint	10	56	* 0	500	SF	$2.87	$1,435		$1,435										$1,435									**$2,871**
ECEC Capen School	6.4	514089	Exterior Wall, Brick or Brick Veneer, 1-2 Stories, Repoint	25	15	10	10000	SF	$41.28	$412,826											$412,826										**$412,826**
ECEC Capen School	6.5	513731	Exterior Stairs & Ramps, Concrete (per LF of Nosing), Repair	0	36	* 0	36	LF	$8.54	$307				$307																	**$307**
ECEC Capen School	6.5	513726	Exterior Stairs & Ramps, Concrete (per LF of Nosing), Repair	0	36	* 0	44	LF	$8.54	$376				$376																	**$376**
ECEC Capen School	6.6	513534	Window, Aluminum Double-Glazed 12 SF, 3+ Stories, Replace	30	86	0	77	EA	$648.58	$49,941	$49,941																				**$49,941**
ECEC Capen School	6.6	513536	Window, Aluminum Double-Glazed 24 SF, 3+ Stories, Replace	30	86	0	76	EA	$934.82	$71,047	$71,047																				**$71,047**
ECEC Capen School	6.6	514642	Exterior Door, Steel w/ Safety Glass, Replace	25	22	3	13	EA	$1,352.72	$17,585				$17,585																	**$17,585**
ECEC Capen School	7.1	514257	Fuel Oil Tank Monitoring System, Replace	20	36	* 0	1	EA	$19,999.24	$19,999			$19,999																		**$19,999**
ECEC Capen School	7.1	514254	Fuel Storage Tank, 5,000 to 10,000 GAL, Replace	25	22	3	1	EA	$28,486.61	$28,487				$28,487																	**$28,487**
ECEC Capen School	7.1	514095	Boiler 1, Dual Fuel, 1,000 to 2,000 MBH, Replace	30	5	* 25	1	EA	$55,162.05	$55,162								$55,162													**$55,162**
ECEC Capen School	7.1	514098	Boiler 2, Dual Fuel, 1,000 to 2,000 MBH, Replace	30	18	12	1	EA	$55,162.05	$55,162													$55,162								**$55,162**
ECEC Capen School	7.1	517720	Condensing Unit/Heat Pump, Split System, 2.5 Ton, Replace	15	23	* 0	1	EA	$3,366.36	$3,366		$3,366															$3,366				**$6,733**
ECEC Capen School	7.1	514101	Condensing Unit/Heat Pump, Split System, 2.5 Ton, Replace	15	23	* 0	1	EA	$3,366.36	$3,366		$3,366															$3,366				**$6,733**
ECEC Capen School	7.1	517723	Condensing Unit/Heat Pump, Split System, 2.5 Ton, Replace	15	23	* 0	1	EA	$3,366.36	$3,366		$3,366															$3,366				**$6,733**
ECEC Capen School	7.1	517725	Condensing Unit/Heat Pump, Split System, 2.5 Ton, Replace	15	23	* 0	1	EA	$3,366.36	$3,366		$3,366															$3,366				**$6,733**
ECEC Capen School	7.1	514099	Condensing Unit/Heat Pump, Split System, 2.5 Ton, Replace	15	5	10	1	EA	$3,366.36	$3,366											$3,366										**$3,366**
ECEC Capen School	7.1	514104	Unit Ventilator, 751 to 1,250 CFM (approx. 3 Ton), Replace	15	11	4	3	EA	$8,444.15	$25,332					$25,332														$25,332	**$50,665**
ECEC Capen School	7.1	514103	Unit Ventilator, 751 to 1,250 CFM (approx. 3 Ton), Replace	15	5	10	13	EA	$8,444.15	$109,774											$109,774										**$109,774**
ECEC Capen School	7.1	514107	Exhaust Fan, Centrifugal, 100 to 250 CFM, Replace	15	13	2	3	EA	$889.90	$2,670			$2,670															$2,670			**$5,339**
ECEC Capen School	7.1	513796	Exhaust Fan, Centrifugal, 251 to 800 CFM, Replace	15	11	* 4	1	EA	$2,021.87	$2,022				$2,022															$2,022		**$4,044**
ECEC Capen School	7.1	514097	Circulation Pump, Heating Water, 3 HP, Replace	20	5	15	2	EA	$4,652.29	$9,305																$9,305					**$9,305**
ECEC Capen School	7.1	514106	Baseboard Heater, Electric, 10', 1875 Watts, Replace	25	16	9	2	EA	$433.18	$866										$866											**$866**
ECEC Capen School	7.1	514240	Building Automation System (HVAC Controls), Commercial/industrial grade control system, Upgrade	20	5	* 15	20000	SF	$5.36	$107,250		$107,250																			**$107,250**
ECEC Capen School	7.2	514566	Toilet Partitions, Metal Overhead-Braced, Replace	20	18	2	16	EA	$850.00	$13,600			$13,600																		**$13,600**

Location Name	EMG Renamed Item Number	ID	Cost Description	Lifespan (EUL)	EAge	RUL	Quantity	Unit	Unit Cost	Subtotal	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	Deficiency Repair Estimate
ECEC Capen School	7.2	514557	Toilet, Flush Tank (Water Closet), Replace	20	18	2	6	EA	$1,055.15	$6,331			$6,331																		**$6,331**
ECEC Capen School	7.2	514554	Service Sink, Porcelain Enamel, Cast Iron, Replace	20	86	* 0	6	EA	$1,360.33	$8,162			$8,162																		**$8,162**
ECEC Capen School	7.2	514245	Backflow Preventer, 2", Install	15	0	* 15	1	EA	$2,603.17	$2,603		$2,603														$2,603				**$5,206**
ECEC Capen School	7.2	514271	Pipe & Fittings, Copper, 2", Replace	30	86	* 0	200	LF	$66.80	$13,359			$13,359																		**$13,359**
ECEC Capen School	7.2	514264	Pipe & Fittings, Copper, 1", Replace	30	86	* 0	500	LF	$35.80	$17,898					$17,898																**$17,898**
ECEC Capen School	7.2	514268	Pipe & Fittings, Copper, 0.5", Replace	30	86	* 0	200	LF	$30.80	$6,160					$6,160																**$6,160**
ECEC Capen School	7.2	514561	Water Heater, Electric, Commercial, 30 to 80 GAL, Replace	15	14	1	1	EA	$6,963.24	$6,963		$6,963														$6,963				**$13,926**
ECEC Capen School	7.2	513658	Pipe & Fittings, Cast Iron, 2", Replace	50	86	* 0	1000	LF	$30.53	$30,527		$30,527																		**$30,527**
ECEC Capen School	7.2	514558	Bathroom Vanity Cabinet, Wood, with Cultured Marble Sink Top, 24 to 30", Replace	20	18	2	1	EA	$1,082.84	$1,083			$1,083																		**$1,083**
ECEC Capen School	7.4	514586	Distribution Panel, 208 Y, 120 V, 400 Amp, Replace	30	56	0	1	EA	$9,487.85	$9,488	$9,488																				**$9,488**
ECEC Capen School	7.4	514700	Camera, Exterior, Closed Circuit, Fixed Color, Replace	10	6	4	1	EA	$3,178.49	$3,178					$3,178									$3,178						**$6,357**
ECEC Capen School	7.4	514701	Camera, Security System, Replace	10	6	4	1	EA	$2,158.37	$2,158					$2,158									$2,158						**$4,317**
ECEC Capen School	7.5	514132	Wheel Chair Lift, Renovate	25	22	3	1	EA	$16,652.79	$16,653				$16,653																**$16,653**
ECEC Capen School	7.6	514611	Fire Department Connection, Double, 3", New	30	29	1	1	EA	$1,492.63	$1,493		$1,493																		**$1,493**
ECEC Capen School	7.6	514613	Fire Pump, 10 HP, Replace	20	19	1	2	EA	$7,088.99	$14,178		$14,178																		**$14,178**
ECEC Capen School	7.6	514617	Fire Suppression System Jockey Pump, 0.5 HP, New	20	19	1	1	EA	$745.57	$746		$746																		**$746**
ECEC Capen School	7.6	514608	Sprinkler Heads (per SF), New	20	19	1	28000	SF	$1.33	$37,234		$37,234																		**$37,234**
ECEC Capen School	7.6	514624	Sprinkler System, Full Retrofit, School (per SF), Renovate	50	46	4	28000	SF	$6.25	$175,098					$175,098															**$175,098**
ECEC Capen School	7.6	514622	Fire Standpipe System, New	50	49	1	1	EA	$2,016.33	$2,016		$2,016																		**$2,016**
ECEC Capen School	7.6	514638	Fire Extinguisher - Type ABC, Replace	15	11	4	13	EA	$314.93	$4,094					$4,094														$4,094	**$8,188**
ECEC Capen School	7.6	514640	Fire Alarm Horn & Strobe, Replace	20	0	* 20	13	EA	$249.48	$3,243		$3,243																		**$3,243**
ECEC Capen School	7.6	514635	Smoke/Carbon Monoxide Detector, , Replace	15	12	3	15	EA	$236.46	$3,547				$3,547															$3,547		**$7,094**
ECEC Capen School	7.6	514605	Fire Alarm Control Panel, Addressable, Replace	15	10	5	1	EA	$20,297.59	$20,298						$20,298														**$20,298**
ECEC Capen School	7.6	514632	Fire Alarm Horn & Strobe, Replace	20	15	5	28	EA	$249.48	$6,985						$6,985														**$6,985**
ECEC Capen School	7.6	514636	Heat Detector, Replace	15	10	5	16	EA	$242.00	$3,872						$3,872														**$3,872**
ECEC Capen School	7.6	514637	Manual Pull Station, Replace	15	10	5	11	EA	$186.08	$2,047						$2,047														**$2,047**
ECEC Capen School	8.1	514643	Interior Door, Fire 90-Minutes and Over, Replace	20	18	2	24	EA	$1,649.06	$39,577			$39,577																	**$39,577**
ECEC Capen School	8.1	514696	Interior Floor Finish, Vinyl Tile (VCT), Replace	15	56	0	8000	SF	$4.80	$38,405	$38,405														$38,405					**$76,810**
ECEC Capen School	8.1	514655	Interior Floor Finish, Carpet Standard-Commercial Medium-Traffic, Replace	10	8	2	6000	SF	$7.26	$43,538			$43,538										$43,538							**$87,076**
ECEC Capen School	8.1	514697	Interior Ceiling Finish, Acoustical Tile (ACT) Dropped Fiberglass, Replace	20	56	0	400	SF	$5.05	$2,019	$2,019																			**$2,019**
ECEC Capen School	8.2	514699	Commercial Kitchen, Refrigerator, 2-Door Reach-In, Replace	15	11	4	1	EA	$4,256.00	$4,256					$4,256														$4,256	**$8,512**
ECEC Capen School	8.2	514698	Commercial Kitchen, Food Warmer, Replace	15	11	4	1	EA	$1,551.91	$1,552					$1,552														$1,552	**$3,104**
Totals, Unescalated											**$203,530**	**$523,888**	**$152,695**	**$68,977**	**$239,728**	**$33,202**	**$6,924**	**$55,162**	**$0**	**$866**	**$676,402**	**$8,266**	**$98,700**	**$0**	**$5,337**	**$47,709**	**$29,863**	**$2,670**	**$5,569**	**$35,234**	**$2,194,722**
Totals, Escalated (3.0% inflation, compounded annually)											**$203,530**	**$539,605**	**$161,994**	**$75,373**	**$269,816**	**$38,490**	**$8,267**	**$67,842**	**$0**	**$1,130**	**$909,028**	**$11,443**	**$140,722**	**$0**	**$8,072**	**$74,330**	**$47,921**	**$4,413**	**$9,480**	**$61,784**	**$2,633,240**

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1 EXECUTIVE SUMMARY

1.1 PROPERTY INFORMATION AND GENERAL PHYSICAL CONDITION

The property information is summarized in the table below. More detailed descriptions may be found in the various sections of the report and in the Appendices.

PROPERTY INFORMATION	
Address:	322 Sprague Street, Town of Dedham, Norfolk County, Massachusetts 02026
Year Constructed/Renovated:	1930, Phase I / 1960s Rear Building Extension Phase II
Current Occupants:	Dedham Schools
Percent Utilization:	90%
Management Point of Contact:	Denise Moroney 781.310.1141 phone
Property Type:	Pre-school, Kindergarten School
Site Area:	Approximately 4 acres
Building Area:	29,167 SF
Number of Buildings:	One
Number of Stories:	Two plus basement
Parking Type and Number of Spaces:	52 spaces in open lots
Building Construction:	Concrete foundation, brick, concrete, block walls and partitions. Plaster used liberally. Masonry block and/or brick bearing walls and wood-framed roofs. Floors are wood on plank. Many walls have plaster coating.
Roof Construction:	Flat roofs with built-up membrane, except rear addition which is pitched asphalt shingled.
Exterior Finishes:	Brick Veneer
Heating, Ventilation & Air Conditioning:	Central system with two furnaces, baseboard radiators (original) and cabinets. Classrooms updated with unit ventilators. Three individual packaged split-systems used one per classroom in the building rear extension.
Fire and Life/Safety:	Fire hydrants, smoke detectors, heat detectors, audible alarms, visual horn/strobes, fire extinguishers, manual pull stations, fire alarm panel, illuminated exit signs.
Dates of Visit:	November 7, 2016
On-Site Point of Contact (POC):	James Gately, Maintenance 781-690-6444
Assessment and Report Prepared by:	Marty Nowland, PE, CEM

PROPERTY INFORMATION	
Reviewed by:	Scott Williford Technical Report Reviewer for Bill Champion Program Manager bchampion@emgcorp.com 800.733.0660 x6234

SYSTEMIC CONDITION SUMMARY			
Site	Poor	HVAC	Poor
Structure	Fair	Plumbing	Fair
Roof	Fair	Electrical	Fair
Vertical Envelope	Fair	Elevators	--
Interiors	Fair	Fire	Fair

The following bullet points highlight the most significant short term and modernization recommendations:

- Asphalt parking overlay and seal
- Lighting
- Roof membrane
- Exterior paint
- Stair repairs
- Exterior doors
- Fuel oil system
- Condensing units
- Exhaust fans
- Building automation system
- Toilets and partitions
- Piping
- Backflow
- Water heater
- Camera system
- Fire pump
- Fire department connections
- Jockey pump
- Sprinkler heads
- Interior doors
- Interior floor finishes

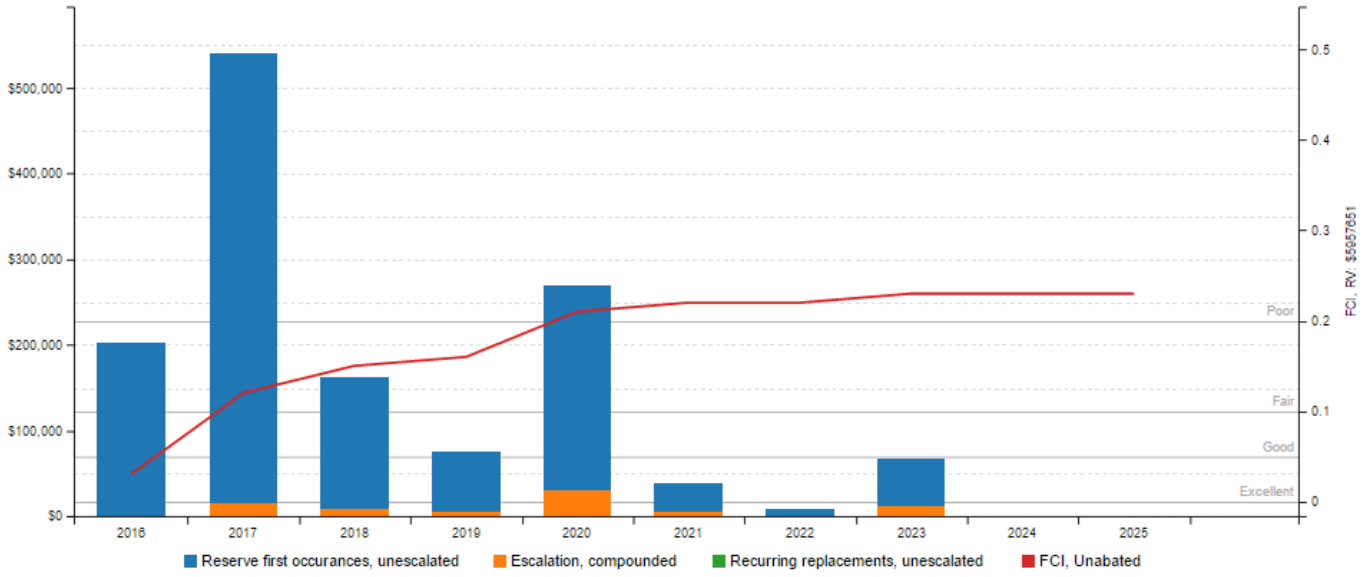
Generally, the property appears to have been constructed within industry standards in force at the time of construction. The property appears to have been well maintained since it was first occupied and is in fair overall condition.

According to property management personnel, the property has had a limited capital improvement expenditure program over the past three years, especially since significant recent improvements were not found. Supporting documentation was not provided in support of these claims, but it is obvious that any recent improvements were more than five years ago based on the condition of equipment.

1.2 FACILITY CONDITION INDEX (FCI)

FCI Analysis: ECEC Capen School

Replacement Value: $ 5,957,651; Inflation rate: 3.0%



One of the major goals of the FCA is to calculate the FCI, which gives an indication of a building's overall condition. Two FCI ratios are calculated and presented, the Current Year and Ten-Year. The Current Year FCI is the ratio of Immediate Repair Costs to the building's Current Replacement Value. Similarly, the Ten-Year FCI is the ratio of anticipated Capital Reserve Needs over the next ten years to the Current Replacement Value.

FCI CONDITION RATING	DEFINITION	PERCENTAGE VALUE
Good	In new or well-maintained condition, with no visual evidence of wear, soiling or other deficiencies.	0% to 5%
Fair	Subjected to wear and soiling but is still in a serviceable and functioning condition.	> than 5% to 10%
Poor	Subjected to hard or long-term wear. Nearing the end of its useful or serviceable life.	> than 10% to 60%
Very Poor	Has reached the end of its useful or serviceable life. Renewal is now necessary.	> than 60%

The graphs above and tables below represent summary-level findings for the FCA. The deficiencies identified in this assessment can be combined with potential new construction requirements to develop an overall strategy that can serve as the basis for a portfolio-wide capital improvement funding strategy. Key findings from the assessment include:

KEY FINDING	METRIC	
Current Year Facility Condition Index (FCI) FCI = (IR)/(CRV)	3.4%	Good
10-Year Facility Condition Index (FCI) FCI = (RR)/(CRV)	22.9%	Poor
Current Replacement Value (CRV)	29,167 SF * 204.26 / SF = $5,957,651	

Year **0** (Current Year) - Immediate Repairs (IR)	$203,530
Years **1-10** – Replacement Reserves (RR)	$1,366,047
Total Capital Needs	**$1,569,577**

The major issues contributing to the Immediate Repair Costs and the Current Year FCI ratio are summarized below:

- ADA improvements
- Lighting study and improvements
- Mold study
- HVAC study
- Window replacement
- Electrical distribution panel replacement
- Interior finish replacement

Further detail on the specific costs that make up the Immediate Repair Costs can be found in the cost tables in the appendices.

1.3 SPECIAL ISSUES AND FOLLOW-UP RECOMMENDATIONS

As part of the FCA, a limited assessment of accessible areas of the building(s) was performed to determine the presence of mold, conditions conducive to mold growth, and/or evidence of moisture. Property personnel were interviewed concerning any known or suspected mold, elevated relative humidity, water intrusion, or mildew-like odors. Sampling is not a part of this assessment.

Areas of suspect mold or mildew growth were noted around the rear building extension masonry and brick structure in the following areas:

- Mold is growing on the concrete masonry and brick exterior walls of the rear building extension. Mold is apparent below about from grade up to 3 to 4 feet above grade on three exterior walls facing east, west, and north. The affected areas include approximately 800 square feet.

Mold, mildew, and moss growth appear to be the result of condensation collection from split heating units or foundation sweating due to temperature changes. Exposure to mold or mold producing materials can be hazardous and should be avoided. The presence of mold does not necessarily constitute an exposure. This assessment does not constitute a comprehensive mold survey of the Project, and any conclusions are based solely on conditions readily observable in accessed areas.

Based on the apparent extent of mold (more than 30 square feet), the mold must be abated by a qualified mold remediation contractor. The cost to retain a consultant to conduct an extensive mold survey and to recommend clean-up methods and repairs is included in the cost tables, as is a cost allowance for abatement.

The school depends on street lighting for school property lighting for safety and security. The building lighting is very limited and in poor condition. Recommend a two-step process:

- There are no exterior lights except those on the school building itself. Currently, the school relies on street lighting on both Sprague Street and Etna Road. Repair or replace building light fixtures attached to the building. After the wall packs and high intensity lights on the building are fixed or replaced, perform a simple lighting study to verify there is adequate lighting for safety and security.
- Recommend hiring a heating and/or engineering company that specializes in and commissions commercial building hydronic systems to investigate what it would take to regulate heat when and where needed in the building. The result will be increased comfort for all inhabitants and increased heating system efficiency, which will save money on fuel oil costs.

1.4 OPINIONS OF PROBABLE COST

Cost estimates are attached at the front of this report (following the cover page).

These estimates are based on Invoice or Bid Document/s provided either by the Owner/facility and construction costs developed by construction resources such as *R.S. Means* and *Marshall & Swift,* EMG's experience with past costs for similar properties, city cost indexes, and assumptions regarding future economic conditions.

Opinions of probable costs should only be construed as preliminary, order of magnitude budgets. Actual costs most probably will vary from the consultant's opinions of probable costs depending on such matters as type and design of suggested remedy, quality of materials and installation, manufacturer and type of equipment or system selected, field conditions, whether a physical deficiency is repaired or replaced in whole, phasing of the work (if applicable), quality of contractor, quality of project management exercised, market conditions, and whether competitive pricing is solicited, etc. ASTM E2018-08 recognizes that certain opinions of probable costs can not be developed within the scope of this guide without further study. Opinions of probable cost for further study should be included in the FCA.

1.4.1 METHODOLOGY

Based upon site observations, research, and judgment, along with referencing Expected Useful Life (EUL) tables from various industry sources, EMG opines as to when a system or component will most probably necessitate replacement. Accurate historical replacement records, if provided, are typically the best source of information. Exposure to the elements, initial quality and installation, extent of use, the quality and amount of preventive maintenance exercised, etc., are all factors that impact the effective age of a system or component. As a result, a system or component may have an effective age that is greater or less than its actual chronological age. The Remaining Useful Life (RUL) of a component or system equals the EUL less its effective age. Projections of Remaining Useful Life (RUL) are based on continued use of the Property similar to the reported past use. Significant changes in occupants and/or usage may affect the service life of some systems or components.

Where quantities could not be derived from an actual take-off, lump sum costs or allowances are used. Estimated costs are based on professional judgment and the probable or actual extent of the observed defect, inclusive of the cost to design, procure, construct and manage the corrections.

1.4.2 IMMEDIATE REPAIRS

Immediate repairs are opinions of probable costs that require immediate action as a result of: (1) material existing or potential unsafe conditions, (2) material building or fire code violations, or (3) conditions that, if not addressed, have the potential to result in, or contribute to, critical element or system failure within one year or will most probably result in a significant escalation of its remedial cost.

1.4.3 REPLACEMENT RESERVES

Replacement Reserves are for recurring probable expenditures, which are not classified as operation or maintenance expenses. The replacement reserves should be budgeted for in advance on an annual basis. Replacement Reserves are reasonably predictable both in terms of frequency and cost. However, Replacement Reserves may also include components or systems that have an indeterminable life but, nonetheless, have a potential for failure within an estimated time period.

Replacement Reserves exclude systems or components that are estimated to expire after the reserve term and are not considered material to the structural and mechanical integrity of the subject property. Furthermore, systems and components that are not deemed to have a material effect on the use of the Property are also excluded. Costs that are caused by acts of God, accidents, or other occurrences that are typically covered by insurance, rather than reserved for, are also excluded.

Replacement costs are solicited from ownership/property management, EMG's discussions with service companies, manufacturers' representatives, and previous experience in preparing such schedules for other similar facilities. Costs for work performed by the ownership's or property management's maintenance staff are also considered.

EMG's reserve methodology involves identification and quantification of those systems or components requiring capital reserve funds within the assessment period. The assessment period is defined as the effective age plus the reserve term. Additional information concerning system's or component's respective replacement costs (in today's dollars), typical expected useful lives, and remaining useful lives were estimated so that a funding schedule could be prepared. The Replacement Reserves Schedule presupposes that all required remedial work has been performed or that monies for remediation have been budgeted for items defined in the Immediate Repair Cost Estimate.

2 PURPOSE AND SCOPE

2.1 PURPOSE

EMG was retained by the client to render an opinion as to the Property's current general physical condition on the day of the site visit.

Based on the observations, interviews and document review outlined below, this report identifies significant deferred maintenance issues, existing deficiencies, and material code violations of record at municipal offices, which affect the Property's use. Opinions are rendered as to its structural integrity, building system condition and the Property's overall condition. The report also notes building systems or components that have realized or exceeded their typical expected useful lives.

CONDITIONS:

The physical condition of building systems and related components are typically defined as being in one of five conditions: Excellent, Good, Fair, Poor, Failed or a combination thereof. For the purposes of this report, the following definitions are used:

Excellent	=	New or very close to new; component or system typically has been installed within the past year, sound and performing its function. Eventual repair or replacement will be required when the component or system either reaches the end of its useful life or fails in service.
Good	=	Satisfactory as-is. Component or system is sound and performing its function, typically within the first third of its lifecycle. However, it may show minor signs of normal wear and tear. Repair or replacement will be required when the component or system either reaches the end of its useful life or fails in service.
Fair	=	Showing signs of wear and use but still satisfactory as-is, typically near the median of its estimated useful life. Component or system is performing adequately at this time but may exhibit some signs of wear, deferred maintenance, or evidence of previous repairs. Repair or replacement will be required due to the component or system's condition and/or its estimated remaining useful life.
Poor	=	Component or system is significantly aged, flawed, functioning intermittently or unreliably; displays obvious signs of deferred maintenance; shows evidence of previous repair or workmanship not in compliance with commonly accepted standards; has become obsolete; or exhibits an inherent deficiency. The present condition could contribute to or cause the deterioration of contiguous elements or systems. Either full component replacement is needed or repairs are required to restore to good condition, prevent premature failure, and/or prolong useful life.
Failed	=	Component or system has ceased functioning or performing as intended. Replacement, repair, or other significant corrective action is recommended or required.
Not Applicable	=	Assigning a condition does not apply or make logical sense, most commonly due to the item in question not being present.

FORMAT OF THE BODY OF THE REPORT:

Throughout sections 5 through 9 of this report, each report section will typically contain three subsections organized in the following sequence:

- A descriptive table (and/or narrative), which identifies the components assessed, their condition, and other key data points.
- A simple bulleted list of Anticipated Lifecycle Replacements, which lists components and assets typically in Excellent, Good, or Fair condition at the time of the assessment but that will require replacement or some other attention once aged past their estimated useful life. These listed components are typically included in the associated inventory database with costs identified and budgeted beyond the first several years.
- A bulleted cluster of Actions/Comments, which include more detailed narratives describing deficiencies, recommended repairs, and short term replacements. The assets and components associated with these bullets are/were typically problematic and in Poor or Failed condition at the time of the assessment, with corresponding costs included within the first few years.

PLAN TYPES:

Each line item in the cost database is assigned a Plan Type, which is the primary reason or rationale for the recommended replacement, repair, or other corrective action. This is the "why" part of the equation. A cost or line item may commonly have more than one applicable Plan Type; however, only one Plan Type will be assigned based on the "best" fit, typically the one with the greatest significance. The following Plan Types are listed in general weighted order of importance:

Safety	=	An observed or reported unsafe condition that if left unaddressed could result in an injury; a system or component that presents a potential liability risk.
Performance/Integrity	=	Component or system has failed, is almost failing, performs unreliably, does not perform as intended, and/or poses a risk to overall system stability.
Accessibility	=	Does not meet ADA, UFAS, and/or other handicap accessibility requirements.
Environmental	=	Improvements to air or water quality, including removal of hazardous materials from the building or site.
Modernization/Adaptation	=	Conditions, systems, or spaces that need to be upgraded in appearance or function to meet current standards, facility usage, or client/occupant needs.
Lifecycle/Renewal	=	Any component or system in which future repair or replacement is anticipated beyond the next several years and/or is of minimal substantial early-term consequence.

2.2 SCOPE

The standard scope of the Facility Condition Assessment includes the following:

- Visit the Property to evaluate the general condition of the building and site improvements, review available construction documents in order to familiarize ourselves with, and be able to comment on, the in-place construction systems, life safety, mechanical, electrical, and plumbing systems, and the general built environment.
- Identify those components that are exhibiting deferred maintenance issues and provide cost estimates for Immediate Costs and Replacement Reserves based on observed conditions, maintenance history and industry standard useful life estimates. This will include the review of documented capital improvements completed within the last five-year period and work currently contracted for, if applicable.
- Provide a full description of the Property with descriptions of in-place systems and commentary on observed conditions.
- Provide a general statement of the subject Property's compliance to Title III of the Americans with Disabilities Act. This will not constitute a full ADA survey, but will help identify exposure to issues and the need for further review.
- Perform a limited assessment of accessible areas of the building(s) for the presence of mold, conditions conducive to mold growth, and/or evidence of moisture. EMG will also interview Project personnel regarding the presence of any known or suspected mold, elevated relative humidity, water intrusion, or mildew-like odors. Potentially affected areas will be photographed. Sampling will not be considered in routine assessments.
- List the current utility service providers.
- Review maintenance records and procedures with the in-place maintenance personnel.
- Observe a representative sample of the interior spaces/units, including vacant spaces/units, in order to gain a clear understanding of the property's overall condition. Other areas to be observed include the exterior of the property, the roofs, interior common areas, and the significant mechanical, electrical and elevator equipment rooms.
- Make appropriate inquiries of municipal officials regarding the existence of pending unresolved building, zoning or fire code violations on file, and a determination of the current zoning category, flood plain zone, and seismic zone for the Property.
- Provide recommendations for additional studies, if required, with related budgetary information.
- Provide an Executive Summary at the beginning of this report.

The expanded scope of this assessment includes the following:

- Verify equipment and building components related to the property manager's preventative maintenance database.

2.3 PERSONNEL INTERVIEWED

The management and maintenance staff were interviewed for specific information relating to the physical property, available maintenance procedures, historical performance of key building systems and components, available drawings and other documentation. The following personnel from the facility and government agencies were interviewed in the process of conducting the FCA:

NAME AND TITLE	ORGANIZATION	PHONE NUMBER
James Gately Maintenance	Charles J. Capen School	(781)-690-6444
John Brennan Operations Maintenance	Dedham Building Department	(781)-234-5236

The FCA was performed with some assistance from James Gately, Maintenance, Town of Dedham Schools, the onsite Point of Contact (POC), who was cooperative and provided information that appeared to be accurate based upon subsequent site observations. The onsite contact is completely knowledgeable about the subject property and answered most questions posed during the interview process. The POC's management involvement at the property has been for the past 11 years.

2.4 DOCUMENTATION REVIEWED

Prior to the FCA, relevant documentation was requested that could aid in the knowledge of the subject property's physical improvements, extent and type of use, and/or assist in identifying material discrepancies between reported information and observed conditions. The review of submitted documents does not include comment on the accuracy of such documents or their preparation, methodology, or protocol. The Documentation Request Form is provided in Appendix E.

Although Appendix E provides a summary of the documents requested or obtained, the following list provides more specific details about some of the documents that were reviewed or obtained during the site visit.

- Building floor plan

2.5 PRE-SURVEY QUESTIONNAIRE

A Pre-Survey Questionnaire was reviewed with Jim Gately during the site visit. The questionnaire is included in Appendix E. Information obtained from the questionnaire has been used in preparation of this report.

2.6 WEATHER CONDITIONS

November 7, 2016: Clear, with temperatures in the 50s (°F) and light winds.

3 ACCESSIBILITY & PROPERTY RESEARCH

3.1 ADA ACCESSIBILITY

Generally, Title III of the Americans with Disabilities Act (ADA) prohibits discrimination by entities to access and use of "areas of public accommodations" and "commercial facilities" on the basis of disability. Regardless of its age, these areas and facilities must be maintained and operated to comply with the Americans with Disabilities Act Accessibility Guidelines (ADAAG).

Buildings completed and occupied after January 26, 1992 are required to comply fully with the ADAAG. Existing facilities constructed prior to this date are held to the lesser standard of compliance to the extent allowed by structural feasibility and the financial resources available. As an alternative, a reasonable accommodation pertaining to the deficiency must be made.

During the FCA, a limited visual observation for ADA accessibility compliance was conducted. The scope of the visual observation was limited to those areas set forth in *EMG's Abbreviated Accessibility Checklist* provided in Appendix D of this report. It is understood by the Client that the limited observations described herein does not comprise a full ADA Compliance Survey, and that such a survey is beyond the scope of EMG's undertaking. Only a representative sample of areas was observed and, other than as shown on the Abbreviated Accessibility Checklist, actual measurements were not taken to verify compliance.

At a school/office property, the areas considered as a public accommodation besides the site itself and parking, are the exterior accessible route, the interior accessible route up to the interior common areas, including the common area restrooms, and playgrounds. Note that ADA accessibility to the building second (top) floor classrooms is not provided.

The facility does not appear to be accessible with Title III of the Americans with Disabilities Act. Elements as defined by the ADAAG that are not accessible as stated within the priorities of Title III, are as follows:

Parking

- One of the parking signs is bent over and needs repair. No costs are included.
- A third ADA parking space is identified with the blue symbol painted on the parking lot, however, there is no signage designating the parking location as an actual handicapped parking spot. Either add proper signage or remove the painted symbol on the pavement. No costs are included.

Ramps

- No discrepancies.

Entrances/Exits

- Install buzzer or intercom for assistance and service at exterior entrance doors.

Paths of Travel

- Compliant signage indicating accessible entrances and general information is not provided.
- Install cup dispenser at an existing non-conforming water fountain.
- Water pressure is inadequate to get a drink, making getting a drink difficult and unsanitary. The flow of water is very low, so each person contaminates the fountain by touching the water spray pedestal. Replace the drinking fountain.

Restrooms

- Existing restroom doors are wide enough to accommodate wheelchair access, and clear floor space beside the door swing is not always provided.
- Lever action hardware is not provided at all accessible locations.
- Install grab bars in accessible stalls at 36" above the floor. Some stalls have grab bars installed on the wrong side of the stall away from the toilet.
- Modify existing lavatory faucets to paddle type faucets as necessary.
- Wrap drain pipes below lavatory with insulation; protect against contact with hot, sharp, or abrasive surfaces. Only some drain pipes are properly wrapped.
- Add pull station alarm in unisex bathroom as necessary.

- Playground grade surfaces should be upgraded to meet ADA access requirements
- A full ADA Compliance Survey may reveal additional aspects of the property that are not in compliance.

Corrections of these conditions should be addressed from a liability standpoint, but are not necessarily code violations. The Americans with Disabilities Act Accessibility Guidelines concern civil rights issues as they pertain to the disabled and are not a construction code, although many local jurisdictions have adopted the Guidelines as such. The cost to address the achievable items noted above is included in the cost tables.

4 EXISTING BUILDING ASSESSMENT

4.1 UNIT OR SPACE TYPES

All 29,167 square feet of the building are occupied by a single occupant, the Town of Dedham Public Schools. The spaces are mostly a combination of classrooms, administrative offices, hallways, gymnasium, furnace room, utility rooms, storage, crawl spaces and supporting restrooms.

4.2 INACCESSIBLE AREAS OR KEY SPACES NOT OBSERVED

A representative sample of the interior spaces was observed to gain a clear understanding of the property's overall condition. Other areas accessed included the site within the property boundaries, exterior of the property and the roof. All areas of the property were available for observation during the site visit. Crawl spaces were briefly examined using a flashlight from a hatch doors and detailed examination was not conducted due to challenging access.

A "down unit" or area is a term used to describe a unit or space that cannot be occupied due to poor conditions such as fire damage, water damage, missing equipment, damaged floor, wall or ceiling surfaces, or other significant deficiencies. There are no down units or areas.

5 SITE IMPROVEMENTS

5.1 UTILITIES

The following table identifies the utility suppliers and the condition and adequacy of the services.

SITE UTILITIES		
UTILITY	SUPPLIER	CONDITION & ADEQUACY
Sanitary sewer	Dedham Department of Public Works	Fair
Storm sewer	Dedham Department of Public Works	Fair
Domestic water	Dedham-Westwood Water District	Good
Electric service	Eversource	Good
Natural gas service	N/A	--

Actions/Comments:

- According to the POC, the utilities provided are adequate for the property. There are no unique, onsite utility systems such as emergency electrical generators, septic systems, water or waste water treatment plants, natural gas service, or propane gas tanks.
- The sanitary sewer system was installed in 1930, when the property was originally developed. Maintenance and repairs of the onsite sanitary sewer system are the responsibility of the Town of Dedham. No complaints were received.
- The janitor's closet on the second floor has metal piping underneath a sink that is severely corroded, If this is typical of the rest of the hidden piping installed within the building, then this is a potentially significant replacement cost.
- There is no backflow preventer on the domestic water supply. A means to prevent backflow from the school into the town water system is needed.

5.2 PARKING, PAVING, AND SIDEWALKS

ITEM	DESCRIPTION
Main Ingress and Egress	Sprague Street
Access from	South
Additional Entrances	Etna Road
Additional Access from	West

PAVING AND FLATWORK			
ITEM	MATERIAL	LAST WORK DONE	CONDITION
Entrance Driveway Apron	Asphalt	~2000	Poor
Parking Lot	Asphalt	~2000	Poor
Drive Aisles	Asphalt	~2000	Poor
Service Aisles	None	NA	--
Sidewalks	Concrete	~1996	Fair

PAVING AND FLATWORK			
ITEM	MATERIAL	LAST WORK DONE	CONDITION
Curbs	Asphalt	~1990	Missing
Site Stairs	Cast-in-place concrete	~1990	Fair
Pedestrian Ramps	Cast-in-place concrete	~2000	Fair

PARKING COUNT				
OPEN LOT	CARPORT	PRIVATE GARAGE	SUBTERRANEAN GARAGE	FREESTANDING PARKING STRUCTURE
49	0	0	0	0

Total Number of ADA Compliant Spaces	1
Number of ADA Compliant Spaces for Vans	1
Total Parking Spaces	52
Parking Ratio (Spaces/1000 square feet)	1.78
Method of Obtaining Parking Count	Physical count

EXTERIOR STAIRS			
LOCATION	MATERIAL	HANDRAILS	CONDITION
West side	Concrete stairs	Metal	Fair
East side	Concrete stairs	Metal	Fair

Anticipated Lifecycle Replacements:

- Asphalt seal coating and paint lines
- Asphalt pavement

Actions/Comments:

- On-going periodic maintenance is highly recommended. Future lifecycle replacements of the components listed above will be required.
- The asphalt pavement exhibits significant areas of failure and deterioration, such as alligator cracking, transverse cracking, extensive raveling, and localized depressions. Cracking is apparent all around the school, especially on the south and east sides. The most severely damaged areas of paving must be cut and patched to maintain integrity of the overall pavement system. Complete milling and overlay of the entire lot followed by paint striping is recommended.
- Curbs for parking spaces were broken up or just missing where a vehicle could roll down onto the baseball field. Add curbs to mitigate this hazard. No costs are included.

5.3 DRAINAGE SYSTEMS AND EROSION CONTROL

DRAINAGE SYSTEM AND EROSION CONTROL		
SYSTEM	EXISTS AT SITE	CONDITION
Surface Flow	☒	Fair
Inlets	☒	Fair
Swales	☐	--
Detention pond	☐	--
Lagoons	☐	--
Ponds	☐	--
Underground Piping	☒	Poor
Pits	☐	--
Municipal System	☒	Good
Dry Well	☐	--

Anticipated Lifecycle Replacements:

None

Actions/Comments:

- There is no evidence of storm water runoff from adjacent properties. The storm water system appears to provide adequate runoff capacity. There is no evidence of major ponding or erosion.
- The small sump pump was inaccessible at the time of the assessment. The POC reported that the sump pump is functioning properly and adequate to serve the building. Routine maintenance of the sump pump is required to prevent back-ups and clogging. Lifecycle replacement of the sump pump is anticipated.

5.4 TOPOGRAPHY AND LANDSCAPING

ITEM	DESCRIPTION						
Site Topography	Slopes gently down from the west and south sides of the property to the northeast property line.						
Landscaping	Trees	Grass	Flower Beds	Planters	Drought Tolerant Plants	Decorative Stone	None
	☒	☒	☐	☐	☐	☐	☐
Landscaping Condition	Fair						
Irrigation	Automatic Underground		Drip		Hand Watering		None
	☐		☐		☐		☒
Irrigation Condition	--						

RETAINING WALLS		
TYPE	LOCATION	CONDITION
Concrete	West side of baseball field	Fair

Anticipated Lifecycle Replacements:

- Embankment concrete retaining walls

Actions/Comments:

- The topography and adjacent uses do not appear to present conditions detrimental to the property. There are no significant areas of erosion.
- The landscape trees and shrubs located in isolated areas appear poorly maintained. Trees and shrubs need to be trimmed back from fences and the rear building exterior roof. Dead limbs need pruning and removal.
- The retaining wall has stress cracks evident at isolated locations. The damaged portions of the retaining wall must be repaired.

5.5 GENERAL SITE IMPROVEMENTS

PROPERTY SIGNAGE	
Property Signage	Building mounted
Street Address Displayed?	No

SITE AND BUILDING LIGHTING					
Site Lighting	None	Pole Mounted	Bollard Lights	Ground Mounted	Parking Lot Pole Type
	☒	☒	☐	☐	☐
	Choose an item.				
Building Lighting	None		Wall Mounted		Recessed Soffit
	☐		☒		☐
	Poor				

A minimal number of wall packs are installed on the building condition. One large flood light is installed on the southeast roof parapet aimed at the playground and parking lot. There is one pole-mounted light fixture near the north end of the building. Street lights provide some lighting on Sprague Street and Etna Road.

SITE FENCING		
TYPE	LOCATION	CONDITION
Chain link with metal posts	Sprague Street	Poor
Chain link with metal posts	Sprague Street	Missing
Chain link with metal posts	Etna Road	Fair
Chain link with metal posts	Etna Road	Missing

SITE FENCING		
TYPE	LOCATION	CONDITION
Chain link with metal posts	East side of Building Extension	Fair
Chain link with metal posts	West side of Building Extension	Missing

Fencing along Sprague Street and Etna Road is partially installed and does not provide a complete barrier along the traveled streets. Additionally, the existing fencing on Sprague Street has a large hole that needs repair.

REFUSE DISPOSAL				
Refuse Disposal	Common area dumpsters			
Dumpster Locations	Mounting	Enclosure	Contracted?	Condition
East side of building center	Asphalt paving	None	Yes	Missing

Chain link fence is installed only in front of one dumpster, not surrounding the unit. No enclosure is provided for the second dumpster.

OTHER SITE AMENITIES			
	DESCRIPTION	LOCATION	CONDITION
Playground Equipment	Plastic and metal	East of building	Fair
Tennis Courts	None		--
Basketball Court	Asphalt	North of baseball field	Fair
Swimming Pool	None		--

Playground is mostly bark mulch graded with a small, limited area made handicapped accessible.
Basketball court is full court with two backboards and baskets.

Anticipated Lifecycle Replacements:

- Exterior Lighting
- Site Fencing
- Dumpster Enclosures

Actions/Comments:

- On-going periodic maintenance is highly recommended. Future lifecycle replacements of the components listed above will be required.
- Additional signage (is needed now) to meet ADA accessibility requirements.
- All site exterior lighting is in poor condition and needs to be replaced. This includes exterior wall packs and high intensity fixtures.
- Site fencing should be completed on Sprague Street and on Etna Road. A repair in the fence is needed for a large fence hole on Sprague Street. No fence currently exists to the north beyond the rear building extension. Chain-link fencing on the east side of the rear building extension is overgrown and the trees and shrubs need to be cut back and cleaned up.
- Dumpster enclosures are non-existent and should be installed.
- The property identification sign or building label should be augmented with the street number 322.
- There are no exterior lights except those on the school building itself. Currently, the school relies on street lighting on both Sprague Street and Etna Road. Repair or replace building light fixtures attached to the building. After the wall packs and high intensity lights on the building are fixed or replaced, perform a simple lighting study to verify there is adequate lighting for safety and security.

- The playground, ball fields and basketball court are not lighted. It is assumed that these areas are used only during daylight and that is sufficient.
- The two dumpsters do not have adequate enclosures. Provide enclosures for both dumpsters with doors allowing disposal of garbage in the dumpsters and for truck access.
- The asphalt basketball court is rough and needs to be resurfaced or milled and sealed.
- An annual inspection is conducted for rodents and insects. Any problems are addressed as necessary.

6 BUILDING ARCHITECTURAL AND STRUCTURAL SYSTEMS

6.1 FOUNDATIONS

BUILDING FOUNDATION		
ITEM	DESCRIPTION	CONDITION
Foundation	Concrete spread footings	Fair
Basement and Crawl Space	Crawl space, dirt floor	Fair

Anticipated Lifecycle Replacements:

- No components of significance

Actions/Comments:

- Isolated areas of the foundation systems are exposed, which allows for limited observation. There are no significant signs of settlement, deflection, or movement. The basement walls appear intact and structurally sound. There is no evidence of movement or water infiltration. The furnace room sump pump appears to have been idle for some time.
- The foundations and footings cannot be partially observed. There are isolated areas of cracking. There are a few of these limited cracking areas. Although the estimated cost of repair cannot be accurately determined without further evaluation by a tradesman, a budgetary cost allowance to repair the affected elements is also included.
- Plants are growing between the exterior foundation and pavement or other structures up against the rising foundation. Plants and shrubs must be removed to avoid damage to foundations or bituminous pavement and additionally to prevent water ingress.

6.2 SUPERSTRUCTURE

BUILDING SUPERSTRUCTURE		
ITEM	DESCRIPTION	CONDITION
Framing / Load-Bearing Walls	Cast-in-place concrete	Fair
Ground Floor	Concrete topped decking	Fair
Upper Floor Framing	Not accessible	Fair
Upper Floor Decking	Not accessible	Fair
Roof Framing	Wood joists, purlins, rafters	Fair
Roof Decking	Not accessible	--

Anticipated Lifecycle Replacements:

- No components of significance

Actions/Comments:

- The superstructure is concealed. Walls and floors appear to be plumb, level, and stable. There are no significant signs of deflection or movement. There were no noticeable signs of water intrusion through the foundation.

6.3 ROOFING

PRIMARY ROOF			
Type / Geometry	Flat	Finish	Single-ply membrane
Maintenance	Outside Contractor	Roof Age	~15 Years
Flashing	Sheet metal	Warranties	NA
Parapet Copings	Parapet with sheet metal coping	Roof Drains	Internal drains
Fascia	None	Insulation	None
Soffits	None	Skylights	No
Attics	NA	Ponding	No
Ventilation Source-1	Power Vents	Leaks Observed	No
Ventilation Source-2	--	Roof Condition	Fair

The primary roof is located over the main classroom building and the auditorium/gym, which consists of about 75% of the total roof area. Roof has internal drains and overflow scuppers through the parapet.

SECONDARY ROOF			
Type / Geometry	Gable Roof	Finish	Asphalt shingles
Maintenance	Outside Contractor	Roof Age	~23 Years
Flashing	Sheet metal	Warranties	NA
Parapet Copings	None	Roof Drains	Edge drainage to ground
Fascia	--	Insulation	Fiberglass batt
Soffits	Exposed Soffits	Skylights	No
Attics	Wood joists with plywood sheathing	Ponding	No
Ventilation Source-1	Gable end vents	Leaks Observed	No
Ventilation Source-2	Soffit Vents	Roof Condition	Poor

The rear building extension has a secondary roof that is pitched asphalt shingle room with an attic as noted below.

Anticipated Lifecycle Replacements:

- Asphalt shingles
- Flat roof membrane
- Roof access hatch

Actions/Comments:

- The flat membrane roof finishes appear to be more than 10 years old. The rear building extension gable roof appears to be more than 23 years old. Information regarding roof warranties or bonds was not available. The roofs are maintained by an outside contractor.
- According to the POC, there are no active roof leaks. There is no evidence of active roof leaks.
- There is no evidence of roof deck or insulation deterioration. The roof substrate and insulation should be inspected during any future roof repair or replacement work.
- Roof sloping and drainage appears to be adequate. Clearing and minor repair of drain system components should be performed regularly as part of the property management's routine maintenance and operations program. Some of the roof drain covers are rusted and missing material that prevents debris or animals from entering the drainage piping. Replace as necessary.
- The attics are not accessible and it could not be determined if there is moisture, water intrusion, or excessive daylight in the attics.
- The entire gable asphalt shingle roof above the rear building extension needs replacement. This includes the gable roof over the hall connecting the main building with the building extension. Three split system heat exchangers sit on the hallway roof. Recommend replacing the three heat exchangers during or after replacing the roof, to avoid extra effort and expense.
- All roof vent fans should be checked for proper operation and control. Any damaged vents must be repaired or replaced. This work is considered routine maintenance.
- The roof gable end venting appears in need of repair. Louvers need to be repaired and screens installed if missing.
- The roof hatch providing ladder access to the roof is severely rusted and needs to be replaced.
- Moss is growing in some areas along the foundation and up on the roof near the three 2.5 ton split heating units. Removal and cleaning is needed.

6.4 EXTERIOR WALLS

BUILDING EXTERIOR WALLS		
TYPE	LOCATION	CONDITION
Primary Finish	Brick veneer	Fair
Secondary Finish	--	--
Accented with	Painted wood	Poor
Soffits-main building	Exposed	Fair
Soffits-rear building extension	Concealed	--

Building sealants (caulking) are located between dissimilar materials, at joints, and around window and door openings.

Anticipated Lifecycle Replacements:

- Wood trim and trim paint
- Masonry and brick clean, re-point, routine maintenance

Actions/Comments:

- On-going periodic maintenance, including patching repairs, graffiti removal, and re-caulking, is highly recommended. Future lifecycle replacements of the components listed above will be required.
- Electrical wiring connects to the building on the west side near the building center. The fastener that connects to the messenger cable, which supports the electrical conductors, is pulling away from the building, and must be repaired. This is a potential shock hazard and could interrupt electric service to the building. Immediate repair is necessary.
- The wood trim on the rear building extension needs to be cleaned and painted to protect it from deterioration.
- The brick masonry displays no evidence of cracking or efflorescence. Mortar joints must be periodically cleaned and re-pointed.

- Concrete spalling and cracks are evident on the concrete retaining wall and repair is necessary.
- Doors are not fire-rated. Certification labels are not displayed on the fire-rated components. New doors and door hardware must be installed at all required locations.

6.5 EXTERIOR AND INTERIOR STAIRS

BUILDING EXTERIOR AND INTERIOR STAIRS					
TYPE	DESCRIPTION	RISER	HANDRAIL	BALUSTERS	CONDITION
Building Exterior Stairs	Concrete stairs	Closed	Metal	None	Fair
Building Interior Stairs	Steel-framed with pre-cast treads	Closed	Metal	None	Good

Anticipated Lifecycle Replacements:

- Repair exterior concrete stairs and steps

Actions/Comments:

- No significant actions are identified currently. On-going periodic maintenance is highly recommended. Future lifecycle replacements of the components listed above will be required.
- The detached west side steps leading from the school parking lot to Etna Road show signs of spalling. The attached steps on the building east side are showing some wear also. The damaged portions of the stairs will need to be repaired.

6.6 EXTERIOR WINDOWS AND DOORS

BUILDING WINDOWS				
WINDOW FRAMING	GLAZING	LOCATION	WINDOW SCREEN	CONDITION
Aluminum framed, fixed	Single glaze	Main building	☐	Poor
Aluminum framed, operable	Single glaze	Classrooms	☐	Poor
Wood framed, fixed	Single glaze	Rear bldg. extension only	☐	Poor

BUILDING DOORS		
Main Entrance Doors	Door Type	Condition
	Metal, hollow	Fair
Secondary Entrance Doors	Metal, hollow	Fair
Service Doors	Solid core wood	Poor
Overhead Doors	None	--

Anticipated Lifecycle Replacements:

- Windows

- Exterior wood doors

Actions/Comments:

- Metal doors are utilized for most exterior doors. Some exterior doors are wood. Door condition varies widely.
- The main building windows (including the auditorium/gymnasium), are antiquated, energy-inefficient units with single-pane glazing. Some glass windows have been replaced with plexiglass, and the plexiglass develops cracks over time, increasing sun reflections and reducing visibility. Some of the windows that are meant to open are difficult to open and close. Window gaskets do not seal well. Window paint is peeling and probably lead-based. Most windows are beyond maintenance and require replacement. Window and window frame replacement is recommended.
- The rear building extension windows are old, energy-inefficient, wood framed, with single pane glazing. Exterior window paint is failed and the exterior window components are weathered. Replace windows and frames.
- The rear building extension doors are solid wood core. The wood on some doors is rotting, paint is peeling, and the metal frames are significantly corroded near the concrete base. Replace doors and corroded steel frames.
- The rear building extension windows are covered with a metal chain link frame and mesh to prevent intruders. These assemblies are rusted and need replacement.

6.7 PATIO, TERRACE, AND BALCONY

Not applicable. There are no patios, terraces, or balconies.

7 BUILDING MECHANICAL AND PLUMBING SYSTEMS

7.1 BUILDING HEATING, VENTILATING, AND AIR CONDITIONING (HVAC)

BUILDING CENTRAL HEATING SYSTEM	
Primary Heating System Type	Hot water furnaces
Quantity and Capacity of Major Components	Two furnaces at 1281 MBH each hydronic
Total Heating Capacity	2562 MBH
Heating Fuel	Fuel oil
Location of Major Equipment	Mechanical rooms
Space Served by System	Entire building except rear building extension
Age Ranges	Furnace #1 new in 2011, Furnace #2 new in 1998
Furnace Condition	Fair
Heat Exchanger Condition	Good

DISTRIBUTION SYSTEM	
HVAC Water Distribution System	Two-pipe
Heating Water Circulation Pump Size & Quantity	Two pumps at 1/2 HP each
Chilled Water Circulation Pump Size & Quantity	NA
Condenser Water Circulation Pump Size & Quantity	NA
Pump Condition	Good
Air Distribution System	NA
Quantity and Capacity of Air Handlers	NA
Location of Air Handlers	Choose an item.
Large Spaces the Larger Dedicated AHU's Serve	NA
Age of Air Handlers	NA
Air Handler Condition	Choose an item.
Terminal Units	Unit ventilators
Quantity and Capacity of Terminal Units	approximately 14 unit ventilators ranging from 750 to 1500 CFM each
Location of Terminal Units	Adjacent to windows
Spaces Served by Terminal Units	Throughout facility
Terminal Unit Condition	Fair

SUPPLEMENTAL COMPONENTS	
Supplemental Component #1	Electric baseboards
Location / Space Served by electric heating	Rear building extension hallway and classrooms
Condition	Fair
Supplemental Component #2	Package units
Location / Space Served by air conditioner	Computer room
Condition	Good
Supplemental Component #3	Split system heat pumps
Location / Space Served by split system heat pump	Occupational therapy/physical therapy room
Condition	Good
Supplemental Component #4	Split system heat pumps
Location/Space served by heating	Rear building extension, one 2.5 Ton unit per classroom
Condition	Poor

CONTROLS & VENTILATION	
HVAC Control System	BAS, direct digital controls (DDC)
HVAC Control System Condition	Good
Building Ventilation	Natural ventilation and classrooms with unit ventilators
Ventilation System Condition	Good

Anticipated Lifecycle Replacements:

- Furnaces including burners
- Hot water distribution pumps and motors
- Fuel oil pumps and motors
- Split system heat pumps
- Unit ventilators
- Baseboard heaters
- Rooftop exhaust fan
- Classroom wall exhaust fans
- Building Automation System (BAS)
- Chemical feed pump and tank
- Backflow preventer on furnace water
- Fuel oil tank, underground, ~4000 gallons, east side of building center
- Fuel oil tank monitoring system

Actions/Comments:

- The HVAC systems are maintained by an outside contractor. No records for this work are available.
- None of the HVAC equipment is original. The HVAC equipment varies in age. HVAC equipment is replaced on an "as needed" basis.
- The furnaces appear to be sized so that one operates and can heat the entire building if the second is out of service. There are dual, redundant No.2 fuel oil feed pumps. It appears that one fuel oil pump is sized to feed one furnace.
- There are two air handler units above the auditorium/gymnasium stage that are out of service. These units are abandoned in place. No action is necessary to bother with these obsolete units, since building heating is done via radiators installed along the sides of the gym walls.
- Three split heat pump systems provide heat and cooling to the rear building extension classrooms. There are unit ventilators in each classroom to control temperature and provide a mix of fresh air. The outdoor heat exchanger fins are damaged. These units are close to the end of their life and should be replaced when the aged roof is replaced (to be cost effective).
- There is a unit ventilator installed in the occupational/physical therapy classroom overhead. The unit appears to be 400-600CFM and it has modulating valves for heat control. The unit ventilator appears to be approximately 10 years old and is in working order.
- The computer server room has a packaged air conditioner that is vented out the window. It appears that the hot water radiator in this room is turned off.
- There are a couple of 6kBTU/Hour window-mounted air conditioner in the second floor teacher's room and another classroom.
- One of the rear building extension unit ventilator outside vent has duct tape. It appears as an attempt to reduce the amount of fresh air which would reduce outside air flow and increase space heat in that classroom. The tape should be removed to avoid having too little fresh air, which can result in mold or mildew growth, high carbon monoxide in the classroom which is a serious hazard, and it defeats the purpose of using the unit ventilator. Supplemental electric heat should be utilized if the classroom is too cold.
- Since the building does not meet today's ventilation standards, consider installation of carbon monoxide sensors to ensure that there is enough fresh air brought in, especially in winter when the building envelope is closed.
- There is a domestic water backflow preventer on the furnace feedwater, and it is periodically tested. There is no backflow preventer on the domestic water supply, and one is needed to prevent building water from contaminating the town water supply.
- It appears that one furnace is capable of providing enough heat for the entire building, so the second furnace is held in reserve and redundant. Typically, the furnace with the higher temperature setpoint operates and if it has a problem, the second furnace with a slightly lower setpoint picks up the heating load.
- Approximately 50 percent of the HVAC equipment is original. The original equipment includes radiators and piping throughout the main building. The HVAC equipment varies in age. The furnaces are replaced as necessary. Furnace maintenance is completed every summer when school is closed.
- A significant heating system upgrade was completed in 2011. Various unit ventilators were installed and controls were connected to the Siemens building automation system (BAS). Many control valves were installed on individual (original) heating radiators to control/regulate heat.
- Recommend hiring a heating and/or engineering company that specializes in and commissions commercial building hydronic systems to investigate what it would take to regulate heat when and where needed in the building. The result will be increased comfort for all inhabitants and increased heating system efficiency, which will save money on fuel oil costs. A budgetary cost for this work, including engineer assessment and repairs, is included in the cost tables.
- One of the hot water circulation pumps was short-cycling on and off for just a few seconds. This is not how the system is supposed to work. Cycling motors on and off will overheat the motor due to high starting current surge. The motor will prematurely wear out. Resolving this problem will make the heating system more reliable and cost-effective over the long term.
- Low point radiator discharge piping has been inspected for many of the original heat radiators. Many radiators are tagged showing that they were checked by American Plant Maintenance, however, the tags do not provide a date when the inspection was completed. It appears that traps have been installed to catch any debris that might dislodge inside radiators and piping. Recommend quarterly inspections of circulating furnace hot to ensure water circulation piping is clear and functioning.
- Many steel radiators are rusted on the outside. Clean and paint to prevent further external deterioration.
- Clean all heating radiators. Dust and debris in radiator assemblies inhibits heating. The electric heaters in the rear building extension need a rigorous cleaning.
- A new fuel oil tank monitoring and alarm system is needed to continuously monitor tank containment integrity.

7.2 BUILDING PLUMBING AND DOMESTIC HOT WATER

BUILDING PLUMBING SYSTEM		
TYPE	DESCRIPTION	CONDITION
Water Supply Piping	Galvanized iron/copper	Poor
Waste/Sewer Piping	Cast iron	Poor
Vent Piping	Cast iron	Good
Water Meter Location	Furnace Room north wall	

DOMESTIC WATER HEATERS OR FURNACES	
Components	Water Heater
Fuel	Electric
Quantity and Input Capacity	One unit at approximately 2000 watts
Storage Capacity	80 gallons
Furnace or Water Heater Condition	Poor
Supplementary Storage Tanks?	No
Domestic Hot Water Circulation Pumps (3 HP and over)	No
Adequacy of Hot Water	Adequate
Adequacy of Water Pressure	Adequate

PLUMBING FIXTURES	
Water Closets	Commercial
Toilet (Water Closet) Flush Rating	1.6 GPF
Common Area Faucet Nominal Flow Rate	0.5 GPM
Condition	Fair

Anticipated Lifecycle Replacements:

- Supply distribution piping
- Waste/sanitary distribution piping
- Water heaters
- Toilets
- Sinks
- Vanity

Actions/Comments:

- The plumbing systems appear to be functioning adequately for most applications. Routine and periodic maintenance is recommended. Future lifecycle replacements of the components or systems listed above will be required.
- The water pressure appears to be insufficient at drinking fountains and sufficient at sinks and toilets.
- The hot water heater located in the nurse's room is severely rusted and could fail any time. It needs to be replaced.

- Most rest room toilets have been upgraded to 1.6 gallons per flush units. Some appear older and these should be replaced to conserve water and for higher reliability.
- Rest room partitions are mixed metal, painted wood and stone doors and panels, many are original stone. Many drill holes are apparent due to various repairs over time. The stalls do function, however, they should be replaced, because they have clearly reached the end of their useful life. Maintenance or obsolete part replacement will continue to be a hodge-podge effort.
- Second floor restroom in classroom #208 is not functioning and is in disrepair. The sink does not work. Toilet is 1.6GPF. The ceiling leaked at some point. The worn-out tile floor needs replacement. The plaster wall is cracked. There is a hole under the sink that needs repair. The hole under the sink exposes sewer piping that is showing significant signs of corrosion.
- Urinals in the boy's bathrooms are original and in poor condition. They all appear to have disintegrated drains where an attempt has been made to patch them. The urinals are still connected to plumbing piping in one bathroom and disconnected in another bathroom. The urinals should be permanently removed, associated plumbing removed and capped, and install or repair trim where the urinals are removed.
- Some of the sinks are original, with separate cold water and warm water faucets on each side of the sink. Some are spring return, so you hold the faucet while washing one hand at a time. There is no possibility of installing faucet aerators on these old faucets. Replace all old sinks and faucets. Some of the plumbing supply and discharge piping is significantly corroded and must be replaced at the same time.
- There is isolated evidence of leaks. A couple were found in the Teachers Room. It is unclear whether the leaks are from internal plumbing or ingress of water from the outside through the building envelope. All active plumbing or building envelope leaks must be repaired.
- The sink in the Nurse's Room has a booster water pump to send water to the sewer. The sink is lower than the sewer line that runs from the street to the school. The sink may not have met plumbing codes when it was installed, because it appears to have been added after initial construction. If there is no check valve or other means preventing backflow from the street sewer system, there is a potential hazard. The vanity is in poor condition and needs replacement.
- The plumbing infrastructure is original to the 1930 construction of the property. The cast iron drainage piping built into the structure was showing significant corrosion where it could be examined. Replacement cost is included in the AssetCalc database.
- Although there have been no reported chronic problems to date, the plumbing supply piping may begin to leak and fail due to the age of the piping. Where exposed, copper piping does show significant corrosion. A budget for required repairs or partial replacements is included.

7.3 BUILDING GAS DISTRIBUTION

Not applicable. The property is not supplied with any flammable gas.

7.4 BUILDING ELECTRICAL

BUILDING ELECTRICAL SYSTEMS			
Electrical Lines	Overhead	Transformer	Pole-mounted
Main Service Size	400 Amps	Volts	120/240 Volt, single-phase
Meter & Panel Location	Bldg south basement	Branch Wiring	Copper
Conduit	Metallic	Step-Down Transformers?	No
Security / Surveillance System?	Yes	Building Intercom System?	Yes
Lighting Fixtures	T-8 linear fluorescent		
Main Distribution Condition	Fair		
Secondary Panel and Transformer Condition	Fair		

BUILDING ELECTRICAL SYSTEMS	
Lighting Condition	Fair

BUILDING ELECTRICAL SYSTEMS			
Electrical Lines	Overhead	Transformer	Pole-mounted
Second Service Size	125 Amps	Volts	120/240 Volt, single-phase
Meter & Panel Location	Bldg west center	Branch Wiring	Copper
Conduit	Metallic	Step-Down Transformers?	No
Main Distribution Condition	Fair		
Secondary Panel and Transformer Condition	Fair		

BUILDING ELECTRICAL SYSTEMS			
Electrical Lines	Overhead	Transformer	Pole-mounted
Third Service Size	125 Amps	Volts	120/240 Volt, single-phase
Meter & Panel Location	Rear bldg. ext., Rm 212	Branch Wiring	Copper
Conduit	Metallic	Step-Down Transformers?	No
Main Distribution Condition	Fair		
Secondary Panel and Transformer Condition	Fair		

Anticipated Lifecycle Replacements:

- Circuit breaker panels
- Cameras

Actions/Comments:

- The onsite electrical systems up to the meters are owned and maintained by the electric utility Eversource.
- The electrical service and capacity appear to be adequate for the property's demands.
- There appear to be three electric services feeding the facility (400A, 125A, and 125A). The tables above identify these services. It appears that the electric service connected to the rear building extension is active along with the other two.
- The distribution panels are mostly updated to a mix of equipment that appears to be 1960s to 2011. The electrical service is reportedly adequate for the facility's needs. However, due to the age of the panels and switchboards and increasing difficulty of obtaining replacement parts over time, lifecycle replacements are recommended for the 400amp distribution panel.
- Most electrical components within the building, including the circuit breaker panels, and wiring, appear upgraded from original 1930 to somewhere between the 1960s and 2011. Some panels are from the 1960s and are obsolete. The main distribution panel for the 400ampere service should be replaced due to its age and lack of supportable parts.
- In addition to the component-by-component replacements listed here, an additional overall budgetary allowance is included to account for some corresponding wiring and sub-feed replacements and upgrades.

- If the main electrical service and some of the higher capacity distribution circuits are installed with aluminum wiring, then these services should be inspected on a biennial basis. Perform an infrared inspection and make any necessary repairs, such as tightening connections that may become loose. These inspections and typical repairs are considered part of the operations program.
- Interior lighting fixtures appear to be in working order and will need to be replaced as they age based on their life cycle.
- Many electrical rooms and closets have stockroom items stored in front of electrical panels. Nothing is allowed to be stored in these areas in front of electrical panels within 36 inches of the front of the panel. These are maintenance areas that are required to be kept clear and secure for maintenance personnel and firemen. Electrical rooms and closets should be locked. Lack of clear access is a hazard.
- Electrical panels in public areas should be locked at all times to prevent unauthorized access or hazard to students and staff.
- There is no emergency generator on this site.

7.5 BUILDING ELEVATORS AND CONVEYING SYSTEMS

There are no elevators or conveying systems. There is a handicapped lift to lift from the gymnasium floor level up to access the stage.

Anticipated Lifecycle Replacements:

- Wheelchair lift

Actions/Comments:

- There is no ADA handicapped access to the second floor or the basement. At this time, an elevator installation would be an unreasonable cost, so an elevator is not required. Any handicapped classes can be organized to utilize the first floor, where there is access.
- Perform periodic operation, test, and recertification of the lift assembly.

7.6 FIRE PROTECTION AND SECURITY SYSTEMS

ITEM	DESCRIPTION					
Type	None					
Fire Alarm System	Central Alarm Panel	☒	Battery-Operated Smoke Detectors	☐	Alarm Horns	☒
	Annunciator Panels	☒	Hard-Wired Smoke Detectors	☒	Strobe Light Alarms	☒
	Pull Stations	☒	Emergency Battery-Pack Lighting	☒	Illuminated EXIT Signs	☒
Alarm System Condition	Fair					
Sprinkler System	None	☒	Standpipes	☐	Backflow Preventer	☐
	Hose Cabinets	☐	Fire Pumps	☐	Siamese Connections	☐
Suppression Condition	--					
Central Alarm Panel System	Location of Alarm Panel		Installation Date of Alarm Panel			
	Main office closet, first floor		~1997			
Fire Extinguishers	Last Service Date		Servicing Current?			

ITEM	DESCRIPTION			
Type	None			
	June 2016		Yes	
Hydrant Location	Various hydrants on Sprague Street and Etna Road			
Siamese Location	None			
Special Systems	Kitchen Suppression System	☐	Computer Room Suppression System	☐

Anticipated Lifecycle Replacements:

- Sprinkler system
- Central monitoring and alarm panel, including batteries
- Alarm horns, strobes, manual pull stations, smoke detectors, heat detectors

Actions/Comments:

- On-going periodic maintenance is highly recommended. Future lifecycle replacements of the components listed above will be required.
- Fire monitoring and alarm system alarm notification horns and strobes were updated approximately 10 years ago. The fire protection system appears in serviceable condition and is tested at least annually by the Dedham Fire Department.
- An alarm strobe is damaged in the bathroom in the rear building extension and should be replaced.
- Fire annunciators on the outside of building entrance doors are missing for the rear building extension handicap access and for the west central handicap access door. These are required to notify someone that may be entering the building that there is a fire alarm.
- The building is not protected by a fire suppression system. Due to its construction date, the facility is most likely “grandfathered” by code and the installation of fire sprinklers not required until major renovations are performed. Regardless of when or if installation of facility-wide fire suppression is required by the governing municipality, EMG recommends a retrofit be performed. A facility-wide fire suppression retrofit is recommended. A budgetary cost is included.

8 INTERIOR SPACES

8.1 INTERIOR FINISHES

The facility is used as an educational institution for pre-school and kindergarten for the Town of Dedham. The school includes classrooms, offices, auditorium with a full-court gymnasium and raised stage at one end, and mechanical rooms utilizing three floors of living spaces. The first floor has a main central hallway with offices, classrooms, rest rooms, and the gym. The second floor has a central hallway with classrooms, teacher's room and rest rooms. The basement has classrooms, furnace room, nurse's room, server room and storage all located off a central hallway. There are two large crawl spaces, one under the gym and the other under west side classrooms.

The most significant interior spaces include classrooms and a gymnasium.

The following table generally describes the locations and typical conditions of the interior finishes within the facility:

TYPICAL FLOOR FINISHES		
FLOOR FINISH	LOCATIONS	GENERAL CONDITION
Vinyl tile	Classrooms, offices	Fair
Ceramic tile	Restrooms	Fair
Terrazzo	Restrooms	Good
Carpet	Basement classrooms	Fair
Hardwood	Gymnasium, stage	Good
Hardwood	Portion of teacher's room	Poor
Coated concrete	Basement classrooms	Fair
TYPICAL WALL FINISHES		
WALL FINISH	LOCATIONS	GENERAL CONDITION
Painted CMU	Lobby, offices, classrooms, restrooms	Fair
Ceramic tile	Restrooms	Fair
TYPICAL CEILING FINISHES		
CEILING FINISH	LOCATIONS	GENERAL CONDITION
Hard glued tiles	Gymnasium	Good
Suspended T-bar (Acoustic)	Rear building extension	Fair
Plaster	Offices, classrooms, restrooms, furnace room	Fair

INTERIOR DOORS		
ITEM	TYPE	CONDITION
Interior Doors	Metal	Fair
Interior Doors	Wood & Glass	Fair
Door Framing	Metal	Good
Door Framing	Wood	Good
Fire Doors	No	Failed

Anticipated Lifecycle Replacements:

- Carpet
- Vinyl tile
- Suspended acoustic ceiling tile
- Interior doors

Actions/Comments:

- On-going periodic maintenance is highly recommended. Future lifecycle replacements of the components listed above will be required.
- It appears that the interior finishes are original. Metal internal doors are used at the end of hallways. These doors are painted to look like wood. Solid core wood doors are used to classrooms, closets and rest rooms.
- The existing interior doors are original and do not appear to meet current fire rating requirements. Recommend the antiquated interior doors are replaced, and modern fire-rated door assemblies are installed where required. A budgetary cost for this replacement has been included.
- Vinyl tile flooring throughout the building is worn out and needs replacement. Tile is covered with carpet in quite a few areas, and even the carpet cover is wearing out. Once the tile floors are replaced, there will no longer be a need for carpet on the first and second floors. The only exception is the basement, where wall-to-wall carpet is the only floor covering, so it is considered a lifecycle cost.
- The small room next to the teacher's room has a hardwood floor with significant wear. Floor needs to be refinished.
- There are some stained and/or damaged ceiling tiles in the boy's rest room that need replacement. Same goes for the rear building extension classrooms.
- There are some damaged walls that need plaster and paint. The ceilings have isolated areas of water-damaged ceilings or cracking. The damaged ceiling areas need to be repaired. The cost to replace the damaged finishes is relatively insignificant and the work can be performed as part of the property management's routine maintenance program.

8.2 COMMERCIAL KITCHEN & LAUNDRY EQUIPMENT

There is no dedicated kitchen or cafeteria in the building. There is limited kitchen functionality, which includes a commercial refrigerator and commercial warmer. The Dedham High School prepares food that is brought to the Capen School.

Laundry wash and dry equipment is not available.

COMMERCIAL KITCHEN		
APPLIANCE	COMMENT	CONDITION
Refrigerators	Up-right, commercial	Good

COMMERCIAL KITCHEN		
APPLIANCE	COMMENT	CONDITION
Warmer	Up-right, commercial	Good

Anticipated Lifecycle Replacements:

- Convection oven warmer
- Refrigerator

Actions/Comments:

- No significant actions are identified at the present time. On-going periodic maintenance is highly recommended. Future lifecycle replacements of the components listed above will be required.
- The Nurse's Room on the basement level has counter tops and an electric cook stove. The stove should be removed because the room is not zoned for or suitable for an electric range.

9 OTHER STRUCTURES

Not applicable. There are no major accessory structures.

10 CERTIFICATION

The Town of Dedham Schools retained EMG to perform this Facility Condition Assessment in connection with its continued operation of Charles J. Capen School, 322 Sprague Street, Dedham, MA 02026, the "Property". It is our understanding that the primary interest of the Town of Dedham is to locate and evaluate materials and building system defects that might significantly affect the value of the property and to determine if the present Property has conditions that will have a significant impact on its continued operations.

The conclusions and recommendations presented in this report are based on the brief review of the plans and records made available to our Project Manager during the site visit, interviews of available property management personnel and maintenance contractors familiar with the Property, appropriate inquiry of municipal authorities, our Project Manager's walk-through observations during the site visit, and our experience with similar properties.

No testing, exploratory probing, dismantling or operating of equipment or in depth studies were performed unless specifically required under Section 2 of this report. This assessment did not include engineering calculations to determine the adequacy of the Property's original design or existing systems. Although walk-through observations were performed, not all areas were observed (See Section 4.2 for areas not observed). There may be defects in the Property, which were in areas not observed or readily accessible, may not have been visible, or were not disclosed by management personnel when questioned. The report describes property conditions at the time that the observations and research were conducted.

This report has been prepared on behalf of and exclusively for the use of The Town of Dedham for the purpose stated within Section 2 of this report. The report, or any excerpt thereof, shall not be used by any party other than The Town of Dedham or for any other purpose than that specifically stated in our agreement or within Section 2 of this report without the express written consent of EMG.

Any reuse or distribution of this report without such consent shall be at The Town of Dedham and the recipient's sole risk, without liability to EMG.

Prepared by: Marty Nowland, PE, CEM,
Project Manager

Reviewed by:

Scott Williford
Technical Report Reviewer
for
Bill Champion
Program Manager
bchampion@emgcorp.com
800.733.0660 x6234

11 APPENDICES

APPENDIX A: PHOTOGRAPHIC RECORD

APPENDIX B: SITE AND FLOOR PLANS

APPENDIX C: EMG ACCESSIBILITY CHECKLIST

APPENDIX D: PRE-SURVEY QUESTIONNAIRE

APPENDIX A:
PHOTOGRAPHIC RECORD

PHOTO #1: *EAST EXTERIOR SIDE OF BUILDING*

PHOTO #2: *EXTERIOR SIDE OF BUILDING*

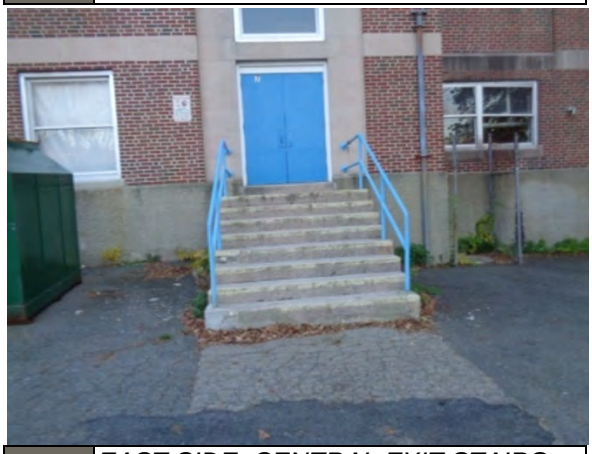


PHOTO #3: *EAST SIDE, CENTRAL EXIT STAIRS*

PHOTO #4: *DUMPSTER A WITH FRONT FENCE ONLY*

PHOTO #5: *DUMPSTER B WITH NO FENCING*

PHOTO #6: *PARKING LOT LOOKING EAST*

PHOTO #7:	*EAST FACE OF MAIN BUILDING & BASEBALL FIELD RETAINING WALL*

PHOTO #8:	*BASEBALL FIELD BACKSTOP AND RETAINING WALL*

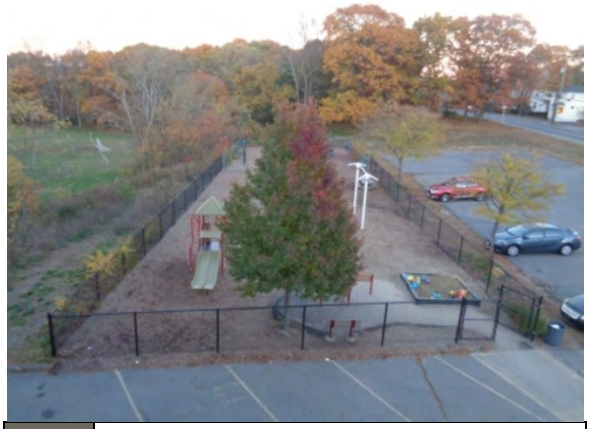


PHOTO #9:	*PLAYGROUND*

PHOTO #10:	*EAST END OF PARKING LOT*

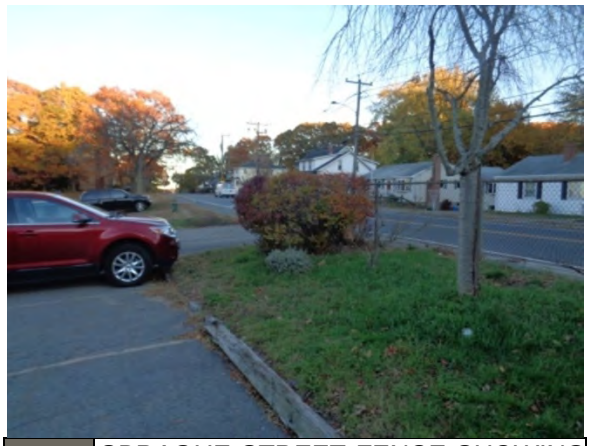


PHOTO #11:	*SPRAGUE STREET FENCE SHOWING FENCE HOLE & UNFINISHED FENCE*

PHOTO #12:	*WEST FACE OF BUILDING*

PHOTO #13:	*REAR BUILDING EXTENSION, NORTH SIDE*

PHOTO #14:	*REAR BUILDING EXTENSION, EAST SIDE*

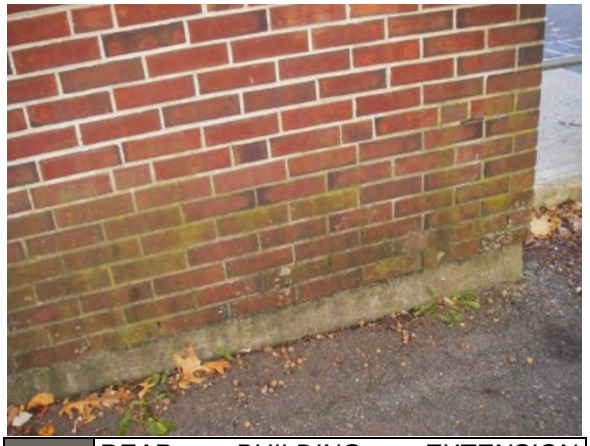


PHOTO #15:	*REAR BUILDING EXTENSION, NORTHEAST CORNER*

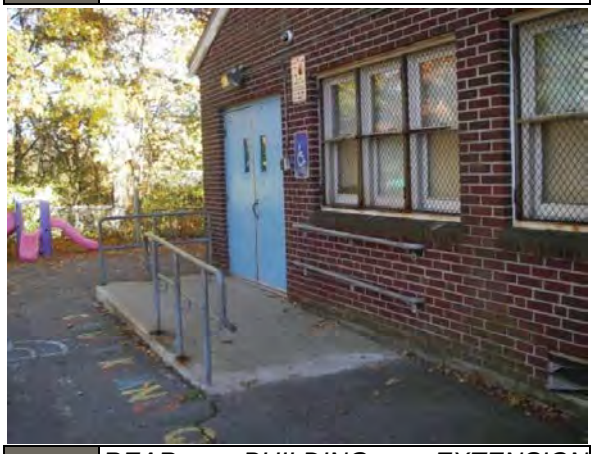


PHOTO #16:	*REAR BUILDING EXTENSION ACCESSIBLE RAMP*

PHOTO #17:	*REAR BUILDING EXTENSION GABLE ROOF VENT IN DISREPAIR*

PHOTO #18:	*REAR BLDG EXTENSION UNIT VENT FRESH AIR VENT BLOCKED*

PHOTO #19:	*REAR BUILDING EXTENSION ELECTRIC SERVICE*

PHOTO #20:	*REAR BLDG EXTENSION RUSTED WINDOW INTRUSION PROTECTION*

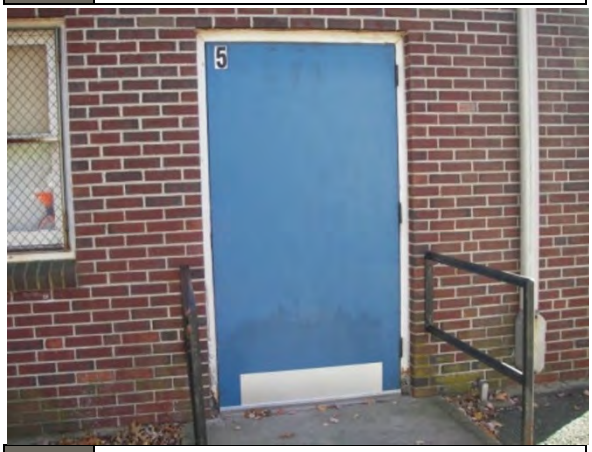


PHOTO #21:	*REAR BUILDING EXTENSION DOOR AND CORRODED DOOR FRAME*

PHOTO #22:	*REAR BUILDING EXTENSION DOOR AND DOOR FRAM DAMAGE*

PHOTO #23:	*REAR BLDG EXT. DAMAGED WALL PACK*

PHOTO #24:	*REAR BLDG EXT. ASPHALT ROOF AND PEELING TRIM*

PHOTO #25: *GYMNASIUM EXTERIOR, NORTH SIDE, ABANDONED AHU LOUVERS*

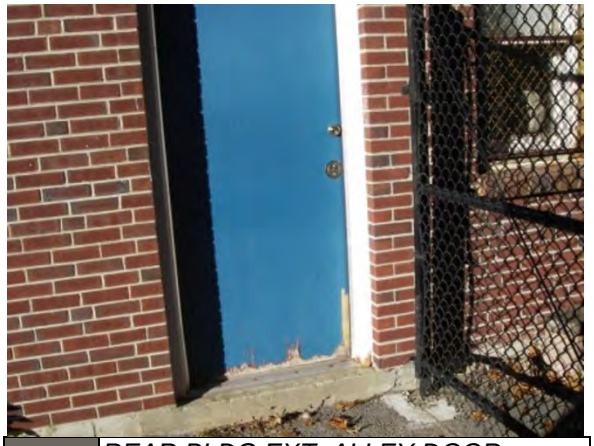


PHOTO #26: *REAR BLDG EXT. ALLEY DOOR*

PHOTO #27: *WEST ENTRANCE WITH HANDICAP RAMP AND RAILINGS*

PHOTO #28: *WEST SIDE SHOWING HANDICAP PARKING AND ENTRANCE*

PHOTO #29: *WEST PARKING LOT PAVEMENT CRACKING AND BREAKING UP*

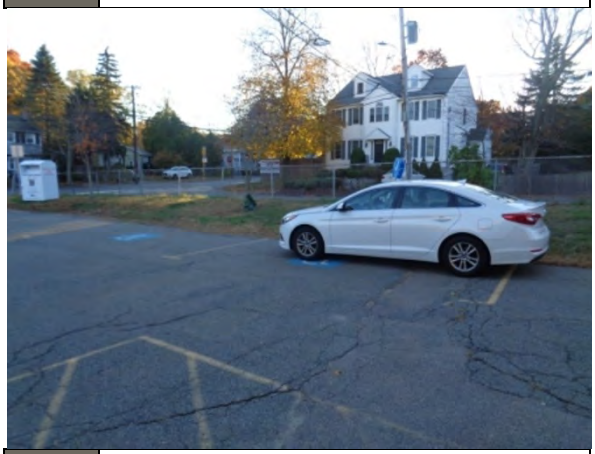


PHOTO #30: *HANDICAP PARKING AND PAVEMENT IN DISREPAIR*

PHOTO #31: *FRONT PARKING LOT LOOKING EAST*

PHOTO #32: *HANDICAP PARKING SIGN DAMAGED*

PHOTO #33: *EAST SIDE PARKING LOT ASPHALT DETERIORATION*

PHOTO #34: *BASEBALL FIELD, BROKEN CURBS & DAMAGED PAVEMENT*

PHOTO #35: *EAST SIDE EXTERIOR VIEW*

PHOTO #36: *EAST SIDE PAVEMENT AND PARKING CURBS DAMAGE*

PHOTO #37:	*PLAY FIELDS AND BASKETBALL COURT*

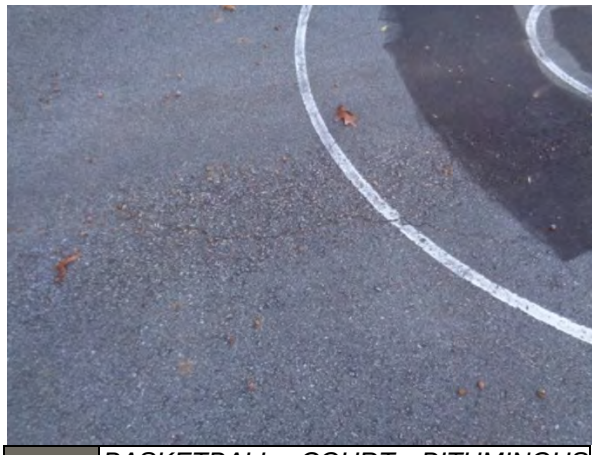


PHOTO #38:	*BASKETBALL COURT BITUMINOUS SURFACE CRACKING & ROUGH*

PHOTO #39:	*PLAYGROUND*

PHOTO #40:	*PLAYGROUND WITH MINIMAL HANDICAPPED ACCESS*

PHOTO #41:	*SOUTH PARKING LOT POOR CONDITION*

PHOTO #42:	*WEST PARKING LOT POOR CONDITION*

PHOTO #43: *RUSTED ROOF BILCO HATCH*

PHOTO #44: *ROOF MEMBRANE LOOKING SOUTH*

PHOTO #45: *ROOF MEMBRANE LOOKING NORTH*

PHOTO #46: *ROOF MEMBRANE CORNER*

PHOTO #47: *ROOF MEMBRANE CORNER*

PHOTO #48: *ROOF MEMBRANE AND SECURED CABLES*

PHOTO #49: *ROOF DRAIN AND PARAPET SCUPPER*

PHOTO #50: *ROOF PASSIVE VENT COVER*

PHOTO #51: *CHIMNEY*

PHOTO #52: *ELECTRIC SERVICE MESSENGER CABLE PULLING AWAY-WEST SIDE*

PHOTO #53: *REAR BLDG EXT. SPLIT SYSTEM HEAT PUMPS*

PHOTO #54: *REAR BLDG EXT. SPLIT SYSTEM HEAT PUMP NAMEPLATE*

PHOTO #55:	*REAR BLDG EXT. ROOF*

PHOTO #56:	*REAR BLDG EXT. CLASSROOM VENTILATION FANS*

PHOTO #57:	*REAR BLDG EXT. EAST FENCE OVERGROWN*

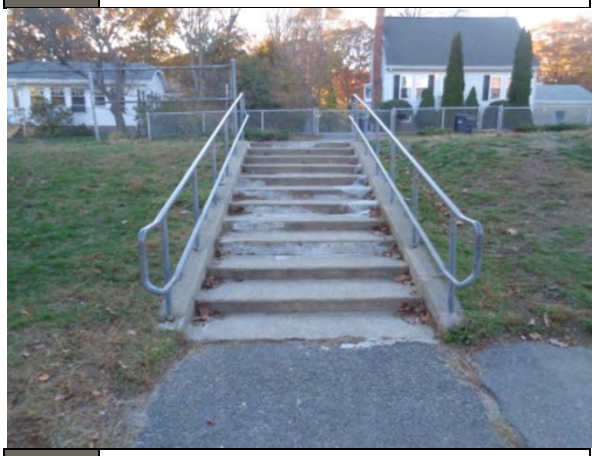


PHOTO #58:	*WEST SIDE STAIRWAY TO ETNA ROAD*

PHOTO #59:	*STORM DRAIN*

PHOTO #60:	*STORM DRAIN LOCATED EAST SIDE NEAR BALL FIELD*

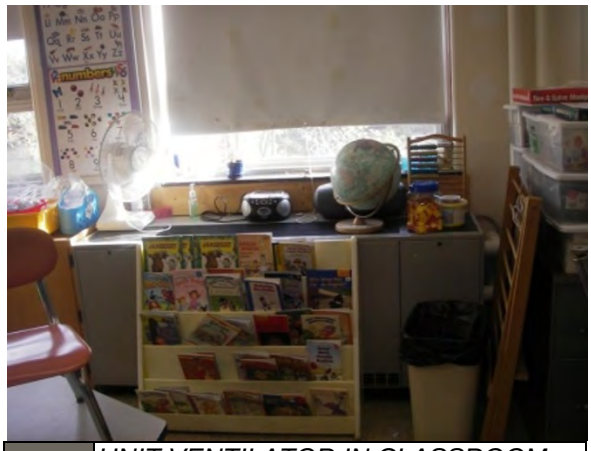


PHOTO #61: *UNIT VENTILATOR IN CLASSROOM*

PHOTO #62: *UNIT VENTILATOR IN CLASSROOM*

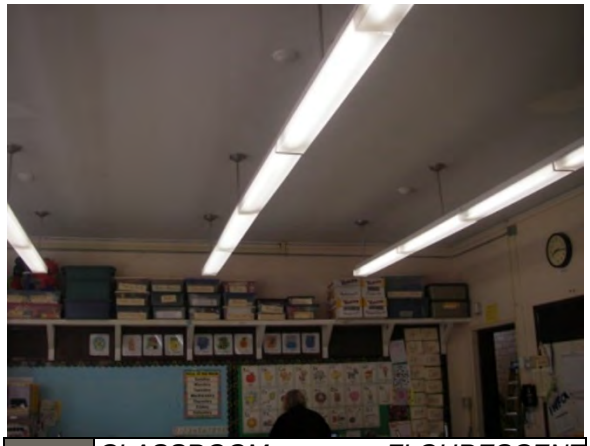


PHOTO #63: *CLASSROOM FLOURESCENT LIGHTING*

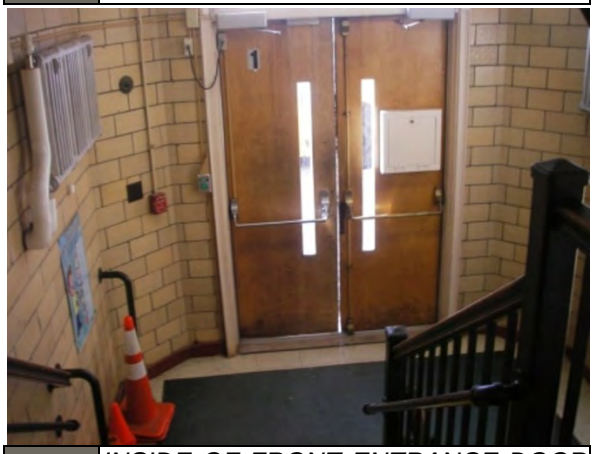


PHOTO #64: *INSIDE OF FRONT ENTRANCE DOOR INCLUDING MANUAL PULL STATION*

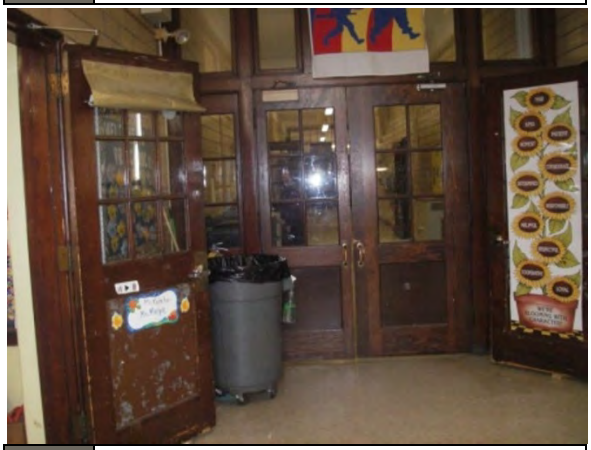


PHOTO #65: *HALLWAYMETAL DOUBLE DOORS PAINTED TO LOOK LIKE WOOD*

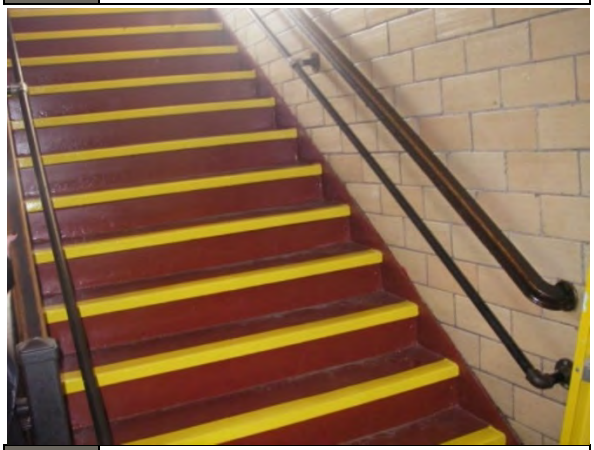


PHOTO #66: *STAIRWAY*

PHOTO #67:	*HALLWAY FIRE ANNUNCIATOR, EMERGENCY LIGHT, & BELL*

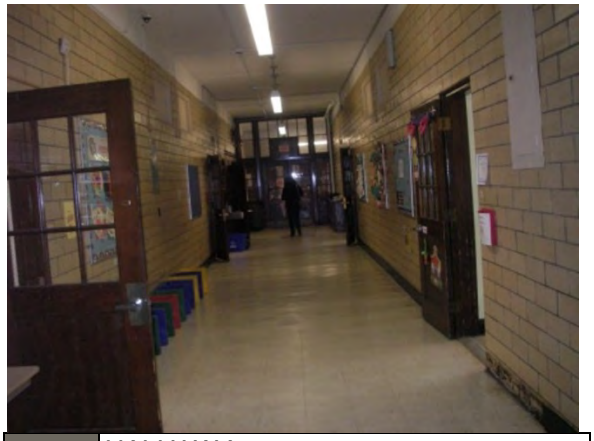


PHOTO #68:	*HALLWAY*

PHOTO #69:	*HALLWAY HYDRONIC RADIATOR*

PHOTO #70:	*CLASSROOM WITH UNIT VENTILATOR*

PHOTO #71:	*CLASSROOM SMOKE DETECTOR*

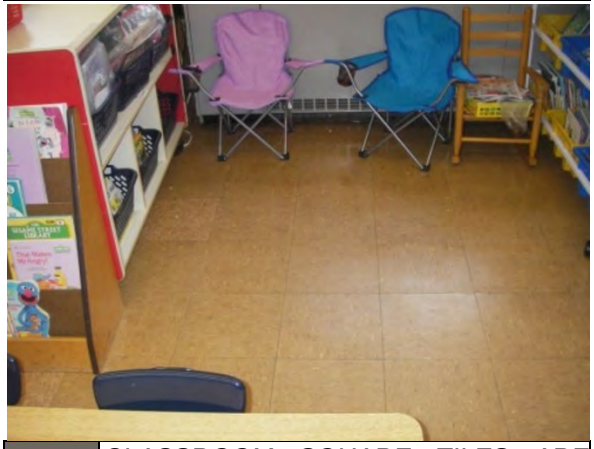


PHOTO #72:	*CLASSROOM SQUARE TILES ARE WELL WORN*

PHOTO #73: *FIRST FLOOR CLASSROOM WALL PLASTER DAMAGE*

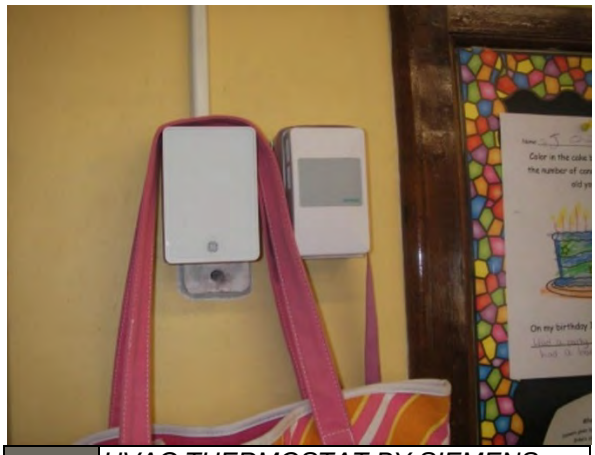


PHOTO #74: *HVAC THERMOSTAT BY SIEMENS*

PHOTO #75: *HALLWAY SINK WITH ANTIQUATED FIXTURES AND CORRODED PIPING*

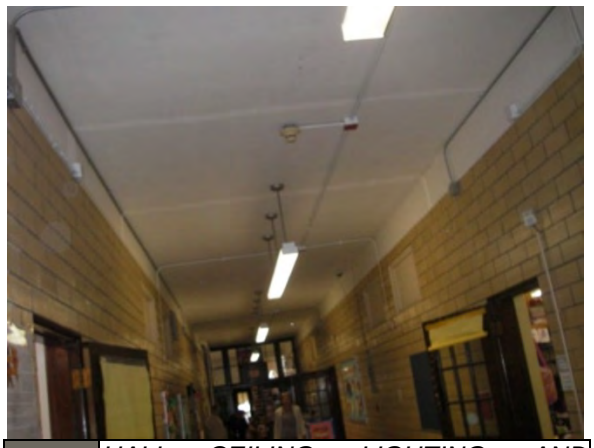


PHOTO #76: *HALL CEILING, LIGHTING, AND SMOKE DETECTORS*

PHOTO #77: *HALLWAY EMERGENCY LIGHTING AND PHOTOCELL*

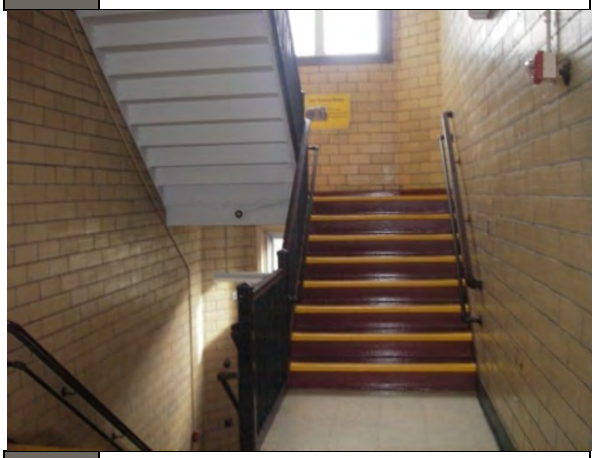


PHOTO #78: *HALLWAY STAIRS*

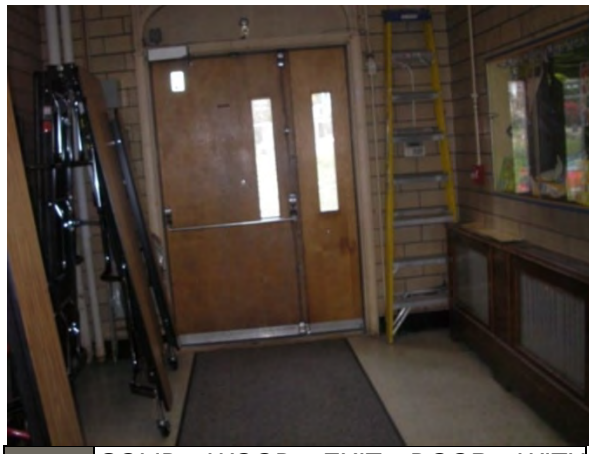


PHOTO #79: *SOLID WOOD EXIT DOOR WITH CRASH BAR, (EXIT SIGN IS ABOVE)*

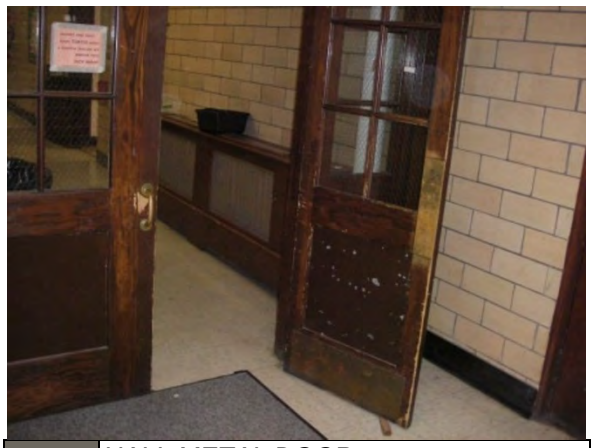


PHOTO #80: *HALL METAL DOOR*

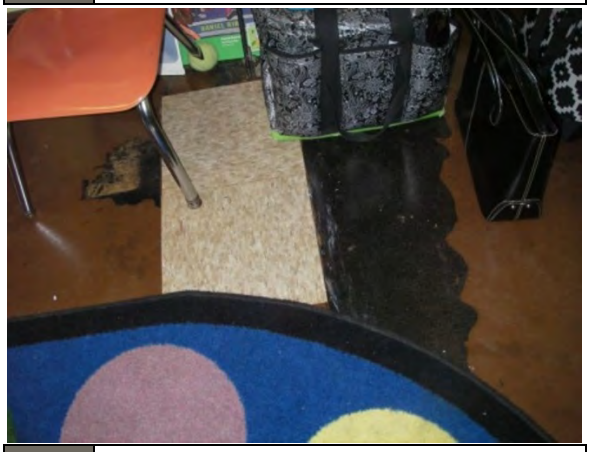


PHOTO #81: *CLASSROOM FLOOR WORN AND PATCHED TILE*

PHOTO #82: *OCCUPANCY SENSORS THROUGHOUT BUILDING*

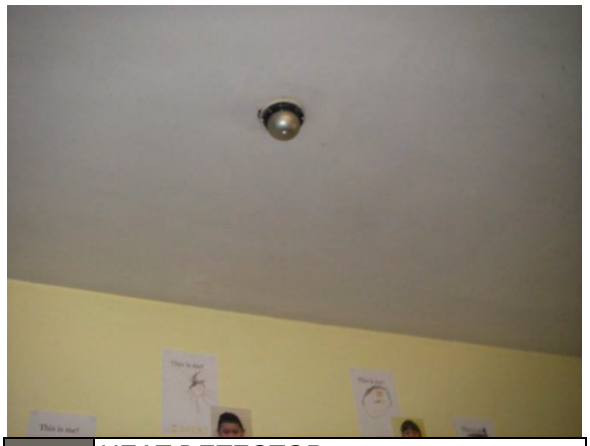


PHOTO #83: *HEAT DETECTOR*

PHOTO #84 *FIRE EXTINGUISHER WITH 2016 INSPECTION TAG*

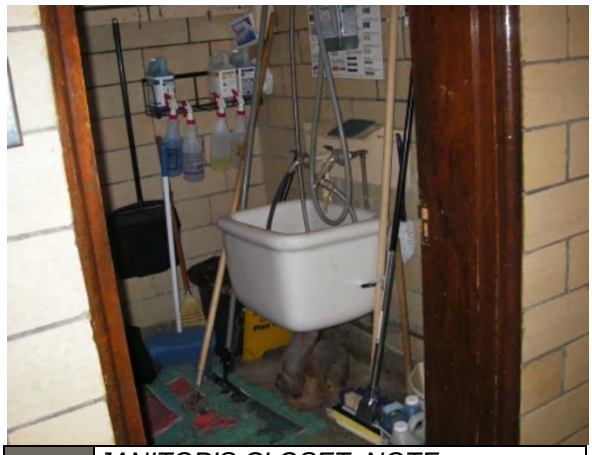


PHOTO #85: *JANITOR'S CLOSET, NOTE CORRODED DRAIN PIPING*

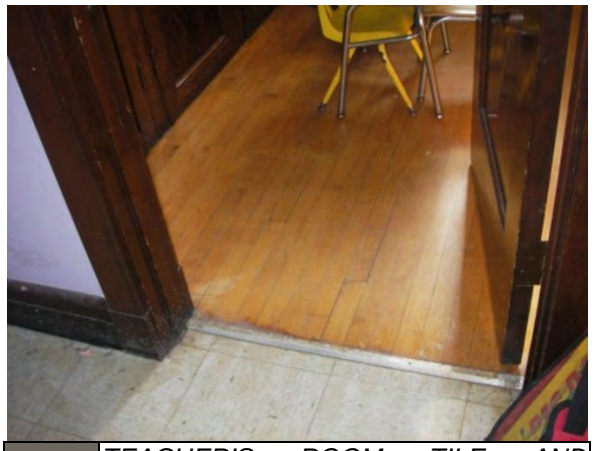


PHOTO #86: *TEACHER'S ROOM TILE AND HARDWOOD FLOOR IS WORN*

PHOTO #87: *ORIGINAL RADIATOR*

PHOTO #88: *DRINKING FOUNTAIN IN POOR SHAPE-STEP IS TRIP HAZARD*

PHOTO #89: *CLASSROOM FLOOR TILE IN POOR CONDITION*

PHOTO #90: *CLASSROOM WATER STAINS FROM LEAKS*

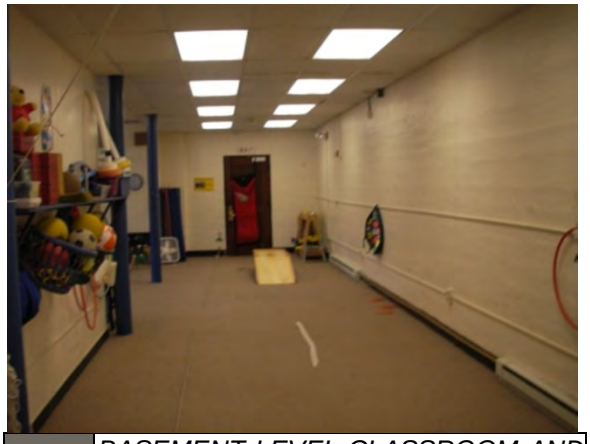


PHOTO #91: *BASEMENT LEVEL CLASSROOM AND ADJOINING HALLWAY*

PHOTO #92: *BASEMENT LEVEL CLASSROOM*

PHOTO #93: *BASEMENT LEVEL CLASSROOM UNIT VENT HEATER*

PHOTO #94: *ORIGINAL RADIATOR WITH SEDIMENT TRAP TAG ATTACHED*

PHOTO #95: *COMPUTER AND TELEPHONE ROOM*

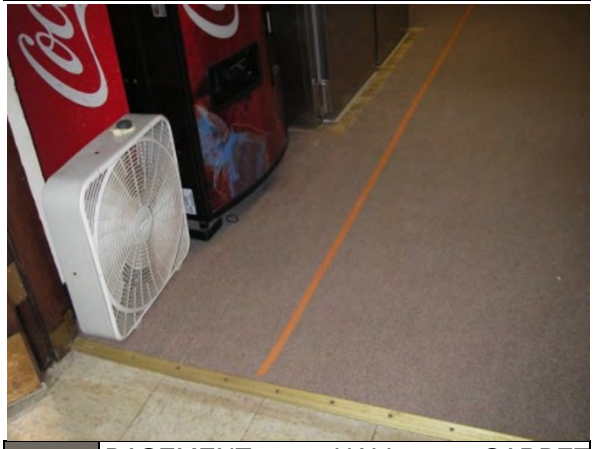


PHOTO #96: *BASEMENT HALL CARPET INSTALLED OVER WORN FLOOR*

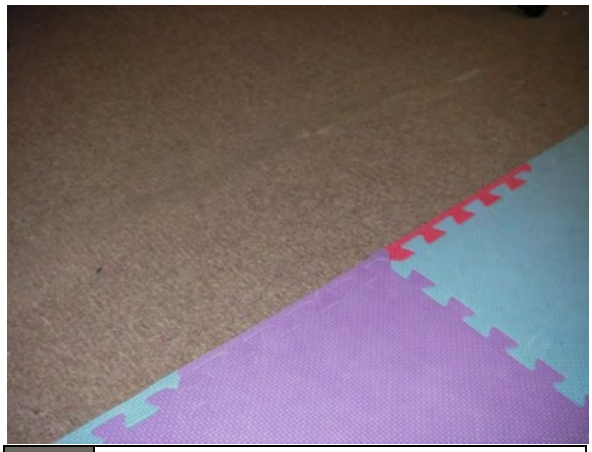


PHOTO #97: *BASEMENT ART ROOM CARPET BUNCHED AND WORN*

PHOTO #98: *HEATING RADIATOR WITH CONTROL VALVE & INSPECTION TAG*

PHOTO #99: *LEAK NEAR ART ROOM & BASEMENT REFRIGERATOR*

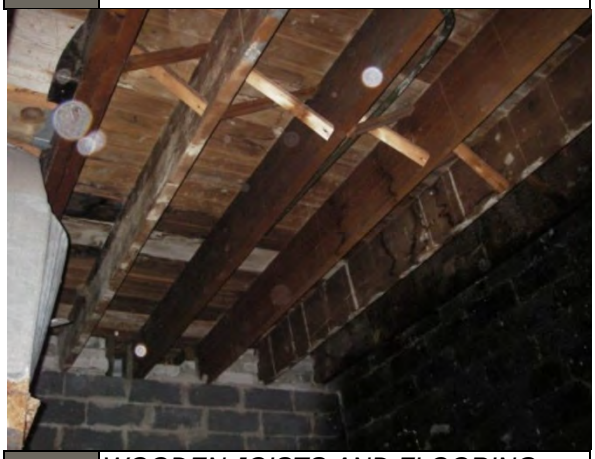


PHOTO #100: *WOODEN JOISTS AND FLOORING*

PHOTO #101: *AUDITORIUM/GYMNASIUM WITH STAGE AND BASKETBALL*

PHOTO #102: *GYM WINDOWS, PADDED RADIATORS, & FIBER CEILING*

PHOTO #103: *HEAT RADIATOR WITH CONTROL VALVE*

PHOTO #104: *STANDARD HEATING CONTROL VALVE*

PHOTO #105: *GYM ABANDONED AIR HANDLER VENT OPENINGS*

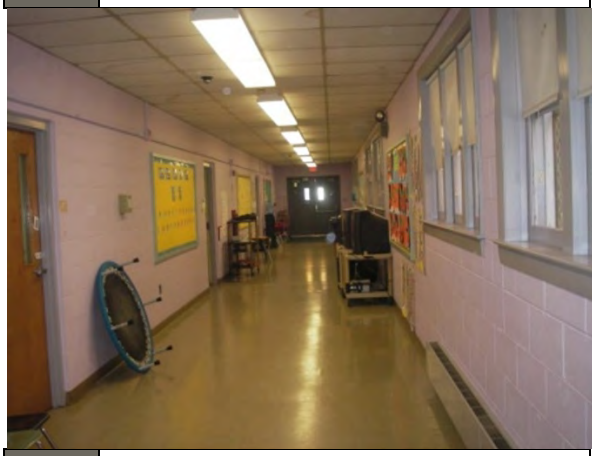


PHOTO #106: *REAR BLDG EXT. HALLWAY WITH ELECTRIC HEAT*

PHOTO #107: *FIRE ALARM PANEL LOCATED IN MAIN OFFICE CLOSET*

PHOTO #108: *ALLUMINUM FRAME AND SASH SINGLE PANE WINDOWS*

PHOTO #109: *WINDOW*

PHOTO #110: *PLEXIGLASS REPLACED WINDOW CRACKING & GASKET OPENING*

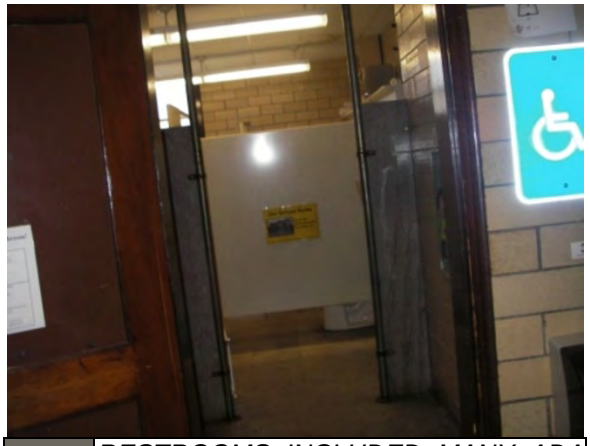


PHOTO #111: *RESTROOMS INCLUDED MANY ADA HANDICAP ACCESS UPGRADES*

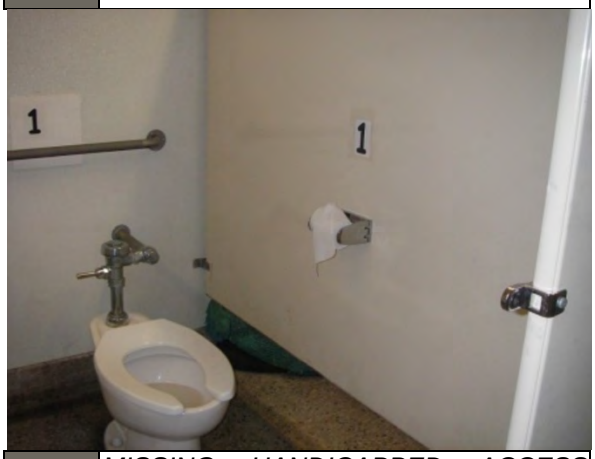


PHOTO #112: *MISSING HANDICAPPED ACCESS HANDRAIL*

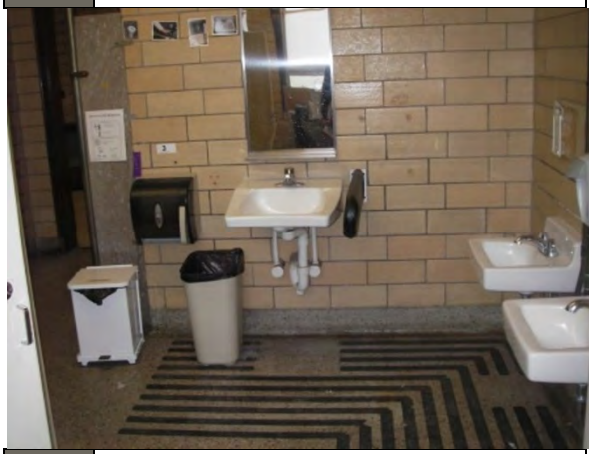


PHOTO #113: *WHEELCHAIR TURNAROUND SPACE IS ADEQUATE*

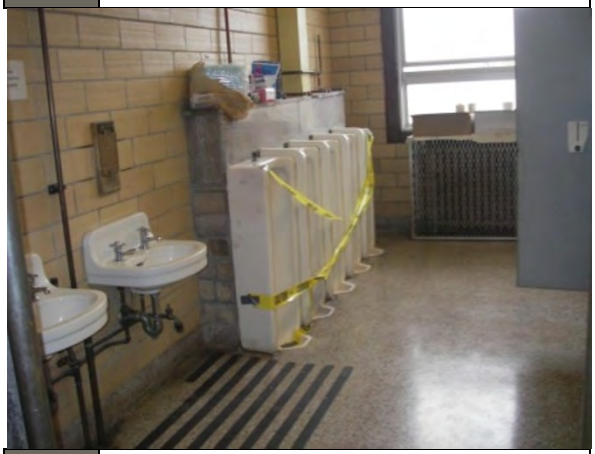


PHOTO #114: *UNINALS NOT FUNCTIONING AND ABANDONED*

PHOTO #115: *ANTIQUATED RESTROOM SINKS & PIPES CORRODED*

PHOTO #116: *TYPICAL 1.6 GALLONS PER FLUSH TOILET*

PHOTO #117: *RESTROOM STALL MATERIALS MIXED DUE TO MANY REPAIRS*

PHOTO #118: *ORIGINAL FAN VENTILATION IN RESTROOM*

PHOTO #119: *CORRODED PLUMBING AND BRICK WALL IN NEED OF REPAIR*

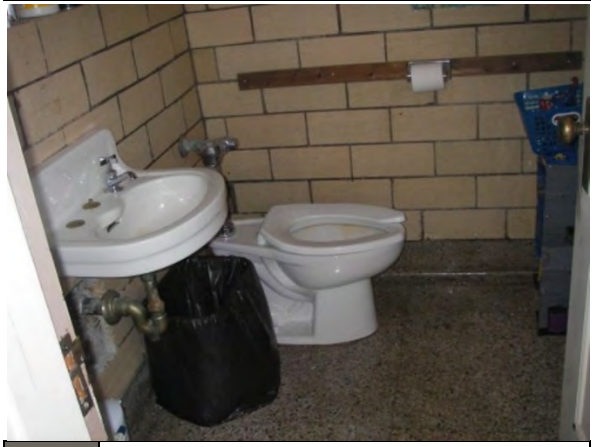


PHOTO #120: *RESTROOM IN POOR CONDITION*

PHOTO #121:	*STANDARD SINK WITH 0.5GPM AERATOR*

PHOTO #122:	*FIRE ALARM ANNUNCIATOR IN RESTROOM*

PHOTO #123:	*DRAIN PIPING IS PROTECTED PROPERLY*

PHOTO #124:	*DEFIBRILLATOR*

PHOTO #125:	*BOILER ROOM*

PHOTO #126:	*BOILER 1 NEW IN 2011*

PHOTO #127: *BOILER 1 NAMEPLATE*

PHOTO #128: *BOILER 2 NEW IN 1998*

PHOTO #129: *BOILER 2 NAMEPLATE*

PHOTO #130: *BOILER 2 BURNER*

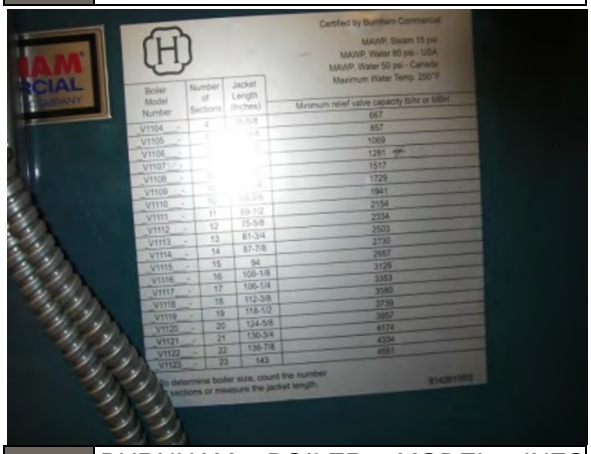


PHOTO #131: *BURNHAM BOILER MODEL INFO LABEL*

PHOTO #132: *BOILERS HOT WATER TANK AND HOT WATER CIRCULATION PUMPS*

PHOTO #133: *HOT WATER CIRCULATING PUMP NAMEPLATE*

PHOTO #134: *HOT WATER SYSTEM BOOSTED TO ABOUT 46 PSI*

PHOTO #135: *BOILER EXPANSION AND MAKEUP TANK*

PHOTO #136: *BOILER FEEDWATER CHEMICAL FEED PUMP AND MIXING TANK*

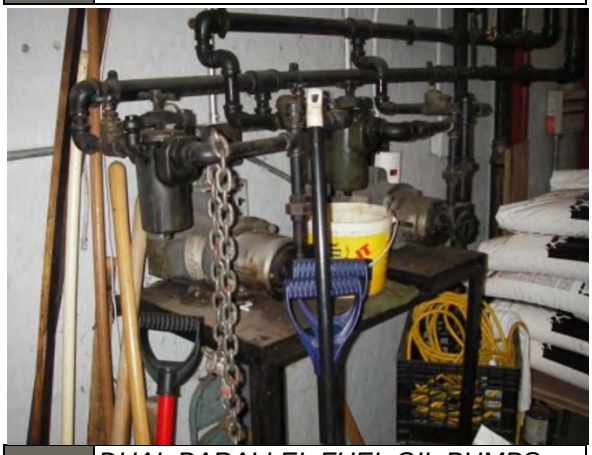


PHOTO #137: *DUAL PARALLEL FUEL OIL PUMPS*

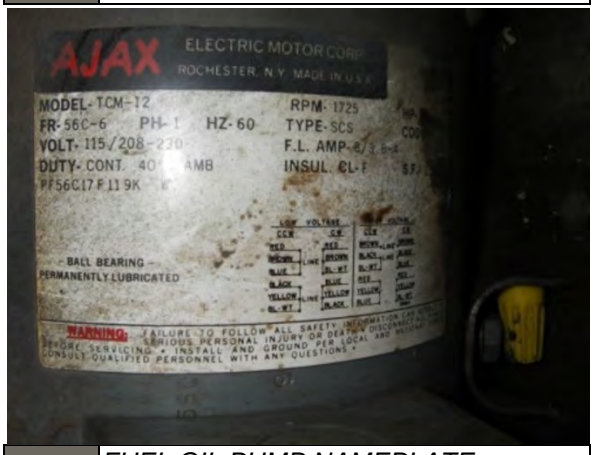


PHOTO #138: *FUEL OIL PUMP NAMEPLATE*

PHOTO #139: *BOILER FEEDWATER BACKFLOW PREVENTER*

PHOTO #140: *FACILITY WATER METER IN BOILER ROOM*

PHOTO #141: *FACILITY WATER METER CLOSEUP*

PHOTO #142: *BUILDING AUTOMATION SYSTEM IN BOILER ROOM*

PHOTO #143: *BUILDING AUTOMATION SYSTEM PANEL INSIDE*

PHOTO #144: *NO.2 FUEL OIL UNDERGROUND TANK MONITORING SYSTEM*

PHOTO #145: *ELECTRIC SERVICE METER, 400A, 120/240V*

PHOTO #146: *ELECTRIC SERVICE MAIN CIRCUIT BREAKER*

PHOTO #147: *400AMP SERVICE MAIN DISTRIBUTION PANEL-OBSOLETE*

PHOTO #148: *ELECTRIC SERVICE EQUIPMENT & METER IN CLASSROOM CLOSET*

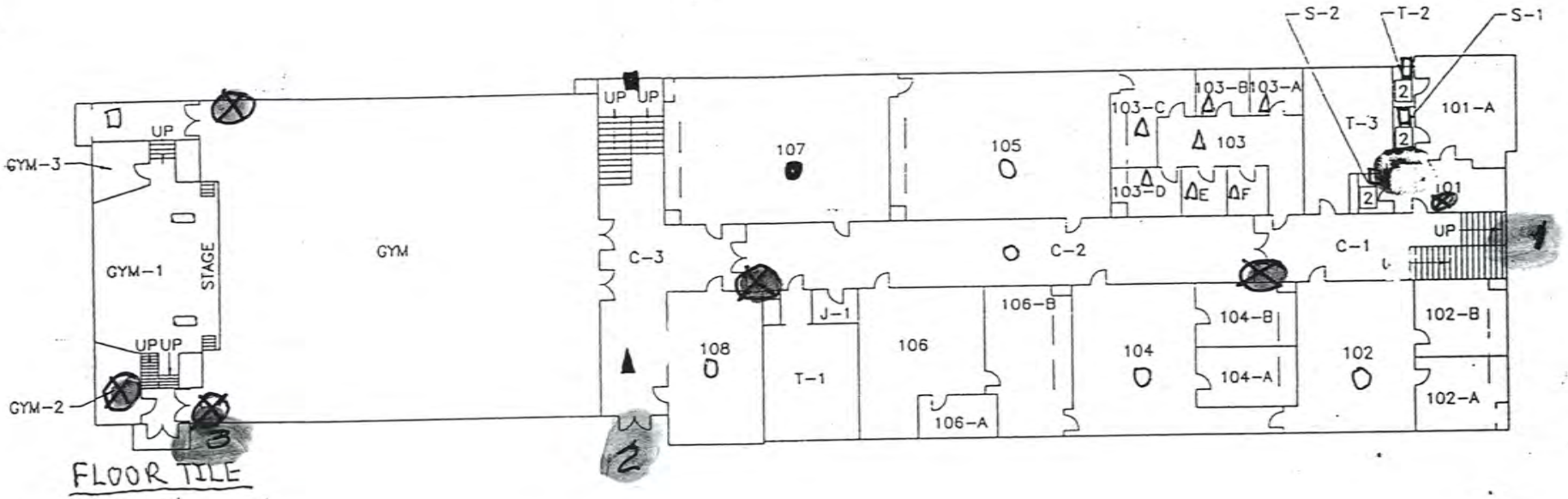
PHOTO #149: *BOILER ROOM UPDATED ELECTRIC DISTRIBUTION PANEL*

PHOTO #150: *BOILER ROOM SUMP PUMP*

APPENDIX B:
SITE AND FLOOR PLANS

Site Plan

emg	**Project Name:** Dedham – ECEC Capen School	**Project Number:** 121711.16R000-005.322
	Source: Google Earth	**On-Site Date:** November 7, 2016



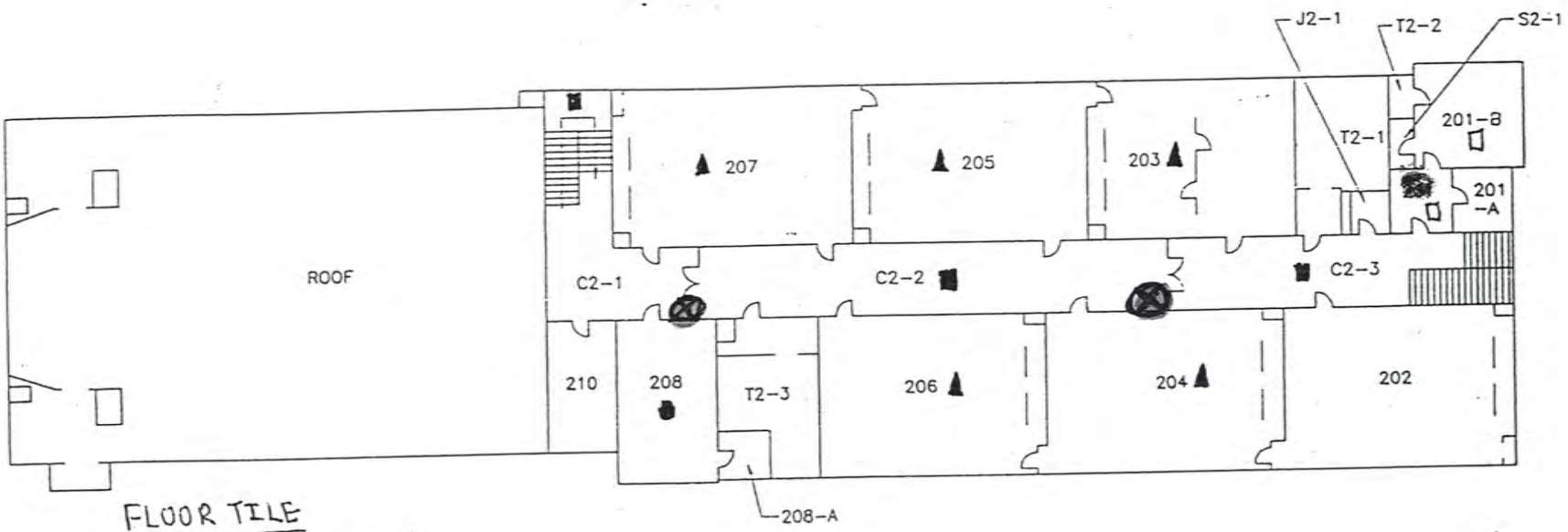
FLOOR TILE

- ▲ 12" White Floor Tile
- ■ 12" Tan Floor Tile
- ● 12" Brown/orange Floor Tile
- △ 12" Tan mottled Floor Tile
- □ 9" Brown/Red Floor Tile
- ○ Carpet

⊗ FIRE EXTING

1ST FLR

UNIVERSAL ENGINEERING	AGENCY:	DEDHAM, MA.	BLDG. NO: 8817FF06
100 Boylston Street Boston, MA 02116-4693 Tel: (617) 542-6216 Fax: (617) 423-0373	BLDG:	CAPEN SCHOOL	
	DWG. TITLE:	FIRST FLOOR PLAN	
	DATE:	9/18/00	BY: JJD



FLOOR TILE

▲ 12" Brown/orange Floor Tile

■ 12" Tan Floor Tile

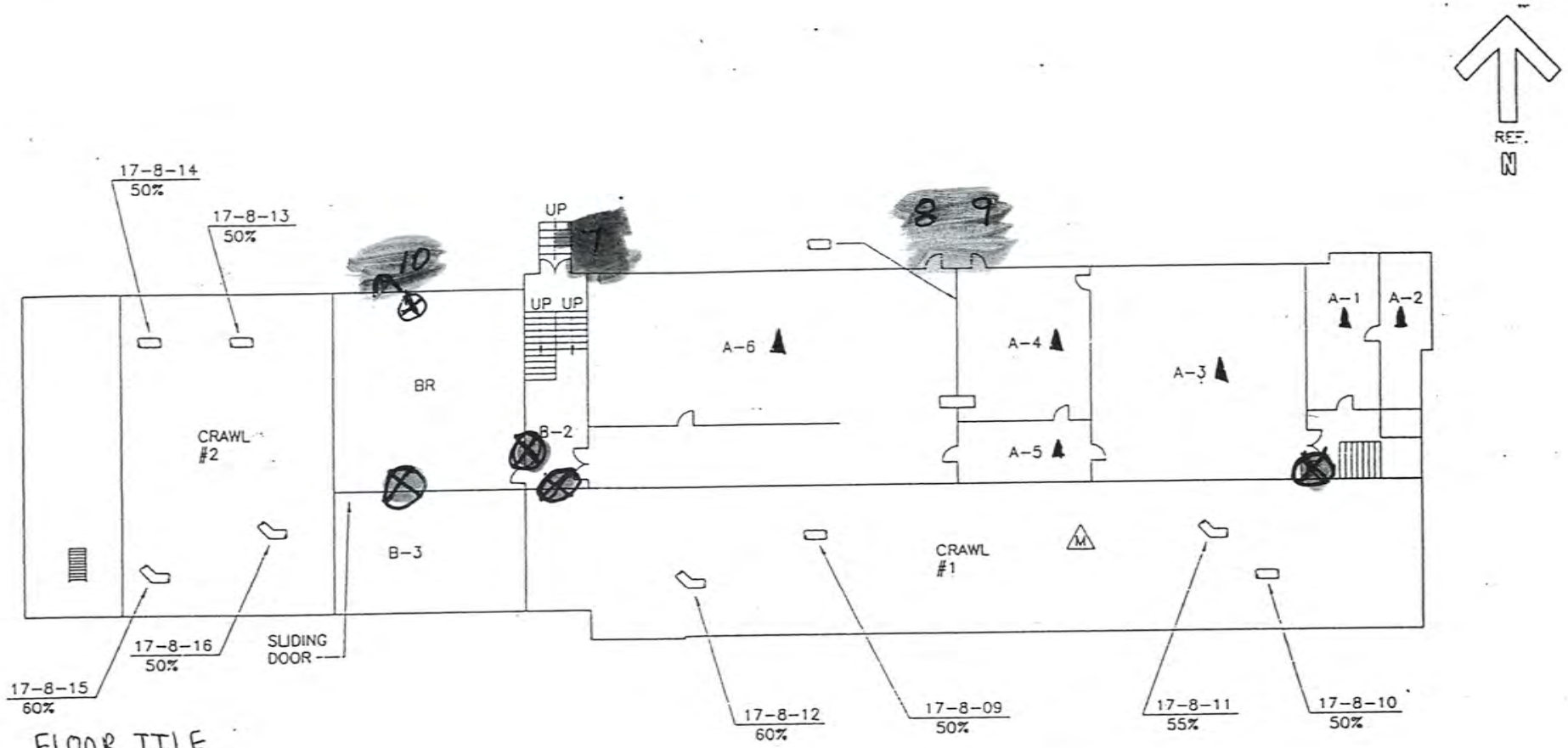
● 4" Brown/Red Floor Tile

□ Carpet

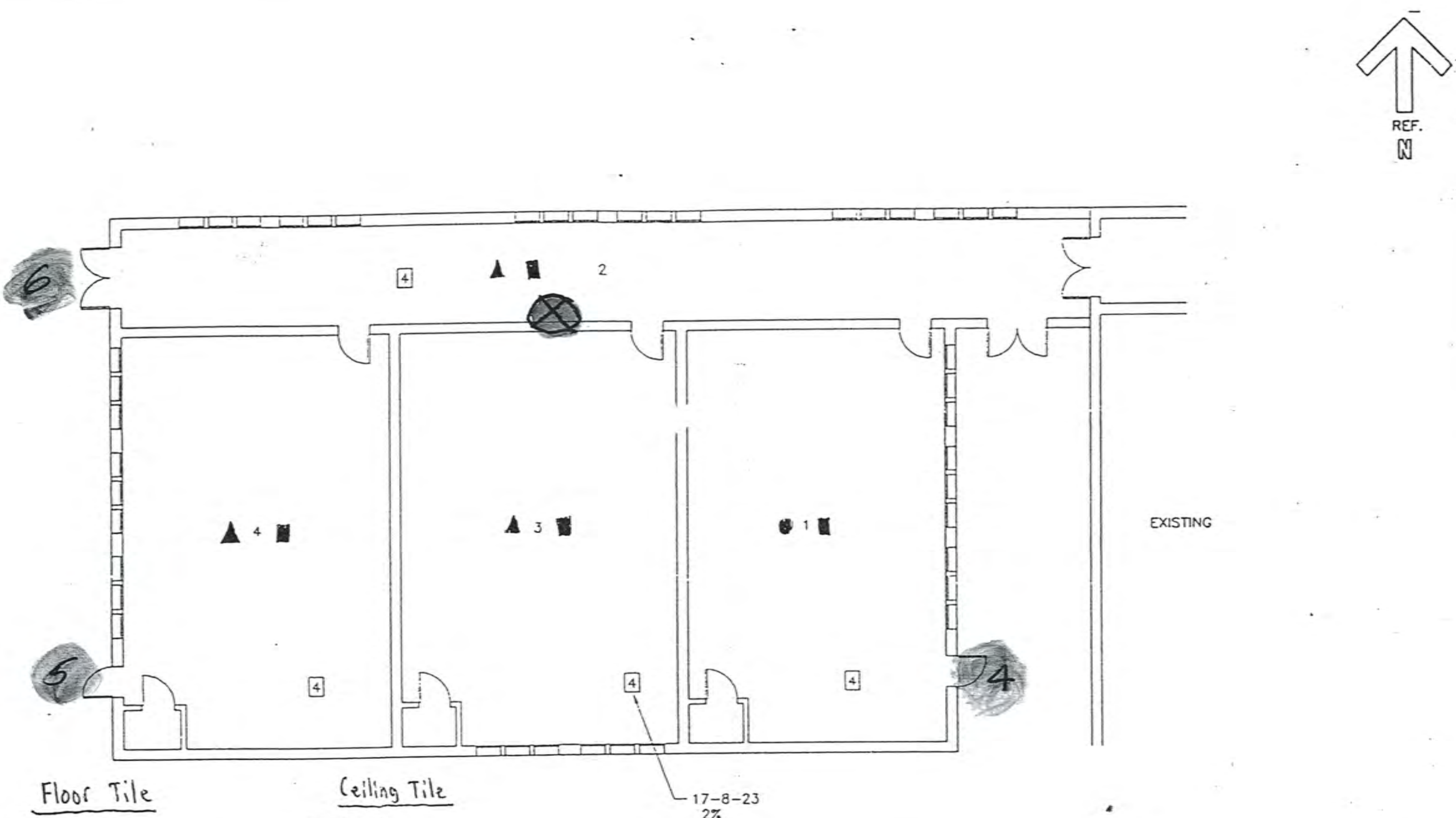
⊕ FIRE EXTINGUISHERS

2ND FLR

UNIVERSAL ENGINEERING A DAVIS & FLOYD COMPANY 100 Boylston Street Boston, MA 02116-4693 Tel: (617) 542-4216 Fax: (617) 423-0373	AGENCY:	DEDHAM, MA.	BLDG. NO: 8817SF06
	BLDG:	CAPEN SCHOOL	
	DWG. TITLE:	SECOND FLOOR PLAN	
	DATE:	9/18/00	BY: JJD



UNIVERSAL ENGINEERING	AGENCY:	DEDHAM, MA.	BLDG. NO: 8817BP06
100 Boylston Street Boston, MA 02116-4693 Tel: (617) 542-4216 Fax: (617) 423-0373	BLDG:	CAPEN SCHOOL	
	DWG. TITLE:	BASEMENT PLAN	
	DATE:	9/18/00	BY: JJD



Floor Tile

▲ 9" Gray
● 12" White

Ceiling Tile

■ 2x4'

⊗ FIRE EXTING

CHILD CARE

UNIVERSAL ENGINEERING	AGENCY:	DEDHAM, MA.	BLDG. NO:	8817AD06
100 Boylston Street Boston, MA 02116-4693 Tel: (617) 542-8216 Fax: (617) 423-0373	BLDG:	CAPEN SCHOOL		
	DWG. TITLE:	ADDITION		
	DATE:	9/18/00	BY:	JJD

APPENDIX C:
EMG ACCESSIBILITY CHECKLIST

Date Completed: 11-7-2016

Property Name: Capen School

EMG Project Number: 121711.16R00 005,322

	Building History	Yes	No	Unk	Comments
1	Has an ADA survey previously been completed for this property?	X			
2	Have any ADA improvements been made to the property?	X			
3	Does a Transition Plan / Barrier Removal Plan exist for the property?			X	
4	Has building ownership or management received any ADA related complaints that have not been resolved?		X		
5	Is any litigation pending related to ADA issues?		X		

25:1 cars
4:1 van min

	52 total Parking	Yes	No	NA	Comments
1	Are there sufficient accessible parking spaces with respect to the total number of reported spaces?		X		52 cars, 3 car handicapped No VAN space
2	Are there sufficient van-accessible parking spaces available?		X		
3	Are accessible spaces marked with the International Symbol of Accessibility? Are there signs reading "Van Accessible" at van spaces?		X		one space is missing signage. No van space.
4	Is there at least one accessible route provided within the boundary of the site from public transportation stops, accessible parking spaces, passenger loading zones, if provided, and public streets and sidewalks?	X			
5	Do curbs on the accessible route have depressed, ramped curb cuts at drives, paths, and drop-offs?			X	
6	If required does signage exist directing you to accessible parking and an accessible building entrance?		X		Add additional signage

	Ramps	Yes	No	NA	Comments
1*	Do all ramps along accessible path of travel appear to meet slope requirements? (1:12 or less)	X			
2	Are ramps that appear longer than 6 ft complete with railings on both sides?	X			

	Ramps (cont.)	Yes	No	NA	Comments
3	Does the width between railings appear at least 36 inches?	X			
4	Is there a level landing for approximately every 30 ft horizontal length of ramp, at the top and at the bottom of ramps and switchbacks?			X	
	Entrances/Exits	**Yes**	**No**	**NA**	**Comments**
1	Do all required accessible entrance doorways appear at least 32 inches wide and not a revolving door?	X			SIDE DOOR (west)
2	If the main entrance is inaccessible, are there alternate accessible entrances?	X			
3	Is the door hardware easy to operate (lever/push type hardware, no twisting required and not higher than approximately 48 inches above the floor)?	X			
	Paths of Travel	**Yes**	**No**	**NA**	**Comments**
1	Are all paths of travel free of obstruction and wide enough for a wheelchair (appear at least 36 inches wide)?	X			No second floor access.
2	Are wheelchair-accessible facilities (toilet rooms, exits, etc.) identified with signage?	X			
3	Is there a path of travel that does not require the use of stairs?	X			
	Elevators	**Yes**	**No**	**NA**	**Comments**
1	Do the call buttons have visual and audible signals to indicate when a call is registered and answered when car arrives?			X	
2	Are there visual and audible signals inside cars indicating floor change?			X	
3	Are there standard raised and Braille marking on both jambs of each hoist way entrance as well as all cab/call buttons?			X	

	Elevators (cont.)	Yes	No	NA	Comments
4	Do elevator doors have a reopening device that will stop and reopen a car door if an object or a person obstructs the door?			X	
5	Are elevator controls low enough to be reached from a wheelchair (appears to be between 15 and 48 inches)?			X	
6	If a two-way emergency communication system is provided within the elevator cab, is it usable without voice communication?			X	
	Toilet Rooms	**Yes**	**No**	**NA**	**Comments**
1	Are common area public restrooms located on an accessible route?	X			
2	Are pull handles push/pull or lever type?	X			
3	Are there audible and visual fire alarm devices in the toilet rooms?				Visual - yes audible - no
4	Are toilet room access doors wheelchair-accessible (appear to be at least 32 inches wide)?	X			Threshhold is beveled and about 1" height - reasonable
5	Are public restrooms large enough to accommodate a wheelchair turnaround (appear to have 60" turning diameter)?	X			
6	In unisex toilet rooms, are there safety alarms with pull cords?			X	
7	Are toilet stall doors wheelchair accessible (appear to be at least 32" wide)?	X			
8	Are grab bars provided in toilet stalls?				Boys room bars on wrong side
9	Are sinks provided with clearance for a wheelchair to roll under (appear to have 29" clearance)?	X			
10	Are sink handles operable with one hand without grasping, pinching or twisting?	X			Shared staff/students. Sink is staff height.
11	Are exposed pipes under sink sufficiently insulated against contact?	X			

	Guest Rooms	Yes	No	NA	Comments
1	How many total accessible sleeping rooms does the property management report to have? **Provide specific number in comment field.** Are there sufficient reported accessible sleeping rooms with respect to the total number of reported guestrooms? See attached hot sheet.				
2	How many of the accessible sleeping rooms per property management have roll-in showers? **Provide specific number in comment field.** Are there sufficient reported accessible rooms with roll-in showers with respect to the total number of reported accessible guestrooms? See attached hot sheet.				
3	How many assistive listening kits and/or rooms with communication features are available per property management? **Provide specific number in comment field.** Are there sufficient reported assistive listening devices with respect to the total number of rooms? See attached hot sheet.				
	Pools	**Yes**	**No**	**NA**	**Comments**
1	Are public access pools provided? If the answer is no, please disregard this section.				
2	How many accessible access points are provided to each pool/spa? **Provide number in comment field.** Is at least one fixed lift or sloped entry to the pool provided?				
	Play Area	**Yes**	**No**	**NA**	**Comments**
1	Has the play area been reviewed for accessibility? All public playgrounds are subject to ADAAG standards.		X		This is unknown. Playground is on mulch.
	Exercise Equipment	**Yes**	**No**	**NA**	**Comments**
1	Does there appear to be adequate clear floor space around the machines/equipment (30" by 48" minimum)?			X	

**Based on visual observation only. The slope was not confirmed through measurements.*

Playground - Partially accessible. Mainly mulch ground cover. Fenced.

APPENDIX D:
PRE-SURVEY QUESTIONNAIRE

FCA (Town of Dedham Schools)
Pre-Survey Questionnaire

This questionnaire must be completed by the property owner, the owner's designated representative, or someone knowledgeable about the subject property. If the form is not completed, EMG's Project Manager will require ***additional time*** during the on-site visit with such a knowledgeable person in order to complete the questionnaire. During the site visit, EMG's Field Observer may ask for details associated with selected questions. This questionnaire will be utilized as an exhibit in EMG's final report.

Name of Institution:	TOWN OF DEDHAM		
Name of Building:	CHARLES J. CAPEN SCHOOL	Building #:	322 SPRAGUE STREET
Name of person completing questionnaire:	Jim Gately		
Length of Association With the Property:	11 years	Phone Number:	781-690-6441

Site Information	
Year of Construction?	1930
No. of Stories?	3 Floors.
Total Site Area?	Acres 30000 SF ALL 3 FLOORS
Total Building Area?	Sqft

Inspections	Date of Last Inspection	List of Any Outstanding Repairs Required
1. Elevators	0	
2. HVAC Mechanical, Electric, Plumbing?	Annually	Roof-spring HVAC-fall (filters bi annually)
3. Life-Safety/Fire?	JUNE 2016	
4. Roofs?		Hire contractor

Key Questions	Response
Major Capital Improvements in Last 3 yrs.	Boys bathroom 1st floor in crawl space 2011 HVAC/Boilers
Planned Capital Expenditure For Next Year?	
Age of the Roof?	11+ years Unit vents throughout
What bldg. Systems Are Responsibilities of Tenants? (HVAC/Roof/Interior/Exterior/Paving)	

Mark the column corresponding to the appropriate response. Please provide additional details in the Comments column, or backup documentation for any *Yes* responses. (**NA** indicates "*Not Applicable*", **Unk** indicates "*Unknown*")

	QUESTION	Y	N	Unk	NA	COMMENTS
	ZONING, BUILDING DESIGN & LIFE SAFETY ISSUES					
1	Are there any unresolved building, fire, or zoning code issues?		X			
2	Is there any pending litigation concerning the property?		X			
3	Are there any other significant issues/hazards with the property?		X			
4	Are there any unresolved construction defects at the property?		X			

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FCA (Town of Dedham Schools)
Pre-Survey Questionnaire

Y N Unk N/A

5	Has any part of the property ever contained visible suspect mold growth?		X			

Mark the column corresponding to the appropriate response. Please provide additional details in the Comments column, or backup documentation for any *Yes* responses. (**NA** indicates *"Not Applicable"*, **Unk** indicates *"Unknown"*)

	QUESTION	Y	N	Unk	NA	COMMENTS
6	Is there a mold Operations and Maintenance Plan?		X			
7	Are there any recalled fire sprinkler heads (Star, GEM, Central, and Omega)?		/		X	
8	Have there been indoor air quality or mold related complaints from tenants?		X			
	GENERAL SITE					
9	Are there any problems with erosion, storm water drainage or areas of paving that do not drain?		X			
10	Are there any problems with the landscape irrigation systems?				X	
	BUILDING STRUCTURE					
11	Are there any problems with foundations or structures?		X			
12	Is there any water infiltration in basements or crawl spaces?		X			
13	Has a termite/wood boring insect inspection been performed within the last year?	X				Rodents, insects annual basis + on demand
	BUILDING ENVELOPE					
14	Are there any wall, or window leaks?		X			
15	Are there any roof leaks?		X			
16	Is the roofing covered by a warranty or bond?		X			
17	Are there any poorly insulated areas?		X			

18	Is Fire Retardant Treated (FRT) plywood used?				X	
19	Is exterior insulation and finish system (EIFS) or a synthetic stucco finish used?				X	

Mark the column corresponding to the appropriate response. Please provide additional details in the Comments column, or backup documentation for any *Yes* responses. (**NA** indicates *"Not Applicable"*, **Unk** indicates *"Unknown"*)

	Question	Y	N	Unk	NA	Comments
	Building HVAC and Electrical					
20	Are there any leaks or pressure problems with natural gas service?		X		X	NO GAS
21	Does any part of the electrical system use aluminum wiring?		X			
22	Do Residential units have a less than 60-Amp service?				X	
23	Do Commercial units have less than 200-Amp service?		X			
24	Are there any problems with the utilities, such as inadequate capacities?		X			
	ADA					
25	Has the management previously completed an ADA review?	X				Some recent 1st floor bathroom improvements
26	Have any ADA improvements been made to the property?	X				
27	Does a Barrier Removal Plan exist for the property?		X			2019 relocating school and staff per ADA unmet
28	Has the Barrier Removal Plan been approved by an arms-length third party?		X			
29	Has building ownership or management received any ADA related complaints?		X			
30	Does elevator equipment require upgrades to meet ADA standards?				X	

FCA (Town of Dedham Schools)
Pre-Survey Questionnaire

		Y	N			PLUMBING
31	Is the property served by private water well?		X			PUBLIC
32	Is the property served by a private septic system or other waste treatment systems?		X			PUBLIC
33	Is polybutylene piping used?		X			
34	Are there any plumbing leaks or water pressure problems?		X			

Additional Issues or Concerns That EMG Should Know About?	
1.	Difficult to control building heating system temperatu
2.	Solar gain and limited ventilation
3.	

Items Provided to EMG Auditors	Yes	No	N/A	Additional Comments?
Access to All Mechanical Spaces	☒	☐	☐	
Access to Roof/Attic Space	☒	☐	☐	
Access to Building As-Built Drawings	☐	☒	☐	
Site plan with bldg., roads, parking and other features	☒	☐	☐	BUILDING ONLY, PLANS FRO
Contact Details for Mech, Elevator, Roof, Fire Contractors:	☐	☒	☐	
List of Commercial Tenants in the property	☐	☐	☒	
Previous reports pertaining to the physical condition of property.	☐	☐	☒	
ADA survey and status of improvements implemented.	☒	☐	☐	VERBAL
Current / pending litigation related to property condition.	☐	☐	☒	
Any brochures or marketing information.	☐	☐	☒	

James Stella

Signature of person interviewed or completing form

Date

HVAC UPGRADE TO BE SENT,

On the day of the site visit, provide EMG's Field Observer access to all of the available documents listed below. Provide copies if possible.

INFORMATION REQUIRED	
1. All available construction documents (blueprints) for the original construction of the building or for any tenant improvement work or other recent construction work. 2. A site plan, preferably 8 1/2" X 11", which depicts the arrangement of buildings, roads, parking stalls, and other site features. 3. For commercial properties, provide a tenant list which identifies the names of each tenant, vacant tenant units, the floor area of each tenant space, and the gross and net leasable area of the building(s). 4. For apartment properties, provide a summary of the apartment unit types and apartment unit type quantities, including the floor area of each apartment unit as measured in square feet. 5. For hotel or nursing home properties, provide a summary of the room types and room type quantities. 6. Copies of Certificates of Occupancy, building permits, fire or health department inspection reports, elevator inspection certificates, roof or HVAC warranties, or any other similar, relevant documents. 7. The names of the local utility companies which serve the property, including the water, sewer, electric, gas, and phone companies.	8. The company name, phone number, and contact person of all outside vendors who serve the property, such as mechanical contractors, roof contractors, fire sprinkler or fire extinguisher testing contractors, and elevator contractors. 9. A summary of recent (over the last 5 years) capital improvement work which describes the scope of the work and the estimated cost of the improvements. Executed contracts or proposals for improvements. Historical costs for repairs, improvements, and replacements. 10. Records of system & material ages (roof, MEP, paving, finishes, furnishings). 11. Any brochures or marketing information. 12. Appraisal, either current or previously prepared. 13. Current occupancy percentage and typical turnover rate records (for commercial and apartment properties). 14. Previous reports pertaining to the physical condition of property. 15. ADA survey and status of improvements implemented. 16. Current / pending litigation related to property condition.

Your timely compliance with this request is greatly appreciated.