

FACILITY CONDITION ASSESSMENT

Prepared for

Ann Arbor Public Schools
2555 South State Street
Ann Arbor, Michigan 48104
Jim Vibbart



PREPARED BY:

EMG

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EMG PROJECT #:

129010.18R000-009.354

DATE OF REPORT:

June 28, 2018

ONSITE DATE:

March 7, 2018

FACILITY CONDITION ASSESSMENT

OF

CARPENTER ELEMENTARY
4250 CENTRAL BOULEVARD
ANN ARBOR, MICHIGAN 48108



engineering | environmental | capital planning | project management

Immediate Repairs Report
Carpenter Elementary
6/28/2018



EMG Renamed Item Number	Location Description	ID	Cost Description	Quantity	Unit	Unit Cost *	Subtotal	Deficiency Repair Estimate *
D30	interiors	928287	Air Conditioning, Central, Install	52539	SF	\$11.50	\$604,199	\$604,199
G20	Exterior	877301	Exterior Stair/Ramp Rails, Metal, Refinish	500	LF	\$1.44	\$720	\$720
B20	Exterior wall	877320	Exterior Wall, Metal Siding, 1-2 Stories, Replace	8000	SF	\$9.98	\$79,808	\$79,808
D20	Restroom	876915	Toilet Partitions, Metal, Replace	1	EA	\$850.00	\$850	\$850
B20	Exterior soffit	877340	Interior Ceiling Finish, General Surface, Prep & Paint	500	SF	\$1.45	\$725	\$725
C2010	Throughout	876889	Interior Wall Finish, General Surface, Prep & Paint	97200	SF	\$1.67	\$162,081	\$162,081
C2010	Throughout	875362	Interior Floor Finish, Vinyl Tile (VCT), Replace	55000	SF	\$5.52	\$303,638	\$303,638
C2050	Throughout	876555	Interior Ceiling Finish, Suspended Acoustical Tile (ACT), Replace	3000	SF	\$3.58	\$10,733	\$10,733
D20	Janitor closets	876911	Service Sink, Floor, Replace	5	EA	\$1,839.44	\$9,197	\$9,197
D20	Throughout	875906	Drinking Fountain, Vitreous China, Replace	5	EA	\$2,229.84	\$11,149	\$11,149
D20	Throughout	876912	Drinking Fountain, Refrigerated, Replace	5	EA	\$1,446.13	\$7,231	\$7,231
D20	Throughout	876870	Pipe & Fittings, Cast Iron, 4", Replace	15000	LF	\$132.66	\$1,989,974	\$1,989,974
D30	Boiler room	876864	Boiler, Gas, 751 to 1,000 MBH, Replace	1	EA	\$35,968.11	\$35,968	\$35,968
D30	Boiler room	876865	Boiler, Gas, 1,001 to 2,000 MBH, Replace	1	EA	\$53,435.22	\$53,435	\$53,435
D30	Throughout	875908	Unit Ventilator, 751 to 1,250 CFM (approx. 3 Ton), Replace	20	EA	\$9,710.77	\$194,215	\$194,215
D30	Roof	877288	HVAC System Ductwork, Sheet Metal, Replace	200	SF	\$17.25	\$3,450	\$3,450
D30	Mechanical closet	876568	Air Handler, Exterior, 1,201 to 2,000 CFM, Replace	1	EA	\$13,132.81	\$13,133	\$13,133
D30	Mechanical closet	876570	Air Handler, Exterior, 1,201 to 2,000 CFM, Replace	1	EA	\$13,132.81	\$13,133	\$13,133
D30	Throughout	875907	Unit Ventilator, 751 to 1,250 CFM (approx. 3 Ton), Replace	20	EA	\$9,710.77	\$194,215	\$194,215
D30	Hallways	876891	Unit Ventilator, 751 to 1,250 CFM (approx. 3 Ton), Replace	20	EA	\$9,710.77	\$194,215	\$194,215
D30	Throughout	875981	Unit Ventilator, 751 to 1,250 CFM (approx. 3 Ton), Replace	20	EA	\$9,710.77	\$194,215	\$194,215
D30	Roof	877250	Exhaust Fan, Centrifugal, 251 to 800 CFM, Replace	1	EA	\$2,325.15	\$2,325	\$2,325
D30	Roof	877249	Exhaust Fan, Centrifugal, 251 to 800 CFM, Replace	1	EA	\$2,325.15	\$2,325	\$2,325
D30	Roof	877257	Exhaust Fan, Centrifugal, 251 to 800 CFM, Replace	1	EA	\$2,325.15	\$2,325	\$2,325
D30	Roof	875996	Exhaust Fan, Centrifugal, 801 to 2,000 CFM, Replace	1	EA	\$3,063.80	\$3,064	\$3,064
D30	Roof	876032	Exhaust Fan, Centrifugal, 801 to 2,000 CFM, Replace	1	EA	\$3,063.80	\$3,064	\$3,064

Immediate Repairs Report
Carpenter Elementary
6/28/2018



EMG Renamed Item Number	Location Description	ID	Cost Description	Quantity	Unit	Unit Cost *	Subtotal	Deficiency Repair Estimate *
D30	Roof	877253	Exhaust Fan, Centrifugal, 251 to 800 CFM, Replace	1	EA	\$2,325.15	\$2,325	\$2,325
D30	Roof	877227	Exhaust Fan, Centrifugal, 251 to 800 CFM, Replace	1	EA	\$2,325.15	\$2,325	\$2,325
D30	Roof	877251	Exhaust Fan, Centrifugal, 251 to 800 CFM, Replace	1	EA	\$2,325.15	\$2,325	\$2,325
D30	Roof	877258	Exhaust Fan, Centrifugal, 251 to 800 CFM, Replace	1	EA	\$2,325.15	\$2,325	\$2,325
D30	Roof	877226	Exhaust Fan, Centrifugal, 251 to 800 CFM, Replace	1	EA	\$2,325.15	\$2,325	\$2,325
D30	Roof	877263	Exhaust Fan, Centrifugal, 251 to 800 CFM, Replace	1	EA	\$2,325.15	\$2,325	\$2,325
D30	Roof	877261	Exhaust Fan, Centrifugal, 251 to 800 CFM, Replace	1	EA	\$2,325.15	\$2,325	\$2,325
D30	Roof	877262	Exhaust Fan, Centrifugal, 251 to 800 CFM, Replace	1	EA	\$2,325.15	\$2,325	\$2,325
D30	Roof	877260	Exhaust Fan, Centrifugal, 251 to 800 CFM, Replace	1	EA	\$2,325.15	\$2,325	\$2,325
D30	Roof	876015	Exhaust Fan, Centrifugal, 801 to 2,000 CFM, Replace	1	EA	\$3,063.80	\$3,064	\$3,064
D30	Roof	877228	Exhaust Fan, Centrifugal, 251 to 800 CFM, Replace	1	EA	\$2,325.15	\$2,325	\$2,325
D30	Roof	876018	Exhaust Fan, Centrifugal, 801 to 2,000 CFM, Replace	1	EA	\$3,063.80	\$3,064	\$3,064
D30	Roof	877254	Exhaust Fan, Centrifugal, 251 to 800 CFM, Replace	1	EA	\$2,325.15	\$2,325	\$2,325
D30	Roof	876049	Exhaust Fan, Centrifugal, 801 to 2,000 CFM, Replace	1	EA	\$3,063.80	\$3,064	\$3,064
D30	Roof	877259	Exhaust Fan, Centrifugal, 251 to 800 CFM, Replace	1	EA	\$2,325.15	\$2,325	\$2,325
D30	Roof	875986	Exhaust Fan, Centrifugal, 251 to 800 CFM, Replace	1	EA	\$2,325.15	\$2,325	\$2,325
D30	Roof	877252	Exhaust Fan, Centrifugal, 251 to 800 CFM, Replace	1	EA	\$2,325.15	\$2,325	\$2,325
D30	Roof	877248	Exhaust Fan, Centrifugal, 251 to 800 CFM, Replace	1	EA	\$2,325.15	\$2,325	\$2,325
D30	Roof	876039	Exhaust Fan, Centrifugal, 801 to 2,000 CFM, Replace	1	EA	\$3,063.80	\$3,064	\$3,064
D30	Roof	877255	Exhaust Fan, Centrifugal, 251 to 800 CFM, Replace	1	EA	\$2,325.15	\$2,325	\$2,325
D30	Roof	877256	Exhaust Fan, Centrifugal, 251 to 800 CFM, Replace	1	EA	\$2,325.15	\$2,325	\$2,325
D30	Roof	876045	Exhaust Fan, Centrifugal, 801 to 2,000 CFM, Replace	1	EA	\$3,063.80	\$3,064	\$3,064
D30	Roof	875991	Exhaust Fan, Centrifugal, 801 to 2,000 CFM, Replace	1	EA	\$3,063.80	\$3,064	\$3,064
D30	Boiler room	876873	Distribution Pump, Heating Water, 2 HP, Replace	1	EA	\$5,350.13	\$5,350	\$5,350
D30	Mechanical closet	876569	Distribution Pump, Heating Water, 3/4 HP, Replace	1	EA	\$5,350.13	\$5,350	\$5,350
D30	Boiler room	876872	Distribution Pump, Heating Water, 2 HP, Replace	1	EA	\$5,350.13	\$5,350	\$5,350

Immediate Repairs Report
Carpenter Elementary
6/28/2018



EMG Renamed Item Number	Location Description	ID	Cost Description	Quantity	Unit	Unit Cost *	Subtotal	Deficiency Repair Estimate *
D30	Throughout	875979	Radiator, Hydronic Baseboard (per LF), Replace	3000	LF	\$152.69	\$458,057	\$458,057
D30	Boiler room	876879	Unit Heater, Hydronic, 13 to 36 MBH, Replace	3	EA	\$1,744.32	\$5,233	\$5,233
D30	Roof	875992	Packaged Unit (RTU), 3 Ton, Replace	1	EA	\$11,352.69	\$11,353	\$11,353
D30	Roof	877269	Packaged Unit (RTU), 3 Ton, Replace	1	EA	\$11,352.69	\$11,353	\$11,353
D30	Roof	875994	Heat Pump, Packaged (RTU), 20 Ton, Replace	1	EA	\$45,979.75	\$45,980	\$45,980
D30	Mechanical closets	876910	Building Automation System (HVAC Controls), Upgrade	52539	SF	\$6.17	\$324,001	\$324,001
D50	Utility closet by lounge	877221	Building/Main Switchboard, 208 Y, 120 V, 1,200 Amp, Replace	1	EA	\$244,105.10	\$244,105	\$244,105
D50	Boiler room	876885	Distribution Panel, 208 Y, 225 Amp, Replace	1	EA	\$12,221.32	\$12,221	\$12,221
D50	Throughout	876990	Motion Sensing Wall Switch, 120 V, 20 Amp, Replace	50	EA	\$251.76	\$12,588	\$12,588
D70	Throughout	876558	Fire Alarm System, School, Install	52539	SF	\$3.60	\$189,217	\$189,217
E10	Kitchen	877166	Commercial Kitchen, Refrigerator, 2-Door Reach-In, Replace	1	EA	\$4,894.40	\$4,894	\$4,894
E10	Closet	877155	Residential Appliances, Refrigerator, 14-18 CF, Replace	1	EA	\$956.04	\$956	\$956
D20	Restroom	876920	Kitchen Counter, Plastic Laminate, Postformed, Replace	50	LF	\$50.48	\$2,524	\$2,524
	Site	958677	Davis Bacon Prevailing Wages, Surcharge for Prevailing Wages, 10% surcharge for prevailing wages	89323.74	LS	\$1.15	\$102,722	\$102,722
G20	South Parking Area	875355	Parking Lots, Asphalt Pavement, Mill & Overlay	30000	SF	\$3.77	\$113,174	\$113,174
G20	East play area	877304	Parking Lots, Asphalt Pavement, Mill & Overlay	3800	SF	\$3.77	\$14,335	\$14,335
G20	Front entrance	877303	Signage, Property, Monument/Pylon, Replace	1	EA	\$9,892.30	\$9,892	\$9,892
G20		875980	Sports Apparatus, Basketball Backstop, Replace	8	EA	\$10,850.98	\$86,808	\$86,808
D20	Throughout	876868	Engineer, Environmental, Asbestos (ACM) & Lead Base Paint (LBP), Evaluate/Report	1	EA	\$5,750.00	\$5,750	\$5,750
B10	Interior Wall	875972	Engineer, Structural, Superstructure, Evaluate/Report	1	EA	\$11,500.00	\$11,500	\$11,500

Immediate Repairs Total

\$5,830,012

* Location Factor (1.0) included in totals.



6/28/2018

Location	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	Total Escalated Estimate
Carpenter Elementary	\$5,830,012	\$434,902	\$488,939	\$1,039,149	\$1,600,366	\$2,070,614	\$138,083	\$467,774	\$629,838	\$151,112	\$1,993,380	\$515,461	\$172,871	\$276,828	\$182,004	\$3,774,335	\$527,696	\$177,411	\$313,464	\$203,082	\$20,987,323
GrandTotal	\$5,830,012	\$434,902	\$488,939	\$1,039,149	\$1,600,366	\$2,070,614	\$138,083	\$467,774	\$629,838	\$151,112	\$1,993,380	\$515,461	\$172,871	\$276,828	\$182,004	\$3,774,335	\$527,696	\$177,411	\$313,464	\$203,082	\$20,987,323

EMG Renamed Item Number	Location Description ID	Cost Description	Lifespan (EUL)		EA	RUL	Quantity	Unit	Unit Cost	w/ Markup *	Subtotal																													2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	RRR_Row	GrandTotalLabel
			EA	RUL																																																									
D30	interiors	928287	Air Conditioning, Central, Install	50	65	0	52539	SF	\$10.00	\$11.50	\$604,199	\$604,199																										\$604,199																							
G20	Exterior	877301	Exterior Stair/Ramp Rails, Metal, Refinish	10	10	0	500	LF	\$1.44	\$1.44	\$720	\$720																											\$720																						
B20	Exterior wall	877320	Exterior Wall, Metal Siding, 1-2 Stories, Replace	40	40	0	8000	SF	\$8.67	\$9.98	\$79,808	\$79,808																											\$79,808																						
B20	Exterior wall	875363	Exterior Wall, Brick or Brick Veneer, 1-2 Stories, Repoint	25	20	5	25000	SF	\$41.28	\$47.47	\$1,186,875																												\$1,186,875																						
B20	Exterior wall	876996	Interior Wall, Brick or Brick Veneer, 1-2 Stories, Repoint	25	15	10	20000	SF	\$41.28	\$47.47	\$949,500																											\$949,500																							
B20	Exterior windows	875915	Window, Aluminum operable 12 SF, 1-2 Stories, Replace	30	15	15	300	EA	\$1,885.36	\$2,168.16	\$650,448																											\$650,448																							
B20	Exterior Doors	875356	Exterior Door, Metal w/ Safety Glass, Replace	25	7	18	28	EA	\$1,352.72	\$1,555.63	\$43,558																											\$43,558																							
B30	Main roof	875359	Roof, Single-Ply EPDM Membrane, Replace	20	17	3	55000	SF	\$10.52	\$12.10	\$665,390																											\$665,390																							
B30	Main roof	877222	Roof, Asphalt Shingle Premium Grade, Replace	30	12	18	5000	SF	\$5.04	\$5.80	\$28,979																											\$28,979																							
B30	Roof	877224	Roof Hatch, Metal, Replace	30	25	5	1	EA	\$1,213.44	\$1,395.45	\$1,395																											\$1,395																							
B20	Interior	875358	Interior Door, Wood Solid-Core, Replace	20	17	3	40	EA	\$1,423.11	\$1,636.58	\$65,463																											\$65,463																							
B20	Interior	876995	Interior Door, Steel w/ Safety Glass, Replace	20	17	3	20	EA	\$1,352.72	\$1,555.63	\$31,113																											\$31,113																							
B20	Interior	876992	Interior Door, Steel, Replace	25	17	8	40	EA	\$950.12	\$1,092.64	\$43,705																											\$43,705																							
D70	Throughout	946155	Exterior Door Hardware, Electronic Locks ANSI F39 Lockset, Replace	30	29	1	14	EA	\$1,345.00	\$1,546.75	\$21,655																											\$21,655																							
D20	Restroom	876915	Toilet Partitions, Metal, Replace	20	20	0	1	EA	\$850.00	\$850.00	\$850	\$850																										\$850																							
D20	Restroom	876916	Toilet Partitions, Metal, Replace	20	10	10	3	EA	\$850.00	\$977.50	\$2,932																											\$2,932																							
B20	Exterior soffit	877340	Interior Ceiling Finish, General Surface, Prep & Paint	8	8	0	500	SF	\$1.45	\$1.45	\$725	\$725																										\$725																							
C2010	Throughout	876889	Interior Wall Finish, General Surface, Prep & Paint	8	10	0	97200	SF	\$1.45	\$1.67	\$162,081	\$162,081																										\$162,081																							
C2050	Restroom	876556	Interior Floor Finish, Epoxy Coating, Prep & Paint	10	7	3	3000	SF	\$8.74	\$10.05	\$30,153																											\$30,153																							
C2010	Throughout	875362	Interior Floor Finish, Vinyl Tile (VCT), Replace	15	15	0	55000	SF	\$4.80	\$5.52	\$303,638	\$303,638																										\$303,638																							
C2030	Stage	877151	Interior Floor Finish, Wood Strip, Refinish	10	7	3	3000	SF	\$3.68	\$4.23	\$12,688																											\$12,688																							
C2030	Restroom	875894	Interior Floor Finish, Ceramic Tile, Replace	50	40	10	2500	SF	\$15.76	\$18.12	\$45,296																											\$45,296																							
C2050	Throughout	876555	Interior Ceiling Finish, Suspended Acoustical Tile (ACT), Replace	20	20	0	3000	SF	\$3.11	\$3.58	\$10,733	\$10,733																											\$10,733																						
C2050	Throughout	876553	Interior Ceiling Finish, Suspended Acoustical Tile (ACT), Replace	20	12	8	52539	SF	\$3.11	\$3.58	\$187,966																											\$187,966																							
D20	Restroom	875888	Toilet, Tankless (Water Closet), Replace	20	7	13	26	EA	\$842.97	\$969.41	\$25,205																											\$25,205																							
D20	Restroom	876918	Urinal, Vitreous China, Replace	20	7	13	3	EA	\$1,193.44	\$1,372.46	\$4,117																											\$4,117																							
D20	Janitor closets	876911	Service Sink, Floor, Replace	35	40	0	5	EA	\$1,599.51	\$1,839.44	\$9,197	\$9,197																											\$9,197																						
D20	Lounge	876074	Sink, Stainless Steel, Replace	20	10	10	1	EA	\$1,054.05	\$1,212.16	\$1,212																											\$1,212																							
D20	Classroom	875900	Sink, Stainless Steel, Replace	20	10	10	24	EA	\$1,054.05	\$1,212.16	\$29,092																											\$29,092																							
D20	Kitchen	877172	Sink, Stainless Steel, Replace	20	10	10	3	EA	\$1,054.05	\$1,212.16	\$3,636																											\$3,636																							
D20	Restroom	875890	Sink, Porcelain Enamel, Cast Iron, Replace	20	7	13	4	EA	\$1,167.28	\$1,342.38	\$5,370																											\$5,370																							
D20	Throughout	875906	Drinking Fountain, Vitreous China, Replace	15	15	0	5	EA	\$1,938.99	\$2,229.84	\$11,149	\$11,149																											\$11,149																						
D20	Throughout	876912	Drinking Fountain, Refrigerated, Replace	10	10	0	5	EA	\$1,257.51	\$1,446.13	\$7,231	\$7,231																											\$7,231																						
D20	Boiler room	876896	Backflow Preventer, 2", Replace	15	13	2	1	EA	\$2,603.17	\$2,993.64	\$2,994																											\$2,994																							
D20	Boiler room	876871	Backflow Preventer, 0.75", Replace	15	10	5	1	EA	\$1,010.43	\$1,162.00	\$1,162																											\$1,162																							
D20	Boiler room	877205	Backflow Preventer, 0.75", Replace	15	4	11	1	EA	\$1,010.43	\$1,166.30	\$1,166																											\$1,166																							
D20	Utility closet	877153	Water Heater, Electric, Residential, 5 to 15 GAL, Replace	15	5	10	1	EA	\$1,014.17	\$1,166.30	\$1,166																											\$1,166																							
D20	Boiler room	876880	Water Heater, Gas, Commercial, 74 GAL, Replace	15	5	10	1	EA	\$10,698.82	\$12,303.64	\$12,304																											\$12,304																							
D20	Boiler room	876901	Water Heater, Gas, Tankless, 4.0 to 6.4 GPM, Replace	15	1	14	1	EA	\$1,407.41	\$1,618.52	\$1,619																											\$1,619																							
D20	Throughout	876870	Pipe & Fittings, Cast Iron, 4", Replace	50	65	0	15000	LF	\$80.40	\$132.66	\$1,989,974	\$1,989,974																											\$1,989,974																						
B30	Roof	877271	Roof Drain, 6", Replace	40	37	3	30	EA	\$718.60	\$826.39	\$24,792																											\$24,792																							
D30	Boiler room	877198	Compressed Air Dryer, Replace	15	4	11	1	EA	\$5,077.01	\$5,838.57	\$5,839																											\$5,839																							
D30	Boiler room	877195	Air Compressor, 5 HP, Replace	20	4	16	1	EA	\$9,652.21	\$11,100.05	\$11,100																											\$11,100																							
	Roof	960782	Solar Instillation Project, Roof Mounted Solar Instillation, Install	20	18	2	297000	SF	\$1.00	\$1.15	\$341,550																																																		

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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:	4250 Central Boulevard, Ann Arbor, Washtenaw, MI 48104
Year Constructed/Renovated:	1953
Current Occupants:	Ann Arbor
Percent Utilization:	100%
Management Point of Contact:	Ann Arbor Public Schools, Jim Vibbart, Facilities Manager 734.320.3613 phone vibbart.j@aaps.k12.mi.us email
Property Type:	Classrooms
Site Area:	11 acres
Building Area:	52,539 SF
Number of Buildings:	1
Number of Stories:	1
Parking Type and Number of Spaces:	82 spaces in open lots
Building Construction:	Masonry bearing walls and metal-framed decks.
Roof Construction:	Flat roofs with built-up membrane, parapet walls and asphalt shingles.
Exterior Finishes:	Brick
Heating, Ventilation & Air Conditioning:	Central system with boilers, air handlers, unit ventilators and hydronic radiators.
Fire and Life/Safety:	Hydrants, smoke detectors, alarms, strobes, extinguishers, pull stations, alarm panel, exit signs, and AEDs.
ADA :	This building does not have any major ADA issues.
<p>All 52,539 square feet of the building are occupied by a single occupant, Ann Arbor Schools. The spaces are mostly classrooms, laboratory spaces, supporting restrooms, gymnasium, administrative offices, mechanical and other utility spaces.</p> <p>The following table identifies the unit types and mix at the subject property:</p>	
<p>Most of the interior spaces were observed in order 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.</p>	
<p>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.</p>	
Assessment Information	
Dates of Visit:	3/6/2018
On-Site Point of Contact (POC):	Jim Vibbart
Assessment and Report Prepared by:	James Cuellar

Property Information	
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1.2 Key Findings

Site: The parking lot has multiple cracks from erosion. A cost allowance to repair and/or replace these deficient attributes is included in the cost tables.

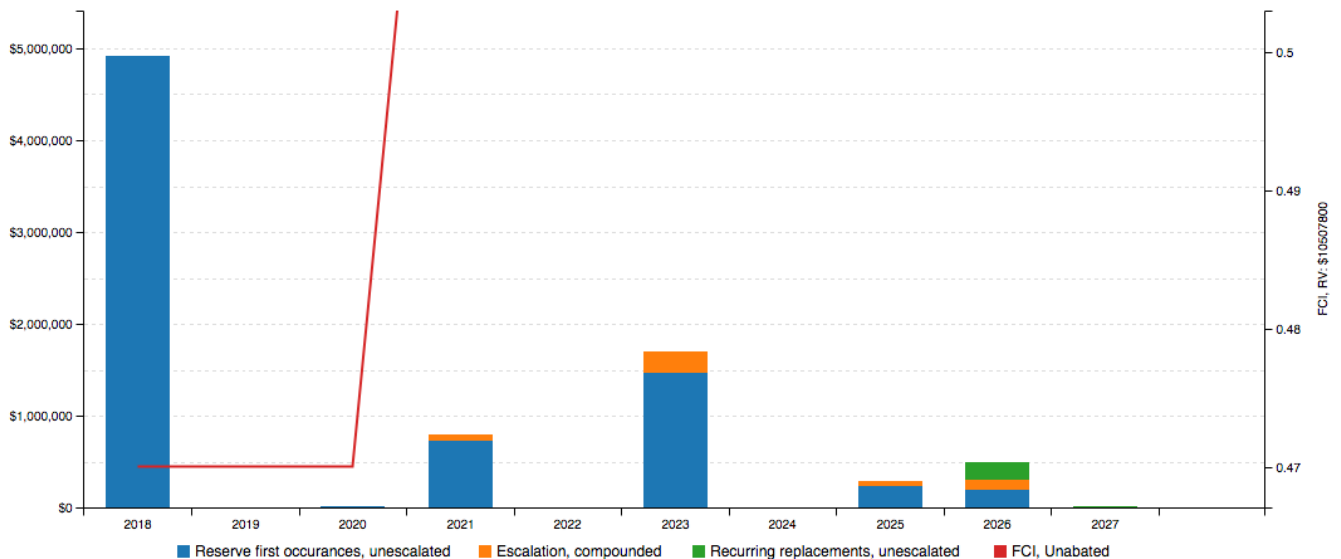
Architectural: The walls and doors throughout the facility needs painted or replaced. Some of the doors are antiquated, hard to open and are damaged. Some of the ceilings and walls are stained, cracked and chipping. The CMU Wall shows signs of cracking and displacement. A professional engineer must be retained to analyze the existing condition, provide recommendations and, if necessary, estimate the scope and cost of any required repairs. A cost allowance to repair and/or replace these deficient attributes is included in the cost tables.

MEPF: Some electrical components are antiquated. Some mechanical components in the building are original and are antiquated. Asbestos is suspected throughout the building piping. A professional engineer must be retained to analyze the existing condition, provide recommendations and, if necessary, estimate the scope and cost of any required repairs. A cost allowance to repair and/or replace these deficient attributes is included in the cost tables.

1.3 Facility Condition Index (FCI)

FCI Analysis: Carpenter Elementary

Replacement Value: \$ 10,507,800; 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 .05
Fair	Subjected to wear and soiling but is still in a serviceable and functioning condition.	> than .05 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):	46.73%
Current Year FCI Rating:	2018
10-Year Facility Condition Index (FCI) FCI = (RR)/(CRV):	78.62%
10-Year FCI Rating	0.76
Current Replacement Value (CRV):	\$10,507,800
Year 0 (Current Year) - Immediate Repairs (IR):	\$4,910,182
Years 1-10 - Replacement Reserves (RR):	\$3,351,425
Total Capital Needs:	\$8,261,606

Further detail on the specific costs that make up the Immediate Repair Costs can be found in the cost tables at the beginning of this report.



2 Building Structure

A10 Foundations

Building Foundation		
Item	Description	Condition
Foundation	Masonry foundation walls	Fair
Basement and Crawl Space	Concrete slab and concrete walls	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.

B10 Superstructure

B1010 Floor Construction & B1020 Roof Construction		
Item	Description	Condition
Framing / Load-Bearing Walls	Masonry walls	Fair
Ground Floor	Concrete slab	Fair
Upper Floor Framing	Steel beams	Fair
Upper Floor Decking	Concrete	Fair
Balcony Framing	None	--
Balcony Decking	None	--
Balcony Deck Toppings	None	--
Balcony Guardrails	None	--
Roof Framing	Steel beams or girders	Fair
Roof Decking	Plywood or OSB	Fair

Maintenance Issues			
Observation	Exists At Site	Observation	Exists At Site
Caulk minor cracking	<input type="checkbox"/>	Monitor cracking for growth	<input type="checkbox"/>
Other	<input type="checkbox"/>	Other	<input type="checkbox"/>

Anticipated Lifecycle Replacements:

- No components of significance



Actions/Comments:

- The superstructure is exposed in some locations, which allows for limited observation. The CMU Wall shows signs of cracking and displacement. The CMU wall requires repairs. A professional engineer must be retained to analyze the existing condition, provide recommendations and, if necessary, estimate the scope and cost of any required repairs. A budgetary cost has been included.

B1080 Stairs					
Type	Description	Riser	Handrail	Balusters	Condition
Building Exterior Stairs	Concrete stairs	Open	Metal	Metal	Fair
Building Interior Stairs	None	--	--	--	--

Anticipated Lifecycle Replacements:

- No components of significance

Actions/Comments:

- No significant actions are identified at the present time. On-going periodic maintenance is highly recommended.

3 Building Envelope

B20 Exterior Vertical Enclosures

B2010 Exterior Walls		
Type	Location	Condition
Primary Finish	Brick	Fair
Secondary Finish	Metal siding	Poor
Accented with	None	--
Soffits	Exposed	Poor
Building sealants	Between dissimilar materials, at joints, around windows and doors	Fair

Maintenance Issues			
Observation	Exists At Site	Observation	Exists At Site
Graffiti	<input type="checkbox"/>	Efflorescence	<input type="checkbox"/>
Other	<input type="checkbox"/>	Other	<input type="checkbox"/>

Anticipated Lifecycle Replacements:

- Masonry re-pointing
- Metal siding
- Exterior soffit paint

Actions/Comments:

- The exterior metal siding is antiquated, faded and damaged. The metal siding is recommended for replacement.
- The soffit surfaces show signs of peeling, cracked and are damaged. The soffit surfaces require painting.

B2020 Exterior Windows				
Window Framing	Glazing	Location	Window Screen	Condition
Aluminum framed, fixed	Double glaze	Exterior windows	<input type="checkbox"/>	Fair
Aluminum framed storefront	Double glaze	Exterior windows	<input type="checkbox"/>	Fair

B2050 Exterior Doors		
Main Entrance Doors	Door Type	Condition
	Fully glazed, metal framed	Poor
Secondary Entrance Doors	Metal, insulated	Poor
Service Doors	Metal, insulated	Poor



B2050 Exterior Doors		
Overhead Doors	None	--

Anticipated Lifecycle Replacements:

- Windows
- Exterior doors

Actions/Comments:

- There are a significant number of damaged, delaminated, inoperable exterior doors and door frames. The damaged doors and frames must be replaced.

B30 Roofs

B3010 Primary Roof			
Location	Roof	Finish	Single-ply membrane
Type / Geometry	Flat	Roof Age	10+ Yrs
Flashing	Membrane	Warranties	None expressed
Parapet Copings	Parapet with sheet metal coping	Roof Drains	Internal drains
Fascia	None	Insulation	Rigid Board
Soffits	Exposed Soffits	Skylights	No
Attics	Steel beams	Ventilation Source-1	None
Roof Condition	Fair	Ventilation Source-2	--

B3010 Secondary Roof			
Location	Center of roof	Finish	Asphalt shingles
Type / Geometry	Hip Roof	Roof Age	10+ Yrs
Flashing	Membrane	Warranties	None expressed
Parapet Copings	None	Roof Drains	Edge drainage to ground
Fascia	None	Insulation	None
Soffits	None	Skylights	No
Attics	Steel beams	Ventilation Source-1	None
Roof Condition	Fair	Ventilation Source-2	--

Maintenance Issues					
Observation	Location	Exists At Site	Observation	Location	Exists At Site
Drainage components broken/missing		<input type="checkbox"/>	Vegetation/fungal growth		<input type="checkbox"/>
Blocked Drains		<input type="checkbox"/>	Debris		<input type="checkbox"/>
Other		<input type="checkbox"/>	Other		<input type="checkbox"/>

Degradation Issues			
Observation	Exists At Site	Observation	Exists At Site
Evidence of roof leaks	<input type="checkbox"/>	Significant ponding	<input type="checkbox"/>
Excessive patching or repairs	<input type="checkbox"/>	Blistering or ridging	<input type="checkbox"/>
Other	<input type="checkbox"/>	Other	<input type="checkbox"/>

Anticipated Lifecycle Replacements:

- Asphalt shingles
- EDPM roof membrane
- Roof flashings (included as part of overall membrane replacement)
- Parapet wall copings (included as part of overall membrane replacement)
- Roof hatch

Actions/Comments:

- The roof finishes appear to be more than 10 years old. Information regarding roof warranties or bonds was not available. A copy of the warranty was requested but was not available. The roofs are maintained by an outside contractor.
- 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 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.
- The attics are not accessible, and it could not be determined if there is moisture, water intrusion, or excessive daylight in the attics.



4 Interiors

C10 Interior Construction

C1030 Interior Doors		
Item	Type	Condition
Interior Doors	Solid core wood and metal	Fair
Door Framing	Metal	Fair
Fire Doors	Yes	Fair
Other Doors	--	--

Maintenance Issues			
Observation	Exists At Site	Observation	Exists At Site
Improperly adjusted door closures	<input type="checkbox"/>	Damaged/loose door hardware	<input checked="" type="checkbox"/>
Other	<input type="checkbox"/>	Other	<input type="checkbox"/>

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

Interior Finishes - CARPENTER ELEMENTARY

Location	Finish		Quantity (SF)	Condition	Action	RUL	Est. Cost
Exterior soffit	Ceiling	General Surface	500	Poor	Prep & Paint	0	725
Restroom	Floor	Epoxy Coating	3000	Fair	Prep & Paint	3	26,220
Restroom	Floor	Ceramic Tile	2500	Fair	Replace	10	39,388
Stage	Floor	Wood Strip	3000	Fair	Sand & Refir	3	11,033
Throughout	Wall	General Surface	130000	Poor	Prep & Paint	0	188,500
Throughout	Floor	Vinyl Tile (VCT)	55000	Poor	Replace	0	264,033
Throughout	Ceiling	Suspended Acoustical Tile (ACT)	52539	Fair	Replace	8	163,449
Throughout	Ceiling	Suspended Acoustical Tile (ACT)	3000	Poor	Replace	0	9,333

Maintenance Issues			
Observation	Exists At Site	Observation	Exists At Site
Loose carpeting/flooring	<input type="checkbox"/>	Minor areas of stained ceiling tiles	<input type="checkbox"/>
Minor paint touch-up	<input type="checkbox"/>	Areas of damaged/missing baseboard	<input type="checkbox"/>
Other	<input type="checkbox"/>	Other	<input type="checkbox"/>

Anticipated Lifecycle Replacements:

- Vinyl floor tile
- Ceramic tile
- Interior paint
- Suspended acoustic ceiling tile

- Interior doors

Actions/Comments:

- The vinyl floor tiles are antiquated, damaged and cracked. The vinyl floor tiles require replacement.
- The ceramic tiles are antiquated, damaged and cracked. The ceramic tiles require replacement.
- The walls have significant portions that are faded. The affected portions of the walls must be painted.
- There are isolated areas of acoustical ceilings tiles that show signs of water damage. The damaged acoustical ceiling tiles require replacement.
- The restroom partitions are damaged and antiquated. The damaged restroom partitions require replacement

5 Services (MEPF)

See the Mechanical Equipment List in the Appendices for the quantity, manufacturer's name, model number, capacity and year of manufacturer of the major mechanical equipment, if available.

D10 Conveying Systems

Not applicable. There are no elevators or conveying systems.

D20 Plumbing

D2010 Domestic Water Distribution		
Type	Description	Condition
Water Supply Piping	Copper	Fair
Water Meter Location	Boiler Room	

Domestic Water Heaters or Boilers	
Components	Boiler / Water Heaters
Fuel	Natural gas
Boiler or Water Heater Condition	Fair
Supplementary Storage Tanks?	No
Adequacy of Hot Water	Adequate
Adequacy of Water Pressure	Adequate

D2020 Sanitary Drainage		
Type	Description	Condition
Waste/Sewer Piping	Cast iron	Fair
Vent Piping	Cast iron	Fair

Maintenance Issues			
Observation	Exists At Site	Observation	Exists At Site
Hot water temperature too hot or cold	<input type="checkbox"/>	Minor or isolated leaks	<input type="checkbox"/>
Other	<input type="checkbox"/>	Other	<input type="checkbox"/>

Plumbing Systems - CARPENTER ELEMENTARY

Location	Component	Component Description	Quantity	Unit	Condition	Action	RUL	Est. Cost
205	Domestic Boiler	Gas, 501 to 800 MBH	1	EA	Good	Replace	21	34,559
Boiler room	Backflow Preventer	0.75"	1	EA	Fair	Replace	5	1,010
Boiler room	Backflow Preventer	2"	1	EA	Fair	Replace	2	2,603
Boiler room	Backflow Preventer	0.75"	1	EA	Good	Replace	11	1,010
Boiler room	Water Heater	Gas, Commercial, 60 to 120 GAL	1	EA	Fair	Replace	10	10,699
Boiler room	Water Heater	Gas, Tankless, 4.0 to 6.4 GPM	1	EA	Good	Replace	14	1,407
Classroom	Sink	Stainless Steel	24	EA	Fair	Replace	10	25,297
Janitor closets	Service Sink	Floor	5	EA	Poor	Replace	0	7,998
Kitchen	Sink	Stainless Steel	3	EA	Fair	Replace	10	3,162
Lounge	Sink	Stainless Steel	1	EA	Fair	Replace	10	1,054
Restroom	Toilet	Tankless (Water Closet)	26	EA	Fair	Replace	13	21,917
Restroom	Urinal	Vitreous China	3	EA	Fair	Replace	13	3,580
Restroom	Sink	Porcelain Enamel, Cast Iron	4	EA	Fair	Replace	13	4,669
Throughout	Drinking Fountain	Vitreous China	5	EA	Poor	Replace	0	9,695
Throughout	Drinking Fountain	Refrigerated	5	EA	Poor	Replace	0	6,288
Throughout	Pipe & Fittings	Cast Iron, 4"	15000	LF	Poor	Replace	0	1,809,068
Utility closet	Water Heater	Electric, Residential, 5 to 15 GAL	1	EA	Fair	Replace	10	1,014

Anticipated Lifecycle Replacements:

- Water heaters
- Backflow preventers
- Toilets
- Urinals
- Sinks
- Floor sinks
- Drinking fountains

Actions/Comments:

- The drinking fountains are damaged and unusable. The damaged drinking fountains must be replaced.
- The piping is in poor condition and may contain asbestos. Asbestos is suspected throughout the building since the building was constructed in 1953. A professional engineer must be retained to analyze the existing condition, provide recommendations and, if necessary, estimate the scope and cost of any required repairs. The cost of this study is included in the cost tables. A cost allowance to repair and/or replace these deficient attributes is included in the cost tables.
- The floor sinks in the janitor closets are antiquated and in disrepair. The floor sinks are recommended for replacement.
- The drinking fountains are antiquated and in disrepair. The drinking fountains require replacement.
- One toilet partition is missing the door. One restroom partition is recommended for replacement.
- The restroom countertops are antiquated and in disrepair. The restroom countertops require replacement.

D30 Building Heating, Ventilating, and Air Conditioning (HVAC)

Building Central Heating System	
Primary Heating System Type	Low pressure steam boilers
Heating Fuel	Natural gas
Location of Major Equipment	Mechanical rooms
Space Served by System	Entire building



Distribution System	
HVAC Water Distribution System	Two-pipe
Air Distribution System	Variable volume
Location of Air Handlers	Mechanical rooms
Terminal Units	Radiators and/or cabinet units
Quantity and Capacity of Terminal Units	Quantity and capacity of unit ventilators difficult to determine without construction drawings. Number of units and quantities are estimated.
Location of Terminal Units	Within interior spaces

Supplemental/Secondary Components	
Supplemental Component #1	Ductless mini-split systems
Location / Space Served	Offices
Condition	Good
Supplemental Component #2	Package Units
Location / Space Served	Multiple areas
Condition	Poor
Supplemental Component #3	Unit ventilators
Location / Space Served	Classrooms
Condition	50% Fair 50% Poor

Controls and Ventilation	
HVAC Control System	BAS, hybrid pneumatic/electronic system
HVAC Control System Condition	Fair
Building Ventilation	Roof top exhaust fans
Ventilation System Condition	Fair

Maintenance Issues			
Observation	Exists At Site	Observation	Exists At Site
Ductwork/grills need cleaned	<input checked="" type="checkbox"/>	Minor control adjustments needed	<input type="checkbox"/>
Leaking condensate lines	<input type="checkbox"/>	Poor mechanical area access	<input type="checkbox"/>
Other	<input type="checkbox"/>	Other	<input type="checkbox"/>



Anticipated Lifecycle Replacements:

- Boilers
- Air handlers
- Distribution pumps and motors
- Split Systems
- Unit Ventilators
- Package units
- Radiators
- Rooftop exhaust fans
- Expansion tanks
- Air separators
- Air compressor
- Building automation system

Actions/Comments:

- The HVAC systems are maintained by an outside contractor. Records of the installation, maintenance, upgrades, and replacement of the HVAC equipment at the property have been maintained since the property was first occupied.
- The HVAC equipment varies in age. HVAC equipment is replaced on an "as needed" basis.
- Some exhaust fans are antiquated, in disrepair and heavily weathered. Some exhaust fans are recommended for replacement.
- The ductwork shows signs of a buildup up dust. The ductwork requires cleaning.
- The ductwork on the roof shows signs of organic growth, mold and is damaged. The damaged ductwork on the roof requires replacement.
- The air handler is original unit which is rusted, antiquated and inefficient. The air handler is recommended for replacement.
- The package units are rusted, antiquated, inefficient and in disrepair. The package units are recommended for replacement.
- The unit ventilators are rusted, antiquated, inefficient and in disrepair. The unit ventilators are recommended for replacement.
- The unit heaters are rusted, antiquated, inefficient and in disrepair. The unit heaters are recommended for replacement.
- The hydronic radiator systems are rusted, antiquated, inefficient and in disrepair. The hydronic radiator systems are recommended for replacement.
- The heating water pumps are antiquated, rusted, leaking and damaged. The damaged heating water pumps require replacement.
- The boilers are antiquated, rusted, in disrepair, inefficient and damaged. The damaged boilers require replacement.
- The Building automation system is antiquated and uses a hybrid system. It is recommended to convert the entire property to DDC. A full modernization project is recommended.

D40 Fire Protection

Item	Description					
Type	None					
Sprinkler System	None	<input type="checkbox"/>	Standpipes	<input type="checkbox"/>	Backflow Preventer	<input type="checkbox"/>
	Hose Cabinets	<input type="checkbox"/>	Fire Pumps	<input type="checkbox"/>	Siamese Connections	<input type="checkbox"/>
Sprinkler System Condition	--					
Fire Extinguishers	Last Service Date			Servicing Current?		
	Nov, 2017			Yes		
Hydrant Location	Exterior					
Siamese Location	None					

Item	Description		
Type	None		
Special Systems	Kitchen Suppression System	<input type="checkbox"/>	Computer Room Suppression System <input type="checkbox"/>

Maintenance Issues			
Observation	Exists At Site	Observation	Exists At Site
Extinguisher tag expired	<input type="checkbox"/>	Riser tag expired (5 year)	<input type="checkbox"/>
Other	<input type="checkbox"/>	Other	<input type="checkbox"/>

Anticipated Lifecycle Replacements:

- Fire extinguishers

Actions/Comments:

- The vast majority of the building is not protected by fire suppression. 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. As part of the major planned short-term renovations, a facility-wide fire suppression retrofit is recommended. A budgetary cost is included.

D50 Electrical

Distribution & Lighting			
Electrical Lines	Underground	Transformer	Pad-mounted
Main Service Size	1200 Amps	Volts	120/208 Volt, three-phase
Meter & Panel Location	Electrical Closet	Branch Wiring	Copper
Conduit	Metallic	Step-Down Transformers?	No
Security / Surveillance System?	Yes	Building Intercom System?	Yes
Lighting Fixtures	T-8, CFL		
Main Distribution Condition	Fair		
Secondary Panel and Transformer Condition	Fair		
Lighting Condition	Fair		

Maintenance Issues			
Observation	Exists At Site	Observation	Exists At Site
Improperly stored material	<input type="checkbox"/>	Unsecured high voltage area	<input type="checkbox"/>



Maintenance Issues			
Observation	Exists At Site	Observation	Exists At Site
Loose cables or improper use of conduit	<input type="checkbox"/>	Poor electrical room ventilation	<input type="checkbox"/>
Other	<input type="checkbox"/>	Other	<input type="checkbox"/>

Anticipated Lifecycle Replacements:

- Circuit breaker panels
- Switchboards
- Interior light fixtures

Actions/Comments:

- The onsite electrical systems up to the meters are owned and maintained by the respective utility company.
- The electrical service and capacity appear to be adequate for the property's demands.
- The electrical service appears to be 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 per above.
- The motion sensing wall switches are damaged and are considered an electrical hazard. The motion sensing wall switches require replacement.

D60 Communications

D6060 Public Address Systems						
Item	Description					
Communication Equipment	Public Address System	<input checked="" type="checkbox"/>	Nurse Call System	<input type="checkbox"/>	Clock	<input checked="" type="checkbox"/>

D70 Electronic Safety and Security

D7010 Access Control and Intrusion Detection / D7050 Detection and Alarm						
Item	Description					
Access Control and Intrusion Detection	Exterior Camera	<input checked="" type="checkbox"/>	Interior Camera	<input checked="" type="checkbox"/>	Front Door Camera Only	<input type="checkbox"/>
	Cameras monitored	<input type="checkbox"/>	Security Personnel On-Site	<input type="checkbox"/>	Intercom/Door Buzzer	<input type="checkbox"/>
Fire Alarm System	Central Alarm Panel	<input checked="" type="checkbox"/>	Battery-Operated Smoke Detectors	<input type="checkbox"/>	Alarm Horns	<input checked="" type="checkbox"/>
	Annunciator Panels	<input type="checkbox"/>	Hard-Wired Smoke Detectors	<input checked="" type="checkbox"/>	Strobe Light Alarms	<input checked="" type="checkbox"/>
	Pull Stations	<input checked="" type="checkbox"/>	Emergency Battery-Pack Lighting	<input type="checkbox"/>	Illuminated EXIT Signs	<input checked="" type="checkbox"/>



D7010 Access Control and Intrusion Detection / D7050 Detection and Alarm		
Item	Description	
Fire Alarm System Condition	--	
Central Alarm Panel System	Location of Alarm Panel	Installation Date of Alarm Panel
	Office	20+ years

Anticipated Lifecycle Replacements:

- Central alarm panel
- Alarm devices and system

Actions/Comments:

- The fire alarm systems appear antiquated and not up to current standards. Due to the age of the components and apparent shortcomings, a full modernization project is recommended.

6 Equipment & Furnishings

E10 Equipment

The cafeteria kitchen includes the following major appliances, fixtures, and equipment:

E1030 Commercial Kitchen Equipment		
Appliance	Comment	Condition
Refrigerators	Up-right	Poor
Freezers	Up-right	Fair
Ranges	<input type="checkbox"/>	--
Ovens	<input type="checkbox"/>	--
Griddles / Grills	<input type="checkbox"/>	--
Fryers	<input type="checkbox"/>	--
Hood	<input type="checkbox"/>	--
Dishwasher	<input type="checkbox"/>	--
Microwave	<input type="checkbox"/>	--
Ice Machines	<input type="checkbox"/>	--
Steam Tables	<input checked="" type="checkbox"/>	Fair
Work Tables	<input type="checkbox"/>	--
Shelving	<input type="checkbox"/>	--

Anticipated Lifecycle Replacements:

- Reach-in freezer
- Reach-in cooler
- Steam table
- Food warmer
- Stainless sink
- Faucets
- Kitchen cabinets

Actions/Comments:

- The refrigerator in the kitchen is damaged. The damaged refrigerator requires replacement.
- The reach-in cooler in the kitchen is damaged. The damaged reach-in cooler requires replacement.

7 Sitework

G20 Site Improvements

G2020 Parking Lots & G2030 Pedestrian Walkways		
Item	Material	Condition
Entrance Driveway Apron	Asphalt	Fair
Parking Lot	Asphalt	Fair
Drive Aisles	Asphalt	Fair
Service Aisles	Asphalt	Fair
Sidewalks	Concrete	Fair
Curbs	Concrete	Fair
Pedestrian Ramps	None	--
Ground Floor Patio or Terrace	None	--

Parking Count				
Open Lot	Carport	Private Garage	Subterranean Garage	Freestanding Parking Structure
82	-	-	-	-
Total Number of ADA Compliant Spaces			4	
Number of ADA Compliant Spaces for Vans			1	
Total Parking Spaces			82	

Site Stairs			
Location	Material	Handrails	Condition
Main entrance	Concrete stairs	Metal	Fair

Maintenance Issues			
Observation	Exists At Site	Observation	Exists At Site
Pavement oil stains	<input type="checkbox"/>	Vegetation growth in joints	<input type="checkbox"/>
Stair/ramp rails loose	<input checked="" type="checkbox"/>	Stair/ramp rail needs scraped and painted	<input type="checkbox"/>
Other	<input type="checkbox"/>	Other	<input type="checkbox"/>

Degradation Issues			
Observation	Exists At Site	Observation	Exists At Site
Potholes/depressions	<input checked="" type="checkbox"/>	Alligator cracking	<input checked="" type="checkbox"/>
Concrete spalling	<input checked="" type="checkbox"/>	Trip hazards (settlement/heaving)	<input checked="" type="checkbox"/>
Other	<input type="checkbox"/>	Other	<input type="checkbox"/>

Anticipated Lifecycle Replacements:

- Asphalt seal coating
- Asphalt pavement
- Concrete pavement
- Sidewalks
- Railing paint

Actions/Comments:

- The asphalt pavement exhibits significant areas of failure and deterioration, such as alligator cracking, transverse cracking, extensive raveling, heavy overall surface wear, and localized depressions throughout the entire parking lot. All of the paving must be overlaid with new asphalt paving in order to maintain the integrity of the overall pavement system. Milling and paint stripping is recommended as part of the overall repair work.
- The railings show signs of heavy use and are faded. The faded railings require painting.

G2060 Site Development	
Property Signage	
Property Signage	Pylon
Street Address Displayed?	No

Site Fencing		
Type	Location	Condition
Chain link with metal posts	Perimeter	Fair

REFUSE DISPOSAL				
Refuse Disposal	Common area dumpsters			
Dumpster Locations	Mounting	Enclosure	Contracted?	Condition
South	Asphalt paving	Chain link fence	Yes	Fair

Other Site Amenities			
	Description	Location	Condition
Playground Equipment	Plastic and metal	North	Fair
Tennis Courts	None	--	--



Other Site Amenities			
	Description	Location	Condition
Basketball Court	Asphalt	North	Poor
Swimming Pool	None	--	--

Anticipated Lifecycle Replacements:

- Signage
- Playground equipment
- Playground surfaces
- Benches
- Basketball backboards

Actions/Comments:

- The property identification signs require replacement due their age and condition. The condition of the signs may impede the timely arrival of emergency services personnel and equipment. The signs require replacement
- The basketball backboards show signs of damage. The basketball backboard require replacement.
- The asphalt pavement exhibits significant areas of failure and deterioration, such as alligator cracking, transverse cracking, extensive raveling, heavy overall surface wear, and localized depressions throughout the entire parking lot. All of the paving must be overlaid with new asphalt paving in order to maintain the integrity of the overall pavement system. Milling and paint stripping is recommended as part of the overall repair work.

G2080 Landscaping		
Drainage System and Erosion Control		
System	Exists At Site	Condition
Surface Flow	<input checked="" type="checkbox"/>	Fair
Inlets	<input checked="" type="checkbox"/>	Fair
Swales	<input type="checkbox"/>	--
Detention pond	<input type="checkbox"/>	--
Lagoons	<input type="checkbox"/>	--
Ponds	<input type="checkbox"/>	--
Underground Piping	<input checked="" type="checkbox"/>	Fair
Pits	<input type="checkbox"/>	--
Municipal System	<input type="checkbox"/>	--
Dry Well	<input type="checkbox"/>	--

Anticipated Lifecycle Replacements:

- No components of significance

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 erosio.

Item	Description
Site Topography	Slopes gently down from the building to the property lines.



Item	Description						
	Trees	Grass	Flower Beds	Planters	Drought Tolerant Plants	Decorative Stone	None
Landscaping	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Landscaping Condition	Fair						
Irrigation	Automatic Underground		Drip		Hand Watering		None
	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input checked="" type="checkbox"/>
Irrigation Condition	--						

Anticipated Lifecycle Replacements:

- No components of significance

Actions/Comments:

- The topography and adjacent uses do not appear to present conditions detrimental to the property. There are no significant areas of erosion.

G30 Liquid & Gas Site Utilities

G3060 Site Fuel Distribution	
Item	Description
Natural Gas	Gas service is supplied from the gas main on the adjacent public street. The gas meter and regulator are located along the exterior walls of the building. The gas distribution piping within each building is malleable steel (black iron).

Anticipated Lifecycle Replacements:

- No components of significance

Actions/Comments:

- The pressure and quantity of gas appear to be adequate.
- The gas meter and regulator appear to be functioning adequately and will require routine maintenance.
- Only limited observation of the gas distribution piping can be made due to hidden conditions.

G40 Electrical Site Improvements

G4050 Site Lighting					
Site Lighting	None	Pole Mounted	Bollard Lights	Ground Mounted	Parking Lot Pole Type
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Poor					
Building Lighting	None		Wall Mounted		Recessed Soffit
	<input type="checkbox"/>		<input checked="" type="checkbox"/>		<input type="checkbox"/>



G4050 Site Lighting	
	Fair

Maintenance Issues			
Observation	Exists At Site	Observation	Exists At Site
Isolated bulb/lamp replacement	<input type="checkbox"/>	Discolored/dirty lens cover	<input type="checkbox"/>
Other	<input type="checkbox"/>	Other	<input type="checkbox"/>

Anticipated Lifecycle Replacements:

- Exterior lighting

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.



8 Ancillary Structures

Not applicable. There are no major accessory structures.

9 Opinions of Probable Costs

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 cannot be developed within the scope of this guide without further study. Opinions of probable cost for further study should be included in the FCA.

9.1 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.

9.2 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.

9.3 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

10 Purpose and Scope

10.1 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.

10.2 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 fungal growth, conditions conducive to fungal growth, and/or evidence of moisture. EMG will also interview Project personnel regarding the presence of any known or suspected fungal growth, 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.
- Provide recommendations for additional studies, if required, with related budgetary information.
- Provide an Executive Summary at the beginning of this report.
- Prepare a mechanical inventory list.

11 Accessibility and Property Research

11.1 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 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 tenant lease lines and the interior common areas, including the common area restrooms.

The facility generally appears to be accessible as stated within the defined priorities of Title III of the Americans with Disabilities Act.

Accessibility Issues			
Component	Major Issue	Moderate Issue	Minor Issue
Parking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Exterior Accessible Route	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Interior Accessible Route	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Restrooms	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Elevators	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

A full ADA Compliance Survey may reveal 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.

11.2 Flood Zone and Seismic Zone

According to the Flood Insurance Rate Map, published by the Federal Emergency Management Agency (FEMA) and dated April 3, 2012, the property is located in Zone X, defined as an area outside the 500-year flood plain with less than 0.2% annual probability of flooding. Annual Probability of Flooding of Less than one percent.

According to the 1997 Uniform Building Code Seismic Zone Map of the United States, the property is located in Seismic Zone 1, defined as an area of low probability of damaging ground motion.



12 Certification

Ann Arbor Schools retained EMG to perform this Facility Condition Assessment in connection with its continued operation of Carpenter Elementary, 4250 Central Boulevard, Ann Arbor, Michigan, the "Property". It is our understanding that the primary interest of Ann Arbor Schools 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 10 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 10 for areas 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 Ann Arbor Schools for the purpose stated within Section 10 of this report. The report, or any excerpt thereof, shall not be used by any party other than Ann Arbor Schools or for any other purpose than that specifically stated in our agreement or within Section 10 of this report without the express written consent of EMG.

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

Prepared by: James Cuellar,
Project Manager

Reviewed by:



Al Diefert
Technical Report Reviewer
For
Andrew Hupp
Program Manager

13 Appendices

- Appendix A: Photographic Record
- Appendix B: Site Plan
- Appendix C: Supporting Documentation
- Appendix D: Pre-Survey Questionnaire

Appendix A: Photographic Record



#1:	FRONT ELEVATION
-----	-----------------



#2:	RIGHT ELEVATION
-----	-----------------



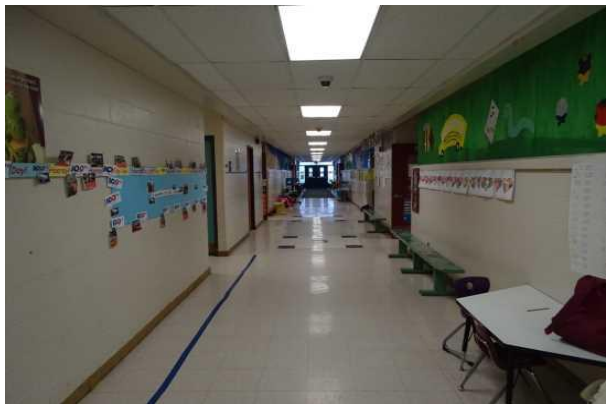
#3:	LEFT ELEVATION
-----	----------------



#4:	REAR ELEVATION
-----	----------------



#5:	FRONT HALLWAY
-----	---------------



#6:	REAR HALLWAY
-----	--------------



#7:	MULTI-PURPOSE ROOM
-----	--------------------



#8:	CLASSROOM
-----	-----------



#9:	STAFF LOUNGE KITCHEN
-----	----------------------



#10:	STAFF LOUNGE
------	--------------



#11:	GYMNASIUM
------	-----------



#12:	LIBRARY
------	---------



#13: COMPUTER LAB



#14: MEETING ROOM



#15: BOILER ROOM



#16: INTERIOR DOORS



#17: EXTERIOR DOORS



#18: EXTERIOR DOORS



#19:	CURTAIN WALL
------	--------------



#20:	WINDOWS
------	---------



#21:	ROOF
------	------



#22:	ROOF, ASPHALT SHINGLE PREMIUM GRADE
------	-------------------------------------



#23:	VINYL TILE, FLOORING
------	----------------------



#24:	ACOUSTICAL CEILING TILE, CEILINGS
------	-----------------------------------



#25:	TOILET PARTITIONS
------	-------------------



#26:	TOILETS
------	---------



#27:	SINKS
------	-------



#28:	REST ROOM COUNTER AND SINKS
------	-----------------------------



#29:	PIPING POSSIBLE ASBESTOS
------	--------------------------



#30:	HYDRONIC BASEBOARD RADIATORS
------	------------------------------



#31: BUILDING AUTOMATION SYSTEM HYBRID



#32: BUILDING AUTOMATION SYSTEM HYBRID



#33: BOILER



#34: BOILER



#35: PACKAGE UNIT



#36: PACKAGE UNIT



#37:	EXHAUST FAN
------	-------------



#38:	EXHAUST FAN
------	-------------



#39:	EXPANSION TANKS
------	-----------------



#40:	EXPANSION TANK
------	----------------



#41:	DISTRIBUTION PUMP, HEATING WATER
------	----------------------------------



#42:	DISTRIBUTION PUMP, HEATING WATER
------	----------------------------------



#43:	UNIT VENTILATOR
------	-----------------



#44:	UNIT VENTILATOR
------	-----------------



#45:	AIR COMPRESSOR
------	----------------



#46:	HVAC SYSTEM DUCTWORK GROWTH
------	-----------------------------



#47:	LIGHTING SYSTEM
------	-----------------



#48:	LIGHTING SYSTEM
------	-----------------



#49:	DISTRIBUTION PANEL
------	--------------------



#50:	BUILDING/MAIN SWITCHBOARD
------	---------------------------



#51:	EXTERIOR LIGHTING
------	-------------------



#52:	EXTERIOR LIGHTING
------	-------------------



#53:	SIDEWALK
------	----------



#54:	SIDEWALK
------	----------



#55:	PARKING LOT
------	-------------



#56:	ASPHALT PAVEMENT
------	------------------



#57:	PLAY STRUCTURE
------	----------------



#58:	SWING SETS
------	------------



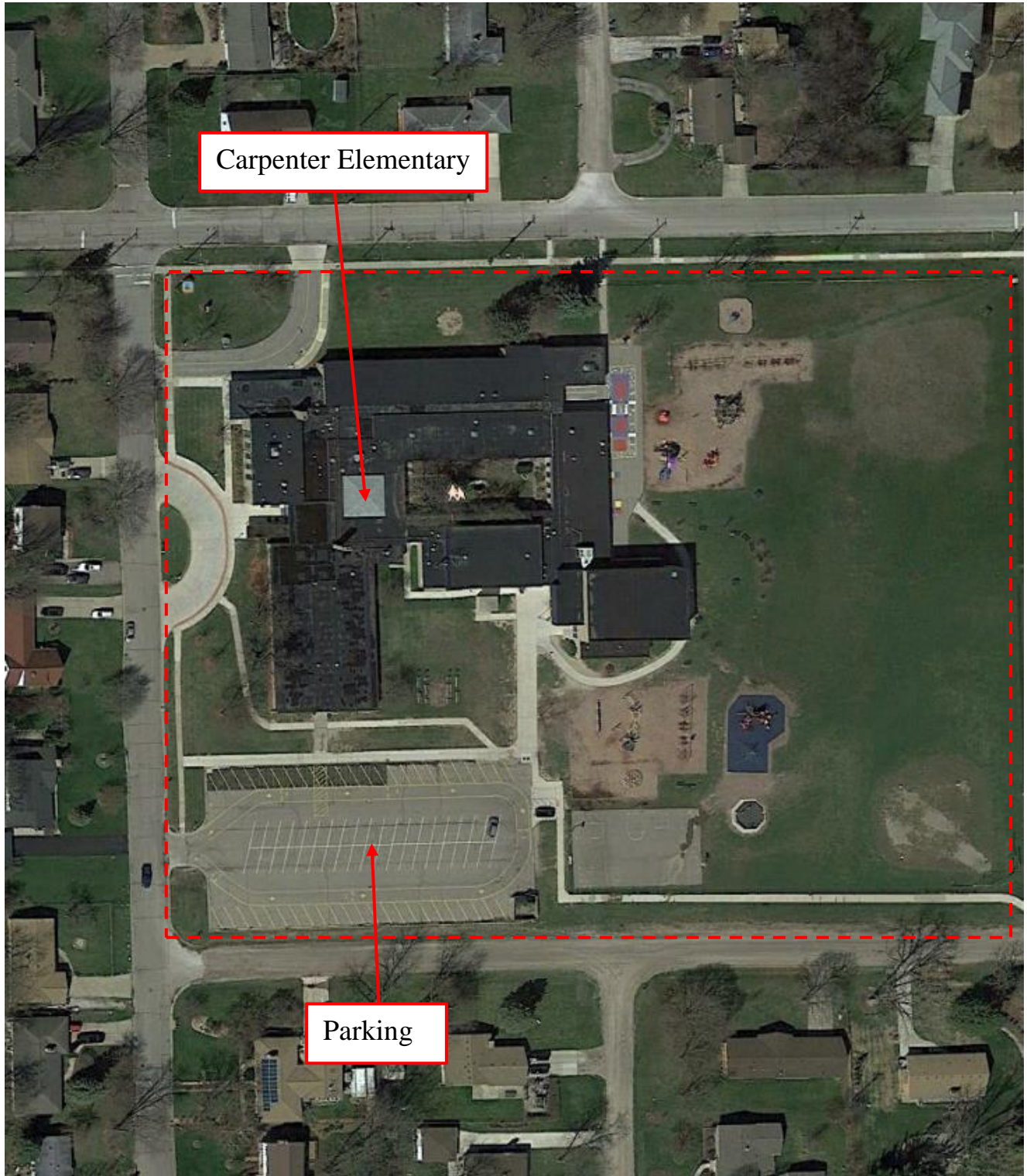
#59:	PLAY STRUCTURE
------	----------------



#60:	FLAGPOLE
------	----------

Appendix B: Site Plan

Site Plan



Project Name:
Carpenter Elementary

Project Number:
129010.18R000-009.354

Source:
Google Earth Pro

On-Site Date:
March 7, 2018

Appendix C: Supporting Documentation

Flood Map

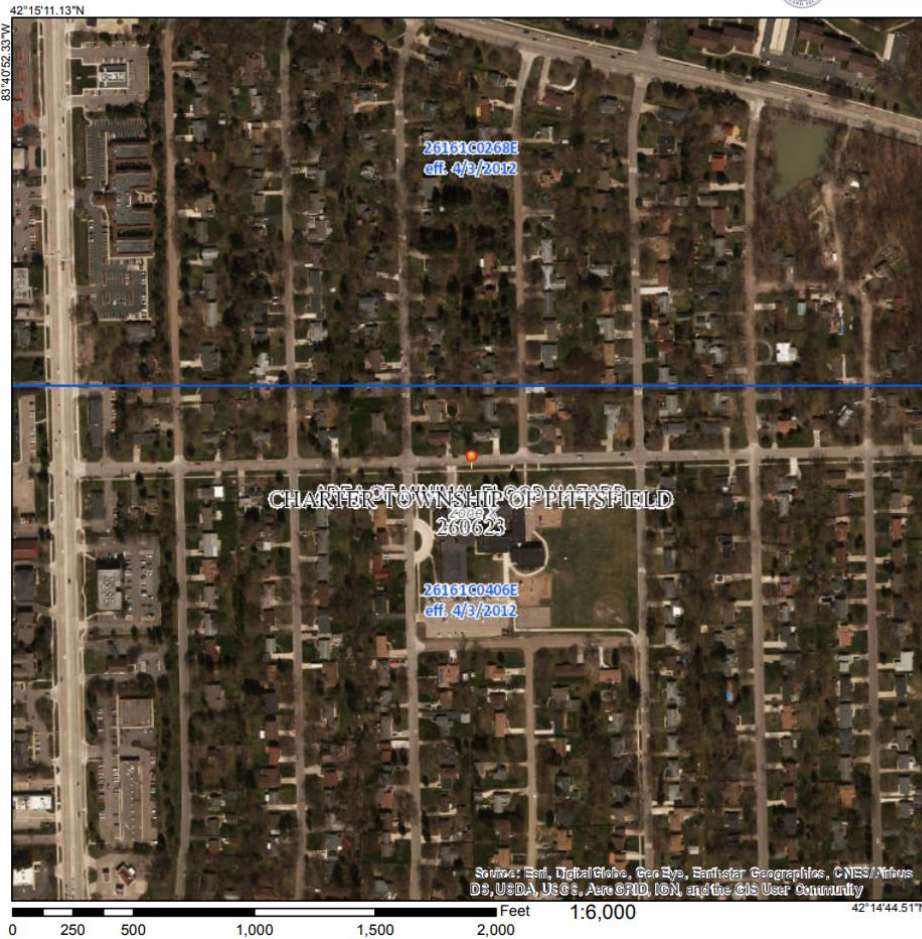
National Flood Hazard Layer FIRMette



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

	Without Base Flood Elevation (BFE) Zone A, V, A99
	With BFE or Depth
	Regulatory Floodway Zone AE, AO, AH, VE, AR
	0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
	Future Conditions 1% Annual Chance Flood Hazard Zone X
	Area with Reduced Flood Risk due to Levee. See Notes, Zone F
	Area with Flood Risk due to Levee Zone D
	NO SCREEN Area of Minimal Flood Hazard Zone X
	Effective LOMRs
	Area of Undetermined Flood Hazard Zone D
	Channel, Culvert, or Storm Sewer
	Levee, Dike, or Floodwall
	Cross Sections with 1% Annual Chance Water Surface Elevation
	Coastal Transect
	Base Flood Elevation Line (BFE)
	Limit of Study
	Jurisdiction Boundary
	Coastal Transect Baseline
	Profile Baseline
	Hydrographic Feature
	Digital Data Available
	No Digital Data Available
	Unmapped



This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The base map shown complies with FEMA's base map accuracy standards.

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 3/15/2018 at 12:46:13 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: base map imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

	Project Name: Carpenter Elementary	Project Number: 129010.18R000-009.354
	Source: FEMA Map Number: 26161C0406E Dated: April 3, 2012	On-Site Date: March 7, 2018

Appendix D: Pre-Survey Questionnaire

EMG FACILITY CONDITION ASSESSMENT: PRE-SURVEY QUESTIONNAIRE

Building / Facility Name: Not returned to EMG

Name of person completing form: _____

Title / Association with property: _____

Length of time associated w/ property: _____

Date Completed: _____

Phone Number: _____

Directions: Please answer all questions to the best of your knowledge and in good faith. Please provide additional details in the Comments column, or backup documentation for any **Yes** responses.

DATA OVERVIEW		RESPONSE			
1	Year/s constructed				
2	Building size in SF				
3	Major Renovation Dates	Façade		HVAC	
		Roof		Electrical	
		Interiors		Site Pavement	
		Accessibility		other	
QUESTION		RESPONSE			
4	Provide additional detail about the scope of the MAJOR additions, renovations, or systemic rehabilitations since construction (referenced above in Question 3).				
5	List other significant but somewhat lesser capital improvements, focusing on recent years (provide approximate year completed).				
6	List any major capital expenditures planned/requested for the next few years. Have they been budgeted?				
7	Describe any on-going extremely problematic, historically chronic, or immediate facility needs.				

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		RESPONSE				COMMENTS
		Yes	No	Unk	NA	
8	Are there any problems with foundations or structures, like excessive settlement?					
9	Has any part of the facility ever contained visible suspect mold growth, or have there been any indoor air quality or mold related complaints from occupants?					
10	Are there any wall, window, basement or roof leaks?					
11	Are there any plumbing leaks, water pressure, or clogging/back-up problems?					
12	Have there been any leaks or pressure problems with natural gas, HVAC supply/return lines, or steam service?					
13	Are any areas of the facility inadequately heated, cooled or ventilated? Any poorly insulated areas?					
14	Is the electrical service outdated, undersized, or otherwise problematic?					
15	Are there any problems or inadequacies with exterior building-mounted lighting?					
16	Is site/parking drainage inadequate, with excessive ponding or other problems?					
17	Are there any other unresolved construction defects or significant issues/hazards at the property that have not yet been identified above?					
18	ADA: Has an accessibility study been performed at the site? If so, indicate when.					
19	ADA: If a study has occurred, have the associated recommendations been addressed? In full or in part?					
20	ADA: Have there been regular complaints about accessibility issues, or associated previous or pending litigation?					

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.

