FACILITY CONDITION ASSESSMENT

Prepared for

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



FACILITY CONDITION ASSESSMENT

OF

DICKEN ELEMENTARY 2135 RUNNYMEADE BOULEVARD ANN ARBOR, MICHIGAN 48103

PREPARED BY:

MG

10461 Mill Run Circle, Suite 1100 Owings Mills, Maryland 21117 800.733.0660 www.emacorp.com

EMG CONTACT:

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EMG PROJECT #: 129010.18R000-010.354

DATE OF REPORT:

ONSITE DATE: March 8, 2018

Immediate Repairs Report Dicken Elementary School

6/28/2018



EMG Renamed Item Number	Location Description	ID	Cost Description	Quantity	Unit	Unit Cost	Subtotal	Deficiency Repair Estimate *
1.2	126	878836	Mold/Biological Growth, Remediation	16	SF	\$30.00	\$480	\$480
1.2	Throughout	878793	Engineer, Environmental, Asbestos (ACM) & Lead Base Paint (LBP), Evaluate/Report	1	EA	\$5,750.00	\$5,750	\$5,750
1.2	126	878835	Engineer, Environmental, Mold Remediation, Evaluate/Report	1	EA	\$4,025.00	\$4,025	\$4,025
D30	Interior	937409	Air Conditioning, Central, Install	45000	SF	\$11.50	\$517,500	\$517,500
D30	Interiors	885587	Air Conditioning, Central, Install	45000	SF	\$11.50	\$517,500	\$517,500
B20	Exterior wall	879491	Exterior Wall, Brick or Brick Veneer, 1-2 Stories, Repair	50	SF	\$55.84	\$2,792	\$2,792
C10	126	878834	Interior Wall Finish, Gypsum Board/Plaster, Repair	10	SF	\$3.18	\$32	\$32
D40	Throughout	879916	Sprinkler System, Full Retrofit, School (per SF), Renovate	45000	SF	\$7.19	\$323,619	\$323,619
	Site	958699	Davis Bacon Prevailing Wages, Surcharge for Prevailing Wages, 10% surcharge for prevailing wages	60959.33	LS	\$1.15	\$70,103	\$70,103
Immediate Repairs	Total							\$1,441,801

^{*} Location Factor (1) included in totals.

Dicken Elementary School



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
Dicken Elementary School	\$1,441,801	\$865,402	\$275,449	\$1,057,862	\$3,105,771	\$571,690	\$333,080	\$415,183	\$859,728	\$904,000	\$653,740	\$434,849	\$620,257	\$338,421	\$866,233	\$176,161	\$167,453	\$177,803	\$1,051,710	\$122,926	\$14,439,518
GrandTotal	\$1,441,801	\$865,402	\$275,449	\$1,057,862	\$3,105,771	\$571,690	\$333,080	\$415,183	\$859,728	\$904,000	\$653,740	\$434,849	\$620,257	\$338,421	\$866,233	\$176,161	\$167,453	\$177,803	\$1,051,710	\$122,926	\$14,439,518

irandTotal	\$1,441,801 \$865,402 \$275,449 \$1,057,862	\$3,105,771	\$571,69	90	\$333,080	\$415	,183	\$859,728	\$904,00	\$65	3,740	\$434,849	\$620	J,257	\$338,421	\$866,233	\$17	6,161	\$167,453	\$1	77,803	\$1,051	.,710	\$122,9	26	\$14,439
м																										
named Location Description	ID Cost Description	Lifesp (EUL)		RUL (Quantity Un	nit Unit C	cost w/	Markup * Sub	ototal	2018 20	19 202	2021	2022	2023	2024 202	5 2026	2027	2028	2029 20	030 20	31 203	2 2033	2034	2035	2036	2037RRR_RowGrandTotal
nber 1.2 126	878836 Mold/Biological Growth, Remediation	0	0	0	16	SF	\$30.00	\$30.00	\$480	6480																
1.2 Throughout	878793 Engineer, Environmental, Asbestos (ACM) & Lead Base Paint (LBP), Evaluate/Report	ort 0	0	0	1	EA \$5	,000.00	\$5,750.00	\$5,750 \$5	,750																\$
1.2 126	878835 Engineer, Environmental, Mold Remediation, Evaluate/Report	0	0	0	1	EA \$3	500.00	\$4,025.00	\$4,025 \$4	,025																\$
D30 Interior	937409 Air Conditioning, Central, Install	50	50	0	45000	SF	\$10.00	\$11.50 \$	517,500 \$517	,500																\$5
D30 Interiors	885587 Air Conditioning, Central, Install	50	50	0	45000	SF	\$10.00	\$11.50 \$	517,500 \$517	,500																\$5
B10 ADA Ramp	880377 Exterior Stair/Ramp Rails, Metal, Refinish	10	5	5	25	LF	\$1.44	\$1.44	\$36					\$36								\$36				
B20 Exterior wall	879491 Exterior Wall, Brick or Brick Veneer, 1-2 Stories, Repair	0	0	0	50	SF	\$48.56	\$55.84	\$2,792 \$2	,792																
B20 Exterior wall	879494 Exterior Wall, fascia, soffit and doors, Prep & Paint	10	6	4	3000	SF	\$2.87	\$3.30	\$9,904				\$9,904								\$9,904	+				\$
B20 Throughout	878823 Exterior Wall, Joint Caulking 0" to 1/2", 1-2 Stories, Replace	10	6	4	6000	LF	\$2.82	\$3.24	\$19,458				\$19,458								\$19,458	3				\$
B20 Main roof	879474 Exterior Wall, Metal/Insulated Sandwich Panels, 2" Thick, Replace	40	31	9	550	SF	\$19.96	\$22.95	\$12,622							9	12,622									\$
B20 Exterior wall	879490 Exterior Wall, Brick Veneer, Repoint	25		12			\$41.28		\$59,344										\$59,3	344						\$
B20 Exterior wall	879495 Window Screen, Aluminum 12 SF, Replace	10		5			518.50		\$42,932					\$42,932								\$42,932				\$
B20 Exterior wall	879496 Window, Aluminum Double-Glazed 12 SF, 1-2 Stories, Replace	30		18			5584.21	\$671.84 \$						V.12,002								V 12,002			\$298,296	\$2
B20 Exterior wall	879504 Exterior Door, Steel, Replace	25		1					\$3,278	\$3,27	78														\$200,200	·
B20 Exterior wall	879498 Exterior Door, Steel w/ Safety Glass, Replace	25		12					\$23,334	ΨΟ,Σ	0								\$23,3	134						
C10 Kitchen	879388 Overhead Door, Roll-up Shutter, Replace	35		17					\$4,629										Ψ20,0	134			-	\$4,629		·
B20 Main roof				8				\$12.10								\$580,341							-	\$4,029		\$
	879481 Roof, Single-Ply EPDM Membrane, Replace	20		-		-	\$10.52									φ30U,34 I					607.70	_				•
B20 Main roof	879444 Roof Skylight, Plexiglass Dome Fixed 9-20 SF, Replace	30		14					\$27,765				#0.050								\$27,765					
C10 104	878841 Wall Partitions, Movable/Hinged/Folding, Acoustical Dampening, Replace	25		4	-		245.58		\$2,259				\$2,259									-				
C10 Office	879334 Interior Door, Fire 90-Minutes and Over, Replace	20		9					\$1,896								\$1,896					-				
C10 Throughout	879633 Interior Door, Wood Solid-Core w/ Safety Glass, Replace	20		9				\$2,217.23								\$*	33,034									\$
D70 Throughout	946230 Exterior Door Hardware, Electronic Door Locks ANSI F39 Lockset, Replace	30		1					\$23,201	\$23,20	01															
D20 Bathroom	878801 Toilet Partitions, Metal Overhead-Braced, Replace	20	11	9	9	EA \$	850.00	\$977.50	\$8,797								\$8,797									
C10 126	878834 Interior Wall Finish, Gypsum Board/Plaster, Repair	0	0	0	10	SF	\$3.18	\$3.18	\$32	\$32																
C10 Throughout	878816 Interior Wall Finish, Concrete/Masonry, Prep & Paint	8	6	2	83200	SF	\$1.45	\$1.67	138,832		\$138,832						\$1	38,832							\$138,832	\$
C10 Classroom	879382 Interior Wall Finish, Plate Glass, Replace	30	26	4	1500	SF	\$45.15	\$51.92	\$77,878				\$77,878													
C10 Boiler room	879431 Interior Floor Finish, Epoxy Coating, Prep & Paint	10	9	1	1000	SF	\$8.74	\$10.05	\$10,051	\$10,05	51							\$1	0,051							
C10 Restroom	878814 Interior Floor Finish, Terrazzo, Replace	50	46	4	1500	SF	\$12.06	\$13.86	\$20,796				\$20,796													
C10 Gymnasium	879527 Interior Floor Finish, Maple Sports Floor, Refinish	10	6	4	3000	SF	\$4.53	\$5.21	\$15,642				\$15,642								\$15,642	:				
C10 Throughout	878815 Interior Floor Finish, Vinyl Tile (VCT), Replace	15	9	6	32250	SF	\$4.80	\$5.52 \$	178,042					\$1	78,042											s
C10 Kitchen	879389 Interior Floor Finish, Terrazzo, Replace	50	41	9	1250	SF	\$12.06	\$13.86	\$17,330							\$	17,330									
C10 Restroom	879380 Interior Floor Finish, Ceramic Tile, Replace	50	41	9	1000	SF	\$15.76	\$18.12	\$18,118								18,118									
C10 123	879330 Interior Floor Finish, Carpet Tile Commercial-Grade, Replace	10	6	4	5000	SF	\$6.96	\$8.01	\$40,037				\$40,037								\$40,037					
C10 Class	880905 Interior Ceiling Finish, Suspended Acoustical Tile (ACT), Replace	20	19	1	22500	SF	\$3.11	\$6.69 \$	150,495	\$150,49	95															\$
C10 Throughout	880902 Interior Ceiling Finish, Suspended Acoustical Tile (ACT), Replace	20	11	9	22500	SF	\$3.11	\$3.58	\$80,497							5	80,497									
D20 Restroom	878803 Toilet, Tankless (Water Closet), Replace	20	11	9	18	EA \$	842.97	\$969.41	\$17,449							5	17,449									
020 Restroom	878804 Urinal, Vitreous China, Replace	20	11	9	1	EA \$1	193.44	\$1,372.46	\$1,372								\$1,372									
D20 Throughout	878798 Sink, Vitreous China, Replace	20	11	9	16	EA \$	861.51	\$990.74	\$15,852							\$	15,852									
D20 115	878830 Sink, Stainless Steel, Replace	20	11	9	1	EA \$1	,054.05	\$2,266.21	\$2,266								\$2,266									
D20 Classrooms	878796 Sink, Stainless Steel, Replace	20	11	9	23	EA \$1	054.05	\$1,212.16	\$27,880							9	27,880									
D20 hall	879063 Drinking Fountain, Refrigerated, Replace	10	6	4	1	EA \$1,	257.51	\$1,446.13	\$1,446				\$1,446								\$1,446	j				
020 126	878832 Drinking Fountain, Vitreous China, Replace	15	9	6	2	EA \$1.	938.99	\$2,229.84	\$4,460						\$4,460											
D30 Boiler room	879351 boiler Filter, Replace	15		3				\$10,321.84				\$10,322										+			\$10,322	
20 Boiler room	879353 Water Heater, Gas, Commercial, 60 to 120 GAL, Replace	15		5				\$12,303.64				. ,		\$12,304												
20 Air Handler Room	879392 Water Heater, Electric, Residential, 5 to 15 GAL, Replace	15		11				\$1,166.30										\$	1,166							
G20 Throughout	880012 Plumbing System, Domestic Supply & Sanitary, School, Upgrade	40		4			\$38.94	\$44.78 \$2					\$2,015,161									+				\$2
D20 Boiler room	879429 Sump Pump, 3 HP, Replace	15		6					\$2,372				Ţ <u>_</u> ,0.0,101		\$2,372							+				ΨΣ
130 Boiler room	879342 Compressed Air Dryer, Replace	15		13					\$5,839						,-··					\$5,8	39	+				
																				და,8	33	-			\$7.602	
D30 Boiler room	879343 Air Compressor, 2 HP, Replace	20		18					\$7,603					£242.052											\$7,603	
Roof	960783 Solar Instillation Project, Roof Mounted Solar Instillation, Install	20	15	5	273000	SF	\$1.00	\$1.15	313,950					\$313,950												\$

IG named n m mber	ID Cost Description	Lifespan (EUL)	EAge R	UL Q	luantity	Unit	Unit Cost w/ Markup * Subtotal 2018	2019 2020	2021	2022 2023	3 2024	2025 2026 2027 2028	2029 2	2030 2031 2032 2	033 2034	2035 2036 2037R	RRR_RowGrandTotall
D30 Boiler room	879346 Boiler, Gas, 2,001 to 2,500 MBH, Replace	25	12	13	1	EA	\$54,195.22 \$62,324.51 \$62,325							\$62,325			\$62
30 Boiler room	879341 Expansion Tank, 61 to 100 GAL, Replace	25	12	13	1	EA	\$3,249.54 \$3,736.97 \$3,737							\$3,737			\$3
Dicken Elementary School	879480 Condensing Unit/Heat Pump, Split System, 8 to 10 Ton, Replace	15	12	3	1	EA	\$15,825.28 \$18,199.07 \$18,199		\$18,199							\$18,199	\$36
Main roof	879433 Ductless Split System, Single Zone, 1.5 to 2 Ton, Replace	15	6	9	1	EA	\$4,473.11 \$5,144.08 \$5,144					\$5,144					\$
030 102	879326 Fan Coil Unit, Hydronic, 801 to 1,200 CFM, Replace	15	12	3	1	EA	\$3,235.37 \$3,720.68 \$3,721		\$3,721							\$3,721	\$7
30 119	878859 Fan Coil Unit, Hydronic, 801 to 1,200 CFM, Replace	15	12	3	1	EA	\$3,235.37 \$3,720.68 \$3,721		\$3,721							\$3,721	\$
030 122	878964 Fan Coil Unit, Hydronic, 801 to 1,200 CFM, Replace	15	12	3	1	EA	\$3,235.37 \$3,720.68 \$3,721		\$3,721							\$3,721	\$
030 111	878827 Fan Coil Unit, Hydronic, 801 to 1,200 CFM, Replace	15	12	3	1	EA	\$3,235.37 \$3,720.68 \$3,721		\$3,721							\$3,721	\$
030 109	878829 Fan Coil Unit, Hydronic, 801 to 1,200 CFM, Replace	15	12	3	1	EA	\$3,235.37 \$3,720.68 \$3,721		\$3,721							\$3,721	\$
030 118	879328 Fan Coil Unit, Hydronic, 801 to 1,200 CFM, Replace	15	12	3	1	EA	\$3,235.37 \$3,720.68 \$3,721		\$3,721							\$3,721	\$
D30 113	878824 Fan Coil Unit, Hydronic, 801 to 1,200 CFM, Replace	15	12	3	1	EA	\$3,235.37 \$3,720.68 \$3,721		\$3,721							\$3,721	\$
030 120	878837 Fan Coil Unit, Hydronic, 801 to 1,200 CFM, Replace	15	12	3	1	EA	\$3,235.37 \$3,720.68 \$3,721		\$3,721							\$3,721	
030 117	878927 Fan Coil Unit, Hydronic, 801 to 1,200 CFM, Replace	15	12	3	1	EA	\$3,235.37 \$3,720.68 \$3,721		\$3,721							\$3,721	4
030 105	878945 Fan Coil Unit, Hydronic, 801 to 1,200 CFM, Replace	15	12	3	1	EA	\$3,235.37 \$3,720.68 \$3,721		\$3,721							\$3,721	
030 108	879325 Fan Coil Unit, Hydronic, 801 to 1,200 CFM, Replace	15	12	3	1	EA	\$3,235.37 \$3,720.68 \$3,721		\$3,721							\$3,721	;
D30 110	879322 Fan Coil Unit, Hydronic, 801 to 1,200 CFM, Replace	15	12	3	1	EA	\$3,235.37 \$3,720.68 \$3,721		\$3,721							\$3,721	\$
30 107	878839 Fan Coil Unit, Hydronic, 801 to 1,200 CFM, Replace	15	12	3	1	EA	\$3,235.37 \$3,720.68 \$3,721		\$3,721							\$3,721	
30 115	878831 Fan Coil Unit, Hydronic, 801 to 1,200 CFM, Replace	15	12	3	1	EA	\$3,235.37 \$3,720.68 \$3,721		\$3,721							\$3,721	
30 106	879324 Fan Coil Unit, Hydronic, 801 to 1,200 CFM, Replace	15	12	3	1	EA	\$3,235.37 \$3,720.68 \$3,721		\$3,721							\$3,721	
130 112	878810 Fan Coil Unit, Hydronic, 801 to 1,200 CFM, Replace	15	12	3	1	EA	\$3,235.37 \$3,720.68 \$3,721		\$3,721							\$3,721	
130 114	878825 Fan Coil Unit, Hydronic, 801 to 1,200 CFM, Replace	15	12	3	1	EA	\$3,235.37 \$3,720.68 \$3,721		\$3,721							\$3,721	
030 123	879331 Fan Coil Unit, Hydronic, 801 to 1,200 CFM, Replace	15	12	3	1	EA	\$3,235.37 \$3,720.68 \$3,721		\$3,721							\$3,721	
030 116	878892 Fan Coil Unit, Hydronic, 801 to 1,200 CFM, Replace	15	12	3	1	EA	\$3,235.37 \$3,720.68 \$3,721		\$3,721							\$3,721	
030 128		15	12	3	1	EA	\$3,235.37 \$3,720.68 \$3,721		\$3,721							\$3,721	
	879012 Fan Coil Unit, Hydronic, 801 to 1,200 CFM, Replace			0	1				\$3,721		PO 544					\$3,721	
930 Boiler room	879340 Fan Coil Unit, Hydronic, 200 to 400 CFM, Replace	15	9	-	1	EA	\$2,186.29 \$2,514.23 \$2,514				\$2,514						
30 air handler room	879427 Air Handler, Exterior, 10,001 to 16,000 CFM, Replace	15	8		1	EA	\$70,713.29 \$81,320.28 \$81,320					\$81,320					\$
air handler room	879428 Air Handler, Exterior, 10,001 to 16,000 CFM, Replace	15	8	7	1	EA	\$70,713.29 \$81,320.28 \$81,320					\$81,320					\$
30 Main roof	879436 Exhaust Fan, Centrifugal, 251 to 800 CFM, Replace	15	8	7	1	EA	\$2,021.87 \$2,325.15 \$2,325					\$2,325					
30 Main roof	879458 Exhaust Fan, Centrifugal, 251 to 800 CFM, Replace	15	8	7	1	EA	\$2,021.87 \$2,325.15 \$2,325					\$2,325					
Main roof	879432 Exhaust Fan, Centrifugal, 251 to 800 CFM, Replace	15	8	7	1	EA	\$2,021.87 \$2,325.15 \$2,325					\$2,325					
30 Main roof	879437 Exhaust Fan, Centrifugal, 251 to 800 CFM, Replace	15	8	7	1	EA	\$2,021.87 \$2,325.15 \$2,325					\$2,325					
30 Main roof	Exhaust Fan, Centrifugal, 251 to 800 CFM, Replace	15	8	7	1	EA	\$2,021.87 \$2,325.15 \$2,325					\$2,325					
30 Main roof	879438 Exhaust Fan, Centrifugal, 251 to 800 CFM, Replace	15	8	7	1	EA	\$2,021.87 \$2,325.15 \$2,325					\$2,325					
30 Main roof	879462 Exhaust Fan, Centrifugal, 251 to 800 CFM, Replace	15	8	7	1	EA	\$2,021.87 \$2,325.15 \$2,325					\$2,325					
30 Main roof	879439 Exhaust Fan, Centrifugal, 251 to 800 CFM, Replace	15	8	7	1	EA	\$2,021.87 \$2,325.15 \$2,325					\$2,325					
Main roof	879457 Exhaust Fan, Centrifugal, 251 to 800 CFM, Replace	15	8	7	1	EA	\$2,021.87 \$2,325.15 \$2,325					\$2,325					
30 Main roof	879463 Exhaust Fan, Centrifugal, 251 to 800 CFM, Replace	15	8	7	1	EA	\$2,021.87 \$2,325.15 \$2,325					\$2,325					
30 Main roof	879460 Exhaust Fan, Centrifugal, 251 to 800 CFM, Replace	15	8	7	1	EA	\$2,021.87 \$2,325.15 \$2,325					\$2,325					
30 Main roof	879464 Exhaust Fan, Centrifugal, 251 to 800 CFM, Replace	15	8	7	1	EA	\$2,021.87 \$2,325.15 \$2,325					\$2,325					
Main roof	879472 Exhaust Fan, Centrifugal, 251 to 800 CFM, Replace	15	8	7	1	EA	\$2,021.87 \$2,325.15 \$2,325					\$2,325					
30 Main roof	879434 Exhaust Fan, Centrifugal, 251 to 800 CFM, Replace	15	8	7	1	EA	\$2,021.87 \$2,325.15 \$2,325					\$2,325					
30 Main roof	879435 Exhaust Fan, Centrifugal, 251 to 800 CFM, Replace	15	8	7	1	EA	\$2,021.87 \$2,325.15 \$2,325					\$2,325					
30 Main roof	879461 Exhaust Fan, Centrifugal, 251 to 800 CFM, Replace	15	8	7	1	EA	\$2,021.87 \$2,325.15 \$2,325					\$2,325					
0 Main roof	879479 Exhaust Fan, Centrifugal, 100 to 250 CFM, Replace	15	1	14	1	EA	\$889.90 \$889.90 \$890							\$890			
0 Boiler room	879354 Distribution Pump, Heating Water, 10 HP, Replace	20	12	8	1	EA	\$6,237.69 \$7,173.35 \$7,173					\$7,173					
0 Boiler room	879355 Distribution Pump, Heating Water, 10 HP, Replace	20	12	8	1	EA	\$6,237.69 \$7,173.35 \$7,173					\$7,173					
0 Boiler room	879350 Distribution Pump, Heating Water, 7.5 HP, Replace	20	12	8	1	EA	\$6,037.49 \$6,943.12 \$6,943					\$6,943					
0 Boiler room	879349 Distribution Pump, Heating Water, 7.5 HP, Replace	20	12	8	1	EA	\$6,037.49 \$6,943.12 \$6,943					\$6,943					
0 103				2				\$2,977				φυ,343	\$2,9	977			
	879320 Air Conditioner, Window/Thru-Wall, 1.5 to 2 Ton, Replace	10	8	2	1	EA	\$2,588.52 \$2,976.80 \$2,977										
128	879013 Air Conditioner, Window/Thru-Wall, 1.5 to 2 Ton, Replace	10	8	2	1	EA	\$2,588.52 \$2,976.80 \$2,977	\$2,977					\$2,9				
102	879327 Air Conditioner, Window/Thru-Wall, 1.5 to 2 Ton, Replace	10	8	2	1	EA	\$2,588.52 \$2,976.80 \$2,977	\$2,977					\$2,9				
0 109	878828 Air Conditioner, Window/Thru-Wall, 1.5 to 2 Ton, Replace	10	8	2	1	EA	\$2,588.52 \$2,976.80 \$2,977	\$2,977					\$2,9				
0 119	878857 Air Conditioner, Window/Thru-Wall, 1.5 to 2 Ton, Replace	10	8	2	1	EA	\$2,588.52 \$2,976.80 \$2,977	\$2,977					\$2,9				
0 114	878820 Air Conditioner, Window/Thru-Wall, 1.5 to 2 Ton, Replace	10	8	2	1	EA	\$2,588.52 \$2,976.80 \$2,977	\$2,977					\$2,9	977			
0 Main roof	879471 Packaged Unit (RTU), 4 Ton, Replace	15	6	9	1	EA	\$10,581.39 \$12,168.60 \$12,169					\$12,169					
0 Main roof	879475 Packaged Unit (RTU), 11 to 12.5 Ton, Replace	15	2	13	1	EA	\$22,713.37 \$26,120.37 \$26,120							\$26,120			
0 Boiler room	879345 Building Automation System (HVAC Controls), Upgrade	20	10	10	45000	SF	\$5.36 \$6.17 \$277,509					\$277,509					\$
40 Throughout	879916 Sprinkler System, Full Retrofit, School (per SF), Renovate	50	50	0	45000	SF	\$6.25 \$7.19 \$323,619 \$323,619										\$
Dicken Elementary School	937410 Sprinkler System, Full Retrofit, School (per SF), Renovate	50	46	4	45000	SF	\$6.25 \$7.19 \$323,619		5	\$323,619							\$3
50 Boiler room	879348 Disconnect Switch, 800 Amp, Replace	50	41	9	1	EA	\$8,978.97 \$10,325.82 \$10,326				1	\$10,326					;

enamed Location Description em umber	ID	Cost Description	Lifespan (EUL)	EAge F	RUL	Quantity	Unit	Unit Co	ost w	/ Markup * \$	Subtotal	2018	2019 2	2020 202	2022	2023	2024	2025	2026 2027	7 2028	2029	2030	2031 20	032 2	033 2034 2035	2036 2037RRR_Rd	owGrandTotalLab
D50 Boiler Room	879925	Building/Main Switchgear, 208 Y, 120 V, 800 Amp, Replace	30	16	14	1	EA	\$179,0	33.12	\$205,888.09	\$205,888												\$205,8	388			\$205,8
D50 Boiler room	879352	Distribution Panel, 208 Y, 120 V, 200 Amp, Replace	30	16	14	6	EA	\$7,9	06.20	\$9,092.13	\$54,553												\$54,5	553			\$54,5
D50 Throughout	879381	Lighting System, Interior, School, Upgrade	25	22	3	45000	SF	\$	15.36	\$17.67	\$795,056			\$795,05	6												\$795,0
D60 Front entrance	946228	Intercom Master Station, Replace	20	19	1	1	EA	\$3,8	14.50	\$4,386.67	\$4,387		\$4,387														\$4,3
D60 Office	879333	Intercom Master Station, Replace	20	6	14	1	EA	\$3,8	14.50	\$4,386.67	\$4,387												\$4,3	<i>j</i> 87			\$4,3
D50 Throughout	945792	Clock and Bell System, Wireless or Ethernet Enabled, Up To 100 Total Clocks / Bells, Replace	15	14	1	45000	SF		\$0.51	\$0.59	\$26,393		\$26,393												\$26,393		\$52,7
D70 Office	878784	Fire Alarm Control Panel, Addressable, Replace	15	3	12	1	EA	\$20,2	97.59	\$23,342.23	\$23,342											\$23,342					\$23,3
D70 Throughout	946229	Security/Surveillance System, Cameras and CCTV, Install	10	9	1	45000	SF		\$4.35	\$5.00	\$224,968		\$224,968								\$224,968						\$449,9
C10 Multi-purpose Room	879895	Stage Curtain, Medium Weight Velour, Flameproof (per SF), Replace	15	8	7	2000	SF	\$	13.00	\$14.95	\$29,900							\$29,900									\$29,9
E10 Kitchen	879386	Commercial Kitchen, Steamer, Tabletop, Replace	10	6	4	1	EA	\$6,3	44.00	\$7,295.60	\$7,296				\$7,296								\$7,2	:96			\$14,5
E10 Kitchen	879385	Commercial Kitchen, Warming Oven, Double, Replace	10	6	4	1	EA	\$8,6	43.00	\$9,939.45	\$9,939				\$9,939								\$9,9	139			\$19,8
E10 Kitchen	879390	Commercial Kitchen, Refrigerator, 2-Door Reach-In, Replace	15	9	6	1	EA	\$4,2	256.00	\$4,894.40	\$4,894						\$4,894										\$4,8
D20 Kitchen	879384	Commercial Kitchen, Exhaust Hood, Replace	15	9	6	1	EA	\$7,5	71.72	\$8,707.48	\$8,707						\$8,707										\$8,7
E10 Kitchen	879383	Commercial Kitchen, Milk Cooler, Replace	15	8	7	1	EA	\$4,2	256.00	\$4,894.40	\$4,894							\$4,894									\$4,8
D30 Gymnasium	879323	Residential Fixtures, Ceiling Fan, Replace	15	6	9	3	EA	\$3	354.11	\$761.34	\$2,284								\$2,284								\$2,2
D20 Classroom	878799	Kitchen Cabinet, Base and Wall Section, Wood, Replace	20	11	9	135	LF	\$4	67.63	\$537.78	\$72,600								\$72,600								\$72,6
Site	958699	Davis Bacon Prevailing Wages, Surcharge for Prevailing Wages, 10% surcharge for prevailing wages	1	1	0	60959.3	3 LS		\$1.00	\$1.15	\$70,103	\$70,103	\$70,103 \$70,	103 \$70,10	3 \$70,103	\$70,103 \$	\$70,103	\$70,103 \$	70,103 \$70,103	\$70,103	\$70,103	\$70,103 \$7	0,103 \$70,1	03 \$70,	103 \$70,103 \$70,103	70,103 \$70,103	\$1,402,0
G20 Parking lot	878808	Roadways, Asphalt Pavement, Seal & Stripe	5	3	2	75250	SF		\$0.38	\$0.44	\$32,841		\$32,	841				\$32,841				\$32,841			\$32,841		\$131,3
G20 Parking lot	879979	Roadways, Asphalt Pavement, Mill & Overlay	25	21	4	38000	SF		\$3.28	\$3.77	\$143,139				\$143,139												\$143,1
G20 Parking lot	879956	Roadways, Concrete Curb & Gutter, Replace	25	21	4	100	LF	\$	24.00	\$27.60	\$2,760				\$2,760												\$2,7
G20 Parking lot	878807	Roadways, Asphalt Pavement, Mill & Overlay	25	13	12	37250	SF		\$3.28	\$3.77	\$140,314											\$140,314					\$140,3
G20 Playground	879512	Pedestrian Pavement, Sidewalk, Asphalt, Seal	5	4	1	18000	SF		\$0.38	\$0.44	\$7,856		\$7,856				\$7,856				\$7,856				\$7,856		\$31,4
G20 Sidewalk	879514	Pedestrian Pavement, Sidewalk, Concrete Large Areas, Replace	30	25	5	5200	SF		\$9.00	\$10.35	\$53,820					\$53,820											\$53,83
G20 Playground	879984	Fences & Gates, Chain Link, 8' High, Replace	30	16	14	1700	LF	\$	53.90	\$61.99	\$105,375												\$105,3	s75			\$105,3
G20 entry	879329	Signage, Property, Monument/Pylon, Replace	20	11	9	1	EA	\$8,6	02.00	\$9,892.30	\$9,892								\$9,892								\$9,8
G20 play ground	879505	Site Furnishings, Picnic Table, Plastic-Coated Metal, Replace	20	11	9	3	EA	\$1,3	91.50	\$1,600.23	\$4,801								\$4,801								\$4,8
G20 play ground	879506	Play Structure, Medium, Replace	20	11	9	3	EA	\$40,0	05.63	\$46,006.47	\$138,019								\$138,019								\$138,0
G20 Playground	879509	Play Surfaces & Sports Courts, Asphalt, Mill & Overlay	25	13	12	18000	SF		\$3.28	\$3.77	\$67,896											\$67,896					\$67,8
G20 Playground	879969	Landscaping, Ground Cover, Regrade/Establish	25	24	1	40000	SF		\$3.71	\$4.27	\$170,628		\$170,628														\$170,6
G20 Playground	879967	Landscaping, Flat Areas, Re-slope, Regrade/Establish	25	24	1	40000	SF		\$3.24	\$3.72	\$148,838		\$148,838														\$148,8
G40 Parking lot	879939	Pole Light, Exterior, 105 to 200 W LED (Fixture & Bracket Arm Only), Replace	20	11	9	8	EA	\$3,3	03.00	\$3,798.45	\$30,388								\$30,388								\$30,3
otals, Unescalated												\$1 441 801	\$840 196 \$259	637 \$968 09	4 \$2 759 437 \$	493 145 \$2	278 949	\$337 582 \$6°	8 677 \$692 841	\$486 444	\$314 144	\$435 036 \$23	0 448 \$572 6	82 \$113	071 \$104,351 \$107,574 \$6	17 769 \$70 103	\$11,801,9

* Markup/LocationFactor (1) has been included in unit costs. Markup includes a and 15% Ann Arbor Premium factors applied to the location adjusted unit cost.

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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:	2135 Runnymeade Blvd., Ann Arbor, Washtenaw, MI 48103						
Year Constructed/Renovated:	1957						
Current Occupants:	Ann Arbor Public Schools						
Percent Utilization:	100 percent of the space is used to support the elementary school						
Management Point of Contact:	Ann Arbor Pubic Schools/Physical Properties, Jim Vibbart, 734-320-3613 phone						
Property Type:	Classrooms, Office and support spaces						
Site Area:	13.7 acres						
Building Area:	45,000 SF						
Number of Buildings:	1						
Number of Stories:	1						
Parking Type and Number of Spaces:	69 spaces in open lots						
Building Construction:	Masonry bearing walls and steel-framed roofs.						
Roof Construction:	Flat roofs with EDPM membrane.						
Exterior Finishes:	Brick Veneer						
Heating, Ventilation & Air	Central system with boilers, air handlers, hydronic fan coil, hydronic baseboard radiators and terminal units.						
Conditioning:	Individual package units for fresh air and cooling for select areas.						
	Supplemental components: ductless split-systems						
Fire and Life/Safety:	Hydrants, smoke detectors, alarms, strobes, extinguishers, pull stations, alarm panel and exit signs.						
ADA:	This building does not have any major ADA issues						

All 45,000 square feet of the building are occupied by a single occupant, Ann Arbor Public Schools. The spaces are a combination of offices, classrooms, supporting restrooms, mechanical and other utility spaces.

A representative sample 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. Areas of note that were either inaccessible or not observed for other reasons are listed in the table below:

Key Spaces Not Observed										
Room Number	Area	Access Issues								
Gym/Multi-purpose Room Roof	High Roof	Did not see access ladder in mechanical room, not told 2 access points within room.								
	Assessment Information									
Dates of Visit:	March 8, 2018									
On-Site Point of Contact (POC):	Jim Vibbart									
Assessment and Report Prepared by:	Randall Patzke									



	Property Information
	Al Diefert
	Technical Report Reviewer For
Reviewed by:	Andrew Hupp
Reviewed by.	Program Manager
	ahupp@emgcorp.com
	800.733.0660 x6632

1.2 Key Findings

Site: The site has numerous area with soil grading and reseeding is required to improve the site drainage to clean-up the site. The playground and parking lots should be seal coated and restriped on a regular schedule.

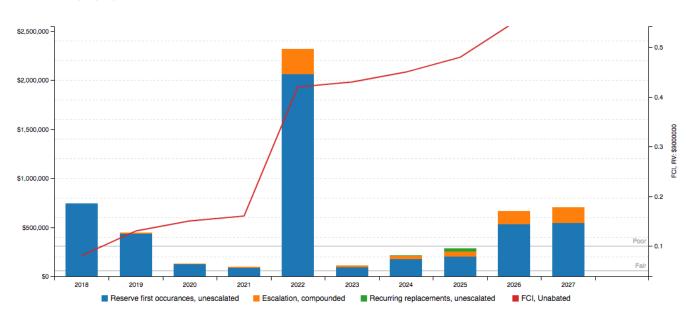
Architectural: The facility should have a study on asbestos completed. The interlocked ceiling tiles in the classrooms have the same appearance as ones containing asbestos. These should be removed and a suspended lay in ceiling installed.

MEPF: The facility should have the building controls updated to a networked digital system. The domestic water piping should be investigated for possible replacement, due to the age of the material used. The facility does not have a fire protection sprinkler system which is recommended.

1.3 Facility Condition Index (FCI)

FCI Analysis: Dicken Elementary School

Replacement Value: \$ 9,000,000; 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



Fci Condition Rating	Definition	Percentage Value
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):	8.25%
Current Year FCI Rating:	2018
10-Year Facility Condition Index (FCI) FCI = (RR)/(CRV):	63.62%
10-Year FCI Rating	0.63
Current Replacement Value (CRV):	\$9,000,000
Year 0 (Current Year) - Immediate Repairs (IR):	\$742,847
Years 1-10 - Replacement Reserves (RR):	\$4,983,189
Total Capital Needs:	\$5,726,036

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	Concrete spread footings	Fair		
Basement and Crawl Space	None			

Anticipated Lifecycle Replacements

No components of significance

Actions/Comments:

 The foundation systems are concealed. There are no significant signs of settlement, deflection, or movement. The basement (boiler room) walls appear intact and structurally sound. There is no evidence of movement or water infiltration.

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	Open-web steel joists	Fair		
Upper Floor Decking	Concrete, cast-in-place	Fair		
Balcony Framing	None			
Balcony Decking	None			
Balcony Deck Toppings	None			
Balcony Guardrails	Guardrails None			
Roof Framing Open-web steel joists Fair		Fair		
Roof Decking	Wood decking	Fair		

Maintenance Issues				
Observation Exists At Site Observation Exists At Sit				
Caulk minor cracking	\boxtimes	Monitor cracking for growth		
Repointing joints	\boxtimes	Other		

Anticipated Lifecycle Replacements:

No components of significance



Actions/Comments:

• The superstructure is exposed in some locations, which allows for limited observation. Walls and floors appear to be plumb, level, and stable. There are no significant signs of deflection or movement.

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

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. Future lifecycle replacements of the components listed above will be required.



3 Building Envelope

B20 Exterior Vertical Enclosures

B2010 Exterior Walls				
Type Location Condition				
Primary Finish	Brick veneer	Fair		
Secondary Finish	Windows	Fair		
Accented with	Metal siding	Fair		
Soffits	Concealed	Fair		
Building sealants	Between dissimilar materials, at joints, around windows and doors	Fair		

Maintenance Issues				
Observation Exists At Site Observation Exists At Site				
Graffiti	\boxtimes	Efflorescence	\boxtimes	
Other		Other		

Anticipated Lifecycle Replacements:

- Exterior paint
- Insulated Panels
- Caulking
- Masonry re-pointing

Actions/Comments:

• No significant actions are identified at the present time. 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.

B2020 Exterior Windows					
Window Framing	Window Framing Glazing Location Window Screen Condition				
Aluminum framed, fixed	Double glaze	throughout		Fair	
Aluminum framed, operable	Double glaze	throughout	\boxtimes	Fair	

B2050 Exterior Doors				
Main Entrance Doors	Door Type	Condition		
main Entrance Book	Fully glazed, metal framed	Fair		
Secondary Entrance Doors	Fully glazed, metal framed	Fair		
Service Doors	Metal, hollow	Poor		



B2050 Exterior Doors			
Overhead Doors	None		

- Windows
- Storefront glazing
- Exterior service doors

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.
- There are a few rusted door frames. The damaged doors must be replaced.
- The function of the windows should be tested and confirmed functional for Active Shooter. This should include the windows, screens and blinds. Replacing missing/damaged blinds.
- The glazing system has significant areas of damaged and/or missing sealant (throughout the classrooms). The damaged sealant must be replaced.
- The rusted exterior doors should be repaired or replaced.

B30 Roof

	B3010 Primary Roof				
Location	Main Roof	Finish	Single-ply membrane		
Type / Geometry	Flat	Roof Age	9 Yrs.		
Flashing	Membrane	Warranties	Unknown		
Parapet Copings	Exposed copings	Roof Drains	Internal drains		
Fascia	Metal Panel	Insulation	Rigid Board		
Soffits	Concealed Soffits	Skylights	Yes		
Attics	Truss Joists	Ventilation Source-1	None		
Roof Condition	Fair	Ventilation Source-2			

Maintenance Issues				
Observation Exists At Site Observation Exists At Site				
Drainage components broken/missing		Vegetation/fungal growth		
Blocked Drains		Debris		
Balls & toys	\boxtimes	Other		

Degradation Issues					
Observation Exists At Site Observation Exists At Site					
Evidence of roof leaks	□ Significant ponding ⊠				



Degradation Issues				
Observation Exists At Site Observation Exists At Site				
Excessive patching or repairs		Blistering or ridging		
Other		Other		

Anticipated Lifecycle Replacements:

- EPDM roof membrane
- Roof flashings (included as part of overall membrane replacement)
- Skylights

- The roof appears 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 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.
- Roof leaks have occurred within the past year, and some of these leaks remain active. The leaks occur (throughout the building). All
 active leaks must be repaired.



4 Interiors

C10 Interior Construction

C1030 Interior Doors		
Item	Туре	Condition
Interior Doors	Solid core wood	Fair
Door Framing	Metal	Fair
Fire Doors	Yes	Fair
Closet Doors	Sliding	Fair

Maintenance Issues				
Observation Exists At Site Observation Exists At				
Improperly adjusted door closures	\boxtimes	Damaged/loose door hardware		
Other		Other		

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

Interior Finishes - Dicken Elementary School

Location	Finish		Quantity	Condition	Action	RUL	Est. Cost
123	Floor	Carpet Tile Commercial-Grade	5000	Fair	Replace	4	34,815
126	Wall	Gypsum Board/Plaster	10	Poor	Repair	0	32
Boiler room	Floor	Epoxy Coating	1000	Poor	Prep & Paint	1	8,740
Class	Ceiling	(ACT)	22500	Poor	Replace	1	139,995
Classroom	Wall	Plate Glass	1500	Fair	Replace	4	67,720
Gymnasium	Floor	Maple Sports Floor	3000	Fair	Refinish	4	13,602
Restroom	Floor	Terrazzo	1500	Fair	Replace	4	18,084
Kitchen	Floor	Terrazzo	1250	Fair	Replace	9	15,070
Restroom	Floor	Ceramic Tile	1000	Fair	Replace	9	15,755
Throughout	Floor	Vinyl Tile (VCT)	32250	Fair	Replace	6	154,819
Throughout	Wall	Concrete/Masonry	54450	Fair	Prep & Paint	2	79,007
Throughout	Ceiling	(ACT)	22500	Fair	Replace	9	69,998

Maintenance Issues				
Observation	Exists At Site	Observation	Exists At Site	
Loose carpeting/flooring		Minor areas of stained ceiling tiles	\boxtimes	
Minor paint touch-up	\boxtimes	Areas of damaged/missing baseboard		
Other		Other		



- Carpet
- Vinyl tile
- Ceramic tile
- Interior paint
- Epoxy flooring
- Stage Curtain
- Suspended acoustic ceiling tile
- Interior doors
- Refinish Gym floor
- Hall Window Replacement
- Demountable wall partitions

- The interior areas were last renovated around 2010.
- On-going periodic maintenance is highly recommended. Future lifecycle replacements of the components listed above will be required.
- The flooring in the boiler room has be attacked by the chemicals used in the hot water boilers. The flooring should be replaced with a
 chemical resistant epoxy that includes an integral base.
- The majority of the ceiling tiles in the classrooms have the same appearance as tiles that contain asbestos. The tiles and facility should be inspected for asbestos containing materials. This should work should include the replacement of these ceiling tiles. There are funds in the reserve for this work. Tiles hidden above existing layin ceilings are not included in the reserve.
- The ceiling tiles have isolated areas of water-damaged ceiling tiles, throughout the facility. The damaged ceiling tiles need to be replaced. The cost to replace the 2 x 4 damaged tiles is relatively insignificant and the work can be performed as part of the routine maintenance program.
- There are isolated areas of damaged wall finishes. The damaged wall areas need to be repaired. The cost to repair the damaged finishes is relatively insignificant and the work can be performed as part of routine maintenance program.



5 Services (MEPF)

D10 Conveying Systems

Not applicable. There are no elevators or conveying systems.

D20 Plumbing

D2010 Domestic Water Distribution			
Type Description Condition			
Water Supply Piping	ing Galvanized iron Fair		
Water Meter Location	Meter Location Boiler Room		

Domestic Water Heaters or Boilers			
Components	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				
Туре	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		Minor or isolated leaks		
Other		Other		



Plumbing Systems - Dicken Elementary School

Location	Component	Component Description	Quant Unit	Condition	Action	RUL	Est. Cost
115	Sink	Stainless Steel	1 EA	Fair	Replace	9	2,108
126	Drinking Fountain	Vitreous China	2 EA	Fair	Replace	6	3,878
Air Handler Room	Water Heater	Electric, Residential, 5 to 15 GAL	1 EA	Fair	Replace	11	1,014
Boiler room	Water Supply	Water Filter	1 EA	Fair	Replace	3	8,976
Boiler room	Water Heater	Gas, Commercial, 60 to 120 GAL	1 EA	Fair	Replace	5	10,699
Classrooms	Sink	Stainless Steel	23 EA	Fair	Replace	9	24,243
hall	Drinking Fountain	Refrigerated	1 EA	Fair	Replace	4	1,258
Restroom	Toilet	Tankless (Water Closet)	18 EA	Fair	Replace	9	15,173
Restroom	Urinal	Vitreous China	1 EA	Fair	Replace	9	1,193
Throughout	Sink	Vitreous China	16 EA	Fair	Replace	9	13,784
Throughout	Plumbing System	Domestic Supply & Sanitary, School	45000 SF	Fair	Upgrade	4	1,752,314

Anticipated Lifecycle Replacements:

- Circulation pumps
- Water heaters
- Toilets
- Urinals
- Sinks
- Vanities

Actions/Comments:

- The plumbing systems appear to be well maintained and functioning adequately. The water pressure appears to be sufficient. No significant repair actions or short-term replacement costs are required. Routine and periodic maintenance is recommended. Future lifecycle replacements of the components or systems listed above will be required.
- Most of the domestic water lines are galvanized iron original to the 1957 construction. To date there has been no history of chronic leaks or water pressure problems. However, it is quite common for galvanized iron piping to develop problems due to long-term corrosion with thinning walls and/or interior mineral deposit accumulation, especially once it has aged 40 or 50 years. EMG highly encourages some easily accessible pipe sections be examined to more accurately determine the interior pipe wall conditions after nearly 61 years of use. Pending these results, consideration should be given to replacing all the plumbing supply lines with copper. A budgetary cost is included.

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

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

Building Central Cooling System		
Primary Cooling System Type	None	
Refrigerant		
Cooling Towers		
Location of Major Equipment		
Space Served by System		



Distribution System				
HVAC Water Distribution System	Two-pipe			
Air Distribution System	Constant			
Location of Air Handlers	Mechanical rooms			
Terminal Units	Fan coil units (hydronic)			
Quantity and Capacity of Terminal Units	approximately 21 fan coil units ranging from 800 to 1,200 CFM			
Location of Terminal Units	Adjacent to windows			

Packaged, Split & Individual Units					
Primary Components Package units					
Cooling (if separate from above)	None; no cooling				
Heating Fuel	Electric				
Location of Equipment	Rooftop				
Space Served by System	Entire building				

Supplemental/Secondary Components			
Supplemental Component #1	Ductless mini-split systems		
Location / Space Served	classrooms		
Condition	Fair		
Supplemental Component #2	Thru-wall Air Conditioners		
Location / Space Served	Select classrooms		
Condition	Fair		

Controls and Ventilation				
HVAC Control System	BAS, hybrid pneumatic/electronic system			
HVAC Control System Condition	Fair			
Building Ventilation	Central AHU, with fresh air intake			
Ventilation System Condition	Fair			

Maintenance Issues					
Observation	Exists At Site	Observation	Exists At Site		
Ductwork/grills need cleaned	\boxtimes	Minor control adjustments needed	\boxtimes		



Maintenance Issues						
Observation Exists At Site Observation Exists At Site						
Leaking condensate lines		Poor mechanical area access				
Other		Other				

Degradation Issues						
Observation Exists At Site Observation Exists At S						
Heating, Cooling or Ventilation is not adequate	×	Major system inefficiencies	\boxtimes			
HVAC controls pneumatic or antiquated	\boxtimes	Obsolete refrigerants : R11, R12, R22, R123, R502				
Other		Other				

Mechanical Systems - Dicken Elementary School

102	Location	Component	Component Description	Quantity	Unit	Condition	Action	RUL	Est. Cost
10.3 AF Conditioner	102	Air Conditioner	Window/Thru-Wall, 1.5 to 2 Ton	1	EA	Fair	Replace	2	2,589
195	102	Fan Coil Unit	Hydronic, 801 to 1,200 CFM	1	EA	Fair	Replace	3	3,235
196	103	Air Conditioner	Window/Thru-Wall, 1.5 to 2 Ton	1	EA	Fair	Replace	2	2,589
107	105	Fan Coil Unit	Hydronic, 801 to 1,200 CFM	1	EA	Fair	Replace	3	3,235
108	106	Fan Coil Unit	Hydronic, 801 to 1,200 CFM	1	EA	Fair	Replace	3	3,235
199	107	Fan Coil Unit	Hydronic, 801 to 1,200 CFM	1	EA	Fair	Replace	3	3,235
190	108	Fan Coil Unit	Hydronic, 801 to 1,200 CFM	1	EA	Fair	Replace	3	3,235
199		Air Conditioner	Window/Thru-Wall, 1.5 to 2 Ton	1	EA	Fair	Replace	2	2,589
110		Fan Coil Unit		1	EA	Fair			3,235
111		Fan Coil Unit	Hydronic, 801 to 1,200 CFM	1	EA	Fair	-	3	3,235
112									3,235
113							-		3,235
114			•						3,235
114							-		2,589
115							-		3,235
116									3,235
117							-		3,235
118									
119							-		
119							-		
120							-		2,589
122							-		3,235
123									3,235
128 Air Conditioner Window/Thru-Wall, 1.5 to 2 Ton 1 EA Fair Replace 2 2.5 air handler room Air Handler Exterior, 10,001 to 16,000 CFM 1 EA Fair Replace 13 70,7 air handler room Boiler Gas 2,001 to 2,500 MBH 1 EA Fair Replace 3 3.2 Boiler room Boiler Gas 2,001 to 2,500 MBH 1 EA Good Replace 13 34,1 Boiler room Building Automation System HVAC Controls 45000 SF Fair Replace 10 241,3 Boiler room Distribution Pump Heating Water, 10 HP 1 EA Fair Replace 8 6,2 Boiler room Distribution Pump Heating Water, 10 HP 1 EA Fair Replace 8 6,2 Boiler room Distribution Pump Heating Water, 7.5 HP 1 EA Fair Replace 8 6,0 Boiler room Distribution Pump Heating Water, 7.5 HP 1 EA Fair Replace 8							-		3,235
air handler room Air Handler Exterior, 10,001 to 16,000 CFM 1 EA Fair Replace 7 70,7 air handler room Boller Gas, 2,001 to 2,500 MBH 1 EA Good Replace 13 54,1 air handler room Boller Gas, 2,001 to 2,500 MBH 1 EA Good Replace 13 54,1 air handler room Boller Gas, 2,001 to 2,500 MBH 1 EA Good Replace 13 54,1 Boller room Boller Gas, 2,001 to 2,500 MBH 1 EA Good Replace 13 54,1 MAC Controls 45000 SF Fair Replace 10 241,3 Boller room Boller room Boller Good Condensing Unit/Heat Pump Split System, 8 to 10 Ton 1 EA Fair Replace 8 6,2 Boller room Distribution Pump Heating Water, 10 HP 1 EA Fair Replace 8 6,2 Boller room Distribution Pump Heating Water, 10 HP 1 EA Fair Replace 8 6,2 Boller room Distribution Pump Heating Water, 7.5 HP 1 EA Fair Replace 8 6,2 Boller room Distribution Pump Heating Water, 7.5 HP 1 EA Fair Replace 8 6,0 Boller room Distribution Pump Heating Water, 7.5 HP 1 EA Fair Replace 8 6,0 Boller room Distribution Pump Heating Water, 7.5 HP 1 EA Fair Replace 8 6,0 Boller room Distribution Pump Heating Water, 7.5 HP 1 EA Fair Replace 9 4,4 Boller room Exhaust Fan Centrifugal, 100 to 250 CFM 1 EA Fair Replace 9 4,4 Boller room Exhaust Fan Centrifugal, 100 to 250 CFM 1 EA Fair Replace 6 2,1 Interiors Air Handler Exterior, 10,001 to 16,000 CFM 1 EA Fair Replace 7 70,7 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exha			•						3,235
air handler room Boiler Gas, 2,001 to 2,500 MBH 1 EA Good Replace 13 54,11 air handler room Fan Coil Unit Hydronic, 801 to 1,200 CFM 1 EA Fair Replace 3 3,2 Boiler room Boiler Gas, 2,001 to 2,500 MBH 1 EA Good Replace 13 54,1 Boiler room Building Automation System HVAC Controls 45000 SF Fair Replace 10 241,3 Boiler room Distribution Pump Heating Water, 10 HP 1 EA Fair Replace 8 6,2 Boiler room Distribution Pump Heating Water, 10 HP 1 EA Fair Replace 8 6,2 Boiler room Distribution Pump Heating Water, 7.5 HP 1 EA Fair Replace 8 6,0 Boiler room Ductess Split System Single Zone, 1.5 to 2 Ton 1 EA Fair Replace 8 6,0 Boiler room Ductess Split System Single Zone, 1.5 to 2 Ton 1 EA Fair							-		2,589
Boiler room							-		70,713
Boiler room	air handler room								54,195
Boiler room Building Automation System HVAC Controls 45000 SF Fair Replace 10 241,3 Boiler room Condensing Unit/Heat Pump Spill System, 8 to 10 Ton 1 EA Fair Replace 3 15,8 Boiler room Distribution Pump Heating Water, 10 HP 1 EA Fair Replace 8 6,2 Boiler room Distribution Pump Heating Water, 7.5 HP 1 EA Fair Replace 8 6,2 Boiler room Distribution Pump Heating Water, 7.5 HP 1 EA Fair Replace 8 6,0 Boiler room Distribution Pump Heating Water, 7.5 HP 1 EA Fair Replace 8 6,0 Boiler room Distribution Pump Heating Water, 7.5 HP 1 EA Fair Replace 8 6,0 Boiler room Distribution Pump Heating Water, 7.5 HP 1 EA Fair Replace 8 6,0 Boiler room Distribution Pump Heating Water, 7.5 HP 1 EA Fair Replace 8 6,0 Replace 9 4.4 Replace 9 4.	air handler room	Fan Coil Unit	Hydronic, 801 to 1,200 CFM			Fair	Replace	3	3,235
Boiler room	Boiler room	Boiler	Gas, 2,001 to 2,500 MBH				Replace	13	54,195
Boiler room Distribution Pump Heating Water, 10 HP 1 EA Fair Replace 8 6,2	Boiler room	Building Automation System	HVAC Controls				Replace		241,313
Boiler room Distribution Pump Heating Water, 10 HP 1 EA Fair Replace 8 6,2	Boiler room	Condensing Unit/Heat Pump	Split System, 8 to 10 Ton	1	EA	Fair	Replace		15,825
Boiler room Distribution Pump Heating Water, 7.5 HP	Boiler room	Distribution Pump	Heating Water, 10 HP	1	EA	Fair	Replace	8	6,238
Boiler room Distribution Pump Heating Water, 7.5 HP 1 EA Fair Replace 8 6,0	Boiler room	Distribution Pump	Heating Water, 10 HP	1	EA	Fair	Replace	8	6,238
Boiler room Ductless Split System Single Zone, 1.5 to 2 Ton 1 EA Fair Replace 9 4.4	Boiler room	Distribution Pump	Heating Water, 7.5 HP	1	EA	Fair	Replace	8	6,037
Boiler room	Boiler room	Distribution Pump	Heating Water, 7.5 HP	1	EA	Fair	Replace	8	6,037
Boiler room	Boiler room	Ductless Split System	Single Zone, 1.5 to 2 Ton	1	EA	Fair	Replace	9	4,473
Interiors Air Handler Exterior, 10,001 to 16,000 CFM 1 EA Fair Replace 7 70,7 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 <t< td=""><td>Boiler room</td><td>Exhaust Fan</td><td>Centrifugal, 100 to 250 CFM</td><td>1</td><td>EA</td><td>Fair</td><td>Replace</td><td>14</td><td>890</td></t<>	Boiler room	Exhaust Fan	Centrifugal, 100 to 250 CFM	1	EA	Fair	Replace	14	890
Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,	Boiler room	Fan Coil Unit	Hydronic, 200 to 400 CFM	1	EA	Fair	Replace	6	2,186
Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,	Interiors	Air Handler	Exterior, 10,001 to 16,000 CFM	1	EA	Fair	Replace	7	70,713
Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,	Main roof	Exhaust Fan	Centrifugal, 251 to 800 CFM	1	EA	Fair	Replace	7	2,022
Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,	Main roof	Exhaust Fan	Centrifugal, 251 to 800 CFM	1	EA	Fair	Replace	7	2,022
Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,	Main roof	Exhaust Fan	Centrifugal, 251 to 800 CFM	1	EA	Fair	Replace	7	2,022
Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,	Main roof	Exhaust Fan	Centrifugal, 251 to 800 CFM	1	EA	Fair	Replace	7	2,022
Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,	Main roof	Exhaust Fan	Centrifugal, 251 to 800 CFM	1	EA	Fair	Replace	7	2,022
Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,	Main roof	Exhaust Fan	Centrifugal, 251 to 800 CFM	1	EA	Fair	Replace	7	2,022
Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Expansion Tank 1 to 3 GAL 4 EA Good Replace 7 2,0 Main roof Expansion Tank 61 to 100 GAL 1 EA Fair Replace 13 3,2 <tr< td=""><td>Main roof</td><td>Exhaust Fan</td><td>Centrifugal, 251 to 800 CFM</td><td>1</td><td>EA</td><td>Fair</td><td>Replace</td><td>7</td><td>2,022</td></tr<>	Main roof	Exhaust Fan	Centrifugal, 251 to 800 CFM	1	EA	Fair	Replace	7	2,022
Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Expansion Tank 1 to 3 GAL 4 EA Good Replace 7 2,0 Main roof Expansion Tank 61 to 100 GAL 1 EA Fair Replace 13 3,2 Main roof Packaged Unit (RTU) 11 to 12.5 Ton 1 EA Excellent Replace 13 22,7 <td>Main roof</td> <td>Exhaust Fan</td> <td>Centrifugal, 251 to 800 CFM</td> <td>1</td> <td>EA</td> <td>Fair</td> <td>Replace</td> <td>7</td> <td>2,022</td>	Main roof	Exhaust Fan	Centrifugal, 251 to 800 CFM	1	EA	Fair	Replace	7	2,022
Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Expansion Tank 1 to 3 GAL 4 EA Good Replace 7 2,0 Main roof Expansion Tank 61 to 100 GAL 1 EA Fair Replace 13 3,2 Main roof Packaged Unit (RTU) 11 to 12.5 Ton 1 EA Excellent Replace 13 22,7 <td>Main roof</td> <td>Exhaust Fan</td> <td>Centrifugal, 251 to 800 CFM</td> <td>1</td> <td>EA</td> <td>Fair</td> <td>Replace</td> <td>7</td> <td>2,022</td>	Main roof	Exhaust Fan	Centrifugal, 251 to 800 CFM	1	EA	Fair	Replace	7	2,022
Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,0 Main roof Expansion Tank 1 to 3 GAL 4 EA Good Replace 20 1,1 Main roof Expansion Tank 61 to 100 GAL 1 EA Fair Replace 13 3,2 Main roof Packaged Unit (RTU) 11 to 12.5 Ton 1 EA Excellent Replace 13 22,7	Main roof	Exhaust Fan	Centrifugal, 251 to 800 CFM	1	EA	Fair	Replace	7	2,022
Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,00 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,00 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,00 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,00 Main roof Expansion Tank 1 to 3 GAL 4 EA Good Replace 20 1,1 Main roof Expansion Tank 61 to 100 GAL 1 EA Fair Replace 13 3,2 Main roof Packaged Unit (RTU) 11 to 12.5 Ton 1 EA Excellent Replace 13 22,7		Exhaust Fan	Centrifugal, 251 to 800 CFM	1	EA	Fair	Replace	7	2,022
Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,00 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,00 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,00 Main roof Expansion Tank 1 to 3 GAL 4 EA Good Replace 20 1,1 Main roof Expansion Tank 61 to 100 GAL 1 EA Fair Replace 13 3,2 Main roof Packaged Unit (RTU) 11 to 12.5 Ton 1 EA Excellent Replace 13 22,7			•				_		2,022
Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,00 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,00 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,00 Main roof Expansion Tank 1 to 3 GAL 4 EA Good Replace 20 1,1 Main roof Expansion Tank 61 to 100 GAL 1 EA Fair Replace 13 3,20 Main roof Packaged Unit (RTU) 11 to 12.5 Ton 1 EA Excellent Replace 13 22,7			-				-		2,022
Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,00 Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,00 Main roof Expansion Tank 1 to 3 GAL 4 EA Good Replace 20 1,1 Main roof Expansion Tank 61 to 100 GAL 1 EA Fair Replace 13 3,2 Main roof Packaged Unit (RTU) 11 to 12.5 Ton 1 EA Excellent Replace 13 22,7			•						2,022
Main roof Exhaust Fan Centrifugal, 251 to 800 CFM 1 EA Fair Replace 7 2,00 Main roof Expansion Tank 1 to 3 GAL 4 EA Good Replace 20 1,1 Main roof Expansion Tank 61 to 100 GAL 1 EA Fair Replace 13 3,20 Main roof Packaged Unit (RTU) 11 to 12.5 Ton 1 EA Excellent Replace 13 22,7			-				-		2,022
Main roof Expansion Tank 1 to 3 GAL 4 EA Good Replace 20 1,1 Main roof Expansion Tank 61 to 100 GAL 1 EA Fair Replace 13 3,2 Main roof Packaged Unit (RTU) 11 to 12.5 Ton 1 EA Excellent Replace 13 22,7			•						2,022
Main roof Expansion Tank 61 to 100 GAL 1 EA Fair Replace 13 3,2 Main roof Packaged Unit (RTU) 11 to 12.5 Ton 1 EA Excellent Replace 13 22,7			-				-		1,111
Main roof Packaged Unit (RTU) 11 to 12.5 Ton 1 EA Excellent Replace 13 22,7		•					-		3,250
		-					_		22,713
maili tuut – askagan ottii (toto) –4 toti – 1 EA – Falli – Nahiate – 9 – 10,5							-		
	wall foot	r ackaged onlt (KTO)	4 1011	1		rall	Nebiace	ð	10,561



Anticipated Lifecycle Replacements:

- Boilers
- Air handling units
- Distribution pumps and motors
- Fan coil units
- Package units
- Split system heat pumps
- Baseboard radiators
- Through-wall air conditioners
- Rooftop exhaust fans

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 not been maintained since the property was first occupied.
- Approximately 15 percent of the HVAC equipment is original. The HVAC equipment varies in age. HVAC equipment is replaced on an
 "as needed" basis.
- The HVAC equipment appears to be functioning adequately overall. The principal was interviewed about the historical and recent
 performance of the equipment and systems. There are issues with temperature control within the whole facility. Areas are either too
 hot or too cold
- The thru-wall air conditioners are approaching end of life and replacements could be required.
- The facility HVAC is controlled using an outdated pneumatic system supplied by an air compressor. For modernization, reliability, and
 increased control, full conversion to a web-based direct digital control (DDC) platform is highly recommended.

D40 Fire Protection

Item	Description							
Туре	None							
On similar a Occatana	None	\boxtimes	Standpipe	s			Backflow Preventer	
Sprinkler System	Hose Cabinets		Fire Pump	Fire Pumps			Siamese Connections	
Sprinkler System Condition	n							
Fire	Last Service Date				Servicing (Curre	nt?	
Extinguishers	August 2017						Yes	
Hydrant Location	Front of School							
Siamese Location	None							
Special Systems	Kitchen Suppress	sion §	System		Comp	uter R	oom Suppression System	

Maintenance Issues							
Observation Exists At Site Observation Exists At Site							
Extinguisher tag expired	\boxtimes	Riser tag expired (5 year)					
Other		Other					



No components of significance

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 whole 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. A budgetary cost is included.

D50 Electrical

Distribution & Lighting						
Electrical Lines	Underground	Transformer	Pad-mounted			
Main Service Size	600 Amps	Volts	120/208 Volt, three-phase			
Meter & Panel Location	Boiler Room	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					

Building Emergency Systems					
Size	None	Fuel			
Generator / UPS Serves		Tank Location			
Testing Frequency		Tank Type			
Generator / UPS Condition					

Maintenance Issues					
Observation	Exists At Site	Observation	Exists At Site		
Improperly stored material		Unsecured high voltage area			
Loose cables or improper use of conduit		Poor electrical room ventilation			
Other		Other			



- Circuit breaker panels
- Main switchgear
- Interior light fixtures

Actions/Comments:

- The onsite electrical systems up to the meter are owned and maintained by the respective utility company.
- The electrical service and capacity appear to be adequate for the property's demands.
- The school has four classrooms that have tripped breakers on a regular basis. These rooms should have the circuits reduced to increase available power to the room and minimize the potential of tripping breakers.

D60 Communications

D6060 Public Address Systems						
Item	Item Description					
Communication Equipment	Public Address System ⊠ Nurse Call System □ Clock ⊠					

D70 Electronic Safety and Security

D7010 Access Control and Intrusion Detection / D7050 Detection and Alarm							
Item			Des	scription			
Access Control and Intrusion	Exterior Camera	\boxtimes	Interior Camera	a	\boxtimes	Front Door Camera Only	
Detection	Cameras monitored		Security Perso	nnel On-Site		Intercom/Door Buzzer	\boxtimes
	Central Alarm Panel	\boxtimes	Battery-Operated Smoke Detectors			Alarm Horns	\boxtimes
Fire Alarm System	Annunciator Panels		Hard-Wired Smoke Detectors		\boxtimes	Strobe Light Alarms	\boxtimes
	Pull Stations	\boxtimes	Emergency Battery-Pack Lighting		\boxtimes	Illuminated EXIT Signs	\boxtimes
Fire Alarm System Good Condition							
Central Alarm	Location of Alarm Panel Installation Date of Alarm Panel			of Alarm Panel			
Panel System	Office			2016			

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. Future lifecycle
replacements of the components listed above will be required.



6 Equipment & Furnishings

E10 Equipment

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

E1030 Commercial Kitchen Equipment					
Appliance	Comment	Condition			
Refrigerators	Up-right	Fair			
Freezers	Up-right	Fair			
Ranges					
Ovens	Electric	Fair			
Griddles / Grills					
Fryers					
Hood	Exhaust ducted to exterior	Fair			
Dishwasher					
Microwave	\boxtimes	Fair			
Ice Machines					
Steam Tables		Fair			
Work Tables		Fair			
Shelving	\boxtimes	Fair			

E1030 Commercial Laundry					
Equipment	Comment	Condition			
Commercial Washing Machines					
Commercial Dryers					
Residential Washers					
Residential Dryers					

Anticipated Lifecycle Replacements:

- Warming oven
- Milk Cooler
- Steam Table
- Exhaust Hood
- Reach-in cooler



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.



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	Cast-in-place concrete	Fair		
Ground Floor Patio or Terrace	None			

Parking Count					
Open Lot	Carport	Private Garage	Subterranean Garage	Freestanding Parking Structure	
66	-	-	-	-	
Total Number of ADA Compliant Spaces				3	
Number of ADA Compliant Spaces for Vans				1	
Total Parking Spaces	· · · ·			69	

Site Stairs					
Location	Material	Handrails	Condition		
Entry	Concrete stairs	None	Fair		

Maintenance Issues						
Observation Exists At Site Observation Exists At Site						
Pavement oil stains	\boxtimes	Vegetation growth in joints				
Stair/ramp rails loose		Stair/ramp rail needs scraped and painted				
Other		Other				



Degradation Issues						
Observation Exists At Site Observation Exists At Site						
Potholes/depressions		Alligator cracking	\boxtimes			
Concrete spalling		Trip hazards (settlement/heaving)				
Other		Other				

- Asphalt seal coating
- Asphalt pavement
- Sidewalks
- Curbs
- Site stairs
- Pedestrian ramps
- Playgrounds

- 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 asphalt pavement exhibits significant areas of deterioration, such as alligator cracking, transverse cracking, these are most noticeable on the road into the main parking lot. Complete milling and overlay of the entire lot is recommended.
- When the parking lot is replaced with the Mill and overlay the damaged curbs should be replaced.
- The asphalt pavement and playgrounds are showing wear and require seal coating to extend the life of the paving.

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

Site Fencing					
Туре	Location	Condition			
Chain link with metal posts	West half of site	Fair			

REFUSE DISPOSAL								
Refuse Disposal Common area dumpsters								
Dumpster Locations	Mounting	Mounting Enclosure Contracted? Condition						
North Parking Lot	North Parking Lot Asphalt paving None Yes Fair							



Other Site Amenities							
Description Location Condition							
Playground Equipment	Plastic and metal	Around Site	Fair				
Tennis Courts	None						
Basketball Court	None						
Swimming Pool	None						

- Signage
- Site fencing
- Playground equipment
- Playground surfaces

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.

G2080 Landscaping							
Drainage S	Drainage System and Erosion Control						
System Exists At Site Condition							
Surface Flow	\boxtimes	Fair					
Inlets	\boxtimes	Fair					
Swales							
Detention pond							
Lagoons							
Ponds							
Underground Piping	\boxtimes	Fair					
Pits							
Municipal System	\boxtimes	Fair					
Dry Well							

Anticipated Lifecycle Replacements:

No components of significance

- 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.
- Ponding occurs in the landscaped areas. The affected areas must be graded to direct storm water toward the onsite inlets.
- Soil erosion occurs near the sidewalks and playground areas. The affected areas must be restored to prevent additional erosion and damage.



Item	Description								
Site Topography		The Northeast corner of the site is the higher area and slope to the other sides. The greatest slope is to the southeast. None of the slopes are very steep.							
Landscaping	Trees	Grass	Flower Beds	Plante	ers	Drought Tolerant Plants	D	ecorative Stone	None
	\boxtimes	\boxtimes		\boxtimes					
Landscaping Condition				Fa	air				
Irrigation	Automatic Underground		Drip		Hand Watering		ng	None	
								\boxtimes	
Irrigation Condition				_	-				

Retaining Walls					
Type Location Condition					
Brick Entry ADA Ramp Fair					

Landscaping materials

Actions/Comments:

- The topography and adjacent uses do not appear to present conditions detrimental to the property.
- There are significant areas of erosion. The areas along the sidewalks need to be backfilled and seeded. The various swales in the grass need to be regraded/sloped and seeded to permit proper drainage. These will improve the overall site conditions.
- The retaining wall at the ADA ramp requires repair to the brick.

G30 Liquid & Gas Site Utilities

G3060 Site Fuel Distribution					
Item	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 the building is malleable steel (black iron).				

Anticipated Lifecycle Replacements:

No components of significance

- 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								
	None	Pole Mou	ounted Bollard Lights		Ground Mounted		Parking Lot Pole Type	
Site Lighting							\boxtimes	
	Fair							
	None	,		Wall Mounted		Rec	essed Soffit	
Building Lighting								
	Fair							

Maintenance Issues						
Observation Exists At Site Observation Exists At Site						
Isolated bulb/lamp replacement						
LED Fixtures	\boxtimes	Other				

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

Other Ancillary Structures						
Туре	Maintenance/Storage Shed	Location	Side parking Lot			
Item	Material	Item	Material			
Exterior Siding	Pre-Cast Concrete	Roof Finishes	Pre-cast concrete			
Interior Finishes	MEPF	Electrical (was not able to access)				
Overall Building Cond	ition		Fair			

Anticipated Lifecycle Replacements:

No components of significance

- 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 exterior doors are rusting and require replacement.



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

11.1ADA 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.

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								
Exterior Accessible Route								
Interior Accessible Route								
Restrooms								
Elevators								

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 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 in Seismic Zone 1, defined as an area of low probability of damaging ground motion.



DICKEN ELEMENTARY

12 Certification

Ann Arbor Public Schools retained EMG to perform this Facility Condition Assessment in connection with its continued operation of Dicken Elementary, 2135 Runnymede Blvd., Ann Arbor, MI, the "Property". It is our understanding that the primary interest of Ann Arbor Public 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 $\underline{2}$ 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 $\underline{4.2}$ 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 the client for the purpose stated within Section Section 10 of this report. The report, or any excerpt thereof, shall not be used by any party other than the client or for any other purpose than that specifically stated in our agreement or within Section 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 Public Schools and the recipient's sole risk, without liability to EMG.

Prepared by: Randall Patzke,

Project Manager

Reviewed by:

Al Diefert

Technical Report Reviewer

declifi

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: LEFT ELEVATION



#3: **REAR ELEVATION**



#4: RIGHT ELEVATION



#5: PLAY STRUCTURE



#6: PLAY STRUCTURE



#7: **BOILER ROOM FLOOR FINISH**



#8: **PYLON SIGN**



#9: **EXPANSION TANKS**



#10: EXTERIOR SERVICE DOOR



#11: SIDEWALK AND ADA RAMP



#12: LIGHTING SYSTEM, BLINDS



#13: BRICK VENEER, WINDOWS



#14: INTERIOR GLASS WALL



#15: AIR HANDLER



#16: **EPDM ROOF**



INSULATED PANEL AND #17: CAULKING



CASEWORK IN OFFICE, #18: CARPET



#19: HYDRONIC FAN COIL UNIT,



#20: **RE-SLOPE LANDSCAPING**



#21: **BOILERS**



#22: **EXTERIOR WALL CAULKING**



#23: **RE-SLOPE LANDSCAPING**



#24: INTERIOR WALL REPAIR



EXTERIOR POLE LIGHT AND #25: CRACKED ASPHALT



CASEWORK, STAINLESS STEEL #26: SINKS, VCT AND PAINTING



#27: **ELECTRIC WATER HEATER**



RE-SLOPE LANDSCAPING, #28: PLAY STRUCTURE



STAINLESS STEEL SINK, OVER-#29: SIZED



CONCRETE SIDEWALK, #30: LANDSCAPING AND RE-SEEDING



VINYL FLOOR TILE (VCT), PAINT FINISH #31:



#32: COMPRESSED AIR DRYER



ASBESTOS STUDY & POSSIBLE #33: **REPLACEMENT**



EXTERIOR WINDOWS #34: **CAULKING**



PICNIC TABLE, ASPHALT PLAYGROUND #35:



INTERIOR FLOOR FINISH, #36: VINYL TILE (VCT)



#37: PLAY STRUCTURE



HYDRONIC BOILER SOLUTION #38: FILTER, DAMAGED FLOOR **FINISH**



#39: **BUILDING CONTROL PANEL**



#40: THRU-WALL AIR CONDITIONER



#41: **ASPHALT PAVEMENT**



#42: WATER HEATER



#43: INTERIOR WALL FINISH REPAIR



#44: **CONCRETE CURB & GUTTER**



EXTERIOR WALL CAULKING, #45: **PAINTING**



#46: **DRINKING FOUNTAIN**



#47: HYDRONIC FAN COIL UNIT



#48: ASPHALT PAVEMENT



#49: PACKAGED UNIT (RTU)



#50: ASPHALT PAVEMENT



STAGE CURTAIN, FLOOR #51: REFINISH



#52: PACKAGED UNIT (RTU)



#53: **WINDOWS**



#54: **DISTRIBUTION PANEL**



#55: **EXHAUST FAN**



TOILET, SINK AND TERRAZZO #56: FLOORING



#57: **RE-POINTING BRICK**



#58: REFINISH GYM FLOOR



#59: **BRICK REPAIR**



#60: MOLD REMEDIATION,



#61: **DEMOUNTABLE PARTITION**



#62: FIRE ALARM CONTROL PANEL



#63: TERRAZZO FLOOR



#64: **CERAMIC TILE**



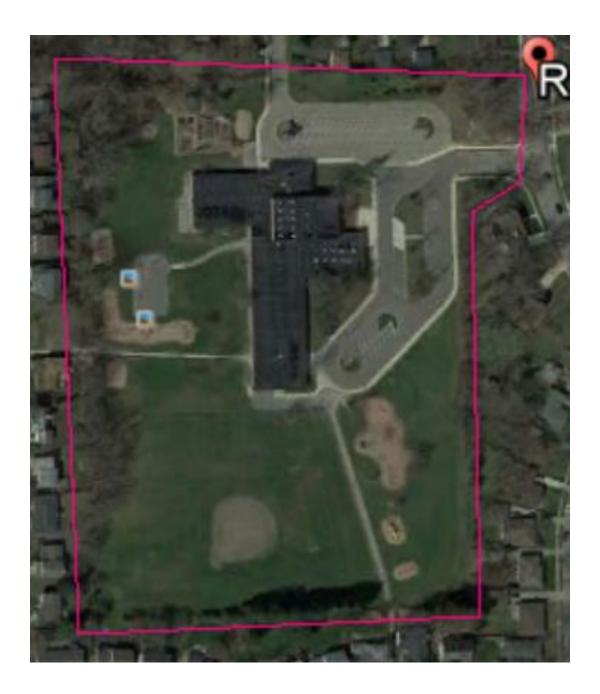
#65: **CARPET**



#66: PLAYGROUND ASPHALT

Appendix B: Site Plan

Site Plan





Project Name:	Project Number:
Dicken Elementary	129010.18R000-010.354
Source:	On-Site Date:
Google Earth Pro	March 8, 2018

Appendix C: Supporting Documentation



Flood Map





Project Name: Dicken Elementary **Project Number:**

129010.18R000-010.354

Source: FEMA Map Number: 26161C0244E Dated: April 3, 2012

On-Site Date:

March 8, 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				
		Façade		HVAC	
2	Major Panayatian Datas	Roof		Electrical	
3	3 Major Renovation Dates	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.

