Prepared for

Town of Dedham Schools 100 Whiting Avenue Dedham, Massachusetts 02026



**FACILITY CONDITION ASSESSMENT** 

OF

DEDHAM-AVERY ELEMENTARY SCHOOL 366 HIGH STREET DEDHAM, MASSACHUSETTS 02026

#### PREPARED BY:

EMG

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

#### **EMG CONTACT:**

Bill Champion Program Manager 800.733.0660 x6234 bchampion @emgcorp.com

EMG PROJECT #: 121711.16R000-001.322

DATE OF REPORT:

ONSITE DATE: October 18, 2016

## Immediate Repairs Report Avery Elementary School

## 11/30/2016



Location ame	EMG Renamed Item um er	ID	Cost Description	uantity	nit	nit Cost	SII TOTAL	De iciency Repair Estimate *
Avery Elementary School	3.1	513670	Z106X ADA, Parking, Designated Stall with Pavement Markings & Signage, Install	1	EA	\$1,265.00	\$1,265	\$1,265
Avery Elementary School	5.2	513631	G2031 Pedestrian Pavement, Sidewalk, Clay Brick/Masonry Pavers, Repair	200	SF	\$0.78	\$156	\$156
Avery Elementary School	5.2	513629	G2031 Pedestrian Pavement, Sidewalk, Concrete, Repair	150	SF	\$28.94	\$4,342	\$4,342
Avery Elementary School	5.5	513641	G2016 Signage, Building Mounted, Individual Letters, Install/Replace	9	EA	\$150.00	\$1,350	\$1,350
Immediate Repairs ota	al							\$7,112

<sup>\*</sup> Location Factor included in totals.

## Avery Elementary School

# emg

## 11/30/2016

	EMG Renamed	11	i esnan																		De iciency
Location ame	item	ID Cost Description E	E L	EAge	R L	uantit	y nit	nit Cost Su total 201	16 2	2017 2018 2019	2020 2021	2022	2023	2024 2025 20	26 2027 2	2028 202	29 2030	2031	2032	2033 2034 203	35 Repair Estimate
Avery Elementary School	um er	513670 ADA, Parking, Designated Stall with Pavement Markings & Signage, Install	0	0	0	1	EA	\$1,265.00 \$1,265 \$1,26	\$5												\$1,265
Avery Elementary School		513640 Parking Lots, Asphalt Pavement, Seal & Stripe	5	4	1	30000				,385		\$11,385			\$11,385				\$11,385		\$45,540
Avery Elementary School		513635 Parking Lots, Asphalt Pavement, Mill & verlay	25	7	18	30000			Ψ11,	,000		ψ11,000			ψ11,000				ψ11,303	\$98,412	\$98,412
		513631 Pedestrian Pavement, Sidewalk, Clay Brick/Masonry Pavers, Repair	0	5	0	200	SF													ψ30,412	\$156
Avery Elementary School  Avery Elementary School		513629 Pedestrian Pavement, Sidewalk, Concrete, Repair	0	5	0	150	SF														\$4,342
Avery Elementary School		514406 Irrigation System, In ground, Replace	25	7	18	47000														\$148,638	\$148,638
Avery Elementary School			20	1	16	5	EA												\$2,872	ψ140,000	\$2,872
Avery Elementary School		513641 Signage, Building Mounted, Individual Letters, Replace	20	20	0	0	EA		:0										φ2,072		\$1,350
Avery Elementary School		513646 Fences & Gates, Chain Link, 6 igh, Replace	30	27	3	600	LF		,,,	\$22,523											\$22,523
Avery Elementary School		513644 Signage, Property, Monument/Pylon, Replace	20	2	18	1	EA			Ψ22,323										\$8,602	\$8,602
Avery Elementary School			20	5	15	1	EA											\$2,210		φ0,002	\$2,210
		513666 Play Structure, Swing Set, 4 Seats, Replace  513667 Play Sur aces & Sports Courts, Poured in place Ru er, Replace	20	6	14	5100	SF										\$225,803	φ2,210			
Avery Elementary School  Avery Elementary School		513662 Play Structure, Small, Replace	20	5	15	1	EA	1 1										\$18,975			\$225,803 \$18,975
		513660 Play Sur aces & Sports Courts, Asphalt, Seal & Stripe	5	3	2	7000	SF	\$0.38 \$2,664		\$2,664			\$2,664		en en	664		ψ10,310		\$2,664	\$10,975
Avery Elementary School  Avery Elementary School		513665 Play Structure, Swing Set, 4 Seats, Replace	20	5	15	1	EA			Ψ2,004			φ2,004		Φ2	004		\$2,210		Ψ2,004	\$2,210
Avery Elementary School		513669 Play Sur aces & Sports Courts, Asphalt, Mill & verlay	25	7	18	7000												ψ∠,∠ ۱∪		\$22,960	\$2,210
Avery Elementary School		513663 Play Structure, Small, Replace	20	5	15	1	EA											\$18,975		Ψ22,900	\$18,975
Avery Elementary School		513654 Dumpster Accessories, Enclosures, ood/ inyl, 8 igh, Replace	20	4	16	90	LF											ψ10,575	\$8,975		\$8,975
Avery Elementary School		513650 Pole Light, E terior, 105 to 200 LED Fi ture & Bracket Arm nly , Replace	20	5	15	7	EA											\$23,121	ψ0,913		\$23,121
Avery Elementary School		514547 alkway Bollard Light, 70 to 150 ID, Replace	20	7	13	5	EA									\$7,47		ΨΖΟ, ΙΖΙ			\$7,471
Avery Elementary School		513676 Roo , Single Ply P /P C Mem rane, Replace	20	1	16	13500	-									Ψί,τί	'		\$215,067		\$215,067
Avery Elementary School		513716 E terior all, oint Caulking 0 to 1/2 , 1 2 Stories, Replace	10	5	5	4500					\$12,690							\$12,690	Ψ213,007		\$25,380
Avery Elementary School		513711 E terior all, Brick or Brick eneer, 3 Stories, Repoint	25	7	18	2500					Ψ12,090							\$12,090		\$113,623	\$113,623
Avery Elementary School		513714 Curtain all, Gaskets, Replace	15	3	12	1200									\$7	350				\$113,023	\$7,350
Avery Elementary School		513719 Interior Stair reads, Raised Ru er ile, Replace	18	6	12	750	SF									734					\$6,734
Avery Elementary School		513762 E terior Door, Steel Insulated, Replace	25	7	18	ν ο	EA								ΨΟ	7.54				\$12,620	\$12,620
Avery Elementary School		514537 Condensing nit, Serves alk In Cooler/Free er, Replace	15	3	12	1	EA								\$2	119				ψ12,020	\$2,119
Avery Elementary School		514541 Condensing nit, Serves alk In Cooler/Free er, Replace	15	3	12	1	EA									119					\$2,119
Avery Elementary School		514209 eat Pump DC C 1, Split System, 8 on, Replace	15	3	12	1		\$15,825.28 \$15,825							\$15						\$15,825
Avery Elementary School		514213 Air andling nit Motor, 5 P, pen Drip Proo , Premium E iciency, Replace	18	6	12	6	EA								\$10						\$10,579
Avery Elementary School		513809 Make p Air nit 1, 4,500 CFM, Replace	20	4	16	1		\$32,062.66 \$32,063							Ψίο	575			\$32,063		\$32,063
Avery Elementary School		514212 Make p Air nit 2, 4,450 CFM, Replace	20	4	16	1	EA												\$32,063		\$32,063
Avery Elementary School		514215 Ceiling Mounted Induction nit, 70 to 300 CFM, Replace	15	3	12	54	EA								\$223	664			\$32,003		\$223,664
Avery Elementary School		514249 E haust Fan EF 8, Centri ugal, 500 CFM, Replace	15	0	15	1	EA								ΨΖΖΟ	004		\$2,022			\$2,022
Avery Elementary School		515084 E haust Fan EF 9, In Line, 215 CFM, Replace	15	0	15	1	EA											\$890			\$890
		514248 E haust Fan EF 7, In Line, 150 CFM, Replace	15	0	15	1	EA											\$890			\$890
Avery Elementary School  Avery Elementary School		513628 E haust Fan EF 11, Roo Mounted, 500 CFM, Replace	15	1	14	1	EA										\$2,022	φυσυ			\$2,022
		514535 E haust Fan EF 1, Centri ugal, 850 CFM, Replace		,	15	1	EA										ΨΖ,0ΖΖ	\$2,022			\$2,022
Avery Elementary School  Avery Elementary School		514220 E haust Fan EF 5, Roo Mounted, 3,650 CFM, Replace	15 15	1	14	1	EA										\$4,323	ψ <u>ε</u> ,υ <u>ε</u> ε			\$4,323
Avery Elementary School		514259 E haust Fan EF 6, Centri ugal, 500 CFM, Replace	15	n	15	1	EA										Ψ+,υ∠υ	\$2,022			\$2,022
Avery Elementary School		514224 E haust Fan EF 2, In Line, 150 CFM, Replace	15	n	15	1	EA											\$890			\$890
Avery Elementary School		514534 E haust Fan EF 3, Centri ugal, 225 CFM, Replace	15	0	15	1	EA											\$2,022			\$2,022
Avery Elementary School		514233 E haust Fan EF 10, In Line, 250 CFM, Replace	15	n	15	1	EA											\$890			\$890
Avery Elementary School		514219 E haust Fan EF 4, Roo Mounted, 800 CFM, Replace	15	1	14	1	EA										\$2,022	ψυσυ			\$2,022
Avery Elementary School		498105 Circulation Pump Pump 6, Circulation Pump, eating ater, 2 P, Replace	20	5	15	1	EA										Ψ2,022	\$4,652			\$4,652
Avery Elementary School		513847 Circulation Pump Pump 1, eating ater, 5 P, Replace	20	5	15	1	EA											\$5,519			\$5,519
Avery Elementary School		513817 Circulation Pump Pump 2, eating ater, 5 P, Replace	20	5	15	1	EA											\$5,519			\$5,519
. Arony Elementary School	7.1	2.33 Sirodiation 1 drip 2, Cating atol, 5 1, Nopiace		J	13	'	LA	ψο,στο.σο ψο,στσ										ψυ,υ ι σ			Ψυ,υ 18

EMG														5
Location ame Renamed ID Cost Description	Li espan E L	EAge	R L	uanti	y nit nit Cost Su total 2016 2017	2018 2019 2020 2021 2022	2023 2024	4 2025 2026	2027 2028	2029 203	0 2031	2032	2033 2034	De iciency 2035 Repair
um er														Estimate
Avery Elementary School 7.1 513811 Circulation Pump Pump 5, Circulation Pump, eating ater, 2 P, Replace	20	5	15	1	EA \$4,652.29 \$4,652						\$4,652			\$4,652
Avery Elementary School 7.1 513854 Circulation Pump Pump 8, Chiller & Condenser ater, 1.5 P, Replace	20	5	* 15		EA \$4,652.29 \$4,652			\$4,652						\$4,652
Avery Elementary School 7.1 513856 Circulation Pump Pump 7, Chiller & Condenser ater, 1.5 P, Replace	20	5	* 15	1	EA \$4,652.29 \$4,652			\$4,652						\$4,652
Avery Elementary School 7.1 514207 Circulation Pump Pump 4, Chiller & Condenser ater, 5 P, Replace	20	5	15	1	EA \$5,518.88 \$5,519						\$5,519			\$5,519
Avery Elementary School 7.1 513816 Circulation Pump Pump 3, Chiller & Condenser ater, 5 P, Replace	20	5	15	1	EA \$5,518.88 \$5,519						\$5,519			\$5,519
Avery Elementary School 7.1 514217 nit eater, ydronic, 5 to 24 MB , Replace	20	2	18	22	EA \$880.85 \$19,379								\$19,379	\$19,379
Avery Elementary School 7.1 498250 Building Automation System AC Controls , pgrade	20	4	16	61000	SF \$5.36 \$327,113							\$327,113		\$327,113
Avery Elementary School 7.1 514527 aria le Fre uency Drive FD , Circulation Pumps, 5 P Motor, Replace	20	5	15	8	EA \$4,748.96 \$37,992						\$37,992			\$37,992
Avery Elementary School 7.2 515064 oilet, ankless ater Closet , Replace	20	3	17	33	EA \$842.97 \$27,818								7,818	\$27,818
Avery Elementary School 7.2 515066 rinal, itreous China, Replace	20	3	17	6	EA \$1,193.44 \$7,161								7,161	\$7,161
Avery Elementary School 7.2 515065 Sink, itreous China, Replace	20	3	17	25	EA \$861.51 \$21,538							\$2	1,538	\$21,538
Avery Elementary School 7.2 514244 Back low Preventer, 1 , Boiler Feed, Replace	15	5	10	1	EA \$1,276.01 \$1,276			\$1,276						\$1,276
Avery Elementary School 7.2 514404 Back low Preventer, Irrigation Systme, 4, Replace	15	3	12	1	EA \$6,001.42 \$6,001				\$6,001					\$6,001
Avery Elementary School 7.2 514400 Booster Pump Pump 2, 10 P, Replace	20	5	15	1	EA \$12,403.71 \$12,404						\$12,404			\$12,404
Avery Elementary School 7.2 514401 Booster Pump Irrigation System, 2 P, Replace	20	5	15	1	EA \$7,498.29 \$7,498						\$7,498			\$7,498
Avery Elementary School 7.2 513815 ater eater, Gas, Commercial, 130 GAL, 300 MB , Replace	15	6	9	1	EA \$13,630.32 \$13,630			\$13,630						\$13,630
Avery Elementary School 7.2 514399 Booster Pump Pump 1, 10 P, Replace	20	5	15	1	EA \$12,403.71 \$12,404						\$12,404			\$12,404
Avery Elementary School 7.2 515061 Grease rap/Interceptor, nderground, Replace	10	3	7	1	EA \$10,850.00 \$10,850	\$	10,850					\$1	0,850	\$21,700
Avery Elementary School 7.4 514385 rans er Switch A S S, Automatic A S , Replace	18	4	14	1	EA \$12,045.75 \$12,046					\$12,04	6			\$12,046
Avery Elementary School 7.4 514397 rans er Switch A S LS, Automatic A S , Replace	18	4	14	1	EA \$12,045.75 \$12,046					\$12,04	6			\$12,046
Avery Elementary School 7.4 514525 Intercom Master Station, Replace	20	5	15	1	EA \$3,814.50 \$3,814						\$3,814			\$3,814
Avery Elementary School 7.4 514532 Security/Surveillance System, Cameras and CC , pgrade	10	2	8	61000	SF \$4.35 \$265,179		\$265,179	9					\$265,179	\$530,358
Avery Elementary School 7.4 514238 Acid aste eutrali ation System, Replace	20	4	16	1	EA \$28,851.39 \$28,851							\$28,851		\$28,851
Avery Elementary School 7.6 514413 Back low Preventer, 6 , Dou le Check, Replace	15	3	12	1	EA \$9,344.53 \$9,345				\$9,345					\$9,345
Avery Elementary School 7.6 514410 Fire Suppression System ockey Pump, 0.75 P, Replace	20	5	15	1	EA \$745.57 \$746						\$746			\$746
Avery Elementary School 7.6 514409 Fire Pump, 40 P, Replace	20	5	15	1	EA \$46,384.80 \$46,385						\$46,385			\$46,385
Avery Elementary School 7.6 514580 itchen Fire Suppression System C 2, et Chemical, Replace	15	5	10	1	EA \$4,447.10 \$4,447			\$4,447						\$4,447
Avery Elementary School 7.6 514396 Fire Alarm Control Panel, Addressa le, Replace	15	3	12	1	EA \$20,297.59 \$20,298				\$20,298					\$20,298
Avery Elementary School 7.6 514531 Annunciation Panel, Replace	15	3	12	1	EA \$1,448.32 \$1,448				\$1,448					\$1,448
Avery Elementary School 7.6 514416 Fire Alarm System, School, pgrade	20	5	15	61000	SF \$3.13 \$191,034						\$191,034			\$191,034
Avery Elementary School 8.1 515069 Interior Door, ood Solid Core, Replace	20	2	18	105	EA \$1,423.11 \$149,427								\$149,427	\$149,427
Avery Elementary School 8.1 515070 Interior Door, Fire/Smoke Barrier Doors, Replace	20	2	18	25	EA \$1,649.06 \$41,226								\$41,226	\$41,226
Avery Elementary School 8.1 515067 oilet Partitions, Plastic verhead Braced, Replace	20	3	17	18	EA \$850.00 \$15,300							\$1	5,300	\$15,300
Avery Elementary School 8.1 515071 Interior all Finish, CM and Gypsum Sheathing, Prep & Paint	8	3	5	91500		\$132,767			\$1	132,767				\$265,533
Avery Elementary School 8.1 515073 Interior Floor Finish, ood Strip, Re inish	10	2	8	1	SF \$3.68 \$4		\$4	1					\$4	\$7
Avery Elementary School 8.1 516174 Interior Floor Finish, Linoleum, Resilient Flooring, Replace	15	3	12	35000			,		\$116,669				*	\$116,669
Avery Elementary School 8.1 515072 Interior Floor Finish, Carpet ile Commercial Grade, Replace	10	3	7	4000		\$6	27,852		7.10,000			\$2	7,852	\$55,703
Avery Elementary School 8.1 515075 Interior Ceiling Finish, Acoustical ile AC , Replace	20	3	17	40000			,						4,440	\$124,440
Avery Elementary School 8.1 516347 Classroom Casework, Base and all Section, ood, Replace	20	3	17	1500	LF \$467.63 \$701,449								1,449	\$701,449
Avery Elementary School 8.2 514559 Dishwasher, Commercial, 9 GAL ash ank, Replace	10	2	8	1	EA \$19,661.82 \$19,662		\$19,662	)				4.0	\$19,662	\$39,324
Avery Elementary School 8.2 515052 Range, 2 Burner, 35,000 B / , Replace	15	3	12	1	EA \$1,548.00 \$1,548		ψ10,002	-	\$1,548				ψ10,002	\$1,548
			18	1	EA \$12,255.00 \$12,255				ψ1,540				\$12,255	\$12,255
Avery Elementary School 8.2 515058 alk In Cooler 106G, Re rigerator, Replace	20	2	10	1			\$8,643						\$8,643	\$12,255
Avery Elementary School 8.2 514589 Convection ven, Dou le, Replace	10	2	10	1	EA \$8,643.00 \$8,643		\$8,043					\$22.440	Φ0,043	
Avery Elementary School 8.2 515054 Skillet, ilting, Replace	20	4	16	1	EA \$22,440.00 \$22,440		00.511					\$22,440	60.510	\$22,440
Avery Elementary School 8.2 514618 Steamer, Freestanding, 2 Compartment, Replace	10	2	8	1	EA \$9,516.00 \$9,516		\$9,516		00.545				\$9,516	\$19,032
Avery Elementary School 8.2 514550 Re rigerator, pen Display, Replace	15	3	12	1	EA \$2,515.00 \$2,515				\$2,515					\$2,515
Avery Elementary School 8.2 514552 Re rigerator, Milk Cooler, Replace	15	3	12	1	EA \$2,515.00 \$2,515			40.40	\$2,515					\$2,515
Avery Elementary School 8.2 515056 Food aste Disposer, 2 P, Replace	15	5	10	1	EA \$3,434.22 \$3,434			\$3,434						\$3,434
Avery Elementary School 8.2 514595 itchen E haust ood ood 1, E haust ood, Replace	15	3	12	1	EA \$7,571.72 \$7,572				\$7,572					\$7,572
Avery Elementary School 8.2 515057 Free er/Cooler, Below Counter, 1 Door, Replace	15	3	12	1	EA \$2,838.00 \$2,838				\$2,838					\$2,838
Avery Elementary School 8.2 514588 Convection ven, Dou le, Replace	10	2	8	1	EA \$8,643.00 \$8,643		\$8,643	3					\$8,643	\$17,286
Avery Elementary School 8.2 514590 itchen E haust ood ood 2, E haust ood, Replace	15	3	12	1	EA \$7,571.72 \$7,572				\$7,572					\$7,572

	EMG Renamed Item um er	ID Cost Description	Li espan E L	EAge	R L	uantity	/ nit	nit Cost	Su total	2016 2017	2018 2019	9 2020 2021	1 202:	2 2023 2024	2025 2026	6 2027	2028	2029	2030	2031 2032	2033 2034	De iciency 2035 Repair Estimate
Avery Elementary School	8.2	515059 alk In Free er 106F, , Replace	20	2	18	1	EA	\$22,317.14	\$22,317												\$22,317	\$22,317
Avery Elementary School	8.2	514570 E haust ood, Dishwasher Station, Replace	15	3	12	1	EA	\$7,571.72	\$7,572								\$7,572					\$7,572
Avery Elementary School	8.2	514556 Food armer, 1200 atts, Replace	15	3	12	1	EA	\$1,551.91	\$1,552								\$1,552					\$1,552
Avery Elementary School	8.2	514563 Steam a le, Sealed ell, 6 ell, Replace	15	3	12	1	EA	\$4,191.00	\$4,191								\$4,191					\$4,191
Avery Elementary School	8.2	514555 Re rigerator, 4 Door Reach In, Replace	15	3	12	1	EA	\$6,708.00	\$6,708								\$6,708					\$6,708
otals, nescalated										\$7,112 \$11,385	\$2,664 \$22,523	\$0 \$145,457	\$11,385	5 \$41,365 \$311,647	\$13,630 \$18,462	\$11,385 \$	469,396 \$14	40,237 \$25	8,260 \$4	33,484 \$680,828	\$939,070 \$961,105	\$0 \$4,479,395
otals, Escalated 3.0	in lation,	compounded annually								\$7,112 \$11,727	\$2,826 \$24,611	\$0 \$168,624	\$13,594	\$50,874 \$394,785	\$17,784 \$24,811	\$15,760 \$	669,247 \$20	05,943 \$39	0,642 \$6	75,354 \$1,092,529	\$1,552,140 \$1,636,217	\$0 \$6,954,579

## **TABLE OF CONTENTS**

1	Execu	itive Summary	
	1.1	Property Information and General Physical Condition	1
	1.2	Facility Condition Index (FCI)	2
	1.3	Special Issues and Follow-Up Recommendations	3
	1.4	Opinions of Probable Cost	
	1.4.1	Methodology	
	1.4.2	Immediate Repairs	4
	1.4.3	Replacement Reserves	4
2	Purpo	ose and Scope	5
	2.1	Purpose	
	2.2	Scope	
	2.3	Personnel Interviewed	
	2.4	Documentation Reviewed	
	2.5	Pre-Survey Questionnaire	
	2.6	Weather Conditions	
3	Acces	ssibility & Property Research	
	3.1	ADA Accessibility	
4	_	ng Building Assessment	
•	4.1	Unit or Space Types	
	4.2	Inaccessible Areas or Key Spaces Not Observed	
5		nprovements	
J	5.1	Utilities	
	5.2	Parking, Paving, and Sidewalks	
	5.3	Drainage Systems and Erosion Control	
	5.4	Topography and Landscaping	
	5.5	General Site Improvements	
6		ing Architectural and Structural Systems	
U	6.1	Foundations	
	6.2	Superstructure	
	6.3	Roofing	
	6.4	Exterior Walls	
	6.5	Exterior valis  Exterior and Interior Stairs.	
	6.6	Exterior Windows and Doors	
	6.7	Patio, Terrace, and Balcony	
7		ing Mechanical and Plumbing Systems	
•	7.1	Building Heating, Ventilating, and Air Conditioning (HVAC)	
	7.1	Building Plumbing and Domestic Hot Water	21
	7.3	Building Gas Distribution	
	7.3 7.4	Building Electrical	
	7.5	Building Elevators and Conveying Systems	
	7.6	Fire Protection and Security Systems	
8		or Spaces	
J	8.1	Interior Finishes	
	8.2	Commercial Kitchen & Laundry Equipment	
•		· · ·	
9		Structures	
10		ication	
11	Appe	ndices	31





EMG PROJECT NO: 121711.16R000-001.322

## 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:	366 High Street, Dedham, Norfolk County, Massachusetts 02026				
Year Constructed/Renovated:	2011				
Current Occupants:	Town of Dedham-Avery Elementary School				
Percent Utilization:	100%				
Management Point of Contact:	Town of Dedham-Dedham Public Schools, Denise Moroney, Director of Facilities & Maintenance 781.752.7812 phone				
	Dmoroney@dedham.k12.ma.us email				
Property Type:	Elementary School				
Site Area:	5.6 acres				
Building Area:	61,000 SF				
Number of Buildings:	One				
Number of Stories:	Three				
Parking Type and Number of Spaces:	61 spaces in open lots				
Building Construction:	Steel frame with concrete-topped metal decks.				
Roof Construction:	Gabled roofs with asphalt shingles.				
1001 Construction.	Flat roofs with built-up membrane.				
Exterior Finishes:	Brick Veneer				
Heating, Ventilation and Air Conditioning:	Central system with boilers, chillers, air handlers, feeding induction units, fan coil units, and hydronic baseboard radiators				
	Supplemental components: ductless split-systems and a make-up air unit.				
Fire and Life/Safety:	Fire sprinklers, hydrants, smoke detectors, alarms, strobes, extinguishers, pull stations, alarm panel, exit signs, and emergency lighting.				
Dates of Visit:	October 18, 2016				
On-Site Point of Contact (POC):	Denise Moroney				
Assessment and Report Prepared by:	Josh Hogan				
	Scott Williford				
	Technical Report Reviewer for				
Reviewed by:	Bill Champion				
	Program Manager				
	bchampionl@emgcorp.com				
	800.733.0660 x6234				

	Systemic Cor	ndition Summary	
Site	Good	HVAC	Good





Systemic Condition Summary							
Structure	Good	Plumbing	Good				
Roof	Good	Electrical	Good				
Vertical Envelope	Good	Elevators	Good				
Interiors	Good	Fire	Good				

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

- Asphalt seal and stripe
- Chain link replacement (older than date of construction)
- Sport court seal

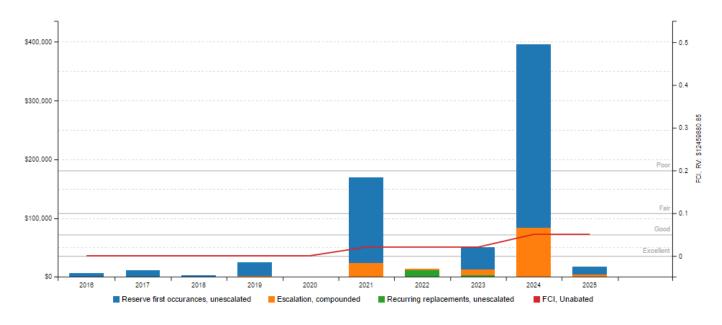
Generally, the property appears to have been constructed within industry standards in force at the time of construction. The property appears to have been well maintained since it was first occupied and is in good overall condition.

The property is less than five years old and has not required any major capital improvements.

## 1.2 FACILITY CONDITION INDEX (FCI)

#### FCI Analysis: Avery Elementary School

Replacement Value: \$ 12,459,881; Inflation rate: 3.0%



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





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

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

Key Finding	Me	tric
Current Year Facility Condition Index (FCI) FCI = (IR)/(CRV)	0.1%	Good
10-Year Facility Condition Index (FCI) FCI = (RR)/(CRV)	5.6%	Fair
Current Replacement Value (CRV)	61,000 SF * 204.26	/ SF = \$12,459,881

Year 0 (Current Year) - Immediate Repairs (IR)	\$7,112
Years 1-10 – Replacement Reserves (RR)	\$691,937
Total Capital Needs	\$699,049

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

- Repair of uneven stone pavers at the main building entrance walkway
- Repair to areas of cracked sidewalk
- Installation of an additional ADA car parking stall
- Installation of additional property signage for emergency services

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

#### 1.3 SPECIAL ISSUES AND FOLLOW-UP RECOMMENDATIONS

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

There are no visual indications of the presence of mold growth, conditions conducive to mold growth, or evidence of moisture in representative readily accessible areas of the property.

#### 1.4 OPINIONS OF PROBABLE COST

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

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





DEDHAM-AVERY ELEMENTARY SCHOOL 366 HIGH STREET DEDHAM, MASSACHUSETTS 02026

EMG PROJECT NO: 121711.16R000-001.322

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.

#### 1.4.1 METHODOLOGY

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

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

#### 1.4.2 IMMEDIATE REPAIRS

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

#### 1.4.3 REPLACEMENT RESERVES

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

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

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

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





#### 2 PURPOSE AND SCOPE

#### 2.1 PURPOSE

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

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

#### **CONDITIONS:**

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

		ed 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.

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

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





#### **PLAN TYPES:**

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

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

#### 2.2 SCOPE

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

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

The expanded scope of this assessment includes the following:

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





EMG PROJECT NO: 121711.16R000-001.322

#### 2.3 PERSONNEL INTERVIEWED

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

Name and Title	Organization	Phone Number
Denise Moroney Director of Facilities & Maintenance	Town of Dedham-Dedham Public Schools	781.752.7812
Robert Lazdowsky Facilities & Maintenance	Town of Dedham-Dedham Public Schools	774.266.0516

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

#### 2.4 DOCUMENTATION REVIEWED

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

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

Original construction documents by Dore & Whittier Architects, dated 12/21/2010.

#### 2.5 PRE-SURVEY QUESTIONNAIRE

A Pre-Survey Questionnaire was sent to the POC prior to the site visit. The questionnaire is included in Appendix E. Information obtained from the questionnaire has been used in preparation of this report.

#### 2.6 WEATHER CONDITIONS

October 18, 2016: Cloudy, with temperatures in the 60s (°F) and light winds.





EMG PROJECT NO: 121711.16R000-001.322

#### 3 ACCESSIBILITY & PROPERTY RESEARCH

#### 3.1 ADA ACCESSIBILITY

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

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

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

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

#### **Parking**

Adequate number of designated parking stalls and signage for cars are not provided. An additional parking stall is required.

A full ADA Compliance Survey may reveal additional aspects of the property that are not in compliance.

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





DEDHAM-AVERY ELEMENTARY SCHOOL 366 HIGH STREET DEDHAM, MASSACHUSETTS 02026

EMG PROJECT NO: 121711.16R000-001.322

#### 4 EXISTING BUILDING ASSESSMENT

#### 4.1 UNIT OR SPACE TYPES

All 61,000 square feet of the building are occupied by Dedham Public Schools. The spaces are a combination of classrooms, administrative offices, a gymnasium, an auditorium, cafeteria and supporting restrooms, commercial kitchen, mechanical and other utility spaces.

#### 4.2 INACCESSIBLE AREAS OR KEY SPACES NOT OBSERVED

Most of the interior spaces were observed in order to gain a clear understanding of the property's overall condition. A representative sample of classrooms was observed, as some of the classrooms were occupied at the time of the assessment. Other areas accessed included the site within the property boundaries, exterior of the property and portions of the roof. Access to the steep-sloped roof areas was not possible at the time of the assessment.

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





## 5 SITE IMPROVEMENTS

#### 5.1 UTILITIES

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

Site Utilities					
Utility	Supplier	Condition and Adequacy			
Sanitary sewer	Town of Dedham Department of Public Works	Good			
Storm sewer	Town of Dedham Department of Public Works	Good			
Domestic water	Dedham-Westwood Water District	Good			
Electric service	Eversource Energy	Good			
Natural gas service	Eversource Energy	Good			

#### Actions/Comments:

• According to the POC, the utilities provided are adequate for the property. There are no unique, onsite utility systems such as emergency electrical generators, septic systems, water or waste water treatment plants, or propane gas tanks.

## 5.2 PARKING, PAVING, AND SIDEWALKS

Item	Description
Main Ingress and Egress	High Street
Access from	North
Additional Entrances	Whiting Avenue
Additional Access from	South

Paving and Flatwork					
Item	Material	Last Work Done	Condition		
Entrance Driveway Apron	Asphalt	2011	Good		
Parking Lot	Asphalt	2011	Good		
Drive Aisles	Asphalt	2011	Good		
Service Aisles	None	N/A	N/A		
Sidewalks	Concrete and Stone Paver	2011	Fair		
Curbs	Stone	2011	Good		
Site Stairs	Concrete Keystone	2011	Good		
Pedestrian Ramps	None	N/A	N/A		





Parking Count						
Open Lot	Carport	Private Garage	Subterranean Garage	Freestanding Parking Structure		
61	0	0 0		0		
Total Number of ADA Compliant Spaces			2			
Number of ADA Comp	oliant Spaces for Vans		1			
Total Parking Spaces			61			
Parking Ratio (Spaces	s/1,000 Sqaure Feet)		1.0			
Method of Obtaining F	Parking Count		Phy	ysical count		

Exterior Stairs					
Location Material Handrails Condition					
Southeast Building Limits	Southeast Building Limits Concrete Keystone Metal Good				

#### Anticipated Lifecycle Replacements:

- Asphalt seal coating
- Asphalt pavement

#### Actions/Comments:

- The concrete sidewalk at the main driveway has isolated areas of minor cracks. Concrete cracks should be repaired.
- A minor portion of the stone pavers adjacent to the main building entrance are uneven, creating a potential trip hazard. Immediate
  repair of the pavers is required to mitigate potential safety concerns.
- The asphalt pavement has isolated areas of alligator cracking, and general weathering of the pavement surface. Sealing, striping and crack repair is recommended to maintain the integrity of the paving system.

#### 5.3 DRAINAGE SYSTEMS AND EROSION CONTROL

Drainage System and Erosion Control					
System	Exists at Site	Condition			
Surface Flow		Good			
Inlets	$\boxtimes$	Good			
Swales					
Detention pond					
Lagoons					
Ponds					
Underground Piping	$\boxtimes$	Good			
Pits					





DEDHAM-AVERY ELEMENTARY SCHOOL 366 HIGH STREET DEDHAM, MASSACHUSETTS 02026

EMG PROJECT NO: 121711.16R000-001.322

Drainage System and Erosion Control				
System Exists at Site Condition				
Municipal System		Good		
Dry Well				

#### Anticipated Lifecycle Replacements:

No components of significance

#### Actions/Comments:

 There is no evidence of storm water runoff from adjacent properties. The storm water system appears to provide adequate runoff capacity. There is no evidence of major ponding or erosion.

### 5.4 TOPOGRAPHY AND LANDSCAPING

Item	Description								
Site Topography		The property is generally flat. The sports field, playing court and playground area located at the east property are elevated above the west property.							
Landscaping	Trees	Grass	Flower Beds	Plantei	rs	Drought Tolerant Plants	Dec	corative Stone	None
	$\boxtimes$	$\boxtimes$							
Landscaping Condition		Good							
1.1.0	Automatic Underground Drip Hand Watering				Automatic Underground Drip Hand Watering		Nor	ne	
Irrigation	$\boxtimes$								
Irrigation Condition	Good								

Retaining Walls				
Туре	Location	Condition		
Keystone	Sports Field, South Limits	Good		
Concrete	East Playground	Good		
Concrete	Sports Court, East Limits	Good		

#### Anticipated Lifecycle Replacements:

Irrigation system

#### Actions/Comments:

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





## 5.5 GENERAL SITE IMPROVEMENTS

Property Signage			
Property Signage	Monument		
Street Address Displayed?	No		

Site and Building Lighting							
	None	Pole Mou	nted	Bollard Lights	Ground Mounted	Parking Lot Pole Type	
Site Lighting		$\boxtimes$		$\boxtimes$	$\boxtimes$	$\boxtimes$	
	Good						
	None			Wall Mounted	Re	cessed Soffit	
Building Lighting			$\boxtimes$			$\boxtimes$	
	Good						

Site Fencing					
Type Location Condition					
Tube steel	West Playground	Good			
Chain link with metal posts	Site Perimeter	Good			
Chain link with metal posts	Northeast Site Limits	Fair			

Refuse Disposal						
Refuse Disposal	Common area	Common area dumpsters				
Dumpster Locations	Mounting Enclosure Contracted? Condition					
Southwest Site	Concrete pad	Wood board fence	Yes	Good		

Other Site Amenities						
	Description Location Condition					
Playground Equipment	Plastic and metal	East Playground & West Playground	Good			
Tennis Courts	None					
Basketball Court	Asphalt	Sports Courts Good				
Swimming Pool	None					
Sports Field	Natural Grass	East Site	Good			

The sports field and basketball courts are surrounded by a chain link fence.

## Anticipated Lifecycle Replacements:

Signage





DEDHAM-AVERY ELEMENTARY SCHOOL 366 HIGH STREET DEDHAM, MASSACHUSETTS 02026

EMG PROJECT NO: 121711.16R000-001.322

- Exterior building-mounted lighting
- Exterior pole-mounted lighting
- Exterior bollard lights
- Timber dumpster enclosures
- Playground equipment
- Playground surfaces
- Basketball court seal coating
- Basketball court asphalt mill & overlay
- Site fencing

#### Actions/Comments:

- Building signage is currently located at the main entrance driveway. The signage does not display the property address. The lack of
  adequate signage may impede the timely arrival of emergency services personnel and equipment. Additional identification signage
  must be installed which displays the property address.
- The chain link site fencing at the northeast site limits has some areas of corrosion, weathering, and damage. Replacement of this area of older site fencing is anticipated.





## 6 BUILDING ARCHITECTURAL AND STRUCTURAL SYSTEMS

#### 6.1 FOUNDATIONS

Building Foundation						
Item Description Condition						
Foundation Slab on grade with integral footings		Good				
Basement and Crawl Space None						

#### Anticipated Lifecycle Replacements:

No components of significance

#### Actions/Comments:

The foundation systems are concealed and inaccessible. There are no significant signs of settlement, deflection, or movement.

#### 6.2 SUPERSTRUCTURE

Building Superstructure					
Item	Condition				
Framing / Load-Bearing Walls	Steel columns and beams	Good			
Ground Floor	Concrete slab	Good			
Upper Floor Framing	Steel beams	Good			
Upper Floor Decking	Metal decking with concrete topping	Good			
Roof Framing	Steel beams or girders	Good			
Roof Decking	Metal decking	Good			

#### 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.

#### 6.3 ROOFING

Primary Roof					
Type / Geometry Hip Roof Finish Sheet Metal					





Primary Roof					
Maintenance	Outside Contractor	Roof Age	2011		
Flashing	Sheet metal	Warranties	Manufacturer's Warranty		
Parapet Copings	None	Roof Drains	Gutters and downspouts		
Fascia	None	Insulation	Rigid Board		
Soffits	Concealed Soffits	Skylights	No		
Attics	None	Ponding	No		
Ventilation Source-1	None	Leaks Observed	No		
Ventilation Source-2	None	Roof Condition	Good		

The primary roof is located above the classrooms and other portions of the building

Secondary Roof					
Type / Geometry	Low Sloped (Flat)	Low Sloped (Flat) Finish			
Maintenance	None	Roof Age	2011		
Flashing	Sheet metal	Warranties	Manufacturer's Warranty		
Parapet Copings	Parapet with sheet metal coping	Roof Drains	Internal drains		
Fascia	Metal Panel	Insulation	Rigid Board		
Soffits	None	Skylights	No		
Attics	None	Ponding	No		
Ventilation Source-1	None	Leaks Observed	No		
Ventilation Source-2	None	Roof Condition	Good		

The secondary roof is located above the gymnasium, media center and other portions of the building.

#### Anticipated Lifecycle Replacements:

Single-ply thermoplastic roof membrane

#### Actions/Comments:

- The roof finishes were reportedly installed in 2011. The roofs are reportedly covered by a 20 year warranty. A copy of the warranty was requested, but was not available. The roofs are maintained by an outside contractor.
- According to the POC, there are no active roof leaks. There is no evidence of active roof leaks.
- There is no evidence of roof deck or insulation deterioration. The roof substrate and insulation should be inspected during any future roof repair or replacement work.
- Roof drainage appears to be adequate. Clearing and minor repair of drain system components should be performed regularly as part
  of the property management's routine maintenance and operations program.





#### 6.4 EXTERIOR WALLS

Building Exterior Walls					
Type Location Condition					
Primary Finish	Brick veneer	Good			
Secondary Finish	Glazed curtain wall	Good			
Accented with	Brick veneer	Good			
Soffits	Concealed	Good			

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

#### Anticipated Lifecycle Replacements:

- Building sealants
- Curtain wall sealants and gaskets
- Masonry cleaning/re-pointing (partial)

#### Actions/Comments:

No significant issues with the exterior brick masonry were reported or observed. It is highly recommended that a cost allowance for periodic cleaning and repointing of the brick masonry veneer is anticipated as part of the property management's routine maintenance program. A cost for this work has been included in the replacement reserve tables.

#### 6.5 EXTERIOR AND INTERIOR STAIRS

Building Exterior and Interior Stairs						
Type Description Riser Handrail Balusters Condition						
Building Exterior Stairs	None					
Building Interior Stairs	Steel framed with pan-filled concrete	Closed	Metal	Metal	Good	

#### Anticipated Lifecycle Replacements:

Rubber stair treads

#### 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.





## 6.6 EXTERIOR WINDOWS AND DOORS

Building Windows						
Window Framing	Window Framing Glazing Location Window Screen Condition					
Aluminum framed, operable	Double glaze	Exterior walls	$\boxtimes$	Good		
Aluminum framed, fixed	Double glaze	Exterior walls		Good		
Aluminum framed storefront	Double glaze	Main building entrances	Good			
Aluminum framed, translucent sandwich panels	Double glaze	Gymnasium exterior walls		Good		

Building Doors			
Door Type Condition			
Main Entrance Doors	Fully glazed, metal framed	Good	
Secondary Entrance Doors	Fully glazed, metal framed	Good	
Service Doors	Metal, insulated	Good	
Overhead Doors	None	N/A	

#### Anticipated Lifecycle Replacements:

Exterior metal 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.

## 6.7 PATIO, TERRACE, AND BALCONY

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





## 7 BUILDING MECHANICAL AND PLUMBING SYSTEMS

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

Building Central Heating System		
Primary Heating System Type	Hot water boilers	
Quantity and Capacity of Major Components	Two boilers at 800 MBH each One water-to-water heat exchanger at 56 GPM±	
Total Heating Capacity	1600 MBH	
Heating Fuel	Natural gas	
Location of Major Equipment	Mechanical Penthouse	
Space Served by System	Entire building	
Age Ranges	All units dated 2011	
Boiler Condition	Good	
Heat Exchanger Condition	Good	

Building Central Cooling System		
Primary Cooling System Type	Air-cooled chiller	
Quantity and Capacity of Major Components	One chillers at 80 tons	
Total Cooling Capacity	80 tons	
Refrigerant	R-410A	
Cooling Towers	None	
Location of Major Equipment	Rooftop	
Space Served by System	Entire building	
Age Ranges	Unit dated 2011	
Chiller Condition	Good	
Cooling Tower Condition	N/A	

Distribution System		
HVAC Water Distribution System	Four-pipe	
Heating Water Circulation Pump Size and Quantity	Two pumps at 5 HP each	
	Two pumps at 2 HP each	





Distribution System		
Chilled Water Circulation Pump Size and Quantity	Two pumps at 5 HP each Two pumps at 1.5 HP each	
Condenser Water Circulation Pump Size and Quantity	NA	
Pump Condition	Good	
Air Distribution System	Variable volume	
Quantity and Capacity of Air Handlers	Two air handlers ranging from 4,500 to10,000 CFM each	
Location of Air Handlers	Mechanical Penthouse	
Large Spaces the Larger Dedicated AHU's Serve	Southwest classrooms and administration offices	
Age of Air Handlers	All units dated 2011	
Air Handler Condition	Good	
Terminal Units	Induction units, hydronic unit heaters hydronic baseboard radiators	
Quantity and Capacity of Terminal Units	Approximately 54 induction units ranging from 70 to 250 CFM each Approximately 22 hydronic unit heaters ranging from 5 to 25 MBH each Approximately 250 linear feet of hydronic radiators ranging from 0.8 to 8 MBH.	
Location of Terminal Units	Within interior spaces	
Spaces Served by Terminal Units	Throughout facility	
Terminal Unit Condition Good		

Supplemental Components		
Supplemental Component No. 1 Split system air conditioners		
Location / Space Served by Split system air conditioner	Elevator machine rooms, tech labs, and IT server rooms	
Split system air conditioner condition	Good	
Supplemental Component No. 2	Make-up air units	
Location / Space Served by make-up air units	Gymnasium and kitchen	
make up air unit condition	Good	

Controls and Ventilation		
HVAC Control System	BAS, direct digital controls (DDC)	
HVAC Control System Condition Good		
Building Ventilation	Central AHU's with fresh air intake and exhausts, rooftop exhaust fans	
Ventilation System Condition	Good	





DEDHAM-AVERY ELEMENTARY SCHOOL 366 HIGH STREET DEDHAM, MASSACHUSETTS 02026

EMG PROJECT NO: 121711.16R000-001.322

#### Anticipated Lifecycle Replacements:

- Boilers
- Chillers
- Chemical feed system
- Air handler fan motors
- Circulation pumps and motors
- Variable frequency drives
- Induction units
- Unit heaters
- Split system heat pump
- Make up air units
- Rooftop exhaust fans
- In-line exhaust fans
- Direct digital HVAC controls

#### Actions/Comments:

- The HVAC systems are maintained by the in-house maintenance staff. Records of the installation, maintenance, upgrades, and replacement of the HVAC equipment at the property have been maintained since the property was first occupied.
- The HVAC equipment was installed in 2011. The property is relatively new and has not required any major HVAC equipment replacements.
- The HVAC equipment appears to be functioning adequately overall. The maintenance staff and property management staff were interviewed about the historical and recent performance of the equipment and systems. No chronic problems were reported and an overall sense of satisfaction with the systems was conveyed. However, due to the inevitable failure of parts and components over time, some of the equipment will require replacement.

#### 7.2 BUILDING PLUMBING AND DOMESTIC HOT WATER

Building Plumbing System				
Туре	Type Description Condition			
Water Supply Piping	Copper	Good		
Waste/Sewer Piping	Cast iron Good			
Vent Piping	Cast iron Good			
Water Meter Location	Domestic Booster Pump Room			

Domestic Water Heaters or Boilers			
Components	Water Heaters		
Fuel	Natural gas		
Quantity and Input Capacity	One unit at 300 MBH		
Storage Capacity	130 gallons		
Boiler or Water Heater Condition	Good		
Supplementary Storage Tanks?	No		
Storage Tank Quantity and Volume			
Quantity of Storage Tanks			
Storage Tank Condition			





Domestic Water Heaters or Boilers		
Domestic Hot Water Circulation Pumps (3 HP and over)	No	
Adequacy of Hot Water	Adequate	
Adequacy of Water Pressure	Adequate	

Plumbing Fixtures		
Water Closets	Commercial	
Toilet (Water Closet) Flush Rating	1.28 GPF	
Common Area Faucet Nominal Flow Rate	0.5 GPM	
Condition	Good	

#### Anticipated Lifecycle Replacements:

- Water heater (and circulation pumps)
- Domestic water booster pumps
- Irrigation system booster pump
- Backflow preventers
- Toilets
- Urinals
- Sinks
- Grease trap

#### 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.

#### 7.3 BUILDING GAS DISTRIBUTION

Gas service is supplied from the gas main on the adjacent public street. The gas meters and regulators 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

#### Actions/Comments:

- The pressure and quantity of gas appear to be adequate.
- The gas meters and regulators 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.





#### 7.4 BUILDING ELECTRICAL

Building Electrical Systems			
Electrical Lines	Underground	Transformer	Pad-mounted
Main Service Size	1,200 Amps	Volts	277/480 Volt, three-phase
Meter and Panel Location	Main Electrical Room	Branch Wiring	Copper
Conduit	Metallic	Step-Down Transformers?	Yes
Security / Surveillance System?	Yes	Building Intercom System?	Yes
Lighting Fixtures	T-5 and LED		
Main Distribution Condition	Good		
Secondary Panel and Transformer Condition	Good		
Lighting Condition	Good		

Building Emergency System				
Size	200 kW Fuel Diesel			
Generator / UPS Serves	Emergency lights, elevators, etc.	Tank Location	Beneath Generator	
Testing Frequency	Weekly	Tank Type	Integral ("belly") tank	
Generator / UPS Condition	Good			

#### Anticipated Lifecycle Replacements:

- Emergency generator
- Automatic transfer switches
- Intercom control station
- Security surveillance system

#### Actions/Comments:

- The onsite electrical systems up to the meters are owned and maintained by the respective utility company.
- The electrical service and capacity appear to be adequate for the property's demands.

#### 7.5 BUILDING ELEVATORS AND CONVEYING SYSTEMS

Building Elevators				
Manufacturer	Ground floor or basement adjacent to shaft			
Safety Stops	Electronic	Emergency Equipment	Yes	
Cab Floor Finish	Vinyl tile	Cab Wall Finish	Plastic laminate vertical panels	





Building Elevators			
Hydraulic Elevators	One car at 3500 LB.		
Overhead Traction Elevators	None		
Freight Elevators	None		
Machinery Condition	Good		
Controls Condition	Good		
Cab Finish Condition	Good		
Other Conveyances	None		
Other Conveyance Condition	N/A		

#### Anticipated Lifecycle Replacements:

Elevator cab finishes

#### Actions/Comments:

- The elevators are serviced by Atlantic Elevator on a routine basis. The elevator machinery and controls were installed in 2011 during building construction.
- The elevators are inspected on an annual basis by the municipality, and a certificate of inspection is displayed in each elevator cab.
- The emergency communication equipment in the elevator cabs appears to be functional. Equipment testing is not within the scope of the work.
- The finishes in the elevator cabs will require replacement. The cost to replace the finishes is relatively insignificant and the work can be performed as part of the property management's operations program.

#### 7.6 FIRE PROTECTION AND SECURITY SYSTEMS

Item	Description						
Sprinkler System Type	Wet pipe						
	Central Alarm Panel	$\boxtimes$	Battery-Operat Detecto			Alarm Horns	
Fire Alarm System	Annunciator Panels		Hard-Wired Detecto		$\boxtimes$	Strobe Light Alarms	
	Pull Stations	ons Emergency Battery-Pack Lighting			Illuminated EXIT Signs	$\boxtimes$	
Alarm System Condition	Good						
Cariaklar Cyatam	None		Standpipes		$\boxtimes$	Backflow Preventer	$\boxtimes$
Sprinkler System	Hose Cabinets		☐ Fire Pumps		$\boxtimes$	Siamese Connections	$\boxtimes$
Suppression Condition	Good						
Central Alarm Panel	Location of Alarm Panel				Installation Date of Alarm Panel		
System	Main Electric	Main Electrical Room Fall 2011			Fall 2011		





Item	Description			
Sprinkler System Type	Wet pipe			
Fire Extinguishers	Last Service Date		Servicing Current?	
Fire Extinguishers	June 2016 Yes		Yes	
Hydrant Location	On site			
Siamese Location	Exterior wall			
Special Systems	Kitchen Suppression System	$\boxtimes$	Computer Room Suppression System	

#### Anticipated Lifecycle Replacements:

- Fire alarm system (upgrade)
- Central alarm panel
- Fire pump / jockey pump
- Backflow preventer (fire sprinkler)
- Kitchen fire suppression system

#### 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 INTERIOR SPACES

#### 8.1 INTERIOR FINISHES

The most significant interior spaces include classrooms, offices, a gymnasium, an auditorium, cafeteria and media center. Supporting areas include hallways, stairs, building entrances, restrooms, staff break rooms, mechanical rooms, and utility closets.

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

Typical Floor Finishes			
Floor Finish	Locations	General Condition	
Resilient flooring (linoleum)	Lobby, hallways, classrooms, cafeteria	Good	
Carpet	Administrative offices, classrooms, media center	Good	
Hardwood	Gymnasium	Good	
Ceramic tile	Restrooms	Good	
Quarry tile	Kitchen	Good	
Unfinished	Mechanical rooms, storage areas	Good	
	Typical Wall Finishes		
Wall Finish	Locations	General Condition	
Painted drywall	Lobby, administrative offices, classrooms, restrooms, cafeteria	Good	
Painted CMU	Kitchen, stairwells, gymnasium	Good	
Decorative wood panel	Lobby and hallways	Good	
Ceramic tile	Restrooms	Good	
	Typical Ceiling Finishes		
Ceiling Finish	Locations	General Condition	
Suspended T-bar (Acoustic)	Throughout Building	Good	
Exposed structure	Gymnasium, mechanical rooms, storage rooms Good		
Decorative wood panel	Cafeteria Good		

Interior Doors				
Item Type Condition				
Interior Doors	Solid core wood	Good		
Door Framing	Metal	Good		





Interior Doors			
Item Type Condition			
Fire Doors	Yes	Good	

#### Anticipated Lifecycle Replacements:

- Carpet tile
- Sheet linoleum
- Wood strip flooring (refinish)
- Interior paint
- Suspended acoustic ceiling tile
- Interior doors
- Interior fire doors
- Toilet partitions
- Casework

#### Actions/Comments:

- The property is relatively new and the interior finishes have not required replacement since the original 2011 construction.
- 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.

#### 8.2 COMMERCIAL KITCHEN & LAUNDRY EQUIPMENT

The cafeteria kitchen has a variety of commercial kitchen appliances, fixtures, and equipment. The equipment is owned and maintained in-house.

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

Commercial Kitchen				
Appliance	Comment	Condition		
Refrigerators	Walk-in, up-right and under counter	Good		
Freezers	Up-right	Good		
Ranges	Gas	Good		
Ovens	Gas	Good		
Griddles / Grills	None	N/A		
Fryers	None	N/A		
Hood	Exhaust ducted to exterior	Good		
Dishwasher	Owned	Good		
Microwave		Good		
Ice Machines		Good		





Commercial Kitchen			
Appliance	Comment	Condition	
Steam Tables		Good	
Work Tables	$\boxtimes$	Good	
Shelving		Good	

Commercial Laundry				
Equipment	Comment	Condition		
Commercial Washing Machines	None			
Commercial Dryers	None			
Residential Washers				
Residential Dryers				

#### Anticipated Lifecycle Replacements:

- Commercial kitchen equipment
- Condensing units for walk-in cooler/freezer

#### 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.





DEDHAM-AVERY ELEMENTARY SCHOOL 366 HIGH STREET DEDHAM, MASSACHUSETTS 02026

EMG PROJECT NO: 121711.16R000-001.322

## 9 OTHER STRUCTURES

Not applicable. There are no major accessory structures.





DEDHAM-AVERY ELEMENTARY SCHOOL 366 HIGH STREET DEDHAM, MASSACHUSETTS 02026

EMG PROJECT NO: 121711.16R000-001.322

#### 10 CERTIFICATION

The Town of Dedham Schools retained EMG to perform this Facility Condition Assessment in connection with its continued operation of Avery Elementary School, 366 High Street, Dedham, Massachusetts, the "Property". It is our understanding that the primary interest of The Town of Dedham 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 2 of this report. This assessment did not include engineering calculations to determine the adequacy of the Property's original design or existing systems. Although walk-through observations were performed, not all areas were observed (See Section 4.2 for areas observed). There may be defects in the Property, which were in areas not observed or readily accessible, may not have been visible, or were not disclosed by management personnel when questioned. The report describes property conditions at the time that the observations and research were conducted.

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

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

Prepared by: Joshua Hogan, PE

Project Manager

Reviewed by:

Scott Williford

**Technical Report Reviewer** 

See Willell

for

Bill Champion

Program Manager

bchampion@emgcorp.com 800.733.0660 x6234





DEDHAM-AVERY ELEMENTARY SCHOOL 366 HIGH STREET DEDHAM, MASSACHUSETTS 02026

EMG PROJECT NO: 121711.16R000-001.322

### 11 APPENDICES

APPENDIX A: PHOTOGRAPHIC RECORD

APPENDIX B: SITE PLAN

APPENDIX C: EMG ACCESSIBILITY CHECKLIST

APPENDIX D: PRE-SURVEY QUESTIONNAIRE





DEDHAM-AVERY ELEMENTARY SCHOOL 366 HIGH STREET DEDHAM, MASSACHUSETTS 02026

EMG PROJECT NO: 121711.16R000-001.322

## **APPENDIX A:**

PHOTOGRAPHIC RECORD





















PHOTO ASPHALT PAVED STAFF PARKING #7: LOT



PHOTO CHAIN LINK FENCING AND CONCRETE SIDEWALK



PHOTO BRICK PAVER WALKWAY AT THE #11: MAIN BUILDING ENTRANCE



PHOTO #8:



PHOTO #10: MINOR CRACKING AT A SECTION OF CONCRETE SIDEWALK



PHOTO UNEVEN BRICK PAVERS ARE 1/2: POTENTIAL TRIP HAZARD







PHOTO PLAYGROUND EQUIPMENT



P<sub>HOTO</sub> CONCRETE KEYSTONE RETAINING #17: WALL





PHOTO #16:



PHOTO #18: STRUCTURAL STEEL FRAMING AND ROOF DECKING







PHOTO LOW-SLOPED SINGLE-PLY THERMOPLASTIC ROOFING





PHOTO EXTERIOR BRICK MASONRY FACADE #21:







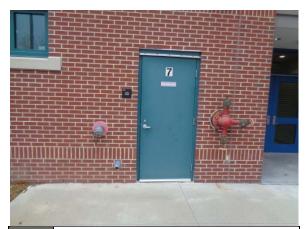


PHOTO WETAL SERVICE DOOR #25:



PHOTO BOILERS #27:





PHOTO BOILER ROOM #26:



PHOTO #28:



PHOTO #30:



#29:



PHOTO #31: CEILING-MOUNTED INDUCTION UNIT



PHOTO HVAC DIRECT DIGITAL CONTROLS #33:

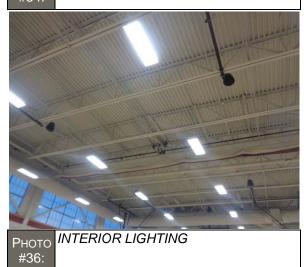




PHOTO HYDRONIC RADIATOR #32:



PHOTO #34:





**EMERGENCY GENERATOR** Рното



FIRE PUMP Рното #39:



**ELEVATOR MACHINERY** Рното #41:



PHOTO MAIN FIRE ALARM PANEL #38:



PHOTO FIRE/LIFE SAFETY DEVICES #40:



#42:



MAIN ENTRANCE VESTIBULE Рното #43:



RESTROOM **FINISHES AND** Рното

**FIXTURES** 



HALLWAY FINISHES Рното



PHOTO GYMNASIUM #46:



CAFETERIA **KITCHEN** AND Рното COMMERCIAL KITCHEN EQUIPMENT #48:



#47:

#45:

DEDHAM-AVERY ELEMENTARY SCHOOL 366 HIGH STREET DEDHAM, MASSACHUSETTS 02026

EMG PROJECT NO: 121711.16R000-001.322

## **APPENDIX B:**

SITE PLAN





## Site Plan



-	_				
ı	ρ	n	11	ill	
U	U		L	Ш	
•			7	IJ,	,

Project Name:	Project Number:
Dedham – Avery Elementary School	121711.16R000-001.322
Source:	On-Site Date:
Google Earth	October 18, 2016

DEDHAM-AVERY ELEMENTARY SCHOOL 366 HIGH STREET DEDHAM, MASSACHUSETTS 02026

EMG PROJECT NO: 121711.16R000-001.322

## **APPENDIX C:**

EMG ACCESSIBILITY CHECKLIST





Date Completed: October 18, 2016

**Property Name: Dedham-Avery Elementary School** 

EMG Project Number: 121711.16R000-001.322

	Building History	Yes	No	Unk	Comments
1	Has an ADA survey previously been completed for this property?		√		Building was constructed in 2011 and is reported to be in compliance with current ADA standards.
2	Have any ADA improvements been made to the property?		√		
3	Does a Transition Plan / Barrier Removal Plan exist for the property?		√		
4	Has building ownership or management received any ADA related complaints that have not been resolved?		√		
5	Is any litigation pending related to ADA issues?		√		
	Parking	Yes	No	NA	Comments
1	Are there sufficient accessible parking spaces with respect to the total number of reported spaces?		√		An additional ADA compliant car parking stall is required.
2	Are there sufficient van-accessible parking spaces available?	√			
3	Are accessible spaces marked with the International Symbol of Accessibility? Are there signs reading "Van Accessible" at van spaces?	√			
4	Is there at least one accessible route provided within the boundary of the site from public transportation stops, accessible parking spaces, passenger loading zones, if provided, and public streets and sidewalks?	<b>√</b>			
5	Do curbs on the accessible route have depressed, ramped curb cuts at drives, paths, and drop-offs?	√			
6	If required does signage exist directing you to accessible parking and an accessible building entrance?	√			
	Ramps	Yes	No	NA	Comments
1*	Do all ramps along accessible path of travel appear to meet slope requirements? (1:12 or less)			√	
2	Are ramps that appear longer than 6 ft complete with railings on both sides?			√	
3	Does the width between railings appear at least 36 inches?			√	

	Ramps (cont.)	Yes	No	NA	Comments
4	Is there a level landing for approximately every 30 ft horizontal length of ramp, at the top and at the bottom of ramps and switchbacks?			√	
	Entrances/Exits	Yes	No	NA	Comments
1	Do all required accessible entrance doorways appear at least 32 inches wide and not a revolving door?	√			
2	If the main entrance is inaccessible, are there alternate accessible entrances?	√			
3	Is the door hardware easy to operate (lever/push type hardware, no twisting required and not higher than approximately 48 inches above the floor)?	<b>√</b>			Automatic door opener at main entrance vestibule.
	Paths of Travel	Yes	No	NA	Comments
1	Are all paths of travel free of obstruction and wide enough for a wheelchair (appear at least 36 inches wide)?	<b>√</b>			
2	Are wheelchair-accessible facilities (toilet rooms, exits, etc.) identified with signage?	<b>√</b>			
3	Is there a path of travel that does not require the use of stairs?	<b>√</b>			
	Elevators	Yes	No	NA	Comments
1	Do the call buttons have visual and audible signals to indicate when a call is registered and answered when car arrives?	<b>√</b>			
2	Are there visual and audible signals inside cars indicating floor change?	<b>√</b>			
3	Are there standard raised and Braille marking on both jambs of each hoist way entrance as well as all cab/call buttons?	√			
4	Do elevator doors have a reopening device that will stop and reopen a car door if an object or a person obstructs the door?	<b>√</b>			
5	Are elevator controls low enough to be reached from a wheelchair (appears to be between 15 and 48 inches)?	√			
6	If a two-way emergency communication system is provided within the elevator cab, is it usable without voice communication?	√			

	Toilet Rooms	Yes	No	NA	Comments
1	Are common area public restrooms located on an accessible route?	<b>√</b>			
2	Are pull handles push/pull or lever type?	√			
3	Are there audible and visual fire alarm devices in the toilet rooms?	<b>√</b>			
4	Are toilet room access doors wheelchair-accessible (appear to be at least 32 inches wide)?	<b>√</b>			
5	Are public restrooms large enough to accommodate a wheelchair turnaround (appear to have 60" turning diameter)?	√			
6	In unisex toilet rooms, are there safety alarms with pull cords?			<b>~</b>	Not required as building has no current system
7	Are toilet stall doors wheelchair accessible (appear to be at least 32" wide)?	<b>√</b>			
8	Are grab bars provided in toilet stalls?	<b>√</b>			
9	Are sinks provided with clearance for a wheelchair to roll under (appear to have 29" clearance)?	√			
10	Are sink handles operable with one hand without grasping, pinching or twisting?	<b>√</b>			
11	Are exposed pipes under sink sufficiently insulated against contact?	<b>√</b>			
	Guest Rooms	Yes	No	NA	Comments
1	How many total accessible sleeping rooms does the property management report to have? Provide specific number in comment field.  Are there sufficient reported accessible sleeping rooms with respect to the total number of reported guestrooms? See attached hot sheet.			√	

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

<sup>\*</sup>Based on visual observation only. The slope was not confirmed through measurements.

DEDHAM-AVERY ELEMENTARY SCHOOL 366 HIGH STREET DEDHAM, MASSACHUSETTS 02026

EMG PROJECT NO: 121711.16R000-001.322

## **APPENDIX D:**

PRE-SURVEY QUESTIONNAIRE







Name of Institution:

construction defects at the

property?

## FCA (Town of Dedham Schools) **Pre-Survey Questionnaire**

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

Name of Institution:	Tto	red has	m		
Name of Building: Avery Elem	intery	School	Buildin	g #:	
Name of person completing questionnaire				1	
Longth of Association Wild due	Bob		dou	sky	
Length of Association With the Property:	2011-	2015			Phone Number: (774) 266-6516
					(111) 200 0516
		Site Info	ormatio	n III	
Year of Construction?	30	011			
No. of Stories?	100	3 Floors.			
Total Site Area?		Acres	5		
Total Building Area?	61,00	Sqft Sqft			
Inspections	Date	of Last Inspe	ction		int of A-v O
1. Elevators					ist of Any Outstanding Repairs Required
2. HVAC Mechanical, Electric, Plumbing?		Somner 2016			
3. Life-Safety/Fire?		Fall 7016			
4. Roofs?	COL	Per 2011	8	No	
The state of the s	Full	2015		No	
Key Questions	A		THE STATE OF		Pagnaga
Major Capital Improvements in Last 3 yrs.	W-11 11	None			Response
Planned Capital Expenditure For Next Year?		. 1			
Age of the Roof?		None		1	
What bldg. Systems Are Responsibilities of		2011 -	orgiv	Kel	
enants? (HVAC/Roof/Interior/Exterior/Pavir	nø)	N/A			
	16/	11.			
Mark the column corresponding to the	annronr	iato rospons	o Dian		
backup documentation for an	Voc roc	nate respons	e. Piea.	se provid	e additional details in the Comments column,
	ly res les	ponses. (NA	4 indica	tes "Not /	Applicable", <b>Unk</b> indicates "Unknown")
QUESTION	Y	N Unk	NA		COMMENTS
Zo	NING, B	UILDING DE	SIGN &	LIFE SAF	ETY ISSUES
Are there any uprecelved by the		/			
fire, or zoning code issues?					
27 51 251mig code issues!					
Is there any pending litigation		/			
concerning the property?	V				
Are there any other significant					
issues/hazards with the property?	V				
	<del>                                     </del>				
Are there any unresolved	F 1	1 1			



# FCA (Town of Dedham Schools) Pre-Survey Questionnaire

	5	Has any part of the property ever contained visible suspect mold growth?		~			
	٨	Mark the column corresponding to the backup documentation for an	J appr y Yes	opriate respor	e respon	nse. Pl VA indi	lease provide additional details in the Comments column, or icates "Not Applicable", <b>Unk</b> indicates "Unknown")
		QUESTION	Y	N	Unk	NA	
(	5	Is there a mold Operations and Maintenance Plan?		1			COMMENIS
7	7	Are there any recalled fire sprinkler heads (Star, GEM, Central, and Omega)?		/			
8		Have there been indoor air quality or mold related complaints from tenants?		<b>√</b>			
			Ē		GEN	ERAL S	SITE .
9		Are there any problems with erosion, storm water drainage or areas of paving that do not drain?			1		· will be confirmed upon inspection
10		Are there any problems with the landscape irrigation systems?		V			Impation for practice Field
	T			В	JILDING	STRU	JCTURE
11	1	Are there any problems with oundations or structures?					
12	I	s there any water infiltration in pasements or crawl spaces?					No basement
13	İir	las a termite/wood boring insect enspection been performed within the last year?					
				Bu	ILDING	ENVE	LOPE
14		re there any wall, or window aks?	,	/			
15	Aı	re there any roof leaks?	V				
16		the roofing covered by a arranty or bond?				1	Manufactures's warrenty
		e there any poorly insulated eas?					



## FCA (Town of Dedham Schools) Pre-Survey Questionnaire

		/		-		-1 1 11		_
18	Is Fire Retardant Treated (FRT) plywood used?	~				Potentially,	n some areas	
19	Is exterior insulation and finish system (EIFS) or a synthetic stucco finish used?		1					
Ν	Mark the column corresponding to the backup documentation for an	appro	priate respon	respons	se. Plea <b>A</b> indic	ase provide additional a ates "Not Applicable"	details in the Comments column, or	_
	QUESTION	Υ	N	Unk	NA		COMMENTS	
			BUILDI	NG HV	AC AN	DELECTRICAL		
20	Are there any leaks or pressure problems with natural gas service?		/					
21	Does any part of the electrical system use aluminum wiring?		/					
22	Do Residential units have a less than 60-Amp service?		/					
23	Do Commercial units have less than 200-Amp service?		/					
24	Are there any problems with the utilities, such as inadequate capacities?		/					
					ADA			
25	Has the management previously completed an ADA review?		/			· Building Co	instructed in compliance	
26	Have any ADA improvements been made to the property?		/	7				
27	Does a Barrier Removal Plan exist for the property?		/					
28	Has the Barrier Removal Plan been approved by an arms-length third party?							
29	Has building ownership or management received any ADA related complaints?		/					
30	Does elevator equipment require upgrades to meet ADA standards?		/					



## FCA (Town of Dedham Schools) **Pre-Survey Questionnaire**

Tree.			PLUM	BING		
31	Is the property served by private water well?					
32	Is the property served by a private septic system or other waste treatment systems?					
33	Is polybutylene piping used?	<b>V</b>				
34	Are there any plumbing leaks or water pressure problems?					
					0.01	
1.	Additional	Issues or Co	ncerns T	hat EN	IG Should	d Know About?
2.						
3.						
		Su			A - 170-	
115		Items Pi	Yes	No	Auditor:	Additional Comments?
Acc	ess to All Mechanical Spaces		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	П		
	ess to Roof/Attic Space		<u> </u>			
	ess to Building As-Built Drawings		प			
	plan with bldg., roads, parking and other fea	atures		包		
	tact Details for Mech, Elevator, Roof, Fire Co			~		
	of Commercial Tenants in the property					
	vious reports pertaining to the physical operty.	condition of		Q'		
ADA survey and status of improvements implemented.				<b>1</b>		
			_			
					M	
Cur	A survey and status of improvements implem rent / pending litigation related to property r brochures or marketing information.				M	

366 HIGH STREET

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.
- 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.



