FACILITIES NEEDS ASSESSMENT

STAMFORD PUBLIC SCHOOLS

888 Washington Boulevard
Stamford, Connecticut 06901
Domenick Tramontozzi

FACILITIES NEEDS ASSESSMENT

OF

NEWFIELD ELEMENTARY SCHOOL

345 Pepper Ridge Road
Stamford, Connecticut 06905

PREPARED BY:

EMG
222 Schilling Circle, Suite 275
Hunt Valley, Maryland 21031
800.733.0660
410.785.6220 (fax)
www.emgcorp.com

EMG CONTACT:

Bill Champion
Director - Asset Management Consulting
800.733.0660, x6234
bchampion@emgcorp.com

EMG Project #:	88166.09R-012.017
Date of Report:	August 29, 2009
On site Date:	March 17, 2009

Replacement Reserves Report
Elementary Schools / Newfield Elementary, Elementary Schools / Newfield Elementary / Storage Building
8/29/2009

Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Inflation	3.0%	4.0%	4.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%

Elementary Schools / Newfield Elementary

Report Section	ID	Cost Description	Lifespan (EUL)	Observed Age (EAge)	Remaining Life (RUL)	Quantity	Unit	Unit Cost *	Subtotal	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Deficiency Repair Estimate
1.2	2313	Measured ADA Study of Property	0	0	0	1	EA	$6,930.00	$6,930	$6,930										**$6,930**
1.2	2314	Mold Study at Buildings	0	0	0	1	EA	$3,339.00	$3,339	$3,339										**$3,339**
1.2	2403	Termite Damage Inspection	0	0	0	4	1000 SF	$315.00	$1,260	$1,260										**$1,260**
1.2	2529	HVAC system study	0	0	0	1	EA	$9,135.00	$9,135	$9,135										**$9,135**
1.2	2336	Follow-up Review by a Structural Engineer	0	0	0	1	EA	$8,190.00	$8,190	$8,190										**$8,190**
1.2	2404	Termidor Termite Treatment at building perimeter	0	0	0	2250	LF	$10.71	$24,098	$24,098										**$24,098**
3.1	2321	ADA, lower existing toilet room accessories and mirrors	0	0	0	1	EA	$115.11	$115	$115										**$115**
3.1	2319	Add ADA Grab Bar and blocking	20	19	1	1	EA	$1,575.00	$1,575		$1,575									**$1,575**
3.1	2318	ADA, Renovate restroom for full compliance	20	19	1	6	EA	$15,120.00	$90,720		$90,720									**$90,720**
3.1	2320	ADA Strobe Fire Alarm	15	15	0	6	EA	$630.00	$3,780	$3,780										**$3,780**
3.1	2317	Regrade and level ADA parking stall	0	0	0	4	EA	$6,887.16	$27,549	$27,549										**$27,549**
3.1	2316	ADA, Install curb cut, concrete, 6" rise	25	24	1	1	EA	$1,164.34	$1,164		$1,164									**$1,164**
3.1	2315	ADA - Install signage indicating Van Accessible Parking, pole mounted	0	0	0	1	Sign	$134.01	$134	$134										**$134**
3.1	2325	ADA, install new H/C access ramp, 3' wide, railings both sides	25	24	1	100	LF	$604.88	$60,488		$60,488									**$60,488**
3.1	2322	ADA, Wrap drain pipes below accessible lavatory	0	0	0	3	EA	$81.90	$246	$246										**$246**
5.2	2533	Seal Coat and stripe asphalt, no repairs	5	1	4	2	10000 SF	$4,315.53	$8,631					$8,631					$8,631	**$17,262**
5.2	2530	Overlay asphalt	10	9	1	15	1000 SF	$963.02	$14,445		$14,445									**$14,445**
5.2	2531	Cut & Patch asphalt	10	9	1	100	SF	$3.86	$386		$386									**$386**
5.2	2939	New Asphalt path 4' wide	20	19	1	20	LF	$15.88	$318		$318									**$318**
5.2	2535	Remove & replace 4' wide concrete sidewalk	25	24	1	54	LF	$40.65	$2,195		$2,195									**$2,195**
5.2	2534	Seal asphalt play area	7	6	1	3	1000 SF	$545.83	$1,637									$1,637		**$3,275**
5.5	6513	Replace 2-inch copper pipe	25	25	0	250	LF	$62.31	$15,577	$15,577										**$15,577**
5.5	2940	High pressure sodium fixture 250 W	20	20	0	20	EA	$1,239.56	$24,791	$24,791										**$24,791**
5.5	2543	Replace chain link fence, 6-foot high	20	19	1	1000	LF	$37.31	$37,309		$37,309									**$37,309**
5.5	2537	Entry sign replacement allowance	25	25	0	1	EA	$6,300.00	$6,300	$6,300										**$6,300**
5.5	2942	Replace metal bench, 8' long	20	19	1	4	EA	$687.96	$2,752		$2,752									**$2,752**
5.5	2546	Replace bleacher, outdoor portable, 3 to 5 tiers, per seat	20	17	3	96	Seat	$116.80	$11,213				$11,213							**$11,213**
5.5	2545	Replace basketball backstop, 3' wide 12' high	25	16	9	3	EA	$6,122.09	$18,366										$18,366	**$18,366**
5.5	2547	Replace baseball backstop, large	20	15	5	2	EA	$11,748.24	$23,496						$23,496					**$23,496**
5.5	6511	Install underground irrigation system	0	0	0	80000	SF	$1.26	$100,800	$100,800										**$100,800**
5.5	2538	Replace Aluminum light pole, pole and base only	20	20	0	1	EA	$3,640.85	$3,641	$3,641										**$3,641**
5.5	2941	New Aluminum pole-mounted double light 400 W HPS fixture and pole	0	0	0	6	EA	$8,651.16	$51,907	$51,907										**$51,907**
6.2	2400	Replace 3 Columns and gate	0	0	0	1	EA	$22,050.00	$22,050	$22,050										**$22,050**
6.3	12154	Stamford Roof Assessment - EPDM Replacement	20	20	0	51	SQ	$1,595.75	$81,383	$81,383										**$81,383**
6.3	12156	Stamford Roof Assessment - EPDM Replacement	20	11	9	624	SQ	$1,595.75	$995,745										$995,745	**$995,745**
6.3	12153	Stamford Roof Assessment Roof Repair Recommendations	0	0	0	1	EA	$3,455.44	$3,455	$3,455										**$3,455**
6.3	2335	Add Roof drain to canopy	30	29	1	2	EA	$10,080.00	$20,160		$20,160									**$20,160**
6.3	2334	Replace skylight & structure single unit	40	38	2	20	CSF	$5,361.30	$107,226			$107,226								**$107,226**
6.3	2402	Aluminum grille below skylight	20	20	0	8	EA	$321.30	$2,570	$2,570										**$2,570**

Replacement Reserves Report
Elementary Schools / Newfield Elementary, Elementary Schools / Newfield Elementary / Storage Building
8/29/2009

Report Section	ID	Cost Description	Lifespan (EUL)	Observed Age (EAge)	Remaining Life (RUL)	Quantity	Unit	Unit Cost *	Subtotal	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Deficiency Repair Estimate
6.3	2401	Replace round plexi-glass skylights	15	15	0	6	EA	$360.36	$2,162	$2,162										**$2,162**
6.3	2333	Replace skylight & structure single unit	40	33	7	4	CSF	$5,361.30	$21,445								$21,445			**$21,445**
6.3	2337	Replace roof hatch	25	25	0	1	EA	$1,770.31	$1,770	$1,770										**$1,770**
6.3	3515	Epoxy Mortar Repair for Concrete Structure	0	0	0	120	SF	$472.50	$56,700	$56,700										**$56,700**
6.4	2340	Paint existing wood siding, one coat, spray with medium prep and clean up	10	7	3	6750	SF	$1.56	$10,546				$10,546							**$10,546**
6.4	2341	Remove and replace plywood siding	0	0	0	7750	SF	$4.94	$38,279	$38,279										**$38,279**
6.4	2338	Caulking, polyurethane,1/4"x1/4", remove and replace	15	6	9	2500	LF	$4.84	$12,096										$12,096	**$12,096**
6.4	2339	Recaulk expansion and control joints up to 1/2" wide	10	9	1	2000	LF	$16.58	$33,163		$33,163									**$33,163**
6.4	6521	Point brick wall upper floor	10	10	0	7	CSF	$1,301.58	$9,111	$9,111										**$9,111**
6.4	6522	Brick Masonry Repair Allowance	0	0	0	75	SF Face	$94.50	$7,088	$7,088										**$7,088**
6.6	2343	Minor repairs to concrete loading dock	0	0	0	25	SF	$50.84	$1,271	$1,271										**$1,271**
6.6	2342	Replace 3'-0" x 7'-0" aluminum storefront doors	50	49	1	1	EA	$3,150.00	$3,150		$3,150									**$3,150**
6.6	2344	Replace loading dock bumpers 6"thick 10" high 36"long	10	8	2	6	EA	$242.30	$1,454			$1,454								**$1,454**
6.8	2406	Minor structural wood stud repairs	0	0	0	2320	SF	$4.41	$10,231	$10,231										**$10,231**
6.8	2349	Replace vinyl wall covering	15	11	4	150	CSF	$477.54	$71,631					$71,631						**$71,631**
6.8	2405	Stained wood paneling replacement	25	23	2	2320	SF	$18.26	$42,357			$42,357								**$42,357**
6.8	2353	Sand and refinish hardwood floor	10	7	3	5000	SF	$6.93	$34,650				$34,650							**$34,650**
6.8	2351	Replace Vinyl tile	18	14	4	5500	SY	$81.90	$450,450					$450,450						**$450,450**
6.8	2345	Replace carpet - standard commercial	8	6	2	375	SY	$63.23	$23,710			$23,710								**$23,710**
6.8	2352	Replace acoustical ceiling tile system, fire rated,including demo	20	16	4	500	CSF	$627.48	$313,740					$313,740						**$313,740**
6.8	6496	Stamford - Lead Abatement Allowance	0	0	0	75000	SF	$2.52	$189,000	$189,000										**$189,000**
6.8	6493	Asbestos floor tile and mastic removal	0	0	0	1000	SF	$4.10	$4,095	$4,095										**$4,095**
7.1	2938	Install Air-Conditioning at entire building	30	29	1	75000	SF	$20.16	$1,512,000		$1,512,000									**$1,512,000**
7.1	2555	Replace air handler 8,000 to 12,000 CFM	20	19	1	18000	CFM	$1.68	$30,164		$30,164									**$30,164**
7.1	6523	Stamford allowance - bath exhaust upgrade	0	0	0	1	EA	$100,800.00	$100,800	$100,800										**$100,800**
7.1	2554	Replace baseboard radiator finned tube 3/4" copper	35	33	2	700	LF	$38.15	$26,707			$26,707								**$26,707**
7.1	2945	PTAC through the wall unit 1-ton	10	4	6	20	EA	$941.85	$18,837							$18,837				**$18,837**
7.1	2551	Replace rooftop unit 20-50 tons (heating and cooling)	20	19	1	1 @ 40	Ton	$1,512.00	$60,480		$60,480									**$60,480**
7.1	2553	Replace rooftop unit 5-10 tons (heating and cooling)	15	7	8	2 @ 5	Ton	$1,688.40	$16,884									$16,884		**$16,884**
7.2	3484	Replace counter top sink and faucet	35	30	5	24	EA	$872.99	$20,952						$20,952					**$20,952**
7.2	3483	Replace drinking fountain	10	3	7	17	EA	$1,505.70	$25,597								$25,597			**$25,597**
7.2	6508	Capital Plan - Install outdoor drinking fountain, pedestal type	0	0	0	4	EA	$2,451.56	$9,806	$9,806										**$9,806**
7.2	6509	Capital Plan - Install one inch copper pipe for drinking fountain	0	0	0	100	LF	$31.63	$3,163	$3,163										**$3,163**
7.2	6524	Replace 2-inch copper pipe	25	24	1	1100	LF	$62.31	$68,538		$68,538									**$68,538**
7.2	6494	Asbestos insultion renoval from pipe 5 to 8-inch dia	0	0	0	200	LF	$21.29	$4,259	$4,259										**$4,259**
7.4	6498	Capital Plan -Add Electrical Distribution for Classroom and Office Technology	20	20	0	75000	SF	$2.52	$189,000	$189,000										**$189,000**
7.4	2560	Breaker panel 225 amps, 32 circuits	40	39	1	2	EA	$3,445.85	$6,892		$6,892									**$6,892**
7.4	2562	Breaker panel 100 amps, comm. 14 circuits	40	39	1	4	EA	$1,798.27	$7,193		$7,193									**$7,193**
7.4	6501	Upgrade lighting for energy conservation	0	0	0	75000	SF	$5.92	$444,150	$444,150										**$444,150**
7.4	6499	Capital Plan - Communications & Security including alarms,internet wiring, communication systems and emergency lighting	15	15	0	75000	SF	$3.15	$236,250	$236,250										**$236,250**
7.4	6497	Capital Plan - Clock and Bell System	15	15	0	50	EA	$1,244.07	$62,204	$62,204										**$62,204**
7.4	2911	Room intercom units	10	4	6	26	EA	$205.54	$5,344							$5,344				**$5,344**
7.4	2908	Replace stage lighting equipment	15	6	9	1	EA	$19,026.00	$19,026										$19,026	**$19,026**

Replacement Reserves Report
Elementary Schools / Newfield Elementary, Elementary Schools / Newfield Elementary / Storage Building
8/29/2009

Report Section	ID	Cost Description	Lifespan (EUL)	Observed Age (EAge)	Remaining Life (RUL)	Quantity	Unit	Unit Cost *	Subtotal	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Deficiency Repair Estimate
7.4	2910	School Stage Audio Equipment	15	6	9	1	EA	$5,386.50	$5,387										$5,387	**$5,387**
7.6	2575	Install Ansul System at kitchen hood	20	20	0	1	EA	$5,990.29	$5,990	$5,990										**$5,990**
7.6	3354	Install surface mtd 1-inch electrical conduit and wire for new devices	40	40	0	1200	LF	$20.48	$24,570	$24,570										**$24,570**
7.6	2573	Fire alarm panel addressable, with voice	15	10	5	1	EA	$15,264.77	$15,265						$15,265					**$15,265**
7.6	3352	Install exit light wall mtd,single face	12	12	0	6	EA	$168.84	$1,013	$1,013										**$1,013**
7.6	3349	Install UPS batteries and Transformer 1.0 kva	20	20	0	10	CSF	$5,856.48	$58,565	$58,565										**$58,565**
7.6	3356	Emergency lights,self contained fluorescent	15	15	0	8	EA	$261.63	$2,093	$2,093										**$2,093**
7.6	3355	Install Exit light wall mtd,double face	12	12	0	6	EA	$199.08	$1,194	$1,194										**$1,194**
7.6	3353	Emergency lights,self contained fluorescent	15	15	0	6	EA	$261.63	$1,570	$1,570										**$1,570**
8.1	2348	Paint interior walls, drywall	5	2	3	7500	SF	$1.06	$7,938				$7,938					$7,938		**$15,876**
8.1	2347	Paint interior walls, CMU,including surface prep	7	4	3	13000	SF	$1.12	$14,578				$14,578							**$14,578**
8.2	2594	Replace gas Bake oven one section	20	11	9	4	EA	$6,783.99	$27,136										$27,136	**$27,136**
8.2	2578	Replace Reach in refrigerator 68 CF	15	8	7	1	EA	$8,884.56	$8,885								$8,885			**$8,885**
8.2	2598	Replace cooler 6' long	15	7	8	1	EA	$5,898.46	$5,898									$5,898		**$5,898**
8.2	2579	Replace Reach in Freezer 68 CF	15	8	7	1	EA	$9,179.86	$9,180								$9,180			**$9,180**
8.2	2596	Range 6-burner 60" wide w/griddle	20	11	9	1	EA	$9,158.34	$9,158										$9,158	**$9,158**
8.2	2937	Dishwasher commercial rack type 10 to 12 per hour	15	8	7	1	EA	$6,696.50	$6,696								$6,696			**$6,696**
Totals, Unescalated										**$1,861,583**	**$1,954,728**	**$201,454**	**$78,925**	**$844,452**	**$59,713**	**$24,181**	**$71,803**	**$32,358**	**$1,095,545**	**$6,224,744**
Soft Costs:																				
Architectural/Consultant Fees (10.0%)										**$186,158**	**$195,473**	**$20,145**	**$7,893**	**$84,445**	**$5,971**	**$2,418**	**$7,180**	**$3,236**	**$109,555**	**$622,474**
General Requirements (Bonds, Insurance, GC/CM Mark-up) (10.0%)										**$186,158**	**$195,473**	**$20,145**	**$7,893**	**$84,445**	**$5,971**	**$2,418**	**$7,180**	**$3,236**	**$109,555**	**$622,474**
Prevailing Wage/Labor Compliance (5.0%)										**$93,079**	**$97,736**	**$10,073**	**$3,946**	**$42,223**	**$2,986**	**$1,209**	**$3,590**	**$1,618**	**$54,777**	**$311,237**
Contingency (5.0%)										**$93,079**	**$97,736**	**$10,073**	**$3,946**	**$42,223**	**$2,986**	**$1,209**	**$3,590**	**$1,618**	**$54,777**	**$311,237**
Location Factor (1.11)										**$199,189**	**$209,156**	**$21,556**	**$8,445**	**$90,356**	**$6,389**	**$2,587**	**$7,683**	**$3,462**	**$117,223**	**$666,048**
Totals, Escalated (see inflation table above)										**$2,619,248**	**$2,832,812**	**$303,627**	**$123,713**	**$1,389,832**	**$103,192**	**$43,878**	**$136,804**	**$64,733**	**$2,301,252**	**$9,919,089**

* Markup has been included in unit costs.

Elementary Schools / Newfield Elementary / Storage Building

Report Section	ID	Cost Description	Lifespan (EUL)	Observed Age (EAge)	Remaining Life (RUL)	Quantity	Unit	Unit Cost *	Subtotal	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Deficiency Repair Estimate
Totals, Unescalated										**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Soft Costs:																				
Architectural/Consultant Fees (10.0%)										**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
General Requirements (Bonds, Insurance, GC/CM Mark-up) (10.0%)										**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Prevailing Wage/Labor Compliance (5.0%)										**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Contingency (5.0%)										**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Location Factor (1.11)										**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Totals, Escalated (see inflation table above)										**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**

* Markup has been included in unit costs.

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CERTIFICATION

EMG has completed a Comprehensive Facilities Needs Assessment of the subject property, Newfield Elementary School, located at 345 Pepper Ridge Road, in Stamford, Connecticut.

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 Physical Plant personnel 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 evaluation 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 the Physical Plant personnel when questioned. The report describes property conditions at the time that the observations and research were conducted.

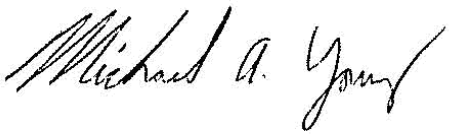
This report has been prepared on behalf of and exclusively for the use of City of Stamford, Connecticut Public Schools for the purpose stated within Section 2.0 of this report. The report, or any excerpt thereof, shall not be used by any party other than City of Stamford, Connecticut Public Schools or for any other purpose than that specifically stated in our agreement or within Section 2.0 of this report without the express written consent of EMG.

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

Any questions regarding this report should be directed to Bill Champion at bchampion@emgcorp.com or at (800) 733-0660, Extension 6234.

Prepared by: Jill Orlov and Mark Chamberlain, Field Observers

Reviewed by:



Michael A. Young
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Bill Champion
Director - Asset Management Consulting
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1. EXECUTIVE SUMMARY

1.1. SUMMARY OF FINDINGS

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:	345 Pepper Ridge Road, Stamford, Fairfield County, Connecticut, 06905
Year constructed:	1954 Additions in 1993 Renovation in 1995 included Media Center, main entrance finishes, skylight and partial roof replacement Portables were relocated to this school approximately three to over ten years ago.
Current owner of property:	City of Stamford
School occupying building:	Newfield Elementary School
Current usage of property:	Elementary School
Management Point of Contact:	City of Stamford Engineering, Domenic Tramontozzi and Robert Gerbert, Jr. 203.977.5534 phone 203.977.4137 fax
Site acreage:	12 acres
Gross floor area:	75,000 Square Feet
Number of buildings:	One
Number of stories:	One
Parking type and number of spaces:	85 spaces in open lots.
Building construction:	Masonry bearing walls and metal-framed roofs. Wings are steel post construction with metal-framed roofs.
Bay Column Spacing:	Approximately 18 Feet
Interior vertical clearance:	Approximately ten to 12 feet
Roof construction:	Flat roofs with single ply membrane
Exterior Finishes:	Brick veneer and curtain wall. Isolated Exterior Insulation Finish System (EIFS) at covered doors at end of each classroom wing. A portion of the Media Center is finished with factory finished ceramic glazed panels.

Property Information	
Heating and/or Air-conditioning:	Central heating system with two steam boilers, supplies the perimeter radiant heat units and cabinet heaters. Central heating and cooling system for the Media Center with one Rooftop Package Unit (RTU). Packaged rooftop units supply modular classrooms. Individual, window-mounted, air-conditioning units at offices and some classrooms
Fire and Life/Safety:	Fire alarm system, security system, fire sprinklers, hydrants, smoke detectors, alarms, fire extinguishers
Dates of visit:	March 17, 2009
Point of Contact (POC):	Miriam Arango and Victor Ponce

Generally, the property appears to have been constructed within industry standards in force at the time of construction. The property appears to have been maintained in recent years and is in good to fair overall condition.

According to City of Stamford Public Schools personnel, the property has had a limited capital improvement expenditure program over the past three or more years, primarily consisting of a new PA system (four years ago) and new windows (six years ago). Supporting documentation was not provided in support of these claims but some of the work is evident.

1.2. FOLLOW-UP RECOMMENDATIONS

The following studies are recommended:

- Both parking lots for this school are located down moderate to steep slopes from the entrance. The only designated stalls are parallel parking along the front sidewalk. There appears to be no space for access aisles. These stalls are not compliant. Some of the public restrooms are not fully handicapped accessible. They may be able to be modified by demolishing one stall and turning it into an accessible stall, but due to local codes, it may not be permissible to lose a stall. The B wing playground and court area are accessible except there is no accessible route to it, only stair and moderate slope route through the grass. An accessibility specialist must be retained to analyze the existing condition, provide recommendations and, if necessary, estimate the scope and cost of any required repairs. The estimated cost to retain a specialist is included in the Replacement Reserves Report. Separate itemized costs for various interim accessibility items are included in the Replacement Reserves Report.
- Based on the numerous locations of isolated suspect mold and moisture, a mold assessment should be conducted by a health and safety professional with experience performing microbial investigations. In addition, the source of this moisture should be addressed in order to prevent future mold problems. The estimated costs of corrective action shall be determined as part of the mold assessment recommended. See Section 3.3 for further information. The estimated costs are included in the Replacement Reserves Report.

- The exposed soffit at the front elevation covered walkway is in good to poor condition. Spalling, flaking and damaged areas were observed in isolated areas throughout the canopy. Epoxy injection patching or sectional replacement will be required. The larger areas of damage will require steel reinforcing tied into the existing sections. A professional structural engineer must be retained to analyze the existing condition, provide recommendations and, if necessary, estimate the scope and cost of any required repairs. The estimated cost to retain an engineer is included in the Replacement Reserves Report. A cost allowance to repair or replace the affected sections of the canopy is included in the Replacement Reserves Report – see Section 6.3.
- Suspect termite damage was observed in the auditorium. Dry rotted wood studs and paneling were observed at the rear and side walls. A local, licensed exterminator must be retained to treat the property as required to eliminate the pest and associated threat. The estimated cost of this work is included in the Replacement Reserves Report. In addition to this work, an annual termite inspection program must be instituted. An engineering professional with experience in structural damage due to insects must be retained to evaluate the extent of damage in hidden conditions. The estimated cost to retain an engineering professional is included in the Replacement Reserves Report.
- The building is not equipped with central cooling. The areas supplied with cooling are as follows: modular classrooms, media center, offices and some classrooms. It is recommended that an HVAC contractor evaluate the building for the potential reconfigure and design of installing a central cooling system for the entire building. This would allow for a more comfortable indoor environment in the building throughout the year. The cost of the follow-up evaluation is included in the Replacement Reserves Report.
- There are reported unresolved Fire Code violations. See Section 3.2 of the Facilities Needs Assessment for further information.

The following issues should be considered.

- Verify that any alterations, installations, or other improvements since the project was first constructed and occupied have been properly permitted and approved by municipal agencies.
- Verify that no defective materials or equipment are used at the property.

1.3. OPINIONS OF PROBABLE COST

The estimates for the repair and capital reserves items noted within this PCR are attached to the front of this report, following the cover page.

These estimates are based on invoices and/or bid documents provided by the Owner and/or facility, 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.

1.3.1. Methodology

Based upon our observations, research and judgment, along with consulting commonly accepted empirical Expected Useful Life (EUL) tables; EMG will render our opinion as to when a system or component will most probably necessitate replacement. Accurate historical replacement records provided by the facility manager are typically the best source for this data. Exposure to the weather elements, initial system quality and installation, extent of use, the quality and amount of preventive maintenance exercised 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 age. The Remaining Useful Life (RUL) of a component or system equals the EUL less its effective age.

In addition to determining the EUL and the RUL for each major prime system and building component, EMG will categorize each cited deficiency within one of the following four Priorities:

Priority 1: Currently Critical (Immediate)

Items in this category require immediate action and include corrective measures to:

- Return a building component to normal operation
- Stop accelerated deterioration
- Replace items that have reached or exceeded their useful service life
- Correct a cited safety hazard

Priority 2: Potentially Critical (Years 1-2)

Items in this category require action in the next 1-2 years and include corrective measures to:

- Return a building component to normal operation
- Stop rapid deterioration
- Correct potential life safety issues and/or code hazards
- Correct building components that are experiencing Intermittent operations

Priority 3: Necessary – Not Yet Critical (Years 3-5)

Items in this category require appropriate attention to preclude predictable deterioration, potential downtime, additional damage and higher costs to remediation if deferred further.

Priority 4: Recommended (Years 6-10)

Items in this category represent a sensible improvement to the existing conditions. These are not required for the most basic function of the facility; however, Priority 4 projects will improve overall usability and/or reduce long-term maintenance costs.

Priority 5: Recommended (Years 11+)

Items in this category represent anticipated required capital expenditures due to Estimated Useful Life (EUL) only. These systems are generally in good operational condition, but will require replacement due to the system(s) finite life expectancy.

In addition to identifying and prioritizing all of the observed deficiencies, EMG will also provide the physical conditions of building components. The physical condition is typically defined as being in one of four categories: Good, Fair, Poor and Not Applicable. For the purposes of our assessments, the following definitions are used:

Good (G) = Component or system is sound and performing its function. However, it may show signs of normal wear and tear, commensurate with its age, some minor remedial work may be required.

Fair (F) = Component or system is performing adequately at this time but exhibits deferred maintenance, evidence of previous repairs, workmanship not in compliance with commonly accepted standards, is obsolete, or is approaching the end of its typical Expected Useful Life. Repair or replacement is required to prevent further deterioration, restore it to good condition, prevent premature failure, or to prolong its Expected Useful Life. Component or system exhibits an inherent deficiency of which the cost to remedy is not commensurate with the deficiency but is best remedied by a program of increased preventative maintenance or periodic repairs.

Poor (P) = Component or system has either failed or cannot be relied upon to continue performing its original function as a result of: having realized or exceeded its typical expected useful life, excessive deferred maintenance, state of disrepair, an inherent design deficiency or workmanship. Present condition could contribute or cause the deterioration of contiguous elements or systems. Repair or replacement is required.

N/A = Not Applicable

2. PURPOSE AND SCOPE

2.1. PURPOSE

The purpose of this report is to assist the Client in evaluating the physical aspects of this property and how its condition may affect the Client's financial decisions over time. For this Comprehensive Facilities Needs Assessment, the major independent building components were observed and their physical conditions were evaluated in accordance with ASTM E2018-01. These components include the site and building exteriors and representative interior areas. The estimated costs for repairs and/or capital reserve items are included in the enclosed cost tables. All findings relating to these opinions of probable costs are included in the relevant narrative sections of this Report.

The Physical Plant staff and code enforcement agencies were interviewed for specific information relating to the physical property, code compliance, available maintenance procedures, available drawings, and other documentation.

2.2. SCOPE

ASTM E2018-01 requires that any deviations from the Guide be so stated within the report. EMG's probable cost threshold limitation is reduced from the Guide's $3,000 to $1,000, thus allowing for a more comprehensive assessment on smaller scale properties. Therefore, EMG's opinions of probable costs that are individually less than a threshold amount of $1,000 are typically omitted from this PCR. However, comments and estimated costs regarding identified deficiencies relating to life, safety or accessibility items are included regardless of this cost threshold.

In lieu of providing written record of communication forms, personnel interviewed from the facility and government agencies are identified in Section 2.3. Relevant information based on these interviews is included in Sections 2.3, 3.1, and other applicable report sections.

The assessment team will visit each identified property to evaluate the general condition of the building(s) and site improvements, review available construction documents in order to familiarize themselves with and be able to comment on the in-place construction systems, life safety, mechanical, electrical and plumbing systems, and the general built environment. The assessment team will conduct a walk-through survey of the building(s) in order to observe building systems and components, identify physical deficiencies and formulate recommendations to remedy the physical deficiencies.

- As a part of the walk-through survey, the assessment team will survey 100% of the facility's interior. In addition, EMG will survey the exterior of the properties including the building exterior, roofs, and sidewalk/pavement.
- The assessment team will interview the building maintenance staff so as to inquire about the subject property's historical repairs and replacements and their costs, level of preventive maintenance exercised, pending repairs and improvements, and frequency of repairs and replacements.
- The assessment team will develop opinions based on their site assessment, interviews with City of Stamford, Connecticut Public Schools building maintenance staff and experience gained on similar properties previously evaluated. The assessment team may also question others who are knowledgeable of the subject property's physical condition and operation or knowledgeable of similar systems to gain comparative information to use in evaluation of the subject property.

- The assessment team may review documents and information provided by City of Stamford, Connecticut Public Schools building maintenance staff that could also aid 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.
- EMG will provide City of Stamford, Connecticut Public Schools with Sustainable Alternative Recommendations that will concentrate on Utility Savings Potential, Health and Environmental Benefits.
- EMG will provide an Energy Benchmarking Analysis to establish energy performance with relation to similar types of buildings.

2.3. PERSONNEL INTERVIEWED

The following personnel from the facility and government agencies were interviewed in the process of conducting the Comprehensive Facilities Needs Assessment:

Name and Title	Organization	Phone Number
Miriam Arango Principal	Newfield Elementary School	203.977.4282
Victor Ponce Head Custodian	Newfield Elementary School	203.253.1409
Mr. Gus Burreisci Project Manager	City of Stamford Public Schools	203.223.8118
Terrance Shay Deputy Fire Marshal	Stamford Fire & Rescue	203.977.4651

The Comprehensive Facilities Needs Assessment was performed with the assistance of Miriam Arango, Principal and Victor Ponce, Head Custodian, Newfield Elementary School, the on site Points of Contact (POC), who were cooperative and provided information that appeared to be accurate based upon subsequent site observations. The on site contacts are very 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 ten years and one year, respectively.

2.4. DOCUMENTATION REVIEWED

Prior to the Comprehensive Facilities Needs Assessment, 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 following documents were provided for review while performing the Comprehensive Facilities Needs Assessment:

- Site plan
- Floor plans
- Original construction documents – Sherwood Mills & Smith Architects dated July 31, 1952
- Addition and renovation documents – Maitland/Strauss P.C. dated February 10, 1992

A prior Elementary School Capacity Study was reviewed while performing the FNA and Space Utilization Analysis. The report, dated October 12, 2001, was prepared by JMOA Engineering, P.C. Property condition and/or factual information discrepancies between the prior report and actual conditions are not readily apparent other than changes in classroom usage and population.

No other documents were reviewed. The Documentation Request Form is provided in Appendix E.

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 Facilities Needs Assessment.

3. ACCESSIBILITY, CODE & MOLD

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 Comprehensive Building Condition Assessment, 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. ADA compliance issues inside spaces are not within the scope of the survey.

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. Four stalls are required and none of the designated stalls are compliant due to having no access aisles. See Section 1.2 for follow up study information. The cost estimate is for relocating four stalls, providing compliant access aisles for three car stalls and one van stall and redesigning of the front entrance to accommodate these stalls.
- Signage indicating accessible parking space for a van is not provided. Install once compliant stalls are provided.
- Curb ramps are required from the parking area to the sidewalks providing access to the building. There are no curb cuts from existing stalls, only at crosswalks which access steep sloped areas such as stairs to the existing parking lots. A new curb cut will be required once the stalls are relocated and compliant.

Ramps

- The B wing playground requires the construction of a straight entrance ramp with handrails to allow wheelchair access.

Paths of Travel

- Add visual alarm and audible fire alarm to restrooms off corridors.

Restrooms

- Existing restrooms do not have a handicapped accessible stall. EMG recommends altering some of the restrooms by combining two stalls into one accessible stall or removing the partitions. In some cases, this will make the restroom into a single user room. The only current accessible restroom is a shared unit for adults and students. The staff restroom adjacent to the existing ADA room should be updated to be compliant. In addition, the restrooms at the corridor towards the kindergarten area should be altered. Due to unknown individual occupancy and/or uses and possible local code requirements it is recommended that the local building department be consulted prior to removal of any permanent plumbing fixtures (ie: toilets, urinals and/or lavatories). The provided resolution is for achieving accessibility only and does not take into consideration any required fixture counts which could vary with each structure. The cost estimate includes but is not limited to adding grab bars, drain pipe insulation, lowering accessories and replacing finishes as required.
- Install grab bars in accessible stalls at 36" above the floor. Lower existing non-compliant grab bars in nurse's office.
- Modify existing toilet room accessories and mirrors. Replace paper towel dispenser in existing ADA restroom with one that does not require twisting to operate.
- Wrap drain pipes below lavatory with insulation; protect against contact with hot, sharp, or abrasive surfaces.

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 concerns civil rights issues as they pertain to the disabled and its Accessibility Guidelines are not a construction code, although many local jurisdictions have adopted them as such. The estimated costs to address the achievable items noted above are included in the Replacement Reserves Report.

3.2. CODE INFORMATION AND FLOOD ZONE

According to Deputy Fire Marshal Terrance Shay of the Stamford Fire & Rescue, there are outstanding fire code violations on file. The most recent inspection was conducted by the fire department on February 20, 2009. The fire department inspects the property on an annual basis. Outstanding violations include non-operational emergency lighting, double doors at auditorium are difficult to open, no illuminated exit signage in basement areas, two main exit access corridors lack proper signage spacing, fire door in basement does not latch properly, a basement closet was missing a door, and the kitchen cooking hood has not been steam cleaned. EMG recommends that these items be addressed immediately. See Section 7.6 for further discussion.

According to the Flood Insurance Rate Map, published by the Federal Emergency Management Agency (FEMA) and dated November 17, 1993, the property is located in Zone X, defined as areas outside the one percent annual chance floodplain, areas of one percent annual chance sheet flow flooding where average depths are less than one foot, areas of one percent annual chance stream flooding where the contributing drainage area is less than one square mile, or areas protected from the one percent annual chance flood by levees. No Base Flood Elevations or depths are shown within this zone. Insurance purchase is not required in these zones. In communities that participate in the NFIP, flood insurance is available to all property owners and renters in this zone.

3.3. MOLD

EMG performed a limited visual assessment for the presence of mold, conditions conducive to mold, and evidence of moisture in readily accessible interior areas of the property.

No suspect mold was observed, but moisture was observed in the following areas:

- Classroom 317. The area affected by the moisture was approximately one square feet in size.
- Classroom 315. The area affected by the moisture was approximately eight square feet in size.
- Classroom 316. The area affected by the moisture was approximately 32 square feet in size.
- Classroom 306. The area affected by the moisture was approximately ten square feet in size.
- Classroom 307. The area affected by the moisture was approximately eight square feet in size.
- Corridor outside classroom 312. The area affected by the moisture was approximately two square feet in size.
- Room 102. The area affected by the moisture was approximately 12 square feet in size.
- Gymnasium/cafeteria. The area affected by the moisture was approximately 16 square feet in size.
- Classroom 207. The area affected by the moisture was approximately five square feet in size.
- Corridor outside classroom 207. The area affected by the moisture was approximately 20 square feet in size.
- Classroom 212. The area affected by the moisture was approximately eight square feet in size.
- Media Center office – reported leak at ceiling.
- Kitchen – reported leak over prep table.

Additional discussion and description of the correction efforts required with regard to the moisture infiltration issues are discussed in Sections 6.3 and 6.8 of this report, and associated costs are included within those sections.

EMG performed a limited visual assessment for the presence of mold, conditions conducive to mold, and evidence of moisture in readily accessible interior areas of the property.

Suspect mold growth was observed in the following area:

- Computer Lab. The area affected by the mold growth was approximately four square feet in size.

Prior to remediation by personnel specifically trained in the handling of hazardous materials, a mold assessment should be conducted by a health and safety professional with experience performing microbial investigations. In addition, the source of this moisture should be addressed in order to prevent future mold problems. The estimated costs of corrective action shall be determined as part of the mold assessment recommended. These costs are not included in the tables. See Section 1.2 for further follow up study information.

4. EXISTING BUILDING EVALUATION

4.1. ROOM TYPES

The following table identifies the reported room types and mix at the subject property.

Room Types and Mix			
Quantity	**Type**	**Vacant Rooms**	**Down Rooms**
32	Classroom (K-5)	0	0
4	Reading Resource	0	0
2	ELL	0	0
1	Early Literacy	0	0
1	Math/Science Lab - shared	0	0
2	Art	0	0
2	Music (including auditorium stage)	0	0
7	Office	0	0
2	Speech	0	0
1	OT/PT	0	0
2	Mechanical	0	0
3	Storage	0	0
1	Reflection Room (Time Out)	0	0 – getting new flooring
1	Gymnasium/Cafeteria - shared	0	0
1	Auditorium	0	0
1	Media Center	0	0
2	Computer Lab	0	0
65	**TOTAL**	**0**	**0**

4.2. ROOMS OBSERVED

EMG observed 100 percent of the building in order to gain a clear understanding of the property's overall condition. Other areas accessed included the exterior of the property, a representative sample of the roofs, and the interior common areas.

All areas of the property were available for observation during the site visit.

A "down room" or area is a term used to describe a non-usable room or area due to poor conditions such as fire damage, water damage, missing equipment, damaged floor, wall or ceiling surfaces, or other significant deficiencies. According to the POC, there are no down rooms or areas. No down rooms or areas were observed during the site visit.

5. SITE IMPROVEMENTS

5.1. UTILITIES

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

Site Utilities		
Utility	**Supplier**	**Condition & Adequacy**
Sanitary sewer	City of Stamford	Good
Storm sewer	City of Stamford	Good
Domestic water	Aquarian	Good
Electric service	CL&P	Good
Natural gas service	Yankee Gas	Good

Observations/Comments:

- The utilities provided appear to be adequate for the property.
- See Section 7.1 for descriptions and comments regarding the underground fuel storage tank.

5.2. PARKING, PAVING, AND SIDEWALKS

The main entrance drive is located along Pepper Ridge Road on the west side of the property. Additional entrance drives are also located along Pepper Ridge Road. The parking areas and drive aisles are paved with asphalt.

Based on a physical count, parking is provided for approximately 85 cars. The parking ratio is 1.13 spaces per thousand square feet of floor area. All of the parking stalls are located in open lots. The main parking lot is located at the west side of the building (front) and contains 43 parking spaces, of which none are handicapped-accessible stalls. Another parking lot is located at the west side of the modular building (front) and contains 38 parking spaces, of which none are handicapped-accessible stalls. There are 4 handicapped-accessible stalls located along the drive isle at the front of the main building. There are no van-accessible stalls.

Additional paved sections are located at the outdoor play areas, which are as follows: the play area serving the basketball courts, located at the left side of the building and two play areas, located at the right side of the building. A small paved area is located around the playground equipment, at the left side of the building.

The sidewalks throughout the property are constructed of cast-in-place concrete. A portion of the sidewalks located along Pepper Ridge Road and adjacent to the modular building are constructed of asphalt. Cast-in-place concrete steps with metal handrails are located at grade changes at the front and left side of the building.

The curbs are constructed of a combination of cast-in-place concrete curbing and extruded asphalt curbing placed at the edge of the pavement.

Observations/Comments:

- The asphalt pavement is in good to fair condition. There are significant signs of cracks and surface deterioration and the surface seal coating is badly worn and pavement markings are difficult to identify at the main parking lot. The main parking lot will require an overlay with new asphalt paving in order to maintain the integrity of the overall pavement system. The estimated cost of this work is included in the Replacement Reserves Report.
- There is a pot hole and a section of asphalt pavement that is caving in at the exit drive lane. The damaged area of paving must be cut and patched in order to maintain the integrity of the overall pavement system. The estimated cost of this work is included in the Replacement Reserves Report.
- In addition to the pavement repairs noted above, pothole patching, crack sealing, seal coating, and restriping of the asphalt pavement will be required during the evaluation period to maximize the pavement life. The estimated cost of this work is included in the Replacement Reserves Report.
- The asphalt pavement in the play areas are in fair condition. Minor repairs, including patching, crack sealing and seal coating, of the paved play areas will be required during the evaluation period. The estimated cost of this work is included in the Replacement Reserves Report.
- The concrete sidewalks are in good to poor condition. Isolated areas of settlement, cracking, and spalling concrete sidewalks occur at the rear, left and right sides of the building. The damaged areas of concrete sidewalks will require replacement within the year. The estimated cost of this work is included in the Replacement Reserves Report.
- The asphalt sidewalks are in good condition. There is a worn landscape path at the rear of the modular building that leads to the asphalt sidewalk leading to the basketball courts. Installation of an asphalt sidewalk at the landscape path connecting to the other asphalt sidewalk is recommended. The estimated cost of this work is included in the Replacement Reserves Report.
- The site steps and handrails are in good condition and will require routine maintenance during the evaluation period.
- The concrete curbs throughout the property are in good condition. Routine cleaning and maintenance will be required during the evaluation period.

Sustainable Recommendations:

- A sustainable recommendation for asphalt is to use recycled asphalt pavement (RAP) from a local source. This will reduce carbon emissions from production and transportation of new asphalt material.
- A sustainable recommendation for concrete is to use recycled concrete aggregate (RCA) from a local source. This will reduce carbon emissions from production and transportation of new concrete material.

5.3. DRAINAGE SYSTEMS AND EROSION CONTROL

Storm water from the roofs, landscaped areas, and paved areas flows into on site inlets and catch basins with underground piping connected to the municipal storm water management system.

The basement mechanical room is equipped with a concrete sump and dual sump pumps.

Observations/Comments:

- There is no evidence of storm water runoff from adjacent properties. The storm water system appears to provide adequate runoff capacity. There is no evidence of major ponding or erosion.
- The sump pumps are reported to be in good condition. The testing of equipment is not within the scope of a Facilities Needs Assessment. The storm water system will require routine maintenance during the evaluation period.

Sustainable Recommendations:

- There are no sustainable recommendations for the drainage systems.

5.4. TOPOGRAPHY AND LANDSCAPING

The property slopes gently downward from the east side of the property toward the west property line.

The landscaping consists of trees, shrubs, and grasses.

Surrounding properties include a school at the rear and single-family residential developments.

A brick masonry retaining wall is located adjacent to the loading dock.

Stone masonry is utilized to stabilize the landscaped areas adjacent to the main parking lot.

Stone masonry and landscape walls are located at portions of the northern perimeter of the property.

Observations/Comments:

- The topography and adjacent uses do not appear to present conditions detrimental to the property.
- The landscape materials are in good condition, requiring routine maintenance during the evaluation period; however, some landscape trees were noted over-hanging the roof, primarily at the front and rear elevations of the building. To prevent damage to the building exterior components and clogging of the roof drainage system, routine landscape maintenance, including tree pruning, will be required throughout the evaluation period. This work can be performed as part of the property management's routine maintenance program.
- The retaining walls are in good to fair condition. Isolated areas of deteriorated concrete and cracking of mortar joints were noted at the brick masonry retaining wall adjacent to the loading dock. Repair of the damaged sections of the retaining wall will be required. The cost of this work is relatively insignificant and can be performed as part of the property management's routine maintenance program. The cost of this work is not included in the cost tables.

Sustainable Recommendations:

- There are no sustainable recommendations for landscaping.

5.5. GENERAL SITE IMPROVEMENTS

Property identification is provided by the school name displayed on the front exterior elevation.

Site lighting is provided by property-owned, wood, streetlight standards. One pole light is located along Pepper Ridge Road that has a lamp facing towards the main parking lot and one pole light is located at the parking lot adjacent to the modular building. Exterior building illumination is provided by surface-mounted light fixtures on the exterior walls. Surface-mounted light fixtures are located at the soffits and covered walkways.

A perimeter fence is located along the rear and south property lines and along portions of the north property line. The fence is constructed of chain link with metal posts.

Two playground areas are located at the property, one at the left side of the building and one at the right side of the building. Each playground contains plastic and metal play equipment. The playground surface at the left side of the building has a rubber surfaced play area and the playground surface at the right side of the building consists of wood chips play surface. One swing-set is also located at the left side of the building and one swing-set is located at the right side of the building. The paved sections of the playgrounds and athletic areas are described in Section 5.2.

Three basketball goals are located at the asphaltic play courts along the left side of the building.

Two ball fields are located at the rear of the building. The ball fields have compacted dirt infields and grass outfields. The backstop and line fences are constructed of chain link fencing with metal posts. The benches are constructed of metal and the bleachers are constructed of metal or wood.

Benches and picnic tables are located at strategic locations at the sides of the building.

One wood storage shed is located at the left side of the building, adjacent to the play areas.

Dumpsters are located adjacent to the loading dock and are placed on concrete pads. The dumpsters are not enclosed.

Observations/Comments:

- The building identification sign is in fair condition, requiring routine maintenance during the evaluation period; however, there is no property identification signage. It is recommended that a new property identification sign be installed to easily locate the property. The estimated cost of this work is included in the Replacement Reserves Report.
- The exterior site and building light fixtures are in good to poor condition. There is an abandoned pole light concrete base at the main parking lot. In addition, according to the POC, the site and building lights at night have poor illumination. The lack of adequate illumination is a safety hazard. Based on these observations, installation of a new pole light at the abandoned pole light concrete base and installation of additional pole light standards and building light fixtures will be required immediately, to provide for necessary levels of night lighting for security measures. The estimated cost of this work is included in the Replacement Reserves Report.
- The site fencing varies from good to poor condition. The chain link fencing, located along the south and rear property lines have portions that are failing, damaged, corroded and weathered. The affected portions of the fence must be replaced. In addition, according to the client provided JMOA five year capital plan, complete fencing installation along the east property line is planned. The estimated cost of this work is included in the Replacement Reserves Report.
- The playground equipment is in good condition and will require routine maintenance during the evaluation period.
- The basketball goals are in good condition. Based on its estimated Remaining Useful Life (RUL), the basketball backstops will require replacement during the evaluation period. The estimated cost of this work is included in the Replacement Reserves Report.
- The ball fields are in good condition. Underground irrigation is currently not provided at either field. EMG recommends the installation of an irrigation system. The estimated cost of this work is included in the Replacement Reserves Report.
- The ball field bleachers, benches and chain link backstops are in good to fair condition. Based on the estimated Remaining Useful Life (RUL) and condition, the bleachers, benches and backstops will require replacement during the evaluation period. The estimated cost of this work is included in the Replacement Reserves Report.
- The site benches and picnic tables are in good condition. Routine maintenance will be required during the evaluation period.
- The wood storage shed is in good condition, requiring routine maintenance during the evaluation period.

- The dumpsters are owned by the City of Stamford. Routine maintenance will be required during the evaluation period.

Sustainable Recommendations:

- A sustainable recommendation for site lighting is to install photo sensors on exterior lighting. This will reduce energy consumption by reducing the time the exterior lights are used.
- A sustainable recommendation for fencing is to install recycled PVC fence sections during fencing replacement.
- A sustainable recommendation for playground equipment is to install recycled PVC play structures at the time of replacement.

6. BUILDING ARCHITECTURAL AND STRUCTURAL SYSTEMS

6.1. FOUNDATIONS

According to the structural drawings, the foundations consist of cast-in-place, concrete, perimeter, wall footings with concrete foundation walls. The foundation systems include reinforced, concrete, column pads.

Portions of the building have reinforced, concrete slabs-on-grade with integral, perimeter footings, interior footings, and column pad footings, all bearing directly on the soil.

The subterranean basement has load-bearing, concrete perimeter, retaining walls.

Observations/Comments:

- The foundations and footings could not be directly observed during the site visit. There is no evidence of movement that would indicate excessive settlement.
- The subterranean basement walls are in good condition. There is no evidence of movement or water infiltration.

Sustainable Recommendations:

- There are no sustainable recommendations for foundations.

6.2. SUPERSTRUCTURE

The main portions of the building have load-bearing, concrete masonry unit (CMU), exterior walls supporting the roof. The roofs are constructed of metal decks supported by steel beams and open-web, steel joists. Portions of the roofs are constructed of lightweight cementitious tectum panels supported by open-web, steel joists.

The classroom wings have structural steel columns supporting the roof. The roofs are constructed of metal decks supported by steel beams and open-web, steel joists.

The modular addition is a conventional, wood-framed structure and has load-bearing, wood-framed exterior and interior walls supporting the roof. The floor is raised construction and is a steel reinforced concrete slab supported by concrete columns. The roof is constructed of wood rafters and is sheathed with plywood.

Observations/Comments:

- The superstructure is exposed in some locations, allowing for limited observation. Walls and floors appear to be plumb, level, and stable. There are no significant signs of deflection or movement.
- See Section 1.2 for discussion of wood-destroying insects and recommendations. See Section 6.8 for minor wood structural repair recommendations.
- The exposed steel columns at the loading dock are in fair to poor condition. Based on the observed conditions, replacement is required. The attached metal gates, which are in the same poor condition as the columns, will require replacement in conjunction with this work. The estimated cost of this work is included in the Replacement Reserves Report.

Sustainable Recommendations:

- There are no sustainable recommendations for superstructure.

6.3. ROOFING

The primary roofs are classified as flat roofs. The roofs are finished with a single ply membrane. The roofs are insulated with rigid insulation boards.

The exterior perimeter walls extend above the surface of the roofs, creating nearly flush curbs. The roof membrane wraps over the curbs and is terminated by a metal drip edge. The roofs have sheet metal and membrane base and edge flashing.

Portions of the roofs extend beyond the exterior walls. A perimeter of exposed concrete soffit extends along portions of the building. The concrete extends horizontally towards the interior of the building and is tied into the structure.

A large area at the front elevation is covered by a thin steel reinforced concrete canopy. The canopy is finished with the same single ply membrane. The underside is painted with an epoxy coating.

Storm water is drained from the roofs by internal drains. Portions of the roof are drained by sheet metal gutters and downspouts which empty to grade.

Curb-mounted skylights provide natural illumination in some of the upper floor common areas and in the covered walkway.

There are no attics. The roof structures are exposed or are concealed by drop acoustic tile ceilings.

Roof access is through a curb mounted metal roof hatch.

Observations/Comments:

- The roof finishes vary in age. Approximately 13,400 square feet of roof covers the larger kindergarten classrooms and are covered by a 20 year warranty. A copy of the warranty is attached in Appendix C. No other warranties were reported. The roofs are maintained by the in-house maintenance staff or a contractor as required.
- The fields of the roofs are in fair condition. Numerous isolated leaks and patches were reported and observed.
- EMG conducted a separate roof assessment for this project. Significant wet areas of insulation requiring repair were found during infrared scans of the roof. All roofs are anticipated for replacement during the evaluation period. Estimated costs from this report are included in the Replacement Reserves Report. See EMG project number 88166.09R-002.244 for more detailed discussion and findings.
- According to the POC, there are active roof leaks. There is evidence of active roof leaks. See Section 3.3 for exact locations observed. Other locations may exist but staff has been instructed to replace the ceiling tiles as needed. This may occur before the roof patch has been applied.
- 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.
- There is no evidence of fire retardant treated plywood (FRT) and, according to the POC, FRT plywood is not used.
- The roof flashings are in good condition and will require routine maintenance during the evaluation period.
- The roof curbs and edges are in good condition and will require routine maintenance during the evaluation period.

- The exposed soffit at the perimeter of the building is in good to poor condition. Spalling and damaged areas were observed in isolated areas throughout the building. Areas include, but are not limited to, the loading dock, the north side of the B wing and the larger kindergarten classrooms. Epoxy patching will be required. The larger areas of damage will require steel reinforcing tied into the existing sections. A cost allowance for this work is included in the Replacement Reserves Report.
- Roof drainage appears to be inadequate. Clearing and minor repair of drain system components should be performed regularly as part of the Physical Plant's routine maintenance program. Evidence of previous ponding was observed in isolated areas throughout. Additional tapered insulation will be required to promote drainage to existing drainage devices. This work can be done in conjunction with the membrane replacement. Additional roof drains tied into the existing system or new drain lines added will also be required. The area in particular includes the roof at the north side of the courtyard. The estimated cost of this work is included in the Replacement Reserves Report.
- The skylights are in good to poor condition. One of the flat glass skylights near the roof hatch is cracked and requires immediate replacement. The cost of this work is relatively insignificant; therefore the work can be performed through routine maintenance. Several of the circular dome skylights in the main covered walkway have impact damage due to vandalism. EMG suggests replacing the skylights and installing protective aluminum grills at the underside. The skylights over the gymnasium/cafeteria cover glass block. Some of the glass blocks have been covered or hidden due to suspected previous damage. Based on their estimated Remaining Useful Life (RUL), some of the skylights will require replacement during the evaluation period. In conjunction with the next skylight replacement in this area, these glass blocks should be replaced. The estimated cost of this work is included in the Replacement Reserves Report.
- The roof hatch is in fair to poor condition. The locking mechanism does not work and is held in place by a rope tied to the access ladder. Based on the Remaining Useful Life (RUL) and condition, the roof hatch will require replacement during the evaluation period. The estimated cost of this work is included in the Replacement Reserves Report.

Sustainable Recommendations:

- A sustainable recommendation for roofing is to replace the black single ply roofing with a light colored single ply membrane.

6.4. EXTERIOR WALLS

The exterior walls are finished with brick masonry veneer and curtain wall. The soffits are exposed. Portions of the exterior walls at the Media Center are accented with factory finished glazed ceramic panels.

Isolated areas are clad with an exterior insulation and finish system (EIFS) on metal stud-framed walls. These areas include the entrance fascia and soffit at the ends of the classroom wings.

The gymnasium/cafeteria exterior is finished with unfinished, precast concrete panels.

The exterior walls of the classroom wings are clad with a metal-framed, curtain wall system. The curtain wall system is anchored to the superstructure. The curtain wall has horizontal bands of tinted, glazed, vision panels. The spandrels are finished with factory finished, textured aluminum panels. The curtain wall at the Media Center has frame-less joint glazed panels.

The modular wing is finished with painted T1-11.

Horizontal and vertical bands of sealant are installed at glazing joints, spandrel panel joints, and at joints between finish transitions.

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

Observations/Comments:

- The exterior finishes are in good to fair condition. Painting and patching will be required during the evaluation period. Birds have been nesting and making holes in the wood of the modular wing. Patching and replacements will be necessary. The covered walkway is exhibiting water staining at the exposed soffit and will also require replacement. The estimated cost of this work is included in the Replacement Reserves Report.
- In addition to the above work, repainting will also be required. The estimated cost of this work is included in the Replacement Reserves Report.
- The curtain wall system is in good condition and will require routine maintenance during the evaluation period. All windows were reportedly replaced six years ago. One pane was observed with a loose gasket and will require replacement. This should be under the manufacturer's warranty. No costs are included in the tables.
- The sealant is flexible, smooth, and in good condition. Based on the Remaining Useful Life (RUL), the sealant will require replacement during the evaluation period. The estimated cost of this work is included in the Replacement Reserves Report.
- The control joints at the concrete panels of the gymnasium/cafeteria are in poor condition. Based on the Remaining Useful Life (RUL), the control joints will require replacement during the evaluation period. The estimated cost of this work is included in the Replacement Reserves Report.
- The exterior brick at the front end of A wing is in poor condition. Settlement is occurring at the junction with the front concrete canopy. Repointing, repairs and replacements will be required. The estimated cost of this work is included in the Replacement Reserves Report.
- Re-pointing of the brick masonry chimney and building corners is required. The estimated cost of this work is included in the Replacement Reserves Report.
- Minor patching will be required at some areas of concrete that have exposed areas where the concrete did not fill the form such as at the exterior of the classroom on the end of the B wing. The cost of this work is relatively insignificant; therefore the work can be performed through routine maintenance.

Sustainable Recommendations:

- A sustainable recommendation for the use of low VOC Sealant/Caulking around windows, doors, control joints and change of finish.

6.5. EXTERIOR AND INTERIOR STAIRS

The interior stairs to the basement are constructed of steel and have open risers and steel grate treads. The handrails are constructed of metal.

The exterior stairs to the basement and the loading dock are constructed of reinforced concrete. The handrails are constructed of metal. The nosings are steel.

The exterior stairs at the modular wing are constructed of wood and have open risers and wood treads. The handrails and balusters are constructed of wood.

Observations/Comments:

- The exterior and interior stairs, balusters, and handrails are in good to poor condition. Some sections of the steel nosing are missing and will require replacement. The cost of this work is relatively insignificant; therefore the work can be performed through routine maintenance.

Sustainable Recommendations:

- No sustainable recommendations for the exterior or interior stairs.

6.6. WINDOWS AND DOORS

The majority of the windows are a part of the metal-framed, curtain wall system described in Section 6.4. There are operable awning windows as part of this system in the classrooms.

The remaining windows are aluminum-framed, double-pane glazed, awning units.

The classroom entrance doors are factory finished, solid-core, metal doors with glass lites set in metal frames. The entrance doors have cylindrical locksets with push/pull handle hardware and non-keyed deadbolts.

The service doors are painted, metal doors set in metal frames. The doors have cylindrical locksets with knob handle hardware.

A total of three overhead doors are located at the modular wing, including two that are located at the Storage Building. The overhead doors are flush-paneled metal doors and are equipped with mechanical openers.

The loading dock is equipped with bumpers. A painted metal gate is provided at the loading dock.

Observations/Comments:

- The window system is in good condition and will require routine maintenance during the evaluation period.
- According to the POC, the property does not experience a significant number of complaints regarding window leaks or window condensation. There is no evidence of window leaks or condensation. The windows are in good condition and will require routine maintenance during the evaluation period.
- The exterior doors and door hardware are in good to fair condition and will require routine maintenance during the evaluation period. One door in the Media Center was not properly fit and has gaps with outside air infiltrating. Complete frame and door replacement is required. The estimated cost of this work is included in the Replacement Reserves Report. The painted metal doors at the classrooms that were added at the ends of the wings are exhibiting rust at the bottom and will require scraping and painting. The cost of this work is relatively insignificant; therefore the work can be performed through routine maintenance.
- The overhead doors are in good condition and will require routine maintenance during the evaluation period.
- The dock equipment is in fair to poor condition. The bumpers and metal gate will require replacement. The concrete will require some repair. The estimated cost of this work is included in the Replacement Reserves Report.

Sustainable Recommendations:

- No sustainable recommendations for windows and doors.

6.7. PATIO, TERRACE, AND BALCONY

A grass covered courtyard is located off the south kindergarten classrooms and is open to the front of the school.

Observations/Comments:

- The courtyard is in good condition and will require routine maintenance during the evaluation period.

Sustainable Recommendations:

- No sustainable recommendation for the courtyard.

6.8. COMMON AREAS, ENTRANCES, AND CORRIDORS

The lobby contains bulletin boards, sculptures and display cases. Corridors are accessed directly from the lobby.

Classrooms and offices are accessed from corridors beyond the lobby.

Restrooms are located across from the gymnasium/cafeteria and adjacent to the main offices. There are a total of three staff or public restrooms, one shared ADA restroom and two sets of student restrooms.

The following table identifies the interior common areas and generally describes the finishes in each common area.

Common Area	Floors	Walls	Ceilings
Lobby	Polished stone	Painted drywall and exposed brick	Painted drywall and suspended acoustic tiles
Corridor	Vinyl tile	Stained wood panels and painted CMU	Painted drywall and suspended acoustic tiles
Restrooms	Ceramic tile	Ceramic tile wainscot and painted drywall or FRP	Suspended acoustic tiles
Office	Carpet	Painted drywall	Suspended acoustic tiles
Media Center	Carpet	Painted drywall or curtain wall	Painted drywall and suspended acoustic tiles
Auditorium	Painted concrete and carpet	Stained wood veneer panels	Painted plaster
Cafeteria/Gymnasium	Wood	Painted concrete masonry units	Exposed structure

Observations/Comments:

- Some of the common areas were last renovated approximately 14 years ago.
- The interior finishes in the common areas are in good condition. Based on its estimated Remaining Useful Life (RUL), the common area carpet will require replacement during the evaluation period. The estimated cost of this work is included in the Replacement Reserves Report.
- The wood flooring in the gymnasium/cafeteria and at the auditorium stage is in good condition. Refinishing will be required during the evaluation period. The estimated cost of this work is included in the Replacement Reserves Report.
- The vinyl tile flooring in the corridors and classrooms is in good condition. Replacement will be required during the evaluation period. The estimated cost of this work is included in the Replacement Reserves Report.
- Interior painting will also be required during the evaluation period. The estimated cost of this work is included in the Replacement Reserves Report.
- The vinyl wall covering is in good to fair condition. Replacement will be required during the evaluation period. The estimated cost of this work is included in the Replacement Reserves Report.

- Suspended ceiling tile replacement will also be required during the evaluation period. The estimated cost of this work is included in the Replacement Reserves Report.
- The stained wood panels in the auditorium and corridors are in fair to poor condition. Suspected termite damage was observed in the auditorium which includes the wood studs behind the access panels. The veneered paneling was also observed to be delaminated or damaged throughout. Replacement will be required during the evaluation period. The estimated cost of this work is included in the Replacement Reserves Report. See Section 1.2 for more information regarding a follow up study for the hidden termite damage.
- According to the client provided AHERA document flooring with asbestos containing material is located in Storage Room 2, the main office and the nurse's office. A cost allowance for proper removal and disposal of the asbestos containing vinyl tile is included in the Replacement Reserves Report as part of the recommended vinyl tile replacement work. This allowance is based solely on the information presented in the client provided AHERA document. An excerpt of this AHERA document is included in the appendices. Identifying asbestos containing material is not within the scope of this facility condition assessment.
- A cost allowance for the abatement of lead containing materials is included in the client provided JMOA five year capital plan. Lead containing materials were not reported; however, based on the cost budgeted in the capital plan, an allowance for lead abatement is included in Replacement Reserves Report.

Sustainable Recommendations:

- Sustainable recommendations for the interior finishes are to use low VOC paints, linoleum or cork flooring, and recycled material carpeting.

7. BUILDING (CENTRAL) MECHANICAL AND ELECTRICAL SYSTEMS

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

Heating and cooling are provided in the media center and modular classrooms by individual, direct-expansion, constant-volume, packaged, rooftop-mounted, HVAC units. The cooling equipment uses R-22 as a refrigerant. The following table describes the rooftop units;

Packaged Rooftop Units				
Quantity	**Manufacturer**	**Cooling Capacity**	**Heating Type**	**Manufacture Year**
1	McQuay	40 tons	Gas-fired	1992
1	Trane	5 tons	Gas-fired	2005
1	Trane	5 tons	Gas-fired	2005
1	Bard (to be replaced with Trane unit)	Unavailable	Electric Resistance	20+
1	Trane	5 tons	Gas-fired	2005
1	Carrier	5 tons	Electric Resistance	2002
1	Carrier	5 tons	Electric Resistance	2002

Air distribution is provided to supply air registers by ducts concealed above the ceilings. Return air grilles are located in each space. The heating and cooling system are controlled by local thermostats.

Steam for the building's central heating system is supplied by two gas-fired, low-pressure steam boilers, vacuum and condensate pump system. The boilers have dual-fuel capability, utilizing natural gas or fuel oil. Each boiler has a rated input capacity of 3,563 MBH and is located in the lower basement mechanical room. Oil is supplied to each boiler by one fuel oil pump and an 8,000-gallon underground storage tank (UST). The UST is located adjacent to the loading dock.

Circulating pumps provide heated steam to each temperature-controlled space via a two-pipe distribution system. The heated steam supplies the air handling units, cabinet-mounted, in-wall and baseboard heaters.

Heating is provided in the classrooms and offices by perimeter, baseboard or cabinet-mounted, finned-tube, radiant heat units. The radiant units are supplied with heated steam by the central system. Heating is provided in the corridors and restrooms by in-wall-mounted, finned-tube radiant heat units. Heating is provided in the basement, loading dock entry and kitchen areas by unit heaters.

Cooling is provided in the offices and some classrooms by individual window air-conditioning units. There are a total of 20 AC units.

Heating is provided in the auditorium and gymnasium/cafeteria areas by high-capacity, air handling units equipped with heating coils. The air handling units are located in the penthouse mechanical rooms and are supplied with heated steam by the central system.

Air distribution is provided to supply air registers by ducts concealed above the ceilings. Return air grilles are located in each space. The heating system is controlled by building energy management system (EMS). The following table describes the air handling units:

Air Handling Units					
Designation	**Location**	**Area Served**	**Air Flow**	**Cooling**	**Heating**
HV-1	Penthouse mechanical room	Auditorium	10,000 CFM	None	Heated coils
HV-2	Penthouse mechanical room	Gymnasium / Cafeteria	8,000 CFM	None	Heated coils

The gymnasium/cafeteria, auditorium, bathrooms and kitchen are ventilated by mechanical exhaust fans. The auditorium is equipped with a relief fan. High-capacity ventilation fans are mounted on the roof and are connected by concealed ducts to each ventilated space.

Heating is provided in the corridor leading to the modular classrooms by one electric, perimeter, baseboard-mounted finned-tube, radiant heat unit.

The heating and cooling system is controlled by a building energy management system (EMS), located in the custodian office. The EMS provides individual control and performance data for the boilers, circulating pumps, rooftop units, air handling units and domestic water heating system. The system is actuated by pneumatic controls. The air compressor is located in the mechanical room.

Observations/Comments:

- The HVAC systems are maintained by the in-house maintenance staff.
- The HVAC equipment varies in age. The boilers were replaced in 2002. The modular building RTU's were replaced in 2002 and 2005. HVAC equipment is reportedly replaced on an "as needed" basis.
- The building is not equipped with central cooling. The areas supplied with window mounted cooling are as follows: offices and some classrooms. It is recommended that an HVAC contractor evaluate the building for the potential reconfigure and design of installing a central cooling system for the entire building. This would allow for a more comfortable indoor environment in the building throughout the year. See Section 1.2 for further discussion of this recommendation. A budgetary cost allowance to cool the remaining areas of the building and to upgrade heating in areas such as the corridors and offices is included in the Replacement Reserves Report.
- The rooftop-mounted, packaged, "Carrier" and "McQuay" HVAC units appear to be in good to fair condition. Based on the estimated Remaining Useful Life (RUL), the "Carrier" and "McQuay" units will require replacement during the evaluation period. The estimated cost of this work is included in the Replacement Reserves Report.
- The rooftop HVAC ducting at the McQuay RTU has isolated areas that are sunken, with ponding, and exposed insulation. Repair/replacement of sections of HVAC ducting will be required concurrent with replacement of the "McQuay" unit. The cost for this work is included above with replacement of the McQuay RTU.
- The rooftop-mounted, packaged, "Trane" HVAC units appear to be in good condition and will require routine maintenance during the evaluation period.

- There is one "Trane" rooftop unit that has been placed on the roof and ready to be installed in place of an older unit manufactured by "Bard". Removal of the "Bard" unit and installation of the "Trane" unit can be performed as part of the property management's routine maintenance program. The cost of this work is not included in the cost tables.
- The boilers appear to be in good condition and will require routine maintenance during the evaluation period. The jackets were noted removed off one boiler. Reattaching the boiler jackets can easily be accomplished as part of the property management's routine maintenance program. The cost of this work is not included in the cost tables.
- There is a metal support post at the gas piping feeding one of the boilers that is leaning. To ensure proper support of the gas piping, re-setting of the metal post will be required immediately and can be performed as part of the property management's routine maintenance program. The cost of this work is not included in the cost tables.
- The circulating pumps appear to be in good condition and will require routine maintenance during the evaluation period.
- The vacuum and condensate pump system appears to be in good and will require routine maintenance during the evaluation period.
- The underground fuel storage tank could not be directly observed during the assessment. The UST will require routine maintenance during the evaluation period.
- The fuel oil pumps appear to be in good condition and will require routine maintenance during the evaluation period.
- The finned-tube radiant heat units appear to be in good to fair condition. Based on the estimated Remaining Useful Life (RUL), some of the finned-tube radiant heat units will require replacement during the evaluation period. The estimated cost of this work is included in the Replacement Reserves Report.
- The electric baseboard heaters appear to be in good condition and will require routine maintenance during the evaluation period.
- The high-capacity air handling units appear to be in fair condition. Based on their estimated Remaining Useful Life (RUL), the air handling units (HV-1 & HV-2) will require replacement during the evaluation period. The estimated cost of this work is included in the Replacement Reserves Report.
- The individual air-conditioning units appear to be in good condition. Based on the estimated Remaining Useful Life (RUL), the units will require replacement during the evaluation period. The estimated cost of this work is included in the Replacement Reserves Report.
- The mechanical ventilation system and equipment appear to be in good condition and will require routine maintenance over the evaluation period. Equipment or component replacements can be performed as part of the property management's routine maintenance program.

Sustainable Recommendations:

- A sustainable recommendation for HVAC is to pursue the installation of a central air-conditioning system. This would reduce energy consumption by eliminating the use of small, less efficient air-conditioning units.
- An additional sustainable recommendation for HVAC is to replace the air handling units with modern air handlers, which include economizer modes and a centralized exhaust air system with an enthalpy wheel. This would reduce energy consumption by managing the amount of energy used in ventilating the areas supplied by the air handling units.
- An additional sustainable recommendation for HVAC is to equip the circulating pumps with high efficiency motors to reduce energy consumption.

7.2. BUILDING PLUMBING

The plumbing systems include the incoming water service, the cold water piping system, and the sanitary sewer and vent system. The risers and the horizontal distribution piping are reported to be copper. The sanitary sewer and vent systems are reported to be cast iron.

The water meter is located in a vault adjacent to the street.

Domestic hot water is supplied by two, gas-fired boilers. Each boiler has a rated input capacity of 199 MBH and is located in the lower basement adjacent to the heating boilers.

The common area restrooms have commercial-grade fixtures and accessories, including water closets, urinals, and lavatories.

The vast majority of the classrooms have a countertop and stainless steel dual sink and faucet. The classroom at "A" Wing is equipped with a toilet and lavatory sink.

Drinking fountains are located in the corridors, gymnasium and in the classrooms at "A" Wing.

Observations/Comments:

- The plumbing system appears to be well maintained and in good condition. The water pressure appears to be adequate. The plumbing system will require routine maintenance during the evaluation period.
- There is no evidence that the property uses polybutylene piping for the domestic water distribution system. According to the POC, polybutylene piping is not used at the property.
- The pressure and quantity of hot water appear to be adequate.
- Minor plumbing leaks have been reported. Based on the current condition and estimated Remaining Useful Life (RUL), the domestic water piping will require sectional replacement during the evaluation period. A budgetary cost allowance for this work is included in the Replacement Reserves Report.
- The boilers appear to be in good condition and will require routine maintenance during the evaluation period.
- The building is equipped with a domestic water booster system that was installed in 2001; however it is currently not in use. According to the POC, the booster system is all set and ready to be placed online and in operational order. This work can be performed as part of the property management's routine maintenance program. The cost of this work is not included in the cost tables.
- The classroom countertop and stainless steel dual sink and faucet appear to be in good condition. Based on the estimated Remaining Useful Life (RUL), the classroom countertop and stainless steel dual sink and faucet will require replacement during the evaluation period. The estimated cost of this work is included in the Replacement Reserves Report.
- The drinking fountains are in good to fair condition. Based on the estimated Remaining Useful Life (RUL) and condition, the drinking fountains in the common areas and "A" Wing will require replacement. The estimated cost of this work is included in the Replacement Reserves Report. The ball fields and playgrounds are not currently provided with outdoor drinking fountains. One is recommended at each location. The estimated cost of this work is included in the Replacement Reserves Report.
- The accessories and fixtures in the restrooms are in good condition and will require routine maintenance during the evaluation period.
- According to the client provided AHERA document flooring with asbestos containing material is located in the pipe and pipe fittings of staff toilet 3, custodial toilet, and the handicapped toilet. A cost allowance for proper removal and disposal of the asbestos containing material is included in the Replacement Reserves Report. This allowance is based solely on the information presented in the client provided AHERA document. An excerpt of this AHERA document is included in the appendices. Identifying asbestos containing material is not within the scope of this facility condition assessment.

Sustainable Recommendations:

- A sustainable recommendation for plumbing is to replace the restroom fixtures with water-saving devices, such as low-flow faucet aerators and low-flush volume toilets and urinals.
- A sustainable recommendation for plumbing is

7.3. BUILDING GAS DISTRIBUTION

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 buildings. The gas distribution piping within the buildings is malleable steel (black iron).

Observations/Comments:

- The pressure and quantity of gas appear to be adequate.
- The gas meter and regulator appears to be in good condition and will require routine maintenance during the evaluation period.
- Only limited observation of the gas distribution piping can be made due to hidden conditions. The gas piping is in good condition and, according to the POC, there have been no gas leaks.

Sustainable Recommendations:

- A sustainable recommendation for gas distribution is

7.4. BUILDING ELECTRICAL

The electrical supply lines run underground to a pad-mounted transformer that feeds the exterior-mounted electrical meter.

The main electrical service size is 2,000-Amps, 120/208-Volt, three-phase, four-wire, alternating current (AC). The electrical wiring is reportedly copper, installed in metallic conduit. Circuit breaker panels are located throughout the building.

The building is equipped with a public address and intercom system, which allows communication between the main office and each classroom. The public address control unit is located in the main office. The auditorium is equipped with a stage lighting system and a sound system.

The building is not equipped with an emergency generator or battery backup system. Refer to Section 7.6 for emergency lighting units.

Observations/Comments:

- The on site electrical systems are owned and maintained by the utility company. This includes transformers, meters, and all elements of the on site systems.
- The electrical power appears to be adequate for the property's demands.
- The switchgear, circuit breaker panels, and electrical meters appear to be in good to fair condition, requiring routine maintenance during the evaluation period. Several circuit breaker panels were observed aged and worn, as noted at the auditorium and corridors. Based on their estimated Remaining Useful Life (RUL) and condition, some of the circuit breaker panels will require replacement during the evaluation period. The estimated cost of this work is included in the Replacement Reserves Report.

- The interior lighting is in fair condition. Upgrades and replacements to the interior lighting have not been performed in recent years. Based on energy conservation and current condition, EMG recommends replacing all lighting fixtures with high-efficiency fluorescent light fixtures or LED fixtures. The estimated cost of this work is included in the Replacement Reserves Report.
- An electrical receptacle was noted loose, exposing wiring, at the Auditorium. This should be corrected immediately. Proper installation of the receptacle can easily be performed as part of the Property's routine maintenance program. No other costs are included in the tables.
- According to the client provided JMOA five year capital plan, electric service upgrades for classroom and office technology are planned. A budgetary cost allowance for this work is included in the Replacement Reserves Report. This allowance includes upgrades for classroom, office, and teacher technology upgrades.
- The public address system appears to be in good condition. Based on its estimated Remaining Useful Life (RUL), the public address system will require replacement during the evaluation period. According to the client provided JMOA five year capital plan, the PA system and other communication upgrades are planned. A budgetary cost allowance for this work is included in the Replacement Reserves Report. This allowance also includes upgrades for phone, internet, alarm and emergency lighting improvements.
- According to the client provided JMOA five year capital plan, clock and bell upgrades are planned. A budgetary cost allowance for this work is included in the Replacement Reserves Report.
- The auditorium lighting system appears to be in good condition and will require routine maintenance during the evaluation period. Based on its estimated Remaining Useful Life (RUL), the auditorium lighting system will require replacement during the evaluation period. The estimated cost of this work is included in the Replacement Reserves Report.
- The auditorium sound system appears to be in good condition and will require routine maintenance during the evaluation period. Based on its estimated Remaining Useful Life (RUL), the auditorium sound system will require replacement during the evaluation period. The estimated cost of this work is included in the Replacement Reserves Report.
- The building is not equipped with an emergency generator or emergency battery backup system. In the event of a power outage, the Public address system (PA) and telephones would be non-functional, with no communication abilities to the school children and teachers in the building. This is considered a life safety issue. Based on these observations, installation of an emergency battery back-up system is required immediately to provide back-up power for elements of the emergency and life safety systems. The estimated cost of this work is included in the Replacement Reserves Report.

Sustainable Recommendations:

- A sustainable recommendation for building electrical is to install occupancy sensors in place of light switches.

7.5. ELEVATORS AND CONVEYING SYSTEMS

Not applicable. There are no elevators or conveying systems.

7.6. FIRE PROTECTION SYSTEMS

The fire protection systems consist of a wet-pipe (majority of building) sprinkler system and dry-pipe (modular classrooms) sprinkler system, portable fire extinguishers, smoke detectors, pull stations, and alarm horns. Siamese connections are located on the exterior of the building, adjacent to the main entrance. Hardwired smoke detectors are located throughout the common areas. The nearest fire hydrants are located along Pepper Ridge Road bordering the property at the west elevation and are approximately 150 feet from the building.

Common areas and corridors are equipped with battery back-up exit lights, illuminated exit signs, pull stations, alarm horns, and strobe light alarms.

The main fire sprinkler risers are located in a fire protection equipment room, at the basement. The system is equipped with a fire pump rated at 250 gallons per minute and fire pump controller. The system is also equipped with a backflow preventer. A nominal 200-gallon, aboveground, storage tank supplies the fire prevention system. The tank is located adjacent to the fire suppression equipment. A dry-pipe riser is located in the modular building in a fire equipment closet. The system is equipped with an air compressor.

A central fire alarm panel is located in the office and monitors the pull stations, smoke detectors, and flow switches. An annunciator panel is located in the main entrance vestibule. The alarm panel also sounds the alarm and automatically notifies the monitoring service or the fire department in the event of trouble.

The commercial kitchen is equipped with an exhaust hood, however, was not observed with a fire suppression system.

The building is equipped with a security system, including motion sensors, door alarms and security cameras. The central security panel is located in a custodian closet, in close proximity to the office, and is monitored by Sonitrol.

Observations/Comments:

- Information regarding fire department inspection information is included in Section **3.2.** Based on this information, the following items will require immediate attention and are considered life and safety issues.
- Periodic testing of the emergency lighting shall be in accordance with 14.13.2.1.1. The estimated costs of corrective action are of a minimal quantity and can be performed as part of the Property's routine maintenance program. No other costs are included in the tables.
- Means of egress shall be in accordance with Chapter 7 and Section 15.2. The estimated costs of corrective action are of a minimal quantity and can be performed as part of the Property's routine maintenance program. No other costs are included in the tables.
- Exit signage and emergency lights shall be provided in the basement storage/utility areas and boiler room areas of the building. These spaces do not have windows and were found lacking proper exit and emergency lights. The estimated cost of this work is included in the Replacement Reserves Report.
- The two main exit/access corridors (Wings A & B) on the main level of the building lack proper exit signage spacing. Additional illuminated exit signs with battery back-up feature shall be installed at the half way point in both main exit/access corridors to ensure proper visibility and direction to exits. These additional exit signs shall be double faced signs that can be seen from both directions in the corridors. The estimated cost of this work is included in the Replacement Reserves Report.
- Additional emergency lighting units shall be provided in the main level of the building where required to allow for proper egress to exits. The estimated cost of this work is included in the Replacement Reserves Report.

- The interior fire door separating the boiler room from the basement storage/utility area is not properly latching. This door shall be repaired or replaced to ensure proper closure and latching into the door frame. The estimated costs of corrective action are of a minimal quantity and can be performed as part of the Property's routine maintenance program. No other costs are included in the tables.
- A basement storage closet was found to be missing a door. This opening shall be protected with a self-closing fire rated door. The estimated costs of corrective action are of a minimal quantity and can be performed as part of the Property's routine maintenance program. No other costs are included in the tables.
- The kitchen commercial cooking hood system has not been steam cleaned. This equipment shall be serviced at least annually in accordance with NFPA 96. A current service sticker shall be affixed to the hood indicating the last service date. The estimated costs of corrective action are of a minimal quantity and can be performed as part of the Property's routine maintenance program. No other costs are included in the tables.
- The corridor outside the gym/cafeteria has folding tables blocking part of the corridor. In the event of an emergency, all corridors and fire exits are to remain open and free from obstruction, at all times, to ensure easy exiting of the building. Removal of these folding tables from the corridor can easily be accomplished as part of the Property's routine maintenance program. No other costs are included in the tables.
- The fire sprinklers appear to be in good condition and are inspected by a qualified contractor on a routine basis. However, the fire sprinkler heads observed at the time of our on site assessment found the presence of Central "804A" brand fire sprinkler heads. The U.S. Consumer Products Safety Commission (CPSC) released a recall announcement identifying certain "Central" brand sprinkler heads as potentially defective. Based on these observations, EMG recommends the property management contact a Central representative to survey the subject building and replace all sprinkler heads as part of the recall. The estimated cost of this work is not included in the cost tables.
- The fire extinguishers are tested annually and appear to be in good condition. The fire extinguishers were tested and inspected within the last year.
- The pull stations and alarm horns appear to be in good condition and will require routine maintenance during the evaluation period.
- Smoke detector replacement is considered to be routine maintenance.
- Exit sign and emergency light replacement is considered to be routine maintenance. Costs to install additional Exit sign and Emergency lights are included above.
- The central alarm panel appears to be in good condition and is tested regularly by a qualified fire equipment contractor. Equipment testing is not within the scope of a Facilities Needs Assessment. Based on the estimated Remaining Useful Life (RUL), and because replacement parts and components for this type of equipment may be obsolete, the alarm panel will require replacement over the assessment period. The estimated cost of this work is included in the Replacement Reserves Report.
- The security panel appears to be in good condition. Equipment testing is not within the scope of a Facilities Needs Assessment.
- The commercial kitchen hood was not observed with a fire suppression system; however the construction plans did show an Ansul system in the hood. Since no Ansul system was observed, it is recommended that a dry-chemical "Ansul" type fire protection system be installed above all cooking surfaces. The estimated cost of this work is included in the Replacement Reserves Report.

Sustainable Recommendations:

- A sustainable recommendation for fire protection is to install Energy Star rated illuminated "LED" exit signs.

8. INTERIOR SPACES

8.1. INTERIOR FINISHES

The following table generally describes the interior finishes in units:

Typical Space Finishes			
Room	**Floor**	**Walls**	**Ceiling**
Classrooms	Vinyl tile	Painted drywall and vinyl wall covering and curtain wall system	Suspended acoustic tiles
Maintenance Shop & Storage	Concrete	Painted drywall and exposed masonry	Exposed structure or painted concrete
Kitchens	Quarry tile	Glazed concrete masonry units and FRP panels	Suspended tiles
Restrooms	Ceramic tile	Painted concrete masonry units and ceramic tile and painted drywall	Suspended acoustic tiles

The interior doors are stained, solid-core, wood doors set in metal frames. The interior doors have cylindrical locksets with lever handle hardware.

Observations/Comments:

- Repainting is also recommended during the evaluation period. The estimated cost of this work is included in the Replacement Reserves Report.
- The interior doors and door hardware are in good condition and will require routine maintenance during the evaluation period.

Sustainable Recommendations:

- Sustainable recommendations for the interior finishes are to use low VOC paints, linoleum or cork flooring, and recycled material carpeting.

8.2. COMMERCIAL KITCHEN EQUIPMENT

The kitchen area has a variety of commercial kitchen appliances, fixtures, and equipment. The kitchen includes the following major appliances, fixtures, and equipment:

Appliance	Comment
Refrigerators	Upright (2), Chest (2)
Freezers	Upright (2), Chest (1)
Ranges	Gas
Ovens	Convection

Appliance	Comment
Griddles / Grills	Gas
Fryers	Yes
Hood	Exhaust ducted to exterior
Dishwasher	Yes
Microwave	No
Ice Machines	No
Steam tables	Stainless steel (2)
Work tables	Stainless steel
Shelving	Stainless steel

Observations/Comments:

- The kitchen appliances appear to be in good condition. Based on their estimated Remaining Useful Life (RUL), some of the kitchen appliances will require replacement during the evaluation period. The estimated cost of this work is included in the Replacement Reserves Report.
- The refrigeration equipment appears to be in good condition. Based on their estimated Remaining Useful Life (RUL), some of the reach-in refrigeration units will require replacement during the evaluation period. The estimated cost of this work is included in the Replacement Reserves Report.
- The main kitchen cooking area is equipped with an exhaust hood; however, an Ansul system was not observed and will require installation of a fire suppression system at the hood. The cost for this work is included in Section 7.6.

Sustainable Recommendations:

- A sustainable recommendation for the cooking equipment is to replace the appliances and refrigeration units with Energy Star rated or equivalent equipment.

8.3. HVAC

See Section 7.1 for building mechanical systems.

8.4. PLUMBING

Domestic water is supplied by the central system described in Section 7.2.

9. OTHER STRUCTURES

A storage building, referred to as the "Tractor Building" is located on the south side of the property. The storage building is a concrete masonry unit bearing wall structure with a concrete slab on grade. The building has two roll up overhead doors with mechanical openers. The roof is a flat construction comprised of wood joists and a plywood substrate. It is finished with a multi-layer built up roofing membrane. The exterior walls are painted.

Observations/Comments:

- The exterior finishes are in fair to poor condition. Based on the Estimated Useful Life and the observed conditions, painting the exterior walls is recommended during the term. The cost for this work is included in Section 6.4.
- The roofing is in poor condition and is leaking. A full roof replacement is recommended. The cost for this work is included in Section 6.3.
- Bird nests were observed on the interior in the structure. The soffit and fascia are in fair to poor condition caused by birds looking for insects. Repairs should be conducted as part of routine maintenance.
- The exterior doors and door hardware are in fair condition. See Section 6.6 for recommendations and costs.

Sustainable Recommendations:

- Sustainable recommendations for the exterior finishes are to use low VOC paints.

10. ENERGY BENCHMARKING

This section is pending additional information from the client.

11. APPENDICES

APPENDIX A: Photographic Record

APPENDIX B: Floor Plan

APPENDIX C: Supporting Documentation

APPENDIX D: EMG Abbreviated Accessibility Checklist

APPENDIX E: Pre-Survey Questionnaire and Documentation Request Checklist

APPENDIX F: Acronyms and Out of Scope Items

APPENDIX G: Resumes for Report Reviewer and Field Observer

APPENDIX A:
PHOTOGRAPHIC RECORD

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-012.017 **Project Name: Newfield Elementary School**

Photo #1:	Front elevation with ADA designated stalls along front – parallel with sidewalk

Photo #2:	Front elevation of modular wing

Photo #3:	North side of modular

Photo #4:	East side of modular

Photo #5:	Exterior entrance to modular wing from playground areas

Photo #6:	Entrance into link between modular and main building

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-012.017 **Project Name: Newfield Elementary School**

Photo #7:	Partial elevation where modular link joins main building

Photo #8:	Partial elevation of north "B" wing

Photo #9:	Partial elevation of north "B" wing

Photo #10:	East elevation of Media Center

Photo #11:	Rear elevation along main office spaces

Photo #12:	North elevation of right side classroom "A" wing

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-012.017 **Project Name: Newfield Elementary School**

Photo #13:	Kindergarten elevations

Photo #14:	Partial right end of front elevation

Photo #15:	Courtyard

Photo #16:	Underside of covered walkway

Photo #17:	Damaged fascia and canopy at loading dock

Photo #18:	Water stained covered walkway of modular wing

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-012.017 **Project Name: Newfield Elementary School**

Photo #19:	East side of modular – evidence of active nesting and wood damaging birds

Photo #20:	Area needing patching at B wing

Photo #21:	Loose window gasket

Photo #22:	Rusting door at classroom

Photo #23:	Damaged mortar and shifting of brick veneer at rear off of main office area

Photo #24:	Damaged soffit

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-012.017 **Project Name: Newfield Elementary School**

Photo #25:	Spalling soffit near kindergarten classrooms

Photo #26:	Far right front elevation at kindergarten area

Photo #27:	Cracking brick and exposed rebar at front canopy at kindergarten area

Photo #28:	Roof hatch secured by rope

Photo #29:	Modular roofing

Photo #30:	Skylights and roof overview of B wing

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-012.017 **Project Name: Newfield Elementary School**

Photo #31:	Evidence of ponding and area requiring resloping to existing drainage device

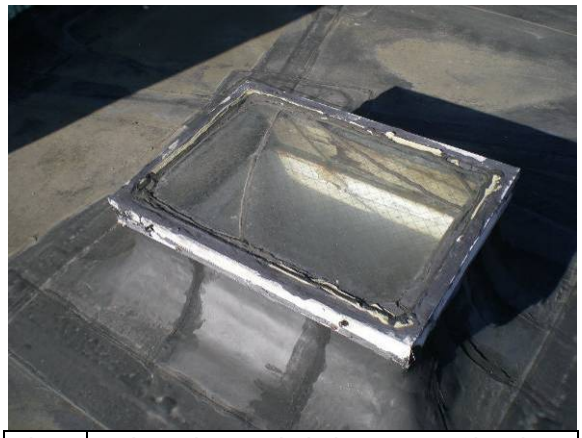


Photo #32:	Broken glass at skylight near roof hatch

Photo #33:	Wall of gymnasium extending above roof line

Photo #34:	Damaged joints at gymnasium – typical throughout gymnasium

Photo #35:	Roof overview showing skylight monitor over Media Center

Photo #36:	Skylights over gymnasium

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-012.017 **Project Name: Newfield Elementary School**

Photo #37:	Mastic covered skylight glass blocks

Photo #38:	No drainage devices on north side of courtyard roof

Photo #39:	Broken/damaged skylights at main covered walkway

Photo #40:	Storage building with moss build up on roof

Photo #41:	Entrance to main office

Photo #42:	Main lobby

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-012.017 **Project Name: Newfield Elementary School**

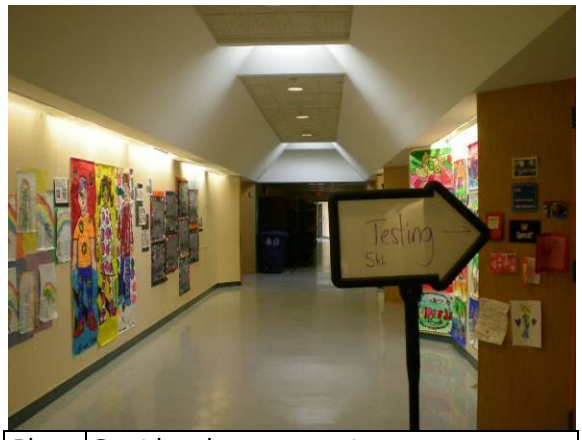


Photo #43:	Corridor along gymnasium

Photo #44:	Tables stored in corridor when gymnasium not used as cafeteria

Photo #45:	Unisex ADA restroom across from gymnasium

Photo #46:	Nurse's office

Photo #47:	Media Center

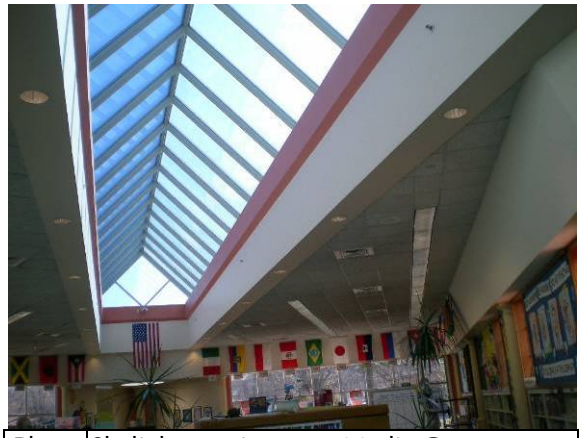


Photo #48:	Skylight monitor over Media Center

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-012.017 **Project Name: Newfield Elementary School**

Photo #49:	Computer lab

Photo #50:	Suspect mold in computer lab

Photo #51:	Storefront door not properly fit into wall – open gaps to exterior with air infiltration

Photo #52:	Rear wall of auditorium

Photo #53:	Carpet condition in auditorium

Photo #54:	Condition of veneered wood paneling in auditorium

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-012.017 **Project Name: Newfield Elementary School**

Photo #55:	Evidence of termite damage at access panel at rear of auditorium

Photo #56:	Evidence of termite damage in auditorium near access panel

Photo #57:	Staff restroom across from Gym

Photo #58:	Staff restroom across from Gym

Photo #59:	Condition of gate, structure and bumper at loading dock

Photo #60:	Stair to basement missing steel tread nosings

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-012.017 **Project Name: Newfield Elementary School**

Photo #61:	Storage shed in playground area

Photo #62:	Storage building in playground area

Photo #63:	Damaged fascia and soffit of storage building

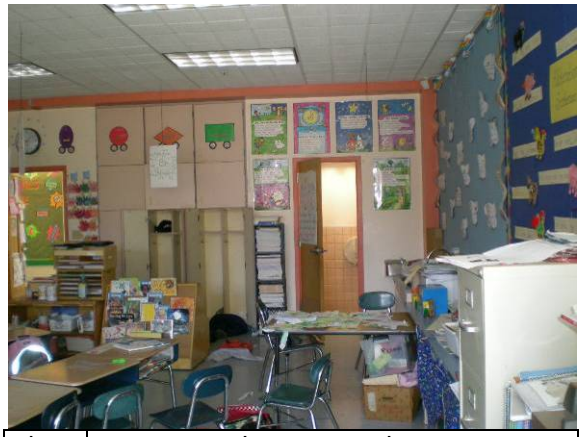


Photo #64:	Restroom and storage in classroom

Photo #65:	Kindergarten classroom

Photo #66:	Sink and water fountain in classroom

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-012.017 **Project Name: Newfield Elementary School**

Photo #67:	Gymnasium/cafeteria

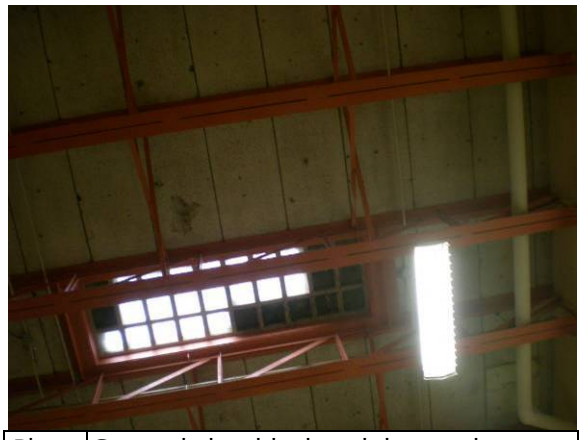


Photo #68:	Covered glass block and damaged tectum panels at ceiling of gymnasium/cafeteria

Photo #69:	Gymnasium being set up for cafeteria use

Photo #70:	Structure in basement under raised flooring

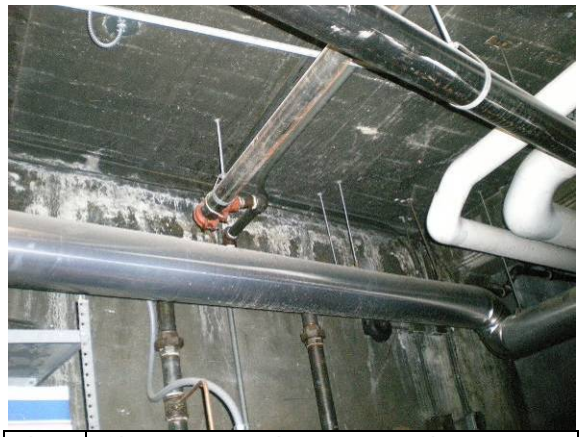


Photo #71:	Efflorescence in basement under downspout in corner near transformer

Photo #72:	Corridor link to modular wing

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-012.017 **Project Name: Newfield Elementary School**

Photo #73:	Classroom in modular wing

Photo #74:	Evidence of roof leaks in corridor

Photo #75:	Ceiling staining in Classroom 316

Photo #76:	Typical corridor in classroom wings

Photo #77:	Girls' student restroom

Photo #78:	Girls' student restroom

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-012.017 **Project Name: Newfield Elementary School**

Photo #79:	Area above efflorescence in basement – evidence of ponding – near transformer

Photo #80:	Spalling under main walkway canopy

Photo #81:	Front elevation of building with building identification signage

Photo #82:	Building identification signage at front elevation of building

Photo #83:	Main property entrance drive off Pepper Ridge Road (missing property signage)

Photo #84:	Main parking lot at front of building

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-012.017 **Project Name: Newfield Elementary School**

Photo #85:	Parking lot at the front of the modular building

Photo #86:	Accessible parking adjacent to building main entrance

Photo #87:	Exit asphalt drive lane

Photo #88:	Entrance to parking lot in front of modular building

Photo #89:	Cracking and worn asphalt paving at main parking lot

Photo #90:	Caved in section at exit asphalt drive lane

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-012.017 **Project Name: Newfield Elementary School**

Photo #91:	Basketball courts at left side of building

Photo #92:	Asphalt play area at right side of building

Photo #93:	Asphalt play area at right side of building

Photo #94:	Concrete sidewalk at front elevation

Photo #95:	Asphalt sidewalk along Pepper Ridge Road

Photo #96:	Concrete sidewalk at right side of building

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-012.017 **Project Name: Newfield Elementary School**

Photo #97:	Worn landscaping path rear of modular building (install asphalt sidewalk)

Photo #98:	Deterioration and spalling of concrete sidewalk at left side of building

Photo #99:	Deterioration and spalling of concrete sidewalk at rear of building

Photo #100:	Settlement and cracking at concrete sidewalk at right side of building

Photo #101:	Drainage inlet at parking lot

Photo #102:	Drainage inlet at landscaping

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-012.017 **Project Name: Newfield Elementary School**

Photo #103:	Tree overgrowing roof surface

Photo #104:	Tree overgrowing roof surface

Photo #105:	Deterioration at brick retaining wall adjacent to loading dock

Photo #106:	Wood pole light at parking lot

Photo #107:	Building light fixture

Photo #108:	Surface-mounted light fixtures at front covered walk

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-012.017 **Project Name: Newfield Elementary School**

Photo #109:	Playground equipment at left side of building

Photo #110:	Playground equipment at right side of building

Photo #111:	Site concrete steps with metal railings

Photo #112:	Stone masonry landscaping adjacent to main parking lot

Photo #113:	Brick retaining wall adjacent to loading dock

Photo #114:	Ball field and chain link fence backstop at rear of school (northeast elevation)

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-012.017 **Project Name: Newfield Elementary School**

Photo #115:	Ball field and chain link fence backstop at rear of school (southwest elevation)

Photo #116:	Bleachers at ball field

Photo #117:	Basketball backstop

Photo #118:	Chain link fencing at south side of building

Photo #119:	Dumpsters and below-grade UST adjacent to loading dock

Photo #120:	Opening in chain link fence at rear property line

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-012.017 **Project Name: Newfield Elementary School**

Photo #121:	Failing chain link fence at rear property line

Photo #122:	Abandoned pole light concrete base at main parking lot entrance

Photo #123:	Rooftop package unit (RTU), for media center, with rubber covering HVAC ducting

Photo #124:	Ponding at HVAC rooftop ducting

Photo #125:	Deterioration at HVAC rooftop ducting

Photo #126:	Rooftop package unit (RTU) for modular classrooms

Photo #127:	Rooftop package unit (RTU) for modular classrooms

Photo #128:	Older rooftop package unit (RTU) for modular classrooms

Photo #129:	Replacement RTU for older rooftop package unit

Photo #130:	Heating boilers (one with side jackets off the boiler)

Photo #131:	Leaning metal support post at gas piping to boiler

Photo #132:	HV-2 High-capacity AHU for Gymnasium/Cafeteria

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-012.017 **Project Name: Newfield Elementary School**

Photo #133:	In-wall mounted radiant heat unit at corridor

Photo #134:	Replacement in-wall mounted radiant heat unit at end of corridor

Photo #135:	Perimeter radiant heat unit at classroom

Photo #136:	Perimeter baseboard radiant heat unit at office

Photo #137:	Through-window air conditioner

Photo #138:	Domestic water boilers

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-012.017 **Project Name: Newfield Elementary School**

Photo #139:	Overview of common area restroom

Photo #140:	Common area restroom lavatory sinks

Photo #141:	Floor-mounted toilet at common area restroom

Photo #142:	Boys common area restroom urinals

Photo #143:	Restroom at classroom on "A" Wing

Photo #144:	Classroom sink and drinking fountain on "A" Wing

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-012.017 **Project Name: Newfield Elementary School**

Photo #145:	Common area drinking fountain

Photo #146:	Unused domestic water booster system

Photo #147:	Enclosed gas metering

Photo #148:	Pad-mounted transformer

Photo #149:	Main electrical switchgear in basement of building

Photo #150:	Main electric meter at exterior stairs adjacent to basement

Project No.: 88166.09R-012.017 **Project Name: Newfield Elementary School**

Photo #151:	Original and worn circuit break panels at stage

Photo #152:	Original circuit break panel at corridor

Photo #153:	School PA system equipment at office

Photo #154:	Building security panels

Photo #155:	Sound system equipment for stage

Photo #156:	Loose and exposed wiring at receptacle outlet at Auditorium

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-012.017 **Project Name: Newfield Elementary School**

Photo #157:	Fire hydrant along Pepper Ridge Road

Photo #158:	Central fire alarm panel at office

Photo #159:	Annunciator panel at entrance vestibule

Photo #160:	Main fire suppression system at basement

Photo #161:	Dry-pipe riser at modular building

Photo #162:	Fire suppression fire pump and controller at basement

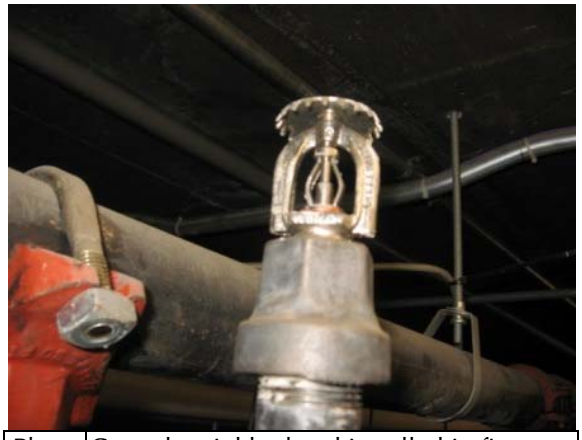


Photo #163:	Central sprinkler head installed in fire suppression system at basement

Photo #164:	Kitchen exhaust hood without fire suppression system

Photo #165:	Fire pull station, strobe alarm and building security code pad

Photo #166:	Illuminated exit sign and fire sprinkler head

Photo #167:	Smoke detector at common area

Photo #168:	Emergency backup lights at common area

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-012.017 **Project Name: Newfield Elementary School**

Photo #169:	Cabinet-mounted fire extinguisher in common area

Photo #170:	Siamese hose connector at front of building

Photo #171:	Combination emergency lights/illuminated exit sign

Photo #172:	Storage of folding tables in corridor adjacent to Gym/Cafeteria

Photo #173:	Kitchen gas range

Photo #174:	Convection ovens in kitchen

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-012.017 **Project Name: Newfield Elementary School**

Photo #175:	Chest cooler in kitchen

Photo #176:	Kitchen dishwasher

Photo #177:	Steam table in kitchen

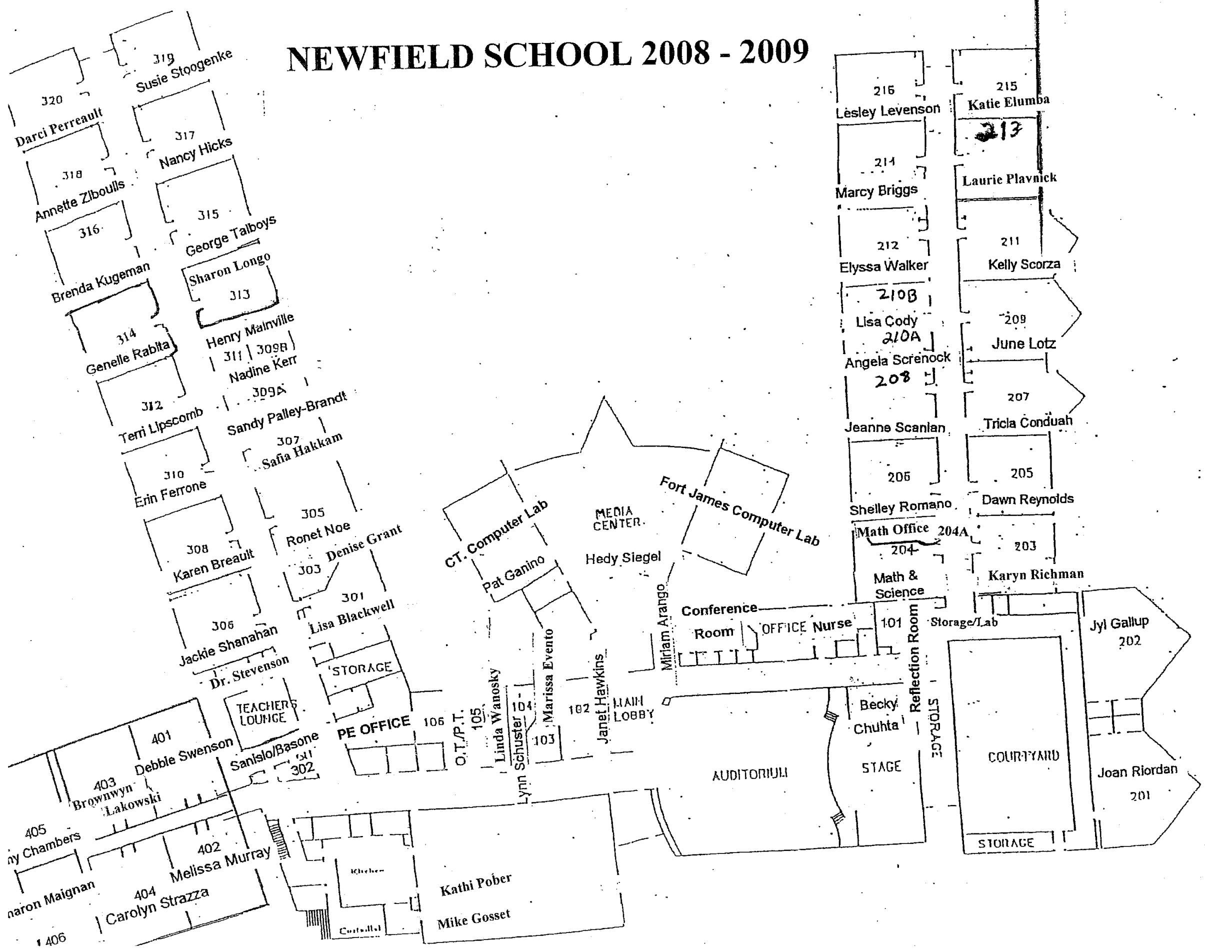
Photo #178:	Refrigeration units in kitchen

Photo #179:	Three-compartment sink in kitchen

Photo #180:	Rooftop refrigeration unit and exhaust hood

APPENDIX B:
FLOOR PLAN

NEWFIELD SCHOOL 2008 - 2009



APPENDIX C:
SUPPORTING DOCUMENTATION

Dannel P. Malloy
Mayor

City of Stamford
Office of the Fire Marshal
888 Washington Boulevard
P.O.Box 10152
Stamford, Connecticut 06904-2152
(203) 977-4661 Fax#(203) 977-5475

Barry E. Calfahan
Chief Fire Marshal

Notice of Connecticut Fire Safety Code Violations

Responsible Party:
Joshua Starr, Ed. D
888 Washington Boulevard
Stamford CT 06901

Newfield

February 20, 2009

Certified Mail #
Return Reciept Requested

Re: 349 Pepper Ridge RD
Tax List # 002-6072

Responsible Party To Scheduled A Re-Inspection Date For No LaterThan
09/01/2008

CSFSC Code	Description/Location of Violation	CSFSC Statute/NFPA Section	Page	Counts	Corrected On
14.13.2.1/NFPA1	*Emergency Lighting-Periodic Testing*		0	1	

Required emergency lighting systems shall be tested in accordance with 14.13.2.1.1
Testing of required emergency lighting systems shall be permitted to be conducted as follows:
(1) Functional testing shall be conducted at 30-day intervals for not less than 30 seconds.
(2) Functional testing shall be conducted annually for not less than 1½ hours if the emergency lighting system is battery powered.
(3) The emergency lighting equipment shall be fully operational for the duration of the tests required by 14.13.2.1.1(1) and14.13.2.1.1(2).
(4) Written records of visual inspections and tests shall be kept by the owner for inspection by the AHJ. [101:7.9.3.1.1]
** Several emergency lighting units were found inoperable during the power shut down test. In addition, several exit access corridors were found lacking proper emergency lighting coverage. A letter certifying that the yearly 90 minute test was performed shall be provided to this Office. EL fixtures shall be repaired, replaced, and/or added where required.

CSFSC Code	Description/Location of Violation	CSFSC Statute/NFPA Section	Page	Counts	Corrected On
15.2.1.1	*Means Of Egress Shall Be In Accordance With*		0	2	

Means of egress shall be in accordance with Chapter 7 and Section 15.2.

** The double doors at the front of the auditorium that exit to the parking lot were found difficult to open. These doors shall be repaired and/or replaced to ensure easy operation in case of fire or other emergency.

Inspection Conducted By:

Ted Panagiotopoulos
District Fire Marshal

Enclosures:
Supervisor:

As noted in the accompanying Abatement Order of Fire/Life Safety Hazards all violations must be corrected within thirty (30) days except for those identified in the specific violation.

Dannel P. Malloy
Mayor

City of Stamford
Office of the Fire Marshal
888 Washington Boulevard
P.O.Box 10152
Stamford, Connecticut 06904-2152
(203) 977-4851 Fax#(203) 977-5475

Barry E. Callahan
Chief Fire Marshal

Notice of Connecticut Fire Safety Code Violations

Responsible Party:
Joshua Starr, Ed. D
888 Washington Boulevard
Stamford CT 06901

Re: 349 Pepper Ridge RD
Tax List # 002-6072

February 20, 2009

Certified Mail #
Return Reciept Requested

Responsible Party To Scheduled A Re-Inspection Date For No LaterThan
09/01/2008

CSFSC Code	Description/Location of Violation	CSFSC Statute/NFPA Section	Page	Counts	Corrected On
15.2.10	***Marking Of Means Of Egress. Means Of Egress Shall***		0	4	

** Exit signage shall be provided in the basement storage/utility areas and boiler room. Illuminated exit signs with battery back-up feature shall be installed over exits that lead out of the boiler room and basement. Combination exit sign/emergency lighting units can be used at these locations.

CSFSC Code	Description/Location of Violation	CSFSC Statute/NFPA Section	Page	Counts	Corrected On
15.2.10	***Marking Of Means Of Egress. Means Of Egress Shall***		0	2	

** The two main exit access corridors on the main level of the building lack proper exit signage spacing. An additional illuminated exit sign with battery back-up feature shall be installed at the half way point in both main exit access corridors to ensure proper visibility and direction to exits. These additional exit signs shall be double faced signs that can be seen from both directions in the corridors.

Inspection Conducted By:

Ted Panagiotopoulos
District Fire Marshal

Enclosures:
Supervisor:

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CSFSC Code	Description/Location of Violation	CSFSC Statute/NFPA Section	Page	Counts	Corrected On
15.2.9.1	*Emergency Lighting*		0	8	

Emergency lighting shall be provided in accordance with Section 7.9 unless otherwise permitted by 15.2.9.2.

** Additional emergency lighting shall be provided in the basement storage/utility areas and boiler room. These are windowless spaces that were found lacking proper emergency lighting. The main exit access paths and interior stairs leading form the basement to the main level shall be provided with emergency lighting. Combination exit sign/emergency lighting units can be utilized in some applications.

CSFSC Code	Description/Location of Violation	CSFSC Statute/NFPA Section	Page	Counts	Corrected On
15.2.9.1	*Emergency Lighting*		0	8	

Emergency lighting shall be provided in accordance with Section 7.9 unless otherwise permitted by 15.2.9.2.

** Exit access corridors on the main level of the building lack proper emergency lighting coverage. Additional EL fixtures shall be installed as required to cover deficient areas. Reference NFPA 70, National Electrical Code.

Inspection Conducted By:

Ted Panagiotopoulos
District Fire Marshal

Enclosures:
Supervisor:

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CSFSC Code	Description/Location of Violation	CSFSC Statute/NFPA Section	Page	Counts	Corrected On
15.3.2	***Protection From Hazards.***		0	1	

** The interior fire door separating the boiler room from the basement storage/utility areas is not properly latching. This door shall be repaired and/or replaced to ensure proper closure and latching into its door frame.

CSFSC Code	Description/Location of Violation	CSFSC Statute/NFPA Section	Page	Counts	Corrected On
15.3.2	***Protection From Hazards.***		0	1	

** A basement storage closet was found to be missing door. This opening shall be protected with a self-closing fire rated door.

Inspection Conducted By:

Ted Panagiotopoulos
District Fire Marshal

Enclosures:
Supervisor:

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Dannel P. Malloy
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888 Washington Boulevard
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Barry E. Callahan
Chief Fire Marshal

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888 Washington Boulevard
Stamford CT 06901

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CSFSC Code	Description/Location of Violation	CSFSC Statute/NFPA Section	Page	Counts	Corrected On
15.3.2.2	***Cooking Facilities***		0	1	

Cooking facilities shall be protected in accordance with 9.2.3. Openings shall not be required to be protected between food preparation areas and dining areas.

** The kitchen commercial cooking hood system has not been steam cleaned. This equipment shall be serviced at least annually in accordance with NFPA 96. A current service sticker shall be affixed to the hood indicating last service date.

Inspection Conducted By:

Ted Panagiotopoulos
District Fire Marshal

Enclosures:
Supervisor:

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888 Washington Boulevard
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Newfield

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CSFSC Code	Description/Location of Violation	CSFSC Statute/NFPA Section	Page	Counts	Corrected On
14.13.2.1/NFPA1	*Emergency Lighting-Periodic Testing*		0	1	

Required emergency lighting systems shall be tested in accordance with 14.13.2.1.1
Testing of required emergency lighting systems shall be permitted to be conducted as follows:
(1) Functional testing shall be conducted at 30-day intervals for not less than 30 seconds.
(2) Functional testing shall be conducted annually for not less than 1½ hours if the emergency lighting system is battery powered.
(3) The emergency lighting equipment shall be fully operational for the duration of the tests required by 14.13.2.1.1(1) and14.13.2.1.1(2).
(4) Written records of visual inspections and tests shall be kept by the owner for inspection by the AHJ. [101:7.9.3.1.1]
** Several emergency lighting units were found inoperable during the power shut down test. In addition, several exit access corridors were found lacking proper emergency lighting coverage. A letter certifying that the yearly 90 minute test was performed shall be provided to this Office. EL fixtures shall be repaired, replaced, and/or added where required.

CSFSC Code	Description/Location of Violation	CSFSC Statute/NFPA Section	Page	Counts	Corrected On
15.2.1.1	*Means Of Egress Shall Be In Accordance With*		0	2	

Means of egress shall be in accordance with Chapter 7 and Section 15.2.

** The double doors at the front of the auditorium that exit to the parking lot were found difficult to open. These doors shall be repaired and/or replaced to ensure easy operation in case of fire or other emergency.

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CSFSC Code	Description/Location of Violation	CSFSC Statute/NFPA Section	Page	Counts	Corrected On
15.2.10	***Marking Of Means Of Egress. Means Of Egress Shall***		0	4	

** Exit signage shall be provided in the basement storage/utility areas and boiler room. Illuminated exit signs with battery back-up feature shall be installed over exits that lead out of the boiler room and basement. Combination exit sign/emergency lighting units can be used at these locations.

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15.2.10	***Marking Of Means Of Egress. Means Of Egress Shall***		0	2	

** The two main exit access corridors on the main level of the building lack proper exit signage spacing. An additional illuminated exit sign with battery back-up feature shall be installed at the half way point in both main exit access corridors to ensure proper visibility and direction to exits. These additional exit signs shall be double faced signs that can be seen from both directions in the corridors.

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CSFSC Code	Description/Location of Violation	CSFSC Statute/NFPA Section	Page	Counts	Corrected On
15.2.9.1	*Emergency Lighting*		0	8	

Emergency lighting shall be provided in accordance with Section 7.9 unless otherwise permitted by 15.2.9.2.

** Additional emergency lighting shall be provided in the basement storage/utility areas and boiler room. These are windowless spaces that were found lacking proper emergency lighting. The main exit access paths and interior stairs leading form the basement to the main level shall be provided with emergency lighting. Combination exit sign/emergency lighting units can be utilized in some applications.

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15.2.9.1	*Emergency Lighting*		0	8	

Emergency lighting shall be provided in accordance with Section 7.9 unless otherwise permitted by 15.2.9.2.

** Exit access corridors on the main level of the building lack proper emergency lighting coverage. Additional EL fixtures shall be installed as required to cover deficient areas. Reference NFPA 70, National Electrical Code.

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CSFSC Code	Description/Location of Violation	CSFSC Statute/NFPA Section	Page	Counts	Corrected On
15.3.2	***Protection From Hazards.***		0	1	

** The interior fire door separating the boiler room from the basement storage/utility areas is not properly latching. This door shall be repaired and/or replaced to ensure proper closure and latching into its door frame.

CSFSC Code	Description/Location of Violation	CSFSC Statute/NFPA Section	Page	Counts	Corrected On
15.3.2	***Protection From Hazards.***		0	1	

** A basement storage closet was found to be missing door. This opening shall be protected with a self-closing fire rated door.

Inspection Conducted By:

Ted Panagiotopoulos
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Supervisor:

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15.3.2.2	***Cooking Facilities***		0	1	

Cooking facilities shall be protected in accordance with 9.2.3. Openings shall not be required to be protected between food preparation areas and dining areas.

** The kitchen commercial cooking hood system has not been steam cleaned. This equipment shall be serviced at least annually in accordance with NFPA 96. A current service sticker shall be affixed to the hood indicating last service date.

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Supervisor:

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APPENDIX D:
EMG ABBREVIATED ACCESSIBILITY CHECKLIST

Property Name: Newfield Elementary School
Date: March 17, 2009
Project Number: 88166.09R-012.017

EMG Abbreviated Accessibility Checklist					
	Building History	**Yes**	**No**	**N/A**	**Comments**
1.	Has the management previously completed an ADA review?		✓		
2.	Have any ADA improvements been made to the property?	✓			Restroom across from gymnasium is accessible
3.	Does a Barrier Removal Plan exist for the property?		✓		
4.	Has the Barrier Removal Plan been reviewed/approved by an arms-length third party such as an engineering firm, architectural firm, building department, other agencies, etc.?			✓	
5.	Has building ownership or management received any ADA related complaints that have not been resolved?		✓		
6.	Is any litigation pending related to ADA issues?		✓		
	Parking	**Yes**	**No**	**N/A**	**Comments**
1.	Are there sufficient parking spaces with respect to the total number of reported spaces?		✓		
2.	Are there sufficient van-accessible parking spaces available (96" wide/ 96" aisle for van)?		✓		
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?		✓		

EMG Abbreviated Accessibility Checklist					
5.	Do curbs on the accessible route have depressed, ramped curb cuts at drives, paths, and drop-offs?	✓			But no accessible stalls
6.	Does signage exist directing you to accessible parking and an accessible building entrance?		✓		Front entrance is accessible for drop off only
	Ramps	**Yes**	**No**	**N/A**	**Comments**
1.	If there is a ramp from parking to an accessible building entrance, does it meet slope requirements? (1:12)			✓	
2.	Are ramps longer than 6 ft complete with railings on both sides?			✓	
3.	Is the width between railings at least 36 inches?			✓	
4.	Is there a level landing for every 30 ft horizontal length of ramp, at the top and at a the bottom of ramps and switchbacks?			✓	
	Entrances/Exits	**Yes**	**No**	**N/A**	**Comments**
1.	Is the main accessible entrance doorway at least 32 inches wide?	✓			
2.	If the main entrance is inaccessible, are there alternate accessible entrances?			✓	
3.	Can the alternate accessible entrance be used independently?			✓	
4.	Is the door hardware easy to operate (lever/push type hardware, no twisting required, and not higher than 48 inches above the floor)?	✓			
5.	Are main entry doors other than revolving door available?	✓			
6.	If there are two main doors in series, is the minimum space between the doors 48 inches plus the width of any door swinging into the space?	✓			
	Paths of Travel	**Yes**	**No**	**N/A**	**Comments**
1.	Is the main path of travel free of obstruction and wide enough for a wheelchair (at least 36 inches wide)?	✓			
2.	Does a visual scan of the main path reveal any obstacles (phones, fountains, etc.) that protrude more than 4 inches into walkways or corridors?		✓		

EMG Abbreviated Accessibility Checklist					
3.	Are floor surfaces firm, stable, and slip resistant (carpets wheelchair friendly)?	✓			
4.	Is at least one wheelchair-accessible public telephone available?	✓			
5.	Are wheelchair-accessible facilities (toilet rooms, exits, etc.) identified with signage?	✓			
6.	Is there a path of travel that does not require the use of stairs?	✓			
7.	If audible fire alarms are present, are visual alarms (strobe light alarms) also installed in all common areas?		✓		
	Elevators	**Yes**	**No**	**N/A**	**Comments**
1.	Do the call buttons have visual signals to indicate when a call is registered and answered?			✓	
2.	Is the "UP" button above the "DOWN" button?			✓	
3.	Are there visual and audible signals inside cars indicating floor change?			✓	
4.	Are there standard raised and Braille marking on both jambs of each host way entrance?			✓	
5.	Do elevator doors have a reopening device that will stop and reopen a car door if an object or a person obstructs the door?			✓	
6.	Do elevator lobbies have visual and audible indicators of car arrival?			✓	
7	Does the elevator interior provide sufficient wheelchair turning area (51″ x 68″)?			✓	
8.	Are elevator controls low enough to be reached from a wheelchair (48 inches front approach/54 inches side approach)?			✓	
9.	Are elevator control buttons designated by Braille and by raised standard alphabet characters (mounted to the left of the button)?			✓	
10.	If a two-way emergency communication system is provided within the elevator cab, is it usable without voice communication?			✓	
	Restrooms	**Yes**	**No**	**N/A**	**Comments**
1.	Are common area public restrooms located on an accessible route?	✓			
2.	Are pull handles push/pull or lever type?	✓			

EMG Abbreviated Accessibility Checklist					
3.	Are there audible and visual fire alarm devices in the toilet rooms?		✓		
4.	Are corridor access doors wheelchair-accessible (at least 32 inches wide)?	✓			
5.	Are public restrooms large enough to accommodate a wheelchair turnaround (60″ turning diameter)?	✓			
6.	In unisex toilet rooms, are there safety alarms with pull cords?		✓		
7.	Are stall doors wheelchair accessible (at least 32″ wide)?		✓		
8.	Are grab bars provided in toilet stalls?	✓			
9.	Are sinks provided with clearance for a wheelchair to roll under (29″ clearance)?	✓			
10.	Are sink handles operable with one hand without grasping, pinching or twisting?	✓			
11.	Are exposed pipes under sink sufficiently insulated against contact?		✓		
12.	Are soap dispensers, towel, etc. reachable (48″ from floor for frontal approach, 54″ for side approach)?		✓		
13.	Is the base of the mirror no more than 40″ from the floor?	✓			

APPENDIX E:
PRE-SURVEY QUESTIONNAIRE AND DOCUMENTATION REQUEST CHECKLIST

PRE-SURVEY QUESTIONNAIRE

This questionnaire was completed by the property owner, the owner's designated representative, or someone knowledgeable about the subject property. ***This completed form*** was ***presented to EMG's Field Observer on the day of the site visit***.

Project Name:	**Newfield Elementary School**	**Project Number:**	**88166.09R-012.017**
Person completing form:	**Victor Ponce**	**Date:**	**March 17, 2009**
Association with Project:	**Head Custodian**	**Phone Number:**	**203.253.1409**
Years associated w/Proj.:	**1**	**Fax Number:**	
Current Owner:		**Estimated Value:**	

Unk = Unknown, NA = Not Applicable

	Yes	No	Unk	NA	Comments
1. Does the property have full-time maintenance personnel on site?	✓				
2. Have there been any capital improvements in the last five years?			✓		
If so, are details available?					
3. Are there any unresolved building, fire, or zoning code issues?		✓			There are active violations on file.
If so, what additional info is available?					
4. Are there any "down", unusable units?		✓			
5. Are there any problems or hazards at the property?		✓			
6. Has the property ever had an ADA accessibility review?			✓		
If so, is a copy available?					
7. Does a Barrier removal plan exist for the property?		✓			
8. Are there any unresolved accessibility issues at the property?		✓			
9. Is there any pending litigation concerning the property?		✓			
10. Is site drainage adequate?	✓				
11. Has a termite inspection occurred within the last year?		✓			
Is a copy of an inspection report available?					
12. Are there any problems with foundations or structures?		✓			
If so, are there plans to address?					
13. Is there any water infiltration in basements or crawl spaces?	✓				
14. Are there any wall or window leaks?		✓			
15. Are there any poorly insulated areas?		✓			
16. Are there any current roof leaks at the property?	✓				Media Center office, computer lab, kitchen
17. Are any roof finishes more than ten years old?			✓		
18. Is the roofing covered by a warranty or bond?			✓		Partial roof covered
19. Is Fire Retardant Treated (FRT) plywood used at the property?			✓		
20. Does the property have an exterior insulation and finish system (EIFS) with a synthetic stucco finish			✓		
21. Do the utilities (electric, gas, sewer, water) provide adequate service?		✓			Low water pressure reported

	Yes	No	Unk	NA	Comments
22. Is the property served by an on site water system?		✓			
23. Is the property served by an on site septic system?		✓			
24. If present, do irrigation systems function properly?				✓	
25. Are HVAC systems at the property inspected and maintained, at a minimum, annually?	✓				
26. Is the HVAC equipment more than ten years old?			✓		
27. Do any of the HVAC systems use R-11, 12, or 22 refrigerants?			✓		
28. Do tenants contract for their own HVAC work?	✓				
29. Has any HVAC system, or any other part of the property, ever contained visible suspect mold growth?		✓			
If so, where and when?					
30. Has the property ever been tested for indoor air quality or suspect mold?		✓			
If so, where and when? Results?					
31. Is there a response action in place to prevent mold growth or respond to its presence?	✓				Visual check
If so, describe. Is a copy available?					
32. Are the water heaters/boilers more than ten years old?			✓		
33. Is polybutylene piping used at the property?		✓			
34. Are there any plumbing leaks or water pressure problems?	✓				
35. Are the any leaks or pressure problems with natural gas service?		✓			
36. Does any part of the electrical system use aluminum wiring?			✓		
37. Do Residential units have a min. of 60-Amp service or Commercial units have a min. 200-Amp service?	✓				
38. Has elevator equipment been replaced in the last ten years?				✓	
39. Are the elevators maintained by a contractor on a regular basis?				✓	
40. Is the elevator emergency communication equipment functional?				✓	
41. Is the elevator emergency communication equipment ADA compliant?				✓	
42. Have the fire/life safety systems been inspected within the last year?	✓				
43. Are there any smoke evacuation or pressurization systems?			✓		
44. Are there any recalled Omega or Central brand fire sprinkler heads that have not yet been replaced?			✓		
45. Are there any emergency electrical generators?				✓	
46. Are the generators maintained on a regular basis?				✓	
47. Do tenants contract for their own improvement work?			✓		
48. Are tenants responsible for any roof, HVAC, or exterior wall maintenance, repair, or replacement?			✓		
If so, what, where and how?					
49. Have there been previous due diligence, engineering, environmental, or geological studies done?			✓		
If so, are copies available?					

	Yes	No	Unk	NA	Comments
50. Is there anything else that EMG should know about when assessing this property? If so, what?			✓		

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.

APPENDIX F:
ACRONYMS AND OUT OF SCOPE ITEMS

ASTM E2018-01 ACRONYMS

ADA - The Americans with Disabilities Act
ASTM - American Society for Testing and Materials
BOMA - Building Owners & Managers Association
BUR - Built-up Roofing
DWV – Drainage, Waste, Ventilation
EIFS - Exterior Insulation and Finish System
EMF – Electro Magnetic Fields
EMS - Energy Management System
EUL - Expected Useful Life
FEMA - Federal Emergency Management Agency
FFHA - Federal Fair Housing Act
FIRMS - Flood Insurance Rate Maps
FNA – Facilities Needs Assessment
FRT- Fire Retardant Treated
FOIA - U.S. Freedom of Information Act (5 USC 552 et seq.) and similar state statutes.
FOIL - Freedom of Information Letter
FM - Factory Mutual
HVAC - Heating, Ventilating and Air-conditioning
IAQ - Indoor Air Quality
MEP – Mechanical, Electrical & Plumbing
NFPA - National Fire Protection Association
PCR - Property Condition Report
PML - Probable Maximum Loss
RTU - Rooftop Unit
RUL - Remaining Useful Life
STC – Sound Transmission Class
UBC – Uniform Building Code

Ref #	Section 8: ASTM E 2018-01 Out of Scope Items
8.4.1.8	***Utilities:*** Operating conditions of any systems or accessing manholes or utility pits.
8.4.2.2	***Structural Frame and Building Envelope:*** Entering of crawl or confined space areas (however, field observer should observe conditions to the extent easily visible from the point of access to the crawl or confined space areas), determination of previous substructure flooding or water penetration unless easily visible or if such information is provided.
8.4.3.2	***Roofs:*** Walking on pitched roofs, or any roof areas that appear to be unsafe, or roofs with no built-in access, or determining any roofing design criteria.
8.4.4.2	***Plumbing:*** Determining adequate pressure and flow rate, fixture-unit values and counts, or verifying pipe sizes and verifying the point of discharge for underground systems.
8.4.5.2	***Heating:*** Observation of flue connections, interiors of chimneys, flues or boiler stacks, or -owned or maintained equipment.
8.4.6.2	***Air-conditioning and Ventilation:*** Evaluation of process related equipment or condition of owned/maintained equipment.
8.4.7.2	***Electrical:*** Removing of electrical panel covers, except if removed by building staff, EMF issues, electrical testing, or operating of any electrical devices. Process related equipment or owned equipment.
8.4.8.2	***Vertical Transportation:*** Examining of cables, sheaves, controllers, motors, inspection tags, or entering elevator/escalator pits or shafts
8.4.9.1	***Life Safety / Fire Protection***: Determining NFPA hazard classifications, classifying, or testing fire rating of assemblies.
8.4.10.2	***Interior Elements:*** Operating appliances or fixtures, determining or reporting STC (Sound Transmission Class) ratings, and flammability issues/regulations.

Ref #	Section 11: ASTM E 2018-01 Out of Scope Items
11.1	*Activity Exclusions* - The activities listed below are generally excluded from or otherwise represent limitations to the scope of a Comprehensive Building Condition Assessment prepared in accordance with this *guide*. These should not be construed as all-inclusive or implying that any exclusion not specifically identified is a Comprehensive Building Condition Assessment requirement under this *guide*.
11.1.1	Removing or relocating materials, furniture, storage containers, personal effects, debris material or finishes; conducting exploratory probing or testing; *dismantling* or operating of equipment or appliances; or disturbing personal items or *property* which obstructs access or visibility.
11.1.2	Preparing *engineering* calculations (civil, structural, mechanical, electrical, etc.) to determine any *system's*, *component's*, or equipment's adequacy or compliance with any specific or commonly accepted design requirements or *building codes*, or preparing designs or specifications to remedy any *physical deficiency*.
11.1.3	Taking measurements or quantities to establish or confirm any information or representations provided by the *owner* or *user* such as: size and dimensions of the *subject property* or *subject building*, any legal encumbrances such as easements, dwelling unit count and mix, building *property* line setbacks or elevations, number and size of parking spaces, etc.
11.1.4	Reporting on the presence or absence of pests such as wood damaging organisms, rodents, or insects unless evidence of such presence is readily apparent during the course of the *field observer's walk-through survey* or such information is provided to the *consultant* by the *owner*, *user*, property manager, etc. The *consultant* is not required to provide a *suggested remedy* for treatment or remediation, determine the extent of infestation, nor provide *opinions of probable costs* for treatment or remediation of any deterioration that may have resulted.
11.1.5	Reporting on the condition of subterranean conditions such as underground utilities, separate sewage disposal *systems*, wells; *systems* that are either considered process-related or peculiar to a specific tenancy or use; waste water treatment plants; or items or *systems* that are not permanently installed.

Ref #	Section 11: ASTM E 2018-01 Out of Scope Items
11.1.6	Entering or accessing any area of the premises deemed to pose a threat of *dangerous or adverse conditions* with respect to the *field observer* or to perform any procedure, which may damage or impair the physical integrity of the *property*, any *system*, or *component*.
11.1.7	Providing an opinion on the condition of any *system* or *component,* which is *shutdown,* or whose operation by the *field observer* may significantly increase the registered electrical demand-load. However, *consultant* is to provide an opinion of its physical condition to the extent reasonably possible considering its age, obvious condition, manufacturer, etc.
11.1.8	Evaluating acoustical or insulating characteristics of *systems* or *components*.
11.1.9	Providing an opinion on matters regarding security of the *subject property* and protection of its occupants or *users* from unauthorized access.
11.1.10	Operating or witnessing the operation of lighting or other *systems* typically controlled by time clocks or that are normally operated by the building's operation staff or service companies.
11.1.11	Providing an environmental assessment or opinion on the presence of any environmental issues such as asbestos, hazardous wastes, toxic materials, the location and presence of designated wetlands, IAQ, etc.
11.2	*Warranty, Guarantee and Code Compliance Exclusions* - By conducting a Comprehensive Building Condition Assessment and preparing a PCR, the *consultant* is merely providing an opinion and does not warrant or guarantee the present or future condition of the *subject property,* nor may the Comprehensive Building Condition Assessment be construed as either a warranty or guarantee of any of the following:
11.2.1	any *system's* or *component's* physical condition or use, nor is a Comprehensive Building Condition Assessment to be construed as substituting for any *system*'s or equipment's warranty transfer inspection;
11.2.2	compliance with any federal, state, or local statute, ordinance, rule or regulation including, but not limited to, *building codes*, safety codes, environmental regulations, health codes or zoning ordinances or compliance with trade/design standards or the standards developed by the insurance industry. However, should there be any conspicuous *material* present violations *observed* or reported based upon *actual knowledge* of the *field observer* or the *PCR reviewer*, they should be identified in the PCR;
11.2.3	compliance of any material, equipment, or *system* with any certification or actuation rate program, vendor's or manufacturer's warranty provisions, or provisions established by any standards that are related to insurance industry acceptance/approval such as FM, State Board of Fire Underwriters, etc.
11.3	Additional/General Considerations:
11.3.1	Further Inquiry - There may be physical condition issues or certain physical improvements at the *subject property* that the parties may wish to assess in connection with a *commercial real estate transaction* that are outside the scope of this *guide*. Such issues are referred to as non-scope considerations and if included in the PCR, should be identified under Section 10.9.
11.3.2	*Non-Scope Considerations* - Whether or not a *user* elects to inquire into non-scope considerations in connection with this *guide* is a decision to be made by the *user*. No assessment of such non-scope considerations is required for a Comprehensive Building Condition Assessment to be conducted in compliance with this *guide*.

APPENDIX G:
RESUMES FOR REPORT REVIEWER AND FIELD OBSERVER

BILL CHAMPION, PMP

Program Manager

Cost Segregation Manager

Education

- MBA from the University of Rochester (Simon)
- MS in Mechanical Engineering from the State University of New York at Buffalo
- BS in Mechanical Engineering from the State University of New York at Buffalo

Project Experience

- ***Housing Authority of the City of Pittsburgh, Pittsburgh, PA*** – Mr. Champion was a member of the Quality Assurance Review Team for this Physical Needs Assessment portfolio that encompassed over 6,114 housing units within 20 separate communities in City of Pittsburgh, Pennsylvania. The objective of the PNA was to provide a general description of all physical improvements that the Client would need to undertake to bring its properties, including dwellings and non-dwellings structures, to a level that will provide safe, decent and sanitary living conditions for the residents. Mr. Champion utilized his engineering expertise to ensure that the methodology and protocol were not compromised during the execution of the assessment.
- ***George Mason University, Fairfax, VA***- As Program Manager, Mr. Champion was responsible for meeting with the Client and developing a specific program that exceeded the Client's expectations. The program was designed to provide facility condition assessments and prepare a database for tracking, systems, building components, deficiencies and replacements. This database was customized further to include a detailed equipment inventory. This database was designed based on Client input and the end user in mind. Mr. Champion's ability to troubleshoot issues allowed EMG to conduct this program effectively and maintain the schedule and budget.
- ***University of Virginia, Charlottesville, VA*** – Mr. Champion performed Facilities Condition Audits on academic buildings on the campus of The University of Virginia. He evaluated building condition and systems, outlined physical deficiencies and gave recommendations for prioritizing them to maximize safety and minimize long-term costs.

Industry Tenure

- A/E: 1994
- EMG: 2002

Related Experience

- Multifamily Housing Portfolios
- Government Agency Portfolios
- K-12 Education Portfolios
- Higher Education Portfolios
- Retail Portfolios
- Industrial Portfolios

Industry Experience

- Multi-family Housing
- Cost Segregation
- Government
- Retail
- Industrial
- K-12 Education
- Higher Education

Active Licenses / Registrations

- Certified Project Management Professional (PMP) by the Project Management Institute, # 50241
- Engineer in Training in the State of New York, # 046094
- Member- American Society of Mechanical Engineers

Regional Location

- Baltimore, Maryland

MICHAEL A. YOUNG

Senior Engineering Consultant

Education

- BS, Agricultural Engineering, The University of Georgia, Athens, Georgia

Project Experience

- ***Hospitality, Nationwide –*** Mr. Young served as the technical lead on a Property Condition Evaluation portfolio. A number of additional studies were required during the completion of this portfolio that were critical to the client in determining property needs.
- ***Healthcare - Skilled Nursing and Assisted Living, Nationwide -*** Mr. Young was the technical lead for a 183 site portfolio of SNF/ALF properties. He reviewed reports, participated in kick-off and progress meetings and provided summaries and follow-on studies/issues matrices to the client. All projects were completed on schedule and delivered on time to the client.
- ***Retail/Office – Bank, Nationwide –*** Mr. Young served as the technical lead for a 75 property portfolio of bank properties. The objective of the portfolio was to provide Property Condition Assessment reports addressing any property needs required and anticipated during the evaluation period.
- ***Multi-Family, Nationwide -*** Mr. Young was the technical lead for a Property Condition Assessment portfolio of approximately 43 Multi-Family Residential properties. Many of the properties in this portfolio required or were currently experiencing major renovation work. Other properties were under construction. Accurate state of renovation/construction and costs for any remaining work were significant to the client to make an effective business decision.
- ***Industrial - Packaging, Southern U.S. –*** Mr. Young was the technical lead for a Property Condition Assessment portfolio of approximately 34 industrial properties. The objective of the portfolio was to provide initial preliminary field reports and cost tables for each property and ultimately a full Property Condition Assessment report, including immediate repairs and reserve replacements.
- Michael has completed in excess of 150 Property Condition Assessments (debt reports) and Property Condition Evaluations (equity reports) while at EMG.
- Michael has reviewed or been technically involved in excess of 1,000 Property Condition Assessments (debt reports), Property Condition Evaluations (equity reports), and other due diligence related reports while at EMG.

Industry Tenure

- A/E: 1996
- EMG: 2004

Related Experience

- Healthcare/Senior Housing Portfolios
- Industrial/Warehouse Portfolios
- National Hotel Chain Portfolios
- Multifamily Housing Portfolios
- Manufactured Home Community Portfolios
- Retail Portfolios

Industry Experience

- Healthcare/Senior Living Housing
- Hospitality
- Retail
- Multifamily Housing
- Affordable Housing/HUD
- Office
- Industrial/Warehouse Facilities
- Manufactured Home Communities

Regional Location

- Atlanta, GA

JILL E. ORLOV

Technical Report Reviewer

Education

- Masters of Architecture, University of Pennsylvania, Philadelphia, PA
- BS, Architecture, University of Virginia, Charlottesville, VA

Project Experience

- ***Hotel Property, Pittsburgh, PA –*** As Project Manager, Ms. Orlov performed a property condition assessment of this 132 unit, six-story hotel property. She reviewed the condition of the building structure and systems and developed a thorough report. Her work helped EMG complete this project on time and on budget.
- ***Nursing Home, Charleston, SC –*** Ms. Orlov completed a property condition assessment of this 89,900 square feet building consisting of 148 units. During her evaluation of the facility, she conducted interviews with the property manager and maintenance staff. Her findings included information on existing building conditions, site improvements, mechanical and electrical systems and code accessibility information.
- ***Office Building, Richmond, VA –*** Ms. Orlov completed a property condition assessment on this 31,000 square feet, two and three story office building located in Richmond. She conducted interviews with the property manager and maintenance staff. Findings included information on existing building conditions, site improvements, mechanical and electrical systems and code and accessibility information.
- ***Higher Education Stadium, Fairfax, VA –*** Ms. Orlov completed a property condition assessment on this 162,221 square feet, three story sports arena building located in Fairfax. She conducted interviews with the property manager and maintenance staff. Findings included information on existing building conditions, site improvements, mechanical and electrical systems and code and accessibility information. The client found her structural and roof observations critical to their final business decision. This project was a part of a large portfolio of projects EMG completed for our client.

Industry Tenure

- A/E: 1991 - 2004
- EMG: July, 2004 to present

Industry Experience

- Government Facilities
- Office
- Industrial
- Housing/Multi-family
- K-12
- Higher Education
- Hospitality
- Healthcare
- Retail

Active Licenses/Registration

- Architectural, MD

Special Skills & Training

- AUTOCAD, 2000

Regional Location

- Baltimore, MD

MARK F. CHAMBERLAIN

Project Manager

Education

- Coursework Completed In Business Administration, Manchester Community College, Manchester, CT, 1985

Project Experience

- ***Herman T. Schneebeli Federal Building, Williamsport, PA -*** Mr. Chamberlain performed a comprehensive Building Evaluation Report (BER) on this 81,308 SF Federal Building consisting of offices and courtrooms. His knowledge of electrical, fire suppression and security elements was critical to the level of detail required for this assessment. Mr. Chamberlain then summarized the site investigations in a GSA Level IV Report prepared exclusively for the client.
- ***Stafford County Public Schools, Stafford, VA*** – Mr. Chamberlain, a professional well-versed in this industry's standards, has performed several Building Condition Assessments on public schools. During his evaluations of the facilities, he conducted interviews with the Facilities Assessment Engineer and Maintenance Staff. His findings included information on existing building conditions to include electrical, security and energy efficient lighting systems.
- ***Foxchase at Alexandria, Alexandria, VA –*** Mr. Chamberlain performed a Physical Needs Assessment (PNA) on one of the largest multi-family properties in the eastern United States. Project consisted of 2,113 dwelling units contained in 200 buildings on 88 acres. Responsibilities included recommending immediate repair items and replacement reserve items over the loan term.
- ***Carriage House Apartments, Petersburg, VA*** – The Moisture Infiltration & Mold Assessment conducted by Mr. Chamberlain at this multi-family property was to identify moisture infiltration-related issues. Upon the on-site assessment, he provided a formal written report to assist the client in identifying and resolving the moisture infiltration deficiencies observed to a level that will provide safe, decent and sanitary living conditions for the residents.
- ***155 Commerce Way, Dover, DE –*** Mr. Chamberlain performed a Property Condition Assessment (PCA) on this 111,632 SF commercial building consisting of office and warehouse space. His knowledge of structural and mechanical building elements was crucial to the level of detail required for this assessment. The report was clear and concise, yet thorough. He provided the information that was essential to the client's needs.

Industry Tenure

- A&E: 1987
- EMG: 2006

Industry Experience

- Commercial
- Government Facilities
- Office Properties
- Industrial
- Higher Education
- K-12
- Retail/Wholesale
- Housing/Multi-family
- Nursing Home Facilities
- Assisted Living Portfolios
- Public Housing Portfolios

Active Licenses/Registration

- Certified Level I & Building Science Thermographer Certification, 2005

Special Skills & Training

- EPA/AHERA Certified Asbestos Inspector / Management Planner 2004
- EPA Model Lead Paint Risk Assessor 2003
- Certified Level I & Building Science Thermographer 2005
- HUD Sponsored Multi-Family Accelerated Processing (MAP) Training Hartford, Connecticut 2001
- Advanced Building Diagnostics and Repairs 2004
- Building Moisture – Avoiding Building Envelope and Mechanical Systems 2003

Regional Location

- Baltimore, MD