FACILITIES NEEDS ASSESSMENT

STAMFORD PUBLIC SCHOOLS

888 Washington Boulevard
Stamford, Connecticut 06901
Domenick Tramontozzi

FACILITIES NEEDS ASSESSMENT

OF

STILLMEADOW ELEMENTARY SCHOOL

800 Stillwater Avenue
Stamford, Connecticut 06902

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-011.017
Date of Report: August 27, 2009
On-site Date: March 23, 2009

EMG

Replacement Reserves Report
Elementary Schools / Stillmeadow Elementary
8/27/2009

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%

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	2895	Measured ADA Study of Property	0	0	0	1	EA	$6,930.00	$6,930	$6,930										**$6,930**
1.2	2611	Follow-up Engineering Review of Storm Drainage System	0	0	0	1	EA	$6,930.00	$6,930	$6,930										**$6,930**
3.1	2966	Remove and replace wrought iron railings	0	0	0	200	LF	$207.03	$41,406	$41,406										**$41,406**
3.1	2899	ADA cane detection barrier rails	30	30	0	4	PR	$144.90	$580	$580										**$580**
3.1	2904	Replace school door knobs with ADA lever	20	20	0	105	EA	$682.92	$71,707	$71,707										**$71,707**
3.1	2921	ADA, lower existing toilet room accessories and mirrors	0	0	0	35	EA	$115.11	$4,029	$4,029										**$4,029**
3.1	2903	Add ADA Grab Bar and blocking	20	20	0	10	EA	$1,575.00	$15,750	$15,750										**$15,750**
3.1	2902	ADA, Renovate restroom for full compliance	20	20	0	4	EA	$15,120.00	$60,480	$60,480										**$60,480**
3.1	2915	ADA Audible Signals at Floor Change	20	20	0	2	Floor	$504.00	$1,008	$1,008										**$1,008**
3.1	2917	Provide ADA compliant call buttons	0	0	0	2	EA	$5,670.00	$11,340	$11,340										**$11,340**
3.1	2919	Provide ADA compliant hall lanterns at the elevator	0	0	0	2	EA	$6,300.00	$12,600	$12,600										**$12,600**
3.1	2916	Install ADA electronic eye door closers	15	15	0	1	EA	$8,114.40	$8,114	$8,114										**$8,114**
3.1	2918	Replace the existing car position indicators with ADA compliant indicator	20	20	0	1	Floor	$3,150.00	$3,150	$3,150										**$3,150**
3.1	2913	Add ADA raised markings at elevator control panel, jambs and hall buttons	0	0	0	2	Floor	$693.00	$1,386	$1,386										**$1,386**
3.1	2920	Replace Cab controls with ADA compliant devices	0	0	0	1	EA	$31,115.70	$31,116	$31,116										**$31,116**
3.1	2922	Replace lavatory with ADA lever handles	20	20	0	10	EA	$699.30	$6,993	$6,993										**$6,993**
3.1	2901	ADA Drinking Fountain Cup Dispenser	15	15	0	4	EA	$69.30	$277	$277										**$277**
3.1	2912	ADA, Install curb cut, concrete, 6" rise	25	25	0	3	EA	$1,164.34	$3,493	$3,493										**$3,493**
3.1	2897	ADA, Parking lot access aisle striping	0	0	0	120	LF	$8.19	$983	$983										**$983**
3.1	2898	ADA - Install signage indicating Accessible Parking, pole mounted	20	20	0	4	EA	$134.01	$536	$536										**$536**
3.1	2948	ADA, install 2 - rail, 1-1/2" handrail on exterior ramp, wall mounted, one side	20	20	0	60	LF	$106.39	$6,384	$6,384										**$6,384**
3.1	2909	ADA, install 2 - rail, 1-1/2" handrail on exterior ramp, wall mounted, one side	20	20	0	40	LF	$106.39	$4,256	$4,256										**$4,256**
3.1	2923	ADA, Wrap drain pipes below accessible lavatory	0	0	0	25	EA	$81.90	$2,048	$2,048										**$2,048**
5.2	2609	Replace damaged concrete	30	29	1	90	SY	$450.99	$40,589		$40,589									**$40,589**
5.2	2607	Cut & Patch asphalt	10	9	1	600	SF	$3.01	$1,807		$1,807									**$1,807**
5.2	2606	Overlay asphalt	10	9	1	31.4	1000 SF	$963.02	$30,239		$30,239									**$30,239**
5.2	2608	Seal Coat and stripe asphalt, no repairs	5	1	4	9.045	10000 SF	$4,315.53	$39,034					$39,034					$39,034	**$78,068**
5.2	2605	Cut & Patch asphalt	10	9	1	4000	SF	$3.01	$12,046		$12,046									**$12,046**
5.2	2610	Replace concrete curbs	25	24	1	60	LF	$38.12	$2,287		$2,287									**$2,287**
5.3	3042	Replace Corrugated metal pipe 36" dia, 25 ft length.	30	30	0	5	EA	$4,460.72	$22,304	$22,304										**$22,304**
5.3	3116	Storm drainage improvement allowance to mitigate ponding	0	0	0	1	EA	$148,207.50	$148,208	$148,208										**$148,208**
5.4	2613	Replace wood RR-tie wall	25	24	1	650	SF Face	$33.29	$21,638		$21,638									**$21,638**
5.4	2612	Mature Tree Removal or major trimming	0	0	0	8	EA	$1,108.80	$8,870	$8,870										**$8,870**
5.5	2620	Replace wood fence dumpster enclosure	10	9	1	35	LF	$79.38	$2,778		$2,778									**$2,778**
5.5	2615	Replace wall pack 55 watt low pressure sodium	0	0	0	6	EA	$733.33	$4,400	$4,400										**$4,400**
5.5	2614	Replace exterior wall mt light, 100 watt	15	14	1	8	EA	$194.36	$1,555		$1,555									**$1,555**
5.5	3536	Replace poured in place rubber surfacing	12	6	6	3500	SF	$34.65	$121,275							$121,275				**$121,275**
5.5	4839	Replace chain link fence, 8-foot high	20	18	2	950	LF	$64.58	$61,346			$61,346								**$61,346**
5.5	2617	Replace stone retaining wall, mortar set	50	49	1	180	SF Face	$94.82	$17,067		$17,067									**$17,067**

Replacement Reserves Report
Elementary Schools / Stillmeadow Elementary
8/27/2009

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
5.5	2618	Add wood chips, 3" deep, hand spread	10	5	5	300	SY	$7.23	$2,170						$2,170					**$2,170**
5.5	2619	Replace exterior wood bench, 8' long	15	15	0	2	EA	$1,399.08	$2,798	$2,798										**$2,798**
5.5	2616	Replace Aluminum pole-mounted double light 400 W HPS fixture and pole	20	20	0	6	EA	$8,644.36	$51,866	$51,866										**$51,866**
6.3	12151	Stamford Roof Assessment - EPDM Replacement	20	11	9	29	SQ	$1,595.75	$46,277										$46,277	**$46,277**
6.3	12148	Stamford Roof Assessment Roof Repair Recommendations	0	0	0	1	EA	$3,455.44	$3,455	$3,455										**$3,455**
6.4	2968	Remove and replace plywood siding	0	0	0	500	SF	$4.94	$2,470	$2,470										**$2,470**
6.4	2964	Caulking, polyurethane,1/4"x1/4", remove and replace	15	7	8	8400	LF	$4.84	$40,643									$40,643		**$40,643**
6.4	2963	Point brick wall first floor	10	5	5	218	CSF	$1,194.48	$260,397						$260,397					**$260,397**
6.6	2953	Replace 3'-0" x 4'-0" st. fr. screen window - 2nd floor	40	38	2	40	EA	$403.83	$16,153			$16,153								**$16,153**
6.6	2952	Replace 3'-0" x 4'-0" wd. fr. screen window - 1st floor	40	40	0	40	EA	$325.71	$13,028	$13,028										**$13,028**
6.6	2951	Replace 3' x 4' aluminum window operable	25	25	0	18	EA	$1,147.86	$20,661	$20,661										**$20,661**
6.6	2950	Replace 2' x 3' aluminum window fixed	25	23	2	30	EA	$738.36	$22,151			$22,151								**$22,151**
6.6	2949	Replace 6' x 3' aluminum window first floor	25	17	8	204	EA	$2,085.30	$425,401									$425,401		**$425,401**
6.6	2956	Replace 3'-0" x 7'-0" steel, insulated core, ptd. door	45	43	2	21	EA	$2,895.48	$60,805			$60,805								**$60,805**
6.6	2957	Remove and replace solid core wood door - unrated	25	20	5	105	EA	$519.12	$54,508						$54,508					**$54,508**
6.8	2959	Replace accordion folding partition, acoustical, fire rated to 17' tall	0	-3	3	900	SF	$49.01	$44,113	$44,113										**$44,113**
6.8	4847	Replace raised rubber flooring	18	14	4	200	SY	$267.37	$53,474					$53,474						**$53,474**
6.8	2962	Replace Vinyl tile	18	12	6	8333	SY	$81.90	$682,473							$682,473				**$682,473**
6.8	2958	Replace acoustical ceiling tile system, fire rated,including demo	20	18	2	15	CSF	$627.48	$9,412			$9,412								**$9,412**
6.8	2961	Replace acoustical ceiling tile system, complete including demo	20	14	6	700	CSF	$522.90	$366,030							$366,030				**$366,030**
6.8	2967	Curtains velour medium weight	0	0	0	1500	SF	$20.99	$31,487	$31,487										**$31,487**
6.8	4844	Asbestos floor tile and mastic removal	0	0	0	74997	SF	$3.15	$236,241	$236,241										**$236,241**
7.1	4843	Exhaust Fan 2000 CFM	10	7	3	6	EA	$9,278.64	$55,672				$55,672							**$55,672**
7.1	3033	Multi-zone AC rooftop unit 15-ton	15	9	6	1	EA	$94,626.00	$94,626							$94,626				**$94,626**
7.1	2624	Single zone rooftop unit 5-ton	15	6	9	1	EA	$10,836.00	$10,836										$10,836	**$10,836**
7.1	2623	Single zone rooftop unit 5-ton	15	8	7	1	EA	$10,836.00	$10,836								$10,836			**$10,836**
7.1	2622	Single zone rooftop unit 7.5-ton	15	9	6	1	EA	$14,238.00	$14,238							$14,238				**$14,238**
7.2	6167	Capital Plan - Install outdoor drinking fountain, pedestal type	0	0	0	2	EA	$2,451.56	$4,903	$4,903										**$4,903**
7.2	4842	Replace drinking fountain	10	8	2	10	EA	$1,505.70	$15,057			$15,057								**$15,057**
7.2	6168	Capital Plan - Install one inch copper pipe for drinking fountain	0	0	0	300	LF	$31.63	$9,488	$9,488										**$9,488**
7.4	6162	Capital Plan -Add Electrical Distribution for Classroom and Office Technology	20	20	0	60000	SF	$3.26	$195,804	$195,804										**$195,804**
7.4	6120	Upgrade lighting for energy conservation	0	0	0	87000	SF	$5.92	$515,214	$515,214										**$515,214**
7.4	6154	Capital Plan - Communications & Security including alarms,internet wiring, communication systems and emergency lighting	15	15	0	87000	SF	$3.15	$274,050	$274,050										**$274,050**
7.4	3039	Install Diesel Generator 150KW	25	24	1	1	EA	$129,874.50	$129,875		$129,875									**$129,875**
7.5	3040	Replace elevator hydraulic system, 2000 lb capacity	25	22	3	1	EA	$22,680.00	$22,680				$22,680							**$22,680**
7.5	2625	Elevator cab doors, replace	20	16	4	1	EA	$14,269.50	$14,270					$14,270						**$14,270**
7.5	3041	Modernize hydraulic elevator controller and signals, to 3 stories	25	22	3	1	EA	$51,786.00	$51,786				$51,786							**$51,786**
7.5	2626	Replace passenger cab finishes	20	16	4	1	EA	$18,345.60	$18,346					$18,346						**$18,346**
7.6	2628	Install Ansul System at kitchen hood	20	20	0	1	EA	$5,990.29	$5,990	$5,990										**$5,990**
8.1	2960	Replace accordion folding partition, acoustical, fire rated to 17' tall	0	-5	5	850	SF	$49.01	$41,662	$41,662										**$41,662**
8.1	2965	Paint interior walls, CMU,including surface prep	7	3	4	70000	SF	$1.12	$78,498					$78,498						**$78,498**
8.1	3584	Replace carpet - standard commercial	8	5	3	1300	SY	$63.23	$82,195				$82,195							**$82,195**

Replacement Reserves Report
Elementary Schools / Stillmeadow Elementary
8/27/2009

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
8.1	4841	Remove and replace institutional cabinet & Counter up to 5'	30	26	4	16	EA	$2,252.88	$36,046					$36,046						**$36,046**
8.1	3014	Horizontal Blinds aluminum 1" slats	7	2	5	4590	SF	$9.64	$44,243						$44,243					**$44,243**
8.2	12149	Stamford Kitchen Equipment Replacement Allowance	10	5	5	1	EA	$63,000.00	$63,000						$63,000					**$63,000**
Totals, Unescalated										**$1,938,507**	**$259,880**	**$184,925**	**$212,333**	**$239,668**	**$424,317**	**$1,278,642**	**$10,836**	**$466,044**	**$96,147**	**$5,111,296**
Soft Costs:																				
		Architectural/Consultant Fees (10.0%)								**$193,851**	**$25,988**	**$18,492**	**$21,233**	**$23,967**	**$42,432**	**$127,864**	**$1,084**	**$46,604**	**$9,615**	**$511,130**
		General Requirements (Bonds, Insurance, GC/CM Mark-up) (10.0%)								**$193,851**	**$25,988**	**$18,492**	**$21,233**	**$23,967**	**$42,432**	**$127,864**	**$1,084**	**$46,604**	**$9,615**	**$511,130**
		Prevailing Wage/Labor Compliance (5.0%)								**$96,925**	**$12,994**	**$9,246**	**$10,617**	**$11,983**	**$21,216**	**$63,932**	**$542**	**$23,302**	**$4,807**	**$255,565**
		Contingency (5.0%)								**$96,925**	**$12,994**	**$9,246**	**$10,617**	**$11,983**	**$21,216**	**$63,932**	**$542**	**$23,302**	**$4,807**	**$255,565**
Location Factor (1.11)										**$207,420**	**$27,807**	**$19,787**	**$22,720**	**$25,644**	**$45,402**	**$136,815**	**$1,159**	**$49,867**	**$10,288**	**$546,909**
Totals, Escalated (see inflation table above)										**$2,727,479**	**$376,620**	**$278,714**	**$332,824**	**$394,454**	**$733,275**	**$2,320,143**	**$20,645**	**$932,333**	**$201,961**	**$8,318,450**

* Markup has been included in unit costs.

TABLE OF CONTENTS

CERTIFICATION

EMG has completed a Comprehensive Facilities Needs Assessment of the subject property, Stillmeadow Elementary School, located at 800 Stillwater Avenue, 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.

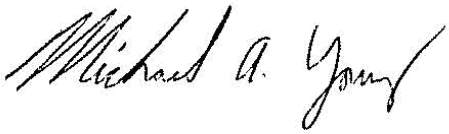
This report has been prepared on behalf of and exclusively for the use of City of Stamford, Connecticut Public Schools for the purpose stated within Section 2.0 of this report. The report, or any excerpt thereof, shall not be used by any party other than City of Stamford, Connecticut Public Schools or 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: Scott A. Cameron, R.A. and Kevin Lantry, Field Observers

Reviewed by:



Michael A. Young
mayoung@emgcorp.com for
Bill Champion
Director - Asset Management Consulting
800.733.0660, x6234
bchampion@emgcorp.com

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:	800 Stillwater Avenue, Stamford, Fairfield County, Connecticut, 06902
Year constructed:	1900 Renovated 1989
Current owner of property:	City of Stamford
School occupying building:	Stillmeadow Elementary School
Current usage of property:	Elementary
Management Point of Contact:	City of Stamford Engineering, Domenic Tramontozzi and Robert Gerbert, Jr. 203.977.5534 phone 203.977.4137 fax
Site acreage:	12.80 acres
Gross floor area:	87,000 Square Feet
Number of buildings:	One
Number of stories:	1 and 2
Parking type and number of spaces:	141 spaces in four open lots, Bus drop-off area at east side.
Building construction:	Entirely reinforced concrete slab-on-grade Masonry non-bearing walls and open web steel joist roofs. Steel frame with concrete-topped metal decks.
Bay Column Spacing:	Approximately 24 feet x 35 feet
Interior vertical clearance:	13′-4″ at 1st floor, 12′-8″ at 2nd floor
Roof construction:	Predominantly flat, fully adhered white EPDM systems Flat fully adhered EPDM at 2 modular classrooms
Exterior Finishes:	Unpainted brick veneer, painted wood and metal trim
Heating and/or Air-conditioning:	Rooftop package units ducted to VAV terminals with hot water reheat coils, supplied by central boilers. Auxiliary ventilation provided by air handling units with gas-fired duct furnaces.
Fire and Life/Safety:	Fire sprinklers (wet pipe and dry pipe systems), Central alarm system with control panel and annunciator, Security system, hydrants, smoke detectors, alarms, extinguishers

Property Information	
Date of visit:	March 24, 2009
Point of Contact (POC):	Mr. Michael Sanders, Principal 203.977.4507 Mr. John Calorossi, Head Custodian 203.977.4828

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

According to City of Stamford Public Schools personnel, the property has had a limited capital improvement expenditure program over the past three years, primarily consisting of two new central heating boilers, asphalt pavement crack repairs, and white EPDM roof replacement in 2002. Supporting documentation was not provided in support of these claims but some of the work is evident.

1.2. FOLLOW-UP RECOMMENDATIONS

The following issues require additional study:

- The Property has received very few mobility impaired/handicapped accessibility related improvements with regards to entrances, stairs/ramps and toilet rooms. The only accessible entrance is at the front office entrance. Restrooms are not fully accessible. 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 improvements are included in the Replacement Reserves Report and described in detail is included in Section 3.1.
- Based on evidence of erosion and reports of significant ponding during periods of heavy rain, it appears that the property experiences significant storm water runoff from properties to the west of the school. Ponding was reported in the west parking lot, possibly due to backups in the underground drainage culvert at the northwest corner of the property. Ponding and erosion were reported in the Boundless Playground and the ball field at the south side of the property, possibly due to inadequate drainage and runoff from adjacent properties. A site drainage study is recommended to identify the source of the issues and recommend the required repairs. The cost of the study is included in the Replacement Reserves Report. The cost to restore the drainage is to be determined by the study. Estimated costs to repair the apparent issues are included in section 5.3.
- There are unresolved Fire Code violations. See Section 3.2 of the Facilities Needs Assessment for descriptions and comments.

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 and 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
Mr. Michael Sanders Principal	Stillmeadow Elementary School	203.977.4507
Mr. John Calorossi Head Custodian	Stillmeadow Elementary School	203.977.4828
Mr. Gus Burreisci Project Manager	City of Stamford Public Schools	203.223.8118

The Comprehensive Facilities Needs Assessment was performed with the assistance of Mr. Michael Sanders, Principal and Mr. John Calorossi, Head Custodian, 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 14 years and 8 months years, 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 drawings by Lyons, Mather, Lechner Architects dated October 12, 1970

- Site plan change drawings by Studer Design Associates, Landscape Architects and Site Planners dated July 24, 1992
- Roof replacement drawings by Seckler Associates – Architects / Planners dated May 17, 2001
- Modular classroom drawings by PFS Corporation and certified by ARTHUR dated November 19, 1992
- Aerial photograph flight April 1998 and plotted February 28, 2001
- Capital improvement summary
- Roof warranty information
- Certificates of occupancy

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 AND 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

- Access aisles adjacent to parking spaces, crossing hazardous vehicle areas, from main roadways or public transportation stops to the building sidewalks and entrances are not provided. Currently the two nearest common entrances (front and rear) to the two ADA parking stalls have no painted access aisle striping. Install approximately 120 LF of striping to each entrance.
- The two curbs at the crosswalk leading from the north side of Stillwater Avenue to the carport currently have no dropped curbs allowing wheelchair access. Install two concrete dropped curbs.
- One existing dropped curb and wheelchair apron located to the south of the main entrance along the carport sidewalk are badly deteriorated and cracked. All damaged concrete should be replaced to achieve a smooth walking surface.
- Pole-mounted signage directing to accessible parking spaces at the facility are is provided at the head end of the four rear parking lot ADA spaces.

Entrances/Exits

- Lever action hardware is not provided at all accessible locations including classrooms, toilet rooms and offices. Replace all knobs with level type hardware.

Paths of Travel

- Install cup dispenser at four existing non-conforming water fountains along the corridors.

  All common child water fountains located along the corridors currently project more than 4" into the space. Install cane detection bars on either side of each fountain.
- The existing interior ramp within the media center is currently equipped with only one wood handrail. A second handrail should be installed to comply with ADAAG.
- The existing interior corridor ramp leading to the two modular classrooms is currently equipped with only one handrail. A second handrail should be installed to comply with ADAAG.
- Each of the common stairwells is equipped with a painted metal railing system with baluster spacing of 8 inches. All railing should be removed and replaced or modified to meet current 4 inch baluster spacing.

Elevators

- The elevator lobbies are currently not equipped with Braille at the jambs.
- The elevator is currently not equipped with audible signals indicating floor change or arrival at each lobby.
- The elevator is currently not equipped with a Pana-40 type electronic eye door re-opener device.
- The elevator is currently not equipped with ADA compliant call buttons at each landing.
- The elevator is currently not equipped with ADA compliant car position indicators.
- The elevator is currently not equipped with ADA compliant hall lanterns at each landing.

  The elevator is currently not equipped with ADA compliant cab control buttons or devices.

Restrooms

- The four main multi-user boy's and girl's common toilet rooms require major modifications to the doorway, privacy wall, fixtures and accessories to be fully handicapped accessible and comply with ADAAG.
- Install grab bars in accessible stalls at 36" above the floor. All common toilet room toilets, both single and multi-user, currently have no grab bars. One non-compliant grab bar was noted at the nurse's office. All toilets should be equipped with proper ADA grab bars.
- Modify existing toilet room accessories and mirrors. All common toilet room toilets, both single and multi-user, currently have improperly mounted accessories (soap, toilet paper and towels) set too high. In addition, mirrors are typically mounted too high as well. All accessories and mirrors should be replaced and set at the correct ADA heights.
- Modify existing lavatory faucets to paddle type faucets. Several of the common toilet room toilets, both single and multi-user, currently have knob type or non-ADA type sink hardware. All affected sinks should be equipped with lever type sink hardware.
- Wrap drain pipes below lavatory with insulation; protect against contact with hot, sharp, or abrasive surfaces. All common toilet room toilets, both single and multi-user, currently have no drain pipe insulation padding. All affected sinks should have padding installed.

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 Fire Marshal, Tony Olive of the Turn of River Fire Department, there are open outstanding fire code violations on file regarding the two main stairwells with balusters spaced at more than 4 inches. A cost to correct this condition is included in Section 3.1. The most recent inspection was conducted by the fire department on January 4, 2009. The fire department inspects the property on an annual basis.

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. EMG did not note obvious visual indications of the presence of mold, conditions conducive to mold, or evidence of moisture in readily accessible interior areas of the property. No further action or investigation is recommended regarding mold at the property.

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**
41	Classroom	0	0
22	Office	0	0
3	Mechanical	0	0
6	Storage	0	0
1	Gymnasium/ Auditorium	0	0
1	Cafeteria	0	0
1	Media Center	0	0
75	**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 head custodian, there are no down rooms or areas. No down rooms or areas were observed during the site visit.

The following areas were not available for observation during the site visit:

- None

5. SITE IMPROVEMENTS

5.1. UTILITIES

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

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

Observations/Comments:

- The utilities provided appear to be adequate for the property. There are no unique, on-site utility systems such as emergency generators, septic systems, water or waste water treatment plants, or propane gas tanks.
- See Section 7.1 for descriptions and comments regarding the fuel oil storage tank.
- See Section 7.4 for descriptions and comments regarding the emergency power system.

5.2. PARKING, PAVING, AND SIDEWALKS

The main entrance drive is located along Stillmeadow Avenue on the east side of the property. Parking lots are located at each side of the school. The main staff lot is at the west side of the school and the bus loading area is at the east side of the school. The parking lot exit is located south of the main entrance, along Stillmeadow Avenue. The parking areas, drive aisles, and service drives are paved with asphalt. The entrance driveway aprons are paved with concrete.

Based on a physical count, parking is provided for approximately 133 cars. The parking ratio is 1.53 spaces per thousand square feet of floor area. All of the parking stalls are located in open lots. There are a total of eight handicapped–accessible parking stalls, none of which are van-accessible.

The sidewalks and pedestrian walkways around the building and in the courtyard are constructed of cast-in-place concrete. The curbs and gutters are constructed of cast-in-place concrete. An asphalt paved pedestrian path is located along the north side of the building.

Observations/Comments:

- The asphalt pavement is in good to fair condition. Significant pavement damage in the form of cracking and surface deterioration was observed at the east parking lot and bus drop-off area. The east parking lot will require some full depth repair and a complete overlay with new asphalt pavement. Heaving pavement, apparently due to tree roots, was observed in the south parking lot. The areas of heaving will require full depth repair. The estimated costs for the pavement repairs are included in the Replacement Reserves Report.
- In order to maximize the pavement life, pothole patching, crack sealing, seal coating, and restriping of all of the asphalt paving 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. Significant sidewalk damage was observed in the courtyard in the form of heaving and cracking, creating tripping hazards. Concrete cracking was also observed near the columns at the front elevation of the building. The damaged areas of concrete will require replacement. The estimated costs for the concrete repairs are included in the Replacement Reserves Report.
- In addition, epoxy sealing of minor cracks will be required during the evaluation period as part of the Physical Plant's routine maintenance program.
- The concrete curbs throughout the property are in good to poor condition. The depressed curb at the entrance to the south parking lot is heavily damaged. The concrete in this area will require replacement. The estimated cost of this work is included in the Replacement Reserves Report.
- The asphalt pedestrian path was in good to fair condition. Minor repairs will be required during the evaluation period as part of the Physical Plant's routine maintenance program.

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. A drainage stream runs across the northwest corner of the property and along the north property line. The stream is directed through an underground culvert beneath the paved area at the northwest corner.

Observations/Comments:

- Based on evidence of erosion and reports of significant ponding during periods of heavy rain, it appears that the property experiences significant storm water runoff from properties to the west of the school. A site drainage study is recommended to identify the source of the issues and recommend the required repairs. The cost of the study is included section 1.2. The cost to restore the drainage is to be determined by the study. An estimated budgetary cost allowance to repair the apparent issues is included in this section.

- Ponding was reported in the west parking lot, possibly due to backups in the underground drainage culvert at the northwest corner of the property. This issue should be included in the drainage study. An estimated budgetary cost allowance to replace the underground culvert is included in the in the Replacement Reserves Report.
- Ponding and erosion were reported in the Boundless Playground and the ball field at the south side of the property, possibly due to inadequate drainage and runoff from adjacent properties. These issues should be included in the drainage study. An estimated budgetary cost allowance to provide additional drainage is included in the allowance discussed above.

Sustainable Recommendations:

- There are no sustainable recommendations for the drainage systems.

5.4. TOPOGRAPHY AND LANDSCAPING

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

The landscaping consists of trees, shrubs, and grasses. Flowerbeds are located around the perimeter of the building.

Surrounding properties include single-family residential developments and a church.

Timber retaining walls are located at grade changes around the Boundless Playground, at the southwest corner of the property. Chain link fencing is mounted on top of the retaining walls.

Observations/Comments:

- The topography and adjacent uses do not appear to present conditions detrimental to the property.
- The landscape materials are in good to fair condition. Many of the trees near the building were becoming overgrown and were making contact with the roof and exterior walls. The large tree in the courtyard appears to be causing damage to the concrete pavement. It is recommended that the trees near the building be trimmed or removed as appropriate. The estimated cost of this work is included in the Replacement Reserves Report.
- The retaining walls are in poor condition and were observed to be out-of-plumb. The damage appears to be related to the drainage issues described in section 5.3. The retaining walls will require replacement. The estimated cost of this work is included in the Replacement Reserves Report. This work should be coordinated with the recommended drainage repairs.

Sustainable Recommendations:

- There are no sustainable recommendations for landscaping.

5.5. GENERAL SITE IMPROVEMENTS

Property identification is provided by a monument sign adjacent to the main entrance drive.

Site lighting is provided by property-owned, metal, streetlight standards. The light standards are located in the parking areas. Exterior building illumination is provided by surface-mounted light fixtures on the exterior walls around the building and in the courtyard. Recessed light fixtures are located in the exterior canopies at the front of the building and at the overhand at the south side of the building.

Two playground areas are located on the property. The Twin Meadows Boundless Playground is located at the southwest corner of the property and contains three jungle gym structures, three swing sets, two "Soundplay" systems, a merry-go-round, a picnic shelter, a wood-framed tree house, and various small play structures. The playground surface consists of cast-in-place concrete and rubberized play surface. The equipment and construction for the Boundless Playground were donated by a local contractor. An additional playground is located near the south side of the building. The playground contains one jungle gym structure and two small play structures. The playground surface consists of wood chips.

Fencing is located around the perimeter of each playground. The fences are constructed of chain link with metal posts. A chain link entry gate is located at the entrance to the south parking lot. Metal guardrails are located long the perimeter of the south parking lot. A stone masonry wall is located along the east property line, adjacent to Stillwater Avenue.

A basketball goal is located in the south parking lot. A baseball field is located at the south end of the property. The infield is topped with brick dust and the outfield is grass. The field contains a backstop, limited line fencing and wood benches. Metal bleachers are located at the east side of the field.

Dumpsters are located adjacent to the north parking area and are placed on a concrete pad. The dumpsters are not enclosed.

Observations/Comments:

- The property identification sign is in good condition. Routine maintenance will be required during the evaluation period.
- The existing exterior site and building light fixtures are in good to fair condition. The exterior building-mounted lighting at the courtyard is reportedly not functioning. It is recommended that the light fixtures in the courtyard be replaced. The estimated cost of this work is included in the Replacement Reserves Report.
- According to the client provided JMOA five year capital plan, site lighting is reportedly inadequate. It is recommended that additional lighting be installed in the front and back parking lots. A cost allowance for this work is included in the Replacement Reserves Report.
- The site fencing is in good condition and will require routine maintenance during the evaluation period.
- There is no perimeter fencing on the north or south property lines. It is recommended that perimeter fencing be installed as required. The estimated cost of this work is included in the Replacement Reserves Report.
- The stone masonry wall along Stillwater Avenue is in fair condition. Damage was observed in the form of missing or displaced stones. The damaged sections of the stone wall will require repair. 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. Based on its estimated Remaining Useful Life (RUL), replacement of the rubber play surface in the Boundless Playground and addition of wood chips in the south playground will be required during the evaluation period. The estimated costs for these items are included in the Replacement Reserves Report.
- The basketball goal is in fair condition. Based on its estimated Remaining Useful Life (RUL), the basketball goal will require replacement during the evaluation period. This work is considered routine maintenance.

- The baseball field is in good condition and will require routine maintenance during the evaluation period. The wood benches are in poor condition and require replacement. The estimated cost of this work is included in the Replacement Reserves Report.
- The dumpsters are owned and maintained by the City of Stamford. It is recommended that the dumpsters be placed in enclosures. The estimated cost of this work is included in the Replacement Reserves Report.

Sustainable Recommendations:

- A sustainable recommendation for site lighting is to install energy efficient light fixtures controlled by photo cells.
- A sustainable recommendation for fencing is to use fencing constructed of recycled PVC material during future replacements.

6. BUILDING ARCHITECTURAL AND STRUCTURAL SYSTEMS

6.1. FOUNDATIONS

Based on the structural drawings and structures of similar size, configuration, and geographic location, the foundations consist of cast-in-place concrete, perimeter spread footings supporting wall and column loads and slab-on-grade. No sub-grade crawlspace levels exist.

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.

Sustainable Recommendations:

There are no sustainable recommendations for foundations.

6.2. SUPERSTRUCTURE

The building is constructed of conventional steel framing, non-load bearing concrete masonry unit (CMU) walls, and interior steel columns and beams, supporting the open web steel roof joists and corrugated metal decking.

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.

Sustainable Recommendations:

- There are no sustainable recommendations for superstructure.

6.3. ROOFING

The primary roofs are classified as flat roofs. The main roofs are finished with a white single-ply, fully adhered TPO membrane. A limited portion of the building over the modular classrooms is roofed over with a fully adhered, black EPDM system. The roofs are insulated with tapered rigid insulation boards that direct storm water towards the roof surface drains.

No parapet walls exist. The roofs have sheet metal flashing elements and single-ply base and edge flashing.

Storm water is drained from the roofs by internal surface drains at the flat roof sections and lead lined, integral gutters and hidden leaders. The drains discharge onto paved and landscaped areas and/or into the underground storm drainage system.

Observations/Comments:

- The roof finishes vary in age – the flat white TPO sections are approximately 8 years old and installed in 2001. A copy of the flat EPDM 20-year warranty beginning September 10, 2001 is attached in Appendix C. The roofs are maintained by the in-house maintenance staff.
- EMG conducted a separate roof assessment for this project. Wet areas of insulation requiring repair were found during infrared scans of the roof. Additionally recommendations for anticipated roof replacement work are also provided in this report. Estimated costs from this report recommended during the evaluation period are included in the Replacement Reserves Report. The EPDM membrane is anticipated for replacement during the term. See EMG project number 88166.09R-002.244 for more detailed discussion and findings.
- Several isolated section of the flat roofs have debris, thrown objects and fallen organic matter. All materials should be periodically removed and cleaned by the In-House maintenance staff to prevent accidental membrane punctures and prevent roof surface drain strainer clogs. This work can be performed regularly as part of the Physical Plant's routine maintenance program.
- According to the head custodian, there are no active roof leaks.
- There is no evidence of roof deck or insulation deterioration. The roof substrate and insulation should be inspected during any future roof repair or replacement work.
- There is no evidence of fire retardant treated plywood (FRT) and, according to the head custodian, FRT plywood is not used.
- The EPDM roof flashings are in good condition and will require routine maintenance during the evaluation period.
- Roof drainage appears to be adequate. Clearing and minor repair of drain system components should be performed regularly as part of the Physical Plant's routine maintenance program. Of note, several of the roof surface drain strainers are currently missing and should be replaced and secured.

Sustainable Recommendations:

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

6.4. EXTERIOR WALLS

The exterior walls are finished primarily with unpainted brick veneer with limited T1-11 painted wood siding at the modular classrooms and painted wood trim.

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

Observations/Comments:

- The exterior brick finishes are in generally good condition. No damaged brick or mortar joints were noting to require immediate repair. Repointing and brick patching will be required during the evaluation period. The estimated cost of this work is included in the Replacement Reserves Report.
- The window/door frame sealant is flexible, smooth, and in good condition and will require periodic re-application over the evaluation period. The estimated cost of this work is included in the Replacement Reserves Report.
- Several isolated sections of the painted T1-11 plywood siding at the exterior of the modular classrooms were observed to be deteriorated and rotted. All damaged sections should be replaced. The estimated cost of this work is included in the Replacement Reserves Report.
- One section of entrance soffit ceiling located at the cafeteria north entrance was observed to be missing or removed. These minor repairs can be replaced as part of the Physical Plant's routine maintenance program.

Sustainable Recommendations:

- A sustainable recommendation for exterior finishes is to use low VOC sealant or caulking around exterior doors and windows and the paint finishes on the wood trim and metals.

6.5. EXTERIOR AND INTERIOR STAIRS

The interior stairs are constructed of steel and have closed risers and concrete-filled, steel pan treads. The balusters are constructed of painted metal with wood railings.

The exterior stairs are constructed of reinforced concrete. The handrails and balusters are constructed of painted metal.

Observations/Comments:

- The exterior and interior stairs, balusters, and handrails are in good condition and will require routine maintenance during the evaluation period.
- Of note, the common stairwells are equipped with a painted metal railing system with baluster spacing of 8 inches. All railing should be removed and replaced or modified to meet current ADAAG requirements of 4 inch baluster spacing, This work is further discussed in Section 3.1 of this report.

Sustainable Recommendations:

- A sustainable recommendation for interior stairs is to use low VOC coatings for the stairs and guardrails when repainting.

6.6. WINDOWS AND DOORS

Some of the fixed windows are part of a painted metal framed, storefront system incorporating the exterior entry doors. The windows are glazed with insulated panes set in metal frames. The doors are fully-glazed, painted metal-framed doors set in the metal framing system. Most of the classroom windows are anodized aluminum framed, insulated fixed, hopper and slider type units.

The interior office and classroom entrance doors are stained, solid-core, wood doors set in painted metal frames. The entrance doors have cylindrical locksets with knob handle hardware.

Exterior service doors are of painted metal with various sized glass vision panels set in painted metal frames. The doors have cylindrical locksets with knob handle hardware.

No overhead loading dock door exists.

Observations/Comments:

- The storefront window system is in good condition and will require routine maintenance during the evaluation period.
- According to the head custodian, the property does not experience a significant number of complaints regarding window leaks or window condensation. However, two chronic window leaks persist at classroom #170 and the principal's office. Due to the relatively small scope (only 2 windows) these repairs can be accomplished as routine maintenance by the In-House staff.
- All of the Media Center windows are single paned and energy inefficient. All windows should be replaced with modern double paned, insulated glazed units. The estimated cost of this work is included in the Replacement Reserves Report.
- All of the double paned, insulated aluminum framed windows at the two modular classrooms are failed with trapped internal fogging. All windows should be replaced. The estimated cost of this work is included in the Replacement Reserves Report.
- Nearly all of the first and second floor hopper window screens at the classrooms and offices were noted to be damaged, torn or missing. All screens should be replaced to allow full window operation while preventing insects from entering. The estimated cost of this work is included in the window replacement costs.
- All of the exterior common and service doors were noted and reported to operate poorly, have settled in their frames, rub on the saddles, rusted bases and frames and poor weather stripping with visible daylight. All exterior doors should be replaced. The estimated cost of this work is included in the Replacement Reserves Report.

Sustainable Recommendations:

- A sustainable recommendation for windows is to replace all single paned windows with insulated paned units with thermal breaks.
- A sustainable recommendation for doors is to replace with insulated, energy efficient doors.

6.7. PATIO, TERRACE, AND BALCONY

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

6.8. COMMON AREAS, ENTRANCES, AND CORRIDORS

The main school office lobby contains display cases, bulletin boards and the entrance to the main administrative office. Corridors and the Media Center are accessed directly from the lobby.

Classrooms and offices are accessed from corridors beyond the lobby.

Common area restrooms are located off the lobby, near the auditorium/gymnasium, near the media center and along the corridors for the classrooms on the first and 2nd floors. There are a total of six sets of common area restrooms. No handicapped accessible restrooms are provided on-site. Major modifications and renovations are required at each toilet room to make ADA accessible. The estimated cost of this work is included in the Replacement Reserves Report.

Common Area	Floors	Walls	Ceilings
Lobby	Vinyl tile	Painted plaster, wood panels, painted concrete block	Suspended and adhered acoustic tiles
Corridor	Vinyl tile	Painted concrete block, painted plaster	Adhered acoustic tiles or suspended acoustic tiles
Common Area Restrooms	Ceramic tile	Ceramic tile or painted drywall or painted concrete masonry units (CMU) or brick	Painted plaster
Office	Vinyl tile or carpet	Painted drywall	Suspended acoustic tiles and adhered acoustic tiles
Media Center/Computer rooms	Carpet	Painted drywall and painted concrete block	Painted drywall and suspended acoustic tiles
Auditorium/ Gymnasium	Wood plank	Painted concrete masonry units	Exposed roof framing
Cafeteria	Vinyl tile	Painted concrete block and plaster	Suspended acoustic tiles

Observations/Comments:

- It appears that the interior finishes in the common areas have not been renovated within the last five to ten years.
- The interior finishes in the common areas are in good to fair condition. Based on its estimated Remaining Useful Life (RUL), the common area carpeting will require replacement during the evaluation period. The estimated cost of this work is included in the Section 8.1 allowance in the Replacement Reserves Report for this work.
- Interior painting will also be required during the evaluation period. The estimated cost of this work is included in Section 8.1 of the Replacement Reserves Report.
- The rubber flooring in the gymnasium is in good condition. Refinishing of the gymnasium flooring during the evaluation period. The estimated cost of this work is included in the Replacement Reserves Report.
- The cafeteria kitchen vinyl floor tiles are in generally fair condition. All kitchen floor tiles should be replaced over term. The estimated cost of this work is included in the Section 8.1 allowance in the Replacement Reserves Report for this work.
- The central kitchen ceiling system (tiles and grid) were observed to be in poor overall condition with dark staining, previous patches of different colors and surfacing and damaged tiles. The entire ceiling system should be replaced. The estimated cost of this work is included in the Replacement Reserves Report.

- The auditorium stage curtains are in fair to poor overall condition and should be replaced to improve operation and appearance. The estimated cost of this work is included in the Replacement Reserves Report.
- The gymnasium "air wall" partition appears to be in fair condition. Based on its estimated Remaining Useful Life (RUL), the partition wall will require replacement during the evaluation period. The estimated cost of this work is included in the Replacement Reserves Report.
- The auditorium vinyl tile stage is in good overall condition.
- Partial isolated suspended ceiling tile replacement will also be required during the evaluation period due to stains, damage or missing tiles at the media center, offices and classroom #165. This work is considered to be part of routine maintenance operations and no costs are included in the tables. In addition, phased replacement of all suspended and adhered acoustic ceiling tiles should also be anticipated at the end of the evaluation period.
- Several isolated sections of the vinyl floor tiles and 4 inch vinyl wall base were observed to be cracked or missing in the offices and classroom #170. All damaged tiles should be replaced. These minor repairs can be replaced as part of the Physical Plant's routine maintenance program.
- According to the client provided AHERA document asbestos-containing material is located in the majority of the classrooms and corridors in the form of vinyl asbestos tile. 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 repair/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.

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 building by individual, direct-expansion, variable-volume and constant volume, gas-fired, packaged, rooftop-mounted, HVAC units. There are a total of nine units, ranging in size from 5 to 36 tons. RTU-1, RTU-2, Portable-1, and Portable-2 are constant volume units. The remaining rooftop units are multi-zone, variable volume units. The cooling equipment uses R-22 as a refrigerant. Conditioned air is distributed through ducts to variable air volume (VAV) terminals concealed above the ceilings in each common area and space. The VAV units contain hot water reheat coils. There are a total of 54 VAV terminals in the main school building ranging in capacity from 400 to 1,200 CFM. The heating and cooling system are controlled by the building energy management system (EMS) through thermostats in each conditioned space.

The following table provides additional information for the rooftop units:

Packaged Rooftop Units				
Designation	**Manufacturer**	**Cooling Capacity**	**Heating Type**	**Manufacture Year**
RTU-1	Lennox	15 tons	Gas-fired	1999
RTU-2	Lennox	7.5 tons	Gas-fired	1999
RTU-3	McQuay	36 tons	Gas-fired	2000
RTU-4	McQuay	25 tons	Gas-fired	2000
RTU-5	McQuay	36 tons	Gas-fired	2000
RTU-6	McQuay	25 tons (Split condenser)	Gas-fired	2000
RTU-7	McQuay	30 tons	Gas-fired	2000
Portable-1	Carrier	5 ton	Gas-fired	2000
Portable-2	Trane	5 ton	Gas-fired	2004

Hot water for the central heating system is supplied by two, dual fuel boilers. Each boiler has a rated input capacity of 2,836 MBH and is located in the lower level boiler room. Fuel oil is supplied to the boilers by a fuel oil pump set and a 5,000-gallon fiberglass underground storage tank (UST). The UST is located beneath the parking lot near the southwest corner of the building.

Circulating pumps provide heated water to each temperature-controlled space via a two-pipe distribution system. The heated water supplies the reheat coils at the VAV terminals.

Supplemental heating is provided at the building entrances and stairwells by recessed, wall-mounted, electric unit heaters. Additional heating is provided in some of the offices by baseboard-mounted electric heaters.

Ventilation is provided in the auditorium/gymnasium and the kitchen by high-capacity, air handling units equipped with gas-fired duct furnaces. Ventilation is provided in the cafeteria by a high-capacity air handling unit with a roof-mounted condensing unit. The air handling units are located in the mechanical penthouses above the stage. Air distribution is provided to supply air registers by ducts concealed above the ceilings. The units are controlled by the building EMS. The following table describes the air handling units:

Air Handling Units					
Designation	**Location**	**Area Served**	**Air Flow**	**Cooling**	**Heating**
HV-2	Penthouse	Gymnasium	9,000 CFM	None	Gas-fired
HV-3	Penthouse	Gymnasium	9,000 CFM	None	Gas-fired
HV-4	Above ceiling	Kitchen	3,100 CFM	None	Gas-fired
HVAC-8	Penthouse	Cafeteria	6,800 CFM	24 tons (Split condenser)	Gas-fired

The kitchen and bathrooms are ventilated by mechanical exhaust fans. High-capacity ventilation fans are mounted on the roof and are connected by concealed ducts to each ventilated space. There are a total of 13 exhaust fans ranging in capacity from 200 to 3,600 CFM.

The heating and cooling system is controlled by a building energy management system (EMS), located in the custodial office. The EMS provides individual control and performance data for the boilers, rooftop units, VAV terminals, ventilation units, and the domestic water heating system. The system is actuated by direct digital controls (DDC).

Observations/Comments:

- The HVAC systems are maintained by an outside contractor.
- The HVAC equipment varies in age. The boilers were replaced in 2002. The rooftop units and VAV terminals were replaced in 1999 and 2000.
- The boilers appear to be in good condition and will require routine maintenance during the evaluation period.
- The rooftop units appear to be in good condition. Based on their estimated Remaining Useful Life (RUL), some of the rooftop units will require replacement during the evaluation period. The estimated cost of this work is included in the Replacement Reserves Report.
- The VAV terminal boxes appear to be in good condition and will require routine maintenance during the evaluation period.
- The air handling units appear to be in good condition and will require routine maintenance during the evaluation period.
- The supplemental electric heaters appear to be in good condition. Based on their estimated Remaining Useful Life (RUL), some of the electric heaters will require replacement during the evaluation period. This work can be completed as part of the Physical Plant's routine maintenance program.
- The mechanical ventilation system and equipment appear to be in good to fair condition and will require routine maintenance during the evaluation period. Equipment or component replacements can be performed as part of the Physical Plant's routine maintenance program.
- Ventilation is reportedly inadequate in the restrooms. It is recommended that the exhaust fans be upgraded to sure adequate exhaust capacity. The estimated cost of this work is included in the Replacement Reserves Report.

Sustainable Recommendations:

- A sustainable recommendation for HVAC is to replace existing air-conditioning equipment with high-efficiency components.
- An additional sustainable recommendation for HVAC is to replace the existing air handling units with combined ventilation/exhaust units, which include an economizer mode and enthalpy recovery wheel.

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 an interior utility room.

Domestic hot water is supplied by two, gas-fired boilers. Each boiler has a rated input capacity of 120 MBH and is located in the lower level boiler room. Domestic hot water storage is provided by a 119-gallon storage tank. Domestic hot water for the kitchen is provided by two commercial domestic water heaters. Each water heater has a rated input capacity of 125 MBH and is located in the mechanical penthouse above the stage.

The common area restrooms have commercial-grade fixtures and accessories, including water closets, urinals, and lavatories. Drinking fountains are provided in the corridors and classrooms.

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.
- The boilers and hot water storage tank appear to be in good condition and will require routine maintenance during the evaluation period.
- The commercial water heaters appear to be in good condition and will require routine maintenance during the evaluation period.
- The accessories and fixtures in the restrooms are in good condition and will require routine maintenance during the evaluation period.
- The drinking fountains in the corridors are in good to fair condition. Replacement of the older drinking fountains with electric water coolers is recommended during the evaluation period. The estimated cost of this work is included in the Replacement Reserves Report.
- Drinking fountains are not provided at the two lower level playgrounds. A budgetary cost allowance for the water supply line and two fountains are included in the Replacement Reserves Report.

Sustainable Recommendations:

- A sustainable recommendation for plumbing is to install high-efficiency boilers and hot water heaters for the domestic hot water system.
- A sustainable recommendation for plumbing is to install low flush volume toilets and faucet aerators to reduce domestic water consumption.

7.3. BUILDING GAS DISTRIBUTION

Gas service is supplied from the gas main beneath Stillwater Avenue. The gas meter and regulator are located along the south exterior wall of the building. 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 regulators appear 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:

- There are no sustainable recommendations for gas distribution.

7.4. BUILDING ELECTRICAL

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

The main electrical service size is 1,600-Amps, 277/480-Volt, three-phase, four-wire, alternating current (AC). Step-down transformers are located in the electrical room. 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 commutation 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.

Emergency power is provided by a 7.5 kW battery backup system located in the lower level storage room. The battery backup system supplies emergency power to the emergency lights and fire alarm system.

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; however, according to the client provided JMOA five year capital plan, dedicated power for the technology improvements is required. A budgetary cost allowance for this work is included in the Replacement Reserves Report. This allowance also includes upgrades for classroom, office, and teacher technology upgrades.
- The switchgear, circuit breaker panels, and electrical meters appear to be in good condition and will require routine maintenance during the evaluation period.
- 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.

- The public address system appears to be in good condition and will require routine maintenance during the evaluation period. According to the client provided JMOA five year capital plan, technology upgrades are planned. A budgetary cost allowance for this work is included in the Replacement Reserves Report. This allowance also includes upgrades for the PA system, phone, internet, alarm and emergency lighting improvements.
- The auditorium lighting system appears to be in good condition and will require routine maintenance during the evaluation period.
- The auditorium sound system appears to be in good condition and will require routine maintenance during the evaluation period.
- The battery backup system is in fair condition. The system appears to be obsolete and replacement with a generator is recommended to provide adequate emergency power in the building. 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 all classrooms, restrooms, and offices to ensure that lights are turned off when the space is not occupied.

7.5. ELEVATORS AND CONVEYING SYSTEMS

There is one hydraulic, passenger elevator. The elevator was manufactured by Dover. The elevator has a rated capacity of 2,000 pounds and a speed of 125 feet per minute. The elevator machinery is located in a room adjacent to the base of the shaft.

The elevator cab has vinyl-tiled floors, plastic-laminated wood wall panels, and recessed, ceiling light fixtures. The doors are fitted with electronic safety stops. Emergency communication equipment is provided in the cab.

A wheelchair lift is located at the base of the stage and provides access to the stage level. The lift is rated for a single passenger and has a capacity of 495 pounds. The lift was manufactured by Garaventa.

Observations/Comments:

- The elevator, and its responsiveness, appears to be adequate. The elevator is serviced by Northeast Elevator on a routine basis. The elevator machinery and controls are the originally installed system. Based on its estimated Remaining Useful Life (RUL), the elevator equipment will require replacement during the evaluation period. The estimated cost of this work is included in the Replacement Reserves Report.
- The elevator is inspected on an annual basis by the municipality, and a certificate of inspection is displayed in the elevator cab.
- The emergency communication equipment in the elevators appears to be functional. Equipment testing is not within the scope of a Facilities Needs Assessment.
- The finishes in the elevator cab appear to be in good condition. Based on their estimated Remaining Useful Life (RUL), the cab finishes and cab doors will require replacement during the evaluation period. The estimated cost of this work is included in the Replacement Reserves Report.
- The wheelchair lift appears to be in good condition and will require routine maintenance during the evaluation period.

Sustainable Recommendations:

A sustainable recommendation for the elevator is to equip the hydraulic pump with a high efficiency motor to reduce energy consumption.

7.6. FIRE PROTECTION SYSTEMS

The fire protection systems consist of a wet-pipe sprinkler system, a dry-pipe sprinkler system, portable fire extinguishers, smoke detectors, pull stations, and alarm horns. A Siamese connection is located on the exterior of the building. Hardwired smoke detectors are located throughout the corridors. The nearest fire hydrants are located along the parking lots and are approximately 20 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 fire sprinkler riser for the wet-pipe system is located in an equipment room in the lower level music room (Classroom 6). The fire sprinkler riser and air compressor for the dry-pipe system is located in an equipment room in the lower level art room (Classroom 5). The systems are equipped with backflow preventors.

A central fire alarm panel is located in the electrical room and monitors the pull stations, smoke detectors, and flow switches. The alarm panel also sounds the alarm and automatically notifies the monitoring service or the fire department in the event of trouble.

The building is equipped with a security system, including motion sensors and door alarms. The central security panel is located in the main office and is monitored by Sonitrol.

Observations/Comments:

- Information regarding fire department inspection information is included in Section **3.2.**
- The fire sprinklers appear to be in good condition and are inspected by a qualified contractor on a routine basis. The fire sprinklers will require routine maintenance during the evaluation period.
- 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.
- The central alarm panel appears to be in good condition and is tested regularly by a qualified fire equipment contractor. The current alarm panel was reportedly installed in 2005. Equipment testing is not within the scope of a Facilities Needs Assessment. The alarm panel will require routine maintenance during the evaluation period.
- The security panel appears to be in good condition. Equipment testing is not within the scope of a Facilities Needs Assessment.
- The cooking surfaces in the kitchen are not covered by dry-chemical, fire suppression system. It is recommended that an Ansul-type system be installed in the exhaust hood, above all cooking surfaces. The cost of this work is included in the Replacement Reserves Report.

Sustainable Recommendations:

- There are no sustainable recommendations for fire protection.

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, area rugs, few with wall-to-wall carpet	Painted drywall / concrete block	Suspended acoustic tiles
Maintenance Shop and Storage	Painted concrete slab	Painted drywall / concrete block	Suspended acoustic tiles
Kitchens	Vinyl tile	Painted drywall / concrete block and ceramic tile	Suspended acoustic tiles
Restrooms	Ceramic tile	Painted drywall / plaster	Suspended acoustic tiles

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

Observations/Comments:

- The interior finishes are in good condition. Based on the Estimated Useful Life and the observed conditions, replacement of the vinyl floor tiles, carpeting and repainting is recommended during the term. These costs are included in the Replacement Reserves Report.
- The interior doors and door hardware are in fair condition and will require replacement during the evaluation period. The estimated cost of this work is included in the Replacement Reserves Report.
- There are 12 classrooms with partition walls that appear to be in good condition. Based on its estimated Remaining Useful Life (RUL), some of the partition walls will require replacement during the evaluation period. The estimated cost of this work is included in the Replacement Reserves Report.
- The classroom window blinds are in good to fair condition. Based on their estimated Remaining Useful Life (RUL), the blinds will require replacement during the evaluation period. The estimated cost of this work is included in the Replacement Reserves Report.
- The built-in cabinets in the classrooms are in good to fair condition. Based on their estimated Remaining Useful Life (RUL), the cabinets will require replacement during the evaluation period. The estimated cost of this work is included in the 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.

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, Chest
Freezers	Upright, Chest
Ranges	Gas
Ovens	Convection
Griddles / Grills	No
Fryers	Yes
Hood	Exhaust ducted to exterior
Dishwasher	No
Steamer	Yes
Microwave	No
Ice Machines	No
Steam tables	Stainless steel
Work tables	Stainless steel
Shelving	Stainless steel

Observations/Comments:

- The kitchen equipment appears 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. A cost allowance for this work is included in the Replacement Reserves Report.

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

An auxiliary building is located near the Twin Meadows Boundless Playground. The building contains men's and women's restrooms and a storage room. The building is constructed of concrete masonry unit (CMU) bearing walls on a concrete slab. The roof is framed with wood rafters and is sheathed with plywood. The roof is finished with asphalt shingles. A 30-gallon electric domestic water heater supplies hot water in the restrooms. The building is equipped with a security panel.

Observations/Comments:

- The restroom building appears to be in good condition. The building will require painting and routine maintenance during the evaluation period. This work is considered routine maintenance.

Sustainable Recommendations:

- A sustainable recommendation for the restroom building is to install a high-efficiency hot water heater to reduce electricity consumption.
- A sustainable recommendation for the restroom building is to install low flush volume toilets and faucet aerators to reduce domestic water consumption.

10. ENERGY BENCHMARKING

This section is pending additional information from the client.

11. APPENDICES

APPENDIX A: Photographic Record

APPENDIX B: Site Plans

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-011.017 **Project Name: Stillmeadow Elementary School**

Photo #1:	View of the front façade and continuous carport.

Photo #2:	Detail view of the main office entrance doors.

Photo #3:	Typical exterior entrance doors. Most doors have rusting and require replacement.

Photo #4:	Second view of the front façade.

Photo #5:	Two ADA dropped curbs are required at the north sidewalk crosswalk.

Photo #6:	One ADA dropped curb and apron require replacement along the front sidewalk.

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-011.017 **Project Name: Stillmeadow Elementary School**

Photo #7:	Eight ADA parking stalls are provided on-site. Four have posted signs.

Photo #8:	Four ADA parking stalls within the rear parking lot have no posted signs.

Photo #9:	View of the south elevation.

Photo #10:	Second view of the south sidewall.

Photo #11:	View of the rear façade.

Photo #12:	Second view of the rear façade near the gymnasium.

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-011.017 **Project Name: Stillmeadow Elementary School**

Photo #13:	View of the two modular classrooms.

Photo #14:	All of the modular classroom windows have failed (fogging).

Photo #15:	Large sections of rotted wood siding and roof edge trim were noted.

Photo #16:	View of the north sidewall.

Photo #17:	Overview of the main flat, fully adhered EPDM roof system.

Photo #18:	Isolated areas of roof debris and fallen organic matter require maintenance.

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-011.017 **Project Name: Stillmeadow Elementary School**

Photo #19:	Overview of the carport canopy EPDM roof system.

Photo #20:	

Photo #21:	Several of the flat roof drain strainers were missing or damaged.

Photo #22:	Overview of the flat EPDM roof over the modular classrooms.

Photo #23:	Fixed roof ladder exist but are not provided at the gymnasium roof.

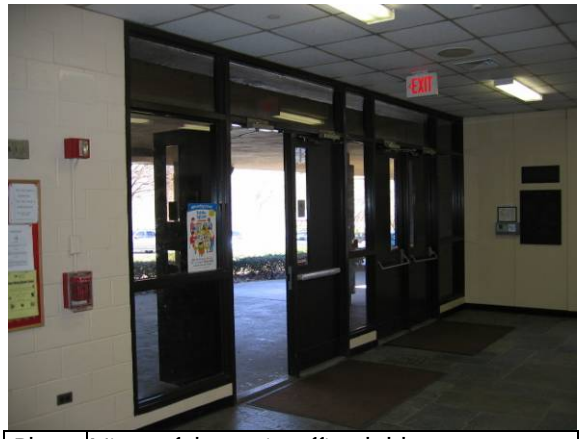


Photo #24:	View of the main office lobby entrance doors.

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-011.017 **Project Name: Stillmeadow Elementary School**

Photo #25:	View of the main office interior. Note faculty mail slots are on public side of front desk.

Photo #26:	View of a typical common corridor interior. Finishes are VCT floor tiles, painted CMU walls and ATC ceilings.

Photo #27:	View of the combined gymnasium and auditorium interior.

Photo #28:	The gymnasium is equipped with a powered "air wall" to divide the space.

Photo #29:	Second view of a common corridor.

Photo #30:	Some special education equipment is stored in the hallways.

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-011.017 **Project Name: Stillmeadow Elementary School**

Photo #31:	All of the water fountains project 4 inches into the corridors and gym.

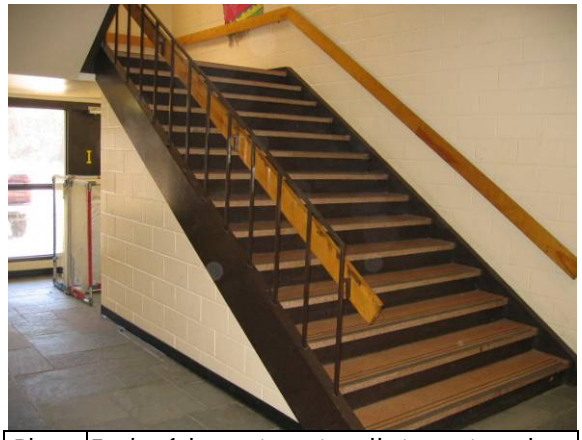


Photo #32:	Each of the main stairwells is equipped with balusters with 8 inch spacing.

Photo #33:	The school is equipped with a single hydraulic passenger elevator.

Photo #34:	Numerous ADA modifications are required at the elevator cab.

Photo #35:	View of the cafeteria interior and rear of shared stage.

Photo #36:	Poor conditions were noted at the stage curtains.

Photo #37:	The stage is handicapped accessible via a wheelchair stair lift.

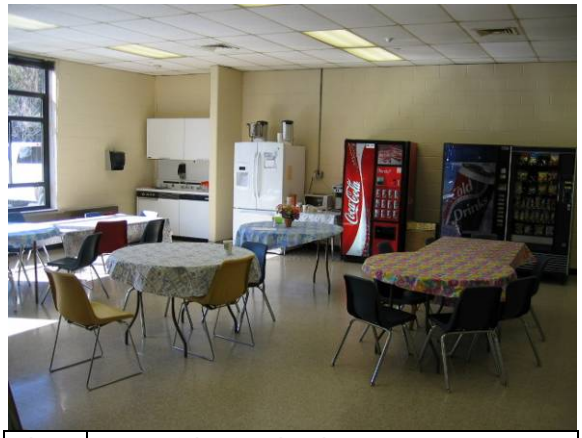


Photo #38:	View of the faculty dining room.

Photo #39:	View of the central cafeteria kitchen.

Photo #40:	Poor conditions were noted at the kitchen ceilings.

Photo #41:	View of the typical modular classroom.

Photo #42:	Isolated stained suspended ceiling tiles were observed.

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-011.017 **Project Name: Stillmeadow Elementary School**

Photo #43:	View of the media center. The windows are single paned.

Photo #44:	View of the computer lab portion of the media center.

Photo #45:	The ramp down from the corridor to the media center is equipped with only one handrail.

Photo #46:	Minor stained ceiling tiles were noted in the media center.

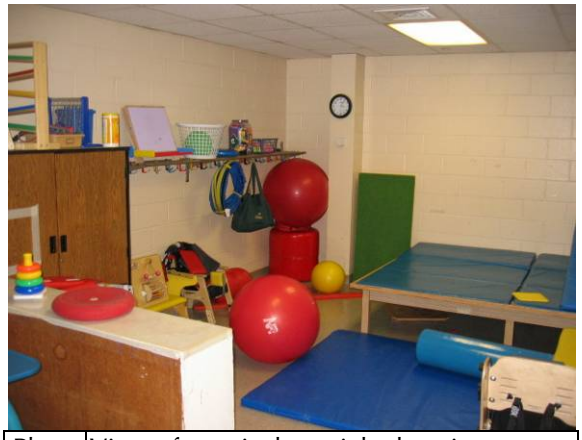


Photo #47:	View of a typical special education type room.

Photo #48:	View of a typical classroom interior.

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-011.017 **Project Name: Stillmeadow Elementary School**

Photo #49:	View of a typical classroom interior.

Photo #50:	View of a typical faculty office interior.

Photo #51:	View of the nurse's office and dental room.

Photo #52:	A pair of boy's / girl's multi-user toilet rooms is provided on each floor.

Photo #53:	Major modifications are required are required at each common toilet room to achieve ADA accessibility.

Photo #54:	Grab bars are required at the larger stalls.

Photo #55:	The only grab bars are provided within a single user toilet room in the nurse's office.

Photo #56:	Several other toilet rooms will also require ADA modifications.

Photo #57:	Two offices were noted to still have vinyl asbestos tile (VAT) on the floor.

Photo #58:	View of the remote shed that houses two toilet rooms and the landscaping equipment.

Photo #59:	Substantial handicapped accessibility noted at the shed.

Photo #60:	Full handicapped accessibility was noted at the rear playground.

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-011.017 **Project Name: Stillmeadow Elementary School**

Photo #61:	Boilers

Photo #62:	Hot water circulating pumps

Photo #63:	RTU-1

Photo #64:	RTU-2

Photo #65:	RTU-3

Photo #66:	RTU-4

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-011.017 **Project Name: Stillmeadow Elementary School**

Photo #67:	RTU-5

Photo #68:	RTU-6

Photo #69:	RTU-7

Photo #70:	Typical VAV terminal

Photo #71:	Portable-1 rooftop unit

Photo #72:	Portable-2 rooftop unit

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-011.017 **Project Name: Stillmeadow Elementary School**

Photo #73:	Cafeteria ventilation unit

Photo #74:	Split system condensing unit for cafeteria ventilation

Photo #75:	HV-2. Gymnasium ventilation unit

Photo #76:	HV-3. Gymnasium ventilation unit

Photo #77:	Intake for HV-4. Kitchen ventilation

Photo #78:	Typical exhaust fan

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-011.017 **Project Name: Stillmeadow Elementary School**

Photo #79:	Domestic water boilers and storage tank

Photo #80:	Domestic hot water circulating pump

Photo #81:	Domestic water heaters for kitchen

Photo #82:	Sump pump

Photo #83:	Natural gas meter

Photo #84:	Natural gas regulator and lines for boiler

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-011.017 **Project Name: Stillmeadow Elementary School**

Photo #85:	Pad mounted transformer

Photo #86:	Main electrical switchgear

Photo #87:	Step-down transformer

Photo #88:	Emergency power system

Photo #89:	Auditorium sound system

Photo #90:	Stage lighting system

Photo #91:	PA system control unit

Photo #92:	PA system call button in classroom

Photo #93:	Elevator cab door

Photo #94:	Interior of elevator cab

Photo #95:	Hydraulic elevator equipment

Photo #96:	Elevator control panel

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-011.017 **Project Name: Stillmeadow Elementary School**

Photo #97:	Wheelchair lift at stage

Photo #98:	Lift controls

Photo #99:	Fire alarm panel

Photo #100:	Fire alarm annunciator panel

Photo #101:	Security panel

Photo #102:	Security interface panel

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-011.017 **Project Name: Stillmeadow Elementary School**

Photo #103:	Wet-pipe sprinkler riser

Photo #104:	Dry-pipe sprinkler riser

Photo #105:	Typical sprinkler lines

Photo #106:	Fire extinguisher

Photo #107:	Fire alarm strobe light

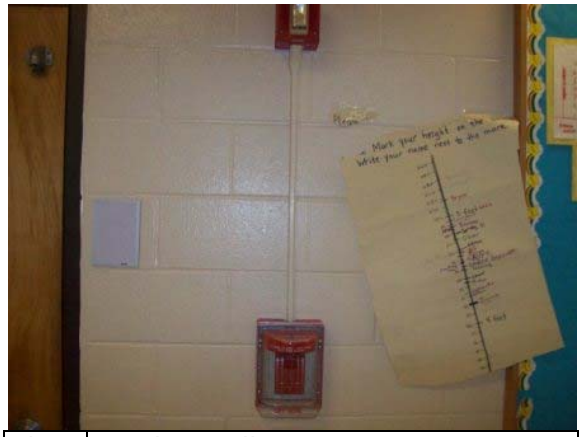


Photo #108:	Fire alarm pull station

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-011.017 **Project Name: Stillmeadow Elementary School**

Photo #109:	Main entrance drive

Photo #110:	North parking lot

Photo #111:	West parking lot

Photo #112:	Pedestrian sidewalk and east parking lot

Photo #113:	South parking lot

Photo #114:	Asphalt pedestrian path

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-011.017 **Project Name: Stillmeadow Elementary School**

Photo #115:	Asphalt damage in east parking lot

Photo #116:	Asphalt damage in east parking lot

Photo #117:	Concrete damage in courtyard

Photo #118:	Heaving pavement in south parking lot

Photo #119:	Curb damage at entrance to south lot

Photo #120:	Concrete damage near column

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-011.017 **Project Name: Stillmeadow Elementary School**

Photo #121:	Drainage culvert at northwest corner of property

Photo #122:	Area of heavy ponding and drainage runoff

Photo #123:	Trees growing close to building

Photo #124:	Trees growing close to building

Photo #125:	Timber retaining wall out-of-plumb

Photo #126:	Timber retaining wall out-of-plumb

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-011.017 **Project Name: Stillmeadow Elementary School**

Photo #127:	Typical playground fencing

Photo #128:	Perimeter fencing at north property line

Photo #129:	Stone wall along Stillwater Avenue

Photo #130:	Baseball field and backstop

Photo #131:	Missing wood bench

Photo #132:	Basketball goal

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-011.017 **Project Name: Stillmeadow Elementary School**

Photo #133:	Twin Meadows Boundless Playground

Photo #134:	Playground equipment

Photo #135:	Playground surface

Photo #136:	Tree house at Twin Meadows playground

Photo #137:	Concrete steps and seating at playground

Photo #138:	Small playground at south side of school

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-011.017 **Project Name: Stillmeadow Elementary School**

Photo #139:	Pole-mounted site lighting

Photo #140:	Building-mounted lighting

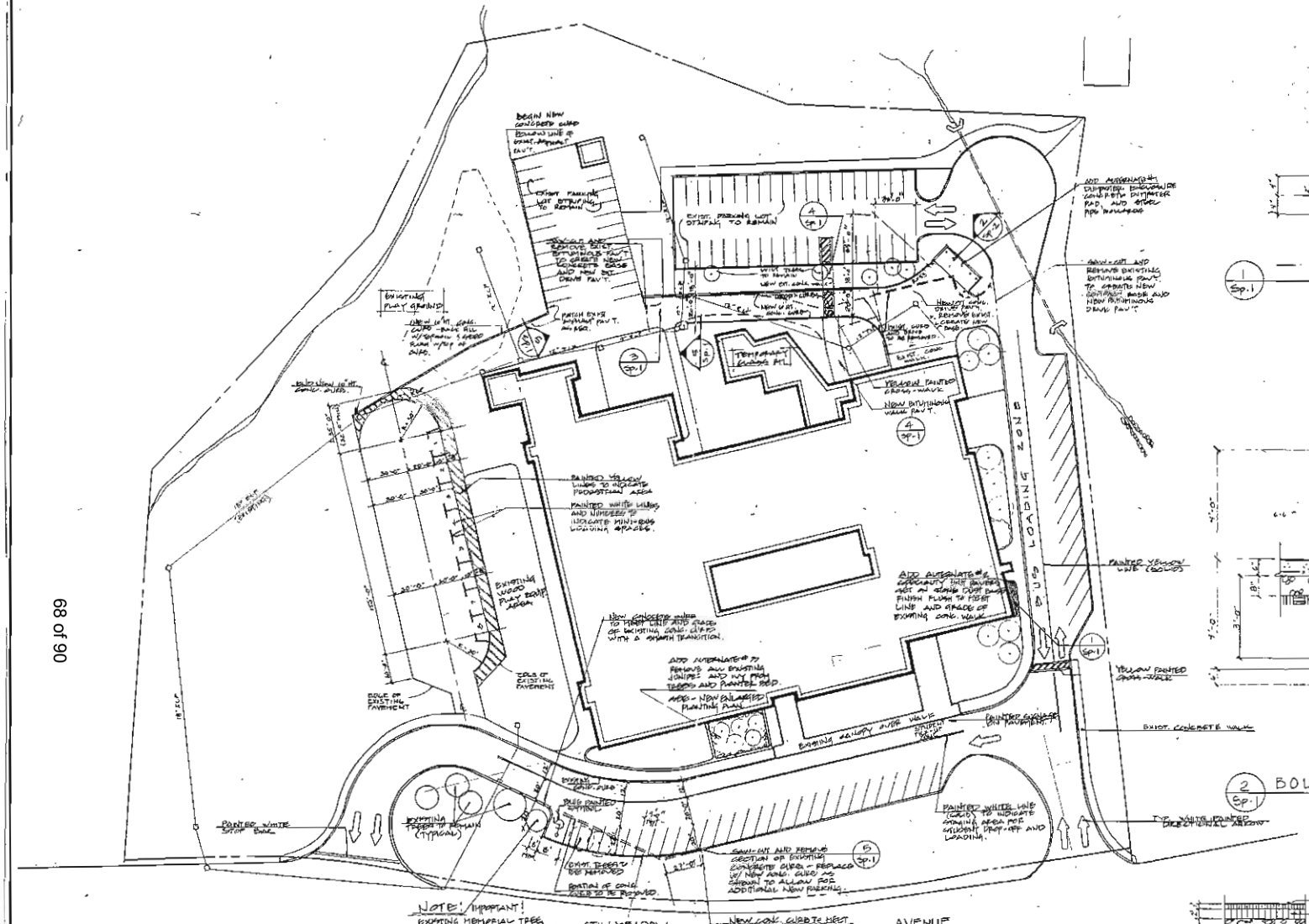
Photo #141:	Canopy-mounted lighting

Photo #142:	Dumpsters on concrete pad

Photo #143:	Restroom building at Twin Meadows playground

Photo #144:	Interior of restroom building

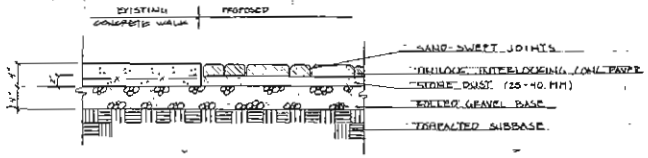
APPENDIX B:
SITE PLANS



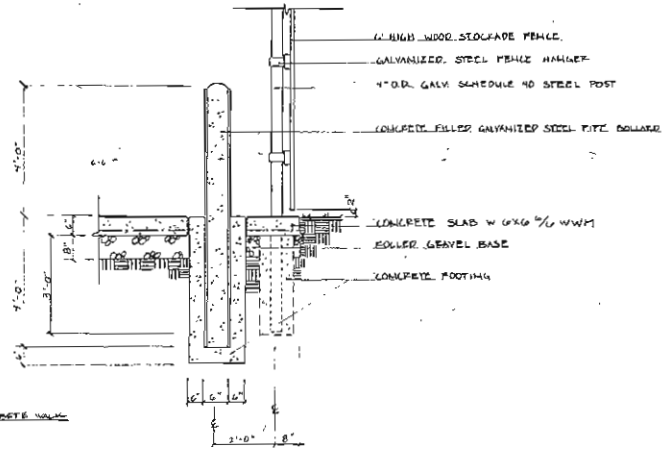
GENERAL NOTES:

1. ALL CATCH BASINS AND DRAINAGE LINES SHOWN ON PLAN ARE EXISTING UNLESS OTHERWISE NOTED AS NEW.
2. ALL NEW AND EXISTING PAVEMENT AREAS ARE TO BE PITCHED TO DRAIN AWAY FROM BUILDINGS TO CATCH BASINS AND TO ELIMINATE PUDDLING OR POOLING OF WATER.
3. WHEN NEW PAVEMENTS ABUT EXISTING PAVEMENTS, THE EXISTING PAVEMENT IS TO BE SAW-CUT TO ALLOW NEW PAVEMENTS TO MEET FLUSH WITH LINE AND GRADE OF EXISTING PAVEMENT, WITH A SMOOTH TRANSITION WHERE INDICATED ON PLAN.

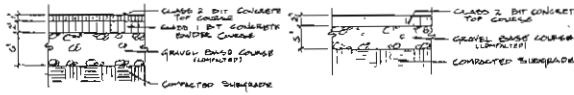
NOTE: IMPORTANT!
EXISTING MEMORIAL TREE (SHALL BE MARKED) TO REMAIN. PROTECT DURING CONSTRUCTION. KEEP 6' MIN. DISTANCE AWAY FROM TREES & TREE CANOPY.



1 / Sp-1 SPECIALTY PAVING
SCALE 1" = 1'-0" (ADD ALTERNATE #2)

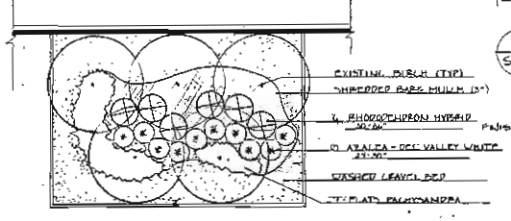


2 / Sp-1 BOLLARD & DUMPSTER ENCLOSURE
SCALE 1/2" = 1'-0" (ADD ALTERNATE #1)

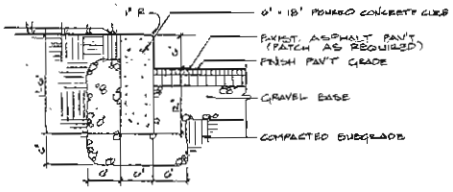


3 / Sp-1 BITUMINOUS ROAD PAV'T
SCALE 1" = 1'-0"

4 / Sp-1 BITUMINOUS WALK PAV'T
SCALE 1" = 1'-0"



6 / Sp-1 REVISED PLANTING PLAN
SCALE 1" = 10'-0"



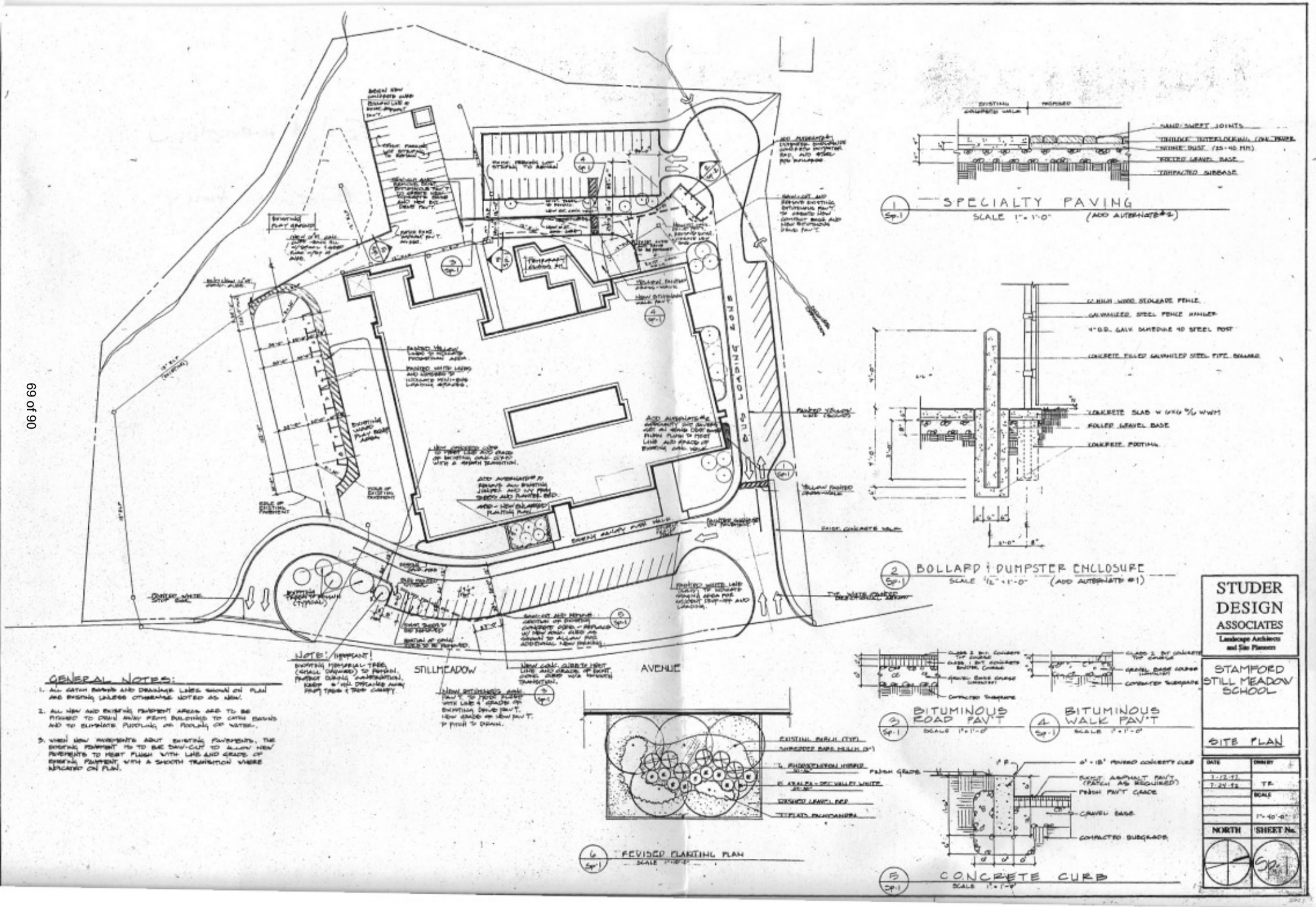
5 / Sp-1 CONCRETE CURB
SCALE 1" = 1'-0"

STUDER DESIGN ASSOCIATES
Landscape Architects and Site Planners

STAMFORD
STILL MEADOW SCHOOL

SITE PLAN

DATE	DWN BY
7-12-92	TR
7-24-92	
	SCALE
	1" = 40'-0"
NORTH	SHEET No.
	Sp-1


SPECIALTY PAVING
SCALE 1"=1'-0" (ADD ALTERNATE #2)
BOLLARD & DUMPSTER ENCLOSURE
SCALE 1/2"=1'-0" (ADD ALTERNATE #1)
BITUMINOUS ROAD PAV'T
SCALE 1"=1'-0"
BITUMINOUS WALK PAV'T
SCALE 1"=1'-0"
REVISED PLANTING PLAN
SCALE 1"=10'-0"
CONCRETE CURB
SCALE 1"=1'-0"
STILLMEADOW AVENUE
SNOW GRAVEL RUN
NOTE: IMPORTANT!
GENERAL NOTES:
1. ALL CATCH BASINS AND DRAINAGE LINES SHOWN ON PLAN ARE EXISTING, UNLESS OTHERWISE NOTED AS NEW.
2. ALL NEW AND EXISTING PAVEMENT AREAS ARE TO BE PITCHED TO DRAIN AWAY FROM BUILDINGS TO CATCH BASINS AND TO ELIMINATE PUDDLING OR PONDING OF WATER.
3. WHERE NEW PAVEMENTS ABUT EXISTING PAVEMENTS, THE EXISTING PAVEMENT IS TO BE SAW-CUT TO ALLOW NEW PAVEMENTS TO MEET FLUSH WITH LINE AND GRADE OF EXISTING PAVEMENT, WITH A SMOOTH TRANSITION WHERE INDICATED ON PLAN.
STUDER DESIGN ASSOCIATES
Landscape Architects and Site Planners
STAMFORD STILL MEADOW SCHOOL
SITE PLAN
DATE
7-12-93
7-24-93
DRAWN BY
TR
SCALE
1"=40'-0"
NORTH
SHEET No.
SP-1

APPENDIX C:
SUPPORTING DOCUMENTATION

Stillmeadow OTM only

VII. SUMMARY OF EXISTING ASBESTOS CONTAINING MATERIALS

Following is a listing of the locations and type of asbestos containing materials that were found during the original and subsequent inspections and remain as of the date of this reinspection.

Location	Asbestos Containing Material
May be present in gymnasium	Roof drain insulation
Classroom 42, Storage room between Classrooms 36 and 38, Custodian Room, Offices 1, 3-5, General Storage, Room 131 and Storage 1 and 2	9x9 Floor tile and mastic
Classrooms 35-38, 40, 41, 44-47, Hall outside Classrooms 35-47, Head Custodian Office, Coat Rooms 1 and 2, Office 2, Lower Level and Ground Floor Elevator Foyers, Classrooms 154-156, 158-164, Hall outside Classrooms 154-164, Classrooms 165-173, Hall outside Classrooms 165-173, Stair 2, Classroom 189, Classrooms 130-134, 174-176, Hall outside Classrooms 174-176, Classrooms 177A & B, Hall outside Classrooms 177-188, Classrooms 178-181, 184-188, Faculty Room, Cafeteria, Stage and Hall outside Gym	12x12 Floor tile and mastic
Classrooms 35-38, 40-42, 44-47, Hall outside Classrooms 35-47, Storage between Classrooms 36 and 38, Head Custodian Office, Custodian Room, Coat Rooms 1 and 2, Offices 1-5, Lower Level Elevator Foyer, General Storage, Classrooms 175 and 176, Storage 1 and 2 and Faculty Room	Asbestos containing brown cove base molding & mastic
Classrooms 40, 41, 44-47, 154-156, 158-176, 178-181, 184-188, Faculty Room, Kitchen, Cafeteria and Hall outside Gym	Soapstone Window Sills
Classrooms 36, 37, 40, 41, 44-47, Stairs 1 and 2, Classrooms 175, 176, 177A, 177B, 179-181, 184, Main Office, Principal's Office, Nurse's Office and Dental Office	Sheetrock and taping compound

Single-Ply Systems

AL NO. TS34031

DATE OF ISSUE: OCTOBER 26, 2001

CARLISLE GOLDEN SEAL™ TOTAL ROOFING SYSTEM WARRANTY

BUILDING OWNER: STAMFORD PUBLIC SCHOOLS
NAME OF BUILDING: STILLMEADOW ELEMENTARY SCHOOL
BUILDING ADDRESS: STAMFORD, CT
DATE OF COMPLETION OF THE CARLISLE TOTAL ROOFING SYSTEM: 09/10/01
DATE OF ACCEPTANCE BY CARLISLE: OCTOBER 26, 2001

CMD01053ON
JSI/REV.1

Carlisle Roofing Systems, Inc., warrants to the Building Owner **(OWNER)** of the above described building, that; subject to the terms, conditions and limitations stated in this warranty, Carlisle will repair any leak in the Carlisle Golden Seal™ Total Roofing System **(CARLISLE TOTAL ROOFING SYSTEM)** installed by a Carlisle Authorized Roofing applicator for a period of 20 years commencing with the date of Carlisle's acceptance of the Carlisle Total Roofing System installation. However, in no event shall Carlisle's obligations extend beyond 20.5 years subsequent to the date of substantial completion of the Carlisle Total Roofing System. See below for exact date of warranty expiration.

The Carlisle Total Roofing System is defined as the following Carlisle brand materials: Membrane, Flashings, Counterflashings, Adhesives and Sealants, Insulation, Recovery Board, Fasteners, Fastener Plates, Fastening Bars, Metal Edging, Metal Termination Bars, and any other Carlisle brand products utilized in this installation.

TERMS, CONDITIONS, LIMITATIONS

1. Owner shall provide Carlisle with written notice within thirty (30) days of the discovery of any leak in the Carlisle Total Roofing System. Owner should send written notice of a leak to Carlisle's Warranty Services Department at the address set forth at the bottom of this warranty. By so notifying Carlisle, the Owner authorizes Carlisle or its designee to investigate the cause of the leak. Should the investigation reveal the cause of the leak to be outside the scope of this Warranty, investigation and repair costs for this service shall be paid by the Owner.
2. If, upon inspection, Carlisle determines that the leak is caused by a defect in the Carlisle Total Roofing System's materials, or workmanship of the Carlisle Authorized Roofing Applicator in installing the same, Owner's remedies and Carlisle's liability shall be limited to Carlisle's repair of the leak.
3. This warranty shall not be applicable if, upon Carlisle's inspection, Carlisle determines that any of the following has occurred:
   (a) The Carlisle Total Roofing System is damaged by natural disasters, including, but not limited to, lightning, fire, insect infestations, earthquake, tornado, hail, hurricanes, and winds of peak gust speeds of 100 mph or higher measured at 10 meters above ground; or
   (b) The Carlisle Total Roofing System is damaged by any intentional or negligent acts, accidents, misuse, abuse, vandalism, civil disobedience, or the like.
   (c) Deterioration or failure of building components, including, but not limited to, the roof substrate, walls, mortar, HVAC units, non-Carlisle brand metal work, etc., occurs and causes a leak, or otherwise damages the Carlisle Total Roofing System; or
   (d) Acids, oils, harmful chemicals and the like come in contact with the Carlisle Total Roofing System and cause a leak, or otherwise damage the Carlisle Total Roofing System.
4. This Warranty shall be null and void if any of the following shall occur:
   (a) If, after installation of the Carlisle Total Roofing System by a Carlisle Authorized Roofing Applicator there are any alterations or repairs made on or through the roof or objects such as, but not limited to, structures, fixtures, or utilities are placed upon or attached to the roof without first obtaining written authorization from Carlisle; or
   (b) Failure by the Owner to use reasonable care in maintaining the roof, said maintenance to include, but not be limited to, those items listed on Carlisle's Care & Maintenance Information sheet which accompanies this Warranty.
5. Only Carlisle brand insulation products are covered by this warranty. Carlisle specifically disclaims liability, under any theory of law, for damages sustained by or caused by non-Carlisle brand insulation products.
6. During the term of this Warranty, Carlisle shall have free access to the roof during regular business hours.
7. Carlisle shall have no obligation under this Warranty while any bills for installation, supplies, service, and warranty charges have not been paid in full to the Carlisle Authorized Roofing Applicator, Carlisle, or material suppliers.
8. Carlisle's failure at any time to enforce any of the terms or conditions stated herein shall not be construed to be a waiver of such provision.
9. Carlisle shall not be responsible for the cleanliness or discoloration of the Carlisle Total Roofing System caused by environmental conditions including, but not limited to, dirt, pollutants, or biological agents.
10. This warranty is not assignable by operation of law or otherwise. Application may be made by a new building owner for reissuance of the warranty during the original warranty period. Certain procedures including, but not limited to, an inspection of the Roofing System by a Carlisle representative and fees will apply to any reissuance. Carlisle reserves the right, in its sole discretion, to refuse to reissue this warranty.

CARLISLE DOES NOT WARRANT PRODUCTS UTILIZED IN THIS INSTALLATION WHICH IT HAS NOT FURNISHED; AND SPECIFICALLY DISCLAIMS LIABILITY, UNDER ANY THEORY OF LAW, ARISING OUT OF THE INSTALLATION AND PERFORMANCE OF, OR DAMAGES SUSTAINED BY OR CAUSED BY, PRODUCTS NOT FURNISHED BY CARLISLE.

THE REMEDIES STATED HEREIN ARE THE SOLE AND EXCLUSIVE REMEDIES FOR FAILURE OF THE CARLISLE TOTAL ROOFING SYSTEM OR ITS COMPONENTS. THERE ARE NO WARRANTIES EITHER EXPRESSED OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE AND MERCHANTABILITY, WHICH EXTEND BEYOND THE FACE HEREOF. CARLISLE SHALL NOT BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR OTHER DAMAGES INCLUDING, BUT NOT LIMITED TO, LOSS OF PROFITS OR DAMAGE TO THE BUILDING OR ITS CONTENTS UNDER ANY THEORY OF LAW.

BY: Patrick D. McGrady
AUTHORIZED SIGNATURE..... Patrick D. McGrady
TITLE: Director, Technical & Warranty Services
THIS WARRANTY EXPIRES: OCTOBER 25, 2021

YOUR SINGLE-PLY SOLUTION™

CARLISLE

P. O. Box 7000, Carlisle, PA 17013 ■ (717) 245-7000; Fax (717) 245-7053 ■ www.carlisle-syntec.com

APPENDIX D:
EMG ABBREVIATED ACCESSIBILITY CHECKLIST

Property Name: Stillmeadow Elementary School
Date: March 24, 2009
Project Number: 88166.09R-011.017

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?	✓			Parking spaces
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?		✓		None reported
	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?	✓	✓		Four ADA parking spaces with signs at rear lot
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?		✓		
5.	Do curbs on the accessible route have depressed, ramped curb cuts at drives, paths, and drop-offs?		✓		
6.	Does signage exist directing you to accessible parking and an accessible building entrance?		✓		

EMG Abbreviated Accessibility Checklist					
	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)	✓			Four exterior ramps
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 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)?		✓		Knobs
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?		✓		Water fountains
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?		✓		

EMG Abbreviated Accessibility Checklist					
	Paths of Travel	**Yes**	**No**	**N/A**	**Comments**
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?		✓		One elevator, key operated
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				
1.	Are common area public restrooms located on an accessible route?	✓	✓		
2.	Are pull handles push/pull or lever type?		✓		
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)?	✓			

EMG Abbreviated Accessibility Checklist					
	Restrooms				
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?		✓	✓	None provided
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:	**Stillmeadow Elementary School**	**Project Number:**	**88166.09R-011.017**
Person completing form:	**Mr. Michael Sanders**	**Date:**	**March 24, 2009**
Association with Project:	**Principal**	**Phone Number:**	**203.977.4507**
Years associated w/Proj.:	**15 years**	**Fax Number:**	**203.977.5103**
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?	✓				Fire Marshal cited two main stairwells have balusters spaced at more than 4 inches
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?	✓				Many ADA barriers
9. Is there any pending litigation concerning the property?		✓			
10. Is site drainage adequate?		✓			Rear parking lot, NW corner of site flooding
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?		✓			All slab-on-grade
14. Are there any wall or window leaks?	✓				Classroom 170 and Principals office
15. Are there any poorly insulated areas?	✓				The media center windows are single paned
16. Are there any current roof leaks at the property?		✓			
17. Are any roof finishes more than ten years old?	✓				Modular classroom roofs
18. Is the roofing covered by a warranty or bond?	✓				White EPDM covered by 20 year warranty beginning in 2002

	Yes	No	Unk	NA	Comments
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?	✓				
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?		✓			
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?		✓		✓	None
46. Are the generators maintained on a regular basis?				✓	
47. Do tenants contract for their own improvement work?				✓	

	Yes	No	Unk	NA	Comments
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?					
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 and 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 and 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 and 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

KEVIN M. LANTRY

Project Manager

Education

- BS, Mechanical Engineering, Purdue University School of Mechanical Engineering, 2003

Project Experience

- **Two Illinois Center, Chicago, IL –** Project Manager. Completed an Equity Level Property Condition Evaluation of this 32-story building in Chicago's East Loop office district. The 1.2 million square foot facility contains office and retail space along with a four level subterranean parking garage.
- **Paterson Housing Authority Energy Audits, Paterson, NJ –** Project Manager. Completed Energy Audits at office, residential, and recreational properties. Energy Audits included physical assessment, plan review, utility consumption analysis, and energy conservation recommendations.
- **Mark to Market Green PCAs, Various Locations –** Project Manager. Completed multiple Mark to Market Green PCAs per Housing and Urban Development (HUD) protocol. Reports included standard Mark to market assessments with energy audits and recommendations for sustainability.
- **Alan Bible Federal Building, Las Vegas, NV –** Project Manager. Completed a Level IV Web Building Engineering Report (BER) for the US Government General Services Administration. Evaluated the mechanical, plumbing, and elevator systems as part of the assessment team sent by EMG to analyze all building components.
- **Orange County Parks Depreciation Study, Orange County, CA** – Project Manager. Performed facility assessments on over 20 harbor, beach and park properties, including recreational facilities, maintenance facilities, and offices. Compiled data into individual Property Condition Reports, which included a Depreciation Study and 10-year Capital Plan for each facility.
- **First Energy Facility Assessments, Multiple Sites, PA -** Project Manager. Performed facility assessments on over forty sites for a large electric utility in central and eastern Pennsylvania. Evaluated a wide range of sites, including district offices, regional headquarters and maintenance facilities. Compiled results into individual Facility Condition Reports and EMG's Assetcalc software to be used by the client for capital planning and facility investment purposes.

Industry Tenure

- A/E: 2001
- EMG: 2004

Related Experience

- GSA Assessment Team

Industry Experience

- Industrial
- Commercial
- Multi-family Residential

Special Skills & Training

- ISO 9000
- AutoCAD
- VFA.Facility Certified
- Cross Trained for Environmental Assessments
- Certified Multifamily Building Analyst by Building Performance Institute

Memberships

- ASHRAE
- U.S. Green Building Council

Regional Location

- Indianapolis, IN