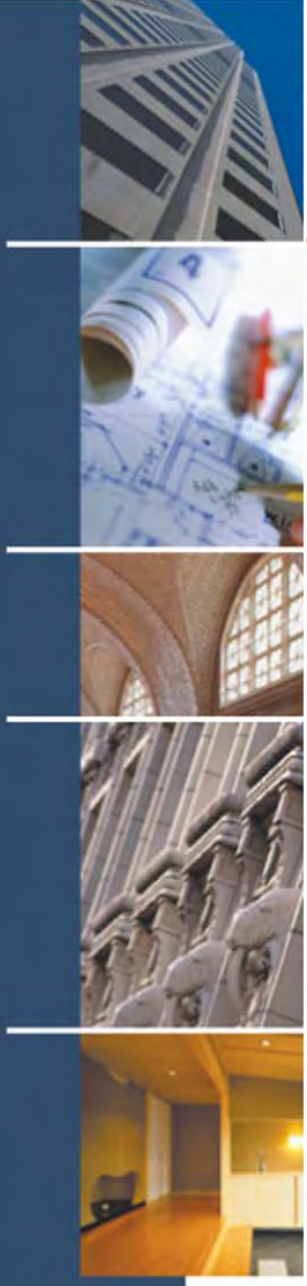

FACILITIES NEEDS ASSESSMENT

STAMFORD PUBLIC SCHOOLS
888 Washington Boulevard
Stamford, Connecticut 06901
Domenick Tramontozzi

Facilities Needs Assessment
of
HART ELEMENTARY MAGNET
61 Adams Avenue
Stamford, Connecticut 06902

PREPARED BY:

EMG
222 Schilling Circle, Suite 275
Hunt Valley, Maryland 21031
800.733.0660
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EMG CONTACT:

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

EMG Project #: 88166.09R-003.017
Date of Report: August 30, 2009
On site Date: April 9, 2009 and April 13, 2009

Replacement Reserves Report
Elementary Schools / Hart Elementary Magnet
8/30/2009

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	4055	HVAC system study	0	0	0	1	EA	$9,135.00	$9,135	$9,135										**$9,135**
3.1	3816	Replace damaged concrete	30	30	0	80	SY	$450.99	$36,079	$36,079										**$36,079**
3.1	3806	ADA, Renovate restroom for full compliance	20	20	0	2	EA	$15,120.00	$30,240	$30,240										**$30,240**
3.1	3815	Install ADA electronic eye door closers	15	15	0	1	EA	$8,114.40	$8,114	$8,114										**$8,114**
3.1	3810	ADA Compliant Wheelchair Lift Installation	0	0	0	1	EA	$22,680.00	$22,680	$22,680										**$22,680**
3.1	3814	ADA, Parking lot access aisle striping	0	0	0	60	LF	$8.19	$491	$491										**$491**
3.1	3813	ADA - Install signage indicating Accessible Parking, pole mounted	20	20	0	1	EA	$134.01	$134	$134										**$134**
5.2	4069	Repair and Seal Coat asphalt	5	1	4	4	10000 SF	$5,848.92	$23,396					$23,396					$23,396	**$46,791**
5.2	4076	Cut & Patch asphalt	10	9	1	1500	SF	$3.86	$5,783		$5,783									**$5,783**
5.4	6237	New shrubs, medium	20	20	0	250	EA	$133.43	$33,359	$33,359										**$33,359**
5.5	4119	Replace wall pack 150 watt high pressure sodium	0	0	0	6	EA	$686.56	$4,119	$4,119										**$4,119**
5.5	4071	Replace chain link fence, 6-foot high	20	18	2	400	LF	$37.31	$14,923			$14,923								**$14,923**
5.5	4072	Replace Play Structure, Large	20	11	9	1	EA	$52,920.00	$52,920										$52,920	**$52,920**
5.5	6241	Install underground irrigation system	0	0	0	11000	SF	$1.26	$13,860	$13,860										**$13,860**
5.5	4074	Replace pole-mounted light 400 W HPS fixture only	20	11	9	10	EA	$1,762.24	$17,622										$17,622	**$17,622**
5.5	6236	New Aluminum pole-mounted double light 400 W HPS fixture and pole	0	0	0	2	EA	$8,651.16	$17,302	$17,302										**$17,302**
6.3	3823	Replace damaged concrete	30	30	0	25	SY	$450.99	$11,275	$11,275										**$11,275**
6.3	16996	Stamford Roof Assessment - BUR Roof Replacement	20	11	9	329	SQ	$1,702.26	$560,044										$560,044	**$560,044**
6.3	16997	Stamford Roof Assessment Roof Repair Recommendations	0	0	0	1	EA	$1,776.60	$1,777	$1,777										**$1,777**
6.3	3821	Built-up roofing, flashing repairs - (2 S.F. per SQ. repaired)	0	1	0	1500	SF	$5.67	$8,505	$8,505										**$8,505**
6.3	3822	Add Roof drain to canopy	30	30	0	2	EA	$7,560.00	$15,120	$15,120										**$15,120**
6.4	3832	Point brick wall upper floor	10	2	8	210	CSF	$1,301.58	$273,332									$273,332		**$273,332**
6.5	3802	Rubber Steps	0	0	0	9600	SF	$40.16	$385,500	$385,500										**$385,500**
6.6	3834	Caulking, polyurethane,1/4"x1/4", remove and replace	15	11	4	14800	LF	$4.84	$71,608					$71,608						**$71,608**
6.6	3826	Replace 6' x 3' aluminum window upper floor	25	16	9	246	EA	$2,232.72	$549,249										$549,249	**$549,249**
6.6	3829	Replace 2' x 3' aluminum window fixed	25	25	0	26	EA	$738.36	$19,197	$19,197										**$19,197**
6.6	3820	Rekey exsiting locks and new Master Key system	30	30	0	93	Door	$79.83	$7,425	$7,425										**$7,425**
6.8	3838	Paint interior walls, drywall	5	2	3	205920	SF	$1.06	$217,946				$217,946					$217,946		**$435,891**
6.8	3825	Replace Vinyl tile	18	11	7	5333	SY	$81.90	$436,773								$436,773			**$436,773**
6.8	3824	Replace Vinyl tile	18	18	0	1500	SY	$81.90	$122,850	$122,850										**$122,850**
6.8	3837	Sand and refinish hardwood floor	10	5	5	7100	SF	$6.93	$49,203						$49,203					**$49,203**
6.8	3836	Replace carpet - standard commercial	8	4	4	1366	SY	$63.23	$86,368					$86,368						**$86,368**
6.8	3839	Replace acoustical ceiling tile system, complete including demo	20	11	9	615	CSF	$522.90	$321,584										$321,584	**$321,584**
6.8	3830	Video Camera, wireless	15	15	0	8	-	$694.81	$5,559	$5,559										**$5,559**
6.8	3831	Curtains velour medium weight	0	0	0	1950	SF	$15.95	$31,106	$31,106										**$31,106**
6.8	3828	Horizontal Blinds aluminum 1" slats	7	3	4	7872	SF	$6.49	$51,081					$51,081						**$51,081**
6.8	3827	Horizontal Blinds aluminum 1" slats	7	7	0	240	SF	$6.49	$1,557	$1,557							$1,557			**$3,115**
7.1	4204	Replace water boiler, gas/oil 2400 MBH	30	25	5	1	EA	$49,738.50	$49,739						$49,739					**$49,739**

Replacement Reserves Report
Elementary Schools / Hart Elementary Magnet
8/30/2009

Report Section	ID	Cost Description	Lifespan (EUL)	Observed Age (EAge)	Remaining Life (RUL)	Quantity	Unit	Unit Cost *	Subtotal	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Deficiency Repair Estimate
7.1	4206	Replace Air cooled reciprocating chiller 160 ton	20	11	9	1	EA	$158,225.76	$158,226										$158,226	**$158,226**
7.1	4059	Replace DX cooling unit 1.5 ton	15	11	4	1	EA	$1,331.82	$1,332					$1,332						**$1,332**
7.1	4085	Replace fan coil with cooling and heat 1.5 ton	15	11	4	40	EA	$1,861.02	$74,441					$74,441						**$74,441**
7.1	4060	Exhaust Fan 375 CFM	10	8	2	16	EA	$882.63	$14,122			$14,122								**$14,122**
7.1	4075	Circulation Pump 7.5 HP	20	11	9	4	EA	$6,892.20	$27,569										$27,569	**$27,569**
7.1	4063	Replace rooftop unit 20-50 tons (heating and cooling)	20	11	9	3 @ 25	Ton	$1,512.00	$113,400										$113,400	**$113,400**
7.1	4061	Package Units, gas heat, 8-ton cooling	15	11	4	1	EA	$16,928.52	$16,929					$16,929						**$16,929**
7.1	4062	Package Units, gas heat, 15-ton cooling	15	11	4	2	EA	$26,865.34	$53,731					$53,731						**$53,731**
7.1	6235	Stamford Allowance - Upgrade EMS, control points and zoning to correct inconsistencies	20	20	0	82000	SF	$1.26	$103,320	$103,320										**$103,320**
7.2	6240	Capital Plan - Install outdoor drinking fountain, pedestal type	0	0	0	2	EA	$2,451.56	$4,903	$4,903										**$4,903**
7.2	6239	Capital Plan - Install one inch copper pipe for drinking fountain	0	0	0	150	LF	$31.63	$4,744	$4,744										**$4,744**
7.2	4058	Replace water heater, commercial 100 gal	15	11	4	1	EA	$7,162.50	$7,162					$7,162						**$7,162**
7.4	6242	Upgrade lighting for energy conservation	0	0	0	82000	SF	$5.92	$485,604	$485,604										**$485,604**
7.4	6238	Capital Plan - Communications & Security including alarms,internet wiring, communication systems and emergency lighting	15	15	0	82000	SF	$3.15	$258,300	$258,300										**$258,300**
7.4	6247	Replace UPS system batteries	15	14	1	13	EA	$880.11	$11,441		$11,441									**$11,441**
7.4	6245	Replace stage lighting equipment	15	15	0	1	EA	$19,026.00	$19,026	$19,026										**$19,026**
7.4	4067	Sound system including amplifier	15	11	4	1	EA	$5,677.56	$5,678					$5,678						**$5,678**
7.4	4066	School Stage Audio Equipment	15	11	4	1	EA	$5,386.50	$5,387					$5,387						**$5,387**
7.6	4064	Install Ansul System at kitchen hood	20	11	9	1	EA	$6,142.50	$6,143										$6,143	**$6,143**
7.6	4065	Fire alarm panel addressable, with voice	15	11	4	1	EA	$15,264.77	$15,265					$15,265						**$15,265**
8.2	17006	Stamford Kitchen Equipment Replacement Allowance	10	5	5	1	EA	$63,000.00	$63,000						$63,000					**$63,000**
Totals, Unescalated										**$1,661,281**	**$17,225**	**$29,046**	**$217,946**	**$412,376**	**$161,942**	**$0**	**$438,330**	**$491,278**	**$1,830,151**	**$5,259,573**
Soft Costs:																				
Architectural/Consultant Fees (10.0%)										**$166,128**	**$1,722**	**$2,905**	**$21,795**	**$41,238**	**$16,194**	**$0**	**$43,833**	**$49,128**	**$183,015**	**$525,957**
General Requirements (Bonds, Insurance, GC/CM Mark-up) (10.0%)										**$166,128**	**$1,722**	**$2,905**	**$21,795**	**$41,238**	**$16,194**	**$0**	**$43,833**	**$49,128**	**$183,015**	**$525,957**
Prevailing Wage/Labor Compliance (5.0%)										**$83,064**	**$861**	**$1,452**	**$10,897**	**$20,619**	**$8,097**	**$0**	**$21,917**	**$24,564**	**$91,508**	**$262,979**
Contingency (5.0%)										**$83,064**	**$861**	**$1,452**	**$10,897**	**$20,619**	**$8,097**	**$0**	**$21,917**	**$24,564**	**$91,508**	**$262,979**
Location Factor (1.11)										**$177,757**	**$1,843**	**$3,108**	**$23,320**	**$44,124**	**$17,328**	**$0**	**$46,901**	**$52,567**	**$195,826**	**$562,774**
Totals, Escalated (see inflation table above)										**$2,337,422**	**$24,962**	**$43,777**	**$341,622**	**$678,705**	**$279,856**	**$0**	**$835,135**	**$982,814**	**$3,844,331**	**$9,368,624**

* Markup has been included in unit costs.

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CERTIFICATION

EMG has completed a Comprehensive Facilities Needs Assessment of the subject property, Hart Elementary Magnet, located at 61 Adams 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.

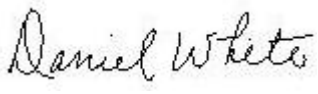
This report has been prepared on behalf of and exclusively for the use of City of Stamford, Connecticut Public Schools for the purpose stated within Section 2.0 of this report. The report, or any excerpt thereof, shall not be used by any party other than City of Stamford, Connecticut Public Schools or 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 Peter F. Millar, P.E., Field Observers

Reviewed by:



Daniel White
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Bill Champion
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1. EXECUTIVE SUMMARY

1.1. SUMMARY OF FINDINGS

The property information is summarized in the table below. More detailed descriptions may be found in the various sections of the report and in the Appendices.

Property Information	
Address:	61 Adams Avenue, Stamford, Fairfield County, Connecticut, 06902
Year constructed:	1915 Renovated / Addition 1998
Current owner of property:	City of Stamford
School occupying building:	Hart Elementary Magnet
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:	2.55 acres
Gross floor area:	82,000 Square Feet
Number of buildings:	One
Number of stories:	Three
Parking type and number of spaces:	99 spaces in open lots
Building construction:	Entirely reinforced concrete slab-on-grade on 2 levels due to grade change Masonry non-bearing sidewalls and wood floor and roof joists at original portion, steel frame with open web joists at addition
Bay Column Spacing:	Approximately 24 feet x 32 feet
Interior vertical clearance:	12′-3″ at ground floor, 13′-3″ at 1st and 2nd floors
Roof construction:	Flat, gravel surfaced built-up roof (GSBUR) systems
Exterior Finishes:	Unpainted brick veneer, cast stone ornamentation, painted wood and metal trim

Property Information	
Heating and/or Air-conditioning:	Heating is provided in the classrooms by fan coil units via a two-pipe system. The fan coil units are provided with hot water from the central boilers and chilled water from the central chiller, which is located on the high roof. Heating is provided to isolated portions of the common corridors via wall-mounted, finned-tube, radiant heat units. The radiant units are supplied with hot water by the central system. Heating and cooling are provided in media lab, auditorium, music/art rooms, main offices, common corridors, cafeteria, computer labs, and lobby by individual, direct-expansion, constant-volume, gas-fired, packaged, rooftop-mounted, HVAC units.
Fire and Life/Safety:	The fire protection systems consist of a wet-pipe sprinkler system, a wet standpipe with fire department hose valves and connections, portable fire extinguishers, smoke detectors, pull stations, and alarm horns. Hardwired smoke detectors are located throughout the common areas. The nearest fire hydrants are located along the public streets bordering the property and are less than 100 feet from the building.
Date of visit:	April 9, 2009 and April 13, 2009
Point of Contact (POC):	Ms. Linda Darling, Principal 203.977.977.5085 Mr. Richard Lowman, Head Custodian 203.977.4604 Mr. Jerry Sangermano, Night Custodian 203.704.0468

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 one new central heating boiler and asphalt pavement re-striping. 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 HVAC system is reportedly highly inconsistent. Maintenance and administrative staff reported that temperature control is inadequate. It is recommended that an HVAC contractor evaluate the building for the potential reconfigure the existing control system or to add increased zoning for better temperature control in the classrooms. It is also recommended that ventilation in the corridors be included in the HVAC evaluation. A budgetary cost allowance to correct control concerns is included in the Replacement Reserves Report. The HVAC study will determine the appropriate corrective action and estimated cost.

The following issues should be considered.

- Verify that any alterations, installations, or other improvements since the project was first constructed and occupied have been properly permitted and approved by municipal agencies.

- Verify that no defective materials or equipment are used at the property.

1.3. OPINIONS OF PROBABLE COST

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

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

1.3.1. Methodology

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

In addition to determining the EUL and the RUL for each major prime system and building component, EMG will categorize each cited deficiency within one of the following five 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
Ms. Linda Darling Principal	Hart Elementary Magnet	203.977.5085
Mr. Richard Lowman Head Custodian	Hart Elementary Magnet	203.977.4604
Mr. Jerry Sangermano Night Custodian	Hart Elementary Magnet	203.704.0468
Mr. Gus Burreisci Project Manager	City of Stamford Public Schools	203.223.8118

The Comprehensive Facilities Needs Assessment was performed with the assistance of Ms. Linda Darling, Principal, Mr. Richard Lowman, head custodian and Mr. Jerry Sangermano, Night 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 1.5 years, 3 years and 10 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
- 1998 Renovations / Addition drawings by Antinozzi Associates, Architect & Interiors dated March 7, 1997
- Playground Improvements drawings by Ward Associates, P.C. – Landscape Engineers dated May 1, 1998
- Capital improvement summary
- Certificates of occupancy
- Roof warranty information

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

2.5. PRE-SURVEY QUESTIONNAIRE

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

3. ACCESSIBILITY, CODE & MOLD

3.1. ADA ACCESSIBILITY

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

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

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

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

Parking

- Pole-mounted signage directing to accessible parking spaces at the facility are not provided at the head end of one of the front parking lot ADA spaces.
- Currently, a striped handicapped access aisle is not provided across the north driveway leading from the building to the playground. A length of 60 feet is needed.

Paths of Travel

- Currently, wheelchair access to the gymnasium level is not provided due to a stairwell. The gym is a half story lower than the first floor and a half story higher than the ground floor. One wheelchair stairwell lift should be installed.
- The curved wheelchair ramp at the main front entrance has cracks, spalling and settled concrete sections. All deteriorated concrete should be properly patched or cut out and replaced to achieve a smooth walking surface. The affected total is approximately 80 SY.

Elevators

- The single passenger elevator cab is equipped with a Pana-40 type door re-opener. The faculty complained that the device is inoperable and requires repair or replacement to ensure safety.

Restrooms

- The two multi-user boy's and girl's common toilet rooms near the gymnasium require major modifications to the doorway, privacy wall, fixtures and accessories to be fully handicapped accessible and comply with ADAAG.

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

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

3.2. CODE INFORMATION AND FLOOD ZONE

According to Deputy Fire Marshal, Walter Seely of the Turn of Stamford Fire & Rescue, there are no open outstanding fire code violations. The most recent inspection was conducted by the fire department on February 19, 2009. Hart faculty detailed that the deputy fire marshal revisited the Hart school one week ago and cleared the previous open violation regarding a 30-day order of resolution limiting the use of the building from 5 PM to 6 AM. 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**
31	Classroom	0	0
15	Office	0	0
2	Mechanical	0	0
12	Storage	0	0
1	Gymnasium	0	0
1	Auditorium	0	0
1	Cafeteria	0	0
1	Media Center	0	0
64	**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 & 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 underground fuel storage tank.

5.2. PARKING, PAVING, AND SIDEWALKS

The main entrance drive is located along Adams Avenue on the west side of the property. An egress drive from the rear parking lot discharges directly onto Green Street. The parking areas, drive aisles, service drives, and entrance driveway aprons are paved with asphalt.

According to the site plan, parking is provided for approximately 99 cars. The parking ratio is approximately 1.20 spaces per thousand square feet of floor area. All of the parking stalls are located in open lots. There are a total of five handicapped--accessible parking stalls, four of which are van-accessible. Three accessible parking spaces are provided in the front parking lot and two are provided in the rear lot.

The sidewalks throughout the property are constructed of cast-in-place concrete. Cast-in-place concrete steps are provided at the main and several auxiliary entrances.

The curbs and gutters are constructed of cast-in-place concrete.

Observations/Comments:

- The asphalt pavement and sidewalks are in good to fair condition. There are isolated areas of significant cracks. In order to maximize the pavement life, crack sealing, seal coating, and restriping of the asphalt paving will be required during the evaluation period. The estimated costs of these items are included in the Replacement Reserves Report.

- The concrete curbs, gutters, and sidewalks throughout the property are in overall good condition. Routine cleaning and maintenance will be required during the evaluation period.

Sustainable Recommendations:

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

5.3. DRAINAGE SYSTEMS AND EROSION CONTROL

Storm water from the roofs, landscaped areas, and paved areas flows into on site inlets and catch basins with underground piping connected to the municipal storm water management system. However, portions of the storm water from the paved areas flows across the surface into the adjacent public streets.

Observations/Comments:

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

Sustainable Recommendations:

- There are no sustainable recommendations for the drainage systems.

5.4. TOPOGRAPHY AND LANDSCAPING

The property is gently slopes from the west to the east. The front property line along Adams Avenue is approximately 6 feet above that of the rear property line. However, the neighboring properties to the south and east are significantly elevated. The eastern property line slopes gently downward from the east towards the west.

The landscaping consists of trees, shrubs, and grasses.

Surrounding properties include single and multiple family residential developments to the south, east and west. The playground and ball fields are located to the north of building.

The Rippowam River flows from the north to the south along the eastern property line.

Observations/Comments:

- The topography and adjacent uses do not appear to present conditions detrimental to the property.
- The landscape materials are in fair condition. According to the client provided JMOA five year capital plan, additional shrubs and other plantings are planned. A budgetary cost allowance for this work is included in the Replacement Reserves Report.

Sustainable Recommendations:

- There are no sustainable recommendations for landscaping.

5.5. GENERAL SITE IMPROVEMENTS

Property identification is provided by lettering that was carved into cast stone above the main entrance along Adams Avenue.

Site lighting is provided by surface-mounted light fixtures on the exterior walls and pole-mounted fixtures. Recessed light fixtures are located in the exterior soffits.

A chain link perimeter fence is located along the eastern perimeter of the property. The fence is installed into a wet set stone wall. A metal stockade-type fencing system is provided around the perimeter of the playground and ball field portion of the site.

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

One area of playground equipment is located to the north of the building. The playground contains various pieces of play equipment, which includes slides, climbing apparatus, and swings. The playground surface consists of wood chips play surface.

An open ball field is located to the east of the playground and north of the rear parking lot.

Observations/Comments:

- The property identification signage is in good condition. Routine maintenance will be required during the evaluation period.
- The exterior site and building light fixtures are in good to fair condition. During our site assessment, we observed the paint conditions of the base of several light fixtures to be damaged. The repainting of the aforementioned light fixtures is recommended as soon as weather permits. This work can easily be done by in-house maintenance personnel, therefore, no cost has been provided for this item. School staff reported inadequate site lighting within the rear main parking lot. The installation of additional wall-mounted, high pressure sodium light fixtures (with photocell) and pole mounted lighting is recommended to ensure site safety. Additionally the pole mounted site lighting will require replacement during the term. The estimated cost of this work is included in the Replacement Reserves Report.
- The site fencing is in good to fair condition. Surface rust was observed on the chain link fencing. Based on its estimated Remaining Useful Life (RUL), the chain link fencing will require replacement during the evaluation period. The estimated cost of this work is included in the Replacement Reserves Report.
- The dumpsters are owned and maintained by the refuse contractor.
- The playground equipment is in good condition and will require routine maintenance during the evaluation period. Based on its estimated Remaining Useful Life (RUL), the playground equipment will require replacement during the evaluation period. The estimated cost of this work is included in the Replacement Reserves Report.
- The ball field is in fair condition. Underground irrigation installation is recommended. The estimated cost of this work is included in the Replacement Reserves Report.

Sustainable Recommendations:

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

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 be partially observed during the site visit due to the fact that due to a grade change, the lower ground floor is at grade along the rear and the first floor is at grade along the front facade. 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 a combination of wood framing at the original (1915) southern portion and 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 at the 1998 addition. The original building portion has an exposed wood framed attic space.

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 gravel surfaced built-up roof system (GSBUR). The roofs are insulated with tapered rigid insulation boards that direct storm water towards the roof surface drains.

Low parapet walls exist at the main 3-story roof only. The lower gymnasium and office roofs have sheet metal flashing elements and single-ply base and edge flashing.

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

Observations/Comments:

- The GSBUR roof finishes are approximately 11 years old and installed in 1998. A copy of the written roof warranty was provided. The GSBUR roof (365 Squares) is covered under a Johns Manville 20-year no dollar limit warranty beginning in September 17, 1998. The roofs are maintained by the in-house maintenance staff.
- 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.
- Generally, 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. However, the flat GSBUR roof above the gymnasium has fairly large areas of ponding water. The roof is designed to drain to the edges. However, it appears that there are low areas that allow water to pond in areas away from these existing drains. Two additional surface drains should be installed to alleviate this ponding. The new drains will require interior leaders run above the gymnasium ceiling. The estimated cost of this work is included in the Replacement Reserves Report.
- Several isolated sections of the inboard roof parapets were observed to have loose sections of membrane and open and dry/brittle mastic base flashings. Most deterioration was along the front parapet wall. All affected sections should be professionally repaired to prevent storm water infiltration into the masonry parapets. The estimated cost of this work is included in the Replacement Reserves Report.
- EMG also 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. See EMG project number 88166.09R-002.244 for more detailed discussion and findings.
- The concrete boiler chimney has cracks at the roof level. Repairs are required. The estimated cost of this work is included in the Replacement Reserves Report.
- Several of the rooftop metals (hatch covers, HVAC dunnage, fan shrouds) were observed to have rusting. All affected metals should be wire brushed, primed and repainted. These minor repairs can be replaced as part of the Physical Plant's routine maintenance program.

Sustainable Recommendations:

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

6.4. EXTERIOR WALLS

The exterior walls are finished primarily with unpainted brick veneer, cast stone ornamentation 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 noted 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 sections of the brick facades are encumbered with climbing vines. All vines and associated vegetation should be pruned back and removed. Vines, if left to grow, are invasive and can accelerate the deterioration of brick and mortar joints. 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 cover with adhesive backed, textured rubber surfaces. 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.
- The rubber stair treads and landings are loose and have curled edges. All rubber surfaces should be replaced. The estimated cost of this work is included in the Replacement Reserves 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.
- All of the double paned, insulated aluminum framed windows are in good overall condition. Phased replacement should be anticipated over term. The estimated cost of this work is included in the Replacement Reserves Report.
- Many of the classroom entrance door and interior lockable storage doors do not have keys. Faculty has requested that all doors be re-keyed to the current master key system for security reasons. The estimated cost of this work is included in the Replacement Reserves Report.
- All of the exterior common and service doors were noted and reported to be in generally good condition and operate properly. All doors will likely require replacement beyond the current evaluation term. The estimated cost of this work is included in the Replacement Reserves Report.
- Many of the fixed Masonite transoms located above the 3rd floor rear windows at the north end of the school (classrooms 226-240) have active wind driven leaks due to poor caulking and rotted Masonite. All affected windows should have the Masonite removed and replaced with a fixed tinted/opaque window of the same size. The estimated cost of this work is included in the Replacement Reserves Report.
- All of the window and door frame caulking was observed to be in fair condition. All windows and doors will require caulking. 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 second floors. There are a total of six sets of common area restrooms.

Common Area	Floors	Walls	Ceilings
Lobby	Vinyl tile	Painted plaster, painted drywall	Suspended acoustic tiles
Corridor	Vinyl tile	Painted plaster, painted drywall, painted concrete block	Suspended acoustic tiles
Common Area Restrooms	Ceramic tile	Ceramic tile or painted drywall	Suspended acoustic tiles
Office	Vinyl tile or carpet	Painted drywall	Suspended acoustic tiles
Media Center	Carpet	Painted drywall and painted concrete block	Suspended acoustic tiles
Auditorium	Vinyl tile or carpet	Painted concrete masonry units, stained wood panels	Suspended acoustic tiles
Gymnasium	Wood plank	Painted concrete masonry units	Exposed roof framing
Cafeteria	Vinyl tile	Painted concrete block and drywall	Suspended acoustic tiles

Observations/Comments:

- It appears that the interior finishes in the common areas were last renovated during the 1998 addition/construction.
- 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 Replacement Reserves Report.
- The wood 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.

- Interior painting will also be required during the evaluation period. The estimated cost of this work is included in the Replacement Reserves Report.
- The cafeteria kitchen floor tiles, walls and ceilings are in good condition and will require routine maintenance during the evaluation period.
- 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 auditorium wood plank stage is in good overall condition. The wood planks will require refinishing over the evaluation period. The estimated cost of this work is included in the Replacement Reserves Report.
- Partial isolated suspended ceiling tile replacement will also be required during the evaluation period due to stains, damage or missing tiles at the ESL room #128, staff development room #147, reading specialist #148, sensory room #003, classroom #236. 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.
- Many isolated sections of the VCT floor tiles along the common corridors and within the classrooms exhibit cracks, lifted edges and missing tiles. Further deterioration was noted at the original wood framed building floors and expansion joints. All affected floor tiles should be replaced. The estimated cost of this work is included in the Replacement Reserves Report.
- Several of the window blinds within the computer labs and media center are damaged or reportedly do not operate. All damaged blinds should be replaced. In addition, all blinds will likely require replacement over term. The estimated cost of this work is included in the Replacement Reserves Report.
- Currently, there are several areas within the school and grounds that are not covered by existing security cameras. The main blind spots are along the route to the office after a visitor is buzzed in from the ground floor rear door (near main parking lot). In addition, the rear parking lot and playground to the north are not covered by cameras. Of note, currently, only three of the exterior entrance doors are equipped with CCTV cameras. To improve site security, additional cameras should be installed and tied to the existing CCTV matrix for viewing by the main office staff. 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.

7. BUILDING (CENTRAL) MECHANICAL AND ELECTRICAL SYSTEMS

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

Heating is provided in the classrooms by fan coil units via a two-pipe system. The fan coil units are provided with hot water from the central boilers and chilled water from the central chiller, which is located on the high roof. Heating is provided to isolated portions of the common corridors via wall-mounted, finned-tube, radiant heat units. The radiant units are supplied with hot water by the central system.

Heating is provided to the kitchen via a gas-fired rooftop mounted furnace.

Heating and cooling are provided in the data center via split DX (direct expansion) system.

Heating and cooling are provided in media lab, auditorium, music/art rooms, main offices, common corridors, cafeteria, computer labs, and lobby by individual, direct-expansion, constant-volume, gas-fired, packaged, rooftop-mounted, HVAC units. The following table describes the rooftop units:

Packaged Rooftop Units				
Designation	**Manufacturer**	**Cooling Capacity**	**Heating Type**	**Manufacture Year**
AC-1	Carrier	25 tons	Gas	1998
AC-2	Carrier	24 tons	Gas	1998
AC -3	Carrier	25 tons	Gas	1998
AC -4	Carrier	14 tons	Gas	1998
AC -5	Carrier	14 tons	Gas	1998
AC -6	Carrier	8 tons	Gas	1998
Chiller	Carrier	160 tons	Electric	1998

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

Hot water for the central heating system is supplied by two (2) cast iron boilers, which are located within the boiler room. The boilers have dual-fuel capability, utilizing natural gas or fuel oil. Boiler No. 1 and No. 2 are Model No. 28A-11, which are rated at 2,400 MBH and are manufactured by HB Smith.

Fuel oil is supplied to the boilers by a fuel oil pump set and a 5,000-gallon underground storage tank (UST). The UST is located beneath the concrete paved sidewalks along the north side of the building.

Chilled water for the central cooling system is supplied by an air-cooled chiller. The chiller uses R-134A as a refrigerant.

Circulating pumps provide heated and chilled water to each temperature-controlled space via a two-pipe distribution system. The heated and chilled water supplies the fan coil units.

Electric heating coils at each variable air volume (VAV) unit provide auxiliary heat.

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

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, circulating pumps, rooftop units, air handling units, ventilation units, and domestic water heating system.

Observations/Comments:

- The HVAC systems are maintained by the in-house maintenance staff.
- The HVAC equipment varies in age. HVAC equipment is reportedly replaced on an "as needed" basis.
- The HVAC system is reportedly highly inconsistent. Maintenance and administrative staff reported that temperature control is inadequate. It is recommended that an HVAC contractor evaluate the building for the potential reconfigure the existing control system or to add increased zoning for better temperature control in the classrooms. It is also recommended that ventilation in the corridors be included in the HVAC evaluation. A budgetary cost allowance to correct control concerns is included in the Replacement Reserves Report. The HVAC study will determine the appropriate corrective action and estimated cost.
- The data center split-DX system was observed to be in good condition. The split-DX system was reportedly installed in conjunction with the most recent renovations, which took place in 1998. Based on the estimated Remaining Useful Life (RUL), the split-DX system will require replacement during the evaluation period. The estimated cost of this work is included in the Replacement Reserves Report.
- Boiler No. 1 is fairly new and in good condition. Routine maintenance will be required during the assessment period.
- Boiler No. 2 appears to be in fair condition. Based on the estimated Remaining Useful Life (RUL), the boiler will require replacement during the evaluation period. The estimated cost of this work is included in the Replacement Reserves Report.
- The roof-mounted chiller appears to be in good to fair condition. Based on its Remaining Useful Life (RUL), the chiller will require replacement during the evaluation period. The estimated cost of this work is included in the Replacement Reserves Report.
- The gas-fired rooftop mounted furnace, which provides heat to the kitchen, was reported to be non-operational at the time of our site visit. Repair and/or replacement of the unit is recommended at this time. The estimated cost of this work is included in the Replacement Reserves Report.
- The underground storage tank could not be directly observed. The estimated cost of this work is included in the Replacement Reserves Report.
- The fuel oil pump set appears to be in good condition and will require routine maintenance during the evaluation period.
- The circulating pumps appear to be in good to fair condition. Pump No. 1 was observed to be leaking. Resealing of the pipeworks is recommended at this time. The cost of this work is minimal and can be completed by in-house personnel. Based on their estimated Remaining Useful Life (RUL), the pumps will require replacement during the evaluation period. The estimated cost of this work is included in the Replacement Reserves Report.
- The finned-tube radiant heat units appear to be in good condition. Based on their estimated Remaining Useful Life (RUL), the radiant heat units will not require replacement during the evaluation period.

- The rooftop units appear to be in good condition. The rooftop units were reportedly replaced in conjunction with the most recent renovations, which took place in 1998. Based on their estimated Remaining Useful Life (RUL), the rooftop units will require replacement during the evaluation period. The estimated cost of this work is included in the Replacement Reserves Report.

Sustainable Recommendations:

- A sustainable recommendation for HVAC is to replace all unitary air-conditioning equipment with high-efficiency, energy-star rated cooling equipment.
- An additional sustainable recommendation for HVAC is to replace remaining original handling units with modern air handlers, which include economizer modes and a centralized exhaust air system with an enthalpy wheel. This would reduce energy consumption by managing the amount of energy used in ventilating the areas supplied by the air handling units.

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 cast iron. A portion of supply piping in the janitor's shop is plastic.

The water meter is located in the sprinkler equipment room and is reportedly fed from a main water line running beneath Adams Avenue.

Domestic hot water is supplied by a gas-fired commercial domestic water heater. The water heater has a capacity of 85 gallons and is manufactured by State. The water heater is located in the boiler room.

The student and staff restrooms have commercial-grade fixtures and accessories, including water closets and lavatories.

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.
- According to the POC, polybutylene piping is used in the janitor's shop only at the property.
- The pressure and quantity of hot water appear to be adequate.
- The water heater was replaced in May of 2008 and appears to be in good condition. The water heater will require routine maintenance during the evaluation period.
- The accessories and fixtures in the common area restrooms, which are located adjacent to the gymnasium are in fair to poor condition. These accessories and fixtures are discussed further under Section 8.3.
- With exception of the accessories and fixtures in the common area restrooms, which are located adjacent to the gymnasium, the accessories and fixtures in the common area restrooms are in good to fair condition. Based on the estimated Remaining Useful Life (RUL), the accessories and fixtures will require routine maintenance during the evaluation period.
- The drinking fountains are in good condition. Based on the estimated Remaining Useful Life (RUL), the drinking fountains will require routine maintenance during the evaluation period.
- Drinking fountains are not provided at the playgrounds or ball field. A budgetary cost allowance for the water supply line and two fountains is included in the Replacement Reserves Report.

Sustainable Recommendations:

- A sustainable recommendation for plumbing is to replace the restroom fixtures with water-saving devices, such as low-flow faucet aerators and low-flush volume toilets and urinals.
- An additional sustainable recommendation for plumbing is to replace the domestic water heaters with high-efficiency, energy star rated commercial water heaters.

7.3. BUILDING GAS DISTRIBUTION

Gas service is supplied from the gas main on the adjacent public street. The gas meter and regulator are located on an exterior wall adjacent to the auxiliary entrance along the northern elevation. The gas distribution piping within the buildings is malleable steel (black iron).

Observations/Comments:

- The pressure and quantity of gas appear to be adequate.
- The gas meter and regulator 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). The electrical wiring is reportedly copper, installed in metallic conduit and non-metallic, sheathed cable. 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 stage sound system.

The building is equipped with an array of 13 wet cell batteries. The battery backup system provides four (4) hours of emergency power to the emergency lighting fixtures throughout the building.

Observations/Comments:

- The on site electrical systems are owned and maintained by the utility company. This includes transformers, meters, and all elements of the on site systems.
- The electrical power appears to be adequate for the property's demands.

- The switchgear, circuit breaker panels, and electrical meters appear to be in good 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 fair condition. It is recommended that the public address system be upgraded to allow proper communication with all classrooms. According to the client provided JMOA five year capital plan, the PA system and other communication upgrades are planned. A budgetary cost allowance for this work is included in the Replacement Reserves Report. This allowance also includes upgrades for phone, internet, alarm and emergency lighting improvements.
- The stage lighting system was reportedly replaced in conjunction with the most recent renovations, which took place in 1998. Based on its estimated Remaining Useful Life (RUL), the stage lighting system will require replacement during the evaluation period. The estimated cost of this work is included in the Replacement Reserves Report.
- The stage sound system was reportedly replaced in conjunction with the most recent renovations, which took place in 1998. Based on its estimated Remaining Useful Life (RUL), the stage sound system will require replacement during the evaluation period. The estimated cost of this work is included in the Replacement Reserves Report.
- The battery backup system was reportedly installed in conjunction with the most recent renovations, which took place in 1998. Based on its estimated Remaining Useful Life (RUL), the battery backup system will require replacement during the evaluation period. The estimated cost of this work is included in the Replacement Reserves Report.

Sustainable Recommendations:

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

7.5. ELEVATORS AND CONVEYING SYSTEMS

There is one (1) hydraulic, 4-stop, passenger elevator, which is located in the center of the building. The elevator was manufactured by Montgomery Kone. The elevator has a rated capacity of 2,100 pounds and a speed of 125 feet per minute. The elevator machinery is located in a mechanical equipment room adjacent to the base of the shaft.

The elevator cab has vinyl-tiled floors, stainless steel wall panels, and direct fluorescent lighting with acrylic lenses. The doors are fitted with electronic safety stops. Emergency communication equipment is provided in the cab.

Observations/Comments:

- The elevator, and its responsiveness, appears to be adequate. The elevator is serviced by Montgomery Kone on a routine basis. The elevator machinery and controls reportedly installed in conjunction with the most recent renovations, which took place in 1998. Based on its estimated Remaining Useful Life (RUL), the elevator equipment will require routine maintenance during the evaluation period.
- The elevator is inspected on an annual basis by the State of Connecticut, and a current 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 to fair condition. Based on their estimated Remaining Useful Life (RUL), some of the cab finishes will require replacement during the evaluation period. The estimated cost of this work is included in the Replacement Reserves Report.

Sustainable Recommendations:

- A sustainable recommendation for the elevator is to equip the hydraulic pumps with high efficiency motors to reduce energy consumption.

7.6. FIRE PROTECTION SYSTEMS

The fire protection systems consist of a wet-pipe sprinkler system, a wet standpipe with fire department hose valves and connections, portable fire extinguishers, smoke detectors, pull stations, and alarm horns. Hardwired smoke detectors are located throughout the common areas. The nearest fire hydrants are located along the public streets bordering the property and are less than 100 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.

Fire sprinkler risers are located in a fire protection equipment room. The system is equipped with a backflow preventor.

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

The commercial kitchen is equipped with a dry-chemical, fire suppression system. Fire suppression heads are located in the exhaust hoods above the cooking areas, and the chemical tanks are mounted adjacent to the hood.

The walls of the fire stairwells are finished with painted gypsum wall board. The stairs discharge at the ground floor, directly to the exterior of the building.

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 annunciator panel is reportedly non-operational at this time. Replacement of the annunciator panel is recommended at this time. The cost of this work is included in the Replacement Reserves Report.

- The central alarm panel appears to be in good condition and is tested regularly by a qualified fire equipment contractor. Equipment testing is not within the scope of a Facilities Needs Assessment. Parts may become obsolete or difficult to find. Based on the Remaining Useful Life (RUL), the panel will require replacement during the evaluation period. The cost of this work is included in the Replacement Reserves Report.
- The security panel appears to be in good condition. Equipment testing is not within the scope of a Facilities Needs Assessment.
- The dry-chemical, fire suppression system appears to be in good condition and is tested regularly by a qualified fire equipment contractor. Based on the Remaining Useful Life (RUL), the kitchen fire suppression system will require replacement during the evaluation period. 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	Painted drywall, concrete block	Suspended acoustic tiles
Maintenance Shop & Storage	Painted concrete slab	Painted drywall, concrete block	Suspended acoustic tiles
Kitchens	Ceramic 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 lever 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. The costs are included in the Replacement Reserves Report with the finishes in Section 6.8.
- The interior doors and door hardware are in good condition.

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

Appliance	Comment
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 appliances appear to be in good condition. Based on their estimated Remaining Useful Life (RUL), some of the kitchen appliances will require replacement during the evaluation period. 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

Not applicable. There are no major accessory structures.

10. ENERGY BENCHMARKING

This Section is pending additional information from the client.

11. APPENDICES

APPENDIX A: Photographic Record

APPENDIX B: Site Plan

APPENDIX C: Supporting Documentation

APPENDIX D: EMG Abbreviated Accessibility Checklist

APPENDIX E: Pre-Survey Questionnaire and Documentation Request Checklist

APPENDIX F: Acronyms and Out of Scope Items

APPENDIX G: Resumes for Report Reviewer and Field Observer

APPENDIX A:
PHOTOGRAPHIC RECORD

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-003.017 **Project Name: Hart Elementary Magnet**

Photo #1:	View of property identification signage.

Photo #2:	View of asphalt paved parking lot, which is located at the rear of the building.

Photo #3:	View of open pavement cracks.

Photo #4:	View of open pavement cracks.

Photo #5:	View of accessible parking spaces.

Photo #6:	View of pole-mounted lighting fixtures.

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-003.017 **Project Name: Hart Elementary Magnet**

Photo #7:	View of deteriorated paint coverings at the base of pole-mounted light fixtures.

Photo #8:	View of cast in place concrete sidewalks along Adams Street.

Photo #9:	View of cast in place concrete sidewalks, which are adjacent to the front parking lot.

Photo #10:	View of cast in place concrete sidewalks along Green Street.

Photo #11:	View of cast in place concrete sidewalks along the rear elevation.

Photo #12:	View of cast in place concrete ramp, which is located at the main entrance.

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-003.017 **Project Name: Hart Elementary Magnet**

Photo #13:	View of cast in place concrete steps at the main entrance.

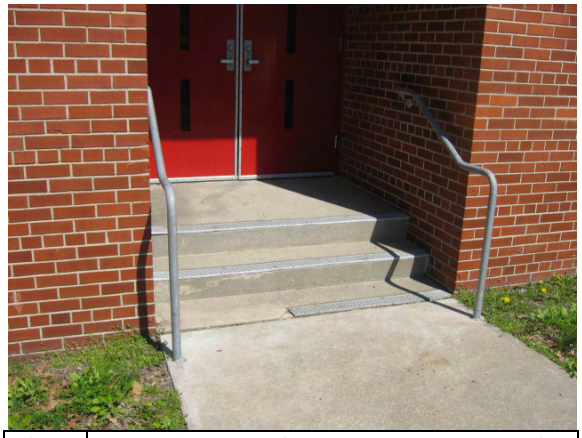


Photo #14:	View of cast in place concrete steps at the auxiliary entrance to the Auditorium.

Photo #15:	View of playing field.

Photo #16:	View of playground.

Photo #17:	View of trash receptacles.

Photo #18:	View of wet set stone retaining wall and chain link fencing system.

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-003.017 **Project Name: Hart Elementary Magnet**

Photo #19:	View metal stockade fencing system.

Photo #20:	View of Boiler No. 1.

Photo #21:	View of Boiler No. 2.

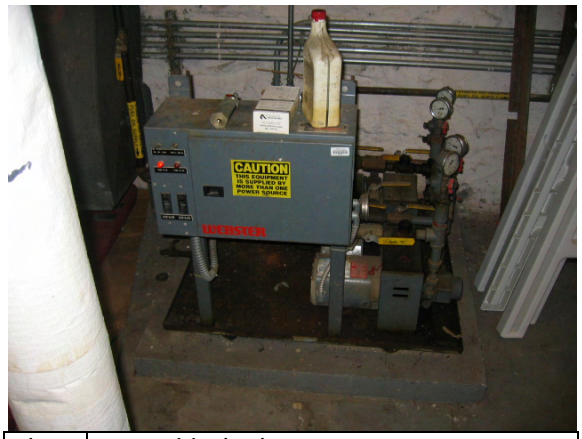


Photo #22:	View of fuel oil pumps.

Photo #23:	View of water circulation pumps.

Photo #24:	View of chiller.

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-003.017 **Project Name: Hart Elementary Magnet**

Photo #25:	View of RTU-1.

Photo #26:	View of RTU-2.

Photo #27:	View of RTU-3.

Photo #28:	View of RTU-4.

Photo #29:	View of RTU-5.

Photo #30:	View of RTU-6.

Photo #31:	View of data center split DX unit.

Photo #32:	View of auxiliary heating unit for kitchen.

Photo #33:	View of exhaust fan.

Photo #34:	View of exhaust fans.

Photo #35:	View of building management system components.

Photo #36:	View of typical fan coil unit.

Photo #37:	View of domestic hot water heater.

Photo #38:	View of pad-mounted electrical transformer.

Photo #39:	View of main electrical switchgear.

Photo #40:	View of electrical metering equipment.

Photo #41:	View of missing safety covers on main electrical panels.

Photo #42:	View of back-up battery systems.

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-003.017 **Project Name: Hart Elementary Magnet**

Photo #43:	View of fire sprinkler valving.

Photo #44:	View of fire control panel.

Photo #45:	View of annunciator panel.

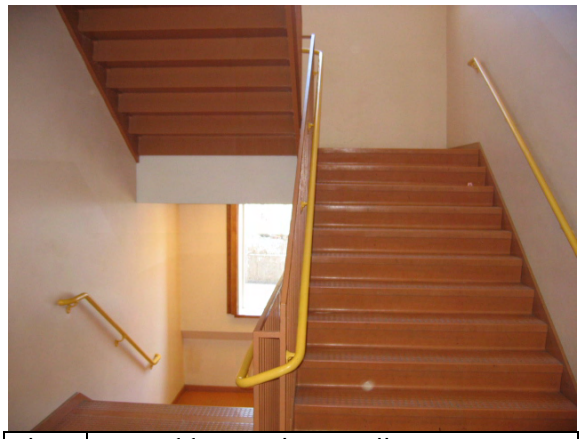


Photo #46:	View of fire rated stairwell.

Photo #47:	View of self contained fire extinguisher.

Photo #48:	View of hydraulic passenger elevator cab.

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-003.017 **Project Name: Hart Elementary Magnet**

Photo #49:	View of passenger elevator control panel.

Photo #50:	View of passenger elevator equipment.

Photo #51:	View of dishwashing station.

Photo #52:	View of commercial kitchen equipment.

Photo #53:	View of commercial kitchen equipment.

Photo #54:	View of auditorium sound system.

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-003.017 **Project Name: Hart Elementary Magnet**

Photo #55:	View of auditorium lighting control system.

Photo #56:	View of underground fuel oil tank fill port.

Photo #57:	View of gas metering equipment.

Photo #58:	View of the main office lobby entrance.

Photo #59:	View of the rear main entrance. Note the flood retention walls.

Photo #60:	View of the north building entrance.

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-003.017 **Project Name: Hart Elementary Magnet**

Photo #61:	View of the handicapped accessible parking stalls at the front lot. Note missing posted sign to right.

Photo #62:	View of the circular concrete ADA wheelchair ramp at front entrance.

Photo #63:	Several sections of deteriorated, spalled and/or settled concrete exist at the ramp.

Photo #64:	Overview of the north entrance driveway. No striped access aisle exists at main north entrance to playground.

Photo #65:	View of handicapped accessible parking spaces at rear main lot.

Photo #66:	View of the front façade. Finishes of the exteriors are typically unpainted brick.

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-003.017 **Project Name: Hart Elementary Magnet**

Photo #67:	Second view of the front façade at the north end near the gymnasium.

Photo #68:	View of the south sidewall.

Photo #69:	View of the north sidewall.

Photo #70:	View of the rear façade. Note the flood barrier.

Photo #71:	Second view of the rear façade towards the south end.

Photo #72:	Detail view of the typical upper floor windows with deteriorated masonite transoms.

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-003.017 **Project Name: Hart Elementary Magnet**

Photo #73:	View of an inner courtyard and rear gymnasium wall. Note vine growth.

Photo #74:	Overview of the gravel surfaced built-up roof (GSBUR) main roof system.

Photo #75:	Second view of the main roof towards the north.

Photo #76:	Isolated sections of the inboard parapet EPDM are loose and require repair.

Photo #77:	Detail of the isolated deteriorated mastic and base flashings along parapets.

Photo #78:	Detail of failed and dry/brittle mastic along parapet inboard surfaces.

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-003.017 **Project Name: Hart Elementary Magnet**

Photo #79:	Detail of the cracking within the concrete and tile main boiler chimney.

Photo #80:	Overview of the flat GSBUR gymnasium roof. Note ponding. Additional drains are required.

Photo #81:	A few of the rooftop metals are rusted requiring routine maintenance and repainting.

Photo #82:	View of the wood framed attic space under the main flat roof system.

Photo #83:	View of the main entrance lobby.

Photo #84:	View of the main office interior. Note low counter height.

Project No.: 88166.09R-003.017 **Project Name: Hart Elementary Magnet**

Photo #85:	Faculty mailboxes are located on the public side of the counter.

Photo #86:	Classrooms on all floors are accessed via interior double loaded corridors. Note ADA accessible water fountains.

Photo #87:	Isolated section of the corridor and classroom VCT flooring are cracked.

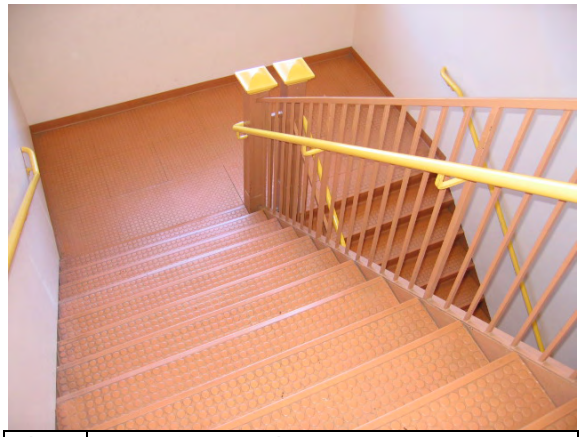


Photo #88:	View of a typical common interior stairwell.

Photo #89:	Nearly all of the stairwell textured rubber flooring at landings and treads is lifting.

Photo #90:	View of the gymnasium/cafeteria.

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-003.017 **Project Name: Hart Elementary Magnet**

Photo #91:	View of the folding table storage closet.

Photo #92:	View of the faculty dining room.

Photo #93:	View of the central kitchen.

Photo #94:	View of the auditorium.

Photo #95:	View of the auditorium wood stage. Note handicapped accessibility from corridor.

Photo #96:	Fair to poor conditions were noted at the stage curtains.

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-003.017 **Project Name: Hart Elementary Magnet**

Photo #97:	View of the media center interior.

Photo #98:	View of the nurse's office and dental suite.

Photo #99:	View of kiln room.

Photo #100:	View of the computer lab.

Photo #101:	View of a typical classroom interior.

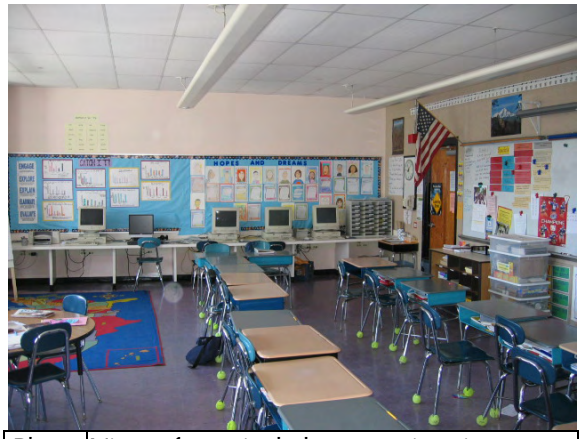


Photo #102:	View of a typical classroom interior.

EMG PHOTOGRAPHIC RECORD

Project No.: 88166.09R-003.017 **Project Name: Hart Elementary Magnet**

Photo #103:	View of a typical classroom interior.

Photo #104:	View of a typical paper/school supply storage room.

Photo #105:	A few isolated stained ceiling tiles were noted along corridors and within rooms.

Photo #106:	View of the dance studio.

Photo #107:	View of a typical maintenance type storage room.

Photo #108:	View of a typical ADA compliant multi-user toilet room.

Photo #109:	View of a typical ADA compliant single-user toilet room.

Photo #110:	The toilet rooms near the gym/cafeteria have not been renovated to comply with ADA.

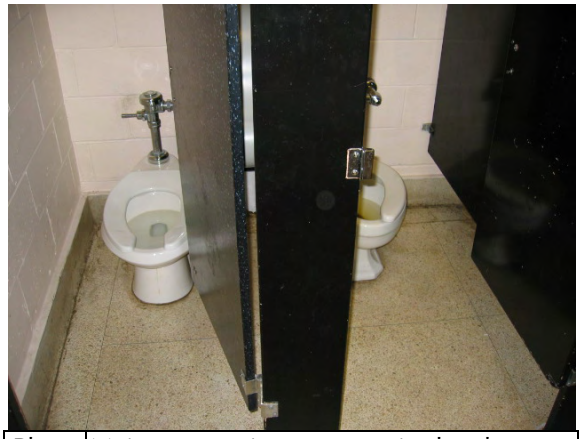


Photo #111:	Major renovations are required at the two common toilet rooms near the gym.

Photo #112:	The school is equipped with a single passenger elevator.

Photo #113:	The cab provides Braille, raised letters, chimes and handsfree communication.

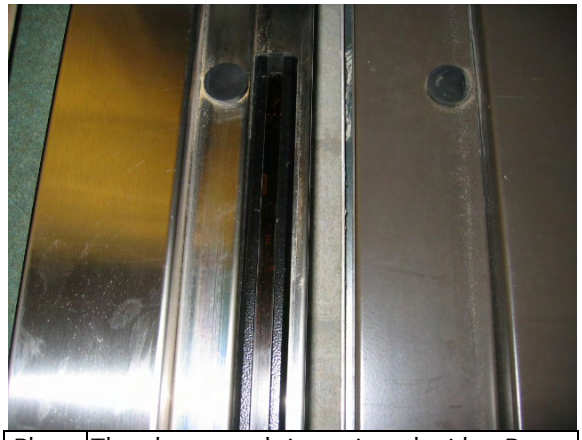
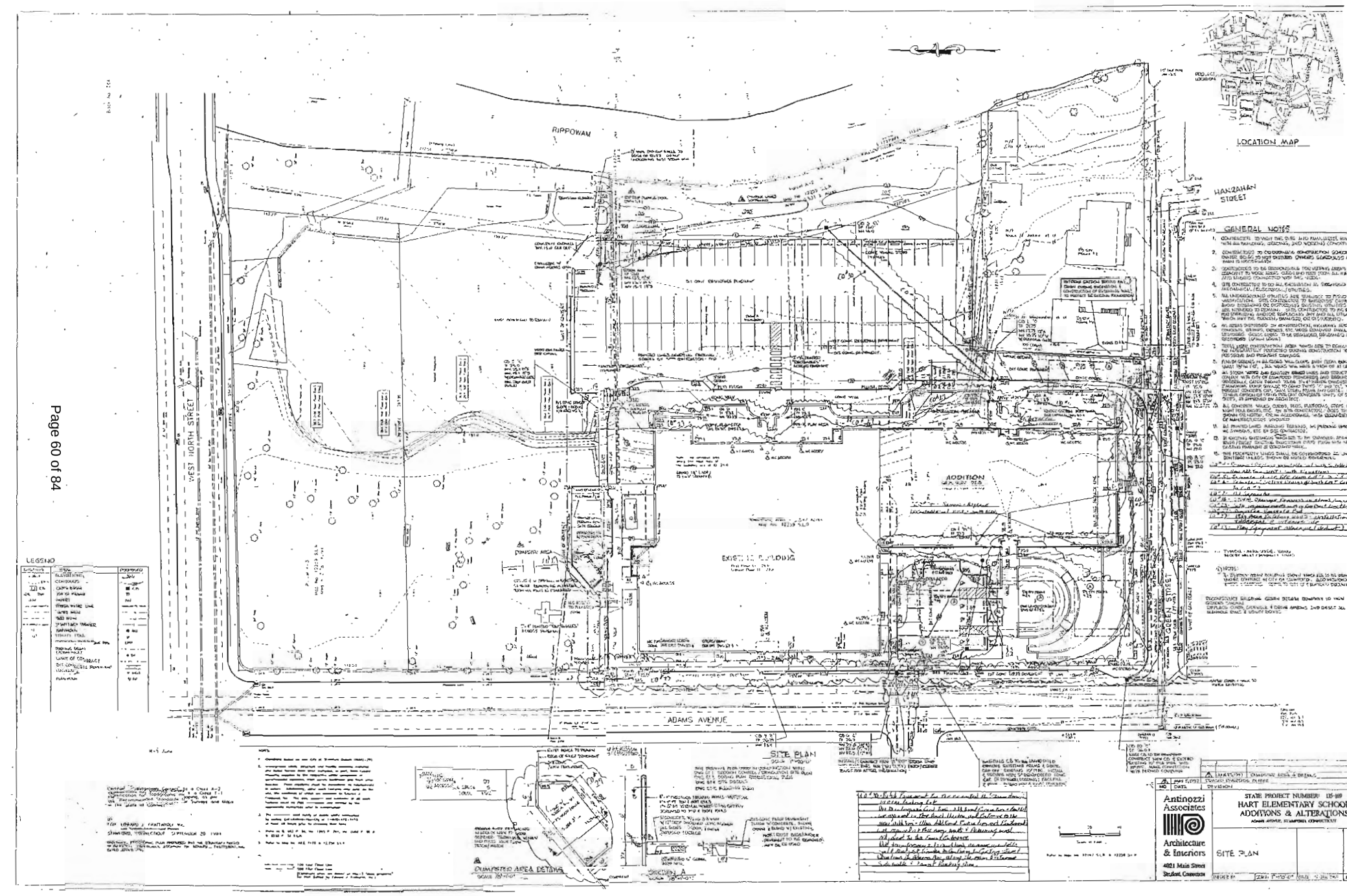


Photo #114:	The elevator cab is equipped with a Pana-40 type door re-opener.

APPENDIX B:
SITE PLAN


RIPPOWAM
WEST NORTH STREET
HANRAHAN STREET
ADAMS AVENUE
ADDITION
EXISTING BUILDING
LOCATION MAP
GENERAL NOTES
LEGEND
SITE PLAN
DUMPSTER AREA DETAIL
Antinozzi Associates
Architecture & Interiors
4021 Main Street
Stratford, Connecticut
HART ELEMENTARY SCHOOL
ADDITIONS & ALTERATIONS
SITE PLAN

APPENDIX C:
SUPPORTING DOCUMENTATION

Cost Comparison Between JMOA Capital Plan and EMG Replacement Reserves						
Hart Elementary						
Client - Project Name	Client Cost	EMG Cost	EMG Shortage	Out of Scope?	Is work completed?	EMG Cost Comments
Plant some new Shrubs and plants	$33,344	$33,358	-$14	No	No	Added
Build storage shed for tractor and equipment	$62,275	$0	$62,275	Yes	No	JMOA Scope not defined
Remove rocks and stones from playground	$2,074	$0	$2,074	Yes	No	Routine maintenance/In-house
Add additional security lighting	$45,011	$21,421	$23,590	No	No	Cost seems high
Repair or replace selected exterior door hardware	$4,031	$0	$4,031	No	No	No deficiency noted
Repair faulty window opening mechanisms and caulk where needed to prevent draft	$21,219	$620,857	-$599,638	No	No	Covered by window and sealant replacement
Improve insulation and weather stripping on doors	$5,411	$0	$5,411	No	No	Covered by window and sealant replacement
Paint classrooms	$111,453	$217,946	-$106,493	No	No	All interior paint
Paint corridor and stairwells	$103,284	$0	$103,284	No	No	Included in above allowance
Repair or replace selected interior door hardware	$17,687	$0	$17,687	No	No	No deficiency noted
Repair lifting floor tiles in 1900 blg	$5,677	$122,850	-$117,173	No	No	
Modify lighting levels in auditorium	$5,304	$5,304	$0	No	No	Part of energy conservation upgrade
Replace rubber tiles in stairwell if they will not clean up	$37,607	$385,500	-$347,893	No	No	Replace All
Renovate two toilets at gym wing	$184,529	$30,240	$154,289	No	No	EMG cost for ADA modification - JMOA Renovation Scope not defined
Improve exhaust fans at toilet	$24,823	$14,122	$10,701	No	No	Cost seems high
Install microphone system in auditorium	$3,929	$11,065	-$7,136	No	No	Audio and sound system replacement
Add outlets to stairwells	$5,974	$0	$5,974	No	No	Considered RM
Install projector system with cable hookup in auditorium	$5,940	$0	$5,940	No	No	Moveable fixture - do not include
Repair or replace PA system	$30,874	$258,300	-$227,426	No	No	Part of communication upgrade
	JMOA Cost	EMG Cost	Shortage			
	$710,446	$5,259,573	-$4,549,127			
less completed items	$710,446					
Soft Costs (30%)		$1,577,872				
Location factor(11%)		$578,553				
Totals(Unescalated)		$7,415,998	-$6,705,552			

Dannel P. Malloy
Mayor

Office of the Fire Marshal
888 Washington Boulevard
Stamford, Connecticut 06904-2152
(203) 977-4661 FAX (203) 977-5475

Barry Callahan
Chief Fire Marshal

Connecticut State Fire Safety Code
Abatement Order Of Fire/Life Safety Hazards

Superintendent of Schools.
Joshua Starr
888 Washington Blvd.
Stamford CT 06901

February 19, 2009

Tax List #002-6891
Hart School

Certified Mail # 7008 1140 0002 8250 3195
Return Receipt Requested

Re: 61 Adams AVE

Dear Joshua Starr

On **08/07/2008** at approximately **10:00** hours, an inspection was conducted by the Office of the Fire Marshal of the premises located at **61 Adams AVE** for the purposes of determining compliance with the Connecticut State Fire Safety Code and applicable standards, pursuant to Connecticut General Statutes, Sections 29-292 and 29-293. The Code and said standards are available for your inspection at this Office. The violations found on the date of inspection are listed on the attached inspection report.

You are hereby ordered to take the proper corrective action to remove or remedy all listed violations within thirty **(30)** days from the day this notice is received, unless otherwise noted on the attached inspection report. If you believe compliance with the Code will impose an unreasonable hardship, and alternative methods of achieving an equivalent level of life safety could be attained, you may request, in writing, a modification of the requirements of said Code as outlined in Connecticut General Statute 29-306. If you believe compliance will take more time than that specified, you may request an extension of time prior to the expiration of the (30) day period, unless otherwise noted on the attached inspection report. Sample forms for **"Application for Modification" and "Extension of Time for Compliance"** are available from this office. In addition you have the right to appeal this order pursuant to Connecticut General Statutes 29-306 for a period of not more than thirty (30) days from receipt.

Plans/specifications for work to be done shall be submitted to this office prior to commencement of any construction. The review of all plans/specifications would avoid unnecessary expense that could result from non-complying changes. Please note that correction of certain violations may require proper permits and approval from the City Building Official and Zoning Enforcement Officer prior to any construction.

This is the only order you will receive. This Office will conduct a re-inspection of the premises to determine compliance with this order after the expiration of the thirty-days (30) or the time period noted on the inspection report. Your failure to comply with this order within the time period specified as determined by said re-inspection constitutes your failure to comply with the Connecticut State Fire Safety Code which may subject you to criminal prosecution as prescribed by Connecticut General Statute 29-309 with the penalties of a fine not less than two hundred dollars ($200) nor more than one thousand dollars ($1000) or imprisonment of up to six months, or both, as prescribed in Connecticut General Statute 29-295. Non-compliance may also result in a civil proceeding against you as authorized in Connecticut General Statute 29-306.

This Office is looking forward to working with you in the interest of fire and life safety for the community and awaits your timely response regarding this matter.

Sincerely,

Walter Sooly
Deputy Fire Marshal

Supervisor

Dannel P. Malloy
Mayor

City of Stamford
Office of the Fire Marshal
888 Washington Boulevard
P.O.Box 10152
Stamford, Connecticut 06904-2152
(203) 977-4651 Fax#(203) 977-5475

Barry E. Callahan
Chief Fire Marshal

Notice of Connecticut Fire Safety Code Violations

February 19, 2009

Responsible Party:
Joshua Starr
888 Washington Blvd.
Stamford CT 06901

Certified Mail # 7008 1140 0002 8250 3195
Return Reciept Requested

Re: 61 Adams AVE
Tax List # 002-5891

Responsible Party To Scheduled A Re-Inspection Date For No LaterThan
03/19/2009

CSFSC Code	Description/Location of Violation	CSFSC Statute/NFPA Section	Page	Counts	Corrected On
15.2.8	***Illumination Of Means Of Egress.***		0	1	

Means of egress shall be illuminated in accordance with Section 7.8.

Note All means of egress shall be illuminated continuously. With the failure of the emergency lighting in the stairwells and corridors, the continuous lighting of the egress is not accruing.*

CSFSC Code	Description/Location of Violation	CSFSC Statute/NFPA Section	Page	Counts	Corrected On
15.2.9	***Emergency Lighting.***		0	1	

An emergency lighting test was conducted for the third time since the original test of 8-25-08. While conducting a test of the emergency lights on 2-18-09, it was found that little to none of the previously not working emergency lights have been repaired. More then half of all the emergency light fixtures in this school are not working.
This condition is leaving corridors and stairwells (Means of egress) dark and dangerous in the event of a power failure. A plan of action to repair all emergency lighting must commence ASAP.
****Per order of the Fire Marshal ****
If repairs are not completed within 30 days, there will be no activities within the school building between the hours of 5PM and 6AM until such time the emergency lighting has been repaired.
Failure to comply with this order within 30 days will result in a court action as stated in the cover letter. This will be you final and only notice.

Inspection Conducted By:
Walter Seely
District Fire Marshal
Enclosures:
Supervisor:

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

Commercial/Industrial Roofing Systems

Johns Manville

Gold Shield® Roofing Systems Guarantee

Building Owner:
CITY OF STAMFORD
STAMFORD CT 06904 117247

Building Name:
HART ELEMENTARY SCHOOL
25 ADAMS AVE
STAMFORD CT 06901

Approved Roofing Contractor:
SILKTOWN ROOFING INC
27 PLEASANT STREET
MANCHESTER CT 06040

Guarantee Number: AN80165046

Term & Maximum Monetary Obligation to Maintain a Watertight Roofing System

Date of Completion: 17 SEP 1998

Years 20 **$**
NO DOLLAR LIMIT
TOTAL SQUARES 365

COVERAGE
The components of the Roofing System covered by this Guarantee are:

Membrane Spec. and Type	4GIG,4GIG,4GIG	BUR
Flashing Spec. and Type	DFE-6TL,DFE-1LB,DFE-1LB,DFE-1L	1470 LINEAR FEET
Insulation Type	FB,TUGG,UGG,UGG,FB,FB,FB	
Accessories (Type and Quantity)	80 LF EOF	

Post-it® Fax Note 7671 | Date 4/22/09 | # of pages ▶ 1
To Scott Cameron | From Gus Burriesci
Co./Dept. Highlands LLC | Co. City of Stamford
Phone # 914-450-3785 | Phone # 203-223-8118
Fax # 845-622-3650 | Fax # 203-977-4137

These Johns Manville Guaranteed components are referred to below as the "Roofing System", and ALL OTHER COMPONENTS OF THE OWNER'S BUILDING ARE EXCLUDED FROM THE TERMS OF THIS GUARANTEE.

Johns Manville International, Inc.* guarantees to the original Building Owner that during the Term commencing with the Date of Completion, JM will pay for the materials and labor required to promptly repair the Roofing System to return it to a watertight condition if leaks occur due to: ordinary wear and tear, or deficiencies in any or all of the component materials of the Roofing System or workmanship deficiencies in the application of the Roofing System.

WHAT TO DO IF YOUR ROOF LEAKS
If you should have a roof leak please refer to directions on the reverse side.

LIMITATIONS AND EXCLUSIONS
This Guarantee is not a maintenance agreement or an insurance policy; therefore, routine inspections and maintenance are the Building Owner's responsibility (see reverse side of this document). Failure to follow the Maintenance Program on the reverse side of this document will void the Guarantee. This Guarantee does not obligate JM to repair the Roofing System, or any part of the Roofing System, for leaks resulting from (a) natural disasters, (b) misuse, abuse or negligence, (c) installation or material failures other than those involving the component materials expressly defined above as the Roofing System or exposure of the Roofing System components to damaging substances such as oil or solvents or to damaging conditions such as vermin, (d) changes to the Roofing System or the Building's usage that are not preapproved in writing by JM, or (e) failure of the Building substrate (mechanical, structural or otherwise and whether resulting from Building movement, design defects or other causes) or improper drainage (ponded water). JM is not responsible for leaks and damage resulting from water entry from any portion of the Building structure not a part of the Roofing System.

JM shall have no obligation under this Guarantee until all bills for installation, materials and services have been paid in full to JM Roofing Systems and the Approved Roofing Contractor.

The parties agree that any controversy or claims relating to this Guarantee shall be settled exclusively by arbitration in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association, at the Denver, Colorado Office and judgement upon the award rendered by the Arbitrator(s) may be entered in any Court having jurisdiction thereof.

TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, JM DISCLAIMS ANY IMPLIED WARRANTY, INCLUDING THE WARRANTY OF MERCHANTABILITY AND THE WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, OR LIMITS SUCH WARRANTY TO THE DURATION AND TO THE EXTENT OF THE EXPRESS WARRANTY CONTAINED IN THIS GUARANTEE.

THE EXCLUSIVE RESPONSIBILITY AND LIABILITY OF JM UNDER THIS GUARANTEE IS TO MAKE REPAIRS NECESSARY TO MAINTAIN THE ROOFING SYSTEM IN A WATERTIGHT CONDITION IN ACCORDANCE WITH THE OBLIGATIONS OF JM UNDER THIS GUARANTEE.

JM AND ITS AFFILIATES WILL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES TO THE BUILDING STRUCTURE (UPON WHICH THE ROOFING SYSTEM IS AFFIXED) OR ITS CONTENTS, LOSS OF TIME OR PROFITS OR ANY INCONVENIENCE. JM AND ITS AFFILIATES SHALL NOT BE LIABLE FOR ANY DAMAGES WHICH ARE BASED UPON NEGLIGENCE, BREACH OF WARRANTY, STRICT LIABILITY OR ANY OTHER THEORY OF LIABILITY OTHER THAN THE EXCLUSIVE LIABILITY SET FORTH IN THIS GUARANTEE. INCIDENTAL AND CONSEQUENTIAL DAMAGES SHALL NOT BE RECOVERABLE EVEN IF THE REMEDIES OR THE ACTIONS PROVIDED FOR HEREIN FAIL OF THEIR PURPOSE.

No one is authorized to change, alter or modify the provisions of this Guarantee other than the Manager, Marketing and Technical Services or authorized delegate. JM's delay or failure in enforcing the terms and conditions contained in this Guarantee shall not operate as a waiver of such terms and conditions. This Guarantee is solely for the benefit of the Building Owner identified above and will be transferred by JM in its sole discretion only after receiving satisfactory information and payment of a transfer fee, which must be delivered to JM as soon as practical, but no later than 30 days after the date of Building ownership transfer.

In the event JM pays for repairs which are required due to the acts or omissions of others, JM shall be subrogated to all rights of recovery of the Building Owner to the extent of the amount of the repairs.

Because JM does not practice Engineering or Architecture, neither the issuance of this Guarantee nor any review of the Building's construction or inspection of roof plans (or the Building's roof deck) by JM representatives shall constitute any warranty by JM of such plans, specifications and construction or in any way constitute an extension of the terms and conditions of this Guarantee. Any roof inspections are solely for the benefit of JM.

JM does not supervise nor is it responsible for a roofing contractor's work except to the extent stated herein.

*JOHNS MANVILLE INTERNATIONAL, INC. ("JM"), is a Delaware corporation with its principal mailing address at P.O. Box 5108, Denver, Colorado 80217-5108.

Bartley E. Roggenhaus, Jr.

Accepted By Owner's Authorized Representative

By: Bartley E. Roggenhaus, Jr.
Title: Vice President and General Manager

Date of Signature

Attorney-in-Fact

For this Guarantee to be effective, this registration must be signed and a copy returned to Johns Manville International, Inc., Guarantee Services Unit, 10100 West Ute Ave., Littleton, CO 80127, 303-978-2000, 800-922-5922, FAX: 303-978-2808, www.jm.com.

APPENDIX D:
EMG ABBREVIATED ACCESSIBILITY CHECKLIST

Property Name: Hart Elementary Magnet
Date: March 24, 2009
Project Number: 88166.09R-003.017

EMG Abbreviated Accessibility Checklist					
	Building History	**Yes**	**No**	**N/A**	**Comments**
1.	Has the management previously completed an ADA review?	✓			1998 code
2.	Have any ADA improvements been made to the property?	✓			
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?		✓		One ADA parking space missing sign at front 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?	✓			Circular concrete ramp at front main entrance

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

EMG Abbreviated Accessibility Checklist					
3.	Are floor surfaces firm, stable, and slip resistant (carpets wheelchair friendly)?	✓			
4.	Is at least one wheelchair-accessible public telephone available?	✓			At main office
5.	Are wheelchair-accessible facilities (toilet rooms, exits, etc.) identified with signage?	✓			
6.	Is there a path of travel that does not require the use of stairs?	✓			
7.	If audible fire alarms are present, are visual alarms (strobe light alarms) also installed in all common areas?	✓			
	Elevators	**Yes**	**No**	**N/A**	**Comments**
1.	Do the call buttons have visual signals to indicate when a call is registered and answered?	✓			
2.	Is the "UP" button above the "DOWN" button?	✓			
3.	Are there visual and audible signals inside cars indicating floor change?	✓			
4.	Are there standard raised and Braille marking on both jambs of each host way entrance?	✓			
5.	Do elevator doors have a reopening device that will stop and reopen a car door if an object or a person obstructs the door?	✓	✓		The device is Inoperable and requires repair/replacement
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?	✓			Handsfree type
	Restrooms				
1.	Are common area public restrooms located on an accessible route?	✓	✓		Gymnasium toilet rooms not currently accessible
2.	Are pull handles push/pull or lever type?	✓			

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

APPENDIX E:
PRE-SURVEY QUESTIONNAIRE AND DOCUMENTATION REQUEST CHECKLIST

PRE-SURVEY QUESTIONNAIRE

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

Project Name:	**Hart Elementary Magnet**	**Project Number:**	**88166.09R-003.017**
Person completing form:	**Ms. Linda Darling**	**Date:**	**April 9 and 13, 2009**
Association with Project:	**Principal**	**Phone Number:**	**203.977.977.5085**
Years associated w/Proj.:	**1.5 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?	✓				One boiler replaced, re-striped parking lots
If so, are details available?					
3. Are there any unresolved building, fire, or zoning code issues?		✓			Fire Marshal revisited school last week and all cleared
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?	✓				1998 code
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?	✓				Two toilet rooms near gymnasium with barriers
9. Is there any pending litigation concerning the property?		✓			
10. Is site drainage adequate?	✓				
11. Has a termite inspection occurred within the last year?	✓				Exterminator visits monthly
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, 6 foot grade change front to back
14. Are there any wall or window leaks?	✓				Classrooms 3rd floor rear 226-240, wind driven rain
15. Are there any poorly insulated areas?		✓			
16. Are there any current roof leaks at the property?		✓			
17. Are any roof finishes more than ten years old?	✓				All roofs installed 1998
18. Is the roofing covered by a warranty or bond?	✓				20 year warranty beginning in 1998
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		✓			

	Yes	No	Unk	NA	Comments
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?				✓	Glycol loop at chillers
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?	✓				2 years ago
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?	✓	✓			One boiler 1998, one boiler 2007
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?		✓			1998
39. Are the elevators maintained by a contractor on a regular basis?	✓				Kone
40. Is the elevator emergency communication equipment functional?	✓				Local to office
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?					UNKNOWN – no spare head box on site
45. Are there any emergency electrical generators?		✓			None – all battery back-up
46. Are the generators maintained on a regular basis?				✓	
47. Do tenants contract for their own improvement work?				✓	
48. Are tenants responsible for any roof, HVAC, or exterior wall maintenance, repair, or replacement?				✓	
If so, what, where and how?					

	Yes	No	Unk	NA	Comments
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?	✓				Stairwell textured rubber flooring constant repairs due to peeling edges (trip hazards), damaged/cracked floor tiles along corridors, expansion joints and few classrooms, two toilet rooms near gymnasium unrenovated (non ADA)

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.	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.
2. A site plan, preferably 8 1/2" X 11", which depicts the arrangement of buildings, roads, parking stalls, and other site features.	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.
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).	10. Records of system & material ages (roof, MEP, paving, finishes, furnishings).
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.	11. Any brochures or marketing information.
5. For hotel or nursing home properties, provide a summary of the room types and room type quantities.	12. Appraisal, either current or previously prepared.
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.	13. Current occupancy percentage and typical turnover rate records (for commercial and apartment properties).
7. The names of the local utility companies which serve the property, including the water, sewer, electric, gas, and phone companies.	14. Previous reports pertaining to the physical condition of property.
	15. ADA survey and status of improvements implemented.
	16. Current / pending litigation related to property condition.

Your timely compliance with this request is greatly appreciated.

APPENDIX F:
ACRONYMS AND OUT OF SCOPE ITEMS

ASTM E2018-01 ACRONYMS

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

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

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

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

APPENDIX G:
RESUMES FOR REPORT REVIEWER AND FIELD OBSERVER

DANNY WHITE

Project Manager

Project Experience

- ***Hendrick Auto Group (HAG), Charlotte, NC –*** Mr. White served as a Project Manager on the property needs assessment (PNA) of 20 HAG automotive dealerships, primarily located throughout the state of North Carolina. The assessments included major structural, mechanical and electrical components of buildings and infrastructures. Dealerships ranged in size from approximately 20,000 to 80,000 SF and occupying sites ranging from two to 25 acres. The client found his observations critical to their final business decisions.
- ***Alexandria City Public Schools (ACPS), Alexandria, VA –*** As a Project Manager, Mr. White performed a Facility Condition Assessment of five public schools in the ACPS system ranging in size from a 62,760 SF elementary school to a 237,332 SF middle school. The assessments included multi-acre site infrastructures including landscapes, pavements and playground equipment. He reviewed the condition of the building structure and systems and developed a thorough report. His work helped EMG complete this project on schedule and within the budget.
- ***City of San Buenaventura Assessments, Ventura, CA –*** Mr. White served as a Project Manager on the San Buenaventura Public Housing physical needs assessments (PNA) project. Structures assessed included multi-family housing apartments, senior citizen multi-level towers, rental offices, community centers, and maintenance buildings. Structural, mechanical, electrical, and site systems and finishes were assessed for current condition and cost recommendations for a 20-year term. Interviews were conducted with maintenance and administrative personnel to discuss known deficiencies. Findings were used to establish Expected Useful Life (EUL), and Remaining Useful Life (RUL) of the systems and components.

Industry Tenure

- A/E: 1988
- EMG: 2007

Related Experience

- Educational Facility Condition Assessment reports
- Assisted Living Portfolios
- Retail Portfolios
- Hospitality Portfolios

Industry Experience

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

Special Skills & Training

- Roof Inspection & Management - Diagnosis & Repair – RIEI
- Pavement Management University of Illinois

Regional Location

- Norfolk - Virginia Beach, VA

- ***City of Dallas Assessments (Dallas Zoo), Dallas, TX –*** As a Project Manager, Mr. White performed facility condition assessments of approximately 100 buildings comprising over 320,000 SF, and 95 acres of infrastructure at the Dallas Zoo. Buildings included offices, auditoriums, garages, maintenance facilities, warehouses, restrooms, animal hospital, schools, and various exhibit and animal holding structures. Additional Dallas assessments included the Arlington Hall Conservatory and the Royal Preston Library. Mr. White also served as a Technical Report Reviewer (TRR) for final review of various other assessment reports.
- ***County of San Diego Assessments, San Diego, CA –*** Mr. White served as a Project Manager and provided facility condition assessments (FCA) of County of San Diego properties. The scope of work included the assessment of numerous buildings and infrastructures including the Kearney Mesa Juvenile Detention Facility, Juvenile Hall, San Diego Courthouse Plant, Law Library, Palomar Mountain Park and others. Reports were generated giving broad details of structural, mechanical, electrical, and site elements and event recommendations for a 20-year evaluation term.
- ***GE Healthcare Financial Services, Multiple Cities –*** As a Project Manager, Mr. White performed eight property condition assessments (PCA) of this portfolio of Genesis Health Care Nursing Homes. The average property size was 48,000 square feet and an average of 140 units. He reviewed the condition of the building structural, mechanical, and electrical systems, and the site infrastructure and developed a thorough report. Repair and replacement costs were provided for a 12 year reserve term. His work helped EMG complete this project on schedule and within the budget.
- ***Barclays Capital Real Estate Inc, Multiple Cities –*** As a Project Manager, Mr. White performed three property condition assessments (PCA) of this portfolio of hospitality properties, including Potomac Mills Courtyard, Potomac Mills Residence Inn, and Springfield TownePlace Suites located in Northern Virginia. The average property size was 80,000 square feet and an average of 124 units. He reviewed the condition of the building structural, mechanical, and electrical systems, and the site infrastructure and developed a thorough report. Repair and replacement costs were provided for a 7 year reserve term. His work helped EMG complete this project on schedule and within the budget.
- ***Lord and Taylor – Fair Oaks Mall, Fairfax, VA –*** As a Project Manager, Mr. White performed a property condition assessment of this retail property. The building occupies 3.67 acres of the Fair Oaks Mall property and is 159,876 square feet in size. He reviewed the condition of the building structural, mechanical, and electrical systems, and the site infrastructure and developed a thorough report. He interviewed management personnel of Lord and Taylor and the Fair Oaks Mall to determine site maintenance responsibilities. Repair and replacement costs were provided for a 12 year reserve term. His work helped EMG complete this project on schedule and within the budget.

City Government Experience

- ***Virginia Beach Municipal Center , Virginia Beach, VA –*** As a Project Engineer/Technician, Mr. White performed structural facility condition assessment of City Hall, Voter Registration Building, Police Station, Court Support Building, Special Education Building, Heating Plant and related infrastructure within the City of Virginia Beach Municipal Complex. Buildings ranged in size from 28,000 to 90,000 square feet. His team met with the Director of Maintenance to discuss known conditions prior to commencing a thorough visual inspection of designated high profile facilities. Inspection scheduling involved strict visit guidelines in order to minimize disruption of normal business activities. Special consideration was required in conjunction with planned major mechanical and structural systems replacements and the anticipated need for removal of known hazardous materials in ceilings and attics. Deficiencies collected included preventative and recurring maintenance items. He created a prioritized backlog of maintenance and repair to affected structural systems for a 10 year plan. An inventory of roof section types and quantities was provided to the client. His work insured the timely completion of the project within the budget guidelines.

Higher Education Experience

- ***Haskell Indian University, Lawrence, KS –*** As a Project Engineer/Technician, Mr. White performed structural facility condition assessment as part of an inspection team. Facilities inspected included administrative offices, maintenance shops, classrooms, cafeteria and gymnasium. His team met with the facility managers to discuss known deficiencies, environmental concerns, and safety issues throughout the approximately 300,000 square feet of assigned buildings. Ideas were exchanged for ways to increase the budget allocation for repairs and upgrades through the identification of some not easily detected deficiencies. He created a prioritized maintenance and repair strategy for a 10 year plan. An inventory of exterior structural components was also provided to the client. His work insured the team's completion of the project within the time constraints and budget.

Department of Defense

- ***US Naval Submarine Base Kings Bay, GA*** – As a Facilities Maintenance Specialist with the federal government, Mr. White applied his expertise in the structural assessment of the nearly one million square feet Trident Training Facility. The comprehensive assessment of interior, exterior, and roof system components was challenging due to size, accessibility, and security. He met with the facility manager to obtain construction drawings, contact names for the various departments, and a history of deficiencies. He provided an overall condition analysis of the building and a brief narrative and inventory of each major structural system. A 5 year maintenance plan was formulated for recurring and deferred maintenance complete with fundable estimates generated from RS Means estimating software. Mr. White entered the deficiency cost data into the activity's maintenance action plan software which is reported to the Department of Defense for budget planning.

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