

Capital Improvement Study

Town of Seekonk

Massachusetts

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Introduction

Buildings included in this plan are as follows:

- Town Hall
- Library
- County Street Fire House
- Public Safety
- DPW Garage
- Animal Shelter
- Martin School
- Pleasant Street School
- Hurley Middle School
- North Street School
- Aitken Elementary School
- High School

In 2011 DRA Architects with its team of engineers performed visits to each of the buildings and evaluated to determine the types of improvements that will be necessary for these buildings. Conversations were held with department heads and those in charge of maintenance. These improvements were categorized into the following groups:

- Life Safety
- Health
- American's with Disabilities Compliance
- Site Issues
- Exterior Envelop Issues
- Building Interiors
- Energy and Water Conservation
- Hazardous Materials
- New Construction

Each of the improvements was then prioritized into the following categories:

- Current Critical
- Potentially Critical
- Necessary – Not yet Critical
- Recommended
- Grandfathered
- Maintenance

A detailed description of criteria used for each of the categories is included in the report.

For each of the improvements an independent cost estimate was obtained. The estimates are a projection of the costs and include soft costs associated with each item. (Soft costs are the

miscellaneous costs associated with professional fees, contingency, bonding costs, bidding expense, testing etc.). The estimator does not have the advantage of detailed drawings for each of the items so the intent is to provide an order of magnitude that, should the improvement move ahead, will be refined up to the bid date. For many of the like items it will be possible to group them together and save on the soft costs. Similarly, there may be items that can be bid without professional drawings and specifications and, again, the soft costs can be reduced.

The cost should be used as an overall budget for each item.

The projection/recommendation of the years to perform the work is based not only on the priorities but the available funding per annum, and an assessment of the best value and need for the monies being expended.

This report is organized with the recommendations presented first followed by the reports for each of the buildings from the various engineers and then the cost estimate for the work.

* * *

Major Capital Improvements

For the DPW garage and County Street Firehouse we recommend that new construction be included but the values are in excess of the currently proposed funding. It is our understanding that an expansion of the Animal Shelter is currently in the design process.

For these items bonding capacity is a critical factor in the timing of the projects over the coming years.

Capital Improvement Priorities

The following listing is organized by building but with a suggested fiscal year for performing the work. This should be read in conjunction with the "Capital Project Distribution by Fiscal Year" Chart.

Town Hall

- 2013 Re-grading around building \$8,454.00
In light of the history of basement flooding it will be worthwhile to see whether or not the flooding is impacted by the surrounding grades.
- 2013 Upgrade Fire Alarm System \$ 17,512.00
- 2020 ADA Upgrade
Kitchen cabinet replacement. \$ 13,863.00

Library

- 2014 ADA upgrade \$ 85,560.00
The Town's exposure is heightened as very little has been done for ADA compliance.
- 2016 Roof Improvements \$ 161,316.00
The roof gutter problems have the potential of causing severe interior damage if unattended.
- 2016 Upgrade Fire Alarm System \$ 133,933.00
- 2016 Roof Top Unit: \$ 328,483.00
Prior to replacement investigate if controls or RTU is creating problems.
- 2020 Replace Carpeting \$ 132,798.00
- 2020 Repaint Program Room \$5,508.00

County Street Fire House

- Building Replacement

Public Safety

- 2020 Finish work-out room \$ 41,508.00

DPW Garage

- Building Replacement is recommended in lieu of repairs.

Animal Shelter

- Expansion & Interior Renovations

Martin School

- 2014 Replace VCT flooring. \$ 106,948.00
- 2015 Re-paving play areas (Part of \$127,084.00) \$ 50,000.00
Paving is very irregular in these areas and is a tripping hazard
- 2015 Security System \$ 25,715.00
This is in support of added safety for the school children
- 2015 Replace Sinks \$ 55,988.00
These have a rough finish and result in unsanitary conditions
- 2015 Replace Generator \$ 60,883.00
- 2018 Re-roofing \$ 66,338.00
- 2019 Telephone Upgrade \$ 61,497.00
- 2020 Interior Painting \$ 38,875.00
- 2020 Parking Lot Paving (Remainder) \$ 77,084.00
Elimination of low spots and correction of irregular areas/curbing.
- 2021 Replace Ventilators \$ 591,362.00

Pleasant Street School

- 2014 Replace Plywood Ceiling \$ 9,988.00
- 2019 Replace Boilers \$ 85,377.00

Hurley

- 2013 Replace Boilers \$ 365,803.00
- 2013 Add A/C unit to Music Room \$ 39,358.00
This space easily overheats even with doors left open.
Adding A/C to the space will improve its usability.
- 2013 Re-point Glass Block Wall \$ 50,000.00
The cost to replace the Glass Block wall at the library is high.
We suggest that re-pointing the wall may be a way to keep the
wall watertight until replacement can occur
- 2013 Add roof drains at entrance canopy \$ 7,996.00
There is only one drain in the deep and enclosed canopy which
if blocked could cause major problems.
- 2018 Roof Repairs \$ 87,463.00
- 2020 Interior Re-painting. \$ 44,508.00
- 2021 Replace Ventilators \$ 331,591.00

North School

- 2016 Replace Clerestory Panels \$ 44,626.00
These texture 1-11 plywood panels are failing and could result in
interior water damage if not replaced.
- 2016 Fire Rated Doors at Stairs \$ 54,561.00
This will do much to provide a fire separation for the egress stairs.
- 2019 Boiler Replacement \$ 205,586.00
- 2020 VCT Replacement \$ 50,000.00 (From \$ 368,876.00)
This includes partial replacement to address damaged tiles.

Aitken School

- 2015 Replace Window Glass \$100,000.00 (From \$ 315,731.00)
Most windows are fully obscured and should be replaced with glass.
We recommend that a partial replacement occur to reduce the cost from that noted.
- 2015 Re-point Window Sills \$ 1,370.00
Currently the joints are fully open to the elements and will, over time, cause deterioration.
- 2015 Re-roof older Section of Roof \$ 195,642.00
The roof is dead level and ponds with water. Insulation is minimal. Replacement will improve drainage and reduce energy use.
- 2015 Add Metal Fascia to cover Holes in Walls \$ 10,951.00
Wall will continue to deteriorate if left exposed
- 2020 ADA Compliance \$ 42,231.00
Replace classroom sinks and cabinets.
- 2021 Replace Ventilators \$ 464,932.00

High School

- 2014 Replace Stage Floor \$ 103,113.00
This is necessary for the on-going stage performances
- 2016 Upgrade Security System \$ 24,197.00
This is in support of added safety for the students
- 2014 Replace VCT floor \$ 193,248.00
- 2016 Repair Chimney \$ 42,806.00
Roof will need to be protected to accomplish this work.
- 2016 Repair Paving & Curbs. \$ 152,422.00
- 2016 Update HVAC Controls. \$ 68,554.00
- 2017 Provide equipment access to courtyard. \$ 34,421.00
- 2017 New garage for maintenance equipment. \$ 516,970.00
- 2017 Replace clay drainage pipe in courtyard. \$ 46,890.00
- 2018 Re-roofing flashing. \$ 21,492.00
- 2018 Re-roofing. \$ 974,802.00
- 2019 Upgrade telephones. \$ 122,994.00
- 2020 ADA Compliance \$ 21,265.00
Replace classroom sinks and cabinets.

* * *

Town of Seekonk
 Capital Project Distribution By Fiscal Year
 2013-2016
 May 30, 2012

Building:	Town hall	F. Yr	Library	F. Yr	Martin	F. Yr	Pleasant	F. Yr	Hurley	F. Yr	North School	F. Yr	Aitken	F. Yr	High School	F. Yr
	\$ 8,454.00	13	\$ 85,560.00	14	\$ 50,000.00	15	\$ 9,988.00	14	\$ 365,803.00	13	\$ 44,626.00	16	\$ 100,000.00	15	\$ 103,113.00	14
	\$ 17,512.00	13	\$ 161,316.00	16	\$ 25,715.00	15			\$ 39,358.00	13	\$ 54,561.00	16	\$ 1,370.00	15	\$ 24,197.00	16
			\$ 133,933.00	16	\$ 55,988.00	15			\$ 50,000.00	13			\$ 195,642.00	15	\$ 193,248.00	14
			\$ 328,483.00	16	\$ 106,948.00	14			\$ 7,996.00	13			\$ 10,951.00	15	\$ 42,806.00	16
					\$ 60,883.00	15									\$ 152,422.00	16
															\$ 68,554.00	16
Total:	\$ 25,966.00		\$ 709,292.00		\$ 299,534.00		\$ 9,988.00		\$ 463,157.00		\$ 99,187.00		\$ 307,963.00		\$ 584,340.00	

Amount	F. Yr	Actual Amount	Difference
\$ 500,000.00	2013	\$ 489,123.00	\$ 10,877.00
\$ 500,000.00	2014	\$ 498,857.00	\$ 1,143.00
\$ 500,000.00	2015	\$ 500,549.00	\$ (549.00)
\$ 1,000,000.00	2016	\$ 1,010,898.00	\$ (10,898.00)
\$ 2,500,000.00		\$ 2,499,427.00	\$ 573.00

Town of Seekonk
Capital Project Distribution By Fiscal Year

2017-2021

May 30, 2012

Building:	Town hall	F. Yr	Library	F. Yr	Public Safety	F. Yr	Martin	F. Yr	Pleasant	F. Yr	Hurley	F. Yr	North School	F. Yr	Aitken	F. Yr	High School	F. Yr
	\$ 13,863.00	20	\$ 132,798.00	20	\$ 41,508.00	20	\$ 77,084.00	17	\$ 85,377.00	19	\$ 44,508.00	20	\$ 205,586.00	19	\$ 464,932.00	21	\$ 34,421.00	17
			\$ 5,508.00	20			\$ 66,338.00	18			\$ 87,463.00	18			\$ 42,231.00	20	\$ 516,970.00	17
							\$ 38,875.00	20			\$ 331,591.00	21					\$ 122,994.00	19
							\$ 61,497.00	19			\$ 50,000.00	20					\$ 46,890.00	17
							\$ 591,362.00	21									\$ 21,265.00	20
																	\$ 21,492.00	18
																	\$ 974,802.00	18
Total:	\$ 13,863.00		\$ 138,306.00				\$ 835,156.00		\$ 85,377.00		\$ 513,562.00		\$ 1,738,834.00		\$ 507,163.00		\$ 1,738,834.00	

Amount	F. YR	Actual Amount	Difference
\$ 700,000.00	2017	\$ 675,365.00	\$ 24,635.00
\$ 1,125,000.00	2018	\$ 1,150,095.00	\$ (460.00)
\$ 500,000.00	2019	\$ 475,454.00	\$ 24,086.00
\$ 400,000.00	2020	\$ 390,556.00	\$ 33,530.00
Sub-Total		\$ 2,691,470.00	\$ 33,530.00
	2021	\$ 1,387,885.00	\$ 645.00
Total			

Roofs	Boilers	Ventilators	Phones
\$ 66,338.00	\$ 205,586.00	\$ 591,362.00	\$ 61,497.00
\$ 87,463.00	\$ 85,377.00	\$ 331,591.00	\$ 122,994.00
\$ 21,492.00		\$ 464,932.00	
\$ 974,802.00			
\$ 1,150,095.00	\$ 290,963.00	\$ 1,387,885.00	\$ 184,491.00

Cabinets/Sinks	Paint/GWB	Carpet/VCT	Other
\$ 13,863.00	\$ 5,508.00	\$ 132,798.00	\$ 34,421.00
\$ 42,231.00	\$ 41,508.00	\$ 50,000.00	\$ 516,970.00
\$ 21,265.00	\$ 38,875.00		\$ 46,890.00
	\$ 44,508.00		\$ 77,084.00
\$ 77,359.00	\$ 130,399.00	\$ 182,798.00	\$ 675,365.00

CAPITAL IMPROVEMENTS TOWN OF SEEKONK, MA. May 30, 2012

PRIORITIES & KEY		TOWN HALL												LIBRARY		COUNTY STREET FH.		PUBLIC SAFETY		DPW GARAGE		ANIMAL SHELTER		MARTIN SCHOOL		PLEASANT ST. SCHOOL		HURLEY SCHOOL		NORTH SCHOOL		AITKEN SCHOOL		HIGH SCHOOL				
1 or 1A	Current Critical	Cost	Proposed Year of Work	Sub-Priority	Grouping	Cost	Proposed Year of Work	Sub-Priority	Grouping	Cost	Proposed Year of Work	Sub-Priority	Grouping	Cost	Proposed Year of Work	Sub-Priority	Grouping	Cost	Proposed Year of Work	Sub-Priority	Grouping	Cost	Proposed Year of Work	Sub-Priority	Grouping	Cost	Proposed Year of Work	Sub-Priority	Grouping	Cost	Proposed Year of Work	Sub-Priority	Grouping	Cost	Proposed Year of Work	Sub-Priority	Grouping	
LIFE SAFETY	Add Fire Rated Doors at Stairs					\$ 13,595.00								\$ 5,534.00												\$ 54,561.00	2016											
	Add Emergency Lighting					\$ 3,398.00								\$ 1,108.00																								
	Add Exit Signs	\$ 17,512.00	2013			\$ 11,330.00								\$ 3,691.00																								
	Upgrade Fire Alarm System					\$ 133,933.00	2016							\$ 85,697.00																								
	New Fire Alarm System																																					
	New Fire Sprinkler System													\$ 78,806.00																								
	Add Fire Walls													\$ 36,886.00																								
	Update Security System					\$ 24,699.00																																
HEALTH	Replace Sinks													\$ 10,318.00																								
	Plumbing Improvements													\$ 22,716.00																								
ADA	Correct Stair Nosings																																					
	Replace Handrails on Stairs																																					
	Kitchen Cabinet Modifications	\$ 13,863.00	2020																																			
	Correct Door Hardware																																					
	Correct Door Size																																					
	Correct Toilet Room																																					
	Ramps Required	\$ 5,064.00																																				
	Widen Hallways																																					
	Overall ADA Upgrade					\$ 85,560.00	2014							\$ 75,616.00																								
	Remove and Replace Lift																																					
	Replace Sinks / Counter																																					
SITE	Replace Paving and Curbs					\$ 155,857.00								\$ 152,220.00																								
	New Drainage					\$ 81,817.00								\$ 133,077.00																								
	Slope Grades away from Building	\$ 8,454.00	2013																																			
	Repair Paving and Curbs													\$ 8,180.00																								
	Fill Cracked Pavement																																					
	Repair Curbing																																					
	Replace Drainage Pipes																																					
	Tree & Shrub Pruning / Removal	\$ 1,889.00																																				
EXTERIOR	Roof Modifications					\$ 161,316.00	2016							\$ 4,573.00																								
	New Roofing																																					
	Add Roof Drains																																					
	Cover Foundation Insulation	\$ 49,043.00																																				
	Replace Siding																																					
	Refinish Exterior					\$ 64,913.00								\$ 379,237.00																								
	Clean And Seal CMU																																					
	Repair Chimney																																					
	Repaint Cupola																																					
	Repointing Required																																					
	Clean Brick/CMU																																					
	Install Wider Fascia																																					
	Repoint Window Sills																																					
	Remove Window Glass and Replace																																					
	Replace Glass Block																																					
	New Building Mounted Site Lighting																																					
	Remove/Replace Glazing Alternate																																					
INTERIORS	Correct Attic Insulation	\$ 5,649.00																																				
	Correct Basement Flooding	\$ 33,285.00																																				
	Correct Wall Insulation																																					
	Reconfigure Spaces					\$ 841,554.00								\$ 41,508.00	2020																							
	Refinish Space																																					
	Replace Carpeting																																					
	Repaint Spaces					\$ 132,798.00	2020																															
	Upgrade Phone System					\$ 5,508.00	2020																															
	Refinish Wood Floors																																					
	Patch Walls and Repaint																																					
	Remove & Replace Tectum Panels																																					

Town of Seekonk, MA

Architectural Assessments of Town Buildings

Priorities are listed to the left of each item:

Priority 1 – Current Critical: Conditions in this category require immediate action to:

- Correct a cited safety hazard
- Stop accelerated deterioration
- Return a facility to operation

Priority 1A – ADA Compliance

Priority 2 – Potentially Critical: Conditions in this category if not corrected soon may result in:

- Intermittent Operations
- Rapid Deterioration
- Potential Safety Hazards

Priority 3 – Necessary, not yet critical.

Conditions in this category require appropriate attention to preclude a predictable deterioration or potential downtime and possible damage and higher costs.

Priority 4 – Recommended.

Conditions in this category include items that represent a sensible improvement to existing conditions. They are not required for the most basic function of the facility, but will improve overall usability and/or reduce long-term maintenance costs.

Priority G – Grandfathered (does not meet current codes/standards).

Conditions in this category include items that do not conform to existing codes, but have been “grandfathered” in requiring no action at the current time. However, should substantial work be undertaken in contiguous areas, certain existing conditions may require correction.

Priority M – Maintenance items, not to be included in this project.

Town Hall

1 FIRE ALARM Fire alarm system should be expanded and or upgraded to add ADA approved notification devices. It is believed that thru the addition of a booster panel this could be accomplished.



1A CABINET ACCESS. Combination kitchenette cabinets are not universally accessible and should be replaced with units with knee spaces.

1A HANDICAPPED RAMPS. Slope of walk to main entrance conforms to ADA, but there is no handicapped parking at this location. Handicapped parking is located adjacent to the driveway to the north-east entrance. The driveway is the only access for wheelchairs, but it is considered a ramp due to the 3/4" per 1'-0" slope and requires landing due to its length. Driveway needs to be expanded to allow space to create a compliant ramp from the parking to the building.

4 SITE GRADING. Grade around Building slopes towards foundations; this can be corrected by re-grading to provide drainage to flow away from the building.



M SITE PLANTINGS. In reviewing the landscaping the following corrective measures are required for the plant materials:

- South East corner of building: White birch overhangs roof and needs to be pruned back.
- Rhododendrons are close to the building but will eventually need pruning.
- North-West Entrance: White birch overhangs roof and need to be pruned back.
- South-East of main entrance: Evergreen tree, overtime, will crowd out the flagpole and interfere with the building; Rhododendron at corner of building needs to be pruned back to improve shape.

4 FOUNDATION INSULATION. Polystyrene insulation is exposed at grade level and should be covered to prevent further deterioration.

3 ATTIC INSULATION. Over the years attic insulation has been shifted resulting in many locations without insulation. It is recommended that the voids be filled with blown-in insulation and then covered with batts.

3 BASEMENT FLOODING. The basement area has experienced flooding due to water ingress through the floor and the inability of the two sumps to handle the quantity of water. Even though this is a rare occurrence we recommend that an under floor drain be installed and connected to larger sump pumps.

Town Hall continued:

M **INTERIOR FINISHES.** Interior spaces are being painted (over vinyl wall covering) as manpower is available.

M **FLOOR COVERING.** Carpeting is in the process of being replaced.

4 **REPLACE CEILING TILES.** Ceiling tiles should be replaced in corridor areas.

4 **LIGHTING** The lighting systems are older and should be replaced with newer more efficient fixtures utilizing the latest lamping and ballasting configurations or at a minimum have the lamping and ballasts upgraded in order to improve energy efficiency. (This could be accomplished thru currently available Utility company incentive programs at little or no cost) The addition of automated lighting controls should be implemented in order to meet current energy codes and to save on energy costs. Areas such as the main entrance are too dark and require additional fixtures.

Library:

OBSERVATION. The building is constructed on a former landfill. The south west corner exhibits some settlement (approximately ¼ inch). Over 37 years of the buildings life this is minimal and we do not recommend any action at this time.

2 FIRE ALARM Fire alarm system is older and does not conform to current standards and should be replaced or at a minimum annunciation devices should be upgraded to meet current standards which will require the addition of a booster panel to drive the devices.

1A OVERALL ADA UPGRADE. The building needs to be upgraded for ADA. For example, doors have knob sets, kitchenette sink has no knee space, coat rack is too high, periodical are shelved too high etc.

3 ROOFING MODIFICATIONS. The roof of the building has a good slope but drains to openings in the parapet walls on the east end, where gutters collect the run-off. These gutters freeze in winter and require the use of heat tape with extension cords run across the roof. We recommend that the white EPDM roof be modified to provide roof drains with crickets to replace the gutters. The openings in the parapet would be closed up and overflows provided.



3 REPLACE CARPET. Carpeting should be replaced. It is very well worn particularly at doorways.

4 REPAINT SPACES. Meeting room is a very dull space and should be redecorated.

M PLUMBING: REPLACE FAUCETS AND FLUSH VALVES with automatic units as a water conservation measure.

3 REPLACE HVAC ROOF TOP UNIT that has been problematic, has reached or are approaching the end of its useful life expectancy and should be replaced in order to improve the reliability, efficiency and to cut down on the operational and maintenance costs associated with the heating and cooling system.

3 REPLACE HVAC CONTROLS SYSTEM that has been problematic, in order to improve the reliability, efficiency and to cut down on the operational and maintenance costs associated with the heating and cooling system.

4 ADD LIGHTING CONTROLS The addition of automated lighting controls should be implemented in order to save on energy costs.

4 SPACE / CONFIGURATION ISSUES. Children's room is very tight and requires picture books to be housed on 66 inch high shelves (should be 48 inch max). This would require an addition to correct.

County Street Fire House:

2 EMERGENCY LIGHTING units should be installed to ensure the safety of personnel in case of an emergency.

2 EXIT SIGNS should be added to ensure the safety of personnel in case of an emergency.

2 FIRE ALARM Fire alarm system should be expanded and or upgraded to add smoke detection devices for earlier detection of any problems.

3 ADD SECURITY SYSTEM. There is no security system for the building.

1A OVERALL ADA UPGRADE is required for the building.

1 SITE PAVING. The parking lot needs to be totally repaved. Curbs should be added. Landscaping should be added to reduce run-off from site and supplemented a drainage system.

1 NEW DRAINAGE SYSTEM needs to be added for parking areas.

3 REPLACE BUILDING MOUNTED SITE LIGHTING. These fixtures are old and in fair/poor condition.

1 REFINISH EXTERIOR. All exterior materials on the building need to be refinished, repaired or replaced: Stone; wood siding, wood trim and roofing.

2 REFINISH SPACE. All interior materials are in poor condition and need to be replaced. The wood structure appears to be ok.

2 HVAC Some equipment such as the existing boiler have reached their life expectancy and should be replaced in order to improve the reliability, efficiency and to cut down on the operational and maintenance costs associated with the heating system.

M PLUMBING: REPLACE FLUSH VALVES with automatic units as a water conservation measure.

4 UPGRADE LIGHTING The older lighting systems are should be replaced with newer more efficient fixtures utilizing the latest lamping and ballasting configurations in order to improve energy efficiency. The addition of automated lighting controls should be implemented in order to meet current energy codes and to save on energy costs.

1 RECOMMENDATION. We need to know what the use would be if renovated. If it will remain a storage building we recommend that it be demolished and a new metal structure be erected. However, we do not believe that a metal building should be located in this residential neighborhood.



Public Safety:

4 SITE PAVING. Improvements to the site should include repairs to the pavement in two (2) specific areas. These areas include the depression near the fire station and the area along the entrance road that has deteriorated.

4 SPACE / CONFIGURATION ISSUES. The computer room, including the 911 system is located under the stairs and appears to be functioning. This is a very tight space for such an important area. We recommend that a plan be established to provide additional space for this equipment to allow for expansion and proper servicing.



4 RECONFIGURE & FINISH ATTIC SPACE. The unfinished Attic space is used as a work-out room. The walls are formed by the sloping roof and the wood rafters, insulation and polyethylene vapor barrier are exposed to this space. There is one egress stair from this level, and at the time of the visit doors on the first floor were held open with door mounted hold-open devices. It is imperative that these devices be removed to provide a safe exit passage from the upper level.

We recommend that the entire attic space be finished with gypsum wall-board and painted. It will be necessary to include some acoustical material within the space to control reverberation. The storage area at the other end of the attic should be walled off and a door provided.

Sprinklers need to be modified to be within 30" of peak.



? ROOFING SYSTEM. The roof was questioned. Heat tape has been added to the rear of the building to control ice dams and associated leaks. We question if ice and water shield was included for the roof and whether or not adequate nailing was installed for the asphalt shingles. Drawings indicate ice and water shield but not on roof overhangs. Numerous bird mouths are visible especially at roof penetrations. We were able to examine a number of shingles to determine if there was any noticeable deficiency that could explain why the shingles have been previously blown off the roof. In the area examined all of the nails had been overdriven with too much pressure in the nail gun. The heads had penetrated the first layer of each of the shingles which could result in shingles being blown off. Shingles had five nails, but some were located in the joint between shingles. GAF, a leading manufacturer recommends four nails per shingle in one hundred and ten miles per hour wind zones. It was also noted that they do not guarantee the shingles against hurricane force winds. The area of roof investigated was relatively small, but we believe it could be an indication of the installation quality throughout the roof. We suggest that a bucket lift be used to examine shingle nailing throughout the roof to determine the extent of the over driven nailing.

M PLUMBING Replacement of faucets and flush valves to automatic units should be implemented as a water conservation measure.

4 LIGHTING Motion sensor lighting controls should be added as a conservation measure and to conform to current codes.

DPW Garage:

2 EMERGENCY LIGHTING units should be installed to ensure the safety of personnel in case of an emergency.

2 EXIT SIGNS should be added to ensure the safety of personnel in case of an emergency.

2 FIRE ALARM Fire alarm system should be expanded and or upgraded to add detection devices for earlier detection of any problems. Existing exits and emergency lighting units should be replaced to ensure the reliability of these systems in case of an emergency.

4 FIRE SPRINKLER SYSTEM. There is no fire sprinkler system,

4 ADD FIRE WALLS. There are currently no firewalls between the various uses. The wood structure is exposed in the garage areas.

1A OVERALL ADA UPGRADE. Restrooms, in general, do not provide for privacy and are not ADA compliant. Hallways are narrow and not ADA accessible. Multiple levels exist throughout building and are not ADA accessible.



2 SITE PAVING. Improvements to the property should include adjustments to the layout of the parking areas to include more landscape areas and better defined curb cuts. The pavement on the site should be replaced.

2 NEW DRAINAGE. A drainage system should be installed that is compliant with local and state regulations when the paving work is done.



3 REFINISH EXTERIOR. The building is aesthetically unsatisfactory. Random mixes of exterior materials provide a patched appearance. A unifying exterior treatment is required.

3 SPACE / CONFIGURATION ISSUES. Office spaces are crowded and lack adequate storage space for files and drawings. Garage areas are crowded and work conditions are antiquated. Many vehicles have to be stored outside year round. See recommendation below.



3 HVAC Some equipment such as the unit heaters in the equipment bays and the existing boiler have reached their life expectancy and should be replaced in order to improve the reliability, efficiency and to cut down on the operational and maintenance costs associated with the heating system.

1 GENERATOR The existing emergency generator should be reviewed to determine the cause of the previous problems to determine if the unit can be repaired and or requires replacement.

DPW Garage continued:

3 ELECTRICAL The older distribution equipment (panel boards) should be replaced with newer equipment with additional breaker spaces to meet any future needs and to alleviate the possibility of overloading individual circuits when new equipment and or devices are added to the existing circuitry.

3 PLUMBING Replacement of faucets to automatic units should be implemented as a water conservation measure.

4 LIGHTING The lighting systems are older and should be replaced with newer more efficient fixtures utilizing the latest lamping and ballasting configurations in order to improve energy efficiency. The addition of automated lighting controls should be implemented in order to meet current energy codes and to save on energy costs.

3 PLUMBING The older piping systems were noted as experiencing ongoing leaks and should be replaced.

2 RECOMMENDATION. Recommendation is to demolish the building and construct a new facility. Photovoltaic panels can be easily relocated to the new facility.

Animal Shelter:

2 EMERGENCY LIGHTING Emergency lighting and exit units should be added to ensure the safety of personnel and animals in case of an emergency.

2 EXIT SIGNS should be added to ensure the safety of personnel in case of an emergency.

2 FIRE ALARM Fire alarm system should be expanded and or upgraded to add detection devices for earlier detection and notification. A central system tie-in should also be provided.

2 REPLACE SINKS. The concrete block mop sink should be replaced with a manufactured unit with tiled walls and a faucet with a vacuum breaker.

2 PLUMBING IMPROVEMENTS. Replacement of existing older plumbing fixtures should be enacted and coordinated with ADA compliance. Ideally all gray water from sinks and washer should be in a closed drainage system instead of being released into the mop sink. The animal bath is serviceable, albeit old.



2 SPACE / CONFIGURATION ISSUES. The office area of the building is overcrowded. Animal cage banks (cats) have had to be located in office and work areas due to space restrictions but should have their own separate space. The medical station that currently consists of a small table is grossly inadequate. Any available space within the building and the two out buildings have had to be used as storage space. The plastic storage units should be removed. Separate storage spaces should be provided for animal food, medical supplies and general supplies. Out buildings are not accessible and should be limited to animal carriers, traps and similar non-perishable items. There is no separate space for the public. An expansion would be necessary to overcome these issues. Dog pens require natural light, but there are only two minimally sized windows into the entire space. Pens backing up to the fenced in outdoor area should have doors to allow dogs to go directly to the exterior.



1A OVERALL ADA UPGRADE. The building is not universally accessible. Issues include entrance door threshold height, doors have knobsets instead of levers, side clearance on doors, toilet room is too small and fixtures are not ADA compliant, no ramp down to dog pens and up to washer room, sink in washer room is too deep and does not have knee space. An addition would enable these problems to be solved as well. A ramp with a landing and handrails is needed at the wooden storage shed..



2 ROOF. The roof is ribbed metal and is 30 years old. The front additions roof panels extend under the original roof but the ribs do not align. To seal this area, the original ribs were flattened at the

Animal Shelter continued:

intersection, and roofing cement, up to two inches thick was used to fill the gap. Every time someone walks on the additions roof, the roofing cement separates from the original providing an open path for leaks (these are evident on the interior). Vents for the unit heaters have recently been replaced. It is recommended that a rubber roof be installed over continuous insulation board covering on insulation board fitted between the ribs. New metal fascia and treated wood blocking would be added to the roof edge. Alternatively, new roof panels should be installed that extend over the addition. Additional blocking will be required at the purlins of the addition. The metal roof option would create a better tie in if an addition is constructed.



3 CLIMATIC CONTROL. Apart from minimal roof insulation it appears that there is none in the walls. Metal panels should be removed and spray foam installation installed in the walls. Insulation in the roof can be improved when roofing issues are addressed. The heat sources (electric radiation) appear to be inadequate to provide a comfortable environment in the office spaces. A new HVAC system should be installed.

4 REFINISH SPACES. Interior partition finishes should be changed and upgraded to fiberglass panels throughout.

2 GENERATOR It is recommended that a generator be added for the building. The building is used 24 hours a day, every day to house animals, medical vaccines, and food supplies that can spoil at low temperatures. The Animal Warden needs to be able to use the building at any time, and currently relies on a small flashlight during power outages.

3 REPLACE MAIN PANEL BOARD The Electrical systems appear to be in good condition however the main panelboard should be replaced with newer equipment with additional breaker spaces to meet any future needs and to alleviate the possibility of overloading individual circuits when new equipment and or devices are added to the existing circuitry.



3 INSTALL ADDITIONAL ELECTRICAL OUTLETS. Outlets are only available in plug strips tied back to the electrical panel. Outlets should be added throughout the building.

4 LIGHTING The lighting systems are older and should be replaced with newer more efficient fixtures utilizing the latest lamping and ballasting configurations in order to improve energy efficiency. The addition of automated lighting controls should be implemented in order to meet current energy codes and to save on energy costs.

1 RECOMMENDATION. To overcome the space and configuration needs an addition should be added to the building

Architectural Assessments of School Buildings

Martin School:

M SECURITY SYSTEM. The security system should be evaluated for replacement and/or upgrade in order to resolve its current condition and in order to add the desired additional CCTV cameras at the outside locations.

M PLUMBING. There are two Bradley multi-user sinks are well worn and, as a result, are difficult to clean. These should be replaced with units similar to the newer multi-user sinks in the school.



3 SITE PAVING. The front of the building requires repaving, replacing curb, and installing drainage system that complies with local and state regulations.



2 ROOFING SYSTEM. Roofs are relatively new (2003) but there are significant areas of ponding. Most noticeable is the cafeteria where the roof drains are high. Scuppers also hold water. Introducing crickets in the low points of the roof will do much to eliminate the ponding.

3 EXTERIOR MASONRY. Concrete masonry units (CMU) are badly soiled and moss is growing on ledges. We recommend that the CMU be cleaned and a sealer applied to wall to reduce future soiling.



3 REPAINT SPACES. The multi-color paint used in the hallways of the older section of the building is in bad shape and should be replaced. We recommend single color paint for ease of maintenance.

M UPGRADE PHONE SYSTEM. It was noted that the main phone switch has been problematic and should be replaced.

2 GENERATOR The current generator is old and although old is functioning well, it does serve the life safety needs of the school therefore, replacement should be considered.

M PLUMBING. Replacement of faucets and flush valves to automatic units should be implemented as a water conservation measure.

3 HVAC SYSTEM. Replace remainder of unit ventilators. These have reached their life expectancy.

Martin School continued:

4 HVAC SYSTEM CONTROLS. An upgrade to the control system to the next version should be considered to get the schools all on the same platform and allow control and monitoring from a central location.

4 LIGHTING CONTROLS. The addition of automated lighting controls should be implemented in order to meet current energy codes and to save on energy costs.

1 FLOORING SYSTEM / HAZ MAT CONCERN. 9x9 Vinyl floor tile exists in the cafeteria. We suspect that either the tile or the adhesive contains asbestos.

1 12x12 CEILING TILES / POTENTIAL HAZ MAT CONCERN. 12x12 ceiling tiles exist in the cafeteria. Often these tiles are secured with glue that contains asbestos. The tiles are also difficult to work with if maintenance is required and generally have a poor appearance.

Pleasant Street School:

G FIRE PROTECTION. A fire protection system (sprinklers) should be installed at the time of any future renovations.

1A ACCESSIBILITY. There are many ADA violations throughout the building. For example; knob sets on doors, projecting nosings on stairs; large diameter handrails without extensions.



1A ACCESSIBILITY. Wheelchair lift on stairs could block the stairs in case of emergency egress from the building and should be removed and replaced with a vertical lift.

1 SITE PAVING. Virtually all of the pavement on the property should be replaced. Curbing improvements should be installed throughout the site to provide more defined curb cuts onto Pleasant Street.



1 SITE PAVING. A drainage system should be installed that complies with local and state regulations.

1 CHIMNEY REPAIRS. The Chimney needs to be reconstructed. It has lost its cap and is badly cracked.



M EXTERIOR FINISHES. Cupola needs to be repainted.

M INTERIOR FINISHES. Wood floors need sanding and refinishing.

M INTERIOR FINISHES. There are many cracks in the plaster walls that should be patched and the walls repainted.

2 INTERIOR FINISHES - GYMNASIUM. Tectum wall panels in gymnasium are badly damaged and need to be replaced. Space should also be repainted.



1 INTERIOR FINISH. Plywood ceiling at top of ramp should be replaced with painted gypsum board.

4 CLOCK SYSTEM. There is no clock system in the building and a new system should be installed.

2 HVAC. Some equipment such as the existing boiler are 30+ years old and have exceeded their life expectancy and should be replaced in order to improve the reliability, efficiency and to cut down on the operational and maintenance costs associated with the heating system. Steam traps should be

Pleasant Street School continued:

examined to determine if repair or replacement is required to ensure the efficiency of the heating system.

2 ELECTRICAL SYSTEMS. Electrical devices throughout the building are old and should be replaced. Older electrical panels should be replaced.

M PLUMBING. Faucets and flush valves all should be replaced with automatic units as a water conservation measure.

4 AUTOMATIC LIGHTING CONTROLS. The addition of automated lighting controls should be incorporated throughout in order to meet current energy codes and to save on energy costs.

4 GYMNASIUM LIGHTING. Gymnasium lighting is halogen without an early strike and should be replaced or supplemented with an instant on lighting source.

Hurley Middle School:

4 SITE PAVING Improvements would consist of repairing curb where necessary and pavement repair along the emergency access road.

3 ROOFING SYSTEM. The EPDM roof over the 1974 addition was badly ponded and should be redesigned to add crickets to improve drainage. The EPDM membrane is dated 1992 and is installed over 2" poly-isocyanurate insulation over the original built up roof consisting of gravel on 4 ply asphalt built-up roofing on 1 ½" fiberglass insulation on metal deck. The joints in the roof had been re-taped approximately four years ago.



2 ROOF DRAINAGE. The roof over the main entrance canopy has a 25" high parapet on all sides creating a bath tub. Water ponds in the center of the roof. There is only one roof drain. An overflow needs to be added to this roof as a serious condition would occur if the drain was ever blocked.

2 GLASS BLOCK WALLS. The glass block wall above the roof that opens into the library has been patched with non-matching blocks when breakage has occurred. Joints in the block are open allowing water to find its way to the masonry wall below causing severe spalling. Glass block and low masonry should be replaced with an insulated Kalwall system that will greatly improve energy efficiency. Masonry should be replaced with brick with a metal sill at the base of the Kalwall.



3 FLOORING FINISHES. Throughout the hallways the VCT is defective leaving extra wide joints between tiles. This is a problem for keeping the floors clean as dirt collects in the wide joints. Some areas have been replaced but much is still left to replace.

3 FLOORING FINISHES. There are a number of areas, primarily the front and rear lobbies, where vinyl composition tiles have cracked edges and should be replaced.

3 INTERIOR WALL FINISH. Corridors in the 1974 wing need painting. There is much wear on the corners of walls; with the addition of corner guards this could be resolved.

M PLUMBING Replacement of faucets and flush valves to automatic units should be implemented as a water conservation measure.

3 HVAC. The unit ventilators in the classrooms, which have not already been replaced (approximately 50%) in the 1997 renovation have reached their life expectancy and should be replaced in order to improve the reliability, efficiency and to cut down on the operational and maintenance costs associated with the heating system.

4 UPDATE HVAC CONTROL SYSTEM. Pneumatic controls should be replaced with digital controls matching the systems in the other schools.

Hurley Middle School continued:

2 **ADD VENTILATION.** Music Room routinely overheats and should be provided with a separate RTU.

3 **HVAC.** It was noted that the steam distribution piping feeding the original building is in poor condition and should be replaced.

2 **ADD AIR CONDITIONING.** Music Room routinely overheats and should be provided with a separate RTU.

North School:

2 ADD FIRE RATED DOORS. Doors to egress stairs are not fire rated and should be replaced with 1 hour fire rated assemblies with closers.



1A ACCESSIBILITY. There are numerous ADA violations; for example, projected nosings on stairs, oversized handrails without extensions, and door jamb clearance issues. The building needs an overall upgrade to resolve compliance issues.

replaced Sidewalks should be patched at curbing to remove tripping hazard.

3 SITE PAVING. Bituminous paving around building is badly cracked and in areas should be



3 DRAINAGE. The storm water leaching pits should also be inspected and replaced if necessary. Drainage system improvements should also be installed to comply with local and state regulations.

1 ROOFING SYSTEM. There are two systems for the flat roofs; ballasted (on the north side 1992) and fully adhered (on the remaining areas 1991). The ballasted roof appears to be in good shape, but foot traffic must continue to be minimized as many of the stones have sharp edges and no walk-ways are provided. The fully adhered EPDM roofs consist of EPDM membrane adhered to ½” fiberboard on 3” poly-isocyanurate insulation. Insulation is secured with 5” long plastic fasteners into gypsum deck. Wind loading has caused a number of fasteners to pull out of the deck leaving the membrane stretched over the fastener heads. This is a critical situation that could result in major damage in a high wind situation. Apart from the failure of the fasteners the roof is in good condition but seams are deteriorating and should be recovered. **REPAIR WORK HAS BEEN COMPLETED**



2 SIDING. The siding (assumed to cover previous clerestory windows) above the roof is badly deteriorated and should be replaced with a material that does not require maintenance.

4 MASONRY. Brick, on the north side needs to be cleaned to remove moss.

4 WINDOW GLAZING. Many windows are glazed with polycarbonate on the exterior and glass on the interior and, overtime, have become obscure. There are a number of options starting with total replacement to just replacement of the center section of polycarbonate. Units could also be replaced with low-E glazing to improve both visibility and energy efficiency. Our recommendation is to replace only those windows that open into staff workrooms.



North School continued:

- 2 FLOOR FINISHES.** Carpeting in the classrooms and library need to be replaced. (Also has bad mildew odor).
- 4 WALL FINISHES.** Corridor walls in the east portion of the building should be re-painted.
- 4 CEILING SYSTEM.** Tectum ceiling panels are drab and should be replaced with acoustical ceiling panels.
- 4 CLOCK SYSTEM.** A new clock system should be installed to replace the existing system which is non-functional at this point.
- 2 FLOOR FINISHES.** Rubber flooring between original building and east wing needs to be removed, the floor below repaired and new flooring installed.
- 2 HVAC.** The boilers (one having exceeded its life expectancy and the other currently at the end of it) should both be replaced in order to improve the reliability, efficiency and to cut down on the operational and maintenance costs associated with the heating system.
- 2 ELECTRICAL SYSTEM.** Original electrical panels should be replaced.
- M PLUMBING** Faucets and flush valves all should be replaced with automatic units as a water conservation measure.
- 3 UPDATE HVAC CONTROLS SYSTEM.** The pneumatic control system should be upgraded to digital. (Pneumatic control panel is new).
- 4 ELECTRICAL SYSTEM.** The addition of automated lighting controls should be incorporated in any areas not already covered in order to meet current energy codes and to save on energy costs.
- 1 FLOOR FINISHES / HAZ MAT CONCERN.** 9x9 vinyl floor tile is located in basement classrooms which currently are only used for storage. It probably contains asbestos and should be replaced.



Aitken Elementary School:

1A PLUMBING / ACCESSIBILITY. Select sinks should be replaced with ADA compliant units including those in the classrooms.

3 DRAINAGE. A drainage system should be installed that would comply with local and state regulations

3 SITE PAVING. Improvements to the property would include some minor repairs to curbing and installation of a drainage system that would comply with local and state regulations. The depression in the secondary access from Rye Street should be repaired.

2 ROOFING SYSTEM. EPDM roofing on center section is 20 years old and has had some leaking problems. Slope is minimal and drainage to perimeter scuppers poor. There is much ponding as water cannot get to scuppers. The roof consists of a fully adhered EPDM membrane on 1 ½" of poly-isocyanurate insulation on the original built-up roof comprised of gravel and 5 plies of asphalt roofing on a tectum deck. The insulation level (approx. R=14) is inadequate and should be increase for energy savings. The roof should be replaced with a tapered insulation system. Flashings at walls will need to be replaced and possibly raised.



The west canopy roof should also be replaced and a larger roof drain provided. Roof consists of EPDM on ½" fiberboard on 1" polystyrene on the original built-up roof comprised of gravel and 5 plies of asphalt roofing on a tectum deck.

4 EXTERIOR MASONRY. North wall CMU of school is badly soiled and should be cleaned and sealed to reduce further soiling.



2 EXTERIOR MASONRY. Below fascia of new wing there is damaged brick around regularly spaced fasteners. A new longer fascia should be installed over these fasteners to prevent further brick deterioration.

2 MASONRY REPOINTING. Window sills on the original building need to be re-pointed.



4 WINDOW GLAZING. Windows on original building are glazed with polycarbonate on the exterior and glass on the interior and, overtime, have become obscure. There are a number of options starting with total replacement to just replacement of the center section of polycarbonate. Sections should be replaced with low-E glazing to improve both visibility and energy efficiency. We recommend the replacement of the center section of glazing.

Aitkin Elementary School continued:

3 HVAC. Unit ventilators in the classrooms of the older wing which have not already been replaced have reached their life expectancy and should be replaced in order to improve the reliability, efficiency and to cut down on the operational and maintenance costs associated with the heating system.

4 LIGHTING CONTROLS. The addition of automated lighting controls should be added in any areas not already covered, in order to meet current energy codes and to save on energy costs.

1 STORAGE. There is a lack of custodial storage in the building such that cardboard boxes are stored adjacent to the boilers. A separate building or addition should be provided for storage space.

High School:

M CONTROLS. The security system should be upgraded to allow for additional security cameras.

1A PLUMBING / ACCESSIBILITY. Select sinks should be replaced with ADA compliant units including those in the classrooms.

3 SITE PAVING. Improvements to the site would be limited to sidewalk, curbing, and some select pavement improvements.

Curbing should be replaced in areas where the curb reveal along sidewalks is less than 4 inches. These areas occur along the eastern side of the school. The areas of pavement that have depressed and hold water after rain events should be repaired to allow them to drain.

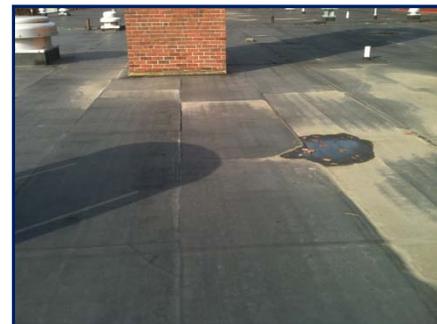
3 DRAINAGE SYSTEM. Terracotta drains running through courtyard occasionally are blocked by roots and need to be routed out. They are currently functioning but need to be replaced.

3 TREES. Some trees will need to be removed from the courtyard in the course of the drainage work, and to reduce those overhanging roof areas. One tree on the south side of the building should also be removed as it is too close to the building.

2 CHIMNEY. Chimney needs re-pointing.



3 ROOFING FLASHINGS. Roof flashings are very low to roof, however, some sections do leak during intense rain. Some sections do not have a cap flashing but rely on sealant to achieve water-tightness. Possible correction would require brick removal



and relocation of through-wall flashing to raise cap flashing to appropriate height. Alternatively a new metal flashing could be designed to bridge over the flashing to create a pressure equalization chamber to reduce wind pressure on the flashing and allow the cavity wall to drain.

3 ROOFING SYSTEM. EPDM roof in areas is over 20 years old and insulation board joints are telegraphing through membrane. The roof consists of fully adhered EPDM on 2 1/2" poly-isocyanurate secured with foamed adhesive to 4 ply asphalt built-up roofing on gypsum deck. Significant gaps +/- 1" exist between the insulation boards. These are partially filled with the spray adhesive. These sections should be re-roofed with tapered insulation. Flashings at walls will need to be raised.

2 ROOFING STRUCTURE. Roof structure over the pool needs to be re-painted. It is noted that there are only two weeks during the summer when the pool is typically not being used.

2 STAGE FLOORING SYSTEM. Stage floor needs to be replaced as it can no longer be refinished.

High School continued:

M PLUMBING. Replacement of flush valves on toilets and urinals to automatic units should be implemented as a water conservation measure.

M CONTROLS. The HVAC controls system should have a programming upgrade to allow for remote control of system.

4 COURTYARD ACCESS. Currently the only access to the courtyard is via the corridors in the school. Any maintenance equipment has to pass through the school and similarly any debris from the courtyard has to be carried through the school. It is recommended that the small classroom (CURRENTLY USED BY South Coast Collaborative) in the north-east corner of the courtyard be eliminated to provide a direct access point from the exterior to the courtyard. With oversized doors small equipment could be driven into the courtyard.

1 MAINTENANCE STORAGE. Maintenance equipment is currently stored in a former chicken coop. The space is not adequate and the exterior siding is badly deteriorated. It is recommended that this building be replaced with a building more suited to the storage and access to the maintenance equipment.



* * *

Summary of Existing Roofing Types and Ages:

Town Hall:	Asphalt Shingles	
Library:	White EPDM	2009+/-
County Street Fire House:	Asphalt Shingles	
Public Safety:	Asphalt Shingles	2005
DPW Garage:	EPDM	1997 +/-
Animal Shelter:	Metal	
Martin School:	EPDM Asphalt Shingles	2003, 1990's
Pleasant Street School	Asphalt Shingles	
Hurley Middle school:	EPDM EPDM PVC	1992 1997 2007
North School:	Ballasted EPDM EPDM Asphalt Shingles	1992 1991
Aitken Elementary:	EPDM PVC	1996 2008
High School:	EPDM EPDM	1993 2003

Mechanical and Electrical Systems
Existing Conditions Narrative

Seekonk Town Hall
Seekonk, Massachusetts
September 15, 2011

Prepared By
Consulting Engineering Services, Inc.
101 Federal Street, Suite 1936, Boston, Massachusetts 02110
CES Project No. 2011153.00

A. PLUMBING NARRATIVE

APPLICABLE CODES AND STANDARDS

The plumbing systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th Edition
2. Massachusetts Fire Prevention Regulations
3. Massachusetts State Fuel Gas and Plumbing Code
4. ASHRAE 90.1

PLUMBING UTILITIES

1. Domestic Water:
 - a. Existing Domestic Water Service: The existing building is currently served by a 1 ½" inch domestic water service located within the water service room which also houses the sprinkler service. The domestic water service equipment includes a water meter and isolation valves. This water service currently serves all of the Facilities domestic water needs. The water distribution system is original to the building.
2. Natural Gas:
 - a. Existing Natural Gas Service: There is currently an existing natural gas service to the building serving the HVAC equipment. This service enters the rear of the building at the boiler room.
3. Sanitary:
 - a. Existing Sanitary Service: The facilities sanitary sewer system provides sanitary waste drainage for plumbing fixtures located throughout the building. The piping material above grade is primarily cast iron. The Plumbing fixtures drain to buried sanitary waste piping exiting the building and tying into the facilities septic sewer system.
4. Fuel Oil:
 - a. There is no onsite fuel storage.

PLUMBING FIXTURES AND SPECIALTIES

1. Existing plumbing fixtures are as follows:

- Water closets are floor and wall mounted; auto flush valve, vitreous china and are in very good condition



- Urinals are wall mounted vitreous china, with auto flush valves and are in very good condition.
- Lavatories are wall hung vitreous china. Faucets are a combination of the single lever handle type and are in very good condition.



- Drinking fountains are surface mounted stainless steel units. Most appear to be ADA compliant, and are in good condition.
- Janitor's mop sinks are wall mounted basins with 2-faucets and vacuum breakers. These basins are in very good condition.

DOMESTIC HOT WATER SYSTEMS

1. Existing Domestic Hot Water System: The facilities domestic hot water is generated by a gas fired tank type water heaters. The unit appears new and in very good condition.

B. FIRE PROTECTION NARRATIVE

FIRE PROTECTION SERVICE

1. There is a complete fire protection (sprinklers) system in the facility. Coverage appears to cover all areas of the buildings. The system is complete with all back flow prevention devices and fire alarm system monitoring. The system is provided by a 6" fire service which enters the front of the building in the water service room.



C. MECHANICAL SYSTEMS:

APPLICABLE CODES AND STANDARDS

The mechanical systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th edition
2. Massachusetts Fire Prevention Regulations
3. International Mechanical Code
4. NFPA, Latest Version
5. ASHRAE 90.1

EXISTING SYSTEMS

1. The existing building is heated by a number of gas fired heat pumps located in the attic. These units are original to the building and appear to be in very good condition. They were noted by operating personnel to be operating problem free with no noted heating problems.



2. Air conditioning is provided via cooling coils provided in the attic mounted HVAC units which receive their cooling from an exterior mounted Electric chiller and condensing units.



3. The existing temperature controls in the building are via programmable electronic thermostats, these units appear in very good condition and are operating problem free.
4. The present Heating and Ventilating systems consist of a forced air system.
5. Exhaust systems servicing the facility utilize a supply air component within HVAC units.

6. A dedicated split system A/C unit is provided in the computer room.



D. ELECTRICAL NARRATIVE

APPLICABLE CODES AND STANDARDS

The electrical power, interior lighting, and fire alarm systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

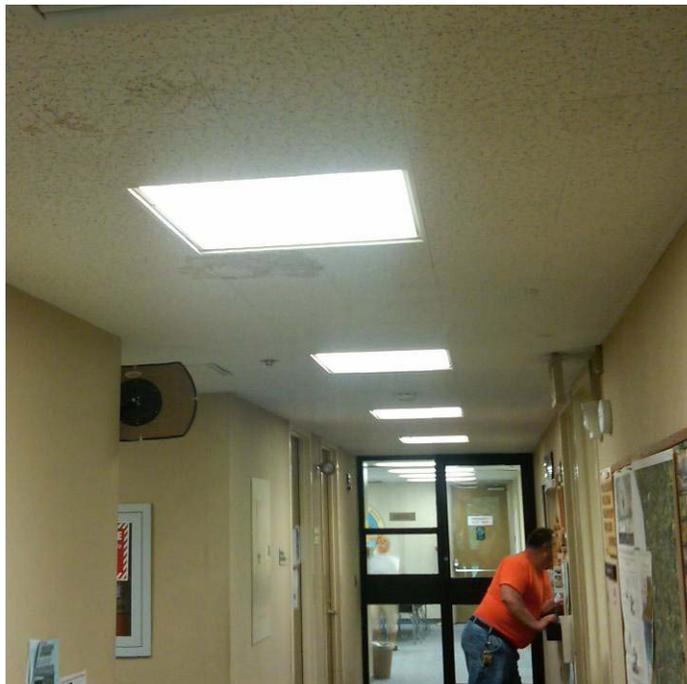
1. Massachusetts State Building Code 8th Edition
2. Massachusetts State Fire Prevention Regulations
3. NFPA Latest Edition
4. 2010 Massachusetts Electrical Code
5. Illuminating Engineering Society Lighting Handbook (IESNA)
6. ASHRAE 90.1

EXISTING SYSTEMS

1. The building is served by a single electrical service rated 400 amperes, 208Y/120volts, 3-phase, 4-wire and is located in the main electric room. The service equipment consists of utility company pole mounted transformers, an underground feed to utility metering equipment a 400amp main disconnect switch and distribution panel located in the main electric room. The predominance of the main distribution equipment service equipment is newer and in very good condition.



2. There are a number of electrical panels located throughout the facility. The predominance of these panel boards are newer Square D panels believed to be original to the facility. The condition of these panel boards is very good. The majority of the panel boards do have spare circuit breakers available for new circuits to be added, or include the space to add new circuit breakers.
3. The lighting throughout the facility consists primarily of recess mounted 2x2 and 2x4 2-lamp and 4-lamp acrylic lensed fluorescent troffers. The lighting throughout the facility is older and in fair/good condition. The light levels appear to be within recommended levels. No automated lighting control was noted.



- The fire alarm system is an FCI zoned system. There are manual fire alarm pull stations, horn strobes located throughout the building. Heat and smoke detectors were noted in select areas including smoke detectors in the corridors. Annunciation devices were noted as not conforming to current codes in terms of intensity level requirements.



- Site lighting is accomplished via building mounted wall packs and a number of pole mounted lights both appear to be in very good condition and utilize current LED lamping technology.
- There is no on site emergency standby generation equipment.
- Life safety emergency lighting is provided via emergency battery units with unit mounted light heads. Units appear to be in very good condition and to provide sufficient coverage.
- Battery powered exit lighting is installed throughout; provides sufficient coverage and units are in good condition.



9. There is currently a Security system including magnetic contacts on all entry doors no motion sensors or CCTV cameras are included.

E. MEP SYSTEMS CONCLUSION

In general, the systems vary in age from original to the building (30+ years old), to as recent as 5-7 years old. Most systems appear to be in good or very good condition. HVAC systems all appear to be newer and are functioning without any noted problems.

Plumbing systems all appear to be newer in good working condition and utilize automated features as a water conservation measure.

The Electrical systems appear to be in good condition including service and distribution equipment all of which includes additional breaker spaces to meet any future needs and to alleviate the possibility of overloading individual circuits when new equipment and or devices are added to the existing circuitry. The lighting systems are older and should be replaced with newer more efficient fixtures utilizing the latest lamping and ballasting configurations or at a minimum have the lamping and ballasts upgraded in order to improve energy efficiency. (This could be accomplished thru currently available Utility company incentive programs at little or no cost) The addition of automated lighting controls should be implemented in order to meet current energy codes and to save on energy costs. Fire alarm system should be expanded and or upgraded to add ADA approved notification devices it is believed that thru the addition of a booster panel this could be accomplished. Existing exits and emergency lighting units are in good condition and provide adequate coverage in the event of an emergency.

Mechanical and Electrical Systems
Existing Conditions Narrative

Town Library
Seekonk, Massachusetts
September 14, 2011

Prepared By
Consulting Engineering Services, Inc.
101 Federal Street, Suite 1936, Boston, Massachusetts 02110
CES Project No. 2011153.0

A. PLUMBING NARRATIVE

APPLICABLE CODES AND STANDARDS

The plumbing systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th Edition
2. Massachusetts Fire Prevention Regulations
3. Massachusetts State Fuel Gas and Plumbing Code
4. ASHRAE 90.1

PLUMBING UTILITIES

1. Domestic Water:

- a. Existing Domestic Water Service: The existing building is currently served by a 1-1/2" inch domestic water service located within the fire service room. The domestic water service equipment includes a water meter and isolation valves. This water service currently serves all of the facilities domestic water needs. The water distribution system is original to the building and each subsequent addition/renovation.



2. Natural Gas:

- a. Existing Natural Gas Service: There is currently an existing natural gas service to the building serving the Roof top unit and the hot water heater. This service enters the side of the building at the main mechanical room.

3. Sanitary:

- a. Existing Sanitary Service: The Library's sanitary sewer system provides sanitary waste drainage for plumbing fixtures located throughout the building. The piping material above grade is primarily cast iron. The Plumbing fixtures drain to buried sanitary waste piping exiting the building and tying into the facilities septic sewer system.

4. Fuel Oil:

- a. There is no onsite fuel storage.

PLUMBING FIXTURES AND SPECIALTIES

1. Existing plumbing fixtures are as follows:

- Water closets are floor mounted; manual flush valve, vitreous china. Fixtures appear new and in very good condition.



- Urinals are wall mounted vitreous china, with auto flush valves. Fixtures appear new and in very good condition.
- Lavatories are wall hung vitreous china. Faucets are of the dual lever handle type. Fixtures appear to be new and in very good condition
- Drinking fountains are surface mounted stainless steel units. Most appear to be ADA compliant, and are in good condition.



- Janitor's mop sinks are wall mounted basins with 2-faucets and vacuum breakers. These basins are in good condition.

DOMESTIC HOT WATER SYSTEMS

1. Existing Domestic Hot Water System: The Library's domestic hot water is generated by a single 30 gallon gas fired tank type hot water heater which includes a recirculation pump. The unit appears newer and in good condition.

B. FIRE PROTECTION NARRATIVE

FIRE PROTECTION SERVICE

1. There is a complete fire protection (sprinklers) system in the facility. Coverage appears to cover all areas of the buildings. The system is complete with all back flow prevention devices and fire alarm system monitoring.



C. MECHANICAL SYSTEMS:

APPLICABLE CODES AND STANDARDS

The mechanical systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th edition
2. Massachusetts Fire Prevention Regulations
3. International Mechanical Code
4. NFPA, Latest Version
5. ASHRAE 90.1

EXISTING SYSTEMS

1. The existing building is heated and cooled by a single packaged roof top unit. This unit is approximately 17 Years old Heating is furnished via gas. This unit was noted by operations personal as having ongoing maintenance issues. The physical condition of the unit appears fair for its age although it is approaching its life expectancy.



2. The present Heating Ventilating and Air Conditioning system consists of a ducted air supply and return system from a Trane packaged roof top unit. This single unit supplies all the HVAC needs of the facility
3. The existing temperature control system in the building is via a DDC system. This system is original to the facility and was noted as having had ongoing issues. It should be investigated as to if the controls system is the issue or if it is the issues with the roof top unit that are the problem.

D. ELECTRICAL NARRATIVE

APPLICABLE CODES AND STANDARDS

The electrical power, interior lighting, and fire alarm systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th Edition
2. Massachusetts State Fire Prevention Regulations
3. NFPA Latest Edition
4. 2010 Massachusetts Electrical Code
5. Illuminating Engineering Society Lighting Handbook (IESNA)
6. ASHRAE 90.1

EXISTING SYSTEMS

1. The building is served by a single electrical service rated 800 amperes, 208Y/120volts, 3-phase, 4-wire and is located in the main mechanical room. The service equipment consists of utility company transformer, an underground feed to utility metering equipment an 800amp main disconnect switch and main distribution panel located in

the mechanical room. The predominance of the main distribution service equipment is newer and in very good condition.



2. There are a number of electrical panels located throughout the facility. The predominance of these panel boards are newer Westinghouse panels believed to have been installed some time after the construction of the original building. The condition of these panel boards is very good. The majority of the panel boards have spare circuit breakers available for new circuits to be added, or include the space to add new circuit breakers.
3. The lighting throughout the facility consists primarily of recess mounted 4 lamp, 2' x 4' acrylic lens fluorescent troffers and 1 x 4 pendent mounted direct/indirect fluorescent fixtures. The lighting throughout the facility is newer approximately 2 years old and in very good condition. Automated lighting controls have not been incorporated into the facility. The light levels appear to be within recommended levels.



4. The fire alarm system is a FCI zoned system. There are manual fire alarm pull stations, horn strobes located throughout the building. Heat detectors are also installed in select areas. It was noted by school personnel during the walk-thru that the system had been

problem free. The system is older however believed to be original to the facility and does not conform to current codes in terms of intensity levels.

5. Site lighting is accomplished via building mounted wall packs, flood lights and a number of pole mounted fixtures all appear to be in good condition.



6. There is no on site emergency standby generator located at the facility.
7. Life safety emergency lighting is provided via emergency battery units with unit mounted light heads. These units are newer in very good condition and appear to provide sufficient coverage throughout the facility.
8. Battery powered exit lighting is installed throughout, and is in good condition.
9. An existing paging system is installed believed to be newer and is in very good condition with no noted problems.
10. There is currently a Caddy security system including cameras at select locations, magnetic door contacts at all the exterior doors. The system was noted as functioning without any issues.



E. MEP SYSTEMS CONCLUSION

In general, the systems vary in age from original to the building (30+ years old), to as recent as 2-3 years old. Some equipment such as the existing Roof Top Unit and the controls system have been problematic, have reached or are approaching the end of their useful life expectancy and should be replaced in order to improve the reliability, efficiency and to cut down on the operational and maintenance costs associated with the heating and cooling system.

Plumbing systems throughout appear newer, seem to be in good working condition and are in very good condition. Replacement of faucets and flush valves to automatic units should be implemented as a water conservation measure.

The Electrical systems appear to be in very good condition the distribution equipment (panelboards) includes additional breaker spaces to meet any future needs and to alleviate the possibility of overloading individual circuits when new equipment and or devices are added to the existing circuitry. The lighting systems are newer (2 years old) include new more efficient fixtures and utilize the latest lamping and ballasting configurations. The addition of automated lighting controls should be implemented in order to save on energy costs. Fire alarm system is older and does not conform to current standards and should be replaced or at a minimum annunciation devices should be upgraded to meet current standards which will require the addition of a booster panel to drive the devices. Existing exits and emergency lighting units are newer in very good condition and appear to provide sufficient coverage.

Mechanical and Electrical Systems
Existing Conditions Narrative

Fire Station # 1
Seekonk, Massachusetts
September 14, 2011

Prepared By
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CES Project No. 2011153.0

A. PLUMBING NARRATIVE

APPLICABLE CODES AND STANDARDS

The plumbing systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th Edition
2. Massachusetts Fire Prevention Regulations
3. Massachusetts State Fuel Gas and Plumbing Code
4. ASHRAE 90.1

PLUMBING UTILITIES

1. Domestic Water:
 - a. Existing Domestic Water Service: The existing building is currently served by a 1” inch domestic water service located within the boiler room. The domestic water service equipment includes a water meter and isolation valves. This water service currently serves all of the buildings domestic water needs. The water distribution system is original to the building.
2. Natural Gas:
 - a. Existing Natural Gas Service: There is currently no existing natural gas service to the building.
3. Sanitary:
 - a. Existing Sanitary Service: The buildings sanitary sewer system provides sanitary waste drainage for plumbing fixtures located throughout the facility. The piping material above grade is primarily cast iron. The Plumbing fixtures drain to buried sanitary waste piping exiting the building and tying into the facilities septic sewer system.
4. Fuel Oil:
 - a. There is currently a 330gallon above ground exterior fuel oil tank located at the rear of the building. This tank appears to be in good condition, it was noted that this tank serves the existing oil fired boiler.



PLUMBING FIXTURES AND SPECIALTIES

1. Existing plumbing fixtures are as follows:

- Water closets are floor mounted; tank type manual flush valve, vitreous china, units appear to be in fair condition.



- Urinals are wall mounted vitreous china, with manual flush valves, units appear newer and in good condition.
- Lavatories are recess count mounted vitreous china and stainless steel. Faucets are a combination of single lever handle and two lever handle type, units appear to be in good condition.

DOMESTIC HOT WATER SYSTEMS

1. Existing Domestic Hot Water System: The facilities domestic hot water is generated by a single tank type electric water heater.

B. FIRE PROTECTION NARRATIVE

FIRE PROTECTION SERVICE

1. There is no fire protection (sprinklers) coverage currently at the facility.

C. MECHANICAL SYSTEMS:

APPLICABLE CODES AND STANDARDS

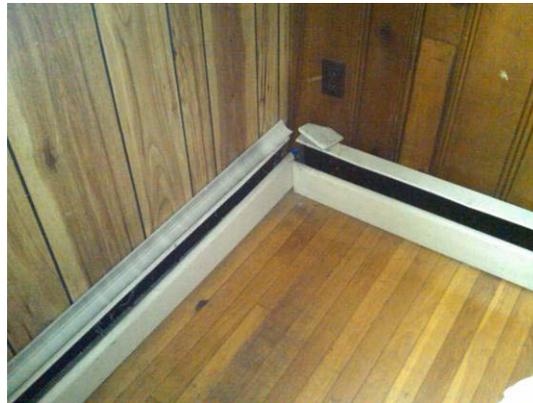
The mechanical systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th edition
2. Massachusetts Fire Prevention Regulations
3. International Mechanical Code

4. NFPA, Latest Version
5. ASHRAE 90.1

EXISTING SYSTEMS

1. The existing building is heated by a single hot water boiler. The boiler is a Weil McLain with an oil fired burner. This boiler appears to be older and in fair condition the burner unit appears to have been replaced at some point looks to be approximately 7-10 years old and in good condition. The pump also appears newer and in good condition. The boiler itself has however reached its life expectancy.
2. The present Heating and Ventilating systems consist of finned tube radiation, with exposed fin tube in the apparatus bays. Ventilation is provided via natural ventilation by means of operable windows. The mechanical equipment is located primarily on exterior walls and in various indoor mechanical spaces within the building.



3. The existing temperature controls in the facility is via electric thermostats.
4. A number of thru the wall/window AC units exist to provide air conditioning throughout the building with the exception of the apparatus bay.



D. ELECTRICAL NARRATIVE

APPLICABLE CODES AND STANDARDS

The electrical power, interior lighting, and fire alarm systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th Edition
2. Massachusetts State Fire Prevention Regulations
3. NFPA Latest Edition
4. 2010 Massachusetts Electrical Code
5. Illuminating Engineering Society Lighting Handbook (IESNA)
6. ASHRAE 90.1

EXISTING SYSTEMS

1. The building is served by a single electrical service rated 200 amperes, 120/240volts, single phase, 3-wire and is located in the first floor ready room. The service equipment consists of utility company pole mounted transformer, an overhead feed to a service drop down to building exterior mounted utility meter. The main distribution service equipment is new manufactured by Challenger and in very good condition.



2. The lighting throughout the facility consists primarily of surface mounted 2-T12 lamp wraparound fluorescent fixtures, Incandescent down lights and 4' strip fluorescents in the apparatus bay. The lighting throughout the facility is older and in fair/good condition. The light levels appear to be within recommended levels.

3. The fire alarm system consists of heat detectors installed through most of the facility. It was noted by operations personnel during the walk-thru that the system had been problem free.



4. Site lighting is accomplished via building mounted wall packs these fixtures appear older and in fair/poor condition and should be replaced.
5. There is no on site emergency standby generator.
6. There is no Life safety emergency lighting is provided at this facility.
7. There is no exit lighting is provided at this facility.
8. There is no security system provided at this facility.

E. MEP SYSTEMS CONCLUSION

In general, the systems vary in age from original to the building, to as recent as 5-10 years old. Some equipment such as the existing boiler have reached their life expectancy and should be replaced in order to improve the reliability, efficiency and to cut down on the operational and maintenance costs associated with the heating system.

Plumbing systems although older seem to be in good working condition. Replacement of faucets to automatic units should be implemented as a water conservation measure.

The Electrical systems appear to be in good condition however the older lighting systems are should be replaced with newer more efficient fixtures utilizing the latest lamping and ballasting configurations in order to improve energy efficiency. The addition of automated lighting controls should be implemented in order to meet current energy codes and to save on energy costs. Fire alarm system should be expanded and or upgraded to add smoke detection devices for earlier detection of any problems. Exits and emergency lighting units should be installed to ensure the safety of personnel in case of an emergency.

Mechanical and Electrical Systems
Existing Conditions Narrative

Public Safety Complex
Seekonk, Massachusetts

September 14, 2011

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CES Project No. 2011153.0

A. PLUMBING NARRATIVE

APPLICABLE CODES AND STANDARDS

The plumbing systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th Edition
2. Massachusetts Fire Prevention Regulations
3. Massachusetts State Fuel Gas and Plumbing Code
4. ASHRAE 90.1

PLUMBING UTILITIES

1. Domestic Water:

- a. Existing Domestic Water Service: The existing building is currently served by a 2" inch domestic water service located within the water service room. The domestic water service equipment includes a water meter and isolation valves. This water service currently serves all of the Facilities domestic water needs. The water distribution system is original to the building.



2. Natural Gas:

- a. Existing Natural Gas Service: There is currently an existing natural gas service to the building serving the boilers and hot water heater. This service enters the rear of the building.

3. Sanitary:

- a. Existing Sanitary Service: The Facilities sanitary sewer system provides sanitary waste drainage for plumbing fixtures located throughout the building. The piping material above grade is primarily cast iron. The Plumbing fixtures drain to buried sanitary waste piping exiting the building and tying into the facilities septic sewer system.

4. Fuel Oil:

- a. There is no onsite fuel storage with the exception of the Emergency generator skid mounted fuel tank.

PLUMBING FIXTURES AND SPECIALTIES

1. Existing plumbing fixtures are as follows:

- Water closets are wall mounted; manual flush valve, vitreous china, units appear in very good condition.



- Urinals are wall mounted vitreous china; with manual flush valves, units appear in very good condition.
- Lavatories are wall hung vitreous china. Faucets are single lever manual handle type; units appear in very good condition.



- Janitor's mop sinks are floor mounted basins with 2-faucets and vacuum breakers. These basins are in good condition.

DOMESTIC HOT WATER SYSTEMS

1. Existing Domestic Hot Water System: The buildings domestic hot water is generated by a Raypak hot water boiler with 2-115 gallon storage tanks. The unit appears to be in very good condition.

B. FIRE PROTECTION NARRATIVE

FIRE PROTECTION SERVICE

1. There is a complete fire protection (sprinklers) system in the facility. Coverage appears to cover all areas of the buildings. The system is complete with all back flow prevention devices and fire alarm system monitoring. The service enters the building in the Water service entrance room in the front of the building with a 6" service line.



C. MECHANICAL SYSTEMS:

APPLICABLE CODES AND STANDARDS

The mechanical systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th edition
2. Massachusetts Fire Prevention Regulations
3. International Mechanical Code
4. NFPA, Latest Version
5. ASHRAE 90.1

EXISTING SYSTEMS

1. The existing building is heated and cooled via multiple attic mounted Air Handler units. These units are manufactured by Aaon are original to the building (6-7 years old) and were noted as operating problem free. These units include hot water and cooling coils for heating and cooling as well as a fresh air component. Hot water for the heating system is provided by a gas fired Fulton Boiler also original to the facility and located in the second floor Mechanical room this unit is in very good condition. Cooling is provided from exterior ground mounted individual condenser units located at the rear of the building.



2. The present Heating Ventilating and Air Conditioning systems consist of a ducted air system throughout the building. Selected areas such as the sally port and the apparatus bays are heated by infrared tube heaters. The air-handling units have hot water heating coils, cooling coils, filter sections and exhaust fans.
3. The existing temperature controls in the facility are via electronic thermostats controlling individual air handling units these were noted as operating without issue.



D. ELECTRICAL NARRATIVE

APPLICABLE CODES AND STANDARDS

The electrical power, interior lighting, and fire alarm systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th Edition
2. Massachusetts State Fire Prevention Regulations
3. NFPA Latest Edition
4. 2010 Massachusetts Electrical Code
5. Illuminating Engineering Society Lighting Handbook (IESNA)
6. ASHRAE 90.1

EXISTING SYSTEMS

1. The building is served by a single electrical service rated 1200 amperes, 208Y/120volts, 3-phase, 4-wire and is located in the main electric room. The service equipment consists of a utility company pad mounted transformer with pad mounted utility metering equipment an underground feed to a 1200amp main disconnect circuit breaker switchboard with distribution section located in the main electric room. The predominance of the main distribution equipment service equipment is newer (2005) and in very good condition.



2. There are a number of electrical panels located throughout the facility. The predominance of these panel boards are Siemens panels having been installed at the time of construction in 2005. The condition of these panel boards is very good with the majority of the panel boards having spare circuit breakers available for new circuits to be added, or include the space to add new circuit breakers.

3. The lighting throughout the facility consists primarily of recess mounted 2x4 3 lamp lensed fluorescent fixtures and 2x2 2 lamp fixtures. The lighting throughout the facility is newer and in very good condition however it does not include motion sensor control. The light levels appear to be within recommended levels.
4. The fire alarm system is an EST 2 addressable system. There are manual fire alarm pull stations, horn strobes located throughout the building. Heat detectors are present in select areas and smoke detectors are present throughout the common areas. The system appears to be newer in very good condition and it was noted by operations personnel during the walk-thru that the system had been problem free.



5. Site lighting is accomplished via building mounted wall packs, and LED type sconce type lights and a number of pole mounted fixtures all appear to be in very good condition.
6. There is currently an oil fired Caterpillar emergency standby generator. This unit appears to be in very good condition. It was noted by operations personal as functioning without any issues and that it offers 100% backup of the facility.



7. Life safety emergency lighting is provided via select fixtures throughout the facility being wired to emergency lighting circuits.
8. Exit lighting is installed throughout, is wired to emergency generator circuits and offers sufficient coverage and is in very good condition.
9. The existing paging and alarm systems were noted as functioning without any problems.
10. There is currently a security system including magnetic contacts at the exterior entry doors and motion sensor detection devices throughout. There is also a CCTV system with both interior and exterior cameras. These systems were noted during the walk thru as operating without problem.



E. MEP SYSTEMS CONCLUSION

In general, the systems were installed at the time of construction in 2005.

Plumbing systems are newer and in good physical and working condition. Replacement of faucets and flush valves to automatic units should be implemented as a water conservation measure.

The Electrical systems appear to be in good condition having been installed in 1995. Distribution panels were noted as having additional breaker spaces to meet any future needs and to alleviate the possibility of overloading individual circuits when new equipment and or devices are added to the existing circuitry. The lighting systems are newer; appear to utilizing the latest lamping and ballasting configurations for maximum energy efficiency. Motion sensor lighting controls should be added as a conservation measure and to conform to current codes. Fire alarm system is newer and in very good condition and appears to provide sufficient coverage throughout.

Mechanical and Electrical Systems
Existing Conditions Narrative

Highway Department Garage
Seekonk, Massachusetts

September 14, 2011

Prepared By
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CES Project No. 2011153.0

A. PLUMBING NARRATIVE

APPLICABLE CODES AND STANDARDS

The plumbing systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th Edition
2. Massachusetts Fire Prevention Regulations
3. Massachusetts State Fuel Gas and Plumbing Code
4. ASHRAE 90.1

PLUMBING UTILITIES

1. Domestic Water:

- a. Existing Domestic Water Service: The existing building is currently served by a 1” inch domestic water service located within the boiler room. The domestic water service equipment includes a water meter and isolation valves. This water service currently serves all of the buildings domestic water needs. The water distribution system is original to the building and each subsequent addition/renovation.

2. Natural Gas:

- a. Existing Natural Gas Service: There is currently an existing natural gas service to the building serving the boilers and emergency generator. This service enters the building in the rear adjacent to the emergency generator.



3. Sanitary:

- a. Existing Sanitary Service: The facilities sanitary sewer system provides sanitary waste drainage for plumbing fixtures located throughout the building. The piping material above grade is primarily cast iron. The Plumbing fixtures drain to buried sanitary waste piping exiting the building and tying into the facilities septic sewer system.

4. Fuel Oil:

- a. There are 3-330gallon above ground as well as a number of 55 gallon drums on site to house automobile oil for related to the trucks.



PLUMBING FIXTURES AND SPECIALTIES

1. Existing plumbing fixtures are as follows:

- Water closets are floor mounted; with auto and manual flush valves, vitreous china. Units appear to be in very good condition.



- Urinals are wall mounted vitreous china, waterless units. Units are in very good condition.
- Lavatories are wall hung vitreous china. Faucets are a combination of two lever handle type.
- Janitor's mop sinks are wall mounted basins with 2-faucets and vacuum breakers. These basins are older and in good/fair condition.
- It was noted by operations personnel that the existing plumbing piping system was old and that they experienced leaks on a frequent basis.

DOMESTIC HOT WATER SYSTEMS

1. Existing Domestic Hot Water System: The buildings domestic hot water is generated by a gas fired water heater. The unit appears in good condition.

B. FIRE PROTECTION NARRATIVE

FIRE PROTECTION SERVICE

1. There is no fire protection (sprinklers) coverage currently at the facility.

C. MECHANICAL SYSTEMS:

APPLICABLE CODES AND STANDARDS

The mechanical systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th edition
2. Massachusetts Fire Prevention Regulations
3. International Mechanical Code
4. NFPA, Latest Version
5. ASHRAE 90.1

EXISTING SYSTEMS

1. The existing building is heated by a single 3 zone hot water boiler. The boiler is a Weil McLain with burner currently operating on Natural gas. The boiler is approximately 20-25 years old and in good/fair condition, the unit is currently at its life expectancy.



2. The present Heating and Ventilating systems consist of finned tube radiation, hot water unit heaters and exhaust systems. The mechanical equipment is located primarily on exterior walls and in various indoor mechanical spaces within the building.
3. Unit heaters in equipment bays are older and in poor condition. They have begun to fail and repairs are becoming more frequent as they have already exceeded their useful life.



4. The existing temperature controls in the facility are electric thermostats these units are newer and appear in good condition.



5. Some thru the wall/window AC units were noted in select small office areas.

D. ELECTRICAL NARRATIVE

APPLICABLE CODES AND STANDARDS

The electrical power, interior lighting, and fire alarm systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th Edition
2. Massachusetts State Fire Prevention Regulations
3. NFPA Latest Edition
4. 2010 Massachusetts Electrical Code

5. Illuminating Engineering Society Lighting Handbook (IESNA)
6. ASHRAE 90.1

EXISTING SYSTEMS

1. The building is served by a single electrical service rated 200 amperes, 120/240volts, single-phase, 3-wire and is located in the corner area of the apparatus bay designated for the electric service. The service equipment consists of a utility company pole mounted transformer, an overhead feed to utility metering equipment a 200amp main disconnect switch and distribution equipment. The predominance of the main distribution service equipment older and in fair condition.



2. There are a number of electrical panels located throughout the facility. The predominance of these panel boards are older FPE and square D panels believed to be original to the facility, some newer panels have been added at the time of various building additions and on an as-needed basis. The condition of these panel boards range from poor, the original equipment, to good, the most recent. The majority of the panel boards do not have spare circuit breakers available for new circuits to be added, or include the space to add new circuit breakers.



3. There is currently a new photovoltaic solar panel system installed on the roof this system is new and in very good condition.
4. The lighting throughout the facility consists primarily of surface mounted 2 lamp strip fluorescent fixtures, 4-lamp 2' x 4' acrylic lens troffers and HID high bay fixtures in the equipment bays. The lighting throughout the facility is older and in fair/good condition. The light levels appear to be within recommended levels. No auto lighting controls are present within the facility.
5. The fire alarm system consists of manual fire alarm pull stations, horn strobes and heat and smoke detectors. The system is older and the layout appears to be inadequate in terms of coverage and meeting current codes.



6. Site lighting is accomplished via building mounted LED wall packs these fixture appear newer and in very good condition.
7. There is an exterior emergency standby generator located at the rear of the facility. This unit is natural gas fired rated 20KW and manufactured by Magnetek. It was noted by operations personnel that this unit has experienced problems in the past. The unit is older and in fair condition. Transfer is a manual operation and can power the entire facility with the manual shutoff of select loads.



8. Life safety emergency lighting is provided via emergency battery units with unit mounted emergency light heads. These units are newer and in good condition.



9. Battery powered exit lighting is installed, coverage appears insufficient however and additional units should be installed.
10. There is currently a Security system including magnetic contacts at the main doors and motion sensor detection devices.

E. MEP SYSTEMS CONCLUSION

In general, the systems vary in age from original to the building, to as recent as 1-3 years old. Some equipment such as the unit heaters in the equipment bays and the existing boiler have reached their life expectancy and should be replaced in order to improve the reliability, efficiency and to cut down on the operational and maintenance costs associated with the heating system.

Plumbing systems all appear newer and in very good condition. The older piping systems were noted as experiencing ongoing leaks and should be replaced. Replacement of faucets to automatic units should be implemented as a water conservation measure.

The Electrical systems appear to be in good condition however the older distribution equipment (panelboards) should be replaced with newer equipment with additional breaker spaces to meet any future needs and to alleviate the possibility of overloading individual circuits when new equipment and or devices are added to the existing circuitry. The lighting systems are older and should be replaced with newer more efficient fixtures utilizing the latest lamping and ballasting configurations in order to improve energy efficiency. The addition of automated lighting controls should be implemented in order to meet current energy codes and to save on energy costs. Fire alarm system should be expanded and or upgraded to add detection devices for earlier detection of any problems. Existing exits and emergency lighting units should be replaced to ensure the reliability of these systems in case of an emergency. The existing emergency generator should be reviewed to determine the cause of the previous problems to determine if the unit can be repaired and or requires replacement.

Mechanical and Electrical Systems
Existing Conditions Narrative

Animal Shelter
Seekonk, Massachusetts
September 14, 2011

Prepared By
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CES Project No. 2011153.0

A. PLUMBING NARRATIVE

APPLICABLE CODES AND STANDARDS

The plumbing systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th Edition
2. Massachusetts Fire Prevention Regulations
3. Massachusetts State Fuel Gas and Plumbing Code
4. ASHRAE 90.1

PLUMBING UTILITIES

1. Domestic Water:

- a. Existing Domestic Water Service: The existing building is currently served by a 1” inch domestic water service located in a closet. The domestic water service equipment includes a water meter and isolation valves. This water service currently serves all of the buildings domestic water needs. The water distribution system is original to the building and each subsequent addition/renovation.

2. Natural Gas:

- a. Existing Natural Gas Service: There is currently an existing natural gas service to the building serving the gas fired unit heaters. This service enters the building in the front adjacent to the main entry.



3. Sanitary:

- a. Existing Sanitary Service: The facilities sanitary sewer system provides sanitary waste drainage for plumbing fixtures located throughout the building. The piping material above grade is primarily cast iron. The Plumbing fixtures drain to buried sanitary waste piping exiting the building and tying into the facilities septic sewer system.

4. Fuel Oil:

- a. There is no on site fuel storage tanks located at the facility.

PLUMBING FIXTURES AND SPECIALTIES

1. Existing plumbing fixtures are as follows:

- Water closets are floor mounted tank type, vitreous china. Units appear to be in good condition.
- Lavatories are wall hung vitreous china. Faucets are of the two lever handle type. Unit is older and in fair/poor condition.



- Animal wash tub is floor mounted with a single lever handle. This unit is older but appears in good condition.

DOMESTIC HOT WATER SYSTEMS

1. Existing Domestic Hot Water System: The buildings domestic hot water is generated by a gas fired water heater. The unit appears in good condition.

B. FIRE PROTECTION NARRATIVE

FIRE PROTECTION SERVICE

1. There is no fire protection (sprinklers) coverage currently at the facility.

C. MECHANICAL SYSTEMS:

APPLICABLE CODES AND STANDARDS

The mechanical systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th edition
2. Massachusetts Fire Prevention Regulations
3. International Mechanical Code

4. NFPA, Latest Version
5. ASHRAE 90.1

EXISTING SYSTEMS

1. The existing building is heated by gas fired unit heaters and electric baseboard radiation. These units are in good condition.



2. The existing temperature controls in the facility are electric thermostats mounted on the individual heating units.
3. Some thru the wall/window AC units were noted in select areas.



D. ELECTRICAL NARRATIVE

APPLICABLE CODES AND STANDARDS

The electrical power, interior lighting, and fire alarm systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th Edition

2. Massachusetts State Fire Prevention Regulations
3. NFPA Latest Edition
4. 2010 Massachusetts Electrical Code
5. Illuminating Engineering Society Lighting Handbook (IESNA)
6. ASHRAE 90.1

EXISTING SYSTEMS

1. The building is served by a single electrical service rated 100 amperes, 120/240volts, single-phase, 3-wire and is located in a closet near the main entry. The service equipment consists of a utility company metering equipment and a 100amp main breaker panelboard. The panelboard is in good condition however has no space for future expansion.



2. The lighting throughout the facility consists primarily of surface mounted 2 lamp strip fluorescent fixtures. The lighting throughout the facility is older and in fair condition. The light levels appear to be within recommended levels. No auto lighting controls are present within the facility.
3. The fire alarm system consists of local only 120 volt hard wired smoke detectors, there did not appear to be a tie-in to a notification service.



4. Site lighting is accomplished via building mounted wall packs these fixtures appear newer and in very good condition.



5. There is currently no emergency standby generator located at the facility.
6. Life safety emergency lighting or exit lighting does not exist at the facility.
7. There is currently a Security system including magnetic contacts at the main doors and motion sensor detection devices.

E. MEP SYSTEMS CONCLUSION

In general, the systems vary in age from original to the building 30+ years, to as recent as 1-3 years old, some equipment such as the unit heaters are newer and in good condition.

Plumbing systems all appear older and in fair condition. Replacement of existing older plumbing fixtures should be enacted to replace the older units.

The Electrical systems appear to be in good condition however the main panelboard should be replaced with newer equipment with additional breaker spaces to meet any future needs and to alleviate the possibility of overloading individual circuits when new equipment and or devices are added to the existing circuitry. The lighting systems are older and should be replaced with newer more efficient fixtures utilizing the latest lamping and ballasting configurations in order to improve energy efficiency. The addition of automated lighting controls should be implemented in order to meet current energy codes and to save on energy costs. Fire alarm system should be expanded and or upgraded to add detection devices for earlier detection and notification. Emergency lighting and exit units should be added to ensure the safety of personnel and animals in case of an emergency.

Mechanical and Electrical Systems
Existing Conditions Narrative

George Martin Elementary School
Seekonk, Massachusetts

September 13, 2011

Prepared By
Consulting Engineering Services, Inc.
101 Federal Street, Suite 1936, Boston, Massachusetts 02110
CES Project No. 2011153.0

A. PLUMBING NARRATIVE

APPLICABLE CODES AND STANDARDS

The plumbing systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th Edition
2. Massachusetts Fire Prevention Regulations
3. Massachusetts State Fuel Gas and Plumbing Code
4. ASHRAE 90.1

PLUMBING UTILITIES

1. Domestic Water:

- a. Existing Domestic Water Service: The existing building is currently served by a 4" inch domestic water service located within the boiler/mechanical room. The domestic water service equipment includes a water meter and isolation valves. This water service currently serves all of the Schools domestic water needs. The water distribution system is original to the building and each subsequent addition/renovation.



2. Natural Gas:

- a. Existing Natural Gas Service: There is currently an existing natural gas service to the building serving the boilers, hot water heaters and select kitchen equipment. This service enters the rear of the building at the boiler room.

3. Sanitary:

- a. Existing Sanitary Service: The School's sanitary sewer system provides sanitary waste drainage for plumbing fixtures located throughout the School. The piping material above grade is primarily cast iron. The Plumbing fixtures drain to buried

sanitary waste piping exiting the building and tying into the facilities septic sewer system.

4. Fuel Oil:

- a. There is no onsite fuel storage.

PLUMBING FIXTURES AND SPECIALTIES

1. Existing plumbing fixtures are as follows:

- Water closets are floor mounted; manual flush valve, vitreous china, units appear in very good condition.



- Urinals are wall mounted vitreous china, with manual flush valves; units appear in very good condition.
- Lavatories are wall hung vitreous china. Faucets are two lever handle type, units appear in very good/good condition.
- Drinking fountains are surface mounted stainless steel dual level, a few older Vitreous china recess mounted unit do exist. Most appear to be ADA compliant, and are in very good condition.



- Janitor's mop sinks are floor and wall mounted basins with 2-faucets and vacuum breakers. These basins are older and in good/fair condition.
- Typical classroom sinks are counter top, stainless steel units with dual lever gooseneck faucets. Most appear to be ADA compliant.



DOMESTIC HOT WATER SYSTEMS

1. Existing Domestic Hot Water System: The Schools domestic hot water is generated by a tank type gas fired hot water heater. The unit is approximately 6-7 years old and appears in very good condition.

B. FIRE PROTECTION NARRATIVE

FIRE PROTECTION SERVICE

1. There is a complete fire protection (sprinklers) system in the facility. Coverage appears to cover all areas of the buildings. The system is complete with all back flow prevention devices and fire alarm system monitoring.
2. Kitchen hood is provided with an ansul chemical fire suppression system.

C. MECHANICAL SYSTEMS:

APPLICABLE CODES AND STANDARDS

The mechanical systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th edition
2. Massachusetts Fire Prevention Regulations
3. International Mechanical Code
4. NFPA, Latest Version
5. ASHRAE 90.1

EXISTING SYSTEMS

1. The existing building is heated by two hot water boilers. The two boilers are both manufactured by PK one being a Thermific installed in 2003 and the second being a Modufire installed in 2008 both with burners currently operating on Natural gas. These two boilers are both fairly new and operating without any noted problems. Both units are rated 2000 MBH and are in very good condition.



2. The present Heating and Ventilating systems consist of finned tube radiation, unit ventilators in the classrooms and exhaust systems. Areas such as the Gymnasium are served by two ceiling hung H&V units and include a supply air component. The mechanical equipment is located primarily on exterior walls and in various indoor mechanical spaces within the building. The air-handling units have hot water heating coils, filter sections and exhaust fans. The library area includes heating and air conditioning provided via roof top units which were noted as functioning without and noted issues.
3. Unit Ventilators in classrooms are a mix with approximately 50% of the units having been replaced within the last 3-5 years and the remaining units being approximately 30+/- years old manufactured by Trane. The older units have exceeded the life expectancy and repairs are becoming more frequent. Although they have been able to obtain parts for repairs when needed, obtaining these parts will become more of an issue as more units fail and require replacement parts, these older units should be replaced.



4. Exhaust systems servicing the classrooms utilize a single exhaust grille to draw air out of the classroom. Exhaust grills are located in the ceiling of the room on the opposite wall as the unit ventilators.
5. The existing temperature controls in the school are a Johnson Controls DDC system which is operating without issue. A desire was expressed to upgrade this system to the latest version in order to increase the capabilities and allow the tie in and control capabilities of all the schools for a central location.
6. Some thru the wall/window AC units exist in select small office areas were noted.



D. ELECTRICAL NARRATIVE

APPLICABLE CODES AND STANDARDS

The electrical power, interior lighting, and fire alarm systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th Edition
2. Massachusetts State Fire Prevention Regulations
3. NFPA Latest Edition
4. 2010 Massachusetts Electrical Code
5. Illuminating Engineering Society Lighting Handbook (IESNA)
6. ASHRAE 90.1

EXISTING SYSTEMS

1. The building is served by a single electrical service rated 1200 amperes, 208Y/120volts, 3-phase, 4-wire and is located in the main electric room. The service equipment consists of utility company pad mounted transformer believed to be a 300 KVA unit, with pad mounted utility metering equipment an underground feed to a 1200amp switchboard with main switch and distribution section located in the main electric room. The predominance of the main distribution equipment service equipment is new (2001) and in very good condition.



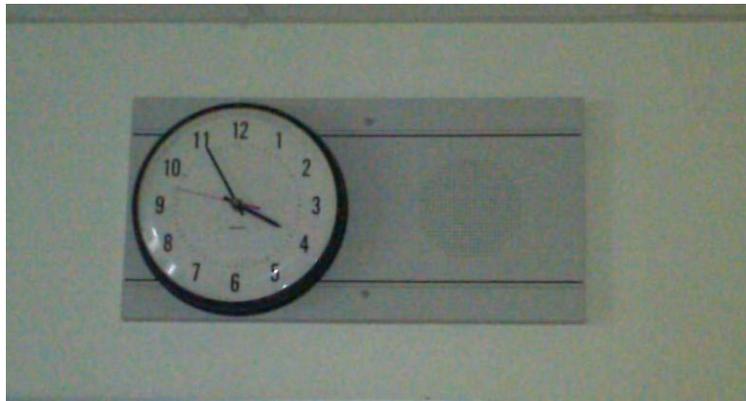
2. There are a number of electrical panels located throughout the facility. The predominance of these panel boards are Square D panels believed to have been installed during the 2001 renovation. The condition of these panel boards is good with the majority of the panel boards having spare circuit breakers available for new circuits to be added, or include the space to add new circuit breakers.
3. The lighting throughout the facility consists primarily of recess mounted 2x2 2 lamp lensed fluorescent fixtures in the common areas and 2' x 4' center trough fixtures in the classrooms and other academic areas. The lighting throughout the facility is newer and in very good condition and includes motion sensor control. The light levels appear to be within recommended levels.



4. The fire alarm system is a Simplex 4100 addressable system. There are manual fire alarm pull stations, horn strobes located throughout the building. Heat and smoke detectors are present in select areas. The system appears to be newer in very good condition and it was noted by school personnel during the walk-thru that the system had been problem free.
5. Site lighting is accomplished via building mounted wall packs and a number of pole mounted flood lights both appear to be in good condition.
6. There is currently a 25KW gas fired Kohler emergency standby generator. This unit appears quite old. It was noted however as functioning without any issues. Whereas it does serve the life safety needs of the school including emergency lighting it should be completely checked to ensure its reliability and replacement should be considered.



7. Life safety emergency lighting is provided via select fixtures throughout the facility being wired to emergency lighting circuits.
8. Exit lighting is installed throughout, is wired to emergency generator circuits and is in good condition.
9. The existing clock system was noted as functioning without problems.



10. The existing paging system was noted as functioning without any problems.

11. There is currently a FBI security system including cameras at the main doors and motion sensor detection devices throughout. This system has experienced multiple failures according to operations personal and an upgrade of the system is desired to both correct the ongoing problems and to add additional exterior cameras at sensitive locations.

E. MEP SYSTEMS CONCLUSION

In general, the systems vary in age from original to the building, to as recent as 2-3 years old with the predominance of the major systems having been upgraded in 2001. Some equipment such as the unit ventilators in the classrooms which have not already been replaced have reached their life expectancy and should be replaced in order to improve the reliability, efficiency and to cut down on the operational and maintenance costs associated with the heating system. The upgrade of the controls system to the next version should be considered in order to get all the schools on the same platform and allow control and monitoring of all facilities from a central location

Plumbing systems seem to be newer and in good physical and working condition. Replacement of faucets and flush valves to automatic units should be implemented as a water conservation measure. Select sinks should be replaced with ADA compliant units where necessary. It was noted that two of the existing circular round sinks in the toilet rooms require replacement.

The Electrical systems appear to be in good condition having been replaced during the 2001 upgrade. Distribution panels were noted as having additional breaker spaces to meet any future needs and to alleviate the possibility of overloading individual circuits when new equipment and or devices are added to the existing circuitry. The lighting systems are newer; appear to utilizing the latest lamping and ballasting configurations for maximum energy efficiency. The addition of automated lighting controls should be implemented in order to meet current energy codes and to save on energy costs. Fire alarm system is newer and in very good condition and appears to provide sufficient coverage throughout. It was noted that the main phone switch has been problematic and should be replaced. The existing emergency generator should be evaluated for replacement given its age and critical nature of the equipment. The security system should be evaluated for replacement and/or upgrade in order to resolve its current condition and in order to add the desired additional CCTV cameras at the outside locations.

Mechanical and Electrical Systems
Existing Conditions Narrative

Pleasant Street School
Seekonk, Massachusetts

September 14, 2011

Prepared By
Consulting Engineering Services, Inc.
101 Federal Street, Suite 1936, Boston, Massachusetts 02110
CES Project No. 2011153.0

A. PLUMBING NARRATIVE

APPLICABLE CODES AND STANDARDS

The plumbing systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th Edition
2. Massachusetts Fire Prevention Regulations
3. Massachusetts State Fuel Gas and Plumbing Code
4. ASHRAE 90.1

PLUMBING UTILITIES

1. Domestic Water:

- a. Existing Domestic Water Service: The existing building is currently served by 2 separate 2" services. Each of the two services enters the front of the building in the basement level includes a utility meter and isolation valves. These water services currently serve all of the School's domestic water needs. The water distribution system is original to the building and each subsequent addition/renovation.

2. Natural Gas:

- a. Existing Natural Gas Service: There is currently an existing natural gas service to the building serving the boiler, hot water heaters and select kitchen equipment. This service enters the front of the building near the main entry.



3. Sanitary:

- a. Existing Sanitary Service: The School's sanitary sewer system provides sanitary waste drainage for plumbing fixtures located throughout the School. The piping material above grade is primarily cast iron. The Plumbing fixtures drain to buried sanitary waste piping exiting the building and tying into the facilities septic sewer system.

4. Fuel Oil:

- a. There is no onsite fuel storage.

PLUMBING FIXTURES AND SPECIALTIES

1. Existing plumbing fixtures are as follows:

- Water closets are floor mounted; manual flush valve, vitreous china, units appear in good condition.



- Urinals are wall mounted vitreous china; with manual flush valves, units appear in good condition.
- Lavatories are wall hung vitreous china. Faucets are dual lever handle type, units appear in good condition.
- Janitor's mop sinks are wall mounted basins with 2-faucets and vacuum breakers. These basins appear in good condition.



DOMESTIC HOT WATER SYSTEMS

1. Existing Domestic Hot Water System: The Schools domestic hot water is generated by a 175 gallon tank type gas fired hot water heater. The unit appears in good condition.



B. FIRE PROTECTION NARRATIVE

FIRE PROTECTION SERVICE

1. There is no fire protection (sprinklers) system in the facility.
2. Kitchen hood is provided with an ansul chemical fire suppression system.



C. MECHANICAL SYSTEMS:

APPLICABLE CODES AND STANDARDS

The mechanical systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th edition
2. Massachusetts Fire Prevention Regulations
3. International Mechanical Code
4. NFPA, Latest Version
5. ASHRAE 90.1

EXISTING SYSTEMS

1. The existing building is heated by a single steam boiler. The boiler is manufactured by H.B. Smith appears to be 35 plus years old and rated 1700 MBH. The boiler's burner is currently operating on Natural gas as the fuel source. This boiler is old and should be replaced as its life expectancy has already been exceeded.



2. The present Heating and Ventilating systems consist of steam radiation mounted on exterior walls and in some instances on the ceilings and exhaust systems. The mechanical equipment is located primarily on exterior walls and in various indoor mechanical spaces within the building.

3. Radiation units throughout appear to be original and in good condition the condition of the steam traps was indeterminable but these should be checked and replaced if required.



4. Exhaust systems servicing the classrooms utilize a single exhaust grille to draw air out of the classroom in conjunction with the operable windows.
5. Some thru the wall/window AC units exist in select small office areas and some classrooms.



D. ELECTRICAL NARRATIVE

APPLICABLE CODES AND STANDARDS

The electrical power, interior lighting, and fire alarm systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th Edition
2. Massachusetts State Fire Prevention Regulations
3. NFPA Latest Edition
4. 2010 Massachusetts Electrical Code
5. Illuminating Engineering Society Lighting Handbook (IESNA)
6. ASHRAE 90.1

EXISTING SYSTEMS

1. The building is served by a single electrical service which is believed to be rated 400 amperes, 240/120volts, single-phase, 3-wire. The service equipment consists of utility company pole mounted transformers, an overhead feed and service drop to exterior building mounted utility metering a 400amp interior main service disconnect circuit breaker and distribution panelboard. The equipment is located in the basement electrical closet was installed in 1992, is manufactured by Cutlet Hammer and is in very good condition.



2. There are a number of electrical panels located throughout the facility. The predominance of these panel boards are Cutler Hammer panels believed to have been installed during the service equipment upgrade in 1992. The condition of these newer panel boards is very good with the majority of the panel boards having spare circuit

breakers available for new circuits to be added, or include the space to add new circuit breakers.

3. The lighting throughout the facility consists primarily of surface and pendent mounted 1x4 lensed wraparound fluorescent fixtures and recess mounted 2x4 lensed fluorescent fixtures. The lighting throughout the facility is in good condition but does not include any motion sensor control. The light levels appear to be within recommended levels.



4. The fire alarm system is a ELS 1500 series zoned system. There are manual fire alarm pull stations, horn strobes located throughout the building. Heat and smoke detectors are present throughout and appear to offer 100% coverage. The system appears to be 15+/- years old although most of the annunciation and detection devices appear to be much newer and in good condition and it was noted by school personnel during the walk-thru that the system has been problem free. Coverage and compliance with current codes appears to be sufficient.

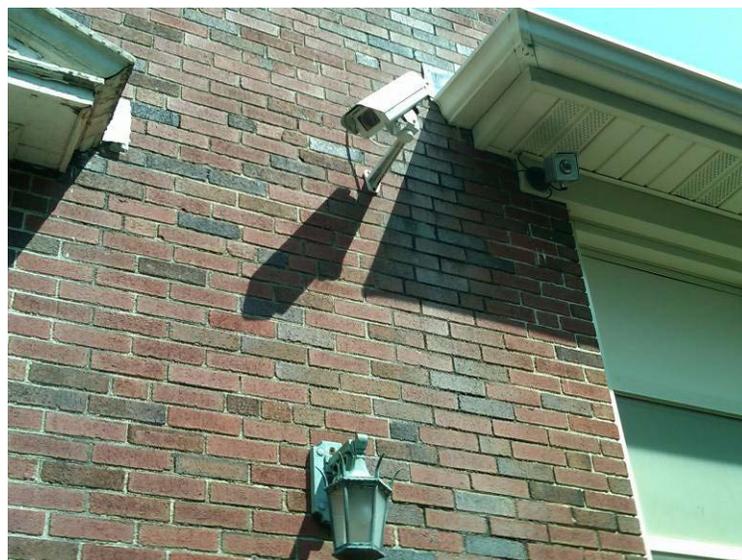


5. Site lighting is accomplished via building mounted wall packs, all fixtures appear to be in good condition.
6. There is currently no emergency standby generator to serve the facility.
7. Life safety emergency lighting is provided via emergency battery units with unit mounted light heads throughout the facility. These units appear to offer sufficient coverage and are in good condition.

8. Exit lighting is installed throughout, is of the self contained battery unit type and offers sufficient coverage and is in good condition.



9. There was no central clock system noted within the existing facility.
10. The existing paging system was noted as functioning without any problems and in good condition. This system is via the phone system.
11. It was noted that there appeared to be an excessive heat buildup in the IDF closet housing the data and computer equipment in the office area. This issue can most likely be resolved thru improved ventilation of the closet or if the loading within the room dictates the addition of a small dedicated air conditioning system.
12. There is currently a security system including magnetic contacts at all exterior entry points, controlled access at main entry points and motion sensors throughout the school. There is also a CCTV system with cameras on both interior and exterior of the school. Both systems have been operating without any noted issues.



E. MEP SYSTEMS CONCLUSION

In general, the systems vary in age from original to the building, to as recent as 2-3 years old. Some equipment the existing boiler are 30+ years old and have exceeded their life expectancy and should be replaced in order to improve the reliability, efficiency and to cut down on the operational and maintenance costs associated with the heating system. Steam traps should be examined to determine if repair or replacement is required to ensure the efficiency of the heating system.

Plumbing fixtures seem to be newer and in good physical and working condition. Faucets and flush valves all should be replaced with automatic units as a water conservation measure. Select sinks should be replaced with ADA compliant units where necessary.

A fire protection system (sprinklers) should be installed at the time of any future renovations.

The Electrical systems appear to be in good condition having been replaced during the 1998 upgrade of the electrical systems. The devices throughout however are still old and should be replaced. The majority of the distribution panels were noted as having additional breaker and/or spaces to meet any future needs and to alleviate the possibility of overloading individual circuits when new equipment and or devices are added to the existing circuitry. Older panels should however be replaced. The lighting systems are in good physical condition appearing to provide acceptable light levels. The addition of automated lighting controls should be incorporated throughout in order to meet current energy codes and to save on energy costs. Fire alarm system is in good condition and appears to provide sufficient coverage throughout. The security system appears to provide sufficient coverage and is operating without issue. A new clock system should be installed as there is currently none in place.

Mechanical and Electrical Systems
Existing Conditions Narrative

Hurley Middle School
Seekonk, Massachusetts

September 14, 2011

Prepared By
Consulting Engineering Services, Inc.
101 Federal Street, Suite 1936, Boston, Massachusetts 02110
CES Project No. 2011153.0

A. PLUMBING NARRATIVE

APPLICABLE CODES AND STANDARDS

The plumbing systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th Edition
2. Massachusetts Fire Prevention Regulations
3. Massachusetts State Fuel Gas and Plumbing Code
4. ASHRAE 90.1

PLUMBING UTILITIES

1. Domestic Water:

- a. Existing Domestic Water Service: The existing building is currently served by a 4" inch domestic water service located within the boiler/mechanical room. The domestic water service equipment includes a water meter and isolation valves. This water service currently serves all of the Schools domestic water needs. The water distribution system is original to the building and each subsequent addition/renovation.



2. Natural Gas:

- a. Existing Natural Gas Service: There is currently an existing natural gas service to the building serving the boilers, hot water heaters, emergency generator and select kitchen equipment. This service enters the rear of the building at the boiler room.

3. Sanitary:

- a. Existing Sanitary Service: The School's sanitary sewer system provides sanitary waste drainage for plumbing fixtures located throughout the School. The piping material above grade is primarily cast iron. The Plumbing fixtures drain to buried sanitary waste piping exiting the building and tying into the facilities septic sewer system.

4. Fuel Oil:

- a. There is no onsite fuel storage.

PLUMBING FIXTURES AND SPECIALTIES

1. Existing plumbing fixtures are as follows:

- Water closets are wall mounted; manual flush valve, vitreous china, units appear in very good condition.
- Urinals are wall mounted vitreous china; with manual flush valves, units appear in very good condition.



- Lavatories are wall hung vitreous china. Faucets are single lever manual handle type; units appear in very good condition.
- Drinking fountains are surface mounted stainless steel dual level units. Most appear to be ADA compliant, and are in very good condition.
- Janitor's mop sinks are floor mounted basins with 2-faucets and vacuum breakers. These basins are in good condition.



DOMESTIC HOT WATER SYSTEMS

1. Existing Domestic Hot Water System: The Schools domestic hot water is generated by a 75 gallon tank type gas fired hot water heater and a P.K. Thermific boiler both units appear newer and in very good condition.



B. FIRE PROTECTION NARRATIVE

FIRE PROTECTION SERVICE

1. There is a complete fire protection (sprinklers) system in the facility. Coverage appears to cover all areas of the buildings. The system is complete with all back flow prevention devices and fire alarm system monitoring. The service enters the building in the boiler room with an 8" service.



2. Kitchen hood is provided with an ansul chemical fire suppression system.

C. MECHANICAL SYSTEMS:

APPLICABLE CODES AND STANDARDS

The mechanical systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th edition
2. Massachusetts Fire Prevention Regulations
3. International Mechanical Code
4. NFPA, Latest Version
5. ASHRAE 90.1

EXISTING SYSTEMS

1. The existing building is heated by three steam boilers. The three steam boilers are manufactured by Smith installed in 1997 and steam to hot water heat exchangers are utilized to provide hot water to the 1970 and 1997 additions. All three have burners currently operating on Natural gas. These three boilers are fairly new 13 years old. The units are rated 3563 MBH each.



2. The present Heating and Ventilating systems consist of finned tube radiation, unit ventilators in the classrooms and exhaust systems. Areas such as the Gymnasium are served by two ceiling hung H&V units and include a supply air component. The mechanical equipment is located primarily on exterior walls and in various indoor mechanical spaces within the building. The air-handling units have hot water heating coils, filter sections and exhaust fans. The administration, nurses and guidance areas all include heating and air conditioning provided via roof top units which were noted as functioning without and noted issues.

3. Unit Ventilators in classrooms are a mix with approximately 50% of the units having been replaced within the last 10+/- years and the remaining units being approximately 30+/- years old manufactured by Trane. The older units have exceeded the life expectancy and repairs are becoming more frequent. Although they have been able to obtain parts for repairs when needed, obtaining these parts will become more of an issue as more units fail and require replacement parts, these older units should be replaced prior to permanent failures.



4. Exhaust systems servicing the classrooms utilize a single exhaust grille to draw air out of the classroom. Exhaust grills are located in the ceiling of the room on the opposite wall as the unit ventilators.
5. The existing temperature controls in the school are a pneumatic control system Johnson Controls system which is operating without issue.
6. Some thru the wall/window AC units exist in select small office areas.

D. ELECTRICAL NARRATIVE

APPLICABLE CODES AND STANDARDS

The electrical power, interior lighting, and fire alarm systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th Edition
2. Massachusetts State Fire Prevention Regulations
3. NFPA Latest Edition

4. 2010 Massachusetts Electrical Code
5. Illuminating Engineering Society Lighting Handbook (IESNA)
6. ASHRAE 90.1

EXISTING SYSTEMS

1. The building is served by a single electrical service rated 2000 amperes, 208Y/120volts, 3-phase, 4-wire and is located in the main electric room. The service equipment consists of utility company pad mounted transformer, utility metering equipment an underground feed to a 2000amp switchboard with main switch and distribution section located in the main electric room. The predominance of the main distribution equipment service equipment is newer (1997) and in very good condition.



2. There are a number of electrical panels located throughout the facility. The predominance of these panel boards are Siemens panels believed to have been installed during the 1997 renovation. The condition of these panel boards is very good with the majority of the panel boards having spare circuit breakers available for new circuits to be added, or include the space to add new circuit breakers.
3. The lighting throughout the facility consists primarily of recess mounted 2x4 volumetric 2 lamp lensed fluorescent fixtures in the common areas and 1x4 pendent mounted wraparounds in the classrooms and other academic areas. The lighting throughout the facility is newer and in very good condition and includes motion sensor control. The light levels appear to be within recommended levels.



4. The fire alarm system is a Simplex 4005 addressable system. There are manual fire alarm pull stations, horn strobes located throughout the building. Heat and smoke detectors are present in select areas. The system appears to be newer in very good condition and it was noted by school personnel during the walk-thru that the system had been problem free.



5. Site lighting is accomplished via building mounted wall packs, floodlights and a number of pole mounted HID shoebox fixtures both appear to be in good condition.
6. There is currently a gas fired Olympian emergency standby generator. This unit appears to be in very good condition and is believed to have been installed at the time of the 1997 addition. It was noted by operations personal as functioning without any issues.



7. Life safety emergency lighting is provided via select fixtures throughout the facility being wired to emergency lighting circuits supplemented by emergency battery units with unit mounted light heads.
8. Exit lighting is installed throughout, is wired to emergency generator circuits and is in good condition.



9. The existing clock system was noted as functioning without problems.
10. The existing paging system was noted as functioning without any problems.
11. There is currently a security system including magnetic contacts at the exterior entry doors and motion sensor detection devices throughout. There is also a CCTV system with both interior and exterior cameras. This system was noted during the walk thru as operating without problem.

E. MEP SYSTEMS CONCLUSION

In general, the systems vary in age from original to the building, to as recent as 2-3 years old with the predominance of the major systems having been upgraded at the time of the most recent renovation in 1997. Some equipment such as the unit ventilators in the classrooms which have not already been replaced (approximately 50%) have reached their life expectancy and should be replaced in order to improve the reliability, efficiency and to cut down on the operational and maintenance costs associated with the heating system. It was noted that the steam distribution piping feeding the original building is in poor condition and should be replaced.

Plumbing systems seem to be newer and in good physical and working condition. Replacement of faucets and flush valves to automatic units should be implemented as a water conservation measure. Select sinks should be replaced with ADA compliant units where necessary.

The Electrical systems appear to be in good condition having been replaced during the 1997 upgrade. Distribution panels were noted as having additional breaker spaces to meet any future needs and to alleviate the possibility of overloading individual circuits when new equipment and or devices are added to the existing circuitry. The lighting systems are newer; appear to utilizing the latest lamping and ballasting configurations for maximum

energy efficiency. Motion sensor lighting controls are present throughout. Fire alarm system is newer and in very good condition and appears to provide sufficient coverage throughout.



Memorandum

Memorandum Date: April 10, 2012

Written To: Kenneth C. Best, AIA, Principal; Drummey Rosane Anderson, Inc.

Project Name: Seekonk Building Studies

CES Project Number: 2011153.00

Regarding: Hurley Middle School Boiler Replacement

Written By: Peter M. Austin, Jr., P.E.

Ken,

Below is a summary of several options, including benefits and disadvantages, for addressing the failed steam boiler at the Hurley Middle School in Seekonk, Massachusetts.

Option 1: Repair of the existing boiler:

This option entails replacing the damaged sections within the damaged boiler with new sections. The anticipated cost for this option is approximately \$5,000 by H.B. Smith.

- Benefits:
 - Anticipated as the lowest first cost.
 - Shortest construction schedule.
 - Less impact on existing systems.
 - Familiarity of the maintenance personnel with the existing boiler.
- Disadvantages
 - If the root cause of the failure is not addressed, the potential for failure will remain.
 - The remaining sections of this boiler and possibly the other two boilers may have been damaged, resulting in the potential for subsequent failures regardless of whether the root cause of this failure has been addressed.
 - Inefficient control system remains in service.

Option 2: Repair of all three existing boilers:

This option entails replacing the damaged sections within the damaged boiler with new sections, inspecting the remaining boilers and replacing sections within the remaining boilers as required. The anticipated cost for this option is approximately \$15,000 (note that this cost is contingent upon the results of the inspection of the remaining boilers).

- Benefits:
 - Anticipated as lower first cost than boiler replacement.

- Shorter construction schedule.
- Less impact on existing systems than boiler replacement.
- Familiarity of the maintenance personnel with the existing boilers.
- Disadvantages
 - If the root cause of the failure is not addressed, the potential for failure will remain.
 - Inefficient control system remains in service.

Option 3: Replacement of the existing boiler:

This option entails replacing the damaged boiler with a higher efficiency steam boiler that can readily be converted to hot water at a later date. The anticipated cost for this option is approximately \$60,000 (note that this cost is contingent upon the final boiler selection and final installation design).

- Benefits:
 - Replacement boiler will likely have higher efficiency, resulting in lower operating cost.
 - Eliminates the concern that existing damage will cause premature failure of the boiler.
 - Replacement boiler potentially can be easily converted to hot water from steam.
- Disadvantages
 - There are potentially architectural difficulties installing the replacement boiler.
 - Anticipated as higher first cost.
 - Longer construction schedule.
 - More impact on existing systems.
 - Maintenance personnel may have to learn new equipment.
 - The remaining sections of the other two boilers may have been damaged, resulting in the potential for subsequent failures regardless of whether the root cause of this failure has been addressed.

Option 4: Replacement of all three existing boilers:

This option entails replacing the existing boilers with higher efficiency steam boiler that can readily be converted to hot water at a later date. The anticipated cost for this option is approximately \$180,000 (note that this cost is contingent upon the final boiler selection and final installation design).

- Benefits:
 - Replacement boilers will likely have higher efficiency, resulting in lower operating cost.
 - Eliminates the concern that existing damage will cause premature failure of the boilers.
 - Replacement boilers potentially can be easily converted to hot water from steam.
 - A new control system will allow for greater efficiency. The replacement boilers can automatically shut down and restart as the heating demand changes.
- Disadvantages
 - There are potentially architectural difficulties installing the replacement boilers.
 - Anticipated as higher first cost.
 - Longer construction schedule.
 - More impact on existing systems.
 - Maintenance personnel may have to learn new equipment.

Option 5: Replacement of all three existing boilers with hot water boilers:

This option entails replacing the existing boilers with higher efficiency condensing hot water boilers. Installation of condensing boilers will required replacement of all the steam and condensate piping with heating hot water piping, replacement of all steam coils with hot water coils and installation of heating hot water pumps. The anticipated cost for this option is approximately \$450,000 (note that this cost is contingent upon the final boiler selection and final installation design).

- Benefits:
 - Replacement boilers will have higher efficiency, resulting in lower operating cost.
 - Eliminates the concern that existing damage will cause premature failure of the boilers.
 - A new control system will allow for greater efficiency. The replacement boilers can automatically shut down and restart as the heating demand changes.
- Disadvantages
 - There are potentially architectural difficulties installing the replacement boilers.
 - Anticipated as highest first cost.
 - Longer construction schedule.
 - Most impact on existing systems, including replacement of all steam and condensate piping and all steam coils.
 - Maintenance personnel will have to learn new equipment.

In the event the Owner selects Options 1, 2 or 3, CES recommends that H.B. Smith review the existing boiler installation and operation to determine why the boiler has failed and recommend modifications to ensure the two remaining boilers will not fail and that these recommendations are implemented. This review should be undertaken regardless of whether the boiler is repaired or replaced.

In the event the Owner opts to repair the failed boiler (Options 1 or 2), CES would recommend that H.B. Smith inspect the remaining sections within the boiler to ensure these sections have not been damaged and will not fail in the near future.

Please contact me if you have any questions or if I can be of any additional assistance.

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Cc:

Mechanical and Electrical Systems
Existing Conditions Narrative

North Street School
Seekonk, Massachusetts

September 14, 2011

Prepared By
Consulting Engineering Services, Inc.
101 Federal Street, Suite 1936, Boston, Massachusetts 02110
CES Project No. 2011153.0

A. PLUMBING NARRATIVE

APPLICABLE CODES AND STANDARDS

The plumbing systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th Edition
2. Massachusetts Fire Prevention Regulations
3. Massachusetts State Fuel Gas and Plumbing Code
4. ASHRAE 90.1

PLUMBING UTILITIES

1. Domestic Water:

- a. Existing Domestic Water Service: The existing building is currently served by 4" domestic water service located within the basement storage area adjacent to the sprinkler service. The domestic water service equipment includes a water meter and isolation valves. This water service currently serves all of the Schools domestic water needs. The water distribution system is original to the building and each subsequent addition/renovation.



2. Natural Gas:

- a. Existing Natural Gas Service: There is currently an existing natural gas service to the building serving the boilers, hot water heaters and select kitchen equipment. This service enters the front of the building at the boiler room.

3. Sanitary:

- a. Existing Sanitary Service: The School's sanitary sewer system provides sanitary waste drainage for plumbing fixtures located throughout the School. The piping material above grade is primarily cast iron. The Plumbing fixtures drain to buried sanitary waste piping exiting the building and tying into the facilities septic sewer system.

4. Fuel Oil:

- a. There is no onsite fuel storage.

PLUMBING FIXTURES AND SPECIALTIES

1. Existing plumbing fixtures are as follows:

- Water closets are floor mounted; manual flush valve, vitreous china, units appear in very good condition.



- Urinals are wall mounted vitreous china; with manual flush valves, units appear in very good condition.
- Lavatories are wall hung vitreous china. Faucets are single lever handle type, units appear in good condition.
- Drinking fountains are surface mounted stainless steel. Most appear to be ADA compliant, and are in very good condition.



- Typical classroom sinks are counter top, stainless steel units with single lever faucets and water fountain. Most appear to not be ADA compliant.

DOMESTIC HOT WATER SYSTEMS

1. Existing Domestic Hot Water System: The Schools domestic hot water is generated by a 175 gallon tank type gas fired hot water heater. The unit appears in good condition.

B. FIRE PROTECTION NARRATIVE

FIRE PROTECTION SERVICE

1. There is a complete fire protection (sprinklers) system in the facility. Coverage appears to cover all areas of the buildings. The system is complete with an 8" incoming line located in the basement storage area, complete with back flow prevention devices and fire alarm system monitoring.



2. Kitchen hood is provided with an ansul chemical fire suppression system.

C. MECHANICAL SYSTEMS:

APPLICABLE CODES AND STANDARDS

The mechanical systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th edition
2. Massachusetts Fire Prevention Regulations
3. International Mechanical Code
4. NFPA, Latest Version
5. ASHRAE 90.1

EXISTING SYSTEMS

1. The existing building is heated by two hot water boilers. The two boilers are both manufactured by H.B. Smith one being newer approximately 25 years old and rated

2146 MBH and the second being older (40+/- years old) with an indeterminable output but believed to be in the same 200MBH range. Both boilers have their burners operating on Natural gas as the fuel source. These two boilers are both old one having already exceeded its life expectancy and the second currently at its life expectancy. We were informed that ongoing repairs have been necessary on both. These units are in fair and poor condition and should be replaced.



2. The present Heating and Ventilating systems consist of finned tube radiation, unit ventilators in the classrooms and exhaust systems. Areas such as the gymnasium and cafeteria are also served by unit ventilators, fin tube radiation and exhaust systems. The mechanical equipment is located primarily on exterior walls and in various indoor mechanical spaces within the building. The air-handling units have hot water heating coils, filter sections and exhaust fans.
3. Unit Ventilators in classrooms appear to be approximately 15-20 years old manufactured by MSI. These units appear to be in good condition and have been operating without any noted issues according to operations personal.



4. Exhaust systems servicing the classrooms utilize a single exhaust grille to draw air out of the classroom. Exhaust grills are located in the ceiling of the room on the opposite wall as the unit ventilators.

5. The existing temperature controls in the school are pneumatic; it appears that the system has been recently upgraded with a new pneumatic control panel. The system compressor appears to be about 7-10 years old and in good condition.
6. Most areas within the school area to be air conditioned via a large number of thru the wall/window AC units these appear to serve classrooms and small office areas throughout the school.

D. ELECTRICAL NARRATIVE

APPLICABLE CODES AND STANDARDS

The electrical power, interior lighting, and fire alarm systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th Edition
2. Massachusetts State Fire Prevention Regulations
3. NFPA Latest Edition
4. 2010 Massachusetts Electrical Code
5. Illuminating Engineering Society Lighting Handbook (IESNA)
6. ASHRAE 90.1

EXISTING SYSTEMS

1. The building is served by a single electrical service rated 800 amperes, 208Y/120volts, 3-phase, 4-wire. The service equipment consists of utility company pad mounted transformer believed to be a 150 KVA unit, an underground feed to an 800amp Challenger main distribution panel with utility metering equipment located in the basement main electric room. The predominance of the main distribution equipment service equipment is newer (1992) and in very good condition.



2. There are a number of electrical panels located throughout the facility. The predominance of these panel boards are Challenger panels believed to have been installed during the most recent renovation some panels however do exist that appear to be much older. The condition of these newer panel boards is very good with the majority of the panel boards having spare circuit breakers available for new circuits to be added, or include the space to add new circuit breakers. The condition of the older panels however is fair to poor.
3. The lighting throughout the facility consists primarily of recess mounted 2x4 lensed fluorescent fixtures. In the classrooms and other academic areas pendent mounted direct/indirect fluorescent fixtures are utilized. The lighting throughout the facility is newer and in good condition and includes motion sensor control. The light levels appear to be within recommended levels.



4. The fire alarm system is a Notifier zoned system. There are manual fire alarm pull stations, horn strobes located throughout the building. Heat and smoke detectors are present in select areas including smoke detectors in all corridors. The system appears to be 15+/- years old and in good condition and it was noted by school personnel during the walk-thru that the system had been problem free. Coverage and compliance with current codes appears to be sufficient.



5. Site lighting is accomplished via building mounted wall packs and pole mounted shoebox HID type fixtures, all fixtures appear to be in good condition.
6. There is currently no emergency standby generator to serve the facility.
7. Life safety emergency lighting is provided remote light heads wired to multiple central battery units throughout the facility. These units and central battery units appear in good condition



8. Exit lighting is installed throughout, is wired to central battery units as their emergency source and are in good condition.
9. The existing clock system was noted as non-functioning with clocks within the school now operating on batteries.



10. The existing paging system was noted as functioning without any problems and in good condition.
11. There is currently an AE National security system including magnetic contacts at all exterior entry points and motion sensors throughout. There is also a CCTV system with cameras both interior and exterior. Both systems have been operating without any noted issues.

E. MEP SYSTEMS CONCLUSION

In general, the systems vary in age from original to the building, to as recent as 2-3 years old. Some equipment such as the unit ventilators in the classrooms are older but still 10+ years to their life expectancy. The boilers one having already exceeded its life expectancy and the other current at the end of it should both be replaced in order to improve the reliability, efficiency and to cut down on the operational and maintenance costs associated with the heating system. The upgrade of the controls system appears to have already taken place.

Plumbing systems seem to be newer and in good physical and working condition. Faucets and flush valves all should be replaced with automatic units as a water conservation measure. Select sinks should be replaced with ADA compliant units where necessary mainly those units located in the classrooms.

The Electrical systems appear to be in very good condition having been replaced during the 1992 upgrade of the electrical systems. The majority of the distribution panels were noted as having additional breaker and/or spaces to meet any future needs and to alleviate the possibility of overloading individual circuits when new equipment and or devices are added to the existing circuitry. Older panels should however be replaced. The lighting systems are newer; appear to utilizing the latest lamping and ballasting configurations for maximum energy efficiency. The addition of automated lighting controls should be incorporated in any areas not already covered in order to meet current energy codes and to save on energy costs. Fire alarm system is in good condition and appears to provide sufficient coverage throughout. The security system appears to provide sufficient coverage and is operating without issue. A new clock system should be installed to replace the existing system which is non-functional at this point.

Mechanical and Electrical Systems
Existing Conditions Narrative

Aitken Elementary School
Seekonk, Massachusetts
September 14, 2011

Prepared By
Consulting Engineering Services, Inc.
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CES Project No. 2011153.0

A. PLUMBING NARRATIVE

APPLICABLE CODES AND STANDARDS

The plumbing systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th Edition
2. Massachusetts Fire Prevention Regulations
3. Massachusetts State Fuel Gas and Plumbing Code
4. ASHRAE 90.1

PLUMBING UTILITIES

1. Domestic Water:

- a. Existing Domestic Water Service: The existing building is currently served by a domestic water service located within the boiler/mechanical room. The domestic water service equipment includes a water meter and isolation valves. This water service currently serves all of the Schools domestic water needs. The water distribution system is original to the building and each subsequent addition/renovation.

2. Natural Gas:

- a. Existing Natural Gas Service: There is currently an existing natural gas service to the building serving the boilers, hot water heaters and select kitchen equipment. This service enters the rear of the building at the boiler room.



3. Sanitary:

- a. Existing Sanitary Service: The School's sanitary sewer system provides sanitary waste drainage for plumbing fixtures located throughout the School. The piping material above grade is primarily cast iron. The Plumbing fixtures drain to buried sanitary waste piping exiting the building and tying into the facilities septic sewer system.

4. Fuel Oil:

- a. There is no onsite fuel storage.

PLUMBING FIXTURES AND SPECIALTIES

1. Existing plumbing fixtures are as follows:

- Water closets are wall mounted; auto flush valve, vitreous china, units appear in very good condition.



- Urinals are wall mounted vitreous china, with auto flush valve; units appear in very good condition.
- Lavatories are wall hung vitreous china. Faucets are single lever handle auto type, units appear in very good/good condition.
- Drinking fountains are surface mounted stainless steel dual level units a few older Vitreous china recess mounted unit do exist. Most appear to be ADA compliant, and are in very good condition.
- Typical classroom sinks are counter top, stainless steel units with dual lever gooseneck faucets. Most appear to not be ADA compliant.



DOMESTIC HOT WATER SYSTEMS

1. Existing Domestic Hot Water System: The Schools domestic hot water is generated by a 85 gallon tank type gas fired hot water heater. The unit is approximately 5-6 years old and appears in very good condition.



B. FIRE PROTECTION NARRATIVE

FIRE PROTECTION SERVICE

1. There is a complete fire protection (sprinklers) system in the facility. Coverage appears to cover all areas of the buildings. The system is complete with an 8" incoming line, all back flow prevention devices and fire alarm system monitoring. The service enters in the boiler/mechanical room.



2. Kitchen hood is provided with an ansul chemical fire suppression system.

C. MECHANICAL SYSTEMS:

APPLICABLE CODES AND STANDARDS

The mechanical systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th edition
2. Massachusetts Fire Prevention Regulations
3. International Mechanical Code
4. NFPA, Latest Version
5. ASHRAE 90.1

EXISTING SYSTEMS

1. The existing building is heated by two hot water boilers. The two boilers are both manufactured by Smith were installed during the 1997 renovation and are in very good condition. Both boilers have their burners operating on Natural gas. These two boilers are both fairly new and operating without any noted problems. Both units are rated 2403 MBH and are in very good condition.



2. The present Heating and Ventilating systems consist of finned tube radiation, unit ventilators in the classrooms and exhaust systems. Areas such as the gymnasium and cafeteria are served by two ceiling hung H&V units which include a supply air component along with baseboard fin tube radiation. The mechanical equipment is located primarily on exterior walls and in various indoor mechanical spaces within the building. The air-handling units have hot water heating coils, filter sections and exhaust fans. The library area includes heating and air conditioning provided via roof top units which were noted as functioning without and noted issues.

- Unit Ventilators in classrooms are a mix with approximately 50% of the units having been replaced in recent years and the remaining units being approximately 30+/- years old manufactured by Herman Nelson. The older units have exceeded their life expectancy and repairs are becoming more frequent. Although they have been able to obtain parts for repairs when needed, obtaining these parts will become more of an issue as more units fail and require replacement parts, these older units should be replaced.



- The existing temperature controls in the school are a pneumatic the controls system compressor is new and in very good condition.



- Areas such as the main office, Nurses area and Library are provided with Air Conditioning via Roof top unit. Additionally a large number of thru the wall/window AC units were noted serving classrooms and small office areas throughout the school.

D. **ELECTRICAL NARRATIVE**

APPLICABLE CODES AND STANDARDS

The electrical power, interior lighting, and fire alarm systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th Edition
2. Massachusetts State Fire Prevention Regulations
3. NFPA Latest Edition
4. 2010 Massachusetts Electrical Code
5. Illuminating Engineering Society Lighting Handbook (IESNA)
6. ASHRAE 90.1

EXISTING SYSTEMS

1. The building is served by a single electrical service rated 800 amperes, 208Y/120volts, 3-phase, 4-wire and is located in the main electric room. The service equipment consists of utility company pad mounted transformer believed to be a 150 KVA unit, with pad mounted utility metering equipment an underground feed to a 800amp Siemens main distribution panel located in the main electric room. The predominance of the main distribution equipment service equipment is new (1997) and in very good condition.



2. There are a number of electrical panels located throughout the facility. The predominance of these panel boards are Siemens panels believed to have been installed during the most recent renovation. The condition of these panel boards is very good with the majority of the panel boards having spare circuit breakers available for new circuits to be added, or include the space to add new circuit breakers.
3. The lighting throughout the facility consists primarily of recess mounted 2x2 volumetric fluorescent and 1x4 volumetric fixtures. In the classrooms and other academic areas pendent mounted wraparound fluorescent fixtures are utilized. The lighting throughout the facility is newer and in very good condition and includes motion sensor control. The light levels appear to be within recommended levels.

4. The fire alarm system is a Simplex 4100 addressable system. There are manual fire alarm pull stations, horn strobes located throughout the building. Heat and smoke detectors are present in select areas including smoke detectors in all corridors. The system appears to be newer in very good condition and it was noted by school personnel during the walk-thru that the system had been problem free.



5. Site lighting is accomplished via building mounted wall packs and flood lights these appear to be in good condition.
6. There is currently an Olympian gas fired emergency standby generator that serves the facility. This unit is located outside at the rear of the school and appears in good condition. It was noted by operations personal that the unit was functioning without any noted problems. This unit serves the life needs of the school including emergency lighting.



7. Life safety emergency lighting is provided via select fixtures throughout the facility being wired to emergency lighting circuits.
8. Exit lighting is installed throughout, is wired to emergency generator circuits and is in good condition.

9. The existing clock system was noted as functioning without problems.
10. The existing paging system was noted as functioning without any problems.
11. There is currently a FB II security system including cameras both interior and exterior motion sensors and magnetic contacts at all exterior entry points. This system has been operating without any noted issues.

E. MEP SYSTEMS CONCLUSION

In general, the systems vary in age from original to the building, to as recent as 2-3 years old with the predominance of the major systems having been upgraded during the 1997 renovation project. Some equipment such as the unit ventilators in the classrooms of the older wing which have not already been replaced have reached their life expectancy and should be replaced in order to improve the reliability, efficiency and to cut down on the operational and maintenance costs associated with the heating system.

Plumbing systems seem to be newer and in good physical and working condition. Faucets and flush valves all appear to have been upgraded to automatic units as a water conservation measure. Select sinks should be replaced with ADA compliant units where necessary mainly those units located in the classrooms.

The Electrical systems appear to be in very good condition having been replaced during the 1997 upgrade. Distribution panels were noted as having additional breaker and/or spaces to meet any future needs and to alleviate the possibility of overloading individual circuits when new equipment and or devices are added to the existing circuitry. The lighting systems are newer; appear to utilizing the latest lamping and ballasting configurations for maximum energy efficiency. The addition of automated lighting controls should be in any areas not already covered should implemented in order to meet current energy codes and to save on energy costs. Fire alarm system is newer and in very good condition and appears to provide sufficient coverage throughout. The existing emergency generator appears in good condition and should continue to be maintained and tested annually. The security system appears to provide sufficient coverage and is operating without issue.

Mechanical and Electrical Systems
Existing Conditions Narrative

Seekonk High School
Seekonk, Massachusetts

September 14, 2011

Prepared By
Consulting Engineering Services, Inc.
101 Federal Street, Suite 1936, Boston, Massachusetts 02110
CES Project No. 2011153.0

A. PLUMBING NARRATIVE

APPLICABLE CODES AND STANDARDS

The plumbing systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th Edition
2. Massachusetts Fire Prevention Regulations
3. Massachusetts State Fuel Gas and Plumbing Code
4. ASHRAE 90.1

PLUMBING UTILITIES

1. Domestic Water:

- a. Existing Domestic Water Service: The existing building is currently served by a 3" inch domestic water service located in the boiler/mechanical area. The domestic water service equipment includes a water meter and isolation valves. This water service currently serves all of the Schools domestic water needs. The water distribution system is original to the building and each subsequent addition.



2. Natural Gas:

- a. Existing Natural Gas Service: There is currently an existing natural gas service to the building serving the boilers, hot water heaters and select kitchen equipment. This service enters the rear of the building at the boiler room.

3. Sanitary:

- a. Existing Sanitary Service: The School's sanitary sewer system provides sanitary waste drainage for plumbing fixtures located throughout the School. The piping

material above grade is primarily cast iron. The Plumbing fixtures drain to buried sanitary waste piping exiting the building and tying into the facilities septic sewer system.

4. Fuel Oil:

- a. There is no onsite fuel storage.

PLUMBING FIXTURES AND SPECIALTIES

1. Existing plumbing fixtures are as follows:

- Water closets are wall mounted; manual flush valve, vitreous china units appear to be in very good condition.



- Urinals are wall mounted vitreous china; manual flush valve, units appear to be in very good condition.
- Lavatories are wall hung half round wash stations with auto activation these units are newer and in good condition.



- Drinking fountains are surface mounted stainless steel dual level units. Most appear to be ADA compliant, and are in very good condition.
- Janitor's mop sinks are floor mounted basins with 2-faucets and vacuum breakers. These basins appear in very good condition.

- Typical classroom sinks are counter top, stainless steel units with dual lever gooseneck faucets. All are non-ADA compliant.



DOMESTIC HOT WATER SYSTEMS

1. Existing Domestic Hot Water System: The Schools domestic hot water is generated by a PX Thermific gas fired boiler and storage tank with circulator pump. The unit appears new and in very good condition.



B. FIRE PROTECTION NARRATIVE

FIRE PROTECTION SERVICE

1. There is a complete fire protection (sprinklers) system in the facility. Coverage appears to cover all areas of the buildings. The system is complete with all back flow prevention devices and fire alarm system monitoring.
2. Kitchen hood is provided with an ansul chemical fire suppression system.

C. MECHANICAL SYSTEMS:

APPLICABLE CODES AND STANDARDS

The mechanical systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th edition
2. Massachusetts Fire Prevention Regulations
3. International Mechanical Code
4. NFPA, Latest Version
5. ASHRAE 90.1

EXISTING SYSTEMS

1. The existing building is heated by two hot water boilers. The two boilers are Smith with burners currently operating on Natural gas. These two boilers are approximately 7 years old and in very good condition. Both boilers are rated 3893 MBH.



2. The present Heating and Ventilating systems consist of finned tube radiation, unit ventilators in the classrooms and exhaust systems. Areas such as the Gymnasium/Cafeteria are served by ceiling hung H&V units and include a supply air component the pool area is served by a roof top unit and includes dehumidification. The mechanical equipment is located primarily on exterior walls and in various indoor

mechanical spaces within the building. The air-handling units have hot water heating coils, filter sections and exhaust fans.

3. Unit Ventilators in classrooms are newer units, are approximately 7 years old having been replaced in 2003 and are in very good condition.



4. The existing temperature controls in the school are a Johnson Controls DDC system which is operating without issue. A desire was expressed to upgrade this system to the latest version in order to increase the capabilities and allow the tie in and control capabilities of all the schools for a central location.
5. Some thru the wall/window AC units exist in select small office areas were noted.



D. ELECTRICAL NARRATIVE

APPLICABLE CODES AND STANDARDS

The electrical power, interior lighting, and fire alarm systems were reviewed in conformance with the requirements of the following codes and regulations and all applicable local authority requirements.

1. Massachusetts State Building Code 8th Edition
2. Massachusetts State Fire Prevention Regulations
3. NFPA Latest Edition

4. 2010 Massachusetts Electrical Code
5. Illuminating Engineering Society Lighting Handbook (IESNA)
6. ASHRAE 90.1

EXISTING SYSTEMS

1. The building is served by a single electrical service rated 1600 amperes, 208Y/120volts, 3-phase, 4-wire and is located in the main electric room. The service equipment consists of utility company pad mounted transformer with pad mounted utility metering; an underground feed to a 1600amp Siemens main switchboard and distribution section. The predominance of the main distribution equipment and service equipment is new and in very good condition.



2. There are a number of electrical panels located throughout the facility. These panelboards are newer Siemens panels believed to have been installed at the time of the 2003 renovation. The condition of these panel boards is very good. The majority of the panel boards do have spare circuit breakers available for new circuits to be added, or include the space to add new circuit breakers to address future needs.

3. The lighting throughout the facility consists primarily of recess mounted 2x4 and 2x2 volumetric fluorescent fixtures. The lighting throughout the facility is newer and in very good condition. The light levels appear to be within recommended levels.



4. The fire alarm system is a Simplex 4100 addressable system. There are manual fire alarm pull stations, horn strobes located throughout the building. Heat and smoke detectors are present in select areas. It was noted by school personnel during the walk-thru that the system was newer and had been problem free. All devices appear to provide adequate coverage and to conform to current codes.



5. Site lighting is accomplished via building mounted wall packs and a number of pole mounted site lights both appear to be in good condition.

6. There is a 100KW superior natural gas emergency generator located at the rear of the building just outside the boiler room. This unit appears newer and in very good condition. We were informed that this unit covers all the life safety power requirements.



7. Life safety emergency lighting is provided via select fixtures throughout the school being wired to emergency lighting circuits.
8. The existing clock system and paging system both were installed new at the time of the 2003 renovation and were noted by operations personal as operating without and noted problems.
9. There is currently a FBI security system including cameras at the main doors and motion sensor detection devices throughout. This system has experienced multiple failures according to operations personal and an upgrade of the system is desired to both correct the ongoing problems and to add additional exterior cameras at sensitive locations.



E. MEP SYSTEMS CONCLUSION

In general, the systems vary in age from original to the building (40+ years old), to as recent as 5-7 years old. Some equipment such as the unit ventilators in the classrooms, the HVAC control system and the boilers were all replaced during the most recent 2003 renovation and are in very good condition.

Plumbing systems although older seem to be in good working condition. Replacement of flush valves on toilets and urinals to automatic units should be implemented as a water conservation measure. Select sinks should be replaced with ADA compliant units including those in the classrooms.

The Electrical systems appear to be in very good condition and seemed to have been completely replaced during the most recent renovation. The lighting systems are newer and utilize the current ballast and lamping technologies. Motion sensor lighting control has been installed throughout. Fire alarm system has been upgraded and is in very good condition. The security system and the HVAC controls system should be upgraded to offer the expandability and operational features desired by operational personnel.

Town of Seekonk Municipal Buildings

Structural Report

August 25, 2011

We visited the town on August 8, 2011 to view the various municipal buildings covered in this report. Our assessment is based solely on visual inspections of the exterior and some limited interior spaces. We did not remove any finishes, and, in most instances, were unable to view the building structures in their entirety.

Other than a general statement relating to future work and code issues, none of the buildings were assessed for compliance with structural requirements of the Massachusetts State Building Code (MSBC) incorporating the International Existing Building Code (IEBC).

TOWN HALL

This single story building with a partial basement appears to have traditional concrete foundations. There is no evidence of any distress or settlement to these elements. The main framing consists of wood stud walls likely supporting wood trusses. The first floor slab over the basement has eight inch deep precast prestressed plank with two inch topping, the remainder of the slab at this level is concrete on grade. There is no evidence of any distress at the first floor.

The exterior has vinyl siding and is in reasonable condition.

The lightweight nature of the structure, unusual for a town hall, may be able to resist code mandated wind loads; however, with ever increasing climactic influences, the ability of the building to resist increased wind loadings may be in question. Resistance depends on adequate anchorage of the load bearing elements and details of these were not available for review. It is unlikely that the building qualifies for designation as a shelter.

LIBRARY

The single story structure appears to be supported on concrete foundation walls which are exposed to a height above grade of approximately four feet. There are numerous vertical shrinkage cracks in this wall, but no evidence of any settlement or differential settlement (Reference Photos 1 – 5).

The exterior has vertical wood paneling presumably supported by stud walls.

The main roof structure is supported by steel framing. Based on the available plan layout, it would appear that there are no obvious lateral load resisting elements. The layout of partition walls is not conducive to provision of bracing and there did not appear to be any other lateral structural elements.

The building may well have complied with code requirements at the time of construction; but, a brief overview questions the capacity to resist potential increased wind loading. It is unlikely that the building can be designated as a shelter.

ANIMAL SHELTER

The small, prefabricated metal building is supported on concrete foundations. There were no obvious signs of any distress to either foundations or metal framing (Reference Photos 6-7).

FIRE STATION – COUNTY STREET

The single story building with floor framing at the attic has concrete masonry walls supporting wood roof trusses. The exterior has a mixture of vinyl siding, wood sheathing above the doors at the rear and veneer brick between and above the front overhead doors. Foundations are traditional cast-in-place concrete while the floor is cast-in-place concrete slab-on-grade.

There are no obvious signs of any settlement or distress to main walls and foundations. There is however, decay at the foundation/brick interface at the front doors (Reference Photos 8-9). The metal fire escape is in poor condition (Reference Photos 10, 11, 12). The exterior sheathing at the rear is in decay. The chimney is in poor condition with missing brick and joint decay (Reference Photo 13). With the building technically having been unoccupied (used for storage only), any repairs would require compliance with the Massachusetts State Building Code (MSBC) and the International Existing Building Code (IEBC).

HIGHWAY DEPARTMENT GARAGE

The single story structure has CMU on the exterior, a split level first floor slab-on-grade and a flat wood plank roof supported on steel beams. The lower level has concrete walls to grade level at the side and rear.

The exterior has been modified over the years and has brick, patterned block and parged block (Reference Photos 14, 15, 20, 21, 22 and 23). Its condition is poor, particularly at the front office elevation where there is severe corrosion to the steel lintels at the windows (Reference Photos 16, 17, 18 and 19).

While the exterior is cosmetically inferior, the exterior walls, viewed from the interior, are in sound condition. (Interior view Photo 24). There is no evidence of any cracking or distress between windows and the bearing at beam locations is in sound condition. The slabs-on-grade exhibit cracking and some localized distress. Overall, the building has significant defects which should be addressed.

MARTIN ELEMENTARY SCHOOL

The original building was constructed in 1970 with an addition in 1994. The original school exterior wall system was removed and replaced with traditional stud and brick. The increase in wall thickness was achieved by bolting galvanized angles to foundations to support the brick veneer (Reference Photo 25). Care needs to be taken to ensure the exterior grading and landscaping is below these angles to avoid corrosion which can occur even with galvanized elements.

There are no concerns with the 1994 addition and the roof framing for the 1970 original building appears to be in sound condition. There are no obvious areas where drifted snow would cause problems.

HIGH SCHOOL

The original building consists of a single story with a partial two story academic wing. It appears to be steel framed on traditional concrete foundations.

The exterior has brick veneer and there are localized conditions where cracked brick is evident (Reference Photos 26, 27, 28, 29, 30 and 31).

The 2003 addition consists of an auditorium, gymnasium and pool structure, and is in sound condition. There is discoloration to the steel roof framing above the pool (Reference Photos 32 and 33). This is as a result of the initial paint system and/or preparation of the steel. There are no structural concerns; however, careful consideration should be given to any repainting where treatment needs to ensure a properly prepared surface.

The exterior of the original buildings should be reviewed and repairs and re-pointing implemented.

AITKEN ELEMENTARY SCHOOL

The single story structure has steel framing supporting glulam wood framing and steel joists. Foundations are traditional cast-in-place concrete spread footings.

The exterior is in sound condition with no evidence of distress at foundations or walls.

The brick chimney shows some deterioration and should be repaired to avoid future problems.

NORTH STREET ELEMENTARY SCHOOL

The single story building with partial basement has traditional concrete foundations with load bearing masonry, steel columns and pitched wood roof framing.

Apart from localized cracking and mortar loss at unit ventilators, the exterior masonry is in reasonable condition. The brick in the courtyard is in good condition and generally all structure and walls are in sound condition.

PLEASANT STREET ELEMENTARY SCHOOL

The school has traditional cast-in-place concrete foundations supporting load-bearing masonry with wood framing at the floors and wood truss and rafters at the pitched roofs.

The exterior brick shows signs of severe distress and decay on the front elevation, particularly at unit ventilators (Reference Photos 34, 35, 36, and 37) and at exterior projections (Reference Photo 38). Concrete at the entrance steps shows spalling and decay (Reference Photo 39).

The wood framing at the roof (Reference Photo 40) appears to be in sound conditions as viewed from the access hatch. There does not appear to be any distress to the main timber members and wood sheathing.

The glulam portal at the gymnasium and wood roof deck is in sound condition (Reference Photo 41).

The brick chimney is in poor condition, even though it has been previously repaired.

Attention needs to be paid to the exterior brick where localized cracking and joint distress is evident.

HURLEY MIDDLE SCHOOL

The middle school has a two story academic wing and a single story at the core areas, i. e. gymnasium, library, cafeteria and administration.

All exposed structural elements appear in sound condition.

The exterior façade is in reasonable condition; however, there is some localized distress at brick mortar joints (Reference Photos 42, 43, and 44). There is evidence of staining and mold at some of the exterior split faced block (Reference Photo 45).

The brick chimney, as viewed from the ground, appears to be in sound condition (Reference Photo 46).

EXECUTIVE SUMMARY

The existing condition of the municipal buildings has been described. The town should also be aware of code implications should repair, alterations, change of occupancy or additions be contemplated. Code compliance with MSBC incorporating IEBC would be required.

Based on our observations, none of the buildings have the capacity for any vertical expansion, if an expansion is required. Any additions, if anticipated, should be kept structurally separate and constructed under the Code for New Construction. Any proposed work in existing buildings should be carefully investigated and studied, using the various classifications in the MSBC and IEBC to achieve not only an economic structural solution, but, incorporation with other disciplines including architectural, mechanical electrical and plumbing.

PHOTOGRAPHS

Photo 1



Photo 2



Photo 3

Photo 4





Photo 5



Photo 6



Photo 7



Photo 8

Photo 9

Photo 10



Photo 11



Photo 12





Photo 13



Photo 14

Photo 15

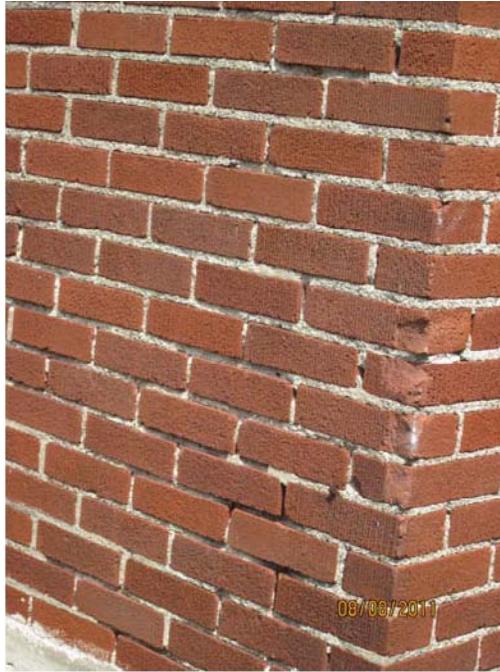


Photo 16





Photo 17



Photo 18



Photo 19

Photo 20

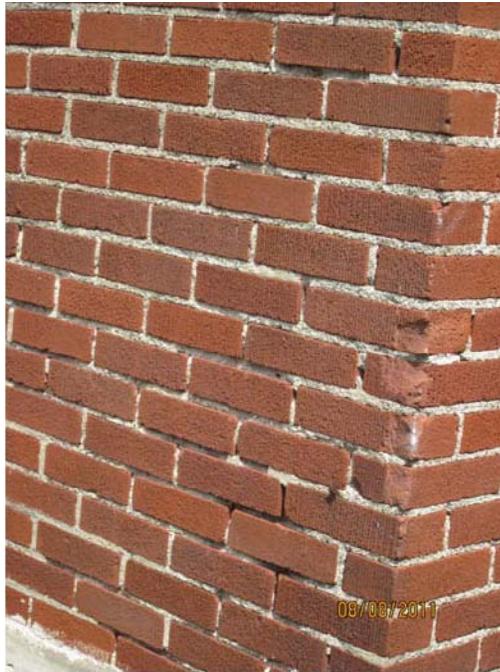




Photo 21



Photo 22

Photo 23

Photo 24





Photo 25

Photo 26





Photo 27



Photo 28

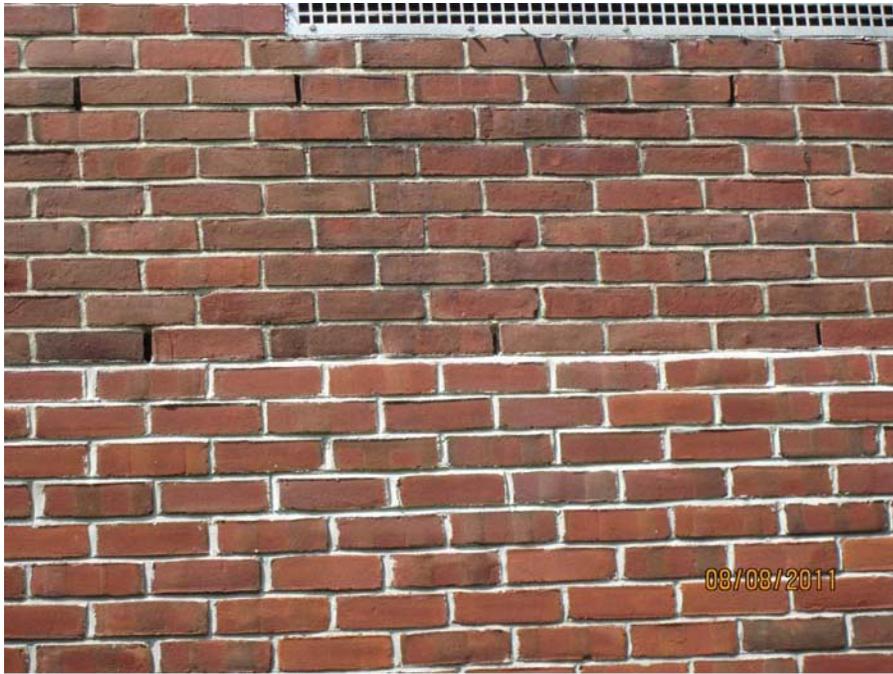


Photo 29



Photo 30



Photo 31



Photo 32



Photo 33



Photo 34



Photo 35

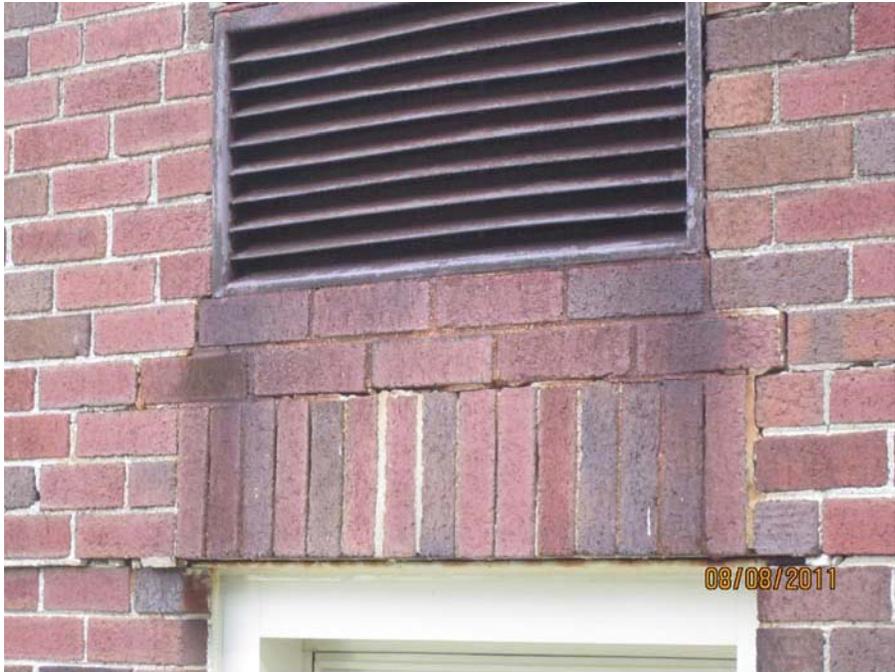


Photo 36



Photo 37

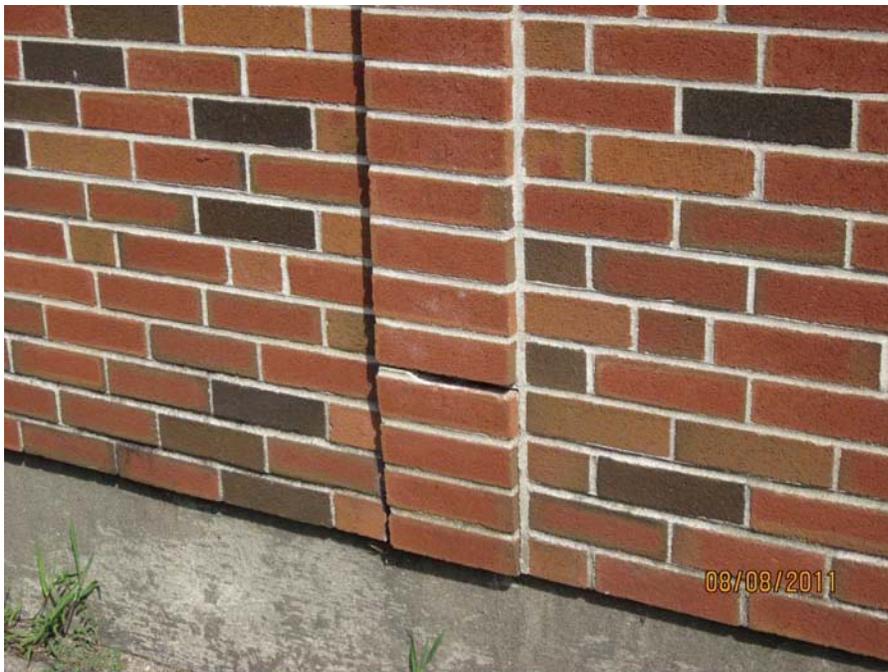


Photo 38



Photo 39



Photo 40



Photo 41



Photo 42



Photo 43



Photo 44



Photo 45

Photo 46



CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
 MARKUP LIST
 SEEKONK, MA 02771



Description	Note	Quantity	Unit	Price	Total
Markups - To Be Calculated Cumulatively					
General Conditions					
Project Value Less Than 200k				20.00%	
Project Value 200k - 500k				16.00%	
Project Value 500k - 1mil				14.00%	
Project Value 1mil - 2mil				12.00%	
Project Value 2mil - 5mil				10.00%	
Overhead & Profit					
Project Value Less Than 200k				23.00%	
Project Value 200k - 500k				18.00%	
Project Value 500k - 1mil				16.00%	
Project Value 1mil - 2mil				14.00%	
Project Value 2mil - 5mil				12.00%	
Design & Price Reserve				15.00%	
Escalation					
1 Years From Now	Feb-13			4.01%	
2 Years From Now	Feb-14			8.23%	
3 Years From Now	Feb-15			12.56%	
4 Years From Now	Feb-16			17.06%	
5 Years From Now	Feb-17			21.76%	
Bond					
Project Value Less Than 100k				3.00%	
Project Value 100k - 1mil				2.40%	
Project Value 1mil - 2mil				2.00%	
Project Value 2mil - 5mil				1.60%	
Project Value 5mil - 10mil				1.34%	
Soft Costs/Design Fees				30.00%	

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
TOWN HALL
SEEKONK, MA 02771

GFA 13,193



Description	Note	Quantity	Unit	Price	Total
Basic Quantities		GFA	Girth		
basement		3,744 sf	382 lf		
level 1		9,449 sf	672 lf		
Fire Alarm					\$
demo horns and strobes		13,193	sf	0.04	528
new horns and strobes		13,193	sf	0.22	2,902
booster panel, 6 1/2 amp		1	ea	1,164.91	1,165
battery back-up		1	ea	695.70	696
fire alarm wiring for booster only	allow	200	lf	9.14	1,828
assume reuse of existing wiring at device locations					
Sub Total - Direct Cost					7,119
General Conditions		20.00%			1,424
Overhead & Profit		23.00%			1,965
Design & Price Reserve		15.00%			1,576
Escalation	Feb-14	8.23%			995
Bond		3.00%			392
Soft Costs/Design Fees		30.00%			4,041
Total Project Cost					<u>\$17,512</u>
Cabinet Access					\$
remove and dispose metal base cabinets		7	lf	46.71	327
remove and dispose 2 burner cook top		1	ea	103.28	103
remove and dispose counter top sink		1	ea	86.05	86
new kitchenette		7	lf	659.87	4,619
patch floors		1	ea	155.36	155
patch walls		1	ea	346.47	346
Sub Total - Direct Cost					5,636
General Conditions		20.00%			1,127
Overhead & Profit		23.00%			1,555
Design & Price Reserve		15.00%			1,248
Escalation	Feb-14	8.23%			787
Bond		3.00%			311
Soft Costs/Design Fees		30.00%			3,199
Total Project Cost					<u>13,863</u>

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
TOWN HALL
SEEKONK, MA 02771

GFA 13,193



Description	Note	Quantity	Unit	Price	Total
Handicapped Ramps					\$
expand driveway for compliant ramp					
demo bit. Paving	240 sf	1	ea	617.50	618
assume 40 lf x 6 lf wide					
fine grade and compaction for ADA compliance	by hand	240	sf	0.92	221
new bit. Paving		240	sf	2.61	626
pavement markings		240	sf	2.47	593
Sub Total - Direct Cost					<u>2,058</u>
General Conditions		20.00%			412
Overhead & Profit		23.00%			568
Design & Price Reserve		15.00%			456
Escalation	Feb-14	8.23%			288
Bond		3.00%			113
Soft Costs/Design Fees		30.00%			1,169
Total Project Cost					<u><u>\$5,064</u></u>
Site Grading					\$
grade around building to slope away					
rough grading around perimeter of building		159	cy	see below	
assume 536 lf, 4 lf wide, 2 lf deep					
excavator and crew		2	days	946.50	1,893
excavator mobilization/demobilization		1	ea	472.26	472
landscape repairs, loam and seed		2,144	sf	0.50	1,072
no survey crew included					
Sub Total - Direct Cost					<u>3,437</u>
General Conditions		20.00%			687
Overhead & Profit		23.00%			949
Design & Price Reserve		15.00%			761
Escalation	Feb-14	8.23%			480
Bond		3.00%			189
Soft Costs/Design Fees		30.00%			1,951
Total Project Cost					<u><u>\$8,454</u></u>

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
TOWN HALL
SEEKONK, MA 02771

GFA 13,193



Description	Note	Quantity	Unit	Price	Total
Site Plantings					\$
Prune White Birch Overhanging Building		2	ea	164.01	328
Prune Rhododendrons	allow	10	ea	8.89	89
Move evergreen tree at flagpole		1	ea	350.74	351
Sub Total - Direct Cost					<u>768</u>
General Conditions		20.00%			154
Overhead & Profit		23.00%			212
Design & Price Reserve		15.00%			170
Escalation	Feb-14	8.23%			107
Bond		3.00%			42
Soft Costs/Design Fees		30.00%			436
Total Project Cost					<u><u>\$1,889</u></u>
Foundation Insulation					\$
cover exposed insulation at grade level					
hand excavation and compaction at building perimeter		50	cy	55.33	2,767
backfill		50	cy	53.35	2,668
assume 672 lf, 2 lf wide, 1 lf deep, 1 lf exposed					
parge exposed insulation, waterproof Portland cement 1/2", 2 coats		1,344	sf	8.29	11,142
landscape repairs, loam and seed		6,720	sf	0.50	3,360
Sub Total - Direct Cost					<u>19,937</u>
General Conditions		20.00%			3,987
Overhead & Profit		23.00%			5,503
Design & Price Reserve		15.00%			4,414
Escalation	Feb-14	8.23%			2,785
Bond		3.00%			1,099
Soft Costs/Design Fees		30.00%			11,318
Total Project Cost					<u><u>\$49,043</u></u>



Description	Note	Quantity	Unit	Price	Total
Attic Insulation					\$
Fill voids with blown-in insulation cellulose, 6 1/2", R22	allow 10%	945	sf	1.23	1,162
Cover filled areas with batts kraft faced fiberglass, 6" thick, 11" wide, R19	allow 10%	945	sf	1.20	1,134
40% increase labor factor included for reduced work area in attic consider access requirements, as well as insulation is a few feet below trusses and rests directly on existing ceiling this item should be combined with hallway ceiling replacement for ease of access and to minimize cost					
Sub Total - Direct Cost					2,296
General Conditions		20.00%			459
Overhead & Profit		23.00%			634
Design & Price Reserve		15.00%			508
Escalation	Feb-14	8.23%			321
Bond		3.00%			127
Soft Costs/Design Fees		30.00%			1,304
Total Project Cost					\$5,649
Basement Flooding					\$
French drain		382	lf	see below	
demo slab on grade around foundation wall		256	sf	17.21	4,405
demo slab for pipe to pump		30	lf	17.21	516
patch slab on grade		30	lf	30.20	906
remove and backfill 12" gravel under slab		9	cy	67.65	641
premium for excavating inside building basement	100%	1	ea	641.00	641
4" perforated pipe and filter fabric		382	lf	14.91	5,696
4" pvc pipe to pump	allow	30	lf	7.31	219
sump pump, 21 gpm @ 15' head, 1/3 hp		1	ea	507.36	507
Sub Total - Direct Cost					13,531
General Conditions		20.00%			2,706
Overhead & Profit		23.00%			3,735
Design & Price Reserve		15.00%			2,996
Escalation	Feb-14	8.23%			1,890
Bond		3.00%			746
Soft Costs/Design Fees		30.00%			7,681
Total Project Cost					\$33,285

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
TOWN HALL
SEEKONK, MA 02771

GFA 13,193



Description	Note	Quantity	Unit	Price	Total
Interior Finishes					\$
demo hallway 12x12 ceiling tile, on suspension system		1,296	sf	1.43	1,853
replace ceiling tiles in hallway with 2'x2' act		1,296	sf	5.09	6,597
premium for insulation resting directly on ceiling tillabor only 50%		1,296	sf	2.64	3,421
consider existing insulation is resting directly on ceiling to be demolished this item should be combined with attic insulation option for ease of access and to minimize cost					
Sub Total - Direct Cost					<u>11,871</u>
General Conditions		20.00%			2,374
Overhead & Profit		23.00%			3,276
Design & Price Reserve		15.00%			2,628
Escalation	Feb-14	8.23%			1,658
Bond		3.00%			654
Soft Costs/Design Fees		30.00%			6,738
Total Project Cost					<u><u>\$29,199</u></u>
Lighting					\$
remove and dispose of lighting		13,193	sf	0.25	3,298
new lighting		13,193	sf	5.01	66,097
automated lighting controls	eng. allowance	13,193	sf	1.25	16,491
Sub Total - Direct Cost					<u>85,886</u>
General Conditions		20.00%			17,177
Overhead & Profit		23.00%			23,704
Design & Price Reserve		15.00%			19,015
Escalation	Feb-14	8.23%			11,998
Bond		2.40%			3,787
Soft Costs/Design Fees		30.00%			48,470
Total Project Cost					<u><u>\$210,037</u></u>

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
 LIBRARY
 SEEKONK, MA 02771

GFA 14,882



Description	Note	Quantity	Unit	Price	Total
Basic Quantities		GFA		Girth	
level 1		14,882 sf		488 lf	
Fire Alarm					\$
demo existing fire alarm system		14,882	sf	0.18	2,679
new fire alarm system		14,882	sf	3.50	52,087
Sub Total - Direct Cost					54,766
General Conditions		20.00%			10,953
Overhead & Profit		23.00%			15,115
Design & Price Reserve		15.00%			12,125
Escalation	Feb-14	8.23%			7,651
Bond		2.40%			2,415
Soft Costs/Design Fees		30.00%			30,908
Total Project Cost					\$133,933
Overall ADA upgrade					\$
ADA upgrade	allowance	14,882	sf	4.50	66,969
Sub Total - Direct Cost					66,969
General Conditions		20.00%			13,394
Overhead & Profit		23.00%			18,483
Design & Price Reserve		15.00%			14,827
Escalation	Feb-14	8.23%			9,355
Bond		2.40%			2,953
Soft Costs/Design Fees		30.00%			37,794
Total Project Cost					\$163,775



Description	Note	Quantity	Unit	Price	Total
Roofing Modifications					\$
Provide roof drains with crickets					
add roof drains 8"	allow	3	ea	1,642.73	4,928
add overflow drains 6"	allow	3	ea	1,225.53	3,677
core roof 10"		3	ea	125.63	377
core roof 8"		3	ea	107.51	323
build up tapered insulation on existing	ext. poly sty, 6" avg	943	bf	1.04	980
vapor barrier		1,885	sf	0.12	226
1/2" dense glass sheathing		1,885	sf	1.70	3,205
white epdm roof over new insulation		1,885	sf	5.32	10,028
patch roof at roof drains		6	ea	170.25	1,022
6" storm pipe and insulation		30	lf	84.08	2,522
8" storm pipe and insulation		174	lf	99.68	17,344
10" cpp storm pipe underground	allow	50	lf	18.49	925
storm manhole, 4' structure		1	ea	4,136.25	4,136
excavate and backfill		50	lf	26.73	1,337
bedding for up to 12" pipe		50	lf	7.40	370
tie into existing system		1	ea	988.00	988
remove and replace ceiling tiles	4' wide	520	sf	11.85	6,162
saw cut roadway for trench 7" depth		40	lf	4.76	190
patch & repair trench 4" base, 3" finish		80	sf	7.39	591
traffic control detail		1	ea	1,085.76	1,086
signage/barricades		1	ea	1,482.00	1,482
saw slab on grade		16	lf	22.45	359
remove slab on grade		16	sf	6.70	107
excavate inside building		2	cy	49.65	99
core foundation wall 10"		1	ea	102.75	103
backfill		2	cy	28.38	57
patch/repair slab on grade		16	sf	30.20	483
chase wall (corner of multi-purpose room)		56	sf	10.09	565
paint chase wall		56	sf	1.11	62
Fill Openings In Parapet		60	sf		
assume 6 openings, 10 lf, 1 lf high					
6" stud		60	sf	5.15	309
1/2" gyp mat sheathing, both sides		120	sf	1.86	223
vertical wood to match existing		60	sf	2.85	171
paint vertical wood to match existing		60	sf	3.08	185
epdm membrane	allow	100	sf	5.11	511
heat weld to existing	allow	100	lf	1.14	114
cant strip		100	lf	2.13	213
base flash		100	lf	5.03	503
assume entire roof slope is sufficient to east wall, build up tapered insulation over existing roof from east wall to 1/2 way across grid					
Sub Total - Direct Cost					65,963
General Conditions		20.00%			13,193
Overhead & Profit		23.00%			18,206
Design & Price Reserve		15.00%			14,604
Escalation	Feb-14	8.23%			9,215
Bond		2.40%			2,908
Soft Costs/Design Fees		30.00%			37,227
Total Project Cost					\$161,316



Description	Note	Quantity	Unit	Price	Total
Replace Carpet (area shown on plan)					\$
demo carpet, scrape glue		9,200	sf	0.55	5,060
demo base		586	lf	0.55	322
new carpet tile		9,200	sf	5.12	47,104
new vinyl base		586	lf	2.56	1,500
move shelving and furniture	arch. allowance	1	ea	7,000.00	7,000
Sub Total - Direct Cost					60,986
General Conditions		20.00%			12,197
Overhead & Profit		23.00%			16,832
Design & Price Reserve		15.00%			13,502
Escalation	Feb-14	8.23%			8,519
Bond		2.40%			2,689
Soft Costs/Design Fees		30.00%			34,418
Total Project Cost					<u>\$149,143</u>
Repaint Meeting Room					\$
prep existing walls	9'6" high	1,577	sf	0.31	489
paint walls	9'6" high	1,577	sf	1.11	1,750
Sub Total - Direct Cost					2,239
General Conditions		20.00%			448
Overhead & Profit		23.00%			618
Design & Price Reserve		15.00%			496
Escalation	Feb-14	8.23%			313
Bond		3.00%			123
Soft Costs/Design Fees		30.00%			1,271
Total Project Cost					<u>\$5,508</u>
Interior Finishes					\$
demo main entrance 12x12 ceiling tile on suspension system		557	sf	1.40	780
replace ceiling tiles at main entrance with 2'x2' act		557	sf	4.98	2,774
note: this work is not reflected in the "scope narrative" but is marked up on plans received from DRA					
Sub Total - Direct Cost					3,554
General Conditions		20.00%			711
Overhead & Profit		23.00%			981
Design & Price Reserve		15.00%			787
Escalation	Feb-14	8.23%			497
Bond		3.00%			196
Soft Costs/Design Fees		30.00%			2,018
Total Project Cost					<u>\$8,744</u>



Description	Note	Quantity	Unit	Price	Total
Plumbing					\$
replace faucets with automatic units		7	ea	594.51	4,162
replace flush valves with automatic units		5	ea	594.51	2,973
Sub Total - Direct Cost					<u>7,135</u>
General Conditions		20.00%			1,427
Overhead & Profit		23.00%			1,969
Design & Price Reserve		15.00%			1,580
Escalation	Feb-14	8.23%			997
Bond		3.00%			393
Soft Costs/Design Fees		30.00%			4,050
Total Project Cost					<u><u>\$17,551</u></u>
HVAC					\$
remove RTU	cfm	1	ea	6,492.68	6,493
new RTU	cfm	1	ea	73,507.00	73,507
new controls		14,882	sf	3.65	54,319
Sub Total - Direct Cost					<u>134,319</u>
General Conditions		20.00%			26,864
Overhead & Profit		23.00%			37,072
Design & Price Reserve		15.00%			29,738
Escalation	Feb-14	8.23%			18,764
Bond		2.40%			5,922
Soft Costs/Design Fees		30.00%			75,804
Total Project Cost					<u><u>\$328,483</u></u>
Lighting Controls					\$
automated lighting controls	eng. allowance	14,882	sf	1.25	18,603
Sub Total - Direct Cost					<u>18,603</u>
General Conditions		20.00%			3,721
Overhead & Profit		23.00%			5,135
Design & Price Reserve		15.00%			4,119
Escalation	Feb-14	8.23%			2,599
Bond		3.00%			1,025
Soft Costs/Design Fees		30.00%			10,561
Total Project Cost					<u><u>\$45,763</u></u>

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
LIBRARY
SEEKONK, MA 02771

GFA 14,882



Description	Note	Quantity	Unit	Price	Total
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CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
 COUNTY STREET FIRE HOUSE
 SEEKONK, MA 02771

GFA 4,606



Description	Note	Quantity	Unit	Price	Total
Basic Quantities		GFA	Girth		
level 1		3,502 sf		247 lf	
level 2		1,104 sf		152 lf	
Emergency Lighting					\$
emergency lighting throughout		4,606	sf	1.20	5,527
Sub Total - Direct Cost					5,527
General Conditions		20.00%			1,105
Overhead & Profit		23.00%			1,525
Design & Price Reserve		15.00%			1,224
Escalation	Feb-14	8.23%			772
Bond		3.00%			305
Soft Costs/Design Fees		30.00%			3,137
Total Project Cost					<u><u>\$13,595</u></u>
Exit Signs					\$
exit signs throughout		4,606	sf	0.30	1,382
Sub Total - Direct Cost					1,382
General Conditions		20.00%			276
Overhead & Profit		23.00%			381
Design & Price Reserve		15.00%			306
Escalation	Feb-14	8.23%			193
Bond		3.00%			76
Soft Costs/Design Fees		30.00%			784
Total Project Cost					<u><u>\$3,398</u></u>
Security System					\$
motion sensors and door contacts		4,606	sf	2.18	10,041
Sub Total - Direct Cost					10,041
General Conditions		20.00%			2,008
Overhead & Profit		23.00%			2,771
Design & Price Reserve		15.00%			2,223
Escalation	Feb-14	8.23%			1,403
Bond		3.00%			553
Soft Costs/Design Fees		30.00%			5,700
Total Project Cost					<u><u>\$24,699</u></u>

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
 COUNTY STREET FIRE HOUSE
 SEEKONK, MA 02771

GFA 4,606



Description	Note	Quantity	Unit	Price	Total
Fire Alarm					\$
add smoke detectors to fire alarm system		4,606	sf	1.00	4,606
Sub Total - Direct Cost					<u>4,606</u>
General Conditions		20.00%			921
Overhead & Profit		23.00%			1,271
Design & Price Reserve		15.00%			1,020
Escalation	Feb-14	8.23%			643
Bond		3.00%			254
Soft Costs/Design Fees		30.00%			2,615
Total Project Cost					<u><u>\$11,330</u></u>
ADA Upgrade					\$
upgrade single user bathroom, shower/lavatory/water closet		1	ls	7,070.00	7,070
remove and replace door hardware with lever type lockset		10	ea	511.19	5,112
bevel riser on stairs (wood)		54	lfr	4.49	242
new metal hand rail		35	lf	43.48	1,522
exterior automatic door opener, button activated		1	ea	6,455.75	6,456
fire alarm system, upgrade visual/audible alarms allow		14	ea	185.00	2,590
Sub Total - Direct Cost					<u>22,992</u>
General Conditions		20.00%			4,598
Overhead & Profit		23.00%			6,346
Design & Price Reserve		15.00%			5,090
Escalation	Feb-14	8.23%			3,212
Bond		3.00%			1,267
Soft Costs/Design Fees		30.00%			13,052
Total Project Cost					<u><u>\$56,557</u></u>

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
 COUNTY STREET FIRE HOUSE
 SEEKONK, MA 02771

GFA 4,606



Description	Note	Quantity	Unit	Price	Total
Site Paving					\$
clear and grub site		1	ea	988.00	988
remove and dispose of bit. Concrete		11,362	sf	0.98	11,135
rough grade grubbed area		3,009	sf	0.11	331
fine grade grubbed area		3,009	sf	0.15	451
bit. Paving, 12"base, 2" binder, 1 1/2" wearing		9,885	sf	3.77	37,266
concrete curb		300	lf	14.77	4,431
concrete sidewalk at entrance		135	sf	5.71	771
concrete sidewalk along road		175	sf	5.71	999
steps on grade		14	lfr	123.50	1,729
guard rail		10	lf	192.66	1,927
curb cut		6	ea	494.00	2,964
loam and seed		1,478	sf	0.50	739
Sub Total - Direct Cost					63,731
General Conditions		20.00%			12,746
Overhead & Profit		23.00%			17,590
Design & Price Reserve		15.00%			14,110
Escalation	Feb-14	8.23%			8,903
Bond		2.40%			2,810
Soft Costs/Design Fees		30.00%			35,967
Total Project Cost					\$155,857
Site Drainage System					\$
catch basin, 4' drainage structure	allow	5	ea	3,383.41	16,917
drainage pipe, 10" cpp	allow	265	lf	15.13	4,009
excavate and backfill		265	lf	26.73	7,083
up to 12" pipe bedding		265	lf	7.40	1,961
saw cut roadway for trench 7" depth		40	lf	4.76	190
patch & repair trench 4" base, 3" finish		80	sf	7.39	591
traffic control detail		1	ea	1,027.52	1,028
signage/barricades		1	ea	1,482.00	1,482
Sub Total - Direct Cost					33,261
General Conditions		20.00%			6,652
Overhead & Profit		23.00%			9,180
Design & Price Reserve		15.00%			7,364
Escalation	Feb-14	8.23%			4,646
Bond		3.00%			1,833
Soft Costs/Design Fees		30.00%			18,881
Total Project Cost					\$81,817

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
 COUNTY STREET FIRE HOUSE
 SEEKONK, MA 02771

GFA 4,606



Description	Note	Quantity	Unit	Price	Total
Refinish Exterior					\$
refinish, repair, or replace all exterior materials					
clean/restore stone front		330	sf	4.43	1,462
repoint as necessary	allow 20%	165	sf	27.76	4,580
prep wood siding for new paint		2,020	sf	0.95	1,919
paint wood siding		2,020	sf	2.03	4,101
paint/seal cmu		220	sf	2.00	440
patch and repair cmu	allow 20%	44	sf	23.61	1,039
power wash wood siding above rear doors		350	sf	3.93	1,376
paint/seal wood above rear doors		350	sf	2.03	711
prep and paint trim at windows and doors		346	lf	2.45	848
prep and paint trim at base of shingles		140	lf	3.00	420
prep and paint soffit at front	2'5"	128	sf	3.00	384
prep and paint fascia at front		102	lf	3.00	306
prep and paint fascia at peaks		74	lf	3.00	222
demo soffit and back of building	1'6"	120	sf	4.13	496
rebuild wood soffit at back of building		120	sf	4.12	494
paint new soffit		120	sf	2.47	296
fascia at new soffit		80	lf	3.95	316
prep and paint exterior steel stairs		60	lfr	6.17	370
prep and paint exterior steel landing		37	sf	4.07	151
prep and paint exterior steel railings		28	lf	13.45	377
paint exterior doors		3	leaf	135.63	407
paint exterior roll up doors		618	sf	6.45	3,986
remove and replace gutters		51	lf	15.49	790
new gutters at back soffit		80	lf	9.53	762
new downspouts at back soffit		25	lf	5.44	136
Sub Total - Direct Cost					26,389
General Conditions		20.00%			5,278
Overhead & Profit		23.00%			7,283
Design & Price Reserve		15.00%			5,843
Escalation	Feb-14	8.23%			3,686
Bond		3.00%			1,454
Soft Costs/Design Fees		30.00%			14,980
Total Project Cost					\$64,913

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
 COUNTY STREET FIRE HOUSE
 SEEKONK, MA 02771

GFA 4,606



Description	Note	Quantity	Unit	Price	Total
Refinish Space					\$
gut interior		4,606	sf	8.08	37,216
partitions		3,029	sf	5.96	18,053
prep and paint interior of exterior wall		5,187	sf	1.76	9,129
paint interior partitions		78,754	sf	1.12	88,204
ceramic tile walls	6' high	522	sf	15.46	8,070
seal garage floor		2,711	sf	0.78	2,115
vct		879	sf	3.29	2,892
carpet		879	sf	5.04	4,430
ceramic tile floor		87	sf	15.25	1,327
radial rubber floor at stairs		51	lfr	19.90	1,015
vinyl base		658	lf	2.52	1,658
ceramic tile base		45	lf	14.33	645
act ceilings		4,606	sf	4.98	22,938
water closet		1	ea	2,524.06	2,524
lavatory		1	ea	1,413.27	1,413
shower		1	ea	2,555.35	2,555
doors 3'x7' and frame, hm		8	leaf	680.88	5,447
paint doors		8	leaf	135.63	1,085
metal storage shelving	allow	40	lf	84.08	3,363
kitchenette		1	ea	5,279.27	5,279
electrical		4,606	sf	9.51	43,803
hvac		4,606	sf	12.52	57,667
plumbing		4,606	sf	7.82	36,019
fire alarm		4,606	sf	2.50	11,515
dumpster rental			1 weeks	783.29	783
load & truck	10 mile round trip	20	cy	58.93	1,179
dump charges			8 ton	92.88	743
Sub Total - Direct Cost					371,067
General Conditions		16.00%			59,371
Overhead & Profit		18.00%			77,479
Design & Price Reserve		15.00%			76,188
Escalation	Feb-14	8.23%			48,072
Bond		2.40%			15,172
Soft Costs/Design Fees		30.00%			194,205
Total Project Cost					\$841,554

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
 COUNTY STREET FIRE HOUSE
 SEEKONK, MA 02771

GFA 4,606



Description	Note	Quantity	Unit	Price	Total
HVAC					\$
remove existing boiler		1	ea	1,136.87	1,137
boiler, oil fired	720 mbh	1	ea	22,737.40	22,737
Sub Total - Direct Cost					<u>23,874</u>
General Conditions		20.00%			4,775
Overhead & Profit		23.00%			6,589
Design & Price Reserve		15.00%			5,286
Escalation	Feb-14	8.23%			3,335
Bond		3.00%			1,316
Soft Costs/Design Fees		30.00%			13,553
Total Project Cost					<u><u>\$58,728</u></u>
Upgrade Lighting					\$
remove and dispose of lighting		4,606	sf	0.12	553
new lighting		4,606	sf	3.50	16,121
automated lighting controls	eng. allowance	4,606	sf	1.25	5,758
Sub Total - Direct Cost					<u>22,432</u>
General Conditions		20.00%			4,486
Overhead & Profit		23.00%			6,191
Design & Price Reserve		15.00%			4,966
Escalation	Feb-14	8.23%			3,134
Bond		3.00%			1,236
Soft Costs/Design Fees		30.00%			12,734
Total Project Cost					<u><u>\$55,179</u></u>
Demo and Rebuild					\$
demo existing building		4,606	sf	9.39	43,250
new building including site		6,758	sf	212.41	1,435,467
Sub Total - Direct Cost					<u>1,478,717</u>
General Conditions		12.00%			177,446
Overhead & Profit		14.00%			231,863
Design & Price Reserve		15.00%			283,204
Escalation	Feb-14	8.23%			178,692
Bond		1.60%			37,599
Soft Costs/Design Fees		30.00%			716,256
Total Project Cost					<u><u>3,103,777</u></u>

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
PUBLIC SAFETY
SEEKONK, MA 02771

GFA 28,484



Description	Note	Quantity	Unit	Price	Total
Basic Quantities		GFA	Girth		
level 1		15,099 sf		619 lf	
level 2		8,524 sf		480 lf	
mezzanine level		4,328 sf		299 lf	
mech level		533 sf		104 lf	
Site					\$
repair pavement near fire station					
remove bit. pavement at depression	allow	200 sf		0.98	196
remove bit. pavement at entrance road	allow	500 sf		0.98	490
bit. Paving, 12"base, 2" binder, 1 1/2" wearing		700 sf		3.77	2,639
Sub Total - Direct Cost					3,325
General Conditions		20.00%			665
Overhead & Profit		23.00%			918
Design & Price Reserve		15.00%			736
Escalation	Feb-14	8.23%			465
Bond		3.00%			183
Soft Costs/Design Fees		30.00%			1,888
Total Project Cost					<u>\$8,180</u>



Description	Note	Quantity	Unit	Price	Total
Reconfigure & Finish Attic Space					\$
remove door mounted hold open devices		2	ea	131.40	263
partitions		226	sf	7.63	1,724
doors 3'x7' and frame, hm		1	leaf	680.88	681
paint door		1	leaf	135.63	136
level 5 abuse resistant gyp board on wood structure		1,575	sf	2.71	4,268
fur and level 5 abuse resistant board		332	sf	4.91	1,630
paint partitions		2,133	sf	1.12	2,389
acoustical panels	assume 20%	315	sf	14.53	4,577
modify sprinklers within 30" of roof peak	labor	1	day	684.21	684
modify sprinklers within 30" of roof peak	material	1	ea	521.50	522
Sub Total - Direct Cost					16,874
General Conditions		20.00%			3,375
Overhead & Profit		23.00%			4,657
Design & Price Reserve		15.00%			3,736
Escalation	Feb-14	8.23%			2,357
Bond		3.00%			930
Soft Costs/Design Fees		30.00%			9,579
Total Project Cost					\$41,508
Roof					\$
investigate shingle nailing with bucket lift					
bucket lift		1	day	327.97	328
truck driver		1	day	451.43	451
roofer/inspector		1	day	585.66	586
mobilization		1	ea	246.65	247
demobilization		1	ea	246.65	247
Sub Total - Direct Cost					1,859
General Conditions		20.00%			372
Overhead & Profit		23.00%			513
Design & Price Reserve		15.00%			412
Escalation	Feb-14	8.23%			260
Bond		3.00%			102
Soft Costs/Design Fees		30.00%			1,055
Total Project Cost					\$4,573

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
PUBLIC SAFETY
SEEKONK, MA 02771

GFA 28,484



Description	Note	Quantity	Unit	Price	Total
Plumbing					\$
replace faucets with automatic units		15	ea	594.51	8,918
replace flush valves with automatic units		15	ea	594.51	8,918
Sub Total - Direct Cost					17,836
General Conditions		20.00%			3,567
Overhead & Profit		23.00%			4,923
Design & Price Reserve		15.00%			3,949
Escalation	Feb-14	8.23%			2,492
Bond		3.00%			983
Soft Costs/Design Fees		30.00%			10,125
Total Project Cost					\$43,875
Lighting					\$
automated lighting controls	eng. allowance	28,484	sf	1.25	35,605
Sub Total - Direct Cost					35,605
General Conditions		20.00%			7,121
Overhead & Profit		23.00%			9,827
Design & Price Reserve		15.00%			7,883
Escalation	Feb-14	8.23%			4,974
Bond		3.00%			1,962
Soft Costs/Design Fees		30.00%			20,212
Total Project Cost					\$87,584

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
 DPW GARAGE
 SEEKONK, MA 02771

GFA 6,831



Description	Note	Quantity	Unit	Price	Total
Basic Quantities		GFA		Girth	
level 1		6,831 sf		373 lf	
Fire Alarm					\$
expand/upgrade early detection devices		6,831	sf	3.50	23,909
remove exit signs		6,831	sf	0.04	273
exit signs		6,831	sf	0.30	2,049
remove emergency lighting units		6,831	sf	0.06	410
emergency lighting units		6,831	sf	1.20	8,197
Sub Total - Direct Cost					34,838
General Conditions				20.00%	6,968
Overhead & Profit				23.00%	9,615
Design & Price Reserve				15.00%	7,713
Escalation	Feb-14			8.23%	4,867
Bond				3.00%	1,920
Soft Costs/Design Fees				30.00%	19,776
Total Project Cost					<u>\$85,697</u>
Fire Sprinkler System					\$
currently is not one					
new fire protection system		6,831	sf	4.69	32,037
Sub Total - Direct Cost					32,037
General Conditions				20.00%	6,407
Overhead & Profit				23.00%	8,842
Design & Price Reserve				15.00%	7,093
Escalation	Feb-14			8.23%	4,475
Bond				3.00%	1,766
Soft Costs/Design Fees				30.00%	18,186
Total Project Cost					<u>\$78,806</u>
Add Fire Walls					\$
Fire walls between different use areas		1,872	sf	8.01	14,995
Sub Total - Direct Cost					14,995
General Conditions				20.00%	2,999
Overhead & Profit				23.00%	4,139
Design & Price Reserve				15.00%	3,320
Escalation	Feb-14			8.23%	2,095
Bond				3.00%	826
Soft Costs/Design Fees				30.00%	8,512
Total Project Cost					<u>\$36,886</u>

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
 DPW GARAGE
 SEEKONK, MA 02771

GFA 6,831



Description	Note	Quantity	Unit	Price	Total
Overall ADA upgrade					\$
overall ADA upgrade		6,831	sf	4.50	30,740
Sub Total - Direct Cost					30,740
General Conditions		20.00%			6,148
Overhead & Profit		23.00%			8,484
Design & Price Reserve		15.00%			6,806
Escalation	Feb-14	8.23%			4,294
Bond		3.00%			1,694
Soft Costs/Design Fees		30.00%			17,450
Total Project Cost					\$75,616
Site Paving					\$
remove bit. Concrete pavement		11,714	sf	0.98	11,480
bit. Paving, 12"base, 2" binder, 1 1/2" wearing loam and seed		10,533	sf	3.77	39,709
concrete curb		4,386	sf	0.50	2,193
		600	lf	14.77	8,862
Sub Total - Direct Cost					62,244
General Conditions		20.00%			12,449
Overhead & Profit		23.00%			17,179
Design & Price Reserve		15.00%			13,781
Escalation	Feb-14	8.23%			8,695
Bond		2.40%			2,744
Soft Costs/Design Fees		30.00%			35,128
Total Project Cost					\$152,220
New Drainage					\$
catch basin, 4' drainage structure	allow	5	ea	3,383.41	16,917
drainage pipe, 10" cpp	allow	450	lf	15.13	6,809
excavate and backfill		450	lf	26.73	12,029
up to 12" pipe bedding		450	lf	7.40	3,330
saw cut roadway for trench 7" depth		1,472	lf	4.76	7,007
patch & repair trench 4" base, 3" finish		736	sf	7.39	5,439
traffic control detail		1	ea	1,085.76	1,086
signage/barricades		1	ea	1,482.00	1,482
Sub Total - Direct Cost					54,099
General Conditions		20.00%			10,820
Overhead & Profit		23.00%			14,931
Design & Price Reserve		15.00%			11,978
Escalation	Feb-14	8.23%			7,557
Bond		3.00%			2,982
Soft Costs/Design Fees		30.00%			30,710
Total Project Cost					\$133,077



Description	Note	Quantity	Unit	Price	Total
Refinish Exterior					\$
fur exterior of building, 7/8" channel, 16" o.c.		5,222	sf	2.37	12,376
rigid insulation 2"		5,222	sf	2.12	11,071
vapor barrier		5,222	sf	0.24	1,253
cement clapboards		5,222	sf	4.53	23,656
misc. trim		1	ls	3,548.40	3,548
paint cement clapboards		5,222	sf	2.49	13,003
demo windows	allow 25%	1,306	sf	3.69	4,819
aluminum windows	allow 25%	1,306	sf	65.35	85,347
Sub Total - Direct Cost					155,073
General Conditions		20.00%			31,015
Overhead & Profit		23.00%			42,800
Design & Price Reserve		15.00%			34,333
Escalation	Feb-14	8.23%			21,663
Bond		2.40%			6,837
Soft Costs/Design Fees		30.00%			87,516
Total Project Cost					\$379,237
HVAC					\$
remove unit heaters in bays		6	ea	156.45	939
unit heaters in bays	197.7 mbh	6	ea	1,694.88	10,169
remove boiler		1	ea	3,311.53	3,312
boiler, gas fired	544 mbh	1	ea	16,062.20	16,062
Sub Total - Direct Cost					30,482
General Conditions		20.00%			6,096
Overhead & Profit		23.00%			8,413
Design & Price Reserve		15.00%			6,749
Escalation	Feb-14	8.23%			4,258
Bond		3.00%			1,680
Soft Costs/Design Fees		30.00%			17,303
Total Project Cost					\$74,981

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
 DPW GARAGE
 SEEKONK, MA 02771

GFA 6,831



Description	Note	Quantity	Unit	Price	Total
Generator					\$
review for repair or replacement	labor	1	day	616.62	617
Sub Total - Direct Cost					<u>617</u>
General Conditions		20.00%			123
Overhead & Profit		23.00%			170
Design & Price Reserve		15.00%			137
Escalation	Feb-14	8.23%			86
Bond		3.00%			34
Soft Costs/Design Fees		30.00%			350
Total Project Cost					<u>\$1,517</u>
Electrical					\$
remove panel boards		6,831	sf	0.20	1,366
panel boards		6,831	sf	4.00	27,324
Sub Total - Direct Cost					<u>28,690</u>
General Conditions		20.00%			5,738
Overhead & Profit		23.00%			7,918
Design & Price Reserve		15.00%			6,352
Escalation	Feb-14	8.23%			4,008
Bond		3.00%			1,581
Soft Costs/Design Fees		30.00%			16,286
Total Project Cost					<u>\$70,573</u>
Plumbing					\$
remove distribution piping		6,831	sf	0.13	888
remove and replace distribution piping		6,831	sf	2.61	17,829
replace faucets with automatic units	allow	4	ea	594.51	2,378
replace flush valves with automatic units	allow	4	ea	594.51	2,378
Sub Total - Direct Cost					<u>23,473</u>
General Conditions		20.00%			4,695
Overhead & Profit		23.00%			6,479
Design & Price Reserve		15.00%			5,197
Escalation	Feb-14	8.23%			3,279
Bond		3.00%			1,294
Soft Costs/Design Fees		30.00%			13,325
Total Project Cost					<u>\$57,742</u>

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
 DPW GARAGE
 SEEKONK, MA 02771

GFA 6,831



Description	Note	Quantity	Unit	Price	Total
Lighting					\$
remove and dispose of lighting		6,831		0.25	1,708
remove and replace lighting		6,831		5.00	34,155
automated lighting controls	eng. allowance	6,831		1.25	8,539
Sub Total - Direct Cost					44,402
General Conditions		20.00%			8,880
Overhead & Profit		23.00%			12,255
Design & Price Reserve		15.00%			9,831
Escalation	Feb-14	8.23%			6,203
Bond		3.00%			2,447
Soft Costs/Design Fees		30.00%			25,205
Total Project Cost					\$109,223
Recommendation					\$
new facility (includes demo old facility)		20,632	ea	186.24	3,842,504
relocate photovoltaic panels	allow	1	ea	5,000.00	5,000
Sub Total - Direct Cost					3,847,504
General Conditions		10.00%			384,750
Overhead & Profit		12.00%			507,870
Design & Price Reserve		15.00%			711,019
Escalation	Feb-14	8.23%			448,629
Bond		1.34%			79,057
Soft Costs/Design Fees		30.00%			1,793,649
Total Project Cost					7,772,478

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
ANIMAL SHELTER
SEEKONK, MA 02771

GFA 1,500



Description	Note	Quantity	Unit	Price	Total
Basic Quantities		GFA		Girth	
level 1		1,500 sf		168 lf	
Emergency Lighting					\$
add emergency lighting		1,500	sf	1.50	2,250
Sub Total - Direct Cost					2,250
General Conditions		20.00%			450
Overhead & Profit		23.00%			621
Design & Price Reserve		15.00%			498
Escalation	Feb-14	8.23%			314
Bond		3.00%			124
Soft Costs/Design Fees		30.00%			1,277
Total Project Cost					\$5,534
Exit Signs					\$
add exit signs		1,500	sf	0.30	450
Sub Total - Direct Cost					450
General Conditions		20.00%			90
Overhead & Profit		23.00%			124
Design & Price Reserve		15.00%			100
Escalation	Feb-14	8.23%			63
Bond		3.00%			25
Soft Costs/Design Fees		30.00%			256
Total Project Cost					\$1,108
Fire Alarm					\$
expand/upgrade to add early detection devices		1,500	sf	1.00	1,500
Sub Total - Direct Cost					1,500
General Conditions		20.00%			300
Overhead & Profit		23.00%			414
Design & Price Reserve		15.00%			332
Escalation	Feb-14	8.23%			210
Bond		3.00%			83
Soft Costs/Design Fees		30.00%			852
Total Project Cost					\$3,691

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
ANIMAL SHELTER
SEEKONK, MA 02771

GFA 1,500



Description	Note	Quantity	Unit	Price	Total
Replace Sinks					\$
remove concrete block mop sink		1	ea	207.56	208
new mop sink and rough in		1	ea	3,207.23	3,207
tile walls around sink	8'high	40	sf	15.93	637
new faucet with vacuum breaker		1	ea	141.85	142
Sub Total - Direct Cost					4,194
General Conditions		20.00%			839
Overhead & Profit		23.00%			1,158
Design & Price Reserve		15.00%			929
Escalation	Feb-14	8.23%			586
Bond		3.00%			231
Soft Costs/Design Fees		30.00%			2,381
Total Project Cost					\$10,318
Plumbing Improvements					\$
remove/replace older fixture with ADA compliant		3	ea	1,773.10	5,319
install gray water system		1,500	sf	2.61	3,915
Sub Total - Direct Cost					9,234
General Conditions		20.00%			1,847
Overhead & Profit		23.00%			2,549
Design & Price Reserve		15.00%			2,045
Escalation	Feb-14	8.23%			1,290
Bond		3.00%			509
Soft Costs/Design Fees		30.00%			5,242
Total Project Cost					\$22,716

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
ANIMAL SHELTER
SEEKONK, MA 02771

GFA 1,500



Description	Note	Quantity	Unit	Price	Total
Overall ADA upgrade					\$
overall ADA upgrade		1,500	ea	4.50	6,750
Sub Total - Direct Cost					<u>6,750</u>
General Conditions		20.00%			1,350
Overhead & Profit		23.00%			1,863
Design & Price Reserve		15.00%			1,494
Escalation	Feb-14	8.23%			943
Bond		3.00%			372
Soft Costs/Design Fees		30.00%			3,832
Total Project Cost					<u><u>\$16,604</u></u>
Roof					\$
rubber roof		1,500	sf	5.32	7,980
over continuous insulation board, 2" ex. Poly sty, R10		1,500	sf	1.77	2,655
insulation board fitted between existing ribs		1,500	sf	2.30	3,450
new metal fascia at perimeter		168	lf	26.18	4,398
pressure treated blocking at perimeter		168	lf	3.54	595
Sub Total - Direct Cost					<u>19,078</u>
General Conditions		20.00%			3,816
Overhead & Profit		23.00%			5,266
Design & Price Reserve		15.00%			4,224
Escalation	Feb-14	8.23%			2,665
Bond		3.00%			1,051
Soft Costs/Design Fees		30.00%			10,830
Total Project Cost					<u><u>46,930</u></u>
Roof Alternate					\$
install new metal roof panels over existing additions		1,500		11.92	17,880
pressure treated blocking at purlins of existing additions		1,500		1.16	1,740
Sub Total - Direct Cost					<u>132,558</u>
General Conditions		20.00%			26,512
Overhead & Profit		23.00%			36,586
Design & Price Reserve		15.00%			29,348
Escalation	Feb-14	8.23%			18,518
Bond		2.40%			5,845
Soft Costs/Design Fees		30.00%			74,810
Total Project Cost					<u><u>\$324,177</u></u>

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
ANIMAL SHELTER
SEEKONK, MA 02771

GFA 1,500



Description	Note	Quantity	Unit	Price	Total
Climatic Control					\$
remove and reinstall metal wall panels	14' high	2,352	sf	3.39	7,973
spray foam insulation in exterior walls	3"	2,352	sf	2.68	6,303
remove existing HVAC		1,500	sf	0.66	990
new HVAC system		1,500	sf	12.52	18,780
Sub Total - Direct Cost					<u>34,046</u>
General Conditions		20.00%			6,809
Overhead & Profit		23.00%			9,397
Design & Price Reserve		15.00%			7,538
Escalation	Feb-14	8.23%			4,756
Bond		3.00%			1,876
Soft Costs/Design Fees		30.00%			19,327
Total Project Cost					<u><u>\$83,749</u></u>
Refinish Spaces					\$
Upgrade all interior portions to FRP panels	14' high	5,082	sf	4.76	24,190
Sub Total - Direct Cost					<u>24,190</u>
General Conditions		20.00%			4,838
Overhead & Profit		23.00%			6,676
Design & Price Reserve		15.00%			5,356
Escalation	Feb-14	8.23%			3,379
Bond		3.00%			1,333
Soft Costs/Design Fees		30.00%			13,732
Total Project Cost					<u><u>\$59,504</u></u>
Generator					\$
new generator and distribution		1	ea	12,012.00	12,012
Sub Total - Direct Cost					<u>12,012</u>
General Conditions		20.00%			2,402
Overhead & Profit		23.00%			3,315
Design & Price Reserve		15.00%			2,659
Escalation	Feb-14	8.23%			1,678
Bond		3.00%			662
Soft Costs/Design Fees		30.00%			6,818
Total Project Cost					<u><u>\$29,546</u></u>

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
ANIMAL SHELTER
SEEKONK, MA 02771

GFA 1,500



Description	Note	Quantity	Unit	Price	Total
Replace Main Panel Board					\$
remove main panel board		1	ea	150.15	150
replace main panel board		1	ea	3,503.50	3,504
Sub Total - Direct Cost					<u>3,654</u>
General Conditions		20.00%			731
Overhead & Profit		23.00%			1,009
Design & Price Reserve		15.00%			809
Escalation	Feb-14	8.23%			511
Bond		3.00%			201
Soft Costs/Design Fees		30.00%			2,075
Total Project Cost					<u><u>\$8,990</u></u>
Install Additional Outlets					\$
add throughout building		1,500	sf	4.00	6,000
Sub Total - Direct Cost					<u>6,000</u>
General Conditions		20.00%			1,200
Overhead & Profit		23.00%			1,656
Design & Price Reserve		15.00%			1,328
Escalation	Feb-14	8.23%			838
Bond		3.00%			331
Soft Costs/Design Fees		30.00%			3,406
Total Project Cost					<u><u>\$14,759</u></u>
Lighting					\$
remove and dispose of lighting		1,500	sf	0.12	180
new lighting		1,500	sf	3.50	5,250
add automated lighting controls	eng. allowance	1,500	sf	1.25	1,875
Sub Total - Direct Cost					<u>7,305</u>
General Conditions		20.00%			1,461
Overhead & Profit		23.00%			2,016
Design & Price Reserve		15.00%			1,617
Escalation	Feb-14	8.23%			1,020
Bond		3.00%			403
Soft Costs/Design Fees		30.00%			4,147
Total Project Cost					<u><u>\$17,969</u></u>

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
ANIMAL SHELTER
SEEKONK, MA 02771

GFA 1,500



Description	Note	Quantity	Unit	Price	Total
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CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
MARTIN SCHOOL
SEEKONK, MA 02771

GFA 76,036



Description	Note	Quantity	Unit	Price	Total
Basic Quantities		GFA		Girth	
level 1		76,036 sf		1,870 lf	
Security System					\$
evaluate system			1 day	616.62	617
cctv cameras	exterior		3 ea	2,816.58	8,450
security system wiring			120 lf	11.56	1,387
Sub Total - Direct Cost					10,454
General Conditions		20.00%			2,091
Overhead & Profit		23.00%			2,885
Design & Price Reserve		15.00%			2,315
Escalation	Feb-14	8.23%			1,460
Bond		3.00%			576
Soft Costs/Design Fees		30.00%			5,934
Total Project Cost					\$25,715
Plumbing					\$
remove multi user sink			2 ea	481.08	962
remove and replace multi users sink, circular, 8 person			2 ea	10,899.35	21,799
Sub Total - Direct Cost					22,761
General Conditions		20.00%			4,552
Overhead & Profit		23.00%			6,282
Design & Price Reserve		15.00%			5,039
Escalation	Feb-14	8.23%			3,180
Bond		3.00%			1,254
Soft Costs/Design Fees		30.00%			12,920
Total Project Cost					\$55,988



Description	Note	Quantity	Unit	Price	Total
Site Paving					\$
remove bit. Paving		5,754	sf	0.98	5,639
bit. Paving, 12"base, 2" binder, 1 1/2" wearing 1" bit. Topping		5,754	sf	3.77	21,693
remove bit. Paving sidewalk		547	sf	0.51	279
bit. Paving sidewalk, 2" thick, 4" base		431	sf	0.98	422
fine grade		431	sf	2.39	1,030
remove concrete curb		1,400	sf	0.15	210
concrete curb		76	lf	4.93	375
catch basin, 4' drainage structure		76	lf	14.77	1,123
patch pavement at new catch basins		2	ea	3,383.41	6,767
drainage pipe, 10" cpp	allow	100	sf	10.40	1,040
excavate and backfill up to 12" pipe bedding		150	lf	15.13	2,270
saw cut roadway for trench 7" depth		150	lf	26.73	4,010
patch & repair trench 4" base, 3" finish		150	lf	7.40	1,110
traffic control detail		160	lf	4.76	762
signage/barricades		320	sf	7.39	2,365
		1	ea	1,085.76	1,086
		1	ea	1,482.00	1,482
Sub Total - Direct Cost					51,663
General Conditions		20.00%			10,333
Overhead & Profit		23.00%			14,259
Design & Price Reserve		15.00%			11,438
Escalation	Feb-14	8.23%			7,217
Bond		3.00%			2,847
Soft Costs/Design Fees		30.00%			29,327
Total Project Cost					\$127,084
Roofing System					\$
demo roof for cricket installation		2,518	sf	1.14	2,871
vapor barrier		2,518	sf	0.12	302
1/2" dense glass sheathing		2,518	sf	1.70	4,281
epdm roof over new insulation		2,518	sf	5.32	13,396
rigid insulation	2"	2,518	sf	1.91	4,809
build up tapered insulation on existing	ext. poly sty, 6" av;	1,259	bf	1.04	1,309
Sub Total - Direct Cost					26,968
General Conditions		20.00%			5,394
Overhead & Profit		23.00%			7,443
Design & Price Reserve		15.00%			5,971
Escalation	Feb-14	8.23%			3,767
Bond		3.00%			1,486
Soft Costs/Design Fees		30.00%			15,309
Total Project Cost					\$66,338

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
MARTIN SCHOOL
SEEKONK, MA 02771

GFA 76,036



Description	Note	Quantity	Unit	Price	Total
Exterior Masonry					\$
clean masonry walls to water table	4' high	1,030	sf	4.96	5,109
clean entire masonry wall	13' high	5,514	sf	4.96	27,349
clean entire masonry wall	17'4" high	1,950	sf	5.21	10,160
clean entire masonry wall	22'8" high	1,980	sf	5.33	10,553
clean entire masonry wall	23'4" high	1,983	sf	5.33	10,569
seal walls after cleaning		12,457	sf	2.10	26,160
scaffolding		11,427	sf	1.37	15,655
Sub Total - Direct Cost					105,555
General Conditions		20.00%			21,111
Overhead & Profit		23.00%			29,133
Design & Price Reserve		15.00%			23,370
Escalation	Feb-14	8.23%			14,746
Bond		2.40%			4,654
Soft Costs/Design Fees		30.00%			59,571
Total Project Cost					\$258,140
Repaint Spaces					\$
paint corridor walls	10' high	14,110	sf	1.12	15,803
Sub Total - Direct Cost					15,803
General Conditions		20.00%			3,161
Overhead & Profit		23.00%			4,362
Design & Price Reserve		15.00%			3,499
Escalation	Feb-14	8.23%			2,208
Bond		3.00%			871
Soft Costs/Design Fees		30.00%			8,971
Total Project Cost					\$38,875
Upgrade Phone System					\$
replace main phone switch	eng. allowance	1	ea	25,000.00	25,000
Sub Total - Direct Cost					25,000
General Conditions		20.00%			5,000
Overhead & Profit		23.00%			6,900
Design & Price Reserve		15.00%			5,535
Escalation	Feb-14	8.23%			3,492
Bond		3.00%			1,378
Soft Costs/Design Fees		30.00%			14,192
Total Project Cost					\$61,497

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
MARTIN SCHOOL
SEEKONK, MA 02771

GFA 76,036



Description	Note	Quantity	Unit	Price	Total
Plumbing					\$
replace faucets and flush valves with automatic uni allow		137	ea	594.51	81,448
Sub Total - Direct Cost					81,448
General Conditions		20.00%			16,290
Overhead & Profit		23.00%			22,480
Design & Price Reserve		15.00%			18,033
Escalation	Feb-14	8.23%			11,378
Bond		2.40%			3,591
Soft Costs/Design Fees		30.00%			45,966
Total Project Cost					\$199,186
HVAC System					\$
replace remainder of unit ventilators		25	ea	10,430.00	260,750
Sub Total - Direct Cost					260,750
General Conditions		16.00%			41,720
Overhead & Profit		18.00%			54,445
Design & Price Reserve		15.00%			53,537
Escalation	Feb-14	8.23%			33,780
Bond		2.40%			10,662
Soft Costs/Design Fees		30.00%			136,468
Total Project Cost					\$591,362
HVAC System Controls					\$
upgrade controls to allow central control/monitoring		76,036	sf	3.65	277,531
Sub Total - Direct Cost					277,531
General Conditions		16.00%			44,405
Overhead & Profit		18.00%			57,948
Design & Price Reserve		15.00%			56,983
Escalation	Feb-14	8.23%			35,954
Bond		2.40%			11,348
Soft Costs/Design Fees		30.00%			145,251
Total Project Cost					\$629,420

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
MARTIN SCHOOL
SEEKONK, MA 02771

GFA 76,036



Description	Note	Quantity	Unit	Price	Total
Lighting Controls					\$
add automated lighting controls	eng. allowance	76,036	sf	1.25	95,045
Sub Total - Direct Cost					95,045
General Conditions		20.00%			19,009
Overhead & Profit		23.00%			26,232
Design & Price Reserve		15.00%			21,043
Escalation	Feb-14	8.23%			13,277
Bond		2.40%			4,191
Soft Costs/Design Fees		30.00%			53,639
Total Project Cost					\$232,436
New Generator					\$
remove old generator		1	ea	3,228.23	3,228
new generator, 25 kw, natural gas, 120/208v, 3 phase		1	ea	21,521.50	21,522
Sub Total - Direct Cost					24,750
General Conditions		20.00%			4,950
Overhead & Profit		23.00%			6,831
Design & Price Reserve		15.00%			5,480
Escalation	Feb-14	8.23%			3,458
Bond		3.00%			1,364
Soft Costs/Design Fees		30.00%			14,050
Total Project Cost					\$60,883
Flooring System/Haz Mat Concern					\$
remove 9x9 tile in cafeteria	ACM	2,973	sf	9.88	29,373
remove base		241	lf	1.48	357
vct		2,973	sf	3.29	9,781
floor patching/leveling/repair	flash patch	2,973	sf	1.13	3,359
vinyl base		241	lf	2.52	607
Sub Total - Direct Cost					43,477
General Conditions		20.00%			8,695
Overhead & Profit		23.00%			12,000
Design & Price Reserve		15.00%			9,626
Escalation	Feb-14	8.23%			6,074
Bond		3.00%			2,396
Soft Costs/Design Fees		30.00%			24,680
Total Project Cost					106,948

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
MARTIN SCHOOL
SEEKONK, MA 02771

GFA 76,036



Description	Note	Quantity	Unit	Price	Total
12x12 Ceiling Tiles/Haz Mat Concern					\$
remove 12x12 ceiling tile	ACM	2,973	sf	12.35	36,717
new act ceiling tile		2,973	sf	4.98	14,806
Sub Total - Direct Cost					51,523
General Conditions		20.00%			10,305
Overhead & Profit		23.00%			14,220
Design & Price Reserve		15.00%			11,407
Escalation	Feb-14	8.23%			7,198
Bond		3.00%			2,840
Soft Costs/Design Fees		30.00%			29,248
Total Project Cost					126,741

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
 PLEASANT STREET SCHOOL
 SEEKONK, MA 02771

GFA 27,989



Description	Note	Quantity	Unit	Price	Total
Basic Quantities		GFA	Girth		
lower level		12,452 sf		561 lf	
upper level		15,537 sf		777 lf	
Fire Protection					\$
install new fire protection system		27,989	sf	4.69	131,268
Sub Total - Direct Cost					131,268
General Conditions		20.00%			26,254
Overhead & Profit		23.00%			36,230
Design & Price Reserve		15.00%			29,063
Escalation	Feb-14	8.23%			18,338
Bond		2.40%			5,788
Soft Costs/Design Fees		30.00%			74,082
Total Project Cost					<u>\$321,023</u>
Accessibility					\$
overall ADA upgrade		27,989		4.50	125,951
Sub Total - Direct Cost					125,951
General Conditions		20.00%			25,190
Overhead & Profit		23.00%			34,762
Design & Price Reserve		15.00%			27,885
Escalation	Feb-14	8.23%			17,595
Bond		2.40%			5,553
Soft Costs/Design Fees		30.00%			71,081
Total Project Cost					<u>\$308,017</u>

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
 PLEASANT STREET SCHOOL
 SEEKONK, MA 02771

GFA 27,989



Description	Note	Quantity	Unit	Price	Total
Accessibility					\$
remove stair mounted wheelchair lift		1	ea	1,557.00	1,557
new vertical chair lift		1	ea	16,218.75	16,219
Sub Total - Direct Cost					<u>17,776</u>
General Conditions		20.00%			3,555
Overhead & Profit		23.00%			4,906
Design & Price Reserve		15.00%			3,936
Escalation	Feb-14	8.23%			2,483
Bond		3.00%			980
Soft Costs/Design Fees		30.00%			10,091
Total Project Cost					<u><u>\$43,727</u></u>
Site Paving					\$
remove bit. paving		30,844	sf	0.98	30,227
bit. paving, 12"base, 2" binder, 1 1/2" wearing		30,844	sf	3.76	115,973
concrete curb	allow	400	lf	14.77	5,908
crack sealer		500	lf	1.24	620
remove bit. Berm		20	lf	5.93	119
bit. berm, 12" high, 24" deep		20	lf	3.04	61
Sub Total - Direct Cost					<u>152,908</u>
General Conditions		20.00%			30,582
Overhead & Profit		23.00%			42,203
Design & Price Reserve		15.00%			33,854
Escalation	Feb-14	8.23%			21,361
Bond		2.40%			6,742
Soft Costs/Design Fees		30.00%			86,295
Total Project Cost					<u><u>\$373,945</u></u>

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
 PLEASANT STREET SCHOOL
 SEEKONK, MA 02771

GFA 27,989



Description	Note	Quantity	Unit	Price	Total
Site Drainage					\$
storm manhole, 4' structure		1	ea	3,382.96	3,383
catch basin, 4' drainage structure	allow	7	ea	3,383.41	23,684
drainage pipe, 10" cpp	allow	650	lf	15.13	9,835
excavate and backfill		650	lf	26.73	17,375
up to 12" pipe bedding		650	lf	7.40	4,810
saw cut roadway for trench 7" depth		40	lf	4.76	190
patch & repair trench 4" base, 3" finish		20	lf	7.39	148
traffic control detail		1	ea	1,027.52	1,028
signage/barricades		1	ea	1,482.00	1,482
Sub Total - Direct Cost					61,935
General Conditions		20.00%			12,387
Overhead & Profit		23.00%			17,094
Design & Price Reserve		15.00%			13,712
Escalation	Feb-14	8.23%			8,652
Bond		2.40%			2,731
Soft Costs/Design Fees		30.00%			34,953
Total Project Cost					\$151,464
Chimney Repairs					\$
remove existing chimney	3'6x2'6"x10'	88	cf	15.62	1,375
reconstruct chimney		120	sf	458.04	54,965
scaffolding		1	ls	1,548.00	1,548
Sub Total - Direct Cost					57,888
General Conditions		20.00%			11,578
Overhead & Profit		23.00%			15,977
Design & Price Reserve		15.00%			12,816
Escalation	Feb-14	8.23%			8,087
Bond		2.40%			2,552
Soft Costs/Design Fees		30.00%			32,669
Total Project Cost					\$141,567
Exterior Finishes					\$
paint cupola		1	ea	308.25	308
scaffolding/staging		1	ls	1,548.00	1,548
Sub Total - Direct Cost					1,856
General Conditions		20.00%			371
Overhead & Profit		23.00%			512
Design & Price Reserve		15.00%			411
Escalation	Feb-14	8.23%			259
Bond		3.00%			102
Soft Costs/Design Fees		30.00%			1,053
Total Project Cost					\$4,564

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
 PLEASANT STREET SCHOOL
 SEEKONK, MA 02771

GFA 27,989



Description	Note	Quantity	Unit	Price	Total
Interior Finishes					\$
sand and refinish wood floors (upper level main hallway)		2,756	sf	2.84	7,827
Sub Total - Direct Cost					7,827
General Conditions		20.00%			1,565
Overhead & Profit		23.00%			2,160
Design & Price Reserve		15.00%			1,733
Escalation	Feb-14	8.23%			1,093
Bond		3.00%			431
Soft Costs/Design Fees		30.00%			4,443
Total Project Cost					\$19,252
Interior Finishes					\$
patch and repair plaster walls in gymnasium		6,748	sf	0.62	4,184
paint walls in gymnasium		6,748	sf	1.54	10,392
Sub Total - Direct Cost					14,576
General Conditions		20.00%			2,915
Overhead & Profit		23.00%			4,023
Design & Price Reserve		15.00%			3,227
Escalation	Feb-14	8.23%			2,036
Bond		3.00%			803
Soft Costs/Design Fees		30.00%			8,274
Total Project Cost					\$35,854
Interior Finishes - Gymnasium					\$
remove tectum wall panels	arch allowance	500	sf	1.04	520
new tectum wall panels		500	sf	4.34	2,170
paint tectum panels		500	sf	1.54	770
Sub Total - Direct Cost					3,460
General Conditions		20.00%			692
Overhead & Profit		23.00%			955
Design & Price Reserve		15.00%			766
Escalation	Feb-14	8.23%			483
Bond		3.00%			191
Soft Costs/Design Fees		30.00%			1,964
Total Project Cost					\$8,511

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
 PLEASANT STREET SCHOOL
 SEEKONK, MA 02771

GFA 27,989



Description	Note	Quantity	Unit	Price	Total
Interior Finish					\$
remove plywood ceiling over ramp	allow	500	sf	0.87	435
new gyp ceiling		500	sf	5.93	2,965
paint ceiling		500	sf	1.32	660
Sub Total - Direct Cost					<u>4,060</u>
General Conditions		20.00%			812
Overhead & Profit		23.00%			1,121
Design & Price Reserve		15.00%			899
Escalation	Feb-14	8.23%			567
Bond		3.00%			224
Soft Costs/Design Fees		30.00%			2,305
Total Project Cost					<u><u>\$9,988</u></u>
Clock System					\$
new clock system, wireless		27,989	sf	0.90	25,190
Sub Total - Direct Cost					<u>25,190</u>
General Conditions		20.00%			5,038
Overhead & Profit		23.00%			6,952
Design & Price Reserve		15.00%			5,577
Escalation	Feb-14	8.23%			3,519
Bond		3.00%			1,388
Soft Costs/Design Fees		30.00%			14,299
Total Project Cost					<u><u>\$61,963</u></u>
HVAC					\$
remove boiler		1	ea	3,311.53	3,312
new steam boiler, gas fired	1,700mbh	1	ea	30,664.20	30,664
examine steam traps for repair/replacement		1	day	715.92	716
Sub Total - Direct Cost					<u>34,692</u>
General Conditions		20.00%			6,938
Overhead & Profit		23.00%			9,575
Design & Price Reserve		15.00%			7,681
Escalation	Feb-14	8.23%			4,846
Bond		3.00%			1,912
Soft Costs/Design Fees		30.00%			19,693
Total Project Cost					<u><u>85,337</u></u>

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
 PLEASANT STREET SCHOOL
 SEEKONK, MA 02771

GFA 27,989



Description	Note	Quantity	Unit	Price	Total
HVAC Alternate					\$
Alternate: (seperate item)					
convert to hydronic system (demo entire existing steam, new pipe, purr		27,989	sf	3.65	102,160
Sub Total - Direct Cost					<u>102,160</u>
General Conditions		20.00%			20,432
Overhead & Profit		23.00%			28,196
Design & Price Reserve		15.00%			22,618
Escalation	Feb-14	8.23%			14,271
Bond		2.40%			4,504
Soft Costs/Design Fees		30.00%			57,654
Total Project Cost					<u><u>249,835</u></u>
Electrical Systems					\$
replace electrical devices		27,989	sf	4.50	125,951
replace older electrical panels		included above			
Sub Total - Direct Cost					<u>125,951</u>
General Conditions		20.00%			25,190
Overhead & Profit		23.00%			34,762
Design & Price Reserve		15.00%			27,885
Escalation	Feb-14	8.23%			17,595
Bond		2.40%			5,553
Soft Costs/Design Fees		30.00%			71,081
Total Project Cost					<u><u>\$308,017</u></u>
Plumbing					\$
replace faucets and flush valves with automatic uni allow		50	ea	594.51	29,726
Sub Total - Direct Cost					<u>29,726</u>
General Conditions		20.00%			5,945
Overhead & Profit		23.00%			8,204
Design & Price Reserve		15.00%			6,581
Escalation	Feb-14	8.23%			4,153
Bond		3.00%			1,638
Soft Costs/Design Fees		30.00%			16,874
Total Project Cost					<u><u>73,121</u></u>

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
 PLEASANT STREET SCHOOL
 SEEKONK, MA 02771

GFA 27,989



Description	Note	Quantity	Unit	Price	Total
Automatic Lighting Controls					\$
add automated lighting controls	eng. allowance	27,989	sf	1.25	34,986
Sub Total - Direct Cost					34,986
General Conditions		20.00%			6,997
Overhead & Profit		23.00%			9,656
Design & Price Reserve		15.00%			7,746
Escalation	Feb-14	8.23%			4,887
Bond		3.00%			1,928
Soft Costs/Design Fees		30.00%			19,860
Total Project Cost					\$86,060
Gymnasium Lighting					\$
remove lighting in gym		2,832	sf	0.25	708
new lighting with instant on source		2,832	sf	8.01	22,684
Sub Total - Direct Cost					23,392
General Conditions		20.00%			4,678
Overhead & Profit		23.00%			6,456
Design & Price Reserve		15.00%			5,179
Escalation	Feb-14	8.23%			3,268
Bond		3.00%			1,289
Soft Costs/Design Fees		30.00%			13,279
Total Project Cost					\$57,541



Description	Note	Quantity	Unit	Price	Total
Site Paving					\$
repair pavement along access road		400	sf	4.69	1,876
Sub Total - Direct Cost					1,876
General Conditions		20.00%			375
Overhead & Profit		23.00%			518
Design & Price Reserve		15.00%			415
Escalation	Feb-14	8.23%			262
Bond		3.00%			103
Soft Costs/Design Fees		30.00%			1,065
Total Project Cost					\$4,614
Roofing System					\$
demo roof for cricket installation		3,320	sf	1.14	3,785
vapor barrier		3,320	sf	0.12	398
1/2" dense glass sheathing		3,320	sf	1.70	5,644
epdm roof over new insulation		3,320	sf	5.32	17,662
rigid insulation	2"	3,320	sf	1.91	6,341
build up tapered insulation on existing	ext. poly sty, 6" av;	1,660	bf	1.04	1,726
Sub Total - Direct Cost					35,556
General Conditions		20.00%			7,111
Overhead & Profit		23.00%			9,813
Design & Price Reserve		15.00%			7,872
Escalation	Feb-14	8.23%			4,967
Bond		3.00%			1,960
Soft Costs/Design Fees		30.00%			20,184
Total Project Cost					\$87,463
Roof Drainage					\$
overflow drain at entrance canopy	4"	1	ea	1,710.52	1,711
core roof 6"		1	ea	86.57	87
4" drain pipe and insulation		10	lf	56.23	562
connect to existing		1	ea	521.50	522
drain flashing	4"	1	ea	85.13	85
patch roof	allow	1	ea	283.75	284
Sub Total - Direct Cost					3,251
General Conditions		20.00%			650
Overhead & Profit		23.00%			897
Design & Price Reserve		15.00%			720
Escalation	Feb-14	8.23%			454
Bond		3.00%			179
Soft Costs/Design Fees		30.00%			1,845
Total Project Cost					\$7,996

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
HURLEY MIDDLE SCHOOL
SEEKONK, MA 02771

GFA 101,745



Description	Note	Quantity	Unit	Price	Total
Glass Block Walls					\$
demo glass block wall		1,536	sf	2.08	3,195
demo brick wall		31	sf	4.98	154
demo concrete sill		48	lf	3.90	187
replace low brick with masonry wall		53	sf	34.42	1,824
metal sill at sill of window		48	lf	18.07	867
new insulated Kalwall		1,536	sf	89.59	137,610
Sub Total - Direct Cost					<u>143,837</u>
General Conditions		20.00%			28,767
Overhead & Profit		23.00%			39,699
Design & Price Reserve		15.00%			31,845
Escalation	Feb-14	8.23%			20,093
Bond		2.40%			6,342
Soft Costs/Design Fees		30.00%			81,175
Total Project Cost					<u>\$351,758</u>
Flooring Finishes					\$
remove vct at areas with cracked edges		2,735	sf	0.76	2,079
floor patching/leveling/repair	flash patch	2,735	sf	1.21	3,309
new vct at areas with cracked edges		2,735	sf	3.29	8,998
remove base		423	lf	0.54	228
vinyl base		423	lf	2.52	1,066
remove vct at hallways		5,761	sf	0.76	4,378
floor patching/leveling/repair	flash patch	5,761	sf	1.21	6,971
new vct at hallways		5,761	sf	3.29	18,954
remove base		1,504	lf	0.54	812
vinyl base		1,504	lf	2.52	3,790
remove vct at classrooms		17,616	sf	0.76	13,388
floor patching/leveling/repair		17,616	sf	1.21	21,315
new vct at classrooms		17,616	sf	3.29	57,957
remove base		2,481	lf	0.54	1,340
vinyl base		2,481	lf	2.52	6,252
Sub Total - Direct Cost					<u>150,837</u>
General Conditions		20.00%			30,167
Overhead & Profit		23.00%			41,631
Design & Price Reserve		15.00%			33,395
Escalation	Feb-14	8.23%			21,071
Bond		2.40%			6,650
Soft Costs/Design Fees		30.00%			85,125
Total Project Cost					<u>\$368,876</u>

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
HURLEY MIDDLE SCHOOL
SEEKONK, MA 02771

GFA 101,745



Description	Note	Quantity	Unit	Price	Total
Interior Wall Finish					\$
paint corridors of 1974 wing	10' high	10,510	sf	1.12	11,771
add corner guards as needed	8' high	47	ea	134.52	6,322
Sub Total - Direct Cost					<u>18,093</u>
General Conditions		20.00%			3,619
Overhead & Profit		23.00%			4,994
Design & Price Reserve		15.00%			4,006
Escalation	Feb-14	8.23%			2,528
Bond		3.00%			997
Soft Costs/Design Fees		30.00%			10,271
Total Project Cost					<u><u>\$44,508</u></u>
Plumbing					\$
remove and replace faucets and flush valves with at allow		182	ea	594.51	108,201
Sub Total - Direct Cost					<u>108,201</u>
General Conditions		20.00%			21,640
Overhead & Profit		23.00%			29,863
Design & Price Reserve		15.00%			23,956
Escalation	Feb-14	8.23%			15,115
Bond		2.40%			4,771
Soft Costs/Design Fees		30.00%			61,064
Total Project Cost					<u><u>\$264,610</u></u>
HVAC					\$
remove and replace unit ventilators (50% of 1997 wing)		13	ea	10,430.00	135,590
Sub Total - Direct Cost					<u>135,590</u>
General Conditions		20.00%			27,118
Overhead & Profit		23.00%			37,423
Design & Price Reserve		15.00%			30,020
Escalation	Feb-14	8.23%			18,941
Bond		2.40%			5,978
Soft Costs/Design Fees		30.00%			76,521
Total Project Cost					<u><u>\$331,591</u></u>

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
HURLEY MIDDLE SCHOOL
SEEKONK, MA 02771

GFA 101,745



Description	Note	Quantity	Unit	Price	Total
Update HVAC Control System					\$
update controls for pneumatic to digital		101,745	sf	3.65	371,369
Sub Total - Direct Cost					<u>371,369</u>
General Conditions		16.00%			59,419
Overhead & Profit		18.00%			77,542
Design & Price Reserve		15.00%			76,250
Escalation	Feb-14	8.23%			48,111
Bond		2.40%			15,185
Soft Costs/Design Fees		30.00%			194,363
Total Project Cost					<u><u>\$842,239</u></u>
Add Ventilation					\$
new RTU at music room	eng. allowance	1	ea	16,000.00	16,000
Sub Total - Direct Cost					<u>16,000</u>
General Conditions		20.00%			3,200
Overhead & Profit		23.00%			4,416
Design & Price Reserve		15.00%			3,542
Escalation	Feb-14	8.23%			2,235
Bond		3.00%			882
Soft Costs/Design Fees		30.00%			9,083
Total Project Cost					<u><u>\$39,358</u></u>
HVAC					\$
replace steam distribution piping in original buildin (in tunnels)	eng. allowance	21,000	sf	15.00	315,000
Sub Total - Direct Cost					<u>315,000</u>
General Conditions		16.00%			50,400
Overhead & Profit		18.00%			65,772
Design & Price Reserve		15.00%			64,676
Escalation	Feb-14	8.23%			40,808
Bond		2.40%			12,880
Soft Costs/Design Fees		30.00%			164,861
Total Project Cost					<u><u>\$714,397</u></u>

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
 HURLEY MIDDLE SCHOOL
 SEEKONK, MA 02771

GFA 101,745



Description	Note	Quantity	Unit	Price	Total
HVAC					\$
remove boiler		3	ea	3,311.53	9,935
new steam boiler, gas fired	1,700mbh	3	ea	46,309.20	138,928
examine steam traps for repair/replacement		1	day	715.92	716
Sub Total - Direct Cost					<u>149,579</u>
General Conditions		20.00%			29,916
Overhead & Profit		23.00%			41,284
Design & Price Reserve		15.00%			33,117
Escalation	Feb-14	8.23%			20,896
Bond		2.40%			6,595
Soft Costs/Design Fees		30.00%			84,416
Total Project Cost					<u><u>365,803</u></u>



Description	Note	Quantity	Unit	Price	Total
Add Fire Rated Doors					\$
add 1 hr rated doors at egress stairs		10	leaf	1,358.86	13,589
1 hr partition at doorway		140	sf	10.68	1,495
magnetic closers at doors		10	ea	344.01	3,440
fire alarm conduit and wire		400	lf	9.14	3,656
Sub Total - Direct Cost					22,180
General Conditions		20.00%			4,436
Overhead & Profit		23.00%			6,122
Design & Price Reserve		15.00%			4,911
Escalation	Feb-14	8.23%			3,099
Bond		3.00%			1,222
Soft Costs/Design Fees		30.00%			12,591
Total Project Cost					\$54,561
Accessibility					\$
overall ADA upgrade		56,314	sf	4.50	253,413
Sub Total - Direct Cost					253,413
General Conditions		16.00%			40,546
Overhead & Profit		18.00%			52,913
Design & Price Reserve		15.00%			52,031
Escalation	Feb-14	8.23%			32,830
Bond		2.40%			10,362
Soft Costs/Design Fees		30.00%			132,629
Total Project Cost					\$574,724
Site Paving					\$
remove and dispose of bit. Concrete		24,858	sf	0.98	24,361
bit. Paving, 12"base, 2" binder, 1 1/2" wearing		24,858	sf	3.76	93,466
build up paving to be flush with curb		25	sf	2.09	52
saw cut pavement		86	lf	4.78	411
remove bit. paving		296	lf	0.98	290
bit. Paving basketball courts		12,509	sf	3.02	37,777
court markings		1	ea	494.00	494
basketball goals & footings	NIC	-		-	-
Sub Total - Direct Cost					156,851
General Conditions		20.00%			31,370
Overhead & Profit		23.00%			43,291
Design & Price Reserve		15.00%			34,727
Escalation	Feb-14	8.23%			21,911
Bond		2.40%			6,916
Soft Costs/Design Fees		30.00%			88,520
Total Project Cost					\$383,586



Description	Note	Quantity	Unit	Price	Total
Siding					\$
remove wood siding at old clearstory		650	sf	2.84	1,846
stud infill, insulation, sheath, aluminum siding		650	sf	25.07	16,296
Sub Total - Direct Cost					18,142
General Conditions		20.00%			3,628
Overhead & Profit		23.00%			5,007
Design & Price Reserve		15.00%			4,017
Escalation	Feb-14	8.23%			2,534
Bond		3.00%			1,000
Soft Costs/Design Fees		30.00%			10,298
Total Project Cost					\$44,626
Masonry					\$
clean brick on North elevation		9,254	sf	4.30	39,792
assume 441'x14', 110'x28'					
scaffolding		9,254	sf	1.37	12,678
Sub Total - Direct Cost					52,470
General Conditions		20.00%			10,494
Overhead & Profit		23.00%			14,482
Design & Price Reserve		15.00%			11,617
Escalation	Feb-14	8.23%			7,330
Bond		3.00%			2,892
Soft Costs/Design Fees		30.00%			29,786
Total Project Cost					129,071
Widow Glazing					\$
total replacement		1,225	sf	65.35	80,054
demo windows		1,225	sf	3.69	4,520
Sub Total - Direct Cost					84,574
General Conditions		20.00%			16,915
Overhead & Profit		23.00%			23,342
Design & Price Reserve		15.00%			18,725
Escalation	Feb-14	8.23%			11,815
Bond		2.40%			3,729
Soft Costs/Design Fees		30.00%			47,730
Total Project Cost					206,830



Description	Note	Quantity	Unit	Price	Total
Widow Glazing Alternate					\$
replacement limited windows (clouded in sketch)		71	sf	65.35	4,640
demo windows		71	sf	3.69	262
Sub Total - Direct Cost					<u>4,902</u>
General Conditions		20.00%			980
Overhead & Profit		23.00%			1,353
Design & Price Reserve		15.00%			1,085
Escalation	Feb-14	8.23%			685
Bond		3.00%			270
Soft Costs/Design Fees		30.00%			2,783
Total Project Cost					<u><u>12,058</u></u>
Floor Finishes					\$
remove carpeting, scrape glue at classrooms and library		3,698	sf	0.54	1,997
remove base		486	lf	0.54	262
new carpeting at classrooms and library		3,698	sf	5.04	18,638
vinyl base		486	lf	2.52	1,225
Sub Total - Direct Cost					<u>22,122</u>
General Conditions		20.00%			4,424
Overhead & Profit		23.00%			6,106
Design & Price Reserve		15.00%			4,898
Escalation	Feb-14	8.23%			3,090
Bond		3.00%			1,219
Soft Costs/Design Fees		30.00%			12,558
Total Project Cost					<u><u>\$54,417</u></u>
Ceiling System					\$
remove tectum panels on ceilings, leave grid		5,300	sf	1.14	6,042
replace tectum ceiling panels with act panels		5,300	sf	2.69	14,257
Sub Total - Direct Cost					<u>20,299</u>
General Conditions		20.00%			4,060
Overhead & Profit		23.00%			5,603
Design & Price Reserve		15.00%			4,494
Escalation	Feb-14	8.23%			2,836
Bond		3.00%			1,119
Soft Costs/Design Fees		30.00%			11,523
Total Project Cost					<u><u>\$49,934</u></u>

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
 NORTH SCHOOL
 SEEKONK, MA 02771

GFA 56,314



Description	Note	Quantity	Unit	Price	Total
Clock System					\$
new clock system, wireless		56,314		0.90	50,683
Sub Total - Direct Cost					<u>50,683</u>
General Conditions		20.00%			10,137
Overhead & Profit		23.00%			13,989
Design & Price Reserve		15.00%			11,221
Escalation	Feb-14	8.23%			7,080
Bond		3.00%			2,793
Soft Costs/Design Fees		30.00%			28,771
Total Project Cost					<u><u>\$124,674</u></u>
Floor Finishes					\$
remove rubber flooring (original building to east wing)		40	sf	0.76	30
repair floor below demo		40	sf	1.21	48
new flooring at demolished area	vct?	40	sf	3.29	132
remove base		40	lf	0.54	22
vinyl base		40	lf	2.52	101
Sub Total - Direct Cost					<u>333</u>
General Conditions		20.00%			67
Overhead & Profit		23.00%			92
Design & Price Reserve		15.00%			74
Escalation	Feb-14	8.23%			47
Bond		3.00%			18
Soft Costs/Design Fees		30.00%			189
Total Project Cost					<u><u>\$820</u></u>
HVAC					\$
remove boilers		2	ea	5,319.30	10,639
replace boilers, gas fired	2,146mbh	2	ea	36,713.60	73,427
Sub Total - Direct Cost					<u>84,066</u>
General Conditions		20.00%			16,813
Overhead & Profit		23.00%			23,202
Design & Price Reserve		15.00%			18,612
Escalation	Feb-14	8.23%			11,744
Bond		2.40%			3,706
Soft Costs/Design Fees		30.00%			47,443
Total Project Cost					<u><u>\$205,586</u></u>

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
 NORTH SCHOOL
 SEEKONK, MA 02771

GFA 56,314



Description	Note	Quantity	Unit	Price	Total
Electrical System					\$
replace original electrical panels		56,314	sf	4.40	247,782
Sub Total - Direct Cost					247,782
General Conditions		16.00%			39,645
Overhead & Profit		18.00%			51,737
Design & Price Reserve		15.00%			50,875
Escalation	Feb-14	8.23%			32,100
Bond		2.40%			10,131
Soft Costs/Design Fees		30.00%			129,681
Total Project Cost					\$561,951
Plumbing					\$
remove and replace faucets and flush valves with automatic units		101	ea	594.51	60,046
Sub Total - Direct Cost					60,046
General Conditions		20.00%			12,009
Overhead & Profit		23.00%			16,573
Design & Price Reserve		15.00%			13,294
Escalation	Feb-14	8.23%			8,388
Bond		2.40%			2,647
Soft Costs/Design Fees		30.00%			33,887
Total Project Cost					\$146,844
Update HVAC Control System					\$
update controls for pneumatic to digital		56,314	sf	3.65	205,546
Sub Total - Direct Cost					205,546
General Conditions		16.00%			32,887
Overhead & Profit		18.00%			42,918
Design & Price Reserve		15.00%			42,203
Escalation	Feb-14	8.23%			26,628
Bond		2.40%			8,404
Soft Costs/Design Fees		30.00%			107,576
Total Project Cost					\$466,162

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
 NORTH SCHOOL
 SEEKONK, MA 02771

GFA 56,314



Description	Note	Quantity	Unit	Price	Total
Automatic Lighting Controls					\$
add automated lighting controls	eng. allowance	56,314	sf	1.25	70,393
Sub Total - Direct Cost					70,393
General Conditions		20.00%			14,079
Overhead & Profit		23.00%			19,429
Design & Price Reserve		15.00%			15,585
Escalation	Feb-14	8.23%			9,834
Bond		2.40%			3,104
Soft Costs/Design Fees		30.00%			39,727
Total Project Cost					\$172,151
Flooring System/Haz Mat Concern					\$
remove 9x9 tile in basement		5,320	sf	9.88	52,562
new vct floor		5,320	sf	3.29	17,503
floor patching/leveling/repair	flash patch	5,320	sf	1.21	6,437
Sub Total - Direct Cost					76,502
General Conditions		20.00%			15,300
Overhead & Profit		23.00%			21,114
Design & Price Reserve		15.00%			16,937
Escalation	Feb-14	8.23%			10,687
Bond		2.40%			3,373
Soft Costs/Design Fees		30.00%			43,174
Total Project Cost					\$187,087

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
 AITKIN ELEMENTARY SCHOOL
 SEEKONK, MA 02771

GFA 52,009



Description	Note	Quantity	Unit	Price	Total
Basic Quantities		GFA	Girth		
level 1		52,009 sf	1,648 lf		
Site Paving					\$
repair depression in Rye St. access		450 sf		4.69	2,111
Sub Total - Direct Cost					2,111
General Conditions		20.00%			422
Overhead & Profit		23.00%			583
Design & Price Reserve		15.00%			467
Escalation	Feb-14	8.23%			295
Bond		3.00%			116
Soft Costs/Design Fees		30.00%			1,198
Total Project Cost					\$5,192
Roofing System					\$
demo roof at center section		9,490 sf		1.14	10,819
tapered insulation at center section	6" avg	4,745 bf		1.04	4,935
flashing at walls at center section		376 lf		5.62	2,113
epdm roof at center section		9,490 sf		5.32	50,487
demo roof at west canopy		600 sf		1.14	684
remove existing roof drain		1 ea		124.12	124
new roof drain at west canopy	8"	1 ea		1,642.73	1,643
new epdm roof at west canopy		600 sf		5.32	3,192
new fascia		305 lf		19.68	6,002
Sub Total - Direct Cost					79,999
General Conditions		20.00%			16,000
Overhead & Profit		23.00%			22,080
Design & Price Reserve		15.00%			17,712
Escalation	Feb-14	8.23%			11,176
Bond		2.40%			3,527
Soft Costs/Design Fees		30.00%			45,148
Total Project Cost					\$195,642

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
 AITKIN ELEMENTARY SCHOOL
 SEEKONK, MA 02771

GFA 52,009



Description	Note	Quantity	Unit	Price	Total
Exterior Masonry					\$
clean north wall masonry		3,400	sf	4.43	15,062
seal north wall		3,400	sf	2.10	7,140
scaffolding		3,400	sf	1.37	4,658
Sub Total - Direct Cost					<u>26,860</u>
General Conditions		20.00%			5,372
Overhead & Profit		23.00%			7,413
Design & Price Reserve		15.00%			5,947
Escalation	Feb-14	8.23%			3,752
Bond		3.00%			1,480
Soft Costs/Design Fees		30.00%			15,247
Total Project Cost					<u><u>\$66,071</u></u>
Masonry Repointing					\$
backer rod and sealant at sills		78	lf	7.14	557
Sub Total - Direct Cost					<u>557</u>
General Conditions		20.00%			111
Overhead & Profit		23.00%			154
Design & Price Reserve		15.00%			123
Escalation	Feb-14	8.23%			78
Bond		3.00%			31
Soft Costs/Design Fees		30.00%			316
Total Project Cost					<u><u>\$1,370</u></u>
Widow Glazing					\$
total replacement		1,870	sf	65.35	122,205
demo windows		1,870	sf	3.69	6,900
Sub Total - Direct Cost					<u>129,105</u>
General Conditions		20.00%			25,821
Overhead & Profit		23.00%			35,633
Design & Price Reserve		15.00%			28,584
Escalation	Feb-14	8.23%			18,035
Bond		2.40%			5,692
Soft Costs/Design Fees		30.00%			72,861
Total Project Cost					<u><u>\$315,731</u></u>

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
 AITKIN ELEMENTARY SCHOOL
 SEEKONK, MA 02771

GFA 52,009



Description	Note	Quantity	Unit	Price	Total
HVAC					\$
replace old unit ventilators in older wing		19	ea	10,430.00	198,170
Sub Total - Direct Cost					<u>198,170</u>
General Conditions		20.00%			39,634
Overhead & Profit		18.00%			42,805
Design & Price Reserve		15.00%			42,091
Escalation	Feb-14	8.23%			26,558
Bond		2.40%			8,382
Soft Costs/Design Fees		30.00%			107,292
Total Project Cost					<u><u>\$464,932</u></u>
Lighting Controls					\$
add automated lighting controls	eng. allowance	52,009	sf	1.25	65,011
Sub Total - Direct Cost					<u>65,011</u>
General Conditions		20.00%			13,002
Overhead & Profit		23.00%			17,943
Design & Price Reserve		15.00%			14,393
Escalation	Feb-14	8.23%			9,082
Bond		2.40%			2,866
Soft Costs/Design Fees		30.00%			36,689
Total Project Cost					<u><u>\$158,986</u></u>
ADA Sink Replacement					\$
replace non-ADA sinks and modify casework - 3' section		9	ea	1,907.55	17,168
Sub Total - Direct Cost					<u>17,168</u>
General Conditions		20.00%			3,434
Overhead & Profit		23.00%			4,738
Design & Price Reserve		15.00%			3,801
Escalation	Feb-14	8.23%			2,398
Bond		3.00%			946
Soft Costs/Design Fees		30.00%			9,746
Total Project Cost					<u><u>\$42,231</u></u>

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
 AITKIN ELEMENTARY SCHOOL
 SEEKONK, MA 02771

GFA 52,009



Description	Note	Quantity	Unit	Price	Total
Fascia Replacement					\$
metal fascia		274	lf	12.49	3,422
blocking		364	bf	2.83	1,030
Sub Total - Direct Cost					4,452
General Conditions		20.00%			890
Overhead & Profit		23.00%			1,229
Design & Price Reserve		15.00%			986
Escalation	Feb-14	8.23%			622
Bond		3.00%			245
Soft Costs/Design Fees		30.00%			2,527
Total Project Cost					<u>\$10,951</u>

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
HIGH SCHOOL
SEEKONK, MA 02771

GFA 143,070



Description	Note	Quantity	Unit	Price	Total
Basic Quantities		GFA	Girth		
level 1		123,504 sf	2,757 lf		
level 2		19,566 sf	682 lf		
Controls					\$
cctv cameras	exterior	3	ea	2,816.58	8,450
security system wiring		120	lf	11.56	1,387
Sub Total - Direct Cost					9,837
General Conditions		20.00%			1,967
Overhead & Profit		23.00%			2,715
Design & Price Reserve		15.00%			2,178
Escalation	Feb-14	8.23%			1,374
Bond		3.00%			542
Soft Costs/Design Fees		30.00%			5,584
Total Project Cost					24,197
Plumbing/Accessibility					\$
remove select sinks		6	ea	68.84	413
new select sinks with ADA compliant sinks		6	ea	1,413.27	8,480
Sub Total - Direct Cost					8,893
General Conditions		20.00%			1,779
Overhead & Profit		23.00%			2,455
Design & Price Reserve		15.00%			1,969
Escalation	Feb-14	8.23%			1,242
Bond		3.00%			490
Soft Costs/Design Fees		30.00%			5,048
Total Project Cost					\$21,876

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
HIGH SCHOOL
SEEKONK, MA 02771

GFA 143,070



Description	Note	Quantity	Unit	Price	Total
Site Paving					\$
demo bit. Paving		7,891	sf	0.98	7,733
bit. paving, 12"base, 2" binder, 1 1/2" wearing		7,891	sf	3.76	29,670
reset catch basin rim		1	ea	287.51	288
remove bit. concrete Sidewalk		3,907	sf	0.98	3,829
bit. concrete sidewalk		3,907	sf	2.39	9,338
remove concrete sidewalk		160	sf	1.61	258
concrete sidewalk		160	sf	5.71	914
remove tree		1	ea	1,235.00	1,235
replace curbing along sidewalks where reveal < 4" - eastern side of sch		460	lf	19.70	9,062
Sub Total - Direct Cost					62,327
General Conditions		20.00%			12,465
Overhead & Profit		23.00%			17,202
Design & Price Reserve		15.00%			13,799
Escalation	Feb-14	8.23%			8,707
Bond		2.40%			2,748
Soft Costs/Design Fees		30.00%			35,174
Total Project Cost					\$152,422
Drainage System					\$
remove terracotta drains in courtyard		2	ea	136.34	273
terracotta drains in courtyard		2	ea	2,470.00	4,940
remove terracotta piping in courtyard	6"	282	lf	20.70	5,837
terracotta pipe in courtyard	6"	282	lf	28.41	8,012
Sub Total - Direct Cost					19,062
General Conditions		20.00%			3,812
Overhead & Profit		23.00%			5,261
Design & Price Reserve		15.00%			4,220
Escalation	Feb-14	8.23%			2,663
Bond		3.00%			1,051
Soft Costs/Design Fees		30.00%			10,821
Total Project Cost					\$46,890
Trees					\$
remove trees in courtyard		6	ea	1,235.00	7,410
remove trees around exterior of building		1	ea	1,235.00	1,235
Sub Total - Direct Cost					8,645
General Conditions		20.00%			1,729
Overhead & Profit		23.00%			2,386
Design & Price Reserve		15.00%			1,914
Escalation	Feb-14	8.23%			1,208
Bond		3.00%			476
Soft Costs/Design Fees		30.00%			4,907
Total Project Cost					\$21,265



Description	Note	Quantity	Unit	Price	Total
Roofing Flashings					\$
metal flashing, bridge over existing		322	lf	5.62	1,810
Sub Total - Direct Cost					1,810
General Conditions		20.00%			362
Overhead & Profit		23.00%			500
Design & Price Reserve		15.00%			401
Escalation	Feb-14	8.23%			253
Bond		3.00%			100
Soft Costs/Design Fees		30.00%			1,028
Total Project Cost					\$4,454
Roofing Modifications					\$
metal flashing	see detail	322	lf	7.38	2,376
metal flashing continuous with cleat		322	lf	5.62	1,810
corrugated spacer		322	lf	2.27	731
sealer and backer rod		322	lf	6.24	2,009
Sub Total - Direct Cost					6,926
General Conditions		20.00%			1,385
Overhead & Profit		23.00%			1,912
Design & Price Reserve		15.00%			1,533
Escalation	Feb-14	8.23%			968
Bond		3.00%			382
Soft Costs/Design Fees		30.00%			3,932
Total Project Cost					\$17,038
Roofing Systems					\$
demo roof		39,544	sf	1.14	45,080
tapered insulation	6" avg	19,772	bf	1.04	20,563
vapor barrier		39,544	sf	0.12	4,745
1/2" dense glass sheathing		39,544	sf	1.70	67,225
epdm roof		39,544	sf	5.32	210,374
wall flashing, raised up		224	lf	5.68	1,272
roof drains as necessary	eng. allowance	16	ea	1,642.73	26,284
storm water drainage		39,544	ea	1.56	61,689
Sub Total - Direct Cost					437,232
General Conditions		16.00%			69,957
Overhead & Profit		16.00%			81,150
Design & Price Reserve		15.00%			88,251
Escalation	Feb-14	8.23%			55,683
Bond		2.40%			17,575
Soft Costs/Design Fees		30.00%			224,954
Total Project Cost					\$974,802

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
HIGH SCHOOL
SEEKONK, MA 02771

GFA 143,070



Description	Note	Quantity	Unit	Price	Total
Chimney					\$
repoint chimney		510	sf	27.76	14,158
remove chimney cap		30	lf	4.46	134
chimney cap		30	lf	52.05	1,562
scaffolding		1	ls	1,548.00	1,548
Sub Total - Direct Cost					<u>17,402</u>
General Conditions		20.00%			3,480
Overhead & Profit		23.00%			4,803
Design & Price Reserve		15.00%			3,853
Escalation	Feb-14	8.23%			2,431
Bond		3.00%			959
Soft Costs/Design Fees		30.00%			9,878
Total Project Cost					<u><u>\$42,806</u></u>
Phone System					\$
upgrade phone system		1	ls	50,000.00	50,000
Sub Total - Direct Cost					<u>50,000</u>
General Conditions		20.00%			10,000
Overhead & Profit		23.00%			13,800
Design & Price Reserve		15.00%			11,070
Escalation	Feb-14	8.23%			6,985
Bond		3.00%			2,756
Soft Costs/Design Fees		30.00%			28,383
Total Project Cost					<u><u>\$122,994</u></u>
Roofing Structure					\$
Paint exposed structure over pool					
floor protection		9,300	sf	0.35	3,255
staging		9,300	sf	2.00	18,600
prep ceiling/remove rust		9,300	sf	2.44	22,692
paint exposed structure over pool		9,300	sf	3.13	29,109
Sub Total - Direct Cost					<u>73,656</u>
General Conditions		20.00%			14,731
Overhead & Profit		23.00%			20,329
Design & Price Reserve		15.00%			16,307
Escalation	Feb-14	8.23%			10,289
Bond		2.40%			3,247
Soft Costs/Design Fees		30.00%			41,568
Total Project Cost					<u><u>\$180,127</u></u>

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
HIGH SCHOOL
SEEKONK, MA 02771

GFA 143,070



Description	Note	Quantity	Unit	Price	Total
Stage Flooring System					\$
demo stage floor		2,250	sf	3.15	7,088
new stage floor		2,250	sf	15.48	34,830
Sub Total - Direct Cost					41,918
General Conditions		20.00%			8,384
Overhead & Profit		23.00%			11,569
Design & Price Reserve		15.00%			9,281
Escalation	Feb-14	8.23%			5,856
Bond		3.00%			2,310
Soft Costs/Design Fees		30.00%			23,795
Total Project Cost					\$103,113
Plumbing					\$
remove and replace faucets and flush valves with automatic units		256	ea	594.51	152,195
Sub Total - Direct Cost					152,195
General Conditions		20.00%			30,439
Overhead & Profit		23.00%			42,006
Design & Price Reserve		15.00%			33,696
Escalation	Feb-14	8.23%			21,261
Bond		2.40%			6,710
Soft Costs/Design Fees		30.00%			85,892
Total Project Cost					\$372,199
Controls					\$
programming upgrade to allow for remote control of system		40	hr	696.72	27,869
Sub Total - Direct Cost					27,869
General Conditions		20.00%			5,574
Overhead & Profit		23.00%			7,692
Design & Price Reserve		15.00%			6,170
Escalation	Feb-14	8.23%			3,893
Bond		3.00%			1,536
Soft Costs/Design Fees		30.00%			15,820
Total Project Cost					\$68,554

CAPITAL IMPROVEMENTS TO TOWN BUILDINGS
HIGH SCHOOL
SEEKONK, MA 02771

GFA 143,070



Description	Note	Quantity	Unit	Price	Total
Floor Finishes/Haz Mat Concern					\$
remove 9x9 floor tiles at classrooms	ACT	6,000	sf	9.88	59,280
vct floors at classrooms		6,000	sf	3.29	19,740
Sub Total - Direct Cost					79,020
General Conditions		20.00%			15,804
Overhead & Profit		23.00%			21,810
Design & Price Reserve		15.00%			17,495
Escalation	Feb-14	8.23%			11,039
Bond		2.40%			3,484
Soft Costs/Design Fees		30.00%			44,596
Total Project Cost					\$193,248
Courtyard Access					\$
demo small classroom		162	sf	14.82	2,401
renovate classroom for access		162	sf	35.85	5,808
oversized doors		4	leaf	1,238.45	4,954
cut and demo exterior walls for access		84	sf	9.88	830
Sub Total - Direct Cost					13,993
General Conditions		20.00%			2,799
Overhead & Profit		23.00%			3,862
Design & Price Reserve		15.00%			3,098
Escalation	Feb-14	8.23%			1,955
Bond		3.00%			771
Soft Costs/Design Fees		30.00%			7,943
Total Project Cost					\$34,421
Maintenance Storage					\$
demo wood structures		2,000	sf	3.46	6,920
metal building		3,200	sf	29.06	92,992
overhead doors 10x10		4	ea	3,247.37	12,989
personnel door		1	leaf	1,484.34	1,484
slab on grade		3,200	sf	6.47	20,704
strip footings		240	lf	44.51	10,682
spread footings		16	ea	202.24	3,236
foundation wall		960	sf	82.23	78,941
Sub Total - Direct Cost					227,948
General Conditions		16.00%			36,472
Overhead & Profit		18.00%			47,596
Design & Price Reserve		15.00%			46,802
Escalation	Feb-14	8.23%			29,531
Bond		2.40%			9,320
Soft Costs/Design Fees		30.00%			119,301
Total Project Cost					516,970