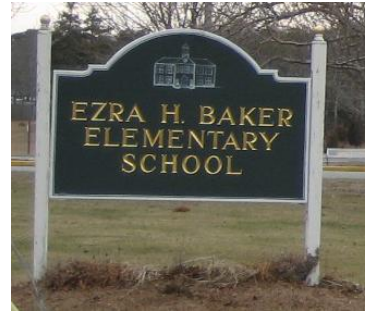


# Capital Assessment Plan for the Dennis Public Schools

Ezra Baker Elementary School



Wixon Middle School



Prepared by

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*December 20, 2013*

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The Dennis-Yarmouth Regional School District has been proactive in dealing with the maintenance and upkeep of all the school buildings. A Capital Assessment Plan for all of the elementary schools and middle school was completed in 2008. Some of the recommended improvements noted in that plan have been implemented. There are many recommended improvements that were not completed and a re-assessment of the needs is in order. This study is a re-evaluation of the needs presented in the 2008 report and also provides a series of new needs that have emerged since the last survey. This report will allow for a prioritized list of work items and funding to be scheduled before the conditions change and major repairs became necessary.

Although the facility maintenance department continues to schedule routine maintenance improvements and upgrades, there are items in each of the schools that should be reviewed that fall outside the prevue of regular maintenance review.

The current school administration is seeking to be able to forecast building needs and funds and seek to produce a current assessment plan for all of the schools in the DY District. This assessment report will serve as the “master plan” of building components that should be addressed. This report projects costs for the next 5 years and establishes a hierarchy of when the components should be dealt with based on the observed present conditions.

# CAPITAL ASSESSMENT PLAN DESCRIPTION

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## **General**

Knight, Bagge & Anderson, Inc. was requested by the Dennis-Yarmouth Regional School District to review and update the Capital Assessment Study of all public schools in the District that was completed in 2008. The study includes:

- Field assessment of existing conditions including site, architectural, plumbing, mechanical and electrical components
- Quality Assessment of potential work items
- Generate plan documents of each building
- Note and photo documentation of existing conditions
- Cost estimates based on a 5-year projection of phased expenditures

The engineering firm of Garcia, Galuska, DeSouza. provided services for plumbing, mechanical and electrical systems.

## **Methods Employed**

### *Facility Analysis*

Initially KBA produced all of the existing site plans and floor plans for each school on CADD. Site visits were made to confirm the accuracy of the plans. Team members for all disciplines (Architectural, plumbing, mechanical and electrical) made field observations of all systems and components in each building. Conditions were photographed and documented. Questionnaires about systems at each school were issued to the district and their responses have been incorporated into this report. Interviews of maintenance and school administrators were conducted to gain input about the history and observed performance of the building systems and components.

### *Cost Estimates*

Quantity take offs were made of all building components. Based on field evaluation and assessments of each building element, a hierarchy was established that predicts the anticipated life expectancy remaining for each element. Cost estimates were then generated that reflect the hierarchy of work items and forecast both the critical time and projected cost impact of addressing the capital improvements over the next 5-year period.

## **Assessment Report Intent**

This report is a review of the conditions of numerous items and systems throughout each school building. We have presented our professional opinions as to when each item should need to be addressed. It is recommended that this report be reviewed annually and updated to address any items that may not have performed as anticipated that need to be adjusted as to when it should be addressed.

# PERTINENT CODE ISSUES & SCHOOL BUILDING ASSESSED VALUES

There are many Building Code issues that come into play in evaluating the triggers for work that must be performed as part of any school renovation project. Several building codes are triggered based on the cost of a project. The Massachusetts Architectural Access Board (MAAB) and the codes governing when a building must have sprinklers installed are two such items that must be evaluated in determining the scope of work for any proposed work at the schools.

## 1. Building Accessibility for Persons with Disabilities

### *Requirements*

Alterations to the building must comply with the requirements of the Massachusetts Architectural Access Board Regulations (521 CMR). For existing school buildings the requirements of 521 CMR are based on the cost of the proposed work. If the cost of the proposed work is **less than \$100,000**, only the new work must comply. If the cost of the proposed work is **greater than \$100,000**, then all new work must comply and the existing building must include an accessible public entrance, toilet room, telephone and drinking fountain (if public phones and drinking fountains are provided) (521 CMR Section 3.3.1(b)). Exempt work when calculating the cost of work includes roof repairs or replacement, window repairs or replacement and repointing and masonry repair work. The total amount of exempt work allowed to be deducted from this compliance threshold totals \$500,000 in any three-year period. If the cost of the proposed work is **greater than 30% of the fully assessed cash value** of the existing building, then the entire building is required to fully comply with 521 CMR (521 CMR Section 3.3.2). There is no exempt work in determining the 30% criteria.

As described above, any proposed work that exceeds \$100,000 will require that an accessible entrance, toilet rooms and drinking fountain be provided. The full assessed value of each of the existing school buildings is presented in this report. Therefore, any proposed work over a 36 month period exceeding the 30% threshold mandates that that entire school be brought into compliance.

## 2. Fire Protection Systems:

### *Requirements*

780 CMR. Fire protection systems required by 780 CMR 9 (including fire sprinklers, standpipe systems, fire alarm systems, fire detection systems, and/or fire extinguishers) are required to be provided in existing buildings (or portions thereof), which are substantially altered or substantially renovated. A substantial renovation or alteration is defined as work, which is major in scope and expenditure when compared to the work and expenditure, required for the installation of a fire protection system. The building official makes the determination of whether a particular renovation is substantial (780 CMR Section 3404.12 & 3401.1). Although the definition of substantial renovation does not contain a specific dollar threshold, if the cost of the fire protection system can be included in the project budget without increasing the project budget by more than 15% the renovation is generally considered substantial. A 15% threshold has been added to the fire protection requirements for existing buildings in the 7th edition of 780 CMR which is now governing project design since September, 2008.

As described above, if the cost to install a new sprinkler system in any of the schools is less than 15% of the cost of the proposed renovation, then the project is considered to be a substantial renovation and if so, then installing a sprinkler system would be required.

# PERTINENT CODE ISSUES & SCHOOL BUILDING ASSESSED VALUES

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## SCHOOL ASSESSED VALUES

The fully assessed values for each of the schools was provided by the Dennis Assessor's Office. The following are the values for the schools in Dennis:

School	Building Assessed Value
Ezra Baker Elem.	\$1,490,000
Wixon MS	\$5,096,600

Therefore, it is important to evaluate the possible increased scope of work that may be the result of the dollar value of proposed work during any 36 month period that could trigger the need for code improvement upgrades, most notably the Massachusetts Architectural Access Code.

From the MAAB perspective, if the value of permitted work over any 36 month period exceeds 30 percent of the full assessed value of the building, then the work must include bringing the entire building into compliance with MAAB. Those values for the schools in Dennis are as follows:

Ezra Baker     $\$1,490,000 \times 30\% = \mathbf{\$447,000}$

Wixon MS      $\$5,096,600 \times 30\% = \mathbf{\$1,528,980}$

## SCHOOL BUILDING HISTORY/ DESCRIPTION

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### Ezra Baker Elementary School

810 Route 28

West Dennis, MA

Principal: Kevin Depin

Current Grades: PK-3 & Seal Program

2013-2014 Student Enrollment: 400

Total Square Footage: 68,000 s.f.

The original building was constructed in 1930 and additions were built in the 1950's and 1960's. Since the additions in the 50's and 60's several major improvement projects were completed including window replacement done over 15 years ago and the addition of 2 elevators in 2000 and 2002 that made all levels and programs in the building accessible for wheelchair users. The original building is masonry construction, as are each of the additions. Major improvements were done to the Baker Elementary School in 2012 including new windows, new roofs and accessibility upgrades throughout the building. The building site is 14 acres and there are paved drives and parking on the southeast side as well as a large parking lot on the west side of the site. There are baseball fields on the east and northeast sides of the site, a playground at the east side and a large open field to the north of the building.

### Nathaniel Wixon Middle School

901 Route 134

South Dennis, MA

Principal: Emily Mezzetti

Current Grades: 4-5

2013-2014 Student Enrollment: 500

Total Square Footage: 117,500

The original building was constructed in 1969 and an addition was built in 1990. The majority of the building is a single story structure, however, the back of the site is sloped downward so there is a lower level classroom wing at the rear of

## **SCHOOL BUILDING HISTORY/ DESCRIPTION**

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the building. The existing building, and the addition, have exterior brick veneer and exposed CMU backup on the interior. Most of the roofs are sloped slightly and there are several flat roofs. All roofs are covered with a single-ply, adhered rubber membrane. There is a paved drive around the entire building and there are large parking lots, one on the northern side of the site and one to the southern end of the building. There is a smaller lot in front of the building with a limited quantity of designated parking spaces. There is a tot lot and playground located on the southwest side of the site and there are baseball and softball fields toward the south side of the lot. There is a 5 lane, quarter mile running track along the east edge of the site that can be seen from Route 134.

# ASSESSMENT SURVEY INFORMATION

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## ASSESSMENT SURVEY INFORMATION

All components of the buildings and site were viewed, documented and photographed. A professional judgment of the observed conditions was made and a priority scale value of 1, 2 or 3 was assessed to each item. The Conditions scale is as follows:

### Priority

1. Is given to an item where action is recommended immediately (within 1 – 3 years). These items include life safety issues.
2. Is given to an item where immediate action is not warranted, however, repairs should be anticipated within 4 – 5 years.
3. Is given to an item that is performing as designed and no actions to repair/replace should be required within the next 5 years.

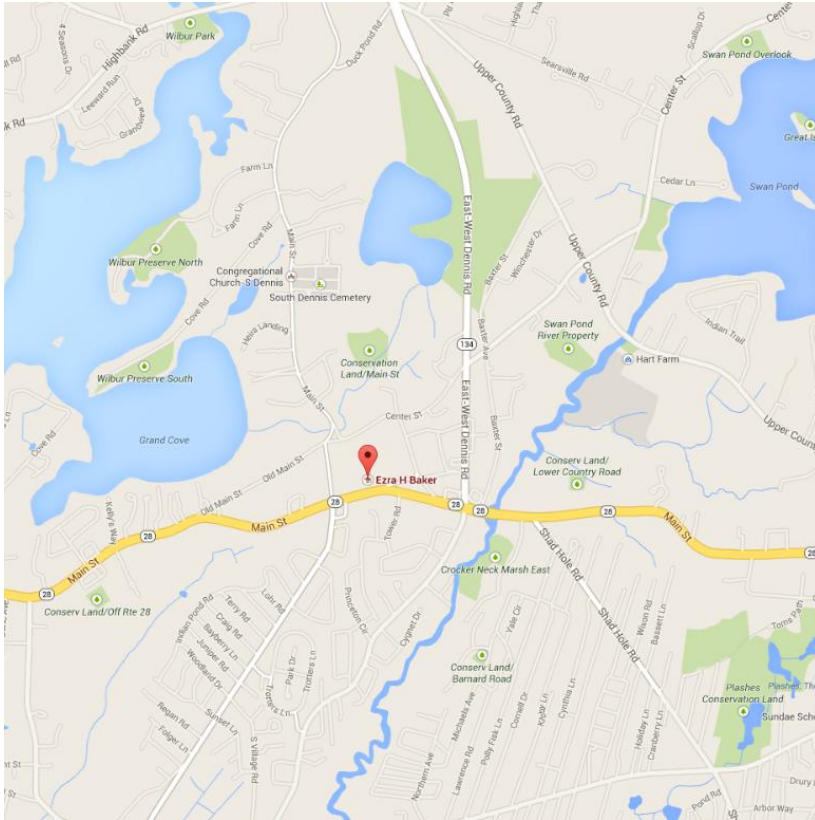
## **COST ESTIMATE DESCRIPTION**

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The format for the cost estimate is broken down into the priority assessment mentioned in the Existing Conditions Survey. This breakdown provides a clear listing and cost for items that are recommended to be addressed in the coming 1 - 3 years and also projects the costs to address anticipated items in the next 4 - 5 years.

There is a tabulation of costs, according to priority, at the end of the estimate for each school.

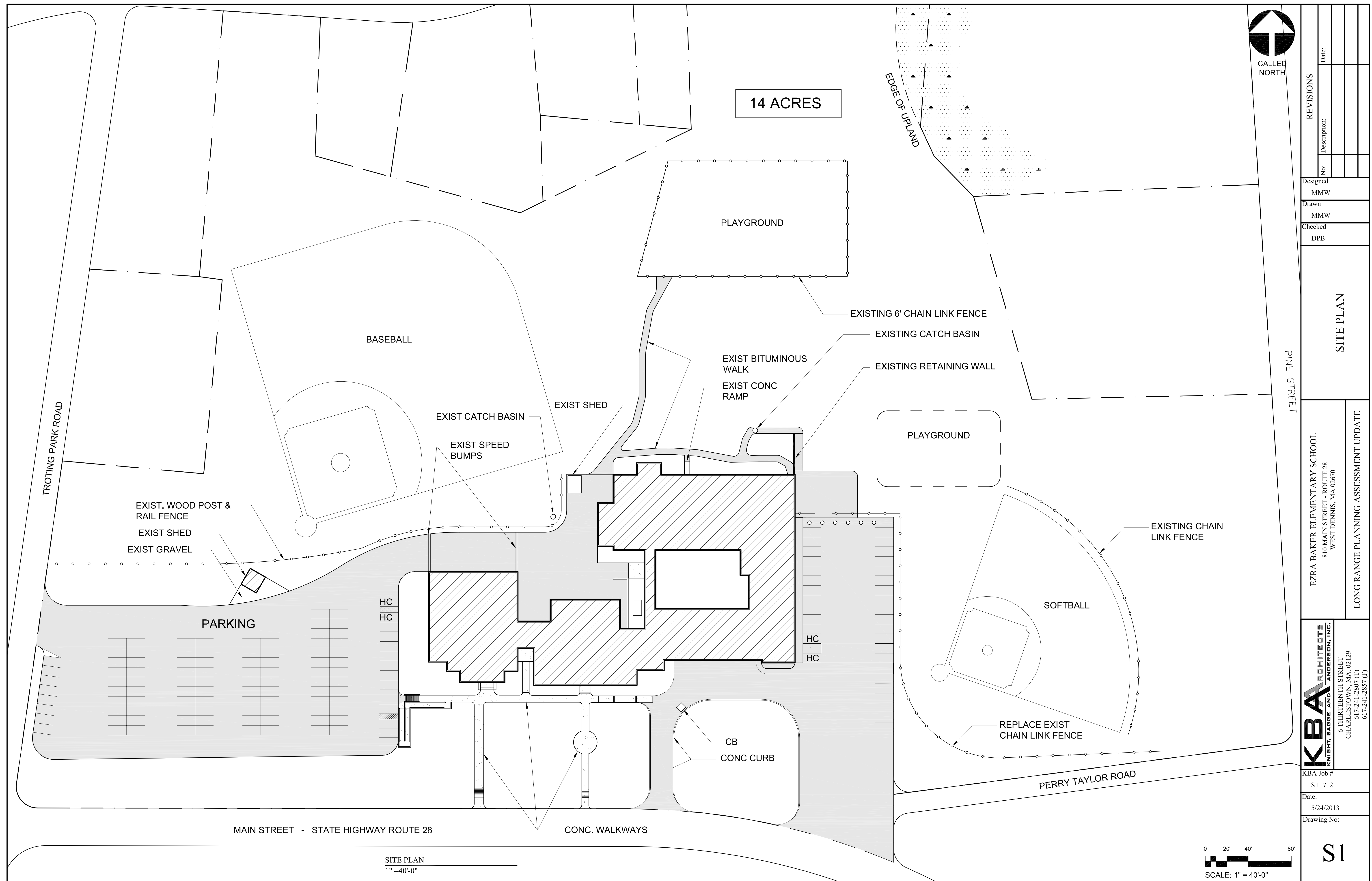
**Ezra H. Baker Elementary School**  
810 Route 28  
West Dennis, Massachusetts

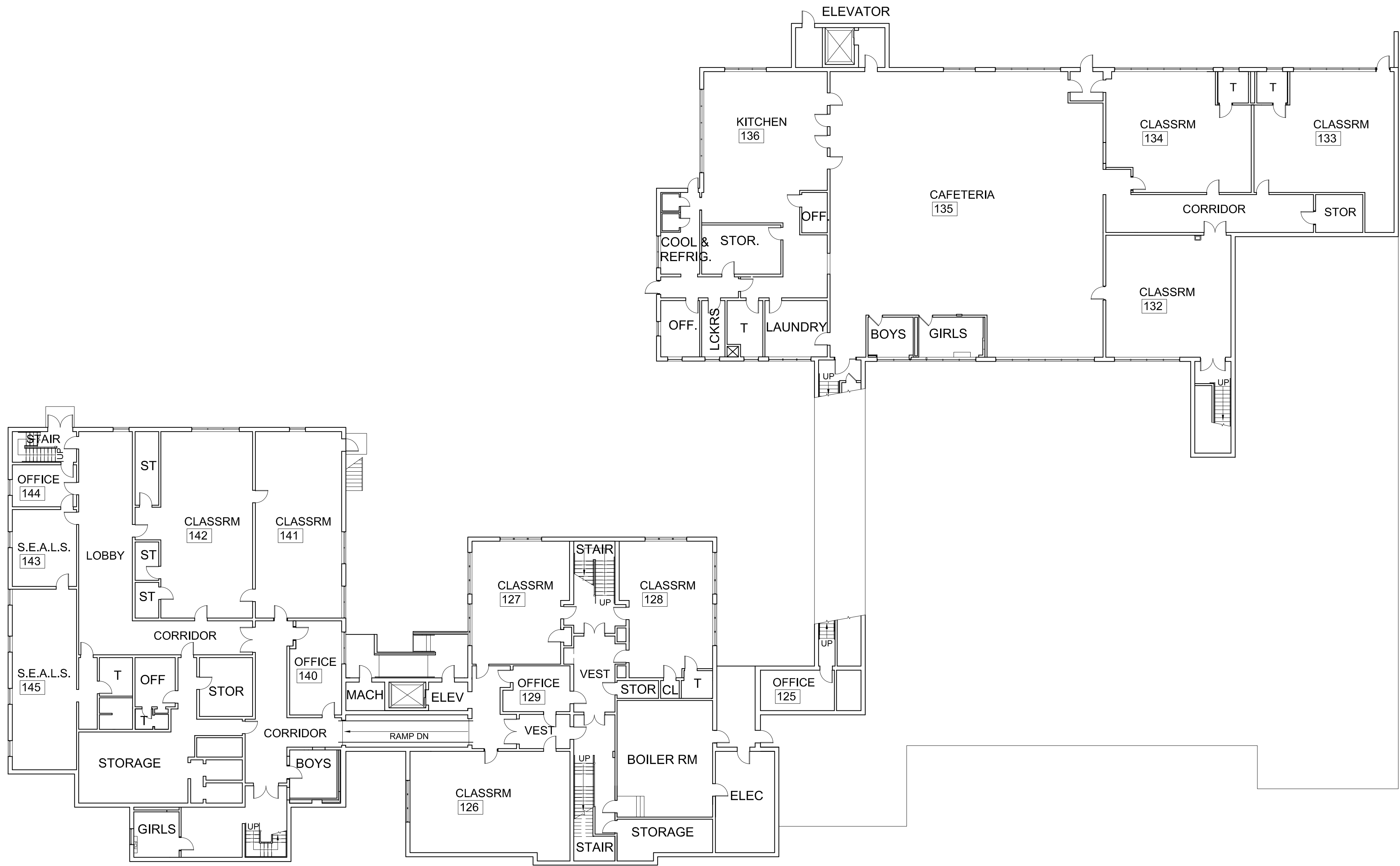
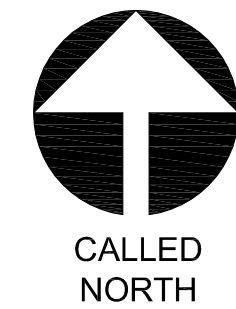


**Locus Map**

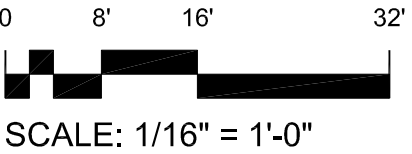


**Aerial Site Plan**





GROUND FLOOR PLAN  
1/16" = 1'-0"



REVISIONS		Date:
No.	Description:	

Designed MMW
Drawn MMW
Checked DPB

GROUND FLOOR PLAN

EZRA BAKER ELEMENTARY SCHOOL  
810 MAIN STREET - ROUTE 28  
WEST DENNIS, MA 02670

LONG RANGE PLANNING ASSESSMENT UPDATE

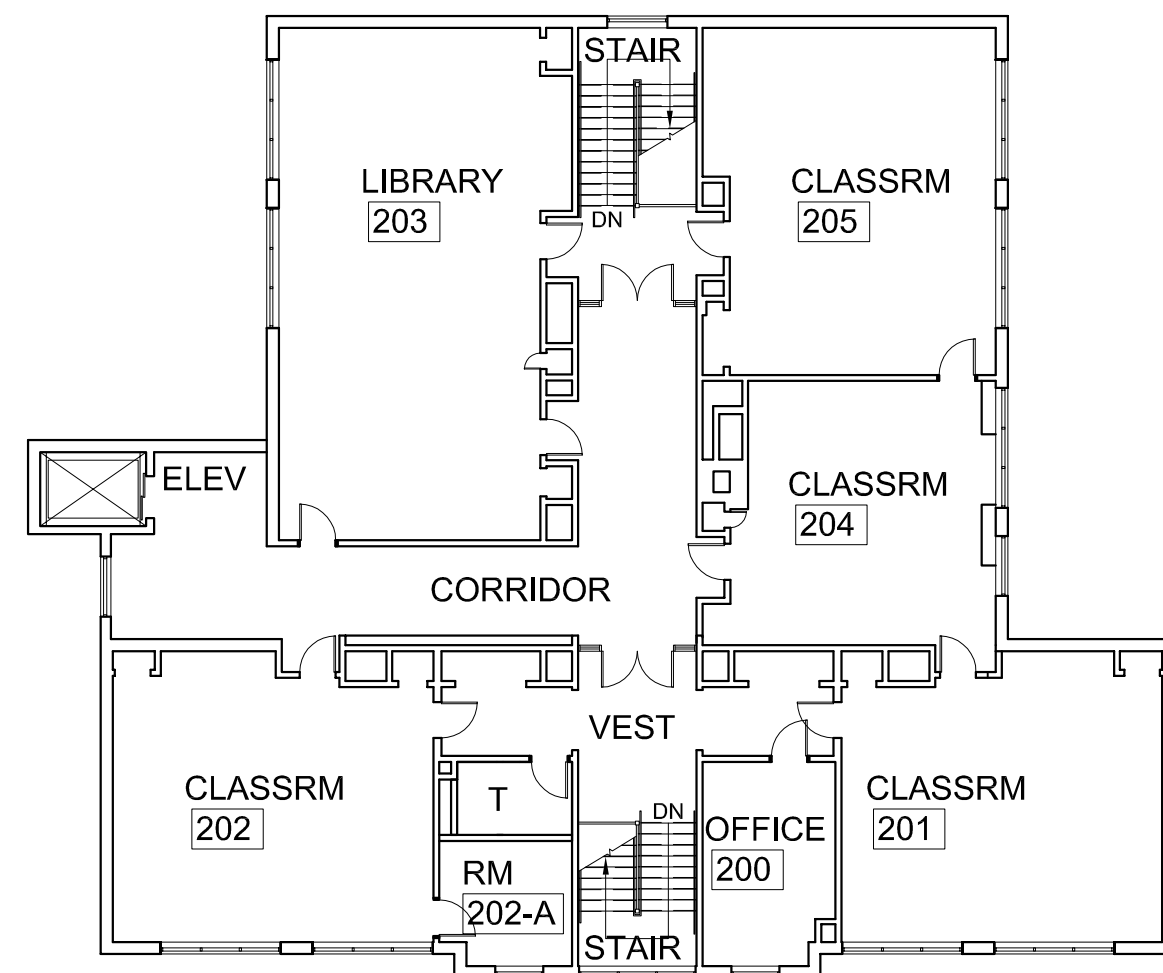
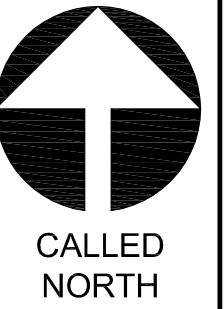
**KBA ARCHITECTS**  
KNIGHT, BAIGE AND ANDERSON, INC.  
6 THIRTEENTH STREET  
CHARLESTOWN, MA. 02129  
617-241-2807 (T)  
617-241-2857 (F)

KBA Job #  
ST1712

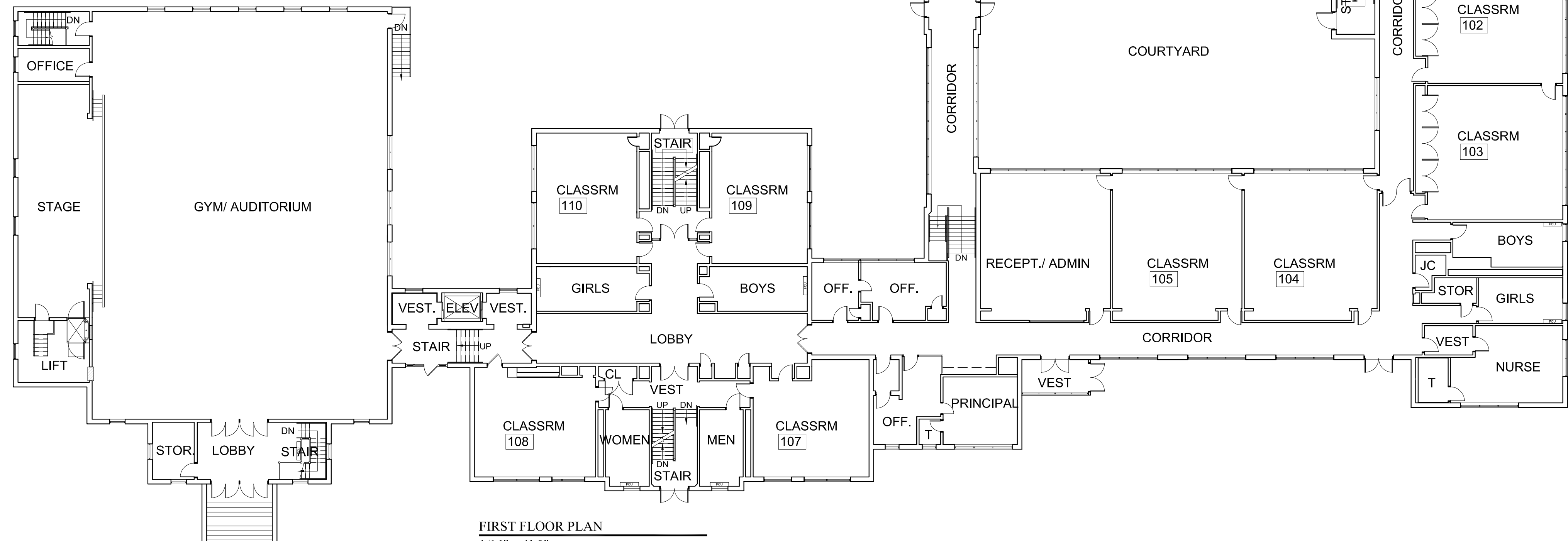
Date:  
5/24/2013

Drawing No:

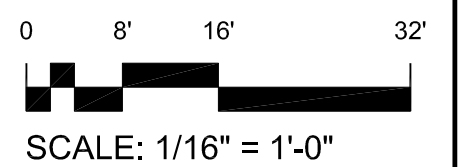
A0



SECOND FLOOR PLAN  
1/16" = 1'-0"



FIRST FLOOR PLAN  
1/16" = 1'-0"



No:	Description:	Date:

signed  
MMW

MMW

DPB

## FIRST & SECOND FLOOR PLANS

810 MAIN STREET - ROUTE 28  
WEST DENNIS, MA 02670

## LONG RANGE PLANNING ASSESSMENT UPDATE

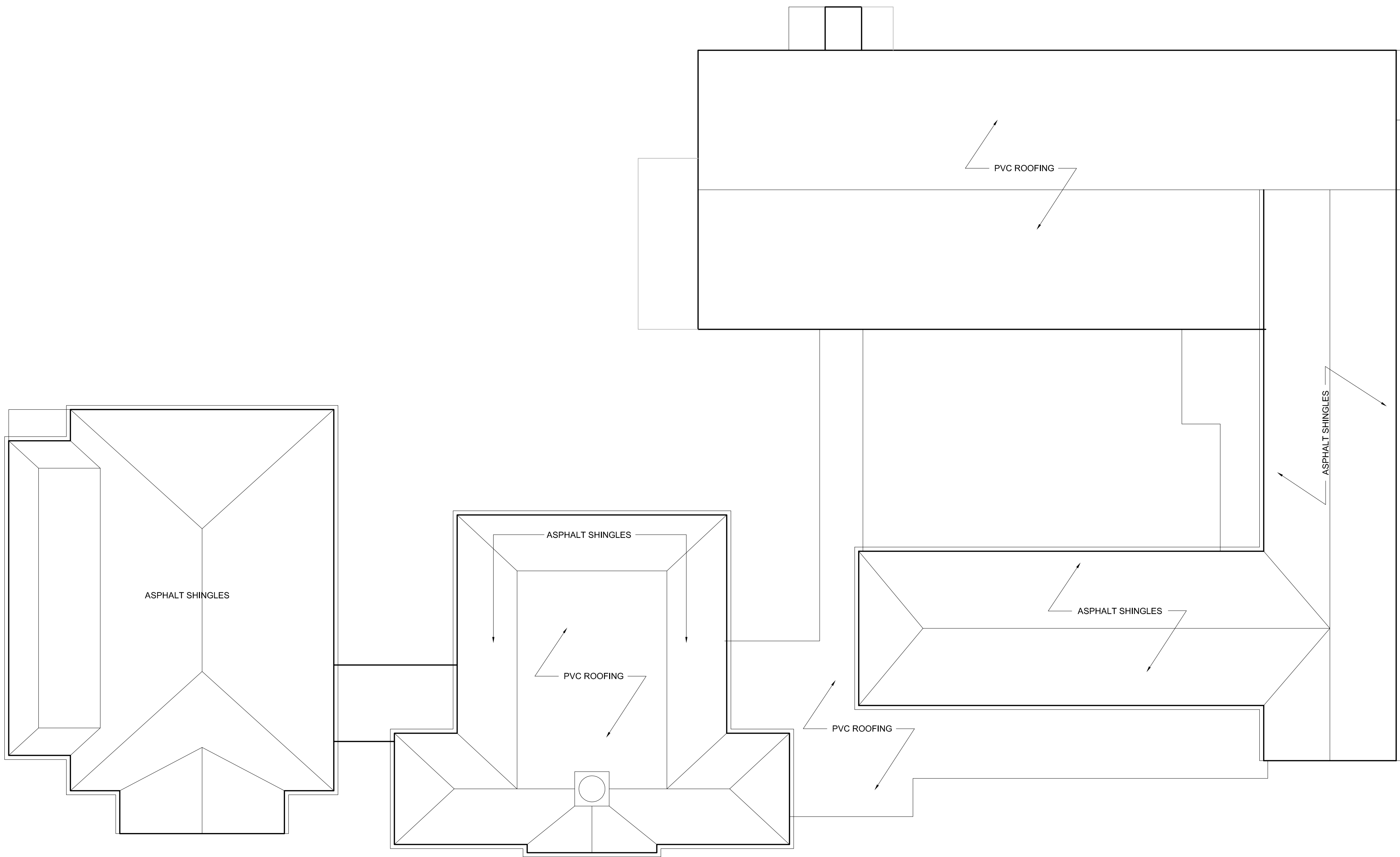
**BAGGE AND ANDERSON, INC.**  
ARCHITECTS  
6 THIRD TWENTIETH STREET

A Job #  
ST1712

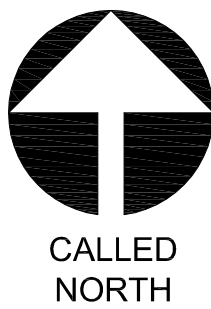
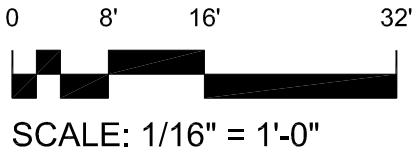
5/24/2013

Drawing No:

A1







ROOF PLAN  
1/16" = 1'-0"



<div>KBA ARCHITECTS KNIGHT, BARGE AND ANDERSON, INC. 6 THIRTEENTH STREET CHARLESTOWN, MA. 02129 617-241-2807 (T) 617-241-2857 (F)</div> <div>KBA Job # ST1712</div> <div>Date: 5/24/2013</div> <div>Drawing No:  A2</div>		EZRA BAKER ELEMENTARY SCHOOL 810 MAIN STREET - ROUTE 28 WEST DENNIS, MA 02670		ROOF PLAN	Checked DPB	Drawn MMW	Designed MMW	REVISIONS	
		No:	Description:					Date:	
LONG RANGE PLANNING ASSESSMENT UPDATE									





**SITE WORK**

FY14 Recommendations, Cost & Priorities									
Item	Photographs	Recommendations	Remarks	Unit	Unit Cost	Qty	Cost		
							Priority 1	Priority 2	Priority 3
		<b>Driveways</b>							
1		Crack Repairs		SF	\$0.35	3000		\$ 1,050	
2		Sealer		SF	\$0.30	3000		\$ 900	
3		Line Painting		LS	\$500	1		\$ 500	
		<b>Parking</b>							
4		Crack Repairs		SF	\$0.35	95000		\$ 33,250	
5		Sealer		SF	\$0.30	95000		\$ 28,500	
6		Line Painting		LS	\$2,500	1		\$ 2,500	
7		New Drainage		LS	\$8,000	1	\$8,000		

Priority Code Legend

1. Action recommended in 1-3 years (life safety, imminent failure or code compliance) 2. Action recommended in 4-5 years 3. No immediate action recommended

**SITE WORK**


FY14 Recommendations, Cost & Priorities									
Item	Photographs	Recommendations	Remarks	Unit	Unit Cost	Qty	Cost		
							Priority 1	Priority 2	Priority 3
		<b>Walkways</b>							
8		Concrete Repairs/Replacement		SF	\$18.00	700		\$12,600	
9		Bituminous Repair/Replacement		SF	\$11.00	500			\$ 5,500
		<b>Site Improvements</b>							
10		Chain link fencing		LS	\$7,500	1	\$7,500		
11		Landscaping		LS	\$3,000	1		\$3,000	

Priority Code Legend

1. Action recommended in 1-3 years (life safety, imminent failure or code compliance) 2. Action recommended in 4-5 years 3. No immediate action recommended

**SITE WORK**





**FY14 Recommendations, Cost & Priorities**

Item	Photographs	Recommendations	Remarks	Unit	Unit Cost	Qty	Cost		
							Priority 1	Priority 2	Priority 3
12		Loam and seeding		LS	\$3,000	1	\$3,000		
Site Work Subtotals							\$18,500	\$82,300	\$5,500
							Priority 1	Priority 2	Priority 3

Priority Code Legend

1. Action recommended in 1-3 years (life safety, imminent failure or code compliance) 2. Action recommended in 4-5 years 3. No immediate action recommended




**EXTERIOR ENVELOPE**

FY14 Recommendations, Cost & Priorities									
Item	Photographs	Recommendations	Remarks	Unit	Unit Cost	Qty	Cost		
							Priority 1	Priority 2	Priority 3
		<b>Roofs</b>							
1		Sloped Asphalt Roofs	Reroofed 2012						
2		Gutters/Downspouts	Newly installed 2012						
3		Cupola Repair		LS	\$20,000	1	\$20,000		
4		Flat PVC Membrane Roof	Reroofed 2012						

Priority Code Legend

1. Action recommended in 1-3 years (life safety, imminent failure or code compliance) 2. Action recommended in 4-5 years 3. No immediate action recommended


**EXTERIOR ENVELOPE**

FY14 Recommendations, Cost & Priorities									
Item	Photographs	Recommendations	Remarks	Unit	Unit Cost	Qty	Cost		
							Priority 1	Priority 2	Priority 3
		<b>Exterior Walls</b>							
5		Concrete Foundation Repairs		LS	\$5,000	1		\$5,000	
6		Brick repairs		LS	\$25,000	1		\$25,000	
7		Brick repointing							
8		5-10%		SF	\$8	500		\$4,000	
9		10-25%		SF	\$10	200		\$2,000	
10		25-50%		SF	\$12	100		\$1,200	
11		Brick cleaning and dampproofing		SF	\$5	5000		\$25,000	
12		Painted exterior woodwork	Entrances completed 2013. Canopy paint needed. Woodwork detail Priority 2	LS			\$15,000	\$45,000	
		<b>Doors/Windows</b>							
13		Replace exterior doors	Replaced 2012						

Priority Code Legend

1. Action recommended in 1-3 years (life safety, imminent failure or code compliance) 2. Action recommended in 4-5 years 3. No immediate action recommended

**EXTERIOR ENVELOPE**




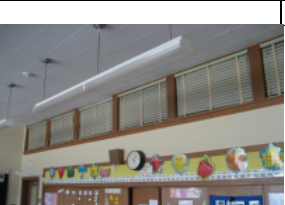
FY14 Recommendations, Cost & Priorities									
Item	Photographs	Recommendations	Remarks	Unit	Unit Cost	Qty	Cost		
							Priority 1	Priority 2	Priority 3
14		Replace steel fire escape from gymnasium		LS	\$35,000	1	\$35,000		
15		Caulk at exterior windows	Replaced 2012						
Exterior Envelope Subtotals							\$70,000	\$107,200	\$0
							Priority 1	Priority 2	Priority 3

Priority Code Legend

1. Action recommended in 1-3 years (life safety, imminent failure or code compliance) 2. Action recommended in 4-5 years 3. No immediate action recommended

ARCHITECTURAL INTERIORS

FY14 Recommendations, Cost & Priorities






Item	Photographs	Recommendations	Remarks	Unit	Unit Cost	Qty	Cost		
							Priority 1	Priority 2	Priority 3
		<b>Parts A and B</b>							
1		<i>Classrooms</i>							
2		Resilient tile floors		SF	\$7	500	\$3,500		
3		Refinish wood floors (remove carpet)		SF	\$9.00	3000	\$27,000		
4		Painted CMU/plaster walls		LS	\$5,000	1			\$5,000
5		Painted plaster ceilings		LS	\$2,000	1			\$2,000
6		Repair suspended acoustical tile ceilings/grid		LS	\$1,000	1		\$1,000	

Priority Code Legend

1. Action recommended in 1-3 years (life safety, imminent failure or code compliance) 2. Action recommended in 4-5 years 3. No immediate action recommended

ARCHITECTURAL INTERIORS

FY14 Recommendations, Cost & Priorities




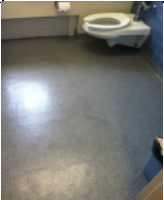
Item	Photographs	Recommendations	Remarks	Unit	Unit Cost	Qty	Cost		
							Priority 1	Priority 2	Priority 3
		<i>Corridors</i>							
7		Resilient tile floors (including abatement)		SF	\$12.00	2000	\$24,000		
8		Painted CMU walls		LS	\$2,000	1		\$2,000	
9		Painted plaster walls	Painted 2012	LS	\$8,000	1			\$8,000
10		Painted plaster ceilings		LS	\$5,000	1		\$5,000	
11		Suspended acoustical tile ceilings repairs		LS	\$2,000	1			\$2,000

Priority Code Legend

1. Action recommended in 1-3 years (life safety, imminent failure or code compliance) 2. Action recommended in 4-5 years 3. No immediate action recommended

ARCHITECTURAL INTERIORS

FY14 Recommendations, Cost & Priorities

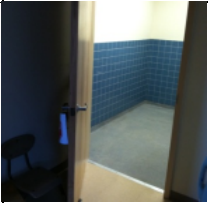

Item	Photographs	Recommendations	Remarks	Unit	Unit Cost	Qty	Cost		
							Priority 1	Priority 2	Priority 3
		<b>Gymnasium</b>							
12		Refinish/reline wood floor		SF	\$7.50	5000		\$37,500	
13		Refinish wood wainscot		LS	\$5,000	1		\$5,000	
14		Painted plaster walls above wainscoting		LS	\$10,000	1		\$10,000	
15		Repair/replace tectum ceiling panels		LS	\$3,000	1		\$3,000	
		<b>Toilets</b>							
16		Seamless resin flooring	Installed 2012						

Priority Code Legend

1. Action recommended in 1-3 years (life safety, imminent failure or code compliance) 2. Action recommended in 4-5 years 3. No immediate action recommended

ARCHITECTURAL INTERIORS

FY14 Recommendations, Cost & Priorities



Item	Photographs	Recommendations	Remarks	Unit	Unit Cost	Qty	Cost		
							Priority 1	Priority 2	Priority 3
17		Painted plaster/CMU walls	Done in 2012						
18		Painted plaster ceiling	Done in 2012						
19		Suspended acoustical tile ceilings	Done in 2012						
		<b>Parts B and C</b>							
		<b>Classrooms</b>							
20		Resilient tile floors (remove carpet, abate VAT)		SF	\$12.00	12000		\$144,000	
21		Carpet (remove carpet, abate VAT)		SF	\$9.00	900	\$8,100		
22		Painted plaster walls		LS	\$15,000	1			\$15,000
23		Painted plaster ceilings		LS	\$1,000	1			\$1,000
24		New suspended acoustical tile ceilings (replace 1x1 tiles)		SF	\$5.00	12000			\$60,000
		<b>Corridors</b>							
25		Resilient tile floors	In good condition						
26		Glazed tile wainscot	In good condition						
27		Painted plaster walls	In good condition						
		<b>Administration</b>							
28		Carpet (remove existing and abate VAT)		SF	\$10.00	900	\$9,000		
29		Painted plaster walls	In good condition						

Priority Code Legend

1. Action recommended in 1-3 years (life safety, imminent failure or code compliance) 2. Action recommended in 4-5 years 3. No immediate action recommended

ARCHITECTURAL INTERIORS

FY14 Recommendations, Cost & Priorities




Item	Photographs	Recommendations	Remarks	Unit	Unit Cost	Qty	Cost		
							Priority 1	Priority 2	Priority 3
30		Paint existing 1 x 1 acoustical tile ceilings		SF	\$4.00	900	\$3,600		
		<b>Health Suite</b>							
31		Resilient tile floors	Done in 2012						
32		Painted plaster walls above wood wainscot	Done in 2012						
33		Painted plaster ceilings	Done in 2012						
		<b>Cafeteria</b>							
34		Terrazzo Floors	Repair cracks	LS	\$5,000	1			\$5,000
35		Glazed tile wainscot/painted plaster walls	In good condition						
36		Suspended acoustical tile ceilings		LS	\$1,000	1			\$1,000

Priority Code Legend

1. Action recommended in 1-3 years (life safety, imminent failure or code compliance) 2. Action recommended in 4-5 years 3. No immediate action recommended

ARCHITECTURAL INTERIORS

FY14 Recommendations, Cost & Priorities


Item	Photographs	Recommendations	Remarks	Unit	Unit Cost	Qty	Cost		
							Priority 1	Priority 2	Priority 3
		<b>Kitchen</b>							
37		Quarry tile floors	In good condition						
38		Ceramic tile/painted plaster walls	In good condition						
39		Plaster ceilings	In good condition						
40		Suspended acoustical tile ceilings	In good condition						
		<b>Miscellaneous</b>							
41		Interior doors and frames at toilets in D Bldg- replace		LS	\$7,000	1	\$7,000		
42		Interior doors and frames - repair	Done in 2012						
43		Interior door hardware - repair/replace	Done in 2012						
44		Chalk boards/marker boards	Smart boards have been installed						
45		Toilet compartments	Done in 2012						
46		Toilet room accessories	Done in 2012						

Priority Code Legend

1. Action recommended in 1-3 years (life safety, imminent failure or code compliance) 2. Action recommended in 4-5 years 3. No immediate action recommended

**ARCHITECTURAL INTERIORS**

**FY14 Recommendations, Cost & Priorities**

Item	Photographs	Recommendations	Remarks	Unit	Unit Cost	Qty	Cost		
							Priority 1	Priority 2	Priority 3
47		Drinking fountains	Done in 2012						
		<b>Accessibility</b>							
48		Exterior pair doors/new exterior stair, ramp and rails		LS	\$25,000	1		\$25,000	
		Install new keyless access door including work at head end		LS	\$36,000	1	\$36,000		
		<b>Entrance security sequence modification</b>							
49		Install new partitions, doors and electronic hardware to create a security point for check in during occupied times		LS	\$20,000	1	\$20,000		
			Architectural Interiors Subtotals				\$138,200	\$232,500	\$99,000
							Priority 1	Priority 2	Priority 3

Priority Code Legend

1. Action recommended in 1-3 years (life safety, imminent failure or code compliance) 2. Action recommended in 4-5 years 3. No immediate action recommended



**GARCIA • GALUSKA • DESOUSA**  
Consulting Engineers, Inc.  
370 Faunce Corner Road, Dartmouth, MA 02747-1217

Ezra H. Baker Elementary School  
810 Route 28, West Dennis, MA  
Square Footage: 68,000

**FIRE PROTECTION**





**FY14 Recommendations, Cost & Priorities**

Item	Photographs	Recommendations	Remarks	Unit	Unit Cost	Qty	Cost		
							Priority 1	Priority 2	Priority 3
1		Fully sprinklered building	Provide in major building upgrade.	LS	\$306,000	1			\$306,000
2		Fire Pump if required	Provide in major building upgrade.	LS	\$65,000	1			\$65,000
3		Fire Service	Provide in major building upgrade.	LS	\$20,000	1			\$20,000
Fire Protection Subtotals							\$0	\$0	\$391,000
							Priority 1	Priority 2	Priority 3

Priority Code Legend

1. Action recommended in 1-3 years (life safety, imminent failure or code compliance) 2. Action recommended in 4-5 years 3. No immediate action recommended

**PLUMBING**

FY14 Recommendations, Cost & Priorities									
Item	Photographs	Recommendations	Remarks	Unit	Unit Cost	Qty	Cost		
							Priority 1	Priority 2	Priority 3
1		Domestic water main piping is in fair condition. A recent toilet room upgrade replaced a portion of piping within the toilet rooms. Continue to repair/replace water piping as necessary, annually.		LS	\$7,000	1	\$7,000		
2		The 1989 water heater remains in fair to good condition but is inactive presently. The shell & tube water heater is active during the building heating season. Store water at 140F to avoid Legioneres Disease.							
3		Pipe insulation is in fair to good condition, however where work was done at heater, mixer & circ pumps there is no insulation. There is no insulation on water piping in the adjoining room leading to the pipe tunnel. Recommend: Insulate uninsulated water piping at heater, mixing valve & room adjoining boiler room.		LS	\$2,300	1	\$2,300		
4		Valves, fittings & backflow preventer are in fair to good condition. The mixing valve has corrosion at the unions. Repair/replace mixing valve.	Continue testing backflow preventers annually.	LS	\$3,000	1	\$3,000		
5		Drinking fountains & coolers have been replaced w/ accessible units & are in good condition.							

Priority Code Legend

1. Action recommended in 1-3 years (life safety, imminent failure or code compliance) 2. Action recommended in 4-5 years 3. No immediate action recommended







**GARCIA • GALUSKA • DESOUSA**  
Consulting Engineers, Inc.  
370 Fausso Corner Road, Dartmouth, MA 02747-1217

Ezra H. Baker Elementary School  
810 Route 28, West Dennis, MA  
Square Footage: 68,000

## PLUMBING




### FY14 Recommendations, Cost & Priorities

Item	Photographs	Recommendations	Remarks	Unit	Unit Cost	Qty	Cost		
							Priority 1	Priority 2	Priority 3
							Priority 1	Priority 2	Priority 3
6		Urinals & flush valves have been replaced and are in good condition.							
7		The majority of lavatories have been replace w/ accessible, water conserving fixtures. A few staff lavatories are in fair to good condition.							
8		The majority of water closets & flush valves have been replaced and are in good condition. A few staff toilets are in fair to good condition.							
9		The classroom sinks, faucets & bubblers have been replaced in a recent project and are in good condition.							
Plumbing Subtotals							\$12,300	\$0	\$0
							Priority 1	Priority 2	Priority 3

#### Priority Code Legend

1. Action recommended in 1-3 years (life safety, imminent failure or code compliance) 2. Action recommended in 4-5 years 3. No immediate action recommended

**HVAC**



FY14 Recommendations, Cost & Priorities									
Item	Photographs	Recommendations	Remarks	Unit	Unit Cost	Qty	Cost		
							Priority 1	Priority 2	Priority 3
1	 New Controls Compressor 2011   Steam Boilers   Condensate Receiver & Pumps	<p>A new oil tank and lock system should be installed .</p> <p>Mechanical Room: Boilers - Weil McLain H-1488-WG dual fuel, 3550 MBH gross output, burners with autoflame combustion management system, blowdown to sump pit, makeup water provided with RBPB, combustion air provisions high and low. Boiler feed/condensate transfer unit. New condensate pump - 2011, New motor - original pump 2009. Open vent on receiver - vapor in boiler room. Double wall oil tank - 8463 gallon tank, veeder root TLS-300C Monitor/Gauge, fuel oil pumpset. Indirect domestic hot water heater. Steam/hot water heat exchanger (not operational). Summer boiler - AO Smith. Boiler breeching into masonry chimney - could not determine if chimney was lined. Fuseomatic controls over boiler burners &amp; at ceiling. Emergency boiler shutoffs at boiler entrance. Piping insulation in good shape. Old duplex compressor for pneumatic controls as back up. New quincy duplex compressor - 2011. Recommendation: Cap open vent on receiver which fills boiler room with steam. Replace pneumatic controls with DDC Controls.</p>	Boiler and condensate handling equipment is at 50% life expectancy.						
			Install new tank moitoring and lock	LS	\$20,000	1	\$20,000		
			DDC Controls.	SF	\$6.00	68000			\$408,000
			Convert boilers to hot water.	SF	\$3.00	68000			\$204,000
			Replace building HVAC equipment - convert to hot water.	SF	\$17.75	68000			\$1,207,000
			Replace piping for hot water conversion.	SF	\$4.00	68000			\$272,000
2		General: Traps replace as required.							
3		Public Spaces: Generally fintube radiation for heating with no provisions for ventilation or AC.							

Priority Code Legend

1. Action recommended in 1-3 years (life safety, imminent failure or code compliance) 2. Action recommended in 4-5 years 3. No immediate action recommended

**HVAC**

**FY14 Recommendations, Cost & Priorities**




Item	Photographs	Recommendations	Remarks	Unit	Unit Cost	Qty	Cost		
							Priority 1	Priority 2	Priority 3
4	 Gym H&V Unit	Gymnasium: (2) HV units in closet on each side of stage to side wall registers in wall adjacent to stage; return through return registers at stage level back to units. Outside air via roof hood. Concealed radiators; paddle fans.	Units at end of serviceable life.						
5									
6		Computer Room: Unit Ventilator with remote ACCU for ceiling. Ceiling paddle fan.							
7		MDF Room: Thru-wall AC unit.							
8		Cafeteria: (3) UVs for heat/vent.							
9		Teachers Dining: UV/radiation for heat/vent.							
10	 Kitchen Hood Exhaust	Kitchen: Dishwasher hood exhaust galvanized, kitchen hood equipment, no ansul system, UV for kitchen heat/vent/makeup, paddle fans. Washer/dryer in space. Walk-in condenser exhaust to room - window prop fan to exhaust heat. Recommendation: Add ansul system to hood. Locate walk-in cooler condensing unit outside.	Units at end of serviceable life.						
			Ansul system for hood.	LS		1	\$4,000		
			Outdoor cooler cond. unit.	LS		1		\$15,000	
11		Toilet: All toilet rooms have been provided with toilet exhaust from a central system and steam heating where applicable; several restrooms have been renovated.							
12		Corridors/Entries: Hot water heating/no mechanical ventilation. Hot water cabinet unit heaters.							

Priority Code Legend

1. Action recommended in 1-3 years (life safety, imminent failure or code compliance) 2. Action recommended in 4-5 years 3. No immediate action recommended

**HVAC**



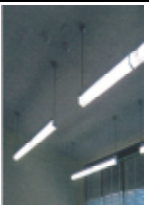

**FY14 Recommendations, Cost & Priorities**

Item	Photographs	Recommendations	Remarks	Unit	Unit Cost	Qty	Cost		
							Priority 1	Priority 2	Priority 3
13	 Unit Ventilator   Steam Radiator   Typical Classroom Exhaust	Classrooms: UVs for ventilation/heat, fintube radiation along exterior wall, remote thermostat control, operable windows; exhaust in closets.							
14		Gravity Exhaust: Steam coil still connected to old gravity exhaust system; verify system inoperable.							
15		Library: (2) unit ventilators for heating and ventilating; fintube radiation under windows; operable windows.	Units at end of serviceable life.						
16		Administration: Exterior offices provided with steam heating with remote thermostat control, operable windows for ventilation and window AC for cooling.	Units at end of serviceable life.						
17		Main Office: Unit vent.	Units at end of serviceable life.						
18		Principal: A ductless air conditioner.							
19		New Addition Classrooms: UVs for ventilation/heat, fintube radiation along exterior wall, remote thermostat control, operable windows; mechanical exhaust system to each classroom.	Units at end of serviceable life.						
20		Steam Tunnels: Steam and condensate piping under floor in steam tunnels to various points of building.							
21		Physical Therapy: AC, UV and ductless air conditioner.							
22		General: Add ductless AC units for office spaces		SF	\$15.00	1000	\$15,000		
HVAC Subtotals							\$39,000	\$15,000	\$2,091,000
							Priority 1	Priority 2	Priority 3

Priority Code Legend

1. Action recommended in 1-3 years (life safety, imminent failure or code compliance) 2. Action recommended in 4-5 years 3. No immediate action recommended





**ELECTRICAL**

FY14 Recommendations, Cost & Priorities									
Item	Photographs	Recommendations	Remarks	Unit	Unit Cost	Qty	Cost		
							Priority 1	Priority 2	Priority 3
1		Power Service: Main switchboard has an 800 amp and was installed as part of an electrical panel upgrade in 2007. The equipment is in good condition. Recommendations: None							
2		Panels: New equipment is in good condition. Recommendations: None	Item has been addressed since previous study, original panels have been replaced.						
3		Exterior/Site Lighting: Light fixtures are in good condition. New roadway lighting pole fixtures have been installed with LED lighting. Lighting should be installed at new HC ramp and stair Recommendations: Install lighting for exterior ramp and stair	Item has been addressed since previous study.	LS	\$15,000	1	\$15,000		
4		Classroom Lighting: Lighting is in good condition. Recommendations: Add occupancy sensors with wall switches to classrooms.		EA	\$263.00	300		\$78,900	
5		Corridor Lighting: Lighting is energy efficient. LED type exit signs have been installed since previous study. Recommendations: Provide occupancy sensor for every other fixture.	LED type exit signs have been addressed since previous study.	EA	\$300.00	25		\$7,500	

Priority Code Legend

1. Action recommended in 1-3 years (life safety, imminent failure or code compliance) 2. Action recommended in 4-5 years 3. No immediate action recommended





**ELECTRICAL**

FY14 Recommendations, Cost & Priorities									
Item	Photographs	Recommendations	Remarks	Unit	Unit Cost	Qty	Cost		
							Priority 1	Priority 2	Priority 3
							Priority 1	Priority 2	Priority 3
6		Power Distribution: The panels presently are in poor condition. Recommendations: Replace the panels.							
				SF	\$1.50	68000	\$102,000		
7		Equipment Wiring: Provide additional surface mounted receptacles as required. ATC Compressor is not on Panel PPM for emergency power. Recommendations: Additional surface mounted receptacles have been added. Connect ATC Compressor to Panel PPM for emergency power.	Item has been addressed since previous study although new item has been added.						
				LS	\$5,000	1		\$5,000	
8		Clock/Bell/Paging: New wireless clocks and intercom system have been installed since last visit. Recommendations: None.							
9		Fire Alarm: The fire alarm system is in fair/poor condition. Recommendations: Replace Fire Alarm System	Item has been addressed since previous study.						
				SF	\$2.50	68000	\$170,000		

Priority Code Legend

1. Action recommended in 1-3 years (life safety, imminent failure or code compliance) 2. Action recommended in 4-5 years 3. No immediate action recommended

**ELECTRICAL**

FY14 Recommendations, Cost & Priorities									
Item	Photographs	Recommendations	Remarks	Unit	Unit Cost	Qty	Cost		
							Priority 1	Priority 2	Priority 3
							Priority 1	Priority 2	Priority 3
10		Technology: Additional Tel/Data outlets in the classroom have been installed as recommended previously. New phone system is being contemplated system-wide Recommendations: None for Tel/Data. Install a new telephone system to match the system-wide phones	Item has been addressed since previous report except for the phones	LS	\$50,000	1	\$50,000		
11		Emergency Power & Lighting: Generator has been installed for emergency lighting and optional equipment. Recommendations: None	Item has been addressed since previous study.						
12		Generator: The generator is in good condition and is tested on a weekly schedule. Recommendations: None							
13		Security: New security system with buzzer and intercom system has been installed. Recommendations: None	Item has been addressed since previous study.						
Electrical Subtotals							\$337,000	\$91,400	\$0
							Priority 1	Priority 2	Priority 3

Priority Code Legend

1. Action recommended in 1-3 years (life safety, imminent failure or code compliance) 2. Action recommended in 4-5 years 3. No immediate action recommended

**COST SUMMARY**

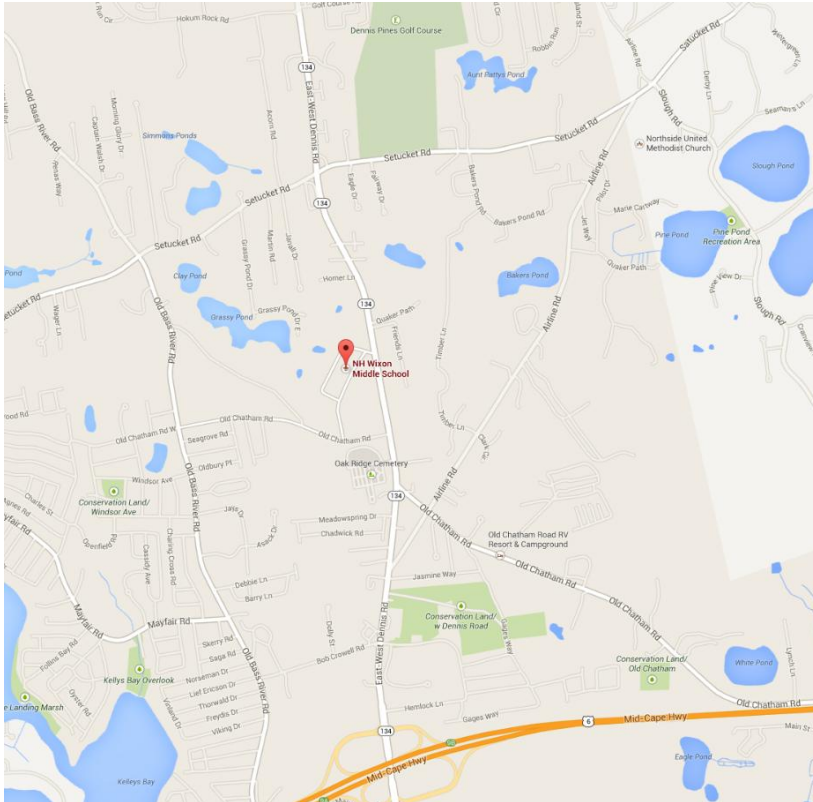
FY14 Recommendations, Cost & Priorities					
Item		Trade Item	Cost		
			Priority 1	Priority 2	Priority 3
1		Site Work	\$18,500	\$82,300	\$5,500
2		Exterior Envelope	\$70,000	\$107,200	\$0
3		Architectural Interiors	\$138,200	\$232,500	\$99,000
4		Fire Protection	\$0	\$0	\$391,000
5		Plumbing	\$12,300	\$0	\$0
6		Mechanical	\$39,000	\$15,000	\$2,091,000
7		Electrical	\$337,000	\$91,400	\$0
			\$615,000	\$528,400	\$2,586,500

Project Budget Costs					
General Conditions		\$ 61,500	\$ 52,840	\$ 258,650	
OH & Profit		\$ 67,650	\$ 58,124	\$ 284,515	
Construction Totals		\$ 744,150	\$ 639,364	\$3,129,665	
Administrative Costs		\$ 3,721	\$ 3,197	\$ 15,648	
A/E Fees		\$ 74,415	\$ 63,936	\$ 312,967	
<b>Total Project costs</b>		<b>\$ 822,286</b>	<b>\$ 706,497</b>	<b>\$3,458,280</b>	
		Priority 1	Priority 2	Priority 3	

Priority Code Legend

1. Action recommended in 1-3 years (life safety, imminent failure or code compliance) 2. Action recommended in 4-5 years 3. No action immediate recommended

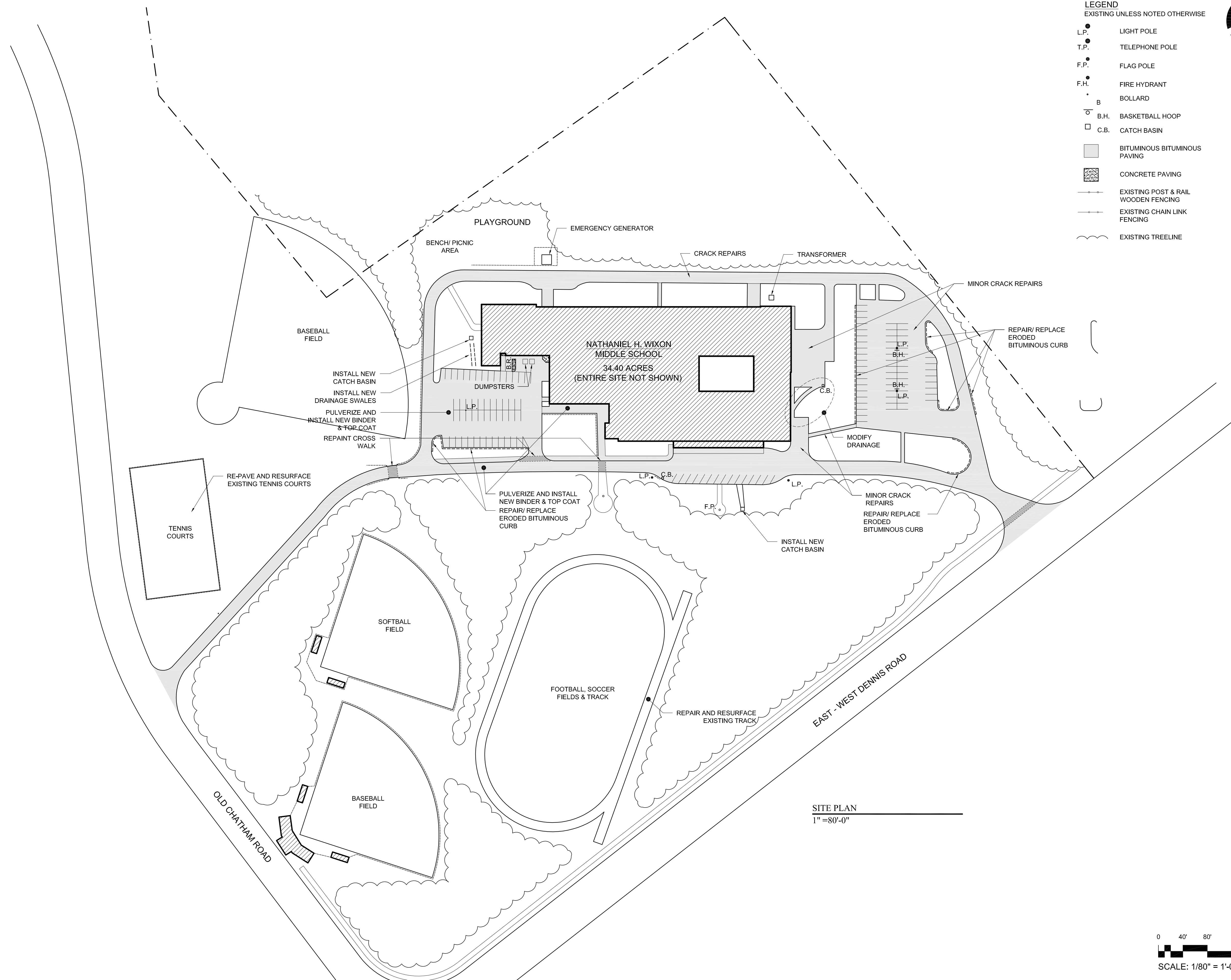
**Nathaniel H. Wixon Middle School**  
901 Route 134  
South Dennis, Massachusetts



**Locus Map**



**Aerial Site Plan**



- LEGEND**  
EXISTING UNLESS NOTED OTHERWISE
- L.P. LIGHT POLE
  - T.P. TELEPHONE POLE
  - F.P. FLAG POLE
  - F.H. FIRE HYDRANT
  - B. BOLLARD
  - B.H. BASKETBALL HOOP
  - C.B. CATCH BASIN
  - BITUMINOUS BITUMINOUS PAVING
  - CONCRETE PAVING
  - EXISTING POST & RAIL WOODEN FENCING
  - EXISTING CHAIN LINK FENCING
  - EXISTING TREELINE



REVISIONS		Date:		
No.	Description:			

Designed
MMW
Drawn
MMW
Checked
DPB

**SITE PLAN**

NATHANIEL H. WIXON MIDDLE SCHOOL  
910 ROUTE 134  
SOUTH DENNIS, MA 02660

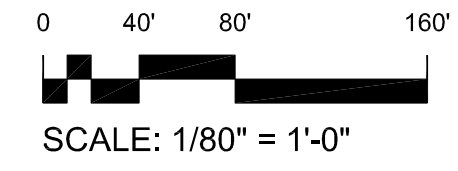
LONG RANGE PLANNING ASSESSMENT UPDATE

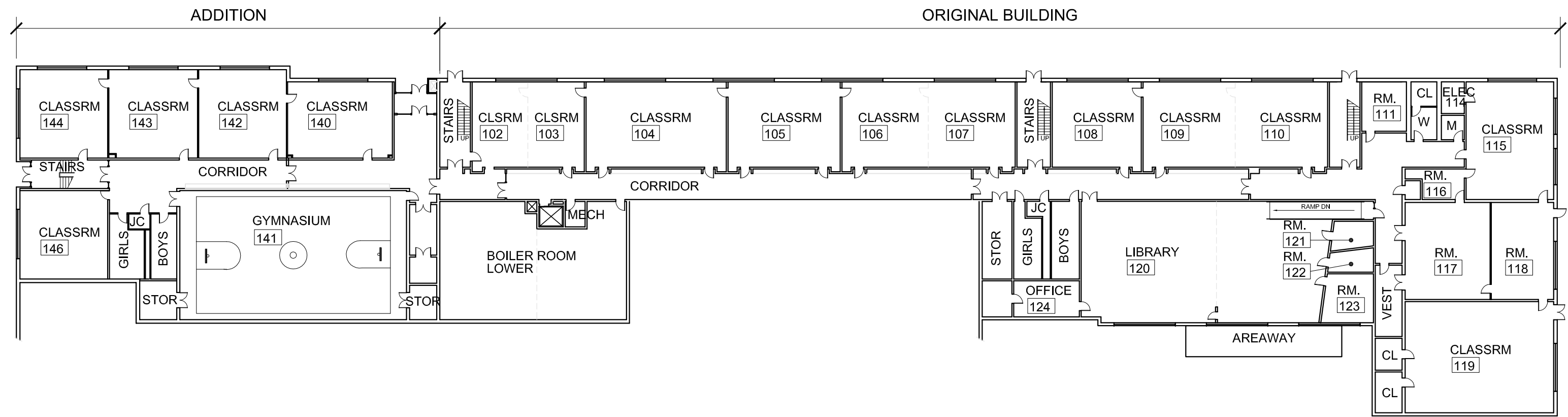
**KBA ARCHITECTS**  
KNIGHT, BAIGE AND ANDERSON, INC.  
6 THIRTEENTH STREET  
CHARLESTOWN, MA. 02129  
617-241-2807 (T)  
617-241-2857 (F)

KBA Job #
ST1712
Date:
5/24/2013
Drawing No:

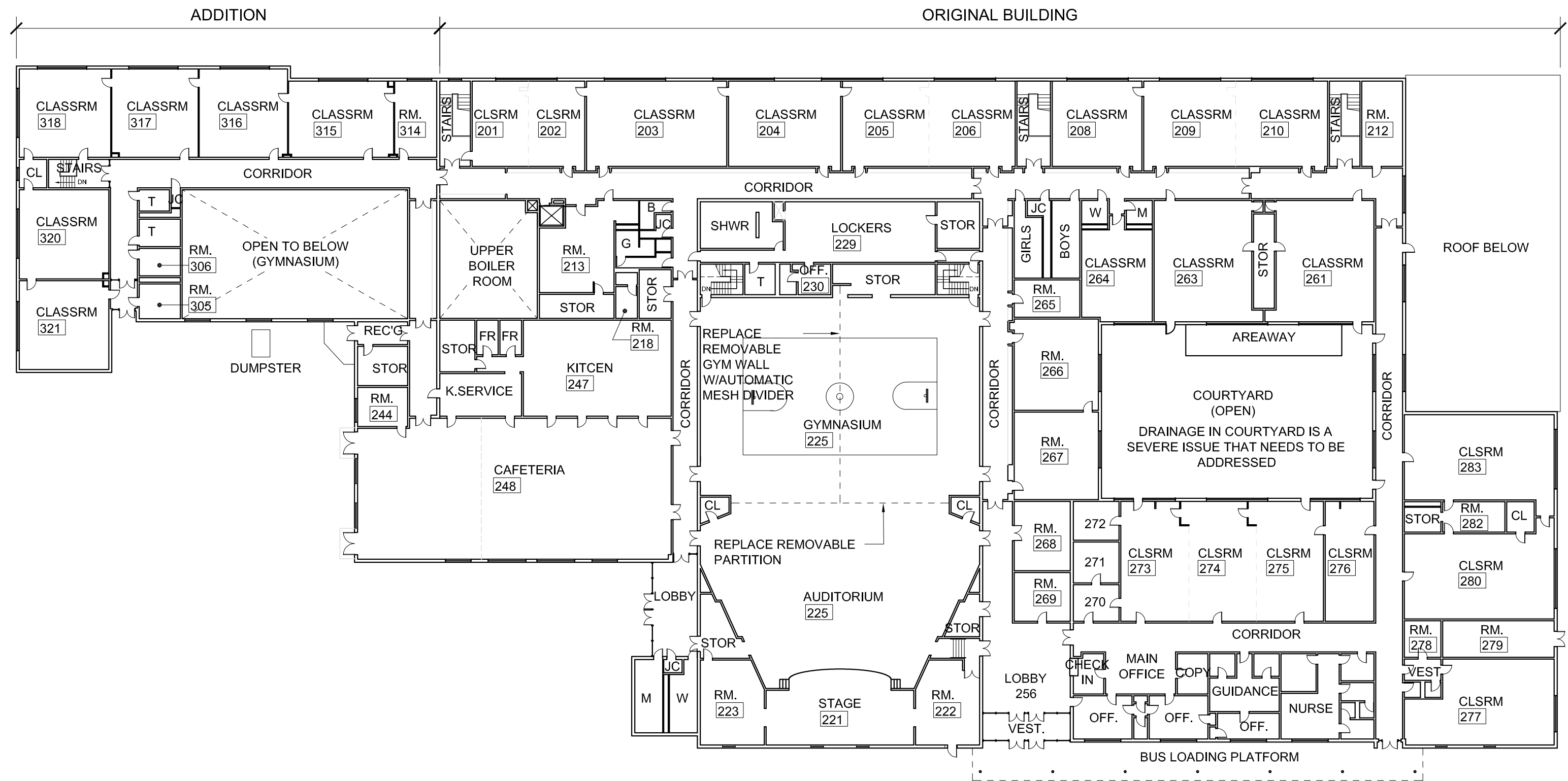
**S1**

SITE PLAN  
1" = 80'-0"

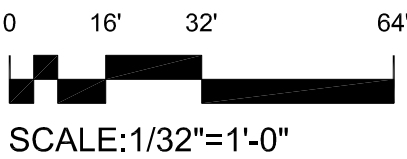




1 LOWER LEVEL FLOOR PLAN  
A1 1/32" = 1'-0"



2 UPPER LEVEL FLOOR PLAN  
A1 1/32" = 1'-0"



REVISIONS	
No.	Description:

Designed	MMW
Drawn	MMW
Checked	DPB

FLOOR PLANS

NATHANIEL H. WIXON MIDDLE SCHOOL  
910 ROUTE 134  
SOUTH DENNIS, MA 02660

LONG RANGE PLANNING ASSESSMENT UPDATE

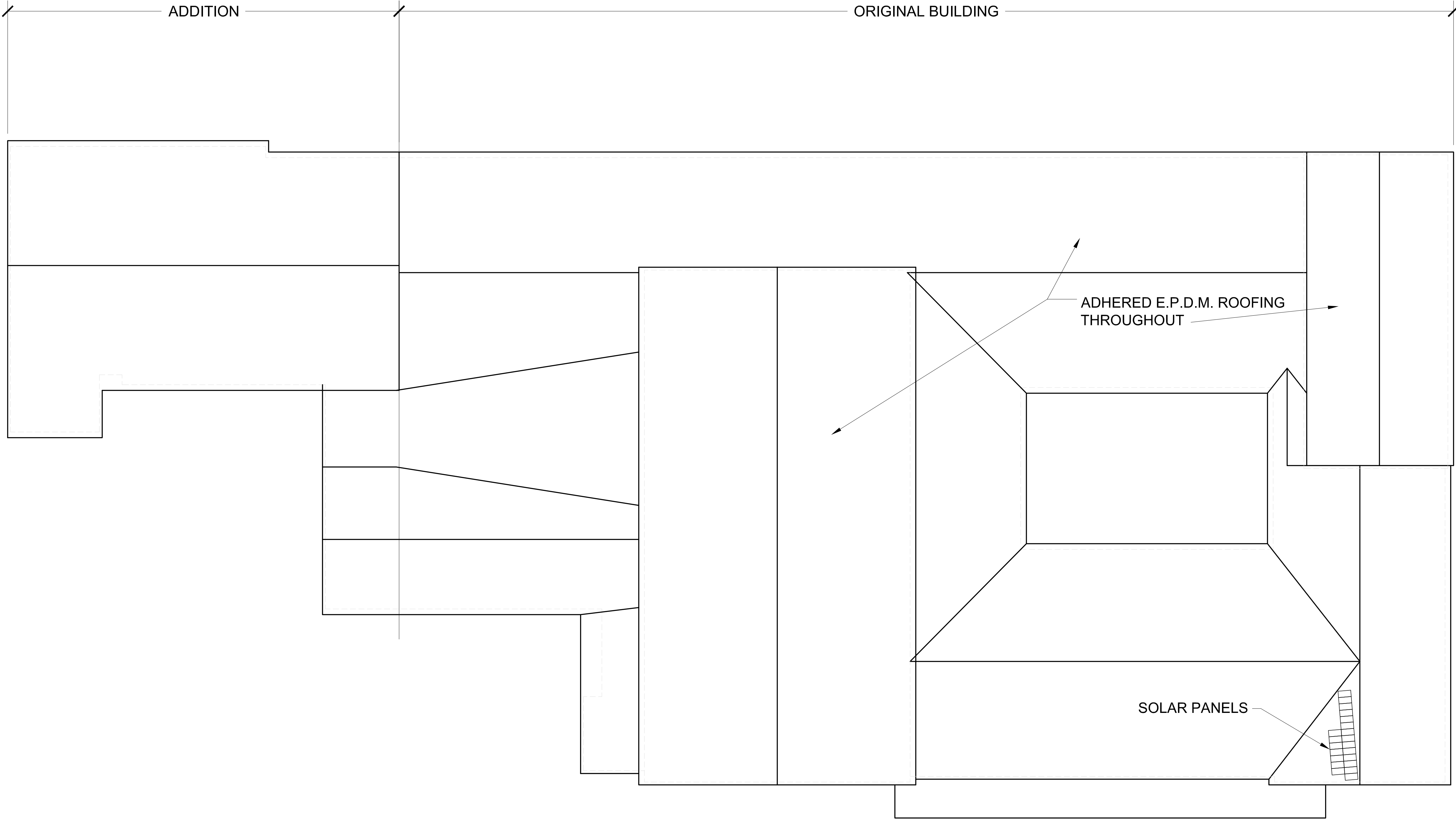
**KBA ARCHITECTS**  
KNIGHT, BAILEY AND ANDERSON, INC.  
6 THIRTEENTH STREET  
CHARLESTOWN, MA. 02129  
617-241-2807 (T)  
617-241-2857 (F)

KBA Job #  
ST1712

Date:  
5/24/2013

Drawing No:





A1



1 ROOF LEVEL - MAIN BUILDING  
A2 SCALE: 1" = 40'-0"

REVISIONS		No.	Description:	Date:
Designed MMW				
Drawn MMW				
Checked DPB				
ROOF PLAN				
NATHANIEL H. WIXON MIDDLE SCHOOL 910 ROUTE 134 SOUTH DENNIS, MA 02660			LONG RANGE PLANNING ASSESSMENT UPDATE	
KBA ARCHITECTS KNIGHT, BAIGE AND ANDERSON, INC. 6 THIRTEENTH STREET CHARLESTOWN, MA. 02129 617-241-2807 (T) 617-241-2857 (F)			KBA Job # ST1712	
			Date: 5/24/2013	
			Drawing No:  A2	





**SITE WORK**

FY14 Recommendations, Cost & Priorities									
Item	Photographs	Recommendations	Remarks	Unit	Unit Cost	Qty	Cost		
							Priority 1	Priority 2	Priority 3
		<b>Driveways</b>							
1		Crack Repairs		SF	\$0.75	52,000	\$39,000		
2		Sealer		SF	\$0.90	52,000	\$46,800		
3		Bituminous pulverize and replacement		SF	\$5.50	21,600	\$118,800		
		<b>Parking</b>							
4		Crack Repairs		SF	\$0.75	28,500	\$21,375		
5		Sealer		SF	\$0.90	28,500	\$25,650		
6		Bituminous pulverize and replacement							
				SF	\$5.50	24,000	\$132,000		
7		Line Painting		LS	\$3,000	1	\$3,000		

Priority Code Legend

1. Action recommended in 1-3 years (life safety, imminent failure or code compliance) 2. Action recommended in 4-5 years 3. No immediate action recommended





**SITE WORK**

FY14 Recommendations, Cost & Priorities									
Item	Photographs	Recommendations	Remarks	Unit	Unit Cost	Qty	Cost		
							Priority 1	Priority 2	Priority 3
8		Replace/ repair eroded bituminous curb		LF	\$20	1,000	\$20,000		
		<b>Walkways</b>							
9		Concrete Repairs/Replacement	In good condition, some minor replacement necessary	LS	\$2,000	1	\$2,000		
10		Bituminous Pulverize and replacement		SF	\$5.50	2,000	\$11,000		
		<b>Site Improvements</b>							
11		Wood post and rail fence is in good condition							

Priority Code Legend

1. Action recommended in 1-3 years (life safety, imminent failure or code compliance) 2. Action recommended in 4-5 years 3. No immediate action recommended



**SITE WORK**

FY14 Recommendations, Cost & Priorities									
Item	Photographs	Recommendations	Remarks	Unit	Unit Cost	Qty	Cost		
							Priority 1	Priority 2	Priority 3
12		Landscaping		LS	\$5,000	1		\$5,000	
13		Courtyard drainage		LS	\$75,000	1	\$75,000		
14		Repair/resurface track		SF	\$4	85,000	\$340,000		
15		Repair/resurface tennis courts		SF	\$13.25	26,400	\$349,800		
16		Install a new playground		LS	\$225,000	1	\$225,000		

Priority Code Legend

1. Action recommended in 1-3 years (life safety, imminent failure or code compliance) 2. Action recommended in 4-5 years 3. No immediate action recommended

**SITE WORK**





FY14 Recommendations, Cost & Priorities									
Item	Photographs	Recommendations	Remarks	Unit	Unit Cost	Qty	Cost		
							Priority 1	Priority 2	Priority 3
		<b>Accessibility</b>							
17		HC Parking including slope, signage and lines painting		LS	\$3,000	1			\$3,000
18		Modify walkways		LS	\$7,500	1			\$7,500
19		Install new concrete ramps and railings		LS	\$15,000	1			\$15,000
Site Work Subtotals							\$1,409,425	\$5,000	\$25,500
							Priority 1	Priority 2	Priority 3

Priority Code Legend

1. Action recommended in 1-3 years (life safety, imminent failure or code compliance) 2. Action recommended in 4-5 years 3. No immediate action recommended

**EXTERIOR ENVELOPE**

**FY14 Recommendations, Cost & Priorities**





Item	Photographs	Recommendations	Remarks	Unit	Unit Cost	Qty	Cost		
							Priority 1	Priority 2	Priority 3
		<b>Roofs</b>							
1		Replace EPDM membrane with PVC membrane		SF	\$18.00	90600	\$1,630,800		
2		Gutters/Downspouts		LS	\$3,000	1	\$3,000		
		<b>Exterior Walls</b>							
3		Concrete Foundation Repairs where runoff is wearing concrete and exposing rebar		LF	\$45.00	120	\$5,400		
4		Brick repairs - many repairs were completed in 2012							

Priority Code Legend

1. Action recommended in 1-3 years (life safety, imminent failure or code compliance) 2. Action recommended in 4-5 years 3. No immediate action recommended

EXTERIOR ENVELOPE

FY14 Recommendations, Cost & Priorities





Item	Photographs	Recommendations	Remarks	Unit	Unit Cost	Qty	Cost		
							Priority 1	Priority 2	Priority 3
5		Brick repointing							
6		5-10%		SF	\$8.00	200	\$1,600		
7		10-25%		SF	\$10.00	200	\$2,000		
8		Brick cleaning and dampproofing		SF	\$5.00	8500	\$42,500		
9		Painted exterior steel at canopy needs to be repainted		LS	\$8,000	1	\$8,000		
10		Scrape and paint lintels		LS	\$9,000	1	\$9,000		
11		Caulking required at masonry openings		LS	\$3,000	1	\$3,000		

Priority Code Legend

1. Action recommended in 1-3 years (life safety, imminent failure or code compliance) 2. Action recommended in 4-5 years 3. No immediate action recommended

**EXTERIOR ENVELOPE**



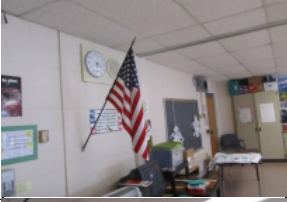

**FY14 Recommendations, Cost & Priorities**

Item	Photographs	Recommendations	Remarks	Unit	Unit Cost	Qty	Cost		
							Priority 1	Priority 2	Priority 3
		<b>Doors/Windows</b>							
12		Replace exterior doors		EA	\$1,500	26	\$39,000		
13		Replace exterior windows at original		SF	\$90.00	7600	\$684,000		
14		Repair exterior windows at addition		SF	\$10.00	2000	\$20,000		
15		Kalwall replacement		SF	\$70.00	400	\$28,000		
Exterior Envelope Subtotals							\$2,476,300	\$0	\$0
							Priority 1	Priority 2	Priority 3

Priority Code Legend

1. Action recommended in 1-3 years (life safety, imminent failure or code compliance) 2. Action recommended in 4-5 years 3. No immediate action recommended

ARCHITECTURAL INTERIORS



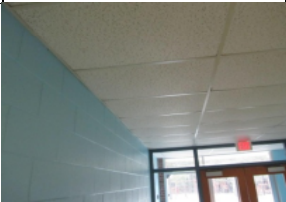

FY14 Recommendations, Cost & Priorities									
Item	Photographs	Recommendations	Remarks	Unit	Unit Cost	Qty	Cost		
		Space Types					Priority 1	Priority 2	Priority 3
		<b>Classrooms</b>							
1		Resilient tile floors are in good condition. Perform minor repairs as needed	Lump sum allowance for repairs: (45,000 sqft Total)	LS	\$2,000	1	\$2,000		
2		Carpet at Library should be replaced		SY	\$33.00	330	\$10,890		
3		Painted CMU walls should be painted in the future		SF	\$3.50	35,000			\$122,500
4		Suspended acoustical tile ceilings are cupping and bowing and should be replaced within the next 4-5 years (includes asbestos abatement)		SF	\$8.75	45,000		\$ 393,750	

Priority Code Legend

1. Action recommended in 1-3 years (life safety, imminent failure or code compliance) 2. Action recommended in 4-5 years 3. No immediate action recommended

ARCHITECTURAL INTERIORS

FY14 Recommendations, Cost & Priorities




Item	Photographs	Recommendations	Remarks	Unit	Unit Cost	Qty	Cost		
							Priority 1	Priority 2	Priority 3
		<b>Corridors</b>							
5		Resilient tile floors in good condition. Perform minor repairs	Lump sum allowance for repairs; (17,000 sq ft Total)	LS	\$3,000.00	1	\$3,000		
6		Painted CMU walls should be painted in the future		SF	\$3.50	20,000			\$70,000
7		Suspended acoustical tile ceilings are cupping and bowing and should be replaced within the next 4-5 years (includes asbestos abatement)		SF	\$8.75	17,000	\$148,750		
		<b>Gymnasium(s)</b>							
8		Main gym floor replaced 2012, refinish smaller gym floor only		SF	\$7.50	3,200			\$ 24,000
9		Replace 2 divider walls at gym/auditorium		LS	\$80,000	1	\$80,000		

Priority Code Legend

1. Action recommended in 1-3 years (life safety, imminent failure or code compliance) 2. Action recommended in 4-5 years 3. No immediate action recommended

ARCHITECTURAL INTERIORS

FY14 Recommendations, Cost & Priorities


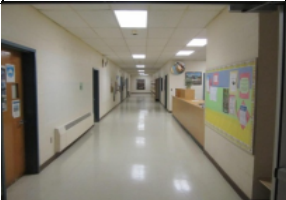


Item	Photographs	Recommendations	Remarks	Unit	Unit Cost	Qty	Cost		
							Priority 1	Priority 2	Priority 3
10		Painted CMU walls		SF	\$3.50	5,400			\$18,900
11		Tectum ceiling panels are in good condition		SF		6,000			
		<b>Auditorium</b>							
12		Replace carpet		SY	\$35.00	700	\$24,500		
		<b>Toilets</b>							
13		Ceramic tile is in good condition. Repair as needed		LS	\$2,000	1		\$2,000	
14		Painted CMU walls. Maintain as required		LS	\$8,000	1		\$8,000	
15		Suspended acoustical tile ceilings. Maintain as required		LS	\$2,000	1		\$2,000	
		<b>Administration</b>							
16		Carpet should be replaced		SY	\$33.00	110	\$3,630		

Priority Code Legend

1. Action recommended in 1-3 years (life safety, imminent failure or code compliance) 2. Action recommended in 4-5 years 3. No immediate action recommended

ARCHITECTURAL INTERIORS

FY14 Recommendations, Cost & Priorities





Item	Photographs	Recommendations	Remarks	Unit	Unit Cost	Qty	Cost		
							Priority 1	Priority 2	Priority 3
17		Painted CMU is in good condition							
18		Suspended acoustical tile ceiling is in good condition				1,900			
		<b>Health Suite</b>							
19		Resilient tile floor is in good condition				850			
20		Painted CMU is in good condition							
21		Suspended acoustical tile ceiling is in good condition				850			
		<b>Cafeteria</b>							
22		VCT is in good condition		SF	\$0.00	4,700		\$0	
23		Painted plaster/CMU walls are in good condtion		SF	\$0.00	2,700		\$0	

Priority Code Legend

1. Action recommended in 1-3 years (life safety, imminent failure or code compliance) 2. Action recommended in 4-5 years 3. No immediate action recommended

ARCHITECTURAL INTERIORS

FY14 Recommendations, Cost & Priorities



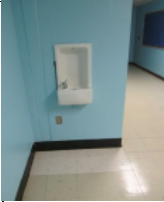

Item	Photographs	Recommendations	Remarks	Unit	Unit Cost	Qty	Cost		
							Priority 1	Priority 2	Priority 3
24		Tectum acoustical tile ceilings are in good condition		SF	\$0.00	4,700		\$0	
		<b>Kitchen</b>							
25		Seamless floors - Recently recoated		SF		2,200			
26		Painted CMU walls are in good condition							
27		Scrubbable acoustical acoustic tile ceilings - Recently installed		SF		2,200			

Priority Code Legend

1. Action recommended in 1-3 years (life safety, imminent failure or code compliance) 2. Action recommended in 4-5 years 3. No immediate action recommended

ARCHITECTURAL INTERIORS



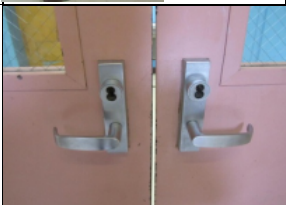

FY14 Recommendations, Cost & Priorities

Item	Photographs	Recommendations	Remarks	Unit	Unit Cost	Qty	Cost		
							Priority 1	Priority 2	Priority 3
		Miscellaneous							
28		Interior doors and frames - repair/replace		EA	\$900.00	25			\$ 22,500
29		Toilet compartments - Replace as needed	Replace as needed	LS	\$7,000	1		\$7,000	
30		Toilet room accessories - Replace as needed	Replace as needed	LS	\$1,000	1		\$1,000	
31		Drinking fountains		LS	\$25,000	1			\$ 25,000
32		Lockers - Replace in future	Replace in future	EA	\$210.00	500			\$ 105,000
		Accessibility (if triggered)							
33		Install accessible drinking fountains		EA	\$7,500	6			\$ 45,000
34		Install a new accessible elevator		LS	\$150,000	1			\$ 150,000
35		Toilet room revisions including reconfiguration, accessible fixtures, accessories and toilet compartments		LS	\$50,000	1			\$ 50,000

Priority Code Legend

1. Action recommended in 1-3 years (life safety, imminent failure or code compliance) 2. Action recommended in 4-5 years 3. No immediate action recommended

**ARCHITECTURAL INTERIORS**

FY14 Recommendations, Cost & Priorities									
Item	Photographs	Recommendations	Remarks	Unit	Unit Cost	Qty	Cost		
							Priority 1	Priority 2	Priority 3
36		Modify classroom sinks to be accessible		EA	\$2,500	27			\$ 67,500
37		Many egress doors and entrance doors to spaces that are to be accessible are not wide enough or have proper clearances. Install new frames, doors and hardware..	20 pairs of doors and 5 single doors	EA	\$185,000	1			\$ 185,000
38		Hardware has been installed at most doors - continue to install new accessible door hardware		LS	\$5,000	1			\$ 5,000
39		Install new wheelchair lift at stage		LS	\$20,000	1			\$ 20,000
		<b>Entrance security sequence modification</b>							
40		Install new partitions, doors and electronic hardware to create a security point for check in during occupied times		LS	\$20,000	1	\$20,000		
41		Install new keyless access door including work at head end		LS	\$34,000	1	\$34,000		
Architectural Interiors Subtotals							\$326,770	\$413,750	\$910,400
							Priority 1	Priority 2	Priority 3

Priority Code Legend

1. Action recommended in 1-3 years (life safety, imminent failure or code compliance) 2. Action recommended in 4-5 years 3. No immediate action recommended



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Nathaniel Wixon Middle School  
901 Route 134, South Dennis, MA  
Square Footage: 117,500

## FIRE PROTECTION

### FY14 Recommendations, Cost & Priorities





Item	Photographs	Recommendations	Remarks	Unit	Unit Cost	Qty	Cost		
							Priority 1	Priority 2	Priority 3
1		Fully sprinkler building	Provide in major building upgrade.	LS	\$529,000	1			\$529,000
2		Provide fire pump if necessary	Provide in major building upgrade.	LS	\$65,000	1			\$65,000
3		Fire Service	Provide in major building upgrade.	LS	\$20,000	1			\$20,000
Fire Protection Subtotals							\$0	\$0	\$614,000
							Priority 1	Priority 2	Priority 3

#### Priority Code Legend

1. Action recommended in 1-3 years (life safety, imminent failure or code compliance) 2. Action recommended in 4-5 years 3. No immediate action recommended

**PLUMBING**

**FY14 Recommendations, Cost & Priorities**

Item	Photographs	Recommendations	Remarks	Unit	Unit Cost	Qty	Cost		
							Priority 1	Priority 2	Priority 3
1		The sanitary piping is in fair condition, however there are some instances where there is need of repair/replacement.	Continue to replace piping as needed until major upgrade	LS	\$10,000	1	\$10,000		
2		Domestic water piping is in fair condition however there are some instances where there is need of repair/replacement.	Continue to replace piping as needed until major upgrade	LS	\$10,000	1	\$10,000		
3		The water heater was replaced w/ a high efficiency condensing unit however the condensate discharges into the CI drain without neutralization. The large storage tank is not in service. Recommendations: Provide neutralization tube on the water heater condensate drain & signage to avoid damage to cast iron pipe. Store water at 140 degrees to avoid Legioneres Disease.	Acidic condensate will eat the cast iron drain & pipe over time.	LS	\$2,000	1	\$2,000		
4		Pipe insulation is in good condition, however where work was done at heater, mixer & circ pumps there is no insulation.	Insulate uninsulated water piping at heater, mixer & circ pumps.	LS	\$2,500	1	\$2,500		
5		Valves, fittings & backflow preventer are in good condition. The master mixing valve and pressure reducing valve are in poor condition with corrosion.	Continue testing backflow preventers annually. Replace/Repair master mixing valve.	LS	\$3,000	1	\$3,000		
6		Original drinking fountains & coolers are aged in fair condition.	Replace w/ accessible water coolers & bottle fillers.	LS	\$24,000	1	\$24,000		

Priority Code Legend

1. Action recommended in 1-3 years (life safety, imminent failure or code compliance) 2. Action recommended in 4-5 years 3. No immediate action recommended



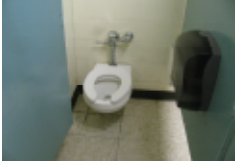



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## PLUMBING

### FY14 Recommendations, Cost & Priorities





Item	Photographs	Recommendations	Remarks	Unit	Unit Cost	Qty	Cost		
							Priority 1	Priority 2	Priority 3
7		Wall mounted urinals w/ exposed flush valves are in good condition. Recommendation: Repair urinals & flush valves as required annually.		LS	\$5,000	1	\$5,000		
8		The majority of lavatories and faucets are in good condition. Handicap accessible lavs don't have insulation shields. Present faucets are in good condition however they are not water conserving & don't meet present code. Recommend replacing faucets with water conserving type and provide insulation shields on lav waste & water supplies per code.		LS	\$9,000	1	\$9,000		
9		Water closets & flush valves are in good condition. Recommendation: Repair water closets and flush valves as required annually.		LS	\$2,000	1	\$2,000		
10		Middle school has few classroom sinks. Classroom sinks, faucets & bubblers are generally in fair to good condition.	Repair/replace sinks & faucets until major upgrade	LS	\$1,000	1	\$1,000		
11		Ground water weeps through the library & adjoining office walls. Recommend providing areaway drains and piping as required to mitigate condition. Note architectural & civil work may be required in addition to plumbing work.		LS	\$20,000	1	\$20,000		
Plumbing Subtotals							\$88,500	\$0	\$0
							Priority 1	Priority 2	Priority 3

#### Priority Code Legend

1. Action recommended in 1-3 years (life safety, imminent failure or code compliance) 2. Action recommended in 4-5 years 3. No immediate action recommended

**HVAC**

**FY14 Recommendations, Cost & Priorities**

Item	Photographs	Recommendations	Remarks	Unit	Unit Cost	Qty	Cost		
							Priority 1	Priority 2	Priority 3
1	 Pneumatic Controls  Duplex Controls Compressor  Hot Water Boiler  Discont. Summer Boiler	<p>A new oil tank monitoring and lock system should be installed</p> <p>Mechanical Room: Boilers - Weil McLain BGL-2094 WS dual fuel, 5520 MBH gross output, Webster burner - autoflame control. Double wall oil tank - 8463 gallon tank, Veeder Root TLS-300C monitor/gauge, oil vent pipe to 12'-0" above grade per code. Indirect domestic hot water heater. Summer Boiler - HB smith 28A-6 gas only, 1246 gross output, 1/3 HP in-line pump. Not in operation - new dedicated water heater DHW storage tank with HW Coil. Zone Pumps: 1 - upper level old building 204GPM @74"TDH, 3 - common standby 204GPM@74"TDH, 4 - upper level new building 84GPM@55"TDH, Zone 1, 3 &amp; 4 have variable frequency drives added summer 2012. Boiler breeching into masonry chimney - could not determine if chimney was lined. Combustion air ducted down to 18" AFF and also high at ceiling. Fuseomatic controls over boiler burners and at ceiling. Emergency boiler shutoffs at boiler entrance. Piping insulation in good shape. Duplex air compressor for pneumatic controls. Barber Coleman controls. Pneumatic 3-way valve for reset hot water based on OA temperature. Recommendation: Aegis magnetic bearing protection rings on pump motors controlled by VFDs. Replace pneumatic controls with DDC controls. DDC controls</p>	Boiler Room Mechanical Equipment is at 50% life expectancy.						
			Install new tank monitoring and lock	LS	\$20,000	1	\$20,000		
			DDC Controls	SF	\$6.00	117500		\$705,000	
			HVAC equipment replacement (building wide) except boilers & pumps and some piping	SF	\$24.00	117500		\$2,820,000	
2		Public Spaces/Telephone/EMS: Generally fintube radiation for heating with no provisions for ventilation or AC.							

Priority Code Legend

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Square Footage: 117,500

## HVAC

### FY14 Recommendations, Cost & Priorities

Item	Photographs	Recommendations	Remarks	Unit	Unit Cost	Qty	Cost		
							Priority 1	Priority 2	Priority 3
							Priority 1	Priority 2	Priority 3
3		Gymnasium: (2) HV units at upper level of gymnasium with horizontal supply ductwork distribution; return through return registers at floor level back to units.	Units end of serviceable life.						
4		Former Locker Rooms (now storage): Dedicated exhaust system/UVs for heat/ventilation.							
5		MDF Room: 1 ton wall mounted AC.							
6		Cafeteria: (5) UVs for heat/vent. Transfer between café and kitchen for makeup air to kitchen exhaust.	Units at end of serviceable life.						
7		Faculty Dining Room: Fintube radiation and window AC.							
8		Small Servery: Paddle fans and small exhaust.							
9	 Auditorium H&V Unit	Auditorium: 2 H&V units on each side overhead ductwork, ceiling diffusers return under stage.							
10		Dish Storage/Pantry: No ventilation. Recommendation: Add ventilation.	Add ventilation	LS	\$5,000	1	\$5,000		
11		Kitchen: Dishwasher hood exhaust, kitchen hood equipment, UV for kitchen heat/vent/makeup, paddle fans. Kitchen hood partially protected by Ansul system washer/dryer in space.							
12		Toilet: All toilet rooms have been provided with toilet exhaust from a central system and hot water heating where applicable.							
13		Corridor/Entries: Hot water heating/no mechanical ventilation. Hot water cabinet unit heaters.							
14		Interior Classrooms: Horizontal UV for ventilation/heat with remote thermostat.	Units at end of serviceable life.						
15		Exterior Classrooms: UVs for ventilation/heat, fintube radiation along exterior wall, remote thermostat control, operable windows. Console relief fan.	Units at end of serviceable life.						

#### Priority Code Legend

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## HVAC



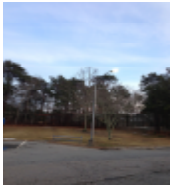
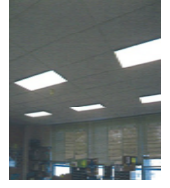

### FY14 Recommendations, Cost & Priorities

Item	Photographs	Recommendations	Remarks	Unit	Unit Cost	Qty	Cost		
							Priority 1	Priority 2	Priority 3
							Priority 1	Priority 2	Priority 3
16	 <p>Library unit vents with cooling</p>  <p>Library Condensing Unit</p>	Library: Horizontal exposed UVs for heating/cooling/ventilation with remote air cooled condensing units.	Unit is at 50% life expectancy.						
17		General - Add Ductless AC units for office spaces	Add at various offices	SF	\$15.00	2000	\$30,000		
18		Administration: Exterior offices provided with hot water heating with remote thermostat control, operable windows for ventilation and window AC for cooling. Interior offices provided paddle fans and CUH; exhaust provisions but no ventilation.							
19		Copy Room: No HVAC. Recommendation: Add exhaust.	Add exhaust	LS	\$2,000	1	\$2,000		
HVAC Subtotals							\$57,000	\$3,525,000	\$0
							Priority 1	Priority 2	Priority 3

#### Priority Code Legend

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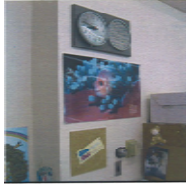


**ELECTRICAL**

FY14 Recommendations, Cost & Priorities									
Item	Photographs	Recommendations	Remarks	Unit	Unit Cost	Qty	Cost		
							Priority 1	Priority 2	Priority 3
1		Power Service: The equipment is beyond life expectancy. Recommendations: Provide new Electrical service.		SF	\$1	117500	\$117,500		
2		Panels: Original equipment is in fair/poor condition. Recommendations: Original panels should be replaced.		SF	\$1.50	117500	\$176,250		
3		Exterior/Site Lighting: Light fixtures are in good condition. New roadway lighting pole fixtures have been installed with LED lighting. Recommendations: None	Item has been addressed since previous study.						
4		Classroom Lighting: Lighting is in good condition. Recommendations: Add occupancy sensors with wall switches to classrooms.		EA	\$300	40		\$12,000	
5		Corridor Lighting: Lighting is energy efficient. Recommendations: Provide occupancy sensor for every other fixture.		EA	\$300	35		\$10,500	

Priority Code Legend

1. Action recommended in 1-3 years (life safety, imminent failure or code compliance) 2. Action recommended in 4-5 years 3. No immediate action recommended




**ELECTRICAL**

FY14 Recommendations, Cost & Priorities									
Item	Photographs	Recommendations	Remarks	Unit	Unit Cost	Qty	Cost		
							Priority 1	Priority 2	Priority 3
							Priority 1	Priority 2	Priority 3
6		Power Distribution: The panels presently are in poor condition. Recommendations: Replace the panels.	Cost for this item is included in Item 2 above.						
7		Equipment Wiring: Additional surface mounted receptacles have been provided. Recommendations: None	Item has been addressed since previous study.						
8		Clock/Bell/Paging: New wireless clocks and intercom system have been installed since last visit. Recommendations: None.	Item has been addressed since previous study.						
9		Fire Alarm: The fire alarm system was upgraded/installed in 1989. Recommendations: Update with a complete addressable system.		SF	\$2.50	117500	\$293,750		
10		Auditorium: Dimmer panel needs to be replaced. Recommendations: Replace	Added item from previous report.	LS	\$40,000	1	\$40,000		

Priority Code Legend

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**ELECTRICAL**

FY14 Recommendations, Cost & Priorities									
Item	Photographs	Recommendations	Remarks	Unit	Unit Cost	Qty	Cost		
							Priority 1	Priority 2	Priority 3
							Priority 1	Priority 2	Priority 3
11		Technology: Additional Tel/Data outlets in the classroom have been installed, CAT 5. Wireless has been added: HP, AP's. new phone system is being contemplated system-wide. Recommendations: None for Tel/Data. Install a new phone system to match the new system	Item has been addressed since previous report. Install a new phone system	SF	\$0.50	117500	\$58,750		
12		Emergency Power & Lighting: There are 3 ATS in 2 hr rated room. Enclosure floor is corroded. Recommendations: Reconstruct housing floor.		LS	\$10,000	1	\$10,000		
13		Security: New security system with buzzer, card access, and intercom system has been installed. Recommendations: None	Item has been addressed from previous study.						
Electrical Subtotals							\$696,250	\$22,500	\$0
							Priority 1	Priority 2	Priority 3

Priority Code Legend

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**COST SUMMARY**

FY14 Recommendations, Cost & Priorities					
Item		Trade Item	Cost		
			Priority 1	Priority 2	Priority 3
1		Site Work	\$1,409,425	\$5,000	\$25,500
2		Exterior Envelope	\$2,476,300	\$0	\$0
3		Architectural Interiors	\$326,770	\$413,750	\$910,400
4		Fire Protection	\$0	\$0	\$ 614,000
5		Plumbing	\$88,500	\$0	\$0
6		Mechanical	\$57,000	\$3,525,000	\$0
7		Electrical	\$637,500	\$22,500	\$0
			\$4,995,495	\$3,966,250	\$1,549,900

Project Budget Costs					
General Conditions		\$ 499,550	\$ 396,625	\$ 154,990	
OH & Profit		\$ 549,504	\$ 436,288	\$ 170,489	
Construction Totals		\$6,044,549	\$4,799,163	\$1,875,379	
Administrative Costs		\$ 30,223	\$ 23,996	\$ 9,377	
A/E Fees		\$ 604,455	\$ 479,916	\$ 187,538	
<b>Total Project costs</b>		<b>\$6,679,227</b>	<b>\$5,303,075</b>	<b>\$2,072,294</b>	
		Priority 1	Priority 2	Priority 3	

Priority Code Legend

1. Action recommended in 1-3 years (life safety, imminent failure or code compliance) 2. Action recommended in 4-5 years 3. No immediate action recommended

**COMBINED DENNIS SCHOOLS COST SUMMARY**

FY14 Recommendations, Cost & Priorities				
		Cost		
		Priority 1	Priority 2	Priority 3
<b>Ezra Baker Elementary School</b>		\$615,000	\$528,400	\$2,586,500
<b>Project Budget Costs</b>				
General Conditions		\$ 61,500	\$ 52,840	\$ 258,650
OH & Profit		\$ 67,650	\$ 58,124	\$ 284,515
Construction Totals		\$ 744,150	\$ 639,364	\$3,129,665
Administrative Costs		\$ 3,721	\$ 3,197	\$ 15,648
A/E Fees		\$ 74,415	\$ 63,936	\$ 312,967
<b>Total Project costs - Ezra Baker</b>		<b>\$ 822,286</b>	<b>\$ 706,497</b>	<b>\$3,458,280</b>
<b>Wixon Middle School</b>		\$4,995,495	\$3,966,250	\$1,549,900
<b>Project Budget Costs</b>				
General Conditions		\$ 499,550	\$ 396,625	\$ 154,990
OH & Profit		\$ 549,504	\$ 436,288	\$ 170,489
Construction Totals		\$6,044,549	\$4,799,163	\$1,875,379
Administrative Costs		\$ 30,223	\$ 23,996	\$ 9,377
A/E Fees		\$ 604,455	\$ 479,916	\$ 187,538
<b>Total Project costs - Wixon</b>		<b>\$6,679,227</b>	<b>\$5,303,075</b>	<b>\$2,072,294</b>
<b>Total Project costs - Dennis Schools</b>		<b>\$7,501,512</b>	<b>\$6,009,572</b>	<b>\$5,530,574</b>
		Priority 1	Priority 2	Priority 3

Priority Code Legend

1. Action recommended in 1-3 years (life safety, imminent failure or code compliance) 2. Action recommended in 4-5 years 3. No action immediate recommended