



HABEEB & ASSOCIATES
ARCHITECTS

FACILITY CONDITION ASSESSMENT

NORTH MIDDLESEX REGIONAL SCHOOL DISTRICT

Hawthorne Brook Middle School

64 Brookline Street, Townsend, MA 01469

August 6, 2020
H&A JN 1919.02



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D E D I C A T E D T O E X C E E D I N G O U R C L I E N T S ' E X P E C T A T I O N S

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North Middlesex Regional School District

Hawthorne Brook Middle School

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Description of scope:

Habeeb & Associates Architects conducted a Facility Condition Assessment for North Middlesex Regional School District at the Hawthorne Brook Middle School.

Purpose of report:

The Facility Condition Assessment was developed to address the physical structure and mechanical, electrical, plumbing, and water service system of the Hawthorne Brook Middle School in Townsend, MA. The school was built in 1978. It had several upgrades including windows and doors, and HVAC unit replacement in 2017. This Assessment shall describe current conditions and provide priority recommendations and budget estimates for repair or replacement of deficient building components and systems that shall be used for short and long-term capital planning. It is recommended that this Assessment be used in context with the facility's goals as defined by the North Middlesex Regional School District for the development of a long-range Capital Plan.

Methodology:

The Assessment is based upon visual inspection, review of available documents, and interviews with Facilities personnel. Habeeb & Associates Architects conducted an interview with Nancy Haines, Business Manager, Oscar Hills, Director of Buildings/Grounds, Jason Webster, Hawthorne Brook Middle School Principal, and Scott Muth, Custodial Day Lead Buildings/Grounds on March 12, 2020, followed by a tour of the facility. Existing deficiencies and concerns were observed, noted and photographed by the design team.

The team was provided with a partial set of drawings prepared by Drummey Rosane Anderson in 1977, and a full set of drawings describing renovations and additions to the identical Varnum Brook Elementary School in Pepperell, MA by Anthony Tappé and Associates, Inc., dated 1995. The full set of drawings for the 1977 original building was not available.


The deficiencies observed were related to age of building systems and components, usage, current code requirements and improvements recommended to provide an environment suitable for 21st Century learning practices.

The spreadsheets and photographs included in the Comprehensive Facilities Assessment detail the recommendations and associated costs for addressing the deficiencies identified. Estimated costs for projects to be completed in future years contain escalation factors to account for inflation.



INTRODUCTION

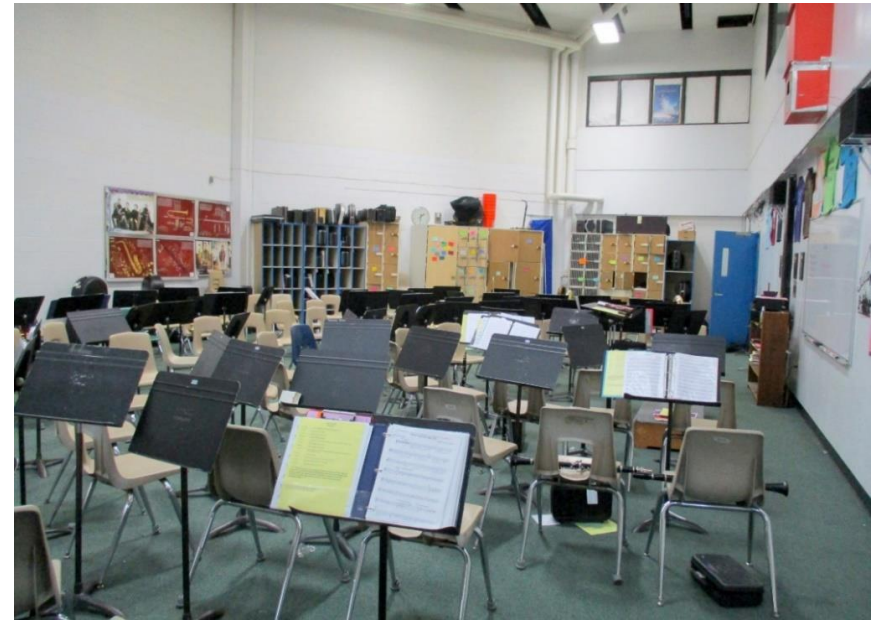
BUILDING DATA

| | | | | | |
|------------------------------|--|---|---|---------------------|---|
| GENERAL INFORMATION: | |  | | | |
| Building: | Hawthorne Brook Middle School | | | | |
| Address: | 64 Brookline Street, Townsend, MA 01469 | | | | |
| Business Manager | Nancy Haines | | | | |
| Facilities Director: | Oscar Hills | | | | |
| CODE CLASSIFICATION: | | | | | |
| Occupancy: | Group E Education | | | | |
| Construction Type: | IIB Unprotected | | | | |
| BUILDING HISTORY: | | | | | |
| Original Building: | 1978 106,600 SF | | | | |
| Addition: | None | | | | |
| SITE / BUILDING AREA: | | MECHANICAL / ELECTRICAL COMPONENTS: | | | |
| Site Area: | 1,775,070 SF (40.75 Acres) | | | | |
| Total Building Area: | 106,600 SF | | | | |
| First Floor Area: | 64,500 SF | | | | |
| Second Floor Area: | 42,100 SF | | | | |
| SITE COMPONENTS: | | | | Water Service: | Town domestic water service. |
| Parking/Driveways: | Bituminous paving. Granite curbs. | | | Domestic Hot Water: | Gas-fired water heaters. |
| Walkways: | Bituminous walkways at main entrance and bus drop-off. | | | Fire Suppression: | None. |
| Stairs: | Cast-in-place concrete stair at the loading dock and at the play area. | | | Heating Systems: | Steam heat with unit ventilators. Pneumatic and DDC controls. |
| Ramp: | Cast-in-place concrete ramp at the play area. | | | Cooling Systems: | Rooftop HVAC units. |
| Handrails/Guardrails: | Painted steel at exterior stairs and ramp. | Electric Service: | 1600-amp main service with standby generator. | | |
| Lighting: | LED Lighting at parking lot. LED Wall mounted around the building and at the exterior doors. | Fire Alarm: | Four Zone, non-addressable. Smoke and heat detection with manual pull stations. | | |
| Storm Drainage: | Catch basins at bus drop off and parking lot. Discharge to a nearby drainage pond. | Data System: | Cat 5 wiring. | | |
| Sanitary System: | Onsite septic system shared with Squannacook Early Childhood Center. The wastewater treatment building and the leaching field are located behind the ball field. | Security System: | Intercom with cameras and monitoring. Remote door release. | | |
| Irrigation: | Irrigation system on site at the playing fields. | | | | |
| Play Areas: | Concrete paved play area, tennis courts. | | | | |

BUILDING DATA (CONTINUED)

ARCHITECTURAL COMPONENTS:

| | |
|--------------------|---|
| Foundation: | Reinforced concrete. |
| Super Structure: | Structural steel. |
| Floor Structure: | Structural concrete slab on-grade; and elevated slab on second floor. |
| Roof Structure: | Mostly flat roofs; Sloped skylights over the library. |
| Exterior Walls: | Mostly 8" CMU w/ 4" split face block veneer. |
| Roofing: | PVC membrane with applied ribs at the sloped roof and metal roof edge at perimeter. |
| Window Systems: | Replaced in 2018; aluminum frame w/ double pane glazing. |
| Exterior Doors | Replaced in 2018; mostly FRP door with aluminum frames. |
| Interior Doors | Mostly wood door w/ hollow metal frames. |
| Stairs: | Concrete filled steel pan. |
| Interior Walls: | Metal stud and drywall; CMU shaft walls; and moveable metal wall panel partitions. |
| Wall Finishes: | Paint over CMU; and drywall. |
| Ceiling Finishes: | 2x4 ACT; and exposed structure at the gym. |
| Conveying Systems: | Elevator by the main office. |



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This Summary categorizes the recommended capital improvements for the Hawthorne Brook Middle School and site elements based on staff interviews, observations, and review of available drawings. The original steel-framed building consists of 106,600 square feet on two levels and was completed in 1978. There were multiple upgrades to the building systems. Windows, doors and rooftop HVAC units were replaced in 2018. The ball fields are not included in this Assessment.

Work items identified by this Assessment are assigned a Scope category based on urgency, ongoing maintenance, life-cycle costs and other concerns that compromise the teaching environment. In summary, scopes are categorized by the following descriptions:

Scope 1 – Necessary/Not Yet Critical

Scope 2 – Recommended

Scope 3 – Does Not Meet Current Codes or Accessibility Regulations for New Construction

Refer to Section 4, How to Read This Assessment, for detailed Scope descriptions and calculation methodology.

Scope 1 priority has been assigned to Work Items that present an immediate safety risk, such as guardrails at the second floor and library, the deteriorated exterior bituminous walkway around the building, bituminous paving at bus drop-off area and parking lot, and the cracks and spalling concrete at the play area. The 20-year-old roofing system, and the poor acoustic quality at the band room and music room that creates teaching challenges also have been assigned the highest priority.

In addition, the recommendations include replacement of the remaining pneumatic controls, which currently does not allow temperature adjustment at various spaces in the building. The recommended mechanical system improvements also have the added benefit of reducing operational costs by increasing efficiency and making the space more comfortable for students and faculty.

Scopes 2 and 3 priorities address other, less critical Work Items that are not immediately necessary but will continue to deteriorate without maintenance, repair or replacement, such as the masonry wall by the loading dock. Other high priority items are recommended for the replacement of the demountable metal wall panel partition between the classrooms.

Longer-term consideration is recommended for replacement of the obsolete kitchen equipment and to refinish the existing rubber gymnasium floor. Finally, the reconfiguration of the gymnasium storage area has been considered, in order to make the space more useful.



EXECUTIVE SUMMARY

| Category | Scope 1 | Scope 2 | Scope 3 | Total |
|--|-----------|--------------------------------------|-----------|------------|
| Building Summary | | HAWTHORNE BROOK MIDDLE SCHOOL | | |
| 1. SITE | 665,460 | 68,510 | 178,100 | 912,070 |
| 2. BUILDING ENVELOPE | 3,331,198 | 10,790 | 0 | 3,341,988 |
| 3. BUILDING INTERIORS | 1,247,864 | 3,694,530 | 1,976,742 | 6,919,136 |
| 4. MECHANICAL | 35,100 | 1,798,420 | 0 | 1,833,520 |
| 5. ELECTRICAL | 1,039,350 | 1,825,460 | 0 | 2,864,810 |
| ¹Total: | 6,318,972 | 7,397,710 | 2,154,842 | 15,871,524 |
| ¹Total Inflated @ 4% Compounded Annually | 6,834,600 | 9,000,445 | 2,621,695 | 18,456,740 |

¹Totals include Soft Costs (30%): Contingency, Administration and A/E Fees.

EXECUTIVE SUMMARY

The *Executive Summary* recaps the *Total Inflated* row from the bottom of the Building Summary sheets. These costs are then totaled at the bottom to indicate a combined proposed capital expenditure per scope. This is intended to make it easier for the reader to review and compare the overall costs for each of the scopes.

SUMMARY

The *Summary* recaps the *Total* row from the bottom of each category for the subject building, separated into scopes. This is intended to make it easier for the reader to review and compare the overall costs for each of the categories together with the scopes for the subject building.

FACILITY CONDITION ASSESSMENT

The following is a list and brief description of the column and row headings of the Capital Asset Assessment sheets.

Description

The *Descriptions* are the work items identified during our inspection. They usually consist of the building component and its deficiencies; and a recommendation for correcting the deficiency.

Quantity

The number of items: (For example, if the work item is for "unit ventilators replacement" the building in question may have a *Quantity* of 60 unit ventilators to be replaced).

Unit

The *Units* are identified by a two-letter code. The unit codes are as follows:

- SF – Square Foot
- SY – Square Yard
- LF – Linear Foot
- LS – Lump Sum
- EA – Each.

HOW TO READ THIS ASSESSMENT

Unit Cost

The *Unit Cost* is the cost of one *Quantity* of a work item. Unit costs are preliminary construction cost estimates only and are generally based on the following references: *Means Square Foot Cost Data*; *Means Construction Costs Data*; in house cost data; professional experience; and information provided by various contractors and suppliers.

Total

The *Total* column is determined by the following equation: $QUANTITY \times UNIT = TOTAL$.

Total with Soft Costs

This assessment provides preliminary construction costs associated with *Soft Costs*. *Soft Costs* generally include a contingency, (typically 10% to 15%) for unforeseen conditions; indirect administrative expenses such as legal costs, printing and advertising (typically 5% to 10%); and architectural and engineering costs (typically 10% to 15%) for a total soft cost estimate. We used a *Soft Cost* of 30% of the *total* cost in this assessment. The *Total with Soft Costs* is determined by the following equation: $TOTAL \times 1.30 = TOTAL \text{ W/ SOFT COST}$.

Some projects may require higher or lower *Soft Costs* depending on the type and extent of project selected. Work items listed are provided as a guide to develop repair and renovation projects with preliminary construction cost estimates. The actual scope of a project could include a combination of work items, i.e. new ceilings and new lighting. Some other projects may require finishes, e.g. painting, which may not necessarily be broken out for that project.

Scope 1 – Necessary/Not Yet Critical

- Predictable deterioration
- Potential downtime
- Associated damage or higher costs if deferred further

Scope 2 – Recommended

- Sensible improvements to existing conditions that are not required for the basic function of the facility
- Overall usability improvement
- Long term maintenance cost reduction

Scope 3 – Does Not Meet Current Codes for new construction but “Grandfathered”

- No action required at this time. However, if a substantial renovation or a substantial building addition is performed in the future, building codes may require this corrective work in addition to the work planned.

Totals Column (work items)

The *Totals* column is the sum of the *Scopes* columns 1, 2, and 3, for each work item. The *Totals* column also shares the sum of the *Total* row and *Total Inflated* rows at the lower right corner.

Total Row (scopes)

The *Total* row is the sum of the *Scopes* columns 1, 2, 3, and *Totals* column, for each category. The *Total* row and *Total Inflated* rows are totaled at the lower right corner.

Total Inflated Row

The *Total Inflated* row is the sum of the *Scopes* columns 1, 2, 3, and *Totals* column for each category multiplied by a coefficient to determine the inflated cost at a rate of 4% and compounded annually.

Scope 1 is shown with an inflation factor for work to be performed within a 2 yr period.

Scope 2 is shown with an inflation factor for work to be performed within a 5 yr period.

Scope 3 is shown with an inflation factor for work to be performed within a 5 yr period.

The *Total* row and *Total Inflated* rows are totaled at the lower right corner.

The Assessment is broken into five categories with specific evaluation concerns in each:

| | | |
|--|--|--|
| <p>1. Site</p> <ul style="list-style-type: none"> Storm Drainage Drives and Walks Landscaping Site Improvements Play Areas Sanitary System Accessible Parking and Entrance Approach | <p>2. Building Envelope</p> <ul style="list-style-type: none"> Roofs Exterior Walls Windows Exterior Entrances and Doors Thermal Insulation Accessible Egress and Ingress Building Structural System | <p>3. Building Interiors</p> <ul style="list-style-type: none"> Floor Finishes Wall Finishes Ceiling Finishes Interior Doors and Exitways Code Compliance Issues Accessibility for the Disabled Hazardous Material Remediation |
| <p>4. Mechanical</p> <ul style="list-style-type: none"> Domestic Hot Water Generation Cold Water Services Gas Services Piping for Plumbing Systems Plumbing Fixtures Heat Generation Cooling System Piping for Heating Systems Temperature Controls Ventilation Accessible Plumbing Fixtures | <p>5. Electrical</p> <ul style="list-style-type: none"> Main Services and Distribution Convenience Power Fire Alarm Systems Lighting Systems Emergency Lighting Systems Communications Systems Computer Network & Technology Systems Site Lighting Electrical Features for the Disabled Security System | |

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| Category | Scope 1 | Scope 2 | Scope 3 | Total |
|--|-----------|--------------------------------------|-----------|------------|
| Building Summary | | HAWTHORNE BROOK MIDDLE SCHOOL | | |
| 1. SITE | 665,460 | 68,510 | 178,100 | 912,070 |
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| 4. MECHANICAL | 35,100 | 1,798,420 | 0 | 1,833,520 |
| 5. ELECTRICAL | 1,039,350 | 1,825,460 | 0 | 2,864,810 |
| ¹Total: | 6,318,972 | 7,397,710 | 2,154,842 | 15,871,524 |
| ¹Total Inflated @ 4% Compounded Annually | 6,834,600 | 9,000,445 | 2,621,695 | 18,456,740 |

¹Totals include Soft Costs (30%): Contingency, Administration and A/E Fees.

ASSESSMENT

| Work Item Description | Qty | Unit | Unit Cost | Total | ¹ Total w/ Soft Costs | Scope 1 | Scope 2 | Scope 3 | Totals |
|--|-------|------|------------|---------|--------------------------------------|---------|---------|---------|---------|
| 1. SITE | | | | | HAWTHORNE BROOK MIDDLE SCHOOL | | | | |
| 1.1 Replace Bituminous Paving at Parking Lot: Paving is cracked and deteriorated. | 5,830 | SY | 30.00 | 174,900 | 227,370 | 227,370 | | | 227,370 |
| 1.2 Replace Bituminous Paving at Bus Drop-Off and Around School Building: Paving is cracked and deteriorated. Several areas of the walkway have settled and filled with sand. | 7,000 | SY | 30.00 | 210,000 | 273,000 | 273,000 | | | 273,000 |
| 1.3 Install Playing Field for Field Hockey: Currently there is no home field for the field hockey teams. | 1 | LS | 137,000.00 | 137,000 | 178,100 | | | 178,100 | 178,100 |
| 1.4 Paint Overhang Ceiling at the Main Entrance: Paint / stain overhand ceiling at the main entrance. | 1,800 | SF | 15.00 | 27,000 | 35,100 | | 35,100 | | 35,100 |
| 1.5 Replace Old Catch Basins: Some catch basins had been replaced by the school. | 10 | EA | 10,000.00 | 100,000 | 130,000 | 130,000 | | | 130,000 |
| 1.6 Reset Granite Curbs: Existing granite curbs by the concrete paved areas need to be adjusted and reset. | 122 | LF | 16.00 | 1,952 | 2,538 | 2,538 | | | 2,538 |
| 1.7 Patch / Repair Concrete Patio: Patch / repair spalled and cracked areas of concrete surface - approx. 10% of the surface area. | 626 | SF | 40.00 | 25,040 | 32,552 | 32,552 | | | 32,552 |
| 1.8 Painted Steel Handrails: Paint steel handrails at concrete patio play area. | 480 | LF | 15.00 | 7,200 | 9,360 | | 9,360 | | 9,360 |
| 1.9 Replace CMU Wall Between Patio and Loading Dock: The exposed CMU blocks on top of the concrete wall are deteriorated and spalling. Concrete caps are missing in some areas. | 260 | SF | 50.00 | 13,000 | 16,900 | | 16,900 | | 16,900 |

| Work Item Description | Qty | Unit | Unit Cost | Total | ¹ Total w/ Soft Costs | Scope 1 | Scope 2 | Scope 3 | Totals |
|--|-----|------|-----------|-------|--------------------------------------|---------|---------|---------|-----------|
| 1. SITE | | | | | HAWTHORNE BROOK MIDDLE SCHOOL | | | | |
| 1.10 Install Concrete Sealer and Perimeter Sealant at Concrete Patio: Install concrete sealer on existing concrete patio. Install sealant at exterior wall abutting concrete patio. | 1 | LS | 5,500.00 | 5,500 | 7,150 | | 7,150 | | 7,150 |
| Total | | | | | | 665,460 | 68,510 | 178,100 | 912,070 |
| Total Inflated @ 4% Compounded Annually | | | | | | 719,762 | 83,353 | 216,686 | 1,019,800 |

ASSESSMENT

| Work Item Description | Qty | Unit | Unit Cost | Total | ¹ Total w/ Soft Costs | Scope 1 | Scope 2 | Scope 3 | Totals |
|---|--------|------|-----------|-----------|--------------------------------------|-----------|---------|---------|-----------|
| 2. BUILDING ENVELOPE | | | | | HAWTHORNE BROOK MIDDLE SCHOOL | | | | |
| 2.1 Replace 20 Years Old PVC Roof: The existing PVC roofing membrane is at the end of its life expectancy. Provide new PVC roof assembly and metal gravel stop roof edge fascia. Consider making provision for future PV installation. | 50,000 | SF | 50.00 | 2,500,000 | 3,250,000 | 3,250,000 | | | 3,250,000 |
| 2.2 Add Gutter and Downspouts: Install gutter and downspouts to slope roof over electrical room. | 205 | LF | 12.00 | 2,460 | 3,198 | 3,198 | | | 3,198 |
| 2.3 Add Snow Guard: Install snow guard to slope roof area. | 3,000 | LF | 20.00 | 60,000 | 78,000 | 78,000 | | | 78,000 |
| 2.4 Staining and efflorescence on masonry walls: Power wash and clean split face block wall by the Electrical Room. | 1,660 | SF | 5.00 | 8,300 | 10,790 | | 10,790 | | 10,790 |
| Total | | | | | | 3,331,198 | 10,790 | 0 | 3,341,988 |
| Total Inflated @ 4% Compounded Annually | | | | | | 3,603,024 | 13,128 | 0 | 3,616,151 |

¹Total includes Soft Costs (30%): Contingency, Administration and A/E Fees.

| Work Item Description | Qty | Unit | Unit Cost | Total | ¹ Total w/ Soft Costs | Scope 1 | Scope 2 | Scope 3 | Totals |
|---|-------|------|------------|---------|--------------------------------------|---------|---------|---------|---------|
| 3. BUILDING INTERIORS | | | | | HAWTHORNE BROOK MIDDLE SCHOOL | | | | |
| 3.1 Demountable Wall Panels Partition Between Classrooms: Replace demountable wall panels partition between classrooms with metal stud and drywall and sound attenuation insulation full height to bottom of deck. | 7,344 | SF | 9.00 | 66,096 | 85,925 | | 85,925 | | 85,925 |
| 3.2 Reconfigure Administration Area: The current configuration does not allow effective monitoring of main entrance to the building. | 560 | SF | 300.00 | 168,000 | 218,400 | | 218,400 | | 218,400 |
| 3.3 Existing Computer Lab is not Sufficient: Install new computer lab. The construction cost does not include technology equipment or network electronics. | 1,560 | SF | 200.00 | 312,000 | 405,600 | | 405,600 | | 405,600 |
| 3.4 Existing Science Lab is not Sufficient: Install new science lab. | 2,180 | SF | 350.00 | 763,000 | 991,900 | 991,900 | | | 991,900 |
| 3.5 No Enclosure Between Kalwall Skylight and Top of Roof Framing: Install separation wall with sound attenuation insulation full height. | 1,475 | SF | 9.00 | 13,275 | 17,258 | 17,258 | | | 17,258 |
| 3.6 Band Room Door: Replace with acoustical door with gasket. | 1 | LS | 2,500.00 | 2,500 | 3,250 | 3,250 | | | 3,250 |
| 3.7 Existing Band Room has Poor Acoustic Quality: Install acoustical panel system on ceiling and walls. | 1 | LS | 15,000.00 | 15,000 | 19,500 | 19,500 | | | 19,500 |
| 3.8 Replace Kitchen Equipment: Kitchen food service equipment is outdated. Replace with new equipment. | 1 | LS | 300,000.00 | 300,000 | 390,000 | | | 390,000 | 390,000 |
| 3.9 Reconfigure the Existing Home Economics: The existing configuration does not provide effective learning environment. | 2,700 | SF | 200.00 | 540,000 | 702,000 | | 702,000 | | 702,000 |
| 3.10 Install Ramp to the Existing Stage: The existing stage at the cafetorium is not wheel chair accessible. | 1 | LS | 50,000.00 | 50,000 | 65,000 | | | 65,000 | 65,000 |

ASSESSMENT

| Work Item Description | Qty | Unit | Unit Cost | Total | ¹ Total w/ Soft Costs | Scope 1 | Scope 2 | Scope 3 | Totals |
|---|--------|------|------------|-----------|--------------------------------------|---------|-----------|---------|-----------|
| 3. BUILDING INTERIORS | | | | | HAWTHORNE BROOK MIDDLE SCHOOL | | | | |
| 3.11 Replace the Original Carpet: The original broadloom carpet from 1978 is worn and torn in many areas. Replace with new carpet. | 16,612 | SF | 10.00 | 166,120 | 215,956 | 215,956 | | | 215,956 |
| 3.12 Replace Sagging / Stained ceiling tiles: Replace sagging / stained ceiling tiles throughout the school, assuming 25% of the ceiling tiles need to be replaced. | 26,650 | SF | 8.00 | 213,200 | 277,160 | | 277,160 | | 277,160 |
| 3.13 Renovate Staff Toilet Rooms: Renovate non-compliant staff toilet rooms. | 1 | LS | 118,900.00 | 118,900 | 154,570 | | | 154,570 | 154,570 |
| 3.14 Renovate Student Toilet Rooms: Renovate all non-compliant student toilet rooms. | 1 | LS | 293,530.00 | 293,530 | 381,589 | | | 381,589 | 381,589 |
| 3.15 Existing Rubber Gymnasium Floor: Refinish the existing rubber gymnasium flooring. Cost includes court stripings. | 8,140 | SF | 10.00 | 81,400 | 105,820 | | | 105,820 | 105,820 |
| 3.16 Gymnasium Bleacher Seating is Non-accessible: We recommend that the Owner applies for a variance since the existing bleacher can not be modified to accommodate ADA seatings. | 1 | LS | 750.00 | 750 | 975 | | | 975 | 975 |
| 3.17 Existing Elevator Does Not Meet Accessibility Requirements: Completely Remove and replace the elevator including elevator shaft and foundation. | 1 | LS | 300,000.00 | 300,000 | 390,000 | | | 390,000 | 390,000 |
| 3.18 Replace Old Lockers Throughout the building: The existing lockers are too small and not functional. Preferred lockers are 12"x15"x60" on 4" high base. | 625 | EA | 114.00 | 71,250 | 92,625 | | 92,625 | | 92,625 |
| 3.19 Reconfigure Gymnasium Lockers and Showers area: Currently the locker rooms and showers are not being used. Redesign to serve school other programs. | 3,640 | SF | 300.00 | 1,092,000 | 1,419,600 | | 1,419,600 | | 1,419,600 |

| Work Item Description | Qty | Unit | Unit Cost | Total | ¹ Total w/ Soft Costs | Scope 1 | Scope 2 | Scope 3 | Totals |
|--|-------|------|------------|---------|--------------------------------------|---------|---------|---------|---------|
| 3. BUILDING INTERIORS | | | | | HAWTHORNE BROOK MIDDLE SCHOOL | | | | |
| 3.20 Library Guardrails are not Code Compliant: Replace non-compliant guardrails. | 158 | LF | 45.00 | 7,110 | 9,243 | | | 9,243 | 9,243 |
| 3.21 HVAC in Reconfigured Area Outside Library was not Modified: Remove walls and convert back to open space. | 6,800 | SF | 15.00 | 102,000 | 132,600 | | 132,600 | | 132,600 |
| 3.22 Stair between Library and Second Floor needs cane detection: Install cane detection railing underneath stair. | 32 | LF | 45.00 | 1,440 | 1,872 | | | 1,872 | 1,872 |
| 3.23 Replace Non-compliant Intermediate Handrail on stair between Library and First Floor: Replace non-compliant railing. | 13 | LF | 45.00 | 585 | 761 | | | 761 | 761 |
| 3.24 Original 1978 Sheet Vinyl Floor in the Cafetorium: Replace existing sheet vinyl floor with new sheet vinyl. | 2,622 | SF | 10.00 | 26,220 | 34,086 | | 34,086 | | 34,086 |
| 3.25 Existing Kitchen Epoxy Floor is cracked and Stained: Replace the old kitchen floor. | 1,490 | SF | 32.00 | 47,680 | 61,984 | | 61,984 | | 61,984 |
| 3.26 Paint Gymnasium Walls and Ceiling: Paint gymnasium walls and ceiling including joists and ductworks. | 8,500 | SF | 5.00 | 42,500 | 55,250 | | 55,250 | | 55,250 |
| 3.27 Reconfigure Gymnasium Storage Area: Redesign this area to create exercise room. Remove and replace existing wood stair to the mezzanine level. | 1,500 | SF | 200.00 | 300,000 | 390,000 | | | 390,000 | 390,000 |
| 3.28 Non-compliant Handrails / Guardrails: Open Stair Outside Gymnasium has Non-compliant Handrails / Guardrails. Replace the non-compliant railings. Includes cane detection railing underneath. | 149 | LF | 45.00 | 6,705 | 8,717 | | | 8,717 | 8,717 |
| 3.29 Auditorium Theatrical Lighting and Loudspeakers: Replace the outdated theatrical lighting and loudspeakers system. | 1 | LS | 100,000.00 | 100,000 | 130,000 | | 130,000 | | 130,000 |

ASSESSMENT

| Work Item Description | Qty | Unit | Unit Cost | Total | ¹ Total w/ Soft Costs | Scope 1 | Scope 2 | Scope 3 | Totals |
|--|-------|------|-----------|--------|--------------------------------------|-----------|-----------|-----------|-----------|
| 3. BUILDING INTERIORS | | | | | HAWTHORNE BROOK MIDDLE SCHOOL | | | | |
| 3.30 Non-compliant Handrails: Wall mounted handrails in the auditorium are not code compliant. Remove and replace. | 66 | LF | 45.00 | 2,970 | 3,861 | | | 3,861 | 3,861 |
| 3.31 Non-compliant Handrails to Stage: Replace the non-compliant handrails. | 28 | LF | 45.00 | 1,260 | 1,638 | | | 1,638 | 1,638 |
| 3.32 Replace Auditorium Carpet: Auditorium carpet is worn and detached. Replace with new carpet. | 2,500 | SF | 10.00 | 25,000 | 32,500 | | 32,500 | | 32,500 |
| 3.33 Sink in Art Room: Sink in art room is not wheelchair accessible. Redesign and install new sink. | 1 | EA | 2,500.00 | 2,500 | 3,250 | | | 3,250 | 3,250 |
| 3.34 Non-compliant Handrails / Guardrails: Replace non-compliant railings on Stair B. | 76 | LF | 45.00 | 3,420 | 4,446 | | | 4,446 | 4,446 |
| 3.35 Stress cracks on interior masonry walls throughout the building: Repair / rebuild masonry walls. It is unknown what is causing the stress crack, further investigation is recommended. | 200 | EA | 180.00 | 36,000 | 46,800 | | 46,800 | | 46,800 |
| 3.36 Existing Elevator Does Not Meet Accessibility Requirements: Remove and replace the elevator control system. | 1 | LS | 50,000.00 | 50,000 | 65,000 | | | 65,000 | 65,000 |
| Total | | | | | | 1,247,864 | 3,694,530 | 1,976,742 | 6,919,136 |
| Total Inflated @ 4% Compounded Annually | | | | | | 1,349,690 | 4,494,961 | 2,405,009 | 8,249,659 |

¹Total includes Soft Costs (30%): Contingency, Administration and A/E Fees.

| Work Item Description | Qty | Unit | Unit Cost | Total | ¹ Total w/ Soft Costs | Scope 1 | Scope 2 | Scope 3 | Totals |
|--|---------|------|-----------|---------|--------------------------------------|---------|-----------|---------|-----------|
| 4. MECHANICAL | | | | | HAWTHORNE BROOK MIDDLE SCHOOL | | | | |
| 4.1 Replace Pneumatic Control: The building HVAC system utilizes a combination of DDC and pneumatic controls. The pneumatic system is obsolete and is not reliable. Replace the remaining pneumatic controls and upgrade to DDC system. Assuming 75% of the existing control system is pneumatic. | 75,000 | SF | 5.00 | 375,000 | 487,500 | | 487,500 | | 487,500 |
| 4.2 Replace Pumps in Boiler Room: Replace old pumps in the boiler room. | 2 | EA | 12,000.00 | 24,000 | 31,200 | | 31,200 | | 31,200 |
| 4.3 Replace VFD Controller in the Boiler Room: Remove old VFD in the boiler room. | 1 | EA | 25,000.00 | 25,000 | 32,500 | | 32,500 | | 32,500 |
| 4.4 New Sprinkler System: Install New Sprinkler System | 106,600 | SF | 9.00 | 959,400 | 1,247,220 | | 1,247,220 | | 1,247,220 |
| 4.5 Roof Top Exhaust Fan: Replace existing exhaust fans | 18 | EA | 1,500.00 | 27,000 | 35,100 | 35,100 | | | 35,100 |
| Total | | | | | | 35,100 | 1,798,420 | 0 | 1,833,520 |
| Total Inflated @ 4% Compounded Annually | | | | | | 37,964 | 2,188,053 | 0 | 2,226,017 |

¹Total includes Soft Costs (30%): Contingency, Administration and A/E Fees.

ASSESSMENT

| Work Item Description | Qty | Unit | Unit Cost | Total | ¹ Total w/ Soft Costs | Scope 1 | Scope 2 | Scope 3 | Totals |
|--|---------|------|------------|---------|--------------------------------------|-----------|-----------|---------|-----------|
| 5. ELECTRICAL | | | | | HAWTHORNE BROOK MIDDLE SCHOOL | | | | |
| 5.1 Upgrade Data Cabling: Upgrade existing data cabling and add wireless routers throughout school. The construction cost does not include technology equipment or network electronics. | 106,600 | SF | 4.00 | 426,400 | 554,320 | 554,320 | | | 554,320 |
| 5.2 Security Camera and Intrusion Alarm System: School needs security camera and intrusion alarm upgrades. | 106,600 | SF | 3.50 | 373,100 | 485,030 | 485,030 | | | 485,030 |
| 5.3 Upgrade Communication/Clock System: The system has reached life expectancy. A new wireless clock and VOIP system should be installed to replace the existing system. | 106,600 | SF | 3.00 | 319,800 | 415,740 | | 415,740 | | 415,740 |
| 5.4 Upgrade Fire Alarm System: Existing 4 zone fire alarm is non-addressable. Upgrade to addressable system. | 106,600 | SF | 3.00 | 319,800 | 415,740 | | 415,740 | | 415,740 |
| 5.5 Replace the Existing Switchgear: The existing 1978 switchgear is in fair to poor condition. We recommend replacing the switchgear under a renovation. | 106,600 | SF | 6.00 | 639,600 | 831,480 | | 831,480 | | 831,480 |
| 5.6 Replace Emergency Generator and Transfer Switch: The existing gas-fired generator is 44 years old. Replace the outdated generator. | 1 | LS | 125,000.00 | 125,000 | 162,500 | | 162,500 | | 162,500 |
| Total | | | | | | 1,039,350 | 1,825,460 | 0 | 2,864,810 |
| Total Inflated @ 4% Compounded Annually | | | | | | 1,124,161 | 2,220,951 | 0 | 3,345,112 |

¹Total includes Soft Costs (30%): Contingency, Administration and A/E Fees.

1. SITE



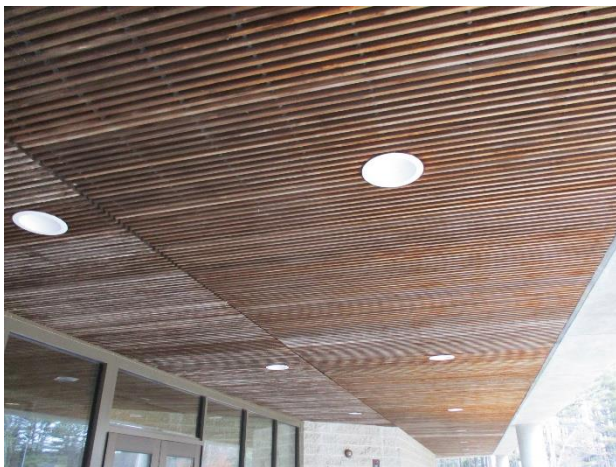
1.1 Bituminous paving at parking lot.



1.2 Bituminous paving at bus drop off.



1.3 Play field.



1.4 Overhang ceiling at main entrance.



1.5 Newly replaced catch basin.



1.6 Granite curbs at bus drop off area.

PHOTOGRAPHS



1.7 Concrete patio play area.



1.8 Handrails at concrete patio play area.



1.9 CMU wall at concrete patio and loading dock area.

2. BUILDING ENVELOPE



2.1 Aerial photo of the roof.



2.2 Sloped roof by the Music Room.



2.3 Sloped roof by the loading dock area.



2.4 Staining on masonry wall.

PHOTOGRAPHS

3. BUILDING INTERIORS



3.1 Demountable partition between classrooms.



3.2 Reception counter.



3.3 Computer Laboratory.



3.5 Band Room.



3.6 Band room office.



3.7 Skylight at Band Room.



3.8 Kitchen equipment.



3.9 Home economics room.



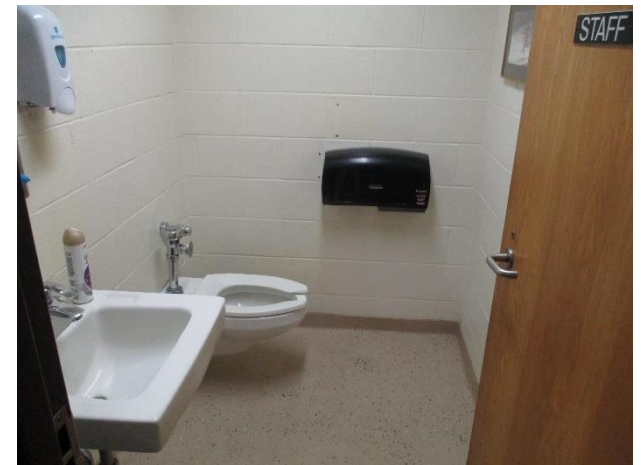
3.10 Cafetorium stage.



3.11 Original carpet in the Library.



3.12 Stained ceiling tile.

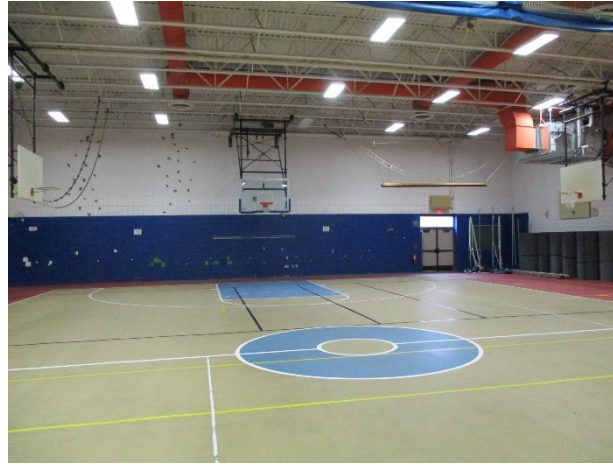


3.13 Staff toilet room.

PHOTOGRAPHS



3.14 Student toilet room.



3.15 Gymnasium rubber floor.



3.16 Bleacher seating.



3.17 Elevator.



3.18 Student lockers.



3.19 Boys shower area.



3.20 Library guardrails.



3.22 Underside of stair from library to second floor.



3.23 Stair from first floor to library.



3.24 Sheet vinyl floor at cafetorium.



3.25 Kitchen epoxy floor.



3.26 Gymnasium floor, walls and ceiling.

PHOTOGRAPHS



3.27 Gymnasium storage area.



3.28 Non-compliant handrails / guardrails.



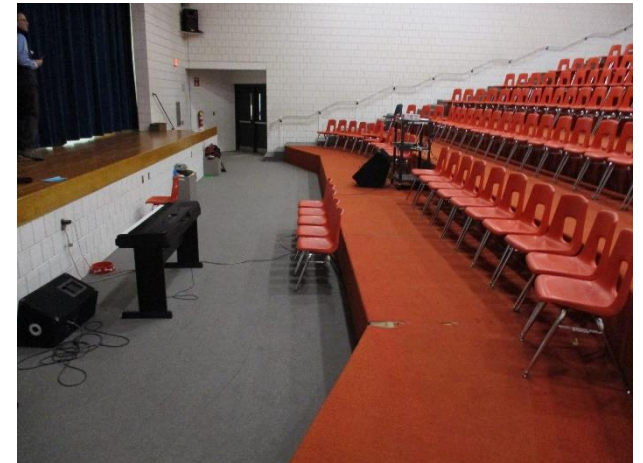
3.29 Auditorium stage lighting.



3.30 Handrail in the auditorium.



3.31 Handrail to the stage.



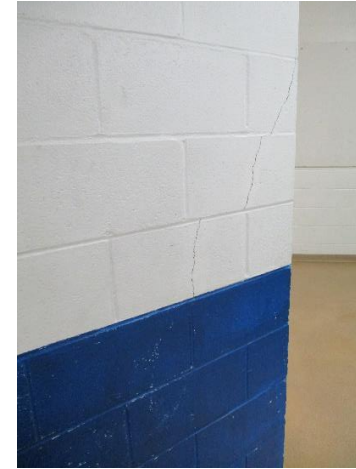
3.32 Auditorium carpet.



3.33 Art room sink.



3.34 Handrails at Stair B.



3.35 Stress cracks on masonry wall.

PHOTOGRAPHS

4. MECHANICAL



4.1 Pneumatic control panel



4.2 Boiler pumps



4.3 Boiler room

5. ELECTRICAL



5.1 Telephone network panel.



5.2 Security Camera and Intrusion Alarm System.



5.3 Intercom System.



5.4 Fire alarm panel.



5.5 Electrical room.



5.6 Emergency generator.