



HAGGERTY SCHOOL

110 Cushing Street
Cambridge, MA 02138

Facilities Condition Assessment : October 14, 2022

Capacity Analysis
Master Plan

Facilities Condition Assessment, Capacity Analysis and Master Plan for CPS



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7.6 | HAGGERTY SCHOOL BUILDING APPENDIX

Historical Summary

The Haggerty School is located at 110 Cushing St, Cambridge, MA and located across the street from Neighborhood Conservation District. The history dates back to 1859, the school was unofficially known as “The Mount Auburn School” and served the area of Strawberry Hill at a modest wood frame schoolhouse built in 1871. Parental involvement was and continues to be a big marker of the community, and thanks to this, a new school building designed by Edward T.P. Graham opened to students in 1915. It was then that the school was renamed after Daniel A. Haggerty, a Cambridge-born U.S. soldier who sacrificed his life in the 1914 invasion of Vera Cruz, Mexico. This building served the community for 80 years, and throughout this time was able to overcome pressure to merge or shut down entirely.

The school was razed in 1993, and replaced with the current building in 1995. Designed by Michael Rosenfield, the five-level structure was envisioned as an “inclusionary school”, creating spaces that served children throughout various intellectual and social spectrums. Today, the Haggerty School serves children from Kindergarten through 5th grade as well as a preschool program part of the Department of Human Service Programs for children 2.9-5 years of age.



Buildings Survey of Architectural History in Cambridge: Northwest Cambridge by Cambridge Historical Commission, The MIT Press 1977, 126.



Architectural drawings of Haggerty. CPS, History of Haggerty School

FCA FORMS - SCORING BREAKDOWN

The Facilities Condition Assessment was performed by the architectural team and consultants to assess the current physical conditions of the building and the building systems. Each assessor utilized checklists and the assessment criteria and rating scale below to maintain consistency across all fields.The Conditions criteria grades the overall quality of the building and systems, and the *Priority* criteria sets the time frame for addressing the issues noted. The two numbers were used together to rate the different areas of the facilities. To complete the analysis, each school was given an overall condition and priority score. These were calculated by combining and weighing all individual assessments based on the District’s priorities. Detailed reports for this school individually can be seen in the following pages.

ASSESSMENT CRITERIA				
CONDITION		PRIORITY		
Excellent	A	No visible defects, new or near new condition, may still be under warranty if applicable	Currently Critical (Immediate	1 Requiring immediate action including a cited safety hazard and ares of accelerated deteriorating, returning a building component to normal operation.
Good	B	Good condition, but no longer new, may be slightly defective or deteriorated, but is overall functional	Potentially Critical	2 Requiring action in the next year including components experiencing intermittent operations, potential life safety issues, and rapid deterioration, returning a building component to normal operation.
Adequate	C	Moderately deteriorated or defective, but has not exceeded useful life	Necessary - Not Yet Critical	3 Requiring appropriate attention to preclude predictable deterioration, potential downtime, additional damage, and higher cost to remediation if deferred further
Marginal	D	Defective or deteriorated in need of replacement; exceeded useful life	Recommended	4 Representing a sensible improvement to the existing conditions (not required for the most basic function of the facility; however, will improve overall usability and/or reduce long-term maintenance costs).
Poor	E	Critically damaged or in need of immediate repair; well past useful life	Does Not Meet Current Code but “Grandfathered”	5 No action required at this time, but should substantial work be undertaken correction would be required

2.1 FCA SCORE SUMMARY

ARCHITECTURAL - EXTERIOR	CONDITION	PRIORITY
<div><div>◦ Review of the as-built detailing of the masonry facades at the West Wing and the East Classrooms below the Entrance sidewalk is recommended in conjunction with exploratory demolition to confirm how these assemblies were built, particularly the throughwall flashings and coping caps. Active leakage in these areas appears to consistently appear along the throughwall flashings on the interior and it is possible that masonry removal and reconstruction of these assemblies may be needed, depending on the as-built conditions and deficiencies discovered. It is also possible that the water leakage observed below the sloped glazing in the West Wing Corridor is associated with a masonry issue. A potential short term repair to address the leakage in these areas could include cleaning the masonry, replacing the façade sealants and coating the masonry with a breathable coating to reduce the amount of moisture that is able to penetrate the brick façade, thus reducing the reliance on defective flashings.</div><div>◦ Replacement of any cracked brick and repointing of any deteriorated mortar is recommended, including at the East side of the building where this issue was documented.</div><div><div>◦ Removal of excess mulch from the base of the façade is recommended to ensure the masonry weeps are not blocked and can drain freely.</div><div>◦ Removal of remaining peeling coating from West Elevation concrete block and recoating is recommended along with preparing and painting rusting steel lintels.</div><div>◦ Windows in good condition overall</div><div>◦ A scope of diagnostic water leakage field testing needs to be performed on storefront and adjacent cladding assemblies at Library clerestory, sloped glazing above West Wing corridor and the storefront at the Cafeteria and in the Community Room L01 to determine the source(s) of water leakage. Review of as-built documents and exploratory demolition is recommended also as part of this exercise. Remedial work to address the active leakage issues is recommended.</div><div>◦ Some of the surface rusting observed at the hollow metal doors and frames may be due to use of deicing salts during the winter months. Reduction in use of these materials against these metal assemblies should reduce potential for further damage. Preparation, priming and repainting of these doors and frames is advised.</div><div>◦ Replacement of all façade sealants is recommended, including masonry control joints and perimeter sealants at windows and doors.</div><div>◦ Replacement of the existing roofing systems is recommended. The roof has exceeded its expected service life and should be replaced with a roofing system with Code compliant insulation.</div><div>◦ Sloped glazing lites should be replaced. It may be possible to reuse the existing sloped glazing framing, and to only provide new metal flashings and covers with the new lites. Further investigation is also needed to evaluate the water leakage issues, as noted above.</div></div><div>◦ Masonry in need of repairs</div></div>	D	2

2.1 FCA SCORE SUMMARY

ARCHITECTURAL - INTERIOR	CONDITION	PRIORITY
<ul style="list-style-type: none">Typical classroom- GYP wall, ACT Ceilings, and VCT flooring in fair conditionPoor millwork conditionShared bathroom and work room between 2 classrooms	B	4
STRUCTURAL SYSTEM	CONDITION	PRIORITY
<ul style="list-style-type: none">General Construction (Roof, Floor, Foundations)Lateral force resisting system - GeneralExterior brick masonry walls - GeneralInspect roof drainage system and provide periodic maintenance to address ponding waterInvestigate moisture intrusion sources.Repair/replace exterior stairs and site elements	B	5
	C	4
	D	2
FOOD SERVICE	CONDITION	PRIORITY
<ul style="list-style-type: none">Replace exhaust hood & fire suppressionProvide dedicated preperation sinkReplace older cooking and serving equipment	C	3
CONVEYING SYSTEM	CONDITION	PRIORITY
<ul style="list-style-type: none">Repair leaking oil line; replace any fittings and seals as needed.Scrape and clean debris from hall and car door sills.Replace missing pickup roller at Floor 2.Adjust car door hangers or rollers to eliminate front entrance car door from dragging in the sill.Repair car position indicator – not functioning.Replace light bulb for Floor 1 COP button.Recommend building cleaning staff cease pushing water and/or floor cleaning agents into the hoistway. Evidence of water or cleaning supply corrosion present inside the hall door sills and hall door equipment below the landing(s).Machine room air conditioning does not appear to be functioning. Check and verify proper operation of HVAC.	C	3
BUILDING SYSTEMS	CONDITION	PRIORITY
<ul style="list-style-type: none">Replace plumbing fixtures and fittings, replace water heater, replace waste and vent piping, replace heating plant, replace roof top units, replace fan coil units and unit ventilators, replace exhaust fans, replace terminal heating units and fin tube radiation, replace building automation system, upgrade lighting and lighting controls with energy code compliant system	C-D	3-4
<ul style="list-style-type: none">Replace roof drains	E	1-2
<ul style="list-style-type: none">Upgrade fire alarm with code compliant system.	N/A	5
Note: "5" not counted in priority average.	C 2+	

PORTFOLIO-LEVEL FINDINGS AND DEFICIENCIES

Site

Existing Condition

The Haggerty School sits within a quiet residential area. The school is set on the southeast section of the site, offset from the north, east, and south boundaries of the site which allows for a variety of play spaces around the school. The main entry is located on the eastern side of the site, nine steps up from grade, with a large concrete stair and landing area up to the vestibule, as well as ramps for accessibility. There are bike racks and two benches on the large landing. On either side of the entry stair, there are two play spaces, down a floor from grade, with direct access to classrooms on the first floor of the school. This side of the site is in fair condition, the stairs and landing have some cracking and weathering and at the time of visit, there were some repairs to the stairs.

The site slopes down on the southern side, with two fenced areas. The first is a garden space, with access down steps from the east side of the site and access on grade from the south side. This area has a series of wood planting boxes, two sheds, and a composting area, all in good condition. Following this area is a side egress door on grade. The next fenced area is a playground for toddler age children, paved with rubber flooring and with some playground equipment, all in fair condition. There is an additional side egress door after the playground area. The entire south side of the site is lined with trees.

The west side of the site is delineated by a 5-6’ wood fence, leaving a small concrete-paved walkway between the school and the fence. There are two egress doors on grade located on this side of the site, as well as an additional one when you round the corner to the north. This area is in good condition. On the north side, there is a large extension of the site, with an undersized turf soccer field surrounded by playground equipment. Additionally, two tents with seating spaces, a shed, and a series of benches are located on the side closer to the school. The north side adjacent to the building is paved halfway with asphalt, with play spaces painted on the ground. The other half of the area features a small asphalt-paved walkway as well as additional play structures on rubber flooring. This area can also be accessed from the east side of the site, down a staircase. The north of the site is all in good condition.

There is a parking lot across Cushing Street with 15 designated parking spaces. There is no additional or direct drop-off area.



Front entrance, East



Site sloping, South

Architectural - Exterior

Existing Condition

The building exterior of the Haggerty School comprises brick masonry veneer with thermally broken aluminum framed window and storefront assemblies, with isolated locations of aluminum metal panel, glass block and concrete block. There is an EPDM roof with sloped glazing and some copper standing seam roofing. The building was constructed in 1995 and it is understood that all building exterior components are original.

The masonry façade of the Main Building is in good condition overall, however, considered to be in fair to poor condition at the West Wing and East Classrooms below the Main Entry where active water leakage is occurring. The EPDM roofing is in fair condition overall and copper standing seam roofing is in good condition.

Masonry:
The brick masonry veneer is in good condition overall. An isolated area where masonry weeps were located below landscaping was observed on the North Elevation. (Ref: Photo AE-7) Precast concrete coping caps terminate the top of the masonry wall at the West Wing, and failed sealants exist between the caps in this area. (Ref: Photo AE-9)

At the West Wing and East Classrooms below the Main Entrance, the brick façade is considered in fair to poor condition, with efflorescence present on the brick in most of these areas, indicative of excess moisture penetration. The relieving angle supporting this brick is exposed on the exterior of the façade as well on the interior of the classrooms. Water leakage is a recurrent issue on the interior side of these masonry walls. Efflorescence, peeling paint and damage to the drywall and storefront assemblies below the relieving angles was evident in all six (6) classrooms located in these areas. (Ref: Photos AE-10-14)

Isolated cracked and displaced brick was observed on the East Elevation masonry facades adjacent to the entry sidewalk. (Ref: Photo AE-11)

Façade sealants including those at masonry control joint locations and at the perimeter of fenestrations are reaching the end of their useful service life and have failed in some locations. (Ref: Photos AE-15-16)

Portions of the West Elevation are clad with exposed concrete block, which was painted. Most of the paint has peeled from these surfaces, with rusting lintels observed at door openings in this area. (Ref: Photo AE-18)



AE-A: East classroom wing below Main Entrance sidewalk



AE-B: Sloped glazing at transition from Main Building to West Wing

Architectural - Exterior

Existing Condition

Windows and Doors:
Glass block forms a clerestory façade around the play roof above the Gymnasium at the West Wing. Facilities personnel did not indicate any water penetration issues with the glass block, however there is water staining and discoloration within the mortar surrounding the glass block in most locations. There is some condensation within the glass block in this area. (Ref: Photo AE-19-20)

The windows and storefront consist of aluminum thermally broken frames with fixed and awning components with insulated glazing. The fenestration assemblies appear to be in good condition overall, with exception for some of the storefront at the West Wing which exhibit failing glazing gaskets and layers of sealant previously applied over the glazing gaskets and spandrel panels. (Ref: Photos AE-21-22, 24-26)

Evidence of water leakage is visible in proximity of storefront units within the Library below the clerestory (Ref: Photo AE-23) and within the Cafeteria located below grade in the West Wing. Stained ceiling tiles are visible in the Library. In the Cafeteria, drywall was removed at the perimeter of the clerestory portion of this space at the sill of the storefront due to recurrent leakage issues. In these areas, it is unknown if the leakage and interior damage is resulting from deficient storefront assemblies or the adjacent perimeter conditions around these storefronts. (Ref: Photos AE-25-28)

Aluminum framed sloped glazing assemblies are located at the transition from the Main Building to the West Wing. These sloped glazing are in fair condition overall, with failed IGU observed in multiple locations, as evidenced by condensation between the panes of glass. Multiple locations of active water leakage exist within the Corridor below the sloped glazing, as evidenced by damaged drywall, peeling paint and staining on the exposed masonry in this area. (Ref: Photos AE-29-32) The sill of the sloped glazing terminates at a masonry wall with a concrete cap, and it is possible that the leakage issues are a combination of masonry and glazing failures.

The exterior doors are hollow-metal framed with surface rusting and peeling paint present at the base of these frames at most locations. Some daylight was visible around a few exterior doors due to insufficient weatherstripping. (Ref: Photos AE-33-35)



AE-C: Typical storefront spandrel panels with added sealants



AE-D: Playroof over the West Wing

Architectural - Exterior

Existing Condition

U
The roof is surfaced with fully adhered Firestone EPDM membrane on a mechanically fastened substrate. The roof appears original to the building’s construction and is reaching the end of its service life. Failed lap sealants and unadhered patches were observed on all roof levels. Damaged guy line anchor posts were discovered on the main roof at a flue pipe. Some conduit penetrations are sealed with use of spray foam insulation, which is not an appropriate watertight material. Various mechanical equipment and related ductwork and conduit piping was noted throughout each roof area.

The playroof at the West Wing is covered with rubber pads within the playground area which did not allow review of the roofing system below.

Standing seam copper panels clad the sloped roof at the Gymnasium clerestory on the West Wing, the clerestory on the Main roof above the Library and the top of the parapets at the Main Building. The metal roofing and flashing are in good condition overall.

Roof access is via penthouse doors on each roof level, with a wall mounted ladder and an access hatch at the upper main roof. Roof drainage is achieved through internal roof drains. A lightning protection system is installed throughout the roofs.

Miscellaneous:
Spalling of concrete within the retaining walls along the East side of the building was observed in multiple locations, typically at the penetration for the metal guardrails above. (Ref: Photo AE-46)

Reported Envelope Issues:
While on site, discussions were held with facilities personnel to identify any building exterior-related issues that may exist. As mentioned above, water leakage is reported to be occurring within the below-grade Cafeteria along the perimeter walls below the storefront at the West Wing classrooms above (Ref: Photos AE-25-28) as well as below the sloped glazing at the West Wing corridor. (Ref: Photos AE-29-32)

There is roof leakage within Room 109 from near the roof drain. (Ref: Photo AE-48)
There is also evidence of water leakage within the Community Room L01 where the exterior window is located within a lightwell that is covered with a grate on the South Elevation. (Ref: Photo AE-47)

Architectural - Exterior

Recommendations

Masonry:
Review of the as-built detailing of the masonry facades at the West Wing and the East Classrooms below the Entrance sidewalk is recommended in conjunction with exploratory demolition to confirm how these assemblies were built, particularly the throughwall flashings and coping caps. Active leakage in these areas appears to consistently appear along the throughwall flashings on the interior and it is possible that masonry removal and reconstruction of these assemblies may be needed, depending on the as-built conditions and deficiencies discovered. It is also possible that the water leakage observed below the sloped glazing in the West Wing Corridor is associated with a masonry issue.

A potential short term repair to address the leakage in these areas could include cleaning the masonry, replacing the façade sealants and coating the masonry with a breathable coating to reduce the amount of moisture that is able to penetrate the brick façade, thus reducing the reliance on defective flashings.

Replacement of any cracked brick and repointing of any deteriorated mortar is recommended, including at the East side of the building where this issue was documented. (Ref: Photo AE-11)

Removal of excess mulch from the base of the façade is recommended to ensure the masonry weeps are not blocked and can drain freely.

Replacement of all façade sealants is recommended, including masonry control joints and perimeter sealants at windows and doors.

Removal of remaining peeling coating from West Elevation concrete block and recoating is recommended along with preparing and painting rusting steel lintels.

Windows and Doors:
A scope of diagnostic water leakage field testing needs to be performed on storefront and adjacent cladding assemblies at Library clerestory, sloped glazing above West Wing corridor and the storefront at the Cafeteria and in the Community Room L01 to determine the source(s) of water leakage. Review of as-built documents and exploratory demolition is recommended also as part of this exercise. Remedial work to address the active leakage issues is recommended.

Sloped glazing lites should be replaced. It may be possible to reuse the existing sloped glazing framing, and to only provide new metal flashings and covers with the new lites. Further investigation is also needed to evaluate the water leakage issues, as noted above.

Architectural - Exterior

Recommendations

Some of the surface rusting observed at the hollow metal doors and frames may be due to use of deicing salts during the winter months. Reduction in use of these materials against these metal assemblies should reduce potential for further damage. Preparation, priming and repainting of these doors and frames is advised.

Roofing:
In the short term, an evaluation of the roof above the leakage in Room 109 is recommended, with associated repairs made to address the leak.

Replacement of the existing roofing systems is recommended. The roof has exceeded its expected service life and should be replaced with a roofing system with Code compliant insulation.

Architectural - Interior

Existing Condition

The interior condition of the Haggerty School is overall functional with a few areas of concern particularly related to possible water infiltration and mold/mildew issues. These are located at below grade spaces or spaces under roof transition areas. There were a few selected finishes that received an excellent rating particularly in one room that may have gotten a recent upgrade. The rooms with apparent mold have also been rated as a critical priority and need immediate attention.

The shared use spaces such as gym, library and cafeteria are in good condition with a few finishes that need attention. The single and multi-user toilet rooms are in good condition. Some appear to have had ADA upgrades but many remain non-compliant and are very small.

Ceilings:
Other than toilet rooms and some bulkheads which are gypsum, the ceilings are acoustical tile ceilings (ACT). These range from good to adequate condition with minimal apparent damage throughout. The gypsum ceilings are mostly in good condition except for vestibule spaces that show more signs of weather damage and wear. There is visible mold/mildew in some selected spaces and should be reviewed soon to determine if the problem is more persistent than can be seen from below. The source of the problem could not be determined without some demolition and further inspection; these spaces have been flagged as in need of critical attention.

Walls:
The lower-level rooms are predominantly CMU and are in good condition. The Sensory Room, on the lower level, is not showing visible damage but it is being treated and monitored for mold so this should continue in conjunction with other mold investigations. The typical walls on the first through fourth floors are gypsum and are in good to moderate condition. Some wear can be seen but they are all functional. Some rooms on the third and fourth level have a combination of gypsum and CMU and are also in good condition. Bathroom walls are either gypsum and tile or CMU and tile and are generally in moderate condition.

Floors:
All bathroom floors have ceramic tile and are in good condition. The gym has a wood floor which appears to be in good condition however, it does have some significant gapping which might be evidence of changes in moisture content over time. The remainder of the school has VCT floors. These are predominantly in good condition with about one third of them being in adequate to marginal condition. Those rooms on the lower end are typically service or storage rooms which appear to be getting less annual maintenance and limited cleaning/ upkeep.



Typical Classroom- Second Floor



First Floor Corridor

Architectural - Interior

Existing Condition

Windows:
This section addresses the conditions of the exterior windows from the interior view. All windows are aluminum windows and appear in good condition from the inside. No evidence of leaks was apparent. The interior windows are typically hollow metal frames and are in good condition.

Doors:
Typical doors are wood doors in hollow metal frames. About one half of them are in good condition with the second half being in adequate condition. No doors were rated either higher or lower in this assessment.

FFE:
Overall, the furniture, fixtures and equipment in the school were in adequate condition. A limited number of rooms rated as good and only a couple were marginal in some administrative spaces.

Millwork:
The classroom millwork, such as cubbies and shelving in shared workroom spaces was in moderate condition at best. A couple of classroom had significant damage on cubbies or in sink areas. All was approaching being past its useful life.

Plumbing:
A limited number of classrooms have plumbing, and it is in adequate to marginal condition. Many of the rest room fixtures appear to be more recent replacements; they and are covered in more depth by MEP analysis.

Recommendations

The overall condition of the interiors could be addressed through limited repairs and systems replacements unless the water issues lead to more significant scopes. Millwork repairs could likely be done in-place with new laminates and upgraded edge-banding or wood edging. Immediate investigation of the water and mold/mildew damage should be performed to define the source and scope as this could quickly lead to more significant damage.



Sensory Room - Basement (Water Damage)



Gym (Wood floor gaps)

Architectural - Interior

Existing Condition



Third Floor Classroom (mold possible)



Theater

Existing Condition

The theatrical equipment systems at the Haggerty School are in fair condition.

The theatrical lighting system consists of fixed lighting pipe positions distributed throughout the room fitted with incandescent lighting fixtures. Fixtures are controlled by an analog control panel.

Recommendations

Theatrical Lighting:
This system should be upgraded. LED theatrical fixtures should replace existing incandescent fixtures. New control infrastructure, control rack, and user interface should be installed. Existing power infrastructure may be reused but dimming equipment should be removed and existing panelboards should be replaced with theatrical lighting relay panels.



Existing Theatrical Lighting Position and Fixtures



Existing Lighting Control Panel

Structural System

Existing Condition

General
The Haggerty Elementary School was constructed in 1995. A complete set of existing structural drawings was available to the design team at the time of our visit to the school. The facility has 4-stories above grade and a full basement. The building structure consists of a structural steel building frame with composite floor construction and conventional, soil-supported foundations. The building structure generally appears to be in good condition.

Existing Structural Systems and Observations
Foundations consist of concrete slabs on grade, reinforced concrete foundation walls with cantilevered retaining wall footings, and individual spread footings at building columns. Foundations have been designed based on a 2.0 tons per square foot bearing pressure and appear to be performing adequately; there are no apparent signs of significant total or differential settlements.

Floor Construction consists of concrete slabs on galvanized composite metal floor deck supported by composite steel beams spanning to steel (HSS) columns. Floor construction appears to be performing satisfactorily; there is no evidence of structural distress that would indicate significantly overstressed, deteriorated, or failed structural members.

Roof Construction consists of galvanized steel roof deck supported by steel beams spanning to steel (HSS) columns. The roof structure was designed for a snow load of 30 psf, which meets the current building code. Roof construction appears to be performing satisfactorily; there is no evidence of structural distress that would indicate significantly overstressed, deteriorated, or failed structural members.

Exterior Wall Construction consists of brick masonry veneer and cold formed metal framing back up walls. Interior walls are a combination of non-bearing CMU block construction and cold formed metal framing partitions. The exterior brick masonry walls generally appear to be in good condition.

The Lateral Force Resisting System consists of steel braced frames and has been designed for the wind and seismic load requirements of the Massachusetts State Building Code that was adopted at the time of construction.



Photo ST-1: Spalling Concrete at Site Stair



Photo ST-2: Deteriorating Site Paving

Structural System

Recommendations

Structural conditions at the school were reviewed at the site (to the extent possible) on August 29, 2022. While the building structure was observed to generally be in good condition, specific structural/structurally related conditions that may require further investigation and/or remediation in the future are listed below.

Exterior paving, stairs and site walls at the main entry to the building are in need of repair/patching. Cracks in masonry, concrete spalling and other signs of deterioration were observed. Refer to Photos ST-1, ST-2, and ST-3.

Ponding water was observed on some of the low roof areas. Further investigation of the roof drainage system is recommended. Refer to Photos ST-4 and ST-5.

Evidence of water/moisture issues were observed in multiple locations, both on the interior and exterior of the building, which may be indicative of failing roofing systems or caulked joints, and/or leaking mechanical systems. Further investigation is recommended. Refer to Photos ST-6, ST-7 and ST-8.

General Comments on Renovations, Alterations, Repairs, and Additions
Renovations, alterations, repairs, and additions to existing buildings in Massachusetts are governed by the provisions of the Massachusetts State Building Code (MSBC – 9th Edition) and the Massachusetts Existing Building Code (MEBC), which defines three compliance methods for the repair, alteration, change of occupancy, addition, or relocation of an existing building. The method of compliance is chosen by the Design Team (based on the project scope and cost considerations) and cannot be combined with other methods. The Work Area Compliance Method (IEBC Chapters 4 through 12) is the most common compliance method chosen.

The design and construction of any proposed addition(s) to the existing building would be conducted in accordance with the Code for new construction. Generally speaking, additions should be structurally separated from the existing, adjacent construction by an expansion (seismic) joint to avoid an increase in gravity loads or lateral loads to existing structural elements.



Photo ST-3: Cracked Masonry at Site Wall

Structural System

Where proposed alterations to existing structural elements carrying gravity loads result in a stress increase of over 5%, the affected element will need to be reinforced or replaced to comply with the Code for new construction. Alterations to existing structural elements resisting lateral loads (i.e., steel braced frames) which result in an increase in the demand - capacity ratio of over 10% should be avoided; otherwise, a seismic evaluation and potential upgrade will be required. Essentially, this means that removal of, or major alterations to the existing lateral force resisting elements (steel braced frames) should be avoided if possible. Structurally attached additions (horizontal or vertical) which result in an increase in the demand – capacity ratio of over 10% would also trigger a seismic evaluation and potential seismic evaluation.



Photo ST-4: Ponding Water



Photo ST-5: Ponding Water

Structural System



Photo ST-6: Water-Stained Ceiling Tiles



Photo ST-8: Peeling Paint at Exterior Soffit



Photo ST-7: Evidence of Water Infiltration in Ceiling Finishes

Mechanical System

Executive Summary

Fire Protection Systems
The existing building is provided with an automatic sprinkler system throughout the building and a manual-wet standpipe system located in egress stairwells.

The sprinkler and standpipe system piping consists of black steel pipe. The system was installed in 1994 and appears to be in good condition with no visible signs of corrosion. This pipe has an expected service life of 75 years.

Mechanical Systems
The existing building is provided with a dual temperature system delivering hot and chilled water with seasonal changeover to various rooftop air handling units, unit ventilators, and fan coil units. The heating plant consists of two gas-fired boilers at the end of expected service life and two air-cooled chillers which are in excellent condition. Most of the equipment is original to building construction in 1994 (28-years in service), well beyond expected service life, and is recommended for replacement.

Plumbing Systems
The existing building is provided with conventional plumbing systems which include a domestic water distribution system, sanitary waste and vent system, storm water system and a natural gas system.

The plumbing piping systems have an expected service life of 50-100 years. The existing plumbing systems were installed in 1994 and appears to be in fair to good condition with some visible signs of general wear and corrosion.

Electrical Systems
The existing electrical distribution, fire alarm, and IT systems are mostly original to the 1994 construction, approximately 28 years old, and have had only minor modifications to support program changes or energy saving initiatives. The systems are all reported to be in fair operating condition with no known issues or concerns.

Mechanical System

Heating System

Existing Condition
The heating source for the building consists of two Weil-McLain Model 788 gas-fired cast-iron boilers each with an input rating of 2,049 MBH. The boilers produce hot water which is distributed throughout the building via a 2-pipe, dual-temperature system using two Amtrol Series E300 base-mounted pumps each with a flow capacity 450 GPM. The boilers, pumps, and hydronic accessories are located within the lower-level mechanical room. Heating system equipment is original to building construction in 1994 (28-years in service) except for one of the pump motors having been replaced in 2018. Heating system equipment and accessories appear in marginal condition. Piping condition is unknown, and insulation appears generally intact with some breaks in the vapor barrier.

Recommendations
Heating system equipment is at or beyond expected service life and should be considered for replacement in the short-term. Life expectancy is 30-years for cast-iron boilers and 20-years for pumps and accessories. Dual temperature piping system should be considered for replacement along with equipment upgrades as service life is variable and dependent on system tightness, isolation of dissimilar metals and water treatment program. At a minimum, piping systems should be inspected if intended to be re-used as part of equipment upgrades.



M-1: Original Cast-Iron Boilers



M-2: Original Dual-Temperature Pump

Mechanical System

Cooling System

Existing Condition
The cooling source for the building consists of two Daikin Model AGZ air-cooled scroll chillers each with a nominal cooling capacity of 90-tons. The machines produce chilled water which is distributed throughout the building via a 2-pipe, dual-temperature system using two base-mounted pumps (see heating system description). The chillers are located on the roof at the third-floor level. The chillers were installed in 2017 (5-years in service), replacing the original chillers, and appear in excellent condition. Piping condition is unknown, and insulation appears generally intact with some breaks in the vapor barrier.

Recommendations
The chillers appear in excellent condition and have 15-years' service life remaining. Other components of the dual temperature system are at or beyond expected service life and should be considered for replacement in the short-term (see heating system description). Dual temperature piping systems should be considered for replacement along with equipment upgrades (see heating system description).



M-3: Original Dual Temperature Piping and Valving



M-4: Upgraded Air-cooled Chillers

Mechanical System

Ventilating and Air Conditioning System

Existing Condition
The building is served by a combination of rooftop air handling units, unit ventilators, and fan coil units, all with dual temperature coils. Ventilation air is introduced through the rooftop air handling units and unit ventilators and several roof mounted exhaust fans provide exhaust for the classrooms and toilet rooms. Most of the equipment is original to building construction in 1994 (28-years in service). All equipment appears in marginal condition except for two of the exhaust fans which have been replaced in the past 3 years. Ductwork appears in adequate condition except for some sections exposed on roof which are heavily rusted and in poor condition. Dual temperature piping condition is unknown, and insulation appears generally intact where visible with some breaks in the vapor barrier.

The computer room is conditioned using a Mitsubishi 2.5-ton ductless split air conditioning system with indoor fan coil unit and outdoor condensing unit located on the roof at the third-floor level. The air conditioning system was installed in 2014 (8-years in service) and appears in good condition.

Recommendations
Most of the ventilation and air conditioning equipment is beyond expected service life and should be considered for replacement in the short-term. Life expectancy is 15-years for rooftop units and 20-years for unit ventilators, fan coil units, and roof mounted exhaust fans. Ductwork systems are approaching the end of expected service life of 30-years and should be considered for replacement along with equipment upgrades. Dual temperature piping systems should be considered for replacement along with equipment upgrades (see heating system description).



M-5: Rooftop Air Handling Unit and Ductwork



M-6: Unit Ventilator

Mechanical System

Building Automation System

Existing Condition
The building automation system is predominantly the original Reliable DDC system installed in 1994 (28-years in service) with application specific controllers and pneumatic actuation. The head-end has been upgraded over the years to a newer JCI Facility Explorer with Niagara framework. Control air is provided by the original air compressor tank and a newer rotary screw compressor.

Recommendations
Most of the building automation system is beyond expected service life and should be replaced concurrent with equipment replacements. Life expectancy is 20-years for pneumatic systems and 15-years for electric/electronic systems. Replacement systems should include a complete system of DDC controllers, sensors, actuators, and head-end graphics.



M-7: Original DDC Controller with Pneumatics



M-8: Newer DDC Controllers

Electrical System

Power Distribution

Existing Condition
The Haggerty School building is currently served by a utility-owned transformer, located in a vault on the southeast corner of the building.

The electrical service is an 800A, 480Y/277VAC, 3-phase, 4-wire, underground service, located in the electrical room at the north central lower level of the school. The General Electric Switchboard main service is floor mounted. This panel appears to be original. There are indications of repeated flooding which have now affected the integrity of both the junction box and the main switchboard. In addition, there are no signs of maintenance being performed since 1994.

This main panel supplies power to a 1200A amp rated Spectra Series floor mounted panel board located at the center of the building. The distribution panel board has a single spare location for future loads. The electric panels found in this room were found to be in fair to good shape.

The 480/277V,3P distribution panel provides power to an 800A-208/120V-22KAIC, 3 phase distribution panel via a 300kVA transformer with an impedance of 2.5%. The 22KAIC panel board appears low and should be reviewed with a coordination study.

Numerous pieces of electrical equipment (panels) were observed during a walk-through of the building. Panel boards were in fair to good condition and were optimally located within their spaces.

Emergency Electrical Distribution Panel
The school has a standby emergency generator (gas), located on the roof and KOHLER transfer equipment and related distribution located in a two-hour rated room located adjacent to the main electric room.

The generator is a 30KW//37.5 standby generator @ 277/480V,3P,4W,.80 P.F. with a weatherproof housing, located on the roof. The generator is showing significant corrosion and should be reviewed in detail for operation and mechanical integrity.

The distribution appears to provide for general heat preservation and generator support.

There were no indications of generator testing or general maintenance.

Emergency lighting is provided by emergency ballast in select fixtures along the emergency egress path.

Electrical System

Recommendations
It is generally accepted that the life of an electrical system is thirty (30) years. Beyond that point, it becomes increasingly difficult to cost effectively maintain the system. Wire insulation and equipment failure becomes more common as the system ages, with an increase in outage longevity due to the design of the system and the availability of replacement parts. Often new systems need to be installed to bypass the old system without the benefit of a comprehensive plan designed for the needs of the building. With the aged electrical devices, the devices may not operate under faulty conditions.

The main electrical distribution provides 532KW with an area of 50,409 square feet or 10.5W/SF. New highly efficient mechanical designs generally require 19-24W/ SF. The main service would be required to be upgraded complete for a large-scale mechanical upgrade.

The electrical code now requires Arc Fault Protection labeling for the safety of the electrical staff. It is recommended that an Arc Fault/Coordination study be performed, and associated labeling be provided to meet today’s electrical code. Arc fault reduction is now a code requirement for electrical services 800A and larger to reduce the available Arc Fault, this is not available on the existing equipment.

The emergency generator appears to have significant rusting issues and should be reviewed in detail for mechanical integrity and upon satisfaction that the unit is sound mechanically, provide a full test of the emergency system.

Due to the age of the existing electrical distribution system (28yrs), it is recommended that the existing systems be provided with a full range of electrical preventive maintenance, to include:

- Panelboards and switchgear:
- Inspection and cleaning
 - Ground resistance test
 - Thermal imaging
 - Insulation resistance testing



E-1: Main Electrical Service (Entrance)



E-2: Standby Generator System

Electrical System

- Cables:
- Inspection
 - Verify tightness of bolted connections
 - Insulation resistance testing
 - Circuit Breakers
 - Inspection and cleaning
 - Measure contact resistance
 - Thermographic Survey
 - Operate circuit breaker to verify smooth operation
 - Verify tightness of bolted connections
 - Verify trip operation of circuit breaker by primary current injection
 - Verify setting required by coordination study
 - Verify operation of any auxiliary function (i.e. remote trip and close)

Due to the age of the existing electrical distribution system, it is recommended that the existing systems be scanned with an infrared camera to identify any loose or weak electrical connections. The generator should be tested, and a testing regime should be established.

The electrical system should be replaced complete with the next renovation or large-scale mechanical upgrade.

Electrical System

Lighting & Devices

Existing Condition
Fluorescent lighting was used in the original 1994 construction. The down light fixtures utilized compact fluorescent lighting. Lighting control is accomplished with manual switches in most spaces and timeclock control through the Building Management System (JCI) in the corridors, parking areas, common spaces, and exterior lighting. Classrooms are provided with wall switched lighting and fluorescent fixtures.

Recently, most of the fluorescent lighting in the corridors, common spaces, office, and classrooms were replaced with LED light tubes in the existing fixtures.

Exterior canopy downlights are currently fluorescent downlights. The walkway lighting is accomplished via HID bollards. LED lighting fixtures save energy and have reduced maintenance costs as compared to fluorescent and HID light fixtures. It is recommended that the exterior canopy fluorescent fixtures and the HID walkway bollards be replaced with LED fixtures.

Emergency egress lighting is provided by fixture emergency ballasts at select locations. The light level at the stairwells in subject should be reviewed. Emergency exit signs were provided and appeared properly located for emergency access.

A spot check of wiring devices indicated varying conditions. Light switches and receptacles were generally in poor to fair condition, while many were older and showing wear. Lack of a sufficient quantity of receptacles was noted. In the cafeteria, ground fault circuit breakers were not provided as required by the latest electrical code. Tamper resistance receptacles are also required in Preschools and elementary education facilities.

The lightning protection system appears in fair to good condition. It was noted that the new mechanical system on the roof was not integrated into the lightning protection system.

Recommendations
If a major renovation is undertaken, RFS recommends that the lighting fixtures are removed, and new fixtures be provided that meet current energy efficiency standards and are available for possible utility rebate programs. Lighting in all spaces should be reviewed to ensure adequate levels are provided.



E-3: Existing Devices



E-4: Lightning Protection

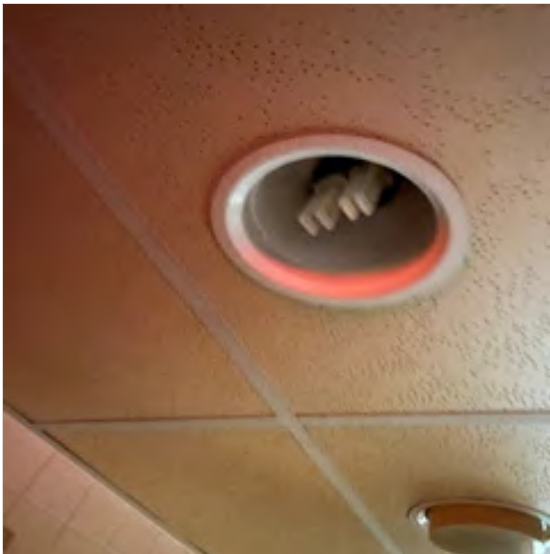
Electrical System

The lighting design should incorporate modern lighting techniques and controls, such as zoned indirect lighting, dimming capabilities for audio-visual presentations, as well as low-level direct lighting. Additionally, high-efficiency light fixtures with daylight harvesting controls should be used; although not required by code, it may offer additional energy savings.

Occupancy sensors should also be provided to comply with current energy conservation requirements. Provide a full test of the emergency lighting, verify that light levels meet existing code required levels and ensure compliance with 527 CMR, NFPA 70 and NFPA 101.

Integrate the roof top mechanical equipment into the existing lightning protection system.

It is recommended that all devices be replaced with the next major renovation, as ceilings will need to be removed for MEP work.



E-5: Down Light (CFL)



E-6: Typical Class Room

Electrical System

Fire Alarm

Existing Condition

The existing Fire Control System (FCI) has been upgraded since the 1994 construction and appears in fair to good condition. The main system is located in the mechanical room. There is an additional annunciator at the main entrance, as well as a Knox Box and Beacon.

The International Building Code (IBC) requires that a speaker type system be provided in an education occupancy (K-12). This system is a horn-type system and does not meet today’s code requirements.

Smoke detectors are present in most emergency egress paths. Heat detectors were also noted in utility closets, kitchens, and mechanical spaces. The devices appear to be in fair working order.

Pull stations were observed at most exits and at entrance points to level change. CO detection was not noted in classrooms or areas adjacent to carbon monoxide producing equipment.

Horns/lights are installed in corridors and some common spaces to provide alarm notification to occupants. The devices appear in fair/poor working order with white strobe lenses in several areas, and not clear as required by code.

Recommendations

The existing fire alarm control panel is not code complaint - non-compliant ADA type indicating devices are installed. A new addressable voice system should be installed due to occupancy requirements within the building to replace the existing system. Additional speaker strobe coverage and a study of proper relocation of pull stations should be conducted to meet code.

It is recommended that a speaker type-system be provided for transmitting voice notifications in the event of a fire alarm and/or mass notification.

Install carbon monoxide devices in alarms devices in every classroom where carbon emitting devices are located. Verify all devices are provided as required by 527 CMR, NFPA 72, 780 CMR and the Mass Fire Alarm code (Missing pull stations, smoke detection not code compliant etc.)



E-7: Existing Fire Alarm Device (1993)

Plumbing System

Domestic Water System

Existing Condition
Water Service Entrance: A 4” dedicated domestic service enters the basement level water service room. The domestic water service is provided with duplex 2-inch badger water meters with remote read.

Domestic Water Quality: Cambridge water supply has been known to contain hard water with minerals below the Maximum Contaminant Level by the Cambridge Water Department. It is suspected that faster than normal corrosion of domestic systems is caused by scale build up from the water being supplied to the building.

Domestic Water Heater: Domestic hot water is generated from a simplex gas fired boiler and remote 115 gallon storage tank. The boiler is manufactured by Raypack Model H3-0182 and has an input rating of 181,000 BTU/HR. The storage tank is manufactured by Rheem Model ST120A and has a date of manufacture of 03/2009. The hot water system is fully circulated back to the heaters with the use of a Taco Model 010-BF3 cartridge circulator. The domestic hot water system is delivering approximately 103-degree water and returning 98-degree water. The hot water system is not provided with a master thermostatic mixing valve or expansion tank. The heater and storage tank were installed in 2009 and are in good condition. The expected service life for the water heaters is 20 years.

The kitchen is provided with a supplemental electric water heater to supply 140-degree hot water to the pot sink. The heater is manufactured by Bradford White, had 37 gallons of integral storage, and is rated at 4,500 watts. The heater appears to be relatively new and in good condition.

System Piping: The piping serving the domestic water system includes soldered copper with brass ball valves. The piping system appears to be in fair condition. The expected service life for copper pipe is 80 years.

Recommendations
Provide adequate hot water to the domestic plumbing fixtures located within the building. The Massachusetts Plumbing Code, 248 CMR, defines hot water at a temperature of at least 120-degrees.

Provide a water quality report for the building to determine the characteristics of the municipal water. Provide water softening or filtration equipment on domestic water supply to the building to slow the degradation of existing domestic systems if required.



PL-1: Water Service Entrance

Plumbing System

Domestic Plumbing Fixtures

Existing Condition
The domestic plumbing fixtures located within the building include wall mounted 1.6 gpf water closets with manual flush valves, wall mounted 1.0 gpf urinals, counter mount china lavatories with push button manual metering faucets, stainless-steel wall mount handwashing sinks with push button manual metering faucets, stainless-steel wall mount drinking fountains, stainless-steel kitchenette sinks with manual faucets, and stainless-steel classroom sinks with manual faucets. ADA compliant plumbing fixtures appear to be provided where required. The Kindergarten Classroom bathrooms consist of floor mount floor outlet low height water closets with manual 1.6 gpf flush valves, wall mounted 1.0 gpf urinals, and wall mounted china lavatories with push button manual metering faucets.

The domestic plumbing fixtures appear to be in fair condition. The domestic plumbing fixtures have an expected service life of 30-40 years.

Some drinking fountains have been updated with modern wall mounted fixtures with integral sensor operated bottle fillers and usage counters.

The lavatory faucet in the Cafeteria Staff Bathroom is constantly leaking water.

Recommendations
Public lavatories shall be provided with thermostatic mixing valves to limit the outlet temperature to a maximum of 110-degrees. Insulation kits shall be provided at all ADA lavatories at the supplies, stops, p-trap and tailpiece.

Replace plumbing fixtures and floor drains which are heavily corroded and exceeded their useful service life. Replace existing Cafeteria Staff Bathroom Lavatory faucet. Urinals shall be side shielded for privacy as required by the Massachusetts Plumbing Code, 248 CMR.



PL-2: Corroded Janitors Sink



PL-3: Corroded Lavatory Piping



PL-4: Privacy shields should be provided

Plumbing System

Sanitary Waste and Vent System

Existing Condition
The building is provided with a sanitary waste and vent system which collects sanitary sewage from the domestic plumbing fixtures located throughout the building. The basement plumbing fixtures are served by underground sanitary piping draining to a duplex sewage ejector pit below the basement floor. The sewage ejector discharges to the gravity sanitary piping at the ceiling of the basement level.

The building is provided with one 6-inch sanitary sewer which exits the south-east corner of the building and connects to the municipal sanitary sewer located in Lawn Street.

The pot sink in the kitchen is provided with a floor-mounted grease interceptor. The outlet of the interceptor is piped to the sanitary waste piping. The discharge piping at the sewage ejector appears to be heavily corroded and in poor condition.

The sanitary waste and vent system 4” and larger consists of cast iron pipe. The expected service life for cast iron pipe is 80-100 years. Smaller waste and vent pipe is typically copper. There were some visible signs of corrosion on the piping.

Recommendations
Replace existing corroded piping as required.

Coordinate the need to provide an exterior grease interceptor with the Cambridge Sewer Department. Assure interior grease interceptor is properly maintained.



PL-5: Existing Sewage Ejector



PL-6: Corroded Waste Pipe at Pot Sink

Plumbing System

Storm System

Existing Condition
The building is provided with a storm system which collects rainwater from the roof drains located on all flat sections of roof. The piping is installed down through the building and discharges to the municipal storm sewer by gravity in several locations. The piping appears to be in good condition.

There were reported issues with several roof drains which do leak.

The storm system consists of cast iron pipe. The expected service life for cast iron pipe is 80-100 years.

Recommendations
Coordinate with a roofing contractor and identify all roof drain bodies which leak and replace all drain bodies and piping subject to leaking.

Clean drain domes of wind-borne debris which is causing some localized ponding.

Natural Gas System

Existing Condition
The building is provided with a natural gas system. The service entrance is located on the south side of the building. Natural gas serves the mechanical boilers, domestic water heater, generator and kitchen equipment. The natural gas piping is black steel and appears to be in good condition.

The expected service life of black steel pipe is 75 years.

Recommendations
No immediate action required.

Fire/Life Safety

Sprinkler System

Existing Condition
The existing building is provided throughout with an automatic sprinkler system. An 8” dedicated fire service enters the basement level water service room. The fire service entrance is provided with a Watts Model 709 8” double check detector backflow preventer and a Viking Model H-2 wet alarm check valve. Piping downstream of the backflow preventer is black steel with grooved fittings.

The existing sprinkler system typically includes concealed sprinkler heads which appear to be properly spaced in conformance with current requirements.

The expected service life of black steel pipe is 75 years.

Recommendations
Verify the existing sprinkler system is maintained in conformance with the requirements of NFPA 25, Inspection, Testing and Maintenance of Water-Based Fire Protection Systems.

Make sure all existing ceiling tiles are in place and have not been removed. Missing ceiling tiles impacts the sprinkler system design.

Standpipe System

Existing Condition
The existing building is provided with a manual-wet standpipe system located in egress stairwells. The system includes exposed 2 ½” fire hose valves served with black steel pipe. There are no reported issues with the standpipe system and all of the observed piping appears to be in good condition.

The expected service life of black steel pipe is 75 years.

Recommendations
Verify the existing standpipe system is maintained in conformance with the requirements of NFPA 25, Inspection, Testing and Maintenance of Water-Based Fire Protection Systems.



FP-1: Ceiling Tile shall be replaced

Code

Existing Condition

The Baldwin Elementary School is an existing 50,409 ft2 four-story Cambridge public school.

- Occupancy Classification
- Use Group E (School)

Construction Type

Based on the field observations the building appears to be a fire-rated steel and concrete structure, classified as Type I or II construction. All new construction must be non-combustible except where permitted by IBC Section 603: Combustible Material in Types I and II Construction.

Vertical Openings

All existing vertical openings in the work area connecting two or more floors must be enclosed with 1 hour rated construction and approved opening protectives unless the openings meet one of the exceptions in IEBC 803.2.1.

The building includes a two-story gym and open stairway connecting the Basement and 1st Floor. These two story floor openings are permitted by IBC Section 712.1.9 without requiring further protection in this fully sprinklered building. The two primary egress stairs appear to be enclosed in rated shafts.

Interior Finishes

The existing interior finish of walls and ceilings in the work area and in all exits and corridors serving the work area must comply with the code requirements for new construction (IEBC 803.4).

Walls & Ceilings (IBC Table 803.11)

Use Group:	E (Sprinklered)
Exit Enclosures	Class B
Exit Access Corridors	Class C
Rooms & Enclosed Spaces	Class C

Existing interior finishes in both buildings typically consist of painted gypsum wallboard, tile, or masonry which meets these requirements. Some spaces also include wood finishes which is permitted in areas allowing Class C finishes.



Two-Story Gym Floor Opening



Deteriorated Front Steps

Code

Existing Condition

Means of Egress

Means of egress conforming to the requirements of the building code under which the building was constructed are considered compliant means of egress if, in the opinion of the code official, they do not constitute a distinct hazard to life (IEBC 805.1). This section allows the existing means of egress stairs, doors, etc. to remain unless they are considered hazardous.

There are two primary relatively modern egress stairs, as well as multiple doors to the exterior at the 1st Floor and 2nd Floor levels. The only hazardous egress conditions noted during the site visit are the exterior steps at the main entrance where the concrete has significant deterioration and represents a fall hazard. Repairs to the steps should be considered regardless of whether the building is renovated.

Illuminated exit signs and emergency lighting appear to be provided throughout.

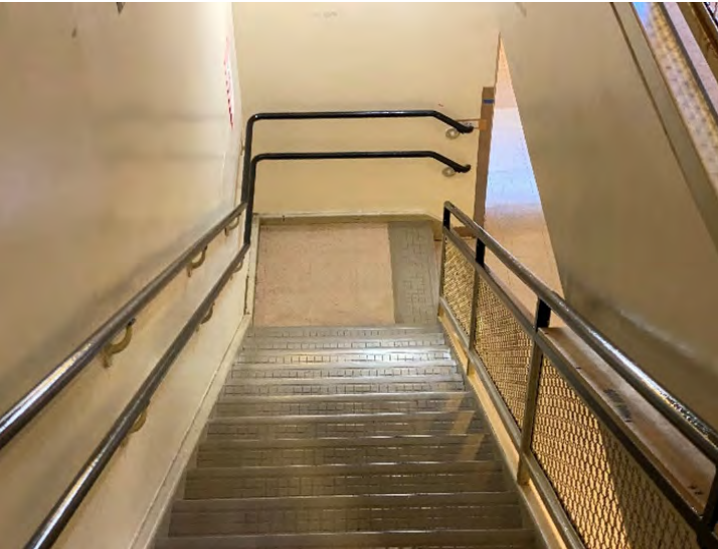
Fire Protection Systems

The building appears to be fully sprinklered and is protected by a relatively modern fire alarm system (although it does not appear to be a voice/alarm system), standpipe system, and fire extinguishers. Existing previously approved fire alarm systems are permitted to remain if the building undergoes a Level 1 or Level 2 alteration (IEBC 804.4.1). A Level 3 alteration would require the fire alarm system to comply with the code requirements for new construction, which would require a voice-alarm system (IEBC 904.2).

Accessibility for Persons with Disabilities

The building has an accessible entrance, drinking fountain and toilet room. However, the concrete at the top of the ramp has significantly deteriorated and would need to be repaired if the cost of future renovations exceeds \$100,000 (and even if not repairs should be considered anyway as discussed above in the egress section).

The Cambridge Assessor’s on-line database indicates the Haggerty Elementary School has an assessed value of \$20,761,700 and the Massachusetts Department of Revenue’s website indicates the assessment ratio for Cambridge is 0.92. Therefore, the 100% equalized assessed value is \$22,567,065 and 30% of this value is \$6,770,120. Full compliance with 521 CMR would be required if the aggregate cost of renovations in any three-year period exceed this amount. Although the building is functionally accessible with a modern elevator, some improvements would be required to achieve full compliance with 521 CMR (i.e. toilet rooms within the classrooms are typically not accessible, classroom sinks are not accessible, etc.).



Typical Egress Stair



Entrance

Code

Existing Condition



Drinking Fountain



Toilet Room

Conveying System

Existing Condition

The Haggerty School is serviced by one (1) direct (in-ground) hydraulic passenger elevator. The elevator has a rated capacity of 2,500 lbs. and travels at a rated speed of 125 fpm. The entrances are 3'-6" wide by 7'-0" high, front and rear opening. The elevator services 5 landings – B (rear), *1 (rear), 2, 3, 4.

The elevator was originally installed in 1992 by Dover Elevator. All equipment in use is original to the installation. Dover was a large elevator manufacturer until it sold it's elevator division to Thyssen Elevator in 1999, becoming ThyssenDover. Following the completion of Thyssen's merger with Krupp, in 2001, the Dover brand was discontinued from the industry. While many of the parts are still available through various third party parts suppliers, all the product lines have long since been discontinued and the future of support capabilities is uncertain.

The existing signal fixtures and car operating panel are not compliant with current 521 CMR / ADA requirements pertaining to button height.

Maintenance Deficiencies:

- Repair leaking oil line; replace any fittings and seals as needed.
- Scrape and clean debris from hall and car door sills.
- Replace missing pickup roller at Floor 2.
- Adjust car door hangers or rollers to eliminate front entrance car door from dragging in the sill.
- Repair car position indicator – not functioning.
- Replace light bulb for Floor 1 COP button.
- Recommend building cleaning staff cease pushing water and/or floor cleaning agents into the hoistway. Evidence of water or cleaning supply corrosion present inside the hall door sills and hall door equipment below the landing(s).
- Machine room air conditioning does not appear to be functioning. Check and verify proper operation of HVAC.

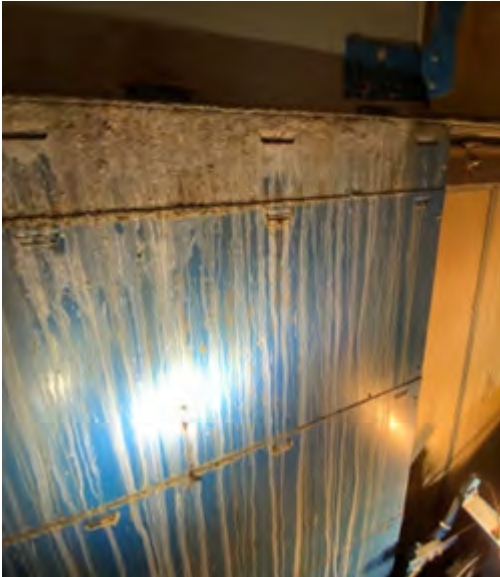


Conveying System

Recommendations

We recommend budgeting for a modernization of the elevator within the next 3-5 years. As part of the modernization, we recommend the scope include replacement of the controls, power unit, signal fixtures, machine room and hoistway wiring, car and hoistway door equipment, including door panels, and car enclosure and finishes. Further discussion may be held pertaining to the jack. Based on the original installation date, the jack could have been installed with a PVC containment liner and may be suitable for continued use. Decision pertaining to the replacement of the jack should be based on budget.

Budget: \$130,000 - \$160,000 (Budget estimates are based on commencement of work in 2023)



Door Hardware

Existing Condition

Site showed the majority of doors are in good shape. Exterior and corridors looks to meet egress requirements. Classrooms and offices are using lockdown magnetic strips to prevent doors from latching. These will create an unsecure situation and prevent fire rated doors from latching.

Food Service

Executive Summary

The Haggerty school is a compact kitchen serving a small population of students at the preschool through 5th grade levels. The kitchen equipment in many circumstances is original to the building. Over the many years of use and increasing student population, it appears that the space originally dedicated to the foodservice operation is not enough. This facility has outgrown its originally planned operational expectations. With the small footprint and limitations of this kitchen, the program lacks the flexibility to adapt, grow and efficiently serve the student body.

Improving cooking and serving equipment will modernize the program allowing it to more easily meet the demands of health code regulations as well as improve the appeal of the food offerings. Modernizing workstations, preparation and cooking equipment will allow the kitchen staff to focus on food production resulting in a more efficient operation. Overall, the program is well run and the staff are highly trained and dedicated. However, they lack the full complement of tools needed to truly operate at a higher level of service.

Kitchen and Servery

General Overview
The Haggerty School Foodservice program currently serves a population of approximately 260 students from Pre-K through the fifth grade. The original kitchen is mostly intact with minor modifications and equipment upgrades done over the years. Major infrastructure items such as the exhaust hood, serving line and work tables have not been updated in a significant amount of time. The facility does not have a walk-in refrigerated rooms which significantly impacts the refrigerated storage capacity. As a result, they've added several reach-in units in order to keep up with the facility's needs. Due to the small footprint of the kitchen, there is no space for the added reach-ins. Therefore, there are refrigerated storage units located out in the servery and seating area that store product intended for kitchen use. Overall, the kitchen staff does a great job of maintaining and keeping the kitchen very clean. However, due to the date of the materials they do show signs of wear and tear.

The kitchen walls are finished in tile and have held up very well over time remaining in great condition. The dry storage room is a painted CMU block material which is extremely durable and an appropriate finish for the application. The floor in both kitchen and storage areas appears to have been updated at some point to an epoxy type flooring material with all of the appropriate coved base materials at the walls to meet the health department requirements and proper cleaning techniques. The floor remains in overall good shape. The ceiling in the back of house space is a lay-in ceiling tile type which to meets health code but shows more signs of natural aging over time than the floor and wall materials.



FS-1: The three-compartment sink is located directly adjacent to the cookline. With no dedicated food prep area, this sink is serving dual purpose as both preparation and ware washing. This situation presents cross contamination issues with modern day food code. The food code states that preparation and pot washing areas must be separated and labeled accordingly.

While there's several stainless work tables in the kitchen, there is no dedicated food preparation sink to This results in the three-compartment sink being used for several functions which does not meet modern day food regulations. The three-compartment sink should be dedicated to pot and pan washing and the facility should have a dedicated prep sink to avoid the potential for cross contamination. The three-compartment sink is located directly next to the cookline which is not also ideal for the operation.

The exhaust hood in the space is very dated and should be updated to modern day finishes and technology advancements. The grease filters do not meet current standards and are far more difficult to clean than what is currently available. The fire protection Ansul system is made of up iron piping and extremely difficult to clean. Stainless steel or chrome materials are more suitable for cleanability in this environment. There are vents at the front of the exhaust hood for make-up air that are outdated technology and this style of hood is no longer manufactured. The Blodgett Convection oven under the hood has a history of service records with faulty doors that required replacement.

The serving line for this kitchen is composed of several different work tables which are at different heights and not all provided with undershelves for storage. This makes the serving line difficult to operate and prevents the staff from proper storage for the operation. There is a hot food steam table with four hot wells in order to hold food for serving at the proper temperatures, however they lack refrigerated holding along the line for cold offerings to be held at safe temperatures for serving.

This facility has no means of mechanical ware washing which requires all cooking utensils to be manually washed by the staff. While it's a small operation, this does require a lot of time and dedicated staff to keep up with this operation. Modern day ware washing equipment allows staff to properly clean and sanitize cooking equipment and utensils at a higher level within a matter of minutes. This facilities operation could be improved by the addition of a mechanical ware washer.

The following specific issues will reference codes and standards. For the purposes of this report when the health code is referenced, we are citing requirements of the Federal Food Code, 2017 addition, published by the FDA as well as the Merged Massachusetts Food Code 2013 addition.

We will also reference the National Sanitation Foundation (NSF). This is an independent governing body that develops standards for foodservice equipment and facility design. All equipment, in commercial kitchens must be built in accordance to NSF standards as a requirement of the food codes.



FS-2: Serving line components are made up of several different tables all at different heights. The tables also lack undershelves for additional storage capacity. The differential in heights make the serving area difficult to operate and challenging to clean. This photo also shows no refrigerated components which limit the ability to store and serve cold foods at proper temperatures.



FS-3: Exhaust hood over the cooking equipment is extremely dated and original to the building. The grease filters are not nearly as efficient as the technology that’s available today and are more difficult to clean. The horizontal cast piping used for fire suppression is very difficult to keep clean. Efficient Design limits fire suppression to vertical drops only.



FS-4: There is a water heater located within the kitchen in between cooking and pot washing equipment. Normally this type of equipment is located remotely in a mechanical closet. With the location this equipment is in, it’s difficult to clean, and ends up being used to store items that do not belong. This location presents issues with cleanability of the kitchen and damage to the water heater itself. This equipment should be relocated out of the kitchen space.

FCA FORMS - HAGGERTY

Haggerty School			Architectural				
EXTERIOR							
Room # on Site:							
Area	Part	Type	Quantity to be Replaced	Condition (A-E)	Priority (1-5)	Photos	Notes
Exterior	Façade	Brick Masonry		D	2	AE-6-14	
				D	2		Review of the as-built detailing of the masonry façades at the West Wing and the East Classrooms below the Entrance sidewalk is recommended in conjunction with exploratory demolition to confirm how these assemblies were built, particularly the throughwall flashings and coping caps. Active leakage in these areas appears to consistently appear along the throughwall flashings on the interior and it is possible that masonry removal and reconstruction of these assemblies may be needed, depending on the as-built conditions and deficiencies discovered. It is also possible that the water leakage observed below the sloped glazing in the West Wing Corridor is associated with a masonry issue. A potential short term repair to address the leakage in these areas could include cleaning the masonry, replacing the façade sealants and coating the masonry with a breathable coating to reduce the amount of moisture that is able to penetrate the brick façade, thus reducing the reliance on defective flashings.
				D	2		Replacement of any cracked brick and repointing of any deteriorated mortar is recommended, including at the East side of the building where this issue was documented.
				C	3		Removal of excess mulch from the base of the façade is recommended to ensure the masonry weeps are not blocked and can drain freely.
Exterior	Façade	CMU Masonry		B	3	AE-18	Removal of remaining peeling coating from West Elevation concrete block and recoating is recommended along with preparing and painting rusting steel lintels.
Exterior	Façade	Windows		B	4	AE-16, 24	Windows in good condition overall
Exterior	Façade	Storefront		D	2	AE-21-28	A scope of diagnostic water leakage field testing needs to be performed on storefront and adjacent cladding assemblies at Library clerestory, sloped glazing above West Wing corridor and the storefront at the Cafeteria and in the Community Room L01 to determine the source(s) of water leakage. Review of as-built documents and exploratory demolition is recommended also as part of this exercise. Remedial work to address the active leakage issues is recommended.
Exterior	Façade	Glass Block		B	4	AE19-20	
Exterior	Façade	Exterior Doors		B	3	AE-33-35	Some of the surface rusting observed at the hollow metal doors and frames may be due to use of deicing salts during the winter months. Reduction in use of these materials against these metal assemblies should reduce potential for further damage. Preparation, priming and repainting of these doors and frames is advised.
Exterior	Façade	Sealants		C	3	AE-9, 15-17	Replacement of all façade sealants is recommended, including masonry control joints and perimeter sealants at windows and doors.
Exterior	Roofing	EPDM Roofing		C	3	AE-36-55	Replacement of the existing roofing systems is recommended. The roof has exceeded its expected service life and should be replaced with a roofing system with Code compliant insulation.
Exterior	Roofing	Metal Roofing		B	4	AE-21, 39-40	
Exterior	Roofing	Sloped Glazing		E	2	AE-29-32	Sloped glazing lites should be replaced. It may be possible to reuse the existing sloped glazing framing, and to only provide new metal flashings and covers with the new lites. Further investigation is also needed to evaluate the water leakage issues, as noted above.
Exterior	Landscaping	Masonry Walls		D	3	AE-46	Masonry in need of repairs
					2D		

Room Schedule_HAGGERTY

RM NAME	RM #	AREA	CEILING MATERIAL	CEILING CONDITION	CEILING PRIORITY	WALL MATERIAL	WALL CONDITION	WALL PRIORITY	FLOOR MATERIAL	FLOOR CONDITION	FLOOR PRIORITY	WINDOWS MATERIAL	WINDOWS CONDITION	WINDOWS PRIORITY	DOORS MATERIAL	DOORS CONDITION	DOORS PRIORITY	FFE CONDITION	FFE PRIORITY	MILLWORK CONDITION	MILLWORK PRIORITY	PLUMBING CONDITION	PLUMBING PRIORITY
STAIR	1	91 SF	GYP	B	4	GYP	B	4	VCT	B	4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
STAIR	2	95 SF	GYP	B	4	GYP	B	4	VCT	B	4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
COMMUNITY ROOM	L01	667 SF	ACT	C	4	GYP	B	4	VCT	B	4	N/A	N/A	N/A	N/A	WD	C	4	C	4	C	4	3
CUSTODIAN OFFICE	L02	120 SF	GYP/SKYL	C	4	GYP	B	4	VCT	B	4	N/A	N/A	N/A	N/A	WD	C	4	C	4	C	4	N/A
COMMUNITY PROGRAM OFFICE	L03	116 SF	GYP/SKYL	C	4	GYP	B	4	VCT	B	4	N/A	N/A	N/A	N/A	WD	C	4	C	4	B	4	N/A
MUSIC CLASS/STORAGE/MULTIPURPOSE	L04	1706 SF	EXP?	C	4	CONC/CMU	B	4	CONC	B	4	N/A	N/A	N/A	N/A	WD	C	4	C	4	N/A	N/A	N/A
STORAGE	L04A	93 SF	ACT	C	4	GYP/CMU	B	4	VCT	B	4	N/A	N/A	N/A	N/A	WD	C	4	N/A	N/A	N/A	N/A	N/A
MUSIC STORAGE	L04C	46 SF	CONC	B	4	CONC	B	4	CONC	B	4	N/A	N/A	N/A	N/A	WD	C	4	N/A	N/A	N/A	N/A	N/A
OFFICE	L05	80 SF	ACT	C	4	GYP/CMU	C	4	VCT	B	4	N/A	N/A	N/A	N/A	WD/GLAS	C	4	C	4	N/A	N/A	N/A
STORAGE	L05B	187 SF	ACT	D	2	CMU	C	4	VCT	C	4	N/A	N/A	N/A	N/A	HM	C	4	N/A	N/A	N/A	N/A	N/A
BATHROOM	L05T	50 SF	ACT	C	4	GYP/TILE	C	4	TILE	B	4	N/A	N/A	N/A	N/A	WD	C	4	N/A	N/A	N/A	B	3
SENSORY MOTOR ROOM	L06	677 SF	ACT	C	4	GYP	B	4	VCT	B	4	N/A	N/A	N/A	N/A	WD	C	4	C	4	C	4	3
OT/PT	L07	234 SF	GYP	C	4	GYP	B	4	VCT	B	4	N/A	N/A	N/A	N/A	WD/GLAS	C	4	C	4	C	4	N/A
CAFETERIA	L08	1695 SF	EXP?	C	4	CMU	B	4	VCT	B	4	N/A	N/A	N/A	N/A	WD	C	4	C	4	N/A	N/A	B
KITCHEN	L09	538 SF	ACT	C	4	CMU/TILE	C	4	EP	B	4	N/A	N/A	N/A	N/A	WD	C	4	C	4	N/A	N/A	B
BATHROOM	L09C	51 SF	ACT	C	4	CMU/TILE	C	4	TILE	B	4	N/A	N/A	N/A	N/A	WD	C	4	N/A	N/A	N/A	B	3
P.E. OFFICE	L10	78 SF	ACT	C	4	GYP/CMU	C	4	VCT	B	4	N/A	N/A	N/A	N/A	WD/GLAS	C	4	C	4	N/A	N/A	N/A
BATHROOM	L10T	49 SF	ACT	C	4	GYP/TILE	C	4	TILE	B	4	N/A	N/A	N/A	N/A	WD	C	4	N/A	N/A	N/A	B	3
CUSTODIAL STORAGE	L11	480 SF	EXP	C	4	CMU	B	4	CONC	C	4	N/A	N/A	N/A	N/A	WD	C	4	N/A	N/A	N/A	N/A	N/A
MECHANICAL ROOM	L12	786 SF	EXP	C	4	CMU	C	4	CONC	C	3	N/A	N/A	N/A	N/A	WD	C	4	N/A	N/A	N/A	N/A	N/A
CUSTODIAN	L13	39 SF	ACT	C	4	CMU/TILE	C	4	TILE	C	4	N/A	N/A	N/A	N/A	HM	C	4	N/A	N/A	N/A	B	3
SCHOOL SUPPLIES STORAGE	L14	399 SF	EXP	C	4	CMU	B	4	CONC	C	4	N/A	N/A	N/A	N/A	WD	C	4	N/A	N/A	N/A	N/A	N/A
GYMNASIUM	L25	3694 SF	EXP	C	4	CMU	B	4	WD	B	4	N/A	N/A	N/A	N/A	WD	C	4	C	4	N/A	N/A	N/A
BOYS BATHROOM	L26	246 SF	GYP	C	4	CMU/TILE	C	4	TILE	B	4	N/A	N/A	N/A	N/A	WD	C	4	N/A	N/A	N/A	B	3
FURNITURE STORAGE	L26A	177 SF	GYP	D	3	CMU/TILE	C	4	TILE	B	4	N/A	N/A	N/A	N/A	WD	C	4	N/A	N/A	N/A	N/A	N/A
GIRLS BATHROOM	L27	238 SF	GYP	C	4	CMU/TILE	C	4	TILE	B	4	N/A	N/A	N/A	N/A	WD	C	4	N/A	N/A	N/A	B	3
STORAGE	L27A	174 SF	GYP	D	2	CMU/TILE	C	4	TILE	B	4	N/A	N/A	N/A	N/A	WD	C	4	N/A	N/A	N/A	N/A	N/A
CORRIDOR	L28	1469 SF	GYP	B	4	CMU	B	4	TERRAZ-TILE	C	4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
STAIR	1	279 SF	GYP	B	4	GYP	B	4	VCT	B	4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TEACHERS ROOM	L00	785 SF	ACT	C	4	GYP	C	4	VCT	C	4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SPED K-2 OFFICE PULL OUT/IN SPACE	L01	268 SF	ACT	D	3	GYP	C	3	VCT	C	3	N/A	N/A	N/A	N/A	WD/GLAS	C	4	C	3	C	3	N/A
CLASSROOM	L02	1190 SF	ACT/GYP	C	3	GYP	C	4	VCT	C	3	AL	B	4	WD/GLAS	C	4	C	4	C	3	C	3
STORAGE	L02A	34 SF	ACT	D	4	GYP	C	3	VCT	C	3	N/A	N/A	N/A	N/A	WD	C	4	N/A	N/A	N/A	N/A	N/A
BATHROOM	L02T	31 SF	GYP	B	4	GYP/TILE	C	4	TILE	B	4	N/A	N/A	N/A	N/A	WD	C	4	C	4	N/A	N/A	B
CLASSROOM	L03	1206 SF	ACT/GYP	C	3	GYP	C	4	VCT	C	3	AL	B	4	WD/GLAS	C	4	C	4	C	3	C	3
BATHROOM	L03T	28 SF	GYP	B	4	GYP/TILE	C	4	TILE	B	4	N/A	N/A	N/A	N/A	WD	C	4	C	4	N/A	N/A	B
CLASSROOM	L04	966 SF	ACT/GYP	C	3	GYP	C	4	VCT	C	3	AL	B	4	WD/GLAS	C	4	C	4	C	3	C	3
CUBBIES	L04A	54 SF	ACT	D	4	GYP	C	3	VCT	C	3	N/A	N/A	N/A	N/A	N/A	C	4	N/A	N/A	C	3	N/A
BATHROOM	L04T	28 SF	GYP	B	4	GYP	C	4	TILE	B	4	N/A	N/A	N/A	N/A	WD	C	4	C	4	N/A	N/A	B
CLASSROOM	L05	967 SF	ACT/GYP	C	3	GYP	C	4	VCT	C	3	AL	B	4	WD/GLAS	C	4	C	4	C	3	C	3
CUBBIES	L05A	54 SF	ACT	D	4	GYP	C	3	VCT	C	3	N/A	N/A	N/A	N/A	N/A	C	4	N/A	N/A	C	3	N/A
BATHROOM	L05T	27 SF	GYP	B	4	GYP	C	4	TILE	B	4	N/A	N/A	N/A	N/A	WD	C	4	C	4	N/A	N/A	B
CLASSROOM	L06	963 SF	ACT/GYP	C	3	GYP	C	4	VCT	C	3	AL	B	4	WD/GLAS	C	4	C	4	C	3	C	3
CUBBIES	L06A	54 SF	ACT	D	4	GYP	C	3	VCT	C	3	N/A	N/A	N/A	N/A	N/A	C	4	N/A	N/A	C	3	N/A
BATHROOM	L06T	28 SF	GYP	B	4	GYP	C	4	TILE	B	4	N/A	N/A	N/A	N/A	WD	C	4	C	4	N/A	N/A	B
CLASSROOM	L07	965 SF	ACT/GYP	C	3	GYP	C	4	VCT	C	3	AL	B	4	WD/GLAS	C	4	C	4	C	3	C	3
CUBBIES	L07A	54 SF	ACT	D	4	GYP	C	3	VCT	C	3	N/A	N/A	N/A	N/A	N/A	C	4	N/A	N/A	C	3	N/A
BATHROOM	L07T	27 SF	GYP	B	4	GYP	C	4	TILE	B	4	N/A	N/A	N/A	N/A	WD	C	4	C	4	N/A	N/A	B
CLASSROOM	L08	908 SF	ACT/GYP	C	3	GYP	C	4	VCT	C	3	AL	B	4	WD/GLAS	C	4	C	4	C	3	C	3
STORAGE	L08C	31 SF	ACT	D	4	GYP	C	3	VCT	C	3	N/A	N/A	N/A	N/A	WD	C	4	N/A	N/A	C	3	N/A
BATHROOM	L08T	31 SF	ACT	B	4	GYP/TILE	C	4	TILE	B	4	N/A	N/A	N/A	N/A	WD	C	4	C	4	N/A	N/A	B
CLASSROOM	L09	902 SF	ACT/GYP	C	3	GYP	C	4	VCT	C	3	AL	B	4	WD/GLAS	C	4	C	4	C	3	B	4
OFFICE	L09B	30 SF	ACT	D	4	GYP	B	4	VCT	C	3	N/A	N/A	N/A	N/A	WD	C	4	C	4	N/A	N/A	N/A
BATHROOM	L09T	52 SF	ACT	B	4	GYP/TILE	C	4	TILE	B	4	N/A	N/A	N/A	N/A	N/A	C	4	C	4	N/A	N/A	B
ART	L10	939 SF	ACT/GYP	C	3	GYP	C	4	VCT	C	3	AL	B	4	WD/GLAS	B	4	C	4	C	3	N/A	N/A
MUSIC	L11	884 SF	ACT/GYP	C	3	GYP	C	4	VCT	C	3	AL	B	4	WD/GLAS	B	4	C	4	C	3	N/A	N/A
STORAGE	L11A	55 SF	ACT	D	4	GYP	C	3	VCT	C	3	N/A	N/A	N/A	N/A	WD	C	4	N/A	N/A	C	3	N/A
STORAGE	L11C	30 SF	ACT	D	4	GYP	C	3	VCT	C	3	N/A	N/A	N/A	N/A	WD	C	4	N/A	N/A	C	3	N/A
BATHROOM	L120	50 SF	GYP	B	4	GYP/TILE	C	4	TILE	B	4	N/A	N/A	N/A	N/A	WD	C	4	C	4	N/A	N/A	B
BATHROOM	L121	50 SF	GYP	B	4	GYP/TILE	C	4	TILE	B	4	N/A	N/A	N/A	N/A	WD	C	4	C	4	N/A	N/A	B
Corridor	L123	585 SF	GYP	B	4	GYP	B	4	VCT	C	4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WORK ROOM/STORAGE	L124	82 SF	ACT	C	4	GYP	C	3	VCT	C	3	AL	B	4	WD/GLAS	B	4	C	4	C	3	N/A	N/A
VESTIBULE	L125	83 SF	GYP	C	3	GYP	C	4	VCT	C	3	N/A	N/A	N/A	N/A	N/A	C	4	N/A	N/A	N/A	N/A	N/A
WORK ROOM/STORAGE	L126	83 SF	ACT	B	4	GYP	B	4	VCT	C	3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3	N/A	N/A
CORRIDOR	L127	2601 SF	GYP	B	4	BRICK/CMU/GYP	B	4	VCT	C	4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
STAIR	2	112 SF	GYP	B	4	CMU	B-C	3.5	VCT	B	4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
STAIR	2	107 SF	GYP	B	4	CMU	B-C	3.5	VCT	B	4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
LIBRARY	400	2365 SF	ACT	C	3	GYP/CMU	B	4	VCT	B	4	AL	B	4	WD	B-C	4	C	4	B	4	N/A	N/A
STORAGE	401A	89 SF	ACT	B	4	GYP	B	4	VCT	B	4	N/A	N/A	N/A	N/A	WD	C	4	B	4	N/A	N/A	N/A
TEACHER'S PRODUCTION ROOM	402	294 SF	ACT	A-B	4	GYP	B	4	VCT	A	4	AL	B	4	WD/GLAS	B	4	B	4	N/A	N/A	N/A	N/A
STORAGE	402A	79 SF	ACT	B	4	GYP	B	4	VCT	B	4	N/A	N/A	N/A	N/A	WD	C	4	B	4	N/A	N/A	N/A
MATH COACH OFFICE	402B	75 SF	ACT	B	4	GYP	B	4	VCT	A-B?	4	N/A	N/A	N/A	N/A	WD	B	4	B-C	3.5	4	C	3
LIBRARIAN	700	48 SF	ACT	B	4	GYP	B-C	3.5	VCT	B	4	AL/WD	B	4	WD/GLAS	C	4	B	4	B	4	N/A	N/A

LITERACY COACH	706	224 SF	ACT	C	3	GYP	B	4	VCT	B-C	3.5	AL	B	4	WD/GLAS	B	4	C	4	C	4	N/A	N/A	N/A	N/A	N/A	N/A
STAIR	1	288 SF	GYP	B	4	GYP	B	4	VCT	B	4	N/A	N/A	N/A	N/A	HM/WD	B	4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
STAIR	2	280 SF	GYP	B	4	GYP	B	4	VCT	B	4	N/A	N/A	N/A	N/A	HM/WD	B	4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
LOBBY	200	249 SF	GYP	B	4	GYP	B	4	VCT	C	3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	4	N/A	N/A	N/A	N/A	N/A	N/A	
MAIN OFFICE	200	269 SF	ACT	D	3	GYP	B	4	VCT	B	4	HM	B	4	WD	B	4	C	3	C	3	N/A	N/A	N/A	N/A	N/A	
CORRIDOR	200C	651 SF	GYP	C	4	GYP	B	4	VCT	C	4	HM	B	4	WD	B	4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
HALLWAY	200H	51 SF	ACT	D	3	GYP	B	4	VCT	B	4	N/A	N/A	N/A	N/A	WD	B	4	N/A	N/A	C	4	C	4	C	4	
JANITOR CLOSET	200J	12 SF	GYP	D	3	GYP	C	4	VCT	D	4	N/A	N/A	N/A	N/A	WD	B	4	N/A	N/A	N/A	N/A	N/A	C	4	C	
NURSE	200N	180 SF	ACT	D	3	GYP	B	4	VCT	B	4	AL	B	4	WD	B	4	C	3	C	4	B	4	N/A	N/A	N/A	
RECEPTION	200R	223 SF	ACT	C	4	GYP	B	4	VCT	C	3	HM	B	4	WD	B	4	C	3	C	4	N/A	N/A	N/A	N/A	N/A	
COAT CLOSET	200S	12 SF	ACT	D	3	GYP	C	4	VCT	D	4	N/A	N/A	N/A	N/A	WD	B	4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
BATHROOM	200T	31 SF	GYP	B	4	GYP	B	3	TILE	B	4	N/A	N/A	N/A	N/A	WD	B	4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
VESTIBULE	200V	92 SF	GYP	A	4	GYP	B	3	VCT	D	3	N/A	N/A	N/A	N/A	ALUM	B	4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
PRINCIPAL OFFICE	202	141 SF	ACT	C	3	GYP	B	4	VCT	B	4	AL	B	4	WD	B	4	D	3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
CONFERENCE	203	297 SF	ACT	B	4	GYP	B	4	VCT	B	4	AL	B	4	WD	B	4	C	4	C	4	N/A	N/A	N/A	N/A	N/A	
OFFICE	204	152 SF	ACT	D	4	GYP	B	4	VCT	B	4	N/A	N/A	N/A	N/A	WD	B	4	C	4	B	4	N/A	N/A	N/A	N/A	
OFFICE	205	93 SF	ACT	C	3	GYP	B	4	VCT	B	4	N/A	N/A	N/A	N/A	WD	B	4	C	4	C	4	N/A	N/A	N/A	N/A	
ASSISTANT PRINCIPAL	206	208 SF	ACT	B	4	GYP	B	4	VCT	B	4	AL	B	4	WD	B	4	C	4	C	4	N/A	N/A	N/A	N/A	N/A	
STORAGE	207	90 SF	ACT	C	3	GYP	C	3	VCT	B	4	AL	B	4	WD	B	4	C	3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
OFFICE	208	103 SF	ACT	C	4	GYP	B	4	VCT	C	-	N/A	N/A	N/A	N/A	WD	B	4	N/A	N/A	C	3	N/A	N/A	N/A	N/A	
SMALL GROUP	209	136 SF	ACT	C	4	GYP	C	4	VCT	C	3	N/A	N/A	N/A	N/A	WD	B	4	C	3	N/A	N/A	N/A	N/A	N/A	N/A	
CLASSROOM - 2ND	210	952 SF	ACT	B	4	GYP	B	4	VCT	D	3	AL	B	4	WD	B	4	C	4	C	4	N/A	N/A	N/A	N/A	N/A	
CUBBIES	210A	54 SF	ACT	C	4	GYP	B	4	VCT	B	4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	4	N/A	N/A	N/A	N/A	
STORAGE	210B	14 SF	ACT	B	3	GYP	B	4	VCT	D	3	AL	B	4	WD	B	4	C	4	C	4	N/A	N/A	N/A	N/A	N/A	
STORAGE	210C	82 SF	ACT	B	4	GYP	B	4	VCT	B	4	AL	B	4	WD	B	4	C	3	C	3	N/A	N/A	N/A	N/A	N/A	
BATHROOM	210T	28 SF	GYP	B	4	GYP	B	4	TILE	B	4	N/A	N/A	N/A	N/A	WD	B	4	N/A	N/A	N/A	N/A	B	4	N/A	N/A	
CLASSROOM	211	944 SF	ACT	B	4	GYP	B	4	VCT	C	3	AL	B	4	WD	B	4	C	4	C	4	C	4	C	4	C	
CUBBIES	211A	54 SF	ACT	B	4	GYP	B	4	VCT	B	4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	4	N/A	N/A	N/A	N/A	
STORAGE	211B	13 SF	ACT	B	4	GYP	B	4	VCT	B	4	N/A	N/A	N/A	N/A	WD	B	4	N/A	N/A	N/A	B	4	N/A	N/A	N/A	
BATHROOM	211T	27 SF	GYP	B	4	GYP	B	4	TILE	B	4	N/A	N/A	N/A	N/A	WD	B	4	N/A	N/A	N/A	N/A	B	4	N/A	N/A	
CLASSROOM	212	958 SF	ACT	B	4	GYP	B	4	VCT	C	3	AL	B	4	WD	B	4	C	4	C	4	C	4	C	4	C	
CUBBIES	212A	54 SF	ACT	B	4	GYP	B	4	VCT	B	4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	4	N/A	N/A	N/A	N/A	
STORAGE	212B	13 SF	GYP	B	4	GYP	B	4	VCT	B	4	N/A	N/A	N/A	N/A	WD	B	4	N/A	N/A	N/A	B	4	N/A	N/A	N/A	
BATHROOM	212T	27 SF	GYP	B	4	GYP	B	4	TILE	B	4	N/A	N/A	N/A	N/A	WD	B	4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
CLASSROOM - 3RD	213	978 SF	ACT	B	4	GYP	B	4	VCT	C	3	AL	B	4	WD	B	4	C	4	C	4	C	4	C	4	C	
CUBBIES	213A	54 SF	ACT	B	4	GYP	B	4	VCT	B	4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	4	N/A	N/A	N/A	N/A	
BATHROOM	213T	28 SF	GYP	B	4	GYP	B	4	TILE	B	4	N/A	N/A	N/A	N/A	WD	B	4	N/A	N/A	N/A	N/A	B	4	N/A	N/A	
WORK ROOM/STORAGE	215	82 SF	ACT	B	4	GYP	B	4	VCT	C	3	AL	B	4	WD	B	4	C	4	C	4	C	4	N/A	N/A	N/A	
BATHROOM	220	50 SF	GYP	B	4	GYP	B	4	TILE	B	4	N/A	N/A	N/A	N/A	WD	B	4	N/A	N/A	N/A	N/A	B	4	N/A	N/A	
BATHROOM	221	50 SF	GYP	B	4	GYP	B	4	TILE	B	4	N/A	N/A	N/A	N/A	WD	B	4	N/A	N/A	N/A	N/A	N/A	B	4	N/A	
STAIRS	1	288 SF	GYP	B	4	GYP	B	4	VCT	B	4	N/A	N/A	N/A	N/A	HM/WD	B	4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
STAIRS	2	282 SF	GYP	B	4	GYP/CMU	B	4	VCT	B	4	N/A	N/A	N/A	N/A	WD/GLAS	B	4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
COMPUTER LAB	300	899 SF	ACT	C	4	GYP	B	4	VCT	B	4	N/A	N/A	N/A	N/A	WD/GLAS	B	4	C	4	N/A	N/A	N/A	N/A	N/A	N/A	
JANITOR CLOSET	300A	48 SF	ACT	C	4	GYP/TILE	C	4	TILE	C	4	N/A	N/A	N/A	N/A	WD	B	4	N/A	N/A	N/A	N/A	B	4	N/A	N/A	
TELCO	300B	100 SF	ACT	C-D	3	GYP	B	4	VCT	C-D	3	N/A	N/A	N/A	N/A	WD	B-C	4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
OFFICE	301	209 SF	ACT	D	3	GYP/CMU	B	4	VCT	B	4	AL	B	4	WD/GLAS	B-C	3	C	4	B	4	N/A	N/A	N/A	N/A	N/A	
OFFICE	302	235 SF	ACT	D	3	GYP/CMU	B	4	VCT	B	4	AL	B	4	WD/GLAS	B-C	3	C	4	B	4	N/A	N/A	N/A	N/A	N/A	
COACHES, INTERVENTION, GEN ED, SPED	303	1099 SF	ACT	C-D	1	GYP/CMU	B	4	VCT	B	4	AL	B	4	WD/GLAS	B	4	C	4	B	4	C	4	C	3	3	
STORAGE	303A	45 SF	ACT	C	3	GYP	C	3	VCT	C	3	N/A	N/A	N/A	N/A	WD	C	3	B-C	4	N/A	N/A	N/A	N/A	4	4	
CLASSROOM - 5TH	304	952 SF	ACT	B	4	GYP/CMU	B	4	VCT	B	4	AL	B	4	WD/GLAS	B	4	B	4	B	4	B	4	B	3	3	
CUBBIES	304A	54 SF	ACT	B	4	GYP	B	4	VCT	B	4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	4	N/A	N/A	N/A	N/A	
BATHROOM	304T	28 SF	GYP	B	4	GYP	B	4	TILE	B	4	N/A	N/A	N/A	N/A	WD	B	4	N/A	N/A	N/A	N/A	B	4	N/A	N/A	
CLASSROOM - 5TH	305	949 SF	ACT	B	4	GYP/CMU	B	4	VCT	B	4	AL	B	4	WD/GLAS	B	4	B	4	D	3	B	3	B	3	3	
CUBBIES	305A	54 SF	ACT	B	4	GYP	B	4	VCT	B	4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	B	4	N/A	N/A	N/A	N/A	
BATHROOM	305T	27 SF	GYP	B	4	GYP	B	4	TILE	B	4	N/A	N/A	N/A	N/A	WD	B	4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
CLASSROOM	306	971 SF	ACT	B	4	GYP/CMU	B	4	VCT	B	4	AL	B	4	WD/GLAS	B	4	B	4	C	3	B	3	B	3	3	
CUBBIES	306A	54 SF	ACT	B	4	GYP	B	4	VCT	B	4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	3	N/A	N/A	N/A	N/A	
BATHROOM	306T	27 SF	GYP	B	4	GYP	B	4	TILE	B	4	N/A	N/A	N/A	N/A	WD	B	4	N/A	N/A	N/A	N/A	B	4	N/A	N/A	
CLASSROOM - 4TH	307	978 SF	ACT	B	4	GYP/CMU	B	4	VCT	B	4	AL	B	4	WD/GLAS	B	4	B	4	C	3	B	3	B	3	3	
CUBBIES	307A	54 SF	ACT	B	4	GYP	B	4	VCT	B	4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	3	N/A	N/A	N/A	N/A	
BATHROOM	307T	28 SF	GYP	B	4	GYP	B	4	TILE	B	4	N/A	N/A	N/A	N/A	WD	B	4	N/A	N/A	N/A	N/A	B	4	N/A	N/A	
VESTIBULE	310	180 SF	GYP	C	4	GYP	B	4	VCT	B	4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
BATHROOM	311	50 SF	GYP	B	4	GYP/TILE	B	4	TILE	B	4	N/A	N/A	N/A	N/A	WD	B	4	N/A	N/A	N/A	N/A	B	4	N/A	N/A	
WORK ROOM/STORAGE	312	82 SF	ACT	B	4	GYP	B	4	VCT	B	4	AL	B	4	WD/GLAS	B	4	B	4	C	3	N/A	N/A	N/A	N/A	N/A	
WORK ROOM/STORAGE	313	82 SF	ACT	B	4	GYP/CMU	B	4	VCT	B	4	AL	B	4	WD/GLAS	B	4	B	4	B	4	N/A	N/A	N/A	N/A	N/A	
BATHROOM	314	50 SF	GYP	B	4	GYP/TILE	B	4	TILE	B	4	N/A	N/A	N/A	N/A	WD	B	4	N/A	N/A	N/A	N/A	B	4	N/A	N/A	
VESTIBULE	315	172 SF	GYP	C	4	GYP	B	4	VCT	B	4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

Haggerty Elementary School		Structural		
Structural or Structurally-Related Item	Condition (A-E)	Priority (1-5)	Photos	Notes
Roof Construction - General	B	5		Limited work.
Floor Construction - General	B	5		Limited work.
Foundations - General	B	5		Limited work.
Lateral force resisting system - General	B	5		
Exterior Walls - General	B	5		brick masonry
Exterior Paving and Site Walls	D	2	ST-1, ST-2, ST-3	Cracked masonry, spalling concrete, deteriorated stair treads and risers; patching and/or replacement of site elements recommended (stairs in particular).
Roof Drainage	C	4	ST-4, ST-5	Ponding water on low roof. Further investigation of drainage system recommended. Periodic maintenance of drains recommended.
Water/Moisture Intrusion	C	4	ST-6, ST-7, ST-8	Evidence of water/moisture within the building may indicate failing roofing, drainage systems, and/or caulked joints. Further investigation recommended.

Haggerty School			Foodservice				
Kitchen							
Room # on Plan:			Room Use on Plan:				
Room # on Site:			Room Use on Site:				
Area	Part	Type	Quantity to be Replaced	Condition (A-E)	Priority (1-5)	Photos	Notes
Kitchen	Finishes	Ceilings, Walls & Floors		C	4		
Kitchen	Refrigerated Storage	Walk-ins and Reach-ins		C	4		
Kitchen	Food Preparation Equipment	Work Tables, Prep Tables, Prep Equipment		D	3		
Kitchen	Cooking Equipment	Hoods, Ovens, Ranges, Kettles, Braising Pans, Steamers, etc.		D	3		
Kitchen	Serving Equipment	Serving Counters, Heated and Refrigerated Holding & Support		C	3		
			Overall	C	3		Comments:

Replace exhaust hood & fire suppression
Provide dedicated preparation sink
Replace older cooking and serving equipment

Haggerty School			Plumbing				
Domestic Water System							
System	Location	Item Code	Quantity to be Replaced	Condition (A-E)	Priority (1-5)	Photos	Notes
Water Service	L111B	P1.01		B	4	PL-1	
Water Heater	L117	P1.02		C	3		
Domestic Water Piping	Building Wide	P1.03		C	3		Domestic water pipe fittings throughout the bulding indicate general corrosion at various pipe fittings at fixtures and equipment due to the municipal water. Fittings should be replaced as required.
Kitchen Water Heater	L103	P1.04		B	4		
Domestic Plumbing Fixtures							
System	Location	Item Code	Quantity to be Replaced	Condition (A-E)	Priority (1-5)	Photos	Notes
Water Closets	Building Wide	P2.01		C	4		
Lavatories	Building Wide	P2.02		C	4	PL-3	
Urinals	Building Wide	P2.03		C	4	PL-4	Provide side shielding for privacy as required by the Massachusetts Plumbing Code, 248 CMR
Service Sinks	Building Wide	P2.04		D	3	PL-2	
Classroom Sinks	Building Wide	P2.05		D	3		
Kitchenettes	Building Wide	P2.06		D	3		
Floor Drains	Building Wide	P2.07		D	3		
Drinking Fountains		P2.08		B	4		Some drinking fountains have been updated and are in good condition.

Sanitary Waste and Vent System							
System	Location	Item Code	Quantity to be Replaced	Condition (A-E)	Priority (1-5)	Photos	Notes
Piping - Above Grade	Building Wide	P3.01		C	3	PL-6	Continue to repair failed sections of pipe when leaks occur.
Piping - Below Grade	Building Wide	P3.02		C	3		
Sewage Ejector	L117	P3.03		C	3	PL-5	Discharge piping of ejector has visible signs of corrosion. Repair failed pipe as required.
Storm Water System							
System	Location	Item Code	Quantity to be Replaced	Condition (A-E)	Priority (1-5)	Photos	Notes
Piping - Above Grade	Building Wide	P4.01		C	3		
Piping - Below Grade	Building Wide	P4.02		C	3		
Roof Drains	Roof	P4.03		E	1		It was reported several roof drains currently leak. This issue requires immediate action
Natural Gas							
System	Location	Item Code	Quantity to be Replaced	Condition (A-E)	Priority (1-5)	Photos	Notes
Gas Service	Site	P5.01		B	4		
Gas Piping	Building Wide	P5.02		B	4		

Haggerty School			Fire Protection				
Sprinkler System							
System	Location	Item Code	Quantity to be Replaced	Condition (A-E)	Priority (1-5)	Photos	Notes
Fire Service	L111B	FP1.01		B	4		
Piping	Building Wide	FP1.02		B	4		
Sprinkler Heads	Building Wide	FP1.03		B	4		
Standpipe System							
System	Location	Item Code	Quantity to be Replaced	Condition (A-E)	Priority (1-5)	Photos	Notes
Hose Valves	Stairwells	FP2.01		B	4		
Piping	Building Wide	FP2.02		B	4		

Haggerty School			Mechanical				
Heating							
System	Location	Item Code	Quantity to be Replaced	Condition (A-E)	Priority (1-5)	Photos	Notes
Boilers	Lower Level Mech Room	M1.01	2	C	3		Consider high efficiency system replacement options including use of heat pumps.
Dual Temp Pumps	Lower Level Mech Room	M1.02	2	D	3		Consider concurrent replacement with heating plant upgrades.
Dual Temp Piping	Building Wide	M1.03	N/A	C	3		Consider concurrent replacement with heating plant upgrades.
Cooling							
Chiller	Roof	M2.01	2	A	4		The chillers were installed in 2017 and are in excellent condition.
Dual Temp Pumps	Lower Level Mech Room	M2.02	2	D	3		Consider concurrent replacement with heating plant upgrades.
Dual Temp Piping	Building Wide	M2.03	N/A	C	3		Consider concurrent replacement with heating plant upgrades.

Ventilation and Air Conditioning							
System	Location	Item Code	Quantity to be Replaced	Condition (A-E)	Priority (1-5)	Photos	Notes
Rooftop Air Handling Units	Roof	M3.01	9	D	3		Consider high efficiency system replacement options including use of heat pumps.
Unit Ventilators	Building Wide	M3.02	23	D	3		Consider high efficiency system replacement options including use of heat pumps.
Fan Coil Units	Building Wide	M3.03	25	D	3		Consider high efficiency system replacement options including use of heat pumps.
Exhaust Fans	Building Wide	M3.04	23	D	3		Include exhaust energy recovery with replacement options.
Ductless Split AC	Roof	M3.05	2	B	4		Two systems, 2-ton and 2.5-ton. Remaining service life of 7 years.
Terminal Heating Units	Building Wide	M3.06		D	3		Finned tube radiation at building perimeter and unit heaters at building entries.
Building Automation System							
System	Location	Item Code	Quantity to be Replaced	Condition (A-E)	Priority (1-5)	Photos	Notes
Heating System Controls	Lower Level Mech Room	M4.01	1	D	3		
Cooling System Controls	Lower Level Mech Room	M4.02	1	D	3		
Rooftop Air Handling Unit Controls	Building Wide	M4.03	9	D	3		
Unit Ventilator Controls	Building Wide	M4.04	23	D	3		
Fan Coil Unit Controls	Building Wide	M4.05	25	D	3		
Exhaust Fan Controls	Building Wide	M4.06	23	D	3		
Ductless Split AC Controls	Building Wide	M4.07	2	B	4		
Terminal Heating Unit Controls	Building Wide	M4.08		D	3		

Haggerty School			Electrical				
Power Distribution Systems							
System	Location	Item Code	Quantity to be Replaced	Condition (A-E)	Priority (1-5)	Photos	Notes
Main Electric Service Entrance	Lower level	E1.01	Main Electric Service Entrance	D	1	See Report	If new mechanical systems are to be provided a new service will be required to accommodate the increased wattage. Critical to review incoming electrical service
Main Electric Distribution	Lower level	E1.01	Main Electric Room	C+	2.5	See Report	If new mechanical systems are to be provided a new service will be required to accommodate the increased wattage. Critical to review incoming electrical service
Coordination/Arc Fault Study	All Electrical Distribution	E1.03	Electrical Distribution	C+	5	See Report	Provide Arc Fault labels
Electrical Distribution	All Electrical Distribution	E1.04	Electrical Distribution	C+	1	See Report	Provide electrical maintenance on all equipment.
Lighting Systems							
Fire Alarm							
System	Location	Item Code	Quantity to be Replaced	Condition (A-E)	Priority (1-5)	Photos	Notes
Fire Alarm	Mechanical Room	E1.02	Building Wide	C	2 & 5	See Report	Provide code compliant speaker type system with code compliant devices.
Lightning Protection							
System	Location	Item Code	Quantity to be Replaced	Condition (A-E)	Priority (1-5)	Photos	Notes
Lightning Protection	Roof		Roof - Mechanical Equipment	C/B	2	See Report	Integrate new mechanical equipment into existing lightning protection system.

Haggerty Building Assesment Entire School Door Assesment			Doors				
Room # on Plan:		N/A	Room Use on Plan:		All of Haggerty		
Room # on Site:			Room Use on Site:				
Area	Part	Type	Quantity to be Replaced	Condition (A-E)	Priority (1-5)	Photos	Notes:
Interior	Doors	Bathroom	Survey only for site typcals, quantities and locations not recorded	B	4	See Links	Bathroom 1 Bathroom 2
Interior	Doors	Classroom	Survey only for site typcals, quantities and locations not recorded	B	4	See Links	Classroom 1
Interior	Doors	Corridor	Survey only for site typcals, quantities and locations not recorded	C	3	See Links	Corridor 1
Interior	Doors	Double Closet	Survey only for site typcals, quantities and locations not recorded	B	4	See Links	Double closet
Interior	Doors	Exterior 1	Survey only for site typcals, quantities and locations not recorded	B	4	See Links	Exterior 1
Interior	Doors	Exterior 2	Survey only for site typcals, quantities and locations not recorded	B	4	See Links	Exterior 2
Interior	Doors	Exterior 3	Survey only for site typcals, quantities and locations not recorded	B	4	See Links	Exterior 3
Interior	Doors	Exterior 4	Survey only for site typcals, quantities and locations not recorded	B	4	See Links	Exterior 4
Interior	Doors	Exterior 5	Survey only for site typcals, quantities and locations not recorded	B	4	See Links	Exterior 5
Interior	Doors	Library	Survey only for site typcals, quantities and locations not recorded	B	4	See Links	Library
Interior	Doors	Main Entry	Survey only for site typcals, quantities and locations not recorded	B	4	See Links	Main Entry
Interior	Doors	Mechanical Room	Survey only for site typcals, quantities and locations not recorded	B	4	See Links	Mechanical rooms
Interior	Doors	Office	Survey only for site typcals, quantities and locations not recorded	C	3	See Links	Office
Interior	Doors	Stair 2	Survey only for site typcals, quantities and locations not recorded	B	4	See Links	Stair 2
Interior	Doors	Stair 1	Survey only for site typcals, quantities and locations not recorded	B	4	See Links	Staircase 1
Interior	Doors	Vestabule	Survey only for site typcals, quantities and locations not recorded	B	4	See Links	Vestabule

EAQ FORMS - SCORING BREAKDOWN

The Educational Adequacy Assessment looked at how existing spaces in each school support specific educational criteria and needs as identifies by our research. Each assessor utilized checklists and the assessment criteria and rating scale below to maintain consistency across all fields. All line items were then averaged for the Educational Adequacy Quotient. Detailed reports for this school individually can be seen in the following pages.

ASSESSMENT CRITERIA	
4	Functions excellently
3	Functions well/good enough condition to support educational needs
2	exists; baseline functionality; doesn't support educational needs
1	Exists; does not function/needs to be replaced
0	Does not exist, but is needed
N/A	Not Applicable; not required

2.1 EDUCATIONAL ADEQUACY FORMS - HAGGERTY

Metric	Description	Score	Comments
SITE- Size, Location, Access, Cultural Context			
Consider overall school for this category			
Site Size	Site is 10-15 acres in size; Adequate space for playgrounds & fields	2.5	Turf area & jungle gym along site wall; courtyards & roof top play; no parking; no pick-up area. Constrained at back.
Location	Distance to students, near pollution/noise, appropriate to community	4	
Access	Parent/Bus drop-off & pick-up; space for queuing, separation of cars, bus & peds, ADA; access for community to recreation & events	3	No pick-up area; Entrances have ramps or on grade; separate entrances for public areas, but no vestibule or oversight there. Parking lot across street owned by school dept (staff only?)
Identity & Cultural Context	The campus has a positive identity & represents the mission/values of the school community & surrounding community.	3.5	Good street presence, but deteriorating front stairs/entry detracts from school (ongoing issue)

SECURITY- Site & Building			
Consider overall school for this category			
Building Entry and Sequence	Are there appropriate sightlines from the building entry to parking? Can you get from parking/bus to the door protected from elements?	1.5	No sight lines from main office to front entry; no canopy at front; Side entrances have cover but no supervision.
Building Security	Secure Vestibule for building entry; internal zones of security	3	Need to confirm that doors lock to separate academic from public zones. No vestibules at public zone entries (2).
Site Security	Safe or Secure Perimeter: Minimal entry points with good visibility & lighting.	4	
Wayfinding	Building organization is easily understood; students, parents & visitors can find their way	2.5	Traversing from front entry (2nd floor) & academic wing to public/assembly spaces is confusing. The two separate parts are easier to understand.
Community Connections	Campus provides for community use & interaction; Campus supports after hours use in a secure way.	3.5	Need to add vestibules to the community entries; would benefit from a visual connect to an office as well (supervision).

LEARNING AREAS			
Consider overall school for this category			
Differentiated Learning	Overall compliment of classrooms provide areas for different learning modalities.	2	Classrooms repetitive & square - w/o furnishing to create different areas, it doesn't exist
Inquiry Based Learning	Learning area has access to space for project based learning	3	Many rooms are big enough & have sinks for IBL/PBL; lacking in individual spaces & small group.
Large Group Instruction	Area(s) exist for combined classes to gather collectively	2	Only in public spaces like library or cafeteria; no combined classrooms
Distance Learning	Space dedicated for distance learning for individuals or small groups of students; learning labs for distance interventions (infrastructure with computers/technology/display)	3	
Independent Study	Areas available for students to study independently	2.5	Size of classrooms & small work room space can allow for this, but it is still within the walls of the classroom
Small Group Instruction	"Pull-out" spaces available for individual instruction for special needs students	1.5	Very few
Self-Contained Classrooms	Space exists for special needs students within an independent classroom	N/A	Need to confirm if they exist; may be slightly too small if they
All School Gathering Area	Spaces exist for campus wide meeting/activities	3.5	Gym & Cafeteria
Break-Out Areas	Common spaces for students to collaborate and work in small group of 10 or less. Should be assessed on passive supervision, display infrastructure, and spatial acoustics	2	Not associated with classroom areas; couple of spaces in public zone near the open stairs.
Presentation Areas	Space exists for student, teacher & guest presentations for various size groups	1.5	Library; No stage anywhere in building
Outdoor Learning	Space exists for learning and instruction in appropriate outdoor environments. Should be assessed on supervision, presentation/sharing & environmental comfort	3	Very nice outdoor courtyards next to Kinder & 1st grade rooms; temporary structure near play

Metric	Description	Score	Comments
EDUCATIONAL REQ			
Consider overall school for this category			
Student Centered Sustainable Design™			
Stimulating Architecture	The school environment is welcoming and inspiring. The occupants are engaged.	2.5	Very tight corridors & bland in the old portion of building. Nice space next to gym
Safe & Healthy	The school has good sight lines and connections between spaces & to places of vulnerability (stairs/restrooms) to support sense of community & create a safe environment.	2.5	Each classroom space is so small, that sightlines are good, but the public space doesn't have much oversight (no offices nearby) except from the classrooms. There are doors w/sidelights.
Views & Connections	Views provided from classrooms/core learning spaces to outdoors, corridors, or other learning spaces	3.5	Glass doors & sidelights at classrooms; additional interior windows to corridors when possible at most spaces. Mostly good views in rooms
Daylighting	Windows/Skylights: daylighting provided with solar shades or overhangs where appropriate	3.5	Great daylight, but no sun shades or overhangs in old portion of bldg; solid blinds are pulled to reduce glare, especially at east/west facades.
Lighting	Sufficiency (quantity/quality) & differentiation (provides choice/change)	2.5	Old fluorescent lights in most rooms; should be replaced
Acoustics	Space should have appropriate sound absorption materials to allow for conversations to be heard. Walls designed to minimize sound transfer	3	Classrooms are good (ACT ceilings), some public spaces may be a challenge
Thermal Comfort/Air Quality	Spaces are not too hot or too cold; not too much heat gain from sun. The air is "fresh" w/o noticeable odors/staleness/mustiness (Ventilation)	2	Need to confirm w/survey & engineers
Universal Design	Are spaces designed to meet the needs of all people, including those with physical or SEB challenges or cultural differences.	3	
Display of Work	Is there adequate areas for student work to be displayed both inside and outside learning spaces	3.5	Lots of 2D on walls; 3D at front entry only
Movement & Exploration	Does the space allow for the different learning modalities to happen dynamically	3.5	Most rooms: yes
Adaptability & Flexible Space	How much can the space (walls) change shape or allow change in use by opening or combine with other spaces.	1	Multi-purpose room in basement is only room & that wall is old & does not function acoustically.

Furniture			
Design	Ergonomic needs of students are met; furniture is appropriately sized for age group, per DLR furniture sizing guide	1	Furniture should be replaced
Flexibility	Furniture easily moved to allow for classroom reconfiguration	3	
Variety of Seating Types	Combination of formal and soft seating available within the space. Is their choice in seating.	1	Some rooms do, but many don't have soft seating. Everyone is expected to sit at a desk and all the same
Movement	Furniture design allows for individual student movement which increases attention	1	Most rooms have hard chairs w/no flex.

Metric	Description	Score	Comments
INSTRUCTIONAL SPACES			
Classrooms- regular instructional spaces (average for all spaces)			
Size	Physical square footage of rooms as compared to standards	4	Majority of rooms meet standards
Appropriate Support Spaces	Resources Classrooms; Small Group Rooms, etc. nearby	1.5	Tight footprint means limited number of rooms & most are remote from classrooms
Storage for Materials	Space for student material storage including books, work projects, backpacks, coats. Storage for teacher personal materials, classroom supplies	3.5	storage rooms & cubby room + casework. Downside is cubby room too small and entry cramped - causes bottleneck for kids. Recommend repurposing space as small group
Technology, power & data	Access to technology in the classroom; sufficient access to power & data to support flexible, student centered learning	3.5	Good tech & power
Sink &/or equipment	Provided in rooms, if needed	3.5	sinks in rooms; not HC accessible
Writeable Surfaces & Tack Surfaces	Availability and quantity sufficient to use	3	lots of tack; very limited white boards & they are put over old chalk boards
Accessibility & Location	Degree to which classrooms are accessible (ADA) & appropriately located in relation to each other & other functions	3.5	3rd floor is a challenge because large room in center cuts floor in half (disconnecting each side); otherwise, nice community of 4 classroom/floor

Classrooms- Specialty spaces: SPED			
Size	Physical square footage of rooms as compared to standards	3.5	
Appropriate Support Spaces	Testing & Conf. Rooms; Life- Skills; Sensory or Decompression Rooms, etc. as required	1	
Storage for Materials	Space for student material storage including books, work projects, backpacks, coats. Storage for teacher personal materials, classroom supplies	2.5	More limited storage for small rooms - Much of the storage is in large classrooms. Over packed with furniture makes them crowded
Technology, power & data	Access to technology in the classroom; sufficient access to power & data to support flexible, student centered learning	3.5	Good tech & power
Sink &/or equipment	Provided in rooms, if needed	3.5	Not HC accessible
Writeable Surfaces & Tack Surfaces	Availability and quantity sufficient to use	3	
Accessibility & Location	Degree to which classrooms are accessible (ADA) & appropriately located in relation to each other & other functions	3.5	There was some furniture blocking pathways; but this can be fixed.

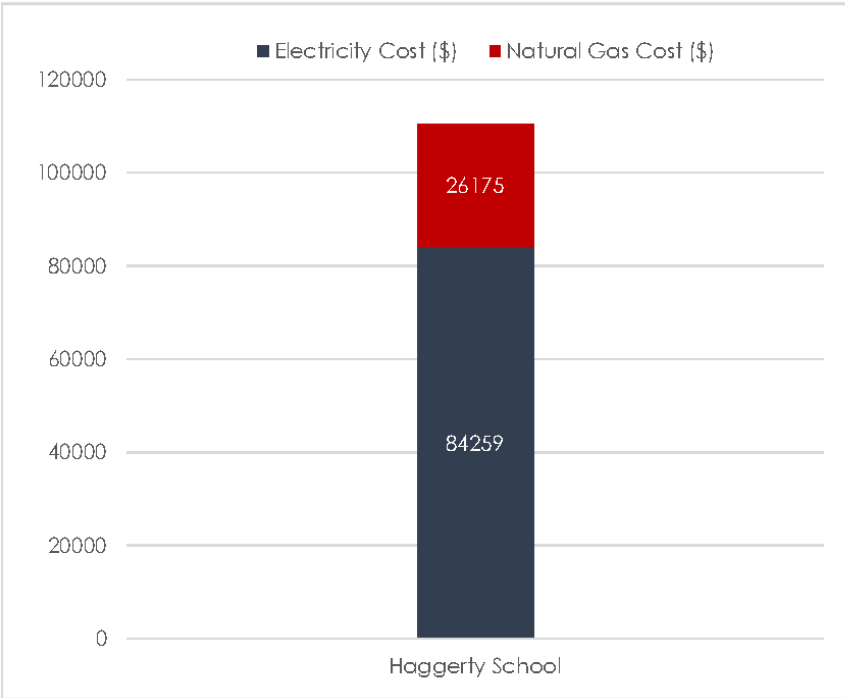
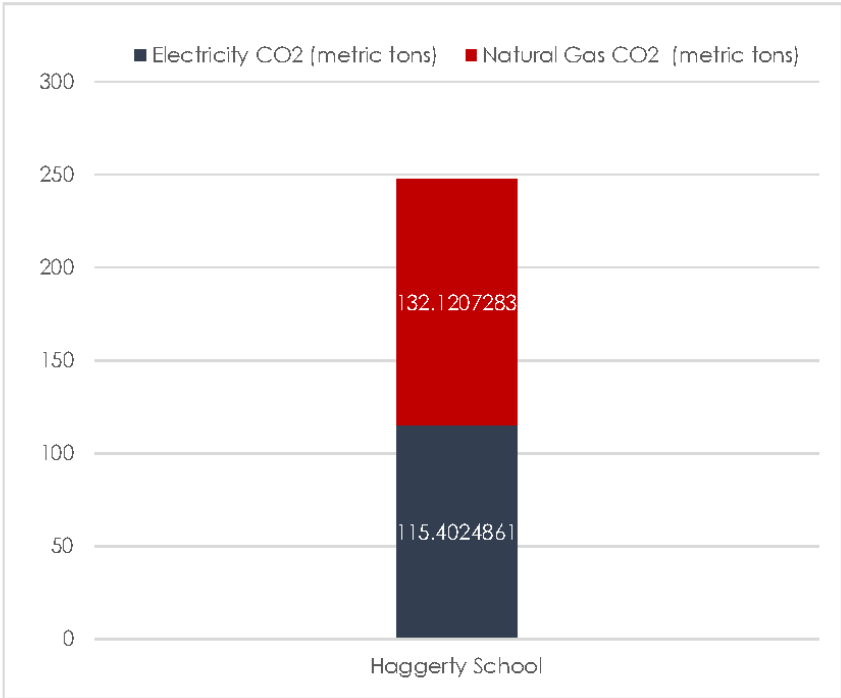
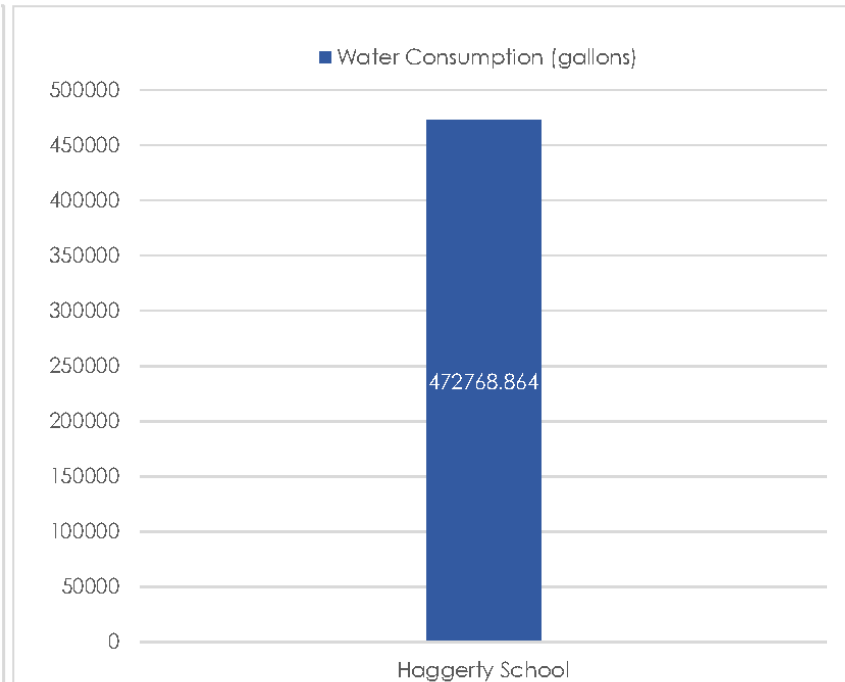
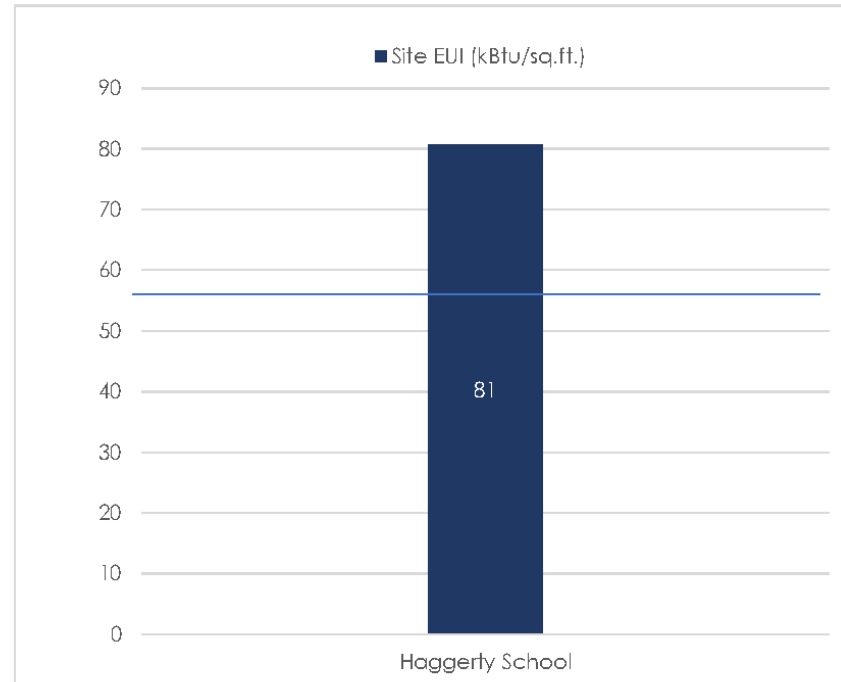
Metric	Description	Score	Comments
Classrooms- Specialty spaces: Science, Applied Learning (Maker Spaces), CTE			
Size	Physical square footage of rooms as compared to standards	3	Computer room at 3rd floor
Appropriate Support Spaces	Prep Rooms, Chemical Storage; Equipment Storage; Recording, etc. Public Entrance or Waiting as appropriate to program	1	No storage - other IT desk & equipment in corner of room
Storage for Materials	Space for student material storage including books, work projects, backpacks, coats. Storage for teacher personal materials, classroom supplies	1	
Technology, power & data	Access to technology in the classroom; sufficient access to power & data to support flexible, student centered learning	3	Lots of computers, but no data projector, etc. to share or teach
Sink &/or equipment	Provided in-rooms, if needed	N/A	
Writeable Surfaces & Tack Surfaces	Availability and quantity sufficient to use	3	Good amount, but desks are in front of them, so can't be used.
Accessibility & Location	Degree to which classrooms are accessible (ADA) & appropriately located in relation to each other & other functions	3	Central location to classrooms, but the space blocks the corridor & disconnects other classrooms

Classrooms- Specialty spaces: Visual & Performing Arts & Fitness/Health			
Size	Physical square footage of rooms as compared to standards	3	
Appropriate Support Spaces	Kiln Room; Practice Rooms; Instrument &/or Music Storage; Equipment Storage	2.5	Pretty good storage; Kiln not in appropriate space
Storage for Materials	Space for student material storage including books, work projects, backpacks. Storage for teacher personal materials, classroom supplies	2.5	
Technology, power & data	Access to technology in the classroom; sufficient access to power & data to support flexible, student centered learning	3.5	Good tech & power
Sink &/or equipment	Provided in-rooms, if needed	2.5	Not ADA; in tight alcove. Not provided for music
Writeable Surfaces & Tack Surfaces	Availability and quantity sufficient to use	2	Chalkboards; only whiteboard is w/data projector; decent amount of tack
Accessibility & Location	Degree to which classrooms are accessible (ADA) & appropriately located in relation to each other & other functions	4	

Metric	Description	Score	Comments
PUBLIC & SUPPORT SPACES			
Public Spaces: Media Center, Cafeteria, Gymnasium, Auditorium & Stage			
Accessibility & Location	Degree to which spaces are accessible (ADA) & appropriately located in relation to each other & other functions	3.5	Library is in not in public area, but is closer to students
IEQ - average for all	Daylight, Views, Thermal Comfort, Air Quality (Ventilation)	3	Library has excellent views; Cafeteria & Gym none at basement level; all have good natural light w/skylights (cafeteria is challenged)
Lighting - average for all	Sufficiency (quantity/quality) & differentiation (provides choice/change) for intended uses	3	
Acoustics & Privacy - average for all	Do spaces have proper acoustics for intended use & afford ability to achieve visual & auditory privacy when needed.	3	Gym could be better
Technology, power & data - average for all	Sufficient technology, power & data for intended uses (i.e. public address system in gym; adequate audio-visual for presentations & performances, etc.)	3	
Display of Student Work, Awards, Notices, etc.	Is there adequate areas for display and communication (cases, screens, interactive dashboards, etc.) in appropriate places to be seen	3.5	Did not see digital display
Storage for equipment - average for all	Space for the storage of specialized equipment to meet student needs	3	All could probably use more - lots of items in corridors (could be due to not being in final location as getting ready to start school)
Media Center	Exists/Adequacy: size & configuration	3.5	Could use small group
Cafeteria	Exists/Adequacy: size & configuration; Adequate kitchen & Servery	3	
Gymnasium	Exists/Adequacy: size & configuration	3.5	Not at ground floor - no direct access to outside
Auditorium &/or Stage	Exists/Adequacy: size & configuration	0	No stage or presentation platform anywhere

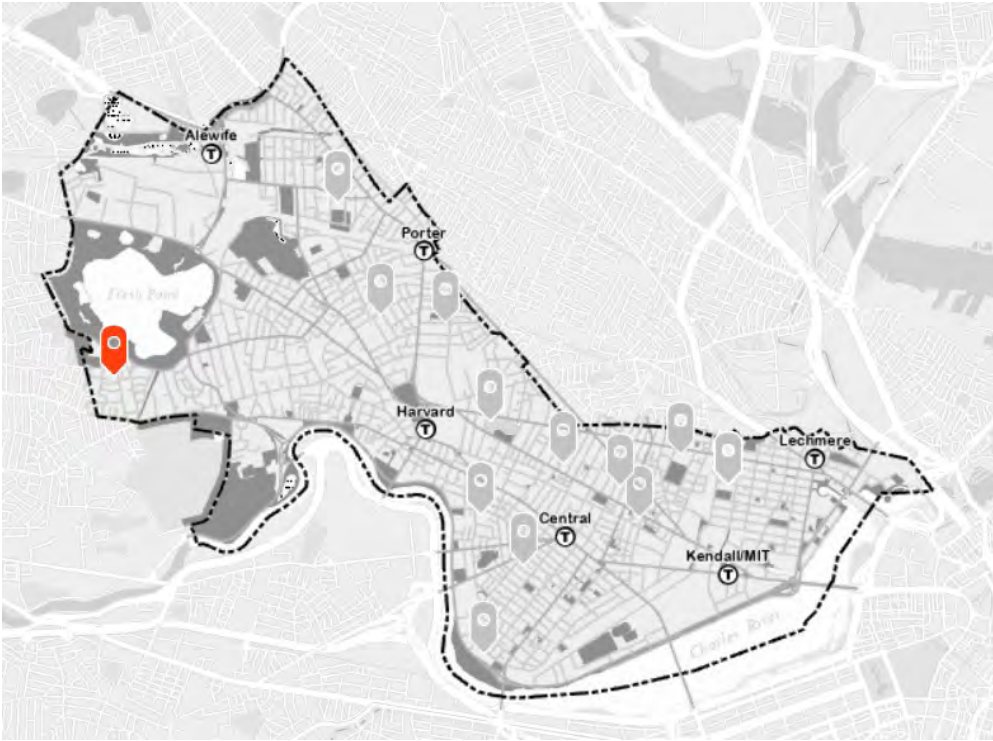
Administrative & Health Offices			
Accessibility & Location	Degree to which spaces are accessible (ADA) & appropriately located in relation to each other & other functions	3	Disconnected from front entry by lobby
IEQ - average for all	Daylight, Views, Thermal Comfort, Air Quality (Ventilation)	3	
Lighting - average for all	Sufficiency (quantity/quality) & differentiation (provides choice/change)	2.5	Dimming, color, choice?
Acoustics & Privacy - average for all	Do spaces have proper acoustics for conversations & afford ability to achieve visual & auditory privacy when needed.	4	
Mail, Copy & Storage	Appropriate for number of staff; record storage & supply storage	2	small
Reception & Welcome Area	Appropriate for the space & size of school; welcoming; appropriate furniture; appropriate acoustics	2	small
Admin Offices	Number appropriate for the number of students and configuration the school; indicate how many exist	2	1 office in Main office & 2 office + conference across hall; others distributed for support
Health Office	Size & configuration appropriate for the number of students and configuration the school; secure meds; privacy & acoustics (HIPPA), etc.	1	No separate space for exam; does not meet HIPPA
Conference Room (s)	Number appropriate for the number of students and configuration the school; indicate how many exist	2	1 medium conference at 1st floor

Metric	Description	Score	Comments
Student & Staff Support			
Accessibility & Location	Degree to which spaces are accessible (ADA) & appropriately located in relation to each other & other functions	2	
IEQ - average for all	Daylight, Views, Thermal Comfort, Air Quality (Ventilation)	2	Some rooms internal; some w/out views or light
Lighting - average for all	Sufficiency (quantity/quality) & differentiation (provides choice/change)	2.5	Dimming/choice? Color?
Acoustics & Privacy - average for all	Do spaces have proper acoustics for conversations & afford ability to achieve visual & auditory privacy when needed.	4	
Storage for equipment - average for all	Space for the storage of specialized equipment to meet student needs	2	
Counseling, Guidance Offices &/or Career Ctr	Exists/Adequacy: size & configuration	3	
OT/PT & Speech	Exists/Adequacy: size, configuration (sink, swing, mats, equipment, storage)	2.5	A bit small & not enough storage; room has a leak
Conference Rms	Exists/Adequacy: size & configuration	0	One at admin
Toilet Rooms	Availability throughout school	3	Mostly good access except at 1st floor - have to go through to academic wing
Storage	Book Storage; General Storage; Supply Storage	2	
Teacher Lounge; Health & Lactation Rooms	Exists/Adequacy: size & configuration; with kitchenette	3	No access to daylight
Teacher Workrooms & Planning	Exists/Adequacy: size & configuration; Copy & print locations; collaboration & focus	0	

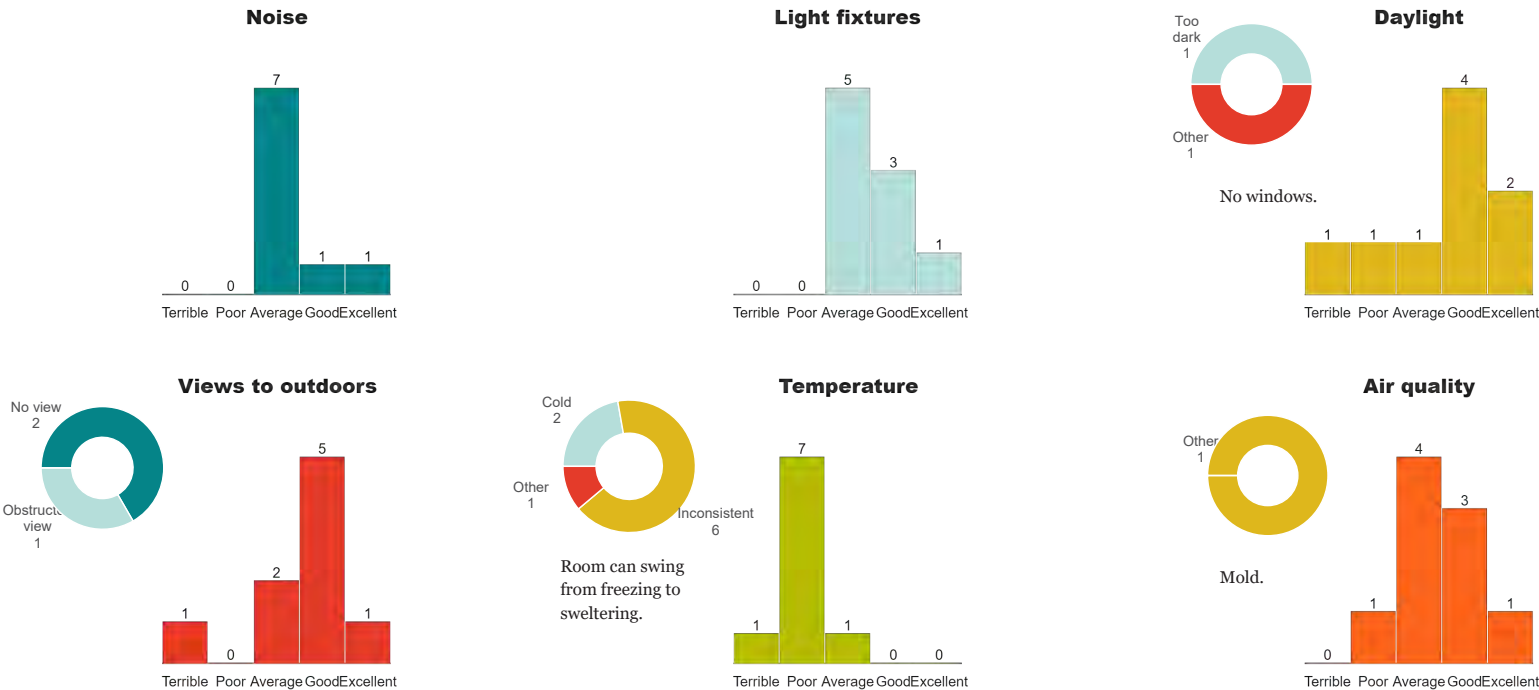




Haggerty

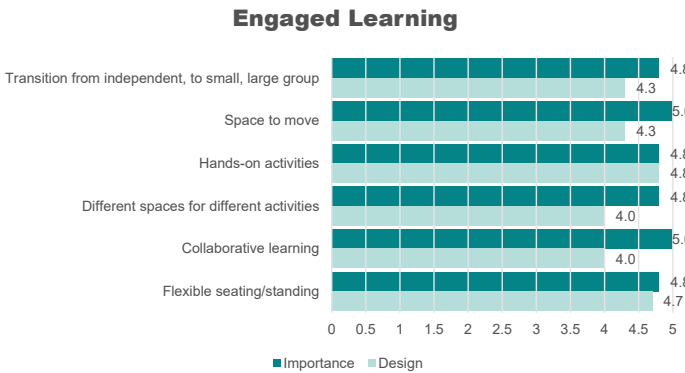


Haggerty: IEQ

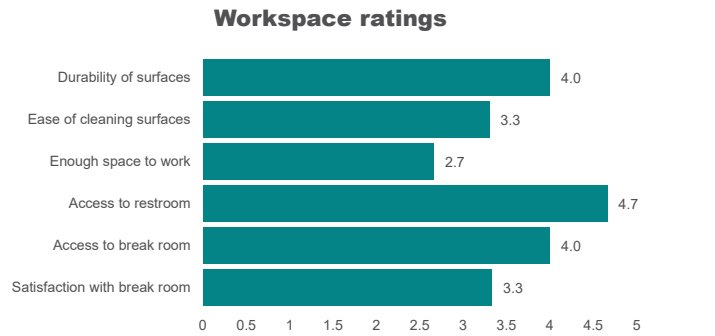




Haggerty: Working + Learning



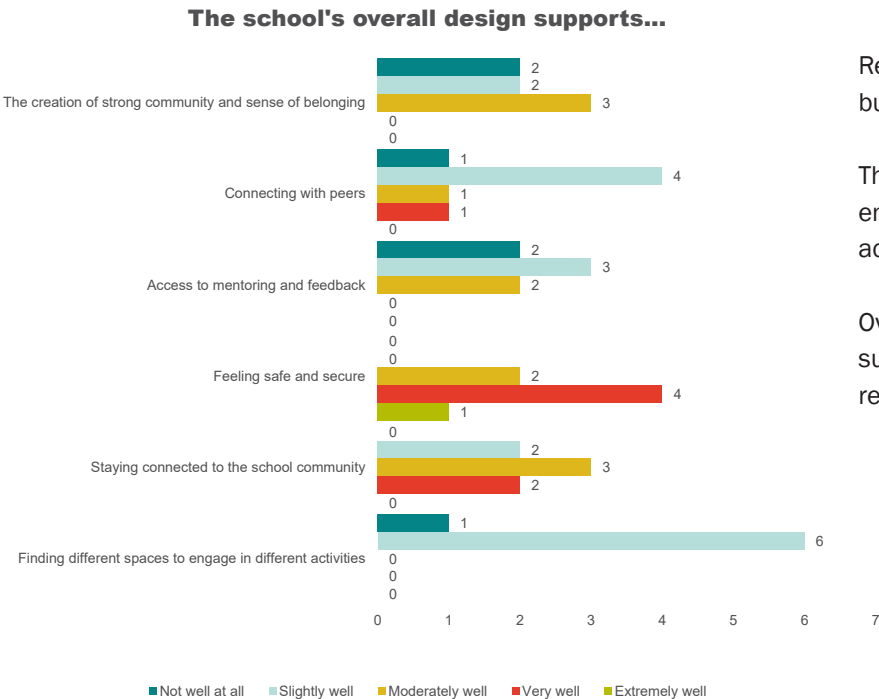
Averages here are determined from a scale of 1 (*Not at all Important*) to 5 (*Extremely Important*). Teachers view all options as important to engaged, active learning. The design of their classrooms could most be improved to support collaborative learning and having different spaces for different activities.



1 administrative, kitchen, custodial, or maintenance respondent evaluated their workspaces on a scale of 1 (*Strongly Disagree*) to 5 (*Strongly Agree*). They gave positive ratings for the durability of their work surfaces and having access to a restroom and breakroom. They gave having enough space to work the lowest rating.



Haggerty: Community

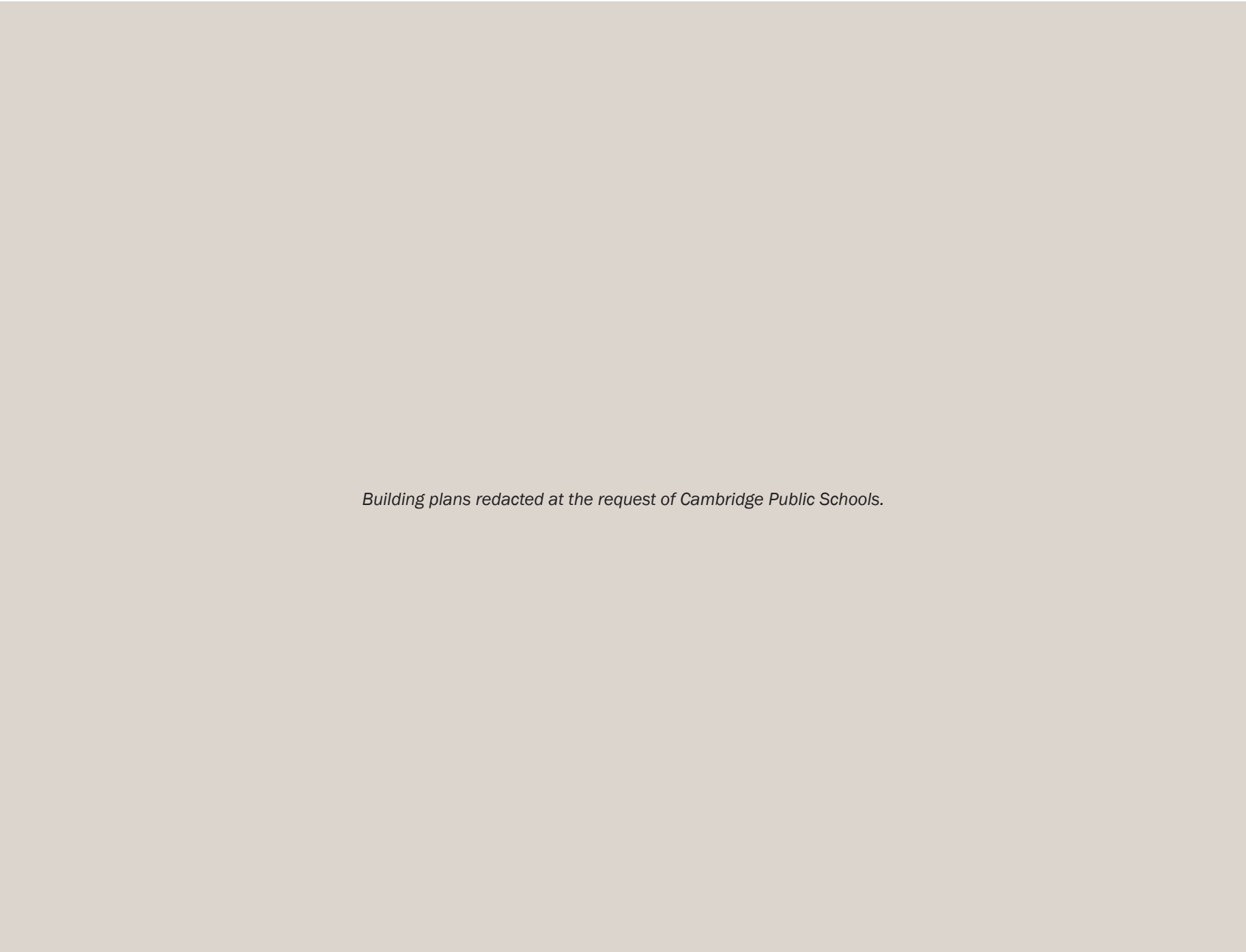


Respondents were asked to consider how the overall design of their building supported staff and students and a sense of community.

The biggest areas for improvement were finding different spaces to engage in different activities, along with a building design that supports access to mentoring feedback.

Overall, respondents felt most positively about their building design supporting feelings of safety and security. This was the only category to receive an *Extremely well* rating.

3.2 PLAN DIAGRAMS



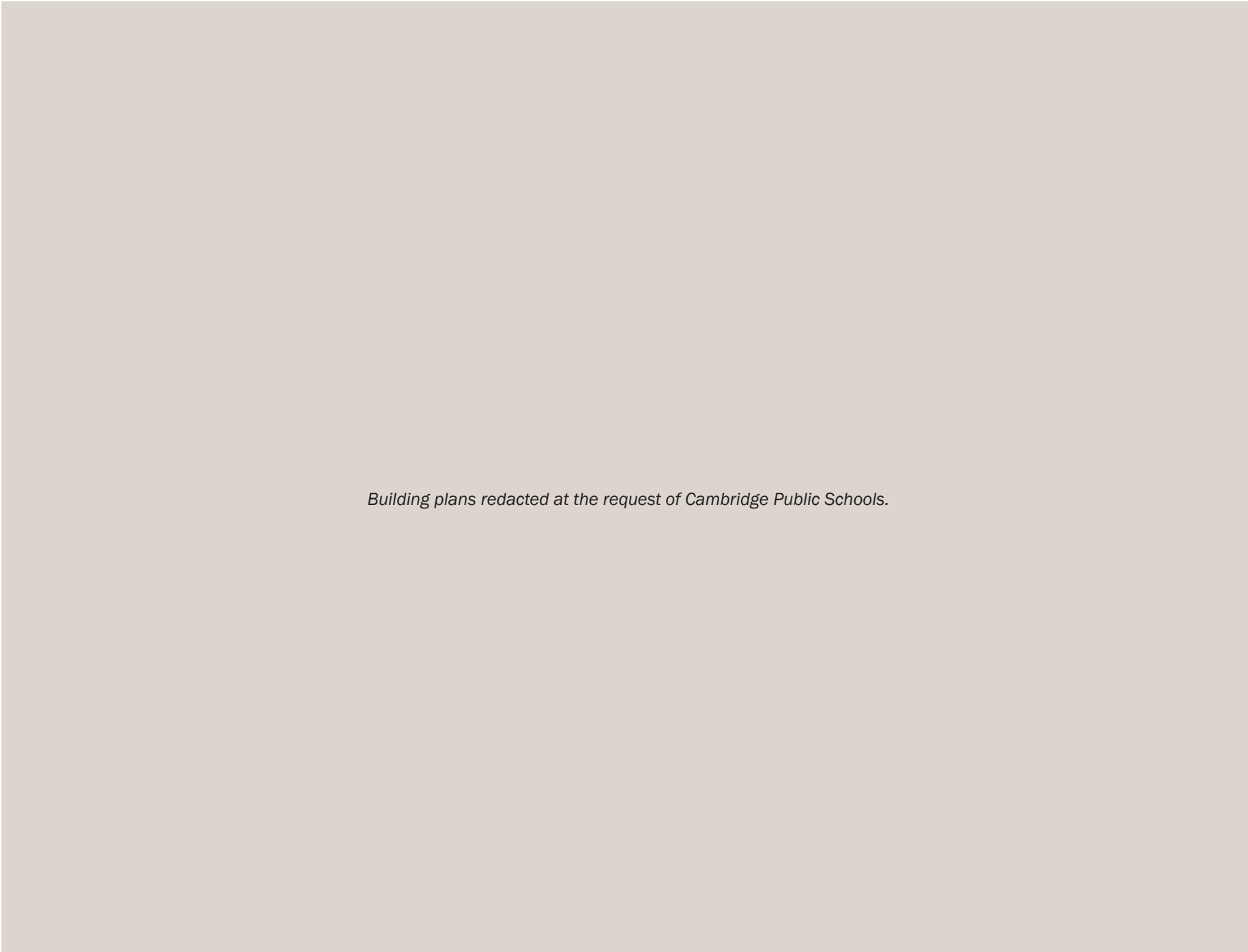
Building plans redacted at the request of Cambridge Public Schools.



Building plans redacted at the request of Cambridge Public Schools.

Building plans redacted at the request of Cambridge Public Schools.

Building plans redacted at the request of Cambridge Public Schools.



Building plans redacted at the request of Cambridge Public Schools.

3.3 SCHOOL IMAGES

Interior



Library



Library Windows



Cafeteria



Gym



Art room



Computer lab



Play roof



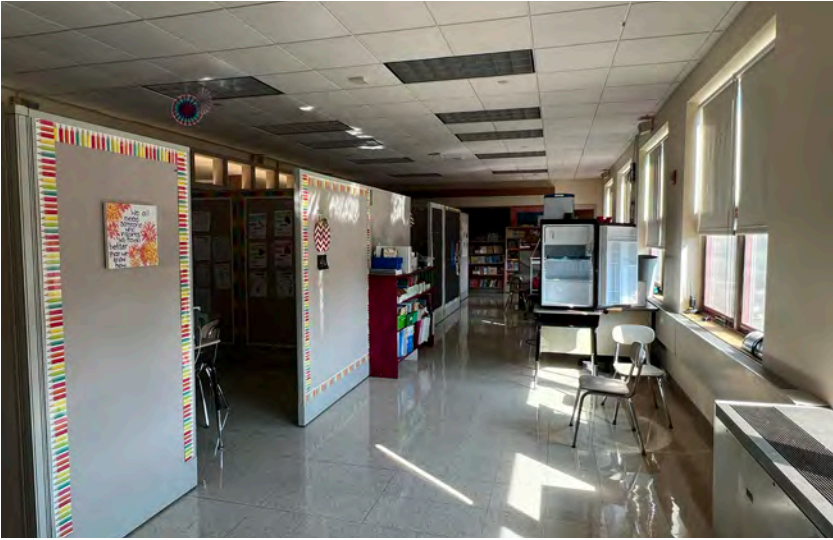
Teachers' Room



Kindergarten classroom



Multipurpose Room



Partitioned room



Mold on sprinkler

Interior



AE-1: East Elevation



AE-2: North Elevation



AE-5: South Elevation of West Wing



AE-6: Representative façade conditions: Brick veneer and aluminum window



AE-3: North Elevation at West Wing



AE-4: West Elevation



AE-7: North Elevation: Masonry weeps partially covered with mulch



AE-8: Representative precast concrete coping cap at West Wing



AE-9: Representative precast concrete coping cap at West Wing. Note failed sealants between caps.



AE-11: Representative East Classrooms below Main Entry: Conditions typical throughout West Wing and East classrooms: Efflorescence, cracked and displaced brick



AE-10: West Wing: Conditions typical throughout West Wing and East classrooms below Main Entry. Typical efflorescence on masonry due to excess moisture, note relieving angle is exposed at head of storefront, continues from exterior to interior



AE-12: Representative brick masonry façade along West Wing: Less efflorescence observed in this area. Note relieving angle is continuous from exterior to interior at head of all storefront



AE-13: Interior of typical classroom at West Wing, East classrooms below Main Entry: Similar conditions observed in all of these classrooms. Water leakage, rusting and peeling paint at interior side of relieving angles.



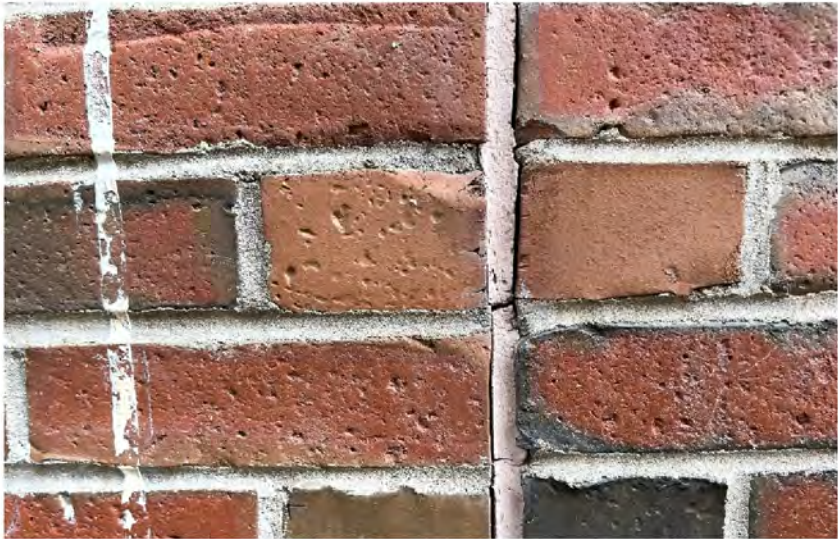
AE-15: Representative brick masonry façade at perimeter of window: Note perimeter sealants and masonry control joint sealants are reaching the end of their service lives.



AE-14: Interior of typical classroom at West Wing, East classrooms below Main Entry: Water leakage, drywall damage and peeling paint at interior side of relieving angles and adjacent drywall, storefront spandrel panels.



AE-16: Representative brick masonry façade at perimeter of window: Note perimeter sealants and masonry control joint sealants are reaching the end of their service lives.



AE-17: Typical failed masonry control joint sealant



AE-18: West Elevation: Typical failed coating on CMU



AE-21: Clerestory above Media Center / Library: Storefront here have misc. sealants at perimeter and on glazing.



AE-22: Clerestory at Library/Media Center: Typical added sealants at perimeter and glazing of storefront units.



AE-19: Glass Block facades above roof at West Wing: These serve as clerestory for Gymnasium below



AE-20: Typical water drip staining within mortar joints between glass block, condensation within block itself. Condition typical throughout most of these facades .



AE-23: Interior of clerestory at Library/Media Center: Typical water leakage staining observed on ceiling surrounding clerestory



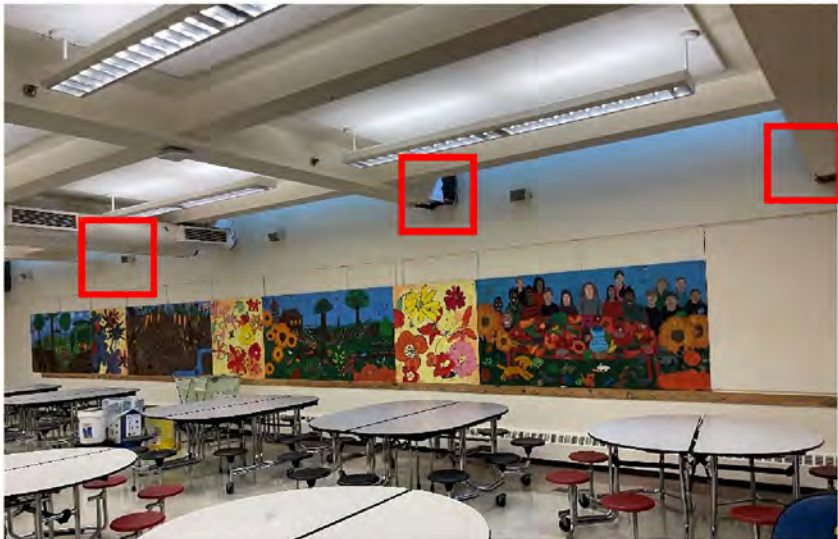
AE-24: Representative aluminum window assembly with fixed and operable components



AE-25: Representative aluminum storefront at West Wing and East Classrooms below Main Entrance: Lower lites of storefront provide daylight into Cafeteria below.



AE-26: West Wing and East classrooms below Main Entrance: Typical storefront near classroom entry door. Note added sealants at glass and spandrel panels, missing drywall due to leakage in Cafeteria below.



AE-27: Interior of Cafeteria below West Wing: Typical removed drywall, rusting beams and soffit framing due to active water leakage from storefront and storefront perimeter above, see AE-28.



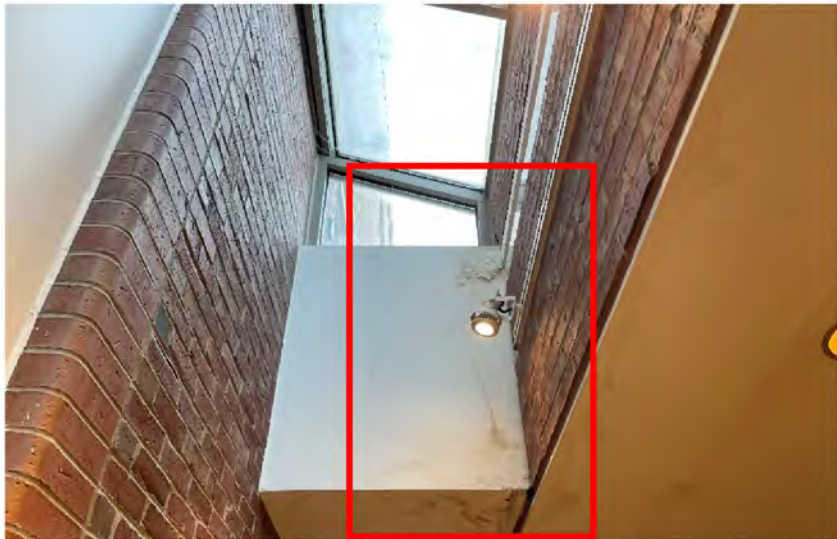
AE-28: Typical removed drywall, rusting beams and soffit framing due to active water leakage from storefront and storefront perimeter above



AE-29: Sloped glazing at transition between Main Building and West Wing, located above interior corridor



AE-30: Sloped glazing at transition between Main Building and West Wing, located above interior corridor: Typical failed IGU, as evidenced by condensation between panes of glass.



AE-31: Interior of Corridor below Sloped glazing at transition between Main Building and West Wing: Typical area of active water leakage, note staining and peeling paint at drywall.



AE-32: Interior of Corridor below Sloped glazing at transition between Main Building and West Wing: Typical area of active water leakage, note staining and efflorescence on brick masonry.



AE-33: Interior of typical exterior door: Typical rusting at base of door frame, daylight visible below door at deficient weatherstripping.



AE-34: Representative drywall damage due to moisture adjacent to Main Entry doors



AE-37: General view of Main Roof



AE-38: Representative view of lower North EPDM roof at Main Building



AE-35: Representative daylight visible between door and storefront framing at West Wing: Some corrosion on base of storefront door frame.



AE-36: Representative view of lower South EPDM roof at Main Building



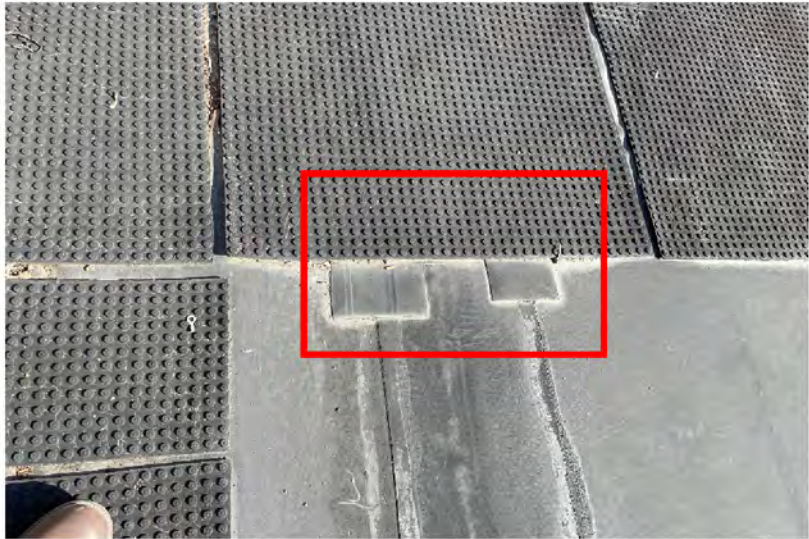
AE-39: General view at South portion of West Wing Roof: Note metal standing seam roofing over Gymnasium clerestory at perimeter of playroof



AE-40: General view at North portion of West Wing Roof



AE-41: Typical EPDM patch with failed lap sealants that has become unadhered



AE-42: Typical EPDM patches without lap sealant at field cut edges



AE-45: Representative conduit penetrations in roof with spray foam and sealant applied around conduit.



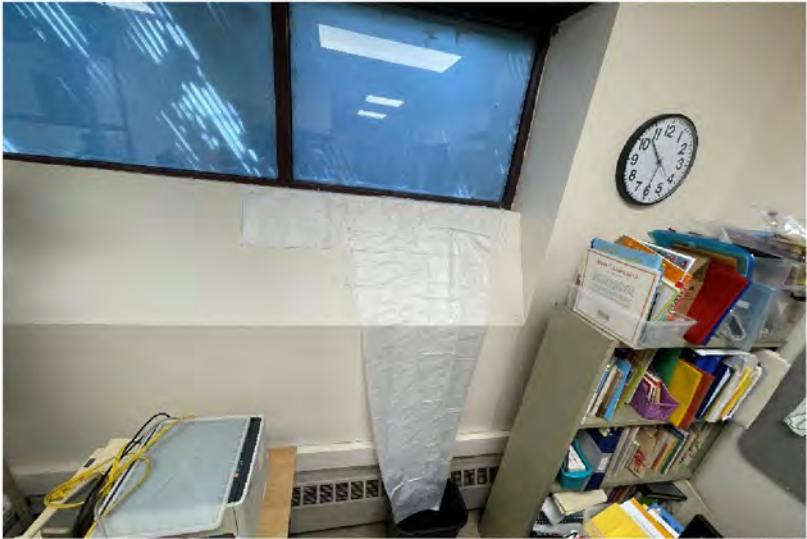
AE-46: Typical spalling concrete at retaining wall around East side of building



AE-43: Typical prefabricated EPDM flashing boot with failed lap sealant at perimeter. Note perimeter of boot is starting to become unadhered.



AE-44: Damaged guyline anchor post at flue: Note failed EPDM flashings around anchor.



AE-47: L01 Community Room: Interior leakage at perimeter of window located within lightwell below grating on South Elevation



AE-48: Interior of ceiling in Room 109, below roof drain where leakage occurs

OPINION OF PROBABLE REPAIR COST

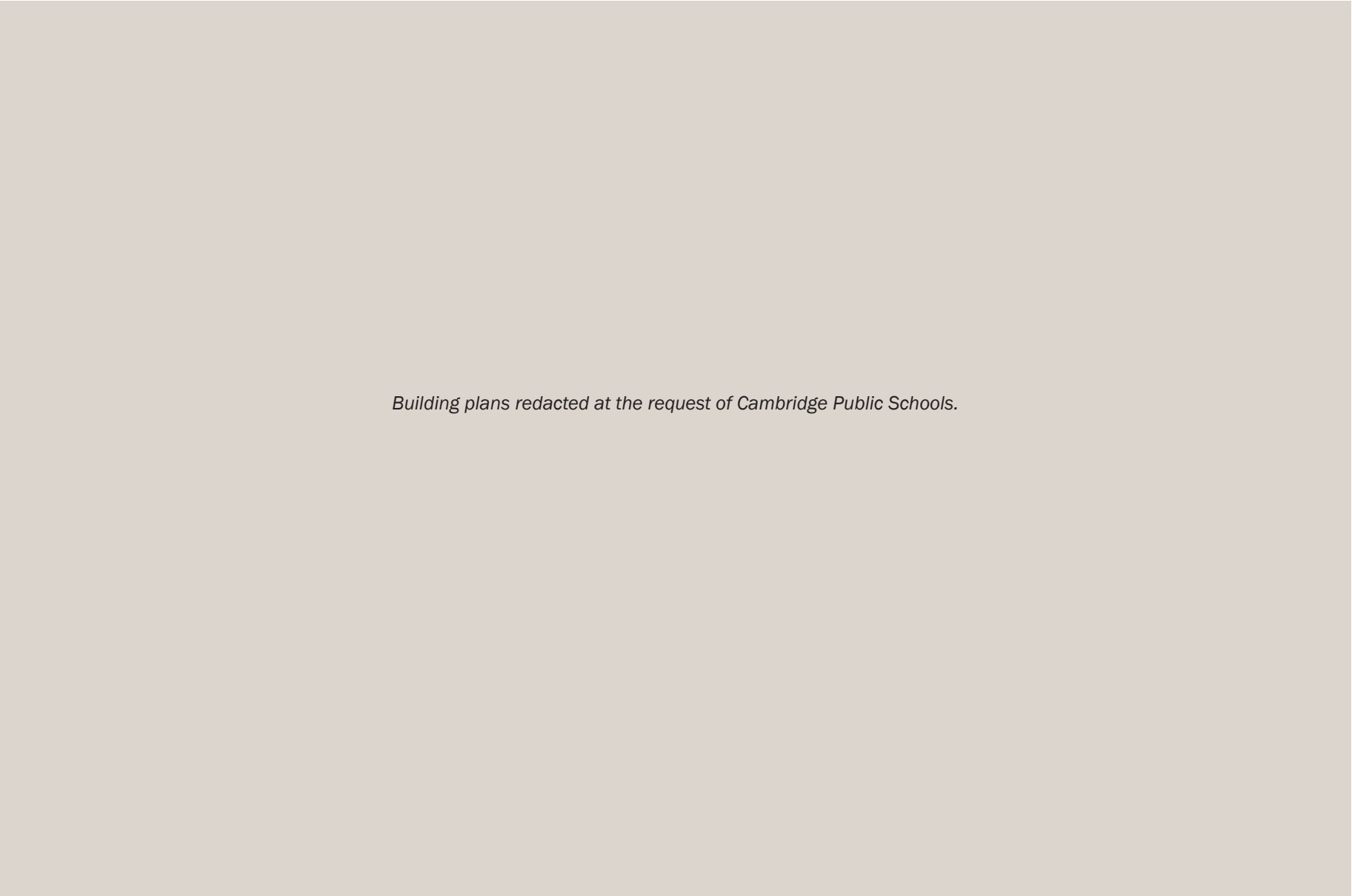
Rough Order of Magnitude Estimates

The rough order of magnitude cost estimation included in this phase is based on aspects of the building in need of repair or at the end of useful life to meet code, it does not necessarily include any intervention with the purpose of improving education or carbon/sustainability goals. This is used to identify from a cost perspective which location has the highest facility improvement need and then be used to compare to a replacement/new build cost.

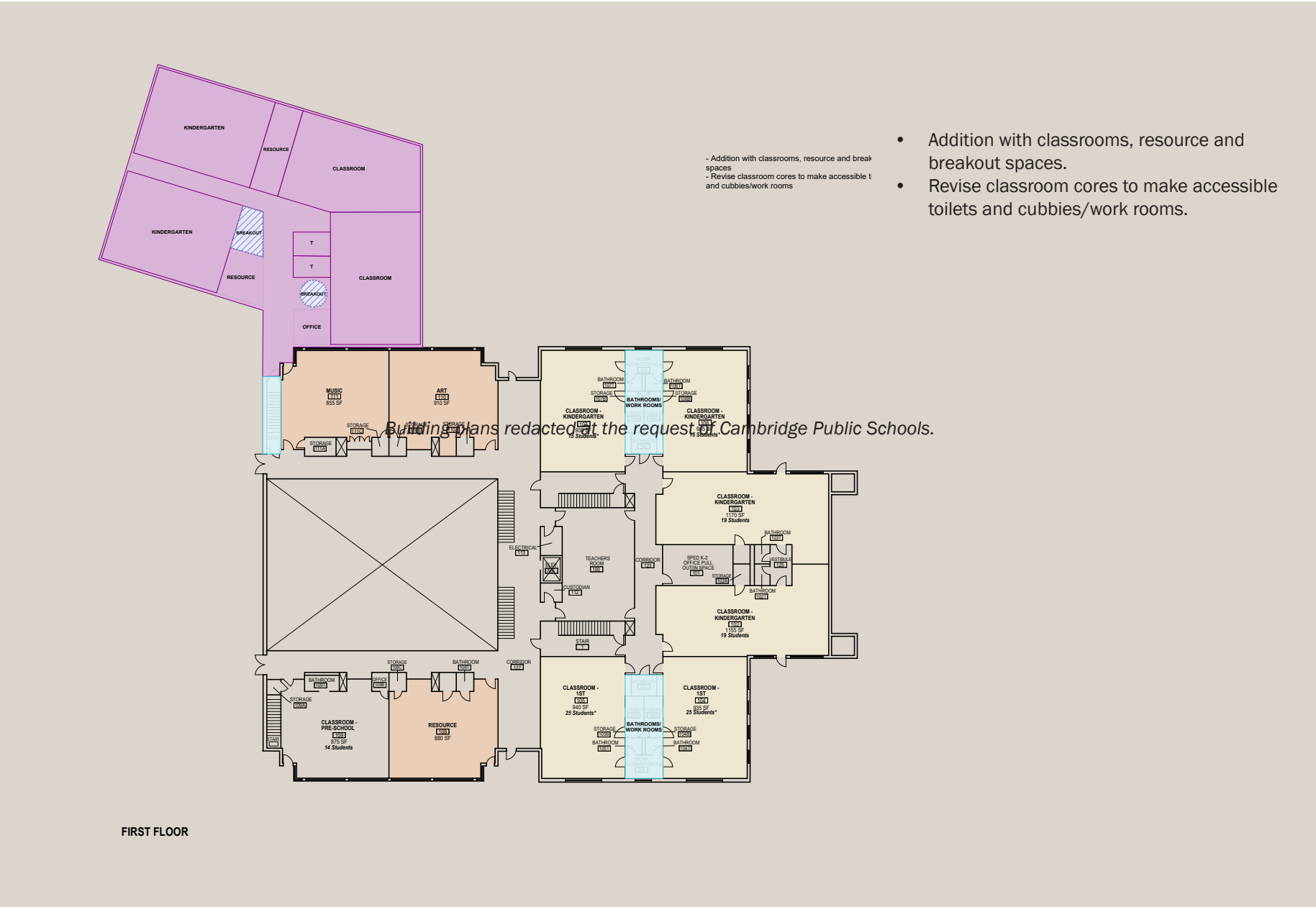
	Haggerty			
Gross Floor Area:	50,409			
No. of Students:	236			
Assessed Value:	\$20,761,700			
	Total Project Cost (\$)	Total Construction Cost (\$)	Total Project Cost (\$/GSF)	Total Project Cost (\$/Student)
ARCHITECTURAL - EXTERIOR (EXTERIOR WALLS)	\$ 3,636,487	\$ 2,754,914	\$ 72	\$ 15,409
ARCHITECTURAL - EXTERIOR (ROOFING)	\$ 3,033,340	\$ 2,297,985	\$ 60	\$ 12,853
ARCHITECTURAL - INTERIOR	\$ 679,106	\$ 514,474	\$ 13	\$ 2,878
ARCHITECTURAL - DOOR HARDWARE	\$ 39,908	\$ 30,233	\$ 1	\$ 169
ARCHITECTURAL - EQUIPMENT & FURNISHINGS	\$ 167,680	\$ 127,031	\$ 3	\$ 711
STRUCTURAL SYSTEM	\$ 1,452,532	\$ 1,100,403	\$ 29	\$ 6,155
FOOD SERVICE	\$ 105,345	\$ 79,807	\$ 2	\$ 446
CONVEYING SYSTEM	\$ 58,688	\$ 44,461	\$ 1	\$ 249
BUILDING SYSTEMS - PLUMBING	\$ 1,131,843	\$ 857,457	\$ 22	\$ 4,796
BUILDING SYSTEMS - HVAC	\$ 2,389,447	\$ 1,810,187	\$ 47	\$ 10,125
BUILDING SYSTEMS - FIRE PROTECTION	\$ -	\$ -	\$ -	\$ -
BUILDING SYSTEMS - ELECTRICAL	\$ 1,991,206	\$ 1,508,489	\$ 40	\$ 8,437
DEMOLITION & SPECIAL CONSTRUCTION	\$ 1,816,483	\$ 1,376,123	\$ 36	\$ 7,697
SITework	\$ 5,812,745	\$ 4,403,595	\$ 115	\$ 24,630
TOTAL	\$ 22,314,812	\$ 16,905,160	\$ 443	\$ 94,554

SITE/BUILDING INTERVENTION EXPLORATIONS

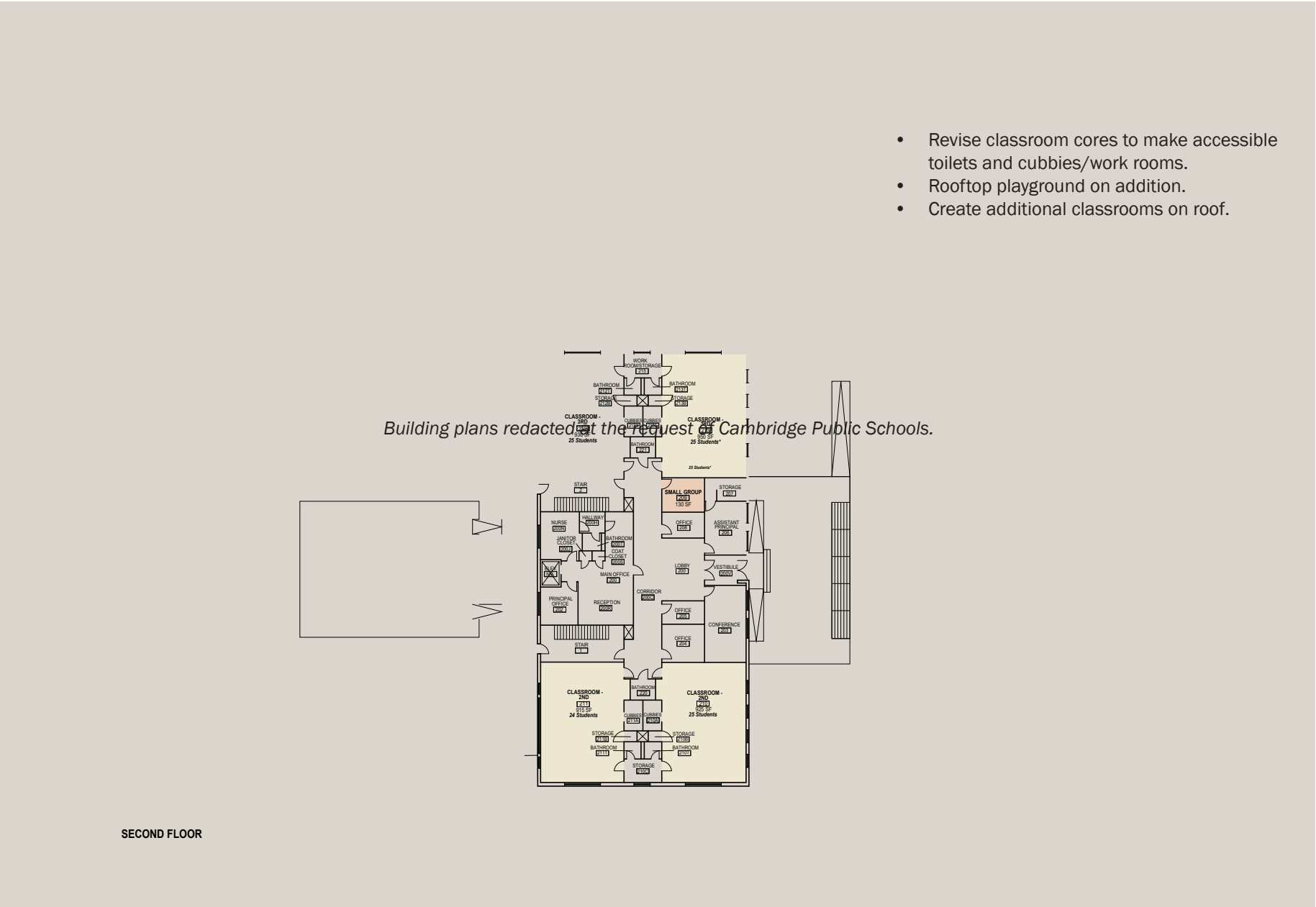
HAGGERTY SCHOOL - MAXIMUM INTERVENTION



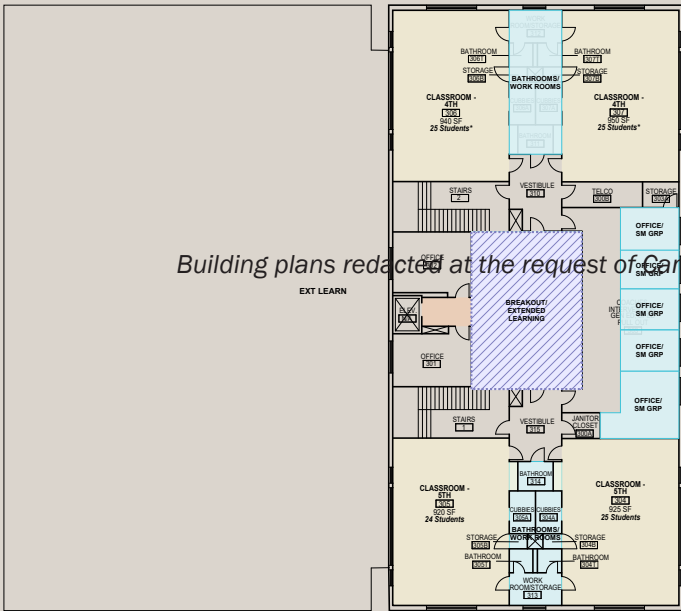
HAGGERTY SCHOOL - MAXIMUM INTERVENTION



HAGGERTY SCHOOL - MAXIMUM INTERVENTION



HAGGERTY SCHOOL - MAXIMUM INTERVENTION



- Revise classroom cores to make accessible toilets and cubbies/work rooms.
- Create extended learning/breakout space in current computer room and remove wall.
- Create small group rooms/offices in current pullout space.

- Revise classroom cores to m.
cubbies/work rooms
- Create extended learning/bre
- Create small group rooms/off
space

HAGGERTY SCHOOL - MAXIMUM INTERVENTION

Building plans redacted at the request of Cambridge Public Schools.

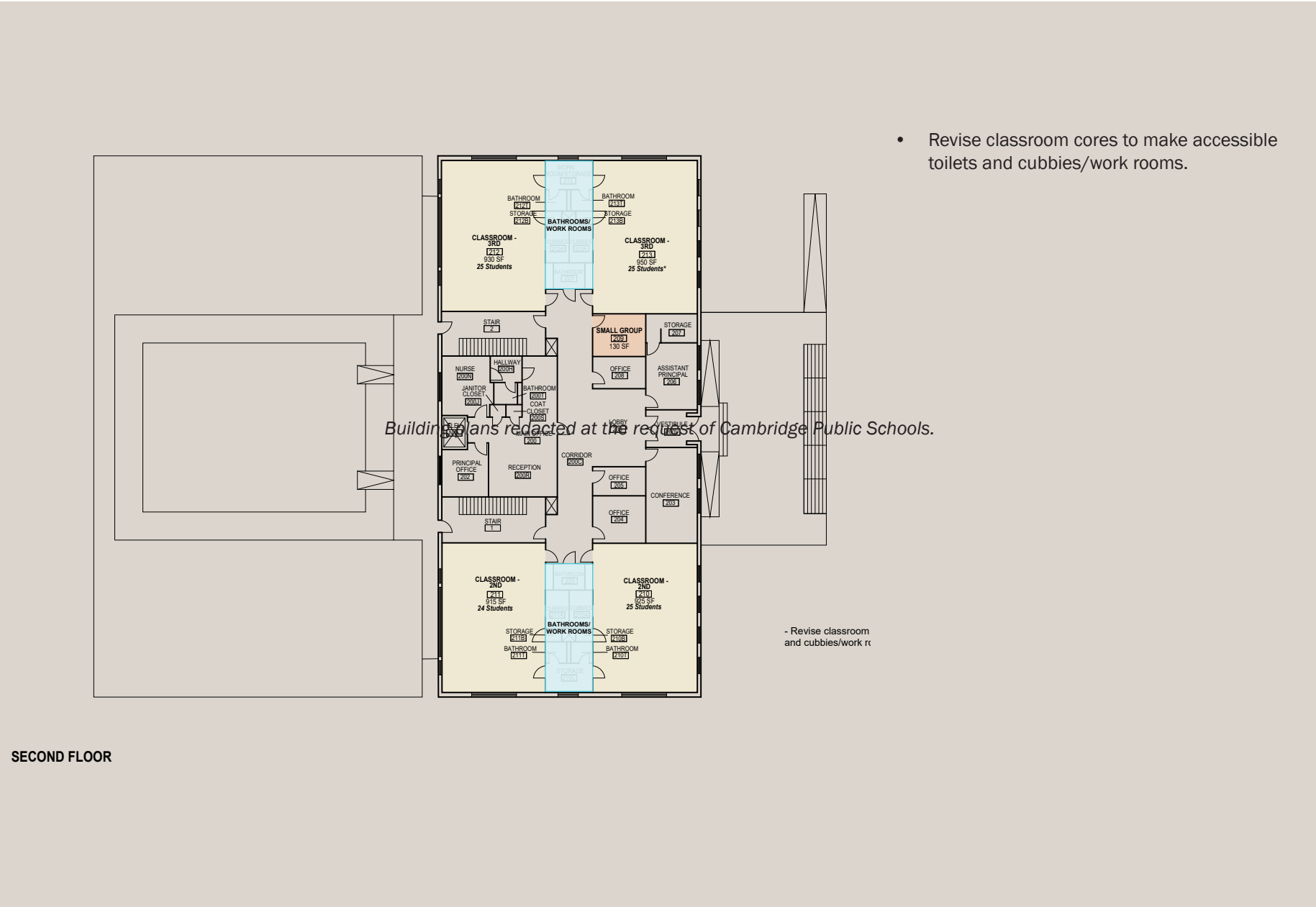
FACILITIES CONDITION ASSESSMENT, CAPACITY ANALYSIS, AND PLANNING RECOMMENDATIONS FOR CAMBRIDGE PUBLIC SCHOOLS



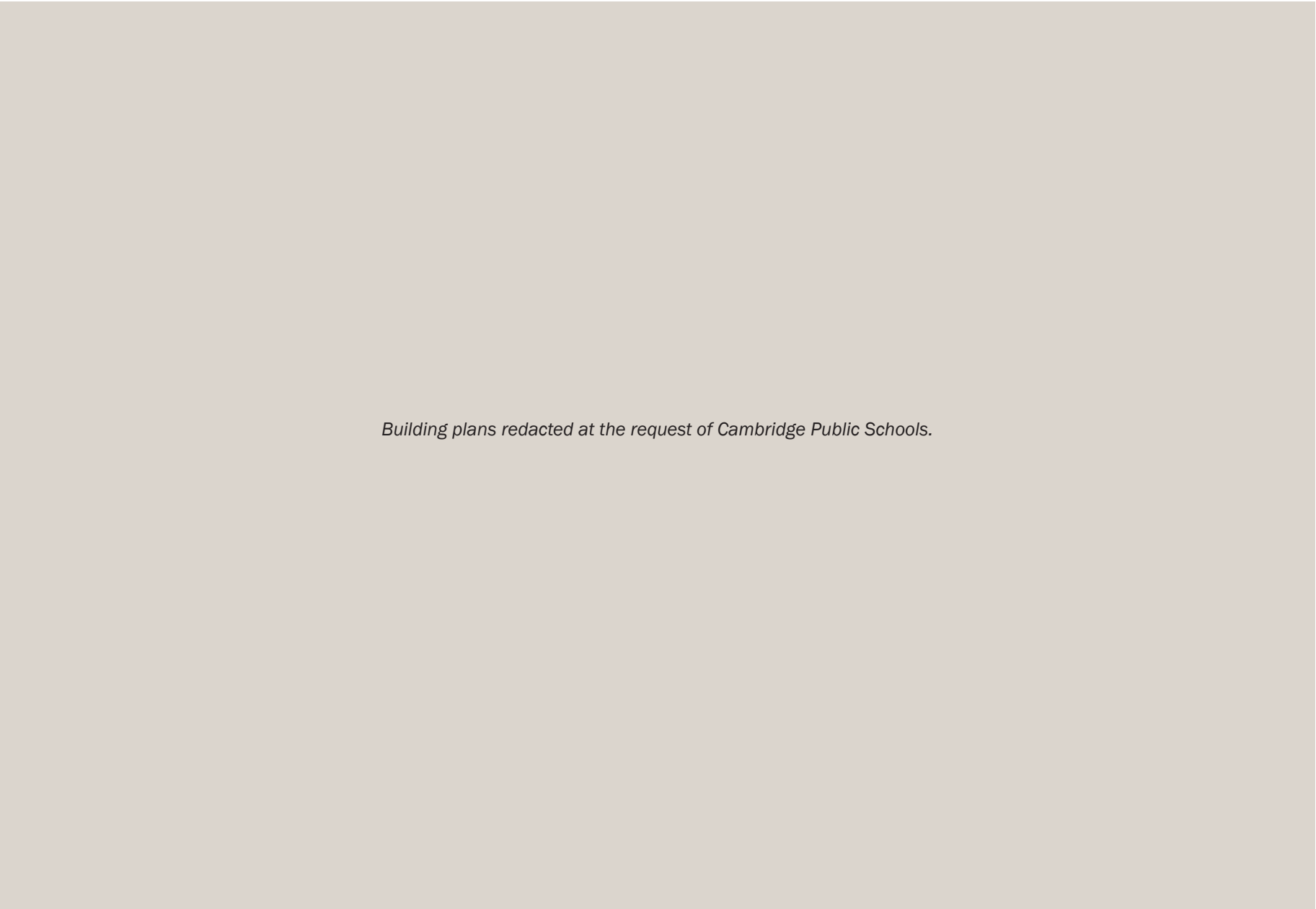
FACILITIES CONDITION ASSESSMENT, CAPACITY ANALYSIS, AND PLANNING RECOMMENDATIONS FOR CAMBRIDGE PUBLIC SCHOOLS
APPENDIX A - [PLANS REDACTED] | DLR GROUP

Building plans redacted at the request of Cambridge Public Schools.

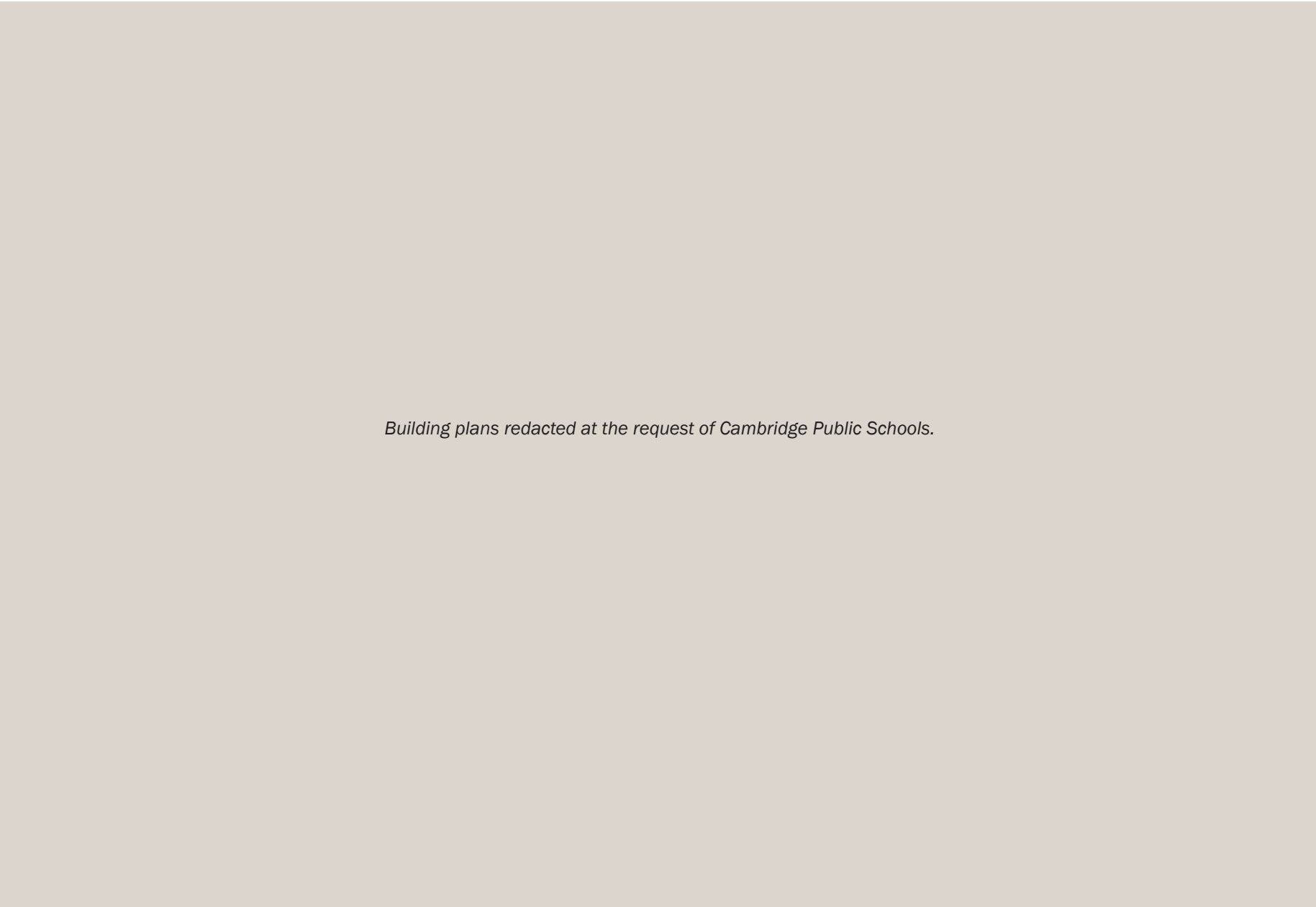
HAGGERTY SCHOOL - RECOMMENDED INTERVENTION



HAGGERTY SCHOOL - RECOMMENDED INTERVENTION

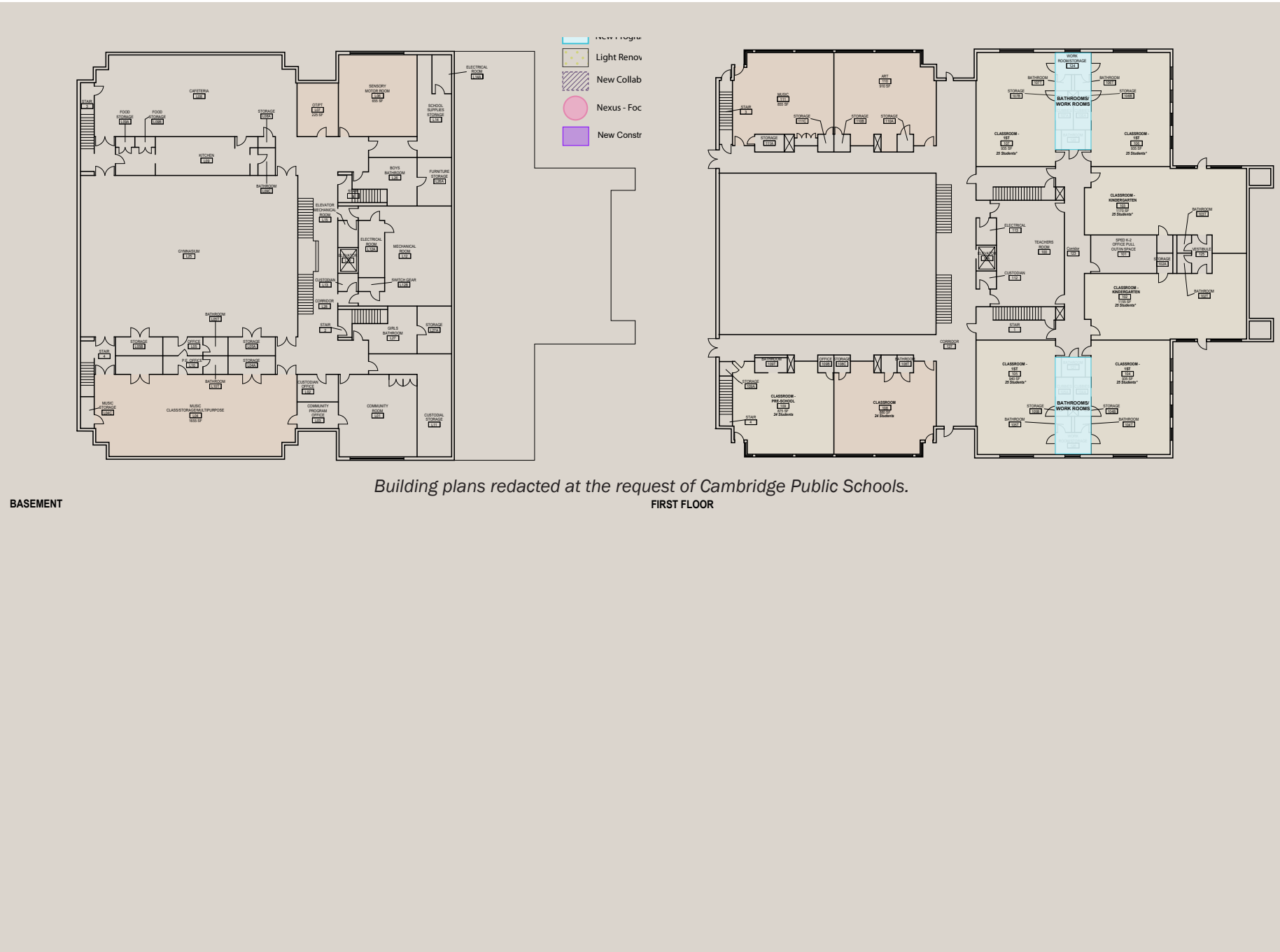


HAGGERTY SCHOOL - RECOMMENDED INTERVENTION



Building plans redacted at the request of Cambridge Public Schools.

KENNEDY-LONGFELLOW SCHOOL - DISCARDED OPTIONS





KENNEDY-LONGFELLOW BUILDING

158 Spring Street
Cambridge, MA 02141

Facilities Condition Assessment : October 14, 2022

Capacity Analysis
Master Plan

Facilities Condition Assessment, Capacity Analysis and Master Plan for CPS



CITY OF CAMBRIDGE
City Hall, 795 Massachusetts Avenue
Cambridge, MA 02139

DLR GROUP
33 E 33rd Street, Suite 401
New York, NY 10016

7.7 | KENNEDY-LONGFELLOW SCHOOL BUILDING APPENDIX

Historical Summary

The Kennedy-Longfellow School is located at 158 Spring Street, in Cambridge, MA. The current school is the result of the merger between the Longfellow School named for poet Henry Wadsworth Longfellow and the Robert F. Kennedy Elementary School (named this in mid 1973 after the attorney general). The building that now houses KLO was built in 1971, taking over the space after the third Thorndike School was demolished in 1968. It is a brick and concrete structure staying in line with the design standards of the time. The current building was determined to contain nonfriable ACBM.

The Kennedy-Longfellow School serves children in grades Junior Kindergarten through 5th grade. In addition to this curriculum, the building also houses a preschool program part of the Department of Human Service Programs for children 2.9-5 years of age.



Robert F. Kennedy School, 1969, Paul G. Feloney. Photograph 1972.