

TOWN OF SHREWSBURY
FACILITIES CONDITION ASSESSMENT OF
TOWN BUILDINGS

FINAL REPORT

June 01, 2016

**Shrewsbury
Walter J. Paton
School**

G | R | L | A

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Executive Summary

Gorman Richardson Lewis Architects and our consultants were retained by the Town of Shrewsbury to provide a comprehensive study of 10 Town-owned buildings with the goal to provide key information for each building outlining the condition of:

- Site and Landscape Elements
- Architectural Elements / Building Envelope Elements
- Structural Components
- Mechanical, Plumbing, Electrical and Fire Protection Systems / HAZMAT

This Final Report includes summaries of each building for the disciplines noted above, prioritization of the recommended repairs or replacement of any element or system and estimated costs for each on a 1-year, 5-year and 10-year basis to assist the town in its planning for capital improvements.

The architectural/ engineering team consists of:

- Waterman Associates – Site / Landscape
- Gorman Richardson Lewis Architects – Architecture and Building Envelope
- Structures North – Structural (as applicable)
- Weston and Sampson - Mechanical, Plumbing, Electrical and Fire Protection Systems / HAZMAT

The town-owned buildings addressed in the Report include:

	Building	Location	Size	Year	Additions	Renovations
1	Shrewsbury High School	64 Holden Street	296,000 sf	2002		
2	Oak Middle School	45 Oak Street	182,101 sf	1957	1981	2004
3	Floral Street Elem. School	57 Floral Street	94,000 sf	1997		
4	Spring Street Elem. School	123 Spring Street	37,200 sf	1967	1995 & 2000: 6 Modular Class Rooms	
5	Calvin Coolidge Elem. School	1 Florence Street	48,600 sf	1927	1940, 1969, & 1995: 4 Modular Class Rooms	1985

6	Walter J. Paton School	58 Grafton Street	39,103 sf	1950	2000: 3 Modular Class Rooms	
7	Shrewsbury Town Hall	100 Maple Avenue	36,319 sf	1966	1997	
8	Shrewsbury Senior Center	98 Maple Avenue	11,400 sf	2000		
9	Shrewsbury Fire Headquarters	11 Church Road	16,304 sf	2007		
10	Shrewsbury Police Station	106 Maple Avenue	17,485 sf	1971	1996	1996

Condition Assessment Matrix / Methodology

The objective of the Condition Assessment Matrix included in each section of the Report, is to provide a detailed summary of each condition/ deficiency observed regarding the aforementioned disciplines for each building, a level of priority as to when the condition should be addressed, a time-range relating to the remaining service life of the item, a commentary describing action (if any) to be taken, an approximate quantity and an estimate of cost to implement the recommended action:

- **Issue #:** Each observed condition is assigned an issue number relating to the floor level where it is located (*eg: 1F-17 = First Floor – Item 17*)
- **Discipline:** one of the 6 primary areas of concentration:
 - Architecture (Arch)
 - Building Envelope (Envelope)
 - Site/ Civil
 - Structural
 - Mechanical-Electrical-Plumbing-Fire Protection (MEP/FP)
 - Hazardous Materials (HazMat)
- **Location:** Specific room or area where the item is located in the building floor plan
- **System:** one of the 12 categories describing the type of building component being addressed (wall, ceiling, flooring, etc.)
- **Description:** detailed description of each observation
- **Photo #:** address of photo pertaining to the specific issue (as applicable)
- **PlanGrid Report #:** number of the PlanGrid Report included on the flash drive at the back of the binder, typically containing a photo of the item

- **Priority:** Low/ Medium/ High: a level of priority for addressing each condition
- **Service Life:** anticipated remaining service life of the component observed
- **Commentary:** Recommended action to be taken (if any)
- **Quantity:** quantity of the component/ system to be addressed and acted upon (*eg: 7,500 sf, 1 LS (Lump Sum), etc.*), used as a basis for the cost estimate
- **Cost Estimate:** estimate of anticipated construction cost to implement the recommended action within the timeframe relating to the level of priority and service life (including Contractors' General Conditions, fees, etc. and escalation factors relative to 2016 dollars).

GRLA and our consultants want to thank Bob Cox and the Town of Shrewsbury for the opportunity to work with you on this Facilities Condition Assessment. After having reviewed the information and findings herein, please contact us with any questions or follow-up information required.

Sincerely,

GORMAN RICHARDSON LEWIS ARCHITECTS, INC.



Scott Richardson, AIA, LEED AP

Principal

1. Building Summary / Narratives

- a. Waterman Design Associates
 - i. Site & Landscape
- b. Gorman Richardson Lewis Architects (GRLA)
 - i. Architecture - Interior
 - ii. Building Envelope
- c. Structures North
 - i. Structural
- d. Weston & Sampson
 - i. MEP/FP/Hazmat

2. Cost Matrices Summary

- a. Waterman Design Associates
 - i. Site & Landscape
- b. Gorman Richardson Lewis Architects (GRLA)
 - i. Architecture - Interior
 - ii. Building Envelope
- c. Structures North
 - i. Structural
- d. Weston & Sampson
 - i. MEP/FP/Hazmat

Appendix A: Floor Plans

Appendix B: Plan Grid Reference

Overview:

In this section of the Facilities Condition Assessment Report, Waterman Design Associates presents a summary of observations regarding the condition of Walter Paton Elementary School site, including commentary and recommendations for action to be taken. The observations are organized according to the following “categories” in order to address the various components comprising the existing condition of the Walter Paton Elementary School site:

1. General Site Conditions
2. Vehicular Entrances and Circulation
3. Parking Location, Arrangement, and Quantity
4. Pedestrian Circulation
5. Pedestrian Accessibility and MAAB Compliance
6. Loading Docks and Service Areas
7. Courtyards and Other Exterior Student Congregation Areas
8. Site Lighting For Building, Vehicular and Pedestrian Areas
9. Site Furnishings
10. Site Vegetation

General Site Conditions:

1. Observations:

- i. The Walter J. Paton Elementary School is located on Grafton Street adjacent to Single-family neighborhoods to the north, south and east, the Shrewsbury Electric Operations Center to the west, and athletic fields to the southeast. The residential properties and Electric Operations Center are all buffered by undeveloped woodlands and/or mature landscaping. The portion of the site populated by the existing building slopes to the west, and the western portion of the site has basement access at ground level. The site contains the school building, along with the associated vehicular and pedestrian circulation systems, student play areas and an outdoor learning area. There is one single-family home in the southeast corner of the site, buffered by a 3’ height chain link fence and mature landscaping.

Vehicular Entrances and Circulation:

B.

1. Observations:

- i. There is one main vehicular access route along Grafton Street, which only allows buses between the hours of 8:15-9:00 AM and 3:00-3:45 PM. There are also three access and egress routes along Municipal Drive. Bus drop off for the school occurs along the southern side of the School. Buses enter from Grafton Street, where they drop students off at the main entrance. Students either enter the school, or are escorted to the playground to gather, then the bus exits onto Municipal Drive. Bus pick-up occurs in the same fashion. Parents dropping of students enter from the central access route on Municipal Drive, release the students at the Play area, and exit at the northernmost egress route, where they are instructed to make a right turn onto Municipal Drive. Parents picking up enter from the southernmost driveway on Municipal Drive, enter the play area through a gate between the fence and the school, retrieve the student from the play area, and then exit through another gate, leaving the premises from the southernmost driveway then making a right turn onto Municipal Drive. This one-way circulation route attempts to minimize traffic conflicts on Municipal Drive and Grafton Street



WPS E 1

2. Commentary:

- i. The pavement condition of the vehicular entrances and interior circulation system ranges from good to fair throughout the site. There is some evidence of recent repairs and improvements to the vehicular circulation.

3. Recommendation:

- i. Implement a program of replacing damaged or worn pavement throughout the site.



WPS E2

Parking Location, Arrangement, and Quantity:

C.

1. Observations:

- i. Existing parking for faculty, staff and visitors is located in the southwest corner of the site, separated from the play area by a 4' height chain link fence. There exist approximately 65 striped spaces, including 5 accessible spaces, throughout the entire site

2. Commentary:

- i. All of the accessible parking spaces appear to comply with current MAAB standards
- ii. It is our understanding that the existing quantity of parking spaces is sufficient for normal school hours, and for after school functions.
- iii. The pavement condition of the parking areas range from good to fair throughout the site.

3. Recommendations:

- i. Maintain condition of accessible parking areas to ensure safety and continued MAAB compliance.
- ii. Implement a program of replacing damaged or worn pavement throughout the site.



WPS E3

Pedestrian Circulation:

D.

1. Observations: A paved bituminous sidewalk runs along the entirety of the frontage of the school property along Grafton Street. This sidewalk directly connects to an internal cement concrete sidewalk that leads to the Main building entrance, which constructed of bituminous concrete and cement concrete. There is a secondary bituminous concrete walk leading students off Grafton Street, around the north side of the building directly into the free play area at the rear of the school. From the free play area exist two main entrances into the building constructed of bituminous concrete, and there is a cement concrete walk connecting the two.

2. Commentary:

- i. i. The condition of the bituminous and Portland cement concrete pavement throughout the site ranges from fair to good.

3. Recommendation:

- i. i. Implement a program of replacing damaged or worn pavement throughout the site.



Grafton Street, around the north side of the



WPS E5

Pedestrian Accessibility and MAAB Compliance:

E.

1. Observations:

- i. A total of three (3) accessible parking spaces were identified within the property, located adjacent to the main entrance.

2. Commentary:

- i. All three (3) parking spaces, signage, access aisles and the accessible route from the faculty lot appear to comply with current MAAB standards.
- ii. On the north side of the school exists a compliant accessible ramp that is in good condition.
- iii. There is a compliant accessible route into the building from the free play area as well.

3. Recommendation:

- i. Maintain condition of accessible parking areas to ensure safety and continued MAAB compliance.
- ii. Maintain condition of accessible pedestrian routes to ensure safety and continued MAAB compliance.



WPS E6

Loading Docks and Service Areas:

F.

1. Observations:

- i. There is one (1) service area located at the south side of the building. The loading dock services a bay door and is in fair condition. There is also a step up from grade into the building at the loading door.

2. Commentary:

- i. Confirm that loading dock meets current needs of the building.
- ii. The step up to the loading door does not provide an MAAB compliant accessible route into the building, and also makes deliveries with a hand truck difficult.



WPS E7

3. Recommendations:

- i. Maintain pavement condition at loading area.
- ii. Implement a program to improve ease of access that brings the service door into compliance with current MAAB standards.

Courtyards and Other Exterior Student Congregation Areas:

G.

1. Observations:

- i. There exists one exterior courtyard for formal exterior student congregation. It is located at the west side of the school, accessed from both the interior and exterior of the building. The courtyard features an outdoor classroom and stage, set within mature landscaping. This courtyard area then transitions into the large asphalt free play area. Adjacent to the free play zone is an area with play structures. The surfacing beneath the structures is a combination of resilient rubber surfacing within the higher fall zones, and bark mulch in other areas. The three other sides of the school are surrounded by lawn, but no other formal gathering areas are present.

2. Commentary:

- i. The pavement in all of the exterior courtyards ranges from fair to good.
- ii. The playground surfacing appears to meet minimum fall height requirements and shall be characterized as good.

3. Recommendation:

- i. Implement a program of replacing damaged or worn pavement throughout the site.



WPS E8

- ii. Implement a program of continued maintenance to the play area surfacing, as natural wood mulch needs to be replenished frequently.



WPS E9

Site Lighting for Building, Vehicular and Pedestrian Areas:

H.

1. Observations:

- i. Exterior wall-mounted lighting exists at most entrance doors to the building. The parking areas are illuminated by a single pole mounted light fixture. The Playgrounds are also illuminated by pole mounted flood lights.

2. Commentary:

- i. Exterior lighting appears to sufficiently illuminate the site and building entrances to meet minimum safety requirements.

3. Recommendations:

- i. Implement a program of continued maintenance for the site lighting.

Site Furnishings:

I. 1. Observations:

- i. Several site furnishings exist within the vicinity of the school buildings. There is a flagpole located adjacent to the main building entrance. There is a building identification sign in the lawn area centered along the frontage of Grafton Street. There are two memorial benches set in the front lawn on the east side of the building. There are two (2) bicycle racks located adjacent to the main building entrance. Trash receptacles are located at the main building entrances at both the front and rear of the building. There is an outdoor classroom and stage area in the courtyard, which serves as a memorial to a former student. There are several picnic tables interspersed within the lawn areas throughout the site.



WPS E10

2. Commentary:

i. The flagpole does not appear to have an MAAB compliant accessible route.

3. ii. The signage is adequate and appears to be in good condition.

iii. The bicycle racks, benches, tables and trash receptacles appear to be accessible and are in fair condition, but are beginning to show signs of wear.

Recommendations:

i. Construct an MAAB compliant accessible route to the flagpole.

ii. Maintain condition of existing signage. iii. Implement a program of continued maintenance for all site furnishing as necessary throughout the site.

Site Vegetation:

J.

1. Observations:

i. The majority of the vegetation on site is matured and in good condition. The site is abutted to the north and south by existing mature vegetation. There exist a series of deciduous and evergreen trees interspersed throughout the front lawn along Grafton Street.

2. Commentary:

i. The landscaping in the courtyard is healthy, but overgrown. Some plants are encroaching on walkways and gathering spaces.

ii. The remainder of the site vegetation ranges from good condition (deciduous and evergreen trees) to fair (shrub plantings).

3. Recommendations:

i. Implement a maintenance program for plant materials that includes regular trimming, watering, and soil testing.

ii.

Building Summary

Walter J. Paton Elementary School

Address: 58 (62) Grafton Street, Shrewsbury, MA 01545
Constructed: 1950
Additions: 2000 (Modular Buildings)
Renovations:
2015 Assessed Value: \$4,034,500
(Building Only)

Building Characteristics

Gross Floor Area:
Lower Level (Basement): 3,370 gsf
First Floor: 22,977 gsf
Second Floor: 12,756 gsf
Total Building Area: 39,103 gsf

780 CMR Mass. Building Code:

Use Group Classification: E (Education); A-1 (Gymnasium/Cafeteria)
Construction Type: II-B (To be verified)

Building Envelope: *(see Building Envelope Section for more detailed information)*

Exterior Wall Assembly: Brick masonry veneer / Stucco at Masonry openings / Faux Brick Cladding at modular classrooms

Windows: Aluminum insulating (operable); Aluminum Curtain Wall

Roofing: Black Flat Membrane

HVAC: *(see MEP/FP Section for more detailed information)*

Heating Fuel: Natural gas / Steam Heating System

Fire Protection: 0% automatic sprinkler system



Architecture - Interior

Overview:

In this section of the Facilities Condition Assessment Report, Gorman Richardson Lewis Architects (GRLA) presents a summary of observations regarding the condition of the interior architecture of the Paton Elementary School, including commentary and recommendations for action to be taken. The observations are organized according to the following “categories” in order to address the various components, systems and issues comprising the existing condition of the Paton Elementary School:

1. Walls
2. Ceilings
3. Flooring
4. Doors
5. Windows/ Glazing
6. Casework/ Furnishings
7. Equipment
8. Mechanical Fixtures
9. Electrical/ Lighting Fixtures
10. Plumbing Fixtures
11. Code Issues
12. General

The Paton Elementary School is a split-level building which contains three distinct levels: Basement Floor (*Lower Level*), First Floor, and Second Floor. The main public entrance via a ramp and/or steps on the south side of the building accesses directly to the First Floor which houses the administration offices and access to the cafeteria, kitchen and teacher work spaces. A short flight of stairs provides access to the upper level of the first floor which houses the majority of the school building classrooms. The Second Floor houses additional classroom spaces and toilet rooms and is access by either the two stair halls or the elevator at the main entrance lobby. As for the basement, it is only a partial basement as much of the building footprint at that level was not excavated. That level can be accessed by either set of stairs at the West end of the main corridor off the entrance lobby. The basement houses the boiler room, storage, staff breakroom and additional specialty classrooms.

Originally constructed in 1950, Paton Elementary School has been in service for 65 years and is reasonably maintained. An addition was completed in 2000 to include three modular classrooms to the north side of the building. Aside from finishes, elevator addition and exterior window replacement, the building

interior architecture appears to be original. As an elementary school with over 360 students—grades 1 thru 4--as well as approximately 30 faculty and facility personnel, the school building is heavily used for 10 months of the year. The areas of the building most used by the student body—main corridors, classrooms, restrooms, and cafetorium/gymnasium—show more wear and tear than the administration areas of the building.

In general, the interior of the building appears to be functioning as intended with reasonable wear and tear of finishes appropriate to the age of the building and the type (elementary age) and number of occupants. However, due to the age of some of the finishes and furnishings, the wear and tear is more severe than observed at other, more newly renovated schools in the town. Specifically, the metal lockers are extremely worn and have clear signs of corrosion inside and outside of the units. Secondly, the cafetorium floor and wood door assemblies throughout the building appear to be heavily worn due to age. As noted in the Conditions Assessment Matrix included in this report, specific as well as general deficiencies are noted with recommendations for remediation (repair or replacement).

It is understood that the building permit for latest Paton Elementary School addition was issued after February 28, 1997 (*effective date of 780 CMR 6th Edition*), and therefore, the building design and construction reflect the requirements of that edition. Nonetheless, a number of deficiencies regarding the requirements of the current Massachusetts State Building Code (780 CMR-8th Edition) and Massachusetts Architectural Access Board code (521 CMR) were observed and noted in the “Code Issues” and “ADA” categories of this assessment report. Although these conditions may have been allowed at the time the building was permitted and constructed, they are included in the assessment report for information purposes and may require corrective action triggered by future renovation projects or if deemed by the Authority Having Jurisdiction (typically the building official or fire department official) to pose a hazard to occupants or the public. In addition, any deficiencies regarding handicap accessibility and conformance with the Americans with Disabilities Act (ADA) may require immediate action.

The issues addressed in each Narrative category below are further itemized in the attached Condition Assessment Matrix with priority level, remaining service life (1 year/ 5 years/ 10 years) and associated costs for repair or replacement included for each issue. At the bottom of each matrix is a summary of the costs-- by building-- for each of the service life time periods, providing a summary of anticipated costs—by building—for capital planning purposes for the next 10 fiscal years: 2017 through 2026.

Methodology:

During the summer and fall of 2015, GRLA visited the Paton Elementary School on multiple occasions and made visual observations of the condition of the interior architecture of the building, including walls, ceilings, flooring, doors, windows/glazing, casework/furnishings, miscellaneous equipment, mechanical-electrical-plumbing finish components and fixtures, as well as code issues regarding building code and accessibility code. Being among the older town-owned school buildings, a full structural assessment of the Paton Elementary School was required and includes significant structural issues or deficiencies noted during the observation effort.

Facilities Condition Assessment

PlanGrid:

Information gathering, field notes and photography for this section of the Conditions Assessment Report were accomplished using PlanGrid, a web-based “punch-list” tool utilizing an iPad. Floor plans (pdf format) of each level were uploaded to the PlanGrid program. Symbols representing observations of existing conditions by each of the twelve categories noted above were located on each floor plan. A “pop-up” page associated with each symbol provided a means to describe each observation, identify its location within the floor plan and include multiple photos. The “pop-up” pages could then be retrieved and sorted by category into individual PlanGrid Reports, providing detailed information for each observation. The PlanGrid Reports for each building, by category, are included on the flash drive included in the back of the Report binder. In addition, the number of the PlanGrid Report associated with each observation is noted in the “PlanGrid” column of the Conditions Assessment Matrix.

This section addressing the condition of the Architecture Interior is followed by sections addressing:

- Site/ Civil
- Building Envelope
- Structural
- Mechanical, Electrical, Plumbing and Fire Protection (MEP/FP) /Hazardous Materials

Conclusion

The **Architecture-Interior** of the Paton Elementary School building is primarily functioning as intended. Specific deficiencies and end-of-service-life issues are addressed in detail within the Condition Assessment Matrix.

Among the more notable issues of concern are included:

- Deficiencies regarding doors, frames and associated hardware
- Deficiencies regarding kitchen area and associated equipment
- Deficiencies regarding exterior window hardware, finish, operation and thermal performance
- Deficiencies regarding conformance to requirements for handicap accessibility
- Deficiencies regarding metal lockers
- Deficiencies regarding use and condition of Cafetorium/Gym
- Deficiencies regarding exterior egress pathways from classrooms.
- Prevalence of wire glass throughout building

Building Envelope

Overview:

In this section of the Facilities Condition Assessment Report, GRLA Building Envelope Sciences presents a summary of observations regarding the condition of the building envelope systems at the Walter J. Paton School, including commentary and recommendations for action to be taken. The observations are organized according to the following “categories” in order to address the various components, systems and issues comprising the existing condition of the structure:

1. Roofs
2. Exterior Walls
3. Windows

Methodology:

GRLA visited the Walter J. Paton School on August 27 and August 31, 2015, and made visual observations of the condition of the building envelope systems. GRLA made observations from the ground using binoculars and from accessible roof areas. GRLA also made observations of representative interior areas.

ROOFS

1. Observations:

- i. The Walter J. Paton School has low slope roofs with adhered EPDM membrane over mechanically attached insulation.
- ii. EPDM strip flashing is split at isolated joints in the coping.
- iii. There are isolated sections of damaged metal roof edge coping.
- iv. There are isolated areas of unadhered EPDM and blistered strip flashing.
- v. There are isolated areas of raised insulation fasteners and damaged EPDM.
- vi. The chimney masonry is deteriorated and has efflorescence.

2. Commentary:

- i. Isolated damage (e.g. gaps in roofing materials, raised fasteners) may present a leakage risk in the short term.
- ii. The chimney may be unstable.

3. Recommendations:

- i. Repair isolated damage as soon as possible. Implement a program of annual inspections.
- ii. The chimney requires close-up inspection to determine if it is stable. Rebuild unstable portions.
- iii. Plan to replace 100% of roofing in approximately 10 years (2026).

EXTERIOR WALLS

1. Observations:

- i. The exterior walls are brick and stone veneer walls with stucco panels around some windows. There is also a “temporary” addition with PVC cladding.
- ii. Sealants at wall transitions, penetrations, stucco panel joints, and expansion joints are typically failed.
- iii. Mortar joints are typically deteriorated.
- iv. Many areas of masonry are cracked and displaced.
- v. Stucco and PVC claddings are damaged and deteriorated in many locations.
- vi. The west elevation wood stairs, railing, and platform are unstable.
- vii. The north elevation concrete steps are deteriorated, and the guardrail post is corroded.

2. Commentary:

- i. Sealants require frequent replacement and should be considered an ongoing maintenance item. Cracked and deteriorated masonry may become a falling hazard if not repaired.

- ii. Damaged and deteriorated claddings may present a leakage risk in the short term.
- iii. Unstable wood and concrete entrances are safety hazards.

3. Recommendations:

- i. Replace failed sealants; plan ongoing replacement approximately every 5-10 years.
- ii. Rout and point deteriorated mortar joints.
- iii. Investigate cracked and displaced masonry to determine the cause of cracking and movement. Remove any loose masonry as an interim measure. Repair cracks by routing and sealing (moving cracks) or pointing (static cracks). Secure masonry to backup structure with restoration anchors as required.
- iv. Repair and replace damaged stucco and PVC claddings. Plan for periodic replacement of damaged sections, particularly in areas clad with PVC.
- v. Repair wood stairs, railing, and platform immediately.
- vi. Patch deteriorated concrete steps, and replace guardrail.

WINDOWS**1. Observations:**

- i. Windows are predominantly aluminum framed, with both operable and fixed sashes.
- ii. There are several corroded steel lintels above windows.
- iii. Sealants at window perimeters are failed in isolated locations.

2. Commentary:

- i. Corroded lintels expand, causing the surrounding brick to crack. The deteriorated masonry and continued lintel corrosion may present a falling hazard.
- ii. Sealants require frequent replacement and should be considered an ongoing maintenance item.

3. Recommendations:

- i. Replace corroded lintels with new galvanized lintels, and repair surrounding brick masonry.
- ii. Replace failed sealants; plan ongoing replacement approximately every 5-10 years.

Refer to the GRLA Building Envelope Conditions Assessment Matrix for additional detail regarding observations and recommended repairs.

StructuralOverview:

In this section of the Facilities Condition Assessment Report, Structures North presents a summary of observations regarding the condition of the exterior masonry and interior structural systems at the Walter J Paton School, including commentary and recommendations for action to be taken. The observations are organized according to the following “categories” in order to address the various components, systems and issues comprising the existing condition of the structure:

1. Exterior Masonry
2. Interior Structural Framing

EXTERIOR MASONRY**1. Observations:**

- i. The Paton School is constructed of brick faced concrete unit masonry exterior walls. The noted damage on the exterior of the building most commonly involves the effects of rusting embedded metal.

2. Commentary:

- i. The brickwork is shifted and cracked because of rusting steel lintels. (See Photo 1)
- ii. The brickwork is shifted and cracked brickwork because of rusting steel beams. (See Photo 3)
- iii. The mortar joints are eroded.
- iv. The areas of damaged concrete is caused by rusting railing anchors. (See Photo 4)

3. Recommendations:

- i. Replace all rusting embedded steel lintels.
- ii. Exposed, clean and painted rusted beam ends.
- iii. Cut and point eroded mortar joints with a compatible mortar.
- iv. Clean and paint, or replaced rusted anchors and repair concrete.

INTERIOR STRUCTURE**4. Observations:**

- i. The building is composed of a steel frame with concrete floor slabs and glazed concrete unit masonry interior partitions.

5. Commentary:

- i. No comments.

6. Recommendation:

- i. No Recommendations.



Photo 1: Rust Jacking Vent Lintel (See S-4)



Photo 2: Damaged Stone Window Sill (See S-10 and S-19)



Photo 3: Damaged Brick Masonry from Embedded Steel (See S-13)



Photo 4: Damaged Concrete Ramp (See S-24)

Overview:

In this section of the Facilities Condition Assessment Report, Weston & Sampson presents a summary of observations regarding the condition of Walter Paton School site, including commentary and recommendations for action to be taken. The observations are organized according to the following “categories” in order to address the various components comprising the existing condition of the Walter Paton School site:

1. Electrical
2. HVAC
3. Plumbing
4. Fire Protection
5. Hazardous Materials

Electrical

1. Observations:

- i. Main service is 400A at 208/120V, 3-phase, 4-wire. (The main service is currently being upgraded as part of the HVAC upgrades to the school)



WJP E1 Main Electric Service



WJP E2 Distribution Equipment

- ii. Lighting is fluorescent throughout the school
- iii. Lighting controls is via motion sensors and wall mounted switches.

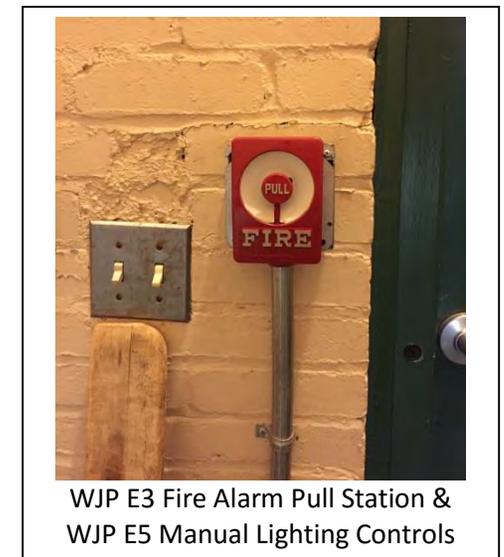


WJP E4 Recessed Fluorescent Lighting

- iv. Emergency lighting is from battery pack units.



- v. Fire alarm is a Gamewell addressable system



2. Commentary:

i. Main Electrical Service

The building is served by a single electrical service rated 400 amperes, 208Y/120volts, 3-phase, 4-wire and is located in the main electrical room. This service appears to be undersized for the facility use. The main service is currently being upgraded as part of the HVAC upgrades to the school. The service equipment consists of utility company pole mounted transformer and utility company meter with an underground feed to the building to a 400amp main disconnect and main distribution panel located in the main electrical room. All electrical distribution equipment is manufactured by Cutler Hammer. The main distribution panel feeds additional 120/208V panelboards located throughout the facility. The predominance of the main distribution equipment is in fair condition.

There are a number of electrical panels located throughout the facility that are fed from the distribution panelboard. The panel boards do not have spare circuit breakers available for new circuits to be added, or include the space to add new circuit breakers. The panelboards are in fair to poor condition.

ii. Lighting

The lighting throughout the facility consists of surface mounted 2 lamp wraparound fluorescent T8 32w fixtures in all mechanical and electrical type spaces. The lighting in all classrooms consist of 2' x 4', 3-lamp fluorescent acrylic lens troffers. The lighting in all new mobile classrooms consist of 2'x4', 3-lamp fluorescent parabolic fixtures. All lighting within the corridors consist of 2'x4', 2-lamp direct/indirect fixtures and 2' x 4', 3-lamp fluorescent acrylic lens troffers. All lighting within offices consist of 2' x 4', 3-lamp fluorescent acrylic lens troffers and 2'x2', U-lamp fluorescent parabolic fixtures. All lighting throughout the facility is controlled with manual wall switches. The lighting throughout the facility appears to be in fair condition. The light levels appear to be within recommended levels.

Gym lighting consists of (12) 2x4 3-lamp 32W T8 recessed lensed fixtures. The GYM is also used as the Cafeteria.

Emergency lighting is provided via wall mounted battery pack units. The battery pack units appear to be in good condition.

Battery powered exit lighting is installed throughout the facility, and is in good condition.

iii. Fire Alarm

The fire alarm system is a Gamewell system. There are manual fire alarm pull stations, horn strobes located throughout the building. Heat and smoke detectors are present throughout the facility. The fire alarm system horn strobes, heat and smoke detectors appears to be in good condition. Manual fire alarm pull stations appear old and outdated.

iv. Clock System

The existing clock system is in good condition and there have been no reported problems to date.

v. Paging System

The existing paging system is in good condition and there have been no reported problems to date.

vi. Security System

The existing security system is in good condition and there have been no reported problems to date.

3. Recommendations:

- i. Replace all fluorescent fixtures with new LED fixtures for energy savings
- ii. Replace (8) existing manual fire alarm pull stations with new.
- iii. Replace all existing manual lighting controls with new automatic lighting controls to meet current energy codes
- iv. Replace all power distribution equipment. Including the main distribution panel and the 5 panelboards located throughout the school.
- v. Main electric room is in code violation. The main electric room is currently also being used for storage and does not have the minimum code required clearance of 3' in front of all electrical panelboards and equipment.

HVAC

1. Observations:

- i. Heating for the building is by two dual fired cast iron sectional steam boilers
- ii. Newer boiler feed unit
- iii. Newer Condensate Receiver pumps
- iv. Pneumatic controls. ATC compressor running constantly.
- v. Combination of cast iron radiators and unit ventilators

2. Commentary:

- i. The majority of the HVAC equipment is original to a 1999 renovation

3. Recommendations:

- i. New HVAC system is being currently designed.

Plumbing

1. Observations:

i. Fixtures:

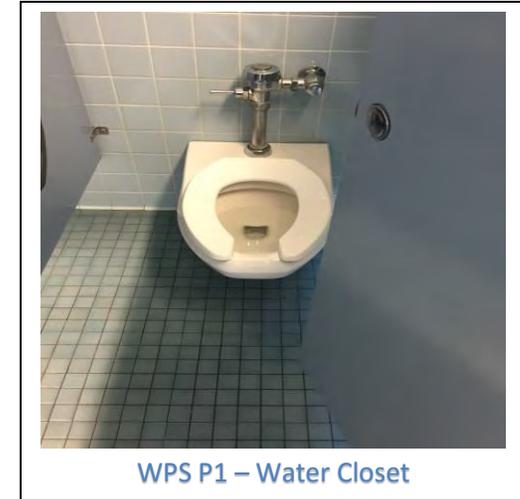
- Water closets are wall mounted vitreous china and have manual flush valves.
- Urinals are wall mounted vitreous china and manual flush valves.
- Lavatories are wall hung vitreous china and single handle faucets.
- Drinking fountains are wall mounted stainless steel units.

2. Commentary:

- #### i.
- The majority of the plumbing fixtures are original to a 1999 renovation in good condition.

3. Recommendations:

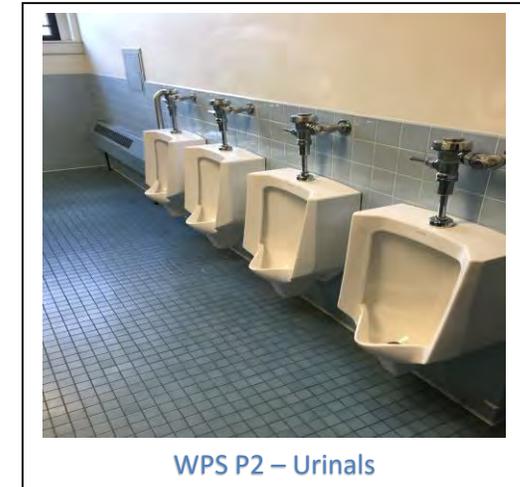
- #### i.
- Replace existing water closets flush valves with automatic flush valves.
- #### ii.
- Replace existing urinals flush valves with automatic flush valves.
- #### iii.
- Replace existing lavatories faucets with automatic faucets



WPS P1 – Water Closet



WPS P3 – Lavatory



WPS P2 – Urinals

Fire Protection

1. Observations:

- i. Building is not sprinkled.

2. Commentary:

- i. Building is not sprinkled.

3. Recommendations:

- i. Install Fire Protection system per NFPA 13

Hazardous Materials

1. Observations:

i. Asbestos-Containing Materials

Numerous suspect asbestos-containing materials were observed within the building, including but not limited to: gypsum board, floor tile, resilient flooring, acoustical ceiling tile, molded cove base, duct sealant, caulk, etc. All materials were observed to be in generally good condition.

ii. Other Hazardous Materials

Fluorescent light fixtures are present throughout the building. Other materials present include hydraulic door closers and exit lights. All materials were observed to be in generally good condition.

2. Commentary:

i. Asbestos-Containing Materials

The building has undergone renovations in the past with various asbestos-containing materials being removed or encapsulated. Asbestos-containing floor tile and associated mastics, pipe fitting insulation and glue daubs remain within the school in various locations.

ii. Other Hazardous Materials

Fluorescent light fixtures contain small amounts of mercury. Fluorescent light ballasts often contain polychlorinated biphenyls (PCBs) or Diethylhexyl Phthalate or Di (2-ethylhexyl) phthalate (DEHP). Hydraulic door closers often contain oils. Exit lights historically contained batteries. None of these materials typically present hazards unless they are damaged.

3. Recommendations:

i. Asbestos-Containing Materials

The Massachusetts Department of Environmental Protection (DEP) revised asbestos regulation, effective June 20, 2014, requires that any Suspect Asbestos-Containing Material be sampled by a Massachusetts Department of Labor Standards (DLS)-certified asbestos inspector prior such materials being impacted by renovation or demolition. Alternatively, materials may be assumed to contain asbestos. We recommend that any suspect asbestos-containing materials expected to be impacted by renovation or demolition be sampled prior to disturbance. Also, the building falls under the EPA Asbestos Hazard Emergency Response Act (AHERA) that requires school districts to

inspect their schools for asbestos-containing building material and prepare management plans and to take action to prevent or reduce asbestos hazards. The AHERA plan should be consulted prior to any renovation as it may contain laboratory analytical results.

However, AHERA regulations do not require sampling of exterior building materials and also concealed materials may exist in several locations at the building. Roofing materials under EPDM roofing, façade damp-proofing, paper under wood flooring, door caulk, basement window caulk and roof caulk are all suspect asbestos-containing materials that may be present at the building. The following is a list of confirmed or potential asbestos-containing materials found at the building.

Material	Location	Approximate Quantity	Condition
Floor tile and associated mastics	Various areas	30,000 SF	Good
Façade damp-proofing	Exterior	11,800 SF	Good
Door caulk	Exterior	225 LF	Good
Window caulk/glazing	Exterior	400 LF	Good
Roof caulk	Exterior – roof at penetrations/transitions	250 LF	Good
Roofing materials	Exterior – roof	17,000 SF	Good
Paper under wood flooring	Stage	500 SF	Good
Pipe fitting insulation	Chases, wet walls	200 ea.	Good

ii. Other Hazardous Materials

The fluorescent light fixtures and ballasts, door closers and exit lights may require special handling and disposal should they require removal from the building. The following is a summary of such materials found at the building.

Material	Approximate Quantity
Fluorescent light bulbs	800
Fluorescent light ballasts	400
Hydraulic door closers	50
Exit light batteries	35

Walter J. Paton School - Total Estimated Costs

Consultant	Discipline	Cost Estimate		
		1 yr	5 yr	10 yr
Waterman Design Associates	Site & Landscape		\$168,046	\$190,646
Gorman Richardson Lewis Architects	Architecture	\$321,890	\$1,480,860	\$784,691
Gorman Richardson Lewis Architects	Building Envelope	\$155,572	\$114,098	\$1,656,661
Structures North	Structural		\$21,655	\$135,282
Weston & Sampson	MEP/FP/Hazmat	\$43,472		\$3,592,680
	Total	\$520,934	\$1,784,659	\$6,359,960

Condition Assessment Matrix

BUILDING:		WALTER PATON ELEMENTARY SCHOOL															
AREA:		Site/Landscape															
Issue #	Discipline	Location	System	Description	Photo #	PlanGrid Report #	Priority			Service Life			Commentary	Quantity	Cost Estimate		
							Low	Med	High	2017	2018 to 2021	2022 to 2026			1 yr	5 yr	10 yr
SL-1	Site/Landscape	Varies	Vehicular Entrances and Circulation	The pavement condition of the vehicular entrances and interior circulation system ranges from good to fair throughout the site.			X					X Phased	Implement a program of replacing damaged or worn pavement throughout the site. (assumes 2500 sf for each period)	5,000 S.F.		\$32,585	\$38,570
SL-2	Site/Landscape	Varies	Parking Location, Arrangement, and Quantity	The pavement condition of the parking areas mirrors that of the vehicular entrances, ranging from good to fair throughout the site, with some evidence of recent repairs.			X					X Phased	Implement a program of replacing damaged or worn pavement throughout the site. (assumes 2500 sf for each period)	5,000 S.F.		\$32,585	\$38,570
SL-3	Site/Landscape	Varies	Pedestrian Circulation	The condition of the bituminous and Portland cement concrete pavement throughout the site ranges from good to fair throughout.			X					X Phased	Implement a program of replacing damaged or worn pavement throughout the site. (assumes 1500 sf for each period)	3,000 S.F.		\$19,551	\$23,142
SL-4	Site/Landscape	Varies	Loading Docks and Service Areas	The step up to the loading door does not provide an MAAB compliant accessible route into the building, and also makes deliveries with a hand truck difficult.			X					X Phased	Implement a program to improve ease of access that brings the service door into compliance with current MAAB standards.	1 L.S.		\$6,517	\$7,714
SL-5	Site/Landscape	Varies	Courtyards and other Student Congregation Areas	The pavement in all of the exterior courtyards ranges from fair to good.			X					X Phased	Implement a program of replacing damaged or worn pavement throughout the site. (assumes 2500 sf for each period)	5,000 S.F.		\$32,585	\$38,570
SL-6	Site/Landscape	Varies	Site Lighting for Building, Vehicular and Pedestrian Areas	Exterior lighting appears to sufficiently illuminate the site and building entrances to meet minimum safety requirements.			X					X Phased	Implement a program of continued maintenance for the site lighting. (assumes 10 lights per phase)	1 L.S.		\$9,310	\$11,020
SL-7	Site/Landscape	Varies	Site Furnishings	The flagpole does not appear to have an MAAB compliant accessible route.			X					X Phased	Construct an MAAB compliant accessible route to the flagpole. (assume 30' path)	1 L.S.		\$6,983	
SL-8	Site/Landscape	Varies	Site Vegetation	The landscaping in the courtyard is healthy, but overgrown. Some plants are encroaching on walkways and gathering spaces.			X					X Phased	Implement a maintenance program for plant materials that includes regular trimming, watering, and soil testing	1 L.S.		\$13,965	\$16,530

Condition Assessment Matrix

BUILDING:		WALTER PATON ELEMENTARY SCHOOL															
AREA:		Site/Landscape															
Issue #	Discipline	Location	System	Description	Photo #	PlanGrid Report #	Priority			Service Life			Commentary	Quantity	Cost Estimate		
							Low	Med	High	2017	2018 to 2021	2022 to 2026			1 yr	5 yr	10 yr
SL-9	Site/Landscape	Varies	Site Vegetation	The condition of the remaining site vegetation ranges from good to fair for all canopy tree and shrub plantings.			X					X Phased	Implement a maintenance program for plant materials that includes regular trimming, watering, and soil testing	1 L.S.		\$13,965	\$16,530
															1 yr	5 yr	10 yr
Site / Landscape Building Cost Total														\$0	\$168,046	\$190,646	

Condition Assessment Matrix

BUILDING:		Walter J. Paton Elementary School															
AREA:		Lower Level															
Issue #	Discipline	Location	System	Description	Photo #	PlanGrid Report #	Priority			Service Life			Commentary	Quantity	Cost Estimate		
							Low	Med	High	2017	2018 to 2021	2022 to 2026			1 yr.	5 yr.	10 yr.
LL-1	Arch	Lower Level	Walls	CMU wall as fissure cracks near cut-in opening of door.	SEE APPENDIX B PHOTO FOLDER	230		X				X	Evaluate integrity of CMU wall opening and patched wall assembly. Monitor crack for movement; patched wall area as required if crack has stabilized.	30sf of CMU			\$2,793
LL-2	Arch	Lower Level - Boiler Room	Ceiling	Various ceiling tiles are either missing, soiled or in disrepair. Age of ceiling tiles may indicate asbestos material.		231	X					X Phased	It is recommended that the ceiling tiles be tested asbestos contamination. Pending final test results, remediation or repair of ceiling area is warranted. Further evaluation of potential fire separation requirements of ceiling assembly is recommended.	798sf			
LL-3	Arch	Lower Level - Stair 1	Doors	Wire glass in doors and does not appear properly labeled.. Doors on holdbacks. No Rating on frame or doors. Door finish stained and delaminated. Frame finish is heavily gouged.		232		X				X	Evaluate requirement for fire separation and replace doors/frames/hardware for code compliance. Evaluate wired glass rating and replace as required to meet safety standards.	(2) 3'w x 7'h door			\$10,427
LL-4	Arch	Lower Level	Doors	Door and frame appear to be fire rated. However, actual rating not discernible. No door stop, door strikes piping. Wireglass in one door does not appear to have safety glass designation and date of install is not readily available.		232		X				X	Further evaluation of the door and frame rating is required to confirm compliance with required fire separation of door assembly. Provide door hardware as required to prevent striking shelving and piping. Evaluate wired glass rating and replace as required to meet safety standards.	4 doors / 19 sf of tempered glass / 4 wall stops			\$7,495

Condition Assessment Matrix

BUILDING:		Walter J. Paton Elementary School															
AREA:		Lower Level															
Issue #	Discipline	Location	System	Description	Photo #	PlanGrid Report #	Priority			Service Life			Commentary	Quantity	Cost Estimate		
							Low	Med	High	2017	2018 to 2021	2022 to 2026			1 yr.	5 yr.	10 yr.
LL-5	Arch	Lower Level - Elec Room	Doors	Door does not appear to be rated. Door binds on frame and will not fully close.		232		X			X		Evaluate requirements for door rating. Replace with applicable rated metal or wood door and associated frame.	(1) 3'x7' door		\$5,214	
LL-6	Arch	Lower Level - Stair 4	Doors	Door and frame does not appear to be fire rated. Door on holdback. Door does not latch.		232		X			X		Certify door and frame rating or replace with code compliant wood/metal door and frame assembly.	(1) 3'x7' door		\$5,214	
LL-7	Arch	Lower Level - Boiler Room	Doors	Boiler room door and frame do not appear to be fire rated as would be required by applicable building codes due to nature of mechanical room.		232		X			X		Remove and replace door and frame assembly with applicable fire rated door/frame assembly and associated hardware.	(1) 3'x7' door and HM frame with associated hardware		\$5,214	
LL-8	Arch	Lower Level - Lemay CR	Casework	Counter top delaminated and doors/drawers do not have required hardware for operation.		233			X		X		Remove and replace laminated counter top. Evaluate users of casework and installed ADA required hardware as needed for proper operation.	11 lf of counter and casework (base and upper cabinets)	\$2,842		
LL-9	Arch	Lower Level - Break Room	Casework	Base and wall cabinet doors do not fully close and latch.		233	X				X		Adjust and/or replace cabinet doors and hardware as required for proper operation and latching.	13lf of base / 13lf of upper cabinets		\$3,631	
LL-10	Arch	Lower Level - Stair 1	Mech	Wall mounted radiator finish worn and no protective cover present.		234	X				X		Refinish radiator as required for aesthetic purposes. Install protective measures to prevent students from being exposed directly to the higher head radiant elements.	1		\$1,862	

Condition Assessment Matrix

BUILDING:		Walter J. Paton Elementary School																
AREA:		Lower Level																
Issue #	Discipline	Location	System	Description	Photo #	PlanGrid Report #	Priority			Service Life			Commentary	Quantity	Cost Estimate			
							Low	Med	High	2017	2018 to 2021	2022 to 2026			1 yr.	5 yr.	10 yr.	
LL-11	Arch	Lower Level - Stair 1	Code Issue	Stored items, shelving and equipment in stair area/corridor.		235			X	X			Remove and relocate equipment, shelving and stored items out of area of stair and exit access. Due to code requirements to minimize potential hazards and obstructions, the storage of combustible and loose materials at or near a main means of egress poses a life safety hazard.	62sf				\$4,712
LL-12	Arch	Lower Level - Elec Room	Code Issue	No fire alarm or exit sign evident in room.		235			X	X			Install fire alarm and exit sign as required by code.	1 each				\$912
LL-13	Arch	Lower Level - Break Room	Code Issue	No fire alarm or exit sign evident in room.		235			X	X			Install fire alarm and exit sign as required by code.	1 each				\$912
LL-14	Arch	Lower Level - Boiler Room	Code Issue	Handrail not code compliant; separate guardrail not present.		235		X			X		At time of original construction, guard/handrail may have been compliant. Per current standards, railing is too low and handrail is not continuous as required, on both sides.	40lf (both steel stairs)				\$13,779
LL-15	Arch	Lower Level - Boiler Room	Code Issue	Egress to exterior has large step; concrete stair is heavily chipped and deteriorated. No handrail present at stair.		235		X			X		Evaluate egress stair heights. Remove and replace three concrete risers to repair and adjust the stairs for code compliance. Install handrail on both sides of stair.	3' x 4' concrete stairs with 5lf retaining wall				\$18,620
LL-16	Arch	Lower Level - Boiler Room - Exterior	Code Issue	Guardrail at stair retaining wall to low for compliance.		235		X			X		Remove and replace painted steel pipe guardrail with code compliant painted steel type.	12lf of railing				\$4,134

Condition Assessment Matrix

BUILDING:		Walter J. Paton Elementary School															
AREA:		Lower Level															
Issue #	Discipline	Location	System	Description	Photo #	PlanGrid Report #	Priority			Service Life			Commentary	Quantity	Cost Estimate		
							Low	Med	High	2017	2018 to 2021	2022 to 2026			1 yr.	5 yr.	10 yr.
LL-17	Arch	Lower Level - Boiler Room	Code Issue	No illuminated exit signs present at egress points in boiler room.		235			X	X			Installed code compliant illuminated exit signs at both egress doors.	2 signs	\$2,052		
LL-18	Arch	Lower Level - Boiler Room Toilet	General	Existing toilet room floor fixtures and general state appear soiled filthy and poorly lit.		Refer to Photos	X					X	Evaluate need for maintaining toilet room. Sanitize surfaces, fixtures and ceiling. Repair ceiling and patch pipe penetrations.	60 sf space			\$1,653
LL-19	Arch	Lower Level	ADA	Door threshold not code compliant at egress point to exterior. Height is above code allowance.		237			X	X			Install slope concrete ramp at exterior to transition egress landing to exterior grade.	3'long by 5' wide concrete sloped walkway	\$3,800		
LL-20	Arch	Lower Level - Kitchen	ADA	Handrails and egress clearance at stair is not ADA/MAAB compliant. Stair rise height and tread depth are out of compliance with building code.		237			X	X			Consult with AHJ for acceptability of corrective action. Remove and replace wood handrail with code compliant metal assembly. Remove or modify flight of stairs to meet riser height and tread depth requirements.	3' wide concrete stair (9 risers) / 24lf of handrail	\$11,400		
LL-21	Arch	Stair 1 - North Egress	ADA	Exterior landing of egress stair is not ADA/MAAB compliant		237			X	X			Provide code compliant concrete ramp and associated railing from egress door to exterior grade.	30' long 5' wide ramp and 60lf of railing	\$28,500		
LL-22	Arch	Lower Level - Office	Code Issue	Door and access to office does not appear ADA and MAAB compliant. Casework desk area appears to obstruct proper access clearances. Per current ADAAG guidelines, Employee work areas are required to have accessible access to space.		237			X	X			Relocate office to properly sized space; reduce desk length to provide code required code access; enlarge existing room to meet code required access to space.	63 sf	\$3,800		

Condition Assessment Matrix

BUILDING:		Walter J. Paton Elementary School															
AREA:		Lower Level															
Issue #	Discipline	Location	System	Description	Photo #	PlanGrid Report #	Priority			Service Life			Commentary	Quantity	Cost Estimate		
							Low	Med	High	2017	2018 to 2021	2022 to 2026			1 yr.	5 yr.	10 yr.
LL-23	Arch	Lower Level - Stair 1	General	Screen missing from hopper window assemblies.		Refer to Photos	X					X	Install new screen assemblies to existing window openings.	21sf		\$2,151	
LL-24	Arch	Lower Level - Classroom	General	Custodian advised that room floods with mud on occasions during inclement weather.		Refer to Photos		X			X		Further investigation of water/mud intrusion is necessary. Breaching in flue or subgrade could be leaching into room during inclement weather. Sump pump system or flue cap may be possible solutions.	Stainless flue cap/Sump Pump Installation / 4 yds of concrete excavation and stone backfill	\$11,400		
LL-25	Arch	Lower Level - Basement Storage	General	Room ceiling tile is missing and may be contaminated (asbestos)		Refer to Photos	X					X	Test ceiling materials for contamination; remediate as required. Given use of work, urgent action is not warranted unless ceiling is disturbed.	106sf			
LL-26	Arch	Lower Level - Boiler Room Exterior	General	Exterior stairs, guardrail and concrete at egress door/ landing is heavily deteriorated.		Refer to Photos		X			X		Remove and replace concrete materials and assemblies. Replace handrail/guardrails as required.	See LL-15, LL-16			
LL-27	Arch	Lower Level - Boiler Room	General	Room floor is damp and full of water. Sump pump may not be operational.		Refer to Photos		X			X		Remove water from floor, verify source of water. Inspect sump pump for operation and repair/replace as required. Slope floor with concrete repair material for proper drainage of water to pump/drain locations.	(1) sump pump / 798sf of floor space	\$13,665		
															1 yr.	5 yr.	10 yr.
													Architectural Lower Level Cost Total		\$83,995	\$80,532	\$1,653

Condition Assessment Matrix

BUILDING:		Walter J. Paton Elementary School																
AREA:		First Floor																
Issue #	Discipline	Location	System	Description	Photo #	PlanGrid Report #	Priority			Service Life			Commentary	Quantity	Cost Estimate			
							Low	Med	High	2017	2018 to 2021	2022 to 2026			1 yr.	5 yr.	10 yr.	
FF-1	Arch	First Floor	Walls	Surface cracks in GWB, and plaster wall/ceiling finishes; Damaged paint finish on door frames, doors.	SEE APPENDIX B PHOTO	238	X				X	Phased	Implement a program of repainting of painted wall and interior door frame surfaces, doors, plaster walls and vinyl wall base. Repainting program may be divided into primary areas of the building spread over a 5- to 7-year period such	22,977sf (net total)		\$171,133	\$202,565	
FF-2	Arch	First Floor Exterior	Walls	Wall stones loose.		238	X				X	Phased	Implement a program for replacing/repairing stone veneer along ramp and landing.	30lf		\$2,095	\$2,480	
FF-3	Arch	First Floor	Walls	Floor tile cracked in toilet		238	X				X	Phased	Implement a program repairing cracked wall tiles through restroom facilities.	162sf (1/3 of 492sf total)		\$2,564	\$3,035	
FF-4	Arch	First Floor - CR 5	Walls	Window jamb appears rotted and wall board has water damage.		238		X		X			Repair wall area and window jamb. Further evaluation of water infiltration is warranted to find leak.	6sf	\$456			
FF-5	Arch	First Floor - CR 5 CR 2 CR 4	Walls	Wall at door jamb appears to have water damage.		238	X				X		Repair wall area at door jamb. Refinish to match existing wall surface.	36sf		\$3,352		
FF-6	Arch	First Floor - CR 21	Walls	Generally, the wall finish has some wear and delamination. Does not appear paintable.		238	X					X	Implement FRP wall maintenance program to clean/repair and refinish wall surfaces in annex classrooms.	814sf (1/3 of total 2466sf floor space)			\$35,881	

Condition Assessment Matrix

BUILDING:		Walter J. Paton Elementary School															
AREA:		First Floor															
Issue #	Discipline	Location	System	Description	Photo #	PlanGrid Report #	Priority			Service Life			Commentary	Quantity	Cost Estimate		
							Low	Med	High	2017	2018 to 2021	2022 to 2026			1 yr.	5 yr.	10 yr.
FF-7	Arch	First Floor	Ceilings	Acoustical ceiling tiles (ACT) are soiled and stained from water leaks and missing in various areas.		239	X				X	Phased	Implement a program of replacing soiled and damaged ceiling tiles to maintain high quality appearance of spaces. Consider use of cleanable tiles near HVAC diffusers to allow for cleaning of dust/ dirt buildup.	22,977sf (net total)		\$106,958	\$126,603
FF-8	Arch	First Floor	Floor	Entry vestibule walk off mat is worn.		240	X				X		Remove and replace walk off mat. Replace with removable vinyl or rubber for more durability and cleaning.	81sf		\$7,541	
FF-9	Arch	First Floor	Floor	Cafeteria floor appears well maintained but due to age and use has noticeable signs of wear and soft spots from age.		240	X					X	Remove existing finish and resurface floor. Evaluate soft spots and replace worn boards or subfloor as required.	2195sf total			\$49,587
FF-10	Arch	First Floor	Floor	Kitchen area floor is heavily worn and has been patched with mismatched floor tiles.		240	X				X		Remove and replace vinyl floor tile with slip resistant anti-microbial tile flooring.	650 sf		\$7,413	
FF-11	Arch	First Floor	Floor	Sheet carpet is worn and stained in high traffic areas		240	X				X		Replace carpet in area at end of serviceable life. Consider replacing with carpet tile for ease of selective replacement.	4200sf		\$31,282	
FF-12	Arch	First Floor	Doors	Numerous wood doors have delaminated veneer, binding operation, missing hardware and non code compliant vision panels.		241	X				X		Remove and replace various doors and frames as required. Install code required door hardware and vision glass for required operation and function.	38 wood doors (3/4 of single door total)		\$141,512	

Condition Assessment Matrix

BUILDING:		Walter J. Paton Elementary School															
AREA:		First Floor															
Issue #	Discipline	Location	System	Description	Photo #	PlanGrid Report #	Priority			Service Life			Commentary	Quantity	Cost Estimate		
							Low	Med	High	2017	2018 to 2021	2022 to 2026			1 yr.	5 yr.	10 yr.
FF-13	Arch	First Floor - Stair 3 / Stair 2	Doors	Fire rated door and frame does not have gasket and has wired glass installed.		241	X				X		Verify certification of wire glass. Replace with code compliant rated and tempered glass. Install code compliant gasket at door frame.	3 single door		\$2,793	
FF-14	Arch	Stair 3	Doors	Door does not fully close.		241	X			X			Repair and adjust door to operate properly.	1 door	\$1,520		
FF-15	Arch	First Floor	Doors	Various doors have wired glass that do not appear to be labeled safety glass.		241	X				X		Implement program to verify and/or replace wired glass with code compliant tempered safety glass at hazardous locations.	125sf of glass / 25 doors		\$17,456	
FF-16	Arch	First Floor	Doors	Various doors have knob type hardware.		241			X	X			Replace knob type hardware with ADA compliant lever style hardware.	10 doors (1/5 of total doors)	\$12,540		
FF-17	Arch	First Floor - CR 2	Doors	Exterior hm door frame has extensive damage at lower jamb from what appears to be corrosion.		241		X			X		Repair/patch or replace door frame completely. Paint to match existing.	1 HM exterior door frame (3'x7')	\$684		
FF-18	Arch	First Floor - Entry Vestibule	Door	Main entry doors have worn finish, hardware is mix-matched and loose.		241		X			X		Remove and replace door hardware and door system at end of serviceable life.	2 pair Alum. Doors and frames		\$13,034	
FF-19	Arch	First Floor	Window	Numerous window openings have punctured, stretched or missing screens at operable sashes.		242		X			X		Implement program to inspect and replace damaged screens at all exterior openings, on a continual basis. Window assemblies appear in serviceable condition.	1650 sf of aluminum screen (1/2 of total screen)		\$199,700	

Condition Assessment Matrix

BUILDING:		Walter J. Paton Elementary School															
AREA:		First Floor															
Issue #	Discipline	Location	System	Description	Photo #	PlanGrid Report #	Priority			Service Life			Commentary	Quantity	Cost Estimate		
							Low	Med	High	2017	2018 to 2021	2022 to 2026			1 yr.	5 yr.	10 yr.
FF-20	Arch	First Floor	Window	Window shades appear worn and tattered in some spaces.		242	X					X	Replace inoperable/deteriorated shades as needed. Expect to replace approximately 1/3 to 1/2 of the shades and associated hardware over the next 7-10 years due to wear.	17 shades for 1/2 of windows (6'x6' average size)			\$11,240
FF-21	Arch	First Floor	Casework	Classroom shelving appears structurally sound, but finish is generally worn and chipped.		243	X				X	Phased	Implement a program to update shelving finish and inspect for damaged or broken parts on a continual basis. Remove loose and worn paint. Refurbish shelving as needed for appearance and finish repair. Refinish as required.	516lf of multi-tier shelving with painted finish		\$14,412	\$17,059
FF-22	Arch	First Floor	Casework	Counter-tops in classroom appear generally worn and are heavily delaminated in some spaces.		243	X				X	Phased	Replace counter tops in classroom with laminated material as required.	336lf (counter top total)		\$31,282	\$37,027
FF-23	Arch	First Floor	Casework	Various wood window sills are worn and split due to sun exposure, water intrusion and age.		243	X				X	Phased	Replace worn and split wood window sills. Refinish to match existing.	126lf of wood window stool (1/3 of window stool total)		\$3,519	\$4,166
FF-24	Arch	First Floor - Kitchen	Casework	Work surface in kitchen pass thru window work and heavily delaminated.		243	X				X		Replace counter top in its entirety.	18lf		\$5,698	
FF-25	Arch	First Floor	Fixed Furnishings	Metal lockers are heavily rusted. Interior and exterior finish is heavily worn.		244	X				X		Implement program to refurbish or replace metal lockers in their entirety.	240lf		\$89,376	

Condition Assessment Matrix

BUILDING:		Walter J. Paton Elementary School															
AREA:		First Floor															
Issue #	Discipline	Location	System	Description	Photo #	PlanGrid Report #	Priority			Service Life			Commentary	Quantity	Cost Estimate		
							Low	Med	High	2017	2018 to 2021	2022 to 2026			1 yr.	5 yr.	10 yr.
FF-26	Arch	First Floor	Fixed Furnishings	General state of toilet partitions is aged with signs of corrosion at panel seams. Hardware has signs of wear and loose parts.		244	X					X	Refurbish or replace corroded and unserviceable painted metal toilet partitions. Replace aged/unserviceable hardware.	36lf of toilet stalls			\$13,224
FF-27	Arch	First Floor	Equipment	Segmental door at kitchen counter finish is heavily worn. Operation was not verified.		245	X				X		Refinish or replace segmented door at end of serviceable life.	18lf		\$6,703	
FF-28	Arch	First Floor	Mach	Metal heater/vent covers have heavily worn finish and exposed rust.		246	X				X		Due to current level of finish deterioration, it is recommended to refinish the cover assemblies in the next 1-3 years.	180lf		\$10,055	
FF-29	Arch	First Floor - Kitchen	Mech	Heat load in kitchen appears too high for current exhaust/extraction system		246	X				X		Due to nature of complaints, the exhaust system requires further evaluation and possibly replacement.	Engineering Evaluation of Commerical Exhaust system for 650sf		\$4,655	
FF-30	Arch	First Floor - Annex	Mech	Unit filters in ceiling mounted system appear heavily soiled.		246			X	X			Replace filters on a continual basis as required by equipment manufacturer.	(2) 3x2 filters	\$1,064		
FF-31	Arch	First Floor - Kitchen	Mech	Slant fin radiant heating element missing cover. Fins are exposed and could be damaged or contact staff.		246		X			X		Install slant fin cover to protect staff and radiant heat system from damage.	12lf		\$2,234	
FF-32	Arch	First Floor	Mech	Various classrooms have loose pipe insulation.		246	X					X	Re-secure or replace pipe insulation as required.	30lf			\$3,306
FF-33	Arch	First Floor - Stair 2	Elec	Exit sign not installed at egress door.		247			X	X			Install illuminated exit sign at exterior egress door from stairwell.	1	\$1,026		

Condition Assessment Matrix

BUILDING:		Walter J. Paton Elementary School															
AREA:		First Floor															
Issue #	Discipline	Location	System	Description	Photo #	PlanGrid Report #	Priority			Service Life			Commentary	Quantity	Cost Estimate		
							Low	Med	High	2017	2018 to 2021	2022 to 2026			1 yr.	5 yr.	10 yr.
FF-34	Arch	First Floor	Elec	Most classrooms have surface mounted electrical raceway with what appears to be non-tamperproof electrical receptacles.		247		X			X		NEC requires that tamperproof electrical be installed in elementary schools. Confirm shutter/tamperproof mechanism exists or replace receptacles entirely with code-compliant electrical receptacles.	576lf of wireway with outlets 12" o.c.		\$32,175	
FF-35	Arch	First Floor	Elec	CR 4 has electrical device that is missing cover.		247		X		X			Replace cover to prevent inadvertent contact with electrical current.	(1) 4"x2" plastic cover	\$228		
FF-36	Arch	First Floor	Code Issue	Entry ramp and elevated landing guardrail is only 34". Landing height appears to warrant a 42" high guardrail.		248		X			X		Replace 34" high guardrail with code compliant 42"high painted steel guardrail and associated handrail	28lf		\$16,944	
FF-37	Arch	First Floor	Code Issue	No handrails are present at main entry stair.		248			X	X			Install code compliant paint steel handrail on both sides of stair.	24lf	\$10,032		
FF-38	Arch	First Floor	Code Issue	Exterior stairs have abrupt nosing		248		X			X		Remove and install code compliant precast/stone stair treads with radius nosings and transitions.	60lf	\$11,400		
FF-39	Arch	First Floor	Code Issue	Fire extinguisher appears to be installed above reach range for ADA compliance--ADAAG sets reach range requirement at 48" max above floor to fire extinguisher handle. Glass in vision panel does not appear safety rated or tempered.		248							Remove and relocate fire extinguishers to within ADAAG require reach range to FE handle. Due to nature of student age children, it is recommended to confirm with AHJ/Fire Department for fire extinguisher requirements in E-Occupancy building of this type.	4		\$3,352	

Condition Assessment Matrix

BUILDING:		Walter J. Paton Elementary School															
AREA:		First Floor															
Issue #	Discipline	Location	System	Description	Photo #	PlanGrid Report #	Priority			Service Life			Commentary	Quantity	Cost Estimate		
							Low	Med	High	2017	2018 to 2021	2022 to 2026			1 yr.	5 yr.	10 yr.
FF-40	Arch	First Floor	Code Issue	Bubble projects too far into corridor. Non-compliant in regard to egress and ADA compliance.		248			X	X			Consider placing knee walls or guards at bubbles to prevent inadvertent collision by students, staff or visitors with vision impairments.	1	\$3,800		
FF-41	Arch	First Floor	Code Issue	Loose furniture in corridors		248			X	X			Remove loose furniture from corridors.	N/A			
FF-42	Arch	First Floor	Code Issue	No edge protection or railings along exterior West walkway.		248			X	X			Due to slope of adjacent grading, edge protection and railings are required for	80lf of painted steel railing	\$33,440		
FF-43	Arch	First Floor	Code Issue	Required maneuvering clearance at door is obstructed by furniture panels.		248			X	X			Adjust furniture panel layout to provide require egress access through door.	N/A			
FF-44	Arch	First Floor	Code Issue	Various corridor doors do not fully close by operation from the closer. Some doors have loose and missing hardware.		248							Adjust door hardware as required to allow door to close fully under normal operation.	38 doors (1/2 of overall total)	\$18,772		
FF-45	Arch	First Floor - Stair 2 Stair 1 Stair 3	Code Issue	Storage of combustible materials in fire separated stair.		248			X	X			Remove stored materials completely from stair. Remove carpet from stair, unless deemed code compliant for flame spread/smoke index rating.	N/A			
FF-46	Arch	First Floor - Stair 2 Stair 1 Stair 3	Code Issue	Guardrail/handrail in stair is not code compliant due to height and shape.		248			X		X		Remove and replace guard rail with painted wood handrail and guardrail at code required heights and profile.	108lf	\$37,203		

Condition Assessment Matrix

BUILDING:		Walter J. Paton Elementary School															
AREA:		First Floor															
Issue #	Discipline	Location	System	Description	Photo #	PlanGrid Report #	Priority			Service Life			Commentary	Quantity	Cost Estimate		
							Low	Med	High	2017	2018 to 2021	2022 to 2026			1 yr.	5 yr.	10 yr.
FF-47	Arch	First Floor - Cafetorium	Code Issue	Equipment blocks full width of egress path. 1 door leaf only 28"		248			X	X			Relocate equipment to allow full width of egress access at door.	N/A			
FF-48	Arch	First Floor - Cafetorium	Code Issue	Stair treads to platform are only 9 1/2" deep.		248		X				X	At time of installation, treads may have been code compliant. Consider installing code compliant treads and nosings with next renovation.	(4) 3' wide wood treads			\$793
FF-49	Arch	First Floor - CR 21 CR 19	Code Issue	Glass in exterior egress door does not appear to be safety rated.		248			X	X			Replace glass vision panel in door with code compliant tempered safety glass.	4sf (2 doors)	\$456		
FF-50	Arch	First Floor - Entry Ramp	General Note	Exterior concrete heavily deteriorated at guardrail posts.		249			X		X		Due to potential for railings to become loose and unstable, it is recommended to repair concrete at post mounts. Consider embedded sleeves to prevent continued deterioration.	120sf		\$5,510	
FF-51	Arch	Stage	General Note	Second set of stairs at stage are blocked by loose and disorganized storage.		249							Consider unblocking stairs by removing loosely stored items from area of stair.	N/A			
FF-52	Arch	Corridor 2	General Note	Office and stored items located in Corridor 2.		249			X	X			Further evaluate safety issue posed by loose storage and office materials stored in egress corridor. Remove items from corridor.	N/A			

Condition Assessment Matrix

BUILDING:		Walter J. Paton Elementary School															
AREA:		First Floor															
Issue #	Discipline	Location	System	Description	Photo #	PlanGrid Report #	Priority			Service Life			Commentary	Quantity	Cost Estimate		
							Low	Med	High	2017	2018 to 2021	2022 to 2026			1 yr.	5 yr.	10 yr.
FF-53	Arch	Kitchen	General Note	General state of finishes are worn and space appears to be overcrowded with equipment.		249							Evaluate use of equipment and space. Egress paths and clearances do not appear to be fully compliant due to overcrowding; consider reallocation of equipment spacing - no further action required.	N/A			
FF-54	Arch	First Floor	Walls / Touch Up	Surface abrasions and scuffs on wall finishes, doors, frames, ceilings and soffits.		250	X				X Phased		Implement a program of repainting doors, frames, ceilings, soffits, and other painted wall surfaces. Repainting program may be divided into primary areas of the building spread over a 5- to 7-year period such that finish surfaces are refreshed every 5 to 7 years.	See FF-1			
FF-55	Arch	First Floor	ADA	Bubble knee clearance is not ADA compliant		251	X				X		Relocate bubble to provide ADA required clearance.	1			\$5,510
FF-56	Arch	First Floor - Boys Toilet	ADA	Sinks do not have ADA required pipe wrap and covers.		251			X	X			Install code compliant pipe wrap at accessible designated sinks	2 sinks	\$1,064		
FF-57	Arch	First Floor - Boys Toilet	ADA	Toilet stall swings into required stall clearance.		251			X	X			Reconfigure door swing to provide adequate ADA clearance at door.	16lf of painted steel partition	\$1,459		
FF-58	Arch	First Floor - CR 9	ADA	Sink clearance not ADA/MAAB compliant and piping does not have protective covering/insulation		251			X	X			Install pipe wrap at sink. Adjust sink and counter height to max. 31" above floor to provide required clearance per ADA.	44lf of counter / 10 sinks	\$5,320		

Condition Assessment Matrix

BUILDING:		Walter J. Paton Elementary School																
AREA:		First Floor																
Issue #	Discipline	Location	System	Description	Photo #	PlanGrid Report #	Priority			Service Life			Commentary	Quantity	Cost Estimate			
							Low	Med	High	2017	2018 to 2021	2022 to 2026			1 yr.	5 yr.	10 yr.	
FF-59	Arch	First Floor	ADA	Various classroom exterior landings at egress doors do not continue to public way. Landings terminate at lawn.		251			X	X			Extend landing to public way via concrete side walk.	240lf x 5' wide concrete sidewalk	\$27,360			
FF-60	Arch	First Floor	ADA	Various classroom closet doors have knob type hardware		251			X	X			Replace knob type hardware with ADA compliant lever style hardware.	12 lever sets	\$15,048			
FF-61	Arch	First Floor - 2 sets of stage stairs	ADA	Stair risers are at 7 1/2" height - handrails appear too large in diameter.		251			X	X			Replace stair assembly with ADA compliant riser and tread sizes. Replace handrails with ADA compliant type.	16lf of handrail / 10 risers	\$4,499			
FF-62	Arch	First Floor Staff Toilet	ADA	Sinks and water closets are not accessible. Clearance at door swing not provided.		251			X	X			Reconfigure toilet room to provide ADA compliant access to compliant fixtures.	60sf	\$4,560			
FF-63	Arch	First Floor Kitchen Egress Stair	ADA	Handrails and clearances at stair are not ADA compliant		251			X	X			Review condition with AHJ. Replace stair and handrail with ADA compliant assemblies.	30lf of handrail / 15 lf of stairs	\$15,276			
FF-64	Arch	First Floor - Stair 1	ADA	Handrails and guardrail height are not ADA compliant		251			X	X			Replace guardrail and handrail with ADA compliant assemblies.	120lf of railings	\$33,744			
FF-65	Arch	First Floor - Exterior Landings	ADA	Exterior landing is not ADA compliant. Landing does not slope to grade and has an abrupt drop off.		251			X	X			Install concrete ramp to transition landings to grade.	18lf x 4' wide concrete ramp	\$1,642			
FF-66	Arch	First Floor - CR 21	ADA	Exterior wood stair does not appear to be fully ADA complaint due to railing installation.					X	X			Replace wood railing.	8lf exterior grade wood railing	\$3,344			
																1 yr.	5 yr.	10 yr.
Architectural First Floor Cost Total															\$208,734	\$969,949	\$512,477	

Condition Assessment Matrix

BUILDING:		Walter J. Paton Elementary School															
AREA:		Second Floor															
Issue #	Discipline	Location	System	Description	Photo #	PlanGrid Report #	Priority			Service Life			Commentary	Quantity	Cost Estimate		
							Low	Med	High	2017	2018 to 2021	2022 to 2026			1 yr.	5 yr.	10 yr.
SF-1	Arch	Second Floor	Walls	Surface cracks in GWB, and plaster wall/ceiling finishes; Damaged paint finish on door frames, doors.	SEE APPENDIX B PHOTO	221	X					X Phased	Implement a program of repainting of painted wall and interior door frame surfaces, doors, plaster walls and vinyl wall base. Repainting program may be divided into primary areas of the building spread over a 5- to 7-year period such that finish surfaces are refreshed every 5 to 7 years.	11,246sf (net total)		\$83,760	\$99,145
SF-2	Arch	Second Floor	Walls	Inside corner wall tile cracked in toilet room		221	X					X Phased	Implement a program repairing cracked wall tiles through-out restroom facilities.	60sf		\$950	\$1,124
SF-3	Arch	Second Floor	Ceilings	Acoustical ceiling tiles (ACT) have minor staining from water leaks and missing in various areas.		222	X					X Phased	Implement a program of replacing soiled and damaged ceiling tiles to maintain high quality appearance of spaces.	11,246sf (net total)		\$52,350	\$61,965
SF-4	Arch	Second Floor	Floor	Sheet carpet has some wear and minor staining in high traffic areas		Refer to Photos	X					X	Replace carpet in area at end of servicable life. Consider replacing with carpet tile for ease of selective replacement.	2346sf		\$17,473	
SF-5	Arch	Second Floor	Doors	Numerous wood doors have delaminated veneer, binding operation, missing hardware and non code compliant vision panels.		223	X					X Phased	Remove and replace various doors and frames as required. Install code required door hardware and vision glass for required operation and function.	26 wood doors (all of single door total)		\$36,309	\$42,978
SF-6	Arch	Second Floor- Stair 3	Doors	Stair door on hold backs; no fire rating on frame or doors. Door finish stained and delaminated. Frame is gouged.		223	X					X	Evaluate requirement for door/framing rating and replace with code compliant assemblies.	(1) single door / (2) Double Doors		\$12,103	
SF-7	Arch	Second Floor	Doors	Various doors have wired glass that do not appear to be labeled safety glass.		223	X					X	Implement program to verify and/or replace wired glass with code compliant tempered safety glass at hazardous locations.	65sf of glass / 13 doors		\$9,077	
SF-8	Arch	Second Floor	Doors	Various doors have knob type hardware.		Refer to Photos			X	X			Replace knob type hardware with ADA compliant lever style hardware.	9 doors	\$11,286		

Condition Assessment Matrix

BUILDING:		Walter J. Paton Elementary School															
AREA:		Second Floor															
Issue #	Discipline	Location	System	Description	Photo #	PlanGrid Report #	Priority			Service Life			Commentary	Quantity	Cost Estimate		
							Low	Med	High	2017	2018 to 2021	2022 to 2026			1 yr.	5 yr.	10 yr.
SF-9	Arch	Second Floor	Window	Numerous window openings have punctured, stretched or missing screens at operable sashes.		224		X			X		Implement program to inspect and replace damaged screens at all exterior openings, on a continual basis. Window assemblies appear in serviceable condition.	234sf of aluminum screen (1/2 of total screen)		\$28,321	
SF-10	Arch	Second Floor	Window	Window shades appear worn and tattered in some spaces.		Refer to Photos	X				X		Replace inoperable/deteriorated shades as needed. Expect to replace approximately 1/3 to 1/2 of the shades and associated hardware over the next 7-10 years due to wear.	7 shades for 1/2 of windows (6'x6' average size)			\$4,628
SF-11	Arch	Second Floor - Stair 2	Window	Fixed square unit windows in stair area appear to be older and have single pane glass.		Refer to Photos	X				X		Replace window units with current energy code compliant window assemblies	(6) 1'x1' fixed window units		\$1,061	
SF-12	Arch	Second Floor	Casework	Classroom shelving appears structurally sound, but finish is generally worn and chipped.		225 & Refer to Photos	X				X Phased		Implement a program to update shelving finish and inspect for damaged or broken parts on a continual basis. Remove loose and worn paint. Refurbish shelving as needed for appearance and finish repair. Refinish as required.	435lf of muti-tier shelving with painted finish		\$12,150	\$14,381
SF-13	Arch	Second Floor	Casework	Counter-tops in classroom appear generally worn and are heavily delaminated in some spaces.		Refer to Photos	X				X Phased		Replace counter tops in classroom with laminated material as required.	252lf (counter top total)		\$23,461	\$27,770
SF-14	Arch	Second Floor	Casework	Various wood window sills are worn and split due to sun exposure, water intrusion and age.		Refer to Photos	X				X Phased		Replace worn and split wood window sills. Refinish to match existing.	95lf of wood window stool (1/3 of window stool total)		\$2,653	\$3,141
SF-15	Arch	Second Floor	Fixed Furnishings	Metal lockers are heavily rusted. Interior and exterior finish is heavily worn.		Refer to Photos	X				X		Implement program to refurbish or replace metal lockers in their entirety.	216lf		\$80,438	

Condition Assessment Matrix

BUILDING:		Walter J. Paton Elementary School															
AREA:		Second Floor															
Issue #	Discipline	Location	System	Description	Photo #	PlanGrid Report #	Priority			Service Life			Commentary	Quantity	Cost Estimate		
							Low	Med	High	2017	2018 to 2021	2022 to 2026			1 yr.	5 yr.	10 yr.
SF-16	Arch	Second Floor	Fixed Furnishings	General state of toilet partitions is aged with signs of corrosion at panel seams. Hardware has signs of wear and loose parts.		Refer to Photos	X					X	Refurbish or replace corroded and unservicable painted metal toilet partitions. Replace aged/unservicable hardware.	36lf of toilet stalls			\$13,224
SF-17	Arch	Second Floor	Mech	Metal heater/vent covers have heavily worn finish and exposed rust.		Refer to Photos	X				X		Due to current level of finish deterioration, it is recommended to refinish the cover assemblies in the next 1-3 years.	130lf		\$7,262	
SF-18	Arch	Second Floor	Elec	Most classrooms have surface mounted electrical raceway with what appears to be non-tamperproof electrical receptacles.		Refer to Photos		X			X		NEC requires that tamperproof electrical be installed in elementary schools. Confirm shutter/tamperproof mechanism exists or replace receptacles entirely with code-compliant electrical receptacles.	432lf of wireway with outlets 12" o.c.		\$24,132	
SF-19	Arch	Second Floor	Code Issue	Fire extinguisher appears to be installed above reach range for ADA compliance--ADAAG sets reach range requirement at 48" max above floor to fire extinguisher handle. Glass in vision panel does not appear safety rated or tempered.		226		X			X		Remove and relocate fire extinguishers to within ADAAG require reach range to FE handle. Due to nature of student age children, it is recommended to confirm with AHJ/Fire Department for fire extinguisher requirements in E-Occupancy building of this type.	2		\$1,676	
SF-20	Arch	Second Floor	Code Issue	Bubble projects too far into corridor. Non-compliant in regard to egress and ADA compliance.		Refer to Photos			X	X			Consider placing knee walls or guards at bubbles to prevent inadvertant collision by students, staff or visitors with vision impairments.	1	\$3,800		
SF-21	Arch	Second Floor	Code Issue	Loose furniture in corridors		Refer to Photos			X	X			Remove loose furniture from corridors.	N/A			
SF-22	Arch	Second Floor	Code Issue	Guardrail/handrail in stair is not code compliant due to height and shape.		Refer to Photos			X		X		Remove and replace guard rail with painted wood handrail and guardrail at code required heights and profile.	108lf		\$37,203	

Condition Assessment Matrix

BUILDING:		Walter J. Paton Elementary School																
AREA:		Second Floor																
Issue #	Discipline	Location	System	Description	Photo #	PlanGrid Report #	Priority			Service Life			Commentary	Quantity	Cost Estimate			
							Low	Med	High	2017	2018 to 2021	2022 to 2026			1 yr.	5 yr.	10 yr.	
SF-23	Arch	Second Floor	Walls / Touch Up	Surface abrasions and scuffs on wall finishes, doors, frames, ceilings and soffits.	↓	Refer to Photos	X					X Phased	Implement a program of repainting doors, frames, ceilings, soffits, and other painted wall surfaces. Repainting program may be divided into primary areas of the building spread over a 5- to 7-year period such that finish surfaces are refreshed every 5 to 7 years.	See SF-1				
SF-24	Arch	Second Floor	ADA	Bubble knee clearance is not ADA compliant		Refer to Photos	X						X	Relocate bubbler to provide ADA required clearance.	1			\$2,204
SF-25	Arch	Second Floor	ADA	Sinks do not have ADA required pipe wrap and covers.		Refer to Photos			X	X				Install code compliant pipe wrap at accessible designated sinks	5 sinks	\$2,660		
SF-26	Arch	Second Floor	ADA	Toilet stall swings into required stall clearance.		Refer to Photos			X	X				Reconfigure door swing to provide adequate ADA clearance at door.	16lf of painted steel partiion	\$1,459		
SF-27	Arch	Second Floor	ADA	Sink clearance not ADA/MAAB compliant and piping does not have protective covering/insulation		Refer to Photos			X	X				Install pipe wrap at sink. Adjust sink and counter height to max. 31" above floor to provide required clearance per ADA.	40lf of counter / 9 sinks	\$4,788		
SF-28	Arch	Second Floor	ADA	Various classroom closet doors have knob type hardware		229			X	X				Replace knob type hardware with ADA compliant lever style hardware.	See SF-8			
SF-29	Arch	Second Floor - Speech	ADA	Laminate work surface height does not provide for ADA compliant knee clearance. Work surface is heavily gouged and worn.		229			X	X				Replace counter and install at height to provide knee clearance height	20lf	\$5,168		
SF-30	Arch	Second Floor - Stair 1	ADA	Handrails and guardrail height are not ADA compliant		Refer to Photos			X	X				Replace guardrail and handrail with ADA compliant assemblies.	See FF-64			
																1 yr.	5 yr.	10 yr.
Architectural Second Floor Cost Total															\$29,161	\$430,379	\$270,561	

Condition Assessment Matrix

BUILDING:				WALTER J PATON SCHOOL												
AREA:				Building Envelope												
Issue #	Discipline	Location	System	Description	Photo #	Priority			Service Life			Commentary	Quantity	Cost Estimate		
						Low	Med	High	2017	2018 to 2021	2022 to 2026			1 yr.	5 yr.	10 yr.
E1	Envelope	Typical	Walls	Failed sealants at wall transitions, penetrations, and window perimeters			X		X			Replace failed sealants; plan for regular sealant maintenance including replacement approximately every 5-10 years.	100% = ± 3,500 lf	\$133,000		
E2	Envelope	Typical	Walls	Corroded lintels and associated cracked brick masonry	SEE APPENDIX B - PHOTOS			X		X		Corroded lintels expand, causing the surrounding brick to crack. The deteriorated masonry and continued lintel corrosion present a falling hazard. Replace corroded lintels with new galvanized lintels and repair surrounding brick masonry.	Lintels = ± 180 lf Brick = ± 540 sf	\$70,447		
E3	Envelope	Typical	Walls	Cracked brick masonry				X		X		Investigate cracked masonry to determine the cause of cracking. Repair cracks by routing and sealing (moving cracks) or pointing (static cracks).	1,500 sf	\$181,545		
E4	Envelope	Typical	Walls	Deteriorated mortar joints				X		X		Rout and point mortar joints. Assume 100% pointing. New pointing expected lifespan approximately 50 years.	15,000 sf	\$837,900		
E5	Envelope	Typical	Walls	Damaged faux-brick PVC cladding			X			X		Replace damaged portions of PVC cladding. Plan on replacing 100% of PVC cladding in 10-15 years.	100% = ± 3,000 sf	\$13,034	\$231,420	
E6	Envelope	West Elev.	Stairs	Unstable wood stairs, railing, and platform				X	X			The unstable stairs, railing, and platform are a safety hazard. Repair immediately.	1 location	\$6,840		
E7	Envelope	West Elev.	Roof	Damaged metal roof edge coping			X				X	Replace damaged sections of coping metal.	20 lf			\$1,102
E8	Envelope	West Elev.	Walls	Displaced brick above lintels				X	X			Perform close-up hands-on inspection of displaced masonry above lintels to determine if it is stable. Secure brick veneer to backup using restoration anchors if required.	1 location, ± 30 lf	\$2,052		
E9	Envelope	South Elev.	Walls	Deteriorated masonry and efflorescence at chimney				X	X			Perform close-up hands-on inspection of chimney masonry to determine if it is stable. Rebuild unstable portions of chimney.	1 location	\$6,840		
E10	Envelope	West Elev.	Walls	Stucco is cracked at soffits.			X		X		X	Repair cracked stucco according to manufacturer's instructions.	200 sf		\$11,172	

Condition Assessment Matrix

BUILDING:				WALTER J PATON SCHOOL															
AREA:				Building Envelope															
Issue #	Discipline	Location	System	Description	Photo #	Priority			Service Life			Commentary	Quantity		Cost Estimate				
E11	Envelope	Upper Roof	Roof	EPDM strip flashing split at joints in metal edge coping			X			X			X	Provide EPDM patches at split seams. Plan to replace roof in approximately 10 years.	Repair 2 locations; Replace = ± 13,000 sf	\$2,280		\$805,256	
E12	Envelope	Middle Roof	Roof	Raised fasteners, damaged EPDM			X			X			X	Tighten raised fasteners, provide EPDM patches over tightened fasteners and damaged areas. Plan to replace roof in approximately 10 years.	Repair = ± 20 sf Replace = ± 3,500 sf	\$2,280		\$216,874	
E13	Envelope	Lower Roof	Roof	Unadhered strip flashing, bubbles at strip flashing			X			X			X	Cut out unadhered areas, cut and flatten bubbles. Provide EPDM patches. Plan to replace roof in approximately 10 years.	Repair = ± 20 sf Replace = ± 6,500 sf	\$2,280		\$402,010	
																	1 yr.	5 yr.	10 yr.
														Envelope Cost Total		\$155,572	\$1,114,098	\$1,656,661	

Condition Assessment Matrix

BUILDING:		Walter J Paton School														
AREA:		INTERIOR AND EXTERIOR STRUCTURAL SYSTEMS														
Issue #	Discipline	Location	System	Description	Photo #	Priority			Service Life			Commentary	Quantity	Cost Estimate		
						Low	Med	High	2017	2018 to 2021	2022 to 2026			1 yr	5 yr	10 yr
S-1	Struct	West and East Elevations	Exterior Brickwork	The mortar joints at the stone window sills of the large windows are eroded.		X					X	The mortar joints should be cut and pointed.	150 SF			\$9,918
S-2	Struct	West Elevation 2 northern second floor windows, southern second floor window and 4 northern first floor windows	Exterior Brickwork	There is a crack in the brickwork at the corners of the windows, most likely from rust jacking of the metal lintels.		X					X	The metal lintels should be replaced and the brickwork repaired.	7 loc'n			\$19,285
S-3	Struct	West Elevation northern first floor window	Exterior Brickwork	There is a crack below the window towards the modular unit.		X					X	The cracked masonry should be cut and pointed.	7 LF			\$463
S-4	Struct	West and East Elevations	Exterior Brickwork	The metal lintels at the vents are rust jacking causing cracking in the brick masonry.	1		X				X	The metal lintels should be replaced and the surrounding masonry repaired and damaged bricks replaced.	18 loc'n			\$49,590
S-5	Struct	West and East Elevations	Exterior Foundation	There are cracks in concrete foundation which should be epoxy injected.		X					X	The mortar joints should be cut and pointed.	15 LF			\$992
S-6	Struct	West Elevation south end	Exterior Brickwork	There are eroded mortar above the exposed stepped concrete foundation.		X					X	The mortar joints should be cut and pointed.	15 SF			\$992
S-7	Struct	West Elevation north end	Exterior Brickwork	There are eroded mortar joints to the south of the northern first floor window.		X					X	The mortar joints should be cut and pointed.	15 SF			\$992
S-8	Struct	West Elevation Cafeteria Wing northern first and second floor windows	Exterior Brickwork	There is visible rust on the metal lintels.			X				X	The lintels should be cleaned of all rust and painted.	2 loc'n			\$2,204

Condition Assessment Matrix

BUILDING:		Walter J Paton School														
AREA:		INTERIOR AND EXTERIOR STRUCTURAL SYSTEMS														
Issue #	Discipline	Location	System	Description	Photo #	Priority			Service Life			Commentary	Quantity	Cost Estimate		
						Low	Med	High	2017	2018 to 2021	2022 to 2026			1 yr	5 yr	10 yr
S-9	Struct	West Elevation Cafeteria Wing	Exterior Brickwork	There is a vertical crack in the mortar joints and brick units.		X					X	The cracked joints should be cut and pointed and the damaged bricks replaced.	7 LF			\$1,003
S-10	Struct	West Elevation Cafeteria Wing northern first floor windows	Exterior Brickwork	Both window sill units are broken.	2		X				X	The broken units should be replaced.	2 units			\$2,865
S-11	Struct	West Elevation Cafeteria Wing southern first floor windows	Exterior Brickwork	The mortar joints below the window are eroded.		X					X	The mortar joints should be cut and pointed.	5 SF			\$331
S-12	Struct	West Elevation Cafeteria Wing basement windows	Exterior Brickwork	There are cracks in the concrete foundation below the basement windows.		X					X	The cracked concrete should be epoxy injected.	15 LF			\$331
S-13	Struct	South Elevation Overhang west end	Exterior Brickwork	There is a vertical crack at the building joint and at the south edge of the wall in addition to near the center of the wall, most of the damage is due to rust jacking of the incoming beam.	3		X			X		The rusted beam should be exposed, cleaned and painted. The damaged masonry at the beam should be rebuilt and the other cracks cut and pointed.	35 SF		\$1,955	
S-14	Struct	South Elevation western first floor and second floor windows	Exterior Brickwork	The mortar joints at the stone window sills of the large windows are eroded.		X					X	The mortar joints should be cut and pointed.	40 SF			\$2,645
S-15	Struct	South Elevation western basement windows	Exterior Brickwork	There are cracks from rust jacking of the lintel.			X			X		The lintel should be replaced and brickwork repaired.	1 loc'n		\$2,328	
S-16	Struct	South Elevation western basement windows	Exterior Brickwork	There are cracks in the concrete foundation below the the window.		X					X	The cracked concrete should be epoxy injected.	8 LF			\$529

Condition Assessment Matrix

BUILDING:				Walter J Paton School												
AREA:				INTERIOR AND EXTERIOR STRUCTURAL SYSTEMS												
Issue #	Discipline	Location	System	Description	Photo #	Priority			Service Life			Commentary	Quantity	Cost Estimate		
						Low	Med	High	2017	2018 to 2021	2022 to 2026			1 yr	5 yr	10 yr
S-17	Struct	South Elevation west corner	Exterior Brickwork	The mortar joints are eroded.		X					X	The mortar joints should be cut and pointed.	20 SF			\$882
S-18	Struct	South Elevation west door	Exterior Brickwork	There is a diagonal crack running between the door and the first floor window, most likely due to rust jacking.			X			X		The door lintel should be replaced and the crack brickwork cut and pointed.	1 unit		\$2,328	
S-19	Struct	South Elevation west first floor window	Exterior Brickwork	The window sill is cracked.	2	X					X	The window sill should be replaced.	1 unit			\$1,433
S-20	Struct	Chimney	Exterior Brickwork	The mortar joint are eroded and cracked on all sides of the chimney.			X			X		The upper portion of the chimney should be rebuilt.	4 FT		\$1,080	
S-21	Struct	South Elevation Overhang center column	Steel column	The concrete base of the column is spalled.		X					X	The column should be patch repaired.	1 loc'n			\$3,637
S-22	Struct	South Elevation vent	Exterior Brickwork	The metal lintel at the vent is rust jacking causing cracking in the brick masonry.		X					X	The metal lintel should be replaced and the surrounding masonry repaired and damaged bricks replaced.	1 loc'n			\$2,755
S-23	Struct	South Elevation Ramp Stone Walls	Exterior Masonry	The stone veneer wall has cracks and eroded mortar joints.		X				X		The mortar joints should be cut and pointed and any loose stones reset.	100 SF		\$6,517	
S-24	Struct	South Elevation Ramp	Exterior Concrete	The railing bases at the concrete ramp are spalled or cracked.	4		X			X		The spalled concrete should be patched and the cracks epoxy injected.	11 loc'n		\$7,169	
S-25	Struct	South Elevation Overhand East wall	Exterior Brickwork	The west and end face of the wall has eroded mortar joints and the east face of the wall has a crack from the rusting beam end.			X				X	The beam end should be exposed, cleaned and painted. The cracked masonry should be rebuild and the eroded mortar joints cut and pointed.	15 SF			\$2,149
S-26	Struct	South Elevation Overhand East wall	Exterior Brickwork	The mortar joints at the intersection between the wall with the main builing are eroded.		X					X	The mortar joints should be cut and pointed.	30 SF			\$1,984
S-27	Struct	East Elevation Main Entrancce Roof	Exterior Concrete	There is a crack in the ceiling where it intersects with the east brick elevation.			X				X	The damaged material should be removed, any exposed steel cleaned and painted and the area patch repaired.	1 loc'n			\$3,306

Condition Assessment Matrix

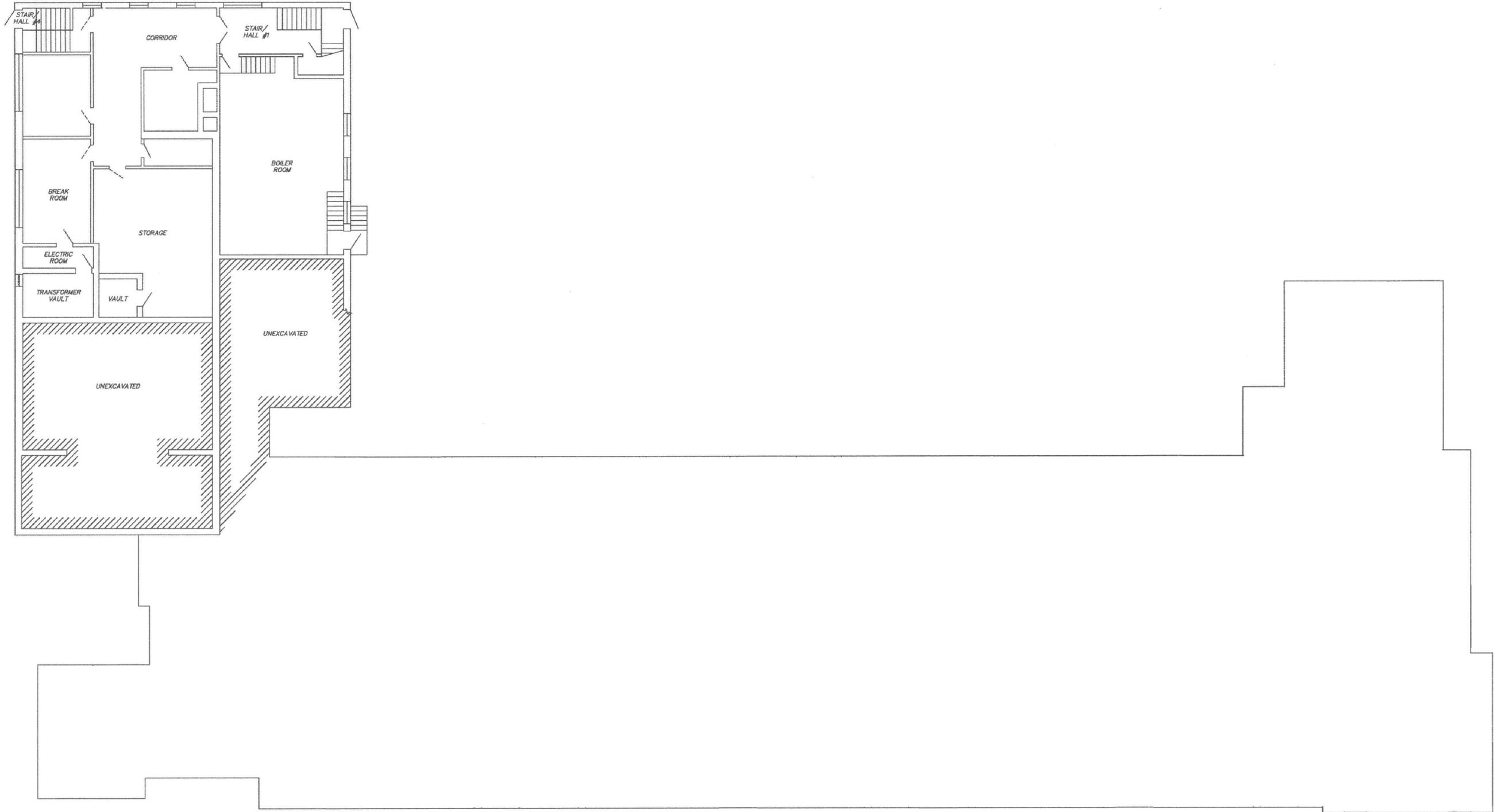
BUILDING:		Walter J Paton School														
AREA:		INTERIOR AND EXTERIOR STRUCTURAL SYSTEMS														
Issue #	Discipline	Location	System	Description	Photo #	Priority			Service Life			Commentary	Quantity	Cost Estimate		
						Low	Med	High	2017	2018 to 2021	2022 to 2026			1 yr	5 yr	10 yr
S-28	Struct	East Elevation Stairs	Exterior Foundation	There are cracks and spalls in the exposed concrete foundation at the stairs.		x				x		The damaged concrete should be patch repaired or epoxy injected.	5 SF		\$279	
S-29	Struct	East Elevation Main Entrance Roof	Exterior Brickwork	The joint between the roof and the brickwork is open.		x					x	The joint should be pointed with sealant.	25 SF			\$1,378
S-30	Struct	East Elevation South Corner of Stone Wall	Exterior Masonry	The stone masonry is cracked for its full height below the corner column.			x				x	The base of the column should be exposed for rust and repaired as needed. The cracked mortar joints should be cut and pointed.	7 LF			\$463
S-31	Struct	East Elevation Concrete Foundation South end	Exterior Foundation	There are 2 cracks in the concrete foundation.		x					x	The cracks should be epoxy injected.	5 LF			\$276
S-32	Struct	East Elevation first floor windows and northern second floor window	Exterior Masonry	There are cracks at the top of the windows that indicate rust jacking of the metal lintels.			x				x	The lintels should be replaced and the surrounding brick masonry repaired.	2 loc'n			\$5,510
S-33	Struct	East Elevation south and north end	Exterior Brickwork	There is an area of eroded mortar joints between the first and second floor.		x					x	The mortar joints should be cut and pointed.	8 SF			\$529
S-34	Struct	East Elevation North corner	Exterior Brickwork	There are cracks between the foundation, windows and roof at the north corner which may be a result of settlement from the modular unit.			x				x	The cracked masonry should be dismantled and reset and all damaged bricks replaced.	15 LF			\$2,149

Condition Assessment Matrix

BUILDING:				WALTER PATON SCHOOL													
AREA: 37,300 sf																	
Issue #	Discipline	Location	System	Description	Photo #	Priority			Service Life			Commentary	Quantity	Cost Estimate			
						Low	Med	High	2017	2018 to 2021	2022 to 2026			1 yr	5 yr	10 yr	
EL1	Electrical		Power	Provide a new electrical service to the school	WJP E1		X		X			See Electrical Narrative	1	\$38,000			
EL2	Electrical		Power	Replace all power distribution equipment	WJP E2	X					X	See Electrical Narrative	6 panels and 1 distribution panel			\$132,240	
EL3	Electrical		Fire Alarm	Replace all fire alarm pull stations	WJP E3		X		X			See Electrical Narrative	8	\$5,472			
EL4	Electrical		Lighting	Provide all new LED lighting throughout the school	WJP E4	X					X	See Electrical Narrative	37,300 Square Feet			\$657,674	
EL5	Electrical		Lighting	Provide all new automatic lighting controls	WJP E5	X					X	See Electrical Narrative	37,300 Square Feet			\$246,628	
H1	HVAC		HVAC	New HVAC system is currently being installed								See HVAC Narrative	N/A				
P1	Plumbing		Plumbing	Replace existing water closets flush valves with automatic flush valves	WPS P1	X					X	See Plumbing Narrative	24			\$39,672	
P2	Plumbing		Plumbing	Replace existing urinals flush valves with automatic flush valves	WPS P2	X					X	See Plumbing Narrative	14			\$20,056	
P3	Plumbing		Plumbing	Replace existing lavatories faucets with automatic faucets	WPS P3	X					X	See Plumbing Narrative	35			\$65,569	
FP1	Fire Protection		Fire Protection	Existing building is not sprinklered		X					X	Install new automatic fire protection system per NFPA 13 at next renovation	37,300 sf			\$2,430,841	
HZ1	HAZMAT	Kitchen	Flooring	Cover ACM mastic exposed by missing tiles		X				X		See Hazardous Materials Narrative	3 SF				
															1 yr	5 yr	10 yr
MEP/FP Building Cost Total														\$43,472	0	\$3,592,680	



Project North



GRAPHIC SCALE

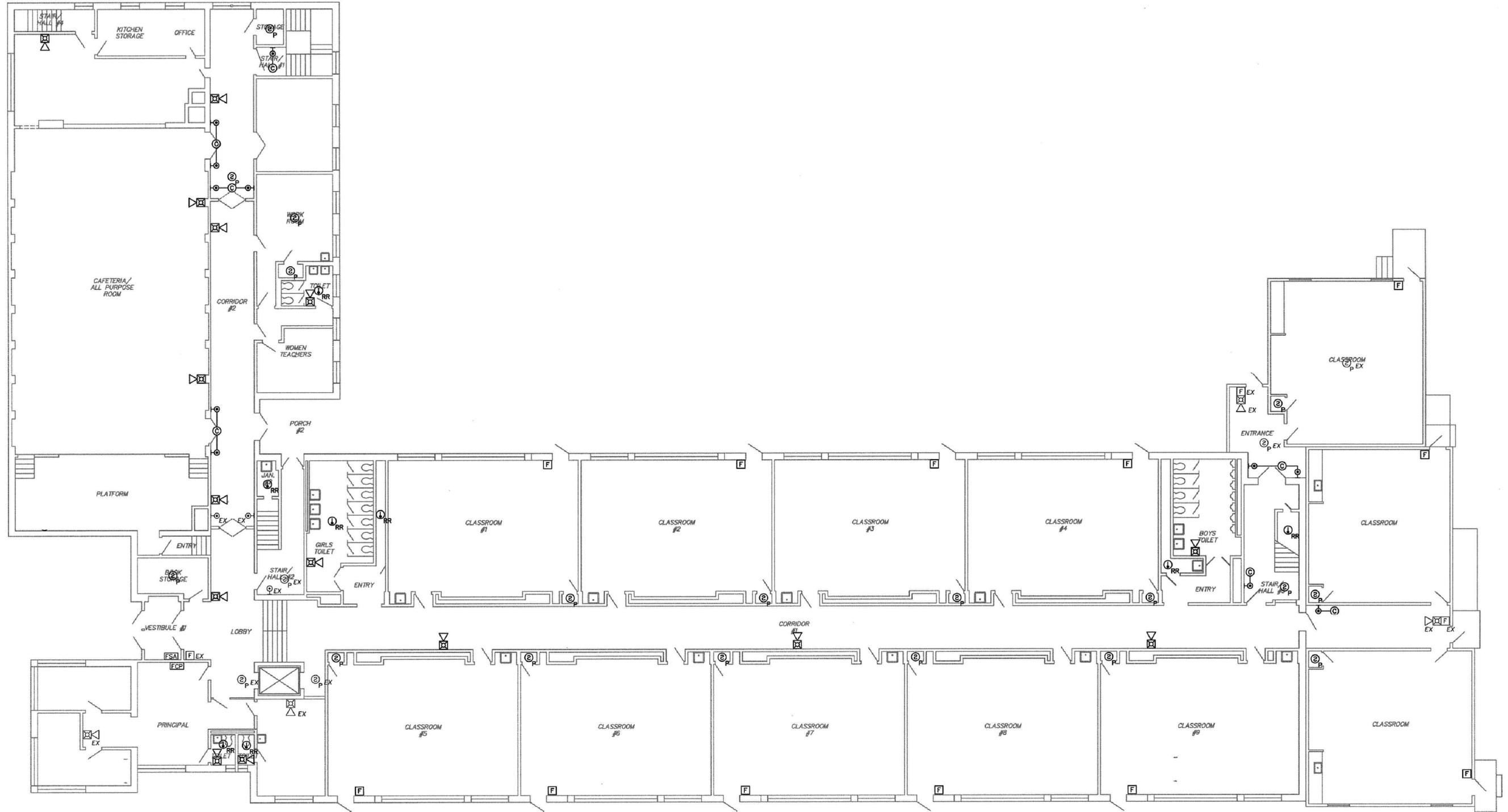


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Project North



GRAPHIC SCALE

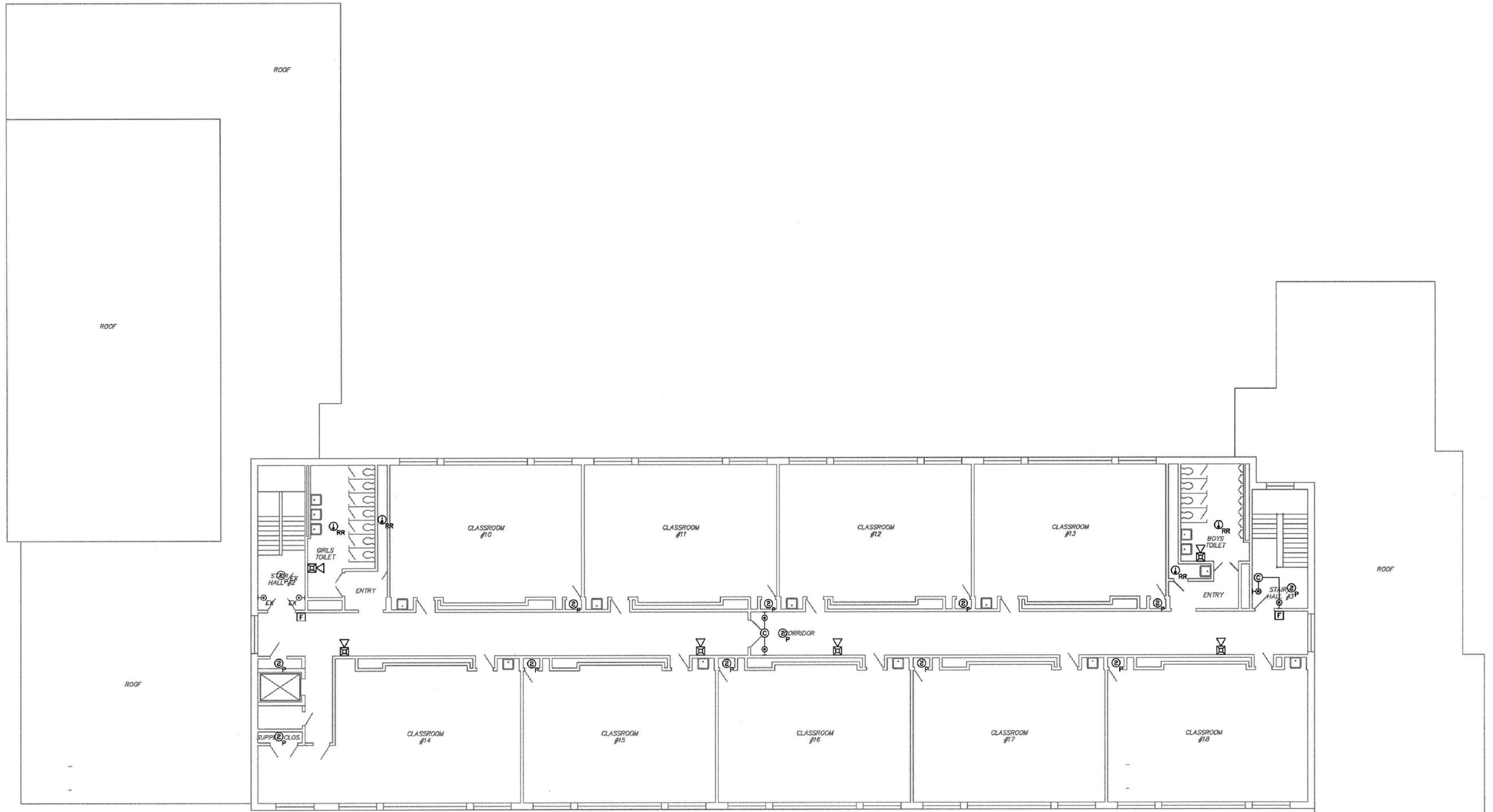


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Project North



GRAPHIC SCALE



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