

**TOWN OF SHREWSBURY**  
FACILITIES CONDITION ASSESSMENT OF  
TOWN BUILDINGS

**FINAL REPORT**

June 1, 2016

**Shrewsbury  
Calvin Coolidge  
Elementary School**

**COOLIDGE SCHOOL**

**G | R | L | A**

Gorman Richardson Lewis Architects

239 South Street  
Hopkinton, MA 01748

(508) 544-2600  
grlarchitects.com



**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 Calvin Coolidge 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 Calvin Coolidge 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 Calvin Coolidge Elementary School is located on Florence Street adjacent to single-family neighborhoods to the north, south and west, and the Jordan Pond Recreation area immediately to the east. The residential properties to the north and east are buffered by undeveloped woodlands and/or mature landscaping, but the school is clearly visible by residential properties to the south, and the Jordan Pond Recreation area. The portion of the site populated by the existing building slopes to the west northwest, the northern portion of the site has access at ground level, while the southern side requires passage down a flight of stairs to enter the building. The site contains the school building, along with the associated vehicular and pedestrian circulation systems and student play areas.

**Vehicular Entrances and Circulation:**

**B.**

**1. Observations:**

- i. All vehicles are to enter the site from Florence Street, and exit the site on May Street. An access road runs along the west side of the school connecting the two streets. Buses dropping off enter on Florence Street, turn left on the access road, then turn right on May Street, releasing students, then turning around at the roundabout. Buses then exit from May Street. They follow this same pattern when picking students up in the afternoon, queuing at the North Side of the school on May Street. Parents dropping off enter on Florence Street, turn left on the access road, and release students to the west building entrance. Parents picking up must enter the site on Florence Street, and proceed all the way up through the asphalt play area to the east of the school, then drive back down Florence Street. This circulation pattern attempts to reduce queuing on South Quinsigamond Avenue.



CCS E1

**2. Commentary:**

- i. The pavement condition of the vehicular entrances and interior circulation system ranges from fair to poor throughout the site.
- ii. There does not appear to be sufficient signage denoting the entrances and one-way egress points onto South Quinsigamond Avenue.

**3. Recommendation:**

- ii. Develop an improved wayfinding and signage program for the campus.

**Parking Location, Arrangement, and Quantity:**

C.

**1. Observations:**

- i. Existing parking for faculty, staff and visitors is located along the north side of Florence Street and the north side of May Street. There exist approximately 95 striped spaces, including 1 accessible space, throughout the entire site.

**2. Commentary:**

- i. The accessible parking space does not appear to comply with current MAAB standards.
- ii. The pavement condition of the parking areas mirrors that of the vehicular entrances, ranging from fair to poor throughout the site, with little evidence of recent repairs.

**3. Recommendations:**

- i. Implement a program to bring accessible parking spaces throughout the site into compliance with current MAAB standards, and ensure sufficient quantity of accessible spaces is met.
- ii. Implement a program of replacing damaged or worn pavement throughout the site.



CCS E2

**Pedestrian Circulation:**

D.

**1. Observations:**

- i. A paved bituminous sidewalk runs along the entirety of the frontage of the school property along Quinsigamond Avenue, however there is no walkway connecting in to the school, forcing pedestrians to walk within vehicular travel lanes. There is an internal cement concrete sidewalk that circumnavigates the entire school, with separate walks leading to the building’s entrances.

**2. Commentary:**

- i. The condition of the bituminous and Portland cement concrete pavement throughout the site ranges from good to fair.
- ii. Accessible route(s) from South Quinsigamond Avenue should be reviewed for MAAB compliance.

**3. Recommendation:**

- i. Implement a program of replacing damaged or worn pavement throughout the site.
- ii. Implement a program to review accessible pedestrian routes throughout the site for safety and compliance with current MAAB standards.



CCS E3

**Pedestrian Accessibility and MAAB Compliance:**

**E.**

**1. Observations:**

- i. A total of one (1) accessible parking space was identified within the property, located adjacent to the accessible entrance at the north of the school. There exists a clear, unobstructed route to the accessible ramp at the main entrance from these spaces. There is a compliant accessible route into the building from the free play area as well.

**2. Commentary:**

- i. The parking space, signage, access aisle do not appear to comply with current MAAB standards.

**3. Recommendation:**

- i. Implement a program to bring accessible parking spaces throughout the site into compliance with current MAAB standards, and ensure the appropriate quantity of accessible spaces is met.



CCS E4



CCS E5

**Loading Docks and Service Areas:**

**F.**

**1. Observations:**

- i. There is one (1) service area located at the north side of the building, its overall size appears sufficient for large deliveries.

**2. Commentary:**

- i. Confirm that loading dock meets current needs of the building.

**3. Recommendations:**

- i. Maintain condition of loading dock.

**Courtyards and Other Exterior Student Congregation Areas:**

**G.**

**1. Observations:**

- i. There are several areas for exterior student congregation. One is located at the southwest side of the school, accessed from both the interior and exterior of the building. The courtyard features benches and a small garden area. There is a playground area to the east of the school with play structures and mulch surface treatment. Adjacent to that exists a large asphalt free-play area with painted pavement activities.

**2. Commentary:**

- i. The concrete pavement and furnishings in the south courtyard are in good to fair condition.
- ii. The natural mulch surfacing in the play area does not appear to meet fall zone drop height requirements.
- iii. Due to heavy vehicle traffic at drop-off and pick-up times, the condition of the ground surface in the rear free play area is poor.

**3. Recommendation:**

- i. Implement a program of replacing damaged or worn pavement throughout the site.
- ii. Replace the existing natural mulch surfacing at the play area with a compliant surface that meets current fall zone height requirements.



CCS E6



CCS E7

**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 sitelighting.

**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 are several picnic tables and bicycle racks interspersed throughout the site.

**2. Commentary:**

- i. The flagpole does not appear to have an MAAB compliant accessible route.
- ii. There does not appear to be adequate building identification signage denoting the location of the school.
- iii. The bicycle racks, benches, tables appear in fair condition.

**3. Recommendations:**

- i. Construct an MAAB compliant accessible route to the flagpole.
- ii. Develop a signage identity program for the campus.
- iii. Install site furnishing as necessary throughout the site to better develop exterior congregation areas, and to allow students safe and convenient access to bicycle facilities.



CCS E8

**Site Vegetation:**

J.

**1. Observations:**

- i. Site vegetation includes mature deciduous trees throughout the parking and vehicular circulation areas at the front (north) and east sides of the building. Significant shrub plantings are found in the north entrance area. There also exist formal lawn areas to the south and within the school wing areas.

**2. Commentary:**

- i. The majority of the vegetation on site is matured and in fair condition. However some species identified on site are declining due to age.

**3. Recommendations:**

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

Facilities Condition Assessment

Facilities Condition Assessment

Calvin Coolidge Elementary School

Address: 1 Florence Street, Shrewsbury, MA 01545
Constructed: 1927
Additions: 1940, 1969, 1995-4 Modular Classrooms
Renovations: 1985
2016 Assessed Value: \$5,407,100 (Building Only)

Building Characteristics

Gross Floor Area:
First Floor: 32,378 gsf
Second Floor: 7,038 gsf
Third Floor: 7,061 gsf
Total Building Area: 48,600 gsf

780 CMR Mass. Building Code:

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

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

Exterior Wall Assembly: Brick masonry (mass) / Stucco (EIFS) / Wood Paneling
Windows: Aluminum insulating (operable); Aluminum Curtain Wall
Roofing: Black Flat Membrane

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

Heating Fuel: Natural gas

Fire Protection: 0% automatic sprinkler system



Facilities Condition Assessment

---

**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 Calvin Coolidge 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 Calvin Coolidge 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 Calvin Coolidge Elementary School is a multi-level building which contains three distinct levels: First Floor, Second Floor, and Third Floor. The main public entrance on the south side of the building accesses directly to the First Floor which houses the administration offices, kindergarten classrooms, cafeteria, gymnasium, kitchen, utility spaces, modular classrooms and additional main first floor teaching spaces. The Second and Third Floors house additional classroom and specialized education spaces and toilet rooms. Those upper floors are accessed from the First Floor or from the exterior by the three stair halls or the elevator in the Corridor Lobby 106. This building does not contain a basement.

Originally constructed in 1927, Calvin Coolidge Elementary School has been in service for 88 years and is reasonably well maintained given its age. Various additions have been complete over the decades with the latest being 1995 which added four modular classrooms to the southwest side of the building. Aside from finishes, elevator addition and exterior window replacement, the building interior architecture appears to be predominantly dated to its original construction. As an elementary school with over 403 students—grades 1 thru 4--as well as approximately 40 faculty and facility personnel, the school building is

## Facilities Condition Assessment

---

heavily used for 10 months of the year. The areas of the building most used by the student body—main corridors, classrooms, restrooms, cafeteria, and gymnasium—show more wear and tear than the administration areas of the building.

For the most part, the interior of the building appears to be operational, aside from the noticeable shortage of storage space, as intended with reasonable to noticeable wear and tear of various finishes and materials 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/constructed schools in the town's inventory. Specifically, the carpet appears extremely worn and stained in numerous spaces with visible signs of seam separation. Secondly, the interior and exterior door assemblies and associated hardware throughout the building appear to be heavily worn, chipped and/or deteriorated due to age and use. Additionally, it was reported that ventilation/air quality and, in some areas, odors are a problem due to lack of ventilation and previous water intrusion. It is highly recommended that an air quality assessment be performed by a certified testing agency, under the direction of the Dept. of Public Health, to verify current air quality is in compliance with required state guidelines. 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 the latest Calvin Coolidge Elementary School addition was issued before February 28, 1997 (*effective date of 780 CMR 6<sup>th</sup> Edition*), and therefore, the building design and construction reflect the requirements of the State Building Code 780 CMR 5<sup>th</sup> Edition. Nonetheless, a number of deficiencies regarding the requirements of the current Massachusetts State Building Code (780 CMR-8<sup>th</sup> Edition) and Massachusetts Architectural Access Board code (521 CMR) were observed and noted in the "General Issues", "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 Calvin Coolidge 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 one of the oldest schools in the

## Facilities Condition Assessment

---

town's inventory, a full structural assessment of the Calvin Coolidge School was required and includes any significant structural issues or deficiencies noted during the observation effort.

### 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.

## Conclusion

The **Architecture-Interior** of the Calvin Coolidge 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 rating of doors, frames and hardware in critical areas
- Deficiencies regarding wall finishes and condition
- Deficiencies regarding exterior window hardware, finish, operation and thermal performance
- Deficiencies regarding conformance to requirements for handicap accessibility
- Deficiencies regarding casework hardware, finish and operation
- Deficiencies regarding ventilation, odors and air quality
- Deficiencies regarding state of floor finishes
- Deficiencies regarding storage of materials in egress areas and near utility equipment

## **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 Calvin Coolidge 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 structure:

1. Roofs
2. Exterior Walls
3. Windows

### Methodology:

GRLA visited the Calvin Coolidge Elementary School on August 20 and August 26, 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 Calvin Coolidge Elementary School has multiple low slope roofs with adhered EPDM membrane over mechanically attached insulation.
- ii. There are isolated open EPDM seams and unadhered patches.
- iii. There is a pipe penetration that is not high enough off of the roof surface.
- iv. There are a few locations of damaged downspouts.
- v. Brick masonry and metal flashing at chimney are displaced.

### 2. Commentary:

- i. Isolated damage (e.g. open seams) may present a leakage risk in the short term.

### 3. Recommendations:

- i. Repair isolated damage as soon as possible. Implement a program of annual inspections.
- ii. Extend pipe penetration and provide flashing to a minimum of 8" height above the roof surface.
- iii. Plan to replace 100% of roofing after 2026.
- iv. Repair or replace masonry and flashing at chimney.

Note: Only upper roof area was accessible to GRLA; lower roofs were observed using binoculars from the upper roof and through windows.

## EXTERIOR WALLS

### 1. Observations:

- i. The exterior walls of original building are brick mass walls, with portions of concrete primarily at the first floor (ground level). The addition has brick veneer walls with EIFS panels at tops of walls. There is also a “temporary” addition with wood cladding.
- ii. Sealants at wall transitions, penetration, and expansion joints are typically failed.
- iii. At east elevation entries, concrete, wood trim, and wood framing are deteriorated.
- iv. There are isolated areas of cracked, spalled, stained, and displaced brickmasonry.
- v. Mortar joints are deteriorated throughout.
- vi. There are several areas of cracked and delaminated concrete, as well as peeling coating.
- vii. Drain pipes at “temporary” addition drain water against and under the building.
- viii. Building staff report leaks at front entry doors during heavy rain; staff also report water flows down exterior steps toward doors.
- ix. At north and south entrances, plywood soffits are deteriorated.
- x. At the west entrance, the wood railing and guardrail are deteriorated and unstable.

### 2. Commentary:

- i. Sealants require frequent replacement and should be considered an ongoing maintenance item.
- ii. Cracked and deteriorated masonry may become a falling hazard if not repaired. Stained and deteriorated masonry may indicate water infiltration.
- iii. Water not routed away from the building deteriorates cladding materials and increases the risk of more extensive damage such as structural damage and/or interior leaks.
- iv. Unstable railings/guardrails present a safety hazard.

### 3. Recommendations:

- i. Replace failed sealants; plan ongoing replacement approximately every 5-10 years.
- ii. 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.
- iii. Rout and point deteriorated mortar joints. Plan for 100% pointing after 2026.
- iv. Repair cracked and delaminated concrete. Scrape areas of peeling coating and provide new coating.
- v. Extend drain pipes and adjust grading such that water drains away from the building.
- vi. Investigate options for adjusting grading at front entry to reduce runoff towards doors.
- vii. Repair wood railing and guardrail immediately.

## WINDOWS

### 1. Observations:

- i. Sealants at window perimeters are typically failed.
- ii. There are several corroded steel lintels above windows.
- iii. There are several fogged insulating glass units (IGUs).

### 2. Commentary:

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

### 3. Recommendations:

- i. Replace failed sealants; plan ongoing replacement approximately every 5-10 years.
- ii. Replace corroded lintels with new galvanized lintels, and repair surrounding brickmasonry.
- iii. Replace fogged IGUs (coordinate with GRLA Architectural Conditions Assessment Matrix).

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

**Calvin Coolidge Elementary School**  
Representative Existing Conditions Photographs



South Elevation, partial view



East Elevation, overall view



North and West Elevations, partial view



North Elevation, partial view

**Calvin Coolidge Elementary School**  
Representative Existing Conditions Photographs



South Elevation, crack in the masonry



South Elevation, deteriorated plywood soffit



South Elevation, peeling coating and damaged concrete



South Elevation, weathered mortar joints

**Calvin Coolidge Elementary School**  
Representative Existing Conditions Photographs



East Elevation, coating is cracked and delaminating



East Elevation, spalled brick and delaminating coating



East Elevation, mortar missing



East Elevation, migrated and weathered glazing seal

**Calvin Coolidge Elementary School**  
Representative Existing Conditions Photographs



East Elevation, perimeter sealant failure at a louver



East Elevation, bricks are displaced at lintels



East Elevation, cracked concrete and peeling paint at entry sidewall



East Elevation, missing/broken shingles at entryway roof

**Calvin Coolidge Elementary School**  
Representative Existing Conditions Photographs



East Elevation, deteriorated masonry and wood at entryway



East Elevation, brick chimney masonry is displaced, and flashing is lifted



East Elevation, deteriorated mortar joints



East Elevation, spalled brick faces

**Calvin Coolidge Elementary School**  
Representative Existing Conditions Photographs



North Elevation, corroded and displaced lintel



North Elevation, displaced plywood soffit



North Elevation, crack in mortar and algae growth on brick



North Elevation, failed sealant at brick expansion joint

**Calvin Coolidge Elementary School**  
Representative Existing Conditions Photographs



West Elevation, cracked and missing mortar



West Elevation, deteriorated masonry below a louver



West Elevation, cracked and spalled concrete and delaminating coating



West Elevation, cracked and spalled concrete and delaminating coating

**Calvin Coolidge Elementary School**  
Representative Existing Conditions Photographs



West Elevation, stained masonry, deteriorated mortar, and corroded lintels



West Elevation, crack in the concrete and delaminating coating



West Elevation, stained masonry, deteriorated mortar and corroded lintel



North Elevation, crack in concrete

**Calvin Coolidge Elementary School**  
Representative Existing Conditions Photographs



North Elevation, crack in mortar, and there are areas where the mortar is not bonded to the brick.



North Elevation, spalled brick and discoloration



North Elevation, deteriorated mortar joints and discoloration of the brick



North Elevation, deteriorated mortar joints and discoloration of the brick

**Calvin Coolidge Elementary School**  
Representative Existing Conditions Photographs



North Elevation, corroded door and frame, and failed perimeter sealant



West Elevation, corroded soffit and edge beam at loading dock, and cracked and deteriorated mortar joints



West Elevation at Northwest corner, possible delamination of EIFS



West Elevation, crack in foundation wall

**Calvin Coolidge Elementary School**  
Representative Existing Conditions Photographs



West Elevation, failed window and EIFS perimeter sealants



East Elevation, partial view showing damaged downspout



East Elevation, deteriorated wood cladding at grade



East Elevation, failed window perimeter sealant

**Calvin Coolidge Elementary School**  
Representative Existing Conditions Photographs



East Elevation, drain pipe outlets at foundation, with water flowing under the building



Northwest Corner, holes in trim



West Elevation, dented and gapped siding



West Elevation entry porch, broken handrail. Guardrail was also loose and unstable.

**Calvin Coolidge Elementary School**  
Representative Existing Conditions Photographs



West Elevation, drain pipe outlet with deteriorated wood cladding



West Elevation, deteriorated mortar



West Elevation, cracked mortar at foundation



South Elevation, failed window perimeter sealant

**Calvin Coolidge Elementary School**  
Representative Existing Conditions Photographs



South Elevation, failed perimeter sealant at front entry door



South Elevation, crack in the EIFS soffit at front entry



South Elevation, cracked and deteriorated mortar joints



East Elevation, staining below window corner

**Calvin Coolidge Elementary School**  
Representative Existing Conditions Photographs



Upper roof, partial view facing North



Lower roofs, partial view facing West, evidence of ponding in multiple locations



Upper roof, North side, low pipe penetration



Upper roof, chimney along East side, deteriorated flashing, displaced metal cap, deteriorated masonry and mortar joints

**Calvin Coolidge Elementary School**  
Representative Existing Conditions Photographs



Upper roof, open seam in EPDM



Upper roof, EPDM patch not fully adhered at corner

## Structural

### Overview:

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 Calvin Coolidge 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 main building is comprised of brick masonry with concrete and cast stone at the base of the wall. The central addition is a modern one-story brick masonry construction and the west addition is a wood framed structure.

**2. Commentary:**

- i. The shifted and cracked brickwork are caused by rusting steel lintels.
- ii. Cracking and spalling of the concrete and cast stone units is from rusting reinforcement. See Photo 1.
- iii. The mortar joints have eroded from weathering. See Photo 2.

**3. Recommendations:**

- i. Replace all rusting embedded steel lintels.
- ii. Expose and paint rusted reinforcement and repair concrete.
- iii. Cut and point eroded mortar joints.

**INTERIOR STRUCTURE****4. Observations:**

- i. The interior structure of the main building and central addition is constructed of concrete masonry unit (CMU) bearing walls with concrete floor system.

**5. Commentary:**

- i. Cracking in the masonry walls is most likely due to settlement. See Photo 3.

**6. Recommendation:**

- i. Monitor cracking for new movement.



Photo 1: Damaged Concrete (See S-6, S-19, S-26)



Photo 2: Cracked and Eroded Cast Stone Mortar Joints (See S-13)

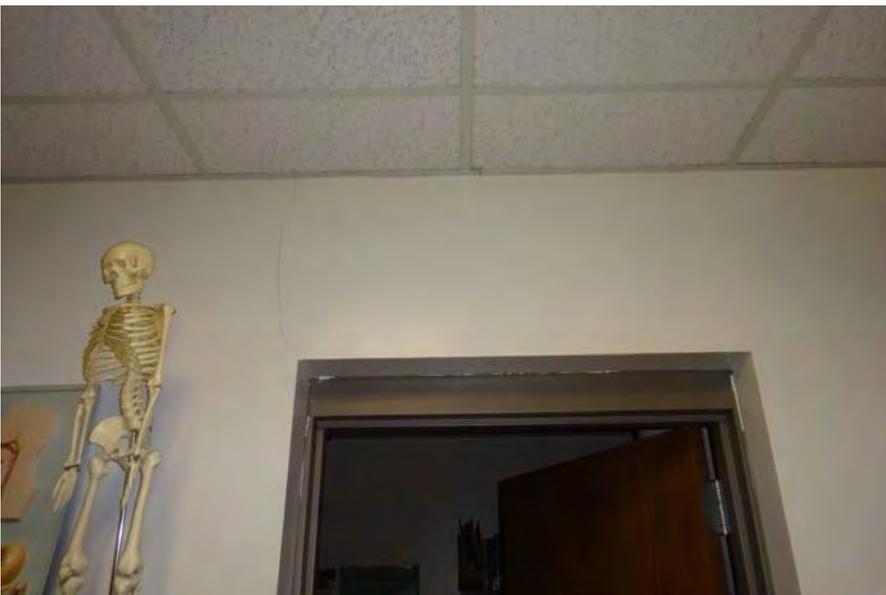


Photo 3: Cracked Finishes (See S-43)

Overview:

In this section of the Facilities Condition Assessment Report, Weston & Sampson presents a summary of observations regarding the condition of Calvin Coolidge 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 Calvin Coolidge School site:

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

## Electrical

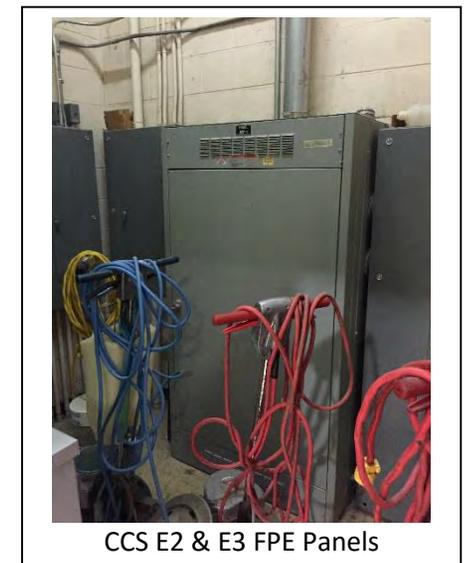
### A.

#### 1. Observations:

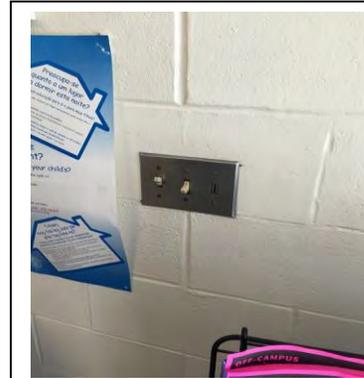
- i. Main service for newer portion of the school and the modular classrooms is a 400A at 480/277V, 3-phase, 4-wire



- ii. Main Service for the older portion of the school is 1600A at 480/277V. 3-phase, 4-wire



- iii. Lighting is predominantly fluorescent throughout the school.
- iv. Lighting controls are via wall mounted switches.



CCS E6 Light Switches



CCS E6 Fluorescent Lighting Fixtures

- v. Fire alarm system is an FCI zoned system.



CCS E4 Fire Alarm Control Panel

**2. Commentary:**

- i. Main Electrical Service: The building is served by 2 separate electrical services and does not meet code for disconnecting means, the new portion of the school is served by a 400A, 480/27V, 3-phase, 4-wire service installed in 1969 and the older portion of the school is served by a 1600 amperes, 480Y/277volts, 3-phase, 4-wire service. Both services are located within 2 main electrical rooms one in each portion of the school. The service equipment consists of utility company pad mounted transformer and an underground feed to utility metering equipment feeding each of the main electrical rooms. All electrical distribution equipment within the existing portion of the school is manufactured by ITE and is original to the school. All electrical distribution equipment within the new portion of the school is manufactured by ITE and is original to the new portion of the school. The predominance of the main distribution equipment is in fair to poor condition.
- ii. Lighting: The lighting throughout the facility consists of surface/recessed 2 and 3-lamp 34W T5 fixtures. Corridor lighting is a mix of 1x4 surface mounted fixtures, 2' x 4' recessed parabolic fixtures and 2' round surface mounted fixtures. All classroom lighting is via 2' x 4' recessed parabolics. Kitchen lighting 1' x 4' enclosed and gasketed fixtures. All lighting throughout the facility is controlled with manual switches. The lighting throughout the facility appears to be in fair condition. The light levels appear to be within recommended levels.
- iii. Gym Lighting consists of (12) 6-lamp T5 HO fluorescent pendant mounted fixtures.
- iv. Site lighting: The site lighting is accomplished via building mounted LED with a couple of metal halide wall packs and a number of utility owned pole mounted LED flood lights both appear to be in good condition.
- v. Life safety emergency lighting is provided via wall mounted emergency battery units and remote emergency heads. The emergency light fixtures appear to be in fair condition.
- vi. Battery powered exit lighting is installed throughout the facility, and is in good condition.
- vii. Fire Alarm: The fire alarm system is an FCI 12 Zone system. There are manual fire alarm pull stations and speaker strobes located throughout the building. Heat and smoke detectors are present throughout the facility. The fire alarm system is old and appears to be in fair condition.

Facilities Condition Assessment Narrative

---

- viii. Clock System: The existing clock system is old and appears to be in fair condition.
- ix. Paging System: The existing clock system is old and appears to be in fair condition.
- x. The existing clock system is old and appears to be in fair condition.

**3. Recommendations:**

- i. Replace both main electrical services with 1 single electrical service feeding the entire school.
- ii. Replace all power distribution equipment. There is (1) 1600A distribution panel and (5) panelboards located in the GYM electrical room. The second electrical room consists of (2) 400A distribution panels, (1) 150KVA transformer, (6) 100A panelboards, (1) 125A panelboard, (2) 225A panelboards located throughout the school. There are (2) FPE panelboards and (1) FPE transformer located in the kitchen storage room. These FPE panels and transformer should be replaced immediately.
- iii. Replace existing fire alarm system and devices with a new Voice Evacuation addressable system to meet all current codes.
- iv. Replace all existing manual lighting controls with new automatic lighting controls to meet current energy codes.
- v. Replace existing paging system.
- vi. Replace existing clock system.
- vii. Replace existing security system.

## HVAC

### 1. Observations:

- i. The heating systems for the original 3 story portion of the school consist of two (2) dual fired (gas/oil) hot water boilers, unit ventilators and finned tub radiation. The heating and cooling systems for the 1969 addition to the building consist of all electric heat, ductless split systems and small packaged roof top units.
- ii. A gas fired packaged rooftop unit provides heating and cooling for the Media Center. There are two (2) ductless split systems which provide cooling for the Admin Area.
- iii. The four Classroom Trailers are heated, ventilated and cooled by individual all electric packaged rooftop units. The corridors are heated by electric radiation.



Facilities Condition Assessment Narrative

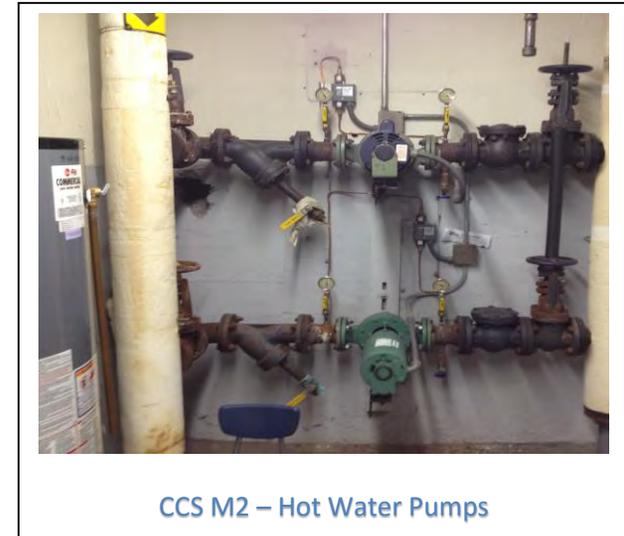
- iv. Heating hot water is circulated by two (2) constant volume in-line pumps. Hot water is supplied to Unit Ventilators, finned tube radiation, cabinet unit heaters and other various heating equipment.
- v. Classrooms have heating only unit ventilators.
- vi. There is a Horizontal H&V unit on the basement level in the original 3 story portion of the school that provides heat and ventilation to various non classroom spaces. This unit also has an associated return fan.
- vii. There is a Packaged Thru the Wall Air Conditioner (PTAC) for the Nurse's Office
- viii. The four Classroom Trailers are heated, ventilated and cooled by individual all electric packaged rooftop units. The corridors are heated by electric radiation.
- ix. Building Management System: A new BMS was installed in October of 2011.



CCS M3 – Classroom Unit Ventilators

**2. Commentary:**

- i. Most of the HVAC equipment in the original 3 story portion of the school is original to the 1984 renovation
- ii. Heating Equipment:
  - Boilers: The existing boilers are HB Smith Model 3500 with a net output of 1,544 MBH each. They are original to a 1984 renovation and are in fair condition.
  - Unit Ventilators (UV): The existing UV's are original to both the 1969 addition and 1984 renovation. The hot water UV's in original portion of the building have all new controls and actuators installed. The UV's in the 1969 addition are all electric.
  - Hot Water Pumps: The inline hot water pumps are from a newer install and are in good condition.
- iii. Cooling Equipment:
  - RTU's: The rooftop unit serving the Media Center is newer and appears to be in good condition. The RTU's serving the trailers are new and appear to be in good working order,
  - Ductless Splits: The ductless split systems in the Admin area and the Principal's office appear in good condition.
  - The Unit serving the Nurses' office is original to the 1984 renovation and appears to be in fair condition.



**3. Recommendations:**

Facilities Condition Assessment Narrative

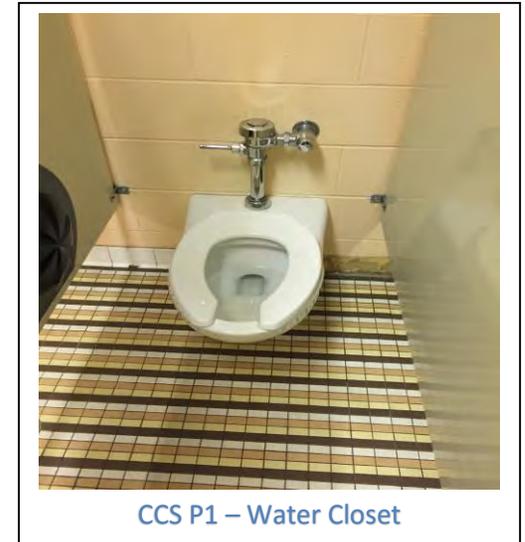
- i. Replace existing boilers with high efficiency condensing boilers. Size new boilers to provide heating to 1969 addition of school (portion currently all electric).
- ii. Replace existing hot water pumps. Size to provide hot water to 1969 addition of school.
- iii. Replace all existing Unit Ventilators building wide. Convert all electric UV's to hot water. Provide new piping distribution as required.
- iv. Replace all additional electric heating equipment in 1969 addition with hot water equipment (i.e. finned radiation nit including the trailers). Provide new piping distribution as required.

## Plumbing

### B.

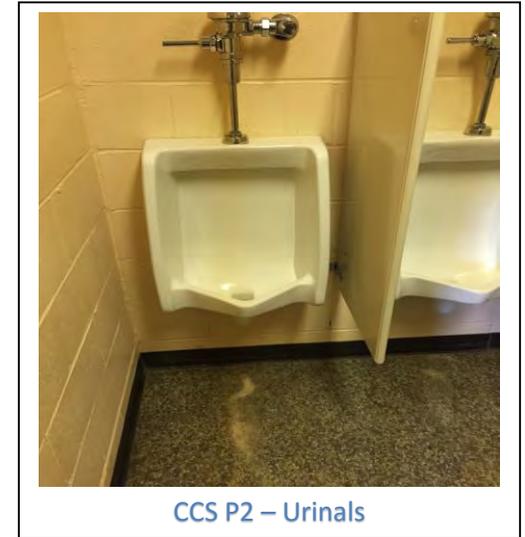
#### 1. Observations:

- i. Domestic Water Service: The building is served by two domestic water services.
- ii. Domestic Hot Water Service: The building's domestic hot water service is generated by one (1) 75 gallon gas fired hot water heater located in the boiler room and two electric domestic hot water heaters located in the gym storage room.
- iii. Natural Gas: The building has a 4" natural gas service.
- iv. Sanitary: the building is served with a 6" sanitary water line and a 12" rain water line.
- v. Fixtures:



Facilities Condition Assessment Narrative

- 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 have dual handle faucets.
- Drinking fountains are wall mounted stainless steel units.



Facilities Condition Assessment Narrative

**2. Commentary:**

- i. Most of the plumbing fixtures in the original building are original to a 1984 renovation and are in fair condition. The plumbing fixtures in the 1969 addition of the building are original to that date and are in fair condition.
- ii. Drinking fountain not accessible due to tables and chairs stored adjacent to unit.

**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
- iv. Remove stored items adjacent to drinking fountain to provide handicap accessibility



## **Fire Protection**

- C.
1. **Observations:**
    - i. The building is not sprinkled.
  
  2. **Commentary:**
    - i. Existing code would require a sprinkler system to be installed but the building is “grandfathered”.
  
  3. **Recommendations:**
    - i. Install Fire Protection system per NFPA 13 during next major renovation

## Hazardous Materials

### A.

#### 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, pipe fitting insulation, 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, linoleum, pipe fitting insulation and roof drain insulation 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.

Additionally, 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, duct pin mastic, duct sealant, stucco, damp-proofing, door caulk, roof caulk and glazing compound on interior fire door systems are all suspect asbestos-containing materials that may be present at the building. The following is a list of potential or confirmed asbestos-containing materials found at the building.

Material	Location	Approximate Quantity	Condition
9x9 Floor tile and associated mastics	Gymnasium, Café, Room 02, Room 01, Storage between rooms 01 and 02, under carpeting	10,000 SF	Good
Linoleum flooring	Bathrooms	780 SF	Good
Pipe/fitting insulation	Gymnasium, Kitchen storage, Gymnasium storage, Kitchen office	75 LF	Good
Duct pin mastic	Kitchen storage	50 SF	Good
Interior window glazing	Throughout	40 each	Good
Duct sealant	Throughout	1000 SF	Good
Stucco	Exterior	500 SF	Good
Foundation damp-proofing	Exterior below grade	2500 SF	Good
Door caulk	Exterior	400 LF	Good
Roof caulk	Exterior – roof at penetrations/transitions	200 LF	Good
Roofing materials	Exterior – roof	18,000 SF	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	550
Fluorescent light ballasts	275
Hydraulic door closers	75
Exit light batteries	40

## Calvin Coolidge Elementary School - Total Estimated Costs

Consultant	Discipline		Cost Estimate		
			1 yr	5 yr	10 yr
Waterman Design Associates	Site & Landscape			\$290,938	\$336,110
Gorman Richardson Lewis Architects	Architecture		\$561,871	\$1,813,398	\$1,178,967
Gorman Richardson Lewis Architects	Building Envelope		\$522,196	\$315,609	\$1,993,298
Structures North	Structural			\$26,571	\$175,534
Weston & Sampson	MEP/FP/Hazmat			\$1,819,640	\$3,055,737
		<b>Totals</b>	<b>\$1,084,067</b>	<b>\$4,266,156</b>	<b>\$6,739,646</b>

**Condition Assessment Matrix**

BUILDING:		CALVIN COOLIDGE SCHOOL															
AREA:		Site/Landscape															
Issue #	Discipline	Loc	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 fair to poor throughout the site.			X					X Phased	Implement a program of replacing damaged or worn pavement throughout the site. <b>(assumes 2500 sf for each period)</b>	5,000 S.F.		\$ 32,585	\$ 38,570
SL-2	Site/Landscape	Varies	Vehicular Entrances and Circulation	There does not appear to be sufficient signage denoting the entrances and one-way egress points onto South Quinsigamond Ave.			X					X Phased	Develop an improved wayfinding and signage program for the campus.	1 L.S.		\$ 9,310	\$ 11,020
SL-3	Site/Landscape	Varies	Parking Location, Arrangement, and Quantity	The accessible parking space does not appear to comply with current MAAB standards.			X					X Phased	Implement a program to bring accessible parking spaces throughout the site into compliance with current MAAB standards, and ensure sufficient quantity of accessible spaces is met. <b>(assumes 4 spaces per phase)</b>	1 L.S.		\$ 55,860	\$ 66,120
SL-4	Site/Landscape	Varies	Parking Location, Arrangement, and Quantity	The pavement condition of the parking areas mirrors that of the vehicular entrances, ranging from fair to poor throughout the site, with little evidence of recent repairs.			X					X Phased	Implement a program of replacing damaged or worn pavement throughout the site. <b>(assumes 2500 sf for each period)</b>	5,000 S.F.		\$ 32,585	\$ 38,570

**Condition Assessment Matrix**

BUILDING:		CALVIN COOLIDGE SCHOOL															
AREA:		Site/Landscape															
Issue #	Discipline	Loc	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-5	Site/Landscape	Varies	Pedestrian Circulation	The condition of the bituminous and Portland cement concrete pavement throughout the site ranges from good to fair.			X					X Phased	Implement a program of replacing damaged or worn pavement throughout the site. <b>(assumes 1500 sf for each period)</b>	3,000 S.F.		\$ 19,551	\$ 23,142
SL-6	Site/Landscape	Varies	Pedestrian Circulation	Accessible route(s) from South Quinsigamond Ave should be reviewed for safety and MAAB compliance.			X					X Phased	Implement a program to review accessible pedestrian routes throughout the site for compliance with current MAAB standards.	1 L.S.		\$ 18,620	\$ 22,040
SL-7	Site/Landscape	Varies	Pedestrian Accessibility and MAAB Compliance	The accessible parking space does not appear to comply with current MAAB standards.			X					X Phased	Implement a program to bring accessible parking spaces throughout the site into compliance with current MAAB standards, and ensure sufficient quantity of accessible spaces is met. <b>(assumes 4 spaces per phase)</b>	1 L.S.		\$ 55,860	\$ 66,120
SL-8	Site/Landscape	Varies	Loading Docks and Service Areas	Confirm that loading dock meets current needs of the building.			X					X Phased	Maintain condition of loading dock.	1 L.S.		\$ 9,310	\$ 11,020
SL-9	Site/Landscape	Varies	Courtyards and Other Exterior Student Congregation Areas	The natural mulch surfacing of the play area in the smaller courtyard does not appear to meet fall zone drop height requirements.			X					X Phased	Replace the existing natural mulch surfacing at the play area with a compliant surface that meets current fall zone height requirements. <b>(assumes 250 SF per phase)</b>	500 S.F.		\$ 4,655	\$ 5,510

**Condition Assessment Matrix**

BUILDING:		CALVIN COOLIDGE SCHOOL															
AREA:		Site/Landscape															
Issue #	Discipline	Loc	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-10	Site/Landscape	Varies	Courtyards and Other Exterior Student Congregation Areas	Due to heavy vehicle traffic at drop-off and pick-up times, the condition of the ground surface in the rear free play area is poor.			X				X Phased	Implement a program of replacing damaged or worn pavement throughout the site. <b>(assumes 1000 sf for each period)</b>	2,000 S.F.		\$ 13,034	\$ 15,428	
SL-11	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. <b>(assumes 10 lights per phase)</b>	1 L.S.		\$ 9,310	\$ 11,020	
SL-12	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. <b>(assume 30' path)</b>	1 L.S.		\$ 6,983		
SL-13	Site/Landscape	Varies	Site Furnishings	There is no formal site signage for the school.			X				X Phased	Develop a signage identity program for the campus.	1 L.S.		\$ 9,310	\$ 11,020	
SL-14	Site/Landscape	Varies	Site Vegetation	The majority of the vegetation on site is matured and in fair condition. However some species identified on site are declining due to age.			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	
<b>Architectural Building Cost Total</b>														\$0	\$290,938	\$336,110	

**Condition Assessment Matrix**

BUILDING:		CALVIN COOLIDGE ELEMENTARY SCHOOL															
AREA:		First Floor															
Issue #	Discipline	Loc	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 - 11	Walls	Water damage on both sides on window at the jambs.		131	X			X			Removed damaged drywall/plaster and repair any rotted or damaged wd/metal framing. Repair and patch wall material to match existing finish.	6sf			
															\$ 1,397		
FF-2	Arch	First Floor	Ceilings	ACT ceiling is stained and has visible signs of wear at various locations throughout the floor. Some utility areas have ceilings that appear to be beyond their service life.		132	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 HV diffusers to allow for cleaning of dust/ dirt buildup within the supply air coming through the diffusers.	25,875sf (75% of total ceiling area)			
																\$ 120,448	\$ 142,571
FF-3	Arch	First Floor	Flooring	Center stair and stage rubber treads and risers are showing wear and need cleaning.		133		X			X		Replace rubber tread and riser material at end of service life in 2-5 years.	300sf			
																\$ 13,965	
FF-4	Arch	First Floor	Flooring	Carpet in various areas appears worn, while a few areas the carpet has only minor wear. Some areas has carpet that is at least ten years old and should be replaced.		133	X				X Phased		Replace carpet material in areas as it meets the end of service life, and expect to replace carpet due to the level of traffic in some areas on an every 10 year basis. Consider carpet tile or more durable sheet carpet for high traffic areas.	23,680sf (75% of total carpet area)			
																\$ 88,184	\$ 104,381

**Condition Assessment Matrix**

BUILDING:		CALVIN COOLIDGE ELEMENTARY SCHOOL																
AREA:		First Floor																
Issue #	Discipline	Loc	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-5	Arch	First Floor	Flooring	Entry Vestibule VCT at main entries has wear, delamination and is curling in some areas. Some areas of VCT at high traffic areas is cracked and worn. Some areas of the floor slab appear to have uneven settlement and transmitted impressions and cracks through VCT.		133	X				X Phased			Remove and replace broken and worn VCT tiles. Replace VCT at end of service life. Continue to strip and wax VCT per manufacturer's instructions to extend the materials life span.	2,180 sf (50% of total)	\$ 16,982	\$ 20,803	
FF-6	Arch	First Floor	Flooring	Storage Closets/Utility spaces - VCT floor has not been maintained and required cleansing and wax.		133	X				X			Clean and wax floor area.	1541sf		\$ 12,195	
FF-7	Arch	First Floor	Flooring	Gymnasium - VCT appears well maintained, but does have seam separation and cracking in some areas. Wear appears in line with age of material.		133	X				X			Clean and wax floor per manufacturer's guidelines. Replace floor tiles as they exceed their service life. Expect to replace this flooring or portion of it in the next 7-10 years.	3856sf (total floor area)			\$ 36,119
FF-8	Arch	First Floor	Flooring	Ceramic floor tile base is missing and worn in various areas, especially in the toilet rooms. Some areas of ceramic tile have visible signs of wear.		133	X				X Phased			Portions of floor tile need replacement/repair due to missing tiles. Other areas are in reasonable state to last 7-10 years.	80sf of tile need rework / 400sf in 7-10 years	\$ 2,830	\$ 16,750	

**Condition Assessment Matrix**

BUILDING:		CALVIN COOLIDGE ELEMENTARY SCHOOL															
AREA:		First Floor															
Issue #	Discipline	Loc	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-9	Arch	First Floor	Flooring	Vinyl flooring and wall base in staff/individual toilet rooms have visible signs of wear and deterioration.		133	X				X		Remove and replace sheet flooring in staff toilet rooms. Consider replacing floor with ceramic tile or similar durable surface.	254sf		\$ 8,986	
FF-10	Arch	First Floor	Flooring	Exposed concrete floor finish is heavily worn and deteriorated.		133	X				X		Remove and reapply floor paint/finish to ensure concrete floor is fully protected.	540sf		\$ 3,519	
FF-11	Arch	First Floor	Doors	Room 124 - Exterior double doors and side-lite frame have signs of rot at base. Doors do not close properly and are not able to be used by the users due to difficulty with door operation during high humidity.		134			X	X			Due to nature of this door serving as an egress point, it is highly recommended that the doors, frames and associated hardware be replaced with assemblies in kind to ensure proper door operation and life safety measures.	12lf of double doors and glass sidelights / with associated egress hardware	\$ 17,541		
FF-12	Arch	First Floor	Doors	Various doors have loose and/or missing hardware that impacts the associated door operation. Silencers are typically worn.		134		X			X		Replace missing or worn hardware. Adjust doors as necessary for proper operation and alignment with frame and adjacent surfaces.	67 doors (75% of total)		\$ 102,922	

**Condition Assessment Matrix**

BUILDING:		CALVIN COOLIDGE ELEMENTARY SCHOOL															
AREA:		First Floor															
Issue #	Discipline	Loc	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	Doors	Numerous doors are well worn and in need of replacement and/or refinishing due to damaged or chipped edges and surfaces. Doors have corridor side key for locking classroom.		134		X			X	Phased	Replace doors and frames showing heavy signs of wear that are beyond their service life. Expect to replace hardware as well for proper operation of new door assemblies. Refurbish those doors that are deemed serviceable. Refer to item FF-12 for noted hardware issues.	67 doors (75% of total)		\$ 93,566	\$ 110,751
FF-14	Arch	First Floor	Windows	Numerous window IGUs appear to have compromised gaskets. Moisture and condensation is present between the glass panes. Insect screens are worn and damaged in some areas.		135		X			X	Phased	Replace compromised IGUs that are compromised. As window units age, expect to replace IGU's over the next 7-10 years. Replace insect	12 window units / 32 total windows (36 sf per unit)		\$ 46,476	\$ 77,459
FF-15	Arch	First Floor	Windows	Interior window perimeter caulk is missing and/or requires replacement at various window assemblies.		135		X			X		Remove existing interior perimeter caulk. Inspect and install appropriate backer rod at window perimeter as required. Apply applicable interior window caulk at all window units.	1356lf		\$ 22,724	
FF-16	Arch	First Floor	Windows	A few exterior windows appear to have loose hardware		135	X			X			Readjust and or replace loose or damaged window hardware to ensure proper operation of window units and avoid damage to assemblies.	16 window units (50% of overall total)	\$ 6,156		

**Condition Assessment Matrix**

BUILDING:		CALVIN COOLIDGE ELEMENTARY SCHOOL																
AREA:		First Floor																
Issue #	Discipline	Loc	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-17	Arch	First Floor	Casework	Numerous wood window sills have evidence of water damage.		136	X					X		Window sill does not appear to impact window operation. Refurbish and/or replace wood window sills as required.	252lf of wood sill		\$ 11,731	
FF-18	Arch	First Floor	Casework	Metal casework in classrooms shows sign of wear and requires refinishing or replacement.		136	X					X		Evaluate structural integrity of metal shelving. Replace or refinish shelving as required.	120 lf (12lf avg. per classroom)		\$ 22,344	
FF-19	Arch	First Floor	Casework	Wood casework cabinetry and plam countertop has visible signs of wear.		136	X					X Phased		Replace plam counter top and wood casework. Refurbish units when possible. Assume all hardware to be replaced.	100lf (10lf per classroom avg.)		\$ 9,310	\$ 11,020
FF-20	Arch	First Floor	Fixed Furnishings	Exterior window shades and blinds have visible signs of wear and mechanical failure during operation.		137		X			X			Due to the nature of glare and sun control to the learning environment, it is recommend the window shades/blinds be replaced as soon as possible. Replace window shade assemblies in their entirety.	352lf of shade/blinds width /6 lf height	\$ 26,752		
FF-21	Arch	First Floor	Fixed Furnishings	Toilet rooms do not have required urinal partitions		137	X					X		It is recommended that urinal partitions be installed between urinals as required by current building code.	6 painted metal urinal partitions			\$ 2,645
FF-22	Arch	First Floor	Fixed Furnishings	Library shelving is starting to show wear and surface deterioration.		137	X					X		At current rate of wear and use, expect to replace 20% to 30-% of the shelving over the next 7-10 years.	45lf of multi-tiered metal shelving			\$ 9,918

**Condition Assessment Matrix**

BUILDING:		CALVIN COOLIDGE ELEMENTARY SCHOOL															
AREA:		First Floor															
Issue #	Discipline	Loc	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-23	Arch	First Floor	Fixed Furnishings	Toilet room mirrors are delaminated.		137	X				X		Replace delaminated mirrors with code compliant mirror assemblies.	84sf of mirror with metal edges		\$ 8,602	
FF-24	Arch	First Floor	Fixed Furnishings	Equipment and classroom furniture appear to be set up on the corridor 124.		137			X	X		Remove equipment and furnishings from corridor to avoid obstructions and potential life safety issues during times of egress from the building.	N/A				
FF-25	Arch	First Floor	Lighting	Storage room is very poorly lit. Existing lighting in some areas appears to be original.		138	X				X	Install supplemental lighting for safety and visibility in all spaces. Remove and replace existing dated light fixtures with LED assemblies.	(4) 4' long utility fixtures / 80 LED light fixtures (50% of assumed total)		\$ 40,219		
FF-26	Arch	First Floor	Elevator	Elevator operation has very loud and abrasive sound.		139			X	X		Due to the life safety nature of elevator operation, it is highly recommended that the elevator be fully inspected and serviced by qualified elevator technician.	(1) Hydraulic Passenger Elevator - 3 stop		\$ 5,214		
FF-27	Arch	First Floor	Mech	Various diffusers are rusting and dirty.		140	X				X	Clean and or replace ceiling diffusers as required due to condition.	(20) 24x24 painted diffusers		\$ 3,538		

**Condition Assessment Matrix**

BUILDING:		CALVIN COOLIDGE ELEMENTARY SCHOOL															
AREA:		First Floor															
Issue #	Discipline	Loc	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-28	Arch	First Floor	Mech	Existing convector and ventilation units appear dirty and some are missing misc. panels and hardware. Age of some equipment appears to be original to building.		140		X				X Phased	To ensure air quality and thermal comfort for staff and students, refurbish, refinish and/or replacement HV assemblies beyond their service life.	Assume replacement of 216lf (50% of existing equipment)		\$ 27,148	\$ 32,134
FF-29	Arch	First Floor	Elec	Room 10 - Intercom button missing.		141			X	X			Repair or replace intercom panel to provide proper operation	(1) Intercom panel	\$ 760		
FF-30	Arch	First Floor	Plumbing	Boys Room has strong smell of urine.		142		X		X			Verify traps and floor drain traps are primed. Repair or replace faulty drain piping that may be leaking behind wall. Inspect vent trap and drain waste vent for proper operation and is free of debris. Consider installing trap primers.	Cost of plumber and repair of possible pipe breaks	\$ 2,660		
FF-31	Arch	First Floor	Plumbing	Gymnasium roof drain appears to have signs of previous leaks.		142	X					X	Monitor roof drain from interior to confirm leaks are not present. Repair roof flashing or reseal/replace roof drain if leaking re-emerges.	(1) 8" commercial roof drain.	\$ 2,660		
FF-32	Arch	First Floor	Code Issues	Various locations in main corridors do not have required illuminated exit signs.		143			X	X			Due to nature of life safety, it is recommended that exit sign be installed as soon as possible.	(4) 2 sided illuminated exit signs	\$ 4,104		
FF-33	Arch	First Floor	Code Issues	Electrical Room has loosely stored combustible items in front of transformers and electrical panels.		143			X	X			Remove stored items from electrical closet. Install code required sign to prevent storage in electrical room.	(1) NO STORAGE ALLOWED sign	\$ 76		

**Condition Assessment Matrix**

BUILDING:		CALVIN COOLIDGE ELEMENTARY SCHOOL																
AREA:		First Floor																
Issue #	Discipline	Loc	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	Code Issues	Room 11 - classroom items are stored in way of egress doors.		143			X	X			Remove items from path of egress and door.	N/A				
FF-35	Arch	First Floor	Code Issues	Corridor is sloped but does not appear to be steep enough to be considered a ramp and require handrails.		143							No further action required.	N/A				
FF-36	Arch	First Floor	Code Issues	Single User Toilet Rooms - Non ADA compliant single user toilets. Latch set on doors are knob type.		143			X	X			Replace door hardware with level style door lockset. A full reconfiguration of the spaces is required to provide the relative ADA clearances to the space and fixtures.	(6) Lock sets / 250 sf	\$	13,680		
FF-37	Arch	First Floor	Code Issues	Southwest vestibule does not provide required ADA depth for door operation in current configuration.		143			X	X			During future major renovations, the MAAB guidelines will require adjustments. ADAAG current guidelines require immediate compliance or approved variance. Adjust interior wall partition to provide 7' vestibule depth or install auto-operator on series of existing doors.	(2) Electric auto operator and (4) push actuators	\$	22,040		

**Condition Assessment Matrix**

BUILDING:		CALVIN COOLIDGE ELEMENTARY SCHOOL															
AREA:		First Floor															
Issue #	Discipline	Loc	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-38	Arch	First Floor	Code Issues	Storage - wood shelving does not appear to have FR stamps or code required class certification.		143			X	X			Due to the nature of the building construction type and non-sprinklered condition, it is recommended that the AHJ review and advise on acceptability of installed wood shelving. If not deemed acceptable, remove and replace wood shelving with metal shelving units.	24lf of 6'h painted metal shelving	\$ 3,648		
FF-39	Arch	First Floor	Code Issues	Doors in the kitchen area have knob style hardware.		143			X	X			Replace all knob style hardware on the floor. ADA requires all doors on an accessible route to be accessible.	6 locksets / See FF-12	\$ 5,472		
FF-40	Arch	First Floor	Code Issues	Kitchen - Clothes dryer does not vent to the exterior, it vents within the room.		143			X	X			Refer to AHJ for acceptability of the vent installation. It is recommended to vent this dryer directly to the exterior atmosphere with code compliant ductwork and exterior discharge.	20lf of 6" diameter rigid ductwork; exterior grill with check valve	\$ 4,560		
FF-41	Arch	First Floor	Code Issues	Double doors in corridor reduce the egress width when open as they do not open 180 egress.		143							Doors are allowed to encroach on means of egress. Doors in full open do not appear to reduce the required means of egress width. No further action required.	N/A			

**Condition Assessment Matrix**

BUILDING:		CALVIN COOLIDGE ELEMENTARY SCHOOL															
AREA:		First Floor															
Issue #	Discipline	Loc	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-42	Arch	First Floor	Code Issues	Handrails installed at stair to stage are not ADA compliant. Extensions, diameter and height do not appear compliant.		143			X	X			Remove and replace wall mounted handrail with ADAAG compliant handrail on both sides of stair.	12lf of railing	\$ 1,915		
FF-43	Arch	First Floor	Code Issues	No ADA compliant toilet stall or sink provided in Boys, Girls, or Staff toilet rooms.		143			X	X			Provide pipe wrap at under sink plumbing, install grabs where required, reconfigure toilet stalls to provide ADA clearances, adjust door swings to allow ADA clearances, locate dispensers within designated ADA sink range.	735sf / 6 sinks / 6 doors / (12) 42" grab bars	\$ 32,832		
FF-44	Arch	First Floor	General	Wall surfaces in areas is in good service, but generally, most areas are scuffed and require refinishing Visible signs of worn paint finish on door frames, doors, painted CMU walls.		144 / 145	X				X Phased		Implement a program of repainting of painted wall and interior door frame surfaces, doors, CMU 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.	34,501sf (100% of first floor)		\$ 128,482	\$ 152,080

**Condition Assessment Matrix**

BUILDING:		CALVIN COOLIDGE ELEMENTARY SCHOOL															
AREA:		First Floor															
Issue #	Discipline	Loc	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-45	Arch	First Floor	General	Gymnasium - Acoustics in space appear to be poor. Staff have complained that sound reverberates considerably. Due to its size, it is used as a meeting space, but is difficult to clearly hear. Same condition occurs during Gym class.		144		X			X		Further investigate acoustical issue in gymnasium. Consult with acoustical engineer for best approaches to mitigate the current reverberation and sound quality issues.	3856sf (gymnasium total)			\$ 9,310
FF-46	Arch	First Floor	General	Stage is used primarily for storage and after-school program		144		X			X		Evaluate current storage capacity of building and future needs for stored items. As with other elementary schools in the report, the stage area appears to not be maintained for stage use. Evaluate using appropriately programmed space for after-school programs/storage or consider implementing project to renovate space that better fits the way the space is utilized.	723sf (stage)			\$ 9,310
FF-47	Arch	First Floor	General	Cubbies in corridors is in good repair, but the finish appears worn.		144	X				X		Refinish classroom cubbies as required to maintain appearance.	300lf			\$ 27,930

**Condition Assessment Matrix**

BUILDING:		CALVIN COOLIDGE ELEMENTARY SCHOOL																
AREA:		First Floor																
Issue #	Discipline	Loc	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-48	Arch	First Floor	General	Ventilation in classrooms is fairly poor. Staff have complained and resorted to propping stair doors open for cross breeze ventilation.		Refer to Photos		X			X		Further evaluate operation of ventilation system. Consider engineering services to investigate and suggest improvement of air movement and changeover. Stair doors that are propped open pose a life safety risk. This activity to overcome ventilation needs should be avoided, install electromagnetic holdbacks.	Ventilation Study / 6 Mag holds			\$ 83,790	
FF-49	Arch	First Floor	General	Classroom 121 - classroom has odor from previous water leak in wall. Classroom doors must remain to keep odor from overwhelming classroom.		Refer to Photos			X	X			Further investigate source of odor. Previous leak repair may have been fully complete or allowed water damaged material to dry out before being enclosed. Additionally leaks may exist. Confirm and evaluate air quality is within allowable per the MA Dept. of Public Health (IAQ Program)	806sf	\$ 7,600			
FF-50	Arch	First Floor	General	Portable classrooms egress stairs and railings are deteriorated and have loose connections.		Refer to Photos			X	X			Replace stairs and railings meeting current building code and ADA requirements.	36lf of stairs and railings.	\$ 38,000			
FF-51	Arch	First Floor	General	Portable classrooms have roof leaks and leaks from drip pans, my be from from HV unit drip pans.		144			X	X			Repair roof issues and evaluate condensation issues and equipment leaks.	4000sf Roof Repair	\$ 91,200			
															1 yr.	5 yr.	10 yr.	

**Condition Assessment Matrix**

<b>BUILDING:</b>		<b>CALVIN COOLIDGE ELEMENTARY SCHOOL</b>															
<b>AREA:</b>		First Floor															
Issue #	Discipline	Loc	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.
														<b>Architectural Building Cost Total</b>			
															\$ 300,035	\$ 923,545	\$ 695,830

**Condition Assessment Matrix**

BUILDING: CALVIN COOLIDGE ELEMENTARY SCHOOL																	
AREA: Second Floor																	
Issue #	Discipline	Loc	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 wall/ceiling finishes; water staining at window jambs; Damaged paint finish on door frames, doors, painted CMU walls. Stair stringers, handrails and railings need refinishing.		146 / 157	X					X Phased	Implement a program of patching and repainting of painted wall and interior door frame surfaces, doors, CMU 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.	7,038sf			
																\$ 52,419	\$ 62,047
SF-2	Arch	Second Floor	Walls	GWB/Plaster wall corners have chipped and gouged edges at various locations.		146	X				X		It is recommended that 4' long wall corner guards be installed to protect wall corner at high traffic areas.	18 stainless steel corner guards			
																\$ 8,379	
SF-3	Arch	Second Floor	Ceilings	ACT ceiling is stained and has visible signs of wear at various locations throughout the floor. .		147	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 HV diffusers to allow for cleaning of dust/dirt buildup within the supply air coming through the diffusers.	5,278sf (75% of total ceiling area)				
																\$ 24,569	\$ 29,082

**Condition Assessment Matrix**

BUILDING:		CALVIN COOLIDGE ELEMENTARY SCHOOL																	
AREA:		Second Floor																	
Issue #	Discipline	Loc	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-4	Arch	Second Floor	Flooring	Carpet in various areas appears worn, while a few areas the carpet has only minor wear. Some areas has carpet that is at least ten years old and should be replaced. Bubbling and seam separation is evident.		148	X					X Phased	Replace carpet material in areas as it meets the end of service life, and expect to replace carpet due to the level of traffic in some areas on an every 10 year basis. Consider carpet tile or more durable sheet carpet for high traffic areas.	4,513sf				\$ 25,198	\$ 24,867
SF-5	Arch	Second Floor	Flooring	Rubber treads and risers at stairs are showing wear and require cleaning.		148	X					X	Clean rubber tread and riser surfaces. Re-adhere surfaces as required. Expect to replace portions of rubber floor covering in next 10years	420 sf					\$ 23,418
SF-6	Arch	Second Floor	Flooring	A few areas of VCT have signs of cracking, staining and general wear.		148	X				X		Replace worn and damaged tiles. Clean and reseal tiles per manufacturer's guidelines.	1078sf (75% of total)				\$ 20,574	
SF-7	Arch	Second Floor	Doors	Various doors have loose and/or missing hardware that impacts the associated door operation. Silencers are typically worn.		149		X			X		Replace missing or worn hardware. Adjust doors as necessary for proper operation and alignment with frame and adjacent surfaces.	16 doors (75% of total)				\$ 24,578	

**Condition Assessment Matrix**

BUILDING:		CALVIN COOLIDGE ELEMENTARY SCHOOL															
AREA:		Second Floor															
Issue #	Discipline	Loc	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-8	Arch	Second Floor	Doors	Numerous doors are well worn and in need of replacement and/or refinishing due to damaged or chipped edges and surfaces.		149		X				X Phased	Replace doors and frames showing heavy signs of wear that are beyond their service life. Expect to replace hardware as well for proper operation of new door assemblies. Refurbish those doors that are deemed serviceable. Refer to item SF-7 for noted hardware issues.	16 doors (75% of total)		\$ 22,344	\$ 26,448
SF-9	Arch	Second Floor	Doors	Stair doors do not latch, does not have mag holds and doors are wedge open. Doors and frame are not fire rated. This condition is consistent at other stairs.		149			X	X			Remove wedge from doors. If doors are required to be open for ventilation, install electromagnet hold opens tied into the fire alarm system. Replace doors and frames and applicable code compliant fire rated assemblies and hardware, with gasketing.	6 fire rated doors	\$ 83,790		

**Condition Assessment Matrix**

BUILDING:		CALVIN COOLIDGE ELEMENTARY SCHOOL															
AREA:		Second Floor															
Issue #	Discipline	Loc	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-10	Arch	Second Floor	Windows	Numerous window IGUs appear to have compromised gaskets. Moisture and condensation is present between the glass panes. Insect screens are worn and damaged in some areas.		150		X				X Phased	Replace compromised IGUs that are compromised. As window units age, expect to replace IGU's over the next 7-10 years. Replace insect	6 window units / 18 total windows (36 sf per unit)		\$ 26,142	\$ 52,285
SF-11	Arch	Second Floor	Windows	Interior window perimeter caulk is missing and/or requires replacement at various window assemblies.		150		X			X		Remove existing interior perimeter caulk. Inspect and install appropriate backer rod at window perimeter as required. Apply applicable interior window caulk at all window units.	1272lf		\$ 21,316	
SF-12	Arch	Second Floor	Windows	A few exterior windows appear to have loose hardware.		150	X			X			Readjust and or replace loose or damaged window hardware to ensure proper operation of window units and avoid damage to assemblies.	14 window units (75% of overall total)	\$ 5,396		
SF-13	Arch	Second Floor	Windows	Various exterior windows appear to be reaching the end of their serviceable life.		150	X				X		Expect to replace a portion of the windows, if not all, in their entirety.	14 window units (75% of overall total)		\$ 26,068	

**Condition Assessment Matrix**

BUILDING:		CALVIN COOLIDGE ELEMENTARY SCHOOL															
AREA:		Second Floor															
Issue #	Discipline	Loc	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-14	Arch	Second Floor	Windows	Exterior window shades and blinds have visible signs of wear and mechanical failure during operation.		150		X			X		Due to the nature of glare and sun control to the learning environment, it is recommend the window shades/blinds be replaced as soon as possible. Replace window shade assemblies in their entirety.	216lf of shade/blinds width /6 lf height		\$ 23,803	
SF-15	Arch	Second Floor	Casework	Numerous wood window sills have evidence of water damage.		150	X				X		Window sill does not appear to impact window operation. Refurbish and/or replace wood window sills as required.	216lf of wood sill		\$ 10,055	
SF-16	Arch	Second Floor	Casework	Cubbies in corridors is in good repair, but the finish appears worn.		151	X				X		Refinish classroom cubbies as required to maintain appearance.	180lf		\$ 16,758	

**Condition Assessment Matrix**

BUILDING:		CALVIN COOLIDGE ELEMENTARY SCHOOL															
AREA:		Second Floor															
Issue #	Discipline	Loc	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-17	Arch	Second Floor	Casework	Stair handrailing diameter is larger than allowed by building code. Railing does not have required extensions at ends.		151			X	X			Remove and replace handrailing with code compliant railings.	144lf	\$ 22,982		
SF-18	Arch	Second Floor	Casework	Metal casework in classrooms shows sign of wear and requires refinishing or replacement.		151	X				X		Evaluate structural integrity of metal shelving. Replace or refinish shelving as required.	72 lf (12lf avg. per classroom)	\$ 13,406		
SF-19	Arch	Second Floor	Casework	Wood casework cabinetry and plam countertop has visible signs of wear. Doors are misaligned and missing hardware in some rooms.		136	X				X Phased		Replace plam counter top and wood casework. Refurbish units when possible. Assume all hardware to be replaced.	84lf (12lf per classroom avg.)	\$ 7,820	\$ 9,257	
SF-20	Arch	Second Floor	Fixed Furnishings	Exterior window shades and blinds have visible signs of wear and mechanical failure during operation.		152		X		X			Due to the nature of glare and sun control to the learning environment, it is recommend the window shades/blinds be replaced as soon as possible. Replace window shade assemblies in their entirety.	252lf of shade/blinds width /6 lf height	\$ 19,152		
SF-21	Arch	Second Floor	Equipment	Speaker box has dinged corner		153	X				X		Replace speaker box at end of service life.	1 speaker box		\$ 1,102	

**Condition Assessment Matrix**

<b>BUILDING:</b>		<b>CALVIN COOLIDGE ELEMENTARY SCHOOL</b>															
<b>AREA:</b>		Second Floor															
Issue #	Discipline	Loc	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-22	Arch	Second Floor	Mech	Existing convector and ventilation units appear dirty and some are missing misc. panels and hardware. Age of some equipment appears to be original to building.		154		X				X Phased	To ensure air quality and thermal comfort for staff and students, refurbish, refinish and/or replacement HV assemblies beyond their service life.	Assume replacement of 216lf (50% of existing equipment)		\$ 27,148	\$ 32,134
SF-23	Arch	Second Floor	Elec	Room 22 - Intercom button missing.		155			X	X			Repair or replace intercom panel to provide proper operation	(1) Intercom panel	\$ 760		
SF-24	Arch	Second Floor	Elec	Wall mounted electrical receptacle is loose and not attached to wall.		155			X	X			Secure receptacle and associated wiremold to wall.	(1) receptacle	\$ 760		
SF-25	Arch	Second Floor	Code Issues	Stored equipment is blocking access to electrical panels.		156			X	X			Due to the significance of accessing electrical panels and shutoffs/breakers, it is critical that stored items not block access to those locations.	N/A			
SF-26	Arch	Second Floor	Code Issues	Stair well doors are not rated.		156			X	X			Replace doors and frames with applicable rated assembly and associated hardware.	See SF-9			
SF-27	Arch	Second Floor	Code Issues	Wood cubbies stored in corridor. Wood does not appear to be fire retardant treated wood.		156		X			X		Confirm with AHJ for acceptability of non-fire retardant treated wood in corridor. Replace cubbies with FR wood or metal cubbies if required.	300lf		\$ 111,720	
SF-28	Arch	Second Floor	Code Issues	Exit sign missing from Corridor 213.		156			X	X			Install illuminated double sided exit sign.	1 exit sign	\$ 1,026		



**Condition Assessment Matrix**

BUILDING:		CALVIN COOLIDGE ELEMENTARY SCHOOL															
AREA:		Third Floor															
Issue #	Discipline	Loc	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.
TF-1	Arch	Third Floor	Walls	Surface cracks in GWB wall/ceiling finishes; water staining at window jambs; Damaged paint finish on door frames, doors, painted CMU walls. Stair stringers, handrails and railings need refinishing.		158	X					X Phased	Implement a program of repairing and repainting CMU, gwb, 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.	7,061sf			
																\$ 52,590	\$ 62,250
TF-2	Arch	Third Floor	Walls	GWB/Plaster wall corners have chipped and gouged edges at various locations.		158	X				X	It is recommended that 4' long wall corner guards be installed to protect wall corner at high traffic areas.	18 stainless steel corner guards				
																\$ 8,379	
TF-3	Arch	Third Floor	Walls	Various window openings have damaged gwb surfaces at jambs due to water intrusion.		158	X				X	Removed damaged drywall/plaster and repair any rotted or damaged wd/metal framing. Repair and patch wall material to match existing finish.	96sf				
																\$ 1,788	

**Condition Assessment Matrix**

BUILDING:		CALVIN COOLIDGE ELEMENTARY SCHOOL																	
AREA:		Third Floor																	
Issue #	Discipline	Loc	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.		
TF-4	Arch	Third Floor	Ceilings	ACT ceiling is stained and has visible signs of wear at various locations throughout the floor. .		159	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 HV diffusers to allow for cleaning of dust/ dirt buildup within the supply air coming through the diffusers.	3530sf (50% of total ceiling area)				\$ 16,432	\$ 19,450
TF-5	Arch	Third Floor	Flooring	Carpet in various areas appears worn, while a few areas the carpet has only minor wear. Some areas has carpet that is at least ten years old and should be replaced. Bubbling and seam separation is evident.		160	X					X Phased	Replace carpet material in areas as it meets the end of service life, and expect to replace carpet due to the level of traffic in some areas on an every 10 year basis. Consider carpet tile or more durable sheet carpet for high traffic areas.	4,616sf				\$ 21,487	\$ 25,434
TF-6	Arch	Third Floor	Flooring	A few areas of VCT have signs of cracking, staining and general wear.		160	X					X Phased	Replace worn and damaged tiles. Clean and reseal tiles per manufacturer's guidelines.	960sf (75% of total)				\$ 9,161	\$ 10,844
TF-7	Arch	Third Floor	Flooring	Floor area of Girls and Boys toilet rooms have worn and damaged ceramic tile flooring.		160	X					X	Replace and or repair ceramic flooring and wall base.	210sf				\$ 8,211	

**Condition Assessment Matrix**

BUILDING:		CALVIN COOLIDGE ELEMENTARY SCHOOL															
AREA:		Third Floor															
Issue #	Discipline	Loc	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.
TF-8	Arch	Third Floor	Doors	Various doors have loose and/or missing hardware that impacts the associated door operation. Silencers are typically worn.		161		X			X		Replace missing or worn hardware. Adjust doors as necessary for proper operation and alignment with frame and adjacent surfaces.	16 doors (75% of total)		\$ 24,578	
TF-9	Arch	Third Floor	Doors	Numerous doors are well worn and in need of replacement and/or refinishing due to damaged or chipped edges and surfaces.		161		X			X Phased		Replace doors and frames showing heavy signs of wear that are beyond their service life. Expect to replace hardware as well for proper operation of new door assemblies. Refurbish those doors that are deemed serviceable. Refer to item SF-7 for noted hardware issues.	16 doors (75% of total)		\$ 22,344	\$ 26,448
TF-10	Arch	Third Floor	Windows	Numerous window IGUs appear to have compromised gaskets. Moisture and condensation is present between the glass panes. Insect screens are worn and damaged in some areas.		162		X			X Phased		Replace compromised IGUs that are compromised. As window units age, expect to replace IGU's over the next 7-10 years. Replace insect	6 window units / 18 total windows (36 sf per unit)		\$ 26,142	\$ 52,285

**Condition Assessment Matrix**

BUILDING:		CALVIN COOLIDGE ELEMENTARY SCHOOL															
AREA:		Third Floor															
Issue #	Discipline	Loc	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.
TF-11	Arch	Third Floor	Windows	Interior window perimeter caulk is missing and/or requires replacement at various window assemblies.		162		X			X		Remove existing interior perimeter caulk. Inspect and install appropriate backer rod at window perimeter as required. Apply applicable interior window caulk at all window units.	1272lf		\$ 21,316	
TF-12	Arch	Third Floor	Windows	A few exterior windows appear to have loose hardware.		162	X			X		Readjust and or replace loose or damaged window hardware to ensure proper operation of window units and avoid damage to assemblies.	14 window units (75% of overall total)	\$ 5,396			
TF-13	Arch	Third Floor	Windows	Various exterior windows appear to be reaching the end of their serviceable life.		162	X				X	Expect to replace a portion of the windows, if not all, in their entirety.	14 window units (75% of overall total)		\$ 26,068		

**Condition Assessment Matrix**

BUILDING:		CALVIN COOLIDGE ELEMENTARY SCHOOL																
AREA:		Third Floor																
Issue #	Discipline	Loc	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.	
TF-14	Arch	Third Floor	Windows	Exterior window shades and blinds have visible signs of wear and mechanical failure during operation.		162		X				X		Due to the nature of glare and sun control to the learning environment, it is recommend the window shades/blinds be replaced as soon as possible. Replace window shade assemblies in their entirety.	216lf of shade/blinds width /6 lf height			\$ 23,803
TF-15	Arch	Third Floor	Casework	Numerous wood window sills have evidence of water damage.		163	X					X		Window sill does not appear to impact window operation. Refurbish and/or replace wood window sills as required.	216lf of wood sill			\$ 10,055
TF-16	Arch	Third Floor	Casework	Cubbies in corridors is in good repair, but the finish appears worn.		163	X					X		Refinish classroom cubbies as required to maintain appearance.	180lf			\$ 16,758
TF-17	Arch	Third Floor	Casework	Stair handrailing diameter is larger than allowed by building code. Railing does not have required extensions at ends.		163			X		X			Remove and replace handrail with code compliant railings.	144lf			\$ 22,982
TF-18	Arch	Third Floor	Casework	Metal casework in classrooms shows sign of wear and requires refinishing or replacement. Some units are missing hardware/shelving.		163	X					X		Evaluate structural integrity of metal shelving. Replace or refinish shelving as required.	72 lf (12lf avg. per classroom)			\$ 13,406

**Condition Assessment Matrix**

BUILDING:		CALVIN COOLIDGE ELEMENTARY SCHOOL															
AREA:		Third Floor															
Issue #	Discipline	Loc	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.
TF-19	Arch	Third Floor	Casework	Wood casework cabinetry and plam countertop has visible signs of wear. Doors are misaligned and missing hardware in some rooms.		163	X					X Phased	Replace plam counter top and wood casework. Refurbish units when possible. Assume all hardware to be replaced.	84lf (12lf per classroom avg.)		\$ 7,820	\$ 9,257
TF-20	Arch	Third Floor	Fixed Furnishin g	Window shades are missing hardware and difficult to operate.		164			X	X			Replace window shades.	See TF-14			
TF-21	Arch	Third Floor	Lighting Fixtures	Debris in various light fixture lenses.		165	X				X		Remove debris from lenses	6 fixtures		\$ 838	
TF-22	Arch	Third Floor	Equipment	Room 35 - Intercom button missing.		166			X	X			Repair or replace intercom panel to provide proper operation	(1) Intercom panel	\$ 760		
TF-23	Arch	Third Floor	Equipment	Smoke detector loose from ceiling mount.		166			X	X			Re-secure smoke detector or replace if defective.	1 smoke detector	\$ 760		
TF-24	Arch	Third Floor	Mech	Existing convector and ventilation units appear dirty and some are missing misc. panels and hardware. Age of some equipment appears to be original to building.		167		X				X Phased	To ensure air quality and thermal comfort for staff and students, refurbish, refinish HV units. Replace HV assemblies once beyond their service life.	Assume replacement of 108lf (25% of existing equipment)		\$ 4,655	\$ 5,510
TF-25	Arch	Third Floor	Elec	Misc. device plates and receptacles has signs of wear and minor damage.		168	X					X	Replace plates and/or hardware as they reach the end of their service life or are damaged due to use.	2 receptacle plates / 2 data ports need immediate work / 7,061sf of maintenance			\$ 11,020

**Condition Assessment Matrix**

BUILDING:		CALVIN COOLIDGE ELEMENTARY SCHOOL															
AREA:		Third Floor															
Issue #	Discipline	Loc	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.
TF-26	Arch	Third Floor	Plumbing	Under sink protective pipe wrap not installed in the toilet rooms.		169			X	X			Install pipe protection under wall mounted sinks.	8 sinks	\$ 1,824		
TF-27	Arch	Third Floor	Code Issues	Stair well doors are not rated. Wood panel used as infill to replace glass.		170			X	X			Replace doors and frames with applicable rated assembly and associated hardware. Replace wood panel with fire rated glass unit.	6 doors / 3sf of fire rated safety glass	\$ 28,819		
TF-28	Arch	Third Floor	Code Issues	Wood cubbies stored in corridor. Wood does not appear to be fire retardant treated wood.		170		X			X		Confirm with AHJ for acceptability of non-fire retardant treated wood in corridor. Replace cubbies with FR wood or metal cubbies if required.	300lf		\$ 111,720	
TF-29	Arch	Third Floor	Code Issue	Stair guardrail/handrail heights are not building code compliant. The guardrail currently serves as the handrail.		170			X	X			Building code requires guardrail at 42" high at stair edges. A major renovation will require improvement on the current condition.	70lf of 42" high guardrail	\$ 32,452		
TF-30	Arch	Third Floor	Code Issue	Exit sign not installed at egress corridor		170			X	X			Installed double sided exit sign in elev/restroom corridor and corridor 314	2 exit signs	\$ 2,052		
TF-31	Arch	Third Floor	Code Issues	No room names or numbers in some areas.		170		X		X			Install code compliant room signage matching building standards.	6 room signs	\$ 456		

**Condition Assessment Matrix**

BUILDING:		CALVIN COOLIDGE ELEMENTARY SCHOOL															
AREA:		Third Floor															
Issue #	Discipline	Loc	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.
TF-32	Arch	Third Floor	Code Issues	Dead end corridor exist at elevator corridor 309.		170			X	X			Refer to AHJ for acceptance of condition. Max dead end corridor length is 20' or 50' if the building is fully sprinklered. Install signage to clearly identify that corridor is not a means of egress.	2 illuminated signs	\$ 2,052		
TF-33	Arch	Third Floor	Paint Touch Up	Various painted surfaces throughout floor require paint touch up or refinishing.		171	X				X		Confirm existing paint is lead free. Remove loose paint and refinish to match existing surface finish.	See TF-14			
TF-34	Arch	Third Floor	Cleaning Needed	Upper wall corners of ceilings and the exterior windows require cleaning.		172	X			X			Clean areas and exterior windows. Contractors may be required for window cleaning program.	18 windows / 800sf of interior	\$ 6,916		
TF-35	Arch	Third Floor	ADA	Girls and Boys Toilet Room - Turning radius not provided in compliance with ADAAG. Clearances at stall door and sink not provided. Urinal is not accessible.		173			X	X			Reconfigure space to provide required ADA clearances into rooms and at all fixtures and doors.	210sf	\$ 15,200		
TF-36	Arch	Third Floor	ADA	Room 34/35 - sink is not ADA compliant for forward approach.		173			X	X			Remove and replace base cabinet with ADA compliant forward approach sink.	12lf of casework	\$ 6,384		
															1 yr.	5 yr.	10 yr.
<b>Architectural Building Cost Total</b>															\$ 126,054	\$ 427,554	\$ 222,498

**Condition Assessment Matrix**

<b>BUILDING:</b>		<b>CALVIN COOLIDGE ELEMENTARY SCHOOL</b>																			
<b>AREA:</b>		Third Floor																			
Issue #	Discipline	Loc	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.				

Condition Assessment Matrix

BUILDING:		CALVIN COOLIDGE ELEMENTARY SCHOOL																
AREA:		Building Envelope																
Issue #	Discipline	Loc	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/Windows	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% = ± 3,000 lf	\$114,000				
E2	Envelope	East Elevation	Walls	Deteriorated concrete, wood trim, and wood framing at "doghouse" entryways				X	X			Replace deteriorated wood framing and trim. Patch deteriorated concrete.	2 locations	\$5,168				
E3	Envelope	East Elevation	Walls	Spalled brick masonry				X			X	Monitor for accelerated deterioration.	N/A					
E4	Envelope	Various	Windows	Fogged insulating glass units (IGUs)		X			X			Replace fogged IGUs. Note: Coordinate with Architectural matrix. <b>(assumes 5'x5' window)</b>	20 locations	\$87,400				
E5	Envelope	Various	Walls	Corroded lintels and displaced masonry above lintels				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 = ± 200 lf Brick = ± 600 sf	\$101,840				
E6	Envelope	North & South Elevations	Walls	Deteriorated plywood soffit at entryway			X		X			Replace deteriorated soffit panels.	2 locations	\$9,120				
E7	Envelope	Typical	Roof	Damaged downspouts		X					X	Replace damaged downspouts.	4 locations				\$5,290	
E8	Envelope	Typical	Walls	Drain pipes at temporary structure drain water against and under building; wood cladding is deteriorated below drain pipe that drains onto cladding.				X	X			Extend drain pipes and adjust grading such that water drains away from the building.	5 locations <b>(10lf per loc)</b>	\$11,400				

**Condition Assessment Matrix**

BUILDING:		CALVIN COOLIDGE ELEMENTARY SCHOOL															
AREA:		Building Envelope															
Issue #	Discipline	Loc	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		
E9	Envelope	Typical	Walls	Deteriorated wood cladding at temporary structure			X			X		Replace deteriorated wood cladding.	100% replacement = ± 2,500 sf		\$232,750		
E10	Envelope	West Elevation	Stairs	Deteriorated and unstable wood railing and guardrail at entry porch.				X	X			The unstable railing and guardrail are a safety hazard. Repair immediately.	1 location	\$15,200			
E11	Envelope	Typical	Walls	Peeling concrete coating, cracked and delaminated concrete			X		X			Repair cracked and delaminated concrete. Scrape areas of peeling coating and provide new coating.	50% = ± 2,500 sf	\$114,000			
E12	Envelope	East Elevation	Walls	Brick masonry and metal flashing displaced at chimney				X	X				1 location	\$22,800			
E13	Envelope	Typical	Walls	Deteriorated mortar joints			X			X		Rout and point mortar joints. Assume 5% pointing within 3-5 years. Assume 100% pointing after 2026.	5% = ± 600 sf 100% = ± 12,000 sf	\$33,516	\$753,768		
E14	Envelope	East Elevation	Walls/Windows	Stained brick masonry below window corners				X		X		Masonry deterioration at this location indicates water infiltration. Investigate to determine source of water infiltration, repair source, and repair masonry.	2 locations	\$37,240			
E15	Envelope	South Elevation	Doors	Building staff report leaks at front doors during heavy rain; staff also report water flows down exterior steps towards doors.				X	X			Investigate options for adjusting grading to reduce runoff towards doors.	1 location	\$15,200			
E16	Envelope	Various	Roof	Isolated open EPDM seams and unadhered patches				X	X		X	Provide EPDM patches at split seams. Replace unadhered patches with new EPDM patches. Plan to replace roof in approximately XX years.	Repair = ± 10 sf Replace = ± 28,000 sf (does not include temp. structure)	\$684	\$1,234,240		

**Condition Assessment Matrix**

BUILDING:		CALVIN COOLIDGE ELEMENTARY SCHOOL														
AREA:		Building Envelope														
Issue #	Discipline	Loc	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
E17	Envelope	North Elevation	Roof	Pipe penetration too low				X	X			Extend pipe and provide flashing to a min. 8".	1 location	\$7,600		
E18	Envelope	North Elevation	Walls	Deteriorated brick masonry below EIFS cladding				X	X			Masonry deterioration at this location indicates water infiltration above. Investigate to determine source of water infiltration (including EIFS and roofing), repair source, and repair masonry.	1 location, ± 80 lf	\$17,784		
E19	Envelope	Northwest Corner and other locations	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).	100 sf	\$12,103		
													1 yr	5 yr	10 yr	
<b>Architectural Building Cost Total</b>													\$522,196	\$315,609	\$1,993,298	

**Condition Assessment Matrix**

BUILDING:				CALVIN COOLIDGE SCHOOL													
AREA:				INTERIOR AND EXTERIOR STRUCTURAL SYSTEMS													
Issue #	Discipline	Loc	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	East Elevation south corner, north of southern door, south off stairwell and at stairwell wall.	Exterior Brickwork	There are cracks in the brick masonry.			X					X	The cracked brickwork should be cut and pointed	40 LF			\$2,645
S-2	Struct	East Elevation windows	Exterior Brickwork	There are a few windows with cracks at the upper corners indicating rust jacking lintels.			X					X	The metal lintels should be replaced and the damaged masonry repaired	7 loc'n			\$19,285
S-3	Struct	East Elevation Northern portion and chimney	Exterior Brickwork	Some of the mortar joints have been coated with mortar know as a scrub coat.		X						X	The coated mortar joints should be cut and pointed.	650 SF			\$42,978
S-4	Struct	East Elevation Stairwell Wall	Exterior concrete	There is a crack in the concrete at the center of the wall.			X					X	The crack should be epoxy injected.	10 LF			\$551
S-5	Struct	East Elevation basement window sills and door jambs	Exterior concrete	The concrete window sills are cracked and the door jambs spalled.			X					X	The cracks should be epoxy injected and the spalls patched.	8 loc'n			\$2,645
S-6	Struct	East Elevation southern concrete	Exterior concrete	The concrete is cracked and spalling.	1		x				x		The damaged concrete should be removed, the exposed reinforcement cleaned and painted and the concrete patched/replaced.	60 SF		\$7,262	
S-7	Struct	North Elevaiton below east second floor window	Exterior Brickwork	The bed joint has been filled with mortar.		x						x	The joint should be cut and pointed with a compatible mortar.	30 LF			\$1,984

**Condition Assessment Matrix**

<b>BUILDING:</b>				<b>CALVIN COOLIDGE SCHOOL</b>													
<b>AREA:</b>				<b>INTERIOR AND EXTERIOR STRUCTURAL SYSTEMS</b>													
Issue #	Discipline	Loc	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-8	Struct	North elevation below eastern second floor window, above center window, at west corner and at the cast stone band	Exterior Brickwork	The mortar joints are eroded		X						X	The joints should be cut and pointed with a compatible mortar	15 SF			\$992
S-9	Struct	North Elevation eastern first floor window	Exterior Brickwork	There is a crack at the corner of the window and above the center of the window. The metal lintel is visibly rusted.			X					x	The lintel should be replaced and the damaged brickwork repaired.	1 loc'n			\$2,755
S-10	Struct	North Elevation concrete	Exterior concrete	There are cracks in the concrete above and below the basement windows which have been previously patched.			X					X	The cracks should be epoxy injected.	30 LF			\$1,653
S-11	Struct	North Elevation breezeway	Exterior Brickwork	There are eroded mortar joints at the base of the wall adjacent to the gym wall. .		X						X	The mortar joints should be cut and pointed	5 SF			\$331
S-12	Struct	West Elevation North corner	Exterior Brickwork	There is a crack in the brick work.			X					X	The cracked brickwork should be cut and pointed and any loose bricks reset.	15 LF			\$1,157
S-13	Struct	West Elevation and South Elevation cast stone band	Exterior Masonry	The mortar joints of the cast stone band are eroded.	2	X						X	The mortar joints should be cut and pointed	150 SF			\$9,918

**Condition Assessment Matrix**

BUILDING:				CALVIN COOLIDGE SCHOOL												
AREA:				INTERIOR AND EXTERIOR STRUCTURAL SYSTEMS												
Issue #	Discipline	Loc	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-14	Struct	West Elevation above second northern window, between the northern windows, at the south corner of the elevation wall	Exterior Brickwork	The mortar joints are eroded		X					X	The mortar joints should be cut and pointed	55 SF			\$3,637
S-15	Struct	West Elevation southern windows	Exterior Brickwork	There are cracks at the top of the windows and there is visible rust at the metal lintels.			X				X	The rusted lintels should be replaced and the damaged brickwork repaired.	2 loc'n			\$12,122
S-16	Struct	West Elevation Center Bay	Exterior Masonry	There is a crack in the cast stone joints at the unit appear to be shifted.		X					X	The cracked joints should be cut and pointed and any loose or shifted units reset.	5 SF			\$386
S-17	Struct	West Elevation northern basement windows	Exterior concrete	There are cracks in the concrete above and below the windows.			X				X	The cracks should be epoxy injected	15 LF			\$827
S-18	Struct	West Elevation southern basement windows	Exterior concrete	There are cracks and spalling concrete above the windows and cracks below the windows.			X			X		The spalled concrete should be removed, the exposed reinforcement cleaned and painted and the concrete patched. The cracks should be epoxy injected.	100 SF			\$12,103
S-19	Struct	West Elevation south corner	Exterior concrete	There is a crack in the concrete and minor spalling.	1		X			X		The crack should be epoxy injected and the spalled concrete patched.	10 LF			\$466
S-20	Struct	West Elevation southern second floor windows	Exterior Brickwork	There is efflorescence below the windows indicating water infiltration.		X					X	The source of the water should be determined and corrected.	-			

**Condition Assessment Matrix**

<b>BUILDING:</b>				<b>CALVIN COOLIDGE SCHOOL</b>												
<b>AREA:</b>				<b>INTERIOR AND EXTERIOR STRUCTURAL SYSTEMS</b>												
Issue #	Discipline	Loc	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-21	Struct	West Elevation center basement windows	Exterior concrete	The paint is peeling above the windows and the concrete is cracked below.			X			X		The peeling paint should be removed and replaced and the cracks epoxy injected.	3 LF		\$168	
S-22	Struct	South Elevation elevator wall, breezeway	Exterior Brickwork	There are areas of eroded mortar joints.		X					X	The mortar joints should be cut and pointed	15 SF			\$992
S-23	Struct	South Elevation Window	Exterior Brickwork	There is cracking at the top of the window indicating rust jacking of the lintel.			X				X	The metal lintel should be replaced and the damaged brickwork repaired.	1 loc'n			\$2,755
S-24	Struct	South Elevation east corner	Exterior Brickwork	There is a step crack at the upper corner of the elevation.		X					X	The crack should be cut and pointed and all loose and shifted bricks reset.	4 LF			\$261
S-25	Struct	South Elevation eastern basement windows, east doorway	Exterior concrete	There are cracks above and below the windows.			X			X		The cracks should be epoxy injected.	14LF		\$521	
S-26	Struct	South Elevation western basement windows	Exterior concrete	There are cracks and spalling concrete above and below the windows.	1		X			X		The spalled concrete should be removed, the exposed reinforcement cleaned and painted and the concrete patched. The cracks should be epoxy injected.	50 SF		\$6,052	
S-27	Struct	East Elevation Addition Gym Wall	Exterior Brickwork	There are small areas of eroded mortar joints.		X					X	The mortar joints should be cut and pointed	10 SF			\$661
S-28	Struct	East and North Elevation Addition Gym Wall northeast corner	Exterior Brickwork	There are cracks in the brick work at the corner of the walls.		X					X	The cracks should be cut and pointed and loose bricks reset.	40 LF			\$2,645

**Condition Assessment Matrix**

<b>BUILDING:</b>				<b>CALVIN COOLIDGE SCHOOL</b>													
<b>AREA:</b>				<b>INTERIOR AND EXTERIOR STRUCTURAL SYSTEMS</b>													
Issue #	Discipline	Loc	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-29	Struct	North and West Elevation Addition Gym Wall	Exterior Brickwork	The top of the gym wall has areas of eroded mortar joints.		x						x	The mortar joints should be cut and pointed	125 SF			\$8,265
S-30	Struct	North Elevation Loading area	Exterior concrete	There area cracks in the concrete slab and stairs.			x					x	The cracks should be should be epoxy injected.	35 LF			\$1,543
S-31	Struct	North Elevation Loading area	Exterior Brickwork	The mortar joints at the center wall at at the roof are eroded.		x						x	The mortar joints should be cut and pointed	35 SF			\$2,314
S-32	Struct	West Elevation Addition Gym wall	Exterior Brickwork	There is a crack at the intersection of loading area roof.			x					x	The crack should be cut and pointed and loose bricks reset.	5 LF			\$331
S-33	Struct	West Elevation Loading area wall	Exterior Brickwork	There are cracks in the wall at the north corner.			x					x	The cracks should be cut and pointed and the loos bricks reset.	10 LF			\$661
S-34	Struct	West Elevation Cafeteria wall	Exterior concrete	Therer are cracks in the concrete foundation.		x						x	The cracks should be epoxy injected.	10 LF			\$441
S-35	Struct	West Elevation Cafeteria wall	Exterior Brickwork	There are small areas of eroded mortar joints.		x						x	The mortar joints should be cut and pointed	5 SF			\$331
S-36	Struct	West Elevation Cafeteria wall south corner, southern addition wall south corner	Exterior Brickwork	There is a crack in the brickwork at the corners.		x						x	The cracked brickwork should be cut and pointed and any loose bricks reset.	10 LF			\$661
S-37	Struct	West Elevation Addition southern wall	Exterior Brickwork	There are eroded mortar joints at the top of the wall and along the foundation at the coner.		x						x	The eroded joints should be cut and pointed.	50 SF			\$3,306
S-38	Struct	South Elevation Addition	Exterior Brickwork	The mortar joints at the top of the wall are eroded.		x						x	The eroded joints should be cut and pointed.	150 SF			\$33,060
S-39	Struct	South Elevation Addition between windows	Exterior Brickwork	There are areas of cracked mortar joints between most of the windows indicating rust jacking of the lintels.			x					x	The metal lintels should be replaced and the damaged brickwork repaired.	3 loc'n			\$8,265

**Condition Assessment Matrix**

<b>BUILDING:</b>				<b>CALVIN COOLIDGE SCHOOL</b>													
<b>AREA:</b>				<b>INTERIOR AND EXTERIOR STRUCTURAL SYSTEMS</b>													
Issue #	Discipline	Loc	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-40	Struct	South Elevation Addition below windows	Exterior concrete	The sealant at the base of the windows is cracked at some windows.			X					X	The sealant should be replaced.	20 LF			\$882
S-41	Struct	South Elevation Addition east corner	Exterior Brickwork	The mortar joints above the foundation and eroded.		X						X	The eroded joints should be cut and pointed.	10 SF			\$661
S-42	Struct	East Elevation Addition Window	Exterior Brickwork	The brickwork below the window is cracked and the mortar joints are eroded.		X				X			The crack brickwork should be reset and the mortar joints cut and pointed.	40 SF			\$2,645
S-43	Struct	Interior Wall - first, second and basement hallway walls	Interior Masonry	There are cracks in the finishes above most of the doorways along the hallway. This is most likely do to thermal movement of the finishes and should be monitored for changes.	3	X						X	Monitor - No Work.	N/A			
S-44	Struct	Interior Wall - breezeway to addition	Interior Masonry	There are cracks in the masonry walls most likely due to settlement from the addition. The cracks should be cut and pointed and monitored for new movement.		X						X	Monitor - No Work.	N/A			
S-45	Struct	Interior Wall - Third floor corbeling	Interior Masonry	There is a crack in the corbeling.		X						X	The masonry should be reset.	10 SF			\$992
S-46	Struct	Interior Floor - wood addition	Interior	The floor in the breezeway in the wood addition has settled. The area should be monitored for additional movement.		X						X	Monitor - No Work.	N/A			
S-47	Struct	Interior Wall - Cafeteria north wall	Interior Masonry	There is a crack at the top of the wall and the mortar joints are open. The joints should be cut and pointed and monitored for new cracking.		X						X	Monitor - No Work.	N/A			

### Condition Assessment Matrix

<b>BUILDING:</b>				<b>CALVIN COOLIDGE SCHOOL</b>												
<b>AREA:</b>				<b>INTERIOR AND EXTERIOR STRUCTURAL SYSTEMS</b>												
Issue #	Discipline	Loc	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
												1 yr	5 yr	10 yr		
<b>Structural Building Cost Total</b>												\$0	\$26,571	\$175,534		

**Condition Assessment Matrix**

BUILDING:				CALVIN COOLIDGE SCHOOL												
AREA: 48,600sf				MEP/FP 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
EL1	Electrical		Power	Replace the existing electrical service to provide a single service to the school	CCS E1		X			X		See Electrical Narrative	48,600sf		\$65,170	
EL2	Electrical		Power	Replace all power distribution equipment	CCS E2		X			X		See Electrical Narrative	48,600sf		\$814,439	
EL3	Electrical		Power	Replace all existing FPE panelboards	CCS E3			X	X			See Electrical Narrative	48,600sf		incl in EL2	
EL4	Electrical		Fire Alarm	Replace the existing Zoned Fire Alarm system with a new addressable voice evacuation system	CCS E4		X			X		See Electrical Narrative	48,600sf		\$203,610	
EL5	Electrical		Lighting	Provide all new automatic lighting controls	CCS E6	X					X	See Electrical Narrative	48,600sf			\$319,360
EL6	Electrical		Paging	Provide a new paging system	CCS E8	X					X	See Electrical Narrative	48,600sf			\$79,840
EL7	Electrical		Clock	Provide a new Clock System	CCS E7	X					X	See Electrical Narrative	48,600sf			\$79,840
EL8	Electrical		Security	Provide a new security system	CCS E7	X					X	See Electrical Narrative	48,600sf			\$319,360
H1	HVAC		Heating	Replace existing boilers (B-1 & B-2) with high efficiency condensing boilers	CCS M1		X			X		See HVAC Narrative	2		\$167,580	
H2	HVAC		Heating	Replace existing hot water pumps	CCS M2		X			X		See HVAC Narrative	2		\$19,551	
H3	HVAC		Heating	Replace Unit Ventilators building wide	CCS M4		X			X		See HVAC Narrative	30		\$363,090	
H4	HVAC		Heating	Replace all electric heating equipmen with hot water			X			X		See HVAC Narrative (assume 10,000 sf in 1969)	10,000 sf		\$186,200	
P1	Plumbing		Plumbing	Replace existing water closets flush valves with automatic flush valves	CCS P2	X					X	See Plumbing Narrative	36			\$59,508
P2	Plumbing		Plumbing	Replace existing urinals flush valves with automatic flush valves	CC2 P3	X					X	See Plumbing Narrative	16			\$22,922





Project North



GRAPHIC SCALE



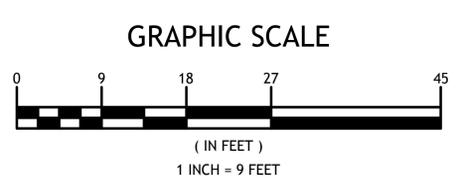
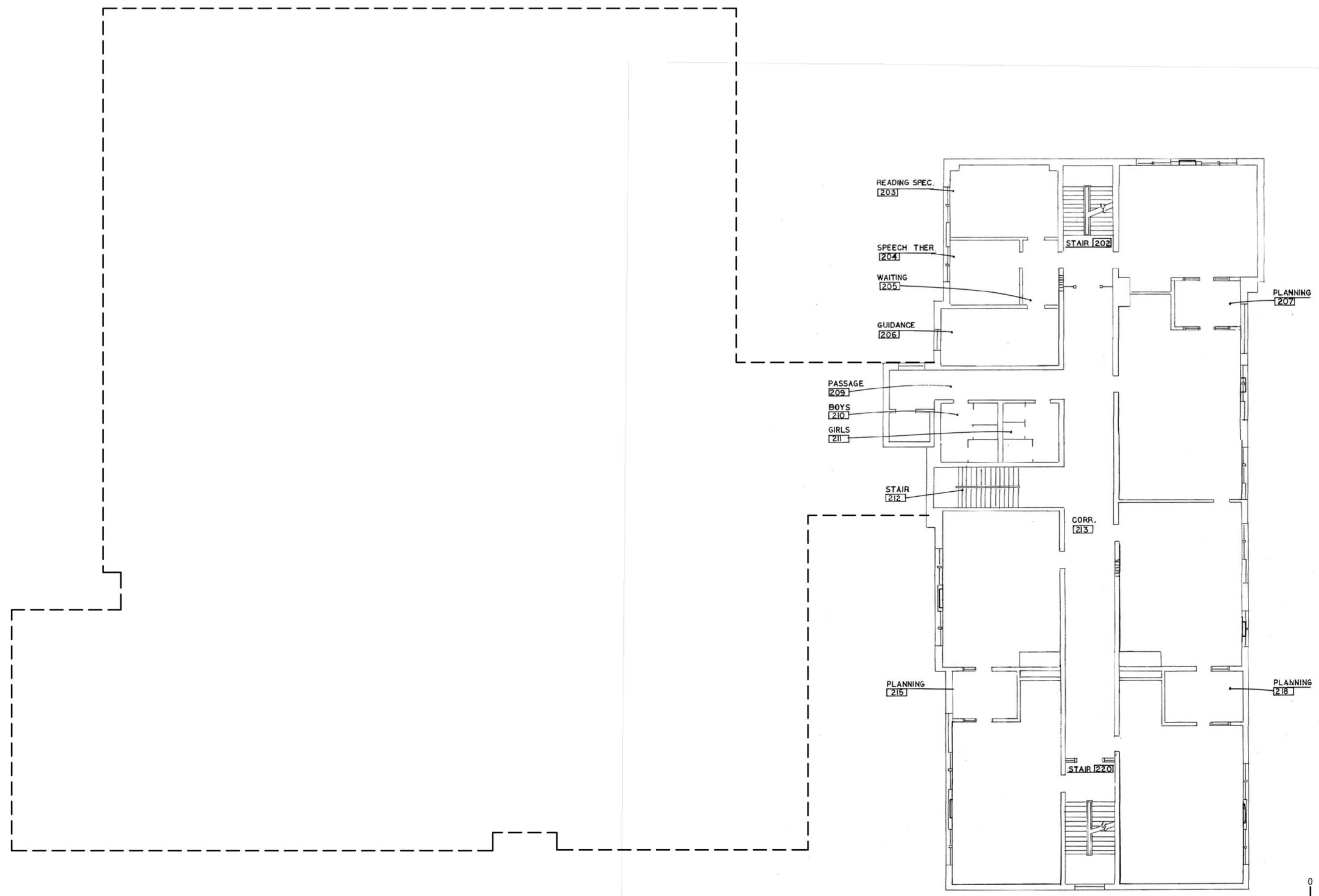
( IN FEET )  
1 INCH = 9 FEET



T:\PROJ2015\20150141011\_Drawing\_Set\FORMAT\_SHEETS\Building\_Plans\Coolidge\_Elem\FIRST\_FLOOR\_PLAN.dwg, 3/9/2016 6:08:17 PM, lsgar



Project North





Project North

