ACCESSIBILITY STUDY FOR THE DAVIS THAYER ELEMENTARY SCHOOL

FRANKLIN, MASSACHUSETTS
AUGUST 19, 2013

KAESTLE BOOS associates, inc

1. Introduction

2. Accessibility Code Compliance Analysis
    a. Applicability
    b. Evaluation of Existing Conditions
    c. Recommendations

3. Conceptual Design
    a. Recommendations
    b. Conceptual Design Plans

4. Opinion of Probable Cost (OPC)
    a. Accessibility Renovation OPC
    b. Detailed Construction Cost Estimate

Introduction

1. Introduction

As a supplement to the previous Feasibility study, Kaestle Boos Associates was requested to evaluate the renovation of the Davis Thayer Elementary School limited to compliance with accessibility requirements. This supplemental study does not consider issues related to educational programming and the space use summary noted in the feasibility study.

Many of the existing building conditions noted in the previous Feasibility study are not resolved by renovations limited to accessibility, including:

- Sidewalk from School Street to separate driving and walking traffic,
- Structural issues with the condition of the exterior brick veneer and window lintels,
- Replacement of roof membrane,
- Abatement and replacement of interior finishes,
- Concerns regarding the Kitchen,
- Cafeteria/kitchen is undersized for the student population,
- The modular classrooms attached to the front of the original building are in disrepair,
- Classroom spaces in the existing building are undersized,
- Nurse's Office does not provide privacy for student cot space,
- Aging mechanical, electrical, and plumbing near the end of its intended life.

As a result of this study, it is determined that compliance with AAB cannot be limited to simple renovation of each non-compliant condition or space. In fact, renovations necessary for compliance affect other areas of the building as adjacent spaces are displaced because of enlargement or relocation necessary to bring existing spaces into compliance. A conceptual design scheme for limited accessibility renovations of the existing building was developed and reviewed with the Committee. Floor plans which provide the basis for the Schematic Construction Cost Estimate and Opinion of Probable Cost are included in this study. To illustrate this, conceptual floor plans are presented in two formats:

1. the first format shows existing conditions floor plans with pink overlay to illustrate the areas of the existing building which will be affected by renovations necessary for compliance;
2. the second format shows the recommended modifications for compliance and relocated spaces shown in green overlay.

An Opinion of Probable Cost (OPC) for the proposed conceptual design is included in the study and follows this Executive Summary. An Opinion of Probable Cost is based on the Schematic Construction Cost Estimate but further includes all soft costs for design, permitting, furniture, etc. The total estimated OPC for the Proposed Conceptual Design is $4,635,631. A detailed Schematic Cost estimate is also included in the study.

Davis Thayer Elementary School
Franklin, Massachusetts
Supplemental Accessibility Study

Accessibility Code Compliance Analysis

a. Applicability
b. Evaluation of Existing Conditions
c. Recommendations

2. ACCESSIBILITY CODE COMPLIANCE ANALYSIS (521 CMR AAB)

a. Applicability

As a supplement to this study, Kaestle Boos Associates was requested to evaluate the renovation of the Davis Thayer Elementary School limited to compliance with accessibility requirements. All code requirements of the Architectural Access Board (AAB) stated in the main study above are required as part of this supplemental evaluation. All renovations and additions must comply with the current Massachusetts State Building Codes. In addition, as the existing building is currently sprinklered, any renovations or additions to the school building are required to be sprinklered also, regardless of cost.

b. Evaluation of Existing Conditions

This building was constructed in 1924, long before the Architectural Access Board issued accessibility regulations in 1968, and has impediments to accessibility throughout. Correction of some conditions to be compliant with current code requirements is simple with minimal effect on the existing building, such as adding accessible signage, while correction of other conditions is complex, such as relocating toilet rooms or adding an elevator, and will require extensive renovations. In summary, a general list of these issues follows:

- An accessible route is not provided to the Basement, Second Floor, and Third Floor levels or to many of the individual rooms throughout the building. Non-compliant conditions related to providing an accessible route which must be resolved are:
  - Access to and egress from the building at all required entrances,
  - Parking and loading zones,
  - Access to play areas,
  - Sidewalks and curb cuts,
  - Access to the Basement, Second, and Third Floors,
  - The underside of the stairs to the Basement is open under and protrudes more than 4 inches,
  - Clearance at classroom doors and door hardware,
  - Stair and corridor door widths,
  - Cafeteria and Library door widths,
  - Stair nosings, and
  - Stair railings and guards.
- Toilet rooms fixtures, accessories, and clearances are not compliant.
- Signage throughout the building is not compliant.
- Drinking fountains are not compliant.
- Casework and sinks within classroom spaces is not compliant.
- Places of assembly do not have assistive listening systems,
- Cafeteria services are not at accessible heights.

As a result of evaluation of these issues, it is understood that corrective measures cannot be isolated to the specific areas of each condition. For example, providing access to toilet rooms will require increasing the

size or, in some cases, relocating these rooms which will affect other rooms in the building. This domino effect has been considered in the evaluations and recommendations for correction of each condition to provide a solution that is the least intrusive on adjacent spaces.

c. Recommendations

Accessible Routes:

Providing an accessible route to, from, and throughout the building requires correction of many conditions and will require extensive renovations.

Outside of the building, accessible routes must be provided from public parking areas, to play areas, and at public entrances and exits. All public entrances and required exits to the building must be accessible and be on an accessible route. In this building, all four entrances will require accessibility. The entrance / exit at the modular classrooms and the rear entrance for the bus drop-off currently have accessible ramps, but ramps must be provided at the main entrance and at the entrance for the cafeteria. The Main Entrance to the building does not provide an accessible route. Modification to the main entrance and required means of egress doorways to provide accessible routes is necessary.

Currently, only two non-compliant accessible parking spaces and no loading/drop off spaces are provided. Three accessible spaces and a loading area must be provided on an accessible route with curb cuts from street to sidewalk. Access to the play areas must be provided to accessible elements of the play structures and to the playground. For this, an accessible path may be composed of wood chips or a synthetic paving material designed for exterior use.

Access to the Basement, Second, and Third Floors is not provided. As grade levels and specialty rooms, such as the gymnasium and media center, are distributed on floors other than the First floor, this does not allow for access by all children of all grade levels to classrooms and activities. A compliant elevator is required on an accessible route in all multistory buildings to provide access to all floor levels and activities. Extensive modifications to the building, including plumbing and fire protection service entrances at the basement foundation walls, are necessary to provide an elevator to access all floors of the building.

Accessible routes within the building generally comply with requirements for width, passing space, protruding objects, headroom, etc. Objects projecting from walls with their leading edges between 27 inches and 80 inches above the finished floor must not protrude more than 4 inches into walks, halls, corridors, passageways or aisle and must not have sharp edges. One area which is non-compliant, however, is the underside of the stairs in the corridor to the Gymnasium. This condition creates a non-compliant condition for a blind person as an obstruction above 12 inches above the floor. The underside of these stairs should be filled in with walls to remove this hazard.

Doors:

Many doors within the building were modified during a previous renovation in 1979. Unfortunately, these renovations do not provide compliance with current code requirements. Classroom doors are constructed in recesses in the deep corridor walls and were set back about 15" from the face of the wall as part of the 1979 renovation. These doors do not provide the required pull side clearances beside the door strike edge (with the door handle). To provide this clearance, either the walls beside the door must be modified, the door must be moved to the corridor wall face, or an automatic operator (push button) must be added. The push button is not recommended as this electrified device requires ongoing maintenance and requires pulling force to open the door that may be difficult for young children. Moving the doors to their original position at the face of the corridor wall is also not recommended as these doors will then swing into the corridor obstructing egress and the passage of children through the corridor. Modification of the walls adjacent to these doors is the primary recommendation; however, the composition of these deep walls must be investigated at each location to be assured that concealed building elements, such as ductwork or piping, will not be affected.

Also, all interior doors require lever handles and push pad exit devices instead of the existing door knobs at classroom doors and crash bar panic devices on stair doors.

Door pairs at stairs and corridors have 32 inches wide leaves and do not provide the required exit width for compliance with accessibility requirements of the AAB or egress requirements of the Building Code. These doors should be replaced to provide door pairs with 36 inch wide leaves; in some cases, the doors must be moved and the walls will need to be rebuilt. Also, some rooms with door pairs are also too narrow, such as at the Library and the Cafeteria. These doors also should be rebuilt to provide door pairs with 36 inch wide leaves.

Stairs:

Stair nosings are required to be angled or radiused so that these do not create an abrupt nosing on which a foot or crutch could be caught. All existing stair nosings have an abrupt protruding lip at each tread and all stair treads must to be modified to comply. Modification of the treads with vinyl tread covers is recommended to eliminate the abrupt nosing.

Stair handrails must be provided on both sides of the stair, must be continuous, and must have extensions at the top and bottom of the wall mounted rails. All stair railings need to be modified to comply with this handrail requirement. The wall mounted handrails do not have extensions at the top and bottom. Interior guardrails do not have handrails at all and guardrails are interrupted by newel posts so as not to provide a continuous rail.

Toilet Rooms:

Existing toilet rooms do not comply with accessibility requirements and must be modified. Total fixture counts for these toilet rooms should comply with the requirements of the Plumbing Code discussed in the Existing Conditions portion of the Feasibility Study and should be distributed to serve the students, staff, and public occupancies in the building. However, as the clearance and mounting height requirements for accessible toilet fixtures for Elementary Schools (Grades K-3) differs from the requirements for adults, the same accessible toilet fixtures cannot be used for both lower grade elementary school students and for public use.

A minimum of one toilet and sink in each toilet room shall be accessible. Toilet partitions in all toilet rooms are not compliant and no student toilets in the building are currently fully compliant. Plumbing fixtures do not comply in mounting height or location and maneuvering clearances at doors and partitions are not compliant. Accessible clearances to toilet rooms at doors are not provided and at the 2nd floor toilet rooms a height difference of approximately 2" exists at the door thresholds between the toilet rooms and the corridor. Although not currently required by AAB, staff toilets will be regulated under the revised AAB to be published in the near future.

- Modifications to existing toilet facilities to provide compliant access to fixtures will require deletion of existing fixtures and reduction in overall fixture count as well as enlargement of the toilet rooms.
- Modification to single user staff toilet rooms to provide compliant access will require enlargement or relocation of these rooms.

All toilet rooms must be modified to provide these compliant fixtures. Because adult fixture clearance and mounting height requirements differ from the requirements for accessible Elementary school fixtures, separate toilet fixtures and sinks must be provided for adults using the public assembly facilities; staff toilet rooms may be used for this purpose if allowed for use by the public and constructed on appropriate floors. Extensive renovation of existing plumbing and mechanical systems, as well as structural modifications for new floor slabs and reconstruction pitches of floors, is necessary for relocation of toilet rooms.

Drinking fountains are provided within the building but are not accessible. These must be replaced with new fixtures with 2 level spouts.

As the plumbing service and much of the plumbing in the building is recommended for replacement for new toilet rooms and water fountains, it is also recommended that all plumbing supply piping in the building be replaced. This existing piping contains lead solder which can leach into the supply water over time.

Signage:

Room signage with braille must be provided at all 'permanent rooms and spaces' as well as code required egress signage. Compliant signage and Symbols of Accessibility are missing throughout building. Where exit signs indicate an accessible route, if all routes are not accessible, these exit signs shall include

the symbol of accessibility. Also, illuminated signage identifying accessibility by the use of the international symbol contained within the "exit" sign must be provided at all egress doors in assembly and educational occupancies with an occupancy load of over 150 people. Provide this signage for exits from the Gym, Cafeteria, and Library.

Casework in Classrooms:

Sinks, counters and other work areas in classrooms are required to comply. Sinks in casework are provided in 2 classrooms, 1 on the 1st floor and 1 on the 2nd floor; however, neither sink is accessible. These counters and sinks require modification for accessibility.

Assistive Listening Systems:

A permanently installed assistive listening system must be provided for all assembly occupancies of more than 50 persons. The minimum number of receivers that needs to be provided must be equal to 4% of the total number of seats, but no less than two receivers per room. These systems must be provided in the Library, Cafeteria, and Gymnasium.

Food Service:

Commercial kitchens for staff employees are not regulated for accessibility; however, servery equipment used by students must be compliant. In general, the existing equipment complies with current code requirements except for tray slides, freestanding servery equipment and the tray return. These equipment elements are too high for elementary school accessibility and must be modified or replaced. It is recommended that the existing tray slides be modified to the proper height, that the salad bar dispenser be replaced, and that the tray return opening be modified to be 32" high. This last item will require that the dish return counter in the kitchen be modified also.

Davis Thayer Elementary School
Franklin, Massachusetts
Supplemental Accessibility Study

Conceptual Design

a. Recommendations
b. Conceptual Design Plans

3. CONCEPTUAL DESIGN

a. Recommendations

Recommendations for this supplemental study are limited solely to actions necessary to provide maximum compliance with the State of Massachusetts Architectural Accessibility Board (AAB) regulations. Other modifications previously recommended for building condition or educational program issues are not considered.

As a result of this study, it is determined that compliance with AAB cannot be limited to simple renovation of each non-compliant condition. In fact, this study shows that compliance affects other areas of the building as adjacent spaces are displaced because of enlargement or relocation necessary to bring existing spaces into compliance. To illustrate this, the floor plans following this narrative are presented in two formats:

1. the first format shows existing conditions floor plans with pink overlay to illustrate the areas of the existing building which will be affected by renovations necessary for compliance;
2. the second format shows the recommended modifications for compliance and relocated spaces shown in green overlay.

Also, site renovations are shown with a bird's-eye view of the building and site.

As discussed above, accessibility on the site is limited to access to the building and fields. Ramps must be constructed at the main entrance and secondary exit near the playground. Accessible parking and dropoff spaces must be provided which will require restriping of the parking lot and loss of 2 parking spaces. Play equipment and fields which provide accessible activities must have a path of accessible material. This can be wood chips, however, grading and drainage problems exist on the site which currently displace the wood chips around the play structure and a permanent synthetic resilient material is recommended to construct these paths. Grades are noted to be raised to provide at grade access to the northeast rear entrance where a new elevator lobby is recommended.

A new elevator is recommended to provide access to all floors of the building and has the biggest impact on the building. To minimize structural renovations to the building, a new elevator lobby is recommended to be constructed as an addition to the building at the northeast corner entrance. This location was chosen for several reasons:

- Locating at an existing stair or entrance provides access and minimizes impact on existing spaces
- Stair towers on the front (West Central Street) of the building have mid height landings at the exterior wall and could not provide access to the floor level from the elevator,
- this location does not affect the front elevation facing West Central Street,
- the northwest entrance door location would require displacement of a classroom on the second floor,
- the northwest entrance door location would also require displacement of the electrical room on the basement level,
- the northeast location provides access at the existing entrance used by students arriving and departing to buses,
- the northeast location access the stairway on the basement level and the corridor on the first floor directly and displaces a toilet room which would require expansion or relocation,
- this location does not eliminate any exterior windows,
- the northeast location will enclose the exterior doors which used to access the (now removed) fire escape.

An elevator and lobby at this location will require the service entrance for domestic water be relocated in the basement level. Structural modifications and abatement of hazardous bituminous dampproofing will

be required to cut and modify the foundation wall to provide access to the building from the basement level elevator lobby. On the second floor, the elevator will displace the teacher planning room, which is shown to be relocated with the teacher office and janitor's closet. This swap of space requires that toilet rooms and the stair entrance doors be relocated also. On the third floor, the elevator will displace the girls toilet room, which is relocated to stack over the toilet rooms on the second floor. The residual space from the elevator corridor is given to the adjacent classroom.

An accessible routes throughout the building is provided, in part, by the elevator. Access to classrooms will require modification of doorways to provide required clearances on the pull side of the doors. Doors in corridors and stairways are shown to be relocated and replaced with doors of required width. Stairways are indicated to be renovated to provide handrails on both sides of the stairs and to replace the stair treads to provide compliant nosings.

Existing toilet rooms are not compliant with clearance and mounting requirements for fixtures and do not provide accessible entrances. Distribution of toilets in the existing building is also not compliant with the Plumbing Code. There are no toilets provided for Kindergarten students within their classrooms, there are no toilets provided on the basement level, and Staff toilets are not provided in locations which are accessible or within travel distances required. The recommendations shown on the floor plans resolve these issues by:

- stacking the student toilet rooms on the second and third floors to minimize plumbing for new fixtures,
- renovating within the existing student toilet rooms on the first floor,
- providing dedicated toilets for Kindergarten students utilizing plumbing from an existing toilet room near these classrooms on the first floor,
- enlarging the toilet room in the Nurse's office which requires relocation of the entrance to the Nurse's office, and
- distributing Staff Toilets for both male and female staff on the first and third floors.

New toilets on the third floor will require construction of new floor slabs to extend the flooring into the void space above the Library office. Existing Staff toilet rooms which were non-compliant are shown to be changed to Janitor's closets or storage rooms to offset displacement of these functions by relocation of the toilet rooms. Toilet facilities are not shown on the Basement level and are not required. However, if desired, toilet rooms may be added in the location of the concrete bleachers/storage. Demolition of the bleachers would be necessary and plumbing could be run through the vent tunnel. The resulting toilet fixture count and distribution meets or exceeds the requirements of the Plumbing Code.

Structurally, the infill of the open space of the Media Center will require the installation of new wide flange beams and concrete slab on metal deck flooring framed to the existing structural beams and columns.

Fire protection will require expansion of the existing full coverage sprinkler system installed in 2007 for all additional and renovated spaces. Branch piping would be provided from the existing mains to new wet sprinklers serving the new elevator addition to provide full coverage in accordance with NFPA13.

Plumbing would be affected by these recommendations. The domestic water service entrance location must be relocated as it currently exists where the new elevator lobby is shown. In addition, the water service is currently installed in close proximity to electrical distribution equipment and is violating the existing electrical distribution equipment code which requires access service space. Relocation of the water service entrance adjacent to the existing fire service entrance and main riser is required. New domestic cold water piping would be run out to serve all new plumbing requiring cold water at the

proposed new bathrooms. Selective demolition and addition of new domestic cold water branch piping would be included in the phased design to rework the existing systems in the renovated areas as required for new plumbing work and fixture replacement. Installation of new domestic water piping is recommended throughout to prevent leaching of lead in the existing distribution piping.

Also, replacement of the existing standard efficiency boiler/ storage tank domestic hot water system with a new high efficiency sealed combustion condensing type gas fired storage heater is recommended with any extensive renovation.

The existing natural gas service entrance is not in the path of the new proposed building and foundation system and the existing natural gas system piping and service may remain in place.

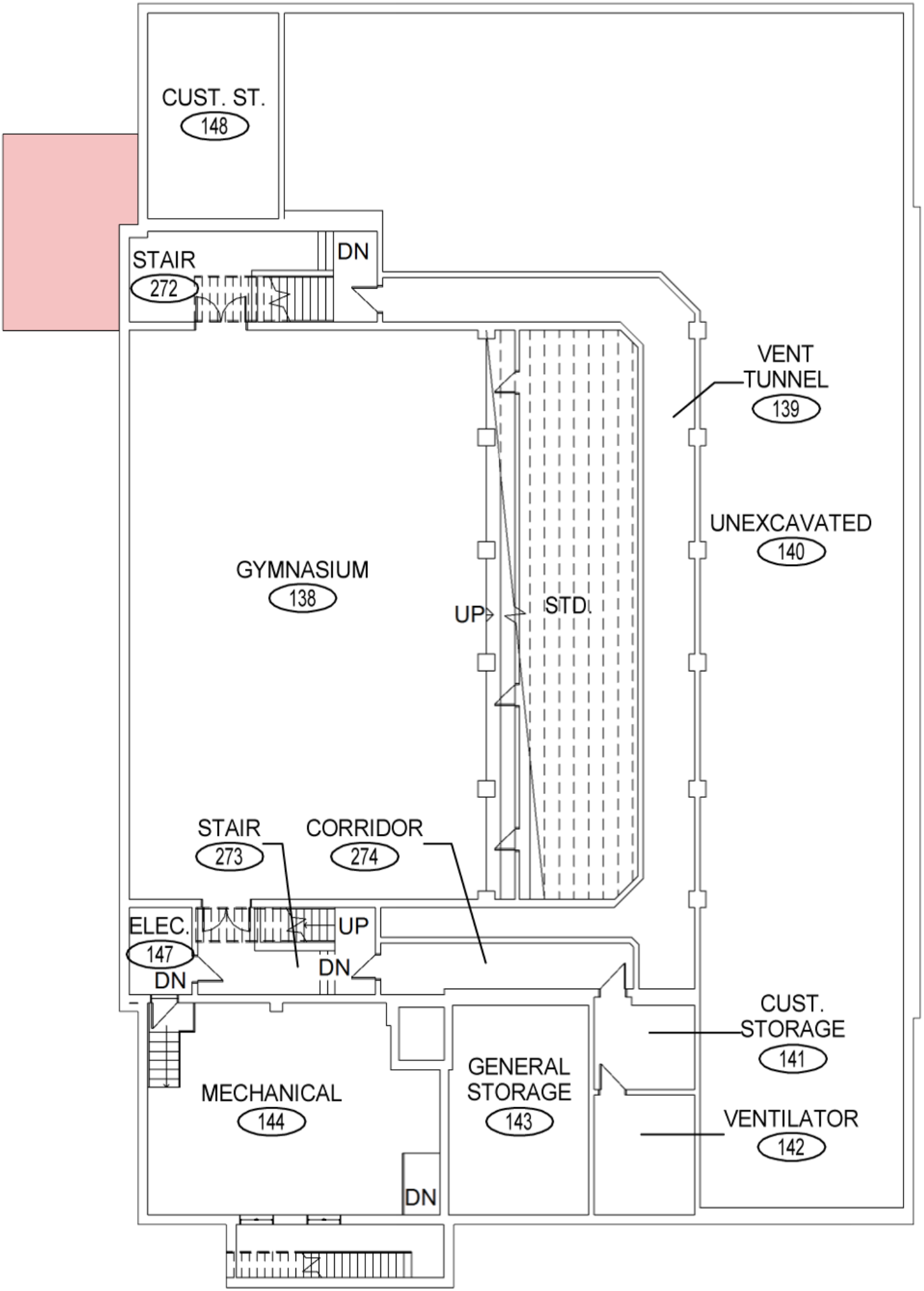
For mechanical systems, replacement and modification of the existing bathroom ventilation exhaust systems to serve the recommended toilet room locations is necessary. Makeup air systems for the building will need to be evaluated for the required increase in outside air to the building. Possible use of new central exhaust design should be reviewed during design phase to provide energy recovery for required makeup air for the proposed bathrooms.

Also, new ductless split system air conditioning is recommended for the new elevator machine room cooling to maintain space below the code maximum temperature of 90 degrees. Hoistway and elevator machine room ventilation and smoke control systems will be required to installed for the new proposed elevator.

The existing air handling unit shall be removed and a new air handling unit shall be installed for the Multipurpose Media space in the newly configured mechanical room to accommodate the new proposed bathrooms. New distribution ductwork will be required to suit the new mechanical room configuration. A DX split system option added to the unit with outdoor air cooled condensing unit and refrigeration coil and piping would provide air conditioning to the space to allow greater flexibility and use as possible conditioned meeting space for year round use.

For electrical systems, replacement of the existing 400 amp 120/208 3 phase service with a new 1200 amp, 480 volt, 3 phase system fed from a new pad mounted utility transformer fed below ground from the existing utility poles located on Union Street is necessary to support the new elevator and emergency generator. A new secondary electrical service entrance is recommended in a new electric room located in the exterior corner of the existing mechanical room. A main distribution switchboard would be provided to serve the new electrical distribution system. A breaker would be provided with a transformer to back feed the existing 400 amp service to accommodate proposed and future construction. All new panelboards, wiring and electrical distribution system would be provided for the new building elevator addition and renovated existing building.

Installation of a combination life safety and standby emergency generator with multiple transfer switches serving the life safety emergency lighting and elevator is highly recommended to provide power to a dedicated life safety distribution system and critical operational loads, such as servery refrigerators and network and support systems.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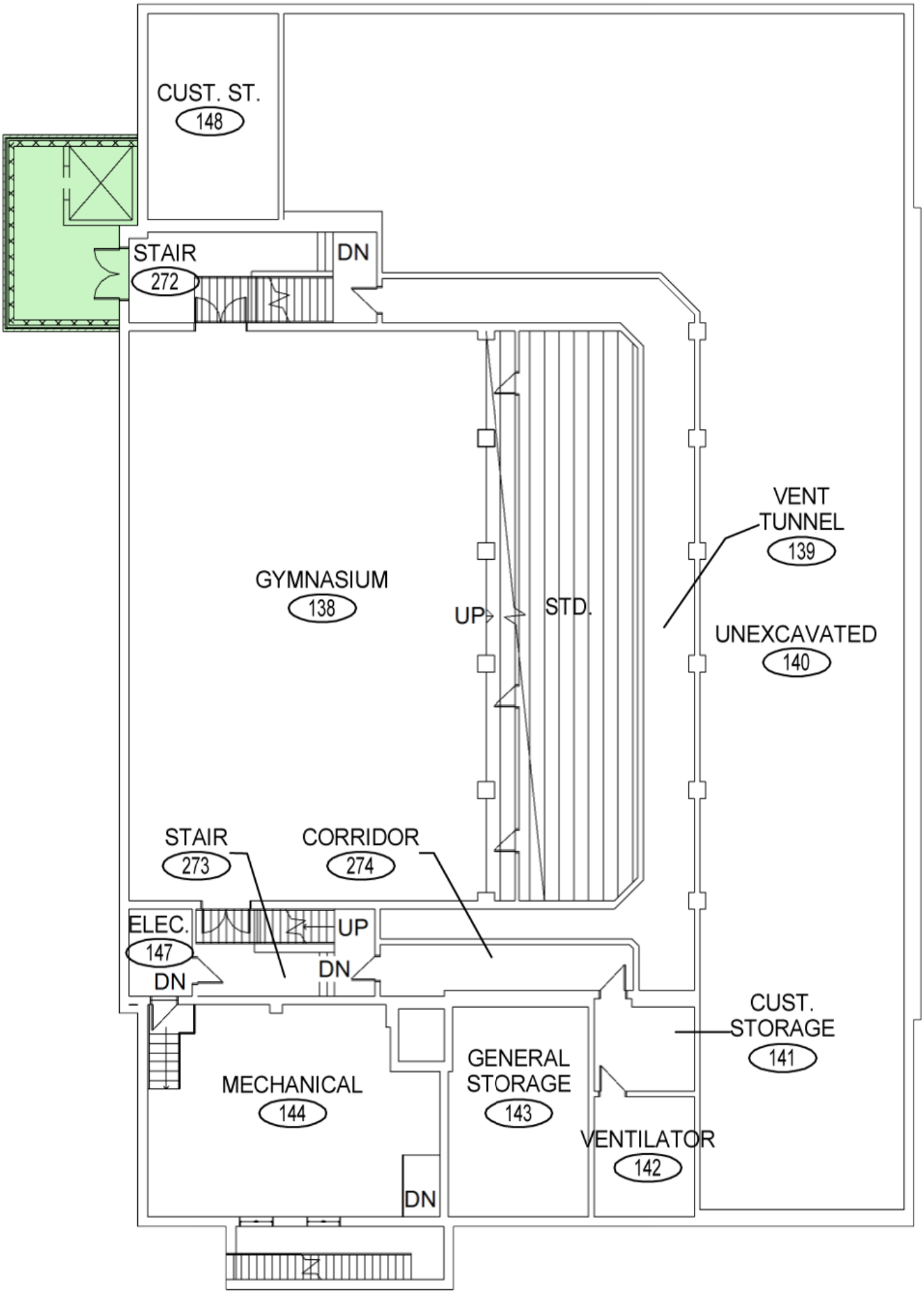
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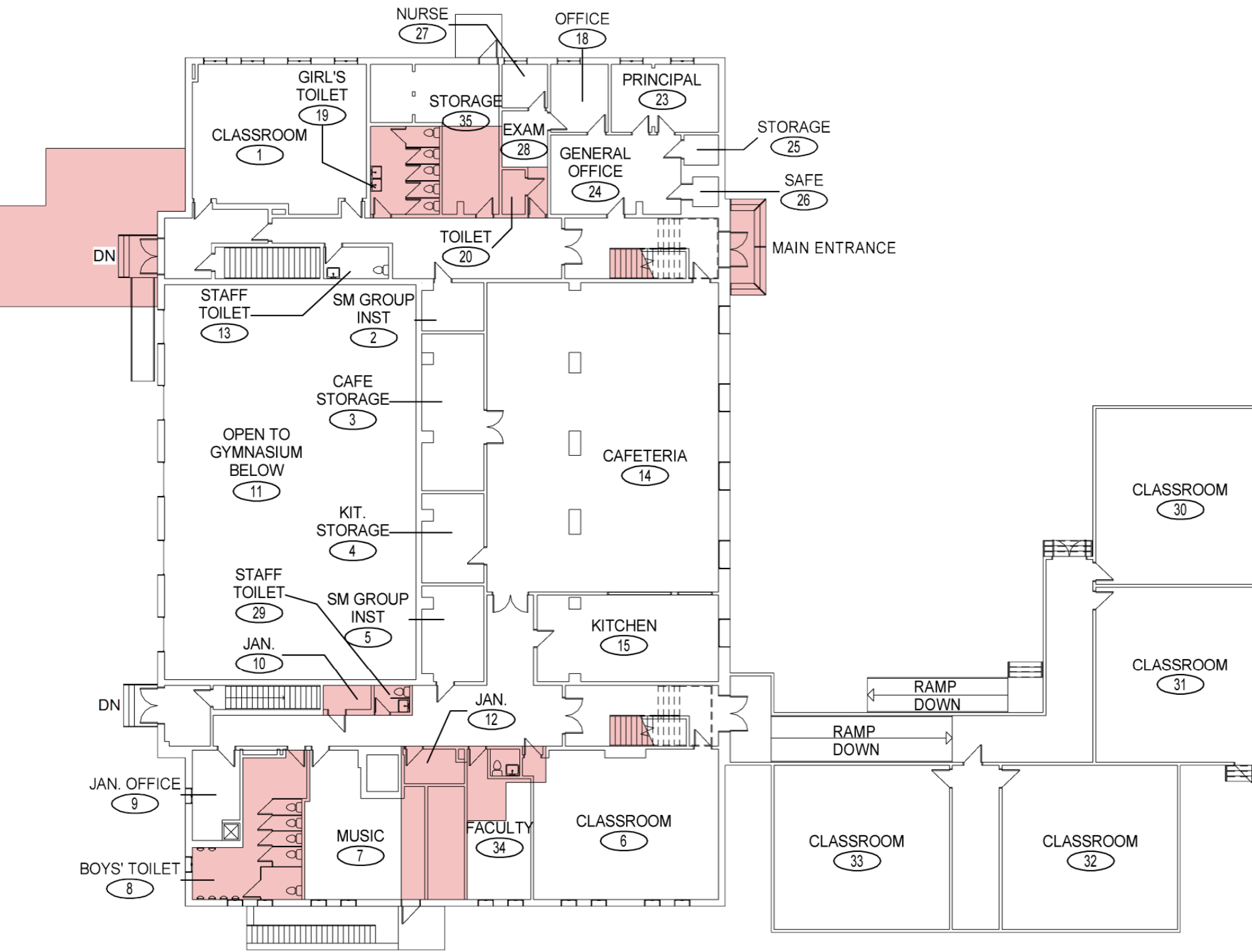
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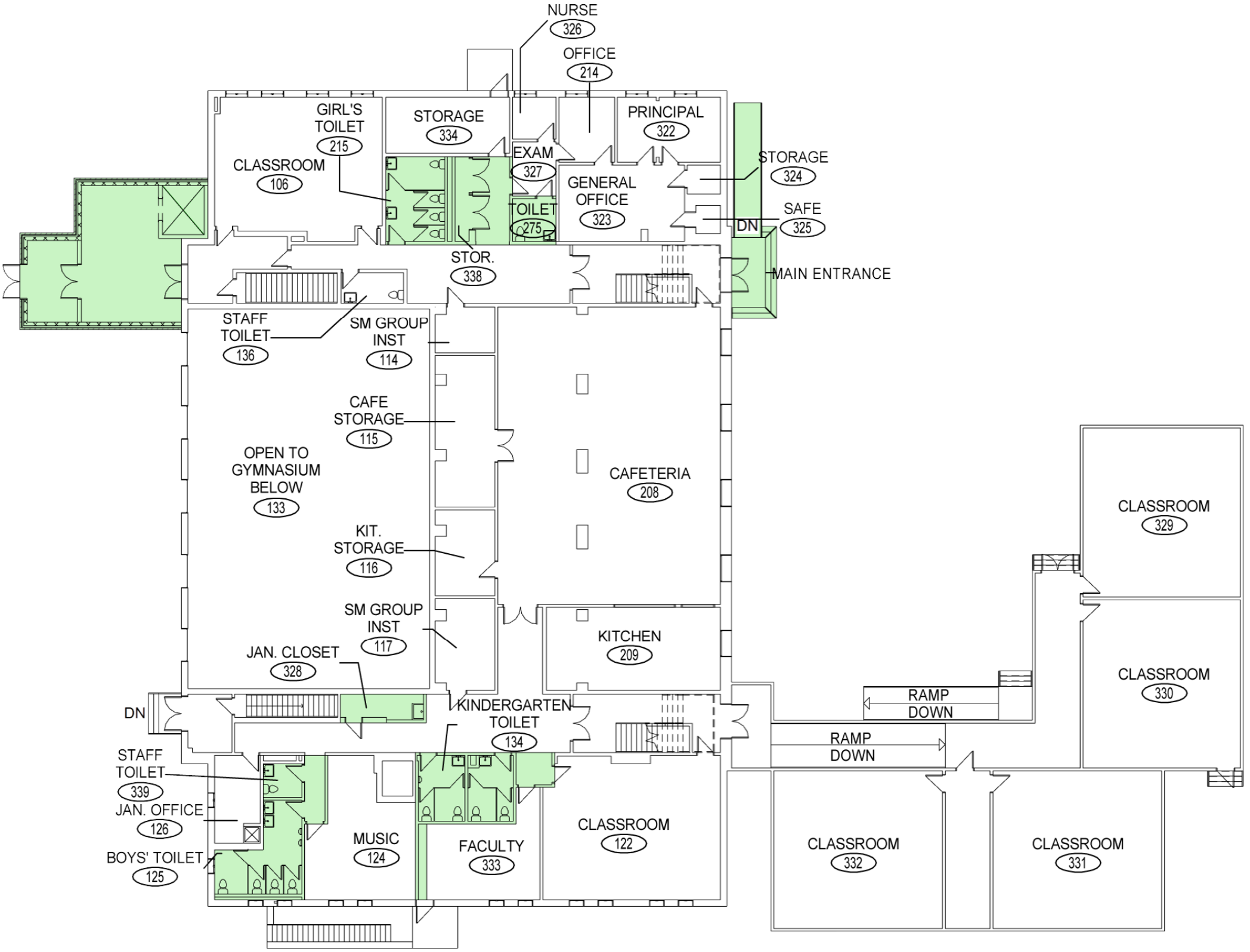
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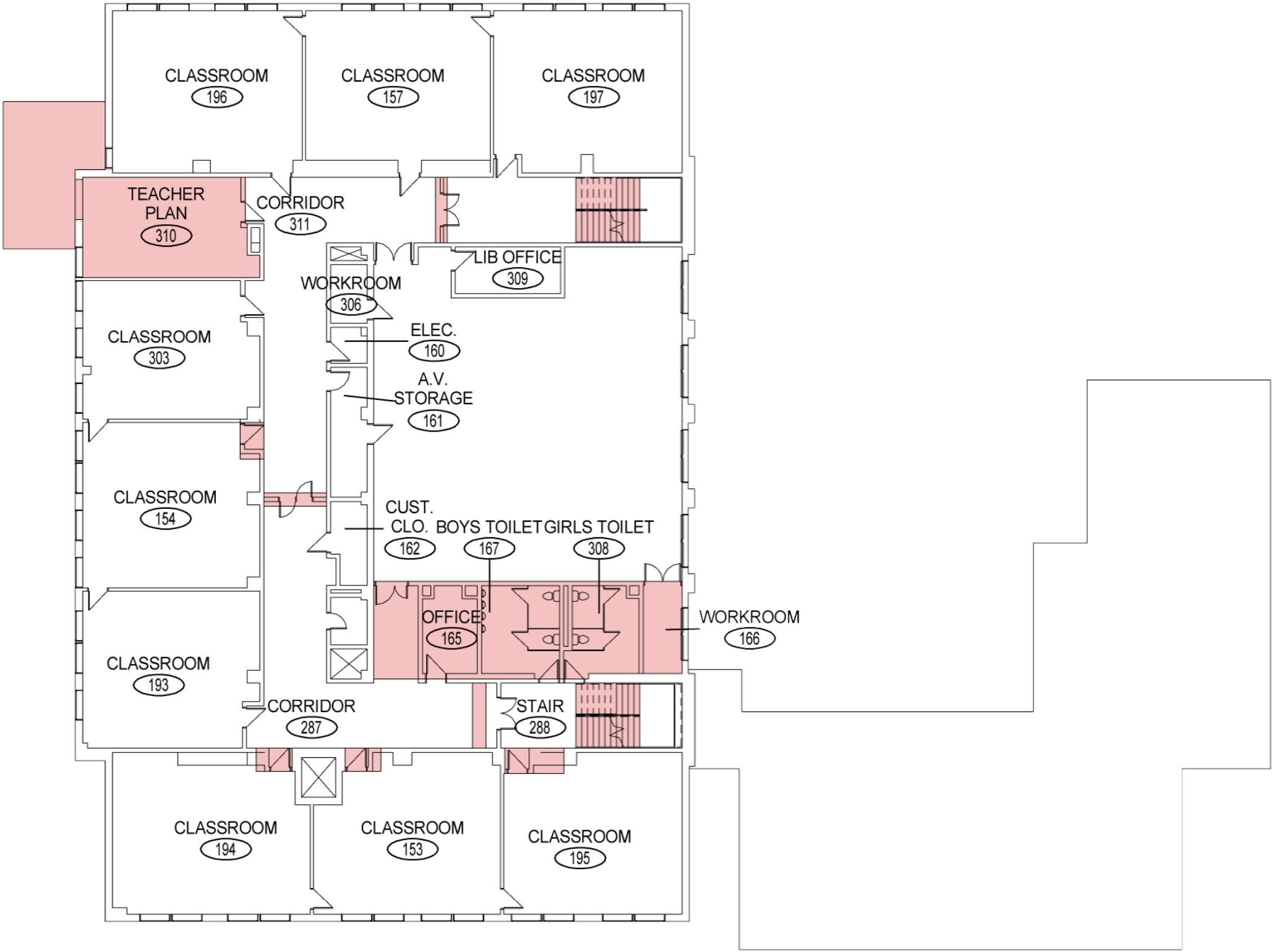
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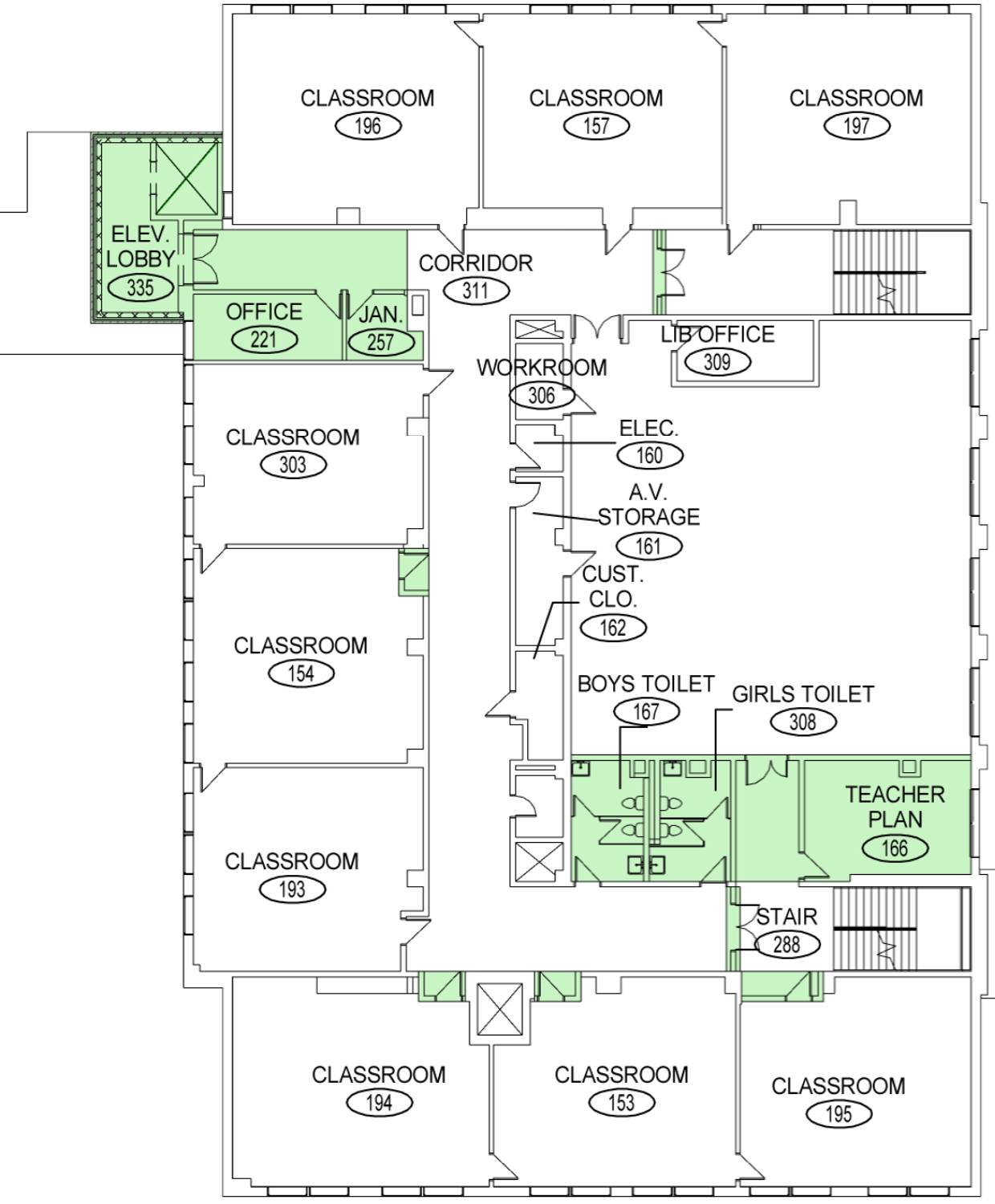
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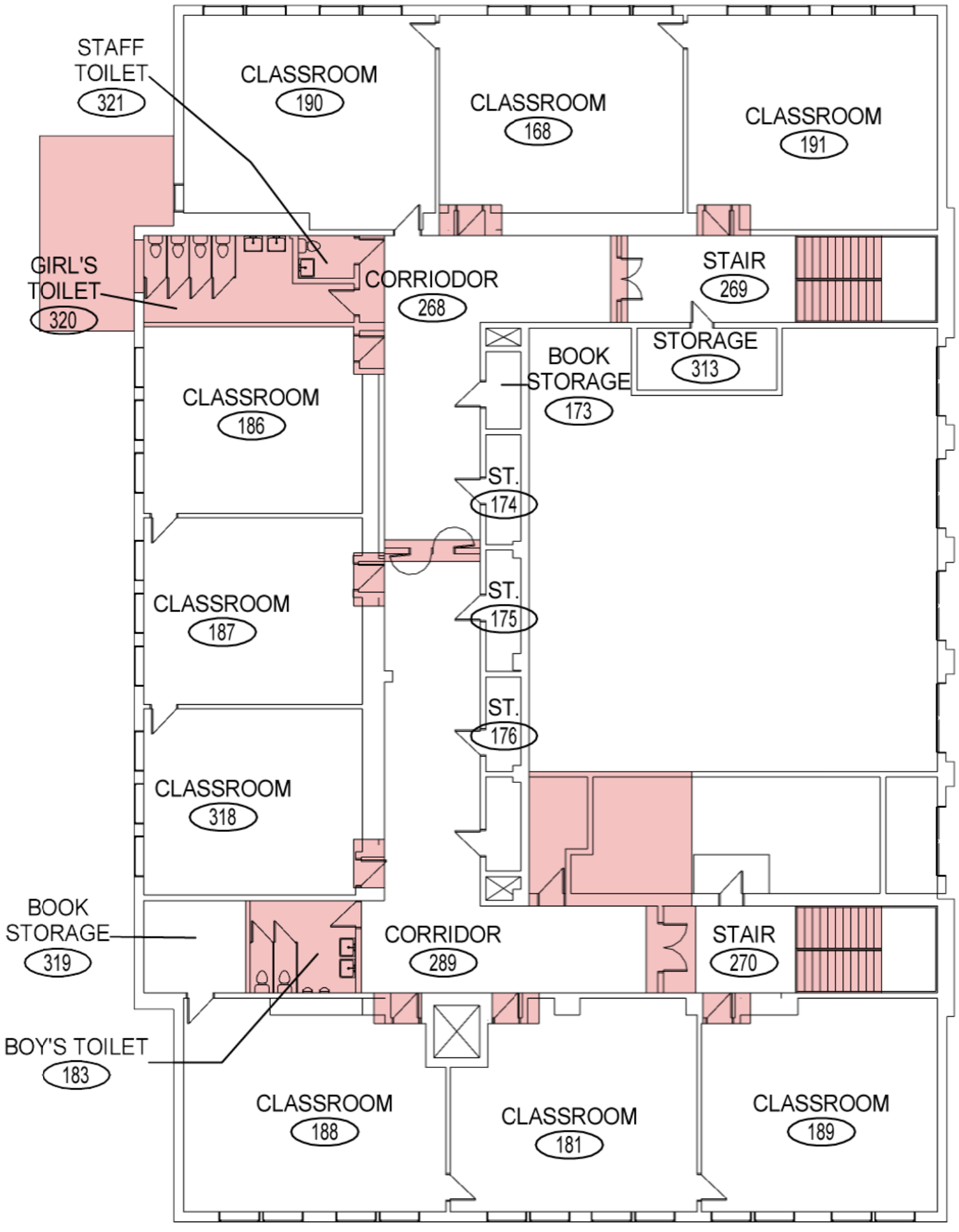
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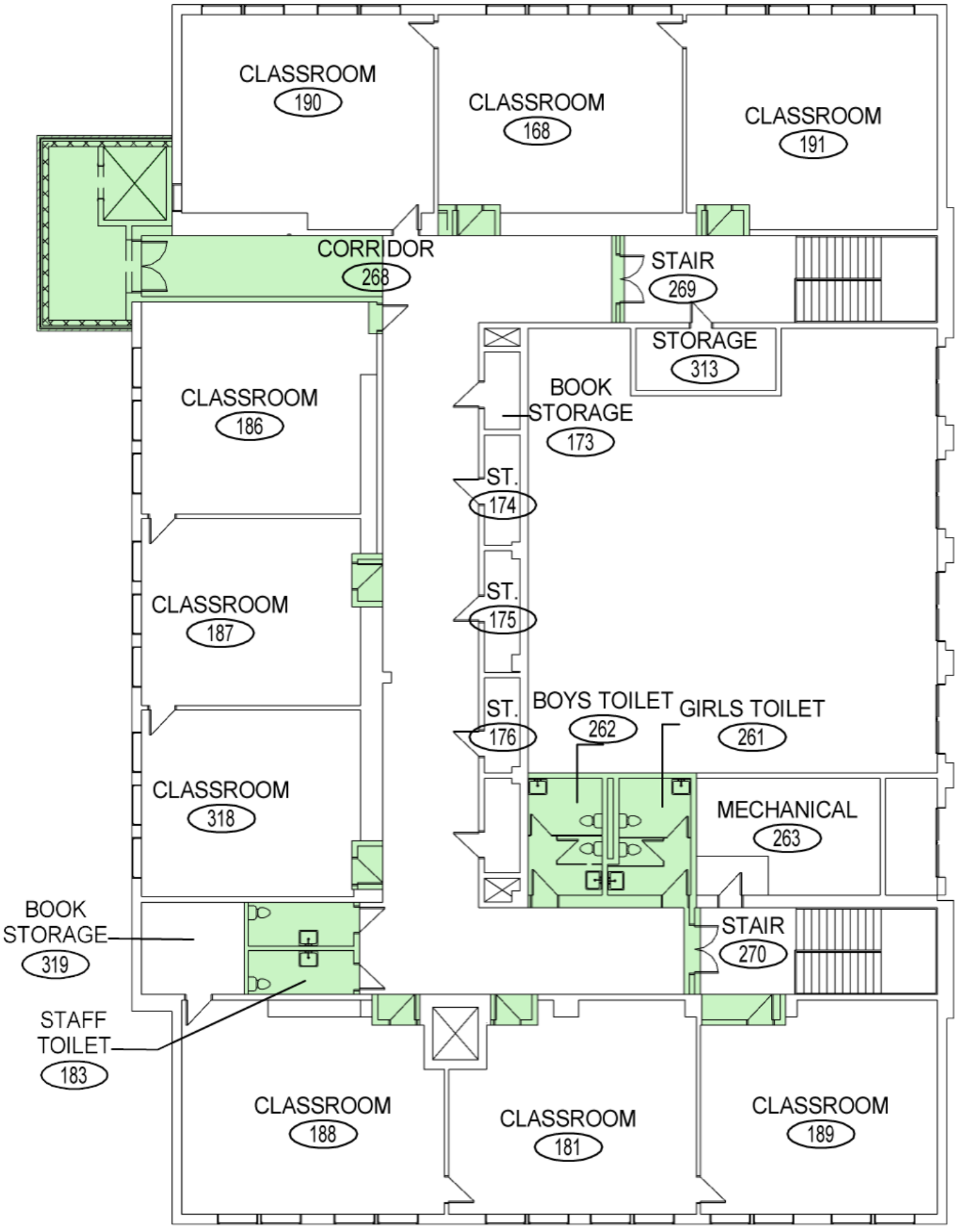
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GIRLS TOILET
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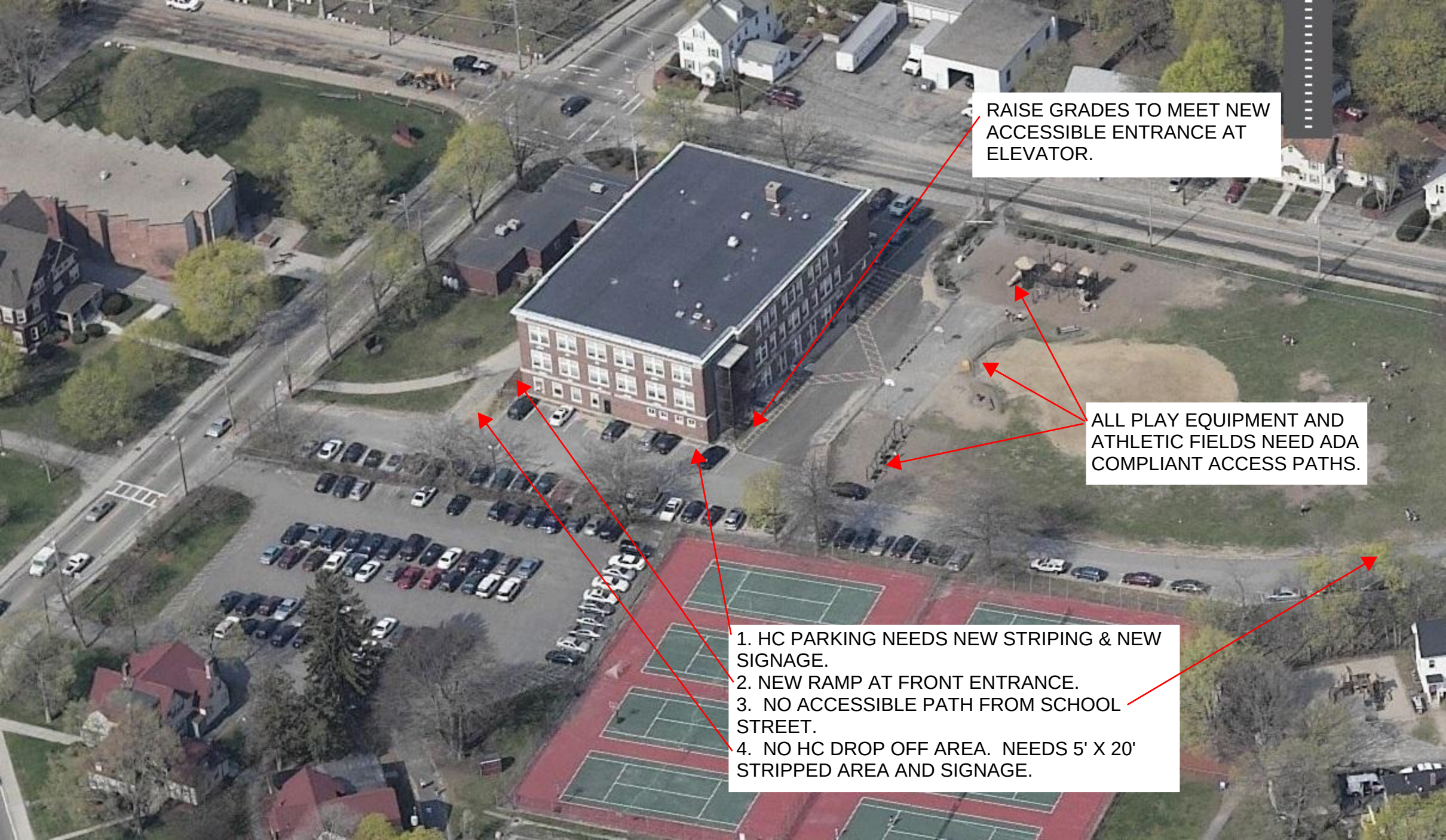
319
STAIR
270
STAFF
TOILET
183
CLASSROOM
188
CLASSROOM
181
CLASSROOM
189


RAISE GRADES TO MEET NEW ACCESSIBLE ENTRANCE AT ELEVATOR.
ALL PLAY EQUIPMENT AND ATHLETIC FIELDS NEED ADA COMPLIANT ACCESS PATHS.
1. HC PARKING NEEDS NEW STRIPING & NEW SIGNAGE.
2. NEW RAMP AT FRONT ENTRANCE.
3. NO ACCESSIBLE PATH FROM SCHOOL STREET.
4. NO HC DROP OFF AREA. NEEDS 5' X 20' STRIPPED AREA AND SIGNAGE.

Davis Thayer Elementary School
Franklin, Massachusetts
Supplemental Accessibility Study

Opinion of Probable Cost

a. Accessibility Renovation OPC
b. Detailed Construction Cost Estimate

Davis Thayer School - Accessibility Upgrades

Preliminary Opinion of Probable Project Cost

August 15, 2013

Item	Description		Sub Total	Cost	Comments
Site Development Cost					
	Site Development		$123,574		
Building Construction Cost					
	New Construction	1,594 SF	$824,812		
	Renovation	50,589 SF	$1,577,503		
	Hazardous Material Abatement		$100,000		
	Design & Pricing Contingency	@ 12%	$315,107		
		Subtotal:		**$2,940,996**	
	General Conditions & Overhead	@ 15%	$441,149		
	Insurance	@ 1.1%	$37,204		
	GC Bonds	@ 0.65%	$22,226		
	Permit	Waived by Town	$0		
	GC Fee	@ 3%	$103,247		
		Suntotal Construction Cost:		**$3,544,822**	
		Escalation (3.5%):		$124,069	
		Total Construction Cost:		**$3,668,891**	
Owners' Indirect Costs					
	Arch.& Eng.Fees		$336,800		
	Reimbursable Expenses		$16,840		
	Project Management		$160,000		
	Structural Peer Review		$3,000		
	Furnishings, Furniture & Equipment		$10,000		
	Reproduction /Miscellaneous		$12,500		
	Legal/Advertising		$7,500		
	Material Testing		$10,000		
	Owner's Contingency		$410,100		10% of all costs
	Estimated Owner's Costs			**$966,740**	
Total Estimated Project Cost				**$4,635,631**	

DAEDALUS

Davis Thayer Elementary School
Franklin, MA

August 15, 2013

Access Study Estimate

Architect:
Kaestle Boos Associates, Inc
325 Foxborough Blvd.
Foxborough, MA 02035
(508) 549-9906

Cost Estimator:
Daedalus Projects Incorporated
112 South Street, Boston, MA 02111
161 Exchange Street, Pawtucket, RI 02860
(617) 451 2717 (401) 721 0811

INTRODUCTION

Project Description:

- The project consists of the renovation of the existing building that is 50,589 GSF. There also is an addition to the building that is 1,594 GSF.
- Addition is a steel framed structure with metal floor decks & concrete slabs, steel frame roofing system
- The project includes sitework, parking, demolition of existing prefabricated building, and hazardous waste abatement

Project Particulars:

- Study drawings and the existing conditions report received August 7th, 9th & 12th, 2013, from by Kaestle Boos Associates, Inc. and their consultants
- Construction start date of Summer 2014
- Detailed quantity takeoff from these documents where possible
- Daedalus Projects, Inc. experience with similar projects of this nature

Project Assumptions:

- The project will be publicly bid to no less than three (3) General Contractors under Chapter 149
- Our costs assume that there will be at least three subcontractors submitting unrestricted bids in each sub-trade
- The total construction cost reflects fair construction value of this project in a competitive bidding market
- Unit rates are based on current dollars
- An allowance for escalation to start of construction at a rate of 3.5% per year has been carried in the main summary
- Subcontractor's markups have been included in each unit rate. Markups cover the cost of field overhead, home office and subcontractor's profit
- General Conditions and Requirements cover for: site office and/or overheads, personnel, final cleaning, etc.
- Fee is calculated on a percentage basis of direct construction cost
- Design and Pricing Contingency is an allowance for unforeseen design issues, design detail development and specification clarifications

Project Exclusions:

- Design fees and other soft costs
- Interest expense
- Owner's project administration
- Construction of temporary facilities
- Relocation expenses
- AV equipment excluded
- Printing and advertising
- Site or existing condition surveys and investigations
- Utility company back charges during construction
- Work beyond the boundary of the site
- Testing & commissioning
- Specialties, loose furnishings, fixtures and equipment beyond those noted
- LEED Certification submission and process

MAIN SUMMARY

			TOTAL	COST/SF
Direct Trade Costs				
Site Development			$123,574	
New Construction	1,594	GSF	$824,812	$517.45
Renovation Building	50,589	GSF	$1,577,503	$31.18
Hazardous Waste			$100,000	$1.98
Direct Trade Cost SubTotal			**$2,625,889**	**$50.32**
Design and Pricing Contingency	12.00%	$2,625,889	$315,107	$6.04
Trade Cost SubTotal			**$2,940,996**	**$56.36**
General Conditions and Markups				
General Conditions and Requirements	15.00%	$2,940,996	$441,149	$8.45
Insurance	1.10%	$3,382,145	$37,204	$0.71
GC Bonds	0.65%	$3,419,349	$22,226	$0.43
Fee	3.00%	$3,441,575	$103,247	$1.98
Estimated Construction Cost Total			**$3,544,822**	**$67.93**
Escalation	3.50%	$3,544,822	$124,069	$2.38
Estimated Construction Cost Total, Including Escalation			**$3,668,891**	**$70.31**

SITE SUMMARY

ELEMENT	TOTAL
02 41 00 Demolition	$7,855
02-EXISTING CONDITIONS	**$7,855**
31 10 00 Site Clearing & Preparation	$17,562
31 20 00 Earth Moving	$1,722
31 25 00 Erosion and Sedimentation Controls	$710
31-EARTHWORK	**$19,994**
32 12 16 Asphalt Pavement	$4,625
32 14 00 Unit Pavement	$4,300
32 16 00 Curbs	$0
32 17 23 Pavement Markings	$1,850
32 18 00 Playground	$0
32 30 00 Site Improvements	$17,200
32 31 13 Chain Link Fences and Gates	$0
32 92 00 Turf and Grass	$1,500
32 93 00 Plants	$0
32-EXTERIOR IMPROVEMENTS	**$29,475**
33 10 00 Water Utilities	$0
33 30 00 Sanitary Sewerage Utilities	$0
33 40 00 Storm Drainage Utilities	$0
33 50 00 Gas Service	$0
33 70 00 Electrical Utilities	$66,250
33-UTILITIES	**$66,250**
Subtotal Carried To Main Summary	**$123,574**

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
7	**02-SITEWORK**				
8					
9	**02 41 00 Demolition**				
10	Remove existing concrete pavement at accessible path from school street allowance	**1,250**	SF	$1.50	$1,875
11	Sawcut existing pavement	**91**	LF	$5.00	$455
12	Remove bituminous concrete paving	**1,016**	SF	$1.50	$1,525
13	Protect existing playground equipment during construction	**1**	LS	$1,500.00	$1,500
14	Misc. demolition other than above	**1**	AL	$2,500.00	$2,500
15	**02 41 00 Demolition Total**				**$7,855**
16					
17					
18	**31-EARTHWORK**				
19					
20	**31 10 00 Site Clearing & Preparation**				
21	Clear & grub	**1**	AL	$1,500.00	$1,500
22	Construction fence for addition building allowance	**101**	LF	$10.00	$1,012
23	Construction fence for renovation building allowance	**380**	LF	$10.00	$3,800
24	Double construction gate	**1**	EA	$2,000.00	$2,000
25	Temporary construction entrance	**1**	LS	$6,500.00	$6,500
26	Wash down/re-fuelling/parking allowance	**500**	SF	$1.50	$750
27	Inlet protection	**1**	LS	$500.00	$500
28	Temp signs	**1**	LS	$1,500.00	$1,500
29	**31 10 00 Site Clearing & Preparation Total**				**$17,562**
30					
31	**31 20 00 Earth Moving**				
32	Raise grades to meet new accessible entrance at elevator	**1**	LS	$500.00	$500
33	Cut and fill of sidewalk allowance	**64**	CY	$8.00	$509
34	Gravel base to sidewalks and paving allowance	**25**	CY	$28.00	$713
35	**31 20 00 Earth Moving Total**				**$1,722**
36					
37	**31 25 00 Erosion and Sedimentation Controls**				
38	Silt fence allowance	**92**	LF	$5.00	$460
39	Haybales for stockpile soil allowance	**50**	LF	$5.00	$250
40	**31 25 00 Erosion and Sedimentation Controls Total**				**$710**
41					
42					
43	**32-EXTERIOR IMPROVEMENTS**				
44					
45	**32 12 16 Asphalt Pavement**				

SITE DETAIL

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
46	Patch existing pavement allowance	**300**	SF	$5.00	$1,500
47	Bituminous concrete access paths for all play equipment and athletics fields allowance	**1,250**	SF	$2.50	$3,125
48	**32 12 16 Asphalt Pavement Total**				**$4,625**
49					
50	**32 14 00 Unit Pavement**				
51	New accessible entrance at elevator allowance	**1**	LS	$1,800.00	$1,800
52	New ramp at front entrance allowance	**1**	LS	$2,500.00	$2,500
53	**32 14 00 Unit Pavement Total**				**$4,300**
54					
55	**32 16 00 Curbs**				
56	No work shown in this section				$0
57	**32 16 00 Curbs Total**				**$0**
58					
59	**32 17 23 Pavement Markings**				
60	ADA markings	**1**	EA	$100.00	$100
61	Stripped area	**100**	SF	$2.50	$250
62	Misc. pavement marking	**1**	AL	$1,500.00	$1,500
63	**32 17 23 Pavement Markings Total**				**$1,850**
64					
65	**32 18 00 Playground**				
66	No work shown in this section				$0
67	**32 18 00 Playground Total**				**$0**
68					
69	**32 30 00 Site Improvements**				
70	New HC parking signs	**1**	EA	$350.00	$350
71	No HC drop off parking signs	**1**	EA	$350.00	$350
72	Repair existing retaining wall allowance	**1**	LS	$1,500.00	$1,500
73	Misc. site improvement	**1**	LS	$15,000.00	$15,000
74	**32 30 00 Site Improvements Total**				**$17,200**
75					
76	**32 31 13 Chain Link Fences and Gates**				
77	No work shown in this section				$0
78	**32 31 13 Chain Link Fences and Gates Total**				**$0**
79					
80	**32 92 00 Turf and Grass**				
81	New lawn	**1**	AL	$1,500.00	$1,500
82	**32 92 00 Turf and Grass Total**				**$1,500**
83					
84	**32 93 00 Plants**				

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
85	No work shown in this section				$0
86	**32 93 00 Plants Total**				**$0**
87					
88					
89	**33-UTILITIES**				
90					
91	**33 10 00 Water Utilities**				
92	No work shown in this section				$0
93	**33 10 00 Water Utilities Total**				**$0**
94					
95	**33 30 00 Sanitary Sewerage Utilities**				
96	No work shown in this section				$0
97	**33 30 00 Sanitary Sewerage Utilities Total**				**$0**
98					
99	**33 40 00 Storm Drainage Utilities**				
100	No work shown in this section				$0
101	**33 40 00 Storm Drainage Utilities Total**				**$0**
102					
103	**33 50 00 Gas Service**				
104	No work shown in this section				$0
105	**33 50 00 Gas Service Total**				**$0**
106					
107	**33 70 00 Electrical Utilities**				
108	*Utility Ductbanks and Service*				
109	Power riser pole	**1**	LS	$ 1,500.00	$1,500
110	Primary overhead by Utility Company	**1**	LF		NIC
111	1200A secondary service ductbank (allow)	**150**	LF	$320.00	$48,000
112					
113	*Generator Ductbank and Service*				
114	Generator pad	**1**	LS	$2,500.00	$2,500
115					
116	*Communications Ductbank and Service*				
117	Pole riser	**1**	EA	$1,500.00	$1,500
118	Communication service ductbank 2-4" conduits concrete encased	**150**	LF	$85.00	$12,750
119					
120	*Site Lighting*				
121	Site Lighting				NIC
122	**33 70 00 Electrical Utilities Total**				**$66,250**
123					
124		**TOTAL TO SUMMARY**			**$123,574**

ADDITION SUMMARY

ELEMENT	TRADE COST	COST/SF
03 30 00 Concrete	$51,667	$32.41
03-CONCRETE TOTAL	**$51,667**	**$32.41**
04 20 00-Unit Masonry Assemblies	$87,360	$54.81
04-MASONRY TOTAL	**$87,360**	**$54.81**
05 12 00 Structural Steel Framing	$48,500	$30.43
05 15 00 Stud Shear Connectors	$1,045	
05 31 00 Steel Decking	$9,457	$5.93
05 50 00 Metal Fabrications	$14,901	$9.35
05 81 00-Expansion Joint Systems	$11,200	$7.03
05-METALS TOTAL	**$85,103**	**$53.39**
06 10 00 Rough Carpentry	$7,102	$4.46
06 20 00 Finish Carpentry	$1,196	$0.75
06 40 00 Architectural Woodwork	$3,000	$1.88
06-WOODS & PLASTICS TOTAL	**$11,297**	**$7.09**
07 16 13 Waterproofing and Dampproofing	$11,890	$7.46
07 21 00 Thermal Insulation	$12,864	$8.07
07 26 00 Vapor Retarders	$15,607	$9.79
07 50 00-Roofing	$15,748	$9.88
07 84 00 Firestopping	$2,000	$1.25
07 92 00 Joint Sealants	$2,000	$1.25
07-THERMAL & MOISTURE PROTECTION TOTAL	**$60,108**	**$37.71**
08 11 13 Hollow Metal Doors and Frames	$0	$0.00
08 14 16 Flush Wood Doors	$0	$0.00
08 31 00 Access Doors and Panels	$0	$0.00
08 33 00-Overhead Cooling Doors	$0	$0.00
08 43 13 Aluminum-Framed Storefronts	$49,609	$31.12
08 44 13 Glazed Aluminum Curtain Walls	$48,020	$30.13
08 51 13 Aluminum Windows	$54,023	$33.89
08 71 00 Door Hardware	$0	$0.00
08 80 00 Glazing	$0	$0.00
08-OPENINGS TOTAL	**$151,652**	**$95.14**
09 20 00 Gypsum Wallboard Systems	$10,604	$6.65
09 30 00 Tile	$0	$0.00
09 51 00 Acoustical Ceiling	$5,065	$3.18

ADDITION SUMMARY

ELEMENT	TRADE COST	COST/SF
09 65 00 Resilient Flooring	$14,882	$9.34
09 90 00 Paints and Coatings	$5,600	$3.51
09-FINISHES TOTAL	**$36,150**	**$22.68**
10 10 00 Visual Display Boards	$3,500	$2.20
10 14 00 Signage	$955	$0.60
10 20 00-Exterior Louvers	$1,200	$0.75
10 21 13 Toilet Compartments	$0	
10 28 13 Toilet Accessories	$0	$0.00
10 44 00 Fire Protection Specialties	$1,800	$1.13
10 51 13 Metal Lockers	$0	$0.00
10-SPECIALTIES TOTAL	**$7,455**	**$4.68**
11 31 00 Appliances	$0	$0.00
11 40 00 Food Service Equipment	$0	$0.00
11 52 13 Projection Screens	$0	$0.00
11 66 23 Gymnasium Equipment	$0	$0.00
11-EQUIPMENT TOTAL	**$0**	**$0.00**
12 24 00 Window Shades	$3,602	$2.26
12 48 13 Entrance Floor Mats & Frames	$1,120	$0.70
12-FURNISHINGS TOTAL	**$4,722**	**$2.96**
14 24 00-Hydrulic Elevators	$190,000	$119.20
14-CONVEYING SYSTEMS TOTAL	**$190,000**	**$119.20**
21 00 00 Fire Protection	$6,983	$4.38
22 00 00 Plumbing	$5,750	$3.61
23 00 00 HVAC	$73,478	$46.10
21-23 MECHANICAL TOTAL	**$86,210**	**$54.08**
26 00 00 Electrical	$28,724	$18.02
26-ELECTRICAL TOTAL	**$28,724**	**$18.02**
31 30 00 Building Excavation	$11,565	$7.26
31 40 00 Shoring and Underpinning	$12,800	$8.03
31- EARTHWORK TOTAL	**$24,365**	**$15.29**
Subtotal Carried To Main Summary	**$824,812**	**$517.45**

ADDITION DETAIL

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
8	Basement	**321**	**SF**		
9	Main Level	**651**	**SF**		
10	Second Level	**310**	**SF**		
11	Third Level	**312**	**SF**		
12	Total Addition	**1,594**	**GSF**		
13					
14					
15	**03-CONCRETE**				
16					
17	**03 30 00 Concrete**				
18	*Slab-on-Grade*				
19	Concrete 4" thick	**8**	CY	$115.00	$920
20	WWF -10% overlap	**716**	SF	$0.75	$537
21	Place and finish	**651**	SF	$2.00	$1,302
22	*Slab on deck; 4 -1/2" normal weight*				
23	Concrete	**17**	CY	$115.00	$1,955
24	WWF - 10% overlap	**1,037**	SF	$0.75	$778
25	Place and finish	**943**	SF	$2.00	$1,886
26	*Continuous footings; 2' 2" x 12" deep*				
27	Concrete	**5**	CY	$115.00	$575
28	Rebar w/dowels	**425**	LBS	$0.85	$361
29	Formwork	**100**	SF	$8.00	$800
30	Place and finish	**5**	CY	$75.00	$375
31	*Frost walls*				
32	Concrete	**5**	CY	$115.00	$575
33	Rebar	**625**	LBS	$0.85	$531
34	Formwork	**280**	SF	$8.00	$2,240
35	Brick shelf	**85**	LF	$7.00	$595
36	Place and finish	**5**	CY	$75.00	$375
37	*Basement Walls*				
38	Concrete	**25**	CY	$115.00	$2,875
39	Rebar	**3,750**	LBS	$0.85	$3,188
40	Formwork	**1,080**	SF	$8.00	$8,640
41	Place and finish	**25**	CY	$75.00	$1,875
42	*Spread footings*				
43	Concrete	**15**	CY	$115.00	$1,725
44	Rebar	**1,275**	LBS	$0.65	$829
45	Formwork	**300**	SF	$8.00	$2,400
46	Place and finish	**15**	CY	$75.00	$1,125
47	Pier/pilaster; 2' 0" sq w/40#/lf rebar	**10**	EA	$500.00	$5,000

ADDITION DETAIL

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
48	*Miscellaneous items*				
49	Elevator pit	**1**	EA	$5,000.00	$5,000
50	Vapor barrier	**684**	SF	$0.30	$205
51	Minor dewatering during construction	**1**	LS	$1,500.00	$1,500
52	Concrete general conditions	**1**	LS	$3,500.00	$3,500
53	**03 30 00 Concrete Total**				**$51,667**
54					
55					
56	**04-MASONRY**				
57					
58	**04 20 00-Unit Masonry Assemblies**				
59	CMU elevator shaft	**1,776**	SF	$20.00	$35,520
60	Brick exterior (40% exterior)	**960**	SF	$34.00	$32,640
61	8" CMU back-up	**960**	SF	$20.00	$19,200
62	**04 20 00-Unit Masonry Assemblies Total**				**$87,360**
63					
64					
65	**05-METALS**				
66					
67	**05 12 00 Structural Steel Framing**				
68	Structural Steel	**4**	TON	$5,000.00	$20,000
69	Structural Steel Roof	**3**	TON	$5,000.00	$15,000
70	Columns	**2**	TNS	$5,000.00	$10,000
71	Allow for connections				Included
72	Moment connections	**1**	AL	$3,500.00	$3,500
73	**05 12 00 Structural Steel Framing Total**				**$48,500**
74					
75	**05 15 00 Stud Shear Connectors**				
76	Shear Studs	**190**	EA	$5.50	$1,045
77	**05 15 00 Stud Shear Connectors Total**				**$1,045**
78					
79	**05 31 00 Steel Decking**				
80	Metal floor deck	**1,273**	SF	$5.00	$6,365
81	Metal roof deck	**651**	SF	$4.75	$3,092
82	**05 31 00 Steel Decking Total**				**$9,457**
83					
84	**05 50 00 Metal Fabrications**				
85	Metals for elevator	**1**	LS	$7,500.00	$7,500
86	Miscellaneous metals in exterior closure	**2,401**	SF	$1.00	$2,401
87	Miscellaneous metals	**1**	LS	$5,000.00	$5,000

ADDITION DETAIL

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
88	**05 50 00 Metal Fabrications Total**				**$14,901**
89					
90	**05 81 00-Expansion Joint Systems**				
91	Floor expansion joint	**84**	LF	$38.00	$3,192
92	Exterior wall expansion joint	**156**	LF	$45.00	$7,020
93	Roof expansion joint	**26**	LF	$38.00	$988
94	**05 81 00-Expansion Joint Systems Total**				**$11,200**
95					
96					
97	**06-WOODS & PLASTICS**				
98					
99	**06 10 00 Rough Carpentry**				
100	Rough carpentry for interiors	**1**	LS	$3,500.00	$3,500
101	Rough carpentry for exteriors	**2,401**	SF	$1.50	$3,602
102	**06 10 00 Rough Carpentry Total**				**$7,102**
103					
104	**06 20 00 Finish Carpentry**				
105	Miscellaneous finish carpentry	**1,594**	SF	$0.75	$1,196
106	**06 20 00 Finish Carpentry Total**				**$1,196**
107					
108	**06 40 00 Architectural Woodwork**				
109	Misc. architectural woodwork	**1**	LS	$3,000.00	$3,000
110	**06 40 00 Architectural Woodwork Total**				**$3,000**
111					
112					
113	**07-THERMAL & MOISTURE PROTECTION**				
114					
115	**07 16 13 Waterproofing and Dampproofing**				
116	Dampproofing to frost and basement walls	**1,100**	SF	$5.50	$6,050
117	Waterproofing at foundation wall	**140**	SF	$6.00	$840
118	Waterproofing at elevator pit	**1**	LS	$5,000.00	$5,000
119	**07 16 13 Waterproofing and Dampproofing TOTAL**				**$11,890**
120					
121	**07 21 00 Thermal Insulation**				
122	Insulation below slab on grade	**684**	SF	$2.50	$1,710
123	Rigid insulation to frost and basement walls	**1,100**	SF	$2.50	$2,750
124	Exterior wall rigid insulation	**2,401**	SF	$3.50	$8,404
125	**07 21 00 Thermal Insulation Total**				**$12,864**
126					
127	**07 26 00 Vapor Retarders**				

ADDITION DETAIL

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
128	Air barrier	**2,401**	SF	$6.50	$15,607
129	**07 26 00 Vapor Retarders Total**				**$15,607**
130					
131	**07 50 00-Roofing**				
132	Roofing system including insulation	**716**	SF	$18.50	$13,248
133	Roof accessories	**1**	LS	$2,500.00	$2,500
134	**07 50 00-Roofing Total**				**$15,748**
135					
136	**07 84 00 Firestopping**				
137	Firestopping	**1**	AL	$1,000.00	$1,000
138	Fireproofing to stair, elevator, and exposed steel	**1**	AL	$1,000.00	$1,000
139	**07 84 00 Firestopping Total**				**$2,000**
140					
141	**07 92 00 Joint Sealants**				
142	Interior caulking	**1**	LS	$1,000.00	$1,000
143	Exterior caulking	**1**	LS	$1,000.00	$1,000
144	**07 92 00 Joint Sealants Total**				**$2,000**
145					
146					
147	**08-DOORS & WINDOWS**				
148					
149	**08 11 13 Hollow Metal Doors and Frames**				
150	No work shown in this section				
151	**08 11 13 Hollow Metal Doors and Frames Total**				**$0**
152					
153	**08 14 16 Flush Wood Doors**				
154	No work shown in this section				$0
155	**08 14 16 Flush Wood Doors Total**				**$0**
156					
157	**08 31 00 Access Doors and Panels**				
158	No work shown in this section				$0
159	**08 31 00 Access Doors and Panels Total**				**$0**
160					
161	**08 33 00-Overhead Cooling Doors**				
162	No work shown in this section				$0
163	**08 33 00-Overhead Cooling Doors Total**				**$0**
164					
165	**08 43 13 Aluminum-Framed Storefronts**				
166	Aluminum storefront (10% exterior)	**240**	SF	$90.00	$21,609
167	*Aluminum Entry Doors Including Hardware:*				

ADDITION DETAIL

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
168	Exterior Aluminum entry doors including hardware	**2**	PR	$7,000.00	$14,000
169	Interior Aluminum entry doors including hardware	**2**	PR	$7,000.00	$14,000
170	**08 43 13 Aluminum-Framed Storefronts Total**				**$49,609**
171					
172	**08 44 13 Glazed Aluminum Curtain Walls**				
173	Curtainwall (20% exterior)	**480**	SF	$100.00	$48,020
174	**08 44 13 Glazed Aluminum Curtain Walls Total**				**$48,020**
175					
176	**08 51 13 Aluminum Windows**				
177	Windows (30% exterior)	**720**	SF	$75.00	$54,023
178	**08 51 13 Aluminum Windows Total**				**$54,023**
179					
180	**08 71 00 Door Hardware**				
181	See Aluminum door				
182	**08 71 00 Door Hardware Total**				**$0**
183					
184	**08 80 00 Glazing**				
185	No works anticipated in this section				$0
186	**08 80 00 Glazing Total**				**$0**
187					
188					
189	**09-FINISHES**				
190					
191	**09 20 00 Gypsum Wallboard Systems**				
192	Interior of exterior	**960**	SF	$5.00	$4,802
193	Gypsum sheathing	**960**	SF	$5.00	$4,802
194	Allowance for soffit	**1**	LS	$1,000.00	$1,000
195	**09 20 00 Gypsum Wallboard Systems Total**				**$10,604**
196					
197	**09 30 00 Tile**				
198	No works anticipated in this section				
199	**09 30 00 Tile Total**				**$0**
200					
201	**09 51 00 Acoustical Ceiling**				
202	ACT ceilings allowance	**1,013**	SF	$5.00	$5,065
203	**09 51 00 Acoustical Ceiling Total**				**$5,065**
204					
205	**09 65 00 Resilient Flooring**				
206	VCT flooring at entrance	**566**	SF	$22.00	$12,441
207	VCT flooring - Lobby, corridors	**415**	SF	$4.50	$1,869

ADDITION DETAIL

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
208	Resilient base	**229**	LF	$2.50	$572
209	**09 65 00 Resilient Flooring Total**				**$14,882**
210					
211	**09 90 00 Paints and Coatings**				
212	Miscellaneous painting	**1**	LS	$5,600.00	$5,600
213	**09 90 00 Paints and Coatings Total**				**$5,600**
214					
215					
216	**10-SPECIALTIES**				
217					
218	**10 10 00 Visual Display Boards**				
219	Miscellaneous visual displlay boards	**1**	LS	$3,500.00	$3,500
220	**10 10 00 Visual Display Boards Total**				**$3,500**
221					
222	**10 21 13 Toilet Compartments**				
223	No works anticipated in this section				
224	**10 21 13 Toilet Compartments Total**				
225					
226	**10 20 00-Exterior Louvers**				
227	Elevator vent	**1**	EA	$1,200.00	$1,200
228	**10 20 00-Exterior Louvers Total**				**$1,200**
229					
230	**10 14 00 Signage**				
231	Building signage allowance - based on floor area	**1,273**	SF	$0.75	$955
232	**10 14 00 Signage Total**				**$955**
233					
234	**10 51 13 Metal Lockers**				
235	No works anticipated in this section				$0
236	**10 51 13 Metal Lockers Total**				**$0**
237					
238	**10 44 00 Fire Protection Specialties**				
239	Fire extinguishers - Fully recessed/non-rated	**4**	EA	$450.00	$1,800
240	**10 44 00 Fire Protection Specialties Total**				**$1,800**
241					
242	**10 28 13 Toilet Accessories**				
243	No works anticipated in this section				$0
244	**10 28 13 Toilet Accessories Total**				**$0**
245					
246	**11-EQUIPMENT**				
247					

ADDITION DETAIL

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
248	**11 31 00 Appliances**				
249	No works anticipated in this section				$0
250	**11 31 00 Appliances Total**				**$0**
251					
252	**11 40 00 Food Service Equipment**				
253	No works anticipated in this section				$0
254	**11 40 00 Food Service Equipment Total**				**$0**
255					
256	**11 52 13 Projection Screens**				
257	No works anticipated in this section				$0
258	**11 52 13 Projection Screens Total**				**$0**
259					
260	**11 66 23 Gymnasium Equipment**				
261	No works anticipated in this section				$0
262	**11 66 23 Gymnasium Equipment Total**				**$0**
263					
264					
265	**12-FURNISHINGS**				
266					
267	**12 24 00 Window Shades**				
268	Window shades; exterior	**720**	SF	$5.00	$3,602
269	**12 24 00 Window Shades Total**				**$3,602**
270					
271	**12 48 13 Entrance Floor Mats & Frames**				
272	Entrance floor mats & frames allowance	**32**	SF	$35.00	$1,120
273	**12 48 13 Entrance Floor Mats & Frames Total**				**$1,120**
274					
275					
276	**14-CONVEYING SYSTEMS**				
277					
278	**14 24 00-Hydrulic Elevators**				
279	Elevator, 4 stops	**1**	EA	$190,000.00	$190,000
280	**14 24 00-Hydrulic ElevatorsTotal**				**$190,000**
281					
282					
283	**21, 22, 23-MECHANICAL**				
284					
285	**21 00 00 Fire Protection**				
286	New Sprinkler Coverage	**1,595**	SF	$3.50	$5,583
287	8" Alarm Valve w/ trim	**-**	EA	existing	$0

ADDITION DETAIL

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
288	8" Backflow Preventer	-	EA	existing	$0
289	8" Water Service	-	EA	existing	$0
290	Zone control w/ standpipe	-	EA	existing	$0
291	FDV Cabinet	-	EA	existing	$0
292	Shop drawings/hydraulic calculations	1	LS	$650.00	$650
293	Permits & Fees	1	LS	$250.00	$250
294	Lifts	1	LS	$500.00	$500
295	**21 00 00 Fire ProtectionTotal**				**$6,983**
296					
297	**22 00 00 Plumbing**				
298	Elevator Sump Pump				
299	- SP	1	EA	$3,850.00	$3,850
300	Valves and specialties	1	LS	$250.00	$250
301	Seismic Restraints	1	LS	$450.00	$450
302	Testing	1	LS	$500.00	$500
303	Shop Drawing	1	LS	$700.00	$700
304	**22 00 00 PlumbingTotal**				**$5,750**
305					
306	**23 00 00 HVAC**				
307	Elevators Room Split Unit				
308	- ACCU/CU	1	EA	$5,500.00	$5,500
309	Cabinet Unit Heaters:				
310	- CUH	5	EA	$1,050.00	$5,250
311	Unit Heaters:				
312	- UH	1	EA	$925.00	$925
313	Register & Diffusers	1	LS	$500.00	$500
314	Volume Dampers	1	LS	$200.00	$200
315	Fire Dampers	1	LS	$400.00	$400
316	Duct galvanized	1,250	LBS	$9.00	$11,250
317	Duct Insulation	350	SF	$3.75	$1,313
318	Seal Ductwork	250	LF	$1.20	$300
319	Hot & Chilled Water Piping	1	LS	$10,000.00	$10,000
320	Insulate Hot & Chilled Water Piping	1	LS	$3,100.00	$3,100
321	Equipment Hook-ups:				
322	- Cabinet & Unit Heater	6	EA	$865.00	$5,190
323	Equipment Insulation	1	LS	$1,850.00	$1,850
324	Misc. Valves & specialties	1	LS	$3,500.00	$3,500
325	Demolition	1	LS	$5,000.00	$5,000
326	Coring & sleeves	1	LS	$600.00	$600
327	Controls	1	LS	$15,000.00	$15,000

ADDITION DETAIL

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
328	Seismic Restraints	**1**	LS	$400.00	$400
329	Permits & Fees	**1**	LS	$750.00	$750
330	Testing & Balancing	**1**	LS	$1,250.00	$1,250
331	Rigging & Lifting	**1**	LS	$200.00	$200
332	Shop Drawing	**1**	LS	$1,000.00	$1,000
333	**23 00 00 HVACTotal**				**$73,478**
334					
335					
336	**26-ELECTRICAL**				
337					
338	**26 00 00 Electrical**				
339	*Interior Electrical*				
340					
341	*Equipment Wiring*				
342	Elevator FSS, feed and connection	**1**	EA	$3,500.00	$3,500
343	Elevator cab power FSS, feed and connection	**1**	EA	$1,200.00	$1,200
344	Sump pump feed and connection	**1**	EA	$850.00	$850
345	CUH/EUH/UH FSS, feed and connection	**1**	EA	$850.00	$850
346	Split unit FSS, feed and connection	**1**	EA	$2,500.00	$2,500
347					
348	*Lighting & Branch Power*				
349	General lighting	**1,594**	SF	$4.50	$7,173
350	Exit and emergency lighting	**1,594**	SF	$0.25	$399
351	Lighting controls	**1,594**	SF	$0.50	$797
352	Lighting circuitry	**1,594**	SF	$2.50	$3,985
353					
354	*Fire Alarm*				
355	Initiating device	**4**	EA	$175.00	$700
356	Audio/visual device	**1**	EA	$145.00	$145
357	Device box	**5**	EA	$30.00	$150
358	3/4" EMT	**150**	LF	$7.00	$1,050
359	FA cable	**230**	LF	$1.25	$288
360	Testing and programming	**1**	LS	$400.00	$400
361					
362	*Security/Card Access System*				
363	Cameras, card readers and sensor and cabling	**1,594**	EA	$2.00	$3,188
364					
365	*Reimbursable*				
366	Temp power & lights	**1**	LS	$750.00	$750
367	Seismic restraints	**1**	LS	$500.00	$500

ADDITION DETAIL

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
368	Fees & Permits	**1**	LS	$300.00	$300
369	**26 00 00 ElectricalTotal**				**$28,724**
370					
371					
372	**31- EARTHWORK**				
373					
374	**31 30 00 Building Excavation**				
375	Basement excavation	**131**	CY	$11.00	$1,439
376	Slab on grade excavation	**15**	CY	$11.00	$168
377	Elevator pit excavation	**1**	EA	$2,500.00	$2,500
378	New strip foundation excavation	**16**	CY	$11.00	$173
379	Spread footing excavation	**82**	CY	$11.00	$898
380	premium for ledge removal allowance	**10**	CY	$100.00	$1,000
381	Backfill with selected material from on site	**203**	CY	$11.00	$2,235
382	Disposal off site	**40**	CY	$20.00	$806
383	Gravel base to building	**27**	CY	$25.00	$663
384	Perimeter foundation drain	**94**	LF	$18.00	$1,683
385	**31 30 00 Building Excavation Total**				**$11,565**
386					
387	**31 40 00 Shoring and Underpinning**				
388	Underpinning to the existing foundation for new construction	**8**	CY	$1,600.00	$12,800
389	**31 40 00 Shoring and Underpinning Total**				**$12,800**

RENOVATION SUMMARY

ELEMENT	TRADE COST	COST/SF
02 41 19 Selective Structure Demolition	$54,772	$1.08
02-EXISTING CONDITIONS TOTAL	**$54,772**	**$1.08**
03 30 00 Concrete	$14,963	$0.30
03-CONCRETE TOTAL	**$14,963**	**$0.30**
04 23 00 Masonry Repair	$105,000	$2.08
04-MASONRY TOTAL	**$105,000**	**$2.08**
05 12 00 Structural Steel Framing	$16,500	$0.33
05 15 00 Stud Shear Connectors	$196	$0.00
05 31 00 Steel Decking	$4,550	$0.09
05 50 00 Metal Fabrications	$31,000	$0.61
05 81 00-Expansion Joint Systems	$0	$0.00
05-METALS TOTAL	**$52,246**	**$1.03**
06 10 00 Rough Carpentry	$11,131	$0.22
06 20 00 Finish Carpentry	$20,000	$0.40
06 40 00 Architectural Woodwork	$0	$0.00
06-WOODS & PLASTICS TOTAL	**$31,131**	**$0.62**
07 16 13 Waterproofing and Dampproofing	NIC	
07 21 00 Thermal Insulation	NIC	
07 26 00 Vapor Retarders	NIC	
07 50 00-Roofing	$0	$0.00
07 84 00 Firestopping	$4,000	$0.08
07 92 00 Joint Sealants	$4,500	$0.09
07-THERMAL & MOISTURE PROTECTION TOTAL	**$8,500**	**$0.17**
08 11 13 Hollow Metal Doors and Frames	$5,645	$0.11
08 14 16 Flush Wood Doors	$8,700	$0.17
08 31 00 Access Doors and Panels	$5,400	$0.11
08 33 23 Overhead Coiling Doors	NIC	
08 43 13 Aluminum-Framed Storefronts	$0	$0.00
08 44 13 Glazed Aluminum Curtain Walls	$0	$0.00
08 51 13 Aluminum Windows	$0	$0.00
08 71 00 Door Hardware	$18,850	$0.37
08 80 00 Glazing	$1,500	$0.03
08-OPENINGS TOTAL	**$40,095**	**$0.79**
09 20 00 Gypsum Wallboard Systems	$54,460	$1.08

Davis Thayer Elementary School
Franklin, MA
50,589 GSF

RENOVATION SUMMARY

ELEMENT	TRADE COST	COST/SF
09 30 00 Tile	$57,070	$1.13
09 51 00 Acoustical Ceiling	$10,618	$0.21
09 64 66-Resilient Wood Flooring	$0	$0.00
09 65 00 Resilient Flooring	$50,622	$1.00
09 68 00 Carpeting	$0	$0.00
09 80 00 Acoustic Treatment	$0	$0.00
09 90 00 Paints and Coatings	$29,123	$0.58
09-FINISHES TOTAL	**$201,893**	**$3.99**
10 10 00 Visual Display Boards	$0	$0.00
10 21 13 Toilet Compartments	$19,400	
10 14 00 Signage	$8,000	$0.16
10 51 13 Metal Lockers	$0	$0.00
10 44 00 Fire Protection Specialties	$0	$0.00
10 65 00-Operable Panel Partition	$0	$0.00
10 28 13 Toilet Accessories	$45,720	$0.90
10-SPECIALTIES TOTAL	**$73,120**	**$1.06**
11 52 13 Projection Screens	$0	$0.00
11 31 00 Appliances	$0	$0.00
11 40 00 Food Service Equipment	$5,000	
11 66 23 Gymnasium Equipment	$0	$0.00
11-EQUIPMENT TOTAL	**$5,000**	**$0.10**
14 24 00-Hydrulic Elevators	$0	$0.00
14-CONVEYING SYSTEMS TOTAL	**$0**	**$0.00**
21 00 00 Fire Protection	$14,250	$0.28
22 00 00 Plumbing	$249,050	$4.92
23 00 00 HVAC	$150,843	$2.98
21-23 MECHANICAL TOTAL	**$414,143**	**$8.19**
26 00 00 Electrical	$576,640	$11.40
26-ELECTRICAL TOTAL	**$576,640**	**$11.40**
Subtotal Carried To Main Summary	**$1,577,503**	**$31.18**

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
8	Renovation area	**50,589**	**SF**		
9					
10	**02-EXISTING CONDITIONS**				
11					
12	**02 41 19 Selective Structure Demolition**				
13	Demo existing studs partitions	**3,324**	SF	$4.50	$14,958
14	Demo existing masonry partitions	**168**	SF	$6.00	$1,008
15	Premium double door removal	**4**	EA	$100.00	$400
16	Premium single door removal	**6**	EA	$50.00	$300
17	Single door open	**1**	EA	$350.00	$350
18	Double door open	**3**	EA	$700.00	$2,100
19	Remove single door	**8**	EA	$120.00	$960
20	Remove double door	**3**	EA	$150.00	$450
21	Demo toilet compartments	**588**	SF	$4.00	Included
22	R & D toilet	**13**	EA		Included
23	R & D sink	**6**	EA		Included
24	R & D existing floor and ceiling	**898**	SF	$3.00	$2,694
25	R & D existing bathroom	**1,092**	SF	$6.00	$6,552
26	Cut & patch	**1**	LS	$10,000.00	$10,000
27	Miscellaneous demolition other than above	**1**	LS	$15,000.00	$15,000
28	**02 41 19 Selective Structure Demolition Total**				**$54,772**
29					
30					
31	**03-CONCRETE**				
32					
33	**03 30 00 Concrete**				
34	Allowance for concrete leveling	**998**	SF	$3.50	$3,493
35	Allow for concrete pads and bases	**1**	LS	$5,000.00	$5,000
36	*Slab on deck; 4 -1/2" normal weight*				
37	Concrete	**12**	CY	$125.00	$1,500
38	WWF - 10% overlap	**770**	SF	$1.00	$770
39	Place and finish	**700**	SF	$6.00	$4,200
40	**03 30 00 Concrete Total**				**$14,963**
41					
42					
43	**04-MASONRY**				
44					
45	**04 23 00 Masonry Repair**				
46	Masonry repoint and repair at exterior wall allowance	**5,000**	SF	$16.00	$80,000
47	Rebuilt chimney above roof	**1**	LS	$25,000.00	$25,000

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
48	**04 23 00 Masonry Repair Total**				**$105,000**
49					
50	**05-METALS**				
51					
52	**05 12 00 Structural Steel Framing**				
53	Structural Steel infill allowance	**3**	TON	$5,500.00	$16,500
54	**05 12 00 Structural Steel Framing Total**				**$16,500**
55					
56	**05 15 00 Stud Shear Connectors**				
57	Shear stud allowance	**28**	EA	$7.00	$196
58	**05 15 00 Stud Shear Connectors Total**				**$196**
59					
60	**05 31 00 Steel Decking**				
61	Metal floor deck	**700**	SF	$6.50	$4,550
62	**05 31 00 Steel Decking Total**				**$4,550**
63					
64	**05 50 00 Metal Fabrications**				
65	Steel railing modified at existing stair	**6**	FLT	$3,500.00	$21,000
66	Metals for elevator incl. pit ladder & sills see addition building				Included
67	Miscellaneous metals	**4,000**	SF	$2.50	$10,000
68	**05 50 00 Metal Fabrications Total**				**$31,000**
69					
70	**05 81 00-Expansion Joint Systems**				
71	See addition building				
72	**05 81 00-Expansion Joint Systems Total**				**$0**
73					
74					
75	**06-WOODS & PLASTICS**				
76					
77	**06 10 00 Rough Carpentry**				
78	Blocking at doors	**502**	LF	$3.00	$1,506
79	Door Installation	**29**	EA	$125.00	$3,625
80	Rough carpentry allowance	**4,000**	SF	$1.50	$6,000
81	**06 10 00 Rough Carpentry Total**				**$11,131**
82					
83	**06 20 00 Finish Carpentry**				
84	Miscellaneous finish carpentry	**4,000**	SF	$5.00	$20,000
85	**06 20 00 Finish Carpentry Total**				**$20,000**
86					
87	**06 40 00 Architectural Woodwork**				

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
88	No work shown in this section				
89	**06 40 00 Architectural Woodwork Total**				**$0**
90					
91					
92	**07-THERMAL & MOISTURE PROTECTION**				
93					
94	**07 16 13 Waterproofing and Dampproofing**				
95	No work in Waterproofing and Dampproofing section				NIC
96	**07 16 13 Waterproofing and Dampproofing Total**				**NIC**
97					
98	**07 21 00 Thermal Insulation**				
99	No work in Building Insulation section				NIC
100	**07 21 00 Thermal Insulation Total**				**NIC**
101					
102	**07 26 00 Vapor Retarders**				
103	No works anticipated in this section				NIC
104	**07 26 00 Vapor Retarders Total**				**NIC**
105					
106	**07 50 00-Roofing**				
107	No works anticipated in this section				$0
108	**07 50 00-Roofing Total**				**$0**
109					
110	**07 84 00 Firestopping**				
111	Firestopping penetrations, partitions, etc.	**1**	AL	$4,000.00	$4,000
112	**07 84 00 Firestopping Total**				**$4,000**
113					
114	**07 92 00 Joint Sealants**				
115	Interior caulking and sealants	**1**	LS	$4,500.00	$4,500
116	**07 92 00 Joint Sealants Total**				**$4,500**
117					
118					
119	**08-DOORS & WINDOWS**				
235					
236	**08 11 13 Hollow Metal Doors and Frames**				
237	Single HM frames	**17**	EA	$235.00	$3,995
238	Double HM frames	**6**	EA	$275.00	$1,650
124	**08 11 13 Hollow Metal Doors and Frames Total**				**$5,645**
125					
126	**08 14 16 Flush Wood Doors**				
127	Single wood door	**17**	EA	$300.00	$5,100

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
128	Double wood door	**6**	PR	$600.00	$3,600
129	**08 14 16 Flush Wood Doors Total**				**$8,700**
130					
131	**08 31 00 Access Doors and Panels**				
132	Access doors	**18**	EA	$300.00	$5,400
133	**08 31 00 Access Doors and Panels Total**				**$5,400**
134					
135	**08 33 23 Overhead Coiling Doors**				
136	No works anticipated in this section				NIC
137	**08 33 23 Overhead Coiling Doors Total**				**NIC**
138					
139	**08 43 13 Aluminum-Framed Storefronts**				
140	No works anticipated in this section				$0
141	**08 43 13 Aluminum-Framed Storefronts Total**				**$0**
142					
143	**08 44 13 Glazed Aluminum Curtain Walls**				
144	No works anticipated in this section				$0
145	**08 44 13 Glazed Aluminum Curtain Walls Total**				**$0**
146					
288	**08 51 13 Aluminum Windows**				
288	No works anticipated in this section				$0
289	**08 51 13 Aluminum Windows Total**				**$0**
151	**08 71 00 Door Hardware**				
152	Hardware for new door	**29**	SET	$650.00	$18,850
153	**08 71 00 Door Hardware Total**				**$18,850**
154					
155	**08 80 00 Glazing**				
156	Glazing in doors allowance	**1**	AL	$1,500.00	$1,500
157	**08 80 00 Glazing Total**				**$1,500**
158					
159					
320	**09-FINISHES**				
321					
322	**09 20 00 Gypsum Wallboard Systems**				
324	Corridor partitions	**1,892**	SF	$12.00	$22,704
325	Standard partitions	**357**	SF	$7.50	$2,678
165	Demising partitions	**1,034**	SF	$10.00	$10,340
166	Plumbing chase wall (one side)	**368**	SF	$6.50	$2,389
167	Infill single door opening	**1**	EA	$450.00	$450

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
168	Infill double door opening	**1**	EA	$900.00	$900
338	Allowance for soffit	**1**	LS	$15,000.00	$15,000
339	**09 20 00 Gypsum Wallboard Systems Total**				**$54,460**
340					
340	**09 30 00 Tile**				
341	Ceramic tile floor - Toilets	**998**	SF	$15.00	$14,970
342	Ceramic tile wall - Toilets	**2,436**	SF	$15.00	$36,540
342	Ceramic tile base	**406**	LF	$10.00	$4,060
342	Threshold	**12**	EA	$125.00	$1,500
342	**09 30 00 Tile Total**				**$57,070**
342					
342	**09 51 00 Acoustical Ceiling**				
342	ACT ceilings	**1,306**	SF	$4.50	$5,877
342	Acoustic ceiling tile, moisture resistant, Toilets	**998**	SF	$4.75	$4,741
350	**09 51 00 Acoustical Ceiling Total**				**$10,618**
351					
351	**09 65 00 Resilient Flooring**				
352	VCT flooring	**3,178**	SF	$4.00	$12,712
352	Install VCT flooring after abatement remove allowance	**3,000**	SF	$4.00	$12,000
353	Resilient base	**544**	LF	$2.50	$1,360
353	Resilient Stair Treads and Risers	**1,100**	LFR	$15.50	$17,050
353	Resilient flooring at landings	**1,000**	SF	$7.50	$7,500
190	**09 65 00 Resilient Flooring Total**				**$50,622**
191					
192	**09 64 66-Resilient Wood Flooring**				
193	No works anticipated in this section				$0
194	**09 64 66-Resilient Wood Flooring Total**				**$0**
222					
223	**09 68 00 Carpeting**				
224	No works anticipated in this section				
198	**09 68 00 Carpeting Total**				**$0**
226					
200	**09 80 00 Acoustic Treatment**				
201	No works anticipated in this section				$0
202	**09 80 00 Acoustic Treatment Total**				**$0**
203					
204	**09 90 00 Paints and Coatings**				
205	Paint GWB walls	**7,364**	SF	$1.25	$9,205
206	Exposed structure (ceiling) - painted; gymnasium	**4,038**	SF	$1.65	$6,663
207	Exposed structure (ceiling) - painted	**831**	SF	$1.35	$1,122

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
208	Painted concrete floors	**787**	SF	$1.25	$984
414	Paint existing doors and frames	**29**	EA	$150.00	$4,350
417	Miscellaneous painting	**1**	LS	$6,800.00	$6,800
211	**09 90 00 Paints and Coatings Total**				**$29,123**
212					
213					
214	**10-SPECIALTIES**				
215					
216	**10 10 00 Visual Display Boards**				
217	No works anticipated in this section				$0
218	**10 10 00 Visual Display Boards Total**				**$0**
219					
220	**10 21 13 Toilet Compartments**				
252	Toilet partition stall	**10**	EA	$1,100.00	$11,000
222	Toilet partition stall, ADA	**6**	EA	$1,400.00	$8,400
223	**10 21 13 Toilet Compartments Total**				**$19,400**
224					
225	**10 14 00 Signage**				
226	Allow for Lettering, school name	**1**	EA	$5,000.00	$5,000
227	Building signage allowance - based on floor area	**4,000**	SF	$0.75	$3,000
228	**10 14 00 Signage Total**				**$8,000**
229					
230	**10 51 13 Metal Lockers**				
231	No works anticipated in this section				$0
232	**10 51 13 Metal Lockers Total**				**$0**
233					
234	**10 44 00 Fire Protection Specialties**				
235	No works anticipated in this section				$0
236	**10 44 00 Fire Protection Specialties Total**				**$0**
237					
238	**10 65 00-Operable Panel Partition**				
239	No works anticipated in this section				
240	**10 65 00-Operable Panel Partition Total**				**$0**
241					
242	**10 28 13 Toilet Accessories**				
243	Toilet room accessories and compartments - gang	**6**	EA	$7,000.00	$42,000
244	Toilet room accessories - private	**7**	EA	$500.00	$3,500
245	Janitor mop shelf	**2**	EA	$110.00	$220
246	**10 28 13 Toilet Accessories Total**				**$45,720**
247					

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
248					
249	**11-EQUIPMENT**				
250					
251	**11 52 13 Projection Screens**				
252	No works anticipated in this section				
253	**11 52 13 Projection Screens Total**				**$0**
254					
255	**11 31 00 Appliances**				
256	No works anticipated in this section				$0
257	**11 31 00 Appliances Total**				**$0**
258					
259	**11 40 00 Food Service Equipment**				
260	Food service upgrade for accessibility	**1**	LS	$5,000.00	$5,000
261	**11 40 00 Food Service Equipment Total**				**$5,000**
262					
263	**11 66 23 Gymnasium Equipment**				
264	No works anticipated in this section				$0
265	**11 66 23 Gymnasium Equipment Total**				**$0**
266					
267					
268	**14-CONVEYING SYSTEMS**				
269					
270	**14 24 00-Hydrulic Elevators**				
271	Elevator				See Addition
272	**14 24 00-Hydrulic Elevators Total**				**$0**
273					
274					
275	**21, 22, 23-MECHANICAL**				
276					
277	**21 00 00 Fire Protection**				
278	Modify Existing Sprinkler Coverage	**4,000**	SF	$0.75	$3,000
279	8" Alarm Valve w/ trim	**-**	EA	existing	$0
280	8" Backflow Preventer	**-**	EA	existing	$0
281	8" Water Service	**-**	EA	existing	$0
282	Zone control w/ standpipe	**-**	EA	existing	$0
283	FDV Cabinet	**-**	EA	existing	$0
284	Shut Down & Drain system	**1**	LS	$2,250.00	$2,250
285	Demolition	**1**	LS	$3,000.00	$3,000
286	Shop drawings/hydraulic calculations	**1**	LS	$2,500.00	$2,500
287	Permits & Fees	**1**	LS	$2,000.00	$2,000

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
288	Lifts	**1**	LS	$1,500.00	$1,500
289	**21 00 00 Fire Protection Total**				**$14,250**
290					
291	**22 00 00 Plumbing**				
292	Gas Fired Hotwater Tank:				
293	- BLR-1	**1**	EA	$30,000.00	$30,000
294	Circulating Pumps	**1**	EA	$1,250.00	$1,250
295	Mixing Valves				
296	- MV-1	**1**	EA	$2,500.00	$2,500
297	Misc. Pumps & ejectors	**1**	EA	$5,000.00	$5,000
298	3" Water Service w/ meter	**1**	EA	$5,250.00	$5,250
299	**Fixtures:**				
300	Water closet (replace)	**22**	EA	$2,800.00	$61,600
301	Water closet (new)	**6**	EA	$3,600.00	$21,600
302	Urinal (replace)	**2**	EA	$2,800.00	$5,600
303	Lavatory (replace)	**16**	EA	$2,800.00	$44,800
304	Lavatory (new)	**6**	EA	$3,600.00	$21,600
305	Mop Sink (new)	**1**	EA	$3,600.00	$3,600
306	Hose bibbs HB-A	**2**	EA	$325.00	$650
307	Floor Drains:				
308	- FD-A (bathrooms)	**6**	EA	$1,250.00	$7,500
309	Gas Piping:	**1**	LS	$3,000.00	$3,000
310	Shut Down And Drain System	**1**	LS	$2,000.00	$2,000
311	Demolition	**1**	LS	$10,000.00	$10,000
312	Lift	**1**	LS	$3,250.00	$3,250
313	Valves and specialties	**1**	LS	$4,850.00	$4,850
314	Seismic Restraints	**1**	LS	$4,500.00	$4,500
315	Testing	**1**	LS	$4,250.00	$4,250
316	Shop Drawing	**1**	LS	$6,250.00	$6,250
317	**22 00 00 Plumbing Total**				**$249,050**
318					
319	**23 00 00 HVAC**				
320	Boiler:				
321	- B-1 & 2 3000 MBH	**-**	EA	existing	$0
322	Air Handling Units				
323	- AHU-1	**1**	EA	$64,000.00	$64,000
324	Bathroom Exhaust Fans	**1**	LS	$7,500.00	$7,500
325	Convector Heaters:				
326	- C	**2**	EA	$785.00	$1,570
327	Register & Diffusers	**1**	LS	$2,000.00	$2,000

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
328	Volume Dampers	**1**	LS	$850.00	$850
329	Fire Dampers	**1**	LS	$985.00	$985
330	Duct galvanized	**2,000**	LBS	$9.00	$18,000
331	Duct Insulation	**650**	SF	$3.75	$2,438
332	Seal Ductwork	**500**	LF	$1.20	$600
333	Hot & Chilled Water Piping	**1**	LS	$10,000.00	$10,000
334	Insulate Hot & Chilled Water Piping	**1**	LS	$3,350.00	$3,350
335	Misc. Valves & specialties	**1**	LS	$3,500.00	$3,500
336	Demolition	**1**	LS	$5,000.00	$5,000
337	Coring & sleeves	**1**	LS	$2,100.00	$2,100
338	Controls	**1**	LS	$15,000.00	$15,000
339	Seismic Restraints	**1**	LS	$1,500.00	$1,500
340	Permits & Fees	**1**	LS	$2,500.00	$2,500
341	Testing & Balancing	**1**	LS	$3,500.00	$3,500
342	Rigging & Lifting	**1**	LS	$2,200.00	$2,200
343	Shop Drawing	**1**	LS	$4,250.00	$4,250
344	**23 00 00 HVAC Total**				**$150,843**
345					
346					
347	**26-ELECTRICAL**				
348					
349	**26 00 00 Electrical**				
350	*Interior Electrical*				
351					
352	*Demolition*				
353	Demolition and make safe	**1**	LS	$10,000.00	$10,000
354					
355	*Gear & Distribution*				
356	Normal Power				
357	1200A 208/120V switchboard	**1**	EA	$30,000.00	$30,000
358	400A feed to backfeed panelboard (allow)	**50**	LF	$102.00	$5,100
359	Associated panelboards and feeders	**50,589**	LS	$2.00	$101,178
360	Grounding	**1**	LS	$3,500.00	$3,500
361					
362	*Emergency Power*				
363	Associated ATS's, panelboards and feeders	**50,589**	LS	$1.50	$75,884
364					
365	*Equipment Wiring*				
366	AHU FSS, feed and connection	**1**	EA	$3,500.00	$3,500
367	Fan FSS, feed and connection	**1**	EA	$850.00	$850
368	CUH/EUH/UH FSS, feed and connection	**6**	EA	$850.00	$5,100

	ELEMENT	QUANTITY	UNIT	UNIT RATE	COST
369	Pump FSS, feed and connection	**1**	EA	$1,200.00	$1,200
370	Misc. equipment wiring feed and connections	**50,589**	SF	$0.25	$12,647
371					
372	*Lighting & Branch Power*				
373	General lighting	**4,000**	SF	$5.00	$20,000
374	Exit and emergency lighting	**4,000**	SF	$0.25	$1,000
375	Lighting controls	**4,000**	SF	$1.00	$4,000
376	Lighting circuitry	**4,000**	SF	$3.00	$12,000
377					
378	*Fire Alarm*				
379	New control panel	**1**	LS	$7,500.00	$7,500
380	Initiating device	**70**	EA	$135.00	$9,450
381	Audio/visual device	**80**	EA	$115.00	$9,200
382	Visual device	**9**	EA	$105.00	$945
383	Modules	**20**	EA	$135.00	$2,700
384	Device box	**180**	EA	$30.00	$5,400
385	3/4" EMT	**5,400**	LF	$7.00	$37,800
386	FA cable	**8,100**	LF	$1.25	$10,125
387	Testing and programming	**1**	LS	$1,500.00	$1,500
388					
389	*Telephone/Data/CATV*				
390	Rough-in	**50,589**	SF	$1.00	$50,589
391	Devices and cabling	**50,589**	SF	$1.50	$75,884
392	Modify and upgrade existing IDF Fit-out closets	**1**	LS	$3,500.00	$3,500
393					
394	*PA/Clock System*				
395	Modify and upgrade existing head end equipment	**1**	LS	$5,000.00	$5,000
396	Speakers, clocks, handsets and cabling	**50,589**	SF	$1.00	$50,589
397					
398	*Security/Card Access System*				
399	Modify and upgrade existing head end equipment				NIC
400	Cameras, card readers and sensor and cabling				NIC
401					
402	*Lightning Protection*				
403	Lightning protection system				NIC
404					
405	*Reimbursable*				
406	Temp power & lights	**1**	LS	$10,000.00	$10,000
407	Seismic restraints	**1**	LS	$5,000.00	$5,000
408	Fees & Permits	**1**	LS	$5,500.00	$5,500
409	**26 00 00 Electrical Total**				**$576,640**