Development Services

From Concept to Construction

Phone: 503-823-7300 Email: bds@portlandoregon.gov 1900 SW 4th Ave, Portland, OR 97201
More Contact Info (http://www.portlandoregon.gov//bds/article/519984)

APPEAL SUMMARY

Status: Decision Rendered

Appeal ID: 14734	**Project Address:** 2245 NE 36th Ave
Hearing Date: 3/8/17	**Appellant Name:** Alyssa Leeviraphan
Case No.: B-004	**Appellant Phone:** 503-224-4032
Appeal Type: Building	**Plans Examiner/Inspector:** John Cooley
Project Type: commercial	**Stories:** 3 **Occupancy:** E **Construction Type:** IA, II-B, III-B
Building/Business Name:	**Fire Sprinklers:** Yes - throughout
Appeal Involves: Alteration of an existing structure,Addition to an existing structure	**LUR or Permit Application No.:**
Plan Submitted Option: pdf [File 1]	**Proposed use:** Educational - high school

APPEAL INFORMATION SHEET

Appeal item 1

Code Section	2902.1
Requires	Minimum number of plumbing fixtures provided shall be based on the number of occupants as determined by code.
Proposed Design	For the purpose of determining minimum required number of plumbing fixtures, the proposed design applies an assumed occupant load of 2500 students and staff rather than the approximately 11,000 occupants calculated per Section 1004. The minimum number of plumbing fixtures is determined with table 2902.1 using the assumed occupant load. The occupant load and resulting plumbing fixture quantities are divided proportionally between buildings based upon the intended use of the building. The assumed occupant load does not include the assembly seating occupants and performers of the auditorium in Building 1. The assumed occupant load does not include the assembly seating occupants of the Main Gym which will not be loaded simultaneously with the rest of the school. The assembly occupant loads of the Main Gym and Auditorium are assumed to occur when the rest of the school is unoccupied. Therefore the plumbing fixtures provided to serve the rest of the school may be used to serve the assembly occupants of these rooms. The minimum number of plumbing fixtures required to serve these assembly occupant loads is determined with table 2902.1 using occupant loads calculated per Section 1004. The attached schedule shows the required fixture quantities determined by using the proposed method. These minimum quantities would be referenced by the plans submitted with the permit application.

Reason for alternative	The actual number of occupants intended to use the school is 1825. The quantity of plumbing fixtures required by 2902.1 using occupant loads per 1004 would far exceed the number that are practically necessary. Assemblies that occur in the Main Gym and Auditorium will occur outside of school operating hours or will be attended by students and staff during school hours.

Appeal item 2

Code Section	OSSC 905.2, 905.5.1, 905.3.4.1, NFPA 14 (2013) 5.4.2, 7.8.1
Requires	Class II wet standpipe pressure of minimum 65 psi at hose valves in stage, auditorium balcony and dressing rooms must be automatically supplied. The 1 ½ inch hose connection shall be equipped with 1 ½ inch hose and fog nozzle.
Proposed Design	Existing hose valves in the auditorium are supplied by domestic water system. In lieu of automatically supplying standpipes with 65 psi, we propose to connect them to the fire sprinkler system and sprinkler system fire department connection. We propose to omit the hose and nozzle at standpipe 1 1/2 inch hose connections.
Reason for alternative	By connecting to the fire sprinkler system, in a fire event, the responding fire department would supply the required pressure through the fire department connection. Omission of hose and nozzle is included here because we understand this to be the preference of the Fire bureau so that building occupants don't attempt to suppress a fire rather than exit the building.

Appeal item 3

Code Section	1022.2
Requires	Enclosures for interior exit stairways and ramps shall be constructed as fire barriers in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 711, or both.
Proposed Design	The proposed design preserves the existing kalamein frame relites and 90 minute rated doors at the corridor side of two exit stair enclosures. A new fire sprinkler system will be installed throughout the entire building and will include new quick response heads above the relites to wet both sides of the glass. This condition is the subject of a previous appeal which is shown below. The continued designation of these two stairs as exit stairs rather than exit access stairs under the 2014 OSSC is necessary due to exit access travel distances at the upper floor of the building. 10/15/1997 appeal, ID# unknown: STAIR ENCLOSURES AT MAIN BUILDING - THE PROPOSAL TO S1, S2 AND S5 SERVING THREE: FLOORS WILL BE ENCLOSED. STAIR S2, S3, S7, AND S8 SERVING ONLY TWO FLOORS WILL NOT BE ENCLOSED. THE EXIT STAIR WAY WITH EXISTING WIRE GLASS RELITES APPROXIMATELY 93 SQUARE FEET ARE NOT RATED. NEW WALL AND EXIT DOORS FOR THE EXIT STAIRWAY WILL COMPLY WITH TWO-HOUR FIRE RESISTANT CONSTRUCTIONS. THE EXISTING WIRE GLASS IN THE STAIR ENCLOSURE WILL REMAIN. SPRINKLER COVER TO ALL EXITWAYS PER "STANDARD Q" WILL BE PROVIDED. THE RELITE AT STAIR ENCLOSURES S2, S3, S7, AND SB: GRANTED PROVIDED SPRINKLER PROTECTION IS PROVIDED AT BOTH SIDES OF RELITES TO WET GLASS. SPRINKLER INSTALLATION SHALL BE AS APPROVED BY THE FIRE MARSHALL'S OFFICE.

Reason for alternative	The stairs and their enclosures are part of the original 1920s building construction. The existing relites are preserved in the interest of maintaining the historic character of the stairwells.

Appeal item 4

Code Section	1012.2, 1012.6, 1013.3
Requires	1012.2 - "Handrail height, as measured above stair tread nosings...shall be uniform, not less than 34 inches..." 1012.6 - "Handrails shall return to a wall, guard or the walking surface...the handrails shall extend horizontally at least 12 inches beyond the top riser and continue to slope for the depth of one tread beyond the bottom riser." 1013.3 - "Required guards shall not be less than 42" high... "
Proposed Design	The proposed design would maintain the existing condition of guards and handrails at two exit stairs and five exit access stairs. The existing guards measure a minimum of 36 inches in height at stairs and landings. Existing 2" diameter wood handrails are placed 31" above stair nosings on both sides of stairs and typically lack the extensions and returns required by current code.
Reason for alternative	No alterations are proposed in the interest of maintaining the historic character of the existing stairs which are part of the original 1920s construction.

Appeal item 5

Code Section	1013.4, 1028.14.2, 1028.14.3
Requires	1013.4 Opening Limitations Required guards shall not have openings which allow passage of a sphere 4 inches in diameter from the walking surface to the required guard height. Exception 5. In assembly seating areas, guards at the end of aisles where they terminate at a fascia of boxes, balconies and galleries shall not have openings which allow passage of a sphere 4 inches in diameter up to a height of 26 inches. From a height of 26 inches to 42 inches above the adjacent walking surfaces, guards shall not have openings which allow passage of a sphere 8 inches in diameter. 1028.14.2 Sightline constrained guard heights Unless subject to the requirements of Section 1028.14.3, a fascia or railing system in accordance with the guard requirements of Section 1013 and having a minimum height of 26 inches shall be provided where the floor or footboard elevation is more than 30 inches above the floor or grade below and the fascia or railing would otherwise interfere with the sightlines of immediately adjacent seating. 1028.14.3 Guards at the end of aisles A fascia or railing system complying with the guard requirements of Section 1013 shall be provided for the full width of the aisle where the foot of the aisle is more than 30 inches above the floor or grade below. The fascia or railing shall be a minimum of 36 inches high and shall provide a minimum 42 inches measured diagonally between the top of the rail and the nosing of the nearest tread.
Proposed Design	The existing guard at the front edge of the auditorium balcony built in 1927 is solid to a height of 24 inches above the floor and has a cap rail 36 inches above the floor. The gap between the cap rail and the top of solid portion of the guard is approximately 1O". No change to the existing guard is proposed.

	The existing aisles in the balcony are stepped with 1O" risers. The proposed design includes the addition of new intermediate treads which are half the height and depth of the existing treads. This will be compliant with 1028.11.1 and 1028.11.2 but creates a non-compliance with 1028.14.3. The diagonal measurement between the nosing of the new bottom tread and the top of the guard will be 3'-2".
Reason for alternative	The guard is preserved in its existing configuration in the interest of maintaining its historic appearance. While the addition of intermediate steps at the aisles introduces a non-compliant condition at the guardrail, the safety and accessibility of the aisles are improved.

Appeal item 6

Code Section	1014.3
Requires	1014.3 Common path of egress travel The common path of egress travel shall not exceed the common path of egress travel distances in Table 1014.3 (maximum 75 feet for group E occupancy).
Proposed Design	1014.3 Common path of egress travel The common path of egress travel shall not exceed the common path of egress travel distances in Table 1014.3 (maximum 75 feet for group E occupancy).
Reason for alternative	Achieving compliance would require the addition of exit access stairs at each wing.

APPEAL DECISION

1. Plumbing occupant load based on school enrollment, in lieu of calculated occupant load: Denied. Proposal does not demonstrate sufficient access to sanitary facilities.

2. Omission of hose and fog nozzle at standpipes: Granted as proposed.

3. Water curtain at existing non rated glazing at stair enclosure in lieu of rated Fire Barrier: Granted as proposed.

4. Existing stair handrail mounting height of 31", without handrail extensions: Granted as proposed.

5. Guardrail configuration at auditorium: Denied. Proposal does not provide equivalent protection.

6. Increase in common path of egress travel up to 92' maximum in reconfigured areas: Granted as proposed.

Appellant may contact John Cooley (503-823-7944) for additional information.

For the items granted, the Administrative Appeal Board finds that the information submitted by the appellant demonstrates that the approved modifications or alternate methods are consistent with the intent of the code; do not lessen health, safety, accessibility, life, fire safety or structural requirements; and that special conditions unique to this project make strict application of those code sections impractical.

Pursuant to City Code Chapter 24.10, you may appeal this decision to the Building Code Board of Appeal within 180 calendar days of the date this decision is published. For information on the appeals process and costs, including forms, appeal fee, payment methods and fee waivers, go to www.portlandoregon.gov/bds/appealsinfo, call (503) 823-7300 or come in to the Development Services Center.

Building Code Appeal attachment
Grant High School Modernization

MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES (2902)

Proposed minimum required fixture quantities based on design occupant load of 2500 for the school. Non-simultaneous assembly occupant loads at the Main Gym and Auditorium are determined per OSSC Section 1004.

Building 1, 2 and 3

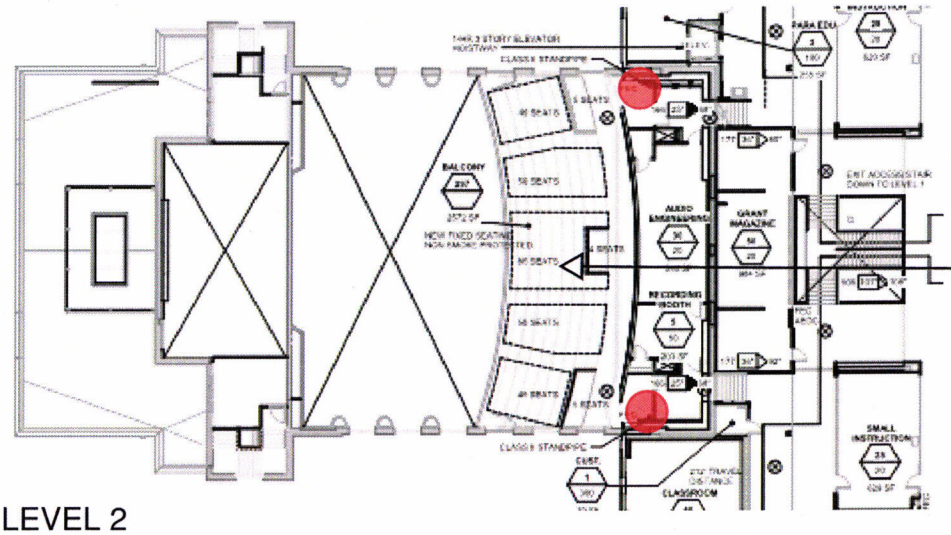
Occupancy or function	Design Occ Load	Drinking Fountains 1 per floor	Water closets			Lavatories		
			Male 1 per 50	Female 1 per 50	Total	Male 1 per 50	Female 1 per 50	Total
E-Building 1 + 2	2200	3	22	22	44	22	22	44
E-Building 3	300	3	3	3	6	3	3	6
Total	2500	6	25	25	50	25	25	50

Building 1 Auditorium seating, stage and orchestra assembly occupant load (non-simultaneous)

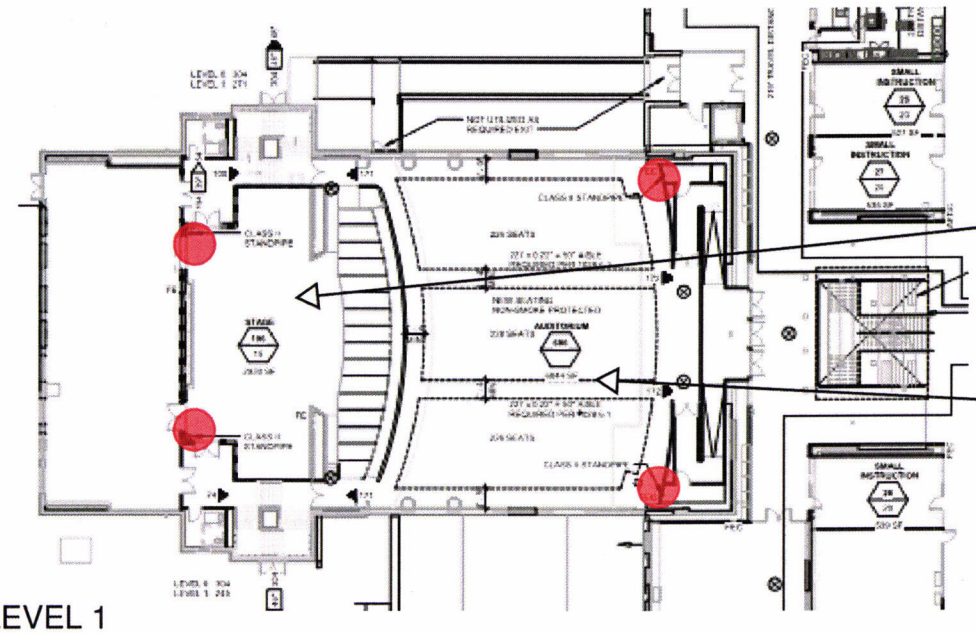
Occupancy or function	Ch. 10 Occ Load	Drinking Fountains 1 per floor	Water closets			Lavatories		
			Male 1 per 125	Female 1 per 65	Total	Male 1 per 200	Female 1 per 200	Total
A-1	1179	3	5	9	14	3	3	6

Building 2 Main Gym bleachers and loose seating assembly occupant load (non-simultaneous)

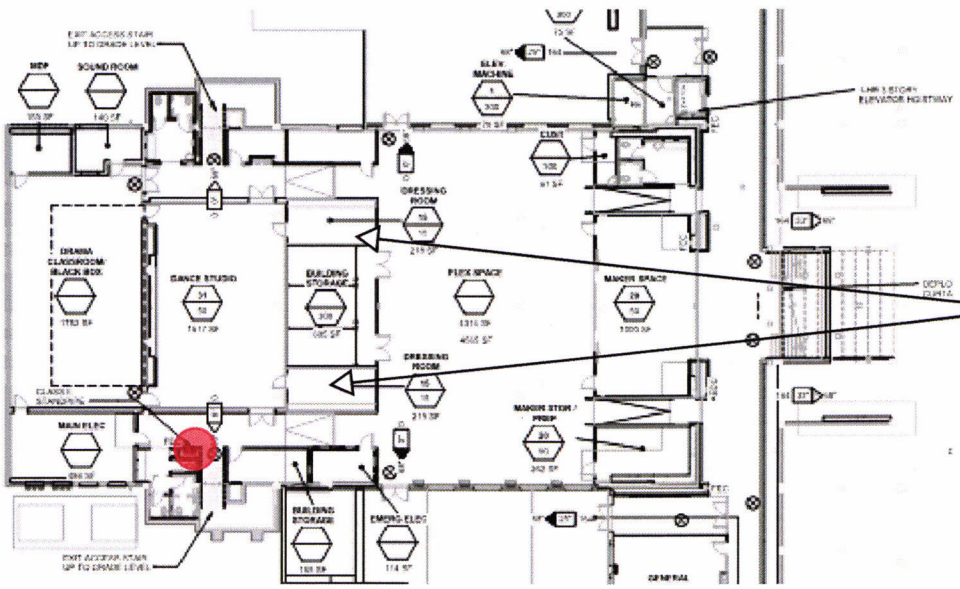
Occupancy or function	Ch. 10 Occ Load	Drinking Fountains 1 per floor	Water closets			Lavatories		
			Male 1 per 125	Female 1 per 65	Total	Male 1 per 200	Female 1 per 200	Total
A-3	2272	2	9	18	17	6	6	12



LEVEL 2



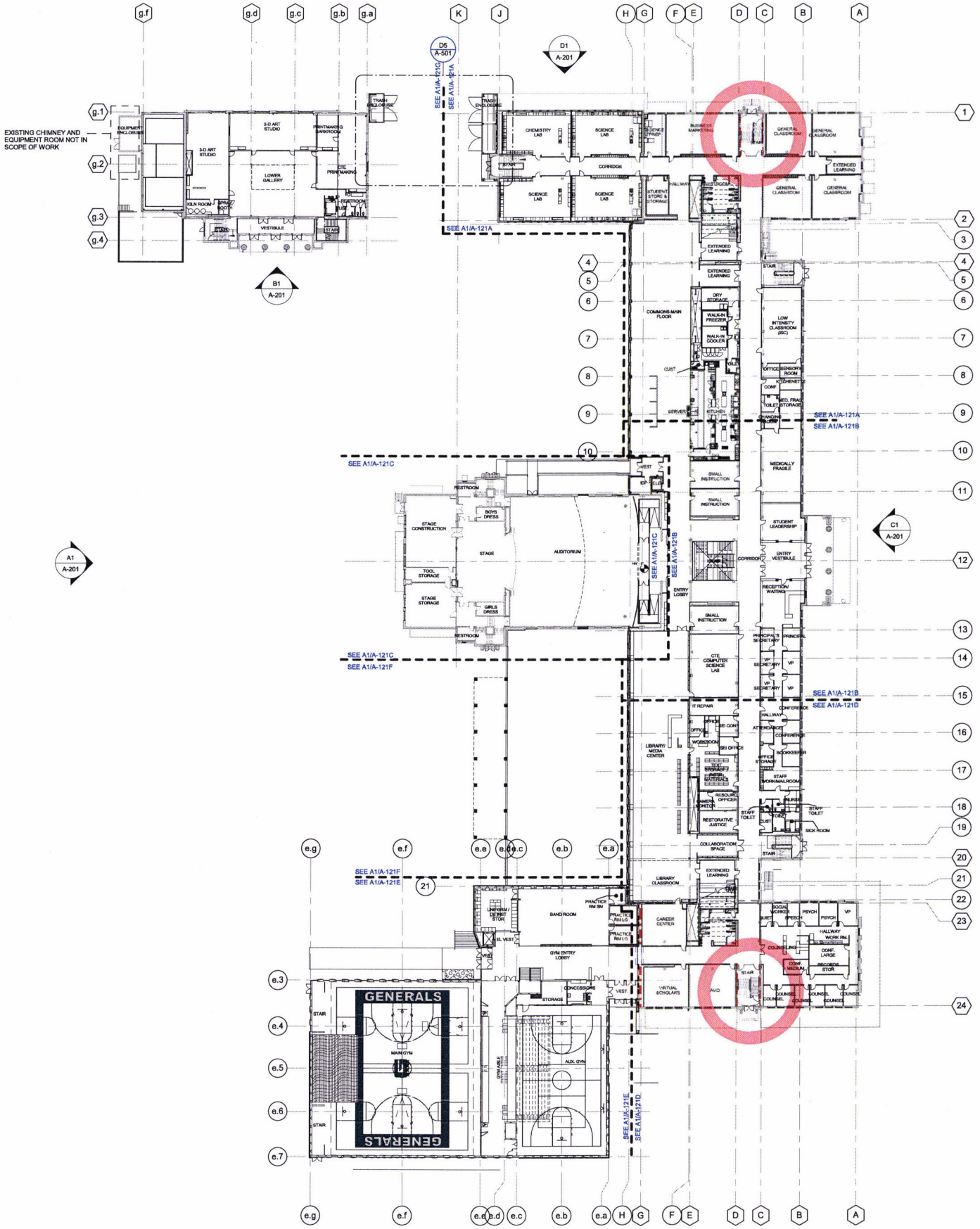
LEVEL 1



LEVEL 0

● PROPOSED LOCATIONS OF CLASS II STANDPIPES

BUILDING CODE APPEAL ATTACHMENT - GRANT HIGH SCHOOL MODERNIZATION



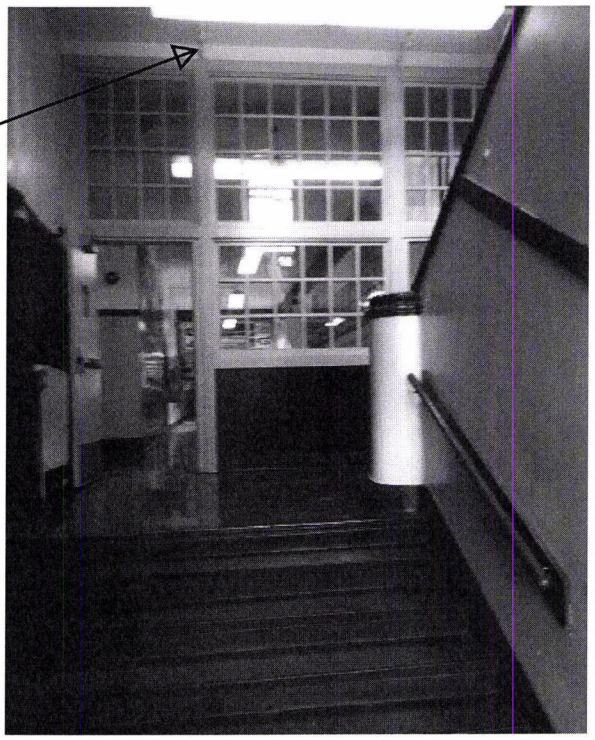
LOCATIONS OF 3 STORY EXIT STAIRS WITH NON-COMPLIANT ENCLOSURES PROPOSED TO REMAIN

A1 L01 FLOOR PLAN - OVERALL
1/32" = 1'-0"

BUILDING CODE APPEAL ATTACHMENT - GRANT HIGH SCHOOL MODERNIZATION

BUILDING CODE APPEAL ATTACHMENT - GRANT HIGH SCHOOL MODERNIZATION

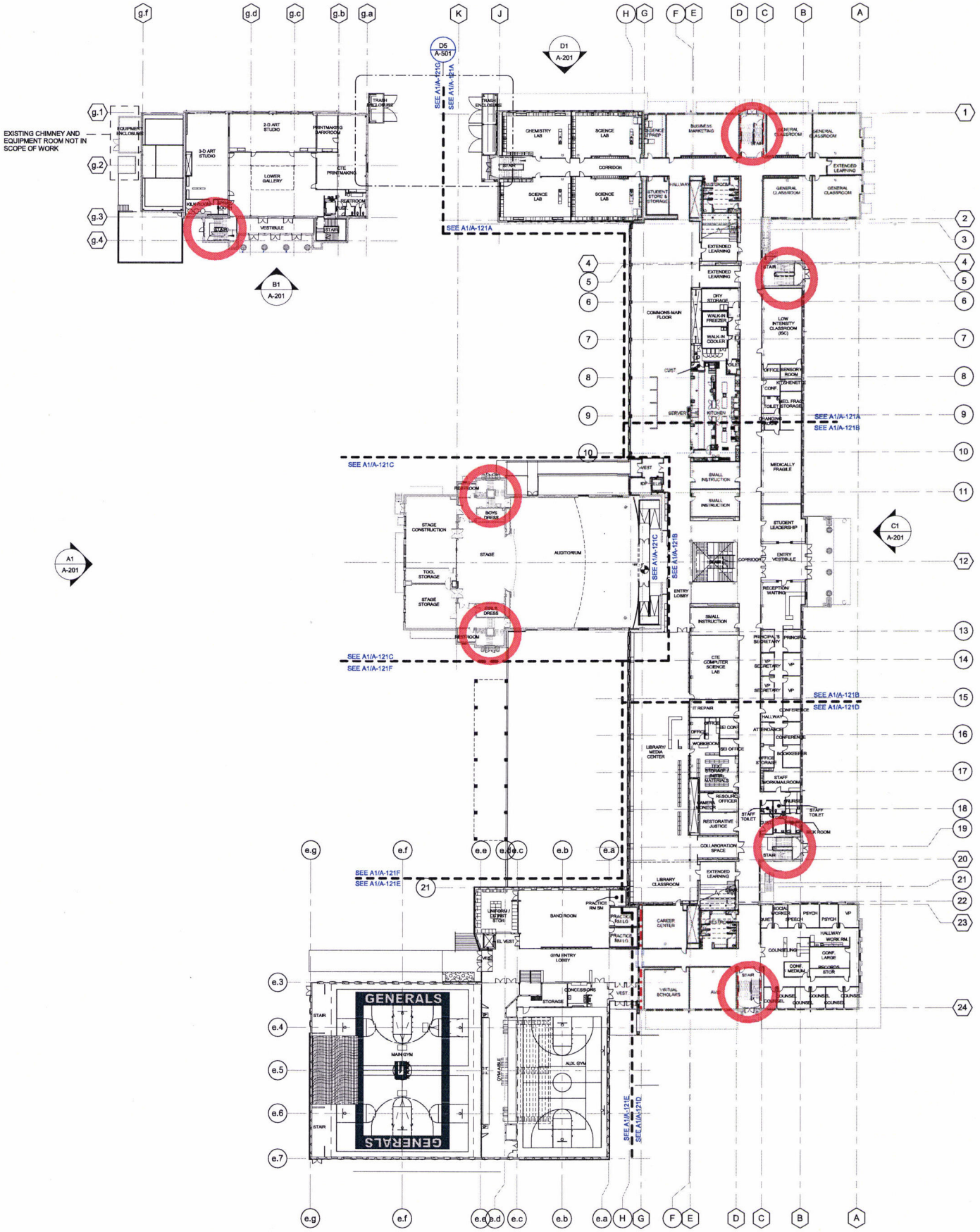
2 FIRE SPRINKLER HEADS AT BOTH SIDES OF GLASS



WIRED GLASS SET IN KALAMEIN FRAMES

90 MIN. RATED DOORS WITH ELECTROMAGNETIC HOLD OPENS

VIEWS AT ONE OF TWO IDENTICAL EXIT STAIRS

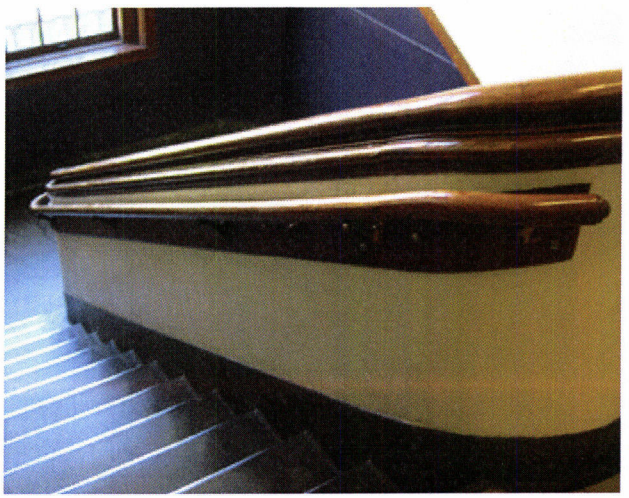


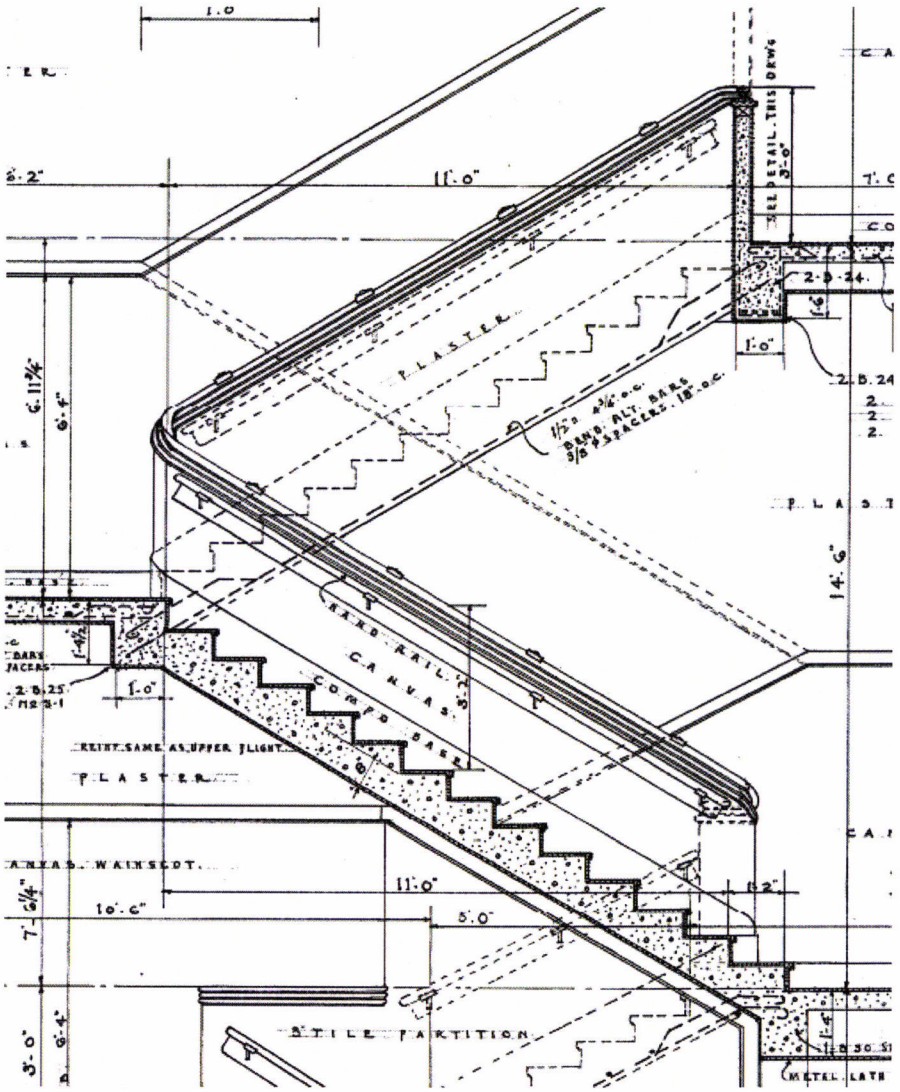
INDICATES LOCATION OF EXISTING STAIRS WITH NON-CONFORMING GUARDS AND HANDRAILS TO REMAIN

A1 L01 FLOOR PLAN - OVERALL

1/32" = 1'-0"

BUILDING CODE APPEAL ATTACHMENT - GRANT HIGH SCHOOL MODERNIZATION

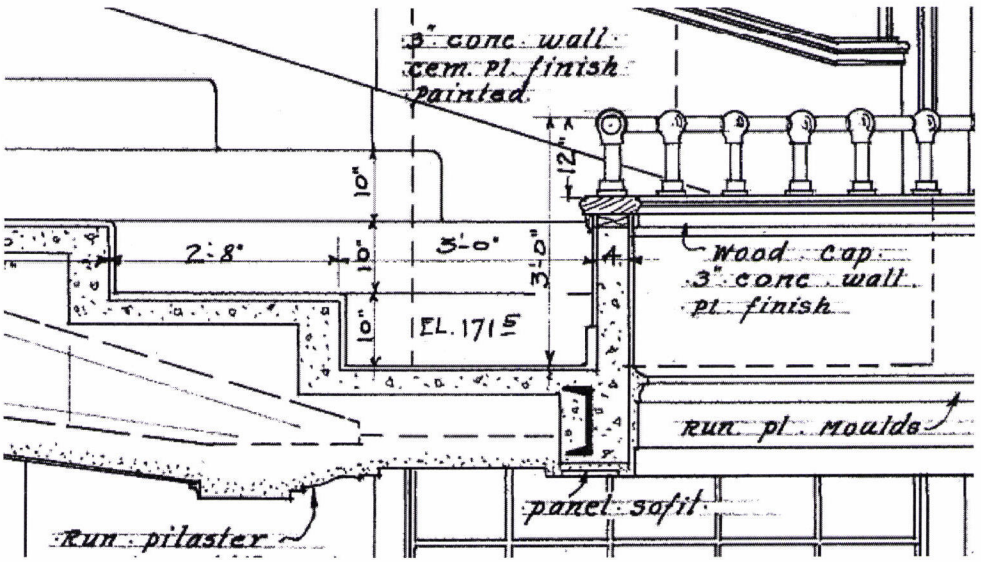




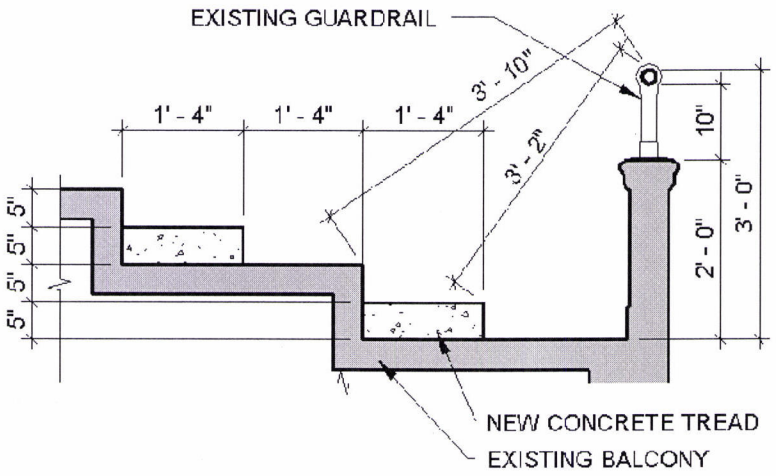
GUARD AND HANDRAIL CONFIGURATION PROPOSED
TO REMAIN AT EXISTING STAIRS

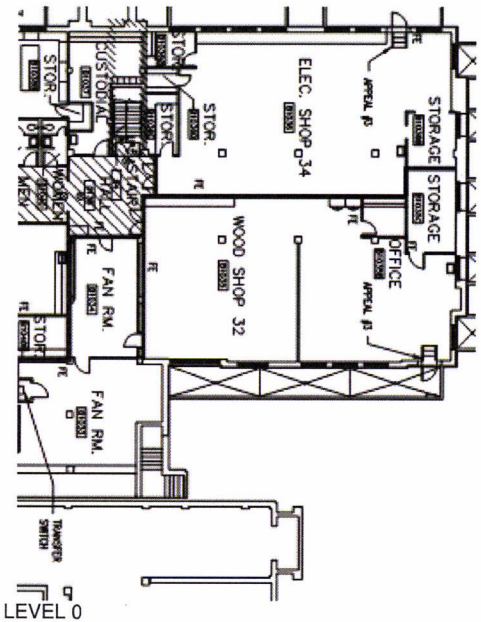
BUILDING CODE APPEAL ATTACHMENT – GRANT HIGH SCHOOL MODERNIZATION

Existing condition:

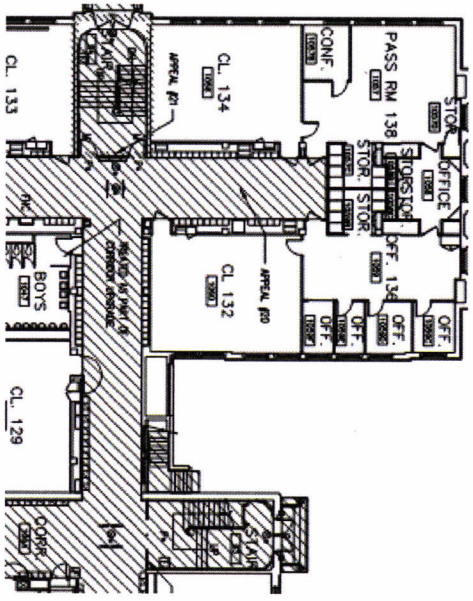


Proposed design:

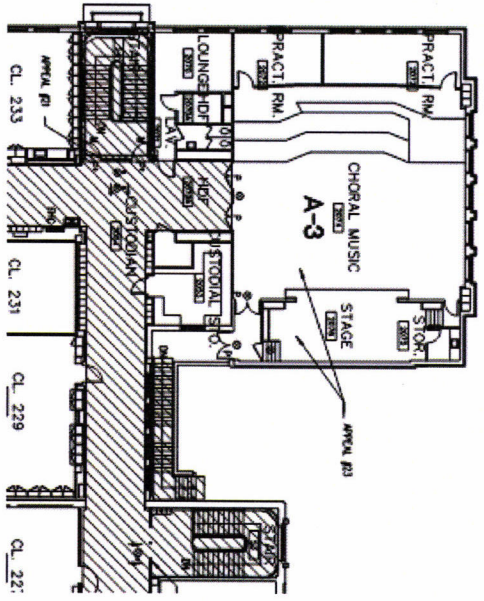




LEVEL 0

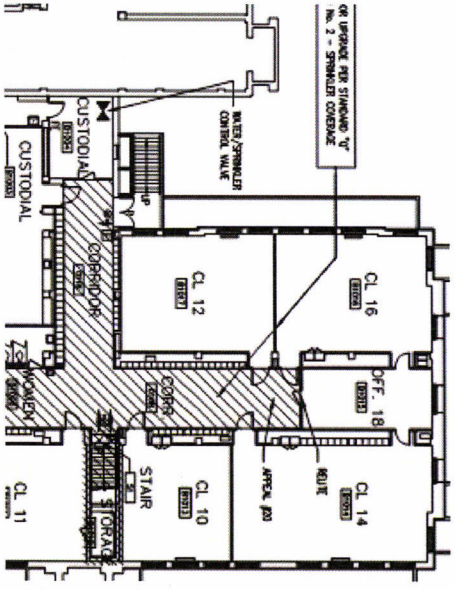


LEVEL 1

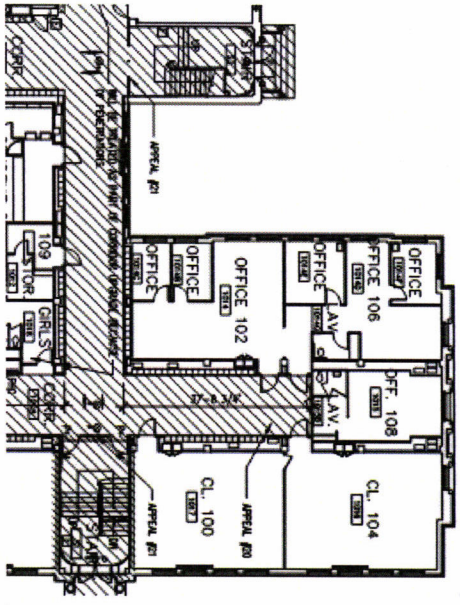


LEVEL 2

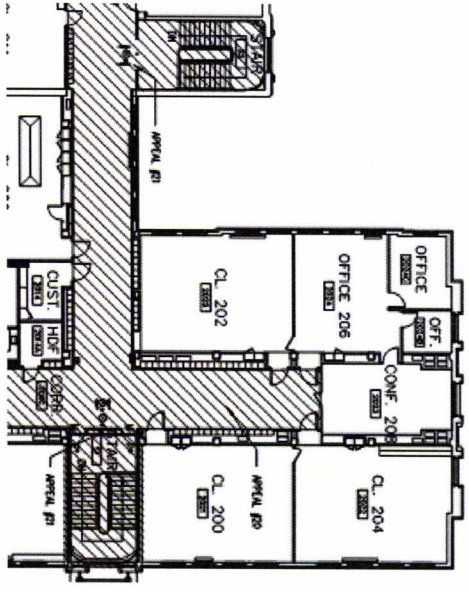
GRANT HS NORTH WING EXISTING PLANS



LEVEL 0



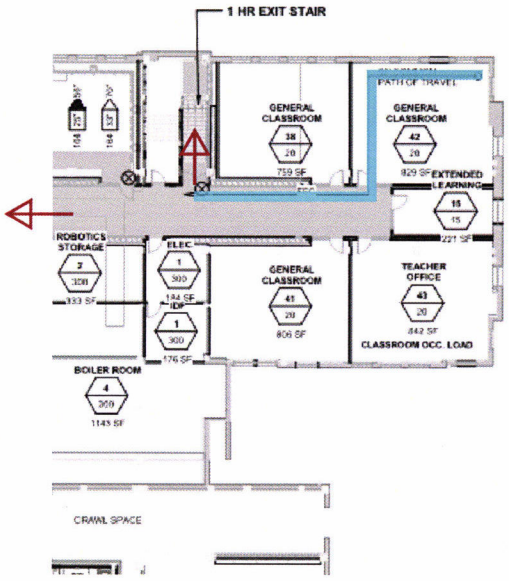
LEVEL 1



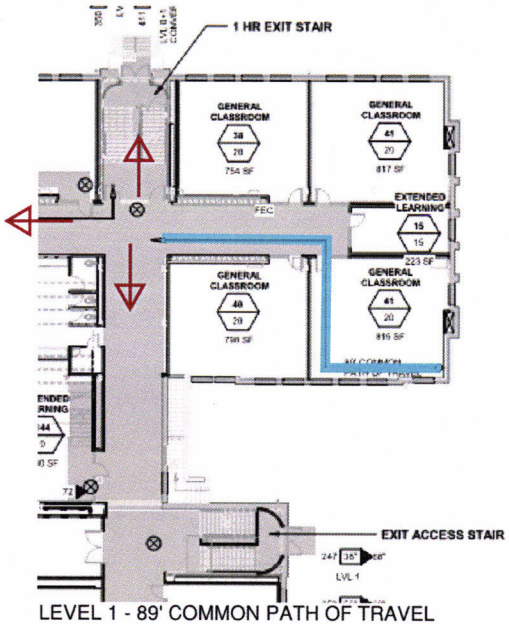
LEVEL 2

GRANT HS SOUTH WING EXISTING PLANS

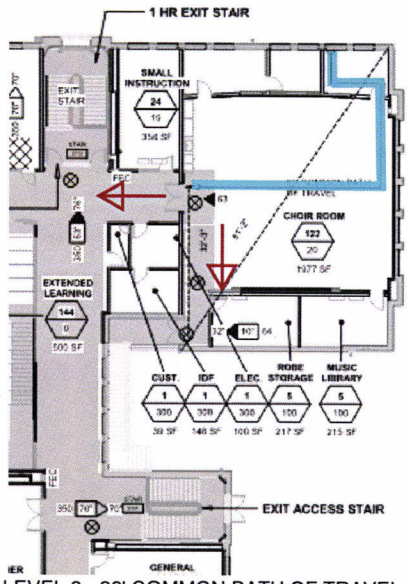
BUILDING CODE APPEAL ATTACHMENT - GRANT HIGH SCHOOL MODERNIZATION



LEVEL 0 - 89' COMMON PATH OF TRAVEL

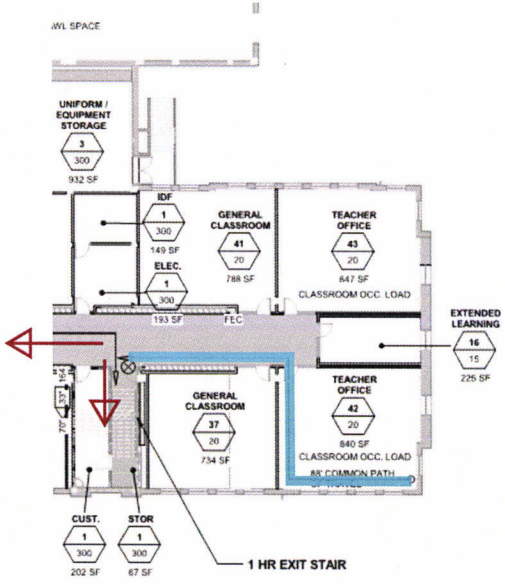


LEVEL 1 - 89' COMMON PATH OF TRAVEL

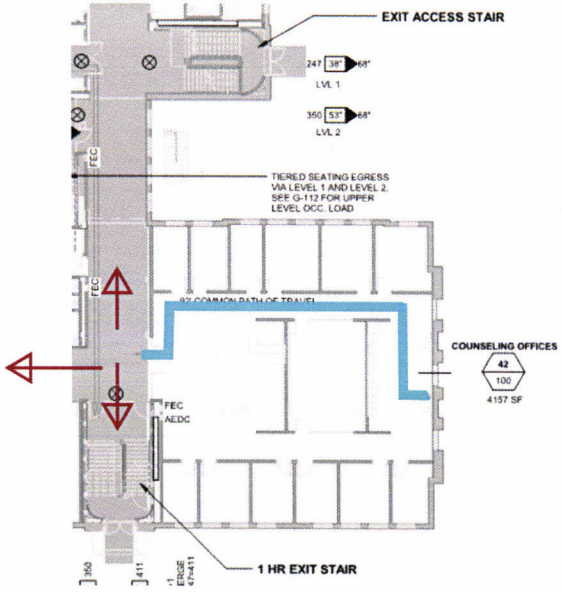


LEVEL 2 - 82' COMMON PATH OF TRAVEL

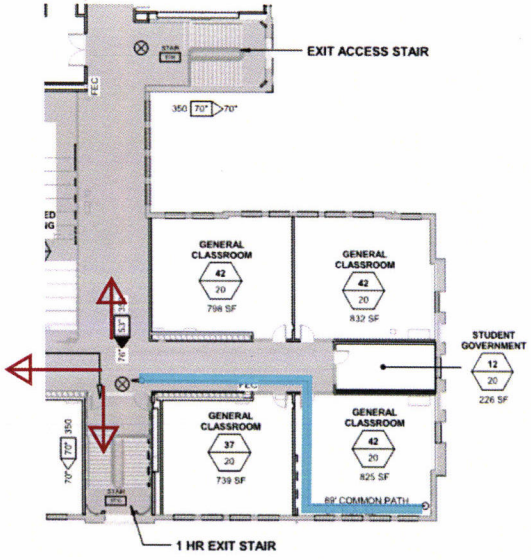
GRANT HS NORTH WING PROPOSED PLANS



LEVEL 0 - 89' COMMON PATH OF TRAVEL



LEVEL 1 - 92' COMMON PATH OF TRAVEL



LEVEL 2 - 89' COMMON PATH OF TRAVEL

GRANT HS SOUTH WING PROPOSED PLANS

BUILDING CODE APPEAL ATTACHMENT - GRANT HIGH SCHOOL MODERNIZATION