

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK

CITY OF PORTLAND

BUILDING INSPECTION

PERMIT

Please Read Application And Notes, If Any, Attached

Permit Number: 080610

PERMIT ISSUED

This is to certify that CITY OF PORTLAND / City of Portland / Trades Division has permission to PATHS/CBHS - School Department of - Construction for Code Review AT 174 ALLEN AVE L 343 C013001

provided that the person or persons firm or corporation accepting this permit shall comply with all of the provisions of the Statutes of Maine and of the Ordinances of the City of Portland regulating the construction, maintenance and use of buildings and structures, and of the application on file in this department.

Apply to Public Works for street line and grade if nature of work requires such information.

ification of inspection must be given and when permission is granted before this building or part thereof is opened or occupied. Closed-in 4 HOUR NOTICE REQUIRED

A certificate of occupancy must be procured by owner before this building or part thereof is occupied.

OTHER REQUIRED APPROVALS

Fire Dept. Craig Cuss Health Dept. Appeal Board Other Department Name

Jeannie Burke 6/20/08 Director - Building & Inspection Services

PENALTY FOR REMOVING THIS CARD

City of Portland, Maine - Building or Use Permit Application

389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

Permit No: 08-0610	Issue Date:	CBL: 343 C013001
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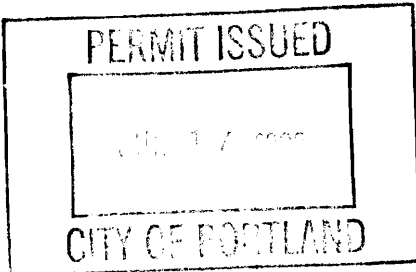
Location of Construction: 174 ALLEN AVE	Owner Name: CITY OF PORTLAND	Owner Address: 389 CONGRESS ST	Phone:
Business Name:	Contractor Name: City of Portland /Trades Division	Contractor Address:	Phone:
Lessee/Buyer's Name	Phone:	Permit Type: Institutional Educational	Zone: 2-3

Past Use: PATHS/CBHS - School Department offices	Proposed Use: PATHS/CBHS - School Department offices - Corrections for Fire Code Review	Permit Fee: \$70.00	Cost of Work: \$5,000.00	CEO District: 5
		FIRE DEPT: <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Denied	INSPECTION: Use Group: E Type: 2B IBC-2003	

Proposed Project Description: PATHS/CBHS - School Department offices - Corrections for Fire Code Review <i>interior work</i>	Signature: <i>Green Cass</i>	Signature: <i>JMB 6/20/08</i>
PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.)		
Action: <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied		
Signature:		Date:

Permit Taken By: Idobson	Date Applied For: 06/02/2008	Zoning Approval
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<p>1. This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.</p> <p>2. Building permits do not include plumbing, septic or electrical work.</p> <p>3. Building permits are void if work is not started within six (6) months of the date of issuance. False information may invalidate a building permit and stop all work..</p>	<p>Special Zone or Reviews</p> <p><input type="checkbox"/> Shoreland</p> <p><input type="checkbox"/> Wetland</p> <p><input type="checkbox"/> Flood Zone</p> <p><input type="checkbox"/> Subdivision</p> <p><input type="checkbox"/> Site Plan</p> <p>Maj <input type="checkbox"/> Minor <input type="checkbox"/> MM <input type="checkbox"/></p> <p>Date: <i>OK 6/3/08</i></p>	<p>Zoning Appeal</p> <p><input type="checkbox"/> Variance</p> <p><input type="checkbox"/> Miscellaneous</p> <p><input type="checkbox"/> Conditional Use</p> <p><input type="checkbox"/> Interpretation</p> <p><input type="checkbox"/> Approved</p> <p><input type="checkbox"/> Denied</p> <p>Date:</p>	<p>Historic Preservation</p> <p><input checked="" type="checkbox"/> Not in District or Landmark</p> <p><input type="checkbox"/> Does Not Require Review</p> <p><input type="checkbox"/> Requires Review</p> <p><input type="checkbox"/> Approved</p> <p><input type="checkbox"/> Approved w/Conditions</p> <p><input type="checkbox"/> Denied</p> <p>Date: <i>[Signature]</i></p>
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CERTIFICATION

I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in the application is issued, I certify that the code official's authorized representative shall have the authority to enter all areas covered by such permit at any reasonable hour to enforce the provision of the code(s) applicable to such permit.

SIGNATURE OF APPLICANT	ADDRESS	DATE	PHONE
RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE		DATE	PHONE

BUILDING PERMIT INSPECTION PROCEDURES

Please call 874-8703 or 874-8693 (ONLY)

to schedule your inspections as agreed upon

Permits expire in 6 months, if the project is not started or ceases for 6 months.

The Owner or their designee is required to notify the inspections office for the following inspections and provide adequate notice. Notice must be called in 48-72 hours in advance in order to schedule an inspection:

By initializing at each inspection time, you are agreeing that you understand the inspection procedure and additional fees from a "Stop Work Order" and "Stop Work Order Release" will be incurred if the procedure is not followed as stated below.

A Pre-construction Meeting will take place upon receipt of your building permit.

X Framing/Rough Plumbing/Electrical: Prior to Any Insulating or drywalling

X Final inspection required at completion of work.

Certificate of Occupancy is not required for certain projects. Your inspector can advise you if your project requires a Certificate of Occupancy. All projects DO require a final inspection.

If any of the inspections do not occur, the project cannot go on to the next phase, REGARDLESS OF THE NOTICE OR CIRCUMSTANCES.

CERIFICATE OF OCCUPANICES MUST BE ISSUED AND PAID FOR, BEFORE THE SPACE MAY BE OCCUPIED.

X Thomas C. ...

Signature of Applicant/Designee

7-14-08

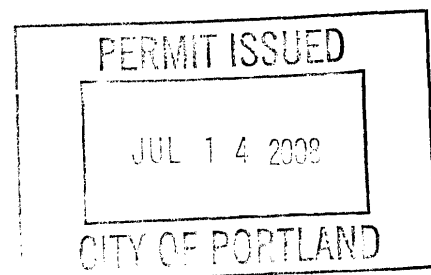
Date

[Signature]

Signature of Inspections Official

6/20/08

Date



City of Portland, Maine - Building or Use Permit

389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

Permit No: 08-0610	Date Applied For: 06/02/2008	CBL: 343 C013001
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Location of Construction: 174 ALLEN AVE	Owner Name: CITY OF PORTLAND	Owner Address: 389 CONGRESS ST	Phone:
Business Name:	Contractor Name: City of Portland /Trades Division	Contractor Address:	Phone
Lessee/Buyer's Name	Phone:	Permit Type: Educational	

Proposed Use: PATHS/CBHS - School Department offices - Corrections for Fire Code Review	Proposed Project Description: PATHS/CBHS - School Department offices - Corrections for Fire Code Review
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Dept: Zoning	Status: Approved	Reviewer: Marge Schmuckal	Approval Date: 06/03/2008	Note:	Ok to Issue: <input checked="" type="checkbox"/>
Dept: Building	Status: Approved with Conditions	Reviewer: Jeanine Bourke	Approval Date: 06/20/2008	Note:	Ok to Issue: <input checked="" type="checkbox"/>
<ol style="list-style-type: none"> 1) All penetrations through rated assemblies must be protected by an approved firestop system installed in accordance with ASTM 814 or UL 1479, per IBC 2003 Section 712. 2) Separate permits are required for any electrical, plumbing, or HVAC systems. Separate plans may need to be submitted for approval as a part of this process. 					
Dept: Fire	Status: Approved with Conditions	Reviewer: Capt Greg Cass	Approval Date: 06/05/2008	Note:	Ok to Issue: <input checked="" type="checkbox"/>
<ol style="list-style-type: none"> 1) Walls in structure are to be labeled according to fire resistance rating. IE; 1 hr. / 2 hr. / smokeproof. 2) Non- combustable construction of this structure requires all construction to be Non-combustable. 3) The Fire alarm and Sprinkler systems shall be reviewed by a licensed contractor[s] for code compliance. Compliance letters are required. 4) A single source supplier should be used for all through penetrations. 5) All construction shall comply with NFPA 101 6) Application requires State Fire Marshal approval. 					



General Building Permit Application

If you or the property owner owes real estate or personal property taxes or user charges on any property within the City, payment arrangements must be made before permits of any kind are accepted.

Location/Address of Construction: <u>PATHS/CBHS 196 ALLEN AVE PORT. ME 04103</u>		
Total Square Footage of Proposed Structure/Area		Square Footage of Lot
Tax Assessor's Chart, Block & Lot Chart# Block# Lot#	Applicant * <u>must</u> be owner, Lessee or Buyer* Name <u>PORTLAND PUBLIC SCHOOLS</u> Address <u>196 ALLEN AVE 3RD FL.</u> City, State & Zip <u>PORT. ME. 04103</u>	Telephone:
Lessee/DBA (If Applicable)	Owner (if different from Applicant) Name Address City, State & Zip	Cost Of Work: \$ <u>5,000</u> C of O Fee: \$ _____ Total Fee: \$ _____
Current legal use (i.e. single family) <u>HIGH SCHOOL</u> If vacant, what was the previous use? _____ Proposed Specific use: _____ Is property part of a subdivision? _____ If yes, please name _____ Project description: <u>CORRECTIVE CODE REVIEW</u>		
Contractor's name: <u>MAINT. DEPT OF PORT. PUBLIC SCHOOLS</u> Address: <u>196 ALLEN AVE.</u> City, State & Zip <u>PORTLAND ME. 04103</u> Telephone: <u>232-1629 cell</u> Who should we contact when the permit is ready: <u>TOM HAMILTON</u> Telephone: <u>842-5394 OFF.</u> Mailing address: <u>SAME</u>		

Please submit all of the information outlined on the applicable Checklist. Failure to do so will result in the automatic denial of your permit.

In order to be sure the City fully understands the full scope of the project, the Planning and Development Department may request additional information prior to the issuance of a permit. For further information or to download copies of this form and other applications visit the Inspections Division on-line at www.portlandmaine.gov, or stop by the Inspections Division office, room 315 City Hall or call 874-8703.

I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Code Official's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

Signature: Thomas Hamilton Date: 6-2-08

This is not a permit; you may not commence ANY work until the permit is issue

ACOUSTICAL

KAMCO SUPPLY CORP
 344 Riverside Street
 Portland, ME 04103
 Phone 207-874-6331
 Fax 207-874-6317

For years Mohawk has been a leading manufacturer of acoustical doors. We offer a wide variety of STC ratings with several core assemblies ranging from standard core materials, to multi-ply cores, rubber mat, and lead sheeting for improved values. All Mohawk tests have been conducted by third party testing agencies utilizing various gasket manufacturers. Test reports are available upon request. Listed below are established fixed and operating values for various Mohawk assemblies. All doors shown are for single swing openings and communicating door applications. All doors have a maximum size of 4'0" x 8'0"

Values shown are based on third party test results and in accordance with the following test methods:

ASTM E90 - "Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss in Building Partitions." This test determines the sound filtering value of a panel in the fixed/static position.

ASTM E1408 - "Standard Test Method for Laboratory Measurement of the Sound Transmission Loss of Door Panels and Door Systems." This test determines the sound filtering value of an operating door with an appropriate seal system. If the tested seal system is not appropriate, it is important to consult with the gasket manufacturers for other operating values when used in conjunction with the fixed test value of the door.

Mohawk Standard Construction Doors	ASTM E90
Particle Core and 20 minute (Neutral Pressure and Positive Pressure) 1 1/2"	34
Mineral Core 60 and 90 Minute (Neutral and Positive Pressure) 1 1/2"	35
Mohawk Special Acoustical Core Doors	ASTM E90
Acoustical Non-Rated 1 1/2"	41
Acoustical Non-Rated with Lead Line 1 1/2"	42
Mohawk High Performance Acoustical Core Doors	ASTM E1408
20 Minute High Performance (Neutral Pressure) 1 1/2" <i>(with Pemko S88 or approved equal)</i>	43
Non-Rated High Performance 1 1/2" <i>(with Pemko S88 or approved equal)</i>	45
Mohawk Communicating Doors	ASTM E1408
(1) STC 41 Non-Rated with (1) STC 34 20 minute combination <i>(Both Doors: DHSI Cush 'N' Seal head and jamb, Cap Sweep, no corner plugs, and Smooth Saddles)</i>	43
(1) STC 41 Non-Rated with (1) STC 35 90 minute combination <i>(Both Doors: DHSI Cush 'N' Seal head and jamb, Cap Sweep, no corner plugs, and Smooth Saddles)</i>	43
(1) STC 41 Non-Rated with (1) STC 41 Non-Rated combination <i>(Both Doors: DHSI Cush 'N' Seal head and jamb, Cap Sweep on one door & SSD83-3 on the other, no corner plugs, and Smooth Saddles)</i>	44
(1) STC 41 Non-Rated with (1) STC 41 20 minute combination <i>(Both Doors: DHSI Cush 'N' Seal head and jamb, Cap Sweep, no corner plugs, and Smooth Saddles)</i>	44

Mohawk does not supply seals and saddles with our doors. For ASTM E90 values shown above, please consult with your approved gasket manufacturer for operating values when used in conjunction with fixed valued doors. We recognize the needs of the opening must also insure that the design professional and/or AHC has the maximum flexibility to select the seal system that meets the demands of the opening which include ADA compliance, smoke and draft control, and general seal integrity. Acoustical doors were not tested with lite kits.



KAMCO SUPPLY CORP
 344 Riverside Street
 Portland, ME 04103
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**PORTLAND PUBLIC SCHOOLS
PATHS – CBHS
NFPA 101 2003, CODE REVIEW**

**March 3, 2008,
Revised April 1, 2008**

Semple & Drane Architects has been retained by the Portland Public Schools for a code review of the existing Portland Arts and Technology High School (PATHS). This building houses the PATHS programs, Casco Bay High School (CBHS) and the public school Administrative Offices and in Room 250 the meeting room for the Portland School Committee.

The extent of this review is confined to the part of the structure that is defined as Building A – the western wing of the building housing the main entrance, CBHS, Portland Public Schools Central Office, Channel 3 Studios and some PATHS programs including Day Care, Medical/Nursing, Dance, Graphics Arts, Hospitality, and Drafting. It needs to be noted that Building A and B are connected only at a central fire stair and for code review purposes are 2 distinct buildings.

Part 1 - SUMMARY OF FINDINGS:

1. Capacity and Occupancy

The first step of this Code review is the determination of the allowable number of occupants per floor in the building. The addition of CBHS classrooms results in potentially a greater number of occupants in the same amount of space. This is reflected in the Code by the occupancy factors of 20 square feet per occupant for classroom space versus the 50 square foot per occupant for laboratory and voc-tech spaces.

Defining the maximum number of allowable occupants in an existing building is accomplished by determining which of the following criteria is the most limiting:

- Allowable square feet per occupant by use
- Exiting capacity of the exit doors
- Exiting capacity of the hallways
- Exiting capacity of the fire stair

The Code mandates this is determined on a floor-by-floor basis. As outlined in the Code Review section of this report, the following has been determined to be the limits of occupancy and the determining criteria:

- Ground floor – The capacity of the floor is estimated to be a maximum of 600 occupants. The determining criteria are the allowable square feet per occupant requirements.
- Second floor – The capacity of the floor is estimated to be a maximum of 400 occupants. The determining criteria are the widths of the 2 fire stairs. Each is 5 feet wide and will allow 200 occupants.
- Third floor – The capacity of the floor is estimated at a maximum of 400 occupants. The determining criteria are the widths of the 2 fire stairs. Each is 5 feet wide and will allow 200 occupants.

It is necessary for Portland Public Schools to be aware that this is a basic, mandated, limitation in this building's use, and understand that it will restrict and impact all future planning around this facility. Although there is space on the upper 2 stories of this building for more intensive use, the actual number of occupants allowed in these spaces at any time is limited to, and can not exceed, 400 people on each floor.

2. Means of Egress – Fire Stairs

There has been recently the addition of 2 small rooms into the landing areas of the central fire stair, one on each the second and third floors. These rooms have doors that open into the fire stairs. The Code allows "normally occupied spaces and corridors" which these spaces are, to open into the stairs. However, it requires that they be separated by 1-hour construction, including fire doors with closers, to contain any fire in these spaces from spreading into the fire stair which is considered a safe, emergency exit for up to 200 people per floor. See attached drawings SECOND FLOOR EXISTING and THIRD FLOOR EXISTING.

The wall construction of these spaces has been observed to have ½" gypsum wall board on each side stopping at the suspended ceiling, and unrated doors. To achieve 1-hour construction with ½" wall board, the wall board is required to be fire rated and a mineral wool batt blanket insulation bearing Classification Markings as to Fire Resistance be placed to fill the interior of the wall – based on UL Design No. V401. If that insulation is not present, then FM Design WP-66 requires an additional layer of ½" rated wall board to be applied to one side. In either case, the walls will either have to be rebuilt, to the underside of the decks above with appropriate fire stopping at penetrations, or a 1 hour rated suspended ceiling will have to be installed in lieu of the existing. The doors will have to be replaced with a rated door assemblies and closers. It is appropriate to review this construction with the local Fire Department to determine what they deem acceptable for these rooms. See attached drawing IMPROVEMENT DWG 2 OF 4.

3. CBHS – Recently Constructed Spaces

Second Floor, North of Exit Access Hallway

There have been recently five classrooms and an office area created within existing spaces on the north side of the main exit access hallway on the second floor. There are two doors from the corridor leading into these rooms. The door on the east connects to the CBHS office, a classroom and a science room. On the west there is a short hallway that connects to a classroom and several small rooms then opens into another small room that connects to another classroom, several other small rooms and into the Channel 3 studio. There are several issues that will need to be corrected in these areas. See attached drawing SECOND FLOOR EXISTING.

1. The Code allows for one intervening room between an occupied space and the corridor. This must meet the following 3 criteria; first that there is 75 feet or less between the room and the corridor door, second that clothing and personal items are in metal lockers or the rooms are sprinklered, and third that there is an automatic sprinkler system in all of the building.
2. On the east side, there is a conference room behind the office; this room will need to have a door added either into the hallway or into the center classroom. The other spaces are set up to all open into the central "intervening" classroom, which is in accordance with the intent of the Code. Also the Office window into the Exit Access Corridor must meet NFPA 80 requirements. See attached drawing IMPROVEMENT DWG 2 OF 4.

3. On the west side the hallways create a situation where the back classroom is one room too deep. Also the corridor as constructed cannot be made into a part of the exit access since it is only 5'-6" wide instead of the required 6'-0", and a column encroaches even more into that required width. To meet this requirement this hall will have to be reconstructed to the required width, including allowance for the column and the door/wall into the existing corridor will have to be removed for the full 6 foot width. It should be noted that the corridor wall must be a Smoke Partition in accordance with NFPA 101 8.4 but this Section allows construction of the wall to the underside of the suspended acoustic ceiling, and requires closers on all doors opening into it.

Simpler but less soundproof options are:

- a. Remove the two interior sets of doors and partitions that lead from the hallway to the exterior wall classroom, making that hallway that leads to the Exit Access Corridor a part of that classroom. Thus all spaces would have no more than one intervening room, and the 6 foot minimum width would not apply since it is specific to Exit Access Corridors. Also this change causes the common path of travel to be less than the maximum of 100 feet.
- b. Another option would be to remove the middle door and wall in the hallway, making the hallway the one intervening room between the classrooms and the Exit Access Corridor.

All of these solutions must be reviewed with the local Fire Department. Option b is preferred – see attached drawing IMPROVEMENT DWG 1 OF 4.

Second Floor, South of Exit Access Hallway

There have been 6 classrooms and one conference room created within the existing spaces on this side of the Exit Access Corridor. To the west there are four classrooms and the conference room placed into the original large multi-use room 250. Currently the room contains the CBHS Library as a defined free standing area within the remaining open area and this room periodically houses the Portland School Committee meetings. See attached drawing SECOND FLOOR EXISTING.

In the original PATHS Printing lab two CBHS classrooms have been added to the back of the space.

1. In all cases these rooms have one intervening space between them and the Exit Access Corridor. As such, they must meet the 3 requirements outlined above for distance, lockers/sprinkler systems and a building-wide sprinkler system.
2. In the spaces created within the printing lab there is one issue, the distance from the classrooms to the exit access corridor exceeds the maximum 75 feet by approximately 13 feet. The solution to this is to move the double doors at the corridor on the west end of the space deeper into the lab. The width of this hall is over 6 feet so it will meet that requirement. The small dead end corridor created would have to meet the requirements of the 8.4 Smoke Partitions, and would be less than the 50 foot length allowed for a dead-ended corridor. Exiting signage will need to be adjusted.
3. The classrooms around the library in Room 250 have the same issue; the distance from the most remote corner classroom to the corridor is 87 feet direct travel, and more with the library located in the path of travel. Similar to the Print Lab, the corridor will need to be extended into this space – shortening the length of travel to 75 feet or less. This doorway should probably be a double door. There is also only one exit out of this room at this time, and the maximum length of travel to that door from anywhere in this area can not exceed 100 feet. The library may have to be reconfigured to make this possible. Exiting signage will need to be adjusted.

4. With the addition of the classrooms in this area of the building and more being contemplated, an additional issue must be addressed. Both of these “suites” of classrooms are at the point where each should have a second means of egress into the Exit Access Corridor. The print lab already has 2. Room 250 is of significant concern, since it currently only has one egress to the corridor. It is appropriate to review the utilization of this space by the CBHS and the School Committee at this time, understanding that events with over 50 people are Assembly Use and that classification requires a 1-hour fire separation from Education Uses, as well as other significant code restrictions. Reversing or removing the door into the print lab and allowing exiting from Room 250 into that space should be considered to create a second egress way out of the space that is remote from the doorway into the Exit Access Corridor. Exiting signage will need to be adjusted.

For recommended corrections see attached drawing IMPROVEMENT DWG 3 OF 4 and IMPROVEMENT DWG 4 OF 4.

4. Third Floor – PATHS Art

Since the Administration Offices have been constructed, the egress doors between the Art and the office areas have been restricted to deny entrance into the Offices from Art. However, since there is a door into the Exit Access Corridor from this space as well as a door leading into a new classroom, a choice for exiting out of this space exists, making the common path of travel less than the 100 feet maximum. See the attached drawing THIRD FLOOR EXISTING.

Part 2 - CODE REVIEW:

The following are high lights from the NFPA 101 Code - 2003 as they apply to this building. It should be stated that the intent of this summary is to outline major code features that impact the design and life safety significantly: occupancies, exiting, and fire rated wall separations. It is understood that there maybe aspects of the Code that are applicable to this project that are not listed here that the design must conform with.

The existing Building A is sprinklered and is 3 stories high.

Chapter 6 – Occupancy

- Existing Education Occupancy – Chapter 15
All School Functions

Note there is no distinction being made in terms of Occupancy between CBHS and PATHS functions – both are Education Occupancy

- 6.1.14.1.3 The following accessory occupancies shall not be required to be separated from the primary occupancy as required in 6.1.14.4.
 - (3) Administrative, clerical, or other office rooms that, in the aggregate are not more than 25 % of the principal occupancy, where not accessory to an occupancy with high hazard contents. This will apply to the Administration Offices in the Education Use.
 - Room 250 - The main function of this room is to house the CBHS library and to act as a “Center” for the classrooms surrounding it. As an auxiliary use, the Portland School

Committee meets here as well. These meetings although public in nature are usually attended by less than 50 people. Use of this space for meetings, with that limited level of occupancy, may be considered as part of the Administrative functioning as defined in 6.1.14.1.3 (3). It is critical that this space’s usage be reviewed with the Portland Fire Department.

- Day Care Occupancy – a 1 hour separation is required between this area and the rest of the building. Refer to Chapter 17 of this code for requirements specific to this space and Use group. Existing building compliance with the fire rated separations and other requirements has not been reviewed within the scope of this study.

- Square Footage of Structure:

Existing Ground Floor (including Central Stair)	29,064 sq. ft.
Existing Second Floor (including Central Stair)	31,380 sq. ft.
<u>Existing Third Floor (including Central Stair)</u>	<u>31,620 sq. ft.</u>
Total Area of Building A	92,064 sq. ft.

- Square Footage of Uses:

Education Uses:	75,144 sq. ft.
Day Care Use:	2,400 sq. ft.

Administrative and clerical uses:

Ground Floor Administration	2,800 sq. ft.
<u>PPS Administrative Offices (3rd Floor)</u>	<u>11,720 sq. ft.</u>
Total Administration Area	14,520 sq. ft. = less than 25% - no separation is required for these spaces.

Room 250 is 3,260 square feet including the CBHS library. The primary use of this room is Education Use and as such has been included in that Uses calculations. It should be noted that adding the square footage of this space into the Administrative area still maintains the area at less than 25%.

Chapter 7 Means of Egress – Building is sprinklered, 3 stories with 2 fire stairs

- 7.1.2 Definitions:

- Exits in this building include:

1. Doors to the exterior, including the main entrance and side entrances
2. The fire stairs

- Exit Access in this building includes:

1. The corridors and common hallways

- 7.1.3.1 Exit Access Corridors Separations, (2) – this refers the requirements of these corridors to Chapter 15 – see notes on 15.2.6 below.

- 7.1.3.2. Exit Separations

- A.7.1.3.2.1(1) states that “In existing buildings, existing walls in good repair and consisting of lath and plaster, gypsum wallboard, or masonry units can usually provide satisfactory protection for the purposes of this requirement where a 1-hour fire resistance rating is required.”
- A.7.1.3.2.1(1) (a) and (b) both allow for the fire stair enclosures to have a 1 hour protection rating.
- A.7.1.3.2.1.(2) (4) and (5) state that openings in the separation shall be protected by fire door assemblies equipped with door closers complying with 7.2.1.8 and that “openings in the enclosures shall be limited to doors from normally occupied spaces and corridor”. (5)

continues to define allowable exceptions beyond the “normally occupied spaces” requirement including mechanical spaces.

- 7.1.4.1 Interior Finishes in Exit Enclosure – The requirements refer to Chapter 10.2 which requires for Education Use the interior finishes in existing Education Use building Exits be limited to Class A.
- 7.2.2 Stairs must meet this dimensional criteria for existing stairs, rails and landings.
- 7.2.1.2 Doors Width – clear width for swinging doors is between the face of the door and the stop - 7.2.1.2.2 (2). This has been measured as 34”.
- 7.2.1.7 Panic Hardware - doors requiring panic hardware will conform to this section.
- 7.2.1.8 Self Closing Devices – doors requiring self closers shall conform to this section.
- 7.3 Capacity of Means of Egress
 - Table 7.3.1.2 Occupant Load Factor – based on net space calculations
 1. Ground Floor
 - Education Use Classrooms – 1 person per 20 square feet of net space
7,206 estimated net sf/20 = 360 occupants
 - Education Use of Labs – 1 person per 50 square feet of net space – 7,927
estimated net sf/50 = 159
 - Day Care Use – 1 person per 35 square feet of net space – 2,040 estimated sq
ft net/35 = 59 occupants
 - Business Use – Administration – one person per 100 square feet (accessory
occupancy) - 2,380 estimated net sq ft/100 = 24 occupants
 2. Second Floor
 - Education Use Classrooms – 1 person per 20 square feet of net space 14,837
estimated net sf/20 = 741 occupants
 - Education Use of Labs – 1 person per 50 square feet of net space – 10,340
estimated sq ft/50 = 207 occupants
 3. Third Floor
 - Education Use Classrooms – 1 person per 20 square feet of net space
4,092 estimated net sf/20 = 205 occupants
 - Education Use of Labs – 1 person per 50 square feet of net space – 12,200
estimated net sf/50 = 204 occupants
 - Business Use – Central Office – one person per 100 square feet (accessory
occupancy) 11,720 sf/100 = 118 occupants
 - 7.3.1.4 Exits Serving More than On Story – “Where an exit serves more than one story, only the occupant load of each story considered individually shall be used in computing the required capacity of the exit at that story, provided that the required egress capacity of the exit is not decreased in the direction of egress travel.”
 - 7.3.3 Egress Capacity
 1. Level components for occupancies listed is 0.2 inches per person. A 34” wide door capacity is 170.
 2. Stairways are listed at 0.3 inches per person. The 5’-0” wide stairs have a capacity of 200 people each

Chapter 8 – Features of Fire Protection

- 8.4 Smoke Partitions
- 8.4.1 “Although a smoke partition is intended to limit the free movement of smoke, it is not intended to provide an area that would be free of smoke.”

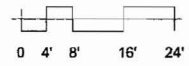
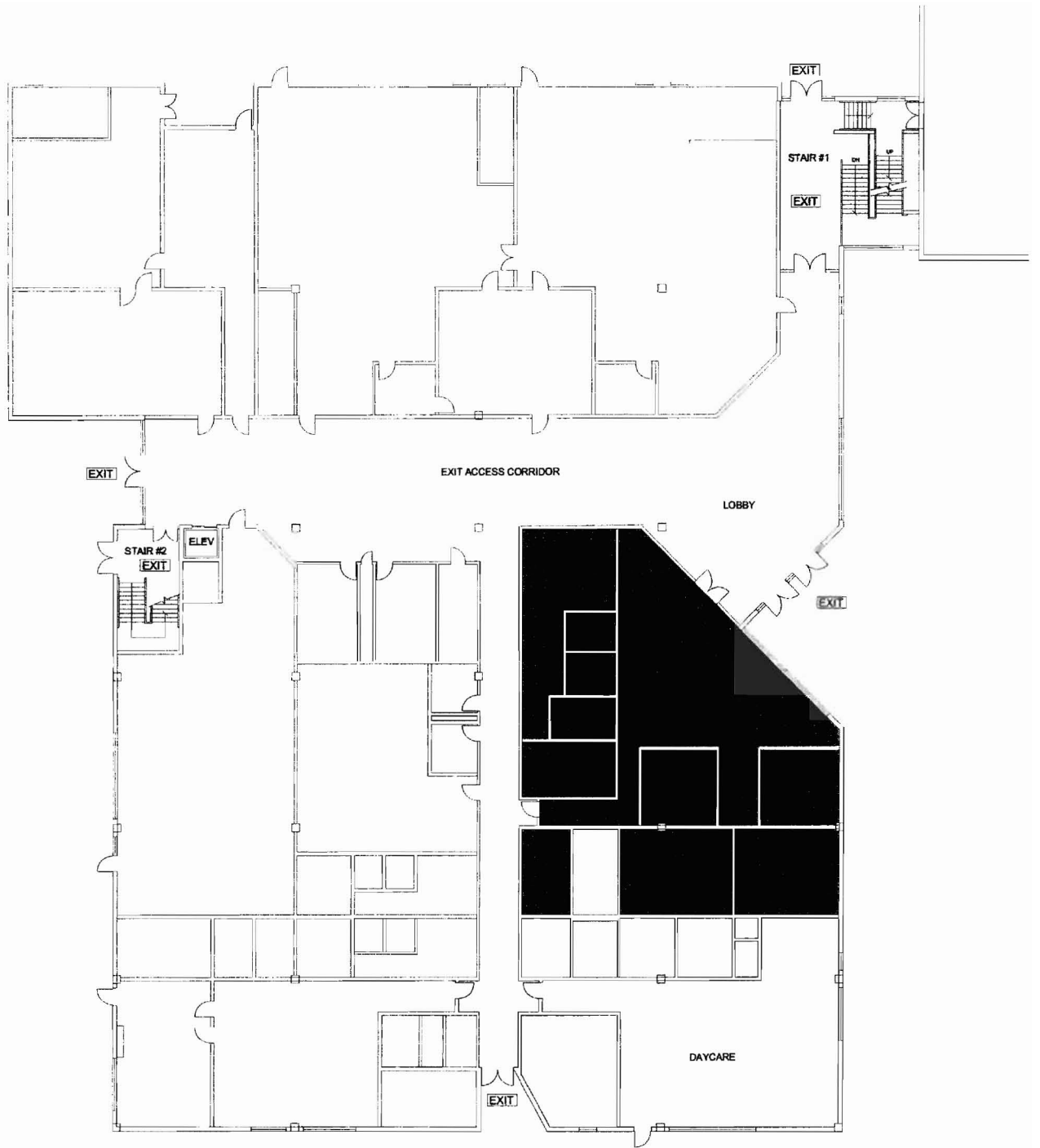
- 8.4.2.(2) “An architectural, exposed, suspended-grid acoustical tile ceiling with penetrations for sprinklers, ducted HVAC supply and return air diffusers speakers and recessed light fixtures is capable of limiting the transfer of smoke.”
- Opening Protectives – Doors in smoke partitions need to meet these requirements including no louvers, gasketing is not necessary, and they need to be self closing.

Chapter 15 – Educational Occupancies

- 15.2.2 Means of Egress components
 - 15.2.2.2.2 Doors with an occupant load of over 100 shall have panic hardware
- 15.2.3 Capacity of Means of Egress
 - 15.2.3.2 Minimum Corridor width is 72 inches
- 15.2.5 Arrangement of Means of Egress
 - 15.2.5.2 Dead End corridor maximum 50 feet
 - 15.2.5.3 Common Path of travel maximum 100 feet
 - 15.2.5.4 Every room shall have an exit access door leading to the outside, an exit or exit access corridor. (2) allows for an intervening room as long as the travel distance from that room to the corridor or exit does not exceed 75 feet and the room has approved fire detection (2(c)).
- 15.2.6 Travel Distance to Exits – maximum 200 feet
- 15.3.6 Corridors
 - Corridors shall be separated by 1/2 hour fire resistance rating unless as stipulated in (2) “In buildings protected throughout by an approved automatic sprinkler system with valve supervision in accordance with Section 9.7, corridor walls shall not be required to be rated, provided that such walls form smoke partitions in accordance with Section 8.4”

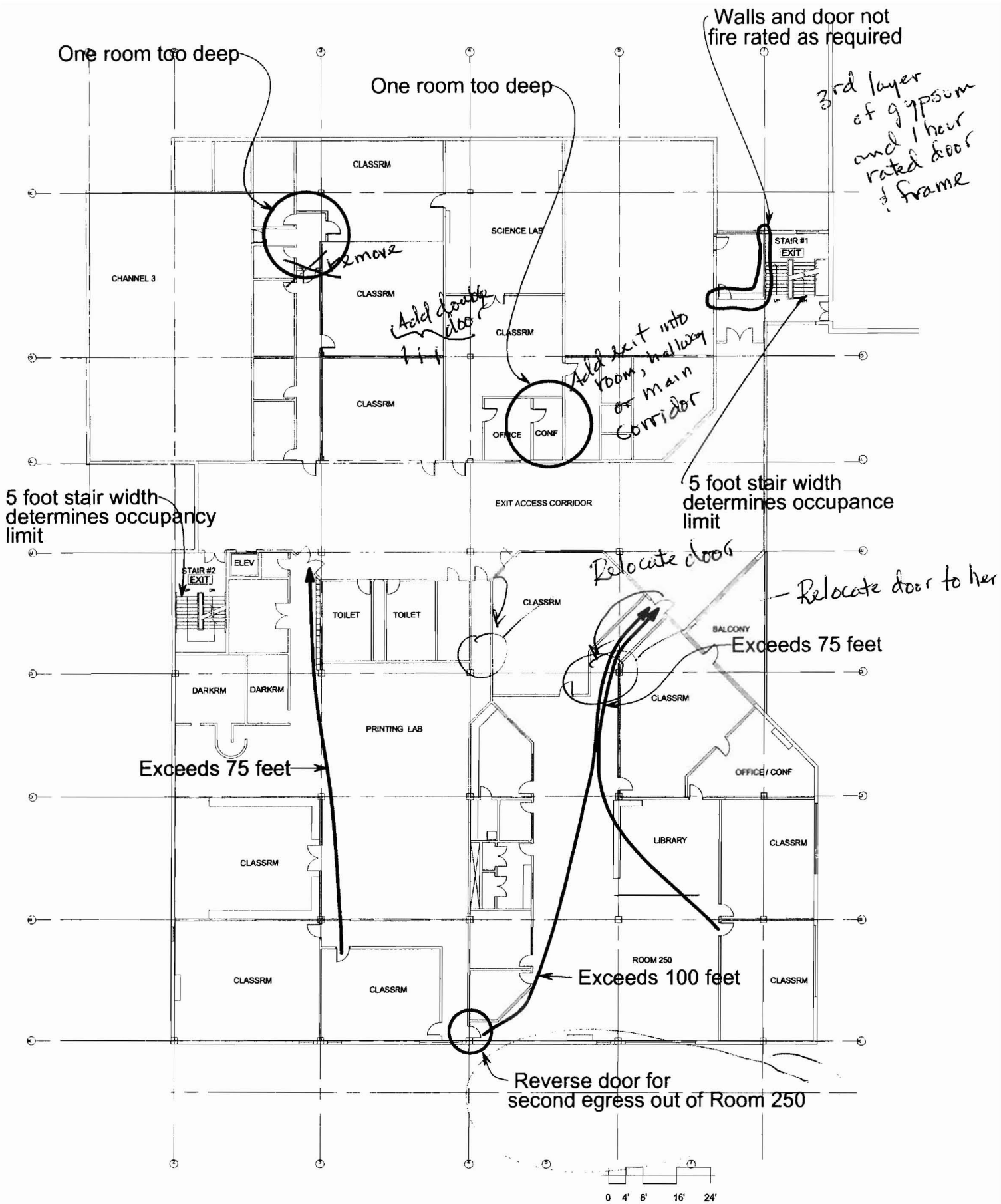
Chapter 39 Business Occupancy

- 39.2.3.2 The clear width of any corridor or passageway serving an occupancy of more than 50 shall be not less than 44 inches
- 39.2.5 Arrangement of Means of Egress
 - 39.2.5.2 Dead End corridor maximum 50 feet
 - 15.2.5.3.1 Common Path of travel maximum 100 feet
- 39.2.6 Travel Distance to Exits – maximum 300 feet



**GROUND FLOOR
EXISTING**

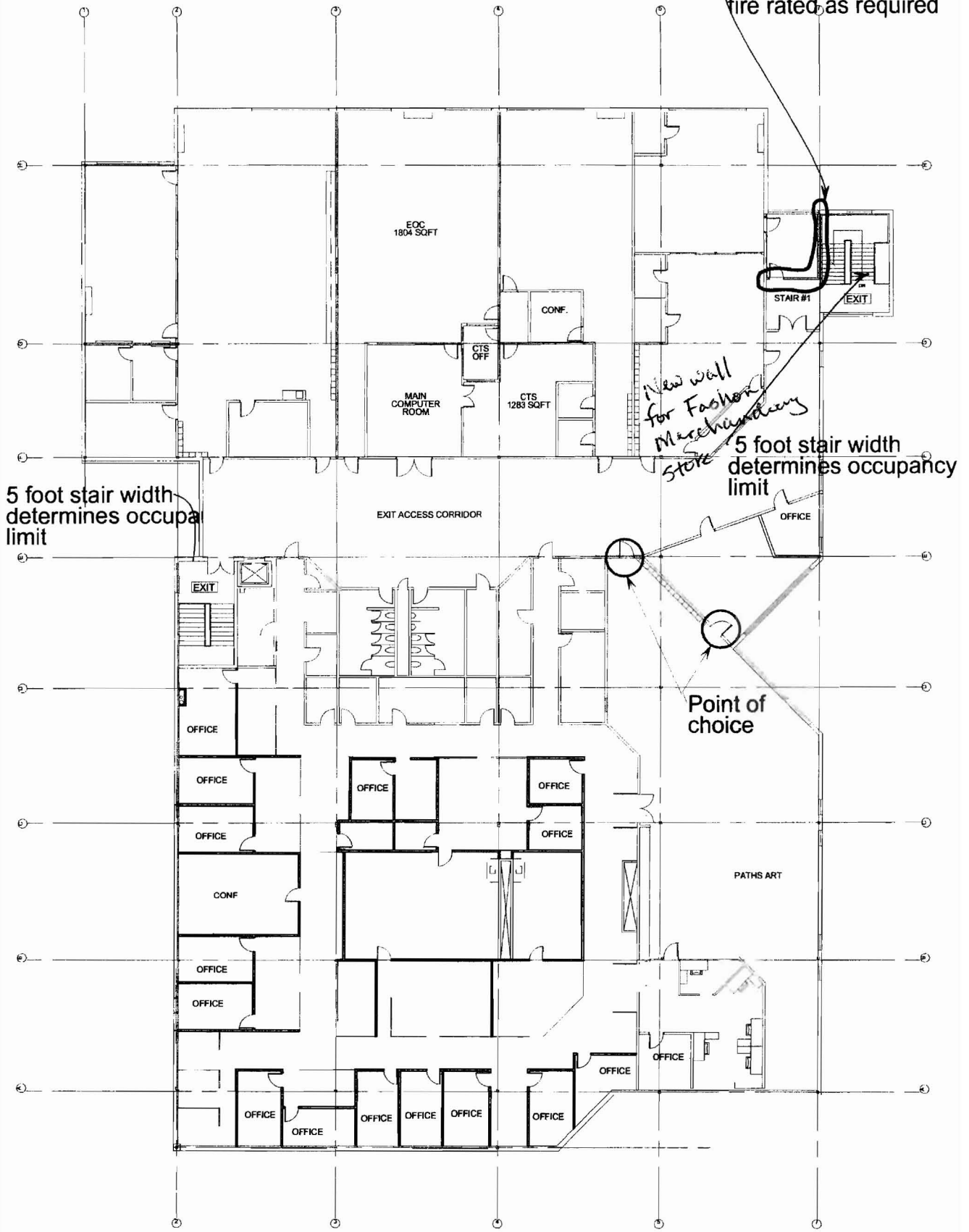
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SEMPLER & DRANE ARCHITECTS**



**SECOND FLOOR
EXISTING**

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Walls and door not fire rated as required

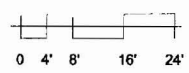


5 foot stair width determines occupancy limit

New wall for Fashion Merchandising store

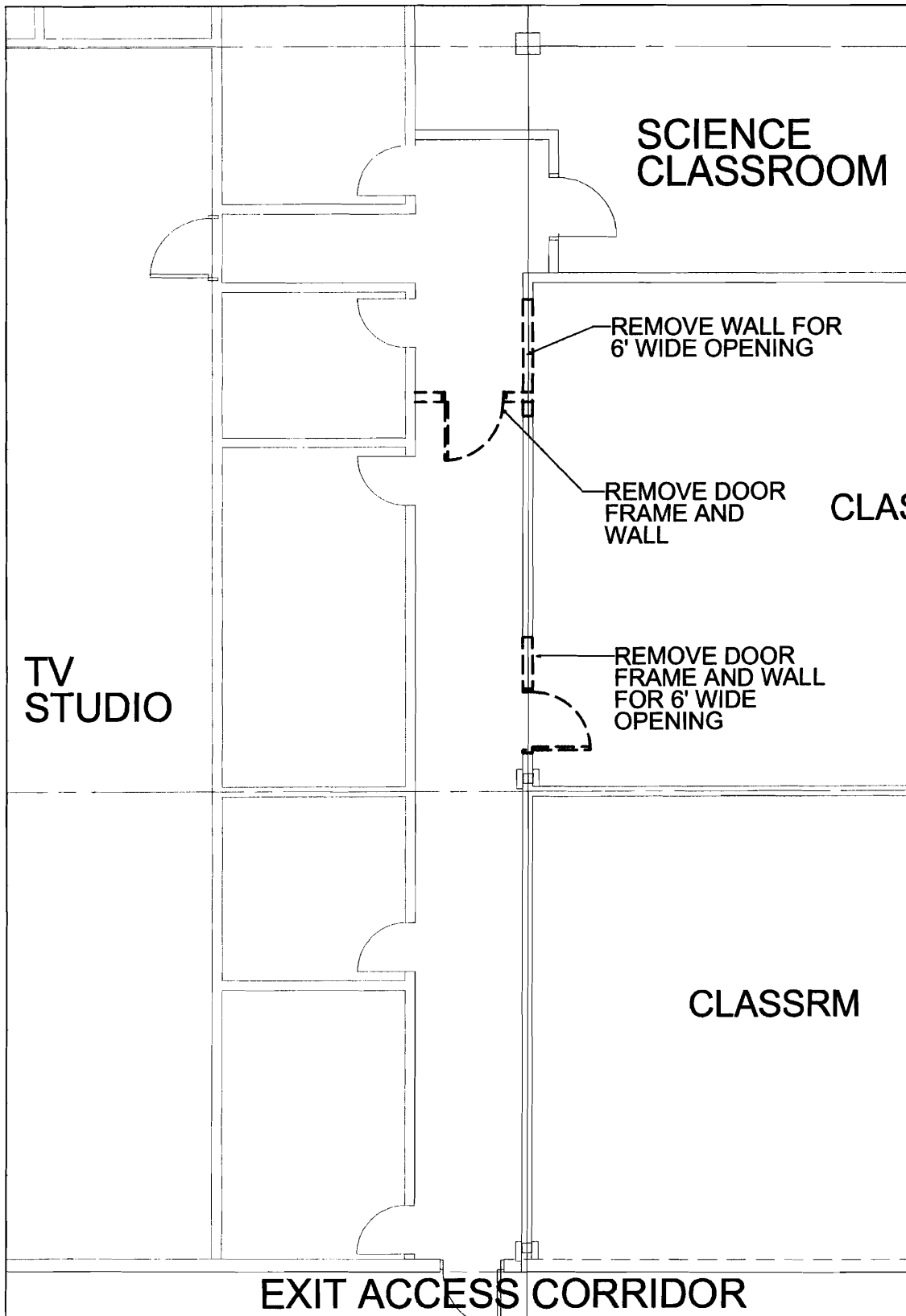
5 foot stair width determines occupancy limit

Point of choice



**THIRD FLOOR
EXISTING**

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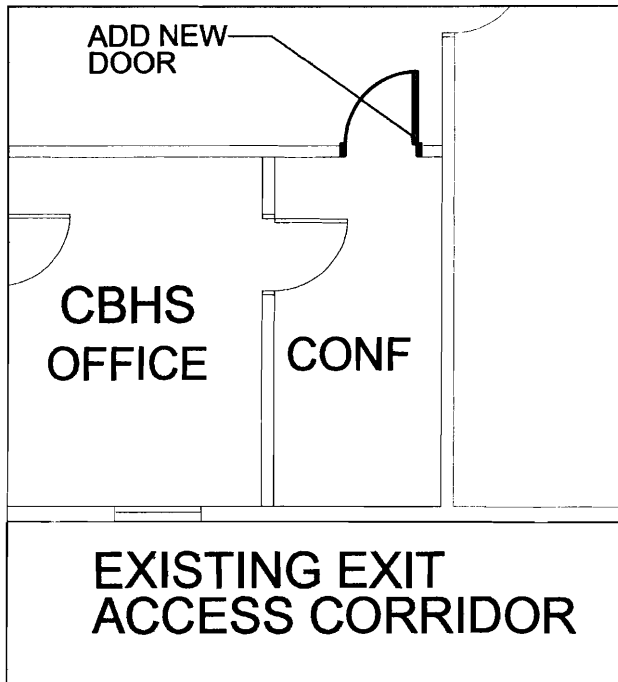
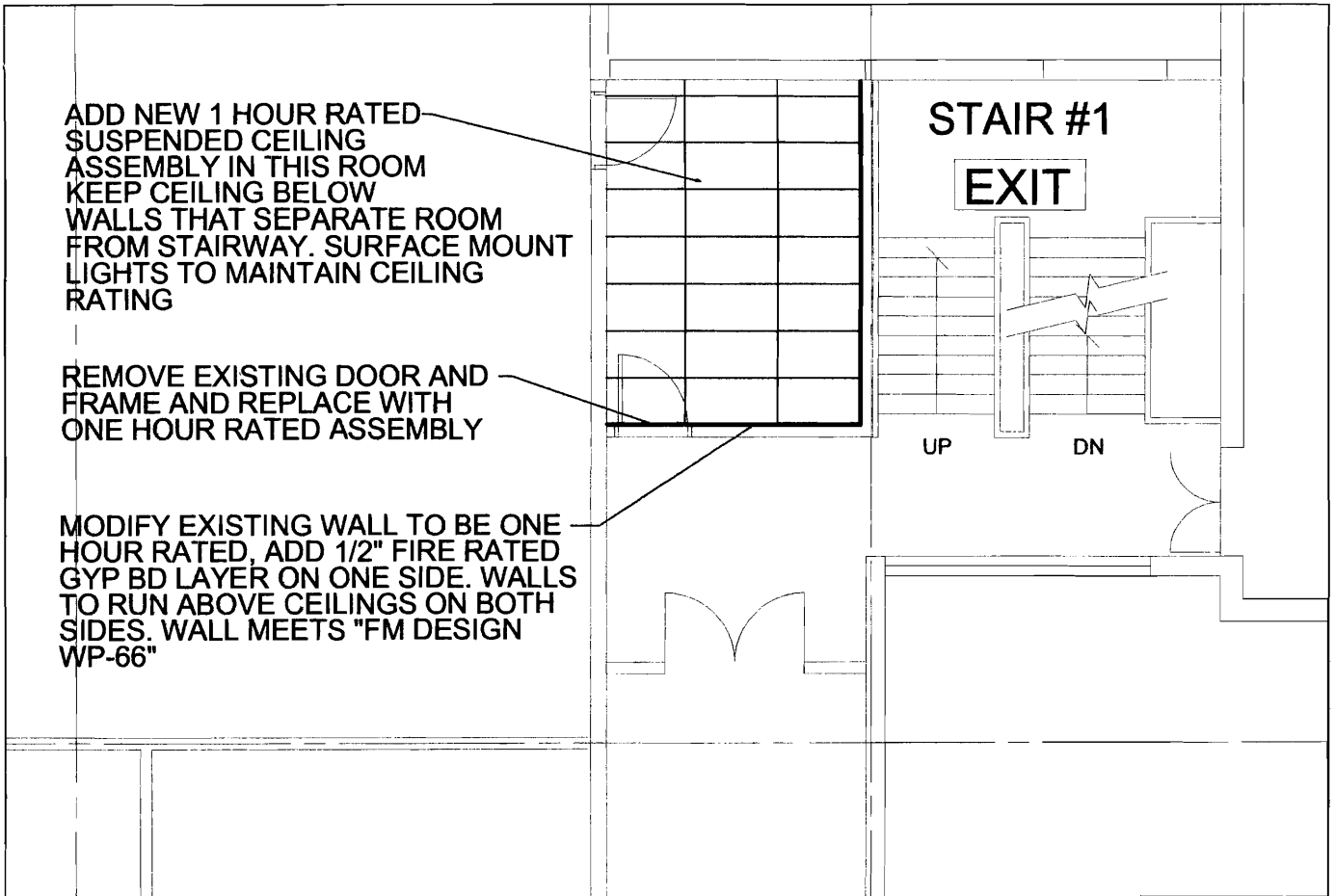


**PATHS / CBHS CODE ANALYSIS
2ND FLOOR CLASSROOMS - RECOMMENDED IMPROVEMENTS**

**SCALE: 1" = 8'-0"
MARCH 31, 2008**

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**IMPROVEMENTS
DWG 1 OF 4**



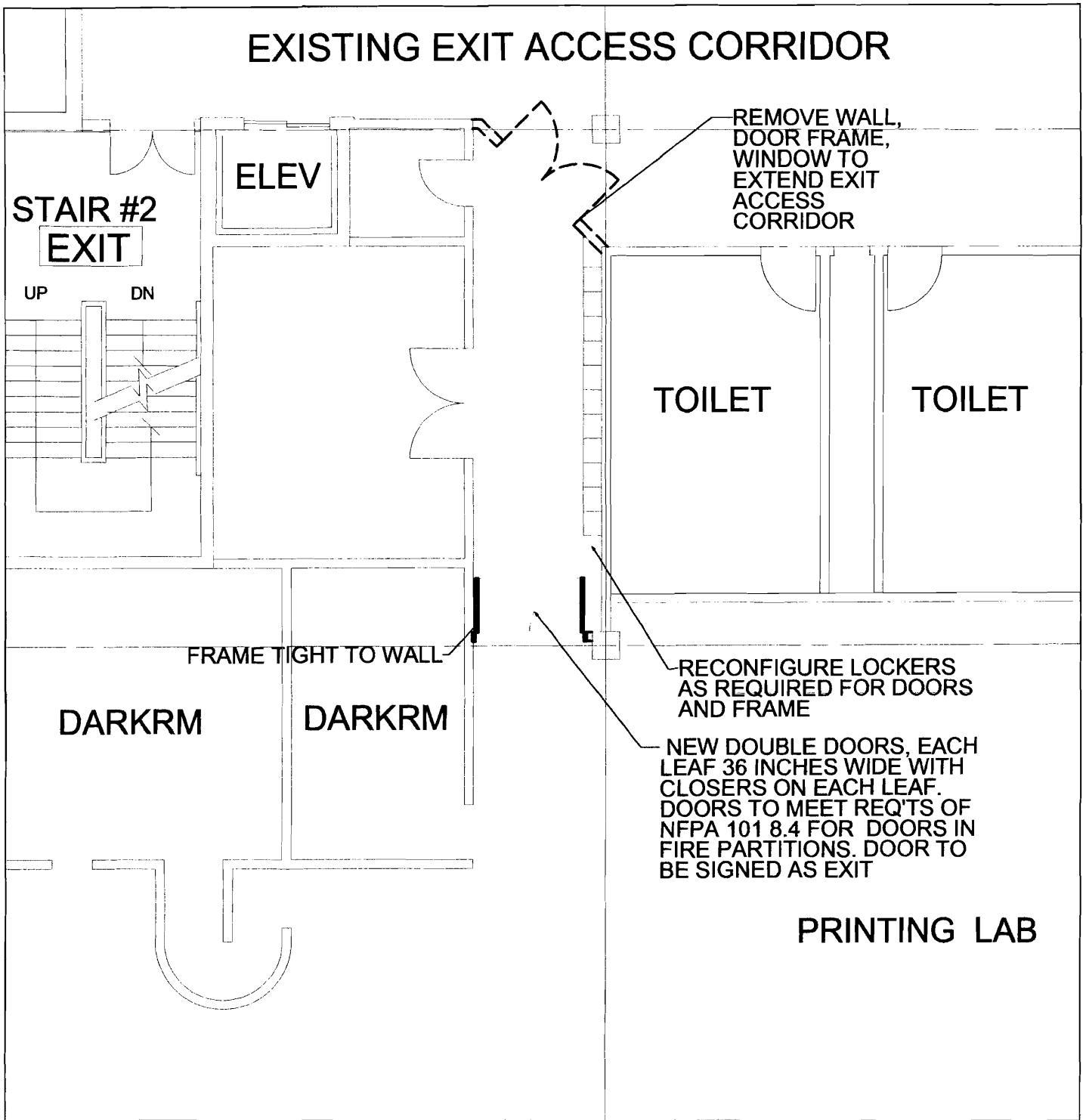
**IMPROVEMENTS FOR
STAIR #1 SEPARATION
2ND AND 3RD FLOOR**

**PATHS / CBHS CODE ANALYSIS
2ND FLOOR CBHS OFFICE
2ND & 3RD FLOOR FIRESTAIR #1 - RECOMMENDED IMPROVEMENTS**

**SCALE: 1" = 8'-0"
MARCH 31, 2008**

SEMPLER & DRANE ARCHITECTS

**IMPROVEMENTS
DWG 2 OF 4**

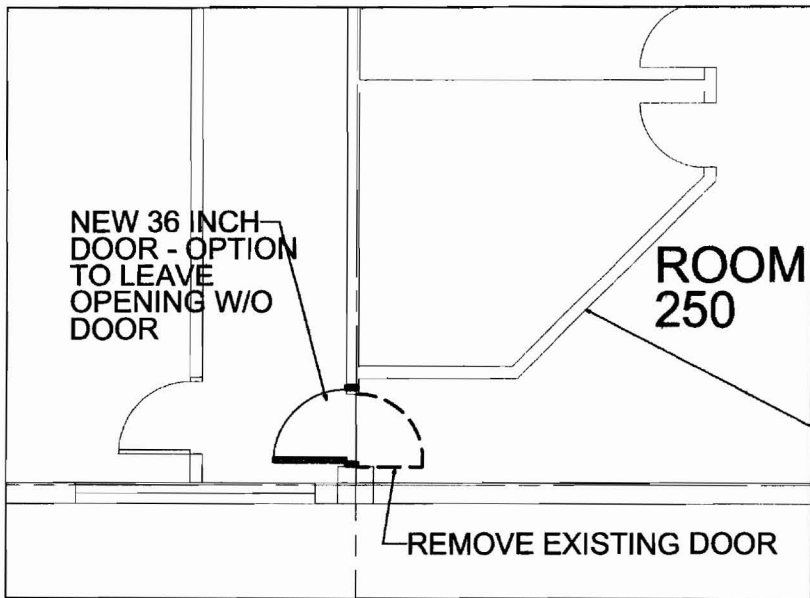
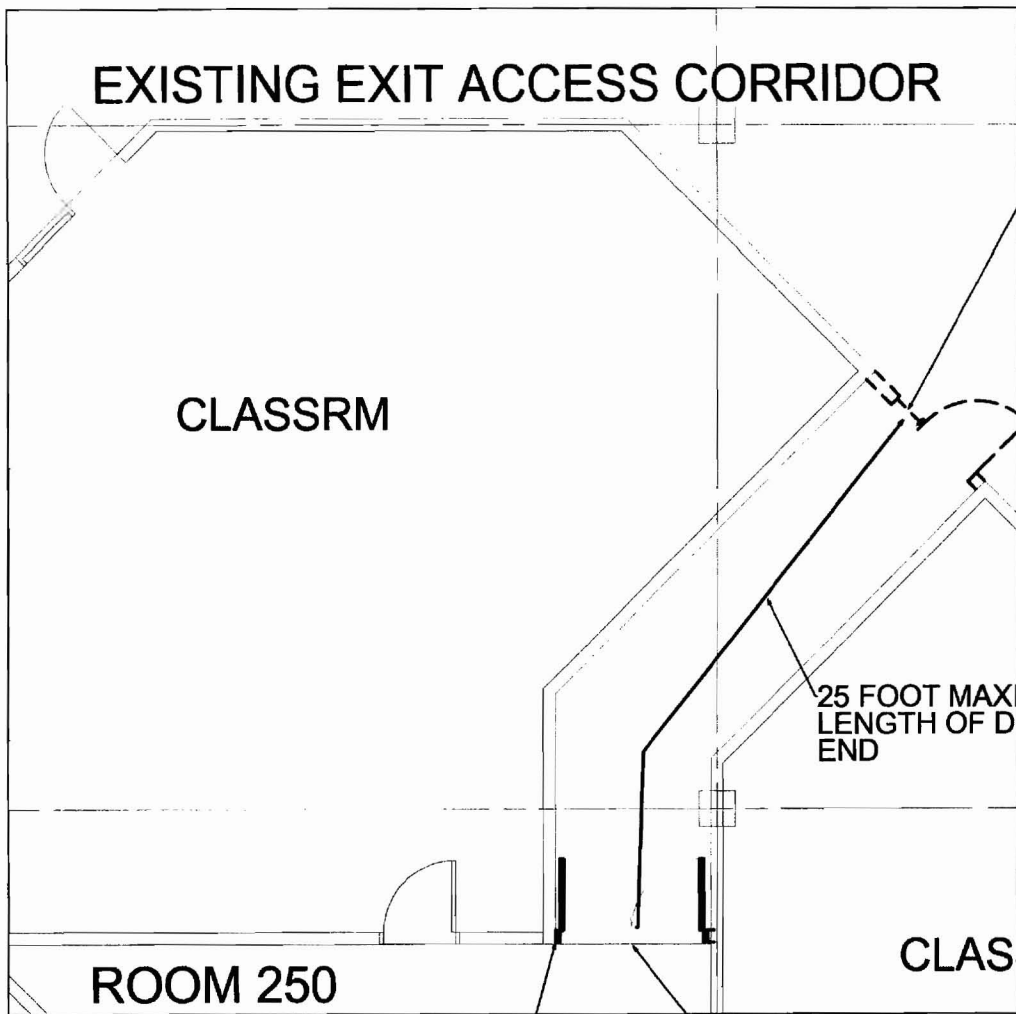


**PATHS / CBHS CODE ANALYSIS
2ND FLOOR PRINT LAB - RECOMMENDED IMPROVEMENTS**

**SCALE: 1" = 8'-0"
MARCH 31, 2008**

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**IMPROVEMENTS
DWG 3 OF 4**



NEW DOUBLE DOORS, EACH LEAF 36 INCHES WIDE WITH CLOSERS ON EACH LEAF. DOORS TO MEET REQ'TS OF NFPA 101 8.4 FOR DOORS IN FIRE PARTITIONS. DOOR TO BE SIGNED AS EXIT

REDO EXIT SIGN TO DIRECT TO NEW DOOR

**PATHS / CBHS CODE ANALYSIS
ROOM 250 2ND FLOOR - RECOMMENDED IMPROVEMENTS**

**SCALE: 1" = 8'-0"
MARCH 31, 2008**

SEMPLER & DRANE ARCHITECTS

**IMPROVEMENTS
DWG 4 OF 4**