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APPEAL SUMMARY

Status: Decision Rendered OVER 32382 FROM (7/10/24) FOR MORE INFO

| | |
|--|---|
| Appeal ID: 33407 | Project Address: 3950 N Williams |
| Hearing Date: 8/7/24 | Appellant Name: Bob Schatz |
| Case No.: B-002 | Appellant Phone: 5032358585 |
| Appeal Type: Building | Plans Examiner/Inspector: Steve Freeh |
| Project Type: commercial | Stories: 5 Occupancy: R2 and M Construction Type: 3B |
| Building/Business Name: Kiley40 | Fire Sprinklers: Yes - Whole building |
| Appeal Involves: Erection of a new structure, Reconsideration of appeal | LUR or Permit Application No.: 24-029720-CO |
| Plan Submitted Option: pdf [File 1] [File 2] [File 3] | Proposed use: R2 Dwelling units |

APPEAL INFORMATION SHEET

Appeal item 1

| | |
|---|---|
| Code Section | 705.8.1 |
| Requires | <p>Original appeal: For a wall that is 10 to less than 15 feet from a property line, in a fire sprinklered building the allowable area of unprotected openings is 45%</p> <p>Reconsideration: The maximum area of unprotected openings permitted in an exterior wall in any story of a building shall not exceed the percentages specified in table 705.8 based on the fire separation distance of each individual story. Per Table 705.8 an exterior wall that is 10 to less than 15 feet from a property line, in a fire sprinklered building the allowable area of unprotected openings is 45%</p> |
| Code Modification or Alternate Requested | <p>Original appeal: To verify the term "Exterior Wall" in the description of this table to refer to the wall that separates the inside from the outside vs referring to the open space that is below a wall on the floor above the open space.</p> <p>Reconsideration: To consider the entire façade as the exterior wall vs each individual story.</p> |

Proposed Design

Original appeal: The proposal is to consider the wall facing the property line on the first floor, which is the wall with a door in it accessing the outdoor space, as the wall with the unprotected openings and not consider the open space at the edge of the wall above it as a wall.

Reconsideration:

The exterior façade is 1,714 square feet and the allowable unprotected openings is 45% of that number which is 770 square feet. The amount of unprotected openings in this façade is 531 square feet which is 31% of the façade. The proposal is to consider the whole façade having fewer than 45% unprotected openings instead of each story. Also on the first floor the wall separating the interior from the exterior space is not being considered the exterior wall to be regulated by fire code, then it is not required to be 2-hour fire rated like the rest of the exterior walls. We are proposing to continue that 2-hour fire rating on this wall.

Reason for alternative

Original appeal: The area we are discussing is an open outdoor area on the first floor which is to be used by the tenants of the apartment building as common outdoor area. This area has walls on three sides and no wall on the 4th side, which is also open to an uncovered outdoor area, the area is also covered by a portion of the 2nd floor. The reason for the alternate is because the title of this section is describing the "area of exterior wall openings". I am proposing that the exterior wall is the wall that is separating the inside from the outside, even if the outside is a covered outdoor space. I am being told by my plans examiner that the exterior wall is the open area/plane which is at the edge of the façade on the 2nd floor, which actually isn't a wall at all but an open space.

One reason I would propose the wall with the door in it is to be considered the exterior wall is this, if that wall is not the exterior wall then what is it called? An interior wall? That wall is currently a 2-hour fire rated wall to comply with the regulations of type 3B construction requiring exterior walls to have that fire rating. If that wall is considered an interior wall then am I to not fire rate that wall? If that wall with the door in it is interior then do I not insulate it as an exterior wall?

A reason the open space should not be considered an exterior wall is it is really hard to insulate that wall to meet energy codes.

Another reason to consider the wall with the door in it as the exterior wall is the city of Portland has a history of accepting that type of wall as the exterior wall in many other projects in the examples of covered balconies and covered outdoor stairwells. For example on a balcony that is covered by another balcony or roof, the guardrail is not considered the exterior wall, the wall with the door to the balcony is. In examples of covered exterior staircases that access multiple apartments the city has not considered the area below the edge of the roof as the exterior wall but considered the walls with doors in them leading into apartments as the exterior wall. I have received approved permits from my current plans examiner Steven Freeh with these designs and also have received permits

from plans examiners Guy Altman, Kent Hegsted and Robert Keal with this understanding on what an exterior wall is. I propose you continue to consider the walls as exterior walls and not the air space under a roof or second floor as an exterior wall.

Another reason to consider the wall with the door in it as an exterior wall is to follow the reason for this code in the first place. It seems the whole point of table 705.8 is to protect a structure from fire spreading from one building to the next by putting a fire rated wall in it's path, with an acceptable amount of openings. If that covered open area on the first floor has at least 1-hour walls and ceiling I don't see how that doesn't meet this code, a fire approaching this space will be faced with fire rated assemblies. The only unprotected opening on the first floor in this area is the door in the wall to the outdoor space which is 25 feet from the property line. That is the only unprotected opening and that would be how a fire gets into a building, not through the fire rated walls or ceiling. And in this situation that door is meeting the unprotected opening code with plenty of room to spare.

Another reason to consider is I am being told that the open space is considered an exterior wall because of the second floor above it ends at that spot. When I calculate the unprotected openings in a wall I have been told over the years that we count the wall to opening ratio elevation view per floor and not per elevation of the whole building. For example on just the second floor I take the wall area of that second floor and divide out just the windows on that second floor to get my percentage of unprotected openings on the second floor. I propose if that is the way we calculate the walls then the second floor wall has nothing to do with the first floor wall in this table, they are calculated separately. And if they are calculated separately it makes no sense to consider the open space under another story as a wall but would be better to consider the actual wall facing the property line as a wall. If you do want to consider the whole elevation as one exterior wall, and not calculate it floor at a time, then my whole wall is 1,714 square feet and I have 462 square feet of unprotected openings (including windows and this open area we are discussing) and the total unprotected openings add up to 27% and I am allowed 45%, see attached elevation. So I propose it meets this code either way you add it up but you need to pick one or the other.

Here is another reason, the definition of exterior wall under chapter 2 is "A wall, bearing or nonbearing, that is used as an enclosing wall for a building, other than a fire wall, and that has a slope of 60 degrees or greater with the horizontal plane". That seems to explain the wall with the door in it vs the open space I am being told I need to count as a wall. I propose that we consider the wall with the door in it as the exterior wall due to the definition of exterior wall.

Reconsideration:

The main reason for this alternative is the planning bureau requires a common outdoor area for the residents of this apartment building and this

large opening provides the required natural air and ventilation required for the enjoyment of this covered outdoor space. If we are counting the opening between the covered and the uncovered exterior space an unprotected opening then the first floor has 62% unprotected openings. That large open space does have a 2-hour fire rated wall separating it from the interior space. The 2nd floor has 17% unprotected openings and the 3rd floor has 12%. The 2nd and 3rd floors are way below the maximum of 45% and this is why I feel the building as a whole is meeting this code with the façade as a whole having only 31% unprotected openings.

Consider that first floor does have a 333 square foot unprotected opening which is not a window or a door but an opening to an exterior patio. The walls between that patio and the interior of the building are 2-hour fire rated. That is a fire wall that is an additional layer of protection to the codes listed in table 705.8. Also this patio has a 1-hour fire rated ceiling. All of this provides additional protection that is not required inside an unprotected opening and this is the additional protection that makes me feel this design is meeting the code.

Appeal item 2

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|---|---|
| Code Section | Table 716.1 (2) 2-hour Fire Rating required between stairwells |
| Requires | A 2-hour fire rated enclosure at interior exit stairways |
| Code Modification or Alternate Requested | Using a 2-hour shaft assembly under a staircase |
| Proposed Design | <p>Original appeal:</p> <p>I will be using a 2-hour shaft assembly GA file #WP 7125 as the 2-hour assembly under a wood framed staircase to separate one stairway from another. You can see my stair section and details on attached sheet 8.1 and the assembly at detail K/2.0</p> <p>Reconsideration:</p> <p>Using the same 2-hour shaft assembly in the original appeal and adding the steel "studs" to the sides of the wood stringers to complete the 2-hour fire rating as specifically stated in the fire resistance design manual.</p> |
| Reason for alternative | <p>Original appeal:</p> <p>First reason is there is no fire rated assembly for staircases. Because of this the Portland appeals board has approved appeals of using shaft enclosure assemblies under staircases to meet required fire separations. I chose this assembly because it was a one-sided assembly as it's easier to apply the entire assembly to just the underside of the staircase and not to both sides. This assembly was tested when applied to a 1 5/8" steel stud and it appears that the layers of gypsum and steel straps has little to do with the stud it's attached to and appears that a wood stud, or stringer in this case, would perform the same way. This assembly also uses screws and not nails to hold it together and I feel would work best in this location.</p> |

Reconsideration:

In the original appeal there was concern for using wood stringers to attach the gyp bd to when the listed assembly was referring to using steel studs. So to completely comply to the listing I am adding the steel studs to the assembly.

Appeal item 3**Code Section**

Section 1028.2 Exception 1.1 Exit Discharge

Requires

Original comment:

Exits shall discharge directly to the exterior of the building: Not more than 50% of the required capacity of interior exit stairways is permitted to egress through areas on the level of discharge provided that all of the following conditions are met. Exception 1.1 Discharge of interior exit stairways shall be provided with a free and unobstructed path of travel to an exterior exit door and such exit is readily visible and identifiable from the point of termination of the enclosure.

Code Modification or Alternate Requested

Original comment:

That the exit is identifiable by signage.

Reconsideration:

To add an exit passageway between the stair enclosure and the exterior exit door.

Proposed Design

Original comment:

The proposal is to add an illuminated exit sign to be visible from the exit discharge, the door from the stairwell to the lobby.

Reconsideration: To still add the illuminated exit sign to be visible from the exit stair enclosure but to also consider the area between the exit stair enclosure and the exterior exit door an exit passageway by making the walls and ceiling at the corridor 2-hour fire rated construction. The doors in the exit passageway will be 90-minute rated.

Reason for alternative

Original comment:

Portland has been struggling with excessive crime which has led to at least this property owner to want the residents of this apartment building to feel safer within the entrance lobby by having less direct view from the front door at the sidewalk to the interior of the common space. This has resulted to the common hallway on the first floor to have a jog in it to obstruct views from the outside to the inside. This result has the opposite problem faced with this code of occupants not having direct view from the exit discharge to the exterior exit door. The design is not completely missing this section of the code, the requirement includes having a "free and unobstructed path of travel to an exterior exit door" which it does. The hallway is unobstructed and is 8'-10" wide right at the exit from the exit stairway and then is 6'-6" wide the rest of the way to the exterior exit door. 7 feet out of the exit

stairway the exterior exit door is visible, the total distance from the exit stairway to the exterior exit door is 35 feet. It's just the "readily visible from the point of termination of the enclosure" part of this exception that this design is not meeting. Due to that I am proposing adding an illuminated exit sign that is clearly visible from the exit stairway that points toward the exterior exit door, that would allow occupants to clearly identify which direction the exterior exit door is.

Reconsideration:

This corridor design is still affected by the rise in crime in Portland and the property owner wanting the tenants living in this building to feel safer within the entrance lobby by having a less direct view from the exterior to the center of the building. I feel by adding a 2-hour exit passageway this gives the occupants the same level of protection that they had while in the exit stair enclosure. This same level of protection continues to the exterior exit door.

APPEAL DECISION

- "1) Increase of allowable wall opening percentage from 45% to 62% on the first floor of the east side: Granted provided the fire rating of the floor-ceiling assembly above the patio is increased to a 2-hour fire-resistance rating.**
- 2) Alternate method for determining fire resistance rating of 2-hour shaft wall assembly: Granted structural engineering calculations for connecting and supporting the gypsum board layers in this incline orientation are provided and approved during plan review.**
- 3) Continuation of interior exit stair to exit discharge with exit passageway: Exit discharge from an exit stair through an exit passageway meets the 1023.3 Exception and does not require a building code appeal. However, the current configuration does not meet the requirements for exit passageways (for example: 1024.5 Openings). "**

"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 90 calendar days of the date this decision is published. For information on the appeals process, go to www.portlandoregon.gov/bds/appealsinfo, call (503) 823-6251 or come to the Development Services Center."

Z METAL IS FOR SOUND DETONING
REASONS AND REQUIRED BETWEEN
STAIRS AND APARTMENT UNIT BUT
NOT REQUIRED NEXT TO HALL
OR OTHER STAIRS

FINISHED RUBBER TREAD ON
1" PRE-MANUFACTURED TREAD ON
(4) STRINGERS
PER STRUCTURAL

STRINGERS

4X6 BLOCKING BETWEEN
STUDS FOLLOWING
THE STRINGER

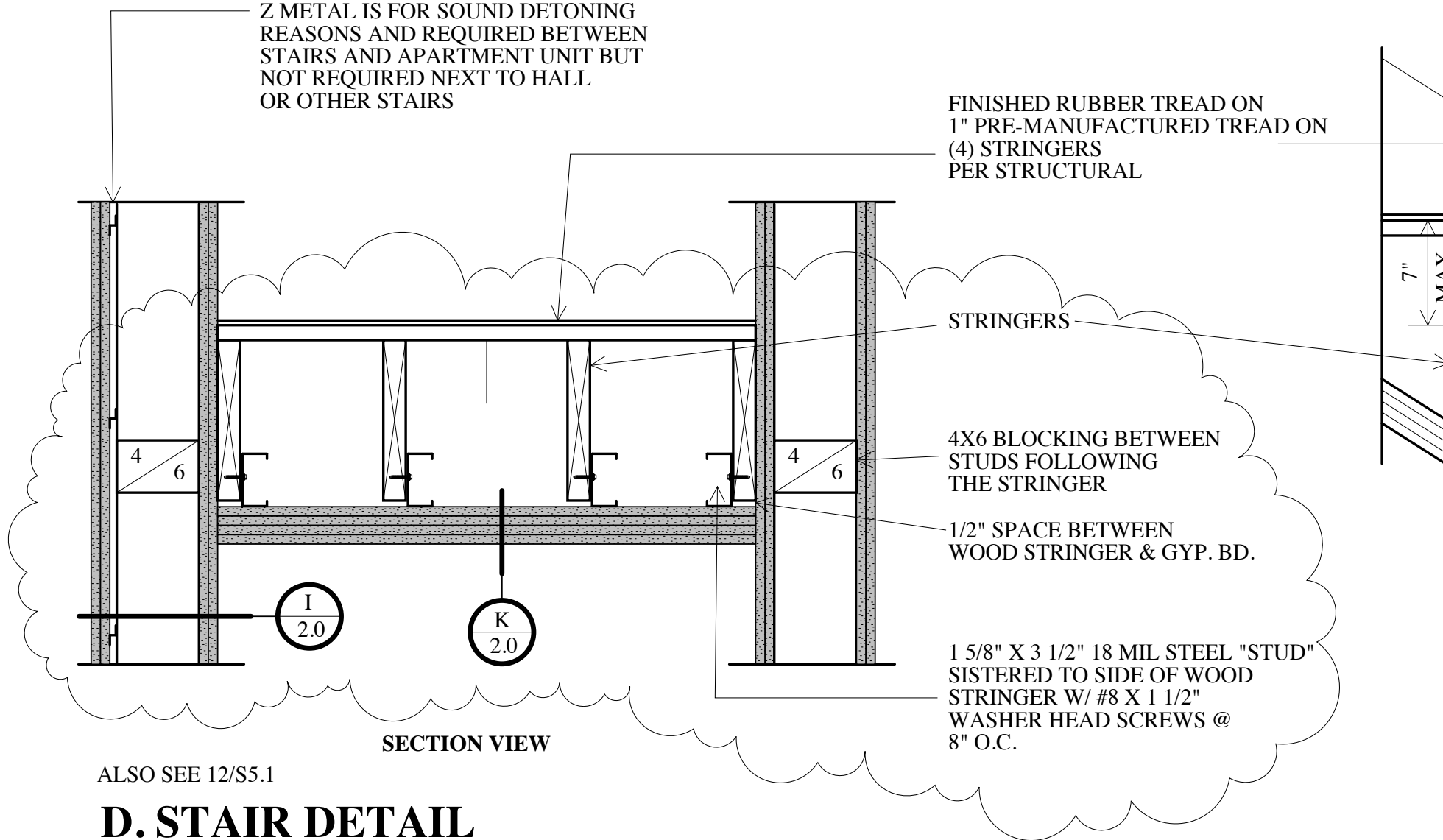
1/2" SPACE BETWEEN
WOOD STRINGER & GYP. BD.

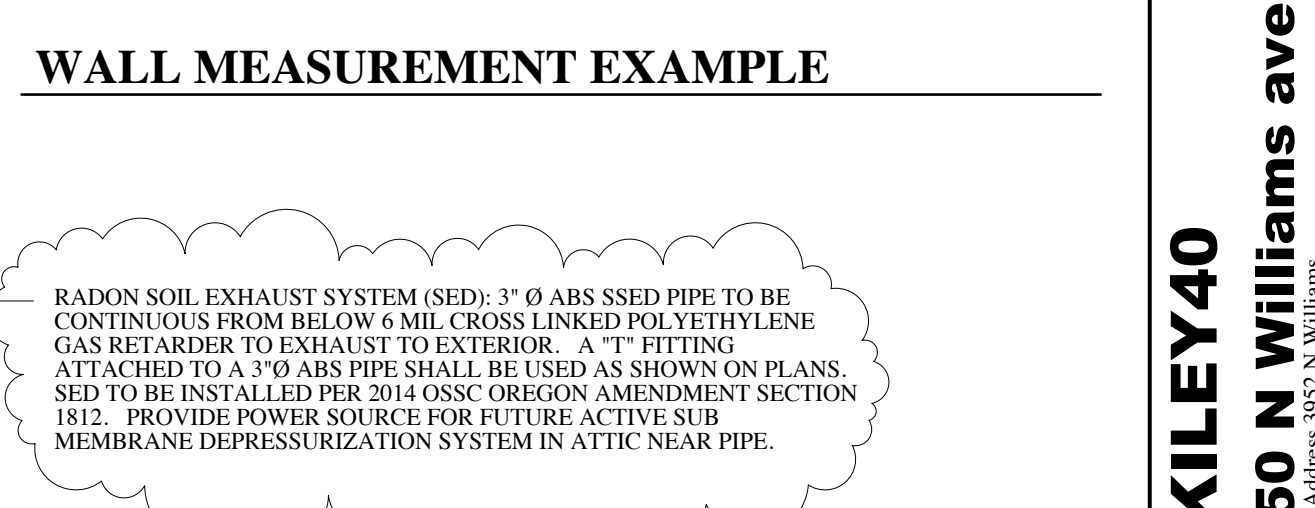
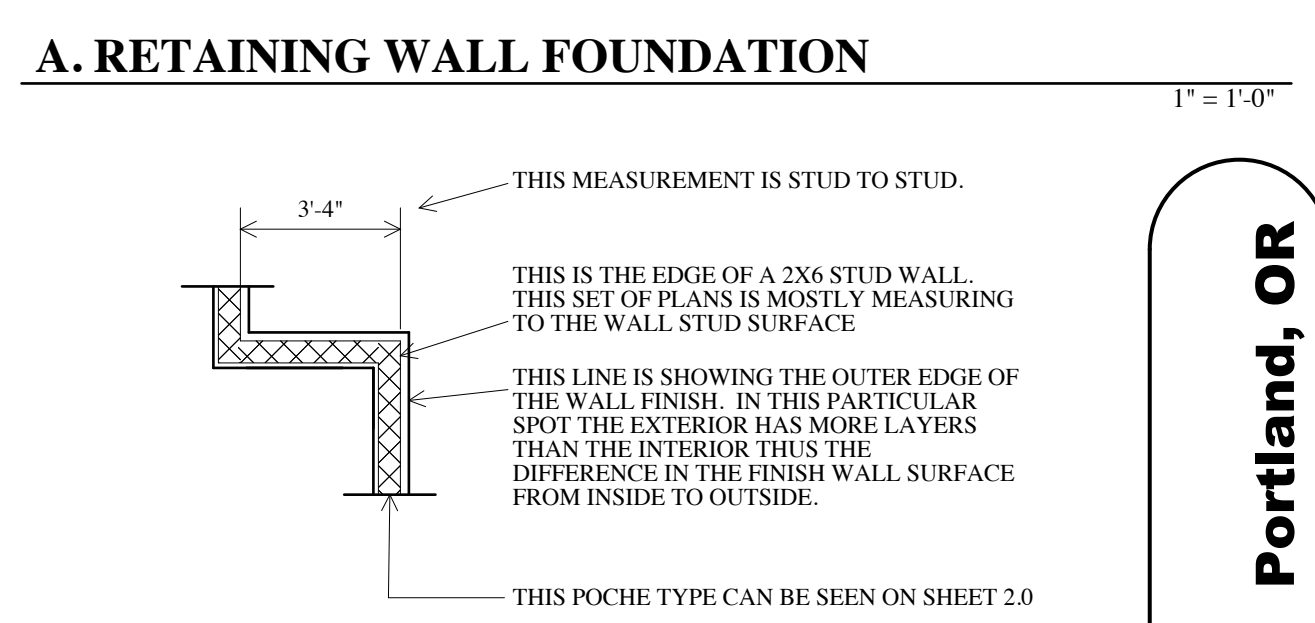
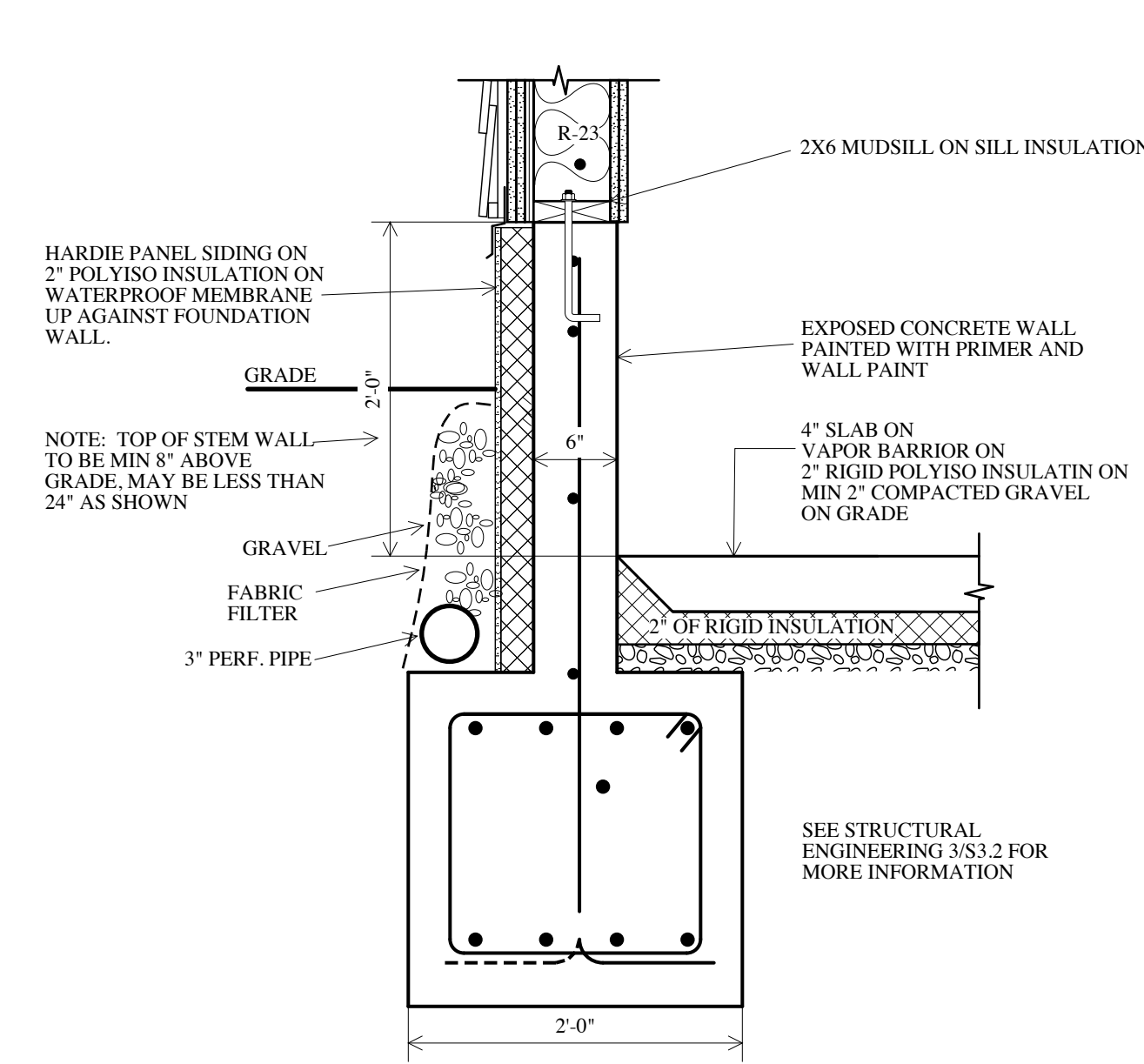
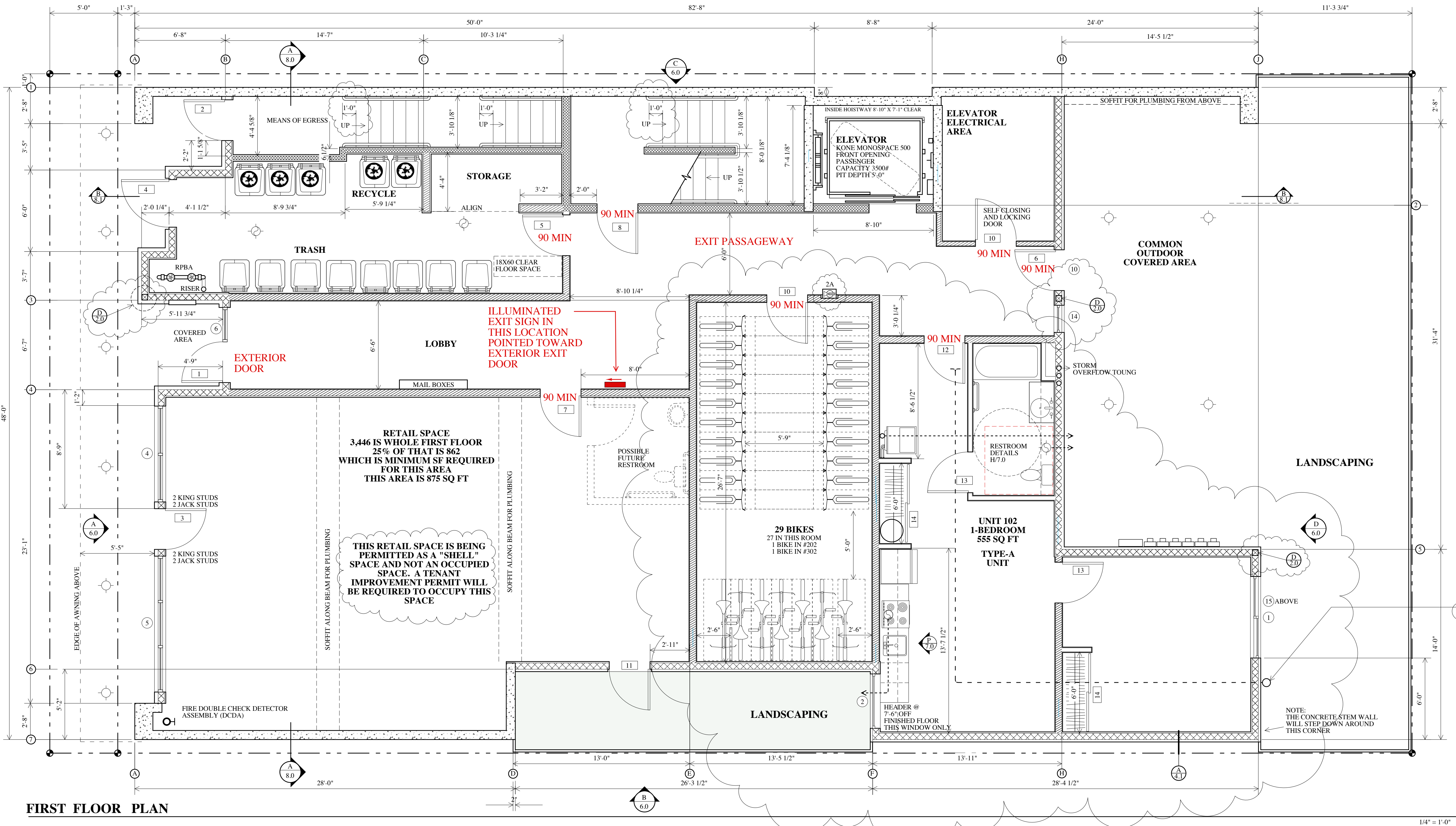
1 5/8" X 3 1/2" 18 MIL STEEL "STUD"
SISTERED TO SIDE OF WOOD
STRINGER W/ #8 X 1 1/2"
WASHER HEAD SCREWS @
8" O.C.

SECTION VIEW

ALSO SEE 12/S5.1

D. STAIR DETAIL





FIRST FLOOR PLAN

KEYNOTES

- 1 PROVIDE A WASHER PAN WITH DRAIN BY DURAFLEX OR SIM. VENT DRYER THROUGH FLOOR/CEILING ASSEMBLY PER KEYNOTE #6 OR USE "THE DRYER BOX" 1-HOUR RATED, UL LISTED SYSTEM NO. W-17129 TO RECESS VENTING INTO FIRE RATED WALL. FILL SURROUNDING WALL CAVITY WITH R-19 FIBERGLASS INSULATION. INSTALL PER MANUFACTURERS RECOMMENDATIONS.
- 2 EXTEND HANDRAIL 11" @ BOTTOM OF THE STAIR ON BOTH SIDES & A 12" EXTENSION AT THE TOP OF THE STAIR ON BOTH SIDES. RETURN HANDRAIL TO THE GROUND, A POST OR A WALL.
- 3 RADON SOIL EXHAUST SYSTEM (SED): 3" O ABS SSED PIPE TO BE CONTINUOUS FROM BELOW 6 MIL CROSS LINKED POLYETHYLENE GAS RETARDER TO 6" ABOVE ROOF MEMBRANE. A "T" FITTING SHALL BE USED. SED TO BE INSTALLED PER 2014 OSSC OREGON AMENDMENT SECTION 1812. PROVIDE POWER SOURCE FOR FUTURE ACTIVE SUBMEMBRANE DEPRESSURIZATION SYSTEM.
- 4 LONG TERM/ WALL MOUNTED BIKE RACK PER B/10
- 5 VENT STOVE, DRYER & BATHROOM FANS TO THE EXTERIOR WITHIN THE FLOOR CAVITY PER FLOOR FRAMING PLAN AND DETAIL D/2.1
- 6 FUR OUT FIRE RATED WALL AT STAIR TO RUN PIPING IN WALL. NO PIPING TO BE IN FIRE ASSEMBLY J/2.0
- 8 AT 5TH FLOOR VENT STOVE, DRYER BATHROOM DIRECTLY THROUGH THE ROOF
- 9 PROVIDE SIGNAGE ON DOOR THAT STATES "SPRINKLER ROOM"
- 10 PROVIDE SIGNAGE THAT STATES "THIS AREA IS DESIGNED FOR 100PSF LIVE LOAD"
- 11 LADDER TO ROOF MOUNTED TO SIDE WALL, PROVIDE SHOP DRAWINGS TO ARCHITECT SEE G/1.2
- 12
- 13

DOOR SCHEDULE

- DOOR HARDWARE
ALL DOOR HANDLES TO BE LEVER TYPE. HANDLES, PULLS, LATCHES & LOCKS SHOULD BE OPERABLE WITH ONE HAND AND NO SPECIAL EFFORT. ALL DOOR HARDWARE TO BE BRUSHED CHROME. OPERABLE PARTS SHOULD BE INSTALLED 34-48" ABOVE FINISH FLOOR MAXIMUM. ALL FIRE RATED DOORS TO BE PROVIDED WITH A DOOR CLOSURE AND THEY SHALL CLOSE FROM AN OPEN POSITION OF 70 DEGREES IN NOT LESS THAN 3 SECONDS, TO A POINT OF 7" FROM THE LATCH, THEN CLOSE TO LATCH POSITION. WHEN PROVIDING A THRESHOLD 1/2" THRESHOLD MAX PER B/10. ALSO SEE A/7.0 FOR ADA REQUIREMENTS. FIRE RATED DOOR FRAMES SHALL BE LABELED WITH THE MANUFACTURER AND INSPECTION AGENCY. PROVIDE SMOKE GASKET (WITH S-LABEL). EXTERIOR DOORS SHALL HAVE A U-RATING OF 0.630
- 1 RESIDENTIAL FRONT ENTRY DOOR: 36X84" WITH LAMINATED GLAZING (NOT TEMPERED). EXTERIOR RATED ALUMINUM STOREFRONT TO MATCH WINDOW #6. ALSO ALIGNED WITH WINDOW #7 ABOVE DOOR. KEYED ENTRY LOCK TO BE ELECTRONICALLY UNLOCKED FROM THE OUTSIDE WITH A KEY FOB AND A CALLBOX BUZZER.
 - 2 90 MINUTE FIRE RATED DOOR AT REAR STAIR: 36X84" SOLID CORE, EXTERIOR RATED. ALSO ALIGNED WITH WINDOW #7 ABOVE DOOR. DOOR TO BE OPENABLE FROM THE INSIDE WITH PANIC HARDWARE. NO HARDWARE ON THE OUTSIDE.
 - 3 COMMERCIAL FRONT DOOR: 36"X84" ALUMINUM STOREFRONT. ALSO ALIGNED WITH WINDOW #7 ABOVE DOOR. PUSH PAD AND PULL DOOR HANDLE & DEADBOLT LOCK TO BE UNLOCKED FROM THE INSIDE AND OUTSIDE WITH KEY. PROVIDE DOOR CLOSURE. SIGN ABOVE DOOR TO READ "THIS DOOR TO REMAIN UNLOCKED DURING BUSINESS HOURS". ALIGN WITH WINDOW ABOVE DOOR.
 - 4 TRASH ROOM DOOR @ SIDEWALK: 42" X 84" PAINTED STEEL & INSULATED. ALSO ALIGNED WITH WINDOW #7 ABOVE DOOR. HAVE DOOR HOLD OPEN AT BASE OF DOOR. ELECTRONIC KEYPAD TO DEADBOLT ON OUTSIDE. LEVER HARDWARE ON INSIDE. ALIGN WITH WINDOW ABOVE DOOR.
 - 5 TRASH ROOM DOOR @ COORIDOR 20-MINUTE: 36X84" STEEL DOOR W/ SELF CLOSURE AND PUSH-PULL HARDWARE. NO LOCK. SIGN ON DOOR, MADE WITH DURABLE MATERIAL, TO STATE "FIRE SPRINKLER RISER" ATTACHED TO HALLWAY SIDE OF DOOR.
 - 6 PATIO (BACK) DOOR @ 1ST FLOOR: 36X84" INSULATED STEEL, W/ LATCH BUT NO LOCK. ONE LIGHT AND GLAZING TO BE TEMPERED.
 - 7 CORRIDOR, TO COMMERCIAL SPACE 20-MINUTE FIRE RATED 36X84" STEEL DOOR. ENTRY LOCK AND KEYED DEADBOLT, THE OPERATION OF THE LEVER HANDLE WILL RETRACT THE DEADBOLT.
 - 8 STAIRWELL 90-MINUTE FIRE RATED DOOR WITH ELECTROMAGNETIC DOOR HOLDER W/ AUTO RELEASE FIRST FLOOR. 36"X84" LEVER NON-LOCKING HARDWARE.
 - 9 STAIRWELL 90-MINUTE FIRE RATED 36X84" STEEL DOOR WITH LEVER NON-LOCKING HARDWARE. SIGN ON DOOR, MADE WITH DURABLE MATERIAL, TO STATE "FIRE SPRINKLER STANDPIPE" ATTACHED TO HALLWAY SIDE OF DOOR.
 - 10 BIKE ROOM DOOR 20-MINUTE FIRE RATED 36"X84" STEEL DOOR. LEVER DOOR HANDLE. KEYED LOCK TO BE ELECTRONICALLY UNLOCKED FROM THE OUTSIDE WITH A CODE. NO LOCK FROM INSIDE, EXIT WITHOUT KEY. DOOR SHALL SELF LOCK ON CLOSURE.
 - 11 COMMERCIAL BACK DOOR 36" X 84" INSULATED STEEL, NO LIGHT. LEVER HARDWARE PLUS LOCKING DEADBOLT. SIGN ABOVE INTERIOR OF DOOR FRAME SHALL BEAR A SIGN THAT READS "THIS DOOR TO REMAIN UNLOCKED WHEN THIS SPACE IS OCCUPIED".
 - 12 FRONT DOOR INTO UNITS 20-MINUTE FIRE RATING SOLID CORE 36" X 84" PROVIDE LEVER LATCHING ONLY AND DEADBOLT LOCKING HARDWARE
 - 13 BATHROOM AND BEDROOM 36" X 80" SOLID CORE DOOR. PRIVACY LOCK NO THRESHOLD.
 - 14 CLOSET 72"X80" SLIDING METAL FRAME WITH MIRROR.
 - 15 BATHROOM 36" X 80" SOLID CORE DOOR WITH INTERIOR LATCH
 - 16 ELEVATOR 42" X 84" 90-MINUTE FIRE RATED DOOR WITH ELECTROMAGNETIC DOOR HOLDER W/ AUTO-RELEASE WITH FIRE ALARM AND SELF CLOSURE DOOR SHALL COMPLY WITH THE SMOKE AND DRAFT CONTROL DOOR ASSEMBLY REQUIREMENTS IN SECTION 716.2.2.1.1 WHEN TESTED IN ACCORDANCE WITH UL 1784 WITHOUT AN ARTIFICIAL BOTTOM SEAL.

WINDOW SCHEDULE

- WINDOW DESIGNATION
MINI T TEMPERED GLAZING
S SPRINKLER HEAD ABOVE OCCUPIED SIDE OF WINDOW
- ALUMINUM STOREFRONT WINDOWS:
KAWNEER TRIFAB VERSAGLAZE 451 FRAMING SYSTEM
USE LAMINATED GLASS (NOT TEMPERED) ON STOREFRONT GLAZING BLACK COLOR
ALL WINDOWS U-VALUE = 0.360
- 1 72"x48" SLIDER WINDOW
 - 2 48"x48" SINGLE HUNG WINDOW
 - 3 36"x18" AWNING WINDOW
 - 4 84"x96" ALUMINUM STOREFRONT WINDOW 2 FIXED PANES.
 - 5 120"x96" ALUMINUM STOREFRONT WINDOW 3 FIXED PANES.
 - 6 36"x96" ALUMINUM STOREFRONT WINDOW COORDINATE WITH DOOR FRAME AND DOOR
 - 7 96"x36" ALUMINUM STOREFRONT WINDOW ABOVE DOOR ALIGN WITH DOOR BELOW WINDOW
 - 8 48"x48" SLIDER WINDOW
 - 9 18"x 42" SINGLE HUNG
 - 10 36"x30" FIXED WINDOW ABOVE DOOR
 - 11 96"x 66" SLIDER WINDOW LEFT SLIDE. PROVIDE FALL PROTECTION ON THE OPERABLE SECTION
 - 12 96"x 66" SLIDER WINDOW RIGHT SLIDE. PROVIDE FALL PROTECTION ON THE OPERABLE SECTION
 - 13 96"x 66" FIXED WINDOW
 - 14 24"x 96" FIXED WINDOW TEMPERED GLASS
 - 15 72"x 42" FIXED WINDOW ABOVE SLIDER WINDOW

WALL TYPES / FIRE RATED ASSEMBLIES

- 2-HOUR EXTERIOR FIRE RATED WALL
SEE DETAIL J/2.0
- 1-HOUR INTERIOR FIRE PARTITION
@ DEMISING AND/OR BEARING WALLS:
SEE DETAIL A/2.0 GYP.BD. PER DETAIL
- 2 HOUR INTERIOR FIRE BARRIER
@ INTERIOR WALLS AT STAIR + ELEVATOR
SEE DETAIL I/2.0, GYP.BD. PER DETAIL
- 2-HOUR EXTERIOR FIRE RATED WALL
@ EXTERIOR WALLS ON FIRST FLOOR ONLY
8" CMU BLOCK FILLED WITH CONCRETE
SEE STRUCTURAL ENGINEERING FOR FURTHER DETAILS. R-13 PER COMCHECK FORM
- 2X6 NON-BEARING STUD WALL
USE 2X6 STUDS @ 16" O.C. @ GYPSUM BOARD U.O.N. ON SHEET 2.0
- 2X4 NON-BEARING INTERIOR STUD WALL
USE 2X4 STUDS @ 16" O.C. WITH 1/2" GYPSUM BOARD.

GENERAL NOTES

- LIGHTING
ALL LIGHT FIXTURES ARE TO BE SURFACE MOUNTED. IN ANY CASE WHERE A SURFACE MOUNTED FIXTURE IS NOT APPROPRIATE, FLOOR/CEILING ASSEMBLY MUST BE MAINTAINED BY INSTALLING THE FIXTURE ON A FIRE RATED SOFFIT.
- ALL RESTROOMS SHALL HAVE AN EXHAUST FAN THAT IS OPERATED BY A TIMER SWITCH
- WALL AND CEILING FINISHES
WALL FINISHES SHALL BE A LIGHT ORANGE PEEL
CEILING FINISHES TO BE A KNOCK DOWN TEXTURE
- ALL INTERIOR EXIT STAIRWAYS AND CORRIDORS TO HAVE A FLAME-SPREAD INDEX OF C OR BETTER

KILEY40
3950 N Williams ave Portland, OR
Previous Address 392 N Williams

PERMIT 24-029720-CO

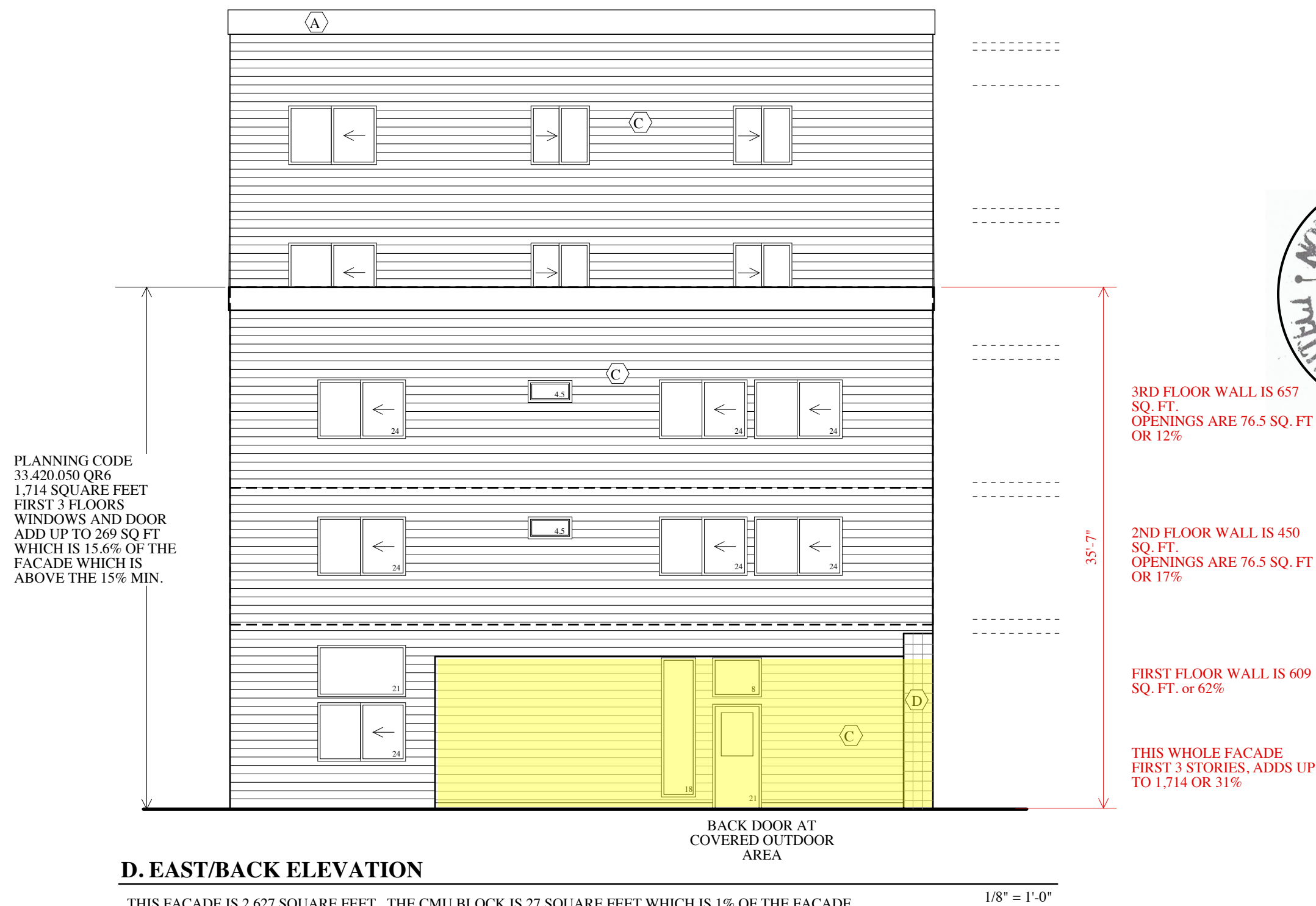
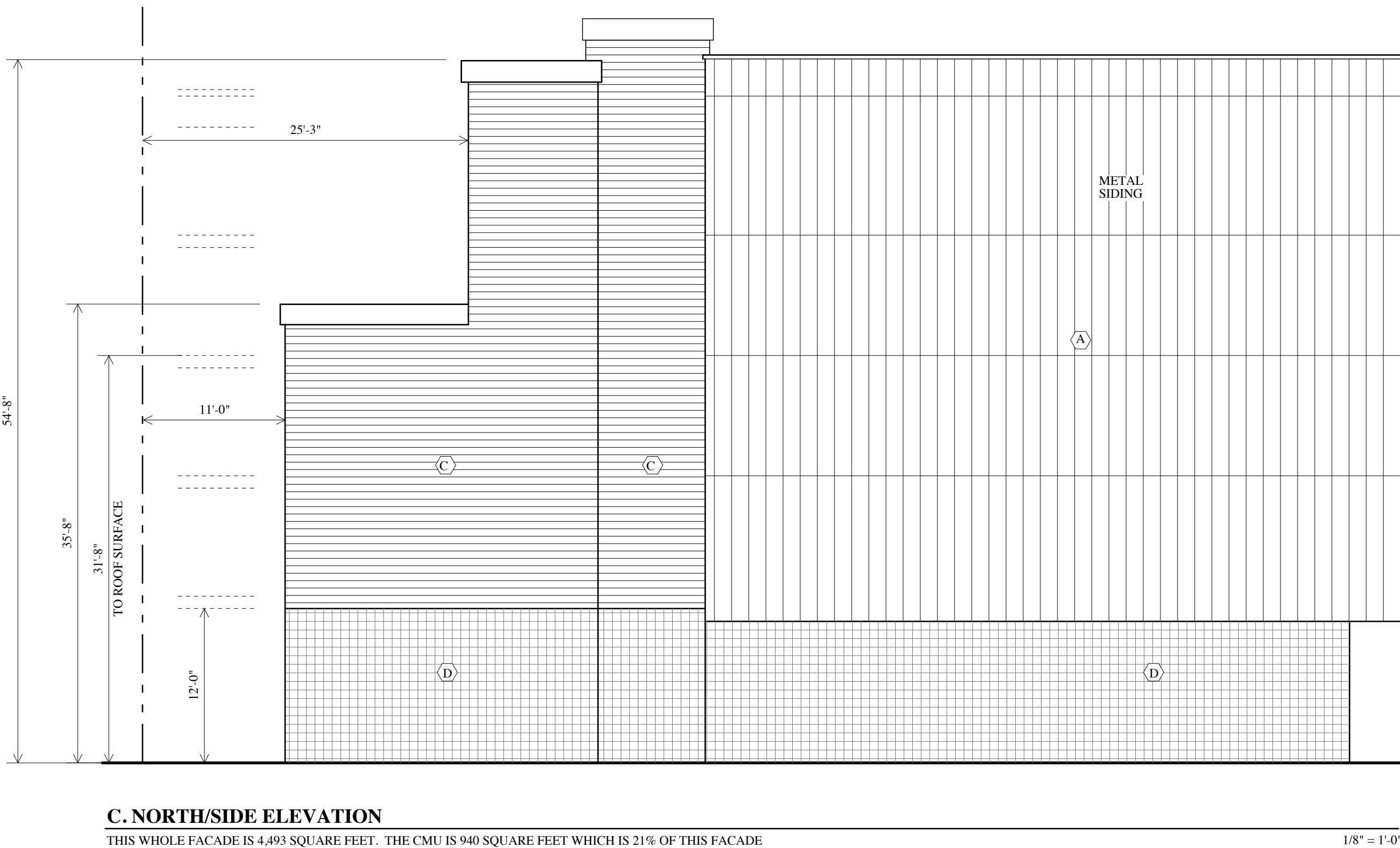
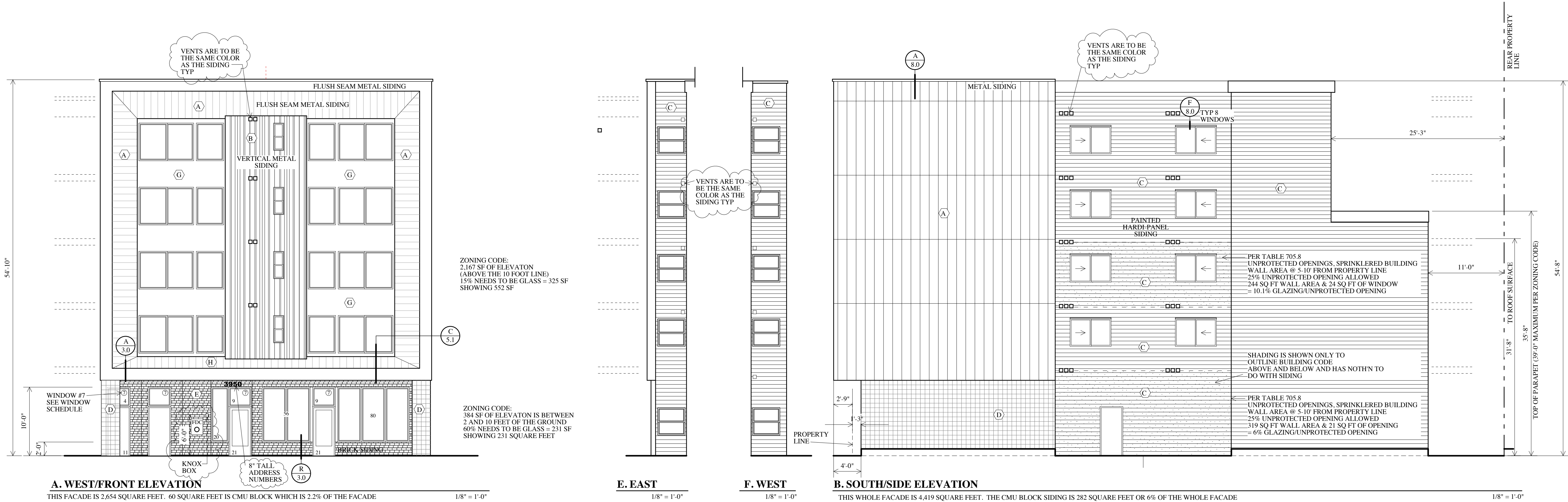
REGISTERED ARCHITECT
PORTLAND, OREGON
BOB SCHALZ
BOB SCHALZ ARCHITECTURE

ORIGINAL SET:
REVISIONS
THIS SHEET, FULL SET

PRINT DATE: 4-24-2024

SHEET
4.1
OF 16

1ST FLOOR PLAN



NOTE: **STONE VENEER** SHALL FOLLOW THE GUIDELINES IN TMS 402 CHAPTER 12 AS FOLLOWS: (ALONG WITH ANY OTHER APPLICABLE CODES)

12.2.2.10.2 Seismic Design Category D 12.2.2.10.2.1 The requirements for Seismic Design Category C and the requirements of this section apply to anchored veneer for buildings in Seismic Design Category D.

12.2.2.10.2.2 Reduce the maximum wall area supported by each anchor to 75 percent of that required in Sections 12.2.2.5.6.1 and 12.2.2.5.6.2. Maximum horizontal and vertical spacings are unchanged.

12.2.2.10.2.3 For masonry veneer anchored to wood backing, attach each veneer anchor to wood studs or wood framing with a corrosion-resistant 8d ring-shank nail, a No. 10 corrosion-resistant screw with a minimum nominal shank diameter of 0.190 in. (4.8 mm) or with a fastener having equivalent or greater pullout strength. *Alternative design of adhered masonry veneer*

The alternative design of adhered veneer, which is permitted under Section 1.3, shall satisfy the following conditions:

(a) Loads shall be distributed through the veneer to the backing using principles of mechanics.

(b) Out-of-plane curvature shall be limited to prevent veneer unit separation from the backing.

(c) The veneer is not subject to the flexural tensile stress provisions of Section 8.2 or the nominal flexural tensile strength provisions of Section 9.1.9.2.

(d) The provisions of Section 12.1 shall apply.

12.3.2 Prescriptive requirements for adhered masonry veneer

12.3.2.1 Unit sizes — Adhered veneer units shall not exceed 2½ in. (66.7 mm) in specified thickness, 36 in. (914 mm) in any face dimension, nor more than 5 ft (0.46 m) in total face area, and shall not weigh more than 15 psf (73 kg/m²).

12.3.2.2 Wall area limitations — The height, length, and area of adhered veneer shall not be limited except as required to control restrained differential movement stresses between veneer and backing.

12.3.2.3 Backing — Backing shall provide a continuous, moisture-resistant surface to receive the adhered veneer. Backing is permitted to be masonry, concrete, or metal lath and portland cement plaster applied to masonry, concrete, steel framing, or wood framing.

12.3.2.4 Adhesion developed between adhered veneer units and backing shall have a shear strength of at least 50 psi (345 kPa) based on gross unit surface area when tested in accordance with ASTM C482, or shall be adhered in compliance with Article 3.3 C of TMS 602/ ACI 530.1/ASCE 6.

KEYNOTES

- (A) SIDING: 22 GA AEP FLUSH PANEL METAL SIDING. COLOR: COAL BLACK RAWHIDE.
- (B) AEP SPAN RIBBED PANEL METAL SIDING AEP REGAL BLUE OR SIMILAR
- (C) HARDIE ARCHITECTURAL COLLECTION ARTISIAN LAP, 6" EXPOSURE PAINT COLOR SHERWIN WILLIAMS: 227-C5 SENSUOUS GRAY SW7081 CAP FLASHING TO MATCH
- (D) CMU WALL, MUTUAL MATERIALS SPLIT FACE, COLOR: ONYX 1 SCORE
- (E) BRICK, MUTUAL MATERIALS COAL CREEK, STANDARD BRICK SIZE
- (F) NOT USED
- (G) HARDIE (PANEL) ARCHITECTURAL COLLECTION FINE SAND COLOR: TO MATCH THE REGAL BLUE ON SIDING B
- (H) ROOFING AEP SPAN "SPAN SEAM" MECHANICALLY SEAMED 2" HIGH RIB, OR EQUIVALENT COLOR COAL BLACK RAWHIDE
- (I) STEEL GUARDRAIL, COLOR TO BE BLACK. SEE A/5.1
- (J) VENT OPENINGS TO BE MIN 10" ABOVE SURFACE OF WALKWAY
- (K) SIDING ON INSIDE SURFACE (AROUND CORNER) TO MATCH EXTERIOR SURFACE AS INDICATED BY DOT
- (L) WINDOWS: MILGUARD VINYL COLOR: TAN HARDWARE AND SCREEN COLOR TO MATCH.
- (M) PROVIDE ADDRESS NUMBERS ON CONTRASTING BACKGROUND MIN. 4" HIGH WITH A MIN. STROKE OF 1/2" (SHOWN AT 12" TALL)



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PRINT DATE: 4 24 2024
SHEET
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OF 16
ELEVATIONS

KILEY40
3950 N Williams ave Portland, OR
Previous Address 3952 N Williams
PERMIT 24-029720-CO


[Home](#) / [Appeals](#)

ORIGINAL APPEAL

APPEAL SUMMARY

Status: PENDING

| | |
|---|---|
| Appeal ID: 32382 | Project Address: 3950 N Williams |
| Hearing Date: 7/10/24 | Appellant Name: Bob Schatz |
| Case No.: B-004 | Appellant Phone: 5032358585 |
| Appeal Type: Building | Plans Examiner/Inspector: Steve Freeh |
| Project Type: commercial | Stories: 5 Occupancy: R2 and M Construction Type: 3B |
| Building/Business Name: Kiley40 | Fire Sprinklers: Yes - Whole building |
| Appeal Involves: Erection of a new structure | LUR or Permit Application No.: 24-029720-CO |
| Plan Submitted Option: pdf [File 1] [File 2] [File 3] [File 4] | Proposed use: R2 Dwelling units |

APPEAL INFORMATION SHEET

Appeal item 1

| | |
|---|--|
| Code Section | Table 705.8 |
| Requires | For a wall that is 10 to less than 15 feet from a property line, in a fire sprinklered building the allowable area of unprotected openings is 45% |
| Code Modification or Alternate Requested | To verify the term "Exterior Wall" in the description of this table to refer to the wall that separates the inside from the outside vs referring to the open space that is below a wall on the floor above the open space. |
| Proposed Design | The proposal is to consider the wall facing the property line on the first floor, which is the wall with a door in it accessing the outdoor space, as the wall with the unprotected openings and not consider the open space at the edge of the wall above it as a wall. |
| Reason for alternative | The area we are discussing is an open outdoor area on the first floor which is to be used by the tenants of the apartment building as common outdoor area. This area has walls on three sides and no wall on the 4th side, which is also open to an uncovered outdoor area, the area is also covered by a portion of the 2nd floor. The reason for the alternate is because the title of this section is describing the "area of exterior wall openings". I am |

proposing that the exterior wall is the wall that is separating the inside from the outside, even if the outside is a covered outdoor space. I am being told by my plans examiner that the exterior wall is the open area/plane which is at the edge of the façade on the 2nd floor, which actually isn't a wall at all but an open space.

One reason I would propose the wall with the door in it is to be considered the exterior wall is this, if that wall is not the exterior wall then what is it called? An interior wall? That wall is currently a 2-hour fire rated wall to comply with the regulations of type 3B construction requiring exterior walls to have that fire rating. If that wall is considered an interior wall then am I to not fire rate that wall? If that wall with the door in it is interior then do I not insulate it as an exterior wall?

A reason the open space should not be considered an exterior wall is it is really hard to insulate that wall to meet energy codes.

Another reason to consider the wall with the door in it as the exterior wall is the city of Portland has a history of accepting that type of wall as the exterior wall in many other projects in the examples of covered balconies and covered outdoor stairwells. For example on a balcony that is covered by another balcony or roof, the guardrail is not considered the exterior wall, the wall with the door to the balcony is. In examples of covered exterior staircases that access multiple apartments the city has not considered the area below the edge of the roof as the exterior wall but considered the walls with doors in them leading into apartments as the exterior wall. I have received approved permits from my current plans examiner Steven Freeh with these designs and also have received permits from plans examiners Guy Altman, Kent Hegsted and Robert Keal with this understanding on what an exterior wall is. I propose you continue to consider the walls as exterior walls and not the air space under a roof or second floor as an exterior wall.

Another reason to consider the wall with the door in it as an exterior wall is to follow the reason for this code in the first place. It seems the whole point of table 705.8 is to protect a structure from fire spreading from one building to the next by putting a fire rated wall in it's path, with an acceptable amount of openings. If that covered open area on the first floor has at least 1-hour walls and ceiling I don't see how that doesn't meet this code, a fire approaching this space will be faced with fire rated assemblies. The only unprotected opening on the first floor in this area is the door in the wall to the outdoor space which is 25 feet from the property line. That is the only unprotected opening and that would be how a fire gets into a building, not through the fire rated walls or ceiling. And in this situation that door is meeting the unprotected opening code with plenty of room to spare.

Another reason to consider is I am being told that the open space is considered an exterior wall because of the second floor above it ends at that spot. When I calculate the unprotected openings in a wall I have been told over the years that we count the wall to opening ratio elevation view

per floor and not per elevation of the whole building. For example on just the second floor I take the wall area of that second floor and divide out just the windows on that second floor to get my percentage of unprotected openings on the second floor. I propose if that is the way we calculate the walls then the second floor wall has nothing to do with the first floor wall in this table, they are calculated separately. And if they are calculated separately it makes no sense to consider the open space under another story as a wall but would be better to consider the actual wall facing the property line as a wall. If you do want to consider the whole elevation as one exterior wall, and not calculate it floor at a time, then my whole wall is 1,714 square feet and I have 462 square feet of unprotected openings (including windows and this open area we are discussing) and the total unprotected openings add up to 27% and I am allowed 45%, see attached elevation. So I propose it meets this code either way you add it up but you need to pick one or the other.

Here is another reason, the definition of exterior wall under chapter 2 is “A wall, bearing or nonbearing, that is used as an enclosing wall for a building, other than a fire wall, and that has a slope of 60 degrees or greater with the horizontal plane”. That seems to explain the wall with the door in it vs the open space I am being told I need to count as a wall. I propose that we consider the wall with the door in it as the exterior wall due to the definition of exterior wall.

Appeal item 2

| | |
|---|--|
| Code Section | OFC 3303.1.1 |
| Requires | On site security during non-working construction times |
| Code Modification or Alternate Requested | Video Surveillance in replacement of on site security personnel. |
| Proposed Design | The proposed change is to have monitored Video Surveillance of the property. |
| Reason for alternative | Hiring on-site security is very expensive. We feel we can get the same protection, if not better, with Video Surveillance of the property. Our surveillance will be monitored by a professional surveillance company that will have access to on-site security when unwanted activity is noticed. Also this will aid in not only fire protection but in theft protection in the evenings and during the day. |

Appeal item 3

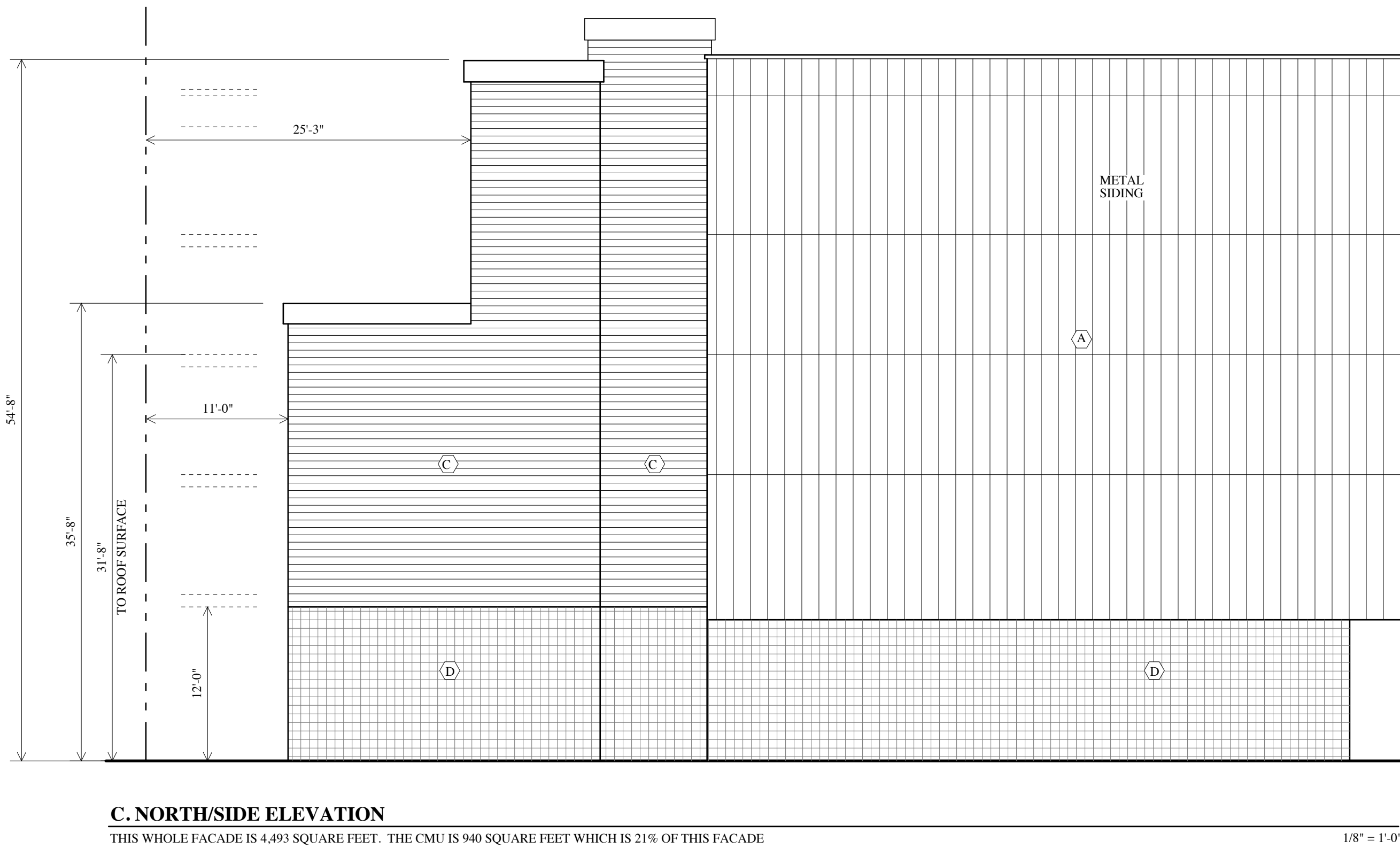
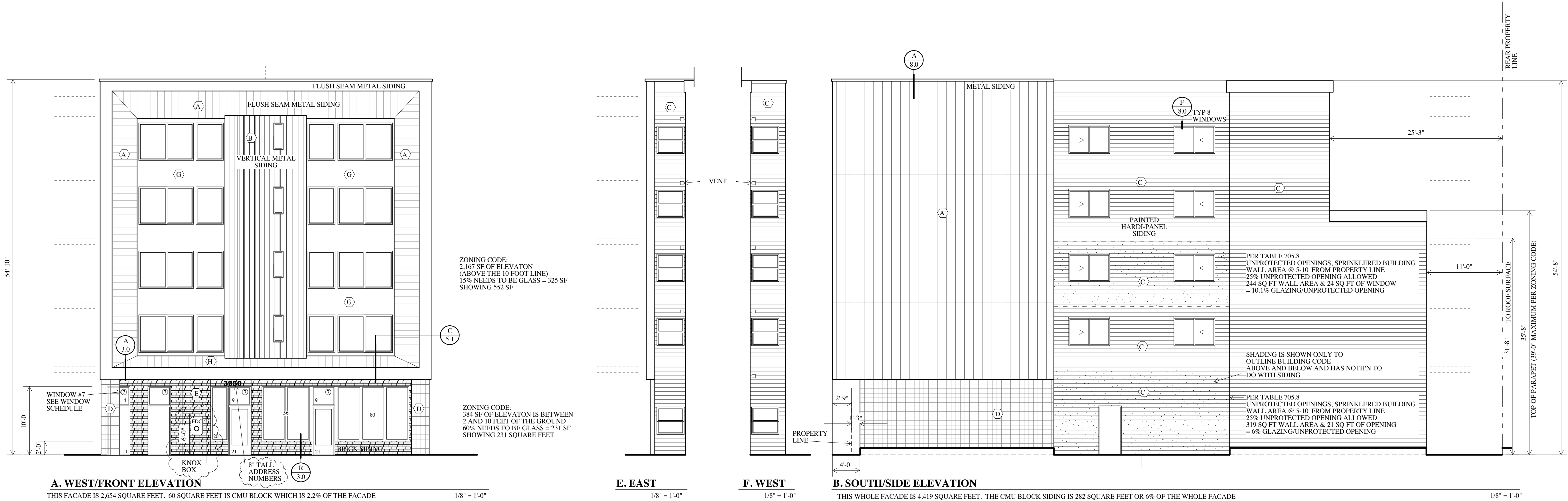
| | |
|---|--|
| Code Section | Table 716.1 |
| Requires | A 2-hour fire rated enclosure at interior exit stairways |
| Code Modification or Alternate Requested | Using a 2-hour shaft assembly under a staircase |
| Proposed Design | I will be using a 2-hour shaft assembly GA file #WP 7125 as the 2-hour assembly under a wood framed staircase to separate one stairway from another. You can see my stair section and details on attached sheet 8.1 and the assembly at detail K/2.0 |
| Reason for alternative | First reason is there is no fire rated assembly for staircases. Because of this the Portland appeals board has approved appeals of using shaft enclosure assemblies under staircases to meet required fire separations. I chose this assembly because it was a one-sided assembly as it's easier to apply the entire assembly to just the underside of the staircase and not to both sides. This assembly was tested when applied to a 1 5/8" steel stud and it appears that the layers of gypsum and steel straps has little to do with the stud it's attached to and appears that a wood stud, or stringer in this case, would perform the same way. This assembly also uses screws and not nails to hold it together and I feel would work best in this location. |

Appeal item 4

| | |
|---|---|
| Code Section | Section 1028.2 Exception 1.1 |
| Requires | Exits shall discharge directly to the exterior of the building: Not more than 50% of the required capacity of interior exit stairways is permitted to egress through areas on the level of discharge provided that all of the following conditions are met. Exception 1.1 Discharge of interior exit stairways shall be provided with a free and unobstructed path of travel to an exterior exit door and such exit is readily visible and identifiable from the point of termination of the enclosure. |
| Code Modification or Alternate Requested | That the exit is identifiable by signage. |
| Proposed Design | The proposal is to add an illuminated exit sign to be visible from the exit discharge, the door from the stairwell to the lobby. See location noted in red on the first floor plan. |
| Reason for alternative | Portland has been struggling with excessive crime which has led to at least this property owner to want the residents of this apartment building to feel safer within the entrance lobby by having less direct view from the front door at the sidewalk to the interior of the common space. This has resulted |

to the common hallway on the first floor to have a jog in it to obstruct views from the outside to the inside. This result has the opposite problem faced with this code of occupants not having direct view from the exit discharge to the exterior exit door. The design is not completely missing this section of the code, the requirement includes having a "free and unobstructed path of travel to an exterior exit door" which it does. The hallway is unobstructed and is 8'-10" wide right at the exit discharge and then is 6'-6" wide the rest of the way to the exterior exit door. 7 feet out of the exit discharge the exterior exit door is visible, the total distance from the exit discharge to the exterior exit door is 35 feet. It's just the "readily visible from the point of termination of the enclosure" part of this exception that this design is not meeting. Due to that I am proposing adding an illuminated exit sign that is clearly visible from the exit discharge that points toward the exterior exit door, that would allow occupants to clearly identify which direction the exterior exit door is.

The administrative staff has not yet reviewed this appeal.



NOTE: **STONE VENEER** SHALL FOLLOW THE GUIDELINES IN TMS 402 CHAPTER 12 AS FOLLOWS: (ALONG WITH ANY OTHER APPLICABLE CODES)

12.2.2.10.2 Seismic Design Category D 12.2.2.10.2.1 The requirements for Seismic Design Category C and the requirements of this section apply to anchored veneer for buildings in Seismic Design Category D.

12.2.2.10.2.2 Reduce the maximum wall area supported by each anchor to 75 percent of that required in Sections 12.2.2.5.6.1 and 12.2.2.5.6.2. Maximum horizontal and vertical spacings are unchanged.

12.2.2.10.2.3 For masonry veneer anchored to wood backing, attach each veneer anchor to wood studs or wood framing with a corrosion-resistant 8d ring-shank nail, a No. 10 corrosion-resistant screw with a minimum nominal shank diameter of 0.190 in. (4.8 mm) or with a fastener having equivalent or greater pullout strength.

Alternative design of adhered masonry veneer

The alternative design of adhered veneer, which is permitted under Section 1.3, shall satisfy the following conditions:

(a) Loads shall be distributed through the veneer to the backing using principles of mechanics.

(b) Out-of-plane curvature shall be limited to prevent veneer unit separation from the backing.

(c) The veneer is not subject to the flexural tensile stress provisions of Section 8.2 or the nominal flexural tensile strength provisions of Section 9.1.9.2.

(d) The provisions of Section 12.1 shall apply.

12.3.2 Prescriptive requirements for adhered masonry veneer

12.3.2.1 Unit sizes — Adhered veneer units shall not exceed 2½ in. (66.7 mm) in specified thickness, 36 in. (914 mm) in any face dimension, nor more than 5 ft (0.46 m) in total face area, and shall not weigh more than 15 psf (73 kg/m²).

12.3.2.2 Wall area limitations — The height, length, and area of adhered veneer shall not be limited except as required to control restrained differential movement stresses between veneer and backing.

12.3.2.3 Backing — Backing shall provide a continuous, moisture-resistant surface to receive the adhered veneer. Backing is permitted to be masonry, concrete, or metal lath and portland cement plaster applied to masonry, concrete, steel framing, or wood framing.

12.3.2.4 Adhesion developed between adhered veneer units and backing shall have a shear strength of at least 50 psi (345 kPa) based on gross unit surface area when tested in accordance with ASTM C482, or shall be adhered in compliance with Article 3.3 C of TMS 602/ ACI 530.1/ASCE 6.

KEYNOTES

- (A) SIDING: 22 GA AEP FLUSH PANEL METAL SIDING. COLOR: COAL BLACK RAWHIDE. CAP FLASHING TO MATCH
- (B) AEP SPAN RIBBED PANEL METAL SIDING AEP REGAL BLUE OR SIMILAR
- (C) HARDIE ARCHITECTURAL COLLECTION ARTISIAN LAP, 6" EXPOSURE PAINT COLOR SHERWIN WILLIAMS: 227-CS SENSUOUS GRAY SW7081
- (D) CMU WALL, MUTUAL MATERIALS SPLIT FACE, COLOR: ONYX 1 SCORE
- (E) BRICK, MUTUAL MATERIALS COAL CREEK, STANDARD BRICK SIZE
- (F) NOT USED
- (G) HARDIE (PANEL) ARCHITECTURAL COLLECTION FINE SAND COLOR: TO MATCH THE REGAL BLUE ON SIDING B
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- (L) **WINDOWS:** MILGUARD VINYL COLOR: TAN HARDWARE AND SCREEN COLOR TO MATCH.
- (M) PROVIDE ADDRESS NUMBERS ON CONTRASTING BACKGROUND MIN. 4" HIGH WITH A MIN. STROKE OF 1/2" (SHOWN AT 12" TALL)



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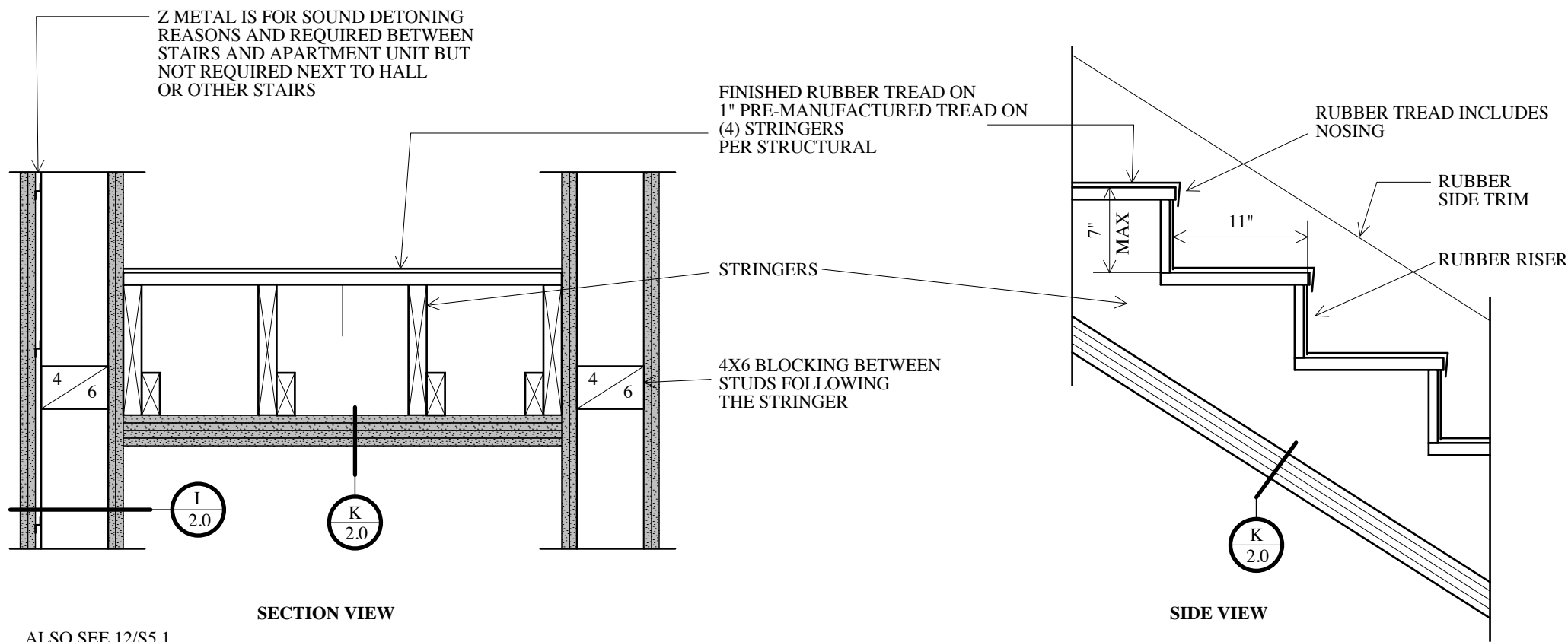
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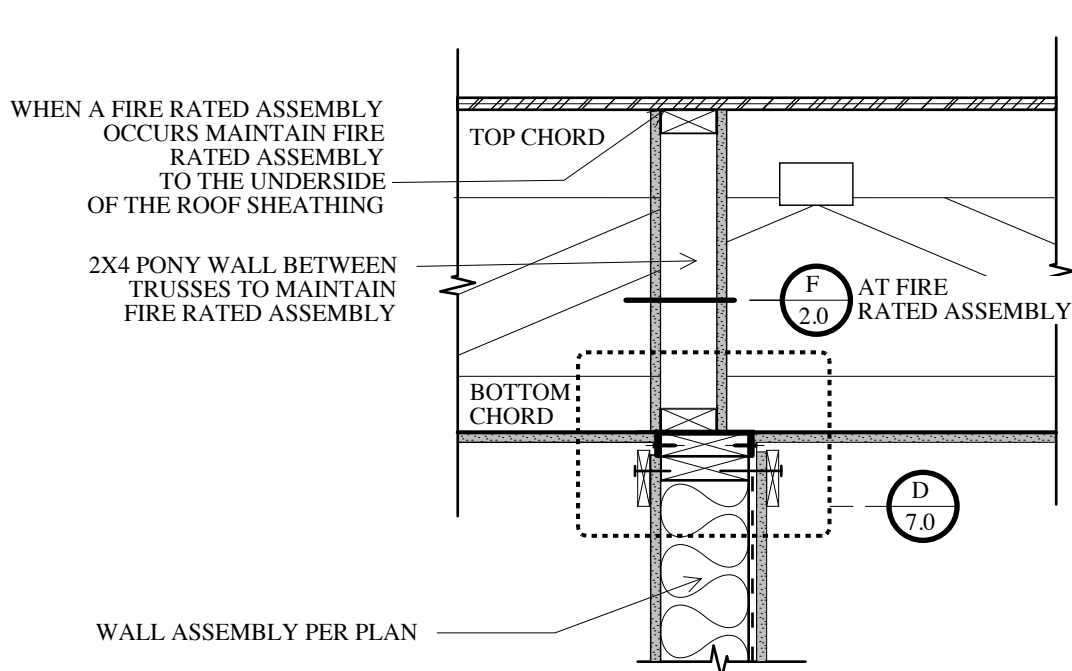
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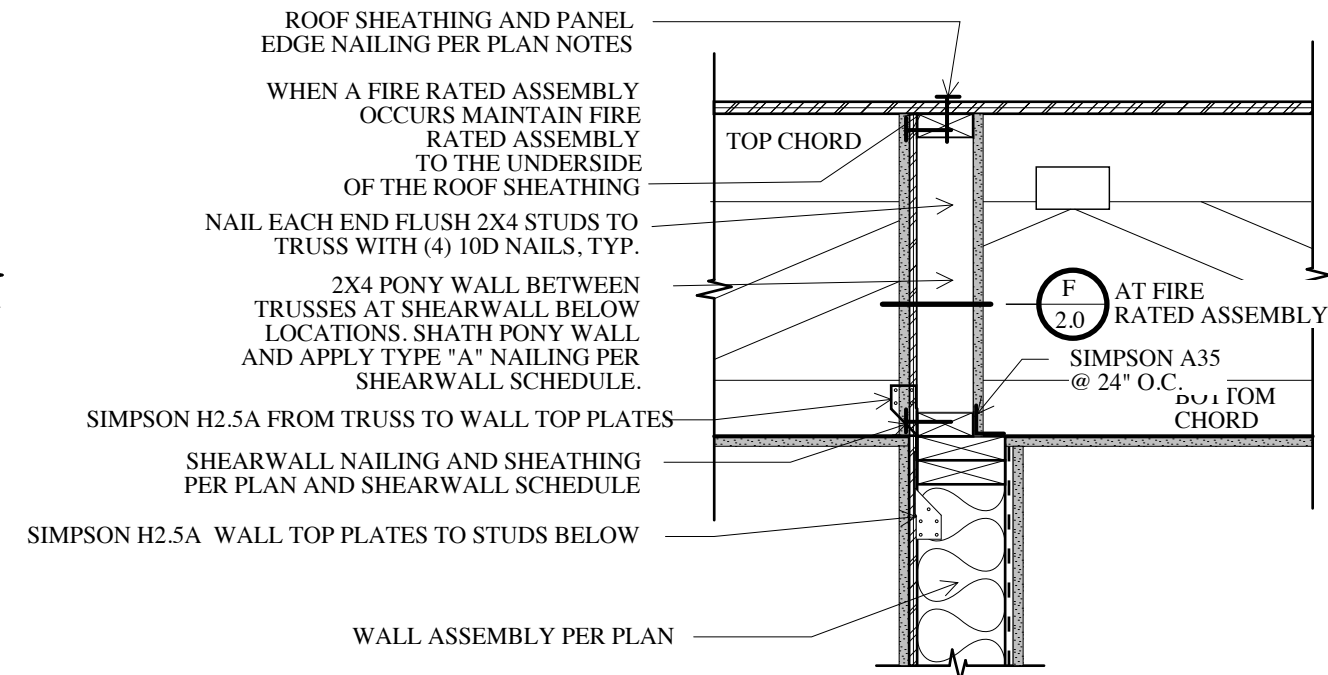
SECTION VIEW
D. STAIR DETAIL

SCALE: 1" = 1'-0"



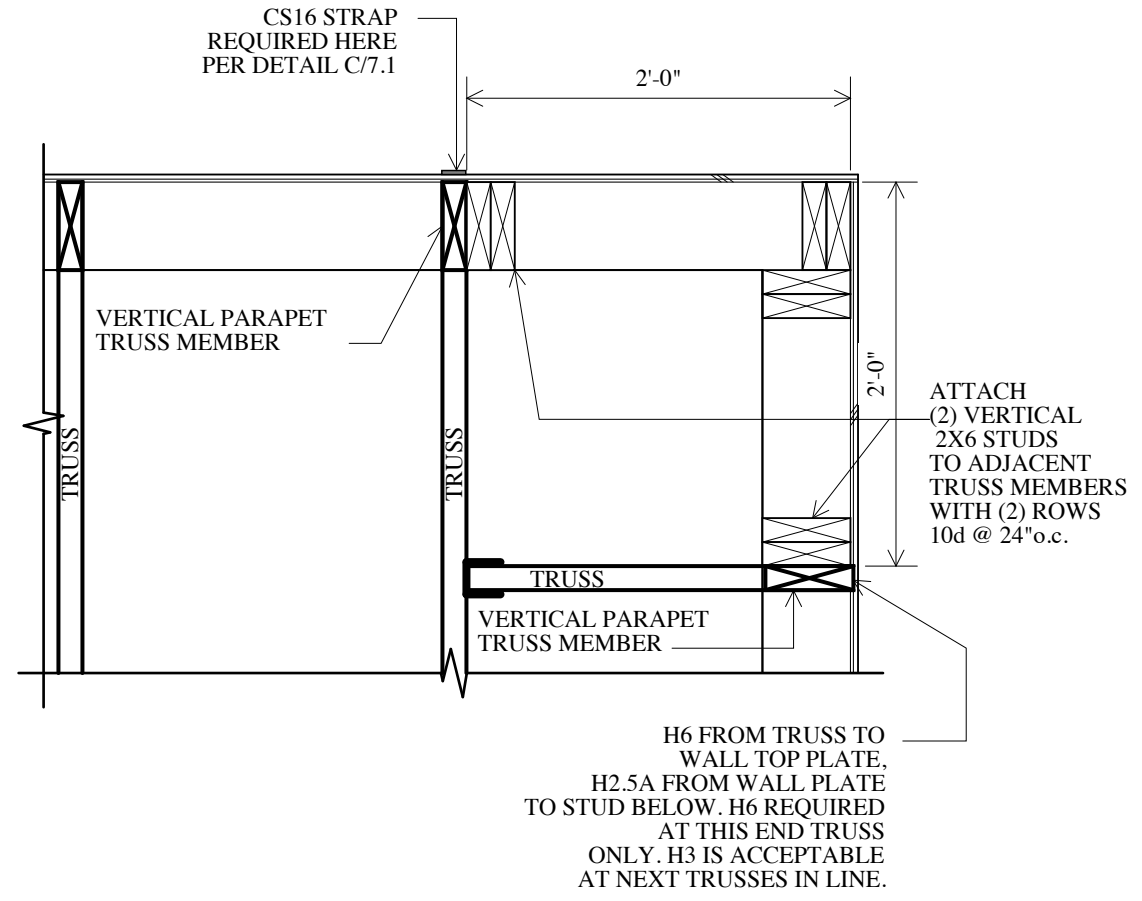
C. BLOCKING @ NON BEARING
FIRE RATED WALL

SCALE: 1" = 1'-0"



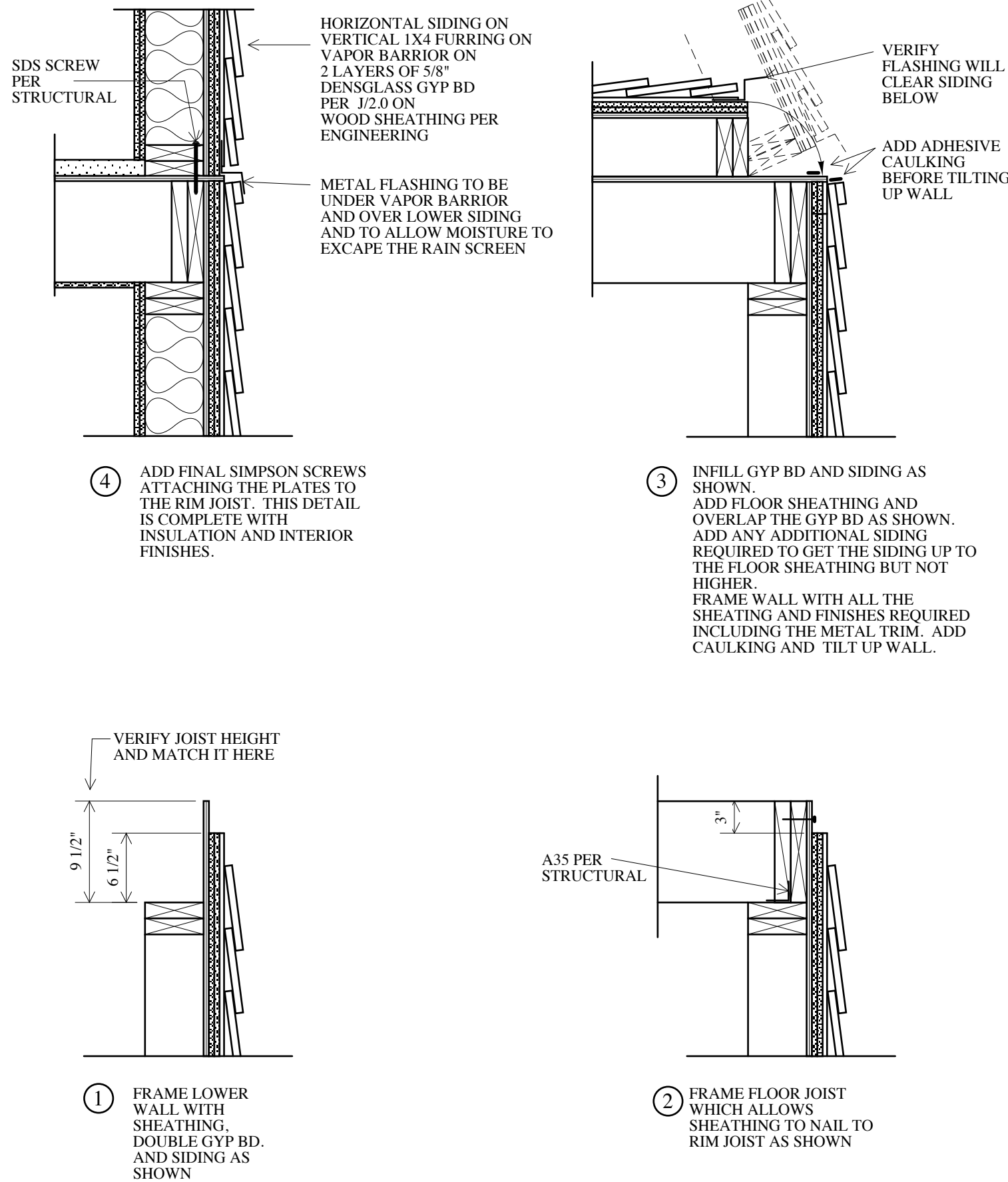
B. BLOCKING @ FIRE RATED WALL

SCALE: 1" = 1'-0"



A. CORNER FRAMING @ PARAPET

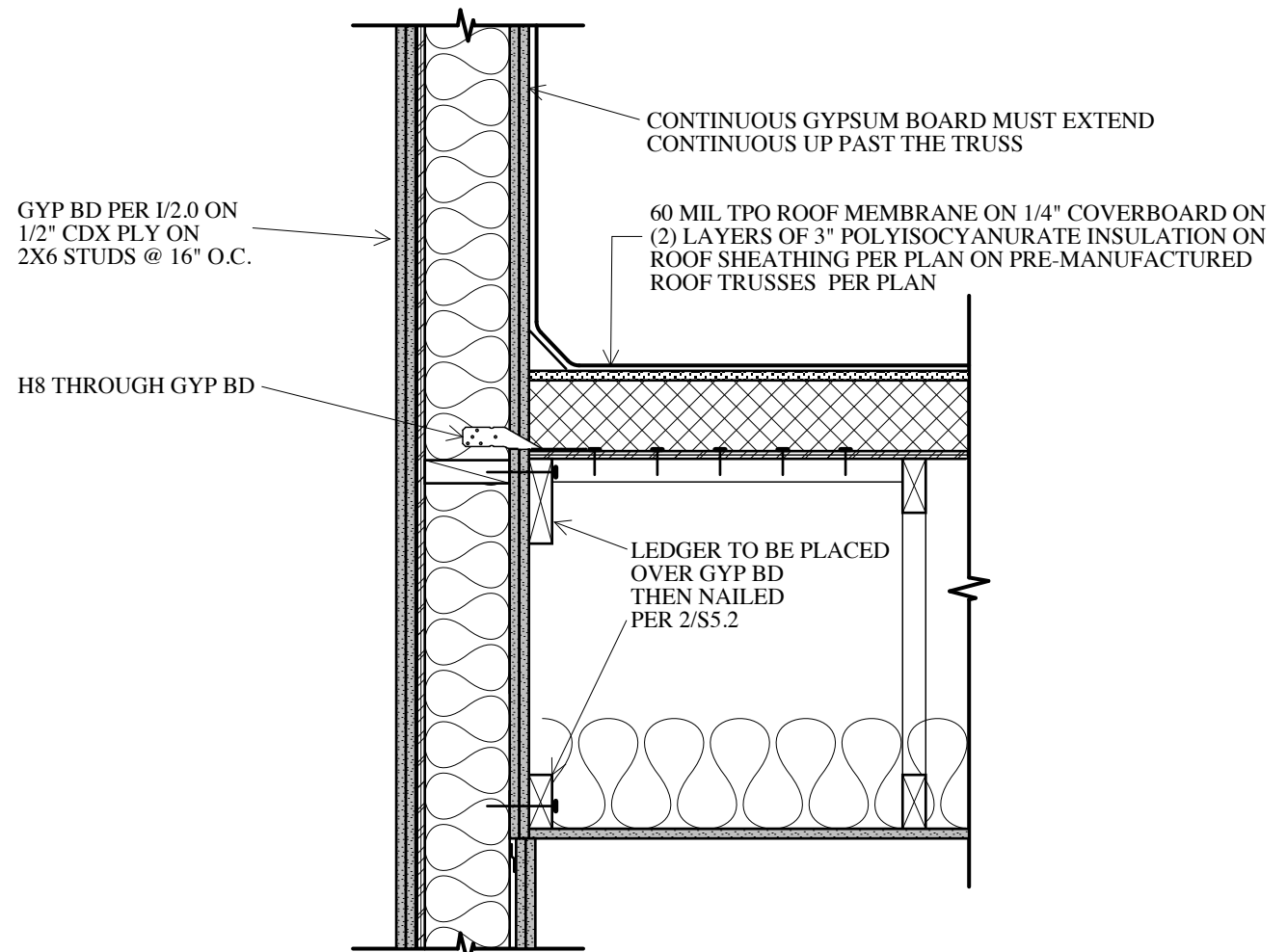
PLAN VIEW



E. WALL TO FLOOR DETAIL

TILT-UP WALL DIAGRAM
ALSO SEE 1/SS.1 AND 2/SS.1

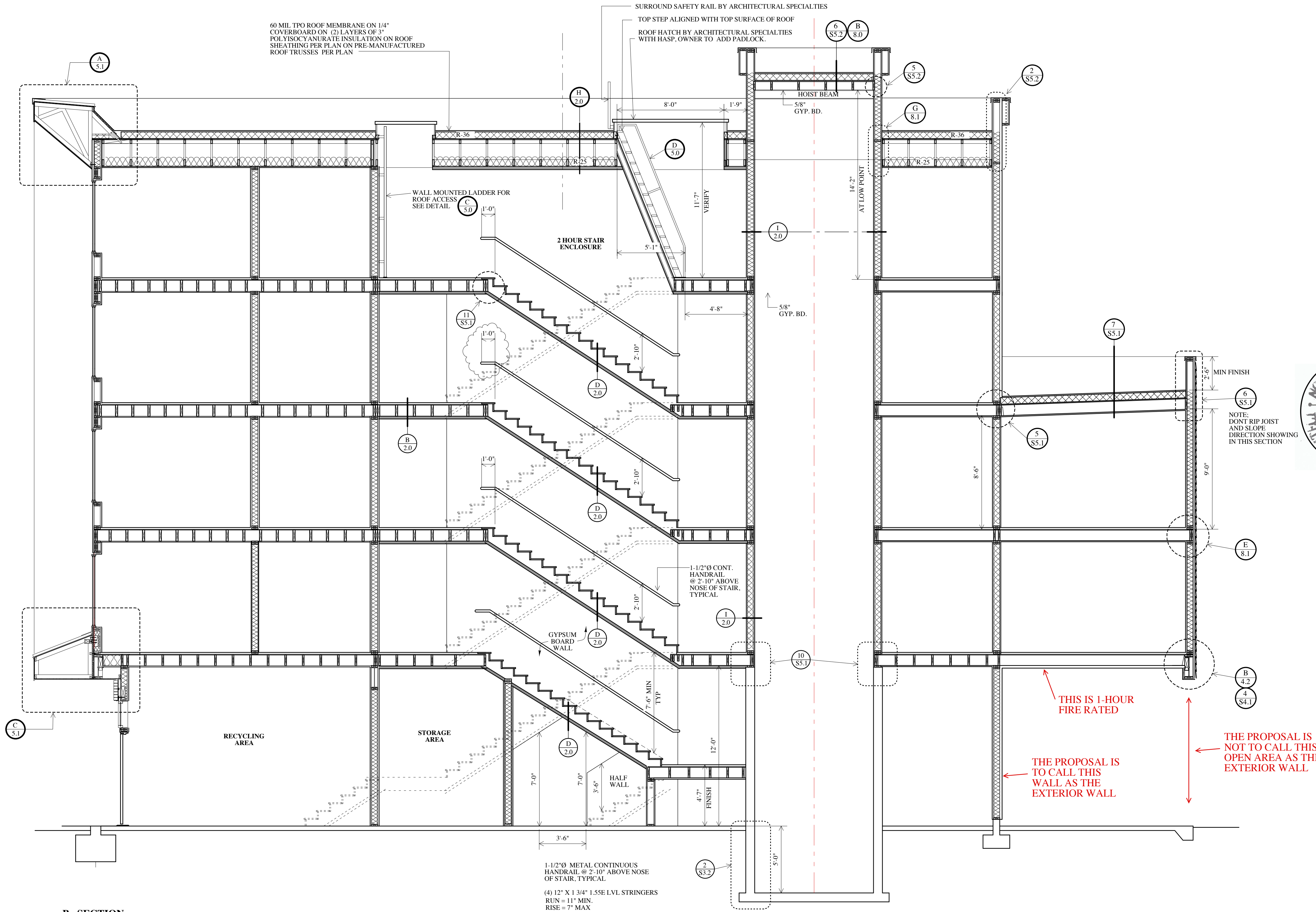
1" = 1'-0"



G. TRUSS TO ELEVATOR SHAFT

SEE DETAIL 2/SS.2 FOR STRUCTURAL INFORMATION

SCALE: 1" = 1'-0"



B. SECTION

1/4" = 1'-0"



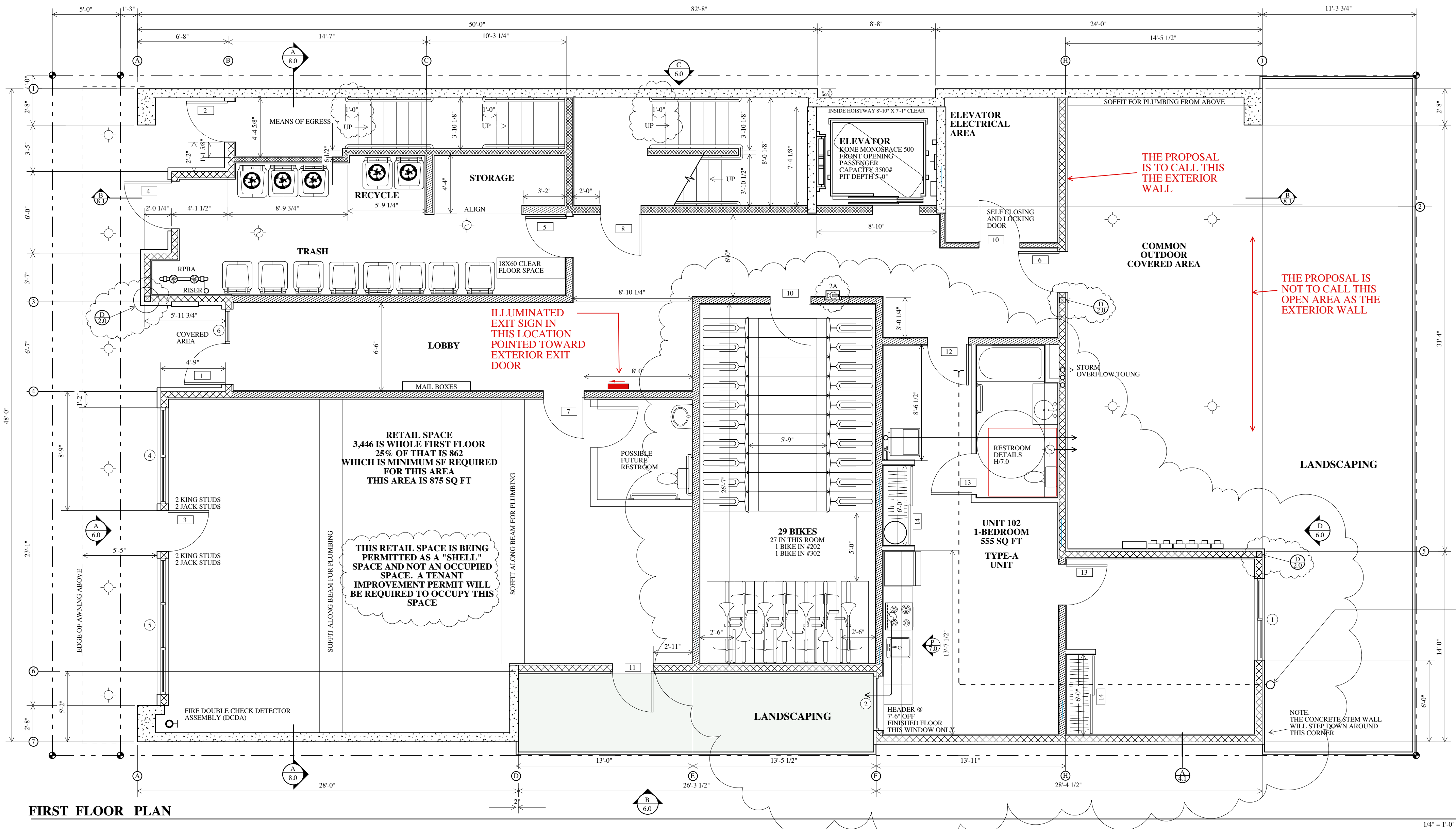
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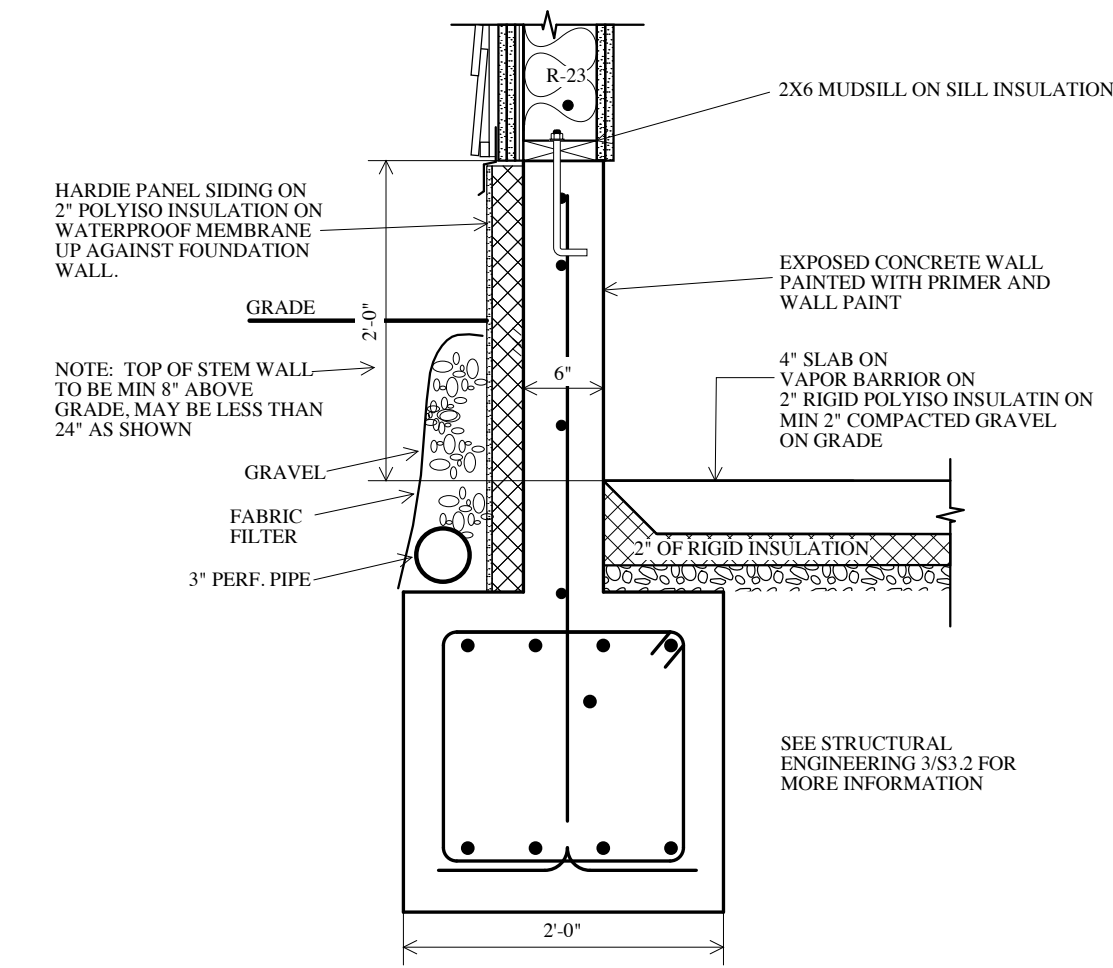
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OF 16
SECTIONS

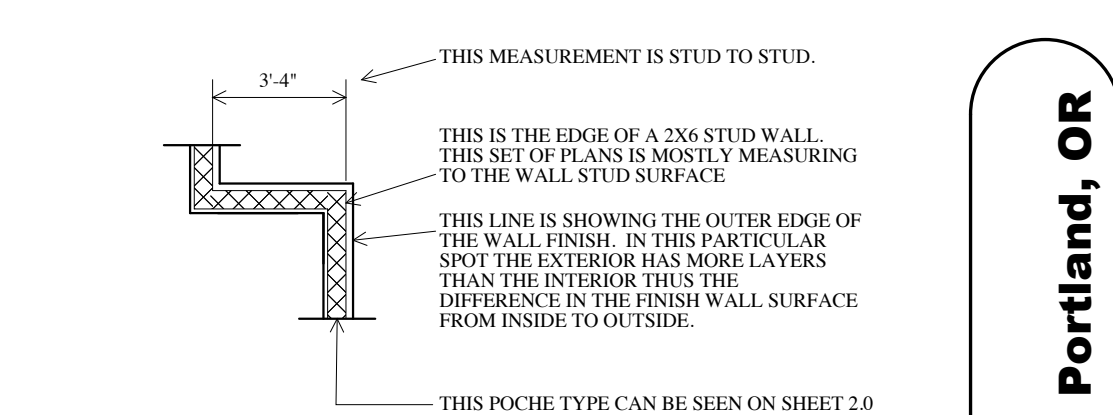
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FIRST FLOOR PLAN



A. RETAINING WALL FOUNDATION



WALL MEASUREMENT EXAMPLE

RADON SOIL EXHAUST SYSTEM (SED): 3" Ø ABS SED PIPE TO BE CONTINUOUS FROM BELOW 6 MIL CROSS LINKED POLYETHYLENE GAS RETARDER TO EXHAUST TO EXTERIOR. A "T" FITTING ATTACHED TO A 3/8" ABS PIPE SHALL BE USED AS SHOWN ON PLANS. SED TO BE INSTALLED PER 2014 OSCC OREGON AMENDMENT SECTION 1617. PROVIDE POWER SOURCE FOR FUTURE ACTIVE SUB MEMBRANE DEPRESSURIZATION SYSTEM IN ATTIC NEAR PIPE.

- KEYNOTES**
- 1 PROVIDE A WASHER PAN WITH DRAIN BY DURAFLEX OR SIM. VENT DRYER THROUGH FLOOR/CEILING ASSEMBLY PER KEYNOTE #6 OR USE "THE DRYER BOX" 1 HOUR RATED UL LISTED SYSTEM NO. WJ-7129 TO REDUCE VENTING INTO FIRE RATED WALL. FILL SURROUNDING WALL CAVITY WITH R-19 FIBERGLASS INSULATION. INSTALL PER MANUFACTURERS RECOMMENDATIONS.
 - 2 EXTEND HANDRAIL 11" @ BOTTOM OF THE STAIR ON BOTH SIDES & A 12" EXTENSION AT THE TOP OF THE STAIR ON BOTH SIDES. RETURN HANDRAIL TO THE GROUND, A POST OR A WALL.
 - 3 RADON SOIL EXHAUST SYSTEM (SED): 3" Ø ABS SED PIPE TO BE CONTINUOUS FROM BELOW 6 MIL CROSS LINKED POLYETHYLENE GAS RETARDER TO EXHAUST TO EXTERIOR. A "T" FITTING SHALL BE USED. SED TO BE INSTALLED PER 2014 OSCC OREGON AMENDMENT SECTION 1617. PROVIDE POWER SOURCE FOR FUTURE ACTIVE SUBMEMBRANE DEPRESSURIZATION SYSTEM.
 - 4 LONG TERM WALL MOUNTED BIKE RACK PER B1.0
 - 5 VENT STOVE, DRYER & BATHROOM FANS TO THE EXTERIOR WITHIN THE FLOOR CAVITY PER FLOOR FRAMING PLAN AND DETAIL D2.1
 - 6 FUR OUT FIRE RATED WALL AT STAIR TO RUN PIPING IN WALL. NO PIPING TO BE IN FIRE ASSEMBLY 1/2.0
 - 7 AT 5TH FLOOR VENT STOVE, DRYER BATHROOM DIRECTLY THROUGH THE ROOF
 - 8 PROVIDE SIGNAGE ON DOOR THAT STATES "SPRINKLER ROOM"
 - 9 PROVIDE SIGNAGE THAT STATES "THIS AREA IS DESIGNED FOR 100PS LIVE LOAD"
 - 10 LADDER TO ROOF MOUNTED TO SIDE WALL. PROVIDE SHOP DRAWINGS TO ARCHITECT SEE G1.2
 - 11
 - 12
 - 13

- DOOR SCHEDULE**
- 1 DOOR DESIGNATION
- DOOR HARDWARE**
ALL DOOR HANDLES TO BE LEVER TYPE. HANDLES, PULLS, LATCHES & LOCKS SHOULD BE OPERABLE WITH ONE HAND AND NO SPECIAL EFFORT. ALL DOOR HARDWARE TO BE BRUSHED CHROME. OPERABLE PARTS SHOULD BE INSTALLED 34" ABOVE FINISH FLOOR MAXIMUM. ALL FIRE RATED DOORS TO BE PROVIDED WITH A DOOR CLOSURE AND THEY SHALL CLOSE FROM AN OPEN POSITION OF 70 DEGREES IN NOT LESS THAN 3 SECONDS TO A POINT OF 3" FROM THE LATCH. THEN CLOSE TO LATCHING POSITION. WHEN PROVIDING A THRESHOLD 1/2" THRESHOLD MAX PER B7.0. ALSO SEE A7.0 FOR ADA REQUIREMENTS. FIRE RATED DOOR FRAMES SHALL BE LABELED WITH THE MANUFACTURER AND INSPECTION AGENCY. PROVIDE SMOKE GASKET (WITH LABEL). EXTERIOR DOORS SHALL HAVE A U-RATING OF 0.6.0.
- 1 RESIDENTIAL FRONT ENTRY DOOR: 36X84" WITH LAMINATED GLAZING (NOT TEMPERED). EXTERIOR RATED ALUMINUM STOREFRONT TO MATCH WINDOW #6. ALSO ALIGNED WITH WINDOW #7 ABOVE DOOR. KEYED ENTRY LOCK TO BE ELECTRONICALLY UNLOCKED FROM THE OUTSIDE WITH A KEY FOB AND A CALL BOX BUZZER.
 - 2 90 MINUTE FIRE RATED DOOR AT REAR STAIR: 36X84" SOLID CORE. EXTERIOR RATED. ALSO ALIGNED WITH WINDOW #7 ABOVE DOOR. DOOR TO BE OPENABLE FROM THE INSIDE WITH PANIC HARDWARE. NO HARDWARE ON THE OUTSIDE.
 - 3 COMMERCIAL FRONT DOOR: 36" X 84" ALUMINUM STOREFRONT. ALSO ALIGNED WITH WINDOW #7 ABOVE DOOR. PUSH PAD AND PULL DOOR HANDLE & DEADBOLT TO BE UNLOCKED FROM THE INSIDE AND OUTSIDE WITH KEY. PROVIDE DOOR CLOSURE. SIGN ABOVE DOOR TO READ "THIS DOOR TO REMAIN UNLOCKED DURING BUSINESS HOURS". ALIGN WITH WINDOW ABOVE DOOR.
 - 4 TRASH ROOM DOOR @ SIDEWALK: 42" X 84" PAINTED STEEL & INSULATED. ALSO ALIGNED WITH WINDOW #7 ABOVE DOOR. HAVE DOOR HOLD OPEN AT BASE OF DOOR. ELECTRONIC KEYPAD TO DEADBOLT ON OUTSIDE. LEVER HARDWARE ON INSIDE. ALIGN WITH WINDOW ABOVE DOOR.
 - 5 TRASH ROOM DOOR @ CORRIDOR 20-MINUTE: 36X84" STEEL DOOR W/ SELF CLOSURE AND PUSH/PULL HARDWARE. NO LOCK. SIGN ON DOOR MADE WITH DURABLE MATERIAL. TO STATE "FIRE SPRINKLER RISER". ATTACHED TO HALLWAY SIDE OF DOOR.
 - 6 PATIO (BACK) DOOR @ 1ST FLOOR: 36X84" INSULATED STEEL W/ LATCH BUT NO LOCK. ONE LIGHT AND GLAZING TO BE TEMPERED.
 - 7 CORRIDOR TO COMMERCIAL SPACE 20-MINUTE FIRE RATED: 36X84" STEEL DOOR. ENTRY LOCK AND KEYED DEADBOLT. THE OPERATION OF THE LEVER HANDLE WILL RETRACT THE DEADBOLT.
 - 8 STAIRWELL 90-MINUTE FIRE RATED DOOR WITH ELECTROMAGNETIC DOOR HOLDER W/ AUTO RELEASE FIRST FLOOR: 36" X 84" LEVER NON-LOCKING HARDWARE.
 - 9 STAIRWELL 90-MINUTE FIRE RATED: 36X84" STEEL DOOR WITH LEVER NON-LOCKING HARDWARE. SIGN ON DOOR MADE WITH DURABLE MATERIAL. TO STATE "FIRE SPRINKLER STANDPIPE". ATTACHED TO HALLWAY SIDE OF DOOR.
 - 10 BIKE ROOM DOOR 20-MINUTE FIRE RATED: 36" X 84" STEEL DOOR. LEVER DOOR HANDLE. KEYED LOCK TO BE ELECTRONICALLY UNLOCKED FROM THE OUTSIDE WITH A CODE. NO LOCK FROM INSIDE. EXIT WITHOUT KEY. DOOR SHALL SELF LOCK ON CLOSURE.
 - 11 COMMERCIAL BACK DOOR: 36" X 84" INSULATED STEEL. NO LIGHT. LEVER HARDWARE PLUS LOCKING DEADBOLT. SIGN ABOVE INTERIOR OF DOOR FRAME SHALL BEAR A SIGN THAT READS "THIS DOOR TO REMAIN UNLOCKED WHEN THIS SPACE IS OCCUPIED".
 - 12 FRONT DOOR INTO UNITS 20-MINUTE FIRE RATING SOLID CORE 36" X 84" PROVIDE LEVER LATCHING ONLY AND DEADBOLT LOCKING HARDWARE
 - 13 BATHROOM AND BEDROOM: 36" X 80" SOLID CORE DOOR. PRIVACY LOCK NO THRESHOLD.
 - 14 CLOSET: 72" X 80" SLIDING METAL FRAME WITH MIRROR.
 - 15 BATHROOM: 36" X 80" SOLID CORE POCKET DOOR WITH INTERIOR LATCH
 - 16 ELEVATOR: 42" X 84" 90-MINUTE FIRE RATED DOOR WITH ELECTROMAGNETIC DOOR HOLDER W/ AUTO RELEASE WITH FIRE ALARM AND SELF CLOSURE DOOR SHALL COMPLY WITH THE SMOKE AND DRAFT CONTROL DOOR ASSEMBLY REQUIREMENTS IN SECTION 716.2.2.1.1 WHEN TESTED IN ACCORDANCE WITH UL 1784 WITHOUT AN ARTIFICIAL BOTTOM SEAL

- WINDOW SCHEDULE**
- WINDOW DESIGNATION**
1 T TEMPERED GLAZING
S SPRINKLER HEAD ABOVE OCCUPIED SIDE OF WINDOW
- ALL WINDOWS U-VALUE = 0.360**
- 1 72" X 48" SLIDER WINDOW
 - 2 48" X 48" SINGLE HUNG WINDOW
 - 3 36" X 18" AWNING WINDOW
 - 4 84" X 96" ALUMINUM STOREFRONT WINDOW 2 FIXED PANEES
 - 5 120" X 96" ALUMINUM STOREFRONT WINDOW 3 FIXED PANEES
 - 6 36" X 96" ALUMINUM STOREFRONT WINDOW COORDINATE WITH DOOR FRAME AND DOOR
 - 7 36" X 36" ALUMINUM STOREFRONT WINDOW ABOVE DOOR ALIGN WITH DOOR BELOW WINDOW
 - 8 48" X 48" SLIDER WINDOW
 - 9 18" X 42" SINGLE HUNG
 - 10 NOT USED
 - 11 96" X 66" SLIDER WINDOW LEFT SLIDE. PROVIDE FALL PROTECTION ON THE OPERABLE SECTION
 - 12 96" X 66" SLIDER WINDOW RIGHT SLIDE. PROVIDE FALL PROTECTION ON THE OPERABLE SECTION
 - 13 96" X 66" FIXED WINDOW

- WALL TYPES / FIRE RATED ASSEMBLIES**
- 2-HOUR EXTERIOR FIRE RATED WALL
SEE DETAIL F2.0
 - 1-HOUR INTERIOR FIRE PARTITION
@ DEMISING AND/OR BEARING WALLS.
SEE DETAIL A-2.0 GYP BD. PER DETAIL.
 - 2-HOUR INTERIOR FIRE BARRIER
@ INTERIOR WALLS AT STAIR & ELEVATOR
SEE DETAIL F2.0 GYP BD. PER DETAIL.
 - 2-HOUR EXTERIOR FIRE RATED WALL
@ EXTERIOR WALLS ON FIRST FLOOR ONLY
8" CMU BLOCK FILLED WITH CONCRETE
SEE STRUCTURAL ENGINEERING FOR FURTHER DETAILS. R-13 PER COMCHECK FORM
 - 2X6 NON-BEARING STUD WALL
USE 2X6 STUDS @ 16" O.C. @ PLUMBING WALLS. USE 1/2" GYPSUM BOARD U.O.S. ON SHEET 2.0
 - 2X4 NON-BEARING INTERIOR STUD WALL
USE 2X4 STUDS @ 16" O.C. WITH 1/2" GYPSUM BOARD.

GENERAL NOTES

- LIGHTING**
ALL LIGHT FIXTURES ARE TO BE SURFACE MOUNTED. IN ANY CASE WHERE A SURFACE MOUNTED FIXTURE IS NOT APPROPRIATE, FLOOR/CEILING ASSEMBLY MUST BE MAINTAINED BY INSTALLING THE FIXTURE ON A FIRE RATED SOFFIT.
- ALL RESTROOMS SHALL HAVE AN EXHAUST FAN THAT IS OPERATED BY A TIMER SWITCH
- WALL AND CEILING FINISHES**
WALL FINISHES SHALL BE A LIGHT ORANGE PEEL
CEILING FINISHES TO BE A KNOCK DOWN TEXTURE
- ALL INTERIOR EXIT STAIRWAYS AND CORRIDORS TO HAVE A FLAME-SPREAD INDEX OF C OR BETTER

- SYMBOLS**
- MINI MINI SPLIT AIR HANDLER, MOUNTED NEAR CEILING
 - 2A10BC RATED PORTABLE FIRE EXTINGUISHER WITHIN A (MIN.) 1-HOUR RATED, UL LISTED, SEMI-RECESSED, FIRE EXTINGUISHER CABINET NOT TO PROTRUDE MORE THAN 4" FROM THE FINISHED SURFACE OF THE WALL. BOTTOM OF CABINET TO BE 28" ABOVE FINISH FLOOR. USE FRCT100 CABINET BY POTTER ROEMER FIRE PROOR APPROVED ALTERNATE
 - BATHROOM EXHAUST FAN SWITCHED BY TIMER
 - 6" DOWNSPOUT. CONNECT TO DRYWELL PER UTILITY PLAN
 - COMBINATION SMOKE DETECTOR W/ BATTERY BACK-UP & INTERCONNECT W/ CARBON MONOXIDE ALARM COMPLYING WITH ANSI/UL2034
 - WALL MOUNTED FIXTURE AT 7'-6" A.F.F.
 - "E" WITHIN SYMBOL- EMERGENCY LIGHTING FIXTURE WITH BATTERY BACKUP. IN THE EVENT OF A POWER FAILURE, MINIMUM 1 FOOT-CANDLE OF ILLUMINATION MUST BE PROVIDED AT THE WALKING SURFACE
 - CEILING MOUNTED FIXTURE
FLOOR FINISHES:
1-PP LUXURY VINYL PLANK (WOOD PATTERN)
VINYL = CUSHIONED VINYL
 - EXTERIOR LIGHT MAXIM LIGHTING, 10W, 3,500K, BLACK FINISH, 5.5" ROUND SURFACE MOUNT. ON PHOTOVOLTALIC SWITCH

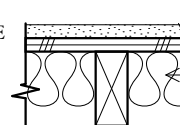
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PERMIT 24-029720-CO

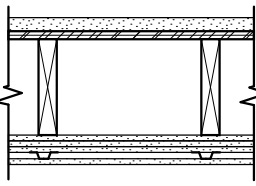
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ORIGINAL SET:
REVISIONS
THIS SHEET / FULL SET


PRINT DATE: 4-24-2024


SHEET
4.1
OF 16
1ST FLOOR PLAN

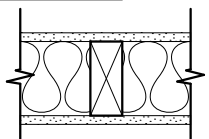
| A. 1-HR INTERIOR PARTITION: DEMISING WALL | | | | | |
|--|--|--|---|--|---|
| | GA FILE NO. WP 3243 | GENERIC | 1 HOUR FIRE | 50 TO 54 STC SOUND | |
| OCCURS AT DEMISING WALLS | GYPSUM WALLBOARD, GYPSUM SHEATHING, WOOD STUDS RESILIENT CHANNELS 24" O.C. ATTACHED AT RIGHT ANGLES TO ONE SIDE OF 2X6 STUDS @ 16" O.C. WITH 1 1/4" TYPE S DRYWALL SCREWS. ONE LAYER 5/8" TYPE X GYPSUM WALLBOARD OR GYPSUM VENEER BASE APPLIED AT RIGHT ANGLES TO CHANNELS WITH 1" TYPE S DRYWALL SCREWS @ 12" O.C. WITH VERTICAL JOINTS LOCATED MIDWAY BETWEEN STUDS. END JOINTS BACKLOCKED WITH RESILIENT CHANNELS. 3" MINERAL OR FIBERGLASS INSULATION IN STUD SPACE. | | |  | SHEATHING PER SHEARWALL SCHEDULE 2" FIBER GLASS INSULATION |
| | POCHE ON PLANS: | OPPOSITE SIDE: ONE LAYER 5/8" TYPE X GYPSUM WALLBOARD OR GYPSUM VENEER BASE APPLIED AT PARALLEL OR AT RIGHT ANGLES TO STUDS WITH 6D CEMENT COATED NAILS. 1-7/8" LONG, 0.0915" SHANK, 15/16" HEADS, 7" O.C. VERTICAL JOINTS STAGGERED 24" OPPOSITE SIDES. SOUND TESTED WITH STUDS SPACED @ 24" O.C. (STC = 50). ALSO SOUND TESTED WITH STUDS 16" O.C. AND WITH TWO LAYERS OF 5/8" TYPE X GYPSUM BOARD ON THE SIDE OPPOSITE THE RESILIENT CHANNELS (STC=55) (LOAD BEARING). | | | |
| | | | THICKNESS: APPROX. WEIGHT: FIRE TEST: | 5 3/8" 7 PSF BASED ON UL R4196, ENR60571, 2-15-1405, UL DESIGN U1305, NRCC TL03-116, 3-98 | |
| | | | SOUND TEST: | | |
| FOR SHEAR WALLS ON OPPOSITE SIDE: GYPSUM WALLBOARD ON SHEATHING PER STRUCTURAL ON STUDS. SEE ASSEMBLY LISTED ABOVE FOR CONNECTIONS. NAILS MUST BE 2 1/2" LONG WHEN CONNECTING GYPSUM WALLBOARD TO SHEATHING. SEE SHEAR WALL SCHEDULE FOR SHEATHING CONNECTIONS. | | | | | |

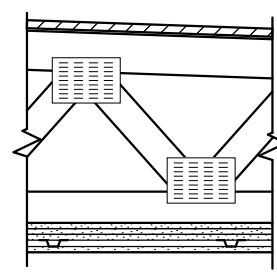
| B. 2-HOUR RATED HORIZONTAL ASSEMBLY @ FLOOR/CEILING | | |
|---|---|-------------|
| | GA FILE NO. FC 5725 | 2 HOUR FIRE |
| OCCURS AT LANDINGS IN STAIRWELL. | WOOD FLOOR, WOOD JOIST, GYPSUM WALLBOARD, RIGID FURRING CHANNELS BASE LAYER 5/8" TYPE X GYPSUM WALBOARD APPLIED AT RIGHT ANGLES TO 2X10 WOOD JOISTS @ 24" O.C. WITH 1 1/4" TYPE W DRYWALL SCREWS @ 12" O.C. SECOND LAYER 5/8" TYPE X GYPSUM WALBOARD APPLIED AT RIGHT ANGLES TO JOINTS 2" TYPE W DRYWALL SCREWS @ 12" O.C. SECOND LAYER JOINTS OFFSET 24" FROM BASE LAYER JOINTS. THIRD LAYER 5/8" TYPE X GYPSUM WALBOARD APPLIED AT RIGHT ANGLES TO JOINTS W/ 2 1/2" TYPE W DRYWALL SCREWS @ 12" O.C. THIRD LAYER JOINTS OFFSET 24" FROM BASE LAYER JOINTS. HAT SHAPED 7/8" RIGID FURRING CHANNELS 24" O.C. APPLIED AT RIGHT ANGLES TO JOISTS OVER THIRD LAYER WITH TWO 3" LONG TYPE W DRYWALL SCREWS AT EACH JOIST. FACE LAYER 5/8" GYPSUM WALLBOARD APPLIED AT RIGHT ANGLES TO FURRING CHANNELS WITH 1 1/8" TYPE S DRYWALL SCREWS @ 12" O.C. WOOD JOIST SUPPORTING SHEATHING PER STRUCTURAL ENGINEER. | |
| |  | |

| C. 1-HOUR RATED HORIZONTAL ASSEMBLY @ FLOOR/CEILING | | | | |
|--|---|-------------|-----------------|--|
| | GA FILE NO. FC 5109 | 1 HOUR FIRE | 55-59 STC SOUND | IIC 51 W/ENGINEERED WOOD LAMINATE FLOORING |
| OCCURS AT FLOOR/CEILINGS BETWEEN UNITS AND BETWEEN COMMON HALLWAYS. NOTE: USE SOLID JOIST PER PLAN | WOOD JOIST, WOOD STRUCTURAL PANELS, GYPSUM FLOOR TOPPING, RESILIENT CHANNELS, GLASS OR MINERAL FIBER BATT OR LOOSE FILL INSULATION, GYPSUM WALLBOARD One layer 5/8" proprietary gyp X gypsum wallboard or gypsum veneer base applied at right angles to resilient channels 16" o.c. with 1" type S drywall screws 12" o.c. Gypsum board end joints located midway between continuous channels and attached with screws 8" to additional pieces of channel 60" long located 3" back on either side of end joint. Resilient channels applied at right angles to nominal 2x10 wood joist spaced at a maximum of 16" o.c. with 1 1/4" Type S drywall screws. 3 1/2" Glass or mineral fiber batt insulation stapled to subfloor. | | | |
| | Wood joist supporting 15/32 (or thicker per structural engineering) wood structural panel subfloor applied at right angles to joists with construction adhesive and 6d ring shank nails 12" o.c. STC and IIC rated with both joists and resilient channels spaced 16" o.c.. 3/4" proprietary gypsum floor topping poured over 1/4" proprietary sound reduction mat, and with finish flooring of engineered wood laminate or cushion sheet vinyl. | | | |
| | PROPRIETARY GYPSUM components United States Gypsum Company 5/8" SHEETROCK Brand FIRECODE C CORE GYPSUM Panels LEVELLOCK Brand Floor Underlayment (52 Cushion sheet vinyl) RAL INDA-100, 4 22 04. | | | |
| | ICC & TEST: (51 engineered wood laminate) RAL INDA-012, 4-26-04. (52 Cushion sheet vinyl) RAL INDA-100, 4 22 04. | | | |

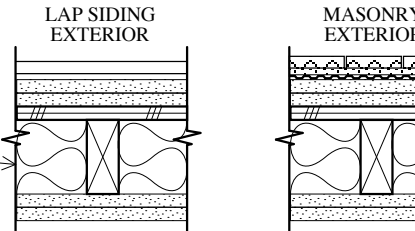
| D. 2-HOUR RATING AROUND COLUMN | | | | |
|--|---|--|--|--|
| | | | | |
| OCCURS AT EXTERIOR STEEL COLUMNS WITHIN 2-HOUR FIRE RATED WALLS. | STEEL COLUMNS, AND THE CONNECTORS TO THE BEARING LOCATIONS TOP AND BOTTOM OF THE COLUMN, TO BE PAINTED ON ALL SURFACES WITH FORCEFIELD FIREGLARD E-54 (FLUORESCENT PAINT) (OR EQUIVALENT) WHICH WILL GIVE A 120-MINUTE FIRE-RATING PROTECTION | | | |
| |  | | | |

| E. 1 HOUR INTERIOR FIRE PARTITION | | | | |
|--|--|---------|-------------|--------------|
| | GA FILE NO. WP 3614 | GENERIC | 1 HOUR FIRE | 30 to 34 STC |
| OCCURS WHERE WALL IS INTERIOR AND SUPPORTING STRUCTURAL COMPONENTS | GYPSUM WALLBOARD, WOOD STUDS ONE LAYER 5/8" TYPE X GYPSUM WALLBOARD OR GYPSUM VENEER BASE APPLIED PARALLEL OR AT RIGHT ANGLES TO EACH SIDE OF 2X4 WOOD STUDS 16" O.C. WITH 1 1/4" TYPE W DRYWALL SCREWS 12" O.C. JOINTS STAGGERED 16" ON OPPOSITE SIDES (LOAD BEARING) | | | |
| POCHE ON PLANS: |  | | | |

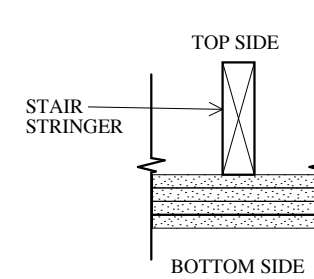
| F. 1 HOUR SEPARATION IN ATTIC | | | |
|--|--|---------|-----------|
| | GA. FILE NO WP 3644 | GENERIC | 1 HR WALL |
| OCCURS IN THE ATTIC ABOVE THE DEMISING WALL OR CORRIDOR WALL | GYPSUM WALLBOARD, WOOD STUDS BASE LAYER 5/8" TYPE X GYPSUM WALLBOARD APPLIED AT RIGHT ANGLES TO EACH SIDE OF 2X4 WOOD STUDS 16" O.C. WITH 2-1/4" TYPE S OR W DRYWALL SCREWS 12" O.C. 3-1/2" MINERAL FIBER INSULATION, NOMINAL 2-5/8"X2" FIBERGLASS INSULATION IN STUD SPACE. | | |
| | VERTICAL JOINTS STAGGERED 16" O.C.. HORIZONTAL JOINTS STAGGERED 24" O.C.. ON OPPOSITE SIDES | | |
| |  THICKNESS 4-3/4" APPROX WEIGHT: 7.5 PSF FIRE TEST: ITS 180-06170.1, 4-00 | | |

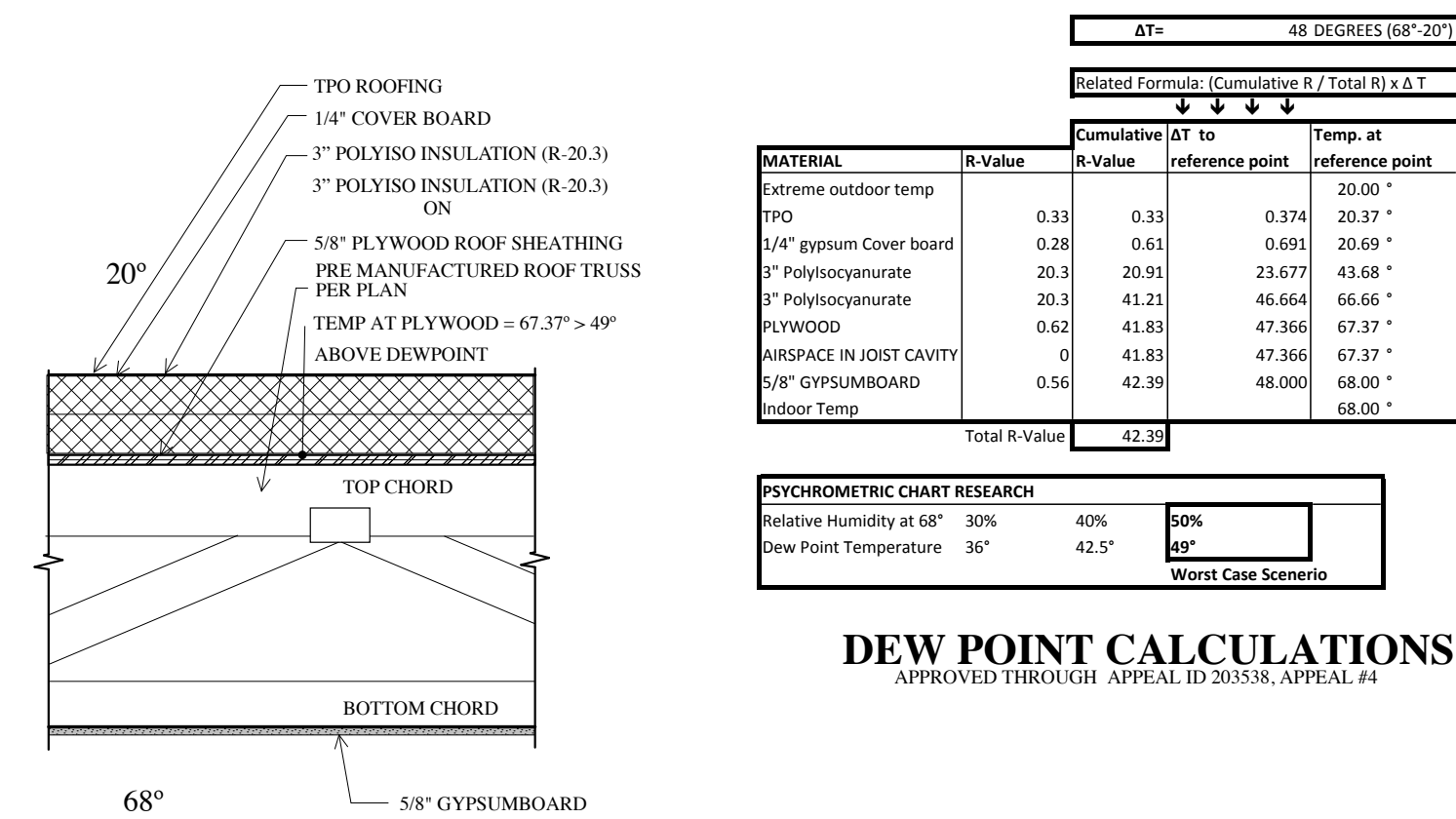
| H. 2-HOUR RATED HORIZ. ASSEMBLY @ STAIR ENCLOSURE ROOF | | |
|--|---|-------------|
| | GA FILE NO. RC 2751 | 2 HOUR FIRE |
| OCCURS AT THE ROOF OF THE STAIR ENCLOSURE | WOOD ROOF TRUSSES, GYPSUM WALLBOARD, RIGID FURRING CHANNELS BASE LAYER 5/8" GYPSUM WALLBOARD APPLIED AT RIGHT ANGLES TO WOOD ROOF TRUSSES 24" O.C. WITH 1 1/4" TYPE W DRYWALL SCREWS 12" O.C. SECOND LAYER 5/8" GYPSUM WALLBOARD APPLIED AT RIGHT ANGLES TO TRUSSES WITH 2" TYPE W DRYWALL SCREWS @ 12" O.C. SECOND LAYER JOINTS OFFSET 24" FROM BASE LAYER JOINTS. THIRD LAYER 5/8" GYPSUM WALLBOARD APPLIED AT RIGHT ANGLES TO TRUSSES WITH 1 1/2" TYPE W DRYWALL SCREWS @ 12" O.C. THIRD LAYER JOINTS OFFSET 24" FROM SECOND LAYER JOINTS. HAT SHAPED RIGID FURRING CHANNELS 24" O.C. APPLIED AT RIGHT ANGLES TO TRUSSES OVER THIRD LAYER WITH TWO 3" LONG TYPE W DRYWALL SCREWS AT EACH TRUSS. FACE LAYER 5/8" GYPSUM WALLBOARD APPLIED AT RIGHT ANGLES TO FURRING CHANNELS WITH 1 1/8" TYPE S DRYWALL SCREWS @ 12" O.C. WOOD TRUSSES SUPPORTING SHEATHING PER STRUCTURAL ENGINEER | |
| |  | |

| I. 2-HOUR INTERIOR FIRE BARRIER WALL @ STAIR & ELEVATOR | | | | |
|---|---|-------------|-------------|--------------|
| | GA FILE NO. WP 3825 | PROPRIETARY | 2 HOUR FIRE | 55 to 59 STC |
| INTERIOR FIRE BARRIER OCCURS AT THE INTERIOR WALLS OF THE STAIR ENCLOSURE | GYPSUM WALLBOARD, WOOD STUDS BASE LAYER 5/8" TYPE X GYPSUM WALLBOARD APPLIED PARALLEL TO EACH SIDE OF 2X4 WOOD STUDS AT 24" O.C. WITH 1 1/4" TYPE W DRYWALL SCREWS 8" O.C. FACE LAYER 5/8" TYPE X GYPSUM WALLBOARD APPLIED PARALLEL TO EACH SIDE WITH 2" TYPE W DRYWALL SCREWS 8" O.C. JOINTS STAGGERED 24" EACH LAYER AND SIDE. SOUND TESTED WITH RESILIENT CHANNELS 24" O.C. ON ONE SIDE AND 3-1/2" GLASS FIBER INSULATION IN THE STUD CAVITY (LOAD BEARING) | | | |
| POCHE ON PLANS: |  | | | |
| NOTE: GYPSUMBOARD MUST EXTEND TO THE UNDERSIDE OF THE SHEATHING. GYPSUM BLOCKING MAY BE USED BETWEEN JOISTS WITH WEBSIDE REINFORCERS FOR A CONTINUOUS FIRE RATED ASSEMBLY. FIRE CAULK ALL OPENINGS. MIN. RESULTANT CHANNEL NOT REQUIRED IN THE ATTIC. | PROPRIETARY GYPSUM BOARD AMERICAN GYPSUM COMPANY LLC 5/8" FIRELOC® TYPE X GYPSUM BOARD NOTE: ON ELEVATOR SHAFT ADD 1/2" CDX PLYWOOD ON STUDS @ SHAFT SIDE OF WALL W/ GYP BD COVER AND RESILIENT CHANNEL IS ON OPPOSITE SIDE W. GYP BD COVER. THICKNESS: 6 1/8" APPROX. WEIGHT: 13 PSF FIRE TEST: (ENR60957, 7-25-11 UL DESIGN U301) SOUND TEST: RAL TL 11-164, 7-12-11 | | | |

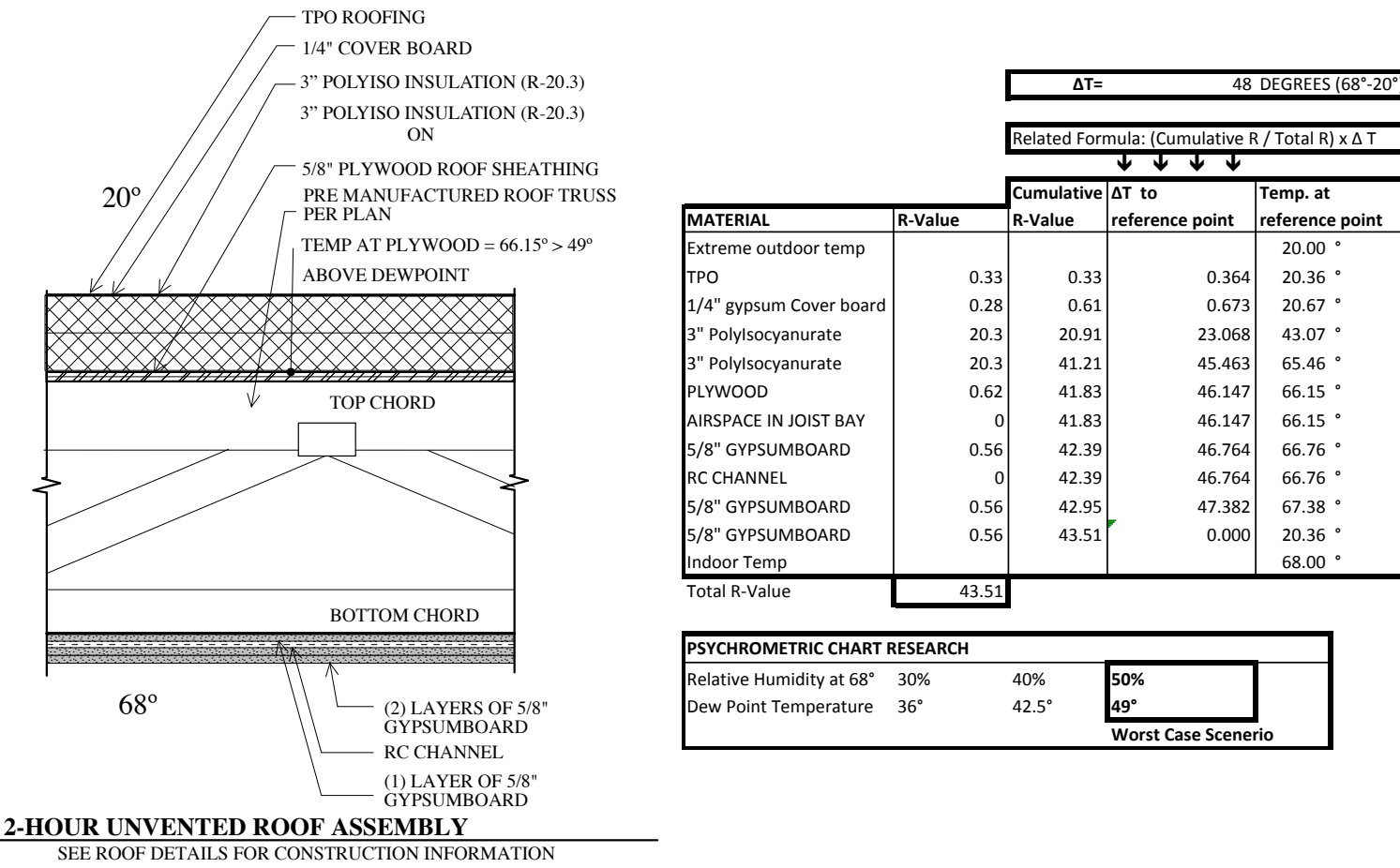
| J. 2-HOUR EXTERIOR FIRE RATED WALL | | | |
|---|--|---------|-------------|
| | GA FILE NO. WP 8415 | GENERIC | 2 HOUR FIRE |
| EXTERIOR FIRE WALL OCCURS AT THE EXTERIOR WALLS | GYPSUM SHEATHING, GYPSUM WALLBOARD, WOOD STUDS EXTERIOR SIDE: BASE LAYER FIRE TREATED 1/2" WOOD SHEATHING NAILED PER SHEAR WALL SCHEDULE MID LAYER 5/8" TYPE X GYPSUM WALLBOARD APPLIED AT RIGHT ANGLES TO 2X6 WOOD STUDS 16" O.C. WITH 6D COATED NAILS, 1 7/8" LONG 0.085" SHANK, 1/4" HEADS, 24" O.C. FACE LAYER 5/8" TYPE X GYPSUM WALLBOARD APPLIED AT RIGHT ANGLES TO STUDS WITH 6D COATED NAILS, 2 3/8" LONG, 0.100" SHANK, 1/4" HEADS, 8" O.C. EXTERIOR CLADDING ATTACHED THROUGH SHEATHING TO STUDS. INTERIOR SIDE: BASE LAYER 5/8" TYPE X GYPSUM WALLBOARD OR GYPSUM VENEER BASE APPLIED AT RIGHT ANGLES TO STUDS WITH 6D COATED NAILS, 1 7/8" LONG 0.085" SHANK, 1/4" HEADS, 24" O.C. FACE LAYER 5/8" TYPE X GYPSUM WALLBOARD OR GYPSUM VENEER BASE APPLIED AT RIGHT ANGLES TO STUDS WITH 6D COATED NAILS, 2 3/8" LONG 0.100" SHANK, 1/4" HEADS, 8" O.C. GYP. BD. JOINTS STAGGERED 24" EACH LAYER AND SIDE. (LOAD BEARING) MAY BE USED BETWEEN JOISTS WITH WEBSIDE REINFORCERS FOR A CONTINUOUS FIRE RATED ASSEMBLY. FIRE CAULK ALL OPENINGS. | | |
| POCHE ON PLANS: |  | | |
| NOTE: GYPSUMBOARD MUST EXTEND TO THE UNDERSIDE OF THE SHEATHING. GYPSUM BLOCKING MAY BE USED BETWEEN JOISTS WITH WEBSIDE REINFORCERS FOR A CONTINUOUS FIRE RATED ASSEMBLY. FIRE CAULK ALL OPENINGS. | NOTE: ALL LUMBER, STUDS, PLATES, HEADERS ETC. WITHIN THIS WALL TO BE FIRE RETARDANT TREATED LUMBER. SAME IS TRUE WITH WOOD SHEATHING WHICH IS TO BE FIRE RETARDANT TREATED SHEATHING. | | |

| GENERAL NOTES | FIRE MEMBRANE PENETRATIONS | FIRE STOPPING |
|--|---|---|
| ALL SOUND AND FIRE ASSEMBLIES PROVIDED BY ONE OF THE FOLLOWING: GYPSUM ASSOCIATION FIRE RESISTANCE DESIGN MANUAL, 18TH EDITION © 2014 ORSC © ICC EVALUATION SERVICE | MEMBRANE PENETRATIONS BY LISTED ELECTRICAL BOXES OF ANY MATERIAL ARE ALLOWED WHEN THE SPACE BETWEEN THE WALL MEMBRANE AND THE BOX DOES NOT EXCEED 1/8". BOXES ON OPPOSITE SIDES OF THE WALL MUST BE SEPARATED HORIZONTALLY BY MIN. 24" OR MEET A DIFFERENT ACCEPTABLE METHOD GUIDE LINED IN THE 2014 ORSC 717 | FIRE STOPPING MUST BE PROVIDED, INCLUDING BUT NOT LIMITED TO THE FOLLOWING: DRAIN: 1-1/2" PIPE 2" PIPE 3" PIPE 4" PIPE SUPPLY: 3/4" WIRKSHO |
| SIDING | MAINTAIN FIRE ASSEMBLY | |
| ALL EXTERIOR SIDING SHALL TOLERATE 12.5kW/m ² OF RADIANT HEAT ENERGY PER TABE ORSC 2007 | FIRE ASSEMBLY MUST EXTEND TO THE UNDER SIDE OF THE ROOF SHEATHING IN LIEU OF EXTENDING THE ENTIRE ASSEMBLY TO THE UNDERSIDE OF THE SHEATHING. (3) LAYERS OF SOLID 2X BLOCKING MAY BE USED. | |

| K. 2-HOUR SHAFT WALL (UNDER STAIRS) | | | |
|--|--|---------|-------------|
| | GA FILE NO. WP 7125 | GENERIC | 2 HOUR FIRE |
| SHAFT FIRE WALL OCCURS UNDER STAIRS | GYPSUM WALLBOARD, STEEL STUDS BASE LAYER TYPE X GYPSUM WALLBOARD OR GYPSUM VENEER BASE APPLIED AT RIGHT ANGLES TO ONE SIDE ONLY OF 1 5/8" 18 MIL (25 GA.) STEEL STUDS @ 24" O.C. WITH 1" TYPE S DRYWALL SCREWS 12" O.C. SECOND LAYER 5/8" TYPE X GYPSUM WALLBOARD OR GYPSUM VENEER BASE APPLIED AT RIGHT ANGLES WITH TWO 1 5/8" TYPE S DRYWALL SCREWS PER BOARD. THIRD LAYER 5/8" TYPE X GYPSUM WALLBOARD OR GYPSUM VENEER BASE APPLIED AT RIGHT ANGLES WITH TWO 2 5/8" TYPE S DRYWALL SCREWS PER BOARD AND ONE 2 5/8" TYPE S DRYWALL SCREWS PLACED MIDWAY BETWEEN STUDS AT FLOOR AND CEILING RUNNERS. STEEL STRIPS 0.020" X 1 1/2" WIDE VERTICALLY APPLIED OVER THIRD LAYER AT VERTICAL JOINTS AND INTERMEDIATE STUDS WITH 3 1/2" TYPE S DRYWALL SCREWS 12" O.C. FOURTH LAYER 5/8" TYPE X GYPSUM WALLBOARD OR GYPSUM VENEER BASE APPLIED AT RIGHT ANGLES TO STEEL STRIPS WITH 1" TYPE S DRYWALL SCREWS 8" O.C. JOINTS OFFSET 24" BETWEEN LAYERS (NLB) | | |
| NOTE: USING THE STAIR STRINGERS IN PLACE OF THE STEEL STUDS WITH THIRD LAYER ALKON STEEL STRIPS WITH STRINGERS AND SCREW THROUGH STEEL AND GYP BD AND INTO STRINGERS |  | | |



TYPICAL ROOF ASSEMBLY
SEE ROOF DETAILS FOR CONSTRUCTION INFORMATION



| ΔT= 48 DEGREES (68°/20°) | | | | | |
|--|---------|---------|----------------------------------|--------------------------|--|
| Related Formula: (Cumulative R / Total R) x ΔT | | | | | |
| MATERIAL | R-Value | R-Value | Cumulative ΔT to reference point | Temp. at reference point | |
| Extreme outdoor temp | | | | 20.00 ° | |
| TPO | 0.33 | 0.33 | 0.374 | 20.37 ° | |
| 1/4" gypsum Cover board | 0.38 | 0.61 | 0.691 | 20.69 ° | |
| 3" Polystyocyanurate | 20.3 | 20.91 | 23.677 | 43.68 ° | |
| 3" Polystyocyanurate | 20.3 | 41.21 | 46.664 | 66.66 ° | |
| PLYWOOD | 0.62 | 41.83 | 47.366 | 67.37 ° | |
| AIRSPACE IN JOIST CAVITY | 0 | 41.83 | 47.366 | 67.37 ° | |
| 5/8" GYPSUMBOARD | 0.56 | 42.39 | 48.000 | 68.00 ° | |
| Indoor Temp | | | | | |
| Total R-Value | | 42.39 | | | |

| PSYCHROMETRIC CHART RESEARCH | | | |
|------------------------------|-----|-------|-----|
| Relative Humidity at 68° | 40% | 30% | 20% |
| Dew Point Temperature | 36° | 42.5° | 49° |
| Worst Case Scenario | | | |

DEW POINT CALCULATIONS
APPROVED THROUGH APPEAL ID 20338, APPEAL #4

| ΔT= 48 DEGREES (68°/20°) | | | | | |
|--|---------|---------|----------------------------------|--------------------------|--|
| Related Formula: (Cumulative R / Total R) x ΔT | | | | | |
| MATERIAL | R-Value | R-Value | Cumulative ΔT to reference point | Temp. at reference point | |
| Extreme outdoor temp | | | | 20.00 ° | |
| TPO | 0.33 | 0.33 | 0.394 | 20.36 ° | |
| 1/4" gypsum Cover board | 0.28 | 0.61 | 0.673 | 20.67 ° | |
| 3" Polystyocyanurate | 20.3 | 20.91 | 23.068 | 43.07 ° | |
| 3" Polystyocyanurate | 20.3 | 41.21 | 45.463 | 65.46 ° | |
| PLYWOOD | 0.62 | 41.83 | 46.147 | 66.15 ° | |
| AIRSPACE IN JOIST BAY | 0 | 41.83 | 46.147 | 66.15 ° | |
| 5/8" GYPSUMBOARD | 0.56 | 42.39 | 46.704 | 66.76 ° | |
| RC CHANNEL | 0 | 42.39 | 46.704 | 66.76 ° | |
| 5/8" GYPSUMBOARD | 0.56 | 42.95 | 47.382 | 67.38 ° | |
| Indoor Temp | | | 0.000 | 20.36 ° | |
| Total R-Value | | 43.51 | | | |

| PSYCHROMETRIC CHART RESEARCH | | | |
|------------------------------|-----|-------|-----|
| Relative Humidity at 68° | 40% | 30% | 20% |
| Dew Point Temperature | 36° | 42.5° | 49° |
| Worst Case Scenario | | | |



| | |
|---|-----------|
| ORIGINAL SET: | SHEET |
| REVISIONS (THIS SHEET) FULL SET | |
| PRINT DATE: 4-24-2024 | 2.0 OF 16 |
| FIRE ASSEMBLIES, SCHEDULES & DEWPOINT CALCS | |

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