# Development Services

## From Concept to Construction

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

## APPEAL SUMMARY

**Status:** Decision Rendered

| | |
|---|---|
| **Appeal ID:** 14933 | **Project Address:** 4524 NE 42nd Ave |
| **Hearing Date:** 4/12/17 | **Appellant Name:** Risa Boyer Leritz |
| **Case No.:** B-022 | **Appellant Phone:** 503-806-2848 |
| **Appeal Type:** Building | **Plans Examiner/Inspector:** Gail Knoll |
| **Project Type:** commercial | **Stories:** 3 **Occupancy:** A-2 & R-2 **Construction Type:** Type VB |
| **Building/Business Name:** Makers Row | **Fire Sprinklers:** Yes - Throughout |
| **Appeal Involves:** Erection of a new structure,Correction of a violation | **LUR or Permit Application No.:** 16-120646-CO |
| **Plan Submitted Option:** pdf [File 1] | **Proposed use:** A-2 & R-2 |

## APPEAL INFORMATION SHEET

### Appeal item 1

| | |
|---|---|
| **Code Section** | 1009.9.3 Enclosures under interior stairways, 1022.4 Openings & 1022.5 Penetrations |
| **Requires** | 1009.9.3 The walls and soffits within enclosed usable spaces under enclosed and unenclosed stairways shall be protected by 1-hour fire-resistance rated construction or the fire-resistance rating of the stairway enclosure, whichever is greater. Access to the enclosed space shall not be directly from within the stair enclosure.<br><br>1022.4 Openings in interior exit stairways and ramps other than unprotected exterior openings shall be limited to those necessary for exit access to the enclosure from normally occupied spaces and for egress from the enclosure.<br><br>1022.5 Penetrations into and openings through interior exit stairways and ramps are prohibited except for required exit doors…sprinkler piping, standpipes, electrical raceway for fire department communication system and electrical raceway serving the interior stairway. |
| **Proposed Design** | The proposed design is for an electrical closet enclosure under 2 identical but mirrored interior stairways (100.4 & 100.5 on AP01). The two electrical closets would open into the ground level of the stairways. The 2 stairways provide egress to a total of 4 units each with an occupancy of 15 and 12 respectively.<br><br>The enclosure under the stair would be a 2-hour fire resistance rated enclosure with a 90-minute self-closing door. The building is sprinklered with type NFPA13. The closet would house a house electrical panel, sprinkler riser and electrical and low voltage penetrations that feed the apartments units and the stairs. The door would be locked from the stairway side and be accessed only a few times a year for maintenance. The electrical closet would be sprinklered as well as the area |

directly outside the closet door. The penetrations into the electrical closet would comply with Section 714 for firestopping.

**Reason for alternative** The proposed design is requested as an alternative to the code because the project is under construction (70% complete), all rough-in work is complete and has been inspected and approved. The opening within the stair enclosure was an oversight missed by the building inspectors up until the new building inspector was assigned last week. At this point to pull out all of the MEP work which is brought into this area under the slab would be a major financial hardship and would drastically delay the project schedule which would result in additional financial implications.

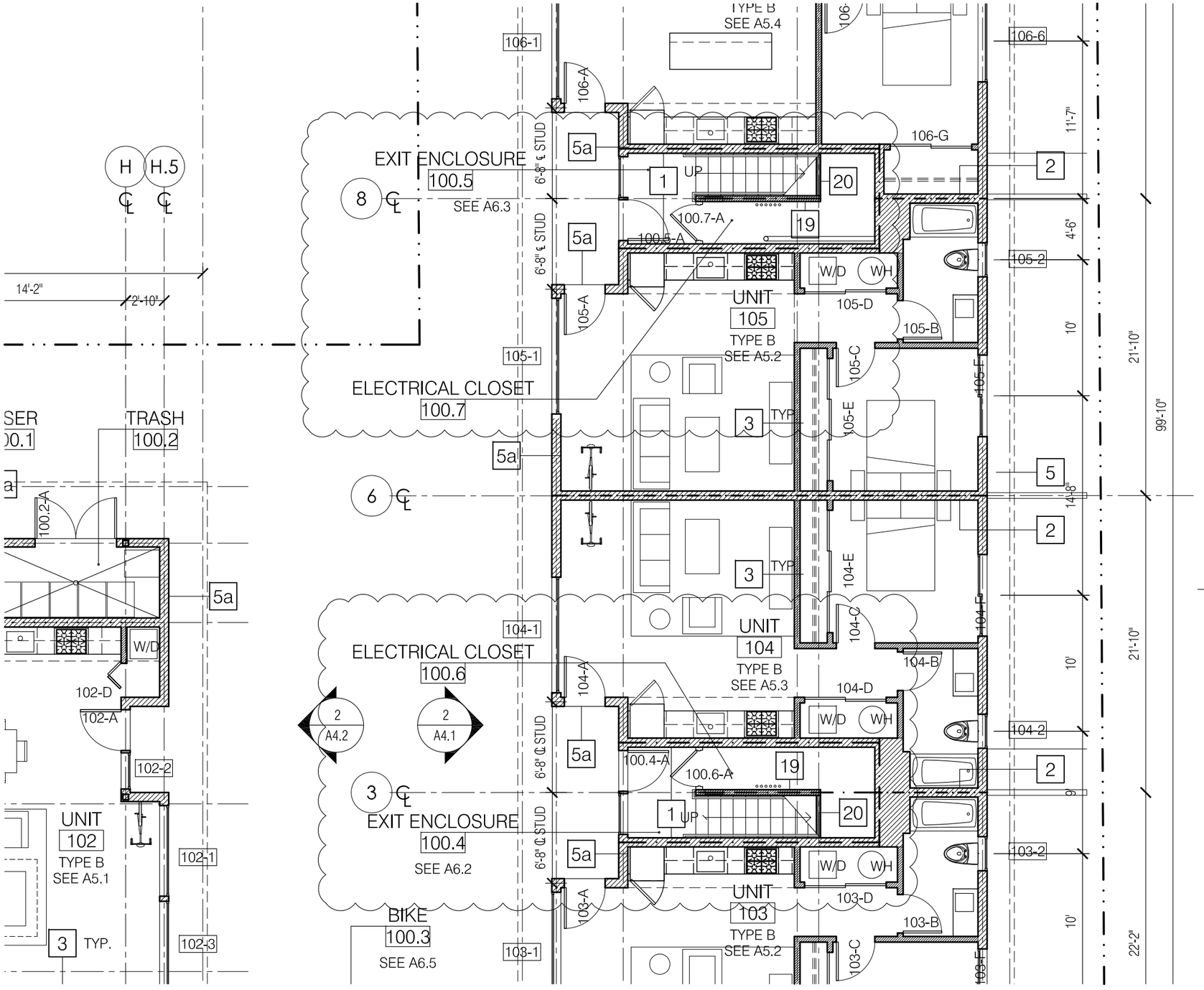
The proposed design meets the intention of the fire life safety code in that the fire barrier is maintained and the path of travel is free and clear of obstacles. The space under the stair occupied by the proposed closet does not impede on the path of travel or take up otherwise habitable space. We are proposing that the 2-hour fire barrier at the stair enclosure be maintained and will not be compromised by the enclosure under the stair. The 2-hour rated enclosure is higher than what is required by code for a 3-story building which will provide an additional safety measure.

## APPEAL DECISION

**1. Electrical closet enclosure under interior stairway: Denied. Proposal does not provide equivalent Life Safety protection.**
**Appellant may contact John Butler (503-823-7339) with questions.**

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

DOORS 100.6A & 1007.A TO BE
2'-8"x6'-8" 90 MIN RATED




# PARTIAL FIRST FLOOR PLAN

1/8" = 1'-0"

RISA BOYER ARCHITECTURE
1001 SE Water Ave Suite 230 Portland OR 97214
o| 503 806 2848 f| 503 493 7143 e| risa@risaboyer.com

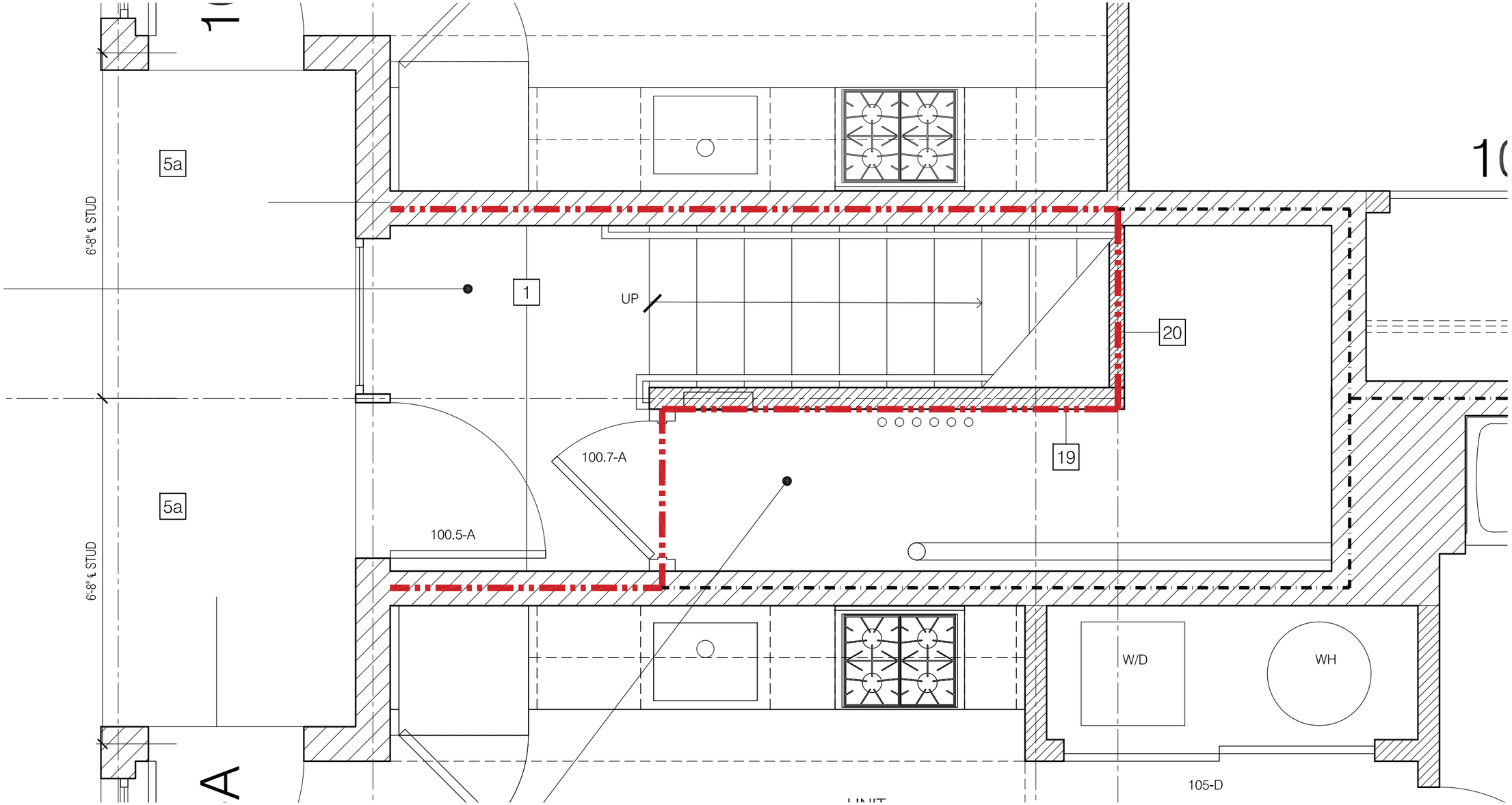
PROJECT
MAKERS ROW
4524 NE 42ND AVENUE, PORTLAND, OR

DRAWING FIRST FLOOR PLAN
JOB NO 14159
SCALE as noted
DATE 04.07.17

SHEET NO
AP01

2-HR RATED ASSEMBLY

1-HR RATED ASSEMBLY




# STAIR 100.5 (100.4 MIRRORED PLAN)

1/2" = 1'-0"

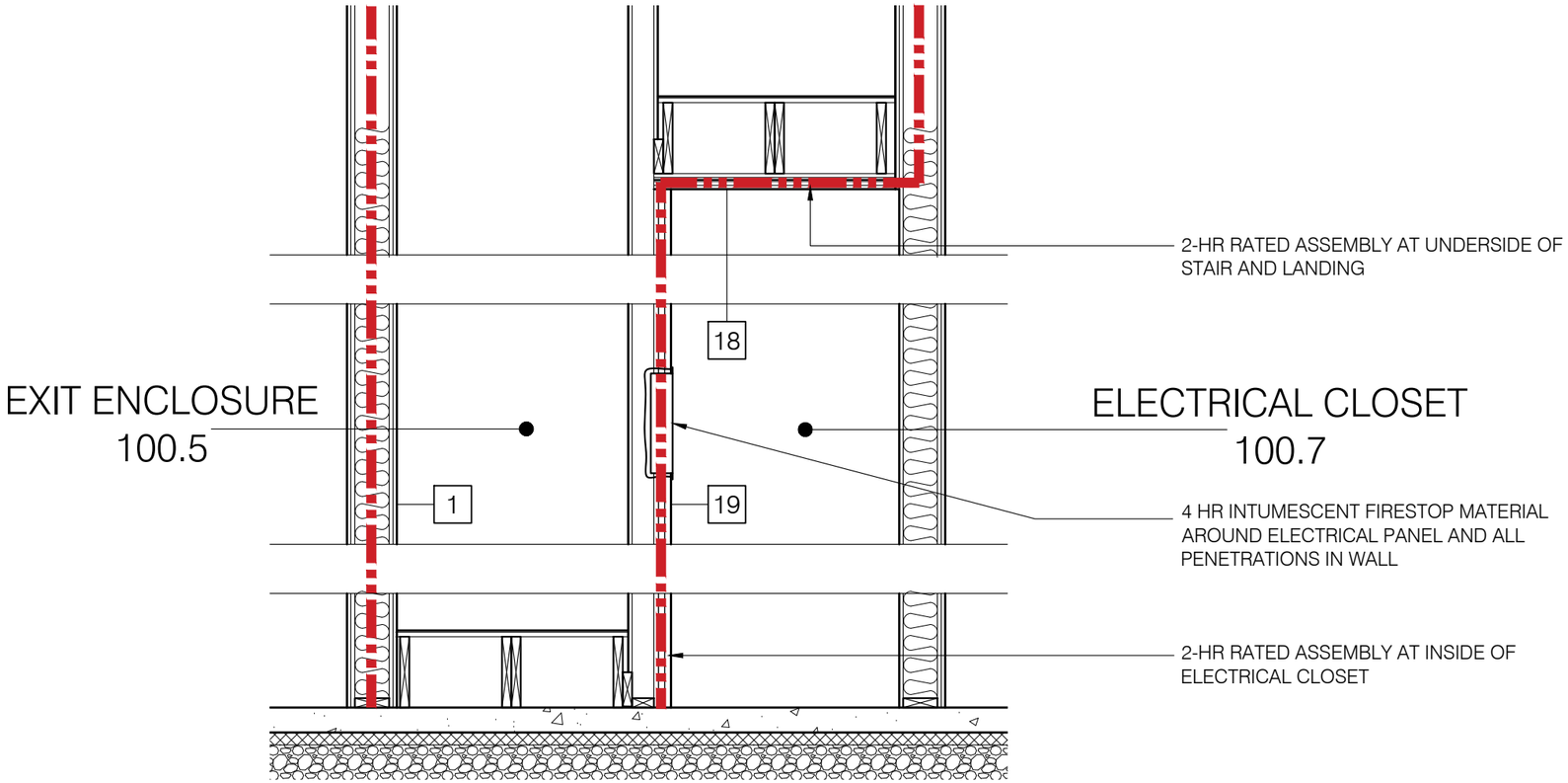

RISA BOYER ARCHITECTURE
1001 SE Water Ave Suite 230 Portland OR 97214
c| 503 806 2848 t| 503 493 7143 e| risa@risaboyer.com


PROJECT
MAKERS ROW
4524 NE 42ND AVENUE, PORTLAND, OR

DRAWING FIRST FLOOR PLAN
JOB NO 1415 9
SCALE as noted
DATE 04.07.17

SHEET NO
AP02

2-HR RATED ASSEMBLY




# CROSS SECTION THRU STAIR 100.5 (100.4 MIRRORED PLAN)

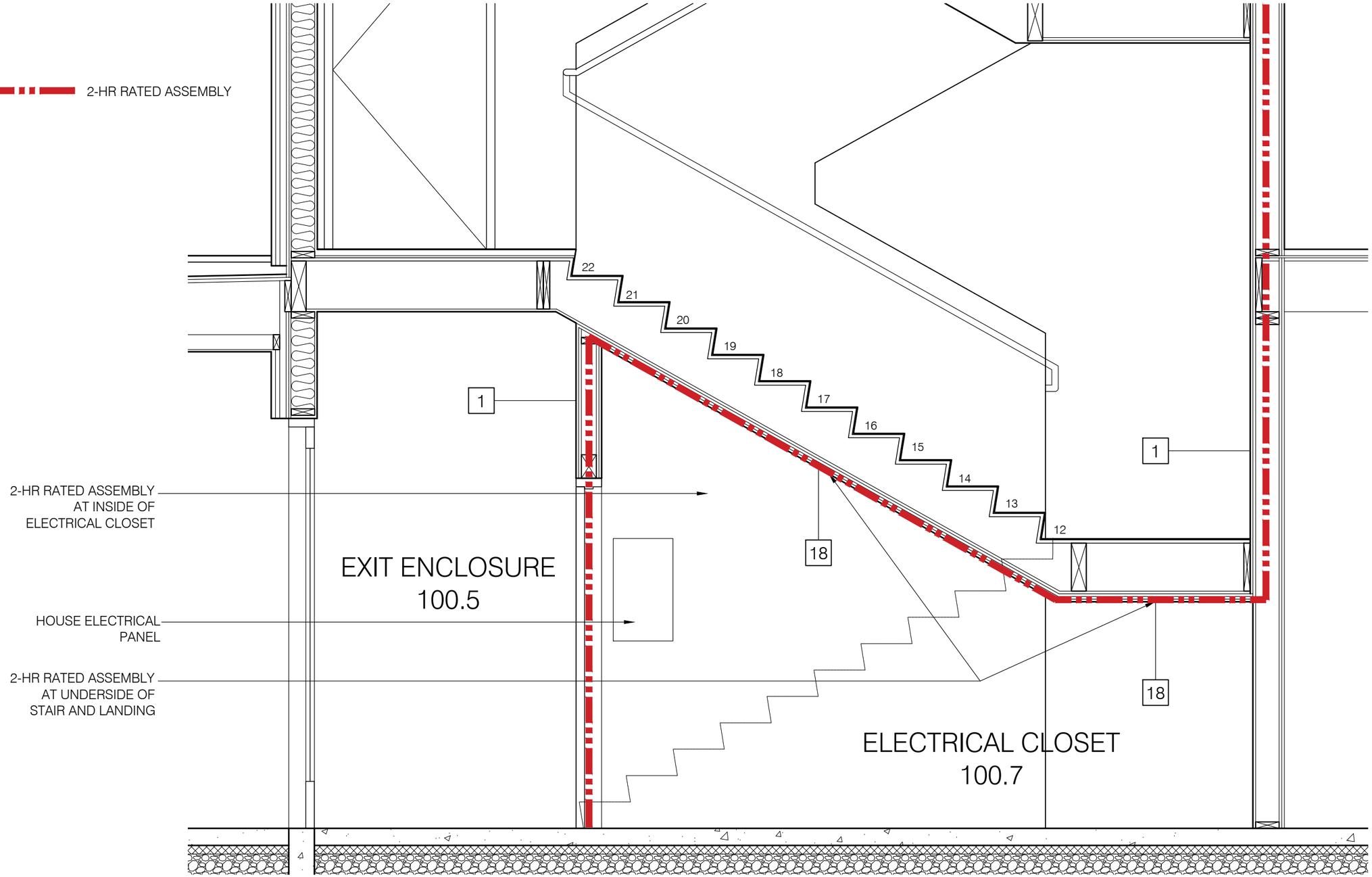
risa boyer architecture
3444 NE 35th avenue portland oregon 97212
t: 503.806.2848 f: 503.493.7143 e: rb@risaboyer.com

PROJECT
MAKERS ROW
4524 NE 42ND AVENUE, PORTLAND, OR

DRAWING SECTION OF STAIRWAY
JOB NO 14|59
SCALE as noted
DATE 04.07.17

SHEET NO
AP06

2-HR RATED ASSEMBLY




# SECTION THRU STAIR 100.5 (100.4 MIRRORED PLAN)

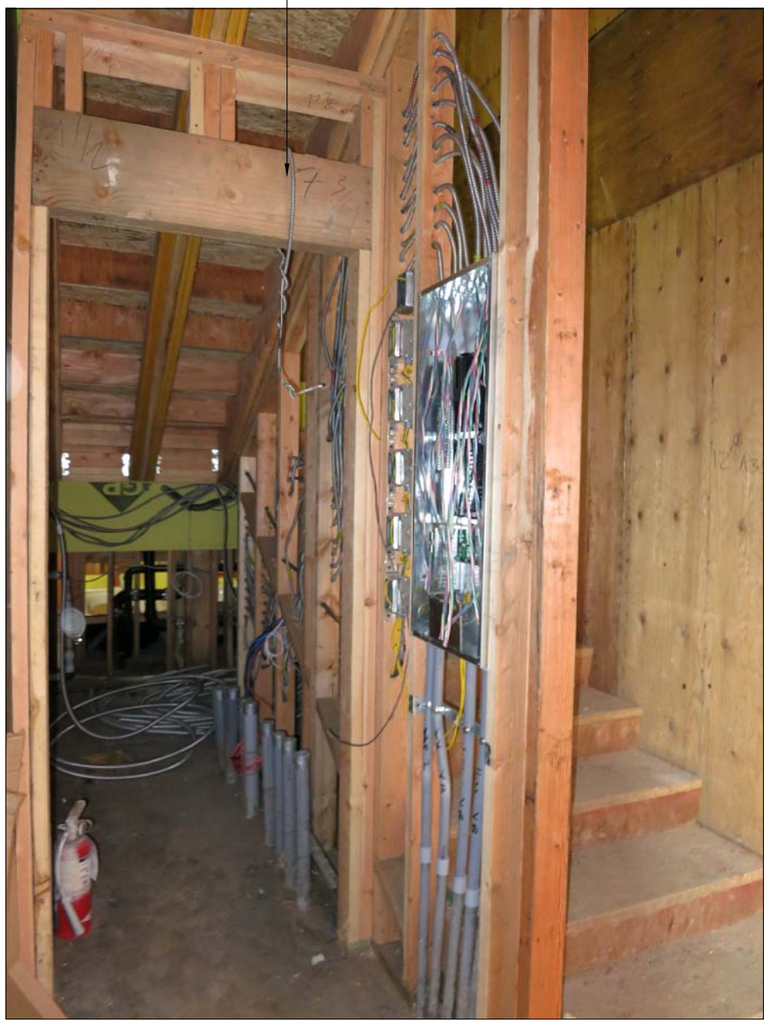

risa boyer architecture
3444 NE 35th avenue portland oregon 97212
t: 503.806.2848 f: 503.493.7143 e: rb@risaboyer.com


PROJECT
MAKERS ROW
4524 NE 42ND AVENUE, PORTLAND, OR

DRAWING SECTION THRU STAIRWAY
JOB NO 1415.9
SCALE as noted
DATE 04.07.17

SHEET NO
AP05

HEADER AND DOOR OPENING TO BE PULLED OUT SO THAT ELECTRICAL PANEL IS ENCLOSED WITHIN CLOSET



# IMAGES OF STAIRWELL 100.4

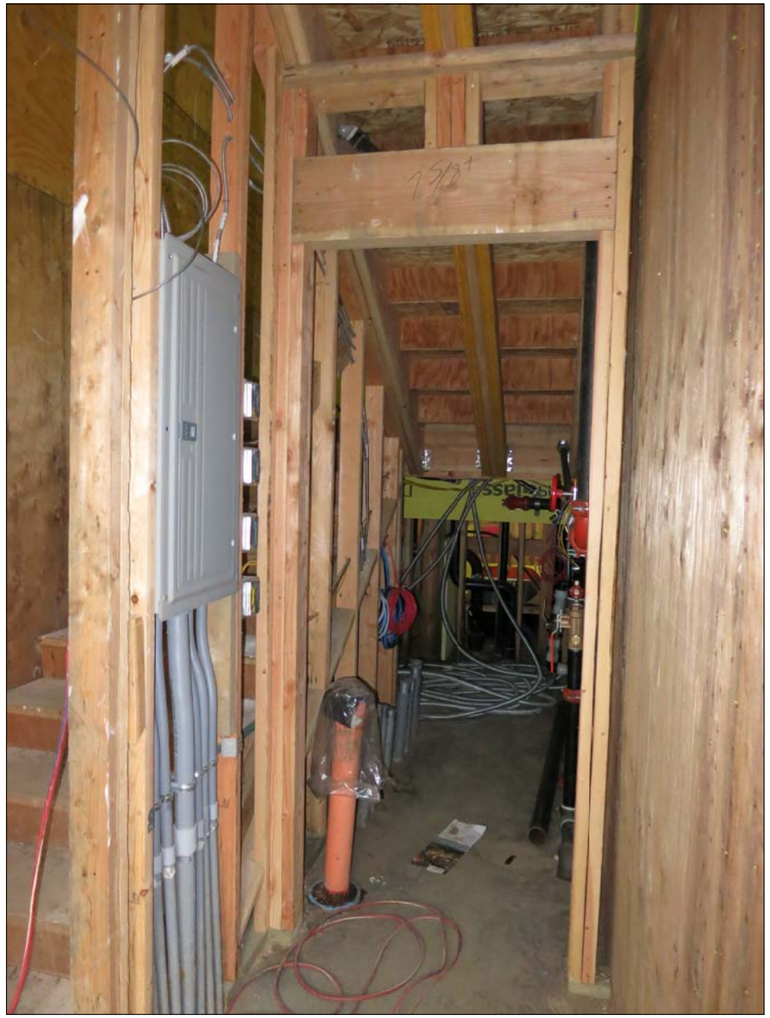
RISA BOYER ARCHITECTURE
1001 SE Water Ave Suite 230 Portland OR 97214
o| 503 806 2848 f| 503 493 7143 e| rob@risaboyer.com

PROJECT
MAKERS ROW
4524 NE 42ND AVENUE, PORTLAND, OR

DRAWING IMAGES OF STAIRWAY 100.5
JOB NO 1459
SCALE as noted
DATE 04.07.17

SHEET NO
AP03

HEADER AND DOOR OPENING TO BE
PULLED OUT SO THAT ELECTRICAL
PANEL IS ENCLOSED WITHIN CLOSET



# IMAGES OF STAIRWELL 100.5

RISA BOYER ARCHITECTURE
1001 SE Water Ave Suite 230 Portland OR 97214
c| 503 806 2848 t| 503 493 7143 e| rob@risaboyer.com

PROJECT
MAKERS ROW
4524 NE 42ND AVENUE, PORTLAND, OR

DRAWING IMAGES OF STAIRWAY 100.5
JOB NO 1415 9
SCALE as noted
DATE 04.07.17

SHEET NO
AP04

## FLOOR-CEILING SYSTEMS, WOOD FRAMED

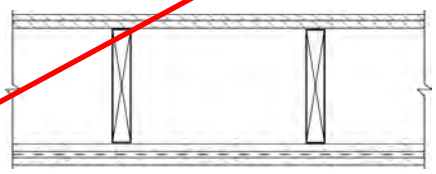
### GA FILE NO. FC 5724 | PROPRIETARY* | 2 HOUR FIRE

**WOOD FLOOR, WOOD JOISTS, GYPSUM WALLBOARD, RESILIENT CHANNELS**

**Base** layer 5/8" proprietary type X gypsum wallboard or gypsum veneer base applied at right angles to 2 x 10 wood joists 16" o.c. with 8d nails, 2 1/2" long, 0.113" shank, 19/64" heads, 7" o.c. Resilient furring channels 24" o.c. applied at right angles to joists through base layer with one 8d nail, 2 1/2" long, 0.113" shank, 19/64" head, at each joist. **Face** layer 5/8" proprietary type X gypsum wallboard or gypsum veneer base applied at right angles to resilient furring channels with 1" Type S drywall screws 12" o.c. Double channel installed at face layer end joints. Wood joists supporting 1" nominal T & G wood subfloor and 1" nominal wood finish floor or 19/32" plywood finished floor with long edges T & G and 15/32" interior plywood with exterior glue subfloor perpendicul NOT USED s staggered.

**PROPRIETARY GYPSUM BOARD**

| | | |
|---|---|---|
| American Gypsum Company LLC | - | 5/8" FireBloc® Type C |
| CertainTeed Gypsum Inc. | - | 5/8" CertainTeed® Type C Gypsum Board |
| Georgia Pacific Gypsum LLC | - | 5/8" ToughRock® Fireguard C® Gypsum Board |
| Lafarge North America Inc. | - | 5/8" Firecheck® Type C |
| National Gypsum Company | - | 5/8" Gold Bond® Brand FIRE-SHIELD C™ Gypsum Board |
| PABCO Gypsum | - | 5/8" FLAME CURB® Super 'C'™ |
| Temple-Inland | - | 5/8" TG-C |



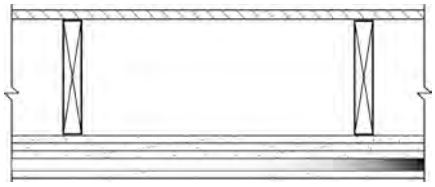
Approx. Ceiling Weight: 6 psf
Fire Test: UL R2717-35, 10-21-64, UL Design L505; ULC Design M503

### GA FILE NO. FC 5725 | GENERIC | 2 HOUR FIRE

**WOOD FLOOR, WOOD JOISTS, GYPSUM WALLBOARD, RIGID FURRING CHANNELS**

**Base** layer 5/8" type X gypsum wallboard applied at right angles to 2 x 8 wood joists 24" o.c. with 1 1/4" Type W drywall screws 12" o.c. **Second** layer 5/8" type X gypsum wallboard applied at right angles to joists with 2" Type W drywall screws 12" o.c. Second layer joints offset 24" from base layer joints. **Third** layer 5/8" type X gypsum wallboard applied at right angles to joists with 2 1/2" Type W drywall screws 12" o.c. Third layer joints offset 12" from second layer joints. Hat-shaped 7/8" rigid furring channels 24" o.c. applied at right angles to joists over third layer with two 2 1/2" long Type W drywall screws at each joist. **Face** layer 5/8" type X gypsum wallboard applied at right angles to furring channels with 1 1/8" Type S drywall screws 12" o.c. Wood joists supporting 3/4" T & G edge plywood floor applied at right angles to joists with 8d nails 6" o.c. at joints and 12" at intermediate joists. **Ceiling provides two-hour fire-resistance protection for wood framing.**

HORIZONTAL ASSEMBLY 18

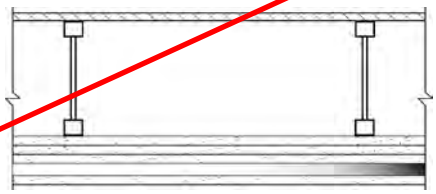


Approx. Ceiling Weight: 12 psf
Fire Test: UL R4024, 00NK26545, 4-27-01; UL R4024, 03NK11206, 3-19-03; UL Design L556; ULC Design M514

### GA FILE NO. FC 5750 | GENERIC | 2 HOUR FIRE

**WOOD FLOOR, WOOD I-JOISTS, GYPSUM WALLBOARD, RIGID FURRING CHANNELS**

**Base** layer 5/8" type X gypsum wallboard applied at right angles to 9 1/2" deep wood I-joists 24" o.c. with 1 1/4" Type W drywall screws 12" o.c. **Second** layer 5/8" type X gypsum wallboard applied at right angles to I-joists with 2" Type W drywall screws 12" o.c. Second layer joints offset 24" from base layer joints. **Third** layer 5/8" type X gypsum wallboard applied at right angles to I-joists with 2 1/2" Type W drywall screws 12" o.c. Third layer joints offset 12" from second layer joints. Hat-shaped 7/8" rigid furring channels 24" o.c. applied at right angles to I-joists over third layer with two 2 1/2" long Type W drywall screws at each I-joist. **Face** layer 5/8" typ NOT USED ard applied at right angles to furring channels with 1 1/8" Type S drywa 'ood I-joists supporting 3/4" T & G edge plywood floor applied at right angles to I-joists with 8d nails 6" o.c. at joints and 12" at intermediate I-joists. **Ceiling provides two-hour fire-resistance protection for wood framing.**



Approx. Ceiling Weight: 12 psf
Fire Test: UL R4024, 00NK26545, 4-27-01, UL Design L556; ULC Design M514

**Contact the manufacturer for more detailed information on proprietary products.*

# BXUV - Fire Resistance Ratings - ANSI/UL 263

# BXUV7 - Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada

See General Information for Fire-resistance Ratings - ANSI/UL 263

See General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada

WALL ASSEMBLY 19

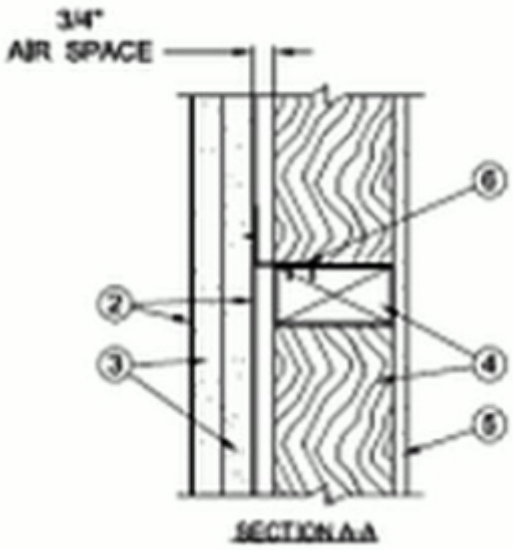
## Design No. U373

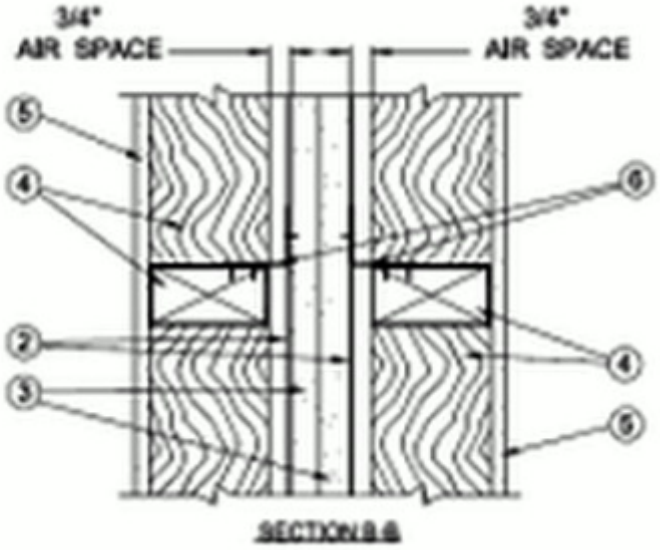
June 17, 2014

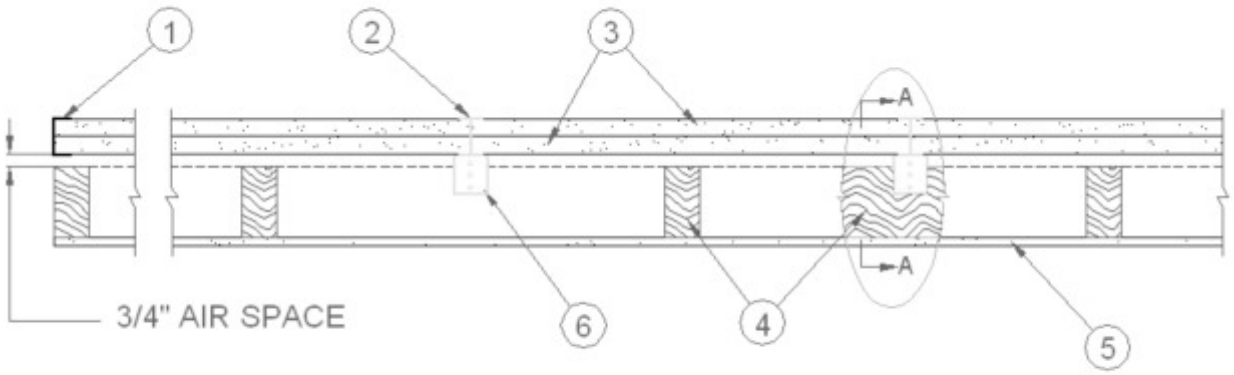
**Nonbearing Wall Rating - 2 Hr (See Items 4, 4A and 4B)**

**Finish Rating - 120 Min (See Item 4)**

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

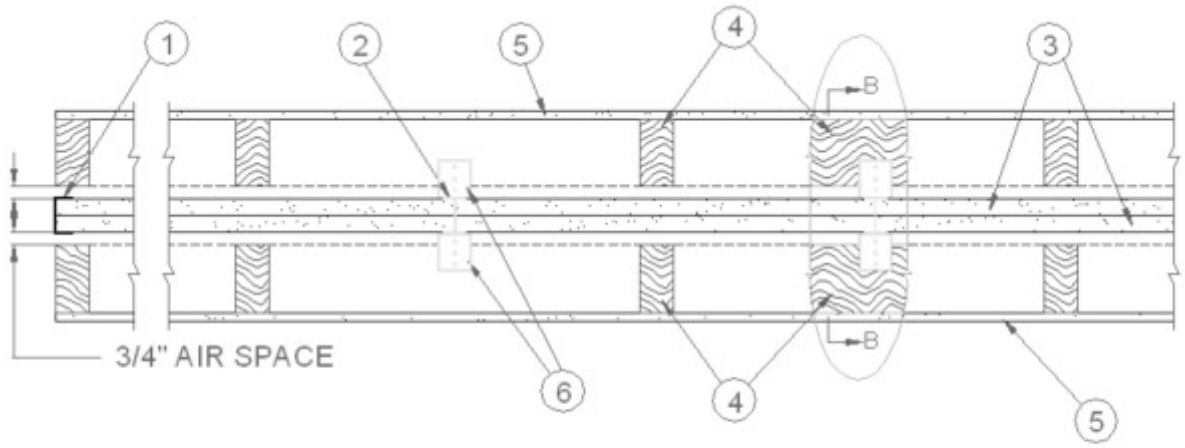





CONFIGURATION A

EXPOSED TO FIRE FROM AREA SEPARATION WALL SIDE ONLY




CONFIGURATION B

EXPOSED TO FIRE FROM EITHER SIDE

**AREA SEPARATION WALL: —** (Nonbearing, Max Height - 44 ft)

1. **Floor, Intermediate or Top Wall —** 2-3/16 in. wide channel shaped with 1 in. long legs formed from No. 25 MSG galv steel, secured with suitable fasteners spaced 24 in. OC.

2. **Steel Studs —** Steel members formed from No. 25 MSG galv steel having "H" - shaped flanges spaced 24 in. OC; overall depth 2-1/8 in. and flange width 1-1/2 in.

3. **Gypsum Board* —** Two layers of 1 in. thick gypsum wallboard liner panels, supplied in nom 24 in. widths. Vertical edges of panels friction fitted into "H" - shaped studs.

**GEORGIA-PACIFIC GYPSUM L L C** — Types TRSL, DGUSL

**PROTECTED WALL:** (Bearing or Nonbearing Wall, as indicated in Items 4, 4A and 4B. When Bearing, Load Restricted for Canadian Applications — See Guide BXUV7.)

4. **Wood Studs —** For 2 Hr. Bearing or Nonbearing Wall Rating - Nom 2 by 4 in., max spacing 24 in. OC. Studs cross-braced at midheight where necessary for clip attachment. Min 3/4 in. separation between wood framing and area separation wall. Finish rating evaluated for wood studs only.

4A. **Steel Studs —** (As an alternate to Item 4, not shown) — For 2 Hr. Bearing Wall Rating - Corrosion protected steel studs, min No. 20 MSG (0.0329 in., min bare metal thickness) steel or min 3- 1/2 in. wide, min No. 20 GSG (0.036 in. thick) galv steel or No. 20 MSG (0.033 in. thick) primed steel, cold formed, shall be designed in accordance with the current edition of the Specification for the Design of Cold-Formed Steel Structural Members by the American Iron and Steel Institute. All design details enhancing the structural integrity of the wall assembly, including the axial design load of the studs, shall be as specified by the steel stud designer and/or producer, and shall meet the requirements of all applicable local code agencies. The max stud spacing of wall assemblies shall not exceed 24 in. OC. Studs attached to floor and ceiling tracks with 1/2 in. long Type S-12 steel screws on both sides of studs or by welded or bolted connections designed in accordance with the AISI specifications. Top and bottom tracks shall consist of steel members, min No. 20 MSG (0.0329 in., min bare metal thickness) steel or min No. 20 GSG (0.036 in. thick) galv steel or No. 20 MSG (0.033 in. thick) primed steel, that provide a sound structural connection between steel studs, and to adjacent assemblies such as a floor, ceiling, and/or other walls. Attached to floor and ceiling assemblies with steel fasteners spaced not greater than 24 in. O.C. Studs cross-braced with stud framing at midheight where necessary for clip attachment. Min 3/4 in. separation between steel framing and area separation wall. Finish rating has not been evaluated for Steel Studs.

4B. **Steel Studs —** (As an alternate to Items 4 and 4A, for use in Configuration B only, not shown) — For 2 Hr. Nonbearing Wall Rating - Channel shaped, fabricated from min 25 MSG corrosion-protected steel, min 3-1/2 in. wide, min 1-1/4 in. flanges and 1/4 in. return, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height. Top and bottom tracks shall be channel shaped, fabricated from min 25 MSG corrosion-protected steel, min width to accommodate stud size, with min 1 in. long legs, attached to floor and ceiling with fasteners 24 in. OC max. Studs cross-braced with stud framing at midheight where necessary for clip attachment. Min 3/4 in. separation between steel framing and area separation wall. Finish rating has not been evaluated for Steel Studs.

5. **Gypsum Board —** Classified or Unclassified - Min 1/2 in thick, 4 ft wide, applied either horizontally or vertically. Wallboard attached to wood studs (Item 4) with 1-1/4 in. long steel drywall nails spaced 12 in. OC. Wallboard attached to steel studs (Item 4A or 4B) with 1 in. long Type S steel screws spaced 12 in. OC. Vertical joints located over studs. (Optional) Joints covered with paper tape and joint compound. Nail or screw heads covered with joint compound.

5A. **Plywood Sheathing or OSB —** (Not shown) — As an alternate to Item 5, Nominal 1/2 in. thick or greater plywood or OSB applied horizontally or vertically to wood or steel studs. Vertical joints located over studs. Horizontal joints shall be butted tight to form a closed joint. Fastened to studs with nails or screws of sufficient length, spaced 12 in. OC. Joints and fastener heads are not required to be treated. Aluminum clips shall be spaced as described in Item 6.

6. **Attachment Clips —** Aluminum angle, 0.062 in. thick, min 2 in. wide with min 2 in. and 2-1/2 in. legs. Clips secured with minimum one Type S screw 3/8 in. long to "H" studs and with minimum one Type W screw 1-1/4 in. long to wood framing or steel framing through holes provided in clip. Clips spaced a max of 10 ft OC vertically between wood or steel framing and "H" studs for separation walls up to 23 ft high. For separation walls up to 44 ft

high, clips spaced as described above for the upper 24 ft. and the remaining wall area below requires clips spaced a max 5 ft OC vertically between wood or steel framing and "H" studs.

7. **Batts and Blankets* —** (Optional, not shown) — Placed in stud cavities, any glass fiber or mineral wool insulation, max 3.0 pcf density, bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance. See Batts and Blankets (BKNV or BZJZ) Categories for names of Classified companies.

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

Last Updated on 2014-06-17

# SHAFT WALLS

## GA FILE NO. WP 7119 | PROPRIETARY* | 2 HOUR FIRE | 35 to 39 STC SOUND

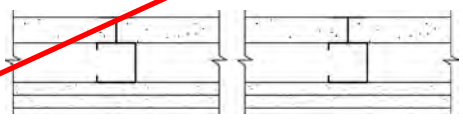
**GYPSUM WALLBOARD, STEEL C-H, C-T, OR I STUDS**

One layer 1" x 24" proprietary type X gypsum panels inserted between 2½" floor and ceiling J runners with T section of 2½" steel C-H, C-T, or I studs between panels.

OPPOSITE SIDE: **Base** layer ½" proprietary type X gypsum wallboard applied at right angles to studs with 1" Type S drywall screws 24" o.c. and 3" from floor and ceiling runners. **Face** layer ½" proprietary type X gypsum wallboard applied parallel to studs with 1⅝" Type S drywall screws 12" o.c. and 6" from floor and ceiling runners. **(NLB)**

**PROPRIETARY GYPSUM BOARD**

Lafarge North America Inc. - NOT USED irecheck® Type C
- efense® Shaftliner



Thickness: 3½"
Approx. Weight: 9 psf
Fire Test: UL R18482, 07NK23212, 08/18/08, UL Design V481
Sound Test: RAL TL08-168, 6-17-08

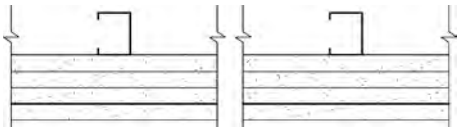
## GA FILE NO. WP 7125 | GENERIC | 2 HOUR FIRE | 35 to 39 STC SOUND

**GYPSUM WALLBOARD, STEEL STUDS**

**Base** layer ⅝" type X gypsum wallboard or gypsum veneer base applied at right angles to ONE SIDE ONLY of 1⅝" steel studs 24" o.c. with 1" Type S drywall screws 12" o.c. **Second** layer ⅝" type X gypsum wallboard or gypsum veneer base applied at right angles with two 1⅝" Type S drywall screws per board. **Third** layer ⅝" type X gypsum wallboard or gypsum veneer base applied at right angles with two 2⅝" Type S drywall screws per board and one 2⅝" Type S drywall screws placed midway between studs at floor and ceiling runners. Steel strips 0.020" x 1½" wide vertically applied over third layer at vertical joints and intermediate studs with 2⅝" Type S drywall screws 12" o.c. **Fourth** layer ⅝" 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)**

WALL ASSEMBLY 20



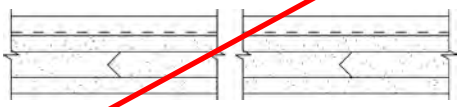
Thickness: 4⅛"
Limiting Height: 12'0"
Approx. Weight: 9.5 psf
Fire Test: GET, 4-13-70
Sound Test: KG 634, 4-1-70

## GA FILE NO. WP 7210 | GENERIC | 2 HOUR FIRE | 30 to 34 STC SOUND

**SOLID GYPSUM WALLBOARD, STEEL BRACING**

Steel angles, 22 ga, ¾" x 1¼", attached to floor. Steel angles, 22 ga, ¾" x 1¼" x 30" long, attached to end walls and spaced not more than 5 feet o.c. Ceiling channel, 25 ga, 1" deep by 1⅝" wide, attached to ceiling. One leg of the ceiling channel is aligned with 1¼" leg of the wall angles and oriented so the first two layers of gypsum board can be inserted into the runner. Hoirizontal bracing angles, 22 ga, ¾" x 1¼", spaced 5 feet o.c. with 1¼" leg attached to 1¼" leg of wall angles. **Base** layer ⅝" type X gypsum wallboard or gypsum veneer base applied at right angles without horizontal joints to horizontal bracing with top edge inserted in ceiling channel and attached to floor, wall, and bracing angles with 1" Type S drywall screws 16" o.c. **Second** layer 1" gypsum board panels applied at right angles without horizontal joints to horizontal bracing with laminating compound combed over the entire contact sur NOT USED nserted into ceiling channel and attached to floor, wall, and brac e S-12 drywall screws 12" o.c. Additional floor and wall angles attached to floor and end walls with 1¼" leg flat against the gypsum board. Laminating compound combed over the entire contact surface. **Face** layer ⅝" type X gypsum wallboard or gypsum veneer base applied at right angles without horizontal joints horizontal to bracing with laminating compound combed over the entire contact surface and attached to ceiling channel and floor, and wall angles with 1" Type S drywall screws 16" o.c. **(NLB)**

†Limiting height shown is based on interior partition exposure conditions. Shaft wall exposure conditions may require reduction of limiting height.



Thickness: 2¼"
Limiting Height: 11'0"†
Approx. Weight: 9 psf
Fire Test: UL R1319-58, 74, 12-29-64, UL Design U505
Sound Test: Estimated

**Contact the manufacturer for more detailed information on proprietary products.*