

Practical Detailing for Mid-Rise Wood Frame Buildings

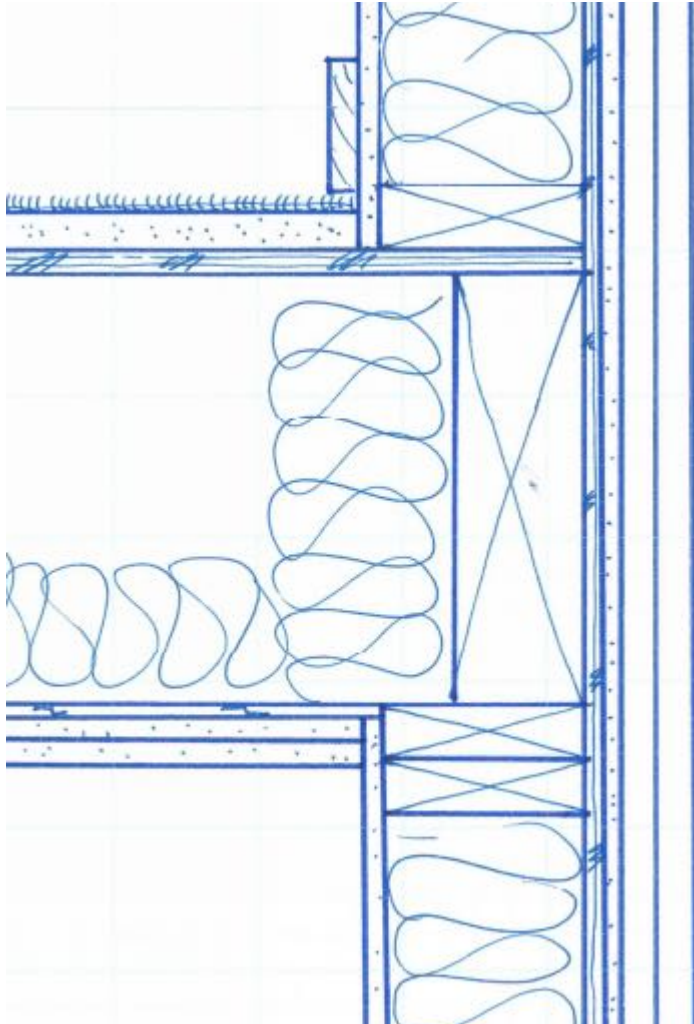


Jon Hall AIA, Quality Management Director
February 23 & 24, 2016

Disclaimer: This presentation was developed by a third party and is not funded by WoodWorks or the Softwood Lumber Board.

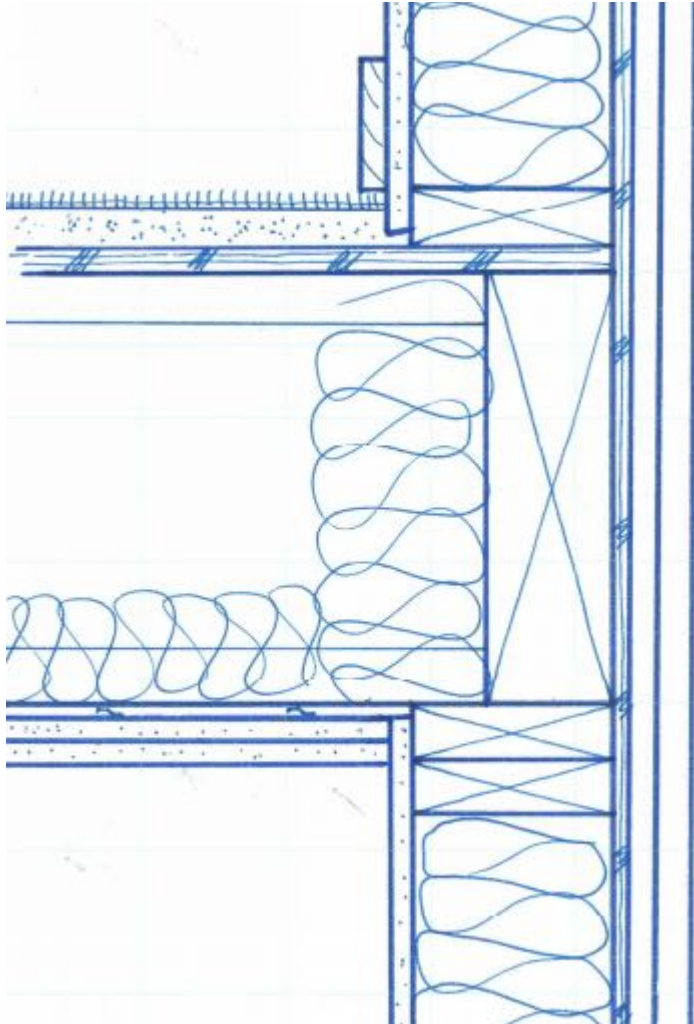
GGLO DESIGN

Type VA Detailing



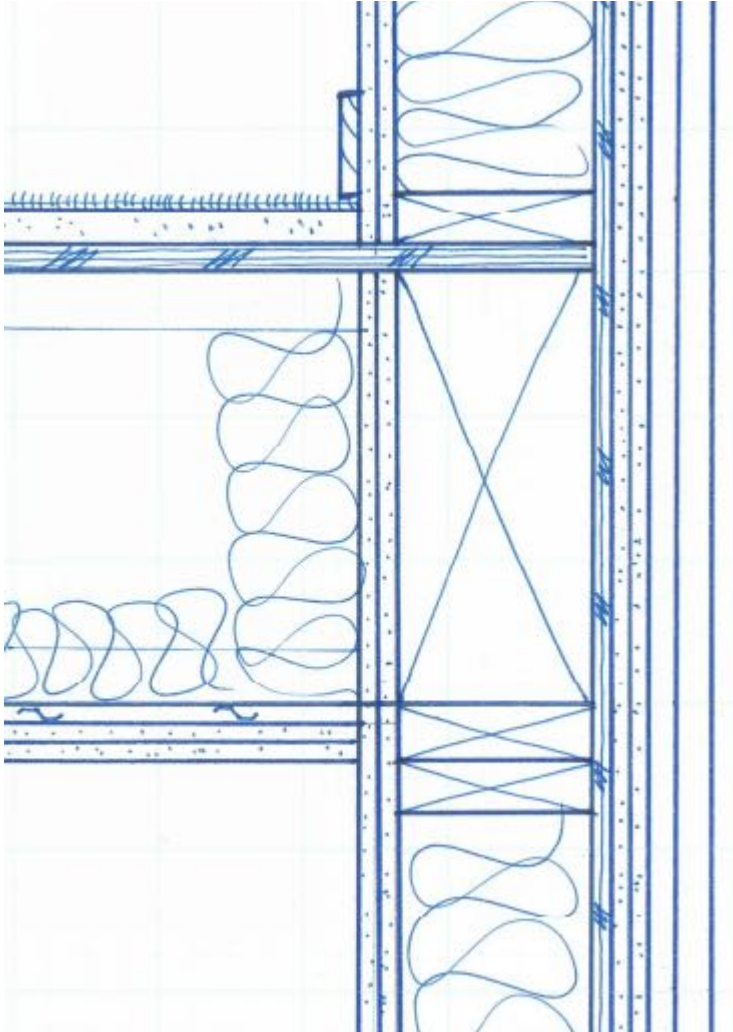
- 1 Hour Rated Floor
- 1 Hour Rated Wall
- Rated from Both Sides

Type VA Detailing



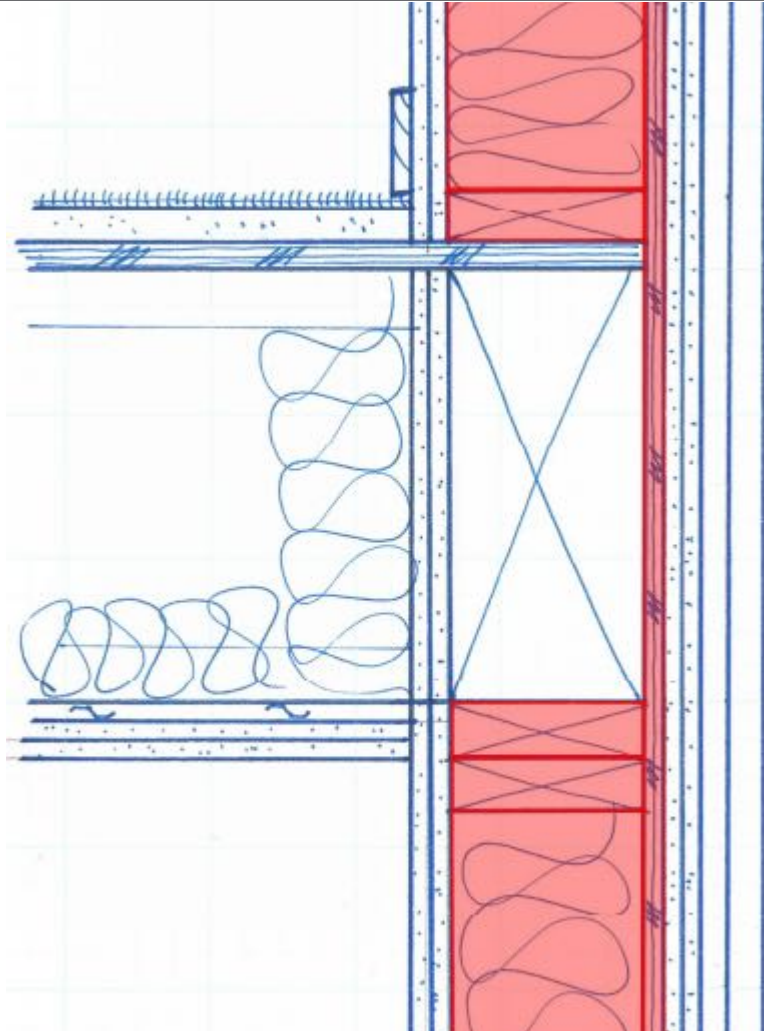
- 1 Hour Rated Floor
- 1 Hour Rated Wall
- Rated from Inside Only

Type IIIA Detailing



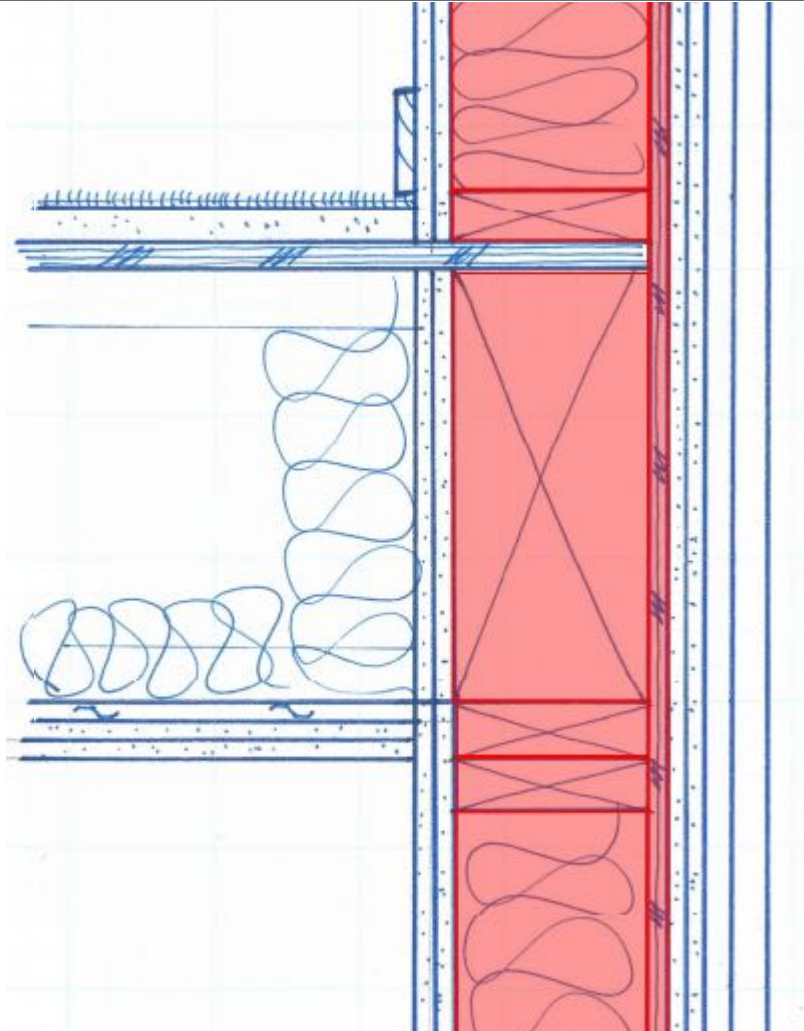
- 1 Hour Rated Floor
- 2 Hour Rated Wall
- Fire Retardant Treated
- Rated from Both Sides

Type IIIA Detailing



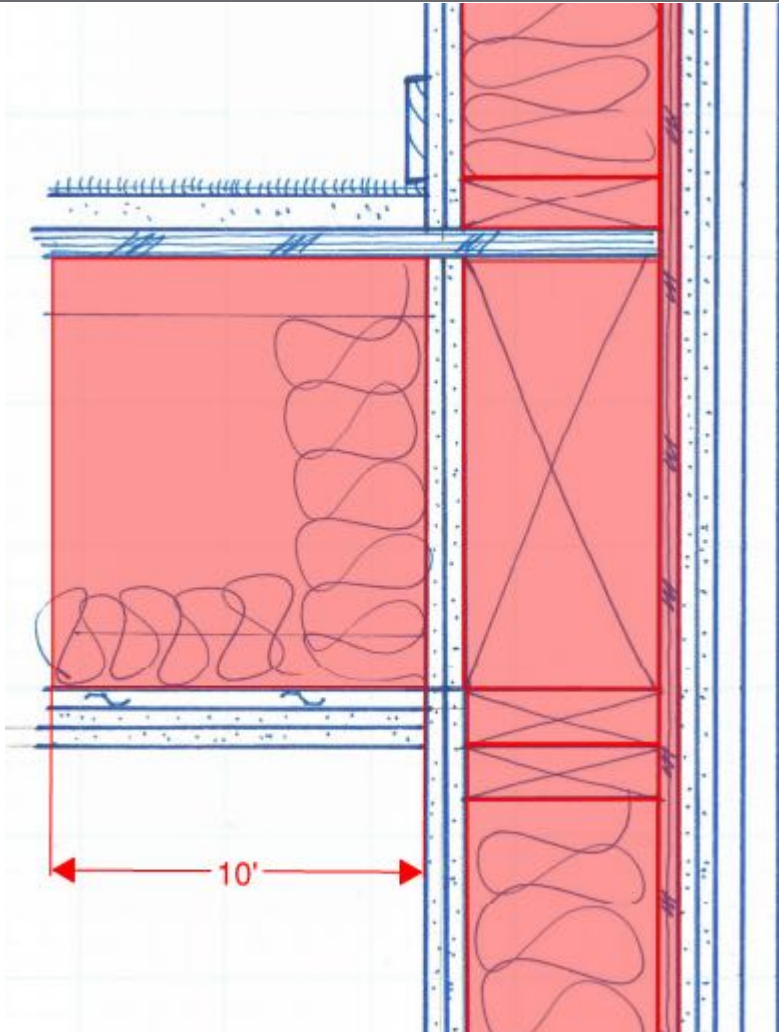
- 1 Hour Rated Floor
- 2 Hour Rated Wall
- Fire Retardant Treated
 - Wall Framing
 - Wall Sheathing
- Rated from Both Sides

Type IIIA Detailing



- 1 Hour Rated Floor
- 2 Hour Rated Wall
- Fire Retardant Treated
 - Wall Framing
 - Wall Sheathing
 - Rim Beam
- Rated from Both Sides

Type IIIA Detailing

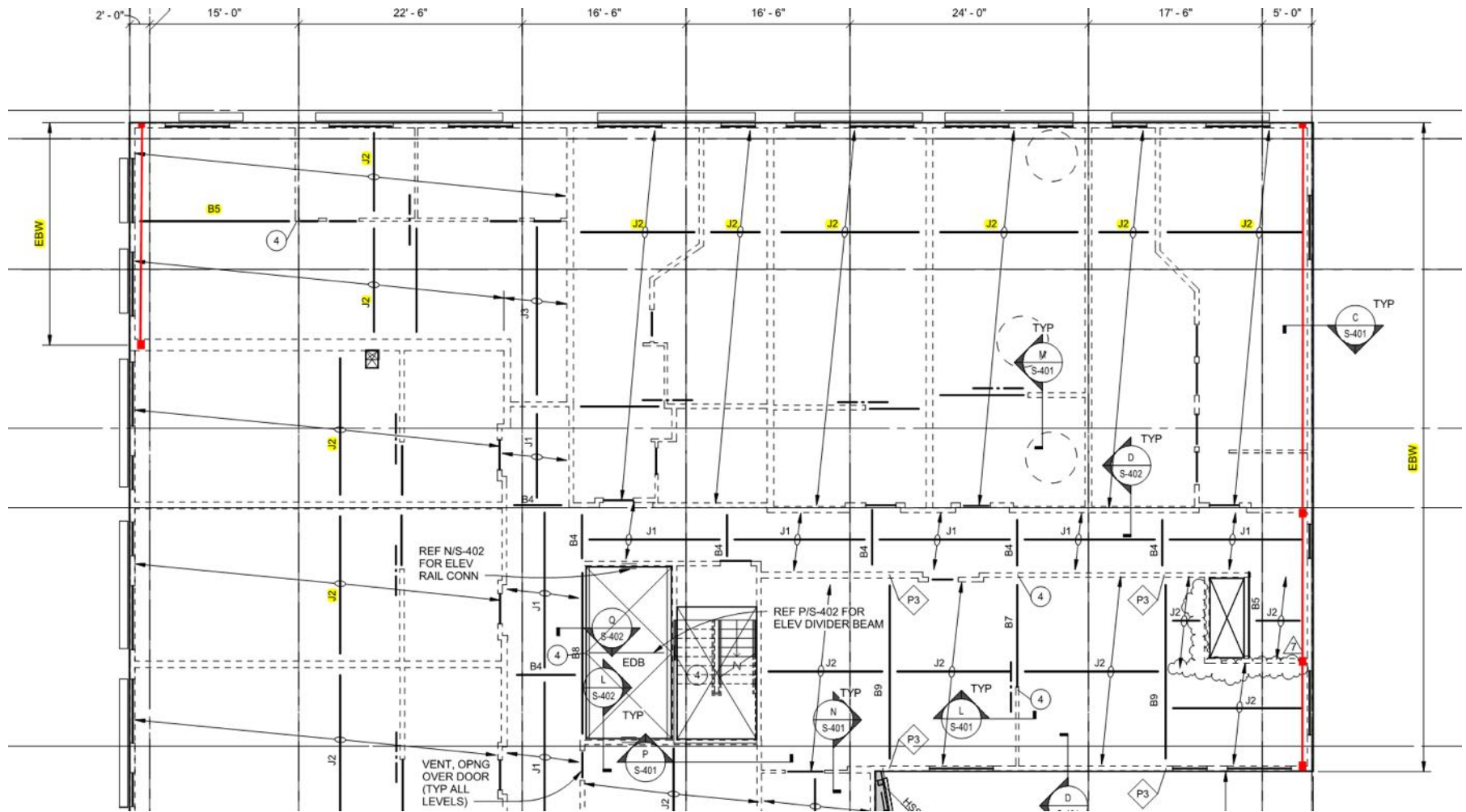


- 1 Hour Rated Floor
- 2 Hour Rated Wall
- Fire Retardant Treated
 - Wall Framing
 - Wall Sheathing
 - Rim Beam
 - Floor Joists for at least 10' & individually wrapped with GWB
- Rated from Both Sides

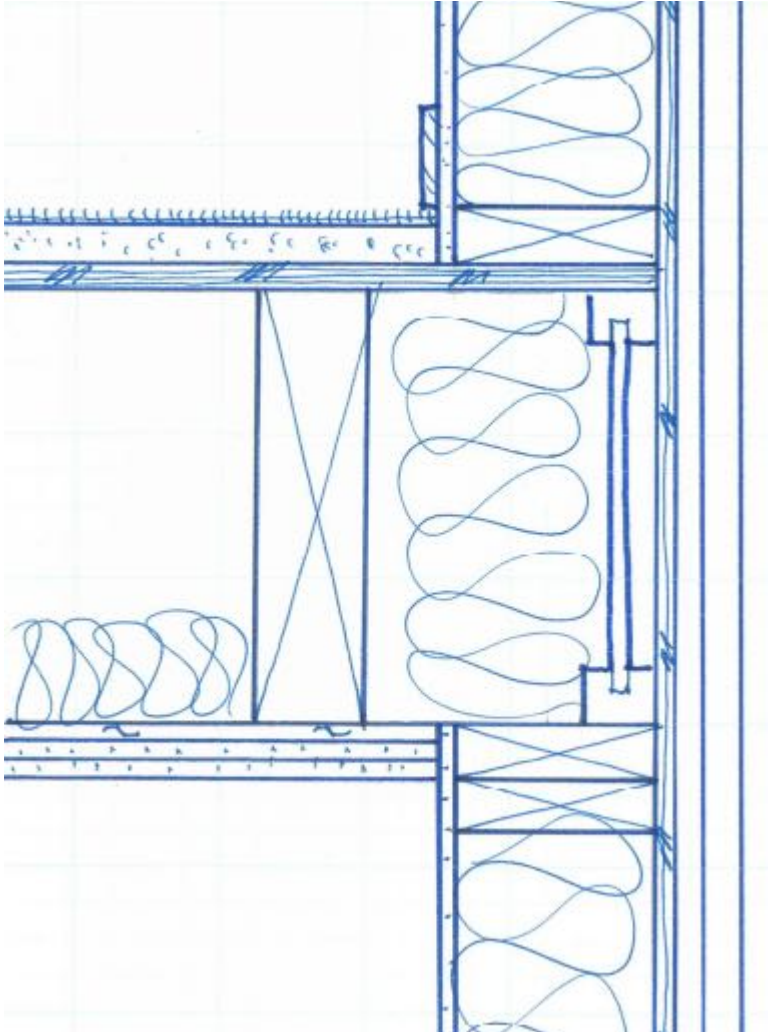
Type IIIA Detailing



Type IIIA Detailing

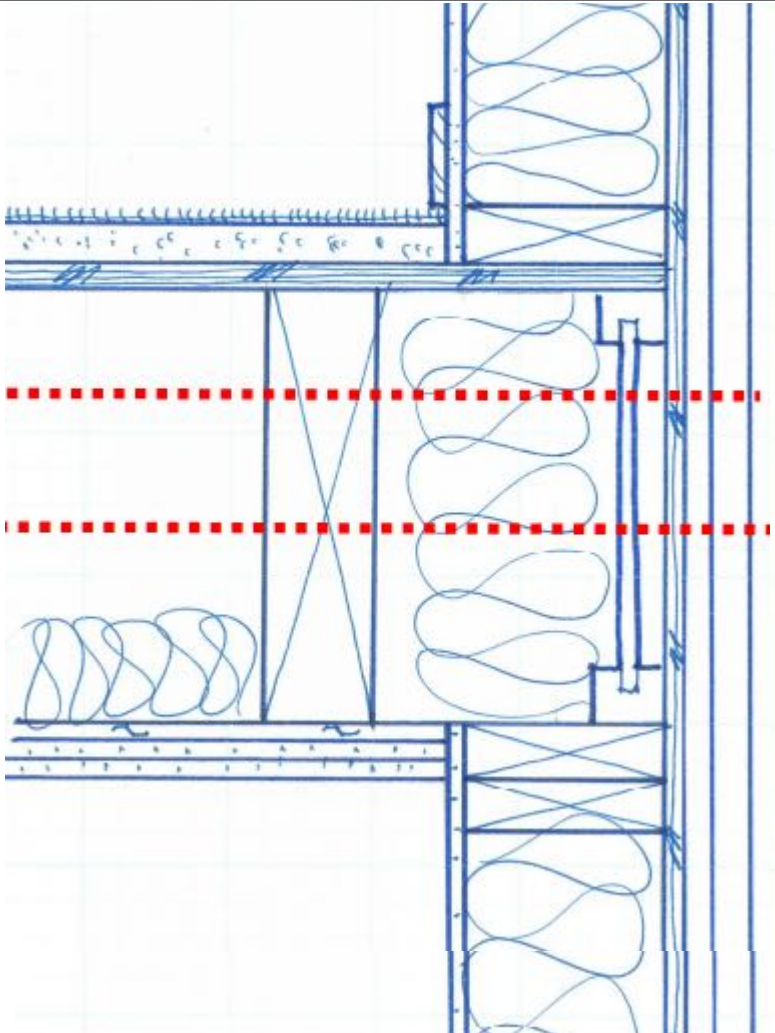


Type IIIA Detailing



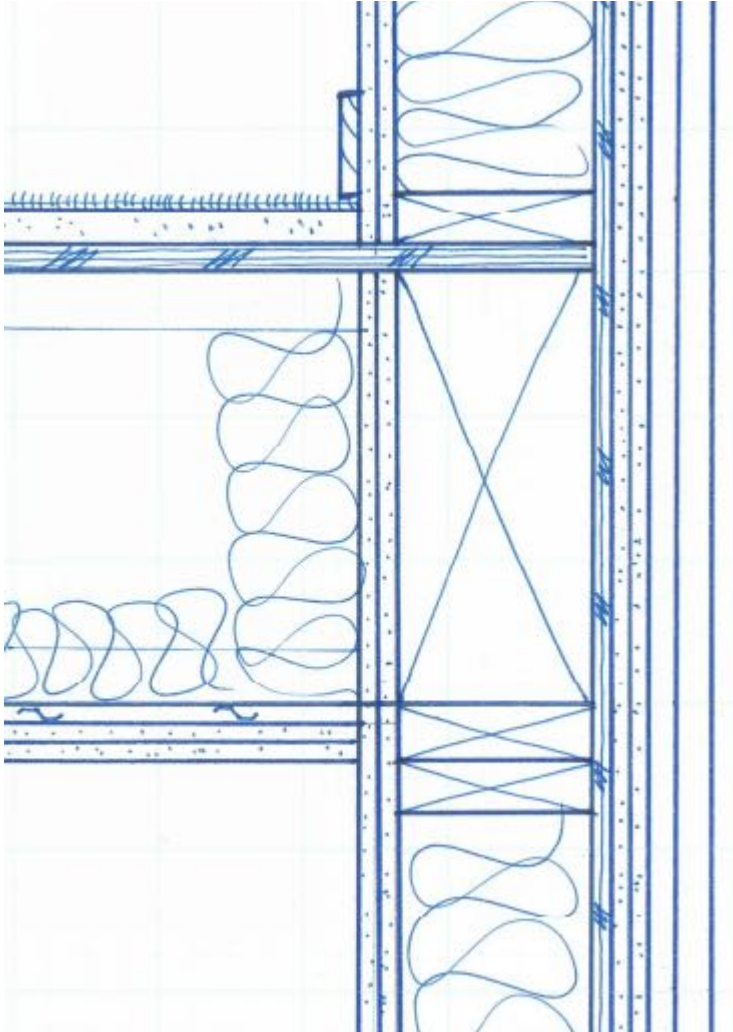
- 1 Hour Rated Floor
- 1 Hour Rated Non-Bearing Wall
- Fire Retardant Treated

Type IIIA Detailing



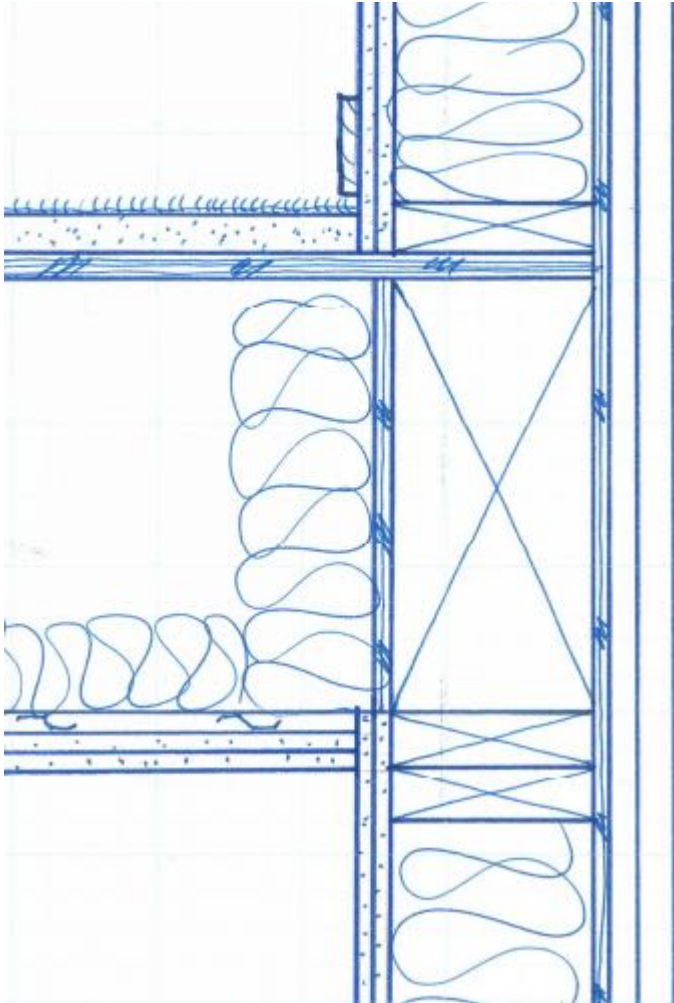
- 1 Hour Rated Floor
- 1 Hour Rated Non-Bearing Wall
- Fire Retardant Treated

Type IIIA Detailing



- 1 Hour Rated Floor
- 2 Hour Rated Wall
- Fire Retardant Treated
- Rated from Both Sides

Type IIIA Detailing

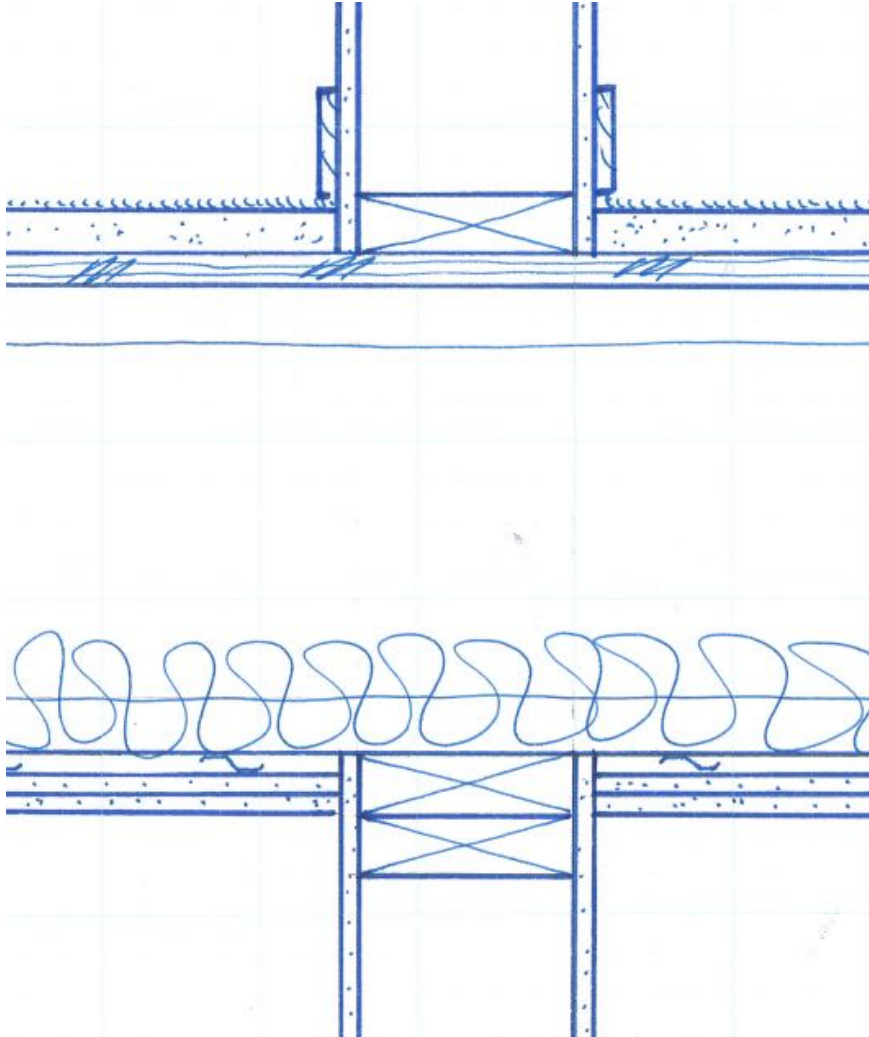


- 1 Hour Rated Floor
- 2 Hour Rated Non-Bearing Wall
- Fire Retardant Treated
- Fire Coated Plywood

Type IIIA Detailing

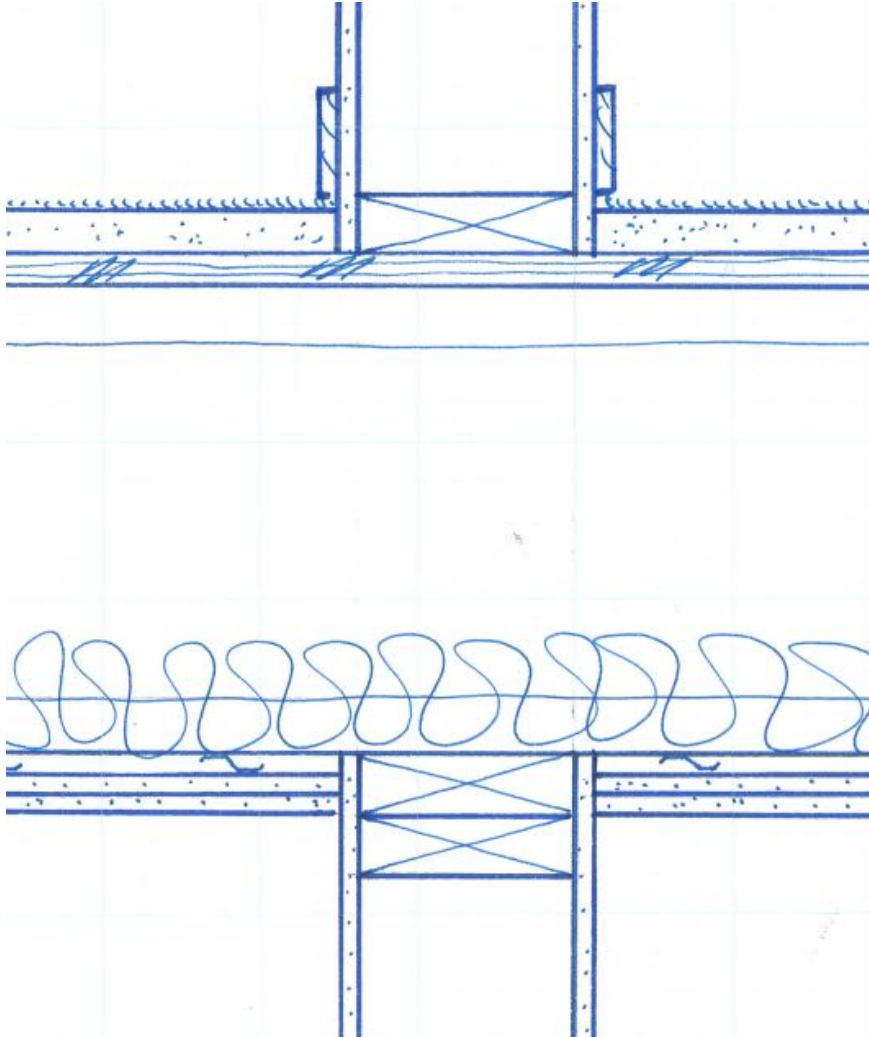
- 1 Hour Rated Floor
- 2 Hour Rated Non-Bearing Wall
- Fire Retardant Treated
- Fire Coated Plywood

Interior Wall Detailing



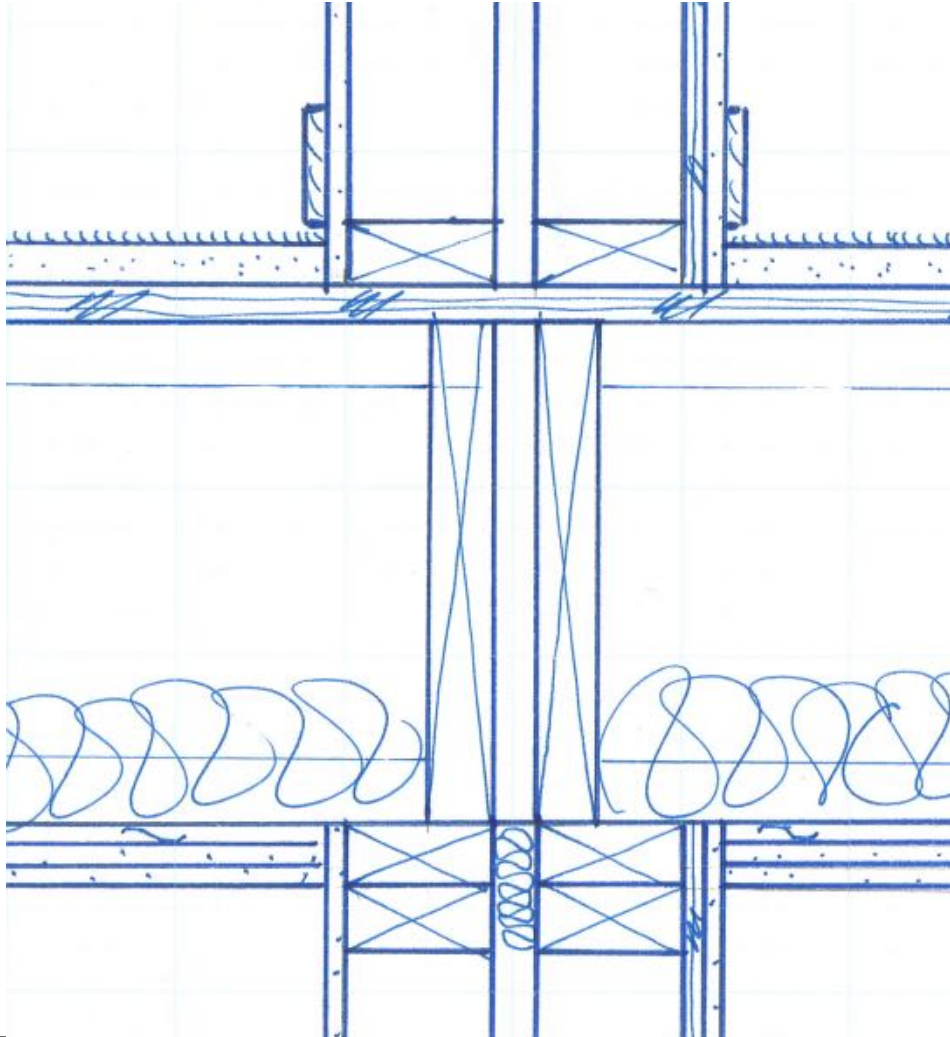
- 1 Hour Rated Floor
- Non-Rated Wall

Interior Wall Detailing



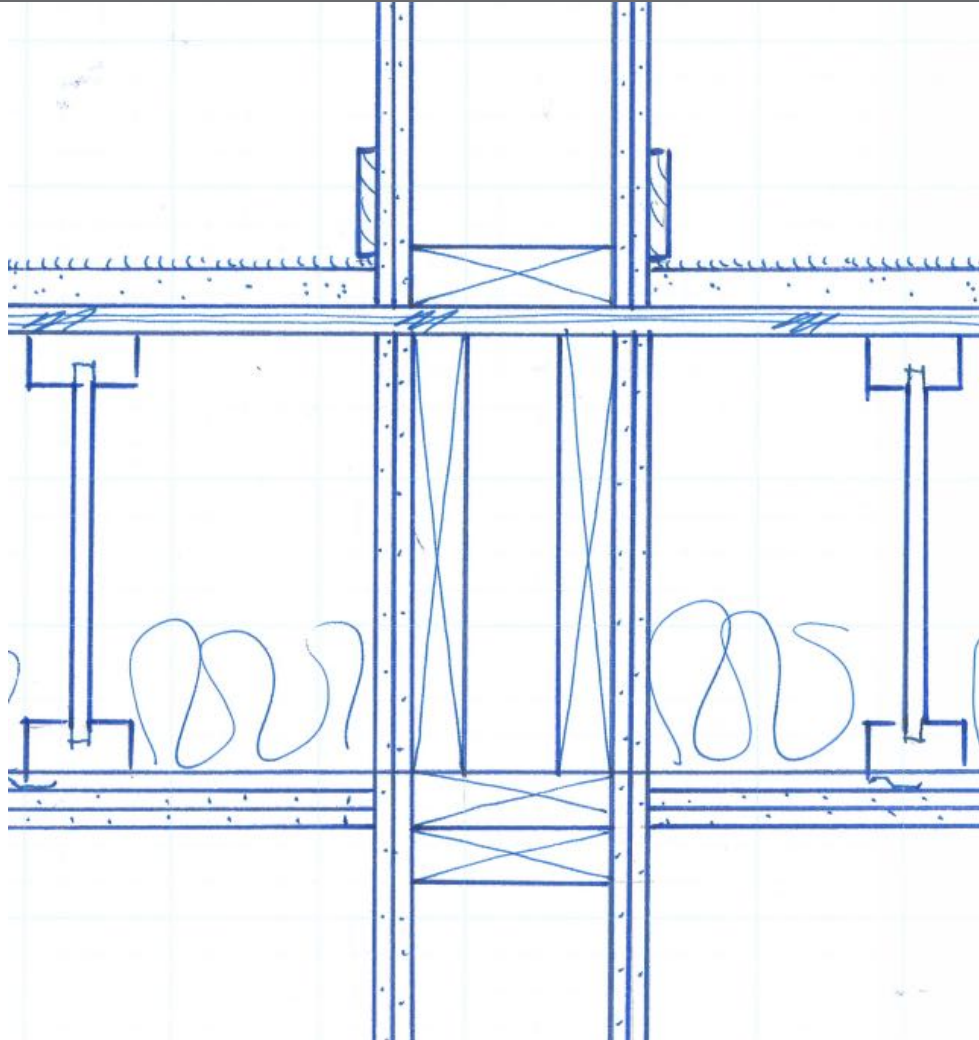
- 1 Hour Rated Floor
- 1 Hour Rated Wall

Interior Wall Detailing



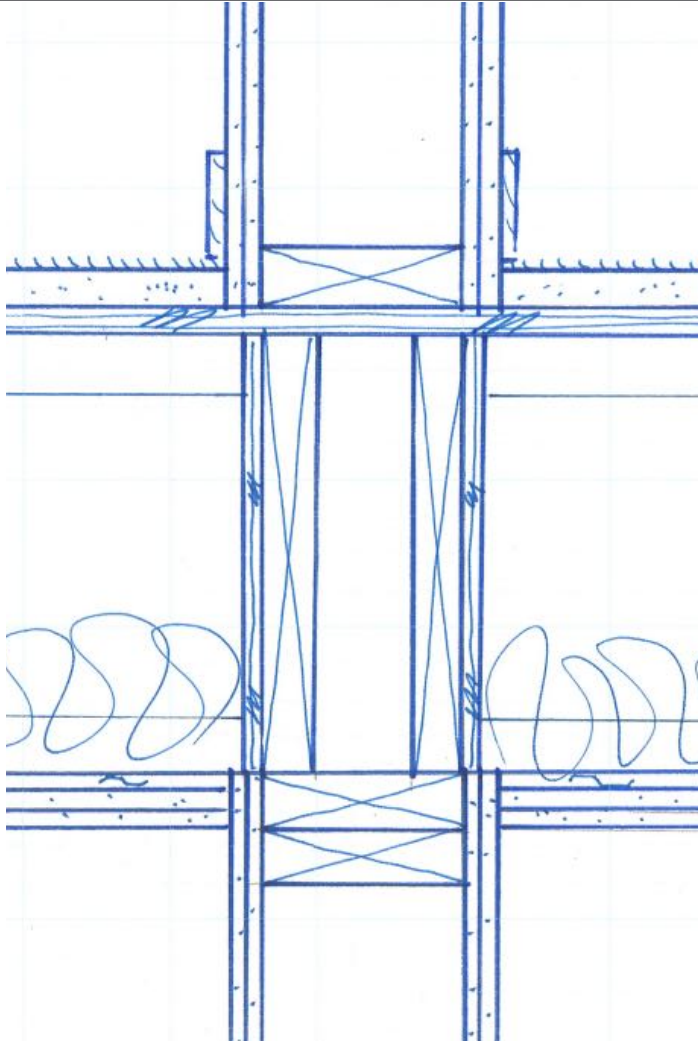
- 1 Hour Rated Floor
- 1 Hour Rated Demising Wall
- Fire Blocking Required

Interior Wall Detailing



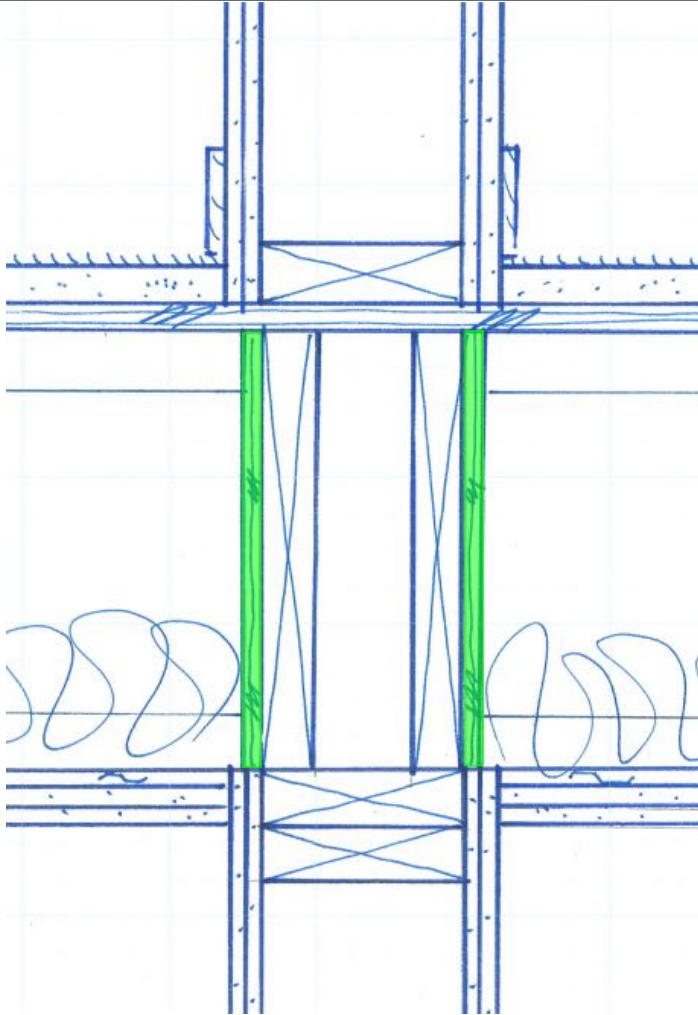
- 1 Hour Rated Floor
 - Parallel Framing
- 2 Hour Rated Wall

Interior Wall Detailing



- 1 Hour Rated Floor
 - Perpendicular Framing
- 2 Hour Rated Wall
- Fire Coated Plywood

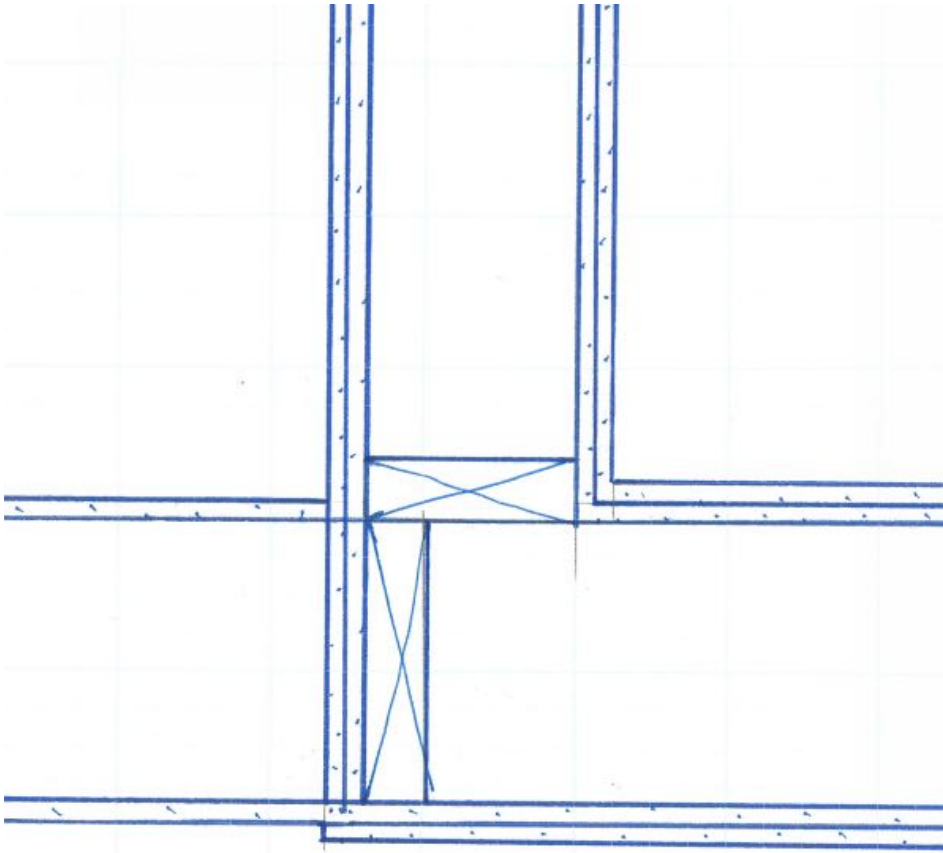
Interior Wall Detailing



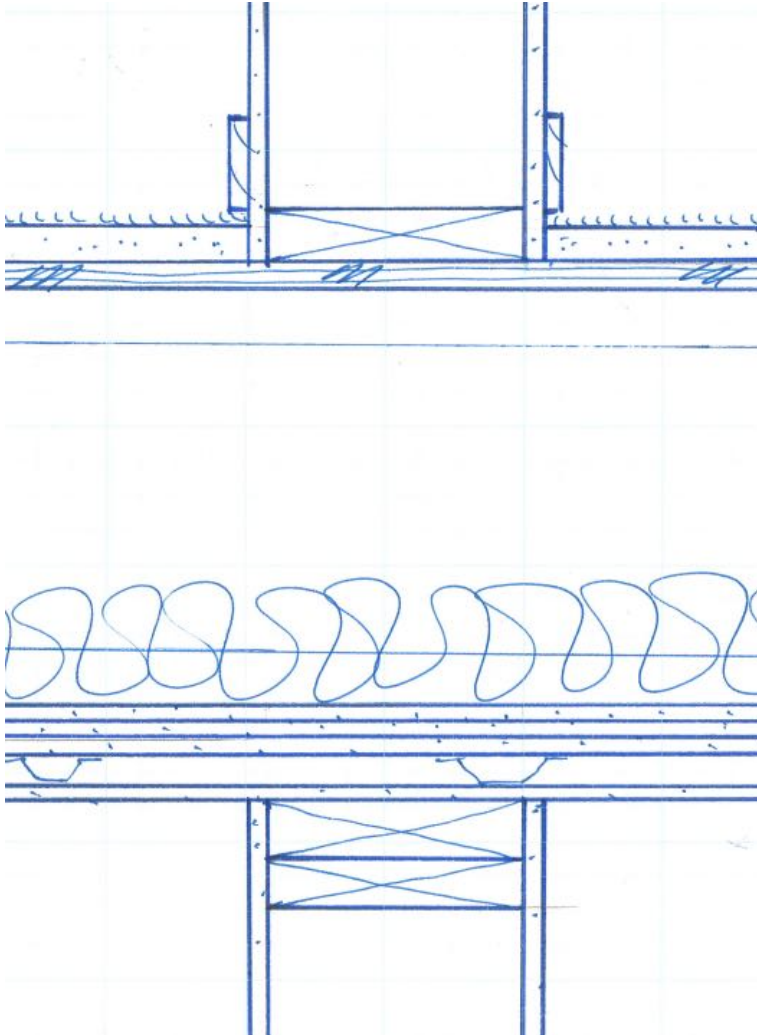
- 1 Hour Rated Floor
 - Perpendicular Framing
- 2 Hour Rated Wall
- Fire Coated Plywood

Interior Wall Detailing

- 1 Hour Rated Wall
- 2 Hour Rated Wall

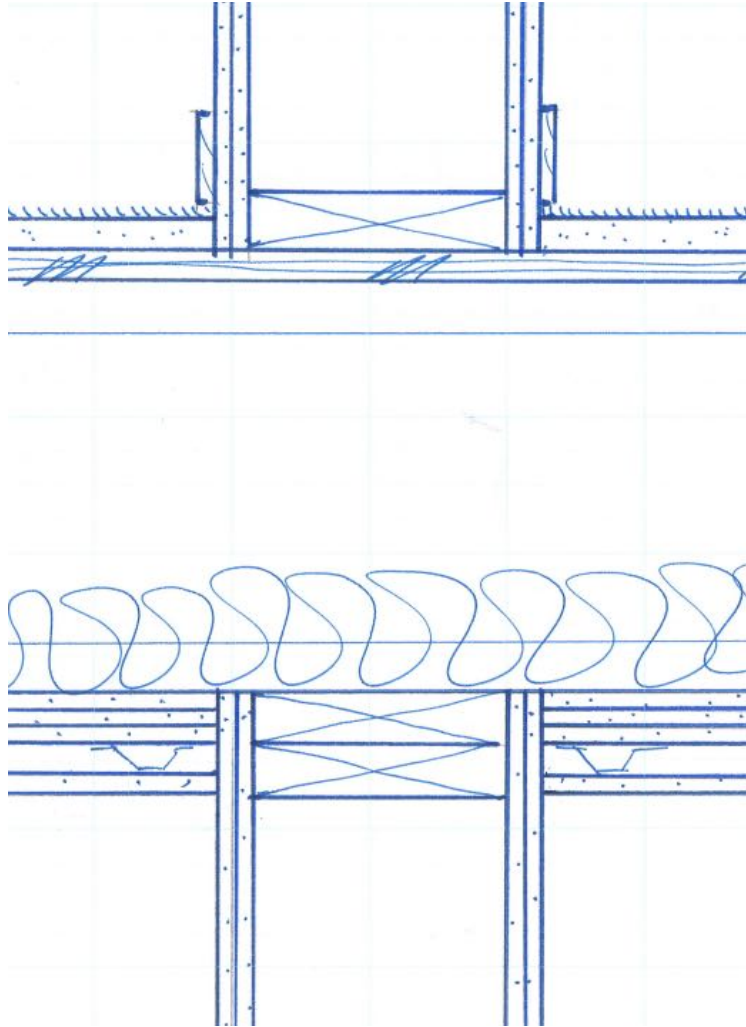


Interior Wall Detailing



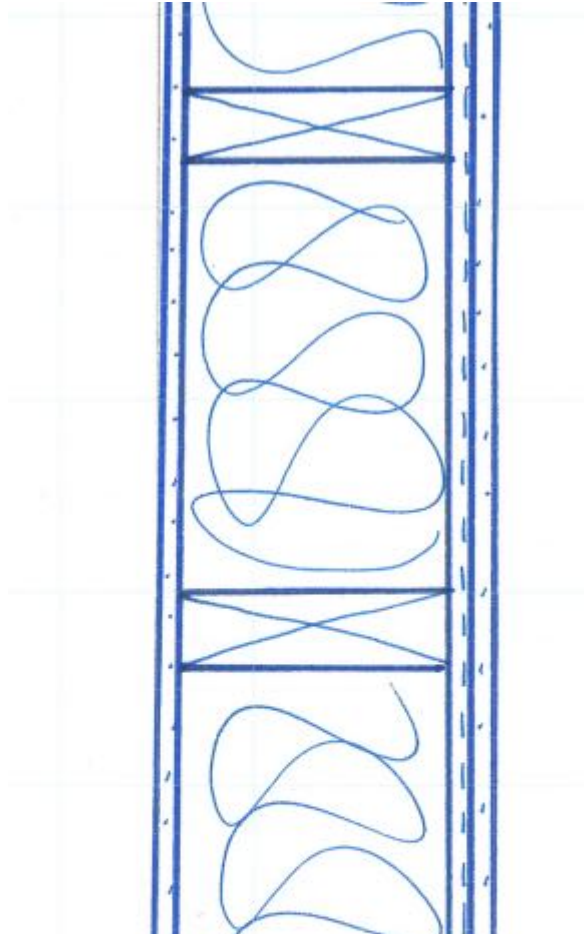
- 2 Hour Rated Floor
- 1 Hour Rated Wall - NLB

Interior Wall Detailing



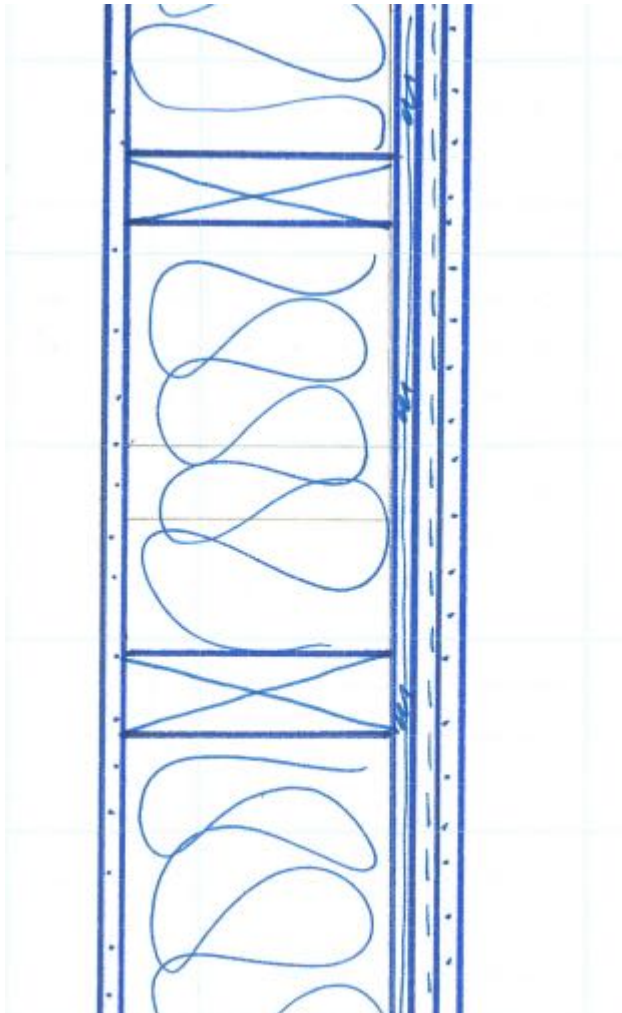
- 2 Hour Rated Floor
- 2 Hour Rated Wall – Load Bearing

Corridor Wall Detailing



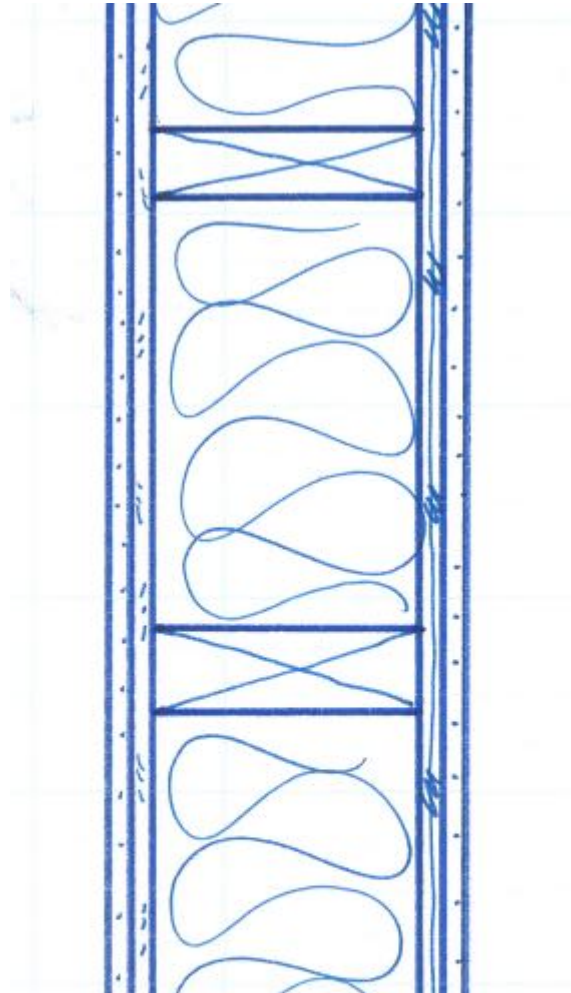
- 1 Hour Rated
- Load Bearing
- STC 50 min
- GA File No WP 3242
 - (For acoustics)

Corridor Wall Detailing



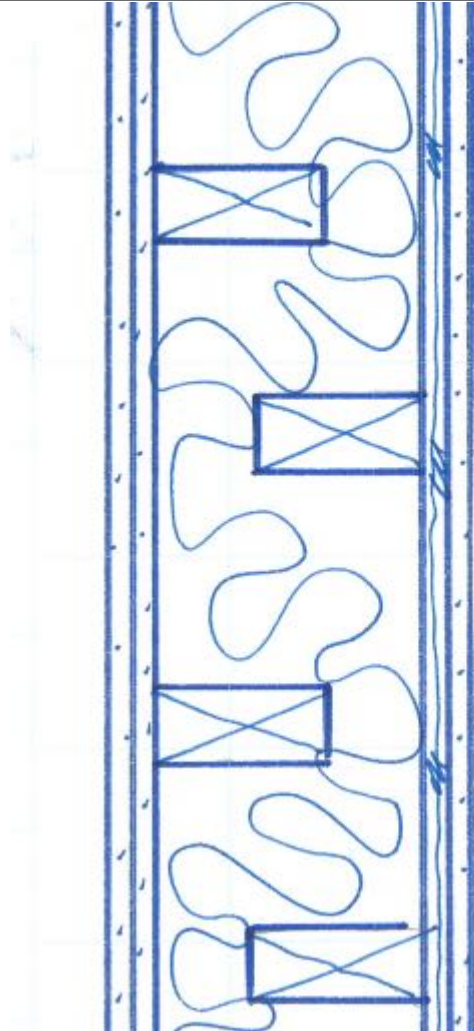
- 1 Hour Rated
- Load Bearing
- Shear Wall
- NOT STC 50 min
- GA File No WP 3242 Sim
 - (For acoustics)

Corridor Wall Detailing



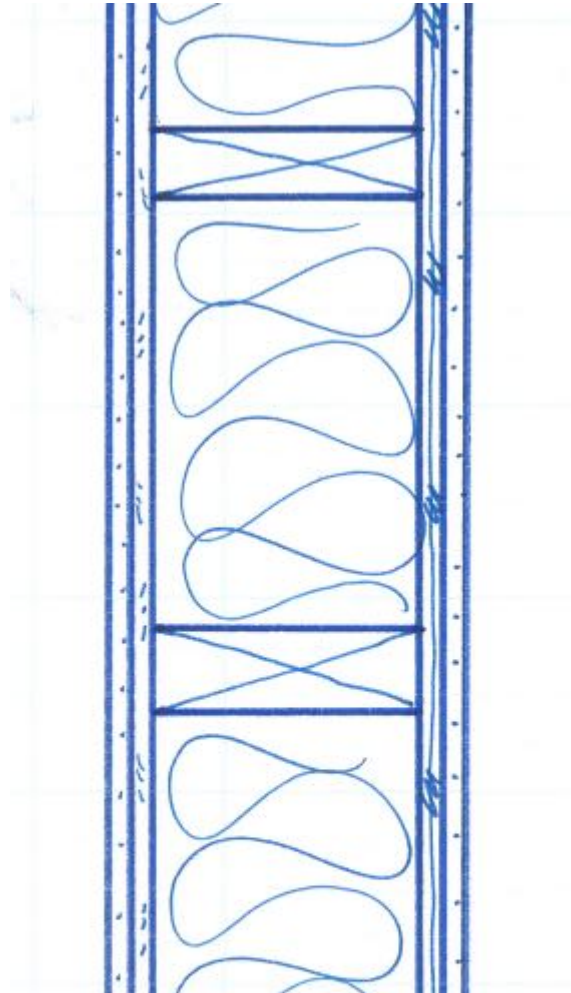
- 1 Hour Rated
- Load Bearing
- Shear Wall
- Sound Board
- STC 50 min
- NGC 2011058
 - (For acoustics)

Corridor Wall Detailing



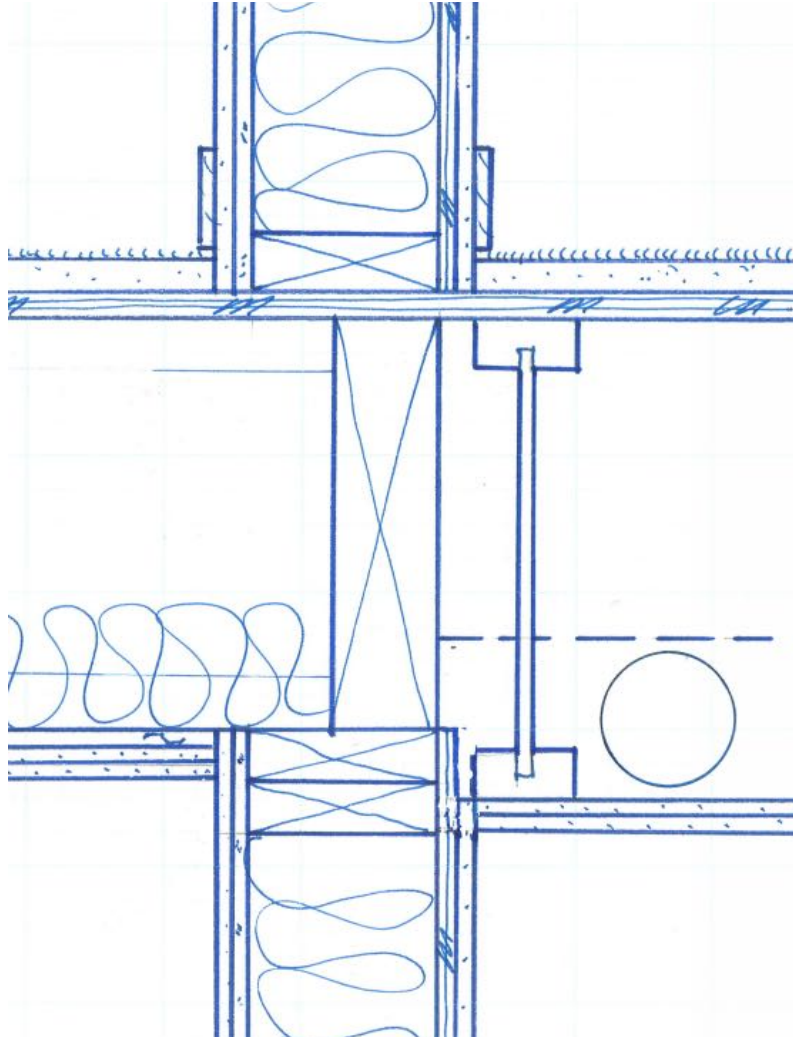
- 1 Hour Rated
- Load Bearing
- Shear Wall
- Staggered Stud
- STC 50 min
- GA File No 3910
 - (For acoustics)

Corridor Wall Detailing



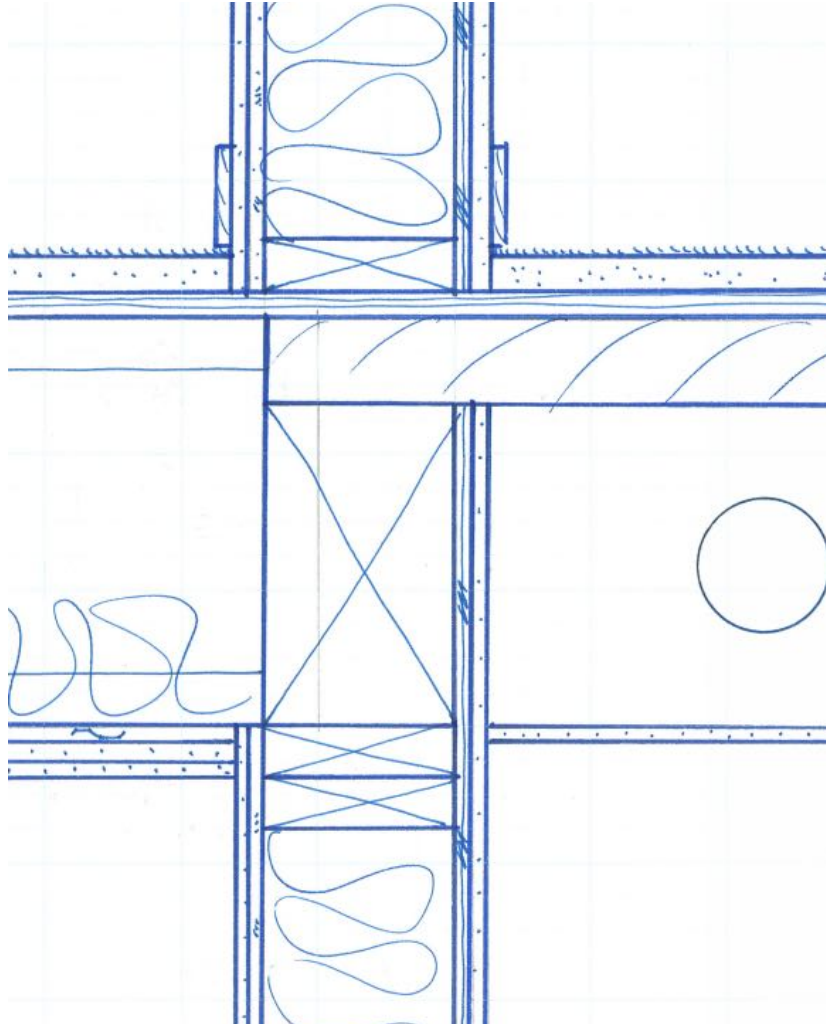
- 1 Hour Rated
- Load Bearing
- Shear Wall
- Staggered Stud
- STC 50 min
- GA File No 3910
 - (For acoustics)

Corridor Ceiling Detailing



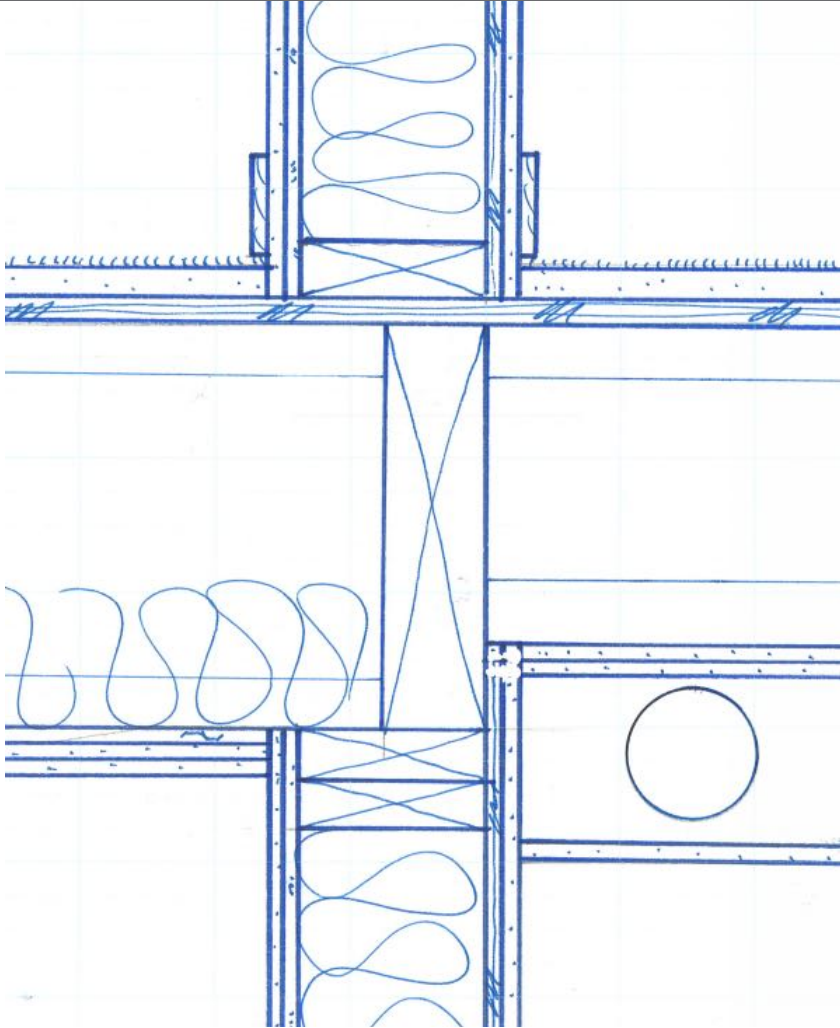
- 1 Hour Rated
- 6x10 Beams
- 14" I Joists
- MEPF Within Rated Enclosure

Corridor Ceiling Detailing



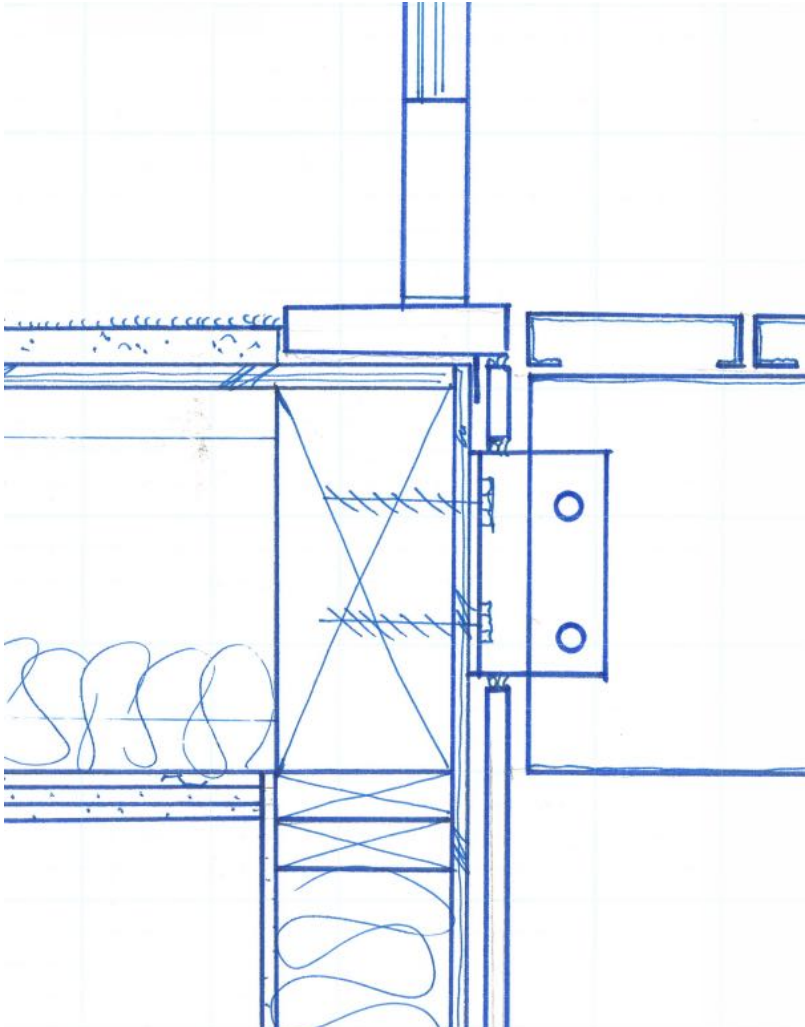
- 1 Hour Rated
- Heavy Timber Construction
- 3x Flooring
- MEPF Outside Rated Enclosure

Corridor Ceiling Detailing



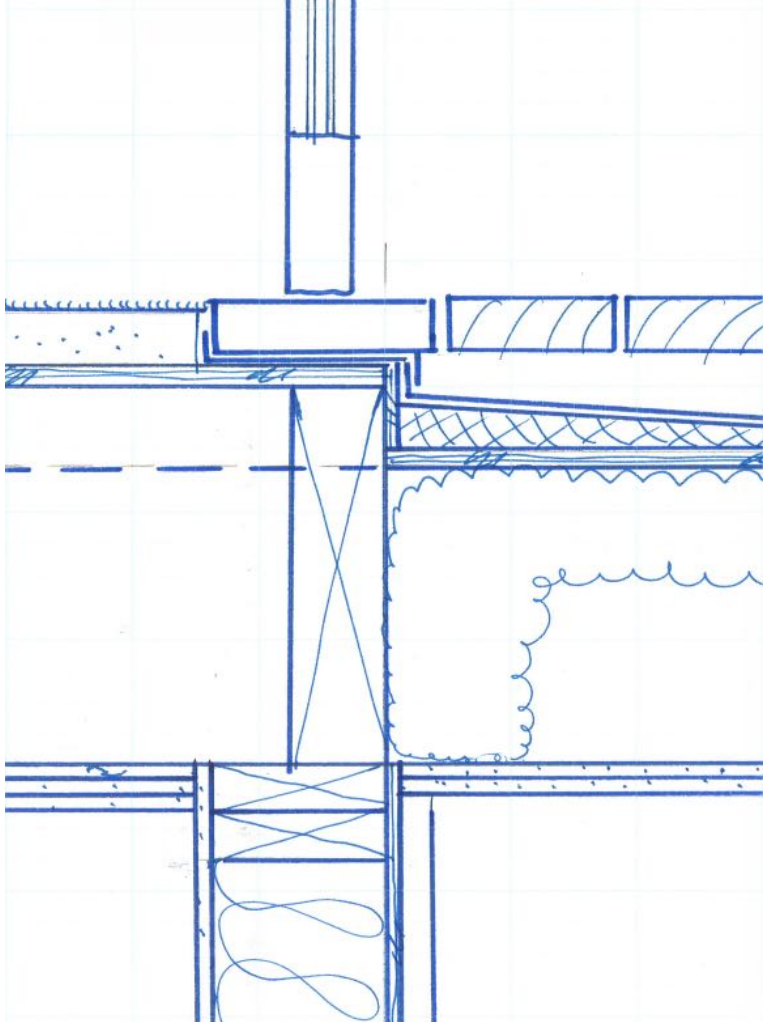
- 1 Hour Rated
- 9 ½" I Joists
- Dropped Ceiling
- MEPF Outside Rated Enclosure

Balcony Detailing



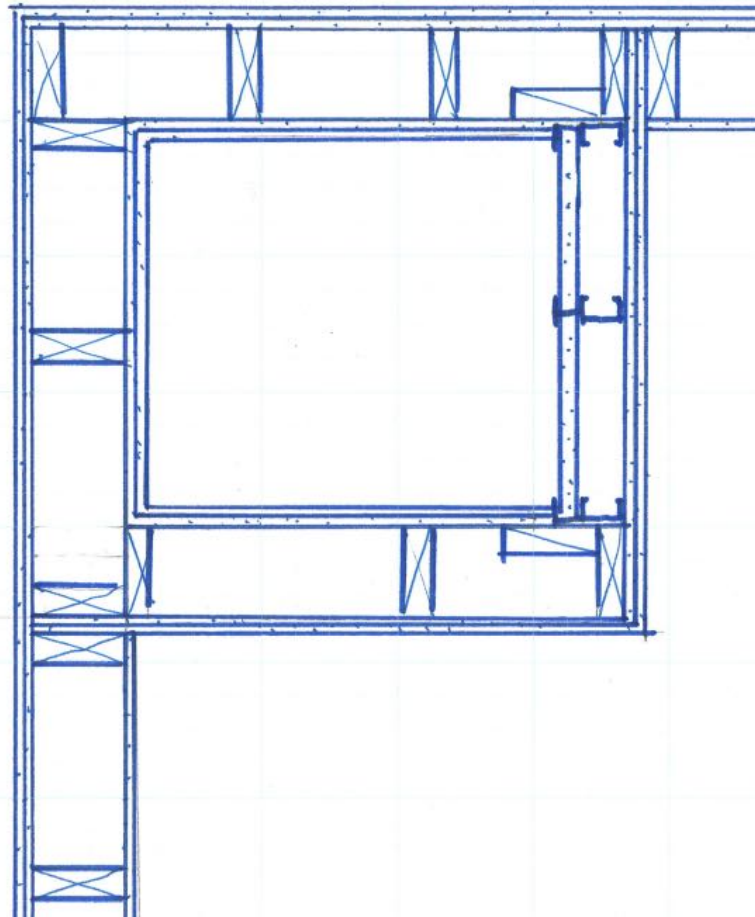
- Bolt On Balcony
 - Aluminum or Steel
 - Sprinkler Requirements
 - Floor Area Implications

Balcony Detailing



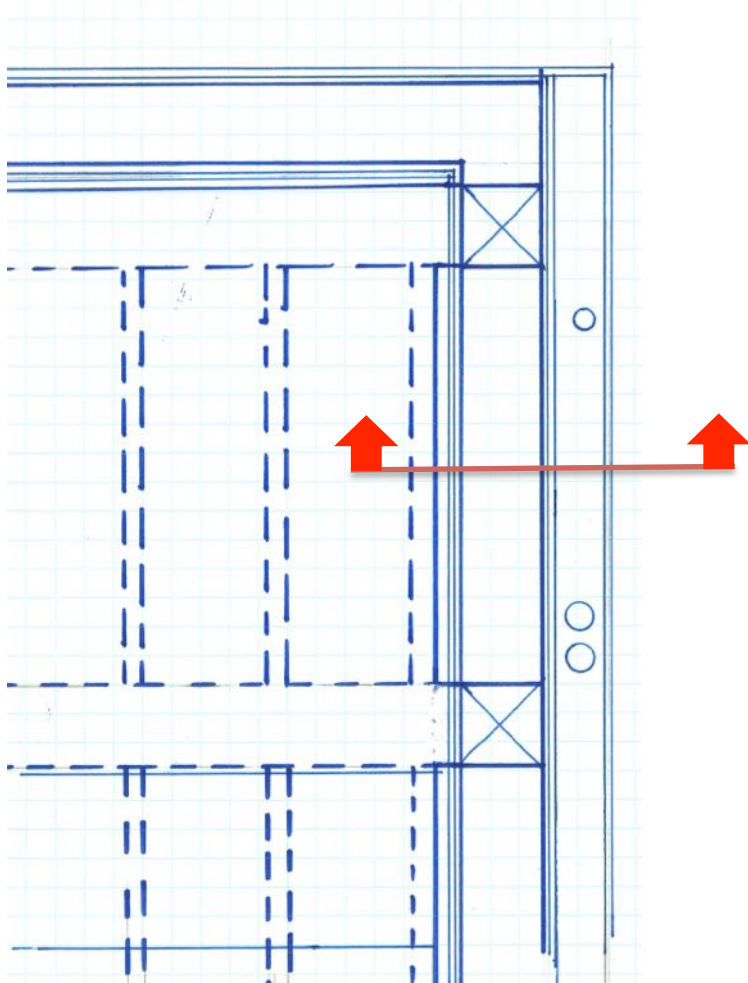
- Framed Balcony
 - Decking Options
 - Review Tested Assemblies
 - Step and Slope Limitations
 - Review for Accessibility
 - Venting Requirements
 - Waterproofing Implications

Shaft Wall Detailing

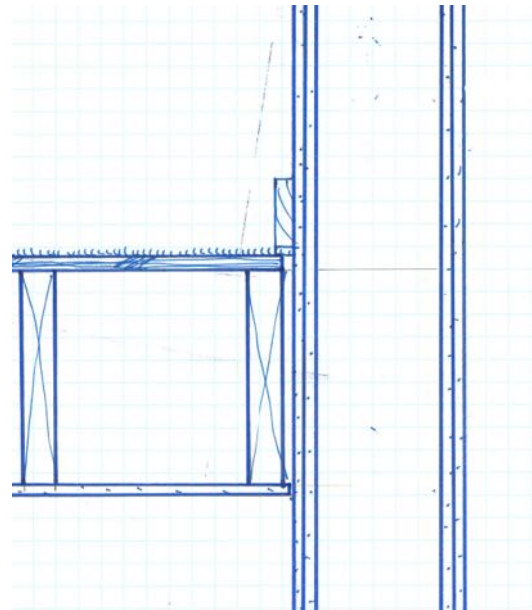


- Mechanical
 - 2 hour rating thru 1 hour wall
 - One side with shaft wall for access

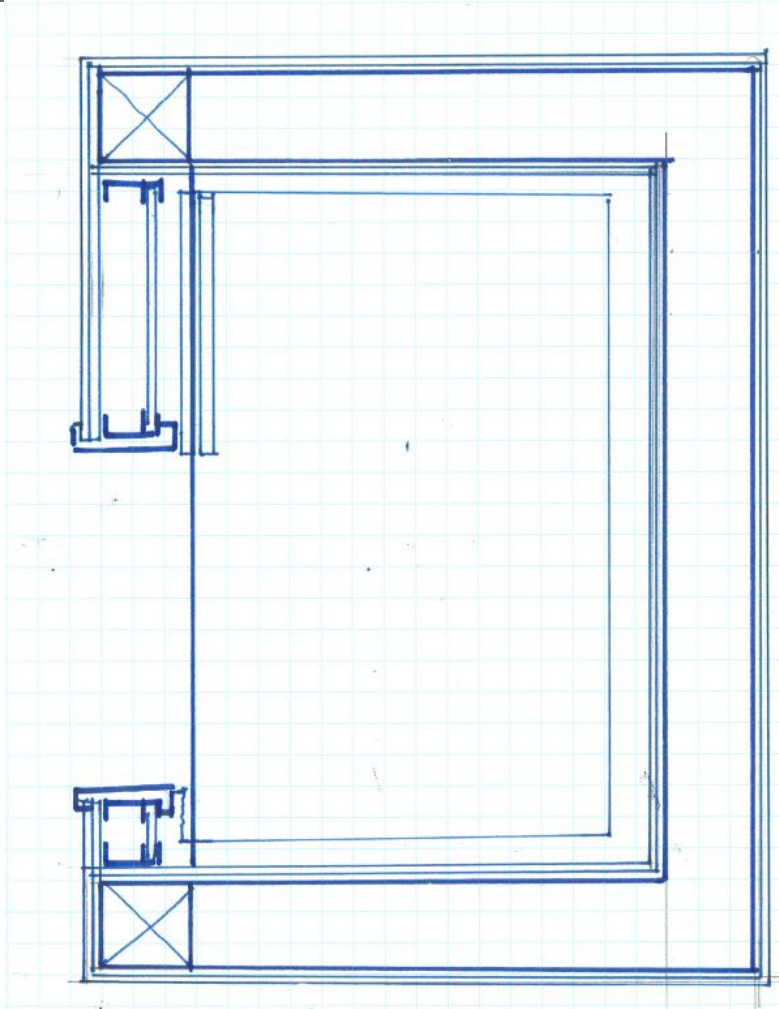
Shaft Wall Detailing



- Stair
 - Rating Continuous
 - Only Beams Penetrate Shaft
 - Secondary Stair Framing
 - Furred wall for MEPF



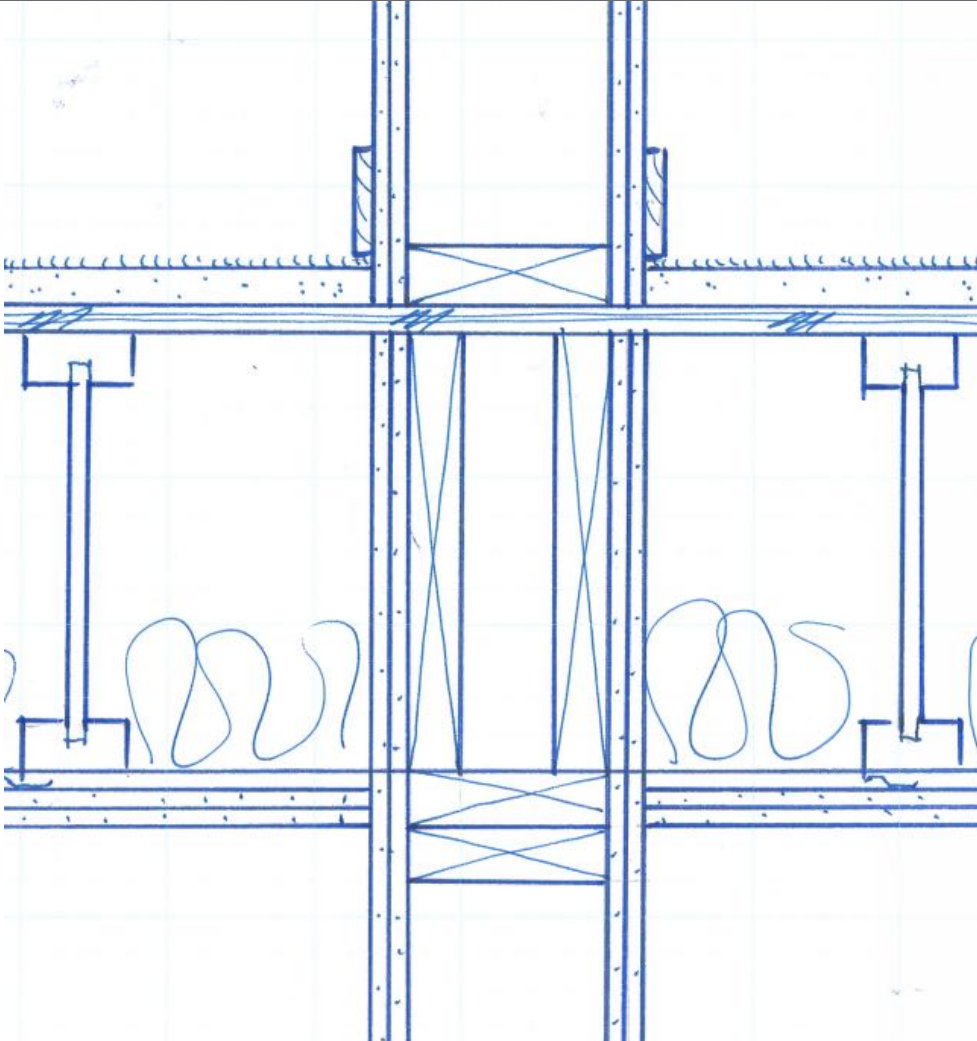
Shaft Wall Detailing



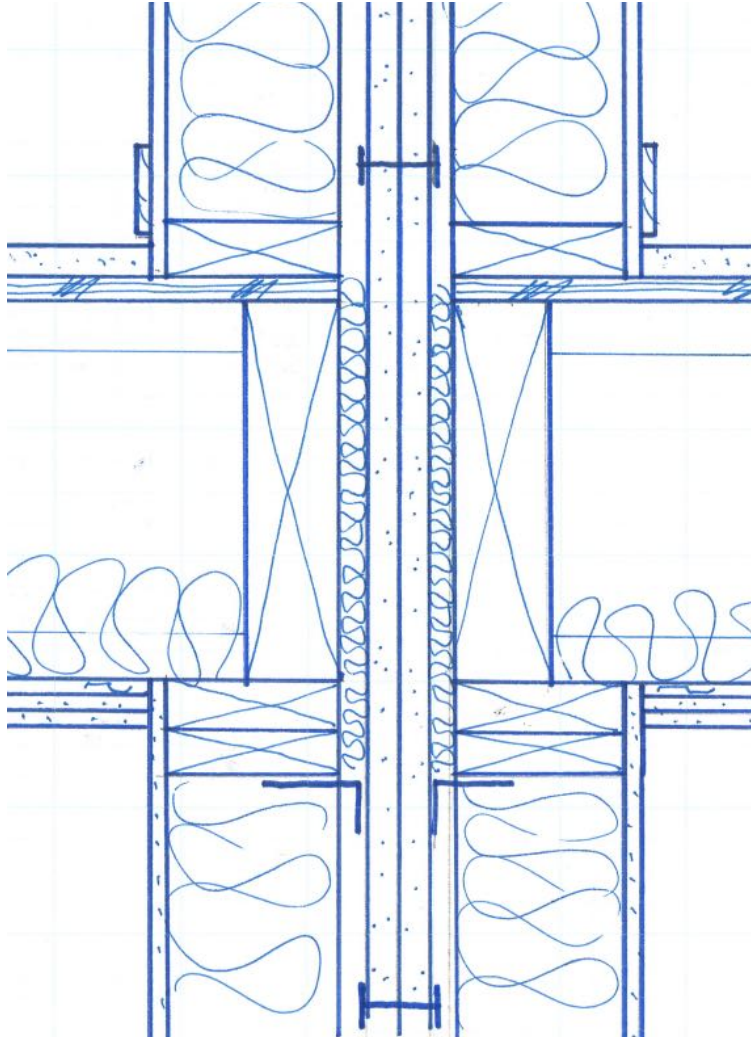
- Elevator
 - Beam at Door Opening
 - C-T Shaft Wall

Fire Wall Detailing

- Structurally Dependent
 - Seattle Only

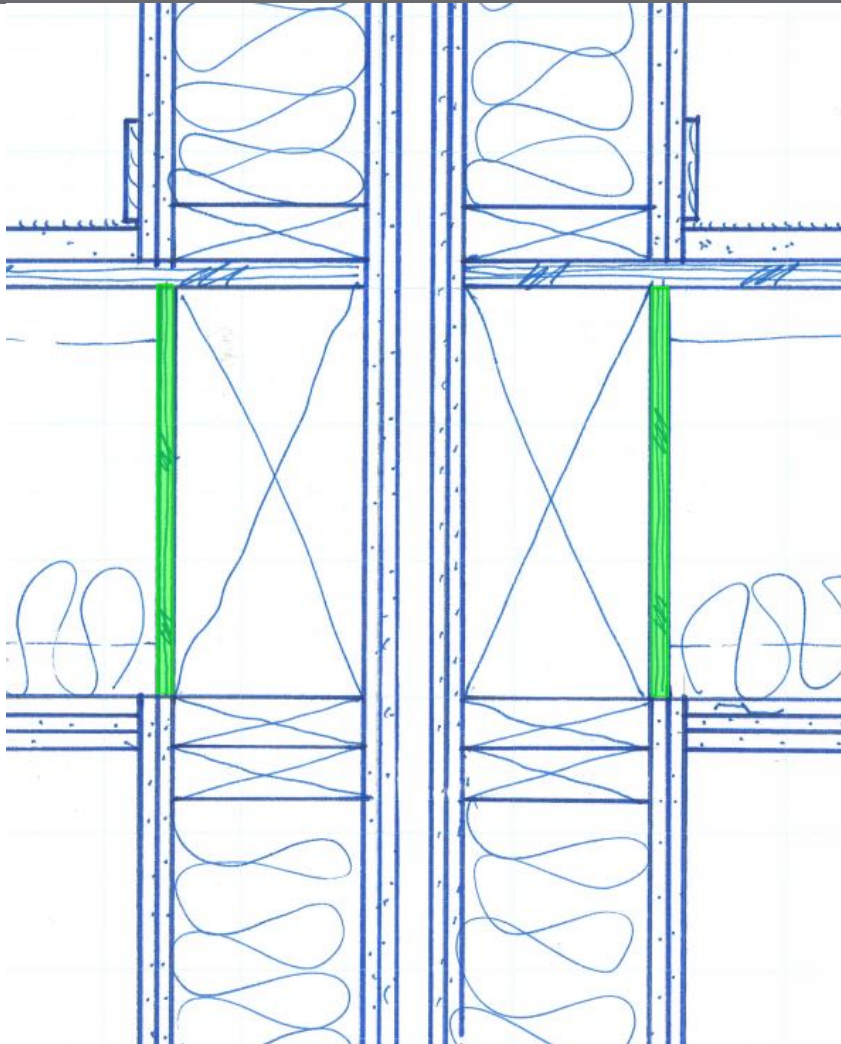


Fire Wall Detailing



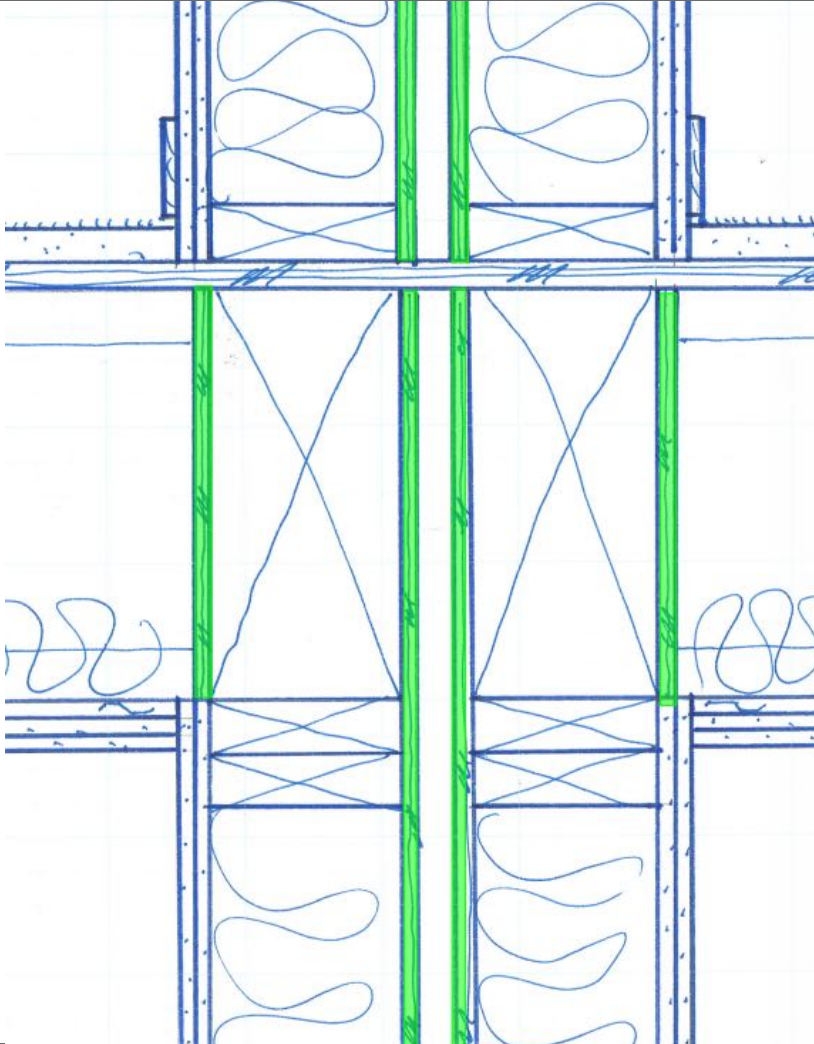
- Structurally Independent
- UL U336
 - (2) 1" Shaft Wall
 - H Studs
 - $\frac{3}{4}$ " Air Gap
 - Non rated wood walls
 - Breakaway clips

Fire Wall Detailing



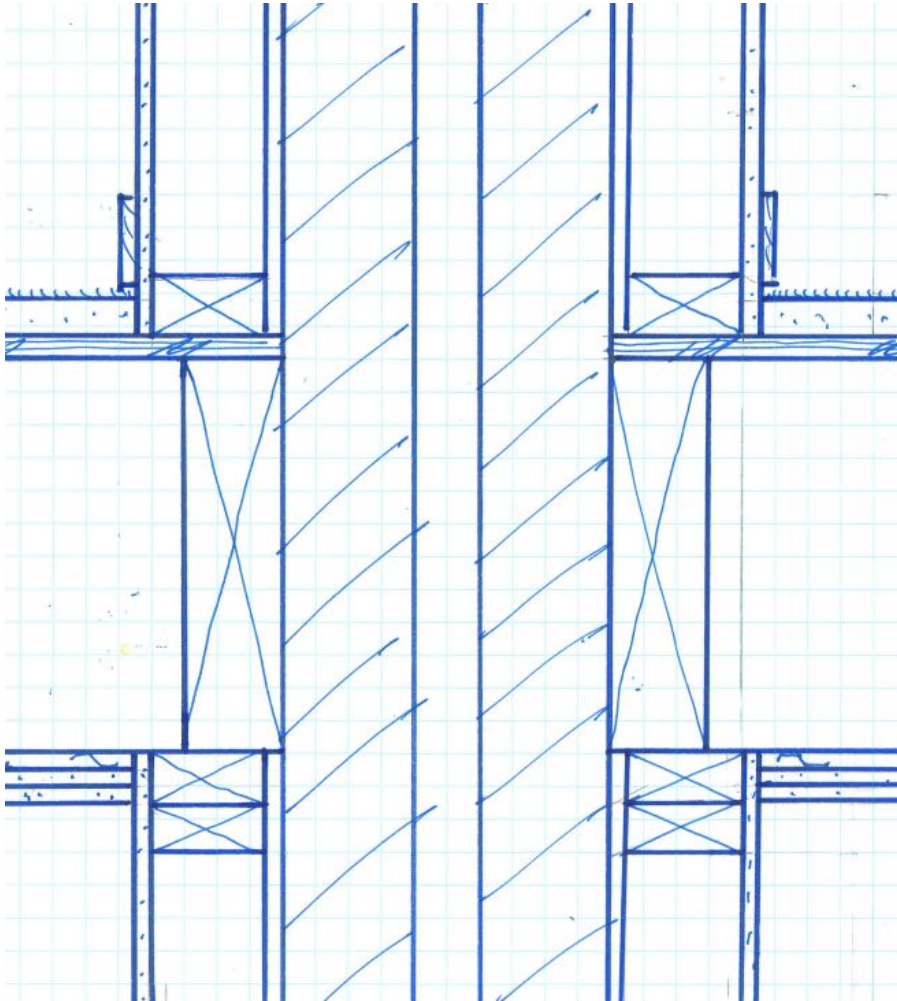
- Structurally Independent
- Two Wood Frame Walls
- Plywood Non-continuous
- Fire Coated Plywood at Rim

Fire Wall Detailing



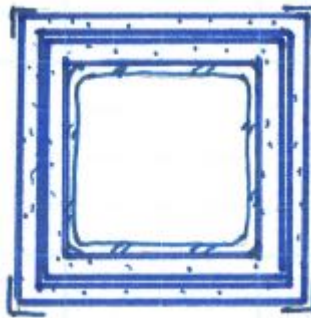
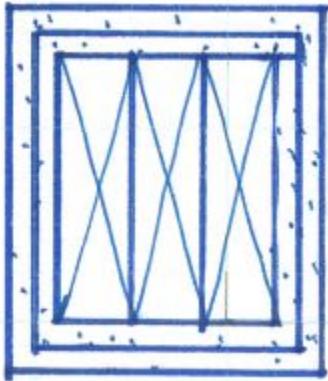
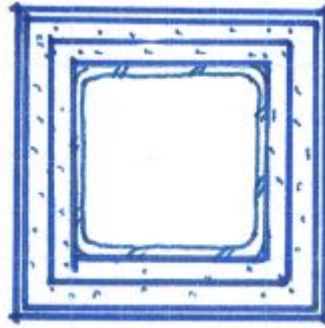
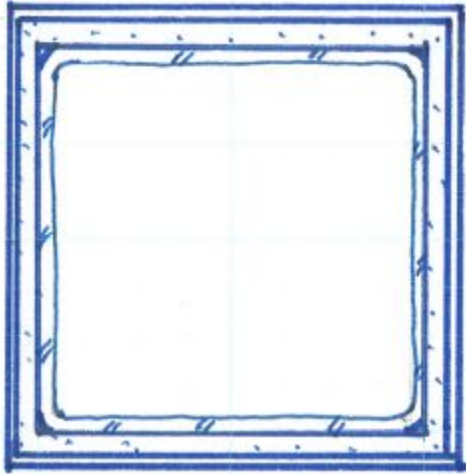
- Structurally Independent
- Two Wood Frame Walls
- Plywood Continuous
- Fire Coated Plywood at Rim
- Fire Coated Plywood at Wall Gap

Fire Wall Detailing



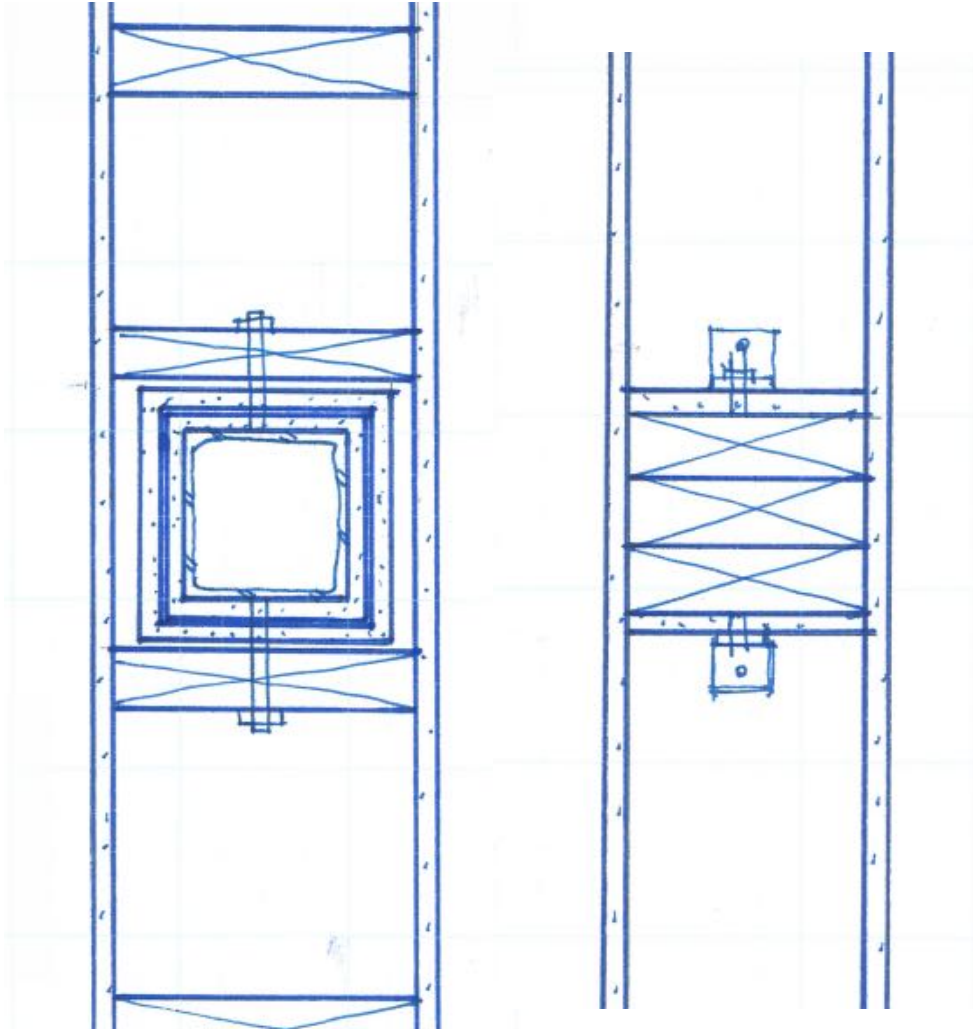
- Structurally Independent
- Masonry Walls
- Furred Plumbing Walls

Structural Column and Beam Detailing



- Column Protection
 - 8x8 = 1 layer GWB w/ cover
 - 4x4 = 2 layers GWB w/ cover
 - Wood = ?

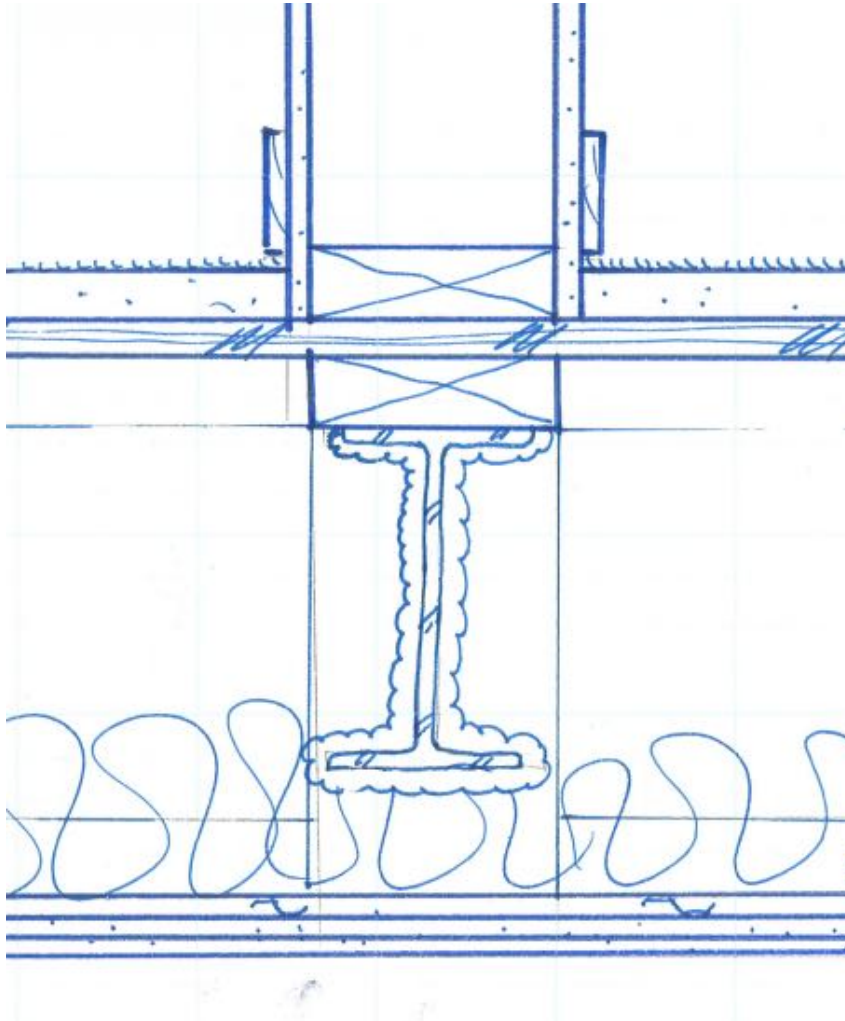
Structural Column and Beam Detailing



Column Protection

- 4x4 = 2x8 wall minimum
- Wood = ?

Structural Column and Beam Detailing



- Beam Protection
 - Spray Applied Fire Resistive Material

Questions?

This concludes The American Institute of
Architects Continuing Education Systems
Course

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