

m+a architects | schaefer

Wellington Mixed-Use Case Study

How the first major housing development in
Mt. Auburn (Cincinnati, Ohio) was developed

Presented by:

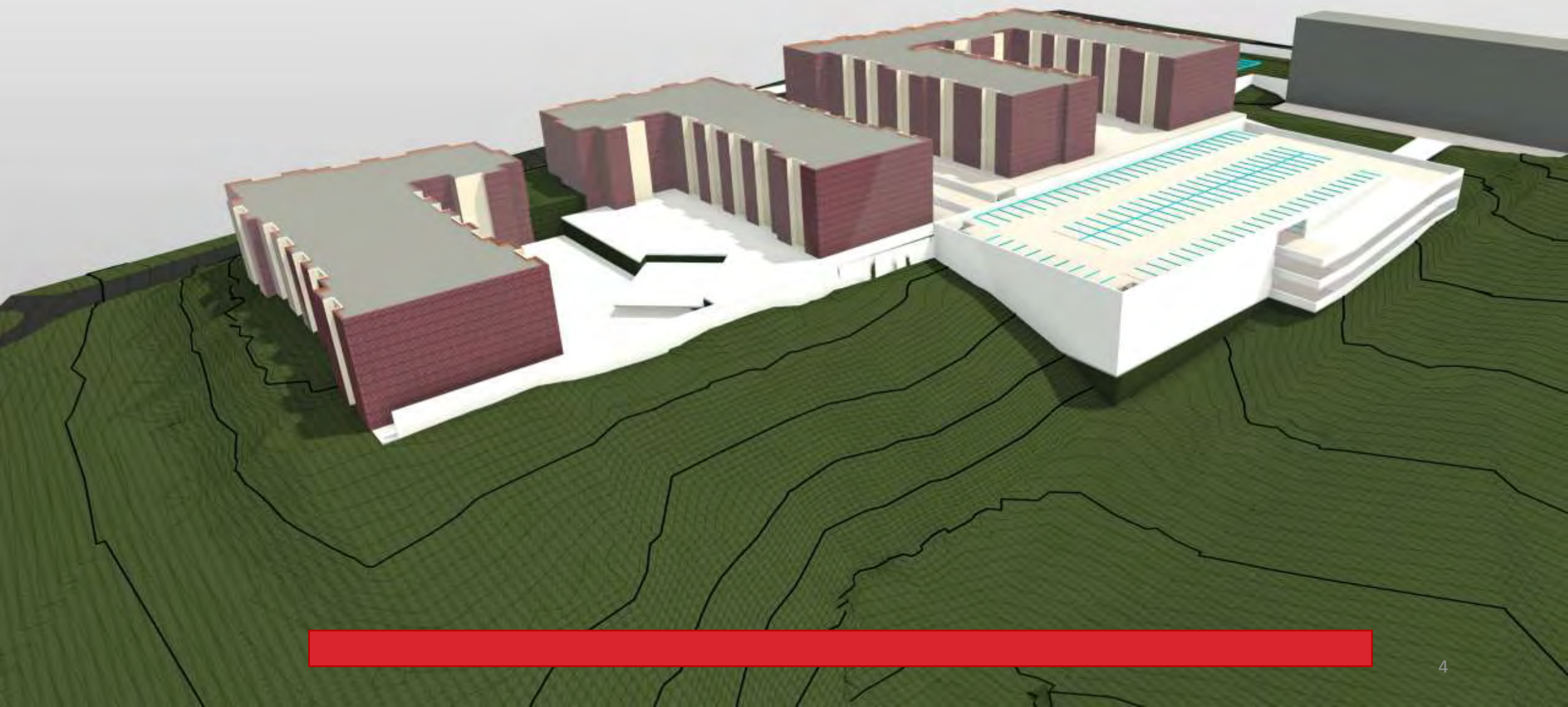
Seth Oakley | m+a, Doug Steimle, PE | Schaefer

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

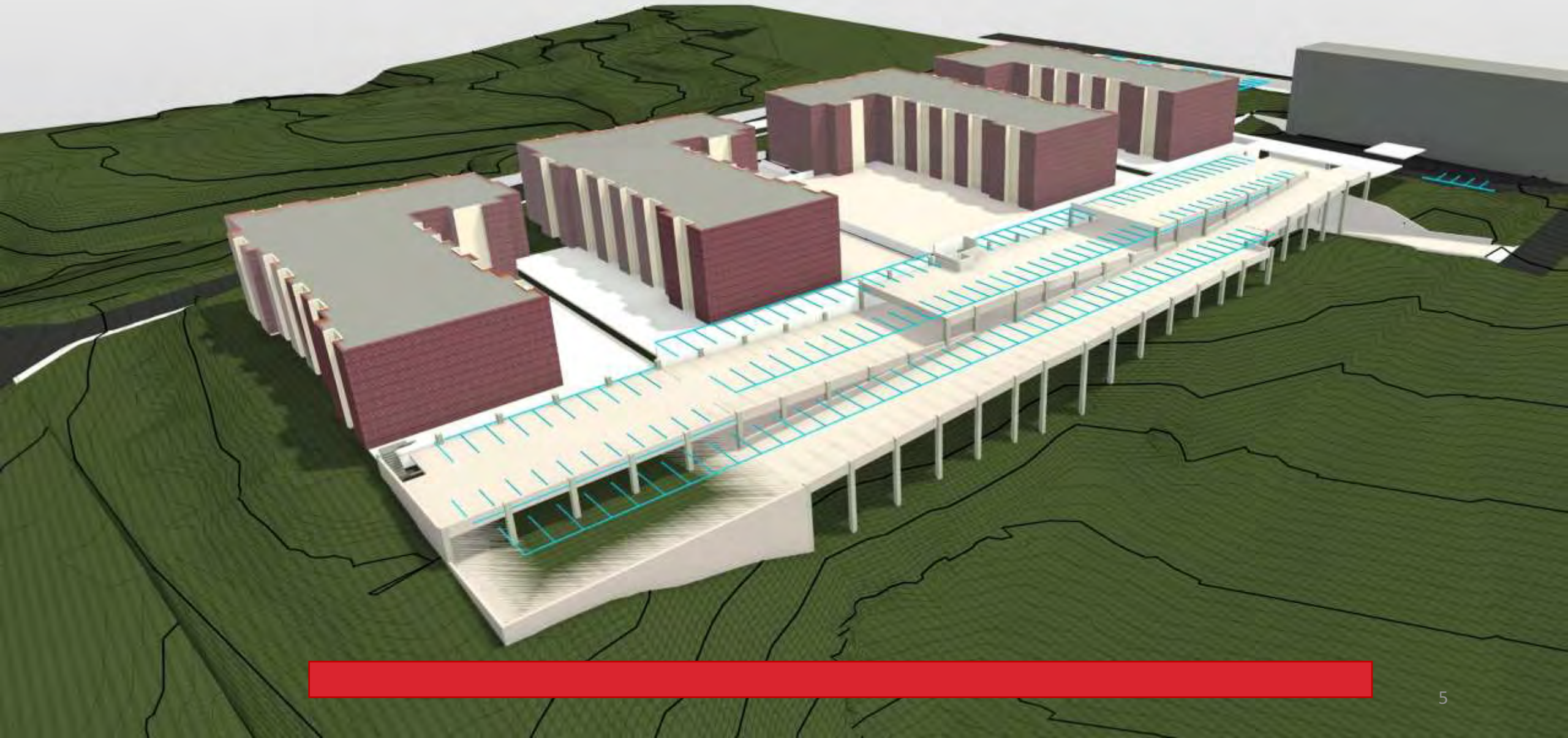
Initial Schemes



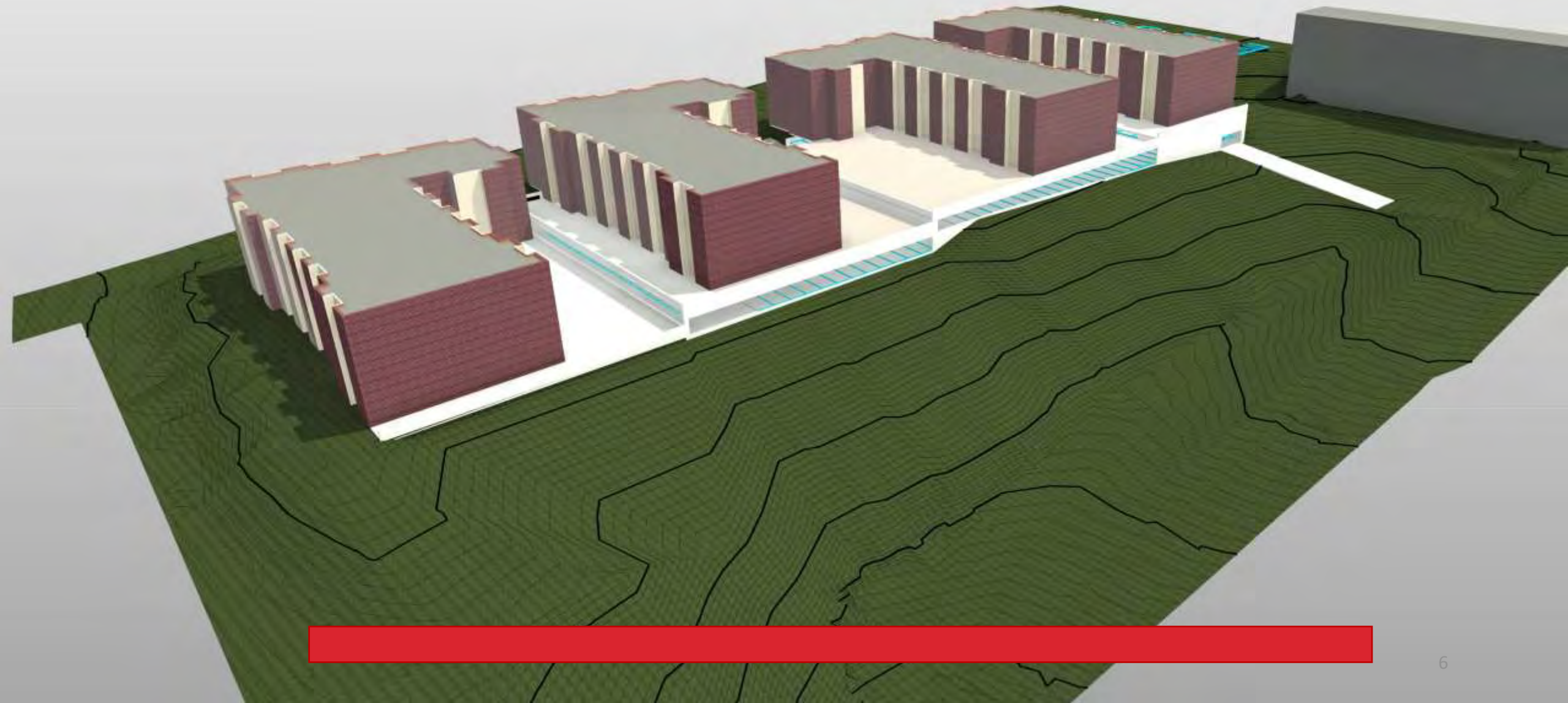
Initial Schemes



Initial Schemes



Initial Schemes



Final Scheme



Original Site



Completed Project



Owner/Contractor/Architect/Structural Coordination

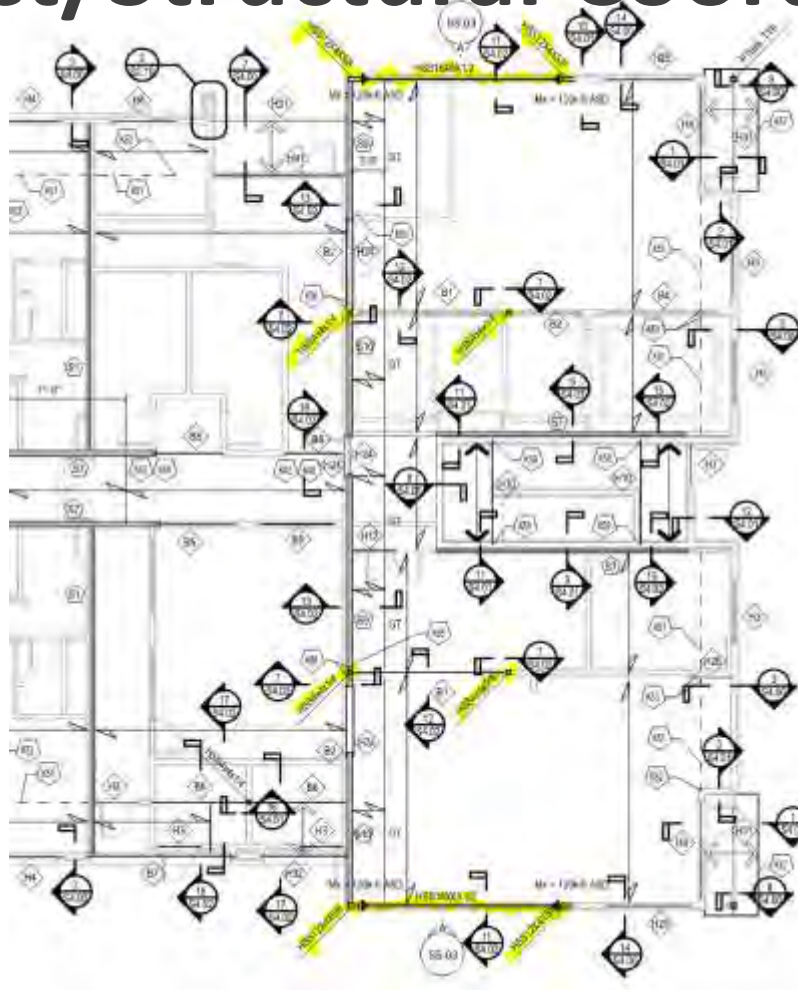
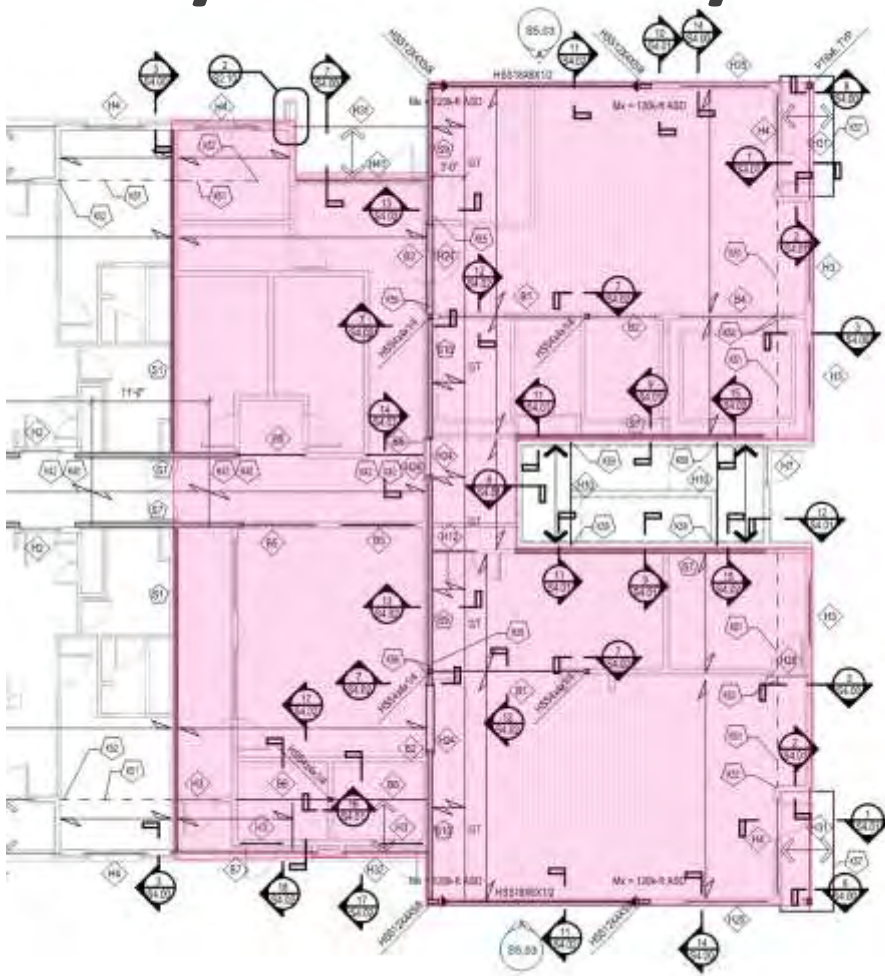
- Design/Build
- Weekly OAC meetings
- One Goal – Minimize Structural Steel
 - Challenge with large project – lots of amenities
 - Only Building B Required Steel

Owner/Contractor/Architect/Structural Coordination



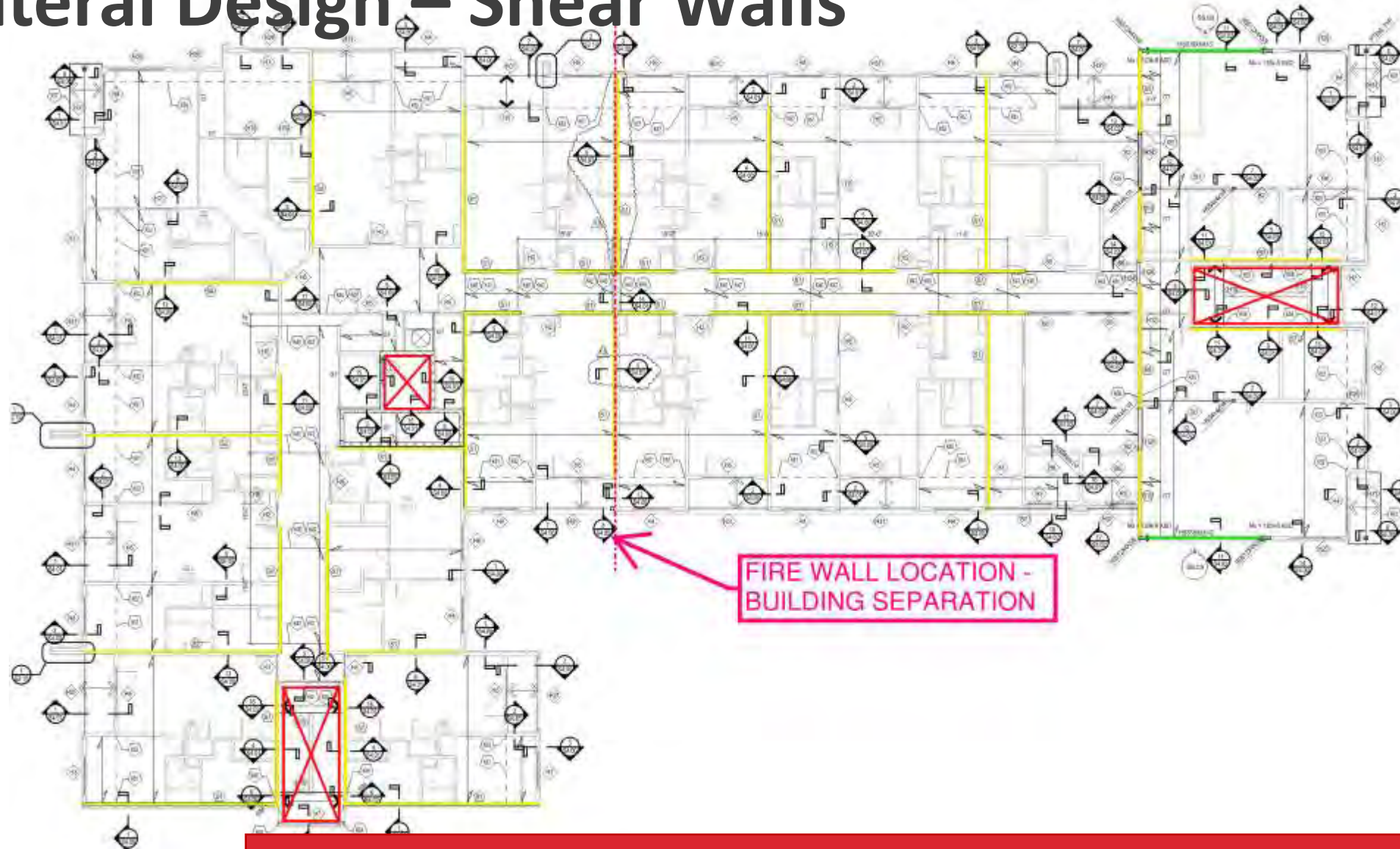
1st FLOOR PLAN – BUILDING B

Owner/Contractor/Architect/Structural Coordination

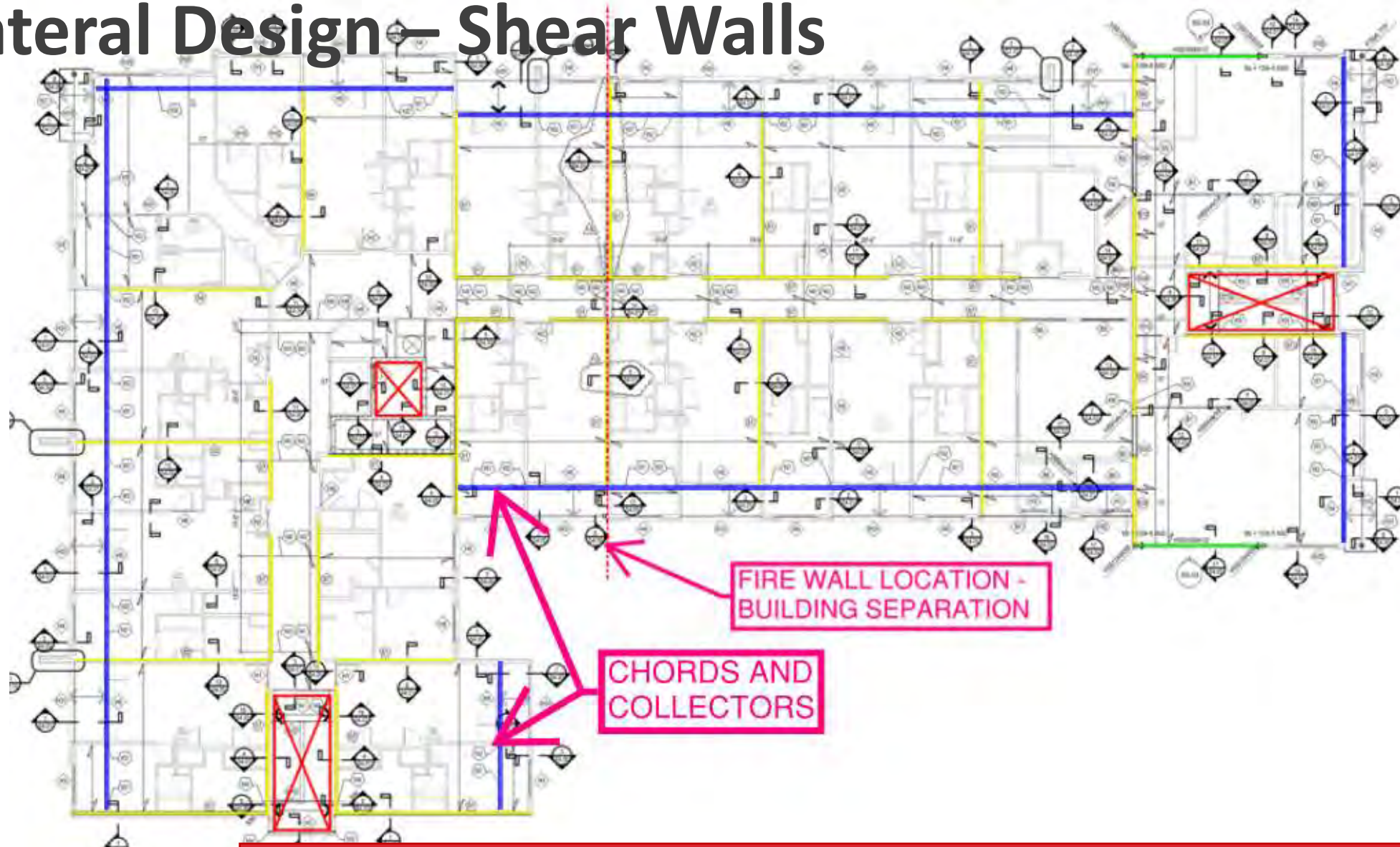


2ND FLOOR FRAMING PLAN – BUILDING B

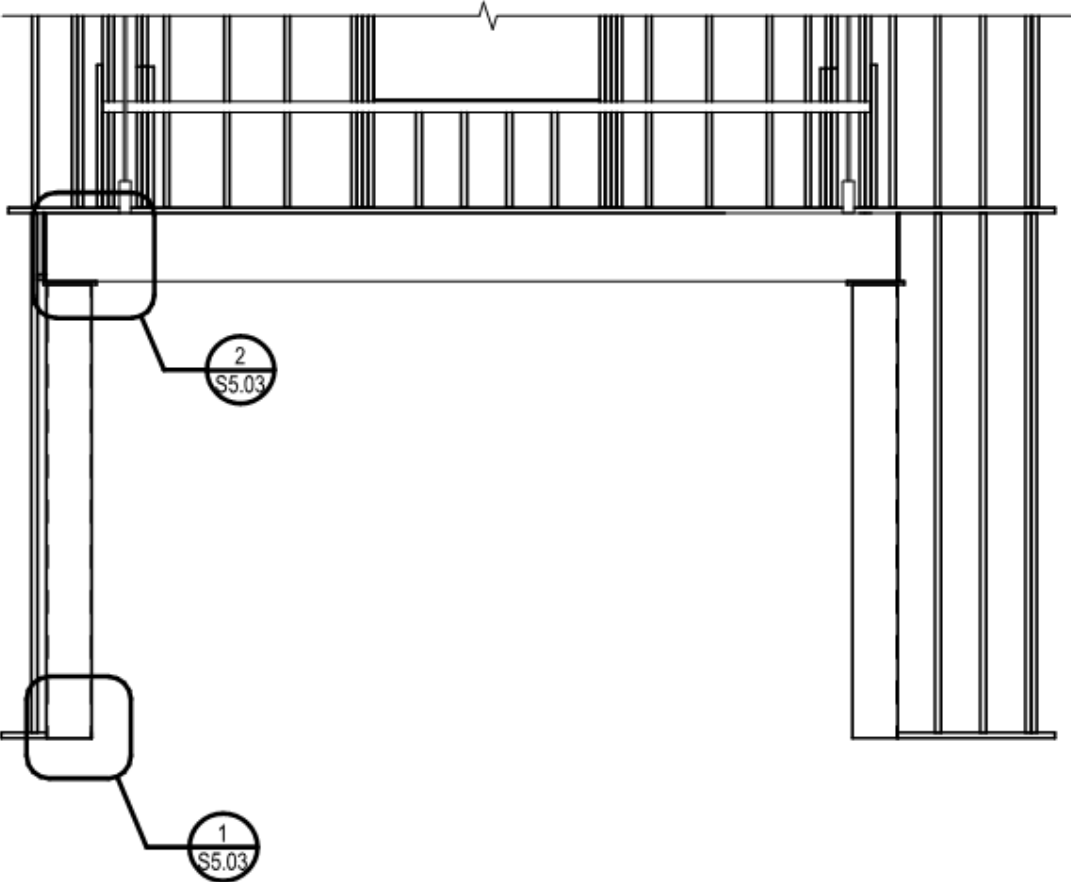
Lateral Design – Shear Walls



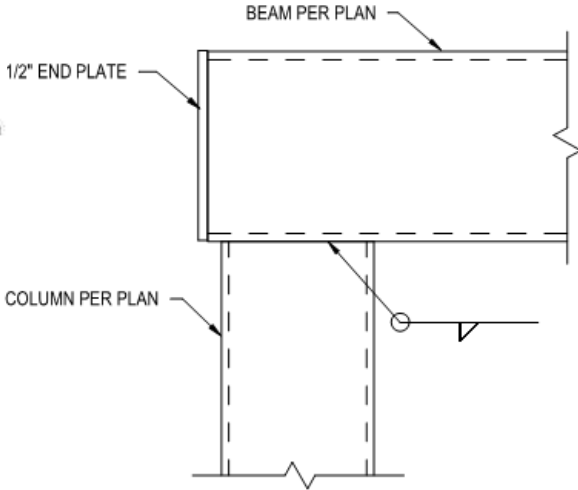
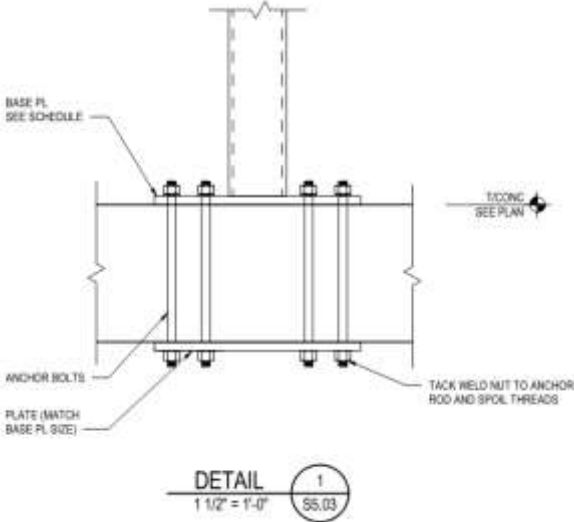
Lateral Design – Shear Walls



Lateral Design – FTAO - Shear Walls

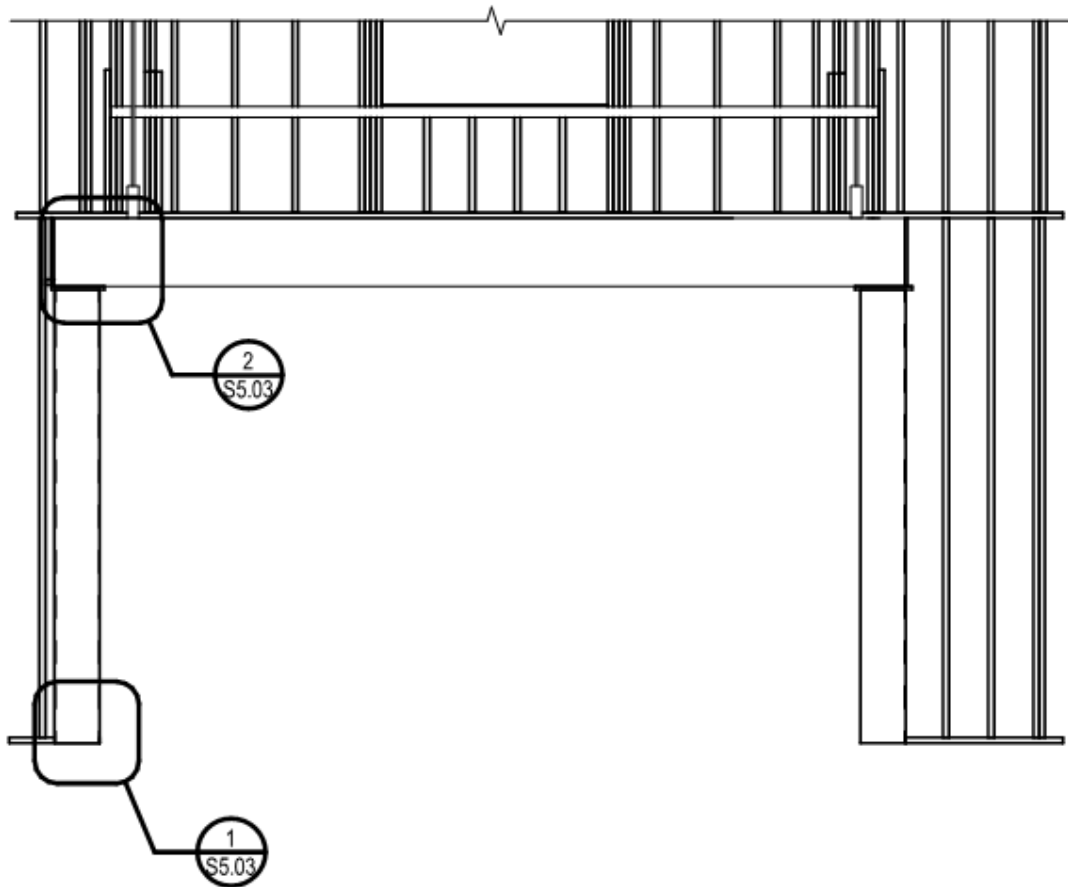


ELEVATION A S5.03
1/4" = 1'-0"



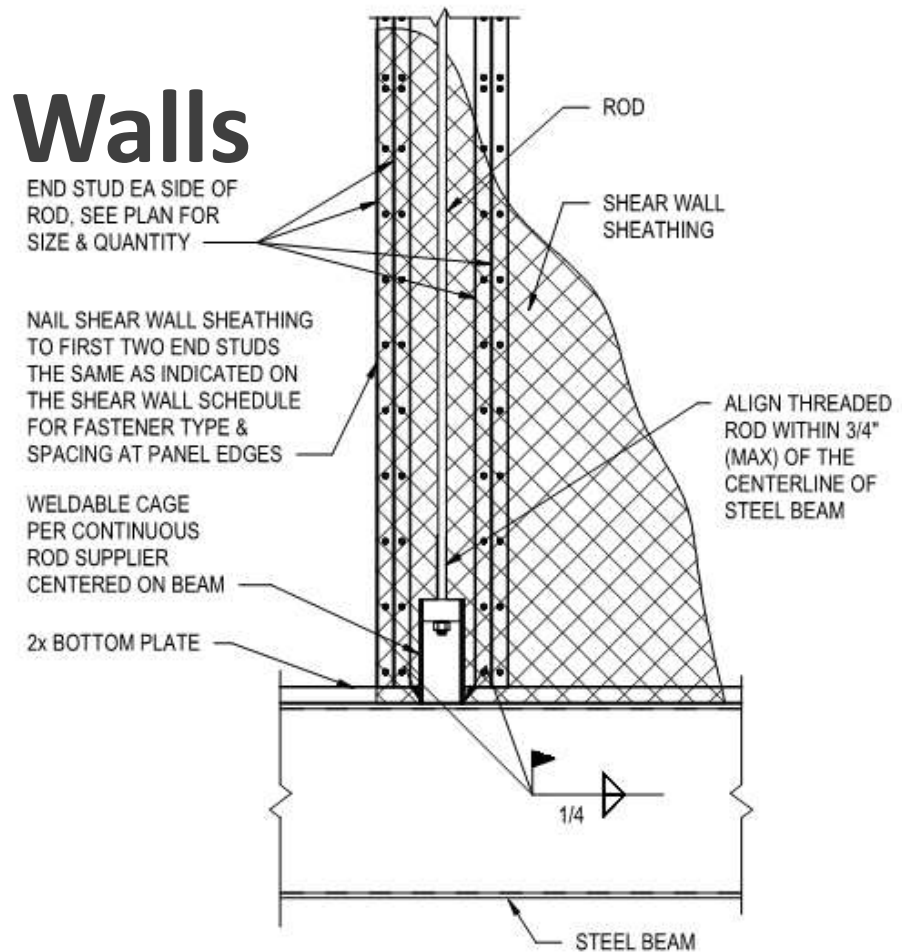
DETAIL 2 S5.03
1 1/2" = 1'-0"

Lateral Design – FTAO - Shear Walls



ELEVATION A S5.03

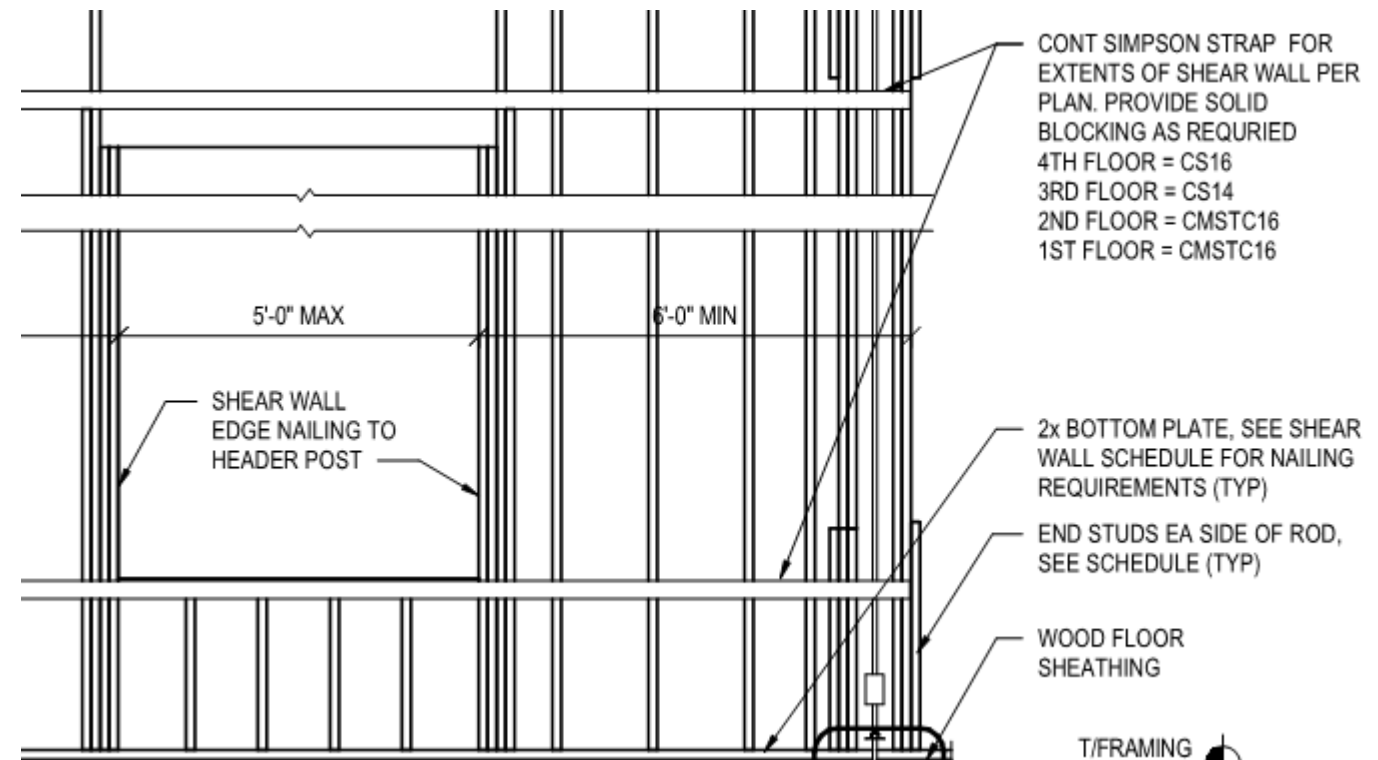
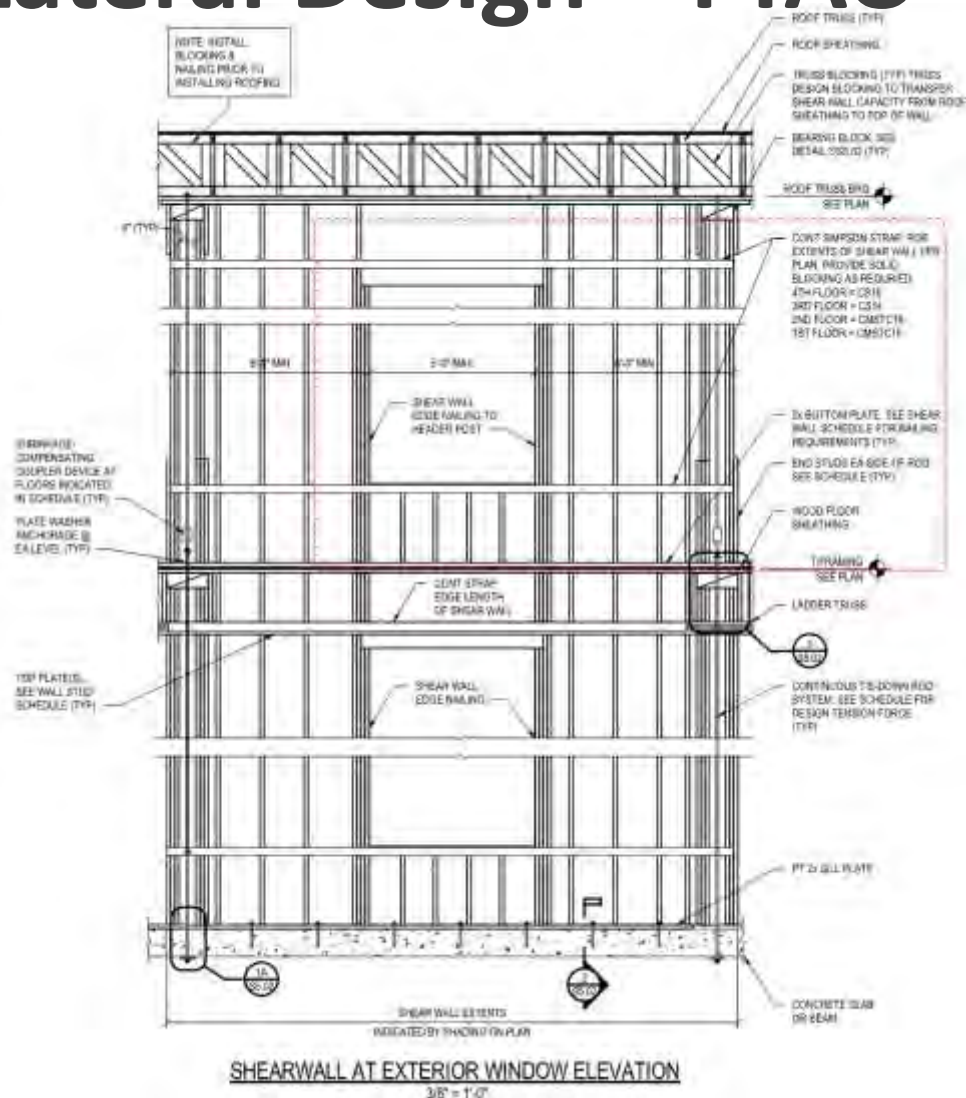
1/4" = 1'-0"



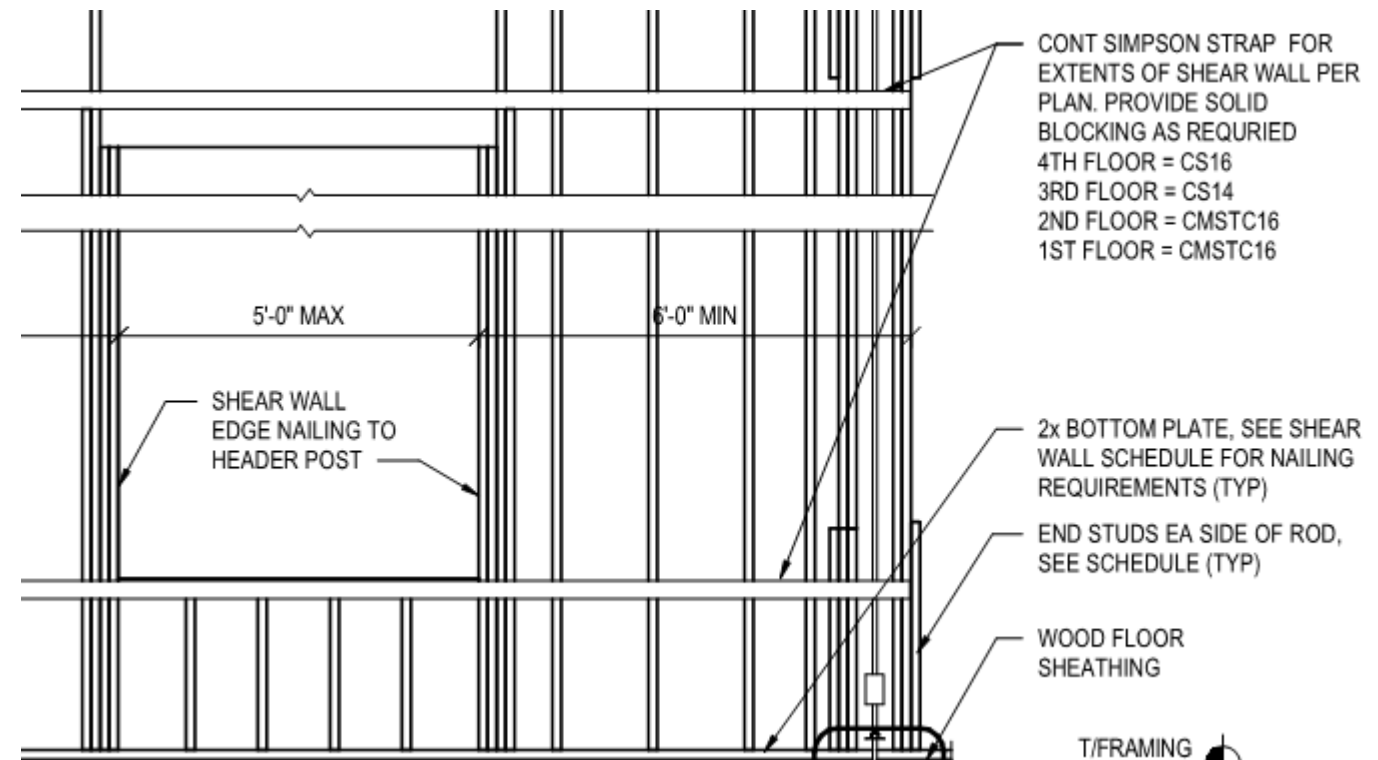
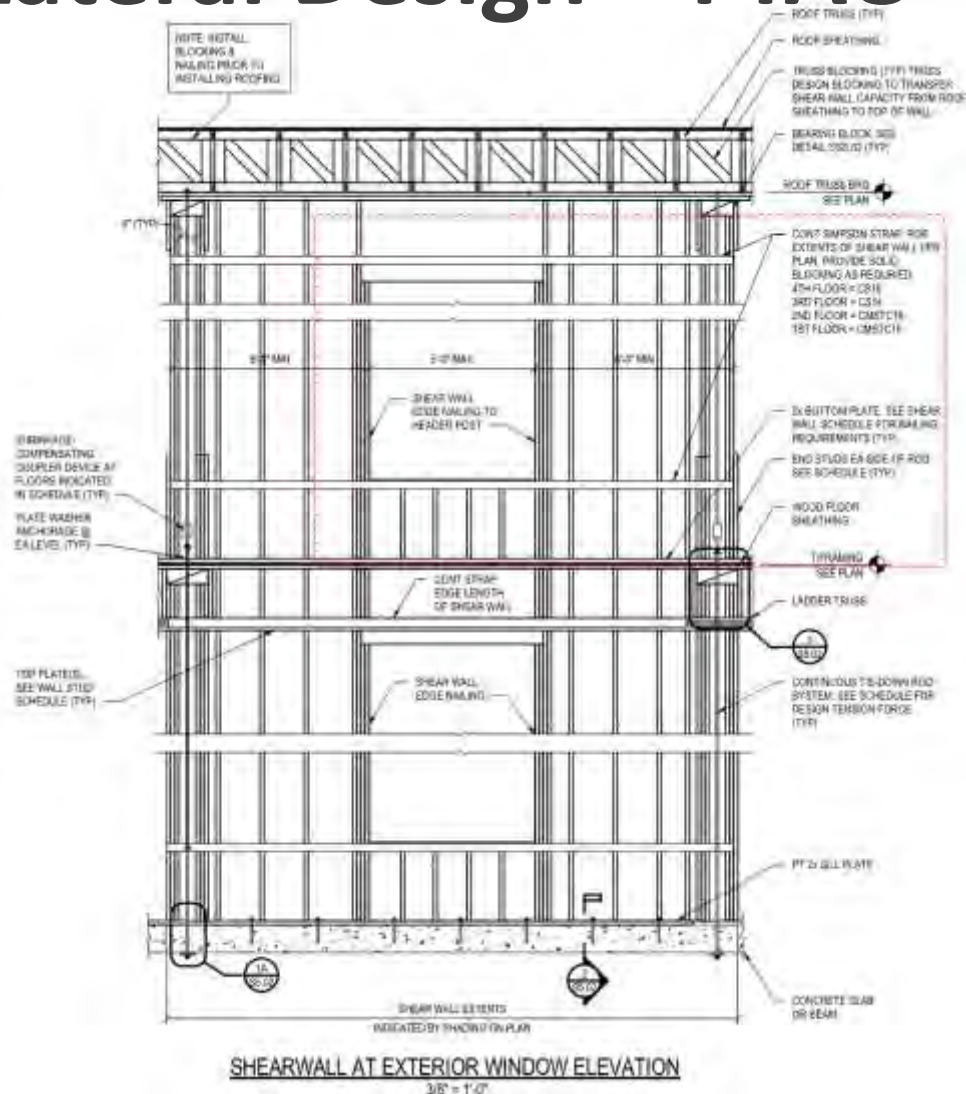
**TYPICAL ROD AT SHEAR WALL END STUD
CONNECTION TO STEEL BEAM DETAIL**

NTS

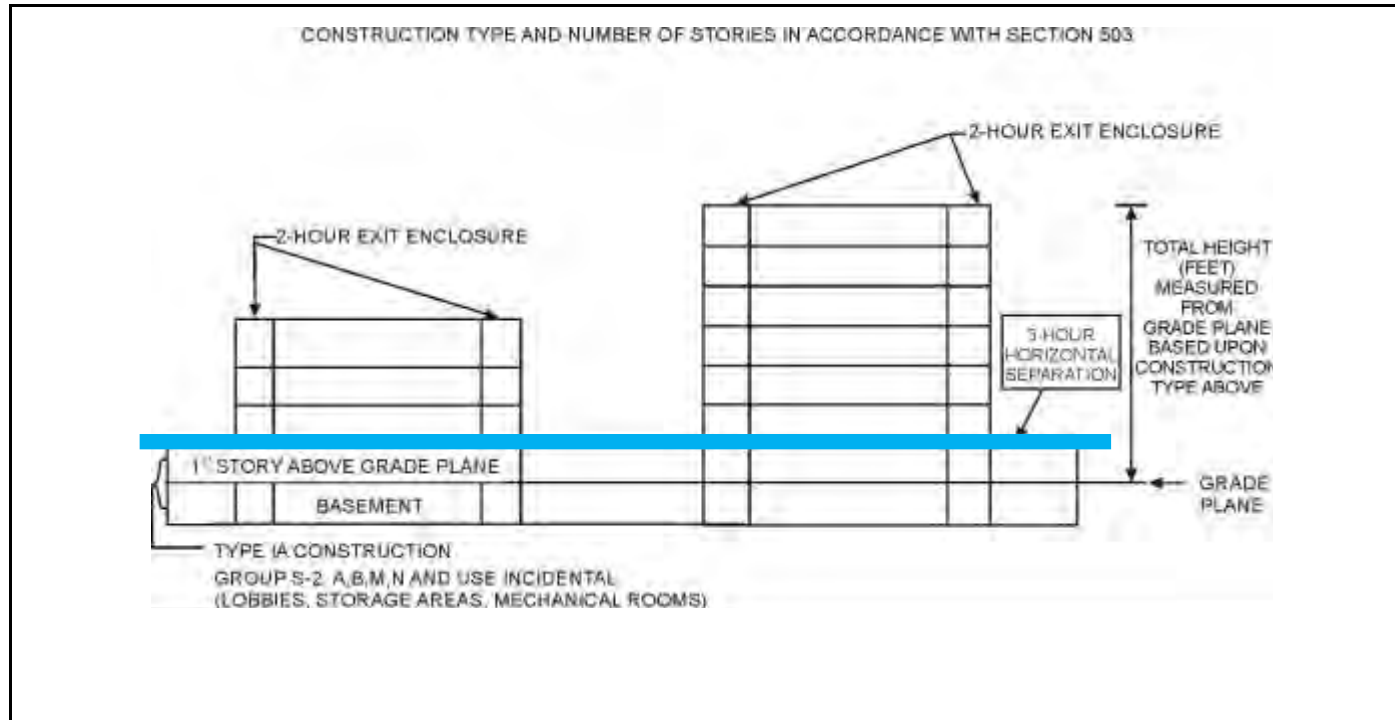
Lateral Design – FTAO - Shear Walls



Lateral Design – FTAO - Shear Walls



Fire Separation Requirements



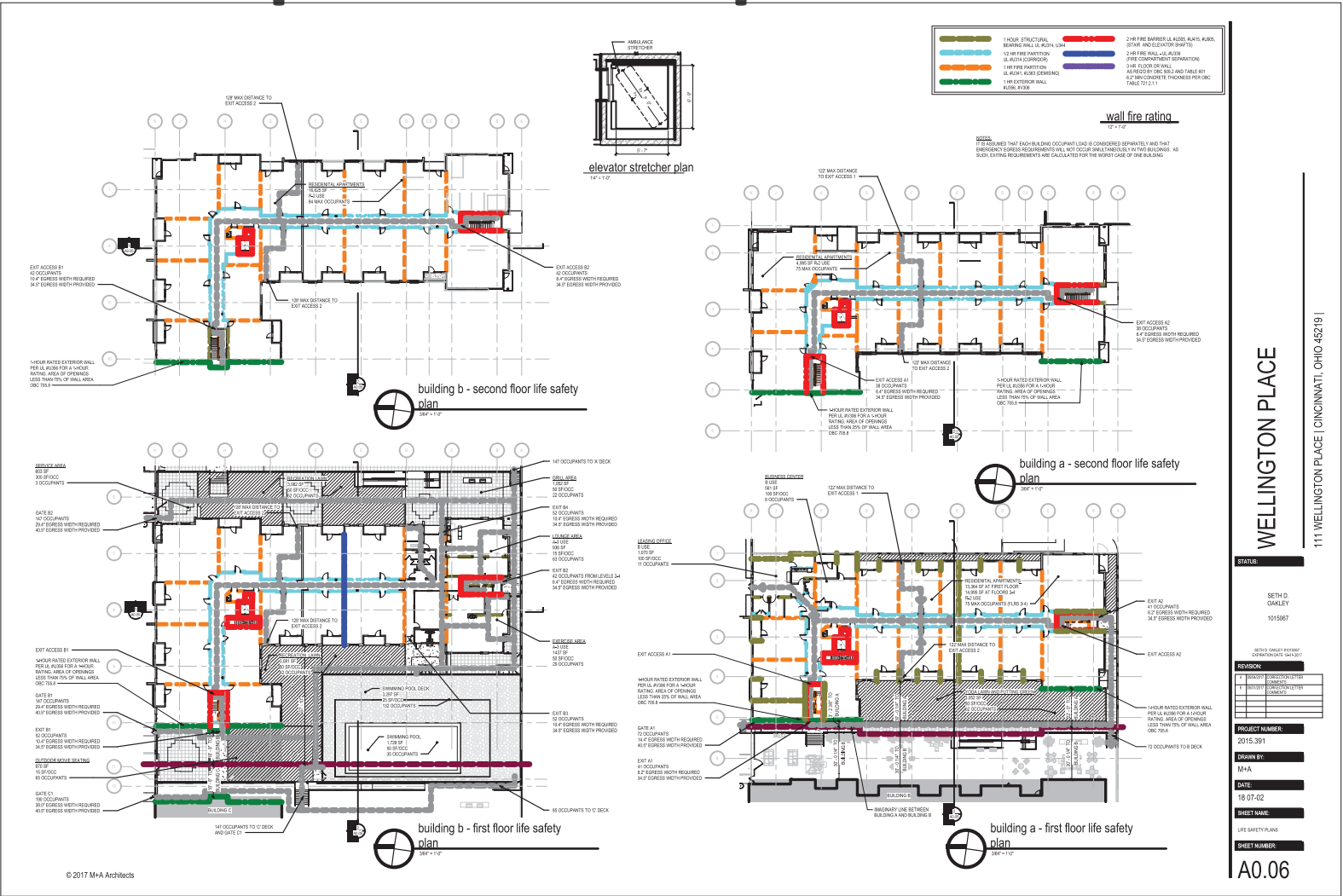
3-Hour Podium

- Separates the garage from the wood structure above per IBC 510.2

Fire Separation Requirements

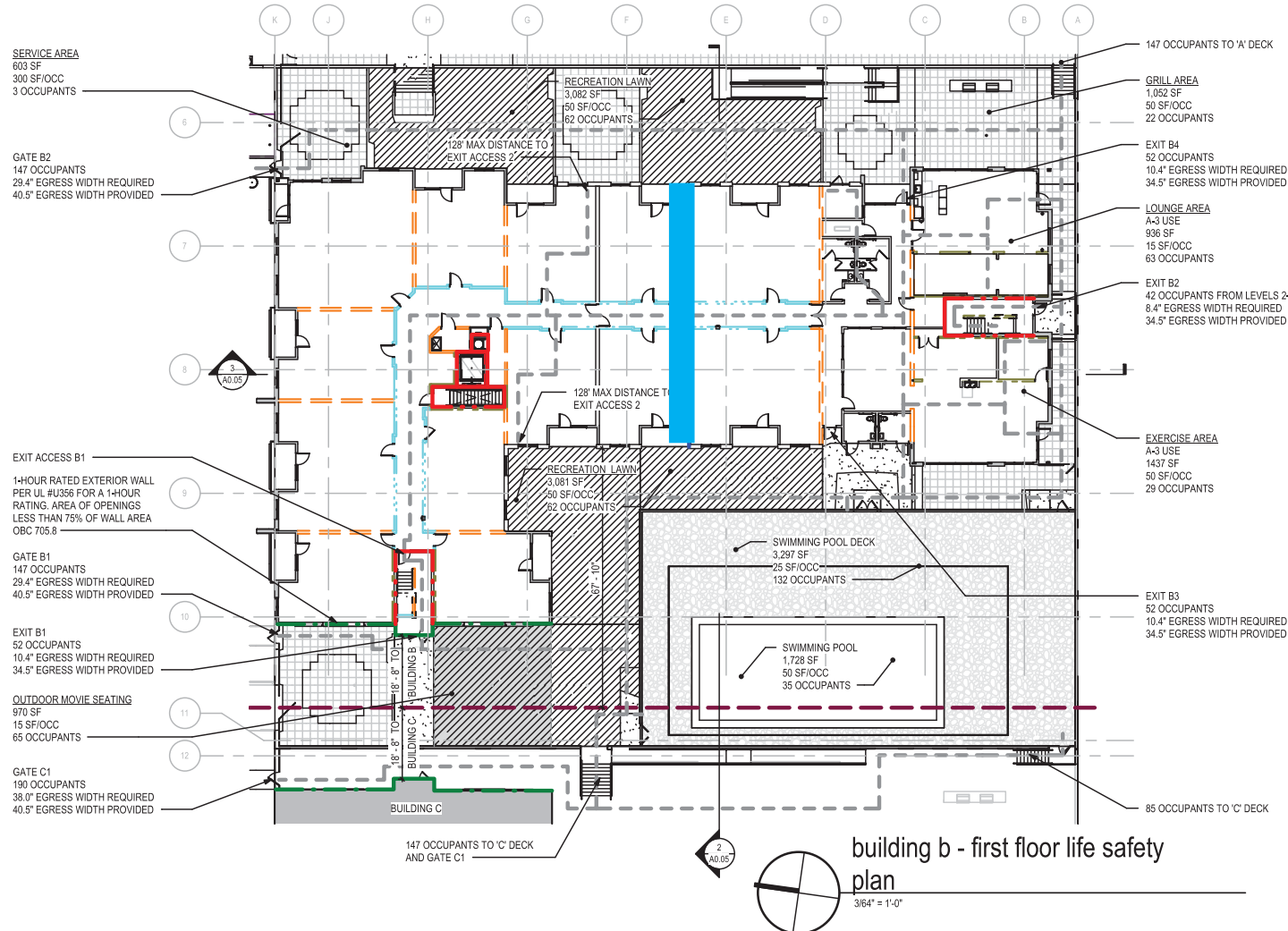
[illegible][illegible]

Fire Separation Requirements



- ## Evaluate Area
- One fire area with NFPA 13 sprinklers
 - Two fire areas with NFPA 13-R sprinklers

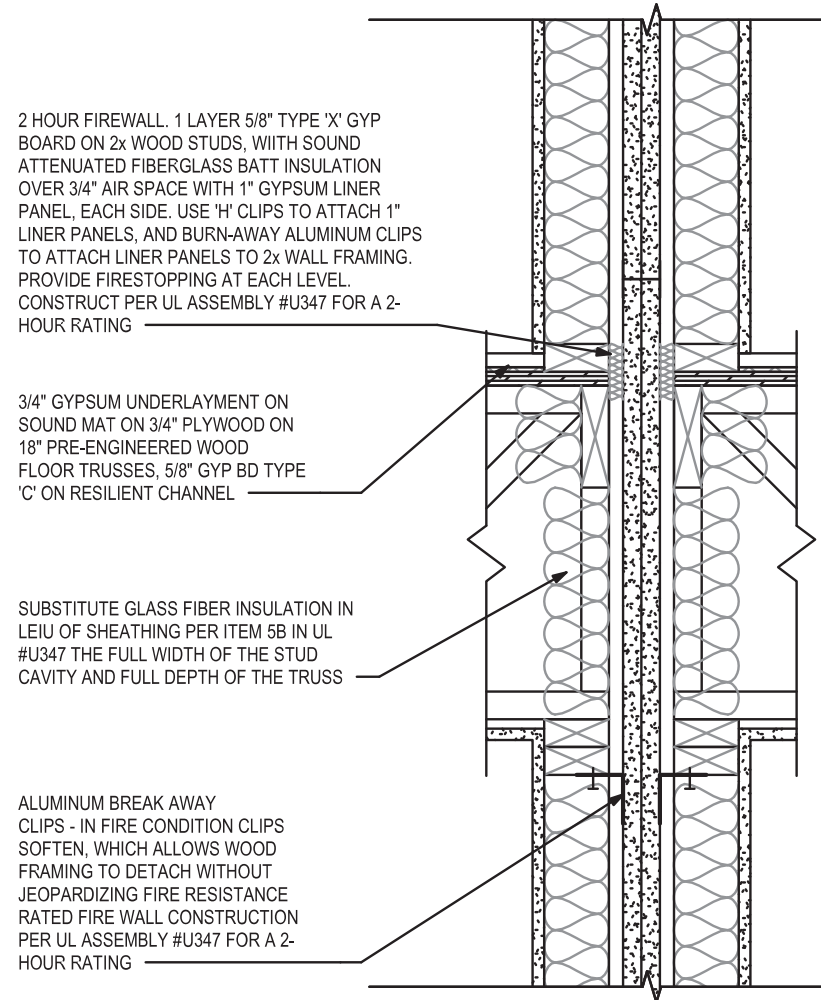
Fire Separation Requirements



2 Fire Areas

- Separated with a 2-hour fire wall and doors
- Evaluate cost of firewall and doors with cost of NFPA 13 Sprinklers

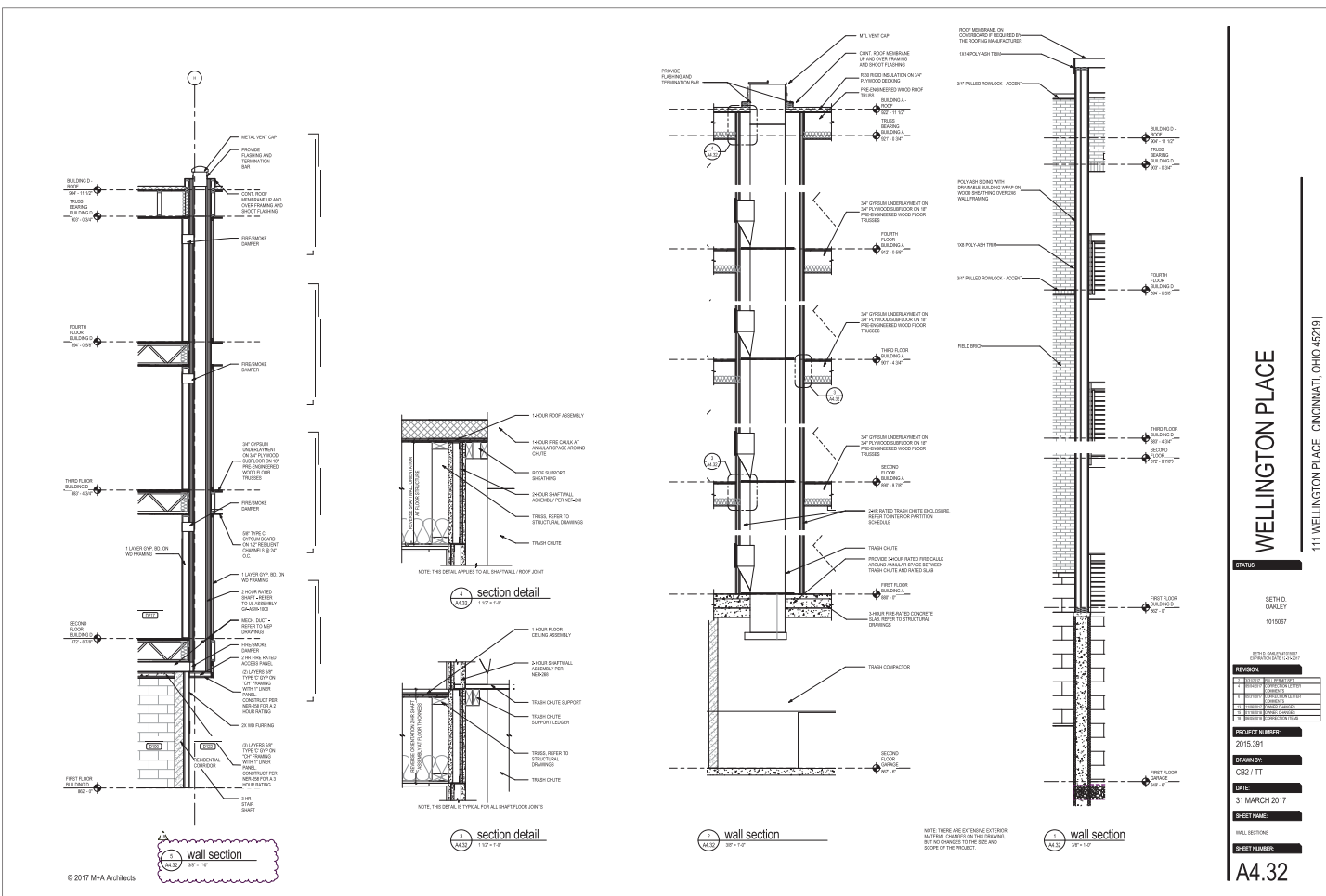
Fire Separation Requirements



Firewall Details

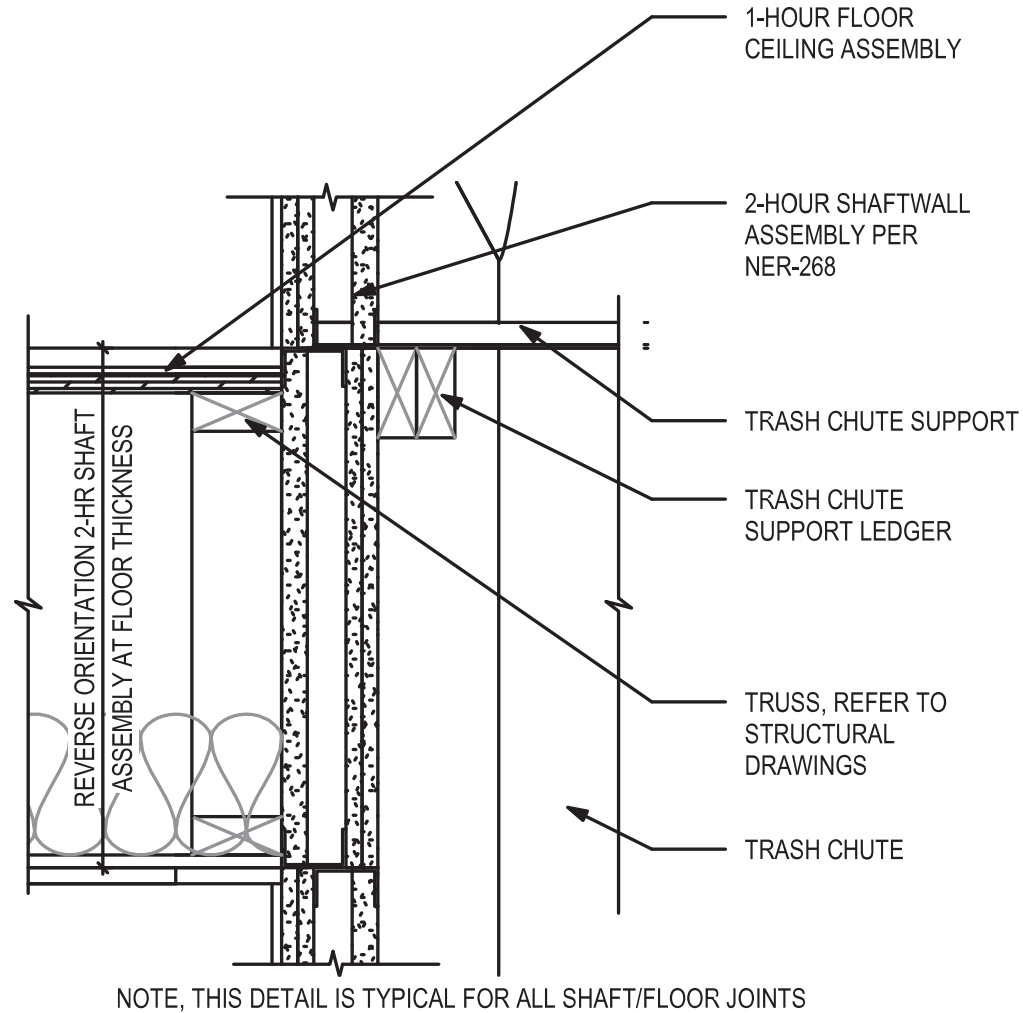
- Firewall must allow structure to “break away”

Shaft Wall Detailing



- Consider installation difficulties at floor/ceiling assembly

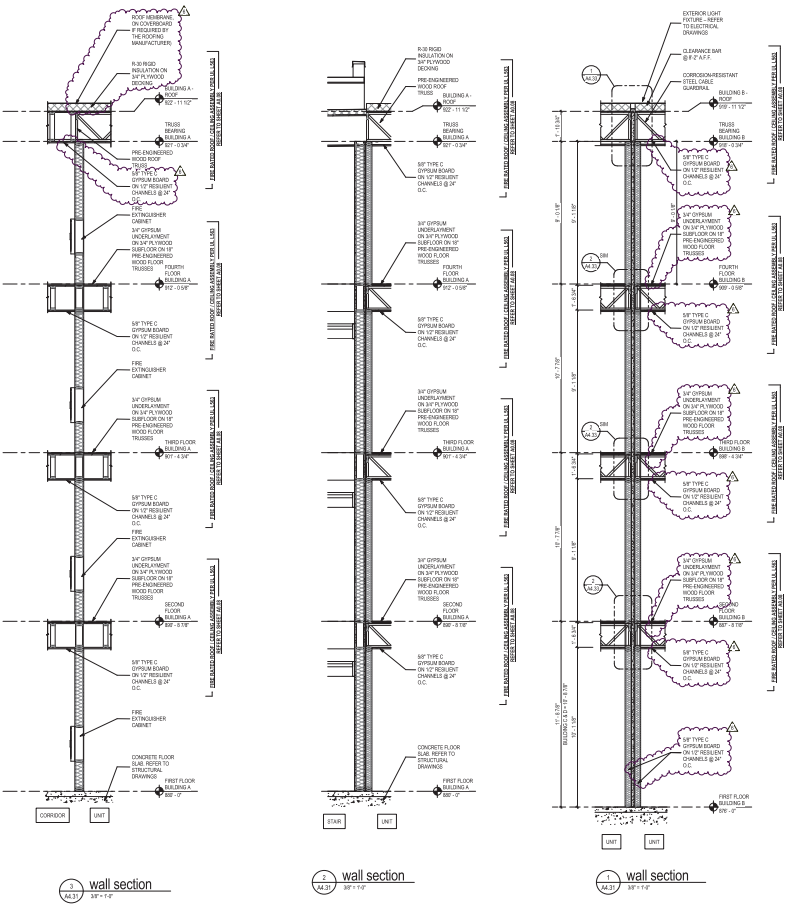
Shaft Wall Detailing



Continuity is required

- Consider installation difficulties at floor/ceiling assembly

Shaft Wall Detailing



WELLINGTON PLACE
111 WELLINGTON PLACE | CINCINNATI, OHIO 45219

DATE
SETH D. CARLEY
10/15/67

REVISION

NO.	DATE	DESCRIPTION
1	10/15/67	ISSUED FOR PERMIT
2	10/15/67	ISSUED FOR PERMIT
3	10/15/67	ISSUED FOR PERMIT
4	10/15/67	ISSUED FOR PERMIT
5	10/15/67	ISSUED FOR PERMIT
6	10/15/67	ISSUED FOR PERMIT
7	10/15/67	ISSUED FOR PERMIT
8	10/15/67	ISSUED FOR PERMIT
9	10/15/67	ISSUED FOR PERMIT
10	10/15/67	ISSUED FOR PERMIT

PROJECT NUMBER
2015.391

DRAWN BY
CB2 / TT

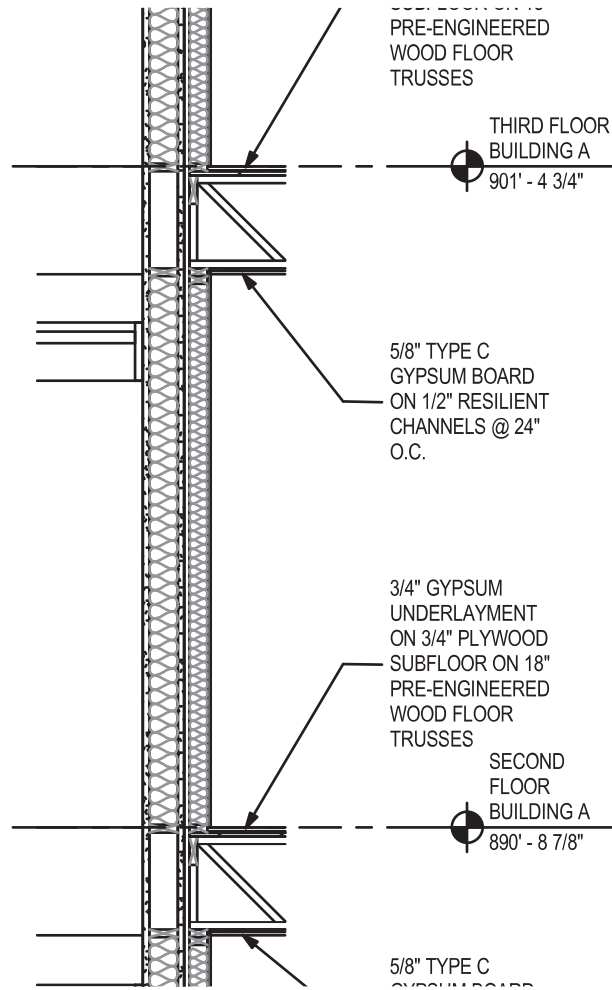
DATE
31 MARCH 2017

SHEET NAME
WALL SECTIONS

SHEET NUMBER
A4.31

- ## Stair Walls
- Avoid tricky structural connections
 - Add bearing wall adjacent to stair wall

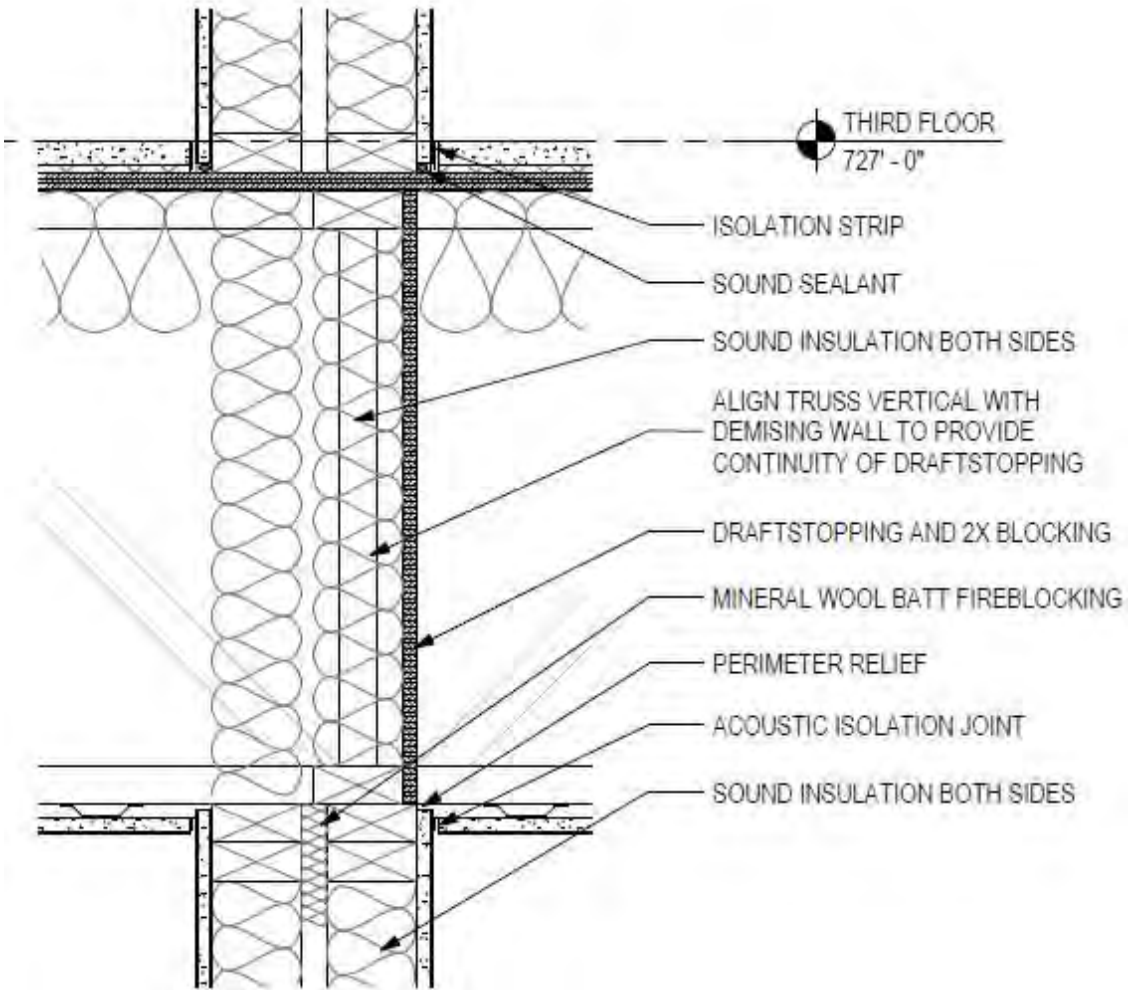
Shaft Wall Detailing



Stair Walls

- Avoid tricky structural connections
- Add bearing wall adjacent to stair wall

Acoustic Considerations



- ## Noise is the Biggest Complaint
- Decouple the flooring
 - Try to avoid structural members crossing demising walls

Special Inspections Versus Enhanced Investigation

Different jurisdictions have different rules

- Wood Special Inspections
 - None required for this project by the City of Cincinnati
 - Policy is changing to require more than in Chapter 17
 - Owner chose to have “Enhanced Observations”

Field Observations



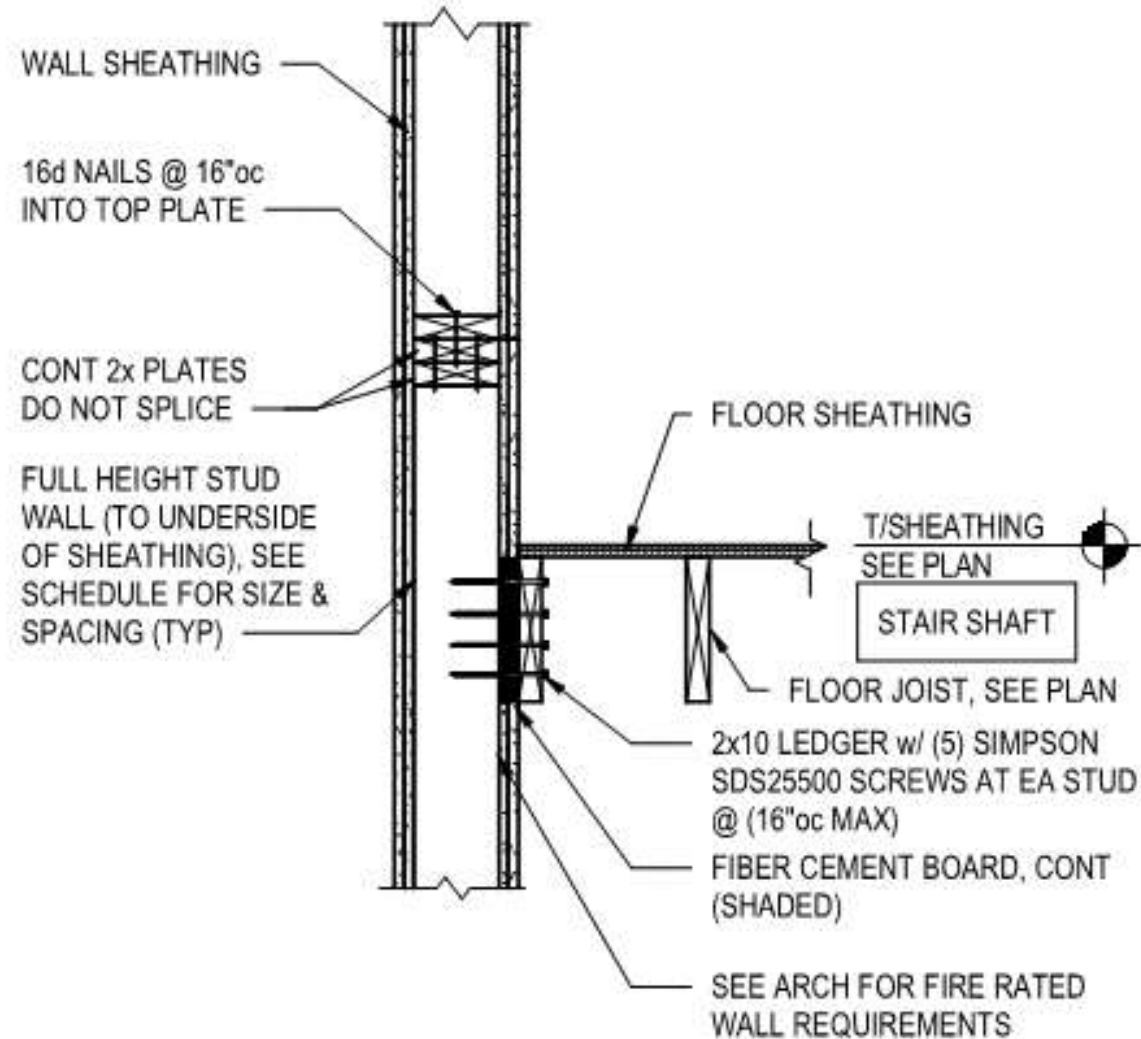
Field Observations



Field Observations

Stair Shafts

- Structural Connections
- Fire Rating Continuity



Field Observations

Stair Shafts

- Structural Connections
- Fire Rating Continuity



Field Observations

Uplift Connectors



Field Observations

Uplift Connectors



Field Observations

Diaphragm Chords and Collectors



Field Observations

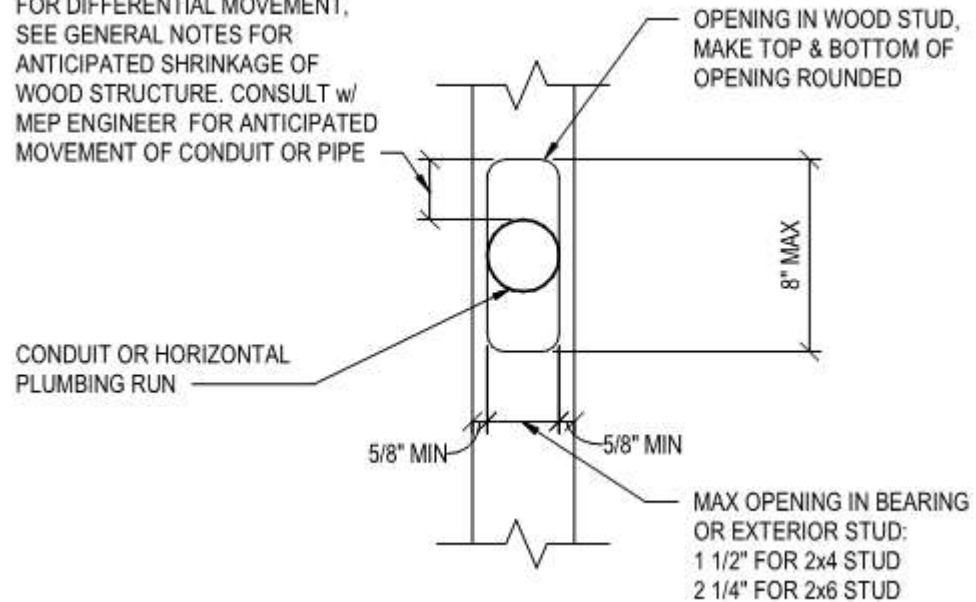
Diaphragm Chords and Collectors



Field Observations

Plumbing Penetrations

GAP REQUIRED ABOVE & BELOW FOR DIFFERENTIAL MOVEMENT, SEE GENERAL NOTES FOR ANTICIPATED SHRINKAGE OF WOOD STRUCTURE. CONSULT w/ MEP ENGINEER FOR ANTICIPATED MOVEMENT OF CONDUIT OR PIPE



Field Observations

Gravity Framing



Completed Project



Completed Project



Completed Project



Completed Project



questions?

This concludes The American Institute of Architects
Continuing Education Systems Course



Doug Steimle, PE
doug.steimle@schaefer-inc.com



Seth Oakley
setho@ma-architects.com