Ascent MKE:

Designing the Tallest Mass Timber Building in the World (for now)

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KORB + ASSOCIATES ARCHITECTS

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

ASCENT MILWAUKEE

NINETEEN STORIES OF TIMBER OVER A CONCRETE PODIUM

HEIGHT:
284 FT/ 86.56 M

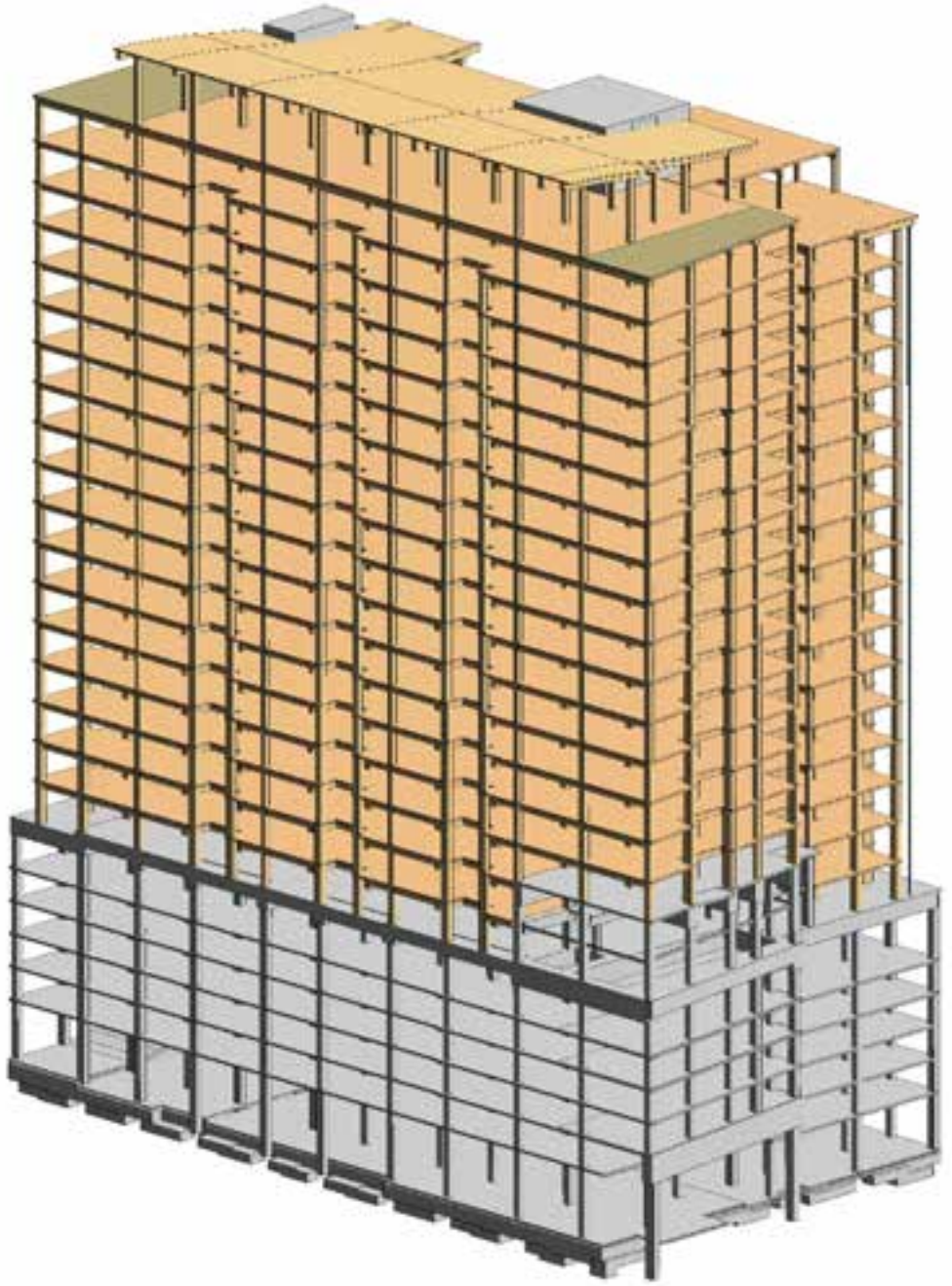
FLOOR AREA OF TIMBER:
APPROX. 324,400 SF /30,136 SM

APPROVALS PURSUED UNDER 2015 IBC'S "SPECIAL ASSEMBLY" SECTION

HYBRID STRUCTURE – STAIRS AND ELEVATOR CORES ARE CIPC

ACHIEVES CLASS FIRE RESISTANCE THROUGH BOTH EXCAPSULATION AND SACRIFICIAL/ CHAR METHOD – APPROX. 50% OF TIMBER COLUMNS, BEAMS, AND SLABS ARE EXPOSED – PRIMARILY IN LIVING SPACES

VERTICAL STRUCTURAL MEMBERS MUST MEET A THREE HOUR FIRE RATING, FLOORS ARE TWO HOUR



Why Mass Timber: Sustainability

1. The building will sequester approximately 7,200 metric tons of CO2.
2. It will take approximately 25 minutes to grow this volume of wood in North American forests.

This CO2 benefit is also equivalent to taking approximately 2400 cars off the road for a year or the energy to operate over 1100 homes for a year.

SITE


ASCENT MKE: 86.56M / 284FT

Ascent MKE Timeline:

01 March 2018: Directive from New Land Enterprises to pursue MTF Tower

03 May 2018: Presentation to DNS Commissioner and Alderman

24 July 2018: Introduction to DNS Staff

21 October 2018: Project unveiled at CTBUH World Conference, Dubai

11 November 2018: Presentation to MFD leadership

22 July 2019: First working meeting with DNS Staff

07 November 2019: Second working meeting with DNS Staff

17 December 2019: Witnessed three hour fire test (4^{th} of 9)

13 February 2020: Variance review meeting with DNS Staff

21 February 2020: Four variance petitions filed with DNS

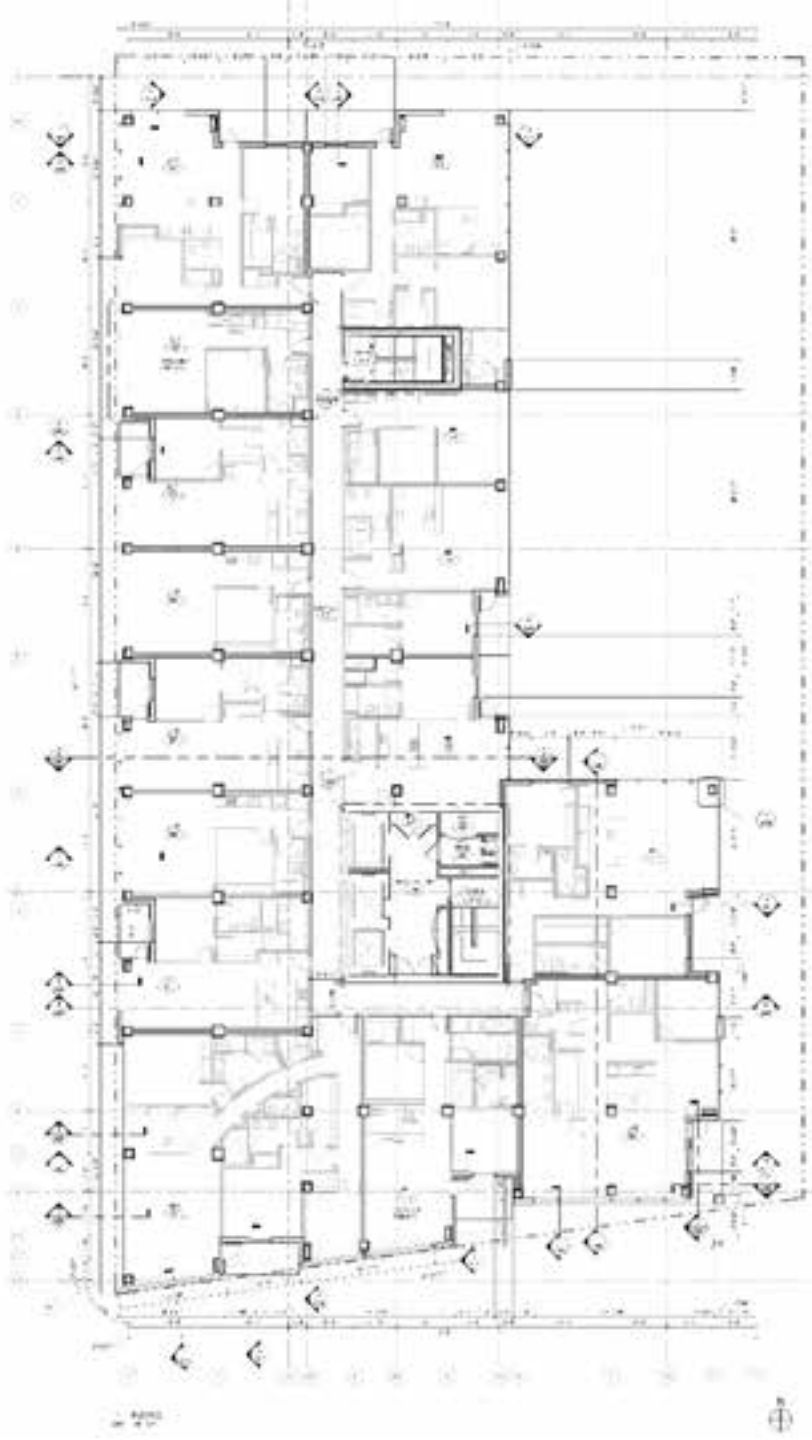
21 February 2020: Footings and Foundation Permit applied for

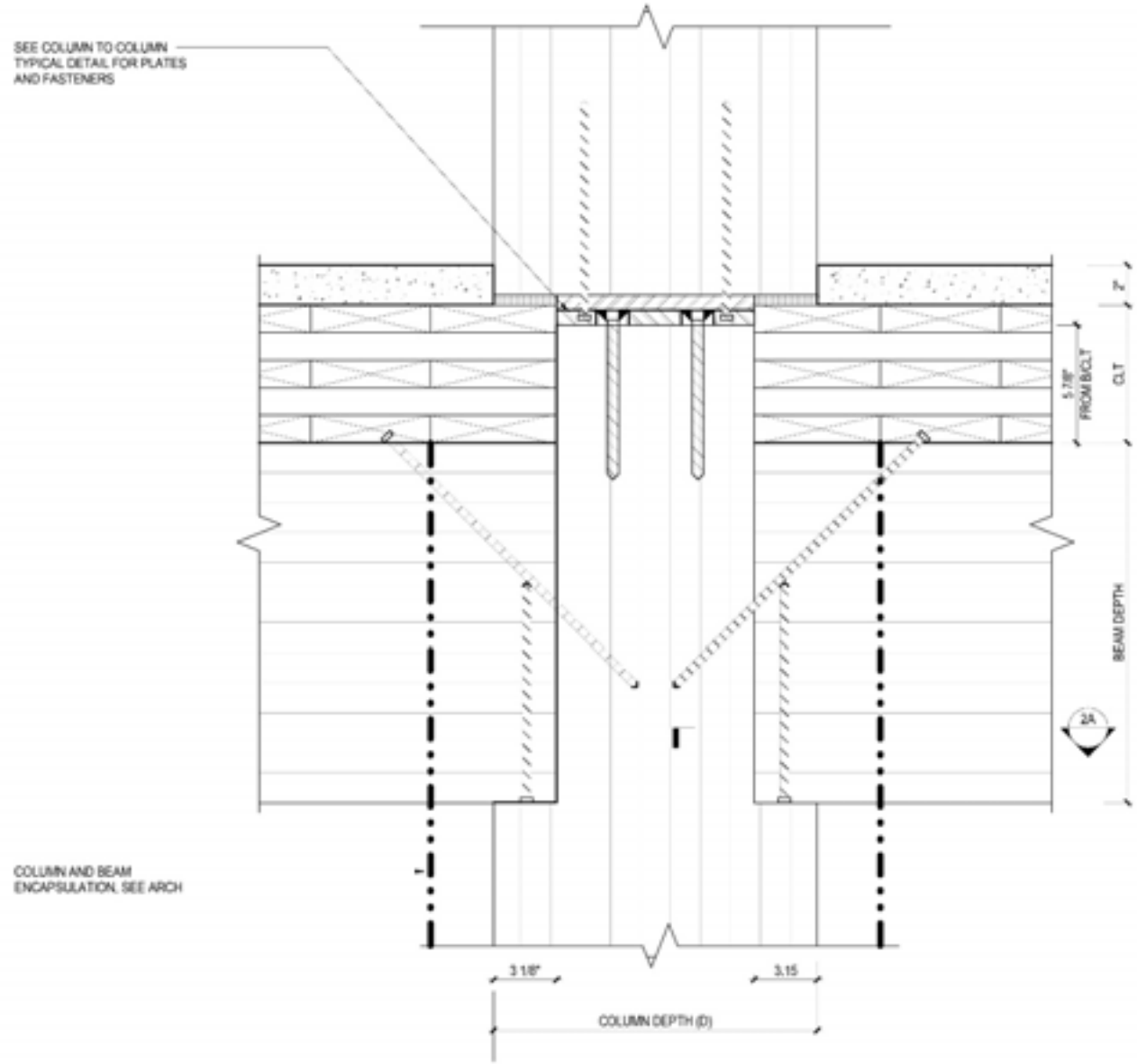
7 May 2020: Final Variance Conference

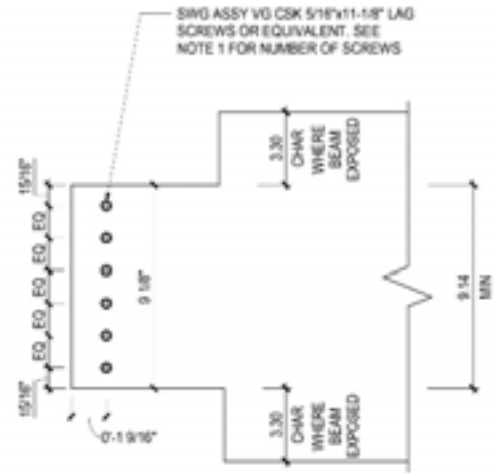

½TON

PRESCRIPTED CHAR RATE:
1.5IN/ HR

TESTED CHAR RATE:
1.29-1.31 IN/ HR







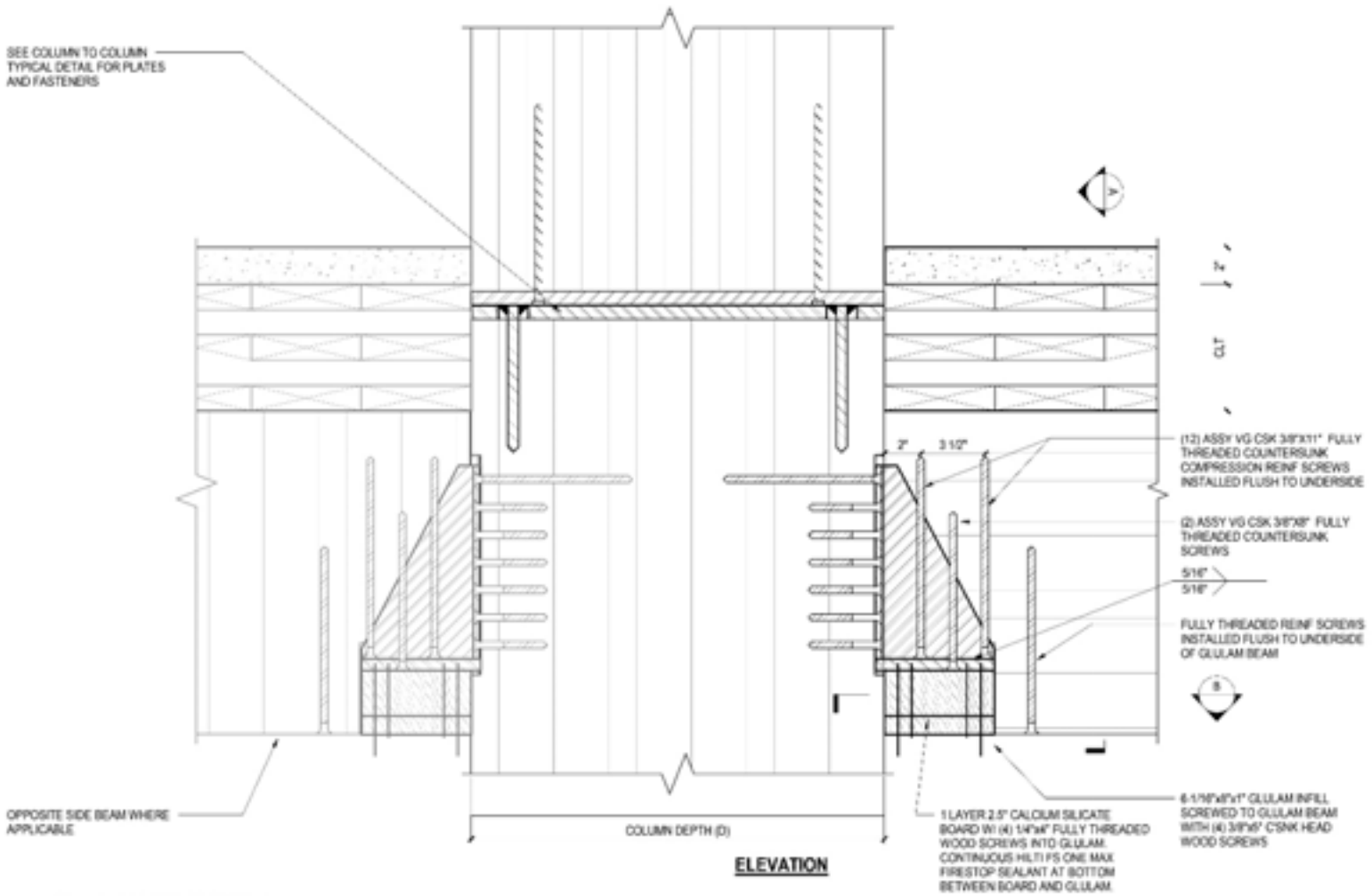
2A **REINFORCEMENT PLAN**

NOTES:

1. DETAIL 3A: 4 SCREWS
   DETAIL 3B: 6 SCREWS
   DETAIL 3C: 9 SCREWS

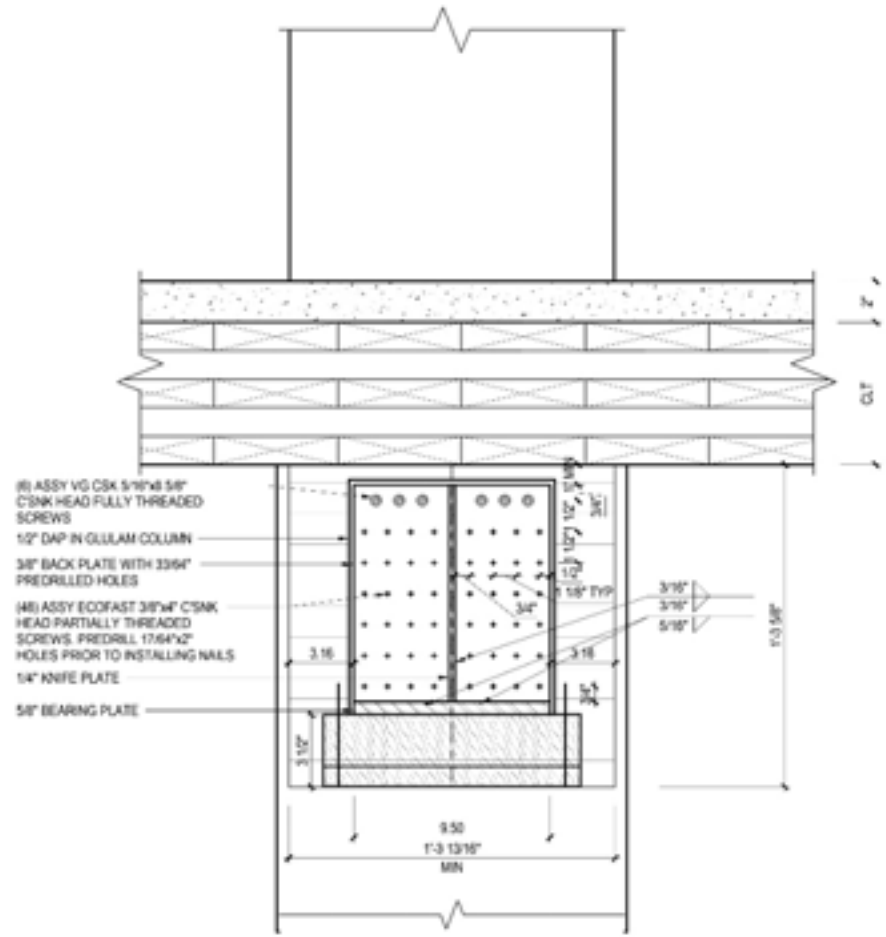
1 CONCEALED GLULAM BEAM TO GLULAM COLUMN (D3#)

SCALE: 3" = 1'-0"



ELEVATION

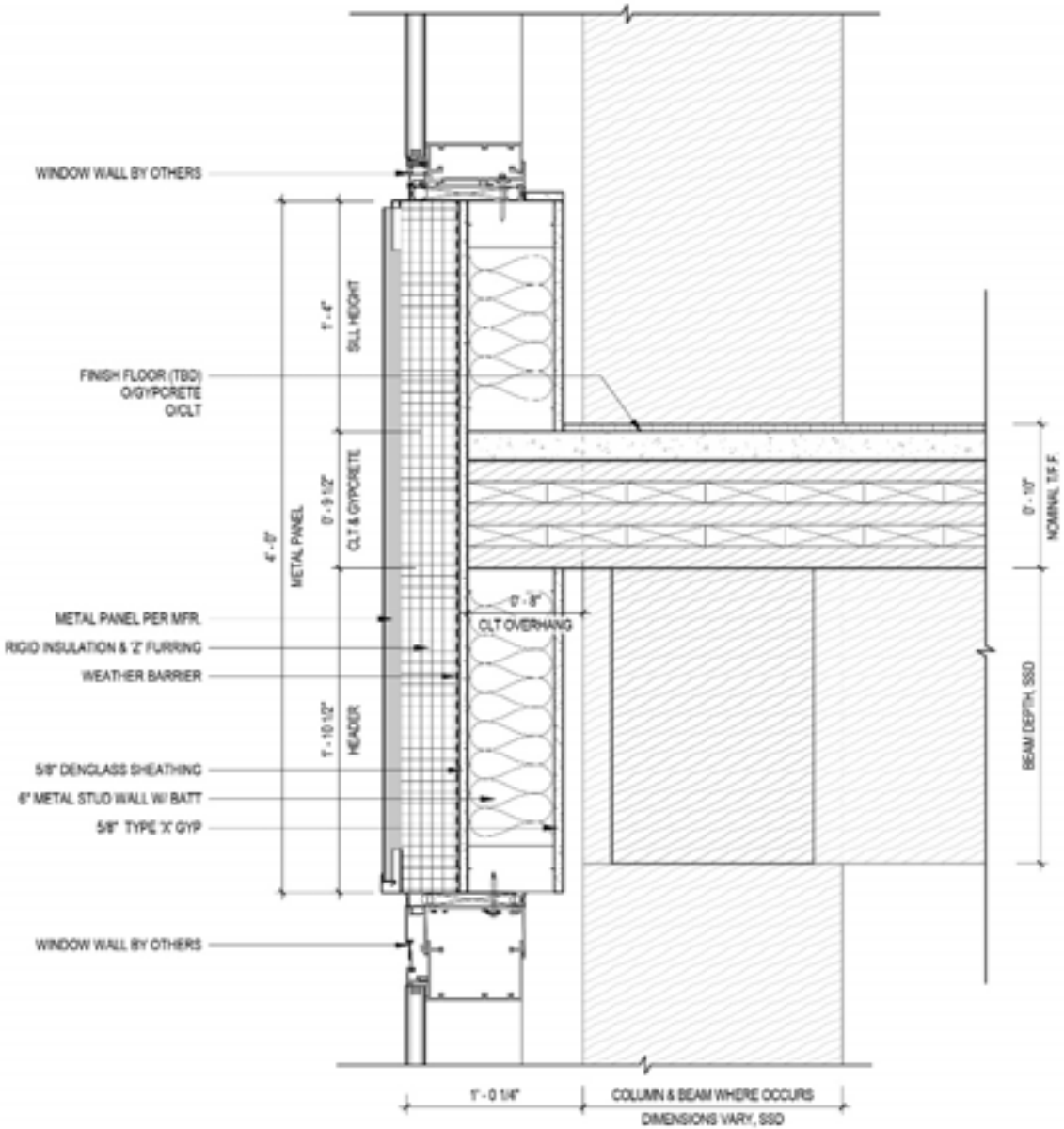
NOTE ALL STEEL PLATES TO BE GR 50



A **SECTION**

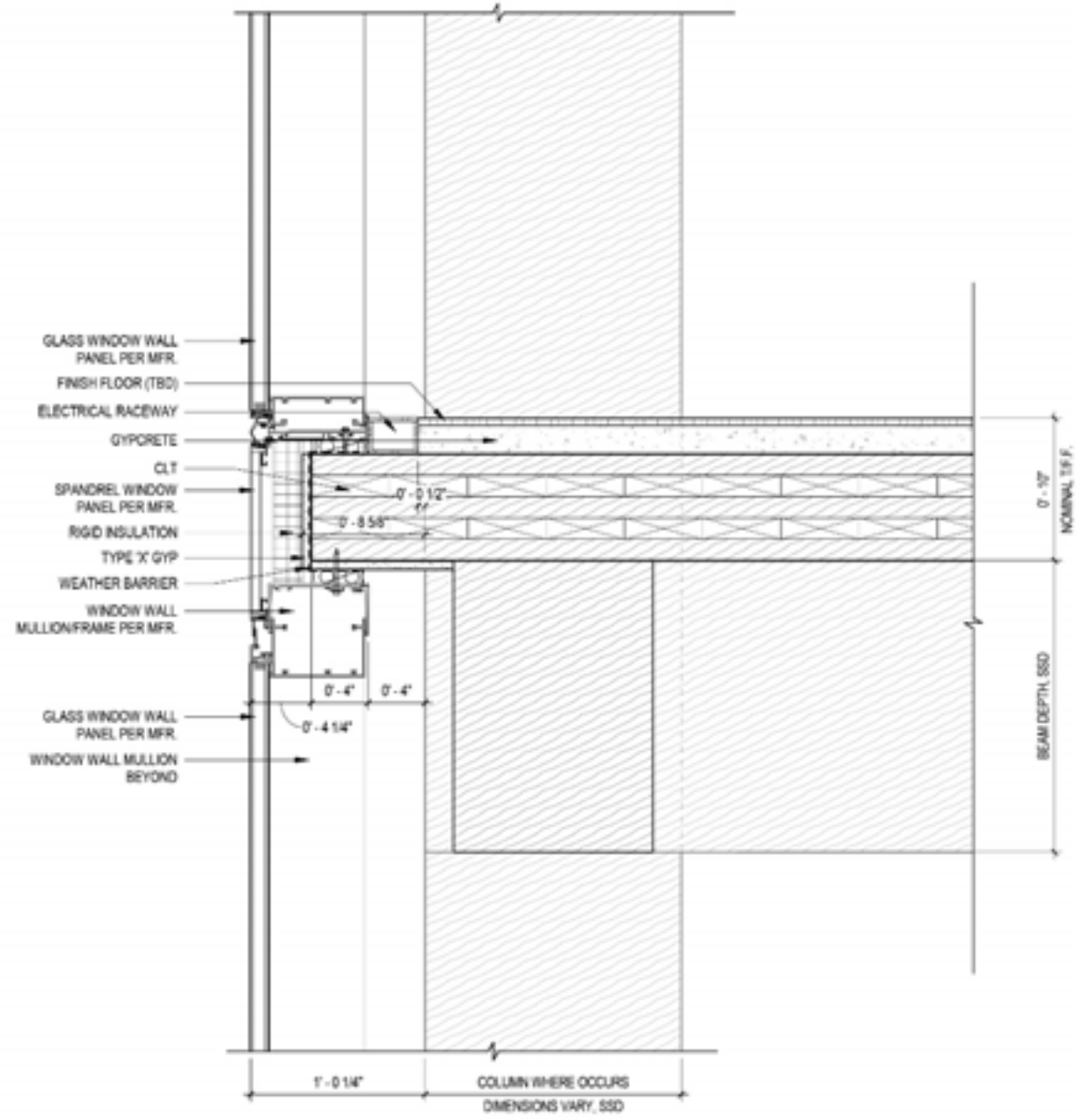
1 EXPOSED GLULAM BEAM TO GLULAM COLUMN CONNECTION (D1C)

NOT TO SCALE



6 WINDOW WALL SECTION AT KNEE WALL

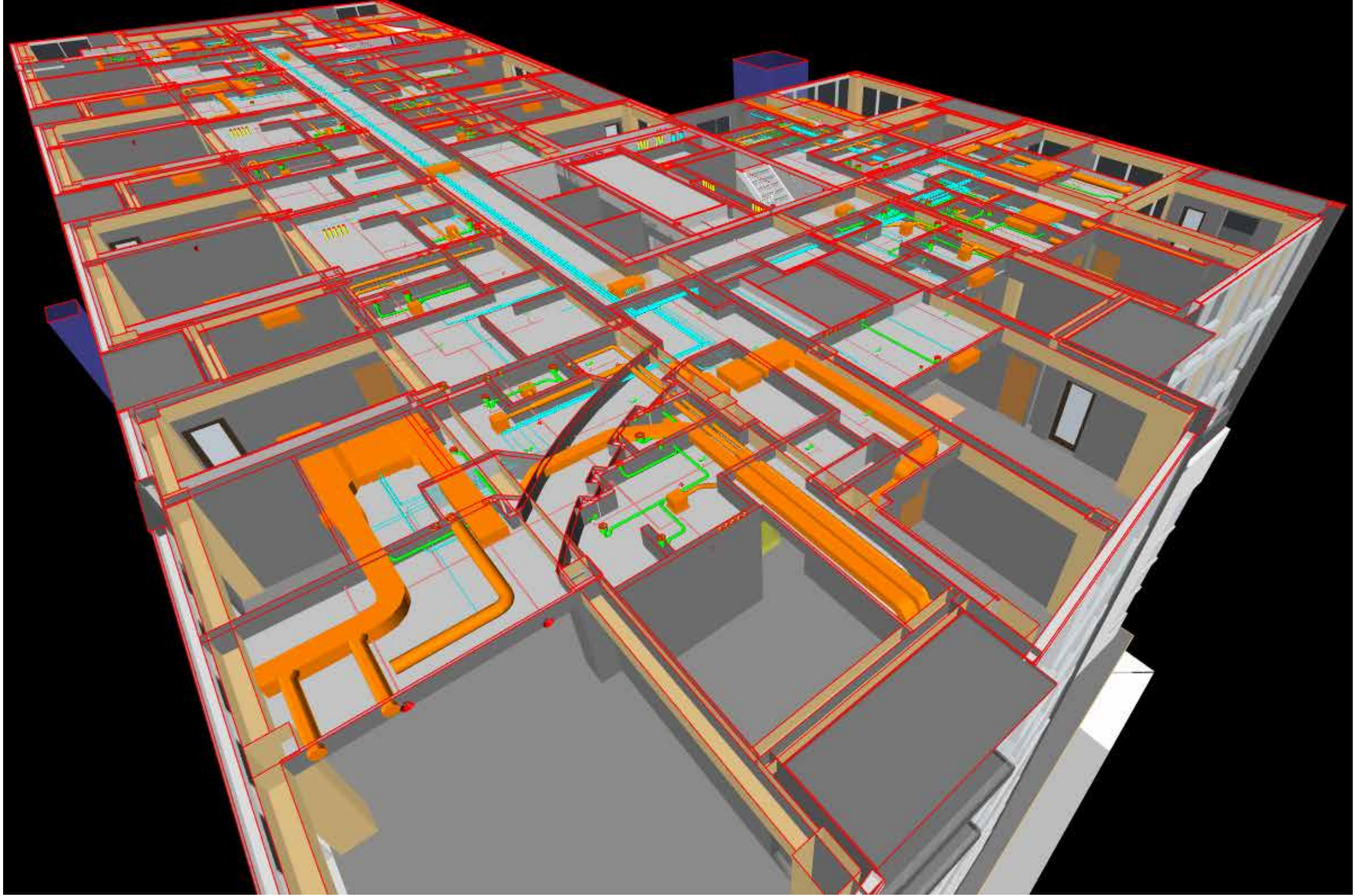
A520 1 1/2" = 1'-0"



3 WINDOW WALL - SLAB EDGE SECTION

A520 1 1/2" = 1'-0"

Project Considerations: VD + C



QUESTIONS?

This concludes The American Institute of Architects Continuing Education Systems Course

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