

Thinking Inside the Box: Modular Construction Demystified

Explaining the Graphic: Boston's Largest Modular Project
2020-06-03

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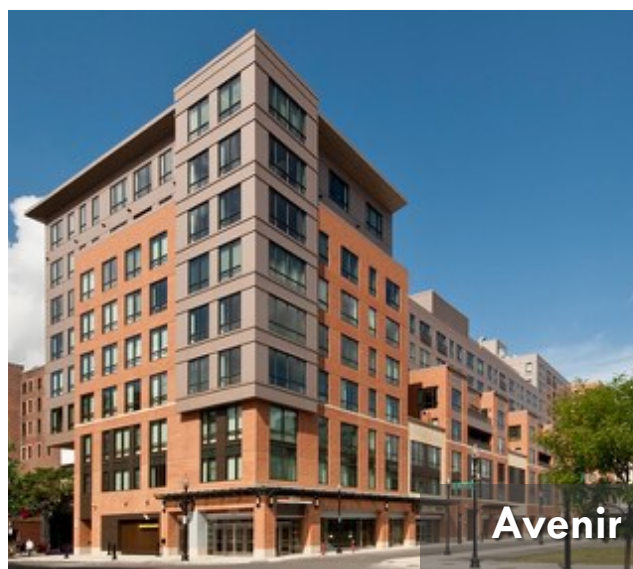
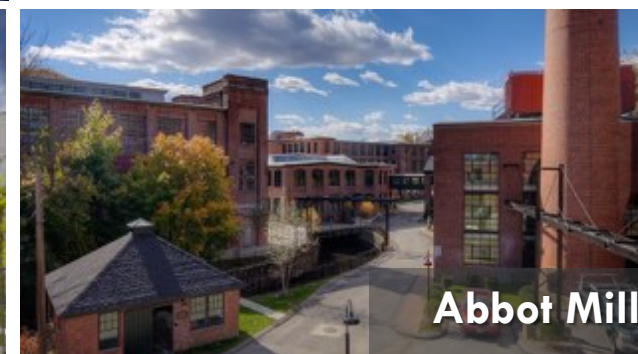
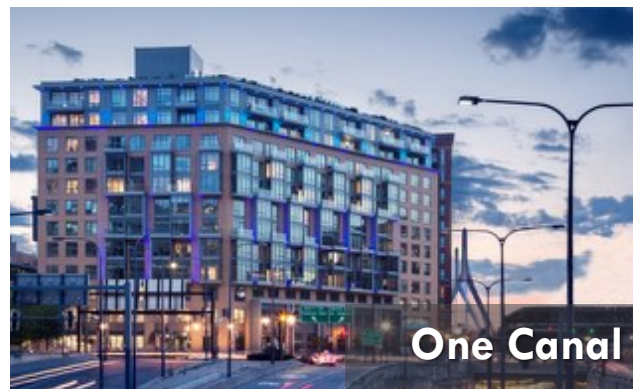
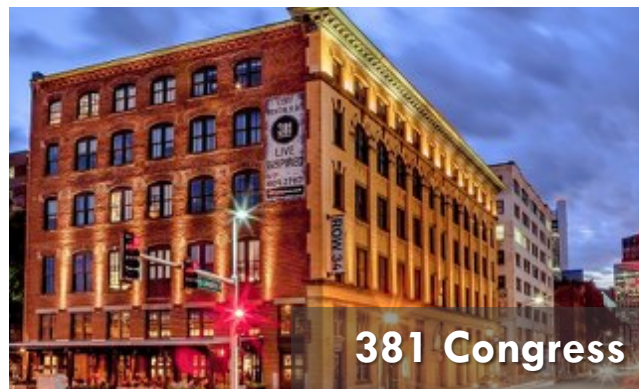


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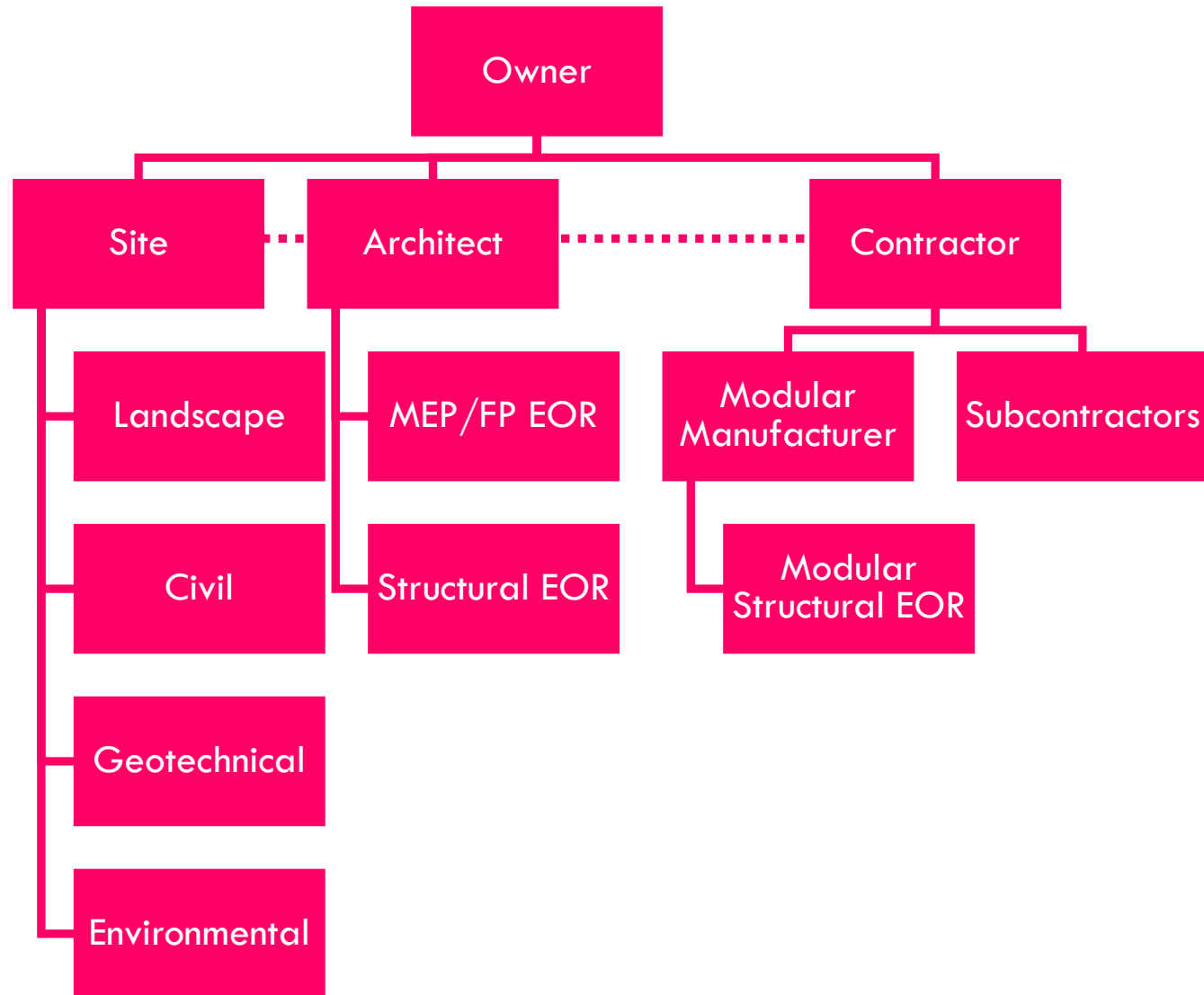
BERKELEY

E-ICON
ARCHITECTURE

TOCCI



ORG CHART



THE GRAPHIC - PROPOSED

BLDG A

- Adaptive reuse
- 46 Units
- 5,000 SF Restaurant Space
- 16 surface parking spaces
- 40,000 SF GSF

BLDG B

- Modular Construction [128 modules]
- 125 Units
- 97 Garage parking spaces
- 100,000 SF GSF [w/o parking]

TOTAL PROJECT

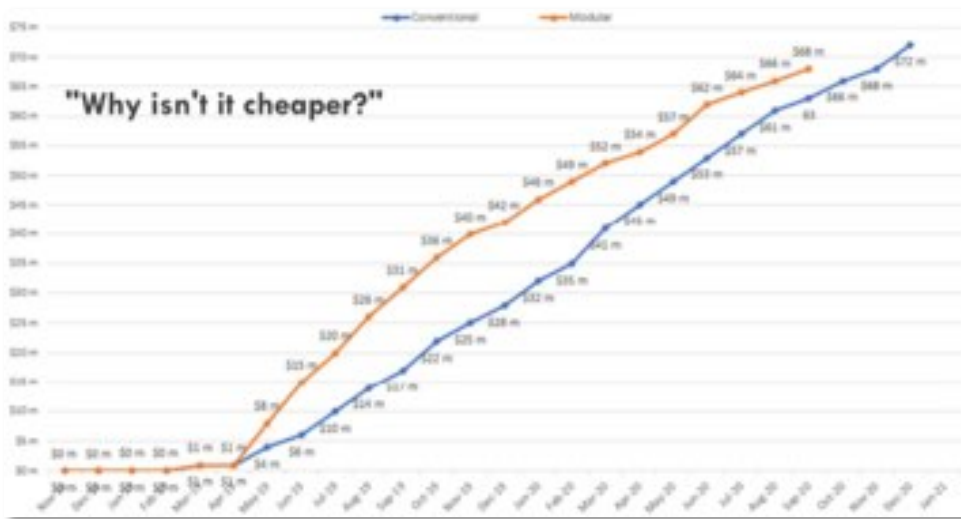
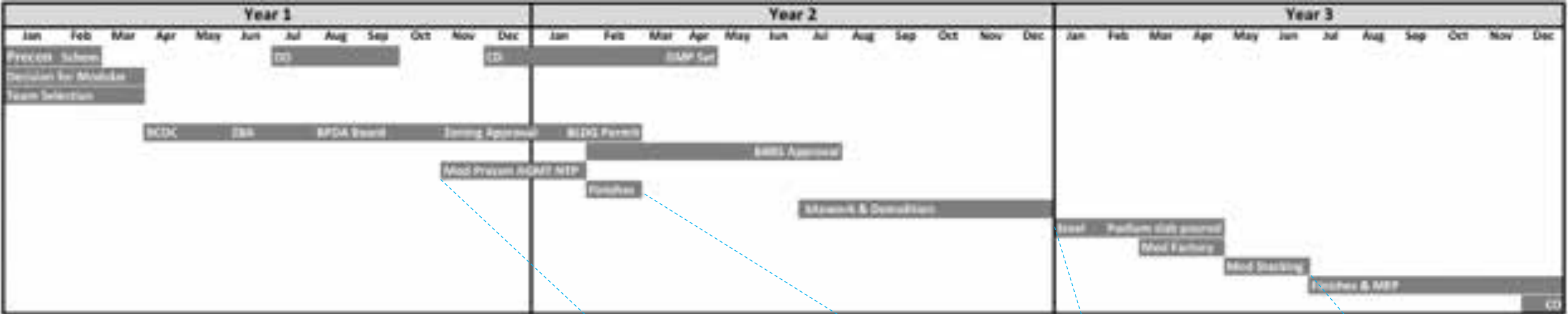
- 171 Units [23 IDP Units]
- 113 Parking spaces
- 140,000 SF GSF [w/o parking]



ADAPTIVE REUSE AND MODULAR



TIME = MONEY



Mod Precon AGMT NTP

Make decisions early.
No changes!

Finishes

Save 3-6 months!

Steel

Podium slab poured

Mod Factory

Mod Stacking

SIMULTANEOUS CONSTRUCTION

4/20/2018



4/12/2018



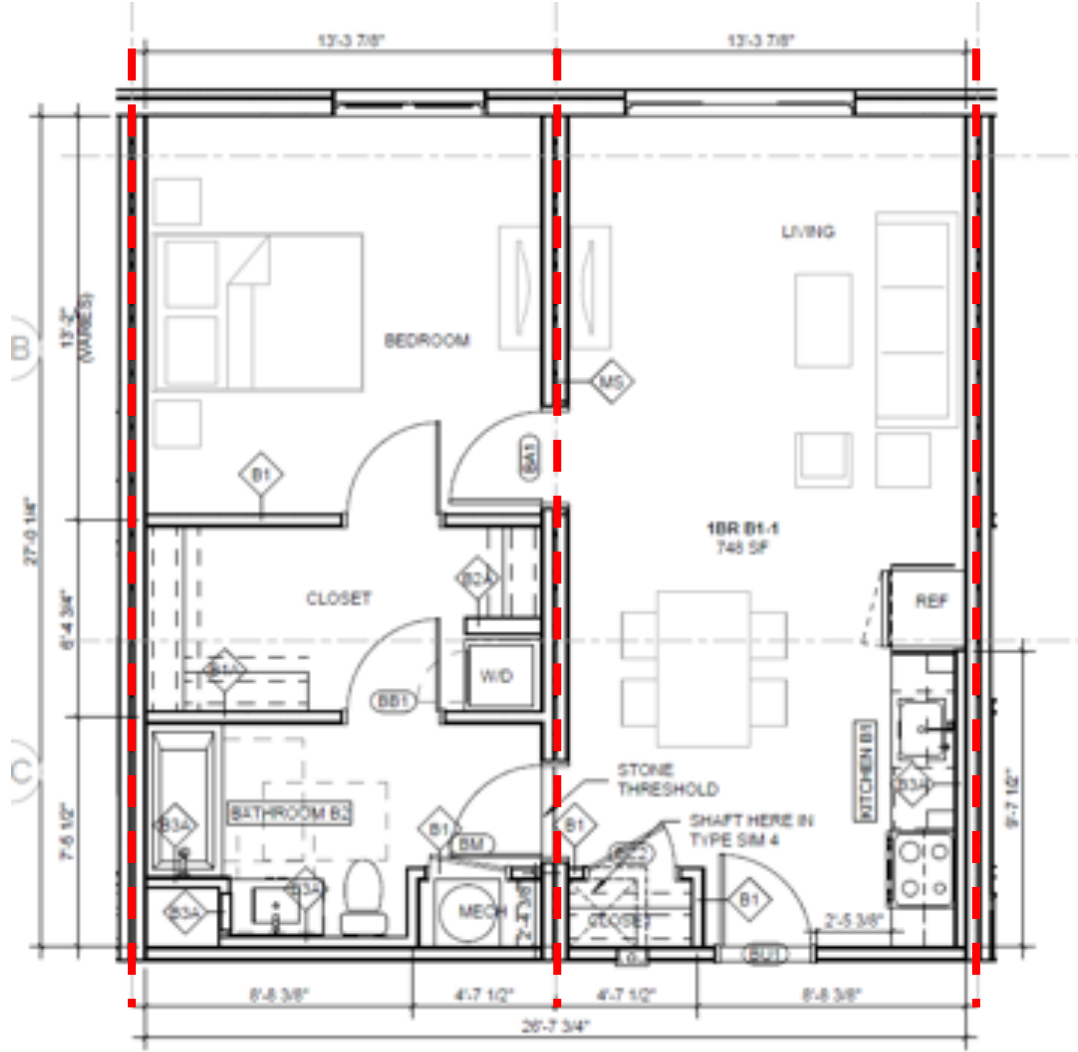
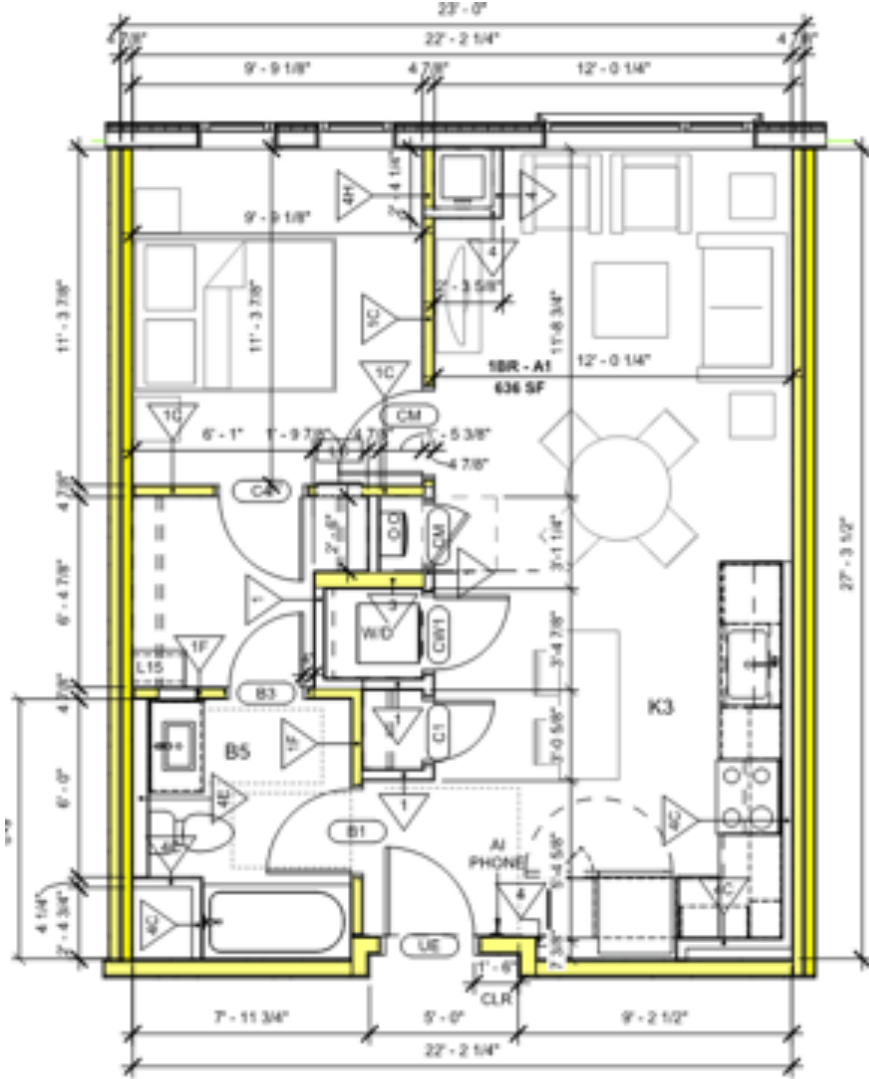
URBAN SITE



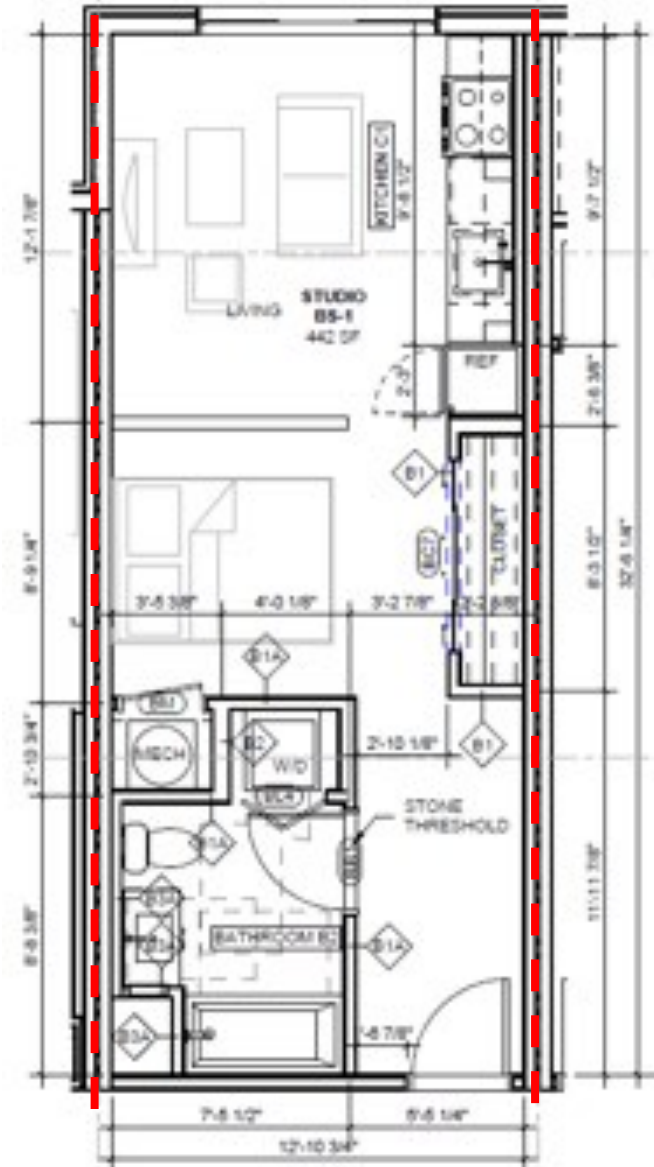
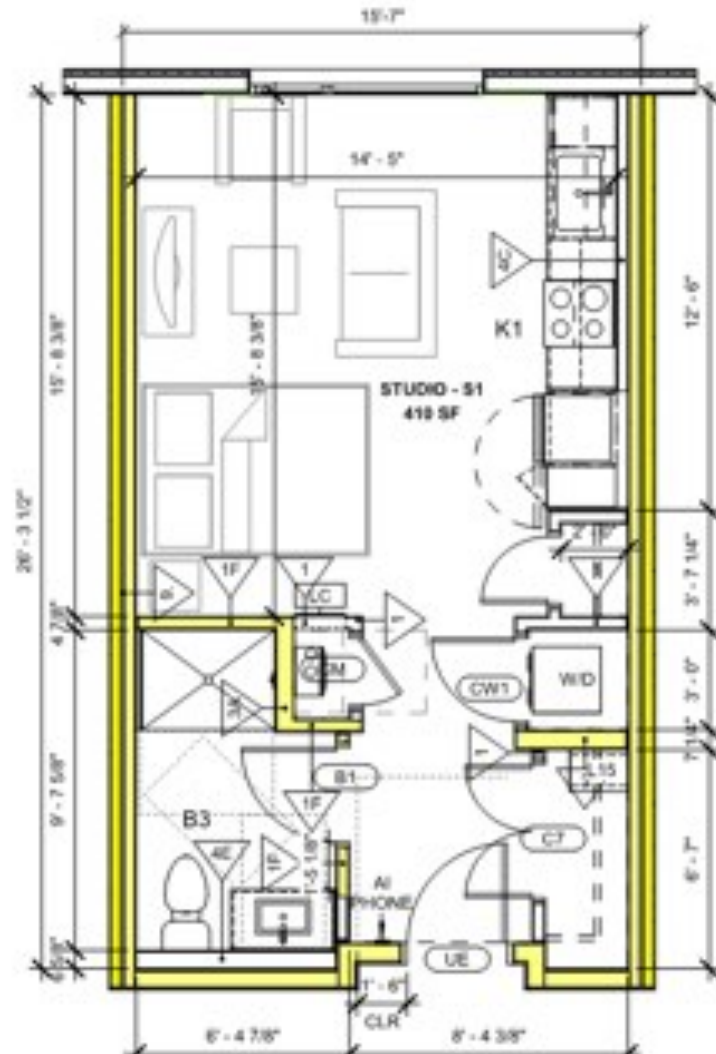
BUILDING LAYOUT



UNIT LAYOUT – 1 BR



UNIT LAYOUT - STUDIO



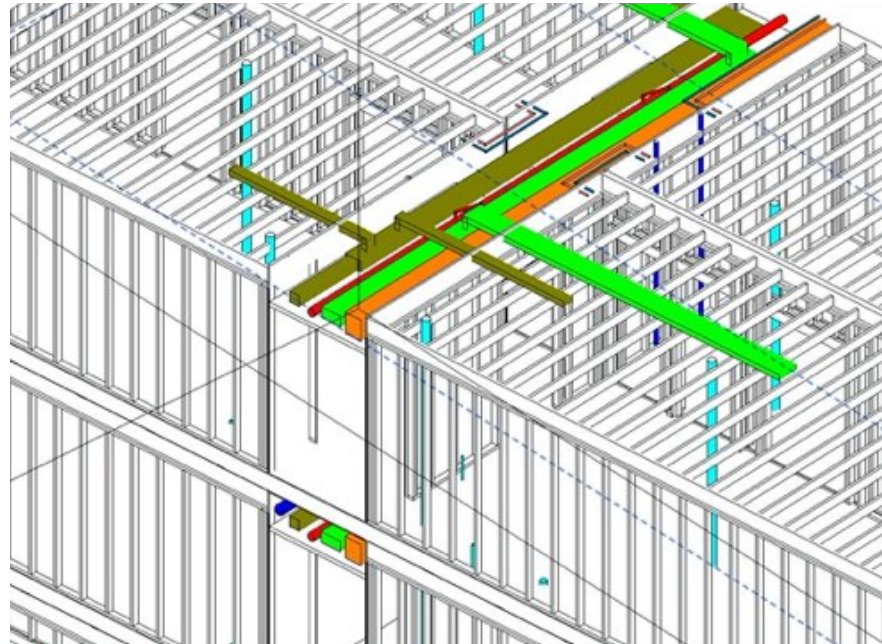
VISUALIZATION – LAYOUT & FINISHES



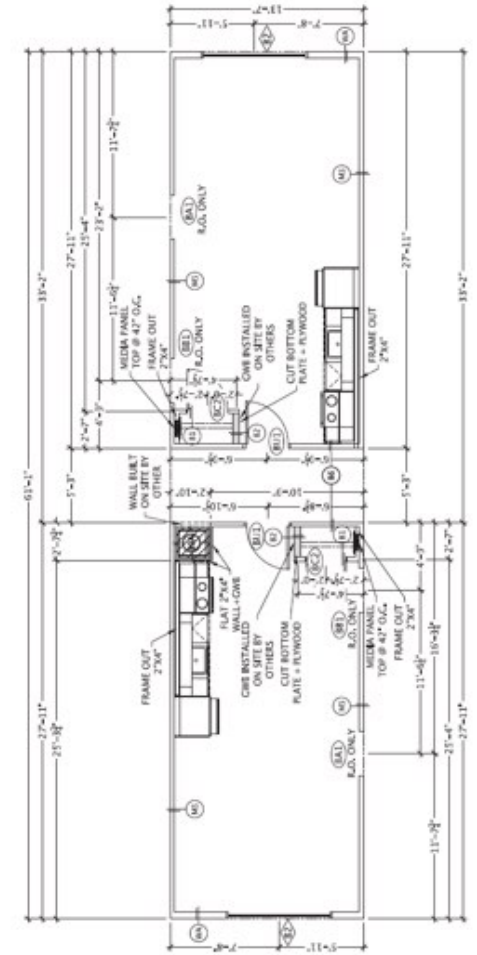
COMMUNICATION



Architecture model

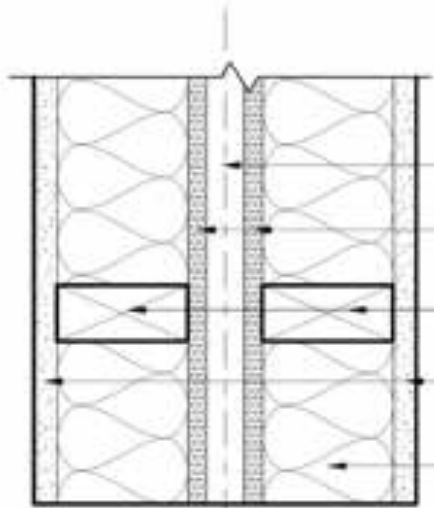


Contractor model

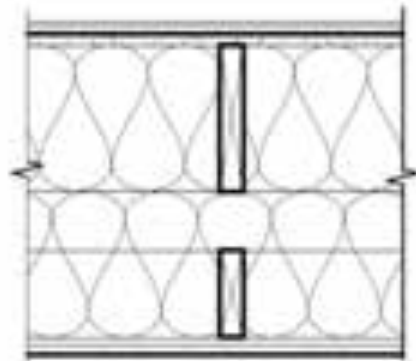


Modular 2D

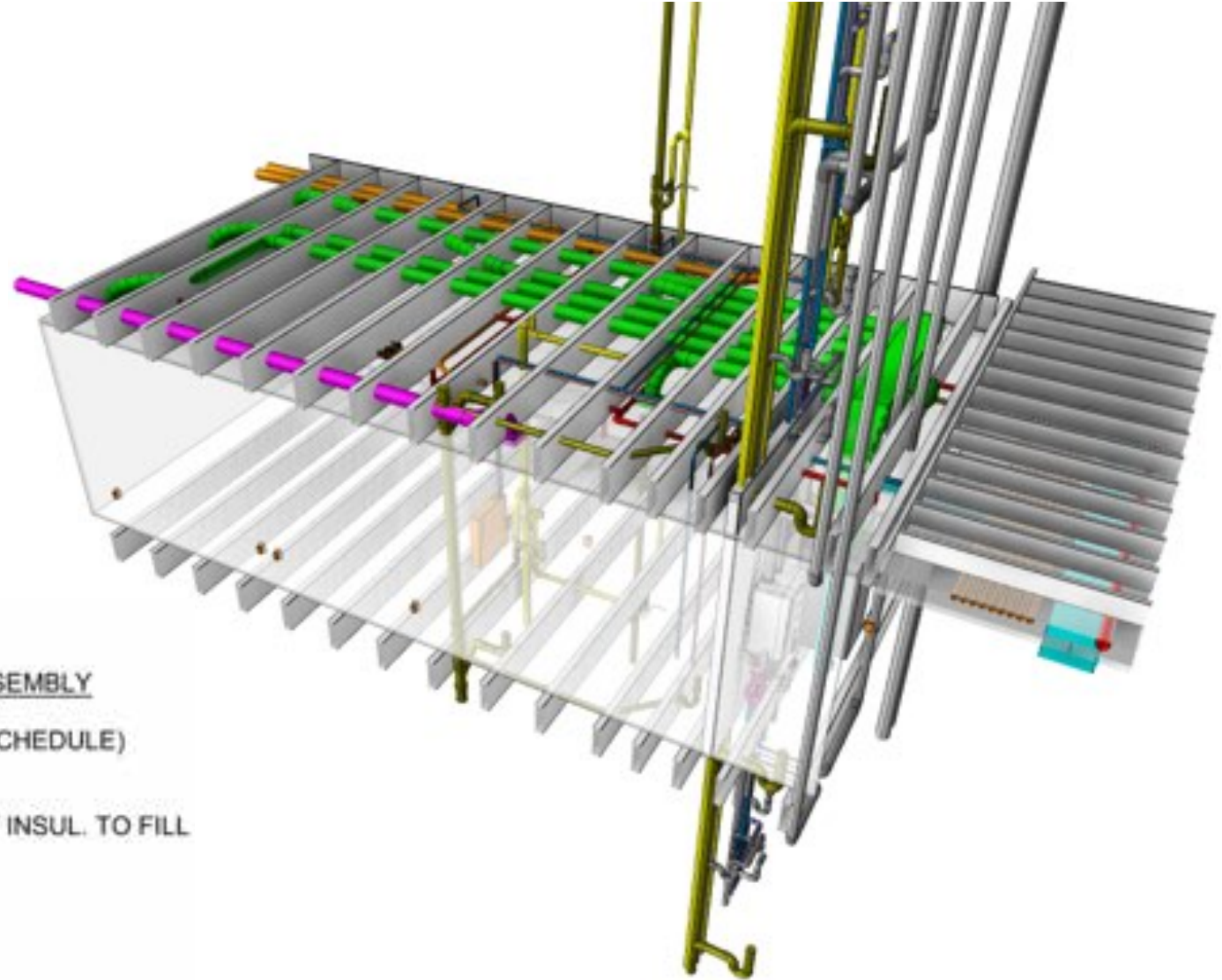
COORD - MODULE



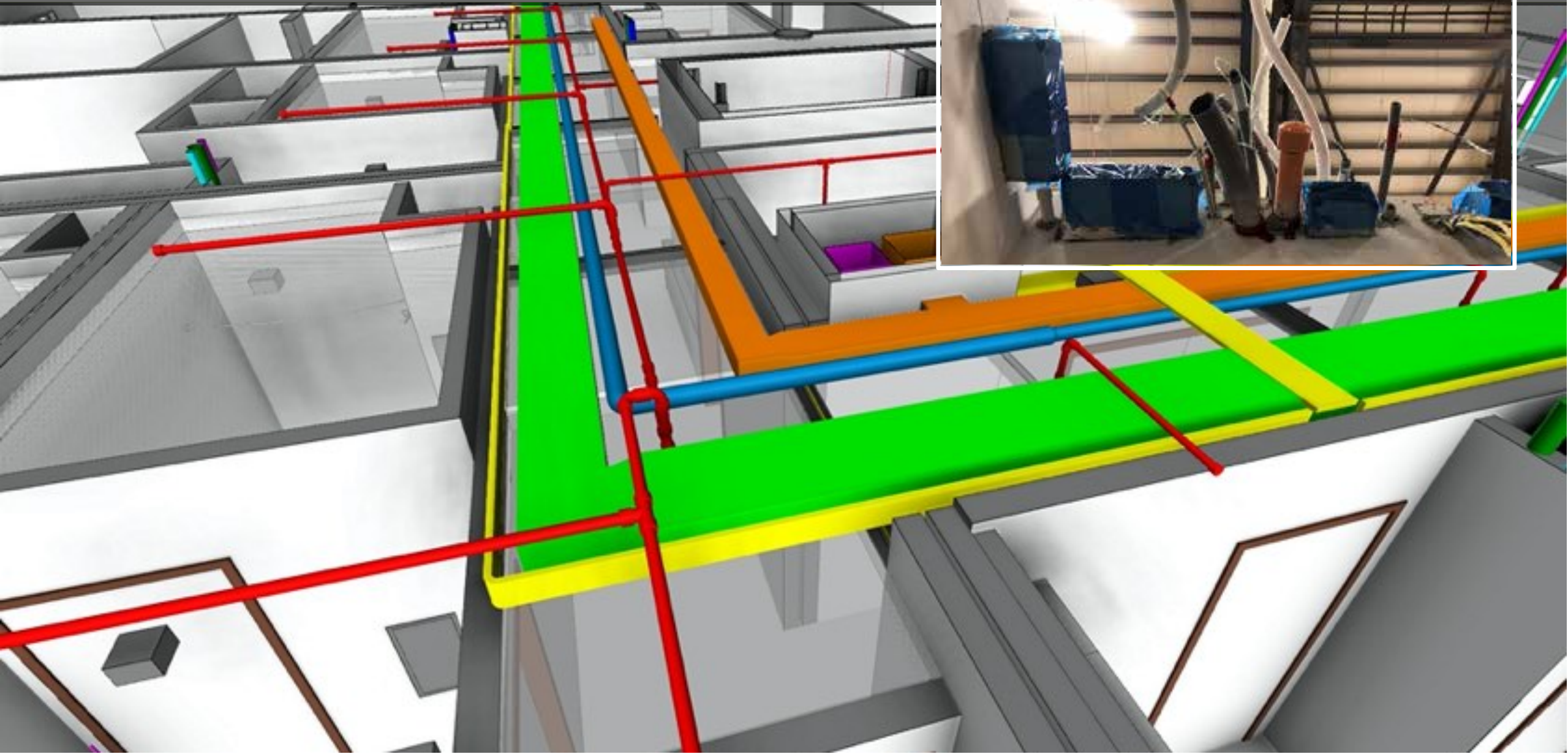
- 1" AIR SPACE
- 1/2" PLYWOOD SHEATHING
- 2X4 WOOD STUDS @ 16" O.C.
- (1) LAYER TYPE "X" GWB EACH SIDE
- SOUND ATTENUATING BATT INSULATION



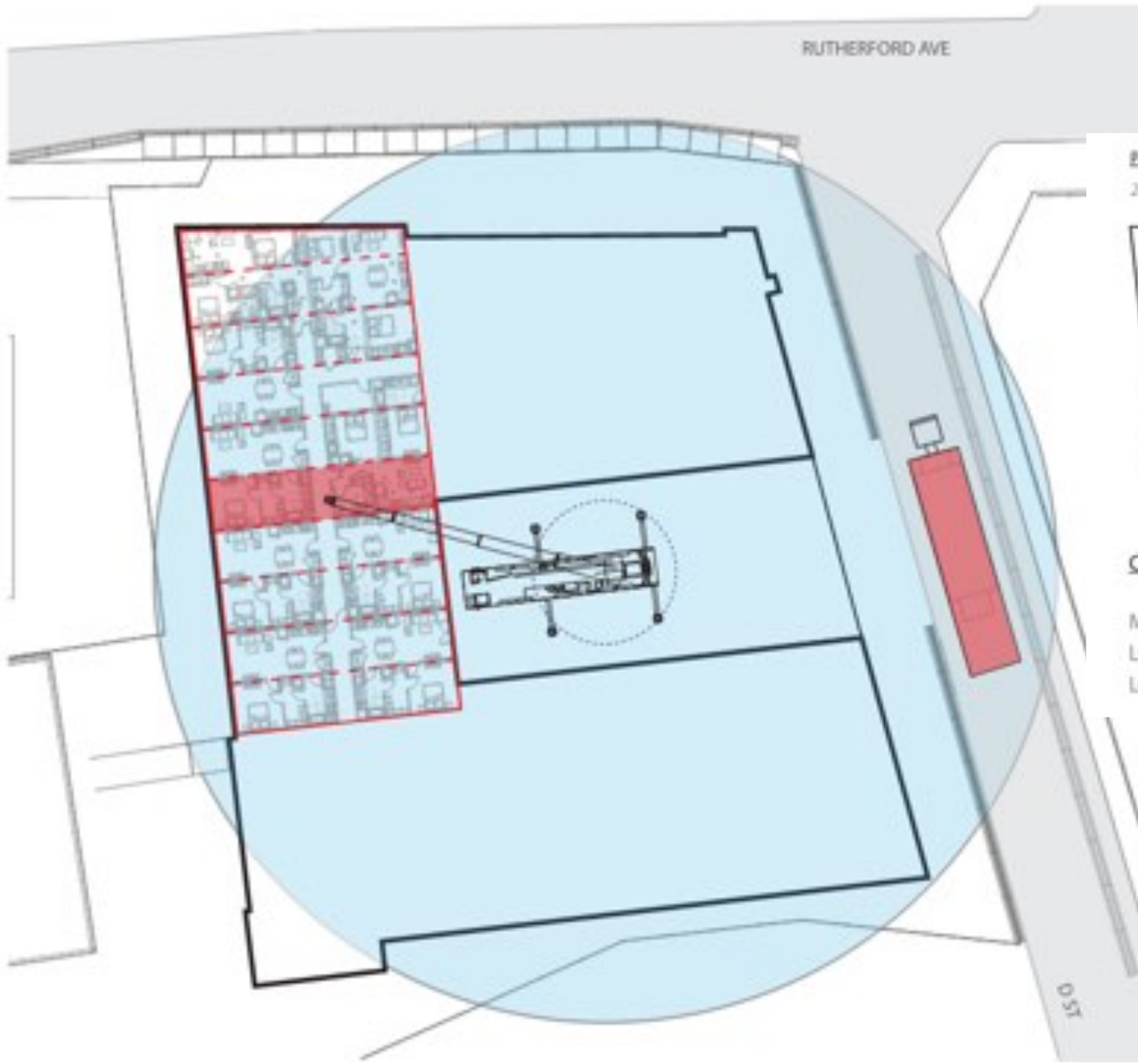
- TYPICAL MODULAR FLOOR/CEILING ASSEMBLY
(TOP TO BOTTOM)
- FINISH FLOORING (REFER TO FINISH SCHEDULE)
 - OSB PANEL SHEATHING
 - WOOD JOIST
 - NON-COMBUSTIBLE FIBERGLASS BATT INSUL. TO FILL CAVITY
 - CEILING JOISTS @ 16" O.C.
 - RESILIENT CHANNEL @ 16" O.C. TYP.
 - 5/8" TYPE 'C' GWB
UL L539



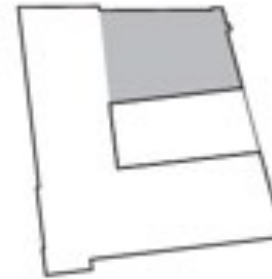
COORD – BUILDING/FIELD



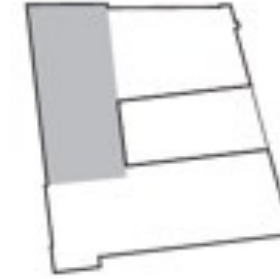
LOGISTICS



PHASE 1
28 Modules



PHASE 2
40 Modules



PHASE 3
60 Modules



CRANE SPECIFICATIONS

MODEL: GROVE GMK6400
LOAD RADIUS: 130 FT
LOAD WEIGHT: 35000 LBS

MODULE DETAILS

NUMBER OF MODULES: 128
WEIGHT: 25000 - 35000 LBS
DIMENSIONS: W13' - 6" x L60' x H10' - 6"

FACTORY VISITS



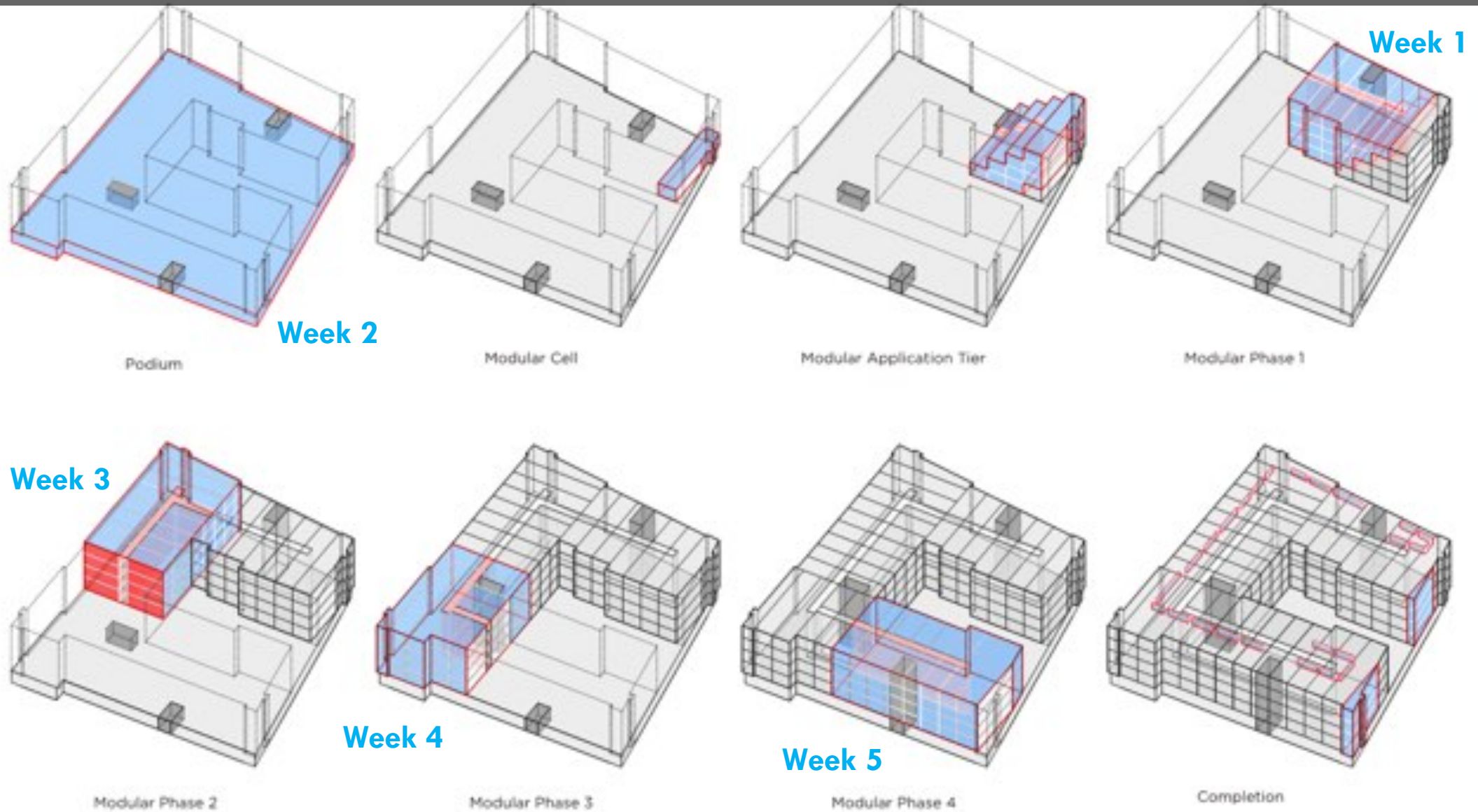
FABRICATION



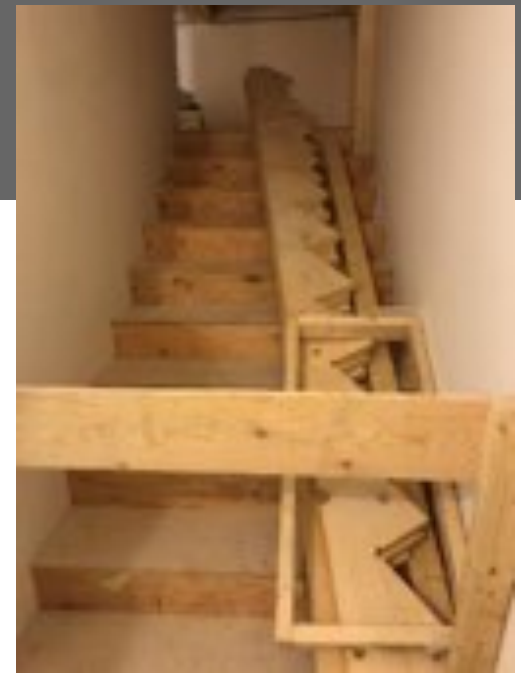
STACKING IN FINAL LOCATION



SEQUENCING



INTERIORS



FINAL PRODUCT - INTERIORS





LESSONS LEARNED:

1. Decide Modular early and don't make changes
2. Modular can save time but is not a “silver bullet”
3. No limit to design, as long as you coordinate
4. Teamwork, communication & collaboration is critical
5. Spend time at the Factory!



An aerial photograph of a city, likely New York City, showing a dense urban landscape with various buildings, parking lots, and a highway. In the background, a prominent skyline of skyscrapers is visible under a blue sky with scattered white clouds. The text 'THANK YOU' is superimposed in large, white, bold, sans-serif capital letters across the middle of the image.

THANK YOU

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