

## ADDENDUM NO. 1

Job Name: Knox County Emergency Operations  
 Project Number: 24-700-155-1  
 Date of Addendum: **5/30/2025**

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**Licensed Architect**  
**State of Indiana Registration No. Click or tap here to enter text.**

THIS ADDENDUM FORMS A PART OF THE CONTRACT DOCUMENTS AND IS ISSUED IN ACCORDANCE WITH THE INSTRUCTIONS TO BIDDERS. ACKNOWLEDGE RECEIPT OF THIS ADDENDUM BY SIGNING THE ADDENDUM ACKNOWLEDGEMENT SECTION OF YOUR PROPOSAL.

### Drawings:

1. **Revise** Sheet G-100
  - a. Wall between Elect. 120 and MEP 119 shifted 1'-0" plan west.
2. **Revise** Sheet C200
  - a. Clarified the demolition of Duke owned light poles and added relocating existing mailboxes during construction.
3. **Revise** Sheet C500
  - a. Added new concrete equipment pads based on coordination with electrical and added the location for the relocated mailboxes
4. **Revise** Sheet S002
  - a. Note 3 modified
5. **Revise** Sheet S004
  - a. Detail 5 title changed
6. **Revise** Sheet S110
  - a. Plan note 11 added
  - b. Interior thickened slabs changed from 18" to 12"
  - c. Detail callouts for plumbing penetrations added

- d. Section of 30" thickened slab added
- 7. **Revise** Sheet AF101
  - a. Wall between Elect. 120 and MEP 119 shifted 1'-0" plan west.
- 8. **Revise** Sheet A-300
  - a. Insulation above ceiling changed to R-38 min.
- 9. **Revise** Sheet A-301
  - a. Insulation above ceiling changed to R-38 min.
- 10. **Revise** Sheet A-302
  - a. Insulation above ceiling changed to R-38 min.
- 11. **Revise** Sheet P210
  - a. Added two exterior wall hydrants. Revised hard water branch piping sizes to accommodate the changes.
  - b. Added domestic water booster pump and expansion tank. Revised water piping to accommodate the changes.
  - c. Added Hydrant Flow Test Data schedule.
- 12. **Revise** Sheet P600
  - a. Added domestic water booster pump to Pump Schedule.
  - b. Added ET-2 to Expansion Tank Schedule.
  - c. Added note to provide pressure gauges to Backflow Preventor Schedule.
- 13. **Revise** Sheet P801
  - a. Added domestic water booster pump detail.
- 14. **Revise** Sheet M210
  - a. Added motorized dampers to duct system serving F-1 for tie-in to clean agent system operation.
- 15. **Revise** Sheet M600
  - a. Added sequence of operation for HVAC system shutdown and motorized damper closure for operation with clean agent system in the dispatch room and server room.
- 16. **Revise** Sheets E010, E310, E410, E601
  - a. Replace above listed drawings in their entirety with attached modified drawings.

END OF ADDENDUM 1



## GENERAL NOTES

- A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING, AND VERIFYING, THAT ALL PERMITS AND APPROVALS ARE OBTAINED FROM THE RESPECTIVE CITY, COUNTY, STATE AND FEDERAL AGENCIES PRIOR TO STARTING CONSTRUCTION.
- B. CONTRACTOR SHALL VERIFY LOCATION AND INVERT ELEVATIONS OF EXISTING SEWERS PRIOR TO START OF CONSTRUCTION.
- C. CONTRACTOR SHALL MAINTAIN A COMPLETE AND OPERABLE UTILITY SYSTEM AT ALL TIMES.
- D. CONTRACTOR SHALL INCLUDE COSTS FOR CUTTING AND PATCHING AS REQUIRED IN THEIR BID PROPOSAL TO COMPLETELY INSTALL THE WORK INDICATED.
- E. CONTRACTOR SHALL INCLUDE ALL TAP FEES, PERMIT FEES AND APPLICATION FEES IN THEIR BID PROPOSAL AS NECESSARY TO COMPLETELY INSTALL THE WORK INDICATED.
- F. INFORMATION SHOWN WAS OBTAINED FROM AN OWNER FURNISHED SITE SURVEY OF EXISTING CONDITIONS AND IS UNCONFIRMED. CONTRACTOR IS REQUIRED TO FIELD VERIFY THIS INFORMATION AND NOTIFY ARCHITECT OF ANY DISCREPANCIES SO MODIFICATION CAN BE MADE.
- G. CONTRACTOR SHALL COORDINATE EXACT UTILITY LOCATIONS WITH THE OWNER AND LOCAL UTILITY COMPANIES PRIOR TO COMMENCING ANY WORK. UTILIZE THE INDIANA UNDERGROUND UTILITY LOCATION SERVICE AT 811 OR 800-382-5544 PRIOR TO ANY EXCAVATION ON THE SITE.

## PLAN NOTES

- REMOVE EXISTING ASPHALT PAVEMENT COMPLETE. MAKE STRAIGHT SAW-CUT AT TERMINATION.
- REMOVE EXISTING CONCRETE CURB COMPLETE. MAKE STRAIGHT SAW-CUT AT TERMINATION.
- REMOVE EXISTING CONCRETE WALK AND CURB COMPLETE. MAKE STRAIGHT SAW-CUT AT NEXT ADJACENT JOINT.
- REMOVE EXISTING PLANTINGS COMPLETE.
- REMOVE EXISTING CONCRETE WALK COMPLETE.
- REMOVE EXISTING STORM STRUCTURE AND ASSOCIATED PIPING COMPLETE.
- EXISTING BUILDING TO BE REMOVED BY OTHERS. CONFIRM ALL ADJACENT SITE IMPROVEMENTS (WALKS, STAIRS, CURBS, ETC.) AND UTILITIES (ELECTRIC, FIBER, SANITARY, ETC.) HAVE BEEN REMOVED COMPLETE WITH BUILDING.
- EXISTING LIGHT POLE OWNED BY DUKE ENERGY AND BASE TO BE REMOVED COMPLETE. COORDINATE REMOVAL AND ALL ASSOCIATED UNDERGROUND CIRCUIT MODIFICATION /RE-ROUTING WITH DUKE ENERGY.
- EXISTING GAS SERVICE TO BE REMOVED. GAS SERVICE TO EXISTING SHED TO BE REFEED IF NEEDED. COORDINATE WORK WITH CENTERPOINT ENERGY.
- REMOVE EXISTING MONUMENTAL SIGN COMPLETE.
- EXISTING FIBER OPTIC LINES TO BE REROUTED BY UTILITY COMPANY. RELOCATION MUST OCCUR PRIOR TO BUILDING CONSTRUCTION COMMENCING. COORDINATE WORK WITH UTILITY COMPANY.
- EXISTING ELECTRICAL SERVICE TO BE REROUTED BY UTILITY COMPANY. RELOCATION MUST OCCUR PRIOR TO BUILDING CONSTRUCTION COMMENCING. COORDINATE WORK WITH ELECTRICAL COMPANY.
- RELOCATE EXISTING MAILBOXES ALONG WEST SIDE OF DRIVE AS NEEDED DURING CONSTRUCTION TO ENSURE ACCESS BY USPS AND CUSTOMERS. MAILBOXES TO BE REINSTALLED AT CONSTRUCTION COMPLETION WHERE INDICATED ON IMPROVEMENT PLAN.

| #  | Revision   | Date     |
|----|------------|----------|
| A1 | ADDENDUM 1 | 05/30/25 |

Project #: 24-700-155-1

Designed By: NBV

Drawn By: NBV

Checked By: NBV

Date: 05.16.2025

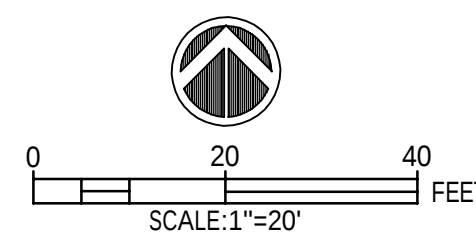
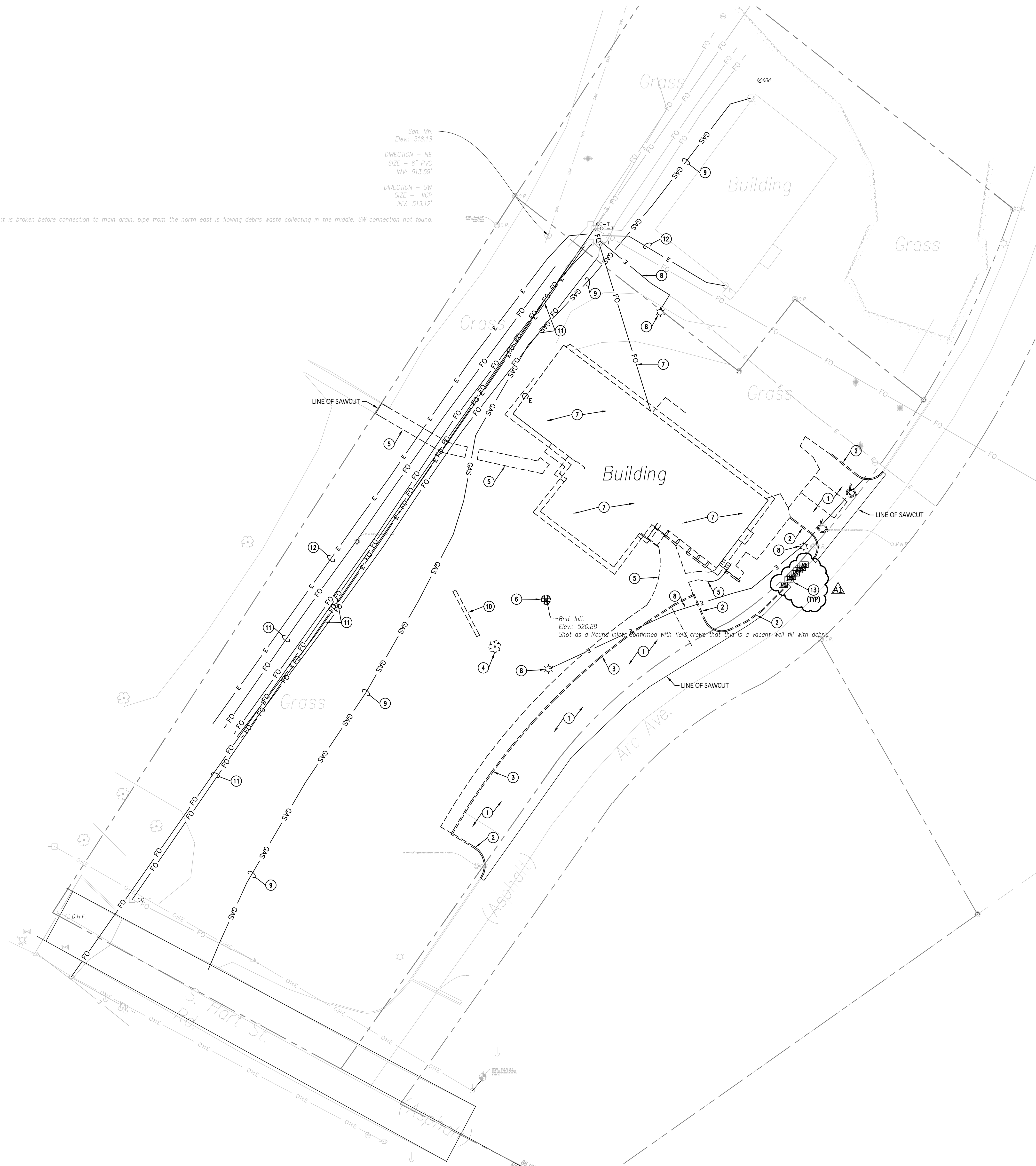
*Nicholas Brian Vergara*

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NOT FOR CONSTRUCTION

SITE DEMOLITION  
PLAN

C200



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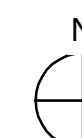
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*Nicholas Brian Vergara*

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NOT FOR CONSTRUCTION

SITE IMPROVEMENT  
PLAN

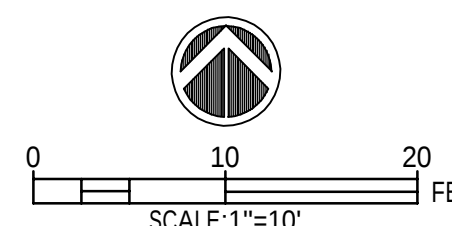
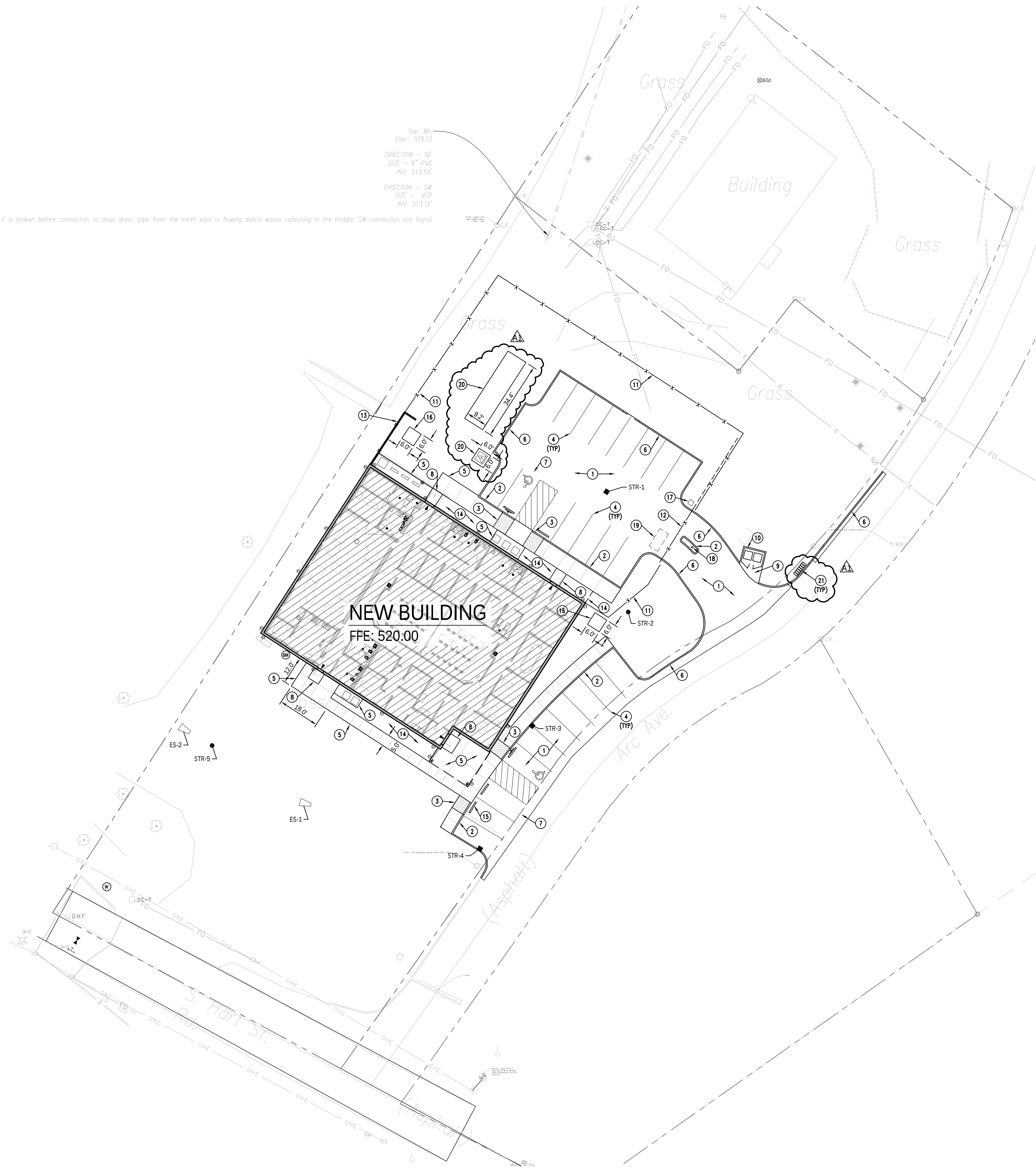
C500

## GENERAL NOTES

A. REFER TO SITE DETAILS FOR NOTE REFERENCES.

## PLAN NOTES

1. ASPHALT PAVEMENT.
2. CONCRETE CURB AND WALK.
3. ACCESSIBLE RAMP.
4. 4" WIDE PAINTED PARKING STRIPE.
5. CONCRETE WALK.
6. STRAIGHT CONCRETE CURB.
7. ACCESSIBLE PARKING SPACE.
8. FLUSH CONCRETE STOOP. REFER TO STRUCTURAL DRAWINGS.
9. 6" THICK CONCRETE PAVEMENT.
10. COVRIT DUMPSTER ENCLOSURE AS MANUFACTURED BY CITYSCAPES ARCHITECTURAL INNOVATIONS. VERTICAL PLANK STYLE. FINAL COLOR SELECTION OF WOOD AND STEEL TO BE SELECTED BY ARCHITECT.
11. 6FT TALL DECORATIVE FENCE. FENCE TO BE SIMILAR TO MONTAGE 2 RAIL MAJESTIC STYLE. FLUSH BOTTOM INDUSTRIAL FENCE AS MANUFACTURED BY AMERISTAR.
12. 6FT TALL, 27' LONG CANTILEVER GATE. GATE TO BE SIMILAR TO TRANSPORT TRAVERSE II MAJESTIC STYLE AS MANUFACTURED BY AMERISTAR.
13. CONCRETE RETAINING WALL WITH FENCE INSTALLED ON TOP. REFER TO STRUCTURAL DRAWINGS FOR MORE INFORMATION.
14. STONE MULCH AND METAL EDGING.
15. CONCRETE WHEEL STOP.
16. CONCRETE FOUNDATION FOR NEW ANTENNA. ANTENNA TO BE INSTALLED BY OTHERS.
17. GATE OPERATOR TO BE DOORKING MODEL 9150-380, 1HP. REFER TO ELECTRICAL DRAWINGS FOR WIRING AND POWER INFORMATION.
18. PEDESTAL LOCATION FOR GATE ACCESS DEVICE. PEDESTAL AND ACCESS DEVICE TO BE OWNER FURNISHED.
19. IN PAVEMENT VEHICLE DETECTION LOOP FOR GATE OPERATOR.
20. CONCRETE EQUIPMENT PAD. CONFIRM FINAL SIZE REQUIREMENTS WITH FINAL EQUIPMENT SELECTION.
21. RELOCATED MAILBOXES.



E

D

C

B

A

CONCRETE

- ALL CONCRETE WORK SHALL CONFORM TO THE STANDARDS OF THE AMERICAN CONCRETE INSTITUTE, ACI 301 SPECIFICATIONS FOR STRUCTURAL CONCRETE AND ACI 318 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE, WITH MODIFICATIONS AS NOTED IN THE CONTRACT DOCUMENTS.
- ALL CONCRETE, UNLESS OTHERWISE NOTED IN SCHEDULES OR DETAILS, SHALL HAVE A MINIMUM 28 DAY CONCRETE COMPRESSIVE STRENGTH OF 4000 PSI. ALL CONCRETE SHALL BE NORMAL WEIGHT (145 PCF), EXCEPT, ALL ELEVATED CONCRETE SLABS OVER METAL DECK SHALL BE LIGHTWEIGHT (110 PCF) U.N.O. ON PLANS.
- ALL CONCRETE EXPOSED TO THE WEATHER SHALL BE AIR-ENTRAINED. FOR SURFACE FINISHES AND OTHER REQUIREMENTS, REFER TO THE CONCRETE SPECIFICATIONS. CONCRETE MIX PROPORTIONING SHALL BE SUBMITTED TO THE ARCHITECT / EOR FOR REVIEW AND APPROVAL.
- THE USE OF CALCIUM CHLORIDE AND OTHER CHLORIDE CONTAINING AGENTS IS PROHIBITED. THE USE OF RECYCLED CONCRETE IS PROHIBITED. PLACEMENT WITHIN AND CONTACT BETWEEN ALUMINUM ITEMS, INCLUDING ALUMINUM CONDUIT, AND CONCRETE IS PROHIBITED.
- DETAILS OF FABRICATION OF REINFORCEMENT, HANDLING AND PLACEMENT OF THE CONCRETE, CONSTRUCTION OF FORMS AND PLACEMENT OF REINFORCEMENT, NOT OTHERWISE COVERED BY THE PLANS AND SPECIFICATIONS, SHALL COMPLY WITH THE LATEST ADDITION OF THE ACI CODE AND CRSI REQUIREMENTS.
- PROVIDE 3/4" CHAMFERS ON ALL EXPOSED EDGES OF CONCRETE AND THE EXPOSED CORNERS OF BEAMS, GIRDERS AND COLUMNS UNLESS OTHERWISE SHOWN OR NOTED. COORDINATE WITH ARCHITECTURAL DRAWINGS.
- CORED HOLES IN CONCRETE WALLS, SLABS ETC., SHALL NOT BE PERMITTED WITHOUT PRIOR REVIEW AND APPROVAL FROM THE ARCHITECT/EOR.
- ALL MISCELLANEOUS ITEMS TO BE INSTALLED IN ANY CONCRETE WORK, SUCH AS PIPES, ELECTRICAL CONDUITS, DOWEL/ANCHOR SLOTS, REGLETS, ETC., SHALL BE PROPERLY LOCATED, INSTALLED AND CHECKED BY THE O.C. PRIOR TO CONCRETE. REFER TO ARCHITECTURAL AND MEP DRAWINGS FOR THE EXACT EXTENT AND LOCATION OF THESE ITEMS THAT ARE NOT SPECIFICALLY SHOWN ON THE STRUCTURAL DRAWINGS.
- PROVIDE SLEEVES FOR ALL PIPE AND CONDUIT PENETRATIONS IN FOUNDATION WALLS, GRADE BEAMS, WALL FOOTINGS AND TRENCH FOOTINGS TO TOTALLY SEPARATE THE PIPES FROM THE CONCRETE. REFER TO TYPICAL DETAILS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONCRETE PLACING SEQUENCES, SIZE, AND CONSTRUCTION PROCEDURES AND ACCOUNT FOR TEMPERATURE DIFFERENTIALS AND SHRINKAGE OCCURRING DURING THE CONSTRUCTION PHASE UNTIL THE BUILDING IS PERMANENTLY IN A MECHANICALLY CONTROLLED ENVIRONMENT.
- THE CONTRACTOR SHALL CONSULT WITH THE ENGINEER BEFORE STARTING CONCRETE WORK TO ESTABLISH A SATISFACTORY PLACING SCHEDULE AND TO DETERMINE THE LOCATION OF CONSTRUCTION JOINTS SO AS TO MINIMIZE THE EFFECTS OF SHRINKAGE.
- NO HORIZONTAL CONSTRUCTION JOINTS SHALL BE MADE IN CONCRETE WALLS, FOOTINGS, BEAMS OR SLABS UNLESS SHOWN OR NOTED IN THE CONTRACT DRAWINGS. VERTICAL JOINTS ARE PERMITTED IN CONCRETE SLABS, WALLS, WALL FOOTINGS, TRENCH FOOTINGS AND GRADE BEAMS. REFER TO TYPICAL DETAILS.
- FORMS AND FALSEWORK SUPPORTING ANY VERTICAL LOADS SHALL REMAIN IN PLACE UNTIL THE CONCRETE HAS ATTAINED ITS SPECIFIED 28 DAY COMPRESSIVE STRENGTH AS INDICATED BY TEST CYLINDERS UNLESS RESHORES ARE INSTALLED IN SUFFICIENT QUANTITIES TO TRANSMIT THE LOADS TO ADEQUATE FOUNDATIONS OR SUBSTRATE WITHOUT OVERSTRESSING THE PARTIALLY CURED STRUCTURE. IN NO CASE SHALL SUPERIMPOSED LOAD ON RELATIVELY NEW CONCRETE EXCEED 50 POUNDS PER SQUARE FOOT UNLESS PROPER SHORING TO SUITABLE FOUNDATIONS OR SUBSTRATE IS INSTALLED AS REQUIRED BY THE EOR.
- ALL CONSTRUCTION JOINTS IN CONCRETE WALLS, FOOTINGS, BEAMS OR SLABS SHALL BE PROVIDED WITH A KEYWAY. THE SURFACE OF THE CONCRETE SHALL BE THOROUGHLY CLEANED AND ALL LANTANA REMOVED. IN ADDITION, THE JOINT SHALL BE THOROUGHLY WETTED AND SLUSHED WITH A COAT OF CEMENT GROUT OR A BONDING AGENT IMMEDIATELY BEFORE PLACING CONCRETE.
- CONTROL JOINTS, IF NOT SHOWN ON DRAWINGS, SHALL BE PROVIDED IN ALL SLABS ON-GRADE. JOINTS SHALL BE LOCATED ON EACH COLUMN LINE, AT RE-ENTRANT CORNERS AND THE JOINT SPACING SHALL NOT EXCEED:  
12' IN EITHER DIRECTION FOR 4" THICK SLABS  
15' IN EITHER DIRECTION FOR 6" THICK SLABS  
1:5.1 MAXIMUM PANEL LENGTH TO WIDTH RATIO  
SEE TYPICAL SLAB-ON-GRADE DETAILS FOR ADDITIONAL INFORMATION.
- THE SAW CUTTING OF CONTROL JOINTS IN A SLAB-ON-GRADE MAY BEGIN WHEN THE CUTTING ACTION WILL NOT TEAR, ABRAD, OR OTHERWISE DAMAGE THE SURFACE AND BEFORE THE CONCRETE DEVELOPS RANDOM SHRINKAGE CRACKING. SAW CUTTING MAY BEGIN AND FINISH WITHIN 4 TO 12 HOURS AFTER SURFACE FINISHING IS COMPLETE.
- REFER TO CONCRETE SPECIFICATIONS FOR FLOOR FLATNESS AND LEVELNESS REQUIREMENTS AT THE SLAB-ON-GRADE AND ELEVATED CONCRETE SLAB TYP.
- CONCRETE SHALL BE PLACED AND CURED AS REQUIRED TO ACCOMMODATE ARCHITECTURAL FLOOR FINISHES AND MATERIALS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN AND REVIEW ALL ARCHITECTURAL DOCUMENTS AND DETERMINE APPROPRIATE CONCRETE MIX, PLACEMENT, FLATNESS REQUIREMENTS AND CURING TECHNIQUES TO COMPLY WITH FLOORING MANUFACTURERS' REQUIREMENTS.
- FOR SLABS CONTAINING FIBER REINFORCEMENT, THE FIBER DOSAGE SHALL BE CONFIRMED BY THE MANUFACTURER.
- SLABS CONTAINING FIBER REINFORCEMENT SHALL BE FINISHED IN ACCORDANCE WITH THE FIBER MANUFACTURER'S RECOMMENDATIONS AND AS REQUIRED TO MINIMIZE FIBER EXPOSURE AT THE SURFACE OF THE SLAB. ALL PROTRUDING FIBERS SHALL BE REMOVED AS REQUIRED PER MANUFACTURER'S RECOMMENDATIONS TO PROPERLY INSTALL FLOOR FINISHES AND/OR MATERIALS. ALL PROTRUDING FIBERS AT EXPOSED OR POLISHED CONCRETE SLABS SHALL BE REMOVED PER THE MANUFACTURER'S RECOMMENDATIONS PRIOR TO POLISHING CONCRETE OR COMPLETION OF CONSTRUCTION AS APPROPRIATE.
- MAINTAIN A MAXIMUM SLOPE OF 1 VERTICAL TO 2 HORIZONTALS BETWEEN BEARING ELEVATIONS OF ADJACENT FOOTINGS TO AVOID UNDERMINING FOUNDATIONS UNLESS NOTED OTHERWISE IN PLANS.
- SET ANCHOR BOLTS WITH 3/4" THICK PLYWOOD TEMPLATES OR 1/4" THICK STEEL PLATE TEMPLATES AND BRACE AGAINST DISPLACEMENT.
- MASS CONCRETE: PORTIONS OF LINEAR ACCELERATOR VAULTS ARE CONSIDERED TO BE MASS CONCRETE POURS. THE HEAT OF HYDRATION IN THE MASS CONCRETE CAN ELEVATE THE TEMPERATURE WITHIN THE CONCRETE WHILE IT IS SETTING. IF THE TEMPERATURE EXCEEDS 180 DEGREES FAHRENHEIT, THE CONCRETE CAN EXPERIENCE THERMAL CRACKING. THE CONTRACTOR SHALL TAKE INTO CONSIDERATION THE NECESSARY PRECAUTIONS FOR A MASS CONCRETE POUR TO CONTROL THE TEMPERATURE. THESE CONSIDERATIONS CONSISTS OF (BUT ARE NOT NECESSARILY LIMITED TO) CONCRETE TEMPERATURE AT PLACEMENT, SUBSTITUTION OF FLY ASH FOR CEMENT, INSULATING THE CONCRETE AFTER IT IS PLACED TO MINIMIZE THE TEMPERATURE DIFFERENTIAL BETWEEN THE CENTER OF THE POUR AND THE OUTSIDE FACE OF THE POUR, THE TYPE OF CEMENT USED, USING CEMENT WITH A LOW AMOUNT OF TRICALCIUM SILICATE AND A LOW AMOUNT OF TRICALCIUM ALUMINATE, AGGREGATE SELECTION, WATER TO CEMENT RATIO, COOLING COARSE AGGREGATE PRIOR TO MIXING, ETC. MIX DESIGN SHALL ADDRESS PROPER DRYING OUT TIME FOR THE THICK CONCRETE POURS IN VAULT WALLS, SLABS AND CAPS.

REINFORCING STEEL

- ALL REINFORCING STEEL SHALL BE DETAILED AND PLACED IN ACCORDANCE WITH THE LATEST ADDITION OF ACI 315, ACI 318, AND CRSI.
- REINFORCEMENT SHALL HAVE DEFORMED SURFACES IN ACCORDANCE WITH ASTM A615 WITH MINIMUM YIELD STRENGTH OF 60,000 PSI.
- WELDED WIRE FABRIC SHALL BE SMOOTH CONFORMING TO ASTM A185.
- THE SHOP DRAWINGS FOR REINFORCING STEEL SHALL INCLUDE SCALE ELEVATIONS OF ALL CONCRETE WALLS AS APPLICABLE.
- PROVIDE CORNER BARS OF SAME SIZE AND SPACING AS HORIZONTAL BARS AT CORNERS AND INTERSECTIONS OF ALL WALLS AND GRADE BEAMS. REFER TO TYPICAL DETAILS.
- REINFORCING STEEL SHALL HAVE THE FOLLOWING CONCRETE PROTECTION (CLEAR COVER) UNLESS OTHERWISE NOTED:  
  
SURFACES NOT FORMED AND IN CONTACT WITH SOIL: 3"  
FORMED SURFACES IN CONTACT WITH SOIL OR WEATHER: 2"  
BEAMS, GIRDERS AND COLUMNS: 1 1/2"  
SLABS, WALLS AND JOISTS: 3/4"
- PROVIDE ADDITIONAL REINFORCING BARS AROUND ALL OPENINGS IN CONCRETE SLABS AND WALLS EQUAL TO THE AMOUNT INTERRUPTED BY THE OPENINGS (1/2 EA. SIDE TYPICAL), WHERE OPENINGS ARE SUCH THAT THE REINFORCING STEEL IS NOT INTERRUPTED. NO ADDITIONAL REINFORCING IS REQUIRED. REFER TO TYPICAL CONCRETE OPENING DETAIL.
- ALL 90 DEGREE AND 180 DEGREE BENDS SHOWN OR CALLED OUT ON THE DRAWINGS SHALL BE STANDARD HOOKS IN ACCORDANCE WITH ACI 318 UNLESS NOTED OTHERWISE.
- OPENINGS THROUGH CONCRETE WALLS, SLABS OR OTHER STRUCTURAL ELEMENTS NOT DETAILED ON THE STRUCTURAL DRAWINGS MUST BE LOCATED AND SHOWN ON THE APPLICABLE REINFORCING STEEL SHOP DRAWINGS. THE FINAL LOCATION OF ALL OPENINGS MUST BE REVIEWED BY THE A/E BEFORE THE CONCRETE IS POURED.
- THE WELDED WIRE FABRIC IN THE COMPOSITE ELEVATED SLAB SHALL BE SUPPORTED BY PLACING CONTINUOUS HEAVY BOLSTERS AT 2'-6" O.C. MAXIMUM OVER THE COMPOSITE METAL DECK.
- THE WELDED WIRE FABRIC IN THE CONCRETE SLAB-ON-GRADE SHALL BE SUPPORTED BY CONTINUOUS #4 SUPPORT BARS AT 2'-6" O.C. MAXIMUM. THE #4 BARS SHALL BE TIED AND SUPPORTED BY CONTINUOUS CHAIRS AT 2'-6" O.C. MAXIMUM.
- CONTRACTOR SHALL PROVIDE FOR AN ALLOWANCE OF XX TONS OF REINFORCING STEEL TO BE FABRICATED AND/OR PLACED DURING THE PROGRESS OF WORK AS MAY BE DIRECTED BY THE ARCHITECT (STRUCTURAL ENGINEER). THE UNUSED PORTION SHALL BE CREDITED TO THE OWNER AT THE COMPLETION OF CONCRETE WORK.

REINFORCED MASONRY

- ALL MASONRY WORK SHALL CONFORM TO THE REQUIREMENTS OF THE LOCAL BUILDING CODE, BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES (ACI 530-11) ASCE 5-11/TMS 402-11) AND SPECIFICATIONS FOR MASONRY STRUCTURES (ACI 530.1, LUNASCE 6, 11/TMS 602-11).
- REFER TO ARCHITECT'S DRAWINGS FOR THE EXTENT OF CONCRETE WALLS. NON-LOADBEARING WALLS MAY NOT BE SHOWN ON THE STRUCTURAL DRAWINGS.
- ALL MASONRY WORK SHALL BE SUBJECTED TO CONTROLLED INSPECTION.
- ALL MASONRY SHALL BE LAID IN RUNNING BOND UNLESS NOTED OTHERWISE.
- ALL CONCRETE MASONRY SHALL CONFORM WITH ASTM C90 HOLLOW LOAD BEARING UNITS WITH A MINIMUM COMPRESSIVE STRENGTH OF 1800 PSI ON THE NET SECTION. ALL CMU SHALL BE LIGHTWEIGHT UNLESS NOTED OTHERWISE.
- ALL MORTAR SHALL CONFORM WITH ASTM C270 (REFERENCE SPECIFICATIONS). MORTAR SHALL BE PLACED IN ALL CONTACT AREAS, INCLUDING HORIZONTAL CONTACT AREAS AND VERTICAL SIDES.
- ALL GROUT SHALL CONFORM WITH ASTM C476 AND HAVE AN AVERAGE COMPRESSIVE STRENGTH OF 2500 PSI AT 28 DAYS (REFERENCE SPECIFICATION). CONCRETE SHALL NOT BE USED IN LIEU OF MASONRY GROUT.
- GROUT SHALL BE PLACED IN THE VERTICAL CORES OF THE MASONRY UNITS UTILIZING THE LOW LIFT GROUTING METHOD SET FORTH IN NEMA-TEK 23A:  
  
A. GROUT SHALL COMPLY WITH ASTM C476 (MORTAR OR CONCRETE SHALL NOT BE USED TO FILL CMU CORES). REFERENCE SPECIFICATION.  
B. WEBS ADJACENT TO CORES TO BE GROUTED SHALL BE MORTARED. MORTAR SHALL BE STRUCK FLUSH WITH THE INSIDE FACE OF CORES TO BE GROUTED. CORES TO BE GROUTED SHALL BE CLEARED OF ALL MORTAR DROPPINGS AND OTHER DEBRIS PRIOR TO GROUTING.  
C. THE MAXIMUM HEIGHT OF A GROUT LIFT SHALL BE 4 FEET.  
D. STEP GROUT POURS 1-1/2 INCHES BELOW THE UPPERMOST PORTION OF THE CAVITY BEING FILLED TO ACRUISE OF KEY FOR THE NEXT LIFT OR POUR.  
E. CONSOLIDATE GROUT BY VIBRATING TWICE WITH A MECHANICAL VIBRATOR EACH LIFT, ONCE IMMEDIATELY AFTER POUR AND ONCE APPROXIMATELY 30 MINUTES AFTER GROUT IS INSTALLED.  
F. ALL REINFORCING STEEL SHALL BE INSPECTED IN PLACE BEFORE GROUTING AND THERE SHALL BE CONTINUOUS INSPECTION DURING THE GROUTING OPERATION.
- UNLESS OTHERWISE NOTED, CENTER ALL VERTICAL REINFORCING IN CMU CORE AND HOLD IN POSITION WITH CAGING DEVICES.
- THE MINIMUM LENGTH OF LAP FOR REINFORCING IN MASONRY WALLS UNLESS OTHERWISE NOTED SHALL BE 48 BAR DIAMETERS. THESE LAPS SHALL BE LOCATED AND SPACED IN ACCORDANCE WITH THE SPECIFICATIONS.
- REFERENCE THE SPECIFICATIONS FOR HORIZONTAL JOINT REINFORCING SIZE AND SPACING.
- ALL BOND BEAMS SHALL BE CONTINUOUS AND SHALL BE FILLED WITH GROUT AND CONTINUOUS REINFORCEMENT AS SHOWN ON THE DRAWINGS OR AS FOLLOWS U.N.O.:  
  
6" WIDE BOND BEAM: (1) #5 REBAR  
8" AND 10" WIDE BOND BEAM: (2) #5 REBAR  
12" WIDE BOND BEAM: (2) #5 REBAR
- FOR BOND BEAM LINTEL REINFORCEMENT REQUIREMENTS, SEE TYPICAL DETAILS OR SECTIONS CUT ON PLANS.
- PROVIDE CONTROL JOINTS IN CONCRETE MASONRY WALLS AT 25'-0" O.C. MAXIMUM UNLESS NOTED OTHERWISE. ALL JOINTS SHALL BE LOCATED IN ACCORDANCE WITH NEMA TEK 10-2C "CONTROL JOINTS FOR CONCRETE MASONRY WALLS - EMPIRICAL METHOD."
- DISCONTINUE REINFORCING STEEL AT CONTROL JOINTS AND PROVIDE REINFORCEMENT AT CORNERS AND INTERSECTIONS AS SHOWN IN THE TYPICAL DETAILS.
- REINFORCE AND GROUT CORES AT EACH JAMB OF MASONRY OPENINGS AS FOLLOWS:  
  
UP TO 9'-0" OPENING: (1) #6 REBAR  
9'-0" TO 16'-0" OPENING: (2) #6 REBAR
- BEAMS AND LINTELS SHALL BEAR A MINIMUM OF 8 INCHES ONTO SUPPORTING MASONRY, UNLESS NOTED OTHERWISE. BEARING FOR ALL BEAMS, LINTELS, JOISTS, ETC. SHALL BE GROUTED SOLID A MINIMUM OF TWO COURSES BELOW BEARING ELEVATION, UNLESS NOTED OTHERWISE.

LINTELS

- WHERE LINTELS ARE NOT SPECIFICALLY SHOWN OR NOTED ON THE STRUCTURAL OR ARCHITECTURAL DRAWINGS, PROVIDE THE FOLLOWING LINTELS OVER ALL OPENINGS AND RECESSES IN BOTH INTERIOR AND EXTERIOR WALLS. PROVIDE 8" MINIMUM BEARING U.N.O.:  
  
A. PRECAST LINTELS:  
a. PROVIDE 4", 6" OR A COMBINATION FOR OPENINGS UP TO 10'-0" WIDE.
- LOOSE LINTEL ANGLES FOR BRICK/STONE VENEER:  
a. OPENINGS UP TO 5'-0": USE L5x5x5/16"  
b. OPENINGS 5'-0" TO 7'-0": USE L6x4x5/16" (LLV)  
c. OPENINGS 7'-0" TO 10'-0": USE L7x4x3/8" (LLV)
- ALL LOOSE LINTEL AND CONTINUOUS RELIEF ANGLES IN EXTERIOR WALLS SHALL BE HOT-DIPPED GALVANIZED

PRESTRESSED HOLLOW CORE PLANK

- THE DESIGN FABRICATION AND ERECTION OF ALL PRECAST/PRESTRESSED HOLLOW CORE CONCRETE SLABS (HC) SHALL BE THE RESPONSIBILITY OF THE HC MANUFACTURER.
- HC MEMBERS SHALL BE DESIGNED BY THE MANUFACTURER IN ACCORDANCE WITH ACI 318, PCI MNL-116 AND PCI MNL-120, FOR THE LOADS INDICATED PER THE "DESIGN CRITERIA NOTES", AS WELL AS FOR ALL HANDLING AND ERECTION LOADINGS.
- THE HC MANUFACTURER SHALL BE A PCI CERTIFIED PLANT AND SHALL MAINTAIN DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES AS REQUIRED.
- THE HC MANUFACTURER SHALL SUBMIT CALCULATIONS AND SHOP DRAWINGS, BEARING THE SIGNED AND DATED SEAL OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE MANUFACTURED, FOR ALL HC PLANKS, INSERTS, BEARING PADS/PLATES, OPENINGS AND ANCHORS.
- ALL HC CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 5000 PSI. MINIMUM COMPRESSIVE STRENGTH AT TRANSFER OF PRE STRESSING FORCE SHALL BE 3500 PSI. CONCRETE PERMANENTLY EXPOSED TO EARTH OR WEATHER SHALL BE AIR-ENTRAINED TO 5% (±1%) WITH AN ADMIXTURE THAT CONFORMS TO ASTM C 260.
- ALL NON-SHRINK GROUT SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 7500 PSI AND SHALL CONFORM TO ASTM C 1107.
- ALL CONCRETE TOPPING SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI, UNLESS OTHERWISE REQUIRED BY THE HC MANUFACTURER. CONCRETE TOPPING SHALL HAVE A MAXIMUM AGGREGATE SIZE OF 1/4".
- THE WELDED WIRE FABRIC (W.W.F.) INDICATED ON THE DRAWINGS IS INTENDED FOR CRACK CONTROL PURPOSES. ONLY. THE HC MANUFACTURER SHALL PROVIDE ADDITIONAL W.W.F. OR REBARS IN THE TOPPING OR P/C MEMBER AS REQUIRED FOR STRUCTURAL LOADINGS.
- UNLESS GREATER STRENGTH IS REQUIRED BY THE HC MANUFACTURER, ALL REINFORCING MATERIALS SHALL CONFORM TO THE FOLLOWING:  
  
REINFORCING PRE STRESSING STRAND (UNCOATED 7 WIRE, STRESS RELIEVED)  
REINFORCING BARS  
WELDED WIRE FABRIC  
  
ASTM A 416  
A 615  
A 185  
  
MIN. STRENGTH 250 KSI (ULT)  
60 KSI  
70 KSI
- THE HC MANUFACTURER SHALL PROVIDE MINIMUM CLEAR COVER TO REINFORCING IN ACCORDANCE WITH ACI 318.
- ALL WELD PLATES, INSERTS, ANCHOR BOLTS, WELDING, LIFTING HARDWARE, GROUT SLEEVES, ETC. SHALL BE DESIGNED AND PROVIDED BY THE HC MANUFACTURER, UNLESS OTHERWISE NOTED. ALL CONNECTIONS EXPOSED TO EARTH OR WEATHER SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM A 153.
- OPENINGS FOR MECHANICAL AND ELECTRICAL ITEMS SHALL BE CORE DRILLED THROUGH HOLLOW CELLS ONLY. IN ACCORDANCE WITH THE HC MANUFACTURER'S RECOMMENDATIONS. ADDITIONAL REINFORCEMENT SHALL BE PROVIDED AS REQUIRED BY THE HC MANUFACTURER.
- THE CONTRACTOR SHALL PROVIDE HOLES OR OTHER PROTECTIVE MEANS TO ALLOW THE HOLLOW CELLS TO DRAIN ANY WATER ACCUMULATION THAT MAY OCCUR DURING THE PROCESS OF CONSTRUCTION.

POST-INSTALLED ANCHORS

- EXPANSION ANCHORS IN CONCRETE OR GROUTED CONCRETE MASONRY, IF NOT SPECIFICALLY CALLED OUT OR SHOWN ON THE DRAWINGS, SHALL BE HLTI KWIK-BOLT TZZ. EQUIVALENT SUBSTITUTIONS MUST BE SUBMITTED TO THE EOR WITH COMPLETE PRODUCT DATA FOR CONSIDERATION.
- MECHANICAL ANCHORS IN HOLLOW CONCRETE MASONRY, IF NOT SPECIFICALLY CALLED OUT OR SHOWN ON THE DRAWINGS, SHALL BE HLTI HLC. EQUIVALENT SUBSTITUTIONS MUST BE SUBMITTED IN ADVANCE TO THE EOR WITH COMPLETE PRODUCT DATA FOR CONSIDERATION.
- ADHESIVE/EPOXY ANCHORS IN CONCRETE, IF NOT SPECIFICALLY CALLED OUT OR SHOWN ON THE DRAWINGS, SHALL BE HLTI HIT HY 200 V3 WITH HAS RODS. EQUIVALENT SUBSTITUTIONS MUST BE SUBMITTED IN ADVANCE TO THE EOR WITH COMPLETE PRODUCT DATA FOR CONSIDERATION.
- ADHESIVE/EPOXY ANCHORS IN GROUTED OR HOLLOW CONCRETE MASONRY UNITS, IF NOT SPECIFICALLY CALLED OUT OR SHOWN ON THE DRAWINGS, SHALL BE HLTI HIT HY 270 WITH HAS RODS. EQUIVALENT SUBSTITUTIONS MUST BE SUBMITTED IN ADVANCE TO THE EOR WITH COMPLETE PRODUCT DATA FOR CONSIDERATION.
- ALL POST-INSTALLED ANCHORS WITH EXTERIOR EXPOSURE TO THE ELEMENTS IN THE FINISHED STRUCTURE SHALL BE STAINLESS STEEL UNLESS NOTED OTHERWISE.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW ALL OF MANUFACTURER'S INSTALLATION DATA AND REQUIREMENTS AND TO INSTALL POST-INSTALLED ANCHORS ACCORDING TO THESE REQUIREMENTS. INSTALLERS MUST BE TRAINED AND EXPERIENCED IN PROPER ANCHOR INSTALLATION TECHNIQUES FOR THE PRODUCT USED.
- POST-INSTALLED ANCHORS MAY NOT BE INSTALLED IN CONCRETE UNTIL IT HAS ATTAINED ITS 28 DAY COMPRESSIVE STRENGTH AS INDICATED BY TEST CYLINDERS AND HAS CURED FOR AT LEAST 21 DAYS.
- POST-INSTALLED ANCHORS MAY NOT BE INSTALLED IN CONCRETE MASONRY UNTIL MORTAR AND GROUT HAVE ATTAINED THEIR 28 DAY COMPRESSIVE STRENGTH AS INDICATED BY TEST CYLINDERS AND HAS CURED FOR AT LEAST 21 DAYS.
- REINFORCING STEEL NOTED AS ADHESIVE OR EPOXY ANCHORED INTO EXISTING SUBSTRATE SHALL HAVE MINIMUM EMBEDMENT DEPTHS AS FOLLOWS UNLESS NOTED OTHERWISE:  
  
# 3 36"  
# 4 36"  
# 4 41/2"  
# 5 55 5/8"  
  
# 6 34"  
# 7 77 7/8"  
# 8 9"  
# 10 11 1/4"
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW PLACEMENT OF ANCHORS IN CONCRETE MASONRY WALLS OR ANY CONCRETE MEMBER AND INSTALL IN ACCORDANCE WITH ALL OF MANUFACTURER'S REQUIREMENTS. THIS INCLUDES, BUT IS NOT LIMITED TO, EDGE DISTANCE, SPACING, NUMBER OF ANCHORS IN A CELL, ETC.

ENGINEERED WOOD FRAMING

- LAMINATED VENEER LUMBER (LVL) AND PARALLEL STRAND LUMBER (PSL) ELEMENTS SHALL BE ULTRASONICALLY AND VISUALLY GRADED VENEERS ARRANGED TO SPECIFIC PATTERNS SO THAT NATURALLY OCCURRING DEFECTS HAVE NO CONCENTRATED EFFECT ON THE MEMBER'S PERFORMANCE. ELEMENTS SHALL BE FABRICATED WITH WATERPROOF ADHESIVE, BONDED UNDER PRESSURE AND HEAT.
- LVL AND PSL MEMBERS SHALL BE FURNISHED WITH THE FOLLOWING PHYSICAL PROPERTIES AND MINIMUM ALLOWABLE STRESSES:  
MODULUS OF ELASTICITY (E) = 2,200,000 PSI  
FLEXURAL STRESS (F<sub>b</sub>) = 2,900 PSI  
COMPRESSION PERPENDICULAR TO GRAIN (F<sub>c</sub>) = 575 PSI  
COMPRESSION PARALLEL TO GRAIN (F<sub>c</sub>) = 2,800 PSI  
SHEAR STRENGTH (F<sub>v</sub>) = 290 PSI
- HEEL CUTS ON BEAMS SHALL NOT OVERHANG THE INSIDE FACE OF SUPPORT MEMBER.
- MEMBERS SHALL BE SECURELY BRACED DURING CONSTRUCTION, TEMPORARY BRACING SHALL BE ANCHORED TO THE GROUND, FOUNDATION, A BRACED WALL OR OTHER COMPLETED, STABLE SECTION OF THE STRUCTURE.
- CONTRACTOR SHALL EXERCISE CAUTION WHEN REMOVING TEMPORARY BRACING WHEN APPLYING SHEATHING. REMOVE BRACING AS SHEATHING IS ATTACHED.
- MEMBERS SHALL BE PROTECTED FROM THE WEATHER WHILE IN STORAGE. CARE SHALL BE EXERCISED DURING HANDLING TO PREVENT DAMAGE.
- CONTRACTOR SHALL NOT ALTER LVL MEMBERS WITH NOTCHES OR HOLES WITHOUT THE AUTHORIZATION OF THE ENGINEER. ALL NOTCHES AND HOLES SHALL MEET THE MANUFACTURER'S GUIDELINES AND REQUIREMENTS.
- ALL ENGINEERED LUMBER ELEMENTS EXPOSED TO THE ELEMENTS SHALL BE PRESSURE TREATED.

PRE-ENGINEERED WOOD TRUSSES

- TRUSS MANUFACTURER SHALL DESIGN ALL FLOOR AND ROOF TRUSSES FOR ALL GRAVITY AND LATERAL LOADS SPECIFIED IN THE CONSTRUCTION DOCUMENTS AND IN THE PROJECT MANUAL. ALL TRUSSES SHALL BE DESIGNED BASED ON SERVICE LOAD CONDITIONS (ALLOWABLE STRESS DESIGN) ONLY. THE DESIGN SHALL BE COMPLETED BY A PROFESSIONAL ENGINEER LICENSED AS SUCH IN THE PROJECT JURISDICTION.
- TRUSS DESIGN SHALL INCLUDE CONSIDERATION OF TOP PLATE CRUSHING. ADDITIONAL PLIES OR CLOSER TRUSS/JOIST SPACING MAY BE REQUIRED. ALL TRUSS JOIST SPACING MODIFICATIONS MUST BE APPROVED BY THE ARCHITECT/EOR.
- TRUSS MANUFACTURER SHALL SUBMIT CALCULATIONS AND DESIGN DRAWINGS FOR APPROVAL (INCLUDING LAYOUT AND PLACEMENT DRAWINGS), SUBMITTED CALCULATIONS AND DRAWINGS INCLUDING ALL LOADS REQUIRED FOR THE DESIGN OF THE TRUSSES, TRUSS PLACEMENT LOCATION, TRUSS CONNECTIONS AND CONNECTIONS TO THE MAIN STRUCTURE SHALL BEAR THE SEAL AND SIGNATURE OF THE TRUSS MANUFACTURER'S ENGINEER.
- TRUSS LENGTHS AND PROFILES SHALL BE COORDINATED WITH THE ARCHITECTURAL DRAWINGS PRIOR TO FABRICATION. CONFIGURATION AND SIZE OF WEB AND CHORD MEMBERS SHALL BE DETERMINED BY TRUSS MANUFACTURER. LOCATION, ORIENTATION AND PROFILES SHOWN IN THE CONSTRUCTION DOCUMENTS ARE FOR SCHEMATIC PURPOSES ONLY.
- CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROPERLY BRACE TRUSSES DURING LIFTING AND ERECTION. CONTRACTOR SHALL KEEP ALL TRUSSES LATERALLY BRACED UNTIL ALL FLOOR AND ROOF DIAPHRAGMS AND ALL PERMANENT BRACING ARE INSTALLED.
- DESIGN AND FABRICATION CRITERIA OF ALL WOOD TRUSSES SHALL BE IN ACCORDANCE WITH THE "NATIONAL DESIGN SPECIFICATION FOR STRESS-GRADE LUMBER AND ITS FASTENINGS" BY THE NATIONAL FOREST PRODUCTS ASSOCIATION (LATEST EDITION AND REVISION), "TIMBER CONSTRUCTION STANDARDS" BY THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION (LATEST EDITION AND REVISION), AND THE DESIGN SPECIFICATIONS FOR LIGHT METAL CONNECTED WOOD TRUSSES" BY THE TRUSS PLATE INSTITUTE.
- MAXIMUM LIVE LOAD DEFLECTION SHALL BE SPAN/360 FOR ROOF TRUSSES AND SPAN/480 FOR FLOOR AND CORRIDOR TRUSSES UNLESS NOTED OTHERWISE.
- SHOP DRAWINGS OF ALL TRUSSES SHALL BE SUBMITTED BY THE TRUSS MANUFACTURER FOR APPROVAL.
- THE FOLLOWING DESIGN DATA SHALL BE INCLUDED ON THE SHOP DRAWINGS:  
  
A. SLOPE, DEPTH, SPAN AND SPACING OF ALL TRUSSES  
B. LOCATION OF ALL JOINTS AND CONNECTIONS  
C. REQUIRED BEARING WIDTHS  
D. DESIGN LOADINGS AND ALLOWABLE UNIT STRESS INCREASES  
E. TOP AND BOTTOM CHORD DEAD AND LIVE LOADS  
F. CONCENTRATED LOADS AND THEIR POINTS OF APPLICATION  
G. CONTROLLING WIND AND EARTHQUAKE LOADS  
H. ADJUSTMENTS TO LUMBER AND CONNECTOR PLATE DESIGN VALUES FOR CONDITIONS OF USE EACH REACTION FORCE AND DIRECTION  
I. METAL CONNECTOR PLATE TYPE, SIZE, THICKNESS OR GAGE, AND THE DIMENSIONED LOCATION OF EACH CONNECTOR PLATE EXCEPT WHERE SYMMETRICALLY LOCATED WITH RESPECT TO THE JOINT INTERFACE  
J. LUMBER SIZE, SPECIES, AND GRADE FOR EACH MEMBER  
K. CONNECTION REQUIREMENT FOR TRUSS-TO-TRUSS, TRUSS-TO-TRUSS PLY, AND FIELD SPLICES  
L. CALCULATED DEFLECTION RATIO AND MAXIMUM VERTICAL AND HORIZONTAL DEFLECTIONS FOR TOTAL LOAD AND LIVE LOAD  
M. MAXIMUM AXIAL TENSION AND COMPRESSION FORCE IN THE TRUSS MEMBER  
N. REQUIRED PERMANENT INDIVIDUAL TRUSS MEMBER BRACING  
O. EACH INDIVIDUAL TRUSS DRAWING SHALL BEAR THE SEAL AND SIGNATURE OF THE TRUSS MANUFACTURER'S ENGINEER
- TRUSS MANUFACTURER SHALL PROVIDE END WELD TRUSSES AT EACH SIDE OF VAULTED CEILINGS, AT GABLE ENDS, BUILDING STEP-DOWNS AND AT CHANGE OF ROOF LINES.
- TRUSS DRAWINGS SHALL BE MADE AVAILABLE AT THE JOB SITE DURING THE TIMES OF INSPECTION. THESE DRAWINGS SHALL BEAR CLEAR INDICATION THAT THEY HAVE BEEN REVIEWED AND APPROVED BY THE EOR.
- CONTRACTOR SHALL BRACE ALL TRUSSES IN ACCORDANCE WITH THE TRUSS PLATE INSTITUTE'S HANDLING, INSTALLING, AND BRACING OF PLATE CONNECTED WOOD TRUSSES SUMMARY SHEET. TRUSS MANUFACTURER SHALL CLEARLY INDICATE BRACING LOCATIONS ON THE SHOP DRAWINGS AND ERECTION DRAWINGS.
- THE MOISTURE CONTENT OF LUMBER SHALL NOT BE LESS THAN 19% NOR SHALL IT BE LESS THAN 7% AT THE TIME OF FABRICATION.
- ALL TRUSS CONNECTOR PLATES SHALL BE MANUFACTURED FROM STRUCTURAL QUALITY GALVANIZED SHEET METAL, NOT LESS THAN 20 GAUGE IN THICKNESS, WITH A MINIMUM YIELD STRENGTH OF 33,000 PSI AND A MINIMUM ULTIMATE TENSILE STRENGTH OF 45,000 PSI. THE CORROSION RESISTANT COATING SHALL MEET OR EXCEED ASTM A446 STANDARD SPECIFICATION FOR SHEET STEEL.
- OPEN JOINTS WHICH DEPEND ON THE STIFFNESS OF THE METAL CONNECTOR PLATE TO TRANSMIT STRESSES AND IMPROPER FITTING JOINTS WILL NOT BE ACCEPTED.
- DEAD KNOTS AND WAKES ON LUMBER SHALL NOT BE LOCATED UNDER THE CONNECTOR PLATES.
- DESIGN AND DETAILING OF PRE-ENGINEERED PRODUCTS, CONNECTIONS, AND ACCESSORIES SHALL BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE ATC "TIMBER CONSTRUCTION MANUAL" AND THE NFPA "NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION".
- TRUSSES SHALL BE KEPT COVERED DURING SHIPPING, STORAGE AND CONSTRUCTION. TRUSSES SHALL BE STORED OFF THE GROUND IN A MANNER WHICH WILL NOT DAMAGE OR WARP THE TRUSSES PRIOR TO ERECTION.

DIMENSIONAL LUMBER (CONVENTIONAL 2X) FRAMING

- LUMBER AND ITS FASTENINGS SHALL CONFORM WITH THE "NATIONAL DESIGN SPECIFICATION FOR STRESS-GRADE LUMBER AND ITS FASTENINGS" BY THE NATIONAL FOREST PRODUCTS ASSOCIATION (LATEST EDITION AND REVISION).
- LUMBER FOR EXTERIOR WALLS, INTERIOR BEARING WALLS AND SHEAR WALLS SHALL BE NO. 2 SOUTHERN PINE OR DOUGL'S FIR OR BETTER UNLESS NOTED OTHERWISE IN THE WALL STUD SCHEDULE.
- LUMBER FOR HEADERS, BEAMS AND OTHER HORIZONTAL FRAMING MEMBERS SHALL BE NO. 1 SOUTHERN PINE OR DOUGL'S FIR OR BETTER.
- LOAD BEARING WALLS, INCLUDING SHEAR WALLS, CONSTRUCTED FROM FINISH JOINTED STUDS SHALL BE SHEATHED ON AT LEAST ONE FACE OR SHALL BE BRACED WITH CONTINUOUS 1x4 BRACING AT MID-HEIGHT OF WALL PRIOR TO LOADING THEM WITH FLOOR CONSTRUCTION.
- BEARING WALL STUDS SHALL NOT BE LOADED WITH ANY CONSTRUCTION LOADS UNTIL SHEATHING HAS BEEN FULLY INSTALLED AND NAILED TO AT LEAST ONE FACE OF THE STUDS. IF BEARING WALLS MUST BE LOADED PRIOR TO SHEATHING INSTALLATION, CONTRACTOR SHALL PROVIDE CONTINUOUS TEMPORARY BRACING AT MID-HEIGHT OF ALL STUDS PRIOR TO LOAD APPLICATION.
- SUBJECT TO ENGINEER'S REVIEW AND ACCEPTANCE, NON-STRUCTURAL WALLS SHALL BE CONSTRUCTION GRADE OR NO. 2 SPRUCE PINE FIR.
- ALL LUMBER IN CONTACT WITH CONCRETE OR MASONRY OR EXPOSED LUMBER SHALL BE PRESSURE-TREATED IN ACCORDANCE WITH AWPA SPECIFICATIONS.
- ALL HEADER AND BEAM SUPPORT STUDS SHALL BE BLOCKED CONTINUOUSLY THROUGH THE TRUSS CAVITY WITH AN EQUAL NUMBER OF STUDS.
- BOLT HOLES THROUGH WOOD SHALL BE FITTED WITH STANDARD WASHERS AT HEAD AND NUT ENDS.
- WOOD FRAMING CONNECTIONS SHALL BE MADE WITH JOIST HANGERS UNLESS NOTED OTHERWISE. TOE NAILING IS NOT PERMITTED FOR STRUCTURAL FRAMING MEMBERS.
- FRAMING LAYOUTS ARE PROVIDED TO CONVEY INTENT AND DESIGN CONCEPTS AND SYSTEMS OF CONSTRUCTION. CONTRACTOR AND SUBCONTRACTORS ARE RESPONSIBLE FOR MATERIAL QUANTITIES AND FINAL LAYOUT AND ANY AND ALL UNSPECIFIED COMPONENTS REQUIRED FOR CONSTRUCTION.
- THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS AND STEPS TO ADEQUATELY BRACE THE BUILDING UNTIL ALL DIAPHRAGMS, SHEAR WALLS, AND PERMANENT BRACING IS INSTALLED. BEARING WALLS SHALL BE INSTALLED WITH 2X BLOCKING AT MID-HEIGHT OR AT 4'-6" OC (WHICHEVER IS LESSER SPACING).
- CONNECTIONS AND FASTENERS FOR PRESERVATIVE TREATED AND FIRE-RETARDANT-TREATED WOOD SHALL BE OF STAINLESS STEEL, SILICON BRONZE, OR COPPER. THIS INCLUDES BUT IS NOT LIMITED TO ANCHOR BOLTS, POWDER ACTUATED FASTENERS, NAILS, SCREWS, BOLTS, AND METAL FRAMING HARDWARE.

WOOD SHEAR WALL AND DIAPHRAGMS

- SHEATHING FOR ROOF SHALL BE 5/8" OSB APA RATED SHEATHING GRADE.
- WOOD SHEATHING AT SHEAR WALLS SHALL BE APA RATED STRUCTURAL 1 GRADE OSB WITH THICKNESS AS SHOWN IN THE SHEAR WALL SCHEDULE.
- OSB SHEATHING FOR CHIMNEY CONSTRUCTION AND OTHER MISCELLANEOUS USES SHALL BE 1/2" THICK, EXTERIOR GRADE.
- INTERIOR GYPSUM WALLBOARD FOR SHEAR WALLS SHALL BE 5/8" THICK AND FREE FROM IMPERFECTIONS AND SHALL CONFORM TO SPECIFICATIONS SHOWN ON ARCHITECTURAL DRAWINGS.
- ROOF SHEATHING SHALL RUN CONTINUOUSLY BELOW ALL DORMERS, CUPOLAS, AND CHIMNEYS UNLESS NOTED OTHERWISE.
- CONTRACTOR SHALL PROVIDE ACCESS / VENTILATION OPENINGS BETWEEN MAIN ROOF AND OVER-BUILD ROOFS. COORDINATE IN ARCHITECTURAL AND MEP.



KNOX COUNTY BOARD OF COMMISSIONERS  
Knox Co. Emergency Op.

2830 E. APC AVE.  
VINCENNES, IN 47501

| #  | Revision   | Date     |
|----|------------|----------|
| A1 | ADDENDUM 1 | 05/30/25 |

Project #: 24-700-155-1

Designed By: JAB

Drawn By: JAB

Checked By: CES

Date: 05/16/2025



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GENERAL NOTES

S002

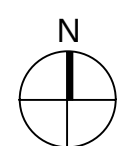
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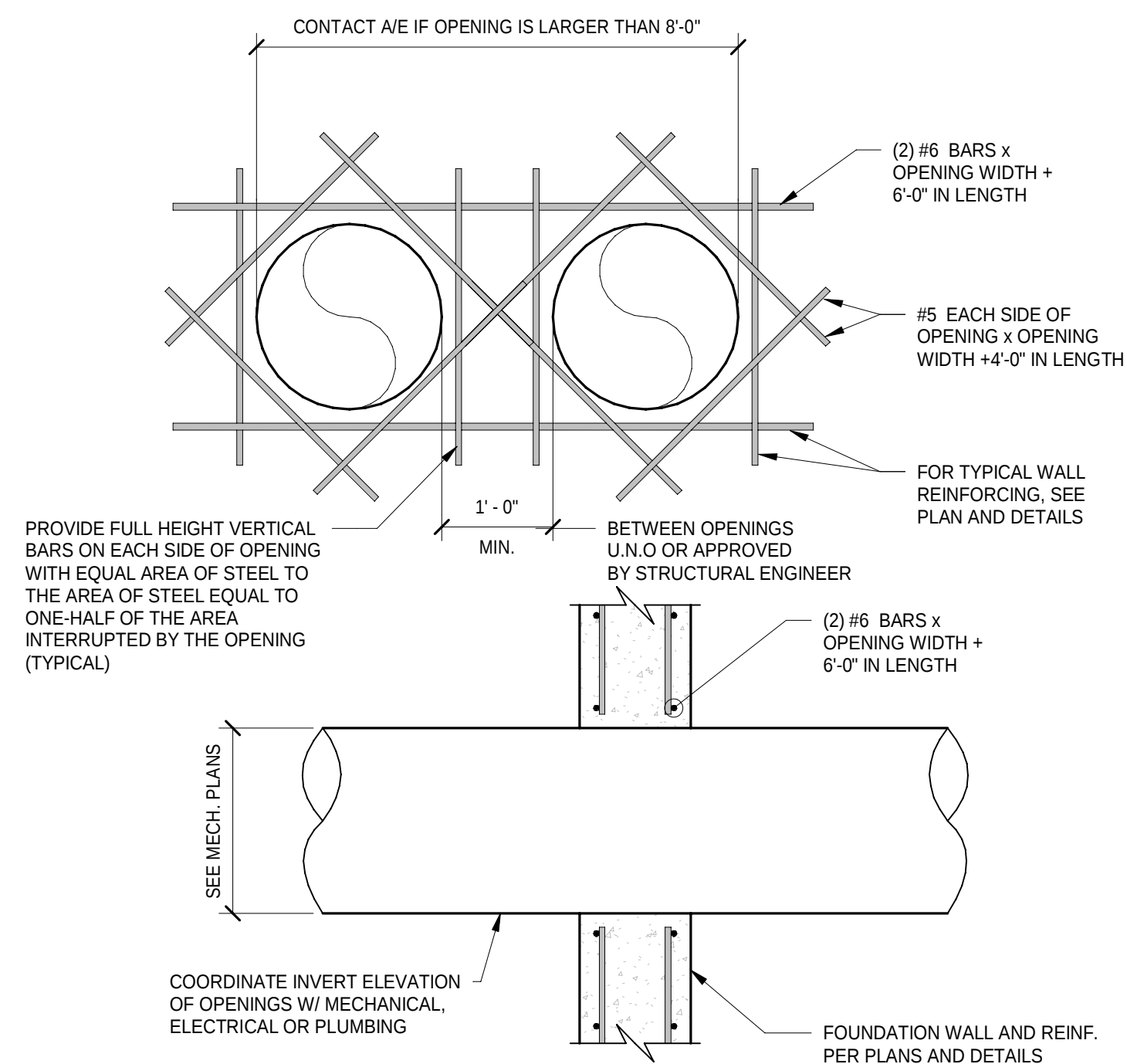
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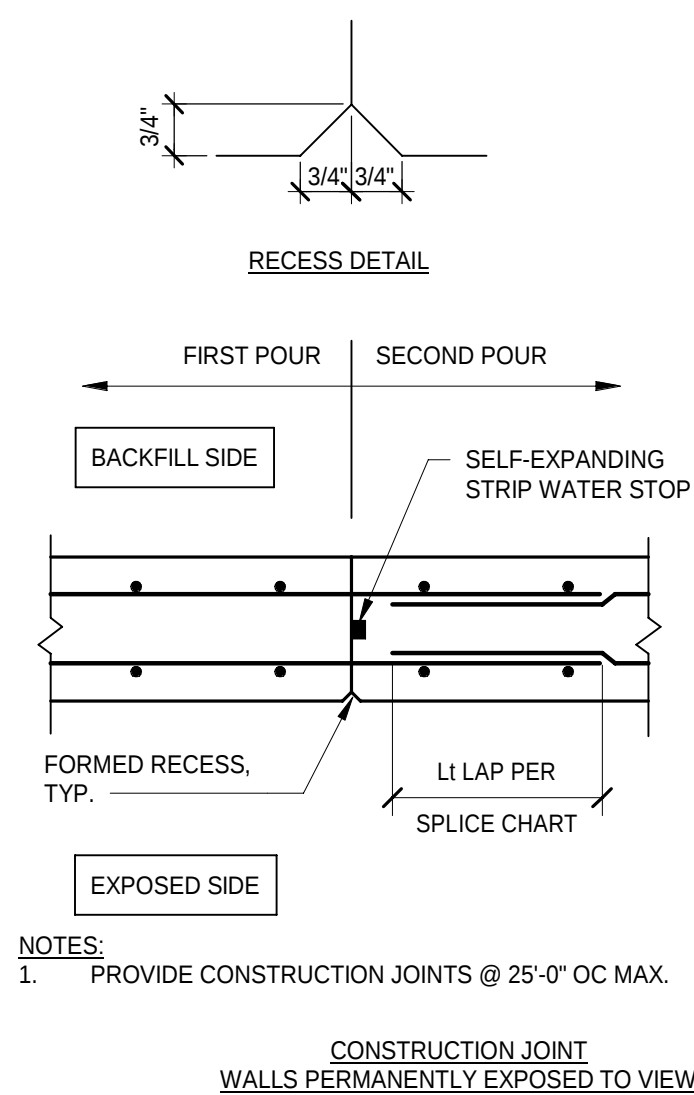


TYPICAL DETAILS

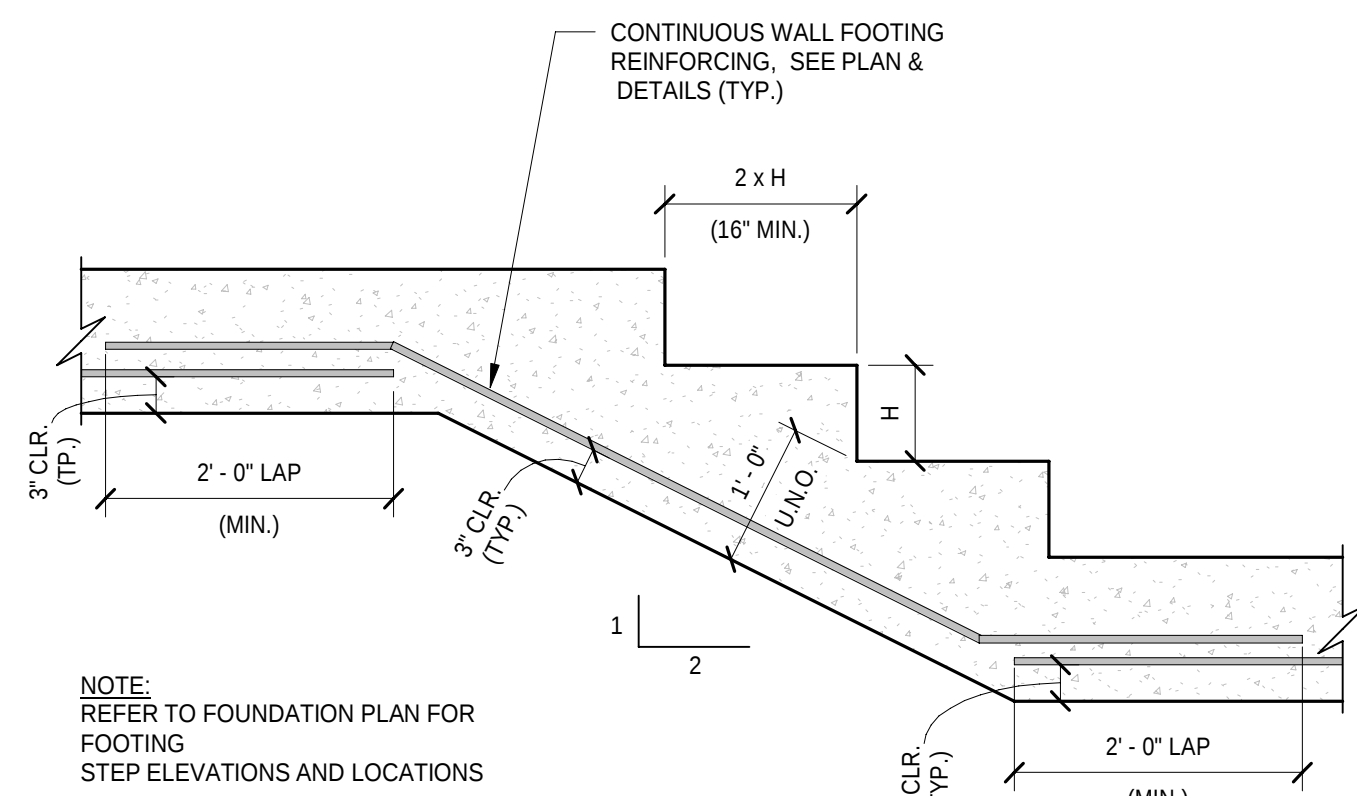
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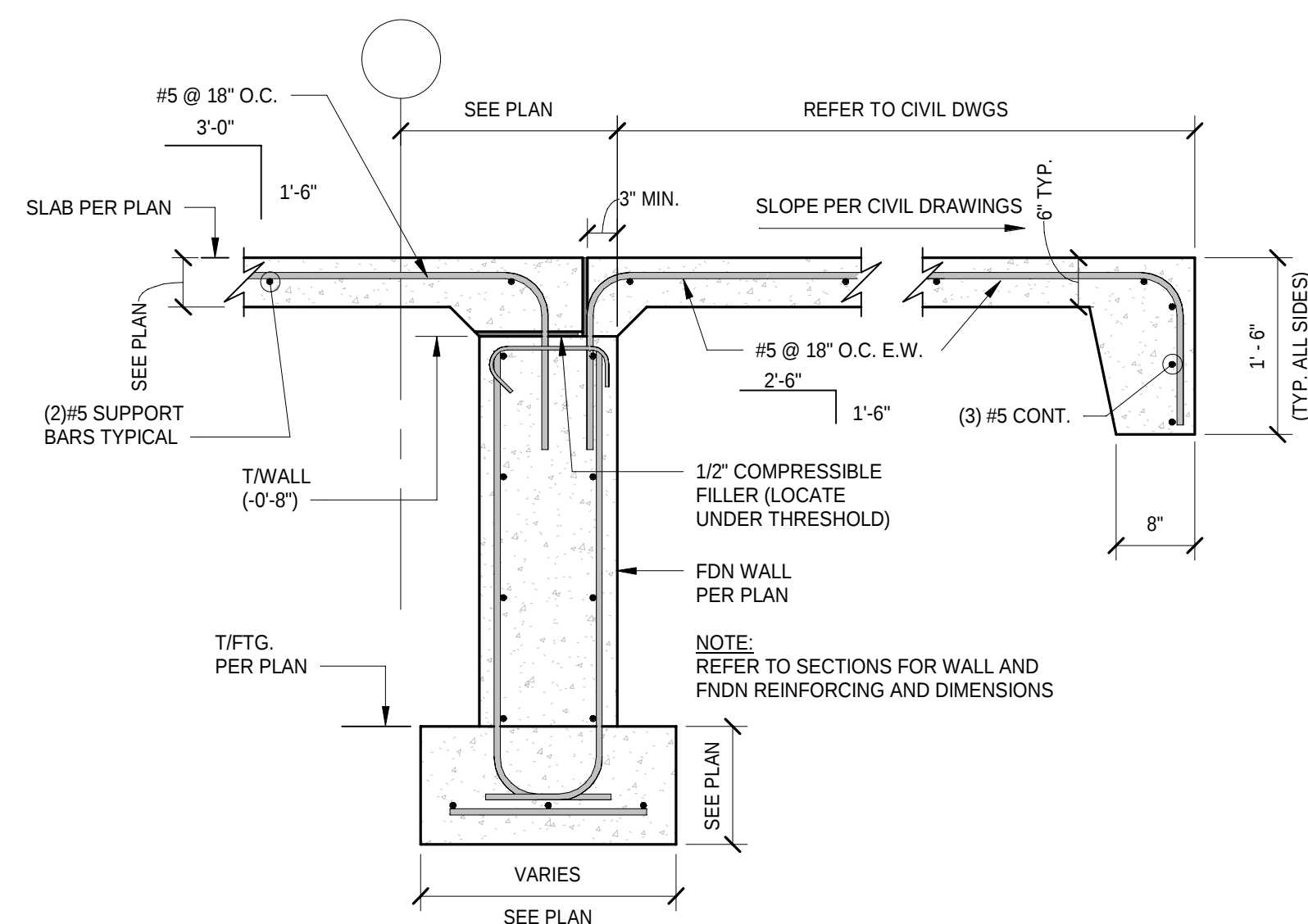
4 TYPICAL FOUNDATION WALL PENETRATION DETAIL  
3/4" = 1'-0"



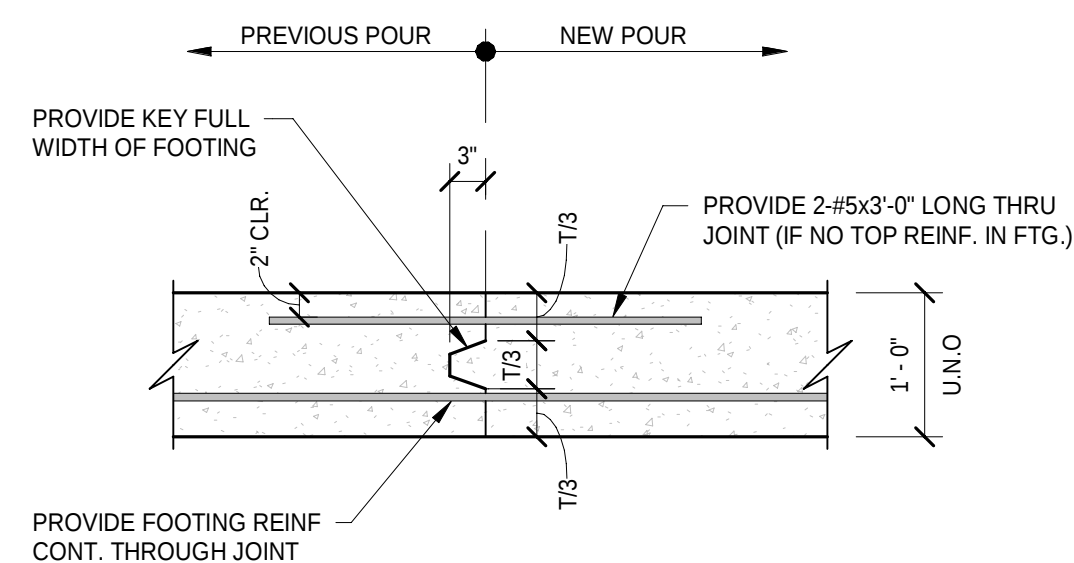
3 TYPICAL CONCRETE FOUNDATION WALL AND BASEMENT WALL JOINT DETAILS  
3/4" = 1'-0"



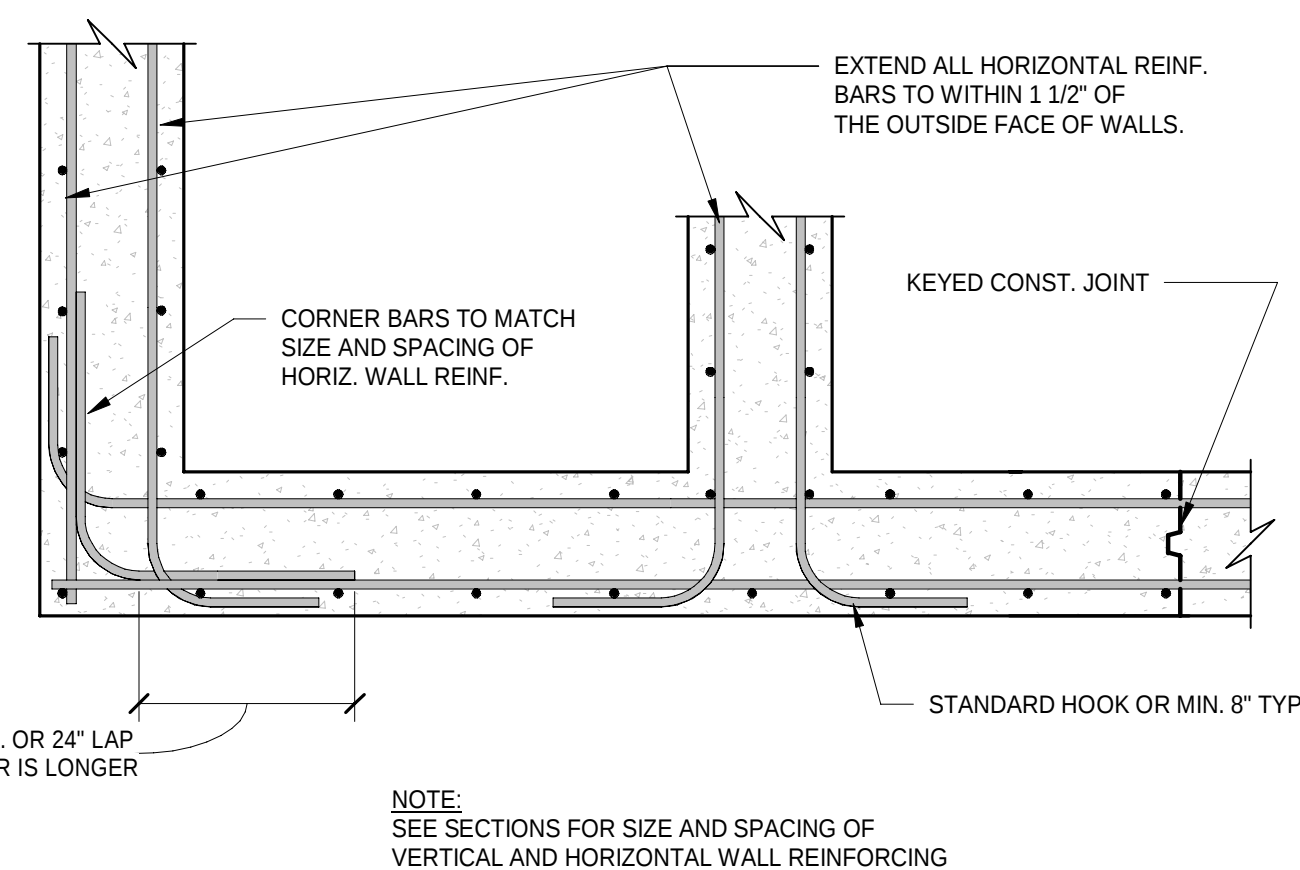
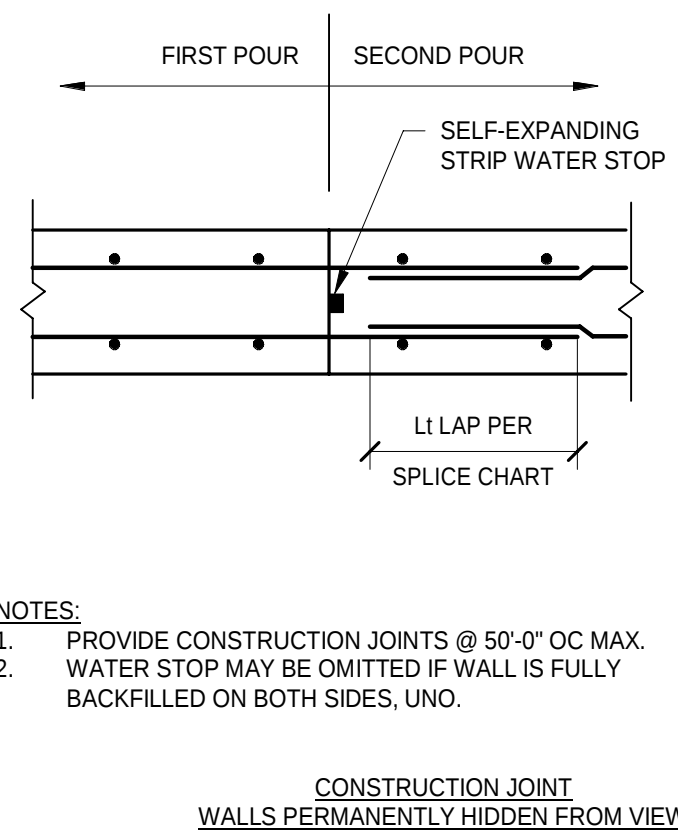
6 TYPICAL STEPPED FOOTING DETAIL  
3/4" = 1'-0"



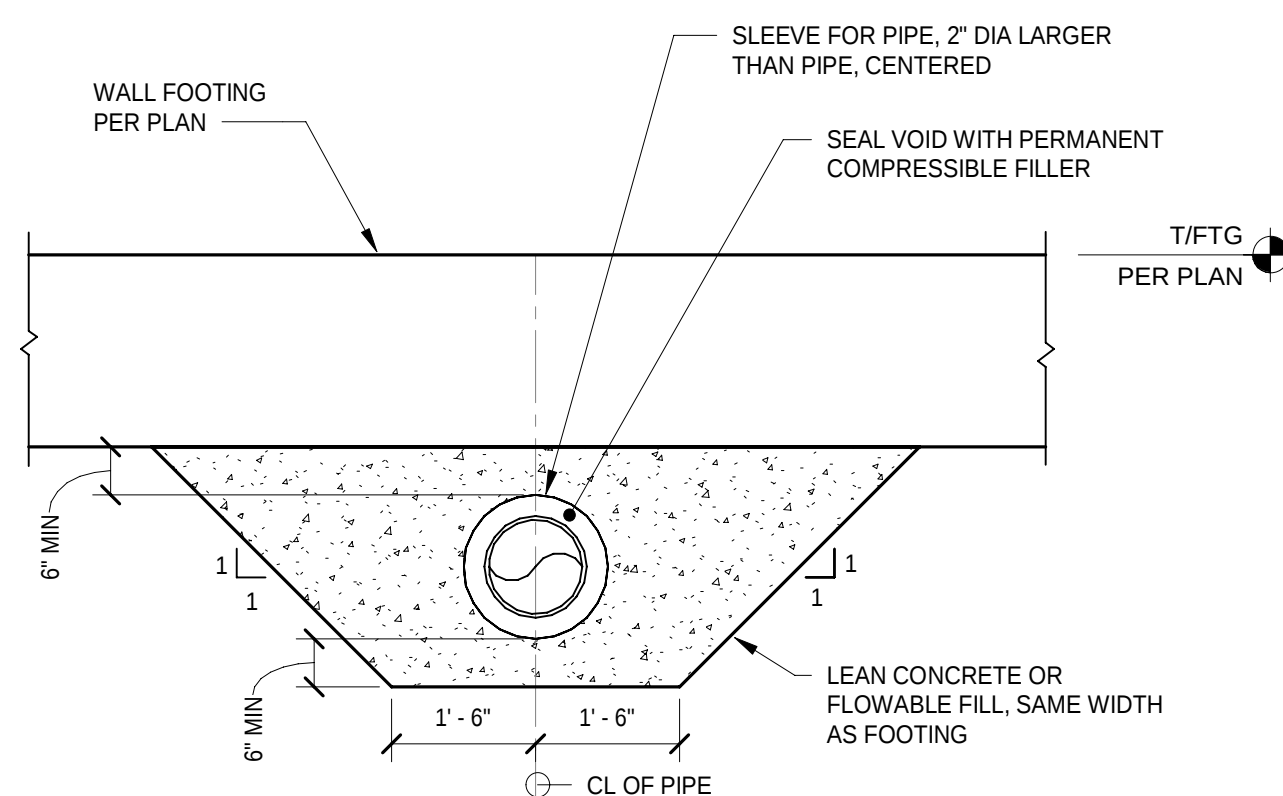
7 TYPICAL STOOP DETAIL  
3/4" = 1'-0"



2 WALL FOOTING CONSTRUCTION JOINT  
3/4" = 1'-0"

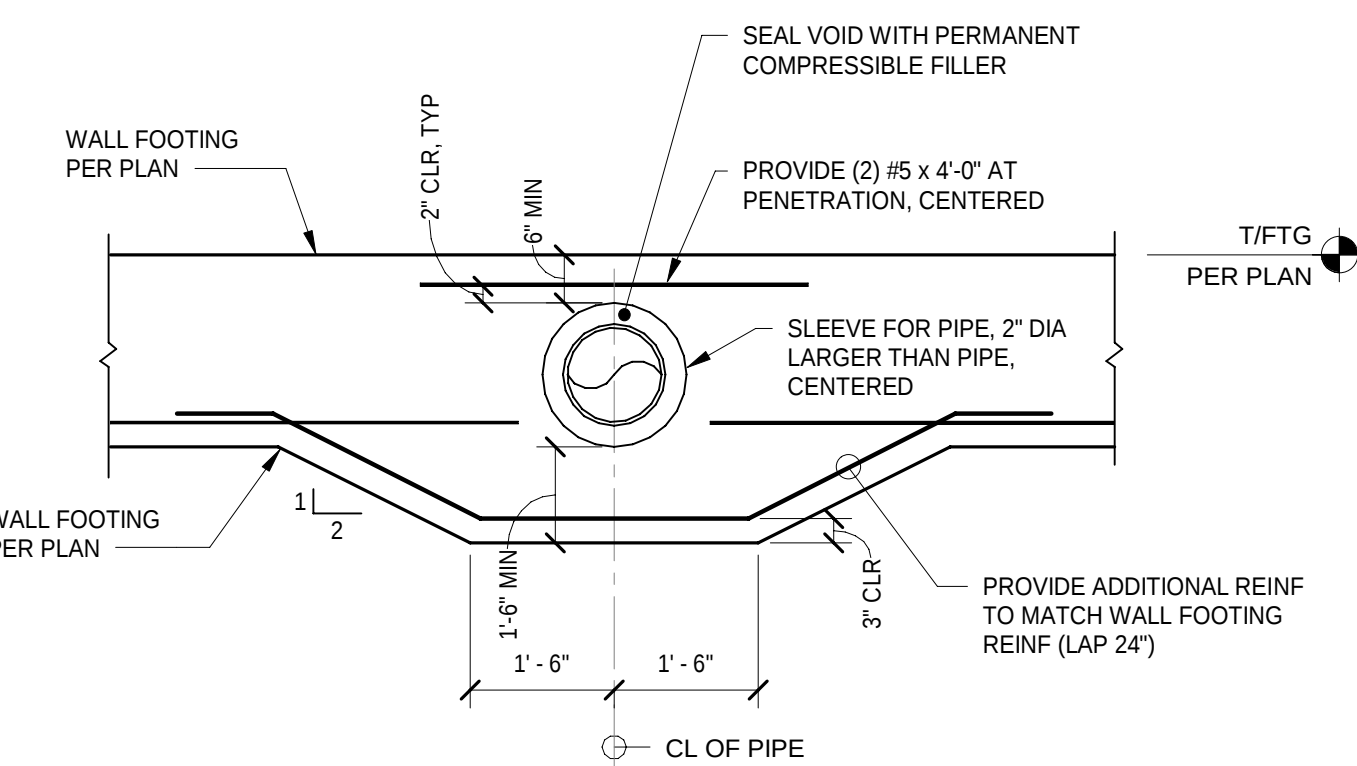


1 TYPICAL CONCRETE WALL REINFORCEMENT AT CORNER AND INTERSECTION  
3/4" = 1'-0"



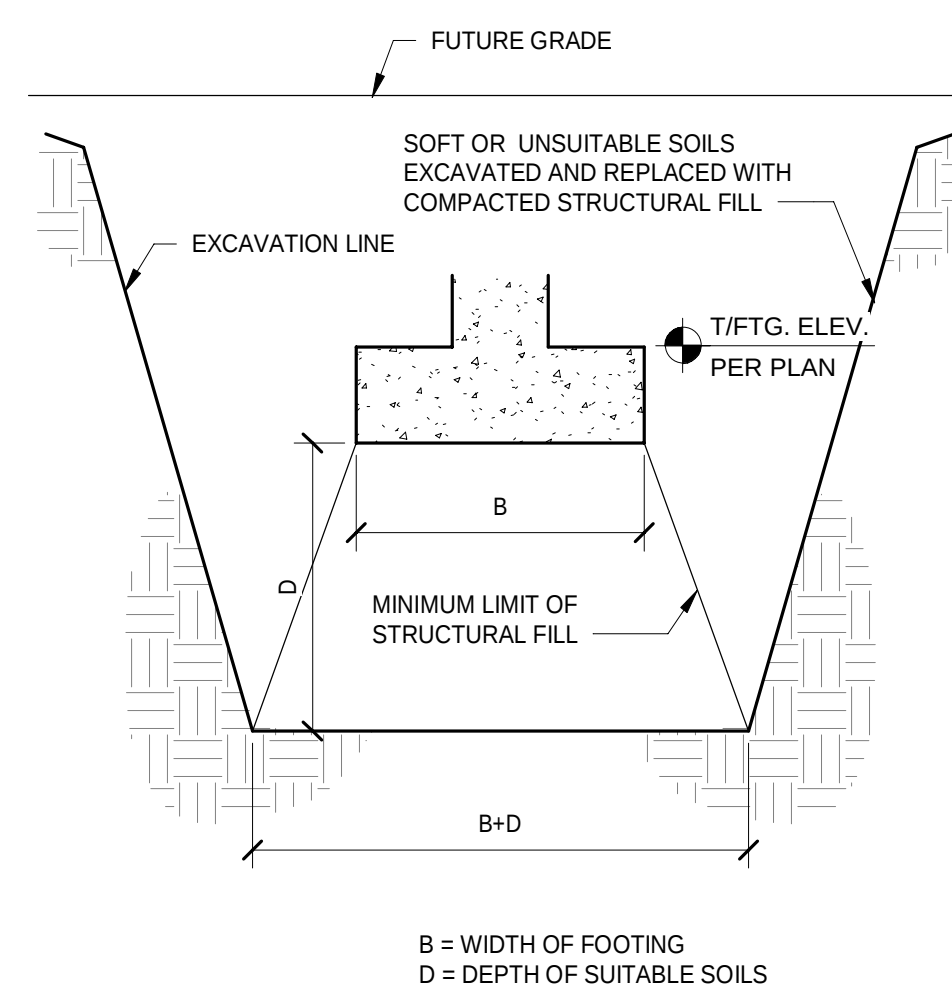
PENETRATION BELOW FOOTING

- NOTES:
- SEE PLUMBING DRAWINGS FOR LOCATION AND SIZE OF PENETRATIONS.
  - DETAIL SHOWN IS FOR MAXIMUM OF 12" DIA PIPE. FOR LARGER SIZE, CONTACT STRUCTURAL ENGINEER PRIOR TO CONSTRUCTION.

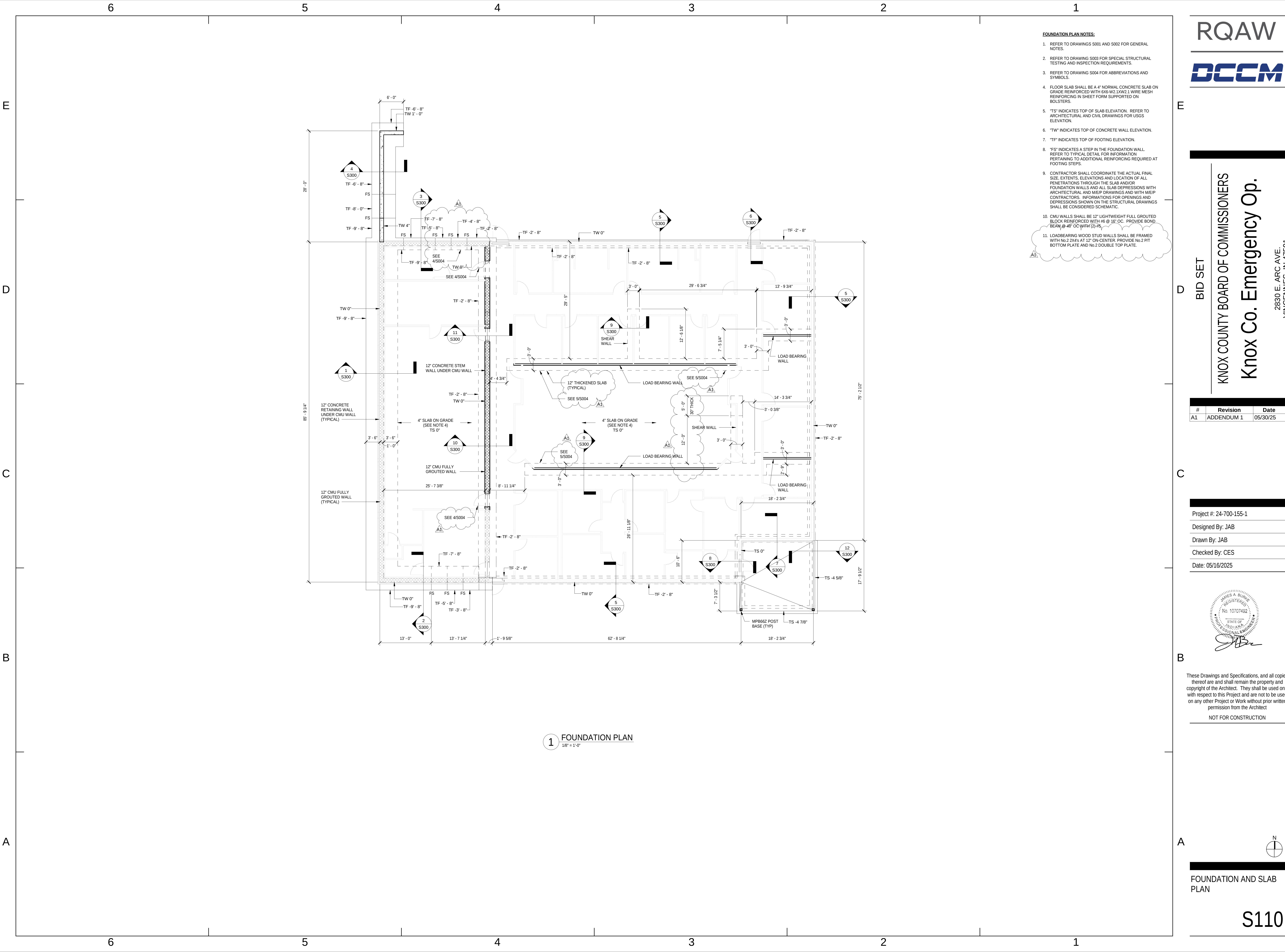


PENETRATION THROUGH FOOTING

5 TYPICAL WALL FOOTING/THICKENED SLAB AT CONDUIT/PIPE PENETRATION  
1/2" = 1'-0"



8 FOUNDATION UNDERCUTTING DETAIL  
1/2" = 1'-0"



| #  | Revision   | Date     |
|----|------------|----------|
| A1 | ADDENDUM 1 | 05/30/25 |

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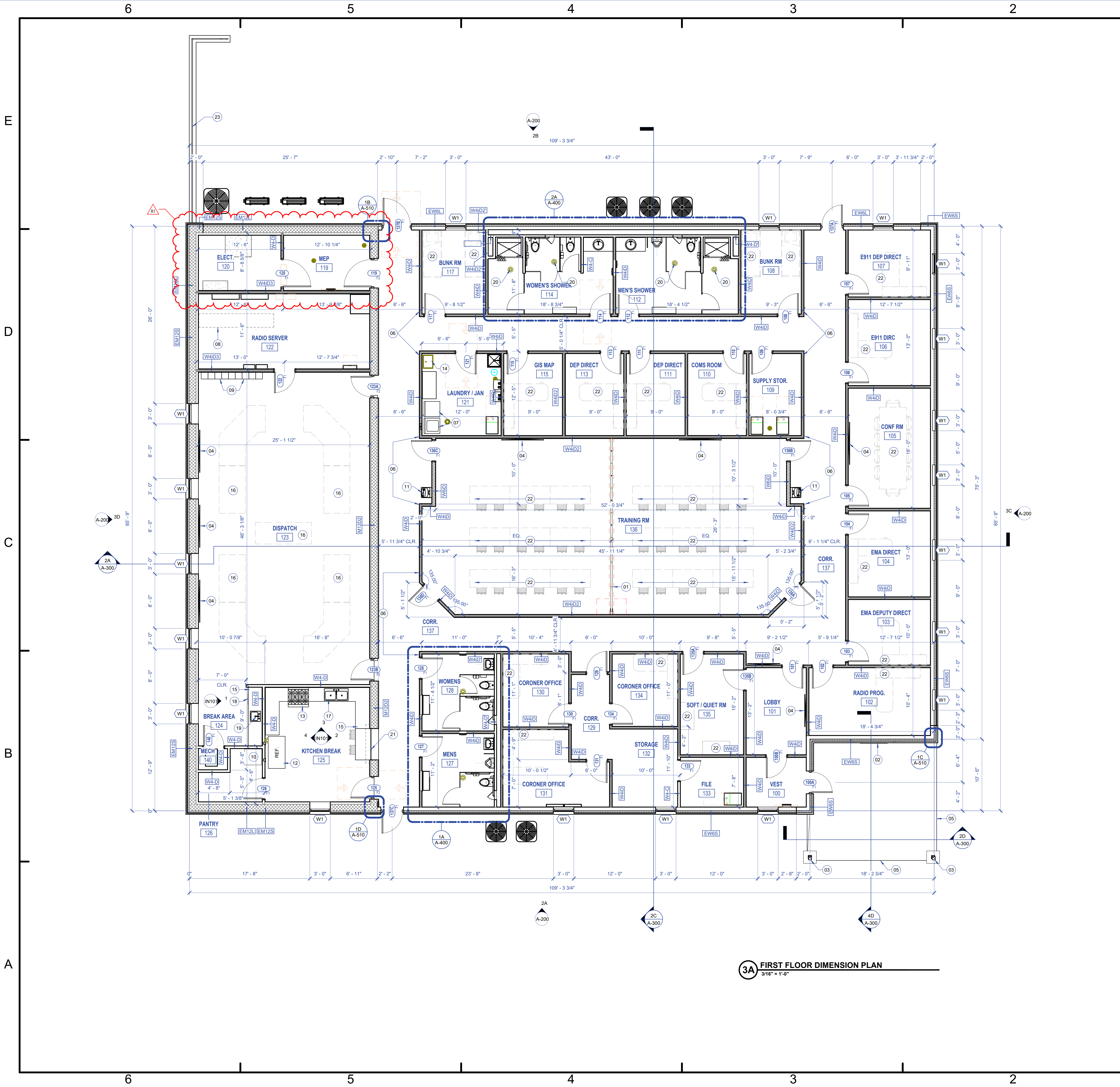
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### General Plan Notes

1. PLAN NOTES INDICATE ONE GRAPHIC REPRESENTATION TYPICAL. THE CONTRACTOR SHALL USE THE GRAPHIC REPRESENTATIONS FOR THE COUNT, NOT THE KEYED PLAN NOTES. THE ABSENCE OF A KEYED PLAN NOTE ON THE PLAN DOES NOT ABSOLVE THE CONTRACTOR FROM PROVIDING THE FEATURE GRAPHICALLY REPRESENTED ON THE DRAWING.
2. ALL DIMENSIONS SHOWN ARE TO FACE OF STUD OR MASONRY, UNLESS NOTED OTHERWISE. DIMENSIONS DESIGNATED AS "CL" OR "CL" CLEAR INDICATE A CLEAR DIMENSION FROM FACE OF FINISH TO FACE OF FINISH. DIMENSIONS OF EXTERIOR WALLS ARE TO OUTSIDE EDGE OF FOUNDATION.
3. DIMENSIONS FOR ALL OPENINGS FOR MECHANICAL, PLUMBING, FIRE PROTECTION AND ELECTRICAL SHALL BE FIRE STOPPED AT EACH FLOOR AND RATED WALL PENETRATION.
4. PROVIDE BRACING AND BLOCKING AS REQUIRED IN WALLS SUPPORTING CASEWORK, TACKBOARDS, MARKERBOARDS, AND RESTROOM ACCESSORIES.
5. ALL DOOR FRAMES ARE LOCATED 4" FROM ADJACENT WALL, UNLESS NOTED OTHERWISE.
6. ALL EXPOSED OUTSIDE CORNERS OF CMU SHALL BE BULLNOSED.
7. SEAL ALL JOINTS BETWEEN DISSIMILAR MATERIALS.
8. ALL GYPSUM WALLBOARD IS 5/8" TYPE "X", UNLESS NOTED OTHERWISE.
9. ALL EXTERIOR WALLS ARE TYPE "EW1", UNLESS NOTED OTHERWISE.
10. ALL INTERIOR WALLS ARE TYPE "W4" 4" WOOD STUD TO DECK, WITH SOUND ATTENUATION BATT INSULATION WITH TYPE "X" GYPSUM WALLBOARD ON BOTH SIDES, UNLESS NOTED OTHERWISE.
11. BASE ELEVATION IS 0'-0" = 520' (UNITED STATES GEOLOGICAL SURVEY DATA). COORDINATE WITH CIVIL DRAWINGS.
12. HATCHING WITHIN WALLS SHOWN IN PLANS AND SECTIONS INDICATES NEW CONSTRUCTION.
13. ALL WALLS THAT HAVE THE DESIGNATION "C", AND ARE IN A SPACE WITH NO CEILING WILL BE 10' TALL.
14. DRAWINGS ESTABLISH THE DESIGN INTENT OF WORK TO BE PERFORMED. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE HIGHEST INDUSTRY STANDARDS. ALL PRODUCTS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. ALL TRADES SHALL CAREFULLY COORDINATE WORK OF ALL OTHER TRADES. ANY DISCREPANCIES OR CONFLICTS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT AND THE OWNER PRIOR TO FABRICATION OR INSTALLATION.
15. CONTRACTORS SHALL BE RESPONSIBLE FOR CHECKING THE CONTRACT DOCUMENTS FOR COORDINATION BETWEEN ARCHITECTURAL, STRUCTURAL, CIVIL, MECHANICAL, ELECTRICAL, PLUMBING, SECURITY AND LANDSCAPING. CONTRACTORS SHALL BE RESPONSIBLE FOR FIELD VERIFYING EXISTING CONDITIONS AND FOR VERIFYING THEM WITH THE CONTRACT DOCUMENTS. ANY DISCREPANCY IN THE CONTRACT DRAWINGS AND SPECIFICATIONS SHALL BE BROUGHT TO THE NOTICE OF THE ARCHITECT PRIOR TO ANY FABRICATION OR CONSTRUCTION.
16. ALL CORRIDOR SURFACES SHALL BE FLUSH AT JUNCTIONS OF MASONRY AND STUD WALLS. MASONRY WALL LOCATIONS SHALL HOLD TRUE AND MTL STUDS SHALL BE MOVED AS REQUIRED TO PROVIDE FLUSH CONNECTION BETWEEN GYP. BD. AND MASONRY. VERIFY NO. OF LAYERS OF GYP. BD. W/ WALL TYPES. RELOCATION OF WALL SHALL BE APPROVED BY ARCHITECT PRIOR TO CONST. AT TRANSITIONS FROM 1 LAYER GYP. BD. TO 2 LAYERS OR GYP. ON MTL STUDS A MIN. CORRIDOR WIDTH OF 5'-0" FROM FACE OF STUDS SHALL BE MAINTAINED.
17. ALL BUILDING MATERIALS (INCLUDING BUT NOT LIMITED TO METAL FLASHING, VAPOR BARRIERS, AIRWATER RESISTANT BARRIERS, THRU-WALL FLASHING, ETC.) SHALL BE LAPPED TO SHED WATER TO THE OUTSIDE OF THE BUILDING ENVELOPE.
18. SEE CODE COMPLIANCE PLAN G-100 FOR FIRE RATED WALLS.
19. SEE WALL TYPE LEGEND A-202 FOR WALLS AND CONSTRUCTION REQUIREMENTS.
20. WHEREVER POSSIBLE KEEP MINIMUM SIZE OF CUT MASONRY TO 4" OR GREATER.
21. ALL DIAGONAL WALLS SHALL BE AT 45° (U.N.O.)
22. SEE STRUCTURAL FOR CONTROL/EXPANSION JOINT LOCATIONS.
23. SLOPE CONCRETE SLABS TO FLOOR DRAINS AT 1/16" MIN. PER FT.
24. ALL CMU WALLS WITH EMBEDDED DETENTION EQUIP. TO HAVE WALLS GROUTED SOLID & REINF. W/ 1#4 BAR @ 18" O.C. FOR MIN. 4'-0" AROUND EMBEDDED EQUIPMENT OR USE STEEL BLOCKS.
25. ALL EXPOSED PIPES, DUCTS CONDUITS IN SECURITY AREAS SHALL BE PROTECTED.
26. ALL DOORS AND BORROWED LITE FRAMES IN SECURITY MASONRY WALLS TO BE FULLY GROUTED. ALL SECURITY DOORS AND BORROWED LITE FRAMES IN MASONRY WALLS TO BE FULLY GROUTED. ALL SECURITY DOORS AND BORROWED LITE FRAMES IN SECURITY STUD WALLS TO HAVE JAMBS FULLY GROUTED UNLESS NOTED OTHERWISE.
27. WHEREVER VOLUME DAMPERS (V.D.) ARE LOCATED ABOVE SECURITY CEILINGS, PROVIDE 2'-0"x2'-0" ACCESS PANELS IN THE CEILING. REFER TO MECHANICAL DRAWINGS FOR NUMBER AND LOCATION. COORDINATE WITH ELECTRICAL DRAWINGS. PANELS SHALL BE SECURITY TYPE TO MATCH ADJACENT CEILING.
28. ALL CHASE WALLS SHALL BE FULL HEIGHT UNLESS NOTED OTHERWISE.
29. ALL INTERIOR AND EXTERIOR EXPOSED STEEL TO BE PAINTED. COLOR TO BE SELECTED BY ARCHITECT.
30. PROVIDE (2) TWO 4'x8' GRAPHIC SITE CONSTRUCTION SIGNS. ARCHITECT TO PROVIDE GRAPHIC CONTRACTOR TO INSTALL.
31. ALL EXTERIOR WINDOWS ARE TYPE W1, UNLESS NOTED OTHERWISE.
32. SUFFICES WITHIN SPECIFICATION REFERENCES (i.e. 10-11-33 XX or 10-11-33 A1) IN THE DRAWINGS CAN BE IGNORED. THESE SUFFICES ARE A SORTING MECHANISM USED IN PREPARING THESE DRAWINGS.
33. ALL ROUGH OPENINGS (R.O.) SHALL BE VERIFIED WITH SELECTED WINDOW AND DOOR MANUFACTURER. ANY CHANGES FROM THE BASIS OF DESIGN WILL BE COORDINATED WITH ALL TRADES AND ROUGH OPENINGS ADJUSTED AS REQUIRED. ANY DISCREPANCIES FOUND WILL BE BROUGHT TO THE ARCHITECT PRIOR TO CONSTRUCTION. ANY CHANGES AND REVISIONS WILL BE DONE AT CONTRACTORS EXPENSE.
34. ALL CONSTRUCTION AROUND PLUMBING FIXTURES IS REQUIRED TO BE COORDINATED WITH SELECTED MANUFACTURERS. ADJUST WALLS AS REQUIRED TO ACCOMMODATE THE INSTALLATION OF THE SELECTED MANUFACTURERS PLUMBING FIXTURES. ANY CHANGES AND REVISIONS WILL BE DONE AT CONTRACTORS EXPENSE.
35. BUILDING ENVELOPE CONTINUITY WILL BE MONITORED BY A COMMISSIONING AGENT. TRANSITIONS BETWEEN BUILDING SYSTEMS (I.E. ROOF TO WALL, CURTAIN WALL TO EXTERIOR WALL, ETC.) SHALL INCLUDE CONTINUOUS AIRTIGHT AIR BARRIER SYSTEM. ALL PENETRATIONS IN THE BUILDING ENVELOPE (INCLUDING WINDOWS, DOORS, STOREFRONT, ETC.) SHALL BE SEALED WITH AIR TIGHT WEATHER SEALS. AT ANY LOCATION WHERE MASONRY TIES OR OTHER MATERIALS PENETRATE THE AIR BARRIER, EACH PENETRATION SHALL BE SEALED AIRTIGHT.

### 5.4.110 - FLOOR PLAN NOTES

| Key | Note                                                                                                                                |
|-----|-------------------------------------------------------------------------------------------------------------------------------------|
| 01  | PAIRED-PANEL PARTITION, REFER TO SPECIFICATIONS, BASICS OF DESIGN TASK MODERNFOL                                                    |
| 02  | WALL MOUNTED SIGNAGE, REFER TO SPECIFICATIONS                                                                                       |
| 03  | WOOD COLUMN, COLOR TO BE SELECTED BY ARCHITECT, REFER TO S-SERIES DWGS                                                              |
| 04  | TV, PROVIDE ADEQUATE BRACING, COORDINATE WITH E-SERIES DWGS                                                                         |
| 05  | EDGE OF SLAB, REFER TO C-SERIES AND S-SERIES DWGS                                                                                   |
| 06  | ALIGN WALLS FLUSH                                                                                                                   |
| 07  | WASHER AND DRYER, REFER TO M-SERIES AND P-SERIES DWGS                                                                               |
| 08  | SERVER RACK, SEE E-SERIES DWGS                                                                                                      |
| 09  | DOUBLE-TIER LOCKERS, OWNER PROVIDED                                                                                                 |
| 10  | STAND UP FREEZER, SEE E-SERIES DWGS                                                                                                 |
| 11  | DRINKING FOUNTAIN AND BOTTLE FILLER, SEE P-SERIES DWGS                                                                              |
| 12  | REFRIGERATOR, SEE P-SERIES AND E-SERIES DWGS                                                                                        |
| 13  | 48" RANGE, Forno FFGS6244-48 AS BASICS OF DESIGN WITH HOOD ABOVE, SEE M-SERIES DWGS                                                 |
| 14  | MOP SINK, PROVIDE CLEAR SPLASH GUARD 2'-0" ABOVE SINK & 4" EXTENDED ON BOTH SIDES FROM EDGE OF BASIN, PROVIDE MOP HOLDER ABOVE SINK |
| 15  | COUNTERTOP AND CASEWORK, SEE A-400 I-SERIES DWGS                                                                                    |
| 16  | DISPATCH CONSOLES, OWNER PROVIDED, COORDINATE WITH E-SERIES DWGS FOR HOOKUPS                                                        |
| 17  | DOUBLE-BOWL SINK, SEE P-SERIES DWGS                                                                                                 |
| 18  | MINI FRIDGE UNDER COUNTER, OWNER PROVIDED                                                                                           |
| 19  | SINGLE-BOWL SINK, SEE P-SERIES DWGS                                                                                                 |
| 20  | FLOOR DRAIN, SEE P-SERIES DWGS                                                                                                      |
| 21  | 1-HR STEEL ROLL UP SERVING DOOR, BASIS OF DESIGN TO BE COOKSON DOOR ERC11                                                           |
| 22  | FURNITURE, OWNER PROVIDED, NOT IN CONTRACT                                                                                          |
| 23  | STEEL GUARDRAIL, 42" ABOVE GRADE, COLOR TO BE CHOSEN BY ARCHITECT                                                                   |



KNOX COUNTY BOARD OF COMMISSIONERS  
**Knox Co. Emergency Op.**

| # | Revision   | Date       |
|---|------------|------------|
| 1 | Addendum 1 | 2025-05-30 |

Project #: 24-700-155-1  
Designed By: VW  
Drawn By: LG & AR  
Checked By: Checker  
Date: 05/16/2025

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FIRST FLOOR PLAN

AF101

KNOX COUNTY BOARD OF COMMISSIONERS  
Knox Co. Emergency Op.

2830 E. ARC AVE.  
VINCENNES, IN 47591

BID SET

| # | Revision   | Date       |
|---|------------|------------|
| 1 | Addendum 1 | 2025-05-30 |

Project #: 24-700-155-1

Designed By: VW

Drawn By: LG & AR

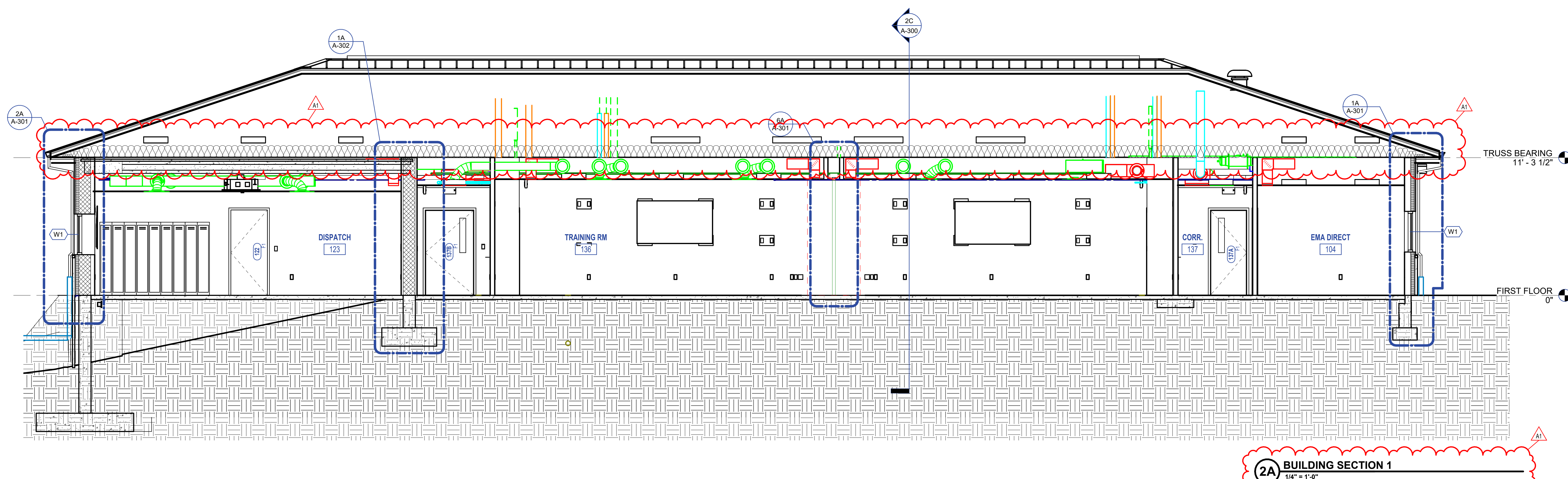
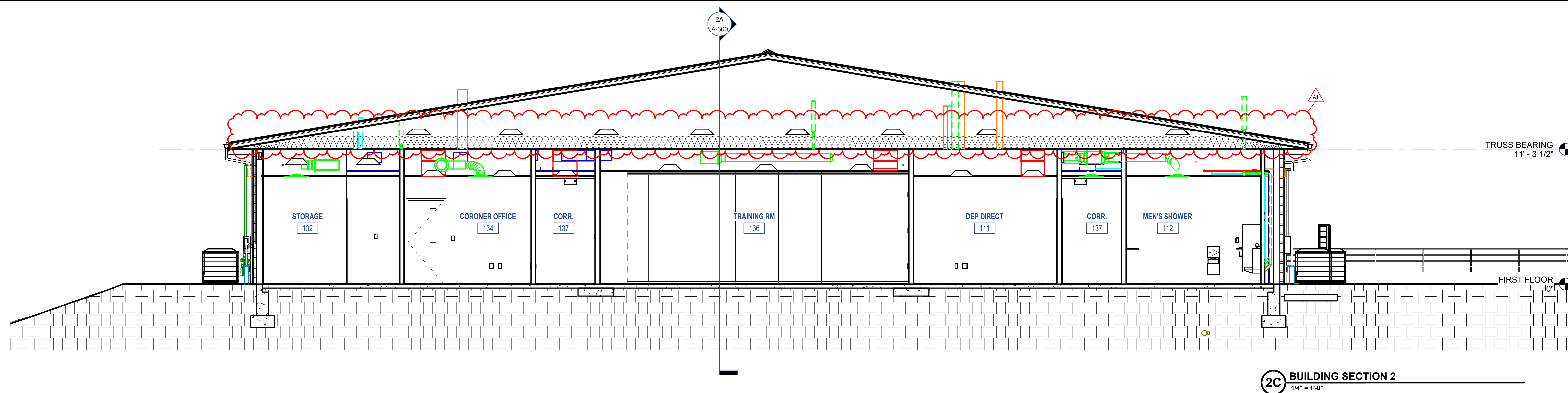
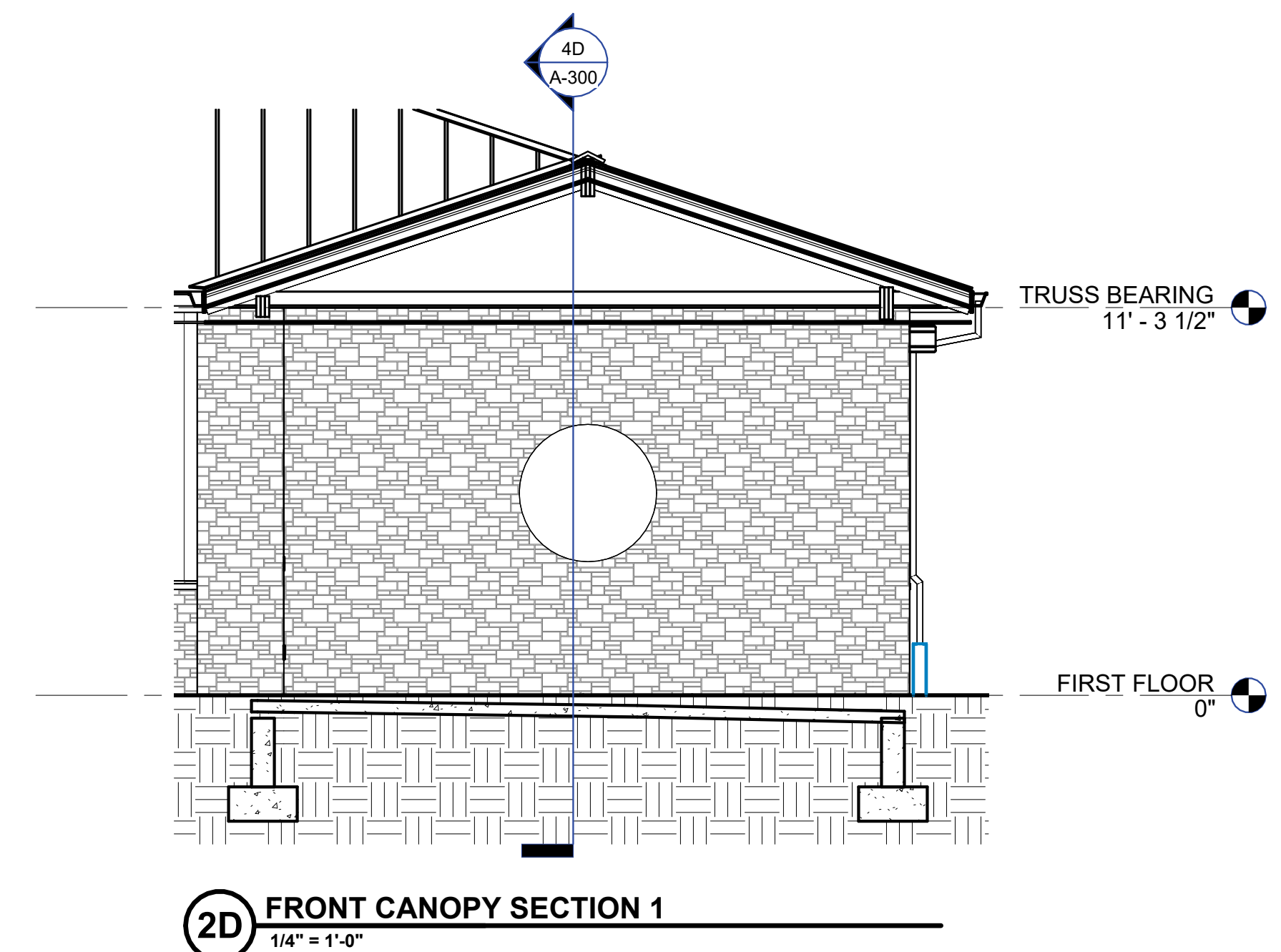
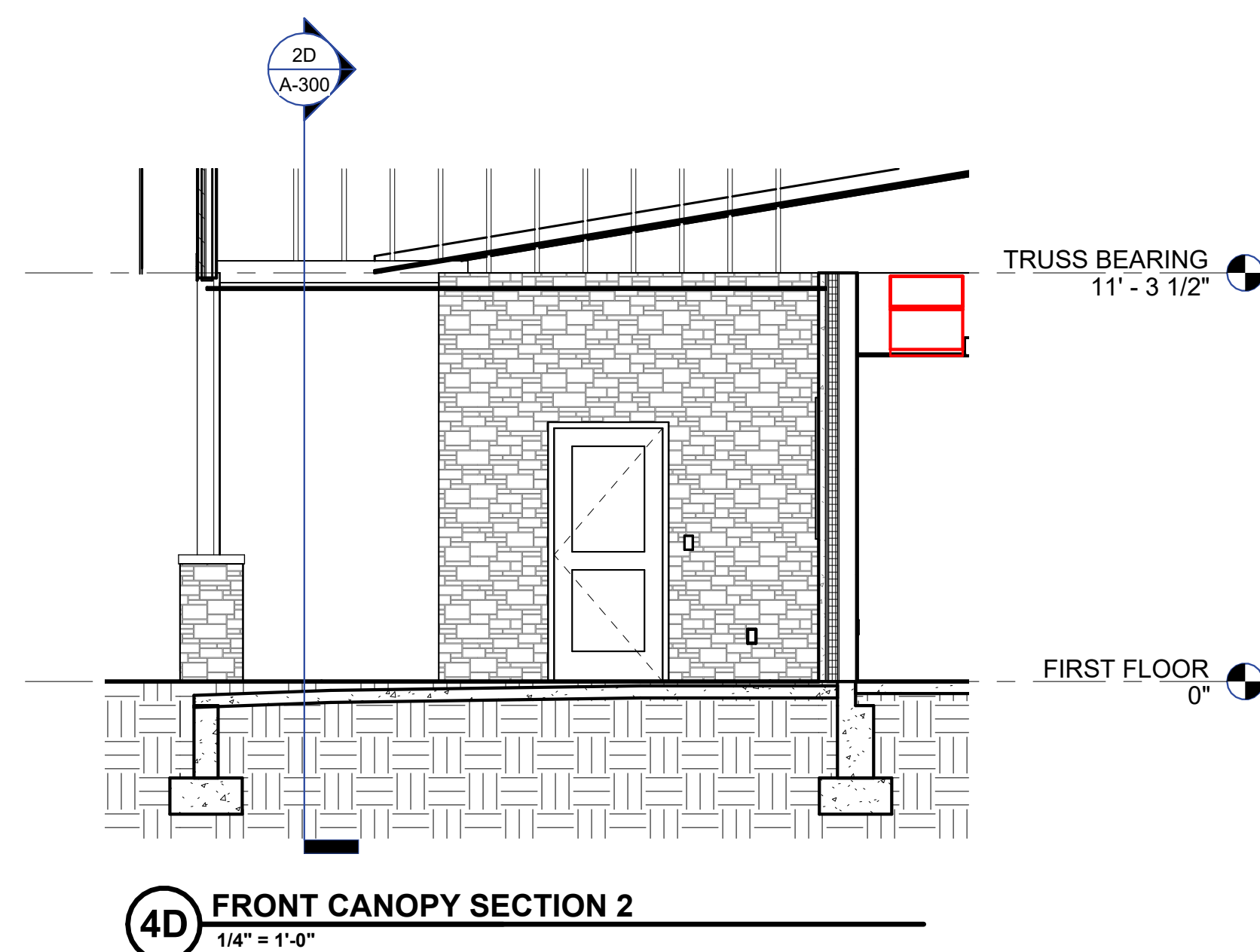
Checked By: Checker

Date: 05/16/2025

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BUILDING SECTIONS

A-300



| # | Revision   | Date       |
|---|------------|------------|
| 1 | Addendum 1 | 2025-05-30 |

Project #: 24-700-155-1

Designed By: VW

Drawn By: LG & AR

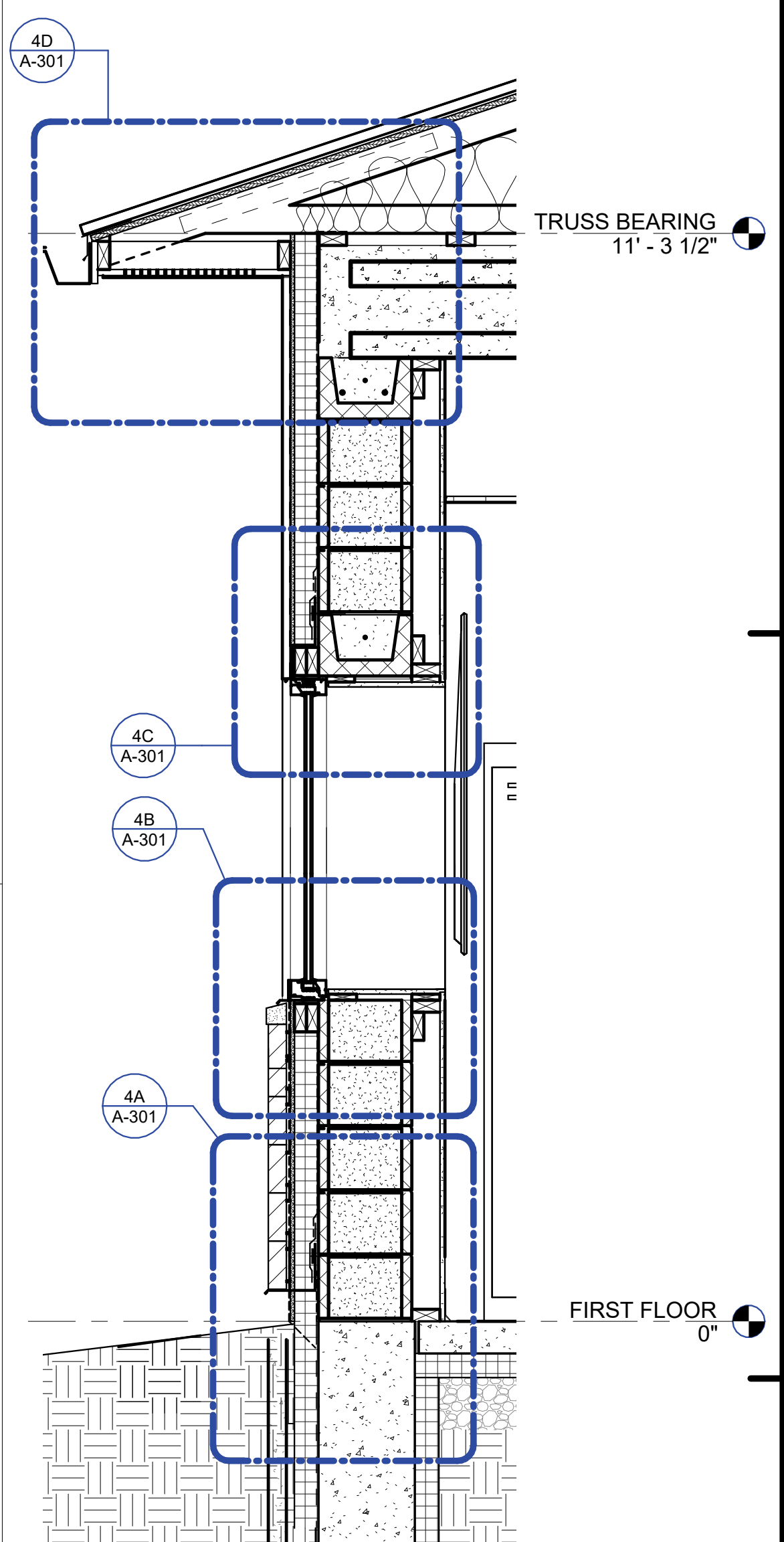
Checked By: Checker

Date: 05/16/2025

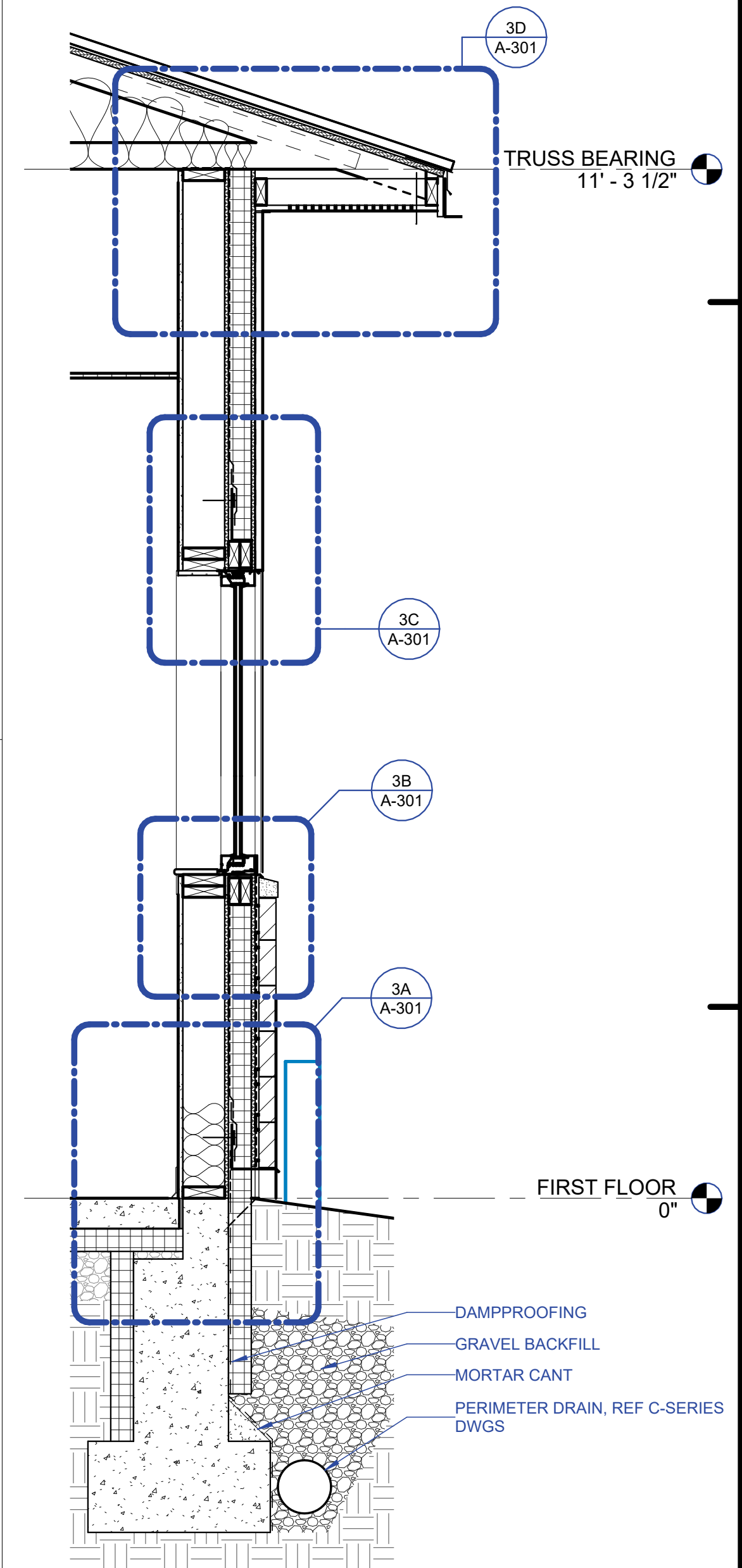
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WALL SECTIONS & DETAILS

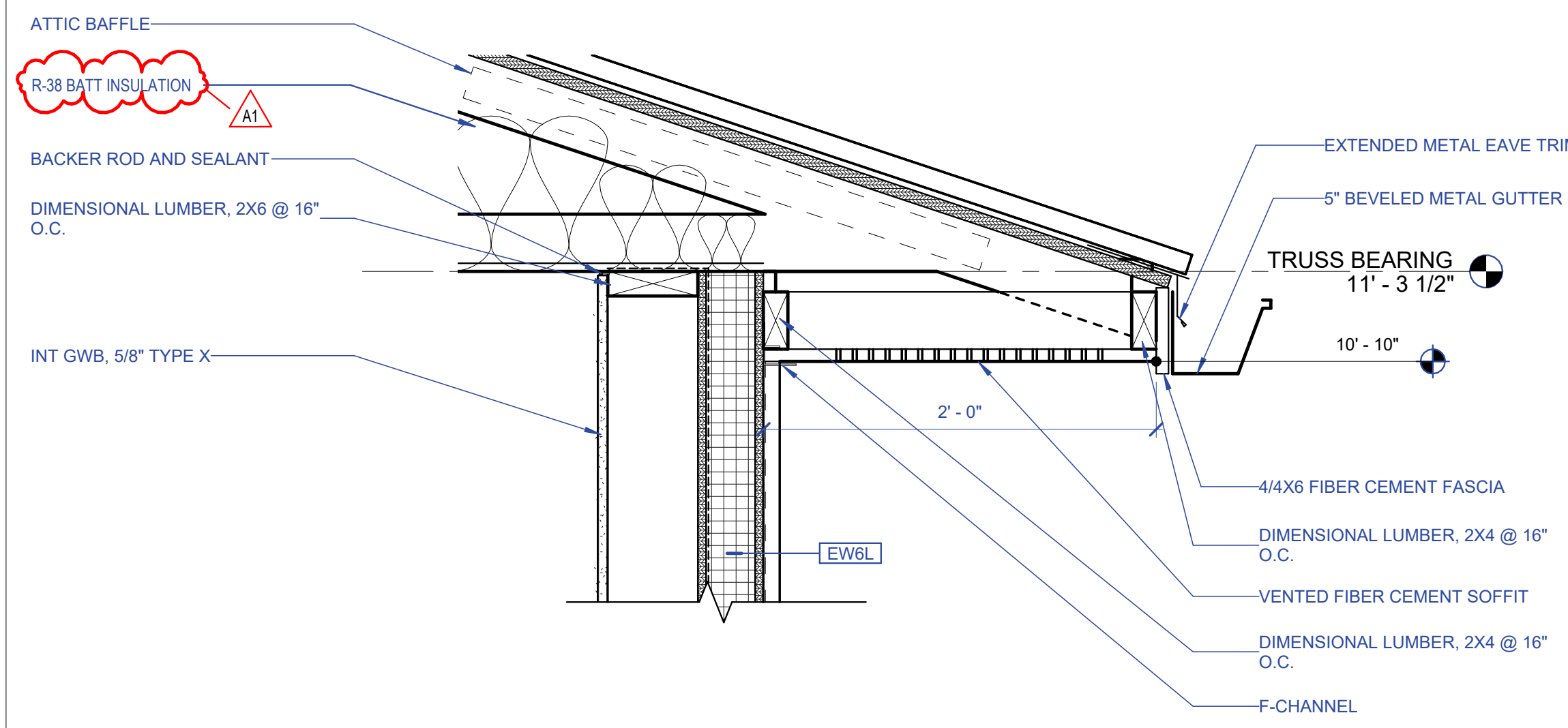
A-301



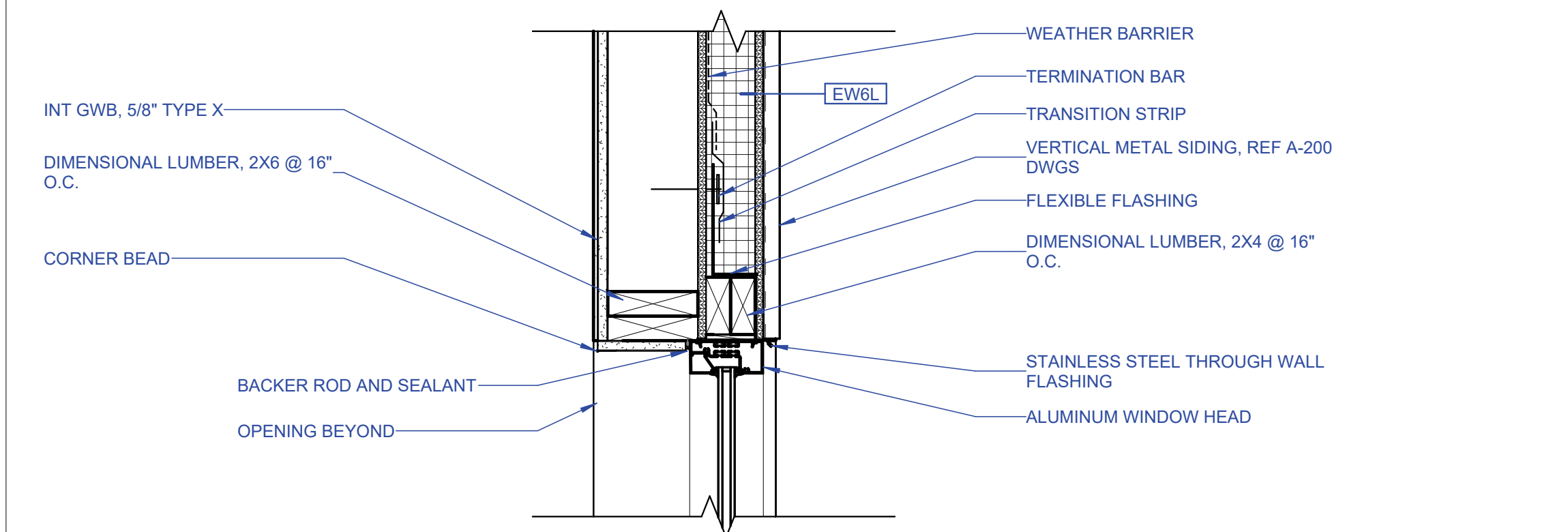
**2A WALL SECTION 2**  
3/4" = 1'-0"



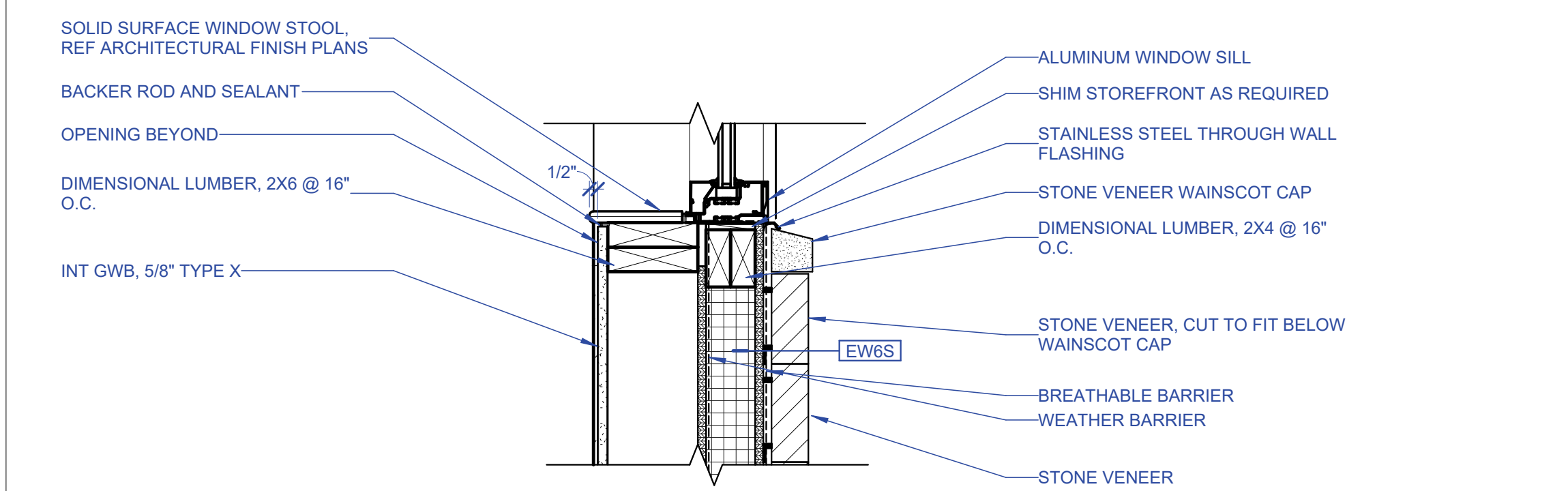
**1A WALL SECTION 1**  
3/4" = 1'-0"



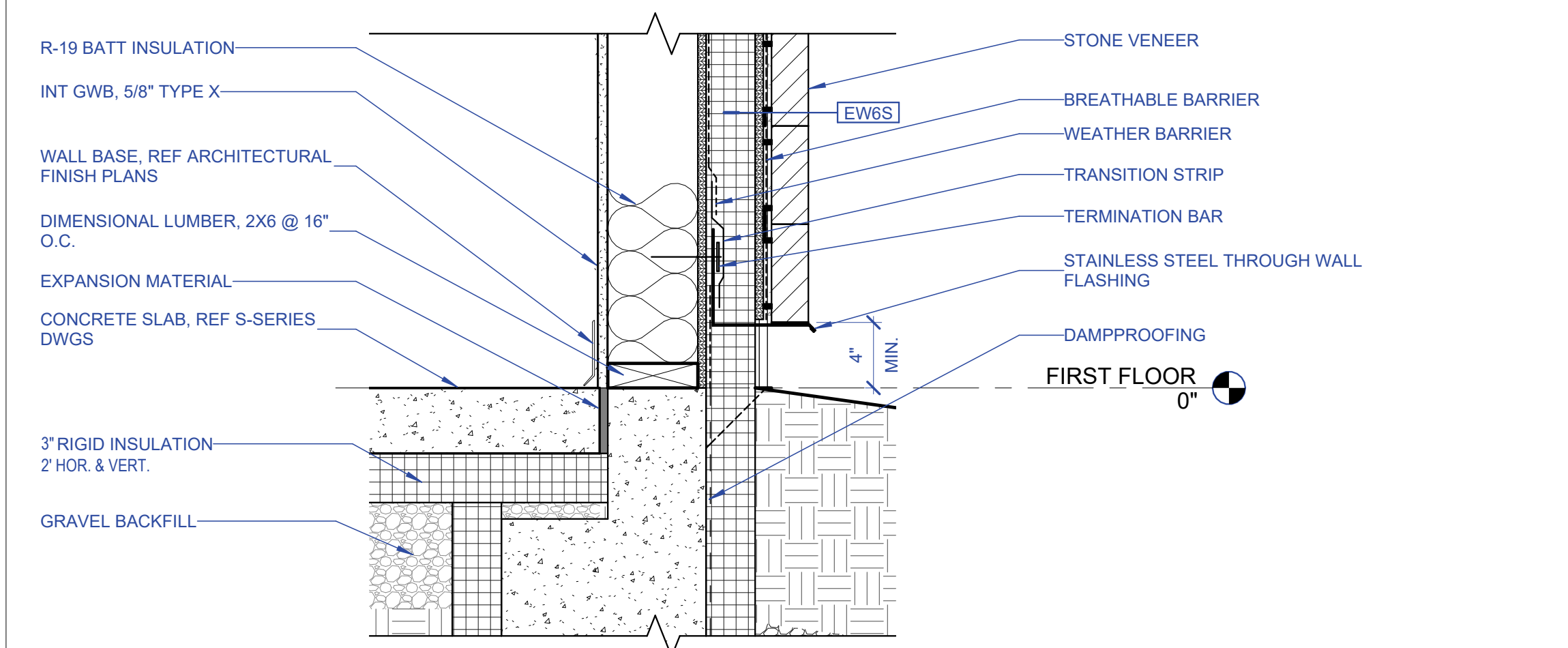
**3D WALL SECTION DETAIL 1.4**  
1 1/2" = 1'-0"



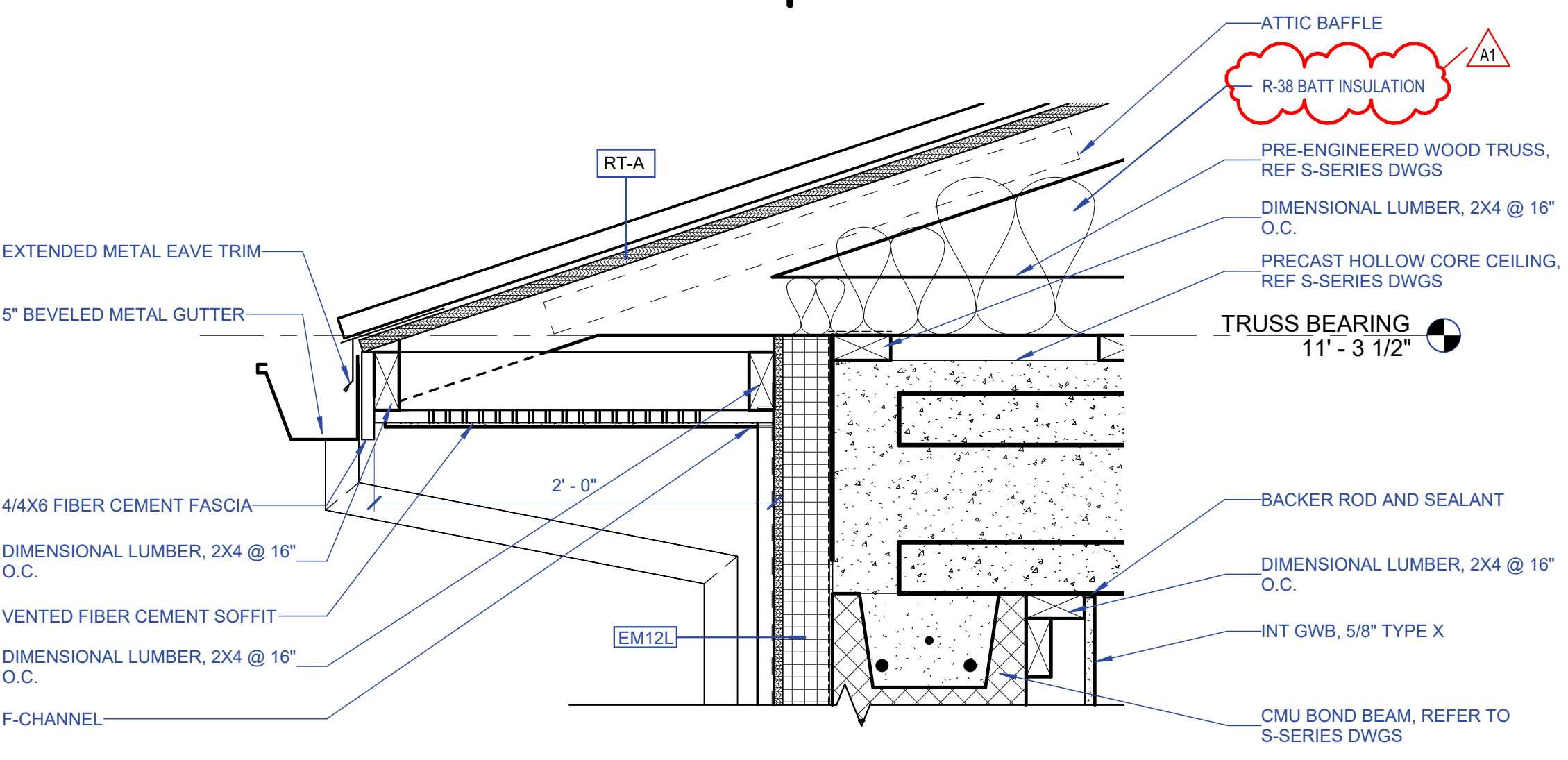
**3C WALL SECTION DETAIL 1.3**  
1 1/2" = 1'-0"



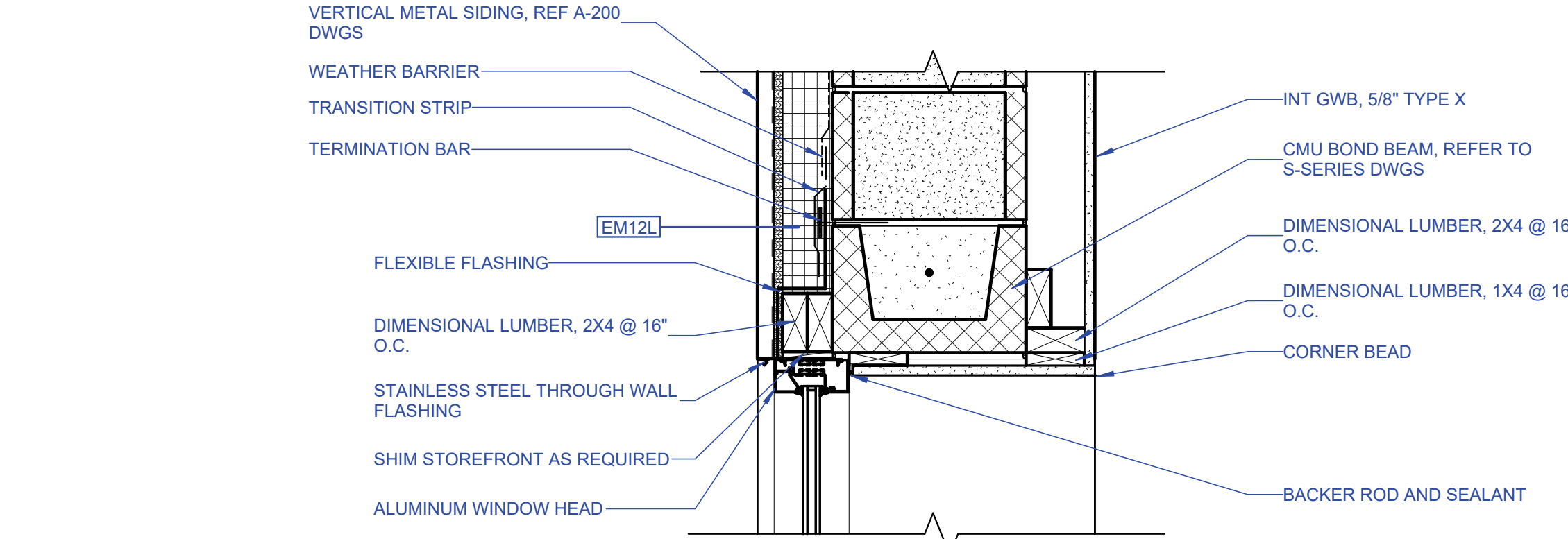
**3B WALL SECTION DETAIL 1.2**  
1 1/2" = 1'-0"



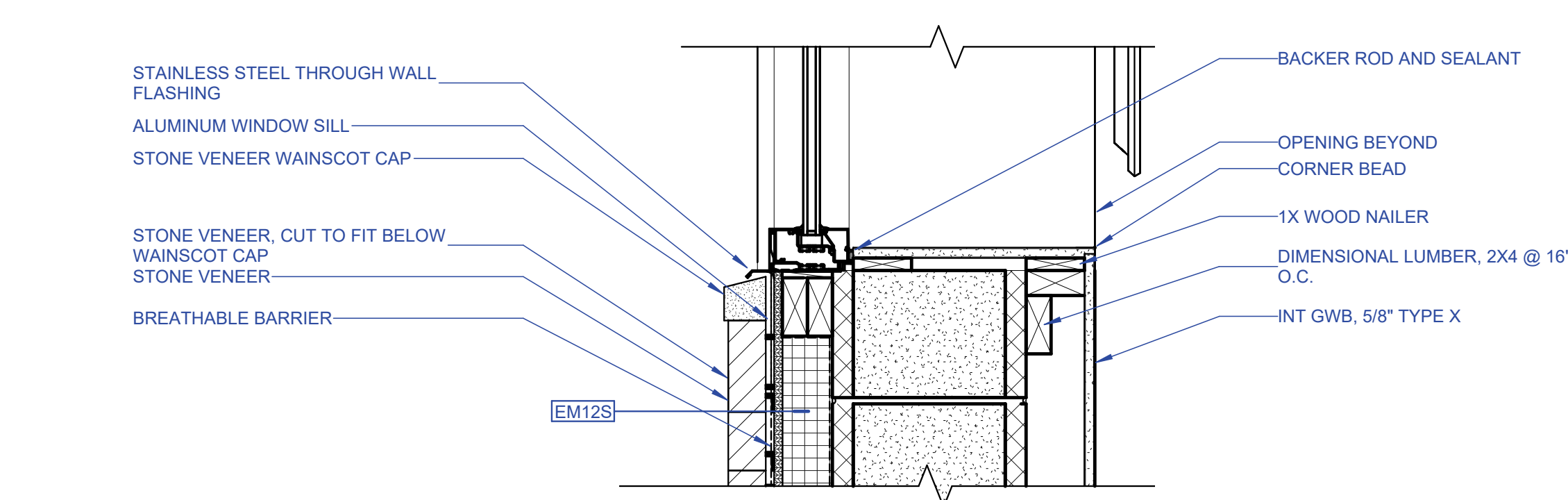
**3A WALL SECTION DETAIL 1.1**  
1 1/2" = 1'-0"



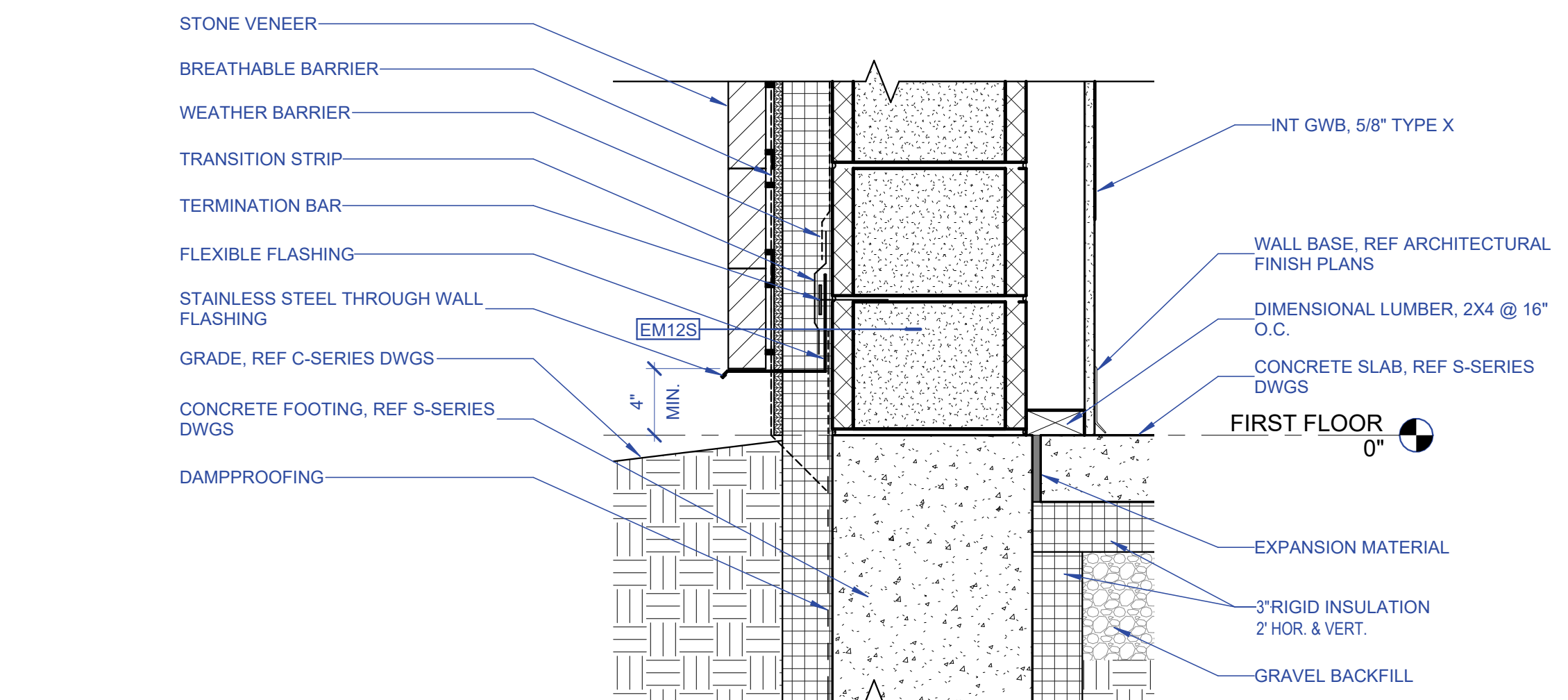
**4D WALL SECTION DETAIL 2.4**  
1 1/2" = 1'-0"



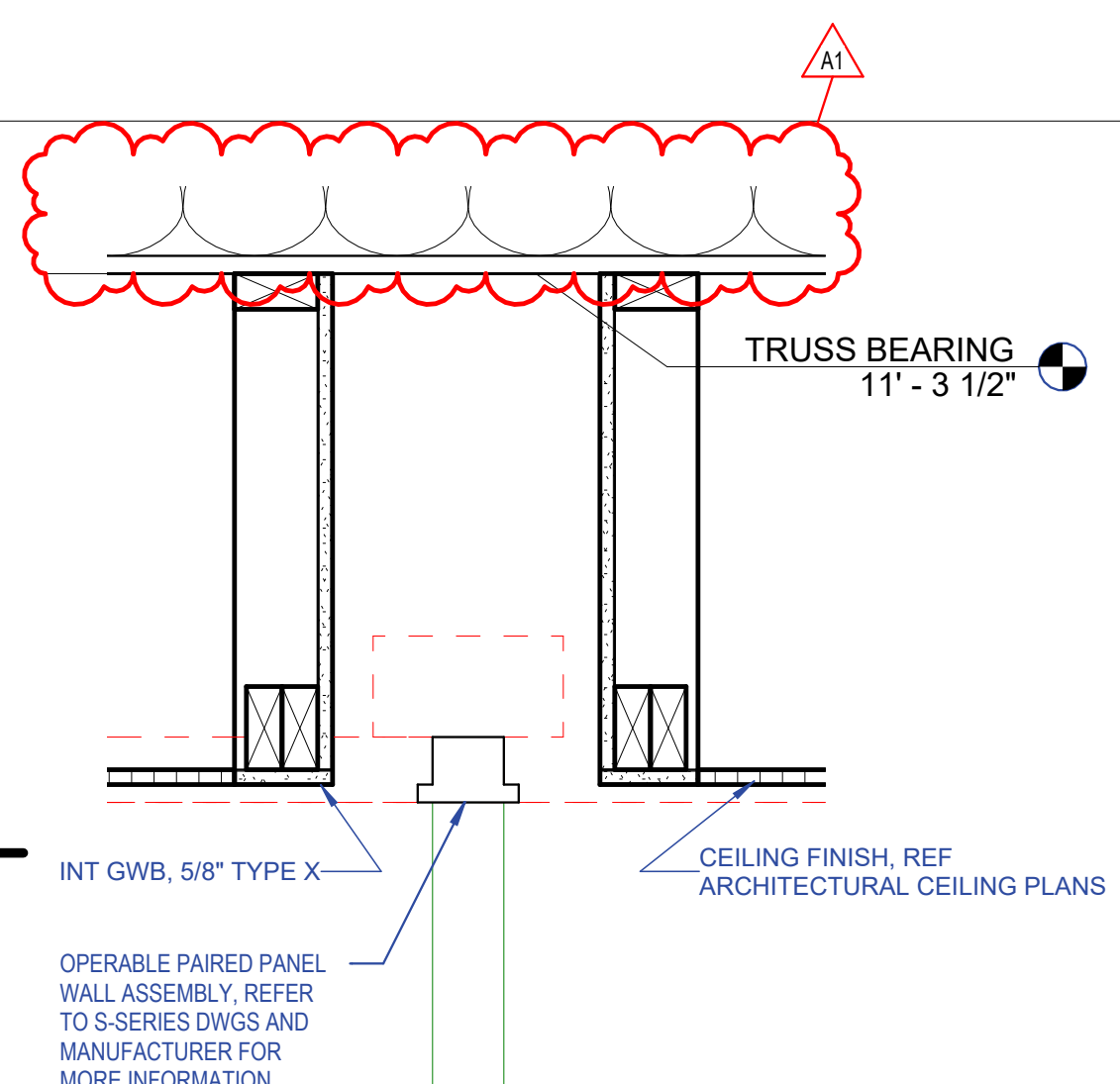
**4C WALL SECTION DETAIL 2.3**  
1 1/2" = 1'-0"



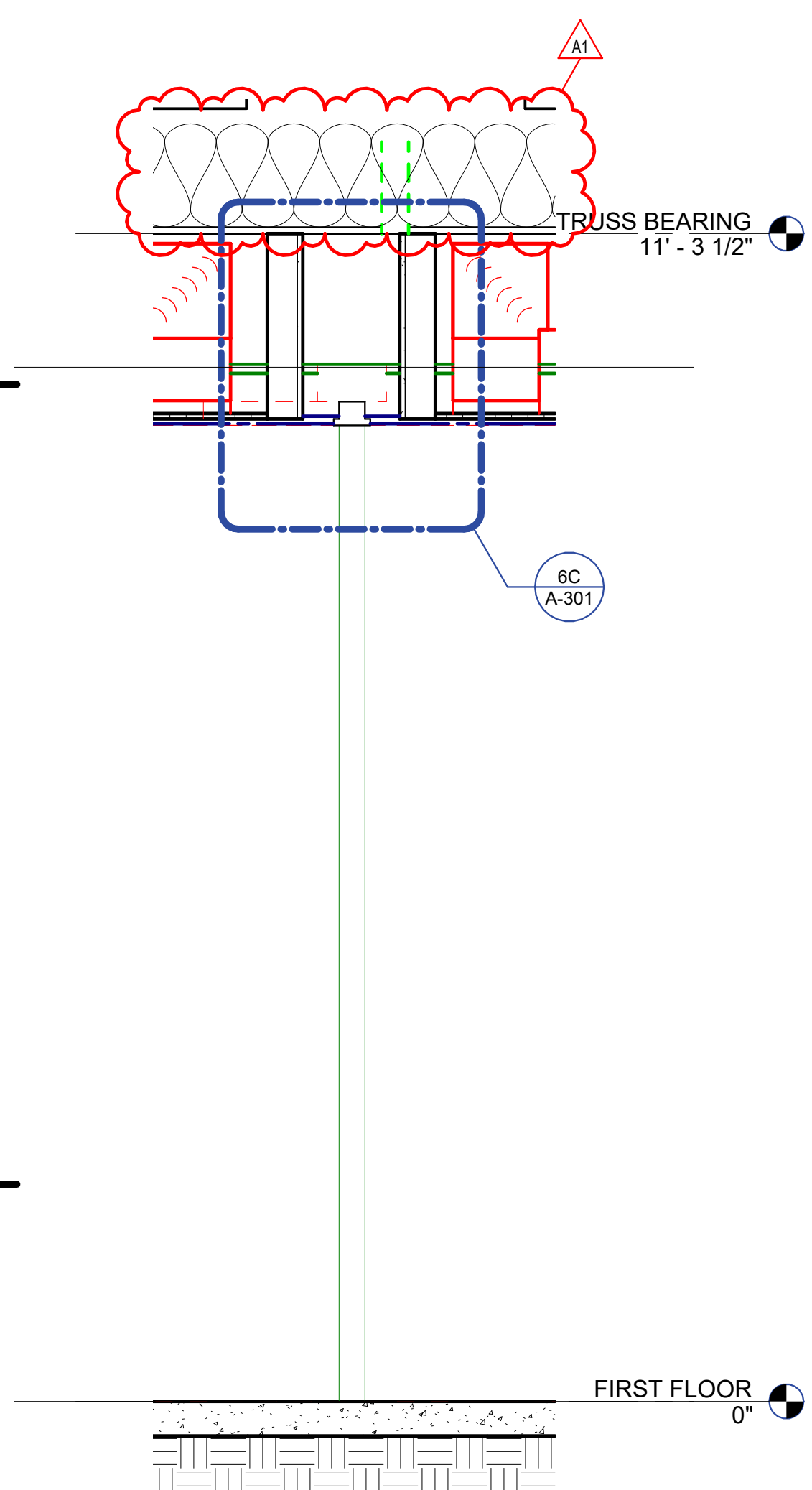
**4B WALL SECTION DETAIL 2.2**  
1 1/2" = 1'-0"



**4A WALL SECTION DETAIL 2.1**  
1 1/2" = 1'-0"



**6C WALL SECTION DETAIL 3.2**  
1 1/2" = 1'-0"

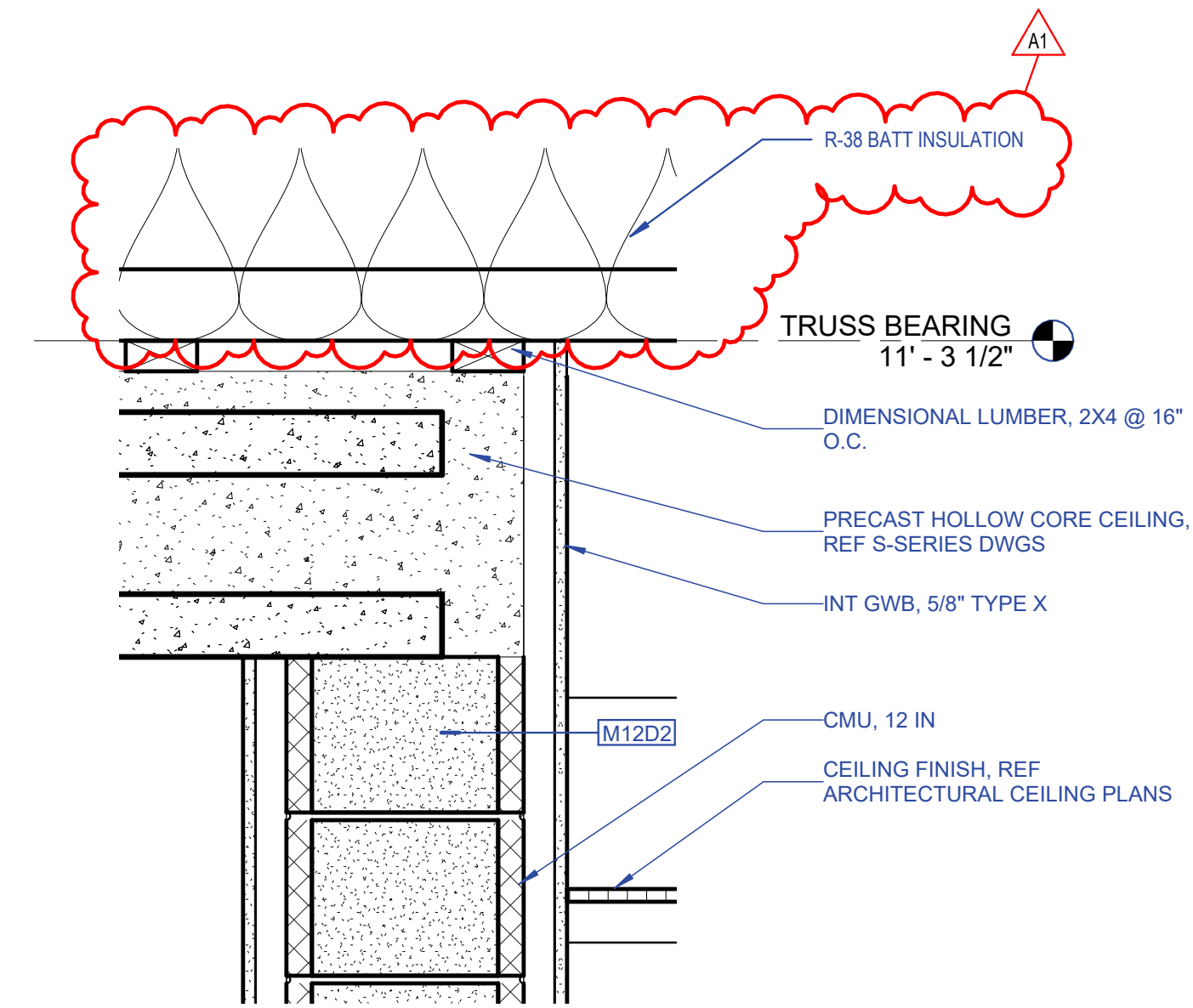


**6A WALL SECTION 3**  
3/4" = 1'-0"

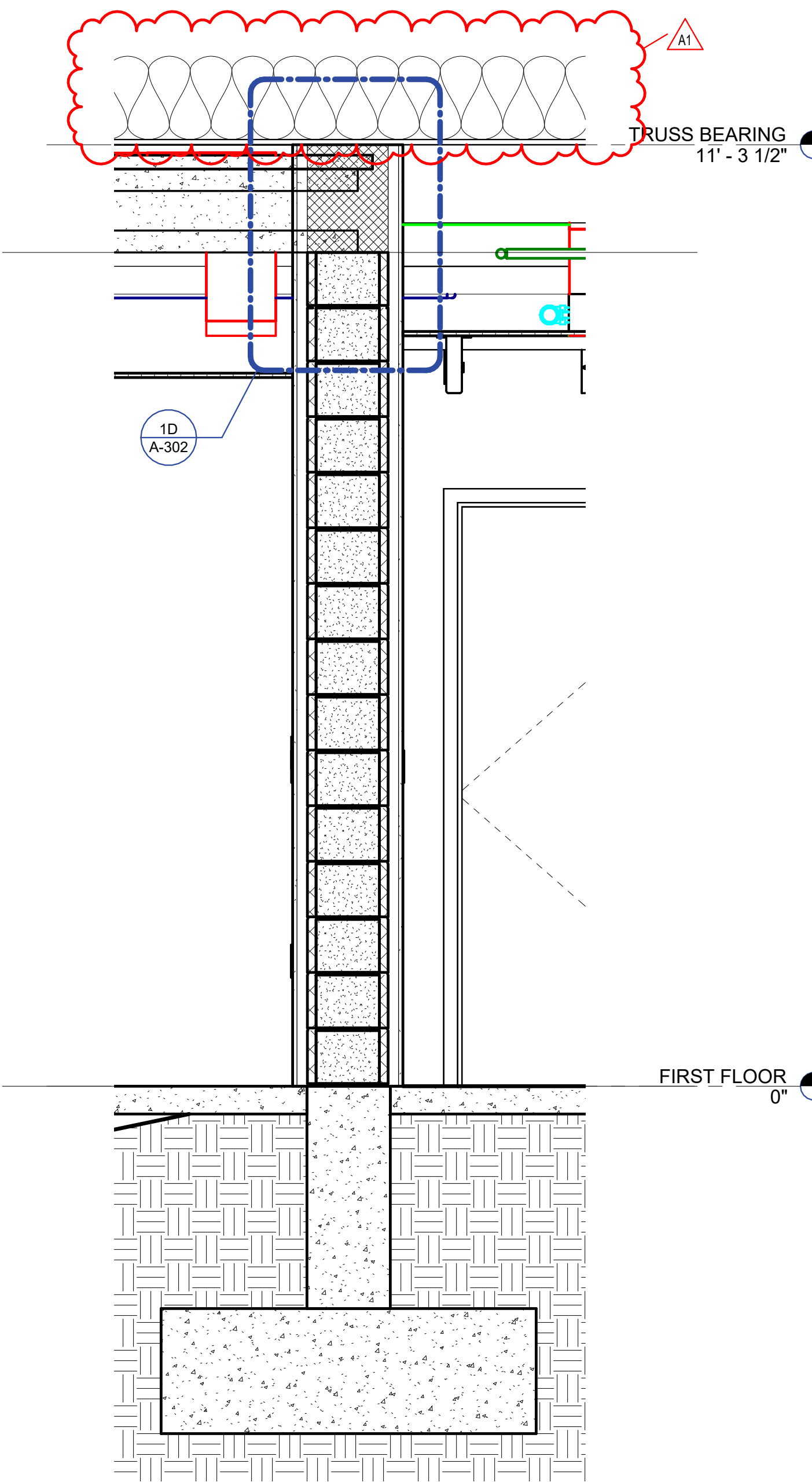
| # | Revision   | Date       |
|---|------------|------------|
| 1 | Addendum 1 | 2025-05-30 |

|              |              |
|--------------|--------------|
| Project #:   | 24-700-155-1 |
| Designed By: | VW           |
| Drawn By:    | LG & AR      |
| Checked By:  | Checker      |
| Date:        | 05/16/2025   |

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1D WALL SECTION 4.1  
1 1/2" = 1'-0"



1A WALL SECTION 4  
3/4" = 1'-0"

E

D

C

B

A

E

D

C

B

A

BID SET

| # | Revision   | Date    |
|---|------------|---------|
| 1 | Addendum 1 | 5/30/25 |

Project #: 24-700-155-1

Designed By: K.I.

Drawn By: C.M./J.W.

Checked By: K.I.

Date: 05/16/2025



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FIRST FLOOR PLUMBING PLAN

P210

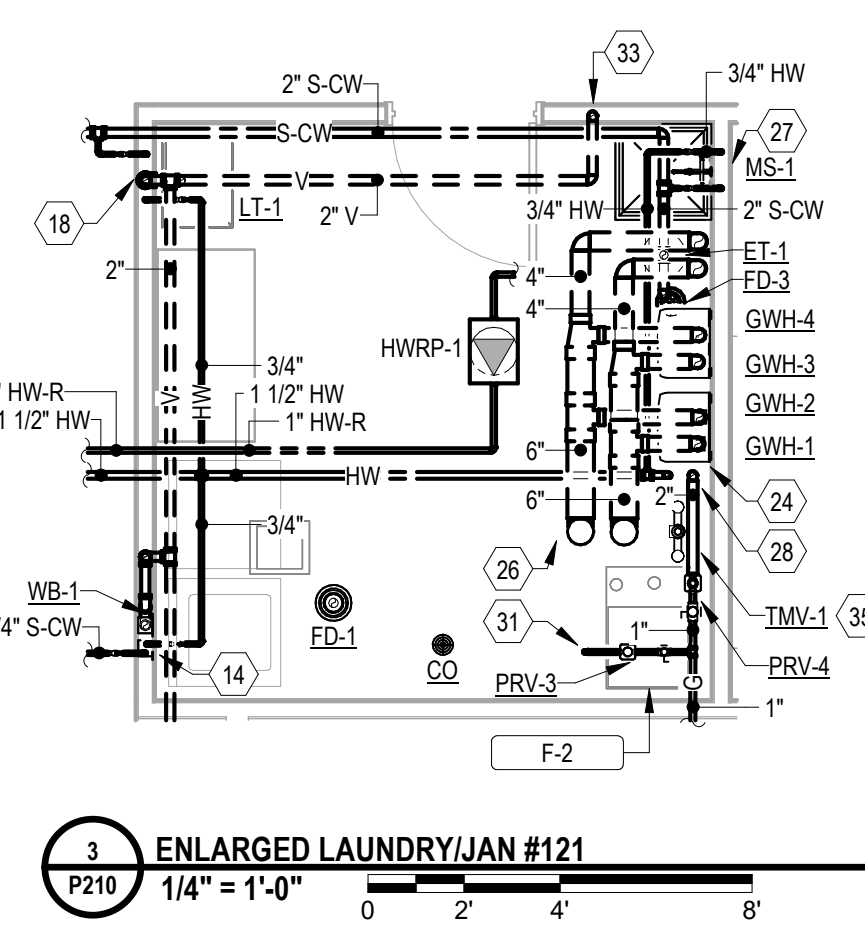
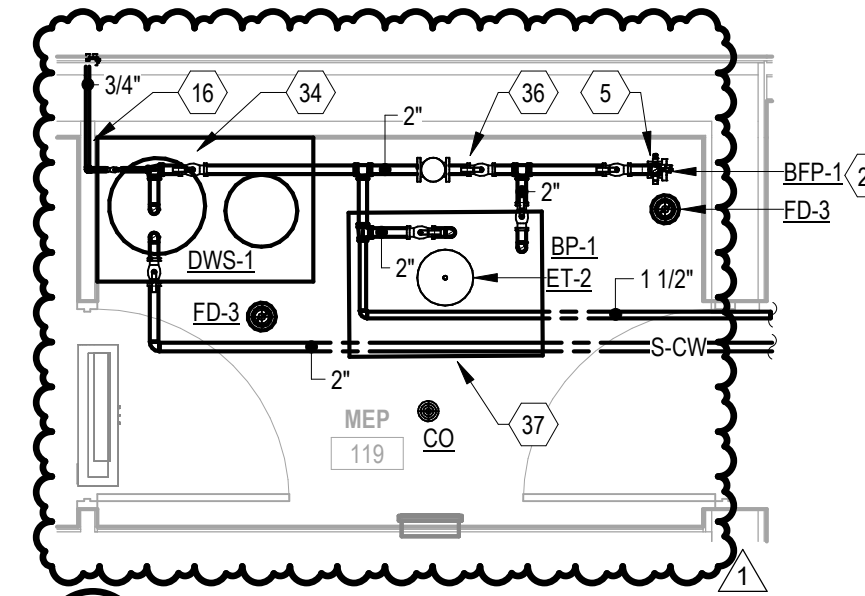
WATER FLOW TEST DATA

| DATE TEST PERFORMED  | STATIC PRESSURE (PSI) | RESIDUAL PRESSURE (PSI) | FLOW RATE (GPM) |
|----------------------|-----------------------|-------------------------|-----------------|
| 5/16/2025<br>10:00AM | 80                    | 50                      | 1,190           |

NOTES:  
CONTRACTOR SHALL PROVIDE HIS OWN FLOW TEST(S) (USING ACCEPTABLE METHODS AND RECOGNIZED METHODS AND PROCEDURES AS DEFINED IN NFPA 13), UPON WHICH HIS DESIGN SHALL BE BASED.

PLAN NOTES

| #  | NOTE                                                                                                                                       |
|----|--------------------------------------------------------------------------------------------------------------------------------------------|
| 1  | GAS SERVICE DN. B.F.G. GAS SERVICE BY LOCAL GAS UTILITY COMPANY.                                                                           |
| 2  | GAS PRESSURE REGULATOR BY GAS UTILITY COMPANY.                                                                                             |
| 3  | GAS METER BY UTILITY CO.                                                                                                                   |
| 4  | VENT THRU ROOF.                                                                                                                            |
| 5  | 2" WATER SERVICE DN. B.F.F.                                                                                                                |
| 6  | 3/4" HASOW & 2" VENT DROPS TO SHOWER, AND 2" WASTE DN.                                                                                     |
| 7  | 2" VENT & 4" WASTE DN.                                                                                                                     |
| 9  | 2" VENT & 2" WASTE DN.                                                                                                                     |
| 10 | 1-1/2" SCW DROP, ROUTE 1" CW TO EACH WATER CLOSET.                                                                                         |
| 11 | 1-1/4" SCW DROP, ROUTE 3/4" CW TO URINAL, AND 1" CW TO WATER CLOSET.                                                                       |
| 12 | 3/4" HASOW & 2" VENT DROPS TO LAVATORY, AND 2" WASTE DN. INSTALL TMV-2 BELOW COUNTER.                                                      |
| 13 | 3/4" HASOW & 2" VENT DROPS TO SINK, AND 2" WASTE DN. ROUTE 3/4" HASOW TO DISHWASHER AND ROUTE DISHWASHER DRAIN TO TAILPIECE OF SINK DRAIN. |
| 14 | 3/4" HASOW DROPS, 2" VENT DROP, 2" VENT UP AND 3" VENT THRU ROOF.                                                                          |
| 15 | 3/4" HASOW & 2" VENT DROPS TO SINK, AND 2" WASTE DN.                                                                                       |
| 16 | 3/4" CW DROP TO WALL HYDRANT.                                                                                                              |
| 17 | 4" ST. LDR. UP DN.                                                                                                                         |
| 18 | 3/4" HASOW & 2" VENT DROPS TO UTILITY SINK, 2" WASTE DN., AND 2" VENT UP.                                                                  |
| 19 | 3/4" HASOW & 2" VENT DROPS TO WASHER BOX, 2" WASTE DN.                                                                                     |
| 20 | 3/4" SCW DROP, ROUTE 1/2" CW TO REFRIGERATOR AND ICE MAKER BOXES IN WALL.                                                                  |
| 21 | ROUTE 3/4" DRAIN LINE FROM ICE MACHINE(S) TO DRAIN.                                                                                        |
| 22 | 3/4" GAS DROP TO RANGE. (107 MBH)                                                                                                          |
| 23 | 3/4" SCW DROP TO POT FILLER (PF-1).                                                                                                        |
| 24 | (4) TANKLESS GAS WATER HEATERS STACKED TWO HIGH ON WALL. ROUTE (8) INTAKE/EXHAUST FLUES UP THRU ROOF.                                      |
| 25 | 2" BACKFLOW PREVENTER INSTALLED VERTICALLY ON INCOMING 2" WATER SERVICE.                                                                   |
| 26 | (2) 6" PVC WATER HEATER INTAKE/EXHAUST FLUES UP THRU ROOF.                                                                                 |
| 27 | 3/4" HASOW & 2" VENT DROPS TO MOP SINK, 3" WASTE DN., AND 2" VENT UP & 3" VTR.                                                             |
| 28 | 2" SCW, 1-1/2" HW & 2" GAS UP FROM WATER HEATERS.                                                                                          |
| 29 | 1-1/4" SEISMIC EARTHQUAKE GAS VALVE WITH MONITORING SYSTEM. INSTALL ON HORIZONTAL PIPE PRIOR TO PENETRATION THROUGH BUILDING WALL.         |
| 30 | 3/4" GAS VALVED AND CAPPED FOR FUTURE GRILL (40 MBH).                                                                                      |
| 31 | 3/4" GAS DROP TO FURNACE (80 MBH).                                                                                                         |
| 32 | 3/4" GAS DROP TO FURNACE (100 MBH).                                                                                                        |
| 33 | 2" VENT DN.                                                                                                                                |
| 34 | 2" CW & SCW DROP TO WATER SOFTENER.                                                                                                        |
| 35 | DOUBLE CHECK VALVE (DCV) ON 2" LINE.                                                                                                       |
| 36 | 2" BYPASS LINE W/ CHECK AND BALL VALVE.                                                                                                    |
| 37 | DIPLEX BOOSTER PUMP MOUNTED ON SKID. 2" SUCTION AND DISCHARGE CONNECTIONS.                                                                 |



1 FIRST FLOOR PLUMBING PLAN  
3/16" = 1'-0"



PLUMBING FIXTURE SCHEDULE

| TAG   | FIXTURE DESCRIPTION                                                                                                                                                                                                                 | MANUFACTURER      | MODEL #          |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|------------------|
| WC-1  | WATER CLOSET: VITREOUS CHINA, FLOOR-MOUNTED ELONGATED BOWL, 1-1/2" INLET TOP SPUD, LOW-CONSUMPTION 1.28 GPF, DIRECT-FED SIPHON JET ACTION, FULLY-GLAZED 2-1/8" TRAPWAY.                                                             | AMERICAN STANDARD | 3451.001         |
|       | FLUSH VALVE: 1.28 GPF, POLISHED CHROME FINISH, FIXTURE CONNECTION TOP SPUD, SINGLE FLUSH, BATTERY, G2 EXPOSED SENSOR WATER CLOSET FLUSHOMETER.                                                                                      | SLOAN             | G2 8111-1.28     |
|       | SEAT: HEAVY WEIGHT AND INJECTION-MOLDED OF SOLID PLASTIC, OPEN FRONT LESS COVER FOR ELONGATED BOWL AND FEATURE EXCLUSIVE, FOUR LARGE MOLDED-IN BUMPERS, CONCEALED CHECK HINGES WITH STAINLESS STEEL POSTS.                          | CHURCH            | 295CT            |
| WC-2  | WATER CLOSET: ADA COMPLIANT, VITREOUS CHINA, FLOOR MOUNTED ELONGATED BOWL, 1-1/2" INLET TOP SPUD, LOW-CONSUMPTION 1.1-1.6 GPF, DIRECT-FED SIPHON JET ACTION, FULLY-GLAZED 2-1/8" TRAPWAY, 10"x12" WATER, SURFACE AREA.              | AMERICAN STANDARD | 3461.001         |
|       | FLUSH VALVE: 1.28 GPF, POLISHED CHROME FINISH, FIXTURE CONNECTION TOP SPUD, SINGLE FLUSH, BATTERY, G2 EXPOSED SENSOR WATER CLOSET FLUSHOMETER.                                                                                      | SLOAN             | G2 8111-1.28     |
|       | SEAT: HEAVY WEIGHT AND INJECTION-MOLDED OF SOLID PLASTIC, OPEN FRONT LESS COVER FOR ELONGATED BOWL AND FEATURE EXCLUSIVE, FOUR LARGE MOLDED-IN BUMPERS, CONCEALED CHECK HINGES WITH STAINLESS STEEL POSTS.                          | CHURCH            | 295CT            |
| UR-1  | URINAL: ADA, VITREOUS CHINA, WALL-MOUNTED, 3/4" INLET TOP SPUD, LOW CONSUMPTION 0.5 GPF + MOUNT FIXTURE 17" A.F.F.                                                                                                                  | AMERICAN STANDARD | 6590.001EC       |
|       | FLUSH VALVE: 0.5 GPF, POLISHED CHROME FINISH, FIXTURE CONNECTION TOP SPUD, SINGLE FLUSH, BATTERY, G2 EXPOSED SENSOR URINAL FLUSHOMETER.                                                                                             | SLOAN             | G2 8186-0.5      |
|       | CARRIER: ADJUSTABLE, FLOOR MOUNTED.                                                                                                                                                                                                 | ZURN              | Z1221            |
| LV-1  | LAVATORY: WALL HUNG, 20-1/2" X 18-1/4", VITREOUS CHINA, FRONT OVERFLOW, SELF-DRAINING DECK AREA WITH CONTOURED BACK AND SIDE SPLASH SHIELDS, FAUCET LEDGE, FAUCET HOLES ON 4" CENTERS.                                              | AMERICAN STANDARD | 0355.012         |
|       | FAUCET: MANUAL, SINGLE HOLE MOUNT LESS POP-UP, VANDAL RESISTANT CAST BRASS, POLISHED CHROME-PLATED FINISH, 0.5 GPM PRESSURE COMPENSATING AERATOR OUTLET.                                                                            | DELTA             | 22C651           |
|       | TRIM: SUPPLY PIPE WITH LOOSE KEY STOPS, CAST BRASS P-TRAP WITH CLEAN-OUT, DRAIN WITH CHROME PLATED CAST BRASS SOLID TOP, OPEN GRID, P.O. PLUG, CHROME PLATED BRASS 17 GAUGE TAILPIECE.                                              | MCGUIRE           | 165LK, 8902, 149 |
| LV-2  | LAVATORY: UNDERMOUNT, 19" X 15-3/8", VITREOUS CHINA, FRONT OVERFLOW.                                                                                                                                                                | AMERICAN STANDARD | 0497300.020      |
|       | FAUCET: MANUAL, SINGLE HOLE MOUNT LESS POP-UP, VANDAL RESISTANT CAST BRASS, POLISHED CHROME-PLATED FINISH, 0.5 GPM PRESSURE COMPENSATING AERATOR OUTLET.                                                                            | DELTA             | 22C651           |
|       | TRIM: SUPPLY PIPE WITH LOOSE KEY STOPS, CAST BRASS P-TRAP WITH CLEAN-OUT, DRAIN WITH CHROME PLATED CAST BRASS SOLID TOP, OPEN GRID, P.O. PLUG, CHROME PLATED BRASS 17 GAUGE TAILPIECE.                                              | MCGUIRE           | 165LK, 8902, 149 |
| MS-1  | MOP SINK: 24" SQUARE, MOLDED STONE MOP SERVICE BASIN, 10" DEEP, INTEGRAL DRAIN IS MOLDED INTO A ONE PIECE UNIT AND DESIGNED TO CONNECT TO A 3" DRAIN PIPE, INCLUDES 830AA FAUCET, 832AA HOSE AND BRACKET, 889CC MOP HANGER BRACKET. | FIAT              | MSBIDTG2424      |
| SH-1  | SHOWER: 48"W X 36"D X 78" TALL, ONE PIECE, ACRYLIC SHOWER MODULE, 2" THRESHOLD AND CENTER DRAIN, NO SEAT REQUIRED.                                                                                                                  | CLARION           | 4836BF           |
|       | SHOWER HEAD AND VALVE: METAL TRIM, IN-LINE VACUUM BREAKER, FIXED SHOWER HEAD AND DIVERTER VALVE.                                                                                                                                    | BRADLEY           | 1C-CS-D1-824-DV  |
| SK-1  | SINK: ADA, 33" x 22" x 6" DEEP, DUAL MOUNT - UNDERMOUNT & DROP IN, DOUBLE COMPARTMENT SINK, 304 STAINLESS STEEL, 18 GAUGE                                                                                                           | ELKAY             | ECTSRAD332260    |
|       | FAUCET: DECK MOUNTED, CHROME PLATED FINISH, SOLID BRASS BODY CONSTRUCTION, 1.8 GPM FLOW RATE, , SEMIPROFESSIONAL SPOUT, LEVER HANDLE.                                                                                               | ELKAY             | LKAIV2601CR      |
|       | DRAIN WITH NICKEL PLATED BRASS BODY WITH GRID STRAINER, POLISHED FINISH.                                                                                                                                                            | ELKAY             | LK35             |
|       | TRIM: SUPPLY PIPE WITH LOOSE KEY STOPS, CAST BRASS P-TRAP WITH CLEAN-OUT, P.O. PLUG, CHROME PLATED BRASS 17 GAUGE TAILPIECE.                                                                                                        | MCGUIRE           | 165LK, 8912      |
| SK-2  | FOOD WASTE DISPOSER: CONTINUOUS FEED, WITH 3/4 H.P. MOTOR, GALVANIZED STEEL GRINDING ELEMENTS WITH TWO STAINLESS STEEL 360 DEG SWIVEL LUIGS, SELF-SERVICE WRENCH.                                                                   | INSINKERATOR      | BGR 5XP          |
|       | SINK: 18-1/2" X 18-1/2" X 4-7/8" DEEP, ADA, 18 GAUGE, TYPE 304 STAINLESS STEEL, SATIN FINISH, DUAL MOUNT - UNDERMOUNT OR TOP MOUNT.                                                                                                 | ELKAY             | ELUHAD161650     |
|       | FAUCET: DECK MOUNTED, POLISHED CHROME PLATED FINISH, SOLID BRASS BODY CONSTRUCTION, 1.5 GPM FLOW RATE, , PULL-OUT SPOUT, LEVER HANDLE.                                                                                              | ELKAY             | LKD2443C         |
|       | DRAIN WITH NICKEL PLATED BRASS BODY WITH GRID STRAINER, POLISHED FINISH.                                                                                                                                                            | ELKAY             | LK35             |
| PF-1  | TRIM: SUPPLY PIPE WITH LOOSE KEY STOPS, CAST BRASS P-TRAP WITH CLEAN-OUT, P.O. PLUG, CHROME PLATED BRASS 17 GAUGE TAILPIECE.                                                                                                        | MCGUIRE           | 165LK, 8912      |
|       | WALL MOUNTED, SOLID BRASS POT FILLER, 4.0 GPM.                                                                                                                                                                                      | ELKAY             | LKEC2091         |
| EWC-1 | ELECTRIC WATER COOLER AND ELECTRONIC BOTTLE FILLER, FILTERED, REFRIGERATED, WALL MOUNTED                                                                                                                                            | OASIS             | PG8FEBF          |
| LT-1  | LAUNDRY TUB: SINGLE BOWL, LAUNDRY TUB WITH LEGS, 20" X 23-7/8", INCLUDES A1 CHROME PLATED FAUCET WITH 4" CENTERSET, 4" BLADE HANDLES, 6-3/4" SWING SPOUT, AERATOR AND HOSE ADAPTOR.                                                 | FIAT              | TAT1             |

WATER SOFTENER SCHEDULE

| TAG   | LOCATION | MAX. EXCHANGE CAP. (GRAINS) | MIN. EXCHANGE CAP. (GRAINS) | CONT. FLOW RATE (GPM) | PEAK FLOW RATE (GPM) | BACK WASH FLOW RATE (GPM) | CU.FT. OF RESIN PER TANK | SALT STORAGE (LBS) | PIPE SIZE | MANUFACTURER | MODEL #     | NOTES                      |
|-------|----------|-----------------------------|-----------------------------|-----------------------|----------------------|---------------------------|--------------------------|--------------------|-----------|--------------|-------------|----------------------------|
| DWS-1 | MEP #119 | 150,000                     | 120,000                     | 66                    | 85                   | 8                         | 5                        | 800                | 2"        | PURITAN      | CA19M-W52PW | RESIN TANK WITH BRINE TANK |

DRAIN SCHEDULE

| TAG  | FLOOR DRAIN DESCRIPTION                                                                                                      | MANUFACTURER | MODEL #     |
|------|------------------------------------------------------------------------------------------------------------------------------|--------------|-------------|
| FD-1 | FLOOR DRAIN: ADJUSTABLE CAST IRON BODY, ROUND NICKEL BRONZE STRAINER, CAULK OUTLET, SURESEAL INLINE FLOOR DRAIN TRAP SEALER. | J.R. SMITH   | 2005-Y02-NB |
| FD-2 | FLOOR DRAIN: CAST IRON BODY SIZE AS INDICATED ON DRAWINGS, DRAIN LOCATED BELOW ICE MAKER WITH LOW PROFILE FLOOD RIM.         | J.R. SMITH   | 2005-F37    |
| FD-3 | FLOOR DRAIN: ADJUSTABLE CAST IRON BODY, ROUND NICKEL WITH 4" FUNNEL.                                                         | J.R. SMITH   | 2041S       |

PUMP SCHEDULE

| TAG    | LOCATION     | ELECTRIC VOLT | PHASE | POWER      | GPM | FEET OF HEAD | MANUFACTURER  | MODEL #  | NOTES                                                             |
|--------|--------------|---------------|-------|------------|-----|--------------|---------------|----------|-------------------------------------------------------------------|
| HWRP-1 | LAUNDRY #121 | 120           | 1     | 270 WATTS  | 10  | 20           | BELL & GOSSET | NBF-36   | PART #103418LF, FLANGE CONNECTION 1" 5300 RPM                     |
| BP-1   | MEP #119     | 208           | 3     | (3) 5.5 HP | 75  | 60           | XYLEM         | MBX26569 | SET TO MIN. 50 PSI DISCHARGE PRESSURE, ADJUST IN FIELD AS NEEDED. |

GAS-FIRED DOMESTIC WATER HEATER SCHEDULE

| TAG   | ELECTRICAL VOLT | PHASE | LOAD (BTU/HR) | MINIMUM EFFICIENCY | GALLON CAPACITY | RECOVERY AT 100°F | EXHAUST SIZE | INTAKE SIZE | LOCATION NAME# | MANUFACTURER | MODEL #  | NOTES              |
|-------|-----------------|-------|---------------|--------------------|-----------------|-------------------|--------------|-------------|----------------|--------------|----------|--------------------|
| GWH-1 | 120             | 1     | 199900        | 95%                | -               | 3.9               | 4"           | 4"          | LAUNDRY #121   | NAVIENT      | NPE 240A | NEUTRALIZATION KIT |
| GWH-2 | 120             | 1     | 199900        | 95%                | -               | 3.9               | 4"           | 4"          | LAUNDRY #121   | NAVIENT      | NPE 240A | NEUTRALIZATION KIT |
| GWH-3 | 120             | 1     | 199900        | 95%                | -               | 3.9               | 4"           | 4"          | LAUNDRY #121   | NAVIENT      | NPE 240A | NEUTRALIZATION KIT |
| GWH-4 | 120             | 1     | 199900        | 95%                | -               | 3.9               | 4"           | 4"          | LAUNDRY #121   | NAVIENT      | NPE 240A | NEUTRALIZATION KIT |

PLUMBING EQUIPMENT SCHEDULE

| TAG   | DESCRIPTION      | MANUFACTURER / MODEL # / CAPACITY | ELECTRICAL REQUIREMENTS | REMARKS (SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS)                                         |
|-------|------------------|-----------------------------------|-------------------------|--------------------------------------------------------------------------------------------------|
| WH-1  | WALL HYDRANT     | J.R. SMITH # 5509-QT              | -                       | WHERE INDICATED ON PLUMBING DRAWINGS, MOUNT BOX IN EXTERIOR BRICK, MIN. OF 24" ABOVE FIN. GRADE. |
| HB-1  | HOSE BIBB        | J.R. SMITH # 5518                 | -                       | WALL MOUNTED BOX - MILD CLIMATE TYPE                                                             |
| DCV-1 | DUAL CHECK VALVE | WATTS # LFR                       | -                       | UNIT SHALL BE LINE SIZE                                                                          |

THERMOSTATIC MIXING VALVE SCHEDULE

| TAG   | MAXIMUM GPM | PRESSURE DROP (PSI) | COLD INLET SIZE | HOT INLET SIZE | MIXED OUTLET SIZE | MANUFACTURER | MODEL # | NOTES                              |
|-------|-------------|---------------------|-----------------|----------------|-------------------|--------------|---------|------------------------------------|
| TMV-1 | 85          | 20                  | 1-1/4"          | 1-1/4"         | 1-1/2"            | LAWLER       | 803     | SET DISCHARGE TEMPERATURE TO 130°F |
| TMV-2 | 7           | 20                  | 1/2"            | 1/2"           | 1/2"              | LAWLER       | 570     | SET DISCHARGE TEMPERATURE TO 105°F |

PLUMBING FIXTURE ROUGH-IN SCHEDULE

| FIXTURE | WASTE  | TRAP     | VENT   | COLD | HOT  |
|---------|--------|----------|--------|------|------|
| WC-1    | 4"     | INTEGRAL | 2"     | 1"   | --   |
| WC-2    | 4"     | INTEGRAL | 2"     | 1"   | --   |
| UR-1    | 2"     | INTEGRAL | 1-1/2" | 3/4" | --   |
| LV-1    | 1-1/2" | 1-1/4"   | 1-1/2" | 1/2" | 1/2" |
| MS-1    | 3"     | 3"       | 1-1/2" | 3/4" | 3/4" |
| EWC-1   | 1-1/2" | N/A      | 1-1/2" | 1/2" | --   |
| SH-1    | 2"     | 2"       | 1-1/2" | 1/2" | 1/2" |
| SK-1    | 2"     | 1-1/2"   | 1-1/2" | 1/2" | 1/2" |
| SK-2    | 1-1/2" | 1-1/2"   | 1-1/2" | 1/2" | 1/2" |
| LT-1    | 2"     | 2"       | 1-1/2" | 3/4" | 3/4" |

WATER HAMMER ARRESTOR SCHEDULE

| NOTES: CONTRACTOR TO VERIFY FIXTURE UNITS CONNECTED |                         |                 |
|-----------------------------------------------------|-------------------------|-----------------|
| POI SYMBOL                                          | FIXTURE UNITS CONNECTED | CONNECTION SIZE |
| A                                                   | 1-11                    | 1/2"            |
| B                                                   | 12-32                   | 3/4"            |
| C                                                   | 33-60                   | 1"              |
| D                                                   | 61-113                  | 1 1/2"          |
| E                                                   | 114-154                 | 1"              |
| F                                                   | 155-330                 | 1"              |

EXPANSION TANK SCHEDULE

| TAG  | TOTAL TANK VOLUME | LOCATION NAME# | INLET | ACCEPTANCE VOLUME | MANUFACTURER | MODEL # | NOTES                                                                                                            |
|------|-------------------|----------------|-------|-------------------|--------------|---------|------------------------------------------------------------------------------------------------------------------|
| ET-1 | 13                | MEP #119       | 3/4"  | 13                | WESSELS      | ET-13   | DOMESTIC WATER BOOSTER PUMP NEUMATIC TANK SUSPENDED FROM CEILING. SET TO MIN. 50 PSI. ADJUST IN FIELD AS NEEDED. |
| ET-2 | 13                | MEP #119       | 3/4"  | 13                | WESSELS      | FXA-50  |                                                                                                                  |

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BACK FLOW PREVENTOR SCHEDULE

| TAG   | SERVICE        | SIZE | TYPE                             | MANUFACTURER | MODEL #       | LOCATION    | NOTES                                                                                                                                             |
|-------|----------------|------|----------------------------------|--------------|---------------|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| BFP-1 | DOMESTIC WATER | 2"   | REDUCED PRESSURE ZONE ASSEMBLIES | WATTS        | SERIES LFP909 | MEP RM #119 | INSTALL WITH AIR GAP, ELBOWS, TEST COCKS AND NON-RISING STEM GATE VALVES. INSTALL PRESSURE GAUGES AT INLET AND OUTLET SIDE OF BACKFLOW PREVENTER. |

⚠

RQAW

DECM

KNOX COUNTY BOARD OF COMMISSIONERS

Knox Co. Emergency Op.

2830 E. ARC AVE  
VINCENNES, IN 47591

| # | Revision   | Date    |
|---|------------|---------|
| 1 | Addendum 1 | 5/30/25 |

Project #: 24-700-155-1

Designed By: K.I.

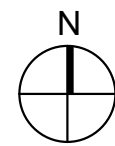
Drawn By: C.M./J.W.

Checked By: K.I.

Date: 05/16/2025



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PLUMBING SCHEDULES

P600

E

D

C

B

A

**DWS-1**  
SINGLE TANK  
MODEL NO. CA15M-WS2PW

RESIN TANK: 18" x 65" FIBERGLASS (QTY - 1)

BRINE TANK: 24" x 50" POLYETHYLENE PLASTIC (QTY - 1)

FILTER MEDIA: 8% CROSS-LINKED CATION SOTENING RESIN (5 CU. FT.)

CAPACITY: 150,000 GRAIN SOFTENING @ 75 LB SALTING PER REGENERATION  
135,000 GRAIN SOFTENING @ 60 LB SALTING PER REGENERATION  
120,000 GRAIN SOFTENING @ 50 LB SALTING PER REGENERATION

FLOW RATE: 66 GPM PER TANK @ 15 PSI DROP  
85 GPM PER TANK @ 25 PSI DROP

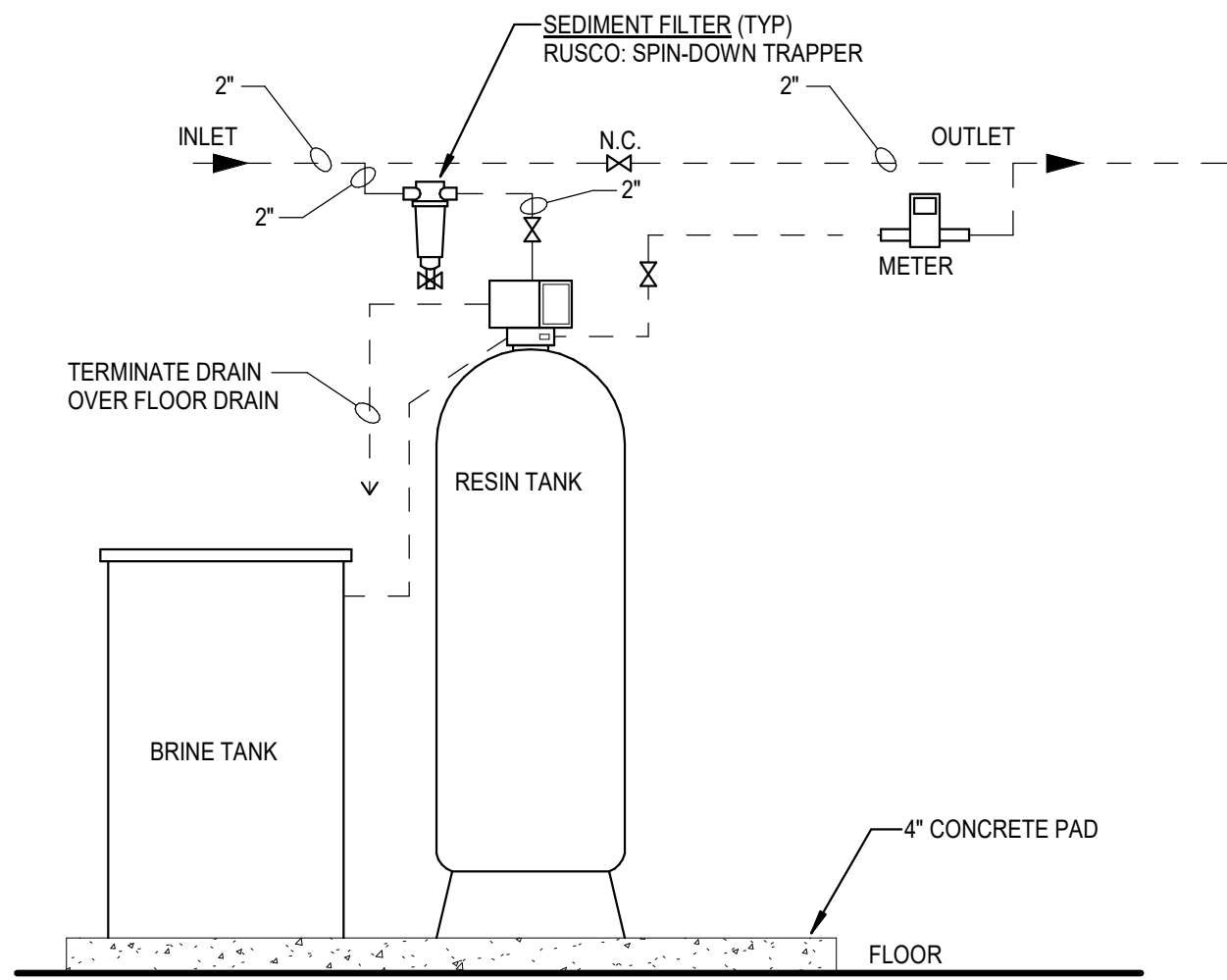
BACKWASH DRAIN RATE: 8 GPM

CONTROL HEAD: 2" INLET/OUTLET CONNECTIONS  
1" DRAIN CONNECTION

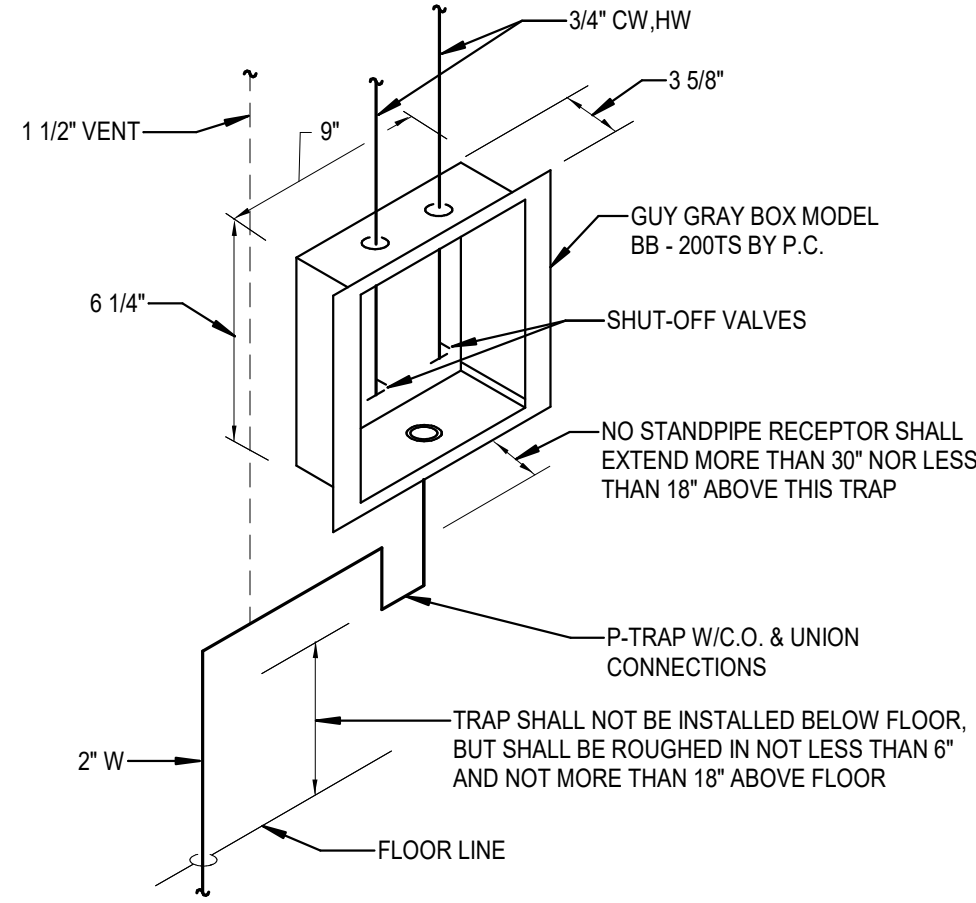
METER SIZE: 2"

BRINE TANK CAPACITY - 800 LBS

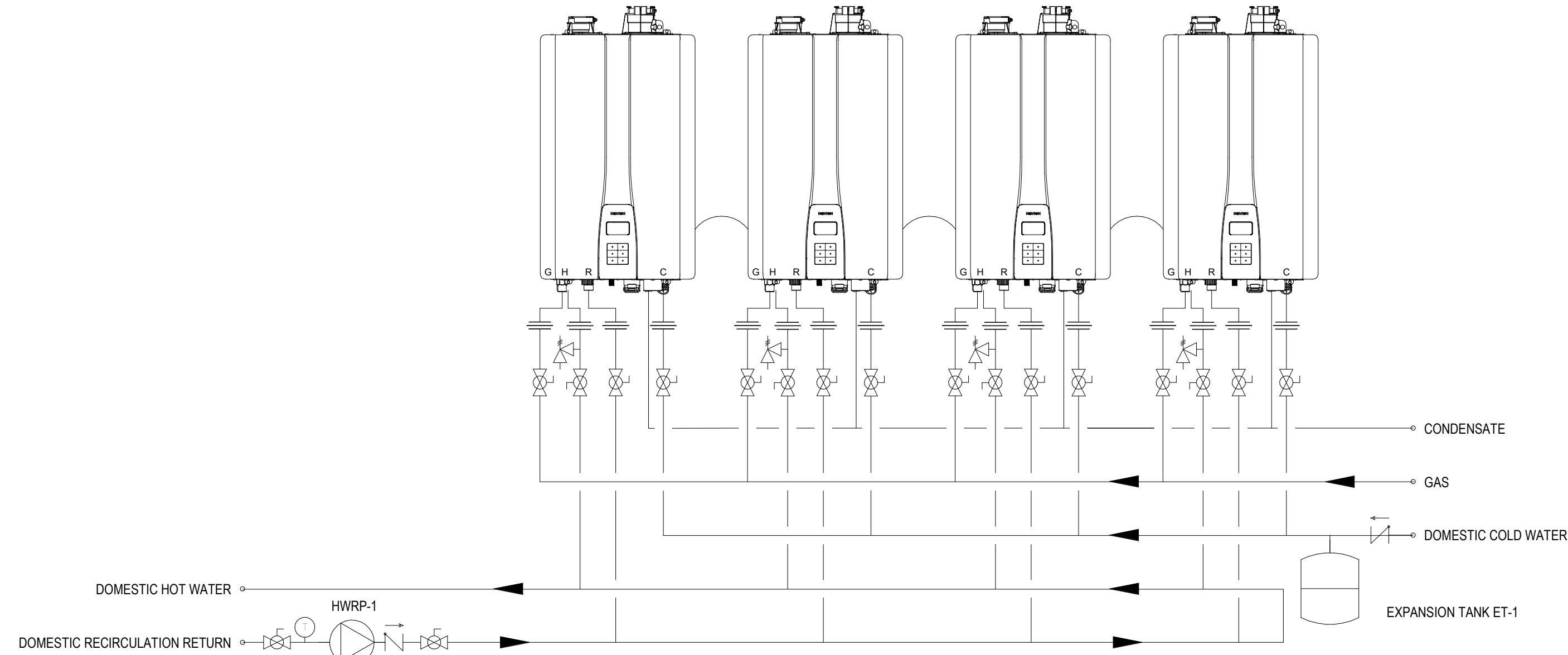
FLOOR SPACE: 42" X 24"



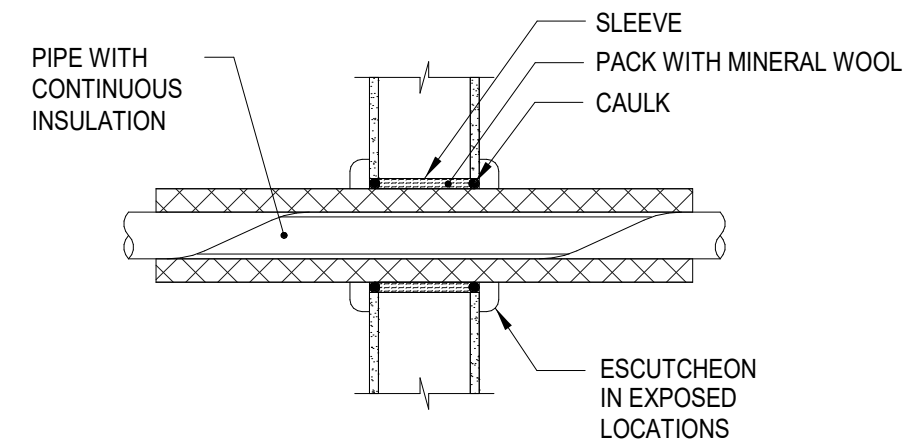
**1 WATER SOFTENER PIPING DIAGRAM**  
NOT TO SCALE



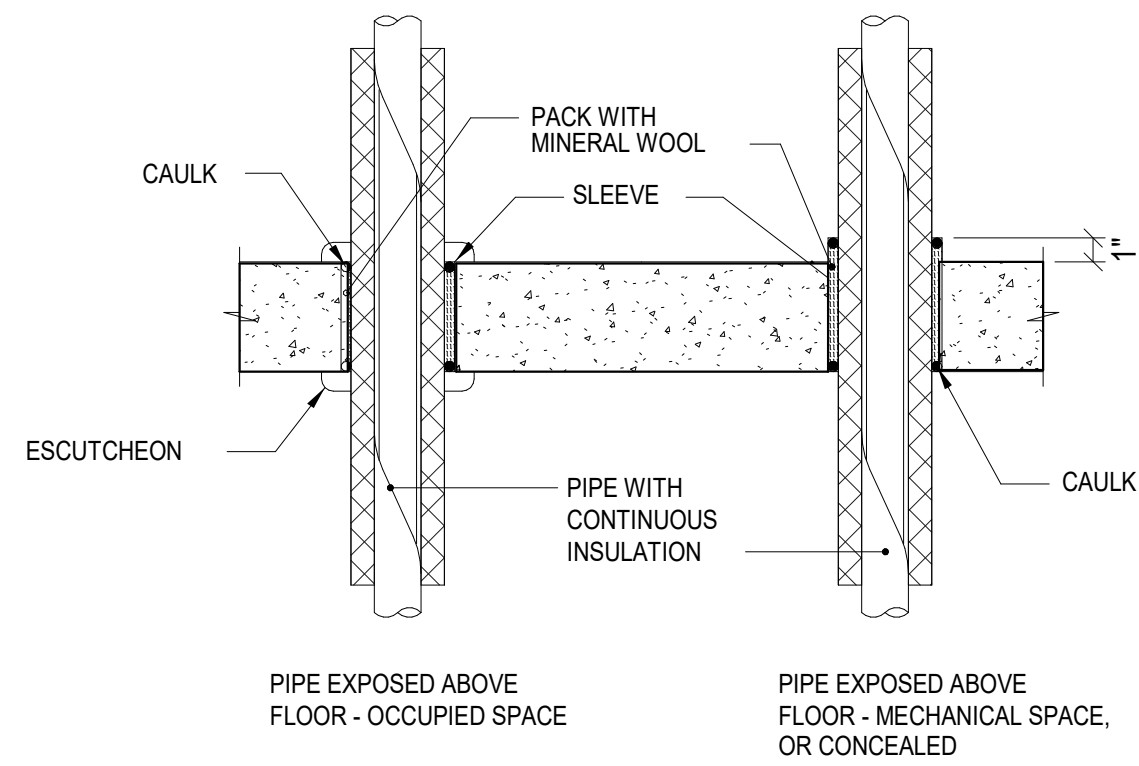
**2 DOMESTIC CLOTHES WASHER BOX DETAIL**  
NOT TO SCALE



**3 TANKLESS HOT WATER HEATER DETAIL**  
NOT TO SCALE

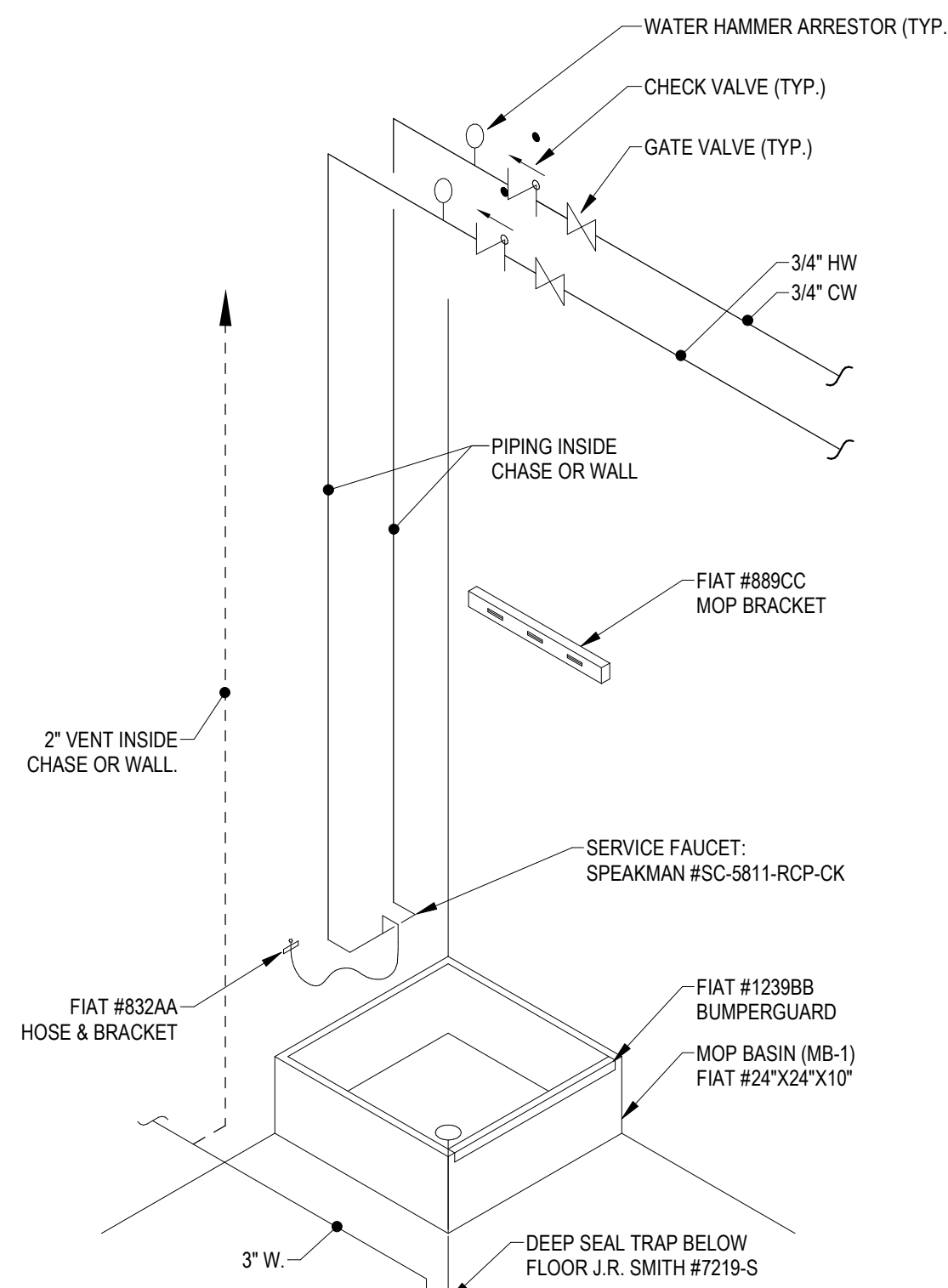


**PIPE THRU WALL**

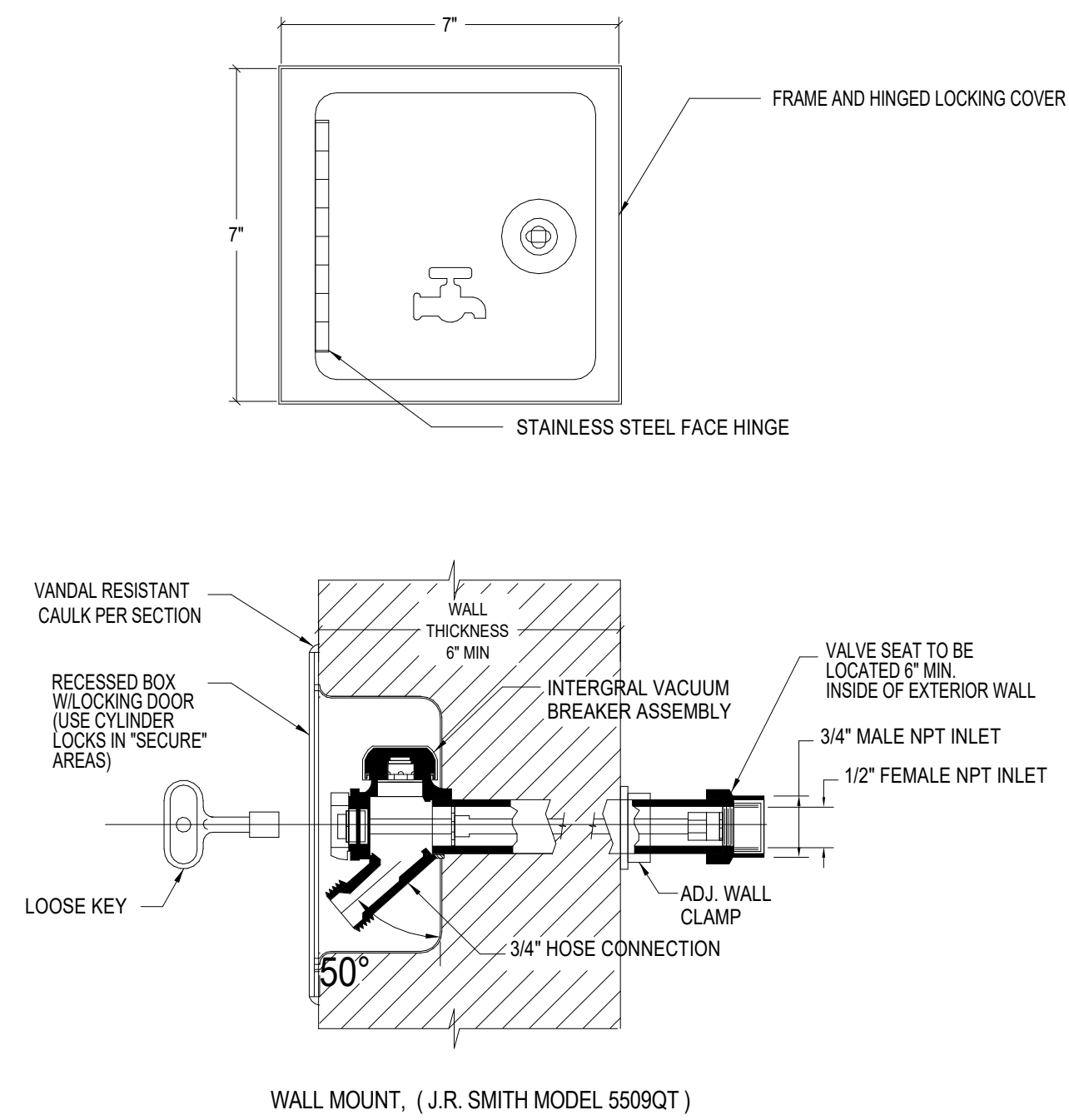


**PIPE THRU FLOOR**

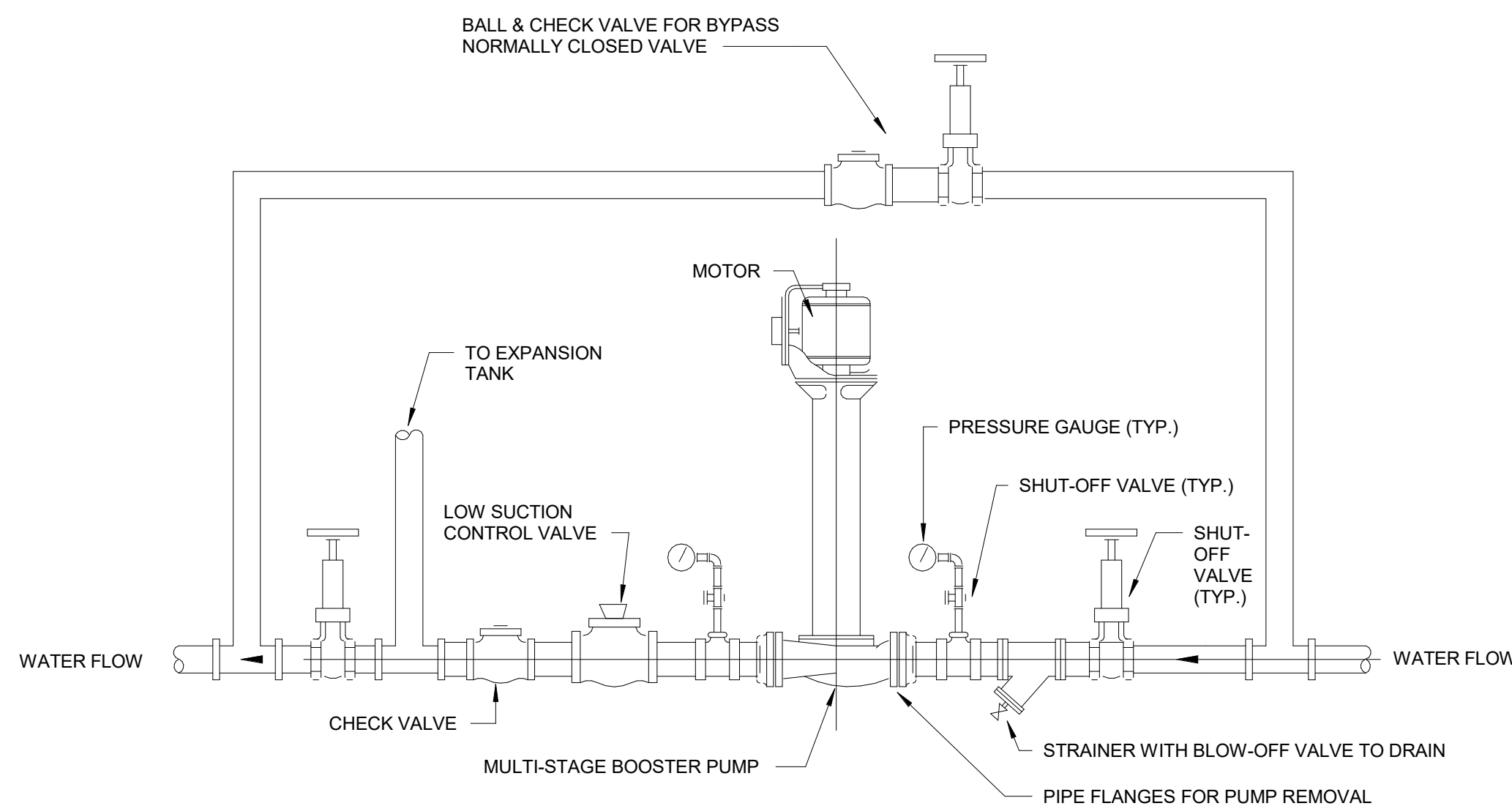
**4 PIPING THRU FLOOR DETAIL**  
NOT TO SCALE



**5 MOP SERVICE SINK DETAIL**  
NOT TO SCALE



**6 WALL HYDRANT DETAIL**  
NOT TO SCALE



**7 TYPICAL DOMESTIC WATER BOOSTER PUMP DETAIL**  
NOT TO SCALE

**RQAW**  
**DCCM**

E

D

C

B

A

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**Knox Co. Emergency Op.**  
2830 E. ARC AVE  
VINCENNES, IN 47591

| # | Revision   | Date    |
|---|------------|---------|
| 1 | Addendum 1 | 5/30/25 |

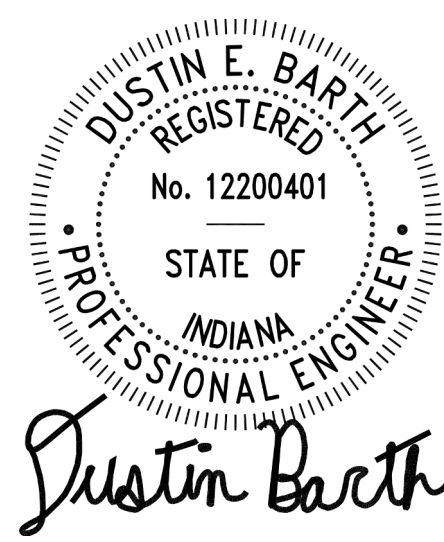
Project #: 24-700-155-1

Designed By: K.I.

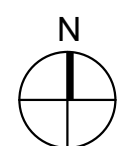
Drawn By: C.M./J.W.

Checked By: K.I.

Date: 05/16/2025



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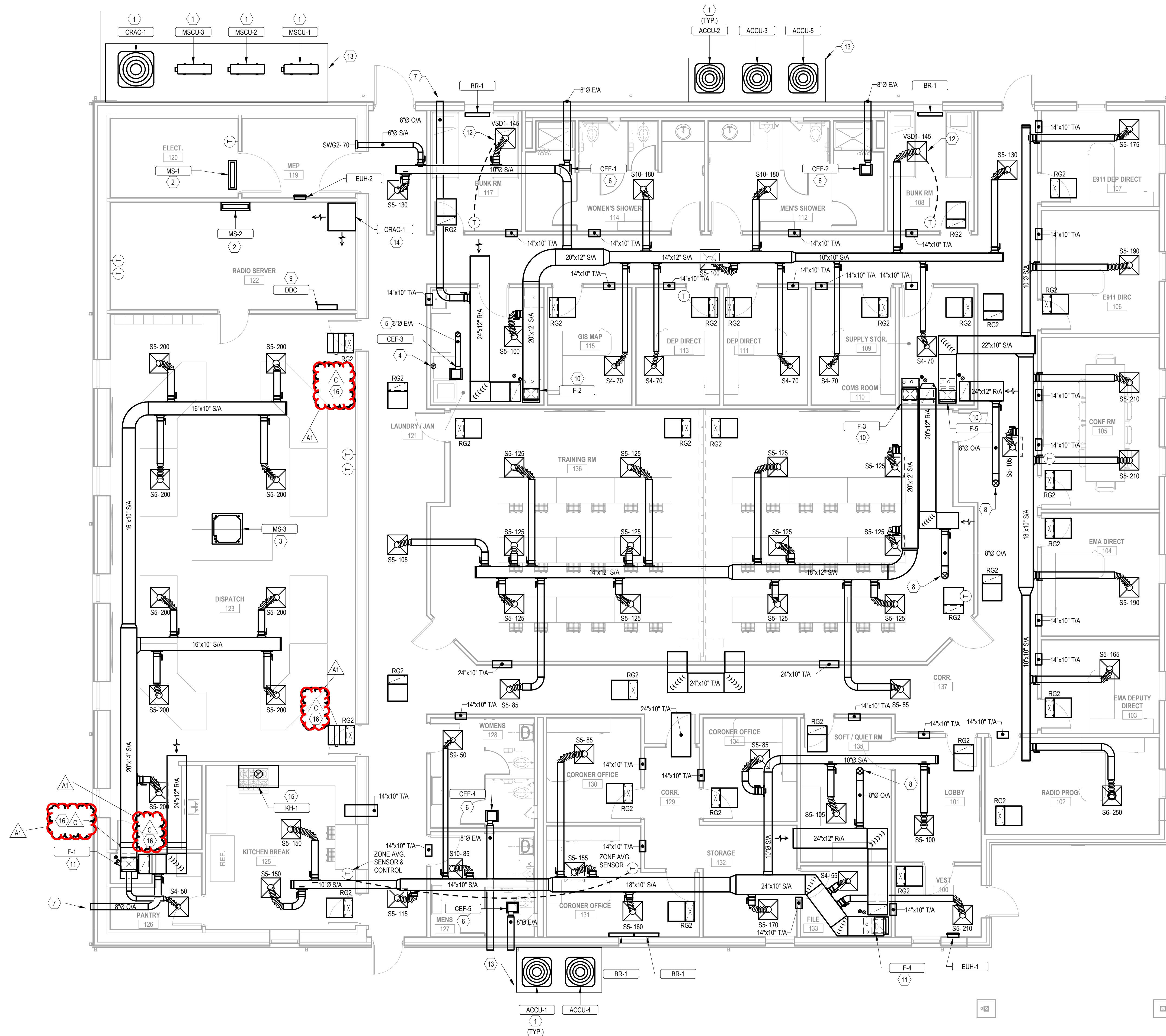
PLUMBING DETAILS

**P801**

- GENERAL NOTES:
- ALL DUCT DIMENSIONS GIVEN ARE INSIDE DIMENSIONED, UNLESS NOTED OTHERWISE.
  - COORDINATE ALL OPENINGS IN FLOORS, ROOF AND WALLS WITH THE GENERAL AND STRUCTURAL CONTRACTORS.
  - ALL SUPPLY AND RETURN DUCTS SHALL BE LOCATED BETWEEN DROP CEILING AND TRUSS BEARING LEVEL (WITHIN THE THERMAL ENVELOPE OF THE BUILDING).
  - PROVIDE HARD DUCT CONNECTIONS FOR RETURN AND EXHAUST SYSTEMS.
  - PROVIDE TURNING VANES IN ALL SQUARE THROATED ELBOWS.
  - ALL RECTANGULAR SUPPLY AIR BRANCH CONNECTIONS SHALL BE 45° TAKE-OFF FITTINGS AND ROUND SUPPLY AIR BRANCH CONNECTIONS SHALL BE BELLMOUTH FITTINGS.
  - REFER TO DIFFUSER SCHEDULE FOR DUCT RUNOUT SIZE UNLESS NOTED OTHERWISE. ALL FLEXIBLE DUCTS TO DIFFUSERS MAXIMUM LENGTH 5'-0". FLEXIBLE DUCTS ARE NOT TO BE USED AS ELBOWS.
  - ALL ABOVE FINISH FLOOR (A.F.F.) DIMENSIONS ARE TO BE MEASURED TO BOTTOM OF EQUIPMENT OR DUCTWORK UNLESS NOTED OTHERWISE.
  - PROVIDE CEILING RADIATION DAMPERS (CRD) FOR ALL DIFFUSERS/GRILLES LOCATED IN RATED CEILINGS. COORDINATE TYPE OF CRD REQUIRED WITH ARCHITECTURAL CONSTRUCTION TYPE AS SHOWN ON ARCHITECTURAL PLANS.
  - COORDINATE INSTALLATION OF OUTDOOR AIR INTAKES WITH OTHER TRADES. ALL INTAKES SHALL BE A MINIMUM OF 10'-0" AWAY FROM OTHER BUILDING EXHAUST OR VENTS.
  - ENSURE TRANSFER OPENINGS ARE PROVIDED IN ALL WALLS TO DECK AS REQUIRED TO ENSURE RETURN AIR PATH FOR ALL SPACES. AIR VELOCITY THROUGH OPENINGS SHALL BE 500 FPM MAXIMUM.

### PLAN NOTES

| #  | NOTE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1  | INSTALL OUTDOOR AC UNIT / HEAT PUMP ON PAD IN APPROXIMATE LOCATION SHOWN. ROUTE CONTROL POWER WIRING AND REFRIGERANT PIPING TO ASSOCIATED INDOOR UNIT. INSULATE ALL REFRIGERANT PIPING AND PROVIDE UV RESISTANT P.V.C. JACKET ON OUTDOOR PIPING.                                                                                                                                                                                                                                                                |
| 2  | INSTALL WALL MOUNTED MINISPLIT HIGH ON WALL IN APPROXIMATE LOCATION SHOWN. COORDINATE FINAL LOCATION WITH OWNER / ELECTRICAL EQUIPMENT. ROUTE PUMPED CONDENSATE TO FLOOR DRAIN IN MEP ROOM.                                                                                                                                                                                                                                                                                                                     |
| 3  | INSTALL MINISPLIT IN CEILING IN THE APPROXIMATE LOCATION SHOWN. COORDINATE FINAL LOCATION WITH OWNER / ELECTRICAL EQUIPMENT. ROUTE PUMPED CONDENSATE TO FLOOR DRAIN IN MEP ROOM.                                                                                                                                                                                                                                                                                                                                |
| 4  | ROUTE DRYER VENT THROUGH ROOF AND TERMINATE WITH WEATHERPROOF VENT CAP PER MANUFACTURER INSTRUCTIONS. COORDINATE FINAL SIZE WITH DRYER MANUFACTURER.                                                                                                                                                                                                                                                                                                                                                            |
| 5  | INSTALL EXHAUST FAN IN CEILING. ROUTE EXHAUST DUCT THROUGH ROOF AND TERMINATE WITH WEATHERPROOF VENT CAP WITH BACKDRAFT DAMPER AND BIRDSCREEN.                                                                                                                                                                                                                                                                                                                                                                  |
| 6  | INSTALL EXHAUST FAN IN CEILING. ROUTE EXHAUST DUCT THROUGH WALL AND TERMINATE WITH WEATHERPROOF VENT CAP WITH BACKDRAFT DAMPER AND BIRDSCREEN.                                                                                                                                                                                                                                                                                                                                                                  |
| 7  | ROUTE OUTSIDE AIR INTAKE DUCT THROUGH WALL AND TERMINATE WITH WEATHERPROOF VENT CAP WITH BACKDRAFT DAMPER AND BIRDSCREEN. BALANCE OUTSIDE AIR TO CFM SHOWN ON SCHEDULES.                                                                                                                                                                                                                                                                                                                                        |
| 8  | ROUTE OUTSIDE AIR DUCT UP TO GRAVITY HOOD ON ROOF. TRANSITION AS REQUIRED. BALANCE OUTSIDE AIR TO CFM SHOWN ON SCHEDULES.                                                                                                                                                                                                                                                                                                                                                                                       |
| 9  | INSTALL GAS CONTROL PANEL IN APPROXIMATE LOCATION SHOWN. COORDINATE 120V/1P POWER WITH EC.                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 10 | INSTALL FURNACE/FAN COIL UNIT ON 4" PAD OR EQUIPMENT STAND. ROUTE SUPPLY DUCTWORK INTO TOP OF UNIT AND RETURN DUCTWORK TO SIDE OF UNIT. TRANSITIONING AS REQUIRED. ROUTE COMBUSTION AIR AND FLUE DUCTS THROUGH ROOF PER MANUFACTURER RECOMMENDATIONS. ROUTE AC CONDENSATE TO FLOOR DRAIN.                                                                                                                                                                                                                       |
| 11 | INSTALL FURNACE/FAN COIL UNIT ON 4" PAD OR EQUIPMENT STAND. ROUTE SUPPLY DUCTWORK INTO TOP OF UNIT AND RETURN DUCTWORK TO SIDE OF UNIT. TRANSITIONING AS REQUIRED. ROUTE COMBUSTION AIR AND FLUE DUCTS THROUGH ROOF PER MANUFACTURER RECOMMENDATIONS. ROUTE AC CONDENSATE TO GRADE OUTSIDE.                                                                                                                                                                                                                     |
| 12 | PROVIDE VAV STYLE DIFFUSER TIED TO ROOM THERMOSTAT. SEE DIFFUSER SCHEDULE.                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 13 | PROVIDE 4" EQUIPMENT PAD EXTENDING TO BUILDING AND AT LEAST 6" BEYOND ALL EQUIPMENT EDGES. COORDINATE FINAL SIZE WITH SUBMITTED EQUIPMENT.                                                                                                                                                                                                                                                                                                                                                                      |
| 14 | INSTALL CRAC UNIT IN APPROXIMATE LOCATION SHOWN. COORDINATE FINAL LOCATION WITH OWNER / ELECTRICAL EQUIPMENT. ROUTE PUMPED CONDENSATE TO FLOOR DRAIN IN MEP ROOM.                                                                                                                                                                                                                                                                                                                                               |
| 15 | PROVIDE AND INSTALL 48" STAINLESS STEEL RESIDENTIAL STYLE KITCHEN HOOD ABOVE RANGE. HOOD TO BE 120V/1P 1500P. HOOD SHALL HAVE INTEGRAL FAN FOR ROOF EXHAUST AT A MAXIMUM OF 400 CFM AND SHALL BE VARIABLE SPEED. ROUTE EXHAUST DUCT UP THROUGH ROOF AND TERMINATE WITH WEATHERPROOF VENT CAP WITH BACKDRAFT DAMPER AND BIRDSCREEN. PROVIDE AND INSTALL LOW LEAKAGE MOTORIZED DAMPER. DAMPER TO BE 24" AND SHALL BE TIED TO ROOM CLEAN-AGENT FIRE PROTECTION SYSTEM. COORDINATE WITH FIRE PROTECTION CONTRACTOR. |
| 16 | PROVIDE AND INSTALL LOW LEAKAGE MOTORIZED DAMPER. DAMPER TO BE 24" AND SHALL BE TIED TO ROOM CLEAN-AGENT FIRE PROTECTION SYSTEM. COORDINATE WITH FIRE PROTECTION CONTRACTOR.                                                                                                                                                                                                                                                                                                                                    |



1 FIRST FLOOR DUCTWORK PLAN  
M210 3/16" = 1'-0"

KNOX COUNTY BOARD OF COMMISSIONERS  
Knox Co. Emergency Op.

| #  | Revision    | Date     |
|----|-------------|----------|
| A1 | Addendum #1 | 05/30/25 |

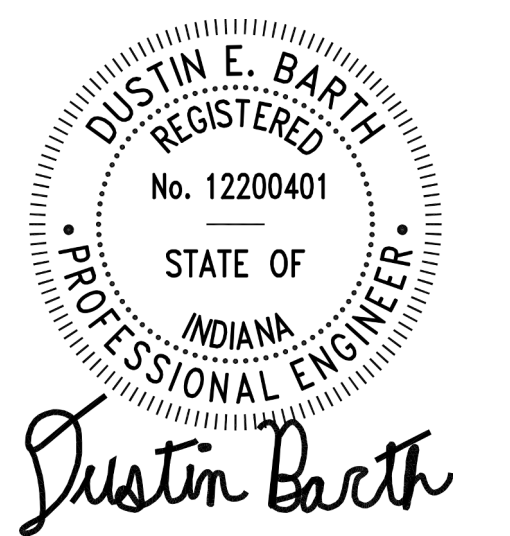
Project #: 24-700-155-1

Designed By: N.H.

Drawn By: N.H.

Checked By: D.B.

Date: 05/16/2025



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FIRST FLOOR  
MECHANICAL PLAN

M210

E

D

C

B

A

E

D

C

B

A

SPLIT AC / FURNACE SYSTEM SCHEDULE

REMARKS:

1. PROVIDE WITH 7-DAY PROGRAMMABLE THERMOSTATS.  
2. PROVIDE 24" TALL RETURN PLENUM STAND OR SIDE RETURN OPTION ON FURNACE.  
3. VERIFY REFRIGERANT LINE SIZING, ROUTING AND REQUIRED ACCESSORIES WITH MANUFACTURER FOR ACTUAL REFRIGERANT LINE LENGTH AND ELEVATION DIFFERENCES.  
4. VERTICAL/HORIZONTAL STYLE UNIT, ECM MOTOR, R-454B.  
5. PROVIDE AIR HANDLING UNIT WITH INTEGRAL CIRCUIT BREAKER/DISCONNECTION MEANS FOR SINGLE POINT POWER CONNECTION PROVIDED WITH UNIT. PROVIDE CONDENSING UNIT WITH MEANS FOR SEPARATE SINGLE POINT CONNECTION.

| MARK | MANUFACTURER | FURNACE MODEL NUMBER | NOMINAL TONNAGE | CFM  | OA CFM | EST ESP | COOLING COIL    |                   |             |            | FURNACE     |              |                                |        |                            |     |      | CONDENSING UNIT         |                 |                            |         |       |     |      | EMERGENCY POWER? | REMARKS  |
|------|--------------|----------------------|-----------------|------|--------|---------|-----------------|-------------------|-------------|------------|-------------|--------------|--------------------------------|--------|----------------------------|-----|------|-------------------------|-----------------|----------------------------|---------|-------|-----|------|------------------|----------|
|      |              |                      |                 |      |        |         | EVAP COIL MODEL | EAT DB/WB (DEG F) | TOTAL (MBH) | SENS (MBH) | INPUT (MBH) | OUTPUT (MBH) | MINIMUM FURNACE EFFICIENCY (%) | STAGES | ELECTRICAL CHARACTERISTICS | MCA | MOCP | COND. UNIT MODEL NUMBER | COND. UNIT MARK | ELECTRICAL CHARACTERISTICS | STAGES  | SEER2 | MCA | MOCP |                  |          |
| F-1  | TRANE        | S8X2C                | 5               | 1800 | 200    | 0.5     | 5TXC            | 78.8 / 65.6       | 54.8        | 39.7       | 100         | 80           | 80.0                           | 2.0    | 120 V /1PH                 | 14  | 15   | 5TTR7060                | AC-1            | 208 V/ 1PH                 | 2 STAGE | 17    | 35  | 60   | Y                | 1 THRU 5 |
| F-2  | TRANE        | S8X2C                | 4               | 1500 | 225    | 0.5     | 5TXC            | 78.8 / 65.6       | 46.7        | 35.9       | 80          | 64           | 80.0                           | 2.0    | 120 V /1PH                 | 14  | 15   | 5TTR7048                | AC-2            | 208 V/ 1PH                 | 2 STAGE | 17    | 28  | 45   | Y                | 1 THRU 5 |
| F-3  | TRANE        | S8X2C                | 5               | 1800 | 270    | 0.5     | 5TXC            | 78.8 / 65.6       | 54.8        | 39.7       | 100         | 80           | 80.0                           | 2.0    | 120 V /1PH                 | 14  | 15   | 5TTR7060                | AC-3            | 208 V/ 1PH                 | 2 STAGE | 17    | 35  | 60   | Y                | 1 THRU 5 |
| F-4  | TRANE        | S8X2C                | 5               | 1800 | 245    | 0.5     | 5TXC            | 78.8 / 65.6       | 54.8        | 39.7       | 100         | 80           | 80.0                           | 2.0    | 120 V /1PH                 | 14  | 15   | 5TTR7048                | AC-4            | 208 V/ 1PH                 | 2 STAGE | 17    | 35  | 60   | Y                | 1 THRU 5 |
| F-5  | TRANE        | S8X2C                | 4               | 1500 | 165    | 0.5     | 5TXC            | 78.8 / 65.6       | 46.7        | 35.9       | 80          | 64           | 80.0                           | 2.0    | 120 V /1PH                 | 14  | 15   | 5TTR7060                | AC-5            | 208 V/ 1PH                 | 2 STAGE | 17    | 28  | 45   | Y                | 1 THRU 5 |

CRAC SYSTEM SCHEDULE

REMARKS:

1. INDOOR UNIT TO BE DOWNFLOW FLOOR LEVEL DISCHARGE WITH TOP RETURN.  
2. INDOOR UNIT TO BE PROVIDED WITH DIGITAL SCROLL COMPRESSOR, 2-STAGE ELECTRIC REHEAT, EC FAN, AND AN INFRARED HUMIDIFIER.  
3. VERIFY REFRIGERANT LINE SIZING, ROUTING AND REQUIRED ACCESSORIES WITH MANUFACTURER FOR ACTUAL REFRIGERANT LINE LENGTH AND ELEVATION DIFFERENCES.  
4. PROVIDE CONTROLS PACKAGE INCLUDING DIGITAL DISPLAY WITHIN ROOM. UNIT SHALL BE CAPABLE OF BAS CONNECTIVITY VIA BACNET IP.  
5. MANUFACTURER TO PROVIDE LOCKING DISCONNECT FOR BOTH INDOOR AND OUTDOOR UNITS.

| MARK   | MANUFACTURER | INDOOR UNIT       |      |     |           |                    |                         |                        |                               |                                     |        | OUTDOOR CONDENSING UNIT    |      |      |                |                            |     |      | EMERGENCY POWER? | REMARKS  |
|--------|--------------|-------------------|------|-----|-----------|--------------------|-------------------------|------------------------|-------------------------------|-------------------------------------|--------|----------------------------|------|------|----------------|----------------------------|-----|------|------------------|----------|
|        |              | INDOOR UNIT MODEL | CFM  | ESP | EC FAN HP | EAT DB/%RH (DEG F) | TOTAL COOLING CAP (MBH) | SENS COOLING CAP (MBH) | ELECTRIC REHEAT CAPACITY (KW) | INFRARED HUMIDIFIER CAPACITY (LBHR) | FILTER | ELECTRICAL CHARACTERISTICS | FLA  | MOCP | OUTDOOR MODEL  | ELECTRICAL CHARACTERISTICS | FLA | MOCP |                  |          |
| CRAC-1 | LIEBERT      | PX0182A1C8064W    | 2800 | 0   | 4.15      | 75 / 40%           | 61.7                    | 55.1                   | 12                            | 7.7                                 | MERV-8 | 208V / 3P                  | 67.5 | 90   | MSC028E1YD080S | 208V / 3P                  | 3   | 15   | Y                | 1 THRU 5 |

EXHAUST FAN SCHEDULE

1. PROVIDE WITH WEATHERPROOF ROOF/WALL CAP (SEE PLANS) WITH BACKRAFT DAMPER AND BIRD SCREEN.  
2. EXHAUST FAN OPERATION TO BE TIED TO ROOM LIGHT SWITCH.

| MARK  | SERVICE     | CFM | ESP (IN-WG) | FAN RPM | MOTOR |      |                 | EMERGENCY POWER | ACCESS DOOR | BELT DRIVE | BIRD SCREEN | GRAVITY BOO | MOTORIZED DAMPER | VIBRATION ISOLATORS | UNIT MTD. DISC. SW | DESIGN REFERENCE |           | REMARKS |
|-------|-------------|-----|-------------|---------|-------|------|-----------------|-----------------|-------------|------------|-------------|-------------|------------------|---------------------|--------------------|------------------|-----------|---------|
|       |             |     |             |         | HP    | BHP  | VOLTS/PHASE/RTZ |                 |             |            |             |             |                  |                     |                    | MANUFACTURER     | MODEL NO. |         |
| CEF-1 | Exhaust Fan | 210 | 0.30        | 1000    | 0.03  | 0.03 | 115/160         | No              | No          | No         | Yes         | Yes         | No               | No                  | Yes                | GREENHECK        | SP-A250   | 1.2     |
| CEF-2 | Exhaust Fan | 210 | 0.30        | 1000    | 0.03  | 0.03 | 115/160         | No              | No          | No         | Yes         | Yes         | No               | No                  | Yes                | GREENHECK        | SP-A250   | 1.2     |
| CEF-3 | Exhaust Fan | 140 | 0.30        | 1050    | 0.07  | 0.07 | 115/160         | No              | No          | No         | Yes         | Yes         | No               | No                  | Yes                | GREENHECK        | SP-B150   | 1.2     |
| CEF-4 | Exhaust Fan | 140 | 0.30        | 1050    | 0.07  | 0.07 | 115/160         | No              | No          | No         | Yes         | Yes         | No               | No                  | Yes                | GREENHECK        | SP-B150   | 1.2     |
| CEF-5 | Exhaust Fan | 140 | 0.30        | 1050    | 0.07  | 0.07 | 115/160         | No              | No          | No         | Yes         | Yes         | No               | No                  | Yes                | GREENHECK        | SP-B150   | 1.2     |

DX SPLIT

REMARKS:

1. PROVIDE WIRELESS REMOTE CONTROLLER KIT FOR EACH INDOOR UNIT.  
2. OUTDOOR UNIT SHALL BE RATED FOR LOW AMBIENT CONTROL DOWN TO -5 F. PROVIDE RATED CAPACITIES AS LISTED FOR COOLING AT 47F AND HEATING AT 17F.  
3. PROVIDE INDOOR UNITS WITH INTEGRAL CONDENSATE PUMP AND ALARM. FOR HIGH WALL STYLE UNITS PROVIDE CONDENSATE PUMP SIMILAR TO REFCO G08B II.  
4. CONTRACTOR SHALL SIZE ALL REFRIGERANT PIPING SO AS NOT TO REDUCE RATED CAPACITY. SUBMIT REFRIGERANT PIPING DETAIL WITH SUBMITTAL.  
5. INDOOR UNITS SHALL BE POWERED THROUGH OUTDOOR UNIT.  
6. MOUNT OUTDOOR UNITS ON 16" STAND FOR GRADE MOUNTED UNITS.  
7. TCC TO PROVIDE TEMPERATURE SENSOR IN ELECTRICAL / IT ROOM WITH ASSOCIATED BAS POINT FOR MONITORING ONLY.

| MARK   | MANUFACTURER | INDOOR UNIT |                 |         |                     |  | OUTDOOR UNIT |                 |           |      |     |      |          |     |  |  | EMERGENCY POWER | REMARKS  |
|--------|--------------|-------------|-----------------|---------|---------------------|--|--------------|-----------------|-----------|------|-----|------|----------|-----|--|--|-----------------|----------|
|        |              | MARK        | MODEL           | MAX CFM | COOLING/HEATING MBH |  | MARK         | MODEL           | SEER/EEER | HSPF | MCA | MOCP | VOLTS/PH |     |  |  |                 |          |
| MSCU-1 | TRANE        | MS-1        | TPKA0A0361KA80A | 1000    | 36/35               |  | MSCU-1       | TRUZH0361KA00NA | 18.7/12.3 | 9    | 24  | 35   | 2081     | Yes |  |  | Yes             | 1 THRU 7 |
| MSCU-2 | TRANE        | MS-2        | TPKA0A0361KA80A | 1000    | 36/35               |  | MSCU-2       | TRUZH0361KA00NA | 18.7/12.3 | 9    | 24  | 35   | 2081     | Yes |  |  | Yes             | 1 THRU 7 |
| MSCU-3 | TRANE        | MS-3        | TPLA0A0421EA80A | 1200    | 42/42               |  | MSCU-3       | TRUZH0421KA10NA | 17.0/10.6 | 9.5  | 36  | 60   | 2081     | Yes |  |  | Yes             | 1 THRU 7 |

DIFFUSER / GRILLE SCHEDULE

REMARKS:

1. BRANCH DUCTWORK TO THE DIFFUSER SHALL BE THE SAME SIZE AS THE NECK UNLESS OTHERWISE NOTED.  
2. PROVIDE FRAME STYLE APPROPRIATE FOR CEILING TYPE (I.E. LAY IN, SURFACE MOUNT).  
3. PROVIDE PLENUM RETURN GRILLES WITH DUCTED SOUND BOOT.  
4. VAV SUPPLY DIFFUSER. PROVIDE WITH WALL THERMOSTAT, AND INTEGRAL 120V -> 24V TRANSFORMER FOR DAMPER POWER.  
5. STAINLESS STEEL PERFORATED SUPPLY PLENUM. INSULATE ENTIRE PLENUM.

| TAG  | NECK SIZE | FACE LENGTH | FACE WIDTH | MATERIAL | FINISH | MAX NC | MAX THROW (FT) | MAX TOTAL APD (IN WG) | MANUFACTURER | MODEL        | NOTES |
|------|-----------|-------------|------------|----------|--------|--------|----------------|-----------------------|--------------|--------------|-------|
| RG2  | 24"x10"   | 24"         | 10"        | ALUMINUM | WHITE  | 20     | 12             | 0.05                  | PRICE        | EGG GRATE 80 | 3     |
| S4   | 8"Ø       | 24"         | 24"        | STEEL    | WHITE  | 15     | 6              | 0.05                  | PRICE        | SPD          | 1.2   |
| S5   | 8"Ø       | 24"         | 24"        | STEEL    | WHITE  | 15     | 6              | 0.05                  | PRICE        | SPD          | 1.2   |
| S6   | 10"Ø      | 24"         | 24"        | STEEL    | WHITE  | 20     | 10             | 0.09                  | PRICE        | SPD          | 1.2   |
| S9   | 8"Ø       | 24"         | 24"        | ALUMINUM | WHITE  | 15     | 6              | 0.05                  | PRICE        | ASPD         | 1.2   |
| S10  | 8"Ø       | 24"         | 24"        | ALUMINUM | WHITE  | 15     | 6              | 0.05                  | PRICE        | ASPD         | 1.2   |
| SW52 | 10"x4"    | 10"         | 4"         | ALUMINUM | WHITE  | 20     | 12             | 0.05                  | PRICE        | 600          | 1.2   |
| VSD1 | 8"Ø       | 24"         | 24"        | STEEL    | WHITE  | 15     | 6              | 0.05                  | PRICE        | PPD          | 4     |

ELECTRIC BASEBOARD HEATER SCHEDULE

| MARK | MANUFACTURER | MODEL      | LENGTH | WATTS | QUANTITY | AMPS | VOLTS / PHASE / HZ | REMARKS  |
|------|--------------|------------|--------|-------|----------|------|--------------------|----------|
| BR-1 | QMARK        | QMCK25126W | 30"    | 500.0 | 4        | 4.2  | 115 / 1 / 60       | 1 THRU 2 |

REMARKS:

1. PROVIDE UNIT MOUNTED THERMOSTAT  
2. PROVIDE CUSTOM COLOR AS SELECTED BY ARCHITECT.

ELECTRIC UNIT HEATER SCHEDULE

REMARKS:

1. PROVIDE UNIT MOUNTED THERMOSTAT.  
2. PROVIDE FACTORY MOUNTED DISCONNECT.  
3. PROVIDE SURFACE MOUNT TRIM.

| MARK  | MANUFACTURER | MODEL NO. | HEATING COIL CAPACITY | POWER  | FLA  | VOLT  | PH | REMARKS |
|-------|--------------|-----------|-----------------------|--------|------|-------|----|---------|
| EUH-1 | BERKO        | SRA       | 5118 Blu/h            | 1.5 kW | 13 A | 120 V | 1  | 1.2,3   |
| EUH-2 | BERKO        | SRA       | 5118 Blu/h            | 1.5 kW | 13 A | 120 V | 1  | 1.2,3   |

BAS CONTROL SYSTEM REQUIREMENTS:

- BUILDING CONTROL SYSTEM SCOPE SHALL BE LIMITED TO MONITORING AND ALARMING ONLY. THE ALARMING AND MONITORING SHALL BE INTEGRATED INTO THE COUNTY'S EXISTING AUTOMATED LOGIC BAS SYSTEM. INTEGRATION OF NEW MONITORING/ALARM POINTS SHALL BE AUTOMATED LOGIC BY EMCOR SERVICES. THE POINTS TO BE INTEGRATED INTO THE EXISTING COUNTY SYSTEM ARE LISTED BELOW:
  - SERVER ROOM TEMPERATURE (ANALOG)
  - SERVER ROOM HUMIDITY (ANALOG)
  - DISPATCH ROOM TEMPERATURE (ANALOG)
  - SERVER ROOM CRAC UNIT IN ALARM (DIGITAL T/F)
- BAS SYSTEM SHALL BE CAPABLE OF SENDING ALARM NOTIFICATIONS BY AT MINIMUM, TEXT AND EMAIL. COORDINATE WITH OWNER FOR SETTING UP ALARM NOTIFICATIONS. AT MINIMUM, NOTIFICATIONS SHALL BE SENT FOR SERVER ROOM AND DISPATCH ROOM TEMPERATURE ALARMS WITH ADDITIONAL ALARM NOTIFICATIONS SENT AS REQUESTED BY OWNER.

STANDALONE EQUIPMENT CONTROLS SEQUENCES

EXHAUST FAN SEQUENCE OF OPERATION:

- EXHAUST FANS SHALL ENABLE WHEN ROOM LIGHT SWITCH / OCCUPANCY SENSOR IS ON.

FURNACE/SPLIT AC SYSTEM SEQUENCE OF OPERATION:

- FURNACES TO BE PROVIDED WITH 7-DAY PROGRAMMABLE THERMOSTATS.
- FURNACES SHALL STAGE HEATING AND COOLING AS REQUIRED TO MAINTAIN SPACE TEMPERATURE SETPOINT.
- SUPPLY FANS SHALL OPERATE AT CONSTANT VOLUME DURING OCCUPIED HOURS AT ALL TIMES TO PROVIDE POSITIVE MECHANICAL VENTILATION.

CRAC UNIT SEQUENCE OF OPERATION:

- CRAC UNIT TO BE PROVIDED WITH STANDALONE MANUFACTURER CONTROLS INTERFACE.
- CRAC UNIT SHALL MODULATE COOLING, HEATING, ELECTRIC REHEAT, AND HUMIDIFIER OPERATION TO MAINTAIN ROOM SETPOINT AT 74 DEG 45% RH (ADJ).

BACKUP SERVER ROOM MINI SPLIT:

- SPLIT SYSTEM ROOM TEMPERATURE SETPOINT SHALL BE SET 2 DEG (ADJ) HIGHER THAN THE ROOM SETPOINT OF THE ASSOCIATED MAIN CRAC SYSTEM SUCH THAT BACKUP MINISPLIT SYSTEM ONLY OPERATES AT TIMES OF PEAK LOAD OR AS A BACKUP UPON MAIN SYSTEM FAILURE.
- SYSTEM SHALL MODULATE COOLING/HEATING AS REQUIRED TO MAINTAIN ROOM SETPOINT.

BACKUP DISPATCH ROOM MINI-SPLIT AC SYSTEM:

- SPLIT SYSTEM ROOM TEMPERATURE SETPOINT SHALL BE SET 2 DEG (ADJ) HIGHER THAN THE ROOM SETPOINT OF THE ASSOCIATED MAIN AC SYSTEM SUCH THAT BACKUP MINISPLIT SYSTEM ONLY OPERATES AT TIMES OF PEAK LOAD OR AS A BACKUP UPON MAIN SYSTEM FAILURE.
- SYSTEM SHALL MODULATE COOLING/HEATING AS REQUIRED TO MAINTAIN ROOM SETPOINT.

CLEAN AGENT FIRE PROTECTION HVAC SHUTDOWN SEQUENCE:

- SYSTEMS SERVING CLEAN AGENT SYSTEMS SHALL SHUT DOWN UPON DETECTION OF FIRE IN THE SERVER ROOM AND DISPATCH ROOM. (F-1, MS-2, MS-3, CRAC-1).
- UPON POSITIVE SHUTDOWN OF HVAC EQUIPMENT, MOTORIZED DAMPERS IN DUCTWORK SHALL CLOSE TO SEAL ROOM FOR ACTIVATION OF CLEAN AGENT SYSTEM (APPLIES ONLY TO F-1).
- COORDINATE REQUIRMENTS AND INSTALL WITH CLEAN AGENT SYSTEM PROVIDER.

RQAW

DCCM

KNOX COUNTY BOARD OF COMMISSIONERS

Knox Co. Emergency Op.

2830 E. ARC AVE  
VINCENNES, IN 47591

| #  | Revision    | Date     |
|----|-------------|----------|
| A1 | Addendum #1 | 05/30/25 |

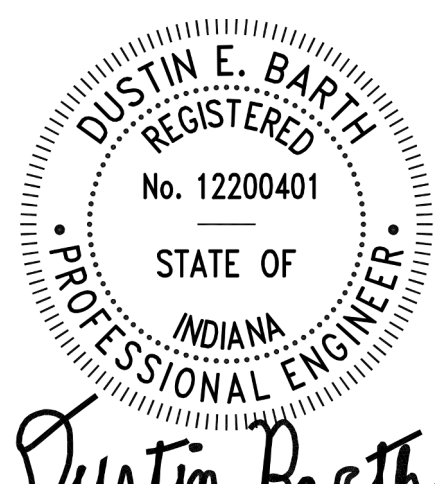
Project #: 24-700-155-1

Designed By: N.H.

Drawn By: N.H.

Checked By: D.B.

Date: 05/16/2025

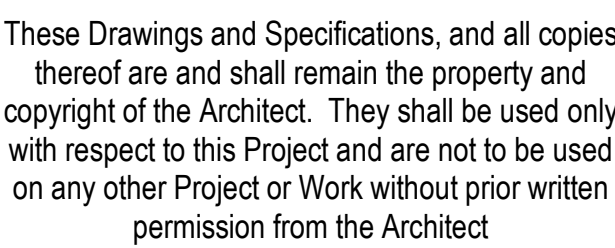


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MECHANICAL  
SCHEDULES AND  
CONTROLS

M600

|                         |
|-------------------------|
| Project #: 24-700-155-1 |
| Designed By: JAF        |
| Drawn By: JAF           |
| Checked By: DB          |
| Date: 05/16/2025        |



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## GENERAL NOTES - POWER:

- A. REFER TO SHEET E-001 FOR ELECTRICAL SYMBOLS AND ADDITIONAL GENERAL NOTES.
- B. REFER TO MECHANICAL AND PLUMBING SERIES DRAWINGS FOR ADDITIONAL SCOPE OF WORK.
- C. REFER TO SPECIFICATION SECTION 260519 FOR MINIMUM CONDUCTOR SIZE REQUIRED BASED ON THE TOTAL CIRCUIT DISTANCE.
- D. ALL RECEPTACLES LOCATED WITHIN 6 FEET OF A SINK SHALL BE GFCI TYPE. ALL RECEPTACLES MAY NOT BE IDENTIFIED AS GFCI ON PLAN, BUT SHALL BE PROVIDED ACCORDING TO REQUIREMENT.
- E. ALL SPECIAL TYPE RECEPTACLES SHALL BE NEMA 6-20R UNLESS NOTED OTHERWISE AND SHALL BE CIRCUITED WITH (2) #10 + (1) #10 NEUTRAL + (1) #10 GROUND. COORDINATE REQUIREMENTS WITH OWNER SUPPLIED EQUIPMENT PRIOR TO INSTALLATION.
- F. REFER TO ARCHITECTURAL SCHEDULES, DETAILS, AND ELEVATIONS FOR ADDITIONAL INFORMATION ON DEVICE LOCATIONS PRIOR TO INSTALLATION.
- G. UNLESS NOTED OTHERWISE, ALL NEW DEVICES SHALL BE INSTALLED FLUSH IN WALL.
- H. CIRCUIT NUMBERS AT DEVICES CORRESPOND TO PANELBOARD BREAKERS, REFER TO PANELBOARD SCHEDULES FOR ADDITIONAL INFORMATION.

## GENERAL NOTES - COPS:

- A. ELECTRICAL POWER SYSTEM SHALL BE PROVIDED AS A CRITICAL OPERATIONS POWER SYSTEM AND PROVIDED AND INSTALLED AS PER NEC 708 REQUIREMENTS.

## PLAN NOTES

| #  | NOTE                                                                                                                                                                                                                                                                                   |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1  | PROVIDE (1) QUAD RECEPTACLE PER BADGEPASS CONTROL PANEL. COORDINATE EXACT LOCATIONS AND MOUNTING HEIGHTS WITH BADGEPASS PRIOR TO INSTALLATION.                                                                                                                                         |
| 2  | CONNECT COMPLETE DISPATCH CONSOLES VIA CIRCUITS INDICATED. CONSOLE POWER POLES PROVIDED BY CONSOLE MANUFACTURE. EACH SHALL INCLUDE A POWERING JUNCTION BOX FOR EC CIRCUIT CONNECTIONS. COORDINATE EXACT LOCATIONS WITH CONSOLE MANUFACTURER.                                           |
| 3  | PROVIDE NEMA 3R 208V, 2P-20A FUSIBLE DISCONNECT. FUSE AS PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE ADDITIONAL SUPPORT STRUCTURE AS REQUIRED.                                                                                                                                         |
| 4  | CONNECT COMPLETE VIA CIRCUIT INDICATED. DISCONNECT PROVIDED BY EQUIPMENT MANUFACTURER. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH EQUIPMENT MANUFACTURER PRIOR TO INSTALLATION. PROVIDE ALL INTERNAL INTERCONNECTIONS AS REQUIRED.                                                |
| 5  | EC SHALL PROVIDE DISCONNECT AND ALL ELECTRICAL INTERCONNECTIONS BETWEEN INDOOR AND OUTDOOR UNIT AS REQUIRED.                                                                                                                                                                           |
| 6  | RECEPTACLE / CIRCUIT CONNECTION TO DISHWASHER. VERIFY EXACT LOCATION AND REQUIREMENTS PRIOR TO INSTALLATION.                                                                                                                                                                           |
| 7  | RECEPTACLE TO BE FLUSH MOUNTED OR OTHERWISE AS REQUIRED TO ALLOW BACK OF RANGE TO BE PLACED FLUSH AGAINST WALL BEHIND THE RANGE. INSTALL RANGE RECEPTACLE IN LOCATION AND ORIENTATION AS REQUIRED BY AND IN ACCORDANCE WITH THE SUPPLIED RANGE MANUFACTURER INSTALLATION INSTRUCTIONS. |
| 8  | RECEPTACLE / CIRCUIT CONNECTION TO MICROWAVE. VERIFY EXACT LOCATION AND MOUNTING HEIGHT PRIOR TO INSTALLATION.                                                                                                                                                                         |
| 9  | RECEPTACLE / CIRCUIT CONNECTION INSIDE BASE CABINET BELOW SINK FOR GARBAGE DISPOSAL. VERIFY EXACT LOCATION PRIOR TO INSTALLATION. COORDINATE SWITCH MOUNTING LOCATION WITH CASEWORK PRIOR TO INSTALLATION.                                                                             |
| 10 | CONNECT COMPLETE KITCHEN RANGE HOOD VIA CIRCUIT INDICATED. COORDINATE EXACT REQUIREMENTS WITH HOOD MANUFACTURER PRIOR TO INSTALLATION AND PROVIDE ACCORDINGLY.                                                                                                                         |
| 11 | PROVIDE CEILING MOUNTED 120V, 20A RECEPTACLE AT EACH CIRCUIT LOCATION SHOWN ABOVE IT RACKS.                                                                                                                                                                                            |
| 12 | PROVIDE CEILING MOUNTED 120V, 30A TWIST-LOCK RECEPTACLE AT EACH CIRCUIT LOCATION SHOWN ABOVE IT RACKS.                                                                                                                                                                                 |
| 13 | PROVIDE ALUMINUM DUAL CHANNEL RACEWAY FOR POWER AND DATA. RACEWAY SHALL BE WIREMOLD AL4800 SERIES, OR APPROVED EQUAL. RACEWAY SHALL BE MOUNTED ABOVE WORK SURFACE. COORDINATE EXACT MOUNTING HEIGHT PRIOR TO ROUGH-IN.                                                                 |
| 14 | PROVIDE METAL WEATHERPROOF COVER. COVER SHALL REMAIN WEATHERPROOF WHILE-IN-USE.                                                                                                                                                                                                        |
| 15 | CONNECT COMPLETE BOOSTER PUMP VIA CIRCUIT INDICATED. COORDINATE EXACT REQUIREMENTS WITH EQUIPMENT MANUFACTURER AND PROVIDE AS REQUIRED. DISCONNECT PROVIDED BY EQUIPMENT MANUFACTURER.                                                                                                 |

KNOX COUNTY BOARD OF COMMISSIONERS

Knox Co. Emergency Op.

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VINCENNES, IN 47591

| # | Revision     | Date       |
|---|--------------|------------|
| 1 | Addendum #01 | 05.30.2025 |

Project #: 24-700-155-1

Designed By: JAF

Drawn By: JAF

Checked By: DB

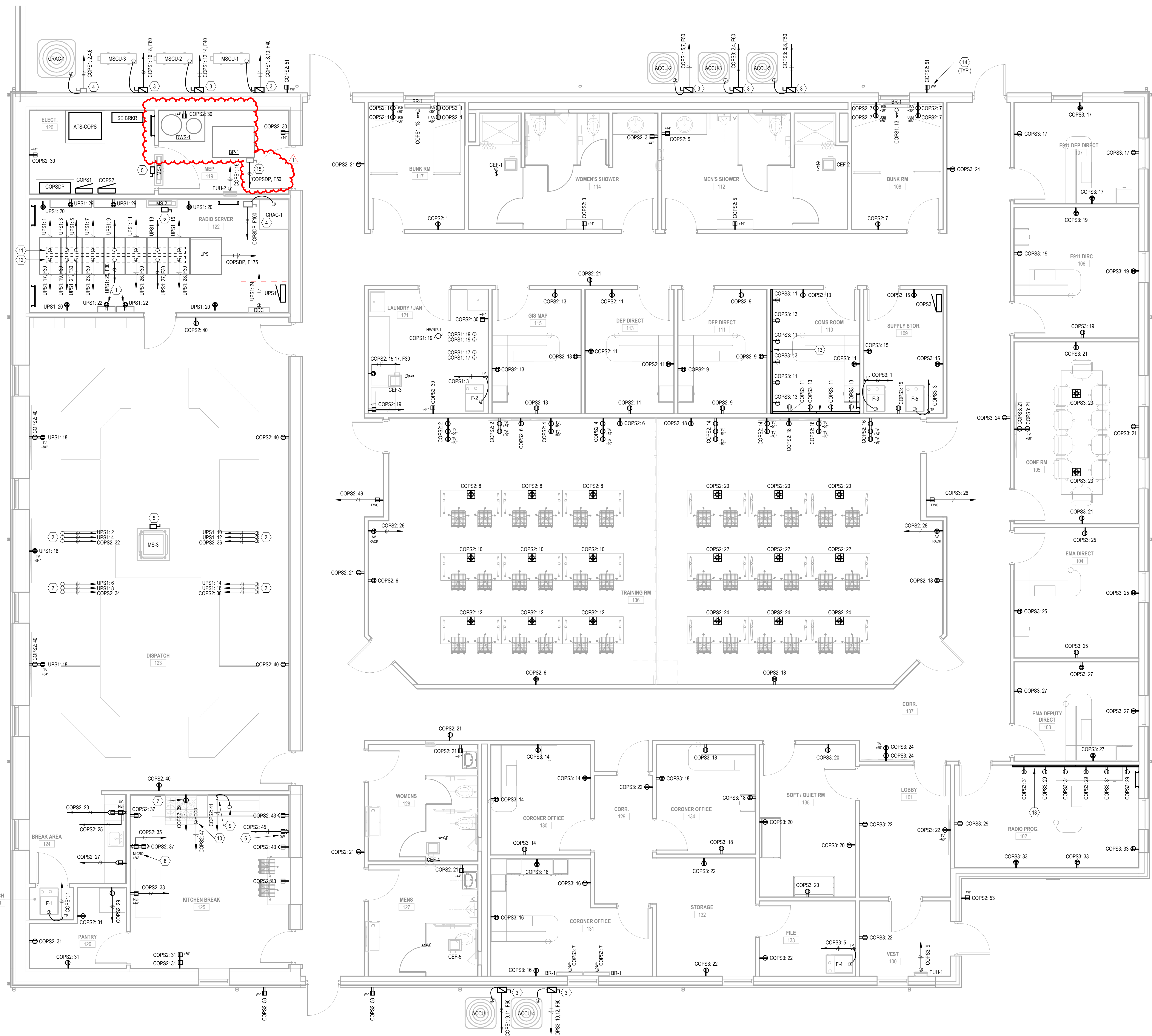
Date: 05/16/2025



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FIRST FLOOR POWER  
PLAN

E310

1  
E310  
FIRST FLOOR POWER PLAN  
1/4" = 1'-0"



| # | Revision     | Date       |
|---|--------------|------------|
| 1 | Addendum #01 | 05.30.2025 |

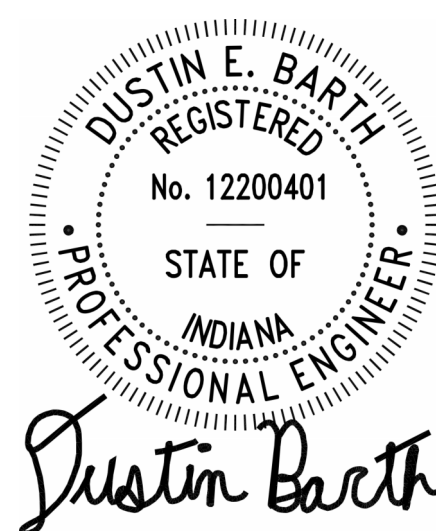
Project #: 24-700-155-1

Designed By: JAF

Drawn By: JAF

Checked By: DB

Date: 05/16/2025



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## Distribution Panel: COPS1

Location: ELECT 390  
Supplied From: COPS1  
Mounting: Surface  
Enclosure Type: Type 1

Voltage: 208Y/120  
Phase: 3  
Wires: 4  
Ground: Equipment Ground Bus

Branch: COPS  
A.I.C. Rating: TBD  
Main Type: Main Breaker  
Main Rating: 800 A

General Panel Comments:  
1) MAIN BREAKER SHALL BE INDIVIDUALLY MOUNTED, SOLID-STATE, ELECTRONIC TRIP, WITH FIELD ADJUSTABLE LSI SETTINGS.  
2) SHALL BE PROVIDED WITH INTEGRAL SURGE PROTECTION DEVICE (SPD).

| Circuit Number | Circuit Description             | Trip | Poles | A | B | C | Poles | Trip | Circuit Description | Circuit Number |
|----------------|---------------------------------|------|-------|---|---|---|-------|------|---------------------|----------------|
|                |                                 |      |       |   |   |   |       |      |                     |                |
| 1              | COPS1                           |      |       |   |   |   |       |      |                     |                |
| 2              | COPS2                           |      |       |   |   |   |       |      |                     |                |
| 3              | COPS3                           |      |       |   |   |   |       |      |                     |                |
| 4              | 122_CRAC-1 (Indoor Unit)        |      |       |   |   |   |       |      |                     |                |
| 5              | 20KVA UPS (Expandable to 40KVA) |      |       |   |   |   |       |      |                     |                |
| 6              | Generator Load Center Panel     |      |       |   |   |   |       |      |                     |                |
| 7              | SPARE                           |      |       |   |   |   |       |      |                     |                |
| 8              | SPARE                           |      |       |   |   |   |       |      |                     |                |
| 9              | 110_BR-1                        |      |       |   |   |   |       |      |                     |                |
| 10             | PROVISION                       |      |       |   |   |   |       |      |                     |                |
| 11             | PROVISION                       |      |       |   |   |   |       |      |                     |                |
| 12             | PROVISION                       |      |       |   |   |   |       |      |                     |                |

Total Connected Load (kVA): 208.9  
Total Connected Load (Amps): 579.6

| Load Classification | Connected Load | Demand Factor | Estimated Demand | Panel Totals                     |
|---------------------|----------------|---------------|------------------|----------------------------------|
| Lighting            | 5527 VA        | 100.00%       | 5527 VA          |                                  |
| Mechanical          | 79426 VA       | 100.00%       | 79426 VA         | Total Conn. Load: 208871 VA      |
| Miscellaneous       | 0 VA           | 0.00%         | 0 VA             | Total Est. Demand: 159421 VA     |
| Motor               | 15018 VA       | 100.00%       | 15018 VA         | Total Conn. Current: 580 A       |
| Receptacle          | 108900 VA      | 54.59%        | 59450 VA         | Total Est. Demand Current: 443 A |

Remarks:

## Branch Panel: UPS1

Location: RADIO SERVER 344  
Supplied From: Surface  
Mounting: Surface  
Enclosure Type: Type 1

Voltage: 208Y/120  
Phase: 3  
Wires: 4  
Ground: Equipment Ground Bus

Branch: UPS  
A.I.C. Rating: TBD  
Main Type: Main Lug Only  
Main Rating: 225 A

General Panel Comments:

| Circuit Number | Circuit Description    | Trip | Poles | A | B | C | Poles | Trip | Circuit Description             | Circuit Number |
|----------------|------------------------|------|-------|---|---|---|-------|------|---------------------------------|----------------|
|                |                        |      |       |   |   |   |       |      |                                 |                |
| 1              | 122_Rack Ceiling Recep |      |       |   |   |   |       |      | 123_Dispatch Console Power Pole | 2              |
| 2              | 122_Rack Ceiling Recep |      |       |   |   |   |       |      | 123_Dispatch Console Power Pole | 4              |
| 3              | 122_Rack Ceiling Recep |      |       |   |   |   |       |      | 123_Dispatch Console Power Pole | 6              |
| 4              | 122_Rack Ceiling Recep |      |       |   |   |   |       |      | 123_Dispatch Console Power Pole | 8              |
| 5              | 122_Rack Ceiling Recep |      |       |   |   |   |       |      | 123_Dispatch Console Power Pole | 10             |
| 6              | 122_Rack Ceiling Recep |      |       |   |   |   |       |      | 123_Dispatch Console Power Pole | 12             |
| 7              | 122_Rack Ceiling Recep |      |       |   |   |   |       |      | 123_Dispatch Console Power Pole | 14             |
| 8              | 122_Rack Ceiling Recep |      |       |   |   |   |       |      | 123_Dispatch Console Power Pole | 16             |
| 9              | 122_Rack Ceiling Recep |      |       |   |   |   |       |      | 123_Dispatch Console Power Pole | 18             |
| 10             | 122_Rack Ceiling Recep |      |       |   |   |   |       |      | 123_Dispatch Console Power Pole | 20             |
| 11             | 122_Rack Ceiling Recep |      |       |   |   |   |       |      | 123_Dispatch Console Power Pole | 22             |
| 12             | 122_Rack Ceiling Recep |      |       |   |   |   |       |      | 123_Dispatch Console Power Pole | 24             |
| 13             | 122_Rack Ceiling Recep |      |       |   |   |   |       |      | 123_Dispatch Console Power Pole | 26             |
| 14             | 122_Rack Ceiling Recep |      |       |   |   |   |       |      | 123_Dispatch Console Power Pole | 28             |
| 15             | 122_Rack Ceiling Recep |      |       |   |   |   |       |      | 123_Dispatch Console Power Pole | 30             |
| 16             | 122_Rack Ceiling Recep |      |       |   |   |   |       |      | 123_Dispatch Console Power Pole | 32             |
| 17             | 122_Rack Ceiling Recep |      |       |   |   |   |       |      | 123_Dispatch Console Power Pole | 34             |
| 18             | 122_Rack Ceiling Recep |      |       |   |   |   |       |      | 123_Dispatch Console Power Pole | 36             |
| 19             | 122_Rack Ceiling Recep |      |       |   |   |   |       |      | 123_Dispatch Console Power Pole | 38             |
| 20             | 122_Rack Ceiling Recep |      |       |   |   |   |       |      | 123_Dispatch Console Power Pole | 40             |
| 21             | 122_Rack Ceiling Recep |      |       |   |   |   |       |      | 123_Dispatch Console Power Pole | 42             |
| 22             | 122_Rack Ceiling Recep |      |       |   |   |   |       |      | 123_Dispatch Console Power Pole | 44             |
| 23             | 122_Rack Ceiling Recep |      |       |   |   |   |       |      | 123_Dispatch Console Power Pole | 46             |
| 24             | 122_Rack Ceiling Recep |      |       |   |   |   |       |      | 123_Dispatch Console Power Pole | 48             |
| 25             | 122_Rack Ceiling Recep |      |       |   |   |   |       |      | 123_Dispatch Console Power Pole | 50             |
| 26             | 122_Rack Ceiling Recep |      |       |   |   |   |       |      | 123_Dispatch Console Power Pole | 52             |
| 27             | 122_Rack Ceiling Recep |      |       |   |   |   |       |      | 123_Dispatch Console Power Pole | 54             |
| 28             | 122_Rack Ceiling Recep |      |       |   |   |   |       |      | 123_Dispatch Console Power Pole | 56             |
| 29             | 122_Rack Ceiling Recep |      |       |   |   |   |       |      | 123_Dispatch Console Power Pole | 58             |
| 30             | 122_Rack Ceiling Recep |      |       |   |   |   |       |      | 123_Dispatch Console Power Pole | 60             |
| 31             | 122_Rack Ceiling Recep |      |       |   |   |   |       |      | 123_Dispatch Console Power Pole | 62             |
| 32             | 122_Rack Ceiling Recep |      |       |   |   |   |       |      | 123_Dispatch Console Power Pole | 64             |
| 33             | 122_Rack Ceiling Recep |      |       |   |   |   |       |      | 123_Dispatch Console Power Pole | 66             |
| 34             | 122_Rack Ceiling Recep |      |       |   |   |   |       |      | 123_Dispatch Console Power Pole | 68             |
| 35             | 122_Rack Ceiling Recep |      |       |   |   |   |       |      | 123_Dispatch Console Power Pole | 70             |
| 36             | 122_Rack Ceiling Recep |      |       |   |   |   |       |      | 123_Dispatch Console Power Pole | 72             |
| 37             | 122_Rack Ceiling Recep |      |       |   |   |   |       |      | 123_Dispatch Console Power Pole | 74             |
| 38             | 122_Rack Ceiling Recep |      |       |   |   |   |       |      | 123_Dispatch Console Power Pole | 76             |
| 39             | 122_Rack Ceiling Recep |      |       |   |   |   |       |      | 123_Dispatch Console Power Pole | 78             |
| 40             | 122_Rack Ceiling Recep |      |       |   |   |   |       |      | 123_Dispatch Console Power Pole | 80             |
| 41             | 122_Rack Ceiling Recep |      |       |   |   |   |       |      | 123_Dispatch Console Power Pole | 82             |
| 42             | 122_Rack Ceiling Recep |      |       |   |   |   |       |      | 123_Dispatch Console Power Pole | 84             |

| Load Classification | Connected Load | Demand Factor | Estimated Demand | Panel Totals                    |
|---------------------|----------------|---------------|------------------|---------------------------------|
|                     |                |               |                  |                                 |
| Lighting            | 36200 VA       | 63.81%        | 23100 VA         |                                 |
| Mechanical          |                |               |                  | Total Conn. Load: 36200 VA      |
| Miscellaneous       |                |               |                  | Total Est. Demand: 23100 VA     |
| Motor               |                |               |                  | Total Conn. Current: 100 A      |
| Receptacle          |                |               |                  | Total Est. Demand Current: 64 A |

Remarks:

## Branch Panel: COPS2

Location: ELECT 390  
Supplied From: COPS2  
Mounting: Surface  
Enclosure Type: Type 1

Voltage: 208Y/120  
Phase: 3  
Wires: 4  
Ground: Equipment Ground Bus

Branch: COPS  
A.I.C. Rating: TBD  
Main Type: Main Breaker  
Main Rating: 225 A

General Panel Comments:

| Circuit Number | Circuit Description      | Trip | Poles | A | B | C | Poles | Trip | Circuit Description | Circuit Number |
|----------------|--------------------------|------|-------|---|---|---|-------|------|---------------------|----------------|
|                |                          |      |       |   |   |   |       |      |                     |                |
| 1              | 140_F-1                  |      |       |   |   |   |       |      |                     |                |
| 2              | 121_F-2                  |      |       |   |   |   |       |      |                     |                |
| 3              | 121_F-2                  |      |       |   |   |   |       |      |                     |                |
| 4              | Site_ACCU-2              |      |       |   |   |   |       |      |                     |                |
| 5              | Site_ACCU-2              |      |       |   |   |   |       |      |                     |                |
| 6              | Site_ACCU-1              |      |       |   |   |   |       |      |                     |                |
| 7              | Site_ACCU-1              |      |       |   |   |   |       |      |                     |                |
| 8              | Site_ACCU-1              |      |       |   |   |   |       |      |                     |                |
| 9              | Site_ACCU-1              |      |       |   |   |   |       |      |                     |                |
| 10             | Site_ACCU-1              |      |       |   |   |   |       |      |                     |                |
| 11             | Site_ACCU-1              |      |       |   |   |   |       |      |                     |                |
| 12             | Site_ACCU-1              |      |       |   |   |   |       |      |                     |                |
| 13             | 108.117_BR-1             |      |       |   |   |   |       |      |                     |                |
| 14             | 119_EUH-2                |      |       |   |   |   |       |      |                     |                |
| 15             | 121_GWH-1, GWH-2         |      |       |   |   |   |       |      |                     |                |
| 16             | 121_GWH-3, GWH-4, HWRP-1 |      |       |   |   |   |       |      |                     |                |
| 17             | 121_GWH-3, GWH-4, HWRP-1 |      |       |   |   |   |       |      |                     |                |
| 18             | 121_GWH-3, GWH-4, HWRP-1 |      |       |   |   |   |       |      |                     |                |
| 19             | 121_GWH-3, GWH-4, HWRP-1 |      |       |   |   |   |       |      |                     |                |
| 20             | 121_GWH-3, GWH-4, HWRP-1 |      |       |   |   |   |       |      |                     |                |
| 21             | 121_GWH-3, GWH-4, HWRP-1 |      |       |   |   |   |       |      |                     |                |
| 22             | 121_GWH-3, GWH-4, HWRP-1 |      |       |   |   |   |       |      |                     |                |
| 23             | 121_GWH-3, GWH-4, HWRP-1 |      |       |   |   |   |       |      |                     |                |
| 24             | 121_GWH-3, GWH-4, HWRP-1 |      |       |   |   |   |       |      |                     |                |
| 25             | 121_GWH-3, GWH-4, HWRP-1 |      |       |   |   |   |       |      |                     |                |
| 26             | 121_GWH-3, GWH-4, HWRP-1 |      |       |   |   |   |       |      |                     |                |
| 27             | 121_GWH-3, GWH-4, HWRP-1 |      |       |   |   |   |       |      |                     |                |
| 28             | 121_GWH-3, GWH-4, HWRP-1 |      |       |   |   |   |       |      |                     |                |
| 29             | 121_GWH-3, GWH-4, HWRP-1 |      |       |   |   |   |       |      |                     |                |
| 30             | 121_GWH-3, GWH-4, HWRP-1 |      |       |   |   |   |       |      |                     |                |
| 31             | 121_GWH-3, GWH-4, HWRP-1 |      |       |   |   |   |       |      |                     |                |
| 32             | 121_GWH-3, GWH-4, HWRP-1 |      |       |   |   |   |       |      |                     |                |
| 33             | 121_GWH-3, GWH-4, HWRP-1 |      |       |   |   |   |       |      |                     |                |
| 34             | 121_GWH-3, GWH-4, HWRP-1 |      |       |   |   |   |       |      |                     |                |
| 35             | 121_GWH-3, GWH-4, HWRP-1 |      |       |   |   |   |       |      |                     |                |
| 36             | 121_GWH-3, GWH-4, HWRP-1 |      |       |   |   |   |       |      |                     |                |
| 37             | 121_GWH-3, GWH-4, HWRP-1 |      |       |   |   |   |       |      |                     |                |
| 38             | 121_GWH-3, GWH-4, HWRP-1 |      |       |   |   |   |       |      |                     |                |
| 39             | 121_GWH-3, GWH-4, HWRP-1 |      |       |   |   |   |       |      |                     |                |
| 40             | 121_GWH-3, GWH-4, HWRP-1 |      |       |   |   |   |       |      |                     |                |
| 41             | 121_GWH-3, GWH-4, HWRP-1 |      |       |   |   |   |       |      |                     |                |

| Load Classification | Connected Load | Demand Factor | Estimated Demand | Panel Totals                     |
|---------------------|----------------|---------------|------------------|----------------------------------|
|                     |                |               |                  |                                  |
| Lighting            | 32200 VA       | 100.00%       | 32200 VA         |                                  |
| Mechanical          | 0 VA           | 0.00%         | 0 VA             | Total Conn. Load: 36125 VA       |
| Miscellaneous       | 125 VA         | 100.00%       | 125 VA           | Total Est. Demand: 36125 VA      |
| Motor               | 3800 VA        | 100.00%       | 3800 VA          | Total Conn. Current: 100 A       |
| Receptacle          |                |               |                  | Total Est. Demand Current: 100 A |

Remarks:

## Branch Panel: COPS3

Location: ELECT 390  
Supplied From: COPS3  
Mounting: Surface  
Enclosure Type: Type 1

Voltage: 208Y/120  
Phase: 3  
Wires: 4  
Ground: Equipment Ground Bus

Branch: COPS  
A.I.C. Rating: TBD  
Main Type: Main Breaker  
Main Rating: 225 A

General Panel Comments:

| Circuit Number | Circuit Description     | Trip | Poles | A        | B        | C        | Poles | Trip | Circuit Description      | Circuit Number                                 |            |    |
|----------------|-------------------------|------|-------|----------|----------|----------|-------|------|--------------------------|------------------------------------------------|------------|----|
| 1              | 117_Receps              | 20 A | 1     | 0.9      | 0.9      |          |       | 1    | 20 A 136_West TVs        | 2                                              |            |    |
| 3              | 114_Recep               | 20 A | 1     |          | 1        | 0.9      |       | 1    | 20 A 136_West TVs        | 4                                              |            |    |
| 5              | 112_Recep               | 20 A | 1     |          |          |          | 1     | 1.1  | 1                        | 20 A 136_Receps                                | 6          |    |
| 7              | 108_Receps              | 20 A | 1     | 0.9      | 1.2      |          |       | 1    | 20 A 136_West Floorboxes | 8                                              |            |    |
| 9              | 111_Receps              | 20 A | 1     |          | 1.1      | 1.2      |       | 1    | 20 A 136_West Floorboxes | 10                                             |            |    |
| 11             | 113_Receps              | 20 A | 1     |          |          |          | 1.1   | 1.2  | 1                        | 20 A 136_West Floorboxes                       | 12         |    |
| 13             | 115_Receps              | 20 A | 1     | 1.1      | 0.9      |          |       | 1    | 20 A 136_East TVs        | 14                                             |            |    |
| 15             |                         |      |       |          | 2.3      | 0.9      |       |      | 1                        | 20 A 136_East TVs                              | 16         |    |
| 17             | 121_Dryer               | 30 A | 2     |          |          |          |       |      | 1                        | 20 A 136_Receps                                | 18         |    |
| 19             | 121_Washer              | 20 A | 1     | 1        | 1.2      |          | 2.3   | 1.1  | 1                        | 20 A 136_East Floorboxes                       | 20         |    |
| 21             | 127 128 137_Receps      | 20 A | 1     |          | 1.3      | 1.2      |       |      | 1                        | 20 A 136_East Floorboxes                       | 22         |    |
| 23             | 124_Above Counter Recep | 20 A | 1     |          |          |          | 1     | 1.2  | 1                        | 20 A 136_East Floorboxes                       | 24         |    |
| 25             | 126_UC Ref              | 20 A | 1     | 1.2      | 0.5      |          |       |      | 1                        | 20 A 136_West AV Rack                          | 26         |    |
| 27             | 124_Above Counter Recep | 20 A | 1     |          | 1        | 0.5      |       |      | 1                        | 20 A 136_East AV Rack                          | 28         |    |
| 29             | 126_Freezer             | 20 A | 1     |          |          |          | 1.2   | 0.9  | 1                        | 20 A 119_121_Receps                            | 30         |    |
| 31             | 125_126_Receps          | 20 A | 1     | 1.5      | 0.8      |          |       |      | 1                        | 20 A 123_Dispatch Console                      | 32         |    |
| 33             | 125_Ref                 | 20 A | 1     |          | 1.2      | 0.8      |       |      | 1                        | 20 A 123_Dispatch Console                      | 34         |    |
| 35             | 125_Micro               | 20 A | 1     |          |          |          | 1.2   | 0.8  | 1                        | 20 A 123_Dispatch Console                      | 36         |    |
| 37             | 125_Receps              | 20 A | 1     | 1        | 0.8      |          |       |      | 1                        | 20 A 123_Dispatch Console                      | 38         |    |
| 39             | 125_Range               | 20 A | 1     |          | 0.5      | 1.1      |       |      | 1                        | 20 A 123_Receps                                | 40         |    |
| 41             | 125_Disposal            | 20 A | 1     |          |          |          | 1.2   | 0.6  | 1                        | 20 A Lighting_119_120_122                      | 42         |    |
| 43             | 125_Receps              | 20 A | 1     | 1.2      | 0.7      |          |       |      | 1                        | 20 A Lighting_North Bunks, Restrooms, Offices  | 44         |    |
| 45             | 125_Dishwasher          | 20 A | 1     |          | 1.2      | 0.7      |       |      | 1                        | 20 A Lighting_Dispatch                         | 46         |    |
| 47             | 125_Hood                | 20 A | 1     |          |          |          | 1     | 0.5  | 1                        | 20 A Lighting_South Kitchen, Pantry, Restrooms | 48         |    |
| 49             | 137_EWC                 | 20 A | 1     | 0.5      | 0.7      |          |       |      | 1                        | 20 A Lighting_Training Rooms                   | 50         |    |
| 51             | Exterior Receps_North   | 20 A | 1     |          | 0.4      | 0.8      |       |      | 1                        | 20 A Lighting_Corridors                        | 52         |    |
| 53             | Exterior Receps_South   | 20 A | 1     |          |          |          | 0.5   | 0    | 1                        | 20 A SPARE                                     | 54         |    |
| 55             | SPARE                   | 20 A | 1     | 0        | 0        |          |       |      | 1                        | 20 A SPARE                                     | 56         |    |
| 57             | SPARE                   | 20 A | 1     |          | 0        | 0        |       |      | 1                        | 20 A SPARE                                     | 58         |    |
| 59             | SPARE                   | 20 A | 1     |          |          |          | 0     | 0    | 1                        | 20 A SPARE                                     | 60         |    |
| 61             | SPARE                   | 20 A | 1     | 0        | 0        |          |       |      | 1                        | 20 A SPARE                                     | 62         |    |
| 63             | SPARE                   | 20 A | 1     |          | 0        | 0        |       |      | 1                        | 20 A SPARE                                     | 64         |    |
| 65             | SPARE                   | 20 A | 1     |          |          |          | 0     | 0    | 1                        | 20 A SPARE                                     | 66         |    |
| 67             | SPARE                   | 20 A | 1     | 0        | 0        |          |       |      | 1                        | 20 A SPARE                                     | 68         |    |
| 69             | SPARE                   | 20 A | 1     |          | 0        | 0        |       |      | 1                        | 20 A SPARE                                     | 70         |    |
| 71             | SPARE                   | 20 A | 1     |          |          |          |       | 0    | 0                        | 1                                              | 20 A SPARE | 72 |
| 73             | SPARE                   | 20 A | 1     | 0        | 0        |          |       |      | 1                        | 20 A SPARE                                     | 74         |    |
| 75             | SPARE                   | 20 A | 1     |          | 0        | 0        |       |      | 1                        | 20 A SPARE                                     | 76         |    |
| 77             | SPARE                   | 20 A | 1     |          |          |          | 0     | 0    | 1                        | 20 A SPARE                                     | 78         |    |
| 79             | SPARE                   | 20 A | 1     | 0        | 0        |          |       |      | 1                        | 20 A SPARE                                     | 80         |    |
| 81             | SPARE                   | 20 A | 1     |          | 0        | 0        |       |      | 1                        | 20 A SPARE                                     | 82         |    |
| 83             | SPARE                   | 20 A | 1     |          |          |          | 0     | 0    | 1                        | 20 A SPARE                                     | 84         |    |
| Total Load:    |                         |      |       | 17.0 kVA | 18.0 kVA | 17.8 kVA |       |      |                          |                                                |            |    |