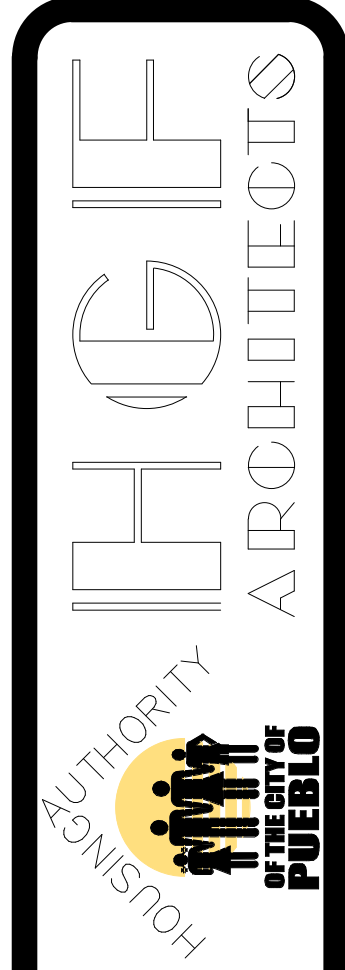


# MOUNTAIN VIEW TOWNHOMES

PROJECT No.: I.F.B. 19-522-RAD

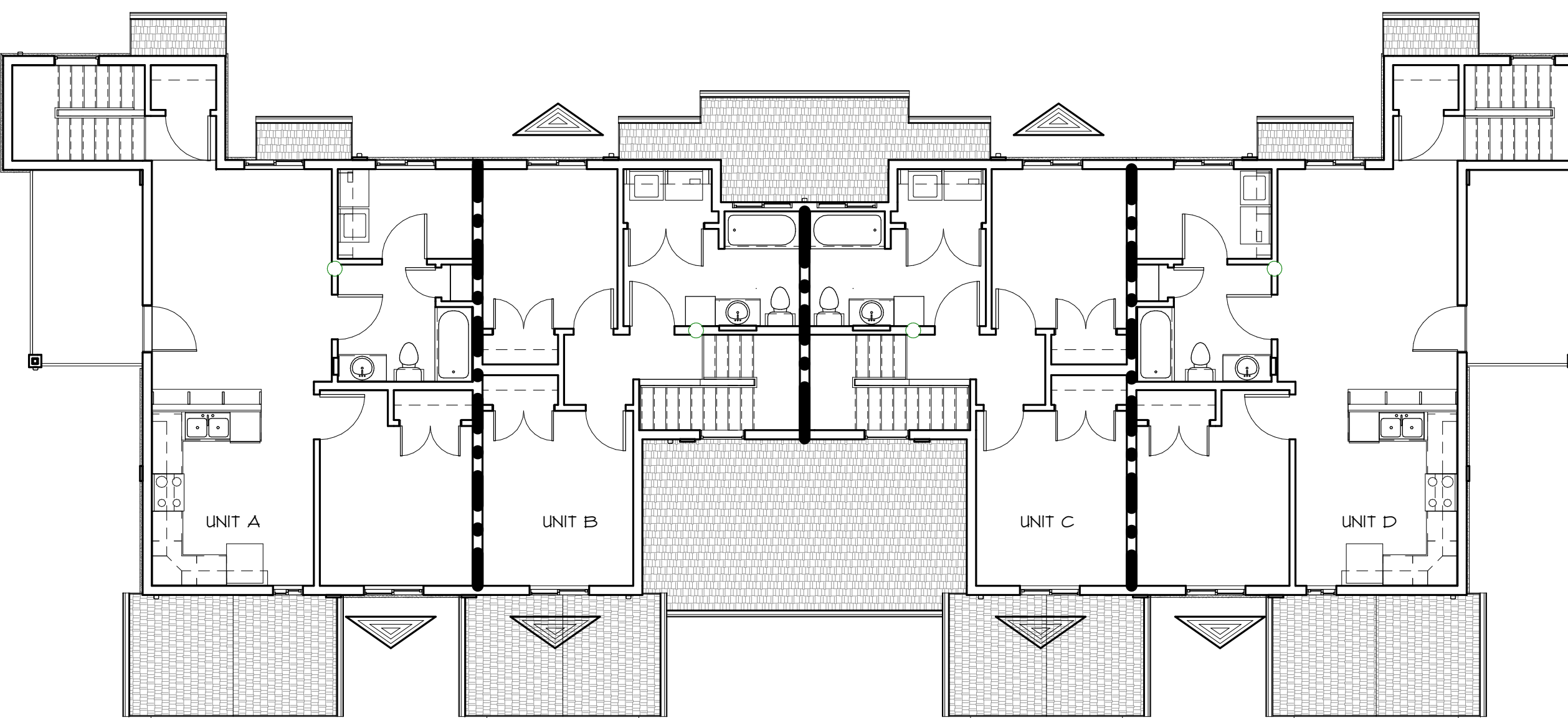
ACERO AVE. and SPRAGUE AVE. PUEBLO, COLORADO



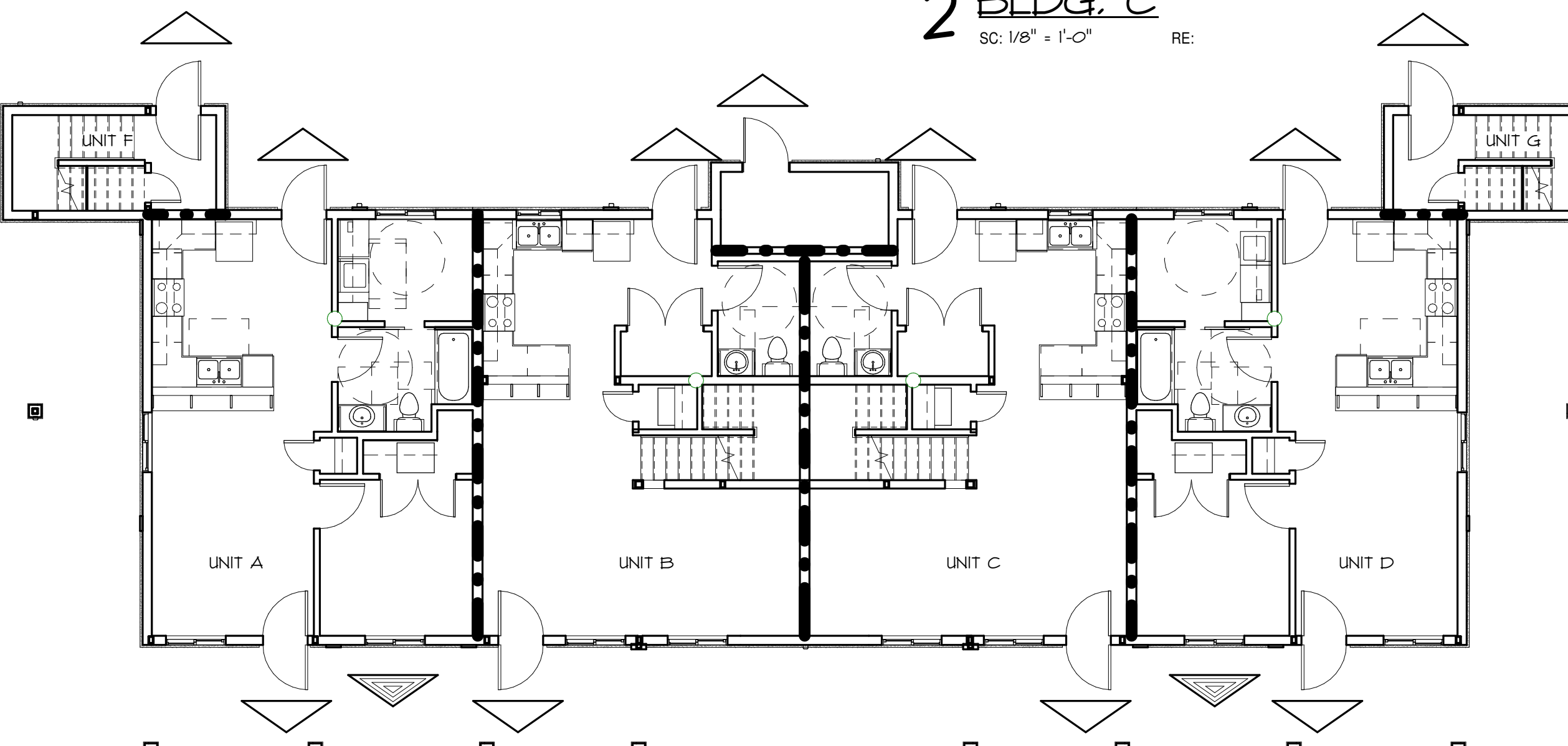
| BLDG. C CODE STUDY SUMMARY                     |  |  |  |           |                                    |
|--|--|--|--|-----------|------------------------------------|
| APPLICABLE CODES:                              | 2015 INTERNATIONAL BUILDING CODE UNIFORM FEDERAL ACCESSIBILITY STANDARDS   |  |  |           |                                    |
| PROJECT DESCRIPTION:                           | NEW CONSTRUCTION - APARTMENT BUILDING  |  |  |           |                                    |
| OCCUPANCY CLASSIFICATION:                      | R-2: RESIDENTIAL, APARTMENT HOMES  |  |  |           |                                    |
| 2015 IBC CHAPTER 3                             |  |  |  |           |                                    |
| TYPE OF CONSTRUCTION:                          | TYPE V-B with a MIN. FIRE-SEPARATION DISTANCE of 1'-0"   |  |  |           |                                    |
| 2015 IBC TABLE 601                             |  |  |  |           |                                    |
| FIRE RESISTANCE RATING REQ. for BLDG. ELEMENTS | PRIMARY STRUCTURAL FRAME: 0<br>BEARING WALLS EXTERIOR: 0<br>BEARING WALLS INTERIOR: 0<br>NONBEARING EXTERIOR WALLS: 0<br>INTERIOR NONBEARING WALLS: 0<br>FLOOR CONSTRUCTION: 0<br>ROOF CONSTRUCTION: 0   |  |  |           |                                    |
| 2015 IBC TABLE 601                             |  |  |  |           |                                    |
| TABULAR ALLOWABLE AREA per FLOOR:              | R-2 519R A1 (SQ.FT.)   | 7000                                       | R-2 ACTUAL AREA: 2841 SQ. FT. (1st FL.)      |           |                                    |
| 2015 IBC TABLE 506.2                           |  |  |  |           |                                    |
| TABULAR ALLOWABLE HEIGHT and STORIES:          | R-2, 519R: 60 FEET, 3 STORY  | R-2 ACTUAL HEIGHT: 2 STORY, 22.5 FEET      |  |           |                                    |
| 2015 IBC TABLE 504.3 and 504.4                 |  |  |  |           |                                    |
| FLOOR AREA, GROSS:                             | FIRST FLOOR:   | 2841 SQ. FT.                               |  |           |                                    |
| 2015 IBC SECTION 202 - DEFINITIONS             | SECOND FLOOR:  | 2843 SQ. FT.                               |  |           |                                    |
| OCCUPANT LOAD:                                 | 2015 IBC TABLE 1004.1.2  |  |  |           |                                    |
| OCCUPANCY:                                     |  |  |  |           |                                    |
| FUNCTION of SPACE                              | S.F.   | LOAD FACTOR(per occ.)                      | GROSS/ NET                                   | OCC. LOAD | NOTES:                             |
| STORAGE - 1st Fl.                              | 83 SQ. FT.   | 300 SQ. FT.                                | GROSS  | .28       | ACCESSORY EA AREA LESS than 100 SF |
| RESIDENTIAL - 1st Fl.                          | 2758 SQ. FT.   | 200 SQ. FT.                                | GROSS  | 13.79     |                                    |
| RESIDENTIAL - 2nd Fl.                          | 2843 SQ. FT.   | 200 SQ. FT.                                | GROSS  | 12.72     |                                    |
|  |  |  | TOTAL  | 26.79     | ROUNDED: 27                        |
| OCCUPANCY SEPARATION:                          | WALLS SEPARATING DWELLING UNITS FROM EACH OTHER and WALLS SEPARATING DWELLING UNITS FROM OTHER OCCUPANCIES SHALL BE FIRE PARTITIONS.   |  |  |           |                                    |
| 2015 IBC SECTION 420                           |  |  |  |           |                                    |
| INCIDENTAL USES SEPARATION:                    | N/A  |  |  |           |                                    |
| 2015 IBC SECTION 509, TABLE 509                |  |  |  |           |                                    |
| CORRIDORS:                                     | N/A  |  |  |           |                                    |
| 2015 IBC SECTION 1020                          |  |  |  |           |                                    |
| NUMBER OF EXITS:                               | 2- EXITS REQUIRE   |  |  |           |                                    |
| 2015 IBC TABLE 1006.3.1                        |  |  |  |           |                                    |
| TRAVEL DISTANCE:                               | R-2 with SPRINKLER SYSTEM: 250 FEET. ACTUAL MAX. TRAVEL DISTANCE: 56 FEET.   |  |  |           |                                    |
| 2015 IBC TABLE 1017.2                          |  |  |  |           |                                    |
| AUTOMATIC SPRINKLER SYSTEM:                    | REQUIRED - GROUP R OCCUPANCIES SHALL BE EQUIPPED throughout with an AUTOMATIC SPRINKLER SYSTEM IN ACCORDANCE with ICC and NFPA 13R, INCLUDING FIRE SPRINKLER MONITORING SYSTEM.  |  |  |           |                                    |
| 2015 IBC SECTION 420.5                         |  |  |  |           |                                    |
| FIRE ALARM SYSTEM:                             | R-2, 2 STORY with 4 DWELLING UNITS: NOT REQUIRED   |  |  |           |                                    |
| 2015 IBC SECTION 907                           |  |  |  |           |                                    |
| ACCESSIBILITY:                                 | R-2, PER IBC, TYPE A UNITS: 2% of TOTAL UNITS on SITE REQUIRED to be TYPE A ACCESSIBLE. GROUND FLOOR of ALL OTHER UNITS REQUIRED to be TYPE B ACCESSIBLE. PER UFAS: 5% of TOTAL UNITS on SITE REQUIRED to be ACCESSIBLE (50% to TYPE A as in IBC). TOTAL UNITS on SITE: 51. TOTAL TYPE A ACCESSIBLE UNITS on SITE: 3 UNITS (SHOWN in BLDG. D) 1st FLOOR of ALL UNITS are TYPE B ACCESSIBLE |  |  |           |                                    |
| 2015 IBC SECTION 1017.6.2<br>UFAS SECTION 4.34 |  |  |  |           |                                    |
| PLUMBING FIXTURES:                             | 2015 IBC TABLE 2902.1 and 2015 IPC TABLE 403.1 and SECT. 419.2   |  |  |           |                                    |
| PLUMBING FIXTURES per OCCUPANCY TYPE           |  |  |  |           |                                    |
| OCCUPANCY TYPE: R-2 RESIDENTIAL                | REQUIRED   | PROVIDED                                   |  |           |                                    |
|  |  | # of FIXTURES REQ.                         | # of FIXTURES PROVIDED                       |           |                                    |
| W.C./URINALS                                   | 1 per DWELLING UNIT  | 6  | 8  |           |                                    |
| LAVATORIES                                     | 1 per DWELLING UNIT  | 6  | 8  |           |                                    |
| BATHUBS/SHOWERS                                | 1 per DWELLING UNIT  | 6  | 6  |           |                                    |
| OTHER FIXTURES                                 | 1 KIT, SINK per DWELLING UNIT.<br>1 CLOTHES WASHER CONNECTION per 20 UNITS   | 6 KIT, SINK<br>1 CLOTHES WASHER CONNECTION | 6 KIT, SINKS<br>6 CLOTHES WASHER CONNECTIONS |           |                                    |

### GENERAL NOTES

- THIS PROJECT SHALL MEET the 2015 ENTERPRISE GREEN COMMUNITIES CRITERIA, RE: SPECIFICATIONS.
- COORDINATE ALL WORK with ALL DISCIPLINES INCLUDING, but NOT LIMITED to ARCHITECTURAL, STRUCTURAL, MECHANICAL, ELECTRICAL, PLUMBING, CIVIL and FIRE SPRINKLER.
- PROVIDE and INSTALL 2x6 WD. BLOCKING BETWEEN STUDS and BEHIND GYP. BD. as REQUIRED for ALL WALL MOUNTED FIXTURES, DOOR HDWR, CLOSET SHELVES, TOILET ACCESSORIES, GRAB BARS, VANITY COUNTERTOPS, WALL and BASE CABINETS, and TELE/DATA BOARD, etc.
- PROVIDE 3/4" RADIUS BULLNOSE CORNER BEAD at ALL EXPOSED GYP. BD. OUTSIDE WALL CORNERS on INTERIOR of BUILDING.
- BUILDINGS SHALL BE PROVIDED with AUTOMATIC FIRE SUPPRESSION SPRINKLER SYSTEM including FIRE SPRINKLER MONITORING PANEL in ACCORDANCE with NFPA 13, and 2015 ICC, etc.
- EACH UNIT SHALL HAVE a FIRE EXTINGUISHER INSTALLED on the FIRST FLOOR. EACH STORAGE ROOM and WATER ENTRY ROOM SHALL HAVE a FIRE EXTINGUISHER INSTALLED in the ROOM.
- NORTH ARROW NOT SHOWN on FLOOR PLANS.
- ALL EXTERIOR DIMENSIONS on FLOOR PLANS are from EXTERIOR FACE of EXTERIOR WALL SHEATHING/FOUNDATION WALL UNLESS OTHERWISE NOTED.
- ALL INTERIOR DIMENSIONS on FLOOR PLANS are to/from FACE of STUD UNLESS OTHERWISE NOTED.
- ALL DIMENSION STRINGS on ARCHITECTURAL FLOOR PLANS, RFC PLANS, ELEVATIONS, SECTIONS, INT. ELEVATIONS are ROUNDED to 1/8".
- CONTRACTOR SHALL NOT SCALE DRAWINGS FOR CONSTRUCTION PURPOSES. ANY MISSING DIMENSIONS OR DISCREPANCIES IN THE PLANS, OR PHYSICAL FEATURES SHALL BE BROUGHT to the ATTENTION of the ARCHITECTS AND the OWNER. IF the CONTRACTOR PROCEEDS with the WORK WITHOUT NOTIFYING the ARCHITECT AND the OWNER, HE/SHE DOES SO at HIS/HER OWN RISK.
- 



2nd FLOOR CODE STUDY -  
2 BLDG. C  
SC: 1/8" = 1'-0" RE:



1st FLOOR CODE STUDY -  
1 BLDG. C  
SC: 1/8" = 1'-0" RE:

### BUILDING C SHEET INDEX

|       |  |
|-------|--|
| G1.0C | BLDG. C COVER  |
| A1.1C | BLDG. C 1st FLOOR PLAN and DETAILS                     |
| A1.2C | BLDG. C 2nd FLOOR PLAN                                 |
| A1.3C | BLDG. C REFL. CEILING PLANS, ROOF PLAN and DETAILS     |
| A2.1C | BLDG. C ELEVATIONS and BLDG. SECTION                   |
| A3.1C | BLDG. C BLDG. SECTIONS                                 |
| A3.2C | BLDG. C BLDG. SECTIONS                                 |
| A3.3C | BLDG. C WALL SECTIONS                                  |
| A3.4C | BLDG. C WALL SECTIONS                                  |
| A3.5C | BLDG. C WALL SECTIONS and DETAILS                      |
| A4.1C | BLDG. C DOOR and WINDOW SCHEDULE and DETAILS           |
| A5.1C | BLDG. C FINISH SCHED. and INTERIOR ELEV.               |
| A5.2C | BLDG. C INTERIOR ELEV.                                 |
| A5.3C | BLDG. C INTERIOR ELEV.                                 |
| S1C   | BLDG. C FOUNDATION PLAN                                |
| S2C   | BLDG. C MAIN FLOOR FRAMING PLAN                        |
| S3C   | BLDG. C UPPER FLOOR & LOW ROOF FRAMING PLAN            |
| S4C   | BLDG. C HIGH ROOF FRAMING PLAN                         |
| S5C   | BLDG. C GENERAL NOTES, DETAILS                         |
| S6C   | BLDG. C DETAILS  |
| M001C | BLDG. C MECHANICAL BUILDING C NOTES AND LEGEND         |
| M002C | BLDG. C MECHANICAL BUILDING C SPECIFICATIONS           |
| M11C  | BLDG. C MECHANICAL BUILDING C HVAC PLAN                |
| M12C  | BLDG. C MECHANICAL BUILDING C HVAC PLAN                |
| M13C  | BLDG. C MECHANICAL BUILDING C GAS PLAN                 |
| M132C | BLDG. C MECHANICAL BUILDING C GAS PLAN                 |
| M500C | BLDG. C MECHANICAL BUILDING C DETAILS                  |
| M610C | BLDG. C MECHANICAL BUILDING C SCHEDULES                |
| P001C | BLDG. C PLUMBING NOTES AND LEGEND                      |
| P11C  | BLDG. C PLUMBING BUILDING C WATER PLAN FIRST FLOOR     |
| P12C  | BLDG. C PLUMBING BUILDING C WATER PLAN SECOND FLOOR    |
| P13C  | BLDG. C PLUMBING BUILDING C SANITARY PLAN FIRST FLOOR  |
| P132C | BLDG. C PLUMBING BUILDING C SANITARY PLAN SECOND FLOOR |
| P500C | BLDG. C PLUMBING BUILDING C DETAILS                    |
| P610C | BLDG. C PLUMBING BUILDING C SCHEDULES                  |
| E1.0C | BLDG. C FIXTURE SCHEDULE, LEGENDS & DETAILS            |
| E1.1C | BLDG. C FIRST FLOOR ELECTRICAL PLAN AND DETAILS        |
| E1.2C | BLDG. C SECOND FLOOR ELECTRICAL PLAN & UNIT PANELS     |

### PROJECT TEAM

|  |  |
|--|--|
| OWNER:<br>THE HOUSING AUTHORITY OF PUEBLO<br>201 S. VICTORIA<br>PUEBLO, CO 81003<br>PH: 719-586-8936                               | STRUCTURAL ENGINEER<br>VALENTINE ENGINEERING<br>415 N. GREENWOOD<br>PUEBLO, CO 81003<br>PH: 719-542-9230                       |
| ARCHITECT:<br>HGF ARCHITECTS, INC.<br>2602 N. ELIZABETH ST<br>PUEBLO, COLORADO 81003<br>PH: 719-543-7600<br>FX: 719-545-2910       | CIVIL ENGINEER:<br>MATRIX DESIGN GROUP<br>2435 RESEARCH PKWY, SUITE 300<br>COLORADO SPRINGS, CO 80920<br>PH: 719-575-0100      |
| ELECTRICAL ENGINEER:<br>KOHNERT ELECTRICAL ENGINEERS<br>911 S. 8TH ST. SUITE 200<br>COLORADO SPRINGS, CO 80906<br>PH: 719-633-2637 | MECHANICAL ENGINEER:<br>PLANT ENGINEERING CONSULTANTS<br>320 W. FILLMORE ST.<br>COLORADO SPRINGS, CO 80907<br>PH: 719-473-7077 |

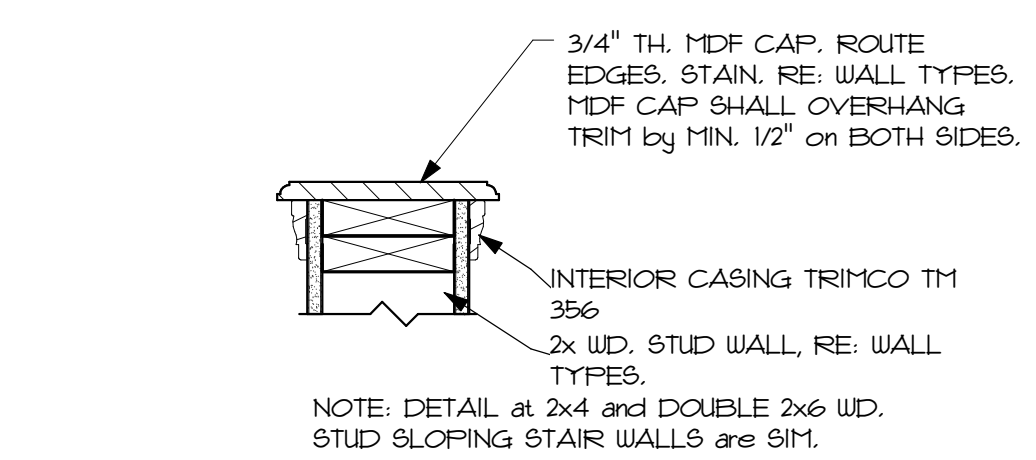
### DRAWING LEGEND

|  |                             |                                     |  |  |                          |
|--|-----------------------------|-------------------------------------|--|--|--------------------------|
|  | DOOR TAG                    |                                     | Room name                                |  | ROOM NAME and NUMBER TAG |
|  | WINDOW TAG                  |                                     |  |  | CEILING TYPE TAG         |
|  | WALL TYPE TAG               |                                     |  |  | CEILING HEIGHT TAG       |
|  | FLAG NOTE                   |                                     |  |  | ROOF TAG                 |
|  | FLOOR TAG                   | BELOW SHOWN on CODE STUDY PLAN ONLY |  |  |                          |
|  | EMERGENCY ESCAPE and RESCUE |                                     | 1-HR RATED HORIZ. ASSEMBLY (FLOOR BELOW) |  |                          |
|  | BUILDING EXIT               |                                     | 1-HR RATED FIRE PARTITION                |  |                          |

MOUNTAIN VIEW TOWNHOMES  
 PROJECT No.: I.F.B. 19-522-RAD  
 ACERO AVE. and SPRAGUE AVE. PUEBLO, COLORADO

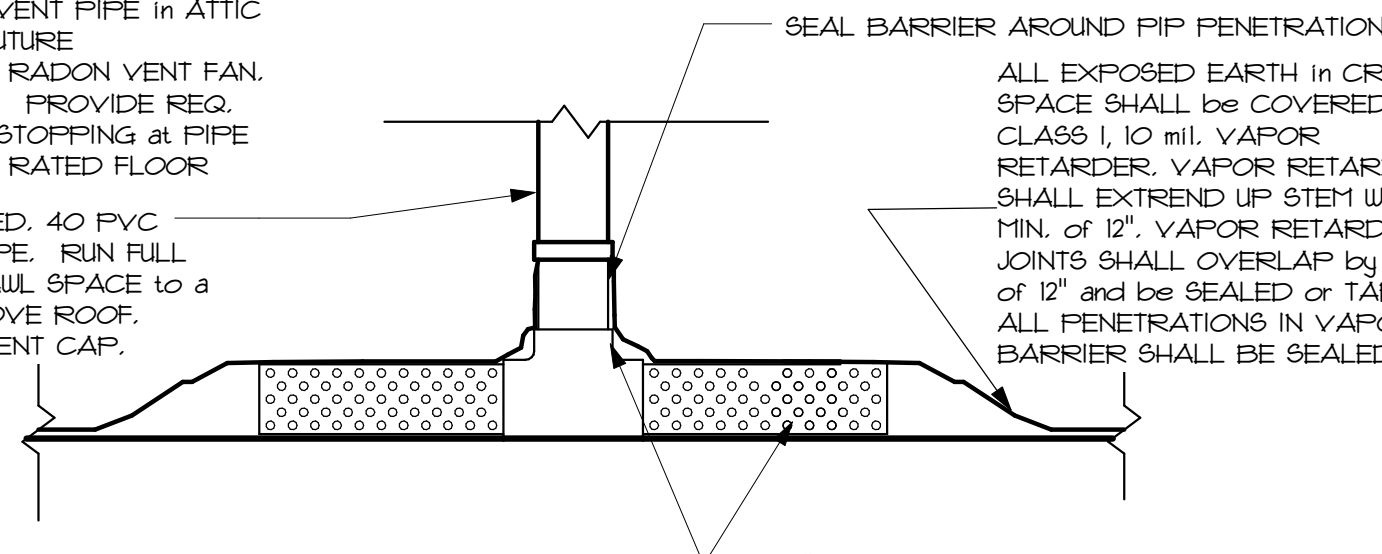
|            |            |
|------------|------------|
| DATE       | 04/16/2019 |
| DRAWN      | JSR        |
| CHECK      | AHS        |
| REVISIONS: |            |
| SHEET      | G1.0C      |





**BLDG. C WD. CAP DETAIL**  
**3 at SLOPED STAIR WALL**  
 SC: 1/2" = 1'-0" RE:

NOTES: ELECTRICAL TO BE PROVIDED NEAR VENT PIPE IN ATTIC FOR POTENTIAL FUTURE INSTALLATION OF RADON VENT FAN. RE: ELECTRICAL. PROVIDE REQ. ADEQUATE FIRE STOPPING AT PIPE PENETRATION OF RATED FLOOR.



**BLDG. C TYP. RADON**  
**2 VENT at CRAWL SPACE**  
 SC: 1" = 1'-0" RE:

**NEW WORK FLAG NOTES**

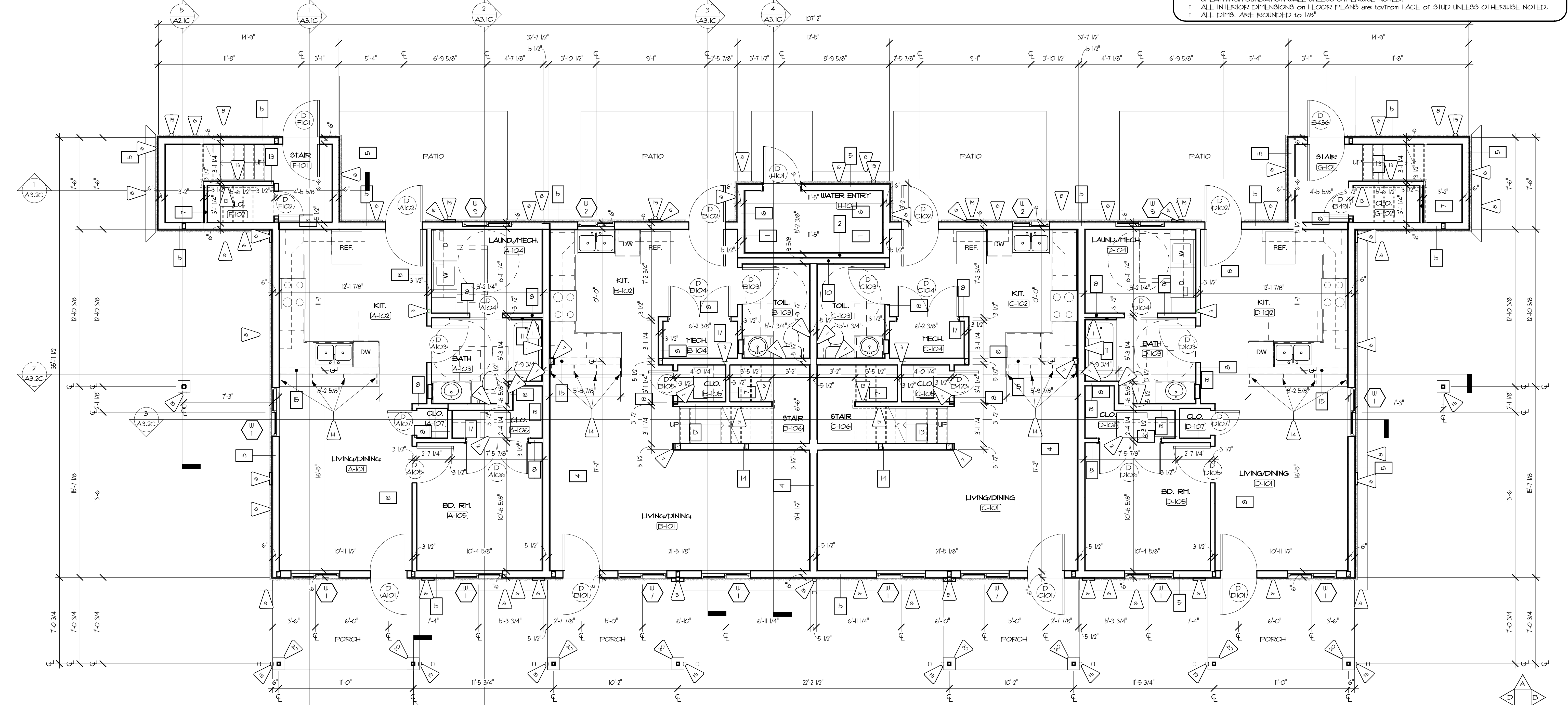
| Flag Note Number | NOTE   |
|------------------|--|
| 1                | PROVIDE and INSTALL WD. BLOCKING FOR FUTURE INSTALLATION OF GRAB BARS  |
| 2                | 24"x30" C.O (F.V.) LOCKING (KEYED TO MASTER KEYING SYSTEM) CRAWL SPACE ACCESS HATCH WITH INTEGRAL FLOOR TOPPING and WD. LADDER   |
| 3                | RADON VENT: 3" SCHED. 40 PVC PIPE FROM 1" FITTING BELOW VAPOR BARRIER IN CRAWL SPACE TO 12" ABOVE ROOF WITH VENT CAP. OFFSET IN CRAWL SPACE TO AVOID BEAM. COORDINATE LOCATION WITH FLOOR TRUSSES. OFFSET WHERE NECESSARY IN ATTIC SPACE FOR RADON VENT TO BE LOCATED ON "BACK" SIDE OF ROOF. RE: ROOF PLAN, ELEVATIONS COORDINATE LOCATION THROUGH ROOF WITH OWNER. RE: RADON VENT at CRAWL SPACE DETAIL. |
| 5                | 12" W. and 3-1/2" D. FOAMED STUCCO POP-OUT at EXTERIOR COLUMN.   |
| 6                | HORIZ/VERTICAL STUCCO POP-OUT, RE: ELEVATIONS  |
| 7                | WRAP INTERIOR WD. COLUMN WITH 5/8" TYPE "X" GYP.   |
| 8                | 1'-0" W. and 4" TH. CONCRETE APRON, RE: SECTIONS, WALL SECTIONS and CIVIL  |
| 9                | IMPORTANT: WINDOW SHALL BE LOCATED IN BLDGS. A3, A4 and A6 ONLY. RE: EXTERIOR ELEVATIONS and CIVIL.  |
| 10               | IMPORTANT: WINDOW SHALL BE LOCATED IN BLDGS. A4, A5 and A6 ONLY. RE: EXTERIOR ELEVATIONS and CIVIL.  |
| 11               | IMPORTANT: WINDOW SHALL BE LOCATED IN BLD. B3 ONLY. RE: EXTERIOR ELEVATIONS and CIVIL.   |
| 12               | IMPORTANT: WINDOW SHALL BE LOCATED IN BLD. B1 ONLY. RE: EXTERIOR ELEVATIONS and CIVIL.   |
| 13               | HANDRAIL at STAIR, at 36" above TREAD NOSING.  |
| 14               | METAL COUNTERTOP SUPPORT BRACKET, RE: INTERIOR ELEVATIONS, SPECIFICATIONS.   |
| 15               | BALCONY METAL TUBE PIPE GUARD RAIL, RE: EXTERIOR ELEVATIONS, DETAILS.  |
| 16               | GRAB BAR, RE: INTERIOR ELEVATIONS  |
| 17               | DECORATIVE 24x24x5 HIGH DENSITY POLYURETHANE BRACKET, PAINT. ARCHITECTURAL ELEMENTS, www.architectural-elements.com, ITEM No. BRA257478-24, or APPROVED EQUAL LOCKING, MIN. 20"x30" ATTIC ACCESS HATCH, KEYED TO MASTER KEY SYSTEM.  |
| 18               | METAL DOWNSPOUT, RE: WALL SECTIONS   |
| 19               | BRICK and STUCCO COLUMN WRAP, RE: WALL SECTIONS/COI. DETAIL  |
| 20               | METAL GUTTER and FIBER CEMENT FASCIA, RE: WALL SECTIONS  |
| 21               | FIBER CEMENT FASCIA, RE: WALL SECTIONS   |
| 22               |  |

**WALL TYPES and NOTES**

| No. | DESCRIPTION  | FIRE RATING | STC     | ACT. NOM. WIDTH |
|-----|--|-------------|---------|-----------------|
| 1   | FIRE PARTITION SEPARATION WALL: 2x6 WD. FRMG. at 16" O.C. with 5/8" TYPE "X" GYP. on ONE SIDE and 1/2" RESILIENT CHANNEL and 5/8" TYPE "X" GYP. BD. on OTHER SIDE of FRMG. MIN. 3" THICK FIBERGLASS BATT IN CAVITY. RUN FULL HEIGHT TO UNDERSIDE of FLOOR/ROOF SHEATHING or to EXTERIOR WALL ABOVE UL DES. No. U311. NOTE: WALL SHALL BE SEALED TO ACT as an AIR BARRIER.  | 1HR         | MIN. 50 | 5 1/4" 5 1/2"   |
| 2   | FIRE PARTITION SEPARATION WALL: 2x4 WD. FRMG. at 16" O.C. with 5/8" TYPE "X" GYP. on ONE SIDE and 1/2" RESILIENT CHANNEL and 5/8" TYPE "X" GYP. BD. on OTHER SIDE of FRMG. RUN FULL HEIGHT TO UNDERSIDE of FLOOR/ROOF SHEATHING. PROVIDE MIN. 3" THK. FIBERGLASS INSULATION IN CAVITY FULL HEIGHT. UL DES. No. U311. NOTE: WALL SHALL BE SEALED TO ACT as an AIR BARRIER.  | 1HR         | MIN. 50 | 5 3/4" 3 1/2"   |
| 3   | FIRE PARTITION SEPARATION WALL: 2x4 WD. STUDS at 24" O.C. with 1/2" SOUNDBOARD and 5/8" TYPE "X" GYP. BD. BOTH SIDES with MIN. 3" TH. FIBERGLASS BATT INSUL. in CAVITY. WALL MUST RUN FULL HEIGHT TO UNDERSIDE of FLOOR or ROOF SHEATHING. UL DES. No. U387. NOTE: WALL SHALL BE SEALED TO ACT as an AIR BARRIER.  | 1HR         | MIN. 50 | 5 3/4" 3 1/2"   |
| 4   | FIRE PARTITION SEPARATION WALL: 2x6 WD. STUDS at 16" O.C. with 1/2" SOUNDBOARD and 5/8" TYPE "X" GYP. BD. BOTH SIDES with MIN. 3" TH. FIBERGLASS BATT INSUL. in CAVITY. WALL MUST RUN FULL HEIGHT TO FLOOR or ROOF SHEATHING ABOVE. UL DES. No. U387. NOTE: WALL SHALL BE SEALED TO ACT as an AIR BARRIER.   | 1HR         | MIN. 50 | 7 3/4" 5 1/2"   |
| 5   | EXTERIOR FINISH SHALL BE: PORTLAND CEMENT PLASTER BASED (3) COAT STUCCO SYSTEM on METAL DIAMOND LATH over (1) LAYER 15 lb FELT, RE: SPECIFICATIONS -OR- FIBER CEMENT LAP SIDING -OR- FIBER CEMENT VERTICAL SIDING over 3/4" TH. x 3-1/2" W. TREATED WOOD FURRING STRIPS at 16" O.C.; RE: ELEVATIONS for LOCATIONS. EXTERIOR FINISH SHALL RUN FROM FOUNDATION TO UNDERSIDE of ROOF SOFFIT. EXTERIOR FINISH SHALL BE OVER 7/16" ZIP SYSTEM WALL SHEATHING on 2x6 WD. FRMG. at 16" O.C. with 5/8" TYPE "X" GYP. BD. on INTERIOR. PROVIDE MIN. R-20 BATT. INSULATION IN WALL CAVITIES FULL HGT.                            | N/A         | N/A     | 7 3/8" 6"       |
| 6   | EXTERIOR FINISH SHALL BE: PORTLAND CEMENT PLASTER BASED (3) COAT STUCCO SYSTEM on METAL DIAMOND LATH over (1) LAYER 15 lb FELT, RE: SPECIFICATIONS -OR- FIBER CEMENT LAP SIDING -OR- FIBER CEMENT VERTICAL SIDING over 3/4" TH. x 3-1/2" W. TREATED WOOD FURRING STRIPS at 16" O.C.; RE: ELEVATIONS for LOCATIONS. EXTERIOR FINISH SHALL RUN FROM FOUNDATION TO UNDERSIDE of ROOF SOFFIT. EXTERIOR FINISH SHALL BE OVER 7/16" ZIP SYSTEM WALL SHEATHING on 2x6 WD. FRMG. at 16" O.C. with 1/2" RESILIENT CHANNEL and 5/8" TYPE "X" GYP. BD. on INTERIOR. PROVIDE MIN. R-20 BATT. INSULATION IN WALL CAVITIES FULL HGT. | N/A         | N/A     | 7 7/8" 6"       |
| 7   | 2x4 WD. STUDS at 24" O.C. with 5/8" TYPE "X" GYP. BD. on ONE SIDE (CLO. SIDE). RUN FROM TOP of FLOOR SLAB TO UNDERSIDE of STAIR STRUCTURE ABOVE.   | N/A         | N/A     | 4 1/8" 3 1/2"   |
| 8   | 2x4 WD. STUDS at 24" O.C. with 5/8" TYPE "X" GYP. BD. BOTH SIDES from TOP of FLOOR SHEATHING TO UNDERSIDE of FLOOR/ROOF STRUCTURE or to UNDERSIDE of FIRE RATED HORIZ. ASSEMBLY ABOVE.   | N/A         | N/A     | 4 3/4" 3 1/2"   |
| 9   | FURRED TUB/SHOWER ENCLOSURE/PLUMBING WALL: 2x4 WD. STUDS at 24" O.C. with 5/8" CEMENT BD. on ONE SIDE ONLY   | N/A         | N/A     | 4 1/8" 3 1/2"   |
| 10  | FURRED STRUCTURAL INTERIOR WALL: 2x6 WD. STUDS at 24" O.C. with 5/8" TYPE "X" GYP. BD. on ONE SIDE   | N/A         | N/A     | 6 1/8" 5 1/2"   |
| 11  | FURRED TUB/SHOWER ENCLOSURE WALL: 2x4 WD. STUDS at 24" O.C. LAID FLAT with 1/2" CEMENT BD. on ONE SIDE ONLY  | N/A         | N/A     | 2" 1 1/2"       |
| 12  | SLOPING STAIR DOUBLE STUD WALL: TWO 2x4 WD. STUDS with 3"-4" AIR SPACE at 24" O.C. with 5/8" TYPE "X" GYP. BD. BOTH SIDES with WOOD CAP. RE: BUILDING SECTIONS for HEIGHT  | N/A         | N/A     | 11 1/8" 9 7/8"  |
| 13  | SLOPING STAIR WALL: 2x4 WD. STUDS at 16" O.C. with 5/8" TYPE "X" GYP. BD. BOTH SIDES with WOOD CAP. RE: BUILDING SECTIONS for HEIGHT.  | N/A         | N/A     | 4 3/4" 5 1/2"   |
| 14  | SLOPING STAIR WALL: 2x6 WD. STUDS at 16" O.C. with 5/8" TYPE "X" GYP. BD. BOTH SIDES with WOOD CAP. RE: BUILDING SECTIONS for HEIGHT.  | N/A         | N/A     | 6 3/4" 5 1/2"   |
| 15  | HALF WALL: 2x6 WD. STUDS at 24" O.C. with 5/8" TYPE "X" GYP. BD. BOTH SIDES. RUN TO UNDERSIDE of COUNTERTOP ABOVE. RE: INTERIOR ELEVATIONS   | N/A         | N/A     | 6 3/4" 5 1/2"   |
| 16  | HALF WALL: 2x4 WD. STUDS at 24" O.C. with 5/8" TYPE "X" GYP. BD. BOTH SIDES. RUN TO UNDERSIDE of FLOOR SHEATHING TO UNDERSIDE of FLOOR/ROOF STRUCTURE ABOVE.   | N/A         | N/A     | 4 3/4" 3 1/2"   |
| 17  | PLUMBING WALL: 2x6 WD. STUDS at 24" O.C. with 5/8" TYPE "X" GYP. BD. BOTH SIDES from TOP of FLOOR SHEATHING TO UNDERSIDE of FLOOR/ROOF STRUCTURE ABOVE.  | N/A         | N/A     | 6 3/4" 5 1/2"   |
| 18  | 2x8 WD. STUDS at 24" O.C. with 5/8" TYPE "X" GYP. BD. BOTH SIDES from TOP of FLOOR SHEATHING TO UNDERSIDE of FLOOR/ROOF STRUCTURE ABOVE.   | N/A         | N/A     | 8 1/2" 7 1/4"   |

**IMPORTANT WALL TYPE GENERAL NOTES:**

- AT ALL WET WALLS (EXCEPT BEHIND TUB/SHOWER ENCLOSURES). PROVIDE 5/8" TYPE "X" MOLD-MILDEW-MOISTURE RESISTANT GYP. BD. AT ALL WET WALLS (ADJACENT TO SINKS, TOILETS, ABOVE TUB/SHOWER ENCLOSURES and WASHING MACHINES) IN LIEU of 5/8" TYPE "X" GYP. BD.
- AT ALL WALLS BEHIND SHOWER/TUB ENCLOSURES. PROVIDE 5/8" CEMENT BD. BEHIND ALL SHOWER/TUB ENCLOSURES IN LIEU of 5/8" TYPE "X" GYP. BD. EXCEPT AT WALL TYPES No. 1, 2, 3 and 4. AT WALL TYPES No. 1, 2, 3 and 4, 1/2" CEMENT BD. SHALL BE INSTALLED IN ADDITION to 5/8" TYPE "X" GYP. BD.
- ALL EXTERIOR DIMENSIONS on FLOOR PLANS are from EXTERIOR FACE of EXTERIOR WALL SHEATHING/FOUNDATION WALL UNLESS OTHERWISE NOTED.
- ALL INTERIOR DIMENSIONS on FLOOR PLANS are to/from FACE of STUD UNLESS OTHERWISE NOTED.
- ALL DIMS. ARE ROUNDED to 1/8"



**GENERAL FLOOR PLAN NOTES:**

- REFER TO CIVIL PLANS for DIMENSIONS of ALL PATIO CONCRETE SLABS.
- PROVIDE THICKENED EDGE at ALL FOUR EDGES of ALL PORCH and PATIO CONC. SLABS. PROVIDE THICKENED EDGE at ALL SIDEWALKS WHERE THEY ABUT BLDG. FOUNDATION WALLS. 1'-0" CONC. APRON SHALL NOT HAVE THICKENED EDGE.

**1st FLOOR - BLDG. C**  
 SC: 1/4" = 1'-0" RE:



# ROOF TYPES

- No. 1** CLASS A, 30 YR. min. ASPHALT SATURATED ORGANIC FELT SHINGLES, COLOR TO BE SELECTED FROM MANUF. STANDARD RANGE ON (2) LAYERS 30 lb. FELT ON 7/16" APA RATED ROOF SHEATHING ON PRE-ENGINEERED WD. TRUSSES AT 24" O.C. WITH MIN. R-49 SPRAYED-ON CLOSED CELL FOAM INSUL. TO UNDERSIDE OF ROOF SHEATHING. PROVIDE "W.R. GRACE" ICE AND WATER SHIELD MEMBRANE UP 16" AT ALL VALLEY (BOTH SIDES), 24" UP FROM ALL EAVES, 24" DOWN ALL RIDGES (BOTH SIDES). INSUL. TO BE PROVIDED ABOVE OCCUPIED INTERIOR SPACES ONLY.
- No. 2** ROOFING AT BACK DOOR AWNINGS and FRONT PORCHES: CLASS A, 30 YR. min. ASPHALT SATURATED ORGANIC FELT SHINGLES, COLOR TO BE SELECTED FROM MANUF. STANDARD RANGE ON (2) LAYERS 30lb. FELT ON 7/16" APA RATED ROOF SHEATHING ON PRE-ENGINEERED WD. TRUSSES AT 24" O.C. RE: STRUCTURAL.
- No. 3** LOW-SLOPE ROOF: SELF-ADHERING SBS-MODIFIED ASPHALT ROOFING SYSTEM: TAMKO SA BASE and SA CAP. www.tamko.com, or APPROVED EQUAL, COLOR TO BE SELECTED BY OWNER/ARCHITECT FROM MANUF. FULL RANGE; OVER 7/16" APA RATED ROOF SHEATHING OVER 2x6 WD. RAFTERS AT 24" O.C. RE: STRUCTURAL.
- No. 4** CLASS A, 30 YR. min. ASPHALT SATURATED ORGANIC FELT SHINGLES, COLOR TO BE SELECTED FROM MANUF. STANDARD RANGE ON (2) LAYERS 30lb. FELT ON 7/16" APA RATED ROOF SHEATHING ON PRE-ENGINEERED WD. TRUSSES AT 24" O.C. RE: STRUCTURAL. PROVIDE R-34 (RE: SPECIFICATIONS, ENERGY MODEL) SPRAYED-ON CLOSED CELL FOAM INSUL. TO UNDERSIDE OF ROOF SHEATHING AT OCCUPIED SPACES.

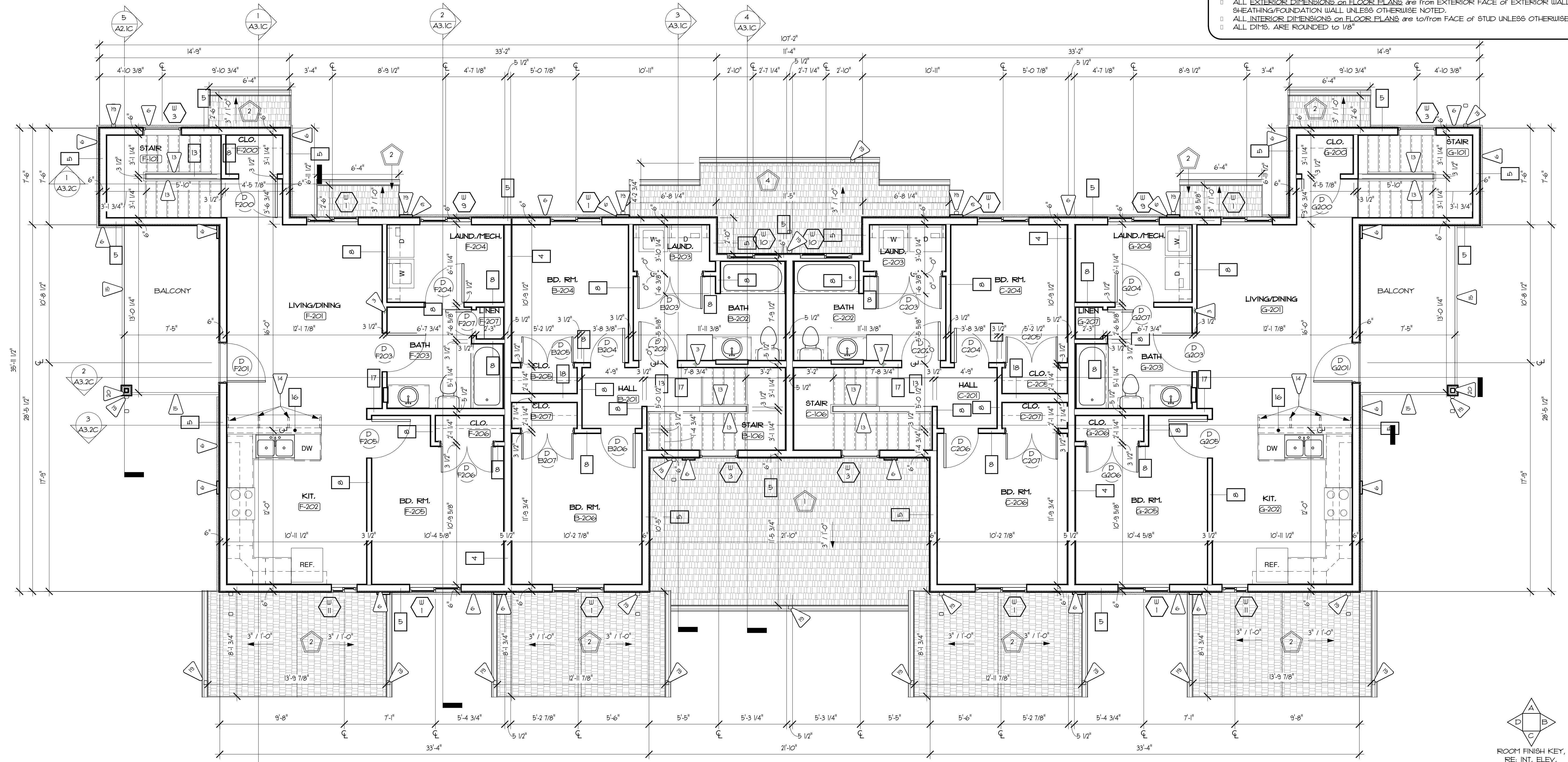
# NEW WORK FLAG NOTES

- Flag Note Number**
- PROVIDE and INSTALL WD. BLOCKING FOR FUTURE INSTALLATION OF GRAB BARS 24"x30" C.O. (F.V.), LOCKING (KEYED TO MASTER KEYING SYSTEM) CRAWL SPACE ACCESS HATCH WITH INTEGRAL FLOOR TOPPING and WD. LADDER.
  - RADON VENT: 3" SCHED. 40 P.V.C PIPE FROM "T" FITTING BELOW VAPOR BARRIER IN CRAWL SPACE TO 12" ABOVE ROOF WITH VENT CAP. OFFSET IN CRAWL SPACE TO AVOID BEAM. COORDINATE LOCATION WITH FLOOR TRUSSES. OFFSET WHERE NECESSARY IN ATTIC SPACE FOR RADON VENT TO BE LOCATED ON "BACK" SIDE OF ROOF. RE: ROOF PLAN, ELEVATIONS. COORDINATE LOCATION THROUGH ROOF WITH OWNER. RE: RADON VENT AT CRAWL SPACE DETAIL.
  - 12" W. and 3-1/2" D. FOAMED STUCCO POP-OUT AT EXTERIOR COLUMN.
  - HORIZ/VERTICAL STUCCO POP-OUT, RE: ELEVATIONS
  - WRAP INTERIOR WD. COLUMN WITH 5/8" TYPE "X" GYP.
  - 1'-0" W. and 4" TH. CONCRETE APRON, RE: SECTIONS, WALL SECTIONS and CIVIL
  - IMPORTANT: WINDOW SHALL BE LOCATED IN BLDGS. A3, A4 and A6 ONLY. RE: EXTERIOR ELEVATIONS and CIVIL.
  - IMPORTANT: WINDOW SHALL BE LOCATED IN BLDGS. A4, A5 and A6 ONLY. RE: EXTERIOR ELEVATIONS and CIVIL.
  - IMPORTANT: WINDOW SHALL BE LOCATED IN BLD. B3 ONLY. RE: EXTERIOR ELEVATIONS and CIVIL.
  - IMPORTANT: WINDOW SHALL BE LOCATED IN BLD. B1 ONLY. RE: EXTERIOR ELEVATIONS and CIVIL.
  - HANDRAIL AT STAIR, at 36" above TREAD NOSING.
  - METAL COUNTERTOP SUPPORT BRACKET, RE: INTERIOR ELEVATIONS, SPECIFICATIONS.
  - BALCONY METAL TUBE PIPE GUARD RAIL, RE: EXTERIOR ELEVATIONS, DETAILS.
  - GRAB BAR, RE: INTERIOR ELEVATIONS
  - DECORATIVE 24x24x5 HIGH DENSITY POLYURETHANE BRACKET, PAINT, ARCHITECTURAL ELEMENTS, www.architectural-elements.com, ITEM No. BRA257479-24, or APPROVED EQUAL.
  - LOCKING, MIN. 20"x30" ATTIC ACCESS HATCH, KEYED TO MASTER KEY SYSTEM.
  - METAL DOWNSPOUT, RE: WALL SECTIONS
  - BRICK and STUCCO COLUMN WRAP, RE: WALL SECTIONS/COL. DETAIL
  - METAL GUTTER and FIBER CEMENT FASCIA, RE: WALL SECTIONS
  - FIBER CEMENT FASCIA, RE: WALL SECTIONS

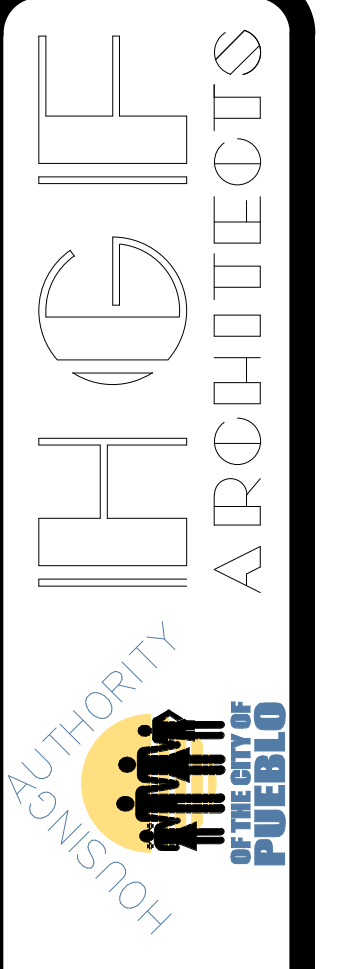
# WALL TYPES and NOTES

- No. 1** FIRE PARTITION SEPARATION WALL: 2x6 WD. FRMG. at 16" O.C. with 5/8" TYPE "X" GYP. on ONE SIDE and 1/2" RESILIENT CHANNEL and 5/8" TYPE "X" GYP. BD. on OTHER SIDE of FRMG. MIN. 3" THICK FIBERGLASS BATT IN CAVITY. RUN FULL HEIGHT TO UNDERSIDE OF FLOOR/ROOF SHEATHING or to EXTERIOR WALL ABOVE UL DES. No. U311. NOTE: WALL SHALL BE SEALED TO ACT as an AIR BARRIER.
- No. 2** FIRE PARTITION SEPARATION WALL: 2x4 WD. FRMG. at 16" O.C. with 5/8" TYPE "X" GYP. on ONE SIDE and 1/2" RESILIENT CHANNEL and 5/8" TYPE "X" GYP. BD. on OTHER SIDE of FRMG. RUN FULL HEIGHT TO UNDERSIDE OF FLOOR/ROOF SHEATHING. PROVIDE MIN. 3" THK. FIBERGLASS INSULATION IN CAVITY FULL HEIGHT. UL DES. No. U311. NOTE: WALL SHALL BE SEALED TO ACT as an AIR BARRIER.
- No. 3** FIRE PARTITION SEPARATION WALL: 2x4 WD. STUDS at 24" O.C. with 1/2" SOUNDBOARD and 5/8" TYPE "X" GYP. BD. BOTH SIDES with MIN. 3" TH. FIBERGLASS BATT INSUL. in CAVITY. WALL MUST RUN FULL HEIGHT TO UNDERSIDE OF FLOOR or ROOF SHEATHING. UL DES. No. U387. NOTE: WALL SHALL BE SEALED TO ACT as an AIR BARRIER.
- No. 4** FIRE PARTITION SEPARATION WALL: 2x6 WD. STUDS at 16" O.C. with 1/2" SOUNDBOARD and 5/8" TYPE "X" GYP. BD. BOTH SIDES with MIN. 3" TH. FIBERGLASS BATT INSUL. in CAVITY. WALL MUST RUN FULL HEIGHT TO FLOOR or ROOF SHEATHING ABOVE. UL DES. No. U387. NOTE: WALL SHALL BE SEALED TO ACT as an AIR BARRIER.
- No. 5** EXTERIOR FINISH SHALL BE: PORTLAND CEMENT PLASTER BASED (3) COAT STUCCO SYSTEM on METAL DIAMOND LATH over (1) LAYER 15 lb FELT, RE: SPECIFICATIONS -OR- FIBER CEMENT LAP SIDING -OR- FIBER CEMENT VERTICAL SIDING over 3/4" TH. x 3-1/2" W. TREATED WOOD FURRING STRIPS at 16" O.C. RE: ELEVATIONS for LOCATIONS. EXTERIOR FINISH SHALL RUN FROM FOUNDATION TO UNDERSIDE OF ROOF SOFFIT. EXTERIOR FINISH SHALL BE OVER 7/16" ZIP SYSTEM WALL SHEATHING ON 2x6 WD. FRMG. at 16" O.C. with 5/8" TYPE "X" GYP. BD. on INTERIOR. PROVIDE MIN. R-20 BATT. INSULATION IN WALL CAVITIES FULL HGT.
- No. 6** EXTERIOR FINISH SHALL BE: PORTLAND CEMENT PLASTER BASED (3) COAT STUCCO SYSTEM on METAL DIAMOND LATH over (1) LAYER 15 lb FELT, RE: SPECIFICATIONS -OR- FIBER CEMENT LAP SIDING -OR- FIBER CEMENT VERTICAL SIDING over 3/4" TH. x 3-1/2" W. TREATED WOOD FURRING STRIPS at 16" O.C. RE: ELEVATIONS for LOCATIONS. EXTERIOR FINISH SHALL RUN FROM FOUNDATION TO UNDERSIDE OF ROOF SOFFIT. EXTERIOR FINISH SHALL BE OVER 7/16" ZIP SYSTEM WALL SHEATHING ON 2x6 WD. FRMG. at 16" O.C. with 1/2" RESILIENT CHANNEL and 5/8" TYPE "X" GYP. BD. on INTERIOR. PROVIDE MIN. R-20 BATT. INSULATION IN WALL CAVITIES FULL HGT.
- No. 7** 2x4 WD. STUDS at 24" O.C. with 5/8" TYPE "X" GYP. BD. on ONE SIDE (C/O. SIDE). RUN FROM TOP of FLOOR SLAB TO UNDERSIDE of STAIR STRUCTURE ABOVE.
- No. 8** 2x4 WD. STUDS at 24" O.C. with 5/8" TYPE "X" GYP. BD. BOTH SIDES from TOP of FLOOR SHEATHING TO UNDERSIDE of FLOOR/ROOF STRUCTURE or to UNDERSIDE of FIRE RATED HORIZ. ASSEMBLY ABOVE.
- No. 9** FURRED TUB/SHOWER ENCLOSURE/PLUMBING WALL: 2x4 WD. STUDS at 24" O.C. with 5/8" CEMENT BD. ONE SIDE ONLY
- No. 10** FURRED STRUCTURAL INTERIOR WALL: 2x6 WD. STUDS at 16" O.C. with 5/8" TYPE "X" GYP. BD. on ONE SIDE
- No. 11** FURRED TUB/SHOWER ENCLOSURE WALL: 2x4 WD. STUDS at 24" O.C. LAID FLAT with 1/2" CEMENT BD. on ONE SIDE ONLY
- No. 12** SLOPING STAIR DOUBLE STUD WALL: TWO 2x4 WD. STUDS with 3"-4" AIR SPACE at 24" O.C. with 5/8" TYPE "X" GYP. BD. BOTH SIDES with WOOD CAP. RE: BUILDING SECTIONS for HEIGHT
- No. 13** SLOPING STAIR WALL: 2x4 WD. STUDS at 16" O.C. with 5/8" TYPE "X" GYP. BD. BOTH SIDES with WOOD CAP. RE: BUILDING SECTIONS for HEIGHT.
- No. 14** SLOPING STAIR WALL: 2x6 WD. STUDS at 16" O.C. with 5/8" TYPE "X" GYP. BD. BOTH SIDES with WOOD CAP. RE: BUILDING SECTIONS for HEIGHT.
- No. 15** HALF WALL: 2x6 WD. STUDS at 24" O.C. with 5/8" TYPE "X" GYP. BD. BOTH SIDES. RUN TO UNDERSIDE of COUNTERTOP ABOVE. RE: INTERIOR ELEVATIONS
- No. 16** HALF WALL: 2x4 WD. STUDS at 24" O.C. with 5/8" TYPE "X" GYP. BD. BOTH SIDES. RUN TO UNDERSIDE of COUNTERTOP ABOVE. RE: INTERIOR ELEVATIONS
- No. 17** PLUMBING WALL: 2x6 WD. STUDS at 24" O.C. with 5/8" TYPE "X" GYP. BD. BOTH SIDES from TOP of FLOOR SHEATHING TO UNDERSIDE of FLOOR/ROOF STRUCTURE ABOVE.
- No. 18** 2x8 WD. STUDS at 24" O.C. with 5/8" TYPE "X" GYP. BD. BOTH SIDES from TOP of FLOOR SHEATHING TO UNDERSIDE of FLOOR/ROOF STRUCTURE ABOVE.

- IMPORTANT WALL TYPE GENERAL NOTES:**
- AT ALL WET WALLS (EXCEPT BEHIND TUB/SHOWER ENCLOSURES); PROVIDE 5/8" TYPE "X" MOLD-MILDWE-MOISTURE RESISTANT GYP. BD. AT ALL WET WALLS (ADJACENT TO SINKS, TOILETS, ABOVE TUB/SHOWER ENCLOSURES and WASHING MACHINES) IN LIEU of 5/8" TYPE "X" GYP. BD.
  - AT ALL WALLS BEHIND SHOWER/TUB ENCLOSURES; PROVIDE 5/8" CEMENT BD. BEHIND ALL SHOWER/TUB ENCLOSURES IN LIEU of 5/8" TYPE "X" GYP. BD. EXCEPT AT WALL TYPES No. 1, 2, 3 and 4.
  - AT WALL TYPES No. 1, 2, 3 and 4, 1/2" CEMENT BD. SHALL BE INSTALLED IN ADDITION to 5/8" TYPE "X" GYP. BD.
  - ALL EXTERIOR DIMENSIONS on FLOOR PLANS are from EXTERIOR FACE of EXTERIOR WALL SHEATHING/FOUNDATION WALL UNLESS OTHERWISE NOTED.
  - ALL INTERIOR DIMENSIONS on FLOOR PLANS are to/from FACE of STUD UNLESS OTHERWISE NOTED.
  - ALL DIMS. ARE ROUNDED to 1/8"



**2nd FLOOR - BLDG. C**  
 SC: 1/4" = 1'-0" RE:

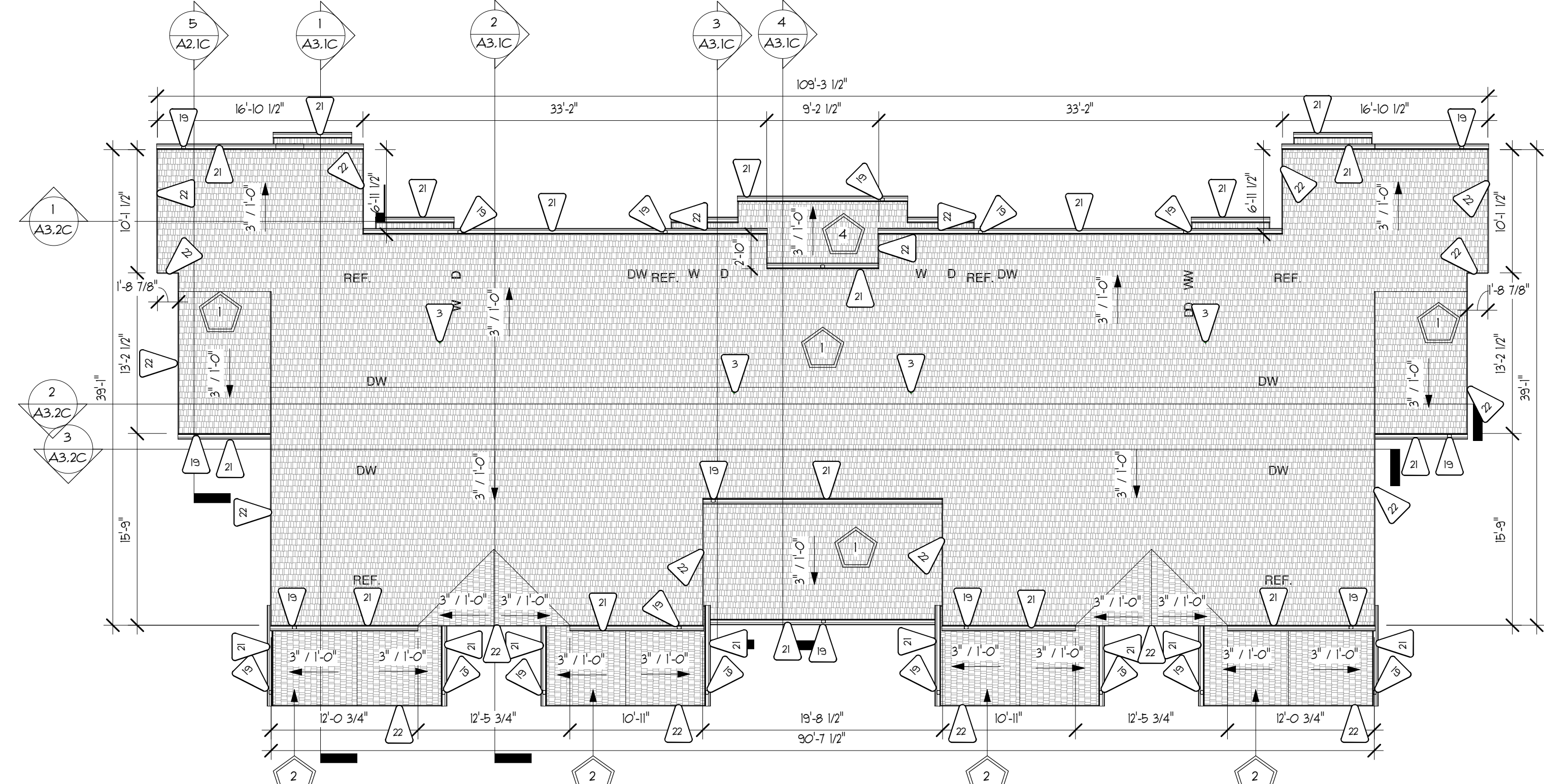


**MOUNTAIN VIEW TOWNHOMES**  
**PROJECT No.: I.F.B. 19-522-RAD**  
 ACERO AVE. and SPRAGUE AVE. PUEBLO, COLORADO

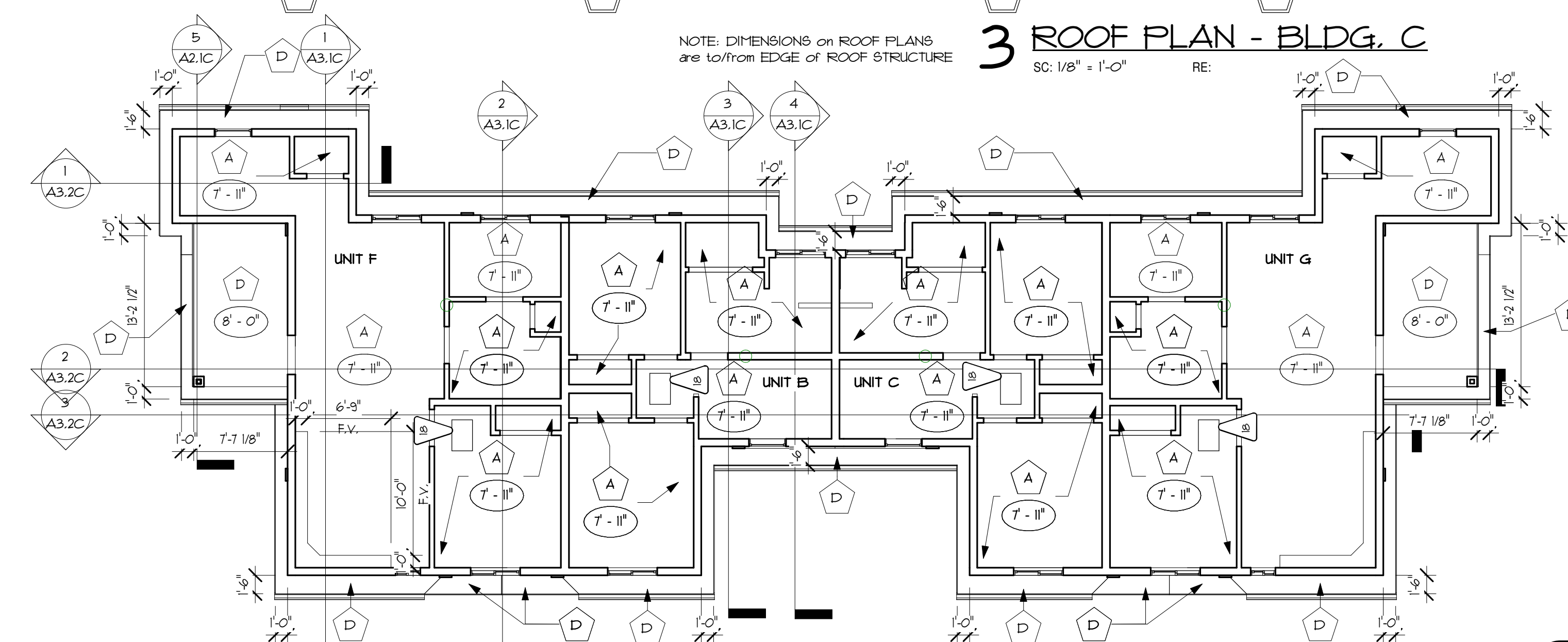
DATE: 04/16/2019  
 DRAWN: JSR  
 CHECK: AHS  
 REVISIONS:

SHEET: **A1.2C**

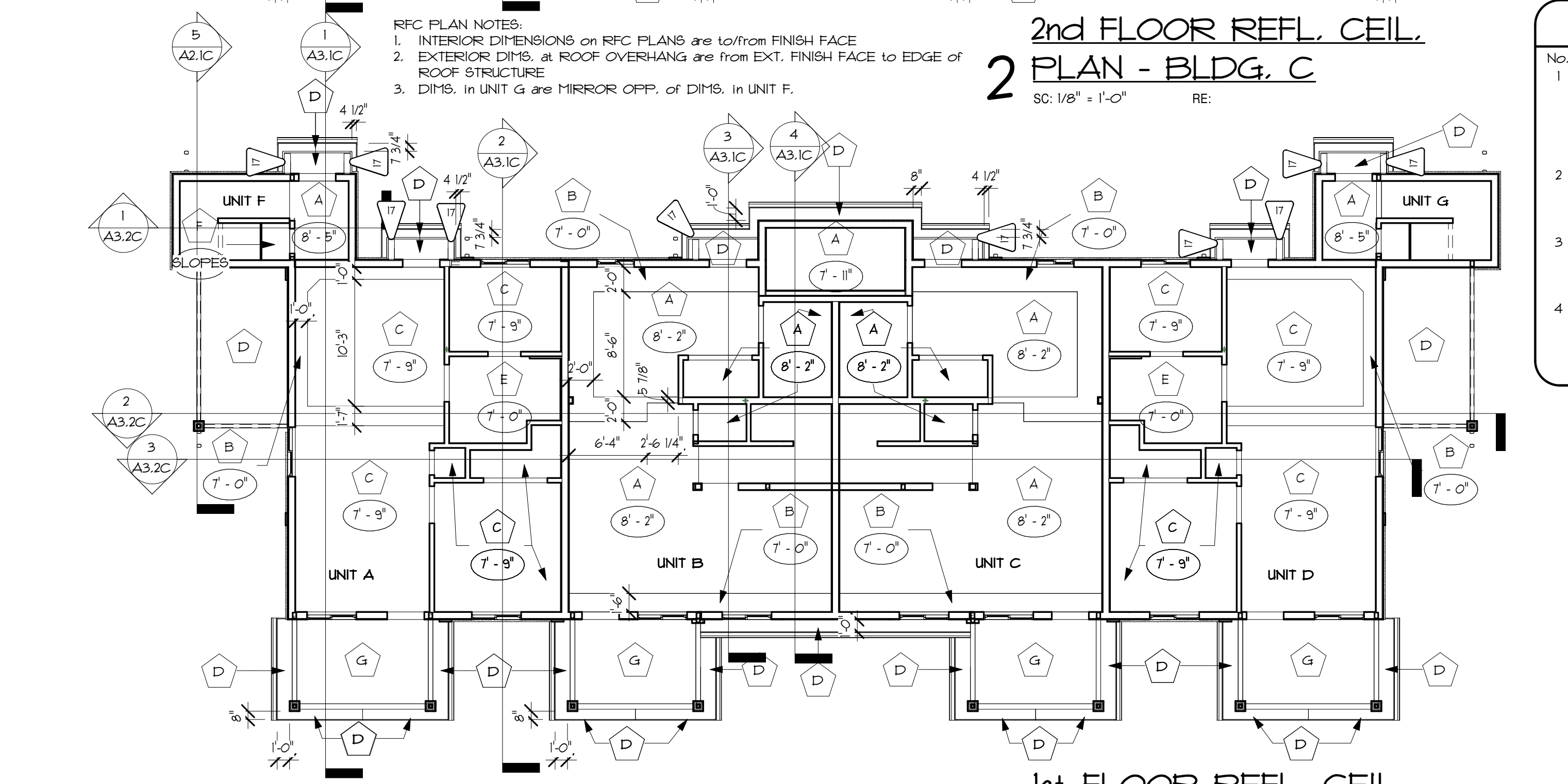




**3 ROOF PLAN - BLDG. C**  
 SC: 1/8" = 1'-0" RE:



**2nd FLOOR REF. CEIL.**  
**2 PLAN - BLDG. C**  
 SC: 1/8" = 1'-0" RE:



**1st FLOOR REF. CEIL.**  
**1 PLAN - BLDG. C**  
 SC: 1/8" = 1'-0" RE:

**NEW WORK FLAG NOTES**

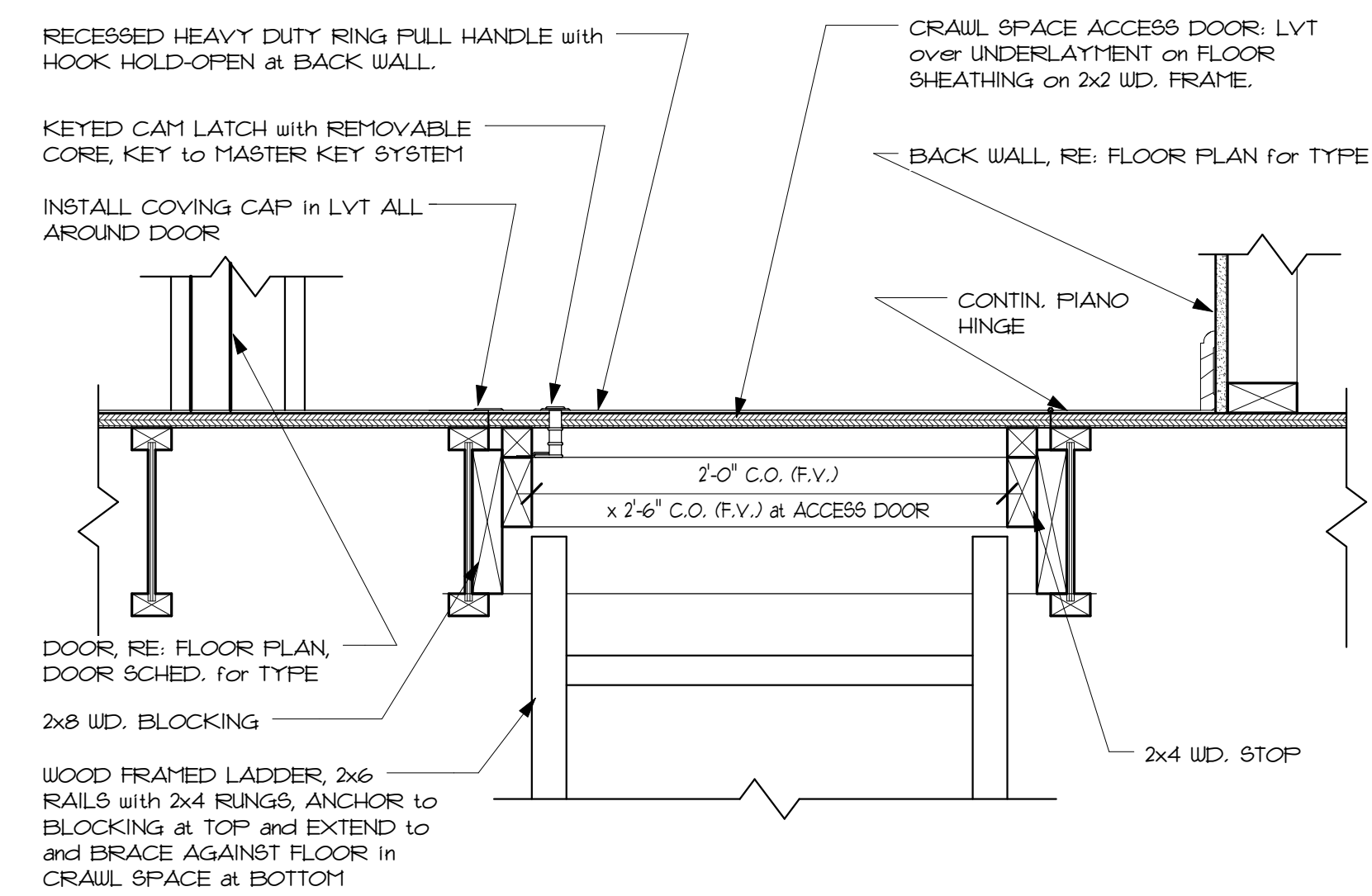
| Flag Note Number | NOTE   |
|------------------|--|
| 1                | PROVIDE and INSTALL WD. BLOCKING for FUTURE INSTALLATION of GRAB BARS  |
| 2                | 24"x30" C.O (F.V.), LOCKING (KEYED to MASTER KEYING SYSTEM) CRAWL SPACE ACCESS HATCH with INTEGRAL FLOOR TOPPING and WD. LADDER  |
| 3                | RADON VENT: 3" SCHED. 40 PVC PIPE from "T" FITTING BELOW VAPOR BARRIER in CRAWL SPACE to 12" ABOVE ROOF with VENT CAP, OFFSET IN CRAWL SPACE to AVOID BEAM. COORDINATE LOCATION with FLOOR TRUSSES, OFFSET WHERE NECESSARY in ATTIC SPACE for RADON VENT to BE LOCATED on "BACK" SIDE of ROOF. RE: ROOF PLAN, ELEVATIONS, COORDINATE LOCATION through ROOF with OWNER. RE: RADON VENT at CRAWL SPACE DETAIL. |
| 4                | 12" W. and 3-1/2" D. FOAMED STUCCO POP-OUT at EXTERIOR COLUMN.   |
| 5                | HORIZ/VERTICAL STUCCO POP-OUT, RE: ELEVATIONS  |
| 6                | WRAP INTERIOR WD. COLUMN with 5/8" TYPE "X" GYP.   |
| 7                | 1'-0" W. and 4" TH. CONCRETE AFFRON, RE: SECTIONS, WALL SECTIONS and CIVIL   |
| 8                | IMPORTANT: WINDOW SHALL BE LOCATED IN BLDGS. A4, A5 and A6 ONLY. RE: EXTERIOR ELEVATIONS and CIVIL.  |
| 9                | IMPORTANT: WINDOW SHALL BE LOCATED IN BLDG. A4, A5 and A6 ONLY. RE: EXTERIOR ELEVATIONS and CIVIL.   |
| 10               | IMPORTANT: WINDOW SHALL BE LOCATED IN BLD. B3 ONLY. RE: EXTERIOR ELEVATIONS and CIVIL.   |
| 11               | IMPORTANT: WINDOW SHALL BE LOCATED IN BLD. B1 ONLY. RE: EXTERIOR ELEVATIONS and CIVIL.   |
| 12               | HANDRAIL at STAIR, at 36" above TREAD NOSING.  |
| 13               | METAL COUNTERTOP SUPPORT BRACKET, RE: INTERIOR ELEVATIONS, SPECIFICATIONS.   |
| 14               | BALCONY METAL TUBE PIPE GUARD RAIL, RE: EXTERIOR ELEVATIONS, DETAILS.  |
| 15               | GRAB BAR, RE: INTERIOR ELEVATIONS  |
| 16               | DECORATIVE 24x24x5 HIGH DENSITY POLYURETHANE BRACKET, PAINT, ARCHITECTURAL ELEMENTS, www.architectural-elements.com, ITEM No. BRA25747B-24, or APPROVED EQUAL.   |
| 17               | LOCKING, MIN. 20"x30" ATTIC ACCESS HATCH, KEYED to MASTER KEY SYSTEM.  |
| 18               | METAL DOWNSPOUT, RE: WALL SECTIONS   |
| 19               | BRICK and STUCCO COLUMN WRAP, RE: WALL SECTIONS/COL. DETAIL  |
| 20               | METAL GUTTER and FIBER CEMENT FASCIA, RE: WALL SECTIONS  |
| 21               | FIBER CEMENT FASCIA, RE: WALL SECTIONS   |

**ROOF TYPES**

| No. | Description  |
|-----|--|
| 1   | CLASS A 30 YR. min. ASPHALT SATURATED ORGANIC FELT SHINGLES, COLOR to be SELECTED from MANUF. STANDARD RANGE on (2) LAYERS 30 lb. FELT on 7/16" APA RATED ROOF SHEATHING on PRE-ENGINEERED WD. TRUSSES at 24" O.C. with MIN. R-49 SPRAYED-ON CLOSED CELL FOAM INSUL. to UNDERSIDE of ROOF SHEATHING. PROVIDE "W.R. GRACE" ICE and WATER SHIELD MEMBRANE UP 16" at ALL VALLEY (BOTH SIDES), 24" UP from ALL EAVES, 24" DOWN ALL RIDGES (BOTH SIDES). INSUL. to be PROVIDED above OCCUPIED INTERIOR SPACES ONLY. |
| 2   | ROOFING at BACK DOOR AWNINGS and FRONT PORCHES: CLASS A 30 YR. min. ASPHALT SATURATED ORGANIC FELT SHINGLES, COLOR to be SELECTED from MANUF. STANDARD RANGE on (2) LAYERS 30lb. FELT on 7/16" APA RATED ROOF SHEATHING on PRE-ENGINEERED WD. TRUSSES at 24" O.C. RE: STRUCTURAL.  |
| 3   | LOW-SLOPE ROOF: SELF-ADHERING SBS-MODIFIED ASPHALT ROOFING SYSTEM: TANIKO SA BASE and SA CAP, www.taniko.com, or APPROVED EQUAL. COLOR to be SELECTED by OWNER/ARCHITECT from MANUF. FULL RANGE over 7/16" APA RATED ROOF SHEATHING over 2x6 WD. RAFTERS at 24" O.C. RE: STRUCTURAL.   |
| 4   | CLASS A, 30 YR. min. ASPHALT SATURATED ORGANIC FELT SHINGLES, COLOR to be SELECTED from MANUF. STANDARD RANGE on (2) LAYERS 30lb. FELT on 7/16" APA RATED ROOF SHEATHING on PRE-ENGINEERED WD. TRUSSES at 24" O.C. RE: STRUCTURAL. PROVIDE R-34 (RE: SPECIFICATIONS, ENERGY MODEL) SPRAYED-ON CLOSED CELL FOAM INSUL. to UNDERSIDE of ROOF SHEATHING at OCCUPIED SPACES.   |

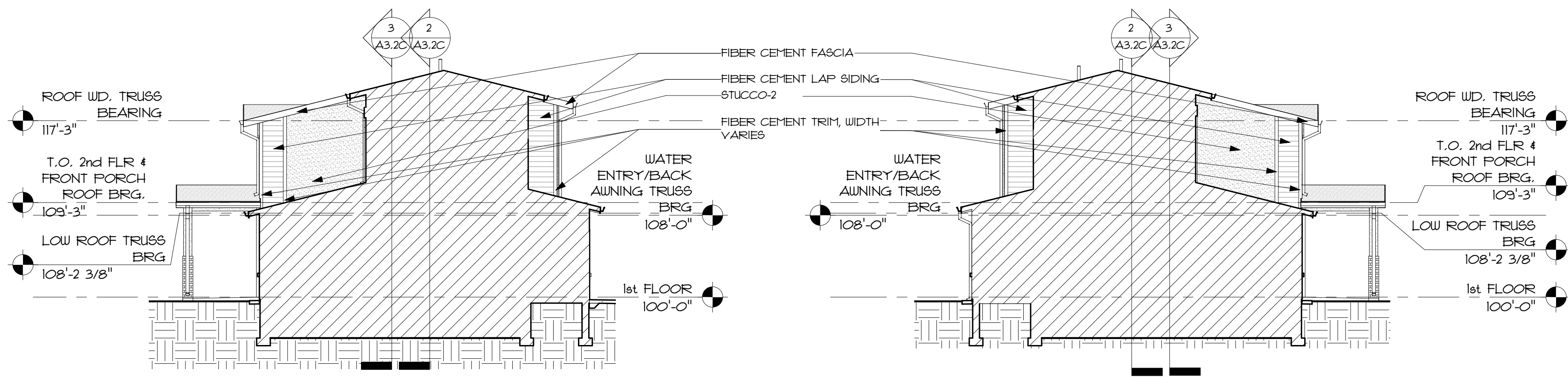
**CEILING TYPES**

| Mark | Description  |
|------|--|
| A    | 5/8" TYPE "X" GYP. BD. ATTACHED to UNDERSIDE of FLOOR/ROOF FRMG.   |
| B    | INTERIOR SOFFIT: 5/8" TYPE "X" GYP. BD. ATTACHED to 2x WD. FRMG. at 16" O.C.   |
| C    | CEILING at FIRE RATED FLOOR ASSEMBLY UL 1570: 1/2" RESILIENT CHANNEL at 12" O.C. and TWO (2) LAYERS of 1/2" TYPE "X" GYP. BD. ATTACHED to UNDERSIDE of FLOOR/ROOF FRMG. RE: FLOOR TYPES, BLDG. SECTIONS, WALL SECTIONS |
| D    | EXTERIOR FIBER CEMENT SOFFIT. 5/8" FIBER CEMENT SOFFIT ATTACHED to UNDERSIDE of ROOF FRAMING, PAINT.   |
| E    | SUSPENDED GYP. BD. CEILING: 5/8" TYPE "X" GYP. BD. ATTACHED to 2x WD. FRMG. at 16" O.C., CEILING TYPE "C" SHALL RUN CONTIN. THROUGHOUT UNIT ABOVE this SUSPENDED CEILING.  |
| F    | 5/8" TYPE "X" GYP. BD. ATTACHED to UNDERSIDE of STAIR FRAMING  |
| G    | EXTERIOR FIBER CEMENT SOFFIT at PORCH: 5/8" FIBER CEMENT BEADBOARD SOFFIT ATTACHED to UNDERSIDE of ROOF FRAMING, PAINT.  |



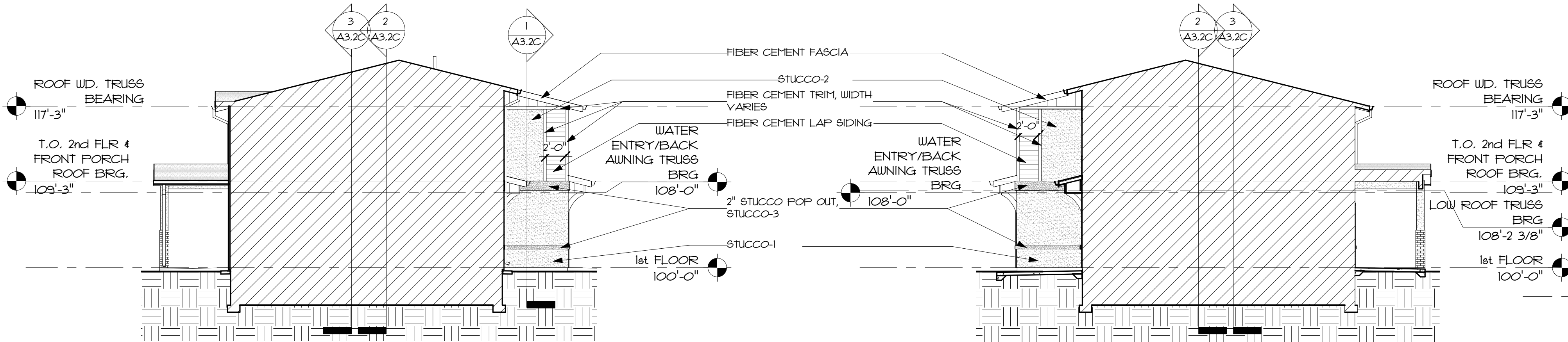
**TYP. DETAIL at CRAWL SPACE ACCESS**  
 SC: 1 1/2" = 1'-0" RE:





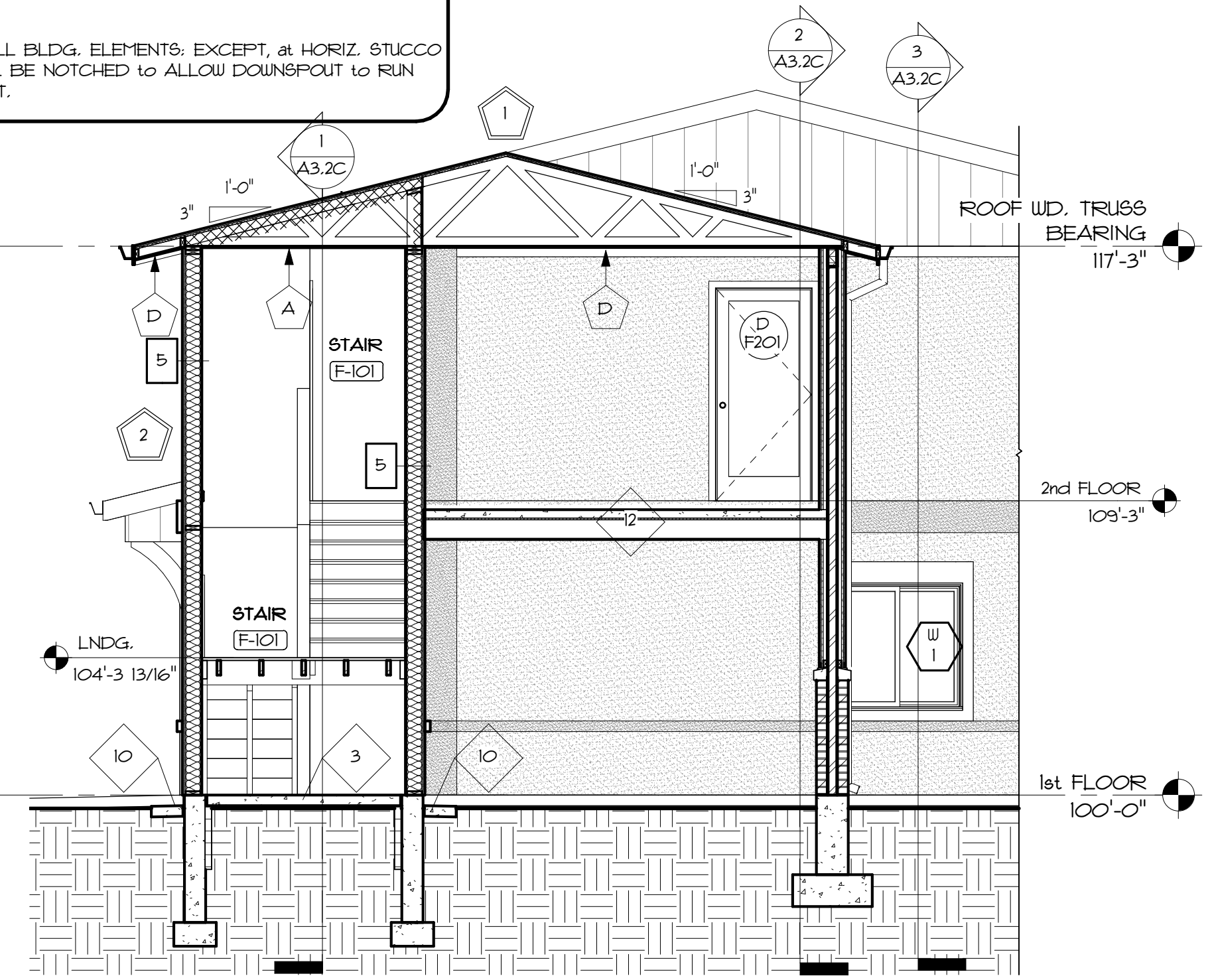
**BLDG. C RIGHT SIDE**  
**9 RECESSED ELEV.**  
SC: 1/8" = 1'-0" RE:

**BLDG. C LEFT SIDE**  
**8 RECESSED ELEV.**  
SC: 1/8" = 1'-0" RE:

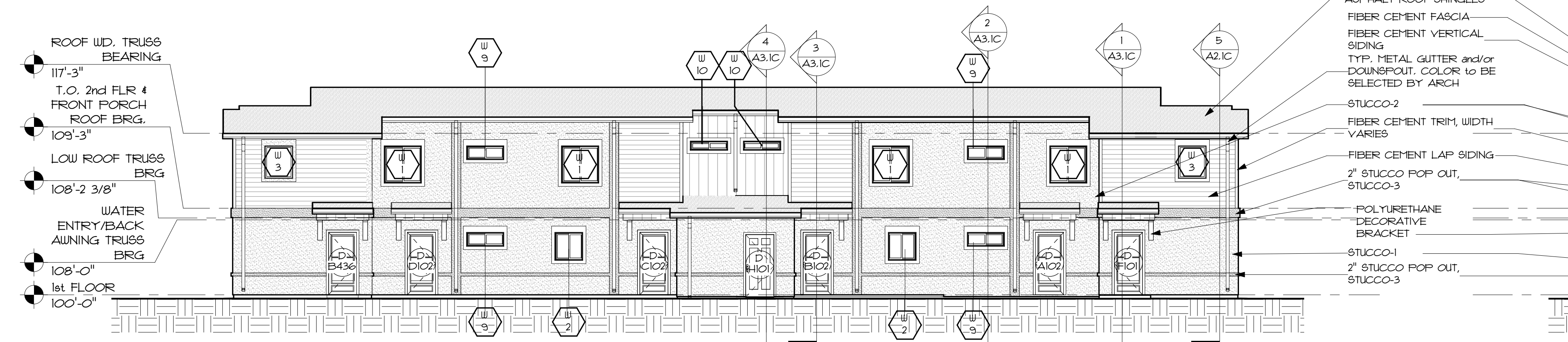


**BLDG. C RIGHT SIDE**  
**7 RECESSED ELEV. at**  
**STAIRS**  
SC: 1/8" = 1'-0" RE:

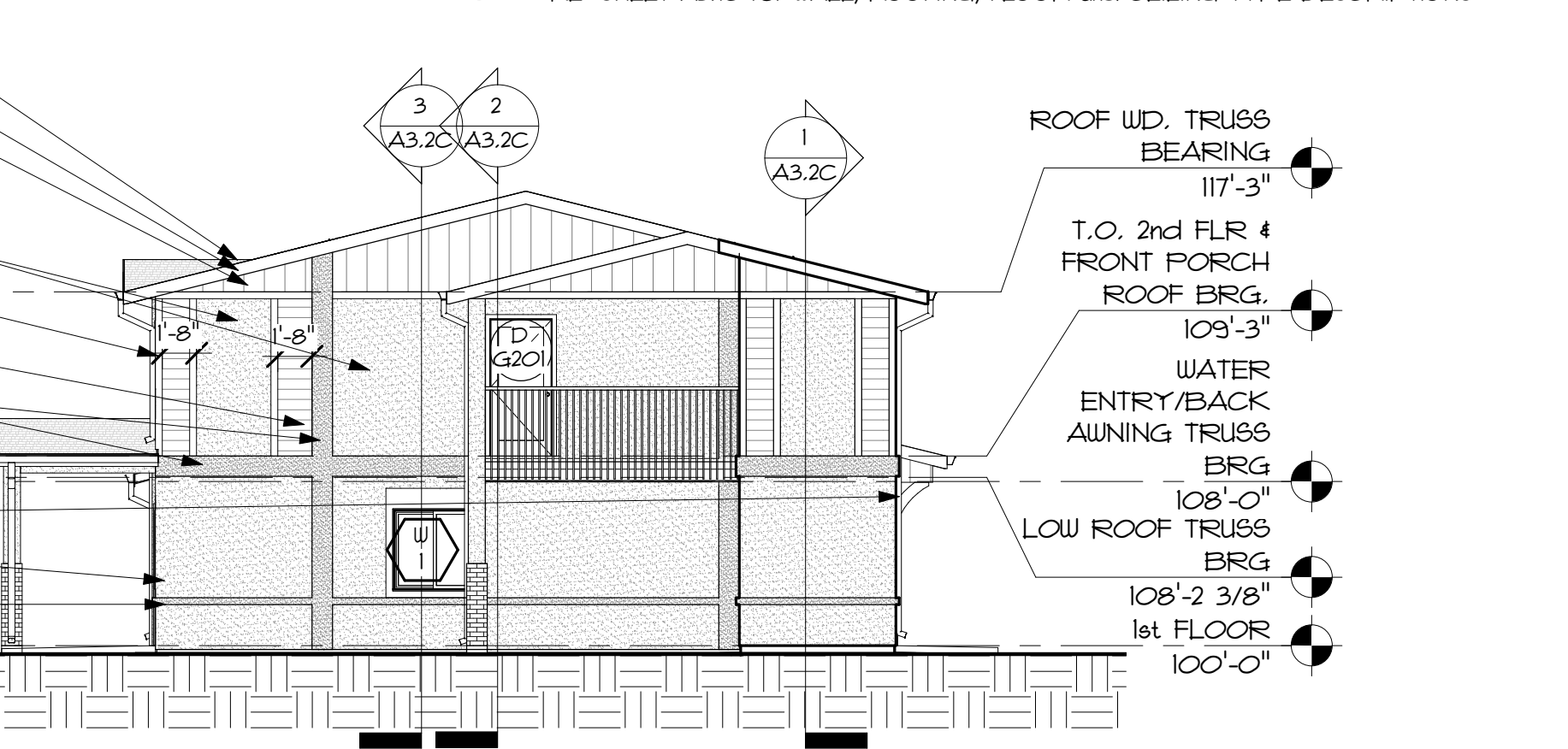
**BLDG. C LEFT SIDE**  
**6 RECESSED ELEV. at**  
**STAIRS**  
SC: 1/8" = 1'-0" RE:



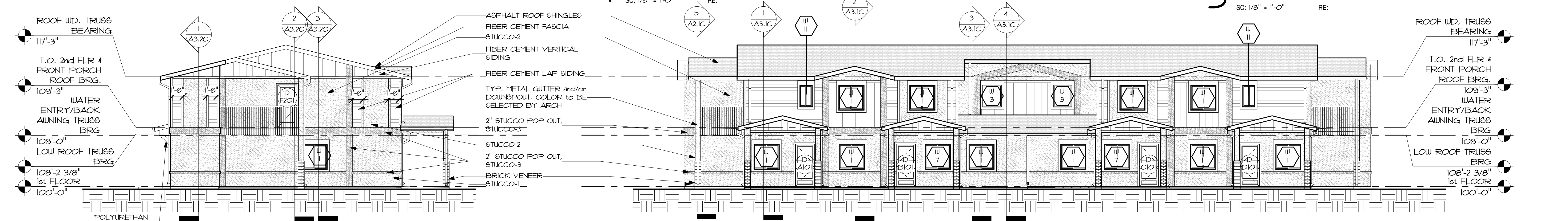
**5 BLDG. C SECTION No. 8**  
RE: SHEET A3.1C for WALL, ROOFING, FLOOR and CEILING TYPE DESCRIPTIONS



**4 BLDG. C BACK ELEV.**  
SC: 1/8" = 1'-0" RE:



**3 BLDG. C RIGHT SIDE**  
**ELEV.**  
SC: 1/8" = 1'-0" RE:



**2 BLDG. C LEFT SIDE ELEV.**  
SC: 1/8" = 1'-0" RE:

**1 BLDG. C FRONT ELEV.**  
SC: 1/8" = 1'-0" RE:

- ### ELEVATION GENERAL NOTES
1. MAINTAIN A 1/4" CLEARANCE BETWEEN STUCCO and HARDIEBOARD PRODUCT for EXPANSION, CAULK CONTINUOUSLY AT ALL STUCCO TO HARDIEBOARD SIDING JOINTS. RE: SPECIFICATIONS.
  2. PROVIDE AND INSTALL STUCCO CONTROL JOINT (SCJ) EVERY 12'-0" VERTICALLY AND HORIZONTALLY, BETWEEN STUCCO COLOR CHANGES, AND AT EVERY OTHER LOCATION INDICATED. RE: SPECIFICATIONS.
  3. CONTRACTOR TO PROVIDE for (3) DIFFERENT EXTERIOR COLOR SCHEMES for ALL EXTERIOR FINISHES; i.e. (3) DIFFERENT COLORS for EACH, FIBER CEMENT LAP SIDING, FIBER CEMENT VERT. SIDING, FIBER CEMENT TRIM, FIBER CEMENT FASCIA, HARDIEBOARD SOFFIT, STUCCO No. 1, STUCCO No. 2, STUCCO No. 3 at POP-OUTS, GUTTERS and DOWNSPOUTS, ASPHALT ROOF SHINGLES and BRICK. COLOR SCHEME MAY VARY per EACH INDIVIDUAL BUILDING on SITE.
  4. AT ALL CONNECTIONS of METAL DOWNSPOUT to DRAIN BOOT, PROVIDE AIR GAP.
  5. ALL EXPOSED FLASHING to BE PRE-FIN. COLOR to BE SELECTED by OWNER/ARCHITECT from MANUF. FULL RANGE.
  6. OFFSET DOWNSPOUTS as REQUIRED at ALL BLDG. ELEMENTS, EXCEPT, at HORIZ. STUCCO POP-OUTS, HORIZ. STUCCO POP-OUT SHALL BE NOTCHED to ALLOW DOWNSPOUT to RUN CONTINUOUS WITHOUT OFFSET in DOWNSPOUT.

### ELEVATION MATERIAL LEGEND

|  |                              |  |                   |
|--|------------------------------|--|-------------------|
|  | FIBER CEMENT LAP SIDING      |  | STUCCO-3          |
|  | FIBER CEMENT VERTICAL SIDING |  | ASPHALT SHINGLES  |
|  | STUCCO-1                     |  | BRICK             |
|  | STUCCO-2                     |  | FIBER CEMENT TRIM |

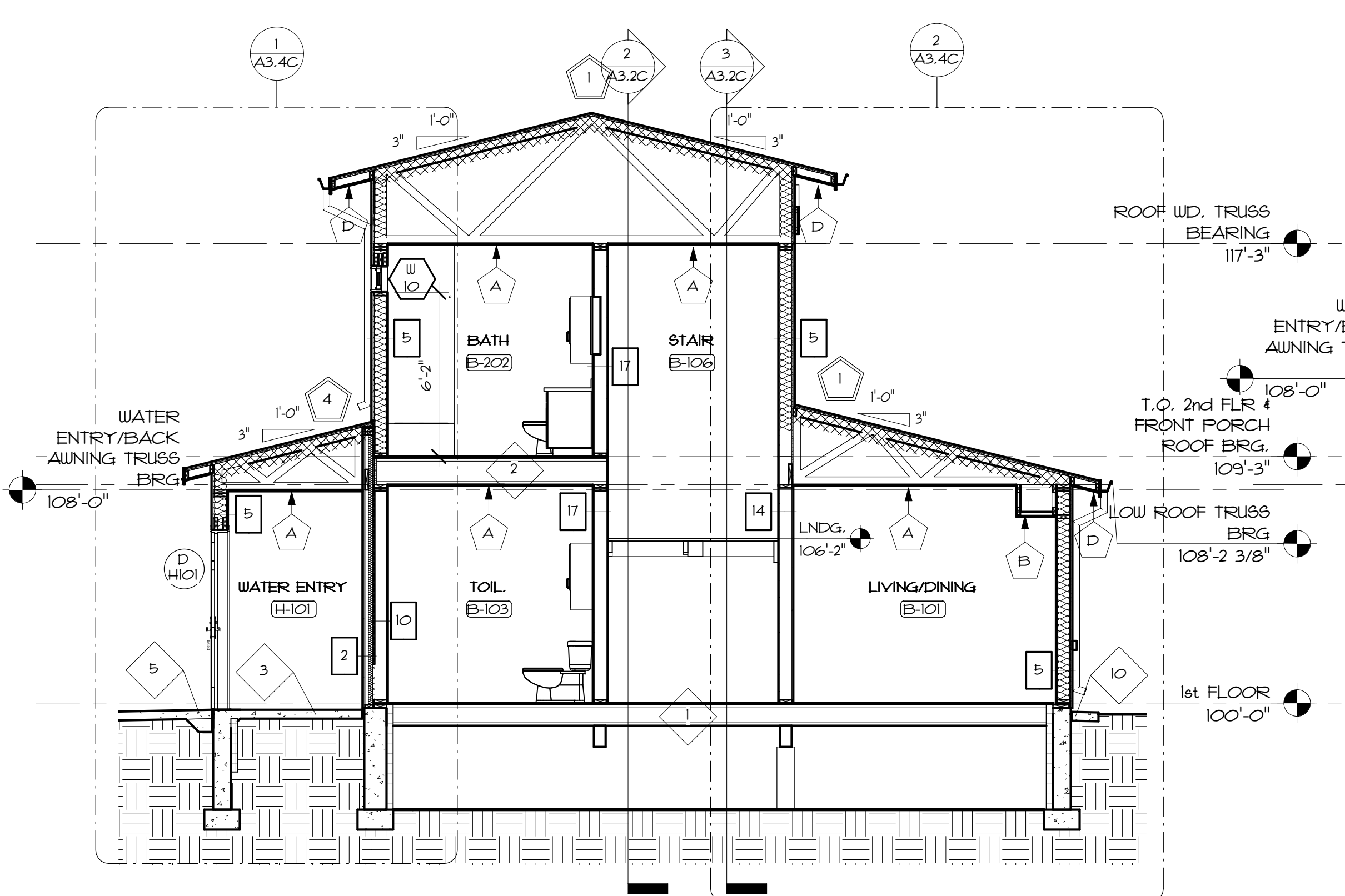


### CEILING TYPES at SECTION

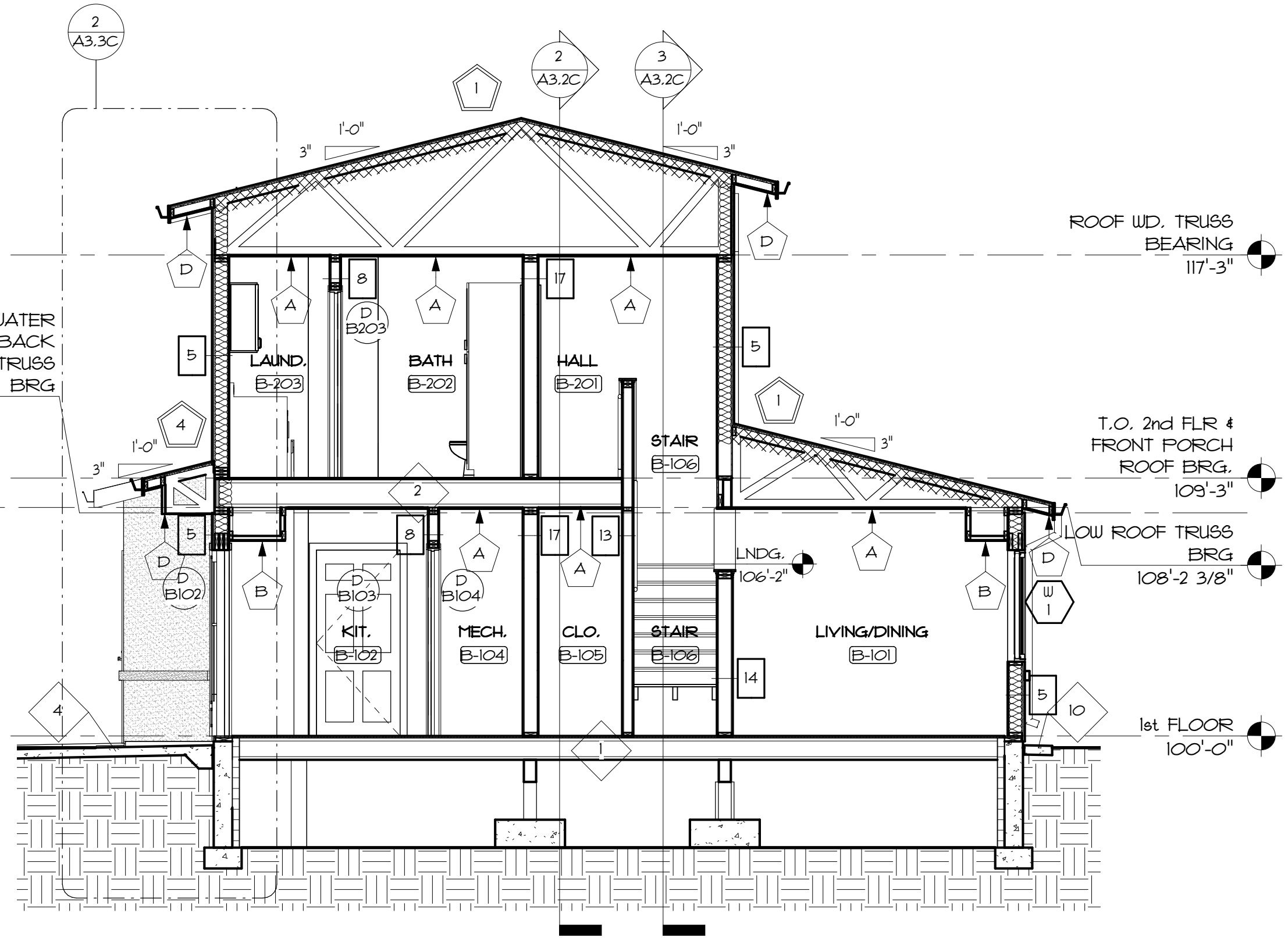
| Type Mark | Description  |
|-----------|--|
| A         | 5/8" TYPE "X" GYP. BD. ATTACHED TO UNDERSIDE OF FLOOR/ROOF FRMG.   |
| B         | INTERIOR SOFFIT: 5/8" TYPE "X" GYP. BD. ATTACHED TO 2x WD. FRMG. at 16" O.C.   |
| C         | CEILING at FIRE RATED FLOOR ASSEMBLY UL 1570: 1/2" RESILIENT CHANNEL at 12" O.C. and TWO (2) LAYERS of 1/2" TYPE "X" GYP. BD. ATTACHED TO UNDERSIDE OF FLOOR/ROOF FRMG. RE: FLOOR TYPES, BLDG. SECTIONS, WALL SECTIONS |
| D         | EXTERIOR FIBER CEMENT SOFFIT: 5/8" FIBER CEMENT SOFFIT ATTACHED TO UNDERSIDE OF ROOF FRAMING; PAINT.   |
| E         | SUSPENDED GYP. BD. CEILING: 5/8" TYPE "X" GYP. BD. ATTACHED TO 2x WD. FRMG. at 16" O.C., CEILING TYPE "C" SHALL RUN CONTIN. THROUGHOUT UNIT ABOVE THIS SUSPENDED CEILING.  |
| F         | 5/8" TYPE "X" GYP. BD. ATTACHED TO UNDERSIDE OF STAIR FRAMING  |
| G         | EXTERIOR FIBER CEMENT SOFFIT at PORCH: 5/8" FIBER CEMENT BEADBOARD SOFFIT ATTACHED TO UNDERSIDE OF ROOF FRAMING; PAINT.  |

### WALL TYPES at SECTION

| TYPE MARK | DESCRIPTION   |
|-----------|---|
| 1         | FIRE PARTITION SEPARATION WALL: 2x6 WD. FRMG. at 16" O.C. with 5/8" TYPE "X" GYP. on ONE SIDE and 1/2" RESILIENT CHANNEL and 5/8" TYPE "X" GYP. BD. on OTHER SIDE of FRMG. MIN. 3" THICK FIBERGLASS BATT IN CAVITY. RUN FULL HEIGHT TO UNDERSIDE OF FLOOR/ROOF SHEATHING or to EXTERIOR WALL ABOVE UL DES. No. U311. NOTE: WALL SHALL BE SEALED TO ACT as an AIR BARRIER.   |
| 2         | FIRE PARTITION SEPARATION WALL: 2x4 WD. FRMG. at 16" O.C. with 5/8" TYPE "X" GYP. on ONE SIDE and 1/2" RESILIENT CHANNEL and 5/8" TYPE "X" GYP. BD. on OTHER SIDE of FRMG. RUN FULL HEIGHT TO UNDERSIDE OF FLOOR/ROOF SHEATHING. PROVIDE MIN. 3" THICK FIBERGLASS INSULATION in CAVITY FULL HEIGHT. UL DES. No. U311. NOTE: WALL SHALL BE SEALED TO ACT as an AIR BARRIER.  |
| 3         | FIRE PARTITION SEPARATION WALL: 2x4 WD. STUDS at 24" O.C. with 1/2" SOUNDBOARD and 5/8" TYPE "X" GYP. BD. BOTH SIDES with MIN. 3" TH. FIBERGLASS BATT INSUL. in CAVITY. WALL MUST RUN FULL HEIGHT TO UNDERSIDE OF FLOOR or ROOF SHEATHING. UL DES. No. U387. NOTE: WALL SHALL BE SEALED TO ACT as an AIR BARRIER.   |
| 4         | FIRE PARTITION SEPARATION WALL: 2x6 WD. STUDS at 16" O.C. with 1/2" SOUNDBOARD and 5/8" TYPE "X" GYP. BD. BOTH SIDES with MIN. 3" TH. FIBERGLASS BATT INSUL. in CAVITY. WALL MUST RUN FULL HEIGHT TO FLOOR or ROOF SHEATHING ABOVE. UL DES. No. U387. NOTE: WALL SHALL BE SEALED TO ACT as an AIR BARRIER.  |
| 5         | EXTERIOR FINISH SHALL BE: PORTLAND CEMENT PLASTER BASED (3) COAT STUCCO SYSTEM on METAL DIAMOND LATH over (1) LAYER 15 lb FELT, RE: SPECIFICATIONS OR: FIBER CEMENT LAP SIDING OR: FIBER CEMENT VERTICAL SIDING over 3/4" TH. x 3-1/2" W. TREATED WOOD FURRING STRIPS at 16" O.C.; RE: ELEVATIONS for LOCATIONS. EXTERIOR FINISH SHALL RUN from FOUNDATION TO UNDERSIDE OF ROOF SOFFIT. EXTERIOR FINISH SHALL be OVER 7/16" ZIP SYSTEM WALL SHEATHING on 2x6 WD. FRMG. at 16" O.C. with 5/8" TYPE "X" GYP. BD. on INTERIOR. PROVIDE MIN. R-20 BATT. INSULATION in WALL CAVITIES FULL HGT. |
| 6         | EXTERIOR FINISH SHALL BE: PORTLAND CEMENT PLASTER BASED (3) COAT STUCCO SYSTEM on METAL DIAMOND LATH over (1) LAYER 15 lb FELT, RE: SPECIFICATIONS OR: FIBER CEMENT LAP SIDING OR: FIBER CEMENT VERTICAL SIDING over 3/4" TH. x 3-1/2" W. TREATED WOOD FURRING STRIPS at 16" O.C.; RE: ELEVATIONS for LOCATIONS. EXTERIOR FINISH SHALL RUN from FOUNDATION TO UNDERSIDE OF ROOF SOFFIT. EXTERIOR FINISH SHALL be OVER 7/16" ZIP SYSTEM WALL SHEATHING on 2x6 WD. FRMG. at 16" O.C. with 5/8" TYPE "X" GYP. BD. on INTERIOR. PROVIDE MIN. R-20 BATT. INSULATION in WALL CAVITIES FULL HGT. |
| 7         | 2x4 WD. STUDS at 24" O.C. with 5/8" TYPE "X" GYP. BD. on ONE SIDE (CLO. SIDE). RUN from TOP of FLOOR SLABS to UNDERSIDE of STAIR STRUCTURE ABOVE.   |
| 8         | 2x4 WD. STUDS at 24" O.C. with 5/8" TYPE "X" GYP. BD. BOTH SIDES from TOP of FLOOR SHEATHING to UNDERSIDE OF FLOOR/ROOF STRUCTURE or to UNDERSIDE of FIRE RATED ROOF ASSEMBLY ABOVE.  |
| 9         | FURRED TUB/SHOWER ENCLOSURE/PLUMBING WALL: 2x4 WD. STUDS at 24" O.C. with 5/8" CEMENT BD. ONE SIDE ONLY.  |
| 10        | FURRED STRUCTURAL INTERIOR WALL: 2x6 WD. STUDS at 16" O.C. with 5/8" TYPE "X" GYP. BD. on ONE SIDE FURRED TUB/SHOWER ENCLOSURE WALL: 2x4 WD. STUDS at 24" O.C. LAID FLAT with 1/2" CEMENT BD. on ONE SIDE ONLY.   |
| 11        | SLOPING STAIR DOUBLE STUD WALL: TWO 2x4 WD. STUDS with 3"-AIR SPACE at 24" O.C. with 5/8" TYPE "X" GYP. BD. BOTH SIDES with WOOD CAP. RE: BUILDING SECTIONS for HEIGHT.   |
| 12        | SLOPING STAIR WALL: 2x4 WD. STUDS at 16" O.C. with 5/8" TYPE "X" GYP. BD. BOTH SIDES with WOOD CAP. RE: BUILDING SECTIONS for HEIGHT.   |
| 13        | SLOPING STAIR WALL: 2x6 WD. STUDS at 16" O.C. with 5/8" TYPE "X" GYP. BD. BOTH SIDES with WOOD CAP. RE: BUILDING SECTIONS for HEIGHT.   |
| 14        | HALF WALL: 2x6 WD. STUDS at 24" O.C. with 5/8" TYPE "X" GYP. BD. BOTH SIDES. RUN TO UNDERSIDE OF COUNTERTOP ABOVE. RE: INTERIOR ELEVATIONS  |
| 15        | HALF WALL: 2x4 WD. STUDS at 24" O.C. with 5/8" TYPE "X" GYP. BD. BOTH SIDES. RUN TO UNDERSIDE OF COUNTERTOP ABOVE. RE: INTERIOR ELEVATIONS  |
| 16        | PLUMBING WALL: 2x6 WD. STUDS at 24" O.C. with 5/8" TYPE "X" GYP. BD. BOTH SIDES from TOP of FLOOR SHEATHING TO UNDERSIDE OF FLOOR/ROOF STRUCTURE ABOVE.   |
| 17        | 2x6 WD. STUDS at 24" O.C. with 5/8" TYPE "X" GYP. BD. BOTH SIDES from TOP of FLOOR SHEATHING to UNDERSIDE OF FLOOR/ROOF STRUCTURE ABOVE.  |



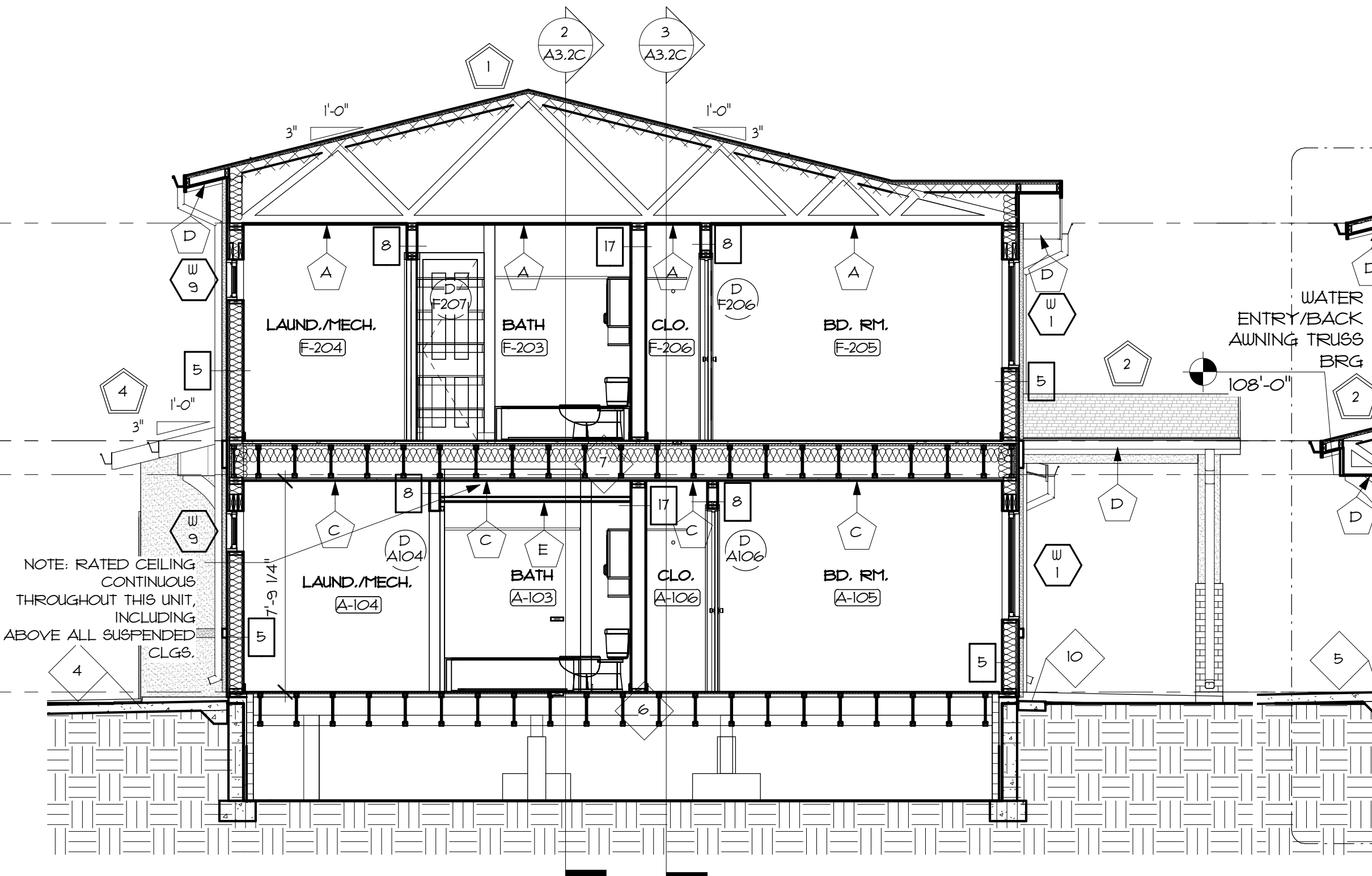
**4 BLDG. C SECTION No. 4**  
 SC: 1/4" = 1'-0" RE:



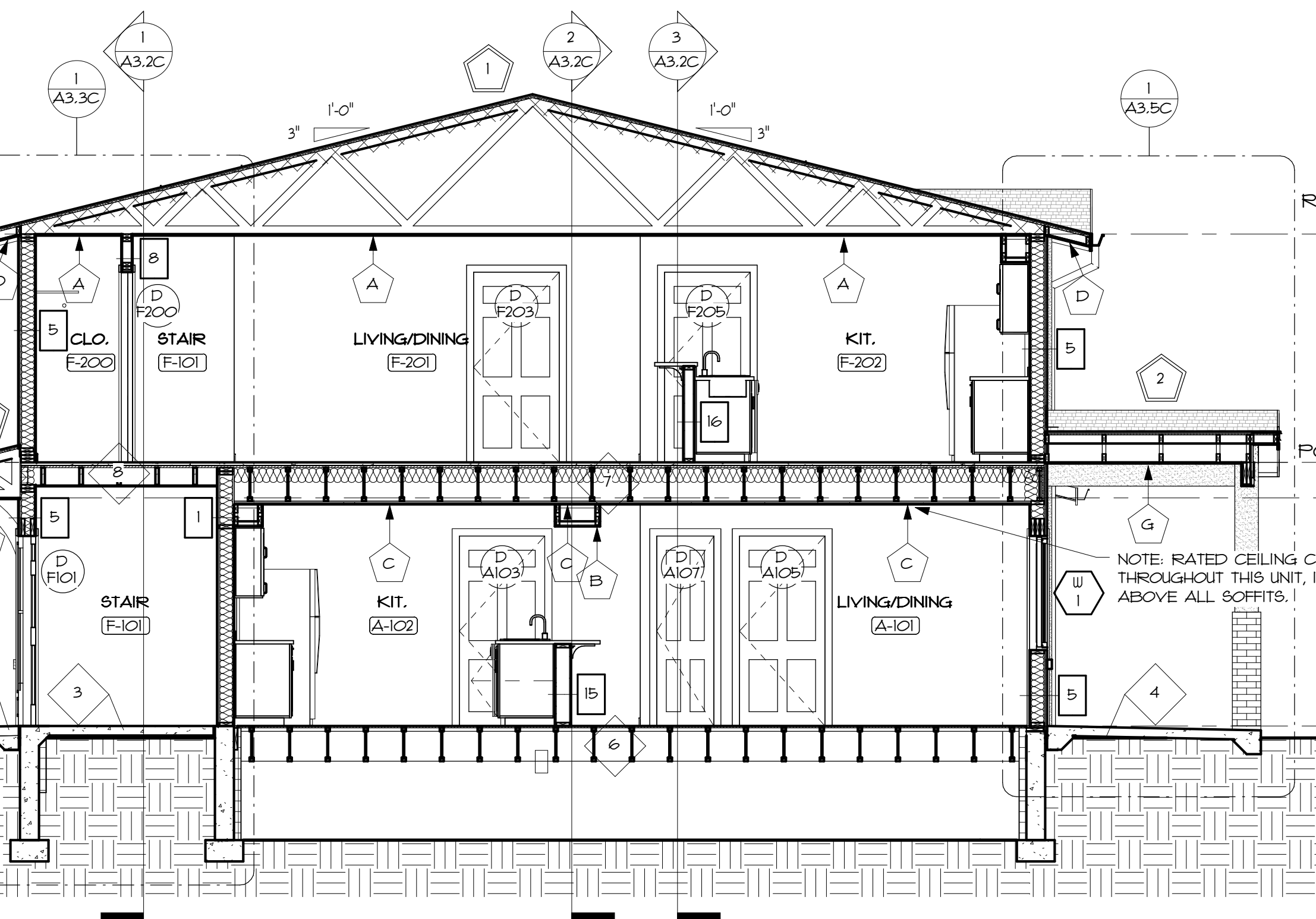
**3 BLDG. C SECTION No. 3**  
 SC: 1/4" = 1'-0" RE:

### ROOF TYPES at SECTION

| Type Mark | Description  |
|-----------|--|
| 1         | CLASS A, 30 YR. min. ASPHALT SATURATED ORGANIC FELT SHINGLES, COLOR to be SELECTED from MANUF. STANDARD RANGE on (2) LAYERS 30 lb. FELT on 7/16" APA RATED ROOF SHEATHING on PRE-ENGINEERED WD. TRUSSES at 24" O.C. with MIN. R-49 SPRAYED-ON CLOSED CELL FOAM INSUL. TO UNDERSIDE OF ROOF SHEATHING. PROVIDE WUR, GRACE ICE and WATER SHIELD MEMBRANE UP 16" at ALL VALLEY (BOTH SIDES), 24" UP from ALL LEAVES, 24" DOWN ALL RIDGES (BOTH SIDES). INSUL. to be PROVIDED above OCCUPIED INTERIOR SPACES ONLY. |
| 2         | ROOFING at BACK DOOR AWNING and FRONT PORCHES: CLASS A, 30 YR. min. ASPHALT SATURATED ORGANIC FELT SHINGLES, COLOR to be SELECTED from MANUF. STANDARD RANGE on (2) LAYERS 30lb. FELT on 7/16" APA RATED ROOF SHEATHING on PRE-ENGINEERED WD. TRUSSES at 24" O.C. RE: STRUCTURAL.  |
| 3         | LOW-SLOPE ROOF: SELF-ADHERING SBS-MODIFIED ASPHALT ROOFING SYSTEM: TARKO SA BASE and SA CAP. www.tarko.com or APPROVED EQUAL. COLOR to be SELECTED by OWNER/ARCHITECT from MANUF. FULL RANGE; over 7/16" APA RATED ROOF SHEATHING over 2x6 WD. RAFTERS at 24" O.C. RE: STRUCTURAL.   |
| 4         | CLASS A, 30 YR. min. ASPHALT SATURATED ORGANIC FELT SHINGLES, COLOR to be SELECTED from MANUF. STANDARD RANGE on (2) LAYERS 30lb. FELT on 7/16" APA RATED ROOF SHEATHING on PRE-ENGINEERED WD. TRUSSES at 24" O.C. RE: STRUCTURAL. PROVIDE R-34 (RE: SPECIFICATIONS, ENERGY MODEL) SPRAYED-ON CLOSED CELL FOAM INSUL. TO UNDERSIDE OF ROOF SHEATHING at OCCUPIED SPACES.   |



**2 BLDG. C SECTION No. 2**  
 SC: 1/4" = 1'-0" RE:



**1 BLDG. C SECTION No. 1**  
 SC: 1/4" = 1'-0" RE:

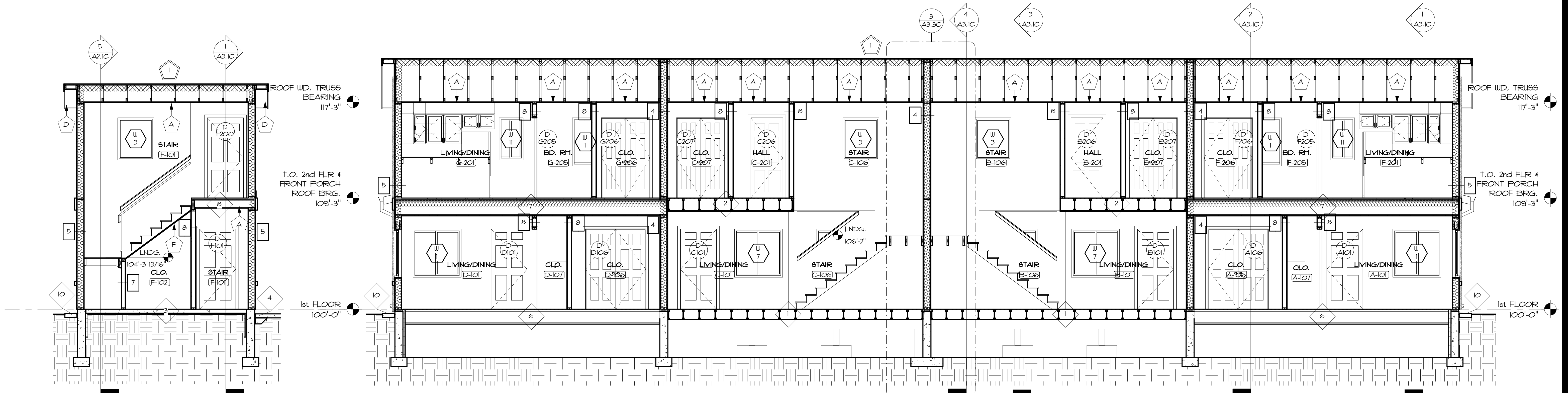
### FLOOR TYPES at SECTION

| Type Mark | Description   |
|-----------|---|
| 1         | 3/4" PLYWOOD over 9-1/2" WD. I-JOISTS at 16" O.C. RE: STRUCTURAL  |
| 2         | 3/4" PLYWOOD over 11-7/8" WD. I-JOISTS at 16" O.C. RE: STRUCTURAL   |
| 3         | 4" INTERIOR CONC. SLAB on GRADE. REFER TO CIVIL for ACTUAL F.F. ELEV. at EACH BLDG. on SITE. RE: STRUCTURAL and CIVIL   |
| 4         | 4" CONCRETE SLAB at PORCH/PATIO, SLOPE at MIN. 1/4" per FOOT. REFER TO CIVIL for F.F. ELEV. of ALL CONC. SLABS. RE: CIVIL and STRUCTURAL  |
| 5         | 4" CONC. WALK, SLOPE MIN. 1/4" per FOOT. RE: CIVIL and STRUCTURAL   |
| 6         | 3/4" PLYWOOD over 14" WOOD I-JOISTS at 16" O.C. RE: STRUCTURAL  |
| 7         | 1-1/8" FIRE RATED HORIZ. ASSEMBLY: 1/4" GYPSUM "GYPCRETE" FLOOR TOPPING over 1/4" SOUND REDUCTION MAT over 3/4" TAG SHEATHING over WD. I-JOISTS at 14" O.C. (RE: STRUCTURAL) with 1/2" RESILIENT CHANNEL at 12" O.C. and TWO (2) LAYERS of 1/2" TYPE "X" GYP. BD. at CEILING. 6" TH. FIBERGLASS BATT INSULATION in CAVITY DRAPE OVER RES. CHANNELS. FULL HORIZ. ASSEMBLY SHALL be CONTIN. from EXT. WALL/FIRE PARTITION SEP. WALL to EXT. WALL/FIRE PARTITION SEP. WALL. MIN. 50 STC. MIN. 50 IIC. UL DES. No. L570/GA FILE No. FC 5011 |
| 8         | 1/4" GYPSUM "GYPCRETE" FLOOR TOPPING over 1/4" SOUND REDUCTION MAT over 3/4" TAG SHEATHING over WD. 2x8 JOISTS at 16" O.C. RE: STRUCTURAL   |
| 10        | 4" TH. CONCRETE APRON. SLOPE at MIN. 1/4" per FOOT. REFER TO CIVIL for F.F. ELEV. at APRON. RE: CIVIL and STRUCTURAL  |
| 11        | RAISED FLOOR in LINEN CLO. 3/4" PLYWOOD over 2x6 WD. JOISTS at 16" O.C. RE: STRUCTURAL  |
| 12        | EXT. BALCONY FLOOR: MIN. 3" TH. CONC. over 60 mil. RUBBER WATERPROOF MEMBRANE over 2-1/4" EXT. RATED FIBERGLASS SHEATHING over 2x6 WD. JOISTS at 12" O.C., RE: STRUCTURAL. CONC. SHALL be SEALED, ANTI-SLIP and BROOM FINISH. SLOPE CONC. at 2% AWAY from FACE of EXT. WALL.  |

GENERAL NOTES:  
 1. AT ALL EXTERIOR SLABS LOCATED DIRECTLY ADJACENT to BUILDING FOUNDATIONS, THE CONC. PAD to FOUNDATION with #4 REBAR DOUCL @ 24" O.C., TYP.

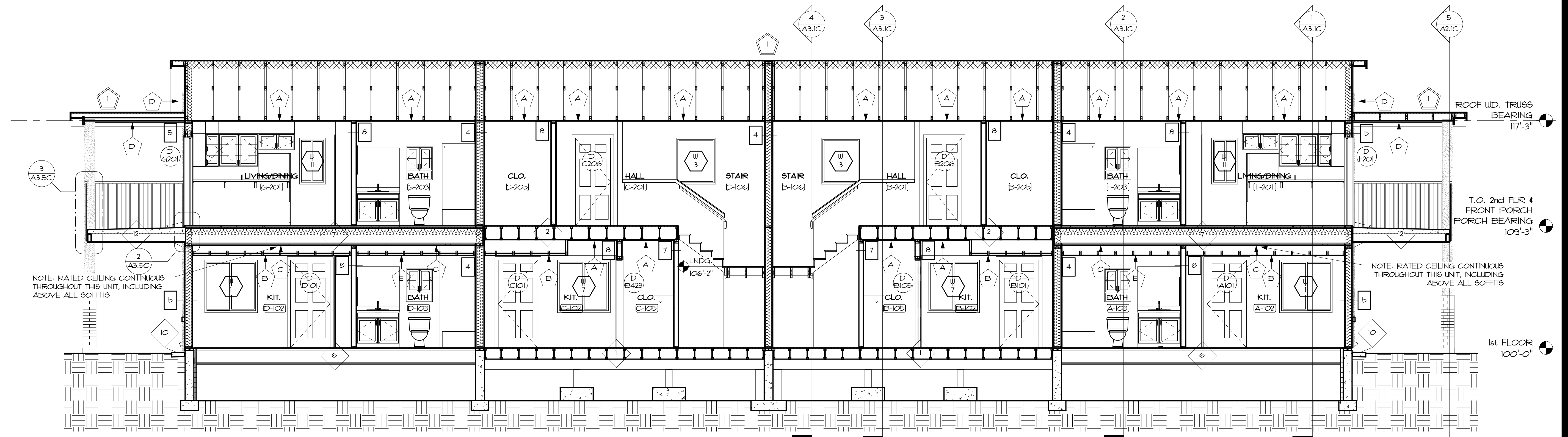


GENERAL NOTES:  
 □ AT ALL EXTERIOR SLABS LOCATED DIRECTLY ADJACENT to BUILDING FOUNDATIONS: TIE CONC. PAD to FOUNDATION with #4 REBAR @ 24" O.C., TYP.  
 RE: SHEET A3.1C FOR WALL, ROOF, FLOOR, AND CEILING TYPES LEGENDS.



**1 BLDG. C SECTION No. 5**  
 SC: 1/4" = 1'-0" RE:

**3 BLDG. C SECTION No. 7**  
 SC: 1/4" = 1'-0" RE:



NOTE: RATED CEILING CONTINUOUS THROUGHOUT THIS UNIT, INCLUDING ABOVE ALL SOFFITS

NOTE: RATED CEILING CONTINUOUS THROUGHOUT THIS UNIT, INCLUDING ABOVE ALL SOFFITS

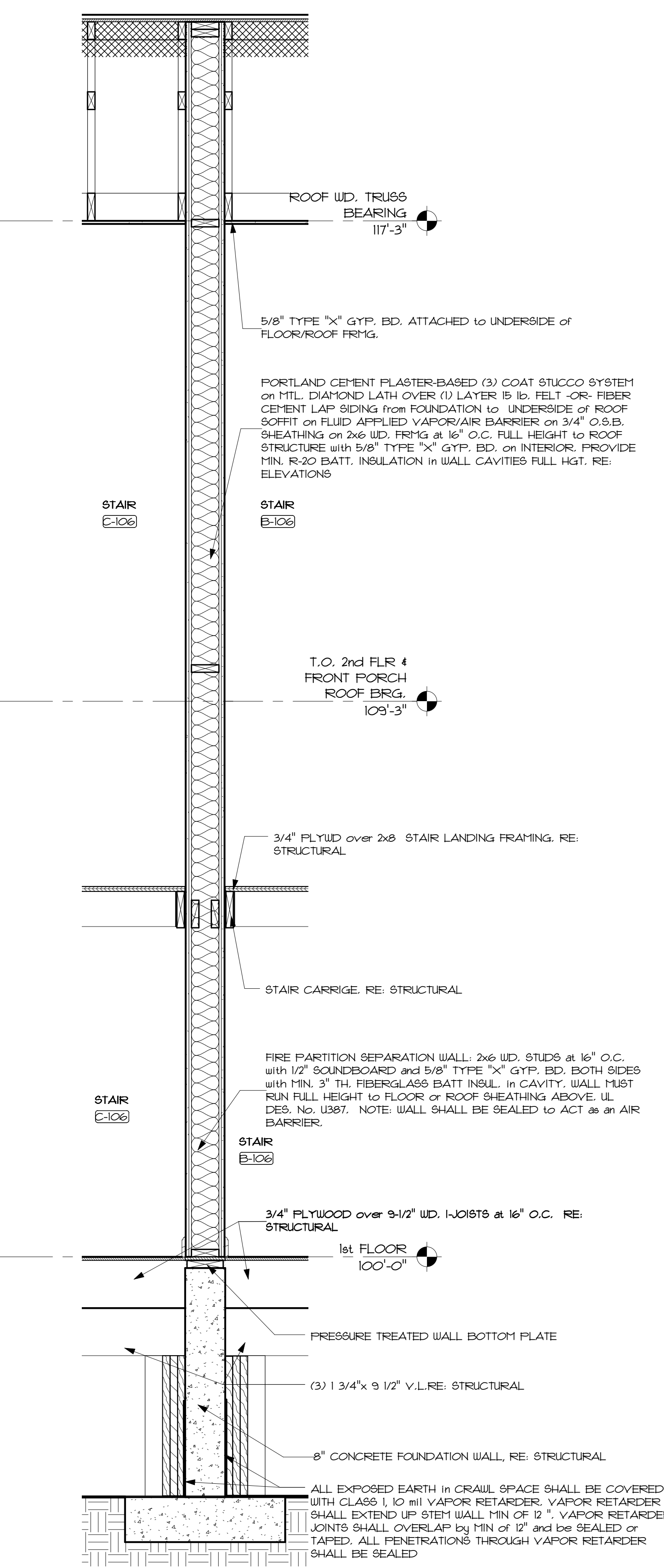
**2 BLDG. C SECTION No. 6**  
 SC: 1/4" = 1'-0" RE:

|            |            |
|------------|------------|
| DATE       | 04/16/2019 |
| DRAWN      | TR/EB      |
| CHECK      | AHS        |
| REVISIONS: |            |



**WALL SECTIONS GENERAL NOTES**

1. MAINTAIN A 1/4" MIN. CLEARANCE (GAP FOR DRAINAGE) BETWEEN BOTTOM OF JAMES HARDIE PRODUCT (BOTH VERTICAL AND HORIZONTAL SIDING) and STUCCO or JH TRIM HORIZONTAL TRANSITIONS. DO NOT CAULK GAP. PROVIDE POSITIVE SLOPE and Z-FLASHING at ALL HORIZONTAL JOINTS.
2. AT THE JUNCTURE of the ROOF and VERTICAL SURFACES, FLASHING and COUNTERFLASHING SHALL BE INSTALLED. A MIN. of 2 in. CLEARANCE BETWEEN the ROOFING and the BOTTOM EDGE of the SIDING and TRIM.
3. MAINTAIN MIN 1 in. GAP BETWEEN GUTTER END CAPS and SIDING/TRIM
4. ALL EXPOSED FLASHING SHALL BE PRE-FIN. COLOR to be SELECTED by OWNER/ARCH. from MANUF. FULL RANGE.



CLASS A, 30 YR. min. ASPHALT SATURATED ORGANIC FELT SHINGLES, COLOR to be SELECTED from MANUF. STANDARD RANGE on (2) LAYERS 30 lb. FELT on 7/16" APA RATED ROOF SHEATHING on PRE-ENGINEERED WD. TRUSSES at 24" O.C. with MIN. R-49 SPRAYED-ON CLOSED CELL FOAM INSUL. to UNDERSIDE of ROOF SHEATHING. PROVIDE "W.R. GRACE" ICE and WATER SHIELD MEMBRANE UP 16" at ALL VALLEY (BOTH SIDES), 24" UP from ALL EAVES, 24" DOWN ALL RIDGES (BOTH SIDES). INSUL. to be PROVIDED above OCCUPIED INTERIOR SPACES ONLY.

MTL. EAVE FLASHING WITH DRIP EDGE LAPS FASCIA and GUTTER. FELT UNDERLAMENT LAPS OVER EAVE FLASHING

3/4" x 8" TEXTURED FIBER CEMENT FASCIA OVER SUB-FASCIA

TYP. EXTERIOR GUTTER: 24 ga. PRE-FORMED, PRE-FINISHED, ALUMN. GUTTER with SUPPORT STRAPS. COLOR TO BE SELECTED by ARCHITECT from MANUF. STANDARD COLOR RANGE

EXTERIOR FIBER CEMENT SOFFIT: 5/8" FIBER CEMENT SOFFIT ATTACHED to UNDERSIDE of ROOF FRAMING, PAINT. EXTERIOR FINISH SHALL BE: PORTLAND CEMENT PLASTER BASED (3) COAT STUCCO SYSTEM on METAL DIAMOND LATH over (1) LAYER 15 lb. FELT, RE: SPECIFICATIONS -OR- FIBER CEMENT LAP SIDING -OR- FIBER CEMENT VERTICAL SIDING over 3/4" TH. x 3-1/2" W. TREATED WOOD FURRING STRIPS at 16" O.C.; RE: ELEVATIONS for LOCATIONS. EXTERIOR FINISH SHALL RUN from FOUNDATION to UNDERSIDE of ROOF SOFFIT. EXTERIOR FINISH SHALL be OVER 7/16" ZIP SYSTEM WALL SHEATHING on 2x6 WD. FRMG. at 16" O.C. with 5/8" TYPE 'X' GYP. BD. on INTERIOR. PROVIDE MIN. R-20 BATT. INSULATION in WALL CAVITIES FULL HGT.

24 ga ROOF FLASHING and COUNTER FLASHING

CLASS A, 30 YR. min. ASPHALT SATURATED ORGANIC FELT SHINGLES, COLOR to be SELECTED from MANUF. STANDARD RANGE on (2) LAYERS 30lb. FELT on 7/16" APA RATED ROOF SHEATHING on PRE-ENGINEERED WD. TRUSSES at 24" O.C. RE: STRUCTURAL. PROVIDE R-34 (RE: SPECIFICATIONS, ENERGY MODEL) SPRAYED-ON CLOSED CELL FOAM INSUL. to UNDERSIDE of ROOF SHEATHING at OCCUPIED SPACES.

3/4" PLYWOOD over 11-7/8" WD. JOISTS at 16" O.C. RE: STRUCTURAL

MTL. EAVE FLASHING WITH DRIP EDGE LAPS FASCIA and GUTTER. FELT UNDERLAMENT LAPS OVER EAVE FLASHING

TYP. EXTERIOR GUTTER: 24 ga. PRE-FORMED, PRE-FINISHED, ALUMN. GUTTER with SUPPORT STRAPS. COLOR TO BE SELECTED by ARCHITECT from MANUF. STANDARD COLOR RANGE

3/4" x 8" TEXTURED FIBER CEMENT FASCIA OVER SUB-FASCIA  
 FIBER CEMENT VERTICAL SIDING over 3/4" TH x 3-1/2" W. TREATED WOOD FURRING STRIPS at 16" O.C. on 7/16" ZIP SYSTEM WALL SHEATHING on PRE-ENGINEERED ROOF TRUSSES ON 24" O.C. RE: STRUCTURAL  
 1" x 4" FIBER CEMENT TRIM with 24 ga MTL DRIP FLASHING  
 EXTERIOR FIBER CEMENT SOFFIT: 5/8" FIBER CEMENT SOFFIT ATTACHED to UNDERSIDE of ROOF FRAMING, PAINT. J-BEAD AT STUCCO TERMINATIONS TYP  
 HEADER. RE: STRUCTURAL  
 STUCCO STOP WITH DRIP EDGE  
 INTERIOR SOFFIT: 5/8" TYPE 'X' GYP. BD. ATTACHED to 2x WD. FRMG. at 16" O.C.  
 3/4" PLYWOOD over 9-1/2" WD. JOISTS at 16" O.C. RE: STRUCTURAL  
 24 ga GALV. MTL. PRE-FORMED KICK PLATE "L" SHAPE 1-1/2" x 6", EXTEND 1/2" UNDER THRESHOLD  
 4" CONCRETE SLAB at PORCH/PATIO, SLOPE at MIN. 1/4" per FOOT. REFER to CIVIL for F.F. ELEV. of ALL CONC. SLABS. RE: CIVIL and STRUCTURAL

3/4" x 8" TEXTURED FIBER CEMENT FASCIA OVER SUB-FASCIA

EXTERIOR FIBER CEMENT SOFFIT: 5/8" FIBER CEMENT SOFFIT ATTACHED to UNDERSIDE of ROOF FRAMING, PAINT. D AT STUCCO TERMINATIONS  
 DECORATIVE 24x24x5 HIGH DENSITY POLYURETHANE BRACKET  
 HEADER. RE: STRUCTURAL  
 STUCCO STOP WITH DRIP EDGE

1-1/2" FIRE RATED HORIZ. ASSEMBLY: 1-1/4" GYPSUM "GYPCRETE" FLOOR TOPPING over 1/4" SOUND REDUCTION MAT over 3/4" TAG SHEATHING over WD. JOISTS at 14" O.C. (RE: STRUCTURAL) with 1/2" RESILIENT CHANNEL at 12" O.C. and TWO (2) LAYERS of 1/2" TYPE 'X' GYP. BD. at CEILING. 6" TH. FIBERGLASS BATT INSULATION IN CAVITY DRAPE OVER RES. CHANNELS. FULL HORIZ. ASSEMBLY SHALL be CONTIN. from EXT. WALL/FIRE PARTITION SEP. WALL to EXT. WALL/FIRE PARTITION SEP. WALL. MIN. 50 STC. MIN. 50 IIC. UL DES. No. L570/GA FILE No. FC 5011

FIRE PARTITION SEPARATION WALL: 2x6 WD. FRMG. at 16" O.C. with 5/8" TYPE 'X' GYP. on ONE SIDE and 1/2" RESILIENT CHANNEL and 5/8" TYPE 'X' GYP. BD. on OTHER SIDE of FRMG. MIN. 3" THICK FIBERGLASS BATT IN CAVITY. RUN FULL HEIGHT to UNDERSIDE of FLOOR/ROOF SHEATHING or to EXTERIOR WALL ABOVE UL DES. No. U311. NOTE: WALL SHALL BE SEALED to ACT as an AIR BARRIER.

4" INTERIOR CONC. SLAB on GRADE. REFER to CIVIL for ACTUAL F.F. ELEV. at EACH BLDG. on SITE. RE: STRUCTURAL and CIVIL

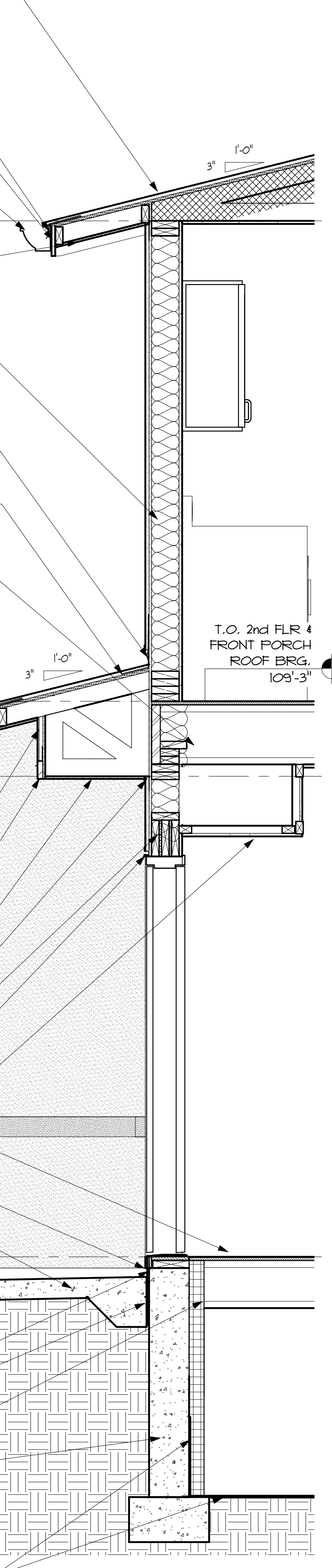
24 ga GALV. MTL. PRE-FORMED KICK PLATE "L" SHAPE 1-1/2" x 6", EXTEND 1/2" UNDER THRESHOLD

4" CONC. WALK, SLOPE MIN. 1/4" per FOOT. RE: CIVIL and STRUCTURAL

PROVIDE ICE & WATER SHIELD ON FACE of EXPOSED EXTERIOR SLAB/FOUNDATION WALL and EXTEND BEYOND of TOP FFL LEVEL a MIN of 12" DOWN. PROVIDE 24 ga MTL COVER OVER ICE & WATER SHIELD  
 1/2" EXPANSION MATERIAL WITH EXPAN. JOINT CAP, SEAL CONT.

MIN R-10 CLOSED CELL RIGID FOAM INSULATION, FULL LENGTH of FOUNDATION STEAM WALL  
 8" CONCRETE FOUNDATION WALL, RE: STRUCTURAL  
 PROVIDE AND INSTALL FOUNDATION DAMPPROOFING ALL AROUND EXTERIOR SIDE FULL DEPTH

ALL EXPOSED EARTH in CRAWL SPACE SHALL BE COVERED WITH CLASS 1, 10 mil VAPOR RETARDER. VAPOR RETARDER SHALL EXTEND UP STEM WALL MIN OF 12". VAPOR RETARDER JOINTS SHALL OVERLAP by MIN of 12" and be SEALED or TAPED. ALL PENETRATIONS THROUGH VAPOR RETARDER SHALL BE SEALED



CLASS A, 30 YR. min. ASPHALT SATURATED ORGANIC FELT SHINGLES, COLOR to be SELECTED from MANUF. STANDARD RANGE on (2) LAYERS 30 lb. FELT on 7/16" APA RATED ROOF SHEATHING on PRE-ENGINEERED WD. TRUSSES at 24" O.C. with MIN. R-49 SPRAYED-ON CLOSED CELL FOAM INSUL. to UNDERSIDE of ROOF SHEATHING. PROVIDE "W.R. GRACE" ICE and WATER SHIELD MEMBRANE UP 16" at ALL VALLEY (BOTH SIDES), 24" UP from ALL EAVES, 24" DOWN ALL RIDGES (BOTH SIDES). INSUL. to be PROVIDED above OCCUPIED INTERIOR SPACES ONLY.

MTL. EAVE FLASHING WITH DRIP EDGE LAPS FASCIA and GUTTER. FELT UNDERLAMENT LAPS OVER EAVE FLASHING

TYP. EXTERIOR GUTTER: 24 ga. PRE-FORMED, PRE-FINISHED, ALUMN. GUTTER with SUPPORT STRAPS. COLOR TO BE SELECTED by ARCHITECT from MANUF. STANDARD COLOR RANGE

3/4" x 8" TEXTURED FIBER CEMENT FASCIA OVER SUB-FASCIA  
 2x4 WD. STUDS at 24" O.C. with 5/8" TYPE 'X' GYP. BD. BOTH SIDES from TOP of FLOOR SHEATHING to UNDERSIDE of FLOOR/ROOF STRUCTURE or to UNDERSIDE of FIRE RATED HORIZ. ASSEMBLY ABOVE.

EXTERIOR FINISH SHALL BE: PORTLAND CEMENT PLASTER BASED (3) COAT STUCCO SYSTEM on METAL DIAMOND LATH over (1) LAYER 15 lb. FELT, RE: SPECIFICATIONS -OR- FIBER CEMENT LAP SIDING -OR- FIBER CEMENT VERTICAL SIDING over 3/4" TH. x 3-1/2" W. TREATED WOOD FURRING STRIPS at 16" O.C.; RE: ELEVATIONS for LOCATIONS. EXTERIOR FINISH SHALL RUN from FOUNDATION to UNDERSIDE of ROOF SOFFIT. EXTERIOR FINISH SHALL be OVER 7/16" ZIP SYSTEM WALL SHEATHING on 2x6 WD. FRMG. at 16" O.C. with 5/8" TYPE 'X' GYP. BD. on INTERIOR. PROVIDE MIN. R-20 BATT. INSULATION in WALL CAVITIES FULL HGT.

24 ga ROOF FLASHING and COUNTER FLASHING

1-1/4" GYPSUM "GYPCRETE" FLOOR TOPPING over 1/4" SOUND REDUCTION MAT over 3/4" TAG SHEATHING over WD. 2x8 JOISTS at 16" O.C. RE: STRUCTURAL

ROOFING at BACK DOOR AWNINGS and FRONT PORCHES: CLASS A, 30 YR. min. ASPHALT SATURATED ORGANIC FELT SHINGLES, COLOR to be SELECTED from MANUF. STANDARD RANGE on (2) LAYERS 30lb. FELT on 7/16" APA RATED ROOF SHEATHING on PRE-ENGINEERED WD. TRUSSES at 24" O.C. RE: STRUCTURAL.

MTL. EAVE FLASHING WITH DRIP EDGE LAPS FASCIA and GUTTER. FELT UNDERLAMENT LAPS OVER EAVE FLASHING

TYP. EXTERIOR GUTTER: 24 ga. PRE-FORMED, PRE-FINISHED, ALUMN. GUTTER with SUPPORT STRAPS. COLOR TO BE SELECTED by ARCHITECT from MANUF. STANDARD COLOR RANGE

FIBER CEMENT VERTICAL SIDING over 3/4" TH x 3-1/2" W. TREATED WOOD FURRING STRIPS at 16" O.C. on 7/16" ZIP SYSTEM WALL SHEATHING on PRE-ENGINEERED ROOF TRUSSES ON 24" O.C. RE: STRUCTURAL

3/4" x 8" TEXTURED FIBER CEMENT FASCIA OVER SUB-FASCIA

1" x 4" FIBER CEMENT TRIM, 24 ga MTL DRIP FLASHING ABOVE

EXTERIOR FIBER CEMENT SOFFIT: 5/8" FIBER CEMENT SOFFIT ATTACHED to UNDERSIDE of ROOF FRAMING, PAINT. D AT STUCCO TERMINATIONS  
 DECORATIVE 24x24x5 HIGH DENSITY POLYURETHANE BRACKET  
 HEADER. RE: STRUCTURAL  
 STUCCO STOP WITH DRIP EDGE

1-1/2" FIRE RATED HORIZ. ASSEMBLY: 1-1/4" GYPSUM "GYPCRETE" FLOOR TOPPING over 1/4" SOUND REDUCTION MAT over 3/4" TAG SHEATHING over WD. JOISTS at 14" O.C. (RE: STRUCTURAL) with 1/2" RESILIENT CHANNEL at 12" O.C. and TWO (2) LAYERS of 1/2" TYPE 'X' GYP. BD. at CEILING. 6" TH. FIBERGLASS BATT INSULATION IN CAVITY DRAPE OVER RES. CHANNELS. FULL HORIZ. ASSEMBLY SHALL be CONTIN. from EXT. WALL/FIRE PARTITION SEP. WALL to EXT. WALL/FIRE PARTITION SEP. WALL. MIN. 50 STC. MIN. 50 IIC. UL DES. No. L570/GA FILE No. FC 5011

FIRE PARTITION SEPARATION WALL: 2x6 WD. FRMG. at 16" O.C. with 5/8" TYPE 'X' GYP. on ONE SIDE and 1/2" RESILIENT CHANNEL and 5/8" TYPE 'X' GYP. BD. on OTHER SIDE of FRMG. MIN. 3" THICK FIBERGLASS BATT IN CAVITY. RUN FULL HEIGHT to UNDERSIDE of FLOOR/ROOF SHEATHING or to EXTERIOR WALL ABOVE UL DES. No. U311. NOTE: WALL SHALL BE SEALED to ACT as an AIR BARRIER.

4" INTERIOR CONC. SLAB on GRADE. REFER to CIVIL for ACTUAL F.F. ELEV. at EACH BLDG. on SITE. RE: STRUCTURAL and CIVIL

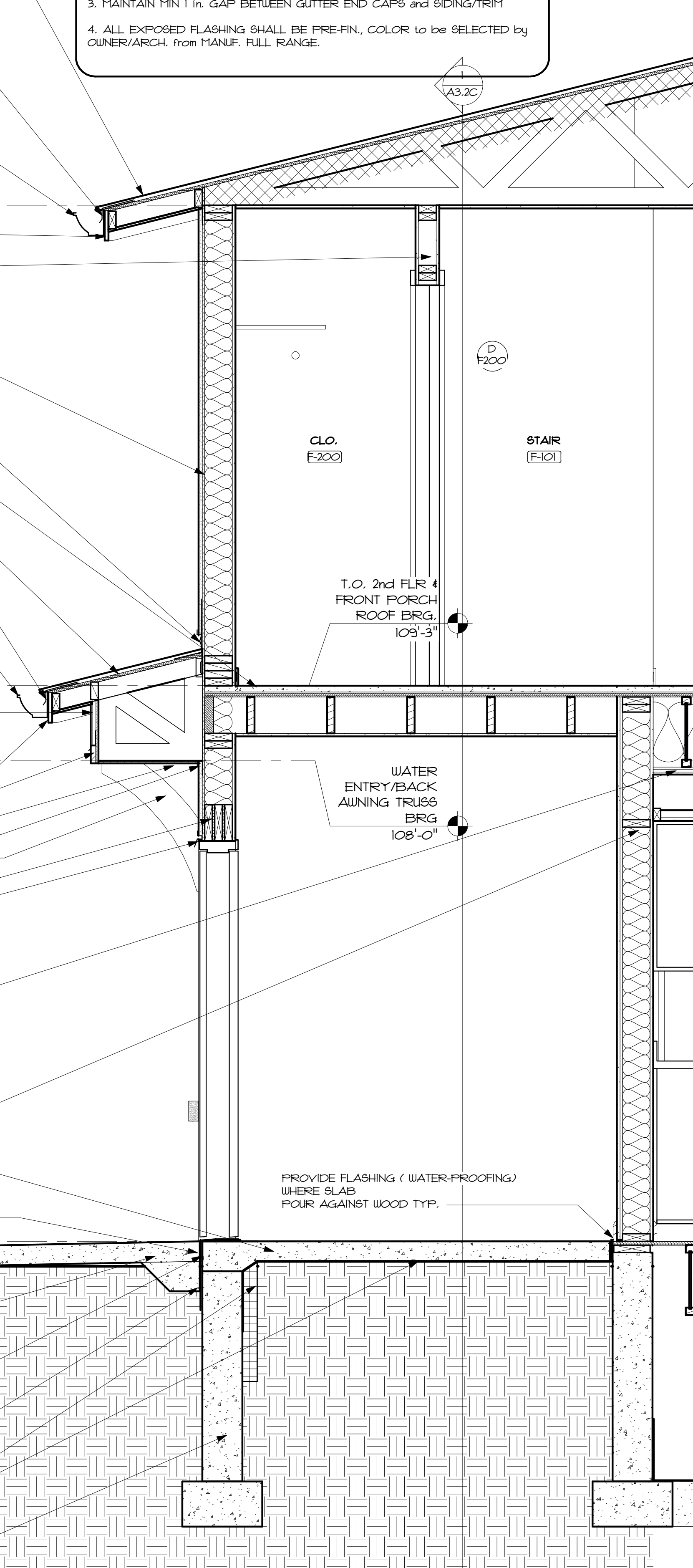
24 ga GALV. MTL. PRE-FORMED KICK PLATE "L" SHAPE 1-1/2" x 6", EXTEND 1/2" UNDER THRESHOLD

4" CONC. WALK, SLOPE MIN. 1/4" per FOOT. RE: CIVIL and STRUCTURAL

PROVIDE ICE & WATER SHIELD ON FACE of EXPOSED EXTERIOR SLAB/FOUNDATION WALL and EXTEND BEYOND of TOP FFL LEVEL a MIN of 12" DOWN. PROVIDE 24 ga MTL COVER OVER ICE & WATER SHIELD  
 1/2" EXPANSION MATERIAL WITH EXPAN. JOINT CAP, SEAL CONT.

MIN R-10 CLOSED CELL RIGID FOAM INSULATION, EXTEND 2'-0" DOWN FOUNDATION STEAM WALL  
 PROVIDE and INSTALL MIN. 10 mil VAPOR RETARDER at UNDERSIDE of ALL INTERIOR CONC. SLABS. WRAP DOWN FOUNDATION WALL MIN. of 12". OVERLAP JOINTS MIN. 12" and SEAL or TAPE.

8" CONCRETE FOUNDATION WALL, RE: STRUCTURAL  
 PROVIDE AND INSTALL FOUNDATION DAMPPROOFING ALL AROUND EXTERIOR SIDE FULL DEPTH



**BLDG. C WALL SECTION**  
**3 No. 5**  
 SC: 3/4" = 1'-0" RE:

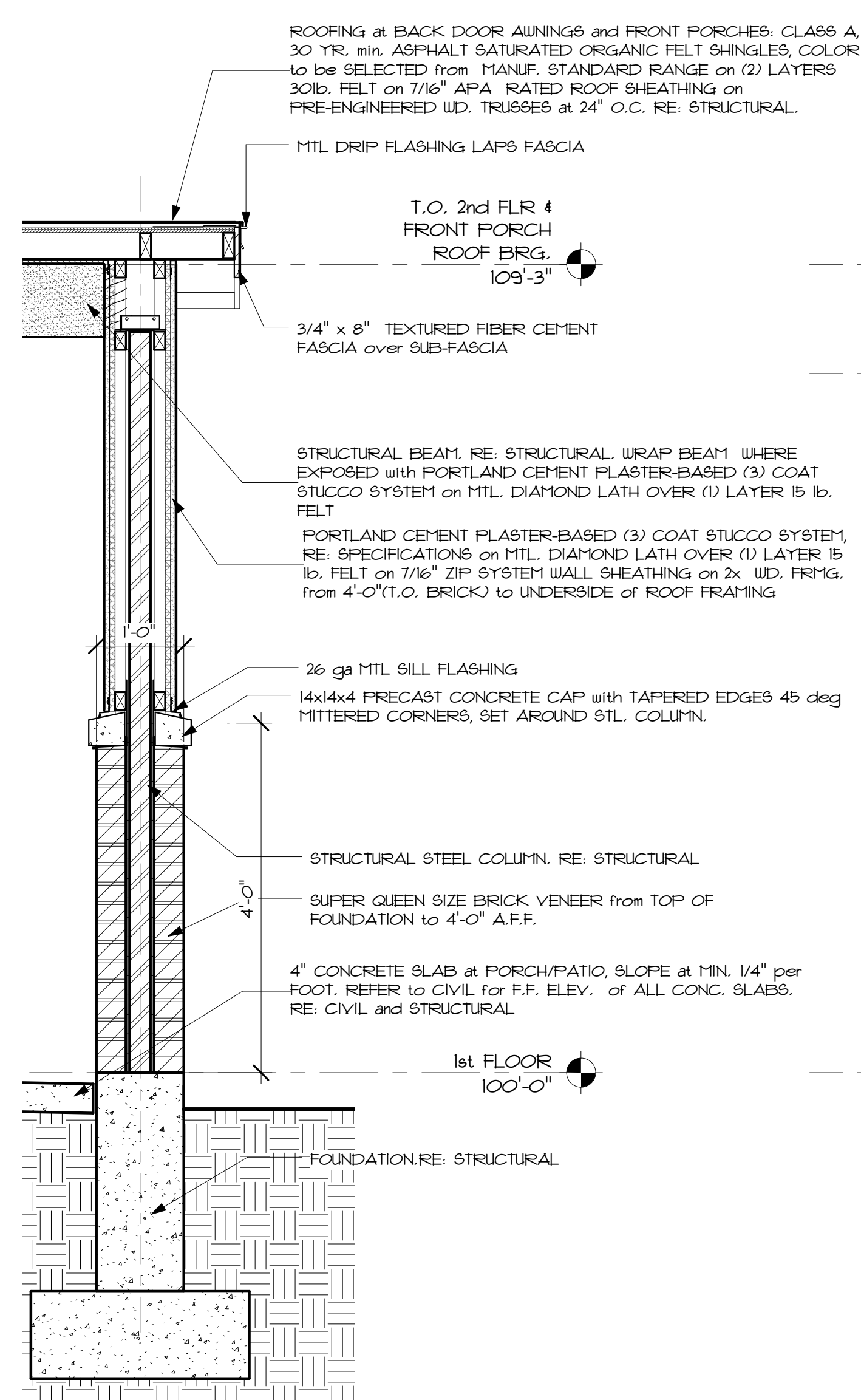
**BLDG. C WALL SECTION**  
**2 No. 2**  
 SC: 3/4" = 1'-0" RE:

**BLDG. C WALL SECTION**  
**1 No. 1**  
 SC: 3/4" = 1'-0" RE:

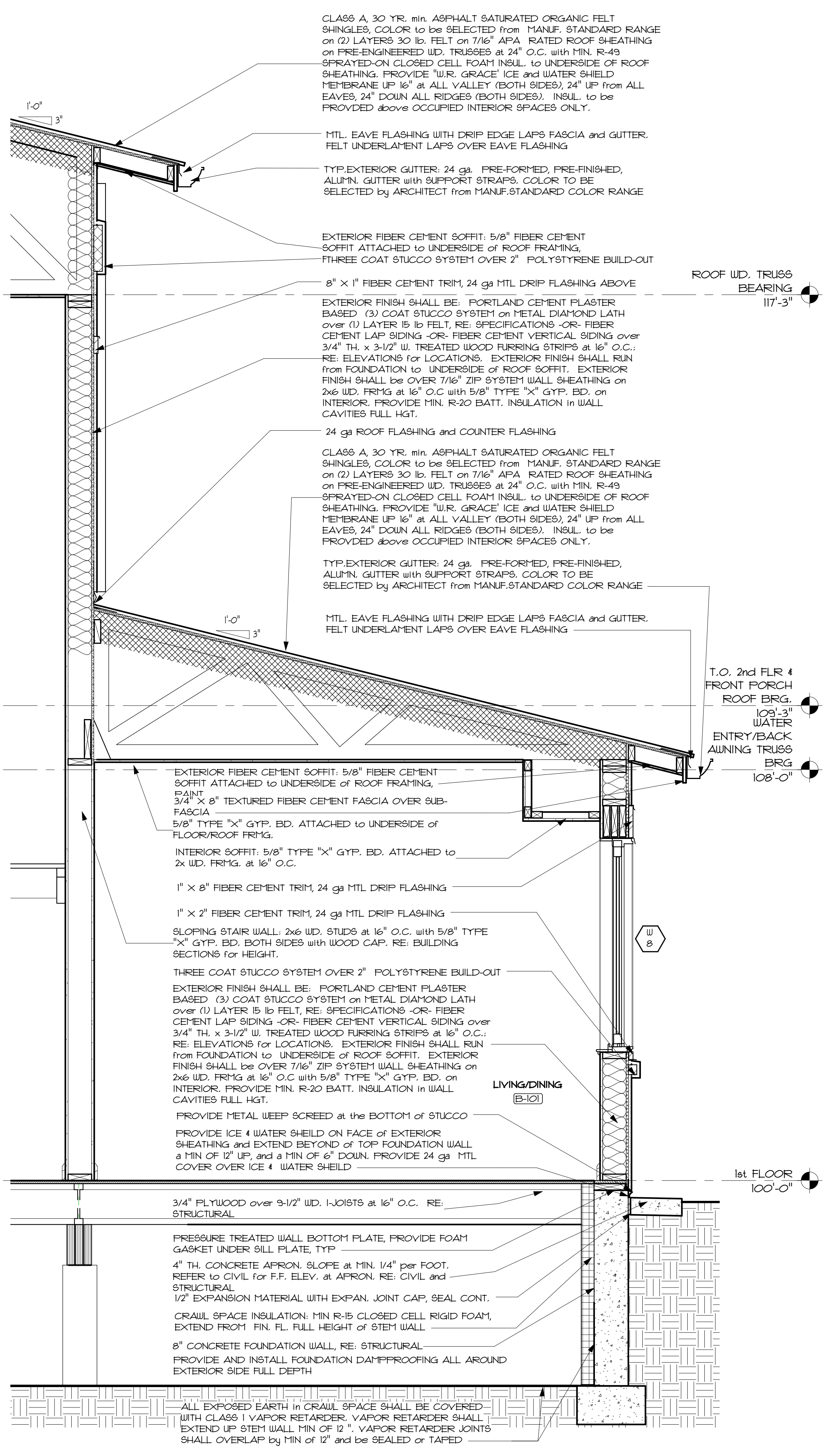


**WALL SECTIONS GENERAL NOTES**

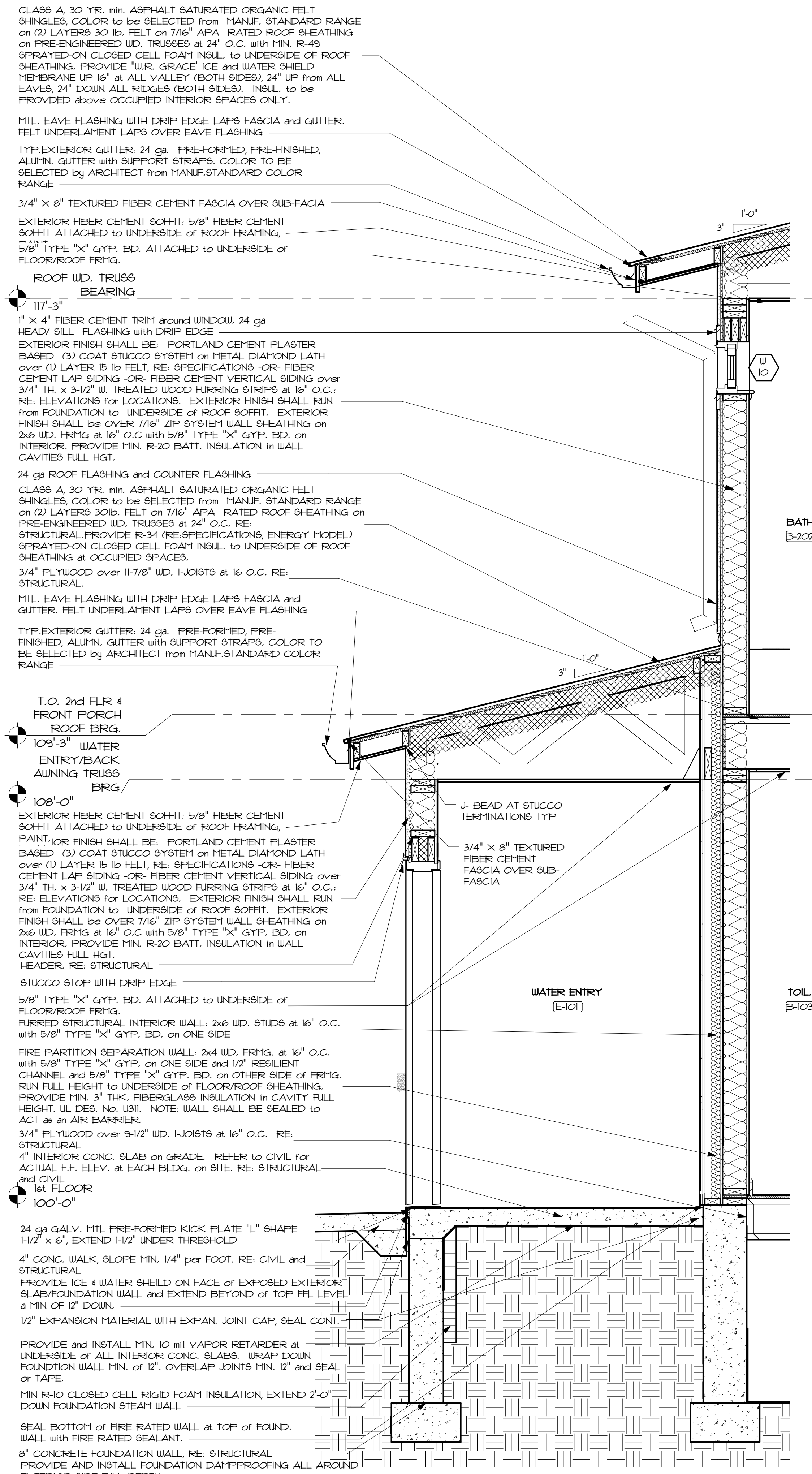
1. MAINTAIN A 1/4" MIN. CLEARANCE (GAP FOR DRAINAGE) BETWEEN BOTTOM OF JAMES HARDIE PRODUCT (BOTH VERTICAL AND HORIZONTAL SIDING) and STUCCO or JH TRIM HORIZONTAL TRANSITIONS. DO NOT CAULK GAP. PROVIDE POSITIVE SLOPE and Z-FLASHING at ALL HORIZONTAL JOINTS.
2. AT THE JUNCTURE of the ROOF and VERTICAL SURFACES, FLASHING and COUNTERFLASHING SHALL BE INSTALLED. A MIN. of 2 in. CLEARANCE BETWEEN the ROOFING and the BOTTOM EDGE of the SIDING and TRIM.
3. MAINTAIN MIN 1 in. GAP BETWEEN GUTTER END CAPS and SIDING/TRIM
4. ALL EXPOSED FLASHING SHALL BE PRE-FIN. COLOR to be SELECTED by OWNER/ARCH. from MANUF. FULL RANGE.



**SECTION THROUGH PORCH COLUMN - BLDG C**  
 3 SC: 3/4" = 1'-0" RE:



**BLDG. C WALL SECTION**  
 2 No. 4 SC: 3/4" = 1'-0" RE:



**BLDG. C WALL SECTION**  
 1 No. 3 SC: 3/4" = 1'-0" RE:

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MTL. EAVE FLASHING WITH DRIP EDGE LAPS FASCIA and GUTTER. FELT UNDERLAMENT LAPS OVER EAVE FLASHING  
 TYP. EXTERIOR GUTTER, 24 ga. PRE-FORMED, PRE-FINISHED, ALUMIN. GUTTER with SUPPORT STRAPS, COLOR TO BE SELECTED by ARCHITECT from MANUF. STANDARD COLOR RANGE

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EXTERIOR FIBER CEMENT SOFFIT: 5/8" FIBER CEMENT SOFFIT ATTACHED TO UNDERSIDE OF ROOF FRAMING, THREE COAT STUCCO SYSTEM OVER 2" POLYSTYRENE BUILD-OUT  
 8" x 1" FIBER CEMENT TRIM, 24 ga MTL DRIP FLASHING ABOVE

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EXTERIOR FINISH SHALL BE: PORTLAND CEMENT PLASTER BASED (3) COAT STUCCO SYSTEM on METAL DIAMOND LATH over (1) LAYER 15 lb FELT, RE: SPECIFICATIONS -OR- FIBER CEMENT LAP SIDING -OR- FIBER CEMENT VERTICAL SIDING over 3/4" TH. x 3-1/2" W. TREATED WOOD FURRING STRIPS at 16" O.C.; RE: ELEVATIONS for LOCATIONS. EXTERIOR FINISH SHALL RUN from FOUNDATION to UNDERSIDE of ROOF SOFFIT. EXTERIOR FINISH SHALL be OVER 7/16" ZIP SYSTEM WALL SHEATHING on 2x6 WD. FRMG at 16" O.C with 5/8" TYPE "X" GYP. BD. on INTERIOR. PROVIDE MIN. R-20 BATT. INSULATION in WALL CAVITIES FULL HGT.

EXTERIOR FINISH SHALL BE: PORTLAND CEMENT PLASTER BASED (3) COAT STUCCO SYSTEM on METAL DIAMOND LATH over (1) LAYER 15 lb FELT, RE: SPECIFICATIONS -OR- FIBER CEMENT LAP SIDING -OR- FIBER CEMENT VERTICAL SIDING over 3/4" TH. x 3-1/2" W. TREATED WOOD FURRING STRIPS at 16" O.C.; RE: ELEVATIONS for LOCATIONS. EXTERIOR FINISH SHALL RUN from FOUNDATION to UNDERSIDE of ROOF SOFFIT. EXTERIOR FINISH SHALL be OVER 7/16" ZIP SYSTEM WALL SHEATHING on 2x6 WD. FRMG at 16" O.C with 5/8" TYPE "X" GYP. BD. on INTERIOR. PROVIDE MIN. R-20 BATT. INSULATION in WALL CAVITIES FULL HGT.

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EXTERIOR FIBER CEMENT SOFFIT: 5/8" FIBER CEMENT SOFFIT ATTACHED TO UNDERSIDE OF ROOF FRAMING, PAINT 3/4" x 8" TEXTURED FIBER CEMENT FASCIA OVER SUB-FASCIA  
 5/8" TYPE "X" GYP. BD. ATTACHED TO UNDERSIDE OF FLOOR/ROOF FRMG.

EXTERIOR FIBER CEMENT SOFFIT: 5/8" FIBER CEMENT SOFFIT ATTACHED TO UNDERSIDE OF ROOF FRAMING, PAINT 3/4" x 8" TEXTURED FIBER CEMENT FASCIA OVER SUB-FASCIA  
 5/8" TYPE "X" GYP. BD. ATTACHED TO UNDERSIDE OF FLOOR/ROOF FRMG.

INTERIOR SOFFIT: 5/8" TYPE "X" GYP. BD. ATTACHED TO 2x WD. FRMG. at 16" O.C.  
 1" x 8" FIBER CEMENT TRIM, 24 ga MTL DRIP FLASHING

INTERIOR SOFFIT: 5/8" TYPE "X" GYP. BD. ATTACHED TO 2x WD. FRMG. at 16" O.C.  
 1" x 8" FIBER CEMENT TRIM, 24 ga MTL DRIP FLASHING

1" x 2" FIBER CEMENT TRIM, 24 ga MTL DRIP FLASHING  
 SLOPING STAIR WALL: 2x6 WD. STUDS at 16" O.C. with 5/8" TYPE "X" GYP. BD. BOTH SIDES with WOOD CAP, RE: BUILDING SECTIONS for HEIGHT.

1" x 2" FIBER CEMENT TRIM, 24 ga MTL DRIP FLASHING  
 SLOPING STAIR WALL: 2x6 WD. STUDS at 16" O.C. with 5/8" TYPE "X" GYP. BD. on ONE SIDE

THREE COAT STUCCO SYSTEM OVER 2" POLYSTYRENE BUILD-OUT  
 EXTERIOR FINISH SHALL BE: PORTLAND CEMENT PLASTER BASED (3) COAT STUCCO SYSTEM on METAL DIAMOND LATH over (1) LAYER 15 lb FELT, RE: SPECIFICATIONS -OR- FIBER CEMENT LAP SIDING -OR- FIBER CEMENT VERTICAL SIDING over 3/4" TH. x 3-1/2" W. TREATED WOOD FURRING STRIPS at 16" O.C.; RE: ELEVATIONS for LOCATIONS. EXTERIOR FINISH SHALL RUN from FOUNDATION to UNDERSIDE of ROOF SOFFIT. EXTERIOR FINISH SHALL be OVER 7/16" ZIP SYSTEM WALL SHEATHING on 2x6 WD. FRMG at 16" O.C with 5/8" TYPE "X" GYP. BD. on INTERIOR. PROVIDE MIN. R-20 BATT. INSULATION in WALL CAVITIES FULL HGT.

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PROVIDE METAL WEEP SCREED at the BOTTOM of STUCCO  
 PROVIDE ICE & WATER SHIELD ON FACE of EXTERIOR SHEATHING and EXTEND BEYOND of TOP FOUNDATION WALL a MIN OF 12" UP, and a MIN OF 6" DOWN. PROVIDE 24 ga MTL COVER OVER ICE & WATER SHIELD

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3/4" PLYWOOD over 3-1/2" WD. 1-JOISTS at 16" O.C. RE: STRUCTURAL

3/4" PLYWOOD over 3-1/2" WD. 1-JOISTS at 16" O.C. RE: STRUCTURAL

PRESSURE TREATED WALL BOTTOM PLATE, PROVIDE FOAM GASKET UNDER SILL PLATE, TYP

PRESSURE TREATED WALL BOTTOM PLATE, PROVIDE FOAM GASKET UNDER SILL PLATE, TYP

4" TH. CONCRETE APRON, SLOPE at MIN. 1/4" per FOOT. REFER to CIVIL for F.F. ELEV. at APRON. RE: CIVIL and STRUCTURAL

4" TH. CONCRETE APRON, SLOPE at MIN. 1/4" per FOOT. REFER to CIVIL for F.F. ELEV. at APRON. RE: CIVIL and STRUCTURAL

1/2" EXPANSION MATERIAL WITH EXPAN. JOINT CAP, SEAL CONT.

1/2" EXPANSION MATERIAL WITH EXPAN. JOINT CAP, SEAL CONT.

8" CONCRETE FOUNDATION WALL, RE: STRUCTURAL  
 PROVIDE AND INSTALL FOUNDATION DAMPPROOFING ALL AROUND EXTERIOR SIDE FULL DEPTH

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 PROVIDE AND INSTALL FOUNDATION DAMPPROOFING ALL AROUND EXTERIOR SIDE FULL DEPTH

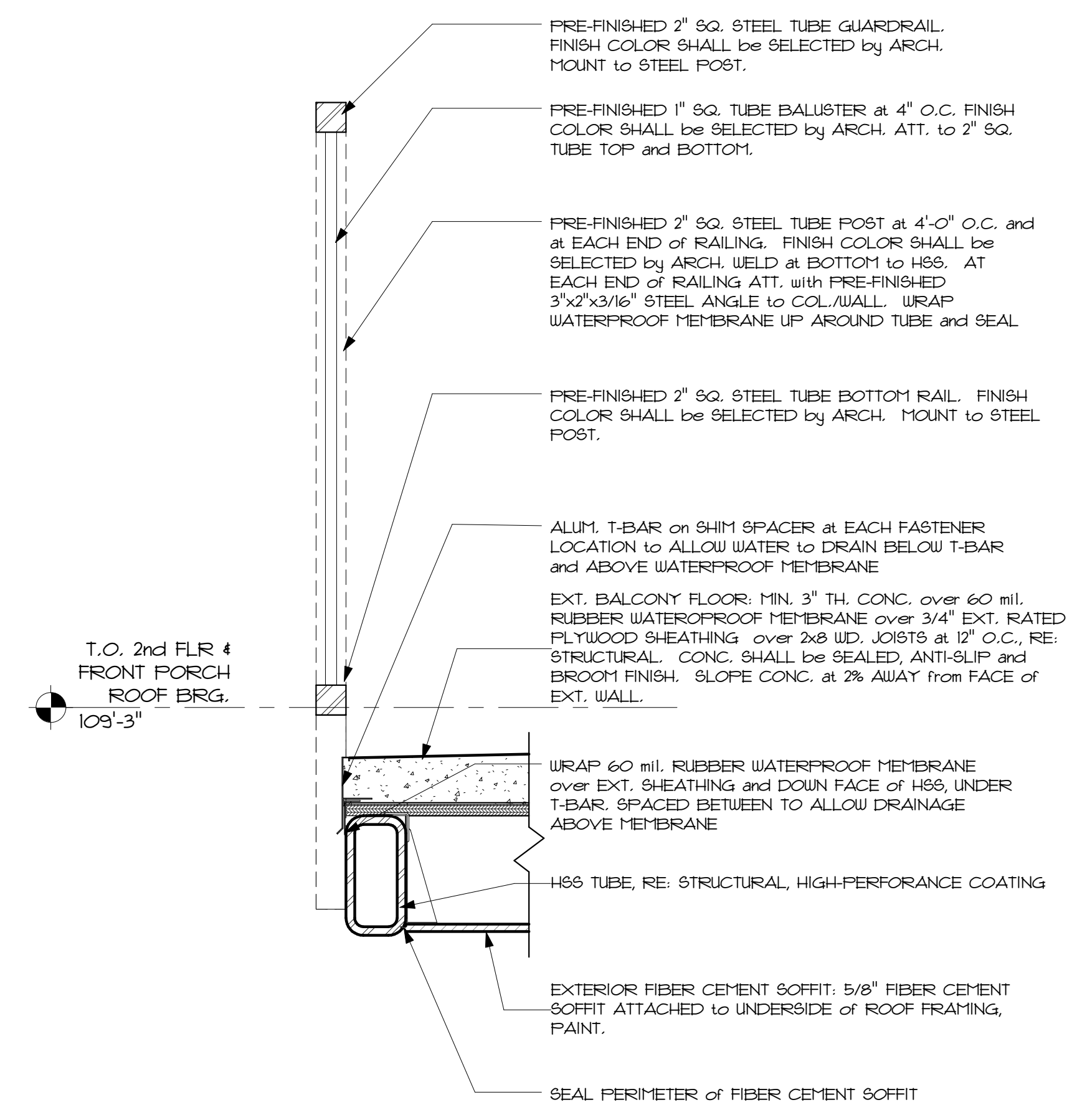
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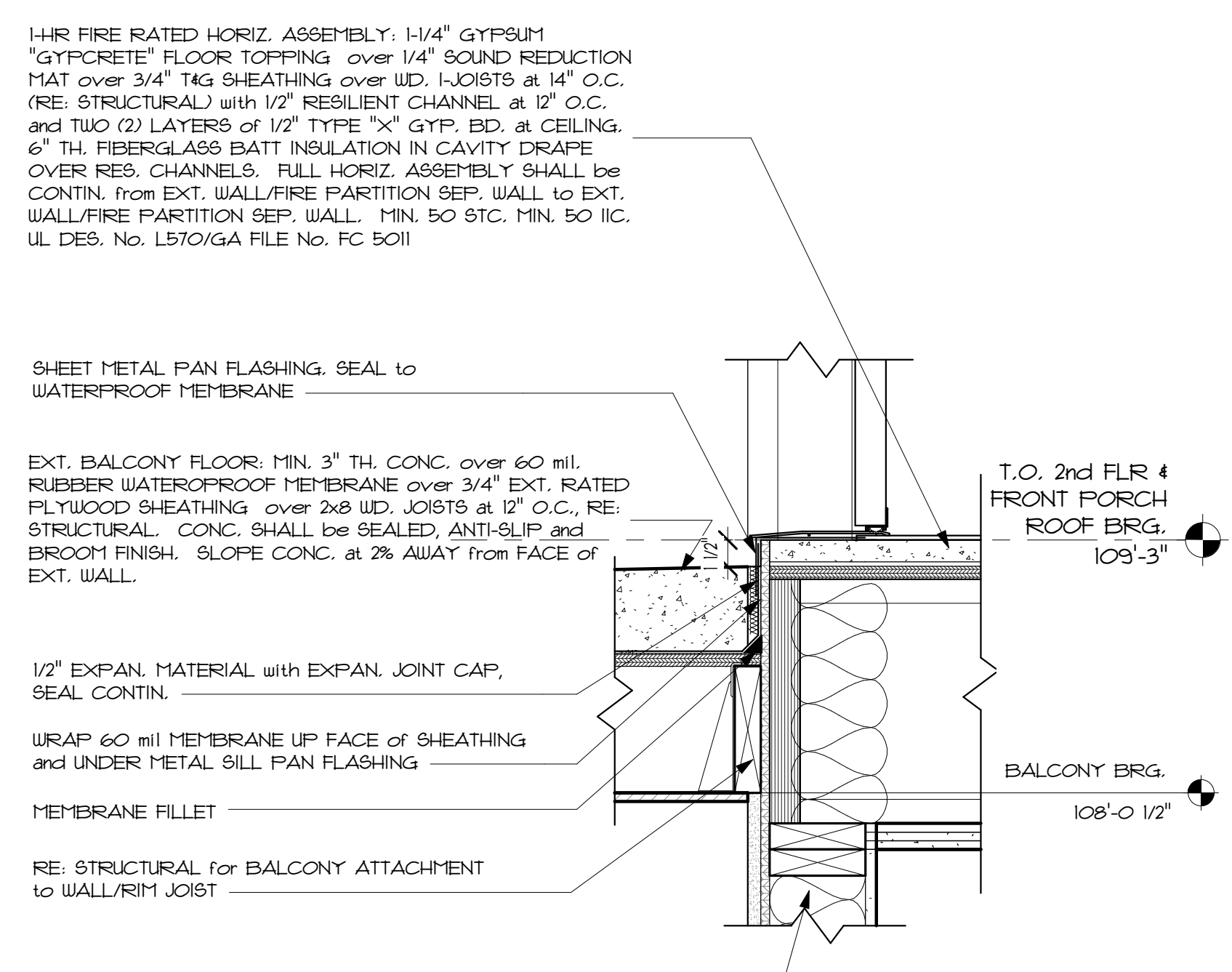


**WALL SECTIONS GENERAL NOTES**

1. MAINTAIN A 1/4" MIN. CLEARANCE (GAP FOR DRAINAGE) BETWEEN BOTTOM OF JAMES HARDIE PRODUCT (BOTH VERTICAL AND HORIZONTAL SIDING) and STUCCO or JH TRIM HORIZONTAL TRANSITIONS. DO NOT CAULK GAP. PROVIDE POSITIVE SLOPE and Z-FLASHING at ALL HORIZONTAL JOINTS.
2. AT THE JUNCTURE of the ROOF and VERTICAL SURFACES, FLASHING and COUNTERFLASHING SHALL BE INSTALLED. A MIN. of 2 in. CLEARANCE BETWEEN the ROOFING and the BOTTOM EDGE of the SIDING and TRIM.
3. MAINTAIN MIN 1 in. GAP BETWEEN GUTTER END CAPS and SIDING/TRIM
4. ALL EXPOSED FLASHING SHALL BE PRE-FIN. COLOR to be SELECTED by OWNER/ARCH. from MANUF. FULL RANGE.

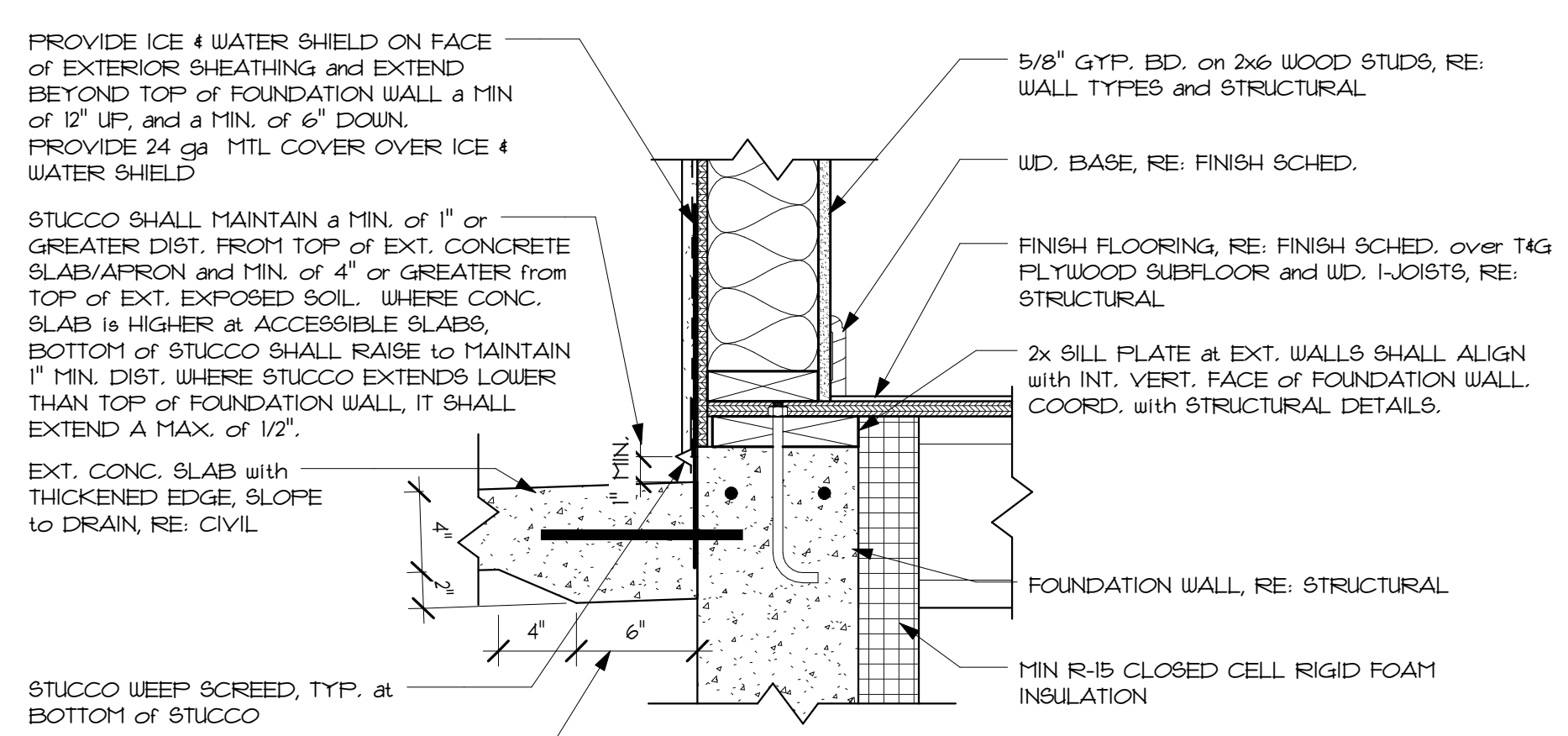


**BLDG. C - DETAIL at BALCONY EDGE/GUARDRAIL**  
 SC: 1 1/2" = 1'-0" RE:

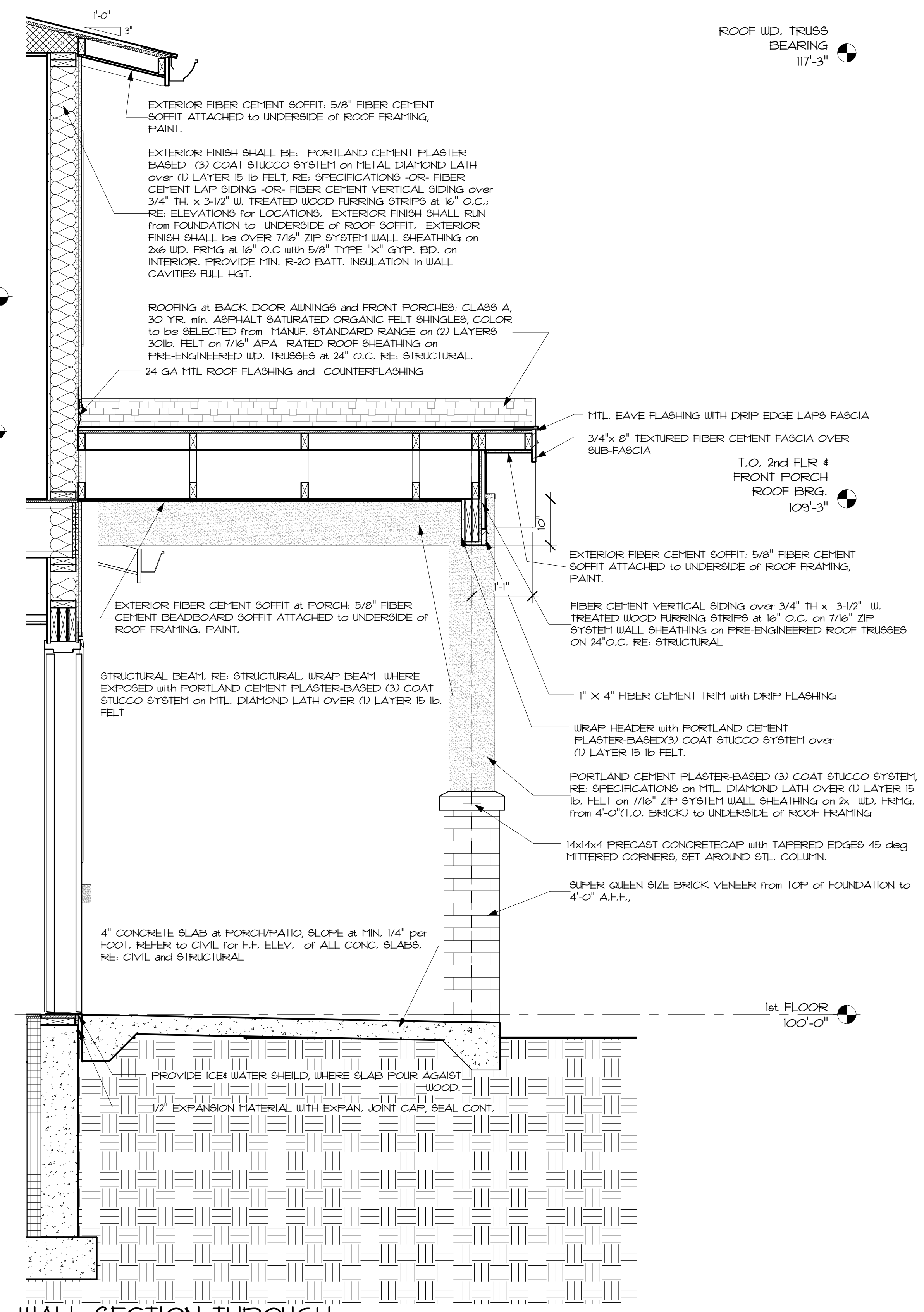


**BLDG. C - DETAIL at BALCONY and EXTERIOR DOOR SILL**  
 SC: 1 1/2" = 1'-0" RE:

NOTE: DETAIL IS SHOWN at EXT. WALL to 4" TH. x 1'-0" W. CONC. APRON. CONC. APRON SHALL NOT HAVE THICKENED EDGE.



**TYP. DETAIL at EXT. WALL to CONC. SLAB, NON-ACCESSIBLE**  
 SC: 1 1/2" = 1'-0" RE:

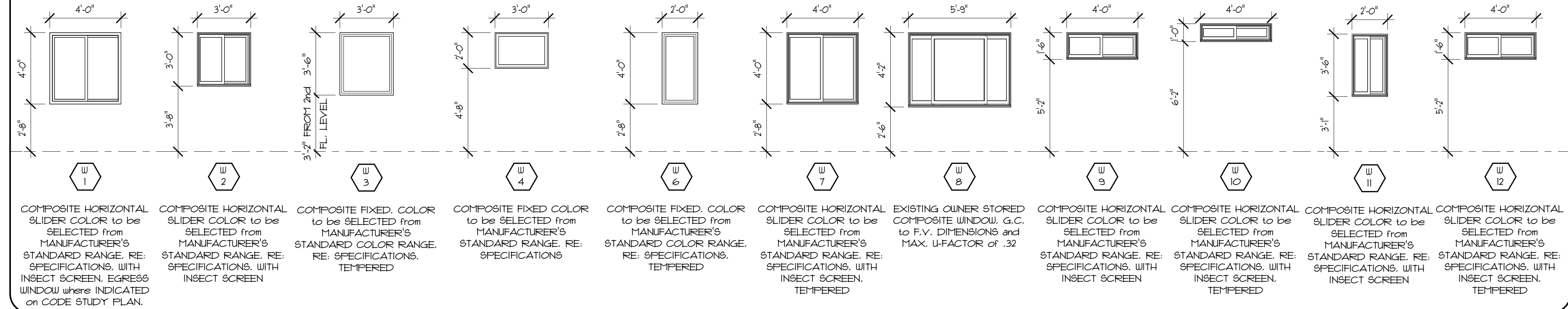


**WALL SECTION THROUGH FRONT PORCH - BLDG C**  
 SC: 3/4" = 1'-0" RE:

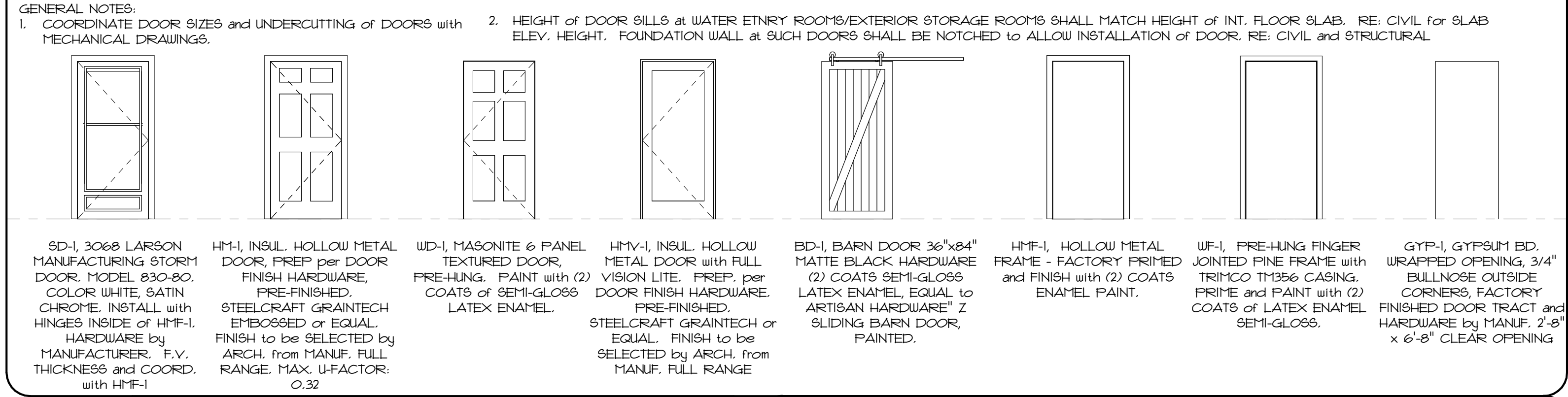


**WINDOW TYPES**

NOTE: ALL WINDOWS SHALL HAVE a MAX. U-FACTOR of 0.32, and NO REQ. for SHGC



**DOOR and FRAME TYPES**



**DOOR HARDWARE SETS**

**SET A (FRONT & BACK ENTRY DOORS)**  
 DEADBOLT BC 160R, E 626 REMOVABLE CORE, FIO ELAN LEVER PASSAGE, WEATHER STRIP, STOP, 1/2 PAIR HINGES, ADA APPROVED THRESHOLD, ROCKWOOD # 620 VIEWER INSTALL at 60 A.F.F., STORM DOOR to HAVE FACTORY HARDWARE and WIND CHAIN.

**SET B (BEDROOMS, CLOSETS with SINGLE DOOR)**  
 PRE-HUNG HINGES by MFG.; FIO ELAN LEVER, 626, PASSAGE, STOP.

**SET C (TOILET & BATH ROOMS)**  
 F40 ELAN, 626, PRIVACY, STOP.

**SET D (CLOSETS with DOUBLE DOORS)**  
 PRE-HUNG HINGES by MFG.; DUMPTY TRIM F170 ELAN LEVER, SPRING CATCHES (EACH LEAF), (1) FLOOR and (1) HINGE STOP, ADJUSTABLE BALL CATCH, SATIN CHROME FINISH 626.

**SET E (EXTERIOR STORAGE and WATER ENTRY DOORS)**  
 DEADBOLT BC 160R, E 626 REMOVABLE CORE, FIO ELAN LEVER PASSAGE, WEATHER STRIP, STOP, 1/2 PAIR HINGES, ADA APPROVED THRESHOLD.

**SET F (BARN DOOR)**  
 HARDWARE by MANUFACTURER, COLOR BLACK, FULL RE: INTERIOR DOOR TYPES.

**SET G (FRONT & BACK ENTRY DOORS ACCESSIBLE UNITS)**  
 DEADBOLT BC 160R, E626 REMOVABLE CORE, FIO ELAN LEVER PASSAGE, WEATHER STRIP, STOP, 1/2 PAIR HINGES, KICK PLATES ADA APPROVED THRESHOLD, ROCKWOOD #620 VIEWER, INSTALL (2) VIEWERS at ENTRY DOORS INSTALL VIEWER at 43" A.F.F. and at 60" A.F.F. KICK PLATE MOUNT at EXTERIOR of DOOR (VERIFY with OWNER), STORM DOOR HARDWARE per MANUF. INCLUDING but NOT LIMITED to: HINGES, LEVER HANDLE, DROP CAP, SCREEN DOOR CLOSER, WEATHER STRIPPING, and WIND CHAIN.

**SET H (EXTERIOR BALCONY DOORS)**  
 DEADBOLT BC 160R, E 626 REMOVABLE CORE, FIO ELAN LEVER PASSAGE, WEATHER STRIP, STOP, 1/2 PAIR HINGES.

NOTES: at DOORS, STOP, ROCKWOOD 1/2" BASE, DOME STOPE #442, 626 UNLESS INDICATED OTHERWISE and EXCEPT at CARPET FLOOR FINISHES and WHERE DOORS are UNDERCUT per MECHANICAL PROVIDE WALL STOP in LIEU of FLOOR STOP, WHERE WALL STOP is NOT POSSIBLE PROVIDE RISER on DOME STOP, RE: INTERIOR FINISH SCHED. CONTRACTOR to F.V. REQ. WIDTH of THRESHOLD at EXTERIOR DOORS.

**DOOR COLOR NOTES:**

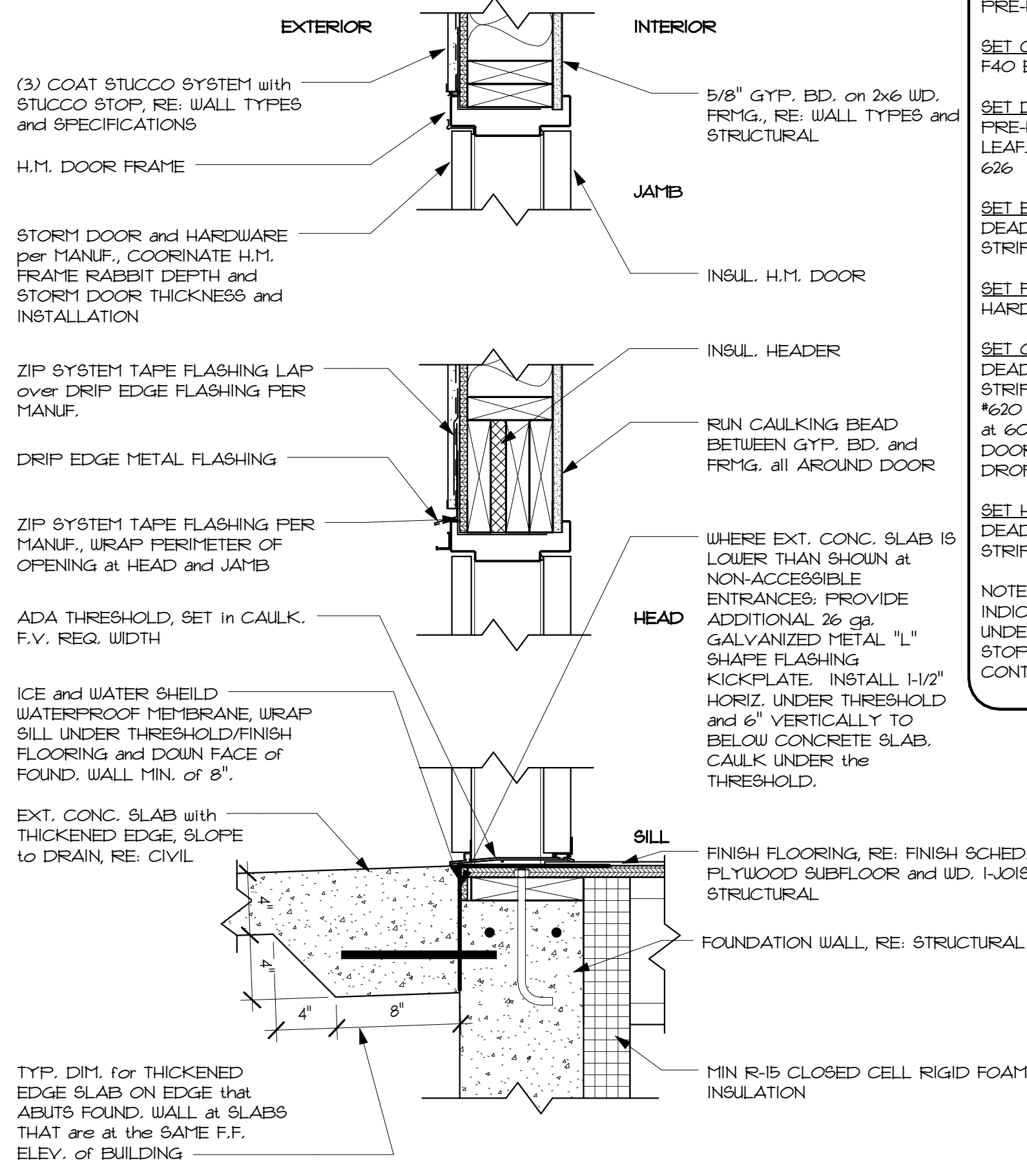
DOORS and FRAMES:  
 LE-1 LATEX ENAMEL (LE)  
 APPROVED MANUFACTURER COLOR to be SELECTED from the MANUFACTURER'S TOTAL COLOR RANGE. RE: SPECIFICATIONS.

EN-1 ENAMEL (EN)  
 APPROVED MANUFACTURER COLOR to be SELECTED from the MANUFACTURER'S TOTAL COLOR RANGE. RE: SPECIFICATIONS.

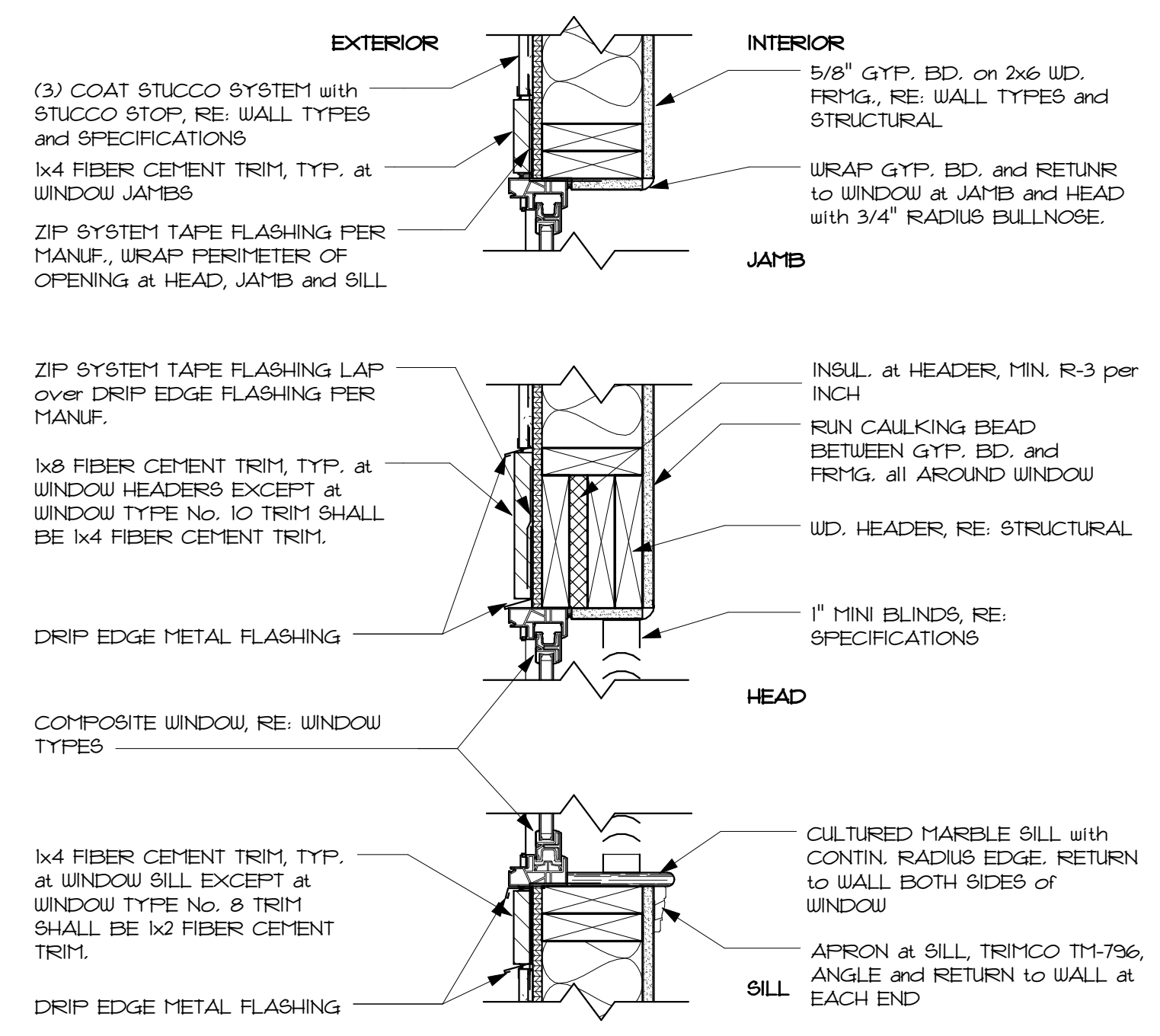
NOTE: CONTRACTOR to ALLOW for (4) EXTERIOR BUILDING COLOR SCHEMES at FRONT and BACK ENTRY DOORS. INTERIOR of FRAMES to MATCH LE-1.

**BLDG. C - DOOR SCHED.**

| MARK | HEIGHT | WIDTH | DOOR TYPE and FINISH               | FRAME TYPE and FINISH | Fire Rating | HARDWARE SET |
|------|--------|-------|------------------------------------|-----------------------|-------------|--------------|
| A101 | 6'-8"  | 3'-0" | HM-F-1 x H.M. x PRE-FIN. with SD-1 | HM-F-1 x H.M. x EN.   | N/A         | SET A        |
| A102 | 6'-8"  | 3'-0" | HM-F-1 x H.M. x PRE-FIN. with SD-1 | HM-F-1 x H.M. x EN.   | N/A         | SET A        |
| A103 | 6'-8"  | 3'-0" | WD-1 x MASONITE x LE               | WF-1 x WOOD x EN      | N/A         | SET C        |
| A104 | 6'-8"  | 3'-0" | BD-1 x WOOD x LE                   | GYPF x GYP. x EN.     | N/A         | SET F        |
| A105 | 6'-8"  | 3'-0" | WD-1 x MASONITE x LE               | WF-1 x WOOD x EN      | N/A         | SET B        |
| A106 | 6'-8"  | 5'-0" | WD-1 x MASONITE x LE               | WF-1 x WOOD x EN      | N/A         | SET D        |
| A107 | 6'-8"  | 2'-0" | WD-1 x MASONITE x LE               | WF-1 x WOOD x EN      | N/A         | SET B        |
| B101 | 6'-8"  | 3'-0" | HM-F-1 x H.M. x PRE-FIN. with SD-1 | HM-F-1 x H.M. x EN.   | N/A         | SET A        |
| B102 | 6'-8"  | 3'-0" | HM-F-1 x H.M. x PRE-FIN. with SD-1 | HM-F-1 x H.M. x EN.   | N/A         | SET A        |
| B103 | 6'-8"  | 3'-0" | WD-1 x MASONITE x LE               | WF-1 x WOOD x EN      | N/A         | SET C        |
| B104 | 6'-8"  | 3'-0" | WD-1 x MASONITE x LE               | WF-1 x WOOD x EN      | N/A         | SET D        |
| B105 | 6'-8"  | 2'-0" | WD-1 x MASONITE x LE               | WF-1 x WOOD x EN      | N/A         | SET B        |
| B202 | 6'-8"  | 3'-0" | WD-1 x MASONITE x LE               | WF-1 x WOOD x EN      | N/A         | SET C        |
| B203 | 6'-8"  | 3'-0" | WD-1 x MASONITE x LE               | WF-1 x WOOD x EN      | N/A         | SET D        |
| B204 | 6'-8"  | 2'-8" | WD-1 x MASONITE x LE               | WF-1 x WOOD x EN      | N/A         | SET B        |
| B205 | 6'-8"  | 4'-0" | WD-1 x MASONITE x LE               | WF-1 x WOOD x EN      | N/A         | SET D        |
| B206 | 6'-8"  | 2'-8" | WD-1 x MASONITE x LE               | WF-1 x WOOD x EN      | N/A         | SET B        |
| B207 | 6'-8"  | 4'-0" | WD-1 x MASONITE x LE               | WF-1 x WOOD x EN      | N/A         | SET D        |
| B423 | 6'-8"  | 2'-0" | HM-F-1 x MASONITE x LE             | WF-1 x WOOD x EN      | N/A         | SET B        |
| B436 | 6'-8"  | 3'-0" | HM-F-1 x H.M. x PRE-FIN. with SD-1 | HM-F-1 x H.M. x EN.   | N/A         | SET A        |
| B491 | 6'-8"  | 2'-0" | WD-1 x MASONITE x LE               | WF-1 x WOOD x EN      | N/A         | SET B        |
| C101 | 6'-8"  | 3'-0" | HM-F-1 x H.M. x PRE-FIN. with SD-1 | HM-F-1 x H.M. x EN.   | N/A         | SET A        |
| C102 | 6'-8"  | 3'-0" | HM-F-1 x H.M. x PRE-FIN. with SD-1 | HM-F-1 x H.M. x EN.   | N/A         | SET A        |
| C103 | 6'-8"  | 3'-0" | WD-1 x MASONITE x LE               | WF-1 x WOOD x EN      | N/A         | SET C        |
| C104 | 6'-8"  | 5'-0" | WD-1 x MASONITE x LE               | WF-1 x WOOD x EN      | N/A         | SET D        |
| C202 | 6'-8"  | 3'-0" | WD-1 x MASONITE x LE               | WF-1 x WOOD x EN      | N/A         | SET C        |
| C203 | 6'-8"  | 5'-0" | WD-1 x MASONITE x LE               | WF-1 x WOOD x EN      | N/A         | SET D        |
| C204 | 6'-8"  | 2'-8" | WD-1 x MASONITE x LE               | WF-1 x WOOD x EN      | N/A         | SET B        |
| C205 | 6'-8"  | 4'-0" | WD-1 x MASONITE x LE               | WF-1 x WOOD x EN      | N/A         | SET D        |
| C206 | 6'-8"  | 2'-8" | WD-1 x MASONITE x LE               | WF-1 x WOOD x EN      | N/A         | SET B        |
| C207 | 6'-8"  | 4'-0" | WD-1 x MASONITE x LE               | WF-1 x WOOD x EN      | N/A         | SET D        |
| D101 | 6'-8"  | 3'-0" | HM-F-1 x H.M. x PRE-FIN. with SD-1 | HM-F-1 x H.M. x EN.   | N/A         | SET A        |
| D102 | 6'-8"  | 3'-0" | HM-F-1 x H.M. x PRE-FIN. with SD-1 | HM-F-1 x H.M. x EN.   | N/A         | SET A        |
| D103 | 6'-8"  | 3'-0" | WD-1 x MASONITE x LE               | WF-1 x WOOD x EN      | N/A         | SET C        |
| D104 | 6'-8"  | 5'-0" | BD-1 x WOOD x LE                   | GYPF x GYP. x EN.     | N/A         | SET F        |
| D105 | 6'-8"  | 3'-0" | WD-1 x MASONITE x LE               | WF-1 x WOOD x EN      | N/A         | SET B        |
| D106 | 6'-8"  | 5'-0" | WD-1 x MASONITE x LE               | WF-1 x WOOD x EN      | N/A         | SET D        |
| D107 | 6'-8"  | 2'-0" | WD-1 x MASONITE x LE               | WF-1 x WOOD x EN      | N/A         | SET B        |
| F101 | 6'-8"  | 3'-0" | HM-F-1 x H.M. x PRE-FIN. with SD-1 | HM-F-1 x H.M. x EN.   | N/A         | SET A        |
| F102 | 6'-8"  | 2'-0" | WD-1 x MASONITE x LE               | WF-1 x WOOD x EN      | N/A         | SET B        |
| F200 | 6'-8"  | 3'-0" | WD-1 x MASONITE x LE               | WF-1 x WOOD x EN      | N/A         | SET B        |
| F201 | 6'-8"  | 3'-0" | HMV-F-1 x H.M. x PRE-FIN.          | HMV-F-1 x H.M. x EN.  | N/A         | SET H        |
| F203 | 6'-8"  | 3'-0" | WD-1 x MASONITE x LE               | WF-1 x WOOD x EN      | N/A         | SET B        |
| F204 | 6'-8"  | 3'-0" | WD-1 x MASONITE x LE               | WF-1 x WOOD x EN      | N/A         | SET B        |
| F205 | 6'-8"  | 3'-0" | WD-1 x MASONITE x LE               | WF-1 x WOOD x EN      | N/A         | SET B        |
| F206 | 6'-8"  | 4'-0" | WD-1 x MASONITE x LE               | WF-1 x WOOD x EN      | N/A         | SET D        |
| F207 | 6'-8"  | 2'-0" | WD-1 x MASONITE x LE               | WF-1 x WOOD x EN      | N/A         | SET B        |
| G200 | 6'-8"  | 3'-0" | WD-1 x MASONITE x LE               | WF-1 x WOOD x EN      | N/A         | SET B        |
| G201 | 6'-8"  | 3'-0" | HMV-F-1 x H.M. x PRE-FIN.          | HMV-F-1 x H.M. x EN.  | N/A         | SET H        |
| G203 | 6'-8"  | 3'-0" | WD-1 x MASONITE x LE               | WF-1 x WOOD x EN      | N/A         | SET C        |
| G204 | 6'-8"  | 3'-0" | WD-1 x MASONITE x LE               | WF-1 x WOOD x EN      | N/A         | SET C        |
| G205 | 6'-8"  | 3'-0" | WD-1 x MASONITE x LE               | WF-1 x WOOD x EN      | N/A         | SET B        |
| G206 | 6'-8"  | 4'-0" | WD-1 x MASONITE x LE               | WF-1 x WOOD x EN      | N/A         | SET D        |
| G207 | 6'-8"  | 2'-0" | WD-1 x MASONITE x LE               | WF-1 x WOOD x EN      | N/A         | SET B        |
| H101 | 6'-8"  | 3'-0" | HM-F-1 x H.M. x PRE-FIN.           | HM-F-1 x H.M. x EN.   | N/A         | SET E        |



**DETAIL at EXT. DOOR HEADER, JAMB and SILL at ACCESSIBLE ENTRANCE**  
 SC: 1/2" = 1'-0" RE:



**DETAIL at WINDOW HEAD, SILL and JAMB**  
 SC: 1/2" = 1'-0" RE:



**ROOM FINISH NOTES:**

SLR: SEALER ON CONC. by APPROVED MANUF.

LUXURY VINYL TILE: NOTE: ALL VINYL FLOORING SHALL MEET SCIENTIFIC CERTIFICATION SYSTEM'S FLOORSORE PROGRAM CRITERIA

LVT-1: LUXURY VINYL TILE (LVT) APPROVED MANUF. COLOR and PATTERN to be SELECTED FROM MANUFACTURER'S STANDARD COLOR RANGE, RE. SPECIFICATIONS to be INSTALLED OVER "ULTRAPLY" PREMIUM UNDERLAYMENT by MORELAND CO.

VST-1: VINYL STAIR TREAD and STRINGER (VST) by BURKE (or APPROVED MANUF.) COLOR / PATTERN as SELECTED by OWNER / ARCHITECT.

SHEET VINYL: NOTE: ALL VINYL FLOORING SHALL MEET SCIENTIFIC CERTIFICATION SYSTEM'S FLOORSORE PROGRAM CRITERIA

SV-1: APPROVED MANUF. COLOR and PATTERN to be SELECTED FROM MANUFACTURER'S STANDARD COLOR RANGE, RE. SPECIFICATIONS, to be INSTALLED OVER "ULTRAPLY" PREMIUM UNDERLAYMENT by MORELAND CO.

CARPET: NOTE: ALL CARPET, PAD and CARPET ADHESIVES to MEET CARPET and RUG INSTITUTE'S GREEN LABEL or GREEN LABEL PLUS CERTIFICATION.

CPT-1: APPROVED MANUF. COLOR and PATTERN to be SELECTED FROM MANUFACTURER'S STANDARD COLOR RANGE, RE. SPECIFICATIONS to be INSTALLED OVER "ULTRAPLY" PREMIUM UNDERLAYMENT by MORELAND CO.

BASE: WOOD BASE (WD), TRIMCO MILLWORK 444, 3/16"x3 1/4" PAINT with LE-1, SEMI-GLOSS

RB-1: RUBBER BASE (RB) by APPROVED MANUF. COLOR as SELECTED by OWNER / ARCHITECT

PAINT (LATEX ENAMEL): NOTE: ALL PAINT SHALL be LOW/NO VOC

LE-1: LATEX ENAMEL FIELD COLOR, APPROVED MANUF. COLOR and PATTERN to be SELECTED FROM MANUFACTURER'S TOTAL COLOR RANGE.

LE-2: LATEX ENAMEL ACCENT WALL, APPROVED MANUF. COLOR and PATTERN to be SELECTED FROM MANUFACTURER'S TOTAL COLOR RANGE.

CASEWORK: WOOD BASE and WALL CABINETS, LOW/NO FORMALDEHYDE PLYWOOD, LOW-VOC STAIN

COUNTERTOPS: PLASTIC LAMINATE

PL-1: PLASTIC LAMINATE (PL) APPROVED MANUF. COLOR and PATTERN to be SELECTED FROM MANUFACTURER'S STANDARD TOTAL COLOR RANGE of SOLIDS and PATTERNS, RE. SPECIFICATIONS

ROOM FINISH NOTES:

- SPECIALTIES: GRAB BARS, TOILET BAR(S), RECESSED MEDICINE CABINET, MIRROR, TOILET PAPER HOLDER, SHOWER CURTAIN ROD
- SPECIALTIES: TOILET BAR(S), RECESSED MEDICINE CABINET, MIRROR, TOILET PAPER HOLDER
- SPECIALTIES: TOILET BAR(S), TWO DOOR MEDICINE CABINET, TOILET PAPER HOLDER, SHOWER CURTAIN ROD
- SPECIALTIES: ROBE HOOK, RECESSED MEDICINE CABINET, MIRROR, TOILET PAPER HOLDER, SHOWER CURTAIN ROD
- SPECIALTIES: GRAB BAR(S) ROBE HOOK, RECESSED MEDICINE CABINET, MIRROR, TOILET PAPER HOLDER, SHOWER CURTAIN ROD
- SPECIALTIES: ROBE HOOK, TOILET BAR(S) RECESSED MEDICINE CABINET, MIRROR, TOILET PAPER HOLDER, SHOWER CURTAIN ROD

GENERAL NOTES:

- ALL FLOORING, FINISH WOOD, PAINT and STAIN, CASEWORK/PLYWOOD SHALL MEET GREEN COMMUNITIES CRITERIA
- INTERIOR SIDE OF ALL WINDOWS SHALL HAVE SOLID SURFACE SILLS and WINDOW BLINDS.

CLOSET NOTES:

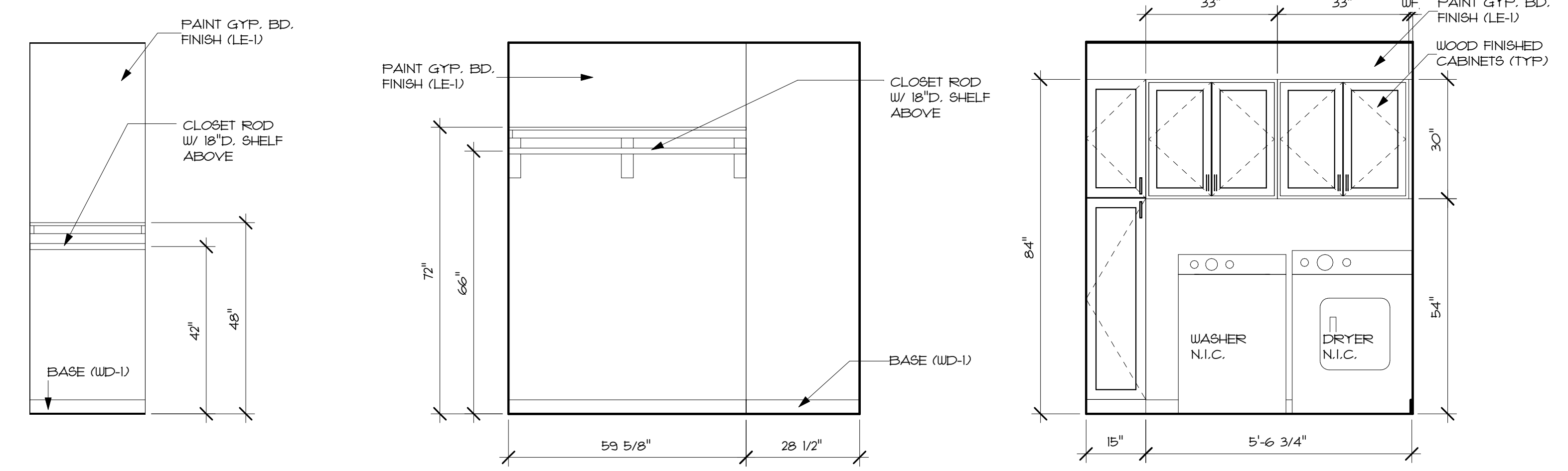
BEDROOM CLOSETS: INSTALL (1) 3/4" PARTICLE BOARD SHELF ON 1 x 2 CLEATS WITH 1 x 4 CLEAT AT (3) LOCATIONS FOR SHELF BRACKETS. INSTALL ON (3) METAL SHELF BRACKETS PER CLOSET WITH WOOD DOUCEL ROD ON POLE SOCKETS 1 5/16". PAINT ALL PARTICLE BOARD SHELVES and CLEATS (LE-1)

**BLDG. C - ROOM FINISH SCHEDULE**

| BUILDING TYPE | ROOM NUMBER | ROOM NAME     | FLOOR FINISH | BASE FINISH | WALLS         |               |               |               | CEILING FINISH | CASEWORK  |              |                     |
|---------------|-------------|---------------|--------------|-------------|---------------|---------------|---------------|---------------|----------------|-----------|--------------|---------------------|
|               |             |               |              |             | A WALL FINISH | B WALL FINISH | C WALL FINISH | D WALL FINISH |                | CASE WORK | COUNTER TOPS | SPECIALTIES         |
| BLDG. C       | A-101       | LIVING/DINING | LVT-1        | WD-1        | LE-1          | LE-2          | LE-1          | LE-1          | LE-1           | WOOD      | PL-1         |                     |
| BLDG. C       | A-102       | KIT.          | SV-1         | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           | WOOD      | PL-1         | SEE RM. FIN. NOTE 6 |
| BLDG. C       | A-103       | BATH          | SV-1         | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           | WOOD      | PL-1         | SEE RM. FIN. NOTE 6 |
| BLDG. C       | A-104       | LAUND./MECH.  | SV-1         | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           | WOOD      |              |                     |
| BLDG. C       | A-105       | BD. RM.       | LVT-1        | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           |           |              |                     |
| BLDG. C       | A-106       | CLO.          | LVT-1        | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           |           |              |                     |
| BLDG. C       | A-107       | CLO.          | LVT-1        | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           |           |              |                     |
| BLDG. C       | B-101       | LIVING/DINING | LVT-1        | WD-1        | LE-1          | LE-2          | LE-1          | LE-1          | LE-1           |           |              |                     |
| BLDG. C       | B-102       | KIT.          | SV-1         | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           | WOOD      | PL-1         | SEE RM. FIN. NOTE 2 |
| BLDG. C       | B-103       | TOIL.         | SV-1         | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           | WOOD      | PL-1         | SEE RM. FIN. NOTE 2 |
| BLDG. C       | B-104       | MECH.         | SV-1         | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           |           |              |                     |
| BLDG. C       | B-105       | CLO.          | LVT-1        | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           |           |              |                     |
| BLDG. C       | B-106       | STAIR         | VST-1        | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           |           |              |                     |
| BLDG. C       | B-106       | STAIR         | VST-1        | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           |           |              |                     |
| BLDG. C       | B-201       | HALL          | LVT-1        | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           |           |              |                     |
| BLDG. C       | B-202       | BATH          | SV-1         | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           | WOOD      | PL-1         | SEE RM. FIN. NOTE 3 |
| BLDG. C       | B-203       | LAUND.        | SV-1         | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           | WOOD      |              |                     |
| BLDG. C       | B-204       | BD. RM.       | CPT-1        | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           |           |              |                     |
| BLDG. C       | B-205       | CLO.          | CPT-1        | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           |           |              |                     |
| BLDG. C       | B-206       | BD. RM.       | CPT-1        | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           |           |              |                     |
| BLDG. C       | B-207       | CLO.          | CPT-1        | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           |           |              |                     |
| BLDG. C       | C-101       | LIVING/DINING | LVT-1        | WD-1        | LE-1          | LE-1          | LE-1          | LE-2          | LE-1           |           |              |                     |
| BLDG. C       | C-102       | KIT.          | SV-1         | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           | WOOD      | PL-1         | SEE RM. FIN. NOTE 2 |
| BLDG. C       | C-103       | TOIL.         | SV-1         | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           | WOOD      | PL-1         | SEE RM. FIN. NOTE 2 |
| BLDG. C       | C-104       | MECH.         | SV-1         | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           |           |              |                     |
| BLDG. C       | C-105       | CLO.          | LVT-1        | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           |           |              |                     |
| BLDG. C       | C-106       | STAIR         | VST-1        | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           |           |              |                     |
| BLDG. C       | C-106       | STAIR         | VST-1        | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           |           |              |                     |
| BLDG. C       | C-201       | HALL          | LVT-1        | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           |           |              |                     |
| BLDG. C       | C-202       | BATH          | SV-1         | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           | WOOD      | PL-1         | SEE RM. FIN. NOTE 3 |
| BLDG. C       | C-203       | LAUND.        | SV-1         | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           | WOOD      |              |                     |
| BLDG. C       | C-204       | BD. RM.       | CPT-1        | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           |           |              |                     |
| BLDG. C       | C-205       | CLO.          | CPT-1        | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           |           |              |                     |
| BLDG. C       | C-206       | BD. RM.       | CPT-1        | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           |           |              |                     |
| BLDG. C       | C-207       | CLO.          | CPT-1        | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           |           |              |                     |
| BLDG. C       | D-101       | LIVING/DINING | LVT-1        | WD-1        | LE-1          | LE-1          | LE-1          | LE-2          | LE-1           |           |              |                     |
| BLDG. C       | D-102       | KIT.          | SV-1         | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           | WOOD      | PL-1         | SEE RM. FIN. NOTE 6 |
| BLDG. C       | D-103       | BATH          | SV-1         | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           | WOOD      | PL-1         | SEE RM. FIN. NOTE 6 |
| BLDG. C       | D-104       | LAUND./MECH.  | SV-1         | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           | WOOD      |              |                     |
| BLDG. C       | D-105       | BD. RM.       | LVT-1        | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           |           |              |                     |
| BLDG. C       | D-106       | CLO.          | LVT-1        | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           |           |              |                     |
| BLDG. C       | D-107       | CLO.          | LVT-1        | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           |           |              |                     |
| BLDG. C       | F-101       | STAIR         | VST-1        | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           |           |              |                     |
| BLDG. C       | F-102       | CLO.          | LVT-1        | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           |           |              |                     |
| BLDG. C       | F-200       | CLO.          | LVT-1        | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           |           |              |                     |
| BLDG. C       | F-201       | LIVING/DINING | LVT-1        | WD-1        | LE-1          | LE-2          | LE-1          | LE-1          | LE-1           |           |              |                     |
| BLDG. C       | F-202       | KIT.          | SV-1         | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           | WOOD      | PL-1         | SEE RM. FIN. NOTE 4 |
| BLDG. C       | F-203       | BATH          | SV-1         | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           | WOOD      | PL-1         | SEE RM. FIN. NOTE 4 |
| BLDG. C       | F-204       | LAUND./MECH.  | SV-1         | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           | WOOD      |              |                     |
| BLDG. C       | F-205       | BD. RM.       | CPT-1        | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           |           |              |                     |
| BLDG. C       | F-206       | CLO.          | CPT-1        | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           |           |              |                     |
| BLDG. C       | G-101       | LINEN         | SV-1         | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           |           |              |                     |
| BLDG. C       | G-101       | STAIR         | VST-1        | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           |           |              |                     |
| BLDG. C       | G-102       | CLO.          | LVT-1        | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           |           |              |                     |
| BLDG. C       | G-200       | CLO.          | LVT-1        | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           |           |              |                     |
| BLDG. C       | G-201       | LIVING/DINING | LVT-1        | WD-1        | LE-1          | LE-1          | LE-1          | LE-2          | LE-1           |           |              |                     |
| BLDG. C       | G-202       | KIT.          | SV-1         | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           | WOOD      | PL-1         | SEE RM. FIN. NOTE 6 |
| BLDG. C       | G-203       | BATH          | SV-1         | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           | WOOD      | PL-1         | SEE RM. FIN. NOTE 6 |
| BLDG. C       | G-204       | LAUND./MECH.  | SV-1         | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           | WOOD      |              |                     |
| BLDG. C       | G-205       | BD. RM.       | CPT-1        | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           |           |              |                     |
| BLDG. C       | G-206       | CLO.          | CPT-1        | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           |           |              |                     |
| BLDG. C       | G-207       | LINEN         | SV-1         | WD-1        | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           |           |              |                     |
| BLDG. C       | H-101       | WATER ENTRY   | SLR          | RB          | LE-1          | LE-1          | LE-1          | LE-1          | LE-1           |           |              |                     |

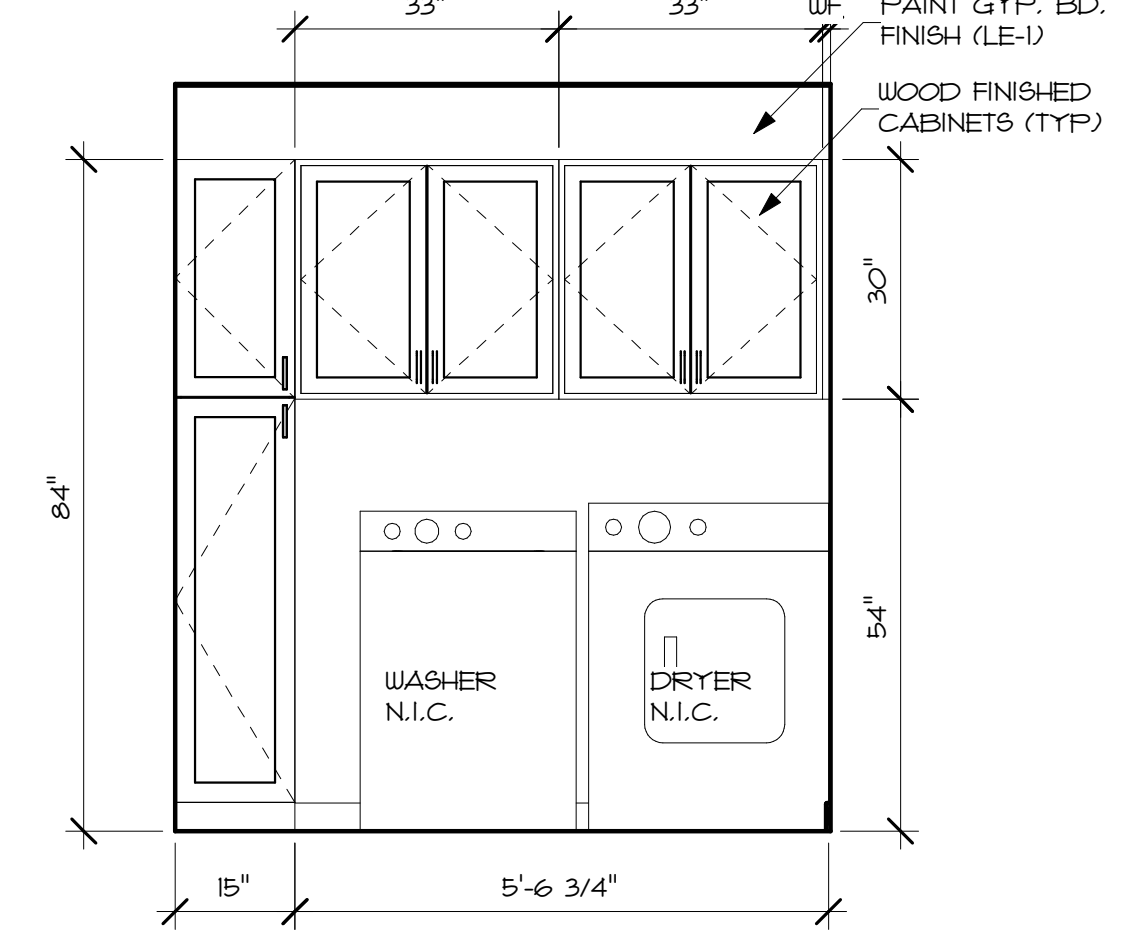
GENERAL NOTES:

- BACK SIDE OF ALL TRIM SHALL BE PRIMED OR PAINTED (COLOR AS SELECTED BY OWNER / ARCHITECT).
- ALL MEDICINE CABINETS SHALL BE RECESSED.
- REFRIGERATORS and RANGES SHALL BE OWNER PROVIDED and OWNER INSTALLED.
- ALL FIRST FLOOR BATHROOMS SHALL HAVE BLOCKING INSTALLED FOR CURRENT and FUTURE INSTALLATION OF GRAB BARS.
- CABINETS SHALL HAVE FINISHED ENDS at ALL APPLICABLE LOCATIONS.
- CABINET HARDWARE SHOWN for DOOR and DRAWER CLARIFICATION ONLY. ALL CABINETS SHALL BE MANUFACTURED WITH INTEGRATED FINGER FULLS.

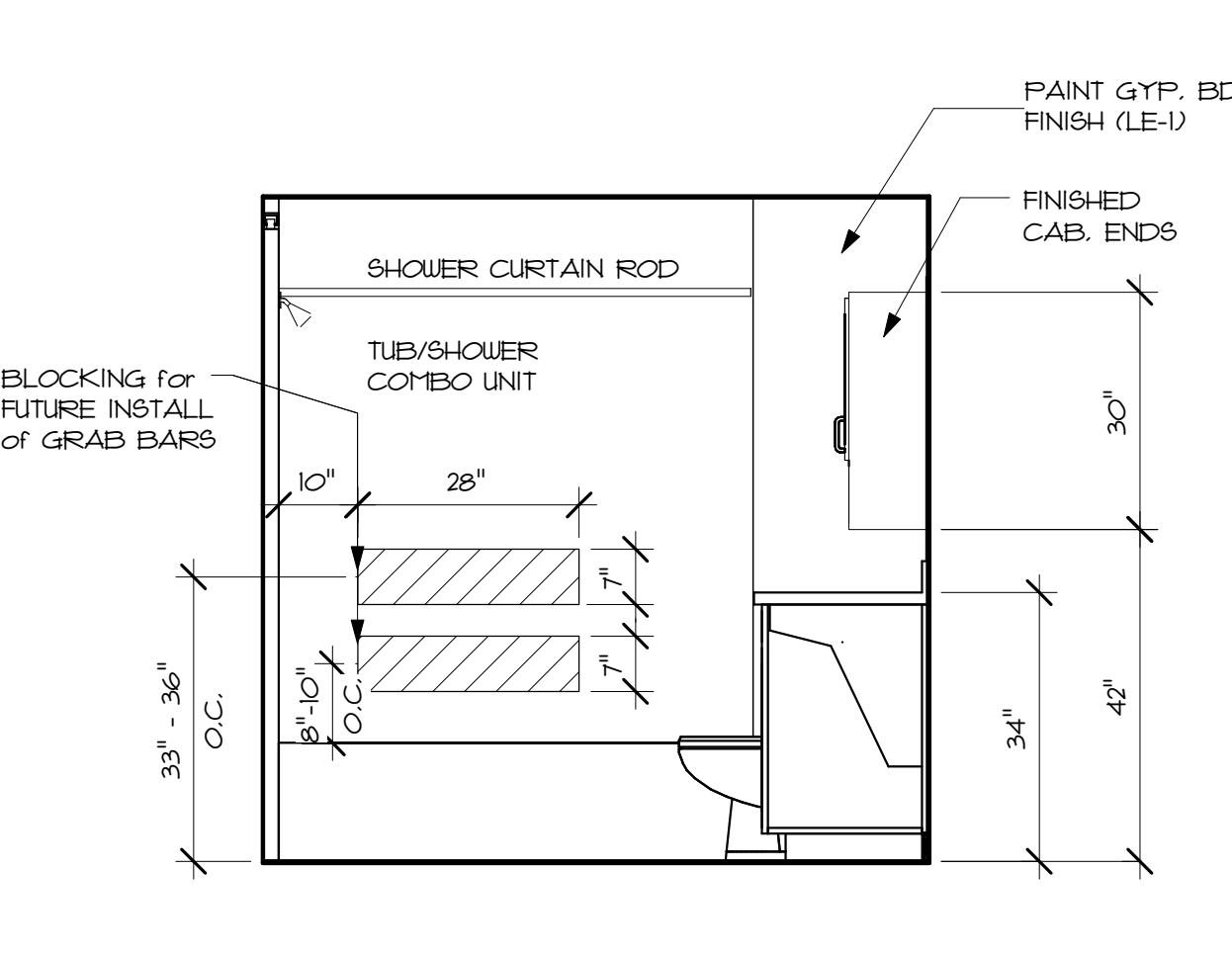


**BLDG. C - CLO. A-107 INT. 8 ELEV. B**  
SC: 1/2" = 1'-0" RE:

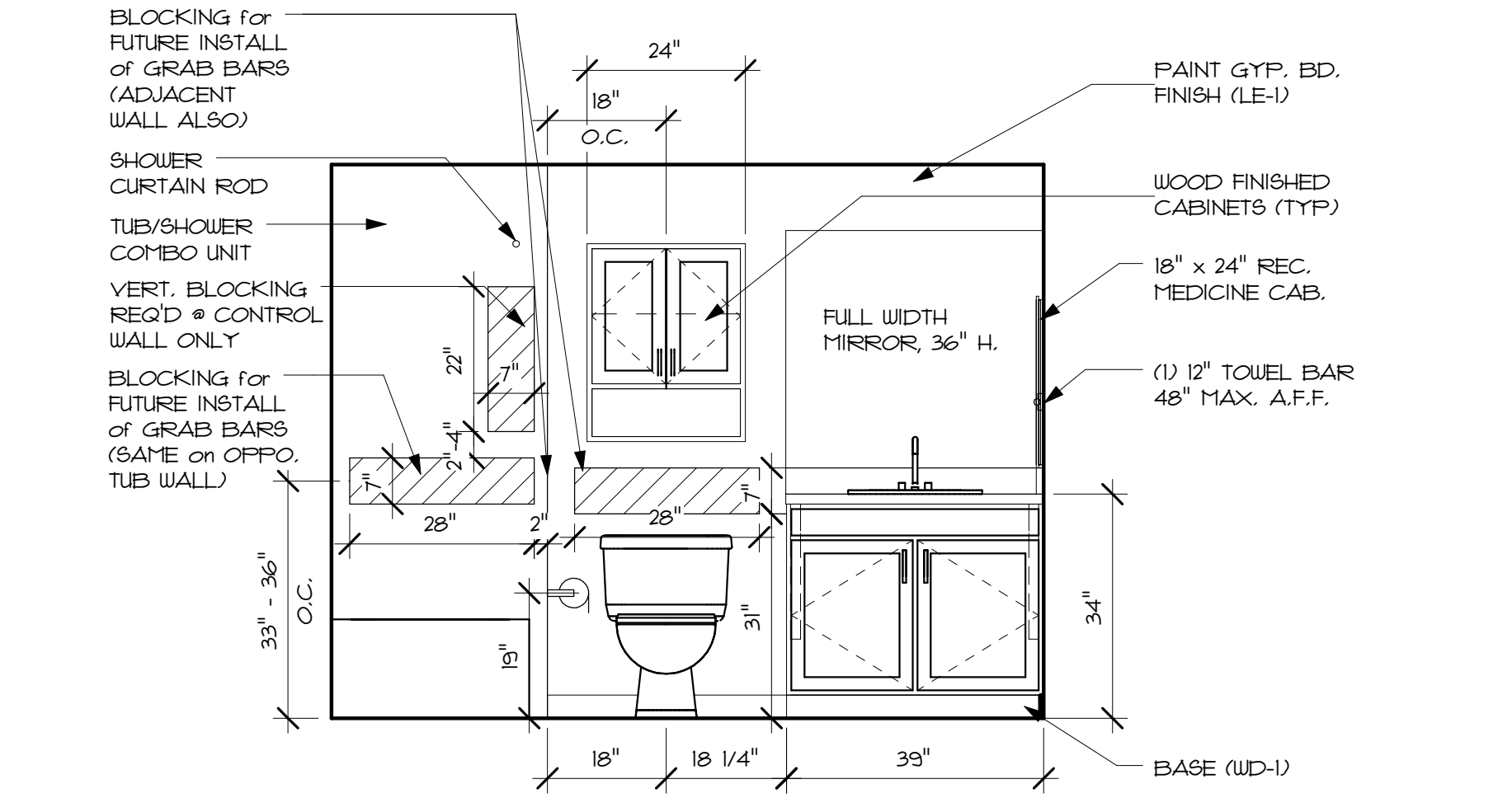
**BLDG. C - CLO. A-106 INT. 7 ELEV. A**  
SC: 1/2" = 1'-0" RE:



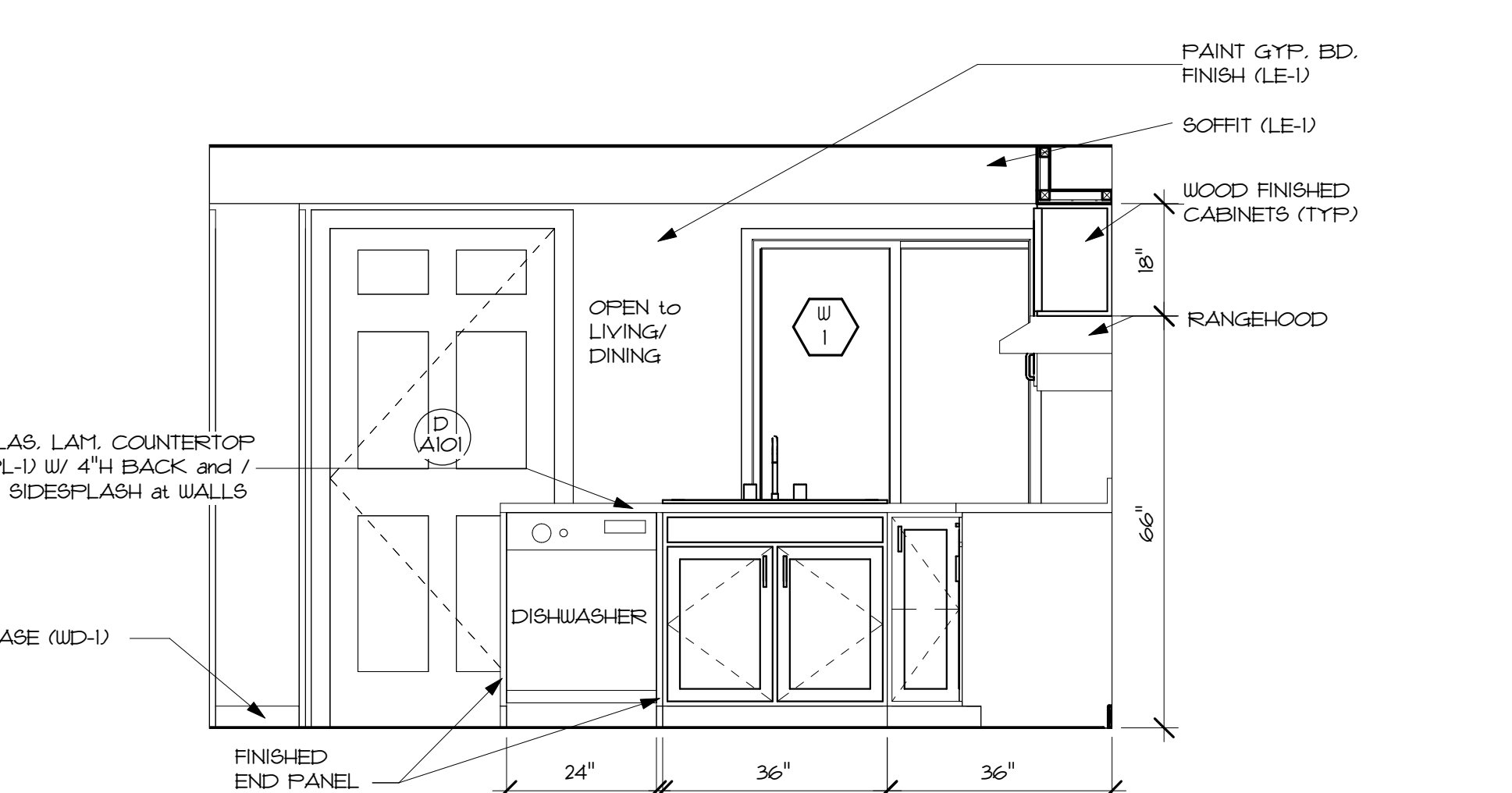
**BLDG. C - LAUND. MECH. A-104 INT. ELEV. D 6**  
SC: 1/2" = 1'-0" RE:



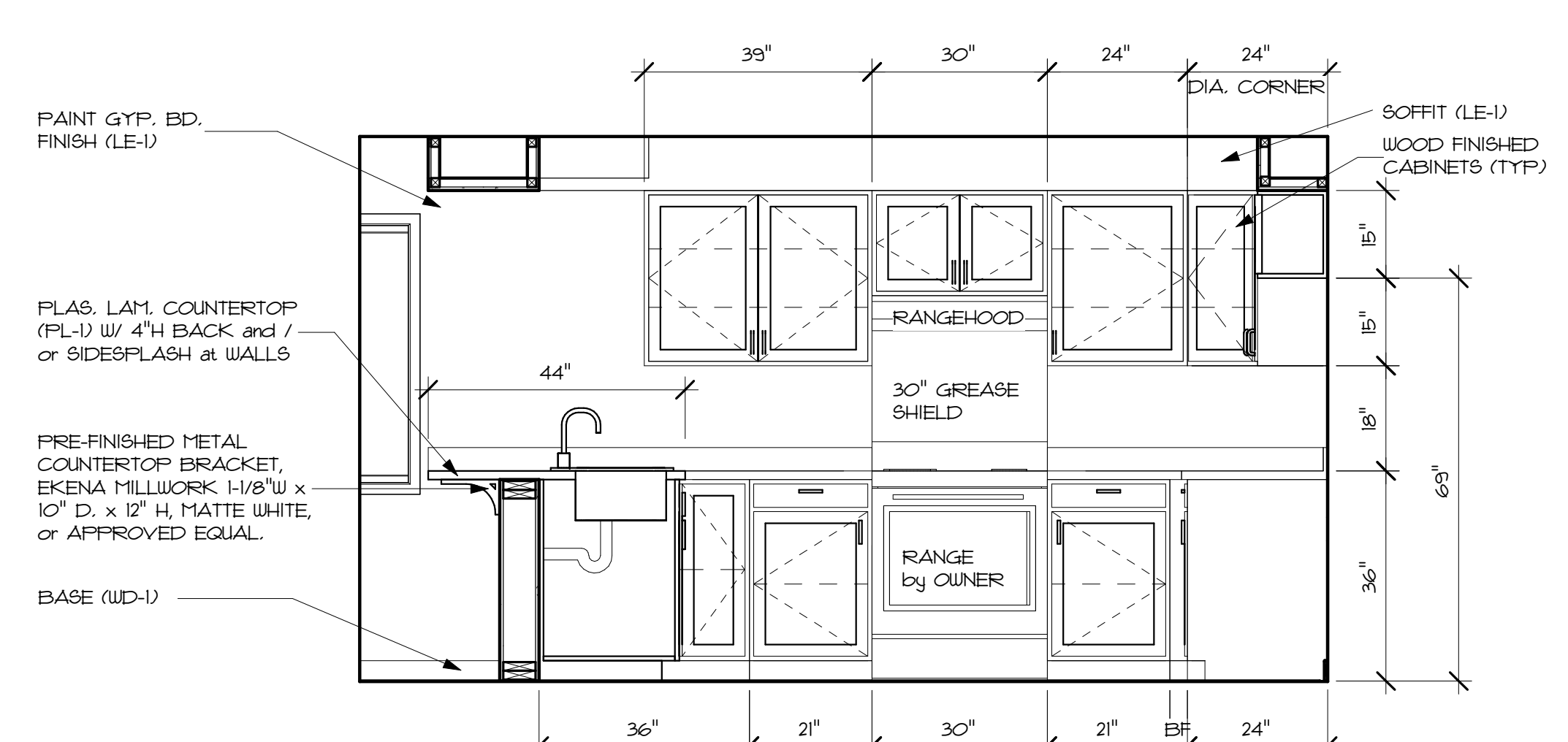
**BLDG. C - TOIL. A-103 INT. 5 ELEV. B**  
SC: 1/2" = 1'-0" RE:



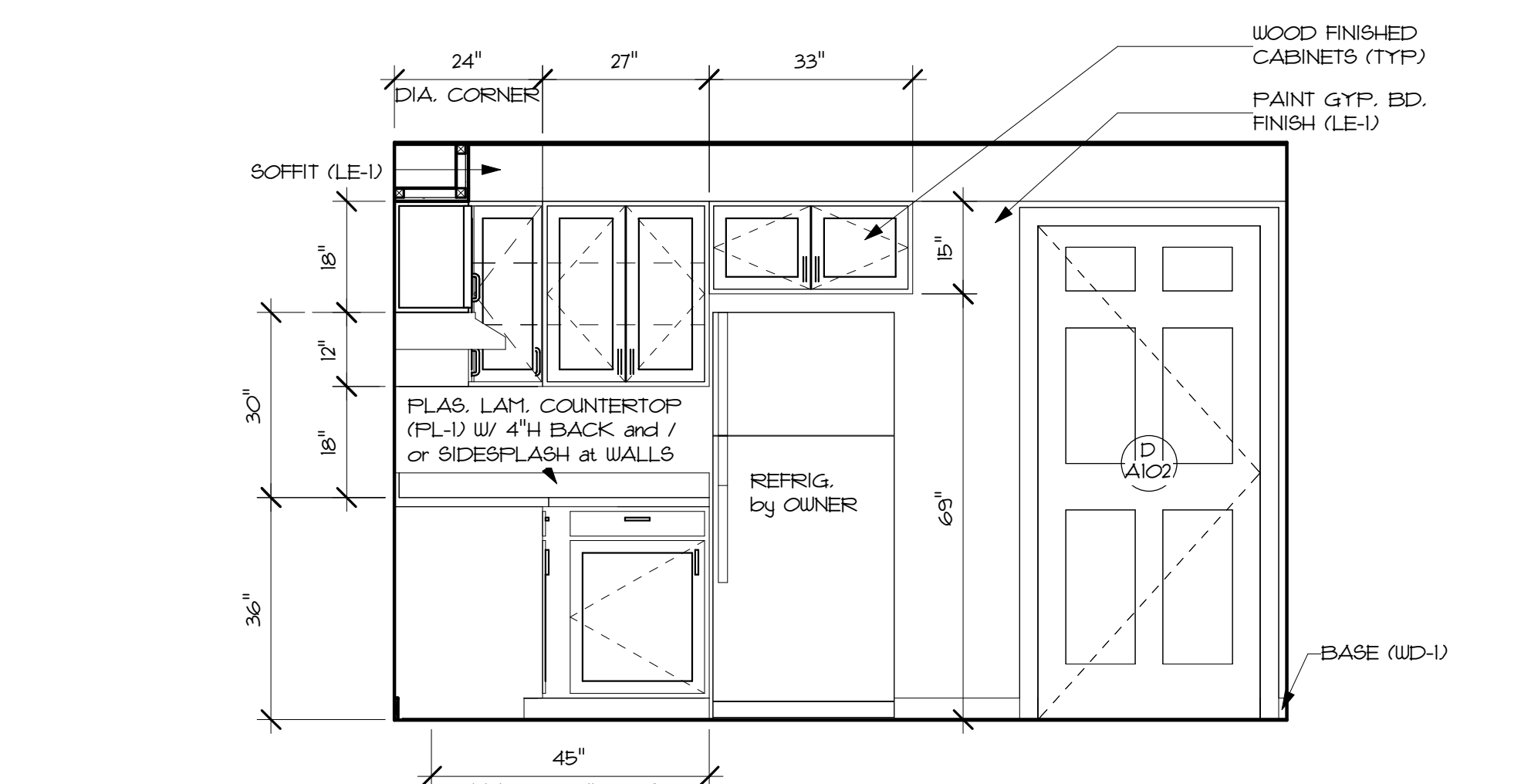
**BLDG. C - BATH A-103 INT. 4 ELEV. C**  
SC: 1/2" = 1'-0" RE:



**BLDG. C - KIT. A-102 INT. 3 ELEV. C**  
SC: 1/2" = 1'-0" RE:



**BLDG. C - KIT. A-102 INT. 2 ELEV. D**  
SC: 1/2" = 1'-0" RE:

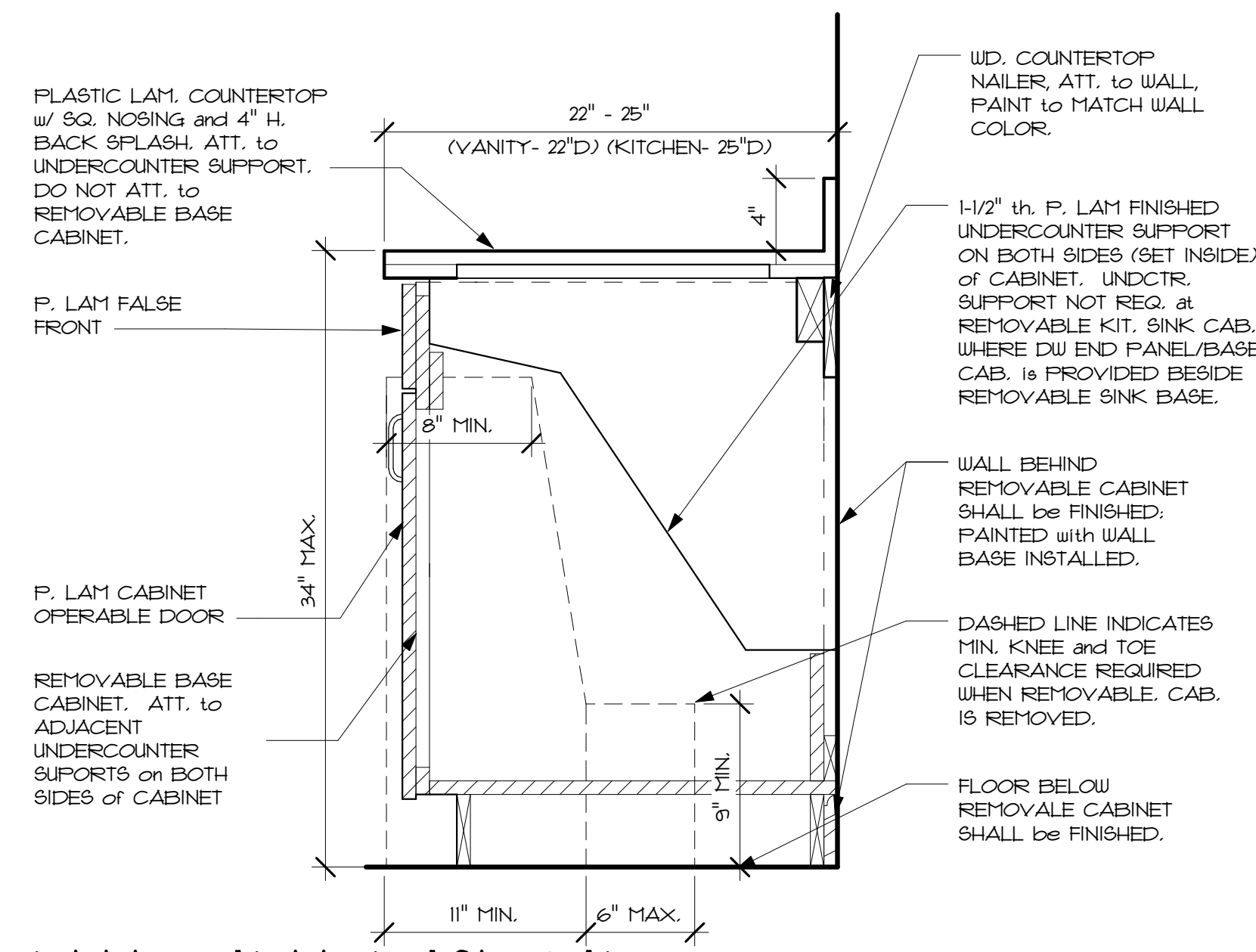


**BLDG. C - KIT. A-102 INT. 1 ELEV. A**  
SC: 1/2" = 1'-0" RE:

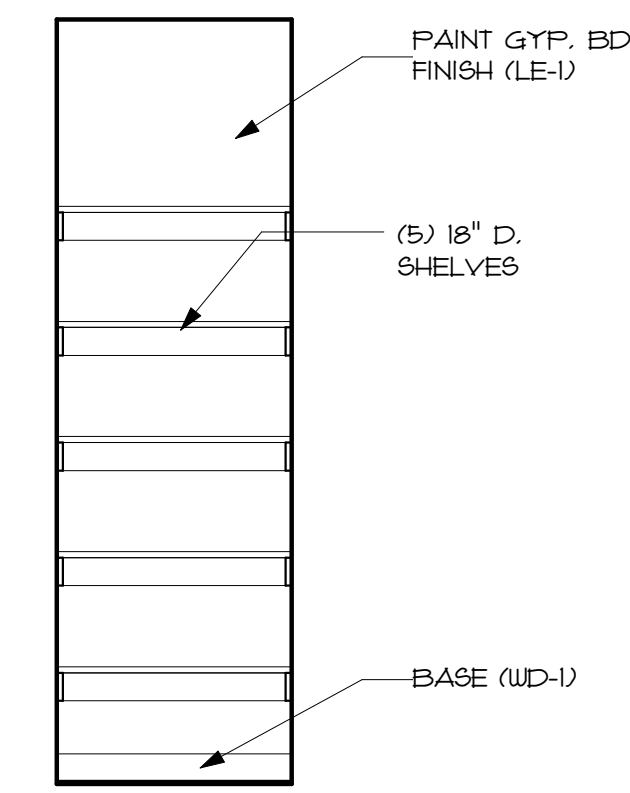


**GENERAL NOTES:**

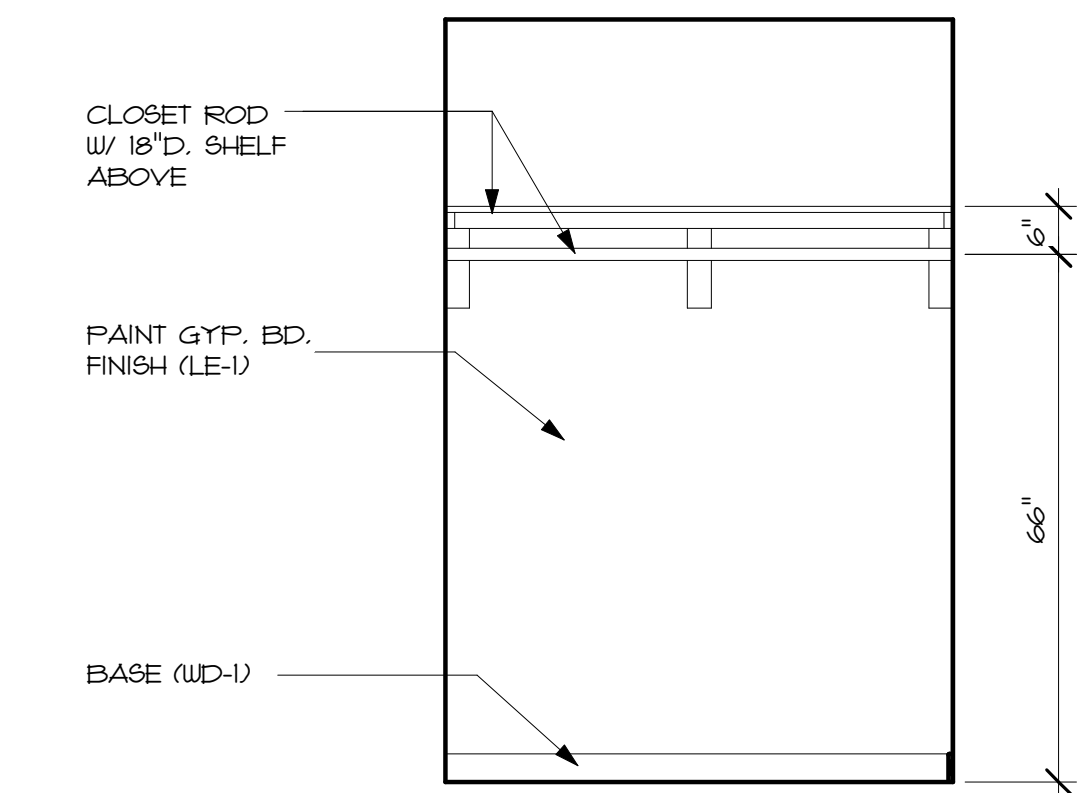
1. CABINET HARDWARE SHOWN FOR DOOR and DRAWER CLARIFICATION ONLY. ALL CABINETS SHALL BE MANUFACTURED WITH INTEGRATED FINGER PULLS.



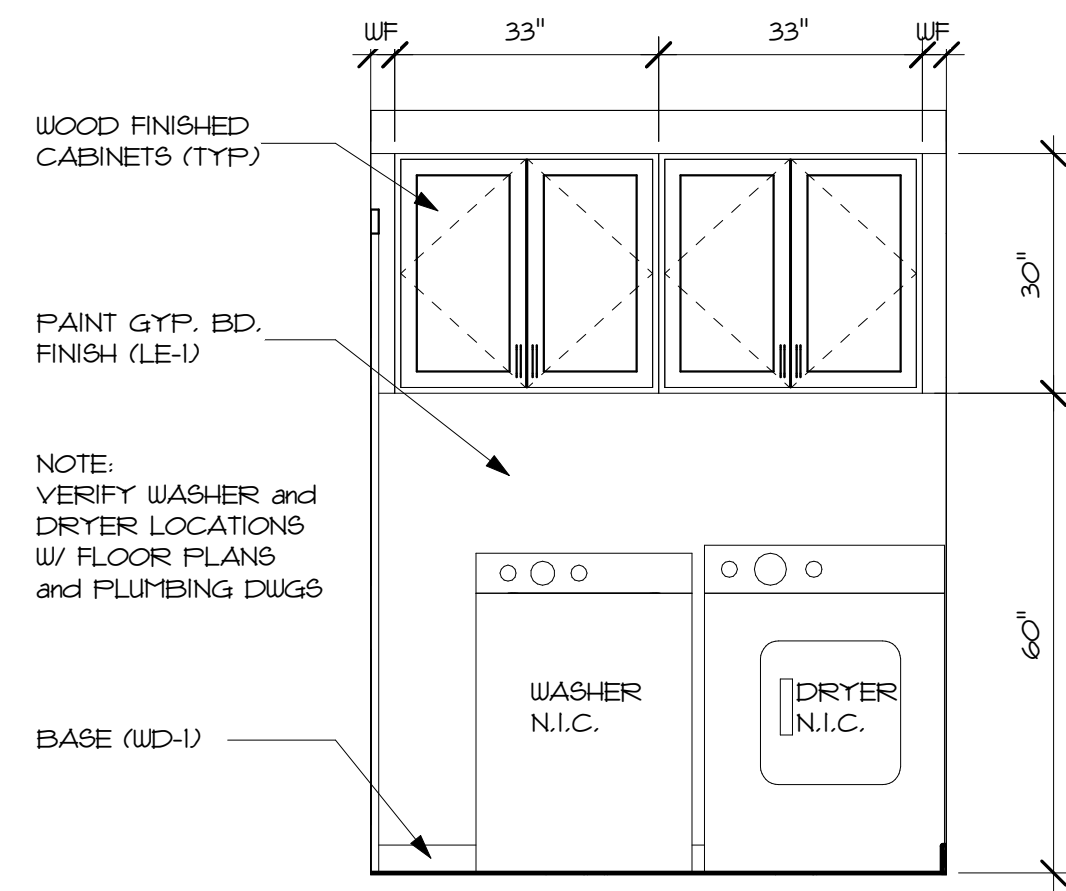
**10 REMOVABLE BASE CAB. DETAIL BLDG. C**  
SC: 1/2" = 1'-0" RE:



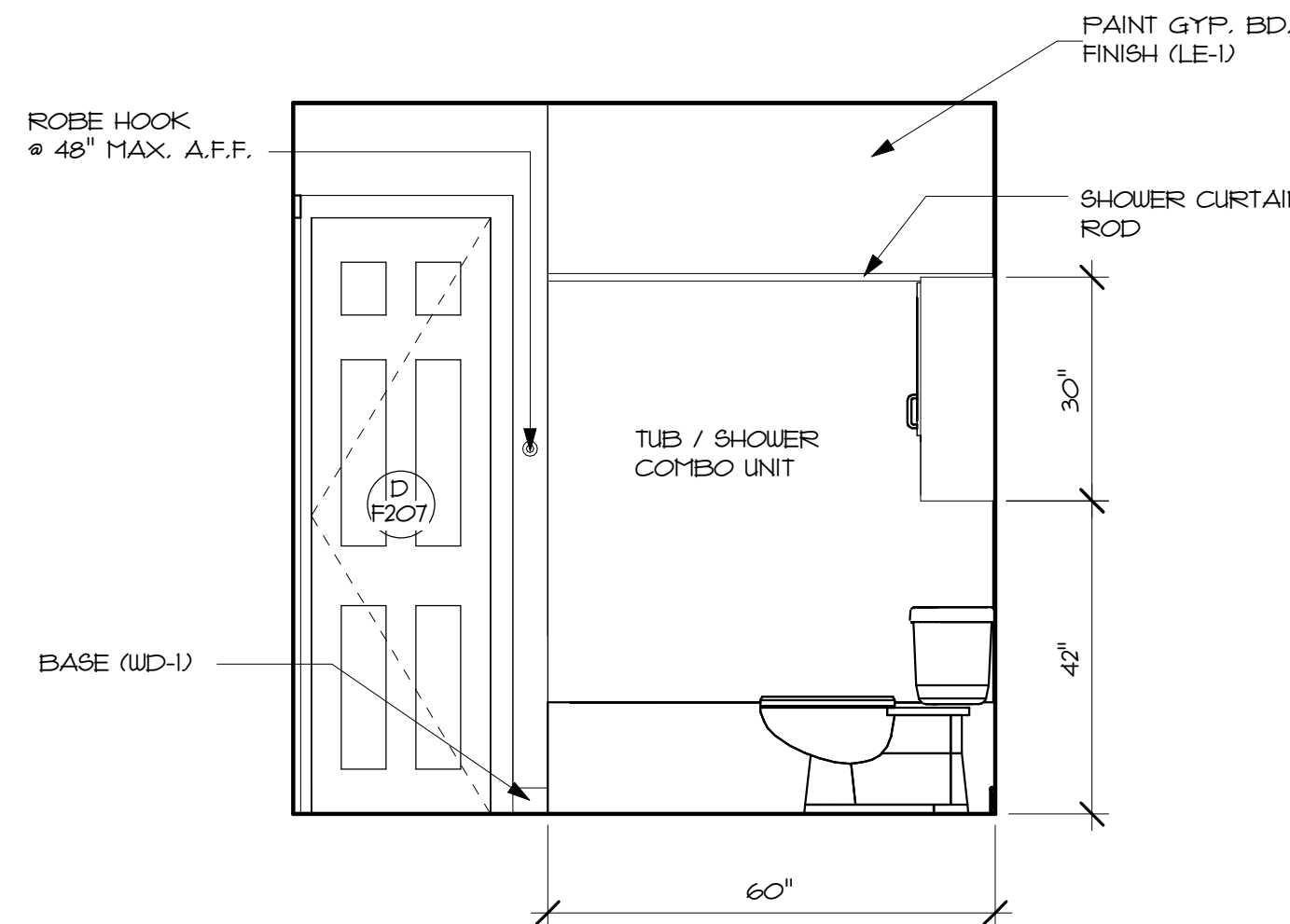
**9 BLDG. C - LINEN F-207 INT. ELEV. B**  
SC: 1/2" = 1'-0" RE:



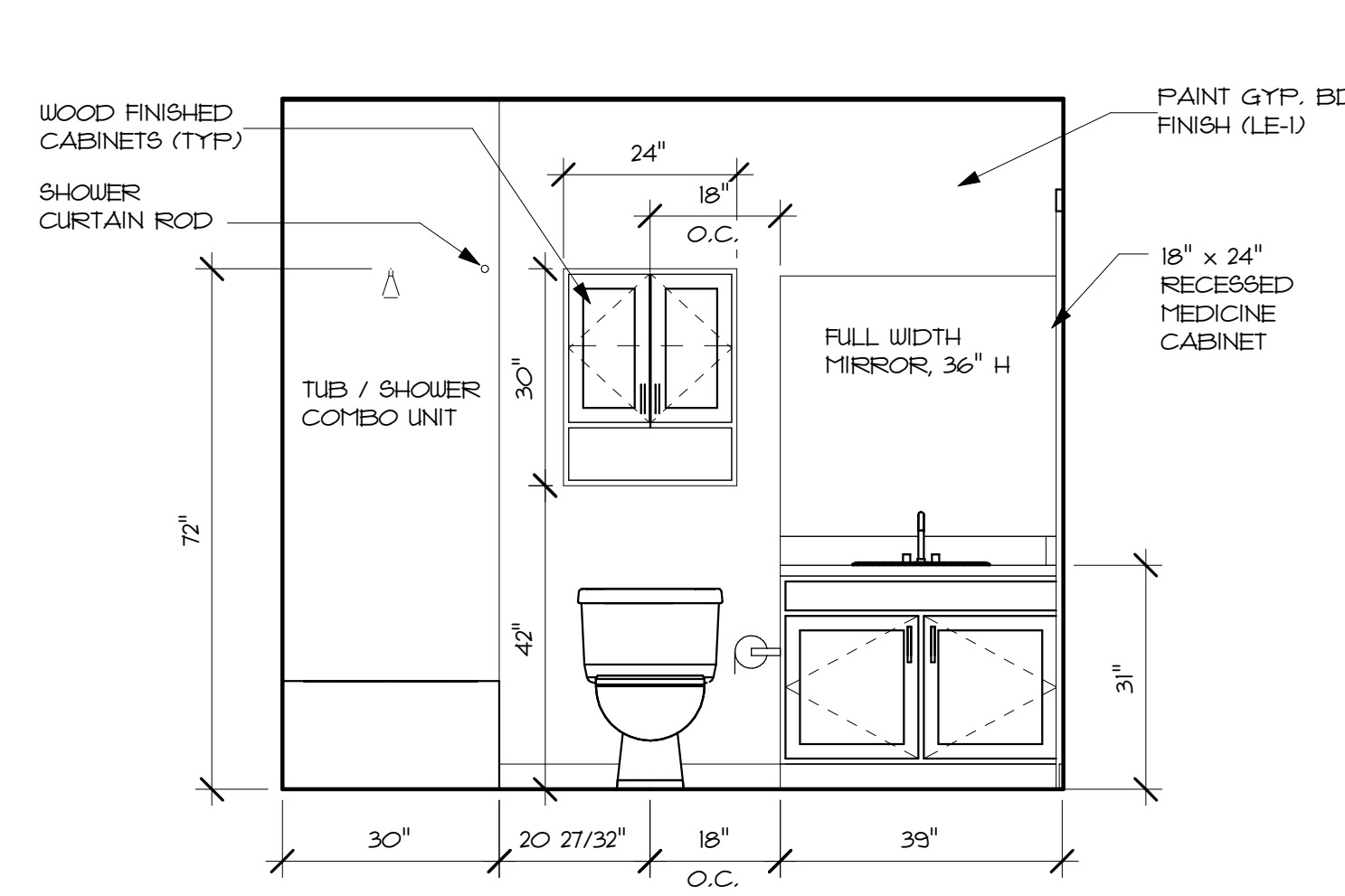
**8 BLDG. C - CLO. F-206 INT. ELEV. A**  
SC: 1/2" = 1'-0" RE:



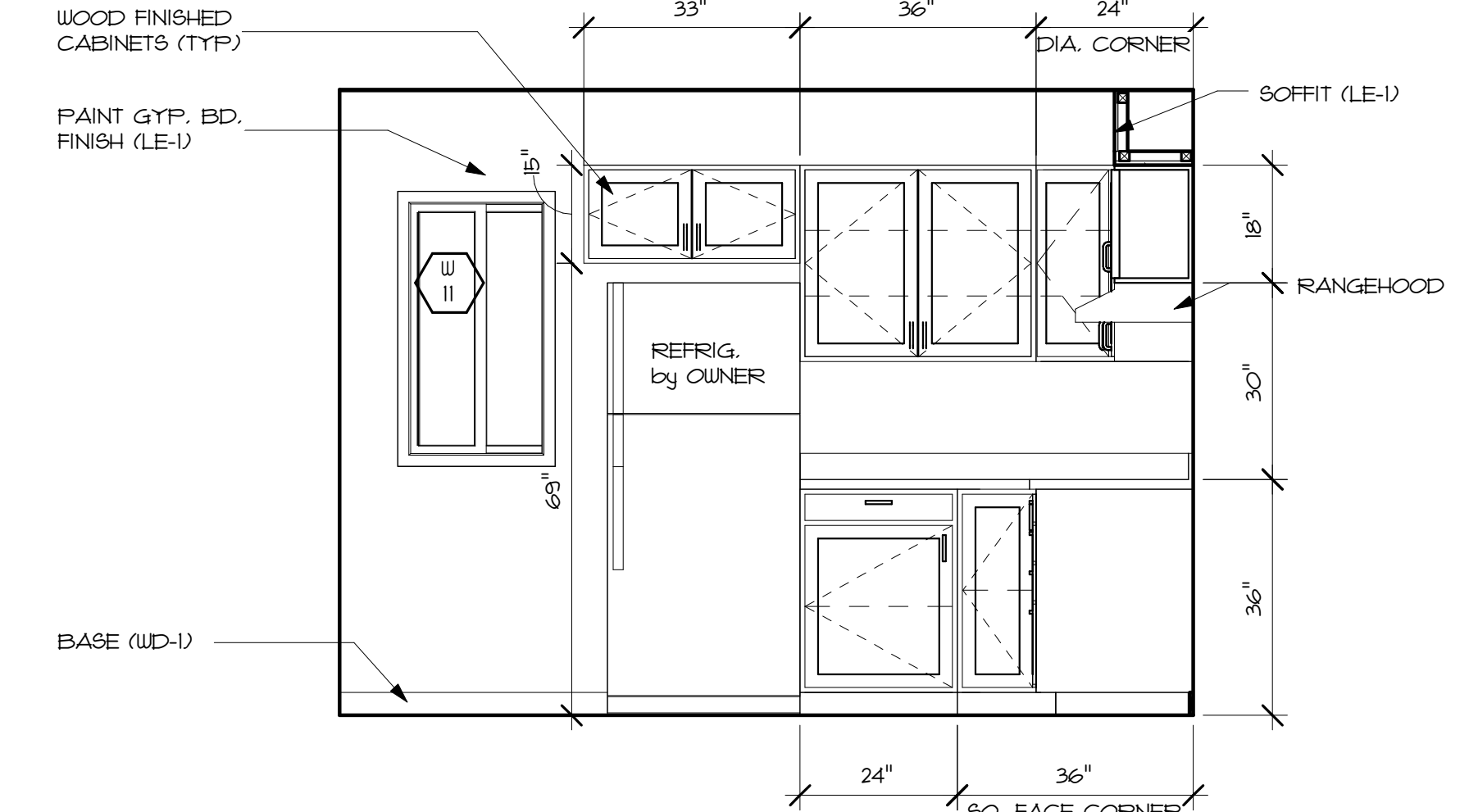
**7 BLDG. C - LAUND./MECH. F-204 INT. ELEV. D**  
SC: 1/2" = 1'-0" RE:



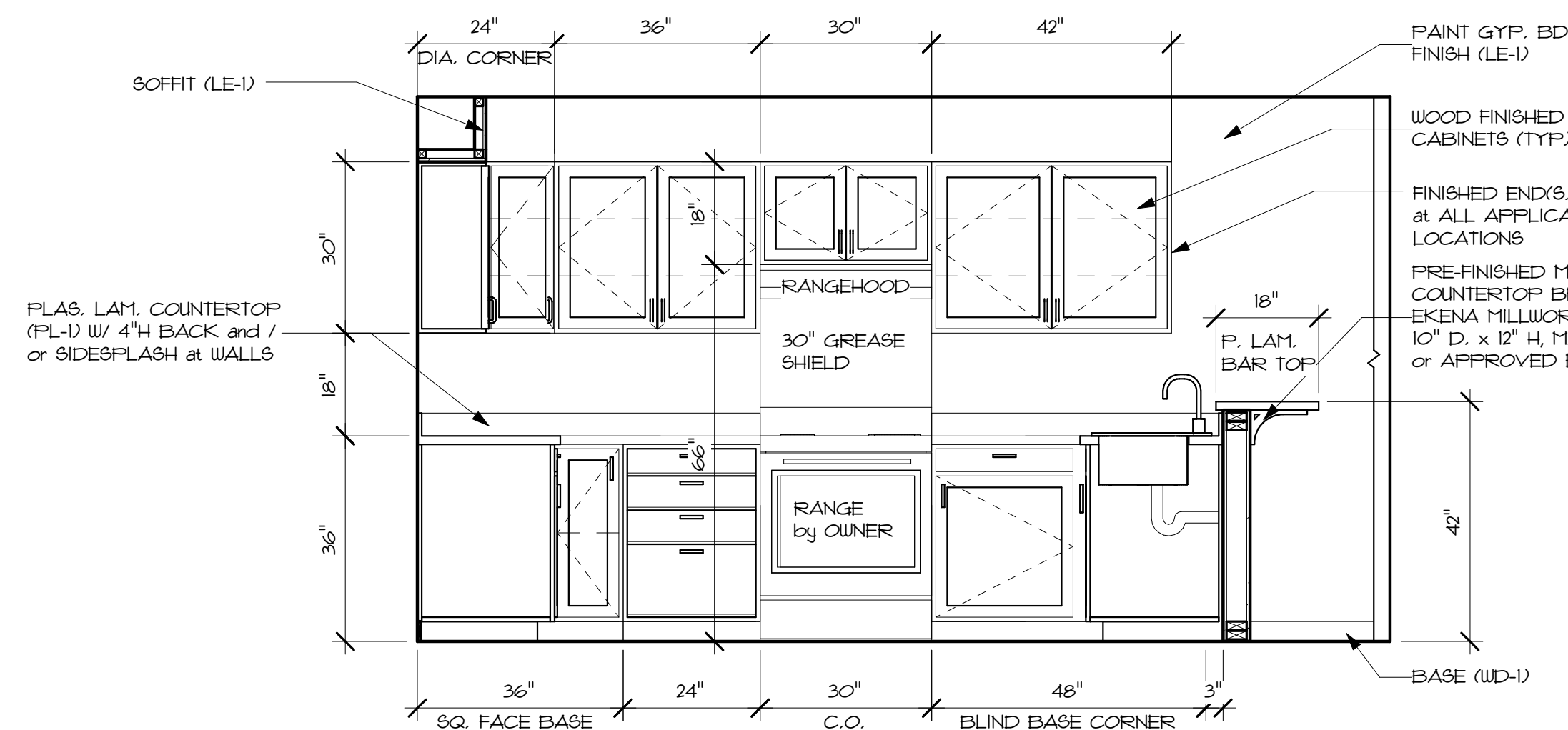
**6 BLDG. C - BATH F-203 INT. ELEV. B**  
SC: 1/2" = 1'-0" RE:



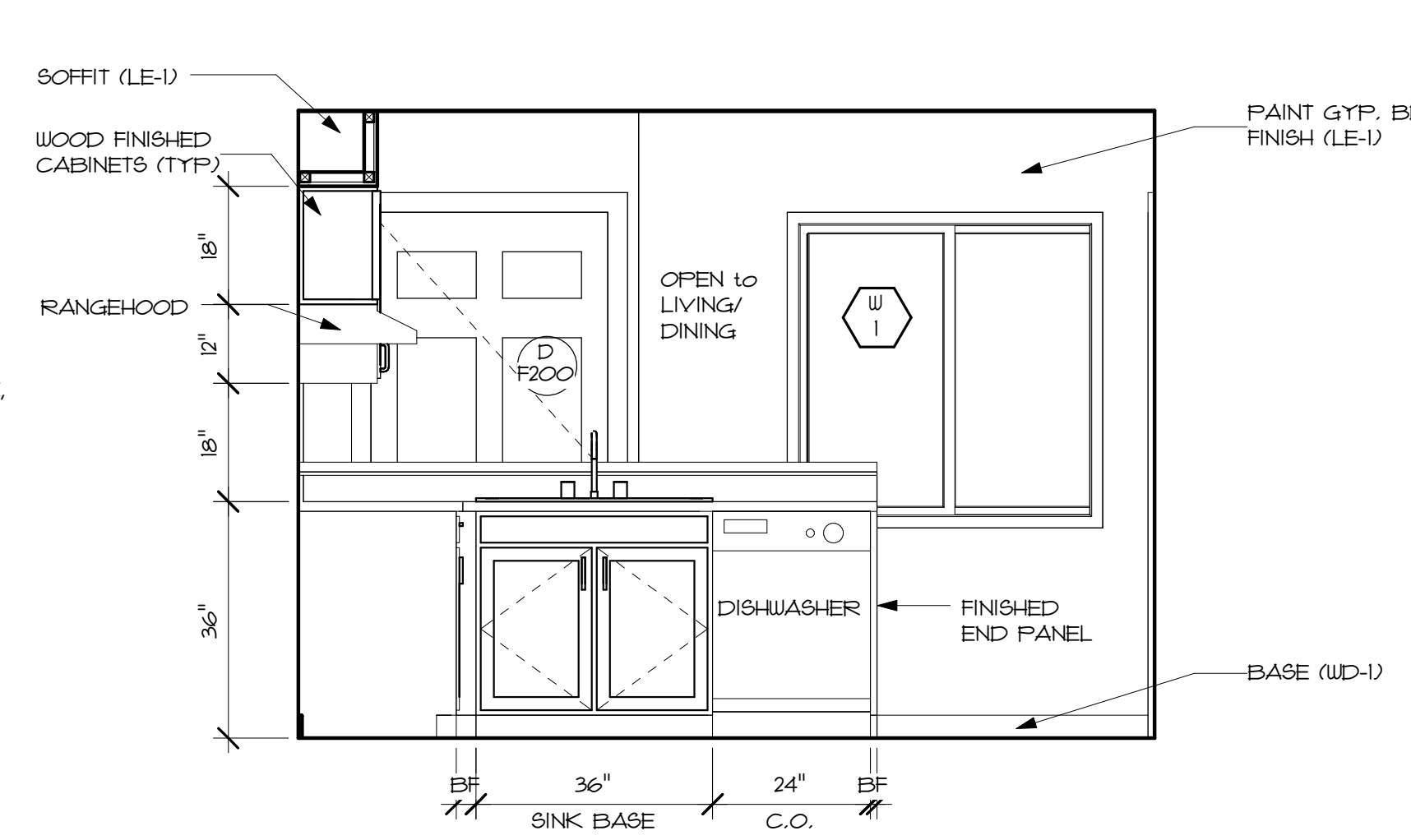
**5 BLDG. C - BATH F-203 INT. ELEV. C**  
SC: 1/2" = 1'-0" RE:



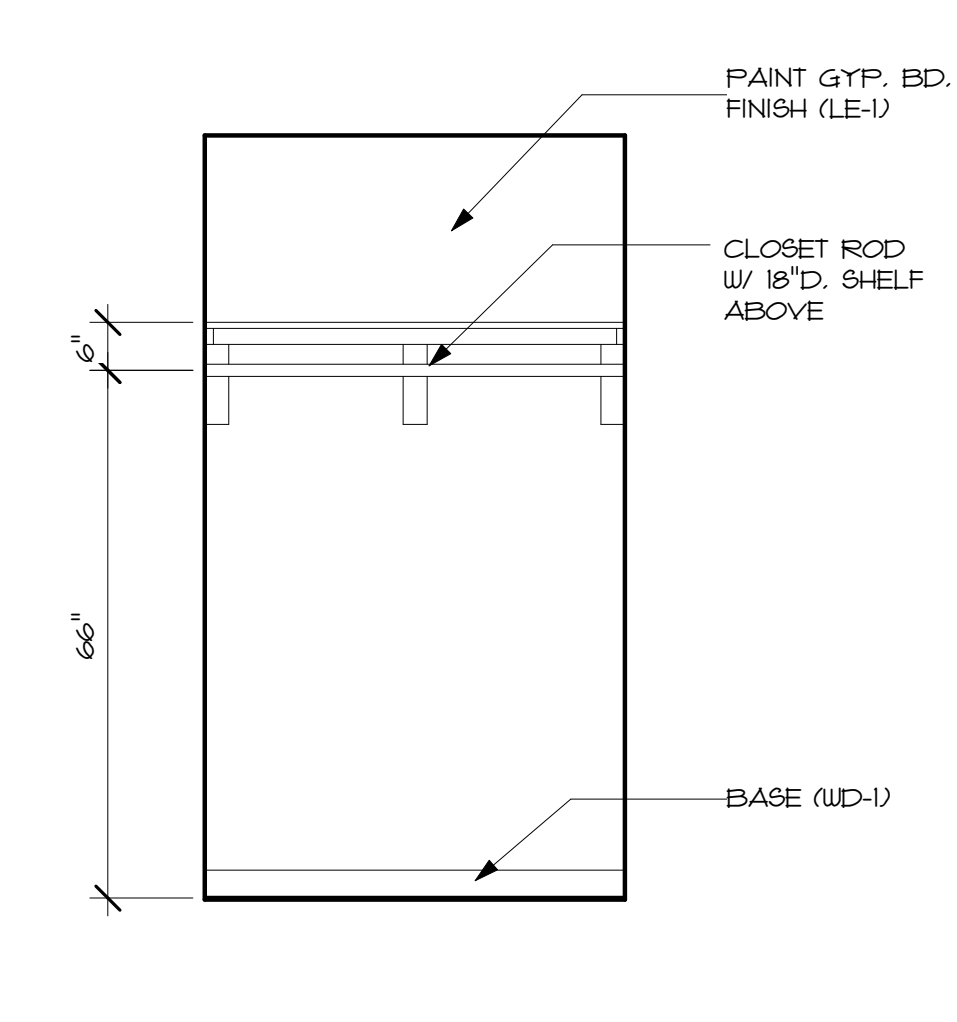
**4 BLDG. C - KIT. F-202 INT. ELEV. C**  
SC: 1/2" = 1'-0" RE:



**3 BLDG. C - KIT. F-202 INT. ELEV. D**  
SC: 1/2" = 1'-0" RE:



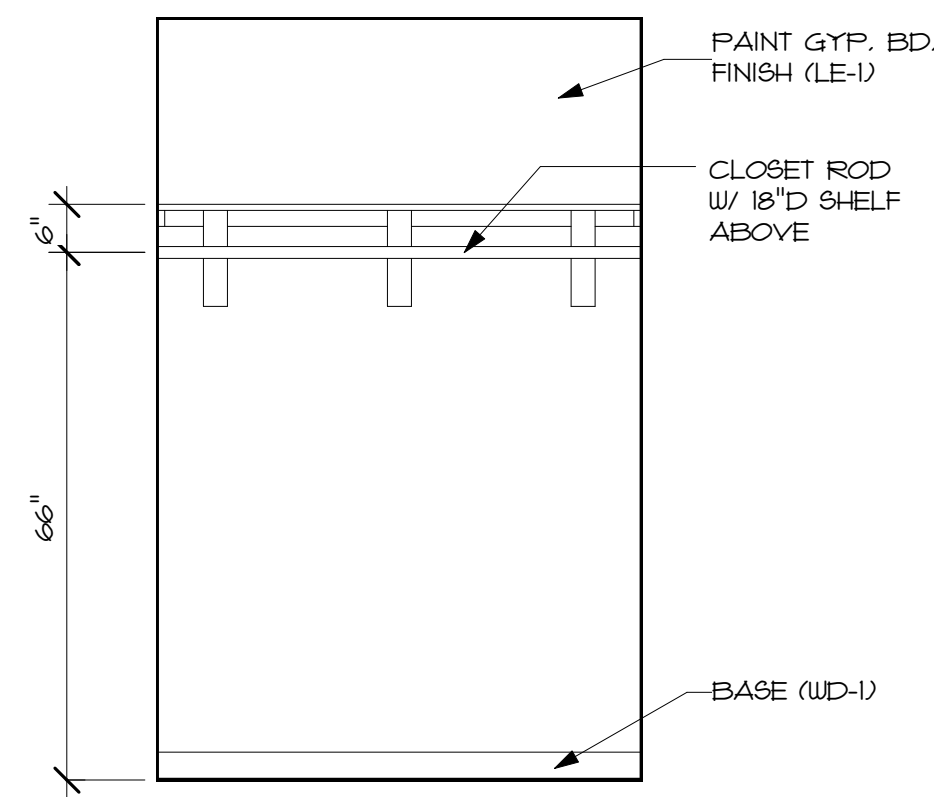
**2 BLDG. C - KIT. F-202 INT. ELEV. A**  
SC: 1/2" = 1'-0" RE:



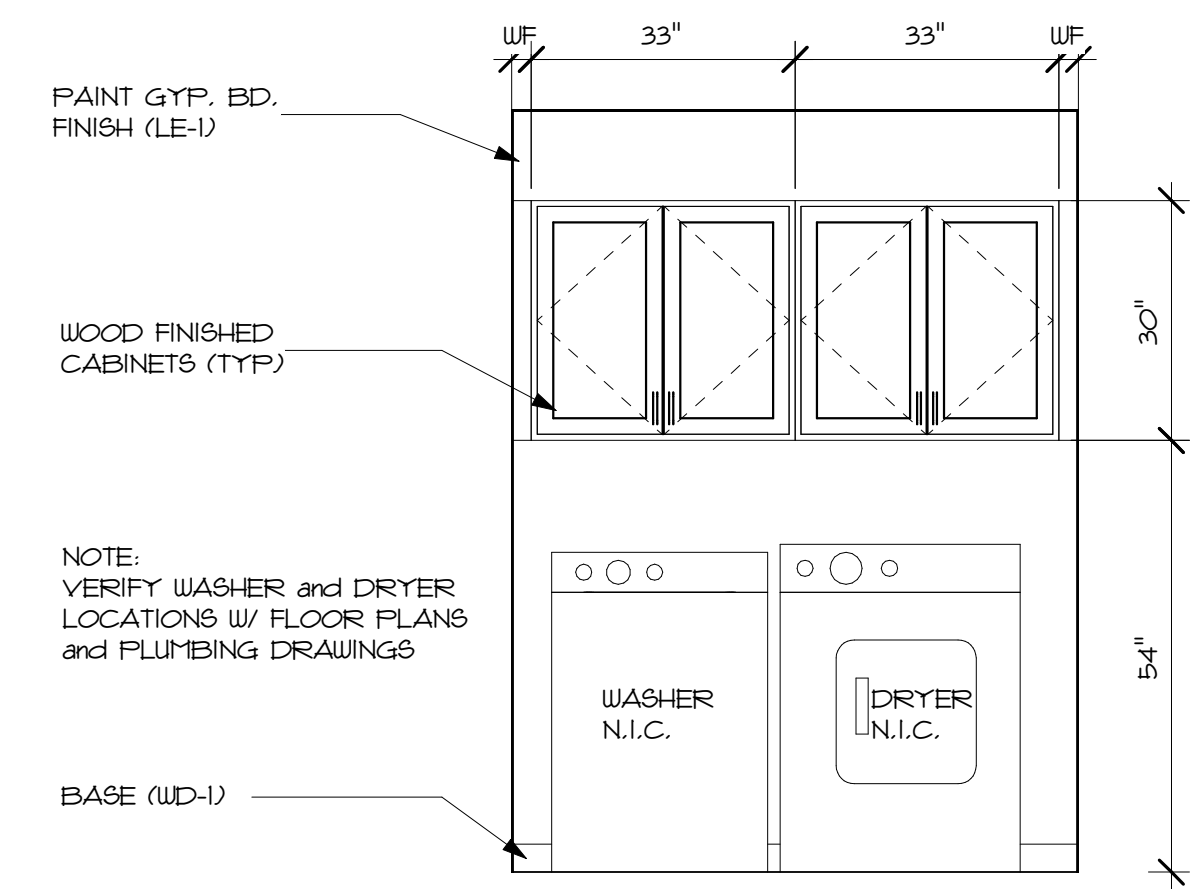
**1 BLDG. C - CLO. F-200 INT. ELEV. A**  
SC: 1/2" = 1'-0" RE:



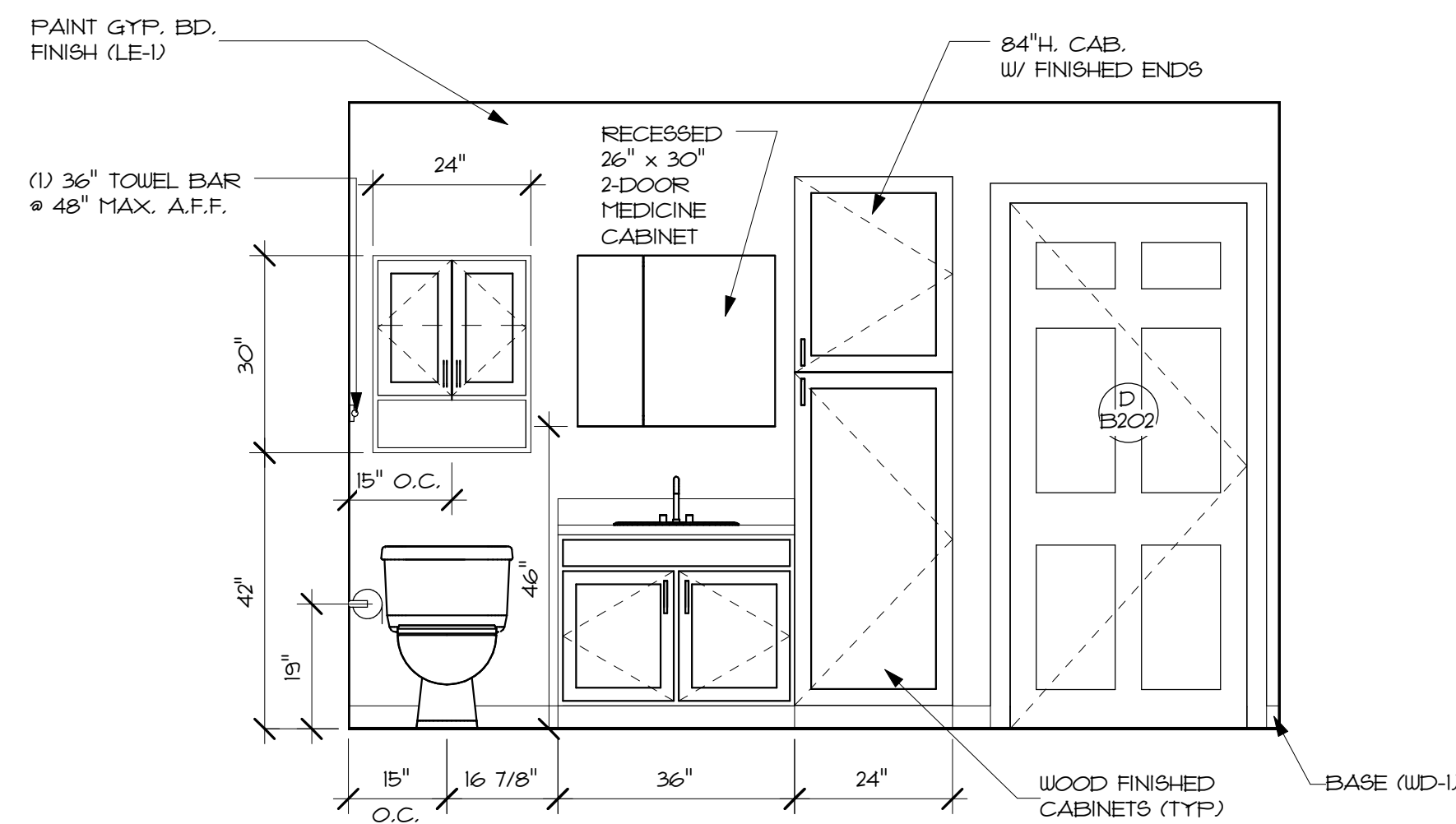
NOTE: INTERIOR ELEVATIONS SHOWN THIS SHEET are MIRROR OPP. at BLDG. C UNIT C



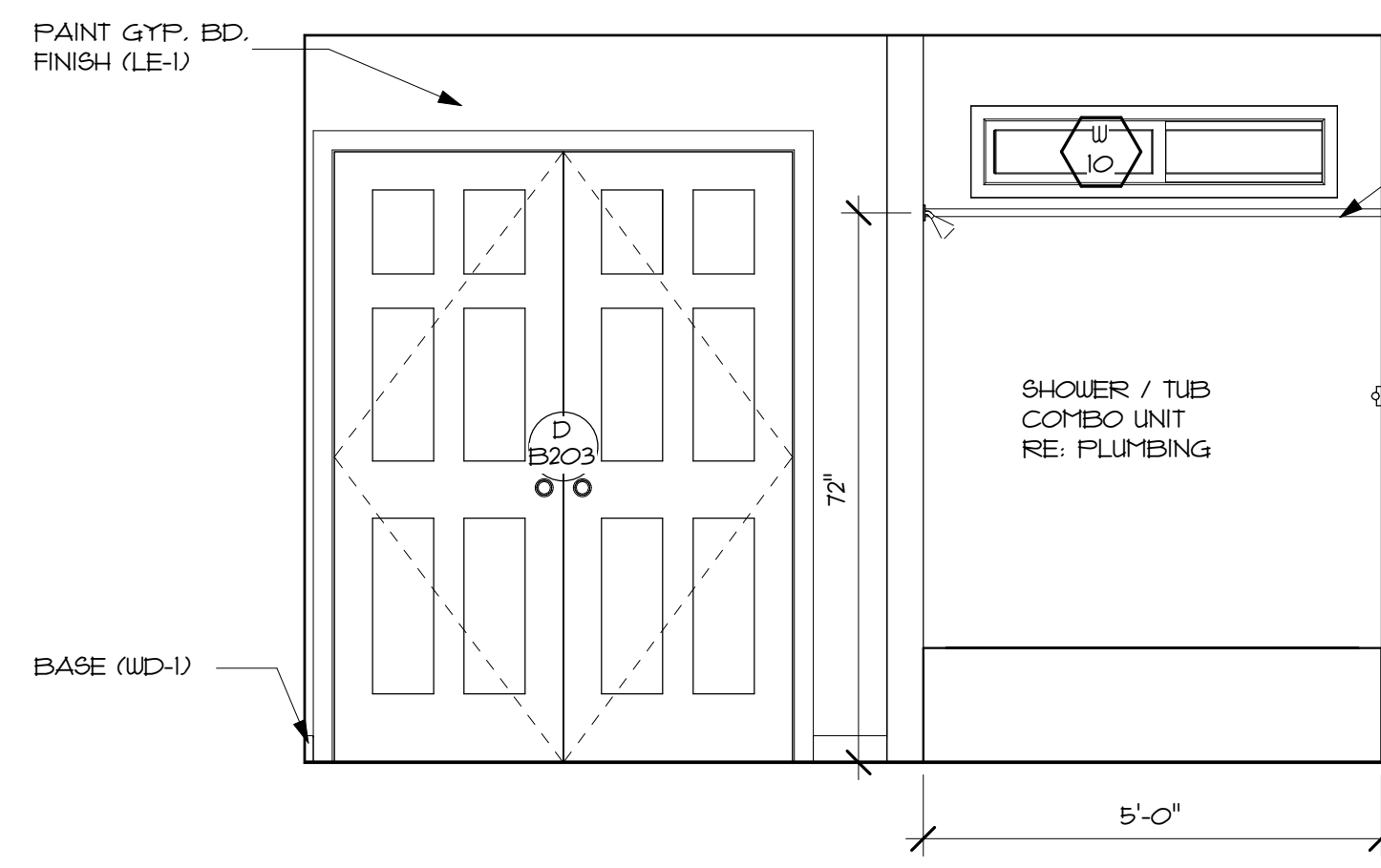
**9** BLDG. C - CLO. B-205 INT.  
ELEV. C  
SC: 1/2" = 1'-0" RE:



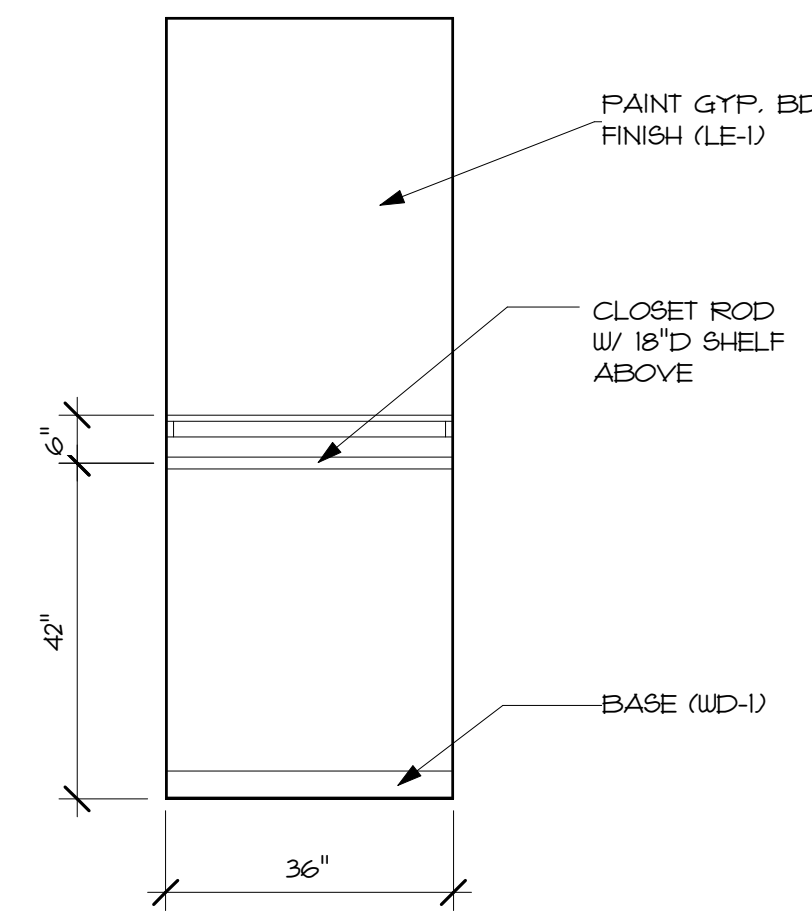
**8** BLDG. C - LAUND. B-203  
INT. ELEV. A  
SC: 1/2" = 1'-0" RE:



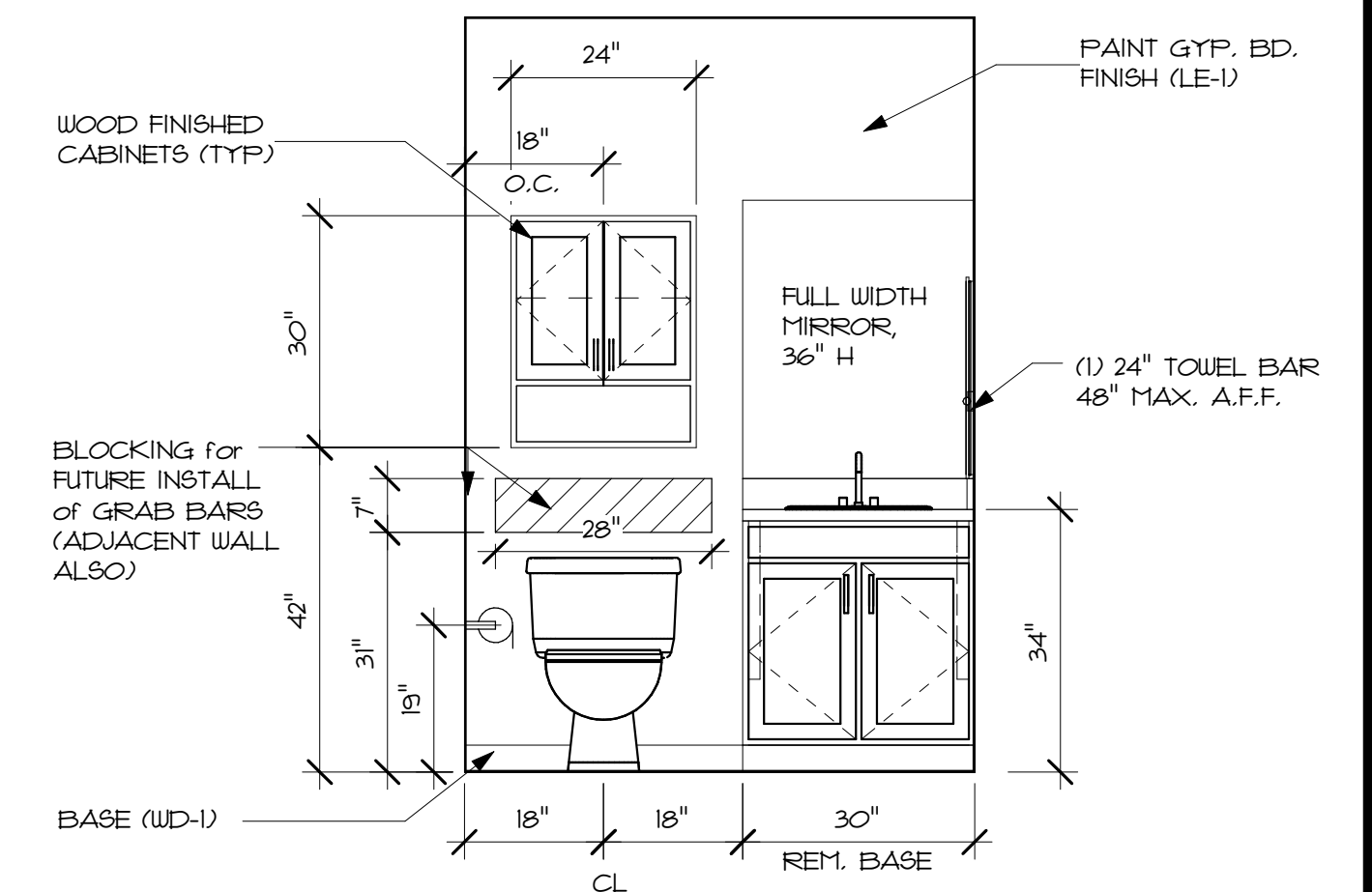
**7** BLDG. C - BATH B-202 INT.  
ELEV. C  
SC: 1/2" = 1'-0" RE:



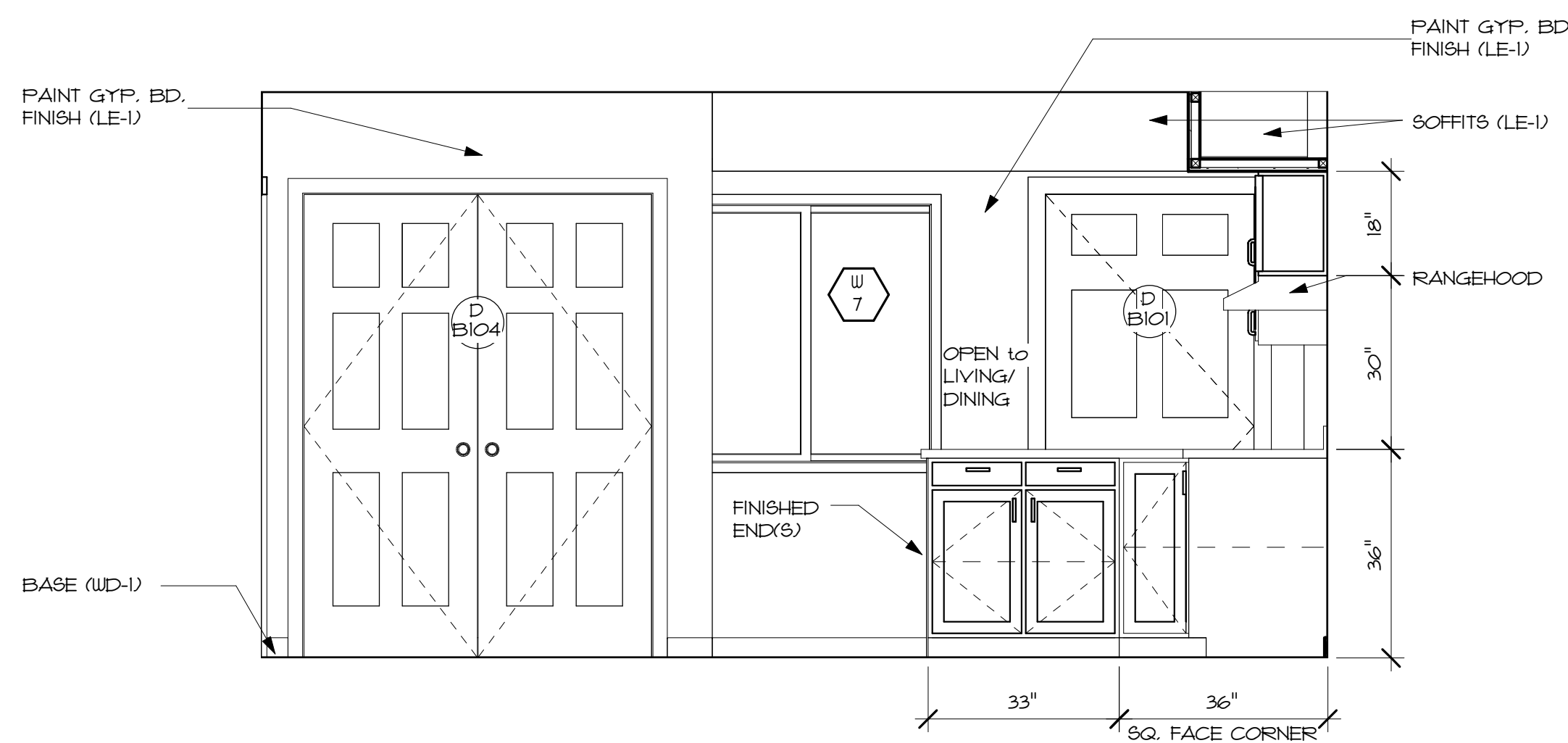
**6** BLDG. C - BATH B-202 INT.  
ELEV. A  
SC: 1/2" = 1'-0" RE:



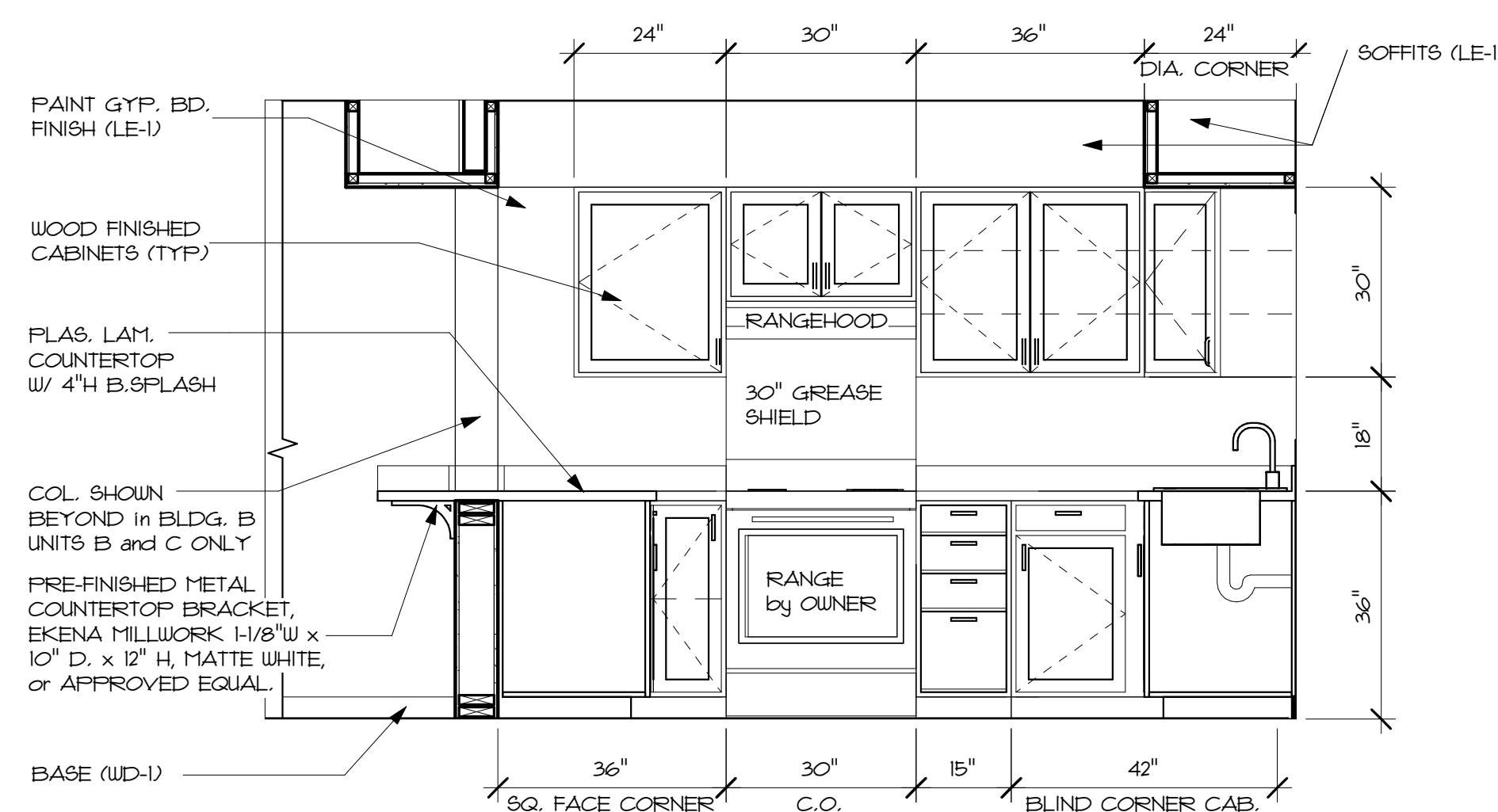
**5** BLDG. C - CLO. B-105 INT.  
ELEV. B  
SC: 1/2" = 1'-0" RE:



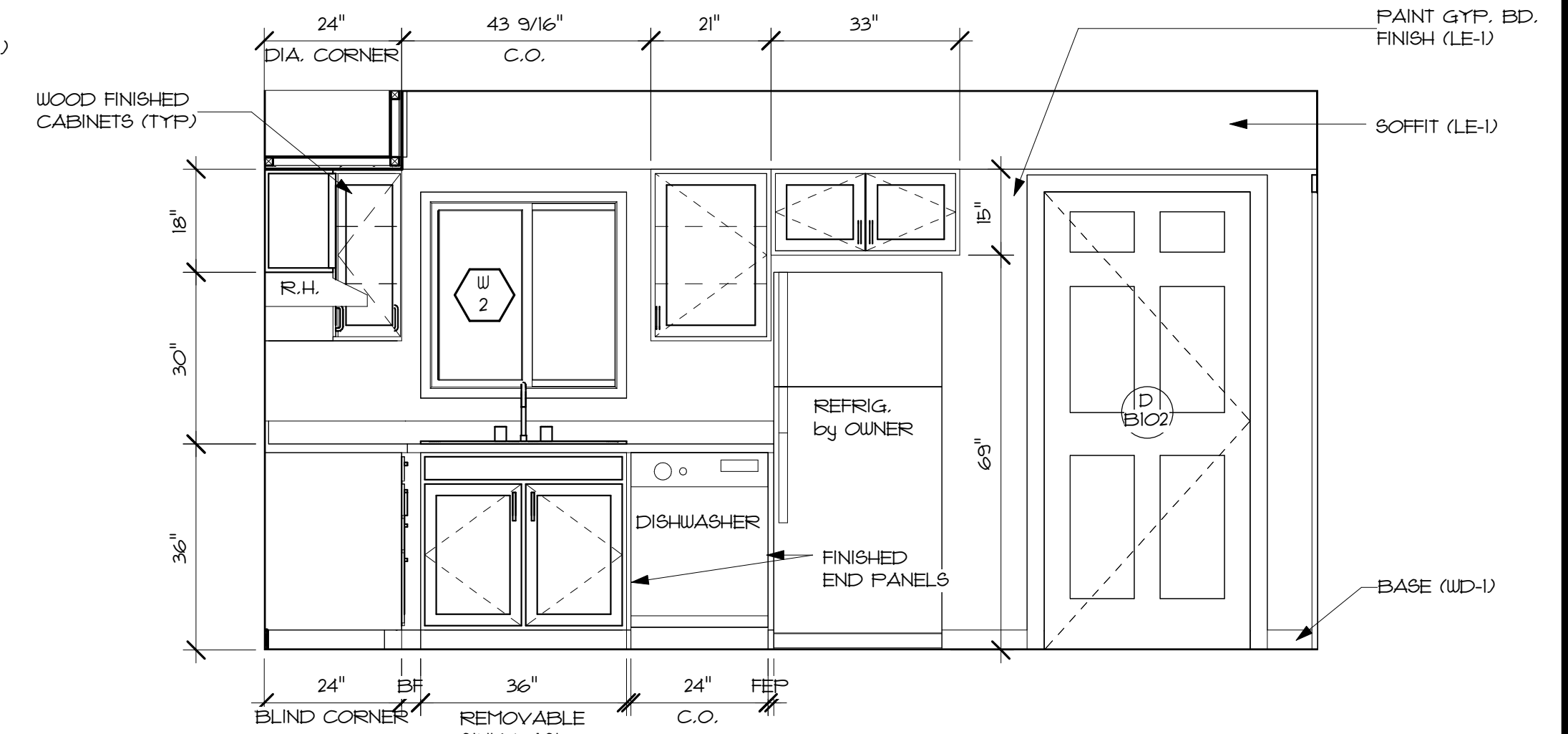
**4** BLDG. C - TOIL. B-103 INT.  
ELEV. C  
SC: 1/2" = 1'-0" RE:



**3** BLDG. C - KIT. B-102 INT.  
ELEV. C  
SC: 1/2" = 1'-0" RE:



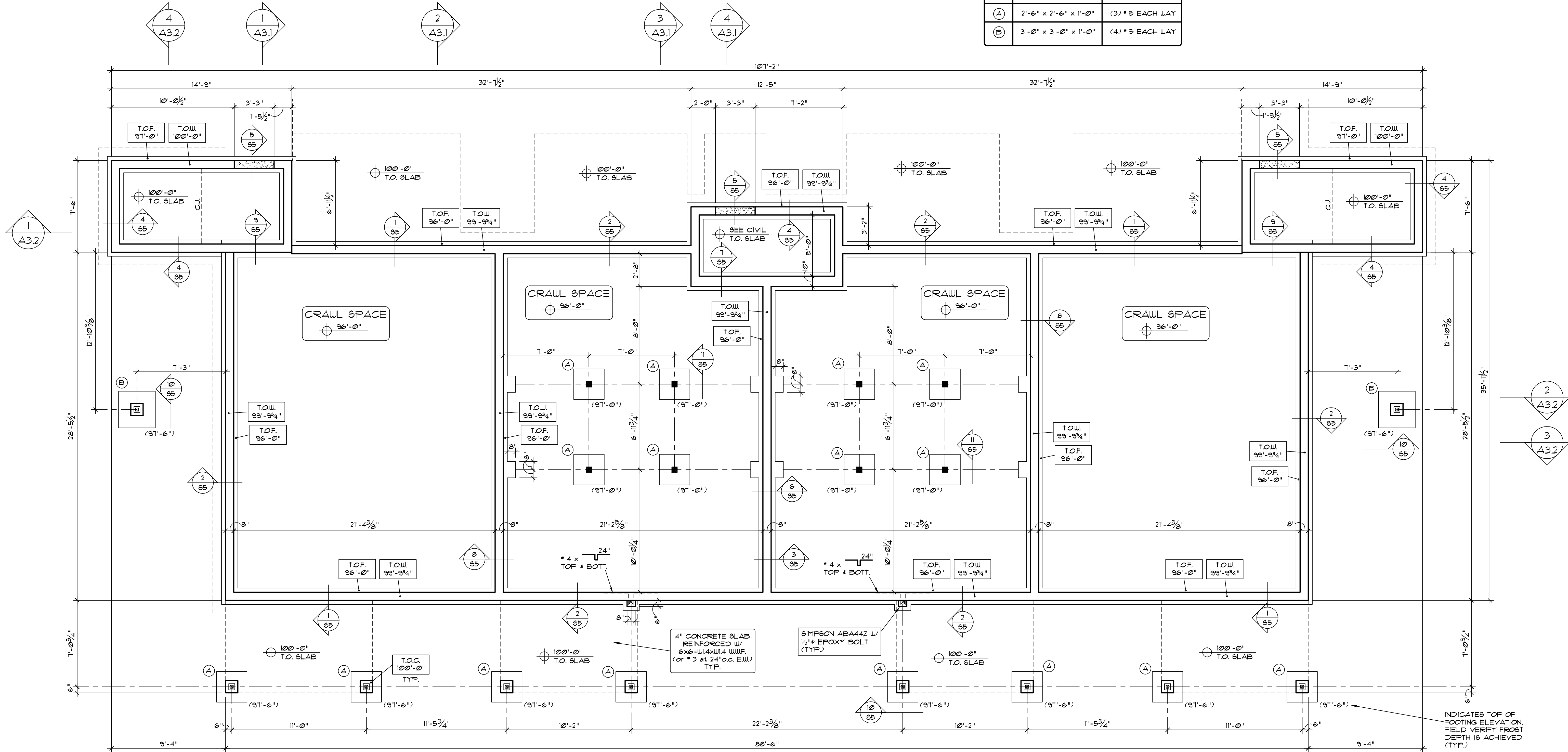
**2** BLDG. C - KIT. B-102 INT.  
ELEV. D  
SC: 1/2" = 1'-0" RE:



**1** BLDG. C - KIT. B-102 INT.  
ELEV. A  
SC: 1/2" = 1'-0" RE:



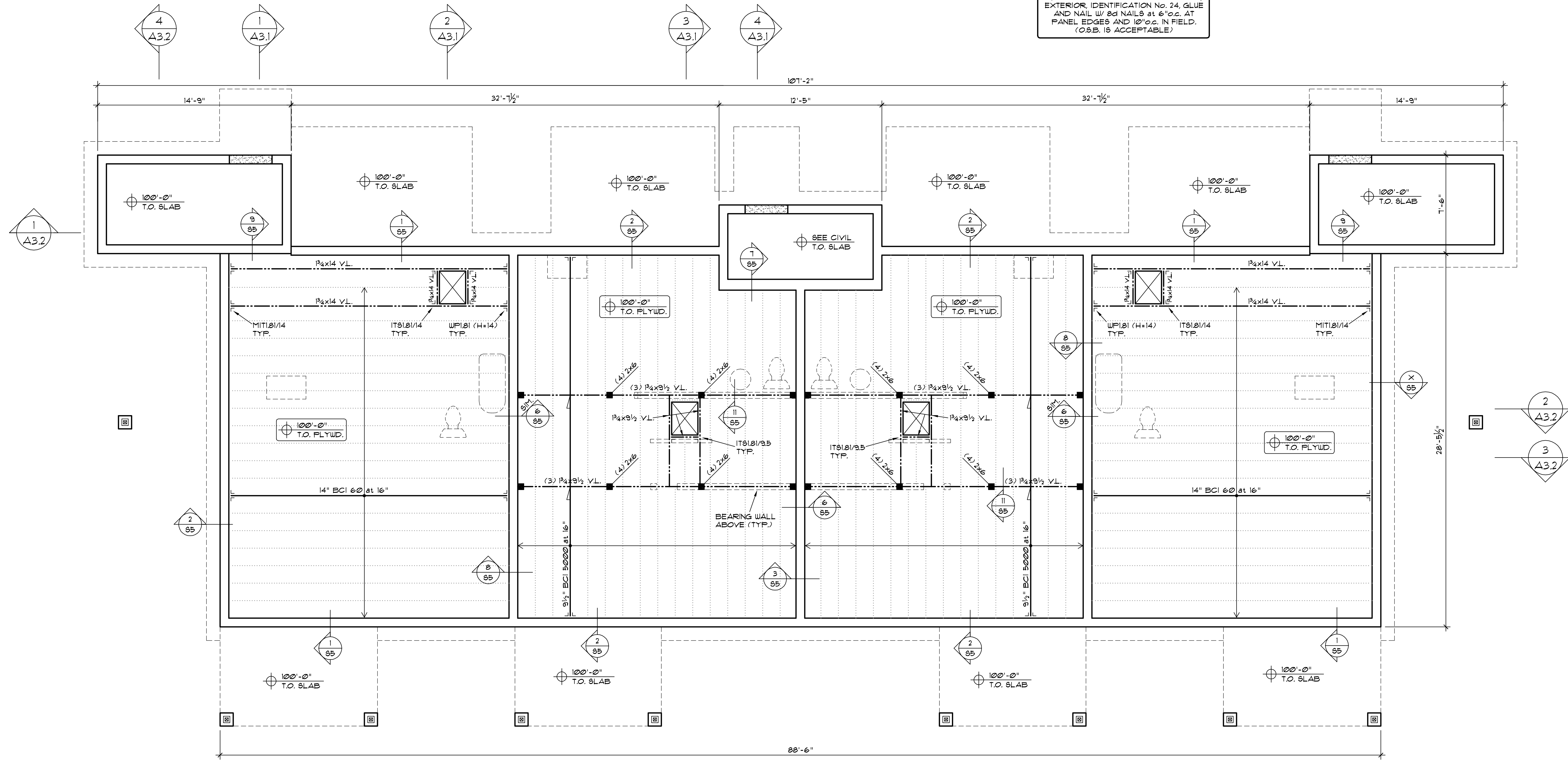
| PAD FOOTING SCHEDULE |                       |                  |
|----------------------|-----------------------|------------------|
| MARK                 | SIZE                  | REINFORCEMENT    |
| (A)                  | 2'-6" x 2'-6" x 1'-0" | (3) # 5 EACH WAY |
| (B)                  | 3'-0" x 3'-0" x 1'-0" | (4) # 5 EACH WAY |



**FOUNDATION PLAN**  
SCALE: 1/4"=1'-0"

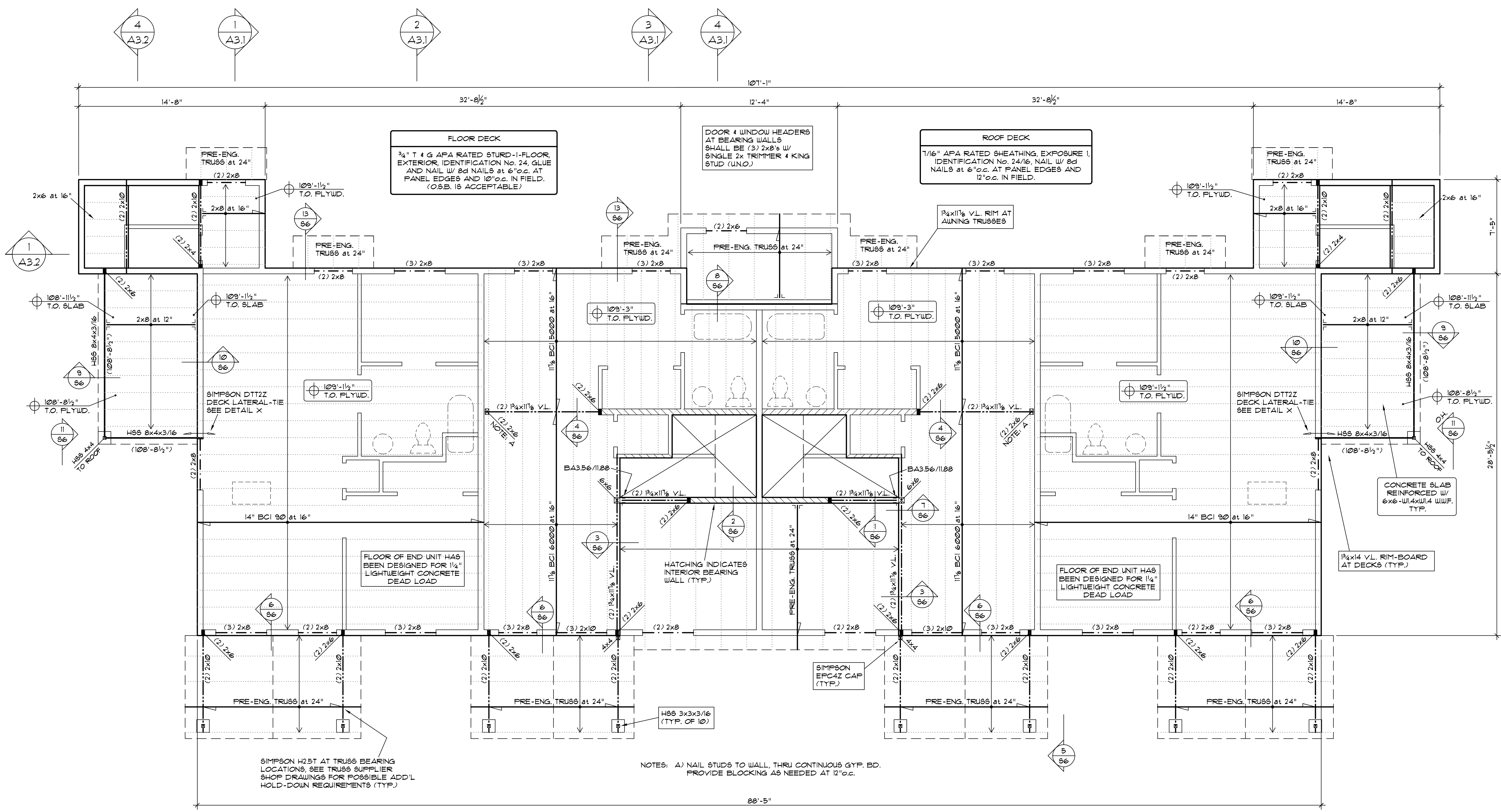


**FLOOR DECK**  
3/4" T & G APA RATED STURD-I-FLOOR,  
EXTERIOR IDENTIFICATION No. 24, GLUE  
AND NAIL W/ 8d NAILS at 6" o.c. AT  
PANEL EDGES AND 10" o.c. IN FIELD.  
(O.S.B. IS ACCEPTABLE)



**MAIN FLOOR FRAMING PLAN**  
SCALE: 1/4"=1'-0"

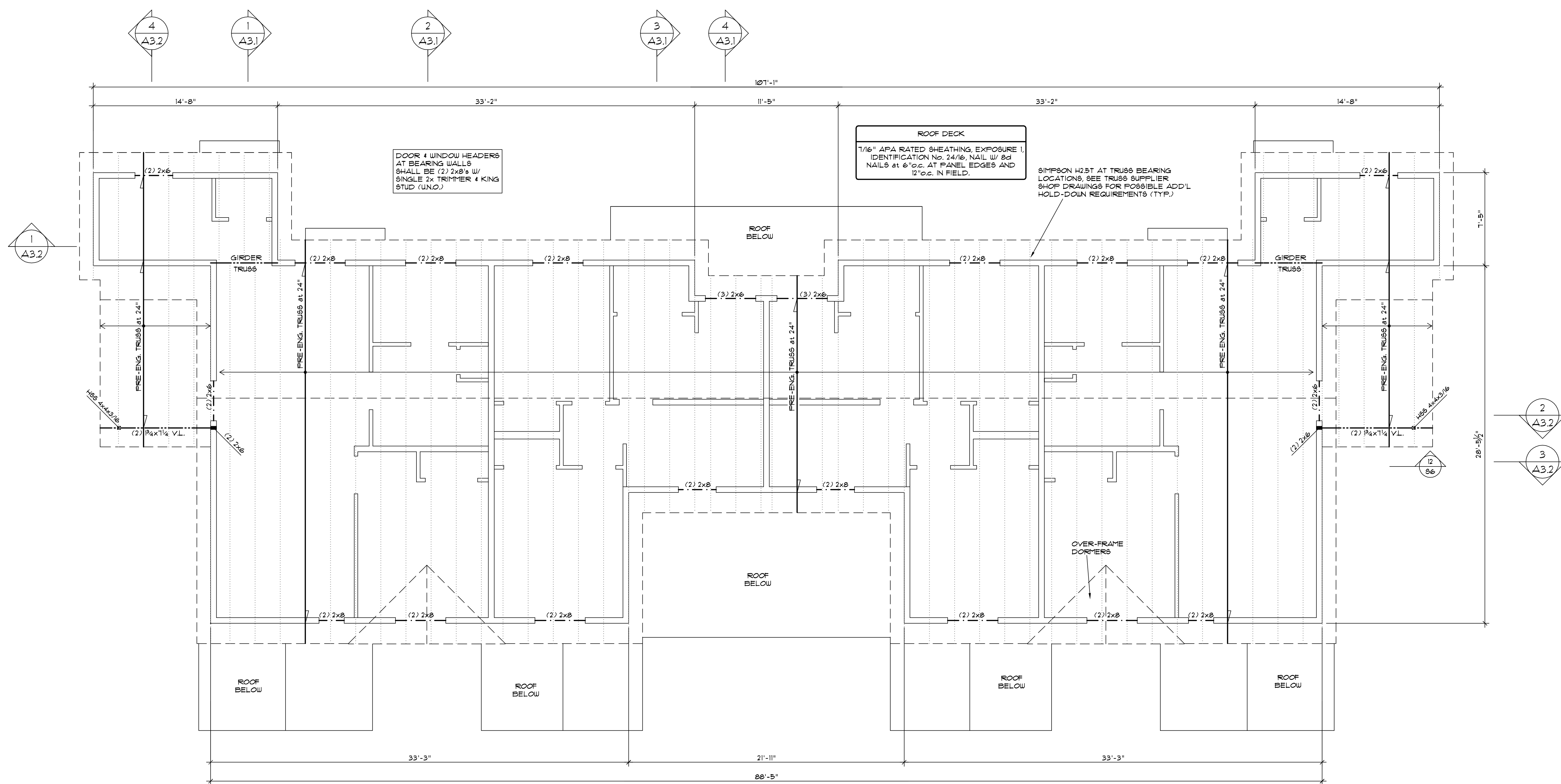




**UPPER FLOOR / LOW ROOF FRAMING PLAN**

SCALE: 1/4"=1'-0"



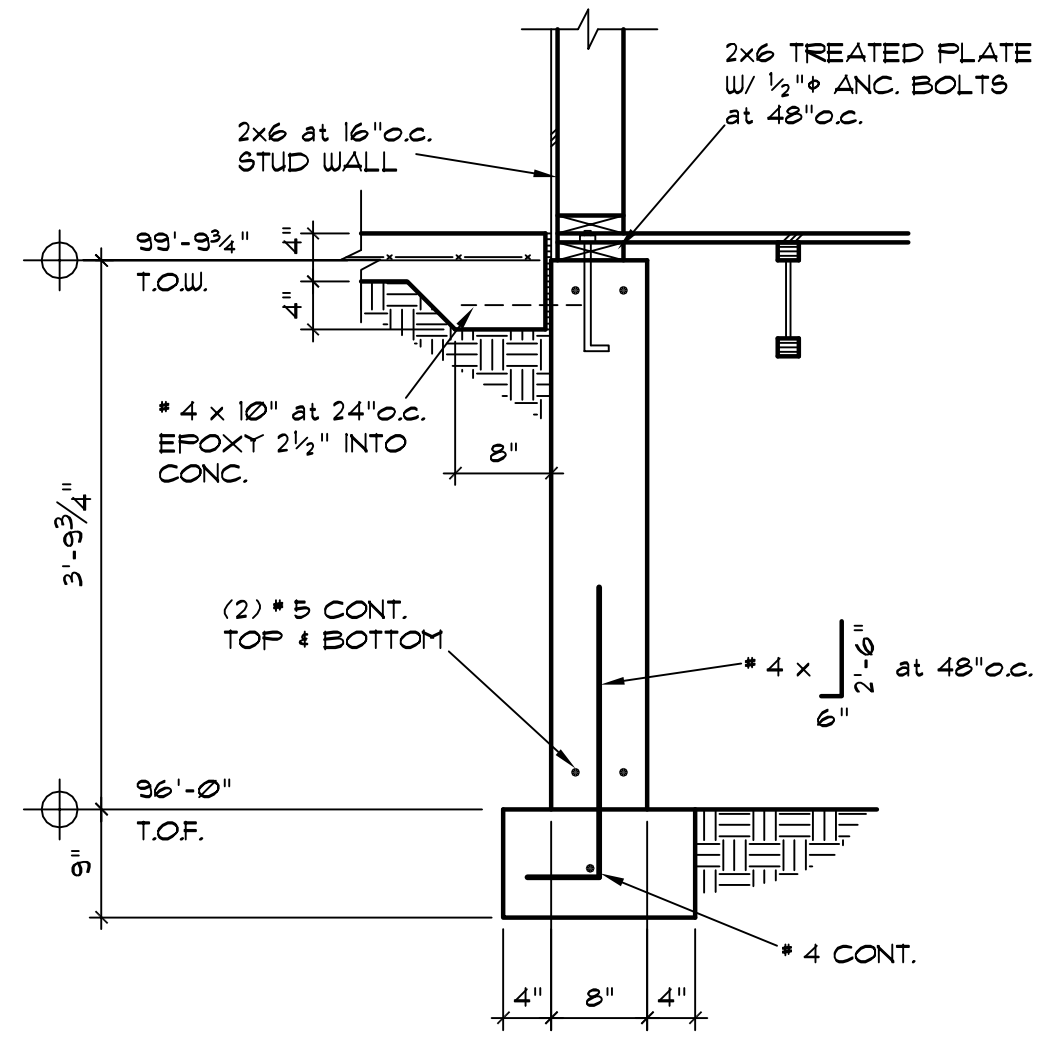


**HIGH ROOF FRAMING PLAN**  
SCALE: 1/4"=1'-0"

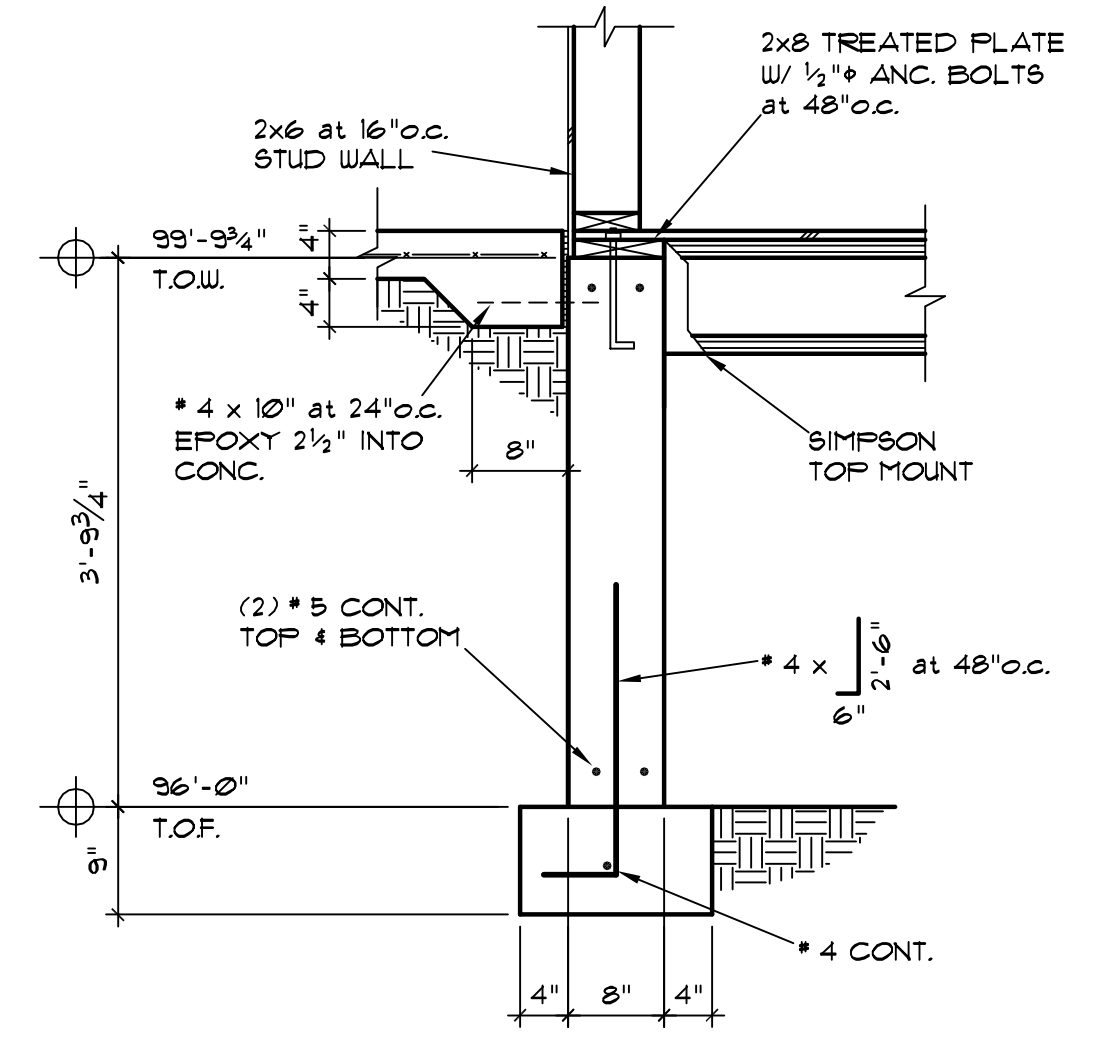


# GENERAL NOTES

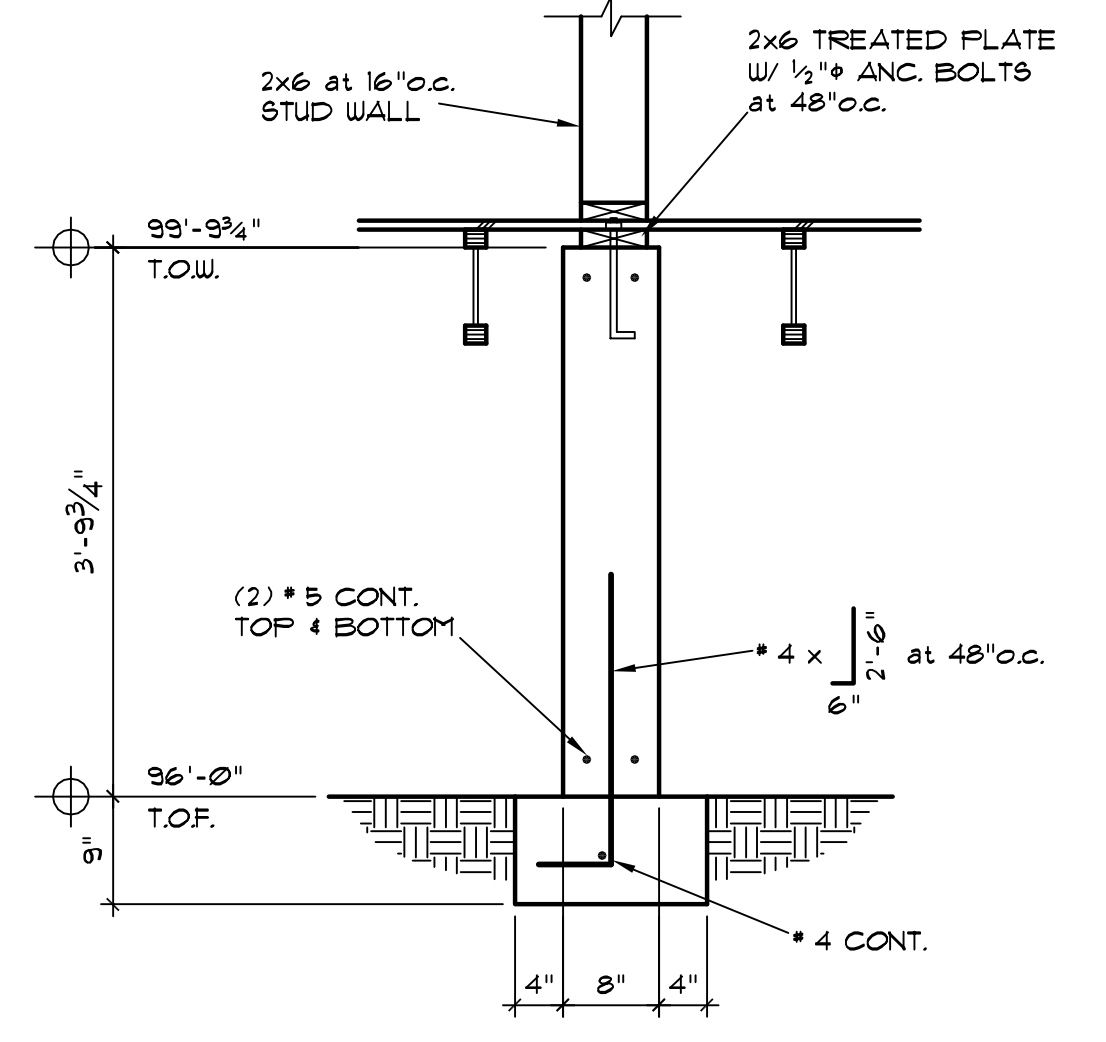
- This project is designed in accordance with the International Building Code (IBC) 2015 Edition.
- Dead Loads:
  - Floor ..... 15 psf
  - Roof ..... 15 psf (20 psf at trusses)
- Live Loads:
  - Roof (snow) ..... 30 psf  
Design trusses for future solar panel load of 5 psf.
  - Floors ..... 40 psf
  - Wind ..... 115 mph, Exposure 'C'
- Foundation:
  - The structure shall be founded on spread footings placed on at least 24 inches of structural fill with a maximum bearing pressure of 3,000 psf.
  - Minimum frost depth of footings shall be 30" (top of grade to bottom of footing). Field verify all top of footing elevations.
  - Refer to soil report # SC03229-125, dated June 1, 2016 (prepared by CTL Thompson) for additional information.
- Concrete:
  - Concrete has been designed and shall be constructed in accordance with the American Concrete Institute "Building Code Requirements for Structural Concrete" (ACI 318). All concrete shall be of stone aggregate, unless noted otherwise.  
Minimum 28 day compressive strength shall be:
    - Foundation concrete shall be made with cement that meets ASTM C150 Type I, 20% fly ash (ASTM C618 Class F), maximum water-cement ratio of 0.40, total air content of 6 percent +/- 1.5 percent, and a minimum 28 day compressive strength of 4,000 psi. Fly ash content can be reduced to 15% for placement in cold weather provided water-cement ratio of 0.40 is maintained.
    - Slabs: ..... 4000 psi
    - All other concrete: ..... 3000 psi
  - Reinforcing shall be new billet steel ASTM A615, grade 60, except stirrups, ties and bars to be welded shall be grade 40. Provide corner bars to match all horizontal reinforcing. Provide (2) # 5 around all openings in concrete and extend bars 24" past edges of openings.
  - Lap Splices shall be Class B. Use the following lap lengths, U.N.O.:
    - No. 6 bars and smaller:
      - a. 57 bar diameters for 3,000 psi concrete.
      - b. 50 bar diameters for 4,000 psi concrete.
  - Reinforcing placement: Provide chairs, standees, additional reinforcement, and accessories necessary to support reinforcement at position shown. Support of reinforcement on form ties, brick, or other unacceptable material will not be allowed.
  - Minimum concrete cover:
    - Concrete cast against and permanently exposed to earth ..... 3 inches
    - Concrete exposed to earth or weather:
      - a. # 6 bar and larger ..... 2 inches
      - b. # 5 bar and smaller ..... 1.5 inches
    - Concrete not exposed to earth or weather ..... 3/4 inches
  - Anchor rods (Anchor bolts) shall be grade 36, conforming to ASTM F1554, and shall have a minimum concrete embedment of 7" with a 2" hook, unless noted otherwise.
  - Exterior slabs/sidewalks shall be 4" thick (minimum) reinforced with 6x6-W1.4xW1.4 w.w.f.
- Steel:
  - Structural steel shall be detailed and erected in accordance with the American Institute of Steel Construction Specifications and Code of Standard Practice. Minimum yield strength: 50 ksi for square/rectangular HSS (ASTM A500, GR. C) 36 ksi for all other members (ASTM A36)
- Connections:
  - Use standard framed beam connections meeting the requirements of the "Manual of Steel Construction-ASD", latest edition. Use 3/4" diameter, A325-N bolts, minimum, snug-tightened, or ASTM F1552 tension-control (TC) bolts.
  - Minimum welds per AISC Specification and AWS D1.1, not less than continuous 3/16" fillet, E70XX electrodes, unless noted otherwise. Welding of reinforcing to embeds shall be done to develop 1.5 times the yield strength of the reinforcing.
- Column base plates that require grout shall bear on non-shrink grout.
- Wood:
  - Framing lumber shall be (U.N.O.):
    - Studs ..... Hem-fir Stud grade
    - Headers ..... Hem-fir # 2
    - Joists/Rafters ..... Hem-fir # 2
  - Wood construction shall be in conformance with the "National Design Specification for Stress Grade Lumber and its Fastenings."
  - Stainless steel (or galvanized) connectors, fasteners and anchors shall be used with preservative-treated woods.
  - Exterior walls shall be fully sheathed with 7/16" ZIP-System, manufactured by Huber.
  - Plywood web joists and Versa-lam LVL (2.0E - noted V.L. on plans) shall be manufactured by Boise Cascade, or approved equivalent. Joists and beams shall not be modified without the written consent of the Structural Engineer.
  - Locate floor joists so that they do not interfere with plumbing.
  - Roof trusses shall be designed by a registered professional engineer (Colorado). Live load deflections shall not exceed 1/240 of the span. Calculations and shop drawings bearing the seal and signature of the design engineer shall be reviewed by the Structural Engineer prior to truss fabrication. Shop drawings shall show location of all trusses, connection plate capacity, and the size and grade of lumber used. Truss manufacturer shall provide blocking and bridging as required for stability, and bearing blocks if needed. Truss supplier shall provide all hangers and connectors needed. Trusses to be designed for future solar panels, verify locations and weights with Owner.
- Drawing Coordination:
  - Dimensions on these Structural drawings shall be verified with the Architectural drawings and any discrepancy shall be brought to the Architect's attention.
  - DRAWINGS SHALL NOT BE SCALED. Written dimensions shall take precedence over scaled measurements.
  - Shop drawings shall be prepared and drawn by the fabricator. Copying these drawings for shop drawing use will not be permitted.
  - Any and all material substitutions shall be approved by the Structural Engineer prior to construction.



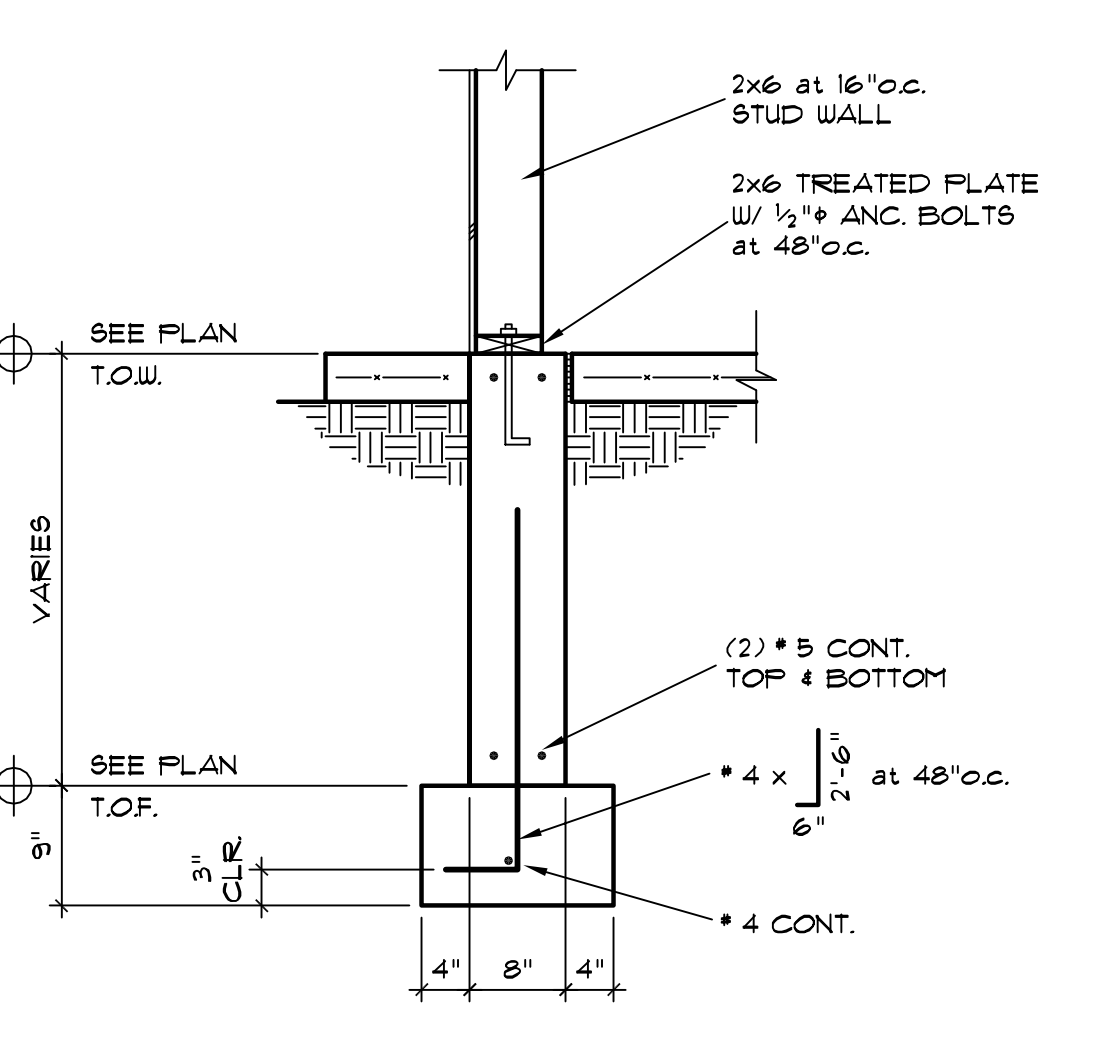
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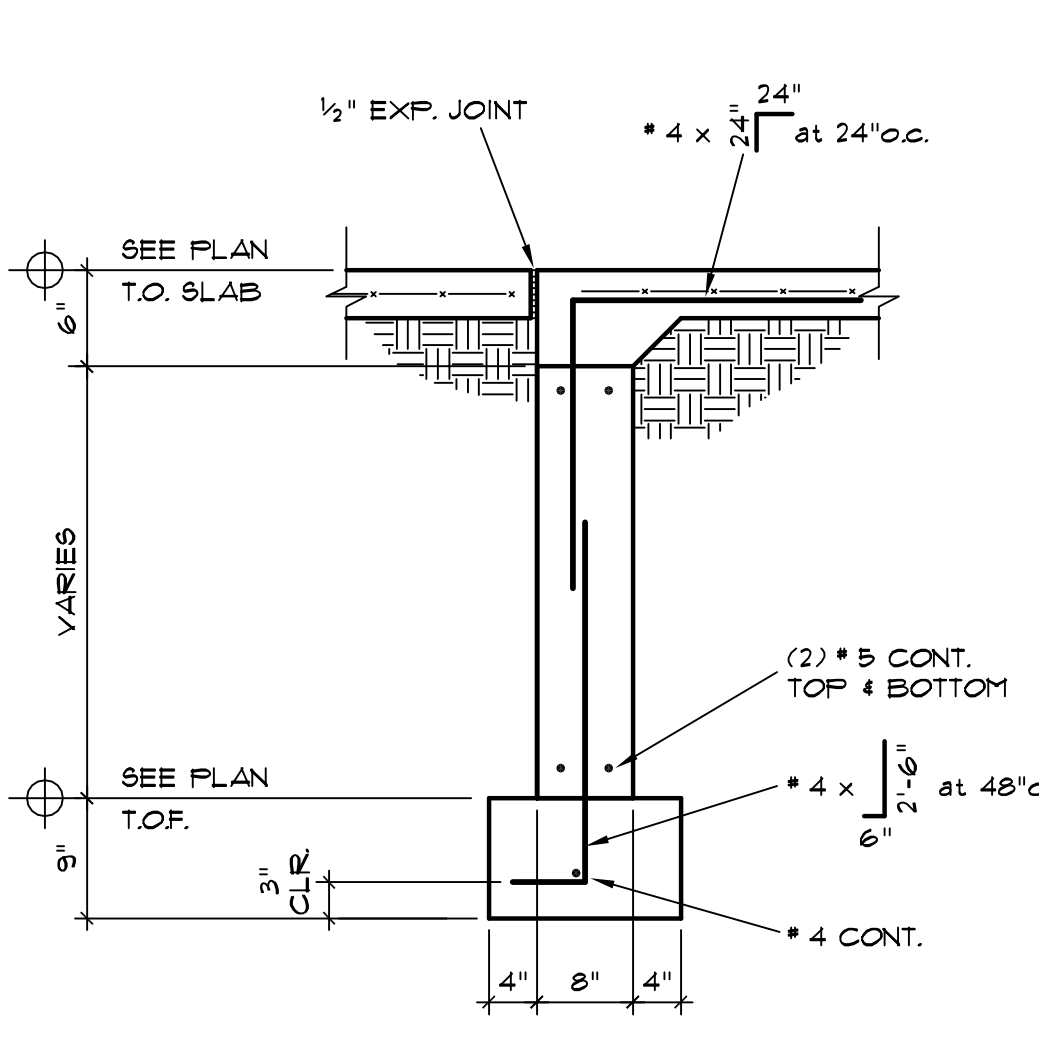
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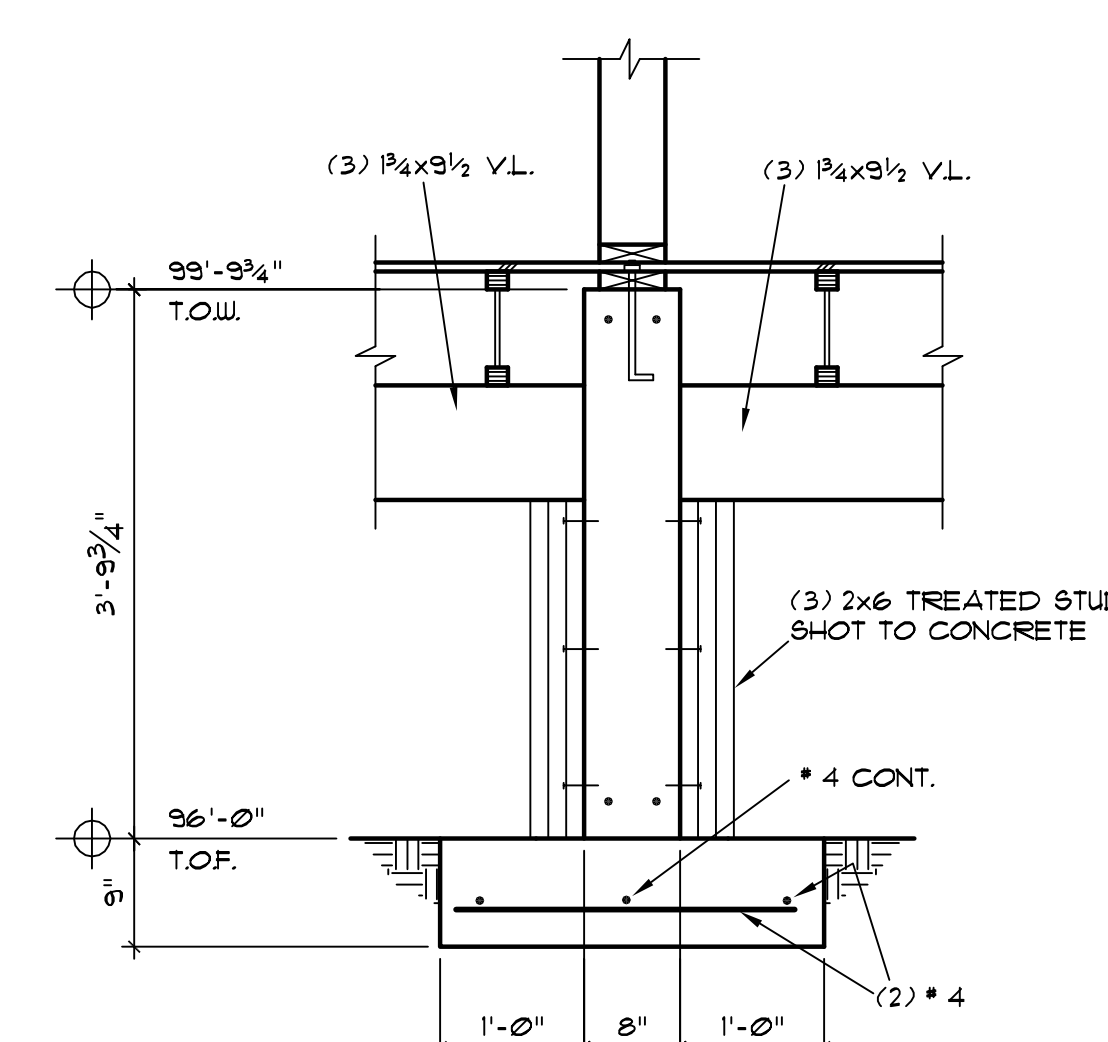
3 SCALE: 3/4"=1'-0"



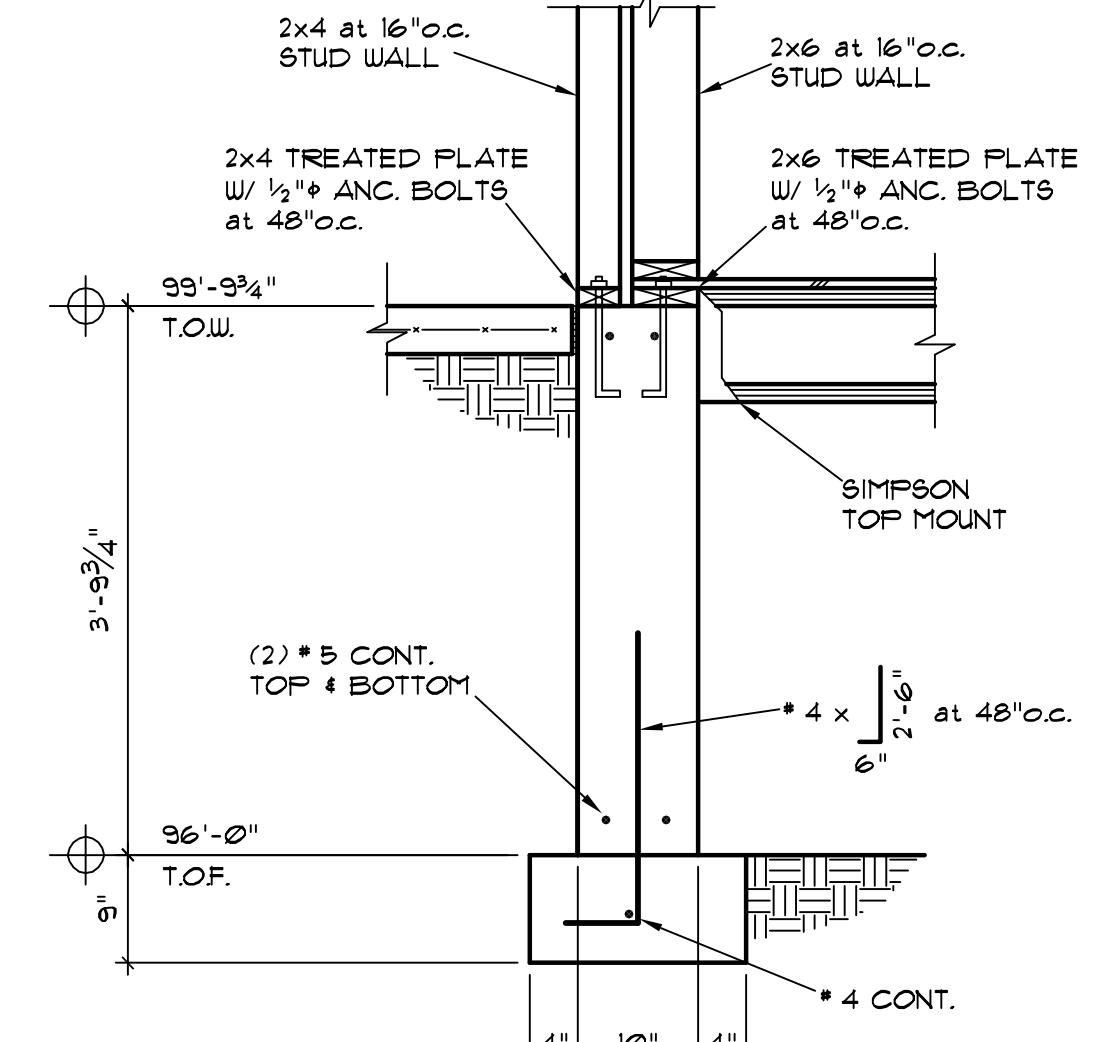
4 SCALE: 3/4"=1'-0"



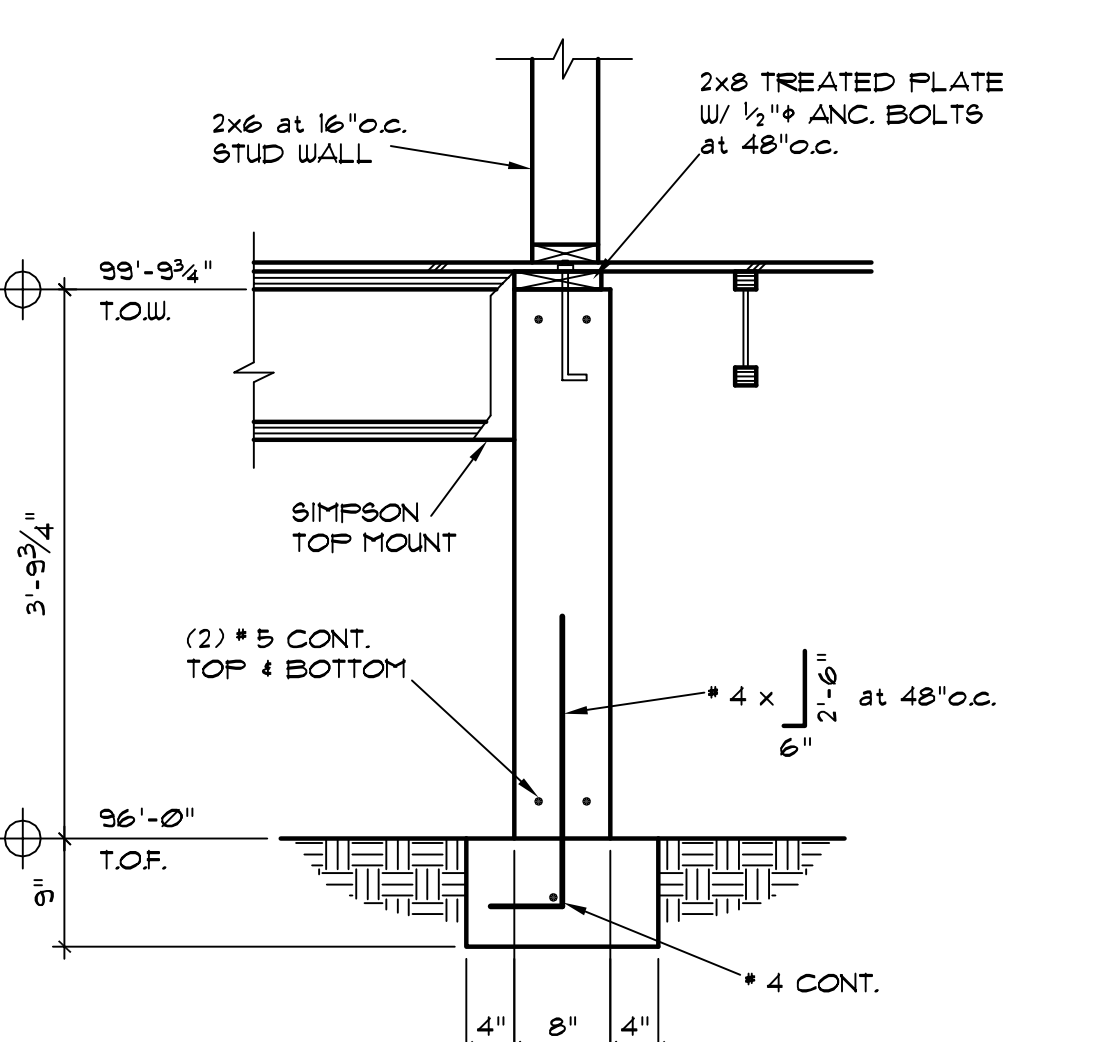
5 SCALE: 3/4"=1'-0"



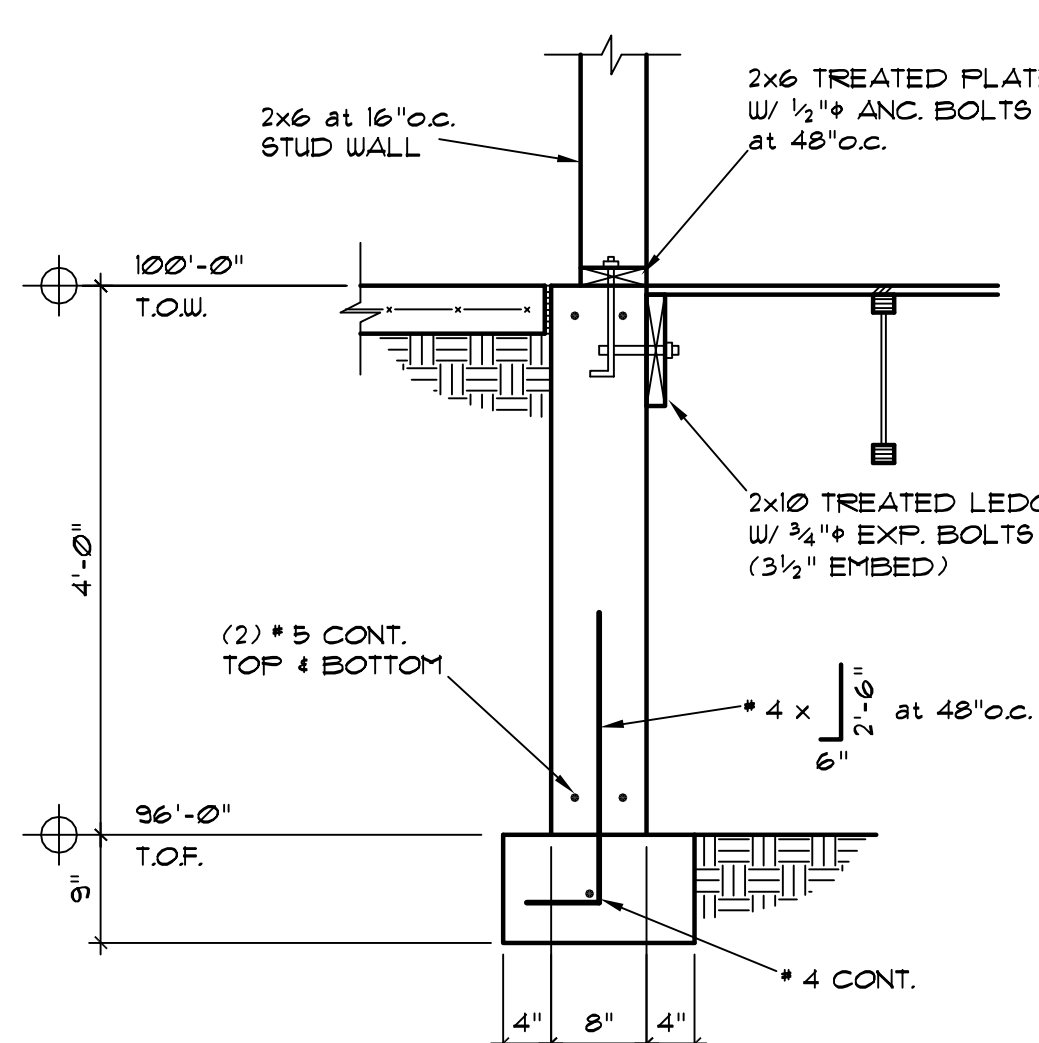
6 SCALE: 3/4"=1'-0"



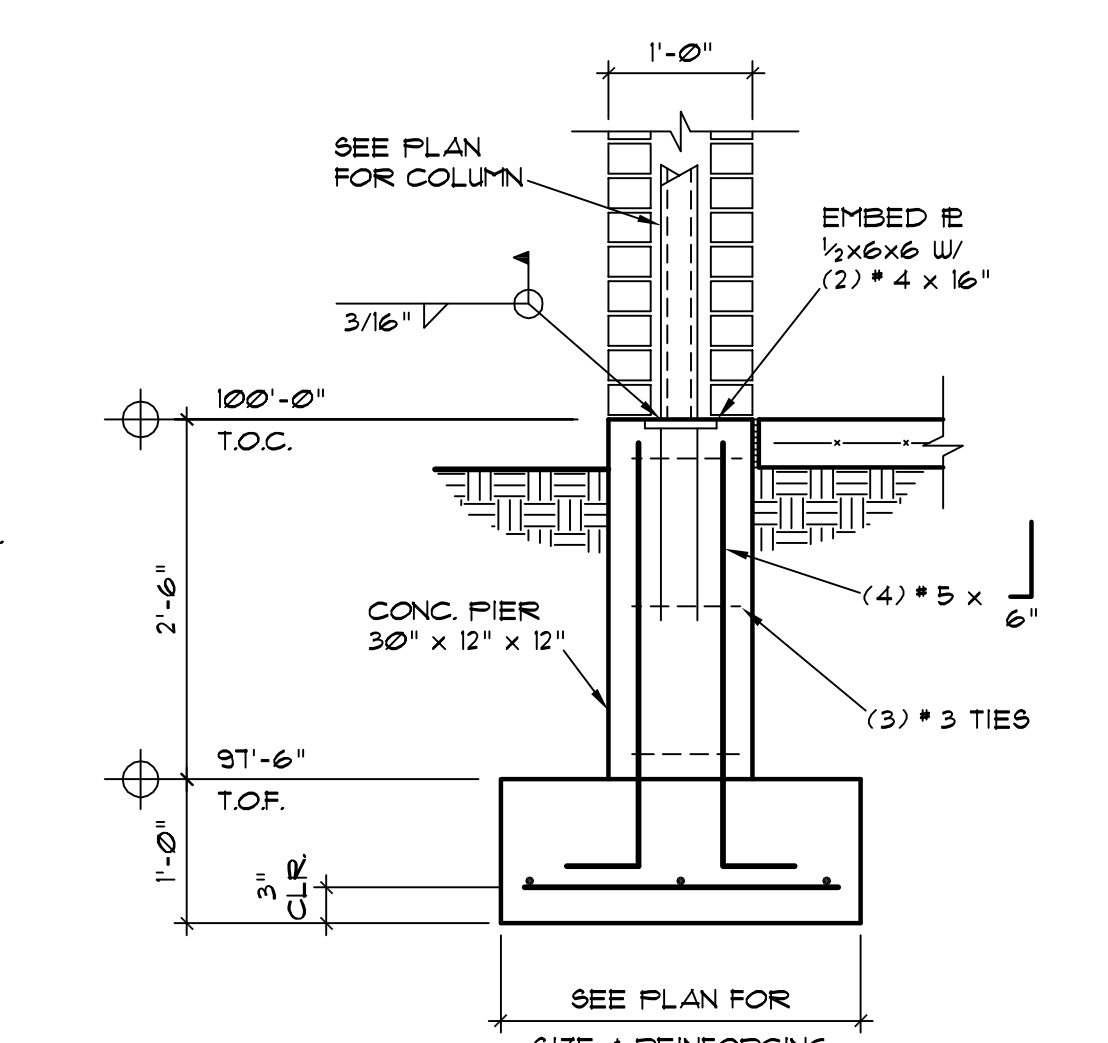
7 SCALE: 3/4"=1'-0"



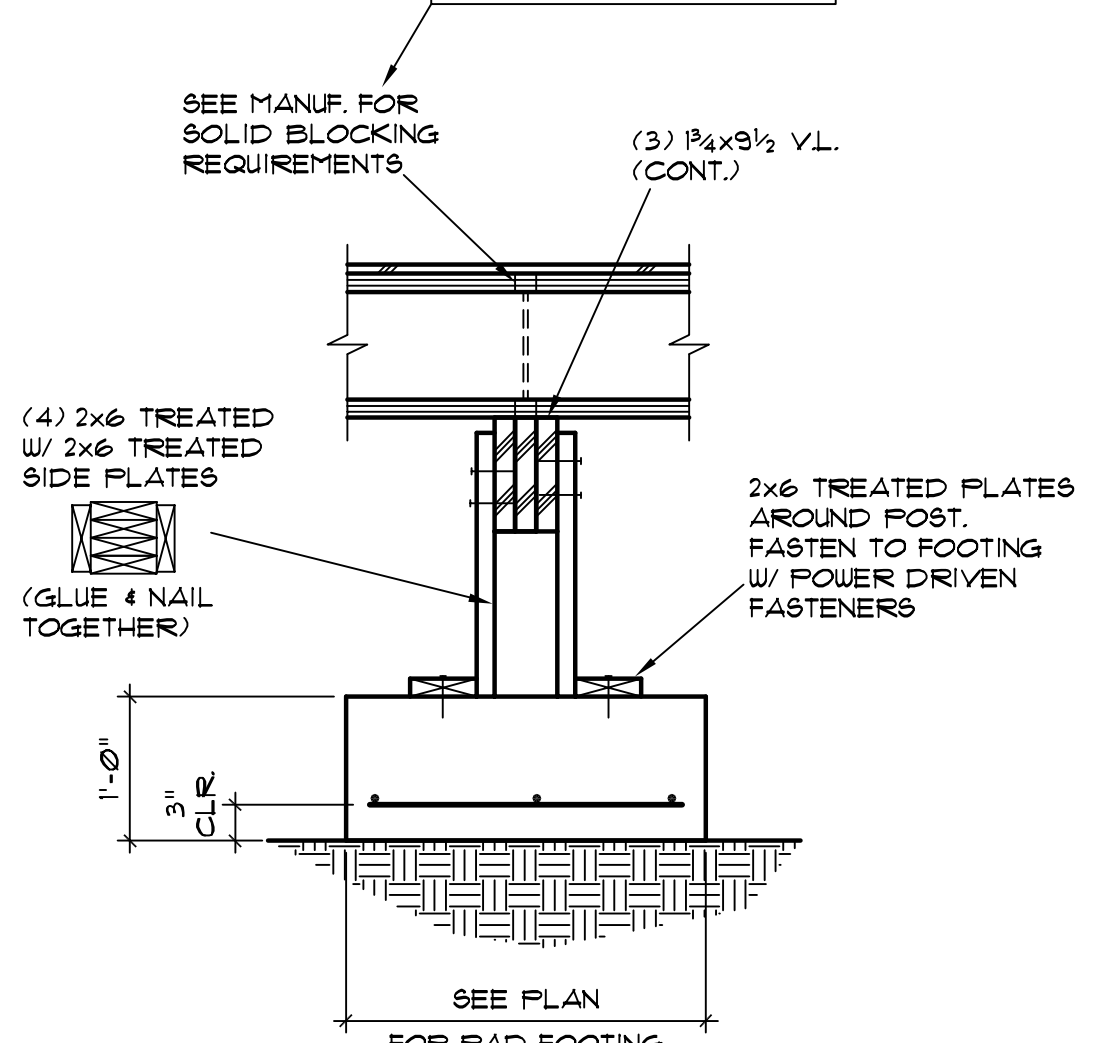
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9 SCALE: 3/4"=1'-0"

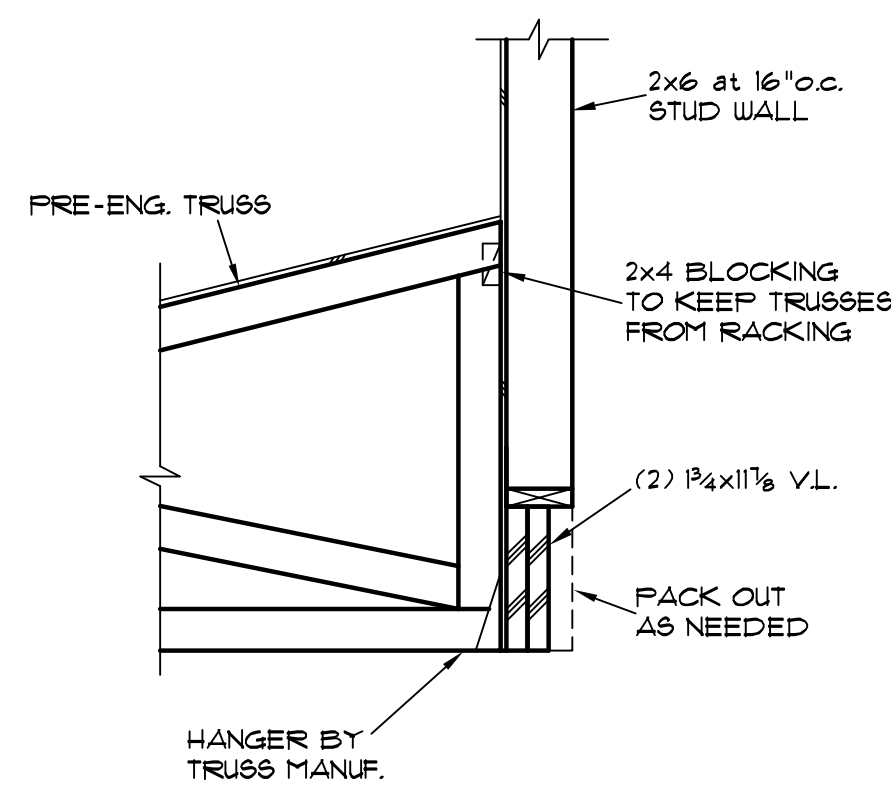


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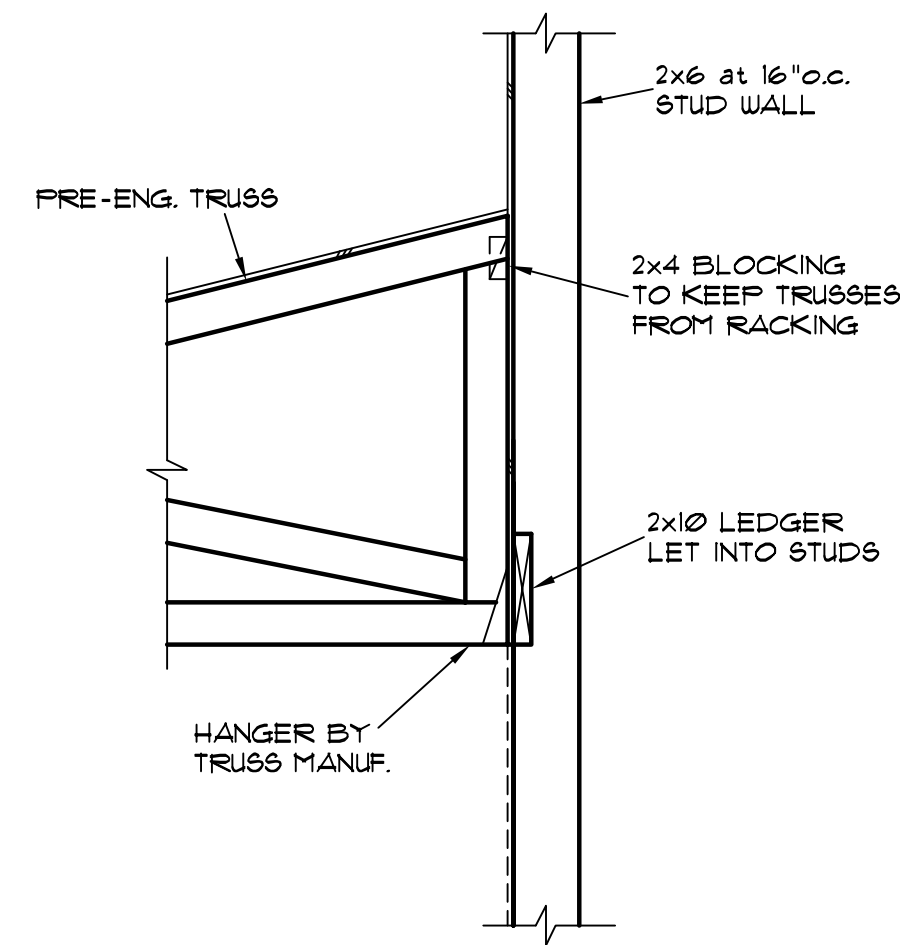


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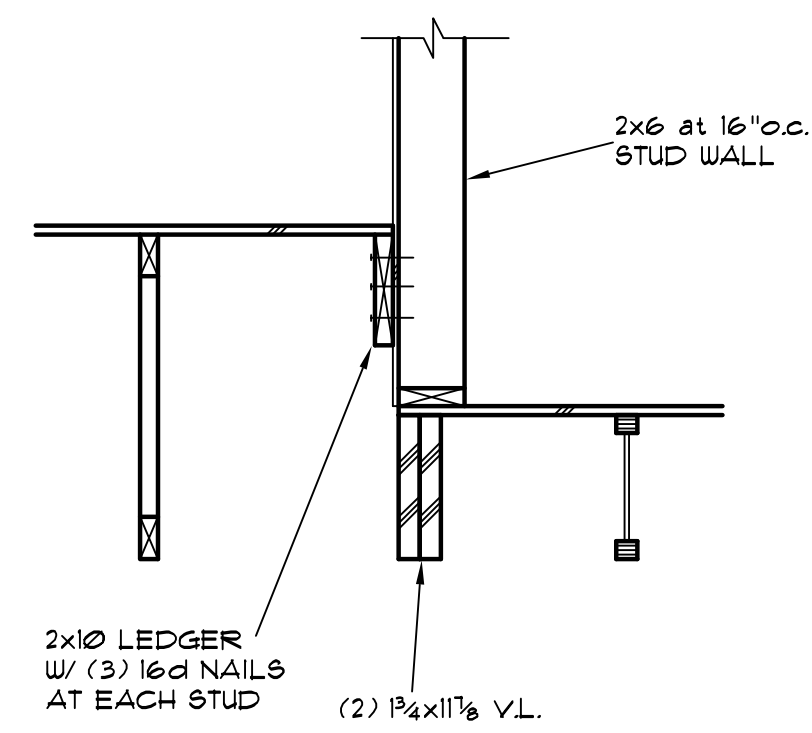




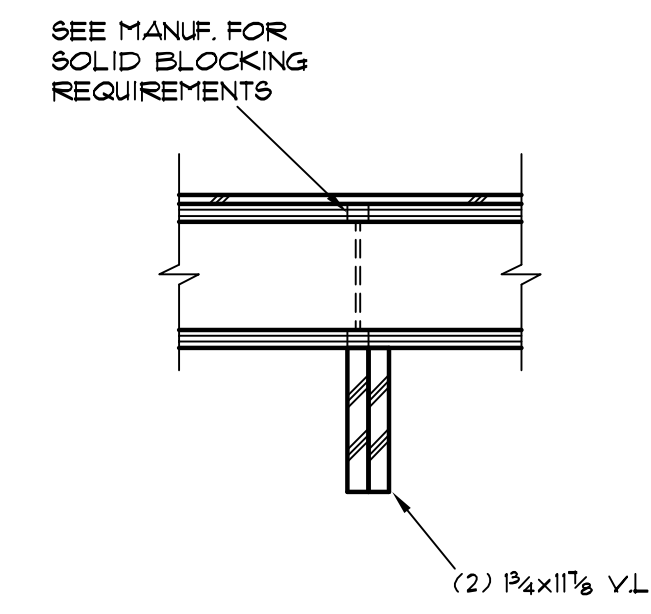
1 SCALE: 3/4"=1'-0"



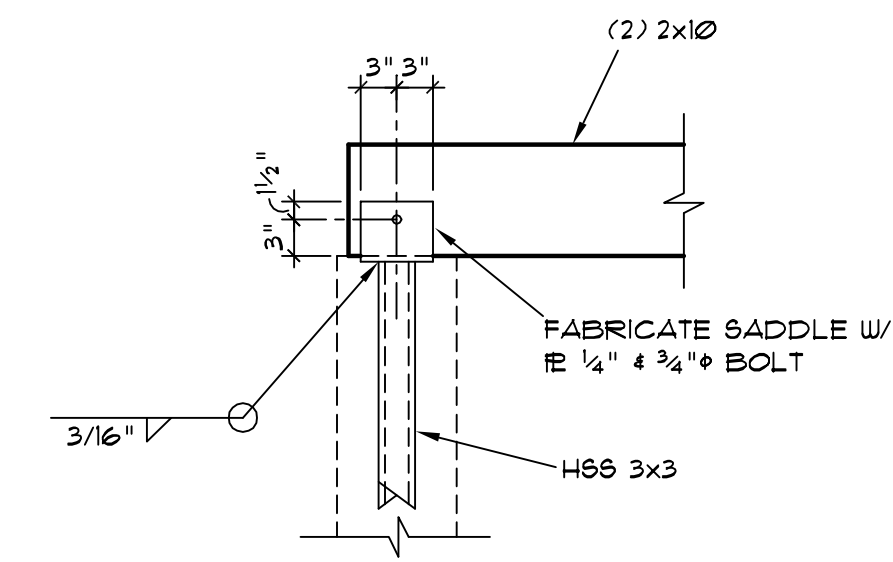
2 SCALE: 3/4"=1'-0"



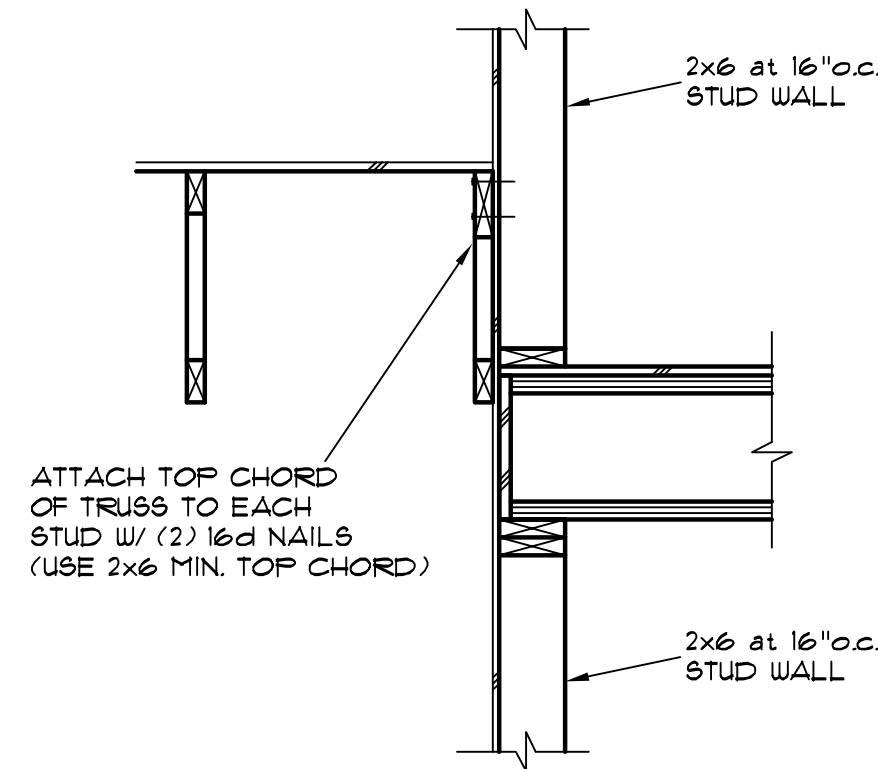
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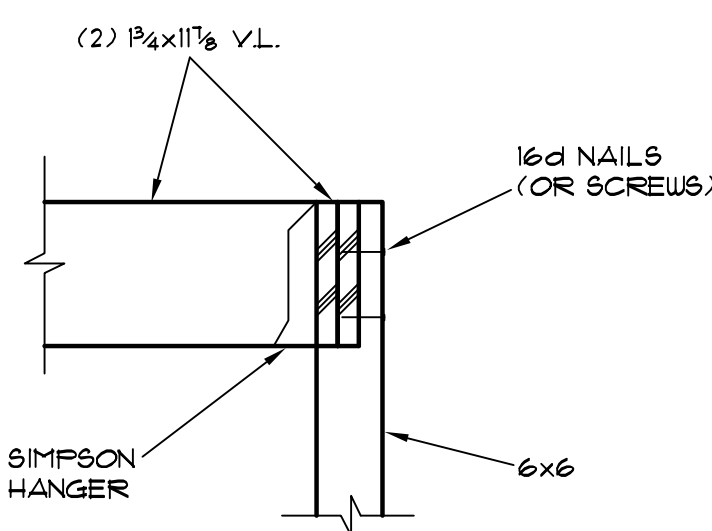
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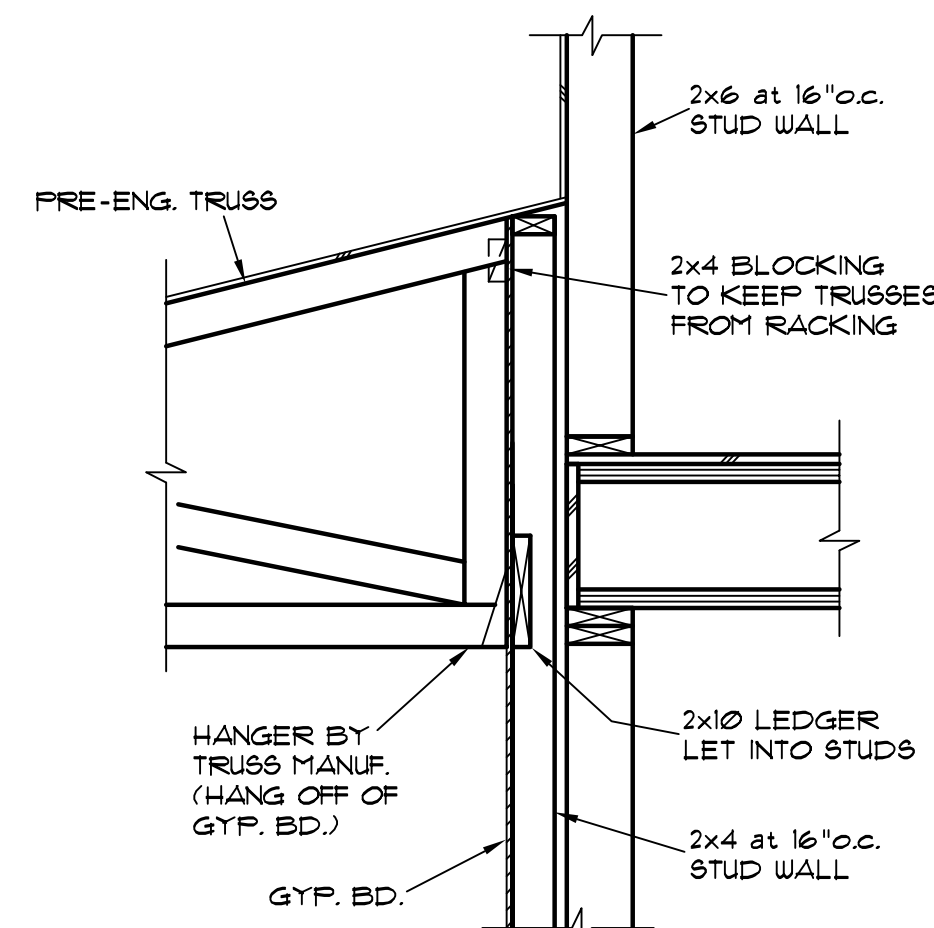
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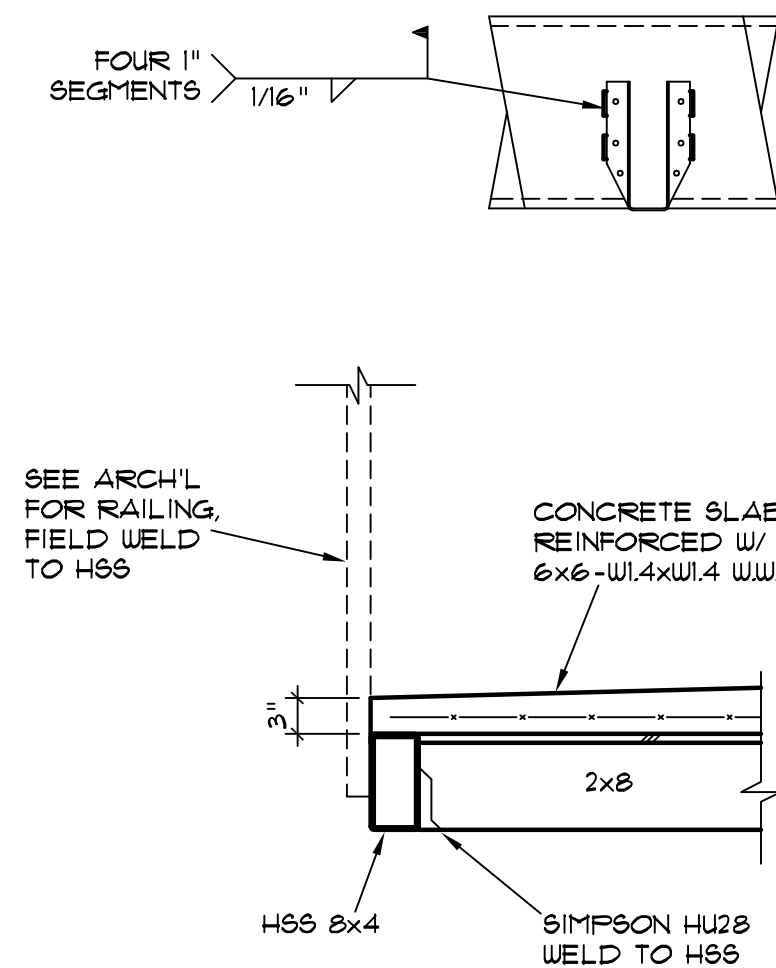
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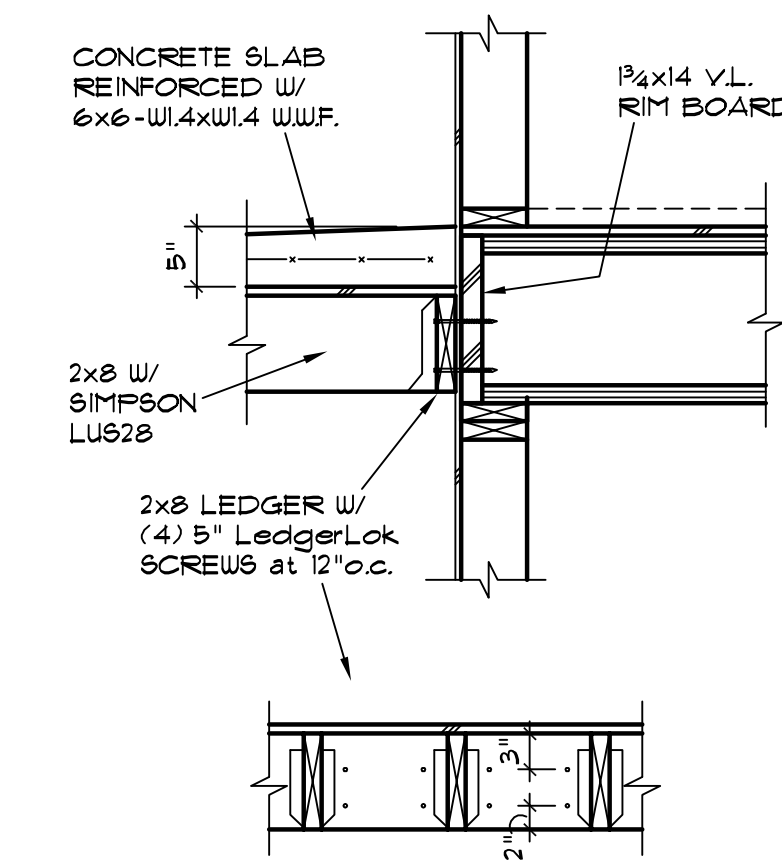
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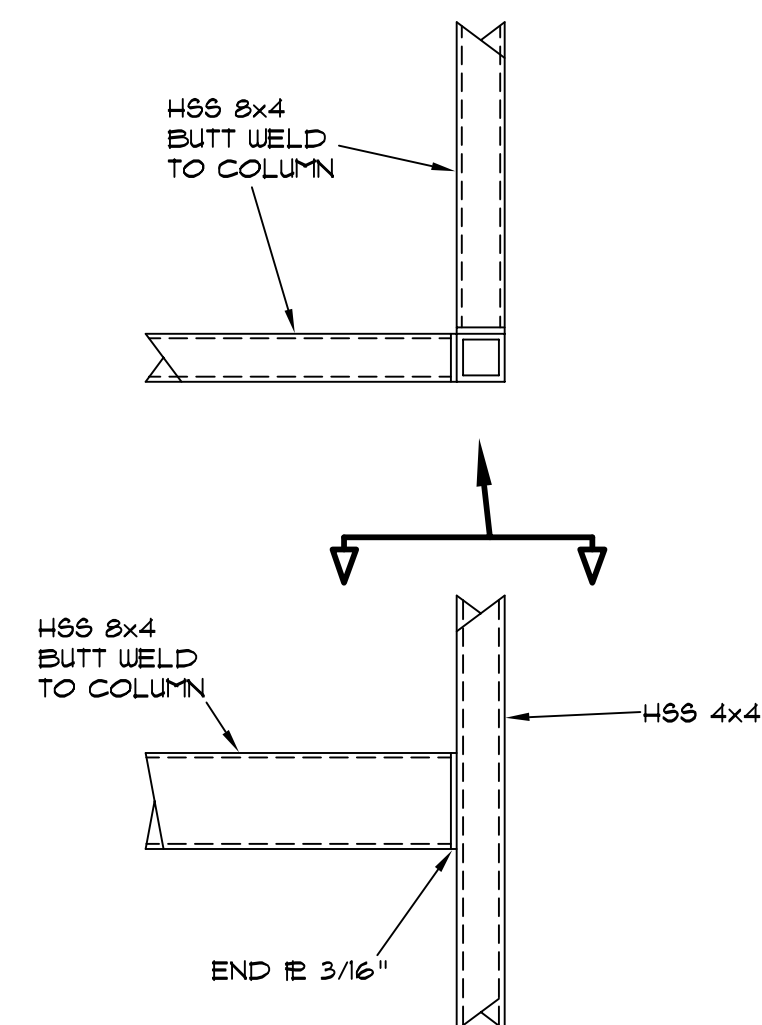
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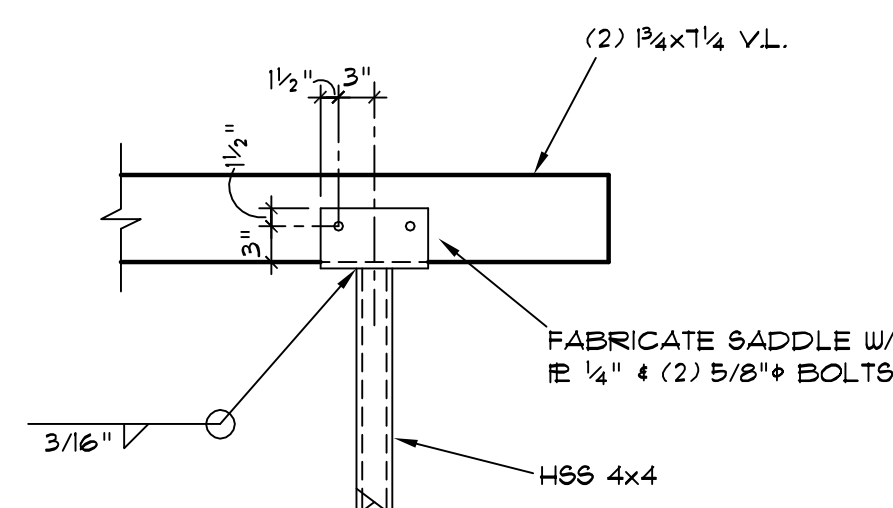
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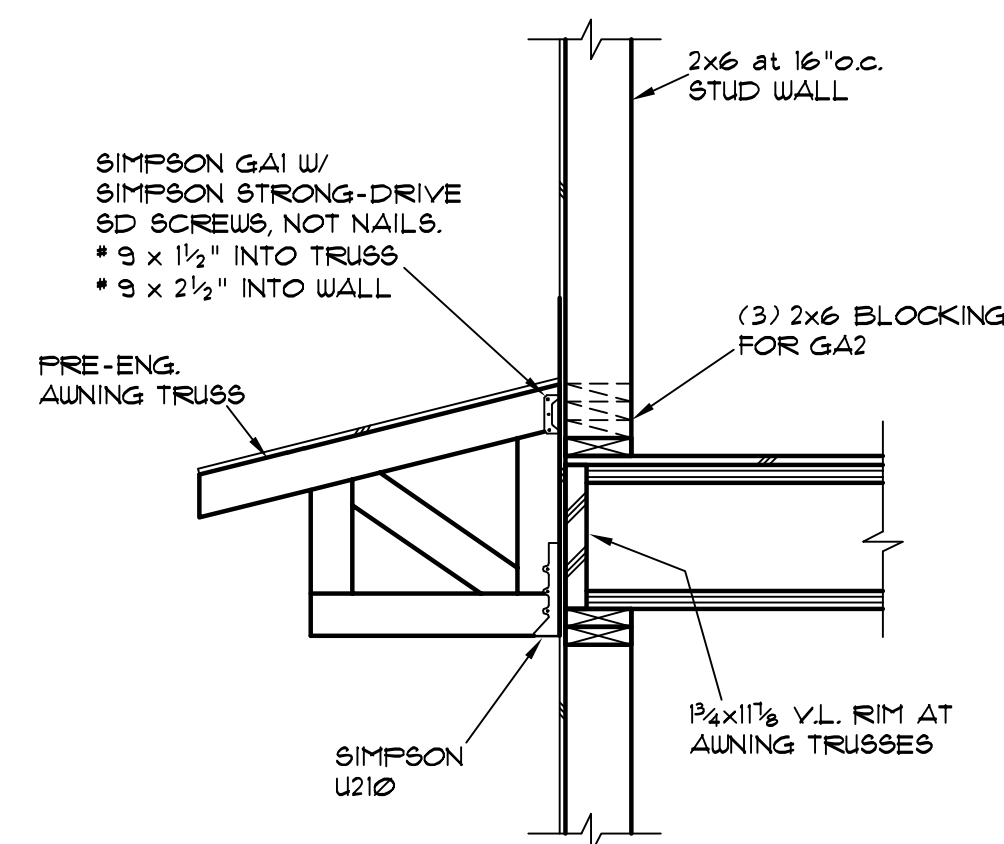
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11 SCALE: 3/4"=1'-0"



12 SCALE: 3/4"=1'-0"



13 SCALE: 3/4"=1'-0"



**2015 INTERNATIONAL ENERGY CONSERVATION CODE COMPLIANCE**

|              |   |
|--------------|---|
| C403.2.3     | HVAC EQUIPMENT PERFORMANCE REQUIREMENTS. EQUIPMENT SHALL MEET THE MINIMUM EFFICIENCY REQUIREMENTS OF TABLES C403.2.3(1) THROUGH C403.2.3(9), WHEN TESTED AND RATED IN ACCORDANCE WITH THE APPLICABLE TEST PROCEDURE. PLATE-TYPE LIQUID-TO-LIQUID HEAT EXCHANGERS SHALL MEET THE MINIMUM REQUIREMENTS OF TABLE C403.2.3(10). THE EFFICIENCY SHALL BE VERIFIED THROUGH CERTIFICATION UNDER AN APPROVED CERTIFICATION PROGRAM OR, IF NO CERTIFICATION PROGRAM EXISTS, THE EQUIPMENT EFFICIENCY RATINGS SHALL BE SUPPORTED BY DATA FURNISHED BY THE MANUFACTURER. WHERE MULTIPLE RATING CONDITIONS OR PERFORMANCE REQUIREMENTS ARE PROVIDED, THE EQUIPMENT SHALL SATISFY ALL STATED REQUIREMENTS. WHERE COMPONENTS, SUCH AS INDOOR OR OUTDOOR COILS, FROM DIFFERENT MANUFACTURERS ARE USED, CALCULATIONS AND SUPPORTING DATA SHALL BE FURNISHED BY THE DESIGNER THAT DEMONSTRATES THAT THE COMBINED EFFICIENCY OF THE SPECIFIED COMPONENTS MEETS THE REQUIREMENTS HEREIN.   |
| C403.2.9     | DUCT AND PLENUM INSULATION AND SEALING. SUPPLY AND RETURN AIR DUCTS AND PLENUMS SHALL BE INSULATED WITH A MINIMUM OF R-6 INSULATION WHERE LOCATED IN UNCONDITIONED SPACES AND WHERE LOCATED OUTSIDE THE BUILDING WITH A MINIMUM OF R-8 IN CLIMATE ZONES 1 THROUGH 4 AND A MINIMUM OF R-12 FOR CLIMATE ZONES 5 THROUGH 8. WHERE LOCATED WITHIN A BUILDING ENVELOPE ASSEMBLY, THE DUCT OR PLENUM SHALL BE SEPARATED FROM THE BUILDING EXTERIOR OR UNCONDITIONED OR EXEMPT SPACES BY A MINIMUM OF R-8 INSULATION IN CLIMATE ZONES 1 THROUGH 4 AND A MINIMUM OF R-12 INSULATION IN CLIMATE ZONES 5 THROUGH 8.   |
| C403.2.4.2.1 | THERMOSTATIC SETBACK CAPABILITIES. THERMOSTATIC SETBACK CONTROLS SHALL HAVE THE CAPABILITY TO SET BACK OR TEMPORARILY OPERATE THE SYSTEM TO MAINTAIN ZONE TEMPERATURES DOWN TO 55°F (13°C) OR UP TO 85°F (29°C).  |
| C403.2.4.2.2 | AUTOMATIC SETBACK AND SHUTDOWN CAPABILITIES. AUTOMATIC TIME CLOCK OR PROGRAMMABLE CONTROLS SHALL BE CAPABLE OF STARTING AND STOPPING THE SYSTEM FOR SEVEN DIFFERENT DAILY SCHEDULES PER WEEK AND RETAINING THEIR PROGRAMMING AND TIME SETTING DURING A LOSS OF POWER FOR AT LEAST 10 HOURS. ADDITIONALLY, THE CONTROLS SHALL HAVE A MANUAL OVERRIDE THAT ALLOWS TEMPORARY OPERATION OF THE SYSTEM FOR UP TO 2 HOURS, A MANUALLY OPERATED TIMER CAPABLE OF BEING ADJUSTED TO OPERATE THE SYSTEM FOR UP TO 2 HOURS, OR AN OCCUPANCY SENSOR.   |
| C408.2       | MECHANICAL SYSTEMS AND SERVICE WATER-HEATING SYSTEM COMMISSIONING AND COMPLETION REQUIREMENTS. PRIOR TO THE FINAL MECHANICAL AND PLUMBING INSPECTIONS, THE REGISTERED DESIGN PROFESSIONAL OR APPROVED AGENCY SHALL PROVIDE EVIDENCE OF MECHANICAL SYSTEMS COMMISSIONING AND COMPLETION IN ACCORDANCE WITH THE PROVISIONS OF THIS SECTION. CONSTRUCTION DOCUMENT NOTES SHALL CLEARLY INDICATE PROVISIONS FOR COMMISSIONING AND COMPLETION REQUIREMENTS IN ACCORDANCE WITH THIS SECTION AND ARE PERMITTED TO REFER TO SPECIFICATIONS FOR FURTHER REQUIREMENTS. COPIES OF ALL DOCUMENTATION SHALL BE GIVEN TO THE OWNER AND MADE AVAILABLE TO THE CODE OFFICIAL UPON REQUEST IN ACCORDANCE WITH SECTIONS C408.2.4 AND C408.2.5.  |
| C408.2.2.1   | AIR SYSTEM BALANCING. EACH SUPPLY AIR OUTLET AND ZONE TERMINAL DEVICE SHALL BE EQUIPPED WITH MEANS FOR AIR BALANCING IN ACCORDANCE WITH THE REQUIREMENTS OF CHAPTER 6 OF THE INTERNATIONAL MECHANICAL CODE. DISCHARGE DAMPERS ARE PROHIBITED ON CONSTANT VOLUME FANS AND VARIABLE VOLUME FANS WITH MOTORS 10 HP AND LARGER. AIR SYSTEMS SHALL BE BALANCED IN A MANNER TO FIRST MINIMIZE THROTTLING LOSSES THEN, FOR FANS WITH SYSTEM POWER OF GREATER THAN 1HP, FAN SPEED SHALL BE ADJUSTED TO MEET DESIGN FLOW CONDITIONS.   |
| C408.2.5.2   | MANUALS. AN OPERATING AND MAINTENANCE MANUAL SHALL BE PROVIDED AND INCLUDE ALL OF THE FOLLOWING:<br><ol style="list-style-type: none"> <li>SUBMITTAL DATA STATING EQUIPMENT SIZE AND SELECTED OPTIONS FOR EACH PIECE OF EQUIPMENT REQUIRING MAINTENANCE.</li> <li>MANUFACTURER'S OPERATION MANUALS AND MAINTENANCE MANUALS FOR EACH PIECE OF EQUIPMENT REQUIRING MAINTENANCE, EXCEPT EQUIPMENT NOT FURNISHED AS PART OF THE PROJECT. REQUIRED ROUTINE MAINTENANCE ACTIONS SHALL BE CLEARLY IDENTIFIED.</li> <li>NAME AND ADDRESS OF AT LEAST ONE SERVICE AGENCY.</li> <li>HVAC CONTROLS SYSTEM MAINTENANCE AND CALIBRATION INFORMATION, INCLUDING WIRING DIAGRAMS, SCHEMATICS, AND CONTROL SEQUENCE DESCRIPTIONS, DESIRED OR FIELD-DETERMINED SETPOINTS SHALL BE PERMANENTLY RECORDED ON CONTROL DRAWINGS AT CONTROL DEVICES OR, FOR DIGITAL CONTROL SYSTEMS, IN SYSTEM PROGRAMMING INSTRUCTIONS.</li> <li>A NARRATIVE OF HOW EACH SYSTEM IS INTENDED TO OPERATE, INCLUDING RECOMMENDED SETPOINTS.</li> </ol> |

**ABBREVIATIONS**

|           |                                  |
|-----------|----------------------------------|
| AAV/AV    | AIR VENT                         |
| AC        | AIR COMPRESSOR/ AIR CONDITIONER  |
| AD        | AIR CONDENSING UNIT              |
| AFF       | AIR DRIER                        |
| AFG       | ABOVE FINISHED FLOOR             |
| AFS       | ABOVE FINISHED GRADE             |
| AHU       | AIRFLOW STATION                  |
| AP        | AIR HANDLING UNIT                |
| AP        | AIR PURIFIER                     |
| AT        | AIR TANK                         |
| BCU       | BATTERY COOLING UNIT             |
| BFP       | BACK FLOW PREVENTER              |
| BOD       | BOTTOM OF DUCT                   |
| CA        | COMPRESSED AIR                   |
| CHWP      | CHILLED WATER PUMP               |
| CHWR      | CHILLED WATER RETURN             |
| CHWS      | CHILLED WATER SUPPLY             |
| CIRC      | CIRCULATION                      |
| CRAC      | COMPUTER ROOM AIR CONDITIONER    |
| CT        | COOLING TOWER                    |
| CU        | CONDENSING UNIT                  |
| CUH       | CABINET UNIT HEATER              |
| D         | DRAIN                            |
| DCW       | DOMESTIC COLD WATER              |
| DD        | DUAL DUCT TERMINAL BOX           |
| DDC       | DIRECT DIGITAL CONTROLLER        |
| DHW       | DOMESTIC HOT WATER               |
| DTW       | DOMESTIC TEMPERED WATER          |
| (E), (EA) | EXISTING                         |
| EA        | EXHAUST AIR                      |
| EDH       | ELECTRIC DUCT HEATER             |
| EF/EX     | EXHAUST FAN                      |
| EHC       | ELECTRICAL HEATING CABINET       |
| FB        | FILTER BOX                       |
| FC        | FAN COIL                         |
| G         | NATURAL GAS                      |
| HWC       | DOMESTIC HOT WATER RECIRCULATION |
| HWP       | HOT WATER PUMP                   |
| HWR       | HOT WATER RETURN                 |
| HWS       | HOT WATER SUPPLY                 |
| MAU       | MAKEUP AIR UNIT                  |
| MM        | MINIMATE A/C UNIT                |
| MR        | MECHANICAL ROOM                  |
| MVD       | MANUAL VOLUME DAMPER             |
| MZU       | MULTI ZONE UNIT                  |
| NA        | NOT AVAILABLE                    |
| OA        | OUTSIDE AIR                      |
| P         | PUMP                             |
| PENT      | PENTHOUSE                        |
| PWU       | PACKAGED WALL UNIT               |
| RA        | RETURN AIR                       |
| RD        | REFRIGERANT DISCHARGE            |
| RF        | RETURN FAN                       |
| RP        | RADIANT PANEL                    |
| RR        | REST ROOM                        |
| RS        | REFRIGERANT SUCTION              |
| RTU       | ROOF TOP UNIT                    |
| SA        | SUPPLY AIR                       |
| TA        | TRANSFER AIR                     |
| TF        | TOP OF DUCT                      |
| TOD       | UNIT HEATER                      |
| UH        | UNLESS NOTED OTHERWISE           |
| UNO       | UNLESS NOTED OTHERWISE           |
| VAV       | VARIABLE AIR VOLUME              |

**HVAC PIPING LEGEND**

| SYMBOL | ABBR. | DESCRIPTION                   |
|--------|-------|-------------------------------|
|        | HWS   | HOT WATER SUPPLY              |
|        | HWR   | HOT WATER RETURN              |
|        | CHWS  | CHILLED WATER SUPPLY          |
|        | CHWR  | CHILLED WATER RETURN          |
|        | C     | CONDENSER WATER SUPPLY        |
|        | CR    | CONDENSER WATER RETURN        |
|        | D     | CONDENSATE OR EQUIPMENT DRAIN |
|        | RD    | REFRIGERANT DISCHARGE         |
|        | RS    | REFRIGERANT SUCTION           |
|        | G     | NATURAL GAS                   |
|        | CA    | COMPRESSED AIR                |
|        | HPS   | HIGH PRESSURE STEAM           |
|        | HPC   | HIGH PRESSURE CONDENSATE      |
|        | MPS   | MEDIUM PRESSURE STEAM         |
|        | MPC   | MEDIUM PRESSURE CONDENSATE    |
|        | LPS   | LOW PRESSURE STEAM            |
|        | LPC   | LOW PRESSURE CONDENSATE       |
|        |       | EXISTING PIPING               |
|        |       | HATCH DENOTES TO BE REMOVED   |
|        |       | ELBOW DOWN                    |
|        |       | ELBOW UP                      |
|        |       | TEE DOWN                      |
|        |       | TEE UP                        |
|        |       | STRAINER WITH BLOWOFF VALVE   |
|        |       | REDUCER                       |
|        |       | BALL VALVE                    |
|        |       | BUTTERFLY VALVE               |
|        |       | DIAPHRAGM VALVE               |
|        |       | GATE VALVE                    |
|        |       | GLOBE VALVE                   |
|        |       | ANGLE VALVE                   |
|        |       | PLUG VALVE                    |
|        |       | CHECK VALVE                   |
|        | CBV   | CALIBRATED BALANCING VALVE    |
|        |       | SOLENOID ACTUATOR             |
|        |       | MOTOR ACTUATOR                |
|        |       | PNEUMATIC ACTUATOR            |
|        | PRV   | PRESSURE REGULATING VALVE     |
|        | PSV   | PRESSURE RELIEF VALVE         |

**HVAC LEGEND**

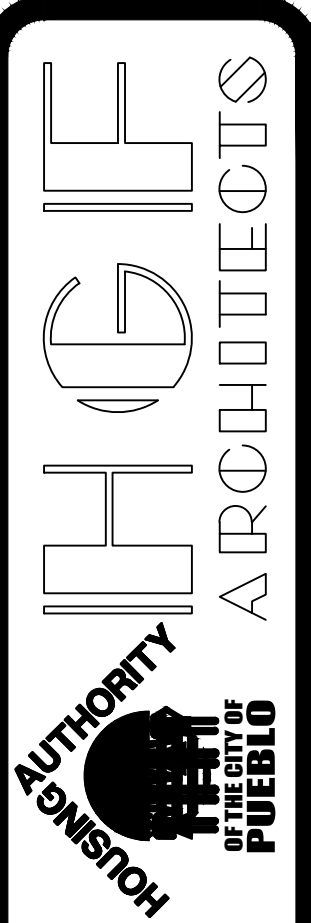
| SYMBOL | DESCRIPTION  |
|--------|--|
|        | SUPPLY DIFFUSER - FOUR WAY THROW, UNLESS NOTED OTHERWISE (UNO), OR SUPPLY (POSITIVE PRESSURE) AIR DUCT         |
|        | SUPPLY DIFFUSER WITH ROUND CONNECTION FOUR WAY THROW, UNLESS NOTED OTHERWISE (UNO)                             |
|        | RETURN GRILLE OR RETURN (NEGATIVE PRESSURE) AIR DUCT   |
|        | RETURN GRILLE WITH ROUND CONNECTION  |
|        | EXHAUST GRILLE   |
|        | DUCT SIZE, FIRST FIGURE IS FOR SIDE SHOWN.   |
|        | TRANSITION, RECTANGULAR  |
|        | TRANSITION, SQUARE-TO-ROUND  |
|        | ELBOW WITH TURNING VANES   |
|        | BRANCH, NO SPLITTER  |
|        | ROUND SPIN-IN WITH MANUAL VOLUME DAMPER (MVD)  |
|        | PARALLEL BLADE DAMPER  |
|        | OPPOSED BLADE DAMPER   |
|        | MOTORIZED DAMPER   |
|        | FIRE DAMPER, FD= FIRE, SD=SMOKE, FSD= FIRE/SMOKE   |
|        | SMOKE DETECTOR   |
|        | FIRE (HEAT) DETECTOR   |
|        | FLEX DUCT TO DIFFUSER  |
|        | PRESSURE SENSOR  |
|        | HUMIDISTAT   |
|        | THERMOSTAT WITH EQUIPMENT CONTROLLED TAG   |
|        | WIRED THERMOSTAT TO EQUIPMENT  |
|        | WIRELESS THERMOSTAT TO EQUIPMENT   |
|        | CABINET EXHAUST FAN  |
|        | ROOF MOUNTED EXHAUST FAN   |
|        | AIR FLOW DIRECTION   |
|        | CONNECT NEW TO EXISTING  |
|        | SUPPLY AIR DEVICE CALLOUT<br>TOP LINE DENOTES CFM BOTTOM LINE DENOTES NECK SIZE - (SEE SCHEDULE)               |
|        | SUPPLY AIR DEVICE CALLOUT WITH QUANTITY<br>TOP LINE DENOTES CFM BOTTOM LINE DENOTES NECK SIZE - (SEE SCHEDULE) |
|        | RETURN AIR GRILLE CALLOUT<br>(SEE SCHEDULE)  |
|        | EQUIPMENT TAG (SEE SCHEDULE)   |
|        | EXISTING   |
|        | NEW  |
|        | RELOCATED  |
|        | SUPPLY AIR   |
|        | RETURN AIR   |
|        | OUTSIDE AIR  |
|        | EXHAUST AIR  |
|        | TRANSFER AIR   |

**MECHANICAL GENERAL NOTES (2015)**

- NOT ALL EXISTING DUCTWORK, PIPING, AND ACCESSORIES ARE NECESSARILY SHOWN ON THIS DRAWING, BUT WHAT IS DEEMED NECESSARY TO SHOW INTENT OF WORK INVOLVED IN THIS PROJECT. REFER TO ALL PLANS, SECTIONS, DETAILS, SCHEDULES, AND SPECIFICATIONS FOR COMPLETE SYSTEM REQUIREMENTS.
- CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO ORDERING, FABRICATION OF MATERIAL, OR PERFORMING ANY NEW WORK. DEVIATIONS FROM CONDITIONS SHOWN IN THESE PLANS SHALL BE REPORTED TO THE PROJECT MANAGER IMMEDIATELY AND NO WORK SHALL BE PERFORMED IN THIS AREA UNTIL A RESOLUTION HAS BEEN ESTABLISHED. SITE CONDITIONS DIFFERING FROM THOSE SHOWN ON THESE PLANS WILL NOT BE GENERALLY CONSIDERED A BASIS FOR CONTRACT MODIFICATION AS THE CONTRACTOR SHALL TAKE INTO ACCOUNT WORST CASE SITE CONDITIONS WHEREVER POSSIBLE.
- COORDINATE ALL PENETRATIONS OF FLOOR, ROOF, WALLS, ETC. WITH GENERAL CONTRACTOR. ALL PENETRATIONS THROUGH FIRE/SMOKE RATED CONSTRUCTION SHALL BE SEALED WITH A FIRE RATED CAULK EQUAL TO OR EXCEEDING THE CONSTRUCTION FIRE RATING.
- ALL NEW MATERIALS IN THE RETURN AIR PLENUM SHALL HAVE A MAXIMUM FLAME SPREAD RATING OF 25 AND A MAXIMUM SMOKE DEVELOPED RATING OF 50 IN ACCORDANCE WITH SECTION 602.2.1 OF THE 2015 INTERNATIONAL MECHANICAL CODE.
- FLEXIBLE AIR DUCTS SHALL CONFORM TO UL181 IN ACCORDANCE WITH SECTION 603.6 OF THE 2015 INTERNATIONAL MECHANICAL CODE. LENGTH OF FLEX DUCT SHALL NOT EXCEED 5 FT.
- ALL MECHANICAL EQUIPMENT SHALL BE LABELED AS TO THE AREA(S) SERVED IN ACCORDANCE WITH SECTION 304.12 OF THE 2015 INTERNATIONAL MECHANICAL CODE.
- PROVIDE ACCESS DOORS OR OTHER MEANS OF APPROVED ACCESS TO ALL FIRE AND FIRE/SMOKE DAMPERS. ACCESS DOORS SHALL BE LABELED ON THE ACCESS DOOR AND ON THE CEILING BELOW.
- PROVIDE AND INSTALL A BALANCING DAMPER AT EACH BRANCH TAKEOFF FOR THE SUPPLY AND EXHAUST AIR SYSTEMS. PROVIDE AND INSTALL A BALANCING DAMPER AT EACH BRANCH TAKEOFF FOR THE RETURN AIR SYSTEM WHERE INDICATED. BALANCING DAMPERS LOCATED ABOVE GYPSUM BOARD OR OTHER INACCESSIBLE CEILINGS SHALL BE INSTALLED WITH A CONCEALED DAMPER REGULATOR AND COVER PLATE, PAINTED TO MATCH CEILING COLOR.
- MOUNT SPACE TEMPERATURE SENSORS, THERMOSTATS, AND REMOTE CONTROL DEVICES WITH CENTERLINE AT 48" ABOVE FINISH FLOOR (AFF) UNLESS OTHERWISE INDICATED.
- PROVIDE BALANCE REPORT TO INSPECTOR AT TIME OF HEATING FINAL IN ACCORDANCE WITH 2015 INTERNATIONAL MECHANICAL CODE. SUBMIT TO ARCHITECT FOR FINAL APPROVAL.
- DUCTWORK SHALL BE SEALED IN ACCORDANCE WITH THE SPECIFICATIONS AND THE 2015 EDITION OF THE INTERNATIONAL MECHANICAL CODE, SECTION 603.9.
- DUCT SIZES SHOWN REPRESENT CLEAR INSIDE DIMENSIONS.
- ALL RECTANGULAR DUCT ELBOWS OR CHANGES IN DIRECTION OF 45 DEGREES OR GREATER, OTHER THAN BRANCH CONNECTIONS, SHALL INCLUDE DOUBLE THICKNESS AIRFOIL SHAPED TURNING VANES.
- UNLESS NOTED OTHERWISE, DIFFUSER/GRILLE/REGISTER NECK SIZE SHOWN ON DRAWINGS INDICATES SIZE OF DUCT TO DIFFUSER/GRILLE/REGISTER.
- COORDINATE FINAL LOCATION OF DUCTWORK, PIPING, DIFFUSERS, ETC. WITH ALL OTHER TRADES BEFORE FABRICATION OR INSTALLATION.
- CONTRACTOR SHALL PROVIDE ALL REQUIRED OFFSETS, TRANSITIONS, AND FITTINGS FOR DUCTWORK AND PIPING FOR COMPLETE SYSTEM.
- UNLESS NOTED OTHERWISE, PROVIDE BELL MOUTH SPIN-IN FITTING WITH A 2" STAND-OFF BRACKET AND LOCKING QUADRANT VOLUME DAMPER FOR ALL DIFFUSER CONNECTIONS.
- COORDINATE LOCATION OF ALL WALL/CEILING MOUNTED DIFFUSERS AND GRILLES WITH ALL TRADES AND GENERAL CONTRACTOR.
- PROVIDE AND INSTALL 1/4" BIRD-SCREEN ON OPENINGS FREELY COMMUNICATING WITH THE OUTDOORS.
- FOR AIR HANDLING EQUIPMENT WITH A CAPACITY OF 2,000 CFM OR GREATER, A SMOKE DETECTOR SHALL BE INSTALLED IN THE RETURN AIR STREAM.
- PROVIDE 115V MAINTENANCE RECEPTACLE WITHIN 25'-0" OF ROOF TOP EQUIPMENT.
- BUILDING EXHAUST AND VENTS SHALL BE INSTALLED A MINIMUM OF 10'-0" FROM VENTILATION INTAKES.

**MECHANICAL SHEET INDEX**

| SHEET | TITLE                                  |
|-------|--|
| M001C | MECHANICAL BUILDING C NOTES AND LEGEND |
| M002C | MECHANICAL BUILDING C SPECIFICATIONS   |
| M111C | MECHANICAL BUILDING C HVAC PLAN        |
| M112C | MECHANICAL BUILDING C HVAC PLAN        |
| M131C | MECHANICAL BUILDING C GAS PLAN         |
| M132C | MECHANICAL BUILDING C GAS PLAN         |
| M500C | MECHANICAL BUILDING C DETAILS          |
| M610C | MECHANICAL BUILDING C SCHEDULES        |



**MOUNTAIN VIEW TOWNHOMES**  
**PROJECT No. IFB. 19-522-RAD**  
**ACERO AVE. and SPRAGUE AVE., PUEBLO, COLORADO**

DATE  
**04-16-2019**  
 DRAWN  
**PLANT**  
 CHECK  
**PL**  
 REVISIONS:



DIVISION 23 - MECHANICAL

SECTION 23 01 00 - BASIC HVAC REQUIREMENTS

- 1.01 GENERAL
A. ALL PROVISIONS OF THE CONTRACT DOCUMENTS APPLY TO THE WORK OF THIS DIVISION.
B. ALL DIVISION 23 SECTIONS ARE SUBJECT TO THE PROVISIONS OF THIS SECTION.
1.02 SUMMARY OF WORK
A. WORK INCLUDED: PROVIDE ALL LABOR, MATERIALS, EQUIPMENT, AND INCIDENTAL ITEMS NECESSARY FOR COMPLETELY FINISHED AND OPERATIONAL MECHANICAL SYSTEMS...
1.03 DEFINITIONS
A. EXPOSED: EXPOSED IN MECHANICAL ROOMS OR ROOMS WITH FINISHED WALLS OR CEILING...
1.04 DIVISION OF RESPONSIBILITY
1.05 PLANS AND SPECIFICATIONS
1.06 CODES AND REGULATIONS
1.07 FEES AND PERMITS
1.08 COORDINATION
1.09 QUALITY ASSURANCE
1.10 PROTECTION
1.11 SUBMITTALS
1.12 RECORD DOCUMENTS
1.13 OPERATING & MAINTENANCE MANUAL

SECTION 23 05 00 - BASIC MATERIALS AND METHODS (cont'd)

- B. STARTERS: STARTERS OR SMALL MOTORS WITHOUT STARTERS SHALL HAVE THERMAL OVERLOAD PROTECTION IN EACH PHASE.
2.02 PIPE SCHEDULE
A. GENERAL: ALL EXTERIOR EXPOSED GAS PIPING SHALL BE PAINTED.
B. NATURAL GAS: STEEL PIPE, ASTM A63 SCH. 40 WITH ASME B16.3 MALLEABLE IRON OR ASTM A234 FORGED STEEL THREADED OR WELDED FITTINGS.
2.03 PIPE HANGERS AND SUPPORTS
A. INSERTS: STEEL CASE AND EXPANDER PLUG FOR THREADED CONNECTION WITH LATERAL ADJUSTMENT...
2.04 SLEEVES, SAFING, AND ESCUTCHEONS
A. SLEEVES:
1. ROUND: STEEL PIPE SIZED LARGE ENOUGH TO ALLOW FOR UNINTERRUPTED INSULATION...
2.05 VALVES
A. ACCEPTABLE MANUFACTURERS: CRANE, HAMMOND, JENKINS, KENNEDY, NIBCO, POWELL, STOCKHAM, GRINNELL.
2.06 UNIONS
A. FERROUS PIPING
1. 2" AND SMALLER: 150# MALLEABLE IRON GROUND JOINT, THREADED ENDS.

- B. DIELECTRIC UNIONS:
1. UNION WITH GALVANIZED OR PLATED STEEL THREADED END, COPPER SOLDER END, WATER IMPERVIOUS ISOLATION BARRIER.
PART 3 - EXECUTION
3.01 MOTORS, STARTERS, AND MISC. ELECTRICAL PROVIDE MOTORS OF MINIMUM HORSEPOWER INDICATED, COMPLETE WITH STARTERS AND ACCESSORIES AS REQUIRED.

SECTION 23 05 00 - BASIC MATERIALS AND METHODS (cont'd)

- 3.02 PIPE HANGERS, SUPPORTS
A. GENERAL: ADEQUATELY SUPPORT PIPING FROM BUILDING STRUCTURE, TO MAINTAIN REQUIRED GRADES...
3.03 SLEEVES, SAFING, AND ESCUTCHEONS
A. MAKE PENETRATIONS THROUGH BUILDING ELEMENTS AS FOLLOWS:
1. NEW CONCRETE: USE INDIVIDUAL SLEEVES CAST IN PLACE...
3.04 VALVES
A. ORIENTATION: INSTALL WITH STEMS UPRIGHT OR HORIZONTAL, NOT INVERTED.
3.05 UNIONS
A. PROVIDE WHERE SHOWN, AT ALL EQUIPMENT AND CONTROL VALVE CONNECTIONS...
3.06 PIPING SPECIALTIES
A. PRESSURE AND TEMPERATURE RELIEF VALVES: PROVIDE WHERE SHOWN AND TO ADEQUATELY PROTECT FIRED AND UNFIRED PRESSURE VESSELS...
3.07 PIPE INSTALLATION
A. LOCATION: ROUTE PIPING GENERALLY AS INDICATED, PARALLEL WITH BUILDING ELEMENTS...
3.08 PIPE TESTING
A. NEW PIPING: TEST ALL PIPING INSTALLED UNDER DIVISION 23...
B. EXISTING PIPING: ISOLATE FROM TEST PRESSURES USING ISOLATING VALVES...

SECTION 23 05 00 - BASIC MATERIALS AND METHODS (cont'd)

- 3.09 FLASHING AND COUNTERFLASHING
3.10 CUTTING AND PATCHING
3.11 ACCESS PANELS
3.12 ITEMS FURNISHED BY OTHERS
END OF SECTION 23 05 00
SECTION 23 07 00 - INSULATION
PART 1 - GENERAL
1.01 WORK INCLUDED
1.02 QUALITY ASSURANCE
PART 2 - PRODUCTS
2.01 PIPE INSULATION - MATERIALS
2.02 DUCT INSULATION - MATERIALS
PART 3 - EXECUTION
3.01 GENERAL
3.02 PIPE INSULATION - INSTALLATION
3.03 DUCT INSULATION - INSTALLATION

SECTION 23 33 00 - AIR DISTRIBUTION

- PART 1 - GENERAL
1.01 WORK INCLUDED
1.02 QUALITY ASSURANCE
1.03 SUBMITTALS
PART 2 - PRODUCTS
2.01 DUCTWORK MATERIALS
2.02 DUCTWORK SPECIALTIES
2.03 GRILLES, REGISTERS, DIFFUSERS
PART 3 - EXECUTION
3.01 LOW VELOCITY DUCTWORK
3.02 DUCTWORK FABRICATION AND INSTALLATION

SECTION 23 05 00 - BASIC MATERIALS AND METHODS

- PART 1 GENERAL
1.01 WORK INCLUDED
PART 2 PRODUCTS
2.01 MOTORS, STARTERS, MISC. ELECTRICAL

- 3.08 PIPE TESTING
A. NEW PIPING: TEST ALL PIPING INSTALLED UNDER DIVISION 23...
B. EXISTING PIPING: ISOLATE FROM TEST PRESSURES USING ISOLATING VALVES...

END OF SECTION 23 07 00

PLANT ENGINEERING CONSULTANTS
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ACERO AVE. AND SPRAGUE AVE, FUEBLO, COLORADO
DATE: 04-16-2019
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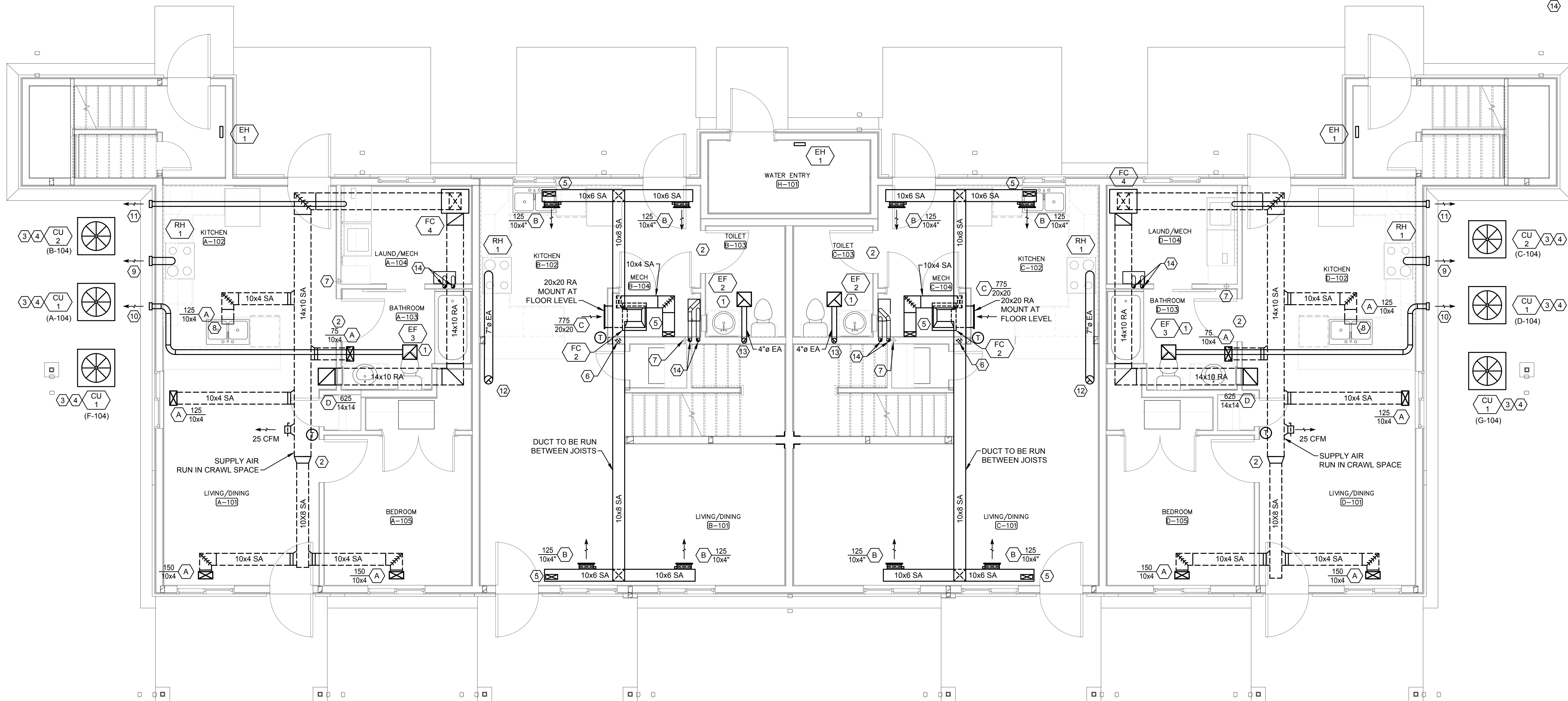


**GENERAL NOTES**

- A. FAN COIL UNIT TO BE SUPPLIED BY MECHANICAL CONTRACTOR. COORDINATE WITH PLUMBING CONTRACTOR FOR PIPING CONNECTIONS. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
- B. FAN COIL UNIT HAS A HYDRONIC HEATING COIL. SEE PIPING DIAGRAM AND PLUMBING DRAWINGS FOR CONNECTION REQUIREMENT TO TANKLESS WATER HEATER.
- C. ALL SA AND RA DUCTWORK TO BE ROUTED HIGH BETWEEN JOISTS WHERE POSSIBLE.
- D. DUCTWORK SHOWN DASHED IS TO BE RUN IN THE CRAWLSPACE
- E. MECHANICAL, ELECTRICAL, AND PLUMBING CONTRACTORS ARE TO COORDINATE ALL SYSTEMS IN WALLS.
- F. COORDINATE ROOF PENETRATIONS WITH OWNER.
- G. CONTRACTOR TO REFER TO SITE PLAN AND ARCHITECTURAL FOR EXACT CONDENSER LOCATIONS.
- H. CONTRACTOR IS TO FIX SUPPLY DAMPERS IN POSITION AFTER TEST AND BALANCE ON SYSTEM IS ACCOMPLISHED.
- I. CONDENSING UNITS ARE REQUIRED TO BE 3 FEET FROM GAS REGULATORS. COORDINATE IN FIELD.

**KEYED NOTES**

- ① INSTALL ALL COMPONENTS ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. COORDINATE WITH ELECTRICAL FOR WALL SWITCH. FAN RUNS CONTINUOUSLY ON LOW, BUT WILL INCREASE TO HIGH WITH SWITCH.
- ② UNDERCUT DOOR BY APPROXIMATELY 1".
- ③ SET THE CONDENSING UNIT ON A 3" LEVEL EQUIPMENT PAD.
- ④ PROVIDE LINE SETS SIZED PER MANUFACTURER'S RECOMMENDATIONS. COVER BOTH LIQUID AND SUCTION LINES WITH CLOSED CELL INSULATION THEN WRAP WITH WATER PROOF COVER. SLEEVE FOUNDATION APPROXIMATELY 9" BELOW GRADE WITH (2) 3" DIAMETER PIPES.
- ⑤ 4x10 SA UP TO 2ND FLOOR
- ⑥ DROP A 4" DUCT INTO THE CRAWL SPACE FOR APPROXIMATELY 25 CFM.
- ⑦ RADON MITIGATION VENT INSTALLED BY OTHERS. COORDINATE WITH OTHER TRADES IN WALL SPACE.
- ⑧ INSTALL 10x4 SA GRILLE IN TOE KICK OF CABINERY
- ⑨ 7" EA FROM RH-1. ROUTE OUT THROUGH THE SIDEWALL AND TERMINATE PER THE MANUFACTURER'S INSTALLATION INSTRUCTIONS
- ⑩ 4" EA FROM EF-1 ROUTED TO THE OUTDOORS THROUGH THE WALL. TERMINATE PER THE MANUFACTURER'S INSTALLATION INSTRUCTIONS
- ⑪ 4" DRYER EXHAUST. LOCATE HIGH THROUGH WALL. CONFIRM IN THE FIELD THAT THE DUCT RUN IS WITHIN THE ALLOWABLE LIMIT FOR THE OWNER SELECTED DRYER. IF NOT, CONTACT THE ENGINEER TO DETERMINE ALTERNATE ROUTING. ROUTE TO THE WALL AND TERMINATE PER THE DRYER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- ⑫ 7" EA UP TO THE 2ND FLOOR
- ⑬ 4" EA UP TO THE 2ND FLOOR
- ⑭ 3" CA & FLUE UP TO 2ND FLOOR. COORDINATE WITH RADON EXHAUST VENT.



**MOUNTAIN VIEW TOWNHOMES**  
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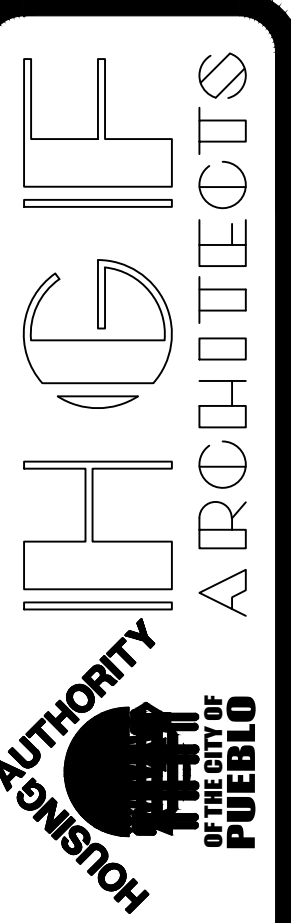
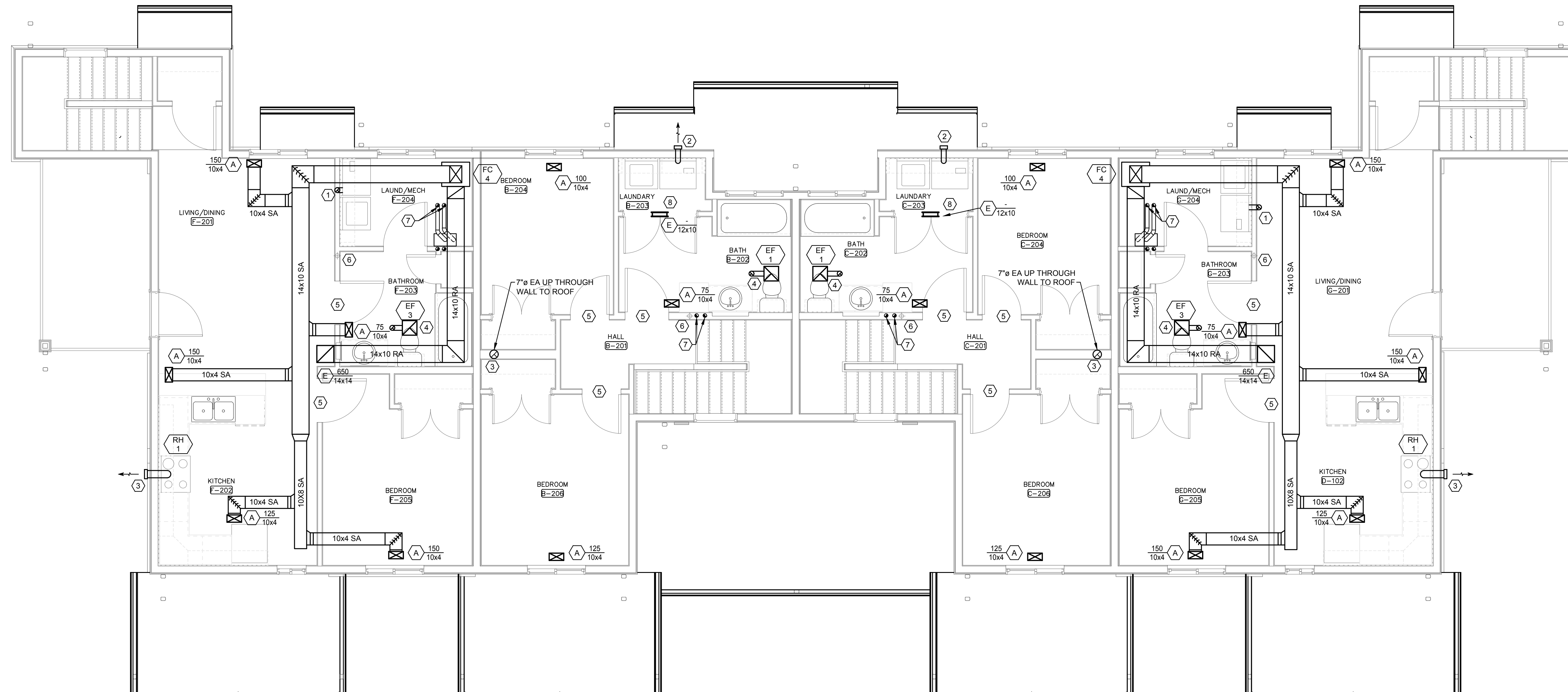


**GENERAL NOTES**

- A. FAN COIL UNIT TO BE SUPPLIED BY MECHANICAL CONTRACTOR. COORDINATE WITH PLUMBING CONTRACTOR FOR PIPING CONNECTIONS. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
- B. FAN COIL UNIT HAS A HYDRONIC HEATING COIL. SEE PIPING DIAGRAM AND PLUMBING DRAWINGS FOR CONNECTION REQUIREMENT TO TANKLESS WATER HEATER.
- C. ALL SA AND RA DUCTWORK TO BE ROUTED HIGH BETWEEN JOISTS WHERE POSSIBLE.
- D. DUCTWORK SHOWN DASHED IS TO BE RUN IN THE CRAWLSPACE TO COORDINATE ALL SYSTEMS IN WALLS.
- E. MECHANICAL, ELECTRICAL, AND PLUMBING CONTRACTORS ARE TO COORDINATE ALL SYSTEMS IN WALLS.
- F. COORDINATE ROOF PENETRATIONS WITH OWNER.
- G. CONTRACTOR IS TO FIX SUPPLY DAMPERS IN POSITION AFTER TEST AND BALANCE ON SYSTEM IS ACCOMPLISHED.

**KEYED NOTES**

- ① 4" DRYER VENT HIGH THROUGH THE ROOF. TERMINATE PER THE DRYER MANUFACTURER'S INSTALLATION INSTRUCTIONS
- ② 4" DRYER VENT THROUGH THE WALL. TERMINATE PER THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- ③ 7" EA FROM RH-1. TERMINATE PER THE HOOD MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- ④ INSTALL ALL COMPONENTS ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. COORDINATE WITH ELECTRICAL FOR WALL SWITCH. FAN RUNS CONTINUOUSLY ON LOW, BUT WILL INCREASE TO HIGH WITH SWITCH.
- ⑤ UNDERCUT DOOR BY APPROXIMATELY 1".
- ⑥ RADON MITIGATION VENT. COORDINATE WITH OTHER TRADES IN WALL SPACE.
- ⑦ 3" CA & FLUE FROM WATER HEAT UP TO ATTIC SPACE. TERMINATE THROUGH ROOF WITH A MANUFACTURER PROVIDED CONCENTRIC VENT KIT.
- ⑧ 12x10" TRANSFER AIR DUCT FOR DRYER. LOCATE HIGH IN WALL ABOVE DOOR. PROVIDE 2 GRILLES.



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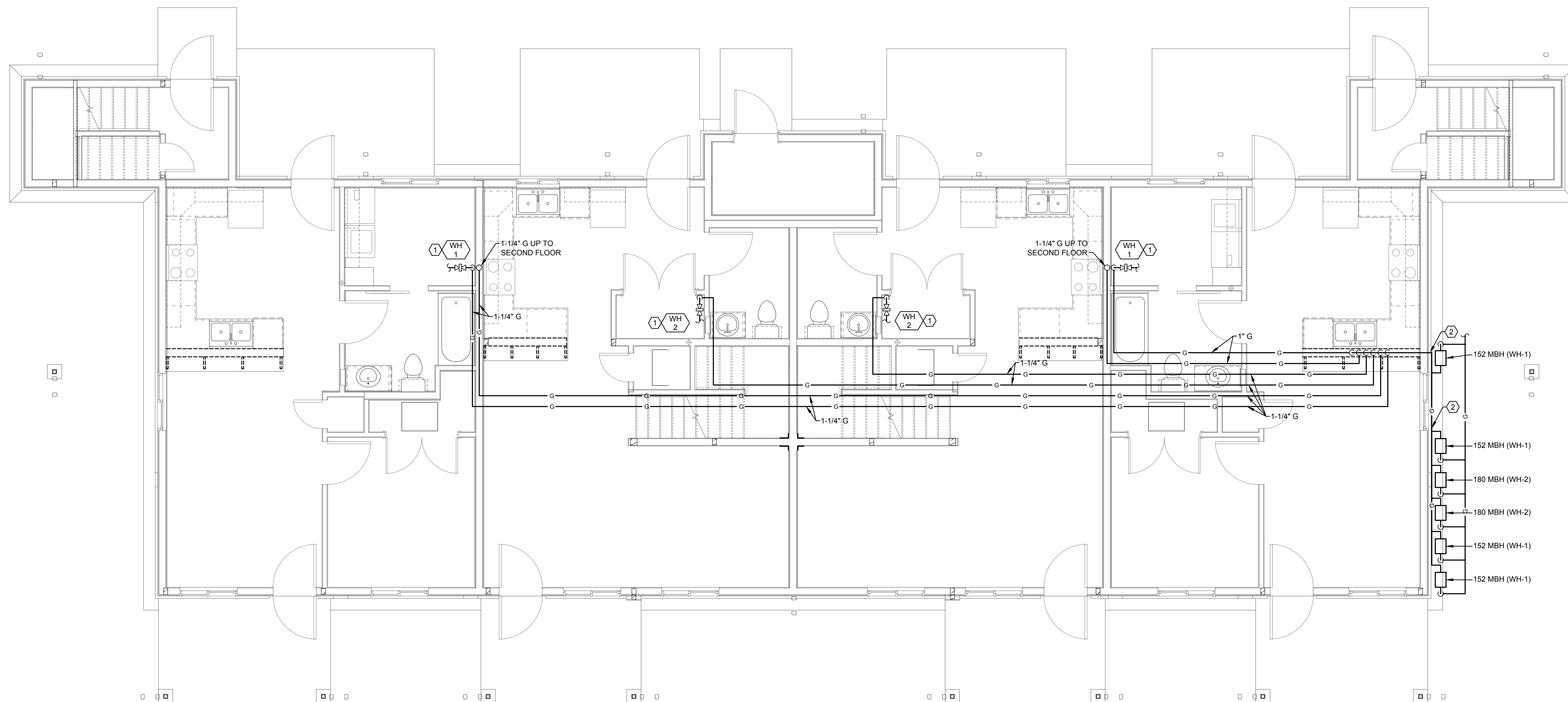


**GENERAL NOTES**

- A. CONTRACTOR TO ADHERE TO 2015 IFGC.
- B. SERVICE TO METERS BY UTILITY CONTRACTOR.
- C. GAS REGULATORS ARE REQUIRED TO BE 3 FEET FROM CONDENSING UNITS. COORDINATE WITH MECHANICAL CONTRACTOR.
- D. REFER TO SITE PLANS FOR BUILDING ORIENTATION AND GAS METER LOCATION. MIRROR GAS PLAN AS NEEDED TO LOCATE GAS METERS ON EITHER SIDE OF BUILDING.
- E. COORDINATE METERS TO NOT BE LOCATED UNDER WINDOWS.

**KEYED NOTES**

- ① SEE DETAIL 4/M500C FOR WATER HEATER GAS CONNECTION DETAIL.
- ② ROUTE GAS PIPING FROM METERS STACKED VERTICALLY ON EXTERIOR WALL. TURN AND PENETRATE PIPING INTO HALF HEIGHT WALL BELOW KITCHEN COUNTERTOP/BAR. ROUTE PIPING DOWN HALF HEIGHT WALL AND INTO CRAWL SPACE. SEE DETAIL 5/M500C



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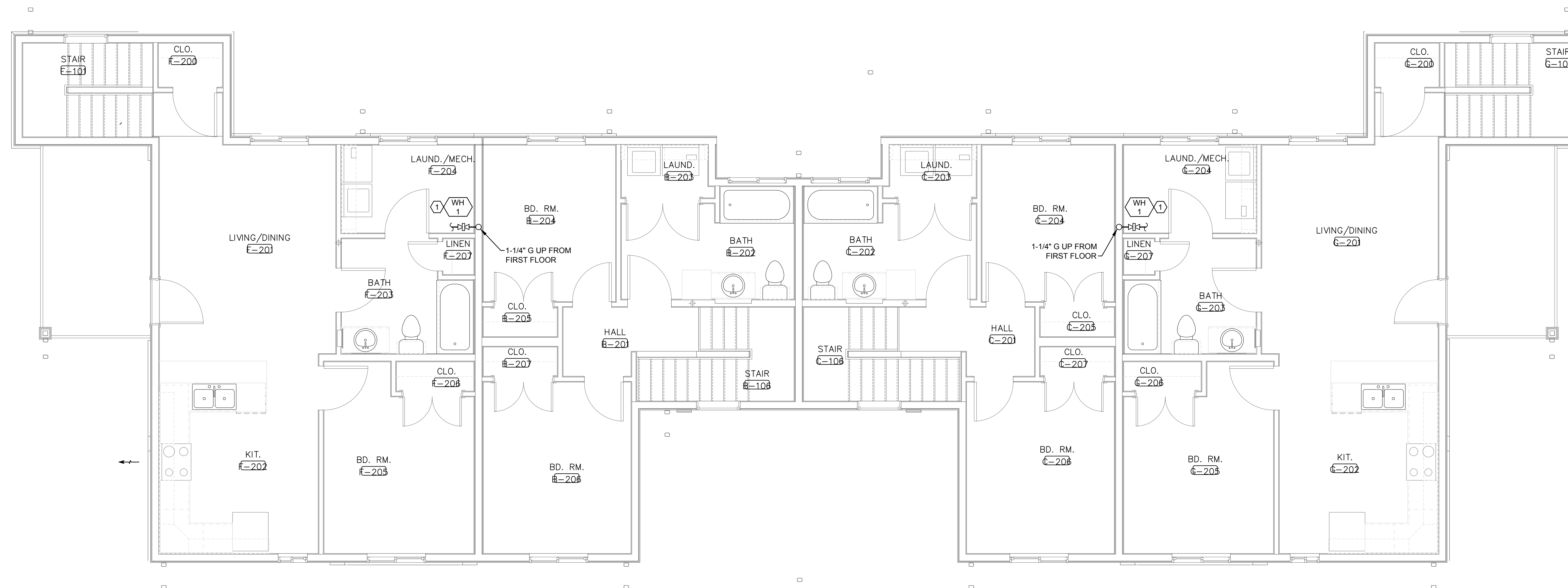


**GENERAL NOTES**

A. CONTRACTOR TO ADHERE TO 2015 IFGC.

**KEYED NOTES**

① SEE DETAIL 4/M500C FOR WATER HEATER GAS CONNECTION DETAIL.









| FAN COIL SCHEDULE |              |           |      |            |                    |     |        |      |            |             |            |         |           |                 |                          |
|-------------------|--------------|-----------|------|------------|--------------------|-----|--------|------|------------|-------------|------------|---------|-----------|-----------------|--------------------------|
| TAG               | MANUFACTURER | MODEL     | CFM  | ESP<br>*WC | HYDRONIC HEAT COIL |     | BLOWER |      | CIRC. PUMP |             | ELECTRICAL |         |           | WEIGHT<br>(LBS) | NOTES                    |
|                   |              |           |      |            | MBH                | GPM | HP     | HP   | RLA        | INLET WATER | MCA        | VOLTS/ø | MAX. FUSE |                 |                          |
| FC-1              | AIRMARK      | GFM 18/19 | 650  | 0.3        | 30.5               | 3.5 | 1/3    | 1/40 | 0.57       | 140         | 4.1        | 115/1   | 15        | 100             | 1,3,4,5,6,7,8,9,10,11    |
| FC-2              | AIRMARK      | GFM 24/25 | 800  | 0.3        | 35.3               | 3.5 | 1/3    | 1/40 | 0.57       | 140         | 4.1        | 115/1   | 15        | 100             | 1,3,4,5,6,7,8,9,10,11    |
| FC-3              | AIRMARK      | GFM 30/31 | 1050 | 0.3        | 39.1               | 3.5 | 1/2    | 1/40 | 0.57       | 140         | 7.4        | 115/1   | 20        | 120             | 1,3,4,5,6,7,8,9,10,11    |
| FC-4              | AIRMARK      | GFM 18/19 | 650  | 0.3        | 30.5               | 3.5 | 1/3    | 1/40 | 0.57       | 140         | 4.1        | 115/1   | 15        | 100             | 2,3,4,5,6,7,8,9,10,11,12 |
| FC-5              | AIRMARK      | GFM 24/25 | 800  | 0.3        | 35.3               | 3.5 | 1/3    | 1/40 | 0.57       | 140         | 4.1        | 115/1   | 15        | 100             | 2,3,4,5,6,7,8,9,10,11,12 |
| FC-6              | AIRMARK      | GFM 30/31 | 1050 | 0.3        | 39.1               | 3.5 | 1/2    | 1/40 | 0.57       | 140         | 7.4        | 115/1   | 20        | 120             | 2,3,4,5,6,7,8,9,10,11,12 |

- NOTES
- UPFLOW CONFIGURATION
  - DOWN FLOW CONFIGURATION
  - DISPOSABLE FILTER
  - EC MOTOR ON BLOWER
  - MICRO-PROCESSOR CIRCUIT BOARD
  - FACTORY MOUNTED 410A COOLING COIL WITH EXPANSION VALVE
  - UNIT SUPPLIED AND SET IN PLACE WITH CONDENSING UNIT BY HVAC CONTRACTOR
  - PROGRAMMABLE THERMOSTAT
  - PLUMBER TO MAKE HYDRONIC PIPING CONNECTIONS PER DETAIL 2/M500
  - PROVIDE WITH 3-ROW HEATING COIL, TACO 006 CIRC. PUMP, CHECK VALVE, AND SCHRADER PORTS
  - INTEGRAL PUMP OPERATES FOR 60 SECONDS EVERY 6 HOURS
  - REARRANGEMENT OF DX COIL REQUIRED.

| GRILLE, REGISTER, AND DIFFUSER SCHEDULE |               |         |   |       |
|---|---------------|---------|---|-------|
| TAG                                     | MANUFACTURER  | MODEL   | DESCRIPTION   | NOTES |
| A                                       | HART & COOLEY | 450/421 | SUPPLY DIFFUSER 2-WAY DEFLECTION, STEEL CONSTRUCTION, FLOOR MOUNT               | 1,2,3 |
| B                                       | PRICE         | 510D    | SUPPLY DIFFUSER, STEEL, SIDEWALL  | 2,3,4 |
| C                                       | HART & COOLEY | 650     | RETURN GRILLE, 35° DEFLECTION, 1/2" SPACING, STEEL CONSTRUCTION, SIDEWALL MOUNT | 1,3   |
| D                                       | PRICE         | LBPB    | 14x14 FLOOR GRILLE  | 4     |
| E                                       | PRICE         | 530     | LOUVERED GRILLE   | 4     |

- NOTES
- STANDARD FACTORY BROWN FINISH
  - VOLUME DAMPER
  - SEE DRAWING FOR NECK SIZE AND AIR QUANTITY
  - COORDINATE FINISH WITH ARCHITECT

| RANGE HOOD SCHEDULE |              |       |            |     |       |         |     |           |  |
|---------------------|--------------|-------|------------|-----|-------|---------|-----|-----------|--|
| TAG                 | MANUFACTURER | MODEL | TYPE       | CFM | SONES | VOLTS/ø | MCA | NOTES     |  |
| RH-1                | BROAN        | 42300 | 7"ø VENTED | 190 | 60    | 120/1   | 2.5 | 1,2,3,4,5 |  |

- NOTES
- INCLUDES BACKDRAFT DAMPER
  - 30" WIDTH
  - 75 WATT LIGHT
  - 2-SPEED
  - OWNER TO CHOOSE COLOR

| CONDENSING UNIT AND DX COOLING COIL SCHEDULE |              |              |                 |            |      |     |                 |        |                 |
|--|--------------|--------------|-----------------|------------|------|-----|-----------------|--------|-----------------|
| TAG  | MANUFACTURER | CU<br>MODEL  | NOMINAL<br>TONS | ELECTRICAL |      |     | WEIGHT<br>(LBS) | SERVES | NOTES           |
|  |              |              |                 | VOLTS/ø    | MCA  | MOP |                 |        |                 |
| CU-1   | CARRIER      | 24ANB618A003 | 1.5             | 230/1      | 11.7 | 20  | 184             | FC-1.4 | 1,2,3,4,5,6,7,8 |
| CU-2   | CARRIER      | 24ANB624A003 | 2               | 230/1      | 17.5 | 25  | 186             | FC-2.5 | 1,2,3,4,5,6,7,8 |
| CU-3   | CARRIER      | 24ANB630A003 | 2.5             | 230/1      | 18   | 25  | 193             | FC-3.6 | 1,2,3,4,5,6,7,8 |

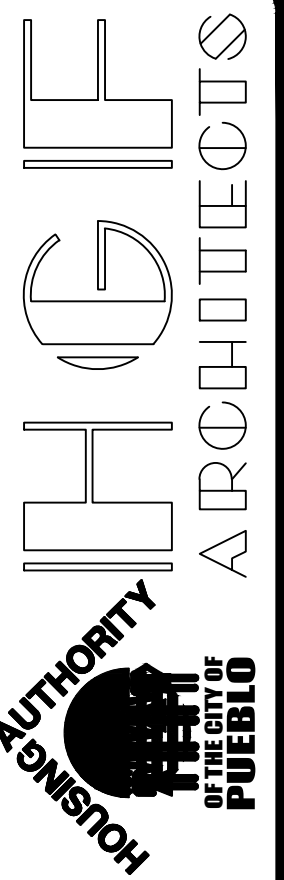
- NOTES
- PROVIDE REFRIGERATION PIPING ACCORDING TO MANUFACTURERS RECOMMENDATIONS.
  - SCROLL COMPRESSOR
  - 16 SEER
  - R-410A REFRIGERANT
  - CURVED LOUVER PANELS.
  - LIQUID LINE 3/8", SUCTION LINE 3/4"
  - CC IS INTEGRAL TO FAN COIL
  - CONTRACTOR TO PROVIDE MANUF. RECOMMENDED PAD. CONDENSER PAD IS NOT TO BE SET TILL FINAL GRADE IS SET

| ELECTRIC HEATER SCHEDULE |              |            |     |      |         |           |
|--------------------------|--------------|------------|-----|------|---------|-----------|
| TAG                      | MANUFACTURER | MODEL      | KW  | BTU  | VOLTS/ø | NOTES     |
| EH-1                     | RAYWALL      | E3323TD-RP | 1.5 | 5120 | 120/1   | 1,2,3,4,5 |

- NOTES
- INTEGRAL THERMOSTAT
  - SEMI-RECESSED MOUNT
  - DISCONNECT SWITCH
  - MOUNT 12" A.F.F
  - HEAVY DUTY GRILLE

| EXHAUST FAN SCHEDULE |              |              |             |         |         |        |       |       |         |           |
|----------------------|--------------|--------------|-------------|---------|---------|--------|-------|-------|---------|-----------|
| TAG                  | MANUFACTURER | MODEL        | CFM MIN/MAX | ESP *WC | TYPE    | DRIVE  | SONES | WATTS | VOLTS/ø | NOTES     |
| EF-1                 | PANASONIC    | FV-05-11VK2  | 50          | 0.25    | CEILING | DIRECT | 0.5   | 25    | 120/1   | 1,2,3,5   |
| EF-2                 | PANASONIC    | FV-05-11VKS2 | 30          | 0.25    | CEILING | DIRECT | 0.5   | 25    | 120/1   | 1,2,3,6   |
| EF-3                 | PANASONIC    | FV-05-11VKS2 | 30/80       | 0.25    | CEILING | DIRECT | 0.5   | 25    | 120/1   | 1,2,3,4,7 |

- NOTES
- INCLUDES WHITE PLASTIC GRILLE
  - MEETS ENERGY STAR RATINGS AND ASHRAE STD 62.2
  - BACKDRAFT DAMPER
  - INCLUDE GRILLE MOUNTED OCCUPANCY SENSOR TO CONTROL FAN
  - SWITCH WITH LIGHT SWITCH
  - SET FAN TO OPERATE CONTINUOUSLY AT 30CFM
  - SET FAN TO OPERATE CONTINUOUSLY AT 30 CFM UNOCCUPIED AND 80 WHEN OCCUPIED



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## FIRE PROTECTION GENERAL NOTES

- A. FIRE PROTECTION CONTRACTOR SHALL PROVIDE A NEW HYDRAULICALLY CALCULATED FIRE SPRINKLER SYSTEM IN ACCORDANCE WITH THE LATEST EDITIONS OF UBC, UFC, AND NFPA-13R. COVERAGE WILL INCLUDE LIVING SPACES, MECHANICAL SPACES, AND ATTIC SPACES.
- B. FIRE PROTECTION CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN OF THE SYSTEM AND SHALL FURNISH TO THE ARCHITECT ALL DESIGN CALCULATIONS, SHOP DRAWINGS OF THE SYSTEM, AND CATALOG DATA OF ALL EQUIPMENT AS PART OF REQUIRED SUBMITTAL DATA IN SPECIFICATIONS.
- C. SHOP DRAWINGS SHALL INDICATE THE LOCATION OF ALL SPRINKLER HEAD AND PIPING COORDINATED WITH THE LOCATION OF ALL STRUCTURAL MEMBERS, HVAC EQUIPMENT, LIGHT FIXTURES, CEILING DIFFUSERS, REGISTERS AND PIPING.
- D. THE LAYOUT DESIGN, SUPERVISION, AND INSTALLATION OF FIRE PROTECTION SYSTEMS IS A TRADE IN ITSELF AND SHALL BE PERFORMED ONLY BY FULLY SKILLED, EXPERIENCED, AND RESPONSIBLE PARTIES. THE PROSPECTIVE FIRE PROTECTION CONTRACTOR MAY BE REQUIRED TO SHOW, TO THE SATISFACTION OF THE ARCHITECT, SUCH SKILL, EXPERIENCE, AND RESPONSIBILITY.
- E. THE FIRE PROTECTION CONTRACTOR SHALL PERFORM WORK IN STRICT COMPLIANCE WITH THESE SPECIFICATIONS AND DRAWINGS, THE REQUIREMENTS OF THE STATE CERTIFIED SUPPRESSION INSPECTOR, AND ALL APPLICABLE CODES, ORDINANCES, STANDARDS, AND STATUTES IN EFFECT AT THE BUILDING SITE.
  1. NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) STANDARD 13.
  2. UNDERWRITERS' LABORATORIES, INC. (UL), FIRE PROTECTION EQUIPMENT LIST.
  3. CITY OF PUEBLO FIRE AUTHORITY.
- F. ADHERE TO THE MOST RECENT EDITION OF THE FOLLOWING PUBLICATIONS: TOGETHER WITH THE LATEST REVISIONS, SUPPLEMENTS, AND AMENDMENTS THERETO:
  1. NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) STANDARD 13.
  2. UNDERWRITERS' LABORATORIES, INC. (UL), FIRE PROTECTION EQUIPMENT LIST.
  3. CITY OF PUEBLO FIRE AUTHORITY.
- G. THE FIRE PROTECTION CONTRACTOR SHALL OBTAIN AND PAY FOR ALL NECESSARY PERMITS PRIOR TO STARTING WORK. OBTAIN CERTIFICATES, APPROVALS, AND/OR ACCEPTANCES OF ALL INTERESTED PARTIES AND AUTHORITIES HAVING JURISDICTION.
- H. PIPING TO BE IRON, STEEL, OR CPVC, IN WEIGHTS AND GAUGES APPROVED BY NFPA 13 FOR USE IN FIRE PROTECTION SYSTEMS. FITTINGS SHALL BE APPROVED FOR USE WITH THE INSTALLED SPRINKLER PIPING, WITH A MINIMUM WORKING PRESSURE OF 175 PSI.
- I. NOTIFY OWNER, ARCHITECT, AND ALL AUTHORITIES HAVING JURISDICTION, NOT LESS THAN SEVENTY-TWO (72) HOURS PRIOR TO FINAL TESTING. DO NOT PERMIT INTERIOR PIPING TO BE CONCEALED IN ANY WAY UNTIL ALL HYDROSTATIC AND OTHER TESTS AND INSPECTIONS HAVE BEEN SATISFACTORILY COMPLETED. CONDUCT ALL TESTS IN ACCORDANCE WITH NFPA STANDARDS AND ALL APPLICABLE CODES AND ORDINANCES. PROVIDE ALL NECESSARY PERSONNEL, CORRECT ALL DEFECTS, DEFICIENCIES, REPAIR ALL LEAKS AND RE-TEST AS REQUIRED.
- J. REFER TO DRAWING P500# FOR WATER ENTRY DETAIL AND P111# FOR THE LOCATION OF THE WATER ENTRY ROOM. REFER TO WATER ENTRY DETAIL FOR SOLENOID THAT SHUTS OFF DOMESTIC SUPPLY IN THE EVENT OF A FIRE WATER EVENT. SOLENOID SHALL BE PIPED BY PLUMBING CONTRACTOR AND WIRED BY THE ELECTRICAL CONTRACTOR. GENERAL CONTRACTOR SHALL CONFIRM RESPONSIBILITY OF WORK TO GET SOLENOID WIRED AND WORKING. SOLENOID VALVE SHALL BE A 24VDC POWERED SOLENOID.

## ABBREVIATIONS

|         |                                  |
|---------|----------------------------------|
| AAVAV   | AIR VENT                         |
| AC      | AIR COMPRESSOR/ AIR CONDITIONER  |
| ACU     | AIR CONDENSING UNIT              |
| AD      | AIR DRIER                        |
| AFF     | ABOVE FINISHED FLOOR             |
| AFG     | ABOVE FINISHED GRADE             |
| AFS     | AIRFLOW STATION                  |
| AHU     | AIR HANDLING UNIT                |
| AP      | AIR PURIFIER                     |
| AT      | AIR TANK                         |
| BCU     | BATTERY COOLING UNIT             |
| BFP     | BACK FLOW PREVENTER              |
| BOD     | BOTTOM OF DUCT                   |
| CA      | COMPRESSED AIR                   |
| CHWP    | CHILLED WATER PUMP               |
| CHWR    | CHILLED WATER RETURN             |
| CHWS    | CHILLED WATER SUPPLY             |
| CIRC    | CIRCULATION                      |
| CRAC    | COMPUTER ROOM AIR CONDITIONER    |
| CT      | COOLING TOWER                    |
| CU      | CONDENSING UNIT                  |
| CUH     | CABINET UNIT HEATER              |
| D       | DRAIN                            |
| DCW     | DOMESTIC COLD WATER              |
| DD      | DUAL DUCT TERMINAL BOX           |
| DDC     | DIRECT DIGITAL CONTROLLER        |
| DHW     | DOMESTIC HOT WATER               |
| DTW     | DOMESTIC TEMPERED WATER          |
| (E), EX | EXISTING                         |
| EA      | EXHAUST AIR                      |
| EDH     | ELECTRIC DUCT HEATER             |
| EF/EX   | EXHAUST FAN                      |
| EHC     | ELECTRICAL HEATING CABINET       |
| FB      | FILTER BOX                       |
| FC      | FAN COIL                         |
| G       | NATURAL GAS                      |
| HWC     | DOMESTIC HOT WATER RECIRCULATION |
| HWP     | HOT WATER PUMP                   |
| HWR     | HOT WATER RETURN                 |
| HWS     | HOT WATER SUPPLY                 |
| MAU     | MAKEUP AIR UNIT                  |
| MM      | MINIMATE A/C UNIT                |
| MR      | MECHANICAL ROOM                  |
| MVD     | MANUAL VOLUME DAMPER             |
| MZU     | MULTI ZONE UNIT                  |
| NA      | NOT AVAILABLE                    |
| OA      | OUTSIDE AIR                      |
| P       | PUMP                             |
| PENT    | PENTHOUSE                        |
| PWU     | PACKAGED WALL UNIT               |
| RA      | RETURN AIR                       |
| RD      | REFRIGERANT DISCHARGE            |
| RF      | RETURN FAN                       |
| RP      | RADIANT PANEL                    |
| RR      | REST ROOM                        |
| RS      | REFRIGERANT SUCTION              |
| RTU     | ROOF TOP UNIT                    |
| SA      | SUPPLY AIR                       |
| TA      | TRANSFER AIR                     |
| TF      | TRANSFER FAN                     |
| TOD     | TOP OF DUCT                      |
| UH      | UNIT HEATER                      |
| UNO     | UNLESS NOTED OTHERWISE           |
| VAV     | VARIABLE AIR VOLUME              |

## PLUMBING LEGEND

| SYMBOL | ABBR. | DESCRIPTION                                   |
|--------|-------|---|
|        | SAN   | SOIL, WASTE, OR SANITARY ABOVE GRADE OR FLOOR |
|        | SAN   | SOIL, WASTE, OR SANITARY BELOW GRADE OR FLOOR |
|        | SD    | STORM DRAIN                                   |
|        | GW    | GREASE WASTE                                  |
|        | V     | VENT  |
|        | CW    | COLD WATER                                    |
|        | HW    | HOT WATER (110°F)                             |
|        | HWC   | HOT WATER CIRCULATING                         |
|        | TW    | TEMPERED WATER (110°F)                        |
|        | G     | NATURAL GAS                                   |
|        |       | EXISTING PIPING                               |
|        |       | HATCH DENOTES TO BE REMOVED                   |
|        |       | ELBOW DOWN                                    |
|        |       | ELBOW UP                                      |
|        |       | TEE DOWN                                      |
|        |       | TEE UP  |
|        |       | VALVE IN RISER                                |
|        |       | UNION   |
|        |       | STRAINER WITH BLOWOFF VALVE                   |
|        |       | REDUCER                                       |
|        |       | BALL VALVE                                    |
|        |       | BUTTERFLY VALVE                               |
|        |       | GATE VALVE                                    |
|        |       | GLOBE VALVE                                   |
|        |       | ANGLE VALVE                                   |
|        |       | PLUG VALVE                                    |
|        |       | CHECK VALVE                                   |
|        | CBV   | CALIBRATED BALANCING VALVE                    |
|        | PRV   | PRESSURE REGULATING VALVE                     |
|        | PSV   | PRESSURE RELIEF VALVE                         |
|        | DCBFP | BACKFLOW PREVENTER, DOUBLE CHECK              |
|        | RPBFP | BACKFLOW PREVENTER, REDUCED PRESSURE          |
|        | WHA   | WATER HAMMER ARRESTER                         |
|        | FD    | FLOOR DRAIN                                   |
|        | FS    | FLOOR SINK                                    |
|        | FCO   | FLOOR CLEANOUT                                |
|        | FDC   | FIRE DEPARTMENT CONNECTION                    |
|        | WCO   | WALL CLEANOUT                                 |
|        | HB    | HOSE BIBB                                     |
|        |       | FLOOR OR WALL PENETRATION (ISOMETRIC)         |
|        |       | CONNECT NEW TO EXISTING                       |
|        |       | FIXTURE OR EQUIPMENT CALLOUT (SEE SCHEDULE)   |
|        | (E)   | EXISTING                                      |
|        | (N)   | NEW   |
|        | (R)   | RELOCATED                                     |

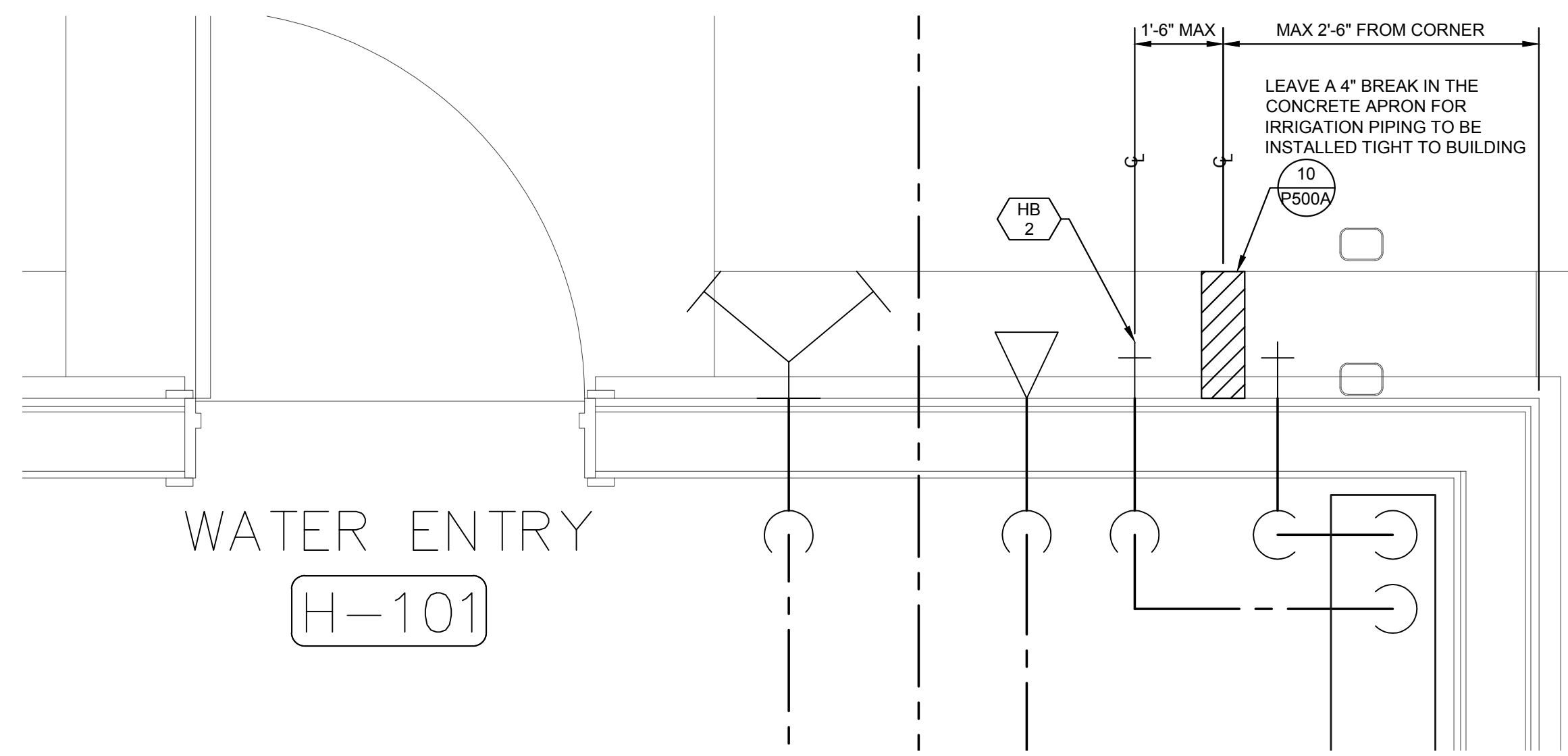
## PLUMBING GENERAL NOTES (2015)

- A. ALL PLUMBING SHALL BE INSTALLED IN ACCORDANCE WITH 2015 INTERNATIONAL PLUMBING CODE (INCLUDE FOR LOCAL) AND PPRBD AMENDMENTS.
- B. NOT ALL EXISTING PIPING, AND ACCESSORIES ARE NECESSARILY SHOWN ON THIS DRAWING, BUT WHAT IS DEEMED NECESSARY TO SHOW INTENT OF WORK INVOLVED IN THIS PROJECT. REFER TO ALL PLANS, SECTIONS, DETAILS, SCHEDULES AND SPECIFICATIONS FOR COMPLETE SYSTEM REQUIREMENTS.
- C. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO ORDERING OR FABRICATION OF MATERIAL OR PERFORMING ANY NEW WORK. DEVIATIONS FROM CONDITIONS SHOWN IN THESE PLANS SHALL BE REPORTED TO THE PROJECT MANAGER IMMEDIATELY AND NO WORK SHALL BE PERFORMED IN THIS AREA UNTIL A RESOLUTION HAS BEEN ESTABLISHED. SITE CONDITIONS DIFFERING FROM THOSE SHOWN ON THESE PLANS WILL NOT BE GENERALLY CONSIDERED A BASIS FOR CONTRACT MODIFICATION AS THE CONTRACTOR SHALL TAKE INTO ACCOUNT WORST CASE SITE CONDITIONS WHEREVER POSSIBLE.
- D. COORDINATE ALL PENETRATIONS OF FLOOR, ROOF, WALLS, ETC. WITH GENERAL CONTRACTOR. ALL PENETRATIONS THROUGH FIRE/SMOKE RATED CONSTRUCTION SHALL BE SEALED IN ACCORDANCE WITH SECTION 717 OF THE 2015 INTERNATIONAL BUILDING CODE. ALL PIPING PENETRATIONS THROUGH FLOORS SHALL BE SEALED WATER TIGHT BY GROUTING PERIMETER GAP BETWEEN PIPE AND FLOOR STRUCTURE, OR BY USING APPROVE UL SLEEVE AND SEALER SYSTEM. PENETRATIONS OF RATED WALLS SHALL USE SLEEVE WITH UL APPROVED FIRE SEALANT. SEAL ROOF PENETRATIONS WATERTIGHT WITH ROOF SYSTEM COMPATIBLE WITH ROOFING.
- E. MOUNT HANDICAPPED FIXTURES AT HEIGHTS ABOVE THE FINISHED FLOOR AS DIRECTED BY AMERICANS WITH DISABILITIES ACT AND STATE BUILDING CODES, INCLUDE OFFSET TAILPIECE AND TRUBRO LAV-GUARD INSULATION KIT.
- F. INSULATE ALL HOT AND COLD WATER TO FIXTURES IN ACCORDANCE WITH 2015 INTERNATIONAL ENERGY CODE. REFER TO PROJECT SPECIFICATIONS FOR ADDITIONAL INSULATION REQUIREMENTS.
- G. FURNISH AND INSTALL INDIVIDUAL STOPS (SHUT-OFF VALVES) FOR EACH PLUMBING FIXTURE.
- H. PROVIDE ACCESS DOORS OR OTHER MEANS OF APPROVED ACCESS TO ALL ISOLATION VALVES, TRAP PRIMERS, AND WATER HAMMER ARRESTORS.
- I. COLD WATER PIPING LOCATED IN CRAWL SPACE TYPE L HARD DRAWN COPPER TUBING CONFORMING TO ASTM B-88 WITH SWEAT JOINTS AND CAST OR WROUGHT FITTINGS. JOINTS SHALL BE MADE WITH LEAD FREE SOLDER. WATER PIPING PENETRATIONS SHALL BE PROTECTED WITH PLASTIC SLEEVES. ALL DISTRIBUTION PIPING LOCATED WITHIN INDIVIDUAL UNITS SHALL BE CROSS LINKED PEX PIPING WITH SPECIFIC MANUFACTURER FITTINGS.
- J. SANITARY PIPING SHALL BE SCHEDULE 40 DWV PVC WITH SOLVENT JOINTS. ALL SANITARY PIPING SHALL BE SLOPED AT 1/4" PER FOOT MINIMUM. PVC PIPING SHALL NOT BE USED IN RETURN AIR PLENUM.
- K. FIELD VERIFY ACTUAL LOCATIONS OF EXISTING PIPING FOR NEW TIE-INS. FIELD VERIFY AND COORDINATE WITH CIVIL ENGINEERING DRAWINGS FOR LOCATION AND INVERT ELEVATION OF EXISTING SANITARY AND WATER PIPING.
- L. FURNISH AND INSTALL ALL REQUIRED COMPONENTS INCLUDING TRAPS, TAIL-PIECES, CARRIERS AND SUPPORTS. PROVIDE ALL FLOOR DRAINS AND FLOOR SINKS WITH TRAP GUARDS.
- M. PLUMBING CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND PAY ALL FEES RELATED TO PROJECT.
- N. COORDINATE FINAL LOCATION OF PIPING WITH ALL OTHER TRADES BEFORE FABRICATION OR INSTALLATION.
- O. INSULATE DOMESTIC WATER LINES IN ACCORDANCE WITH 2015 IECC.
- P. ALL SANITARY LINES SHALL BE VENTED IN ACCORDANCE WITH 2015 INTERNATIONAL PLUMBING CODE.
- Q. IN ACCORDANCE WITH 2015 INTERNATIONAL PLUMBING CODE SECTION 603.1, BUILDING SUPPLY PIPING LESS THAN 3/4" NOT ALLOWED. MINIMUM SIZES OF WATER SUPPLY PIPES TO FIXTURES SHALL BE PER 2015 IPC TABLE 604.5.
- R. ALL HOSE BIBBS AND WALL HYDRANTS SHALL BE EQUIPPED WITH APPROVED AND PROPERLY INSTALLED ATMOSPHERIC TYPE VACUUM BREAKER.
- S. ALL VENTS THROUGH ROOF SHALL BE MINIMUM OF THREE FEET VERTICALLY AND TEN FEET HORIZONTALLY FROM AIR CONDITIONING EQUIPMENT FRESH AIR INTAKES, WINDOW, DOOR OR OTHER OPENINGS.
- T. SEPARATE 8-1/2"x11" SPECIFICATIONS FORM A PART OF THESE DOCUMENTS.
- U. TRENCHES INSTALLED PARALLEL TO FOOTINGS SHALL NOT EXTEND BELOW THE 45° BEARING PLANE OF THE FOOTING WALL.
- V. SEE ARCHITECTURAL DRAWINGS FOR EXACT PLUMBING FIXTURE LOCATIONS AND QUANTITIES.
- W. CLEANOUTS SHALL BE INSTALLED PER 2015 INTERNATIONAL PLUMBING CODE.
- X. CONTRACTOR SHALL KEEP HIS WORK, AND ADJACENT AREAS AFFECTED, FREE AND CLEAR FROM ALL DEBRIS CAUSED BY THE WORK OF THIS SECTION. DURING AND UPON COMPLETION OF WORK HEREIN SPECIFIED, REMOVE FROM BUILDING AND SITE ALL DEBRIS, UNUSED MATERIALS, AND EQUIPMENT CAUSED BY WORK OF THIS SECTION AND LEAVE WORK IN A CLEAN, ACCEPTABLE CONDITION.
- Y. ALL FLAT VENTS SHALL HAVE CLEANOUTS PER 2015 INTERNATIONAL PLUMBING CODE.
- Z. ALL FLOOR SINKS, FLOOR DRAINS, AND FUNNEL DRAINS RECEIVING THE DISCHARGE OF INDIRECT WASTE PIPES SHALL BE LOCATED WHERE THEY ARE READILY ACCESSIBLE.

## PLUMBING SHEET INDEX

| SHEET                    | TITLE  |
|--------------------------|--|
| PLUMBING BUILDING TYPE C |  |
| P001C                    | PLUMBING NOTES AND LEGEND                      |
| P111C                    | PLUMBING BUILDING C WATER PLAN FIRST FLOOR     |
| P112C                    | PLUMBING BUILDING C WATER PLAN SECOND FLOOR    |
| P121C                    | PLUMBING BUILDING C SANITARY PLAN FIRST FLOOR  |
| P122C                    | PLUMBING BUILDING C SANITARY PLAN SECOND FLOOR |
| P500C                    | PLUMBING BUILDING C DETAILS                    |
| P610C                    | PLUMBING BUILDING C SCHEDULES                  |

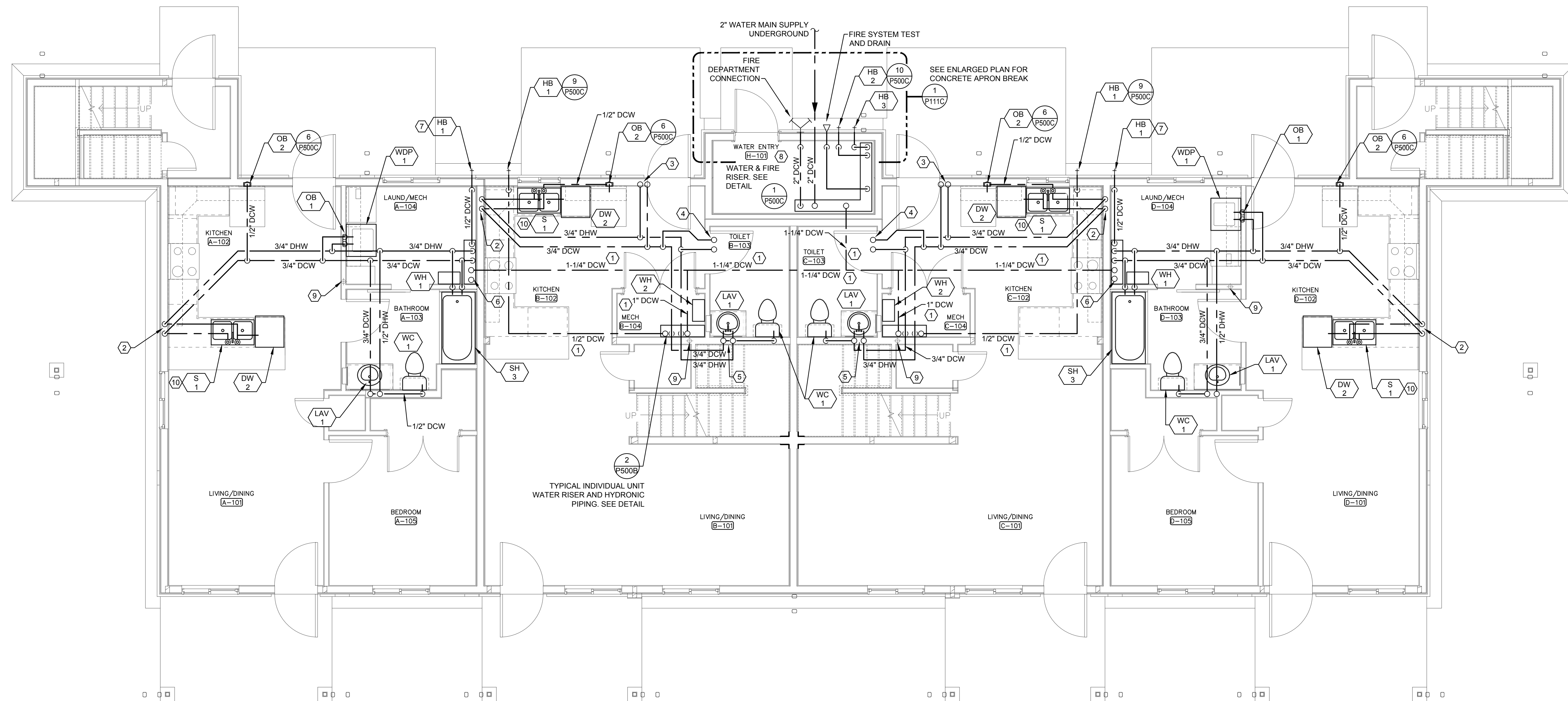




**1 WATER ENTRY ROOM ENLARGED PLAN**  
SCALE: 1" = 1'-0"

**KEYED NOTES**

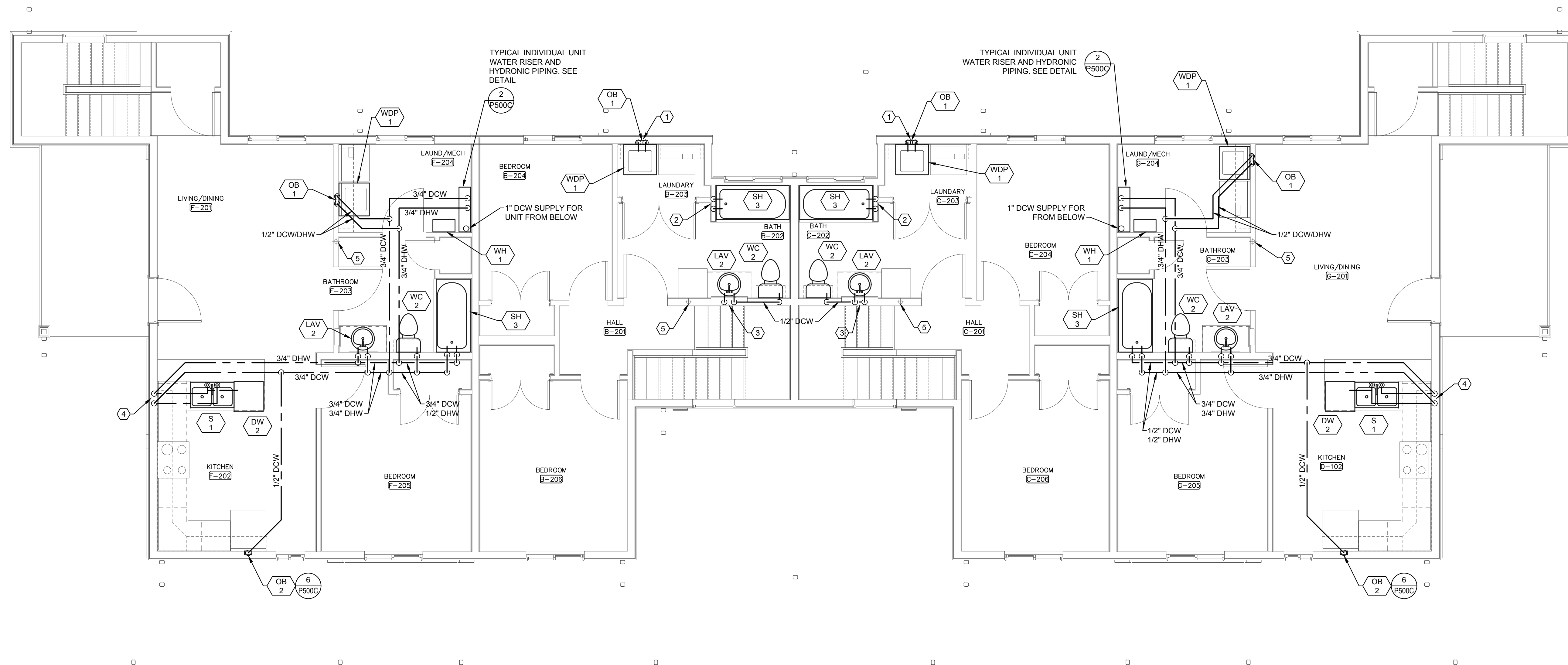
- ① PIPE IS ROUTED IN CRAWL SPACE. ROUTE PIPE HIGH AND TIGHT IN CRAWL SPACE AND SUPPORT PIPE FROM CRAWL SPACE CEILING. DOMESTIC WATER SUPPLY PIPE IN CRAWL SPACE SHALL BE COPPER TYPE L PIPE MATERIAL.
- ② 3/4" DCWDHW PIPING ROUTED DOWN INTERIOR WALL AND UNDER KITCHEN CASEWORK TO SUPPLY SINK, DISHWASHER, AND REFRIGERATOR OUTLET BOX FIXTURES.
- ③ 1/2" DCWDHW SUPPLY UP TO OUTLET BOX FIXTURE. ROUTE PIPE IN CEILING AND UP INTO SECOND FLOOR WALL. SEE CONTINUATION ON SECOND FLOOR PLAN.
- ④ 1/2" DCWDHW SUPPLY UP TO SHOWER FIXTURE. ROUTE PIPE IN CEILING AND UP INTO SECOND FLOOR WALL. SEE CONTINUATION ON SECOND FLOOR PLAN.
- ⑤ 3/4" DCWDHW SUPPLY UP TO SECOND FLOOR BATHROOM (WATER CLOSET AND LAVATORY FIXTURE). ROUTE PIPE UP IN WALL INTO SECOND FLOOR WALL. SEE CONTINUATION ON SECOND FLOOR PLAN.
- ⑥ THE WATER RISER ON THE FIRST FLOOR SHALL PROVIDE A 1" DCW SUPPLY TO SECOND FLOOR UNIT WATER RISER. SEE NOTE IN DETAIL 2 ON SHEET P500C.
- ⑦ HOSE BIBB SUPPLY PIPING IS ROUTED IN MECHANICAL SPACE AND NOT IN CRAWL SPACE. PIPE SHALL BE EXPOSED ON INTERIOR WALL.
- ⑧ ELECTRICAL, IRRIGATION, FIRE, PLUMBING CONTRACTORS (AND OTHERS IF THEY APPLY) SHALL COORDINATE THE LOCATION OF EQUIPMENT IN THE WATER ENTRY ROOM. EQUIPMENT AND PIPE ROUTING SHALL BE CONSISTENT BETWEEN THE DIFFERENT BUILDINGS AND BUILDING TYPES.
- ⑨ RADON PIPE FROM CRAWL SPACE TO ROOF. SEE ARCHITECTURAL SHEETS FOR LOCATION AND SIZE. COORDINATE LOCATION OF RADON VENT PIPE WITH PLUMBING PIPING IN WALL.
- ⑩ KITCHEN SINKS HAVE TWO BASINS, ONE WITH A GARBAGE DISPOSAL AND ONE WITHOUT. CONTRACTOR SHALL MAKE THE NON GARBAGE DISPOSAL BASIN TO BE CONSTRUCTED SO THAT A FUTURE MODIFICATION CAN BE DONE TO MAKE IT ADA COMPLIANT (RECESSED CASEWORK, OFFSET P-TRAP AND DRAIN, AND INSULATION). OWNER SHALL NOTE THAT SINK BASINS WITH GARBAGE DISPOSAL SHALL NOT BE ADA COMPLIANT UNLESS GARBAGE DISPOSAL IS REMOVED.





**KEYED NOTES**

- ① 1/2" DCW/DHW SUPPLY FROM BELOW. FEED PIPE FROM CEILING OF FIRST FLOOR UP TO OUTLET BOX FIXTURE. SEE FIRST FLOOR PLAN.
- ② 1/2" DCW/DHW SUPPLY FROM BELOW. FEED PIPE FROM CEILING OF FIRST FLOOR UP TO SHOWER FIXTURE. SEE FIRST FLOOR PLAN.
- ③ 3/4" DCW/DHW SUPPLY FROM BELOW. FEED PIPE FROM CEILING OF FIRST FLOOR UP TO WATER CLOSET AND LAVATORY FIXTURE. SEE FIRST FLOOR PLAN.
- ④ 3/4" DCW/DHW PIPING ROUTED DOWN INTERIOR WALL AND UNDER KITCHEN CASEWORK TO SUPPLY SINK, DISHWASHER, AND REFRIGERATOR OUTLET BOX FIXTURES.
- ⑤ RADON PIPE FROM CRAWL SPACE TO ROOF. SEE ARCHITECTURAL SHEETS FOR LOCATION AND SIZE. COORDINATE LOCATION OF RADON VENT PIPE WITH PLUMBING PIPING IN WALL.



**PLUMBING BUILDING C WATER PLAN SECOND FLOOR**

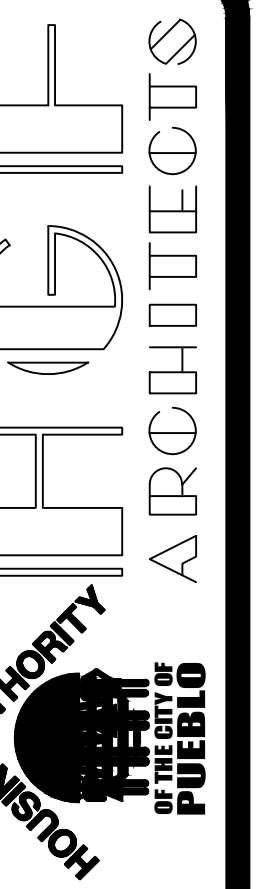
SCALE: 1/4" = 1'-0"

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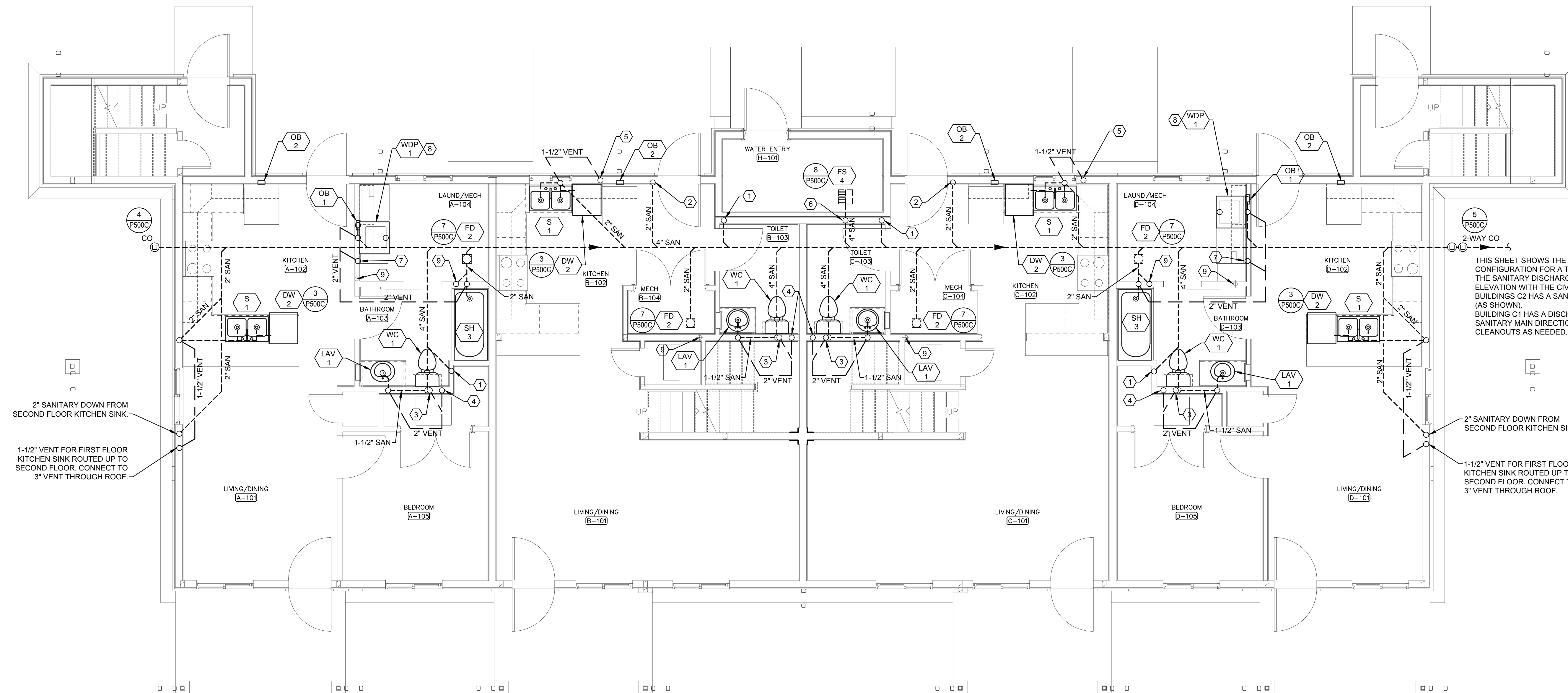
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**KEYED NOTES**

- ① 2" SANITARY UP TO SHOWER ON SECOND FLOOR. SEE SECOND FLOOR PLAN.
- ② 2" SANITARY UP TO CLOTHES WASHER OUTLET BOX. SEE SECOND FLOOR PLAN.
- ③ 4" SANITARY UP TO WATER CLOSET AND LAVATORY ON SECOND FLOOR. SEE SECOND FLOOR PLAN.
- ④ 2" VENT PIPE FOR FIRST FLOOR WATER CLOSET AND LAVATORY ROUTED UP TO SECOND FLOOR. COMBINE WITH SECOND FLOOR WATER CLOSETS AND LAVATORIES, AND CONNECT TO 3" VENT THROUGH ROOF.
- ⑤ 1-1/2" VENT PIPE FOR FIRST FLOOR KITCHEN SINK ROUTED UP TO SECOND FLOOR. COMBINE WITH CLOTHES WASHER AND SHOWER VENT PIPE, AND CONNECT TO 3" VENT THROUGH ROOF.
- ⑥ 2" VENT PIPE FOR WATER ENTRY ROOM FLOOR SINK ROUTED UP TO SECOND FLOOR. CONNECT TO 3" VENT THROUGH ROOF.
- ⑦ 2" VENT PIPE FOR FIRST FLOOR CLOTHES WASHER AND OTHER FIXTURES ROUTED UP TO SECOND FLOOR. CONNECT TO 3" VENT THROUGH ROOF.
- ⑧ 1" WASHER DRAIN PAN IS BELOW BUILDING GRADE. PAN SHALL DRAIN TO GRADE IN CRAWLSPACE.
- ⑨ RADON PIPE FROM CRAWL SPACE TO ROOF. SEE ARCHITECTURAL SHEETS FOR LOCATION AND SIZE. COORDINATE LOCATION OF RADON VENT PIPE WITH PLUMBING PIPING IN WALL.



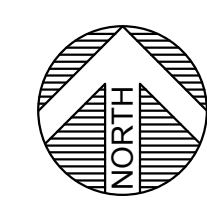
2" SANITARY DOWN FROM SECOND FLOOR KITCHEN SINK.

1-1/2" VENT FOR FIRST FLOOR KITCHEN SINK ROUTED UP TO SECOND FLOOR. CONNECT TO 3" VENT THROUGH ROOF.

THIS SHEET SHOWS THE TYPICAL SANITARY CONFIGURATION FOR A TYPE "C" BUILDING. COORDINATE THE SANITARY DISCHARGE DIRECTION AND INVERT ELEVATION WITH THE CIVIL SITE PLAN SHEETS. BUILDINGS C2 HAS A SANITARY DISCHARGE TO THE RIGHT (AS SHOWN). BUILDING C1 HAS A DISCHARGE TO THE LEFT. MODIFY SANITARY MAIN DIRECTION FOR THAT BUILDING. INCLUDE CLEANOUTS AS NEEDED.

2" SANITARY DOWN FROM SECOND FLOOR KITCHEN SINK.

1-1/2" VENT FOR FIRST FLOOR KITCHEN SINK ROUTED UP TO SECOND FLOOR. CONNECT TO 3" VENT THROUGH ROOF.

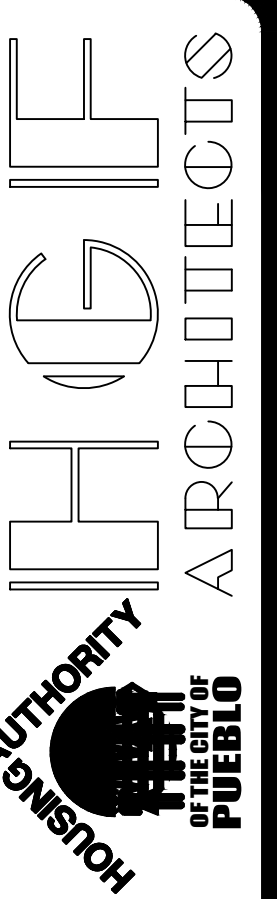


**PLUMBING BUILDING C SANITARY PLAN FIRST FLOOR**

SCALE: 1/4" = 1'-0"

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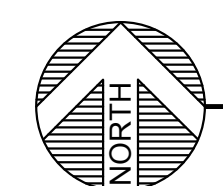
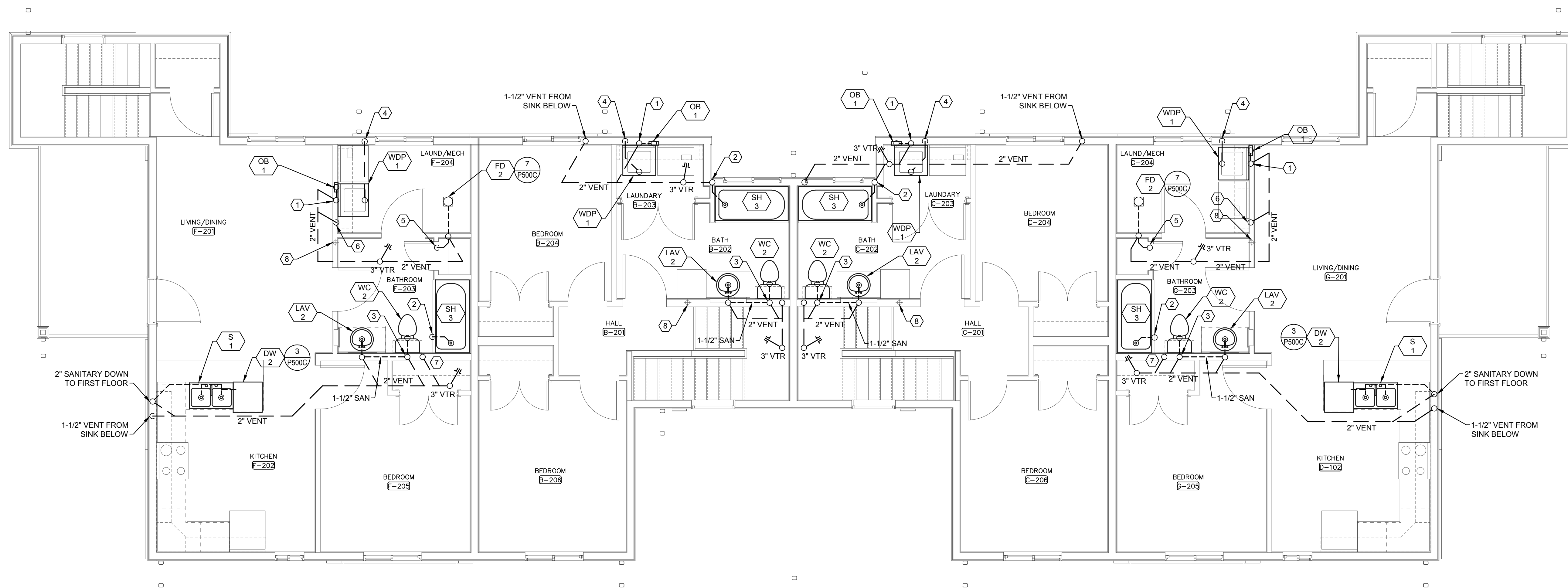
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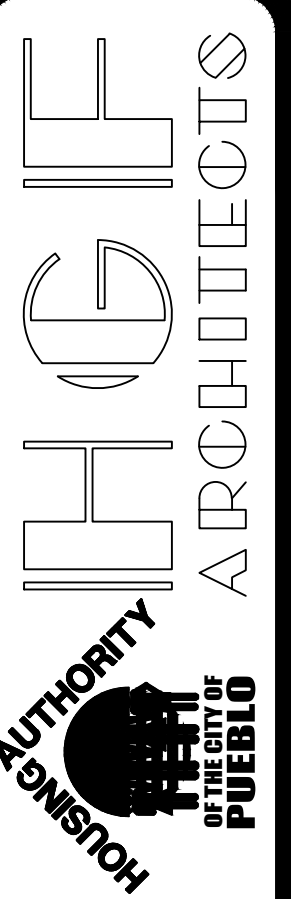
**KEYED NOTES**

- ① ROUTE 2" SANITARY DOWN TO LOWER FLOOR FOR CLOTHES WASHER OUTLET BOX. SEE FIRST FLOOR PLAN. ROUTE 1-1/2" VENT UP TO 2" COMMON VENT PIPE.
- ② ROUTE 2" SANITARY DOWN TO LOWER FLOOR FOR SHOWER. SEE FIRST FLOOR PLAN. ROUTE 1-1/2" VENT UP TO 2" COMMON VENT PIPE.
- ③ ROUTE 4" SANITARY DOWN TO LOWER FLOOR FOR WATER CLOSET AND LAVATORY AND/OR SHOWER. SEE FIRST FLOOR PLAN. ROUTE VENT PIPE UP TO 2" COMMON VENT PIPE.
- ④ ROUTE 1" WASHER DRAIN PAN LINE THROUGH JOISTS, DOWN WALLS, AND DAYLIGHT NEAR GRADE.
- ⑤ ROUTE 5" SANITARY DOWN FROM FLOOR DRAIN TO LOWER FLOOR. SEE FIRST FLOOR PLAN.
- ⑥ 2" VENT UP FROM FIRST FLOOR CLOTHES WASHER OUTLET BOX, SHOWER, AND FLOOR DRAIN. SEE FIRST FLOOR PLAN.
- ⑦ 2" VENT FROM BELOW. CONNECT TO 2" VENT COMMON VENT PIPE AND TO 3" VENT THROUGH ROOF.
- ⑧ RADON PIPE FROM CRAWL SPACE TO ROOF. SEE ARCHITECTURAL SHEETS FOR LOCATION AND SIZE. COORDINATE LOCATION OF RADON VENT PIPE WITH PLUMBING PIPING IN WALL.



**PLUMBING BUILDING C SANITARY PLAN SECOND FLOOR**

SCALE: 1/4" = 1'-0"



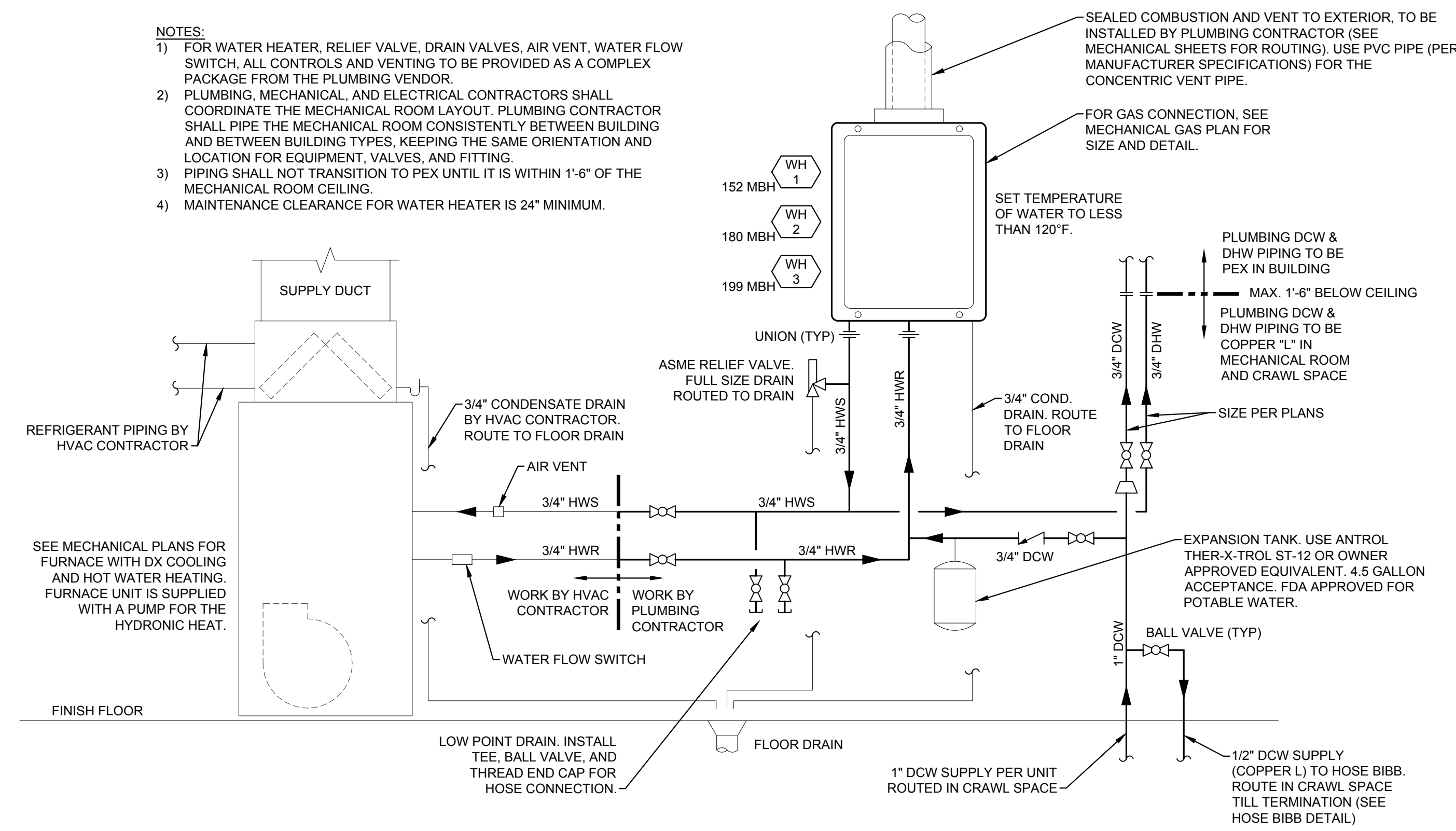
**MOUNTAIN VIEW TOWNHOMES**  
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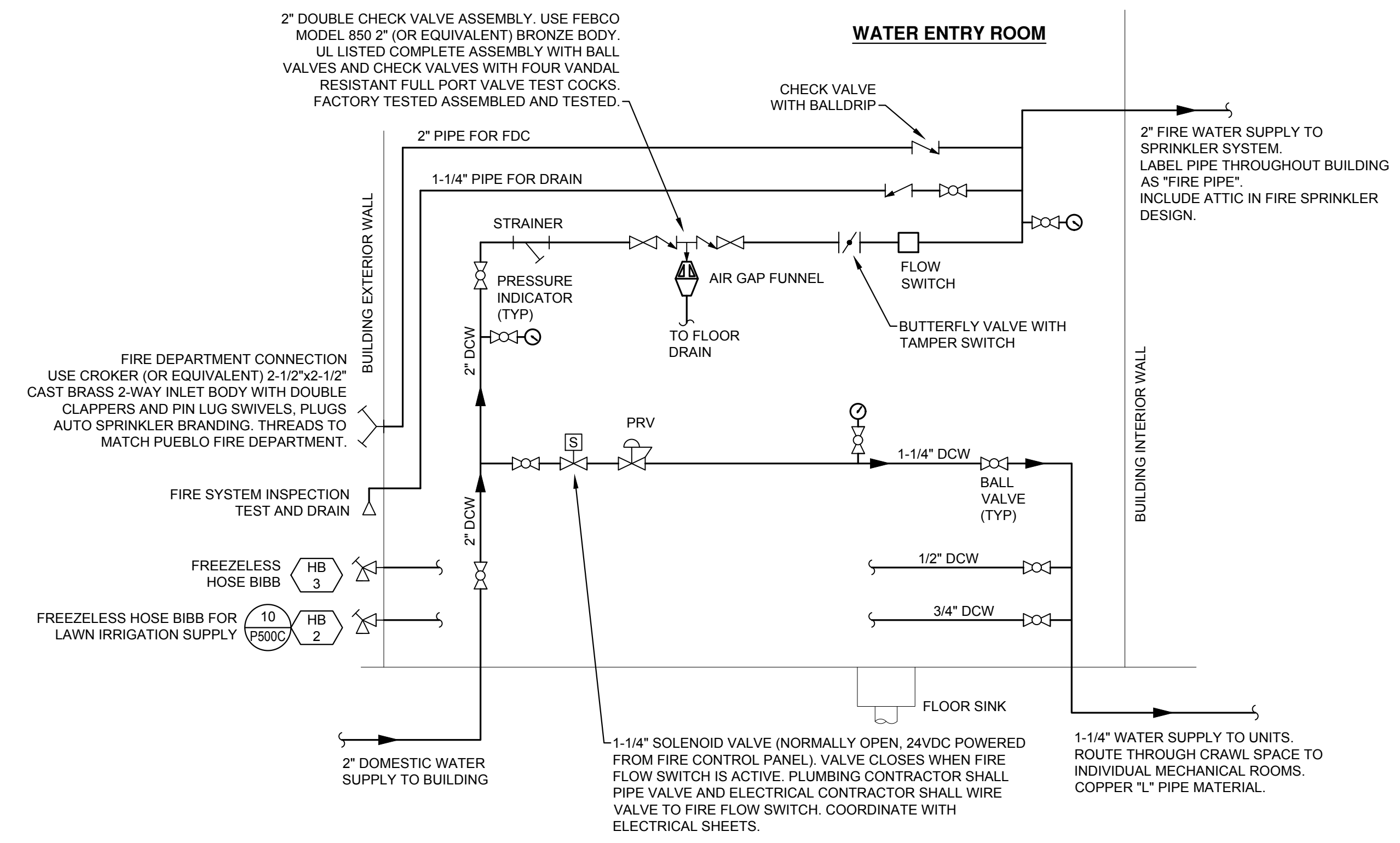
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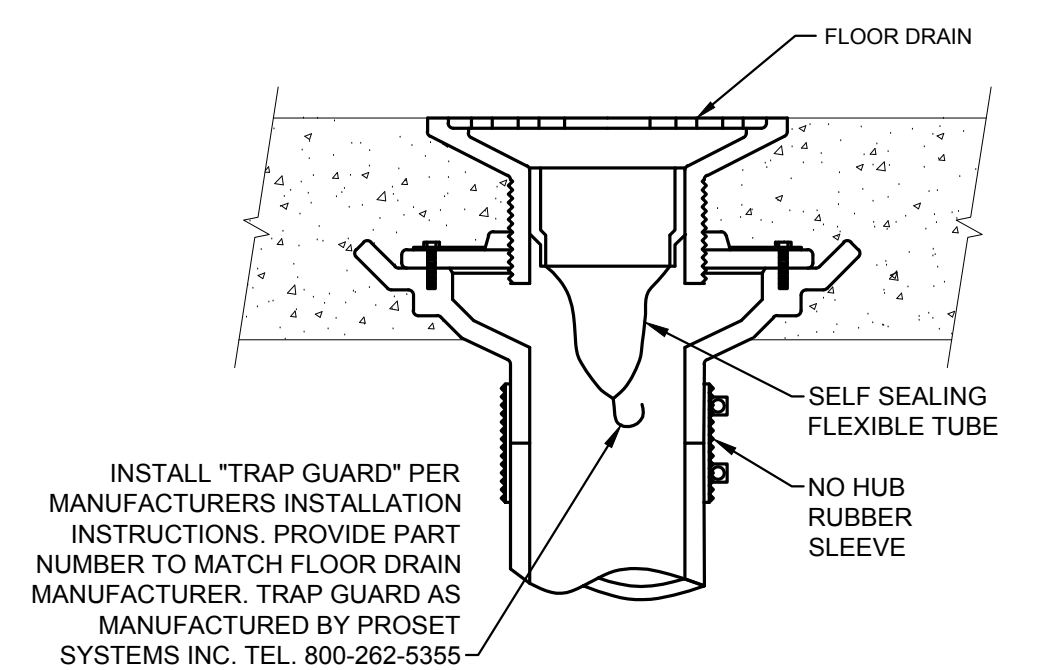
**2 DOMESTIC HYDRONIC PIPING DIAGRAM**

NOT TO SCALE



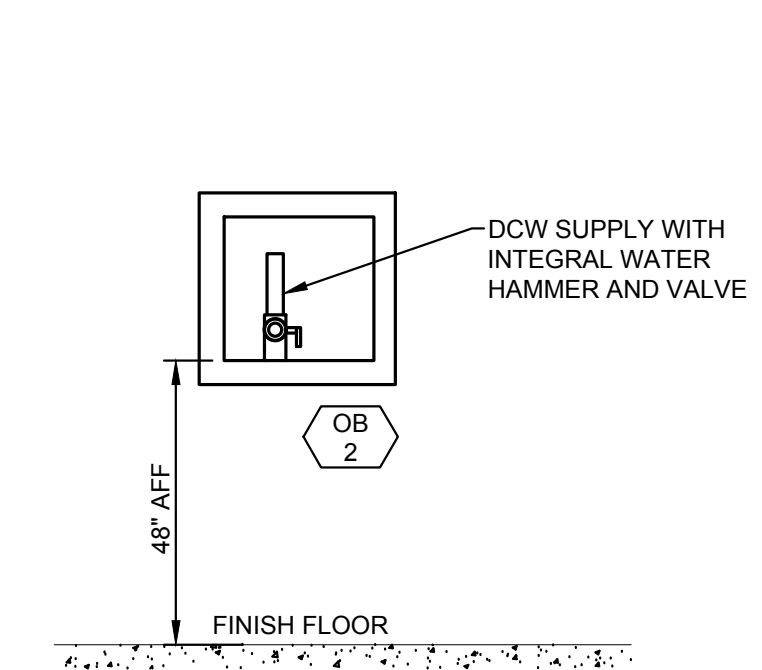
**1 WATER ENTRY ROOM DETAIL - DCW AND FIRE PIPING**

NOT TO SCALE



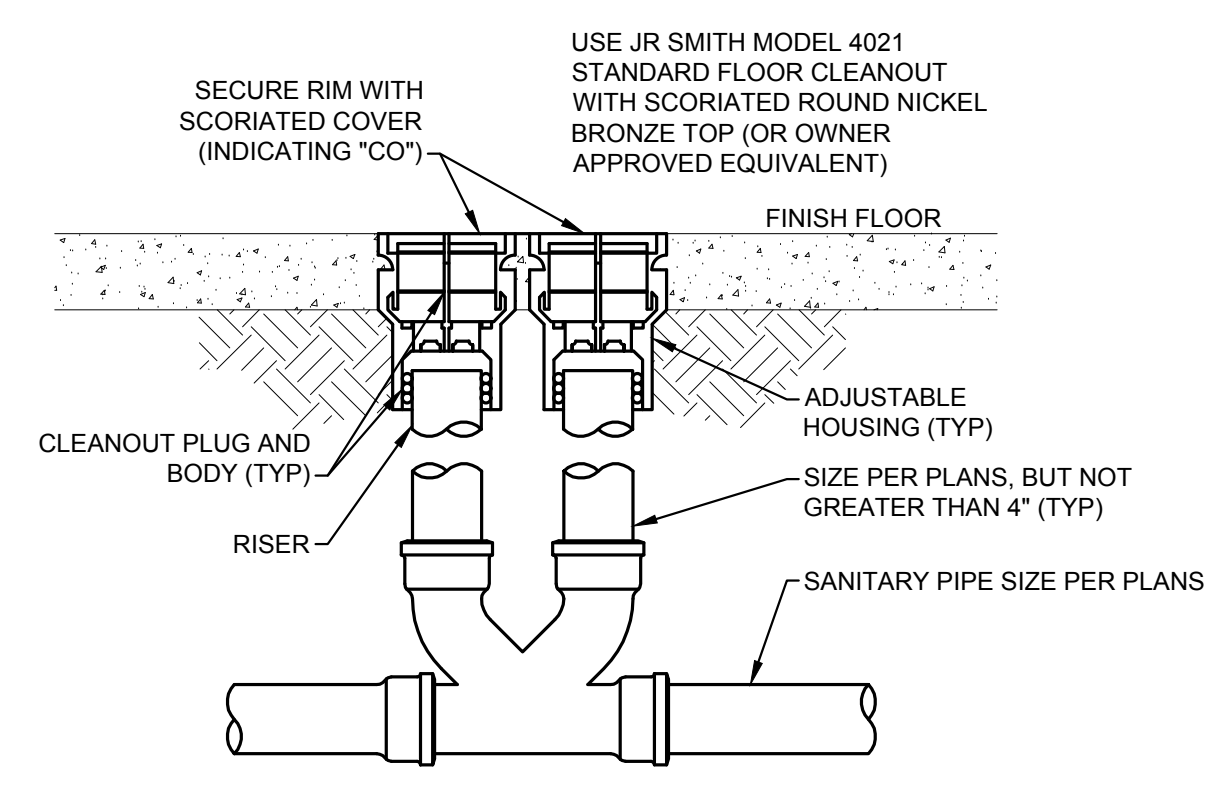
**7 FLOOR DRAIN WITH TRAP GUARD SEAL**

NOT TO SCALE



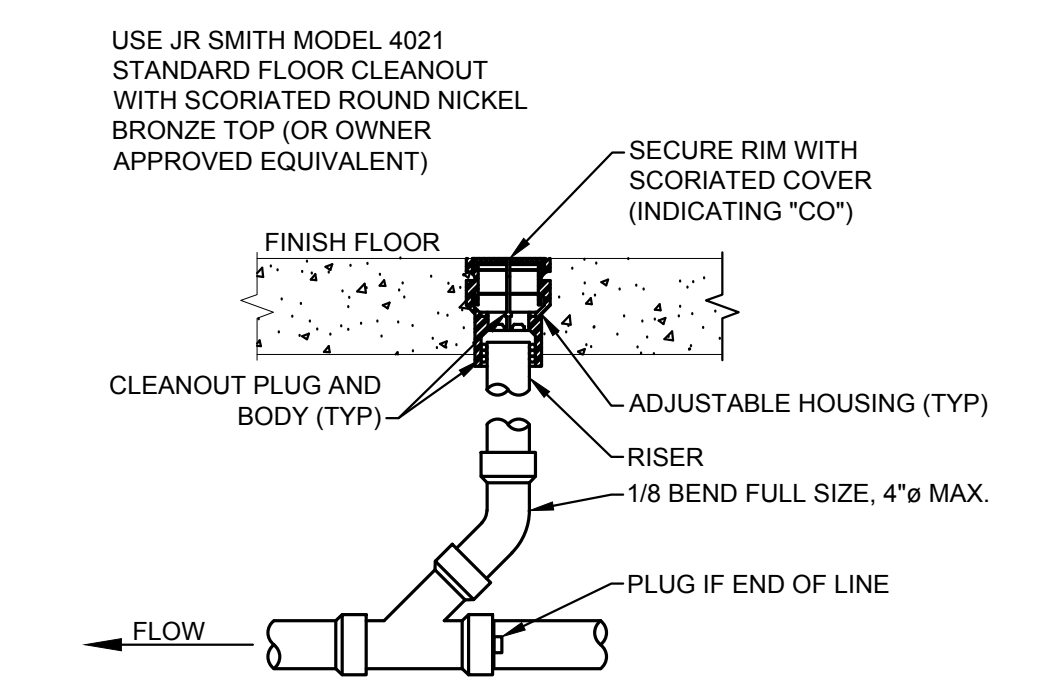
**6 OUTLET BOX**

NOT TO SCALE



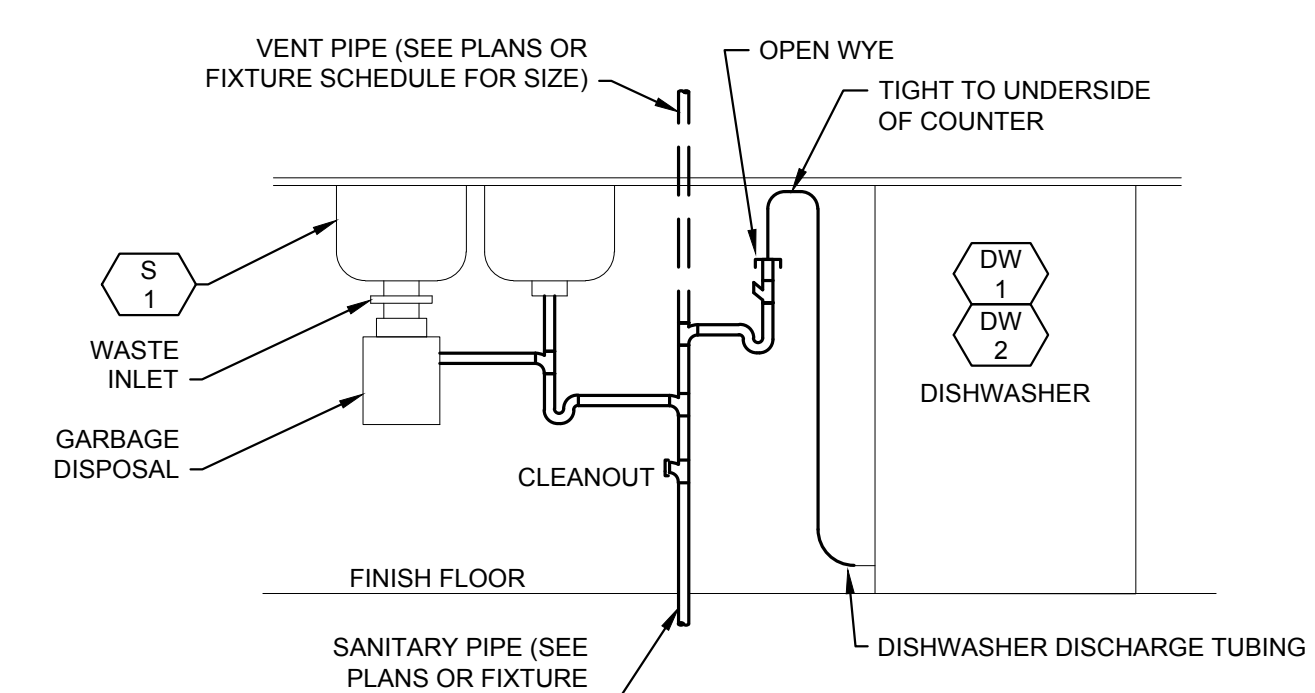
**5 TWO-WAY CLEANOUT DEAL**

NOT TO SCALE



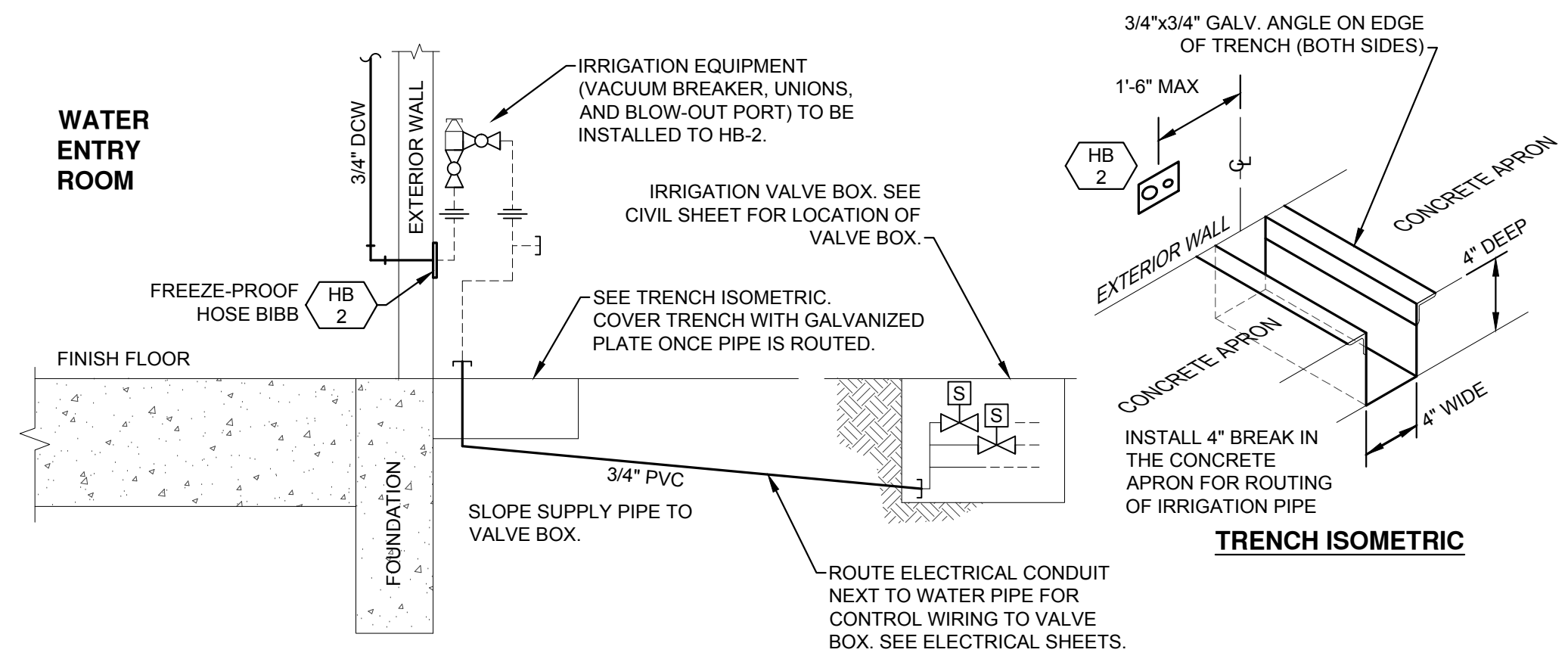
**4 FLOOR CLEANOUT**

NOT TO SCALE



**3 KITCHEN SINK WITH DISHWASHER**

NOT TO SCALE

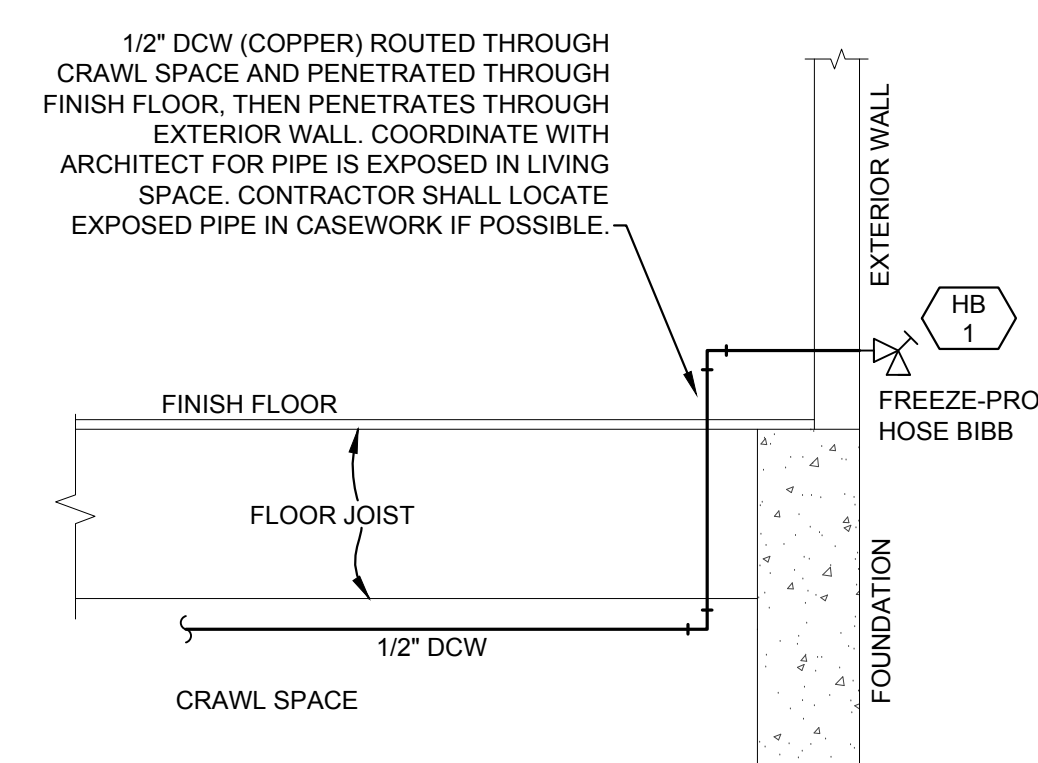


**NOTES:**

- GENERAL CONTRACTOR SHALL GET 4" BREAK IN THE CONCRETE APRON. GENERAL CONTRACTOR SHALL HAVE UNDERGROUND PIPE, FROM TRENCH TO VALVE BOX, INSTALLED AT TIME OF CONCRETE WORK. INSTALL THREADED CAP AT END THAT PENETRATES INTO THE VALVE BOX AND THREADED CAP THE OTHER PIPE END 2" ABOVE TRENCH.
- PLUMBING CONTRACTOR SHALL PIPE AND INSTALL HB-2 ON EXTERIOR WALL. IRRIGATION CONTRACTOR SHALL CONNECT IRRIGATION EQUIPMENT ABOVE TRENCH, AND CONNECT TO UNDERGROUND PVC PIPE. LOCATE ABOVE GROUND EQUIPMENT TIGHT TO EXTERIOR WALL AND DOWN INTO TRENCH. COVER TRENCH WITH GALVANIZED SHEET.

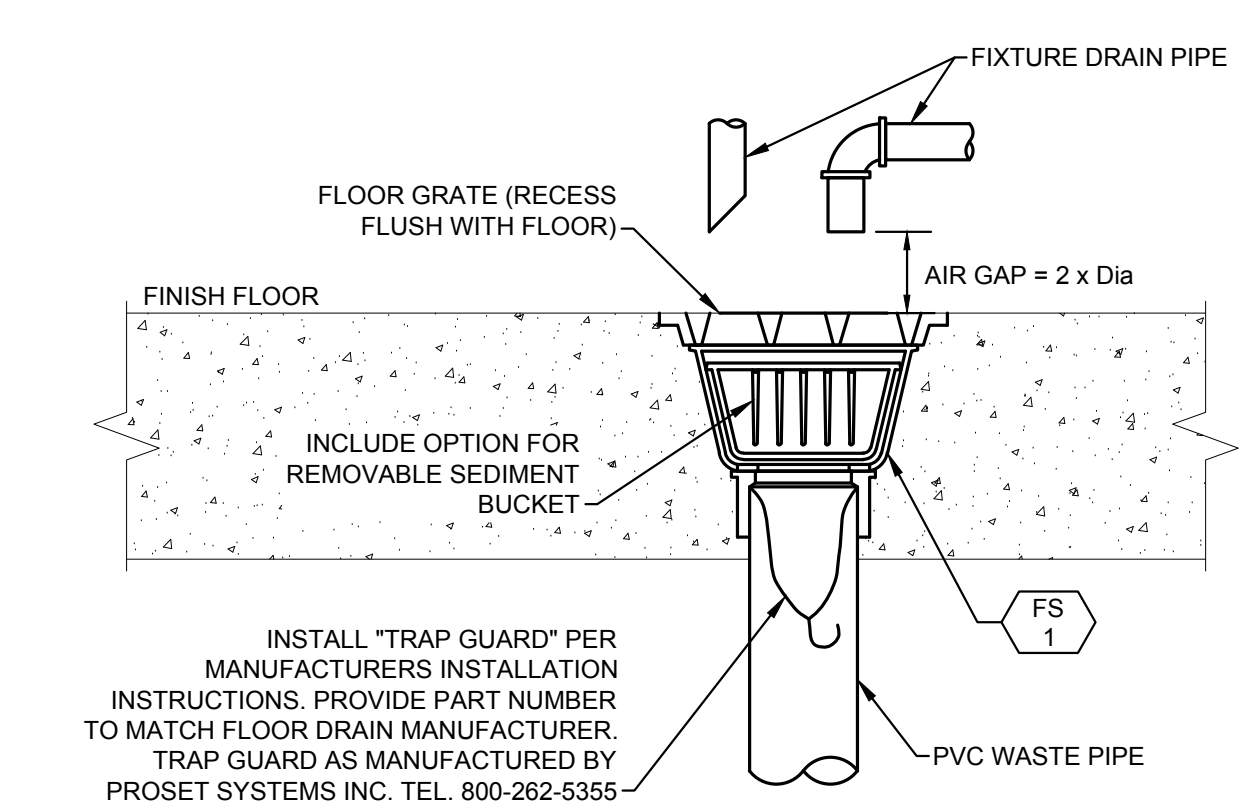
**10 EXTERIOR IRRIGATION HOSE BIBB AND PIPING DETAIL**

NOT TO SCALE



**9 HOSE BIBB WATER ROUTING**

NOT TO SCALE



**8 FLOOR SINK W/ TRAP GUARD AND AIR GAP**

NOT TO SCALE



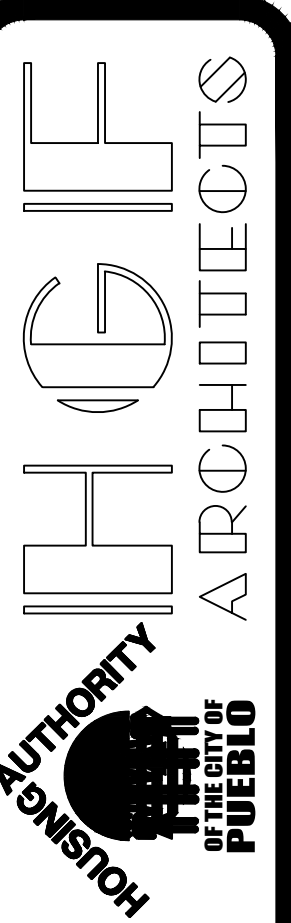
| PLUMBING FIXTURE UNIT TABULATION - BUILDING C         |                   |                |  |                |                |                |                |                |                |
|---|-------------------|----------------|--|----------------|----------------|----------------|----------------|----------------|----------------|
| FIXTURE<br>(IPC E103.3(2) AND 709.1)                  | TOTAL<br>FIXTURES | CW SUPPLY      |  | HW SUPPLY      |                | TOTAL SUPPLY   |                | DRAINAGE UNITS |                |
|   |                   | PER<br>FIXTURE | TOTAL<br>UNITS   | PER<br>FIXTURE | TOTAL<br>UNITS | PER<br>FIXTURE | TOTAL<br>UNITS | PER<br>FIXTURE | TOTAL<br>UNITS |
| BATHUB - PRIVATE                                      | 6                 | 1              | 6  | 1              | 6              | 1.4            | 8.4            | 2              | 12             |
| DISHWASHING MACHINE                                   | 6                 | 0              | 0  | 1.4            | 8.4            | 1.4            | 8.4            | 2              | 12             |
| HOSE BIBB   | 4                 | 5              | 20   | 0              | 0              | 5              | 20             | 0              | 0              |
| KITCHEN ICE MAKER                                     | 6                 | 0.25           | 1.5  | 0              | 0              | 0.25           | 1.5            | 0              | 0              |
| FLOOR DRAIN - EMERGENCY                               | 7                 | 0              | 0  | 0              | 0              | 0              | 0              | 0              | 0              |
| KITCHEN SINK - PRIVATE                                | 6                 | 1              | 6  | 1              | 6              | 1.4            | 8.4            | 2              | 12             |
| LAVATORY  | 8                 | 0.5            | 4  | 0.5            | 4              | 0.7            | 5.6            | 1              | 8              |
| WASHING MACHINE - 8 LB PRIVATE                        | 6                 | 1              | 6  | 1              | 6              | 1.4            | 8.4            | 2              | 12             |
| WATER CLOSET, FLUSH TANK, PRIVATE                     | 8                 | 2.2            | 17.6   | 0              | 0              | 2.2            | 17.6           | 3              | 24             |
| <b>TOTALS</b>   |                   |                | <b>61.1</b>  |                | <b>30.4</b>    |                | <b>78.3</b>    |                | <b>80</b>      |
| CW FIXTURE UNITS<br>PER 2015 IPC TABLE E201.1         |                   | 78.3           | @ 50 FEET DEVELOPMENT LENGTH<br>PROVIDE 1" METER (SERVICE SIZE) AND 1-1/4" DISTRIBUTION PIPE |                |                |                |                |                |                |
| DRAINAGE FIXTURE UNITS<br>PER 2015 IPC TABLE 710.1(1) |                   | 80             | REQUIRES 4" SANITARY MAIN  |                |                |                |                |                |                |

| MARK  | DESCRIPTION   | MINIMUM CONNECTION SIZE (in.)   |        |            |           | NOTES |             |
|-------|---|---|--------|------------|-----------|-------|-------------|
|       |   | WASTE   | VENT   | COLD WATER | HOT WATER |       |             |
| DW-2  | DISHWASHER<br>MANUF/MODEL/COLOR<br>ACCESSORIES  | ENERGY STAR COMPLIANT<br>GE BUILT-IN DISHWASHER, MODEL GDF530PGMWW, WHITE<br>PROVIDE WITH DRAIN HOSE AND ELECTRICAL CONNECTION  | 1-1/2" | 1-1/4"     | 1/2"      | (1)   |             |
| FD-2  | FLOOR DRAIN<br>TYPE<br>MANUF/MODEL/FINISH<br>OPTIONS  | SQUARE GRATE, MEDIUM DUTY, CAST IRON BODY<br>J.R. SMITH, 2270Y-S-NB, SQUARE NICKEL BRONZE, 2" NO-HUB OUTLET<br>INCLUDE TRAP GUARD PER DETAIL, FLOOR DRAIN WITH SEDIMENT BUCKET.   | 2"     | 1-1/2"     |           |       |             |
| FS-4  | FLOOR SINK<br>TYPE<br>MANUF/MODEL/FINISH<br>OPTIONS   | SQUARE CAST IRON FLANGED RECEPTOR WITH NICKEL BRONZE TOP, GENERAL SERVICE<br>J.R. SMITH / 3151Y-12-PDBS, 4" NO HUB OUTLET, WITH SEDIMENT BUCKET<br>INCLUDE TRAP GUARD PER DETAIL.   | 4"     | 2"         |           |       |             |
| HB-1  | HOSE BIBB<br>TYPE<br>MANUF/MODEL<br>ACCESSORIES / NOTES   | FREEZE-PROOF WALL FAUCET<br>WOODFORD 25, AUTOMATIC DRAWING WITH VACUUM BREAKING.<br>3/4" HOSE THREAD OUTLET, HAND OPERATED WHEEL HANDLE   |        |            | 1/2"      |       |             |
| HB-2  | HOSE BIBB<br>TYPE<br>MANUF/MODEL<br>ACCESSORIES / NOTES   | FREEZE-PROOF WALL HYDRANT FOR IRRIGATION SYSTEM CONNECTION.<br>WOODFORD 32, AUTOMATIC DRAWING WITH VACUUM BREAKING.<br>3/4" NPT THREADED OUTLET, LOOSE TEE KEY FOR TURNING ON/OFF.  |        |            | 1/2"      |       |             |
| HB-3  | HOSE BIBB<br>TYPE<br>MANUF/MODEL<br>ACCESSORIES / NOTES   | FREEZE-PROOF WALL HYDRANT<br>WOODFORD 67, AUTOMATIC DRAWING WITH VACUUM BREAKING.<br>3/4" HOSE THREAD OUTLET, LOOSE TEE KEY FOR TURNING ON/OFF.   |        |            | 1/2"      |       |             |
| LAV-1 | LAVATORY<br>TYPE<br>MANUF / MODEL / COLOR<br>FAUCET MANUF / MODEL<br>ACCESSORIES<br>ACCESSORIES<br>ADA INSULATION | DROP-IN LAVATORY WITH A.D.A. INSULATION AROUND UNDERNEATH PIPING<br>MANSFIELD, ALTO MODEL 251-4, WHITE VITREOUS CHINA, 4" CENTERS<br>MOEN, MODEL L4601 "CHATEAU"<br>USE PROFLO ADA DRAIN ACCESSORIES (DRAIN PFGD100, OFFSET P-TRAP)<br>INCLUDE ANGLE STOPS WITH HANDLE ON/OFF.<br>INCLUDE INSULATION FOR WASTE PIPE AND SUPPLY PIPES. | 1-1/2" | 1-1/4"     | 1/2"      | 1/2"  | (3) (4) (6) |
| LAV-2 | LAVATORY<br>TYPE<br>MANUF / MODEL / COLOR<br>FAUCET MANUF / MODEL<br>ACCESSORIES<br>ACCESSORIES                   | DROP-IN LAVATORY<br>MANSFIELD, ALTO MODEL 251-4, WHITE VITREOUS CHINA, 4" CENTERS<br>MOEN, MODEL L4601 "CHATEAU"<br>USE PROFLO ASSESSORIES (DRAIN PFGD100, P-TRAP PFPPTB100,<br>INCLUDE ANGLE STOPS WITH HANDLE ON/OFF.   | 1-1/2" | 1-1/4"     | 1/2"      | 1/2"  | (4) (6)     |
| OB-1  | OUTLET BOX<br>TYPE<br>MANUF/MODEL<br>DESCRIPTION  | OUTLET BOX FOR CLOTHES WASHING MACHINE, DCW / DHW / SAN<br>OATEY, MODEL 38271<br>SINGLE LEVER VALVE, PEX CONNECTION, INTEGRAL HAMMER ARRESTOR   | 2"     | 1-1/4"     | 1/2"      | 1/2"  |             |
| OB-2  | OUTLET BOX<br>TYPE<br>MANUF/MODEL<br>DESCRIPTION  | OUTLET BOX FOR REFRIGERATOR WATER SUPPLY<br>OATEY, MODEL 39158<br>QUARTER TURN VALVE, PEX CONNECTION  |        |            | 1/2"      |       |             |
| S-1   | SINK<br>TYPE<br>FIXTURE MANUF/MODEL/FINISH<br>FAUCET MANUF/MODEL/TYP/FINISH<br>ACCESSORIES                        | DROP-IN 20 GAUGE STAINLESS STEEL, ADA COMPLIANT<br>STERLING, MIDDLETON 14633-4, STAINLESS STEEL WITH 4 HOLES<br>MOEN, MODEL M67430, WITH SPRAY<br>INCLUDE GARBAGE DISPOSAL, MOEN MGXP60C, 1/2" HP, WITH POWER CORD  | 2"     | 1-1/2"     | 1/2"      | 1/2"  | (6)         |
| SH-3  | SHOWER TUB<br>TYPE<br>FIXTURE MANUF/MODEL/COLOR<br>FAUCET MANUF/MODEL/TYP/FINISH<br>ACCESSORIES                   | FIXED SHOWER HEAD<br>60" TUB WITH WALLS AND SHELVES<br>STERLING, MODEL 71240110 ACCORD, INCLUDES TUB AND WALL SET.<br>MOEN, MODEL 8388EP15, 1.5 GPM, CHROME FINISH.<br>INCLUDE PROFLO TUB DRAIN   | 2"     | 1-1/2"     | 1/2"      | 1/2"  | (2) (5) (6) |
| WC-1  | WATER CLOSET<br>TYPE<br>FLUSH TYPE<br>MANUF/MODEL/COLOR<br>SEAT/COLOR<br>ACCESSORIES                              | FLOOR MOUNT - ADA COMPLIANT<br>FLUSH TANK WITH PRESSURE ASSIST SIPHON JET ACTION, 1.28 GPF<br>MANSFIELD MODEL 148-155, WHITE VITREOUS CHINA, ELOGATED BOWL.<br>BEMIS 1200CT, WHITE PLASTIC<br>INCLUDE ANGLE STOP WITH HANDLE, CONNECTING TUBING, AND WAX RING.  | 4"     | 2"         | 1/2"      |       | (2) (6)     |
| WC-2  | WATER CLOSET<br>TYPE<br>FLUSH TYPE<br>MANUF/MODEL/COLOR<br>SEAT/COLOR<br>ACCESSORIES                              | FLOOR MOUNT<br>FLUSH TANK WITH PRESSURE ASSIST SIPHON JET ACTION, 1.28 GPF<br>MANSFIELD MODEL 148-155, WHITE VITREOUS CHINA, ROUND BOWL.<br>BEMIS OR PROFLO, WHITE PLASTIC<br>INCLUDE ANGLE STOP WITH HANDLE, CONNECTING TUBING, AND WAX RING   | 4"     | 2"         | 1/2"      |       | (2) (6)     |
| WDP-1 | WASHER DRAIN PAN<br>MANUF/MODEL<br>DESCRIPTION  | CAMCO MODEL 20752, 30"x32"<br>2.5" DEEP PAN, PLASTIC, 1" BOTTOM DRAIN CONNECTION.   | 1"     |            |           |       |             |

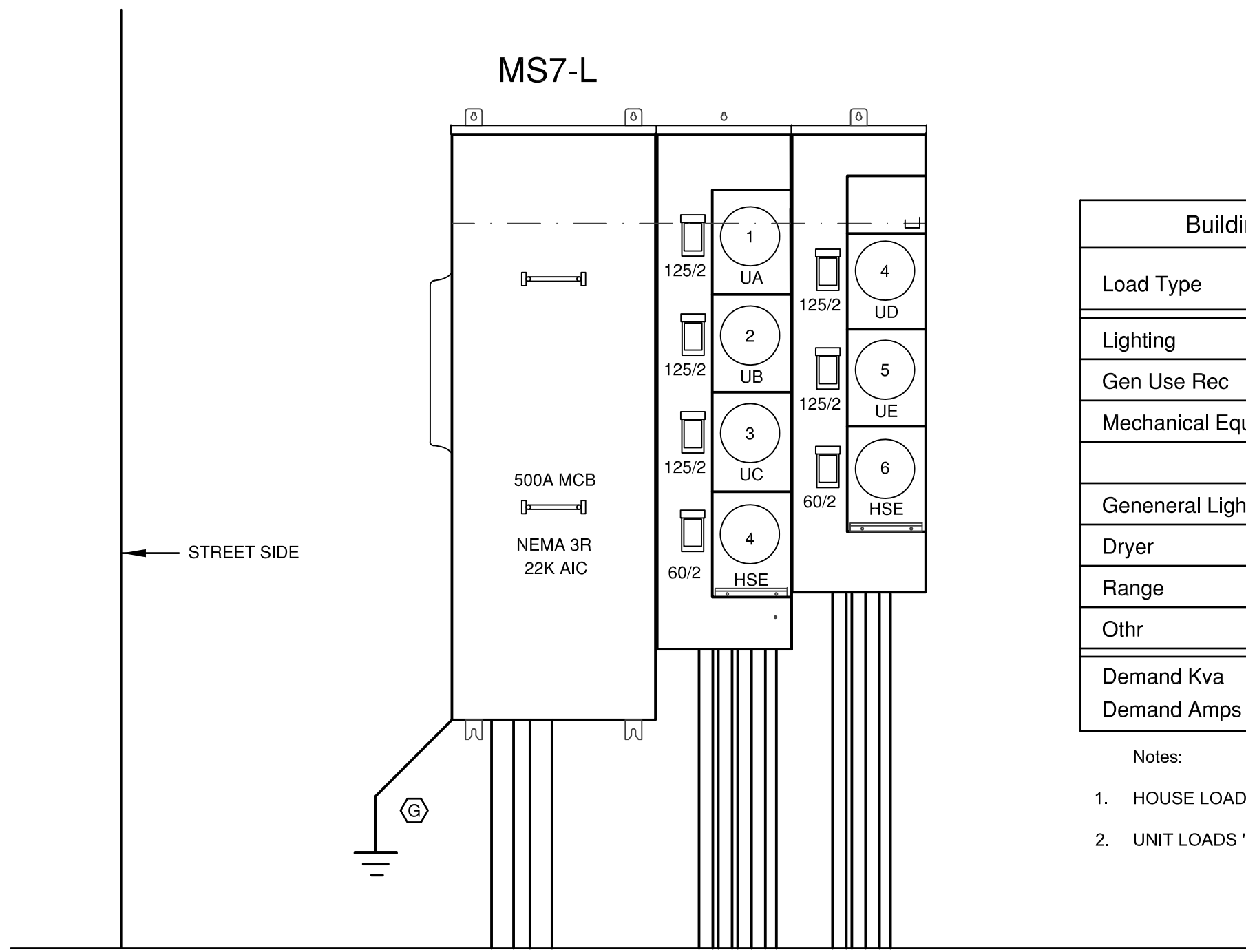
- NOTES:
- ALTERNATE SUBSTITUTIONS TO BE APPROVED BY OWNER.
  - REFER TO PLANS FOR RIGHT HAND OR LEFT HAND CONFIGURATION. ORIENT FLUSH HANDLE ON OPEN SIDE OF ROOM, NOT SIDE WITH WALL. OREINT TUB AS PER PLANS.
  - MOUNT IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA) STANDARDS. INCLUDE OFFSET TAILPIECE ON ALL ADA LAVATORIES AND TRUEBRO LAV-GUARD INSULATION KIT IN CHINA WHITE
  - PROVIDE GRID STRAINER, 0.5 GPM AERATOR, CHROME-PLATED BRASS ANGLE STOP VALVES, AND CHROME-PLATED P-TRAP
  - CEMENT BOARD IN SHOWER WALL IS 5/8" THICK AND BEHIND SHOWER ENCLOSER PANEL. CONTRACTOR SHALL PROVIDE EXTENSION OPTION FOR SHOWER VALVE.
  - LAVATORY FAUCET, SINK FAUCETS, SHOWER HEADS, AND WATER CLOSETS SHALL HAVE THE WATER-SENSE COMPLIANCE LABEL.
  - LAVATORY FAUCET, SINK FAUCETS, SHOWER HEADS, AND WATER CLOSETS SHALL HAVE THE WATER-SENSE COMPLIANCE LABEL.

| TANKLESS GAS WATER HEATER SCHEDULE |        |       |                   |               |                           |                  |                   |                  |            |             |                 |               |           |                                 |
|------------------------------------|--------|-------|-------------------|---------------|---------------------------|------------------|-------------------|------------------|------------|-------------|-----------------|---------------|-----------|---------------------------------|
| MARK                               | MANUF. | MODEL | TEMP.<br>SETPOINT | VENT<br>CONN. | COMB. AIR<br>INTAKE CONN. | STORAGE<br>(GAL) | FLOWRATE<br>(GPM) | GAS HEATING DATA |            |             |                 | ELECTRICAL    | ELEVATION | NOTES                           |
|                                    |        |       |                   |               |                           |                  |                   | MBH INPUT        | MBH OUTPUT | MIN. EFFIC. | GAS CONN. (in.) |               |           |                                 |
| WH-1                               | RINNAI | RUC80 | 120F              | 3"            | 3"                        | NONE             | 8.0               | 152              | 122        | 96%         | 3/4"            | 120V/1PH/60HZ | 6,400     | (1) (2) (3) (4) (5) (6) (7) (8) |
| WH-2                               | RINNAI | RUC90 | 120F              | 3"            | 3"                        | NONE             | 9.0               | 180              | 145        | 96%         | 3/4"            | 120V/1PH/60HZ | 6,400     | (1) (2) (3) (4) (5) (6) (7) (8) |
| WH-3                               | RINNAI | RUC98 | 120F              | 3"            | 3"                        | NONE             | 9.8               | 199              | 161        | 95%         | 3/4"            | 120V/1PH/60HZ | 6,400     | (1) (2) (3) (4) (5) (6) (7) (8) |

- NOTE:
- PROVIDE VERTICAL CONCENTRIC VENT KIT. USE PVC PIPE FOR VENT SYSTEM. REFER TO MECHANICAL SHEETS AND DETAIL FOR EXHAUST DUCTWORK.
  - PROVIDE AND EXPANSION TANK SUPPORTED FROM BUILDING WITH UNISTRUT. SEE PLUMBING DETAIL.
  - WATER HEATER IS HIGH-EFFICIENCY CONDENSING UNIT. DO NOT PROVIDE NEUTRALIZATION KIT FOR DRAIN DISCHARGE.
  - A ONE BEDROOM UNIT REQUIRES A WH-1. A TWO BEDROOM UNIT REQUIRES A WH-2. A THREE BEDROOM UNIT REQUIRES A WH-3.
  - PROVIDE WITH HEAT TRAP AND VALVES.
  - PROVIDE PRIORITY DEMAND TO DOMESTIC HOT WATER SYSTEM.
  - EQUIPMENT REQUIRES ELECTRICAL CONNECTION. COORDINATE WITH ELECTRICAL FOR 120V OUTLET TO PLUG INTO.
  - PROJECT SITE IS AT HIGH ELEVATION. INCLUDE OPTION FOR HIGH ALTITUDE GAS KIT.



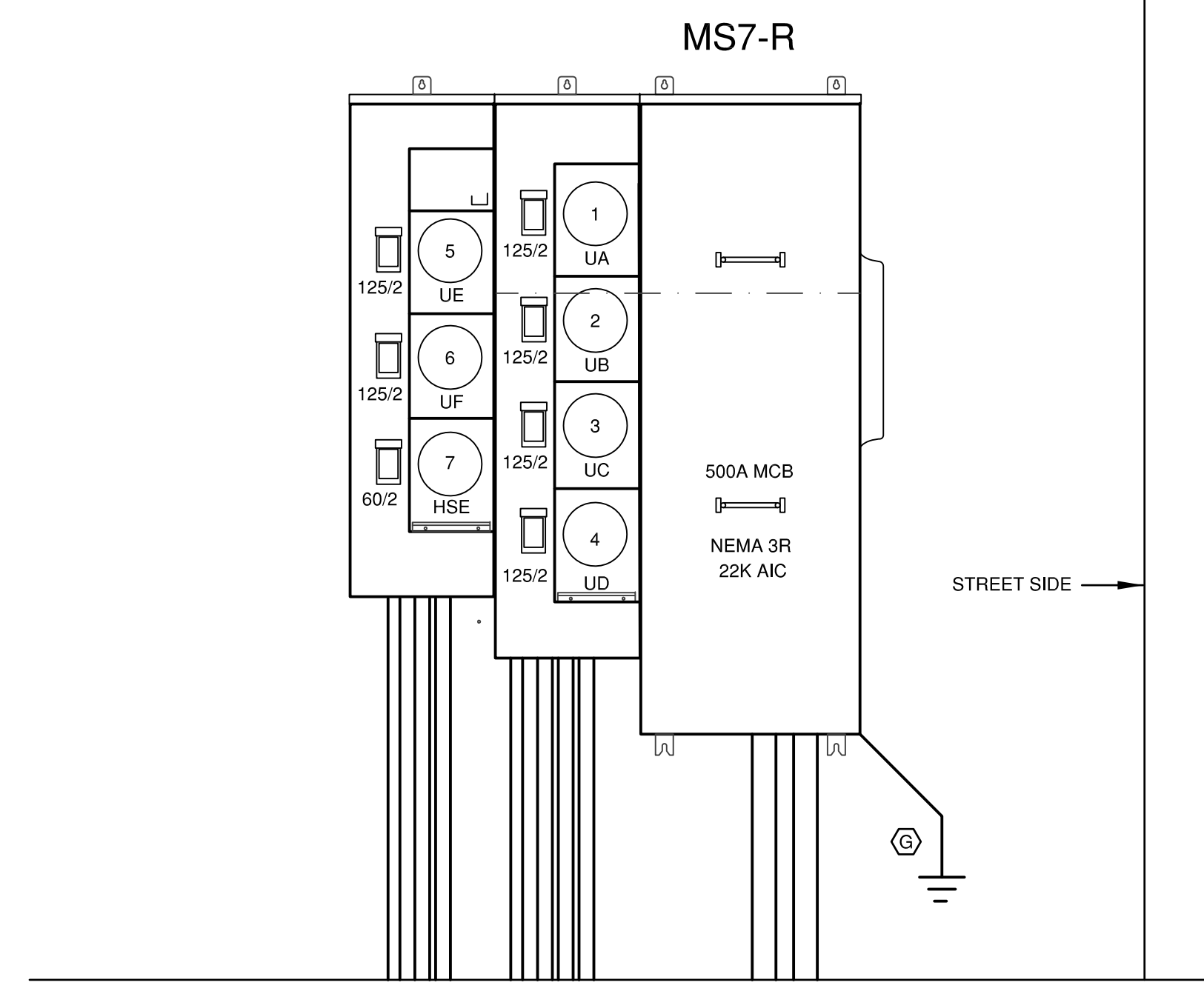




**Building C : Load Summary : 600a Service**

| Load Type          | Load Code | Conn Kva    | Demand Factor | Dmd Kva |
|--------------------|-----------|-------------|---------------|---------|
| Lighting           | Ltg       | 0.5         | 125%          | 0.6     |
| Gen Use Rec        | Rec       | 0.5         | 10+50%        | 0.5     |
| Mechanical Equip   | Mech      | 1.5         | 125%          | 1.9     |
| Genenerel Lighting | GL        | 70.1        | 3+35%         | 25.0    |
| Dryer              | D         | 35.0        | 85%           | 22.5    |
| Range              | RG        | 40.0        | 45%           | 20.6    |
| Othr               | Othr      | 28.2        | 100%          | 33.5    |
| Demand Kva         |           | Demand Kva  |               | 104.6   |
| Demand Amps        |           | Demand Amps |               | 435.9   |

- Notes:
- HOUSE LOADS 'Ltg', 'Rec', 'Mech'
  - UNIT LOADS 'GL', 'D', 'RG', 'Othr'



**Meterstacks MS7 Style**

**GROUNDING ELECTRODE SYSTEM**  
 PROVIDE A 1/0cu GROUNDING ELECTRODE, UFER GROUND AND FINAL CONNECTION TO COLD WATER ENTRY.

**FEEDER SCHEDULE:**  
 SERVICE LATERAL METERS TO XFMR 2 SETS PARALLEL (3#250, cu, 2 1/2" c.)  
 TYPICAL UNIT PANEL 3#1/0, al, #4, al, g, 1 1/2" c.  
 TYPICAL HOUSE PANEL 3#6cu, #10g, 1" c.

**GENERAL NOTE:**  
 METERSTACK TO HAVE 500A MAIN CIRCUIT BREAKER.

**SYMBOL LEGEND**

|  |   |
|--|---|
|  | 20A-1P LIGHT SWITCH MOUNTED AT +45"A.F.F.   |
|  | 20A, 3 WAY SWITCH MOUNTED AT +45"A.F.F.   |
|  | WALL MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR MOUNTED AT +45" A.F.F. WATTSTOPPER #DSW-301 OR APPROVED EQUIVALENT.   |
|  | WALL MOUNTED ASTRONOMICAL TIME CLOCK ON/OFF FUNCTION MOUNTED AT +45" A.F.F. WATTSTOPPER #RT-200 OR APPROVED EQUIVALENT.   |
|  | WALL MOUNTED FAN SWITCH MOUNTED AT +45" A.F.F. CONFIRM EXACT REQUIREMENT WITH FAN SUPPLIER.   |
|  | 20A, TAMPER RESISTANT DUPLEX RECEPTACLE WITH ONE-HALF SWITCHED FOR DISPOSER & DISHWASHER. MOUNT BELOW COUNTER.  |
|  | 20A, TAMPER RESISTANT GROUND FAULT CIRCUIT INTERRUPT TYPE DUPLEX RECEPTACLE. MOUNT AT +24" A.F.F. UNLESS INDICATED OTHERWISE ON DRAWINGS. 'wp' INDICATES WEATHER PROOF COVER. RE: SPECIFICATIONS. |
|  | 20A, TAMPER RESISTANT AFCI/GFCI BREAKER PROTECTED KITCHEN DUPLEX RECEPTACLE. MOUNTED AT HEIGHT INDICATED.   |
|  | 15A, TAMPER RESISTANT AFCI BREAKER PROTECTED (GENERAL USE) DUPLEX RECEPTACLE. MOUNTED AT +18".  |
|  | 30A-120/250V OUTLET FOR DRYER. GROUND PER NEC.  |
|  | 50A-120/250V OUTLET FOR RANGE. GROUND PER NEC. MOUNTING HEIGHT TO BE COORDINATED WITH EQUIPMENT INSTALLED.  |
|  | CONNECTION FOR EXHAUST FAN. PROVIDE SNAP SWITCH NO THERMAL OVERLOAD MOUNT @ MTR.  |
|  | CONNECTION FOR FAN COIL UNIT. PROVIDE SNAP SWITCH WITH THERMAL OVERLOAD MOUNT @ MTR.  |
|  | RECEPTACLE FOR RINNAI WATER HEATER. RE: MECHANICAL. COORDINATE EXACT LOCATION WITH EQUIPMENT AND INSTALL RECEPTACLE AT ACCESSIBLE LOCATION.   |
|  | CONNECTION FOR MECHANICAL EQUIPMENT WITH HEATING COIL.  |
|  | HEAVY DUTY MOTOR DISCONNECT SWITCH FOR UNIT AIR CONDITIONING UNIT.  |
|  | CABLE TELEVISION OUTLET - RE: DETAILS THIS SHEET FOR REQUIREMENTS. PROVIDE A COMPLETE OPERATIONAL SYSTEM.   |
|  | 120V HARD WIRED STROBE LIGHT WITH 9V BATTERY BACK UP. UNITS TO BE INTERCONNECTED WITH THE SMOKE/CARBON DETECTORS IN UNIT.   |
|  | FIRE SPRINKLER MONITORING PANEL PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR. PANEL TO HAVE A CELL DIALER.   |
|  | ADDRESSABLE EXTERIOR WEATHER PROOF HORN/STROBE PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR AND TIED INTO FIRE SPRINKLER MONITORING PANEL.   |
|  | ADDRESSABLE SMOKE DETECTOR PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR AND TIED INTO FIRE SPRINKLER MONITORING SYSTEM.  |
|  | ADDRESSABLE PULL STATION PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR AND TIED INTO FIRE SPRINKLER MONITORING SYSTEM.  |
|  | WATERFLOW SWITCH/ES PROVIDED AND INSTALLED BY FIRE PROTECTION CONTRACTOR. CONNECTION, CONDUIT AND BOXES BY ELEC. CONTRACTOR.  |
|  | TAMPER SWITCH/ES PROVIDED AND INSTALLED BY FIRE PROTECTION CONTRACTOR. CONNECTION, CONDUIT AND BOXES BY ELEC. CONTRACTOR.   |
|  | SYMBOL ATTRIBUTES - 'A' = MOUNTED ABOVE COUNTER. RE: ARCHITECTURAL CASEWORK.  |
|  | ALL HEIGHTS INDICATED IS TO CENTER OF FIXTURE/DEVICE.   |

**FIXTURE SCHEDULE**

| TYPE | DESCRIPTION & MANUFACTURES CATALOGUE NUMBERS<br>ALL BALLASTS ARE 120V   | NOTES | FINISH  | LOCATION  | LAMP(S) |                                   |
|------|---|-------|---------|-----------|---------|-----------------------------------|
|      |   |       |         |           | NO.     | TYPE                              |
| A    | NOMINAL 18"W x 4' LONG FLUORESCENT FIXTURE W. WHITE FINISH, FROSTED WHITE ACRYLIC LENS AND 120V ELECTRONIC BALLAST. KICHLER LIGHTING #8300K-10303WH OR APPROVED EQUIVALENT.   | 1     | WHITE   | KITCHEN   | 4       | 82 CRI<br>F32T8/830<br>3000 Deg K |
| B    | 6" ROUND IC RATED LED CAN LIGHT WITH 30K LAMP COLOR AND WHITE TRIM RING. PRESOLITE #LBLEDA10L-30K-WH-DBXQL OR APPROVED EQUIVALENT.  | 1     | WHITE   | VARIOUS   | -       | 12W/<br>1000LUM/<br>3000 Deg K    |
| C    | NOMINAL 6" DIAMETER SURFACE MOUNTED (ROUND) LED LIGHT WITH STANDARD HIGH IMPACT POLYCARBONATE DIFFUSER, COMPLIANT WITH NEC 410.16(A)(3) & (C)(5) PROVIDE WITH APPROPRIATE BACK BOX. HALO #SLD612830WH OR APPROVED EQUIVALENT.                               | 1     | WHITE   | VARIOUS   | -       | 15W/<br>1150LUM/<br>3000 Deg K    |
| D    | SURFACE MOUNTED NOMINAL 15"DIA. x 5.5" HIGH LED FIXTURE WITH BRUSHED NICKEL TRIM AND ETCHED ALABASTER STYLE GLASS. SEA GULL LIGHTING #75943EN3-962 OR APPROVED EQUIVALENT.  | 1     | NICKEL  | VARIOUS   | 3       | 80 CRI<br>9.5W/A19<br>3000 Deg K  |
| E    | SURFACE MOUNTED NOMINAL 13"DIA. x 5" HIGH LED FIXTURE WITH BRUSHED NICKEL TRIM AND ETCHED ALABASTER STYLE GLASS. SEA GULL LIGHTING #75942EN3-962 OR APPROVED EQUIVALENT.  | 1     | NICKEL  | DINING    | 2       | 80 CRI<br>9.5W/A19<br>3000 Deg K  |
| F1   | SURFACE MOUNTED NOMINAL 14"DIA. x 5" HIGH LED FIXTURE WITH FROSTED WHITE ACRYLIC DIFFUSER. SEA GULL LIGHTING #5639493S-15 OR APPROVED EQUIVALENT.   | 1     | NICKEL  | VARIOUS   | -       | 80 CRI<br>23W/<br>3000 Deg K      |
| F2   | SURFACE MOUNTED NOMINAL 16.5"DIA. x 5" HIGH LED FIXTURE WITH FROSTED WHITE ACRYLIC DIFFUSER. SEA GULL LIGHTING #5739493S-15 OR APPROVED EQUIVALENT.   | 1     | NICKEL  | VARIOUS   | -       | 80 CRI<br>34W/<br>3000 Deg K      |
| G    | SURFACE MOUNTED 52" DIA CEILING FAN W/(5) BLADES, TWO LIGHT FAN LIGHT KIT WITH SWIRL ALABASTER STYLE GLASS. HUNTER #53251 WITH LIGHT KIT OR APPROVED EQUIVALENT.  | 1     | WHITE   | LIVING    | 2       | 80 CRI<br>13W-GU24<br>3000 Deg K  |
| H    | OWNER PROVIDED 24" WIDE OVER MIRROR LIGHT WITH BRUSHED NICKEL FINISH AND WHITE TEXTURED POLYCARB. DIFFUSER. KICHLER #8300K-11142NILED   | 1     | NICKEL  | RESTROOMS | -       | 20W/<br>1410LUM<br>3000 Deg K     |
| J    | 1 LIGHT DECORATIVE SCONCE WITH LED BULB, NICKEL FINISH AND WHITE GLASS. SEA GULL LIGHTING #41036EN3-999 OR APPROVED EQUIVALENT.   | 1     | NICKEL  | HALL      | 1       | 80 CRI<br>9.5W/A19<br>3000 Deg K  |
| K    | SMALL LED EXTERIOR WALL SCONCE OPERATED VIA ASTRONOMICAL TIME SWITCH. MOUNT AT 6"-6" TO CENTER. KICHLER # 8300K-49278XXLED OR APPROVED EQUIV.   | 1     | BY ARCH | EXTERIOR  | -       | 8W/<br>720LUM/<br>3000 Deg K      |
| L    | DARK SKY COMPLIANT LED ADDRESS LIGHT OPERATED VIA BLDG MOUNTED PHOTOCCELL. MOUNT LV TRANSF. IN ACCESSIBLE SPACE. PROVIDE WITH ADDRESS NUMBERS AND ALL NECESSARY COMPONENTS REQUIRED FOR AN OPERATIONAL SYSTEM. KICHLER #8300K-43800XXLED OR APPROVED EQUIV. | 1     | BY ARCH | EXTERIOR  | -       | 4W/<br>250LUM/<br>3000 Deg K      |
| AA   | EXTERIOR LED WALL SCONCE WITH TYPE III DISTR. WIRED VIA BLDG MOUNTED PHOTOCCELL. HUBBEL #TRP1-12L-15-3K7-3-U-XX-PCU OR APPROVED EQUIVALENT.   | 1     | BY ARCH | EXTERIOR  | -       | 15W/<br>1477LUM/<br>3000 Deg K    |
| BB   | EXTERIOR SMALL LED WALL SCONCE OPERATED VIA BUILDING MOUNTED PHOTOCCELL. BEGA #22 261-XX-3000K OR APPROVED EQUIVALENT.  | 1     | BY ARCH | EXTERIOR  | -       | 6W/<br>362LUM/<br>3000 Deg K      |
|      | SELF-CONTAINED EMERGENCY LIGHT WITH INJECTION MOLDED HOUSING, 2 HEADS, SELF-DIAGNOSTIC FEATURE (120V)   | 2     | WHITE   | VARIOUS   | 2       | BY MFOR                           |

NOTES:  
 1. SUBSTITUTIONS PRIOR TO BID REQUIRED - ENGINEER MUST RECEIVE PRODUCT DATA 10 DAYS PRIOR TO BID - ONLY PRODUCT LISTED IN AN ADDENDUM WILL BE ACCEPTED.  
 FIXTURES TO BE ENERGY STAR RATED OR UTILIZE ENERGY EFFICIENT LAMPS AS LISTED IN GREEN COMMUNITY STANDARDS.

**SCHEDULE FOR PANEL HSE**

VOLTS/PHASE/WIRE 120/240/1ph-3w MAIN DEVICE 60a MLO  
 MOUNTING SURFACE S.C. RATING 10,000 AIC  
 NOTES: N/A  
 N/A

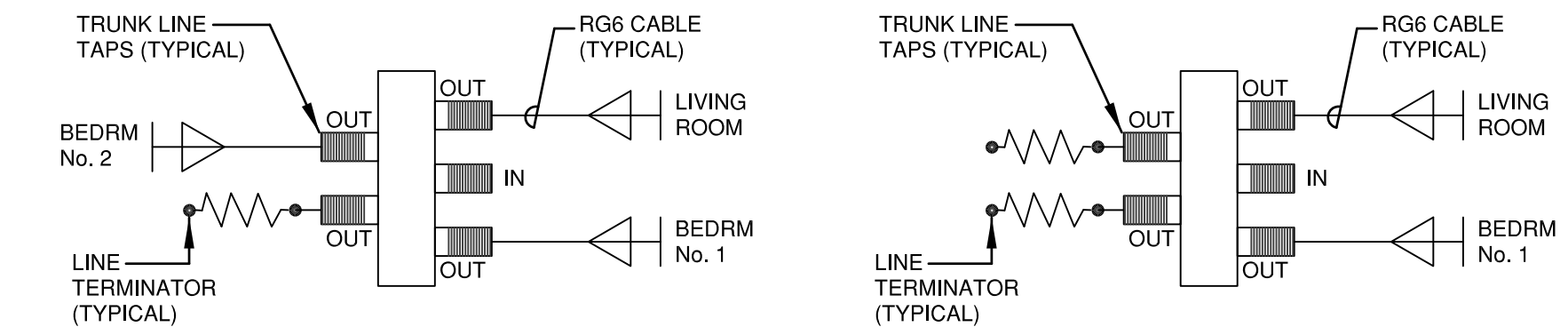
Duty/Demand Load is Calculated Per NEC : Ltg, Cmp, Htg, Mtr & AC at 125%, Rec @ 10 + 50% and Othr @ 100%

| PHASE   | (KVA) | CONNECTED KVA | LOAD FACTOR | DUTY/DEMAND KVA |
|---------|-------|---------------|-------------|-----------------|
| PHASE A | 3.7   | 3.64          | 1.14        | 4.15            |
| PHASE B | 0.9   |               |             |                 |
| PHASE C | N/A   |               |             |                 |

AVERAGE AMPS/LEG BASED ON DUTY/DEMAND KVA 17.3

| #  | DESCRIPTION             | LOAD  | BRKR | PH | BRKR | LOAD | DESCRIPTION               | #  |
|----|-------------------------|-------|------|----|------|------|---------------------------|----|
| 1  | Rec : Wtr Entry + Exter | 900   | 20/1 | A  | 20/1 | 350  | Othr : Fire Prot Sys Pnl  | 2  |
| 3  | Ltg : Exterior Bldg     | 540   | 20/1 | B  | 20/1 | 350  | Othr : Irrigation Control | 4  |
| 5  | Mech : Wtr Entry        | 1,500 | 20/1 | A  | 20/1 |      | Spare                     | 6  |
| 7  | Spare                   |       | 20/1 | B  | 20/1 |      | Spare                     | 8  |
| 9  | Space                   |       |      | A  |      |      | Space                     | 10 |
| 11 | Space                   |       |      | B  |      |      | Space                     | 12 |

ENCLOSURE TYPE: NEMA 1 BREAKER TYPE: PLUG ON  
 CLASS OF EQUIPMENT: LOADCENTER NO. CIRCUITS: 12



TYPICAL 2 BEDROOM APT TYPICAL 1 BEDROOM APT

PROVIDE SINGLE GANG BACKBOX, RG6 CABLE AND COAX JACK WITH PLATE. STUB CONDUIT DOWN INTO CRAWLSPACE (1ST FLOOR) & ATTIC (2ND FLOOR). CABLE TO BE ROUTED IN CRAWLSPACE AND ATTIC BACK TO SPLITTER IN WATER ENTRY ROOM. SPLITTERS TO BE MOUNTED IN A NEAT AND WORKMAN LIKE MANNER ON TELEPHONE BOARD. PROVIDE FINAL TESTING REPORT FOR ALL CABLES.

**COAX CABLING DETAIL**

IT IS THE CONTRACTOR'S RESPONSIBILITY NOT TO EXCEED OUTLET SPACING AS REQUIRED BY THE NATIONAL ELECTRICAL CODE.  
 IT IS THE CONTRACTOR'S RESPONSIBILITY TO ADHERE TO ALL APPLICABLE SECTIONS OF THE NEC. ANY DESCREANCIES BETWEEN THESE DRAWINGS AND THE NEC SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION PRIOR TO ROUGH-IN. FAILURE TO BRING SUCH ITEMS TO THE ATTENTION OF THE ENGINEER, RESULTING IN ANY TYPE OF MODIFICATIONS TO THE INSTALLATION, SHALL BE AT THE CONTRACTOR'S EXPENSE.

Z:\2018\2018.04.1\ 2018.04.1 Elec CD-R.dwg Apr 17, 2019 - 11:15am

**HIGH ARCHITECTS**

AUTHORITY OF THE CITY OF PUEBLO

**KOHNET ELECTRICAL ENGINEERS, INC.**

9 South 8th Street, Colorado Springs, Co 80905  
 Phone (719) 532-2632 Fax (719) 532-9465  
 email@kohnetelec.com

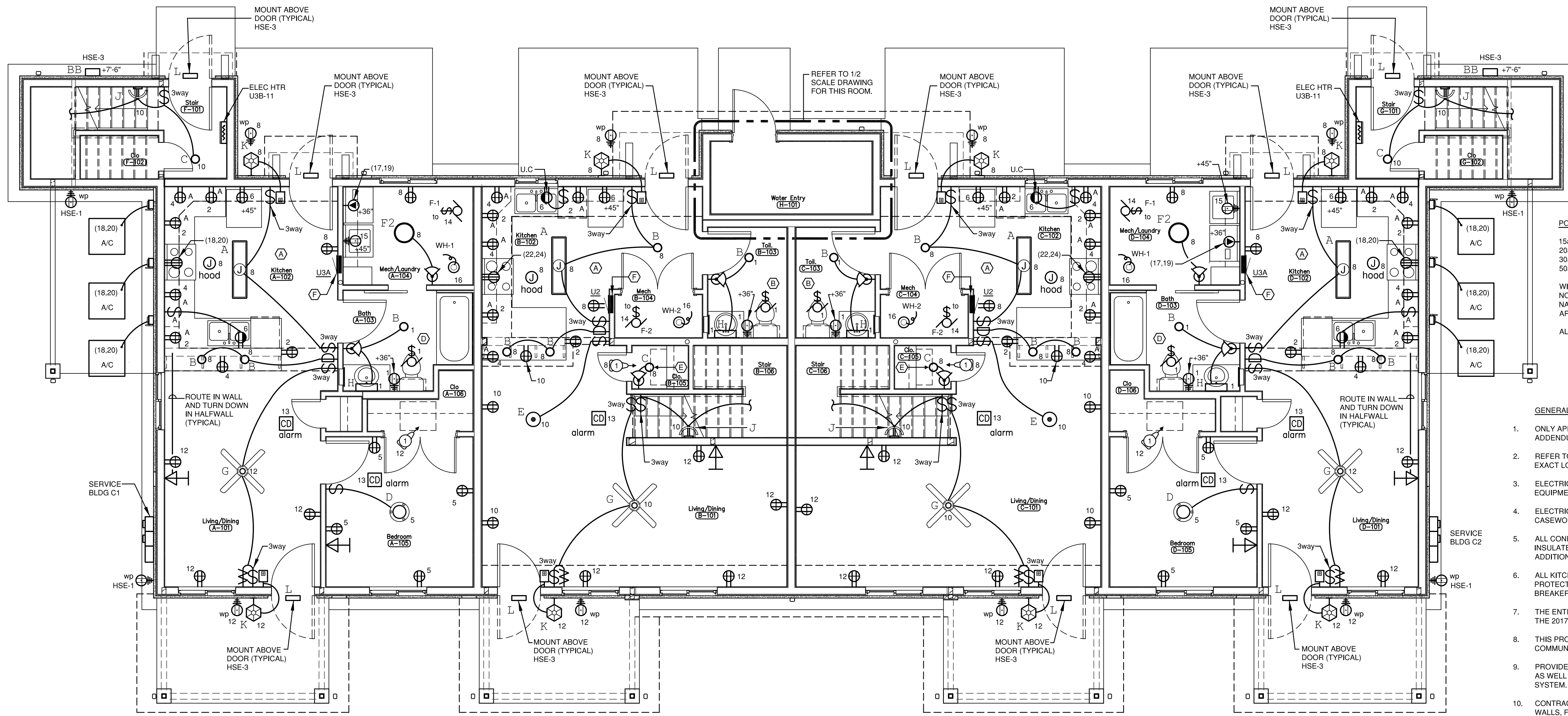
**MOUNTAIN VIEW TOWNHOMES**  
 PROJECT No. IFB. 19-522-RAD  
 ACEPO AVE. and SPRAGUE AVE. PUEBLO, COLORADO

DATE 04/16/19  
 DRAWN LMAK  
 CHECK MSK  
 REVISIONS:

SHEET **E1.0C**

BLDG C: FIXTURE SCHEDULE, SYMBOL LEGENDS and SERVICE DETAILS





**POWER BRANCH CIRCUIT REQUIREMENTS**

15# GENERAL LIGHTING BRANCH CIRCUITS (#14-g)  
 2# GENERAL LIGHTING BRANCH CIRCUITS (#12-g)  
 30# A/C UNIT & DRYER BRANCH CIRCUIT (2#10-g)  
 50# ELECTRIC RANGE BRANCH CIRCUIT (3#6-g)

WIRING METHODS IN UNITS MAY BE MC OR FLEXIBLE NON METALLIC CONDUIT SYSTEMS AS ALLOWED BY THE NATIONAL ELECTRICAL CODE. NMC ALLOWED FOR APARTMENT UNIT WIRING ONLY.

ALL 'AFCT' CIRCUITS REQUIRE A DEDICATED NEUTRAL

- GENERAL NOTES:**
- ONLY APPROVED PRODUCTS LISTED ON DRAWINGS OR IN AN ADDENDUM WILL BE ACCEPTED.
  - REFER TO MECHANICAL/CIVIL DRAWINGS AND ADDENDUMS FOR EXACT LOCATION OF ALL MECHANICAL EQUIPMENT.
  - ELECTRICAL CONTRACTOR TO CONFIRM ALL MECHANICAL EQUIPMENT CONNECTIONS PRIOR TO ROUGH-IN.
  - ELECTRICAL CONTRACTOR SHALL REFER TO ARCHITECTURAL CASEWORK DRAWINGS PRIOR TO ROUGH-IN.
  - ALL CONDUITS FOR LOW VOLTAGE SYSTEMS TO HAVE INSULATED BUSHINGS, RE: COAX WIRING DETAIL FOR ADDITIONAL REQUIREMENTS.
  - ALL KITCHEN RECEPTACLES TO BE TAMPER RESISTANT GFI PROTECTED RECEPTACLES THRU COMBINATION AFCI/GFCI BREAKER IN PANEL. RE: PANEL SCHEDULE.
  - THE ENTIRE ELECTRICAL INSTALLATION SHALL CONFORM TO THE 2017 NEC.
  - THIS PROJECT SHALL MEET THE 2015 ENTERPRISE GREEN COMMUNITIES CRITERIA.
  - PROVIDE A COMPLETE AND OPERATIONAL ELECTRICAL SYSTEM AS WELL AS COMPLETE AND OPERATIONAL LOW VOLTAGE SYSTEM. ALL NECESSARY COMPONENT MAY NOT BE INDICATED.
  - CONTRACTOR TO REFER TO CODE STUDY FOR RATINGS OF WALLS, FLOORS AND CEILING. ADJUST INSTALLATION AS REQUIRED TO MAINTAIN RATING OR UTILIZE UL LISTED METHODS TO MAINTAIN THE FIRE RATING.
  - SLEEVE AS REQUIRED BETWEEN UNIT CRAWL SPACES AND ATTIC SPACES. ALL SLEEVES TO BE FIRE CAULKED TO MAINTAIN RATINGS.
  - ALL TYPE L FIXTURES ARE TO BE WIRED VIA BUILDING PHOTOCELL AND TIED INTO BUILDING LIGHT CIRCUIT. RE: SITE PLAN.
  - REFER TO SITE PLAN FOR WIRING OF TYPE AA & BB FIXTURES.

**BLDG C: FIRST FLOOR - ELECTRICAL PLAN**

SCALE: 1/4" = 1' - 0"  
 0 2' 4' 8'

| CONDUCTOR LEGEND  | CONDUCTOR LEGEND  | CONDUCTOR LEGEND  |
|---|---|---|
| ■ 2#18 SHIELDED - AS REQUIRED BY SYSTEM MANUFACTURER - MAPNET | △ 2#14 DEVICE POWER CIRCUIT(S) - 24VDC - AS REQUIRED BY SYSTEM MANUFACTURER | × 2#14 APPLIANCE NOTIFICATION CIRCUIT(S) - No. AS REQUIRED BY SYSTEM MANUFACTURER |

IT IS THE CONTRACTOR'S RESPONSIBILITY NOT TO EXCEED OUTLET SPACING AS REQUIRED BY THE NATIONAL ELECTRICAL CODE.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO ADHERE TO ALL APPLICABLE SECTIONS OF THE NEC. ANY DISCREPANCIES BETWEEN THESE DRAWINGS AND THE NEC SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION PRIOR TO ROUGH-IN.

FAILURE TO BRING SUCH ITEMS TO THE ATTENTION OF THE ENGINEER, RESULTING IN ANY TYPE OF MODIFICATIONS TO THE INSTALLATION, SHALL BE AT THE CONTRACTOR'S EXPENSE.

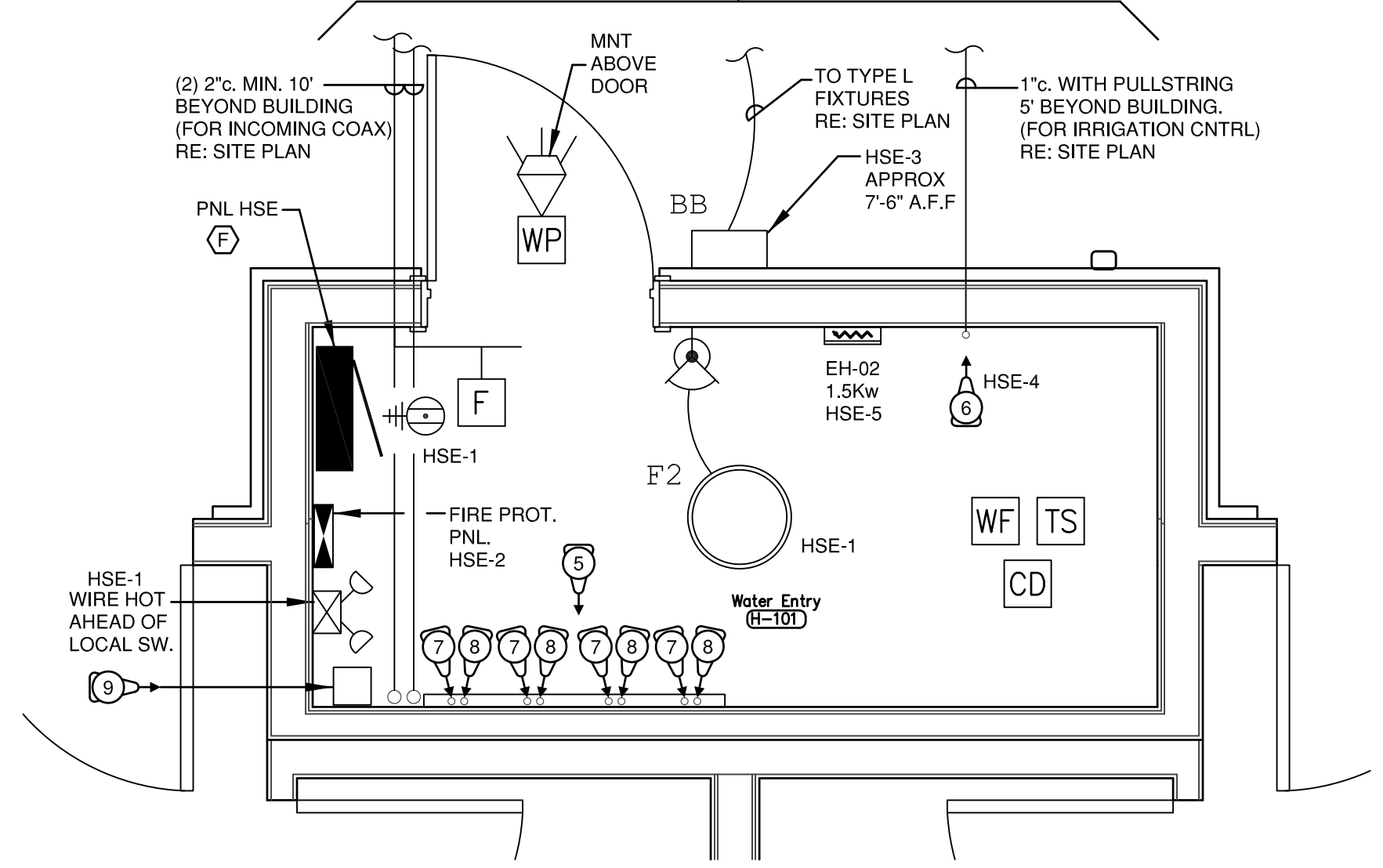
- GENERAL NOTES:**
- FINAL LAYOUT OF EQUIPMENT TO BE DETERMINED IN THE FIELD. COORDINATE EXACT LOCATIONS OF EQUIPMENT WITH FIRE SPRINKLER CONTRACTOR AND OTHER TRADES.
  - ALL FIRE PROTECTION SYSTEM WIRING TO BE (THHN) INSULATION.
  - ACTIVATION OF FLOW SWITCH SHALL DIAL OUT, ACTIVATE HORN/STROBE AND CLOSE THE DOMESTIC WATER SERVICE SOLENOID.
  - SYSTEM TO BE A NETWORKED SYSTEM TIED WITH FIBER BETWEEN BLDGS. RE: ELEC SITE PLAN
  - EQUIPMENT SUPPLIER TO PROVIDE SHOP DRAWINGS WITH WIRING DIAGRAM, EQUIPMENT AND CALCULATION AND SUBMIT TO THE PUEBLO FIRE DEPARTMENT FOR PERMIT.

**ELECTRICAL CONTRACTOR ROUGH-IN:**  
 PROVIDE 4S BOXES AND 1/2". FOR FPS MONITORING CABLES.

- HEX NOTES:**
- (A) ALL KITCHEN RECEPTACLES TO BE GFCI PROTECTED VIA COMBINATION AFCI/GFCI BREAKERS LOCATED IN PANEL.
  - (B) EXHAUST FAN SHALL BE WIRED HOT TO RUN CONTINUOUSLY AT THE SPEED SET BY MECHANICAL. WIRE TO CIRCUIT INDICATED.
  - (C) EXHAUST FAN SHALL BE WIRED WITH OCCUPANCY SENSOR AND BE ENERGIZED WITH THE LIGHT. WIRE TO CIRCUIT INDICATED.
  - (D) EXHAUST FAN SHALL BE WIRED HOT AND RUN CONTINUOUSLY AT SPEED SET BY MECHANICAL. UPON ACTIVATION OF OCCUPANCY SENSOR LOCATED ON FAN, FAN TO RUN HIGH UNTIL TIMED OUT. WIRE TO CIRCUIT INDICATED. OBTAIN WIRING DIAGRAM FROM EQUIPMENT SUPPLIER.
  - (E) INSTALL TYPE C FIXTURE AT A MINIMUM OF 12" AWAY FROM DEFINED STORAGE AREA, I.E. SHELVING ETC, PER NEC 410.16.
  - (F) COORDINATE WITH OTHER TRADES TO MAINTAIN NEC CLEARANCES ABOUT ELECTRICAL PANEL.

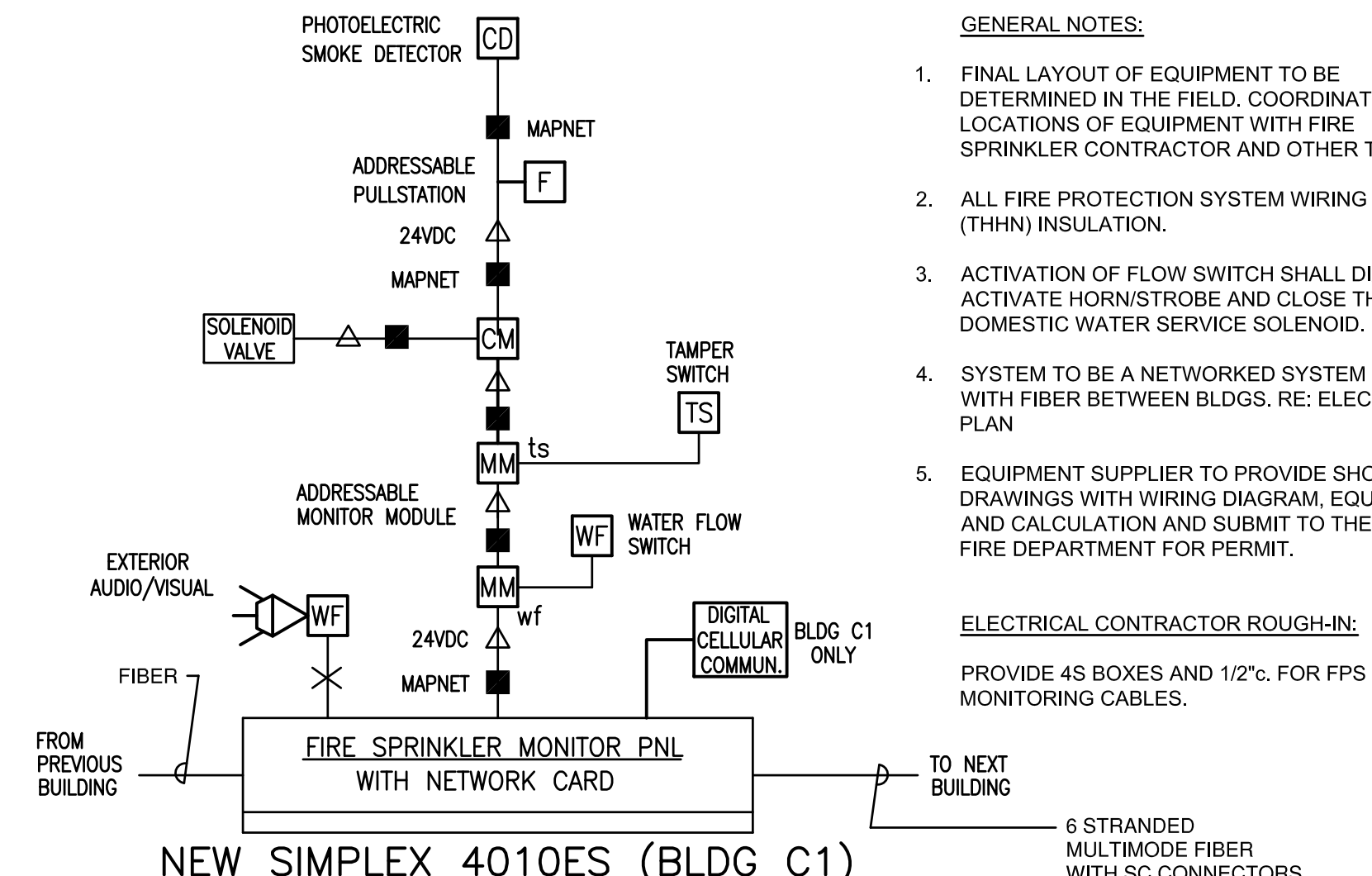
FINAL LAYOUT OF ROOM TO BE COORDINATED WITH EQUIPMENT. DO NOT RUN WATER LINES OVER POWER PANEL.

REFER TO DIAGRAM FOR WIRING OF FIRE SPRINKLER CONTROL DEVICES



**BLDG C: WATER ENTRY ROOM**

SCALE: 1/2" = 1' - 0"  
 0 1' 2' 4'



NEW SIMPLEX 4010ES (BLDG C1)  
 NEW SIMPLEX 4007ES (BLDG C2)  
 OR APPROVED EQUIVALENT

**FIRE PROTECTION WIRING DIAGRAM**

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**HIGH ARCHITECTS**

AUTHORITY OF THE CITY OF PUEBLO

**KOHNERT ELECTRICAL ENGINEERS, INC.**  
 9 South 8th Street, Colorado Springs, CO 80905  
 Phone: (719) 532-2932 Fax: (719) 532-3465  
 email@kohnertec.com

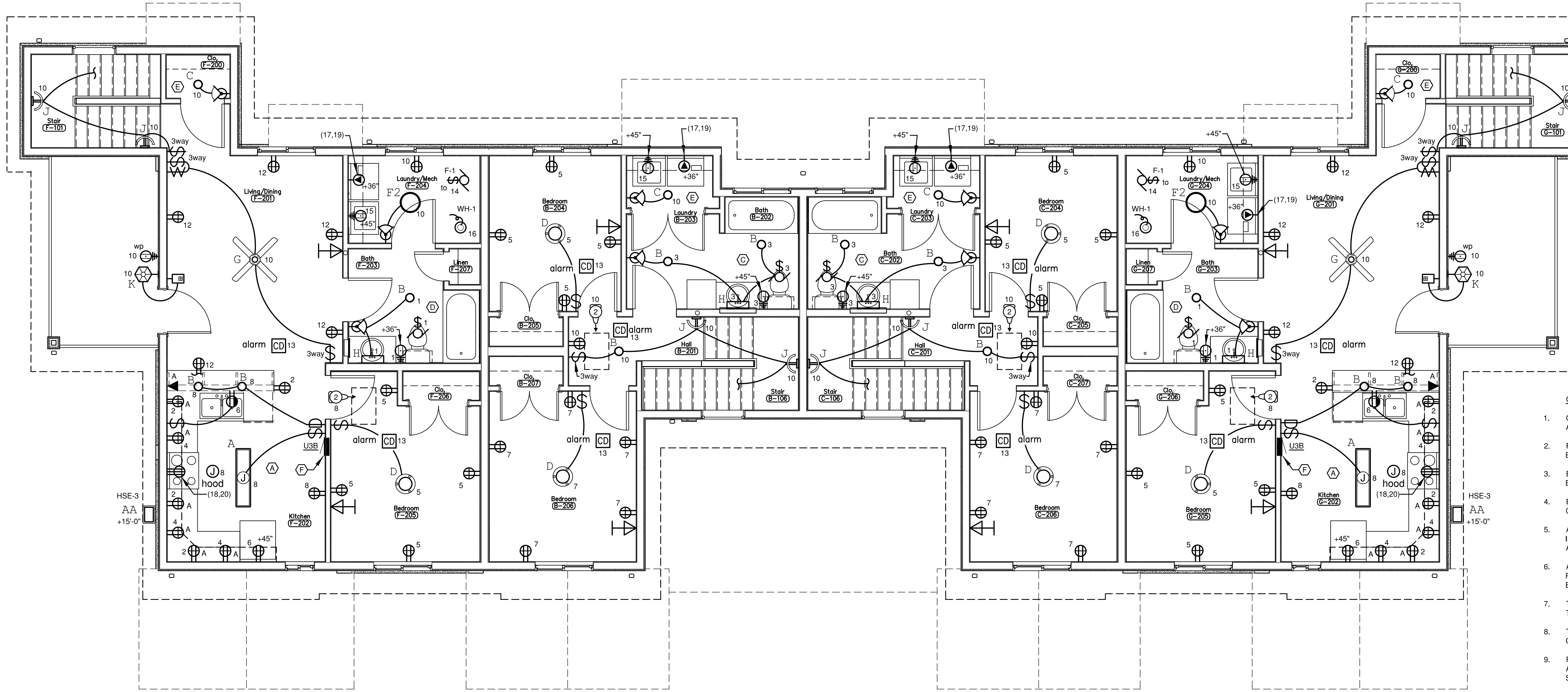
**MOUNTAIN VIEW TOWNHOMES**  
 PROJECT No. IFB. 19-522-RAD  
 ACEVO AVE. and SPRAGUE AVE. PUEBLO, COLORADO

**BLDG C- FIRST FLOOR - ELECTRICAL PLANS**

DATE: 04/16/19  
 DRAWN: LMAK  
 CHECK: MSK  
 REVISIONS:

SHEET **E1.1C**





**POWER BRANCH CIRCUIT REQUIREMENTS**

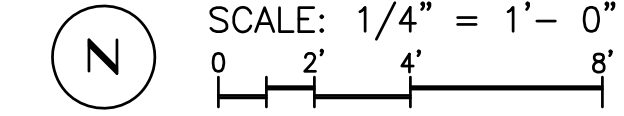
15a GENERAL LIGHTING BRANCH CIRCUITS (#14-g).  
 20a GENERAL LIGHTING BRANCH CIRCUITS (#12-g).  
 30a A/C UNIT & DRYER BRANCH CIRCUIT (2#10-g).  
 50a ELECTRIC RANGE BRANCH CIRCUIT (3#6-g).

**WIRING METHODS IN UNITS MAY BE MC OR FLEXIBLE NON METALLIC CONDUIT SYSTEMS AS ALLOWED BY THE NATIONAL ELECTRICAL CODE. NMC ALLOWED FOR APARTMENT UNIT WIRING ONLY.**

ALL 'AFCI' CIRCUITS REQUIRE A DEDICATED NEUTRAL

- GENERAL NOTES:**
- ONLY APPROVED PRODUCTS LISTED ON DRAWINGS OR IN AN ADDENDUM WILL BE ACCEPTED.
  - REFER TO MECHANICAL/CIVIL DRAWINGS AND ADDENDUMS FOR EXACT LOCATION OF ALL MECHANICAL EQUIPMENT.
  - ELECTRICAL CONTRACTOR TO CONFIRM ALL MECHANICAL EQUIPMENT CONNECTIONS PRIOR TO ROUGH-IN.
  - ELECTRICAL CONTRACTOR SHALL REFER TO ARCHITECTURAL CASEWORK DRAWINGS PRIOR TO ROUGH-IN.
  - ALL CONDUITS FOR LOW VOLTAGE SYSTEMS TO BE INSULATED BUSHINGS. RE: COAX WIRING DETAIL FOR ADDITIONAL REQUIREMENTS.
  - ALL KITCHEN RECEPTACLES TO BE TAMPER RESISTANT GFI PROTECTED RECEPTACLES THRU COMBINATION AFCI/GFCI BREAKER IN PANEL. RE: PANEL SCHEDULE.
  - THE ENTIRE ELECTRICAL INSTALLATION SHALL CONFORM TO THE 2017 NEC.
  - THIS PROJECT SHALL MEET THE 2015 ENTERPRISE GREEN COMMUNITIES CRITERIA.
  - PROVIDE A COMPLETE AND OPERATIONAL ELECTRICAL SYSTEM AS WELL AS COMPLETE AND OPERATIONAL LOW VOLTAGE SYSTEM. ALL NECESSARY COMPONENT MAY NOT BE INDICATED.
  - CONTRACTOR TO REFER TO CODE STUDY FOR RATINGS OF WALLS, FLOORS AND CEILINGS. ADJUST INSTALLATION AS REQUIRED TO MAINTAIN RATING OR UTILIZE UL LISTED METHODS TO MAINTAIN THE FIRE RATING.
  - SLEEVE AS REQUIRED BETWEEN UNIT CRAWL SPACES AND ATTIC SPACES. ALL SLEEVES TO BE FIRE CAULKED TO MAINTAIN RATINGS.
  - ALL TYPE L FIXTURES ARE TO BE WIRED VIA BUILDING PHOTOCELL AND TIED INTO BUILDING LIGHT CIRCUIT. RE: SITE PLAN.
  - REFER TO SITE PLAN FOR WIRING OF TYPE AA & BB FIXTURES.

**BLDG C: SECOND FLOOR - ELECTRICAL PLAN**



IT IS THE CONTRACTOR'S RESPONSIBILITY NOT TO EXCEED OUTLET SPACING AS REQUIRED BY THE NATIONAL ELECTRICAL CODE.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO ADHERE TO ALL APPLICABLE SECTIONS OF THE NEC. ANY DISCREPANCIES BETWEEN THESE DRAWINGS AND THE NEC SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION PRIOR TO ROUGH-IN. FAILURE TO BRING SUCH ITEMS TO THE ATTENTION OF THE ENGINEER, RESULTING IN ANY TYPE OF MODIFICATIONS TO THE INSTALLATION, SHALL BE AT THE CONTRACTOR'S EXPENSE.

- HEX NOTES:**
- (A) ALL KITCHEN RECEPTACLES TO BE GFCI PROTECTED VIA COMBINATION AFCI/GFCI BREAKERS LOCATED IN PANEL.
  - (B) EXHAUST FAN SHALL BE WIRED HOT TO RUN CONTINUOUSLY AT THE SPEED SET BY MECHANICAL. WIRE TO CIRCUIT INDICATED.
  - (C) EXHAUST FAN SHALL BE WIRED VIA OCCUPANCY SENSOR AND BE ENERGIZED WITH THE LIGHT. WIRE TO CIRCUIT INDICATED.
  - (D) EXHAUST FAN SHALL BE WIRED HOT AND RUN CONTINUOUSLY AT SPEED SET BY MECHANICAL. UPON ACTIVATION OF OCCUPANCY SENSOR LOCATED ON FAN, FAN TO RUN HIGH UNTIL TIMED OUT. WIRE TO CIRCUIT INDICATED. OBTAIN WIRING DIAGRAM FROM EQUIPMENT SUPPLIER.
  - (E) INSTALL TYPE C FIXTURE AT A MINIMUM OF 12" AWAY FROM DEFINED STORAGE AREA, IE SHELVING ETC, PER NEC 410.16.
  - (F) COORDINATE WITH OTHER TRADES TO MAINTAIN NEC CLEARANCES ABOUT ELECTRICAL PANEL.

| SCHEDULE FOR PANEL U2   |                        |                     |       |                    |                        |                  |                        |                       |  |
|---|------------------------|---------------------|-------|--------------------|------------------------|------------------|------------------------|-----------------------|--|
| VOLTS/PHASE/WIRE 120/240/1ph-3w   |                        |                     |       |                    | MAIN DEVICE 125a_MLO   |                  |                        |                       |  |
| MOUNTING FLUSH  |                        |                     |       |                    | S.C. RATING 10,000 AIC |                  |                        |                       |  |
| NOTES: Provide with (2) each Spare 3/4" c. into Attic & Crawlspace N/A                                  |                        |                     |       |                    |                        |                  |                        |                       |  |
| Duty/Demand Load is Calculated Per NEC : Ltg, Cmp, Htg, Mtr & AC at 125%, Rec @ 10 + 50% and Othr @100% |                        |                     |       |                    |                        |                  |                        |                       |  |
| PHASE A (KVA) 17.2  |                        | CONNECTED KVA 32.35 |       | PHASE B (KVA) 16.7 |                        | LOAD FACTOR 0.78 |                        | DUTY/DEMAND KVA 25.24 |  |
| PHASE C (KVA) N/A   |                        |                     |       |                    |                        |                  |                        |                       |  |
| AVERAGE AMPS/LEG BASED ON DUTY/DEMAND KVA 105.2   |                        |                     |       |                    |                        |                  |                        |                       |  |
| #   | DESCRIPTION            | LOAD                | BRKR  | PH                 | BRKR                   | LOAD             | DESCRIPTION            | #                     |  |
| 1   | GL : 1st Flr Toilet    | 1,500               | A20/1 | A                  | C20/1                  | 1,500            | GL : Kit Appliance     | 2                     |  |
| 3   | GL : 2nd Flr Bath      | 1,500               | A20/1 | B                  | C20/1                  | 1,500            | GL : Kit Appliance     | 4                     |  |
| 5   | GL : Bedrm 1           | 765                 | A20/1 | A                  | C20/1                  | 1,540            | GL : Disp/DW/Fridge    | 6                     |  |
| 7   | GL : Bedrm 2           | 940                 | A20/1 | B                  | A20/1                  | 1,185            | GL : Kit + Hall Lts    | 8                     |  |
| 9   | Spare                  |                     | A20/1 | A                  | A20/1                  | 1,080            | GL : Living Rm Rec     | 10                    |  |
| 11  | Spare                  |                     | A20/1 | B                  | A20/1                  | 920              | GL : Living Rm Rec     | 12                    |  |
| 13  | Othr : Smoke Detectors | 600                 | A20/1 | A                  | A15/1                  | 495              | Othr : Furnace         | 14                    |  |
| 15  | GL : Laundry Washer    | 1,500               | A20/1 | B                  | A20/1                  | 960              | Othr : Water Heater    | 16                    |  |
| 17  | Othr : Dryer           | 2,500               | 30/2  | A                  | 20/2                   | 1,680            | Othr : Condensing Unit | 18                    |  |
| 19  | Do                     | 2,500               | Do    | B                  | Do                     | 1,680            | Do                     | 20                    |  |
| 21  | Space                  |                     | A     | 50/2               | 4,000                  |                  | Othr : Range           | 22                    |  |
| 23  | Space                  |                     | B     | Do                 | 4,000                  |                  | Do                     | 24                    |  |
| ENCLOSURE TYPE: NEMA 1  |                        |                     |       |                    | BREAKER TYPE: PLUG ON  |                  |                        |                       |  |
| CLASS OF EQUIPMENT: LOADCENTER  |                        |                     |       |                    | NO. CIRCUITS: 24       |                  |                        |                       |  |

| SCHEDULE FOR PANEL U3A  |                        |                     |       |                    |                        |                  |                        |                       |  |
|---|------------------------|---------------------|-------|--------------------|------------------------|------------------|------------------------|-----------------------|--|
| VOLTS/PHASE/WIRE 120/240/1ph-3w   |                        |                     |       |                    | MAIN DEVICE 125a_MLO   |                  |                        |                       |  |
| MOUNTING FLUSH  |                        |                     |       |                    | S.C. RATING 10,000 AIC |                  |                        |                       |  |
| NOTES: Provide with (1) each Spare 3/4" c. into Attic & Crawlspace N/A                                  |                        |                     |       |                    |                        |                  |                        |                       |  |
| Duty/Demand Load is Calculated Per NEC : Ltg, Cmp, Htg, Mtr & AC at 125%, Rec @ 10 + 50% and Othr @100% |                        |                     |       |                    |                        |                  |                        |                       |  |
| PHASE A (KVA) 16.1  |                        | CONNECTED KVA 28.05 |       | PHASE B (KVA) 13.4 |                        | LOAD FACTOR 0.85 |                        | DUTY/DEMAND KVA 23.80 |  |
| PHASE C (KVA) N/A   |                        |                     |       |                    |                        |                  |                        |                       |  |
| AVERAGE AMPS/LEG BASED ON DUTY/DEMAND KVA 99.2  |                        |                     |       |                    |                        |                  |                        |                       |  |
| #   | DESCRIPTION            | LOAD                | BRKR  | PH                 | BRKR                   | LOAD             | DESCRIPTION            | #                     |  |
| 1   | GL : 1st Flr Toilet    | 1,500               | A20/1 | A                  | C20/1                  | 1,500            | GL : Kit Appliance     | 2                     |  |
| 3   | Spare                  |                     | A20/1 | B                  | C20/1                  | 1,500            | GL : Kit Appliance     | 4                     |  |
| 5   | GL : Bedrm 1           | 765                 | A20/1 | A                  | C20/1                  | 1,540            | GL : Disposer/DW       | 6                     |  |
| 7   | Spare                  |                     | A20/1 | B                  | A20/1                  | 910              | GL : Kit + Lndry Lts   | 8                     |  |
| 9   | Spare                  |                     | A20/1 | A                  | A20/1                  | 910              | GL : Living Rm Lts     | 10                    |  |
| 11  | Spare                  |                     | A20/1 | B                  | A20/1                  | 910              | GL : Living Rm Rec     | 12                    |  |
| 13  | Othr : Smoke Detectors | 300                 | A20/1 | A                  | A15/1                  | 495              | Othr : Furnace         | 14                    |  |
| 15  | Othr : Laundry         | 1,500               | A20/1 | B                  | A20/1                  | 960              | Othr : Water Heater    | 16                    |  |
| 17  | D : Dryer              | 2,500               | 30/2  | A                  | 20/2                   | 1,130            | Othr : Condensing Unit | 18                    |  |
| 19  | Do                     | 2,500               | Do    | B                  | Do                     | 1,130            | Do                     | 20                    |  |
| 21  | Space                  |                     | A     | 50/2               | 4,000                  |                  | RG : Range             | 22                    |  |
| 23  | Space                  |                     | B     | Do                 | 4,000                  |                  | Do                     | 24                    |  |
| ENCLOSURE TYPE: NEMA 1  |                        |                     |       |                    | BREAKER TYPE: PLUG ON  |                  |                        |                       |  |
| CLASS OF EQUIPMENT: LOADCENTER  |                        |                     |       |                    | NO. CIRCUITS: 24       |                  |                        |                       |  |

| SCHEDULE FOR PANEL U3B  |                        |                     |       |                    |                        |                  |                        |                       |  |
|---|------------------------|---------------------|-------|--------------------|------------------------|------------------|------------------------|-----------------------|--|
| VOLTS/PHASE/WIRE 120/240/1ph-3w   |                        |                     |       |                    | MAIN DEVICE 125a_MLO   |                  |                        |                       |  |
| MOUNTING FLUSH  |                        |                     |       |                    | S.C. RATING 10,000 AIC |                  |                        |                       |  |
| NOTES: Provide with (1) each Spare 3/4" c. into Attic & Crawlspace N/A                                  |                        |                     |       |                    |                        |                  |                        |                       |  |
| Duty/Demand Load is Calculated Per NEC : Ltg, Cmp, Htg, Mtr & AC at 125%, Rec @ 10 + 50% and Othr @100% |                        |                     |       |                    |                        |                  |                        |                       |  |
| PHASE A (KVA) 16.2  |                        | CONNECTED KVA 29.56 |       | PHASE B (KVA) 14.9 |                        | LOAD FACTOR 0.86 |                        | DUTY/DEMAND KVA 25.31 |  |
| PHASE C (KVA) N/A   |                        |                     |       |                    |                        |                  |                        |                       |  |
| AVERAGE AMPS/LEG BASED ON DUTY/DEMAND KVA 105.4   |                        |                     |       |                    |                        |                  |                        |                       |  |
| #   | DESCRIPTION            | LOAD                | BRKR  | PH                 | BRKR                   | LOAD             | DESCRIPTION            | #                     |  |
| 1   | GL : 1st Flr Toilet    | 1,500               | A20/1 | A                  | C20/1                  | 1,500            | GL : Kit Appliance     | 2                     |  |
| 3   | Spare                  |                     | A20/1 | B                  | C20/1                  | 1,500            | GL : Kit Appliance     | 4                     |  |
| 5   | GL : Bedrm 1           | 765                 | A20/1 | A                  | C20/1                  | 1,540            | GL : Disposer/DW       | 6                     |  |
| 7   | Spare                  |                     | A20/1 | B                  | A20/1                  | 915              | GL : Kit + Lndry Lts   | 8                     |  |
| 9   | Spare                  |                     | A20/1 | A                  | A20/1                  | 925              | GL : Living Rm Lts     | 10                    |  |
| 11  | Spare                  |                     | A20/1 | B                  | A20/1                  | 900              | GL : Living Rm Rec     | 12                    |  |
| 13  | Othr : Smoke Detectors | 300                 | A20/1 | A                  | A15/1                  | 495              | Othr : Furnace         | 14                    |  |
| 15  | Othr : Laundry         | 1,500               | A20/1 | B                  | A20/1                  | 960              | Othr : Water Heater    | 16                    |  |
| 17  | D : Dryer              | 2,500               | 30/2  | A                  | 20/2                   | 1,130            | Othr : Condensing Unit | 18                    |  |
| 19  | Do                     | 2,500               | Do    | B                  | Do                     | 1,130            | Do                     | 20                    |  |
| 21  | Space                  |                     | A     | 50/2               | 4,000                  |                  | RG : Range             | 22                    |  |
| 23  | Space                  |                     | B     | Do                 | 4,000                  |                  | Do                     | 24                    |  |
| ENCLOSURE TYPE: NEMA 1  |                        |                     |       |                    | BREAKER TYPE: PLUG ON  |                  |                        |                       |  |
| CLASS OF EQUIPMENT: LOADCENTER  |                        |                     |       |                    | NO. CIRCUITS: 24       |                  |                        |                       |  |

'A' INDICATES ARC FAULT CIRCUIT BREAKER  
 'C' INDICATES COMBINATION ARC FAULT CIRCUIT/ GROUND FAULT CIRCUIT INTERRUPTER BREAKER.

'A' INDICATES ARC FAULT CIRCUIT BREAKER  
 'C' INDICATES COMBINATION ARC FAULT CIRCUIT/ GROUND FAULT CIRCUIT INTERRUPTER BREAKER.

'A' INDICATES ARC FAULT CIRCUIT BREAKER  
 'C' INDICATES COMBINATION ARC FAULT CIRCUIT/ GROUND FAULT CIRCUIT INTERRUPTER BREAKER.

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|            |          |
|------------|----------|
| DATE       | 04/16/19 |
| DRAWN      | LMAK     |
| CHECK      | MSK      |
| REVISIONS: |          |