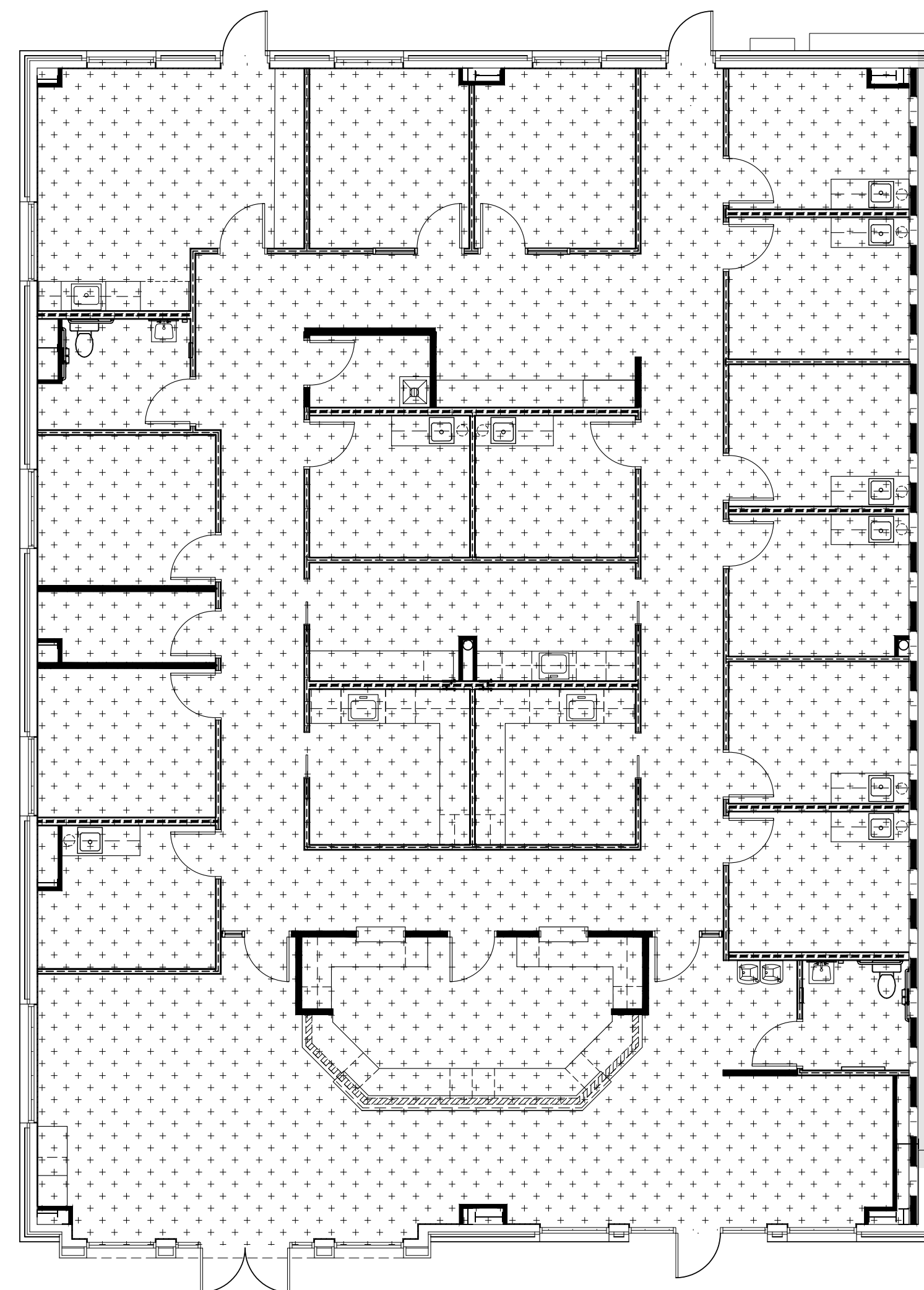


# PHYCINITY- DR. CABAN

2277 NC HWY 24-87  
CAMERON, NC

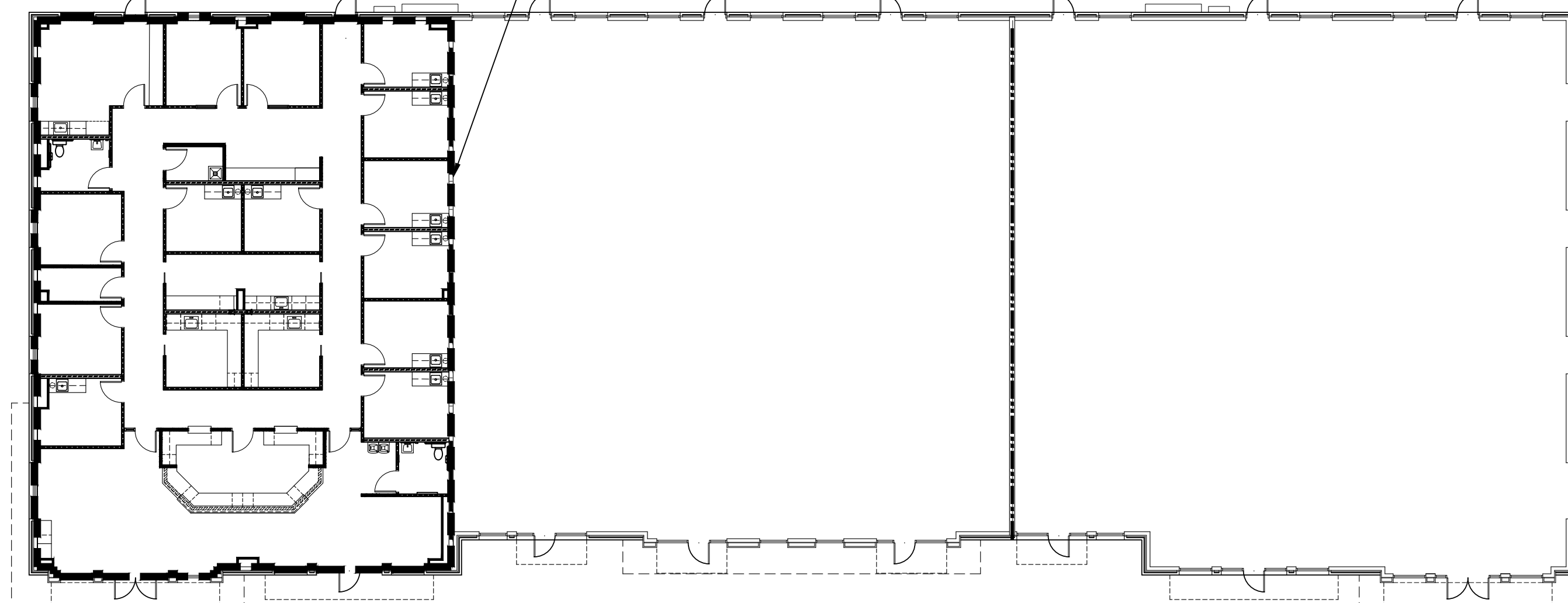
## INDEX OF DRAWINGS

- G-1 TITLE SHEET & LIFE SAFETY PLAN
- G-2 BUILDING CODE SUMMARY
- G-3 UL DETAILS
- G-4 GENERAL NOTES
  
- A-1 FLOOR PLAN, CEILING PLAN, OUTLET PLAN
- A-2 DOOR SCHEDULE & ENLARGED PLANS
- A-3 INTERIOR ELEVATIONS
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- FIN-1 FINISH PLAN AND SCHEDULE
  
- S-1 SLAB INFILL PLAN AND DETAILS
  
- M-1 HVAC FLOOR PLAN
- M-2 HVAC DETAILS
  
- E-1 ELECTRICAL DETAILS
- E-2 LIGHTING PLAN
- E-3 POWER PLAN
  
- P-1 S.W & V FLOOR PLAN AND RISER
- P-2 WATER FLOORPLAN AND RISER
- P-3 PLUMBING DETAILS



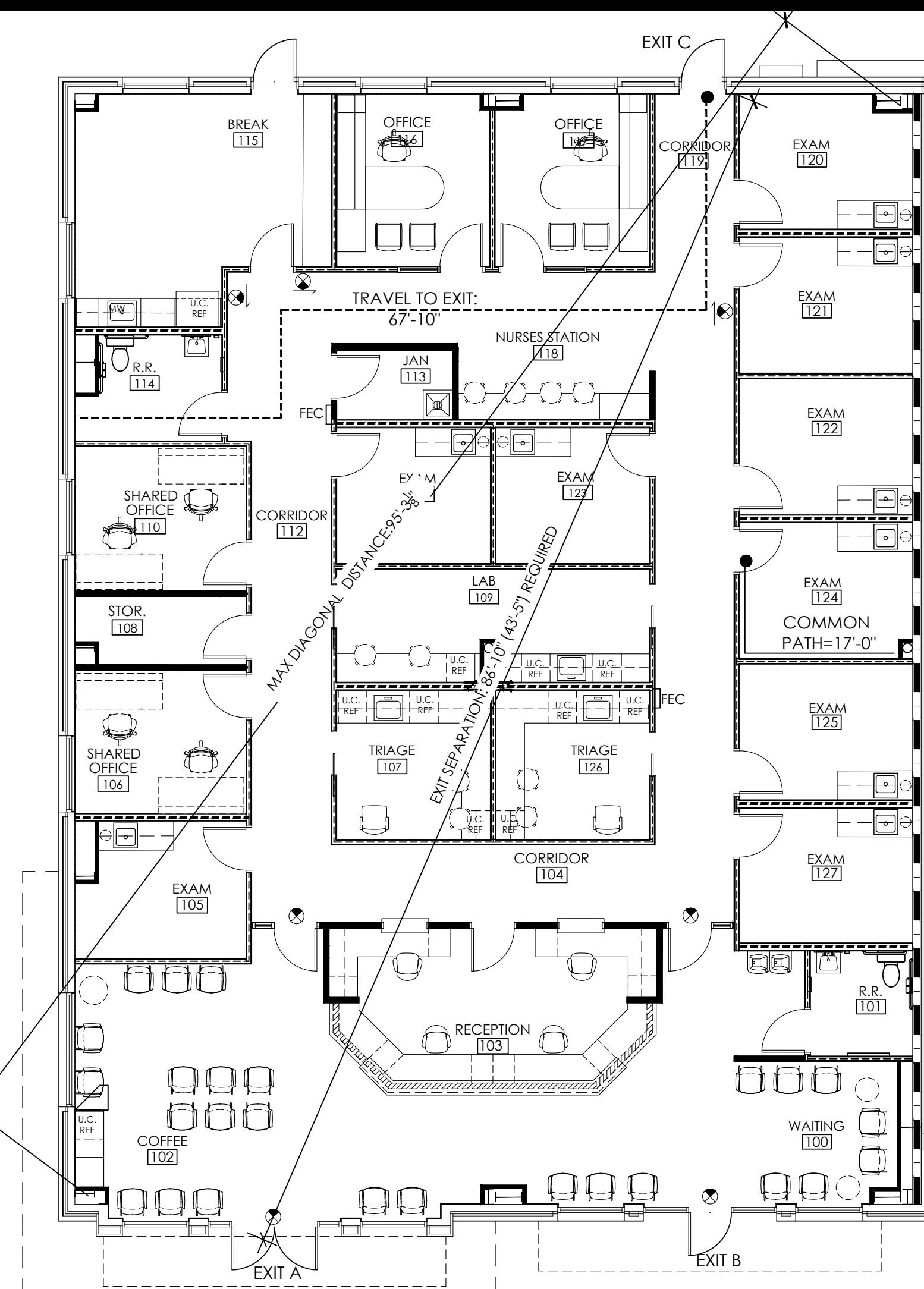
**3 OCCUPANT LOAD**  
G-1 SCALE: 1/8"=1'-0"

DASHED LINE INDICATES  
EXTENTS OF SUITE AND AREA  
OF WORK: 4,650 SF



**1 KEY PLAN**  
G-1 SCALE: NTS

OCC TYPE: B  
100 SF/PER PERSON  
OCC LOAD: 47  
4,650 SF  
TOTAL NUMBER OF OCCUPANTS: 47



| EXIT   | CLR. EXIT WIDTH | MAX. CALC. OCCUPANT LOAD | ACTUAL OCCUPANT LOAD |
|--------|-----------------|--------------------------|----------------------|
| EXIT A | 66"             | 330                      | 17                   |
| EXIT B | 33"             | 165                      | 15                   |
| EXIT C | 33"             | 165                      | 15                   |

TOTAL OCCUPANTS: 47

## SYMBOLS LEGEND

- NEW WALL TO 4' ABOVE CEILING. 3 5/8" (25 GAUGE) METAL STUDS @ 16" O.C. W/ 5/8" GWB EACH SIDE WITH SOUND BATTS IN STUD CAVITIES. SEE WALL BRACING DETAIL 1/A-1
- NEW 1 HOUR RATED FIRE PARTITION TO DECK. GC TO PROVIDE NECESSARY SEAL PENETRATIONS & PROVIDE RATED CONSTRUCTION. (PER UL 1419) PROVIDE 1 LAYER OF 5/8" GYPSUM WB EACH SIDE OF 6" METAL STUDS (20 GAUGE) @ 16" O.C. PROVIDE BATTING INSULATION SOUND BARRIER
- NEW NON-RATED PARTITION TO DECK. PROVIDE 1 LAYER OF 5/8" GYPSUM WB EACH SIDE OF 3 5/8" METAL STUDS (20 GAUGE) @ 16" O.C. PROVIDE BATT INSULATION FOR SOUND BARRIER. RUN WALL ASSEMBLY CONTINUOUS FROM THE FINISH FLOOR TO DECK ABOVE & SEAL. PROVIDE DEFLECTION TRACK FOR CONNECTION TO DECK.
- NEW 6" STUD NON-RATED PARTITION TO DECK. PROVIDE 1 LAYER OF 5/8" GYPSUM WB EACH SIDE OF 6" METAL STUDS (20 GAUGE) @ 16" O.C. PROVIDE BATT INSULATION FOR SOUND BARRIER. RUN WALL ASSEMBLY CONTINUOUS FROM THE FINISH FLOOR TO DECK ABOVE & SEAL. PROVIDE DEFLECTION TRACK FOR CONNECTION TO DECK. PROVIDE MOISTURE RESISTANT GYPSUM WB FOR WALLS WITH PLUMBING.
- NEW WALL TO 6' ABOVE CEILING. 2-1/2" (25 GAUGE) METAL STUDS @ 16" O.C. W/ 5/8" GWB ONE SIDE WITH SOUND BATTS IN STUD CAVITIES. SEE WALL BRACING DETAIL 1/A1
- NEW NON-RATED PARTIAL HEIGHT PARTITION. PROVIDE 1 LAYER OF 5/8" GYPSUM WALL BD. BOTH SIDES OF 3 5/8" METAL STUDS (25 GAUGE) @ 16" O.C. REFER TO ELEVATIONS FOR WALL HEIGHTS
- EXISTING EXTERIOR WALL WITH NEW LAYER OF 5/8" GWB APPLIED TO STUDS FROM FINISHED FLOOR TO STRUCTURE ABOVE. PROVIDE R19 BATT INSULATION IF NOT CURRENTLY INSTALLED.
- NEW FIRE EXTINGUISHER & SEMI-RECESSED FIRE EXTINGUISHER CABINET
- EXIT SIGN LOCATION

## Architecture & Interior Design

is design, PLLC

111 Haynes Street, Suite 103  
Raleigh, North Carolina, 27604  
Phone: (919) 833-5400

## MEP Engineers

West Key Consulting

4008 Barrett Drive, Suite 204  
Raleigh, North Carolina, 27609  
Phone: (919) 881-8020

## Structural Engineer

Harris Structural Design, PA

3206 Heritage Trade Drive  
Wake Forest, North Carolina, 27587  
Phone: (919) 556-6032

PHYCINITY- DR. CABAN  
CAMERON BUILDING  
2277 NC HWY 24-87  
CAMERON, NORTH CAROLINA

JOB #:  
22DR CABAN

DWG BY:  
MPP  
CHK BY:  
DVS  
02/16/23

TITLE SHEET &  
LIFE SAFETY  
PLAN

SHEET NO.

G-1

NOTICE TO CONTRACTOR  
All construction must comply with current NC Building Codes and is subject to field inspection and verification.

Reviewed for Code Compliance  
04/17/2023

May use two unisex bathrooms in lieu of separate sex.

2018 APPENDIX B BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS (EXCEPT 1 AND 2-FAMILY DWELLINGS AND TOWNHOUSES)

Name of Project: PHYCINITY-DR. CABAN
Address: 2277 NC HWY 24-87
Owner/Authorized Agent: IS design, PLLC

CONTACT: DESIGNER IS design, PLLC NAME David Sears LICENSE # 9987 TELEPHONE # 919.833.5400 E-MAIL david@isdesignpllc.com

2018 NC CODE FOR: New Construction Addition Renovation
1st Time Interior Completion
Shell/Core

2018 NC EXISTING BUILDING CODE: Prescriptive Repair Chapter 14
Alteration: Level I Level II Level III
CONSTRUCTED (date) 2023 ORIGINAL OCCUPANCY(S) (Ch. 3): Business

BASIC BUILDING DATA Construction Type: I-A II-A III-A IV V-A
I-B II-B III-B V-B
Sprinklers: No Partial Yes NFPA 13 NFPA 13R NFPA 13D

Table with 4 columns: FLOOR, EXISTING (SQ FT), NEW (SQ FT), RENO/ALTER (SQ FT), SUB-TOTAL. Rows for 1st Floor, Basement, and TOTAL.

ALLOWABLE AREA Primary Occupancy Classification: SELECT ONE
Assembly Business Educational Factory Hazardous Institutional Mercantile Residential Storage Utility and Miscellaneous

Actual Area of Occupancy A = Actual Area of Occupancy B
Allowable Area of Occupancy A Allowable Area of Occupancy B

Table with 4 columns: (A) Accessible Area, (B) Total Area, (C) Maximum Allowable Area, (D) Maximum Allowable Area. Includes formulas for calculating area ratios.

ALLOWABLE HEIGHT Table with 2 columns: Building Height (Table 504.3), Building Height in Stories (Table 504.4)

FIRE PROTECTION REQUIREMENTS Table with columns: BUILDING ELEMENT, FIRE SEPARATION DISTANCE (FEET), RATED, RATING PROVIDED (W/REDUCTION), DETAIL # AND SHEET #, DESIGN # FOR RATED ASSEMBLY, DESIGN # FOR RATED PENETRATION, DESIGN # FOR RATED JOINTS

PERCENTAGE OF WALL OPENING CALCULATIONS Table with columns: FIRE SEPARATION DISTANCE, DETAIL # AND SHEET #, DESIGN # FOR RATED ASSEMBLY, DESIGN # FOR RATED PENETRATION, DESIGN # FOR RATED JOINTS

LIFE SAFETY SYSTEM REQUIREMENTS Emergency Lighting: No Yes
Exit Signs: No Yes
Fire Alarm: No Yes
Smoke Detection Systems: No Yes Partial

LIFE SAFETY PLAN REQUIREMENTS Life Safety Plan Sheet #: G-1
Fire extinguisher locations
Fire and/or smoke rated wall locations

ACCESSIBLE DWELLING UNITS (SECTION 4107) Table with columns: TYPE, ACCESSIBLE, TYPE, TYPE, TYPE, TYPE, TYPE, TYPE

ACCESSIBLE PARKING (SECTION 4106) Table with columns: TYPE, ACCESSIBLE, TYPE, TYPE, TYPE, TYPE, TYPE, TYPE

PLUMBING FIXTURE REQUIREMENTS (TABLE 2902.1) Table with columns: USE, WATER CLOSETS, URINALS, LAVATORIES, SHOWERS, DRINKING FOUNTAINS

SPECIAL APPROVALS Special approval: (Local Jurisdiction, Department of Insurance, SCO, DPI, DHHS, ICC, etc., describe below)

ENERGY SUMMARY ENERGY REQUIREMENTS: The following data shall be considered minimum and any special attribute required to meet the North Carolina Energy Conservation Code shall also be provided.

Walls below grade (each assembly) Description of assembly: NA
U-Value of total assembly: NA
R-Value of insulation: NA

Floors on unconditioned space (each assembly) Description of assembly: NA
U-Value of total assembly: NA
R-Value of insulation: NA

Floors slab on grade Description of assembly: 4" CONC. W/ VAPOR BARRIER
U-Value of total assembly: R-15
R-Value of insulation: R-15

DESIGN LOADS: Importance Factors: Snow (S), Seismic (E)
Live Loads: Roof, Mezzanine, Plaza
Ground Snow Load: 0 psf

SEISMIC DESIGN CATEGORY: A, B, C, D
Provide the following Seismic Design Parameters: Risk Category (Table 1804.5), Site Classification (ASCE 7), Data Sources, Basic structural system, Analyze Provisions, Architectural/Mechanical Components anchored

LATERAL DESIGN CONTROL: Earthquake, Wind
SOIL BEARING CAPACITIES: Field Test (provide copy of test report), Presumptive bearing capacity, Pier size, type, and capacity

2018 APPENDIX B BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS MECHANICAL DESIGN (PROVIDE ON THE MECHANICAL SHEETS IF APPLICABLE)

MECHANICAL SUMMARY MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT Thermal Zone: winter dry bulb, summer dry bulb
Interior design conditions: winter dry bulb, summer dry bulb, relative humidity

2018 APPENDIX B BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS ELECTRICAL DESIGN (PROVIDE ON THE ELECTRICAL SHEETS IF APPLICABLE)

ELECTRICAL SUMMARY ELECTRICAL SYSTEM AND EQUIPMENT Method of Compliance: Energy Code: Prescriptive Performance
ASHRAE 90.1: Prescriptive Performance

Additional Efficiency Package Options (When using the 2018 NCECC; not required for ASHRAE 90.1)
C406.2 More Efficient Mechanical Equipment
C406.3 Reduced Lighting Power Density

Lighting schedule (each fixture type) lamp type required in fixture number of lamps in fixture ballast type used in the fixture

SEE MECHANICAL DRAWINGS SEE ELECTRICAL DRAWINGS



PHYCINITY- DR. CABAN CAMERON BUILDING 2277 NC HWY 24-87 CAMERON, NORTH CAROLINA

JOB #: 22DRCABAN

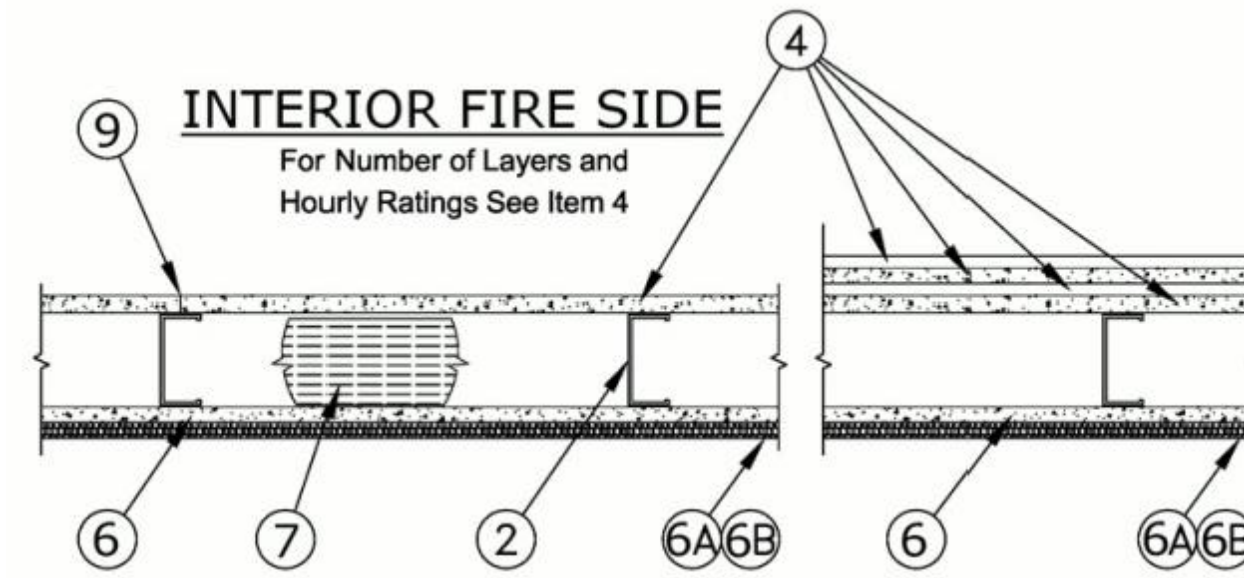
DWG BY: MPP
CHK BY: DVS
02/16/23

BUILDING CODE SUMMARY

SHEET NO.

G-2

Assembly Rating - 3/4, 1, 1-1/2 or 2 h (See Items 4 & 6)



Bearing Wall

1. Floor and Ceiling Runners — (Not Shown) — Channel shaped runners, fabricated from min 0.83 mm bare metal thickness (20 MSG) galvanized steel, min 90 mm deep with 32 mm flanges. Attached to floor and ceiling assemblies with steel fasteners spaced not greater than 610 mm OC.

2. Steel Studs\* — (CJF57) Min 0.83 mm bare metal thickness (20 MSG) galvanized steel studs, min 90 mm deep, designed in accordance with the current edition of North American Specification for the Design of Cold-Formed Steel Structural Members (CSA Standard S136). All design details enhancing the structural integrity of the wall assembly, including the axial design load of the studs, shall be as specified by the steel stud designer and/or producer, and shall meet the requirements of all applicable local code agencies. The max stud spacing shall not exceed 610 mm OC. Studs attached to floor and ceiling runners with 13 mm long Type S-12 steel screws on both sides of the studs or by welded or bolted connections designed in accordance with CSA- S136 specifications.

2A. Steel Studs\* — (CJF57) (As an alternate to Item 2) — Min 0.83 mm bare metal thickness (20 MSG) galvanized steel studs, min 92 mm deep by 41 mm wide with 13 mm returns, designed in accordance with the current edition of North American Specification for the Design of Cold-Formed Steel Structural Members (CSA Standard S136). All design details enhancing the structural integrity of the wall assembly, including the axial design load of the studs, shall be as specified by the steel stud designer and/or producer, and shall meet the requirements of all applicable local code agencies. The max stud spacing shall not exceed 610 mm OC. Studs attached to floor and ceiling runners with 13 mm long Type S-12 steel screws on both sides of the studs or by welded or bolted connections designed in accordance with CSA- S136 specifications.

BAILEY METAL PRODUCTS LTD

3. Lateral Support Members — (Not Shown) — Where required for lateral support of studs, support shall be provided by means of steel straps, channels or other similar means as specified in the design of a particular steel stud wall system.

4. Gypsum Board\* — (CKNXQ) Gypsum boards applied vertically. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Joints between layers staggered. Outer layer of 3 layer construction may be applied horizontally. The thickness and number of layers and percent of design load for the 3/4 hr, 1 hr, 1-1/2 hr, and 2 hr ratings are as follows:

Wallboard Protection on Interior Side of Wall

| Rating   | No. of Layers & Thickness of Wallboard Panel | % of Design Load |
|----------|--|------------------|
| 3/4 hr   | 1 layer, 15.9 mm thick                       | 100              |
| 1 hr     | 2 layers, 12.7 mm thick                      | 100              |
| 1-1/2 hr | 2 layers, 15.9 mm thick                      | 100              |
| 2 hr     | 3 layers, 12.7 mm thick                      | 100              |

CERTAINTEEED GYPSUM INC — 12.7 mm thick Type C; 15.9 mm thick Types X, X-1, C, SilentFX, Easi-Lite Type X, EGRG, GlasRoc, or GlasRoc-2.

4A. Gypsum Board\* — (CKNXQ) (As an alternate to Item 4 when used as a base layer on one or both sides of wall. For direct attachment only, not to be used with Item 8) — Nom 15.9 mm thick boards may be used as alternate to 15.9 mm thick boards shown in Item 4. Wallboard Protection on Each Side of Wall. The nom 15.9 mm thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over 20 MSG steel studs and staggered min 1 stud cavity on opposite sides of studs. See Items 1, 2 and 9. Wallboard secured to studs with 32 mm long Type S-12 steel screws spaced 204 mm OC at perimeter and 305 mm OC in the field. To be used with Lead Batten Strips (see Item 10) or Lead Discs or Tabs (see Item 11).

RAY-BAR ENGINEERING CORP — Type RB-LBG

5. Fasteners — (Not Shown) — Type S-12 steel screws used to attach panels to runners and studs or furring channels, spaced 305 mm OC. First layer Type S-12 by 25 mm long for 12.7 mm and 15.9 mm thick wallboards. Second layer Type S-12 by 42 mm long for 12.7 mm and 15.9 mm thick wallboards. Third layer Type S-12 by 48 mm long. For single layer systems, screw spacing shall be maximum 204 mm OC.

6. Gypsum Sheathing — On exterior side. 12.7 mm and 15.9 mm thick exterior regular gypsum sheathing applied vertically and attached to studs and runners with 25 mm long Type S12 steel screws spaced 305 mm OC along studs and runners. One or more of the following exterior facings shall be applied over the gypsum sheathing.

A. Siding, Brick or Stucco — Aluminum, vinyl or steel siding, brick veneer or stucco, meeting the requirements of local code agencies. When a min 95 mm thick brick veneer facing is used, the rating is applicable for exposure on either side. Brick veneer attached to studs with corrugated metal wall ties attached to each stud with steel screws, not more than each sixth course of brick.

B. Foamed Plastic\* — (CCVWC) Aged expanded polystyrene (EPS) board per ASTM C578, with a nom density not less than 16 kg/m<sup>3</sup> with a flame spread of less than 25 and a smoke developed of less than 450, adhered to the gypsum sheathing (Item 6), meeting the requirements of local code agencies. See Foamed Plastic (CCVWC) Category for names of Classified companies.

7. Batts and Blankets\* — (BKNVC and/or BZJZC) Placed into and to completely fill stud cavities. Any glass fiber or mineral wool insulation bearing the ULC Classification Marking as to Surface Burning Characteristics and/or Fire Resistance. See Batts and Blankets (BKNVC and/or BZJZC) Categories for names of Classified companies.

8. Furring Channels — (Optional, on one or both sides, Not Shown, for single or double layer systems) — Resilient furring channels fabricated from min 0.45 mm (25 MSG) corrosion-protected steel, spaced vertically a max of 610 mm OC. Flange portion attached to each intersecting stud with 12.7 mm long Type S-12 pan-head steel screws. Not for use with gypsum panels under Item 4A.

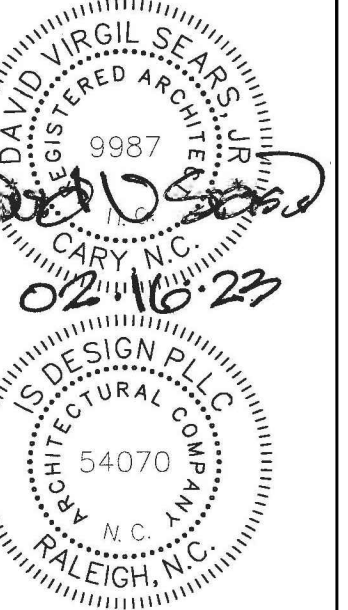
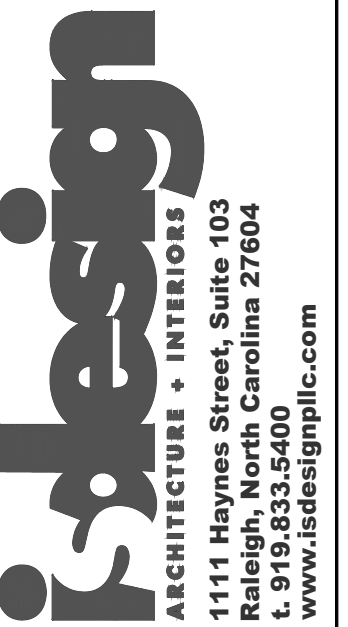
9. Joint Tape and Compound — Vinyl or casein, dry or premixed joint compound applied in two coats to joints and screw heads of interior face layer. Paper tape, nom 50 mm wide, embedded in first layer of compound over all joints of interior face layer. Paper tape and joint compound may be omitted when gypsum boards are supplied with square edges.

10. Lead Batten Strips — (Not Shown, For Use With Item 4A) — Lead batten strips, min 38 mm wide, max 3050 mm long with a max thickness of 3.2 mm. Strips placed on the interior face of studs and attached from the exterior face of the stud with two 25 mm long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead batten strips to have a purity of 99.9% meeting the US Federal specification QQ-L-201f, Grade "C". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 4A) and optional at remaining stud locations. Required behind vertical joints.

11. Lead Discs or Tabs — (Not Shown, For Use With Item 4A) — Used in lieu of or in addition to the lead batten strips (Item 10) or optional at other locations - Max 19 mm diam, by max 3.2 mm thick lead discs compression fitted or adhered over steel screw heads or max 12.7 mm by 32 mm by max 3.2 mm thick lead tabs placed on gypsum boards (Item 5A) underneath screw locations prior to the installation of the screws. Lead discs or tabs to have a purity of 99.9% meeting the US Federal specification QQ-L-201f, Grade "C".

\* Indicates such products shall bear the UL or ULC/cUL Certification Mark for jurisdictions employing the UL or ULC/cUL Certification (such as Canada), respectively

Last Updated on 2020-11-25



PHYCINITY- DR. CABAN  
CAMERON BUILDING  
2277 NC HWY 24-87  
CAMERON, NORTH CAROLINA

JOB #:  
22DRCABAN

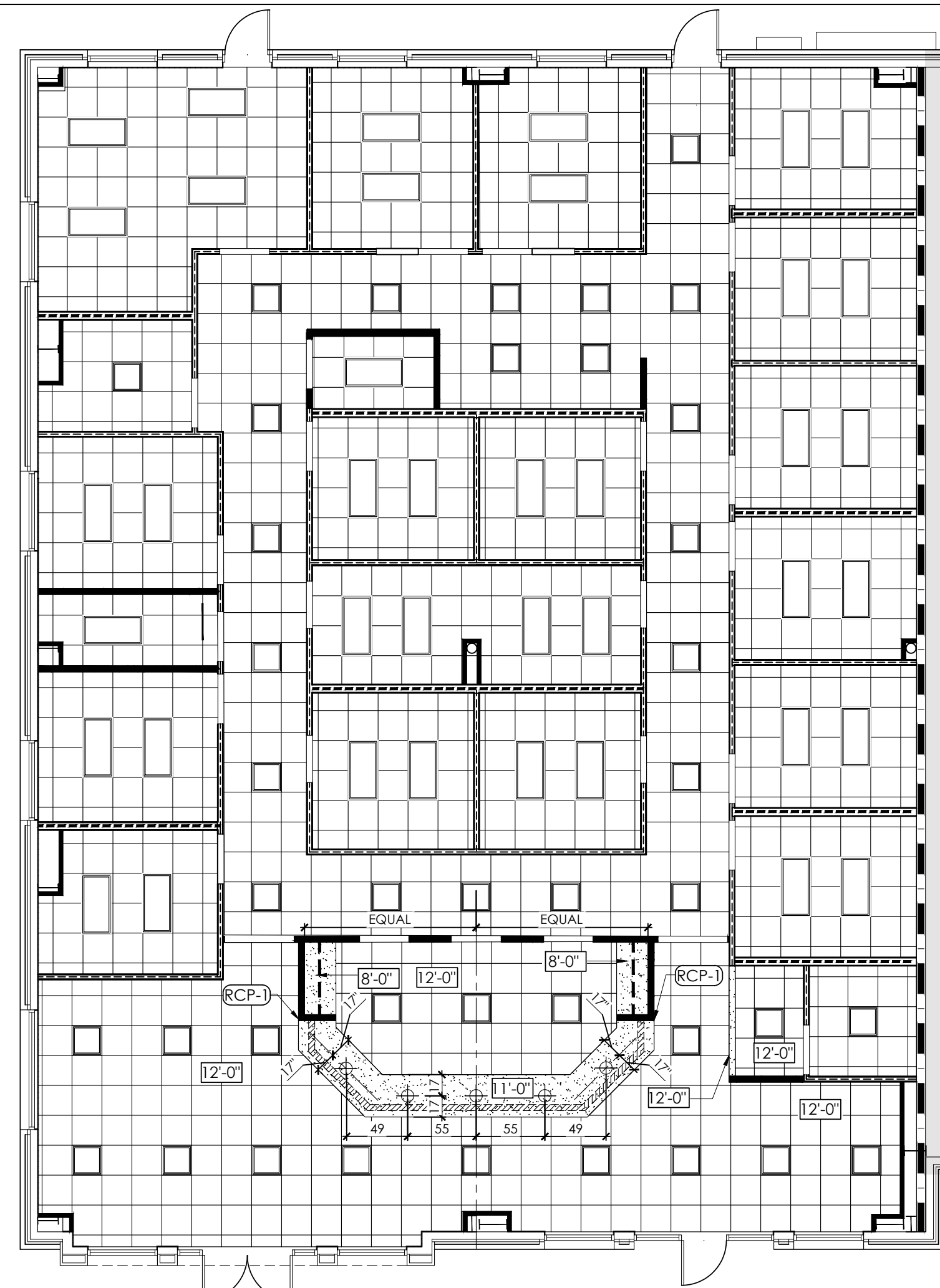
DWG BY:  
MPP  
CHK BY:  
DVS  
02/16/23

UL  
DETAILS

SHEET NO.

G-3





**5 CEILING PLAN**  
A-1 SCALE: 1/8"=1'-0"

**FLOOR PLAN NOTES**

**TAGGED NOTES:**

(A1) PROVIDE BLOCKING IN WALL FOR TENANT PROVIDED MONITOR.

(A2) PASS THRU WINDOW, BOBRICK B505; INSTALL PER MANF. GUIDELINES.

(A3) PROVIDE 4X8' FIRE RETARDANT PLYWOOD FOR TENANTS PHONE EQUIPMENT TO BE MOUNTED VERTICALLY. PAINT BOARD TO MATCH WALL.

(A4) SEMI RECESSED FIRE EXTINGUISHER CABINET.

(A5) 6" STUD WALL FOR INSTALLATION OF ELECTRICAL PANEL. REFER TO ELECTRICAL PLANS FOR MORE DETAILS.

**GENERAL NOTES:**

1. APPLIANCES AND EQUIPMENT TO BE PROVIDED BY TENANT.

2. INSTALL ROLLER SHADES AT EXTERIOR WINDOWS. SHADE OPACITY AND COLOR TO BE APPROVED BY TENANT AND LANDLORD.

**CEILING PLAN NOTES:**

**TAGGED NOTES:**

(RCP-1) ALIGN SOFFIT WITH FACE OF WALL

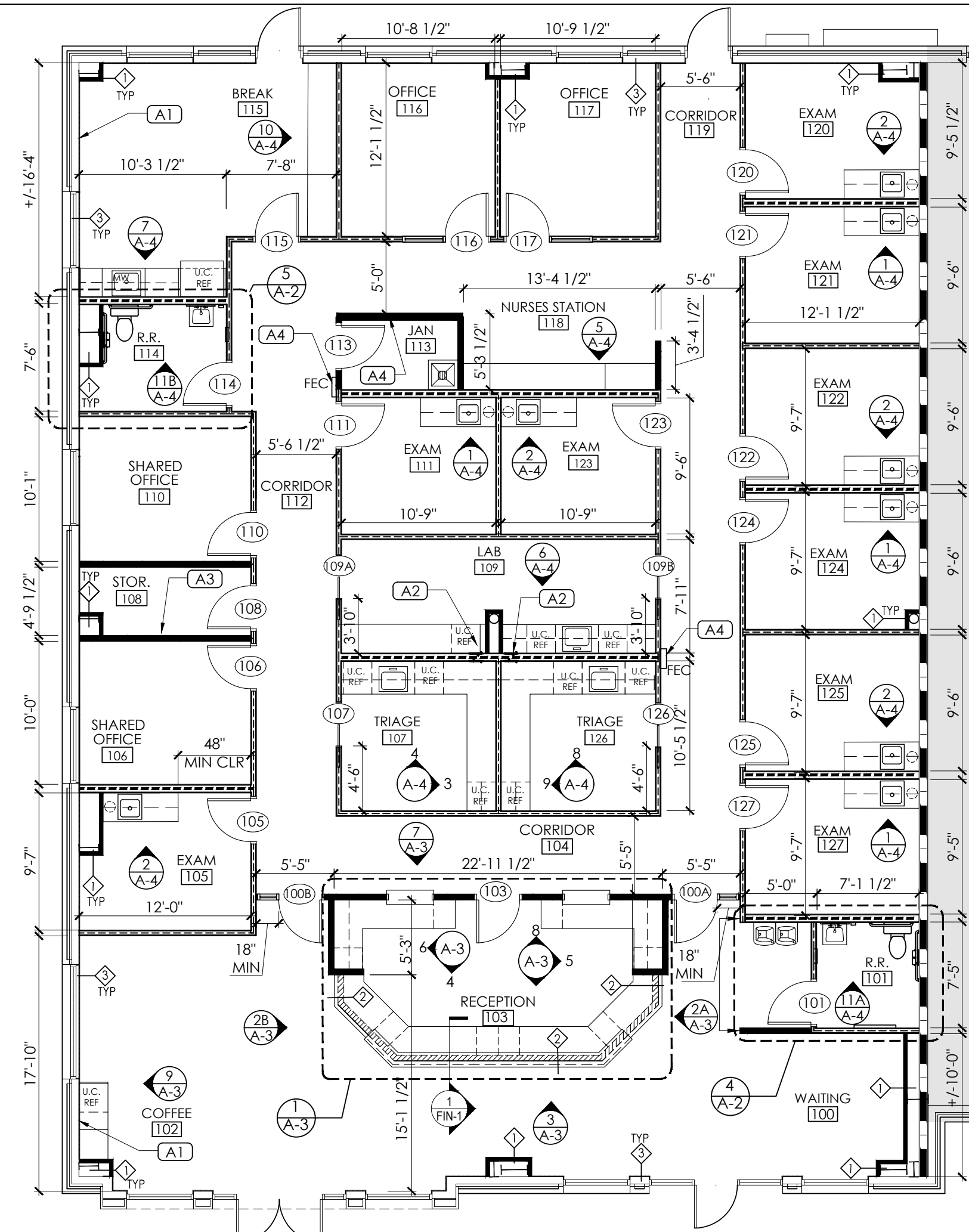
**GENERAL NOTES:**

1. GWB CEILINGS TO BE PAINTED FLAT CEILING WHITE PAINT.

2. DEVICES TO BE CENTERED IN CEILING TILES U.N.O.

3. CEILING GRIDS TO BE CENTERED IN ROOM U.N.O.

4. CEILING HEIGHT TO BE 9'6" A.F.F. U.N.O.



**4 FLOOR PLAN**  
A-1 SCALE: 1/8"=1'-0"

**SYMBOLS LEGEND**

NEW WALL TO 6" ABOVE CEILING, 3-5/8" (25 GAUGE) METAL STUDS @ 16" O.C. W/ 5/8" GWB EACH SIDE WITH SOUND BATTS IN STUD CAVITIES. SEE WALL BRACING DETAIL 1/A-1.

NEW 1 HOUR RATED FIRE PARTITION TO DECK, GC TO PROVIDE NECESSARY SEAL PENETRATIONS & PROVIDE RATED CONSTRUCTION. (PER UL U419) PROVIDE 1 LAYER OF 5/8" GYPSUM WB EACH SIDE OF 6" METAL STUDS (20 GAUGE) @ 16" O.C. PROVIDE BATT INSULATION SOUND BARRIER.

NEW NON-RATED PARTITION TO DECK. PROVIDE 1 LAYER OF 5/8" GYPSUM WB EACH SIDE OF 3 5/8" METAL STUDS @ 16" O.C. PROVIDE BATT INSULATION FOR SOUND BARRIER. RUN WALL ASSEMBLY CONTINUOUS FROM THE FINISH FLOOR TO DECK ABOVE & SEAL. PROVIDE DEFLECTION TRACK FOR CONNECTION TO DECK. PROVIDE MOISTURE RESISTANT GYPSUM WB FOR WALLS WITH PLUMBING.

NEW 6" STUD NON-RATED PARTITION TO DECK. PROVIDE 1 LAYER OF 5/8" GYPSUM WB EACH SIDE OF 6" METAL STUDS (20 GAUGE) @ 16" O.C. PROVIDE BATT INSULATION FOR SOUND BARRIER. RUN WALL ASSEMBLY CONTINUOUS FROM THE FINISH FLOOR TO DECK ABOVE & SEAL. PROVIDE DEFLECTION TRACK FOR CONNECTION TO DECK. PROVIDE MOISTURE RESISTANT GYPSUM WB FOR WALLS WITH PLUMBING.

NEW WALL TO 6" ABOVE CEILING, 2-1/2" (25 GAUGE) METAL STUDS @ 16" O.C. W/ 5/8" GWB ONE SIDE WITH SOUND BATTS IN STUD CAVITIES. SEE WALL BRACING DETAIL 1/A-1.

NEW NON-RATED PARTIAL HEIGHT PARTITION. PROVIDE 1 LAYER OF 5/8" GYPSUM WALL BD. BOTH SIDES OF 3 5/8" METAL STUDS (25 GAUGE) @ 16" O.C. REFER TO ELEVATIONS FOR WALL HEIGHTS.

EXISTING EXTERIOR WALL WITH NEW LAYER OF 5/8" GWB APPLIED TO STUDS FROM FINISHED FLOOR TO STRUCTURE ABOVE. PROVIDE R19 BATT INSULATION IF NOT CURRENTLY INSTALLED.

EXISTING DOOR TO REMAIN

NEW DOOR - SEE DOOR SCHEDULE FOR DETAILS

NEW POCKET DOOR W/ ADA HARDWARE - SEE DOOR SCHEDULE FOR DETAILS

NEW CEILING TILE AND GRID INSTALLED AT 9'-4" U.N.O. ARMSTRONG 2X2 DUINE REGULAR WITH 1/2" GRID.

NEW PAINTED GWB CEILING

NEW 2X2 LED LIGHT (LITHONIA 2BLT2)

NEW 2X4 LED LIGHT (LITHONIA 2BLT4)

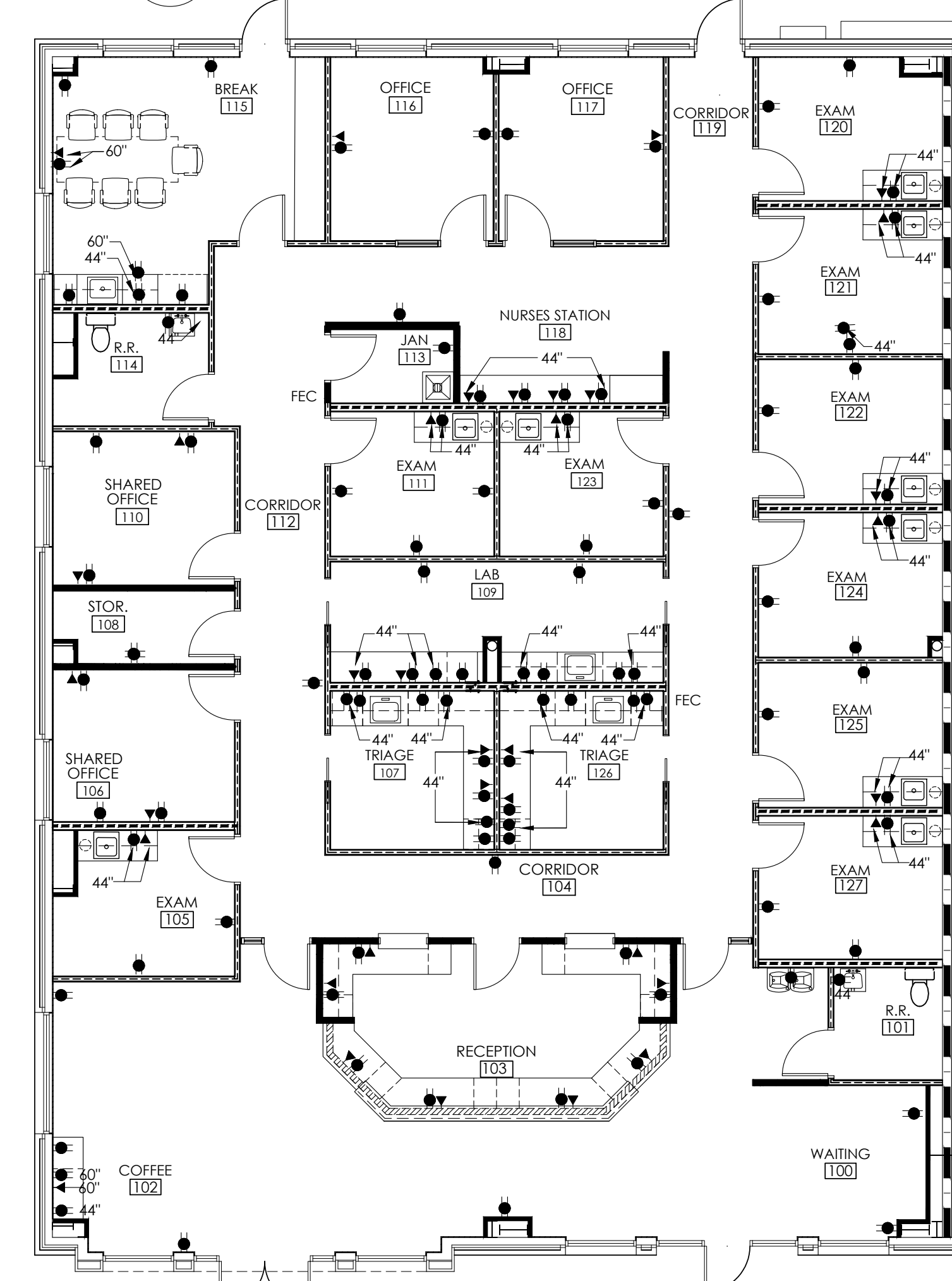
PENDANT LIGHT (SONNEMAN TRANSPARENCIE PENDANT) REFER TO ELEVATIONS FOR MOUNTING HEIGHT

UNDER CABINET LIGHT (FEELUX TUNELIGHT)

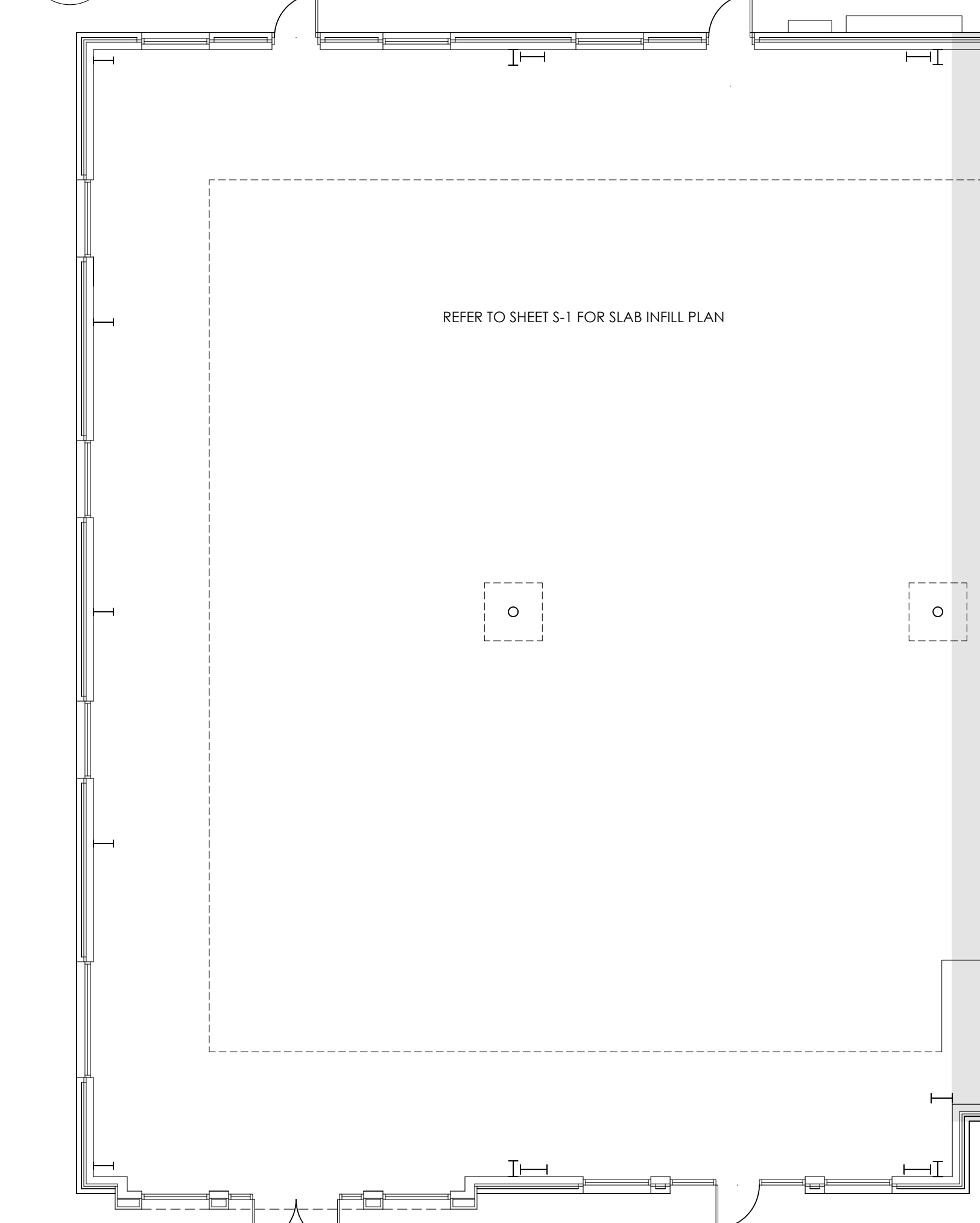
NEW PHONE/ DATA OUTLET WITH CONDUIT & PULLSTRING (WIRING BY OTHERS)

NEW DUPLEX ELECTRICAL OUTLET AT STANDARD HEIGHT U.N.O.

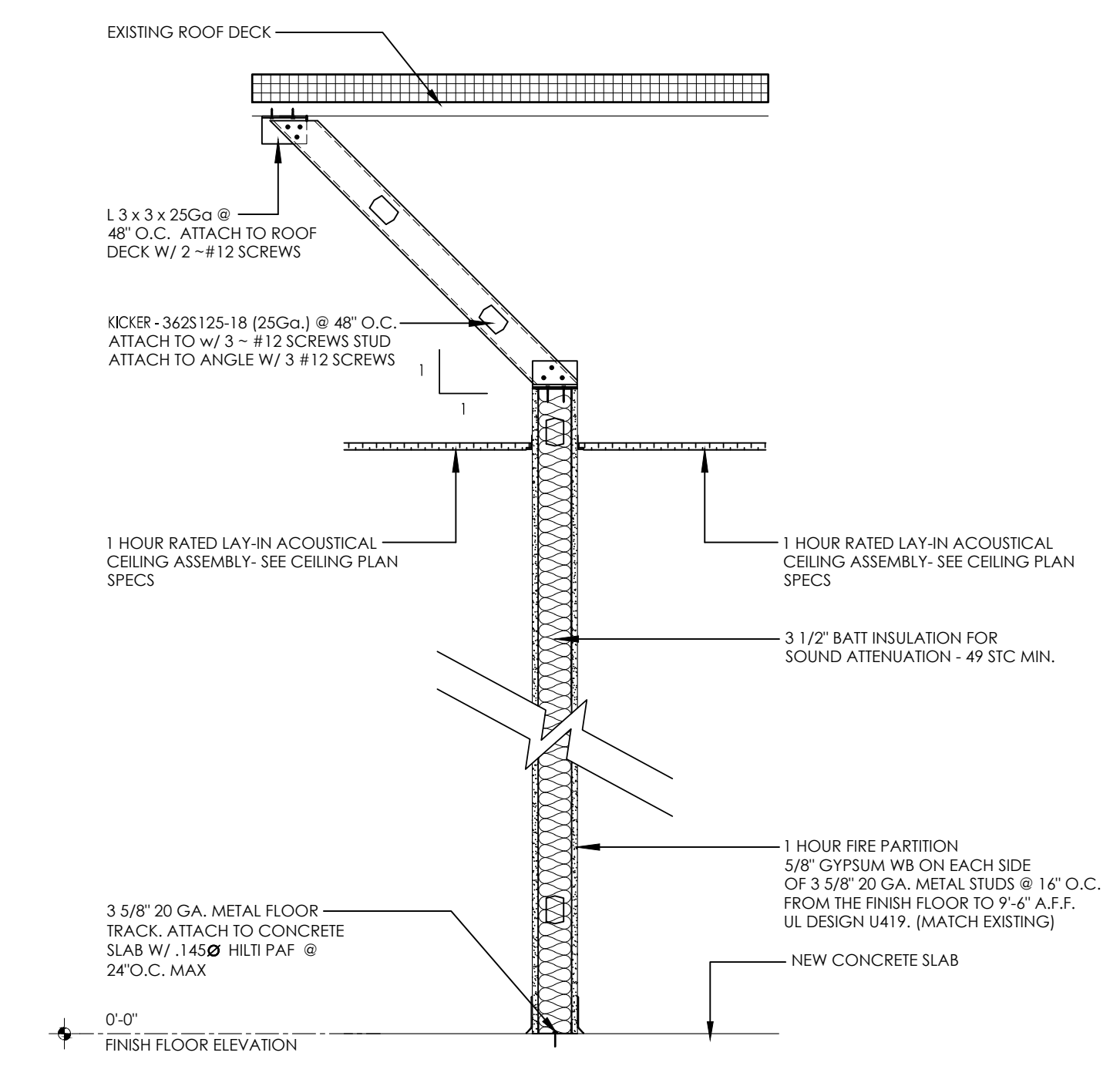
NEW QUADRUPEX ELECTRICAL OUTLET



**3 OUTLET PLAN**  
A-1 SCALE: 1/8"=1'-0"



**2 EXISTING CONDITIONS**  
A-1 SCALE: 1/8"=1'-0"



**1 WALL BRACING DETAIL**  
A-1 SCALE: 3/4"=1'-0"



JOB #:  
22DRCABAN

DWG BY:  
MPP  
CHK BY:  
DVS  
02/16/23

FLOOR PLAN,  
CEILING PLAN,  
OUTLET PLAN

SHEET NO.

**A-1**

**DOOR SCHEDULE**

| NO.   | ROOM              | DOOR      |       |        |           |           |         |      | FRAME       |          |        | HARDWARE | REMARKS     |                    |
|-------|-------------------|-----------|-------|--------|-----------|-----------|---------|------|-------------|----------|--------|----------|-------------|--------------------|
|       |                   | SIZE      |       |        | CORE      | MATERIAL  | FINISH  | TYPE | FIRE RATING | MATERIAL | FINISH |          |             | FRAME TYPE         |
| WIDTH | HEIGHT            | THICKNESS |       |        |           |           |         |      |             |          |        |          |             |                    |
| 100A  | WAITING 100       | 3'-0"     | 8'-0" | 1-3/4" | SOLID/ TG | RELOCATED | STAINED | D2   | ---         | ALUM     | BLACK  | F3       | HW-2        |                    |
| 100B  | WAITING 100       | 3'-0"     | 8'-0" | 1-3/4" | SOLID/ TG | RELOCATED | STAINED | D2   | ---         | ALUM     | BLACK  | F3       | HW-2        |                    |
| 101   | R.R. 101          | 3'-0"     | 8'-0" | 1-3/4" | SOLID     | WOOD      | STAINED | D1   | ---         | ALUM     | BLACK  | F1       | HW-4        |                    |
| 103   | RECEPTION 103     | 3'-0"     | 8'-0" | 1-3/4" | SOLID     | WOOD      | STAINED | D1   | ---         | ALUM     | BLACK  | F1       | HW-2        | INSTALL FLOOR STOP |
| 105   | EXAM 105          | 3'-0"     | 8'-0" | 1-3/4" | SOLID     | WOOD      | STAINED | D1   | ---         | ALUM     | BLACK  | F1       | HW-1        |                    |
| 106   | SHARED OFFICE 106 | 3'-0"     | 8'-0" | 1-3/4" | SOLID     | WOOD      | STAINED | D1   | ---         | ALUM     | BLACK  | F1       | HW-3        |                    |
| 107   | TRIAGE 107        | 3'-0"     | 8'-0" | 1-3/4" | SOLID     | WOOD      | STAINED | D3   | ---         | ALUM     | BLACK  | F1       | POCKET DOOR | NOTE 5             |
| 108   | STOR. 108         | 3'-0"     | 8'-0" | 1-3/4" | SOLID     | WOOD      | STAINED | D1   | ---         | ALUM     | BLACK  | F1       | HW-5        |                    |
| 109A  | LAB 109           | 3'-0"     | 8'-0" | 1-3/4" | SOLID     | WOOD      | STAINED | D3   | ---         | ALUM     | BLACK  | F1       | POCKET DOOR | NOTE 5             |
| 109B  | LAB 109           | 3'-0"     | 8'-0" | 1-3/4" | SOLID     | WOOD      | STAINED | D3   | ---         | ALUM     | BLACK  | F1       | POCKET DOOR | NOTE 5             |
| 110   | SHARED OFFICE 110 | 3'-0"     | 8'-0" | 1-3/4" | SOLID     | WOOD      | STAINED | D1   | ---         | ALUM     | BLACK  | F1       | HW-3        |                    |
| 111   | EXAM 111          | 3'-0"     | 8'-0" | 1-3/4" | SOLID     | WOOD      | STAINED | D1   | ---         | ALUM     | BLACK  | F1       | HW-1        |                    |
| 113   | JAN 113           | 3'-0"     | 8'-0" | 1-3/4" | SOLID     | WOOD      | STAINED | D1   | ---         | ALUM     | BLACK  | F1       | HW-5        |                    |
| 114   | R.R. 114          | 3'-0"     | 8'-0" | 1-3/4" | SOLID     | WOOD      | STAINED | D1   | ---         | ALUM     | BLACK  | F1       | HW-4        |                    |
| 115   | BREAK             | 3'-0"     | 8'-0" | 1-3/4" | SOLID     | WOOD      | STAINED | D1   | ---         | ALUM     | BLACK  | F1       | HW-2        | INSTALL FLOOR STOP |
| 116   | OFFICE 116        | 3'-0"     | 8'-0" | 1-3/4" | SOLID/ TG | WOOD      | STAINED | D2   | ---         | ALUM     | BLACK  | F2       | HW-3        |                    |
| 117   | OFFICE 117        | 3'-0"     | 8'-0" | 1-3/4" | SOLID/ TG | WOOD      | STAINED | D2   | ---         | ALUM     | BLACK  | F2       | HW-3        |                    |
| 120   | EXAM 120          | 3'-0"     | 8'-0" | 1-3/4" | SOLID     | WOOD      | STAINED | D1   | ---         | ALUM     | BLACK  | F1       | HW-1        |                    |
| 121   | EXAM 121          | 3'-0"     | 8'-0" | 1-3/4" | SOLID     | WOOD      | STAINED | D1   | ---         | ALUM     | BLACK  | F1       | HW-1        |                    |
| 122   | EXAM 122          | 3'-0"     | 8'-0" | 1-3/4" | SOLID     | WOOD      | STAINED | D1   | ---         | ALUM     | BLACK  | F1       | HW-1        |                    |
| 123   | EXAM 123          | 3'-0"     | 8'-0" | 1-3/4" | SOLID     | WOOD      | STAINED | D1   | ---         | ALUM     | BLACK  | F1       | HW-1        |                    |
| 124   | EXAM 124          | 3'-0"     | 8'-0" | 1-3/4" | SOLID     | WOOD      | STAINED | D1   | ---         | ALUM     | BLACK  | F1       | HW-1        |                    |
| 125   | EXAM 125          | 3'-0"     | 8'-0" | 1-3/4" | SOLID     | WOOD      | STAINED | D1   | ---         | ALUM     | BLACK  | F1       | HW-1        |                    |
| 126   | TRIAGE 126        | 3'-0"     | 8'-0" | 1-3/4" | SOLID     | WOOD      | STAINED | D1   | ---         | ALUM     | BLACK  | F1       | POCKET DOOR |                    |
| 127   | EXAM 127          | 3'-0"     | 8'-0" | 1-3/4" | SOLID     | WOOD      | STAINED | D1   | ---         | ALUM     | BLACK  | F1       | HW-1        |                    |

**HARDWARE TYPES:**

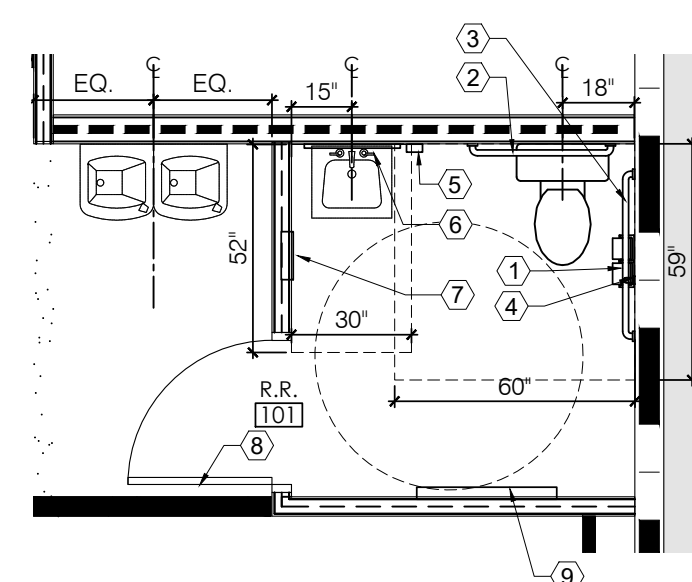
|   |   |   |  |   |
|---|---|---|--|---|
| <b>HW-1 (PASSAGE SET)</b><br>HINGES<br>PASSAGE FUNCTION LEVER HARDWARE SET<br>DOOR STOP | <b>HW-2 (PASSAGE W/ CLOSER)</b><br>HINGES<br>PASSAGE FUNCTION LEVER HARDWARE SET<br>CLOSER<br>DOOR STOP | <b>HW-3 (OFFICE LOCKSET)</b><br>HINGES<br>LOCK FUNCTION LEVER HARDWARE SET<br>DOOR STOP | <b>HW-4 (OCCUPANCY INDICATOR PRIVACY LOCK SET)</b><br>HINGES<br>PRIVACY LOCK FUNCTION LEVER HARDWARE<br>OCCUPANCY INDICATOR<br>DOOR STOP<br>CLOSER | <b>HW-5 (STORE ROOM LOCKSET W/ CLOSER)</b><br>HINGES<br>LOCK FUNCTION LEVER HARDWARE SET<br>CLOSER<br>DOOR STOP |
|---|---|---|--|---|

**NOTES:**

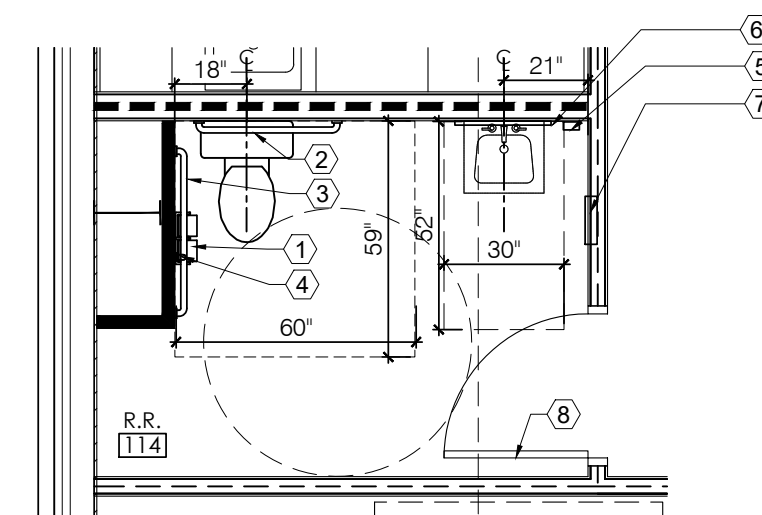
- ALL SUITE DOORS TO MATCH MASONITE PLAIN SLICED MAPLE, STAIN COLOR: STOUT, FRAMES TO BE BLACK RACO.
- ALL DOOR FRAMES TO RECEIVE SILENCERS.
- PROVIDE SAME HEIGHT TRANSITION STRIPS AT ALL CHANGE OF FLOORING LOCATIONS, SCHLUTER SCHIENE OR APPROVED EQ.
- ALL EXAM ROOM DOORS TO RECEIVE DOOR SWEEPS.
- PROVIDE PULL ON BOTH SIDES OF DOOR W/ STOP TO ENSURE PULL PROVIDES ACCESSIBLE GRASP WHEN FULLY OPEN. CLEAR OPENING WIDTH FOR POCKET DOOR TO BE 32".

**RESTROOM ACCESSORIES**

| SYMBOL | ITEM   | QTY | SPEC   | SIZE                      | NOTES                               |
|--------|--|-----|--|---------------------------|-------------------------------------|
| ①      | DOUBLE ROLL TOILET DISPENSER                 | 2   | BRADLEY RECESSED DUAL ROLL TOILET PAPER DISPENSER MODEL 51245            | 12"Wx6"Hx3"D              |                                     |
| ②      | 36" GRAB BAR                                 | 2   | BOBRICK B-6806-36 STRAIGHT GRAB BAR                                      | 1-1/2" DIA x 36"          |                                     |
| ③      | 42" GRAB BAR                                 | 2   | BOBRICK B-6806-42 STRAIGHT GRAB BAR                                      | 1-1/2" DIA x 42"          |                                     |
| ④      | 18" GRAB BAR                                 | 2   | BOBRICK B-6806-18 STRAIGHT GRAB BAR                                      | 1-1/2" DIA x 18" BOBRICK  |                                     |
| ⑤      | SOAP DISPENSER                               | 2   | BRADLEY, SURFACE MOUNTED VERTICAL SOAP DISPENSER MODEL 6531              | 18"W x 7 1/2"H x 3"D-1/2" |                                     |
| ⑥      | MIRROR                                       | 2   | FRAMELESS MIRROR W/ BEVELED EDGES  | 24" W x 36" H             |                                     |
| ⑦      | RECESSED, TOWEL DISPENSER & WASTE RECEPTACLE | 2   | BRADLEY SEMI RECESSED MEDIUM TOWEL DISPENSER 4.9 GAL WASTE MODEL 2252-10 | 14"W x 7 1/4"H x 7 1/2"D  |                                     |
| ⑧      | COAT HOOK                                    | 2   | BRADLEY STAINLESS STEEL HOOK MODEL 9134                                  |                           | CENTER ON BACK OF DOOR AT 48" A.F.F |
| ⑨      | BABY CHANGING STATION                        | 1   | KOALA KARE CHANGING STATION KB200-SS                                     | 23.5 x 35.19 x 22 inches  |                                     |

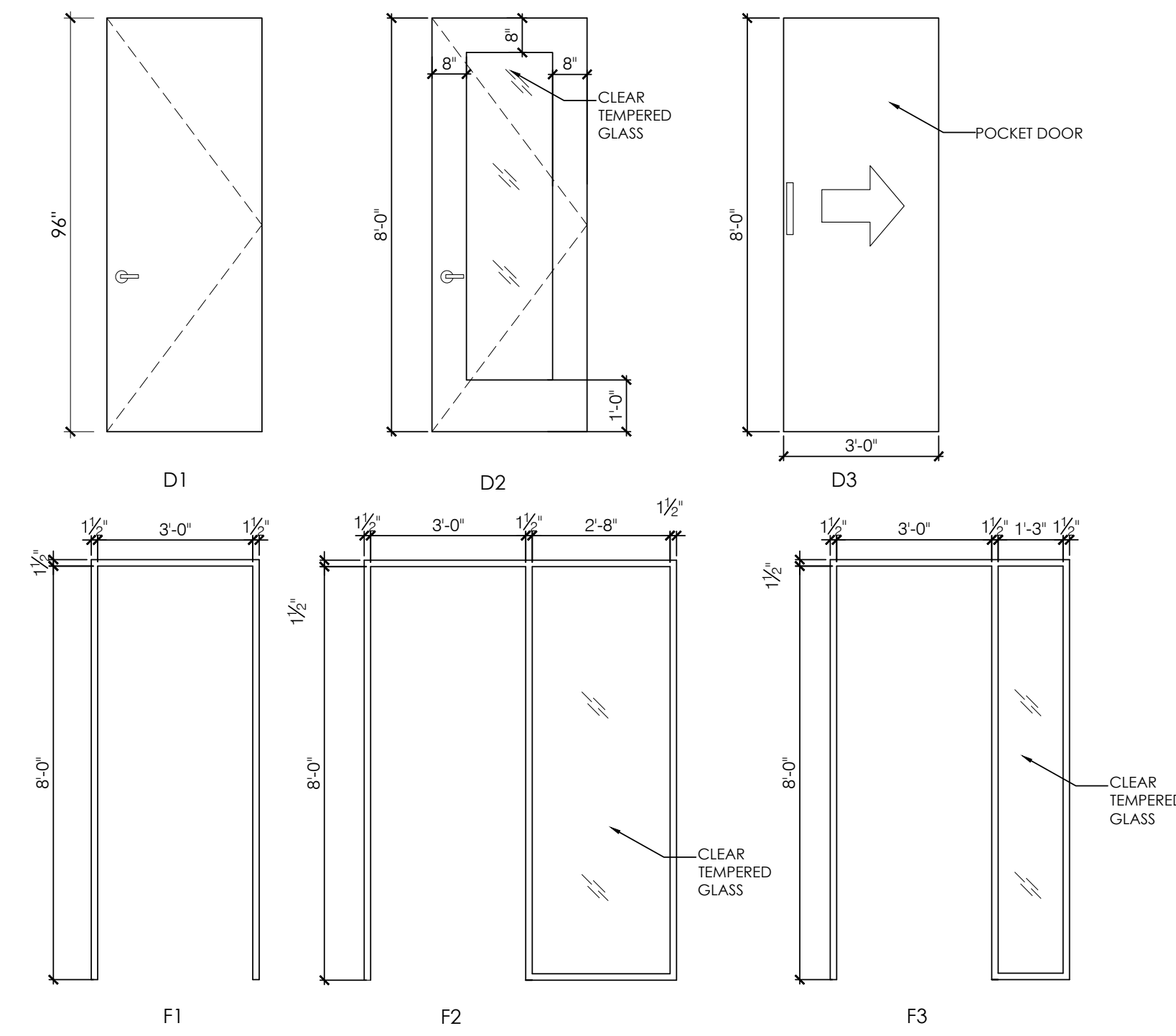


**4 ENLARGED PLAN**  
A-2 SCALE: 1/4"=1'-0"

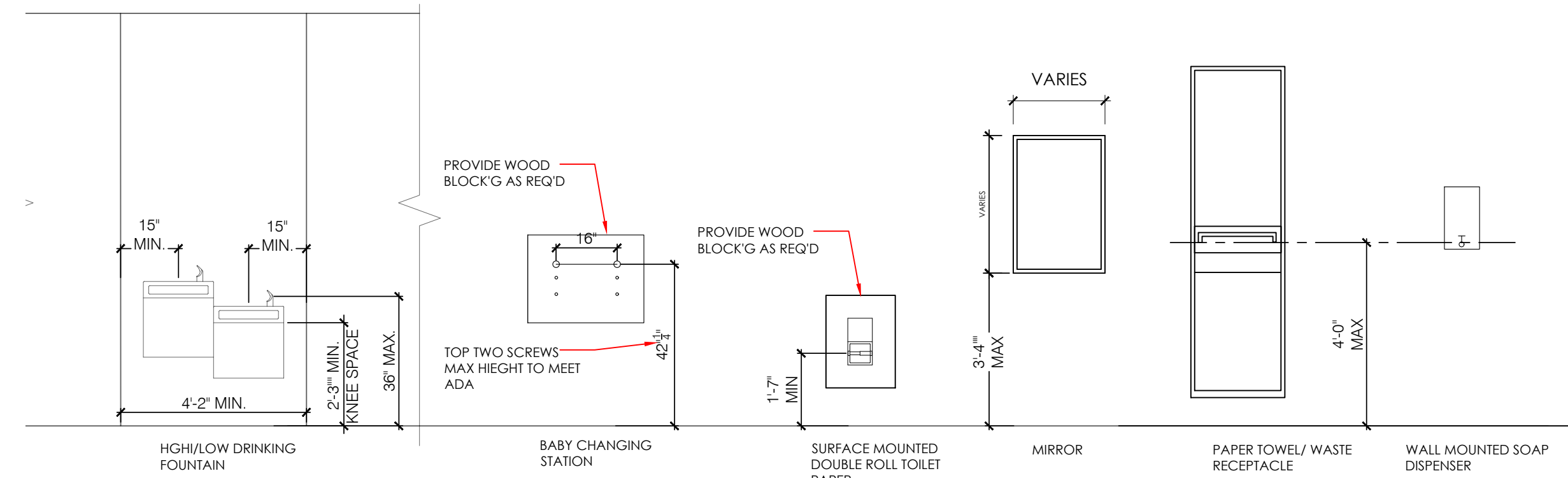


**5 ENLARGED PLAN**  
A-2 SCALE: 1/4"=1'-0"

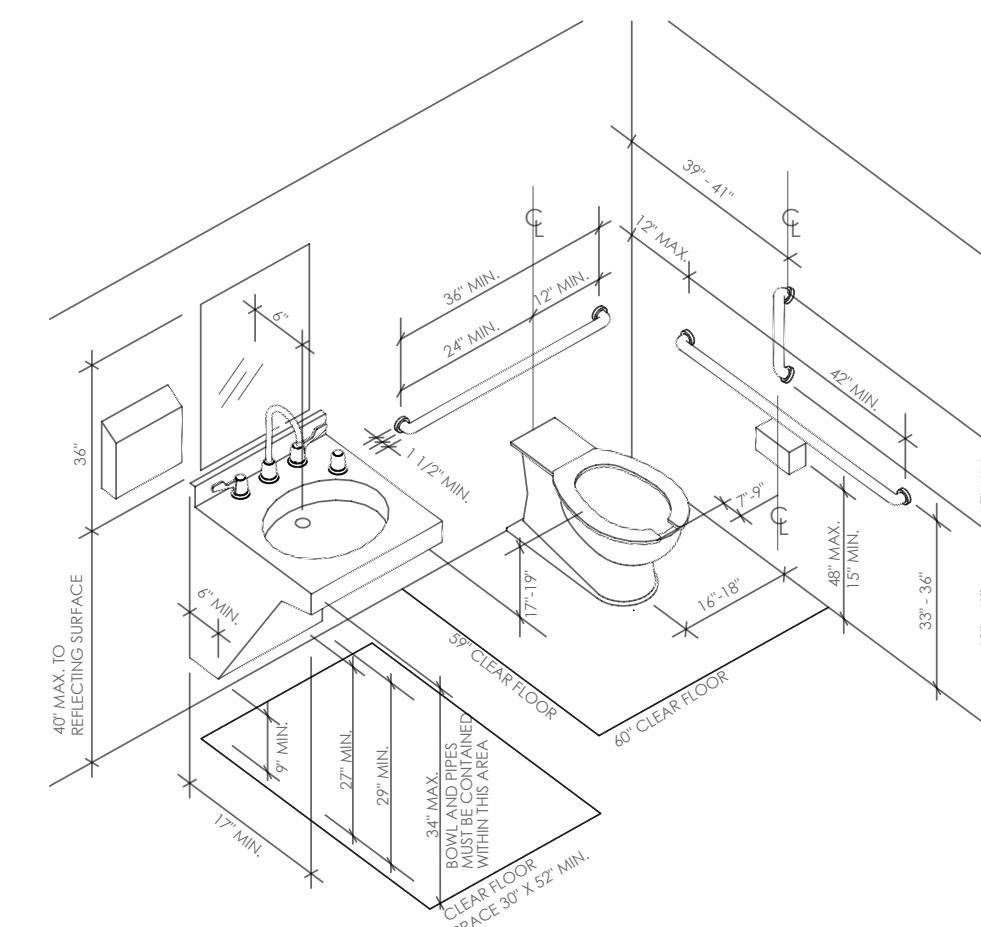
**3 DOOR AND FRAME TYPES**  
A-2 SCALE: 3/8"=1'-0"



**2 ADA MOUNTING REQUIREMENTS**  
A-2 SCALE: 3/8"=1'-0"



**1 ADA REQUIREMENTS**  
A-2 SCALE: NTS



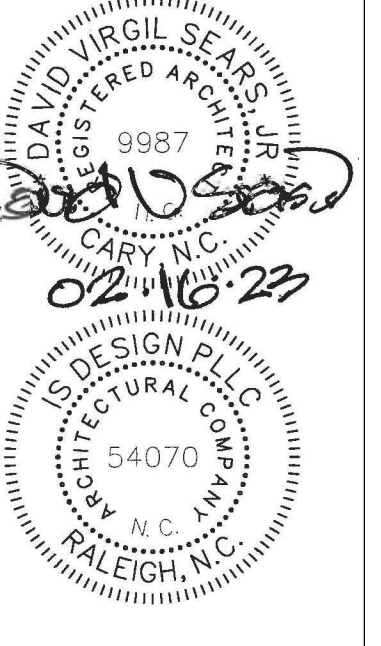
JOB #:  
22DRCABAN

DWG BY:  
MPP  
CHK BY:  
DVS  
02/16/23

DOOR  
SCHEDULE  
& ENLARGED  
PLANS

SHEET NO.

**A-2**



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 CAMERON BUILDING  
 2277 NC HWY 24-87  
 CAMERON, NORTH CAROLINA

JOB #:  
 22DRCABAN

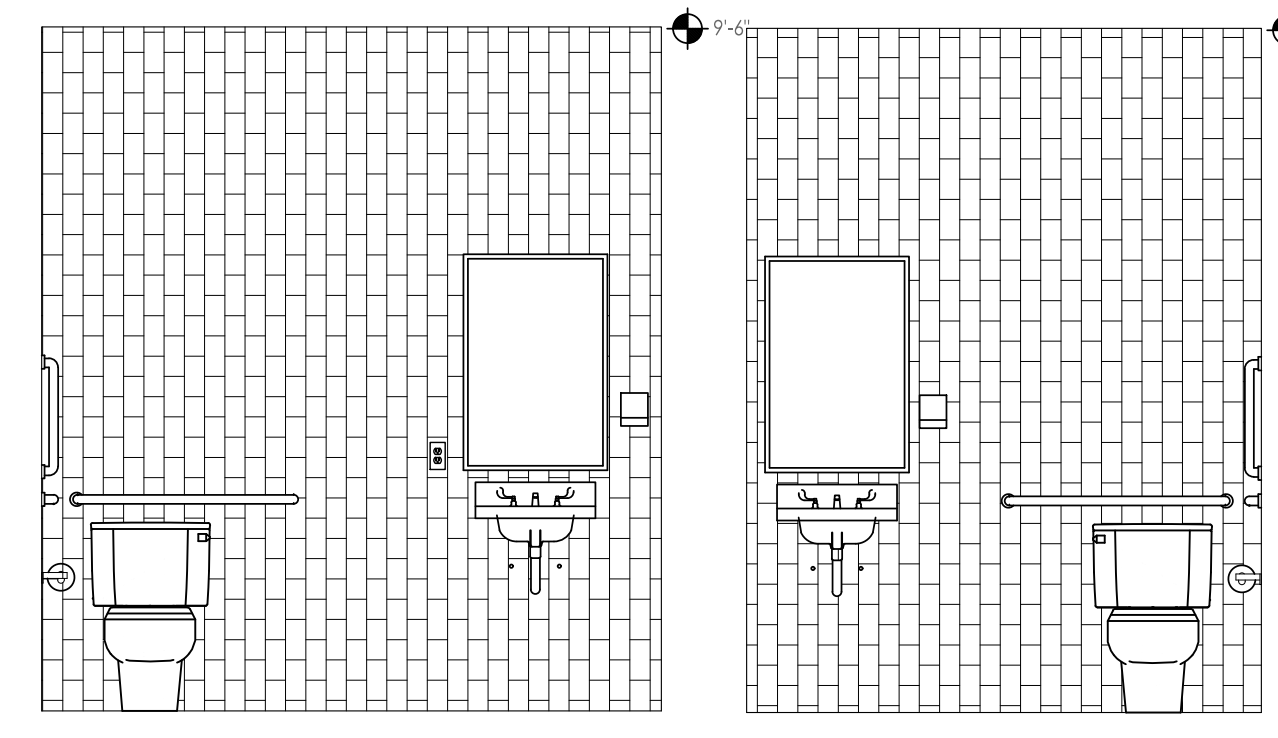
DWG BY:  
 MPP  
 CHK BY:  
 DVS  
 02/16/23

INTERIOR ELEVATIONS

SHEET NO.  
**A-4**

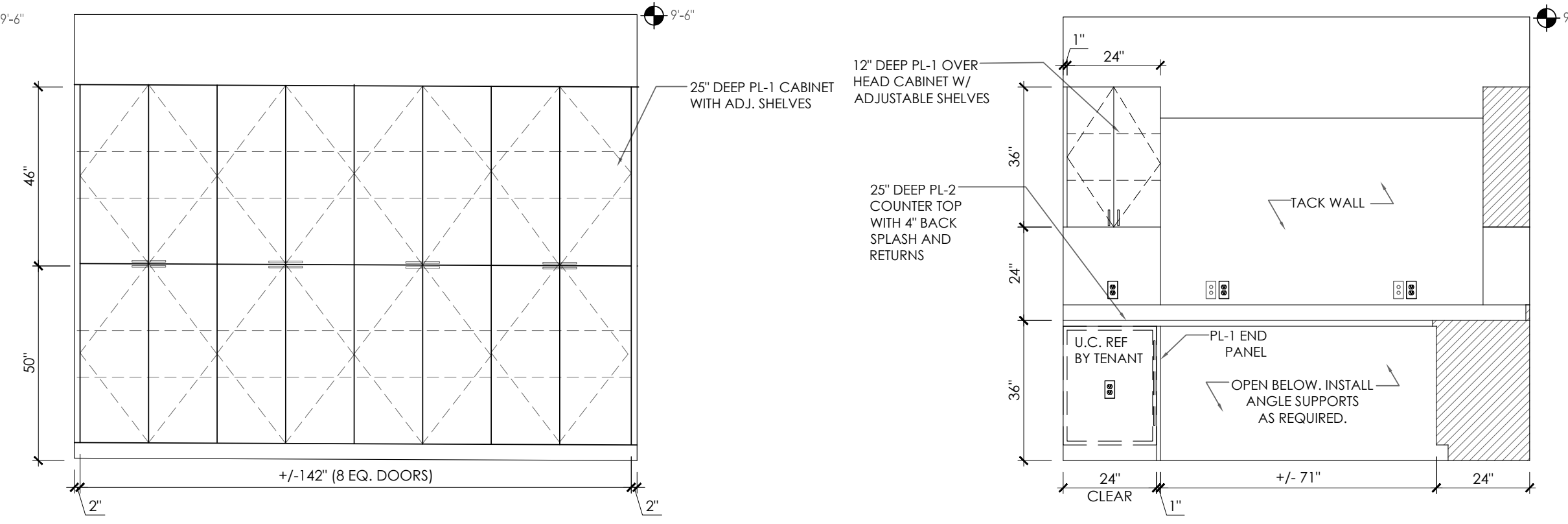
**MILLWORK NOTES:**

- CABINET PULLS TO BE MCKEIT CABINET PULLS DP38: SATIN CHROME IN BREAK ROOM, RECEPTION 103, COFFEE 102. ALL OTHER PULLS TO BE 4" STANDARD D PULLS IN SATIN CHROME FINISH.
- GC TO SUBMIT SHOP DRAWINGS TO ARCHITECT PRIOR TO FABRICATION & ORDERING OF MATERIALS
- ALL CABINETS TO BE FABRICATED PER A.W.I. CUSTOM GRADE SPECIFICATIONS
- EXPOSED HOT WATER SUPPLY & DRAIN LINES TO BE COVERED WITH PIPE INSULATION.
- REFER TO SHEET FIN-1 FOR MILLWORK MATERIAL SPECIFICATIONS.
- ALL DOORS UP TO 36" HIGH SHALL HAVE TWO HINGES PER DOOR. ALL DOORS OVER 36" SHALL HAVE THREE PER DOOR.
- PROVIDE PLASTIC SCREW COVERS AT CONCEALED EXPOSED OR SEMI-EXPOSED SCREW HEADS.
- ALL HORIZONTAL AND VERTICAL JOINTS BETWEEN DOORS AND DRAWERS SHALL BE 1/8".
- CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS PRIOR TO FABRICATION.
- CONTRACTOR TO ALLOW SUFFICIENT ADDITIONAL MATERIAL TO PERMIT ACCURATE SCRIBING TO WALLS, FLOORS AND RELATED WORK, AND MAKE AMPLE ALLOWANCES FOR CUTTING AND FITTING, AND FOR SUCH SHRINKAGE AS MAY DEVELOP AFTER INSTALLATION.
- ALL EXPOSED SURFACES (INCLUDING INTERIORS OF OPEN CABINETS) SHALL BE PLASTIC LAMINATE, U.N.O.
- ALL INTERIOR SURFACES SHALL BE WHITE MELAMINE, U.N.O.
- COUNTERTOPS AT SINK LOCATIONS SHALL BE CONSTRUCTED OF 3/4" VENEER-CORE PLYWOOD. JOINTS SHALL OCCUR AT SINK. ANY CABINET 36" AND WIDER SHALL HAVE A CENTER STILE TO PREVENT SHELVES FROM SAGGING.
- ALL CABINET SHELVES SHALL BE ADJUSTABLE, U.N.O.
- ALL CABINETS WITH ADJUSTABLE SHELVES WILL BE SUPPORTED WITH 5 MM LINE BORE SUPPORTS U.N.O.
- SCRIBE CABINETS TO SIDE WALLS) AND ALLOW 3/4" FOR DOOR SWING OR AS NECESSARY FOR CABINET HARDWARE.
- USE MATCHING CAULK AT COUNTERTOP, BACKSPLASH AND JOINTS.
- GROMMET LOCATIONS TO BE COORDINATED WITH POWER AND DATA LOCATIONS AND TENANT PRIOR TO INSTALLATION.

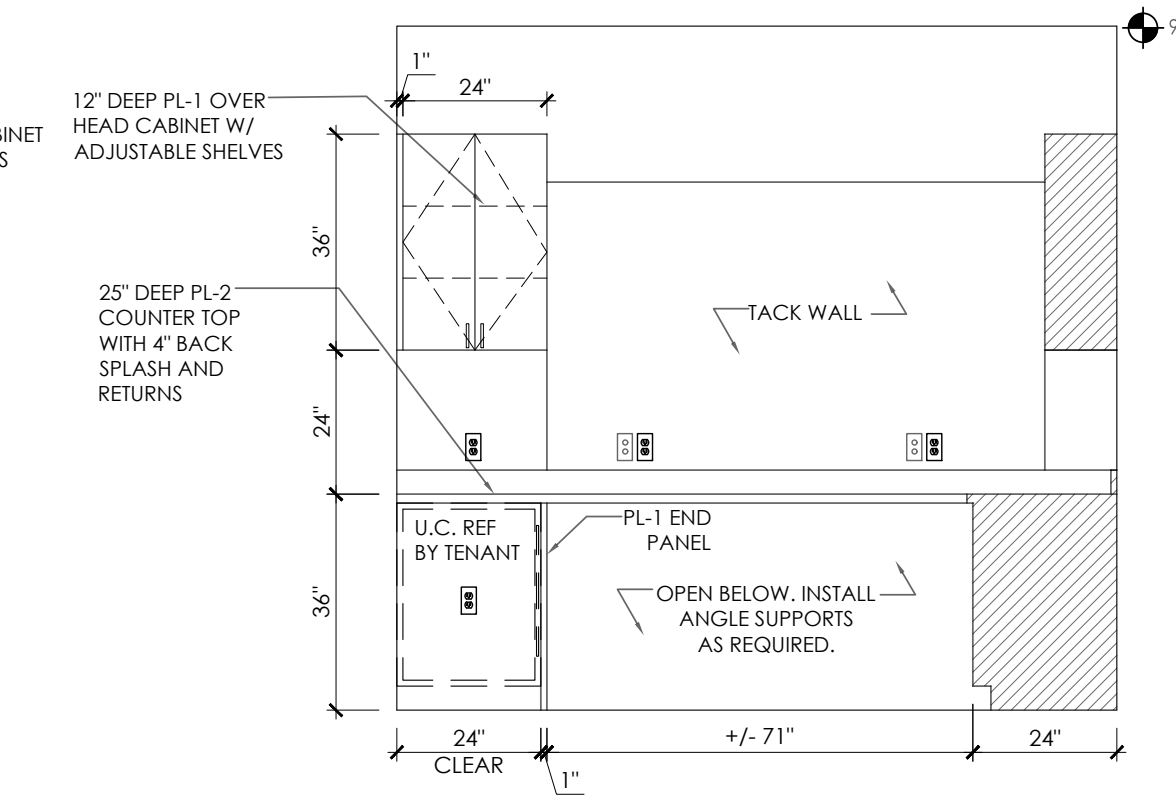


11B 11A

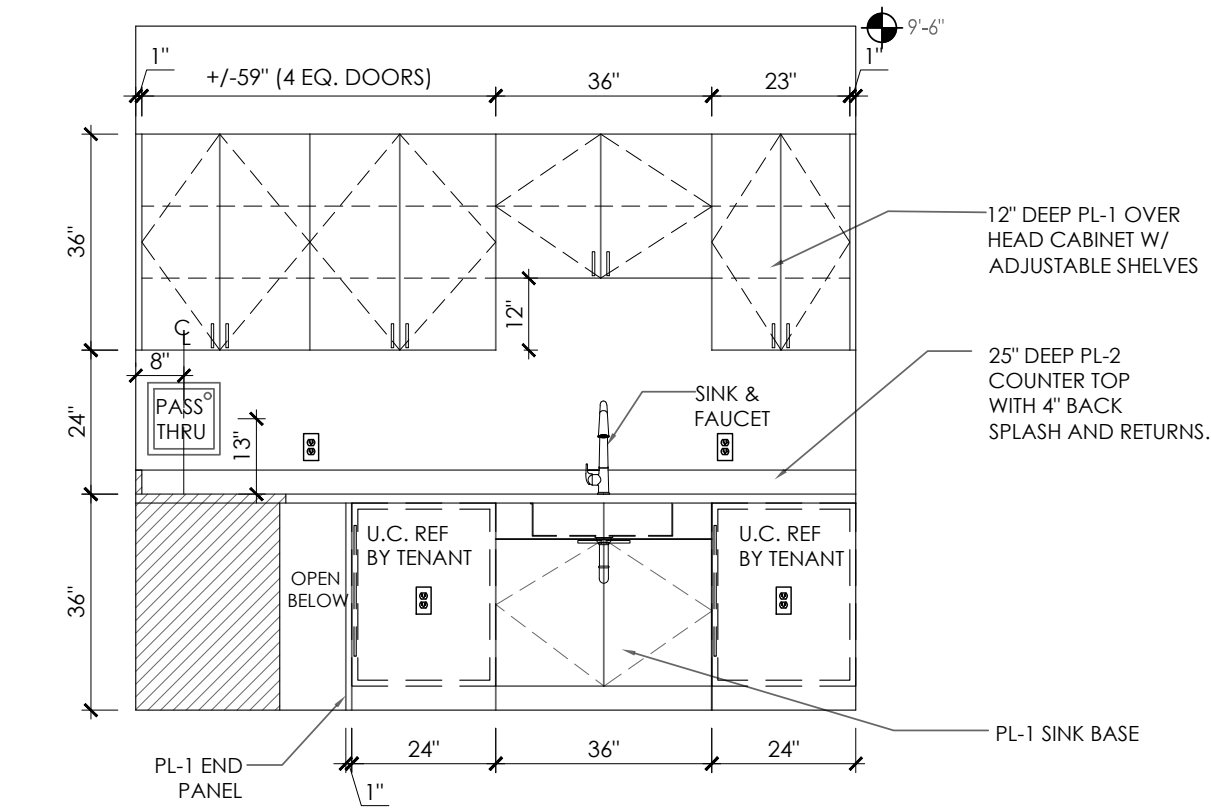
11 INTERIOR ELEVATION R.R. 101 & 114  
 A-4 SCALE: 3/8"=1'-0"



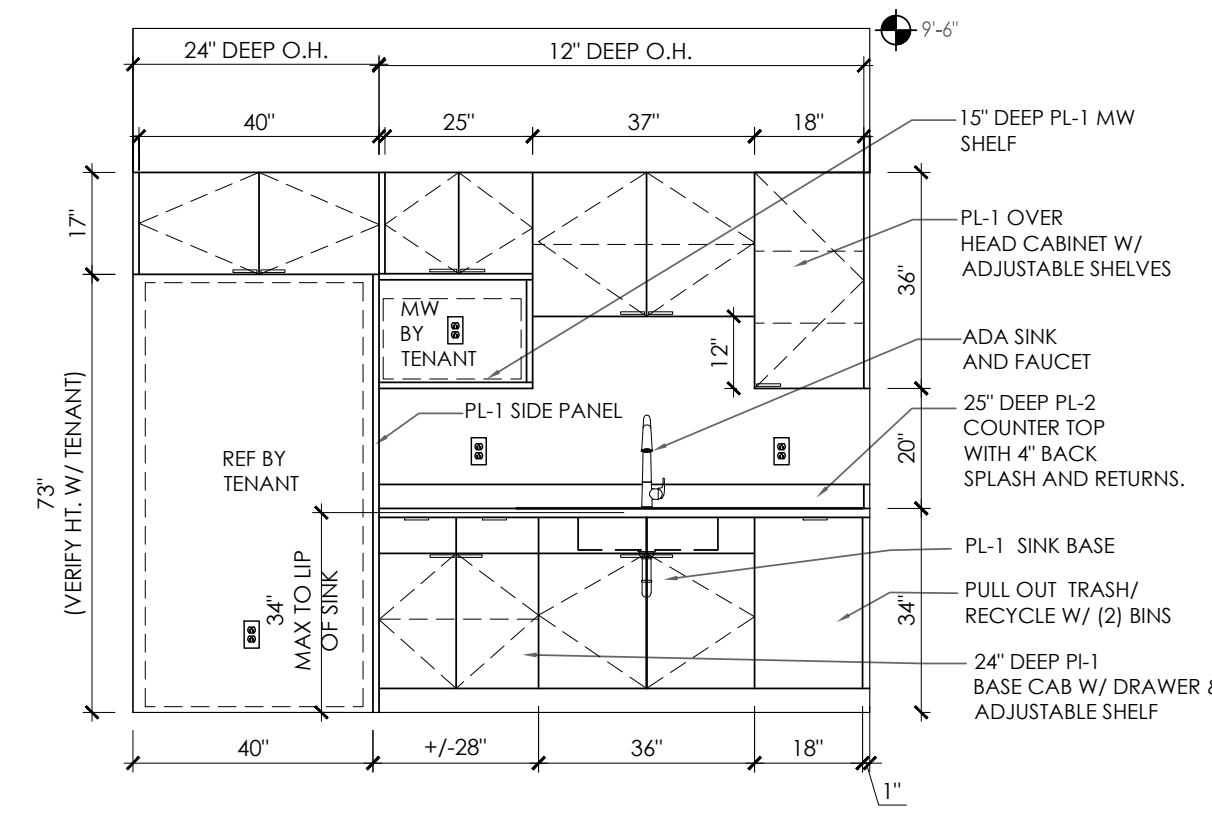
10 INTERIOR ELEVATION BREAK 115  
 A-4 SCALE: 3/8"=1'-0"



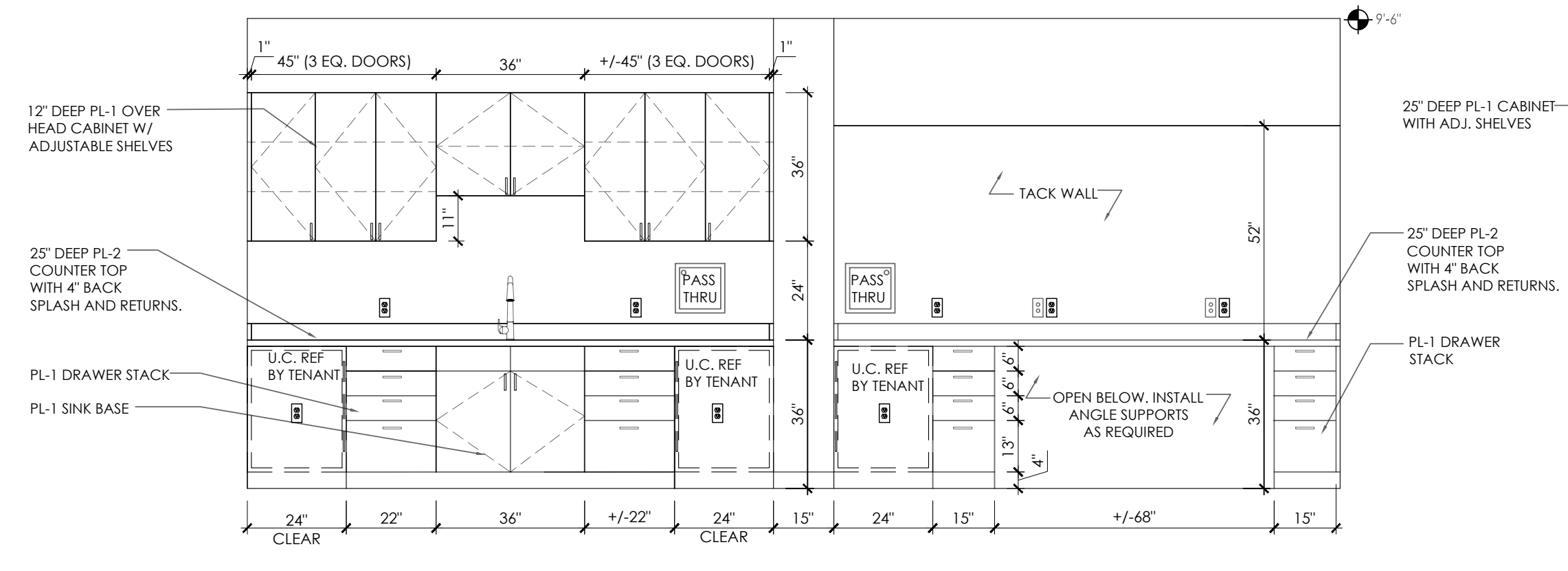
9 INTERIOR ELEVATION TRIAGE 126  
 A-4 SCALE: 3/8"=1'-0"



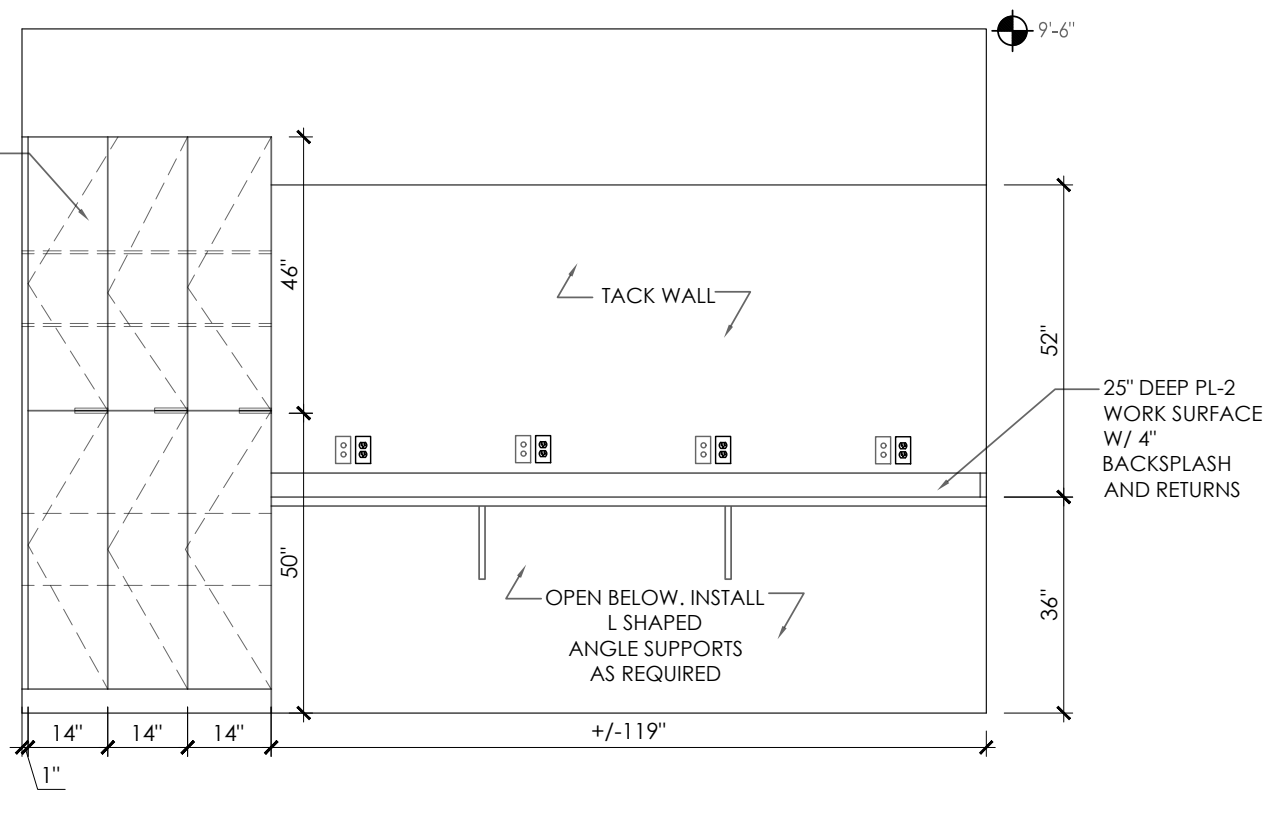
8 INTERIOR ELEVATION TRIAGE 126  
 A-4 SCALE: 3/8"=1'-0"



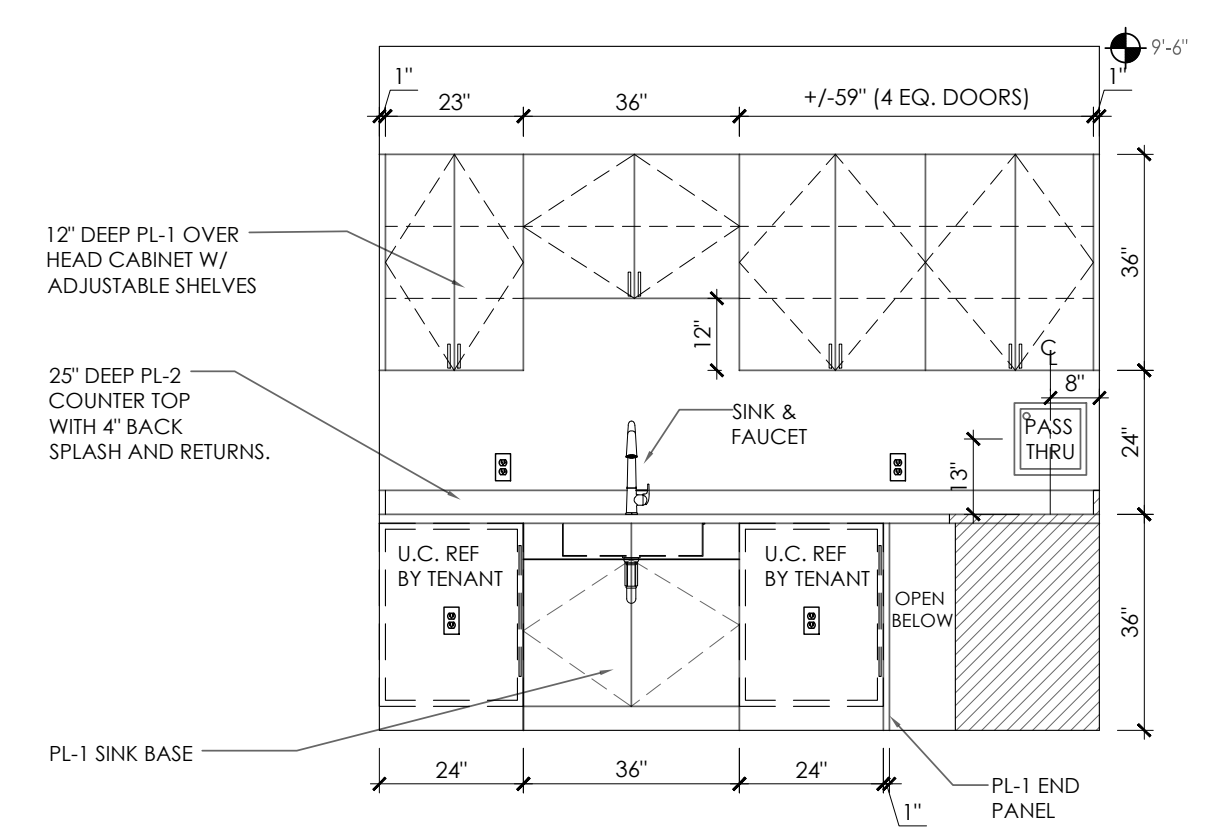
7 INTERIOR ELEVATION BREAK 115  
 A-4 SCALE: 3/8"=1'-0"



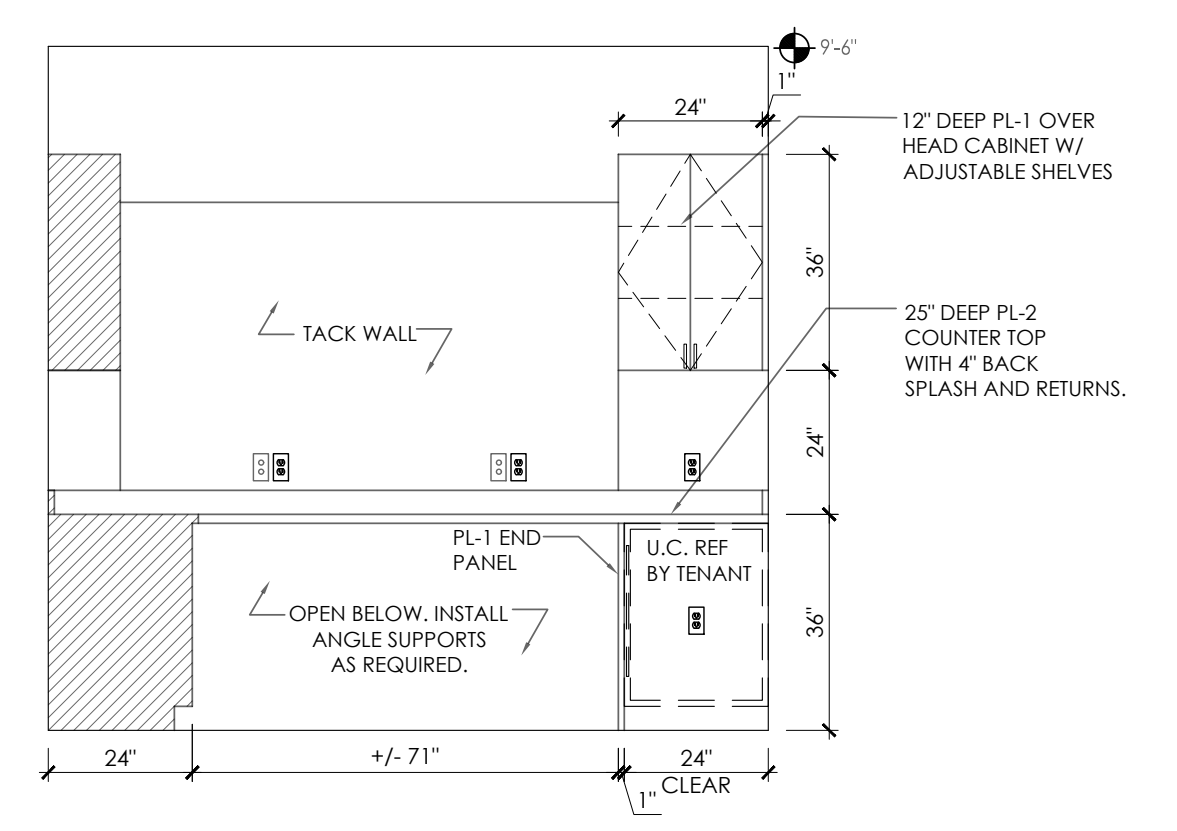
6 INTERIOR ELEVATION LAB 109  
 A-4 SCALE: 3/8"=1'-0"



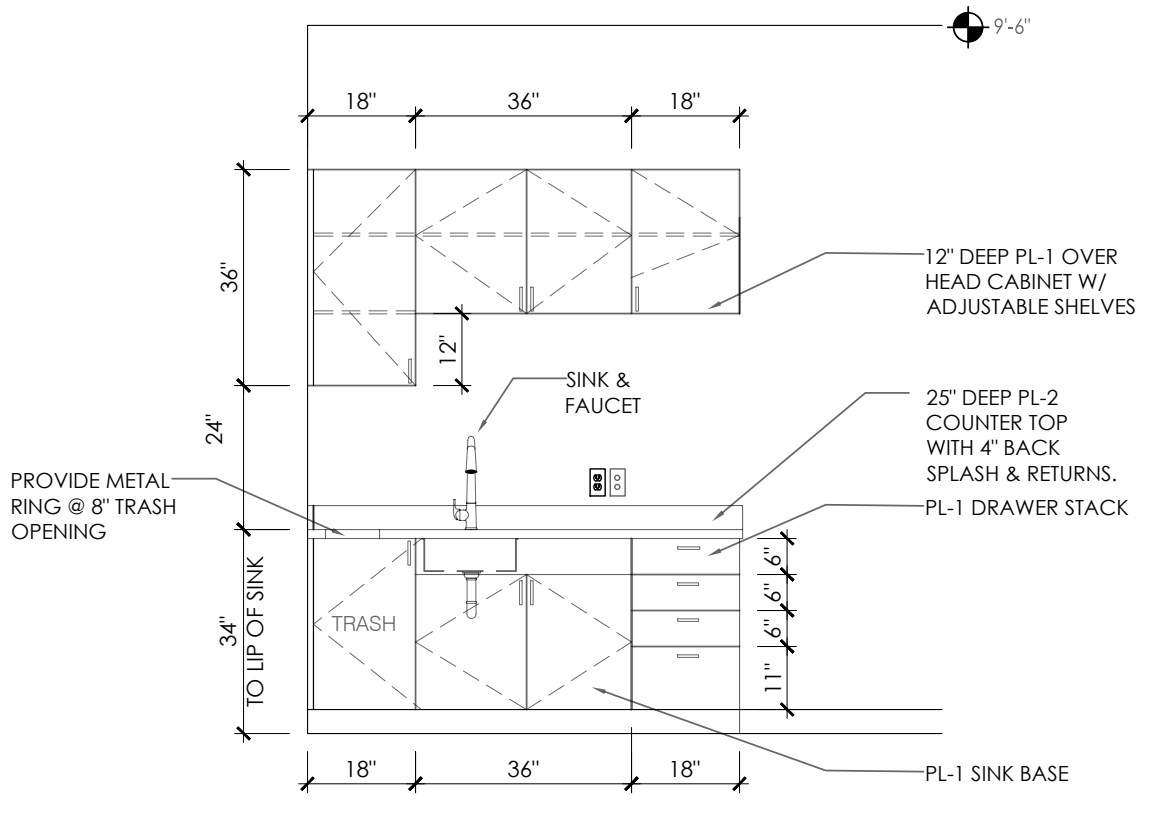
5 INTERIOR ELEVATION NURSES 118  
 A-4 SCALE: 3/8"=1'-0"



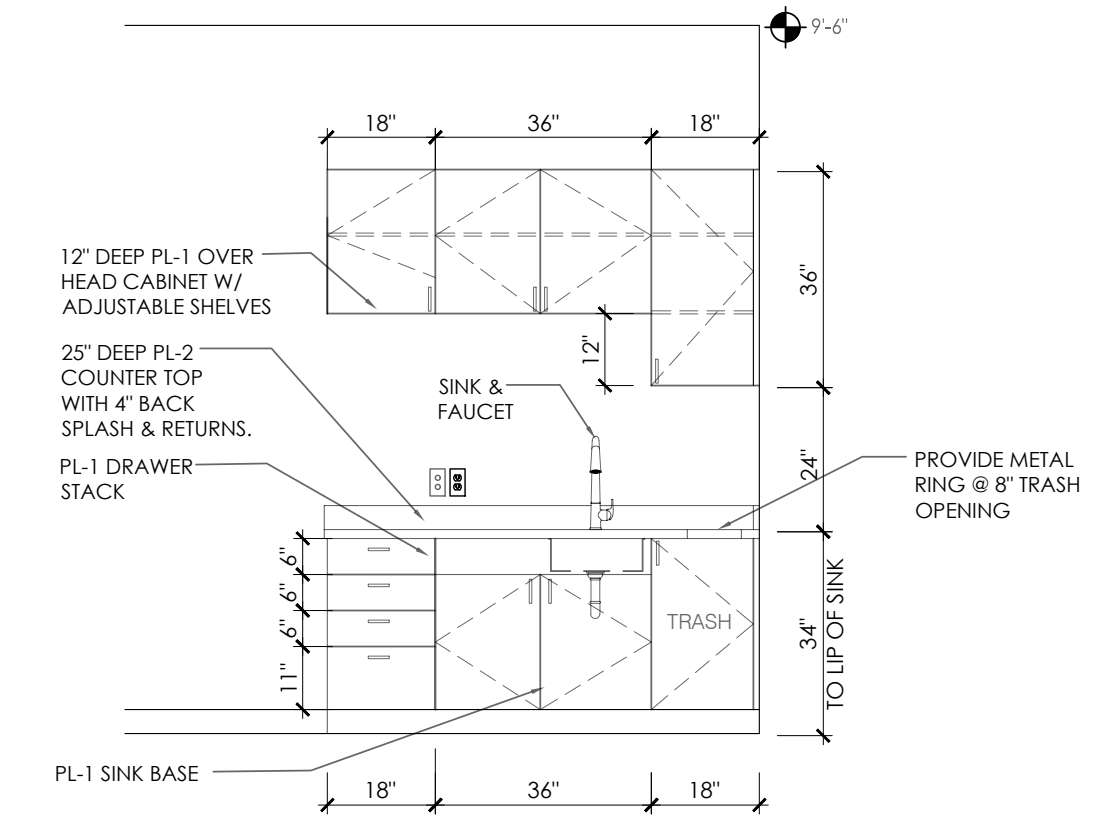
4 INTERIOR ELEVATION TRIAGE 107  
 A-4 SCALE: 3/8"=1'-0"



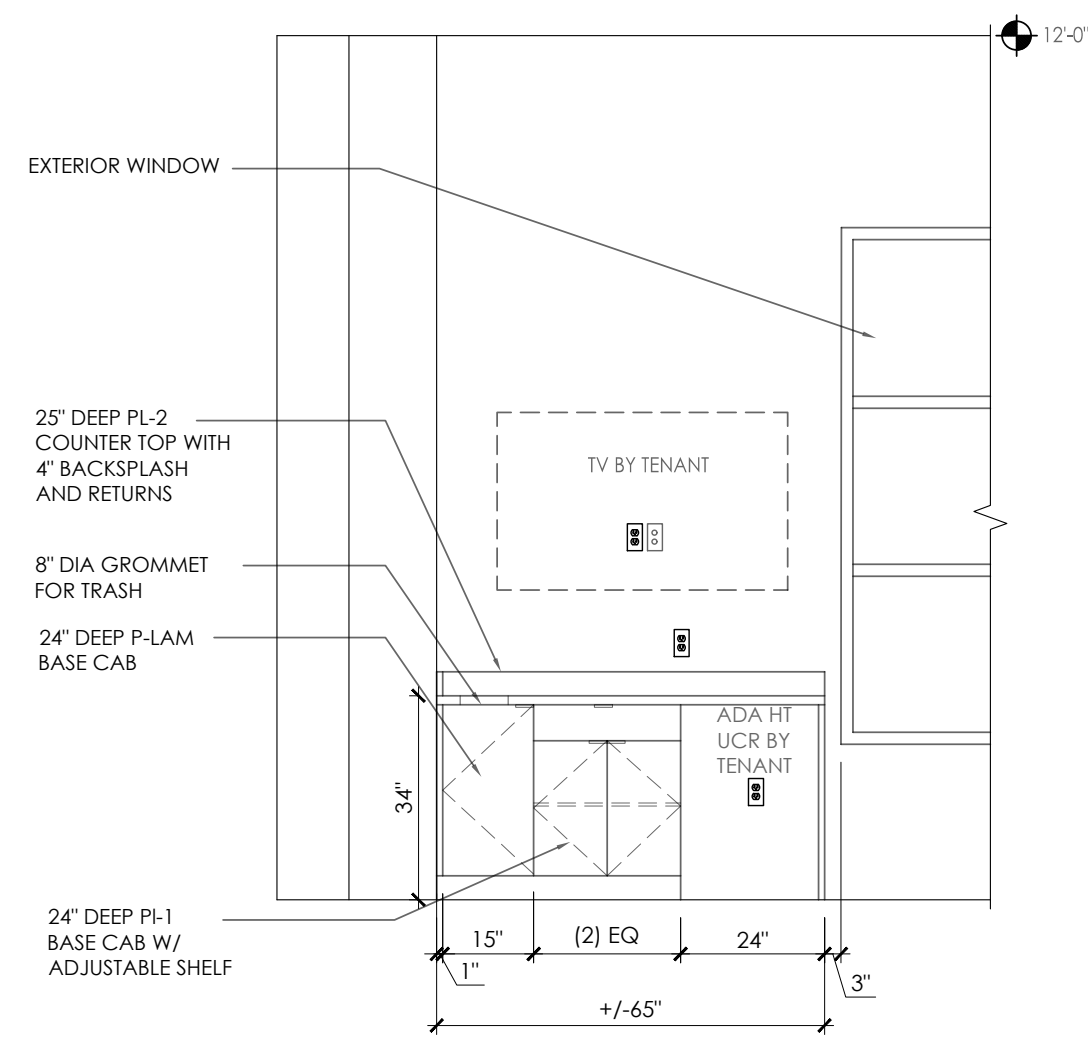
3 INTERIOR ELEVATION TRIAGE 107  
 A-4 SCALE: 3/8"=1'-0"



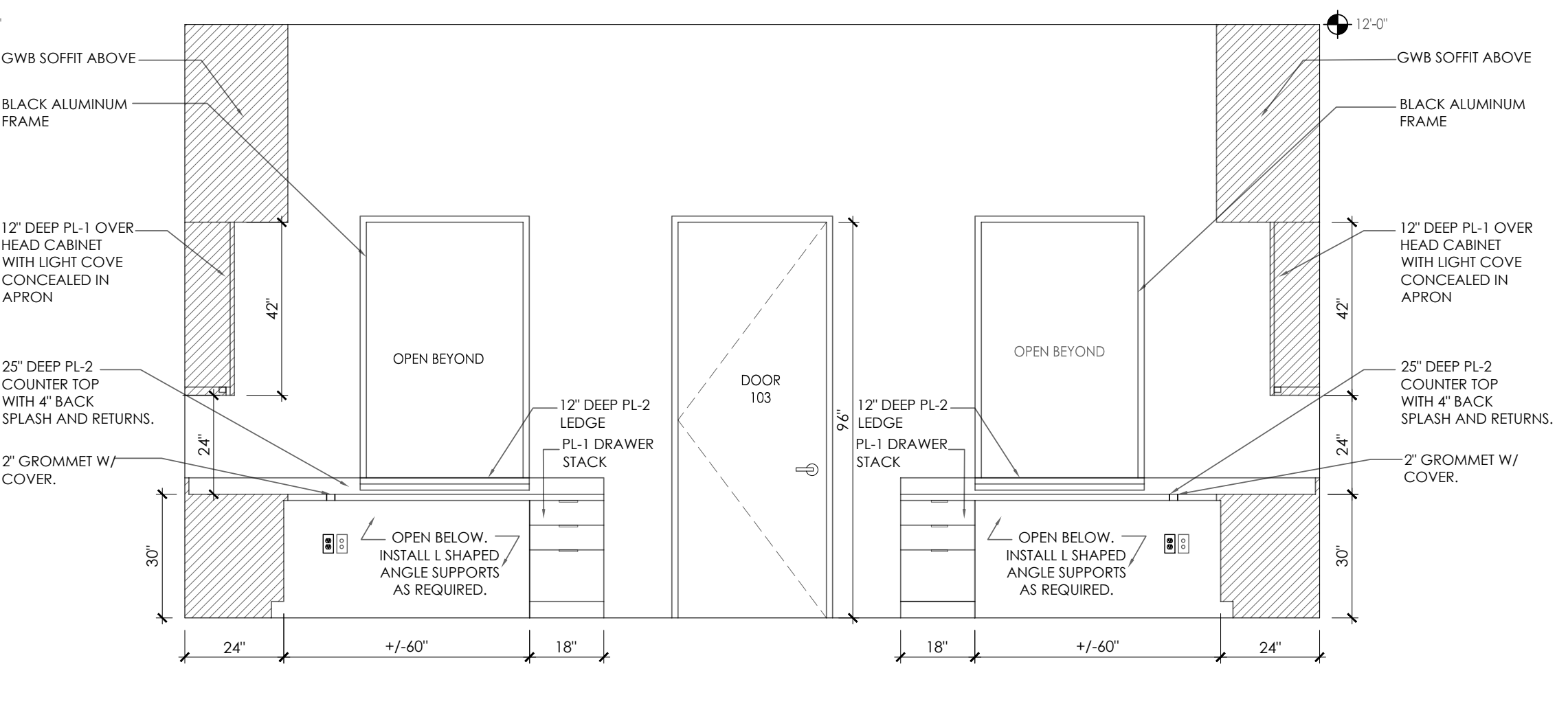
2 INTERIOR ELEVATION EXAM ROOM(TYPICAL)  
 A-4 SCALE: 3/8"=1'-0"



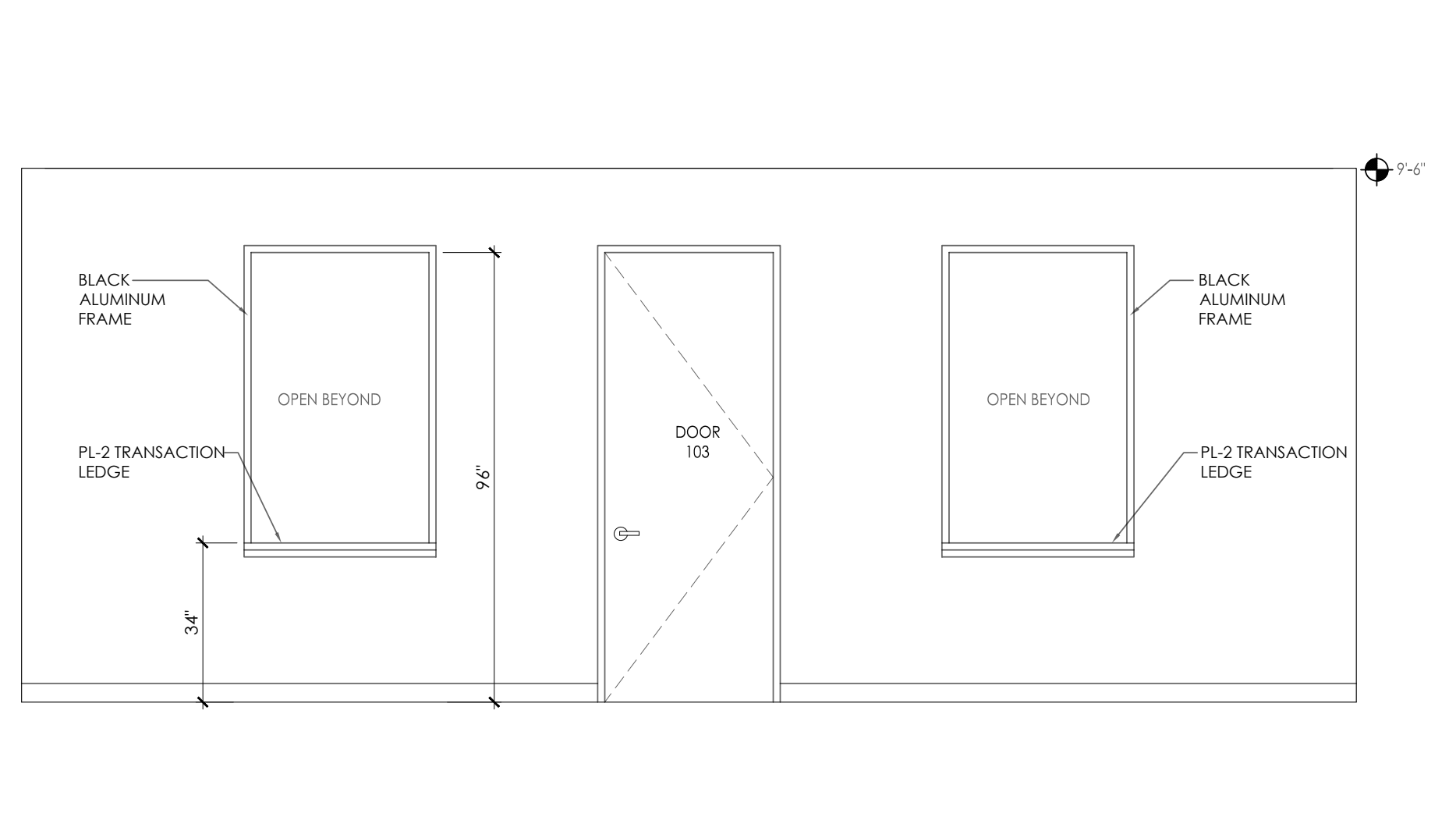
1 INTERIOR ELEVATION EXAM ROOM (TYPICAL)  
 A-4 SCALE: 3/8"=1'-0"



**9** INTERIOR ELEVATION COFFEE 102  
A-3 SCALE: 3/8"=1'-0"

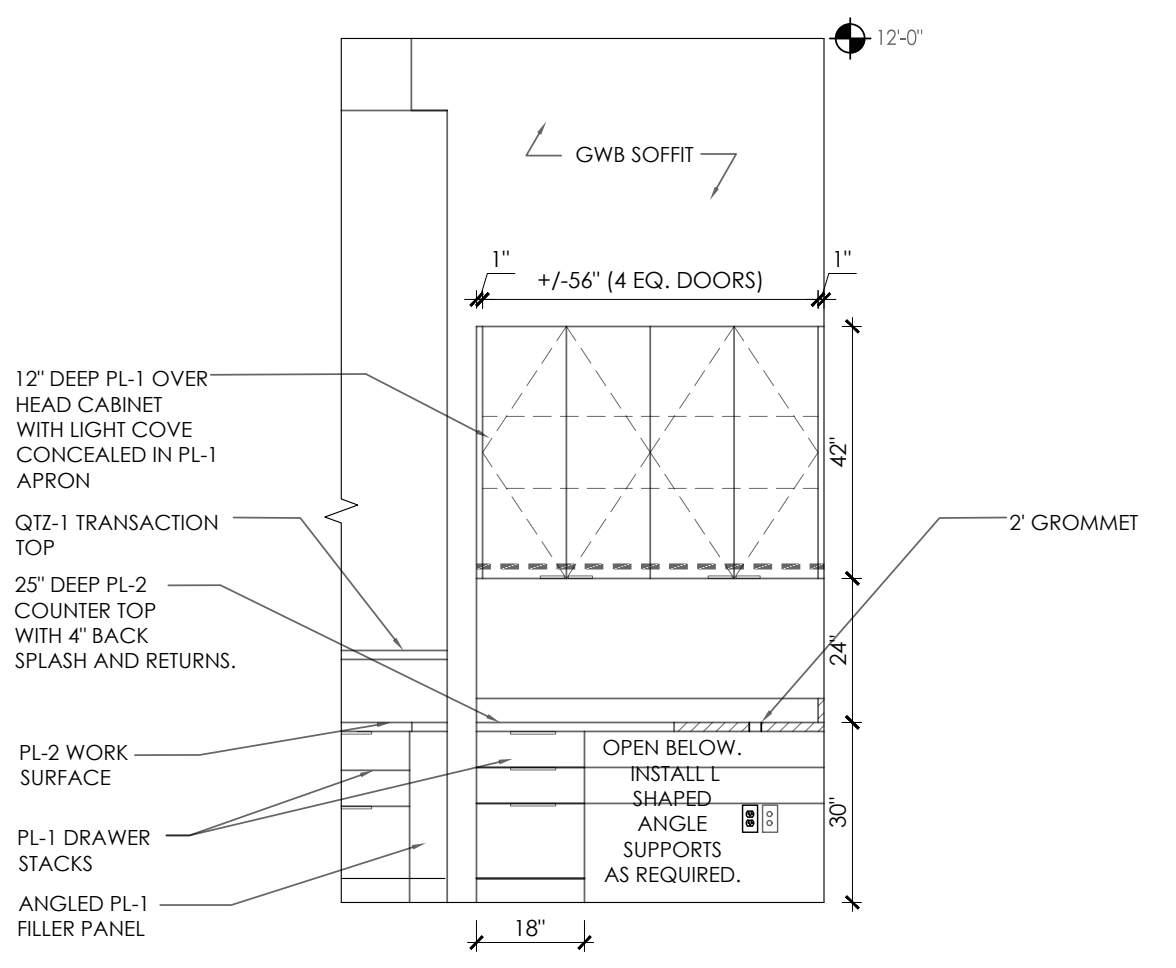


**8** INTERIOR ELEVATION RECEPTION 103  
A-3 SCALE: 3/8"=1'-0"

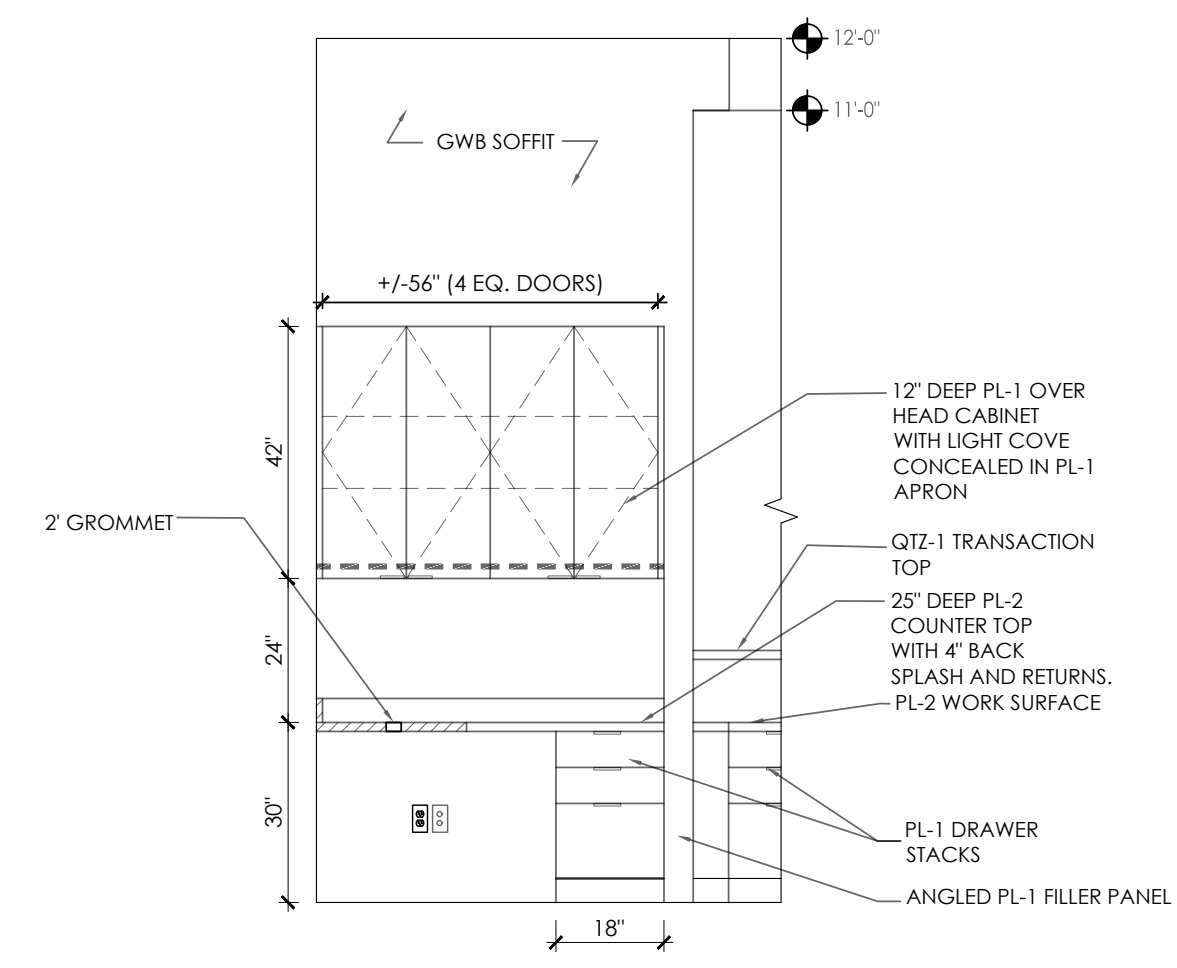


**7** INTERIOR ELEVATION CORRIDOR 104  
A-3 SCALE: 3/8"=1'-0"

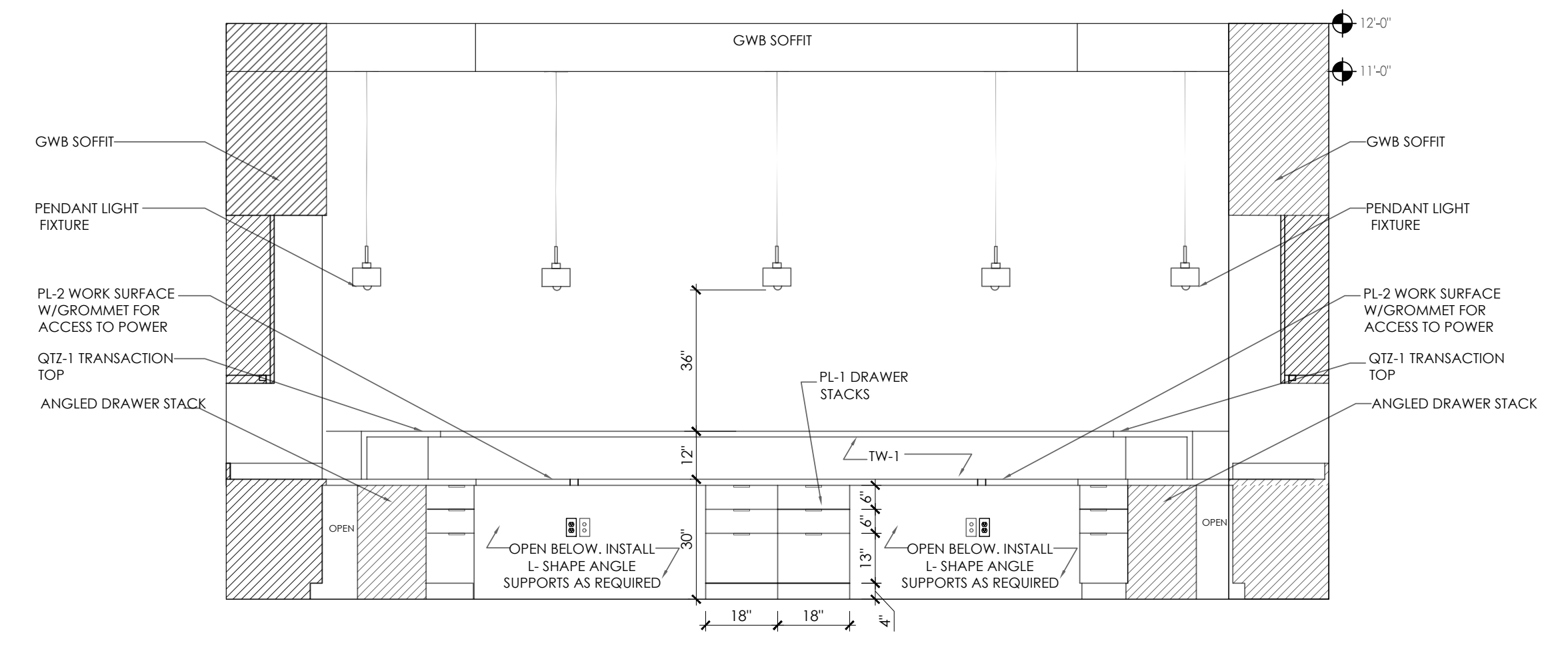
- MILLWORK NOTES:**
- CABINET PULLS TO BE MCKEET CABINET PULLS DP31 SATIN CHROME IN BREAK ROOM, RECEPTION 103, COFFEE 102. ALL OTHER PULLS TO BE 4" STANDARD C PULLS IN SATIN CHROME FINISH.
  - GC TO SUBMIT SHOP DRAWINGS TO ARCHITECT PRIOR TO FABRICATION & ORDERING OF MATERIALS.
  - ALL CABINETS TO BE FABRICATED PER A.W.I. CUSTOM GRADE SPECIFICATIONS.
  - EXPOSED HOT WATER SUPPLY & DRAIN LINES TO BE COVERED WITH PIPE INSULATION.
  - REFER TO SHEET FM-1 FOR MILLWORK MATERIAL SPECIFICATIONS.
  - ALL DOORS UP TO 36" HIGH SHALL HAVE TWO HING PER DOOR. ALL DOORS OVER 36" SHALL HAVE THREE PER DOOR.
  - PROVIDE PLASTIC SCREW COVERS AT CONCEALED EXPOSED OR SEMI-EXPOSED SCREW HEADS.
  - ALL HORIZONTAL AND VERTICAL JOINTS BETWEEN DOORS AND DRAWERS SHALL BE 1/8".
  - CONTRACTOR TO FIELD VERIFY EXISTING CONDITION PRIOR TO FABRICATION.
  - CONTRACTOR TO ALLOW SUFFICIENT ADDITIONAL MATERIAL TO PERMIT ACCURATE SCRIBING TO WALL FLOORS AND RELATED WORK, AND MAKE AMPLE ALLOWANCES FOR CUTTING AND FITTING, AND FOR SUCH SHRINKAGE AS MAY DEVELOP AFTER INSTALLATION.
  - ALL EXPOSED SURFACES (INCLUDING INTERIORS OF OPEN CABINETS) SHALL BE PLASTIC LAMINATE, U.N.O.
  - ALL INTERIOR SURFACES SHALL BE WHITE MELAMINE, U.N.O.
  - COUNTERTOPS AT SINK LOCATIONS SHALL BE CONSTRUCTED OF 3/4" VENEER-CORE PLYWOOD, JOINTS SHALL OCCUR AT SINK. ANY CABINET 36" AN WIDER SHALL HAVE A CENTER STILE TO PREVENT SHE FROM SAGGING.
  - ALL CABINET SHELVES SHALL BE ADJUSTABLE, U.N.O.
  - ALL CABINETS WITH ADJUSTABLE SHELVES WILL BE SUPPORTED WITH 5 MM LINE BORE SUPPORTS U.N.O.
  - SCRIBE CABINETS TO SIDE WALL(S) AND ALLOW 3/4" DOOR SWING OR AS NECESSARY FOR CABINET HARDWARE.
  - USE MATCHING CAULK AT COUNTERTOP, BACKSPLA AND JOINTS.
  - GROMMET LOCATIONS TO BE COORDINATED WITH POWER AND DATA LOCATIONS AND TENANT PRIOR INSTALLATION.



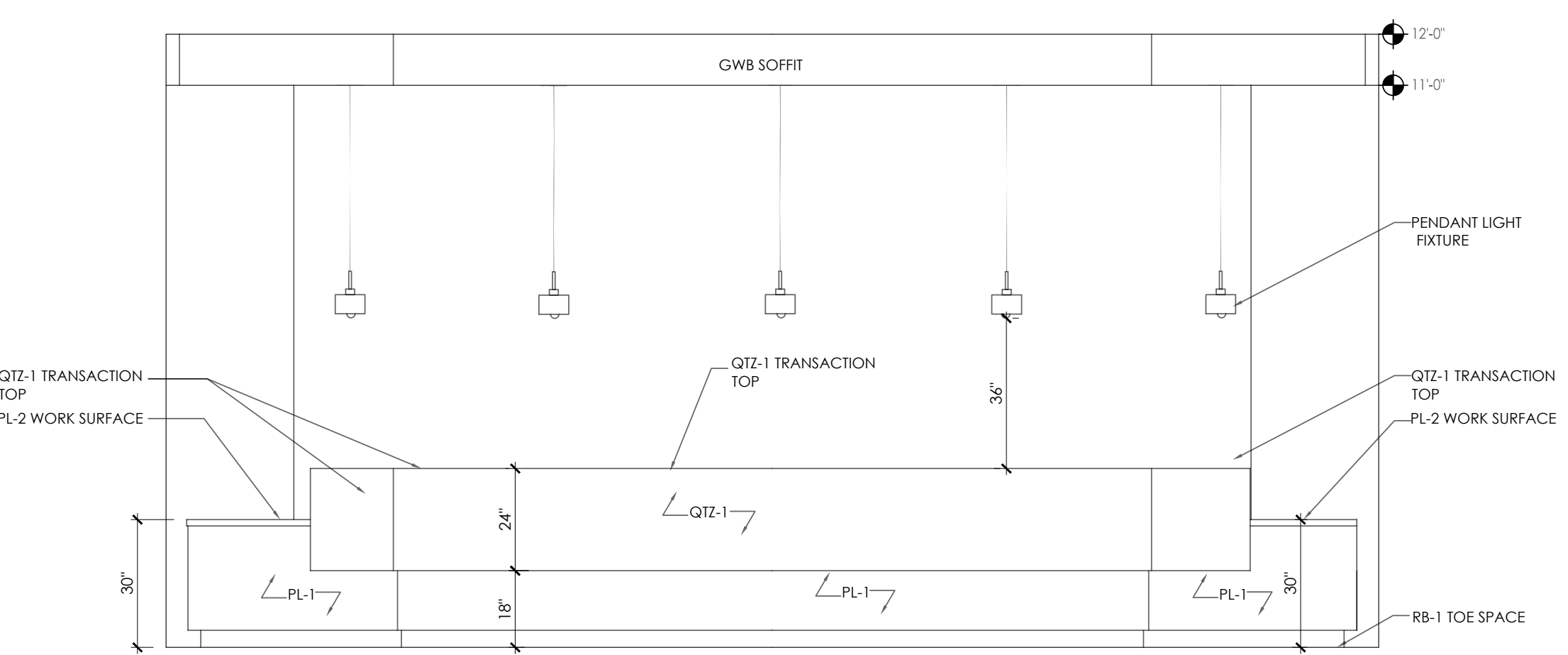
**6** INTERIOR ELEVATION RECEPTION 103  
A-3 SCALE: 3/8"=1'-0"



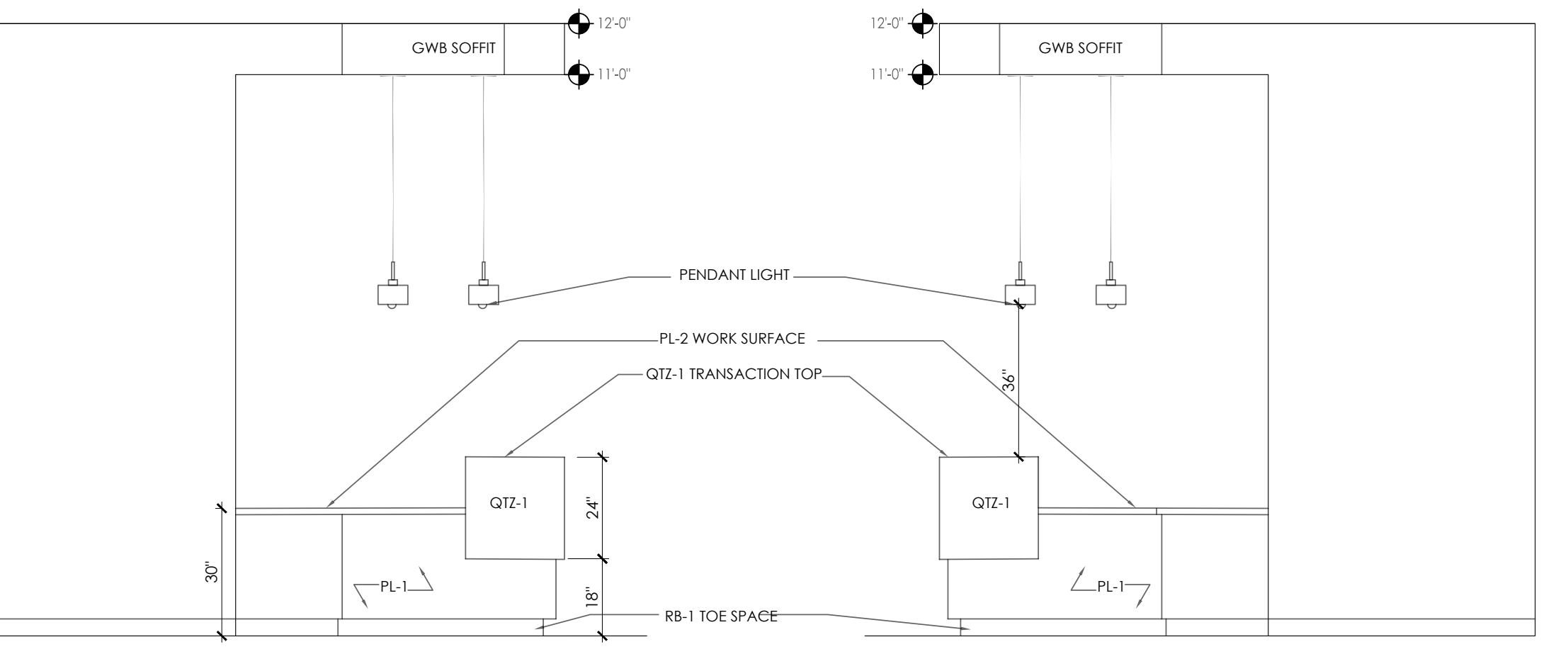
**5** INTERIOR ELEVATION RECEPTION 103  
A-3 SCALE: 3/8"=1'-0"



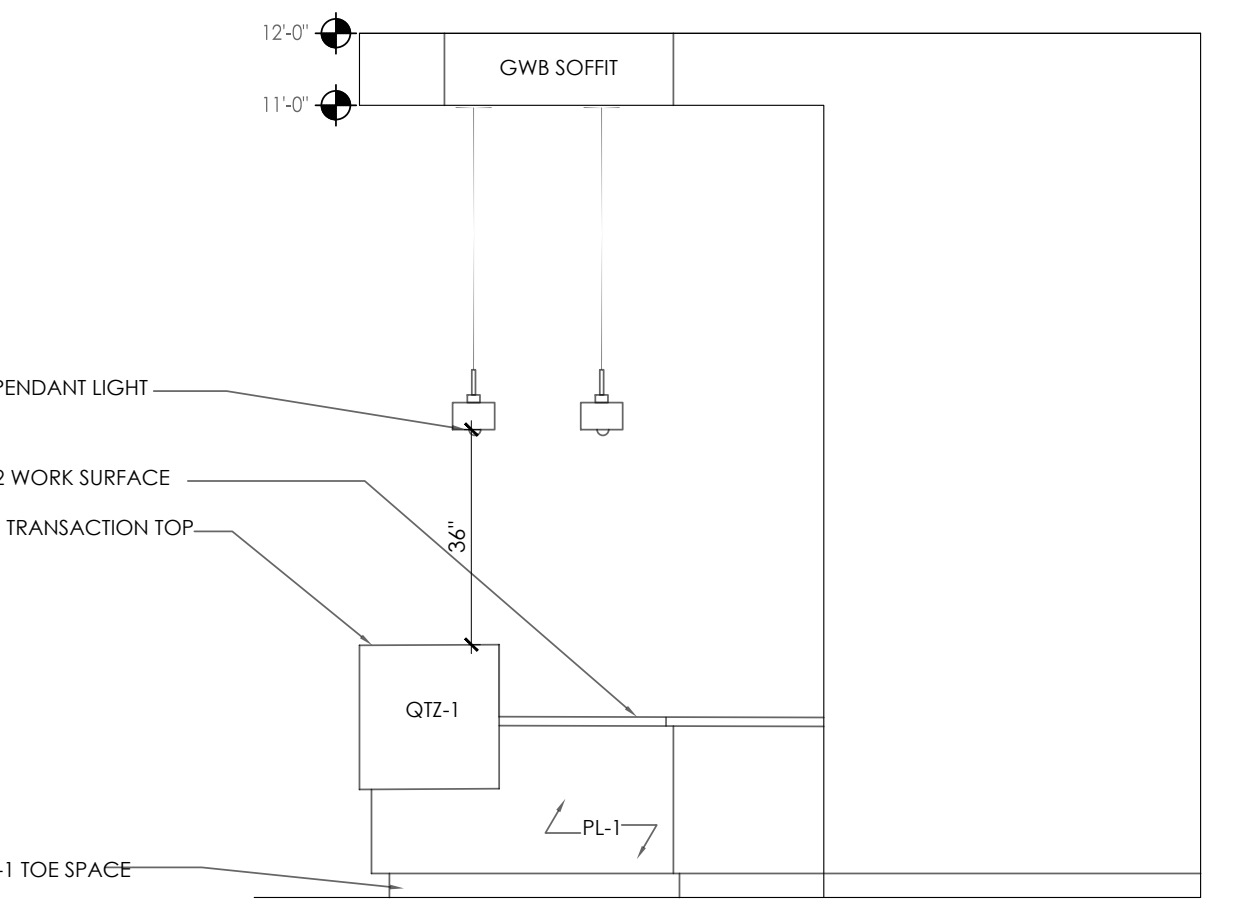
**4** INTERIOR ELEVATION RECEPTION 103  
A-3 SCALE: 3/8"=1'-0"



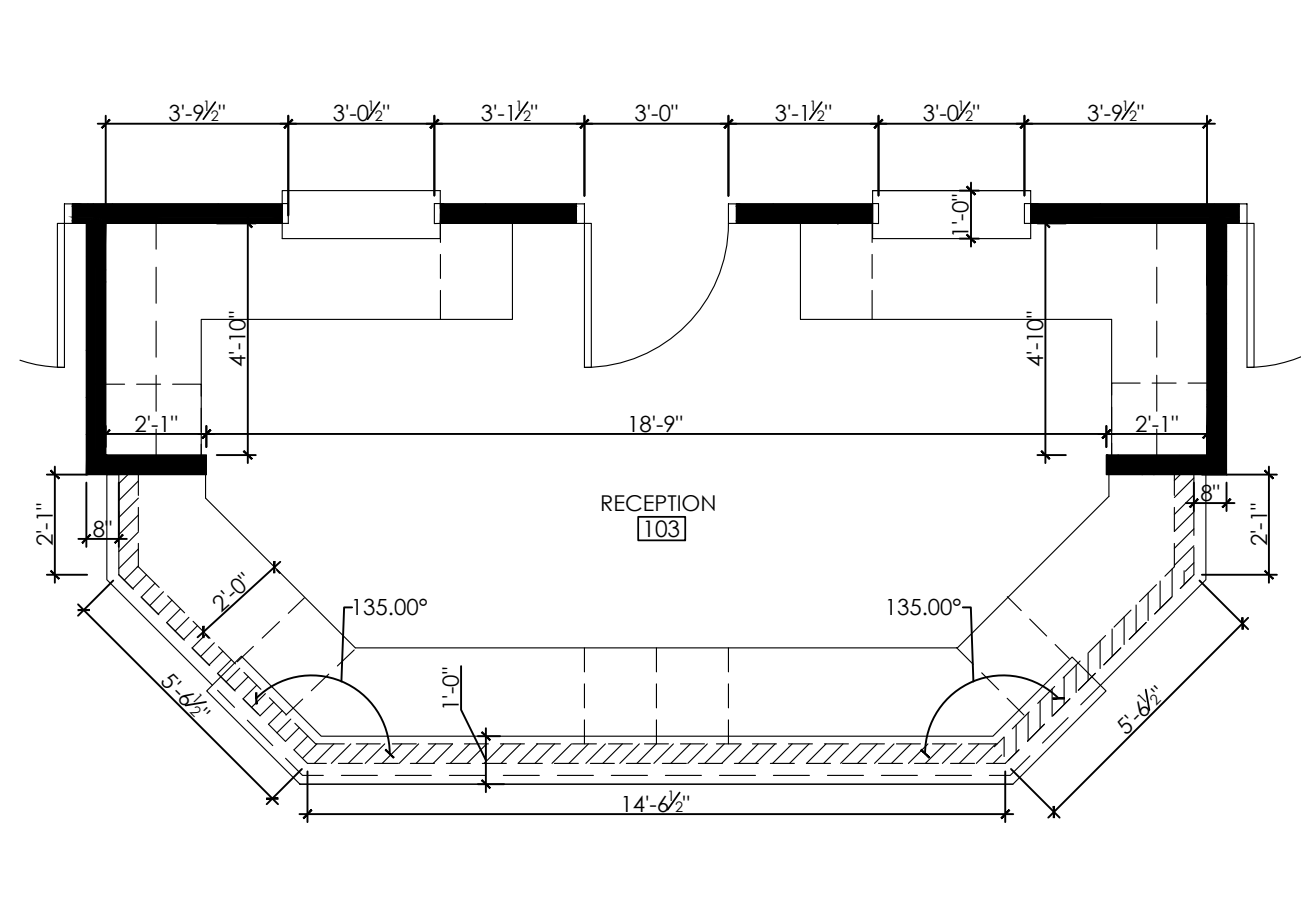
**3** INTERIOR ELEVATION RECEPTION 103  
A-3 SCALE: 3/8"=1'-0"



**2B** INTERIOR ELEVATION RECEPTION 103  
A-3 SCALE: 3/8"=1'-0"



**2A** INTERIOR ELEVATION RECEPTION 103  
A-3 SCALE: 3/8"=1'-0"



**1** ENLARGED PLAN RECEPTION 103  
A-3 SCALE: 1/4"=1'-0"

**PHYCINITY- DR. CABAN**  
**CAMERON BUILDING**  
2277 NC HWY 24-87  
CAMERON, NORTH CAROLINA

JOB #:  
22DRCABAN

DWG BY:  
MPP  
CHK BY:  
DVS  
02/16/23

INTERIOR  
ELEVATIONS

SHEET NO.  
**A-3**

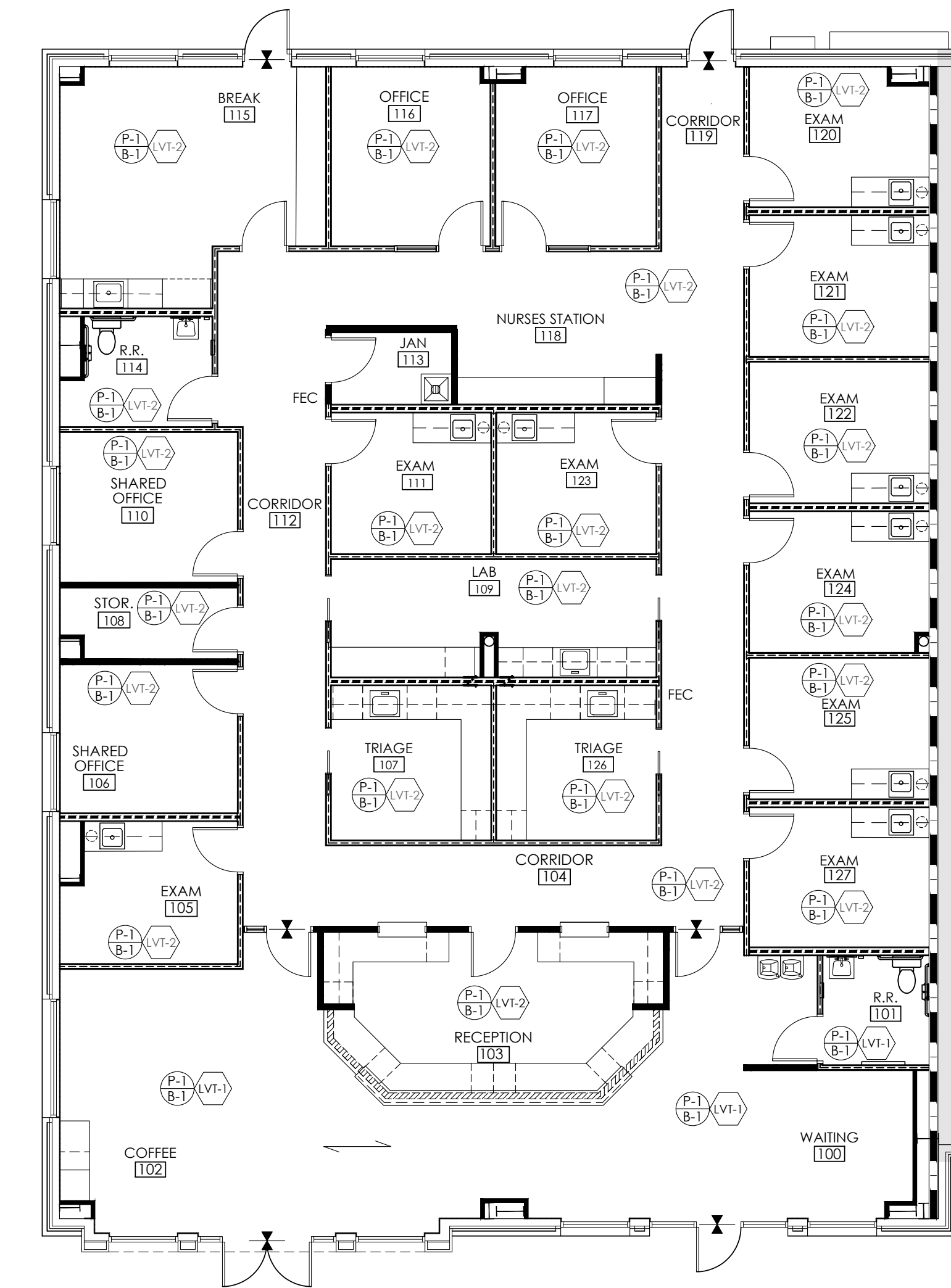


| FINISH SCHEDULE    |                    |   |  |       |
|--------------------|--------------------|---|--|-------|
| FLOORING           | FINISH             | MATERIAL  | LOCATION   | NOTES |
| LUXURY VINYL TILE  | LVT-1              | MANUFACTURER: PATCRAFT, STYLE: REACH 1601V, COLOR: REFINE-V1, SIZE: 9X 36, INSTALLATION: STAGGER                          | COFFEE 102, WAITING 100, R.R. 101                            |       |
|                    | LVT-2 (MAIN)       | MANUFACTURER: SIENA, STYLE: LVT+(FLOATING) COLOR: STORMLANDS (SFT2004), SIZE: 20" X20", INSTALLATION: MONOLITHIC          | THROUGHOUT SUITE U.N.O.                                      |       |
| BASE               | FINISH             | MATERIAL  | LOCATION   | NOTES |
| RESILIENT BASE     | B-1                | BRAND: FLEXCO, COLOR: 01 BLACK DAHLIA, STYLE: 4" RUBBER COVE BASE.  | THROUGHOUT SUITE U.N.O.                                      |       |
| WALLS              | FINISH             | MATERIAL  | LOCATION   | NOTES |
| PAINT              | FP-1 (FIELD PAINT) | BRAND: SHERWIN WILLIAMS, COLOR: SILVER PLATE, G.C. TO PRICE IN WOLF GORDON SCRUBTROUGH FINISH, DEDUCT ALT EGGSHELL FINISH | THROUGHOUT SUITE U.N.O.                                      |       |
|                    | CEILING PAINT      | BRAND: SHERWIN WILLIAMS, COLOR: CEILING WHITE, FLAT FINISH  | GW6 CEILINGS AND SOFFITS                                     |       |
| TACK WALL          | TW-1               | BRAND: KOROSEAL, SERIES: TACKWALL 1/2" THICK COLOR: 06 HARBOR   | AS NOTED, REFER TO ELEVATIONS.                               |       |
| WALL TILE          | WT-1               | MANUFACTURER: TRINITY SURFACES, SERIES: TERRA, COLORS: GRAY, SIZE: 4" X8", FINISH: MATTE, GROUT- TO BE DETERMINED         | R.R. 101 WET WALL  |       |
|                    | WT-2               | MANUFACTURER: TRINITY SURFACES, SERIES: TERRA, COLORS: WHITE, SIZE: 4" X8", FINISH: MATTE, GROUT- TO BE DETERMINED        | R.R. 114 WET WALL  |       |
| SURFACES           | FINISH             | MATERIAL  | LOCATION   | NOTES |
| PLASTIC LAMINATE   | PL-1               | BRAND: FORMICA, COLOR/STYLE: BLACK BIRCH PLY (8552-NG) FINISH: NATURAL GRAIN  | BASE AND OVERHEAD CABINETS U.N.O.                            |       |
|                    | PL-2               | BRAND: NEVAMAR, COLOR/STYLE: PLATINUM GRAY TEXTURED (S6023-T)   | COUNTER TOPS AND BACK SPLASHES U.N.O.                        |       |
| SOLID SURFACE      | QTZ-1 (QUARTZ)     | BRAND: HANSTONE, STYLE/COLOR: PEWTER-RC101  | TRANSACTION TOP AND EDGES OF RECEPTION DESK. SEE ELEVATIONS. |       |
| CEILING            | FINISH             | MATERIAL  | LOCATION   | NOTES |
| ACOUSTICAL CEILING | ACT-1              | BRAND: ARMSTRONG, STYLE: DUNE, SIZE 2X2 REGULAR WITH 1/2" GRID, COLOR: WHITE  | AREAS WITH GRID CEILING THROUGHOUT SUITE U.N.O.              |       |

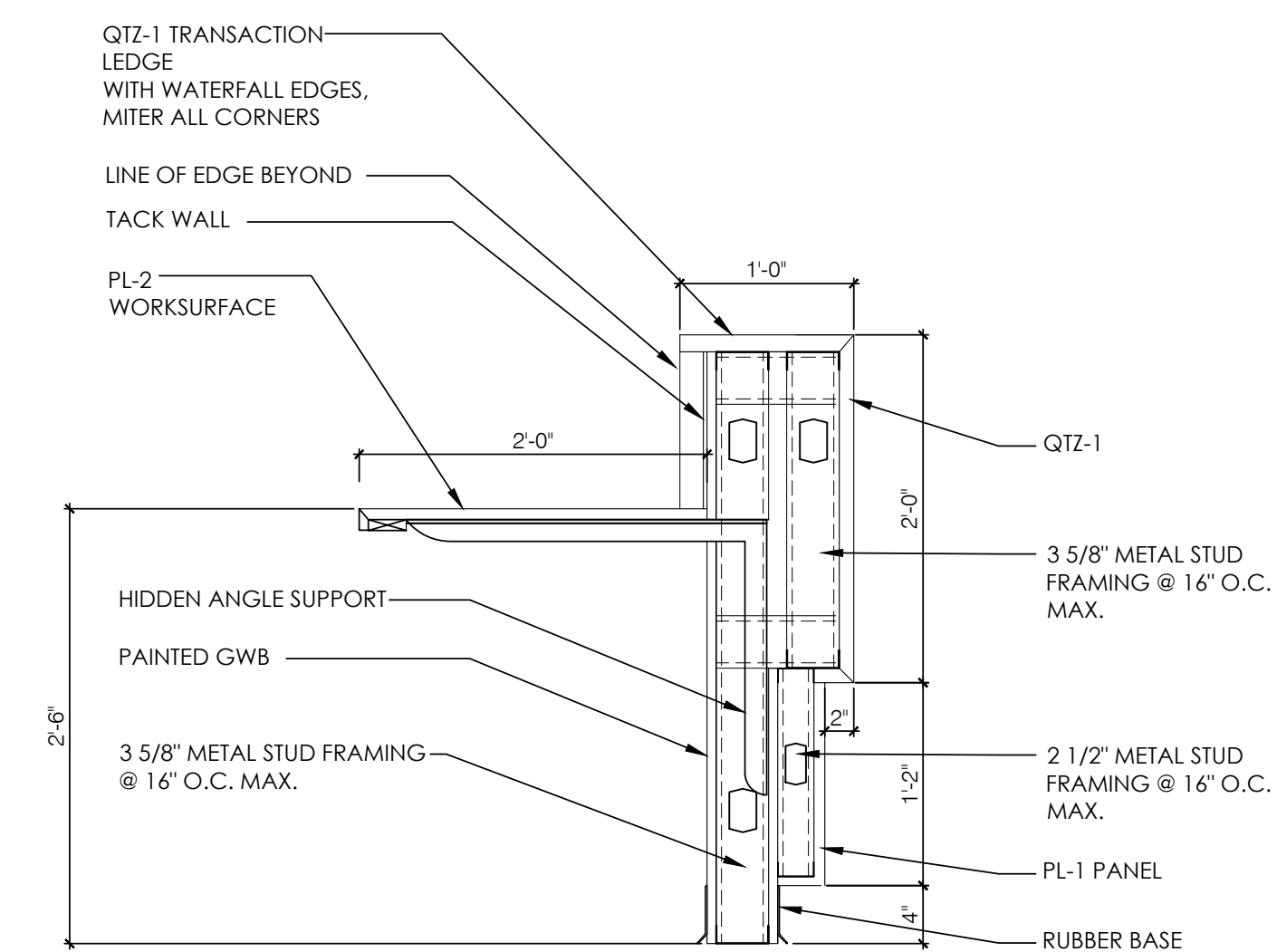
### FINISH SYMBOL LEGEND

|  |                                    |  |                        |  |  |  |                   |
|--|------------------------------------|--|------------------------|--|--|--|-------------------|
|  | INDICATES FLOORING MATERIAL CHANGE |  | INDICATES FLOOR FINISH |  | INDICATES WALL FINISH<br>INDICATES BASE FINISH |  | INSTALL DIRECTION |
|--|------------------------------------|--|------------------------|--|--|--|-------------------|

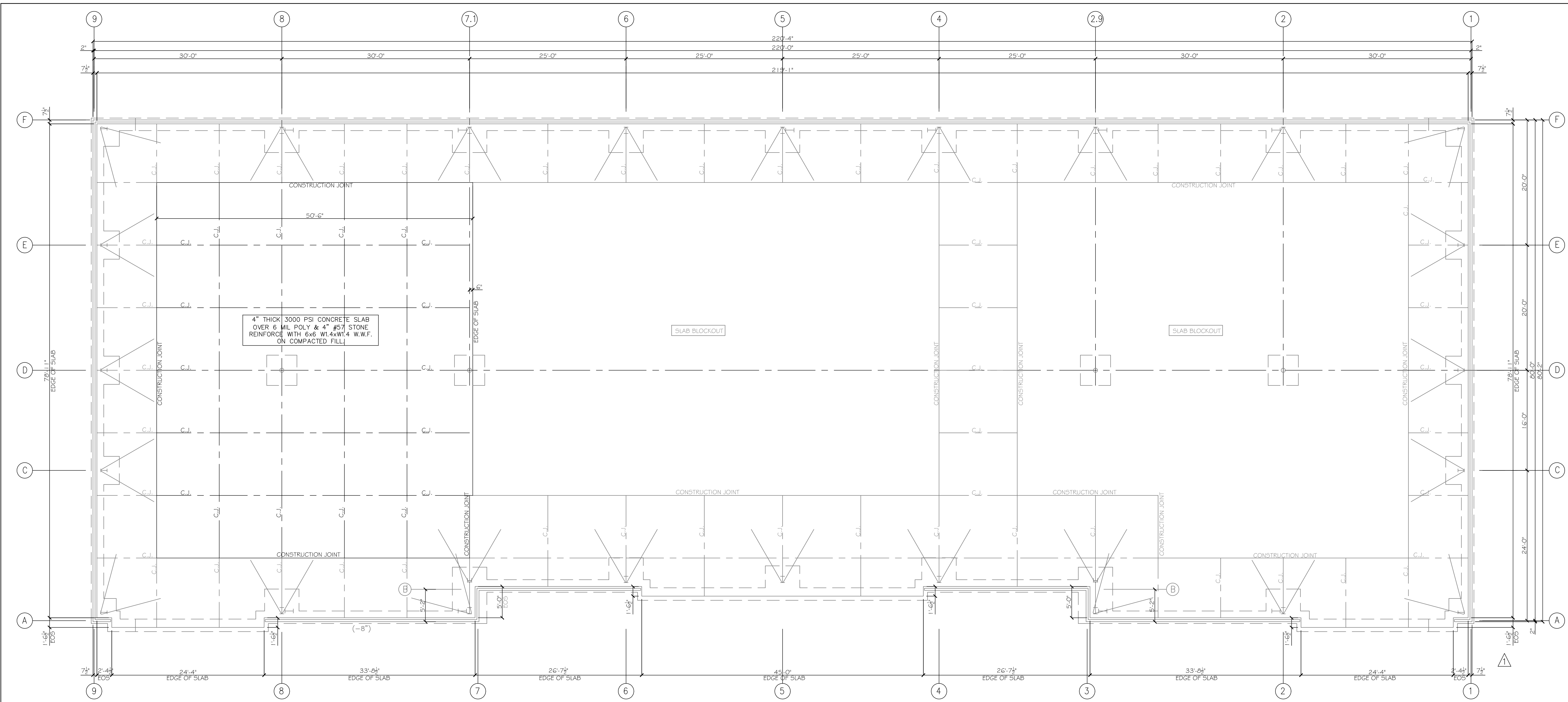
NOTE: WHEN ORDERING ANY FINISHES FOR THIS PROJECT, CONFIRM THAT THE LISTED STYLE NAME AND COLOR NAME CORRESPONDS WITH THE LISTED STYLE & COLOR NUMBERS. IF ANY DISCREPANCIES OCCUR PLEASE CONTACT DESIGNER FOR CLARIFICATION. (719-833-5400) ANGIE DAVIS  
 \*\*TENANT TO APPROVE FINAL SELECTIONS PRIOR TO ORDERING AND INSTALLATION OF MATERIALS



**2 FINISH PLAN**  
 SCALE: 1/8"=1'-0"



**1 SECTION**  
 SCALE: 1"=1'-0"



**C1 SLAB INFILL PLAN**  
SCALE: 1/8" = 1'-0"

**GENERAL NOTES**

- THE GENERAL CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT AND THE ENGINEER OF ANY DISCREPANCIES WITHIN THE CONSTRUCTION DOCUMENTS.
- DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE 2018 NORTH CAROLINA BUILDING CODE.
- DESIGN LOADS:
 

|                    |              |     |
|--------------------|--------------|-----|
| Importance Factor: | Wind (Iw)    | 1.0 |
|                    | Snow (Is)    | 1.0 |
|                    | Seismic (Ie) | 1.0 |

|             |              |         |
|-------------|--------------|---------|
| Live Loads: | Roof         | N/A     |
|             | Second Floor | N/A     |
|             | First Floor  | 125 psf |

  
 Ground Snow Load: N/A  
 Wind Load: Basic Wind Speed N/A, Exposure Category N/A, Wind Base Shears (for MWFRS)  $V_x = N/A$ ,  $V_y = N/A$
- SEISMIC DESIGN CATEGORY: **B**  
 Provide the following Seismic Design Parameters:  
 Occupancy Category (Table 1604.5) **II**  
 Spectral Response Acceleration  $S_s$  20.6% g  $S_1$  9.4% g  
 Site Classification **D** (Field Test)  
 Basic structural system (check one)  
 Bearing Wall  Dual w/ Special Moment Frame  
 Building Frame  Dual w/ Intermediate R/C or Special Steel  
 Moment Frame  Inverted Pendulum  
 Seismic base shear  $V_x = N/A$ ,  $V_y = N/A$   
 Analysis Procedure  Simplified  Equivalent Lateral Force  Modal  
 Architectural, Mechanical, Components anchored?
- LATERAL DESIGN CONTROL: Earthquake  Wind
- SOIL BEARING CAPABILITIES:  
 Field Test (provide copy of test report) \_\_\_\_\_ psf  
 Presumptive Bearing Capacity **2000** psf  
 Pile size, type and capacity \_\_\_\_\_
- ALL SAFETY REGULATIONS, METHODS OF CONSTRUCTION AND ERECTION OF STRUCTURAL MATERIAL SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. IT SHALL BE THE GENERAL CONTRACTOR'S RESPONSIBILITY TO PROVIDE ADEQUATE SHORING, BRACING AND FORMWORK, ETC. AS REQUIRED.
- THE GENERAL CONTRACTOR PRIOR TO CONSTRUCTION SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, THE SIZE AND LOCATION OF ALL SLEEVES, PADS, DEPRESSIONS, OPENINGS, ETC.
- DIMENSIONS ARE NOT TO BE DERIVED BY SCALING THESE DRAWINGS. IF THERE IS ANY QUESTION ABOUT DETAILS OR DIMENSIONS, CONTACT THE ARCHITECT AND ENGINEER FOR CLARIFICATION.
- IF ANY BIDDER IS IN DOUBT AS TO THE TRUE MEANING OF ANY PART OF THE DOCUMENTS, THEY SHALL REQUEST AN INTERPRETATION FROM THE ARCHITECT IN WRITING.

**D1 GENERAL NOTES**  
SCALE: 3/4" = 1'-0"

**CONCRETE**

- ALL CONCRETE WORK TO BE DONE IN ACCORDANCE WITH THE CODE REFERENCED EDITION OF ACI-318: "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE"
- CONCRETE MIX DESIGN REQUIREMENTS AND COMPRESSIVE STRENGTH AT 28 DAYS:

| DESCRIPTION                            | 28 DAY STRENGTH (PSI) | WEIGHT PER CUBIC FOOT (PCF) | SUMP AT POINT OF PLACEMENT | AGGREGATE | % AIR |
|--|-----------------------|-----------------------------|----------------------------|-----------|-------|
| FOOTINGS                               | 3000                  | 145                         | 4' ± 1"                    | ASTM C33  | 3     |
| SLAB ON GRADE                          | 3000                  | 145                         | 4' ± 1"                    | ASTM C33  | 3     |
| COMPOSITE FLOOR TOPPING (LIGHT WEIGHT) | 3500                  | 110                         | 5' ± 1"                    | ASTM C330 | 3     |
| BASEMENT WALLS                         | 5000                  | 145                         | 5' ± 1"                    | ASTM C33  | 3     |

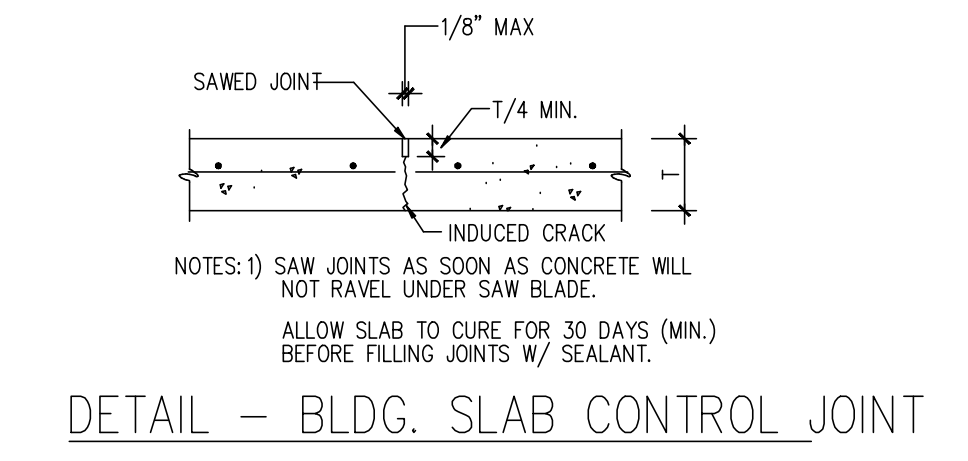
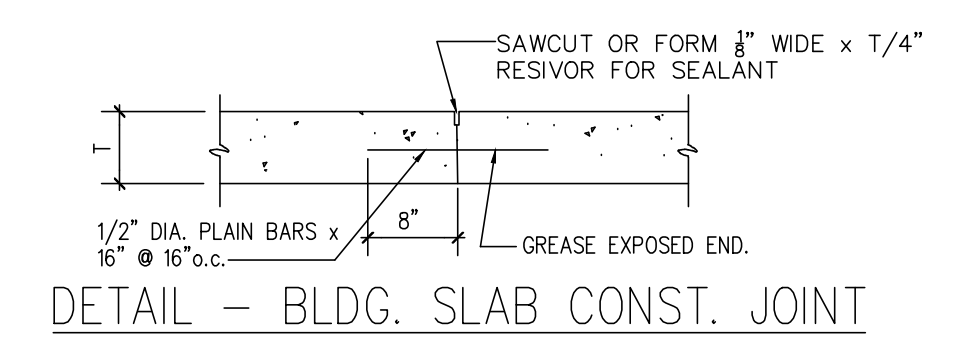
- FLY ASH SHALL BE LIMITED TO 20% OF THE TOTAL CEMENTITIOUS MATERIAL WEIGHT, WATER REDUCING ADMIXTURES MAY BE USED TO ACHIEVE SLUMP REQUIREMENTS.
- SEE ARCHITECTURAL DOCUMENTS FOR JOINT SIZES AND FILLER MATERIALS.
  - LOCATION OF ALL CONSTRUCTION JOINTS, EXCLUDING SLABS ON GRADE, SHALL BE COORDINATED WITH STRUCTURAL ENGINEER.
  - ALL EXPOSED CONCRETE CORNERS SHALL HAVE A 3/8" CHAMFER, UNLESS NOTED OTHERWISE BY THE ARCHITECT.
  - SHOP DRAWINGS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER SHOWING PROPOSED LOCATIONS OF ANY MATERIAL SUCH AS BUT NOT LIMITED TO CONDUITS, EMBEDMENTS, OR FIXTURES TO BE PLACED INSIDE ANY STRUCTURAL CONCRETE MEMBER SUCH AS BEAMS, WALLS, SLABS, COLUMNS OR FOOTINGS.
  - UNLESS SPECIFIED OTHERWISE IN THE SPECIFICATION, TESTING OF CONCRETE SHALL BE IN CONFORMANCE WITH THE REQUIREMENTS OF ACI 318 SECTION 5.6 "EVALUATION AND ACCEPTANCE OF CONCRETE."
  - THE FOLLOWING PROCEDURES SHALL MEET THE REQUIREMENTS OF THE REFERENCED CODE SECTIONS

| PROCEDURE               | REFERENCE SECTION  |
|-------------------------|--|
| PREPARATION             | ACI 304 - "GUIDE FOR MEASURING, MIXING, TRANSPORTING AND PLACING CONCRETE" |
| CONVEYING               | ACI 318 SECTION 5.9 - "CONVEYING"  |
| DEPOSITING              | ACI 318 SECTION 5.10 - "DEPOSITING"  |
| CONSOLIDATION           | ACI 309 - "GUIDE FOR CONSOLIDATION OF CONCRETE"                            |
| CURING                  | ACI 308 - "STANDARD PRACTICE FOR CURING CONCRETE"                          |
| HOT WEATHER CONCRETING  | ACI 305 - "HOT WEATHER CONCRETING"   |
| COLD WEATHER CONCRETING | ACI 306 - "COLD WEATHER CONCRETING"  |

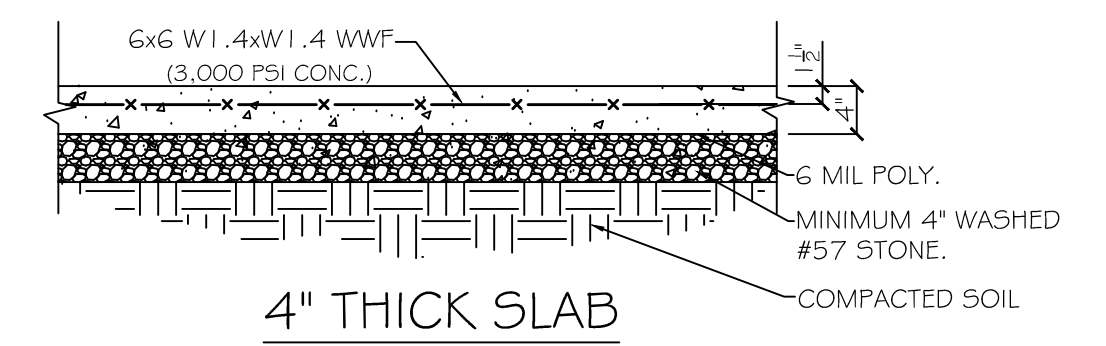
**REINFORCING STEEL**

- REINFORCING STEEL SHALL BE NEW BILLET STEEL, DEFORMED BARS CONFORMING TO ASTM A615, GRADE 60.
- WELDED WIRE FABRIC SHALL BE SHEETS OF NEW BILLET STEEL COLD DRAWN, CONFORMING TO ASTM SPECIFICATION A62, GRADE 60.
- BAR SUPPORTS, DESIGN, DETAILING, FABRICATION AND PLACING OF REINFORCING STEEL SHALL BE IN ACCORDANCE WITH ACI 318 AND "THE MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES," ACI 315.
- SPLICES FOR CONTINUOUS BARS SHALL BE CLASS B, UNLESS NOTED OTHERWISE, WELDED WIRE FABRIC SHALL BE LAPPED 12" MINIMUM.
- MINIMUM CONCRETE COVERAGE SHALL BE AS FOLLOWS. IF STIRRUPS, TIES OR SPIRALS ARE USED, COVERAGE SHALL BE THE OUTERMOST FACE OF THE ELEMENTS.
 

|  |        |
|--|--------|
| A. FOOTINGS, CAISSONS, AND OTHER MEMBERS WHERE CONCRETE IS DEPOSITED AGAINST SOIL (EXCEPT SLABS ON GRADE.) | 3"     |
| B. CONCRETE EXPOSED TO WEATHER OR SOIL #6 BAR AND LARGER:  | 2"     |
| #5 BAR AND SMALLER:  | 1 1/2" |
| C. CONCRETE NOT EXPOSED TO WEATHER OR SOIL (SLABS, WALLS, JOISTS) #14 BAR AND LARGER:                      | 1 1/2" |
| #11 BAR AND SMALLER:   | 1"     |
| BEAMS AND COLUMNS  | 1 1/2" |
- WALL FOOTING REINFORCEMENT SHALL BE CONTINUOUS THROUGH COLUMN FOOTING.
- PROVIDE DOWELS IN WALL FOOTING TO MATCH WALL VERTICALS UNLESS NOTED OTHERWISE ON DRAWINGS. PROVIDE CLASS B SPLICE. USE STANDARD ACI 90° HOOK WITH 3" CLEAR TO BOTTOM OF FOOTING UNLESS NOTED OTHERWISE.



**C4 SLAB JOINT DETAILS**  
SCALE: 3/4" = 1'-0"



**D4 SLAB REINFORCEMENT DETAIL**

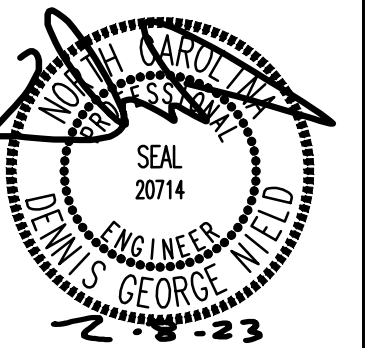


**DR. CABAN CAMERON BUILDING**  
 2285 NC HWY 24-87  
 CAMERON, NC

**REVISIONS**

SLAB INFILL PLAN & DETAILS  
 2-7-23

**S1**



**PHYCINITY - DR. CABAN**  
CAMERON BUILDING  
2285 NC HWY 24-87  
CAMERON, NORTH CAROLINA

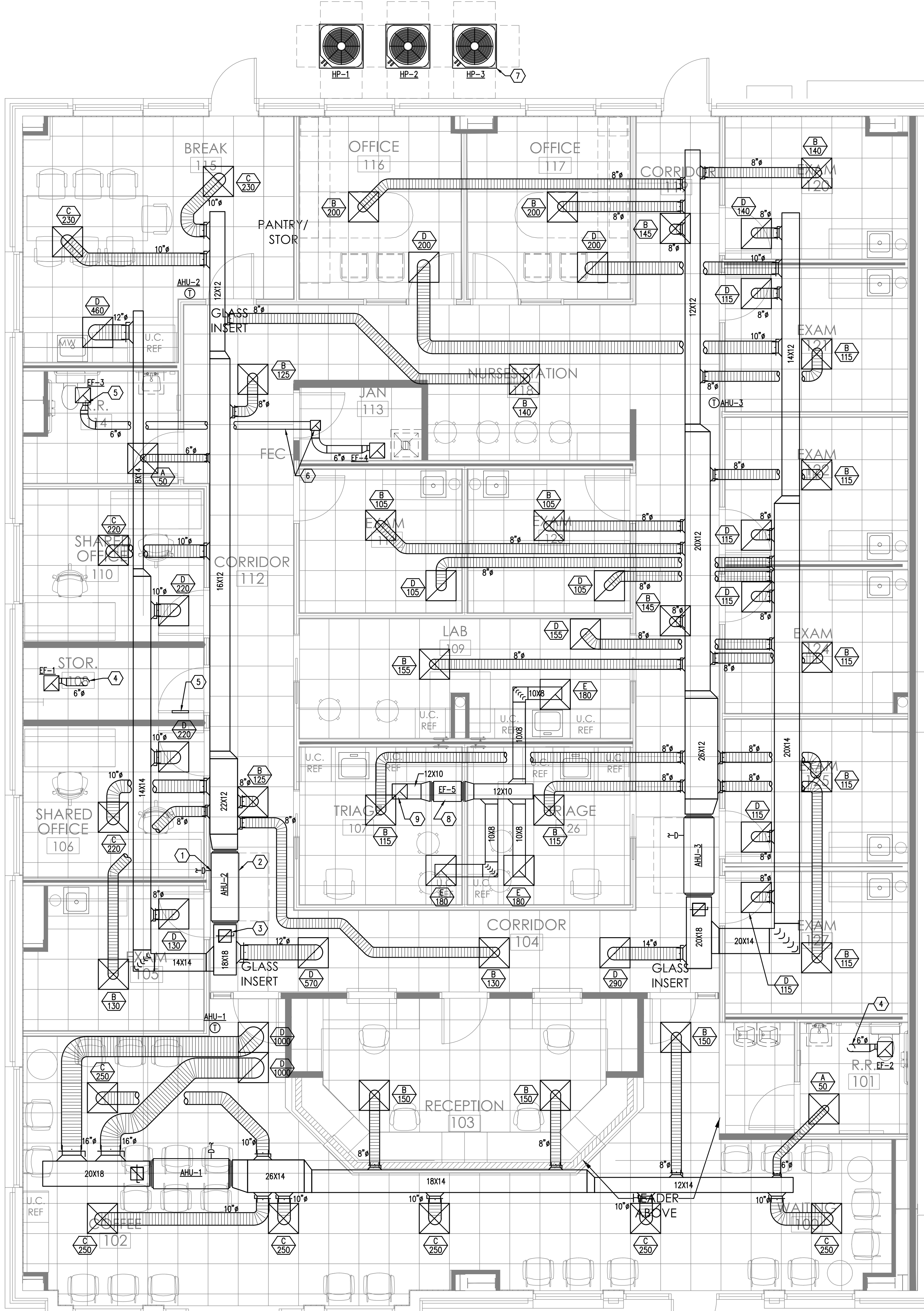
JOB #:  
22DRCABAN

DWG BY:  
MPP  
CHK BY:  
AED  
DATE: 02/08/23

HVAC  
FLOOR PLAN

SHEET NO.

**M-1**



- PLAN NOTES**
- 1 PROVIDE AIR HANDLING UNIT WITH AUX. DRAIN PAN AND FLOAT SWITCH. FIELD ROUTE DRAIN LINE TO DRY WELL. (TYPICAL)
  - 2 SUSPEND AIR HANDLING UNIT FROM STRUCTURE. PROVIDE WITH AUXILIARY CONDENSATE DRAIN PAN. MOUNT PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE MANUFACTURER'S RECOMMENDED CLEARANCES. (TYPICAL)
  - 3 ROUTE 10X10 OUTSIDE AIR DUCT UP TO ROOF AND TERMINATE WITH ROOF CAP. PROVIDE MANUAL VOLUME DAMPER IN RISER. LOCATE A MINIMUM OF 10 FEET FROM ANY VENT OR EXHAUST DISCHARGE. SEE SPLIT SYSTEM HEAT PUMP SCHEDULE FOR MINIMUM CFM. (TYPICAL)
  - 4 6" EXHAUST DUCT UP TO ROOF CAP ON ROOF. LOCATE EXHAUST DISCHARGE A MINIMUM OF 10 FEET FROM ANY OUTSIDE AIR INTAKE. (TYPICAL)
  - 5 LOUVER TO BE INSTALLED IN DOOR. COORDINATE WITH GENERAL CONTRACTOR. SEE ARCHITECTURAL PLANS.
  - 6 ROUTE 6" EXHAUST DUCT TO 8X8 COMMON EXHAUST DUCT. ROUTE 8X8 COMMON EXHAUST DUCT UP TO ROOF CAP ON ROOF. LOCATE EXHAUST DISCHARGE A MINIMUM OF 10 FEET FROM ANY OUTSIDE AIR INTAKE. (TYPICAL)
  - 7 FIELD VERIFY ACTUAL LOCATION OF OUTDOOR HEAT PUMPS. MOUNT OUTDOOR HEAT PUMP UNITS ON 4" THICK CONCRETE PADS. ALLOW FOR CLEARANCES. MOUNT PER MANUFACTURER'S RECOMMENDATIONS. (TYPICAL)
  - 8 IN-LINE EXHAUST FAN MOUNTED ABOVE CEILING. ALLOW FOR ACCESS AND ALL REQUIRED CLEARANCES. SEE FAN SCHEDULE.
  - 9 12X10 COMMON EXHAUST ROUTED UP TO ROOF. TERMINATE WITH ROOF CAP. LOCATE A MINIMUM OF 10 FEET FROM ANY OUTSIDE AIR INTAKE. SEE FAN SCHEDULE FOR SIZING.

**GENERAL NOTES:**  
MOST INTERIOR WALLS ON THIS PROJECT EXTEND TO STRUCTURE FOR SOUND ATTENUATION PURPOSES. MECHANICAL CONTRACTOR TO COORDINATE CLOSELY WITH GENERAL CONTRACTOR TO ALLOW FOR ALL EQUIPMENT INSTALLATIONS AND DUCT ROUTING SUCH THAT PENETRATION OF WALLS ARE KEPT TO A MINIMUM. SEE ARCHITECTURAL SHEETS FOR WALL SCHEDULES.

WEST KEY CONSULTING HAS REPRESENTED THE CONDITIONS TO THE BEST OF OUR ABILITY. WE ASSUME NO RESPONSIBILITY OR LIABILITY FOR VARIATION FROM THIS REPRESENTATION OR FROM ANY NON-CODE COMPLYING CONDITIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VISIT THE SITE PRIOR TO BIDDING AND FULLY FAMILIARIZE HIMSELF OF ALL EXISTING CONDITIONS THAT CAN IN ANY WAY AFFECT THE WORK OR COST THEREOF. SHOULD ANY DISCREPANCIES OR NON-CODE COMPLYING ISSUES BE FOUND, THE CONTRACTOR SHALL NOTIFY WEST KEY CONSULTING AT ONCE IN WRITING PRIOR TO SUBMITTING BID. LACK OF SUCH NOTIFICATION SHALL BE CONSTRUED TO INDICATE NO DISCREPANCIES OR CODE CONFLICTS. ADDITIONAL COMPENSATION WILL NOT BE GRANTED AFTER AWARD OF CONTRACT FOR ANY WORK REQUIRED TO COMPLY WITH THESE REQUIREMENTS.

**AIR DISTRIBUTION SCHEDULE**

| MARK | NAIOLR MODEL  | PANEL SIZE | TYPE           | NECK SIZE | TYPE    | REMARKS                                  |
|------|---|------------|----------------|-----------|---------|--|
| A    | MODEL UNI, STEEL, SQUARE FACE, ROUND NECK, W/ OBD                       | 24X24      | LAY-IN CEILING | 6"        | SUPPLY  | VERIFY CEILING TYPES. COLOR BY ARCHITECT |
| B    | MODEL UNI, STEEL, SQUARE FACE, ROUND NECK, W/ OBD                       | 24X24      | LAY-IN CEILING | 8"        | SUPPLY  | VERIFY CEILING TYPES. COLOR BY ARCHITECT |
| C    | MODEL UNI, STEEL, SQUARE FACE, ROUND NECK, W/ OBD                       | 24X24      | LAY-IN CEILING | 10"       | SUPPLY  | VERIFY CEILING TYPES. COLOR BY ARCHITECT |
| D    | MODEL 4360, TYPE "L", STEEL, PERFORATED, PROVIDE W/ SQR. TO RND. TRANS. | 24X24      | LAY-IN CEILING | 22X22     | RETURN  | VERIFY CEILING TYPES. COLOR BY ARCHITECT |
| E    | MODEL 4360, TYPE "L", STEEL, PERFORATED, PROVIDE W/ TRANS.              | 24X24      | LAY-IN CEILING | 10X8      | EXHAUST | VERIFY CEILING TYPES. COLOR BY ARCHITECT |

**OUTSIDE AIR CALCULATION**

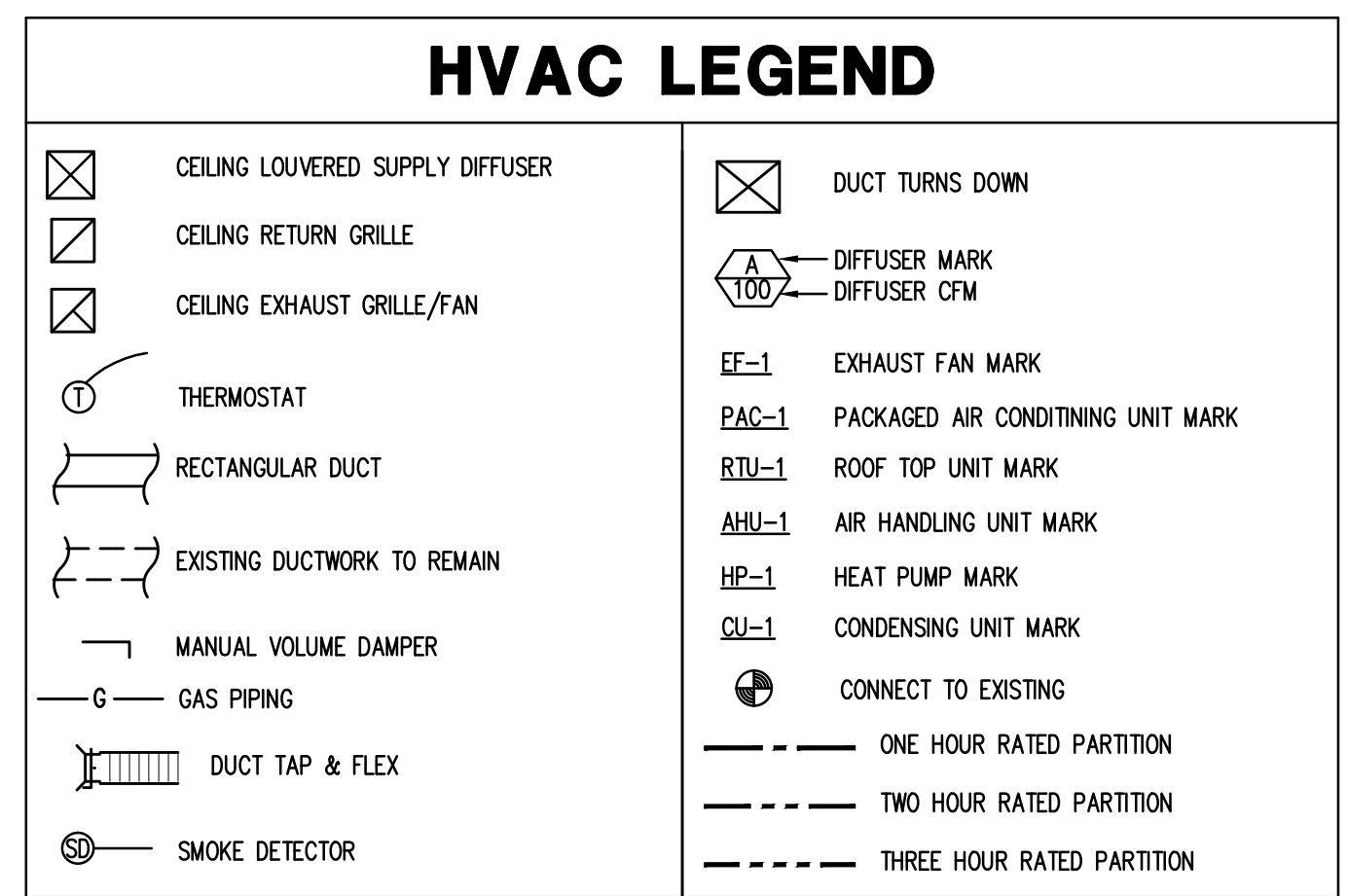
| SPACE CLASSIFICATION                              | NET AREA (SF) | NUMBER PEOPLE/1000SF | TOTAL PEOPLE | CFM/PERSON | CFM/SQ. FT. | TOTAL CFM | REQUIRED CFM (V <sub>oa</sub> ) | DESIGN CFM |
|---|---------------|----------------------|--------------|------------|-------------|-----------|---------------------------------|------------|
| OFFICE  | 4500          | 5                    | 23           | 5          | 0.06        | 385       | 385                             |            |
| <b>SINGLE ZONE RECIRCULATION CALCULATION</b>      |               |                      |              |            |             |           |                                 |            |
| V <sub>oa</sub> = V <sub>oa</sub> /E <sub>r</sub> |               |                      |              |            |             |           |                                 |            |
| E <sub>r</sub> = 0.8 (ASHRAE 62.1-2004 TABLE 6.1) |               |                      |              |            |             |           | 481                             | 840        |
| <b>GRAND TOTAL OUTSIDE AIR REQUIRED</b>           |               |                      |              |            |             |           | 481                             |            |

① PER NCSCB: MECHANICAL

**EXHAUST FAN SCHEDULE**

| MARK | COOK MODEL | TYPE        | CFM | ESP   | WATTS/HP | VOLTS/PH | HPM  | REMARKS |
|------|------------|-------------|-----|-------|----------|----------|------|---------|
| EF-1 | GC-140     | CABINET FAN | 75  | 0.25" | 70 WATTS | 120/1    | 1500 | (1)(2)  |
| EF-2 | GC-140     | CABINET FAN | 75  | 0.25" | 70 WATTS | 120/1    | 1500 | (1)(2)  |
| EF-3 | GC-140     | CABINET FAN | 75  | 0.25" | 70 WATTS | 120/1    | 1500 | (1)(3)  |
| EF-4 | GC-140     | CABINET FAN | 60  | 0.25" | 70 WATTS | 120/1    | 1500 | (1)(3)  |
| EF-5 | 80-SQN-B   | IN-LINE FAN | 540 | 0.25" | 1/6 HP   | 120/1    | 1504 | (4)     |

- 1 FAN CONTROLLED BY WALL MOUNTED CONTROLLER. FAN SHALL BE DIRECT DRIVE. SUPPORT FAN FROM STRUCTURE. PROVIDE FAN WITH BACKDRAFT DAMPER AND SINGLE POINT ELECTRICAL CONNECTION.
- 2 PROVIDE WITH COOK MODEL ROOF CAP. ROUTE 6" EXHAUST DUCT TO ROOF CAP AS SHOWN ON DRAWINGS.
- 3 ROUTE 6" EXHAUST DUCT TO 8X8 COMMON EXHAUST DUCT. ROUTE 8X8 COMMON EXHAUST DUCT UP TO ROOF AS SHOWN ON DRAWINGS AND PROVIDE WITH COOK MODEL ROOF CAP.
- 4 FAN CONTROLLED BY TIME CLOCK WITH BATTERY BACKUP. FAN TO OPERATE DURING HOURS OF OPERATION. PROVIDE WITH FLEX CONNECTOR, BACKDRAFT DAMPER, AND VIBRATION ISOLATORS. SUPPORT FAN FROM STRUCTURE. TERMINATE EXHAUST DUCT AT ROOF WALL WITH ROOF CAP. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

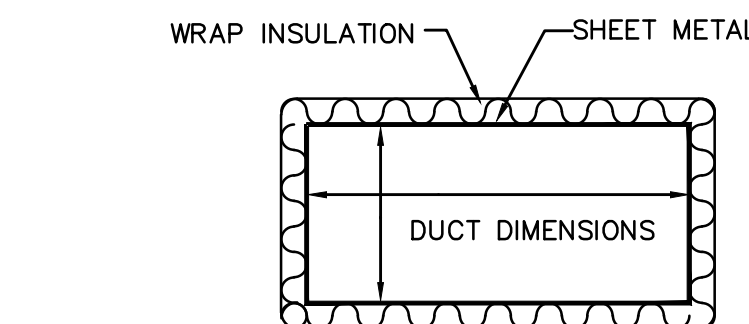


**1 FLOOR PLAN - HVAC**  
M-1 SCALE: 1/4" = 1' - 0"

GENERAL NOTES:

- THE HEATING AND AIR CONDITIONING CONTRACTOR (THE CONTRACTOR) SHALL PROVIDE ALL SPECIFIED AND MISCELLANEOUS MATERIAL AND LABOR AS REQUIRED FOR A COMPLETE AND OPERATING SYSTEM AS DESCRIBED BY THESE PLANS AND SPECIFICATIONS.
- ALL FLEXIBLE DUCT CONNECTIONS TO HAVE MANUFACTURED SPIN-IN FITTINGS WITH DAMPER, AND MANUAL LOCKING QUADRANT.
- PROVIDE AN ELECTRONIC PROGRAMMABLE THERMOSTAT FOR EACH AIR HANDLING UNIT. THERMOSTAT SHALL BE HONEYWELL MODEL T7351 WITH SUBBASE (OR EQUAL). PROVIDE WITH TRANSPARENT LOCKING COVERS. THE HIGHEST OPERATING COMPONENT OF THE THERMOSTAT SHALL BE MOUNTED AT 48" MAX. A.F.F. AND IN COMPLIANCE WITH NC ACCESSIBILITY CODE. THERMOSTAT SHALL BE CAPABLE OF CONTROLLING COOLING AND HEATING SYSTEM OPERATION IN COMPLIANCE WITH SECTION C403.2.4 OF THE NC ENERGY CONSERVATION CODE.
- THE MECHANICAL CONTRACTOR SHALL COORDINATE HIS WORK WITH THAT OF THE OTHER TRADES PRIOR TO THE INSTALLATION OF ANY OF HIS EQUIPMENT, DUCTWORK, OR PIPING.
- ALL EQUIPMENT, MATERIALS, AND INSTALLATION OF SUCH SHALL BE IN ACCORDANCE WITH ALL LOCAL, STATE, AND NATIONAL CODES. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S WRITTEN RECOMMENDATIONS. IF THERE IS A CONFLICT IN THE ABOVE REQUIREMENTS, THE MORE STRINGENT SHALL BE USED. ACCESS TO ALL EQUIPMENT SHALL BE PROVIDED IN COMPLIANCE WITH CHAPTER 3 OF THE NORTH CAROLINA MECHANICAL CODE.
- THE MECHANICAL CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS, FEES, AND INSPECTIONS REQUIRED FOR HIS WORK.
- WORKMANSHIP SHALL BE FIRST-CLASS AND PERFORMED BY EXPERIENCED AND SKILLED CRAFTSMEN.
- REFER TO ARCHITECTURAL PLANS FOR FLOOR PLAN DIMENSIONS, DO NOT SCALE THESE DRAWINGS.
- COORDINATE EXACT LOCATION OF ALL DIFFUSERS WITH LIGHTS, SPRINKLER HEADS, AND OTHER CEILING MOUNTED DEVICES.
- THE MECHANICAL CONTRACTOR SHALL PROVIDE AND INSTALL HIS OWN SUPPORT EQUIPMENT. LOCATIONS SHALL BE COORDINATED WITH ALL CONTRACTORS PRIOR TO INSTALLATION.
- ALL EQUIPMENT SHALL BE LOCATED AND INSTALLED TO PROVIDE MAXIMUM SPACE FOR MAINTENANCE AND SERVICE. ALL EQUIPMENT INSTALLATIONS SHALL ALLOW FOR ALL CODE AND MANUFACTURER REQUIRED CLEARANCES.
- THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL POWER CONNECTIONS TO THE EQUIPMENT PROVIDED UNDER HIS CONTRACT.
- THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONTROL WIRING FOR HIS EQUIPMENT.
- ALL OUTSIDE AIR SUPPLY AND EXHAUST DUCTWORK, FANS, AND EXTERIOR OPENINGS SHALL BE PROVIDED WITH CLASS I MOTORIZED DAMPERS IN COMPLIANCE WITH SECTION C403.2.4.3 OF THE NC ENERGY CONSERVATION CODE. GRAVITY DAMPERS MAY BE PERMITTED IN BUILDING LESS THAN 3 STORES IN HEIGHT OR FOR EXHAUST AIRFLOW OF 300 CFM OR LESS.
- FOR SPACES LARGER THAN 500 SQUARE FEET, THE CONTRACTOR SHALL PROVIDE CO2 SENSORS AND MOTORIZED DAMPERS ON ALL HVAC SYSTEMS TO PROVIDE DEMAND CONTROLLED VENTILATION IN COMPLIANCE WITH SECTION C403.2.6 OF THE NC ENERGY CONSERVATION CODE UNLESS OTHERWISE NOTED.
- LINE SUPPLY AND RETURN DUCT WITH DUCT LINER A MINIMUM OF FIVE FEET BEYOND FIRST ELBOW DOWNSTREAM OF DISCHARGE AND INTAKE OF UNIT. DUCT LINER SHALL BE A MINIMUM OF R-6 ACoustICAL LINER. INSULATE ALL SUPPLY AND RETURN DUCT DOWN STREAM OF LINED DUCT WITH BLANKET INSULATION. BLANKET INSULATION SHALL A MINIMUM OF R-6 GLASS FIBER WITH FIRE RETARDANT FOIL-SCRM KRAFT JACKET. AS AN ALTERNATE, THE MECHANICAL CONTRACTOR MAY LINE RIGID DUCTWORK WITH ACOUSTICAL LINER IN LIEU OF WRAPPING DUCTWORK WITH BLANKET INSULATION. PROVIDE R-9 DUCT INSULATION FOR ANY DUCTWORK LOCATED OUTSIDE OF OUTSIDE OF BUILDING ENVELOPE. ALL INSULATION R-VALUES SHALL BE IN COMPLIANCE WITH SECTION C403.2.9 OF THE NORTH CAROLINA ENERGY CONSERVATION CODE.
- DUCTWORK AS SHOWN ON THE DRAWINGS IS STRICTLY DIAGRAMMATIC. ALL DUCT SIZES SHOWN ARE FREE AREA. COORDINATE EXACT LOCATION OF ALL DUCTWORK WITH THE BUILDING STRUCTURE AND OTHER TRADES.
- IT WILL BE THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR TO ENSURE THAT ITEMS TO BE FURNISHED UNDER HIS CONTRACT WILL FIT THE SPACE AVAILABLE. HE SHALL MAKE NECESSARY FIELD MEASUREMENTS TO ASCERTAIN SPACE REQUIREMENTS, INCLUDING THOSE FOR CONNECTIONS AND SERVICE CLEARANCES, AND SHALL FURNISH AND INSTALL SUCH SIZES AND SHAPES OF EQUIPMENT THAT ARE THE TRUE INTENT AND MEANING OF THESE DRAWINGS AND SPECIFICATIONS.
- ALL DUCT TO BE CONSTRUCTED OF GALVANIZED STEEL SHEETS IN ACCORDANCE WITH SMACNA GAGES AND STANDARDS. SUPPLY DUCT JOINTS SHALL BE SEALED AIRTIGHT AND SHALL BE IN COMPLIANCE WITH SECTION C403.2.9.1 OF THE NORTH CAROLINA ENERGY CONSERVATION CODE. ALL SQUARE BENDS OR ELBOW FITTINGS SHALL HAVE TURNING VANES. PROVIDE SPLITTER DAMPERS AT SUPPLY TEES AND EXTRACTORS AT ALL SUPPLY AIR BRANCHES. PROVIDE BALANCING DAMPERS IN ALL DUCTS WHERE REQUIRED FOR SYSTEM BALANCING AS SHOWN ON PLANS OR AS REQUIRED.
- INSTALL FLEXIBLE DUCT CONNECTIONS AT THE SUPPLY AND RETURN DUCTWORK CONNECTIONS OF ALL AIR HANDLING UNITS FOR VIBRATION ISOLATION.
- PROVIDE FIRE DAMPERS AT ALL DUCT PENETRATIONS THROUGH THE FIRE-RATED WALLS AS SHOWN ON PLANS OR AS REQUIRED. PROVIDE RADIATION DAMPERS AT ALL DIFFUSERS/GRILLES MOUNTED IN FIRE-RATED CEILINGS AND CEILING ASSEMBLIES AS SHOWN ON PLANS OR AS REQUIRED.
- PROVIDE ACCESS PANELS IN THE DUCTWORK FOR ALL FIRE DAMPERS OR OTHER DUCT MOUNTED EQUIPMENT. LOCATE ACCESS PANEL SO THAT ACCESS TO EQUIPMENT IS EASILY ATTAINED.
- CONTRACTOR SHALL PROVIDE ENTHALPY CONTROLLED ECONOMIZERS FOR ANY AIR CONDITIONING UNIT OVER 65,000 BTUH OF COOLING UNLESS OTHERWISE NOTED. ECONOMIZER SHALL CONFORM TO REQUIREMENTS OF SECTION C403.3 OF THE NC ENERGY CONSERVATION CODE.
- PRIOR TO BIDDING, MECHANICAL CONTRACTOR IS TO VISIT SITE TO FAMILIARIZE HIMSELF WITH EXISTING CONDITIONS AND RESOLVE ANY CONFLICTS BETWEEN EXISTING CONDITIONS AND THESE PLANS WITH THE ENGINEER.
- PROVIDE A COMPLETE 1-YEAR WARRANTY ON ALL LABOR AND MATERIALS. ALSO, MANUFACTURER'S PUBLISHED 5-YEAR NON PRORATED COMPRESSOR WARRANTY.
- CONTRACTOR SHALL FURNISH A BOUND SET OF OPERATING AND MAINTENANCE MANUALS FOR ALL EQUIPMENT TO THE OWNER UPON COMPLETION OF PROJECT. MANUALS SHALL INCLUDE ALL ITEMS AS SPECIFIED IN SECTION C408.2.5 OF THE NORTH CAROLINA ENERGY CONSERVATION CODE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL SYSTEM COMMISSIONING AS REQUIRED PER SECTION C408 OF THE NC ENERGY CONSERVATION CODE. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING STATEMENT OF SYSTEM COMMISSIONING (APPENDIX C1) AS REQUIRED IN SECTION 503.2.9.3 OF THE NORTH CAROLINA ENERGY CONSERVATION CODE. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING STATEMENT OF COMPLIANCE AS REQUIRED.
- OUTSIDE AIR INTAKES SHALL BE LOCATED A MINIMUM OF 10 FEET FROM ALL EXHAUST DISCHARGE AND PLUMBING VENTS.
- INSTALL ESCUTCHEONS IN ALL PLACES WHERE PIPING PENETRATES A WALL IN AN EXPOSED LOCATION.
- REPLACE ALL FILTERS JUST PRIOR TO ACCEPTANCE BY THE OWNER.
- THE MECHANICAL CONTRACTOR SHALL PROVIDE SMOKE DETECTORS PER SECTION 606 OF N.C. MECHANICAL CODE IN THE RETURN OF EACH UNIT TO DE-ENERGIZE UNIT IN THE EVENT OF FIRE. SMOKE DETECTORS SHALL BE U.L. LISTED FOR DUCT INSTALLATION. SUPERVISION OF DUCT DETECTOR SHALL BE PER SECTION 606.4.1. MECHANICAL CONTRACTOR SHALL PROVIDE VISUAL AND AUDIBLE ALARM FOR EACH DETECTOR. CONTRACTOR.

- MOUNT AIR HANDLING UNIT IN SUCH A WAY THAT ADEQUATE SLOPE IS PROVIDED FOR ALL DRAIN LINES. PIPE CONDENSATE FROM COIL AND DRAIN PAN FULL SIZE TO AN APPROVED PLACE OF DISPOSAL IN COMPLIANCE WITH NCMC, SECTION 307, PROVIDE FLOAT SWITCH IN CONDENSATE PANS TO STOP FAN UPON ACCUMULATION OF CONDENSATE IN PAN.
- THE MECHANICAL CONTRACTOR SHALL MAKE A COMPLETE REVIEW OF THE MECHANICAL PLANS, INCLUDING THE SCHEDULES AND DETAILS PRIOR TO INSTALLATION OF ANY MECHANICAL SYSTEMS AND SHALL RESOLVE ANY CONFLICTS WITH THE ENGINEER.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL OTHER TRADES. ALL DRAWINGS INDICATE THE GENERAL ARRANGEMENT DESIRED, THE EXACT LOCATIONS AND DETAILS OF CONSTRUCTION MAY BE SUCH THAT VARIANCES ARE REQUIRED. THE DRAWINGS DO NOT SHOW ALL BENDS, OFFSETS, AND FITTINGS THAT MAY BE REQUIRED FOR THE COMPLETE EXECUTION OF THIS CONTRACT. SUCH VARIANCES AND CONTINGENCIES SHALL BE ALLOWED FOR IN THE CONTRACTOR'S BID AND SHALL BE ACCOMPLISHED WITHOUT ADDITIONAL COST TO THE OWNER. PRIOR TO ORDERING EQUIPMENT, THE CONTRACTOR SHALL PREPARE COORDINATION DRAWINGS SHOWING HOW HIS EQUIPMENT IS TO BE LOCATED IN THE SPACE INDICATED. THIS DRAWING SHALL SHOW THE NEW AND EXISTING WORK OF ALL OTHER TRADES. THE CONTRACTOR SHALL CONTACT THE OTHER CONTRACTORS INVOLVED FOR DIMENSIONS, LOCATIONS, AND REQUIRED CLEARANCES OF THE EQUIPMENT THEY INTEND TO PROVIDE FOR THIS JOB. THE AFOREMENTIONED COORDINATION DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
- ALL MATERIALS USED SHALL BE NEW AND FREE OF DEFECTS. WHERE TRADE NAMES ARE MENTIONED, THEY ARE GIVEN AS A REFERENCE TO THE QUALITY OF THE APPARATUS REQUIRED. ALL MATERIALS AND EQUIPMENT SHALL BEAR THE UL LABEL OR EQUIVALENT WHERE APPLICABLE. OTHER MAKES MAY BE USED IF APPROVED IN WRITING BY THE ENGINEER. THE CONTRACTOR SHALL SUBMIT A COMPLETE LIST OF MATERIALS AND EQUIPMENT PROPOSED FOR USE IN THIS CONTRACT TO THE ENGINEER WITHIN TEN DAYS FOLLOWING THE AWARD OF CONTRACT. IF SUCH LIST IS NOT SUBMITTED, THE CONTRACTOR SHALL SUPPLY THE MATERIALS AND EQUIPMENT SPECIFIED OR AS DIRECTED BY THE ENGINEER.
- FLEXIBLE DUCT SHALL BE INSULATED, SOUND ATTENUATING, LOW VELOCITY TYPE AND SHALL COMPLY WITH NFPA 90A AND 90B. FLEXIBLE DUCT SHALL BE U.L. LISTED, CLASS 1 INSULATED TYPE, RATED FOR A MINIMUM OF 4" POSITIVE STATIC PRESSURE AND A MINIMUM OF 1" NEGATIVE STATIC PRESSURE. FLEXIBLE DUCT SHALL BE FACTORY-FORMED, COMPOSED OF SPIRAL WOUND, CORROSION RESISTANT WIRE BONDED TO AN INNER FABRIC LINER, COVERED WITH INSULATION WITH A VAPOR BARRIER. INSULATION R-VALUES SHALL BE PER THE NORTH CAROLINA ENERGY CONSERVATION CODE.
- ROUTE REFRIGERANT LINES FROM OUTDOOR CONDENSING UNITS IN THE MOST DIRECT PATH TO AIR HANDLER LOCATED ABOVE CEILING. INSULATE WITH FOAM INSULATION. INSULATION SHALL BE IN COMPLIANCE WITH THE NORTH CAROLINA ENERGY CONSERVATION CODE. PROVIDE LONG LINE REFRIGERATION KIT AS REQUIRED.
- IF FIRE ALARM SYSTEM IS PROVIDED IN BUILDING, THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND WIRE ALL SMOKE DETECTORS. IF FIRE ALARM SYSTEM IS NOT PROVIDED IN BUILDING, THE MECHANICAL CONTRACTOR SHALL PROVIDE AND WIRE SMOKE DETECTORS. REGARDLESS OF WHO PROVIDES DETECTOR, IT SHALL BE THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR TO INSTALL THE SMOKE DETECTORS IN THE RETURN OF REQUIRED UNITS TO DE-ENERGIZE UNIT IN THE EVENT OF FIRE. SMOKE DETECTORS SHALL BE U.L. LISTED FOR DUCT INSTALLATION. ELECTRICAL CONTRACTOR AND MECHANICAL CONTRACTOR SHALL COORDINATE SMOKE DETECTOR REQUIREMENTS FOR SYSTEM PRIOR TO INSTALLATION.
- UPON COMPLETION OF THE WORK, A TEST AND BALANCE SHALL BE PERFORMED IN ACCORDANCE WITH "AABC" REQUIREMENTS. AIR FLOW AND STATIC PRESSURE SHALL BE MEASURED AND REPORTED FOR ALL OUTLETS ON EACH SYSTEM. ONE WEEK AFTER THE OWNER HAS OCCUPIED THE BUILDING AND OPENED FOR BUSINESS, THE CONTRACTOR SHALL RE-BALANCE THE SYSTEM ACCORDING TO THE NEEDS OF THE OCCUPANTS. PROVIDE A COMPLETE TEST AND BALANCE REPORT TO THE ENGINEER.
- AS APPLICABLE, THE CONTRACTOR SHALL VERIFY THE OPERATION OF ALL EXISTING MECHANICAL EQUIPMENT IN THE AREA OF WORK. ALL MEASUREMENTS SHALL BE RECORDED NECESSARY TO ASCERTAIN THE PROPER OPERATION OF THE EQUIPMENT INCLUDING, BUT NOT LIMITED TO, AMPERAGE, CFM FLOW, INLET AND OUTLET TEMPERATURES, AIR FLOW, AND INLET AND OUTLET STATIC PRESSURES. ANY DEFICIENCY IN THE RATED OUTPUT OF THE EQUIPMENT SHALL BE REPORTED TO THE ENGINEER AND BUILDING OWNER. IN ANY CASE, SAID REPORT SHALL BE SUBMITTED TO THE ENGINEER UPON REQUEST.
- THE CONTRACTOR SHALL, AT THE COMPLETION OF THE WORK, CLEAN, POLISH, AND/OR WASH ALL EXPOSED ITEMS OF MATERIALS, EQUIPMENT, AND FIXTURES IN HIS CONTRACT TO LEAVE SUCH ITEMS BRIGHT AND CLEAN. THE CONTRACTOR SHALL KEEP THE PREMISES CLEAR OF DEBRIS FROM HIS WORK DURING CONSTRUCTION AND LEAVE THE AREA AND BUILDING CLEAN AT COMPLETION OF THE CONTRACT.
- MECHANICAL AND ELECTRICAL EQUIPMENT SHALL OPERATE WITHOUT OBJECTIONABLE NOISE OR VIBRATION, AS DETERMINED BY THE ENGINEER. IF SUCH OBJECTIONABLE NOISE OR VIBRATION SHOULD BE PRODUCED AND TRANSMITTED TO OCCUPIED PORTIONS OF THE BUILDING, THE CONTRACTOR SHALL MAKE THE NECESSARY CHANGES TO CORRECT THE NOISE OR VIBRATION WITHOUT ADDITIONAL COST TO THE OWNER.
- ALL AIR HANDLING UNIT SUPPLY FANS SHALL OPERATE CONTINUOUSLY DURING OCCUPIED HOURS.
- MECHANICAL CONTRACTOR SHALL CONCEAL ALL EXTERIOR PENETRATIONS WHERE POSSIBLE. COORDINATE ALL EXTERIOR PENETRATIONS WITH BUILDING OWNER (TENANT) AND GENERAL CONTRACTOR.
- CATALOG PART NUMBERS INDICATED ARE FOR DESCRIPTIVE AND QUALITY STANDARDS ONLY, NOT TO BE UTILIZED FOR ORDERING WITHOUT VERIFICATION. ENGINEER SHALL NOT BE RESPONSIBLE FOR MISMATCHED OR INACCURATE PART NUMBERS. COORDINATE CLOSELY WITH ALL TRADES PRIOR TO MATERIAL/EQUIPMENT ORDERING.



NOTE: ALL DUCT DIMENSIONS SHOWN ON THESE DRAWINGS ARE INSIDE CLEAR.

**1** PRIMARY DUCT FABRICATION DETAIL  
M-2 SCALE: NONE

**MECHANICAL SYSTEMS AND EQUIPMENT**

**METHOD OF COMPLIANCE:**

- C401.2 Method 1 (ASHRAE 90.1)
- C401.2 Method 2 (Prescriptive)
- C401.2 Method 3 (Energy Cost Budget)

Thermal Zone 4A

**Exterior Design Conditions**

winter dry bulb 16°F  
summer dry bulb 90°F  
summer wet bulb 75°F

**Interior Design Conditions**

winter dry bulb 70°F  
summer dry bulb 75°F  
relative humidity 50%

Building Heating Load New Fitup Space - 77,500 BTU/hr

Building Cooling Load New Fitup Space - 157,800 BTU/hr

**Mechanical Spacing Conditioning System**

Unitary - Tenant area is served by three new split system heat pumps with electric auxiliary heating. Efficiencies and outputs for heating and cooling are listed in the schedules - See drawings.

Boiler - Not applicable to this project.

Chiller - Not applicable to this project.

**Equipment efficiencies**

Efficiencies are listed on equipment schedules - See drawings.

**Equipment schedules with motors.**

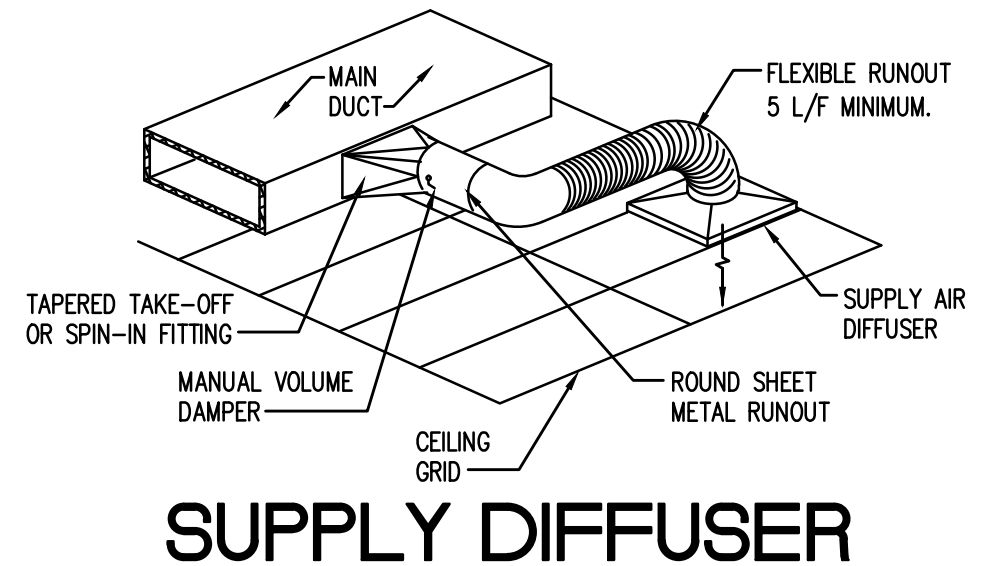
Multispeed motors are used on this project and are included in the efficiency rating of the unit. See drawings for efficiencies.

**NCSBC: ENERGY, Section C406 Compliance -**

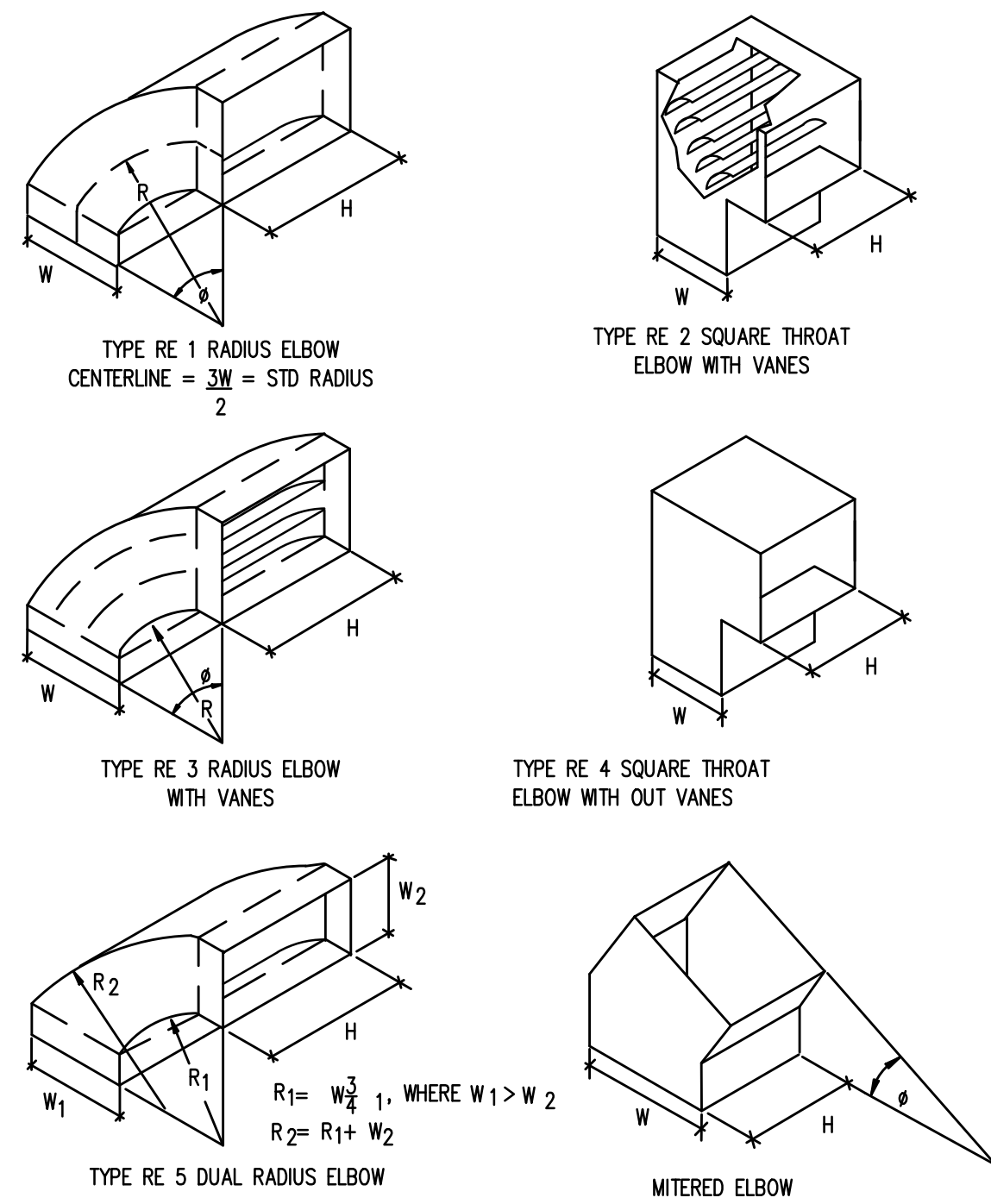
- C406.2 More Efficient Mechanical Equipment
- C406.3 Reduced LPD
- C406.4 Enhanced Digital Lighting Controls
- C406.5 On-site Renewable Energy
- C406.6 Dedicated Outdoor Air System
- C406.7 Reduced Energy Use in Service Water Heating
- C406.8 Load Fraction
- N/A

**DESIGNER STATEMENT:**

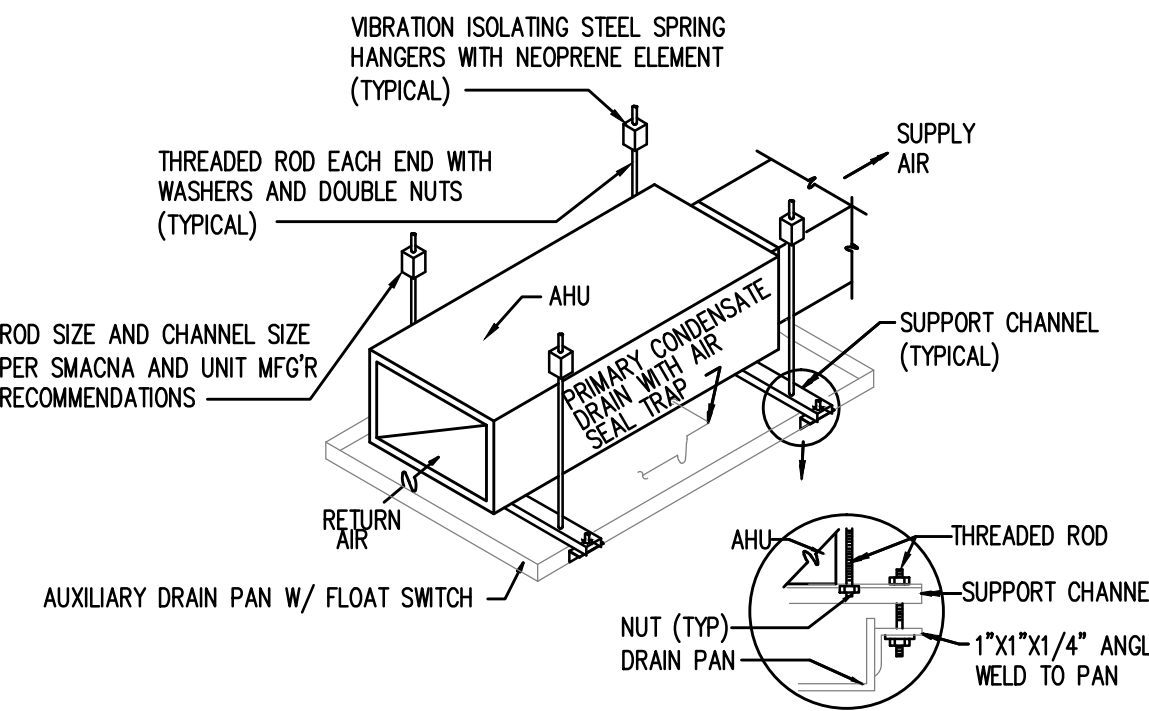
To the best of my knowledge and belief, the design of this building complies with the mechanical system and equipment requirements of the North Carolina State Building Code, Edition-Energy.



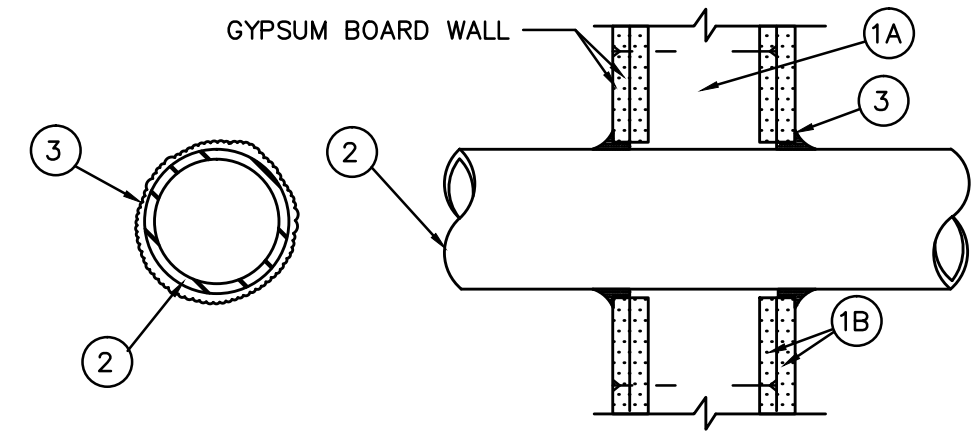
**2** SUPPLY DIFFUSER INSTALLATION DETAIL  
M-2 SCALE: NONE



**3** RECTANGULAR SHEETMETAL ELBOWS  
M-2 SCALE: NONE



**4** AHU HANGER DETAIL ABOVE CEILING  
M-2 SCALE: NONE



System No. W-L-1001

June 15, 2005

F Ratings - 1, 2, 3 and 4 Hr (See Items 2 and 3)  
T Ratings - 0, 1, 2, 3, and 4 Hr (See Item 3)  
L Rating At Ambient - less than 1 CFM/sq ft  
L Rating At 400 F - less than 1 CFM/sq ft

1. **Wall Assembly** - The 1, 2, 3 or 4 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300 or U400 Series Wall or Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

A. **Sluds** - Wall framing may consist of either wood studs (max 2 hr fire rated assemblies) or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC with nom 2 by 4 in. (51 by 102 mm) lumber end plates and cross braces. Steel studs to be min 3-5/8 in. (92 mm) wide by 1-3/8 in. (35 mm) deep channels spaced max 24 in. (610 mm) OC.

B. **Gypsum Board** - Nom 1/2 or 5/8 in. (13 or 16 mm) thick, 4 ft. (122 cm) wide with square or tapered edges. The gypsum wallboard type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Max dim of opening is 26 in. (660 mm).

2. **Through-Penetrant** - One metallic pipe, conduit or tubing installed either concentrically or eccentrically within the firestop system. The annular space between pipe, conduit or tubing and periphery of opening shall be min of 0 in. (0 mm). (point contact) to max 2 in. (51 mm) Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:

A. **Steel Pipe** - Nom 24 in. (610 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.

B. **Iron Pipe** - Nom 24 in. (610 mm) diam (or smaller) service weight (or heavier) cast iron soil pipe, nom 12 in (305 mm) diam (or smaller) or Class 50 (or heavier) ductile iron pressure pipe.

C. **Conduit** - Nom 6 in. (152 mm) diam (or smaller) steel conduit or nom 4 in (102 mm) diam (or smaller) steel electrical metallic tubing

D. **Copper Tubing** - Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tubing

E. **Copper Pipe** - Nom 6 in. (152 mm) diam (or smaller) Regular (or heavier) copper pipe.

F. **Through Penetrating Product\*** - Flexible Metal Piping the following types of steel flexible metal gas piping may be used:

1. Nom 2 in. (51 mm) diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.

OMEGA FLEX INC

2. Nom 1 in. (25 mm) diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.

GASTITE, DIV OF TITELFLEX

3. Nom 1 in. (25 mm) diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.

WARD MFG INC

3. **Fill Void or Cavity Material** - Caulk or Sealant - Min 5/8", 1-1/4"-7/8 and 2-1/2 in. (16, 32, 48 and 64 mm) thickness of caulk for 1, 2, 3 and 4 hr rated assemblies, respectively, applied within annulus, flush with both surfaces of wall. Min 1/4 in. (6 mm) diam bead of caulk applied to gypsum board/penetrant interface at point contact location on both sides of wall. The hourly F Rating of the firestop system is dependent upon the hourly fire rating of the wall assembly in which it is installed, as shown in the following table. The hourly T Rating of the firestop system is dependent upon the type or size of the pipe or conduit and the hourly fire rating of the wall assembly in which it is installed, as tabulated below:

| Max Pipe or Conduit Diam in (mm) | F Rating Hr | T Rating Hr |
|----------------------------------|-------------|-------------|
| 1 (25)                           | 1 or 2      | 0+, 1 or 2  |
| 1 (25)                           | 3 or 4      | 3 or 4      |
| 4 (102)                          | 1 or 2      | 0           |
| 6 (152)                          | 3 or 4      | 0           |
| 12 (305)                         | 1 or 2      | 0           |

\*When copper pipe is used, T Rating is 0 hr.

3M COMPANY - CP 25WB+ or FB-3000 WT.

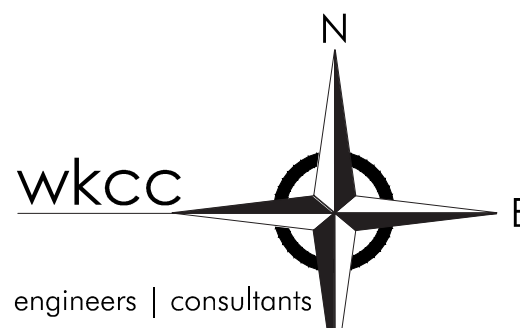
**FOR FRAMED WALL ONLY**  
**1,2,3, OR 4 HOUR PENETRATION**  
**FIRESTOP DETAIL**

**5** FIRESTOP DETAIL  
M-2 SCALE: NONE

| INDOOR UNIT |                   |           |      |      |        |            |        |             |                |             |             |                              |         | OUTDOOR UNIT |      |         |      |                   |               |                  |             |      |      |      |         |         |  |
|-------------|-------------------|-----------|------|------|--------|------------|--------|-------------|----------------|-------------|-------------|------------------------------|---------|--------------|------|---------|------|-------------------|---------------|------------------|-------------|------|------|------|---------|---------|--|
| MARK        | CARRIER MODEL NO. | TYPE      | CFM  | ESP  | FAN HP | ELEC. HEAT | STAGES | OUTSIDE AIR | O.A. DUCT SIZE | EAT DB/MB   | LAT DB/MB   | OUTSIDE DESIGN SUMMER/WINTER | VOLT/PH | MCA          | MOCF | REMARKS | MARK | CARRIER MODEL NO. | TOTAL COOLING | SENSIBLE COOLING | AIR HEATING | SEER | MCA  | MOCF | VOLT/PH | REMARKS |  |
| AHU-1       | FV4CNB006         | HEAT PUMP | 2000 | 0.5" | 3/4    | 11.3 KW    | 2      | 300 CFM     | 10X10          | 80.0F/67.0F | 59.4F/58.0F | 92.0F/16.0F                  | 208/1   | 76.3         | 80   | (1)     | HP-1 | 25TPA760          | 57.37 MBH     | 44.43 MBH        | 59.03 MBH   | 16.0 | 33.4 | 60   | 208/1   | (1)     |  |
| AHU-2       | FV4CNF005         | HEAT PUMP | 1600 | 0.5" | 1/2    | 11.3 KW    | 2      | 240 CFM     | 10X10          | 80.0F/67.0F | 58.6F/57.4F | 92.0F/16.0F                  | 208/1   | 76.3         | 80   | (1)     | HP-2 | 25TPA748          | 46.48 MBH     | 35.08 MBH        | 47.38 MBH   | 16.5 | 28.8 | 50   | 208/1   | (1)     |  |
| AHU-3       | FV4CNB006         | HEAT PUMP | 2000 | 0.5" | 3/4    | 11.3 KW    | 2      | 300 CFM     | 10X10          | 80.0F/67.0F | 59.4F/58.0F | 92.0F/16.0F                  | 208/1   | 76.3         | 80   | (1)     | HP-3 | 25TPA760          | 57.37 MBH     | 44.43 MBH        | 59.03 MBH   | 16.0 | 33.4 | 60   | 208/1   | (1)     |  |

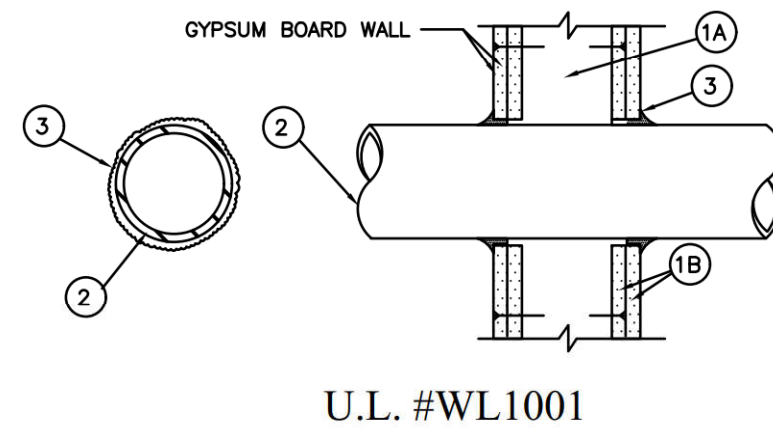
1 PROVIDE ROOF CAPS AS SHOWN TO SUPPLY OUTSIDE AIR. PROVIDE UNIT WITH FAN COIL FILTER, ELECTRIC HEAT COIL, DISCONNECT SWITCH, FACTORY INSTALLED THERMOSTATIC EXPANSION VALVE, AND SINGLE POINT WIRING CONNECTION. PROVIDE WITH CARRIER 7-DAY PROGRAMMABLE THERMOSTAT.

1 PROVIDE CYCLE PROTECTOR, FILTER DRIER, HIGH AND LOW PRESSURE SWITCHES, EVAPORATOR FREEZE THERMOSTAT, ISOLATION RELAY, COMPRESSOR START ASSIST, CRANKCASE HEATER, OUTDOOR THERMOSTAT, THERMOSTATIC EXPANSION VALVE, TIME DELAY RELAY AND ALL ACCESSORIES REQUIRED FOR LOW AMBIENT OPERATION TO 0F.



**GENERAL NOTES AND REQUIREMENTS.**

- WORKMANSHIP SHALL CONFORM TO NECA PUBLICATION "STANDARDS OF INSTALLATION".
- INSTALLATION SHALL COMPLY WITH NATIONAL ELECTRICAL CODE, STATE BUILDING CODE, AND ALL REQUIREMENTS OF THE LOCAL INSPECTOR (FURNISH INSPECTION CERTIFICATE). ALL WORK SHALL BE BY LICENSED ELECTRICAL CONTRACTOR.
- THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR FLOOR PLAN DIMENSIONS. DO NOT SCALE THESE DRAWINGS.
- THE ELECTRICAL CONTRACTOR SHALL COORDINATE ANY AND ALL WORK WITH OTHER TRADES INVOLVED IN THE PROJECT. PRIOR TO INSTALLATION OF ELEC. EQUIPMENT, SO AS TO AVOID CONFLICTS DURING CONSTRUCTION AND TO ALLOW FOR OPTIMUM MAINTENANCE AND WORKING SPACE.
- ALL BRANCH CIRCUITS SHALL BE IN ZINC-COATED EMT, OR RIGID CONDUIT AS PERMITTED OR REQUIRED BY THE NATIONAL ELECTRICAL CODE. TYPE MC CABLE MAY BE USED AS PERMITTED BY THE NATIONAL ELECTRICAL CODE. SCHEDULE 40 PVC CONDUIT MAY BE USED ONLY FOR THE SECONDARY UNDERGROUND SERVICE, THE UNDERGROUND TELEPHONE SERVICE CONDUIT, AND BRANCH TELEPHONE SYSTEM CONDUITS LOCATED BELOW THE FLOOR SLAB ON GRADE OR BURIED ON THE EXTERIOR OF THE BUILDING, OR IN CONCRETE BLOCK WALLS. ALL CONDUIT SHALL BE A 1/2" MINIMUM SIZE. EMT FITTINGS SHALL BE STEEL COMPRESSION TYPE.
- PROVIDE 4" WIDE PLASTIC TAPE, MAGNETIC DETECTABLE TYPE, COLORED RED WITH SUITABLE WARNING LEGEND DESCRIBING BURIED ELECTRICAL LINES OR ORANGE DESCRIBING BURIED TELEPHONE LINES.
- ALL CONDUCTORS SHALL BE COPPER TYPE THHN, OR XHHW, SOLID FOR #10 AWG OR #12 AWG, AND STRANDED FOR ALL LARGER SIZES.
- ALL WIRING SHALL BE CONCEALED IN WALLS, UNDER SLAB, OR ABOVE SUSPENDED CEILING SPACE.
- ALL WIRE AND CONDUIT SIZES ARE BASED ON 75°C THHN WIRE UNLESS OTHERWISE NOTED.
- CONDUITS MAY BE RUN EXPOSED IN MECHANICAL AREAS, CONDUITS SHALL BE RUN PARALLEL OR PERPENDICULAR TO STRUCTURAL ELEMENTS AND SHALL BE RUN IN GROUPS. SEAL ALL PENETRATIONS TIGHT AROUND ALL CONDUITS WHEN PASSING INTO MECHANICAL ROOMS.
- ALL LIGHT FIXTURES SHALL BE SUPPORTED INDEPENDENTLY OF THE SUSPENDED CEILING SYSTEM.
- WHERE FIRST OUTLET ON BRANCH CIRCUIT IS GREATER THAN FIFTY (50) FEET FROM THE PANELBOARD, USE #10 AWG MINIMUM TO THE FIRST OUTLET.
- ALL MOUNTING HEIGHTS ARE GIVEN TO THE CENTERLINE OF THE DEVICE UNLESS OTHERWISE NOTED. RECEPTACLES, DATA AND TELEPHONE OUTLET TO BE MOUNTED 18" AFF UNLESS OTHERWISE NOTED. LIGHT SWITCHES TO BE MOUNTED 48" AFF UNLESS OTHERWISE NOTED.
- THE LOCATION OF ALL WALL MOUNTED DEVICES, INCLUDING MOUNTING HEIGHTS, SHALL BE FIELD VERIFIED WITH THE ARCHITECT PRIOR TO INSTALLATION.
- ALL FUSES, DISCONNECT SWITCHES, AND BREAKER SIZES, SHOWN FOR MECHANICAL EQUIPMENT, SHALL BE VERIFIED BEFORE THE PURCHASE OR INSTALLATION OF SAID EQUIPMENT, WITH THE EQUIPMENT SUPPLIER AND THE MECHANICAL CONTRACTOR.
- ALL DISCONNECT SWITCHES ARE TO BE FUSIBLE TYPE. FUSE IN ACCORDANCE WITH THE NAMEPLATE DATA WITH DUAL ELEMENT TYPE FUSES BY BUSSMAN OR EQUAL.
- THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL NECESSARY DISCONNECTS, SWITCHES, AND RECEPTACLES UNDER THE ELECTRICAL BID AND SHALL INCLUDE ALL NECESSARY CIRCUITS TO AND FINAL CONNECTIONS TO THE EQUIPMENT PROVIDED BY ALL SUPPLIERS, UNLESS NOTED OTHERWISE BY OTHER DISCIPLINES. COORDINATE CLOSELY.
- ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED SO THAT ALL CODE-REQUIRED AND MANUFACTURER-RECOMMENDED SERVICING CLEARANCES ARE MAINTAINED. INSTALLATIONS SHALL FULLY COMPLY WITH NEC 110-26 FOR CLEARANCE REQUIREMENTS.
- COORDINATE LOCATIONS OF ALL LIGHT FIXTURES WITH THE REFLECTED CEILING PLANS. LIGHT FIXTURES INSTALLED IN MECHANICAL AREAS SHALL AVOID MECHANICAL PIPING, EQUIPMENT, DUCTWORK, ETC.
- GROUND SHALL BE PER N.E.C. PROVIDE SEPARATE GROUNDING CONDUCTOR FOR ALL CIRCUITS. PROVIDE DRIVEN AND COLD WATER GROUND FOR MAIN SERVICE.
- GROUND TELEPHONE EQUIPMENT PER NEC.
- THE ELECTRICAL CONTRACTOR SHALL PATCH ANY WALL, CEILING, OR FLOOR OPENING AND PENETRATIONS RESULTING FROM DEMOLITION OR NEW WORK IN EXISTING AREAS.
- ALL WIRING SHALL BE CONCEALED IN METALLIC CONDUIT.
- COMBINE HOMERUNS IN CONDUIT AS DESIRED (3 ON 3-PHASE, 2 ON SINGLE PHASE). DO NOT OVERLOAD NEUTRALS.
- ALL CIRCUITS SHALL BE TESTED WITH 500 VOLT TESTER PRIOR TO ENERGIZING.
- ALL WALL OUTLET BOXES SHALL BE STEEL CITY OR RACO
- RECEPTACLES, SWITCHES, COVERPLATES, ETC. SHALL BE HUBBELL, LEVITON, OR LEGRAND EXCEPT AS SPECIFIED. COLOR SPECIFIED BY ARCHITECT, VERIFY COLOR PRIOR TO PURCHASE.
- PROVIDE PULL WIRE IN ALL EMPTY CONDUIT.
- CONDUIT SHALL BE LABELED EVERY TEN FEET.
- ALL RECEPTACLE AND SWITCH PLATES SHALL BE LEGIBLY MARKED WITH LABEL MARKER TO CLEARLY INDICATE PANELBOARD ORIGIN AND CIRCUIT NUMBER. LABEL SHALL BE ON THE BACKSIDE OF PLATES.
- PROVIDE PHENOLIC LABELS ON ALL MAJOR EQUIPMENT INCLUDING SWITCHBOARDS, MOTOR CONTROL CENTERS, PANELBOARDS, INDIVIDUAL STARTERS, SAFETY SWITCHES, AND TRANSFORMERS. PROVIDE ENGRAVED THREE-LAYER LAMINATED PLASTIC, WHITE LETTERS ON BLACK BACKGROUND.
- ALL CIRCUIT BREAKERS IN PANEL SHALL BE SERIES RATED WITH MAIN BREAKER OR FULLY RATED FOR THE SYSTEM.
- CONTRACTOR SHALL PROVIDE ENGINEER A MINIMUM OF 3 COPIES OF SHOP DRAWINGS FOR LIGHTS, SWITCHGEAR, PANELS, ETC.
- IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE W/ ALL OTHER TRADES REGARDING VOLTAGES, LOADS, CIRCUIT BREAKERS, ETC. PRIOR TO BEGINNING ANY WORK.
- AS USED ON THESE DOCUMENTS, THE WORD "PROVIDE" SHALL MEAN TO FURNISH AND INSTALL THE ITEM OR EQUIPMENT AND MAKE THE FINAL CONNECTION AS REQUIRED.
- PANELS SHALL BE BY SQUARE "D", G.E. AND SIEMENS. PANELS SHALL BE SQUARE "D" TYPE NQOD OR "I-LINE" AS REQUIRED.
- FOR NEW OR MODIFIED SERVICES, PRIOR TO ENERGIZATION AND AFTER UTILITY FAULT CURRENT CONFIRMATION AT THE DELIVERY POINT, PROVIDE PLAQUE AT SERVICE EQUIPMENT STATING MAXIMUM AVAILABLE FAULT CURRENT AND DATE OF CALCULATION PER NEC 110.24.
- OPERABLE DEVICES SHALL BE ACCESSIBLE IN COMPLIANCE WITH ANSI A117.1, SECTION 309, OPERABLE PARTS. WHERE GFI RECEPTACLES ARE NOT ACCESSIBLE, PROVIDE GFI BREAKER.
- RECESSED LIGHTING FIXTURES INSTALLED IN THE BUILDING THERMAL ENVELOPE SHALL BE IC RATED AND LABELED AS MEETING ASTM E283, OR SHALL BE TENTED TO REMOVE THEM FROM THE THERMAL ENVELOPE
- BRANCH CIRCUITS SERVING EXIT & EMERGENCY FIXTURES SHALL BE CLEARLY LABELED ON THE PANELBOARD DIRECTORY PER NEC 110.22(A), 408.4 & 700.12(I).
- UPON PROJECT COMPLETION, THE EC SHALL PROVIDE TYPED CIRCUIT DIRECTORIES FOR ALL NEW AND ALTERED PANELBOARDS WITH CIRCUIT DESIGNATIONS COMPLYING WITH THE REQUIREMENTS OF NEC 408.4(A).
- ALL EXIT AND EMERGENCY LIGHTING SHALL BE FED FROM LOCAL BRANCH CIRCUIT AND HAVE A MINIMUM OF 90 MINUTE BATTERY BACKUP PER NEC 700.12(I)(2).
- ALL ELECTRICAL MATERIALS, DEVICES, APPLIANCES AND EQUIPMENT SHALL BE LABELED AND LISTED BY A THIRD PARTY AGENCY. THE THIRD PARTY AGENCY SHALL BE AMONG THOSE ACCEPTABLE TO THE NC BUILDING CODE COUNCIL TO LABEL ELECTRICAL AND MECHANICAL EQUIPMENT.



- 1. Wall Assembly** - The 1,2,3, or 4 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300 or U400 Series Wall or Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
- A. **Studs** - Wall framing may consist of either wood studs (max 2 h fire rated assemblies) or steel channel studs. Wood studs to consist of nom 2 by 4 in. lumber spaced 16 in. OC with nom 2 by 4 in. lumber end plates and cross braces. Steel studs to be min 3-5/8 in. wide by 1-3/8 in. deep channels spaced max 24 in. OC.
- B. **Wallboard, Gypsum\*** - Nom 1/2 or 5/8 in. thick, 4ft. wide with square or tapered edges. The gypsum wallboard type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 13-1/2 in.
2. **Pipe or Conduit** - Nom 12 in. diam (or smaller) Schedule 10 (or heavier) steel pipe, nom 12 in. diam (or smaller) service weight (or heavier) cast iron soil pipe, nom 12 in. diam (or smaller) Class 50 (or heavier) ductile iron pressure pipe, nom 6 in. diam (or smaller) steel conduit, nom 4 in. diam (or smaller) steel electrical metallic tubing or Type L or (or heavier) copper tubing or nom 1 in. (or smaller) flexible steel conduit. When copper pipe or flexible steel conduit is used, max F Rating of firestop system (Item 3) is 2h. Steel pipes or conduits larger than nom 4 in. diam may only be used in wall constructed using steel channel studs. A max of one pipe or conduit is permitted in the firestop system. Pipe or conduit to be installed near center of stud cavity width and to be rigidly supported on both sides of wall assembly.
3. **Fill, Void or Cavity Material\*** - Caulk - Caulk fill material installed to completely fill annular space between pipe or conduit and gypsum wallboard and with a min 1/4 in. diam bead of caulk applied to perimeter of pipe or conduit at its egress from the wall. Caulk installed symmetrically on both sides of wall assembly. The hourly F Rating of the firestop system is dependent upon the hourly fire rating of the wall assembly in which it is installed, as shown in the following table. The T Rating of the firestop system is dependent upon the type or size of the pipe or conduit and the hourly fire rating of the wall assembly in which it is installed, as tabulated below:

| Max Pipe or Conduit Diam, In | Annular Space, In | F Rating, Hr | T Rating, Hr |
|------------------------------|-------------------|--------------|--------------|
| 1                            | 0 to 3/16         | 1 or 2       | 0*, 1 or 2   |
| 1                            | 1/4 to 1/2        | 3 or 4       | 3 or 4       |
| 4                            | 0 to 1/4          | 1 or 2       | 0            |
| 4                            | 0 to 1-1/2#       | 1 or 2       | 0            |
| 6                            | 1/4 to 1/2        | 3 or 4       | 0            |
| 12                           | 3/16 to 3/8       | 1 or 2       | 0            |

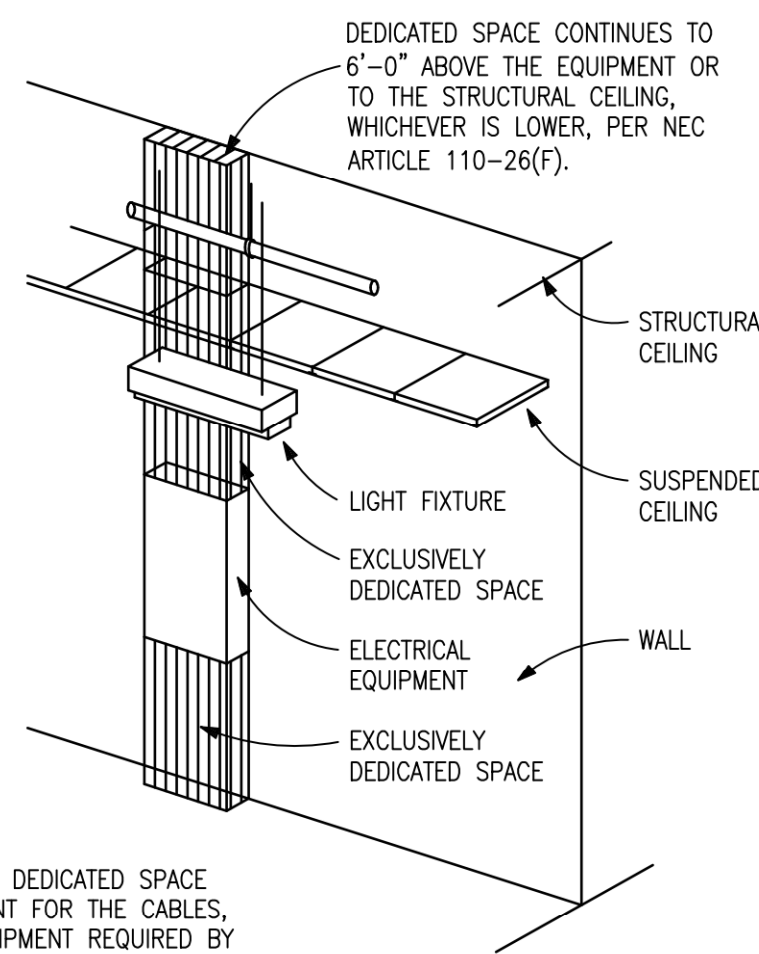
\* When copper pipe is used, T Rating is 0 h  
# 0 to 1-1/2 in. annular space applies only when Type CP-25 WB+ caulk is used.

Minnesota Mining & Mfg. Co. - Types CP-25 SIL, CP-25 N/S, CP-25 WB, CP-25 WB+  
(NOTE: L Rating apply only when Type CP-25 WB+ caulk is used.)  
\*Bearing the UL Classification Marking

**5 RATED WALL PENETRATION DETAIL**  
E1 SCALE: NTS

**ABBREVIATIONS**

|                                       |  |
|---------------------------------------|--|
| A AMPS, AMPERES                       | KVA KILOVOLT-AMPERES                           |
| AIC AMPS INTERRUPTING CURRENT         | LTG LIGHTING                                   |
| ATS AUTOMATIC TRANSFER SWITCH         | MC METAL CLAD CABLE                            |
| AF AMP FUSE                           | MCA MINIMUM CIRCUIT AMPACITY                   |
| AFC ABOVE FINISHED CEILING            | MCB MAIN CIRCUIT BREAKER                       |
| AFF ABOVE FINISHED FLOOR              | MLO MAIN LUGS ONLY                             |
| AFG ABOVE FINISHED GRADE              | NA NOT APPLICABLE                              |
| AHJ AUTHORITY HAVING JURISDICTION     | NCSCB NORTH CAROLINA STATE BUILDING CODE       |
| BRKR CIRCUIT BREAKER                  | NEC NATIONAL ELECTRICAL CODE                   |
| BLDG BUILDING                         | NEMA NATIONAL ELECTRICAL MANUFACTURER'S ASSOC. |
| C CONDUIT                             | NF NON-FUSED                                   |
| CKT CIRCUIT                           | NL NIGHT LIGHT - UNSWITCHED                    |
| CLG CEILING                           | NIC NOT IN CONTRACT                            |
| CTR COUNTER - DEVICE MOUNTED ABOVE    | NTS NOT TO SCALE                               |
| DISC DISCONNECT SWITCH                | MC MECHANICAL CONTRACTOR                       |
| E EXISTING TO REMAIN                  | P POLES  |
| EC ELECTRICAL CONTRACTOR              | PC PLUMBING CONTRACTOR                         |
| ECB ENCLOSED CIRCUIT BREAKER          | PH PHASE                                       |
| EF EXHAUST FAN                        | PNL PANELBOARD                                 |
| EM EMERGENCY                          | R RELOCATED                                    |
| EMT ELECTRICAL METALLIC TUBING        | SW SHOW WINDOW RECEPT, 18" MAX ABOVE WINDOW    |
| ETR EXISTING TO REMAIN                | T TAMPER RESISTANT RECEPTACLE                  |
| EX EXISTING                           | UL UNDERWRITER'S LABORATORIES                  |
| FA FIRE ALARM                         | ULSEL SERVICE ENTRANCE UNLESS OTHERWISE NOTED  |
| GC GENERAL CONTRACTOR                 | V VOLTS  |
| GFCI GROUND FAULT CURRENT INTERRUPTER | W WIRE   |
| G GROUND                              | W/ WITH  |
| HP HORSEPOWER                         | W/O WITHOUT                                    |
| IMC INTERMEDIATE METAL CONDUIT        | WP WEATHERPROOF                                |
| JB JUNCTION BOX                       |  |
| KW KILOWATT                           |  |



NOTE: THIS FIGURE ILLUSTRATES THE ADDITIONAL EXCLUSIVELY DEDICATED SPACE REQUIRED OVER AND UNDER THE ELECTRICAL EQUIPMENT FOR THE CABLES, RACEWAYS, ETC... TO AND FROM THE ELECTRICAL EQUIPMENT REQUIRED BY SECTION 110.26(F) OF THE NATIONAL ELECTRICAL CODE.

**1 DEDICATED SPACE FOR ELECTRICAL EQUIPMENT**  
E1 SCALE: NTS

**TABLE "A" WORKING CLEARANCES**

| VOLTAGE TO GROUND, NOMINAL | MINIMUM CLEAR DISTANCE (FEET) |       |   |
|----------------------------|-------------------------------|-------|---|
|                            | CONDITION: 1                  | 2     | 3 |
| 0-150                      | 3                             | 3     | 3 |
| 151-600                    | 3                             | 3 1/2 | 4 |

WHERE THE "CONDITIONS" ARE AS FOLLOWS:

- EXPOSED LIVE PARTS ON ONE SIDE AND NO LIVE OR GROUNDED PARTS ON THE OTHER SIDE OF THE WORKING SPACE, OR EXPOSED LIVE PARTS ON BOTH SIDES EFFECTIVELY GUARDED BY SUITABLE WOOD OR OTHER INSULATING MATERIALS. INSULATED WIRE OR INSULATED BUSBARS OPERATING AT NOT OVER 300 VOLTS SHALL NOT BE CONSIDERED LIVE PARTS.
- EXPOSED LIVE PARTS ON ONE SIDE AND GROUNDED PARTS ON THE OTHER SIDE.
- EXPOSED LIVE PARTS ON BOTH SIDES OF THE WORK SPACE (NOT GUARDED AS PROVIDED IN CONDITION 1) WITH THE OPERATOR BETWEEN.

NOTE: THIS FIGURE ILLUSTRATES THE WORKING SPACE IN FRONT OF ELECTRICAL EQUIPMENT REQUIRED BY SECTION 110.26 OF THE NATIONAL ELECTRICAL CODE.

**2 WORKING CLEARANCE FOR ELECTRICAL EQUIPMENT**  
E1 SCALE: NTS

**ELECTRICAL SYSTEM AND EQUIPMENT (SECTION C405)**

METHOD OF COMPLIANCE SECTION C405.1 ■

**LIGHTING SCHEDULE**

- LAMP TYPE REQUIRED IN FIXTURE
- NUMBER OF LAMPS IN FIXTURE
- BALLAST TYPE USED IN FIXTURE
- NUMBER OF BALLASTS IN FIXTURE
- TOTAL WATTAGE PER FIXTURE
- TOTAL INTERIOR WATTAGE SPECIFIED VS ALLOWED: 2.7KW VS 4.3KW
- TOTAL EXTERIOR WATTAGE SPECIFIED VS ALLOWED: N/A-EXISTING

SEE LIGHTING FIXTURE SCHEDULE

**ADDITIONAL EFFICIENCY PACKAGE OPTIONS**

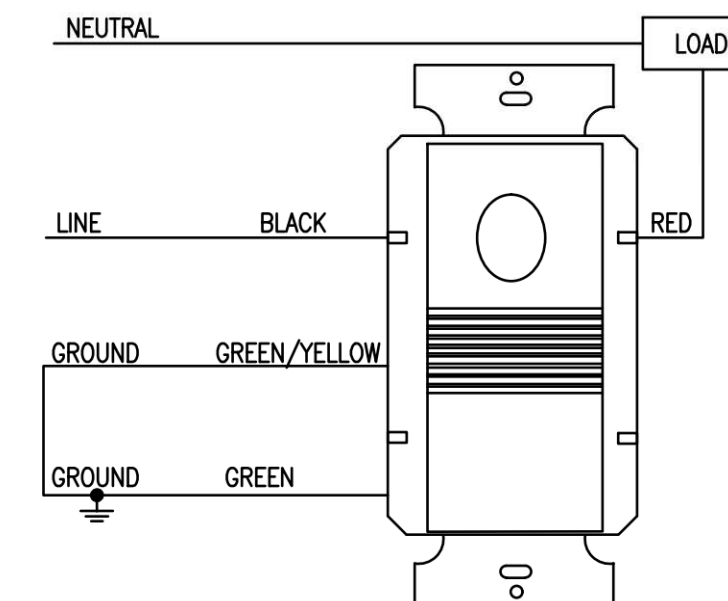
- C406.2 MORE EFFICIENT HVAC EQUIPMENT PERFORMANCE
- C406.3 REDUCED LIGHTING POWER DENSITY (below 90% of allowed watts)
- C406.4 ENHANCED DIGITAL LIGHTING CONTROLS
- C406.5 ON-SITE RENEWABLE ENERGY
- C406.6 DEDICATED OUTDOOR AIR SYSTEM
- C406.7 REDUCED ENERGY USE IN SERVICE WATER HEATING

**DESIGNER STATEMENT:**

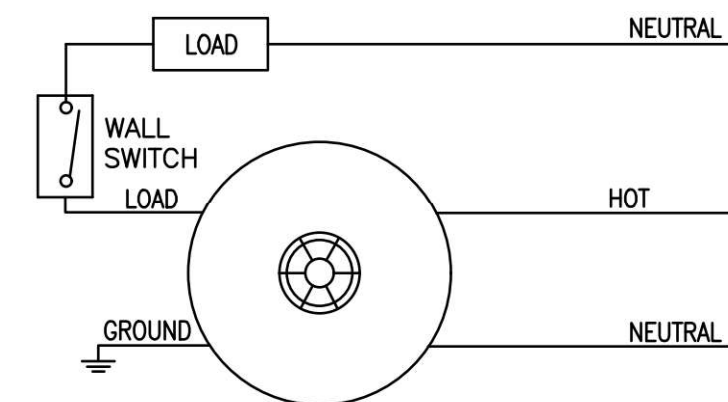
TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE DESIGN OF THIS BUILDING COMPLIES WITH THE ELECTRICAL SYSTEM AND EQUIPMENT REQUIREMENTS OF THE NORTH CAROLINA STATE BUILDING CODE, ENERGY CODE 2018 EDITION

NAME: \_\_\_\_\_ ANGUS M. CLARK PE

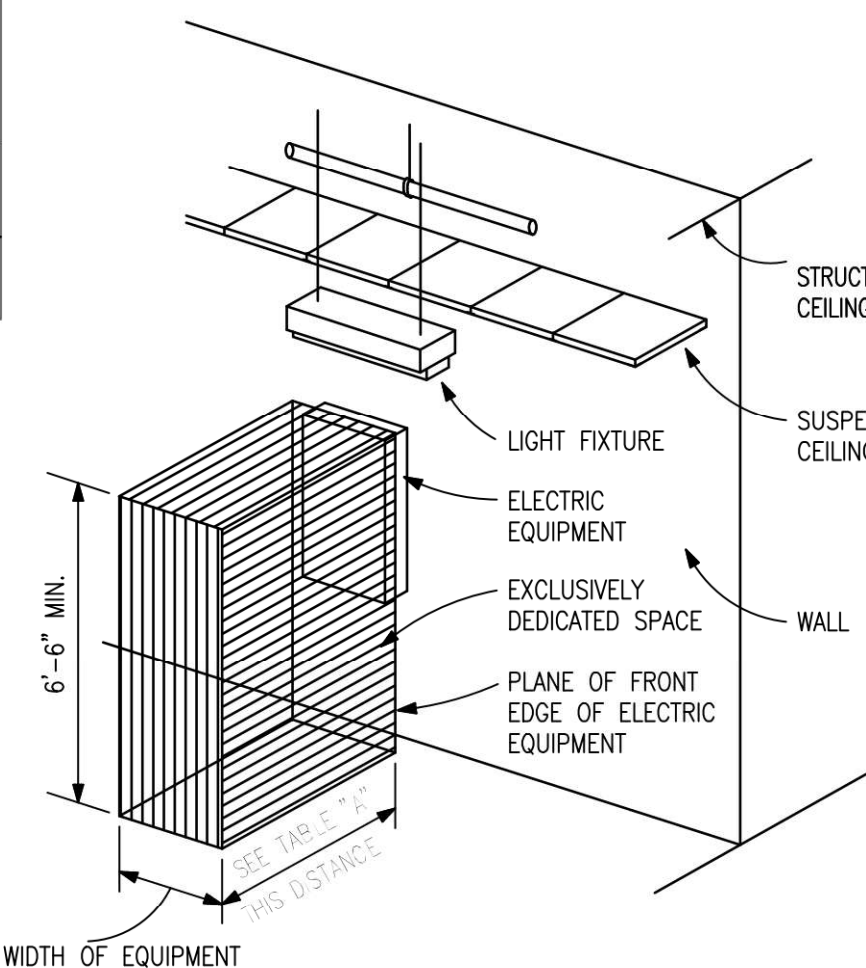
TITLE: \_\_\_\_\_ ELECTRICAL ENGINEER



**4 OCC. SENSOR SWITCH WIRING DIAGRAM (TYP.)**  
E1 SCALE: NTS



**3 OCC. SENSOR SWITCH WIRING DIAGRAM (TYP.)**  
E1 SCALE: NTS



30" MINIMUM OR WIDTH OF EQUIPMENT

**ELECTRICAL LEGEND**

(ALL SYMBOLS MAY NOT BE USED ON THIS PROJECT)

- HOMERUN TO POWER SOURCE, 2#12, #12G 1/2" UC
- BRANCH CIRCUIT WIRING CONCEALED IN WALLS AND CEILINGS
- BRANCH CIRCUIT WIRING CONCEALED UNDER FLOOR OR UNDERGROUND
- RECESSED LIGHT FIXTURE, REFER TO LUMINAIRE SCHEDULE
- DOWNLIGHT FIXTURE, REFER TO LUMINAIRE SCHEDULE
- WALL MOUNTED LIGHT FIXTURE, REFER TO LUMINAIRE SCHEDULE
- SURFACE MOUNTED LIGHT FIXTURE, REFER TO LUMINAIRE SCHEDULE
- EXIT SIGN, DIRECTIONAL ARROWS AS INDICATED. REFER TO LUMINAIRE SCHEDULE
- EMERGENCY LIGHT, REFER TO LUMINAIRE SCHEDULE
- EXIT/EMERGENCY LIGHT COMBINATION, REFER TO LUMINAIRE SCHEDULE
- DUPLEX RECEPTACLE
- QUADRUPLX RECEPTACLE
- SIMPLEX RECEPTACLE, AMP RATING AS NOTED, OR MATCH BREAKER SIZE
- GFCI RECEPTACLE
- WEATHERPROOF WHILE N USE GFCI RECEPTACLE
- TAMPER RESISTANT RECEPTACLE
- SHOW WINDOW RECEPTACLE MOUNTED 18" MAX ABOVE WINDOW
- FLUSH MOUNTED FLOOR RECEPTACLE
- FLUSH MOUNTED RECEPTACLE AND DATA
- JUNCTION BOX FOR POWER CONNECTION
- EQUIPMENT POWER CONNECTION
- FUSED DISCONNECT SWITCH
- NON-FUSED DISCONNECT SWITCH
- PANELBOARD
- DRY TYPE TRANSFORMER
- SINGLE POLE SWITCH
- THREE WAY SWITCH
- FOUR WAY SWITCH
- WALL MOUNTED DUAL TECH OCCUPANCY SENSOR SWITCH (LINE VOLTAGE)
- CEILING OR WALL MOUNTED DUAL TECH OCCUPANCY SENSOR (LINE VOLTAGE)
- LOW VOLTAGE LIGHTING CONTROL SWITCH
- DIMMER SWITCH, 1500W SLIDER TYPE
- DIMMER SWITCH, 0-10V
- KEYED SWITCH
- WALL MOUNTED DECORATOR DIGITAL TIMER SWITCH WITH ON/OFF BUTTON, 48" AFF, 120/277V PROGRAMMABLE . INTERMATIC E1400 SERIES OR EQUAL.
- LIGHTING CONTACTOR, MECHANICALLY HELD
- LIGHTING CONTROL PANEL
- COMBINATION TELEPHONE/DATA OUTLET, EMPTY SINGLE GANG BOX WITH 3/4" STUBBED ABOVE CEILING.
- CABLE TV OUTLET, EMPTY SINGLE GANG BOX WITH 3/4" STUBBED ABOVE CEILING. COORDINATE EXACT MOUNTING HEIGHT WITH GC PRIOR TO ROUGH-IN.
- CARD READER ROUGH-IN, WITH EMPTY 3/4" STUBBED ABOVE CEILING
- EXISTING EQUIPMENT TO BE REMOVED
- EXISTING EQUIPMENT TO REMAIN
- EXISTING EQUIPMENT TO BE RELOCATED

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REGISTERED PROFESSIONAL ENGINEER  
SEAL 13719  
2/7/2023

**PHYCINITY - DR. CABAN**  
CAMERON BUILDING  
2285 NC HWY 24-87  
CAMERON, NORTH CAROLINA

JOB #:  
22DRACABAN

DWG BY:  
MPP  
CHK BY:  
AED  
DATE: 02/07/23

EXISTING EQUIPMENT TO BE REMOVED

EXISTING EQUIPMENT TO REMAIN

EXISTING EQUIPMENT TO BE RELOCATED

SHEET NO.  
**E1**

**ANGUS CLARK ENGINEERING PC**  
NCBEES #C-2726  
543 KEISLER DRIVE SUITE 101  
CARY NORTH CAROLINA 27518  
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C-1474

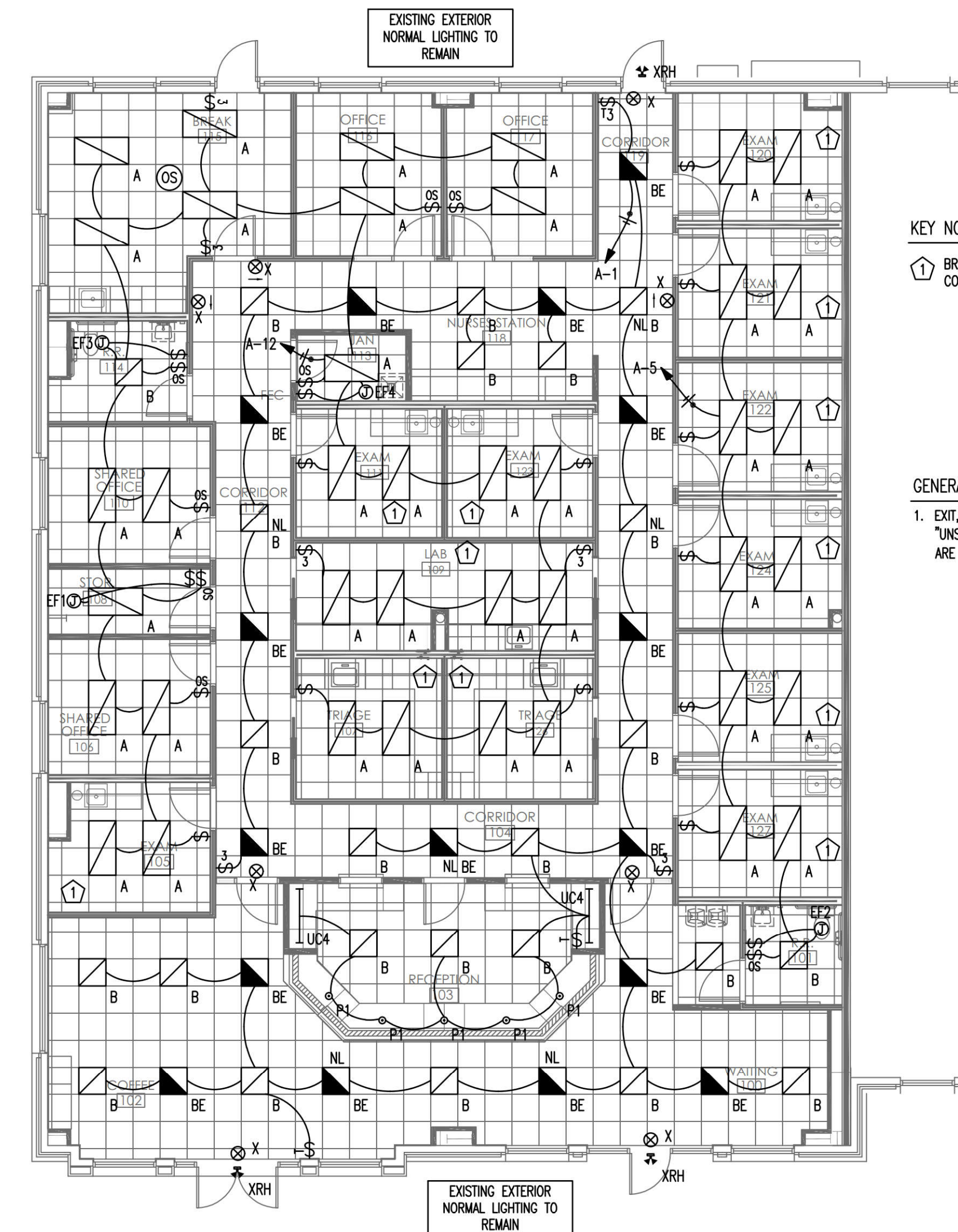
| CALLOUT | SYMBOL | DESCRIPTION                                      | MODEL                                     | LAMP    | BALLAST | MOUNTING       | INPUT WATTS | VOLTS      | NOTE 1                          |
|---------|--------|--|---|---------|---------|----------------|-------------|------------|---------------------------------|
| A       |        | 2'x4' ARCHITECTURAL TROFFER                      | LITHONIA 2BLT4-48L-ADP-GZ10-LP835         | (1) LED |         | RECESSED       | 38          | 120V 1P 2W |                                 |
| B       |        | 2'x2' ARCHITECTURAL TROFFER                      | LITHONIA 2BLT2-33L-ADP-GZ10-LP835         | (1) LED |         | RECESSED       | 27          | 120V 1P 2W |                                 |
| BE      |        | 2'x2' ARCHITECTURAL TROFFER W/ EMERGENCY BATTERY | LITHONIA 2BLT2-33L-ADP-GZ10-LP835-EM10WCP | (1) LED |         | RECESSED       | 27          | 120V 1P 2W |                                 |
| P1      |        | ROUND LED DOWNLIGHT                              | SONNEMAN LIGHTING TRANSPARENCY PENDANT    | (1) LED |         | RECESSED       | 10          | 120V 1P 2W | PROVIDE LED A19 BASE CLEAR LAMP |
| UC4     |        | 4' UNDERCOUNTER LIGHT                            | COLUMBIA UC4-CS-ED120                     | LED     |         | SURFACE        | 24          | 120V 1P 2W |                                 |
| X       |        | EXIT SIGN  | COMPASS CER                               | (1) LED | BATTERY | WALL/CEILING 2 | MULTIPLE    |            | UNSWITCHED                      |
| XRH     |        | EMERGENCY LIGHT (REMOTE HEAD)                    | COMPASS CORD                              | (1) LED | BATTERY | WALL/CEILING 2 | MULTIPLE    |            | UNSWITCHED                      |

NOTE: UPON PROJECT COMPLETION, THE EC SHALL PROVIDE TYPED CIRCUIT DIRECTORIES FOR ALL NEW AND ALTERED PANELBOARDS WITH CIRCUIT DESIGNATIONS COMPLYING WITH THE REQUIREMENTS OF NEC 408.4(A).

| ROOM                         |         | VOLTS 208Y/120V 3P 4W |          |      | AIC 22,000    |        |             |                         |                       |          |       |          |          |  |
|------------------------------|---------|-----------------------|----------|------|---------------|--------|-------------|-------------------------|-----------------------|----------|-------|----------|----------|--|
| MOUNTING FLUSH               |         | BUS AMPS 200          |          |      | MAIN BKR MLO  |        |             |                         |                       |          |       |          |          |  |
| FED FROM SERVICE DISC. A     |         | NEUTRAL 100%          |          |      | LUGS STANDARD |        |             |                         |                       |          |       |          |          |  |
| NOTE                         |         |                       |          |      |               |        |             |                         |                       |          |       |          |          |  |
| CKT #                        | CKT BKR | CIRCUIT DESCRIPTION   | LOAD KVA |      |               | CKT #  | CKT BKR     | CIRCUIT DESCRIPTION     | LOAD KVA              |          |       |          |          |  |
|                              |         |                       | A        | B    | C             |        |             |                         | A                     | B        | C     |          |          |  |
| 1                            | 20/1    | LIGHTING              | 1.12     |      |               | 2      | 20/1        | RECEPTACLE              | 0.36                  |          |       |          |          |  |
| 3                            | -/1     | SPACE                 |          | 0.00 |               | 4      | 20/1        | RECEPTACLE, RP-1        |                       | 1.00     |       |          |          |  |
| 5                            | 20/1    | EF2, LIGHTING         |          |      | 0.55          | 6      | 60/2        | HP-1                    |                       |          | 3.48  |          |          |  |
| 7                            | 20/1    | UC REFRIGERATOR       | 0.60     |      |               | 8      |             |                         | 3.48                  |          |       |          |          |  |
| 9                            | 20/1    | UC REFRIGERATOR       |          | 0.60 |               | 10     | -/1         | SPACE                   |                       | 0.00     |       |          |          |  |
| 11                           | 20/1    | UC REFRIGERATOR       |          |      | 0.60          | 12     | 20/1        | EF1, EF3, EF4, LIGHTING |                       |          | 1.30  |          |          |  |
| 13                           | 20/1    | UC REFRIGERATOR       | 0.60     |      |               | 14     | 80/2        | AHU-1                   | 7.90                  |          |       |          |          |  |
| 15                           | 20/1    | UC REFRIGERATOR       |          | 0.60 |               | 16     |             |                         |                       | 7.90     |       |          |          |  |
| 17                           | 20/1    | UC REFRIGERATOR       |          |      | 0.60          | 18     | 50/2        | HP-2                    |                       |          | 2.96  |          |          |  |
| 19                           | 20/1    | UC REFRIGERATOR       | 0.60     |      |               | 20     |             |                         | 2.96                  |          |       |          |          |  |
| 21                           | 20/1    | UC REFRIGERATOR       |          | 0.60 |               | 22     | 80/2        | AHU-2                   |                       | 7.90     |       |          |          |  |
| 23                           | -/1     | SPACE                 |          |      | 0.00          | 24     |             |                         |                       | 7.90     |       |          |          |  |
| 25                           | -/1     | SPACE                 | 0.00     |      |               | 26     | -/1         | SPACE                   | 0.00                  |          |       |          |          |  |
| 27                           | -/1     | SPACE                 |          | 0.00 |               | 28     | -/1         | SPACE                   |                       | 0.00     |       |          |          |  |
| 29                           | -/1     | SPACE                 |          |      | 0.00          | 30     | -/1         | SPACE                   |                       | 0.00     |       |          |          |  |
| 31                           | -/1     | SPACE                 | 0.00     |      |               | 32     | -/1         | SPACE                   | 0.00                  |          |       |          |          |  |
| 33                           | -/1     | SPACE                 |          | 0.00 |               | 34     | -/1         | SPACE                   |                       | 0.00     |       |          |          |  |
| 35                           | -/1     | SPACE                 |          |      | 0.00          | 36     | -/1         | SPACE                   |                       | 0.00     |       |          |          |  |
| 37                           | -/1     | SPACE                 | 0.00     |      |               | 38     | -/1         | SPACE                   | 0.00                  |          |       |          |          |  |
| 39                           | -/1     | SPACE                 |          | 0.00 |               | 40     | -/1         | SPACE                   |                       | 0.00     |       |          |          |  |
| 41                           | -/1     | SPACE                 |          |      | 0.00          | 42     | -/1         | SPACE                   |                       | 0.00     |       |          |          |  |
| TOTAL CONNECTED KVA BY PHASE |         |                       |          |      |               |        |             |                         | 17.62                 | 18.60    | 17.39 |          |          |  |
|                              |         |                       | CONN KVA | 2.70 | 3.37          | (125%) |             |                         |                       | CONN KVA | 1.26  | 1.26     | (50%>10) |  |
| LIGHTING                     |         |                       |          | 6.95 | 1.74          | (25%)  | RECEPTACLES |                         |                       |          | 4.80  | 4.80     | (100%)   |  |
| LARGEST MOTOR                |         |                       |          | 0.38 | 0.38          | (100%) | HEATING     |                         |                       |          | 44.48 | 44.48    | (100%)   |  |
| MOTORS                       |         |                       |          |      |               |        | COOLING     |                         |                       |          | 21.88 | 0.00     | (0%)     |  |
|                              |         |                       |          |      |               |        |             |                         | TOTAL LOAD            |          |       | 56.03    |          |  |
|                              |         |                       |          |      |               |        |             |                         | BALANCED 3-PHASE LOAD |          |       | 155.52 A |          |  |

| CALLOUT | SYMBOL | NEMA    | VOLTAGE     | BREAKER | CIRCUIT | MCA  | MOCP | WIRING                   | NOTE 1 |
|---------|--------|---------|-------------|---------|---------|------|------|--------------------------|--------|
| AHU-1   |        |         | 208/120V 2P | 80/2    | A-14,16 | 76.3 | 80   | 1" C, 2#3, #3N, #8G      |        |
| AHU-2   |        |         | 208/120V 2P | 80/2    | A-22,24 | 76.3 | 80   | 1" C, 2#3, #3N, #8G      |        |
| AHU-3   |        |         | 208/120V 2P | 80/2    | B-2,4   | 76.3 | 80   | 1" C, 2#3, #3N, #8G      |        |
| EF1     |        |         | 120V 1P     | 20/1    | A-12    |      |      | 1#10, #10N, #10G         |        |
| EF2     |        |         | 120V 1P     | 20/1    | A-5     |      |      | 1#10, #10N, #10G         |        |
| EF3     |        |         | 120V 1P     | 20/1    | A-12    |      |      | 1#10, #10N, #10G         |        |
| EF4     |        |         | 120V 1P     | 20/1    | A-12    |      |      | 1#10, #10N, #10G         |        |
| EF5     |        |         | 120V 1P     | 20/1    | B-26    |      |      | 1#12, #12N, #12G         |        |
| EW-1    |        |         | 208/120V 2P | 30/2    | B-10,12 |      |      | 1/2" C, 2#10, #10N, #10G |        |
| HP-1    |        | NEMA 3R | 208/120V 2P | 60/2    | A-6,8   | 33.4 | 60   | 3/4" C, 2#8, #8N, #10G   |        |
| HP-2    |        | NEMA 3R | 208/120V 2P | 50/2    | A-18,20 | 28.8 | 50   | 1/2" C, 2#10, #10N, #10G |        |
| HP-3    |        | NEMA 3R | 208/120V 2P | 60/2    | B-6,8   | 33.4 | 60   | 3/4" C, 2#8, #8N, #10G   |        |
| RP-1    |        |         | 120V 1P     | 20/1    | A-4     |      |      | 1#12, #12N, #12G         |        |

GENERAL NOTE: VERIFY BREAKER & WIRE SIZES WITH EQUIPMENT NAMEPLATES.



1 LIGHTING PLAN  
SCALE: 1/8" = 1'-0"

KEY NOTES:

- 1. BRANCH CIRCUITS SERVING PATIENT CARE AREAS SHALL COMPLY WITH NEC 517.13.

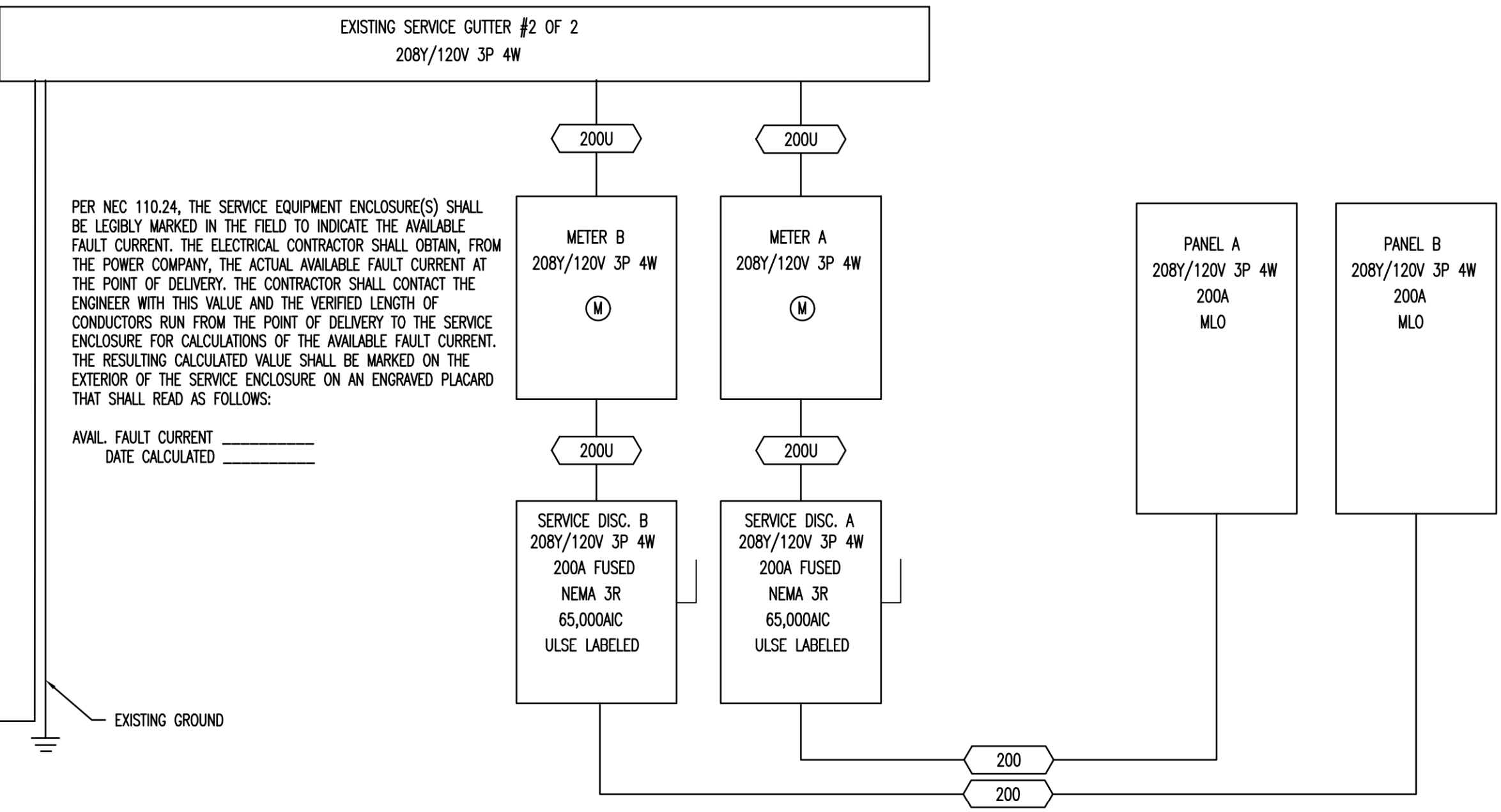
GENERAL NOTES:

- 1. EXIT, EMERGENCY AND NIGHT LIGHTS (NL) SHALL BE CONNECTED "UNSWITCHED" TO LIGHTING CIRCUIT SERVING ROOM WHERE THEY ARE LOCATED (TYPICAL)

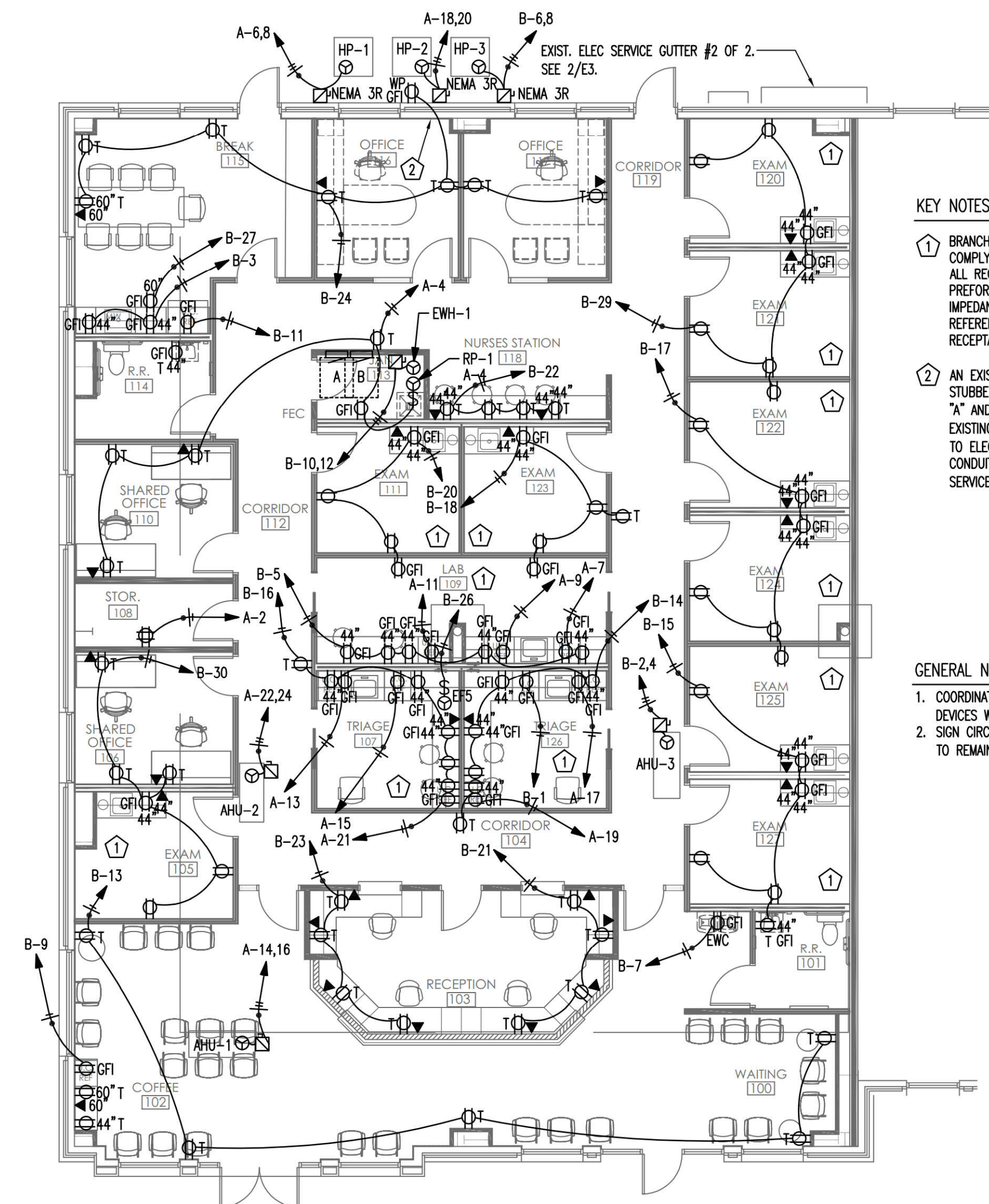
NOTE: UPON PROJECT COMPLETION, THE EC SHALL PROVIDE TYPED CIRCUIT DIRECTORIES FOR ALL NEW AND ALTERED PANELBOARDS WITH CIRCUIT DESIGNATIONS COMPLYING WITH THE REQUIREMENTS OF NEC 408.4(A).

| B                            |         |                       |          |          |               |                       |          |                     |          |       |        |
|------------------------------|---------|-----------------------|----------|----------|---------------|-----------------------|----------|---------------------|----------|-------|--------|
| ROOM MOUNTING FLUSH          |         | VOLTS 208Y/120V 3P 4W |          |          | AIC 22,000    |                       |          |                     |          |       |        |
| FED FROM SERVICE DISC. B     |         | BUS AMPS 200          |          |          | MAIN BKR MLO  |                       |          |                     |          |       |        |
| NOTE                         |         | NEUTRAL 100%          |          |          | LUGS STANDARD |                       |          |                     |          |       |        |
| CKT #                        | CKT BKR | CIRCUIT DESCRIPTION   | LOAD KVA |          |               | CKT #                 | CKT BKR  | CIRCUIT DESCRIPTION | LOAD KVA |       |        |
|                              |         |                       | A        | B        | C             |                       |          |                     | A        | B     | C      |
| 1                            | 20/1    | UC REFRIGERATOR       | 0.60     |          |               | 2                     | 80/2     | AHU-3               | 7.90     |       |        |
| 3                            | 20/1    | RECEPTACLE            |          | 0.36     |               | 4                     |          |                     |          | 7.90  |        |
| 5                            | 20/1    | RECEPTACLE            |          |          | 0.90          | 6                     | 60/2     | HP-3                |          |       | 3.48   |
| 7                            | 20/1    | WATER COOLER          | 0.70     |          |               | 8                     |          |                     |          |       |        |
| 9                            | 20/1    | UC REFRIGERATOR       |          | 0.60     |               | 10                    | 30/2     | EWH-1               |          | 2.25  | 2.25   |
| 11                           | 20/1    | REFRIGERATOR          |          |          | 1.20          | 12                    |          |                     |          |       |        |
| 13                           | 20/1    | RECEPTACLE            | 0.90     |          |               | 14                    | 20/1     | RECEPTACLE          | 1.08     |       |        |
| 15                           | 20/1    | RECEPTACLE            |          | 1.08     |               | 16                    | 20/1     | RECEPTACLE          |          | 1.08  |        |
| 17                           | 20/1    | RECEPTACLE            |          |          | 1.08          | 18                    | 20/1     | RECEPTACLE          |          |       | 0.90   |
| 19                           | -/1     | SPACE                 | 0.00     |          |               | 20                    | 20/1     | RECEPTACLE          | 0.72     |       |        |
| 21                           | 20/1    | RECEPTACLE            |          | 0.72     |               | 22                    | 20/1     | RECEPTACLE          |          | 0.72  |        |
| 23                           | 20/1    | RECEPTACLE            |          |          | 0.72          | 24                    | 20/1     | RECEPTACLE          |          |       | 1.44   |
| 25                           | -/1     | SPACE                 | 0.00     |          |               | 26                    | 20/1     | EFS                 | 0.53     |       |        |
| 27                           | 20/1    | MICROWAVE             |          | 1.50     |               | 28                    | -/1      | SPACE               |          | 0.00  |        |
| 29                           | 20/1    | RECEPTACLE            |          | 1.26     |               | 30                    | 20/1     | RECEPTACLE          |          | 1.08  |        |
| 31                           | -/1     | SPACE                 | 0.00     |          |               | 32                    | -/1      | SPACE               |          | 0.00  |        |
| 33                           | -/1     | SPACE                 |          | 0.00     |               | 34                    | -/1      | SPACE               |          | 0.00  |        |
| 35                           | -/1     | SPACE                 |          |          | 0.00          | 36                    | -/1      | SPACE               |          | 0.00  |        |
| 37                           | -/1     | SPACE                 | 0.00     |          |               | 38                    | -/1      | SPACE               |          | 0.00  |        |
| 39                           | -/1     | SPACE                 |          | 0.00     |               | 40                    | -/1      | SPACE               |          | 0.00  |        |
| 41                           | -/1     | SPACE                 |          |          | 0.00          | 42                    | -/1      | SPACE               |          | 0.00  |        |
| TOTAL CONNECTED KVA BY PHASE |         |                       |          |          |               |                       |          |                     | 15.90    | 16.21 | 14.31  |
|                              |         |                       | CONN KVA | CALC KVA |               | CONN KVA              | CALC KVA |                     |          |       |        |
| LARGEST MOTOR                |         |                       | 6.95     | 1.74     | (25%)         | CONTINUOUS            |          |                     | 4.50     | 5.63  | (125%) |
| MOTORS                       |         |                       | 0.53     | 0.53     | (100%)        | NONCONTINUOUS         |          |                     | 4.60     | 4.60  | (100%) |
| RECEPTACLES                  |         |                       | 14.04    | 12.02    | (50%>10)      | HEATING               |          |                     | 22.75    | 22.75 | (100%) |
|                              |         |                       |          |          |               | COOLING               |          |                     | 11.45    | 0.00  | (0%)   |
|                              |         |                       |          |          |               | TOTAL LOAD            |          |                     | 47.26    |       |        |
|                              |         |                       |          |          |               | BALANCED 3-PHASE LOAD |          |                     | 131.18 A |       |        |

NOTE: NEW ELEC. SERVICE, METER BASE TYPE AND LOCATION OF ALL EQUIPMENT SHALL BE CLOSELY COORDINATED BY THE EC WITH THE UTILITY COMPANY. CHANGES IN EXACT EQUIPMENT PLACEMENT, MOUNTING HEIGHTS AND CONNECTION MAY BE REQUIRED. EC SHALL FOLLOW UTILITY GUIDELINES, THE NEC AND ALL LOCAL REQUIREMENTS FOR SERVICE EQUIPMENT INSTALLATION. EC SHALL CONTACT UTILITY PRIOR TO BEGINNING ANY WORK AND SCHEDULE AN ON-SITE COORDINATION MEETING TO REVIEW UTILITY REQUIREMENTS AND THE PLANNED INSTALLATION. ADDITIONAL CONDUIT, WIRING, FEES OR WORK REQUIRED BY THE UTILITY NOT SHOWN ON THIS RISER SHALL BE COORDINATED BY THE EC AT THE BEGINNING OF THE PROJECT AND INCLUDED IN PRICING BY THE EC TO THE OWNER.



**2 POWER RISER DIAGRAM**  
 E3 SCALE: NTS



| ID   | FEEDER AMPS | CONDUIT AND FEEDER      | FEEDING THESE DEVICES                              |
|------|-------------|-------------------------|--|
| 200  | 200         | 2" C, 3#3/0, #3/0N, #6G | A, B   |
| 200U | 200         | 2" C, 3#3/0, #3/0N      | METER A, METER B, SERVICE DISC. A, SERVICE DISC. B |

SIZING METHOD: COPPER, 60°C #12 THROUGH #1, 75°C 1/0 AND ABOVE

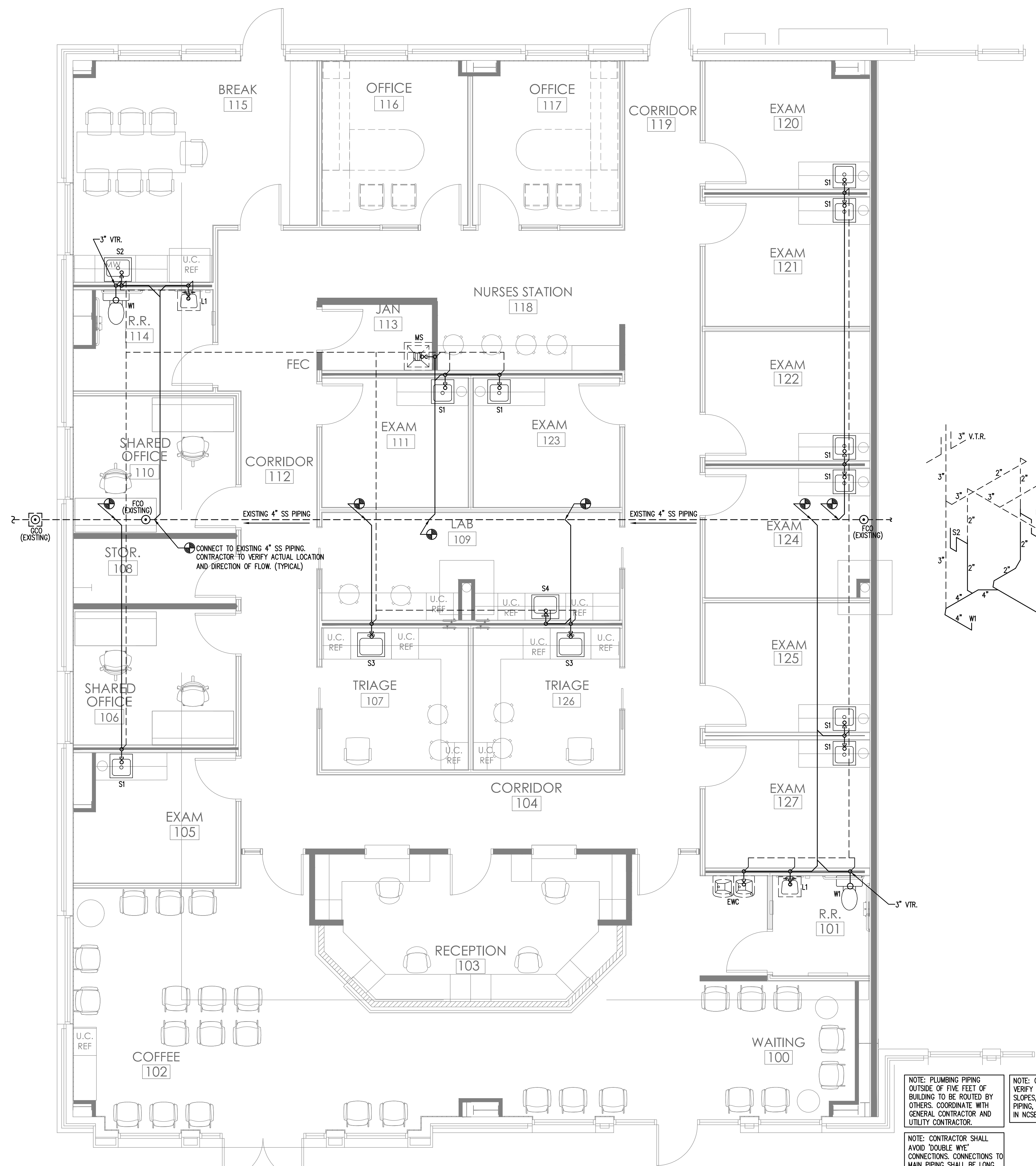
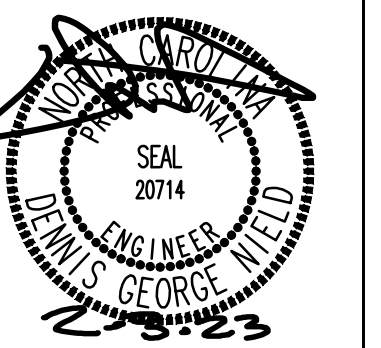
- KEY NOTES:
- BRANCH CIRCUITS SERVING PATIENT CARE AREAS SHALL COMPLY WITH NEC 517.13. IMPEDANCE TESTING OF 10% OF ALL RECEPTACLES IN PATIENT CARE AREAS SHALL BE PERFORMED IN ACCORDANCE WITH NFPA 99 6.3.3.1.4. THE IMPEDANCE MEASUREMENT SHALL BE BETWEEN A GROUND REFERENCE A GROUND REFERENCE POINT AND THE RECEPTACLE GROUND CONTACT.
  - AN EXISTING 2" C. FROM SERVICE GUTTER #2 OF 2 IS STUBBED UP IN WALL AT THIS LOCATION. EXTEND TO PANEL "A" AND PROVIDE NEW FEEDER AS SHOWN ON 2/E3. AN EXISTING 1" C. FROM THE TELECOMM SERVICE BOX (ADJACENT TO ELEC GUTTER) IS IN WALL AT THIS LOCATION. EXTEND CONDUIT TO ACCESSIBLE CEILING VOID FOR TELEPHONE SERVICE CABLING (CABLING BY OTHERS).

- GENERAL NOTES:
- COORDINATE EXACT LOCATION AND MOUNTING HEIGHT OF ALL DEVICES WITH OWNER PRIOR TO ROUGH-IN (TYPICAL).
  - SIGN CIRCUITS AT EACH FRONT ENTRANCE DOOR ARE EXISTING TO REMAIN. COORDINATE SIGN CONNECTION WITH GC/OWNER.

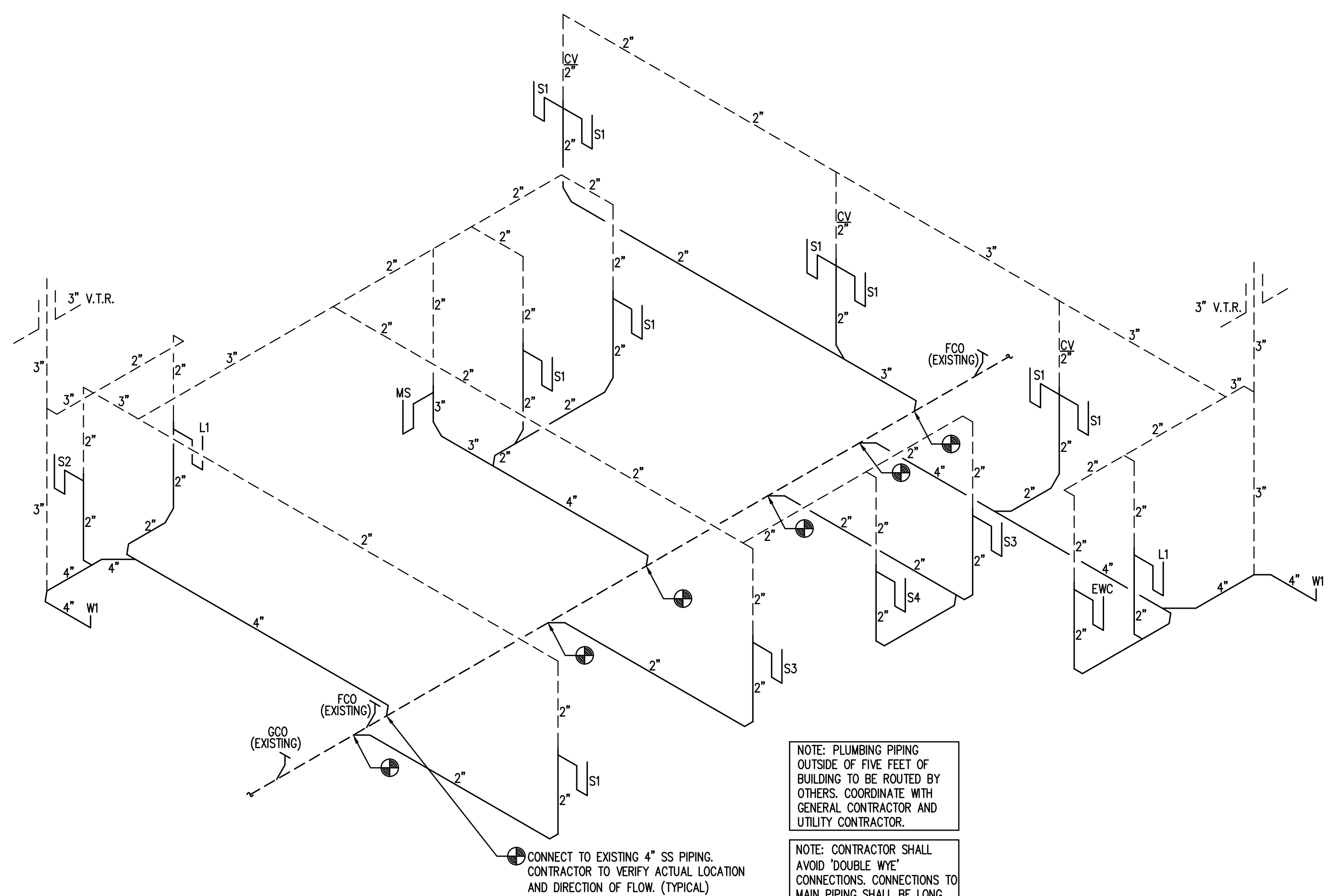
**ANGUS CLARK ENGINEERING PC**  
 NCBEES #C-2726  
 543 KEISLER DRIVE  
 SUITE 101  
 CARY NORTH CAROLINA 27518  
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 C-1474



**1 FLOOR PLAN - S.W. + V**  
 P-1 SCALE: 1/4" = 1' - 0"



**2 RISER - S.W. + V**  
 P-1 SCALE: NO SCALE

NOTE: PLUMBING PIPING OUTSIDE OF FIVE FEET OF BUILDING TO BE ROUTED BY OTHERS. COORDINATE WITH GENERAL CONTRACTOR AND UTILITY CONTRACTOR.

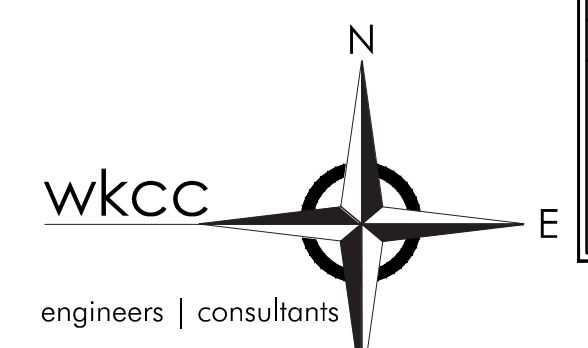
NOTE: CONTRACTOR SHALL AVOID 'DOUBLE WYE' CONNECTIONS. CONNECTIONS TO MAIN PIPING SHALL BE LONG RADIUS SANITARY TEES.

NOTE: CONTRACTOR SHALL VERIFY SANITARY SEWER LINE SLOPES, INCLUDING EXISTING PIPING, MEETS THAT INDICATED IN NCSBC PLUMBING.

NOTE: PLUMBING PIPING OUTSIDE OF FIVE FEET OF BUILDING TO BE ROUTED BY OTHERS. COORDINATE WITH GENERAL CONTRACTOR AND UTILITY CONTRACTOR.

NOTE: CONTRACTOR SHALL AVOID 'DOUBLE WYE' CONNECTIONS. CONNECTIONS TO MAIN PIPING SHALL BE LONG RADIUS SANITARY TEES.

NOTE: CONTRACTOR SHALL VERIFY SANITARY SEWER LINE SLOPES, INCLUDING EXISTING PIPING, MEETS THAT INDICATED IN NCSBC PLUMBING.



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 2285 NC HWY 24-87  
 CAMERON, NORTH CAROLINA

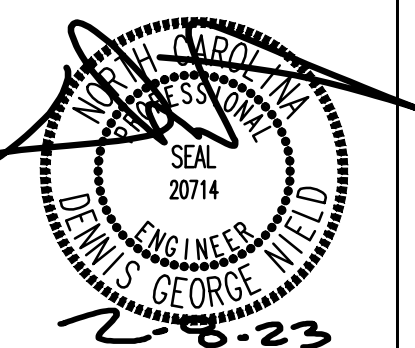
JOB #:  
 22DRCABAN

DWG BY:  
 MPP  
 CHK BY:  
 AED  
 DATE: 02/08/23

S., W & V  
 FLOOR PLAN  
 AND RISER

SHEET NO.  
**P-1**





**PHYCINITY - DR. CABAN**  
**CAMERON BUILDING**  
 2285 NC HWY 24-87  
 CAMERON, NORTH CAROLINA

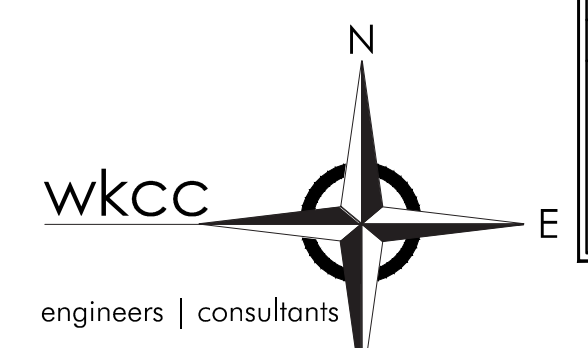
JOB #:  
 22DRCABAN

DWG BY:  
 MPP  
 CHK BY:  
 AED  
 DATE: 02/08/23

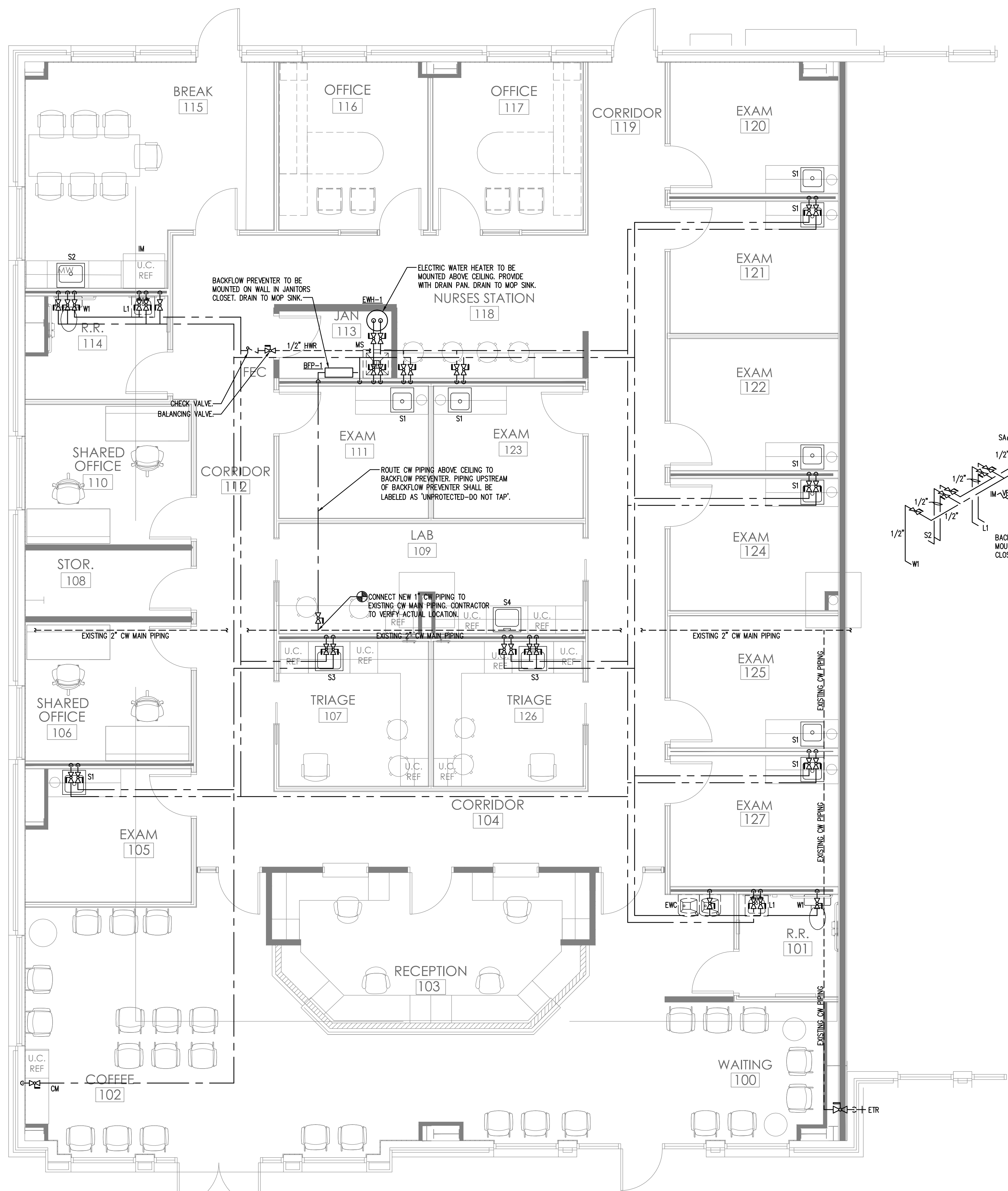
WATER  
 FLOORPLAN  
 AND RISER

SHEET NO.

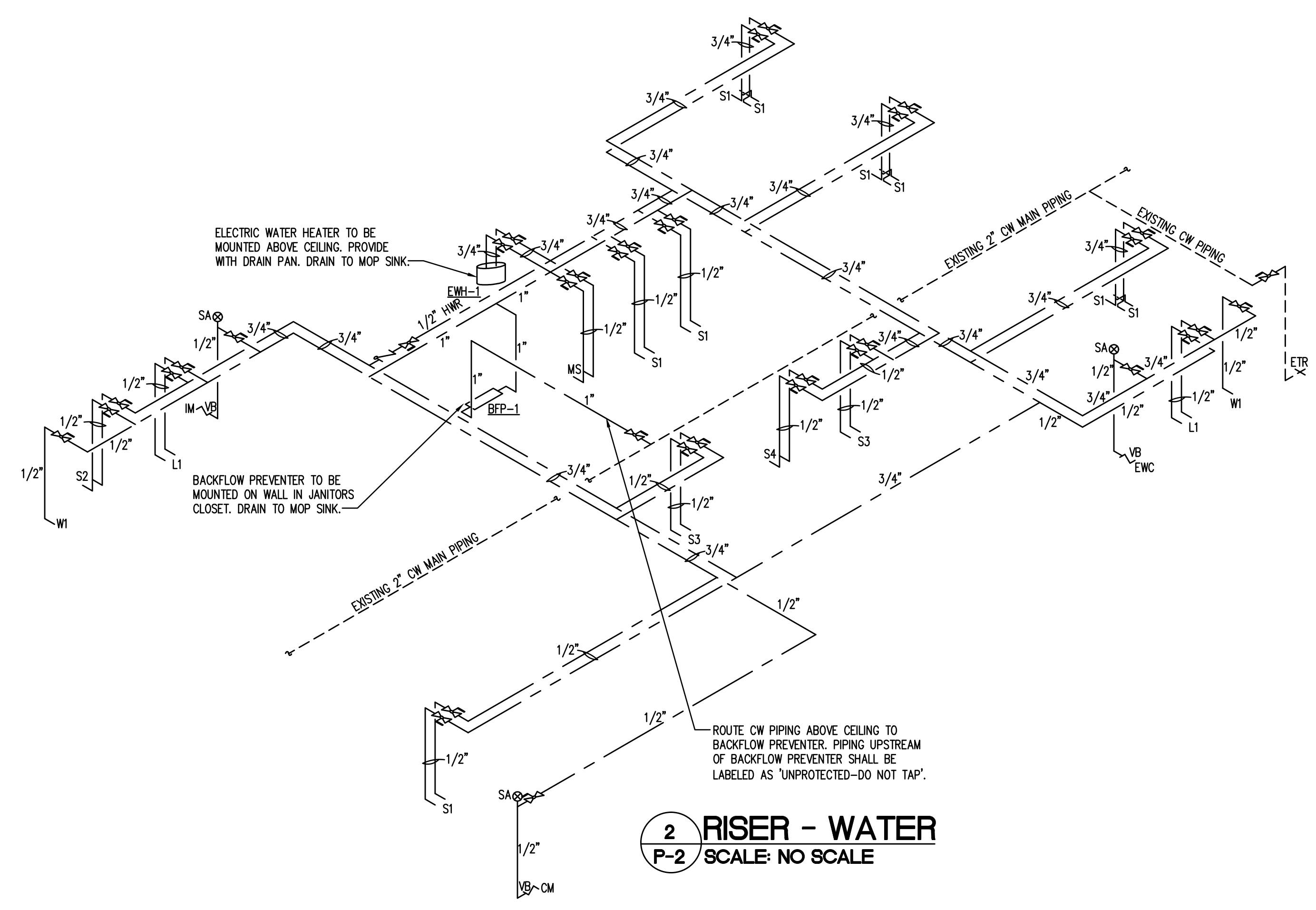
**P-2**



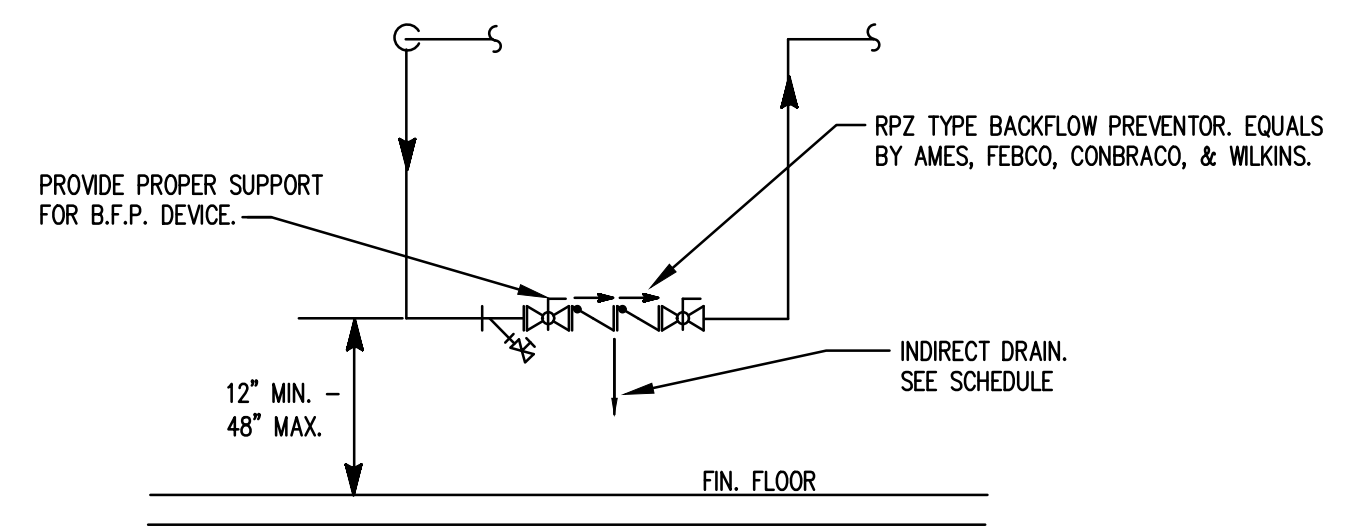
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**1 FLOOR PLAN - WATER**  
 P-2 / SCALE: 1/4" = 1' - 0"



**2 RISER - WATER**  
 P-2 / SCALE: NO SCALE



**3 BACKFLOW PREVENTER DETAIL**  
 P-2 / SCALE: NO SCALE

| RPZ BACKFLOW PREVENTER SCHEDULE |              |           |                  |                         |         |
|---------------------------------|--------------|-----------|------------------|-------------------------|---------|
| MARK                            | MANUFACTURER | MODEL     | PIPING SIZE (IN) | MINIMUM DRAIN SIZE (IN) | REMARKS |
| BFP-1                           | WATTS        | LFO09M2QT | 1                | 2                       | (1) (2) |

- ① INSTALLATION SHALL COMPLY WITH TOWN OF CAMERON REQUIREMENTS.
- ② INDIRECT DRAIN TO MOP SINK.

# PLUMBING SPECIFICATIONS

- PLUMBING SPECIFICATIONS:
- THE ENTIRE PLUMBING SYSTEM SHALL BE IN ACCORDANCE WITH 2018 NORTH CAROLINA PLUMBING CODE AND LOCAL PLUMBING INSPECTOR.
  - ALL WORK SHALL BE COORDINATED WITH ALL OTHER TRADES PRIOR TO INSTALLATION. CONTRACTOR SHALL COORDINATE ROUTING OF ALL PIPING WITH EXISTING CONDITIONS AND SHALL PROVIDE ANY NECESSARY OFFSETS, REROUTING, ETC. REQUIRED FOR A COMPLETE AND COORDINATED INSTALLATION.
  - THESE PLANS ARE DIAGRAMMATIC. CONTRACTOR SHALL PROVIDE ALL NECESSARY OFFSET, TEES, ELBOWS, ETC. FOR A COMPLETE WORKING PLUMBING SYSTEM.
  - THE CONTRACTOR SHALL OBTAIN AND PAY ALL FEES RELATED TO PERMITTING, INSPECTIONS, TAPS, ETC.
  - CONTRACTOR SHALL COORDINATE ANY PLUMBING SYSTEM REQUIRING SHUTDOWN WITH THE OWNER 48 HOURS PRIOR TO BEGINNING WORK.
  - ALL DOMESTIC WATER PIPING SHOWN IS ABOVE CEILING/WITHIN WALLS UNLESS NOTED OTHERWISE.
  - ALL DOMESTIC WATER PIPING (ABOVE SLAB) SHALL BE TYPE "L" COPPER WITH 95/5 LEAD FREE SOLDER. ABOVE SLAB, OUTSIDE OF PLENUM SPACES, PEW PIPING IS ACCEPTABLE. ALL WATER PIPING (BELOW SLAB) SHALL BE TYPE "K" SOFT COPPER. COMPLY W/ ASTM B-88-88A.
  - ALL WATER PIPING SHALL BE INSULATED WITH CLOSED CELL (ARMAFLEX) TYPE INSULATION WITH THE FLAME DENSITY RATING NOT EXCEEDING 25 & THE SMOKE DENSITY RATING NOT EXCEEDING 50. THICKNESS FOR COLD WATER PIPING SHALL BE 1/2" THICK. THICKNESS FOR HOT WATER & RETURN PIPING SHALL BE 1" THICK.
  - ALL BRANCH LINES SHALL HAVE SHUT-OFF VALVES. ALL DOMESTIC WATER BALL VALVES SHALL BE BRASS BODY, FULL PORT, CHROME PLATED BALL, TEFLON SEATS, 150# WSP, FOR SIZES 1/2" THRU 2". SIZES ABOVE 2" SHALL BE BRONZE GATE VALVE, NRS SOLID DISC, SCREW OVER BONNET, 125# WSP. PROVIDE VALVE HANDLE EXTENSIONS AS REQUIRED FOR INSULATION.
  - ALL PLUMBING FIXTURES AND KITCHEN EQUIPMENT SHALL HAVE A PISTON TYPE WATER HAMMER ARRESTOR SIZED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS & PDI STANDARDS.
  - ALL SANITARY SEWER PIPING SHOWN IS BELOW SLAB/WITHIN WALLS UNLESS NOTED OTHERWISE. ALL SANITARY VENT PIPING SHOWN IS ABOVE CEILING/WITHIN WALLS UNLESS NOTED OTHERWISE.
  - ALL WASTE & VENT PIPING (ABOVE SLAB) SHALL BE PVC-DWV WITH PIPING AND FITTINGS CONFORMING TO ASTM D-2665. PLENUM SPACE WASTE & VENT PIPING (ABOVE SLAB) SHALL BE SERVICE WEIGHT CAST IRON WITH NO-HUB FITTINGS CONFORMING TO CSPI 301. JOINTS SHALL BE ONE-PIECE NEOPRENE GASKET WITH STAINLESS STEEL BAND AND BOLTS CONFORMING TO ASTM C564-85.
  - ALL WASTE & VENT PIPING (BELOW SLAB) SHALL BE PVC-DWV WITH PIPING AND FITTINGS CONFORMING TO ASTM D-2665.
  - ALL PIPING SYSTEMS SHALL BE SUPPORTED AS REQUIRED BY 2018 NORTH CAROLINA PLUMBING CODE & MANUFACTURER'S RECOMMENDATIONS.
  - ALL PIPING PENETRATIONS THRU NEW/EXISTING WALLS/FLOORS SHALL BE SEALED TO EQUAL THE RATING OF THE NEW/EXISTING WALL OR FLOOR.
  - ALL PLUMBING SYSTEMS SHALL BE TESTED AS REQUIRED BY 2018 NORTH CAROLINA PLUMBING CODE.
  - THE PLUMBING CONTRACTOR SHALL COORDINATE ALL UNDERSLAB PLUMBING PIPING WITH ALL STRUCTURAL FOUNDATIONS. P.C. SHALL COORDINATE ALL UNDERSLAB PLUMBING PIPING ELEVATION INVERTS WITH SITE UTILITY ELEVATION INVERTS.
  - P.C. SHALL COORDINATE ALL KITCHEN EQUIPMENT REQUIRING PLUMBING CONNECTIONS WITH KITCHEN EQUIPMENT VENDOR. PROVIDE ALL NECESSARY P-TRAPS, SUPPLY STOPS, INDIRECT PIPING, ETC. REQUIRED FOR COMPLETE HOOK-UP OF KITCHEN EQUIPMENT REQUIRING PLUMBING CONNECTIONS.
  - THE BACKFLOW PREVENTION DEVICE SHALL BE INSTALLED AS REQUIRED PER LOCAL AUTHORITY.
  - THE ENTIRE DOMESTIC WATER SYSTEM SHALL BE DISINFECTED IN ACCORDANCE WITH 2018 NORTH CAROLINA PLUMBING CODE.
  - ALL VENT THRU THE ROOF PENETRATIONS SHALL BE COORDINATED WITH THE GENERAL CONTRACTOR AND SHALL BE CONCEALED BEHIND ROOF RIDGE WHERE POSSIBLE. P.C. SHALL PROVIDE ALL FLASHING MATERIAL REQUIRED FOR VENT THRU ROOF. ALL VTR'S SHALL BE LOCATED A MINIMUM OF 10'-0" FROM ALL OUTSIDE AIR INTAKES.
  - ALL GAS PIPING AND GAS FLUE TO GAS WATER HEATER BY PLUMBING CONTRACTOR.
  - PLUMBING CONTRACTOR SHALL HAVE RECEIVED APPROVED SHOP DRAWINGS FROM THE ENGINEER PRIOR TO BEGINNING NEW WORK.

# PLUMBING FIXTURES AND EQUIPMENT

| MARK | DESCRIPTION   | PIPE SERVICE AND CONN. SIZE |      |        | FIXTURE SPECIFICATIONS  |
|------|---|-----------------------------|------|--------|---|
|      |   | CW                          | HW   | WASTE  |   |
| WI   | WATER CLOSET FLR. MTD. (ADA)                        | 1/2"                        |      | 4"     | AMERICAN STANDARD "CADET PRO" 215AA104, ADA, 1.28 GPF WHITE VITREOUS CHINA ELONGATED BOWL WITH CADET FLUSHING SYSTEM, WITH SIDE TRIP LEVER, 12" ROUGH-IN, 17" HIGH, & 2 BOLT CAPS. SEAT: OLSONITE MODEL 95CT HEAVY DUTY ELONGATED WHITE OPEN FRONT SEAT. VALVE: MCGUIRE MODEL 2166. 3/8" x 12" FLEX RISER ANGLE CLOSET SUPPLY WITH STOP. MOUNT SIDE TRIP LEVER ON WIDE SIDE OF TOILET STALL.  |
| L1   | LAVATORY WALL MOUNTED (ADA)                         | 1/2"                        | 1/2" | 1-1/2" | AMERICAN STANDARD "LUCERNE" 0355.012, WALL HUNG, VITREOUS, FRONT OVERFLOW, D-SHARED BOWL, SELF DRAINING DECK AREA WITH CONTOURED BACK AND SIDE SPLASH SHIELDS, FAUCET LEDGE, 20-1/2" x 18-1/4", (3) 1-3/8" HOLES, 2 OUTER HOLES AT 4" CENTERS. MOUNT LAVATORY RIM AT 34" A.F.F. TO MEET ADA REQUIREMENTS. TRAP & SUPPLIES: MCGUIRE NO. 8902 17 GA. 1 1/4" x 1 1/2" P-TRAP AND NIPPLE. MCGUIRE NO. 2165 ANGLE SUPPLY STOPS. FAUCET: DANZE D225588 SPOUT WITH SINGLE HANDLE AND 0.5 GPM AERATOR. PROVIDE WITH DECK PLATE. ACCESSORIES: PROVIDE WITH ADA COMPLIANT DRAIN AND VALVE COVERS. TRUBRO 103 E-Z MOLD VINYL INSULATION. PROVIDE WITH ASSE 1070 COMPLIANT MIXING VALVE.  |
| S1   | SINK (EXAM) SINGLE BOWL CTR. MTD. (ADA)             | 1/2"                        | 1/2" | 1-1/2" | ELKAY BLR01560-2, 304 STAINLESS STEEL, 18 GAUGE, SELF-RIMMING SINGLE BOWL, BOWL DIM. 9" x 12" x 6" DEEP, 2 HOLES @ 4" CENTERS. TRAP & SUPPLIES: ELKAY LK36 NICKEL PLATED FORGED BRASS BASKET STRAINER WITH 1-1/2" x 4" TAILPIECE. MCGUIRE NO. 8912 17 GA. 1-1/2" P-TRAP AND NIPPLE. MCGUIRE NO. 2165 3/8"x12" FLEX RISER ANGLE SUPPLY STOPS. FAUCET: DELTA 27C4834 GOOSENECK SPOUT WITH DUAL HANDLE AND 1.5 GPM FLOW RESTRICTOR. PROVIDE WITH ADA COMPLIANT LEVERS WITH BLADE HANDLES. ACCESSORIES: PROVIDE WITH ADA COMPLIANT DRAIN AND VALVE COVERS. TRUBRO 103 E-Z MOLD VINYL INSULATION.  |
| S2   | SINK (BREAK) SINGLE BOWL CTR. MTD. (ADA)            | 1/2"                        | 1/2" | 1-1/2" | ELKAY MODEL LRAD2219, 301 STAINLESS STEEL, 20 GAUGE, SELF-RIMMING SINGLE BOWL, BOWL DIM. 14" x 18" x 6" DEEP, 1-HOLE CONFIGURATION. TRAP & SUPPLIES: ELKAY LK35 NICKEL PLATED FORGED BRASS BASKET STRAINER WITH 1-1/2" x 4" TAILPIECE. MCGUIRE NO. 8912 17 GA. 1-1/2" P-TRAP AND NIPPLE. MCGUIRE NO. 2165 3/8"x12" FLEX RISER ANGLE SUPPLY STOPS. FAUCET: DELTA 27C4834 GOOSENECK SPOUT WITH DUAL HANDLE AND 1.5 GPM FLOW RESTRICTOR. PROVIDE WITH ADA COMPLIANT LEVER WITH BLADE HANDLES. ACCESSORIES: PROVIDE WITH ADA COMPLIANT DRAIN AND VALVE COVERS. TRUBRO 103 E-Z MOLD VINYL INSULATION.  |
| S3   | SINK (TRIAGE) SINGLE BOWL CTR. MTD. (ADA)           | 1/2"                        | 1/2" | 1-1/2" | ELKAY MODEL LRAD2219, 301 STAINLESS STEEL, 20 GAUGE, SELF-RIMMING SINGLE BOWL, BOWL DIM. 14" x 18" x 6" DEEP, 2 HOLES @ 4" CENTERS. TRAP & SUPPLIES: ELKAY LK35 NICKEL PLATED FORGED BRASS BASKET STRAINER WITH 1-1/2" x 4" TAILPIECE. MCGUIRE NO. 8912 17 GA. 1-1/2" P-TRAP AND NIPPLE. MCGUIRE NO. 2165 3/8"x12" FLEX RISER ANGLE SUPPLY STOPS. FAUCET: DELTA 27C4834 GOOSENECK SPOUT WITH DUAL HANDLE AND 1.5 GPM FLOW RESTRICTOR. PROVIDE WITH ADA COMPLIANT LEVER WITH BLADE HANDLES.  |
| S4   | SINK (LAB) SINGLE BOWL CTR. MTD. (ADA) WITH EYEWASH | 1/2"                        | 1/2" | 1-1/2" | ELKAY MODEL LRAD2219, 301 STAINLESS STEEL, 20 GAUGE, SELF-RIMMING SINGLE BOWL, BOWL DIM. 14" x 18" x 6" DEEP, 2 HOLES @ 4" CENTERS. TRAP & SUPPLIES: ELKAY LK35 NICKEL PLATED FORGED BRASS BASKET STRAINER WITH 1-1/2" x 4" TAILPIECE. MCGUIRE NO. 8912 17 GA. 1-1/2" P-TRAP AND NIPPLE. MCGUIRE NO. 2165 3/8"x12" FLEX RISER ANGLE SUPPLY STOPS. FAUCET: DELTA 27C4834 GOOSENECK SPOUT WITH DUAL HANDLE AND 1.5 GPM FLOW RESTRICTOR. PROVIDE WITH ADA COMPLIANT LEVER WITH BLADE HANDLES. MOUNT GUARDIAN MODEL G101 FAUCET MOUNTED EMERGENCY EYEWASH. 5" APART OUTLET HEADS WITH COVERS. ACCESSORIES: WEBSTONE 77201W CHROME PLATED BRASS THERMOSTATIC MIXING VALVE WITH INTEGRAL CHECK VALVES. TEMPERATURE LOCKING HANDLE AND CW BYPASS FITTINGS. |
| MS   | MOP SINK  | 1/2"                        | 1/2" | 3"     | ACORN "TERRAZZO-WARE" TRH242410, 24"x24"x10" PRECAST TERRAZZO MOP SERVICE BASIN. FAUCET: FIAT 830-AA SERVICE FAUCET WITH 3/4" HOSE THREAD END AND BUCKET HOOK AND VACUUM BREAKER. STRAINER: STAINLESS STEEL STRAINER BY ACORN. VERIFY SIZE WITH ARCHITECT AND OWNER.  |
| CM   | COFFEE MAKER  | 1/2"                        |      |        | OATEY MODEL #38681 WALL MOUNTED AT 36" AFF  |
| IM   | ICE MAKER BOX                                       | 1/2"                        |      |        | OATEY MODEL #38681 WALL MOUNTED AT 36" AFF  |
| EW   | ELECTRIC WATER COOLER                               | 1/2"                        |      | 2"     | ELKAY MODEL LZSL08SC TWO-LEVEL WHEEL CHAIR TYPE WALL MOUNTED WATER COOLER WITH HERMETICALLY SEALED AND AIR COOLED REFRIGERATING UNIT, WITH ELECTRIC PUSH BUTTON ON FRONT AND SIDE, COLORED VINYL COVERED STEEL SKIRT, AND STAINLESS STEEL HOOD-RECEPTOR. MOUNT PER ADA REQUIREMENTS.  |
| ETR  | EXISTING TO REMAIN                                  | 1/2"                        |      |        | EXISTING PLUMBING FIXTURE TO REMAIN   |

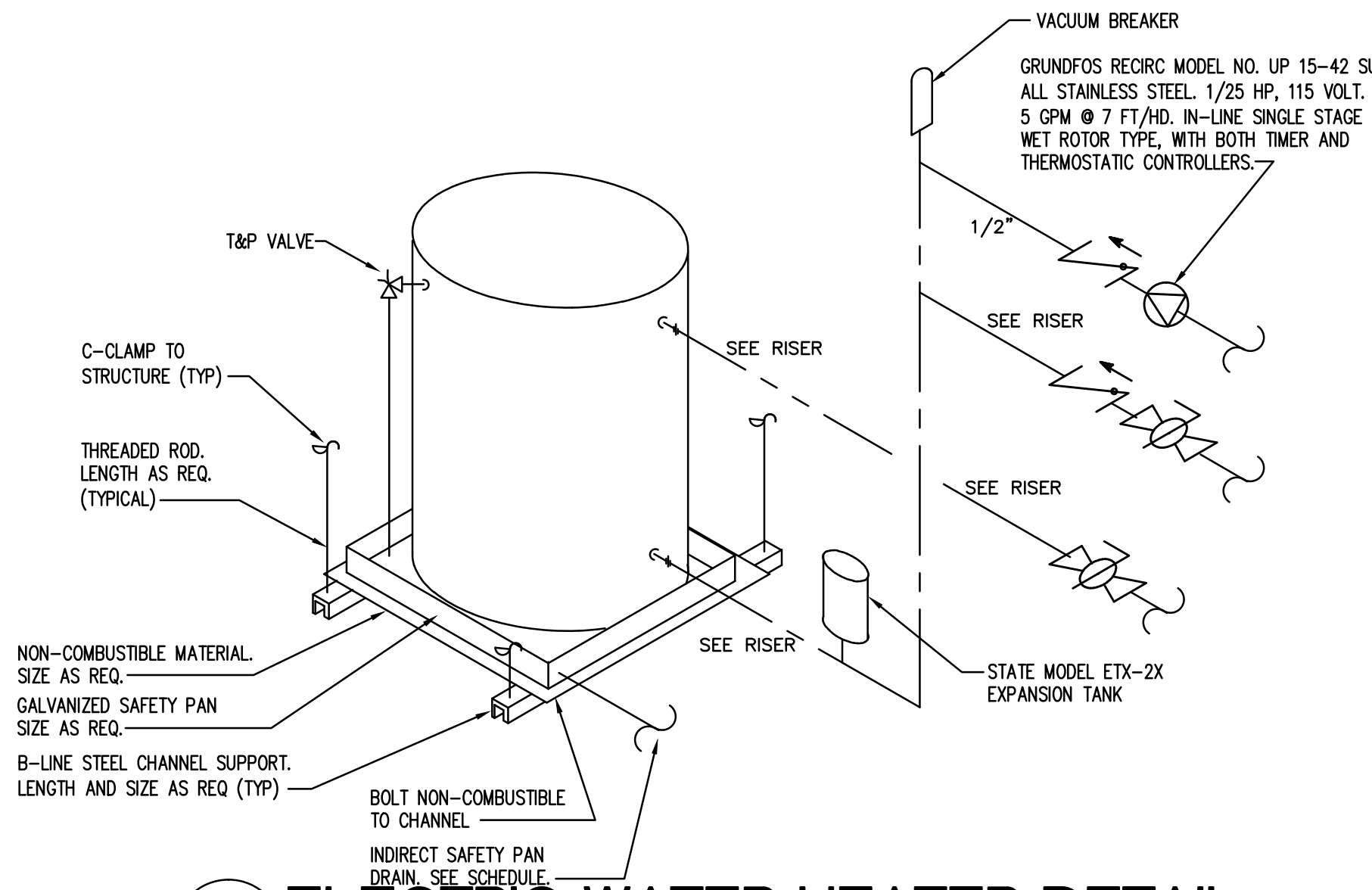
VERIFY FIXTURES WITH OWNER PRIOR TO ORDERING. OWNER SHALL MAKE A THOROUGH REVIEW OF ALL FIXTURES PRIOR TO ORDER.

## PLUMBING LEGEND AND ABBREVIATIONS

|                    |                                     |
|--------------------|-------------------------------------|
| ---                | SANITARY SEWER PIPING ( W )         |
| ---                | VENT PIPING ( V )                   |
| ---                | COLD WATER PIPING ( CW )            |
| ---                | HOT WATER PIPING ( HW )             |
| ---                | HOT WATER RETURN PIPING ( HWR )     |
| ○                  | ELL TURNS UP                        |
| ⊖                  | ELL TURNS DOWN                      |
| ⊕                  | CHECK VALVE                         |
| ⊗                  | BALL VALVE                          |
| ⊘                  | GATE VALVE IN HORIZONTAL POSITION   |
| ⊙                  | CLEANOUT IN GROUND (GCO)            |
| ⊚                  | CLEANOUT IN FLOOR OR SLAB (FCO)     |
| A.F.F.             | ABOVE FINISH FLOOR                  |
| FD - A             | FLOOR DRAIN - TYPE ( SEE SCHEDULE ) |
| H.B.               | HOSE BIBB                           |
| FPWH               | FREEZE PROOF WALL HYDRANT           |
| H.D.               | HUB DRAIN                           |
| INV. ELEV. OR I.E. | INVERT ELEVATION                    |
| P.C.               | PLUMBING CONTRACTOR                 |
| V.T.R.             | VENT THROUGH ROOF                   |
| CX                 | COMMON VENT                         |
| EOCV               | END OF CIRCUIT VENT                 |
| BOCV               | BEGINNING OF CIRCUIT VENT           |
| ---                | 1 HOUR RATED BARRIER/PARTITION/WALL |
| ---                | 2 HOUR RATED BARRIER/PARTITION/WALL |
| ---                | 3 HOUR RATED BARRIER/PARTITION/WALL |
| ⊕                  | CONNECT TO EXISTING                 |

## PLUMBING ACCESSORIES

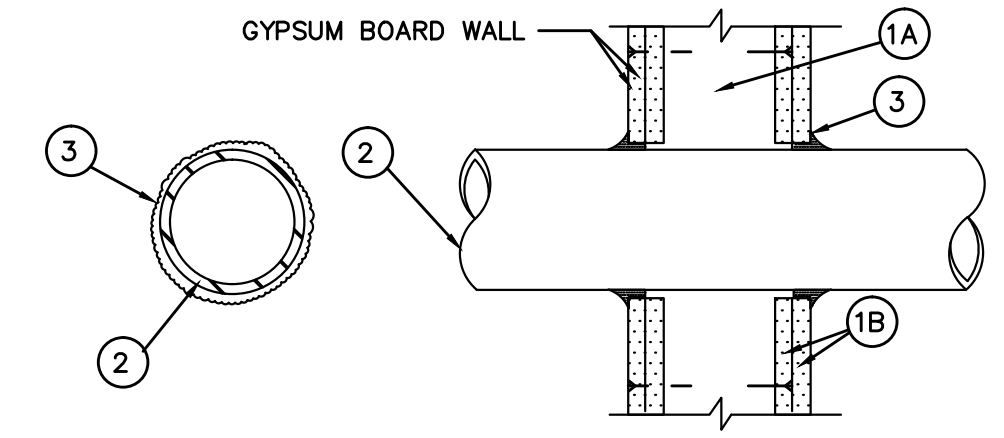
| SYMBOL | SPECIFICATION   |
|--------|---|
| FS-A   | PLASTIC ODDITIES PFS SERIES 12"x12"x10" DEEP, PVC, 1/2" GRATE, WITH PLASTIC, REMOVABLE SECONDARY STRAINER.  |
| FS-B   | ZURN 21907 CAST IRON BODY, 12"x12"x8" DEEP, BOTTOM DOME STRAINER WITH REMOVABLE SECONDARY STRAINER.   |
| FD-A   | ZURN ZN-415 DURACOATED CAST IRON BODY WITH BOTTOM OUTLET, COMBINATION INVERTIBLE MEMBRANE CLAMP AND ADJUSTABLE COLLAR WITH 6" TYPE " B " POLISHED NICKEL BRONZE STRAINER. DEEP SEAL P-TRAP WITH TRAP PRIMER CONNECTION                    |
| FD-B   | ZURN ZN-415 DURACOATED CAST IRON BODY WITH BOTTOM OUTLET, COMBINATION INVERTIBLE MEMBRANE CLAMP AND ADJUSTABLE COLLAR WITH 7" TYPE " I " POLISHED NICKEL BRONZE STRAINER WITH RAISED FLANGE. DEEP SEAL P-TRAP WITH TRAP PRIMER CONNECTION |
| FCO    | ZURN ZN-1400 "LEVELTROL" ADJUSTABLE FLOOR CLEANOUT, DURACOATED CAST IRON BODY WITH GAS AND WATERTIGHT ABS TAPERED THREAD PLUG AND ROUND SCORRIATED POLISHED NICKEL BRONZE TOP ADJUSTABLE TO FINISH FLOOR.                                 |
| WCO    | ZURN ZN-1441 WALL CLEANOUT, DURACOATED CAST IRON BODY WITH GAS AND WATERTIGHT ABS TAPERED THREAD PLUG AND ROUND SMOOTH STAINLESS STEEL ACCESS COVER WITH SECURING SCREW.  |
| SA     | WATTS SERIES 15 WATER HAMMER ARRESTOR TO MEET ALL REQUIREMENTS OF ASSE 1010 AS REQUIRED BY 2018 NCSBC, PLUMBING CODE, SECTION 604.9.  |
| VB     | ZURN MODEL VACUUM BREAKER TO MEET ALL REQUIREMENTS OF ASSE 1011 AS REQUIRED BY 2018 NCSBC, PLUMBING CODE, SECTION 608.13.6.   |



1 ELECTRIC WATER HEATER DETAIL  
P-3 SCALE: NO SCALE

| ELECTRIC WATER HEATER SCHEDULE |              |              |                |                       |               |                |
|--------------------------------|--------------|--------------|----------------|-----------------------|---------------|----------------|
| MARK                           | MANUFACTURER | MODEL        | CAPACITY (GAL) | RECOVERY @ 100°F RISE | ELEMENT WATTS | HEIGHT (IN)    |
| EWH-1                          | STATE        | PCE 30 20LSA | 30             | 18 GPH                | 4500          | 208-1/8 30-7/8 |

- EQUALS BY RUUD/RHEEM, AD. SMITH ACCEPTABLE.
- INDIRECT DRAIN SAFETY PAN TO MOP SINK.



System No. W-L-1001  
June 15, 2005

- F Ratings - 1, 2, 3 and 4 Hr (See Items 2 and 3)  
T Ratings - 0, 1, 2, 3, and 4 Hr (See Item 3)  
L Rating At Ambient - less than 1 CFM/sq ft  
L Rating At 400 F - less than 1 CFM/sq ft

- Wall Assembly** - The 1, 2, 3 or 4 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300 or U400 Series Wall or Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
  - Studs** - Wall framing may consist of either wood studs (max 2 hr fire rated assemblies) or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC with nom 2 by 4 in. (51 by 102 mm) lumber end plates and cross braces. Steel studs to be min 3-5/8 in. (92 mm) wide by 1-3/8 in. (35 mm) deep channels spaced max 24 in. (610 mm) OC.
  - Gypsum Board** - Nom 1/2 or 5/8 in. (13 or 16 mm) thick, 4 ft. (122 cm) wide with square or tapered edges. The gypsum wallboard type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 26 in. (660 mm).
- Through-Penetrant** - One metallic pipe, conduit or tubing installed either concentrically or eccentrically within the firestop system. The annular space between pipe, conduit or tubing and periphery of opening shall be min of 0 in. (0 mm) (point contact) to max 2 in. (51 mm) Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:
  - Steel Pipe** - Nom 24 in. (610 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
  - Iron Pipe** - Nom 24 in. (610 mm) diam (or smaller) service weight (or heavier) cast iron soil pipe, nom 12 in (305 mm) diam (or smaller) or Class 50 (or heavier) ductile iron pressure pipe.
  - Conduit** - Nom 6 in. (152 mm) diam (or smaller) steel conduit or nom 4 in (102 mm) diam (or smaller) steel electrical metallic tubing
  - Copper Tubing** - Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tubing
  - Copper Pipe** - Nom 6 in. (152 mm) diam (or smaller) Regular (or heavier) copper pipe.
  - Through Penetrating Product** - Flexible Metal Piping The following types of steel flexible metal gas piping may be used:
    - Nom 2 in. (51 mm) diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.

- Omega Flex Inc**
  - Nom 1 in. (25 mm) diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.
  - Gastite, Div of Titeflex**
  - Nom 1 in. (25 mm) diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.
  - Ward Mfg Inc**
- Fill Void or Cavity Material** - Caulk or Sealant - Min 5/8, 1-1/4, 1-7/8 and 2-1/2 in. (16, 32, 48 and 64 mm) thickness of caulk for 1, 2, 3 and 4 hr rated assemblies, respectively, applied within annulus, flush with both surfaces of wall. Min 1/4 in. (6 mm) diam bead of caulk applied to gypsum board/penetrant interface at point contact location on both sides of wall. The hourly F Rating of the firestop system is dependent upon the hourly fire rating of the wall assembly in which it is installed, as shown in the following table. The hourly T Rating of the firestop system is dependent upon the type or size of the pipe or conduit and the hourly fire rating of the wall assembly in which it is installed, as tabulated below.
 

| Max Pipe or Conduit Diam In (mm) | F Rating Hr | T Rating Hr |
|----------------------------------|-------------|-------------|
| 1 (25)                           | 1 or 2      | 0+, 1 or 2  |
| 1 (25)                           | 3 or 4      | 3 or 4      |
| 4 (102)                          | 1 or 2      | 0           |
| 6 (152)                          | 3 or 4      | 0           |
| 12 (305)                         | 1 or 2      | 0           |
- +When copper pipe is used, T Rating is 0 h.  
3M COMPANY - CP 25WB+ or FB-3000 WT.

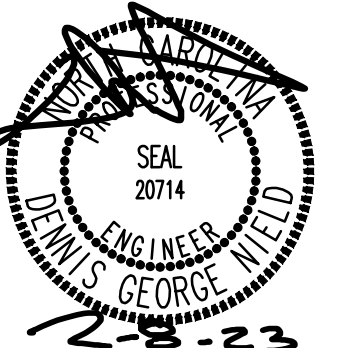
## FOR FRAMED WALL ONLY 1,2,3, OR 4 HOUR PENETRATION FIRESTOP DETAIL P-3 SCALE: NTS

| PLUMBING SUMMARY  |               |                |
|---|---------------|----------------|
| SYSTEM & MATERIAL   | FIXTURE UNITS | MAIN SIZE      |
| <b>WASTE AND VENT SYSTEM</b>  |               |                |
| SCHEDULE 40 PVC-DWV CONFORMING TO ASTM D-2665   | 27.0          | 4"             |
| <b>DOMESTIC WATER SYSTEM</b>  |               |                |
| BELOW SLAB: TYPE "K" SOFT COPPER WITH NO JOINTS BELOW SLAB<br>ABOVE SLAB: TYPE "L" ANNEALED COPPER WITH 95/5 SOLDER JOINTS. | 19.0          | 1"<br>20.0 GPM |

PLUMBING SUMMARY FOR THIS TENANT SPACE ONLY.

wkcc  
engineers | consultants

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2285 NC HWY 24-87  
CAMERON, NORTH CAROLINA

JOB #:  
22DRCABAN

DWG BY:  
MPP  
CHK BY:  
AED  
DATE: 02/08/23

PLUMBING  
DETAILS

SHEET NO.  
**P-3**