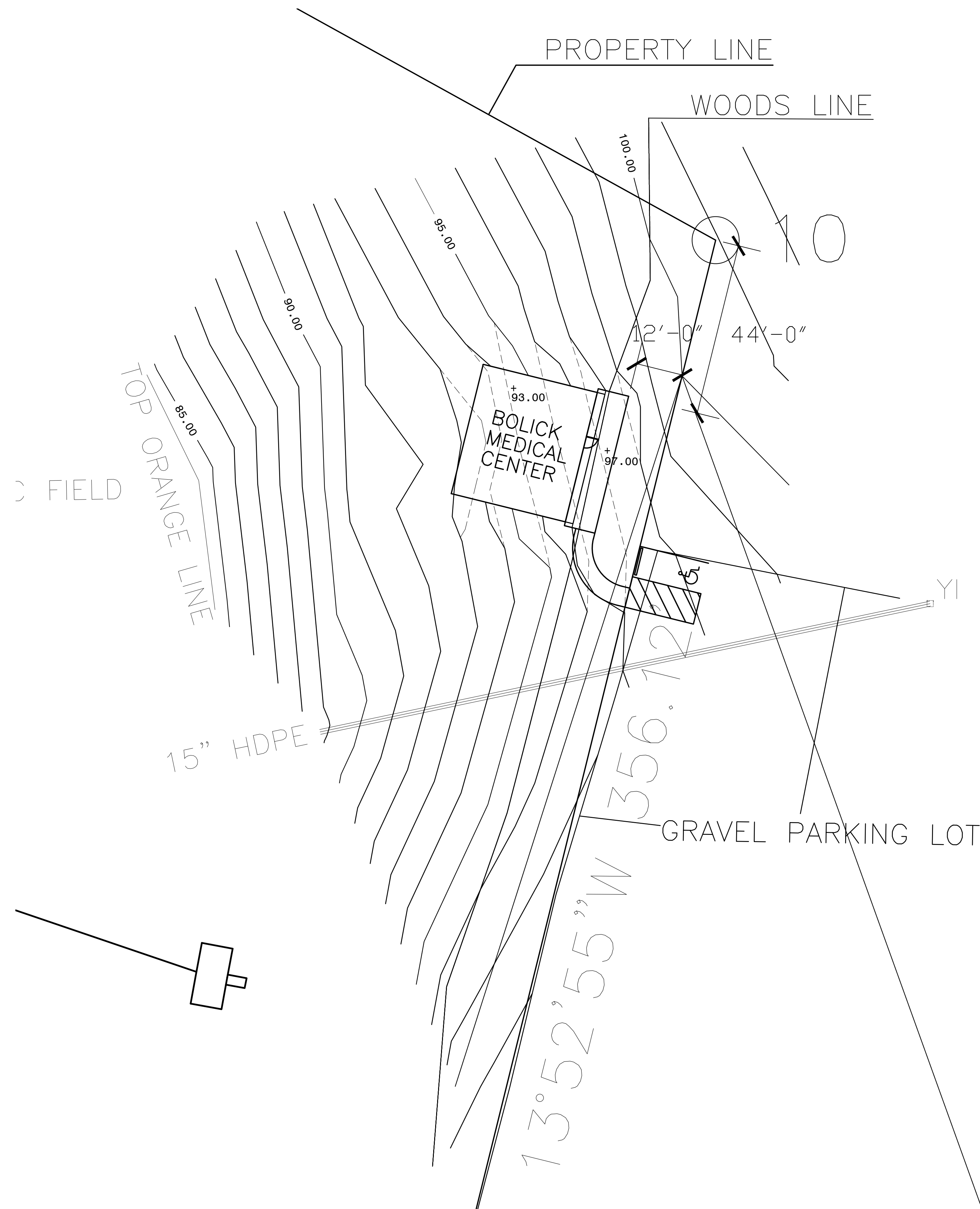
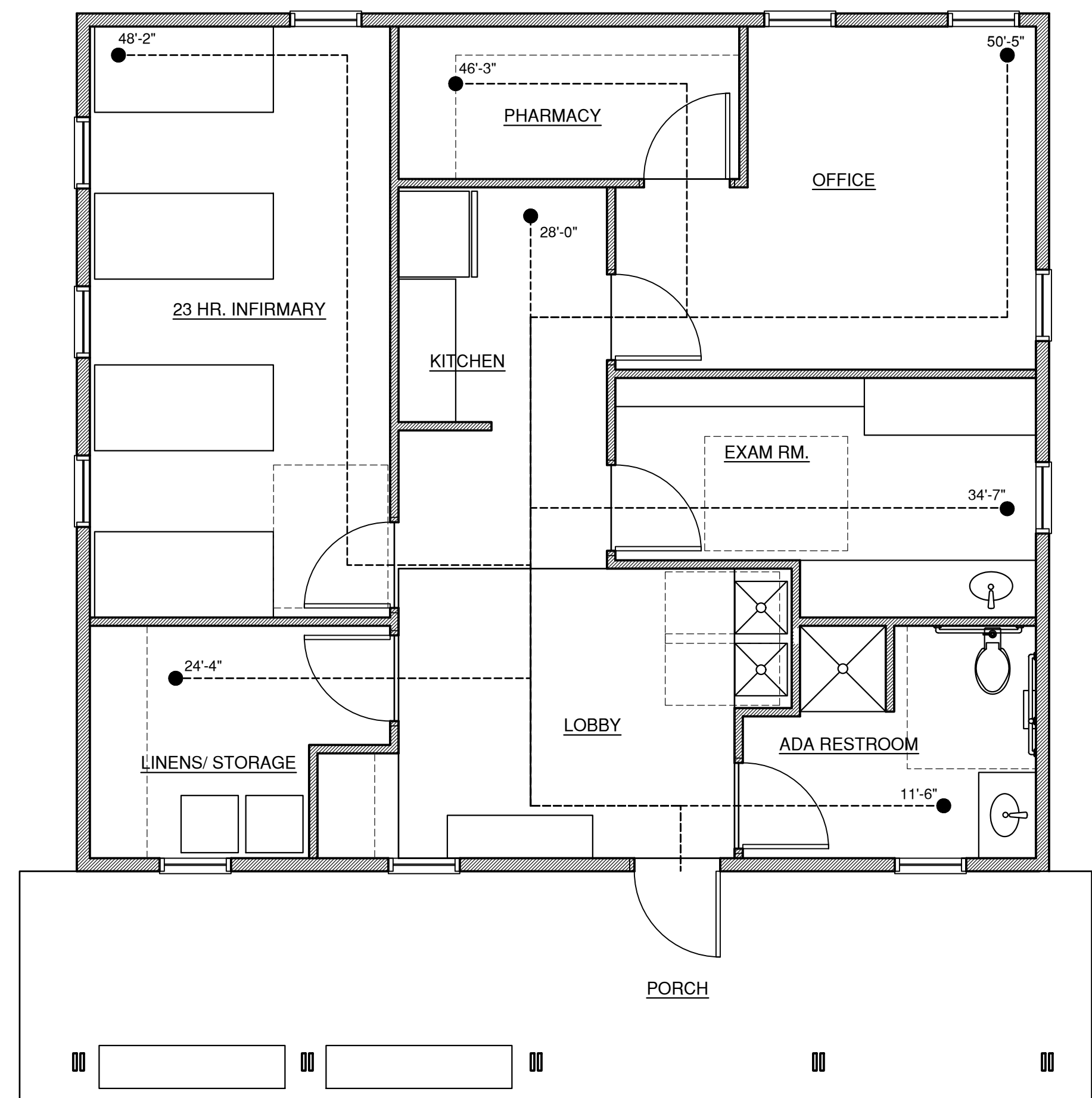


# CAMP AGAPE HEALTH CENTER



1 | SITE PLAN WITH NEW FOOTPRINT  
COVER SCALE: 1/16" = 1'



2 | EGRESS PLAN  
COVER SCALE: 1/4" = 1'

DRAWING LEGEND	
COVER	
T101	BUILDING CODE SUMMARY
T102	BUILDING CODE SUMMARY
A101	PLANS
A102	FRAMING PLANS
A201	ELEVATIONS
A301	BUILDING SECTION DETAILS
A302	BUILDING SECTION DETAILS
S101	STRUCTURAL PLANS
S301	BUILDING SECTION DETAILS
S302	BUILDING SECTION DETAILS
P001	PLUMBING SCHEDULE AND NOTES
P101	PLUMBING PLANS
M001	MECHANICAL SCHEDULE AND NOTES
M101	MECHANICAL PLANS AND DETAILS
E001	ELECTRICAL SCHEDULE AND LEGEND
E101	ELECTRICAL PLANS
E201	ELECTRICAL PANEL SCHEDULE AND RISER

**Approved By: Rodney Daniels,  
Chief Deputy Fire Marshal**

04/03/2017 10:25:23 AM



**DesignLine Studios, PLLC**  
PO Box 1928 | Fuquay-Varina, NC 27526  
www.designlinestudios.com | 919.604.2975

# BUILDING CODE SUMMARY

FOR ALL COMMERCIAL PROJECTS  
NC 2012 BUILDING CODE

(EXCEPT 1 AND 2-FAMILY DWELLINGS AND TOWNHOUSES)  
(Reproduce the following data on the building plans sheet 1 or 2.)

Name of Project: **CAMP AGAPE**  
 Address: **Tyler Dewar Lane, Fuqua-Varina, NC 27562** Suite #: \_\_\_\_\_  
 Owner or Authorized Agent: **BRIAN L. JONES** Phone: **919.604.2975**  
 Email: **brian@designlinestudios.com** Fax: **919.590.1928**  
 Owned By: **Privately** City/County **State**  
 Code Enforcement Jurisdiction: **City** **County** **City/County**  
 Name of Jurisdiction: **Harnett County**

PROJECT SUMMARY:  
 Building Description: **NEW BUILDING**  
 Scope of Work: **NEW 23 HOUR MEDICAL OFFICE BUILDING TO TREAT ACUTE ILLNESSES AND INJURIES FOR CAMPERS.**

Code Compliance Summary: **2012 North Carolina State Building Code (NCSBC)**

Alternative Means of Compliance Request: \_\_\_\_\_

Lead Design Professional/Project Coordinator: **BRIAN L. JONES, RA**

DESIGNER	FIRM	NAME	LICENSE	TELEPHONE
Architectural:	DESIGNLINE STUDIOS, PLLC	BRIAN L. JONES	9372	919.604.2975
Civil:				
Electrical:	MAPLE ENGINEERING, PLLC	ZACK L. TOMLIN	37509	919.341.4247
Fire Alarm:				
Plumbing:	MAPLE ENGINEERING, PLLC	ZACK L. TOMLIN	37509	919.341.4247
Mechanical:	MAPLE ENGINEERING, PLLC	ZACK L. TOMLIN	37509	919.341.4247
Sprinkler-Standpipe:				
Structural:	HENRY D. STEWART, PE	HENRY D. STEWART	23015	919.773.1200
Precast:				
Trusses:				
Retaining Walls >5' High:				
Other:				

Note: Special Inspections and Inspectors to be listed at end of this document.

Building Code:  2012 North Carolina State Building Code (NCSBC)  
 2012 Chapter 34 (attach summary)  
 2009 NC Rehab  
 1995 Existing Building Code Volume 9

New Building:  New Building  Shell Building  First Time Interior Completion  Addition  Alteration to Shell  
 Exist. Building:  Renovation  Interior Completion  Tenant Alteration  Reconstruction  Repair  Alteration to Shell  
 Repair  Alteration to Shell  Change of Use Tenant Space  Change of Occupancy

Original Occupancy: **N/A**  
 Proposed Occupancy: **BUSINESS**

Primary Occupancies:  Assembly:  A-1  A-2  A-3  A-4  A-5  
 Business  
 Educational  
 Factory-Industrial:  F-1  F-2  
 High-Hazard:  H-1  H-2  H-3  H-4  H-5  
 Institutional:  I-1  I-2  I-3  I-4  
 USE CONDITION:  1  2  3  4  5  
 Mercantile  
 Residential:  R-1  R-2  R-3  R-4  
 Storage:  S-1  S-2  High-piled  
 S-1 SPECIAL CONDITION:  Repair Garage (406.6)  
 S-2 SPECIAL CONDITION:  Parking Garage:  Open (406.3)  Enclosed (406.4)  
 Utility and Miscellaneous

Other Uses:  
 Accessory Uses (Indicate Percentages): \_\_\_\_\_  
 Incidental Uses: \_\_\_\_\_

Special Occupancies:  402  403  404  405  406  407  408  409  410  411  
 412  413  414  415  416  417  418  419  420  421

Mixed Occupancy:  No  Yes Separation: \_\_\_\_\_  
 Exception: \_\_\_\_\_

Non-Separated Mixed Occupancy (508.3.2)  
 Separated Mixed Occupancy (508.3.3)

$\frac{\text{Actual Area of Occupancy A}}{\text{Allowable Area of Occupancy A}} + \frac{\text{Actual Area of Occupancy B}}{\text{Allowable Area of Occupancy B}} < 1$   
**ALLOWABLE AREA AND HEIGHT CALCULATIONS**

THIS SECTION FOR NEW, ADDITION, CHANGE OF USE, AND INTERIOR COMPLETIONS

EXTERIOR WALL	ACTUAL (P) LENGTH	OPEN LENGTH (F)	WIDTH OF (W) PUBLIC WAY OR OPEN SPACE
NOTE: NO INCREASE OF SQUARE FOOTAGE IS BEING REQUESTED OR IS REQUIRED FOR THIS PROJECT			
NORTH	34'-0"	34'-0"	GREATER 30'
SOUTH	34'-0"	34'-0"	GREATER 30'
EAST	30'-0"	30'-0"	20'
WEST	30'-0"	30'-0"	GREATER 30'
TOTAL	P= 128'-0"	F= 128'-0"	W= GREATER 30'

INCREASE FRONTAGE  $\frac{N/A}{N/A}$  % FRONTAGE INCREASE FORMULA ALLOWABLE AREA FORMULA  
 SPRINKLERS  $\frac{N/A}{N/A}$  %  $I = 100 \left[ \frac{F}{P} - 0.25 \right] \frac{W}{P}$

Life Safety Plan Requirements:  
 Life Safety Plan Sheet #: **COVER**  
 Fire and/or smoke rated wall locations (Chapter 7)  
 SEE COVER  Assumed and real property line locations  
 SEE A201  Exterior wall opening area with respect to distance to assumed property lines (705.8)  
 Existing structures within 30' of the proposed building  
 SEE T101  Occupancy types for each area as it relates to occupant load calculation (Table 1004.1.1)  
 SEE T101  Occupant loads for each area  
 SEE COVER  Exit access travel distances (1016)  
 SEE COVER  Common path of travel distances (1014.3 & 1028.8)  
 SEE COVER  Dead end lengths (1018.4)  
 SEE COVER  Clear exit widths for each exit door  
 SEE COVER  Maximum calculated occupant load capacity each exit door can accommodate based on egress width (1005.1)  
 SEE COVER  Actual occupant load for each exit door  
 A separate schematic plan indicating where fire rated floor/ceiling and/or roof structure is provided for purposes of occupancy separation (NOTE: NO OCCUPANCY SEPARATION)  
 Location of doors with panic hardware (1008.1.10)  
 Location of doors with delayed egress locks and the amount of delay (1008.1.9.7)  
 Location of doors with electromagnetic egress locks (1008.1.9.8)  
 Location of doors equipped with hold-open devices  
 Location of emergency escape windows (1029)

N/A  The square footage of each fire area (902)  
 EACH SPACE  The square footage of each smoke compartment (407.4)  
 Note any code exceptions or table notes that may have been utilized regarding the items above

BOTH BUILDING AND TENANT MUST BE INDICATED ON CHART BELOW

BUILDING NO.	OCCUPANCY	(A) BLDG. AREA PER STORY (ACTUAL)	(B) TABLE 503 AREA	(C) AREA FOR FRONTAGE INCREASE	(D) % SPRINKLER INCREASE	(E) ALLOWABLE FLOOR AREA OR UNLIMITED <sup>1</sup>	RATIO OF ACTUAL/ALLOWABLE	(F) MAXIMUM BUILDING AREA	SEPARATION RATING REQUIRED (TENANTS & CORRIDORS)
BOLICK HEALTH CENTER	BUSINESS	1,020	9,000	N/A	N/A	9,000	.11	9,000	N/A

- Open space area increases from Section 506.2 are computed thus:
  - Perimeter which fronts a public way or open space having 20 feet minimum width = \_\_\_\_\_ ft (F)
  - Total Building Perimeter = \_\_\_\_\_ ft (P)
  - Ratio (F/P) = \_\_\_\_\_ (F/P)
  - W = Minimum width of public way = \_\_\_\_\_ ft (W)
  - Percent of frontage increase  $I = 100 \left[ \frac{F}{P} - 0.25 \right] \times \frac{W}{30}$  \_\_\_\_\_ (%)
- The sprinkler increase per Section 506.3 is as follows:
  - Multistory building I = 200 percent
  - Single story building I = 300 percent
- Unlimited area applicable under conditions of Sections Group B, F, M, S, A-4 (507.1, 507.2, 507.3, 507.4, 507.7); Group A motion picture (507.10); Malls (507.11); and H-2 aircraft paint hangers (507.8).
- Maximum Building Area = total number of stories in the building x E but not greater than 3 x E.
- The maximum area of parking garages must comply with 406.3.5. The maximum area of air traffic control towers must comply with 412.1.2.

ALLOWABLE HEIGHT				
MOST RESTRICTIVE USE (GROUP)	ALLOWABLE (TABLE 503)	INCREASE FOR SPRINKLERS	SHOWN ON PLANS	CODE REFERENCE
TYPE OF CONSTRUCTION	TYPE_VB	N/A	TYPE_VB	TABLE 503
BUILDING HEIGHT IN FEET	H = 40'-0"	NA	H = 14'-7"	TABLE 503
BUILDING HT. IN STORIES	S = 1	N/A	S = 1	TABLE 503

**BUILDING DATA**  
 THIS SECTION REQUIRED FOR ALL PROJECTS

Construction Type:  I-A  I-B  II-A  II-B  III-A  III-B  
 IV-HT  V-A  V-B  
 Mixed construction:  No  Yes Types \_\_\_\_\_  
 Sprinklers:  No  Yes  NFPA 13  NFPA 13R  
 Partially Sprinklered Special Suppression  
 Standpipes:  No  Yes Class: I II III Wet Dry  
 Fire District:  No  Yes (Appendix D) Flood Hazard  
 Building Height: **14'-7"** 1 Story  
 Basement:  No  Yes  
 Mezzanine:  No  Yes  
 High Rise:  No  Yes Life Safety Plan Sheet # (if provided): **COVER**

Gross Building Area: (NOTE: ALL (1) BUILDING(S) SHOWN)

Floor	Existing (sq. ft.)	New (sq. ft.)	Subtotal
Basement	-	-	-
Ground Floor	-	1,020	1,020
Mezzanine	-	-	-
2nd Floor	-	-	-
3rd Floor	-	-	-
4th Floor	-	-	-
5th Floor	-	-	-
TOTAL	-	0	1,020

Area of Project/ Tenant/ Alteration/ Renovation: **1,020 SF**  
 Area of Construction: **1,020 SF**

**FIRE PROTECTION REQUIREMENTS**  
 THIS SECTION REQUIRED FOR ALL PROJECTS  
 Life Safety Plan Sheet #, if provided: **COVER**

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	RATING	DETAIL # AND SHEET #	DESIGN # FOR RATED ASSEMBLY	DESIGN # FOR RATED PENETRATION	DESIGN # FOR RATED JOINTS
<b>BEARING WALLS EXTERIOR</b>						
North	>30'	0 0				
East	>30'	0 0				
West	>30'	0 0				
South	>30'	0 0				
<b>NONBEARING WALLS EXTERIOR</b>						
North	>30'	0 0				
East	>30'	0 0				
West	>30'	0 0				
South	>30'	0 0				
<b>INTERIOR NON BEARING WALLS</b>						
Structural frame, including columns, girders, trusses	N/A	0 0				
Floor construction including supporting beams and joists	N/A	0 0				
Floor Ceiling Assembly	N/A	0 0				
Columns (AT TENANT WALL ONLY)	N/A	0 0				
Roof construction including supporting beams and joists**	N/A	0 0				
Roof Ceiling Assembly	N/A	0 0				
Columns Supporting Roof	N/A	0 0				
Shafts - Exit Enclosures	N/A	0 0				
Shafts - Other (describe)	N/A	0 0				
Shafts - Other (Describe)	N/A	0 0				
Corridor Separation	N/A	0 0				
Occupancy Separation	N/A	0 0				
Party/ Fire Wall Separation	N/A	0 0				
Incidental Use Separation	N/A	0 0				
Dwelling/Sleeping Unit Separation	N/A	0 0				
Smoke Barrier Separation	N/A	0 0				
Tenant Separation	N/A	0 0				

Indicate Section number permitting reduction  
 \*\* Indicated if using Table 601 Note C exception  
 NOTE: RATINGS TAKEN FROM PREVIOUS PERMIT.

**PERCENTAGE OF WALL OPENING CALCULATIONS**  
 THIS SECTION FOR ADDITIONS, NEW AND CHANGE OF USE  
 Allowable openings per Table 704.8  
 NO PROPERTY LINE ISSUES OR ENCROACHMENT

**WALL LEGENDS**  
 THIS SECTION REQUIRED FOR ALL PROJECTS

CHECK IF THE FOLLOWING ARE PRESENT AND INDICATED BY A WALL LEGEND ON THE PLANS  
 FIRE PARTITIONS 708  FIRE WALLS 705  FIRE BARRIERS 706  SMOKE PARTITIONS 710  
 SMOKE BARRIERS 709  SHAFT ENCLOSURE 707

**LIFE SAFETY SYSTEM REQUIREMENTS**  
 THIS SECTION REQUIRED FOR ALL PROJECTS

Emergency Lighting:  No  Yes  
 Exit Signs:  No  Yes  
 Fire Alarm:  No  Yes  
 Smoke Detection Systems:  No  Yes (Smoke detectors in rooms)  
 Panic Hardware:  No  Yes

**EXIT REQUIREMENTS**  
 NUMBER AND ARRANGEMENT OF EXITS  
 THIS SECTION REQUIRED FOR ALL PROJECTS

FLOOR, ROOM, AND/OR SPACE DESIGNATION	MINIMUM NUMBER OF EXITS (SEE COVER)		TRAVEL DISTANCE (SEE COVER)		ARRANGEMENT OF MEANS OF EGRESS (SECTION 1014.2) (SEE COVER)	
	REQUIRED	SHOWN ON PLANS	ALLOWABLE TRAVEL DISTANCE (TABLE 1016.1)	ACTUAL TRAVEL DISTANCE SHOWN ON PLANS	REQUIRED DISTANCE BETWEEN EXITS DOORS	ACTUAL DISTANCE SHOWN ON PLANS
INFIRMARY	1	1	75'	45'-2"	N/A	N/A
PHARMACY	1	1	75'	46'-3"	N/A	N/A
OFFICE	1	1	75'	50'-5"	N/A	N/A
EXAM ROOM	1	1	75'	34'-7"	N/A	N/A
RESTROOM	1	1	75'	11'-8"	N/A	N/A
STORAGE	1	1	75'	24'-4"	N/A	N/A

- Corridor dead ends (Section 1017.3)
- Single exits (Section 1015.1; Section 1019.2)
- Common Path of Egress Travel (Section 1014.3)

**OCCUPANT LOAD AND EXIT WIDTH**  
 THIS SECTION REQUIRED FOR ALL PROJECTS

USE GROUP AND/OR SPACE DESIGNATION	(a) AREA <sup>1</sup> SQ. FT.	(b) AREA PER OCCUPANT	(c) NUMBER OF OCCUPANTS	(d) EGRESS WIDTH PER OCCUPANT (TABLE 1005.1)		(e) EXIT WIDTH (IN) <sup>3,4,5</sup>	
				STAIR	LEVEL	STAIR	LEVEL
CAMP AGAPE	1,020	100	11	.30	.20	N/A	3"
TOTAL #	1,020	100	11	.30	.20	N/A	3"

- See Table 1004.1.1 to determine whether net or gross area is applicable.
- Minimum stairway width (Section 1009.1); min. corridor width (Section 1017.2); min. door width (Section 1008.1.1)
- Minimum width of exit passageway (Section 1021.2)
- The loss of 1 means of egress shall not reduce the available capacity to less than 50 percent of the total required (Section 1005.1)
- Assembly occupancies (Section 1025)

**ASSEMBLY OCCUPANCY INFORMATION**  
 THIS SECTION FOR ASSEMBLY USE AREA(S)

SPACE DESCRIPTION	AREA - SF	OCCUPANT LOAD FACTOR	OCCUPANT LOAD	EXIT WIDTH	EXIT QUANTITY
TOTAL	-	-	-	-	-

**PLUMBING FIXTURE REQUIREMENTS**  
 THIS SECTION REQUIRED FOR ALL PROJECTS

OCCUPANCY BUSINESS	WATER CLOSET		URINALS	LAVS.		SHOWERS & TUBS	DRINKING FOUNTAINS	NOTES & EXCEPTIONS
	M	F		M	F			
TOTAL REQ.	1	0	0	1	0	1	1	UNISEX
TOTAL PRO.	1	0	0	1	0	0	0	UNISEX

BUILDING DRAIN SIZE	NUMBER OF BUILDING DRAINS	TOTAL FIXTURE UNIT LOAD	WATER SERVICE SIZE	NUMBER OF WATER SERVICES	TOTAL FIXTURE UNIT LOAD	NOTES
SEE PLUMBING DRAWINGS						SEE PLUMBING DRAWINGS

**Structural Design Loads**

- Yes, continue No, Go to Line 9
- Roof Live Load = 20 PSF
- Floor Live Load = 100 PSF
- Ground Snow Load (Pg) = 15 PSF
- Basic Wind Speed, 3 sec. Gust = 100 MPH (ASCE-7)
- Seismic Site Class = D
- Seismic Design Category = B
- Go to Line 44
- Live Loads
- Floor Live Load (indicate area) = PSF
- Floor Live Load (indicate area) = PSF
- Floor Live Load (indicate area) = PSF
- Live Load Reduction used in Design YES NO
- Roof Live Load = PSF
- Roof Snow Load Data
- Flat-Roof Snow Load (P<sub>f</sub>) = PSF
- Snow Exposure Factor (Ce) =
- Snow Importance Factor (Is) =
- Thermal Factor (Ct) =
- Wind Design Data
- Basic Wind Speed, 3 sec. Gust = MPH
- Wind Importance Factor (Iw) =
- Wind Exposure (If multiple exposures are used indicate directions)
- Internal Pressure Coefficient
- Components and Cladding Loads = KIPS
- Wind Base Shear, Wx = KIPS
- Wind Base Shear, Wy = KIPS
- Earthquake Design Data
- Seismic Important Factor (Ie) =
- Occupancy Category
- Mapped Spectral Response Acceleration S<sub>s</sub>
- Mapped Spectral Response Acceleration S<sub>1</sub>
- Site Class
- Spectral Response Coefficient, S<sub>ds</sub> =
- Spectral Response Coefficient, S<sub>d1</sub> =
- Seismic Design Category =
- Building (Structural) System
- Basic Seismic Force Resisting System
- Seismic Response Coefficient (Cs) =
- Response Modification Factor, R =
- Analysis Procedure Used =
- Seismic Base Shear, S<sub>x</sub> = KIPS
- Seismic Base Shear, S<sub>y</sub> = KIPS
- Soil Data
- Presumptive Soil Bearing Pressure = 2500 PSF
- Bearing Pressure per Soils Report = PSF
- Deep Foundation Type = TONS, downward
- Up/Down Foundation Allowable Loads = KIPS
- Up/Down Foundation Allowable Loads = KIPS
- Lateral =

**Structural Design Loads (CONTINUED)**

**ACCESSIBLE PARKING (EXISTING- NO CHANGE)**

LOT OR PARKING AREA	TOTAL # OF PARKING SPACES		# OF ACCESSIBLE SPACES PROVIDED	
	REQUIRED	PROVIDED	REQUIRED	PROVIDED
EXISTING	NO CHANGE	NO CHANGE	1	1
TOTAL	NO CHANGE	NO CHANGE	1	1

NEW ADA PARKING SPACE PROVIDED

**SPECIAL APPROVALS**  
 (Describe special approvals from local jurisdictions, County or State Department of Health, NC Department of Insurance, International Code Council, etc.)

**ENERGY SUMMARY**  
 THIS SECTION FOR NEW, ADDITIONS CHANGE OF USE, AND INTERIOR COMPLETION

**ENERGY REQUIREMENTS:**  
 The following data shall be considered minimum and any special attribute required to meet the energy code shall also be provided. Each Designer shall furnish the required portions of the project information for the plan data sheet. If energy cost budget method, state the annual energy cost budget vs. allowable annual energy cost budget.

**THERMAL ENVELOPE**  
 Method of Compliance:  Prescriptive  Performance  Energy Cost Budget  
 Roof/ceiling Assembly (each assembly)  
 Description of assembly: **Attic/other - wood framing**

U-Value of total assembly **UV-0.028**  
 R-Value of insulation **R-40**  
 Skylights in each assembly: **Solar Tubes**  
 U-Value of skylight **UV-0.51**  
 Total square footage of skylights in each assembly **6 sf**

Exterior Walls (each assembly)  
 Description of assembly: **Wood Framed, 16" o.c.**  
 U-Value of total assembly **UV-0.077**  
 R-Value of insulation **R-23 + R-5 ci**  
 Openings (windows or doors with glazing)  
 U-Value of assembly **UV-0.33**  
 Shading coefficient **SHGC-0.27**  
 Projection factor **PF = 0.33**  
 Low-e required, if applicable \_\_\_\_\_  
 Door R-Values **UV-0.48**

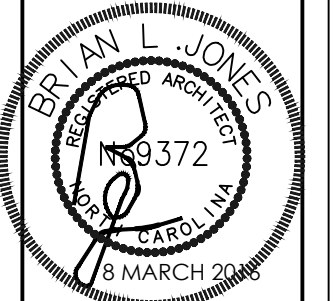
Walls adjacent to unconditioned space



**DesignLine Studios, PLLC**  
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CORPORATE SEAL



PROFESSIONAL SEAL

**CAMPE AGAPE**  
**TYLER DEWAR LANE**  
**FUQUAY VARIAN, NORTH CAROLINA 27562**

DESIGNED BY:  
BLJ  
 DRAWN BY:  
BLJ  
 CHECKED BY:  
BLJ

SCALE:  
VARIES  
 PROJECT NUMBER:  
-

CODE SUMMARY:  
**CONSTRUCTION NOTES**

**T102**

**PROJECT NOTES:**

**GENERAL**

- PROJECT SQUARE FOOTAGE – SEE PLAN
- ALL WORK TO COMPLY WITH JOHNSTON COUNTY, STATE OF NORTH CAROLINA, N.C. H.C., A.D.A. AND ALL OTHER MUNICIPAL CODES & STANDARDS.
- CONTRACTOR TO VERIFY FIT & FINISH REQUIREMENTS FOR ALL PROJECT COMPONENTS. REPORT CONFLICTING INFORMATION TO ARCHITECT PRIOR TO PROCEEDING WITH WORK.
- CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS & INSPECTIONS REQUIRED FOR CERTIFICATE OF OCCUPANCY.
- CONTRACTOR SHALL VERIFY ALL FIELD CONDITIONS, VERIFY COMPLIANCE OF DRAWINGS WITH OBSERVED CONDITIONS. CONTRACTOR WILL NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO PROCEEDING WITH WORK.
- DO NOT SCALE DRAWINGS. REFER TO NOTED DIMENSIONS ON PLANS.
- CONTRACTOR WILL MAINTAIN CLEAN, SAFE JOBSITE AT ALL TIMES, AND IS RESPONSIBLE FOR REMOVAL AND DISPOSAL OF ALL DEBRIS.
- CONTRACTOR TO COMPLETE ALL PAPERWORK, MAKE ALL DEPOSITS, PROVIDE PROOF OF INSURANCE, PROVIDE JOB SCHEDULE AND LIST OF SUBCONTRACTORS PRIOR TO STARTING WORK.
- PAINT CONTRACTOR SHALL STENCIL/LABEL ON ALL RATED WALLS IN CONCEALED AREAS THE FOLLOWING: "FIRE AND SMOKE BARRIER – PROTECT ALL OPENINGS".
- DISCOVERY OF CONFLICTING INFORMATION SHALL BE REPORTED TO ARCHITECT PRIOR TO PROCEEDING WITH WORK.
- CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION AND SAFETY OF EXISTING TENANTS AND PATRONS BY ERECTING BARRICADES, ETC. AS REQ'D. BY THE LANDLORD AND/OR ALL APPLICABLE LOCAL, STATE, AND FEDERAL CODES AND REGULATIONS
- CONTRACTOR IS TO USE LANDLORD'S ROOFING CONTRACTOR FOR ALL ROOFING WORK

**CONSTRUCTION NOTES**

- APPROVED CONTRACTOR TO COORDINATE CONSTRUCTION
- CONTRACTOR SHALL CARRY ADEQUATE LIABILITY INSURANCE
- CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND EFFECT ALL WORKMANSHIP, ALTERATIONS AND TENANT/OWNER MODIFICATIONS NECESSARY TO DELIVER A COMPLETE PROJECT CONFORMING TO CONTRACT DRAWINGS AND SPECIFICATIONS.
- ALL MATERIALS FURNISHED AND INSTALLED UNDER THIS CONTRACT SHALL BE NEW FREE FROM ALL DEFECTS, AND SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF ACCEPTANCE OF WORK. SHOULD ANY TROUBLE DEVELOP DURING THIS PERIOD DUE TO DEFECTIVE MATERIAL OR FAULTY CONTRACTOR SHALL CORRECT THE TROUBLE WITHOUT COST TO THE ANY DEFECTS NOTICED AT THE TIME OF INSTALLATION SHALL BE CORRECTED IMMEDIATELY TO THE SATISFACTION OF THE OWNER.
- CONTRACTOR SHALL CAUSE THE WORK TO BE DILIGENTLY PURSUED UNTIL ENTIRELY COMPLETED.
- NOT USED
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS ON THE SITE (ABOVE AND BELOW SLAB) PRIOR TO ANY WORK. ANY DISCREPANCIES MUST BE BROUGHT TO THE ATTENTION OF THE ARCHITECT IMMEDIATELY.
- CONTRACTOR SHALL COORDINATE THE REQUIREMENTS OF ANY AND ALL DRAWINGS INCLUDING ARCHITECTURAL, MECHANICAL, AND ELECTRICAL. ANY CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER AND THE ARCHITECT PRIOR TO ANY WORK.
- CONTRACTOR SHALL NEVER SCALE DRAWINGS. LOCATIONS FOR ALL PARTITIONS, WALLS, CEILINGS, ETC. WILL BE DETERMINED BY DIMENSIONS ON THE DRAWINGS. ANY SUCH DIMENSIONS MISSING FROM THE PLANS MUST BE BROUGHT TO THE ATTENTION OF THE ARCHITECT IMMEDIATELY.
- THE CONTRACTOR SHALL ADHERE TO THE DRAWINGS AND SPECIFICATIONS. SHOULD ANY ERROR OR INCONSISTANCY APPEAR REGARDING THE TRUE MEANING AND/OR INTENT OF THE DRAWINGS OR SPECIFICATIONS, THE CONTRACTOR SHALL IMMEDIATELY REPORT SAME TO THE ARCHITECT WHO WILL MAKE ANY NECESSARY CLARIFICATION/INTERPRETATION, OR REVISIONS AS REQUIRED.
- DIMENSIONS ON FLOOR PLANS AND SECTIONS ARE TO FACE OF STUD UNLESS NOTED OTHERWISE. DIMENSIONS ON REFLECTED CEILING PLANS ARE TO FINISHED FACE UNLESS NOTED OTHERWISE.
- IF THE CONTRACTOR PROCEEDS WITH THE WORK WITHOUT NOTIFYING THE ARCHITECT OF ANY SUCH DISCREPANCIES, HE SHALL ASSUME ALL CHARGES AND MAKE ANY CHANGES TO HIS WORK MADE NECESSARY BY HIS FAILURE TO OBSERVE AND/ OR REPORT THE CONDITION.
- CONTRACTOR SHALL PROVIDE ADEQUATE PROTECTION OF WORK, MATERIALS, FIXTURES, ETC. ON SITE FROM LOSS, DAMAGE, FIRE, THEFT, ETC.
- WHEREVER THE TERM "OR EQUAL" IS USED, IT SHALL MEAN EQUAL PRODUCT AS APPROVED IN WRITING BY ARCHITECT.
- CONTRACTOR SHALL PROVIDE ALL NECESSARY BRACING TO STRUCTURE FOR INTERIOR PARTITIONS, CEILINGS, PLATFORMS, ETC. WHETHER SHOWN ON DRAWINGS OR NOT.
- PROVIDE AND INSTALL ALL NECESSARY INWALL FRAMING REQUIRED TO CARRY SHELF, HANGING, AND VANCE LOADS, RAILINGS, ETC. AS PER PLANS.
- ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL LAMPS IN LIGHTING FIXTURES. LAMPS SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) MONTH FROM THE DATE OF ACCEPTANCE OF WORK UNLESS OTHERWISE NOTED ON THE PLANS
- NOT USED.
- ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF ALL LOCAL LAWS, RULES AND REGULATIONS OF ALL LEGALLY CONSTITUTED PUBLIC AUTHORITIES HAVING JURISDICTION. IN CASE OF CONFLICT BETWEEN REQUIREMENTS, THE MOST RESTRICTIVE SHALL APPLY.
- PROJECT SHALL BE LEFT CLEANED AND POLISHED AFTER COMPLETION OF WORK
- ALL ACCESS PANELS TO BE FURNISHED AND INSTALLED BY SUBCONTRACTOR REQUIRING THE PANEL DOORS TO HAVE KEYS ACCESS LOCKS.
- GENERAL CONTRACTOR TO REFER TO THESE DOCUMENTS AS WELL AS SPECIFICATIONS FOR IDENTIFICATION OF ALL OWNER SUPPLIED ITEMS. ALL ITEMS NOT MARKED AS "OWNER SUPPLIED" ARE TO BE SUPPLIED BY THE GENERAL CONTRACTOR. UNLESS NOTED OTHERWISE ALL ITEMS ARE TO BE INSTALLED BY GENERAL CONTRACTOR
- SUB-CONTRACTOR IS REQUIRED TO LABEL ALL ELECTRICAL PANELS, SOUND EQUIPMENT, PLUMBING VALVES, AND ROOF TOP EQUIPMENT WITH A SCREENED ON ENGRAVED PLASTIC PHENOLIC PLATE. SUBMIT FOR APPROVAL.
- MINIMUM FLAME SPREAD CLASSIFICATION OF INTERIOR FINISHES SHALL CONFORM TO THE BUILDING CODE AND LOCAL GOVERNING BUILDING CODES/ORDINANCES. EVERY 5,000 S.F. OF FLOOR AREA TRAVEL DISTANCE TO AN EXTINGUISHER TO NOT EXCEED 75 FEET. PROVIDE RECESSED CABINETS. SUBMIT FOR APPROVAL.
- FOR CONSTRUCTION DETAILS NOT SHOWN, USE THE MANUFACTURER'S STANDARD DETAILS OR APPROVED SHOP DRAWINGS/DATA SHEETS IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
- TENANT TO HANG ALL PICTURES & PLANTS.
- PROVIDE THIRD PARTY AIR BALANCE AT COMPLETION OF PROJECT. AIR BALANCE SHALL INCLUDE AIR HANDLING UNITS AND SUPPLY AND RETURN DEFUSERS.

**CLR. FLOOR SPACE FOR WHEELCHAIRS**

- MIN. CLEAR FLOOR OR GROUND SPACE REQ'D TO ACCOMMODATE A SINGLE, STATIONARY WHEELCHAIR & OCCUPANT IS 30" X 48". MIN. CLEAR FLOOR OR GROUND SPACE FOR WHEELCHAIRS MAY BE POSITIONED FOR FORWARD OR PARALLEL APPROACH TO AN OBJECT. FLOOR OR GROUND SPACE FOR WHEELCHAIRS MAY BE PART OF KNEE SPACE REQ'D UNDER SOME OBJECTS.
- PROVIDE AN ADDITIONAL 12" WIDTH ON ONE SIDE FOR ALCOVES GREATER THAN 15" DEEP AND DESIGNED FOR SIDE APPROACH.
- PROVIDE ADDITIONAL 6" WIDTH ON ONE SIDE FOR ALCOVES GREATER THAN 24" DEEP AND DESIGNED FOR FRONT APPROACH.

**HAZARDS & PROTRUDING OBJECTS**

- OBJECTS PROJECTING FROM WALLS W/ THEIR LEADING EDGES BETWEEN 27" AND 80" ABOVE THE FINISHED FLOOR SHALL PROTRUDE NO MORE THAN 4" INTO WALKS, HALLS, CORRIDORS, PASSAGEWAYS, OR AISLES.
- OBJECTS MOUNTED W/ THEIR LEADING EDGES AT OR BELOW 27" ABOVE THE FINISHED FLOOR MAY PROTRUDE ANY AMOUNT.
- FREE STANDING OBJECTS MOUNTED ON POSTS OR PYLONS MAY OVERHANG 12" MAX. FROM 27" TO 80" ABOVE THE GROUND OR FINISHED FLOOR.
- PROTRUDING OBJECTS SHALL NOT REDUCE THE REQ'D CLEAR WIDTH OF AN ACCESSIBLE ROUTE OR MANEUVERING SPACE.
- ANY OBSTRUCTION OVERHANGING A PEDESTRIAN WAY SHALL BE A MIN. OF 80" ABOVE WALKING SURFACE AS MEASURED TO BOTTOM OF OBSTRUCTION.

**PARKING**

- SURFACE SLOPES RESERVED FOR THE PHYSICALLY DISABLED SHALL NOT EXCEED 1/4" PER FOOT (2% GRADIENT) IN ANY DIRECTION.
- DISABLED PARKING SPACES SHALL BE LOCATED SO AS NOT TO REQUIRE USERS TO WHEEL OR WALK BEHIND ANY OTHER NON-DISABLED OR DISABLED PARKING SPACE.
- IN EACH PARKING AREA, A BUMPER OR CURB SHALL BE PROVIDED AND LOCATED TO PREVENT ENCRoACHMENT OF CARS OVER THE REQ'D WIDTH OF WALKWAYS.
- PARKING SPACES RESERVED FOR PERSONS W/ PHYSICAL DISABILITIES SHALL BE IDENTIFIED BY A REFLECTORIZED SIGN PERMANENTLY POSTED IMMEDIATELY ADJACENT TO & VISIBLE FROM EACH STALL OR SPACE, CONSISTING OF A PROFILE VIEW OF A WHEELCHAIR W/ OCCUPANT, IN WHITE ON DARK BLUE BACKGROUND. SIGN SHALL NOT BE SMALLER THAN 70 SQUARE INCHES IN AREA, & WHEN IN THE PATH OF TRAVEL SHALL BE POSTED AT A MIN. HEIGHT OF 80" FROM BOTTOM OF SIGN TO THE PARKING SPACE FINISHED GRADE. SIGNS MAY ALSO BE CENTERED ON WALL AT THE INTERIOR END OF PARKING SPACE AT +36" TO BOTTOM OF SIGN.

**WALKS AND SIDEWALKS**

- WALKS & SIDEWALKS SHALL HAVE A CONTINUOUS COMMON SURFACE NOT INTERRUPTED BY STEPS OR BY ABRUPT CHANGES IN LEVEL WHICH EXCEEDS 1/2", & SHALL BE A MIN. OF 48" IN WIDTH.
- SURFACE CROSS SLOPE SHALL NOT EXCEED 1/4" INCH PER FOOT.
- WALKS, SIDEWALKS, & PEDESTRIAN WAYS SHALL BE FREE OF GRATING WHENEVER POSSIBLE. GRID OPENINGS WITHIN GRATINGS LOCATED IN THE SURFACE OF ANY OF THESE AREAS SHALL BE LIMITED TO 1/2" IN THE DIRECTION OF THE TRAFFIC FLOW.
- WHEN THE SLOPE IN THE DIRECTION OF TRAVEL OF ANY WALK EXCEEDS 1" VERTICAL TO 20" HORIZONTAL, IT SHALL COMPLY W/ THE PROVISIONS OF PEDESTRIAN RAMPS.

**ENTRANCES / DOORS**

- ALL PRIMARY ENTRANCES & EXTERIOR GROUND FLOOR EXIT DOORS TO BUILDINGS & FACILITIES SHALL BE MADE ACCESSIBLE TO THE PHYSICALLY DISABLED.
- ALL ACCESSIBLE ENTRANCES SHALL BE IDENTIFIED W/ AT LEAST ONE STANDARD SIGN & W/ ADDITIONAL DIRECTIONAL SIGNS, AS REQ'D, VISIBLE FROM APPROACHING PEDESTRIAN WAYS.
- EVERY REQUIRED ENTRANCE OR PASSAGE DOORWAY SHALL BE OF A SIZE AS TO PERMIT THE INSTALLATION OF A DOOR NOT LESS THAN 36" IN WIDTH, & NOT LESS THAN 80" IN HEIGHT. DOORS SHALL BE CAPABLE OF OPENING AT LEAST 90 DEGREES & SHALL BE MOUNTED SO THAT THE CLEAR WIDTH OF THE DOORWAY IS NOT LESS THAN 32".
- LATCHING & LOCKING DOORS THAT ARE HAND ACTIVATED & WHICH ARE IN A PATH OF TRAVEL, SHALL BE OPERABLE W/ A SINGLE EFFORT BY LEVER TYPE HARDWARE, PANIC BARS, PUSH-PULL ACTIVATING BARS, OR OTHER HARDWARE DESIGNED TO PROVIDE PASSAGE WITHOUT REQUIRING THE ABILITY TO GRASP OPENING HARDWARE.
- LEVER HAND ACTIVATED DOOR OPENING HARDWARE SHALL BE CENTERED BETWEEN 30" AND 44" MAX. ABOVE THE FLOOR.
- THE FLOOR OR LANDING SHALL NOT BE MORE THAN 1/2" LOWER THAN THE THRESHOLD OF THE DOORWAY. CHANGES IN LEVEL BETWEEN 1/4" AND 1/2" SHALL BE LEVELED W/ A SLOPE NOT GREATER THAN 1:2.
- THE MAX. EFFORT TO OPERATE DOORS SHALL NOT EXCEED 8.5 LBS. FOR EXTERIOR DOORS & 5 LBS. FOR INTERIOR DOORS. SUCH PULL OR PUSH EFFORT SHALL BE APPLIED AT RIGHT ANGLES TO HINGED DOORS & AT CENTER PLANE OF SLIDING OR FOLDING DOORS. WHEN FIRE DOORS ARE REQ'D, MAX. EFFORT TO OPERATE THE DOOR MAY NOT EXCEED 15 LBS.

**STAIRWAYS**

- STARWAYS SHALL HAVE HANDRAILS ON EACH SIDE. EVERY STAIRWAY REQ'D TO BE MORE THAN 88" IN WIDTH SHALL BE PROVIDED W/ NOT LESS THAN ONE INTERMEDIATE HANDRAIL FOR EACH 88" OF REQ'D WIDTH. INTERMEDIATE HANDRAILS SHALL BE SPACED APPROX. EQUALLY WITHIN ENTIRE WIDTH OF THE STAIRWAY.
- ALL STAIR TREAD SURFACES SHALL BE SLIP-RESISTANT.

**HANDRAILS**

- TOP OF HANDRAILS AT STAIRWAYS SHALL BE 34" TO 38" ABOVE THE NOSING OF TREADS.
- HANDRAILS AT THE TOP OF STAIRWAYS SHALL EXTEND A MIN. OF 12" OF LEVEL DISTANCE BEYOND THE TOP NOSING, HANDRAILS AT THE BOTTOM OF STAIRWAYS SHALL EXTEND A MIN. OF ONE TREAD WIDTH PLUS 12" BEYOND THE BOTTOM NOSING BEFORE THEY ARE RETURNED. AT THE BOTTOM, THE HANDRAIL SHALL CONTINUE TO SLOPE FOR A DISTANCE OF THE WIDTH OF ONE TREAD FROM THE BOTTOM RISER. THE REMAINDER OF THE EXTENSION SHALL BE HORIZONTAL (LEVEL).
- WHERE THE EXTENSION OF THE HANDRAIL IN THE DIRECTION OF STAIR RUN WOULD CREATE A HAZARD, EXTENSION SHALL BE MADE AT RIGHT ANGLES ON THE FACE OF A RETURNING WALL. WHERE STAIRS ARE CONTINUOUS, HANDRAIL SHALL BE CONTINUOUS & NEED NOT EXTEND OUT INTO LANDING.
- HANDRAILS ARE REQ'D ON RAMPS WHEN THE SLOPE EXCEEDS 1:20 (5%). HANDRAILS SHALL RUN ALONG BOTH SIDES OF A RAMP, BE CONTINUOUS THE FULL LENGTH, & SHALL FOLLOW THE SLOPE OF THE RAMP. HANDRAILS SHALL EXTEND A MIN. OF 12" AT LANDINGS & SHALL BE LEVEL.
- THE TOP OF HANDRAILS AT RAMPS SHALL BE MOUNTED BETWEEN 34" AND 38" ABOVE THE RAMP SURFACE.
- ALL HANDRAIL ENDS SHALL BE RETURNED OR SHALL TERMINATE IN NEWEL POSTS OR SAFETY TERMINALS.
- ALL HANDRAILS PROJECTING FROM A WALL SHALL HAVE ABSOLUTE CLEARANCE OF 1-1/2" FROM WALL. THE GRIP SURFACE OF HANDRAILS SHALL BE BETWEEN 1-1/4" AND 1-1/2" IN CROSS SECTIONAL DIMENSION OR THE SHAPE SHALL PROVIDE AN EQUIVALENT SMOOTH GRIPPING SURFACE W/ NO SHARP CORNERS.

**Special Inspections Chapter 17**

N/A SPECIAL INSPECTIONS SHALL BE CONDUCTED ON ALL PROJECTS THAT FALL WITHIN BUILDING CATEGORIES AND/OR CONTAIN ELEMENTS SUBJECT TO SPECIAL INSPECTIONS AS PRESCRIBED BY REVISED SECTION 1704. N/A

Check each applicable line to match scope of work. Edit as necessary to provide clear detail of installation. **Reproduce on Cover Sheet**

No work  
 Equipment set \_\_\_ with \_\_\_ without power  
 Trunk line installed \_\_\_ with \_\_\_ without outlets  
 Gas Line N/A  
 Install complete operational system

Other \_\_\_\_\_

Plumbing  
 \_\_\_ No work  
 \_\_\_ Install water service and sewer  
 \_\_\_ Install building drain \_\_\_ and \_\_\_ or water distribution main X with \_\_\_ without branches  
 \_\_\_ Install complete plumbing system

Other \_\_\_\_\_

Sprinkler  
 \_\_\_ Install complete sprinkler system

Building  
 \_\_\_ Install slab \_\_\_ partial X complete  
 \_\_\_ Install demising walls  
 \_\_\_ Install interior partitioning \_\_\_ partial \_\_\_ complete  
 \_\_\_ Install Ceilings (NOT IN SUITE 1200)  
 \_\_\_ White box additional interior completion permits are required for Certificate of Occupancy and power

Other \_\_\_\_\_

Electrical  
 \_\_\_ House panel  
 \_\_\_ Service laterals to meter centers/panels located on buildings  
 \_\_\_ Demise wall and ceilings only  
 \_\_\_ Conduit, duct, raceways in slab  
 \_\_\_ Power and lighting circuits to "J" Box  
 \_\_\_ Install light fixtures  
 \_\_\_ Install X Heat/Ac Elevator Generator Parking lot lighting  
 \_\_\_ Install complete system (NOT IN SUITE 1200)

Other \_\_\_\_\_

Please provide full information on any alternate methods and means incorporated into the design of this project. Provide specific details and incorporate into plan submittal any supporting documents or agreement letters.

List whom will inspect the required special inspections:

Fabricator of load bearing components

Soil tests

Concrete, caissons, piles, piers, pre-cast

Post tension concrete

Modular construction

Steel and connections, welds, bolts, anchors

Fire spray tests

Smoke control

Seismic, wind designs, Quality Assurance

Retaining walls

Masonry

Wood

Alternate Methods

FEIS

Other (describe)

Other (describe)

Owner or agent

**Shell Variable Form**

Required for all Shell, Alteration to Shell and Interior Completion Permits

Check each applicable line to match scope of work. Edit as necessary to provide clear detail of installation. **Reproduce on Cover Sheet**

No work  
 Equipment set \_\_\_ with \_\_\_ without power  
 Trunk line installed \_\_\_ with \_\_\_ without outlets  
 Gas Line N/A  
 Install complete operational system

Other \_\_\_\_\_

Plumbing  
 \_\_\_ No work  
 \_\_\_ Install water service and sewer  
 \_\_\_ Install building drain \_\_\_ and \_\_\_ or water distribution main X with \_\_\_ without branches  
 \_\_\_ Install complete plumbing system

Other \_\_\_\_\_

Sprinkler  
 \_\_\_ Install complete sprinkler system

Building  
 \_\_\_ Install slab \_\_\_ partial X complete  
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 \_\_\_ Install Ceilings (NOT IN SUITE 1200)  
 \_\_\_ White box additional interior completion permits are required for Certificate of Occupancy and power

Other \_\_\_\_\_

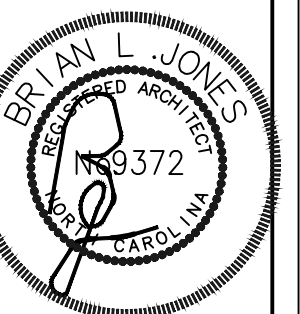
Electrical  
 \_\_\_ House panel  
 \_\_\_ Service laterals to meter centers/panels located on buildings  
 \_\_\_ Demise wall and ceilings only  
 \_\_\_ Conduit, duct, raceways in slab  
 \_\_\_ Power and lighting circuits to "J" Box  
 \_\_\_ Install light fixtures  
 \_\_\_ Install X Heat/Ac Elevator Generator Parking lot lighting  
 \_\_\_ Install complete system (NOT IN SUITE 1200)

Other \_\_\_\_\_

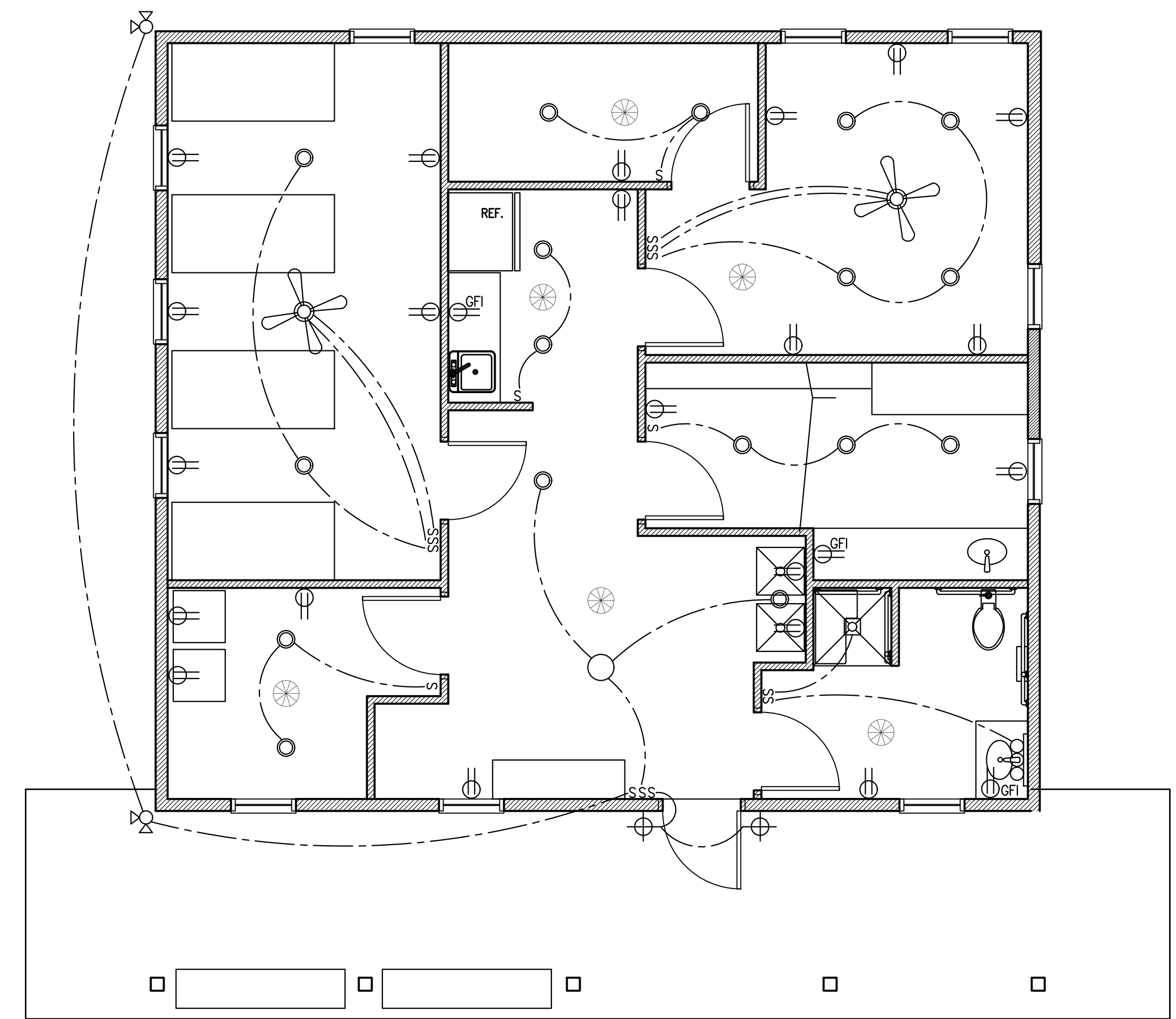
Please provide full information on any alternate methods and means incorporated into the design of this project. Provide specific details and incorporate into plan submittal any supporting documents or agreement letters.



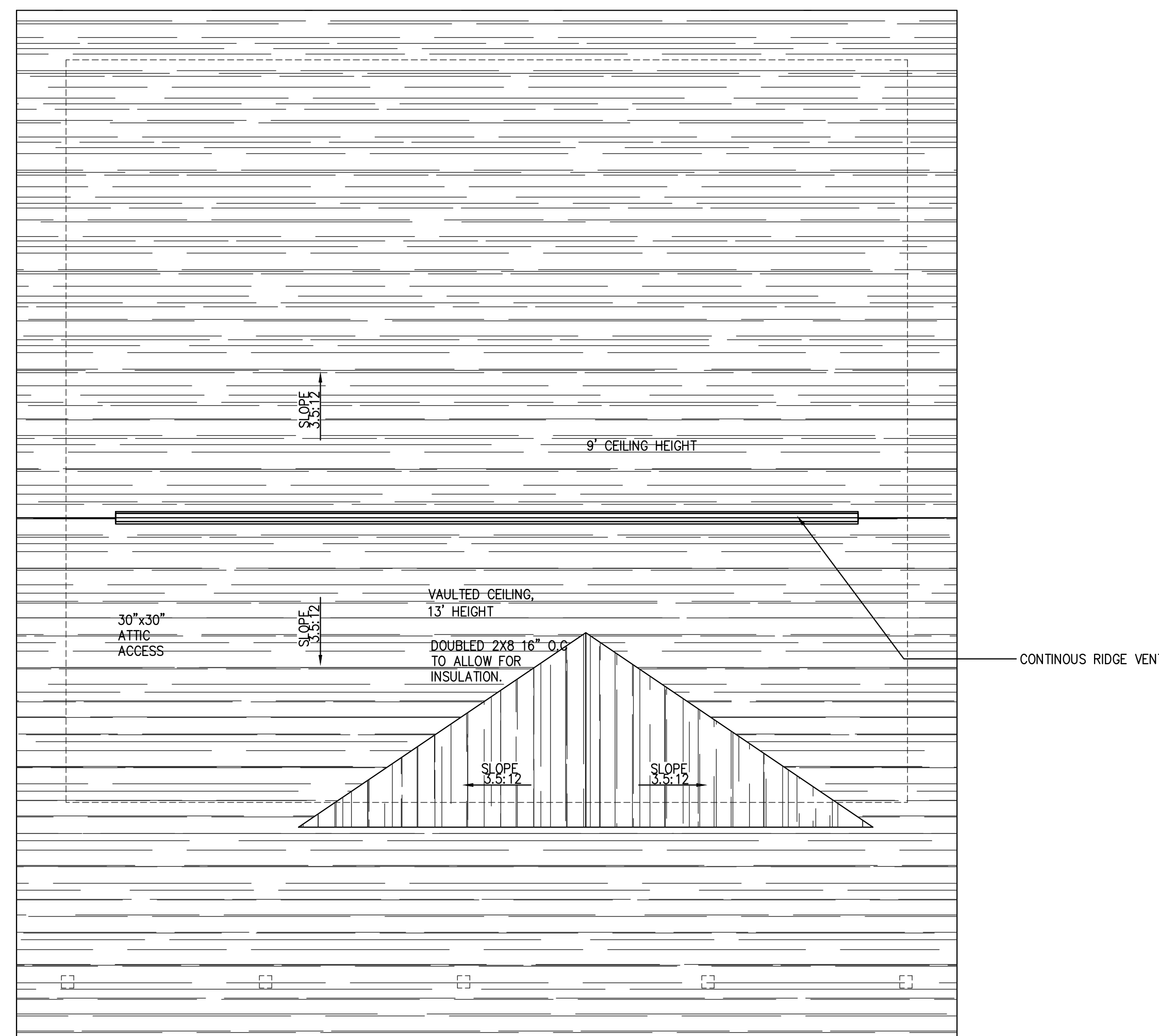
CORPORATE SEAL



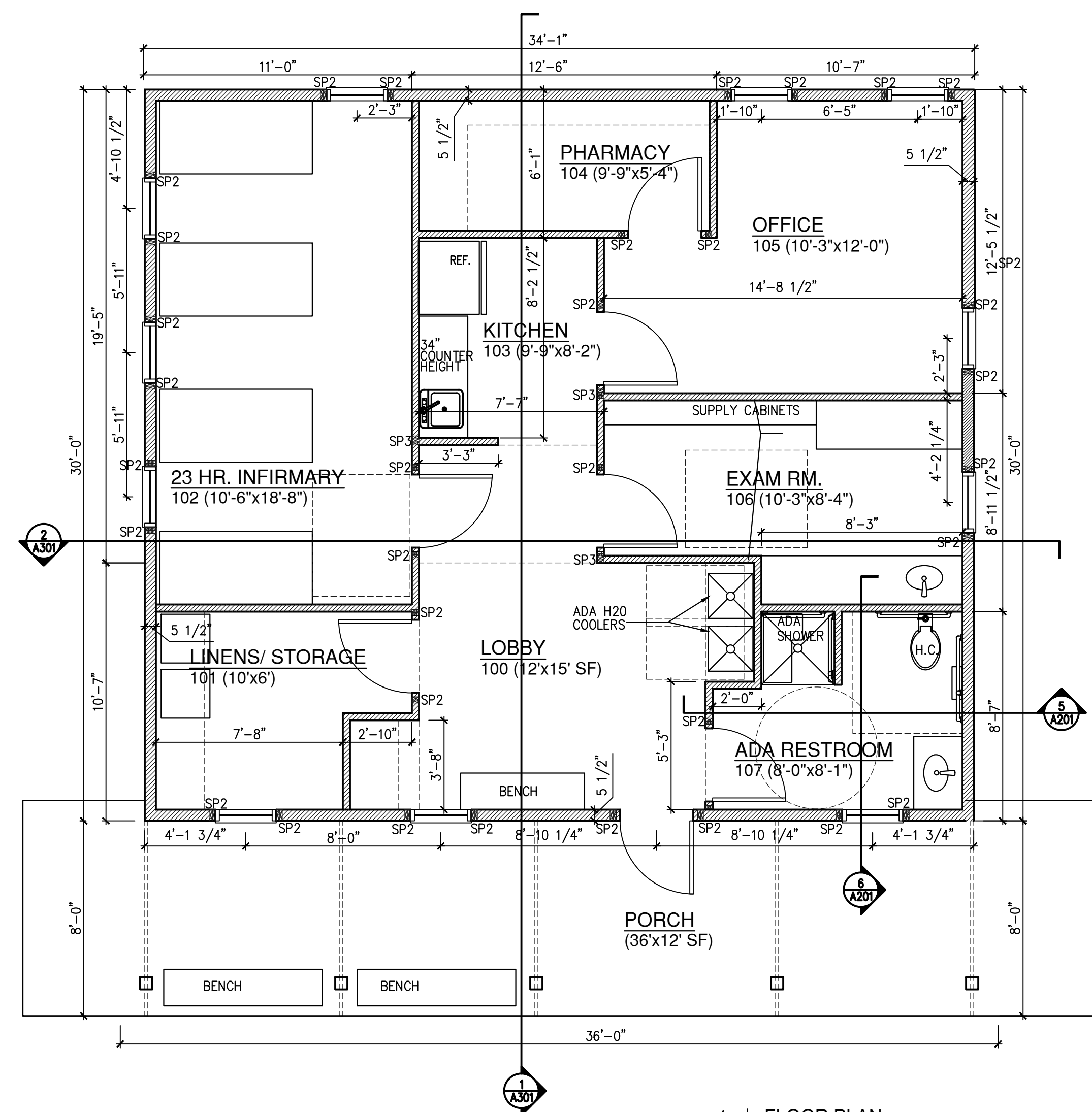
PROFESSIONAL SEAL



**3 | LIGHTING PLAN**  
A101 | SCALE: 1/4" = 1'-0"



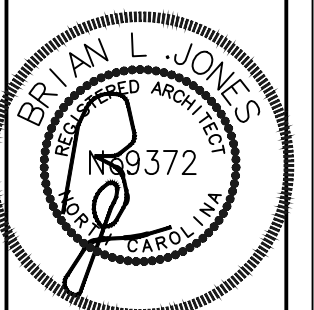
**2 | ROOF PLAN**  
A101 | SCALE: 1/4" = 1'-0"



**1 | FLOOR PLAN**  
A101 | SCALE: 1/4" = 1'-0"



CORPORATE SEAL



PROFESSIONAL SEAL

**CAMP AGAPE**  
TYLER DEWAR LANE  
FUQUAY VARINA, NORTH CAROLINA 27562

DESIGNED BY:  
BLJ

DRAWN BY:  
BLJ

CHECKED BY:

SCALE:  
VARIES

PROJECT NUMBER:

FRAMING PLANS

21 MARCH 2017

DESIGNED BY:  
BLJ

DRAWN BY:  
BLJ

CHECKED BY:

SCALE:  
VARIES

PROJECT NUMBER:

FRAMING PLANS

21 MARCH 2017

DESIGNED BY:  
BLJ

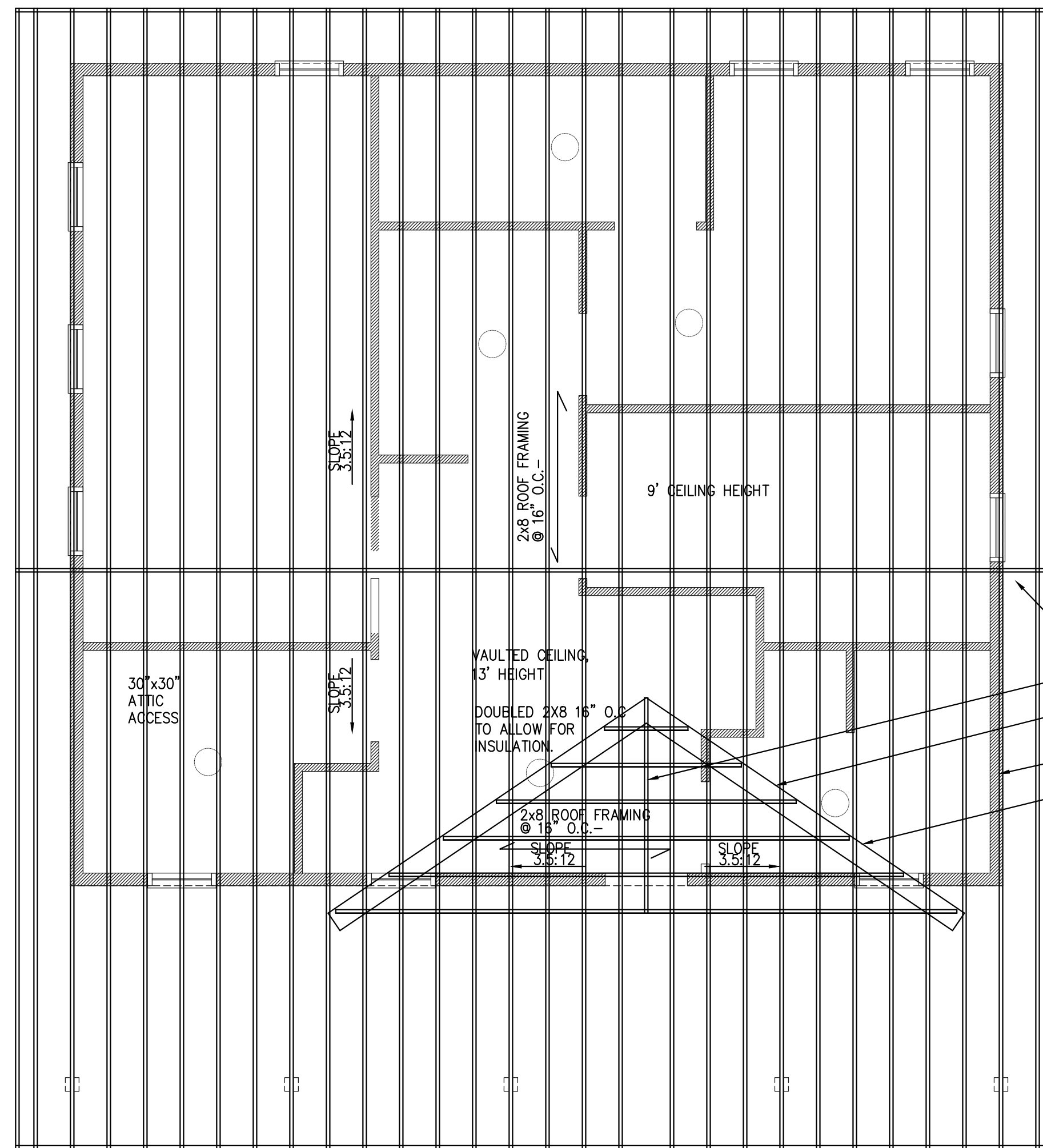
DRAWN BY:  
BLJ

CHECKED BY:

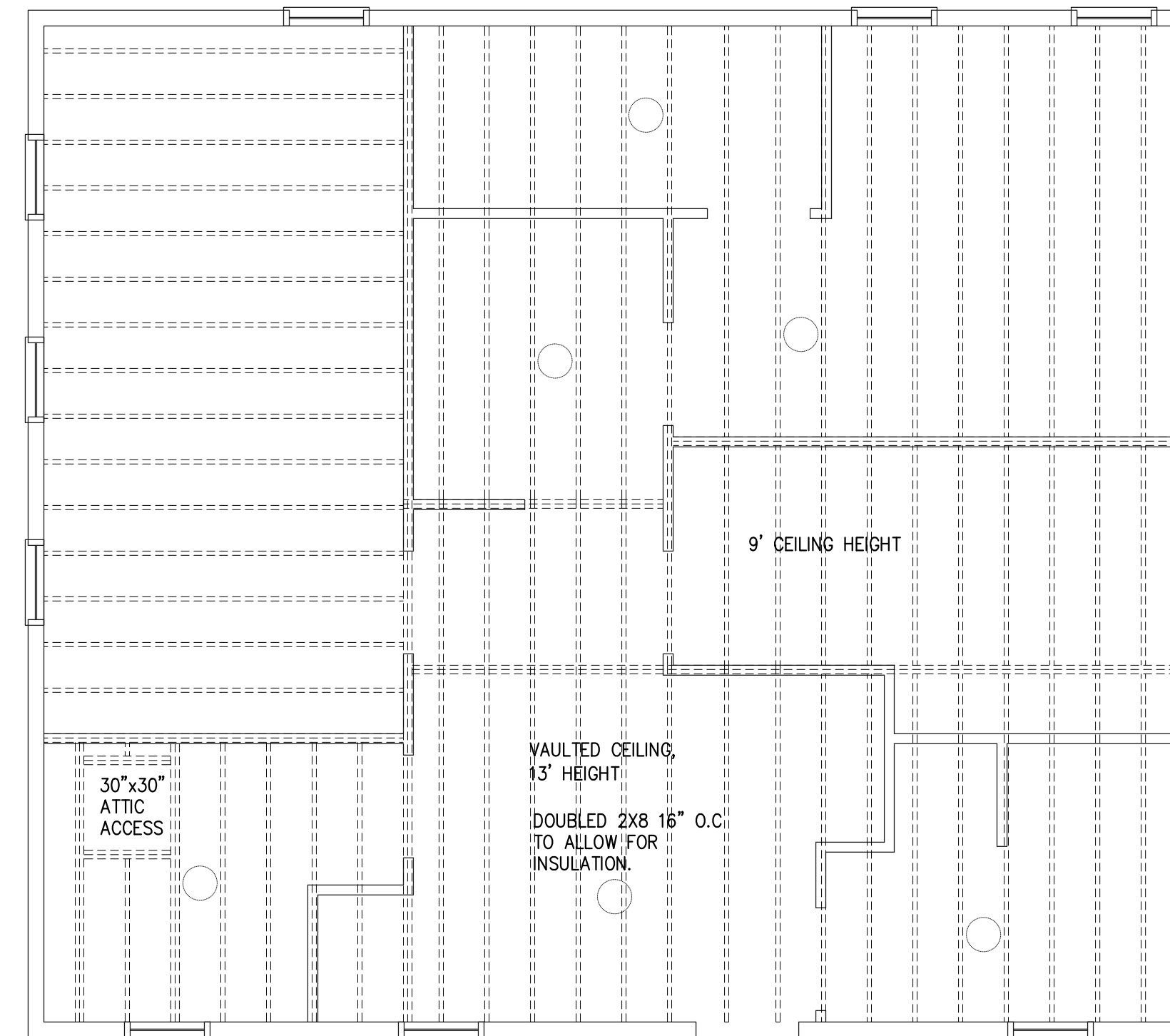
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PROJECT NUMBER:

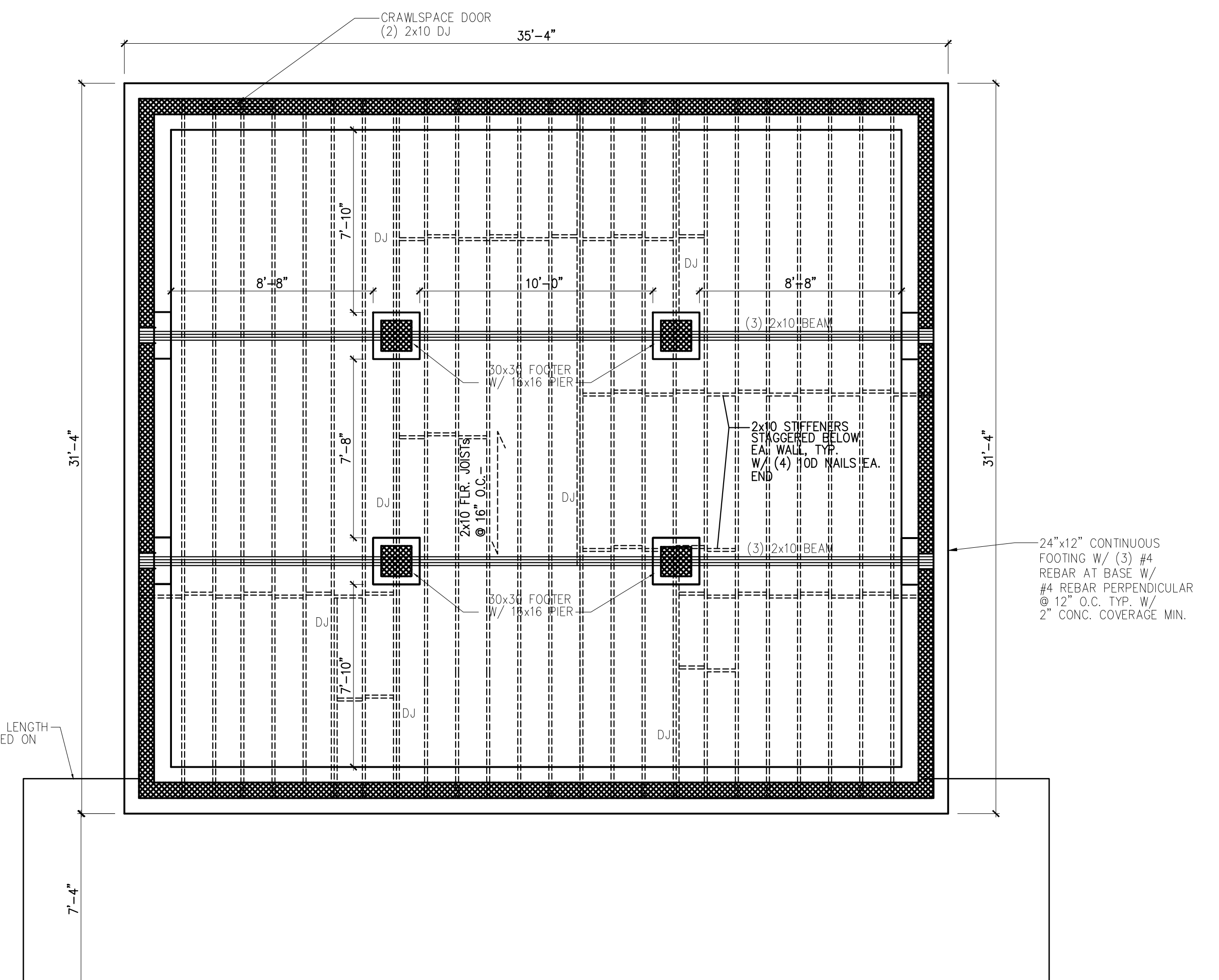
FRAMING PLANS



**3 | ROOF FRAMING**  
A102 | SCALE: 1/4" = 1'-0"

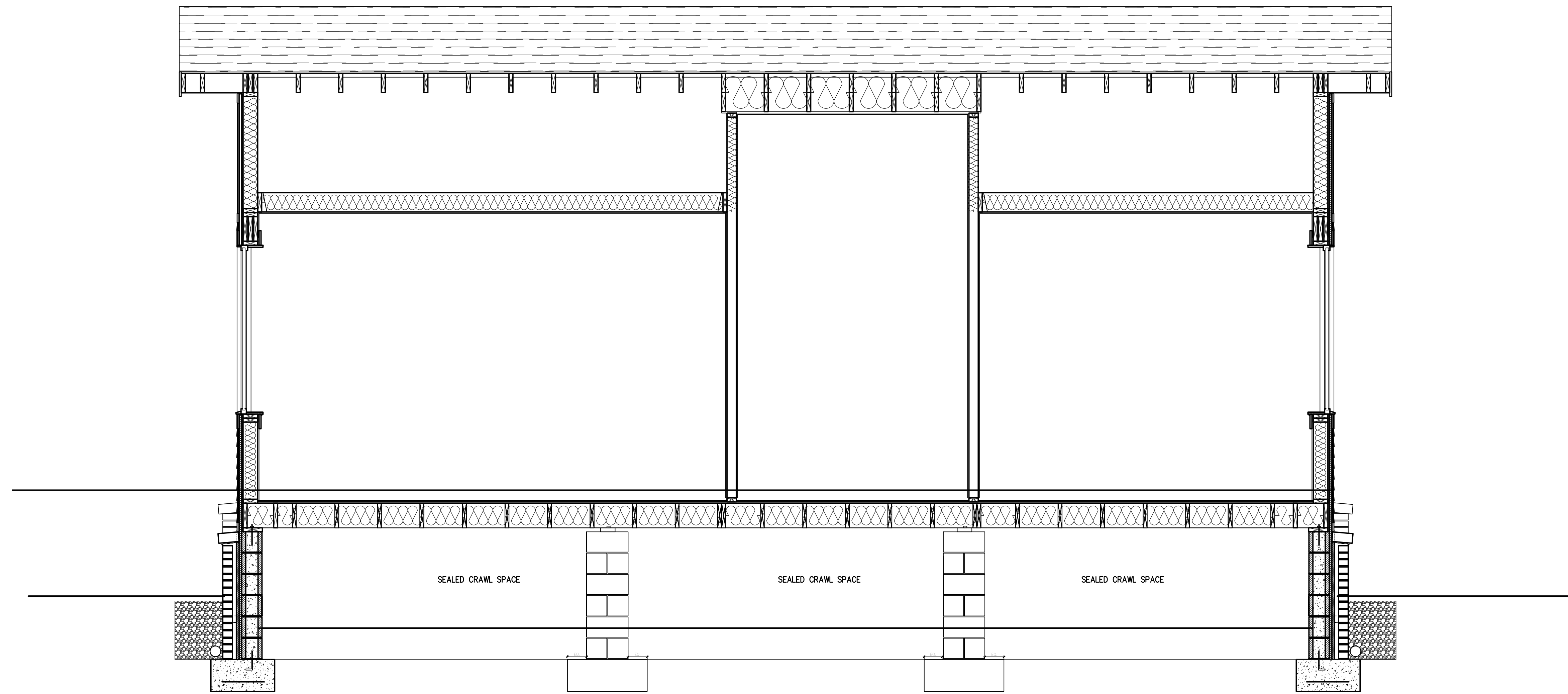


**2 | CEILING FRAMING**  
A102 | SCALE: 1/4" = 1'-0"

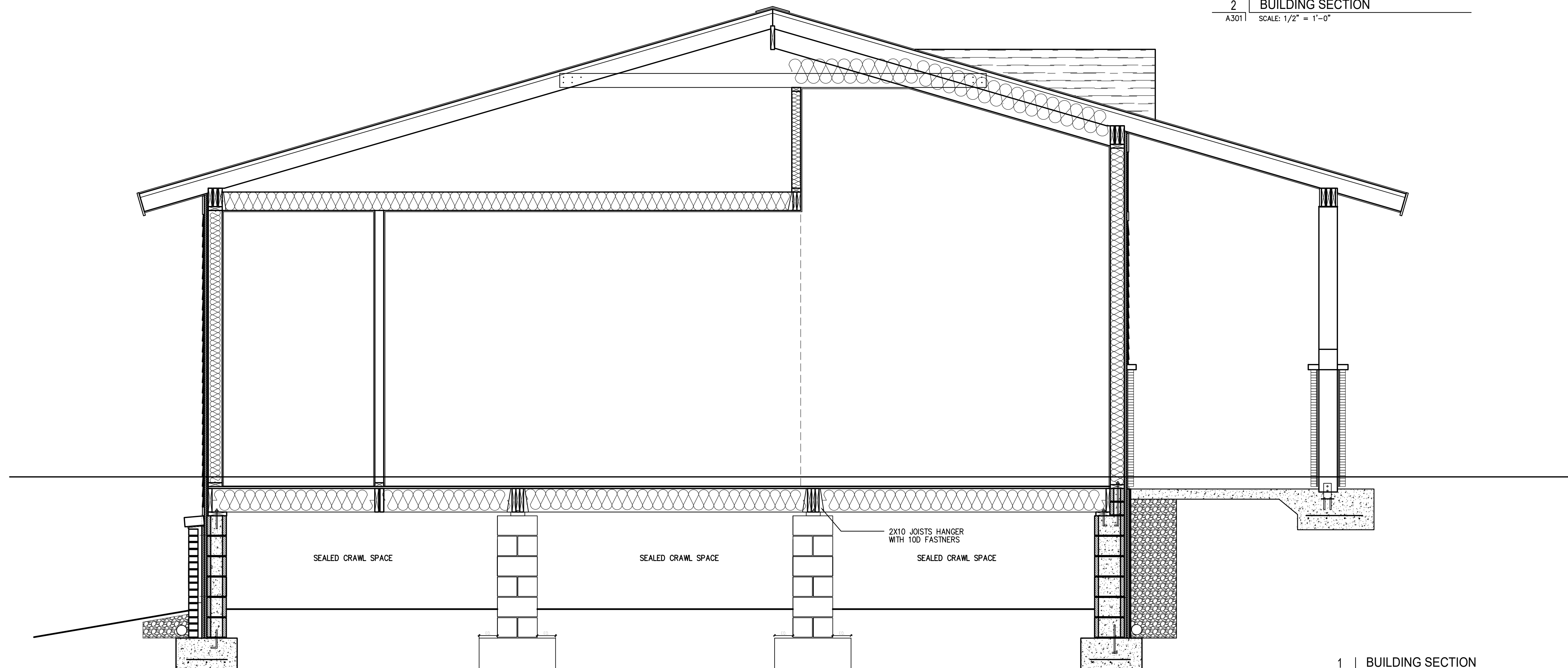


**1 | FOUNDATION & FLOOR FRAMING**  
A102 | SCALE: 1/4" = 1'-0"

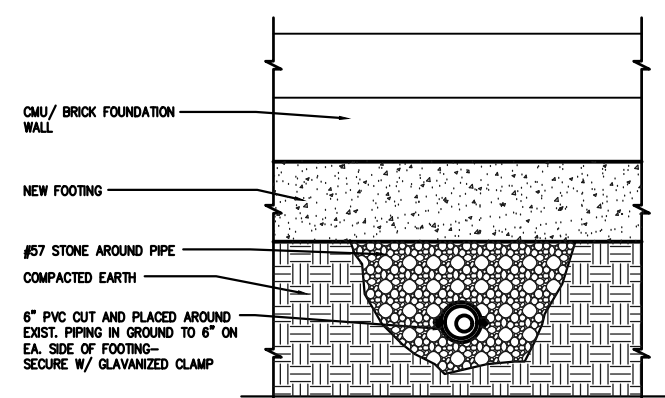




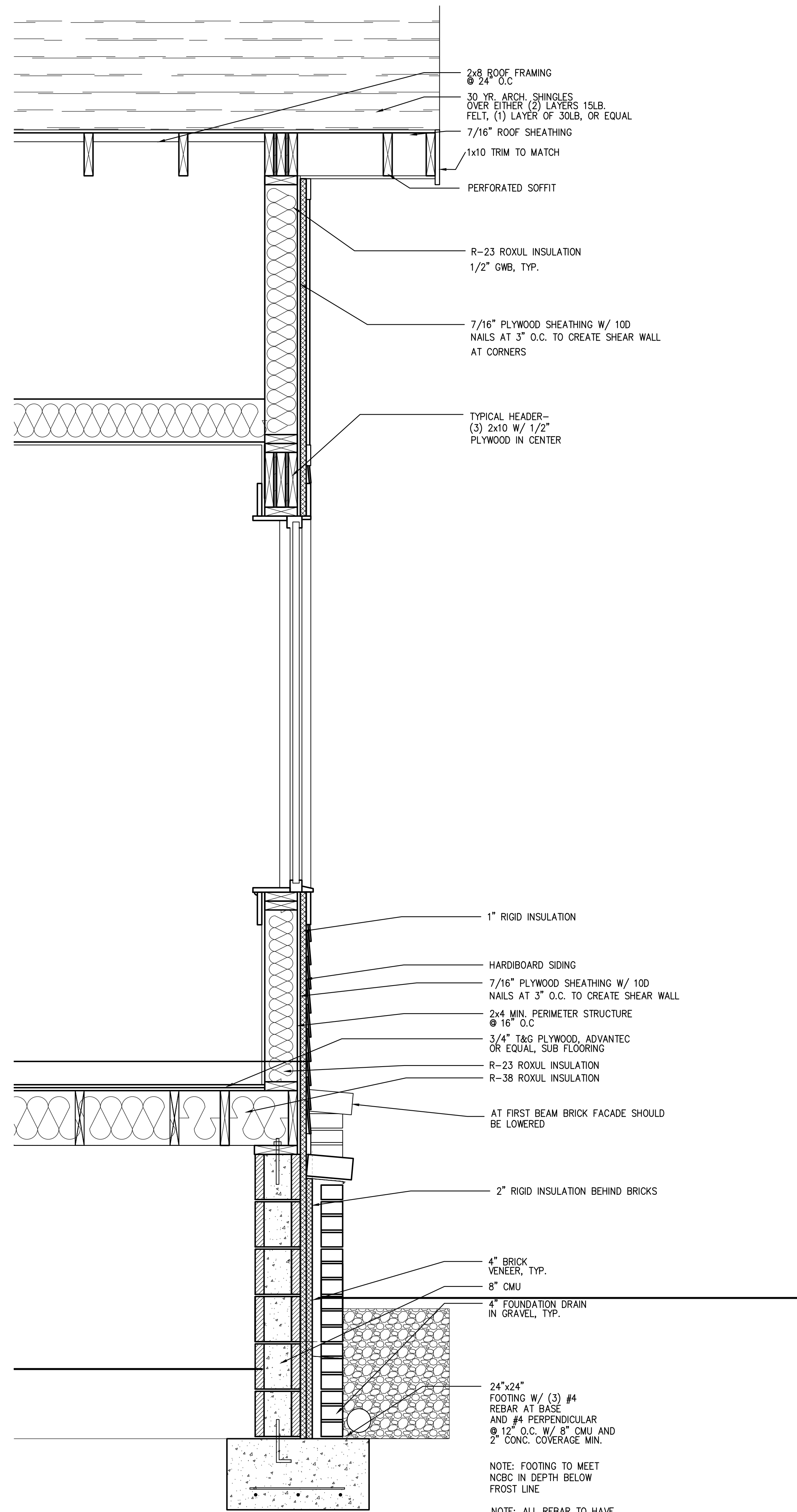
2 | BUILDING SECTION  
A301 | SCALE: 1/2" = 1'-0"



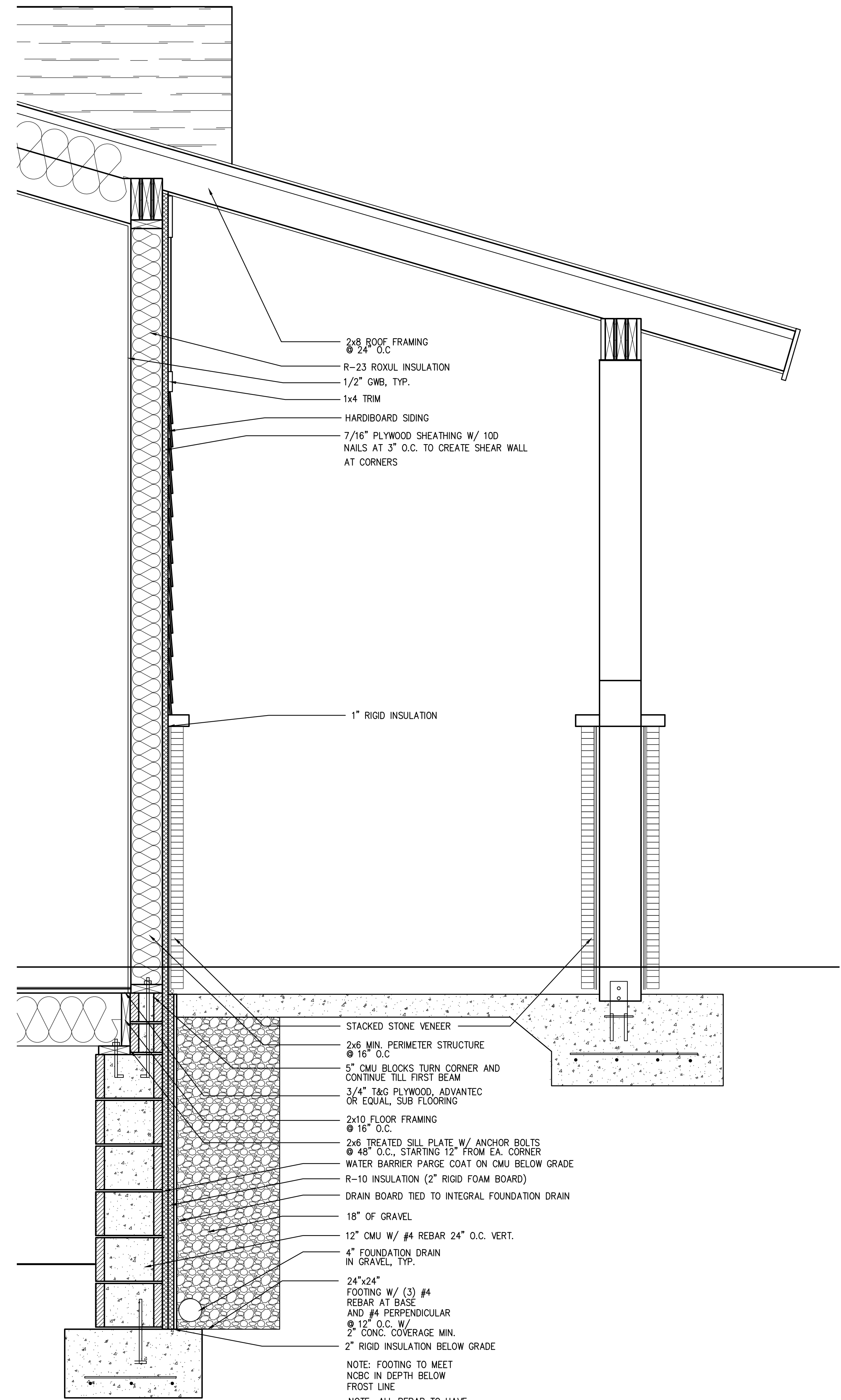
1 | BUILDING SECTION  
A301 | SCALE: 1/2" = 1'-0"



3 | FOUNDATION DETAIL - PIPE CROSSING  
A301 | SCALE: 1/2" = 1'-0"

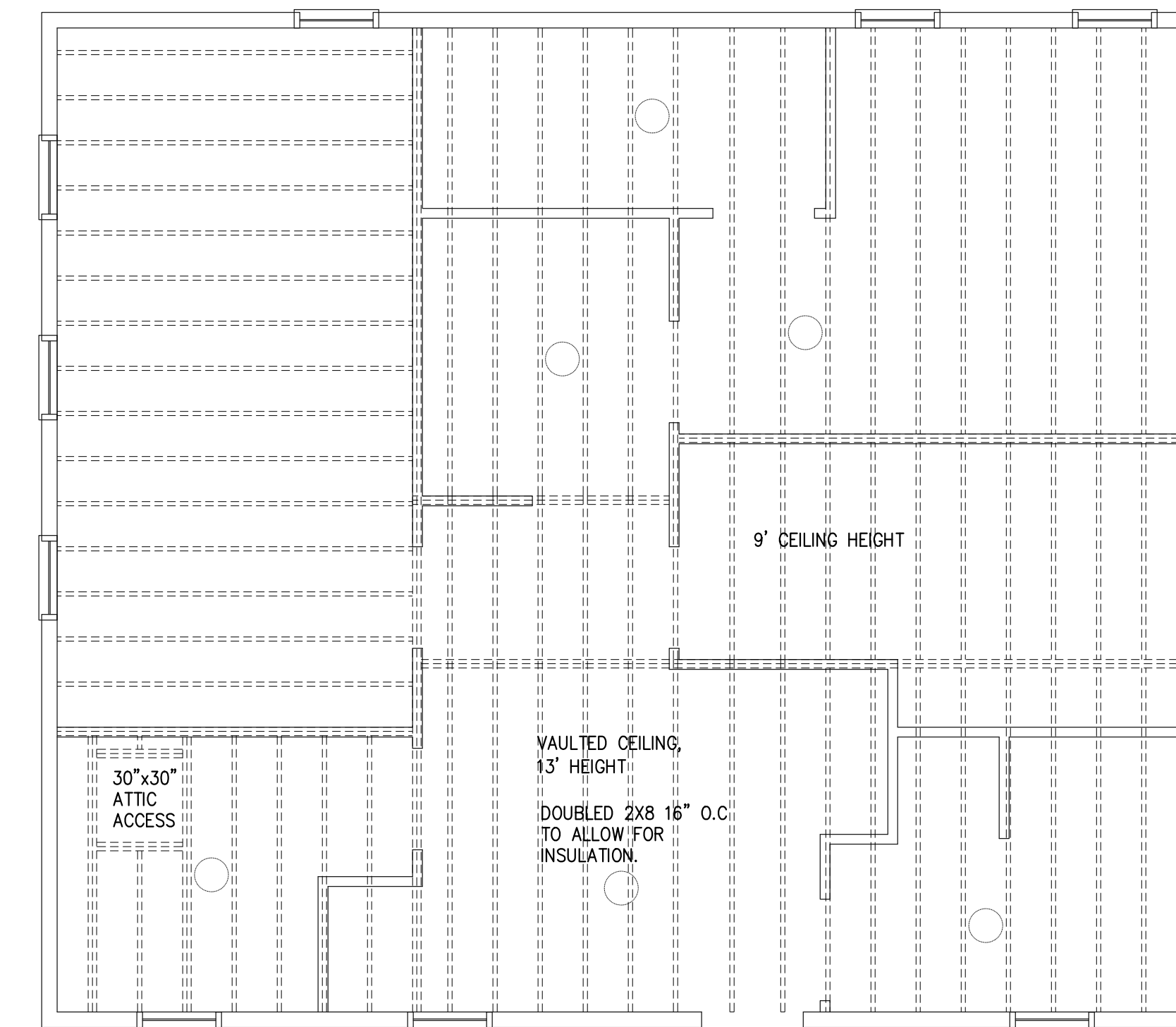
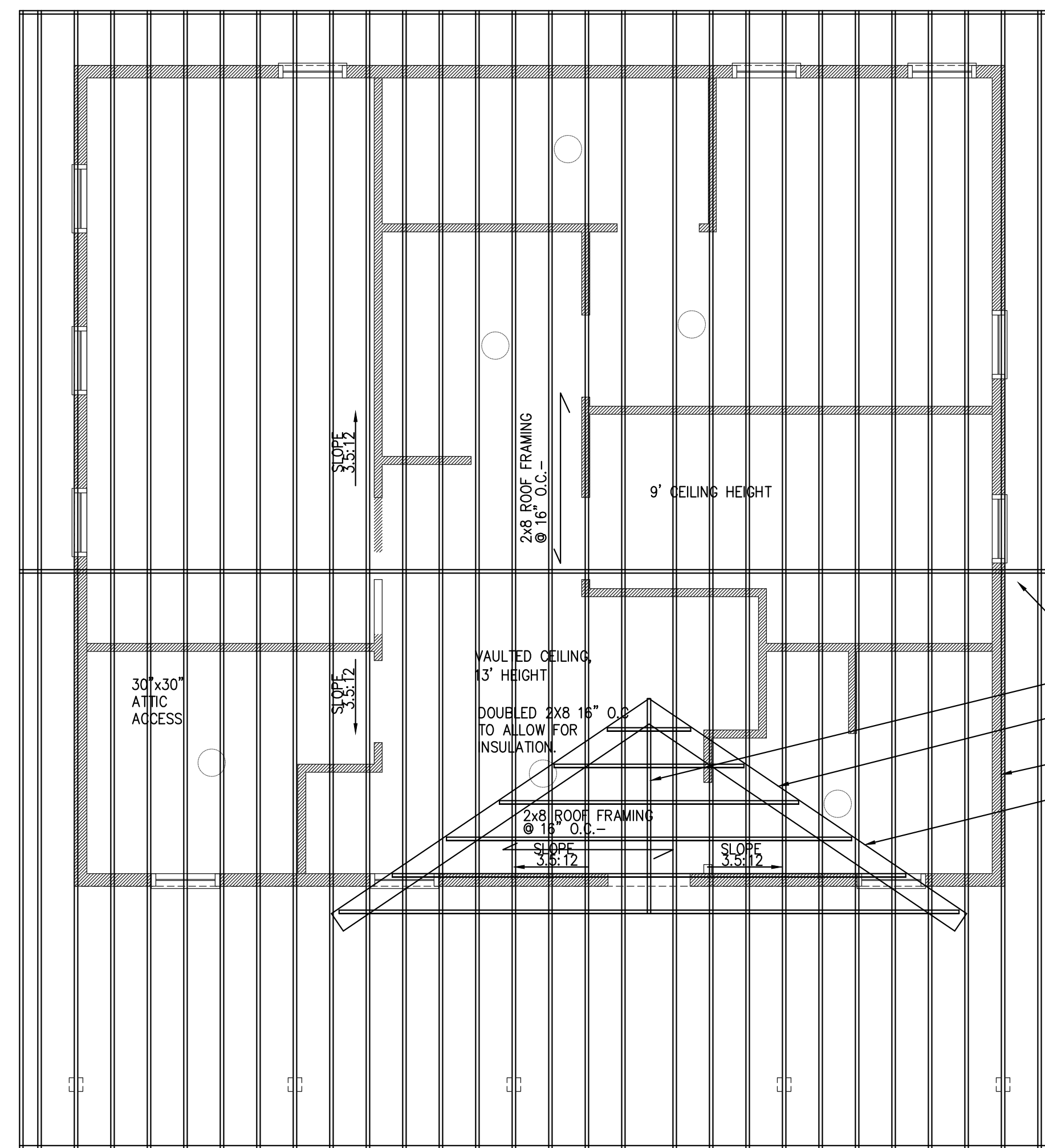


2 | BUILDING SECTION  
 A302 | SCALE: 1" = 1'-0"

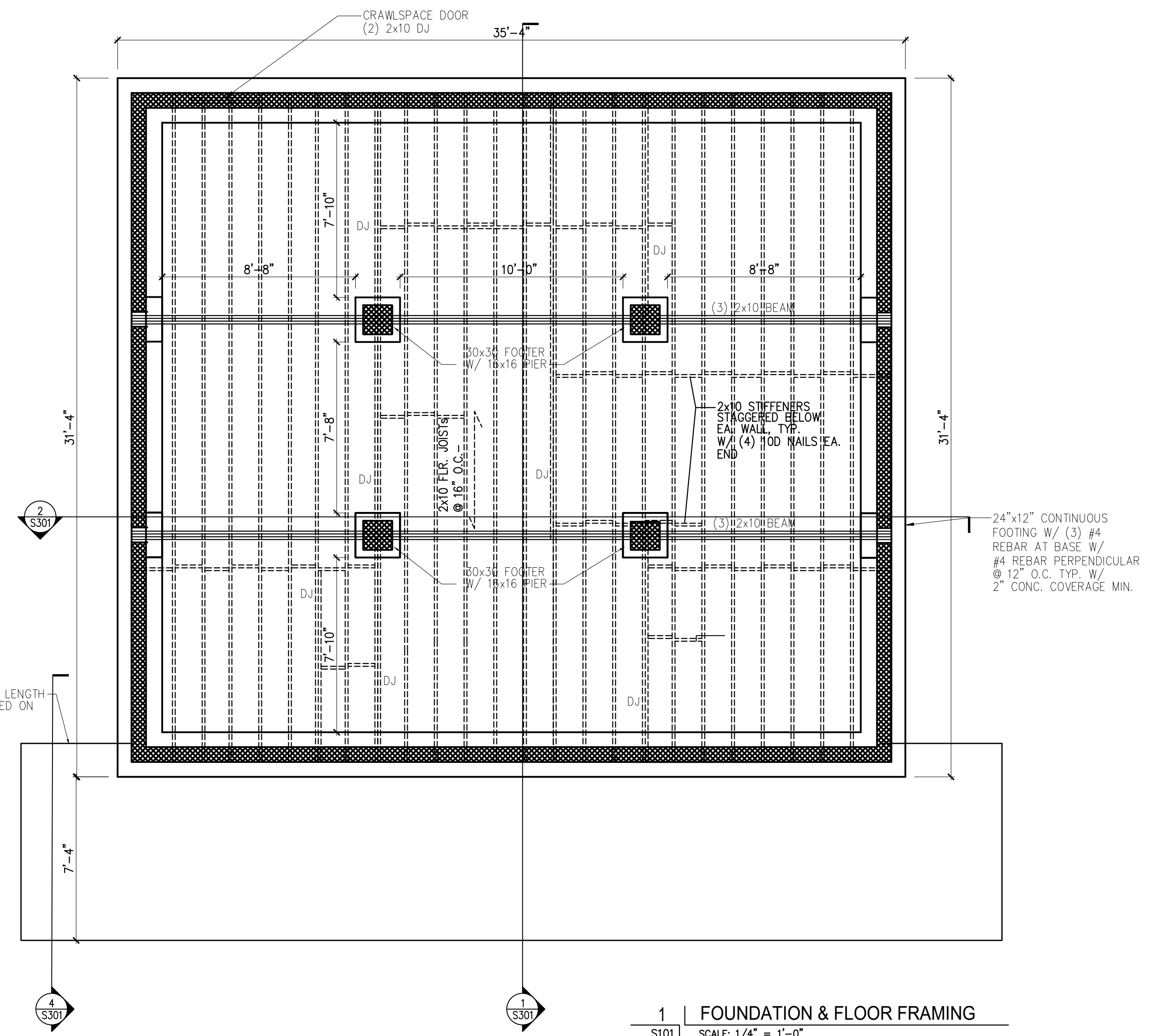


1 | BUILDING SECTION  
 A302 | SCALE: 1" = 1'-0"





- 1 3/4 x 11 7/8 RIDGE BEAM
- 2x10 LAID FLAT OVER EXISTING ROOF FRAMING
- 2x8 ROOF FRAMING @ 24" O.C.
- EPDM FLASHING 18" EA. SIDE OF VALLEY



- STRUCTURAL DESIGN**  
GENERAL NOTES:
- BOTTOM OF FOOTINGS TO BE A MINIMUM OF 12" BELOW GRADE.
  - ALL DIMENSIONS TO BE VERIFIED PRIOR TO CONSTRUCTION.
  - ALL NEW LUMBER TO BE SPF #2 OR BETTER.
  - ALL LUMBER IN CONTACT WITH MASONRY/CONCRETE TO BE PRESSURE TREATED.
  - ALL W SHAPE STEEL SECTIONS TO BE Fy=50 KSI, ALL OTHERS TO BE Fy=36 KSI.
  - ALL REBAR TO BE PLACED IN ACCORDANCE WITH THE LATEST ACI-318 CODE.
  - MASONRY TO HAVE A COMPRESSIVE STRENGTH OF Fm=1500 PSI.
  - ALL CONCRETE TO HAVE A 28 DAY COMPRESSIVE STRENGTH OF 3,000 PSI.
  - ALL MASONRY CELLS CONTAINING REBAR OR BELOW STRUCTURAL STEEL SHAPES TO BE FULLY GROUTED.
  - INSTALL ALL ANCHORS PER MANUFACTURER'S RECOMMENDATIONS.
  - HIGH STRENGTH BOLTS TO BE A325 OR BETTER.

**BEAM SCHEDULE**

- D.J. (2)2x10s W/ 1/2" PLYWOOD U.N.O. (BEAMS BEAR ON STUD PACKS)
- ALL WINDOWS AND DOORS TO HAVE HEADER PER HEADER SCHEDULE BELOW & 2SP EA. END
- SEE PLANS FOR LVL BEAM LOCATIONS AND SIZES

**HEADER SCHEDULE**

HEADERS SUPPORTING	SIZE	SPAN	NJ	NOTES
1 FLR.	(2)2x8	UP TO 3'-0"	2	1/2" PLYWD. IN BETW.
2 FLR.	(2)2x8	UP TO 2'-4"	2	1/2" PLYWD. IN BETW.
2 FLR.	(2)2x10	UP TO 3'-0"	2	1/2" PLYWD. IN BETW.

a. SPANS ARE GIVEN IN FEET AND INCHES  
b. TABULATED VALUES ASSUME #5 GRADE LUMBER  
c. NJ = NUMBER OF JACK STUDS REQUIRED TO SUPPORT EA. END  
d. 1/2" PLYWOOD BETW. ALL 2x# MEMBERS  
e. BEAR OF FAST SPACING

**DESIGN LOADS:**

Importance Factors: Wind (Iw) : 1.0  
Snow (Is) : 1.0  
Seismic (I<sub>F</sub>) : 1.0

Live Loads: Roof: 20 psf  
Mezzanine: N/A  
Floor: 100 psf

2012 NC Administrative Codes & Policies

Wind Loads: Basic Wind Speed 100 mph (ASCE-7)  
Exposure Category: B  
Wind Base Shears (for MWFRS): Vx: 5.4k Vy: 5.4k

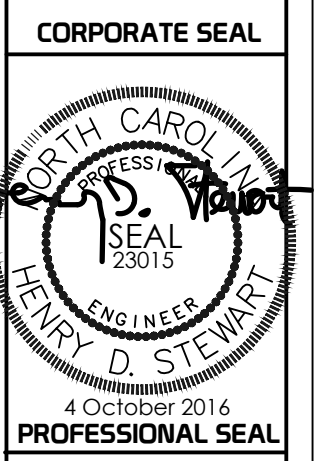
SEISMIC DESIGN CATEGORY: B

Provide the following seismic design parameters:

Occupancy Category: II  
Spectral Response Acceleration Ss: 22.2% S1: 8.5%  
Site Classification: D  
Data Source: Presumptive  
Basic Structural System: Bearing Wall  
Seismic Base Shear: Vx: 4k Vy: 4k  
Analysis Procedure: Equivalent Lateral Force  
Architectural, Mechanical Components Anchored: Yes

LATERAL DESIGN CONTROL: Wind  
SOIL BEARING CAPACITY: Presumptive Bearing Capacity 2000 psf  
SPECIAL INSPECTIONS REQUIRED: ND  
WALL BRACING

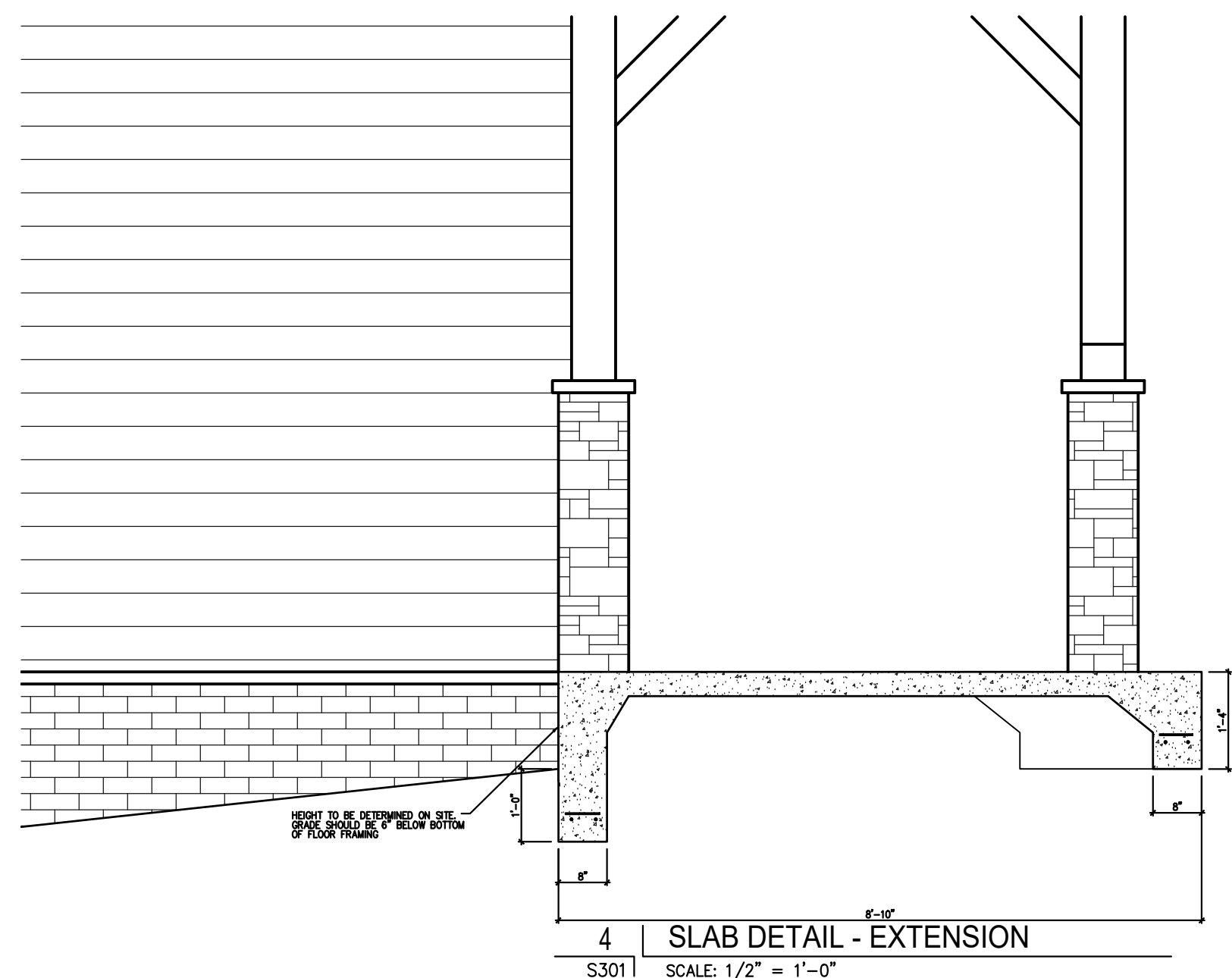
- AT ALL CORNERS OF ADDITION, 7/16" PLYWOOD SHEETS W/ 10-D NAILS AT 3" O.C. VERTICALLY IN EACH STUD WHERE PLYWOOD OVERLAPS.
- ALL REMAINING SHEATHING TO BE 1/2" OSB OR BETTER



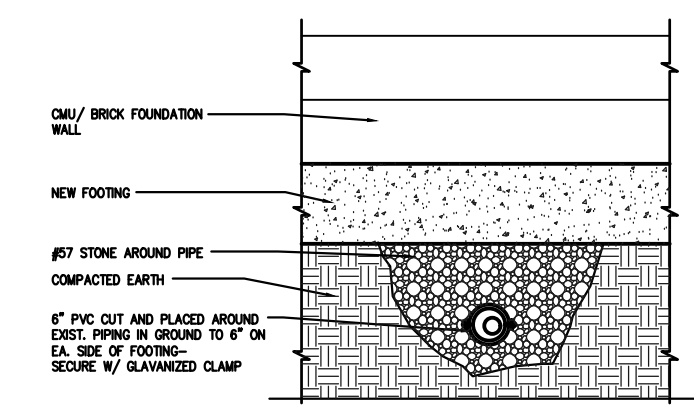
**CAMP AGAPE**  
TYLER DEWAR LANE  
FUQUAY VARINA, NORTH CAROLINA 27562

DESIGNED BY: BLJ  
DRAWN BY: BLJ  
CHECKED BY:  
SCALE: VARIES  
PROJECT NUMBER:  
DATES:  
21 MARCH 2017

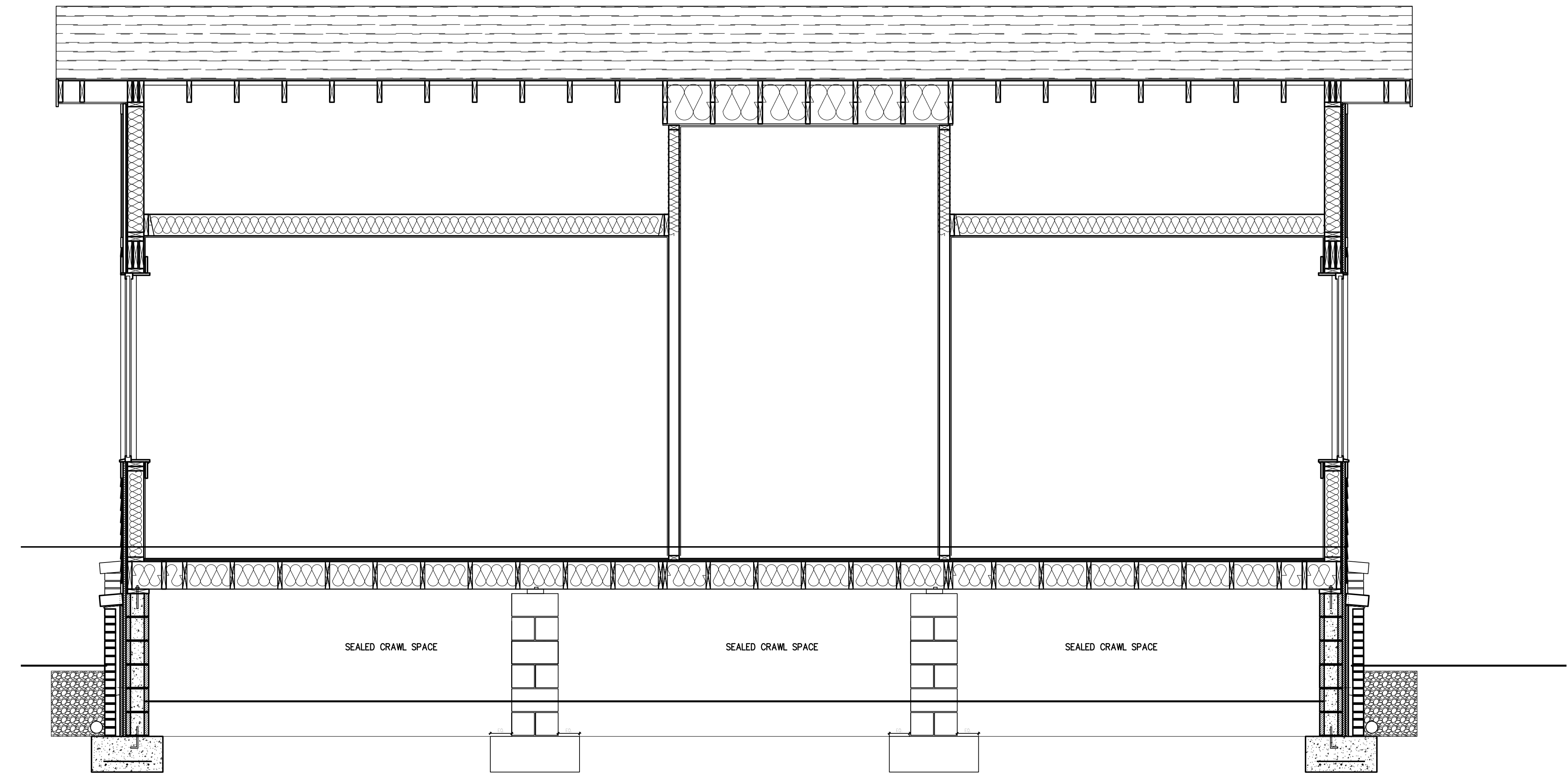
STRUCTURAL PLANS  
**S101**



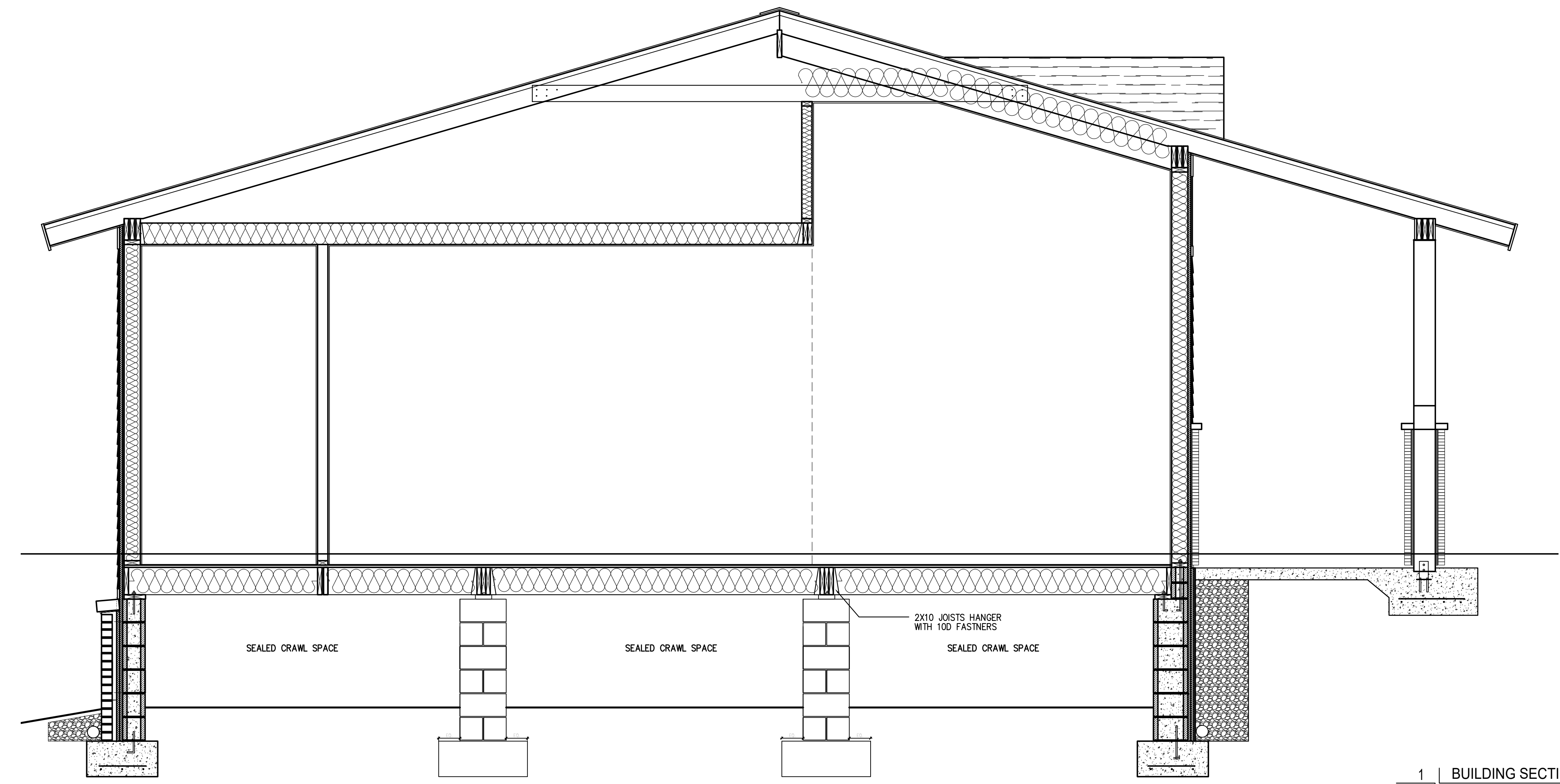
4 | SLAB DETAIL - EXTENSION  
S301 | SCALE: 1/2" = 1'-0"



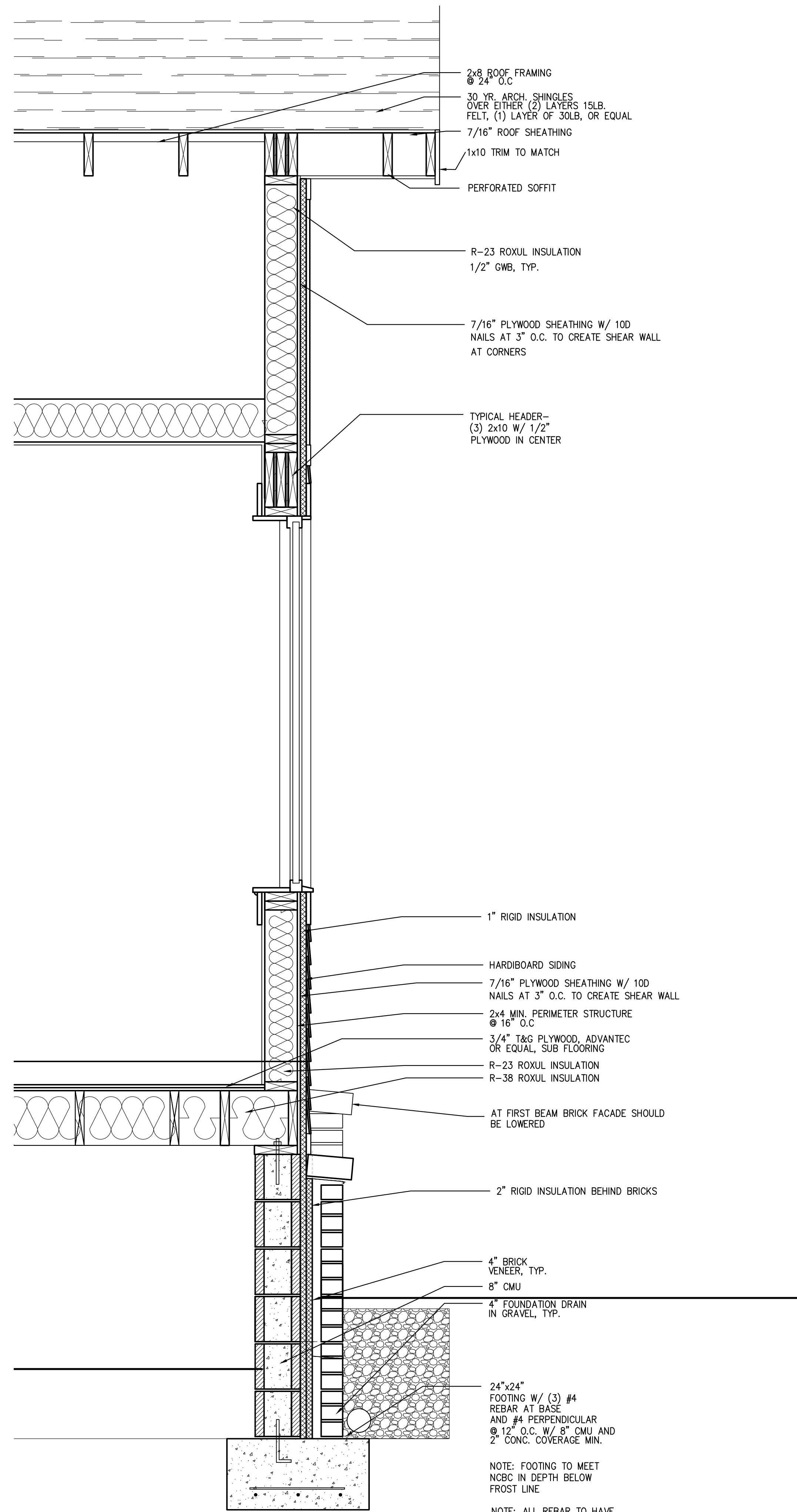
3 | FOUNDATION DETAIL - PIPE CROSSING  
S301 | SCALE: 1/2" = 1'-0"



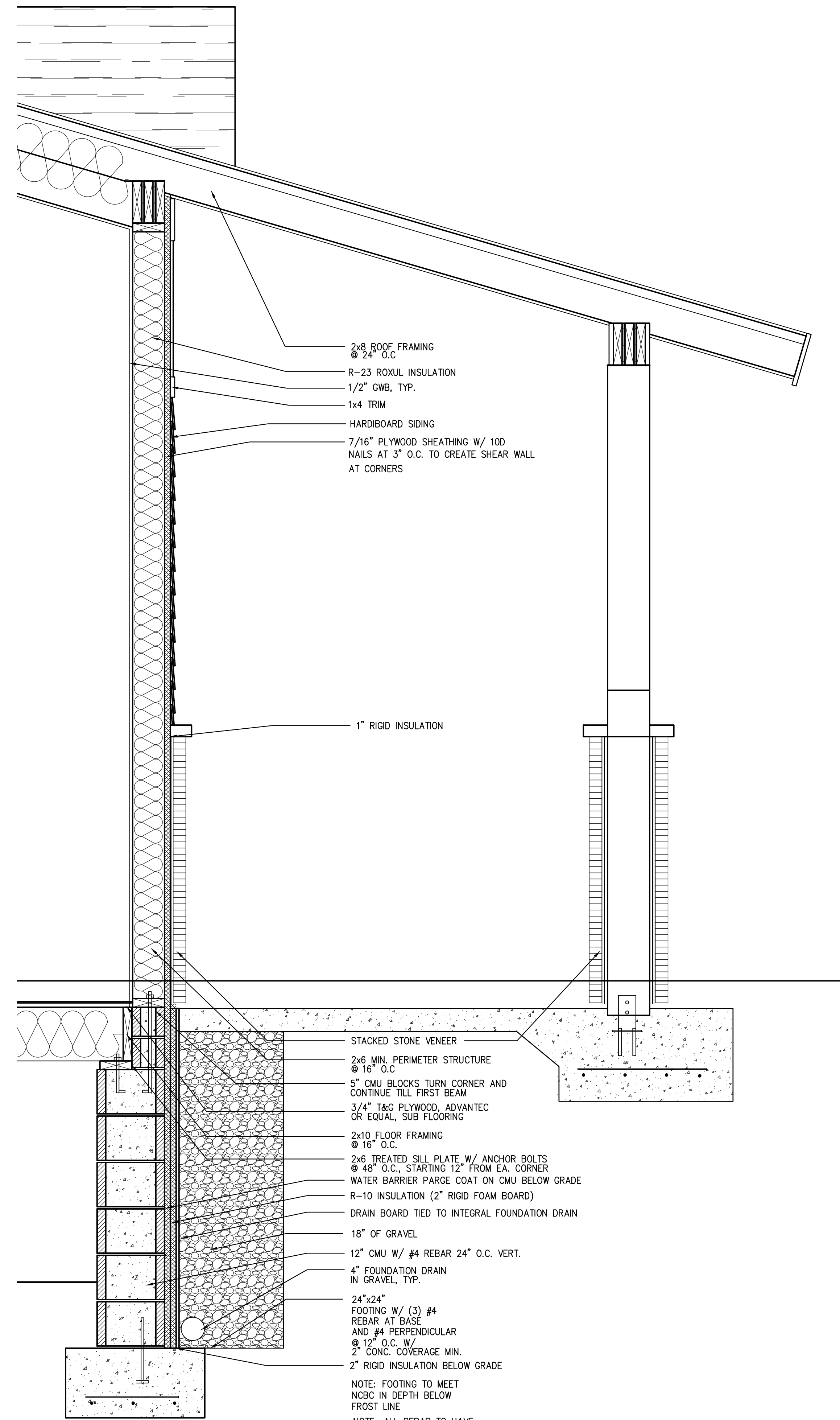
2 | BUILDING SECTION  
S301 | SCALE: 1/2" = 1'-0"



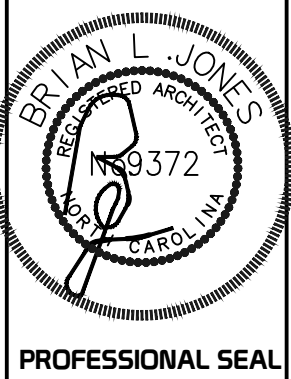
1 | BUILDING SECTION  
S301 | SCALE: 1/2" = 1'-0"



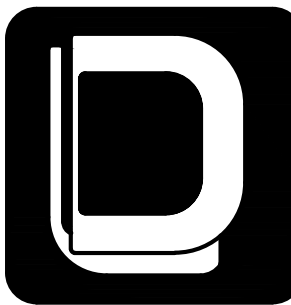
2 | BUILDING SECTION  
S302 | SCALE: 1" = 1'-0"



1 | BUILDING SECTION  
S302 | SCALE: 1" = 1'-0"





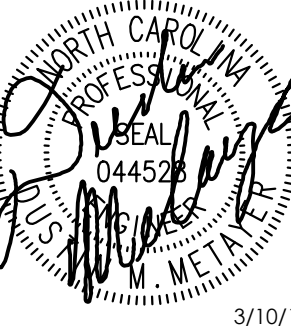


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PLUMBING MECHANICAL ELECTRICAL



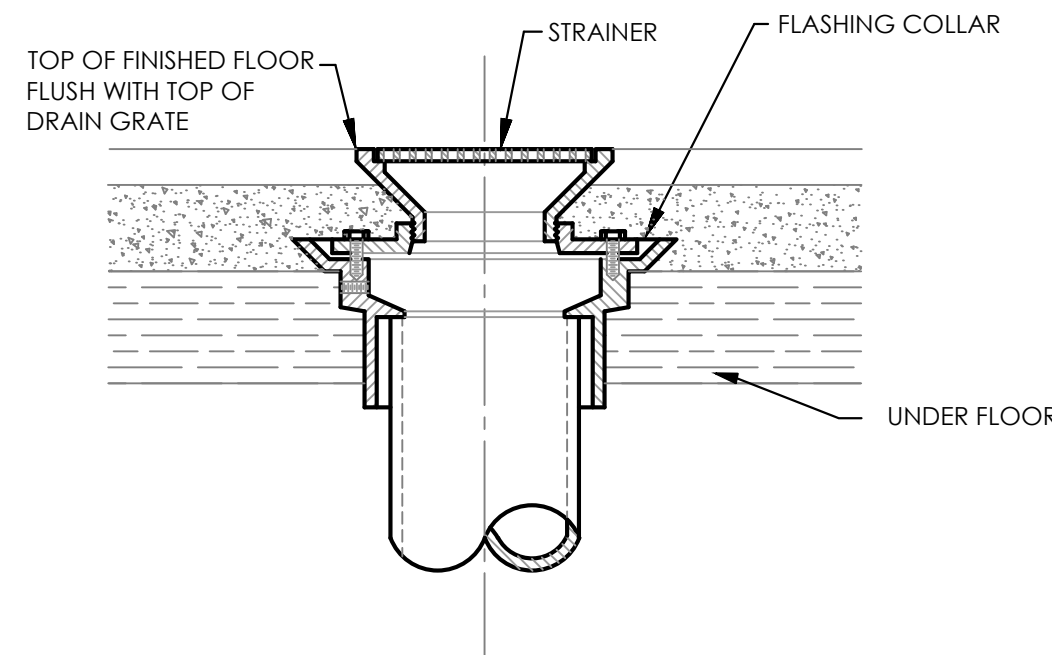
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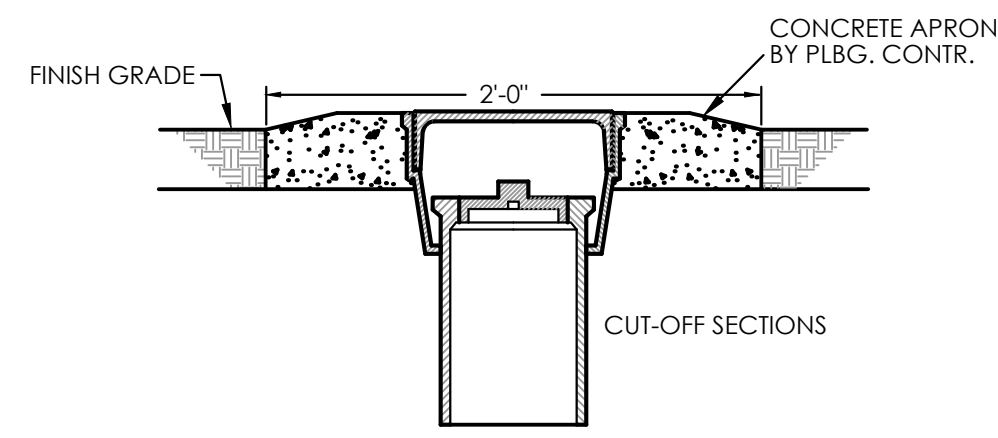
DATES:  
PERMIT SET 3-10-17


DRAWN BY: DMM  
CHECKED BY: ZLT  
PROJECT NUMBER:  
DLS-1701  
PLUMBING  
PLANS

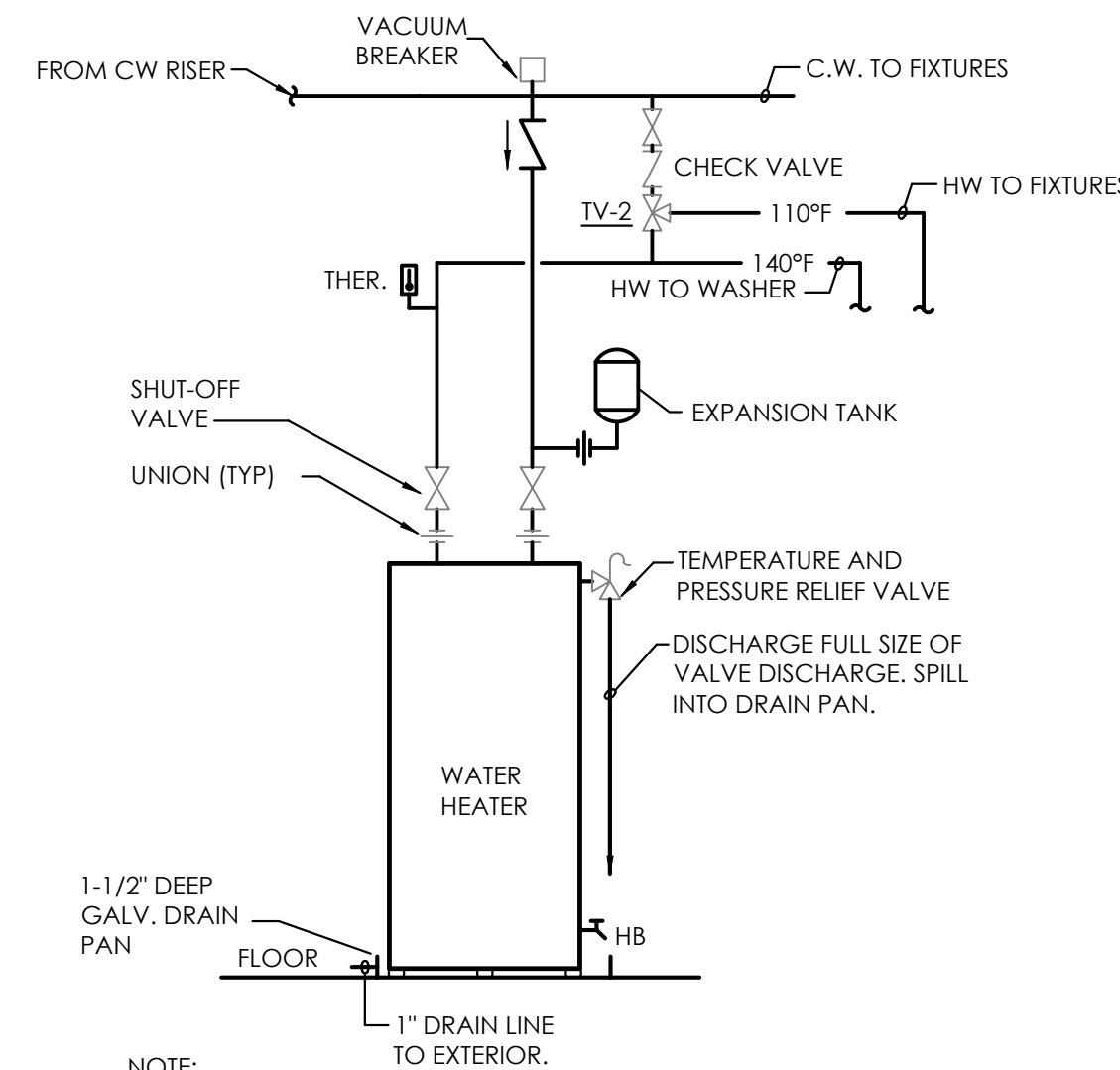
P101



6 FLOOR DRAIN (FD) DETAIL  
NO SCALE



5 EXTERIOR CLEANOUT DETAIL  
NO SCALE



NOTE:  
1. INSTALL WATER HEATER PER MANUFACTURER REQUIREMENTS  
2. PROVIDE HEAT TRAP ON CW AND HW LINES PER ENERGY CODE  
3. ELEVATE DRAIN PAN AS NECESSARY TO ALLOW PROPER FLOW TO EXTERIOR.

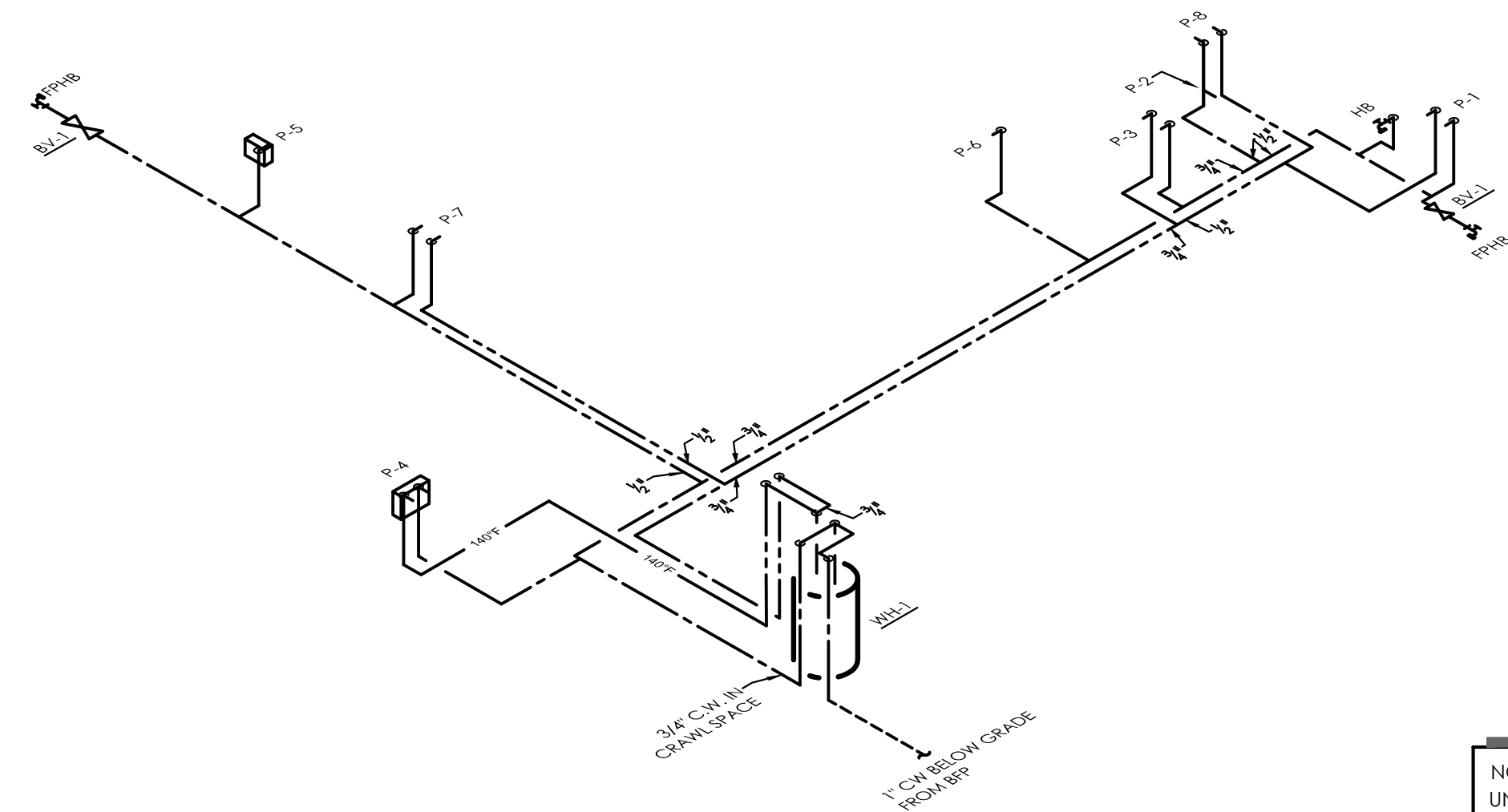
4 WATER HEATER DETAIL  
NO SCALE

GENERAL NOTES - THIS SHEET

- P.C. TO VERIFY EXACT SIZE, LOCATION, INVERT & DIRECTION OF EXISTING LINES BEFORE BEGINNING WORK.
- P.C. TO VERIFY THAT NO FIXTURES ARE CONNECTED UPSTREAM OF BACK FLOW PREVENTER.

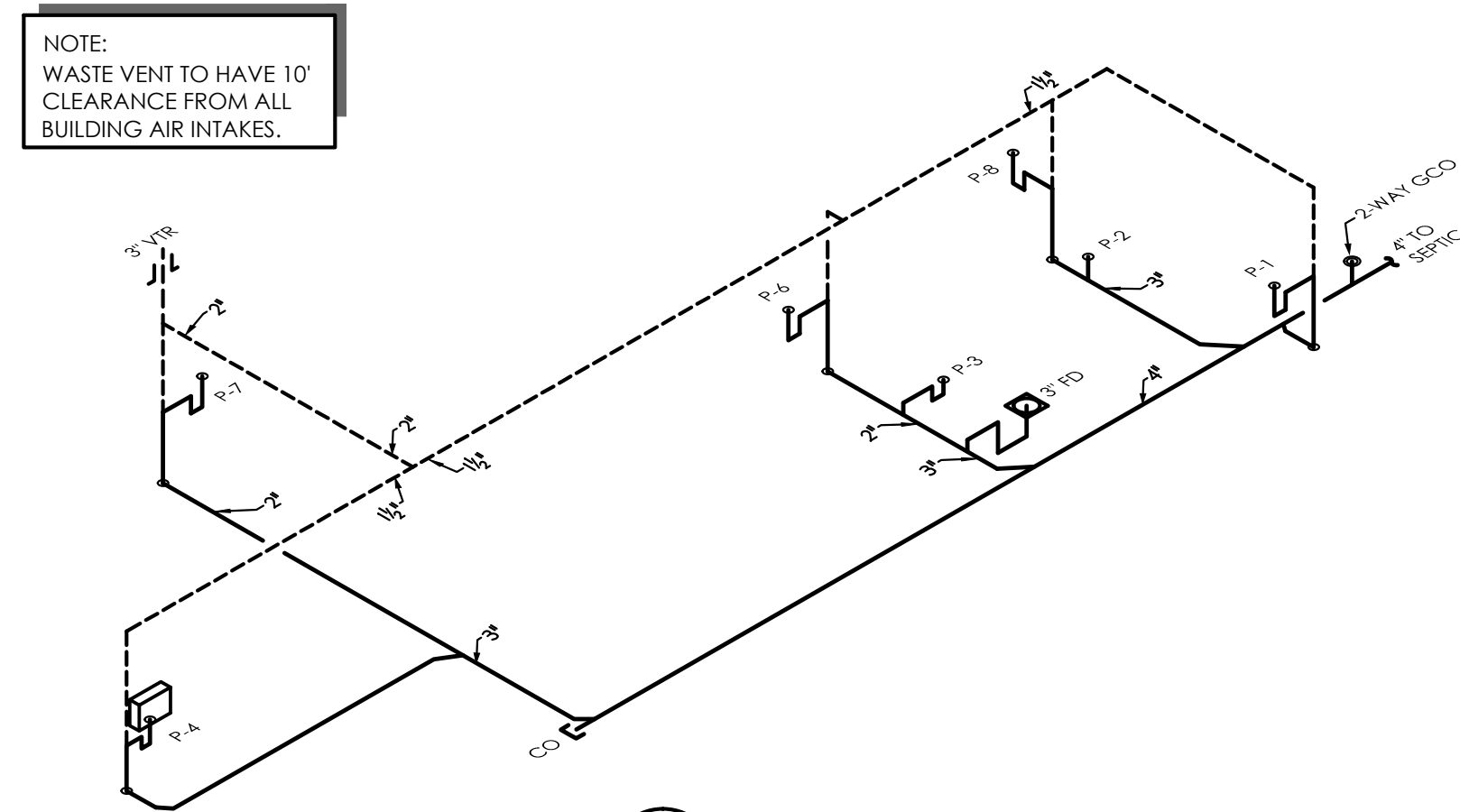
TAGGED NOTES - THIS SHEET

- BACKFLOW PREVENTER BFP-1 INSTALLED IN HOTBOX HBX-1. COORDINATE EXACT LOCATION WITH AREA CONDITIONS. DRAIN TO EXTERIOR.
- 1" C.W. UP FROM BELOW GRADE TO BFP-1.
- WATER HEATER, WH-1, INSTALLED ON FLOOR OF LAUNDRY ROOM. COORDINATE EXACT LOCATION W/ AREA MECHANICAL EQUIPMENT AND M.C. DRAIN WATER HEATER TO EXTERIOR.
- 1" C.W. UP FROM BELOW GRADE IN WALL. PROVIDE MASTER BUILDING SHUTOFF BV-1 IN WALL. PROVIDE WITH ACCESS PANEL.
- MAIN C.W. LINE TO CONTINUE UP WALL AND PENETRATE INTO SPACE HIGH NEAR CEILING. COLD WATER TO RUN TIGHT TO CEILING AND DOWN TO WATER HEATER. ADDITIONAL 3/4" C.W. LINE TO RUN BACK DOWN THROUGH FLOOR TO CRAWL SPACE.
- CONNECT NEW 1" C.W. LINE TO 1" LINE FROM UTILITY. COORDINATE EXACT LOCATION WITH UTILITY.
- 4" WASTE TO TRAVEL DOWN WALL OF CRAWL SPACE TO BELOW GRADE.
- SEPTIC SYSTEM BY OTHERS. COORDINATE LOCATION OF SEPTIC SYSTEM DURING TIME OF CONSTRUCTION.
- 140°F HOT WATER LINE DOWN TO CRAWL SPACE TO LAUNDRY BOX.
- 110°F HOT WATER LINE DOWN TO CRAWL SPACE TO BUILDING FIXTURES.



3 WATER RISER  
NO SCALE

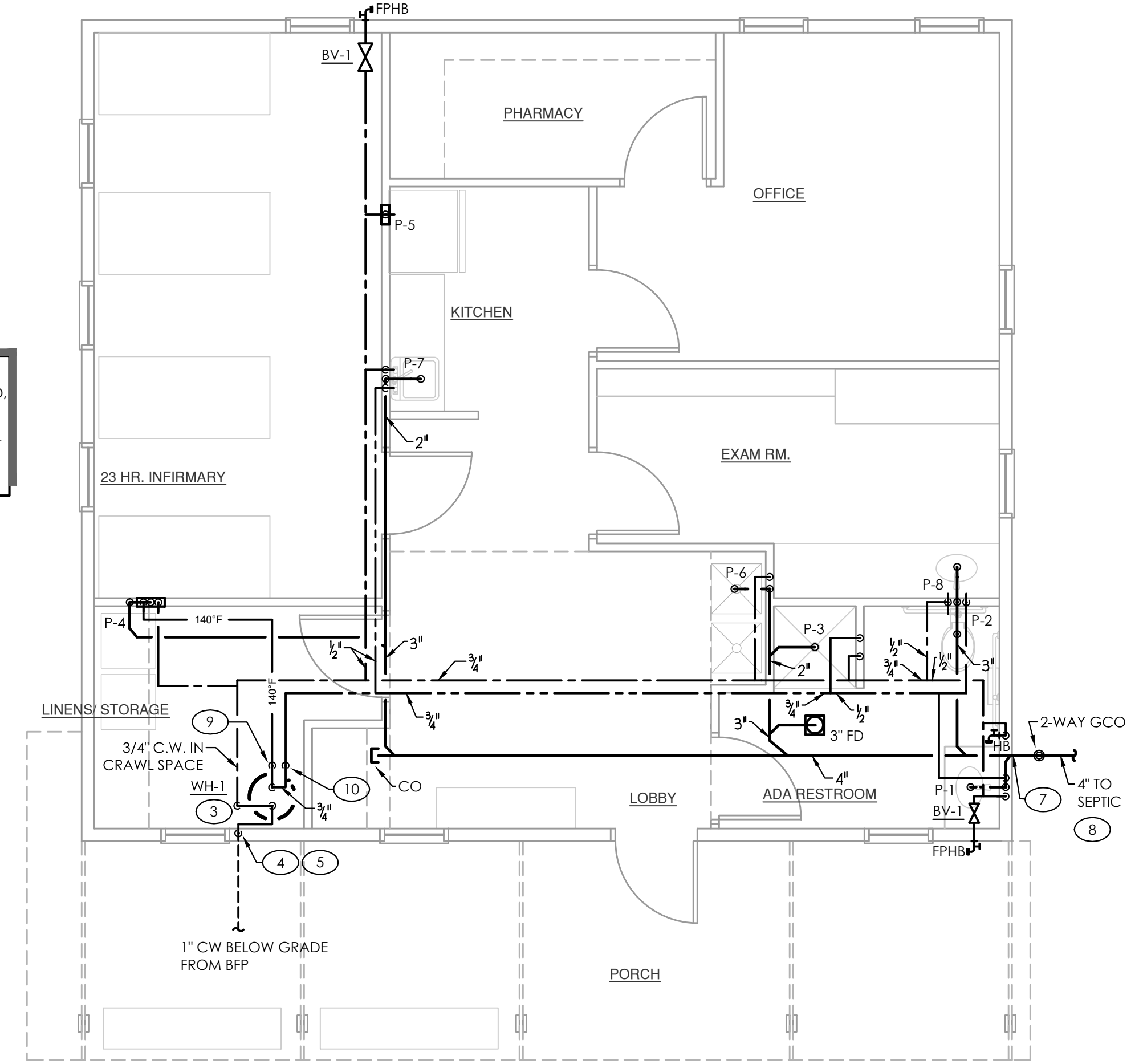
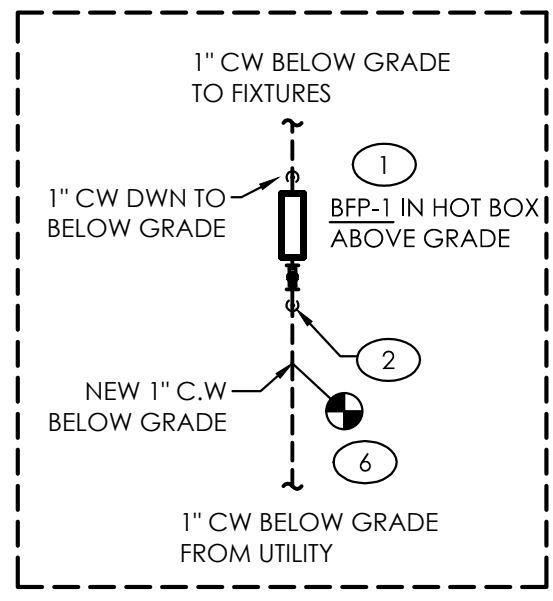
NOTE:  
UNLESS OTHERWISE NOTED,  
ALL WASTE AND WATER  
PIPING TO BE RUN IN  
CRAWL SPACE AND TIGHT  
TO BOTTOM OF FLOOR  
STRUCTURE.



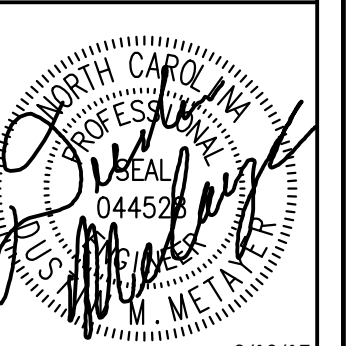
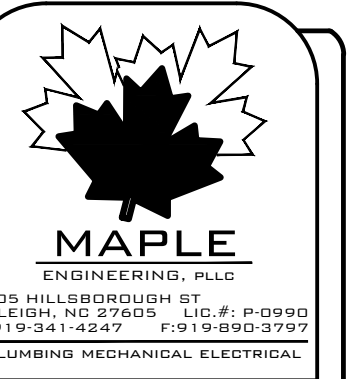
NOTE:  
WASTE VENT TO HAVE 10'  
CLEARANCE FROM ALL  
BUILDING AIR INTAKES.

2 WASTE/VENT RISER  
NO SCALE

NOTE:  
COORDINATE EXACT  
LOCATION OF HOTBOX  
WITH CIVIL PLAN AND  
UTILITY.



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



3/10/17  
**PROFESSIONAL SEAL**

**CAMP AGAPE BOLICK HEALTH CENTER**  
1369 TYLER DEWAR LANE  
FUQUAY VARINA, NC 27526

**DATES:**  
PERMIT SET 3-10-17

**DRAWN BY:** STL  
**CHECKED BY:** MMM  
**PROJECT NUMBER:** DLS-1701

**MECHANICAL SCHEDULES & NOTES**

**M001**

**HVAC GENERAL NOTES**

**I. GENERAL REQUIREMENTS:**

- MECHANICAL CONTRACTOR IS TO FURNISH AND PAY FOR ALL LABOR, MATERIAL, EQUIPMENT, PERMITS & FEES REQUIRED FOR THE COMPLETE INSTALLATION OF ALL SYSTEMS IN THIS SECTION OF WORK.
- ALL WORK IS TO BE PERFORMED IN ACCORDANCE WITH NC MECHANICAL CODES AND ALL OTHER APPLICABLE CODES. MC IS TO COORDINATE W/ G.C. IN REGARDS TO PROJECT TIMELINE, WORK HOURS, AS WELL AS ANY BONDING OR INSURANCE REQUIREMENTS.
- ALL MECHANICAL EQUIPMENT SHALL BE PROVIDED COMPLETE WITH ALL ACCESSORIES, HANGERS, SUPPORTS, CONTROLS, ETC FOR A FULLY FUNCTIONING SYSTEM REGARDLESS OF PRESENCE ON PLANS.
- ALL EQUIPMENT, MATERIALS AND INSTALLATION SHALL BE GUARANTEED TO BE FREE OF DEFECTS FOR A PERIOD OF ONE (1) YEAR AFTER FINAL ACCEPTANCE OF WORK OR IN ACCORDANCE WITH THE MANUFACTURER'S STANDARD GUARANTEE, IF LONGER. ALL COMPRESSORS ARE TO INCLUDE FIVE (5) YEAR WARRANTY, EXISTING EQUIPMENT IS EXCLUDED FROM WARRANTY REQUIREMENT.
- THESE DRAWINGS ARE DIAGRAMMATIC AND SHOW GENERAL LOCATION AND ARRANGEMENT OF ALL MATERIALS AND EQUIPMENT. THE DRAWINGS SHALL BE FOLLOWED AS CLOSELY AS BUILDING CONSTRUCTION AND ALL OTHER WORK WILL PERMIT.
- DO NOT SCALE DRAWINGS FOR MEASUREMENT.
- ALL DUCT DIMENSIONS SHOWN ARE INTERIOR DUCT DIMENSIONS.
- INFORMATION GIVEN IN SCHEDULES INCLUDES BOTH DESCRIPTION OF PRODUCT AND MANUFACTURER'S MODEL #. IF CONFLICT IS PRESENT BETWEEN DESCRIPTION AND MODEL #, EQUIPMENT DESCRIPTION SHALL TAKE PRECEDENT. IN CASE OF CONFLICT BETWEEN THE PLANS AND NOTES/SPECIFICATIONS OR CONFLICT BETWEEN INFORMATION PRESENTED ON THE PLANS OR IN THE NOTES/SPECIFICATIONS, THEN THE MOST RESTRICTIVE SHALL TAKE PRECEDENT.
- BEFORE BID MC IS RESPONSIBLE FOR CLARIFYING W/ G.C. ANY CONFUSION IN REGARDS TO RESPONSIBILITY OF WORK TO BE PERFORMED OR MATERIALS TO BE PROVIDED. THE SUBMITTAL OF THE BID BY THE CONTRACTOR WILL BE HELD AS PROOF THAT THE CONTRACTOR UNDERSTANDS THOROUGHLY AND COMPLETELY THE SCOPE OF THE WORK INVOLVED, AND HAS INCLUDED ON THE BID ALL THE NECESSARY ITEMS TO CARRY OUT THIS SECTION OF WORK.
- ALL QUESTIONS MUST BE SUBMITTED IN RFI FORMAT TO THE ARCHITECT AND MUST BE ADDRESSED BY THE APPROPRIATE DESIGNER OF RECORD PRIOR TO BECOMING A PROPOSED CHANGE ORDER.
- UPON COMPLETION OF WORK M.C. IS TO PROVIDE OWNER W/ COMPLETE BOUND SET OF ALL EQUIPMENT OPERATION & MAINTENANCE MANUALS. PACKAGE IS ALSO TO INCLUDE AND WARRANTY & GUARANTEE INFORMATION.
- M.C. IS TO PROVIDE TRAINING TO OWNER OR OWNER'S REPRESENTATIVE IN REGARDS TO OPERATION, FUNCTION, AND MAINTENANCE OF ALL MECHANICAL EQUIPMENT, CONTROLS, ETC.
- M.C. IS TO REVIEW COMPLETE DRAWING SET. M.C. IS RESPONSIBLE FOR WORK EXPLICITLY SHOWN AND WORK IMPLIED.

**II. DIVISION OF WORK:**

- ALL LOW VOLTAGE WIRING RELATED TO MECHANICAL EQUIPMENT AND SYSTEMS IS THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR (ANY LOW VOLTAGE FIRE ALARM WIRING TO BE BY E.C.). ALL HIGH VOLTAGE CONNECTIONS TO MECHANICAL EQUIPMENT, TO BE PROVIDED AND INSTALLED BY E.C. (SEE EQUIPMENT SCHEDULE FOR DISCONNECT RESPONSIBILITY).
- G.C. TO BE RESPONSIBLE FOR PROVIDING AND INSTALLING ANY ACCESS DOORS (WALL, FLOOR, CEILING) RELATED TO MECHANICAL SYSTEM. M.C. RESPONSIBLE FOR COMMUNICATING TO G.C. SIZE AND LOCATION OF REQ'D ACCESS DOOR(S).
- MECHANICAL CONTRACTOR IS TO EMPLOY THE SERVICES OF THE G.C. FOR CUTTING AND PATCHING OF WALLS, FLOORS & CEILINGS RELATED TO THE INSTALLATION OF MECHANICAL EQUIPMENT & SYSTEMS.
- G.C. RESPONSIBLE FOR PAINTING OF ANY EXPOSED DUCT, PIPING, GRILLES, ETC. M.C. RESPONSIBLE FOR CLEANING AND PREPARING ITEMS FOR PAINT, COORDINATE W/ G.C.
- G.C. TO BE RESPONSIBLE FOR PROVIDING AND INSTALLING ANY ACCESS PLATFORMS, GUARD RAILS, LADDERS, CONCRETE PADS. M.C. TO COMMUNICATE REQ'S TO G.C.
- G.C. TO BE RESPONSIBLE FOR PROVIDING AND INSTALLING ANY WALL LOUVERS BRICK VENTS OR SIMILAR. M.C. TO PROVIDE AND INSTALL ANY WALL CAPS.

**III. COORDINATION:**

- THE MECHANICAL CONTRACTOR SHALL COORDINATE CLOSELY WITH ALL OTHER TRADES TO AVOID CONFLICT AND ENSURE OTHER TRADES PROVIDE MEASURES TO ACCOMMODATE MECHANICAL WORK (I.E. ACCESS DOORS, SLAB/WALL/ROOF OPENINGS, ELECTRICAL CONNECTIONS, ETC).
- MECHANICAL CONTRACTOR SHALL VERIFY LOCATION OF ALL PENETRATIONS FOR RELIEF HOODS, OUTSIDE AIR HOODS, LOUVERS, AND WALL CAPS WITH ARCHITECT & OWNER PRIOR TO INSTALLATION.

**IV. MATERIALS:**

- ALL MATERIALS SHALL BE NEW UNLESS OTHERWISE SHOWN OR SPECIFIED.
- PROVIDE HANGERS & SUPPORTS APPROVED FOR USE BY 2012 NC MECHANICAL CODE.
- ALL MAIN DUCTWORK (SUPPLY, RETURN, EXHAUST, OUTSIDE AIR) SHALL BE GALVANIZED SHEET METAL CONSTRUCTED IN ACCORDANCE WITH SMACNA STANDARDS. RUNOUTS FROM MAIN/BRANCH DUCTS MAY BE FLEXIBLE DUCT CONFORMING TO THE REQUIREMENTS OF UL 181 FOR CLASS 1 FLEXIBLE AIR DUCTS. MAX. LENGTH OF FLEX PER RUNOUT TO BE 6'-0" UNLESS SHOWN OTHERWISE.
- ALL SUPPLY AND RETURN DUCTWORK AND PLENUMS SHALL BE INSULATED. INSULATION OF DUCTWORK IN UNCONDITIONED SPACE SHALL BE MINIMUM R-5 PER 2012 NCECC. INSULATION OF DUCTWORK OUTSIDE BUILDING THERMAL ENVELOPE (I.E. ROOF, ATTIC, CRAWLSPACE) SPACE SHALL BE MINIMUM R-8 PER 2012 NCECC.
- CONCEALED SHEET METAL SUPPLY & RETURN DUCT MAY BE EXTERNALLY INSULATED WITH MINERAL FIBER BOARD OR BLANKET OR MAY BE INTERNALLY INSULATED WITH ACOUSTICAL DUCT LINER. EXPOSED SPIRAL DUCTWORK DOES NOT REQUIRE INSULATION UNLESS OTHERWISE NOTED (WHEN INSTALLED IN CONDITIONED SPACE).
- OUTSIDE AIR DUCTWORK SHALL BE WRAPPED WITH 1" FIBERGLASS DUCT WRAP WITH VAPOR BARRIER.
- ALL MAIN DUCTWORK (INCLUDING EXHAUST) TO BE SEALED ACCORDING TO 2012 NCECC AND AT A MINIMUM INCLUDE SEALING OF ALL DUCT SEAMS W/ NON-HARDENING MASTIC. SEALING BY TAPE ALONE NOT ALLOWED.
- CONDENSATE DRAIN PIPING AND FITTINGS SHALL BE SCHEDULE 40 PVC. DRAINS FROM AIR HANDLING UNITS SHALL BE TRAPPED (2" MINIMUM), TRAPS ON INTERIOR OF BUILDINGS TO BE INSULATED.
- ALL DAMPERS TO INCLUDE SET SCREW OR SIMILAR FEATURE FOR LOCKING IN POSITION.
- ALL REFRIGERANT LINE MATERIAL AS PER MFG'S REQUIREMENTS. SIZE PER MFG INSTRUCTIONS. SUCTION LINE TO BE INSULATED W/ MIN. 1-1/2" ARMAFLEX W/ TAPED OR SEALED SEAMS.
- ALL PROGRAMMABLE THERMOSTATS TO INCLUDE BATTERY BACK-UP AND HAVE CAPABILITY TO SETBACK TO 55°F (HEATING) & 85°F (COOLING). AUTO-CHANGEOVER THERMOSTATS TO HAVE A MIN. 5°F DEADBAND.
- WITH THE EXCEPTION OF THE DRYER FLEX CONNECTION ALL DRYER EXHAUST DUCT SHALL BE 40 RIGID SHEET METAL, 26 GAUGE OR THICKER. JOIN DUCTS WITH HIGH TEMP & WATER RESISTANCE UL-181 APPROVED FOIL TAPE OR BLIND POP-RIVETS.

**V. EXECUTION:**

- M.C. TO FOLLOW MANUFACTURER'S INSTRUCTIONS WHEN INSTALLING MECHANICAL EQUIPMENT. ENSURE REQUIRED MAINTENANCE ACCESS AND CLEARANCES ARE MAINTAINED. IF CONFLICT EXISTS BETWEEN THESE PLANS AND MFG INSTRUCTIONS CONTACT ENGINEER.
- ALL PENETRATIONS THROUGH EXTERIOR WALLS & ROOF SHALL BE FLASHED & COUNTER-FLASHED IN A WATERPROOF MANNER.
- INSTALL ALL CONTROL DEVICES, INCLUDING THERMOSTATS AND SWITCHES, 4'-0" ABOVE FINISHED FLOOR.
- INDEPENDENT CERTIFIED TEST AND BALANCE CONTRACTOR SHALL BALANCE SYSTEM TO AIR QUANTITIES INDICATED ON PLANS AND IN ACCORDANCE W/ 2012 NCECC SEC. 503.2.9. M.C. TO PROVIDE OWNER'S REPRESENTATIVE & ENGINEER WITH COMPLETE BALANCE REPORT. MC RESPONSIBLE FOR PROVIDING ANY DAMPERS, VALVES, PORTS, ETC. NECESSARY FOR A COMPLETE SYSTEM BALANCE.
- ALL REFRIGERANT PIPING SHALL BE INSTALLED PER MFG'S INSTRUCTIONS IN REGARDS TO SUPPORTS, BENDS, FITTINGS, OIL TRAPS, ETC.
- PENETRATIONS OF NON-RATED WALLS, PARTITIONS AND FLOOR OF COMBUSTIBLE CONSTRUCTION SHALL BE FIRESTOPPED WITH MATERIALS EQUIVALENT TO TWO INCHES OF WOOD. FIRESTOPPING SHALL COMPLY WITH ASTM E-814.
- ANY NOTCHING, DRILLING, BORING OR OTHER ALTERATION TO BUILDING STRUCTURE SHALL BE PERFORMED IN A CODE APPROVED METHOD AND NOT THREATEN THE INTEGRITY OF THE BUILDING STRUCTURE.
- SUPPORT ALL DUCTWORK AND PIPING IN ACCORDANCE W/ 2012 NC MECHANICAL CODE. ANY SUSPENDED MATERIALS SHALL BE DIRECTLY SUPPORTED BY THE BUILDING STRUCTURE. DO NOT ATTACH ANYTHING TO THE ROOF DECK.
- PENETRATIONS OF ALL EXTERIOR WALLS, FLOORS AND CEILINGS SHALL BE SEALED IN AN AIR TIGHT MANNER AND IN ACCORDANCE W/ 2012 NCECC APPENDIX 2 DETAILS. ALL PENETRATIONS OF WALLS, FLOORS & CEILINGS IN RETURN OR EXHAUST PLENUMS SHALL BE SEALED IN AN AIR TIGHT MANNER.
- DUCT ACCESS DOORS TO BE PROVIDED AT ALL FIRE, RADIATION & SMOKE DAMPERS, SMOKE DETECTORS, CLEANOUTS AND ANY OTHER CODE REQUIRED LOCATIONS.
- THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL MECHANICAL EQUIPMENT FROM FOREIGN MATERIAL DURING CONSTRUCTION (PAINT, SPACKLE, ETC.). UPON COMPLETION OF WORK THE MECHANICAL CONTRACTOR SHALL CLEAN, WASH, ETC ALL ITEMS AND EQUIPMENT WITHIN HIS SCOPE OF WORK AND LEAVE ALL ITEMS BRIGHT AND CLEAN.

**SPLIT SYSTEM HEAT PUMP UNIT SCHEDULE**

AIR HANDLING UNIT DATA														HEAT PUMP								
UNIT TAG	AREA SERVED	MANUF. MODEL	FAN DATA				COOLING		HEAT		AUX.		ELECTRICAL DATA			GENERAL DATA			ELECTRICAL DATA			NOTES
			FAN CFM	ESP (\" OF WG)	MOTOR (HP)	OA (CFM)	TOTAL (MBH)	SENS. (MBH)	TOTAL (MBH)	HEAT (KW@240)	VOLTAGE (V/PH)	MCA (A)	MOCPP (A)	UNIT TAG	MANUF. MODEL	TONNAGE	EFF. (SEER)	VOLTAGE (V/PH)	MCA (A)	MOCPP (A)		
AH-1	HEALTH CENTER	TRANE GAM2A0A30	1000	0.50"	1/3	85	30.0	24.0	30.0	7.68	240/1	42.0	45	HP-1	TRANE 4TWB3030	2.5	13.0	240/1	15.0	25	1,2,3,4,5,6,7,8	

**NOTES:**

- COOLING CAPACITIES ARE RATED IN ACCORDANCE WITH ARI STANDARD 210/240 AT 95°F AMBIENT OUTDOOR AIR TEMP., 80°F DRY BULB, 67°F WET BULB ENTERING AIR TEMP., AND AIR QUANTITY LISTED BY MFG. UNITS ABOVE 5 TONS ARE RATED IN ACCORDANCE WITH ARI STANDARD 340.
- REFRIG. PIPING TO BE SIZED PER TOTAL INSTALL. EQUIV. LENGTH. LONG-LINE APP. TO BE PROVIDED WHENEVER MFG. RECOMM. LENGTHS ARE EXCEEDED, INCL. LIQ. LINE SOLENOID VALVES, ACCUMULATOR, ETC. MAX T.E.L. IS PER MFG.
- PROVIDE SINGLE POINT ELECTRICAL CONNECTION FOR AIR HANDLING UNIT.
- PROVIDE 3 SETS OF NEW FILTERS FOR EACH UNIT. PROVIDE ONE AT INSTALLATION, ONE PRIOR TO AIR BALANCE AND ONE AT TURNOVER TO OWNER.
- OUTDOOR UNITS SHALL HAVE A MINIMUM 13.0 SEER RATING.
- PROVIDE HONEYWELL SERIES 8000 7 DAY PROGRAMMABLE THERMOSTAT W/ MANUAL OVERRIDE & WIRELESS REMOTE AVERAGING SENSOR. (T-STAT & SENSOR TO MEASURE TEMPERATURE IN (2) LOCATIONS)
- PROVIDE BI-FLOW TVX FOR HEAT PUMP OPERATION.
- OUTDOOR THERMOSTAT TO LOCK-OUT ELECTRIC HEAT WHEN TEMPERATURE IS 40°F OR HIGHER. PROVIDE UNIT WITH EMERGENCY HEAT OVERRIDE OPTION.

**DIFFUSER SCHEDULE**

SYMBOL	CFM	NECK SIZE	MODULE SIZE	FRAME TYPE	PATTERN	DAMPER	MATERIAL	SERVICE	FINISH	MANUFACTURER & MODEL NO.	NOTES
(A)	AS NOTED	N/A	AS NOTED	FLOOR	2-WAY	YES	STEEL	SUPPLY	NOTE 2	HART & COOLEY 421	1,2,3
(B)	AS NOTED	N/A	AS NOTED	FLOOR	LOUVERED	YES	STEEL	RETURN	NOTE 2	HART & COOLEY 265	1,2,3
(C)	AS NOTED	N/A	AS NOTED	SURFACE	LOUVERED	NO	STEEL	TRANSFER	NOTE 2	TITUS 350RL	1,2

**NOTES:**

- GENERAL - MC RESPONSIBLE FOR VERIFYING QTY, COLOR & FRAME TYPE OF DIFFUSERS/GRILLES BEFORE ORDERING. PROVIDE SQR TO RND TRANSITIONS & PLENUMS AS NECESSARY.
- DIFFUSER DESIGNATIONS ON PLANS AS FOLLOWS:
  - FINISH TO MATCH / BE ABLE MATCH CEILING OR WALL OR DOOR.
  - FACTORY INSULATION BACKING ON GRILLES EXPOSED TO NON-CONDITIONED AREAS. ALTERNATELY, FIELD SUPPLY AND INSTALL.

**FAN SCHEDULE**

UNIT NO.	SERVICE	AREA SERVED	CFM	S.P.	RPM	TYPE & ARRANGEMENT	MIN. MOTOR HP & VOLTAGE	MANUFACTURER & MODEL NO.	DRIVE	CONTROL SCHEME	NOTES
EF-1	EXHAUST	BATHROOM	100	0.25"	MFG	CEILING, CENTRIFUGAL	49 WATTS 120V/1Ø	GREENHECK SPA-110	DIRECT	A	1,2,3

**NOTES:**

- SCREEN
- BACKDRAFT DAMPER
- COLOR BY ARCHITECT
- CONTROL W/ ROOM LIGHTS

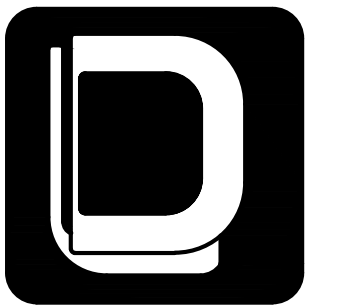
**Ventilation Calculations**  
Calc's Based on the 2012 NCMC Chp 4

AH/RTU: AH-1		Spaces: Health Center									
Occupancy	Area (sqft)	Occ. Density (ppb/1000 sqft)	# People	CFM/Sqft	CFM/Person	Area CFM	People CFM	Total Gross CFM	Vent. Eff.	Req'd CFM	
Pharmacy	10	25	1	0.18	10	2	10	12	1.0	12	
Office	60	5	1	0.06	5	4	5	9	1.0	9	
Exam Room	35	20	1	0	15	0	15	15	1.0	15	
Kitchen	15	5	1	0.06	5	1	5	6	1.0	6	
Lobby	65	10	1	0.06	5	4	5	9	1.0	9	
Linens/Storage	15	0	0	0.06	0	1	0	1	1.0	1	
Infirmary	110	20	4	0.06	5	7	20	27	1.0	27	
<b>Total Req'd CFM</b>										<b>78</b>	
<b>Supplied CFM</b>										<b>85</b>	

**ENERGY REQUIREMENTS:**

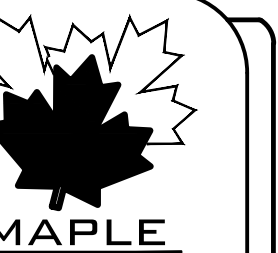
**MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT**

METHOD OF COMPLIANCE	
PRESCRIPTIVE <input checked="" type="checkbox"/>	ENERGY COST BUDGET <input type="checkbox"/>
THERMAL ZONE	4A
EXTERIOR DESIGN CONDITIONS	
WINTER DRY BULB	14
SUMMER DRY BULB	93
INTERIOR DESIGN CONDITIONS	
WINTER DRY BULB	70
SUMMER DRY BULB	76
RELATIVE HUMIDITY	50%
BUILDING HEATING LOAD (MBH)	20.5
BUILDING COOLING LOAD (MBH)	27.6
MECHANICAL SPACING CONDITIONING SYSTEM	
UNITARY	
DESCRIPTION OF UNIT	SEE SCHEDULES
HEATING EFFICIENCY	SEE SCHEDULES
COOLING EFFICIENCY	SEE SCHEDULES
HEAT OUTPUT OF UNIT	SEE SCHEDULES
COOLING OUTPUT OF UNIT	SEE SCHEDULES
BOILER	
TOTAL BOILER OUTPUT	NA
CHILLER	
TOTAL CHILLER OUTPUT	NA
LIST EQUIPMENT EFFICIENCIES	SEE SCHEDULES
DESIGNER'S STATEMENT:	
TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE DESIGN OF THIS BUILDING COMPLIES WITH THE MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT REQUIREMENTS OF THE N.C.S. ENERGY CODE.	
SIGNED:	
NAME:	DUSTIN M. METAYER, PE
TITLE:	MECHANICAL ENGINEER

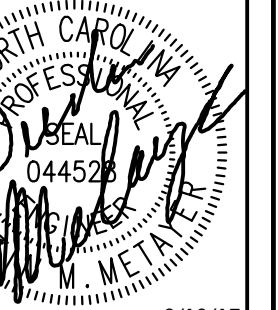


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3/10/17  
PROFESSIONAL SEAL

CAMP AGAPE BOLICK HEALTH CENTER  
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DATES:  
PERMIT SET 3-10-17

DRAWN BY: JML  
CHECKED BY: JMM  
PROJECT NUMBER:  
DLS-1701  
MECHANICAL  
PLAN & DETAILS

M101

### DRYER VENT LENGTH

2012 NCMC SEC. 504.6

**LINENS/STORAGE:**  
(0) 90° BEND + (0) 45° BEND = 0' + 0' (V) + 1' (H) = 1' < 35'

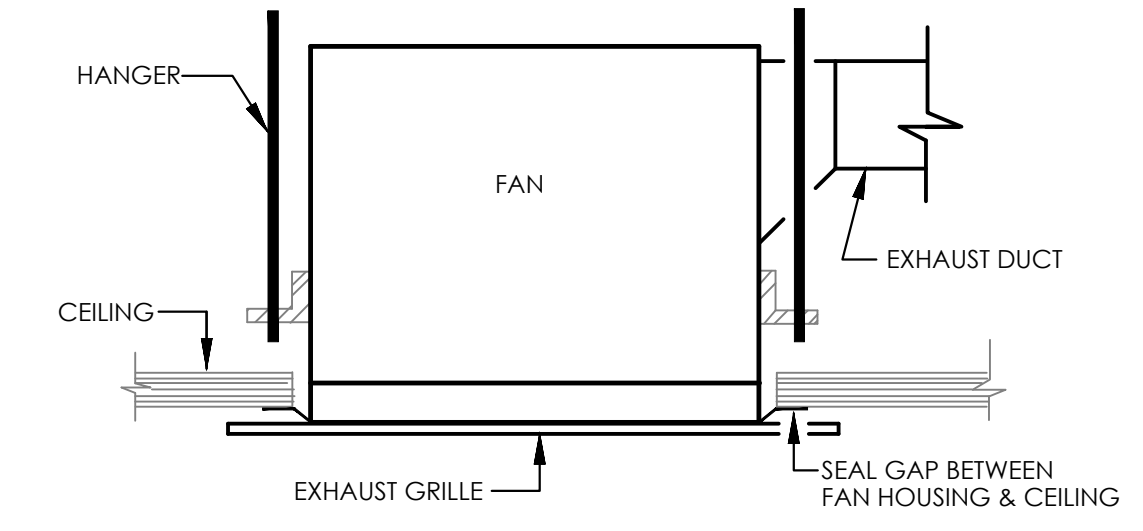
1. INSTALLED DRYER MUST BE RATED BY MFG FOR VENT LENGTH OF 1' OR GREATER.
2. PROVIDE A PERMANENT PLACARD WITHIN 6' OF THE DRYER EXHAUST CONNECTION STATING EQUIVALENT LENGTH OF EXHAUST VENT. (2012 NCMC 504.6.5)
3. PROVIDE SHIELD PLATES ON THE FACE OF ALL FRAMING MEMBERS WHERE THERE IS LESS THAN 1-1/4" OF MATERIAL BETWEEN DRYER DUCT AND FACE OF FRAMING MEMBER. SHIELD PLATES ARE TO BE OF STEEL AND HAVE A MINIMUM THICKNESS OF 0.062 INCHES AND EXTEND A MINIMUM OF 2 INCHES ABOVE SOLE PLATES AND BELOW TOP PLATES. (2012 NCMC 504.6.7)

### GENERAL NOTES - THIS SHEET

1. ENSURE THAT ALL SOURCES OF BUILDING EXHAUST ARE A MINIMUM OF 10' HORIZONTALLY FROM OR A MINIMUM OF 3' ABOVE ANY AREA OUTSIDE AIR INTAKES.
2. AIR HANDLER AND ALL ASSOCIATED DUCTWORK IS LOCATED IN SEALED CRAWLSPACE BELOW FINISHED FLOOR. ALL SUPPLY/RETURN GRILLES ARE FLOOR MOUNTED.

### TAGGED NOTES - THIS SHEET

1. 40 DRYER VENT LOW TO WALL CAP W/ BDD.
2. 70 OUTSIDE AIR DUCT TO WALL CAP ON CRAWL SPACE WALL. PROVIDE W/ INSECT SCREEN.
3. 60 EXHAUST DUCT TO WALL CAP. PROVIDE W/ INSECT SCREEN & BDD.
4. (2) TRANSFER GRILLES TO BE INSTALLED IN WALL ABOVE DOOR. TURN BLADES UP. LINE OPENING WITH SHEET METAL.
5. (2) TRANSFER GRILLES TO BE INSTALLED ABOVE DOOR. TURN BLADES UP. LINE OPENING WITH SHEET METAL. ENSURE MINIMUM FREE AREA IS AT LEAST 100 SQ. INCHES.
6. PROVIDE W/ EQUIPMENT PAD. COORDINATE EXACT LOCATION W/ AREA CONDITIONS.
7. AIR HANDLER TO BE INSTALLED IN CRAWL SPACE. COORDINATE EXACT LOCATION W/ EXISTING BUILDING SUPPORTS. ACCESS VIA DOOR IN CRAWL SPACE.
8. COORDINATE GRILLE LOCATION W/ WATER HEATER & P.C.
9. ACCESS DOOR IN WALL OF CRAWL SPACE.

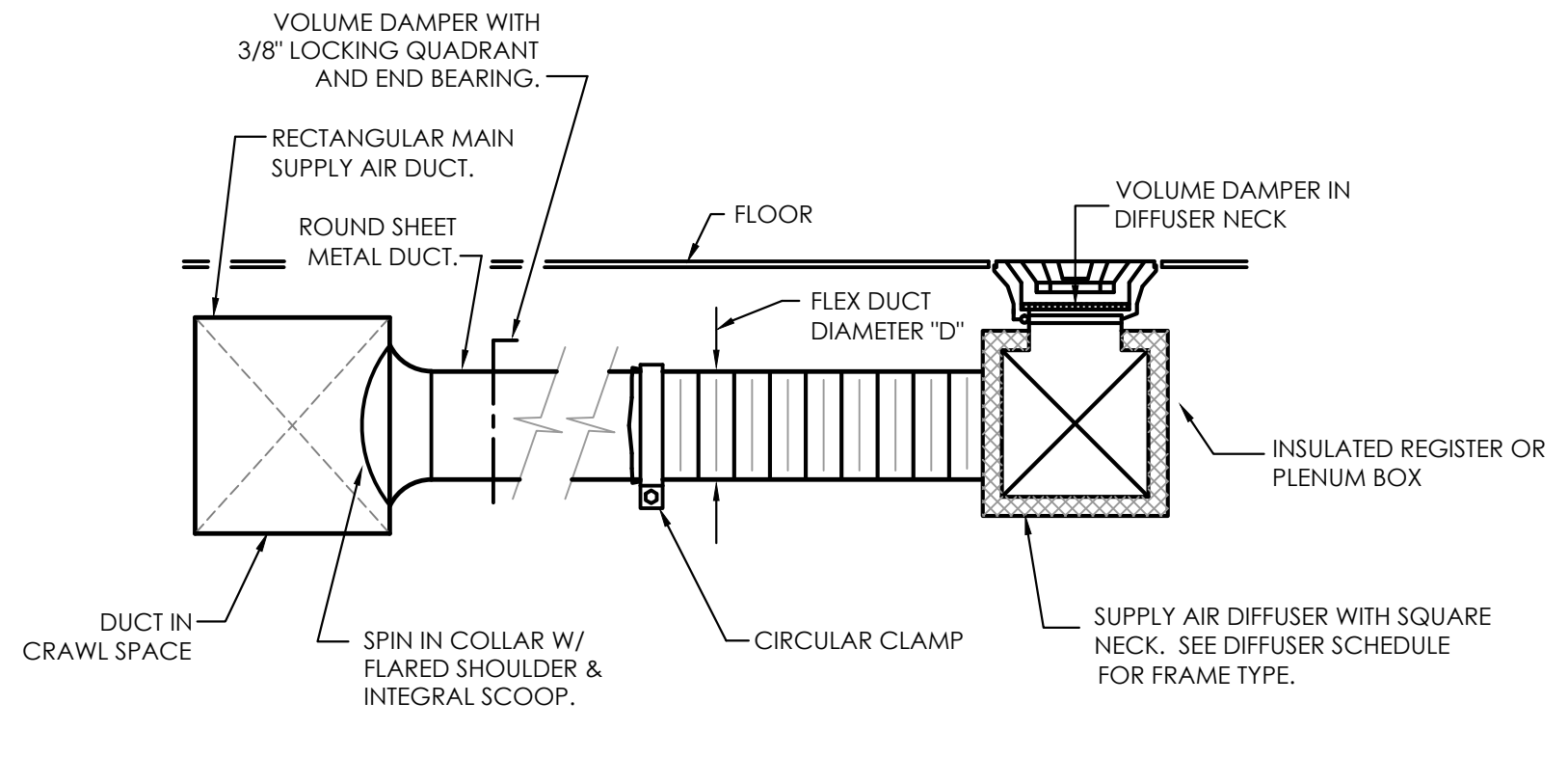


**NOTES:**

1. IF FAN IS EQUIPPED W/ INTERNAL BDD ENSURE BDD IS NOT TAPED SHUT.
2. ENSURE NO PORTION OF TAPE, SEALING, ETC EXTENDS PAST EDGE OF EXHAUST GRILLE.
3. INSTALLATION IN HARD-CEILING SIMILAR. FAN TO BE FASTENED TO RAFTER/JOIST. SEE MFG INSTRUCTIONS.

### 4 EXHAUST FAN (CEILING) DETAIL

NO SCALE

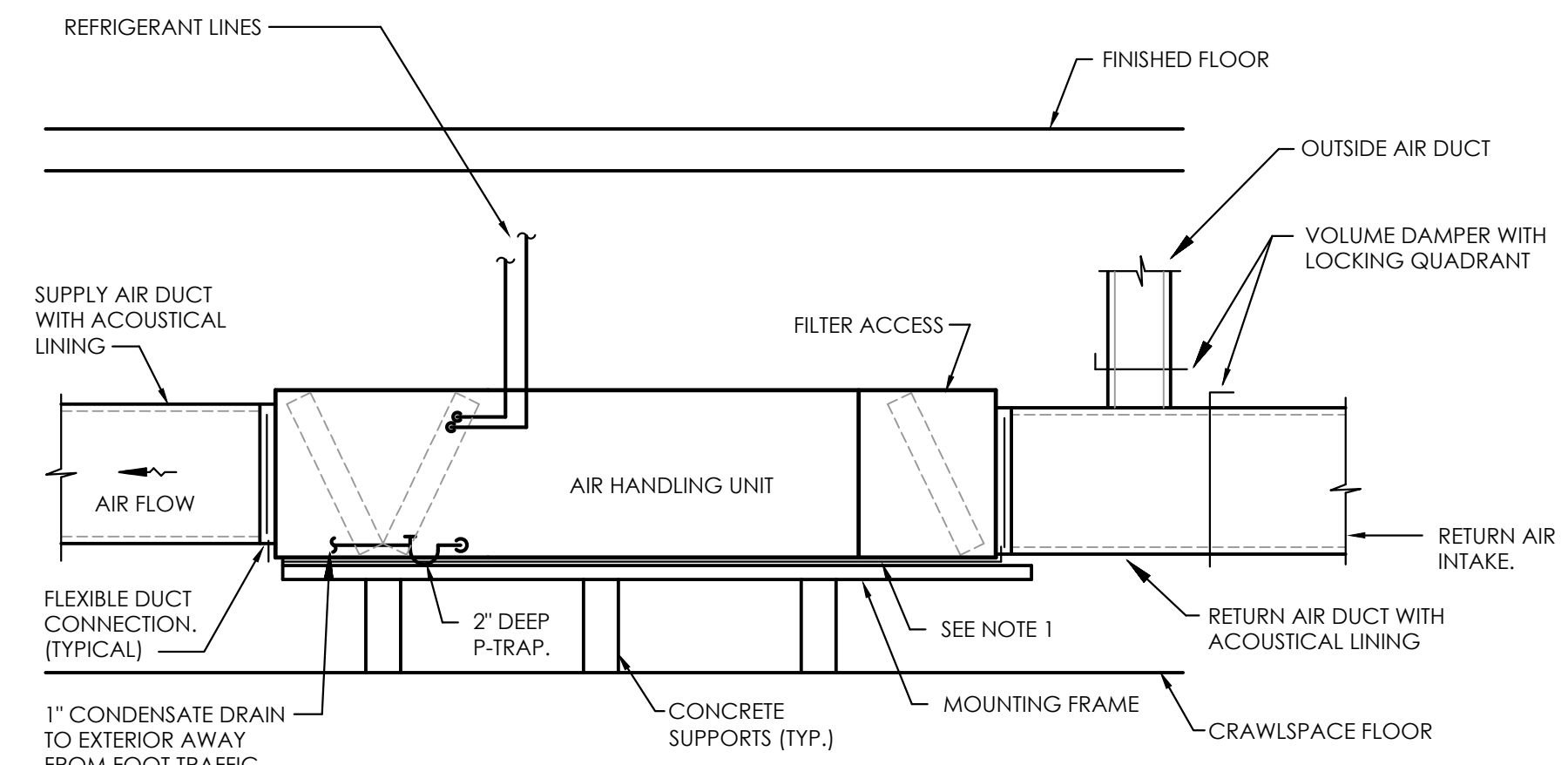


**NOTE:**

1. SEE HVAC GENERAL NOTES FOR DUCT INSULATION REQUIREMENTS.

### 3 FLOOR MOUNTED SUPPLY AIR DIFFUSER DETAIL

NO SCALE



**NOTE:**

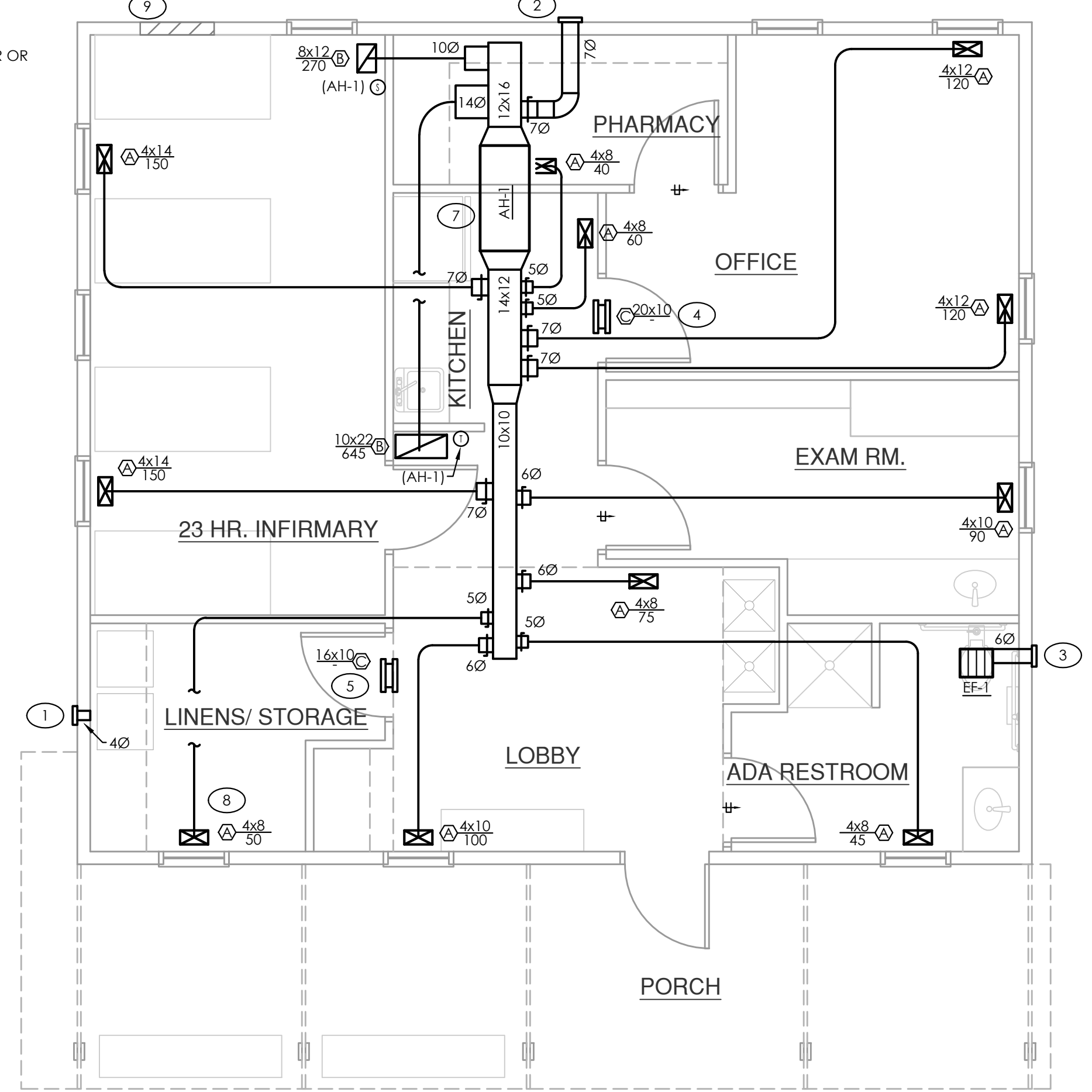
1. AUXILIARY DRAIN PAN WITH MICROFLOAT SWITCH, INTERLOCK FLOAT SWITCH WITH AIR HANDLER. INSTALL FLOAT SWITCH IN ONE CORNER OF PAN AND TILT PAN TO THAT CORNER.

### 2 AIR HANDLING UNIT DETAIL

NO SCALE

**NOTE:**  
CRAWL SPACE TO BE 5'-6" CLEAR FROM GROUND TO FLOOR FRAMING. COORDINATE EXACT LOCATION & INSTALLATION HEIGHT OF AIR HANDLER W/ CRAWL SPACE CONDITIONS.

HP-1  
6



### 1 MECHANICAL PLAN

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

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**GENERAL ELECTRICAL NOTES**

- I. GENERAL REQUIREMENTS:**
- ELECTRICAL CONTRACTOR IS TO FURNISH AND PAY FOR ALL LABOR, MATERIAL, EQUIPMENT, PERMITS & FEES REQUIRED FOR THE COMPLETE INSTALLATION OF ALL SYSTEMS IN THIS SECTION OF WORK.
  - ALL WORK IS TO BE PERFORMED IN ACCORDANCE WITH NEC AND ALL OTHER APPLICABLE CODES. EC IS TO COORDINATE W/ G.C. IN REGARDS TO PROJECT TIMELINE, WORK HOURS, AS WELL AS ANY BONDING OR INSURANCE REQUIREMENTS.
  - ALL ELECTRICAL & LIGHTING EQUIPMENT SHALL BE PROVIDED COMPLETE WITH ALL ACCESSORIES, HANGERS, SUPPORTS, CONTROLS, ETC FOR A FULLY FUNCTIONING SYSTEM REGARDLESS OF PRESENCE ON PLANS.
  - ALL EQUIPMENT, MATERIALS AND INSTALLATION SHALL BE GUARANTEED TO BE FREE OF DEFECTS FOR A PERIOD OF ONE (1) YEAR AFTER FINAL ACCEPTANCE OF WORK OR IN ACCORDANCE WITH THE MANUFACTURER'S STANDARD GUARANTEE, IF LONGER. EXISTING EQUIPMENT IS EXCLUDED FROM WARRANTY REQUIREMENT.
  - THESE DRAWINGS ARE DIAGRAMMATIC AND SHOW GENERAL LOCATION AND ARRANGEMENT OF ALL MATERIALS AND EQUIPMENT. THE DRAWINGS SHALL BE FOLLOWED AS CLOSELY AS BUILDING CONSTRUCTION AND ALL OTHER WORK WILL PERMIT.
  - DO NOT SCALE DRAWINGS FOR MEASUREMENT.
  - INFORMATION GIVEN IN SCHEDULES INCLUDES BOTH DESCRIPTION OF PRODUCT AND MANUFACTURER'S MODEL #. IF CONFLICT IS PRESENT BETWEEN DESCRIPTION AND MODEL #, EQUIPMENT DESCRIPTION SHALL TAKE PRECEDENCE. IN CASE OF CONFLICT BETWEEN THE PLANS AND NOTES/SPECIFICATIONS OR CONFLICT BETWEEN INFORMATION PRESENTED ON THE PLANS OR IN THE NOTES/SPECIFICATIONS, THEN THE MOST RESTRICTIVE SHALL TAKE PRECEDENCE.
  - BEFORE BID EC IS RESPONSIBLE FOR CLARIFYING W/ G.C. ANY CONFUSION IN REGARDS TO RESPONSIBILITY OF WORK TO BE PERFORMED OR MATERIALS TO BE PROVIDED. THE SUBMITTAL OF THE BID BY THE CONTRACTOR WILL BE HELD AS PROOF THAT THE CONTRACTOR UNDERSTANDS THOROUGHLY AND COMPLETELY THE SCOPE OF THE WORK INVOLVED, AND HAS INCLUDED ON THE BID ALL THE NECESSARY ITEMS TO CARRY OUT THIS SECTION OF WORK.
  - AS SOON AS POSSIBLE (AND NOT MORE THAN 30 DAYS) AFTER CONTRACT IS SIGNED, THE EC SHALL PROVIDE SUBMITTALS OF EQUIPMENT HEADING TO PURCHASE FOR REVIEW AND COMMENT BY THE ENGINEER. ENGINEER IS TO APPROVE SUBMITTALS BEFORE EQUIPMENT IS ORDERED.
  - ALL QUESTIONS MUST BE SUBMITTED IN RFI FORMAT TO THE ARCHITECT AND MUST BE ADDRESSED BY THE APPROPRIATE DESIGNER OR RECORD PRIOR TO BECOMING A PROPOSED CHANGE ORDER.
  - EC IS TO REVIEW COMPLETE DRAWING SET, E.C. IS RESPONSIBLE FOR WORK EXPLICITLY SHOWN AND WORK IMPLIED, UNLESS OTHERWISE NOTED FINAL ELECTRICAL CONNECTION TO ALL EQUIPMENT, FURNITURE (I.E. CUBICLES, WORKSTATIONS, ETC) IS THE RESPONSIBILITY OF THE E.C..
- II. DIVISION OF WORK:**
- ALL LOW VOLTAGE WIRING RELATED TO MECHANICAL EQUIPMENT AND SYSTEMS IS THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR (ANY LOW VOLTAGE FIRE ALARM WIRING TO BE BY E.C.). ALL HIGH VOLTAGE CONNECTIONS TO MECHANICAL EQUIPMENT, TO BE PROVIDED AND INSTALLED BY E.C. (SEE EQUIPMENT SCHEDULE FOR DISCONNECT RESPONSIBILITY).
  - G.C. TO BE RESPONSIBLE FOR PROVIDING AND INSTALLING ANY ACCESS DOORS (WALL, FLOOR, CEILING) RELATED TO ELECTRICAL SYSTEM, E.C. RESPONSIBLE FOR COMMUNICATING TO G.C. SIZE AND LOCATION OF REQ'D ACCESS DOOR(S).
  - ELECTRICAL CONTRACTOR IS TO EMPLOY THE SERVICES OF THE G.C. FOR CUTTING AND PATCHING OF WALLS, FLOORS & CEILINGS RELATED TO THE INSTALLATION OF ELECTRICAL EQUIPMENT & SYSTEMS.
  - G.C. RESPONSIBLE FOR PAINTING OF ANY EXPOSED CONDUIT, WIRE, BOXES ETC. E.C. RESPONSIBLE FOR CLEANING AND PREPARING ITEMS FOR PAINT. COORDINATE W/ G.C.
  - E.C. TO COORDINATE W/ G.C. PRIOR TO BID REGARDING HIRING OF FIRE ALARM, DATA/TELE & SECURITY SUB-CONTRACTORS (IF APPLICABLE).
- III. MATERIALS:**
- ALL MATERIAL DEVICES, APPLIANCES, AND EQUIPMENT SHALL BE NEW UNLESS OTHERWISE NOTED AND SHALL CONFORM TO THE STANDARDS OF THE UNDERWRITERS LABORATORIES, INC., AND THE NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION.
  - PROVIDE HANGERS & SUPPORTS APPROVED FOR USE BY NEC.
  - CONDUCTORS SHALL BE COPPER RATED AT NOT LESS THAN 600 VOLTS. MINIMUM SIZE SHALL BE #12 AWG UNLESS OTHERWISE NOTED ON THE DRAWINGS. ALL WIRE #8 AWG AND LARGER SHALL BE STRANDED. ALL CONDUCTORS #10 AND SMALLER MAY BE SOLID OR STRANDED, UNLESS OTHERWISE NOTED. CONDUCTOR INSULATION SHALL BE TYPE THHN UNLESS OTHERWISE NOTED. ALL EXTERIOR CABLE OR OTHER WIRE EXPOSED TO SUNLIGHT SHALL BE RATED FOR EXTERIOR USE & SUNLIGHT RESISTANT.
  - ALL WIRING SHALL BE INSTALLED IN GALVANIZED RIGID CONDUIT, INTERMEDIATE METAL CONDUIT, OR EMT, EXCEPT AS ALLOWED BELOW. EMT SHALL NOT BE USED IN OR UNDER CONCRETE SLABS, OR IN MASONRY WALLS. USE SCHEDULE 40 PVC OUTDOORS WHERE NOT SUBJECT TO PHYSICAL DAMAGE OR FLOOR SLAB. PVC NOT TO BE USED IN PATIENT CARE AREAS. MINIMUM CONDUIT SIZE TO BE 1/2". TYPE MC AND AC CABLE MAY BE USED WHERE PERMISSIBLE BY NEC. FLEXIBLE CONDUIT SHALL BE USED FOR CONNECTIONS TO VIBRATING EQUIPMENT AND LUMINAIRES, BUT SHALL NOT EXCEED 6' IN LENGTH. TYPE NM CABLE MAY BE USED IN APPLICATIONS & BUILDING CONSTRUCTION TYPES PERMISSIBLE BY NEC (NEC 334).
  - RACEWAY SYSTEMS SERVING PATIENT CARE AREAS IN HEALTH CARE FACILITIES SHALL INCLUDE AN INSULATING GROUNDING CONDUCTOR AND THE METAL RACEWAY SHALL MEET THE REQUIREMENTS OF AN INDEPENDENT GROUNDING CONDUCTOR (NEC 250.118).
  - METAL CONDUIT COUPLINGS TO BE COMPRESSION TYPE OR THREADED WHEN ACCESSIBLE TO BUILDING OCCUPANTS. METAL CONDUIT COUPLINGS MAY BE SET-SCREW TYPE WHEN CONCEALED IN BUILDING STRUCTURE OR LOCATED MORE THAN 10' AFF. PLASTIC CONDUIT COUPLINGS TO BE SOCKET GLUED TYPE.
  - FUSES 0 - 600 AMPS SHALL BE UL CLASS "RK-1" LOW PEAK DUAL ELEMENT TIME DELAY WITH 200,000 AMPERE INTERRUPTING RATING AS MANUFACTURED BY BUSSMANN, UNLESS NOTED OTHERWISE.
  - ALL TERMINALS/LUGS SHALL BE 60/75° RATED. ALL TERMINALS, SPlicing CONNECTORS, LUGS, ETC SHALL BE IDENTIFIED FOR USE WITH THE MATERIAL (CU/AL) OF THE CONDUCTOR AND SHALL BE PROPERLY INSTALLED.
  - RECEPTACLES IN COMMERCIAL AREAS SHALL BE 20 AMP COMMERCIAL SPECIFICATION GRADE EQUAL TO HUBBELL SERIES. GROUND FAULT RECEPTACLES SHALL BE EQUAL TO COOPER VGF SERIES.
  - LIGHTING SWITCHES IN COMMERCIAL AREAS SHALL BE 20 AMP COMMERCIAL SPECIFICATION GRADE EQUAL TO HUBBELL SERIES.
  - ALL EXTERIOR FIXTURES AND DEVICES SHALL BE RATED FOR OPERATION AT 0° F AND SHALL BE DAMP OR WET LABELED AS REQUIRED.
  - ANY RECESSED LIGHT FIXTURES INSTALLED IN INSULATED CEILINGS OR WALLS TO BE "IC RATED" AND MEET REQUIREMENTS OF ASTM E 263 AND 2012 NCECC SEC. 502.4.8.
  - GROUNDING CONDUCTORS SERVING PATIENT CARE AREAS IN HEALTHCARE FACILITIES ARE TO BE INSULATED AND MEET ALL OTHER REQUIREMENTS OF NEC 517.13.

- IV. COORDINATION:**
- THE ELECTRICAL CONTRACTOR SHALL COORDINATE CLOSELY WITH ALL OTHER TRADES TO AVOID CONFLICT AND ENSURE OTHER TRADES PROVIDE MEASURES TO ACCOMMODATE ELECTRICAL WORK (I.E. ACCESS DOORS, SLAB/WALL/ROOF OPENINGS, ETC).
  - E.C. TO COORDINATE ELEVATION OF WALL MOUNTED LIGHTS (INTERIOR & EXTERIOR) W/ ARCHITECT/ARCH PLANS.
  - E.C. TO COORDINATE W/ P.C. & M.C. REGARDING POWER AND FIRE ALARM CONNECTIONS TO MECHANICAL AND PLUMBING EQUIPMENT.
  - E.C. TO VERIFY ALL REQUIREMENTS AND COORDINATE EXACT LOCATION OF INCOMING ELECTRICAL SERVICE WITH LOCAL POWER COMPANY PRIOR TO PROJECT START-UP. NOTIFY ENGINEER OF ANY CHANGES AS MAY BE REQUIRED.
  - E.C. TO VERIFY DEVICE PLATE COLOR AND MATERIAL WITH ARCHITECT PRIOR TO PURCHASE.
- V. EXECUTION:**
- E.C. TO FOLLOW MANUFACTURER'S INSTRUCTIONS WHEN INSTALLING ELECTRICAL EQUIPMENT. ENSURE REQUIRED MAINTENANCE ACCESS AND CLEARANCES ARE MAINTAINED. IF CONFLICT EXISTS BETWEEN THESE PLANS AND MFG INSTRUCTIONS CONTACT ENGINEER.
  - A COMPLETE GROUNDING SYSTEM SHALL BE PROVIDED AND INSTALLED IN ACCORDANCE WITH ARTICLE 250 OF THE NEC, AND AS SHOWN ON THE DRAWINGS.
  - PROVIDE A PULLWIRE IN ALL EMPTY CONDUITS.
  - PROVIDE A TYPED DIRECTORY IN ALL PANELBOARDS CLEARLY DESCRIBING THE LOCATION OF AND TYPE OF LOAD BEING SERVED FOR ALL CIRCUITS. PROVIDE ENGRAVED PHENOLIC NAMEPLATES FOR ALL PANELBOARDS AND DISCONNECT SWITCHES. WHITE LETTERS ON BLACK BACKGROUND.
  - ALL PENETRATIONS THROUGH EXTERIOR WALLS & ROOF SHALL BE FLASHED & COUNTER-FLASHED IN A WATERPROOF MANNER.
  - PENETRATIONS OF NON-RATED WALLS, PARTITIONS AND FLOOR OF COMBUSTIBLE CONSTRUCTION SHALL BE FIRESTOPPED WITH MATERIALS EQUIVALENT TO TWO INCHES OF WOOD. FIRESTOPPING SHALL COMPLY WITH ASTM E-814.
  - ANY NOTCHING, DRILLING, BORING OR OTHER ALTERATION TO BUILDING STRUCTURE SHALL BE PERFORMED IN A CODE APPROVED METHOD AND NOT THREATEN THE INTEGRITY OF THE BUILDING STRUCTURE.
  - SUPPORT ALL CONDUIT AND EQUIPMENT IN ACCORDANCE W/ NEC. ANY SUSPENDED MATERIALS SHALL BE DIRECTLY SUPPORTED BY THE BUILDING STRUCTURE. DO NOT ATTACH ANYTHING TO THE ROOF DECK.
  - PENETRATIONS OF ALL EXTERIOR WALLS, FLOORS AND CEILINGS SHALL BE SEALED IN AN AIR TIGHT MANNER AND IN ACCORDANCE W/ 2012 NCECC APPENDIX 2 DETAILS.
  - THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL ELECTRICAL EQUIPMENT FROM FOREIGN MATERIAL DURING CONSTRUCTION (PAINT, SPACKLE, ETC.). UPON COMPLETION OF WORK THE ELECTRICAL CONTRACTOR SHALL CLEAN, WASH, ETC ALL ITEMS AND EQUIPMENT WITHIN HIS SCOPE OF WORK AND LEAVE ALL ITEMS BRIGHT AND CLEAN.
  - UNLESS OTHERWISE INDICATED THE ELECTRICAL CONTRACTOR AT HIS/HER DISCRETION MAY COMBINE MULTIPLE CIRCUITS INTO A SINGLE CONDUIT AND DE-RATE WIRE, COMBINING AND DE-RATING IS TO BE DONE IN STRICT ACCORDANCE W/ NEC.
  - DEVICES INCLUDING GFCI PROTECTION MUST HAVE THEIR TESTING MEANS READILY ACCESSIBLE. PROVIDE REMOTE TESTING MEANS OR GFCI BREAKER FOR GFCI RECEPTACLES AND SIMILAR DEVICES WHICH ARE NOT READILY ACCESSIBLE (I.E. BEHIND EQUIPMENT, AT CEILING, ETC.) (NEC 210.8).
  - COORDINATE WITH THE CABLE TV AND TELEPHONE UTILITIES FOR SERVICE ENTRANCE AND CABLING REQUIREMENTS PRIOR TO ANY PURCHASING. INSTALLATION MUST COMPLY WITH THEIR RESPECTIVE REGULATIONS AND REQUIREMENTS.
  - ALL EXIT & EMERGENCY LIGHTS ARE TO BE CIRCUITED TO UN-SWITCHED LEG OF LOCAL NORMALLY ON LIGHTING CIRCUIT.
  - RECEPTACLE, LIGHT SWITCHES AND OTHER CONTROL DEVICES ARE TO BE INSTALLED IN ACCORDANCE W/ ANSI A117.1 AND ADA REG'S CONCERNING HEIGHT AND ACCESSIBILITY. FHA REG'S TO BE FOLLOWED FOR MULTI-FAMILY AND RESIDENTIAL PROJECTS.
  - E.C. IS TO CONFIRM EXACT ELECTRICAL NAMEPLATE DATA OF ALL PLUMBING, MECHANICAL AND ELECTRICAL EQUIPMENT INCLUDING, BUT NOT LIMITED TO, MCA, MOC, VOLTAGE & PHASE BEFORE BEGINNING WORK.

**LIGHTING FIXTURE SCHEDULE**

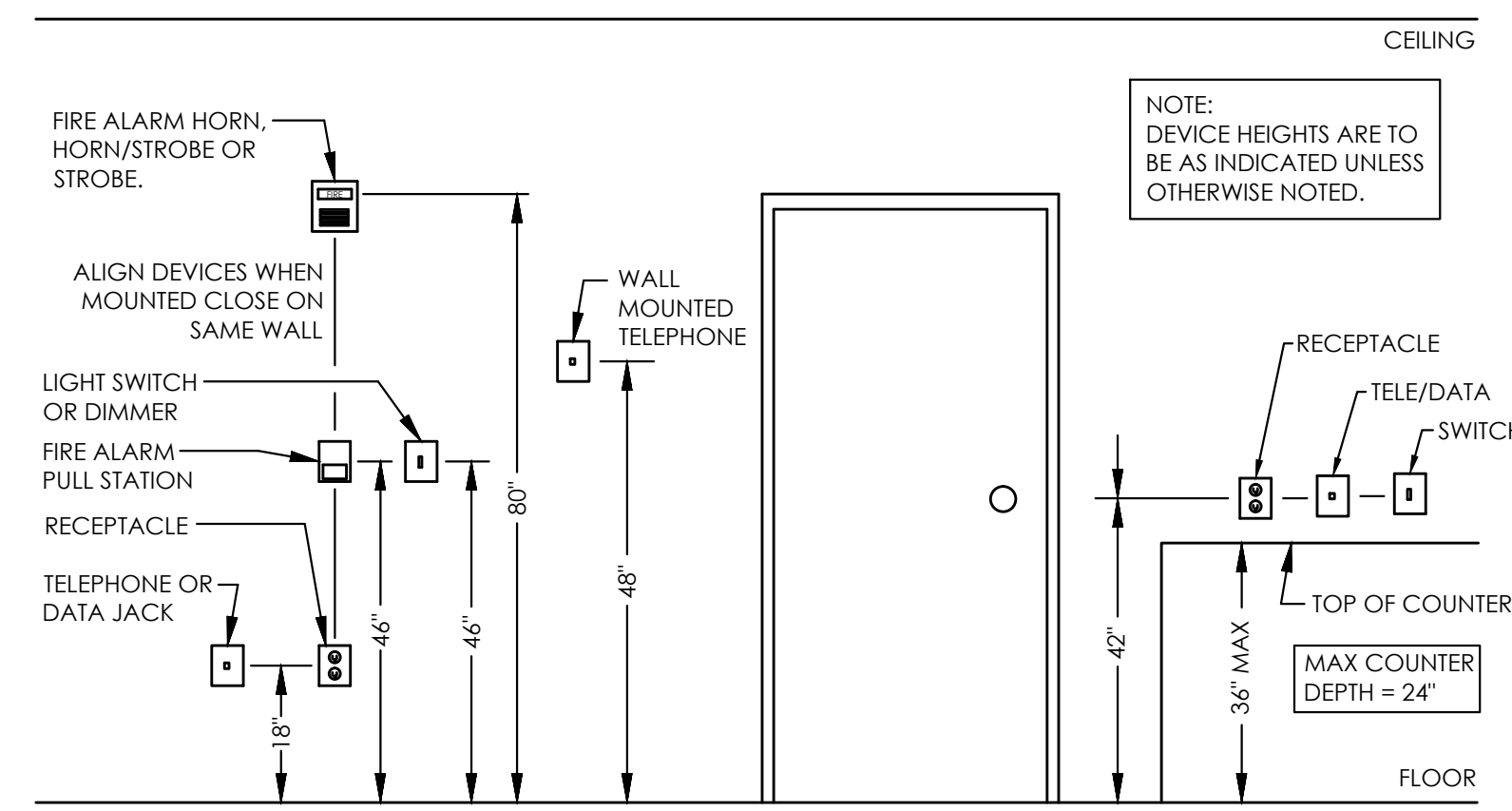
MARK	MANUF.	CATALOG NUMBER	LAMP DATA		VOLTS	BALLAST DATA		INPUT WATTS	MOUNTING	DESCRIPTION
			NO.	TYPE		NO.	TYPE			
A	EATON	H7T	1	LED	120V	-	-	15W	RECESSED	6" RECESSED CAN/DOWNLIGHT, WITH DIMMABLE BR30 LED BULB, 1200 LUMEN, 3500K COLOR TEMP. TRIM SELECTED BY ARCHITECT. OWNER POSSESSES (12) CANS TO CONTRIBUTE
A1	EATON	H7T	1	LED	120V	-	-	15W	RECESSED	6" RECESSED CAN/DOWNLIGHT, WITH DIMMABLE BR30 LED BULB, 1200 LUMEN, 2700K COLOR TEMP. TRIM SELECTED BY ARCHITECT.
A2	EATON	H7T	1	LED	120V	-	-	10W	RECESSED	6" RECESSED CAN/DOWNLIGHT, WITH DIMMABLE BR30 LED BULB, 700 LUMEN, 2700K COLOR TEMP. TRIM SELECTED BY ARCHITECT.
B	-	-	1	LED	120V	-	-	30W MAX	PENDANT	SELECTED BY OTHERS, 2700K COLOR TEMP. DIMMABLE. \$250 FIXTURE ALLOWANCE. PROVIDED AND INSTALLED BY E.C.
D	-	-	1	LED	120V	-	-	30W MAX	WALL	BATHROOM VANITY SELECTED BY OTHERS. COLOR TEMP TO MATCH FIXTURE "A1". \$100 FIXTURE ALLOWANCE. PROVIDED AND INSTALLED BY E.C.
E	-	-	-	-	120V	-	-	30W MAX	WALL	OUTSIDE FIXTURE TO BE SELECTED BY ARCHITECT. TO BE PROVIDED AND INSTALLED BY E.C. \$200 ALLOWANCE.
F	ALL-PRO	FTR1740L	2	LED	120V	1	DRIVER	30W MAX	CEILING	1600 LUMEN LED FLOODLIGHT, 5000K COLOR TEMP. FINISH SELECTED BY ARCHITECT.
G	-	-	-	-	120V	-	-	75W MAX	SURFACE	CEILING FAN W/LIGHT KIT SELECTED BY OTHERS. \$300 FIXTURE ALLOWANCE. PROVIDED AND INSTALLED BY E.C.
H	LITHONIA	68PMW	1	10W	120V	1	DRIVER	10W	RECESSED	6" RECESSED CAN/DOWNLIGHT, WET LOCATION RATED. 2700K COLOR TEMP. TRIM BY ARCH.
I	LITHONIA	ELM2 LED	2	1.5 W	120V	-	-	1.4	SEE PLAN	GEN. PURPOSE EMERGENCY LED LIGHT, (2) ADJ. HEADS, BATTERY BACK-UP.
J	LITHONIA	LHGM	2	5.4 W T-5	120V	-	-	3.3	WALL	EXIT-EMERGENCY LIGHT COMBO, (2) ADJ. HEADS, BATTERY BACK-UP, RED ILLUMINATED EXIT SIGN, HOUSING COLOR BY ARCH.
K	LITHONIA	ELAT QWP	2	1.5W LED	120, 277	-	-	-	SEE PLAN	REMOTE EXTERIOR EMERGENCY LIGHT, TWIN HEAD, BATTERY BACK-UP (CAN BE WIRED TO EXIT UNIT), WET LOCATION LISTED.

- NOTES:**
- UNLESS OTHERWISE NOTED COLOR & FINISH OF FIXTURE HOUSING, BAFFLE, OR SIMILAR EXPOSED ELEMENTS TO BE BY ARCHITECT.
  - WHERE MASTER SLAVE WIRING CONFIGURATIONS IS INDICATED THE CONTRACTOR SHALL VERIFY THE QUANTITY AND TYPE OF BALLASTS REQUIRED TO PERMIT BI-LEVEL SWITCHING. WHERE BI-LEVEL LIGHTING IS INDICATED INBOARD AND OUTBOARD LAMPS SHALL BE SWITCHED SEPARATELY.
  - EXIT AND EMERGENCY LIGHTING FIXTURES SHALL BE CIRCUITED TO AN UNSWITCHED LEG OF A NORMALLY ON LOCAL LIGHTING CIRCUIT (UNLESS NOTED OTHERWISE). INCLUDE 90 MINUTE BATTERY BACKUP & TESTING MEANS.
  - PROVIDE DISCONNECT FOR LUMINAIRES WITH LINEAR FLUORESCENT LAMPS AND/OR SERVICEABLE BALLASTS PER NEC 410.130(G).
  - FIXTURES WITH A STANDARD FACTORY INSTALLED EMERGENCY OPTION SHOULD USE THAT WHERE "EMG" IS SHOWN.

**LIGHTING SYSTEMS  
NCECC SECTION 505 & 506**

LIGHTING POWER DENSITY CALCULATION COMPLIANCE		DESIGNER STATEMENT:	
INTERIOR LIGHTING POWER DENSITY CALCULATION PER TABLE 505.5.2. SEE LIGHTING FIXTURE SCHEDULE FOR FIXTURE INFORMATION.		TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE DESIGN OF THIS BUILDING COMPLIES WITH THE LIGHTING SYSTEMS REQUIREMENTS OF THE NORTH CAROLINA ENERGY CONSERVATION CODE, SECTION 505 & 506 AND ANY LOCAL AMENDMENTS THEREOF.	
INTERIOR WATTAGE SPECIFIED VS. ALLOWED	540 VS. 896	SIGNED:	<i>Dustin M. Metayer</i>
EXTERIOR LIGHTING POWER DENSITY CALCULATION PER TABLE 505.6.2. SEE LIGHTING FIXTURE SCHEDULE FOR FIXTURE INFORMATION.		NAME:	DUSTIN M. METAYER, P.E.
TRADABLE EXTERIOR WATTAGE SPECIFIED VS. ALLOWED	120 VS. 600	TITLE:	ELECTRICAL ENGINEER
NONTRADABLE EXTERIOR WATTAGE SPECIFIED VS. ALLOWED	NA VS. NA		

ADDITIONAL PRESCRIPTIVE COMPLIANCE	
NOT APPLICABLE (RENOVATION PROJECT)	506.2.4 HIGHER EFFICIENCY SERVICE WATER HEATING
506.2.1 MORE EFFICIENT MECHANICAL EQUIPMENT	506.2.5 ON-SITE SUPPLY OF RENEWABLE ENERGY
506.2.2 REDUCED LIGHTING POWER DENSITY	506.2.6 AUTOMATIC DAYLIGHTING CONTROL SYSTEMS
506.2.3 ENERGY RECOVERY VENTILATION SYSTEM	



**1 TYPICAL DEVICE MOUNTING HEIGHTS**  
NO SCALE

**ELECTRICAL SYMBOL LEGEND**

- CIRCUIT CONDUCTORS CONCEALED IN FLOOR, WALL OR CEILING.
- ARROWHEAD INDICATES HOMERUN TO PANEL NOTED.
- INDICATES HOT LEG OF CIRCUIT TO BE CARRIED OVER TO NEXT DEVICE. SEE PLANS FOR CONTROL SCHEME.
- JUNCTION BOX CEILING MOUNTED.
- JUNCTION BOX FLOOR MOUNTED.
- JUNCTION BOX WALL MOUNTED AT HEIGHT INDICATED ON DRAWINGS.
- SINGLE POLE SWITCH, 20A, 120/277 VOLT, 48" A.F.F. TO CENTER.
- "3" INDICATES 3-WAY SWITCH.
- "4" INDICATES 4-WAY SWITCH.
- "D" INDICATES DIMMER SWITCH OF TYPE TO SUIT LOAD.
- "M" INDICATES 120V, 20A MOTOR RATED TOGGLE SWITCH.
- "DP" INDICATES DOUBLE POLE
- INDICATES FLUORESCENT FIXTURES DUAL SWITCHED, INBOARD/OUTBOARD SWITCHED SEPARATELY.
- SINGLE RECEPTACLE, 20 AMP, 120 VOLT, 18" A.F.F. TO CENTER.
- DUPLEX RECEPTACLE, 20 AMP (15 AMP RESIDENTIAL, UON), 120 VOLT, 18" A.F.F. TO CENTER.
- "WP" INDICATES WEATHERPROOF.
- "EWC" INDICATES RECEPTACLE INSIDE ENCLOSURE OF ELECTRIC WATER COOLER PROVIDE GFI BREAKER FOR CIRCUIT.
- "ASW" INDICATES ABOVE SHOW WINDOW, PER NEC SHOW WINDOW REQ'S.
- QUADRUPLEX RECEPTACLE, AS ABOVE, 18" A.F.F.
- DUPLEX RECEPTACLE, AS ABOVE, SPLIT WIRE, TOP HALF SWITCHED, 18" A.F.F.
- DUPLEX RECEPTACLE, AS ABOVE, MOUNTED 6" ABOVE COUNTER TOP OR 4" ABOVE BACKSPASH, AS APPROPRIATE, OR AT HEIGHT INDICATED.
- DUPLEX RECEPTACLE, AS ABOVE, MOUNTED 6" ABOVE COUNTER TOP OR 4" ABOVE BACKSPASH, AS APPROPRIATE, OR AT HEIGHT INDICATED, WITH GFI PROTECTION.
- RECESSED FLUSH FLOOR DUPLEX RECEPTACLE WITH BRASS COVERPLATE. COORDINATE EXACT FINISH WITH ARCHITECT AND OWNER.
- 208V RECEPTACLE, SEE PLANS FOR NEMA CONFIGURATION.
- TELEPHONE/DATA OUTLET, 18" A.F.F. TO CENTER OR ALIGN MOUNTING HEIGHT WITH ADJACENT DEVICE, UNLESS OTHERWISE NOTED. COORDINATE EXACT DEVICE TYPE AND REQUIRED FACEPLATE W/ OWNER/TENANT.
- HEAVY DUTY FUSIBLE/NON-FUSIBLE DISCONNECT SWITCH, NUMBERS INDICATE FRAME SIZE, NUMBER OF POLES AND FUSING. PROVIDE NEMA 1 ENCLOSURE INSIDE. PROVIDE NEMA 3 ENCLOSURE FOR ALL SWITCHES LOCATED OUTSIDE.
- "FPN" INDICATES FUSE PER EQUIPMENT NAMEPLATE
- "NF" INDICATES NON-FUSED.
- "MS" INDICATES MOTOR STARTER OF TYPE TO SUIT LOAD.
- 208Y/120V PANEL, SURFACE OR RECESS MOUNTED, SEE SCHEDULE FOR DETAILS.
- 480Y/277V PANEL, SURFACE OR RECESS MOUNTED, SEE SCHEDULE FOR DETAILS.
- FAN, PROVIDED AND INSTALLED BY MECHANICAL CONTRACTOR, WIRED BY ELECTRICAL CONTRACTOR. PROVIDE DISCONNECTING MEANS AS REQUIRED.
- RECESSED MOUNTED 2x4 FLUORESCENT TROFFER, SEE FIXTURE SCHEDULE FOR DETAILS.
- TRACK LIGHTING FIXTURE, SEE FIXTURE SCHEDULE FOR DETAILS.
- SURFACE MOUNTED FLUORESCENT STRIP, SEE FIXTURE SCHEDULE FOR DETAILS.
- WALL MOUNTED LIGHTING FIXTURE, SEE FIXTURE SCHEDULE FOR DETAILS.
- SURFACE, RECESSED OR GROUND MOUNTED LIGHTING FIXTURE, SEE FIXTURE SCHEDULE FOR DETAILS.
- ELECTRIC UTILITY METER LOCATION.
- KITCHEN EQUIPMENT TAG.
- DEMO'D LIGHT FIXTURE OR SIMILAR.
- DEMO'D RECEPTACLE OR SIMILAR.
- CABLE TV OUTLET, 18" A.F.F. TO CENTER, UNLESS OTHERWISE NOTED.

**ELECTRICAL ABBREVIATIONS**

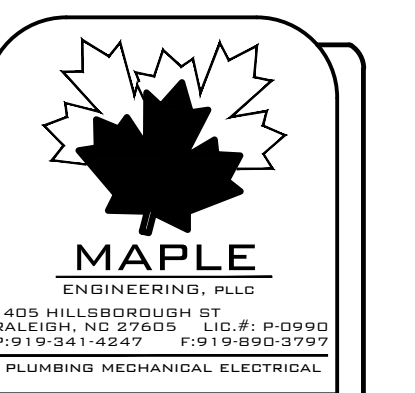
18"	DIMENSION INDICATES HEIGHT ABOVE FINISHED FLOOR AT WHICH CENTER OF DEVICE IS TO BE MOUNTED.
AFF	ABOVE FINISHED FLOOR.
AFG	ABOVE FINISHED GRADE.
E.C.	ELECTRICAL CONTRACTOR.
FPN	FUSE PER EQUIPMENT NAMEPLATE REQUIREMENTS.
G.C.	GENERAL CONTRACTOR.
M.C.	MECHANICAL CONTRACTOR.
P.C.	PLUMBING CONTRACTOR.
WP	INDICATES DEVICE TO HAVE WEATHERPROOF COVER.
UON	UNLESS OTHERWISE NOTED.
FACP	FIRE ALARM CONTROL PANEL.
SMP	SPRINKLER MONITORING PANEL.
NL	NIGHT LIGHT, LIGHT NOT SWITCHED.
WP	WEATHER PROOF

**MOTION SENSOR LEGEND**

- CORNER MOUNTED DUAL TECH. (INFRARED AND ULTRASONIC) OCCUPANCY SENSOR EQUAL TO SENSOR SWITCH MODEL WVR PDT 16, 120/277V. TIME DELAYS 20 MINUTES FOR ON/OFF, LINE VOLTAGE.
- NOTE:** THE CONTRACTOR IS TO PROVIDE AND INSTALL ALL RELAYS, CONTROLS, SWITCHES, ETC FOR A FULLY FUNCTIONING SYSTEM REGARDLESS OF PRESENCE OR ABSENCE ON PLANS.



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 FUQUAY VARINA, NC 27526

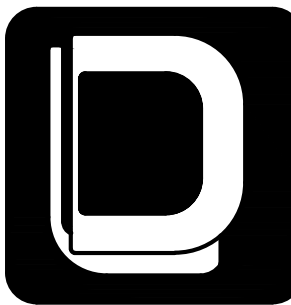
**PROFESSIONAL SEAL**

DATES:  
 PERMIT SET 3-10-17

DRAWN BY: NPB  
 CHECKED BY: DMM  
 PROJECT NUMBER:  
 DLS-1701

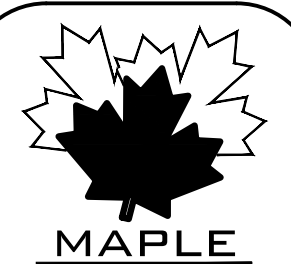
**ELECTRICAL SCHEDULES NOTES AND LEGENDS**





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PLUMBING MECHANICAL ELECTRICAL



3/10/17  
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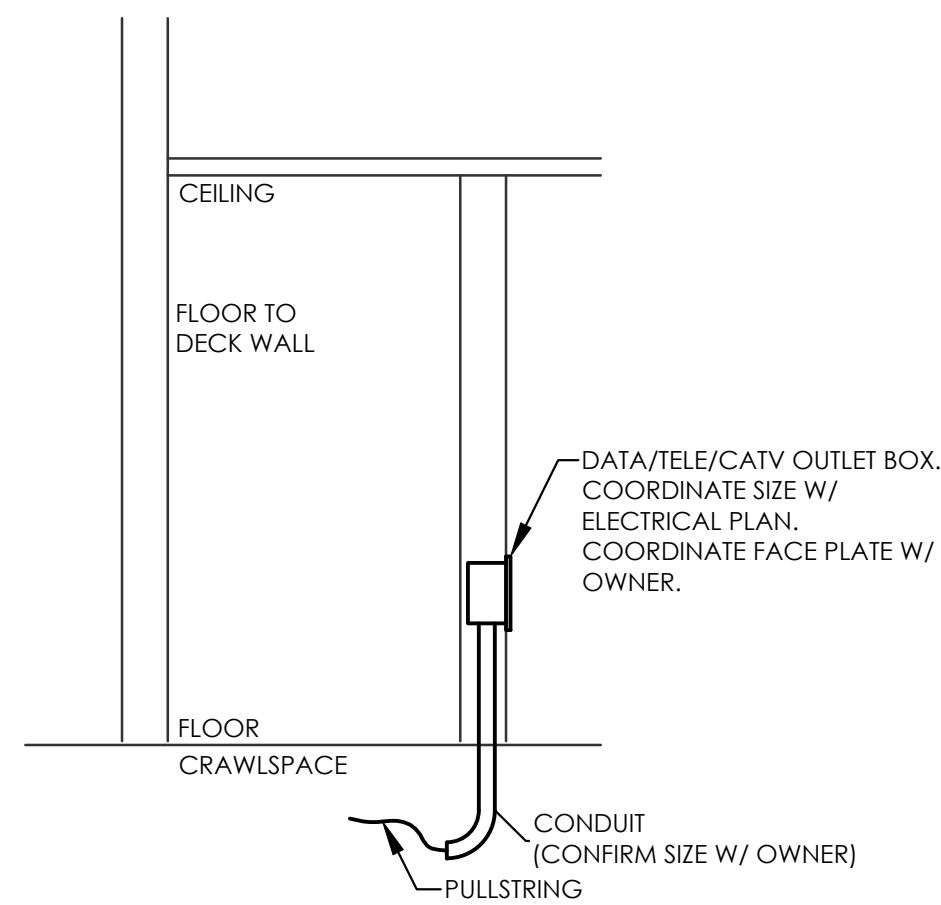
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PROJECT NUMBER:  
DLS-1701

ELECTRICAL  
PLANS

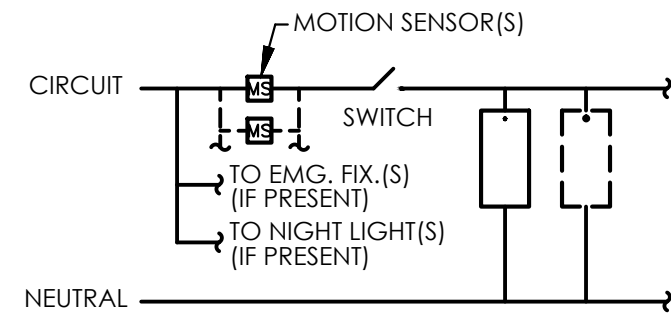
E101

3/10/2017 10:05 AM  
DLS-1701-E101.DWG



NOTE:  
FOR INTERIOR WALLS WITHOUT  
INSULATION, E.C. MAY OMIT CONDUIT &  
OUTLET BOX. PROVIDE PULL STRING &  
PLASTER RING.

4 DATA/TELE/CATV OUTLET  
NO SCALE



NOTE:  
1. SEE PLAN FOR QTY. OF SENSORS. MULTIPLE SENSORS IN  
AREA TO BE WIRED IN PARALLEL. COORDINATE  
RELAY/CONTACTOR REQ'S W/ MFG.  
2. WIRING SIMILAR FOR BI-LEVEL (INBOARD/OUTBOARD)  
& 3-WAY/4-WAY SWITCHING.

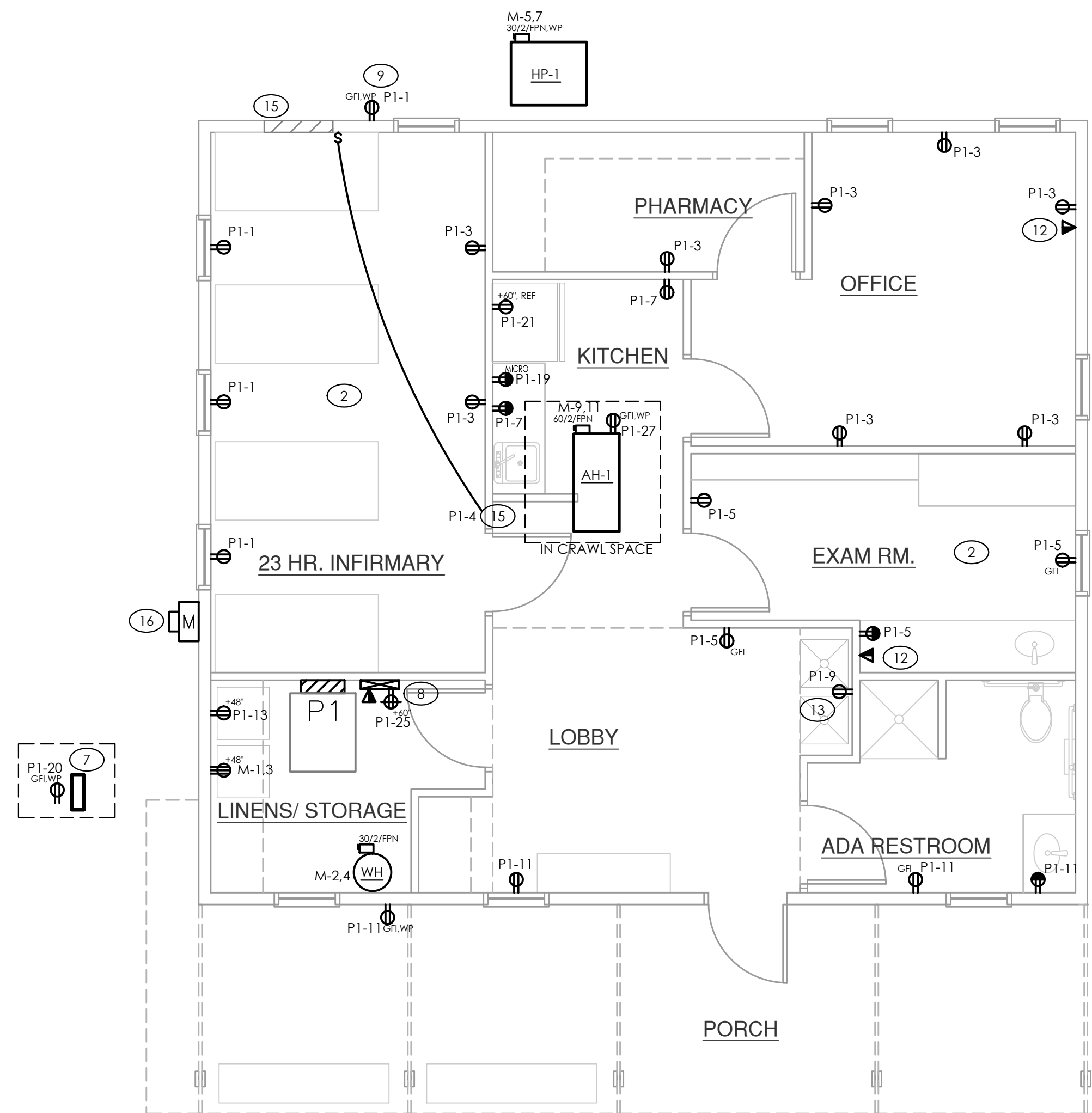
3 MOTION SENSOR WIRING (LINE VOLT.)  
NO SCALE

GENERAL NOTES - THIS SHEET

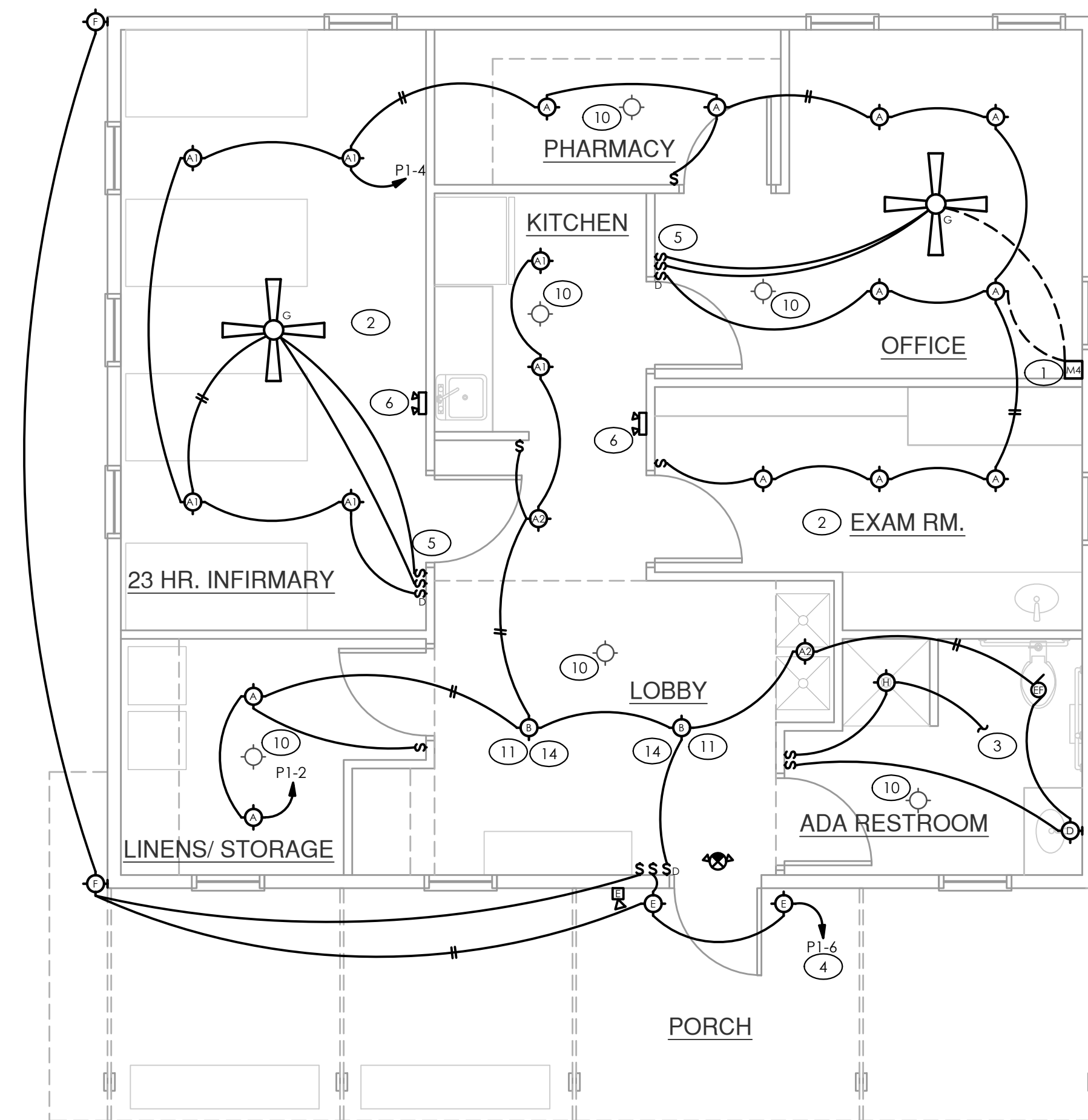
1. ENSURE THAT ALL EXIT AND EMERGENCY LIGHTS ARE CONNECTED TO LOCAL NORMALLY ON LIGHTING CIRCUIT AND ARE WIRED UPSTREAM OF ALL SWITCHES, CONTACTORS, AND SIMILAR.
2. SEE PANEL SCHEDULES FOR GFI PROTECTION OF SOME OUTLETS.

TAGGED NOTES - THIS SHEET

- 1 POWER CIRCUIT FOR AREA LIGHT FIXTURE TO BE WIRED VIA AREA MOTION SENSOR. MOTION SENSOR TO BE UPSTREAM OF AREA SWITCHES. SEE DETAIL.
- 2 GENERAL PATIENT CARE AREA.
- 3 CIRCUIT VIA AREA GFI RECEPTACLE.
- 4 CIRCUIT VIA PHOTOCELL.
- 5 FAN AND LIGHT TO BE SWITCHED SEPARATELY.
- 6 PROVIDE EMERGENCY LIGHT.
- 7 PROVIDE NEW POWER FOR RPZ HEAT. COORDINATE EXACT LOCATION WITH G.C. AND CIVIL PLANS.
- 8 PROVIDE [2] 3" CONDUITS W/PULL STRING FROM TELE/DATA CONNECTION POINT TO NEW TELE/CATV BOARD. E.C. TO COORDINATE WIRING AND PROVIDE POWER. PROVIDE FIRE RATED PLYWOOD BOARD. COORDINATE LOCATION WITH G.C. AND OWNER.
- 9 PROVIDE EXTERIOR RECEPTACLE. CONFIRM PLACEMENT IS WITHIN 25' OF HP-1.
- 10 SOLA-TUBE LIGHT FIXTURE BY OTHERS. NO E.C. WORK. NO POWER CONNECTION.
- 11 VAULTED CEILING. PENDANTS TO BE INSTALLED DOWN FROM CEILING. COORDINATE HEIGHT WITH ARCH.
- 12 CONFIRM DATA COUTLET LOCATION WITH OWNER.
- 13 COORDINATE RECEPTACLE LOCATION WITH WATER COOLER PLUG BEFORE INSTALLATION.
- 14 CONFIRM WITH OWNER DESIRED LIGHT(S), TYPE AND LOCATION PRIOR TO ORDERING. IF CEILING RECESSED FIXTURE IS INSTALLED, ENSURE IC RATED.
- 15 ACCESS DOOR FOR CRAWL SPACE. PROVIDE SWITCH AT ENTRANCE FOR SERVICE LIGHT FOR AH-1. WIRE VIA LIGHT CIRCUIT P1-4. LIGHT FIXTURE TO BE LEVITRON 9860, OR SIMILAR.
- 16 NEW METER/BASE PANEL COMBO. COORDINATE EXACT LOCATION WITH OWNER AND UTILITY. SEE RISER FOR MORE INFORMATION.

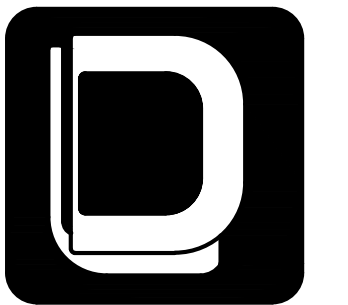


2 ELEC. POWER PLAN  
SCALE: 1/4" = 1'-0"



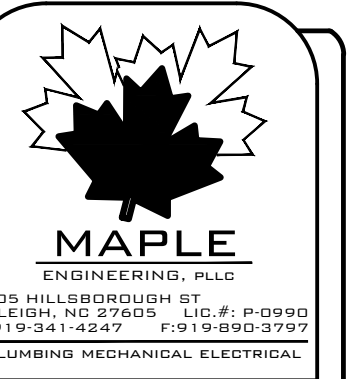
1 ELEC. LIGHTING PLAN  
SCALE: 1/4" = 1'-0"

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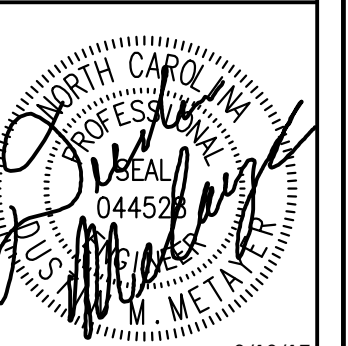


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3/10/17  
PROFESSIONAL SEAL

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1369 TYLER DEWAR LANE  
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ELECTRICAL  
PANEL  
SCHEDULE  
AND RISER

E201

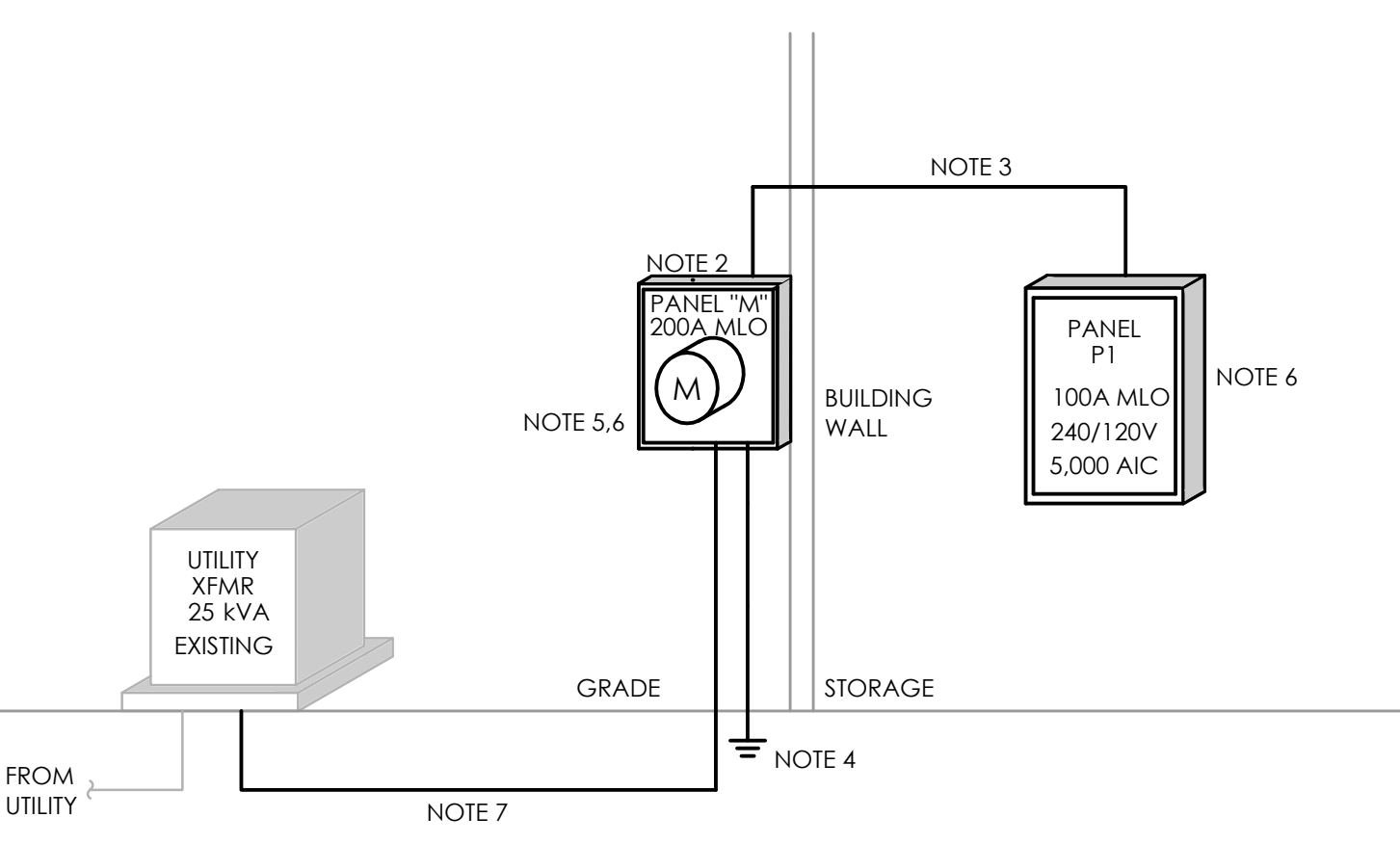
PANEL M LOAD SUMMARY				
LOAD TYPE	KVA CONN.	DEM. FACT.	KVA DEM.	
LOADS ON 200AMP MLO				
LIGHTS (962 SQFT @ 2 W/SQFT > CONN. LOAD)	1.9	1.25	2.4	
RECEPTACLES	1st 10 kVA	5.0	1.0	5.0
HVAC & R	ELEC HEAT	7.7	1.0	7.7
	LARGEST MOTOR	2.8	1.25	3.5
	REMAINDER	0.4	1.0	0.4
WATER HEATER (ELECTRIC)	4.0	1.25	5.0	
LAUNDRY EQUIPMENT	WASHERS	1.5	1.0	1.5
	DRYERS	5.0	1.0	5.0
# OF ELECTRIC DRYERS: 1				
REFRIGERATOR, MICROWAVE, WATER FOUNTAIN(1) HIGH-LOW, HOTBOX	4.0	1.0	4.0	
TOTALS	32.3		34.5	
TOTAL AMPS @ 240 V 1 PHASE	143.7			

PANEL: M												1 PHASE, 3 WIRE	
VOLTAGE: 240/120V												SURFACE MOUNTED	
AMPS: 200-MLO												NEMA 3R	
LOAD PER PHASE													
-DESCRIPTION-	POLE	WIRE SIZE	BRK SIZE	#	A		B		CKT#	BRK SIZE	WIRE SIZE	POLE	-DESCRIPTION-
					1	2	1	2					
REC DRYER	2	10	30	3	2.5	2	4	30	10	2			WATER HEATER
HP-1	2	10	25	5	1.4	4.5	6	100	2	2			PANEL P1
AH-1	2	10	30	9	4	0	10	-	-	1			SPACE
				11	4	0	12	-	-	1			SPACE
					14.4	14.9							
TOTAL CONNECTED KVA:					29.3		DEMAND KVA:		34.5				
PANEL RMS SYM. AMPS:					SEE RISER		DEMAND AMPS:					143.7	

- PANEL SHALL BE SERVICE ENTRANCE RATED, EQUAL TO SQUARE D HOMELINE COMBO METER BASE/PANEL.
- PROVIDE HACR BREAKERS FOR HVAC & REFRIGERATION EQUIPMENT.
- LABEL BREAKER AS "SERVICE DISCONNECT".

PANEL: P1												1 PHASE, 3 WIRE	
VOLTAGE: 240/120V												SURFACE MOUNTED	
AMPS: 100A-MLO												NEMA 1	
LOAD PER PHASE													
-DESCRIPTION-	POLE	WIRE SIZE	BRK SIZE	#	A		B		CKT#	BRK SIZE	WIRE SIZE	POLE	-DESCRIPTION-
					1	2	1	2					
REC INFIRMARY/HP REC	1	12	20	1	0.8	0.3	2	20	12	1			LTS LOBBY, RESTRM., STRGE.
REC OFFICE	1	12	20	3	1.0	0.3	4	20	12	1			LTS INFIRM, PHAR, OFF, EXM
REC EXAM ROOM/LOBBY	1	12	20	5	0.8	0.2	4	20	12	1			LTS EXTERIOR
REC KITCHEN/PHARM/INFIRM	1	12	20	7	0	1.5	8	20	12	1			REC MICROWAVE
REC WATER FOUNTAINS	1	12	20	9	0.8	0	10	20	-	1			SPARE
REC RESTRM/LOBBY/OUTSIDE	1	12	20	11	0	1.5	12	20	-	1			REC WASHER
SPARE	1	-	20	13	0	0	14	20	-	1			SPARE
SPARE	1	-	20	15	0	0	16	20	-	1			SPARE
SPARE	1	-	20	17	0	0	18	20	-	1			SPARE
SPACE	1	-	19	0	0	0.5	20	20	12	1			HOT BOX
REC REFRIGERATOR	1	12	20	21	1.2	0	22	-	-	1			SPACE
SPACE	1	-	23	0	0	0	24	-	-	1			SPACE
REC DATA PANEL	1	12	20	25	0.4	0	26	-	-	1			SPACE
REC SERVICE AH-1	1	12	20	27	0.2	0	28	-	-	1			SPACE
SPACE	1	-	29	0	0	0	30	-	-	1			SPACE
					4.5	5.0							
TOTAL CONNECTED KVA:					9.5		DEMAND KVA:		12.9				
PANEL RMS SYM. AMPS:					SEE RISER		DEMAND AMPS:					53.8	

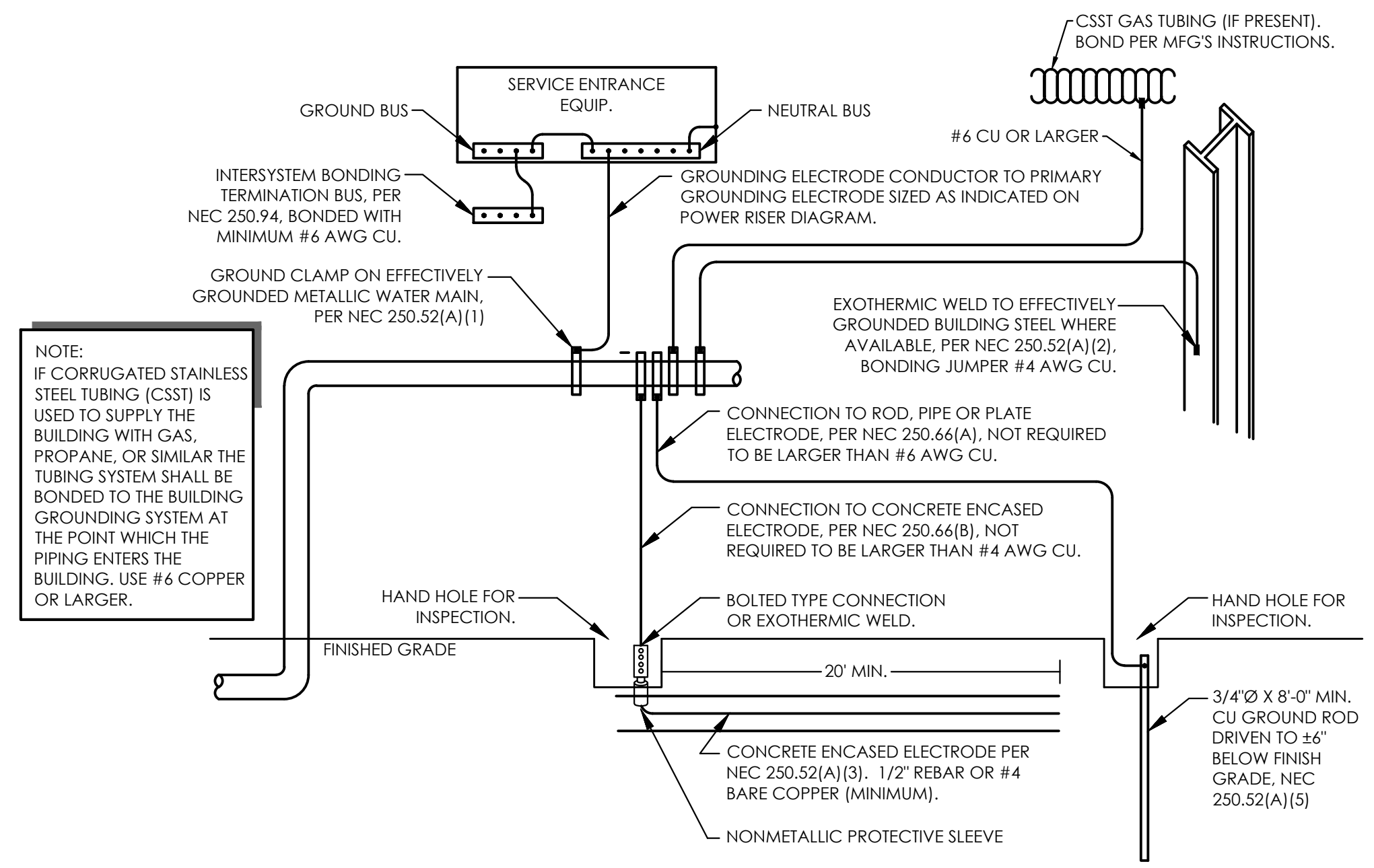
- PANEL SHALL BE EQUAL TO SQUARE D GO.
- PROVIDE HACR BREAKERS FOR HVAC & REFRIGERATION EQUIPMENT.
- GFI - PROVIDE GFCI BREAKER FOR CIRCUIT. GFCI RECEPTACLES MAY BE USED IN LIEU OF GFCI BREAKERS SO LONG AS THE DEVICE(S) CONFORM TO NEC CODE REQUIREMENTS FOR GFCI PROTECTION & ACCESSIBILITY.
- PC - CIRCUIT THROUGH PHOTOCELL LOCATED ON NORTH FACE OF BUILDING.



### 1 ELECTRICAL POWER RISER

NO SCALE

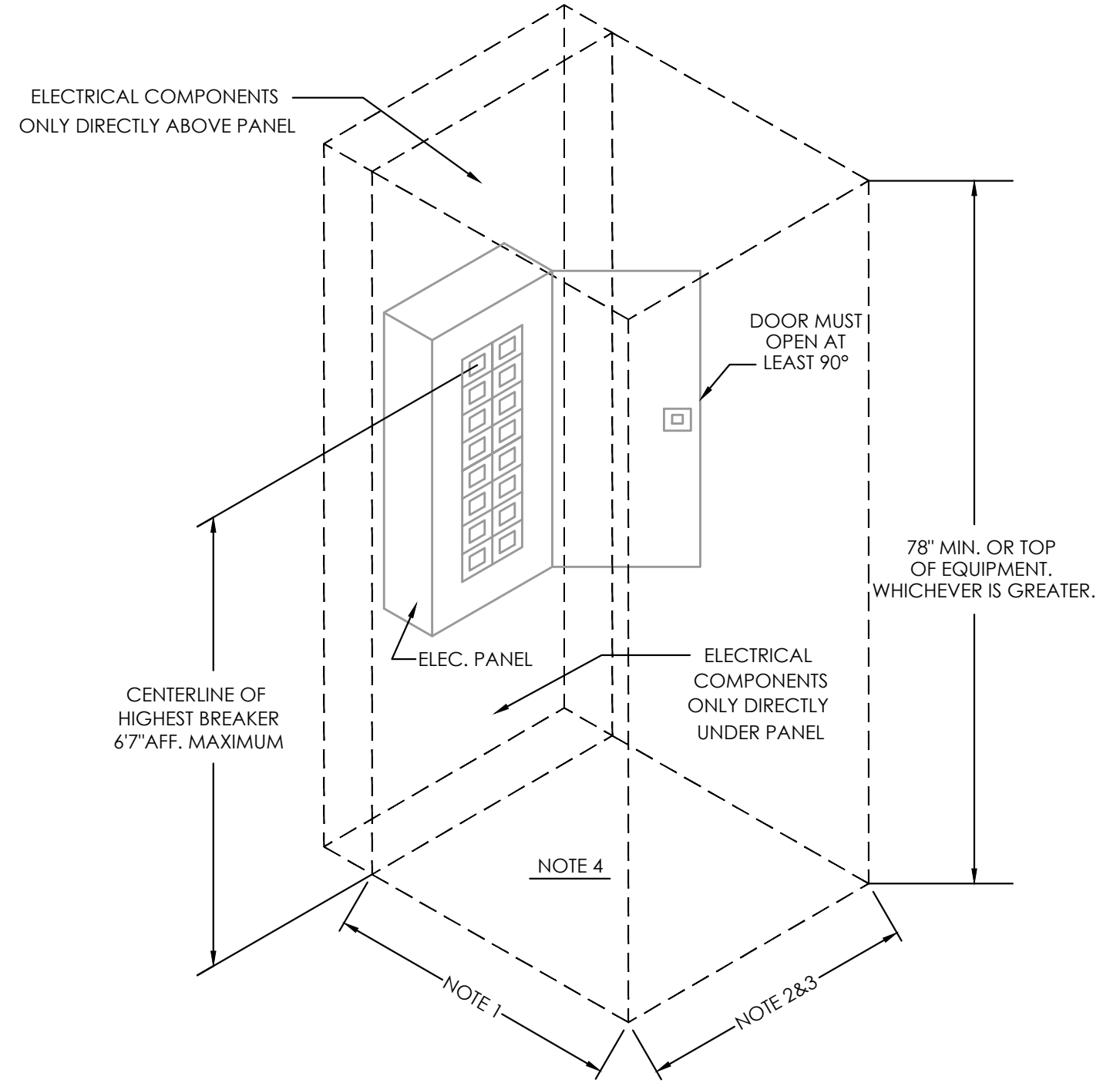
- RISER DIAGRAM NOTES:**
- ALL EXISTING ITEMS ARE SHOWN IN FAINT, NEW ITEMS ARE SHOWN IN BOLD.
  - SQUARE D HOMELINE 200A METER BASE/PANEL COMBO, METER BY UTILITY.
  - (3) #2 CU, #8 CU GND.
  - #4 CU MAIN GROUNDING ELECTRODE CONDUCTOR TO GROUNDING SYSTEM (SEE DETAIL). BUILDING SHALL HAVE ONE GROUNDING ELECTRODE SYSTEM.
  - PROVIDE PLACARD INDICATING AVAILABLE AIC FAULT CURRENT (NEC 110.24).
  - PROVIDE PLACARD INDICATING ARC-FLASH HAZARD AT PANEL(S)/DISCONNECT(S), (NEC 110.16).
  - SECONDARY CONDUCTORS SIZED, PROVIDED & INSTALLED BY E.C., CONFIRM INSTALLATION W/ UTILITY BEFORE BEGINNING WORK.



NOTE: GROUNDING ELECTRODES SHALL BE PROVIDED IN ACCORDANCE WITH NEC SECTION 250. ALL GROUNDING ELECTRODE CONDUCTORS SIZED AS INDICATED ON POWER RISER DIAGRAM. ALL METHODS OF CREATING THE GROUNDING SYSTEM MAY NOT BE REQUIRED OR AVAILABLE.

### 3 GROUNDING DETAIL

NO SCALE



- NOTES:**
- FROM FACE OF PANEL: 42" MIN FOR 480/277V AND 240/120V 3Ø HIGH LEG DELTA SYSTEMS, 36" MIN FOR 208/120V AND 240/120V SYSTEMS.
  - THE WIDTH OF THE WORKING SPACE IN FRONT OF THE ELECTRICAL EQUIPMENT SHALL BE THE WIDTH OF THE EQUIPMENT OR 30", WHICHEVER IS GREATER.
  - WORKING SPACE DOES NOT HAVE TO BE CENTERED ON PANEL BUT MUST EXTEND TO/PAST EACH EDGE OF PANEL.
  - OTHER AREA PANELS MAY SHARE CLEARANCE SPACE.

### 2 ELECTRICAL PANEL MOUNTING DETAIL

NO SCALE

AVAILABLE FAULT CURRENT (AIC) CALCULATION							
MAXIMUM AVAILABLE FAULT CURRENT IS BASED ON A THE TX KVA, IMPEDANCE (%Z), WIRE SIZE & LENGTH SHOWN BELOW. CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY IF TRANSFORMER CHARACTERISTIC INDICATE A HIGHER FAULT CURRENT IS POSSIBLE (HIGHER KVA, LOWER IMPEDANCE, LARGER SECONDARY WIRE, SHORTER SECONDARY LENGTH, ETC).							
TX KVA	TX %Z	VOLTAGE	PHASE	# COND. PER Ø	WIRE SIZE (COPPER)	WIRE L. (FEET)	WIRE "C"
25	2.0	240	1	1	3/0	125	13923
CURRENT (L TO L)	MULT. (ISC)	TX ISC	f	M	ISC (AMPS)		
104	50.00	5208	0.3897	0.7196	3748		