COLUMBUS COUNTY
SHERIFF'S OFFICE
WHITEVILLE, NORTH CAROLINA

DRAWING LIST

CS-1	COVER SHEET
G-1	GENERAL DATA
G-2	LIFE SAFETY PLAN
G-3	U.L. DETAILS
G-4	COMCHECK
C-1	EXISTING CONDITIONS AND DEMOLITION PLAN
C-2	SITE PLAN
C-3	UTILITY PLAN
C-4	GRADING PLAN
C-5	LANDSCAPE PLAN
C-6	DETAILS
A-1	FLOOR PLAN
A-1.1	ROOF PLAN
A-2	REFLECTED CEILING PLAN
A-3	DOOR, WINDOW, AND ROOM FINISH SCHEDULES
A-3.1	DOOR AND WINDOW ELEVATIONS
A-4	EXTERIOR ELEVATIONS
A-5	BUILDING SECTIONS
A-5.1	WALL SECTIONS
A-5.2	WALL SECTIONS
A-5.3	WALL SECTIONS
A-5.4	WALL SECTIONS
A-6	ENLARGED PLANS
A-7	INTERIOR ELEVATIONS
A-8	DETAILS
SK-1.1	PEMB FOOTINGS
P-1	PLUMBING SPECIFICATIONS
P-2	DWV PLAN
P-3	WATER PLAN
P-4	NATURAL GAS
P-5	DWV/ WATER RISERS
P-6	NATURAL GAS RISER
M-1	HVAC SCHEDULES
M-2	HVAC PLAN
M-3	HVAC SPECIFICATIONS & DETAILS
E-1	ELECTRICAL SPECS
E-2	LIGHTING PLAN
E-3	POWER PLAN
E-4	PANELS & RISER
E-4-1	EXISTING BLD GENSET
FA-1	FIRE ALARM NOTES/ RISER
FA-2	FIRE ALARM PLAN

Coastal Architecture

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Coastal Architecture PLLC

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- Planning
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COLUMBUS COUNTY
SHERIFF'S OFFICE
WHITEVILLE, NORTH CAROLINA

NORTH CAROLINA BOARD OF EXAMINERS FOR ENGINEERING AND SURVEYING — CERTIFICATE OF AUTHORIZATION — ENGINEERING CORPORATION — CERT. NO. C-2962

LEE D. DIXON, JR. — 6419 — REGISTERED — PROFESSIONAL ENGINEER — NORTH CAROLINA

COVER SHEET

23029

ISSUED: 12.12.2024
DWG BY: MSG
CKD BY: LDD
REVISIONS

SHEET NO.
CS-1
OF

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APPENDIX B

2018 BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS

(EXCEPT ONE- AND TWO-FAMILY DWELLINGS AND TOWNHOUSES)

Name of Project: COLUMBUS COUNTY SHERIFF'S OFFICE
Address: WHITEVILLE, NORTH CAROLINA Zip Code _____
Owner/Authorized Agent: _____ Phone # (___) ___ - ___ E-Mail _____
Owned By: ☐ City/County ☒ Private ☐ State
Code Enforcement Jurisdiction: ☒ City_____ ☐ County_____ ☐ State _____

CONTACT: _____

DESIGNER	FIRM	NAME	LICENSE #	TELEPHONE #	E-MAIL
Architectural	Coastal Architecture	Lee Dixon	6419	(252) 247-2127	lee@coastalarchitecture.net
Civil	-	-	-	(___)	-
Electrical	Burke Design Group	Ben Burke	22038	(919)771-1916	benburke@ncrr.com
Fire Alarm				(___)	
Plumbing	Burke Design Group	Ben Burke	22038	(919)771-1916	benburke@ncrr.com
Mechanical	Burke Design Group	Ben Burke	22038	(919)771-1916	benburke@ncrr.com
Sprinkler-Standpipe				(___)	
Structural	FDR	Heath Hendrick		(919)427-0501	HHendrick@fdr-eng.com
Retaining Walls > 5 feet High				(___)	
Other				(___)	

("Other" should include firms and individuals such as truss, precast, pre-engineered, interior designers, etc.)

2018 NC BUILDING CODE: ☐ New Building ☐ Shell/Core ☐ 1st Time Interior Completions ☒ Addition ☐ Phased Construction—Shell Core

2018 NC EXISTING BUILDING CODE: ☒ Prescriptive ☐ Alteration Level I ☐ Historic Property
(check all that apply) ☐ Repair ☐ Alteration Level II ☐ Change of Use ☐ Chapter 14 ☐ Alteration Level III

CONSTRUCTED: (date) _____ CURRENT USE(S) (Ch. 3): B, S-1, A-3
RENOVATED: (date) _____ PROPOSED USE(S) (Ch. 3): B, S-1, A-3
OCCUPANCY CATEGORY (Table 1604.5): Current: B, S-1, A-3 Proposed: _____

BASIC BUILDING DATA

Construction Type: ☐ I-A ☐ II-A ☐ III-A ☐ IV ☐ V-A
(check all that apply) ☐ I-B ☒ II-B ☐ III-B ☐ V-B
Sprinklers: ☒ No ☐ Partial ☐ NFPA 13 ☐ NFPA 13R ☐ NFPA 13D
Standpipes: ☒ No Class ☐ I ☐ II ☐ III ☒ Wet ☐ Dry
Primary Fire District: ☒ No ☐ Yes **Flood Hazard Area:** ☒ No ☐ Yes
Special Inspections Required: ☒ No ☐ Yes

GROSS BUILDING AREA TABLE

Floor	Existing (sq ft)	New (sq ft)	Subtotal
3rd Floor			
2nd Floor			
Mezzanine			
1st Floor	10500	20,450	30,450
Basement AUTO PARK LEVEL			
TOTAL		20,950	30,950

ENERGY SUMMARY

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 performance method, state the annual energy cost for the standard reference design versus the annual energy cost for the proposed design.

Existing building envelope complies with code: ☐ (If checked, the remainder of this section is not applicable.)

Exempt Building: ☐ Provide code or statutory reference: _____

Climate Zone: ☒ 3A ☐ 4A ☐ 5A

Method of Compliance:
Energy Code: ☐ Performance ☒ Prescriptive
ASHSAE 90.1: ☐ Performance ☐ Prescriptive
Other: ☐ Performance (specify source) _____

THERMAL ENVELOPE: (Prescriptive method only)
Roof/ceiling Assembly (each assembly)
Description of assembly: _____
U-Value of total assembly: _____
R-Value of insulation: _____
Skylights in each assembly: _____
U-Value of skylight: _____
total square footage of skylights in each assembly: _____

Exterior Walls (each assembly) SEE G-4
Description of assembly _____
U-Value of total assembly: _____
R-Value of insulation: _____
Openings (windows or doors with glazing)
U-Value of assembly: _____
Solar heat gain coefficient: _____
projection factor: _____
Door R-Values: _____

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

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

Floors slab on grade
Description of assembly: _____
U-Value of total assembly: _____
R-Value of insulation: _____
Horizontal/vertical requirement: _____
slab heated: _____

ALLOWABLE AREA

Primary Occupancy Classification(s):
Assembly ☐ A-1 ☐ A-2 ☐ A-3 ☐ A-4 ☐ A-5
Business ☒
Educational ☐
Factory ☐ F-1 Moderate ☐ F-2 Low
Hazardous ☐ H-1 Detonate ☐ H-2 Deflagrate ☐ H-3 Combust ☐ H-4 Health ☐ H-5 HPM
Institutional ☐ I-1 ☐ I-2 ☐ I-3 ☐ I-4
I-3 Condition ☐ 1 ☐ 2
I-2 Condition ☐ 1 ☐ 2
I-3 Condition ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
Mercantile ☐
Residential ☐ R-1 ☐ R-2 ☐ R-3 ☐ R-4
Storage ☐ S-1 Moderate ☐ S-2 Low ☐ High-piled
☐ Parking Garage ☐ Open ☐ Enclosed ☐ Repair Garage
Utility and Miscellaneous ☐

Accessory Occupancy Classification(s): _____
Incidental Uses (Table 509): _____
This separation is not exempt as a Nonseparated Use (see exceptions).
Special Uses (Chapter 4 – List Code Sections): _____
Special Provisions: (Chapter 5 – List Code Sections): _____
Mixed Occupancy: ☐ No ☒ Yes Separation: 2 Hr. Exception: _____
Non-separated Use (508.3)

✖ Separated Use (508.4)—See below for area calculations for each story, the area of the occupancy shall be such that the sum of the ratios of the actual floor area of each use divided by the allowable floor area for each use shall not exceed 1.

Select one

$$\frac{\text{Actual Area of Occupancy A}}{\text{Allowable Area of Occupancy A}} + \frac{\text{Actual Area of Occupancy B}}{\text{Allowable Area of Occupancy B}} + \frac{\text{Actual Area of Occupancy C}}{\text{Allowable Area of Occupancy C}} \leq 1$$

$$\frac{.163}{} + \frac{.240}{} + \frac{.020}{} = .423 \leq 1.00$$

STORY NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 506.24 AREA	(C) AREA FOR FRONTAGE INCREASE[1, 5]	(D) ALLOWABLE AREA PER STORY OR UNLIMITED[2, 3]
1	BUSINESS	11,586	92,000	11,007	103,007
1	ASSEMBLY	6,200	38,000	5,890	47,780
1	STORAGE	1,414	10,000	1,343	11,343
1	EXISTING	10,500	92,000	9,500	101,000

1. Frontage area increases from Section 506.2 are computed thus:
a. Perimeter which fronts a public way or open space having 20 feet minimum width = 1,040 (F)
b. Total Building Perimeter = 1,100 (P)
c. Ratio (F/P) = .95 (F/P)
d. W = Minimum width of public way = 30 (W)
2. Unlimited area applicable under conditions of Section 507.
3. Maximum Building Area = total number of stories in the building × D (maximum 3 stories) (506.2).
4. The maximum area of open parking garages must comply with Table 406.5.4. The maximum area of air traffic control towers must comply with Table 412.3.1.
5. Frontage increase is based on the unsprinklered area value in Table 506.2.

STRUCTURAL DESIGN

DESIGN LOADS:
Importance Factors: Wind (IW) _____ SEE ALSO SK-1 & PEMB
Snow (IS) 20
Seismic (IE) _____

Live Loads: Roof 20 psf
Mezzanine _____ psf
Floor 50/100 psf
Ground Snow Load: _____ **psf**

Wind Load: Basic Wind Speed 148 mph (ASCE-7)
Exposure Category C

SEISMIC DESIGN CATEGORY: ☐ A ☒ B ☐ C ☐ D

Provide the following Seismic Design Parameters:
Occupancy Category (Table 1604.5) ☐ I ☐ II ☐ III ☒ IV
Spectral Response Acceleration SS_____ %g S1_____ %g
Site Classification (ASCE 7) ☐ A ☐ B ☐ C ☒ D ☐ E ☐ F
Data Source: ☐ Field Test ☐ Presumptive ☐ Historical Data
Basic structural system (check one)
☐ Bearing Wall ☐ Dual w/Special Moment Frame
☐ Building Frame ☐ Dual w/Intermediate R/C or Special Steel
☐ Moment Frame ☐ Inverted Pendulum
Analysis Procedure: ☐ Simplified ☐ Equivalent Lateral Force ☐ Dynamic
Architectural, Mechanical, Components anchored? ☐ **Yes** ☐ **No**

LATERAL DESIGN CONTROL: ☐ Earthquake ☒ Wind

SOIL BEARING CAPACITIES:
Field Test (provide copy of test report) _____ psf
Presumptive Bearing capacity 2,000 psf
Pile size, type, and capacity _____

ALLOWABLE HEIGHT

	ALLOWABLE	SHOWN ON PLANS	CODE REFERENCE
Building Height in Feet (Table 504.3)	55	16'-1"	T504.3
Building Height in Stories (Table 504.4)	S-1=3 / A-3=2 /B=4	1	T504.4

1. Provide code reference if the "Shown on Plans" quantity is not based on Table 504.3 or 504.4. T504.2, 508.4.2

FIRE PROTECTION REQUIREMENTS

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (feet)	RATING REQ'D	RATING PROVIDED (W/ * REDUCTION)	DETAIL # AND SHEET #	DESIGN # FOR RATED ASSEMBLY	SHEET # FOR RATED PENETRATION	SHEET # FOR RATED JOINTS
Structural Frame Including columns, girders, trusses	——	Ø	Ø				
Bearing Walls							
Exterior							
North	> 30	Ø	Ø				
East	> 30	Ø	Ø				
West	> 30	Ø	Ø				
South	> 30	Ø	Ø				
Nonbearing walls and partitions							
Exterior walls							
North	——	——	——				
East	——	——	——				
West	——	——	——				
South	——	——	——				
Interior walls and partitions	——	——	——				
Floor Construction Including supporting beams and joists		Ø	Ø				
Floor Ceiling Assembly		Ø	Ø				
Columns Supporting Floors		Ø	Ø				
Roof Construction, including supporting beams and joists		Ø	Ø				
Roof Ceiling Assembly		Ø	Ø				
Columns Supporting Roof		Ø	Ø				
Shaft Enclosures—Exit		N/A	N/A				
Shaft Enclosures—Other		Ø	Ø				
Corridor Separation		2	2	G2	U419		
Occupancy/Fire Barrier Separation		2	2	G2	U419, U904		
Party/Fire Wall Separation		——	——				
Smoke Barrier Separation		-					
Smoke Partition		-					
Tenant/Dwelling Unit/ Sleeping Unit Separation							
Incidental Use Separation		-					

* Indicate section number permitting reduction

MECHANICAL DESIGN

MECHANICAL SUMMARY

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT
Thermal Zone
winter dry bulb: _____
summer dry bulb: _____

Interior design conditions
winter dry bulb: _____
summer dry bulb: _____
relative humidity: _____

Building heating load: _____ SEE MECHANICAL

Building cooling load: _____

Mechanical Spacing Conditioning System
Unitary
description of unit _____
heating efficiency: _____
cooling efficiency: _____
size category of unit: _____
Boiler
Size category. If oversized, state reason.: _____
Chiller
Size category. If oversized, state reason.: _____

List equipment efficiencies: _____

ELECTRICAL DESIGN

ELECTRICAL SUMMARY

ELECTRICAL SYSTEM AND EQUIPMENT

Method of Compliance:
Energy Code: ☐ Prescriptive ☐ Performance
ASHRAE 90.1: ☐ Prescriptive ☐ Performance

Lighting schedule (each fixture type)
lamp type required in fixture
number of lamps in fixture
ballast type used in the fixture
number of ballasts in fixture
total wattage per fixture
total interior wattage specified versus allowed (whole building or space by space)
total exterior wattage specified versus allowed

SEE ELECTRICAL

Additional Prescriptive Compliance
☐ 506.2.1 More Efficient Mechanical Equipment
☐ 506.2.2 Reduced Lighting Power Density
☐ 506.2.3 Energy Recovery Ventilation Systems
☐ 506.2.4 Higher Efficiency Service Water Heating
☐ 506.2.5 On-Site Supply of Renewable Energy
☐ 506.2.6 Automatic Daylighting Control Systems

PERCENTAGE OF WALL OPENING CALCULATIONS

FIRE SEPARATION DISTANCE (feet) FROM PROPERTY LINES	DEGREE OF OPENINGS PROTECTION (TABLE 705.8)	ALLOWABLE AREA (%)	ACTUAL SHOWN ON PLANS (%)
> 30	UP. B	NO LIMIT	——

LIFE SAFETY SYSTEM REQUIREMENTS

Emergency Lighting: ☒ Yes ☐ No
Exit Signs: ☒ Yes ☐ No
Fire Alarm: ☒ Yes ☐ No
Smoke Detection Systems: ☒ Yes ☐ No
Carbon Monoxide Detection: ☐ Yes ☐ No

LIFE SAFETY PLAN REQUIREMENTS

Life Safety Plan Sheet #: G-2
☒ Fire and/or smoke rated wall locations (Chapter 7)
☒ Assumed and real property line locations (if not on the site plan)
☒ Exterior wall opening area with respect to distance to assumed property lines (705.8)
☒ Occupancy Use for each area as it relates to occupant load calculation (Table 1004.1.2)
☒ Occupant loads for each area
☒ Exit access travel distances (1017)
☒ Common path of travel distances [Tables 1006.2.1 & 1006.3.2(1)]
☒ Dead end lengths (1020.4)
☒ Clear exit widths for each exit door
☒ Maximum calculated occupant load capacity each exit door can accommodate based on egress width (1005.3)
☒ Actual occupant load for each exit door
N/A A separate schematic plan indicating where fire rated floor/ceiling and/or roof structure is provided for purposes of occupancy separation
☒ Location of doors with panic hardware (1010.1.10)
N/A Location of doors with delayed egress locks and the amount of delay (1010.1.9.7)
N/A Location of doors with electromagnetic egress locks (1010.1.9.9)
N/A Location of doors equipped with hold-open devices
N/A Location of emergency escape windows (1030)
N/A The square footage of each fire area (202)
N/A The square footage of each smoke compartment for Occupancy Classification I-2 (407.5)
☒ Note any code exceptions or table notes that may have been utilized regarding the items above

ACCESSIBLE DWELLING UNITS (SECTION 1107)

TOTAL UNITS	ACCESSIBLE UNITS REQUIRED	ACCESSIBLE UNITS PROVIDED	TYPE A UNITS REQUIRED	TYPE A UNITS PROVIDED	TYPE B UNITS REQUIRED	TYPE B UNITS PROVIDED	TOTAL ACCESSIBLE UNITS PROVIDED
Ø	-	-	Ø	Ø	Ø	Ø	Ø

NOT APPLICABLE

ACCESSIBLE PARKING (SECTION 1106)

LOT OR PARKING AREA	TOTAL # OF PARKING SPACES		# OF ACCESSIBLE SPACES PROVIDED			TOTAL # ACCESSIBLE PROVIDED
	REQUIRED	PROVIDED	REGULAR WITH 5' ACCESS AISLE	VAN SPACES WITH 132" ACCESS AISLE	VAN SPACES WITH 5' ACCESS AISLE	
		EXISTING				
TOTAL						

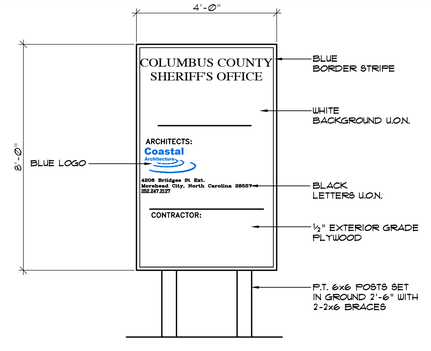
PLUMBING FIXTURE REQUIREMENTS (TABLE 2902.1)

USE	WATERCLOSETS			URINALS	LAVATORIES			SHOWERS/ TUBS	DRINKING FOUNTAINS	
	Male	Female	Unisex		Male	Female	Unisex		Regular	Accessible
REQ'D	8	8	-	-	5	5	-	-	4	-
PROVIDED	3	6	-	2	4	4	4	4	1	1
EXISTING	2	3	3	2	2	2	3	-	1	1
TOTAL PROVIDED	5	9	3	4	6	6	7	-	2	2

SPECIAL APPROVALS

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

NOT APPLICABLE



1 / G-1 **PROJECT SIGN**
NOT TO SCALE

NOTE: SUBMIT SHOP DRAWING FOR COORDINATION OF LETTER HEIGHTS SPECIFIC SIGN COLORS.

NOTE: VERIFY SIGN SIZES AND REQUIREMENTS W/ TOWN

SIGN LOCATION TO BE FIELD VERIFIED W/ ARCHITECT

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COASTAL ARCHITECTURE, INC. CERTIFICATE OF AUTHORIZATION NO. C-2592 NORTH CAROLINA BOARD OF EXAMINERS FOR ENGINEERING AND SURVEYING

LEE D. DIXON, JR. 6419 REGISTERED ARCHITECT NORTH CAROLINA

GENERAL DATA

23029

ISSUED: 12.12.2024
DWG BY: MSG
CKD BY: LDD

REVISIONS

SHEET NO.
G-1
OF

WALL TYPE LEGEND

1A — 3 5/8" METAL STUDS @ 16" O.C. INTERIOR W/ 5/8" GWB EACH SIDE FROM FLOOR TO 6" ABOVE CEILING (TYP.) NON LOADBEARING WALL WITH SOUND INSULATION

1B — 3 5/8" METAL STUDS @ 16" O.C. INTERIOR W/ 5/8" GWB EACH SIDE FROM FLOOR TO ROOF DECK (TYP.) NON LOADBEARING WALL WITH SOUND INSULATION

1C — 3 5/8" METAL STUDS @ 16" O.C. INTERIOR W/ 5/8" SOUNDBREAK GWB EACH SIDE FROM FLOOR TO ROOF DECK (TYP.) NON LOADBEARING WALL WITH SOUND INSULATION

1D — 6" METAL STUDS @ 16" O.C. INTERIOR W/ 5/8" GWB EACH SIDE FROM FLOOR TO 6" ABOVE CLG. (TYP.) NON LOADBEARING WALL WITH SOUND INSULATION

1E — 6" METAL STUDS @ 16" O.C. INTERIOR W/ 5/8" GWB EACH SIDE FROM FLOOR TO ROOF DECK (TYP.) NON LOADBEARING WALL WITH SOUND INSULATION

1F — 8" CMU NON LOADBEARING WALL FROM FLOOR TO ROOF DECK ABOVE (TYP.)

1G — 8" CMU (2 HR RATED) NON LOADBEARING WALL FROM FLOOR TO ROOF DECK ABOVE (TYP.) AND 3 5/8" METAL STUDS @ 16" O.C. INTERIOR NON LOADBEARING WALL FROM FLOOR TO ROOF DECK ABOVE (TYP.) W/ 5/8" GWB ON OFFICE OR HALL SIDE WITH SOUND INSULATION

1H — (2HR-RATED) 3 5/8" METAL STUDS @ 16" O.C. INTERIOR W/ 2X 5/8" GWB EACH SIDE FROM FLOOR TO 6" ABOVE CEILING (TYP.) NON LOADBEARING WALL WITH SOUND INSULATION

1J — (2HR-RATED) 3 5/8" METAL STUDS @ 16" O.C. INTERIOR W/ 2X 5/8" GWB EACH SIDE FROM FLOOR TO ROOF DECK (TYP.) NON LOADBEARING WALL WITH SOUND INSULATION

1K — (2HR-RATED) 6" METAL STUDS @ 16" O.C. INTERIOR W/ 2X 5/8" SOUNDBREAK GWB EACH SIDE FROM FLOOR TO ROOF DECK (TYP.) NON LOADBEARING WALL WITH SOUND INSULATION

1L — (2HR-RATED) 6" METAL STUDS @ 16" O.C. INTERIOR W/ 2X 5/8" GWB EACH SIDE FROM FLOOR TO ROOF DECK (TYP.) NON LOADBEARING WALL WITH SOUND INSULATION

OCCUPANCY/LOAD TYPE KEYING:

B = BUSINESS
A-3 = ASSEMBLY
S-1 = STORAGE

LEGEND:

- FE ⊙ = FIRE EXTINGUISHER ON STANDARD HOOK
- F.E.C. = FIRE EXTINGUISHER AND CABINET LARSEN SEMI-RECESSED FS 2409-R3 BRUSHED CHROME W/ MP5 FIRE EXTINGUISHER
- 2 HR RATED WALL (U.L. U419)
- 2 HR RATED WALL (U.L. U806)
- * 90 MINUTE RATED GLAZING AND FRAMES
- ** 90 MINUTE RATED DOOR AND FRAMES
- 34.25" / 68.5" = CLEAR EXIT WIDTH
- ⊗ = EXIT
- K.B. = KNOX BOX, FIRE DEPARTMENT KEY LOCK BOX CONFIRM LOCATION W/ FIRE DEPARTMENT
- P.H. = PANIC HARDWARE
- B.A. = BUILDING ADDRESS 6" LETTERS

NEW ADDITION

EXISTING BUILDING

KEY PLAN
SCALE: N.T.S

PROPERTY LINE > 30'
NO LIMIT OF OPENING

CONC. SPLASH BLOCK, TYP.
DOWN SPOUT, TYP.

ARMORY

S-1 OCCUPANCY
1,414 SF ÷ 200 = 8 OCCUPANTS

STORAGE

BOLLARD DET. 1/A-8

S-1 TRAVEL DISTANCE 68'
250' ALLOWABLE

F.E.

11 ALLOWABLE OCC. | 11 ACTUAL OCC.
EXIT CAPACITY

PH
34.25"

DRUG/SPECIAL OPERATIONS

OFFICE

B OCCUPANCY
561 SF ÷ 100 = 6 OCCUPANTS
EXCEPTION 303.1.2(2)

INTER-VIEW

DETECTIVE DIVISION

A-3
1,011 SF ÷ 15 = 68 OCCUPANTS

B TRAVEL DISTANCE 172'
250' ALLOWABLE

27'-8 7/8"

A-3 TRAVEL DISTANCE 168'
250' ALLOWABLE

SERVER ROOM

FILE

BREAK ROOM

JAN.

SHWR

LOCKER RM.

(6)

(14) LOCKERS

MEN'S TLT.

WOMEN'S TLT.

HALL

GYM/WORKOUT AREA

A-3
1,083 SF ÷ 50 = 22 OCCUPANTS

ENTRY

TV

F.E.C.

CONNECTING CORRIDOR

EXISTING SIDEWALK

EXISTING BUILDING

DS

REMOVE ANTENNA & SHED
ADD ALT. NO 1

171 ALLOWABLE OCCUPANTS | 117 ACTUAL OCCUPANTS
EXIT CAPACITY

TYPE II B CONSTRUCTION
NOT-SPRINKLED

PATROL

A-3
1,170 SF ÷ 15 = 78 OCCUPANTS

CIVIL

B OCCUPANCY
488 SF ÷ 100 = 5 OCCUPANTS
EXCEPTION 303.1.2(2)

ELECT.

B OCCUPANCY
7563 SF ÷ 100 = 76 OCCUPANTS
NONSPRINKLED

3,068 SF ÷ 15 = 205 OCCUPANTS
TRAINING

NEWS & MEDIA

STAGE
SEE DETAILS

RAIT UP

342 ALLOWABLE OCCUPANTS | 117 ACTUAL OCCUPANTS
EXIT CAPACITY

K.B.

B.A.

DOWN SPOUT, TYP.
CONC. SPLASH BLOCK, TYP.

EDGE OF PROPOSED GRAVEL DRIVE
SEE SITE PLAN

PROPERTY LINE > 30'
NO LIMIT OF OPENING

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

PLAN NORTH
ACTUAL NORTH

Coastal Architecture PLLC
- Architectural Design
- Planning
- Interiors

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COLUMBUS COUNTY SHERIFF'S OFFICE
WHITEVILLE, NORTH CAROLINA

COASTAL ARCHITECTURE, Inc. CERT. NO. C-2792 REGISTERED CORPORATION NORTH CAROLINA

LEE D. DIXON, JR. SEAL 6419 REGISTERED ARCHITECT NORTH CAROLINA

LIFE SAFETY PLAN

23029

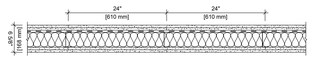
ISSUED: 12.12.2024
DWG BY: CRF
CKD BY: LDD
REVISIONS

SHEET NO.
G-2
OF

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DESIGN NO. UL U419

FIRE RATING:	2 HOURS
STC RATING:	57
SOUND TEST:	USG-161006
SYSTEM THICKNESS:	6-5/8" [168 MM]
LOCATION:	INTERIOR
FRAMING TYPE:	STEEL STUD (NONLOAD-BEARING)



ASSEMBLY REQUIREMENTS:

GYPSUM PANELS:	TWO LAYERS 5/8" [15.9 MM] SHEETROCK® ECOSMART GYPSUM PANEL (UL TYPE ULIX™)
RESILIENT CHANNEL:	1/2" [12.7 MM] RESILIENT CHANNEL, 25 GA. (0.018"), 24" [610 MM] O.C.
STEEL STUDS:	3-5/8" [92 MM] STEEL STUDS, EQ25 (0.015"), 24" [610 MM] O.C.
INSULATION:	3-1/2" [89 MM] FIBERGLASS INSULATION
GYPSUM PANELS:	TWO LAYERS 5/8" [15.9 MM] SHEETROCK® ECOSMART GYPSUM PANEL (UL TYPE ULIX™)

GENERAL WALL NOTES:

1. REFER TO APPLICABLE CODES REQUIREMENTS TO ENSURE COMPLIANCE PRIOR TO CONSTRUCTION.
2. FOR THE MOST UP-TO-DATE DETAILS, INCLUDING CONSTRUCTION VARIATIONS, REFER TO THE PUBLISHED DESIGN.
3. WHERE DESIGN NO. INDICATES "PER", THE FIRE RATING IS BASED ON LABORATORY TEST DATA OF THE REFERENCED SIMILARLY CONSTRUCTED ASSEMBLIES.
4. STUD SIZES AND INSULATION THICKNESS ARE MINIMUM UNLESS OTHERWISE STATED IN THE PUBLISHED ASSEMBLY.
5. STUD AND FASTENER SPACINGS ARE MAXIMUM UNLESS OTHERWISE STATED IN THE PUBLISHED ASSEMBLY.
6. THE NUMBER OF LAYERS IS SPECIFIED FOR EACH SIDE OF THE WALL ASSEMBLY DESIGN.
7. FIRE-RATINGS ARE FROM BOTH SIDES UNLESS OTHERWISE STATED.
8. FIRE-RATINGS ARE MAINTAINED WITH ONE OR MORE OF THE FOLLOWING MODIFICATIONS: INCREASE STUD DEPTH, INCREASE STUD MATERIAL THICKNESS, DECREASE STUD SPACING, DECREASE FASTENER SPACING, INCREASE INSULATION THICKNESS UP TO CAVITY DEPTH.
9. WHERE ACOUSTICAL PERFORMANCE IS PROVIDED IN AN ESTIMATED RANGE, THE VALUES ARE BASED ON LABORATORY TEST DATA OF SIMILARLY CONSTRUCTED ASSEMBLIES.
10. SOUND-RATINGS ARE MAINTAINED WITH ONE OR MORE OF THE FOLLOWING MODIFICATIONS: INCREASE STUD DEPTH, DECREASE STUD MATERIAL THICKNESS, INCREASE STUD SPACING, INCREASE FASTENER SPACING, INCREASE INSULATION THICKNESS UP TO CAVITY DEPTH. MODIFICATIONS MUST NOT EXCEED LIMITATIONS OF FIRE RATING.

USG Corporation
550 West Adams Street
Chicago, IL 60661 USA
T 800.USG4YOU

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UL U419

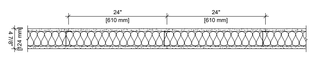
ISSUE RECORD:
Revision Date
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SHEET INFORMATION

SN-P-2-07

DESIGN NO. UL U419

FIRE RATING:	1 HOUR
STC RATING:	49
SOUND TEST:	USG-190432
SYSTEM THICKNESS:	4-7/8" [124 MM]
LOCATION:	INTERIOR
FRAMING TYPE:	STEEL STUD (NONLOAD-BEARING)



ASSEMBLY REQUIREMENTS:

GYPSUM PANELS:	ONE LAYER 5/8" [15.9 MM] SHEETROCK® GYPSUM PANEL (UL TYPE SCX)
STEEL STUDS:	3-5/8" [92 MM] STEEL STUDS, EQ25 (0.015"), 24" [610 MM] O.C.
INSULATION:	3-1/2" [89 MM] FIBERGLASS INSULATION
GYPSUM PANELS:	ONE LAYER 5/8" [15.9 MM] SHEETROCK® GYPSUM PANEL (UL TYPE SCX)

GENERAL WALL NOTES:

1. REFER TO APPLICABLE CODES REQUIREMENTS TO ENSURE COMPLIANCE PRIOR TO CONSTRUCTION.
2. FOR THE MOST UP-TO-DATE DETAILS, INCLUDING CONSTRUCTION VARIATIONS, REFER TO THE PUBLISHED DESIGN.
3. WHERE DESIGN NO. INDICATES "PER", THE FIRE RATING IS BASED ON LABORATORY TEST DATA OF THE REFERENCED SIMILARLY CONSTRUCTED ASSEMBLIES.
4. STUD SIZES AND INSULATION THICKNESS ARE MINIMUM UNLESS OTHERWISE STATED IN THE PUBLISHED ASSEMBLY.
5. STUD AND FASTENER SPACINGS ARE MAXIMUM UNLESS OTHERWISE STATED IN THE PUBLISHED ASSEMBLY.
6. THE NUMBER OF LAYERS IS SPECIFIED FOR EACH SIDE OF THE WALL ASSEMBLY DESIGN.
7. FIRE-RATINGS ARE FROM BOTH SIDES UNLESS OTHERWISE STATED.
8. FIRE-RATINGS ARE MAINTAINED WITH ONE OR MORE OF THE FOLLOWING MODIFICATIONS: INCREASE STUD DEPTH, INCREASE STUD MATERIAL THICKNESS, DECREASE STUD SPACING, DECREASE FASTENER SPACING, INCREASE INSULATION THICKNESS UP TO CAVITY DEPTH.
9. WHERE ACOUSTICAL PERFORMANCE IS PROVIDED IN AN ESTIMATED RANGE, THE VALUES ARE BASED ON LABORATORY TEST DATA OF SIMILARLY CONSTRUCTED ASSEMBLIES.
10. SOUND-RATINGS ARE MAINTAINED WITH ONE OR MORE OF THE FOLLOWING MODIFICATIONS: INCREASE STUD DEPTH, DECREASE STUD MATERIAL THICKNESS, INCREASE STUD SPACING, INCREASE FASTENER SPACING, INCREASE INSULATION THICKNESS UP TO CAVITY DEPTH. MODIFICATIONS MUST NOT EXCEED LIMITATIONS OF FIRE RATING.

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UL U419

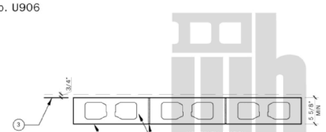
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SHEET INFORMATION

SN-P-1-02

UL FIRE RATED

Design No. U906



1 BEARING/NONBEARING WALL RATING - 2 HR.
SCALE: 1 1/2" = 1'-0"

1. **CONCRETE BLOCKS*** - Nominal 6 by 8 by 16 in., hollow or solid.
   Classification: D-2 (2 hr).
   Basalite Concrete Products, Inc.
   Florida Rock Industries, Inc.
   Pike Industries Inc., d/b/a Tilcon Whitcomb.
   Westbrook Concrete Block Co., Inc.
2. **MORTAR** - Blocks laid in full bed of mortar, nom. 3/8 in. thick, of not less than 2-1/4 and not more than 3-1/2 parts of clean sharp sand to 1 part Portland cement (proportioned by volume) and not more than 50 percent hydrated lime (by cement volume). Vertical joints staggered.
3. **PORTLAND CEMENT STUCCO OR GYPSUM PLASTER** - If used, add 1/2 hr. to Classification. Attached to concrete blocks (Item 1).
4. **FOAMED PLASTIC*** - (Optional - not shown) 1-1/2 in thick max, 4 ft wide sheathing attached to concrete blocks (Item 1).

   Celotex Corp. - Type Thermax

   *Bearing the UL Classification Marking

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Coastal Architecture PLLC

- Architectural Design
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COLUMBUS COUNTY SHERIFF'S OFFICE

WHITEVILLE, NORTH CAROLINA

U.L. DETAILS

23029

ISSUED:	12.12.2024
DWG BY:	CRF
CKD BY:	LDD

REVISIONS

SHEET NO.
G-3
OF

COMcheck Software Version COMcheckWeb
Envelope Compliance Certificate

Project Information

Energy Code: 2018 IECC
Project Title: COLUMBUS COUNTY SHERIFF OFFICE
Location: Whiteville, North Carolina
Climate Zone: 3a
Project Type: Addition
Vertical Glazing / Wall Area: 8%

Construction Site: Owner/Agent: Designer/Contractor:

Building Area	Floor Area
1-Police : Nonresidential	20450

Envelope Assemblies

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U-Factor[a]
Floor: Unheated Slab-On-Grade, Vertical 1 ft., [Bldg. Use 1 - Police] (c)	656	---	5.0	0.610	0.610
Roof: Metal Building, Standing Seam, Filled Cavity with Thermal Blocks (d), 3-Year-Aged Solar Reflectance Index = 64.00 (e), [Bldg. Use 1 - Police]	10450	0.0	38.0	0.026	0.035
NORTH					
Ext. Wall: Steel-Framed, 16in. o.c., [Bldg. Use 1 - Police]	1322	0.0	25.0	0.036	0.064
Window: Metal Frame: Fixed, Perf. Specs.: Product ID Trifab® Versaglaze® 451T Framing System, SHGC 0.25, [Bldg. Use 1 - Police] (b)	59	---	---	0.360	0.460
EAST					
Ext. Wall: Steel-Framed, 16in. o.c., [Bldg. Use 1 - Police]	2377	0.0	25.0	0.036	0.064
Window W-2: Metal Frame: Fixed, Perf. Specs.: Product ID Trifab® Versaglaze® 451T Framing System, SHGC 0.25, [Bldg. Use 1 - Police] (b)	30	---	---	0.360	0.460
Window W-1: Metal Frame: Fixed, Perf. Specs.: Product ID Trifab® Versaglaze® 451T Framing System, SHGC 0.25, [Bldg. Use 1 - Police] (b)	20	---	---	0.360	0.460
Window W-1: Metal Frame: Fixed, Perf. Specs.: Product ID Trifab® Versaglaze® 451T Framing System, SHGC 0.25, [Bldg. Use 1 - Police] (b)	20	---	---	0.360	0.460
Window W-1: Metal Frame: Fixed, Perf. Specs.: Product ID Trifab® Versaglaze® 451T Framing System, SHGC 0.25, [Bldg. Use 1 - Police] (b)	20	---	---	0.360	0.460
Window W-1: Metal Frame: Fixed, Perf. Specs.: Product ID Trifab® Versaglaze® 451T Framing System, SHGC 0.25, [Bldg. Use 1 - Police] (b)	20	---	---	0.360	0.460
Window W-1: Metal Frame: Fixed, Perf. Specs.: Product ID Trifab® Versaglaze® 451T Framing System, SHGC 0.25, [Bldg. Use 1 - Police] (b)	20	---	---	0.360	0.460
Window W-1: Metal Frame: Fixed, Perf. Specs.: Product ID Trifab® Versaglaze® 451T Framing System, SHGC 0.25, [Bldg. Use 1 - Police] (b)	20	---	---	0.360	0.460

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U-Factor[a]
Window W-1: Metal Frame: Fixed, Perf. Specs.: Product ID Trifab® Versaglaze® 451T Framing System, SHGC 0.25, [Bldg. Use 1 - Police] (b)	20	---	---	0.360	0.460
Window W-2: Metal Frame: Fixed, Perf. Specs.: Product ID Trifab® Versaglaze® 451T Framing System, SHGC 0.25, [Bldg. Use 1 - Police] (b)	30	---	---	0.360	0.460
Window W-2: Metal Frame: Fixed, Perf. Specs.: Product ID Trifab® Versaglaze® 451T Framing System, SHGC 0.25, [Bldg. Use 1 - Police] (b)	30	---	---	0.360	0.460
Ext. Wall: Steel-Framed, 16in. o.c., [Bldg. Use 1 - Police]	477	0.0	25.0	0.036	0.064
Door: Glass (over 50% glazing): Metal Frame, Entrance Door, Perf. Specs.: Product ID Trifab® Versaglaze® 451T Framing System, SHGC 0.25, [Bldg. Use 1 - Police] (b)	45	---	---	0.360	0.770
SOUTH					
Ext. Wall: Steel-Framed, 16in. o.c., [Bldg. Use 1 - Police]	1322	0.0	25.0	0.036	0.064
Door: Uninsulated Double-Layer Metal, Garage door 14% glazing, [Bldg. Use 1 - Police]	82	---	---	0.532	0.310
Door: Glass (over 50% glazing): Metal Frame, Entrance Door, Perf. Specs.: Product ID Trifab® Versaglaze® 451T Framing System, SHGC 0.25, [Bldg. Use 1 - Police] (b)	35	---	---	0.360	0.770
Door: Glass (over 50% glazing): Metal Frame, Entrance Door, Perf. Specs.: Product ID Trifab® Versaglaze® 451T Framing System, SHGC 0.25, [Bldg. Use 1 - Police] (b)	35	---	---	0.360	0.770
WEST					
Ext. Wall: Steel-Framed, 16in. o.c., [Bldg. Use 1 - Police]	2142	0.0	25.0	0.036	0.064
Window W-1: Metal Frame: Fixed, Perf. Specs.: Product ID Trifab® Versaglaze® 451T Framing System, SHGC 0.25, [Bldg. Use 1 - Police] (b)	20	---	---	0.360	0.460
Window W-1: Metal Frame: Fixed, Perf. Specs.: Product ID Trifab® Versaglaze® 451T Framing System, SHGC 0.25, [Bldg. Use 1 - Police] (b)	20	---	---	0.360	0.460
Window W-1: Metal Frame: Fixed, Perf. Specs.: Product ID Trifab® Versaglaze® 451T Framing System, SHGC 0.25, [Bldg. Use 1 - Police] (b)	20	---	---	0.360	0.460
Window W-1: Metal Frame: Fixed, Perf. Specs.: Product ID Trifab® Versaglaze® 451T Framing System, SHGC 0.25, [Bldg. Use 1 - Police] (b)	20	---	---	0.360	0.460
Window W-1: Metal Frame: Fixed, Perf. Specs.: Product ID Trifab® Versaglaze® 451T Framing System, SHGC 0.25, [Bldg. Use 1 - Police] (b)	20	---	---	0.360	0.460
Window W-1: Metal Frame: Fixed, Perf. Specs.: Product ID Trifab® Versaglaze® 451T Framing System, SHGC 0.25, [Bldg. Use 1 - Police] (b)	20	---	---	0.360	0.460
Window W-1: Metal Frame: Fixed, Perf. Specs.: Product ID Trifab® Versaglaze® 451T Framing System, SHGC 0.25, [Bldg. Use 1 - Police] (b)	20	---	---	0.360	0.460
Window W-1: Metal Frame: Fixed, Perf. Specs.: Product ID Trifab® Versaglaze® 451T Framing System, SHGC 0.25, [Bldg. Use 1 - Police] (b)	20	---	---	0.360	0.460
Door: Glass (over 50% glazing): Metal Frame, Entrance Door, Perf. Specs.: Product ID Trifab® Versaglaze® 451T Framing System, SHGC 0.25, [Bldg. Use 1 - Police] (b)	35	---	---	0.360	0.770
Ext. Wall: Steel-Framed, 16in. o.c., [Bldg. Use 1 - Police]	477	0.0	25.0	0.036	0.064

(a) Budget U-factors are used for software baseline calculations ONLY, and are not code requirements.
(b) Fenestration product performance must be certified in accordance with NFRC and requires supporting documentation.

(c) Slab-On-Grade proposed and budget U-factors shown in table are F-factors.
(d) Thermal spacer block with minimum R-3.5 must be installed above the purlin/batt, and the roof deck secured to the purlins.
(e) High albedo roof requirement options: 1) 3-year aged solar reflectance index >= 55.0 thermal emittance >= 0.75, 2) 3-year aged solar reflectance index >= 64.0, 3) Initial year aged solar reflectance >= 0.70 thermal emittance >= 0.75, 4) Initial year aged solar reflectance index >= 82.0.

Envelope PASSES: Design 25% better than code

Envelope Compliance Statement

Compliance Statement: The proposed envelope design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed envelope systems have been designed to meet the 2018 IECC requirements in COMcheck Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Name - Title Signature Date

COMcheck Software Version COMcheckWeb
Inspection Checklist

Energy Code: 2018 IECC

Requirements: 0.0% were addressed directly in the COMcheck software

Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req.ID	Plan Review	Complies?	Comments/Assumptions
C103.2 [PR1][1]	Plans and/or specifications provide all information with which compliance can be determined for the building envelope and document where exceptions to the standard are claimed.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C402.4.1 [PR10][1]	The vertical fenestration area <= 30 percent of the gross above-grade wall area.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C402.4.1 [PR11][1]	The skylight area <= 3 percent of the gross roof area.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C402.4.2 [PR14][1]	In enclosed spaces > 2,500 ft2 directly under a roof with ceiling heights >15 ft. and used as an office, lobby, atrium, concourse, corridor, storage, gymnasium/exercise center, convention center, automotive service, manufacturing, non-refrigerated warehouse, retail store, distribution/sorting area, transportation, or workshop, the following requirements apply: (a) the daylight zone under skylights is >= half the floor area; (b) the skylight area to daylight zone is >= 3 percent with a skylight VT >= 0.40; or a minimum skylight effective aperture >= 1 percent.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C406 [PR9][1]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the additional energy efficiency package options.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Section # & Req.ID	Footing / Foundation Inspection	Complies?	Comments/Assumptions
C303.2 [FO4][1]	Slab edge insulation installed per manufacturer's instructions.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C303.2.1 [FO6][1]	Exterior insulation protected against damage, sunlight, moisture, wind, landscaping and equipment maintenance activities.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C105 [FO3][1]	Installed slab-on-grade insulation type and R-value consistent with insulation specifications reported in plans and COMcheck reports.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
C402.2.4 [FO7][1]	Slab edge insulation depth/length. Slab insulation extending away from building is covered by pavement or >= 10 inches of soil.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Section # & Req.ID	Framing / Rough-In Inspection	Complies?	Comments/Assumptions
C303.1.3 [FR12][1]	Fenestration products rated in accordance with NFRC.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C303.1.3 [FR13][1]	Fenestration products are certified as to performance labels or certificates provided.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C402.4.3 [FR10][1]	Vertical fenestration SHGC value.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
C402.4.3, C402.4.3.4 [FR8][1]	Installed vertical fenestration U-factor and SHGC consistent with label specifications and as reported in plans and COMcheck reports.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
C402.5.1 [FR16][1]	The building envelope contains a continuous air barrier that is sealed in an approved manner and either constructed or tested in an approved manner. Air barrier penetrations are sealed in an approved manner.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C402.5.2, C402.5.4 [FR18][1]	Factory-built fenestration and doors are labeled as meeting air leakage requirements.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C402.5.7 [FR17][1]	Vestibules are installed on all building entrances. Doors have self-closing devices.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Section # & Req.ID	Mechanical Rough-In Inspection	Complies?	Comments/Assumptions
C402.5.5, C403.2.4.3 [ME3][1]	Stair and elevator shaft vents have motorized dampers that automatically close. Refernece section C403.7.7 for operational details.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.6 [EL26][1]	Low-voltage dry-type distribution electric transformers meet the minimum efficiency requirements of Table C405.6.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.7 [EL27][1]	Electric motors meet the minimum efficiency requirements of Tables C405.7(1) through C405.7(4). Efficiency verified through certification under an approved certification program or the equipment efficiency ratings shall be provided by motor manufacturer (where certification programs do not exist).	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.8.2, C405.8.2.1 [EL28][1]	Escalators and moving walks comply with ASME A17.1/CSA B44 and have automatic controls configured to reduce speed to the minimum permitted speed in accordance with ASME A17.1/CSA B44 or applicable local code when not conveying passengers.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.9 [EL29][1]	Total voltage drop across the combination of feeders and branch circuits <= 5%.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Section # & Req.ID	Insulation Inspection	Complies?	Comments/Assumptions
C303.1 [IN3][1]	Roof insulation installed per manufacturer's instructions. Blown or poured loose-fill insulation is installed only where the roof slope is <=3 in 12.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C402.2.1 [IN20][1]	Insulation installed on a suspended ceiling having ceiling tiles is not being specified for roor/ceiling assemblies. Continuous insulation board installed in 2 or more layers with edge joints offset between layers.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C303.1 [IN10][1]	Building envelope insulation is labeled with R-value or insulation certificate providing R-value and other relevant data.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C303.2 [IN7][1]	Above-grade wall insulation installed per manufacturer's instructions.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C105 [IN6][1]	Installed above-grade wall insulation type and R-value consistent with insulation specifications reported in plans and COMcheck reports.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
C402.2.3 [IN8][1]	Installed floor insulation type and R-value consistent with insulation specifications reported in plans and COMcheck reports.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
C402.2.6 [IN18][1]	Radiant panels and associated components, designed for heat transfer from the panel surfaces to the occupants or indoor space are insulated with a minimum of R-3.5.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C402.3 [IN5][1]	High-albedo roofs satisfy one of the following: 3-year-aged solar reflectance >= 0.55 and thermal emittance >= 0.75 or 3-year-aged solar reflectance index >= 64.0.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C105 [IN2][1]	Installed roof insulation type and R-value consistent with insulation specifications reported in plans and COMcheck reports. For some ceiling systems, verification may need to occur during Framing Inspection.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
C402.5.1.1 [IN1][1]	All sources of air leakage in the building thermal envelope are sealed, caulked, gasketed, weather stripped or wrapped with moisture vapor-permeable wrapping material to minimize air leakage.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C402.5.6 [FI37][1]	Weatherseals installed on all loading dock cargo door openings and provide direct contact along the top and sides of vehicles parked in the doorway.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C402.5.8 [FI26][1]	Recessed luminaires in thermal envelope to limit infiltration and be IC rated and labeled. Seal between interior finish and luminaire housing.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C408.1.1 [FI57][1]	Building operations and maintenance documents will be provided to the owner. Documents will cover manufacturers' information, specifications, programming procedures and means of illustrating to owner how building, equipment and systems are intended to be installed, maintained, and operated.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Coastal Architecture PLLC
- Architectural Design
- Planning
- Interiors

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Morehead City, NC 28557

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COLUMBUS COUNTY SHERIFF'S OFFICE
WHITEVILLE, NORTH CAROLINA

CONSULTING ARCHITECTURE, INC. CERTIFICATE OF AUTHORIZATION NORTH CAROLINA BOARD OF EXAMINERS FOR ENGINEERING AND SURVEYING CERT. NO. C-1792

REGISTERED ARCHITECT LEE D. DIXON, JR. 6419 NORTH CAROLINA

COMCHECK

23029

ISSUED: 12.12.2024
DWG BY: CRF
CKD BY: LDD

REVISIONS

SHEET NO.
G-4
OF

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NOTES:

1. BOUNDARY, TOPOGRAPHIC SURVEY PROVIDED BY SOLES & WALKER, P.A., P.L.S., DATED: 9/24/2024
2. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UTILITIES WITHIN PROJECT AREA PRIOR TO CONSTRUCTION AND PROTECTING UTILITIES AS NECESSARY.

SCALE (IN FEET):

30' 0' 30' 60'

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PROJECT MANAGER: JJW

DESIGNED: JJW

DRAWN BY: JST

CHECKED: JJW

SCALE: 1" = 30'

DATE: 12/13/2024

ARENDELL ENGINEERS
CIVIL - COASTAL - ENVIRONMENTAL
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Morehead City, NC 28557
(252) 622-4338
Fax: (252) 622-4505
www.arendellengineers.com
North Carolina Certification No. C-1509

OWNER:

COLUMBUS COUNTY

PROJECT:

SHERIFF'S OFFICE
817 WASHINGTON STREET
WHITEVILLE, NORTH CAROLINA 28472

COLUMBUS COUNTY, NC

DRAWING:

EXISTING CONDITIONS AND DEMOLITION PLAN

NORTH CAROLINA PROFESSIONAL SEAL 42158 ENGINEER JOHN J. WADE
12/13/2024

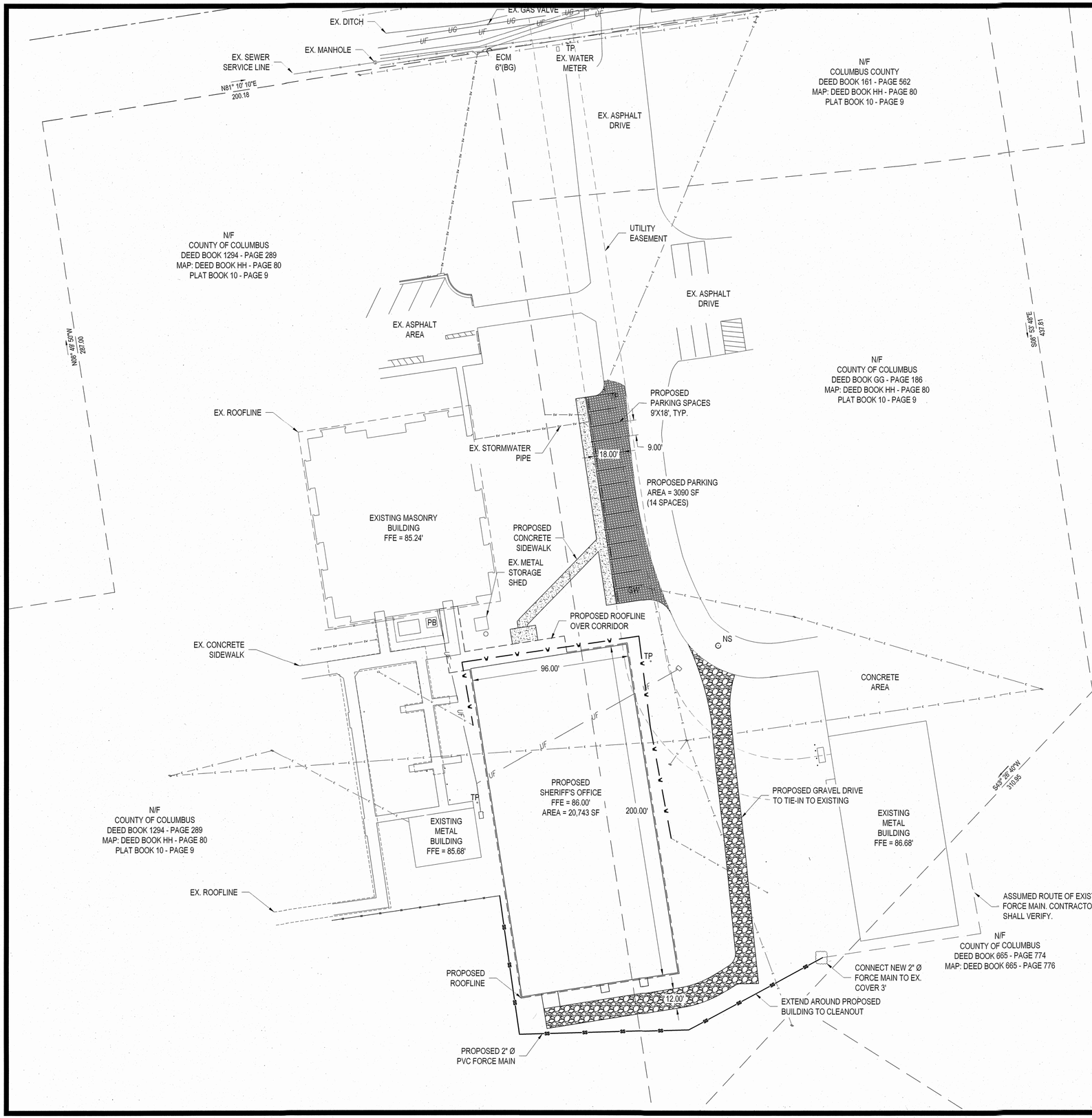
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SHEET NO:

C1

OF: 6

JOB NO. 24265



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PROJECT MANAGER: JJW

DESIGNED: JJW

DRAWN BY: JST

CHECKED: JJW

SCALE: 1" = 30'

DATE: 12/13/2024

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OWNER:

COLUMBUS COUNTY

PROJECT:

SHERIFF'S OFFICE
817 WASHINGTON STREET
WHITEVILLE, NORTH CAROLINA 28472

COLUMBUS COUNTY, NC

DRAWING:

SITE PLAN

NORTH CAROLINA PROFESSIONAL SEAL 42158 ENGINEER JOHN J. WALSH
12/13/2024

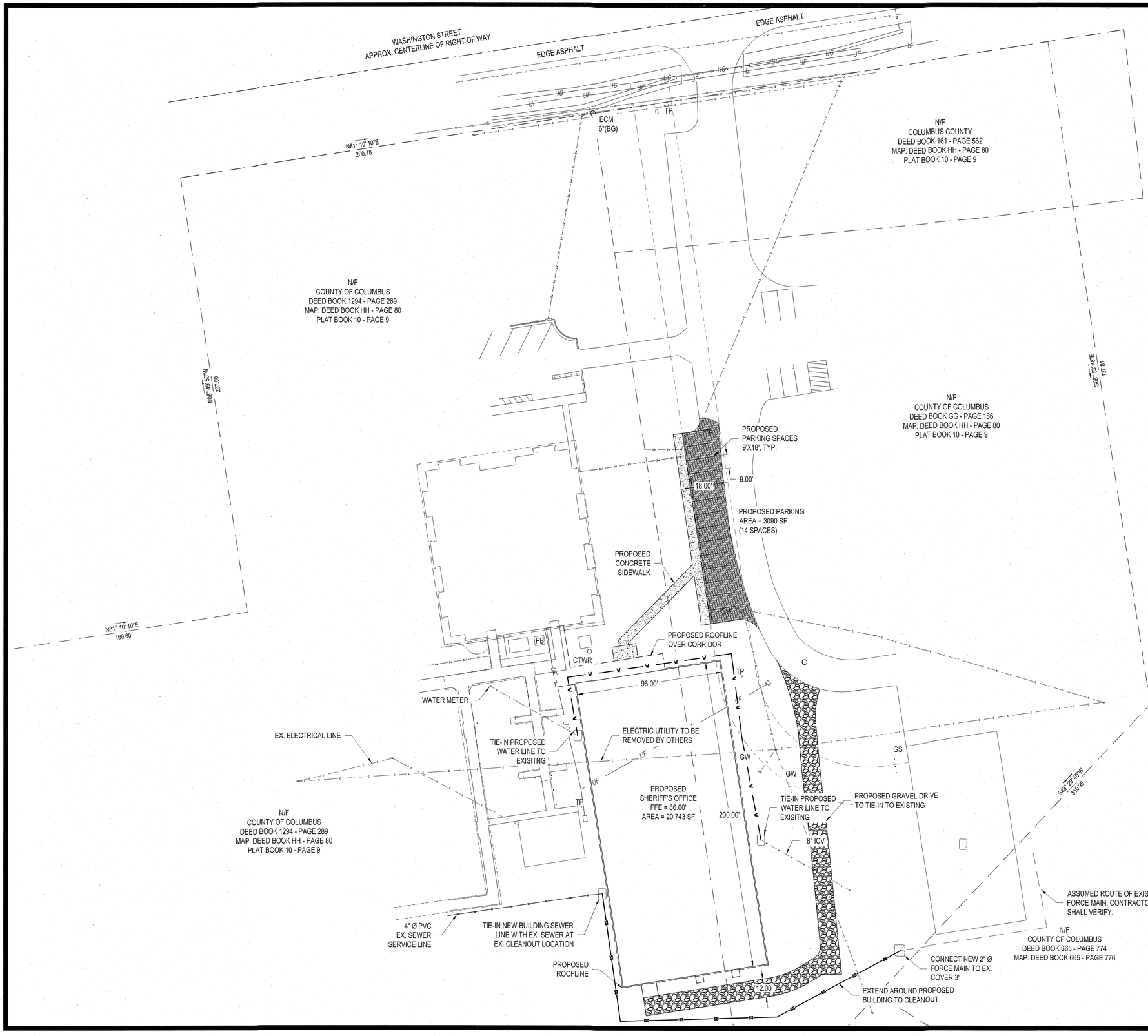
NO.	REVISION	BY	DATE

SHEET NO:

C2

OF: 6

JOB NO. 24265



NOTES:
WATER AND SEWER SERVICES TO BE COORDINATED WITH MEP ARCHITECTS AND EXISTING SITE UTILITIES.

N

SCALE (IN FEET):
30' 0' 30' 60'

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PROJECT MANAGER: JJW
DESIGNED: JJW
DRAWN BY: JST
CHECKED: JJW
SCALE: 1" = 30'
DATE: 12/13/2024

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PROJECT:
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817 WASHINGTON STREET
WHITEVILLE, NORTH CAROLINA 28472

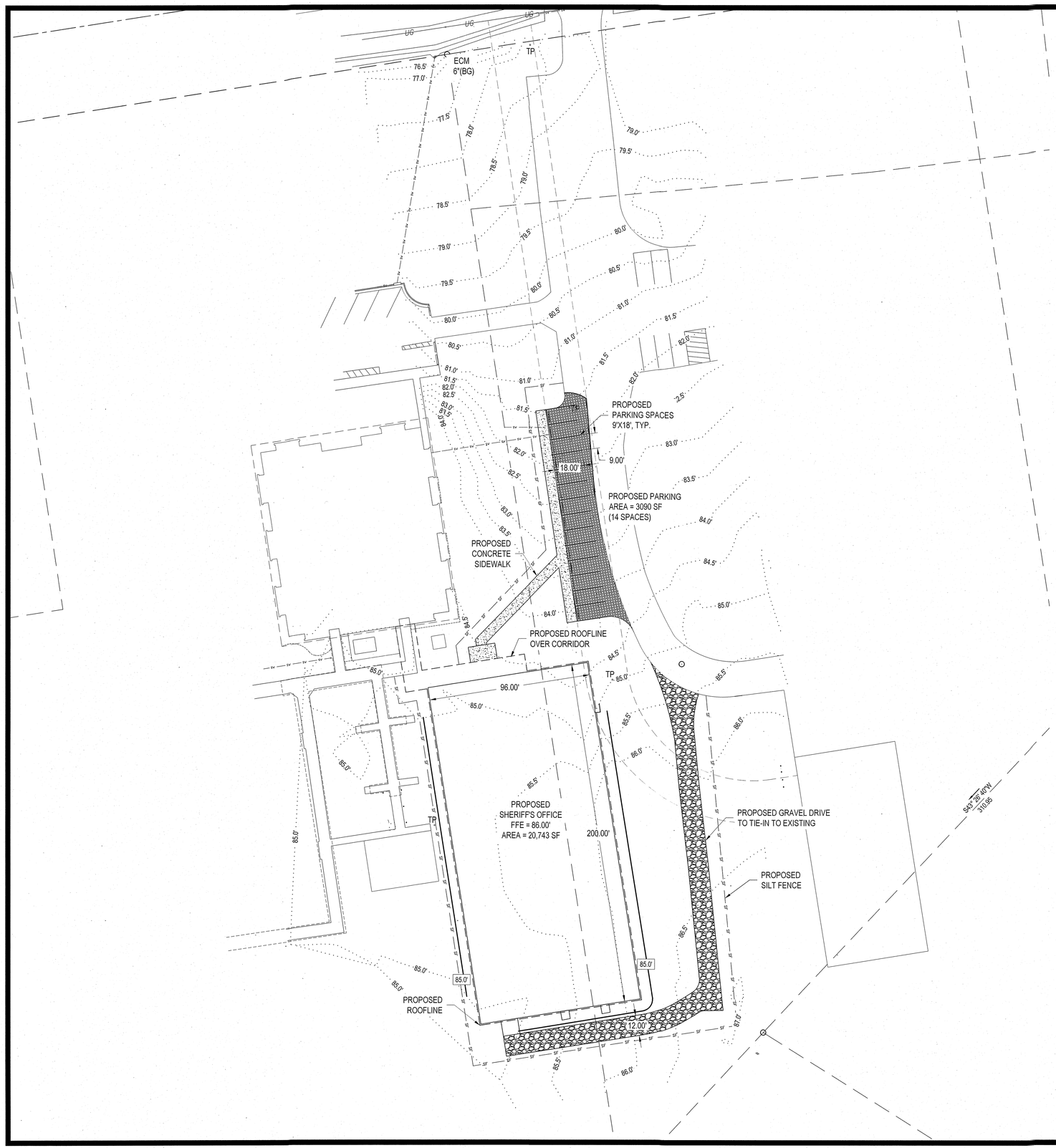
COLUMBUS COUNTY, NC

DRAWING:
UTILITY PLAN

NORTH CAROLINA PROFESSIONAL SEAL 42158 ENGINEER JOHN J. WADE
12/13/2024

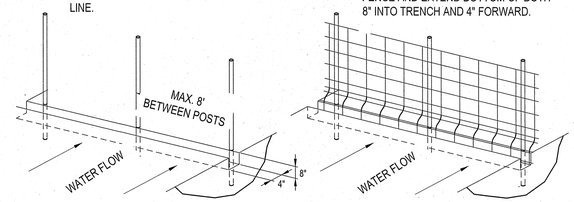
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SHEET NO:
C3
OF: 6
JOB NO.
24265

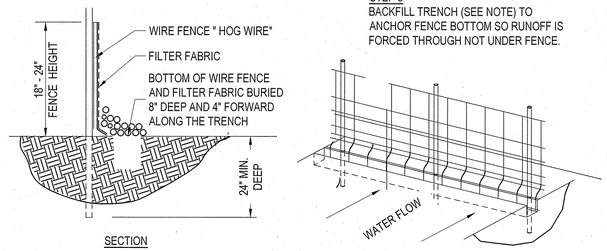


STEP 1
DRIVE 5' STEEL POSTS 24" INTO GROUND AND EXCAVATE A 8"x6" TRENCH ON UPHILL SIDE OF POST LINE.

STEP 2
ATTACH WIRE FENCE TO POSTS THEN ATTACH FILTER FABRIC TO WIRE FENCE AND EXTEND BOTTOM OF BOTH 8" INTO TRENCH AND 4" FORWARD.



STEP 3
BACKFILL TRENCH (SEE NOTE) TO ANCHOR FENCE BOTTOM SO RUNOFF IS FORCED THROUGH NOT UNDER FENCE.



SECTION

TEMPORARY SILT FENCE

SCALE: NOT TO SCALE

NOTES:
1. SEE EROSION CONTROL GENERAL NOTES.
2. FILTER FABRIC BOTTOM SHALL BE PLACED 8" IN TRENCH AND 4 " FORWARD AND SECURED BY EITHER WASHED STONE EXTENDING A MINIMUM OF 6" ABOVE GROUND LEVEL OR TAMPED SOIL BACKFILL MATERIAL TO GROUND LEVEL OR HIGHER.

NOTES:
- APPROX. 8,200 SF OF DISTURBED AREA OUTSIDE OF THE PROPOSED SHERIFF'S OFFICE.
- APPROX. DISTURBED AREAS WILL BE SODDED.

LEGEND:

XX.X' PROPOSED COUNTOUR ELEVATION

XX.X' EXISTING COUNTOUR AND ELEVATION

N

SCALE (IN FEET):

30' 0' 30' 60'

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PROJECT MANAGER: JJW

DESIGNED: JJW

DRAWN BY: JST

CHECKED: JJW

SCALE: 1" = 30'

DATE: 12/13/2024

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North Carolina Certification No. C-1509

OWNER:

COLUMBUS COUNTY

PROJECT:

SHERIFF'S OFFICE
817 WASHINGTON STREET
WHITEVILLE, NORTH CAROLINA 28472

COLUMBUS COUNTY, NC

DRAWING:

GRADING PLAN

NORTH CAROLINA PROFESSIONAL SEAL 42158 ENGINEER JOHN J. WADE
12/13/2024

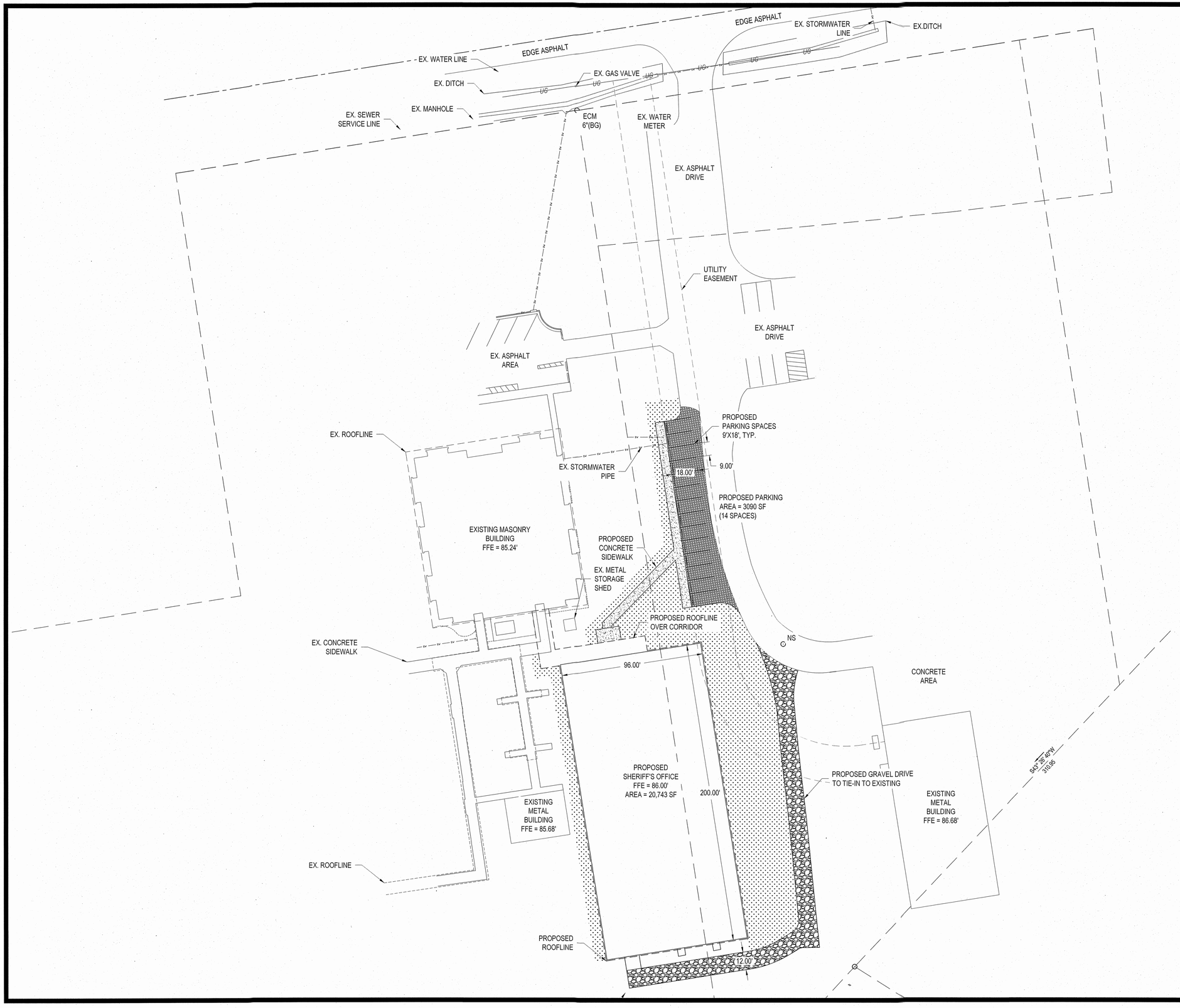
NO.	REVISION	BY	DATE

SHEET NO:

C4

OF: 6

JOB NO. 24265



NOTES:
- APPROX. 8,200 SF OF DISTURBED AREA OUTSIDE OF THE PROPOSED SHERIFF'S OFFICE.
- APPROX. DISTURBED AREAS WILL BE SODDED.

- DISTURBED AREAS TO BE SODDED

SCALE (IN FEET):
20' 0' 30' 60'

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PROJECT MANAGER: JJW
DESIGNED: JJW
DRAWN BY: JST
CHECKED: JJW
SCALE: 1" = 30'
DATE: 12/13/2024

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OWNER:
COLUMBUS COUNTY

PROJECT:
SHERIFF'S OFFICE
817 WASHINGTON STREET
WHITEVILLE, NORTH CAROLINA 28472

COLUMBUS COUNTY, NC

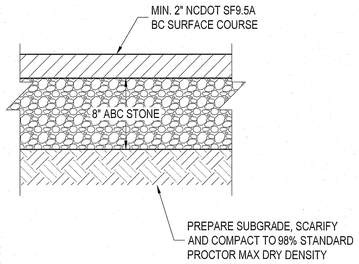
DRAWING:
LANDSCAPE PLAN

NORTH CAROLINA PROFESSIONAL SEAL 42158 ENGINEER JOHN J. WEST 12/13/2024

NO.	REVISION	BY	DATE

SHEET NO:
C5
OF: 6

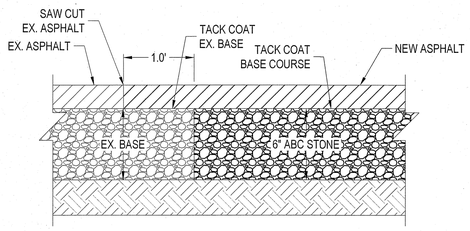
JOB NO.
24265



NOTES:
1. PROVIDE AGGREGATE BASE COURSE IN ACCORDANCE WITH NCDOT SPECIFICATIONS, SECTION 520. COMPACT TO 100% DENSITY IN ACCORDANCE WITH AASHTO T-99.
2. PROOF ROLLING MAY BE USED IN LIEU OF DENSITY TESTING USE 50 TON DUMP TRUCK OR HEAVY ROLLER. PROOF ROLL IN PRESENCE OF THE ENGINEER. AREAS TOO SMALL TO ALLOW PROOF ROLLING SHALL BE TESTED AS REQUIRED IN PRESENCE OF ENGINEER.

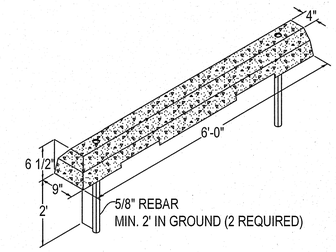
ASPHALT PAVEMENT - PARKING BAYS

SCALE: NOT TO SCALE



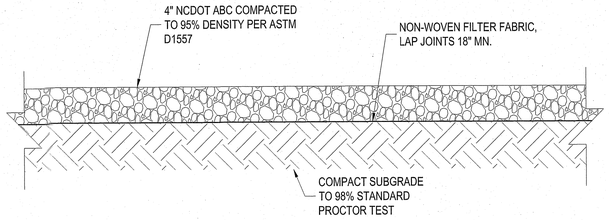
ASPHALT SAW CUT, TYPICAL

SCALE: NOT TO SCALE



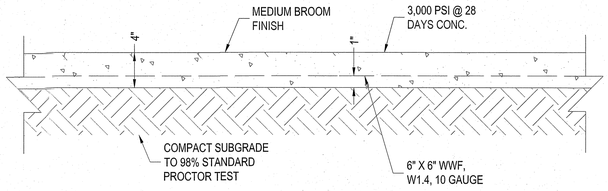
PRECAST CONCRETE WHEEL STOP

SCALE: NOT TO SCALE



GRAVEL DRIVEWAY SECTION

SCALE: NOT TO SCALE



NOTE: CONSTRUCTION JOINTS SHALL BE LOCATED AT 12' O.C. MAX AND EXPANSION JOINTS AT 40' O.C. MAX.

CONCRETE SIDEWALK SECTION

SCALE: NOT TO SCALE

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PROJECT MANAGER: JJW

DESIGNED: JJW

DRAWN BY: JST

CHECKED: JJW

SCALE: AS SHOWN

DATE: 12/13/2024

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North Carolina Certification No. C-1509

OWNER:

COLUMBUS COUNTY

PROJECT:

SHERIFF'S OFFICE
817 WASHINGTON STREET
WHITEVILLE, NORTH CAROLINA 28472

COLUMBUS COUNTY, NC

DRAWING:

DETAILS

NORTH CAROLINA PROFESSIONAL SEAL 42158 ENGINEER JOHN J. WADE
12/13/2024

NO.	REVISION	BY	DATE

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C6

OF: 6

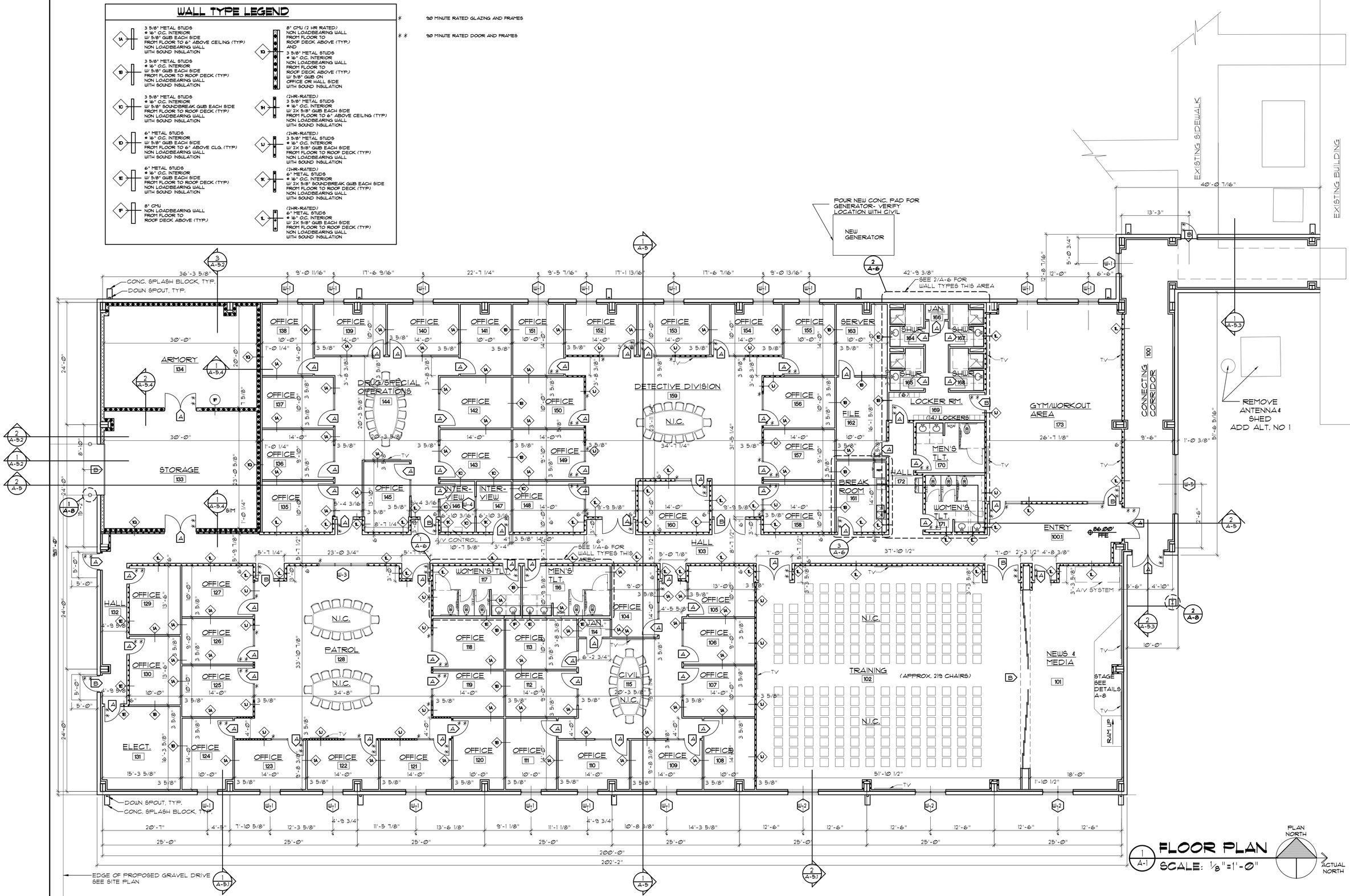
JOB NO. 24265

WALL TYPE LEGEND

- 1A — 3 5/8" METAL STUDS @ 16" O.C. INTERIOR W/ 5/8" GWB EACH SIDE FROM FLOOR TO 6" ABOVE CEILING (TYP.) NON LOADBEARING WALL WITH SOUND INSULATION
- 1B — 3 5/8" METAL STUDS @ 16" O.C. INTERIOR W/ 5/8" GWB EACH SIDE FROM FLOOR TO ROOF DECK (TYP.) NON LOADBEARING WALL WITH SOUND INSULATION
- 1C — 3 5/8" METAL STUDS @ 16" O.C. INTERIOR W/ 5/8" SOUNDBREAK GWB EACH SIDE FROM FLOOR TO ROOF DECK (TYP.) NON LOADBEARING WALL WITH SOUND INSULATION
- 1D — 6" METAL STUDS @ 16" O.C. INTERIOR W/ 5/8" GWB EACH SIDE FROM FLOOR TO 6" ABOVE CLG. (TYP.) NON LOADBEARING WALL WITH SOUND INSULATION
- 1E — 6" METAL STUDS @ 16" O.C. INTERIOR W/ 5/8" GWB EACH SIDE FROM FLOOR TO ROOF DECK (TYP.) NON LOADBEARING WALL WITH SOUND INSULATION
- 1F — 8" CMU NON LOADBEARING WALL FROM FLOOR TO ROOF DECK ABOVE (TYP.)
- 1G — 8" CMU (2 HR RATED) NON LOADBEARING WALL FROM FLOOR TO ROOF DECK ABOVE (TYP.) AND 3 5/8" METAL STUDS @ 16" O.C. INTERIOR NON LOADBEARING WALL FROM FLOOR TO ROOF DECK ABOVE (TYP.) W/ 5/8" GWB ON OFFICE OR HALL SIDE WITH SOUND INSULATION
- 1H — (2HR-RATED) 3 5/8" METAL STUDS @ 16" O.C. INTERIOR W/ 2X 5/8" GWB EACH SIDE FROM FLOOR TO 6" ABOVE CEILING (TYP.) NON LOADBEARING WALL WITH SOUND INSULATION
- 1J — (2HR-RATED) 3 5/8" METAL STUDS @ 16" O.C. INTERIOR W/ 2X 5/8" GWB EACH SIDE FROM FLOOR TO ROOF DECK (TYP.) NON LOADBEARING WALL WITH SOUND INSULATION
- 1K — (2HR-RATED) 6" METAL STUDS @ 16" O.C. INTERIOR W/ 2X 5/8" SOUNDBREAK GWB EACH SIDE FROM FLOOR TO ROOF DECK (TYP.) NON LOADBEARING WALL WITH SOUND INSULATION
- 1L — (2HR-RATED) 6" METAL STUDS @ 16" O.C. INTERIOR W/ 2X 5/8" GWB EACH SIDE FROM FLOOR TO ROOF DECK (TYP.) NON LOADBEARING WALL WITH SOUND INSULATION

* 90 MINUTE RATED GLAZING AND FRAMES

** 90 MINUTE RATED DOOR AND FRAMES



FLOOR PLAN

SCALE: 1/8"=1'-Ø"

PLAN NORTH / ACTUAL NORTH

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- Architectural Design
- Planning
- Interiors

AIA Member of the American Institute of Architects

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lee@coastalarchitecture.net

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COLUMBUS COUNTY SHERIFF'S OFFICE
WHITEVILLE, NORTH CAROLINA

NORTH CAROLINA BOARD OF EXAMINERS FOR ENGINEERING AND SURVEYING — CERTIFICATE OF AUTHORIZATION — ARCHITECTURE PLLC — CERT. NO. 57762

LEE D. DIXON JR. — 6419 — REGISTERED ARCHITECT — NORTH CAROLINA

FLOOR PLAN

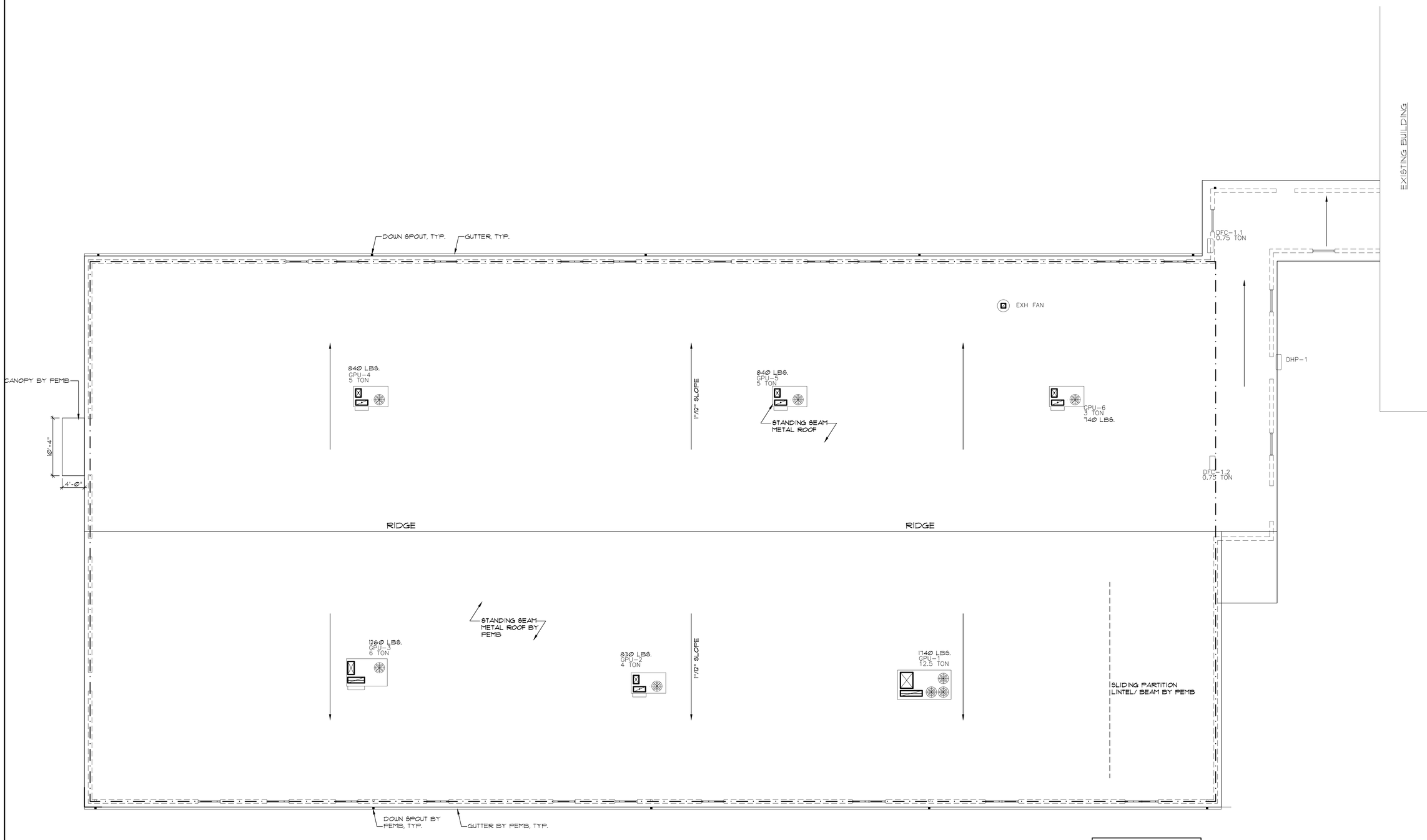
23029

ISSUED: 12.12.2024
DWG BY: MSG
CKD BY: LDD

REVISIONS

SHEET NO. A-1 OF

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GUTTER AND DOWNSPOUT DESIGN BY PEMB

1 A-1.1 **ROOF PLAN**

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

PLAN NORTH

ACTUAL NORTH

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- Planning
- Interiors

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COLUMBUS COUNTY SHERIFF'S OFFICE

WHITEVILLE, NORTH CAROLINA

CERT. NO. C-0782

LEE D. DIXON JR. 6419 REGISTERED ARCHITECT NORTH CAROLINA

ROOF PLAN

23029

ISSUED:	12.12.2024
DWG BY:	MSG
CKD BY:	LDD

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LEGEND:

C = SECURITY CAMERA
F = CARD SWIPE/ FOB
TV= WALL MOUNT TV

CEILING LIGHT -SEE ELECTRICAL

RETURN- SEE ELECTRICAL

DIFFUSER- SEE ELECTRICAL

HANGING LIGHT- SEE ELECTRICAL

GENERAL NOTE:

REFER TO ELECTRICAL AND MECHANICAL FOR EXACT LOCATION AND TYPE. TYP.

EXISTING SIDEWALK

EXISTING BUILDING

ARMORY 134 OPEN TO BOD

STORAGE 133 OPEN TO BOD

ELECT. 131 OPEN TO BOD

DRUG/SPECIAL OPERATIONS 144

DETECTIVE DIVISION 159

PATROL 128

CIVIL 115

TRAINING 102

SERVER 163 OPEN TO BOD

FILE 162

BREAK ROOM 161

LOCKER RM. 169

GYM/WORKOUT AREA 173

CONNECTING CORRIDOR 100

ENTRY 100.1

HALL 132

HALL 133

HALL 172

WOMEN'S TLT. 117

MEN'S TLT. 116

JAN. 114

NEWS & MEDIA 101

SHWR 165, 166, 167, 168

OFFICE 105, 106, 107, 108, 109, 110, 111, 112, 113, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 129, 130, 135, 136, 137, 138, 139, 140, 141, 142, 143, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 160

SAT 2

1 A-2 REFLECTED CEILING PLAN

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

PLAN NORTH

ACTUAL NORTH

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WHITEVILLE, NORTH CAROLINA

COASTAL ARCHITECTURE, INC. CERT. NO. 50792

LEE D. DIXON, JR. 6419 REGISTERED ARCHITECT

REFLECTED CEILING PLAN

23029

ISSUED: 12.12.2024
DWG BY: MSG
CKD BY: LDD

REVISIONS

SHEET NO.
A-2
OF

WINDOW SCHEDULE

MARK	SIZE	TYPE	MATERIAL	GLAZING	REMARKS
W-1	4'-Ø" X 5'-Ø"	FIXED	ALUM.	IMPACT RESISTANT	
W-2	6'-Ø" X 5'-Ø"	FIXED	ALUM.	IMPACT RESISTANT	
W-3	9'-8" X 7'-Ø"	FIXED	ALUM.	90 MIN FIRE RATED	
W-4	4'-Ø" X 3'-Ø"	FIXED	ALUM.	ONE WAY GLAZING	
W-5	11'-8" X 5'-Ø"	FIXED	ALUM.	IMPACT RESISTANT	

WINDOW SCHEDULE REMARKS

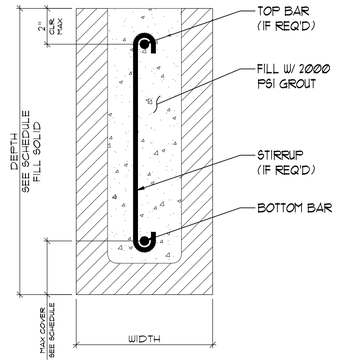
- ALL GLAZING TO BE IMPACT RESISTANT.
- WINDOWS SHALL MEET APPLICABLE WIND ZONE CODE DESIGN PRESSURE REQUIREMENTS.
- PROVIDE HEAD AND SILL FLASHING AT ALL WINDOWS.

MASONRY LINTEL SCHEDULE

MAX SPAN	WIDTH	DEPTH	REINFORCEMENT			MAX COVER	NOTES
			BOTTOM	TOP	STIRRUPS		
6'-4"	8"	8"	ONE #5	ONE #5	#5 @ 8" O.C.	2"	1, 2
11'-4"	8"	16"	ONE #5	ONE #5	#5 @ 8" O.C.	3"	1, 2

REMARKS

1. EXTEND GROUTED OPEN END MASONRY UNITS AND REINFORCING 1'-4" PAST EA. JAMB MIN. USE CORNER BARS WHERE 1'-4" CANNOT BE ACHIEVED.
2. HEADER TO BEAR 8" ON SOLID GROUTED CMU BLOCK EACH END.
3. ALL REINFORCEMENT SHALL BE CONTINUOUS, SPLICES ARE NOT PERMITTED.



1 / A-3 TYPICAL MASONRY LINTEL DETAIL
SCALE: 3"=1'-Ø"

DOOR SCHEDULE

DOOR NO.	SIZE	DOOR TYPE	DOOR FRAME	REMARKS
100A	(2) 3'-Ø" X 7'-Ø"	2	C	① ② ④
100B	3'-Ø" X 7'-Ø"	1	A	① ② ④
100.1A	(2) 3'-Ø" X 7'-Ø"	5	D	① ② ⑥
101A	3'-Ø" X 7'-Ø"	4	B	① ② ⑥
101B	35'-Ø"X9'-6" OPENING	8	BY MFR	(2) RAYDOOR SLIDING POCKET WALL
102A	(2) 3'-Ø" X 7'-Ø"	5	D	① ② ⑥
102B	(2) 3'-Ø" X 7'-Ø"	5	D	① ② ⑥
104A	3'-Ø" X 7'-Ø"	3	F	③
105A	3'-Ø" X 7'-Ø"	3	F	③
106A	3'-Ø" X 7'-Ø"	3	F	③
107A	3'-Ø" X 7'-Ø"	3	F	③
108A	3'-Ø" X 7'-Ø"	3	B	③
109A	3'-Ø" X 7'-Ø"	3	F	③
110A	3'-Ø" X 7'-Ø"	3	F	③
111A	3'-Ø" X 7'-Ø"	3	B	③
112A	3'-Ø" X 7'-Ø"	3	F	③
113A	3'-Ø" X 7'-Ø"	3	B	③
114A	3'-Ø" X 7'-Ø"	3	B	① ③ ⑥
115A	3'-Ø" X 7'-Ø"	4	B	① ② ⑥
116A	3'-Ø" X 7'-Ø"	3	B	① ③ ⑥
117A	3'-Ø" X 7'-Ø"	3	B	① ③ ⑥
118A	3'-Ø" X 7'-Ø"	3	F	① ② ⑥
119A	3'-Ø" X 7'-Ø"	3	F	③ ⑥
120A	3'-Ø" X 7'-Ø"	3	B	③ ⑥
121A	3'-Ø" X 7'-Ø"	3	F	③ ⑥
122A	3'-Ø" X 7'-Ø"	3	F	③ ⑥
123A	3'-Ø" X 7'-Ø"	3	F	③ ⑥
124A	3'-Ø" X 7'-Ø"	3	B	③ ⑥
125A	3'-Ø" X 7'-Ø"	3	F	③ ⑥
126A	3'-Ø" X 7'-Ø"	3	F	③ ⑥
127A	3'-Ø" X 7'-Ø"	3	F	③ ⑥
128A	3'-Ø" X 7'-Ø"	4	B	② ⑥
128B	3'-Ø" X 7'-Ø"	4	B	① ② ⑥
129A	3'-Ø" X 7'-Ø"	3	F	① ⑥
130A	3'-Ø" X 7'-Ø"	3	F	① ⑥
131A	3'-Ø" X 7'-Ø"	3	B	① ③ ⑥
132A	3'-Ø" X 7'-Ø"	1	A	① ② ④
132B	3'-Ø" X 7'-Ø"	1	A	① ② ④
133A	(2) 3'-Ø" X 7'-Ø"	6	D	① ② ④ ⑥
133B	10'-Ø" X 8'-Ø"	7	G	COILING DOOR
134A	(2) 3'-Ø" X 7'-Ø"	6	D	① ② ④ ⑥
135A	3'-Ø" X 7'-Ø"	3	F	③
136A	3'-Ø" X 7'-Ø"	3	F	③
137A	3'-Ø" X 7'-Ø"	3	F	③
138A	3'-Ø" X 7'-Ø"	3	B	③
139A	3'-Ø" X 7'-Ø"	3	F	③
140A	3'-Ø" X 7'-Ø"	3	F	③
141A	3'-Ø" X 7'-Ø"	3	B	③
142A	3'-Ø" X 7'-Ø"	3	F	③
143A	3'-Ø" X 7'-Ø"	3	F	③
144A	3'-Ø" X 7'-Ø"	4	B	① ② ⑥
144B	3'-Ø" X 7'-Ø"	4	B	① ② ⑥
145A	3'-Ø" X 7'-Ø"	3	F	③
146A	3'-Ø" X 7'-Ø"	3	B	① ③
147A	3'-Ø" X 7'-Ø"	3	B	① ③ ⑥
148A	3'-Ø" X 7'-Ø"	3	F	① ③ ⑥
149A	3'-Ø" X 7'-Ø"	3	F	① ③ ⑥
150A	3'-Ø" X 7'-Ø"	3	F	① ③ ⑥
151A	3'-Ø" X 7'-Ø"	3	B	① ③ ⑥
152A	3'-Ø" X 7'-Ø"	3	F	① ③ ⑥
153A	3'-Ø" X 7'-Ø"	3	F	① ③ ⑥
154A	3'-Ø" X 7'-Ø"	3	F	① ③ ⑥
155A	3'-Ø" X 7'-Ø"	3	B	① ③ ⑥
156A	3'-Ø" X 7'-Ø"	3	F	① ③ ⑥
157A	3'-Ø" X 7'-Ø"	3	F	① ③ ⑥
158A	3'-Ø" X 7'-Ø"	3	F	① ③ ⑥
159A	3'-Ø" X 7'-Ø"	5	E	① ② ⑥
159B	3'-Ø" X 7'-Ø"	5	E	① ② ⑥
160A	3'-Ø" X 7'-Ø"	3	F	③ ⑥
161A	3'-Ø" X 7'-Ø"	4	B	① ③ ⑥
162A	3'-Ø" X 7'-Ø"	3	B	① ② ④ ⑥
163A	3'-Ø" X 7'-Ø"	3	B	① ② ④
164A	3'-Ø" X 7'-Ø"	3	B	③
165A	3'-Ø" X 7'-Ø"	3	B	③
166A	3'-Ø" X 7'-Ø"	3	B	③
167A	3'-Ø" X 7'-Ø"	3	B	③
168A	3'-Ø" X 7'-Ø"	3	B	③
169A	3'-Ø" X 7'-Ø"	3	B	① ③ ⑥
169B	3'-Ø" X 7'-Ø"	3	B	① ③ ⑥
170A	3'-Ø" X 7'-Ø"	3	B	① ③ ⑥
171A	3'-Ø" X 7'-Ø"	3	B	① ③ ⑥
173A	3'-Ø" X 7'-Ø"	1	F	① ③ ⑥
173B	3'-Ø" X 7'-Ø"	1	F	① ③ ⑥

DOOR SCHEDULE REMARKS

1. CLOSER
2. PANIC HARDWARE
3. PUSH/ PULLS
4. CARD SWIPE
5. 20 MIN RATED DOOR
6. 90 MIN RATED DOOR

SEE A-3.1

ROOM FINISH SCHEDULE

ROOM NUMBERS	ROOM	FLOORS	BASE	WALLS	CEILINGS	HEIGHT (NOMINAL)	REMARKS
100	CONNECTING CORRIDOR	LVP	VINYL BASE	GWB-PTD	S.A.T.	9'-Ø"	
100.1	ENTRY				S.A.T.	9'-Ø"	
101	NEWS & MEDIA				S.A.T. 2	11'-Ø"	
102	TRAINING				S.A.T. 2	11'-Ø"	
103	HALL				S.A.T.	9'-Ø"	
104	OFFICE						
105	OFFICE						
106	OFFICE						
107	OFFICE						
108	OFFICE						
109	OFFICE						
110	OFFICE						
111	OFFICE						
112	OFFICE						
113	OFFICE						
114	JANITOR						
115	CIVIL						
116	MEN'S TOILET	TILE	TILE BASE				MARBLE THRESHOLD
117	WOMEN'S TOILET	TILE	TILE BASE				MARBLE THRESHOLD
118	OFFICE	LVP	VINYL BASE				
119	OFFICE						
120	OFFICE						
121	OFFICE						
122	OFFICE						
123	OFFICE						
124	OFFICE						
125	OFFICE						
126	OFFICE						
127	OFFICE						
128	PATROL					10'-Ø"	
129	OFFICE					9'-Ø"	
130	OFFICE						
131	MECH/ELECT.						
132	HALL						
133	STORAGE	CONC. W/ SEALER	-	CMU BLOCK PTD.	EXPOSED	-	
134	ARMORY	CONC. W/ SEALER	-	CMU BLOCK PTD.	EXPOSED	-	
135	OFFICE	LVP	VINYL BASE	GWB-PTD	S.A.T.	9'-Ø"	
136	OFFICE						
137	OFFICE						
138	OFFICE						
139	OFFICE						
140	OFFICE						
141	OFFICE						
142	OFFICE						
143	OFFICE						
144	DRUG/SPECIAL OPERATIONS					10'-Ø"	
145	OFFICE					9'-Ø"	
146	INTERVIEW						SOUNDBREAK GWB
147	INTERVIEW						SOUNDBREAK GWB
148	OFFICE						
149	OFFICE						
150	OFFICE						
151	OFFICE						
152	OFFICE						
153	OFFICE						
154	OFFICE						
155	OFFICE						
156	OFFICE						
157	OFFICE						
158	OFFICE						
159	DETECTIVE DIVISION					10'-Ø"	
160	OFFICE					9'-Ø"	
161	BREAK ROOM						
162	FILE						
163	MECH.						
164	SHOWER	TILE	TILE BASE				MARBLE THRESHOLD
165	SHOWER	TILE	TILE BASE				MARBLE THRESHOLD
166	JANITOR	LVP	VINYL BASE				
167	SHOWER	TILE	TILE BASE				MARBLE THRESHOLD
168	SHOWER	TILE	TILE BASE				MARBLE THRESHOLD
169	LOCKER ROOM	LVP	VINYL BASE				
170	MEN'S TOILET	TILE	TILE BASE				
171	WOMEN'S TOILET	TILE	TILE BASE				
172	HALL	LVP	VINYL BASE		S.A.T. 2	10'-Ø"	
173	GYM/WORKOUT AREA	LVP	VINYL BASE				

ROOM FINISH SCHEDULE REMARKS

- ALL GWB TO BE MILDEW RESISTANT
- SEE G-2 FOR RATING REQUIREMENT

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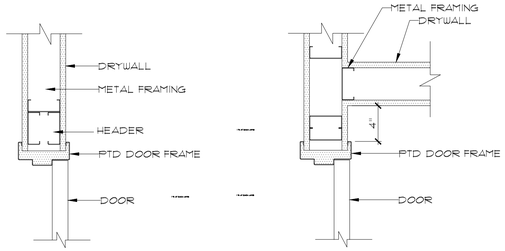
DOOR, WINDOW AND ROOM FINISH SCHEDULES

23029

ISSUED: 12.12.2024
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CKD BY: LDD
REVISIONS

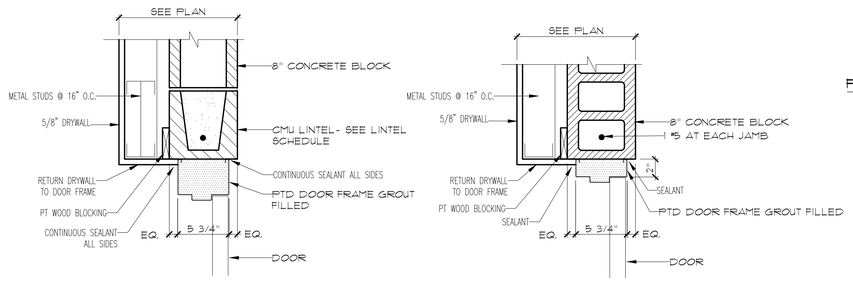
SHEET NO.
A-3
OF

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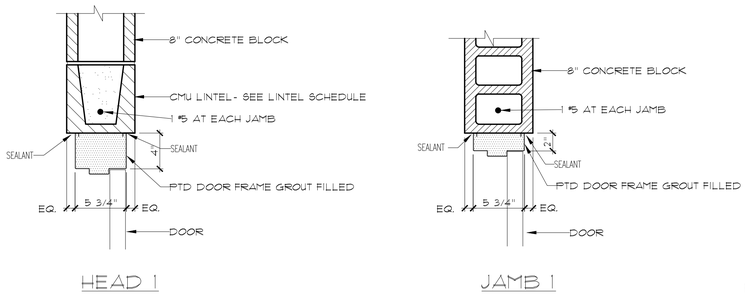
HEAD 3 JAMB 3

6 A-3.1 HEAD AND JAMB (DW)
SCALE: 1 1/2"=1'-0"



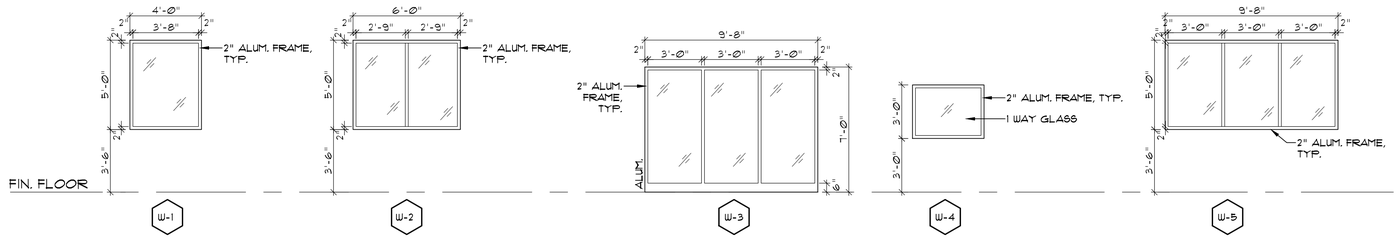
HEAD 2 JAMB 2

5 A-3.1 HEAD AND JAMB (CMU & DW)
SCALE: 1 1/2"=1'-0"

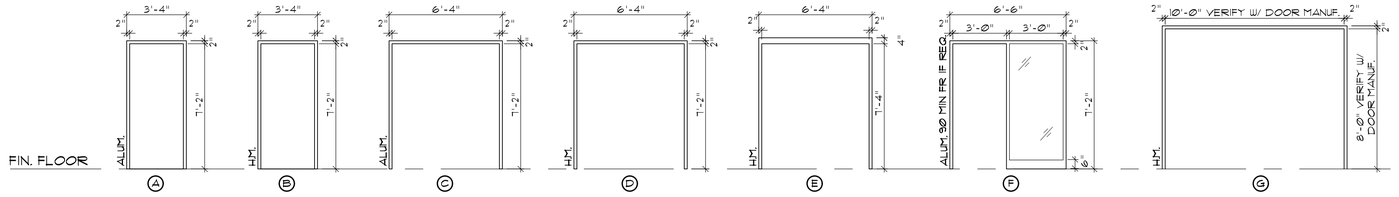


HEAD 1 JAMB 1

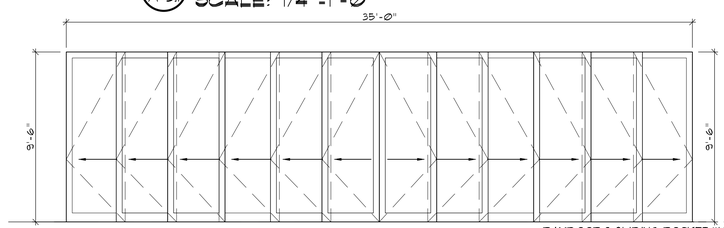
4 A-3.1 HEAD AND JAMB (CMU)
SCALE: 1 1/2"=1'-0"



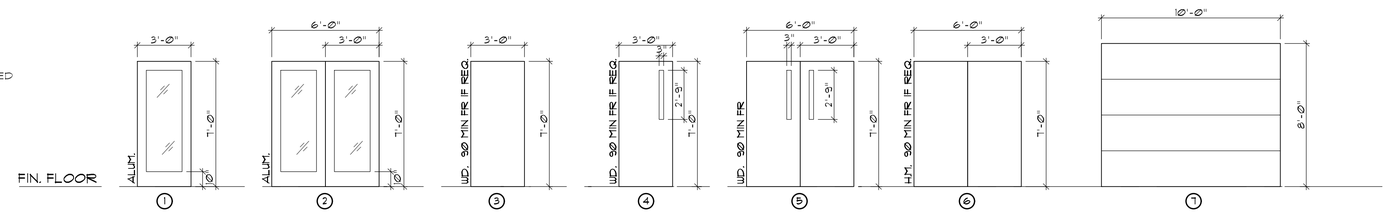
3 A-3.1 WINDOW ELEVATIONS
SCALE: 1/4"=1'-0"



2 A-3.1 DOOR FRAME ELEVATIONS
SCALE: 1/4"=1'-0"



(8) RAYDOOR 2 SLIDING POCKET WALL (6) PANEL 8 PREMIUM LAMINATE DOOR FRAME 2¼" THICK W/ 3" WIDE STILE AND RAIL W/ SEMI-PRIVATE TRANSLUCENT ACRYLIC INSERT - COLOR SELECTED FROM STANDARD COLOR SELECTION PROVIDE BY SUBMITTAL.



1 A-3.1 DOOR ELEVATIONS
SCALE: 1/4"=1'-0"

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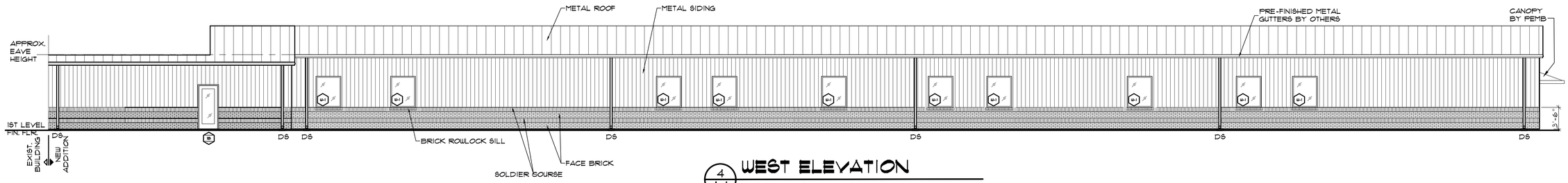
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DOOR AND WINDOW ELEVATIONS

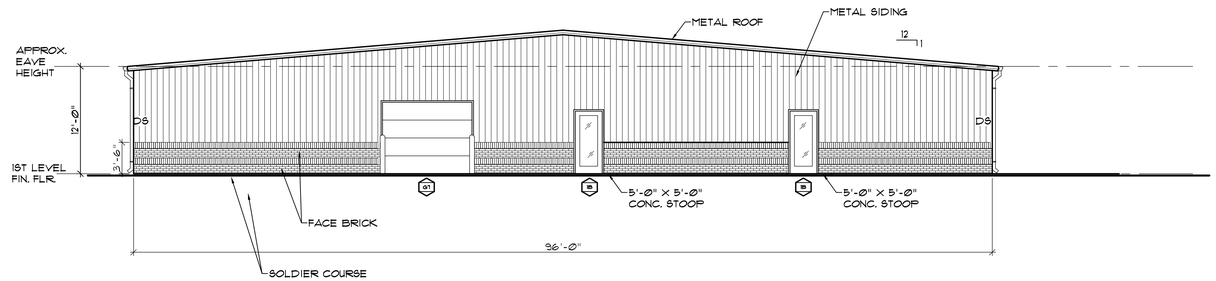
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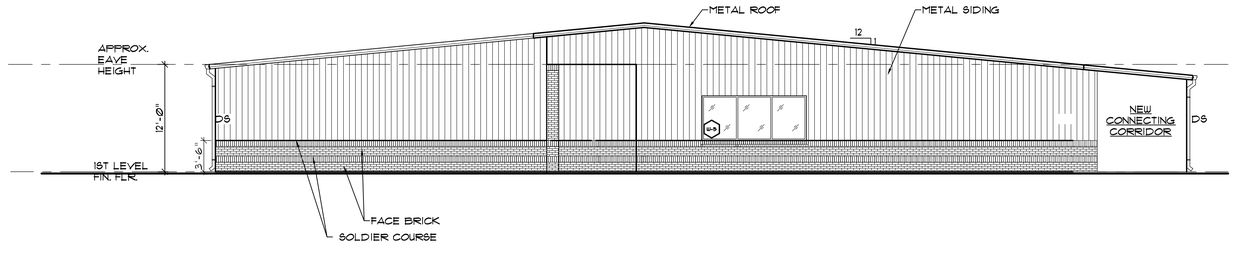
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A-3.1
OF



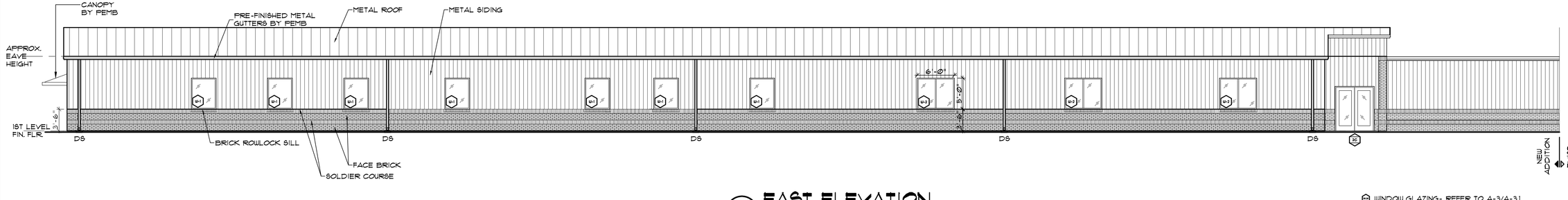
4 / A-4 WEST ELEVATION
SCALE: 1/8"=1'-0"



3 / A-4 SOUTH ELEVATION
SCALE: 1/8"=1'-0"



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



1 / A-4 EAST ELEVATION
SCALE: 1/8"=1'-0"

W WINDOW GLAZING- REFER TO A-3/A-3.1
D DOOR TYPE AND FRAME- REFER TO A-3/A-3.1

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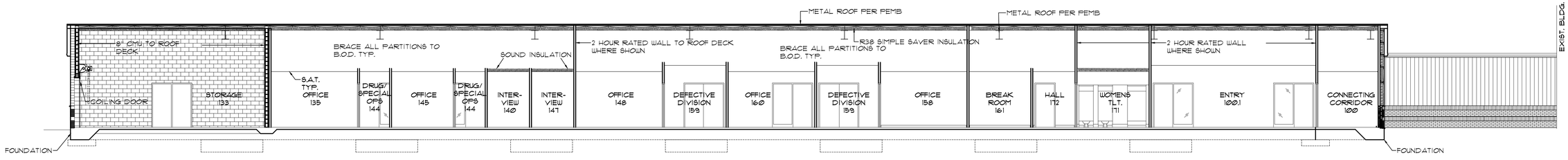
EXTERIOR ELEVATIONS

23029

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CKD BY:	LDD

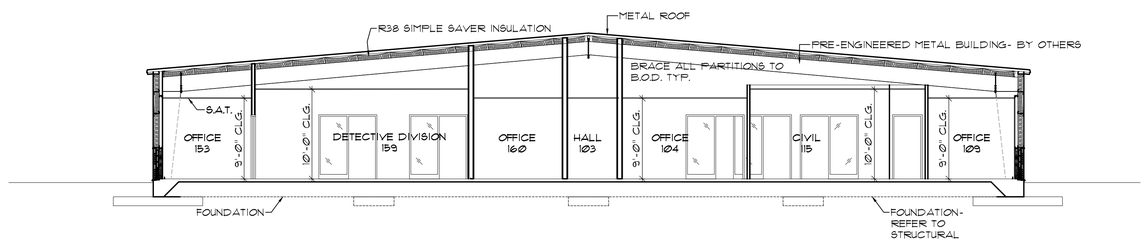
REVISIONS

SHEET NO.
A-4
OF



2 A-5 **SECTION**

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



1 A-5 **SECTION**

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

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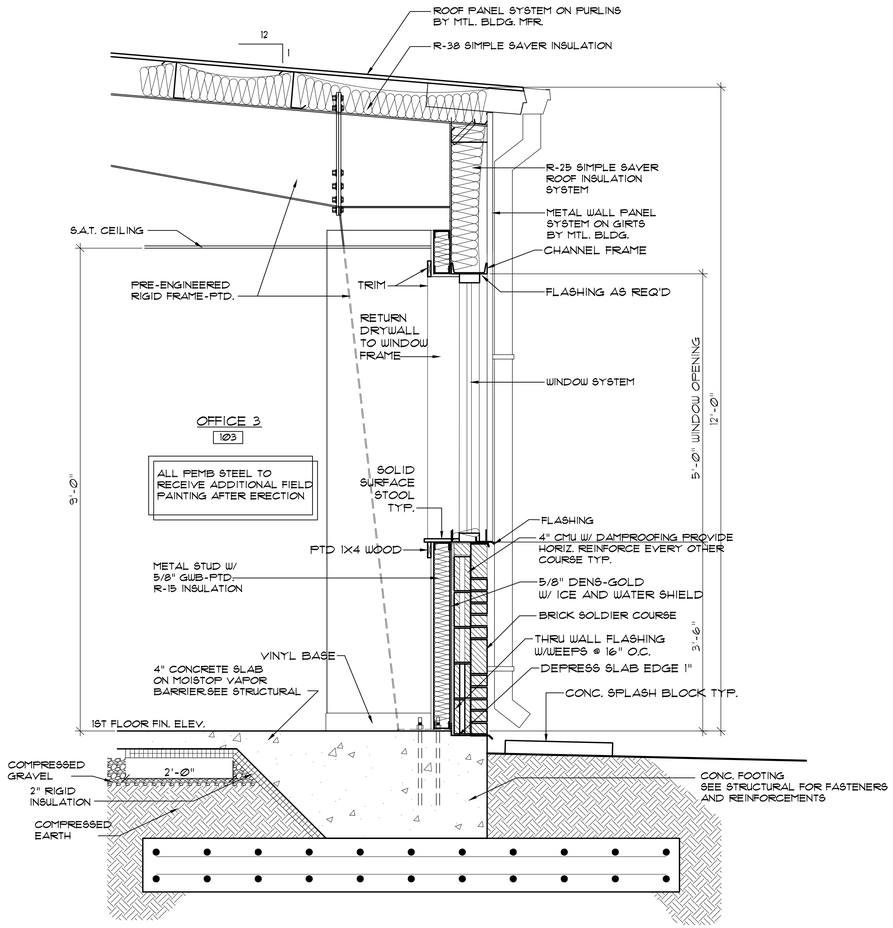
BUILDING SECTIONS

23029

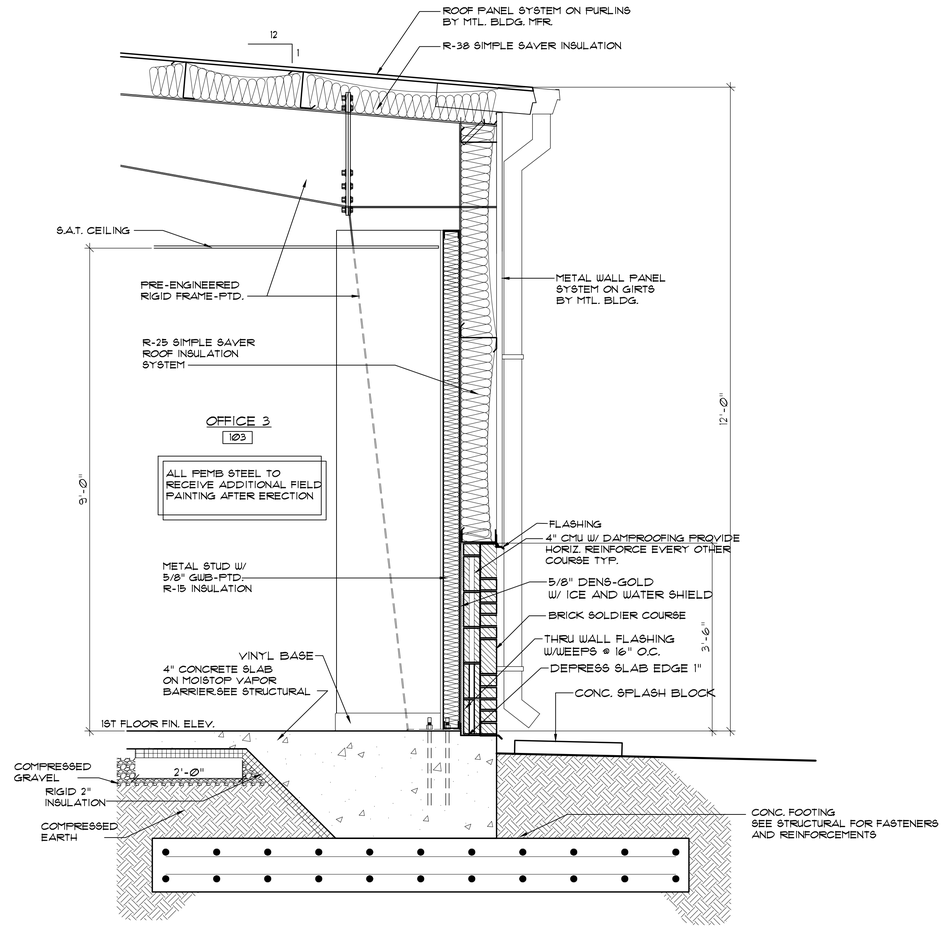
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CKD BY:	LDD

REVISIONS

SHEET NO.
A-5
OF



2 / A-5.1 **WALL SECTION**
SCALE: 3/4"=1'-0"



1 / A-5.1 **WALL SECTION**
SCALE: 3/4"=1'-0"

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WHITEVILLE, NORTH CAROLINA

CORPORATE ARCHITECTURE INC. CERT. NO. C-1792 REGISTERED NORTH CAROLINA

LEE D. DIXON, JR. 6419 REGISTERED PROFESSIONAL ENGINEER NORTH CAROLINA MOREHEAD CITY

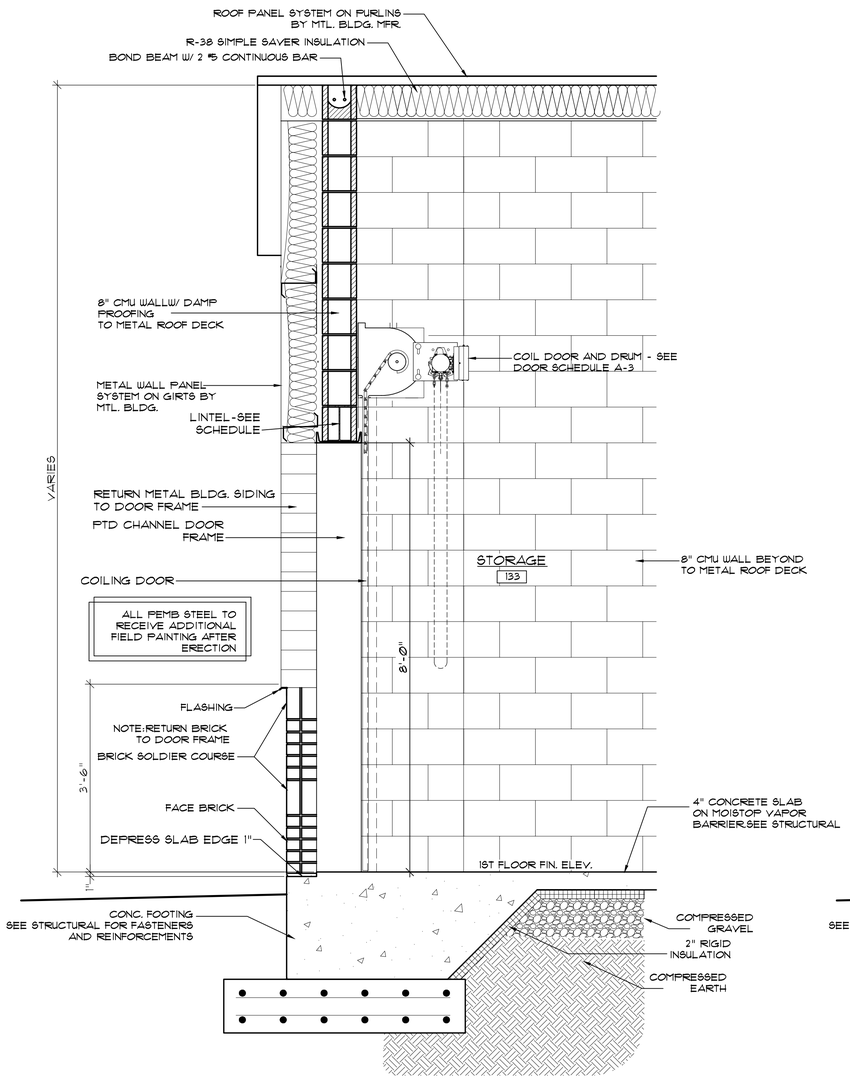
WALL SECTIONS

23029

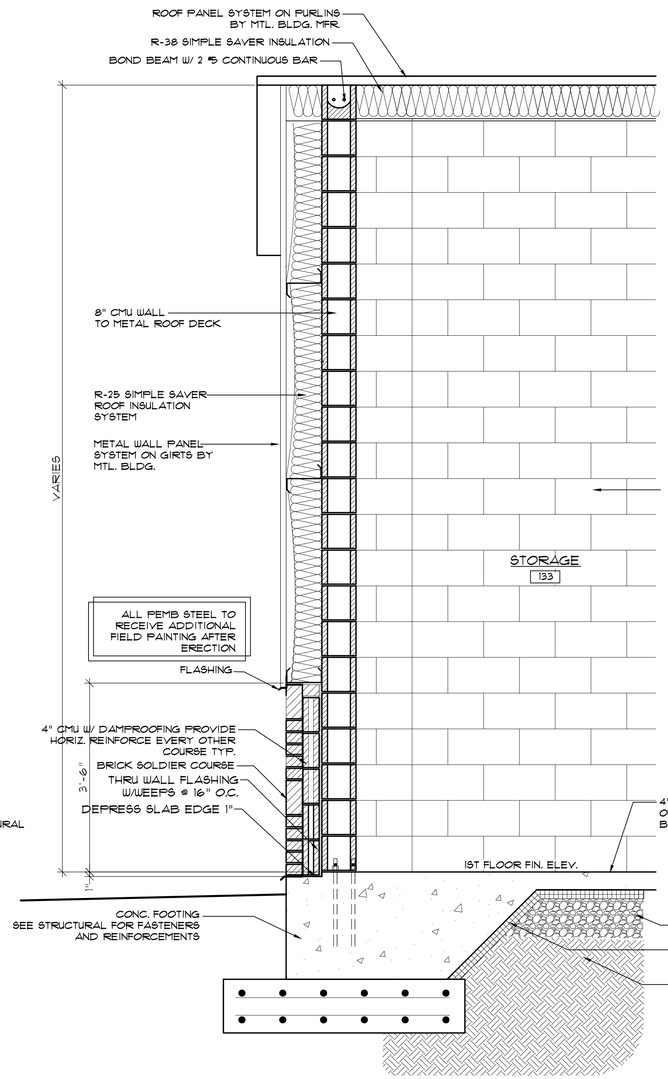
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REVISIONS

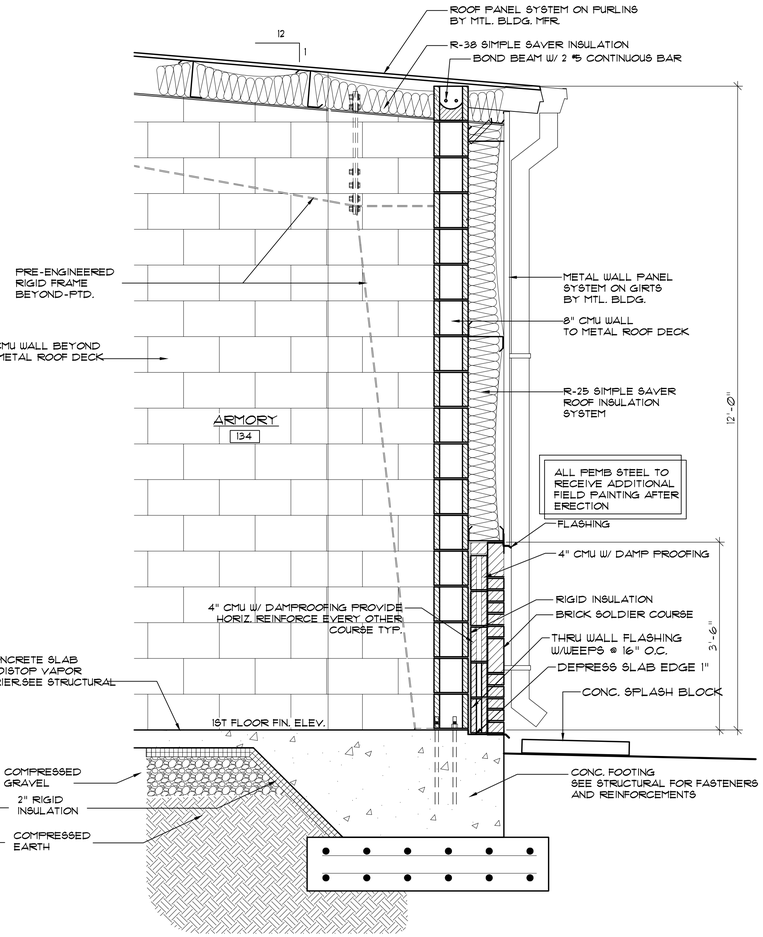
SHEET NO.
A-5.1
OF



1 A-5.2 **WALL SECTION**
SCALE: 3/4"=1'-0"



2 A-5.2 **WALL SECTION**
SCALE: 3/4"=1'-0"



3 A-5.2 **WALL SECTION**
SCALE: 3/4"=1'-0"

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LEE D. DIXON, JR. 6419 REGISTERED ARCHITECT NORTH CAROLINA MOREHEAD CITY

WALL SECTIONS

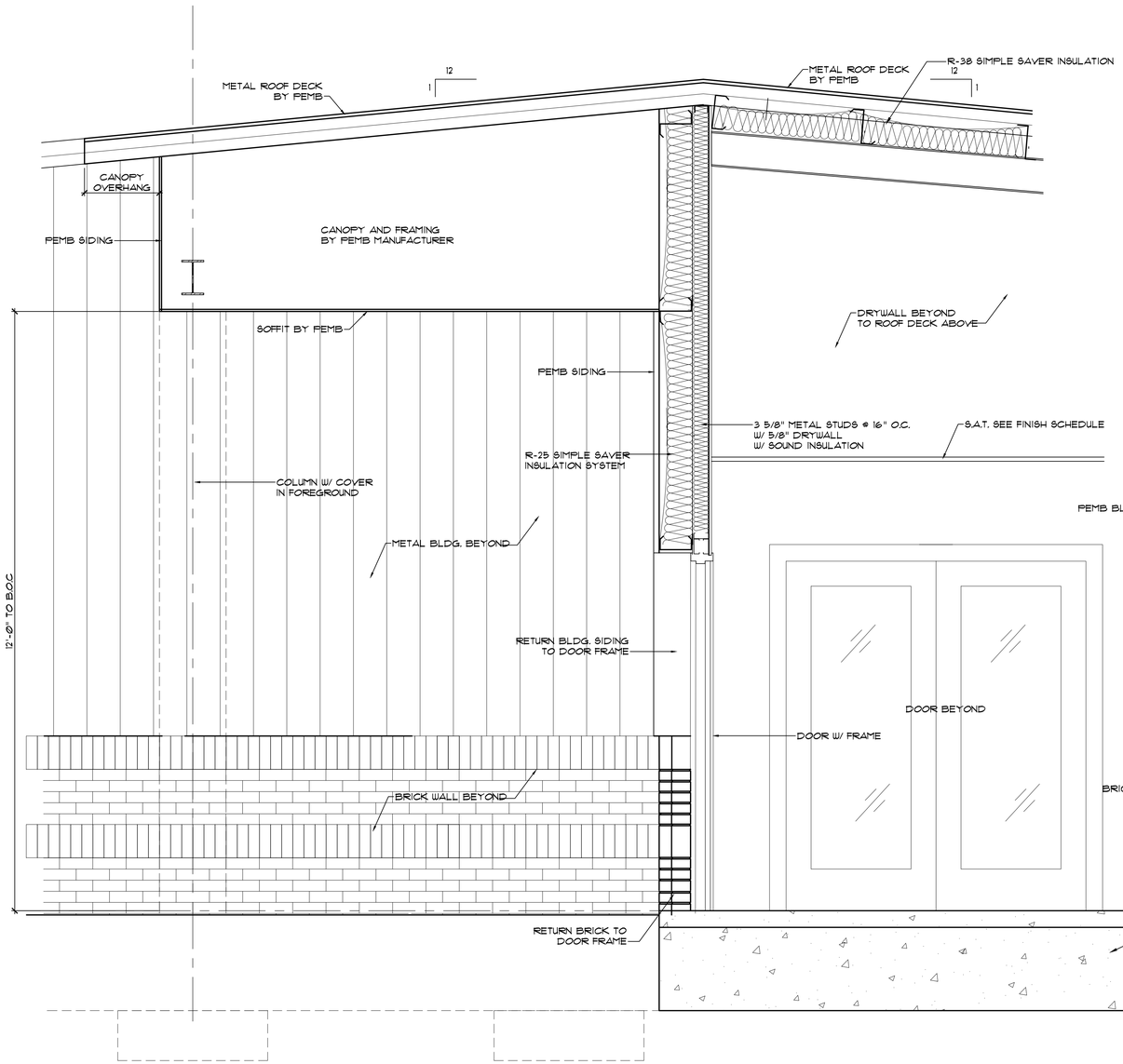
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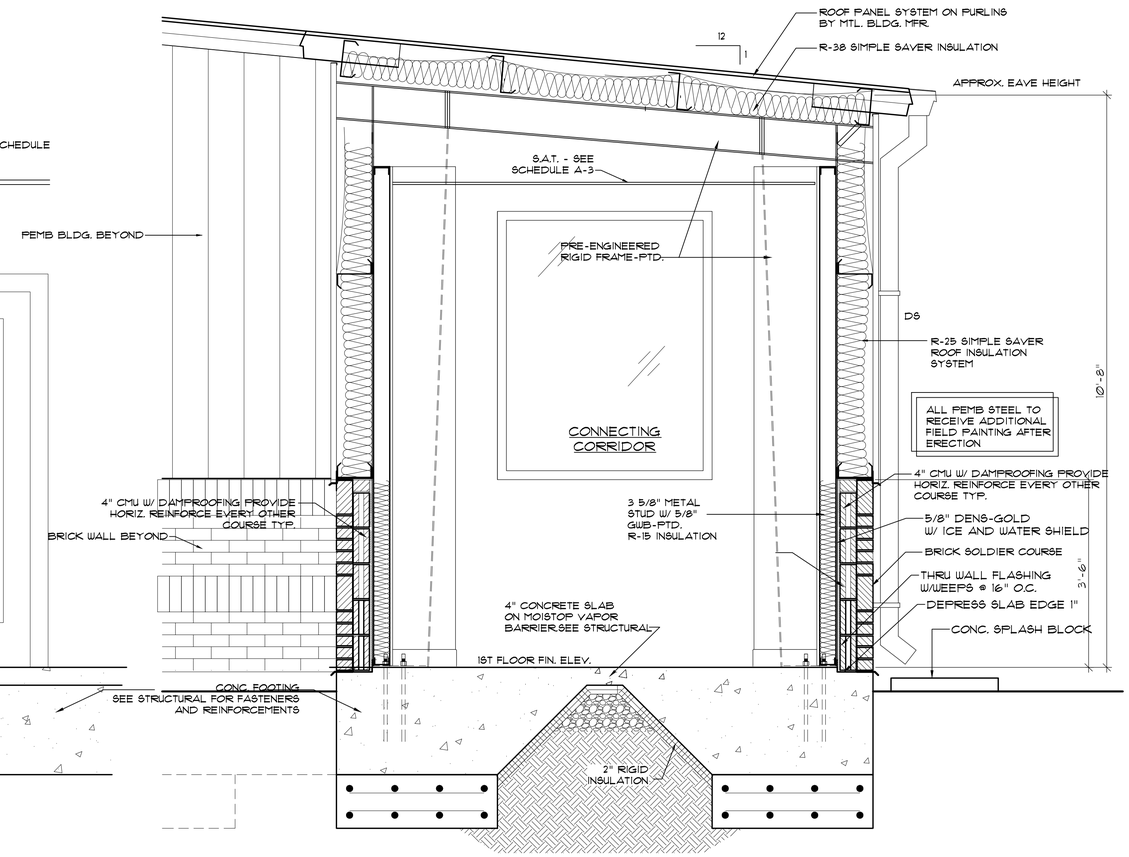
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2 A-5.3 WALL SECTION
SCALE: 3/4"=1'-0"



1 A-5.3 WALL SECTION
SCALE: 3/4"=1'-0"

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COASTAL ARCHITECTURE, INC. — CERT. NO. 5782 — REGISTERED CORPORATION — NORTH CAROLINA — MOREHEAD CITY, NC

LEE D. DIXON, JR. — 6419 — REGISTERED — ARCHITECT — NORTH CAROLINA — MOREHEAD CITY, NC

WALL SECTIONS

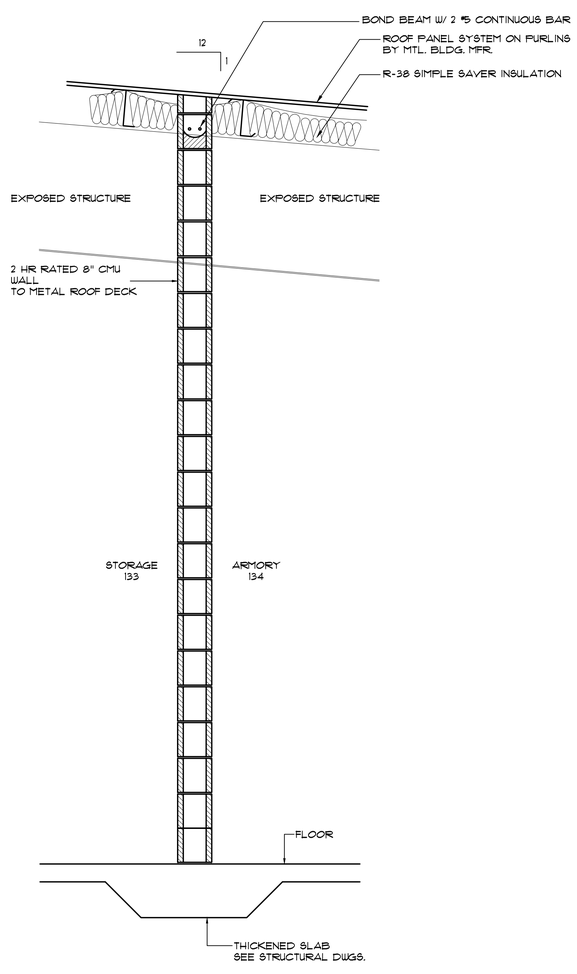
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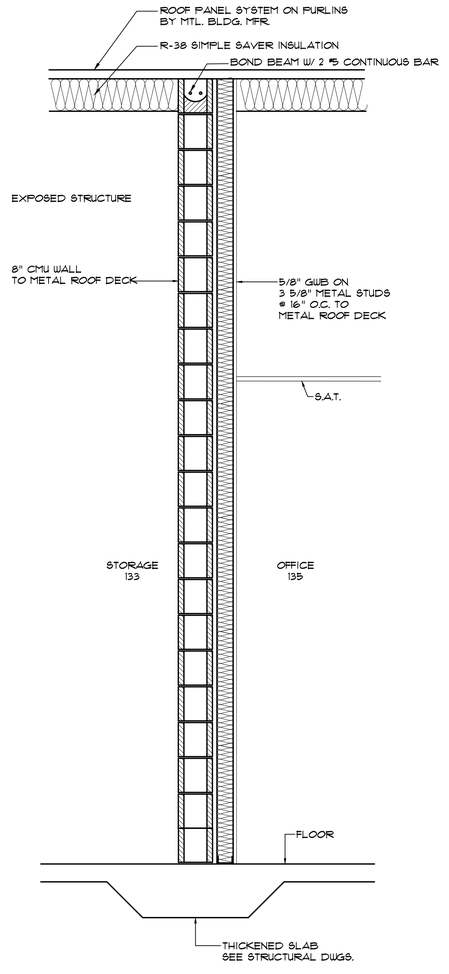
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2 / A-5.4 WALL SECTION
SCALE: 3/4"=1'-0"



1 / A-5.4 WALL SECTION
SCALE: 3/4"=1'-0"

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COASTAL ARCHITECTURE PLLC CERTIFICATE OF AUTHORIZATION NO. C-2782 CERT. NO. 51782

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY SUPERVISION AND THAT I AM A DULY REGISTERED ARCHITECT UNDER THE LAWS OF THE STATE OF NORTH CAROLINA 6419 LEE D. DIXON, JR. REGISTERED ARCHITECT

WALL SECTIONS

23029

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CKD BY:	LDD

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OF

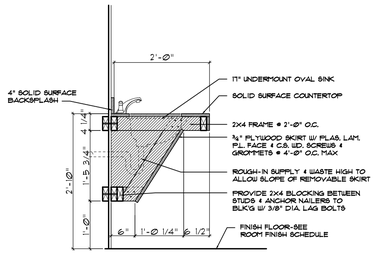
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TOILET ACCESSORIES SCHEDULE

MARK	ITEM		MT.HT.	REMARKS
TA-1	FRAMELESS MIRROR 5'-6"W X 3'-6"H		3'-4"	HT. TO BOTTOM OF MIRROR
TA-2	FRAMELESS MIRROR 5'-0"W X 3'-6"H		3'-4"	HT. TO BOTTOM OF MIRROR
TA-3	TOILET TISSUE DISPENSER		3'-4"	HT. TO TOP OF DISPENSER
TA-4	PAPER TOWEL DISPENSER	B-9262	4'-0" MAX	HT. TO BOTTOM OF DISPENSER
TA-5	HANDICAP SOAP DISPENSER	B-2013	4'-0" MAX	HT. TO BOTTOM OF DISPENSER
TA-6	GRAB BAR 42"	B-6806X42	3'-0" MAX	HT. TO CENTER
TA-7	GRAB BAR 24"	B-6806X24	3'-0" MAX	HT. TO CENTER
TA-8	GRAB BAR 18" (VERTICAL)	B-6806X18	3'-3" MAX	HT. TO BOTTOM OF CENTER OF BAR @ 40" FROM REAR WALL
TA-9	SURFACE MOUNTED SEAT COVER DISPENSER		2'-6"	HT. TO TOP OF DISPENSER
TA-10	SANITARY BIN		2'-6"	
TA-11	COAT HOOK		4'-0" MAX	HT. TO TOP OF DISPENSER
TA-12	FOLDING SHOWER SEAT	B-5181	17"-19"	HT. FROM FLOOR TO TOP OF SEAT
TA-13	GRAB BAR	B-6806X48	3'-0" MAX	HT. FROM FLOOR TO TOP OF GRIPPING SURFACE
TA-14	GRAB BAR 24"	B-6806X24	3'-0" MAX	HT. TO CENTER
TA-15	SHOWER CURTAIN ROD	B-207 X 60	72" - 74½"	HT. FROM FLOOR TO ℄ OF ROD
TA-16	PREFAB FIBERGLASS SHOWER INSERT 36"			SEE PLUMBING DRAWING
TA-17	FRAMELESS MIRROR 3'-6"W X 3'-6"H		3'-4"	HT. TO BOTTOM OF MIRROR
TA-18	CHILD CHANGING TABLE			

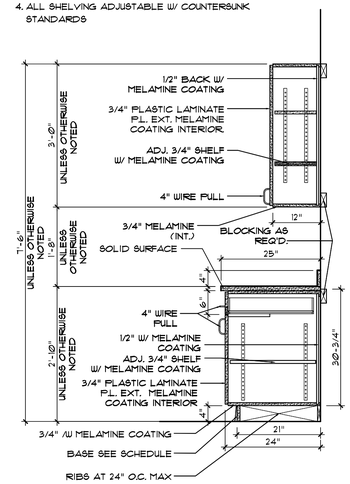
NOTES:

- MODEL NUMBERS ARE BOBRICK, UON. BRADLEY, FRANKLIN & ASI ARE APPROVED EQUALS. SUBMIT CUT SHEETS FOR APPROVAL.
- SUBMIT SHOP DRAWINGS FOR ALL TOILET PARTITION CONFIGURATIONS.
- ALL HANDRAILS SHALL BE BLOCKED TO SUPPORT A 250 LB. LOAD MINIMUM.
- PROVIDE BLOCKING AS REQUIRED FOR ALL ACCESSORIES.

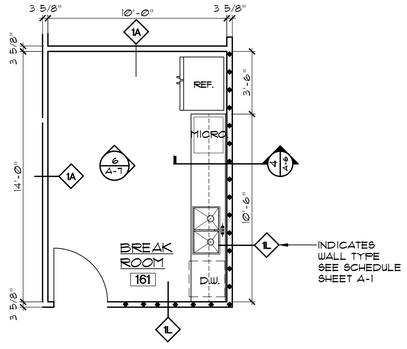


5 / A-6 VANITY DETAIL
SCALE: 3/4"=1'-0"

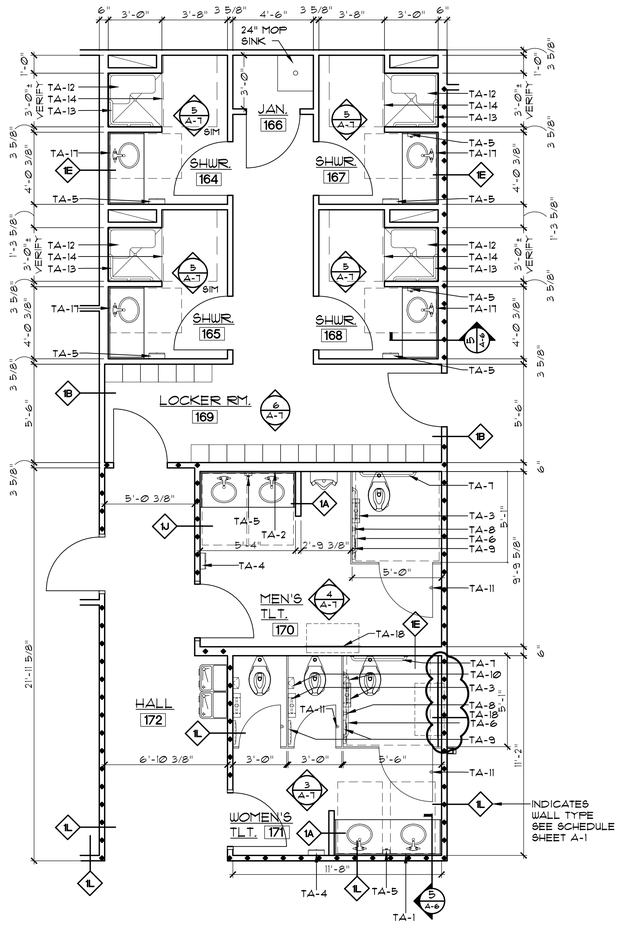
GENERAL NOTES:
1. PLASTIC LAMINATE P.L. EXTERIOR/WHITE MELAMINE COATING INTERIOR
2. CONCEALED HINGES THROUGHOUT
3. 4" SATIN CHROME PULL WIRES
4. ALL SHELVING ADJUSTABLE W/ COUNTERSUNK STANDARDS



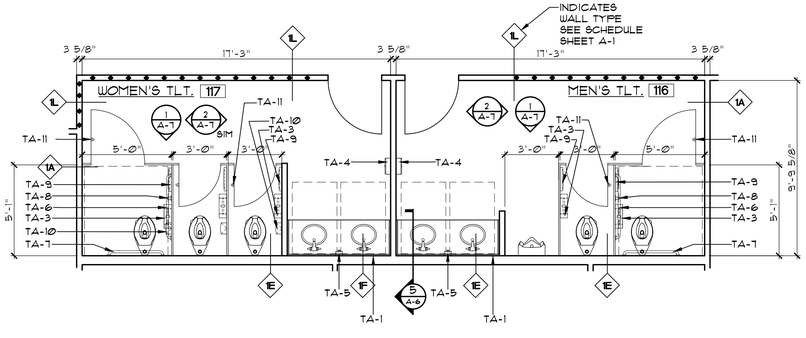
4 / A-6 KITCHEN CABINET SECTION
SCALE: 3/4"=1'-0"



3 / A-6 BREAK ROOM 161 ENLARGED PLAN
SCALE: 1/4"=1'-0"



2 / A-6 ENLARGED PLAN
SCALE: 1/4"=1'-0"



MEN'S TOILET 116 & WOMEN'S TOILET 117 ENLARGED PLAN
1 / A-6 SCALE: 1/4"=1'-0"

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COASTAL ARCHITECTURE PLLC CERT. NO. C-2762 REGISTRATION CORPORATION NORTH CAROLINA REGISTERED

JOHN M. MOREHEAD 6419 REGISTERED PROFESSIONAL ENGINEER NORTH CAROLINA

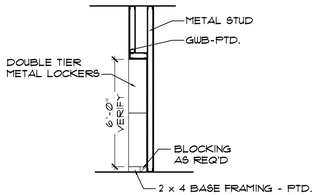
ENLARGED PLANS

23029

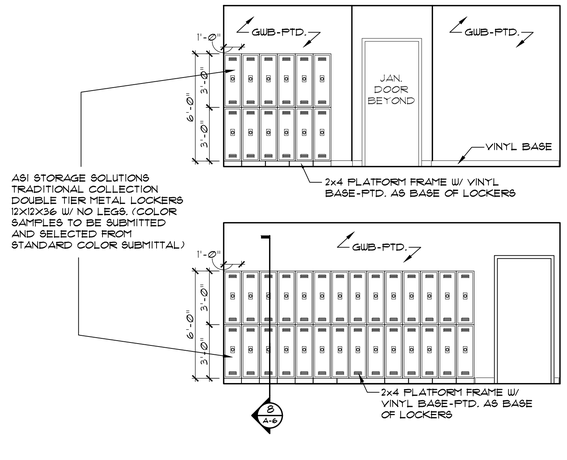
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CKD BY:	LDD
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A-6
OF

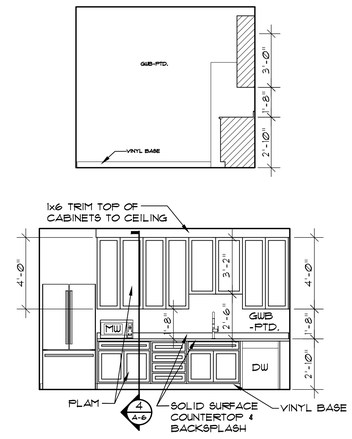
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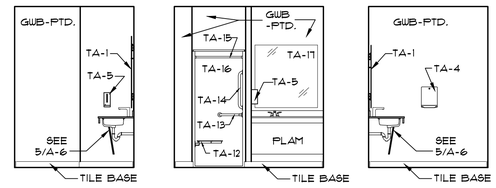
8 A-6 **LOCKER DETAIL**
SCALE: 1½"=1'-0"



7 A-7 **LOCKER ROOM 169 INTERIOR ELEVATION**
SCALE: 1/4"=1'-0"



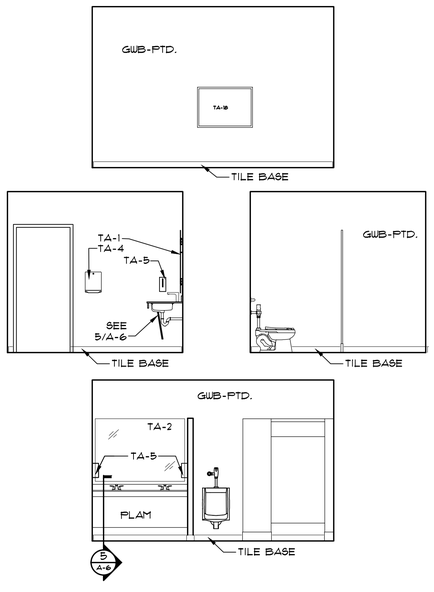
6 A-7 **BREAK ROOM 161 INTERIOR ELEVATION**
SCALE: 1/4"=1'-0"



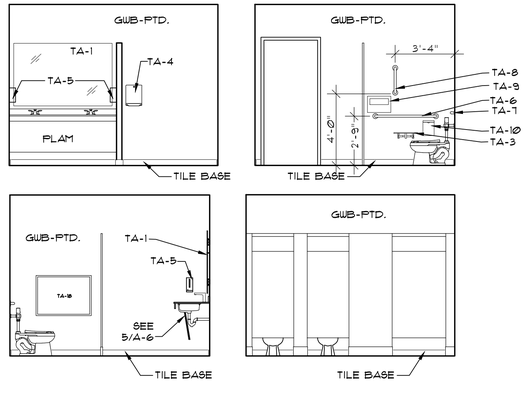
5 A-7 **SHOWER 168 INTERIOR ELEVATION**
SCALE: 1/4"=1'-0"

SHOWER 167 SAME

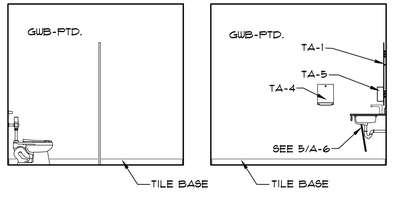
SHOWER 164 & 165
SAME, OPPOSITE HAND



4 A-7 **MEN'S TOILET 170 INTERIOR ELEVATION**
SCALE: 1/4"=1'-0"

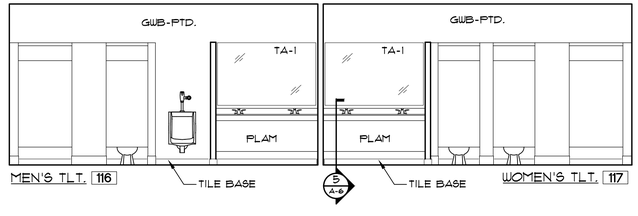


3 A-7 **WOMEN'S TOILET 171 INTERIOR ELEVATION**
SCALE: 1/4"=1'-0"



2 A-7 **MEN'S TOILET 116 INTERIOR ELEVATION**
SCALE: 1/4"=1'-0"

WOMEN'S TOILET 117
SAME, OPPOSITE HAND



1 A-7 **MEN'S TOILET 116 & WOMEN'S TOILET 117 INTERIOR ELEVATION**
SCALE: 1/4"=1'-0"

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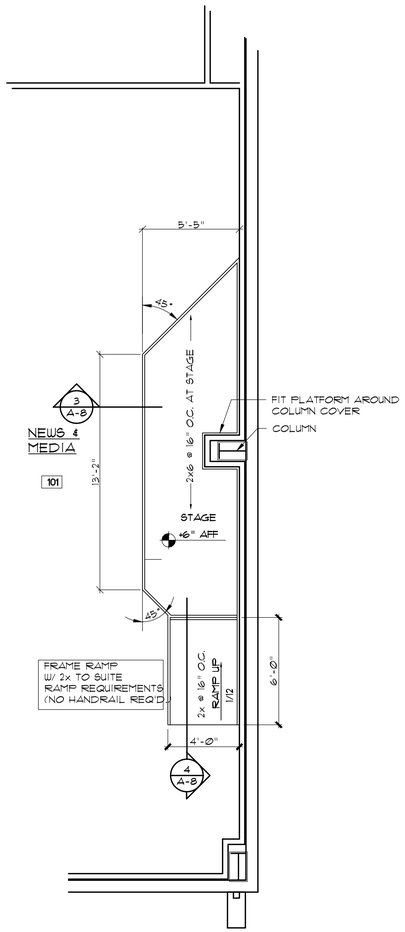
INTERIOR ELEVATIONS

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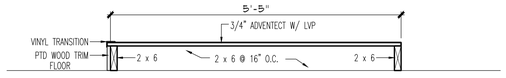
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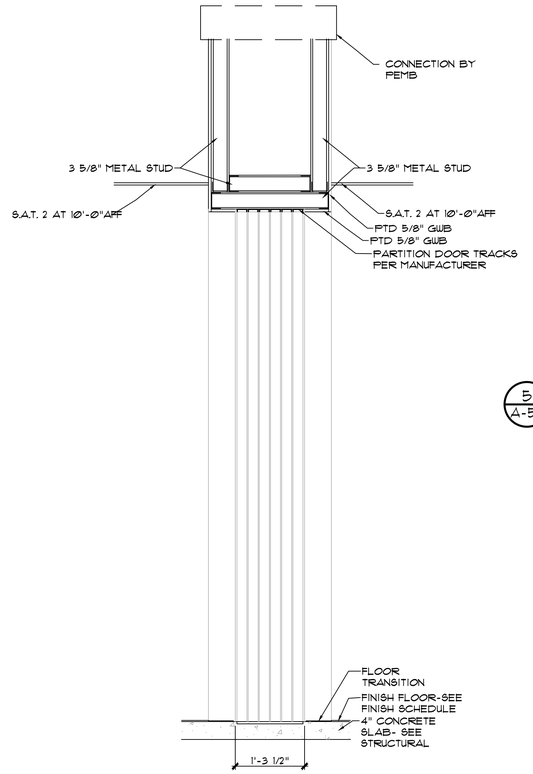
1 / A-8 PLATFORM FRAMING PLAN
SCALE: 1/4"=1'-0"



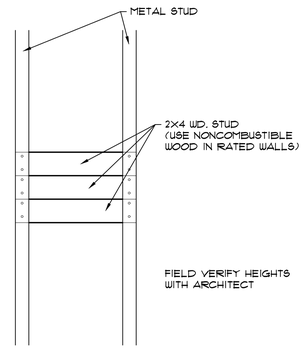
3 / A-8 PLATFORM SECTION
SCALE: 3/4"=1'-0"



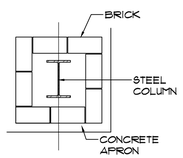
4 / A-8 PLATFORM SECTION
SCALE: 3/4"=1'-0"



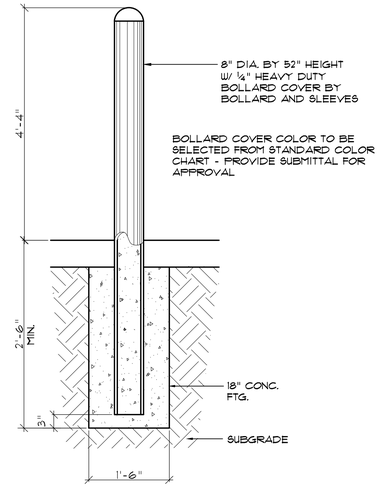
6 / A-8 SOFFIT SECTION AT PARTITION
SCALE: 3/4"=1'-0"



5 / A-5.2 TV BLOCKING DETAIL
SCALE: 1"=1'-0"



2 / A-8 PORCH COLUMN
SCALE: 3/4"=1'-0"



1 / A-9.1 TYPICAL BOLLARD DETAIL
SCALE: 3/4"=1'-0"

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DETAILS

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CKD BY:	LDD

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A-8
OF

GENERAL NOTES:

1. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND SITE DRAWINGS. CONSULT THESE DRAWINGS FOR SLEEVES, DEPRESSIONS AND OTHER DETAILS NOT SHOWN ON STRUCTURAL DRAWINGS.
2. ALL DIMENSIONS AND CONDITIONS MUST BE VERIFIED IN THE FIELD. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE AFFECTED PART OF THE WORK.
3. THE STRUCTURE IS DESIGNED TO BE SELF SUPPORTING AND STABLE AFTER THE BUILDING IS COMPLETE. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURES AND SEQUENCE TO ENSURE SAFETY OF THE BUILDING AND ITS COMPONENTS DURING ERECTION. THIS INCLUDES THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACING (AND ACCOMPANYING FOOTINGS), GUYS OR TIEDOWNS.

DESIGN CODES:

2018 NORTH CAROLINA STATE BUILDING CODE.

ACI 318-14 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE AND COMMENTARY.

DESIGN LOADS:

THE FOUNDATION SYSTEM FOR THIS BUILDING HAS BEEN DESIGNED WITH THE FOLLOWING SUPERIMPOSED LOADINGS:

COLUMN REACTIONS PROVIDED BY PEMB MANUFACTURER (PRELIMINARY PENDING)

WIND:

BASIC WIND SPEED (3 SEC GUST)	148 mph
EXPOSURE CATEGORY	C
RISK CATEGORY	IV

COMPONENT & CLADDING:
ALL BUILDING COMPONENTS AND CLADDING ENGINEERED BY THE COMPONENT MANUFACTURER ARE TO BE DESIGNED BY THE MANUFACTURER'S ENGINEER FOR WIND LOADS DETERMINED PER THE NORTH CAROLINA STATE BUILDING CODE FOR THE BASIC DESIGN WIND VELOCITY, IMPORTANCE FACTOR AND EXPOSURE LISTED ABOVE.

FOUNDATIONS:

FOUNDATIONS ARE DESIGNED FOR AN ALLOWABLE SOIL BEARING PRESSURE OF 2,000 psf. ON EXISTING SOILS. BEFORE CONSTRUCTION COMMENCES, SOIL BEARING CAPACITY SHALL BE VERIFIED BY A SUBSURFACE INVESTIGATION, A CERTIFIED TESTING LABORATORY, WHOSE REPORT SHALL INCLUDE ANALYSIS AND RECOMMENDATIONS FOR SITE PREPARATION IN ORDER TO BEAR THE FOUNDATION LOADS. ABOVE REPORT SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW BEFORE FOUNDATION CONSTRUCTION BEGINS.

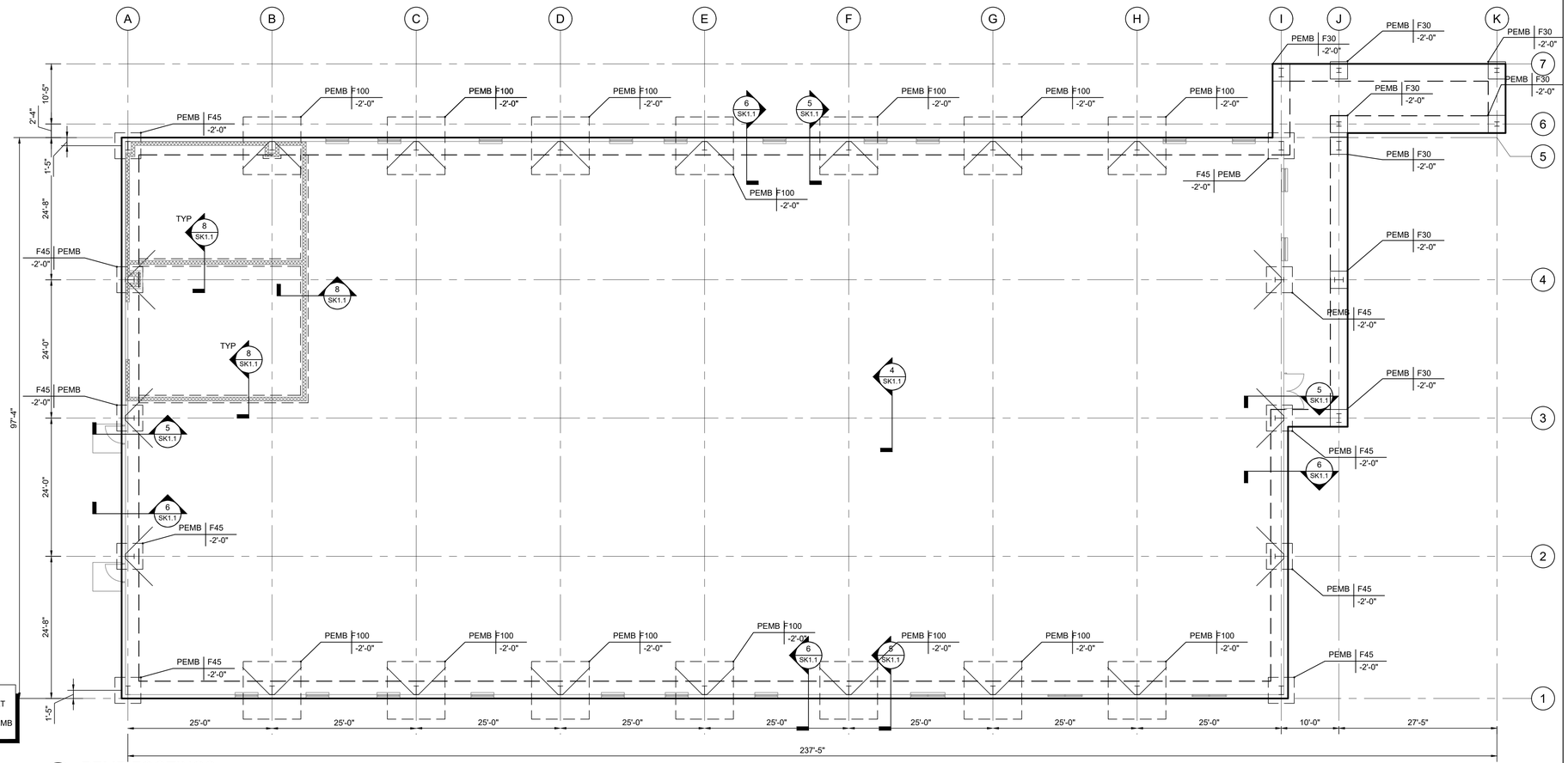
CONCRETE MATERIAL SPECIFICATIONS:

CONCRETE COMPRESSIVE STRENGTH: 4000 psi (28 DAY STRENGTH)
CEMENT: TYPE I/II
AIR ENTRAINMENT: 5% - 7% IF EXPOSED TO WEATHER OR EARTH
REINFORCING STEEL: ASTM A615, GRADE 60
WELDED WIRE FABRIC: ASTM A185
ANCHOR BOLTS: GRADE A36
CLASS B SPLICE LENGTH: GREATER OF 48 BAR DIAMETERS OR 24 INCHES

KEYED NOTES & LEGEND

- WALL & COLUMN FOOTING EXTENTS
- TURNED DOWN SLAB BASE
- EDGE OF SLAB
- STRUCTURE BY OTHERS

NOTE:
FINAL FOOTING AND ANCHOR BOLT DESIGN TO BE CONFIRMED UPON RECEIPT OF REACTIONS FROM PEMB MANUFACTURER



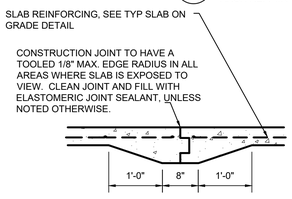
1 PEMB FOOTINGS

ARCH REF: 1/A-1 Scale: 3/32" = 1'-0"

FOOTING MARK — COLUMN SIZE
F40 | W12x14
-1'-4" | BP1
TOP OF FOOTING ELEV. BELOW FINISHED FLOOR — BASEPLATE MARK

SPREAD FOOTING SCHEDULE

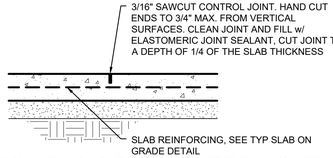
MARK	SIZE	REINFORCING
F30	3'-0"x3'-0"x12"	(4)-#4 E.W. TOP & BOT
F45	4'-6"x4'-6"x12"	(6)-#4 E.W. TOP & BOT
F85	8'-6"x4'-6"x12"	(9)-#4 E.W. TOP & BOT LONG & (6) #4 E.W. TOP & BOT SHORT
F100	10'-0"x10'-0"x12"	(11)-#4 E.W. TOP & BOT



2 4" SLAB ON GRADE CONST. JOINT

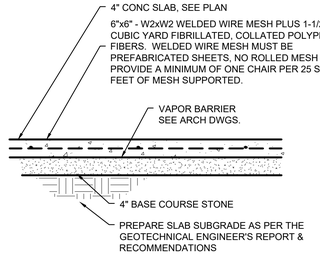
SCALE: 3/4" = 1'-0"

NOTES:
1. CONTRACTORS OPTION - USE REMOVABLE CONTROL JOINT MATERIAL SUCH AS "ZIP STRIP", "STRESSLOCK", OR APPROVED EQUAL.
2. SLAB ON GRADE CONTROL JOINTS SHALL BE TOOLED OR SAWCUT. THE JOINT PATTERN SHALL BE APPROXIMATELY SQUARE AND LIMITED TO AN AREA NOT TO EXCEED 225 S.F. JOINTS SHALL BE CUT WITHIN 12 HOURS OF POURING SLAB. SEE PLAN FOR PROPOSED JOINT LAYOUT. FINAL JOINT LAYOUT TO BE DETERMINED BY THE GENERAL CONTRACTOR.



3 4" SLAB ON GRADE CONTROL JOINT

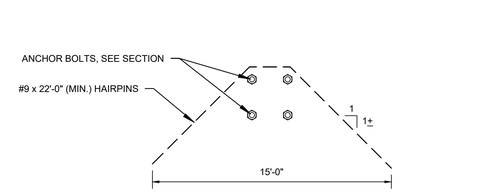
SCALE: 3/4" = 1'-0"



NOTES:
1. SEE ARCHITECTURAL DRAWINGS FOR SLOPES, DROPS, AND DRAIN LOCATIONS IN FLOOR SLABS.

4 4" SLAB ON GRADE DETAIL

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

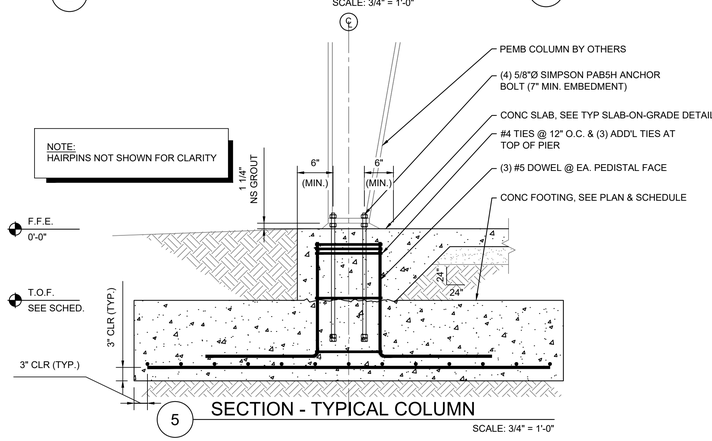


HAIRPIN CONDITION

7 TYP. HAIRPIN DETAILS

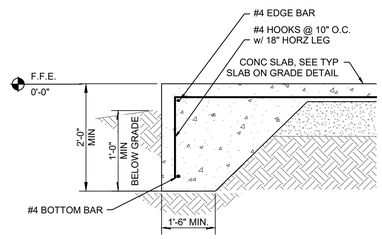
SCALE: 1" = 1'-0"

NOTE:
HAIRPINS NOT SHOWN FOR CLARITY



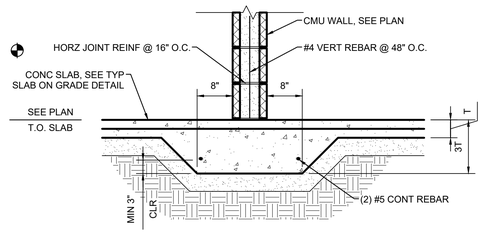
5 SECTION - TYPICAL COLUMN

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



6 PERIMETER FOUNDATION

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



8 THICKENED SLAB AT INTERIOR CMU PARTITION WALL

SCALE 3/4" = 1'-0"

FOR PERMIT

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NORTH CAROLINA PROFESSIONAL SEAL 035655 ENGINEER JOSEPH M HENDRICK

NORTH CAROLINA PROFESSIONAL P-1418 CORPORATION OF ENGINEERING

Project Name: COLUMBUS COUNTY SHERRIFF'S DEPT
PEMB FOUNDATION DESIGN
WHITESVILLE, NC

Sheet Title: PEMB FOOTINGS

DESIGNED BY:	AJI
DRAWN BY:	AJI
APPROVED BY:	HMH
PROJECT #:	24-308
DATE:	11/01/2024

No.	Revision	Date

Sheet: SK1.1

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System No. W-L-1001

March 28, 2003

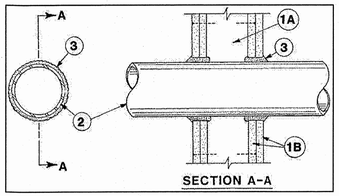
(Formerly System No. 147)

F Ratings -- 1, 2, 3 and 4 Hr (See Items 2 and 3)

T Ratings -- 0, 1, 2, 3, and 4 Hr (See Item 3)

L Rating At Ambient - less than 1 CFM/sq ft

L Rating At 400 F - less than 1 CFM/sq ft



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

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

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

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

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

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

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

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

E. Copper Pipe -- Nom 6 in. diam (or smaller) Regular (or heavier) copper tubing.

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

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

OMEGA FLEX INC

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

TITLEFLEX CORP

A BUNDY CO

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

WARD MFG INC

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

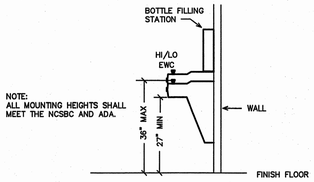
Max Pipe or Conduit Diam In	F RATING Hr	T RATING Hr
1	1 or 2	0+, 1 or 2
1	3 or 4	3 or 4
4	1 or 2	0
6	3 or 4	0
12	1 or 2	0

+When copper pipe is used, T Rating is 0 h.

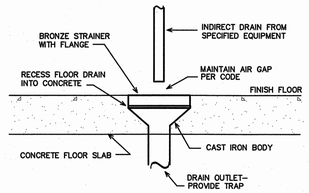
3M COMPANY -- CP 25WB+.

*Bearing the UL Classification Mark

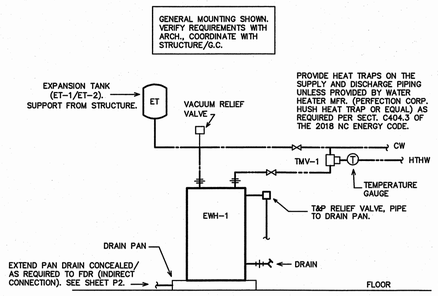
3 P-1 PENETRATION DETAIL
SCALE: NTS



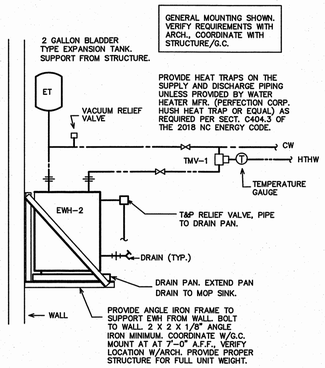
1 P-1 EWC DETAIL
SCALE: NTS



2 P-1 FDR DETAIL
SCALE: NTS



4 P-1 EWH-1 DETAIL
SCALE: NTS



5 P-1 EWH-2 DETAIL
SCALE: NTS

GENERAL NOTES - PLUMBING

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE STATE CODE, ALL LOCAL AND OTHER APPLICABLE CODES.
2. ALL WORK SHALL BE PERFORMED BY EXPERIENCED AND SKILLED CRAFTSMEN. THE PLUMBING CONTRACTOR (PC) SHALL COORDINATE ALL OF HIS WORK WITH THE GENERAL CONTRACTOR (GC).
3. THE PLUMBING PLANS AND SPECIFICATIONS SHALL BE THOROUGHLY REVIEWED PRIOR TO PURCHASING MATERIALS AND INSTALLATION AND ALL DISCREPANCIES OR INTERFERENCES BROUGHT TO THE ENGINEERS ATTENTION.
4. THESE PLANS ARE DIAGRAMMATIC AND MAY NOT SHOW MINOR DETAILS AND LOCATIONS. THE PC SHALL PROVIDE ALL MISC. ITEMS NEEDED FOR A COMPLETE SYSTEM REGARDLESS IF NOTED ON THE DRAWINGS OR NOT. REFER TO ARCHITECTURAL DRAWINGS FOR ALL FLOORPLAN LAYOUTS. DO NOT USE ENGINEERING DRAWINGS FOR ROUGH-INS.
5. THE GC SHALL PROVIDE ALL WALL, FLOOR AND ROOF OPENINGS OF THE SIZE AND LOCATION REQUIRED BY THE PC AND SHALL BE RESPONSIBLE FOR PAINTING AND FLOOR FINISHES. THE PC SHALL PROPERLY SEAL ALL PENETRATIONS AND PROVIDE ESCUTCHEON PLATES AT ALL FINISHED LOCATIONS.
6. ALL NEW WATER PIPING SHALL BE INSTALLED TIGHT TO STRUCTURE, ADEQUATELY SUPPORTED AND PROTECTED AND PROPERLY PITCHED TO ALLOW TOTAL DRAINAGE.
7. ALL WATER PIPING SHALL BE HYDROSTATICALLY TESTED FOR A MINIMUM OF 15 MINUTES AT A MINIMUM OF 100 PSIG BEFORE COVERING AND ALL LEAKS CORRECTED. THE ENTIRE WATER DISTRIBUTION SYSTEM SHALL BE DISINFECTED PRIOR TO PLACING IN SERVICE.
8. PROVIDE MIN. 18" SHOCK ABSORBERS WITH STOPS ON ALL HOT AND COLD WATER FIXTURE RUNS AS REQUIRED BY CODE.
9. VENT LINES SHALL SLOPE UP TO ALL STACKS AND TERMINATE A MIN. OF 12" ABOVE ROOF LINE.
10. PROVIDE CUT SHEETS ON ALL PLUMBING FIXTURES FOR ARCHITECT AND OWNER APPROVAL PRIOR TO ORDERING ANY FIXTURES.
11. VERIFY/PROVIDE HOT WATER STORAGE (EWH-1/EWH-2) TEMPERATURE OF 140 DEG. (F). PROVIDE/VERIFY HIGH TEMPERATURE HOT WATER (HTHW) AT 120 DEGREES (MAX.) F, PROVIDE/VERIFY LOW TEMPERATURE HOT WATER (LTHW) AT 110 DEGREES (MAX.) F, VERIFY LTHW FROM ALL LAVATORY FAUCETS, ANY OTHER REQUIRED FIXTURES (VERIFY). PROVIDE/VERIFY ASSE 1070 THERMOSTATIC MIXING VALVE WHERE REQUIRED, ASSE 1017 WHERE REQUIRED, AND ASSE 1016 THERMOSTATIC/PRESSURE BALANCING VALVES WHERE REQUIRED (SHOWERS, WITH MAX. SETTING OF 120 DEG. F), AND PER CODE WHETHER OR NOT SHOWN OR NOTED ON PLANS.
12. PROVIDE CLEANOUTS AS REQUIRED BY CODE. NOT MORE THAN 100 FEET FOR 4" DRAIN.
13. PROPERLY SEAL ALL PIPING PENETRATIONS PER APPLICABLE PENETRATION SYSTEM DETAIL (THIS SHEET) THROUGH FIRE BARRIER WALLS/FLOORS/CEILINGS- ALL MAY NOT BE SHOWN. VERIFY RATINGS/BARRIERS W/ARCH. PROVIDE CAST IRON FOR ALL DWV PIPING THROUGH FIRE BARRIERS.

SYMBOL LEGEND - PLUMBING

SYMBOL	DESCRIPTION (U.O.N.)
	WASTE PIPING (W)
	VENT PIPING (V)
	COLD WATER PIPING (CW)
	HOT WATER PIPING (HW)
G	NATURAL GAS PIPING (G)
	SHUT-OFF VALVE
	DIELECTRIC UNION
COFF	CLEANOUT FINISH FLOOR
WCO/HCO	WALL/HORIZONTAL CLEANOUT
COFG	CLEANOUT FINISH GRADE -PROVIDE FLUSH CONCRETE COLLAR AND BRONZE COVER
	VENT THRU ROOF (VTR)
TMV	THERMOSTATIC MIXING VALVE (TMV)
A.F.F.	ABOVE FINISHED FLOOR
U.O.N.	UNLESS OTHERWSE NOTED
	2 HOUR FIRE BARRIER

LOAD SUMMARY - PLUMBING

WASTE DEMAND (FU)	WATER DEMAND (FU)	WATER DEMAND (GPM)
79.0	134.5	75.9

FIXTURE SCHEDULE - PLUMBING *

EWC* HIGH/LOW ELECTRIC WATER COOLER WITH BOTTLE FILLER
ELKAY DUAL LEVEL ELECTRIC WATER COOLER WITH FILTERED BOTTLE FILLER LZSTL8WS, ADA COMPLIANT. PIPE TO SINGLE DRAIN AND SUPPLY LINE. VERIFY INSTALLATION CLEARANCE REQUIREMENTS PRIOR TO ORDERING. VERIFY OPTIONS- Hi/Lo SIDE, FINISH, ETC., WITH OWNER AND ARCHITECT.

ET-1* EXPANSION TANK #1
AMTROL MODEL ST-12, 4.4 GALLON, STEEL CONSTRUCTION, NON-ASME RATED.

ET-2* EXPANSION TANK #2
AMTROL MODEL ST-5, 2.0 GALLON, STEEL CONSTRUCTION, NON-ASME RATED.

EWH-1* ELECTRIC WATER HEATER #1
A.O. SMITH MODEL DRE-80-9, 80 GALLON, 9,000 WATT, 208V, 3 PH.
46 GPH RECOVERY AT 80 DEGREE (F) RISE. 1-1/4" INLET AND OUTLET, PROVIDE DRAIN PAN, EXPANSION TANK AND PRESSURE RELIEF VALVE. VERIFY INSTALLATION CLEARANCES PRIOR TO ORDERING.

EWH-2* ELECTRIC WATER HEATER #2
A.O. SMITH MODEL EJCS-20, 19 GALLON, 2500 WATTS, 120V, 3/4" INLET AND OUTLET. PROVIDE DRAIN PAN, EXPANSION TANK AND PRESSURE RELIEF VALVE. VERIFY INSTALLATION CLEARANCES PRIOR TO ORDERING.

FD* FLOOR DRAIN
ZURN MODEL Z415 WITH HEEL-PROOF TYPE B STRAINER, CAST IRON W/NICKEL BRONZE TOP, 5" STRAINER WITH 3" CONNECTION. PROVIDE TRAP PRIMER CONNECTION IF REQUIRED.

FDR* FLOOR DRAIN W/FLANGE, RECESSED INTO FLOOR
ZURN MODEL Z415-1, 5" DRAIN, 2" CONNECTION. PROVIDE RAISED FLANGE W/NICKEL BRONZE GRATE, CAST IRON BODY. PROVIDE TRAP PRIMER CONNECTION IF REQUIRED. RECESS INTO FLOOR/SLAB, TOP OF FLANGE TO BE FLUSH W/FINISH FLOOR.

FPHB* FREEZE PROOF RECESSED HOSE BIBB ENCASED IN FLUSH-TO-WALL BOX
ZURN Z-1320-C, 3/4" NON FREEZE WALL HYDRANT W/INTEGRAL BACKFLOW PREVENTER, ENCASED WITH KEY LOCK. VERIFY WALL THICKNESS. PROVIDE WALL BOX AS REQUIRED- COORDINATE W/BLDG. OWNER, TENANT, ARCH., G.C. VERIFY MOUNTING LOCATION.

LAV* LAVATORY (COUNTERTOP)
KOHLER PENNINGTON SELF RIMMING COUNTERTOP LAVATORY, K-2196, WHITE COLOR, ADA COMPLIANT, PROVIDE SLOAN OPTIMA #EBF-187 BATTERY OPERATED SENSOR FAUCET. PROVIDE DRAIN WITH GRID STRAINER, P-TRAP AND SHUT-OFF VALVES.

MS* MOP SINK BASIN WITH FAUCET
BASIN- MUSTEE MODEL 63M, 24" X 24" X 10" MOLDED MOP RECEPTOR, 3" DRAIN SIZE. INTEGRAL DRAIN REQUIRES MINIMUM 6" DIAMETER X 2 1/4" DEEP RECESS IN SUBFLOOR. LEVEL AS NEEDED, USE WEDGE-LOCK SEAL PER MANUFACTURER'S SPECIFICATIONS. USE WATER TO CHECK FOR PROPER DRAINAGE UPON ATTACHING DRAIN PIPE AND PRIOR TO FINISHING WALLS. VERIFY SIZE PRIOR TO ORDERING.
FAUCET- MUSTEE MODEL 63.600A FAUCET WITH VACUUM BREAKER.
PROVIDE 5' HOSE W/HANGER BRACKET AND MOP HANGER.

SI* BREAK ROOM SINK
ELKAY LR2918 DOUBLE BASIN STAINLESS STEEL SINK (MODEL LRAD2918 IF ADA COMPLIANCE REQUIRED), 18 GA., SELF-RIMMING, FURNISHED WITH THREE FAUCET HOLES AND CENTER DRAIN. PROVIDE ELKAY COMMERCIAL FAUCET MODEL LK810AT08L2 WITH TWO LEVER HANDLES, CHROME PLATED BRASS P-TRAP AND SHUT-OFF VALVES. COORDINATE EXACT UNIT WITH TENANT AND GENERAL CONTRACTOR. COORDINATE SIZE WITH CABINETRY PRIOR TO ORDERING.

SHR* ACCESSIBLE STALL, SHOWER HEAD/FAUCET/ADA ACCESSORIES
AQUATIC BATHWARE 13638FSC PRE-FABRICATED FIBERGLASS SHOWER STALL. PROVIDE SYMMONS TEMPTROL 96-500-B30-L-V-X-ADAHS SHOWER AND HAND SHOWER SYSTEM. PROVIDE ALL OTHER COMPONENTS IF REQUIRED FOR ADA COMPLIANCE, GRAB BAR, SEAT, CURTAIN OR DOOR, ETC. COORDINATE HANDING W/OWNER, ROUTE PLUMBING AS REQUIRED.

TMV-1* THERMOSTATIC MIXING VALVE #1 (ASSE 1017)
WATTS SERIES LFMMV MIXING VALVE WITH CHECK VALVES. INSTALL IN MAINTENANCE ACCESSIBLE LOCATION AS REQUIRED. SET HW OUTFLOW TO SPECIFIED TEMPERATURE: FOR HTHW- 120 DEG. F (MAX.), FOR LTHW- 110 DEG. F (MAX.).

TMV-2* THERMOSTATIC MIXING VALVE #2 (ASSE 1070)
WATTS LFUSG-B 'LEAD FREE' GUARDIAN. INSTALL IN MAINTENANCE ACCESSIBLE ONLY LOCATION BELOW LAV/SINK OR AS REQUIRED. SET HW OUTFLOW TO SPECIFIED TEMPERATURE: FOR LTHW- 110 DEG. F (MAX.).

UR* URINAL
KOHLER MODEL K-5016-ET, 3/4" TOP SPUD, ADA COMPLIANT WITH PROPER INSTALLATION, 0.5 GPF, 2" OUTLET DRAIN, ANSI COMPLIANT. PROVIDE SLOAN MODEL 186-0.5 FLUSHOMETER, 0.5 GPF, 3/4" IPS SUPPLY.

VB* ICE MAKER VALVE BOX
OATEY VALVE BOX WITH 3/8" BRONZE SHUT-OFF VALVE. FLUSH TO WALL.

WC* WATER CLOSET (FLOOR MOUNT FLUSH VALVE)
KOHLER HIGHCLIFF WATER CLOSET, K-96057, ADA COMPLIANT, 1.6 GPF. PROVIDE WITH K-4731-C SEAT, WAX SEAL, CLOSET BOLT KIT. FOR UNITS NOT REQUIRING ADA COMPLIANCE (COORDINATE W/ARCHITECT), USE KOHLER WELLCOMME K-96053 IF REQUIRED. PROVIDE SLOAN ROYAL 111-1.6 TOP SPUD FLUSHOMETER.

* OR APPROVED EQUAL. SUBMIT ALL ITEMS FOR APPROVAL BY OWNER AND ARCHITECT PRIOR TO ORDERING.
ALL OTHER PLUMBING FIXTURES SHOWN ARE PROVIDED BY THE OWNER AND INSTALLED BY THE PLUMBING CONTRACTOR. SEE PLANS FOR NUMBER AND LOCATION. COORDINATE ALL REQUIREMENTS WITH EQUIPMENT SERVED.

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FAX: (919) 779-0826
email: ben@bdg-nc.com
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COLUMBUS COUNTY
SHERIFF'S DEPARTMENT
WHITEVILLE, NORTH CAROLINA

12/17/24

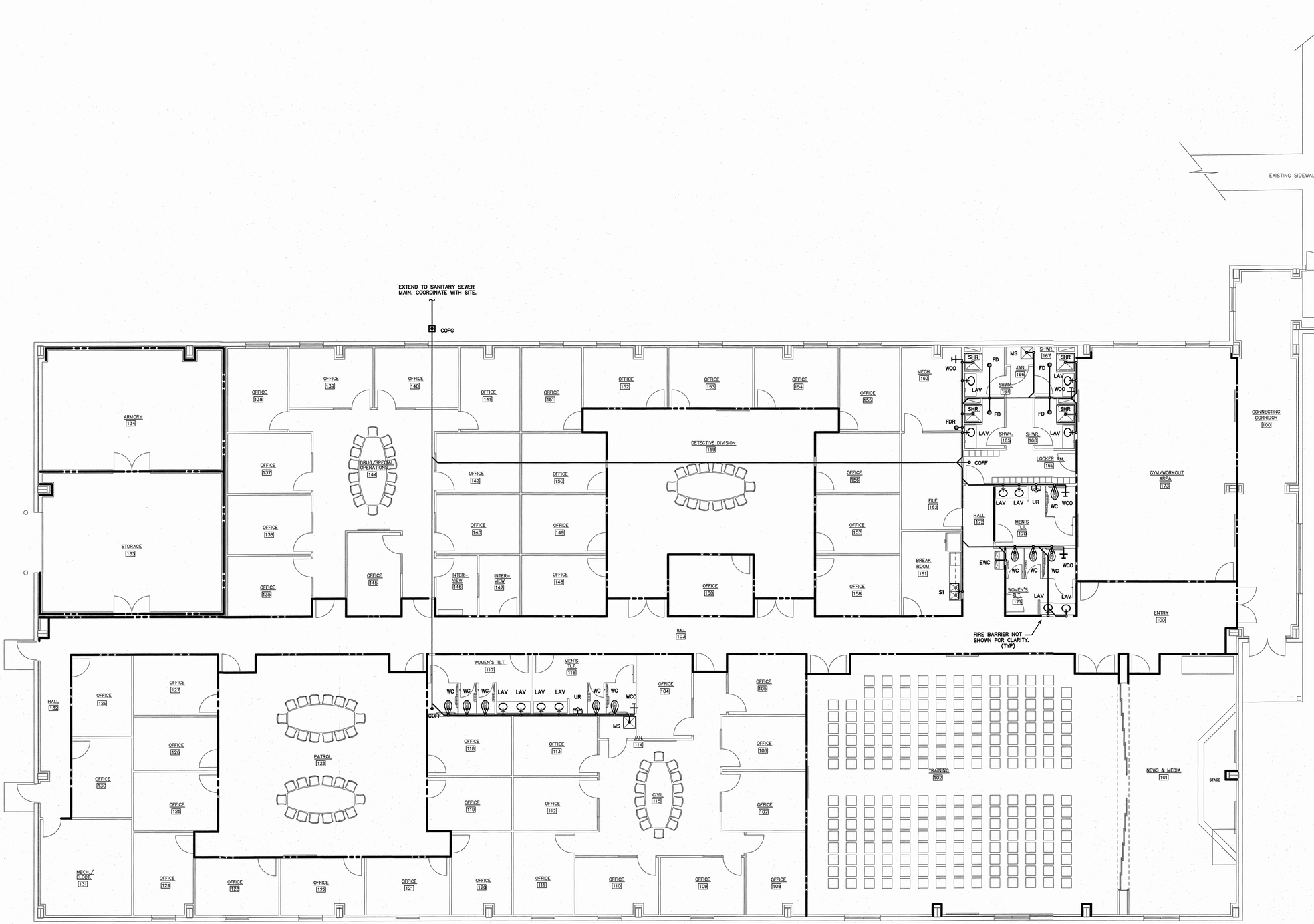
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 22036 BENJAMIN E. BURKE

PLUMBING SPECIFICATIONS

23029

ISSUED:	12/17/2024
DWG BY:	DS
CKD BY:	BEB
REVISIONS	

SHEET NO.
P-1



1 P-2 DWV PLAN
SCALE: 1/8" = 1'-0"

Coastal Architecture PLLC

Architectural
Design
Planning
Interiors

Member of the American Institute of Architects

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Morehead City, NC 28557
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COLUMBUS COUNTY SHERIFF'S DEPARTMENT

WHITEVILLE, NORTH CAROLINA

12/18/24
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 22038 BENJAMIN E. BURKE

DWV PLAN

23029

ISSUED:	12/17/2024
DWG BY:	DS
CKD BY:	BEB

REVISIONS

SHEET NO.
P-2

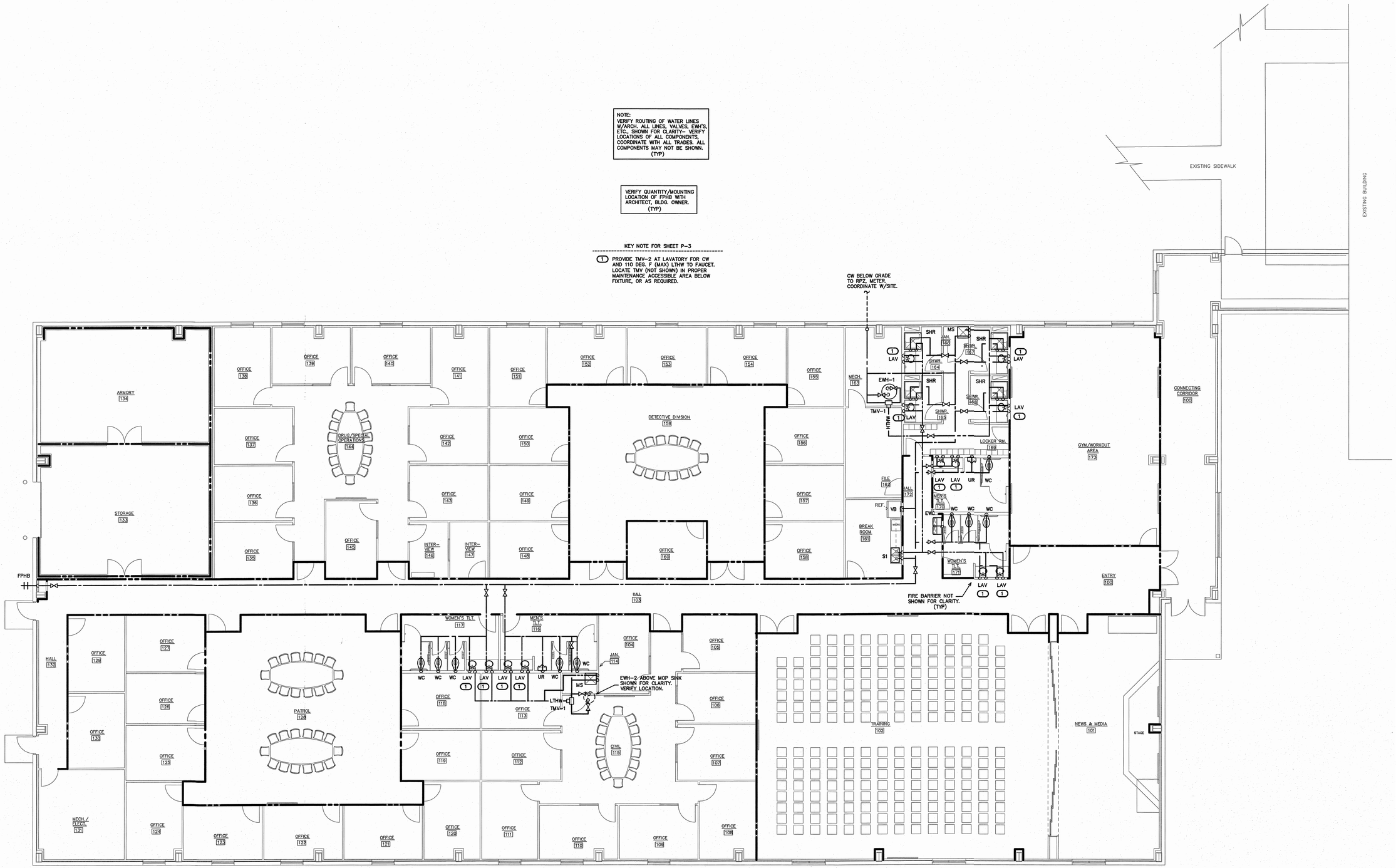
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NOTE:
VERIFY ROUTING OF WATER LINES W/ARCH. ALL LINES, VALVES, EWH'S, ETC., SHOWN FOR CLARITY-- VERIFY LOCATIONS OF ALL COMPONENTS, COORDINATE WITH ALL TRADES. ALL COMPONENTS MAY NOT BE SHOWN. (TYP)

VERIFY QUANTITY/MOUNTING LOCATION OF FPHB WITH ARCHITECT, BLDG. OWNER. (TYP)

KEY NOTE FOR SHEET P-3

(1) PROVIDE TMV-2 AT LAVATORY FOR CW AND 110 DEG. F (MAX) LTHW TO FAUCET. LOCATE TMV (NOT SHOWN) IN PROPER MAINTENANCE ACCESSIBLE AREA BELOW FIXTURE, OR AS REQUIRED.



1/P-3 WATER PLAN
SCALE: 1/8" = 1'-0"

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COLUMBUS COUNTY SHERIFF'S DEPARTMENT

WHITEVILLE, NORTH CAROLINA

12/17/24
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 32038 BENJAMIN E. BURKE

WATER PLAN

23029

ISSUED:	12/17/2024
DWG BY:	DS
CKD BY:	BEB

REVISIONS

SHEET NO.
P-3

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NOTE:
NATURAL GAS PRESSURE TO BE AT 2 PSI. PROVIDE PROPER LABELING ON ALL GAS PIPING. PROVIDE PROPER REGULATORS AT ALL EQUIPMENT CONNECTIONS. PAINT ANY INTERIOR OR EXTERIOR EXPOSED GAS LINES PER CODE AND THE BUILDING STANDARD.

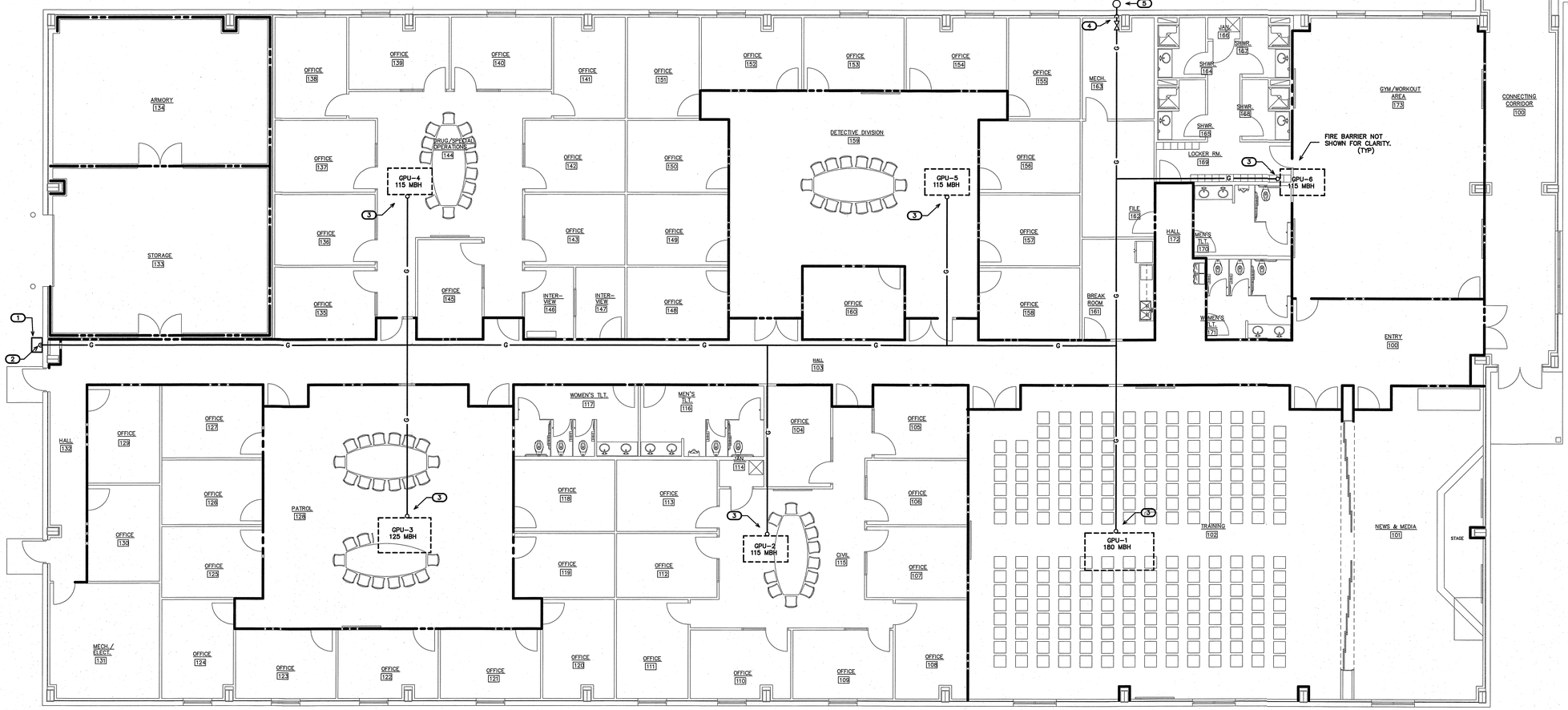
NOTE:
VERIFY ALL GAS EQUIPMENT LOAD TOTALS, VERIFY GAS METER LOCATION PRIOR TO BID. VERIFY LINE SIZES, TOTAL DEVELOPED LINE LENGTHS. NOTIFY THE ENGINEER OF ANY DISCREPANCIES FOR REQUIRED REVIEW AND/OR RESIZING OF GAS LINES.

KEY NOTES FOR SHEET P-4

1. PROVIDE 2 PSI NATURAL GAS SERVICE/METER. VERIFY LOCATION. COORDINATE WITH LOCAL GAS COMPANY, BUILDING OWNER.
2. RISE TO RUN GAS LINE ABOVE CEILING. VERIFY LOCATION/ROUTING. COORDINATE W/ALL TRADES.
3. RISE THRU ROOF, PROPERLY SEAL PENETRATION, CONNECT TO NEW HVAC GAS PACKAGE UNIT (GPU) ROOF. COORDINATE LOCATION WITH EQUIPMENT, MECHANICAL PLANS. PROVIDE REGULATOR.
4. DROP TO RUN ABOVE EXT. GRADE TO GENERATOR. VERIFY LOCATION/ROUTING.
5. PROVIDE PROPER GAS LINE REGULATOR FOR LOW PRESSURE SERVICE (0.5 PSI/LESS THAN 2 PSI) TO GENERATOR- LOW PRESSURE BRANCH LINE SHALL BE 6 FT MIN/10 FT MAX LENGTH TO THE EQUIPMENT CONNECTION, VERIFY SERVICE PRESSURE/COORDINATE ALL REQUIREMENTS WITH UNIT/MFR/SUPPLIER.

150KVA GENERATOR 2654 (START-UP) MBH

NOTE:
COORDINATE GENERATOR GAS LINE REQUIREMENTS WITH MFR/SUPPLIER. PROVIDE PROPER LABELING FOR GENERATOR GAS LINE. VERIFY UNIT LOCATION WITH SITE PLAN AND ARCHITECT PRIOR TO BID.



1 / P-1 NATURAL GAS PLAN
SCALE: 1/8" = 1'-0"

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12/17/24
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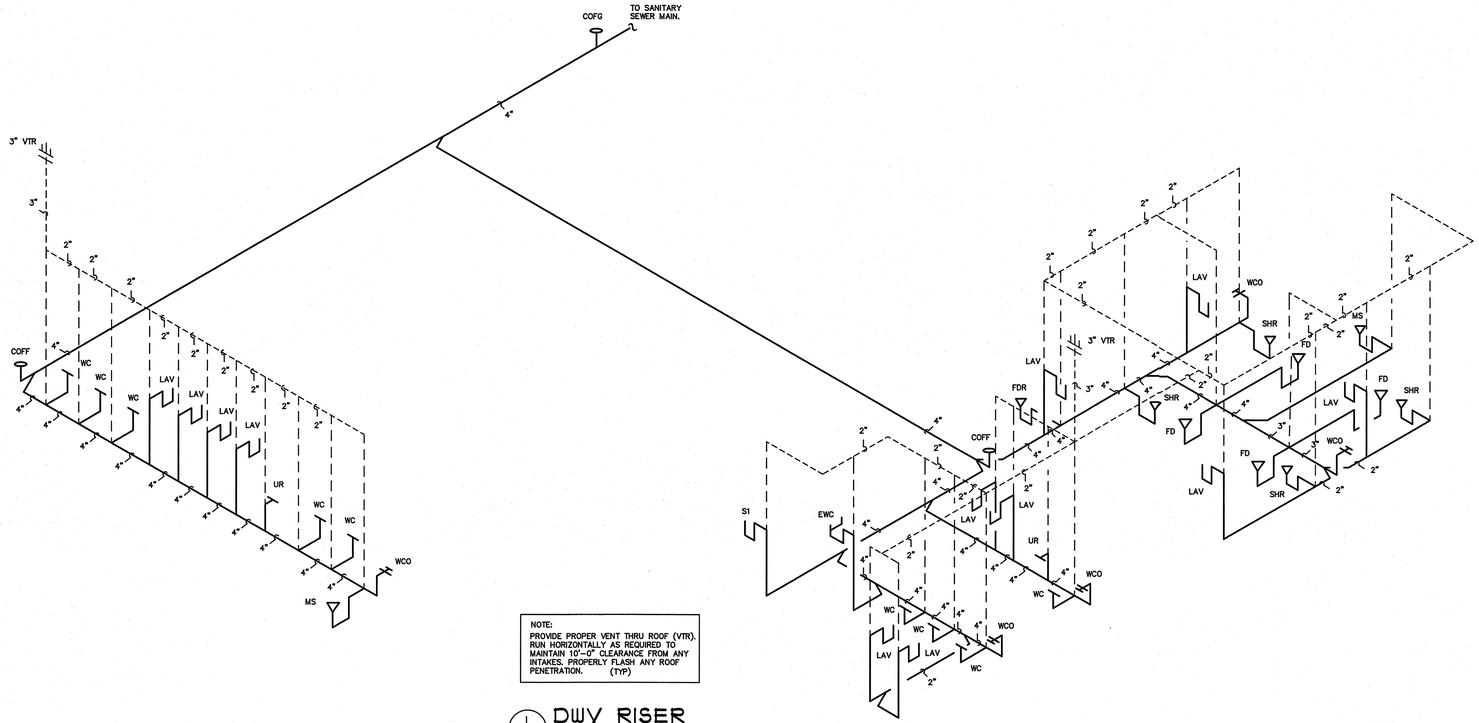
NATURAL GAS PLAN

23029

ISSUED:	12/17/2024
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REVISIONS

SHEET NO.
P-4



NOTE:
PROVIDE PROPER VENT THRU ROOF (VTR). RUN HORIZONTALLY AS REQUIRED TO MAINTAIN 10'-0" CLEARANCE FROM ANY INTAKES. PROPERLY FLASH ANY ROOF PENETRATION. (TYP)

1 / P-5 DWV RISER
SCALE: NTS

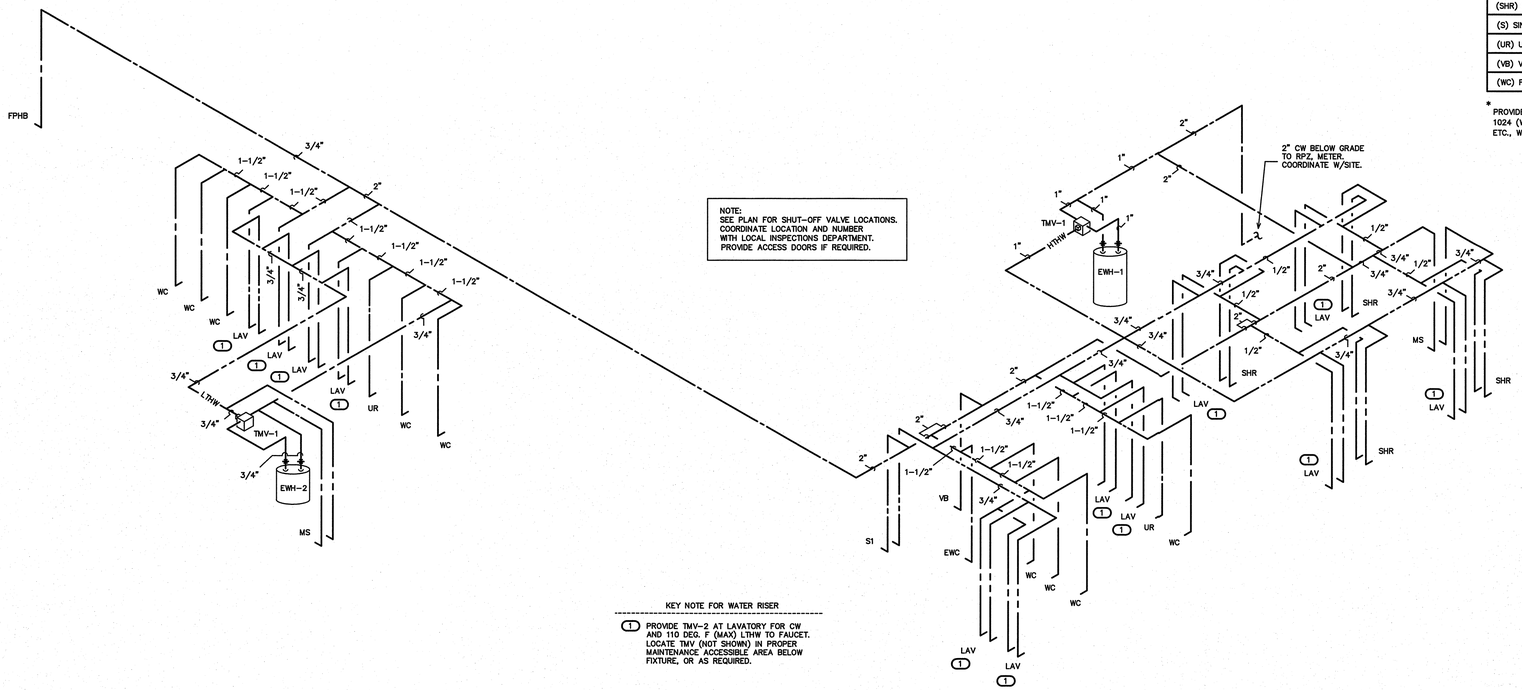
DWV/WATER RISER NOTES:

REPRESENTATIVE SIZES ARE GIVEN FOR EACH TYPE OF FIXTURE. SEE PIPE SIZING SCHEDULE.
MINIMUM 2" DRAIN LINE SIZE UNDER SLAB.
MAINTAIN PIPE SIZES SHOWN UNTIL LARGER SIZE IS REACHED.
PIPE SIZES ARE MINIMUMS FOR INDIVIDUAL FIXTURES U.O.N.

(VERIFY ALL EQUIPMENT REQUIREMENTS PRIOR TO ROUGH-IN)

PIPE SIZING SCHEDULE				
FIXTURE TYPE	DRAIN	VENT	CW	HW
(EWC) ELECTRIC WATER COOLER	1-1/4"	1-1/4"	1/2"*	–
(FD) FLOOR DRAIN	3"	1-1/2"	–	–
(FDR) FLOOR DRAIN– RECESSED	2"	1-1/4"	–	–
(FPHB) FREEZE PROOF HOSE BIBB	–	–	1/2"	–
(LAV) LAVATORY	1-1/2"	1-1/4"	1/2"	1/2"
(MS) MOP SINK	3"	1 1/2"	1/2"	1/2"
(SHR) SHOWER	2"	1-1/4"	1/2"	1/2"
(S) SINK	1-1/2"	1-1/4"	1/2"	1/2"
(UR) URINAL	2"	1-1/4"	3/4"	–
(VB) VALVE BOX	–	–	1/2"*	–
(WC) FLUSH VALVE WATER CLOSET	3"	1 1/2"	1"	–

* PROVIDE BACKFLOW PREVENTER PER NCSBC-PLUMBING SECT. 608.3, EX: ASSE 1024 (WATTS SERIES 7 OR EQUAL) ASSE 1022 (WATTS SERIES 5D-3 EQUAL) ETC., WHERE REQUIRED IF NOT AN INTEGRAL PART OF THE EQUIPMENT.



KEY NOTE FOR WATER RISER

1 PROVIDE TMV-2 AT LAVATORY FOR CW AND 110 DEG. F (MAX) LTHW TO FAUCET. LOCATE TMV (NOT SHOWN) IN PROPER MAINTENANCE ACCESSIBLE AREA BELOW FIXTURE, OR AS REQUIRED.

2 / P-5 WATER RISER
SCALE: NTS

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WHITEVILLE, NORTH CAROLINA

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 23029 BENJAMIN E. BURKE

DWV/WATER RISERS

23029

ISSUED: 12/17/2024
DWG BY: DS
CKD BY: BEB
REVISIONS

SHEET NO.
P-5

2018 NCSBC, FUEL GAS CODE– TABLE 402.4(5)

NOTE:
GAS PIPE SIZES BASED UPON AN INITIAL PRESSURE OF 2 PSI AND A PRESSURE DROP OF 1 PSI AT 300 FEET IN DEVELOPED LENGTH.
PIPE SIZES SHOWN ARE MINIMUM NOMINAL INSIDE DIAMETER.
TOTAL CONNECTED LOAD (OVERALL) = 3,418,500 BTUH

2018 NCSBC, FUEL GAS CODE– TABLE 402.4(2)

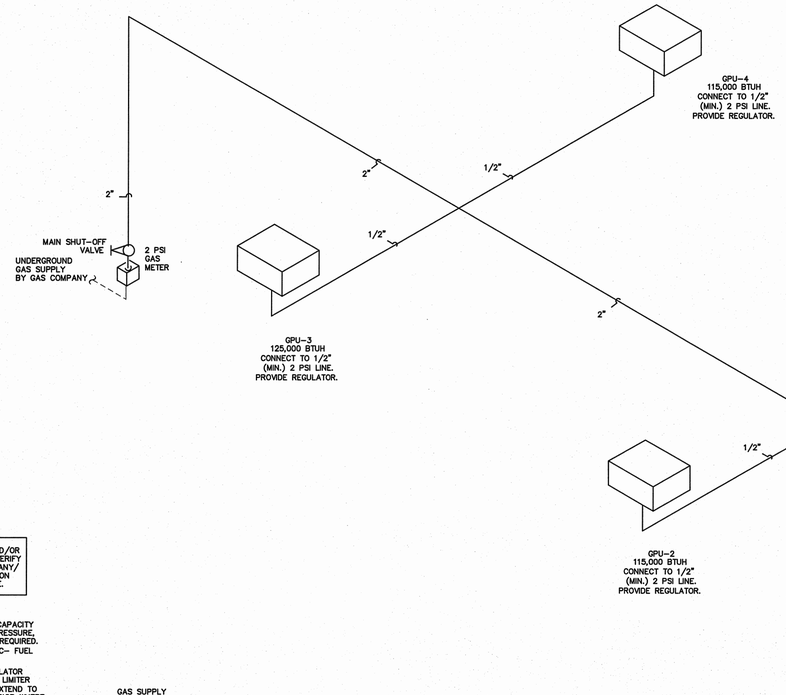
GENERATOR LOW PRESSURE LINE NOTE:
GAS PIPE SIZES BASED UPON AN INITIAL PRESSURE OF LESS THAN 2 PSI AND A PRESSURE DROP OF 1/2" WC AT 10 FEET IN DEVELOPED LENGTH.
PIPE SIZES SHOWN ARE MINIMUM NOMINAL INSIDE DIAMETER.
TOTAL CONNECTED LOAD (GENERATOR ONLY) = 2,653,500 BTUH

NOTE:
GAS PIPING SHALL BE BLACK STEEL, SCHEDULE 40 WITH SCREWED (LESS THAN 2–1/2" DIA. PIPING) OR WELDED (GREATER THAN OR EQUAL TO 2–1/2" DIA. PIPING) FITTINGS.
TEST, LABEL AND INSTALL ALL PIPING PER THE NCSBC.

GPU CONNECTION NOTE:
PROVIDE PROPER REGULATOR AT EACH PIECE OF EQUIPMENT. PROVIDE SHUT–OFF VALVE, DIRTLEG, UNION, AND FLEXIBLE CONNECTION OR AS REQUIRED TO EACH PIECE OF EQUIPMENT. VERIFY CONNECTION TYPE/SIZE WITH EACH PIECE OF EQUIPMENT.

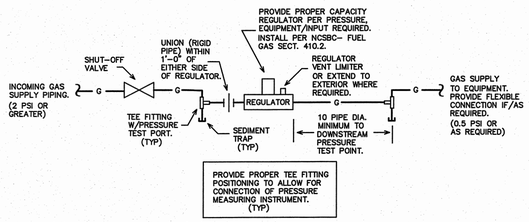
GENERATOR CONNECTION NOTE:
PROVIDE SHUT–OFF VALVE, DIRTLEG, UNION, AND FLEXIBLE CONNECTION OR AS REQUIRED. VERIFY CONNECTION TYPE/SIZE WITH EQUIPMENT.

NOTE:
NATURAL GAS PRESSURE FOR THE BLDG. GAS MAIN IS TO BE 2 PSI. PROVIDE PROPER REGULATORS ON GENERATOR LINE, GPU'S. VENT ALL REGULATORS TO EXTERIOR IF/AS REQUIRED. PROVIDE PROPER LABELING ON 2 PSI PIPING. PROVIDE REGULATOR/CONNECTION PER NCSBC– FUEL GAS SECT. 410.2 AND ALL OTHER APPLICABLE SECTIONS. GPU EQUIPMENT CONNECTIONS/REGULATORS NOT SHOWN ON RISER– SEE CONNECTION DETAIL THIS SHEET.



1 P–6 NATURAL GAS RISER
SCALE: NTS

GENERAL FUEL GAS EQUIPMENT AND/OR LINE CONNECTION W/REGULATOR. VERIFY REQUIREMENTS, COORDINATE WITH ANY/ALL EQUIPMENT. INSTALL CONNECTION PER 2018 NCSBC– FUEL GAS CODE.



2 P–6 REDUCED LINE PRESSURE CONNECTION DETAIL
SCALE: NTS

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NATURAL GAS RISER

23029

ISSUED:	12/17/2024
DWG BY:	DS
CKD BY:	BEB

REVISIONS

SHEET NO.
P-6

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Columbus Cty Sheriff's Department MI

GAS PACK SCHEDULE

GAS PACK UNIT #1 (GPU-1)	
GPU #1 GAS HEAT ELECTRIC COOLING SINGLE PACKAGE UNIT	* CARRIER MODEL #48HCED14A1A5-0F0A0 GAS HEAT ELECTRIC COOLING SINGLE PACKAGE UNIT; 12.2 EER; 146,000 BTUH NET COOLING; 5000 CFM; 208 VOLT, 3 PHASE; COMP (2) @ 19.6 RLA EA; OFM (3) @ 1.5 FLA; IFM 8.4 FLA; 57 MCA, 70A MOCP; 12.5 TONS. PROVIDE PROGRAMMABLE THERMOSTAT/HUMIDISTAT. ENTHALPY BASED ECONOMIZER WITH BAROMETRIC RELIEF DAMPER, "HUMIDIMIZER" HOT GAS REHEAT, ACCESS PANELS, FACTORY ROOF CURB, FILTER RACK, AND COIL HAIL GUARDS. 180,000 BTUH INPUT NATURAL GAS. PROVIDE MOTORIZED DAMPER TO CLOSE OUTSIDE AIR INTAKE WHEN UNIT IS NOT IS USE PER 2018 NC ENERGY CONSERVATION CODE.
GAS PACK UNIT #2 (GPU-2)	
GPU #2 GAS HEAT ELECTRIC COOLING SINGLE PACKAGE UNIT	* CARRIER MODEL #48HCEB05A2A5-0A0A0 GAS HEAT ELECTRIC COOLING SINGLE PACKAGE UNIT; 12.4 EER; 48,500 BTUH NET COOLING; 1400 CFM; 208 VOLT, 3 PHASE; COMP 13.7 RLA; OFM 1.4 FLA; IFM 5.2 FLA; 24 MCA, 30A MOCP; 4 TONS. PROVIDE PROGRAMMABLE THERMOSTAT/HUMIDISTAT, "HUMIDIMIZER" HOT GAS REHEAT, ACCESS PANELS, MEDIUM STATIC DRIVE, FILTER RACK, AND COIL GUARDS. 115,000 BTUH INPUT NATURAL GAS. PROVIDE WITH MOTORIZED DAMPER TO CLOSE OUTSIDE AIR INTAKE WHEN UNIT IS NOT IS USE PER 2018 NC ENERGY CODE.
GAS PACK UNIT #3 (GPU-3)	
GPU #3 GAS HEAT ELECTRIC COOLING SINGLE PACKAGE UNIT	* CARRIER MODEL #48HCED07A2A5-0A0A0 GAS HEAT ELECTRIC COOLING SINGLE PACKAGE UNIT; 12 EER; 73,000 BTUH NET COOLING; 2400 CFM; 208 VOLT, 3 PHASE; COMP @ 19.6 RLA EA; OFM 2 @ 1.5 FLA EA.; IFM 5.2 FLA; 33 MCA, 50A MOCP; 6 TONS. PROVIDE PROGRAMMABLE THERMOSTAT/HUMIDISTAT. ENTHALPY BASED ECONOMIZER WITH BAROMETRIC RELIEF DAMPER, "HUMIDIMIZER" HOT GAS REHEAT, ACCESS PANELS, FILTER RACK, AND COIL GUARDS. 125,000 BTUH INPUT NATURAL GAS. PROVIDE MOTORIZED DAMPER TO CLOSE OUTSIDE AIR INTAKE WHEN UNIT IS NOT IS USE PER 2018 NC ENERGY CODE.
GAS PACK UNIT #4 (GPU-4)	
GPU #4 GAS HEAT ELECTRIC COOLING SINGLE PACKAGE UNIT	* CARRIER MODEL #48HCEA06A2A5-0A0A0 GAS HEAT ELECTRIC COOLING SINGLE PACKAGE UNIT; 12.5 EER; 57,500 BTUH NET COOLING; 2000 CFM; 208 VOLT, 3 PHASE; COMP 15.9 RLA; OFM 1.4 FLA; IFM 6.9 FLA; 29 MCA, 40A MOCP; 5 TONS. PROVIDE PROGRAMMABLE THERMOSTAT/HUMIDISTAT, "HUMIDIMIZER" HOT GAS REHEAT, ACCESS PANELS, MEDIUM STATIC DRIVE, FILTER RACK, AND COIL GUARDS. 115,000 BTUH INPUT NATURAL GAS. PROVIDE WITH MOTORIZED DAMPER TO CLOSE OUTSIDE AIR INTAKE WHEN UNIT IS NOT IS USE PER 2018 NC ENERGY CODE.
GAS PACK UNIT #5 (GPU-5)	
GPU #5 GAS HEAT ELECTRIC COOLING SINGLE PACKAGE UNIT	* CARRIER MODEL #48HCEA06A2A5-0A0A0 GAS HEAT ELECTRIC COOLING SINGLE PACKAGE UNIT; 12.5 EER; 57,500 BTUH NET COOLING; 2000 CFM; 208 VOLT, 3 PHASE; COMP 15.9 RLA; OFM 1.4 FLA; IFM 6.9 FLA; 29 MCA, 40A MOCP; 5 TONS. PROVIDE PROGRAMMABLE THERMOSTAT/HUMIDISTAT, "HUMIDIMIZER" HOT GAS REHEAT, ACCESS PANELS, MEDIUM STATIC DRIVE, FILTER RACK, AND COIL GUARDS. 115,000 BTUH INPUT NATURAL GAS. PROVIDE WITH MOTORIZED DAMPER TO CLOSE OUTSIDE AIR INTAKE WHEN UNIT IS NOT IS USE PER 2018 NC ENERGY CODE.
GAS PACK UNIT #6 (GPU-6)	
GPU #6 GAS HEAT ELECTRIC COOLING SINGLE PACKAGE UNIT	* CARRIER MODEL #48HCEA04A2A5-0A0A0 GAS HEAT ELECTRIC COOLING SINGLE PACKAGE UNIT; 12.4 EER; 36,000 BTUH NET COOLING; 1200 CFM; 208 VOLT, 3 PHASE; COMP 10.4 RLA; OFM 1.0 FLA; IFM 5.2 FLA; 20 MCA, 25A MOCP; 3 TONS. PROVIDE PROGRAMMABLE THERMOSTAT/HUMIDISTAT, "HUMIDIMIZER" HOT GAS REHEAT, ACCESS PANELS, MEDIUM STATIC DRIVE, FILTER RACK, AND COIL GUARDS. 115,000 BTUH INPUT NATURAL GAS. PROVIDE WITH MOTORIZED DAMPER TO CLOSE OUTSIDE AIR INTAKE WHEN UNIT IS NOT IS USE PER 2018 NC ENERGY CODE.

*OR APPROVED EQUAL

Columbus Cty Sheriff's Department MI

DUCTLESS SPLIT SYSTEM HEAT PUMP SCHEDULE

DHP-1 OUTDOOR HEAT PUMP UNIT	* MITSUBISHI MODEL #MXZ-2C20NA4, 1.66 TON OUTDOOR HEAT PUMP UNIT, 20 SEER. 208 VOLT, 1 PHASE, CONDENSING UNIT 17.2A MCA, 20A MOCP. FAN COIL UNIT IS POWERED VIA FIELD PROVIDED WIRING FROM OUTDOOR UNIT. SERVES (2) INDOOR FAN-COIL UNITS (DFC-1.1, DFC-1.2).
DFC-1.1 DIRECT EXPANSION FAN COIL UNIT	* MITSUBISHI MODEL #MSZ-FS09NAFAN COIL UNIT. NET COOLING CAPACITY = 9,000 BTUH, 145 CFM LO TO 400 CFM HI. 0.75 TON NOMINAL. PROVIDE WIRED PROGRAMMABLE THERMOSTAT, AND CONDENSATE PUMP. FAN MOTOR 0.76, FLA 208 VOLT. SINGLE PH.
DFC-1.2 DIRECT EXPANSION FAN COIL UNIT	* MITSUBISHI MODEL #MSZ-FS09NAFAN COIL UNIT. NET COOLING CAPACITY = 9,000 BTUH, 145 CFM LO TO 400 CFM HI. 0.75 TON NOMINAL. PROVIDE WIRED PROGRAMMABLE THERMOSTAT, AND CONDENSATE PUMP. FAN MOTOR 0.76, FLA 208 VOLT. SINGLE PH.

* OR APPROVED EQUAL

Columbus Cty Sheriff's Department MI

EXHAUST FAN SCHEDULE

EXHAUST FAN #1 (EF-1)	* CARNES MODEL# VCDD025C EXHAUST FAN, 250 CFM @ 1/4" SP, 830 RPM, 2.2 AMPS, 120V. THE ELECTRICAL CONTRACTOR SHALL PROVIDE THE SWITCH AND WIRE THE UNIT. THE HVAC CONTRACTOR SHALL PROVIDE UNIT, 8" RIGID DUCT TO EXTERIOR, FLASHING AND ROOF CAP. LOCATE EXHAUST TERMINATION A MINIMUM OF 10'-0" FROM ANY INTAKES.
EXHAUST FAN #2 (EF-2)	* CARNES MODEL# VCDD025C EXHAUST FAN, 250 CFM @ 1/4" SP, 830 RPM, 2.2 AMPS, 120V. THE ELECTRICAL CONTRACTOR SHALL PROVIDE THE SWITCH AND WIRE THE UNIT. THE HVAC CONTRACTOR SHALL PROVIDE UNIT, 8" RIGID DUCT TO EXTERIOR, FLASHING AND ROOF CAP. LOCATE EXHAUST TERMINATION A MINIMUM OF 10'-0" FROM ANY INTAKES.
EXHAUST FAN #3 (EF-3)	* CARNES MODEL# VCDD025C EXHAUST FAN, 250 CFM @ 1/4" SP, 830 RPM, 2.2 AMPS, 120V. THE ELECTRICAL CONTRACTOR SHALL PROVIDE THE SWITCH AND WIRE THE UNIT. THE HVAC CONTRACTOR SHALL PROVIDE UNIT, 8" RIGID DUCT TO EXTERIOR, FLASHING AND ROOF CAP. LOCATE EXHAUST TERMINATION A MINIMUM OF 10'-0" FROM ANY INTAKES.
EXHAUST FAN #4 (EF-4)	* CARNES MODEL# VCDD020C EXHAUST FAN, 196 CFM @ 1/4" SP, 740 RPM, 1.8 AMPS, 120V. THE ELECTRICAL CONTRACTOR SHALL PROVIDE THE SWITCH AND WIRE THE UNIT. THE HVAC CONTRACTOR SHALL PROVIDE UNIT, 8" RIGID DUCT TO EXTERIOR, FLASHING AND ROOF CAP. LOCATE EXHAUST TERMINATION A MINIMUM OF 10'-0" FROM ANY INTAKES.
EXHAUST FAN #5 (EF-5)	* CARNES MODEL# VEDK-06-J2 ROOF MOUNTED EXHAUST FAN, 200 CFM @ 0.375" SP, 1200 RPM, 1/8 HP, 120V. THE ELECTRICAL CONTRACTOR SHALL PROVIDE THE SWITCH AND WIRE THE UNIT. THE HVAC CONTRACTOR SHALL PROVIDE UNIT, GRAVITY BACKDRAFT DAMPER, AND FACTORY PREFAB ROOF CURB. LOCATE EXHAUST TERMINATION A MINIMUM OF 10'-0" FROM ANY INTAKES. PROVIDE FACTORY SPEED CONTROLLER FOR BALANCING FAN.

* OR APPROVED EQUAL

NOTE: ALL EXHAUST FANS SHALL HAVE GRAVITY BACKDRAFT DAMPERS PER NCSBC, ENERGY CONSERVATION CODE.

GENERAL NOTES – MECHANICAL

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE STATE CODE AND ALL LOCAL AND OTHER APPLICABLE CODES.
2. ANY PERMITS AND INSPECTION FEES SHALL BE SECURED AND PAID FOR BY THE MECHANICAL CONTRACTOR (MC).
3. ALL WORK SHALL BE PERFORMED BY EXPERIENCED AND SKILLED CRAFTSMEN. THE MC SHALL COORDINATE ALL OF HIS WORK WITH THE GENERAL CONTRACTOR (GC) AND OTHER TRADES.
4. THE LOCATION OF ALL DUCT, PIPING AND EQUIPMENT SHALL BE ADJUSTED TO ACCOMMODATE ANTICIPATED OR ENCOUNTERED INTERFERENCES.
5. THESE PLANS ARE DIAGRAMMATIC AND MAY NOT SHOW MINOR DETAILS AND LOCATIONS. FOR DIMENSIONS REFER TO THE ARCHITECTURAL PLANS.
6. THE MC SHALL BE RESPONSIBLE FOR ALL ELECTRICAL STARTERS INTERLOCKS, CONTROL WIRING CONDUIT AND POWER WIRING FROM DISCONNECTS TO HIS EQUIPMENT, USING A LICENSED ELECTRICIAN.
7. THE MC SHALL USE FIRE DAMPERS FOR PROTECTION OF THE OPENING IN ACCORDANCE WITH STATE AND LOCAL CODES IN ALL LOCATIONS WHERE PENETRATIONS OF RATED WALLS AND FLOORS OCCUR. SEE ARCHITECTURAL PLANS FOR RATED WALL AND FLOOR LOCATIONS. PROVIDE ACCESS DOORS AT ALL DAMPER LOCATIONS. LOCATE DOORS FOR EASY ACCESS.
8. INSTALL FLEXIBLE CONNECTORS ON SUPPLY AND RETURN DUCTWORK AHU. ALL MECHANICAL EQUIPMENT SHALL OPERATE FREE OF OBJECTIONAL NOISE AND VIBRATION.
9. INSTALL TURNING VANES IN SUPPLY DUCTS AT ALL ELBOWS AND SPLITTER DAMPERS. PROVIDE BALANCING DAMPERS IN ALL DUCTS WHERE SHOWN OR REQUIRED FOR SYSTEM BALANCING.
10. DUCT DIMENSIONS ARE SHOWN INSIDE CLEAR.
11. THE MC SHALL KEEP THE PREMISES CLEAR OF DEBRIS FROM HIS WORK DURING CONSTRUCTION AND LEAVE THE AREA AND BUILDING CLEAN AT THE COMPLETION OF HIS WORK. HE SHALL ALSO LEAVE CLEAN ALL EXPOSED EQUIPMENT IN HIS CONTRACT.
12. PROVIDE ALL REQUIRED ROOF PENETRATIONS FOR THE INSTALLATION OF THE NEW EQUIPMENT. ALL FLASHINGS ARE BY THE MECHANICAL CONTRACTOR. ALL ROOFING WORK SHALL BE DONE BY A LICENSED ROOFING CONTRACTOR SO AS TO MAINTAIN ORIGINAL WARRANTY.
13. THE M.C. SHALL COORDINATE WITH AND PROVIDE EQUIPMENT SPEC. SHEETS TO THE GENERAL AND ELECTRICAL CONTRACTORS FOR REVIEW PRIOR TO ORDERING EQUIPMENT.
14. PROPERLY SUPPORT ALL DUCT WORK, AND EQUIP FROM STRUCTURE. PROVIDE ALL STRUCTURAL SUPPORTS FOR THE LOADS AS REQUIRED AT NO ADDITIONAL COST TO THE OWNER.

AIR DISTRIBUTION SCHEDULE

MARK	* MANUFACTURER	MODEL NO.	NECK SIZE	FACE SIZE	MATERIAL	SERVICE	NOTES
A	CARNES	SPAB224	SEE FLEXIBLE DUCT SCHEDULE	24" X 24"	STEEL	SUPPLY	LAY-IN CEILING, WHITE 4-WAY BLOW
B	CARNES	RTDBH	9" X 4"	11" X 6"	STEEL	SUPPLY	DUCT MOUNTED, WHITE
C	CARNES	SKSA40	6" DIA	9" X 9"	STEEL	SUPPLY	GYPSUM BOARD CEILING, WHITE 4-WAY BLOW
RA	CARNES	SPRB22	SEE FLEXIBLE DUCT SCHEDULE	24" X 24"	STEEL	RETURN	LAY-IN CEILING, WHITE
RB	CARNES	RSABH	12" X 6"	14" X 8"	STEEL	RETURN	WHITE, SIDEWALL MOUNTED
RC	CARNES	RSABH	8" X 6"	10" X 8"	STEEL	RETURN	WHITE, SIDEWALL MOUNTED
EA	CARNES	RATAF	8" X 8"	10" X 10"	ALUMINUM	RETURN	WHITE, GYPSUM BOARD CEILING

* OR APPROVED EQUAL

COORDINATE BORDER TYPE WITH THE CEILING TYPE. SEE ARCH SHEETS
PROVIDE CUT SHEETS TO OWNER/ARCH. PRIOR TO ORDERING.

OA SCHEDULE

OUTDOOR VENTILATION AIR PROVIDED PER TABLE 403.3 NCSBC MECHANICAL CODE.

APPLICATION	SQUARE FOOTAGE (SF)	AREA OUTDOOR AIR FLOW RATE (CFM/SF)	PEOPLE OUTDOOR AIR FLOW RATE (CFM/PERSON)	OCCUPANCY DENSITY RATE (# PEOPLE/ 1000SF)	OCCUPNCY (# PEOPLE)	AREA OUTDOOR AIR FLOW (CFM)	PEOPLE OUTDOOR AIR FLOW (CFM)	TOTAL (CFM)
OFFICE	7956	0.06	5	5	40	477	200	677
CORRIDOR	2202	0.06	–	–	–	132	–	132
STORAGE	1285	0.12	–	–	–	154	–	154
TRAINING/AUDITORIUM	2123	0.06	5	150	200*	187	1000	1087
CONFERENCE	2871	0.06	5	50	66 *	172	330	502
GYM/WORKOUT	1025	0.12	20	10	10	62	200	262
TOTAL REQUIRED								2814

OUTDOOR AIR PROVIDED FROM EACH HVAC UNIT **

HVAC UNIT	OUTDOOR AIR (CFM)
GPU-1	1100
GPU-2	250
GPU-3	450
GPU-4	500
GPU-5	300
GPU-6	250
TOTAL PROVIDED	2850

APPLICATION	CFM
TOILETS	70 CFM/FLUSHING FIXTURE

11 FLUSHING FIXTURE X 70 CFM = 770 CFM

EXHAUST PROVIDED BY (4) FOUR EXHAUST FANS, MAKE UP AIR BY TRANSFER AIR

APPLICATION	CFM
SHOWER	50 CFM/SHOWER FIXTURE

4 SHOWER FIXTURE X 50 CFM = 200 CFM

EXHAUST PROVIDED BY (1) ONE EXHAUST FANS, MAKE UP AIR BY TRANSFER AIR

*ACTUAL OCCUPANCY PER BUILDING TENANT AS ALLOWED BY 2018 NCSBC: MECHANICAL CODE, SECTION 403.3.1.1, EXCEPTION.

** SET OUTDOOR AIR DAMPER CONTROLS TO PROVIDE OUTDOOR AIR AS INDICATED IN THIS SCHEDULE.

LEGEND – MECHANICAL

- 12 X 8 — RECTANGULAR DUCTWORK. INSIDE CLEAR DIMENSION INDICATED (WIDTH X HEIGHT)
- FLEXIBLE DUCTWORK
- 12" DIA. — ROUND GALVANIZED STEEL DUCT INSIDE CLEAR DIMENSION INDICATED.
- DUCT MOUNTED SUPPLY AIR DIFFUSER
- SUPPLY DIFFUSER
- RETURN GRILLE
- T AHU-1 — WALL MOUNTED THERMOSTAT (UNIT SERVED IS INDICATED)
- X / XXX — GRILLE TYPE / MIN. CFM
- D—D — CONDENSATE PIPING
- R—R — REFRIGERANT PIPING
- SD — DUCT TYPE SMOKE DETECTOR
- FD — FIRE DAMPER
- 2-HOUR FIRE BARRIER

APPENDIX B

2018 BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS

MECHANICAL DESIGN
(PROVIDE ON THE MECHANICAL SHEETS IF APPLICABLE)
MECHANICAL SUMMARY

MECHANICAL SYSTEMS, SERVICE SYSTEM AND EQUIPMENT

Thermal Zone

winter dry bulb 23F
summer dry bulb 98F

Interior Design Conditions

winter dry bulb 72F
summer dry bulb 75F
relative humidity 50%

Building Heating Load 288,700 BTU/hr

Building Cooling Load 421,800 BTU/hr

Mechanical Spacing Conditioning System

Unitary – The tenant space is served the following systems:
(1) 3 Ton roof-top gas package unit with dx cooling.
(1) 4 Ton roof-top gas package unit with dx cooling.
(2) 5 Ton roof-top gas package units with dx cooling.
(1) 6 Ton roof-top gas package unit with dx cooling.
(1) 12.5 Ton roof-top gas package unit with dx cooling.
(1) 1.6 TON ductless split system heat pump with (2) indoor fan coil units.

Boiler – Not applicable to this project.

Chiller – Not applicable to this project.

Equipment efficiencies

Efficiencies and outputs are listed on equipment schedules – See drawings.

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COLUMBUS COUNTY
SHERIFF'S DEPARTMENT
WHITEVILLE, NORTH CAROLINA

12/17/24
NORTH CAROLINA REGISTERED PROFESSIONAL SEAL 22038 ENGINEER BENJAMIN E BURKE

HVAC SCHEDULES

23029

ISSUED:	12/17/2024
DWG BY:	WBE
CKD BY:	BEB
REVISIONS	

SHEET NO.
M-1

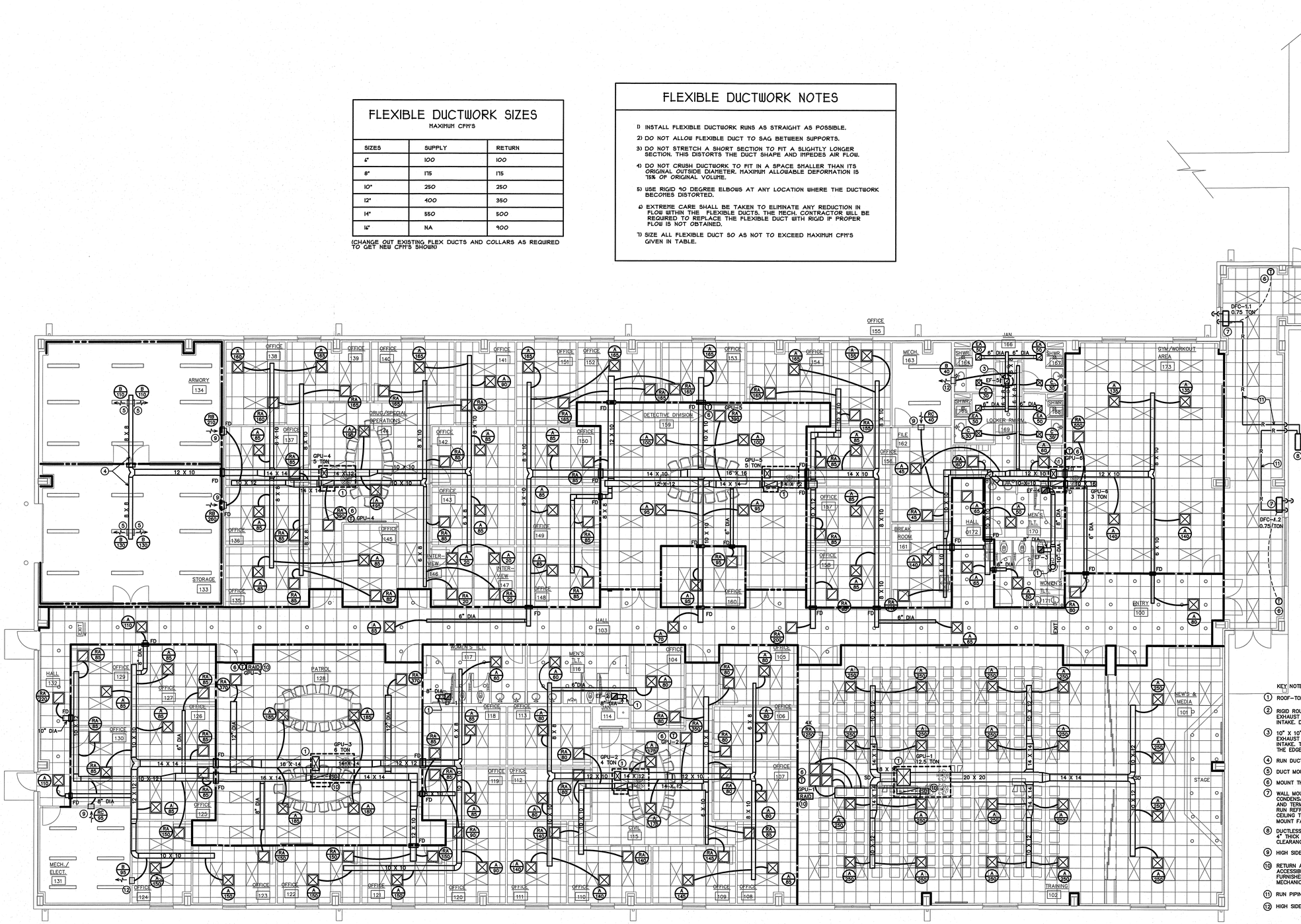
FLEXIBLE DUCTWORK SIZES
MAXIMUM CFM'S

SIZES	SUPPLY	RETURN
6"	100	100
8"	175	175
10"	250	250
12"	400	350
14"	550	500
16"	NA	900

(CHANGE OUT EXISTING FLEX DUCTS AND COLLARS AS REQUIRED TO GET NEW CFM'S SHOWN)

FLEXIBLE DUCTWORK NOTES

1) INSTALL FLEXIBLE DUCTWORK RUNS AS STRAIGHT AS POSSIBLE.
2) DO NOT ALLOW FLEXIBLE DUCT TO SAG BETWEEN SUPPORTS.
3) DO NOT STRETCH A SHORT SECTION TO FIT A SLIGHTLY LONGER SECTION. THIS DISTORTS THE DUCT SHAPE AND IMPEDES AIR FLOW.
4) DO NOT CRUSH DUCTWORK TO FIT IN A SPACE SMALLER THAN ITS ORIGINAL OUTSIDE DIAMETER. MAXIMUM ALLOWABLE DEFORMATION IS 15% OF ORIGINAL VOLUME.
5) USE RIGID 90 DEGREE ELBOWS AT ANY LOCATION WHERE THE DUCTWORK BECOMES DISTORTED.
6) EXTREME CARE SHALL BE TAKEN TO ELIMINATE ANY REDUCTION IN FLOW WITHIN THE FLEXIBLE DUCTS. THE MECH. CONTRACTOR WILL BE REQUIRED TO REPLACE THE FLEXIBLE DUCT WITH RIGID IF PROPER FLOW IS NOT OBTAINED.
7) SIZE ALL FLEXIBLE DUCT SO AS NOT TO EXCEED MAXIMUM CFM'S GIVEN IN TABLE.



HVAC PLAN
M-2 SCALE: 1/8" = 1'-0"

KEY NOTES FOR SHEET M2

1. ROOF-TOP GAS PACKAGE HEATING/COOLING UNIT. SEE DETAIL 1/M3.
2. RIGID ROUND EXHAUST DUCT UP TO ROOF MOUNTED EXHAUST CAP. EXHAUST DISCHARGE SHALL BE 10'-0" MIN. FROM ANY OUTSIDE AIR INTAKE. DUCT SIZE INDICATED.
3. 10" X 10" EXHAUST DUCT UP TO NEW ROOF MOUNTED EXHAUST FAN. EXHAUST DISCHARGE SHALL BE 10'-0" MIN. FROM ANY OUTSIDE AIR INTAKE. THE FAN SHALL BE NOT BE CLOSER THAN 6'-0" FROM THE EDGE OF THE ROOF.
4. RUN DUCTWORK EXPOSED OVERHEAD IN THIS ROOM.
5. DUCT MOUNTED SUPPLY AIR REGISTER. SEE DETAIL 2/M3.
6. MOUNT THERMOSTAT AT 48" AFF.
7. WALL MOUNTED DUCTLESS SPLIT SYSTEM INDOOR FAN-COIL UNIT. RUN CONDENSATE PIPING CONCEALED IN WALL DOWN TO 6" AFF. STUB-OUT AND TERMINATE WITH ELBOW TURNED DOWN IN PLANTED AREA. RUN REFRIGERANT PIPING FROM UNIT CONCEALED IN WALLS AND ABOVE CEILING TO DUCTLESS SPLIT SYSTEM OUTDOOR HEAT PUMP UNIT AT GRADE. MOUNT FAN-COIL WITH BOTTOM AT 7'-0" AFF.
8. DUCTLESS SPLIT SYSTEM OUTDOOR HEAT PUMP UNIT MOUNTED ON 4" THICK CONCRETE PAD. PROVIDE ALL MANUFACTURER'S REQUIRED CLEARANCES AROUND UNIT.
9. HIGH SIDE WALL MOUNTED RETURN AIR GRILLE.
10. RETURN AIR MOUNTED DUCT TYPE SMOKE DETECTOR INSTALLED IN ACCESSIBLE LOCATION. PROVIDE DUCT ACCESS DOOR. DETECTOR IS FURNISHED BY FIRE ALARM CONTRACTOR AND INSTALLED BY MECHANICAL CONTRACTOR.
11. RUN PIPING CONCEALED ABOVE CEILING. (TYPICAL).
12. HIGH SIDE WALL MOUNTED SUPPLY AIR REGISTER.

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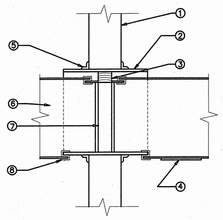
HVAC PLAN

23029

ISSUED:	12/17/2024
DWG BY:	WBE
CKD BY:	BEB

REVISIONS

SHEET NO.
M-2



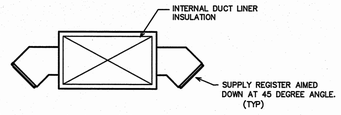
KEY NOTES FOR 3/M-3

1. 2-HOUR RATED GYPSUM BOARD WALL.
2. 14 GALVANIZED STEEL SLEEVE. FASTEN TO FIRE DAMPER FRAME.
3. CURTAIN
4. ACCESS DOOR. TYPICAL AT ALL FIRE DAMPERS.
5. 1-1/2" X 1-1/2" X 1/8" STEEL ANGLE. FASTEN TO SLEEVE.
6. DUCTWORK SIZE VARIES.
7. DYNAMIC FIRE DAMPER.
8. PROVIDE BREAK-AWAY JOINTS AT DUCT CONNECTIONS TO FIRE DAMPER AND SLEEVE.

RATED GYPSUM WALL PENETRATION

NOTE: THIS DETAIL IS FOR GENERAL DESIGN INTENT ONLY. INSTALL FIRE DAMPER PER MANUFACTURERS INSTRUCTIONS.

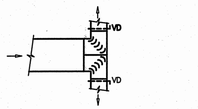
3/M-3 FIRE DAMPER DETAIL
SCALE: NOT TO SCALE



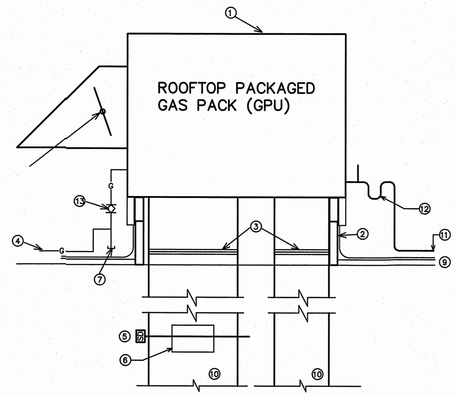
NOTE:

ALL EXPOSED DUCT SHALL HAVE DUCT LINER INSULATION.

2/M-3 DUCT MOUNTED SUPPLY REGISTER DETAIL
SCALE: NOT TO SCALE



4/M-3 DUCT CONSTRUCTION DETAILS
SCALE: NOT TO SCALE



KEY NOTES FOR 1/M-3

1. ROOFTOP NATURAL GAS PACKAGED UNIT PROVIDED MECHANICAL CONTRACTOR.
2. ROOF CURB PROVIDED BY HVAC CONTRACTOR. ALL ROOF WORK SHALL BE DONE LICENSED ROOFING CONTRACTOR HIRED BY THE HVAC CONTRACTOR.
3. FLEXIBLE CONNECTIONS
4. GAS LINE TO UNIT PROVIDED BY PLUMBING CONTRACTOR. FINAL CONNECTION AND START UP BY MECH. CONTRACTOR.
5. INSTALL DUCT SMOKE DETECTOR IN ACCESSIBLE LOCATION. THE DETECTOR SHALL BE PROVIDED BY THE FIRE ALARM CONTRACTOR AND INSTALLED BY THE MECHANICAL CONTRACTOR. SEE SPECIFICATIONS. PROVIDE IN ROOF-TOP UNITS GPU-1 & GPU-3 ONLY.
6. PROVIDE ACCESS DOOR. COORDINATE LOCATION WITH DUCT DETECTOR.
7. 6" DIRT LEG.
8. ECONOMIZER HOOD. SET UNIT CONTROLS TO PROVIDE MINIMUM REQUIRED OUTSIDE AIR WHEN ECONOMIZER IS NOT BEING USED. ECONOMIZER DAMPER SHALL CLOSE WHEN UNIT FAN IS NOT RUNNING.
9. ROOF SYSTEM. COORDINATE TYPE WITH GENERAL CONTRACTOR.
10. DUCT WORK DROP DOWN INTO SPACE AND CONNECT TO BRANCH DUCT. TRANSITION FROM UNIT CONNECTION SIZES TO DUCT SIZES NOTED ON DRAWING.
11. CONDENSATE DRAIN. RUN TO ROOF DRAIN.
12. PROVIDE CONDENSATE DRAIN TRAP. SIZE PER MANUFACTURERS RECOMMENDATIONS.
13. GAS SHUT-OFF VALVE, UNION AND FLEXIBLE HOSE.

1/M-3 TYPICAL GAS PACKAGE ROOF-TOP UNIT DETAIL
SCALE: NOT TO SCALE

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HVAC SPECIFICATIONS & DETAILS

23029

ISSUED:	12/17/2024
DWG BY:	WBE
CKD BY:	BEB

REVISIONS

SHEET NO.
M-3

GENERAL NOTES

1 ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ALL LOCAL CODES HAVING JURISDICTION.

2 ALL BRANCH CIRCUIT CONDUCTORS TO BE COPPER (SERVICE CONDUCTORS MAY BE ALUMINUM WITH SAME AMPACITY AS COPPER CONDUCTORS. RE-SIZE CONDUCTERS AND CONDUIT PER NEC.)

3 ALL CIRCUITS TO BE 2 #12, 1 #12 GND IN 1/2" EMT CONDUIT AS A MINIMUM. PROVIDE WIRING FOR LARGER CIRCUITS AS REQUIRED BY NEC. RIGID CONDUIT IS REQUIRED WHERE EXPOSED BELOW 8'-0" A.F.F.

4 ALL EMPTY CONDUIT RUNS IN EXCESS OF 10 FEET SHALL BE PROVIDED WITH A PULL WIRE OR FISH TAPE/CORD.

5 CONTRACTOR SHALL VERIFY THAT ALL DOOR SWINGS ARE CORRECT BEFORE INSTALLING LIGHT SWITCH OUTLETS.

6 ALL BRANCH CIRCUIT CONDUCTORS FROM THE PANEL TO THE FIRST OUTLET SHALL BE INCREASED TO THE NEXT LARGER SIZE WHERE THE LENGTH OF THE HOME RUN EXCEEDS 120 FEET ON 120V AND 208V CIRCUITS.

7 THE CORRECT NUMBER OF WIRES MAY NOT BE INDICATED FOR ALL CIRCUITS, ONLY THOSE WHERE CLARIFICATION IS NECESSARY. THE ELECTICAL CONTRACTOR SHALL PROVIDE ALL WIRES NECESSARY FOR THE PROPER FUNCTION OF THE SYSTEM WHETHER INDICATED ON DRAWINGS OR NOT.

8 THE CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTLY PHASING THE CIRCUITS IN THE PANELBOARDS.

9 THE ELECTRICAL CONTRACTOR SHALL VERIFY THE TYPE OF CEILING SYSTEM WITH THE GENERAL CONTRACTOR TO INSURE THAT ALL LIGHTING FIXTURES ARE COMPATIBLE WITH THE CEILING SYSTEM BEING INSTALLED. LIGHTING FIXTURES SHOULD NOT BE ORDERED UNTIL TYPE OF CEILING HAS BEEN VERIFIED.

10 ELECTRICAL REQUIREMENTS INDICATED ON DRAWINGS MAY DIFFER FROM ACTUAL EQUIPMENT FURNISHED. IF FURNISHED EQUIPMENT DIFFERS FROM RATINGS ON DRAWINGS CONTRACTOR SHALL NOTIFY ARCHITECT/ENGINEER FOR APPROPRIATE ACTION TO BE TAKEN.

11 IT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO COORDINATE EXACT BREAKER REQUIREMENTS FOR ALL EQUIPMENT PRIOR TO ORDERING PANEL. ADJUST BREAKER AND WIRE SIZES AS REQUIRED.

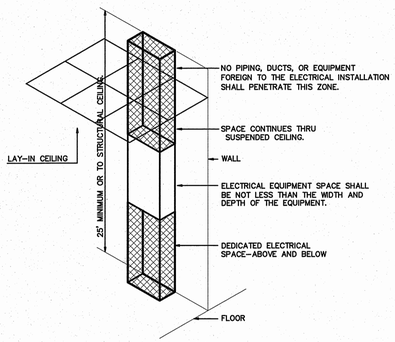
12 PROVIDE BOXES, JACKS, WIRING AND CONDUIT FROM LOCATIONS SHOWN TO MTP LOCATION. VERIFY EXACT REQUIREMENTS WITH OWNER.

13 ELECTRICAL CONTRACTOR SHALL PROVIDE ALL DISCONNECTS FOR MECHANICAL & PLUMBING EQUIPMENT. DISCONNECTS SHALL BE PER MANUFACTURES RECOMMENDATIONS AND FUSED PER NAME PLATE. PROVIDE NEMA 3R ENCLOSURES ON EXTERIOR. COORDINATE FUSE SIZES.

14 THE EC SHALL MEET WITH THE ARCHITECT AND TENANT PRIOR TO INSTALLING OUTLET BOXES TO VERIFY LOCATIONS AND MOUNTING HEIGHTS OF RECEPTACLES AND TELEPHONE OUTLETS.

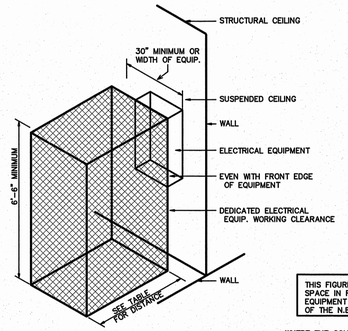
ELECTRICAL LEGEND

X / O_X / X	LIGHT FIXTURE: LETTER DENOTES FIXTURE TYPE (REFER TO LIGHTING PLAN AND FIXTURE SCHEDULE). NL = NIGHT LIGHT (NOT SWITCHED/ALWAYS ON)
U / WP/GFI	DUPLEX RECEPTACLE – 120V; MOUNT 18" TO CENTER AFF UNLESS NOTED OTHERWISE; "WP" INDICATES WEATHER PROOF, "GFI" INDICATES GROUND FAULT CURRENT INTERRUPT PROTECTED. "U" INDICATES RECEPTACLE WITH (2) USB PORTS.
	QUADRAPLEX RECEPTACLE – 120V
	FLOOR OR CEILING OUTLET (AS NOTED) – 120V
	SPECIAL PURPOSE RECEPTACLE – REFER TO POWER PLAN AND PANEL SCHEDULE
S	LIGHT SWITCH
S_M	SWITCH WITH INTEGRAL PIR/US MOTION SENSOR FOR AUTOMATIC SHUT-OFF WITH UP TO 2 HOUR ADJUSTABLE DELAY.
S_D	DIMMABLE LIGHT SWITCH
	MOTOR RATED SWITCH
J	JUNCTION BOX
	TELE/DATA OUTLET – PROVIDE JUNCTION BOX WITH CONDUIT BACK TO MTP. PROVIDE (1) TELEPHONE JACK AND (1) CAT 5 DATA JACK
	SINGLE-POLE HOMERUN TO PANELBOARD
	TWO-POLE OR 3-POLE HOMERUN TO PANELBOARD
EXIT	EXIT LIGHT
	EMERGENCY EGRESS FIXTURE
PC	PHOTOCELL (LED COMPLIANT)
	BRANCH CIRCUIT WIRING
	SWITCH LEG
	GROUND CONNECTION
PANEL A	DISTRIBUTION PANELBOARD
	DISCONNECTING MEANS AS REQUIRED BY CODE



ELECTRICAL EQUIPMENT DEDICATED SPACE
PER ARTICLE 110.26.F.1 OF N.E.C.

1 DEDICATED SPACE
SCALE: NTS



ELECTRICAL EQUIPMENT WORKING CLEARANCE
PER ARTICLE 110-26 OF N.E.C.

WORKING CLEARANCES			
VOLTAGE TO GROUND NOMINAL	MIN. CLEAR DISTANCE IN FEET		
CONDITION:	1	2	3
0–150	3	3	3
151–600	3	3–1/2	4

THIS FIGURE ILLUSTRATES THE WORKING SPACE IN FRONT OF THE ELECTRICAL EQUIPMENT REQUIRED BY SECTION 110–16 OF THE N.E.C.

WHERE THE CONDITIONS ARE AS FOLLOWS:

1 EXPOSED LIVE PARTS ON ONE SIDE AND NO LIVE OR GROUNDED PARTS ON THE OTHER SIDE OF THE WORKING SPACE, OR EXPOSED LIVE PARTS ON BOTH SIDES EFFECTIVELY GUARDED BY SUITABLE WOOD OR INSULATED BUSBARS OPERATING AT NOT OVER 300V SHALL NOT BE CONSIDERED LIVE PARTS.

2 EXPOSED LIVE PARTS ON ONE SIDE AND GROUNDED PARTS ON THE OTHER SIDE.

3 EXPOSED LIVE PARTS ON BOTH SIDES OF THE WORK SPACE (NOT GUARDED AS PROVIDED IN CONDITION 1) WITH THE OPERATOR BETWEEN.

2 ELECTRICAL CLEARANCES
SCALE: NTS

APPENDIX B

2018 BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS

ELECTRICAL DESIGN
(PROVIDE ON THE ELECTRICAL SHEETS IF APPLICABLE)
ELECTRICAL SUMMARY

ELECTRICAL SYSTEM AND EQUIPMENT

Method of Compliance

Energy Code:	Prescriptive	[X]	Energy Cost Budget	[ ]
ASHRAE 90.1:	Prescriptive	[ ]	Energy Cost Budget	[ ]

Lighting Schedule

lamp type required in fixture
number of lamps in fixture
ballast type used in fixture
number of ballasts in fixture
total wattage in fixture
→ See Light Fixture Schedule

total interior wattage specified vs. allowed	13552VA / 16136VA
total exterior wattage specified vs. allowed	586VA / 750VA

Additional Prescriptive Compliance

- [X] 506.2.1 More Efficient Mechanical Equipment
- [ ] 506.2.2 Reduced Lighting Power Density
- [ ] 506.2.3 Energy Recovery Ventilation Systems
- [ ] 506.2.4 Higher Efficiency Service Water Heater
- [ ] 506.2.5 On-Site Supply of Renewable Energy
- [ ] 506.2.6 automatic Daylighting Control System

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ELECTRICAL SPECS

23029

ISSUED: 12/17/2024
DWG BY:
CKD BY:
REVISIONS

SHEET NO.
E1

Columbus City Sheriff's Department, NC

LIGHTING SCHEDULE *

MARK	MANUFACTURER	CATALOG NO.	VOLT.	LAMPS NO.	LAMPS TYPE	LAMPS W	BALLAST TYPE	W/ FIXTURE	REMARKS	
A	COLUMBIA	LCAT24-40HLG-EDU	120	–	LED	–	–	40	2X4 LAY-IN LED FIXTURE	*
B	COLUMBIA	LXEM4-35HL-RFA-EU	120	–	LED	–	–	47	4' ENCLOSED LED GASKETED STRIP	*
C	PRESCOLITE	LTR-6RD-DMI-IC-LTR-6RD-T-SL30K8MD	120	–	LED	–	–	19	6" LED RECESSED CAN FIXTURE	*
E	COMPASS	CUSO	120	–	LED	–	–	17	EXTERIOR NORMAL/EMERGENCY LIGHT FIXTURE- COLOR BY ARCH	*
W	RAB	SLIMFC37N	120	–	LED	–	–	37	FULL CUT OFF WALL PACK	*
V	CHOSEN BY OWNER/ARCH, PROVIDED BY EC		120	–	LED	–	–	60	VANITY FIXURE ($300 EA. ALLOWANCE)	*
EXIT	EXTRONIX	S90OU-WB-SR-R-AG-G2	120	–	LED	–	–	2	LED EXIT SIGN, COLOR BY ARCH	*
EM	EXTRONIX	NF2-WB-1GL-WH-G2	120	–	LED	–	–	10	EMERGENCY LIGHT, BATTERY BACKUP, BATTERY DIAGNOSTICS, COLOR BY ARCH	*
CEM	COMPASS	CU2HL	120	–	LED	–	–	10	CEILING MOUNTED EMERGENCY LIGHT, BATTERY BACKUP, BATTERY DIAGNOSTICS	*

* OR APPROVED EQUAL. PROVIDE CUT SHEETS FOR OWNER APPROVAL PRIOR TO ORDERING FIXTURES. FOR FLUORESCENT FIXTURES CONTROLLED BY MOTION SENSOR, PROVIDE "PROGRAMMED RAPID START" BALLASTS. CATALOG NUMBERS ARE FOR REFERENCE ONLY, ACTUAL NUMBERS MAY VARY. 'EB' DENOTES ELECTRONIC BALLAST. 'EDB' DENOTES ELECTRONIC DIMMING BALLAST.

PROVIDE PHOTOCELL CONTROLS FOR EXTERIOR LIGHTING CIRCUIT.

LOCATE PHOTOCELL AWAY FROM ARTIFICIAL LIGHT. PROVIDE SHIELDING AS REQUIRED.

EXISTING COVERED SIDEWALK

NOTE:
PROVIDE LABELING ON EACH SWITCH NOTING CIRCUIT SERVED.

AUTOMATIC LIGHTING SHUTOFF IS NOT SHOWN IN THE EGRESS PATH LIGHTING AS ALLOWED PER 405.2.1-3 EXCEPTION #3. WHERE AUTOMATIC SHUTOFF WOULD ENDANGER OCCUPANT SAFETY.

TIE ALL EXIT AND EMERGENCY LIGHTS TO NEAREST AVAILABLE UNSWITCHED LIGHTING CIRCUIT IN THE AREA SERVED.

VERIFY HEIGHT/LOCATION OF ALL SWITCHES AND DEVICES PRIOR TO INSTALLATION.

PROVIDE SWITCHED & UN-SWITCHED POWER FROM SAME CIRCUIT FOR ALL TYPE "E" FIXTURES. (TYP)

* MEDIA LIGHTING W/ SUPPORT TRUSS. COORDINATE W/ OWNER. $5000.00 ALLOWANCE FOR COMPLETE SYSTEM.

CEILING-MOUNTED (CM) EMERGENCY LIGHT. COORDINATE EXACT LOCATION WITH HVAC GRILLES (TYP).

ALL WIRING, NEW AND EXISTING SHALL COMPLY WITH NEC 518 IN ASSEMBLY AREAS.

E2 LIGHTING PLAN
SCALE: 1/8" = 1'-0"

Coastal Architecture PLLC

Architectural
Design
Planning
Interiors

AIA
Member of the American Institute of Architects

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COLUMBUS COUNTY SHERIFF'S DEPARTMENT
WHITEVILLE, NORTH CAROLINA

12/17/24
NORTH CAROLINA PROFESSIONAL SEAL 22038 ENGINEER BENJAMIN E BURKE

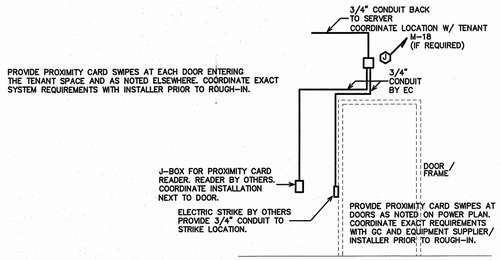
LIGHTING PLAN

23029

ISSUED: 12/17/2024
DWG BY: –
CKD BY: BEB
REVISIONS

SHEET NO.
E2

ENGINEER
BURKE DESIGN GROUP
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RALEIGH, NC 27603
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2 / E3 CARD SWIPE DETAIL
NOT TO SCALE

NOTE:
PROVIDE LABELING ON EACH RECEPTACLE NOTING CIRCUIT SERVED.

VERIFY HEIGHT/LOCATION OF ALL DEVICES PRIOR TO INSTALLATION.

VERIFY GENERATOR LOCATION W/ SITE PLAN & ARCH. PRIOR TO BID

150KVA GENERATOR

METER BASE

ATS

DFC POWERED THROUGH CONTROL WIRING FROM EXTERIOR DHP. WIRING BY MC. (TYP)

DFC-1.1 0.75 TON

DFC-1.2 0.75 TON

EXISTING COVERED SIDEWALK

EXISTING BUILDING

COORDINATE LOCATION AND MOUNTING OF ALL DISCONNECTS AND RECEPTACLES WITH EQUIPMENT SERVED. DO NOT BLOCK ANY ACCESS PANELS OR NAMEPLATE DATA. PROVIDE SEPARATE SUPPORTS IF REQUIRED.

REMOVE ANTENNA& SHED ADD ALT. NO 1

POWER ALL CAMERAS FROM CIRCUT M-16

EWH-2 ABOVE MOP SINK SHOWN FOR CLARITY. VERIFY LOCATION.

VERIFY A WP/GFI RECEPTACLE IS WITHIN 25'-0" OF ALL HVAC EQUIPMENT ON ROOF. IF NOT, PROVIDE.

ARMORY 134 · STORAGE 133 · OFFICE 135 · OFFICE 136 · OFFICE 137 · OFFICE 138 · OFFICE 139 · OFFICE 140 · OFFICE 141 · OFFICE 142 · OFFICE 143 · OFFICE 145 · DRUG/SPECIAL OPERATIONS 144 · INTERVIEW 146 · INTERVIEW 147 · OFFICE 148 · OFFICE 149 · OFFICE 150 · OFFICE 151 · OFFICE 152 · OFFICE 153 · DETECTIVE DIVISION 159 · OFFICE 160 · OFFICE 155 · OFFICE 156 · OFFICE 157 · OFFICE 158 · MECH. 163 · FILE 162 · BREAK ROOM 161 · HALL 172 · JAN. 166 · LOCKER RM. 169 · (14) LOCKERS · MEN'S TLT. 170 · WOMEN'S TLT. 171 · WORKOUT AREA 173 · CONNECTING CORRIDOR 100 · ENTRY 100 · HALL 103 · WOMEN'S TLT. 117 · MEN'S TLT. 116 · OFFICE 104 · OFFICE 105 · OFFICE 106 · OFFICE 107 · OFFICE 108 · OFFICE 109 · OFFICE 110 · OFFICE 111 · OFFICE 112 · OFFICE 113 · OFFICE 118 · OFFICE 119 · OFFICE 120 · OFFICE 121 · OFFICE 122 · OFFICE 123 · OFFICE 124 · OFFICE 125 · OFFICE 126 · OFFICE 127 · OFFICE 129 · OFFICE 130 · MECH./ ELECT. 131 · HALL 132 · PATROL 128 · TRAINING 102 · NEW'S & MEDIA 101 · STAG 114 · CONF. 115 · JAN. 164 · STOR. 167 · STOR. 168 · STOR. 165

PANEL "A" · PANEL "B" · EWH-1 · EF-5 · DHP-1 · GPU-1 · GPU-2 · GPU-3 · GPU-4 · GPU-5 · GPU-6 · NEMA 3R · WP/GFI · GFCI · FB · (CR) · 72" · 44" GFCI

1 / E3 POWER PLAN
SCALE: 1/8" = 1'-0"

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COLUMBUS COUNTY SHERIFF'S DEPARTMENT
WHITEVILLE, NORTH CAROLINA

12/17/24
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 22038 BENJAMIN E. BURKE

POWER PLAN

23029

ISSUED:	12/17/2024
DWG BY:	SWB
CKD BY:	BEB
REVISIONS	

SHEET NO.
E3

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Columbus Cty Sheriff's Department E4

NEW PANEL– 'M'

MAKE: EATON | TYPE: PRL3a OR APPROVED EQUAL | RATING: 208/120V 3 PHASE 4 WIRE | MOUNTING: FLUSH | MINIMUM AIC: VERIFY | MLO MAIN CIRCUIT BREAKER | EQUIPMENT GROUND BUS ☒YES ☐NO | SERVICE ENTRY RATED ☐YES ☒NO

LOAD SERVICE	CKT BRKR	WATTS PER PHASE A	B	C	CKT NO	NEUTRAL A B C	CKT NO	WATTS PER PHASE A	B	C	CKT BRKR	LOAD SERVICE
GPU–1	70A	6252			1		2	3000			35A	EWH–1
.			6252		3		4		3000			.
.				6252	5		6			3000		.
GPU–2	30A	2436			7		8	2500			30A	EWH–2
.			2436		9		10		1789		20A	DHP–1
.				2436	11		12			1789		.
GPU–3	50A	3336			13		14	156			20A	LTS – MEDIA
.			3336		15		16		1000		20A	CAMERAS
.				3336	17		18			1000	20A	CARD READERS
GPU–4	40A	2904			19		20	500			20A	EF–5 (S)
.			2904		21		22		360		20A	REC – SERVER
.				2904	23		24			360	20A	REC – SERVER
GPU–5	40A	2904			25		26	----			20A	SPARE
.			2904		27		28		----		20A	SPARE
.				2904	29		30			----	20A	SPARE
GPU–6	25A	1992			31		32	----			20A	SPARE
.			1992		33		34		----		20A	SPARE
.				1992	35		36			----	20A	SPARE
PANEL 'A'	200A	10263			37		38	11650				PANEL 'B'
.			12568		39		40		9969		200A	.
.				10880	41		42			11200		.
NOTES	SUB–TOTALS 'B'	30984	31164	31524		400A BUS	13400	14831	12665		SUB–TOTALS 'A'	
(S) SWITCH RATED BREAKER						400A LUGS	30984	31164	31524		SUB–TOTALS 'B'	TOTAL CONNECTED LOAD
						400A FEED	44384	45995	44189		GRAND TOTAL	
						VERIFY SIZE	370A	384A	369A		AMPS/PHASE	

NEC ALLOWABLE DEMAND FACTORS

1. DEMAND FACTORS PER NEC 220
2. LARGEST OF: NEC TABLE 220.12 OR CONNECTED LOAD
3. NEC TABLE 220.56
4. NEC 220.51
5. NEC 220.43A, 200 VA/LINEAR FT
6. NON–COINCIDENT LOADS, LARGEST OF THE TWO LOADS IS COUNTED

DIVERSIFIED LOAD SUMMARY

LOAD TYPE		DEMAND FACTOR①	A	B	C	TOTAL DIVERSIFIED LOAD
GENERAL LIGHTING	②	125%	1350	0	0	1350
TRACK LIGHTING		125%	----	----	----	----
GENERAL USE		≤10KVA@120V	14040	15300	16020	45360
RECEPTACLES		>10KVA@120V	----	----	----	----
MOTORS AND EQUIPMENT	LARGEST	125%	2940	2940	2940	8820
	ALL OTHERS	100%	17472	19536	19536	56544
WATER HEATERS		125%	5813	3750	3750	13313
KITCHEN EQUIPMENT	⑤	100%	1000	1800	----	2800
FIX. ELEC. SPACE HEAT.	⑥	100%	----	----	----	----
SHOW WINDOW LIGHTS	⑥	125%	----	----	----	----
SIGN		125%	----	----	----	----
MISC		100%	888	----	----	888
PHASE (TOTAL VA)			43503	43326	42246	129075
		TOTAL AMPS	363A	362A	353A	VOLT AMPS / VOLTS X 1.732 = 359A TOTAL AMPS

Columbus Cty Sheriff's Department E4

NEW PANEL– 'A'

MAKE: EATON | TYPE: PRL1a OR APPROVED EQUAL | RATING: 208/120V 3 PHASE 4 WIRE | MOUNTING: FLUSH | MINIMUM AIC: VERIFY | MLO MAIN CIRCUIT BREAKER | EQUIPMENT GROUND BUS ☒YES ☐NO | SERVICE ENTRY RATED ☐YES ☒NO

LOAD SERVICE	CKT BRKR	WATTS PER PHASE A	B	C	CKT NO	NEUTRAL A B C	CKT NO	WATTS PER PHASE A	B	C	CKT BRKR	LOAD SERVICE
REC HALLWAY	20A	1080			1		2	180			20A	REC 165
REC 148,160	20A		1080		3		4		180		20A	REC 168
REC 149,150	20A			1080	5		6			180	20A	REC 167
REC 152,153	20A	1080			7		8	180			20A	REC GYM
REC 154,155	20A		1080		9		10		180		20A	REC GYM
REC 156,157	20A			1080	11		12			180	20A	REC GYM
REC 158,161	20A	900			13		14	720			20A	REC GYM
REC 104,105	20A		1080		15		16		720		20A	REC GYM
REC 106,107	20A			1080	17		18			540	20A	REC CORRIDOR
REC 108,109	20A	1080			19		20	540			20A	REC TRAIN
REC 110,111	20A		1080		21		22		540		20A	REC TRAIN
REC 113,112	20A			720	23		24			720	20A	REC TRAIN
REC DETECT.	20A	720			25		26	540			20A	REC TRAIN
(G) FRIDGE	20A		1800		27		28		1080		20A	REC STAGE
MICROWAVE	20A			1800	29		30			360	20A	REC STAGE
REC COUNTERTOP	20A	180			31		32	540			20A	REC CIVIL
REC 163,162	20A		900		33		34		900		20A	REC CIVIL
REC HALLWAY	20A			360	35		36			1520	20A	LTS – DETECTIVE
(G) WATER FOUNTAIN	20A	1080			37		38	1635			20A	LTS – RR & LOCKERS
REC RR	20A		360		39		40		1588		20A	LTS – TRAINING
REC 164	20A			180	41		42			1080	20A	LTS – GYM & CORRIDOR
NOTES	SUB–TOTALS 'B'	5928	7380	6300		200A BUS	4335	5188	4580		SUB–TOTALS 'A'	
(G) GFCI BREAKER						200A LUGS	5928	7380	6300		SUB–TOTALS 'B'	TOTAL CONNECTED LOAD
						200A FEED	10263	12568	10880		GRAND TOTAL	
						VERIFY SIZE	86A	105A	91A		AMPS/PHASE	

NEC ALLOWABLE DEMAND FACTORS

1. DEMAND FACTORS PER NEC 220
2. LARGEST OF: NEC TABLE 220.12 OR CONNECTED LOAD
3. NEC TABLE 220.56
4. NEC 220.51
5. NEC 220.43A, 200 VA/LINEAR FT
6. NON–COINCIDENT LOADS, LARGEST OF THE TWO LOADS IS COUNTED

DIVERSIFIED LOAD SUMMARY

LOAD TYPE		DEMAND FACTOR①	A	B	C	TOTAL DIVERSIFIED LOAD
GENERAL LIGHTING	②	125%	2044	1985	3250	7279
TRACK LIGHTING		125%	----	----	----	----
GENERAL USE		≤10KVA@120V	3333	3333	3333	9999
RECEPTACLES		>10KVA@120V	2204	2924	1574	6702
MOTORS AND EQUIPMENT	LARGEST	125%	----	----	----	----
	ALL OTHERS	100%	----	----	----	----
WATER HEATERS		125%	----	----	----	----
KITCHEN EQUIPMENT	⑤	100%	----	1800	1800	3600
FIX. ELEC. SPACE HEAT.	⑥	100%	----	----	----	----
SHOW WINDOW LIGHTS	⑥	125%	----	----	----	----
SIGN		125%	----	----	----	----
MISC		100%	888	----	----	888
PHASE (TOTAL VA)			8469	10042	9957	28468
		TOTAL AMPS	71A	84A	83A	VOLT AMPS / VOLTS X 1.732 = 80A TOTAL AMPS

Columbus Cty Sheriff's Department E4

NEW PANEL– 'B'

MAKE: EATON | TYPE: PRL1a OR APPROVED EQUAL | RATING: 208/120V 3 PHASE 4 WIRE | MOUNTING: FLUSH | MINIMUM AIC: VERIFY | MLO MAIN CIRCUIT BREAKER | EQUIPMENT GROUND BUS ☒YES ☐NO | SERVICE ENTRY RATED ☐YES ☒NO

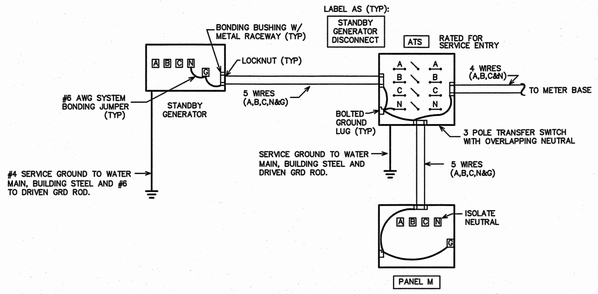
LOAD SERVICE	CKT BRKR	WATTS PER PHASE A	B	C	CKT NO	NEUTRAL A B C	CKT NO	WATTS PER PHASE A	B	C	CKT BRKR	LOAD SERVICE
REC 134	20A	1080			1		2	720			20A	REC DRUG/ SPEC
REC 133	20A		1080		3		4		900		20A	REC OUTDOORS
REC HALLWAY	20A			1080	5		6			900	20A	REC OUTDOORS
REC 129,130	20A	1080			7		8	1080			20A	REC 113,112
REC MECH/ELEC.	20A		720		9		10		1383		20A	LTS – HALL, ARMORY, OFFICES
REC 127,126	20A			1080	11		12			1360	20A	LTS – PATROL & OFFICES
REC 125,124	20A	1080			13		14	1152			20A	LTS – OFFICE & RR
REC 123,122	20A		1080		15		16		1160		20A	LTS – CIVIL
REC 121,120	20A			1080	17		18			1200	20A	LTS – DRUG/SPEC OPS
REC 118,119	20A	1080			19		20	1318			20A	LTS – MAIN HALL
REC RR	20A		360		21		22		586		20A	LTS – EXTERIOR
REC 138,137	20A			1080	23		24			1080	20A	REC – ROOF
REC 136,135	20A	1080			25		26	----			20A	SPARE
REC 145	20A		720		27		28		----		20A	SPARE
REC INTERVIEW	20A			720	29		30			----	20A	SPARE
REC 142,143	20A	1080			31		32	----			20A	SPARE
REC 141,151	20A		1080		33		34		----		20A	SPARE
REC 139,140	20A			1080	35		36			----	20A	SPARE
REC PATROL	20A	900			37		38	----			20A	SPARE
REC PATROL	20A		900		39		40		----		20A	SPARE
REC DRUG/ SPEC	20A			540	41		42			----	20A	SPARE
NOTES	SUB–TOTALS 'B'	7380	5940	6660		200A BUS	4270	4029	4540		SUB–TOTALS 'A'	
						200A LUGS	7380	5940	6660		SUB–TOTALS 'B'	TOTAL CONNECTED LOAD
						200A FEED	11650	9969	11200		GRAND TOTAL	
						VERIFY SIZE	98A	84A	94A		AMPS/PHASE	

NEC ALLOWABLE DEMAND FACTORS

1. DEMAND FACTORS PER NEC 220
2. LARGEST OF: NEC TABLE 220.12 OR CONNECTED LOAD
3. NEC TABLE 220.56
4. NEC 220.51
5. NEC 220.43A, 200 VA/LINEAR FT
6. NON–COINCIDENT LOADS, LARGEST OF THE TWO LOADS IS COUNTED

DIVERSIFIED LOAD SUMMARY

LOAD TYPE		DEMAND FACTOR①	A	B	C	TOTAL DIVERSIFIED LOAD
GENERAL LIGHTING	②	125%	3088	3912	3200	10200
TRACK LIGHTING		125%	----	----	----	----
GENERAL USE		≤10KVA@120V	3333	3333	3333	9999
RECEPTACLES		>10KVA@120V	2924	1754	2654	7332
MOTORS AND EQUIPMENT	LARGEST	125%	----	----	----	----
	ALL OTHERS	100%	----	----	----	----
WATER HEATERS		125%	----	----	----	----
KITCHEN EQUIPMENT	⑤	100%	----	----	----	----
FIX. ELEC. SPACE HEAT.	⑥	100%	----	----	----	----
SHOW WINDOW LIGHTS	⑥	125%	----	----	----	----
SIGN		125%	----	----	----	----
MISC		100%	----	----	----	----
PHASE (TOTAL VA)			9345	8999	9187	27531
		TOTAL AMPS	78A	75A	77A	VOLT AMPS / VOLTS X 1.732 = 77A TOTAL AMPS



NOTES:
1) GENERATOR NEUTRAL MUST BE BONDED AND GROUNDED.
2) GENERATOR SHALL BE SUPPLIED WITH MAIN CIRCUIT BREAKER.
3) ALL GROUNDING AND BONDING SHALL BE PER NEC SECTION 250.

NOTE: PROVIDE PHENOLIC PLASTIC PLAQUES AT GENERATOR AND AT 400A PANEL M.
THE PLAQUES SHOULD READ "ATS SWITCHES NEUTRAL. THE NEUTRAL IS GROUNDED AND BONDED AT GENERATOR."

(2/E-4) 3 PHASE GENERATOR GROUNDING
SCALE: NTS

Columbus Cty Sheriff's Department E4

EQUIPMENT WIRING SCHEDULE

EQUIPMENT	MCA	MOCP	VOLTS	PH	WIRE SIZE
GPU–1	52.8A	70A	208V	3	3–#4, 1–#8 GND IN 1 1/4" CONDUIT
GPU–2	34.2A	30A	208V	3	3–#10, 1–#10 GND IN 3/4" CONDUIT
GPU–3	44.7A	50A	208V	3	3–#8, 1–#10 GND IN 3/4" CONDUIT
GPU–4	28.5A	40A	208V	3	3–#8, 1–#10 GND IN 3/4" CONDUIT
GPU–5	14.0A	40A	208V	3	3–#8, 1–#10 GND IN 3/4" CONDUIT
GPU–6	14.0A	25A	208V	3	3–#10, 1–#10 GND IN 3/4" CONDUIT
EWH–1	(9KW)	35A	208V	3	3–#8, 1–#10 GND IN 3/4" CONDUIT
EWH–2	(2.5KW)	30A	120V	1	2–#10, 1–#10 GND IN 3/4" CONDUIT
DHP–1	17.2A	20A	208V	1	2–#12, 1–#12 GND IN 1/2" CONDUIT

NOTE:
THE ELECTRICAL CONTRACTOR SHALL VERIFY ALL EQUIPMENT ELECTRICAL REQUIREMENTS PRIOR TO ROUGH–IN AND RELEASING GEAR. ADJUST BREAKER, WIRE SIZES, ETC. AS REQUIRED.

Columbus Cty Sheriff's Department E4

(ATS) AUTOMATIC TRANSFER SWITCH SCHEDULE

ATS–1 "STAND–BY" * ASCO MODEL# J07AUSB304000C50N, AUTOMATIC TRANSFER SWITCH, SERVICE ENTRY RATED WITH DISCONNECTING MEANS. 400 AMP, 208/120 VOLT, 3 PHASE WITH NEMA 3R ENCLOSURE. PROVIDE GFI PROTECTION.

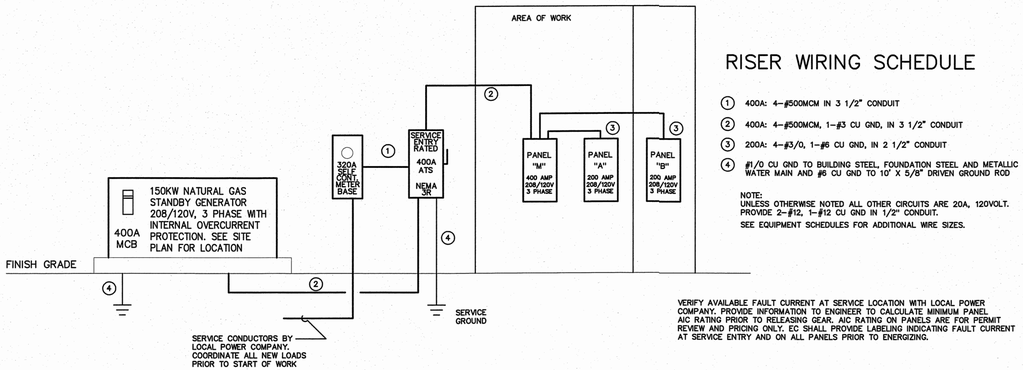
* OR APPROVED EQUAL

STANDBY GENERATOR SCHEDULE

150 KW NATURAL GAS FUELED STANDBY GENERATOR

PROVIDE A "CAT" MODEL DG150 STANDBY GENERATOR WITH (1) SERVICE ENTRY RATED AUTOMATIC TRANSFER SWITCH. THE GENERATOR SHALL BE CAPABLE OF RUNNING ON NATURAL GAS FUEL WITH A 72 HOUR MIN RUN CAPACITY. PROVIDE ALL ACCESSORIES AS REQUIRED FOR A COMPLETE OPERATING SYSTEM. THE ENGINE SHALL BE A 9.1L V8, 4 CYCLE AND TURBOCHARGED WITH AN ENCLOSED MUFFLER. THE DELIVERY VOLTAGE SHALL BE 208/120 VOLT, 3 PHASE. PROVIDE 10A DUAL RATE BATTERY CHARGER, AUTOMATIC VOLTAGE REGULATOR, AUTOMATIC LOW OIL PRESSURE AND HIGH TEMPERATURE SHUTDOWN. THE AUTOMATIC TRANSFER SWITCH SHALL TRANSFER FROM THE UTILITY AUTOMATICALLY WITH–IN 30 SECONDS. PROVIDE A SERVICE RATED DISCONNECTING MEANS WITH OVERCURRENT PROTECTION AT THE GENERATOR LOCATION OR WITH–IN SIGHT. PROPERLY GROUND THE GENERATOR AND SERVICE EQUIPMENT PER THE NEC. PROVIDE INITIAL START UP AND OWNER TRAINING. PROVIDE AN ADJUSTABLE 7–DAY/24–HOUR EXERCISE TIMER. PROVIDE A DIGITAL CONTROL PANEL, UNIT VIBRATION ISOLATION, AND A LEVEL 1 ACOUSTIC WEATHER PROTECTIVE ENCLOSURE. PROVIDE A LOAD TEST, START–UP AND OWNER TRAINING BY THE GENERATOR MANUFACTURER'S FACTORY TRAINED REPRESENTATIVE.

* OR APPROVED EQUAL



RISER WIRING SCHEDULE

1. 400A: 4–#500MCM IN 3 1/2" CONDUIT
2. 400A: 4–#500MCM, 1–#3 CU GND, IN 3 1/2" CONDUIT
3. 200A: 4–#3/0, 1–#6 CU GND, IN 2 1/2" CONDUIT
4. #1/0 CU GND TO BUILDING STEEL, FOUNDATION STEEL AND METALLIC WATER MAIN AND #6 CU GND TO 10' X 5/8" DRIVEN GROUND ROD

NOTE:
UNLESS OTHERWISE NOTED ALL OTHER CIRCUITS ARE 20A, 120VOLT. PROVIDE 2–#12, 1–#12 CU GND IN 1/2" CONDUIT.
SEE EQUIPMENT SCHEDULES FOR ADDITIONAL WIRE SIZES.

VERIFY AVAILABLE FAULT CURRENT AT SERVICE LOCATION WITH LOCAL POWER COMPANY. PROVIDE INFORMATION TO ENGINEER TO CALCULATE MINIMUM PANEL AIC RATING PRIOR TO RELEASING GEAR. AIC RATING ON PANELS ARE FOR PERMIT REVIEW AND PRICING ONLY. EC SHALL PROVIDE LABELING INDICATING FAULT CURRENT AT SERVICE ENTRY AND ON ALL PANELS PRIOR TO ENERGIZING.

(1/E-4) ELECTRICAL SERVICE RISER
SCALE: NTS

ENGINEER
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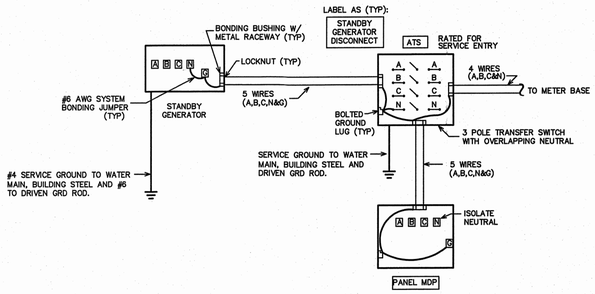
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COLUMBUS COUNTY SHERIFF'S OFFICE
WHITEVILLE, NORTH CAROLINA

12/17/24
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 22039 BENJAMIN E. BURKE
PANELS & RISER

23029
ISSUED: 12/17/2024
DWG BY:
CKD BY:
REVISIONS

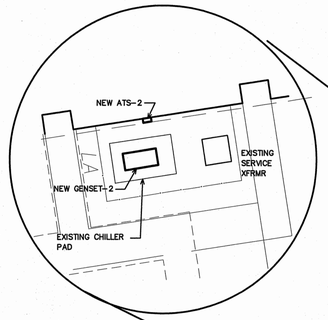
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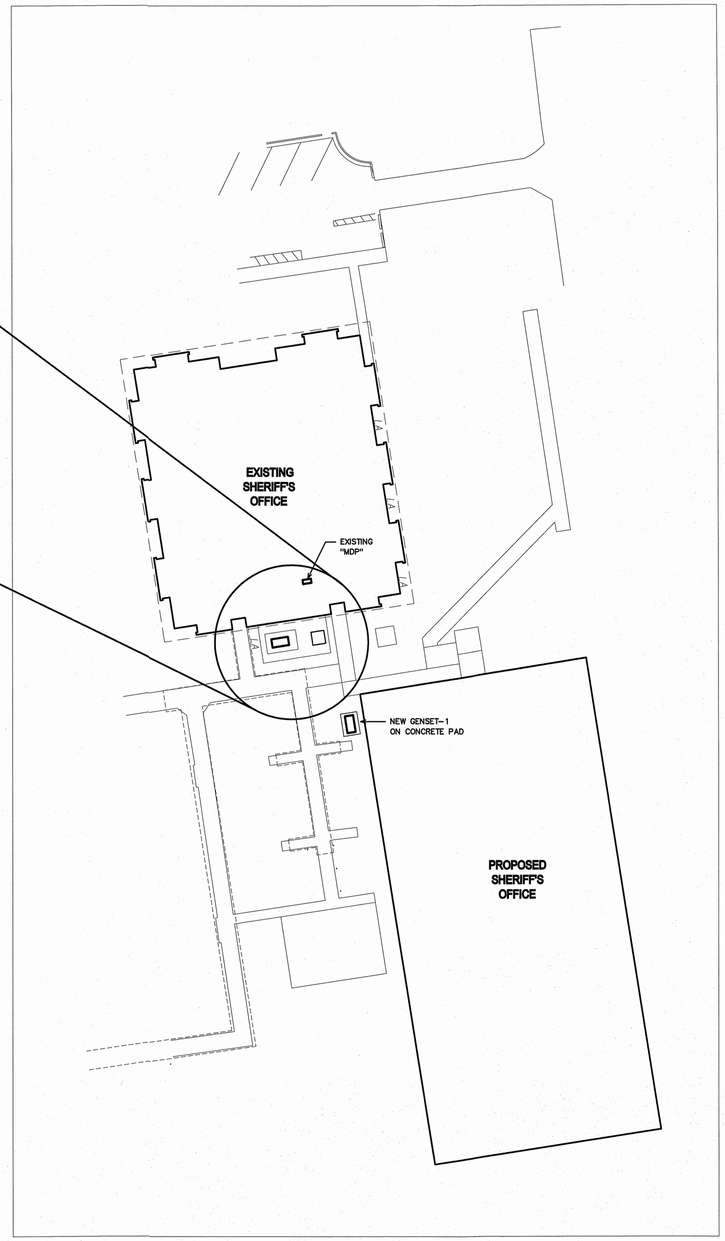


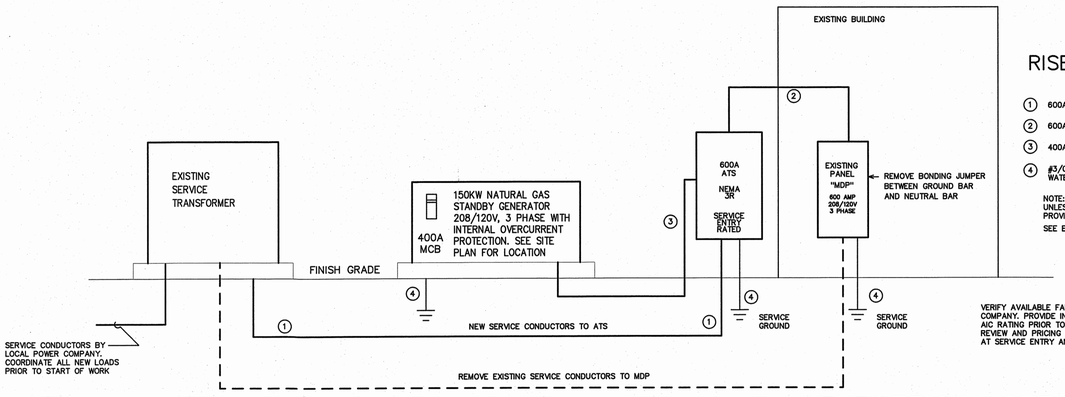
NOTES:
1) GENERATOR NEUTRAL MUST BE BONDED AND GROUNDED.
2) GENERATOR SHALL BE SUPPLIED WITH MAIN CIRCUIT BREAKER.
3) ALL GROUNDING AND BONDING SHALL BE PER NEC SECTION 250.

NOTE: PROVIDE PHENOLIC PLASTIC PLAQUES AT GENERATOR AND AT 400A PANEL M.
THE PLAQUES SHOULD READ "ATS SWITCHES NEUTRAL. THE NEUTRAL IS GROUNDED AND BONDED AT GENERATOR."

(2/E-1) 3 PHASE GENERATOR GROUNDING
SCALE: NTS







(1/E-1) ELECTRICAL SERVICE RISER
SCALE: NTS

RISER WIRING SCHEDULE

1. 600A: (2 PAIR) 4–#350MCM IN (2) 2 1/2" CONDUIT(S)
2. 600A: (2 PAIR) 4–#350MCM, 1 3/0 IN (2) 3" CONDUIT(S)
3. 400A: 4–#500MCM, 1–500MCM N IN 4" CONDUIT
4. #3/0 CU GND TO BUILDING STEEL, FOUNDATION STEEL AND METALLIC WATER MAIN AND #6 CU GND TO 10' X 5/8" DRIVEN GROUND ROD

NOTE:
UNLESS OTHERWISE NOTED ALL OTHER CIRCUITS ARE 20A, 120VOLT.
PROVIDE 2–#12, 1–#12 CU GND IN 1/2" CONDUIT.
SEE EQUIPMENT SCHEDULES FOR ADDITIONAL WIRE SIZES.

VERIFY AVAILABLE FAULT CURRENT AT SERVICE LOCATION WITH LOCAL POWER COMPANY. PROVIDE INFORMATION TO ENGINEER TO CALCULATE MINIMUM PANEL AIC RATING PRIOR TO RELEASING GEAR. AIC RATING ON PANELS ARE FOR PERMIT REVIEW AND PRICING ONLY. EC SHALL PROVIDE LABELING INDICATING FAULT CURRENT AT SERVICE ENTRY AND ON ALL PANELS PRIOR TO ENERGIZING.

Columbus Cty Sheriff's Department Ext-1

(ATS) AUTOMATIC TRANSFER SWITCH–2 SCHEDULE

ATS–2 "STAND–BY"	*	ASCO MODEL# J07AUSB30600C50N, AUTOMATIC TRANSFER SWITCH, SERVICE ENTRY RATED WITH DISCONNECTING MEANS. 600 AMP, 208/120 VOLT, 3 PHASE WITH NEMA 3R ENCLOSURE. PROVIDE GFI PROTECTION.

* OR APPROVED EQUAL

STANDBY GENERATOR–2 SCHEDULE

150 KW NATURAL GAS FUELED STANDBY GENERATOR–2 (EXISTING SHERIFFS DEPARTMENT BUILDING)

PROVIDE A "CAT" MODEL DG150 STANDBY GENERATOR WITH (1) SERVICE ENTRY RATED AUTOMATIC TRANSFER SWITCH. THE GENERATOR SHALL BE CAPABLE OF RUNNING ON NATURAL GAS FUEL WITH A 72 HOUR MIN RUN CAPACITY. PROVIDE ALL ACCESSORIES AS REQUIRED FOR A COMPLETE OPERATING SYSTEM. THE ENGINE SHALL BE A 9.1L V8, 4 CYCLE AND TURBOCHARGED WITH AN ENCLOSED MUFFLER. THE DELIVERY VOLTAGE SHALL BE 208/120 VOLT, 3 PHASE. PROVIDE 10A DUAL RATE BATTERY CHARGER, AUTOMATIC VOLTAGE REGULATOR, AUTOMATIC LOW OIL PRESSURE AND HIGH TEMPERATURE SHUTDOWN. THE AUTOMATIC TRANSFER SWITCH SHALL TRANSFER FROM THE UTILITY AUTOMATICALLY WITH–IN 30 SECONDS. PROVIDE A SERVICE RATED DISCONNECTING MEANS WITH OVERCURRENT PROTECTION AT THE GENERATOR LOCATION OR WITH–IN SIGHT. PROPERLY GROUND THE GENERATOR AND SERVICE EQUIPMENT PER THE NEC. PROVIDE INITIAL START UP AND OWNER TRAINING. PROVIDE AN ADJUSTABLE 7–DAY/24–HOUR EXERCISE TIMER. PROVIDE A DIGITAL CONTROL PANEL, UNIT VIBRATION ISOLATION, AND A LEVEL 1 ACOUSTIC WEATHER PROTECTIVE ENCLOSURE. PROVIDE A LOAD TEST, START–UP AND OWNER TRAINING BY THE GENERATOR MANUFACTURER'S FACTORY TRAINED REPRESENTATIVE.

* OR APPROVED EQUAL

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COLUMBUS COUNTY SHERIFF'S OFFICE
WHITEVILLE, NORTH CAROLINA

12/17/24
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 22038 BENJAMIN E BURK

EXISTING BLD GENSET

23029

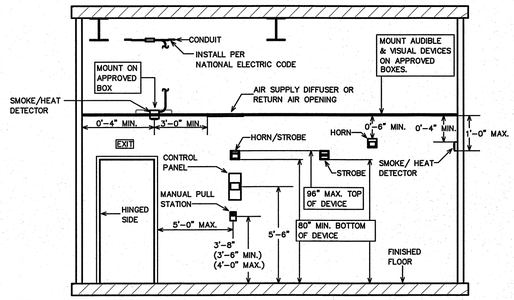
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SHEET NO.
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FIRE ALARM LEGEND

- HORN/STROBE SIGNALING DEVICE — (XX) CANDELLA RATING; (S) INDICATES STROBE-ONLY
- PULL STATION
- SMOKE DETECTOR
- HEAT DETECTOR
- DUCT SMOKE DETECTOR
- FACP — FIRE ALARM CONTROL PANEL
- KNRU — HOOD FIRE SUPRESSION SYSTEM
- ELECTRIC BELL (EXTERIOR)
- FLOW/TAMPER SWITCH

SYSTEM INPUTS		SYSTEM OUTPUTS: FACP ANNUNCIATION												NOTIFICATION									REQUIRED FIRE SAFETY CONTROL												
		A: ACTUATE COMMON ALARM SIGNAL INDICATOR	B: ACTUATE AUDIBLE ALARM SIGNAL	C: ACTUATE COMMON SUPERVISORY SIGNAL INDICATOR	D: ACTUATE AUDIBLE SUPERVISORY SIGNAL	E: ACTUATE COMMON TROUBLE SIGNAL INDICATOR	F: ACTUATE AUDIBLE TROUBLE SIGNAL	G: ACTUATE ZONE OR DEVICE ADDRESS ALARM INDICATOR	H: ACTUATE GENERAL EVACUATION SIGNAL	I: DISPLAY CHANGE OF STATUS	J: TRANSMIT FIRE ALARM SIGNAL TO CENTRAL STATION	K: TRANSMIT SUPERVISORY SIGNAL TO CENTRAL STATION	L: TRANSMIT TROUBLE SIGNAL TO CENTRAL STATION	M: RELEASE MAGNETICALLY HELD DOORS	N: RECALL ELEVATOR TO RECALL FLOOR	O: RECALL ELEVATOR TO ALTERNATE RECALL FLOOR	P: ACTUATE WARNING TO ELEVATOR CABS	Q: DELAYED REMOVAL OF POWER FROM ELEVATOR	R: CLOSE ALL SMOKE DAMPERS	S: UNLOCK EXITS AND CONTROL DOORS	T: SHUT DOWN RESPECTIVE AIR HANDLING EQUIPMENT	U: ACTUATE FLOOR PRESSURIZATION	V: ACTUATE STAIRWELL PRESSURIZATION	W: ACTUATE SMOKE EXHAUST	X	Y	
1	FIRE ALARM SYSTEM AC POWER FAILURE			●	●						●																								1
2	FIRE ALARM SYSTEM LOW BATTERY					●	●					●																								2
3	OPEN CIRCUIT					●	●					●																								3
4	GROUND FAULT					●	●					●																								4
5	NOTIFICATION APPLIANCE CIRCUIT SHORT					●	●					●																								5
6	BUILDING MANUAL PULL STATIONS	●	●					●	●	●	●			●						●																6
7	CORRIDOR SMOKE DETECTORS	●	●					●	●	●	●			●	●					●	●		●	●	●											7
8	AREA SMOKE DETECTORS	●	●					●	●	●	●			●	●					●	●		●	●	●											8
9	HVAC AIR DUCT SMOKE DETECTORS			●	●			●				●										●														9
10	AREA HEAT DETECTORS	●	●					●	●	●	●			●	●					●	●		●	●	●											10
11	HOOD OR ROOM FIRE SUPPRESSION SYSTEM ALARM	●	●					●	●	●	●			●	●					●	●															11
12	SPRINKLER TAMPER SWITCH			●	●			●				●																								12
13	SPRINKLER WATER FLOW IN BUILDING	●	●					●	●	●	●			●	●					●	●															13
14	SPRINKLER WATER FLOW IN ELEV EQUIP RM OR SHAFT	●	●					●	●	●	●			●	●			●	●	●	●															14
15	ELEV EQUIP RM AREA SMOKE DETECTOR	●	●					●	●	●	●			●	●			●		●	●															15
16	ELEV SHAFT AND ELEV EQUIP RM HEAT DETECTORS	●	●					●	●	●	●			●	●			●	●	●	●															16
17	ELEV LOBBY SMOKE DETECTORS – UPPER FLOORS	●	●					●	●	●	●			●	●					●	●		●	●	●											17
18	ELEV LOBBY SMOKE DETECTOR – RECALL FLOOR	●	●					●	●	●	●			●		●	●			●	●		●	●	●											18
19	ELEV CONTROLLER POWER SHUNT TRIP STATUS			●	●			●				●																								19
20	FIRE PUMP POWER FAILURE/PHASE REVERSAL			●	●			●				●																								20
21	FIRE PUMP RUNNING	●	●					●	●	●	●			●	●					●	●															21
22	FIRE PUMP SYSTEM NOT IN AUTOMATIC			●	●			●				●																								22
23	LEGALLY REQUIRED GENERATOR SYSTEM LOW FUEL			●	●			●				●																								23
24	LEGALLY REQUIRED GENERATOR NOT IN AUTOMATIC			●	●			●				●																								24
25	AREA OF REFUGE TWO-WAY COMMUNICATIONS STATUS			●	●			●				●																								25
26																																				26
27																																				27

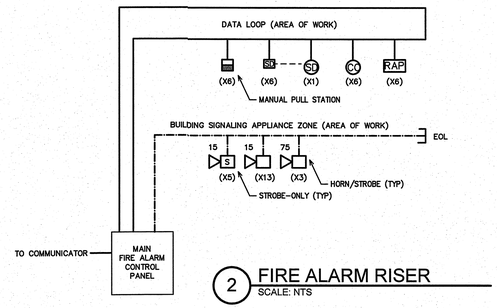


1 DEVICE MOUNTING DETAIL
SCALE: NTS

SEE PLAN FOR ACTUAL LOCATIONS OF DEVICES

VERIFY EXACT FIRE ALARM REQUIREMENTS WITH OWNER PRIOR TO SUBMITTING BID.

PROVIDE OR RELOCATE END-OF-LINE RESISTORS AS NEEDED FOR A CLASS B SYSTEM.



2 FIRE ALARM RISER
SCALE: NTS

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WHITEVILLE, NORTH CAROLINA

12/17/24
NORTH CAROLINA REGISTERED PROFESSIONAL ENGINEER SEAL 22038 BENJAMIN E. BURKE

FIRE ALARM NOTES/RISER

23029

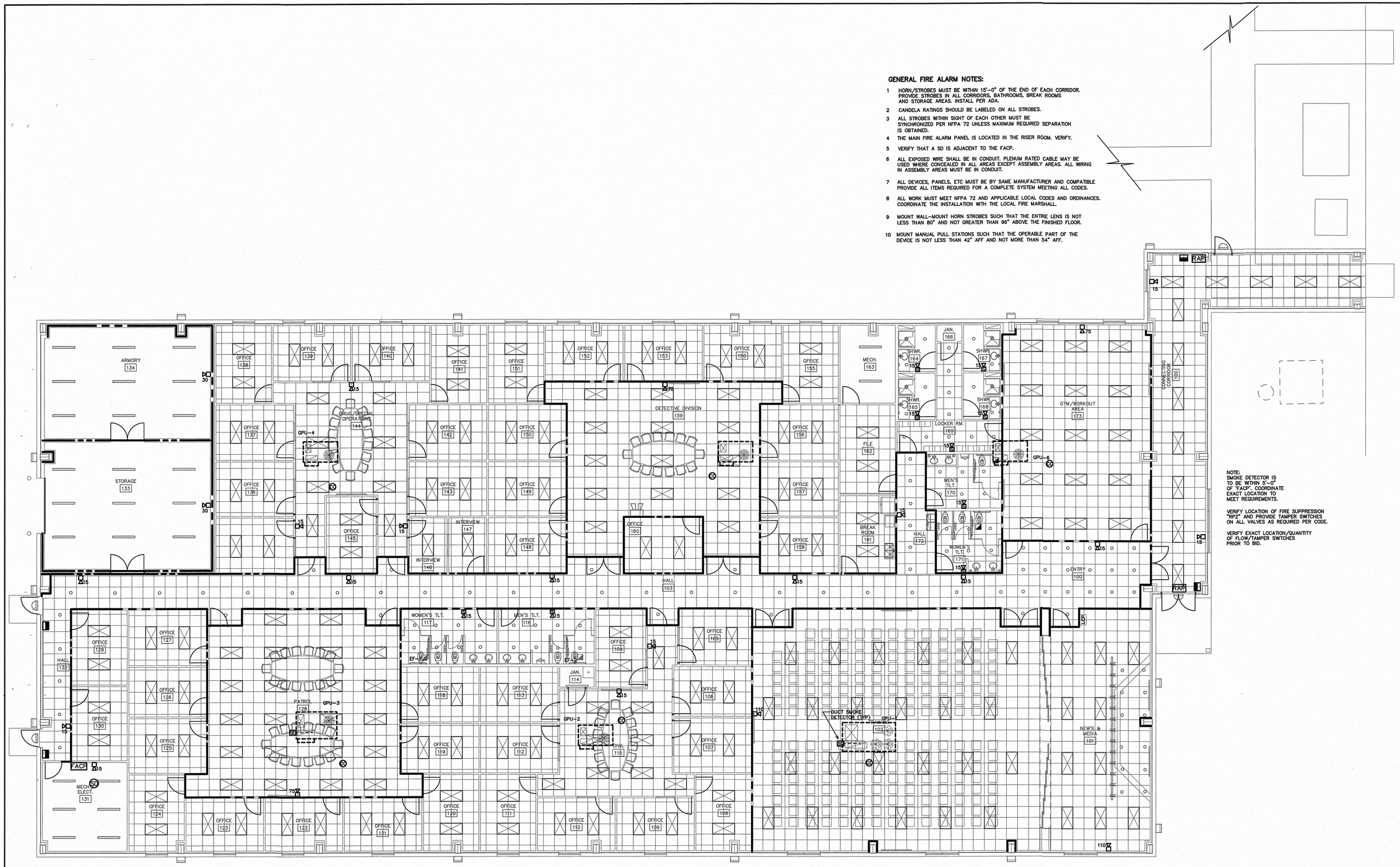
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GENERAL FIRE ALARM NOTES:

1. HORN/STROBES MUST BE WITHIN 15'-0" OF THE END OF EACH CORRIDOR. PROVIDE STROBES IN ALL CORRIDORS, BATHROOMS, BREAK ROOMS AND STORAGE AREAS. INSTALL PER ADA.
2. CANDELA RATINGS SHOULD BE LABELED ON ALL STROBES.
3. ALL STROBES WITHIN SIGHT OF EACH OTHER MUST BE SYNCHRONIZED PER NFPA 72 UNLESS MAXIMUM REQUIRED SEPARATION IS OBTAINED.
4. THE MAIN FIRE ALARM PANEL IS LOCATED IN THE RISER ROOM. VERIFY.
5. VERIFY THAT A SD IS ADJACENT TO THE FACP.
6. ALL EXPOSED WIRE SHALL BE IN CONDUIT. PLENUM RATED CABLE MAY BE USED WHERE CONCEALED IN ALL AREAS EXCEPT ASSEMBLY AREAS. ALL WIRING IN ASSEMBLY AREAS MUST BE IN CONDUIT.
7. ALL DEVICES, PANELS, ETC MUST BE BY SAME MANUFACTURER AND COMPATIBLE PROVIDE ALL ITEMS REQUIRED FOR A COMPLETE SYSTEM MEETING ALL CODES.
8. ALL WORK MUST MEET NFPA 72 AND APPLICABLE LOCAL CODES AND ORDINANCES. COORDINATE THE INSTALLATION WITH THE LOCAL FIRE MARSHALL.
9. MOUNT WALL-MOUNT HORN STROBES SUCH THAT THE ENTIRE LENS IS NOT LESS THAN 80" AND NOT GREATER THAN 96" ABOVE THE FINISHED FLOOR.
10. MOUNT MANUAL PULL STATIONS SUCH THAT THE OPERABLE PART OF THE DEVICE IS NOT LESS THAN 42" AFF AND NOT MORE THAN 54" AFF.



NOTE:
SMOKE DETECTOR IS TO BE WITHIN 5'-0" OF 'FACP'. COORDINATE EXACT LOCATION TO MEET REQUIREMENTS.

VERIFY LOCATION OF FIRE SUPPRESSION "RP2" AND PROVIDE TAMPER SWITCHES ON ALL VALVES AS REQUIRED PER CODE.

VERIFY EXACT LOCATION/QUANTITY OF FLOW/TAMPER SWITCHES PRIOR TO BID.

CO DETECTOR(S) SHALL RECEIVE PRIMARY POWER FROM THE BUILDING WHERE SUCH WIRING IS SERVED FROM A COMMERCIAL SOURCE, AND WHEN PRIMARY POWER IS INTERUPTED, SHALL RECEIVE POWER FROM A BATTERY.

1 / FA2 FIRE ALARM PLAN

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

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FIRE ALARM PLAN

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