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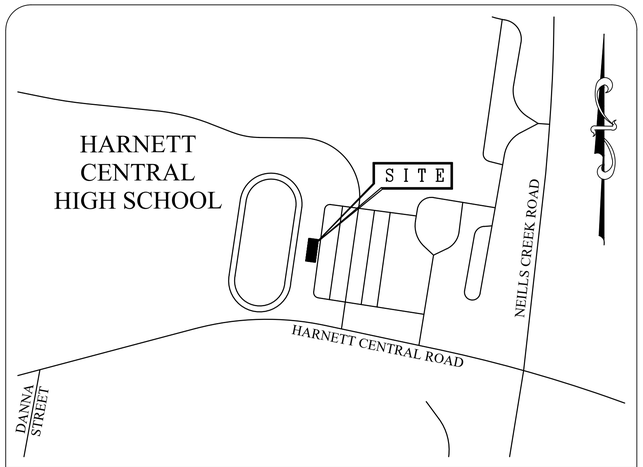
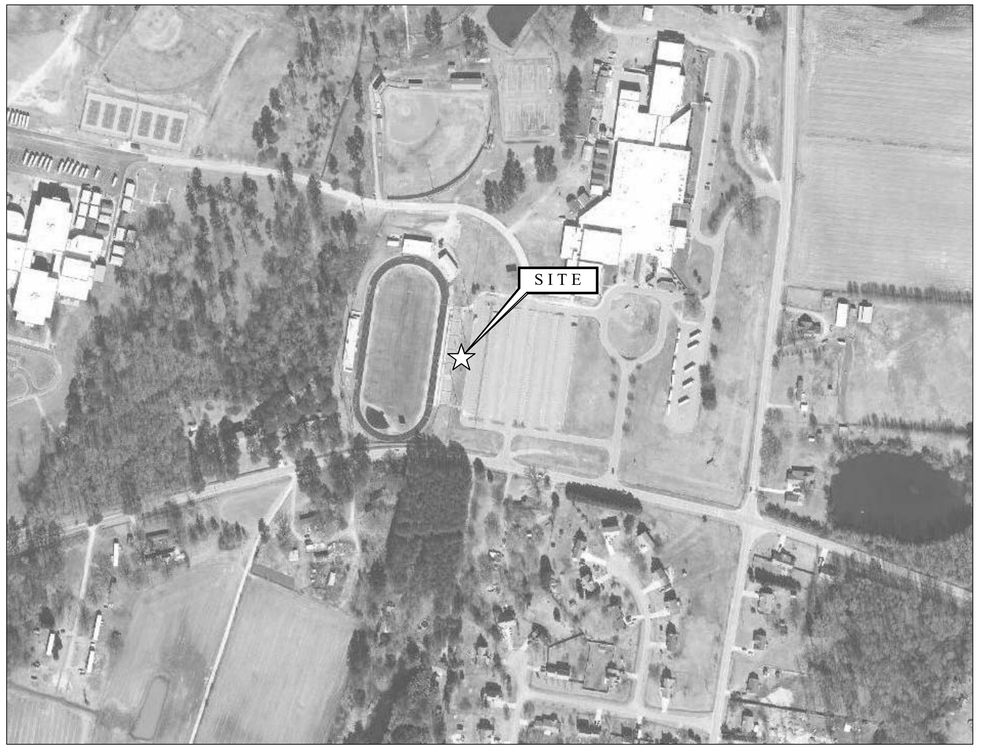
HARNETT CENTRAL PRESS BOX

2911 HARNETT CENTRAL RD, ANGIER, NC 27501

HARNETT COUNTY SCHOOLS
Inspiring learners to be leaders!



VICINITY MAP
NTS



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E-301	ELECTRICAL DETAILS	1	4/13/2023

CLIENT

HARNETT COUNTY SCHOOL
1008 S 11th ST,
LILLINGTON, NC 27546
(910) 893-8151
CONTACT: STEVE MATHEWS

811
Know what's below.
Call before you dig.

PREPARED BY:

LOCKLEAR, LOCKLEAR & JACOBS
CIVIL | STRUCTURAL | MEP | ENVIRONMENTAL ENGINEERS
114 WEST 3RD. STREET - PEMBROKE, NORTH CAROLINA 28372
(910) 774-9306 WWW.LLANDJ.COM
License No. P-0754

OWNER & BUILDER'S NOTES:

1. PLANS SHALL NOT BE USED FOR CONSTRUCTION UNTIL STAMPED AND SIGNED BY AN ENGINEER AND APPROVED BY THE LOCAL INSPECTION DEPARTMENT. THE CONTRACTOR IS EXPECTED TO FOLLOW THESE PLANS, APPLICABLE BUILDING CODES AND LOCAL ORDINANCES. CONTRACTOR SHALL VERITY THAT SITE CONDITIONS ARE CONSISTENT WITH PLANS BEFORE STARTING WORK. WHILE PLANS ARE DRAWN TO SHOW THE PROPOSED WORK AS ACCURATELY AS POSSIBLE, SCHEMATIC DETAILS MAY BE USED IN SOME CASES FOR CLARITY. WORK NOT SPECIFICALLY DETAILED SHALL BE CONSTRUCTED TO THE SAME QUALITY AS SIMILAR DETAILED WORK.
2. WRITTEN DIMENSIONS AND SPECIFIC NOTES SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS AND GENERAL NOTES. THE ENGINEER SHALL BE CONSULTED FOR CLARIFICATION IF SITE CONDITIONS ARE ENCOUNTERED THAT ARE DIFFERENT THAN SHOWN, IF DISCREPANCIES ARE FOUND IN THE PLANS OR NOTES, OR IF A QUESTION ARISES OVER THE INTENT OF THE PLANS / NOTES.
3. LL&J ASSUMES NO RESPONSIBILITY FOR SCHEDULING, FABRICATION, CONSTRUCTION TECHNIQUES OR MATERIALS, OR QUANTITIES USED IN THE WORK. LL&J ASSUMES NO RESPONSIBILITY FOR FIELD CHANGES, SITE VARIANCES OR DISCREPANCIES NOT BROUGHT TO ENGINEER'S ATTENTION FOR CLARIFICATION.

LOCKLEAR, LOCKLEAR & JACOBS CONSULTING ENGINEERS
LL&J
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PEMBROKE, NC 28372
TELEPHONE: (910)774-9306
FAX: (866)649-7235

LOCKLEAR, LOCKLEAR & JACOBS CONSULTING ENGINEERS
P-0754

DocuSigned by: CAROLINA
NORTH CAROLINA
PROFESSIONAL
SEAL
029469
ENGINEER
JONATHAN E. LOCKLEAR
4/13/2023

PROJECT INFORMATION:

HARNETT CENTRAL PRESS BOX
HARNETT COUNTY SCHOOLS
2911 HARNETT CENTRAL RD, ANGIER, NC 27501

DATE: 1/10/2023
DRAWN BY: RDH
CHECKED BY: JEL
SHEET TITLE
COVER SHEET
SHEET NUMBER
G-001
PROJECT# 21-11110

FINAL RELEASED FOR CONSTRUCTION

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2018 APPENDIX B - BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS

Name of Project: HARNETT CENTRAL PRESS BOX
Address: 2911 HARNETT CENTRAL RD ANGIER, NC Zip Code: 27501
Proposed Use: PRESS BOX
Owner/Authorized Agent: STEVE MATHEWS Phone # (910) 893-8151 E-Mail: smatthews@harnett.k12.nc.us
Owned By: ■ City/County ☐ Private ☐ State
Code Enforcement Justification: ☐ City ■ County HARNETT ☐ State

LEAD DESIGN PROFESSIONAL: LOCKLEAR, LOCKLEAR & JACOBS, PLLC

DESIGNER	FIRM	NAME	LICENSE #	TELEPHONE #	E-Mail
Building	LL&J, PLLC	Robby Locklear, P.E.	NC 028880	(910) 774-9306	robbylocklear@llandj.com
Civil					
Electrical	LL&J, PLLC	Robby Locklear, P.E.	NC 028880	(910) 774-9306	robbylocklear@llandj.com
Fire Alarm					
Plumbing	LL&J, PLLC	Robby Locklear, P.E.	NC 028880	(910) 774-9306	robbylocklear@llandj.com
Mechanical	LL&J, PLLC	Robby Locklear, P.E.	NC 028880	(910) 774-9306	robbylocklear@llandj.com
Sprinkler-Standpipe					
Structural	LL&J, PLLC	Jonathan Locklear, P.E.	NC 029469	(910) 774-9306	jonathanlocklear@llandj.com
Retaining Wall >5' High					
Foundation	LL&J, PLLC	Jonathan Locklear, P.E.	NC 029469	(910) 774-9306	jonathanlocklear@llandj.com

2018 EDITION OF NC CODE FOR: ■ New Construction ☐ Addition ☐ Upfit
EXISTING: ☐ Reconstruction ☐ Alteration ☐ Repair ☐ Renovation
CONSTRUCTED: _____ (Date) ORIGINAL USE(S): _____ (Chapter 3)
RENOVATED: _____ (Date) CURRENT USE(S): _____ (Chapter 3)
PROPOSED USE(S): _____ (Chapter 3)

BASIC BUILDING DATA

Construction Type: ☐ I-A ☐ I-B ☐ II-A ☐ II-B ☐ III-A ☐ III-B ☐ IV ☐ V-A ■ V-B
Sprinklers: ■ No ☐ Partial ☐ Yes ☐ NFPA 13 ☐ NFPA 13R ☐ NFPA 13D ☐ ESFR
Standpipes: ■ No ☐ Yes Class ☐ I ☐ II ☐ III ■ Wet ☐ Dry
Fire District: ■ No ☐ Yes Flood Hazard Area: ■ No ☐ Yes
Building Height: Feet 19'-4"
Gross Building Area:

FLOOR	EXISTING (SQFT)	NEW (SQFT)	SUB-TOTAL (SQFT)
6th Floor			
5th Floor			
4th Floor			
3rd Floor			
2nd Floor	0	279	279
Mezzanine			
1st Floor	0	267	267
Basement			

TOTAL BUILDING AREA: 546 sq. ft. TOTAL FIRE AREA: 0 sq. ft.

ALLOWABLE AREA

Occupancy:
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 Use 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 Occupancies:
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 Use 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 ☐

Incidental Uses (Table 509):
☐ Furnace room where any piece of equipment is over 400,000 BTU per hour input
☐ Rooms with boilers where the largest piece of equipment is over 15 psi and 10 horsepower
☐ Refrigerant machine room
☐ Hydrogen cutoff rooms, not classified as Group H
☐ Incinerator rooms
☐ Paint shops, not classified as Group H, located in occupancies other than Group F
☐ Laboratories and vocational shops, not classified as Group H, located in a Group E or I-2 occupancy
☐ Laundry rooms over 100 square feet
☐ Group I-3 cells equipped with a padded surfaces
☐ Group I-2 waste and linen collection rooms
☐ Waste and linen collection rooms over 100 square feet
☐ Stationary storage of battery systems having a liquid electrolyte capacity of more than 50 gallons, or a lithium-ion capacity of 1,000 pounds used for facility standby power, emergency power or uninterrupted power supplies
☐ Rooms containing fire pumps
☐ Group I-2 storage rooms over 100 square feet
☐ Group I-2 commercial kitchens
☐ Group I-2 laundries equal to or less than 100 square feet
☐ Group I-2 rooms or spaces that contain fuel-fired heating equipment

Special Uses:
☐ 402 ☐ 403 ☐ 404 ☐ 405 ☐ 406 ☐ 407 ☐ 408 ☐ 409 ☐ 410 ☐ 411 ☐ 412
☐ 413 ☐ 414 ☐ 415 ☐ 416 ☐ 417 ☐ 418 ☐ 419 ☐ 420 ☐ 421 ☐ 422 ☐ 423
☐ 424 ☐ 425 ☐ 426 ☐ 427

Special Provisions:
☐ 509.2 ☐ 509.3 ☐ 509.4 ☐ 509.5 ☐ 509.6 ☐ 509.7 ☐ 509.8 ☐ 509.9
Mixed Occupancy: ■ No ☐ Yes Separation: 0 Hr. Exception: SEE BELOW
☐ Incidental Use Separation (509.4)
This separation is not exempt as Non-Separated Use (see exceptions)
■ Non-Separated Use (508.3)
The required type of construction for the building shall be determinded by applying the height and the area limitations for each of the applicable occupancies to the entire building. The most restrictive type of construction, so determined, shall apply to the entire building.

Mixed Occupancy: cont.
☐ Separated Use: (508.4) - See below for 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.

Separated Use Calculations
Actual Area: A + B + C + D = 0.00 ≤ 1.00
Allowable Area: A + B + C + D

STORY NO.	DESCRIPTION AND USE	(A) AREA PER STORY (ACTUAL)	(B) TABLE 503 AREA [3]	(C) AREA FOR OPEN SPACE INCREASE [1]	(D) AREA FOR SPRINKLER INCREASE [2]	(E) ALLOWABLE AREA OR UNLIMITED [3]	(F) MAXIMUM BUILDING AREA [4]
1	RESTROOMS	72	UL	N/A	N/A	N/A	N/A
1	CONCESSION	183	UL	N/A	N/A	N/A	N/A
2	PRESSBOX	279	UL	N/A	N/A	N/A	N/A

1. Frontage area increases from Section 506.3 area computed thus:
   a. Perimeter which fronts a public way or open space having 20 feet minimum width = _____ (F)
   b. Total Building Perimeter = _____ (P)
   c. Ratio (F/P) = _____ (F/P)
   d. W = Minimum Width of public way = _____ (W)
   e. Percent of frontage increase I_f = 100[F/P-0.25]xW/30 = _____ (%)
2. The sprinkler increase per Section 506.2 is as follows:
   a. Multi-story building I_s = 200%
   b. Single story building I_s = 300%
3. Unlimited area applicable under conditions of Section 507;
4. Maximum Building Area = total number of stories in the building x E (506.2).
5. The maximum area of parking garages must comply with 406.3.4.

ALLOWABLE HEIGHT

	ALLOWABLE (TABLE 504.3)	WITH SPRINKLERS	SHOWN ON PLANS	CODE REFERENCE
Construction Type:	V-B		Type V-B	TABLE 504.3
Bldg. Height in Feet	40	60	19'-4"	TABLE 504.3
Bldg. Height in Stories	UL	UL	2	TABLE 504.3

FIRE PROTECTION REQUIREMENTS

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	RATING REQ'D	RATING PROVIDED (w/ 1A * REDUCTION)	DETAIL # AND SHEET #	DESIGN # FOR RATED ASSEMBLY	DESIGN # FOR RATED PEN.	DESIGN # FOR RATED JOINTS
Structural Frames, including columns, girders, trusses	N/A	0					
Bearing Walls							
Exterior							
South	None	0					
East	None	0					
West	None	0					
South	None	0					
Interior	None	0					
Nonbearing walls and partitions Exterior							
South	None	0					
East	None	0					
West	None	0					
South	None	0					
Interior Walls & Partitions	None	0					
Floor construction:	None	0					
Roof construction	None	0					
Shafts - Exit	None	0					
Shafts - Other	None	0					
Corridor Separation	None	0					
Occupancy Separation	None	0					
Party/Fire Wall Sep.	None	0					
Smoke Barrier Sep.	None	0					
Tenant Separation	None	0					
Incidental Use Separation	None	0					

* Indicate section number permitting reduction

LIFE SAFETY SYSTEM REQUIREMENTS

Emergency Lighting: ☐ No ■ Yes
Exit Signs: ☐ No ■ Yes
Fire Alarm: ■ No ☐ Yes
Smoke Detection Systems: ■ No ☐ Yes ☐ Partial
Panic Hardware: ■ No ☐ Yes

SITE PLAN NOTE

NEITHER A SURVEY OR SITE PLAN WAS PROVIDED BY THE OWNER AT TIME OF COMPLETION OF THESE PLANS. OWNER MUST VERIFYING INFORMATION ON THIS SHEET IS CORRECT. LL&J, PLLC HAS DONE IT BEST TO VERIFY AND COMPLETE THIS SHEET IN ACCORDANCE WITH THE NORTH CAROLINA BUILDING CODES WITHOUT THE USE OF SAID INFORMATION.

LIFE SAFETY PLAN REQUIREMENTS

LIFE SAFETY PLAN SHEET #: ---

☐ FIRE AND/OR SMOKE RATED WALL LOCATIONS (CHAPTER 7)
☐ ASSUMED AND REAL PROPERTY LINE LOCATIONS
☐ EXTERIOR WALL OPENING AREA WITH RESPECT TO DISTANCE TO ASSUMED PROPERTY LINES (705.8)
☐ EXISTING STRUCTURES WITHIN 30' OF THE PROPOSED BUILDING
☐ OCCUPANCY TYPES FOR EACH AREA AS IT RELATES TO OCCUPANT LOAD CALCULATION (TABLE 1004.1.1)
☐ OCCUPANT LOADS FOR EACH AREA
☐ EXIT ACCESS TRAVEL DISTANCES (1016)
☐ COMMON PATH OF TRAVEL DISTANCE (1014.3 & 1028.8)
☐ DEAD END LENGTHS (1018.4)
☐ CLEAR EXIT WIDTHS FOR EACH EXIT DOOR
☐ MAXIMUM CALCULATED OCCUPANT LOAD CAPACITY EACH EXIT CAN ACCOMMODATE BASED ON EGRESS WIDTH (1005.1)
☐ ACTUAL OCCUPANT LOAD FOR EACH DOOR
☐ 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 (1008.1.10)
☐ LOCATION OF DOORS WITH DELAYED EGRESS LOCKS AND THE AMOUNT OF DELAY (1008.1.9.7)
☐ LOCATION OF DOORS WITH WITH ELECTROMAGNETIC EGRESS LOCKS (1008.1.9.8)
☐ LOCATION OF DOORS EQUIPPED WITH HOLD-OPEN DEVICES
☐ LOCATION OF EMERGENCY ESCAPE WINDOWS (1029)
☐ THE SQUARE FOOTAGE OF EACH FIRE AREA (902)
☐ THE SQUARE FOOTAGE OF EACH SMOKE COMPARTMENT (407.4)
☐ NOTE ANY CODE EXCEPTIONS OR TABLE NOTES THAT MAY HAVE BEEN UTILIZED REGARDING THE ABOVE ITEMS

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

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 132" ACCESS AISLE	VAN SPACES 96" ACCESS AISLE	
NEW						
EXISTING						
TOTAL						

STRUCTURAL DESIGN

DESIGN LOADS:
Importance Factors: Wind (Iw): 1.0 Snow (Is): 1.0 Seismic (Ie): 1.0
Live Loads: Roof: 20 psf Mezzanine: 100 psf Floor: 100 psf
Ground Snow Load: 15 psf
Wind Load: Basic Wind Speed 120 mph (ASCE-7) Exposure Category B
Wind Base Shears (for MWFRS) Vx = 3,500 lbs Vy = 7,700 lbs
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 S_S 13.0 %g S_1 6.4 %g
Site Classification (Table 1613.5.2) ☐ 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
Seismic base shear: Vx = 1,800 lbs Vy = 2,900 lbs
Analysis Procedure: ■ Simplified ☐ Equivalent Lateral Force ☐ Dynamic
Architectural, Mechanical, Components anchored? ■ No ☐ Yes
LATERAL DESIGN CONTROL: ☐ Earthquake ■ Wind
SOIL BEARING CAPACITIES: Field Test (provide copy of test report) _____ psf; Presumptive Bearing Capacity 2000 psf; Pile size, type, and capacity _____

SPECIAL INSPECTIONS REQUIRED: ■ No ☐ Yes: See below
☐ Fabricators (1704.2)
☐ Steel Construction (1704.3)
☐ Construction (1704.4)
☐ Masonry Construction (1704.5)
☐ Wood Construction (1704.6)
☐ Verification of Soils (1704.7)
☐ Driven Deep Foundations (1704.8)
☐ Cast-in Place Deep Foundations (1704.9)
☐ Helical Pile Foundations (1704.10)
☐ Vertical Masonry Foundation Elements (1704.11)
☐ Sprayed Fire-resistant Materials (1704.12)
☐ Mastic and Intumescent Fire-resistant Coatings (1704.13)
☐ Exterior Insulation and Finish Systems - EFIS (1704.14)
☐ Special Cases (1704.15)
☐ Smoke Control (1704.16)
☐ Wind Requirements (1706)
☐ Seismic Resistance (1707)

PLUMBING FIXTURE REQUIREMENTS

USE	WATERCLOSETS MALE	WATERCLOSETS FEMALE	URINALS	LAVATORIES MALE	LAVATORIES FEMALE	SHOWERS / TUBS	DRINKING FOUNTAINS REGULAR	DRINKING FOUNTAINS ACCESSIBLE
REQUIRED	0	0	0	0	0	0	0	0
PROVIDED	1	1	0	1	1	0	0	0
EXISTING	0	0	0	0	0	0	0	0

SPECIAL APPROVALS
(LOCAL JURISDICTION, DEPARTMENT OF INSURANCE, OSC, DPI, DHHS, ICC ETC, DESCRIBE BELOW)

ENERGY SUMMARY

ENERGY REQUIREMENTS:
The following data shall be considered minimum and any special attribute required to meet the 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 vs annual energy cost for the proposed design..

Climate Zone: ☐ 3 ■ 4 ☐ 5
Method Of Compliance: ■ Prescriptive (Energy Code) ☐ Prescriptive (ASHRAE 90.1) ☐ Performance (Energy Code) ☐ Performance (ASHRAE 90.1)

THERMAL ENVELOPE
Roof/ceiling Assembly (each assembly):
Description of assembly: FILLED CAVITY FIBERGLASS INSULATION
U-Value of total assembly: 0.033
R-Value of insulation: R-42
Skylights in each assembly:
U-Value of skylight:
total square footage of skylights in each assembly:
Exterior Walls (each assembly): WOOD FRAMED WALL
Description of assembly: FIBERGLASS BLANKET
U-Value of total assembly:
R-Value of insulation: R-21
Openings (windows or doors with glazing)
U-Value of assembly:
SHGC coefficient: 0.25 MAX
projection factor:
low e required, if applicable:
Door R-Values: 1.45, 1.3 FOR ENTRANCE DOOR
Walls below grade (each assembly):
Description of assembly: NA
U-Value of total assembly:
R-Value of insulation:
Floors over unconditioned space (each assembly):
Description of assembly: NA
U-Value of total assembly:
R-Value of insulation:
Floors slab on grade:
Description of assembly: SLAB ON GRADE
U-Value of total assembly:
R-Value of insulation: NOT REQUIRED
Horizontal/Vertical requirement:
Slab heated: NO

MECHANICAL SUMMARY
MECH. SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT

Thermal Zone
winter dry bulb:
summer dry bulb: 95° F
Interior design conditions
winter dry bulb: 70° F
summer dry bulb: 75° F
relative humidity: 50%
Building heating load: 15,000 BTU/HR
Building cooling load: 2.6 TON
Mechanical Spacing Conditioning System
Unitary
description of unit: HEATPUMP
heating efficiency: SEE EQUIPMENT SCHEDULES
cooling efficiency: SEE EQUIPMENT SCHEDULES
size category of unit:
Boiler
Size category. If oversized, state reason: N/A
Chiller
Size category. If oversized, state reason: N/A
List equipment efficiencies:

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: LED
Number of lamps in fixture: LED
Ballast type used in the fixture: N/A
Number of ballasts in fixture: N/A
Total wattage per fixture: SEE LIGHTING SCHEDULE
Total interior wattage specified vs allowed: 366 VS 537
(whole building or space by space)
Total exterior wattage specified vs allowed: N/A
Additional Prescriptive Compliance
☐ 506.2.1 More Efficient Mechanical Equipment
■ 506.2.2 Reduced Lighting Power Density
☐ 506.2.3 Energy Recovery Ventilation System
☐ 506.2.4 Higher Efficiency Service Water Heating
☐ 506.2.5 On-Site Supply of Renewable Energy
☐ 506.2.6 Automatic Daylighting Control Systems

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FAX: (866)649-7235

P-0754

DocuSigned by: Robby Locklear
4/13/2023

NORTH CAROLINA SEAL 028880 ENGINEER ROBBY LOCKLEAR

PROJECT INFORMATION:
HARNETT CENTRAL PRESS BOX
HARNETT COUNTY SCHOOLS
2911 HARNETT CENTRAL RD
ANGIER, NC 27501

REV'n	DATE	DESCRIPTION
1.	4/13/2023	CLIMATE ZONE AND ASSOCIATED VALUES UPDATED. LIGHTING WATTAGE UPDATED.
2.		
3.		
4.		
5.		

DATE: 1/10/2023
DRAWN BY: RDH
CHECKED BY: JEL
SHEET TITLE: APPENDIX B
SHEET NUMBER: G-002
PROJECT# 21-11110

C:\Users\CARLOS~1\AppData\Local\Temp\AcPublish_23680\21-11110 Hornet Central Press Box.dwg, G-002 APPENDIX B, Carlos-LL&J

FINAL RELEASED FOR CONSTRUCTION

GENERAL NOTES

GENERAL NOTES:

1. ALL WORK TO BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTRUCTIONS.
2. NEW CONSTRUCTION, ACCESSORIES AND EQUIPMENT INSTALLATION SHALL BE PROVIDED IN COMPLIANCE WITH ADA ACCESSIBILITY REQUIREMENTS.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL FROM THE SITE AND PROPER DISPOSAL OF ANY DEBRIS ACCUMULATED DURING CONSTRUCTION ON A DAILY BASIS.
4. ALL INTERIOR WALL AND CEILING FINISHES TO MEET FLAME SPREAD AND SMOKE DEVELOPMENT RATING IN ACCORDANCE TO ASTM E 84. ALL INTERIOR FLOOR FINISHES SHALL NOT BE LESS THAN CLASS II (0.22 WATTS/CM SQ) FOR MINIMUM CRITICAL RADIANT FLUX IN ACCORDANCE WITH NFPA 253.
5. DOORS SHALL OPERATE FREELY WITHOUT BINDING. ALL DOORS TO BE OFF FACE OF WALL UNLESS OTHERWISE NOTED. DOOR FRAMES SHALL BE SECURED RIGIDLY IN PLACE AND BRACED TO FLOOR AND STRUCTURE ABOVE TO PREVENT BREAK OUT OF PARTITIONS.
6. ALL MECHANICAL, ELECTRICAL AND NON-STRUCTURAL SYSTEMS, COMPONENTS, AND ELEMENTS PERMANENTLY ATTACHED TO STRUCTURES, INCLUDING SUPPORTING STRUCTURES AND ATTACHMENTS, AND NON-BUILDING STRUCTURES THAT ARE SUPPORTED BY OTHER STRUCTURES SHALL COMPLY WITH 2018 NORTH CAROLINA BUILDING CODE.
7. STORED MATERIALS SHALL BE KEPT DRY AND IN AN ORDERLY FASHION IN AN AREA DESIGNATED BY THE GENERAL CONTRACTOR.
8. TYPICAL DIMENSIONS ARE TO THE STRUCTURAL FACE OF PARTITION UNLESS OTHERWISE NOTED.
9. CONTRACTOR IS TO PROVIDE METAL/TREATED WOOD BLOCKING AT LOCATIONS RECEIVING CABINETRY OR EQUIPMENT.
10. SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR ALL NEW EQUIPMENT, DEVICES, LIGHTING, AND FOR ADDITIONAL NOTES.
11. A DUMPSTER MAY BE LOCATED AS DIRECT FOR THE DISPOSAL OF DEBRIS. PROTECT THE EXISTING BUILDING FROM DAMAGE (INTERIOR AND EXTERIOR), AND ALONG THE PATH OF TRAVEL TO THE DUMPSTER. DAMAGE AS A RESULT OF CONSTRUCTION USE SHALL BE REPAIRED AND/OR REPLACED BY THE CONTRACTOR.

DETAILS:

THESE DRAWINGS AND SPECIFICATIONS REPRESENT THE GENERAL DIMENSIONS, AESTHETIC REQUIREMENTS, AND MATERIALS FOR THE WORK TO BE PERFORMED. IF ANY DETAIL SHOWN ON THESE DRAWINGS APPEARS INCONSISTENT WITH THIS INTENT, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING AND AWAIT INSTRUCTION FROM ENGINEER BEFORE PROCEEDING WITH WORK. DETAILS PROVIDED DO NOT REPRESENT ALL OF THE DETAILS REQUIRED TO PERFORM THE PROPOSED WORK. ADDITIONAL DETAILS MAY BE FURNISHED BY THE CONTRACTOR ON SUBMITTED SHOP DRAWINGS, OR SCALED DRAWINGS, FOR APPROVAL BY THE ENGINEER.

PATCHING:

CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACCEPTABLE CLOSURE AND REPAIR OF ALL AREAS DISTURBED DURING CONSTRUCTION. REPAIR WORK SHALL UTILIZE LIKE MATERIALS WHERE POSSIBLE, OR MATERIALS COMPATIBLE TO EXISTING AND SHALL RESTORE DISTURBED SURFACE TO ORIGINAL CONDITION. UNLESS OTHERWISE NOTED, PAINT EXPOSED PIPING, CONDUITS, AND HANGER ASSEMBLIES TO MATCH EXISTING FEATURES.

CLEANUP & SITE MAINTENANCE:

CONTRACTOR SHALL BE RESPONSIBLE FOR DAILY CLEANING AND MAINTENANCE OF ALL INVOLVED AREAS FROM CONSTRUCTION DEBRIS AND DUST. UPON OVERALL COMPLETION OF THE PROJECT, CONTRACTOR IS RESPONSIBLE FOR FINAL CLEANING/TREATMENT (INCLUDING WINDOW WASH) AS FOLLOWS: DUST INVOLVED SURFACES WITH A TREATED RAG OR CLOTH, USE METHODS, AND CHEMICALS AS RECOMMENDED FOR A SPECIFIC SURFACE BY THE RELATED MANUFACTURERS OF THE SURFACE MATERIAL.

MEANS AND VERIFICATIONS:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND MATERIALS SUPPLIED FOR THE CONSTRUCTION AND INSTALLATION, VERIFICATION OF DIMENSIONS AT THE SITE, AND THE VERIFICATION OF QUANTITIES. THE BUILDER SHALL VERIFY THAT SITE CONDITIONS ARE CONSISTENT WITH THESE PLANS BEFORE STARTING WORK. WORK NOT SPECIFICALLY DETAILED SHALL BE CONSTRUCTED TO THE SAME QUALITY AS SIMILAR WORK THAT IS DETAILED. ALL WORK SHALL BE DONE IN ACCORDANCE WITH INTERNATIONAL BUILDING CODES AND LOCAL CODES.

CONSTRUCTION ACTIVITY NOTES:

CONTRACTOR SHALL OBSERVE THE FOLLOWING INSTRUCTIONS FOR WORKING WITHIN THE BUILDING AREAS. THESE WILL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING:

1. ALL SHUTDOWNS WILL BE COORDINATED AND APPROVED THROUGH THE OWNER'S REPRESENTATIVE AND WILL REQUIRE ADVANCE NOTICE OF TWO DAYS FOR SHUTDOWNS THAT AFFECT BUILDING OPERATIONS END/OR SYSTEMS. LENGTH OF TIME MAY BE LONGER OR SHORTER FOR SOME SHUTDOWNS AT THE OWNER'S DISCRETION. SOME SHUTDOWNS MAY BE MORE DIFFICULT TO ARRANGE WHERE BUILDING OPERATIONS ARE ADVERSELY AFFECTED. ANY AND ALL SHUTDOWNS WILL BE INITIATED AND CONTROLLED BY BUILDING SYSTEM STAFF. THE CONTRACTOR MAY NOT SHUTDOWN ANY OPERATING SYSTEM. BUILDING FACILITIES MANAGEMENT WILL SHUTDOWN SYSTEMS SCHEDULED, AND AFTER CONTRACTOR HAS PERFORMED THE WORK BUILDING FACILITIES MANAGEMENT WILL COORDINATE AND OBSERVE RE-ACTIVATION.
2. AREAS ON THE BUILDING OUTSIDE THE MAIN PROJECT LIMITS, IN WHICH WORK MUST TAKE PLACE WILL BE CLEANED AND RETURNED TO NORMAL CONDITION AT THE END OF EACH DAY. CONTRACTOR SHALL COORDINATE WITH THE OWNER'S REPRESENTATIVE EACH DAY BEFORE LEAVING THE CONTRACT PROJECT LIMITS AND ENTERING THE SITE AND SHALL CHECK OUT EACH DAY WITH SAID REPRESENTATIVE REGARDING THE CLEANLINESS OF THE AREA IN WHICH WORK TOOK PLACE.
3. WORK IN OPERATIONAL ROADWAYS AND INTERSECTIONS AND/OR MERGING CONSTRUCTION TRAFFIC WITH THE PUBLIC, AND WHERE SCHEDULED WHETHER LOADING, OR UNLOADING CONSTRUCTION WILL BE IMPLEMENTED ONLY WITH THE USE OF A FLAG MAN DEDICATED FOR THE PURPOSE OF DIRECTING TRAFFIC AT THE FRONT, REAR, OR POINT OF SUCH OPERATION.
4. WORK TAKING PLACE IN A WALKWAY OR SIDEWALK ON A DAILY BASIS SHALL BE MARKED AT FRONT AND REAR WITH SAFETY CONES OR OTHER SUITABLE CAUTIONARY DEVICES.
5. CONTRACTOR, OR EMPLOYEE OF SAME, ON BUILDING GROUNDS OR ENTERING THE BUILDING TO PERFORM WORK SHALL HAVE WE NAME OF THE COMPANY IDENTIFIED ON THEIR DOTTING, HARD HAT, JACKET. OR OTHER ON THEIR PERSON AT ALL TIMES.
6. NO CONSTRUCTION PERSONNEL SHALL BE PERMITTED WITHIN THE BUILDING EXCEPT FOR THE EXPLICIT PURPOSE OF PERFORMING THEIR CONTRACTED WORK. SITE FACILITIES, INCLUDING BUT NOT LIMITED TO TOILETS, BREAK ROOMS, CAFETERIA, ETC., SHALL BE OFF LIMITS EXCEPT THOSE EXPRESSLY DESIGNATED FOR CONTRACTOR USE.
7. WORK ACTIVITY MUST NOT JEOPARDIZE BUILDING OPERATIONS. WHERE, IN THE OPINION OF THE ENGINEER OR OWNER, THE CONTRACTOR'S ACTIVITIES ARE SERIOUSLY HAMPERING BUILDING OPERATIONS, OR WHERE OPERATIONS ARE DEEMED AT RISK, THE CONTRACTOR WILL BE DIRECTED BY ENGINEER / OWNER TO CEASE SAID ACTIVITIES UNTIL OTHER MEANS AND METHODS CAN BE MUTUALLY AGREED UPON.
8. OWNER WILL NOT RECEIVE, UNLOAD, SIGN FOR, OR STORE ANY DELIVERIES MADE TO ANY CONTRACTOR. CONTRACTOR WILL RECEIVE, UNLOAD, SIGN FOR, AND STORE ALL DELIVERIES FOR THE WORK, AT THE JOB SITE STAGING OR LAY-DOWN AREA, AND BE RESPONSIBLE FOR SAME.
9. CONTRACTOR SHALL TURN OVER TO THE OWNER, DESIGNATED PLACE OF STORAGE, A QUANTITY OF SURPLUS MATERIALS, AS APPLICABLE, FOR THE WORK.
10. EXISTING STAIRS MAY BE USED FOR CONSTRUCTION ACTIVITIES (DEBRIS REMOVAL, ETC.). INTERIOR SURFACES OF THE STAIRS SHALL BE PROTECTED. DAMAGES AS A RESULT OF CONSTRUCTION USE SHALL BE REPAIRED AND/OR REPLACED BY THE CONTRACTOR.

DRAWING REVISIONS:

1. REVISIONS TO DRAWINGS SHALL BE SHOWN WITH THE REVISION DATE AND DESCRIPTION IN THE TITLE BLOCK. THE REVISION NUMBER AND A TRIANGLE WILL BE SHOWN AT THE LOCATION OF CHANGE ON THE REVISED DRAWING.
2. REVISION NUMBERS ARE IN ASCENDING ORDER UNIQUE TO EACH DRAWING. PREVIOUS DATES AND REVISION REMAIN ON THE DRAWINGS REVISED AS A RECORD OF ALL CHANGES TO DRAWINGS.

GENERAL ABBREVIATIONS

AB	ANCHOR BOLT
AC	ACRE
A/C	AIR CONDITIONED
ACCH	AIR COOLED CHILLER
ACM	ASBESTOS CONTAINING MATERIAL
ACP	AIR COMPRESSOR
ACT	ACOUSTICAL CEILING TILE
AD	AREA DRAIN/ACCESS DOOR
AEL	AIR ELIMINATOR
AFF	ABOVE FINISH FLOOR
AHU	AIR HANDLING UNIT
ALT	ALTERNATE
ALUM	ALUMINUM
AP	ACCESS PANEL
APPROX	APPROXIMATELY
ASD	ADJUSTABLE SPEED DRIVES
ASHRAE	AMERICAN SOCIETY OF HEATING, REFRIGERATION, AIR CONDITIONING ENGINEERS
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS
ASPE	AMERICAN SOCIETY OF PLUMBING ENGINEERS
ASR	AUTOMATIC SPRINKLER RISER
BAL	BALANCE
BC	BACK OF CURB
BD	BOARD
BDD	BACK DRAFT DAMPER
BF	BOOSTER FAN
BFP	REDUCED PRESSURE BACKFLOW PREVENTER
BHP	BREAK HORSEPOWER
BLDG	BUILDING
BOT	BOTTOM
BSP	BLACK STEEL PIPE
CB	CATCH BASIN
CAB	CABINET
CAP	CAPACITY
CC	COOLING COIL
CEM	CEMENT
CER	CERAMIC
CF	CUBIC FEET
CFM	CUBIC FEET/MINUTE
CFP	CHEMICAL FEED PUMP
CH	CHILLER
CHP	CHILLED WATER PUMP
CIRC	CIRCULATING
CJ	CONTROL JOINT
CK'D	CHECKERED
CKT	CIRCUIT
CL	CENTER LINE
CLG	CEILING
CMU	CONCRETE MASONRY UNIT
CMP	CORRUGATED METAL PIPE
CO	CLEAN OUT
COL	COLUMN
CONC	CONCRETE
COND	CONDENSATE
CONN	CONNECTION
CP	CHANNEL PROTECTION /CONDENSATE PUMP
CONST	CONSTRUCTION
CONT	CONTINUOUS
CONV	CONVERTER
CRK	CREEK
CT	CERAMIC TILE
CTC	CENTER TO CENTER
CWP	CONDENSER WATER PUMP
DE	DRAINAGE EASEMENT
DET	DETAIL
DHC	DUCT RE-HEAT COIL
DI	DROP INLET
DIA	DIAMETER
DIFF	DIFFUSER
DIM	DIMENSION
DISC	DISCONNECT
DN	DOWN
DR	DOOR
DS	DOWNSPOUT
DWCB	DOUBLE WING CATCH BASIN
DWG(S)	DRAWING(S)
DSB	DOUBLE STRENGTH "B" GLASS
E/A	EXHAUST AIR
EA	EACH
EDH	ELECTRIC DUCT HEATER
EF	EXHAUST FAN
EIP	EXISTING IRON PIPE
ELEV	ELEVATION
ELEC	ELECTRIC
EP	EDGE OF PAVEMENT
EQUIP	EQUIPMENT
EWC	ELECTRIC WATER COOLER
EJ	EXPANSION JOINT
EX	EXISTING
EXH	EXHAUST
EXT	EXTERIOR
F	FILTER / FAHRENHEIT
FA	FIRE ALARM
FCO	FLOOR CLEANOUT
FCU	FAN COIL UNIT
FCW	FILTERED COLD WATER
FD	FLOOR DRAIN
FDC	FIRE DEPARTMENT CONNECTION
FDP	FLUID DISTRIBUTION POINT
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FES	FLARED END SECTION
FFE	FINISH FLOOR ELEVATION
FH	FIRE HYDRANT
FIN	FINISH
FLR	FLOOR
FM	FLOW METER
FMS	FLOW MEASURING STATION
FND	FOUNDATION
FR	FIRE RATED
FRM	FRAME
FS	FLOOR SINK
FT	FOOT / FEET
FTG	FOOTING
GA	GAGE
GAL	GALLON
GALV	GALVANIZED
GI	GRATE INLET
GL	GLASS
GND	GROUND
GOV'T	GOVERNMENT
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GWB	GYPSUM WALL BOARD
GYP	GYPSUM
H	HIGH
HB	HOSE BIBB
HC	HOLLOW CORE / HEATING COIL
HDPE	HIGH DENSITY POLYETHYLENE PIPE
HDW	HARDWARE
HM	HOLLOW METAL
HP	HORSE POWER
HR	HOUR
HT	HEIGHT
HTG	HEATING
HVAC	HEATING, VENTILATION & AIR CONDITIONING
HW	HEADWALL
HVU	HEATING & VENTILATION UNIT
HYD	HYDRANT
HORIZ	HORIZONTAL
ID	INSIDE DIAMETER
IH	INFRARED HEATER
IL	INTAKE LOUVER
IN	INCHES
INSUL	INSULATION
INT	INTERIOR
INV	INVERT
IPF	IRON PIN FOUND
IPS	IRON PIN SET
JB	JUNCTION BOX
JT	JOINT
KVA	KILOVOLT AMPERE
KW	KILOWATT
LB	POUND
LG	LONG
LP	LIGHT POLE
LTG	LIGHTING
LAV	LAVATORY
M	MOTOR
MAINT	MAINTENANCE
MAU	MAKE UP AIR UNIT
MAX	MAXIMUM
MDP	MAIN DISTRIBUTION PANEL
MECH	MECHANICAL
MH	MANHOLE
MET	METAL
MIN	MINIMUM
MISC	MISCELLANEOUS
MO	MASONRY OPENING
MTD	MOUNTED
MTG	MOUNTING
MV	MECHANICAL VENTILATION
NA	NOT APPLICABLE
NIT	NOT IN CONTRACT
NO, #	NUMBER
NC	NORMALLY CLOSED
NG	NATURAL GAS
NIC	NOT IN CONTRACT
NOM	NOMINAL
NPW	NON POTABLE WATER
NTS	NOT TO SCALE
OA	OUTSIDE AIR
OC	ON CENTER
OCS	OUTLET CONTROL STRUCTURE
OD	OUTSIDE DIAMETER
OH	OVERHEAD
OL	OVERLOAD
OPNG	OPENING
OPP	OPPOSITE
OSD	OPEN SIGHT DRAIN
P	PUMP
PARTN	PARTITION
PD	PRESSURE DROP
PER	PERIMETER
PF	PRE-FILTER
PIV	POST INDICATOR VALVE
PL	PLATE
PLBG	PLUMBING
PLYD	PLYWOOD
PNL	PANEL
PP	POWER POLE
PRESS	PRESSURE
PRZ	PRESSURE REDUCING VALVE
PSF	POUNDS / SQUARE FOOT
PSI	POUNDS / SQUARE INCH
PSIG	POUNDS / SQUARE INCH GAGE
PTD	PAPER TOWEL DISPENSER
PUX	PUMP/HEAT EXCHANGER
QTR	QUARTER
QUAN	QUANTITY
OVFL	OVERFLOW
R/W	RIGHT OF WAY
R	RISER
RA	RETURN AIR
RAD	RADIUS
RCP	REINFORCED CONCRETE PIPE
RD	RELIEF DAMPER
REF	REFRIGERANT
RFG	RETURN FILTER GRILLE
RND	ROUND
RDP	RESIDENTIAL DRAINAGE PLAN
RECT'D.	RECESSED
RECIRC	RECIRCULATING
RECP	RECEPTACLE
REG	REGISTER
REINF	REINFORCING
REQ'D.	REQUIRED
RET	RETURN
RF	RETURN FAN
RGH	RELIEF GRAVITY HOOD
RH	RELIEF HOOD
RHC	REHEAT COIL
RM	ROOM
RO	ROUGH OPENING
RPM	REVOLUTIONS / MINUTE
RT	RETURN AIR SENSOR
RTG	RETURN GRILLE
S	SUPPLY
SA	SUPPLY AIR / SOUND ATTENUATOR
SCH	SCHEDULE
SECT	SECTION
SEF	SMOKE EXHAUST FAN
SERV	SERVICE
SES	SAFETY END SECTION
SEP	SEPARATOR
SF	SUPPLY FAN
SH	SUPPLY HOOD
SHT	SHEET
SIH	SUPPLY INTAKE HOOD
SJ	SLIP JOINT
SPECS	SPECIFICATIONS
SQ	SQUARE
SQFT	SQUARE FEET
STL	STEEL
SS	SANITARY SEWER
SSE	SANITARY SEWER EASEMENT
STOR	STORAGE
STRUC	STRUCTURAL
SUSP	SUSPENDED
SW	SWITCH
SWCB	SINGLE WING CATCH BASIN
STD	STANDARD
T&G	TONGUE & GROOVE
TOIL	TOILET
TEL	TELEPHONE
TEMP	TEMPERATURE
THK	THICKNESS
THD	THRESHOLD
TK	TANK
TOS	TOP OF STEEL
TR	THREAD
TRF	TRANSFER AIR FAN
TRP	TRANSFER PUMP
TTD	TOILET TISSUE DISPENSER
TYP	TYPICAL
UH	UNIT HEATER
UON	UNLESS OTHERWISE NOTED
UNO	UNLESS NOTED OTHERWISE
V	VOLT
VAV	VARIABLE AIR VOLUME TERMINAL
VCT	VINYL COMPOSITION TILE
VFD	VARIABLE FREQUENCY DRIVE
VENT	VENTILATION
VERT	VERTICAL
VTR	VENT THRU ROOF
W	WATT
W/	WITH
WC	WATER CLOSET
WD	WOOD
WG	WATER GAGE
WM	WATER METER
WP	WEATHERPROOF
WPD	WATER PRESSURE DROP
WSA	WATER SURFACE AREA
WTR	WATER
WTS	WATER TEMPERATURE SENSOR
WV	WATER VALVE
WWF	WELDED WIRE FABRIC
WH	WATER HEATER
YCO	YARD CLEANOUT
YH	YARD HYDRANT

SYMBOL LEGEND

SYMBOL	DESCRIPTION
X / X.X — DETAIL DESIGNATION; AREA TO BE DETAILED; SHEET DETAIL IS FOUND ON	DETAIL INDICATOR
X / X.X — SECTION DESIGNATION; SHEET SECTION IS FOUND ON	SECTION SYMBOL
X / X.X — ELEVATION DESIGNATION; SHEET ELEVATION IS FOUND ON	ELEVATION SYMBOL
0 / A	STRUCTURAL GRID
FFE = 0'-0"	ELEVATION TAG
1	AREA OF REVISION AND REVISION NUMBER
1	KEY NOTE

TAG LEGEND

SYMBOL	DESCRIPTION
ROOM NAME / XXX	ROOM TAG AND ROOM NUMBER
W-1	WINDOW TAG
101A	DOOR TAG
ES	DOOR ELECTRIC STRIKE

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P-0754

PROJECT INFORMATION:

HARNETT CENTRAL PRESS BOX
HARNETT COUNTY SCHOOLS
2911 HARNETT CENTRAL RD
ANGIER, NC 27501

REV#	DATE - DESCRIPTION:
1.	
2.	
3.	
4.	
5.	

DATE: 1/10/2023
DRAWN BY: RDH
CHECKED BY: JEL
SHEET TITLE

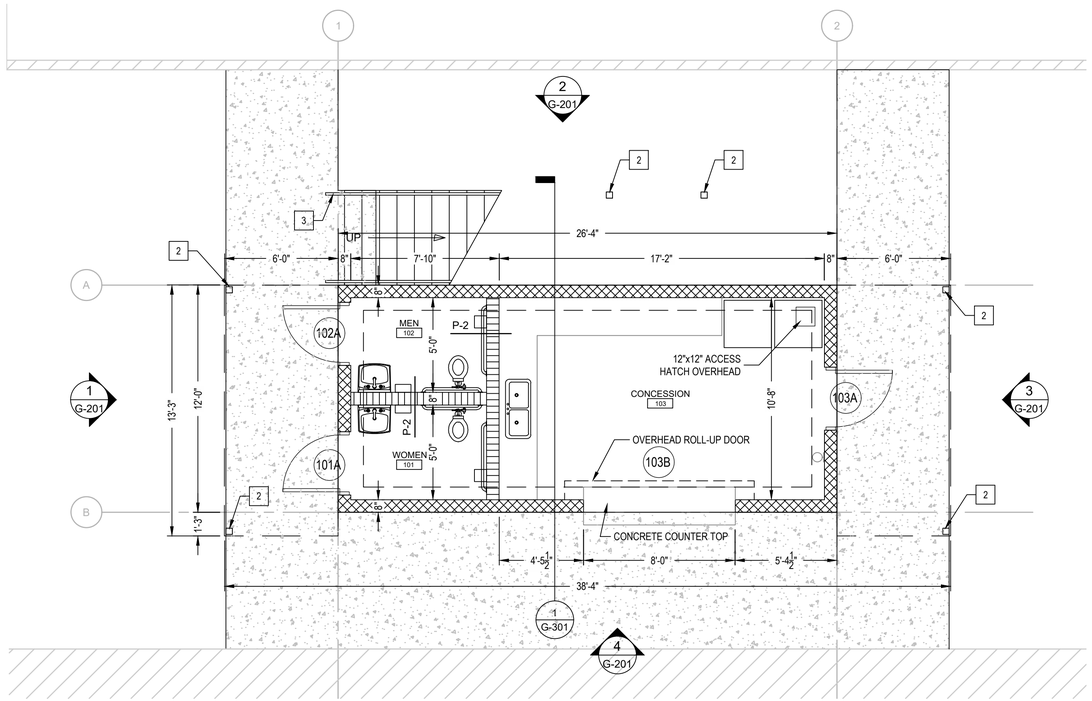
GENERAL NOTES AND ABBREVIATIONS

SHEET NUMBER

G-003

PROJECT# 21-11110

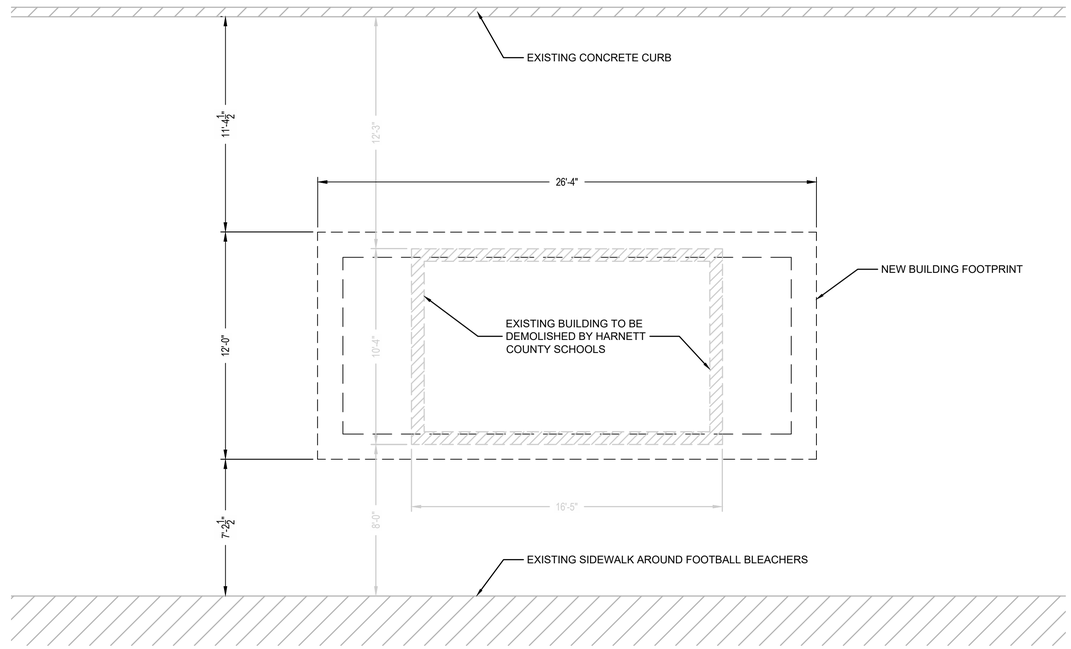
FINAL RELEASED FOR CONSTRUCTION



1 FIRST FLOOR PLAN

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

PLAN NORTH | ACTUAL NORTH



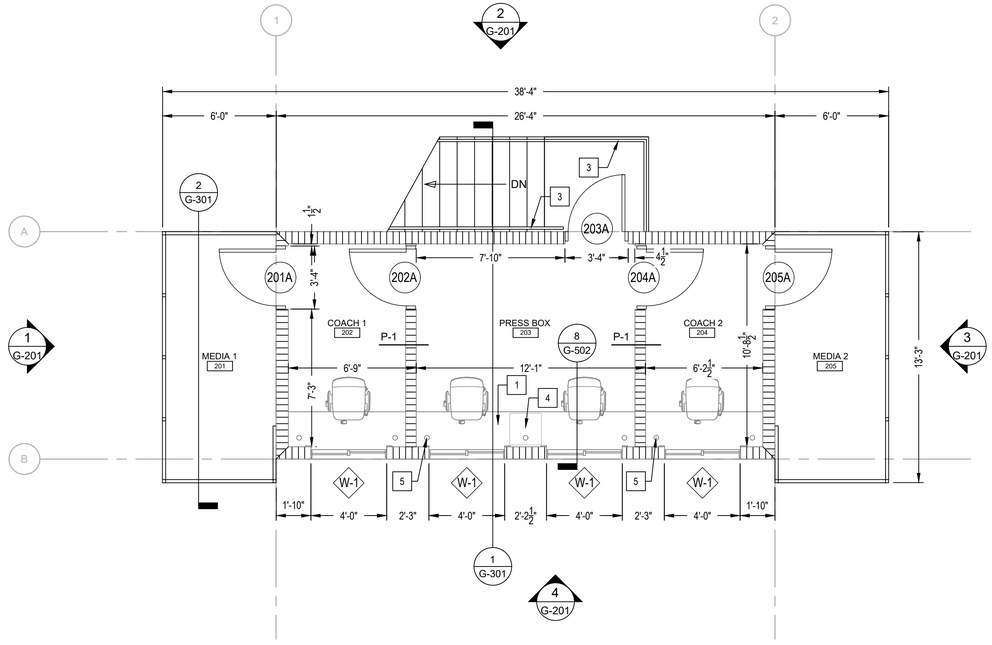
2 EXISTING SITE CONDITIONS

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

PLAN NORTH | ACTUAL NORTH

DEMOLITION NOTE

1. EXISTING BLDG AND SUPPORT FOOTING TO BE COMPLETELY REMOVED BEFORE CONTRACTOR TAKES CONTROL OF SITE.
2. HCS WILL ROUGH GRADE SITE BACK TO SURROUNDING ELEVATION AND CONTRACTOR SHALL BE RESPONSIBLE FOR FINE GRADING AND COMPACTION OF ALL SOILS TO REQUIRED STANDARDS.



3 SECOND FLOOR PLAN

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

PLAN NORTH | ACTUAL NORTH

GENERAL NOTES

1. ALL DETAILS AND SECTIONS SHOWN ON THE DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL BE CONSTRUED TO APPLY TO SIMILAR CONDITIONS ELSEWHERE.
2. DIMENSIONS ARE TO FACE OF MASONRY OR FACE OF STUD WALLS.
3. THE CONTRACTOR SHALL NOTIFY THE OWNER AND/OR OWNER'S REPRESENTATIVE IMMEDIATELY OF ANY DISCREPANCIES BETWEEN CONSTRUCTION DOCUMENTS AND ACTUAL FIELD CONDITIONS.
4. PRESS BOX SHALL BE BUILT ON A NEW 12'-8" X 27'-0" X 4" CONCRETE TURN DOWN SLAB. CONTRACTOR TO SEAL NEW SLAB.
5. CMU WALL FOOTER SHALL HAVE A 16" WIDE BY 18" DEEP FOOTER WITH (2) #5 CONTINUOUS REBAR.
6. THERE WILL BE (4) 4'X4' SLIDER WINDOWS ON THE SECOND FLOOR OVERLOOKING FOOTBALL FIELD.
7. CONTRACTOR TO SUPPLY POWDER COATED STEEL STEPS TO TOP FLOOR.
8. THE FIRST FLOOR WALLS TO BE 8" CMU WITH VERTICAL REBAR (SPACED AT 54" OC MAX AND CELLS CONTAINING REBAR SHALL BE COMPLETELY GROUT FILLED. CONTRACTOR SHALL SEAL ALL PERIMETER CMU BLOCK WALLS ON INTERIOR AND EXTERIOR FACE OF WALLS.
9. PAINT COLOR SELECTIONS SHALL BE PER HARNETT CENTRAL HIGH SCHOOL COLORS AS DETERMINED BY OWNER.
10. SECOND FLOOR JOISTS SHALL BE 2x8 INSTALLED AT 16" OC.
11. THE ROOF FOR THE SECOND FLOOR WILL BE 2x12 RAFTERS @ 16" OC AND 26 GAUGE MASTER RIB (OR APPROVED EQUAL BY TUFF-RIB/CLASSIC-RIB).
12. THE ROOF SLOPE SHALL BE 1" PER FOOT.
13. USE 5/8" FINISHED GYPSUM ON SECOND FLOOR WALLS AND 1/2" FINISHED GYPSUM ON FIRST AND SECOND FLOOR CEILING.
14. ALL CMU EXTERIOR WALLS SHALL BE FILLED WITH FOAM INSULATION THAT PROVIDES A MINIMUM R-VALUE OF 4.9 PER INCH.
15. ALL 2ND FLOOR EXTERIOR 2X6 WALL SHALL HAVE A R-15 BATT INSULATION.
16. THE 2ND FLOOR JOIST SYSTEM SHALL HAVE A MINIMUM OF R-19 BATT INSULATION.
17. THE CEILING JOIST SHALL HAVE A MINIMUM OF R-38 FACED INSULATION.
18. REFER TO SHEET G-601 FOR FINAL ROOM FINISHES.
19. HCS IS TO DEMOLISH THE EXISTING STRUCTURE ENTIRELY AND SHALL TERMINATE EXISTING UTILITIES WITHIN 3-FT OUTSIDE OF PROPOSED BUILDING FOOTPRINT. CONTRACTOR SHALL VERIFY LOCATIONS OF ALL REQUIRED UTILITIES BEFORE SLAB ROUGH IN AND INSTALLATION.
20. CONTRACTOR IS TO COORDINATE ALL DATA AND SECURITY REQUIREMENTS WITH HCS.
21. FRAMING FOR 12"x12" ACCESS HATCH IN FIRST FLOOR CONCESSION CEILING TO BE FIELD LOCATED AND FRAMED BY THE CONTRACTOR. REFERENCE MECHANICAL PLANS FOR

BID OPTIONS

1. PA SYSTEM IN PRESS BOX 203 FLOOR MOUNTED UNDER COUNTERTOP .

KEY NOTES

1. 24" CONTINUOUS COUNTER TOP. SEE 8/G-502 FOR DETAILS.
2. 4x4 STEEL POST FOR STAIR SUPPORT
3. HANDRAILS. SEE 9/G-502 FOR DETAILS.
4. PA SYSTEM/SERVER RACK UNDER THE COUNTERTOP
5. 3" DIA. GROMMET TYP.

LEGEND

- NEW 8" CMU WALL UNLESS OTHERWISE NOTED
- NEW 6" WOOD STUD WALL UNLESS OTHERWISE NOTED
- 101A — DOOR TAG. REFER TO SHEET G-601 FOR DOOR SCHEDULE
- W-1 — WINDOW TAG. REFER TO SHEET G-601 FOR WINDOW SCHEDULE
- P-1 — PARTITION TAG. SEE G-502 FOR PARTITION DETAILS.
- 1 — KEYED NOTES

1/4" = 1'-0"

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P-0754
NORTH CAROLINA
PROFESSIONAL ENGINEER
SEAL
029469
JONATHAN E. LOCKLEAR

DocuSigned by:
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3/14/2023

PROJECT INFORMATION:

HARNETT CENTRAL PRESS BOX
HARNETT COUNTY SCHOOLS

2911 HARNETT CENTRAL RD
ANGIER, NC 27501

REV# - DATE - DESCRIPTION:
1
2
3
4
5

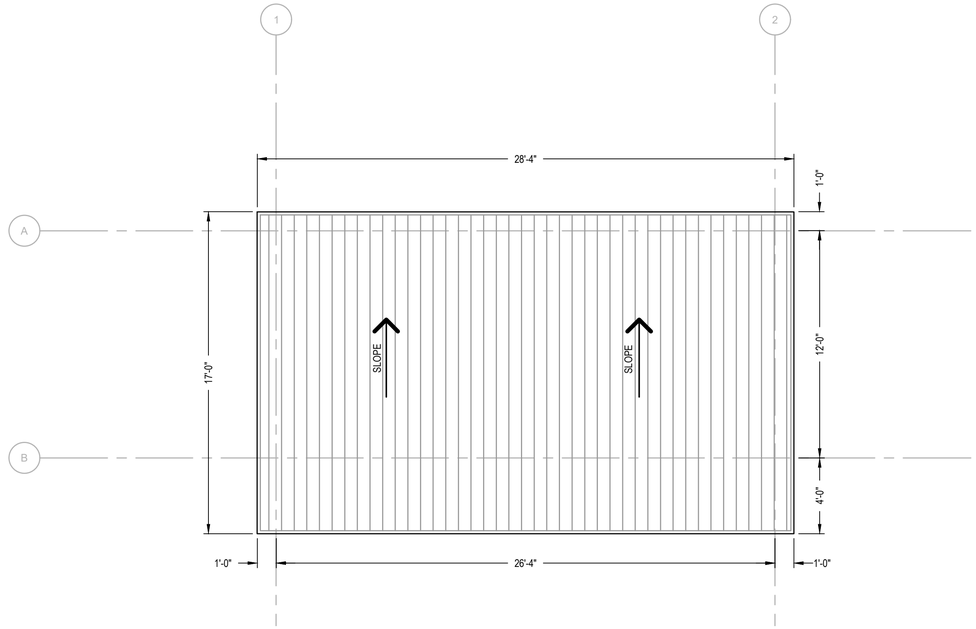
DATE: 1/10/2023
DRAWN BY: RDH
CHECKED BY: JEL
SHEET TITLE

FLOOR PLANS

SHEET NUMBER

G-101

PROJECT# 21-11110



1 OVERALL ROOF PLAN
SCALE: 1/4" = 1'-0"

PLAN NORTH

ACTUAL NORTH

GENERAL NOTES

ROOF FRAMING NOTES:
1. REFER TO SHEET G-101 FOR GENERAL NOTES.
2. ALL ROOF TRUSSES INSTALLED @ 16" O.C.
3. ROOF SHALL HAVE A PITCH OF 1:12 UNLESS NOTED OTHERWISE.
4. THE OWNER/BUILDER SHALL NOT USE MATERIALS UNLESS THEY MEET CURRENT BUILDING CODE, AND ARE APPROVED FOR THAT SPECIFIC USE BY THE BUILDING OFFICIAL.
5. CONTRACTOR SHALL INSTALL RAFTER SUPPORT BRACING AS REQUIRED.

LEGEND

26 GAUGE STANDING SEAM METAL ROOF OVER 7/16" ZIP SHEATHING. OWNER TO SELECTED COLOR.

SLOPE — ROOF SLOPE @ 1:12

1/4" = 1'-0"

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TELEPHONE: (910)774-9306
FAX: (866)649-7235

LOCKLEAR, LOCKLEAR & JACOBS CONSULTING ENGINEERS P-0754

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 029469 JONATHAN E. LOCKLEAR

DocuSigned by:
4290114E40ABC45...
3/14/2023

PROJECT INFORMATION:

HARNETT CENTRAL PRESS BOX
HARNETT COUNTY SCHOOLS
2911 HARNETT CENTRAL RD
ANGIER, NC 27501

REV#	DATE	DESCRIPTION
1		
2		
3		
4		
5		

DATE: 1/10/2023

DRAWN BY: RDH

CHECKED BY: JEL

SHEET TITLE

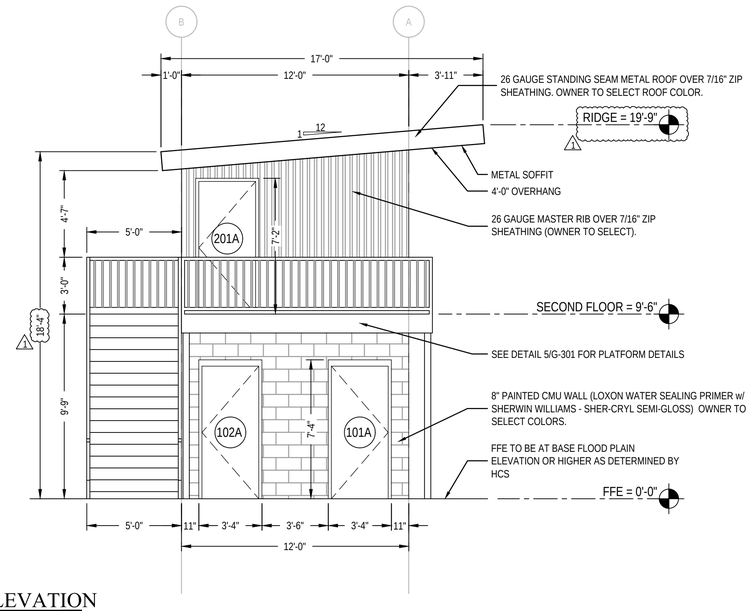
OVERALL ROOF PLAN

SHEET NUMBER

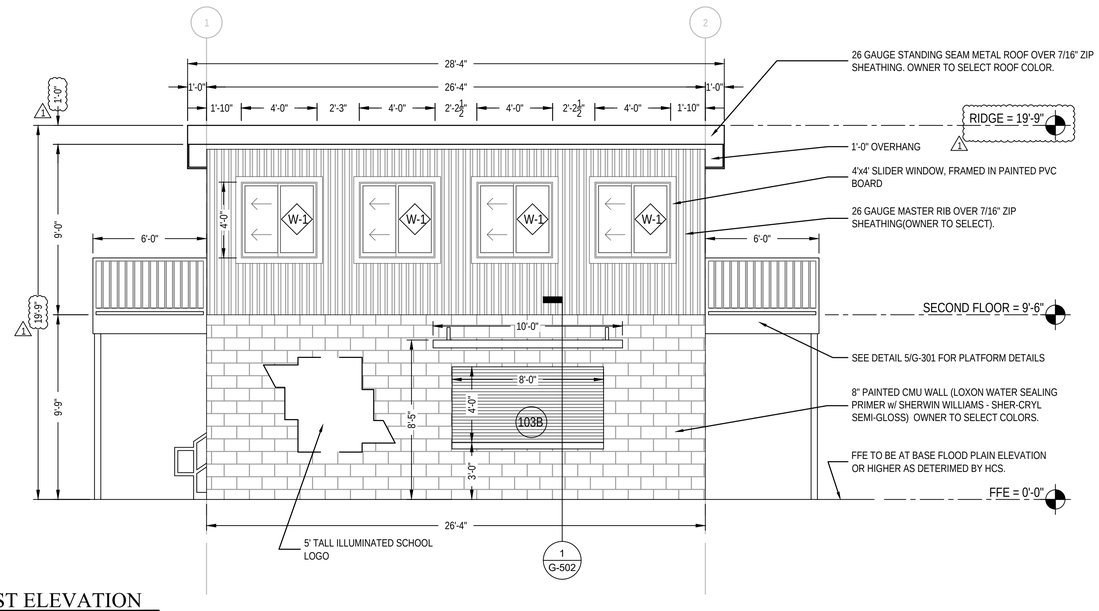
G-111

PROJECT# 21-11110

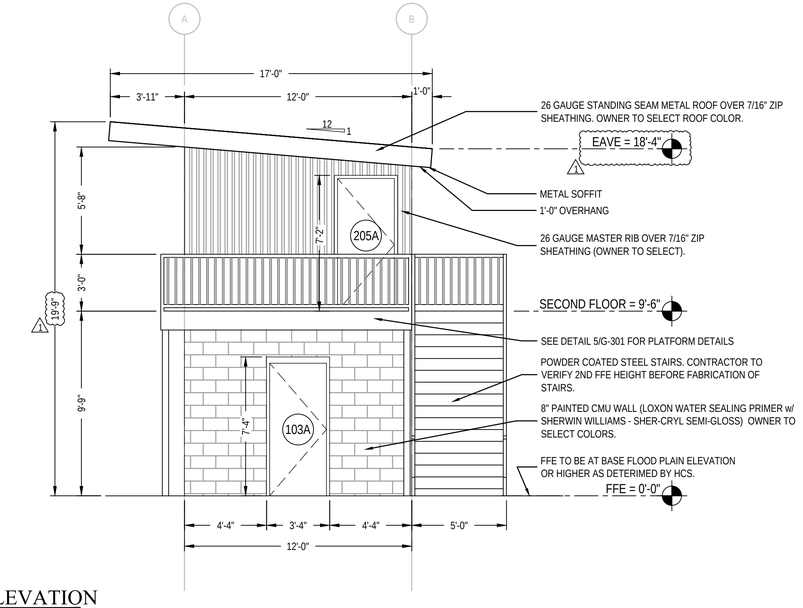
FINAL RELEASED FOR CONSTRUCTION



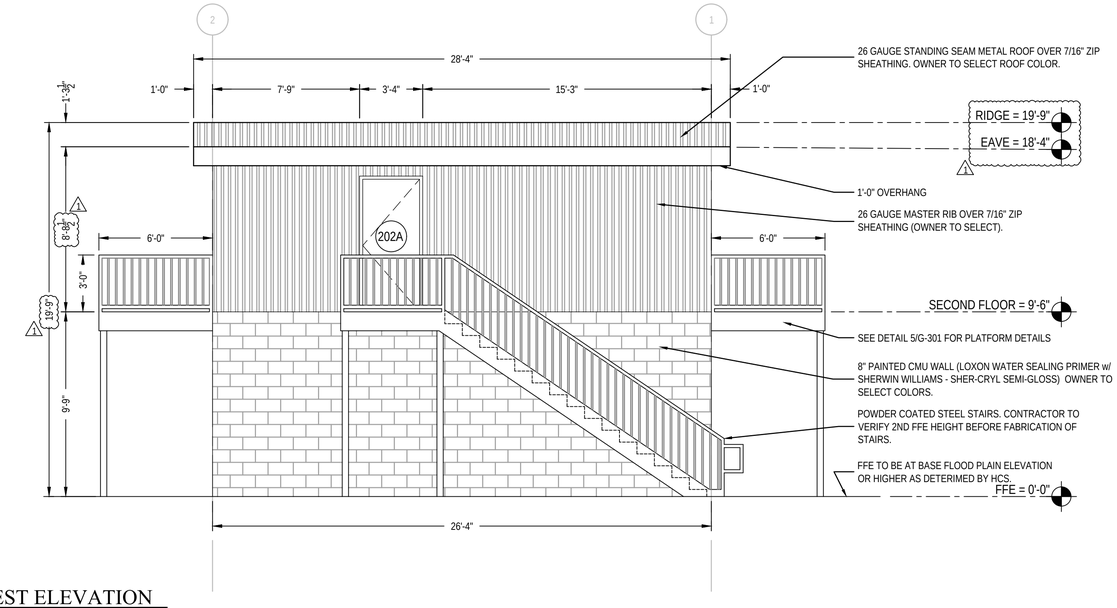
1 NORTH ELEVATION
SCALE: 1/4" = 1'-0"



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



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



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

1/4" = 1'-0"

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FAX: (866)649-7235

P-0754

Document signed by: CAROLINA ENGINEERING CONSULTANTS, PLLC
SEAL 029469
JONATHAN E. LOCKLEAR ENGINEER
4/13/2023

PROJECT INFORMATION:

HARNETT CENTRAL PRESS BOX
HARNETT COUNTY SCHOOLS
2911 HARNETT CENTRAL RD
ANGIER, NC 27501

REV#	DATE	DESCRIPTION:
1	4/13/2023	ROOF THICKNESS CHANGED AND ELEVATIONS UPDATED.
2		
3		
4		
5		

DATE: 1/10/2023
DRAWN BY: RDH
CHECKED BY: JEL
SHEET TITLE

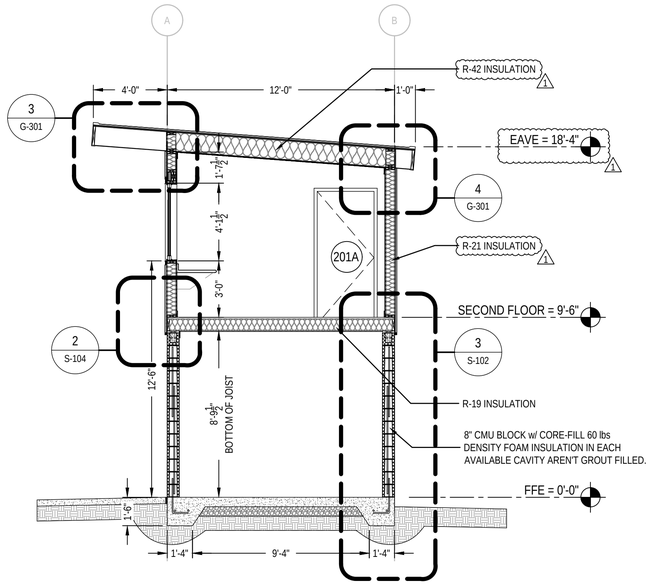
EXTERIOR ELEVATIONS

SHEET NUMBER

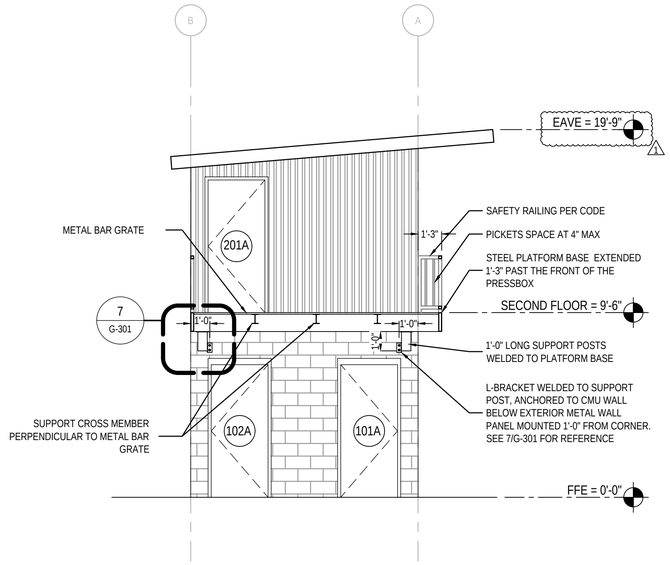
G-201

PROJECT# 21-11110

FINAL RELEASED FOR CONSTRUCTION

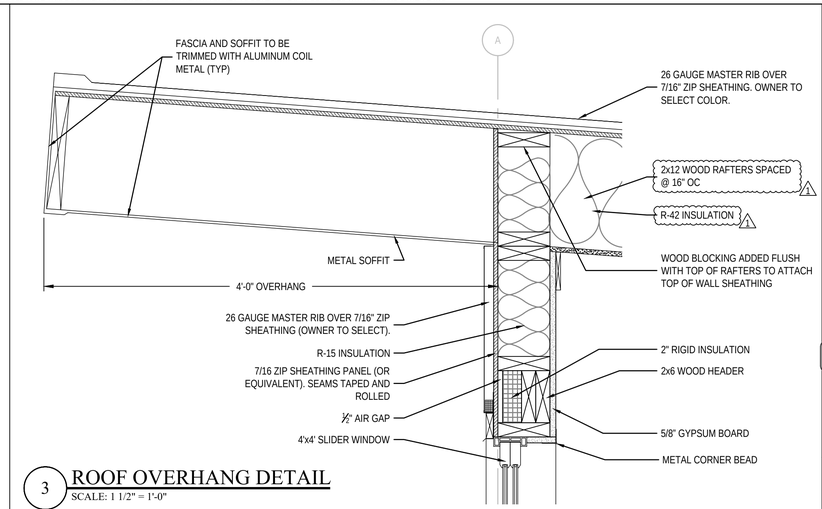


1 OVERALL BUILDING SECTION
SCALE: 1/4" = 1'-0"

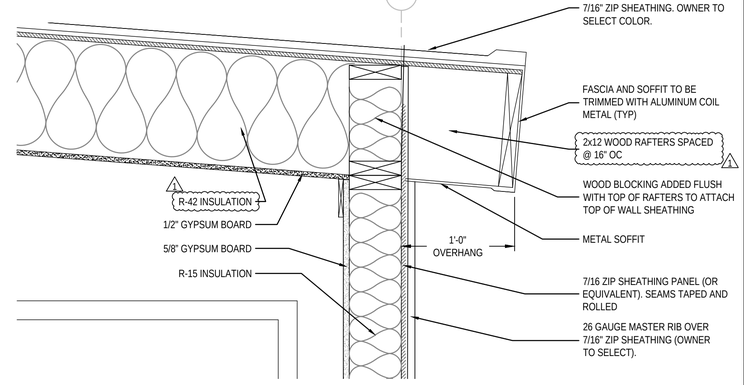


2 MEDIA PLATFORM SECTION
SCALE: 1/4" = 1'-0"

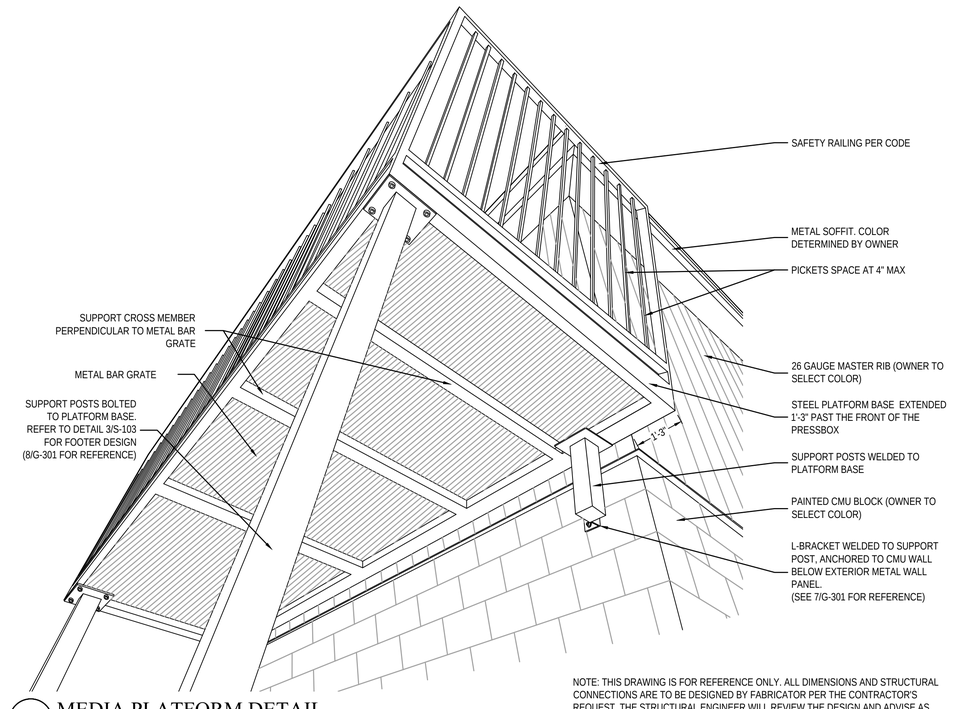
NOTE: WHERE SUPPORT BRACKETS ARE ANCHORED TO THE CMU WALL, THOSE CELLS ARE TO BE GROUT FILLED AND REINFORCED w/ #5 REBAR REINFORCEMENT.



3 ROOF OVERHANG DETAIL
SCALE: 1 1/2" = 1'-0"



4 ROOF OVERHANG DETAIL
SCALE: 1 1/2" = 1'-0"



5 MEDIA PLATFORM DETAIL
NTS

NOTE: THIS DRAWING IS FOR REFERENCE ONLY. ALL DIMENSIONS AND STRUCTURAL CONNECTIONS ARE TO BE DESIGNED BY FABRICATOR PER THE CONTRACTOR'S REQUEST. THE STRUCTURAL ENGINEER WILL REVIEW THE DESIGN AND ADVISE AS NEEDED TO PROVIDE A SECURE AND STABLE PLATFORM. THE ENTIRE STRUCTURE IS TO BE BLACK POWDER COATED. STAIR CONNECTIONS TO THE BUILDING ARE TO BE DETERMINED BY THE FABRICATOR.

6 STAIR ANCHOR DETAIL
NTS

7 PLATFORM BRACKET CONNECTION
NTS

8 SUPPORT POST DETAIL
NTS

1 1/2" = 1'-0" 0' 3" 6" 1' 2'

1/4" = 1'-0" 0' 2' 4' 8' 12'

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FAX: (866)649-7235

P-0754

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 029469 JAMES E. LOCKLEAR

4/13/2023

PROJECT INFORMATION:

HARNETT CENTRAL PRESS BOX
HARNETT COUNTY SCHOOLS
2911 HARNETT CENTRAL RD
ANGIER, NC 27501

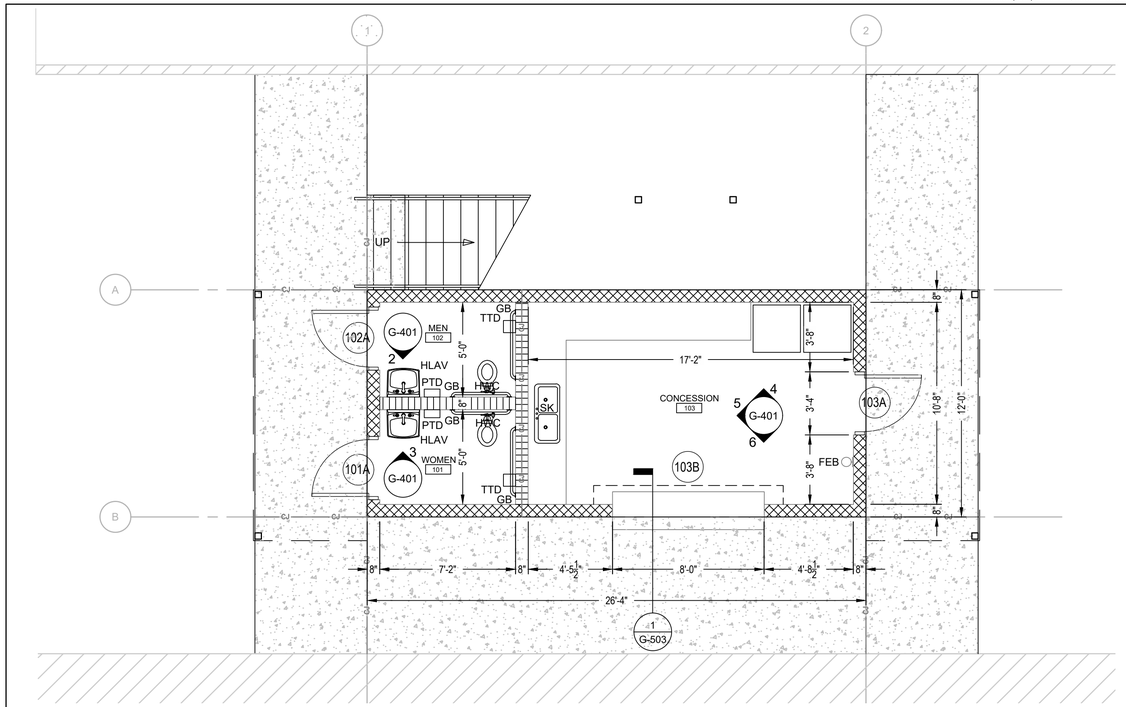
REV#	DATE	DESCRIPTION:
1.	4/13/2023	ROOF RAFTERS AND INSULATION CHANGED, ELEVATIONS UPDATED.
2.		
3.		
4.		
5.		

DATE: 1/10/2023
DRAWN BY: RDH
CHECKED BY: JEL
SHEET TITLE

BUILDING SECTIONS AND DETAILS

SHEET NUMBER
G-301
PROJECT# 21-11110

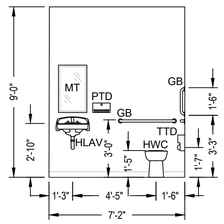
FINAL RELEASED FOR CONSTRUCTION



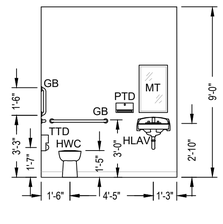
1 FIRST FLOOR PLAN
SCALE: 1/4" = 1'-0"

PLAN NORTH

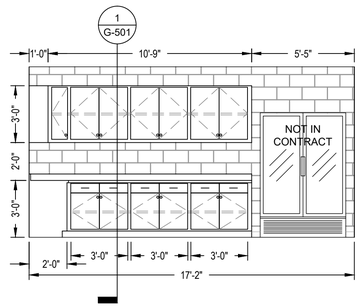
ACTUAL NORTH



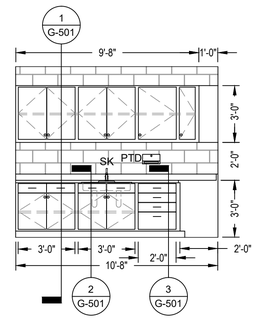
2 FIRST FLOOR PLAN
SCALE: 1/4" = 1'-0"



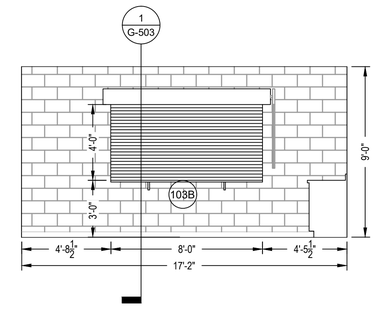
3 FIRST FLOOR PLAN
SCALE: 1/4" = 1'-0"



4 FIRST FLOOR PLAN
SCALE: 1/4" = 1'-0"



5 FIRST FLOOR PLAN
SCALE: 1/4" = 1'-0"



6 FIRST FLOOR PLAN
SCALE: 1/4" = 1'-0"

LEGEND	
FEB	FIRE EXTINGUISHER BRACKET
GB	GRAB BAR
HLAV	HANDICAPPED LAVATORY
HWC	HANDICAPPED WATER CLOSET
MT	MIRROR TILTED
PTD	PAPER TOWEL DISPENSER
REF	REFRIGERATOR
SK	SINK
TTD	TOILET TISSUE DISPENSER

101A DOOR NUMBER. REFER TO SHEET G-602 FOR DOOR SCHEDULE

1/2" = 1'-0"

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LONDON, LOCKLEAR & JACOBS P-0754

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 029469 JONATHAN E. LOCKLEAR

DocuSigned by:
4290171E30ABC4E6...
3/14/2023

PROJECT INFORMATION:

HARNETT CENTRAL PRESS BOX
HARNETT COUNTY SCHOOLS
2911 HARNETT CENTRAL RD
ANGIER, NC 27501

REV# - DATE - DESCRIPTION:
1
#1
#3
#4
#5

DATE: 1/10/2023

DRAWN BY: RDH

CHECKED BY: JEL

SHEET TITLE

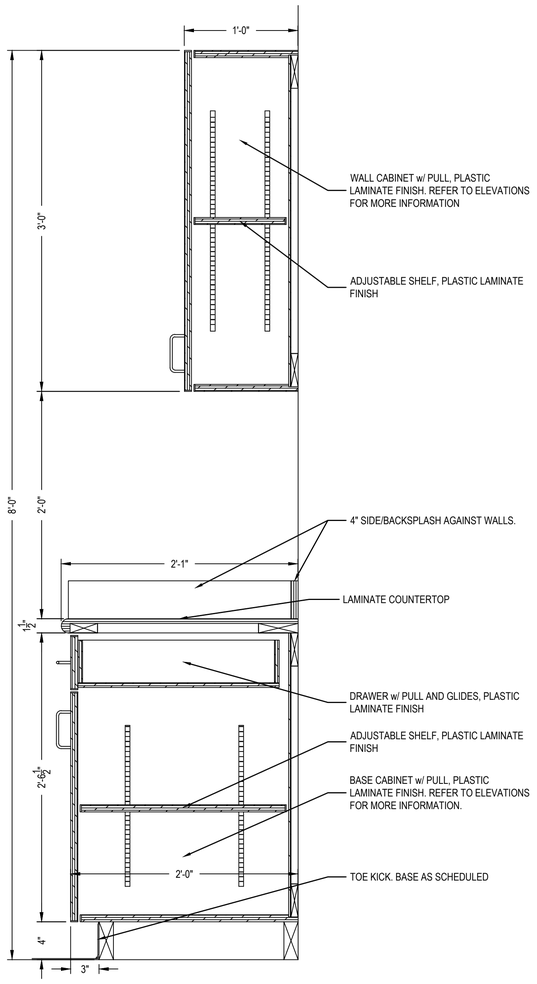
ENLARGED FLOOR PLANS AND INTERIOR ELEVATIONS

SHEET NUMBER

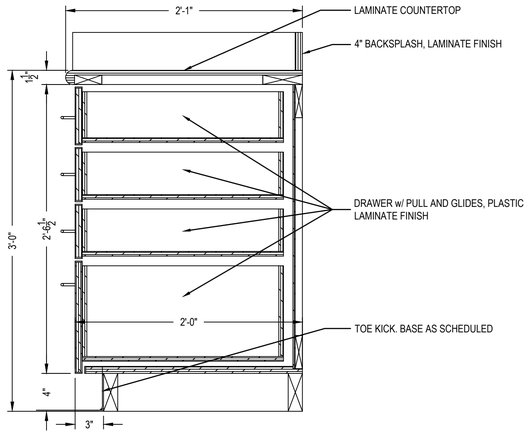
G-401

PROJECT# 21-11110

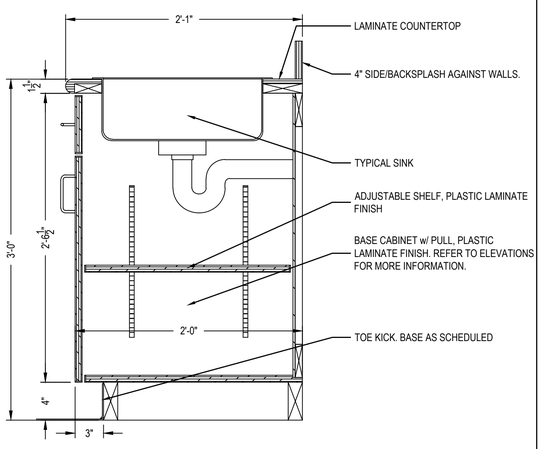
FINAL RELEASED FOR CONSTRUCTION



1 TYPICAL BASE CABINET
1 1/2" = 1'-0"



2 DRAWER CABINET SECTION
1 1/2" = 1'-0"



3 SINK BASE CABINET SECTION
1 1/2" = 1'-0"

1 1/2" = 1'-0" 0' 3" 6" 1' 2'

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LOCKLEAR, LOCKLEAR & JACOBS CONSULTING ENGINEERS P-0754

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 029469 JONATHAN E. LOCKLEAR

DocuSigned by:
429D1F7530ABC4EB...
3/14/2023

PROJECT INFORMATION:

HARNETT CENTRAL PRESS BOX
HARNETT COUNTY SCHOOLS
2911 HARNETT CENTRAL RD
ANGIER, NC 27501

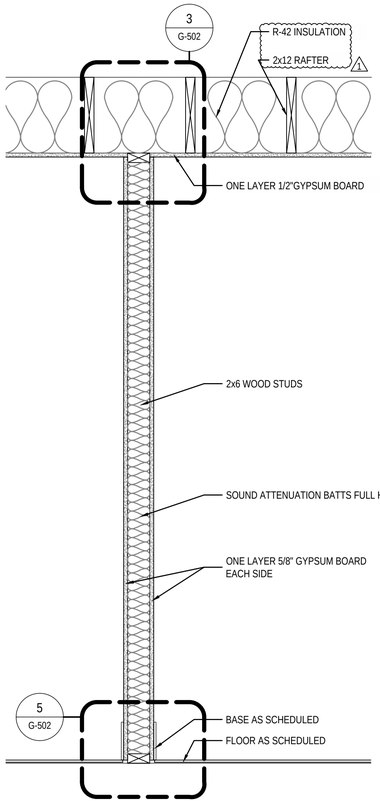
REV# - DATE - DESCRIPTION:
1.
2.
3.
4.
5.

DATE: 1/10/2023
DRAWN BY: RDH
CHECKED BY: JEL
SHEET TITLE

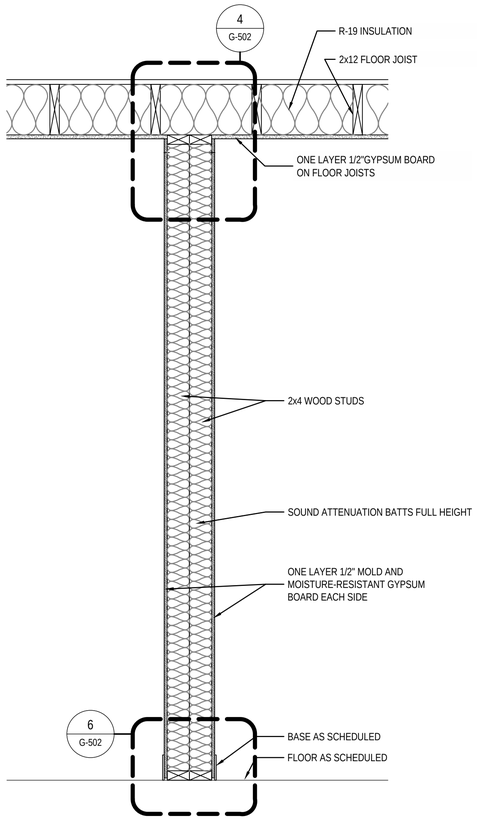
CASEWORK DETAILS

SHEET NUMBER
G-501
PROJECT# 21-11110

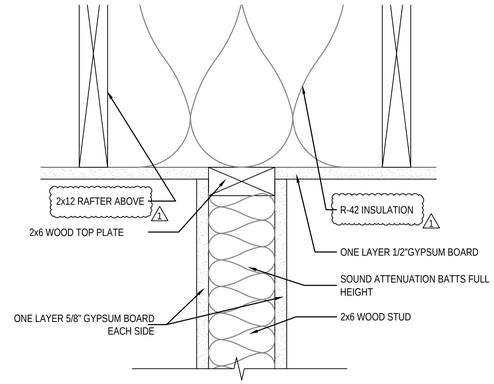
FINAL RELEASED FOR CONSTRUCTION



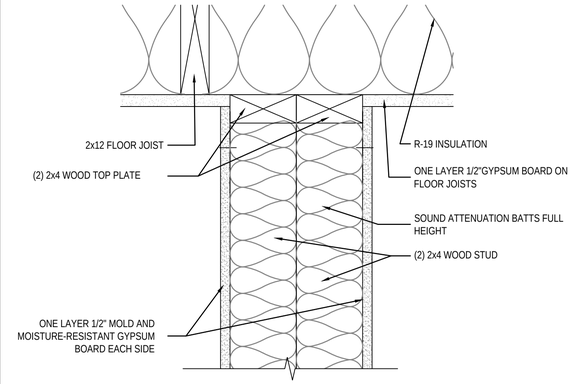
1 PARTITION TYPE P-1
1" = 1'-0"



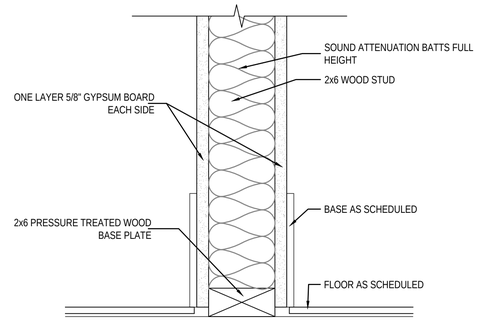
2 PARTITION TYPE P-2
1" = 1'-0"



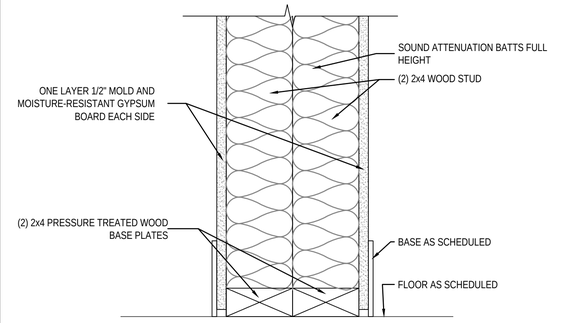
3 TOP OF PARTITION TO RAFTERS
1-1/2" = 1'-0"



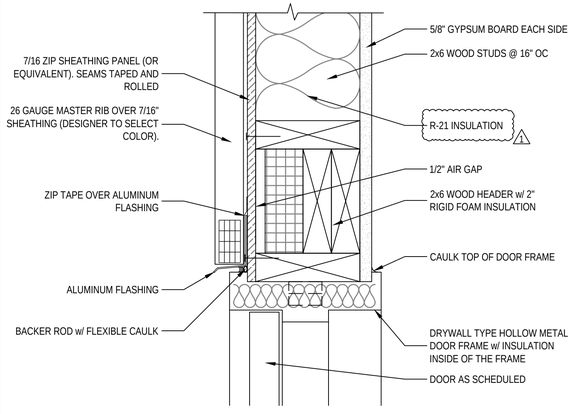
4 TOP OF PARTITION TO RAFTERS
1-1/2" = 1'-0"



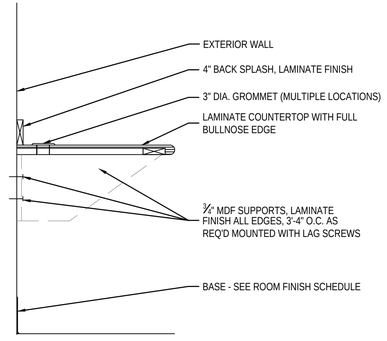
5 BASE OF PARTITION
1-1/2" = 1'-0"



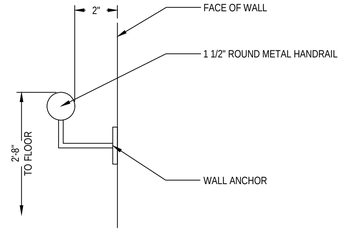
6 BASE OF PARTITION
1-1/2" = 1'-0"



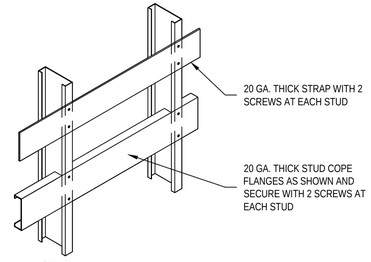
7 METAL PANEL EXTERIOR HEAD/JAMB DETAIL
3" = 1'-0"



8 CONTINUOUS COUNTER TOP DETAIL
1" = 1'-0"



9 HANDRAIL DETAIL
NTS



NOTE:
DIMENSIONAL LUMBER MAY ALSO BE USED FOR BACKING.

CONTRACTOR TO COORDINATE WITH SUPPLIER OF PA SYSTEM TO VERIFY NEED FOR WALL BLOCKING.

10 CABINET BLOCKING DETAIL
NTS

3" = 1'-0" 0' 1" 3" 6" 9" 1'

1 1/2" = 1'-0" 0' 3" 6" 1' 2'

1" = 1'-0" 0' 6" 1' 2' 3'

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LOCKLEAR, LOCKLEAR & JACOBS P-0754

Docusigned by: NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 029469 JONATHAN E. LOCKLEAR ENGINEER
4/13/2023

PROJECT INFORMATION:

HARNETT CENTRAL PRESS BOX
HARNETT COUNTY SCHOOLS
2911 HARNETT CENTRAL RD
ANGIER, NC 27501

REV# - DATE - DESCRIPTION:
1 - 4/13/2023 - ROOF RAFTERS AND INSULATION CHANGED.
2 -
3 -
4 -
5 -

DATE: 1/10/2023
DRAWN BY: RDH
CHECKED BY: JEL
SHEET TITLE

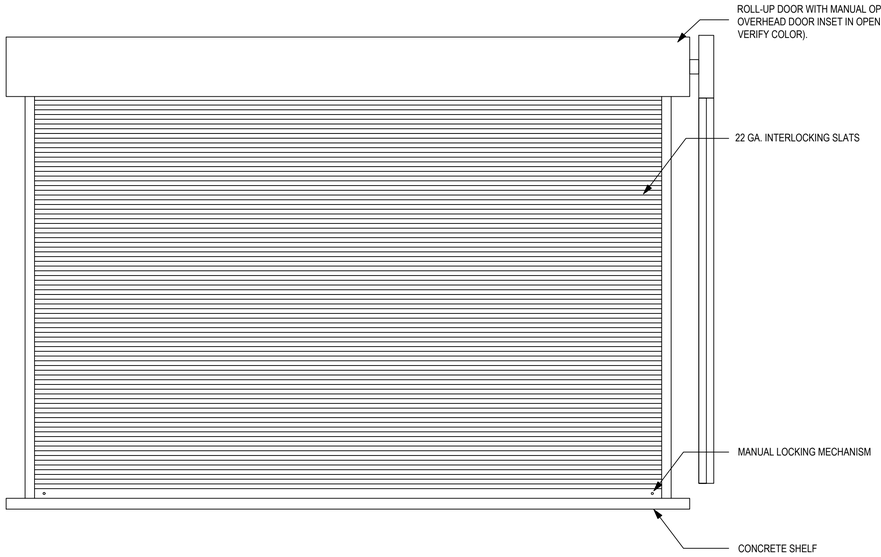
GENERAL DETAILS

SHEET NUMBER

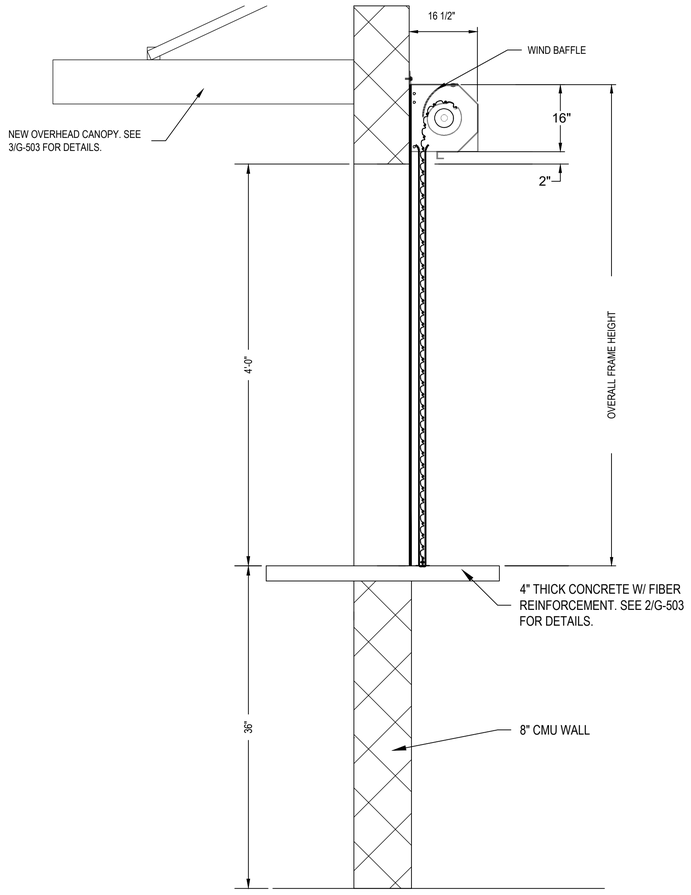
G-502

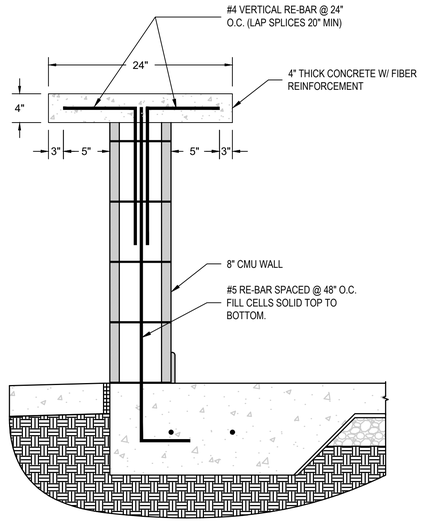
PROJECT# 21-11110

FINAL RELEASED FOR CONSTRUCTION

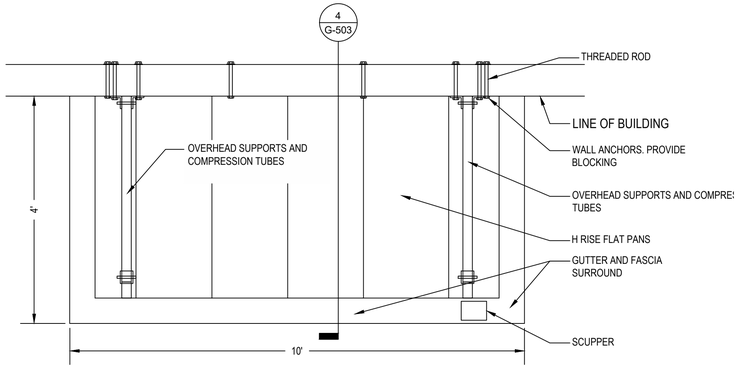


1 ROLL-UP DOOR DETAIL
N.T.S.



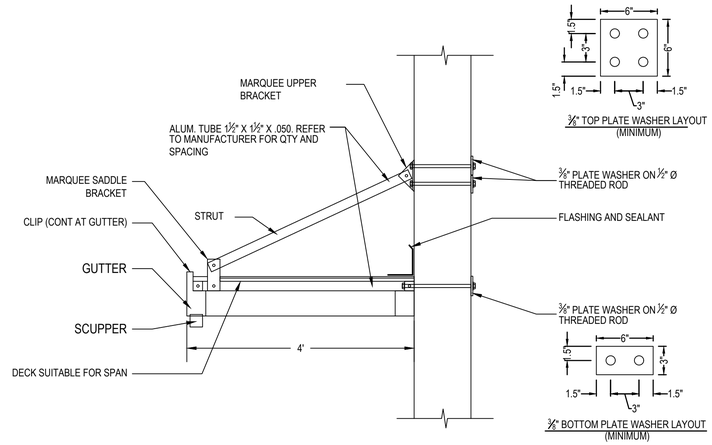


2 CONCRETE COUNTERTOP DETAIL
NTS



NOTE: REFER TO MANUFACTURER SPECIFICATIONS FOR INSTALLATION REQUIREMENTS AND HARDWARE.

3 CANOPY PLAN
NTS



CANOPY CONSTRUCTION NOTE: CONTRACTOR TO CONFIRM WITH ENGINEER FINAL CANOPY DIMENSIONS AND MATERIAL TO BE USED BEFORE PURCHASE AND INSTALLATION. ALL CANOPY CONNECTIONS SHALL BE GROUT FILLED.

4 CANOPY SECTION
NTS

LL&J
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PEMBROKE, NC 28372
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LOCKLEAR, LOCKLEAR & JACOBS CONSULTING ENGINEERS P-0754

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 029469 JONATHAN E. LOCKLEAR

DocuSigned by:
429D1A730ABC4E8...
3/14/2023

PROJECT INFORMATION:

HARNETT CENTRAL PRESS BOX
HARNETT COUNTY SCHOOLS
2911 HARNETT CENTRAL RD
ANGIER, NC 27501

REV# - DATE - DESCRIPTION:
1:
2:
3:
4:
5:

DATE: 1/10/2023
DRAWN BY: RDH
CHECKED BY: JEL
SHEET TITLE

GENERAL DETAILS

SHEET NUMBER

G-503

PROJECT# 21-11110

FINAL RELEASED FOR CONSTRUCTION

ROOM AND FINISH SCHEDULE

ROOM NO.	ROOM NAME	FLOOR	BASE	NORTH WALL		SOUTH WALL		EAST WALL		WEST WALL		CEILING			REMARKS	HDW SET	DOOR SIGNAGE	
				MATERIAL	COLOR	MATERIAL	COLOR	MATERIAL	COLOR	MATERIAL	COLOR	MATERIAL	COLOR	HEIGHT			TYPE	NAME
101	WOMEN	CONC	---	MRGWB	P-2	CMU	P-1	CMU	P-1	MRGWB	P-2	GWB	P-2	9'-0"	---	5	---	---
102	MEN	CONC	---	CMU	P-1	MRGWB	P-2	CMU	P-1	MRGWB	P-2	GWB	P-2	9'-0"	---	5	---	---
103	CONCESSION	CONC	---	CMU	P-1	CMU	P-1	MRGWB	P-2	CMU	P-1	GWB	P-2	9'-0"	---	3	---	---
201	MEDIA 1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
202	COACH ROOM 1	LVT-1	RB-1	GWB	P-2	GWB	P-2	GWB	P-2	GWB	P-2	GWB	P-2	8'-0"	---	---	---	---
203	PRESS BOX	LVT-1	RB-1	GWB	P-2	GWB	P-2	GWB	P-2	GWB	P-2	GWB	P-2	8'-0"	---	---	---	---
204	COACH ROOM 2	LVT-1	RB-1	GWB	P-2	GWB	P-2	GWB	P-2	GWB	P-2	GWB	P-2	8'-0"	---	---	---	---
205	MEDIA 2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

DOOR SCHEDULE

DOOR / OPENING							FRAME		DETAILS			HDW SET	FIRE RATING	REMARKS
NO.	TYPE	MAT'L	WIDTH	HEIGHT	THK.	FIN.	TYPE	MAT'L	HEAD	JAMB(S)	SILL			
101A	D-1	HM	6'-0"	7'-0"	1¾"	P	F-1	HM	2/S-501	2/S-501	1/S-502	2	--	--
102A	D-1	HM	6'-0"	7'-0"	1¾"	P	F-1	HM	2/S-501	2/S-501	1/S-502	2	--	--
103A	D-1	HM	6'-0"	7'-0"	1¾"	P	F-1	HM	2/S-501	2/S-501	1/S-502	2	--	--
201A	D-1	HM	3'-0"	7'-0"	1¾"	P	F-1	HM	7/G-502	---	--	2	--	--
202A	D-2	WD	3'-0"	7'-0"	1¾"	P	F-2	HM	2/G-601	3/G-601	--	1	--	--
203A	D-2	WD	3'-0"	7'-0"	1¾"	P	F-2	HM	2/G-601	3/G-601	--	2	--	--
204A	D-2	WD	3'-0"	7'-0"	1¾"	P	F-2	HM	2/G-601	3/G-601	--	1	--	--
205A	D-1	HM	3'-0"	7'-0"	1¾"	P	F-1	HM	7/G-502	---	--	2	--	--

ABBREVIATIONS LEGEND

---	NONE OR NOT APPLICABLE
CONC	SEALED CONCRETE
GWB	GYPSUM WALL BOARD
HM	HOLLOW METAL
LVT	LUXURY VINYL TILE
MRGWB	MOISTURE RESISTANT GYPSUM WALL BOARD
P	PAINTED
RB	RESILIENT BASE
TIG	TEMPERED INSULATED GLASS

DOOR HARDWARE SCHEDULE

HW SET #1 OFFICE - STC 49

1	OFFICE FUNCTION LOCKSET, BEST 45H7A-16H - 626
1	SURFACE-MOUNTED CLOSER, DORMA 8616 AF86 626
1	WALL STOP, ROCKWOOD
1	THRESHOLD, NGP 412

HW SET #2 TYPICAL EXTERIOR DOOR

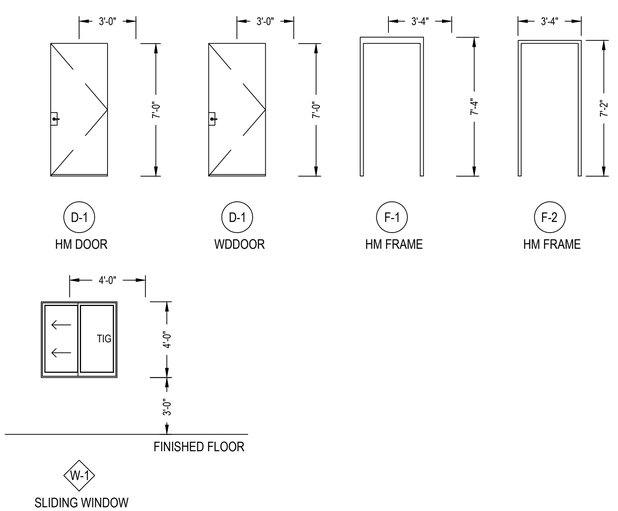
1.5 PR	HEAVY DUTY HINGES, HAGER BB1168 USP 4 1/2" X 4 1/2"
1	MEDIUM STILE EXIT DEVICE, DORMA 9300-08
1	SURFACE-MOUNTED CLOSER, DORMA 8616 AF86P 626
1 SET	WEATHERSTRIPPING, NGP 155V
1	DOOR SWEEP, NGP 101VA
1	THRESHOLD, NGP 426E

MATERIALS LEGEND

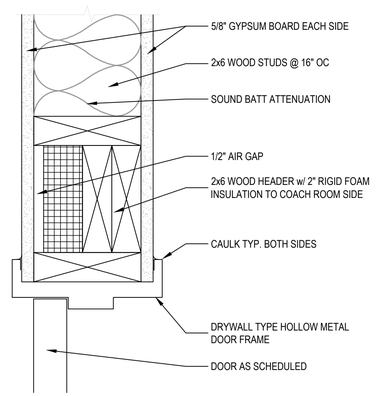
CEILING	
GWB	GYPSUM BOARD
FLOORING	
CONC	SEALED CONCRETE
LVT-1	ARMSTRONG, NATURAL CREATIONS COMMERCIAL COLLECTION, COLOR (TBD BY OWNER).
BASE	
RB-1	ARMSTRONG, 4" HIGH COVE CONTINUOUS ROLL, COLOR (TBD BY OWNER).
WALLS	
P-1	SHERWIN WILLIAMS - LOXON MASONRY TOPCOAT (OR SIMILAR), COLOR (TBD BY OWNER).
P-2	SHERWIN WILLIAMS - EMERALD DESIGNER EDITION INTERIOR LATEX PAINT (OR SIMILAR), COLOR TBD BY OWNER.
DOORS	
P-3	SHERWIN WILLIAMS - FLEXTEMP EXTERIOR ACRYLIC LATEX PAINT (OR SIMILAR), COLOR (TBD BY OWNER).

REMARKS LEGEND

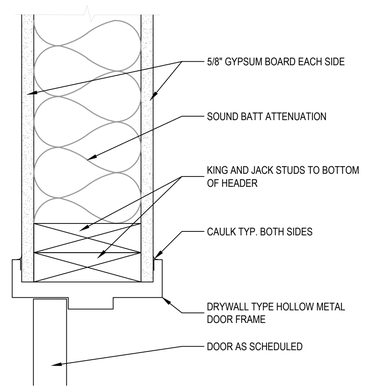
1. HOLLOW METAL DOORS & FRAMES TO BE PAINTED TO MATCH HARNETT CENTRAL SCHOOL COLORS.
2. FRAMES AND DOORS ARE TO BE GALVANIZED.
3. VON DUPRIN 22 PANIC BAR EXIT DEVICE WITH NIGHT LATCH 230NL TRIM.
4. KEYING BY HCS.



1 DOOR AND WINDOW ELEVATIONS
1/4" = 1'-0"



2 TYPICAL INTERIOR FRAME HEAD
3" = 1'-0"



3 TYPICAL INTERIOR FRAME JAMB
3" = 1'-0"

3" = 1'-0" 0' 1" 3" 6" 9" 1'

1/4" = 1'-0" 0' 2' 4' 8' 12'

LONDON, SAUNDERS, LOCKLEAR & JACOBS
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LONDON, SAUNDERS, LOCKLEAR & JACOBS P-0754

NORTH CAROLINA REGISTERED PROFESSIONAL ENGINEER SEAL 029469 JONATHAN E. LOCKLEAR

DocuSigned by:
42B0717E30ABC466...
3/14/2023

PROJECT INFORMATION:

HARNETT CENTRAL PRESS BOX
HARNETT COUNTY SCHOOLS
2911 HARNETT CENTRAL RD
ANGIER, NC 27501

REV# - DATE - DESCRIPTION:
1:
2:
3:
4:
5:

DATE: 1/10/2023
DRAWN BY: RDH
CHECKED BY: JEL
SHEET TITLE

ROOM FINISH SCHEDULE

SHEET NUMBER

G-601

PROJECT# 21-11110

FINAL RELEASED FOR CONSTRUCTION

STRUCTURAL NOTES

GENERAL NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF ALL DIMENSIONS. ALL DIMENSIONS SHOWN ARE FOR REPRESENTATION ONLY. CONTRACTOR SHALL VERIFY FINAL LOCATION AND ALL REQUIRED CLEARANCES. VERIFY ALL EXISTING CONDITIONS, DIMENSIONS AND ELEVATIONS BEFORE STARTING WORK. NOTIFY CONTRACTING OFFICER OF ANY DISCREPANCY.
2. DRAWINGS SHOW TYPICAL AND CERTAIN SPECIFIC CONDITIONS ONLY. FOR DETAILS NOT SPECIFICALLY SHOWN, PROVIDE DETAILS SIMILAR TO THOSE SHOWN.
3. THE DESIGN, ADEQUACY AND SAFETY OF ERECTION BRACING, SHORING, TEMPORARY SUPPORTS, ETC, IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
4. COORDINATE STRUCTURAL CONTRACT DOCUMENTS WITH GENERAL, MECHANICAL, ELECTRICAL, PLUMBING AND CIVIL. NOTIFY CONTRACTING OFFICER OF ANY CONFLICT AND/OR OMISSION. CONTRACTOR SHALL MAKE NO DEVIATION FROM DESIGN DRAWINGS WITHOUT WRITTEN APPROVAL OF THE CONTRACTING OFFICER. FOR ADDITIONAL OPENINGS NOT SHOWN ON THE STRUCTURAL DRAWINGS, SEE GENERAL, MECHANICAL AND PLUMBING DRAWINGS.
5. REVIEW OF SUBMITTALS AND/OR SHOP DRAWINGS BY THE CONTRACTING OFFICER DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO REVIEW AND CHECK SHOP DRAWINGS BEFORE SUBMITTAL TO THE CONTRACTING OFFICER. THE CONTRACTOR REMAINS SOLELY RESPONSIBLE FOR ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF SHOP DRAWINGS AS THEY PERTAIN TO MEMBER SIZES, DETAILS AND DIMENSIONS SPECIFIED IN THE CONTRACT DOCUMENTS. CONTRACTOR IS ALSO RESPONSIBLE FOR MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES OF CONSTRUCTION.
6. ANY BRAND SPECIFIC EQUIPMENT/MATERIALS MAY BE SUBSTITUTED W/ AN EQUIVALENT PRODUCT BY AN ALTERNATE MANUFACTURER IF APPROVED BY THE ENGINEER OF RECORD, UNO.
7. THICKENED SLAB LOCATIONS SHALL BE FIELD VERIFIED/LOCATED BELOW FINAL ANCHOR BOLT LOCATIONS. ANCHOR BOLTS SHALL BE INSTALLED PER MANUFACTURE'S INSTRUCTIONS.
8. ALL OPENINGS IN THE EXTERIOR BUILDING ENVELOPE SHALL BE SEALED AGAINST AIR INFILTRATION.

GEOTECHNICAL:

1. NO GEOTECHNICAL BORINGS WERE PERFORMED FOR THIS PROJECT. THE DESIGN OF FOUNDATIONS IS BASED ON A PRESUMPTIVE ALLOWABLE SOIL BEARING PRESSURE OF 2,000 PSF.
2. CONTRACTOR SHALL MAINTAIN ADEQUATE SITE DRAINAGE DURING CONSTRUCTION TO DIRECT WATER AWAY FROM FOUNDATION CONSTRUCTION AREAS. ANY SUB-GRADE SOILS WEAKENED BY THROUGH SATURATION OR DISTURBANCE SHALL BE REMOVED AND REPLACED WITH COMPACTED STRUCTURAL FILL. CONTRACTOR SHALL COORDINATE EXTERIOR SITE WORK WITH FOUNDATION WORK.
3. AFTER STRIPPING MATERIAL FROM AREA TO BE GRADED, REMOVE ALL UNSUITABLE MATERIAL FROM EXPOSED SUB-GRADE, SUCH AS DEBRIS, TRASH, ORGANIC MATTER OR SOFT SOIL. SOIL SURFACES RECEIVING COMPACTED STRUCTURAL FILL SHALL BE PROOF-ROLLED WITH A LOADED DUMP TRUCK. AREAS EXHIBITING EXCESSIVE PUMPING, WEAVING OR RUTTING SHALL BE EXCAVATED AND REPLACED WITH COMPACTED STRUCTURAL FILL OR SCARIFIED, DRIED AND RECOMPACTED AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACING FILL.
4. ALL FILL SHALL BE PLACED IN 6"-8" UNCOMPACTED LIFTS (MAXIMUM) AND COMPACTED TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY OBTAINED IN ACCORDANCE WITH ASTM D-698 (STANDARD PROCTOR). THE MOISTURE CONTENT OF FILL AT TIME OF PLACEMENT SHALL BE WITHIN +/- 3% OF THE OPTIMUM MOISTURE CONTENT DETERMINED IN THE LABORATORY. COMPACTED FILL SUB-GRADES WITH A SLOPE GREATER THAN 4H:1V SHALL BE BENCHED TO ALLOW PLACEMENT OF HORIZONTAL LIFTS.
5. ALL STRUCTURALLY COMPACTED FILL SHALL BE OF MATERIAL CLASSIFIED CL, ML, CS, SM, SP, SW, GC, GM, OR GW ACCORDING TO ASTM D-2487, FREE FROM CLAY BALLS, TRASH, DEBRIS OR OTHER DELETERIOUS MATTER.
6. A QUALIFIED GEOTECHNICAL ENGINEER SHALL VERIFY CONDITION AND/OR ADEQUACY OF ALL SUBGRADES, FILLS AND BACKFILLS BEFORE PLACEMENT OF FOUNDATIONS, FOOTINGS, SLABS, WALLS, FILLS, BACKFILLS, ETC.

REINFORCED CONCRETE NOTES:

1. FLOOR SLAB SHALL BE 4" (MIN) THICK CONCRETE. ALL CONCRETE SHALL HAVE MINIMUM COMPRESSIVE STRENGTH OF 3,500 PSI AFTER 28 DAYS. MAXIMUM WATER TO CEMENT RATIO SHALL BE 0.50 WITH MAXIMUM SLUMP OF 4 INCHES. CONCRETE SLAB SHALL CONTAIN A MINIMUM OF 3LBS/CUYD OF FORTA-FERRO FIBER REINFORCEMENT.
2. ALL CONCRETE WALLS SHALL BE SUPPORTED LATERALLY DURING BACKFILLING.
3. ALL DETAILING, FABRICATION AND PLACEMENT OF REINFORCING STEEL, FORM WORK, MIXING, HANDLING, PLACING, FINISHING AND CURING OF CONCRETE SHALL BE IN ACCORDANCE WITH ACI "MANUAL OF STANDARD PRACTICE FOR DETAILED REINFORCED CONCRETE STRUCTURES" (ACI-315) AND ACI "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (ACI-318).
4. ALL REINFORCING STEEL SHALL BE IN ACCORDANCE WITH ASTM A615, NEW BILLET STEEL DEFORMED BARS, GRADE 60 UNLESS NOTED OTHER WISE. ALL REINFORCING BAR SPLICES SHALL BE ACI CLASS B TENSION LAP SPLICES.
5. PRIOR TO CASTING FOUNDATIONS, PREPARE THE SITE IN ACCORDANCE WITH PLANS, SPECIFICATIONS AND REQUIRED COMPACTION.
6. ALL CONCRETE WORK SHALL CONFORM TO ACI 301, SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS. DESIGN IS BASED ON ACI 318, BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE.
7. UNLESS NOTED OTHERWISE, ALL CONCRETE SHALL BE NORMAL WEIGHT AND HAVE THE FOLLOWING MINIMUM 28-DAY COMPRESSIVE STRENGTHS:

	F'C	W/C RATIO
FOUNDATIONS	3,500 PSI	0.50 MAX
SLABS-ON-GRADE	3,500 PSI/MIN	0.50 MAX
SUSPENDED FLOOR SLAB	3,000 PSI	0.50 MAX

8. USE OF CALCIUM CHLORIDE, CHLORIDE IONS OR OTHER SALTS IN CONCRETE IS NOT PERMITTED.
9. PROVIDE CONTINUOUS REINFORCEMENT WHEREVER POSSIBLE; SPLICE ONLY AS SHOWN OR APPROVED; STAGGER SPLICES WHERE POSSIBLE; USE FULL TENSION SPLICE (CLASS "B") FOR CONTINUOUS REINFORCEMENT AND MATCHING DOWELS UNLESS NOTED OTHERWISE.
10. REINFORCING STEEL SHALL HAVE THE FOLLOWING CONCRETE COVER UNLESS NOTED OTHERWISE:
    A. CONCRETE CAST AGAINST EARTH (NOT FORMED).....3"
    B. FORMED CONCRETE EXPOSED TO THE EARTH OR WEATHER:
       #6 THROUGH #18 BARS.....2"
       #5 BARS AND SMALLER.....1½"
    C. CONCRETE NOT EXPOSED TO EARTH OR WEATHER SUSPENDED SLABS AND WALLS:
       #14 THROUGH #18 BARS.....1½"
       #11 BARS AND SMALLER.....1"
       BEAMS (STIRRUPS) AND COLUMNS (TIES).....1½"
15. DO NOT PLACE PIPES OR DUCTS EXCEEDING ONE-THIRD THE SLAB OR WALL THICKNESS WITHIN THE SLAB OR WALL UNLESS SPECIFICALLY SHOWN AND DETAILED ON STRUCTURAL DRAWINGS. ANY PIPES SHALL BE BETWEEN THE OUTER HORIZONTAL AND VERTICAL LAYERS OF REINFORCEMENT.
16. REINFORCE SLAB-ON-GRADE AT ALL PENETRATIONS AND AT RE-ENTRANT CORNERS. PLACE THREE #3X3'-0 AROUND FLOOR DRAINS. PLACE #4X4'-0" (MIN) AT RE-ENTRANT CORNERS. HOLD REINFORCING 1" CLEAR FROM TOP OF CONCRETE.
17. WALLS AND OTHER INTERSECTING ELEMENTS SHALL HAVE CORNER BARS TO PROVIDE CONTINUITY. USE CRSI STANDARDS OR AS SHOWN ON THE DRAWINGS.
18. SLAB SHALL BE PLACED IN ACCORDANCE WITH ACI 302.1R AND F-NUMBERS.

LIGHT GAUGE STEEL FRAMING:

1. THERE ARE NO LOAD BEARING WALLS DESIGNED AS PART OF THIS PROJECT.
2. LIGHT GAUGE FRAMING SHALL BE GALVANIZED STEEL, G-60 COATING TO COMPLY WITH ASTM A653, MINIMUM YIELD, SIZES AND GAUGES SHOWN.
3. LIGHT GAUGE FRAMING SHALL BE INSTALLED IN COMPLIANCE WITH THE PLANS, SPECIFICATIONS AND THE MANUFACTURER'S RECOMMENDATIONS.
4. ALL LIGHT GAUGE FRAMING SHALL BE INSTALLED BY EXPERIENCED WORKMEN SO AS TO PRODUCE RIGID ASSEMBLIES. ADD SUFFICIENT CONNECTIONS AS REQUIRED.
5. FOR STUD FRAMING AT WALL OPENINGS, REFER TO DETAILS.
6. AT INTERIOR STUD WALLS, ATTACH TRACKS TO CONCRETE WITH ONE POWER DRIVEN FASTENER PER STUD MINIMUM.
7. WALL BRIDGING SHALL BE PER STRUCTURAL DETAILS.

CONSTRUCTION NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF ALL DIMENSIONS. ALL DIMENSIONS SHOWN ARE FOR REPRESENTATION ONLY. CONTRACTOR SHALL VERIFY FINAL LOCATION AND ALL REQUIRED CLEARANCES WITH OWNER.
2. ALL ANCHOR BOLTS ARE TO BE ASTM F1554, GRADE 36.
3. THICKENED SLAB LOCATIONS SHALL BE FIELD VERIFIED/LOCATED BELOW FINAL ANCHOR BOLT LOCATIONS. ANCHOR BOLTS SHALL BE INSTALLED PER MANUFACTURE'S INSTRUCTIONS.

ROOF FRAMING / TRUSS NOTES:

1. TRUSSES MANUFACTURER TO DESIGN ENTIRE ROOFING SYSTEM. TRUSS MANUFACTURER TO BE SELECTED BY GENERAL CONTRACTOR.
2. TRUSS DRAWING IS FOR ILLUSTRATION ONLY. ALL TRUSSES SHALL BE INSTALLED & BRACED TO MANUFACTURERS DRAWINGS & SPECIFICATIONS.
3. ALL TRUSSES WILL NOT BE FIELD ALTERED WITHOUT PRIOR MANUFACTURER APPROVAL OR APPROVAL OF STRUCTURAL ENGINEERING CALCULATIONS.
4. ALL TRUSSES SHALL HAVE DESIGN DETAILS & DRAWINGS ON SITE FOR FRAMING INSPECTION.
5. ALL CONNECTIONS OF RAFTERS, JACK OR HIP TRUSSES TO MAIN GIRDER TO BE PROVIDED BY TRUSS MANUFACTURER. RAFTER OVERHANGS SHALL NOT EXCEED THE LESSER OF ONE-THIRD OF THE RAFTER SPAN OR 2 FEET.
6. ROOFS SHALL BE SHEATHED WITH A MINIMUM OF 7/16" WOOD STRUCTURAL PANEL SHEATHING WITH ROOF FRAMING MEMBER SPACING OF 24" O.C.
7. WOOD ROOF TRUSS SYSTEMS SHALL BE DESIGNED, MANUFACTURED, AND INSTALLED IN ACCORDANCE ANSI/TPI 1 NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION, THE TRUSS DESIGN DRAWINGS, AND/OR THE MANUFACTURER'S CODE EVALUATION REPORT.
8. BLOCKING AND CONNECTIONS SHALL BE PROVIDED AT PANEL EDGES PERPENDICULAR TO ROOF FRAMING MEMBERS IN THE FIRST TWO TRUSS OR JOIST SPACES AND SHALL BE SPACED AT A MAXIMUM OF 4 FEET ON CENTER.
9. ALL ROOF PITCH SHALL BE AS SHOWN UNLESS NOTED OTHERWISE.
10. PROVIDE 1" MIN. AIR GAP AT EAVES WITH INSULATION BAFFLES AT ALL TRUSS BAYS.
11. ALL EXPOSED INSULATION TO HAVE A FLAME SPREAD RATING OF LESS THEN 25 AND A SMOKE DENSITY RATING OF LESS THAN 450.
12. THE CONTRACTOR SHALL NOT USE MATERIALS UNLESS THEY MEET CURRENT CODES AND ARE APPROVED FOR THAT SPECIFIC USE BY THE BUILDING OFFICIAL.
19. HURRICANE STRAPS SHALL BE INSTALLED AS ROOF ANCHORAGE TO LOAD BEARING WALLS. HURRICANE STRAPS SHALL BE INSTALLED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.

VENTILATION NOTES:

1. ATTIC SHALL HAVE VENTILATION EQUAL TO 1 SQ. FOOT PER 300 SQ. FEET OF ATTIC SPACE. VENTILATION SHALL BE PROTECTED FROM SNOW AND RAIN AND SHALL BE COVERED WITH GALVANIZED WIRE SCREEN. OPENINGS SHALL BE LOCATED TO PROVIDE CROSS VENTILATION.
2. EXHAUST ALL VENTS AND FANS DIRECTLY TO OUTSIDE VIA METAL DUCTS.

INFILTRATION:

ALL OPENINGS IN THE EXTERIOR BUILDING. ENVELOPE SHALL BE SEALED AGAINST AIR INFILTRATION. THE FOLLOWING AREAS MUST BE SEALED.

* JOINTS AROUND WINDOW AND DOOR FRAMES
* JOINTS BETWEEN WALL CAVITY AND WINDOW/DOOR FRAMES.
* JOINTS BETWEEN WALL AND FOUNDATION
* JOINTS BETWEEN WALL AND ROOF
* JOINTS BETWEEN WALL PANELS
* UTILITY PENETRATIONS THROUGH EXTERIOR WALLS

DESIGN CRITERIA

BUILDING CODE: NCSBC 2018, ASCE 7-16

1. OCCUPANCY CATEGORY: CATEGORY II (NORMAL USE)
2. LIVE LOAD
   - 2.1.1. 1ST FLOOR: 100 PSF
   - 2.1.2. 2ND FLOOR: 100 PSF
   - 2.1.3. ROOF: 20 PSF
   - 2.1.4. STAIRS: 100 PSF
3. SNOW LOAD
   - 3.1.1. GROUND SNOW: 15 PSF
   - 3.1.2. FLAT ROOF SNOW (Pf): 15 PSF (CONSERVATIVE)
   - 3.1.3. SNOW EXPOSURE FACTOR, (Ce): 0.9 (FULLY)
   - 3.1.4. SNOW IMPORTANCE FACTOR, (Is): 1.0
   - 3.1.5. THERMAL FACTOR, (Ct): 1.0
4. WIND
   - 4.1. 120 MPH
   - 4.2. WIND IMPORTANCE FACTOR, (Iw): 1.0
   - 4.3. WIND EXPOSURE: B
   - 4.4. INTERNAL PRESSURE COEFFICIENT: +/- 0.18 (ENCLOSED)
5. EARTHQUAKE
   - 5.1. RISK CATEGORY: II
   - 5.2. SEISMIC IMPORTANCE FACTOR (Ie): 1.0
   - 5.3. SPECTRAL RESPONSE ACCELERATION: Ss = 0.13 S1 = 0.064
   - 5.4. SITE CLASS: D
   - 5.5. SPECTRAL RESPONSE COEF: SDS = 0.139 SD1 = 0.103
   - 5.6. SEISMIC DESIGN CATEGORY: B
   - 5.7. SEISMIC RESISTING SYSTEM: BEARING WALL
   - 5.8. DESIGN BASE SHEAR. Vx = 1.8 KIPS Vy = 2.9 KIPS
   - 5.9. SEISMIC RESPONSE COEF (Cs) = 0.0556
   - 5.10. RESPONSE MODIFICATION COEF, (R): 3
   - 5.11. ANALYSIS PROCEDURE: SIMPLIFIED
6. PRESUMPTIVE SOILS BARING CAPCITY OF 2000 PSF
7. FROST LINE DEPTH: 12-INCHES.

STRUCTURAL ABBREVIATIONS

A/E	ARCHITECT/ENGINEER	BKG	BACKING	DET	DETAIL	FIN FLR	FINISH FLOOR	INCL	INCLUDED	ML	MICRO-LAMINATED,			TEMP	TEMPORARY
AB	ANCHOR BOLT	BKGD	BACKGROUND	DEV	DEVELOPMENT	FLG	FLANGE	INFO	INFORMATION		MONOLITHIC	R	RADIUS, RISER	THD	THREAD
ABBRV	ABBREVIATION	BLDG	BUILDING	DIA	DIAMETER	FLR	FLOOR	IN-LB	INCH-POUND	MO	MASONRY OPENING	RC	REINFORCED CONCRETE	THK	THICKNESS
ACI	AMERICAN CONCRETE INSTITUTE	BLK	BLOCK/BLOCKING	DIAG	DIAGONAL	FLR SK	FLOOR SINK	IN-LBF	INCH-POUND FORCE	MS	MACHINE SCREW	RD	ROAD, ROOF DRAIN	THRU	THROUGH
		BLVD	BOULEVARD	DIFF	DIFFERENCE, DIFFERENTIAL	FOC	FACE OF CONCRETE	INSTL	INSTALL	MSL	MEAN SEA LEVEL	REC	RECESSED	TJI	TRUSS JOIST INSTITUTE
ACP	ASPHALTIC CONCRETE PAVING	BLW	BELOW	DIM	DIMENSION	FOF	FACE OF FINISH	INSUL	INSULATION	MTL	METAL	REF	REFERENCE	TO	TOP OF
AD	AREA DRAIN	BM	BEAM	DIST	DISTANCE	FOM	FACE OF MASONRY	INT	INTERIOR			REINF	REINFORCED	TOB	TOP OF BEAM
ADA	AMERICANS WITH DISABILITIES ACT	BO	BOTTOM OF	DIV	DIVIDE	FOS	FACE OF SLAB, FACE OF STUD	IR	INSIDE RADIUS	N	NORTH	REQ	REQUIRE	TOC	TOP OF CONCRETE
		BOS	BOTTOM OF STEEL	DJ	DOUBLE JOIST	FOW	FACE OF WALL			NA	NOT APPLICABLE	REQD	REQUIRED	TOC	WALL TOP OF CONCRETE WALL
ADDL	ADDITIONAL	BOT	BOTTOM	DL	DEAD LOAD	FR	FRAME	K	KIP, THOUSAND	NF	NEAR FACE	REV	REVISION	TOF	TOP OF FOOTING
ADDM	ADDENDUM	B PL	BASE PLATE	DOC	DOCUMENT	FRMG	FRAMING	KB	KNEE BRACE	NIC	NOT IN CONTRACT	RGD INS	RIGID INSULATION	TOG	TOP OF GRATE
ADJ	ADJACENT/ADJOINING	BRCG	BRACING	DWG	DRAWING	FS	FAR SIDE	KCJ	KEYED CONTROL JOINT	NO	NUMBER	RND	ROUND	TOJ	TOP OF JOIST
ADMIN	ADMINISTRATION	BRDG	BRIDGING			FSTNR	FASTENER	KIP	THOUSAND POUNDS	NOM	NOMINAL	RO	ROUGH OPENING	TOL	TOLERANCE
AFF	ABOVE FINISHED FLOOR	BRG	BEARING	EA	EACH	FT	FOOT / FEET	KIP FT	THOUSAND FOOT/POUNDS	NS	NEAR SIDE	RT	RIGHT	TOM	TOP OF MASONRY
AFG	ABOVE FINISHED GRADE	BRG PL	BEARING PLATE	EE	EACH END	FT/LB	FOOT/POUND	KLF	KIPS PER LINEAL FOOT	NTS	NOT TO SCALE	RVL	REVEAL	TOP	TOP OF PARAPET
AGGR	AGGREGATE	BS	BOTH SIDES	EF	EACH FACE	FT/LBF	FOOT/POUND FORCE	KO	KNOCK OUT					TOS	TOP OF SLAB
AHR	ANCHOR	BSMT	BASEMENT	EIFS	EXTERIOR INSULATION AND FINISH SYSTEM	FTG	FOOTING	KOP	KNOCK OUT PANEL	O/O	OUT TO OUT	S	SOUTH	TOS	TOP OF STEEL
AIA	AMERICAN INSTITUTE OF ARCHITECTS	BT WLD	BUTT WELD			FUT	FUTURE	KSF	KIPS PER SQUARE FOOT	OA	OVERALL	SCHEM	SCHEMATIC	TOW	TOP OF WALL
		BTWN	BETWEEN	EJ	EXPANSION JOINT			KSI	KIPS PER SQUARE INCH	OC	ON CENTER	SD	SHOP DRAWINGS	TRANS	TRANSVERSE
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION	C	CHANNEL	EL	ELEVATION	G	GIRDER			OD	OUTSIDE DIAMETER	SDI	STEEL DECK INSTITUTE	TRNBKL	TURNBUCKLE
				ELAST	ELASTOMERIC	GA	GAGE	L	ANGLE	OF	OUTSIDE FACE	SE	STRUCTURAL ENGINEER	TYP	TYPICAL
AISI	AMERICAN IRON AND STEEL INSTITUTE	C/C	CENTER TO CENTER	ELEC	ELECTRIC	GALV	GALVANIZED	LAM	LAMINATE	OFS	OUTSIDE FACE OF STUD	SECT	SECTION		
		CD	CONSTRUCTION DOCUMENTS,	ELEM	ELEMENTARY	GALV STL	GALVANIZED STEEL	LATL	LATERAL	OPH	OPPOSITE HAND	SF	SQUARE FEET (FOOT)	UBC	UNIFORM BUILDING CODE
AITC	AMERICAN INSTITUTE OF TIMBER CONSTRUCTION		CONTRACT DOCUMENTS	ELEV	ELEVATOR	GR BM	GRADE BEAM	LBF	POUND-FORCE	OPNG	OPENING	SHT	SHEET, SHAFT	UNO	UNLESS NOTED OTHERWISE
		CEM	CEMENT	EMBED	EMBEDDED/EMBEDMENT	GC	GENERAL CONTRACTOR	LBR	LUMBER	OPP	OPPOSITE	SIM	SIMILAR		
ALNMT	ALIGNMENT	CHFR	CHAMFER	ENCL	ENCLOSURE	GEN	GENERAL	LBS	POUND	OPT	OPTIONAL	SJI	STEEL JOIST INSTITUTE	VAR	VARIES
ALT	ALTERNATE, ALTERNATIVE	CI	CAST IRON	ENGR	ENGINEER	GLU LAM	GLUED LAMINATED WOOD	LD BRG	LOAD BEARING	OR	OUTSIDE RADIUS	SLNT	SEALANT	VERT	VERTICAL
ALUM	ALUMINUM	CIP	CAST-IN-PLACE	EOS	EDGE OF SLAB	GLZ	GLAZING	LF	LINEAR FEET (FOOT)			SM	SMOOTH	VIF	VERIFY IN FIELD
AMT	AMOUNT	CJ	CONSTRUCTION JOINT,	EPA	ENVIRONMENTAL PROTECTION AGENCY	GOVT	GOVERNMENT	LIN	LINEAR	PAR	PARALLEL, PARAPET	SPEC	SPECIFICATION	VNR	VENEER
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE		CONTRACTION JOINT, CONTROL JOINT	EQ	EQUAL	GRTG	GRATING	LL	LIVE LOAD	PC	PIECE, PORTLAND CEMENT	SQ	SQUARE	VR	VAPOR RETARDER
						GT	GROUT	LLBB	LONG LEG BACK TO BACK	PCC	PRECAST CONCRETE	SQ IN	SQUARE INCH	VRFY	VERIFY
APA	AMERICAN PLYWOOD ASSOCIATION	CL	CENTER LINE	EQUIP	EQUIPMENT			LLH	LONG LEG HORIZONTAL	PCF	POUNDS PER CUBIC FOOT	SQ YD	SQUARE YARD		
		CLG	CEILING	EQUIV	EQUIVALENT	H	HIGH	LLV	LONG LEG VERTICAL	PED	PEDESTAL	SSPC	STRUCTURAL STEEL PAINTING COUNCIL	W	WEST, WIDE
APPD	APPROVED	CLR	CLEAR	EST	ESTIMATE	HAS	HEADED ANCHOR STUD	LONG	LONGITUDINAL	PEN	PENETRATE			W/	WITH
APPROX	APPROXIMATE	CM	CENTIMETER	ETC	ET CETERA	HC	HOLLOW-CORE	LT GA	LIGHT GAGE	PERIM	PERIMETER	ST	STAIRS	W/O	WITHOUT
APPX	APPENDIX	CMU	CONCRETE MASONRY UNIT	EW	EACH WAY	HCP	HANDICAPPED	LT WT	LIGHT WEIGHT	PH	PHASE	STAG	STAGGERED	WBL	WOOD BLOCKING
ARCH	ARCHITECT	COL	COLUMN	EX	EXAMPLE	HD	HEAVY DUTY	LVR	LOUVER	PIL	PILASTER	STD	STANDARD	WD	WOOD
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS	COM	COMMON	EXC	EXCAVATE	HGR	HANGER	LWC	LIGHTWEIGHT CONCRETE	PL	PLATE	STL	STEEL	WF	WIDE FLANGE
		CONC	CONCRETE	EXCL	EXCLUDE	HLDN	HOLDDOWN			PLAT	PLATFORM	STR	STRINGERS	WF BM	WIDE FLANGE BEAM
ASSN	ASSOCIATION	CONN	CONNECTION	EXIST	EXISTING	HORIZ	HORIZONTAL	M	MOMENT	PLBG	PLUMBING	STRUCT	STRUCTURAL	WL	WIND LOAD
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	CONSTR	CONSTRUCTION	EXP	EXPANSION	HS	HIGH STRENGTH	MAINT	MAINTENANCE	PLF	POUNDS PER LINEAR FOOT	SUB	SUBSTITUTE	WLD	WELDED
		CONT	CONTINUOUS, CONTINUE	EXT	EXTERIOR	HSKPG	HOUSEKEEPING	MATL	MATERIAL	POS	POSITION	SUF	SUFFICIENT	WM	WIRE MESH
ATCH	ATTACHMENT	COORD	COORDINATE			HSS	HOLLOW STRUCTURAL SECTIONS	MAX	MAXIMUM	PP	PANEL POINT	SUP	SUPPLEMENTARY	WP	WATERPROOFING
ATTN	ATTENTION	CTR	CENTER	F/F	FACE TO FACE			MB	MACHINE BOLT	PRCST	PRECAST	SUPPL	SUPPLEMENT	W/SCT	WAINSCOT
AWS	AMERICAN WELDING SOCIETY	CTRL	CONTROL	FAB	FABRIC	HST	HOIST	MC	MOMENT CONNECTION	PREFAB	PREFABRICATE	SYM	SYMBOL	WT	WEIGHT
		CU	CUBIC	FB	FLAT BAR	HT	HEIGHT	MCJ	MASONRY CONTROL JOINT	PRELIM	PRELIMINARY	SYMM	SYMMETRICAL	WWF	WELDED WIRE FABRIC
B&F	BELL AND FLANGE	CU YD C	UBIC YARD	FD	FLOOR DRAIN			MD	METAL DECK	PREV	PREVIOUS	SYS	SYSTEM	WWM	WELDED WIRE MESH
BAL	BALANCE			FDTN	FOUNDATION	IBC	INTERNATIONAL BUILDING CODE	MECH	MECHANICAL	PSF	POUNDS PER SQUARE FOOT				
B/B	BACK TO BACK	D	DEEP, DEPTH	FF	FAR FACE			MEZZ	MEZZANINE	PSI	POUNDS PER SQUARE INCH	T	TREAD	X BRACE	CROSS BRACING
BC	BOTTOM CHORD	DBL	DOUBLE	FF EL	FINISH FLOOR ELEVATION	ID	INSIDE DIAMETER	MFR	MANUFACTURER	PTN	PARTITION	T&B	TOP AND BOTTOM	XXH	DOUBLE EXTRA HEAVY
BD	BOARD	DEG	DEGREE	FIN GR	FINISH GRADE	IF	INSIDE FACE	MID	MIDDLE	PVG	PAVING	T&G	TONGUE AND GROOVE		
BEV	BEVEL	DEL	DELETE	FH	FLAT HEAD	IFS	INSIDE FACE OF STUD	MIN	MINIMUM			TAN	TANGENT	YD	YARD
BFF	BELOW FINISH FLOOR	DEMO	DEMOLITION	FIN	FINISH	IN	INCH	MISC	MISCELLANEOUS	QTY	QUANTITY	TB	THRU BOLT		

SYMBOL LEGEND

SYMBOL	DESCRIPTION
X / X.X — DETAIL DESIGNATION; AREA TO BE DETAILED; SHEET DETAIL IS FOUND ON	DETAIL INDICATOR
X / X.X — SECTION DESIGNATION; SHEET SECTION IS FOUND ON	SECTION SYMBOL
X / X.X — ELEVATION DESIGNATION; SHEET ELEVATION IS FOUND ON	ELEVATION SYMBOL
0 — A	STRUCTURAL GRID
LEVEL 1 / +15'-0" AFF	LEVEL TAG
1	AREA OF REVISION AND REVISION NUMBER
1	KEY NOTE

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P-0754

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 029469 JONATHAN E. LOCKLEAR

DocuSigned by: 429D1173B0ABC456...

3/14/2023

PROJECT INFORMATION:

HARNETT CENTRAL PRESS BOX
HARNETT COUNTY SCHOOLS
2911 HARNETT CENTRAL RD
ANGIER, NC 27501

REV# - DATE - DESCRIPTION:	1	2	3	4	5

DATE: 1/10/2023

DRAWN BY: RDH

CHECKED BY: JEL

SHEET TITLE

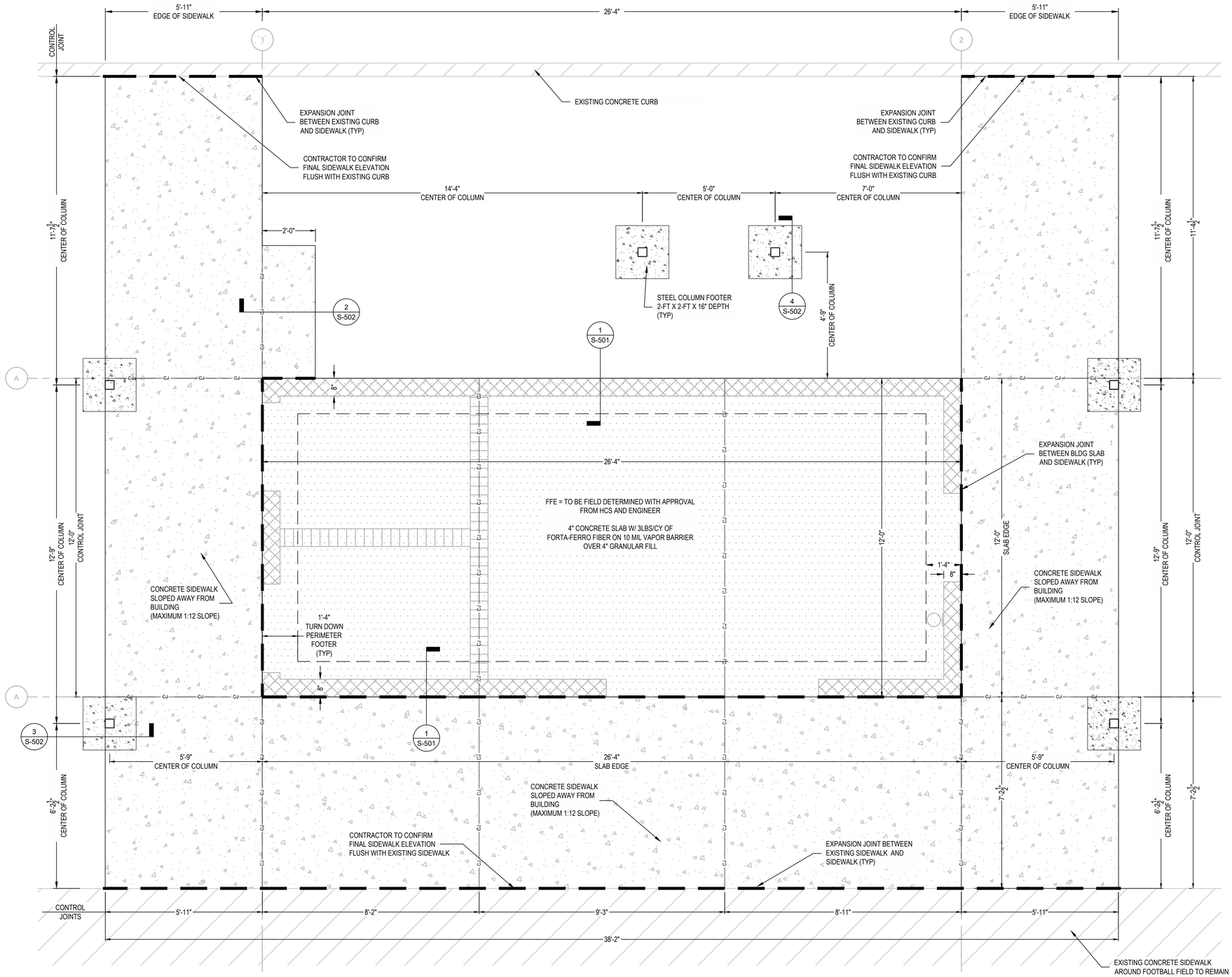
STRUCTURAL NOTES AND ABBREVIATIONS

SHEET NUMBER

S-001

PROJECT# 21-11110

FINAL RELEASED FOR CONSTRUCTION



1 FOUNDATION PLAN
SCALE: 1/2" = 1'-0"

PLAN NORTH

ACTUAL NORTH

1/2" = 1'-0"

GRADING NOTES:
1. FINISH FLOOR ELEVATION SHALL BE FIELD DETERMINED BASED ON EXISTING GRADES AND DESIRED STORMWATER RUNOFF PATTERNS.
2. CONTRACTOR SHALL WORK WITH OWNER AND ENGINEER TO ESTABLISH FINIAL SLOPES AND GRADING PATTERNS FOR STORMWATER RUNOFF AROUND THE BUILDING.

FILL NOTE
ALL FILL SHALL BE PLACED IN 6"-8" UN-COMPACTED LIFTS (MAXIMUM) AND COMPACTED TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY OBTAINED IN ACCORDANCE WITH ASTM D-698 (STANDARD PROCTOR). THE MOISTURE CONTENT OF FILL AT TIME OF PLACEMENT SHALL BE WITHIN +/- 3% OF THE OPTIMUM MOISTURE CONTENT DETERMINED IN THE LABORATORY. COMPACTED FILL SUB-GRADES WITH A SLOPE GREATER THAN 4H:1V SHALL BE BENCHED TO ALLOW PLACEMENT OF HORIZONTAL LIFTS.

CONCRETE NOTES:
1. A CONTINUOUS TURNED DOWN SLAB FOOTING SHALL BE USED TO SUPPORT THE BUILDING WALLS. THE FOOTING SHALL BE 16-INCHES WIDE AND SHALL BE A MINIMUM OF 12-INCHES DEEP.
2. ALL SIDEWALKS SHALL BE A MIN. OF 4-INCH THICK AND SHALL HAVE EXPANSION JOINTS LOCATED AT ALL LOCATION ADJACENT TO EXISTING SIDEWALKS, CURBS AND PROPOSED BUILDING.
3. ALL CONCRETE SHALL HAVE FORTA-FERRO FIBER AT 3LBS/YD MIXED AT THE PLANT PER MANUFACTURES RECOMMENDATION.
4. CONCRETE FINISHES:
   4.1. SIDEWALKS - BROOM
   4.2. INTERIOR SLAB - SMOOTH AND SEALED WITH ARDEX MOISTURE TREATMENT
   4.3. NOTE: ALL FIBER PROTRUDING OUT OF CONCRETE AFTER FINISH AND CONCRETE HAS CURED SHALL BE REMOVED FROM THE SURFACE VIA BURNING OR OTHER NON-DESTRUCTIVE METHOD.
5. ALL BACKFILL AND SOIL BELOW SLABS AND FOOTINGS MUST BE COMPACTED TO 2000 PSF MIN.
6. CONTRACTOR TO CONFIRM FOOTERS ARE BELOW FROST LINE. THE MINIMUM DEPTH OF FOOTINGS BELOW THE UNDISTURBED GROUND SURFACE SHALL BE 12 INCHES.
7. MASONRY UNITS SHALL BE INSTALLED WITH TYPE "M" OR "S" MORTAR.
8. ALL DETAILING, FABRICATION AND PLACEMENT OF REINFORCING STEEL, FORM WORK, MIXING, HANDLING, PLACING, FINISHING AND CURING OF CONCRETE SHALL BE IN ACCORDANCE WITH ACI "MANUAL OF STANDARD PRACTICE FOR DETAILED REINFORCED CONCRETE STRUCTURES" (ACI-315) AND ACI "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (ACI-318).
9. CONCRETE SHALL CONFORM TO ASTM C94. MINIMUM STRENGTH AT 28 DAYS SHALL BE 3000 PSI. MAXIMUM WATER TO CEMENT RATIO SHALL BE 0.60 WITH MAXIMUM SLUMP OF 4 INCHES. MAXIMUM SIZE OF COARSE AGGREGATE SHALL BE 3/4 INCH AND ALL AGGREGATES SHALL CONFORM TO ASTM C33.
10. EXTERIOR CONCRETE SHALL BE AIR ENTRAINED WITH AIR CONTENT TO BE BETWEEN 5 AND 7 PERCENT BY VOLUME.
11. ALL REINFORCING STEEL SHALL BE IN ACCORDANCE WITH ASTM A615 (S1), NEW BILLET STEEL DEFORMED BARS, GRADE 60. UNLESS NOTED OTHER WISE, ALL REINFORCING BAR SPLICES SHALL BE ACI CLASS B TENSION LAP SPLICES. REBAR LAPS SHALL BE A MINIMUM OF 24".
12. THE FOLLOWING CONCRETE COVER SHALL BE PROVIDED FOR REINFORCEMENT NEAREST THE DESCRIBED SURFACE, UNLESS NOTED OTHERWISE:
   A. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3 INCHES
   B. CONCRETE CAST NOT EXPOSED TO EARTH OR WEATHER: 1 1/2 INCHES
   C. CONCRETE EXPOSED TO EARTH OR WEATHER:
      i. #6 OR LARGER BARS: 2 INCHES
      ii. #5 OR SMALLER BARS: 1 1/2 INCHES

COLUMN FOOTER NOTES
1. ALL COLUMN SUPPORT FOOTERS SHALL BE 2-FT X 2-FT X 16-INCH DEPTH.
2. ALL COLUMN FOOTERS SHALL BE CENTER UNDER COLUMNS.
3. ALL COLUMN FOOTERS REQUIRE #5 REBAR @ 18 O/C EACH WAY, TOP AND BOTTOM.

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P-0754
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 029469 JONATHAN E. LOCKLEAR

DocuSigned by:
42DD1F530ABC456...
3/14/2023

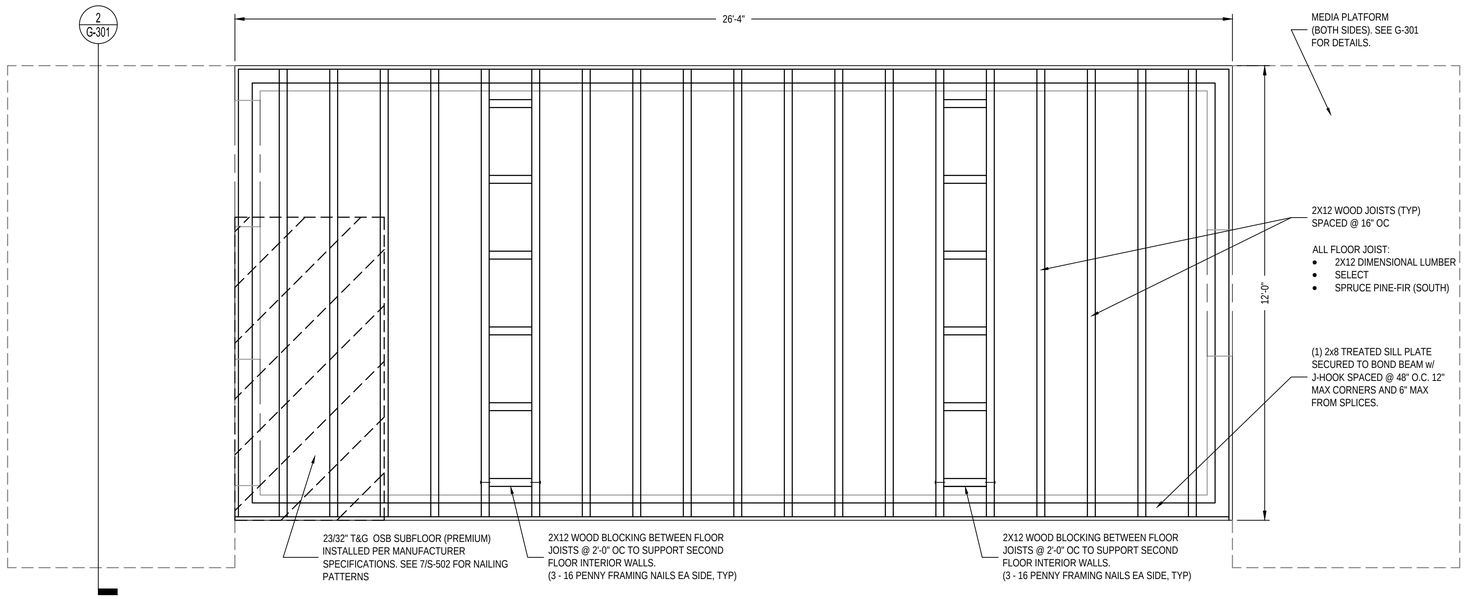
PROJECT INFORMATION:
HARNETT CENTRAL PRESS BOX
HARNETT COUNTY SCHOOLS
2911 HARNETT CENTRAL RD
ANGIER, NC 27501

REV# - DATE - DESCRIPTION:
1 -
2 -
3 -
4 -
5 -

DATE: 1/10/2023
DRAWN BY: RDH
CHECKED BY: JEL
SHEET TITLE
FOUNDATION PLAN
SHEET NUMBER
S-101
PROJECT# 21-11110

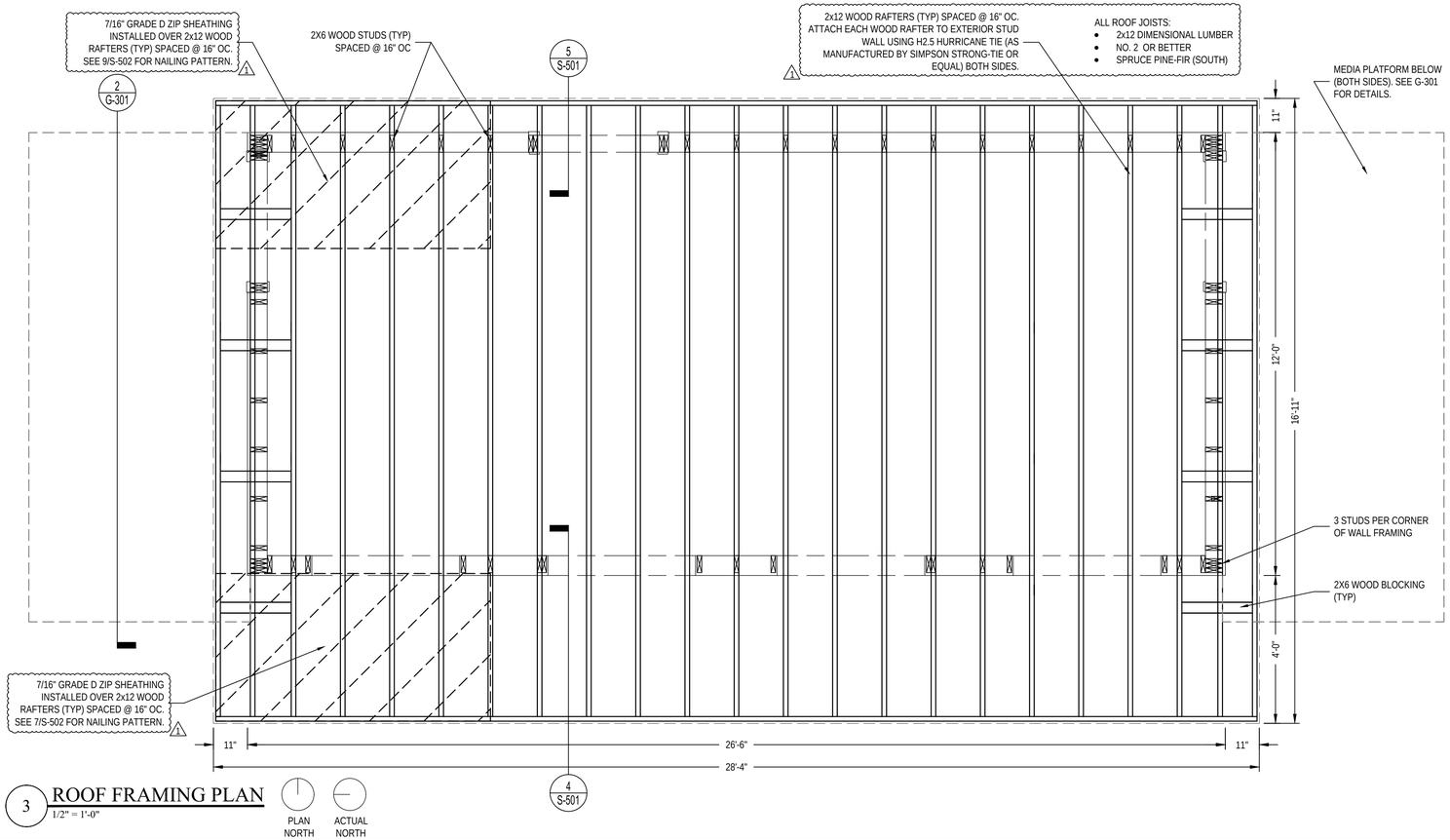
Know what's below.
Call before you dig.

FINAL RELEASED FOR CONSTRUCTION



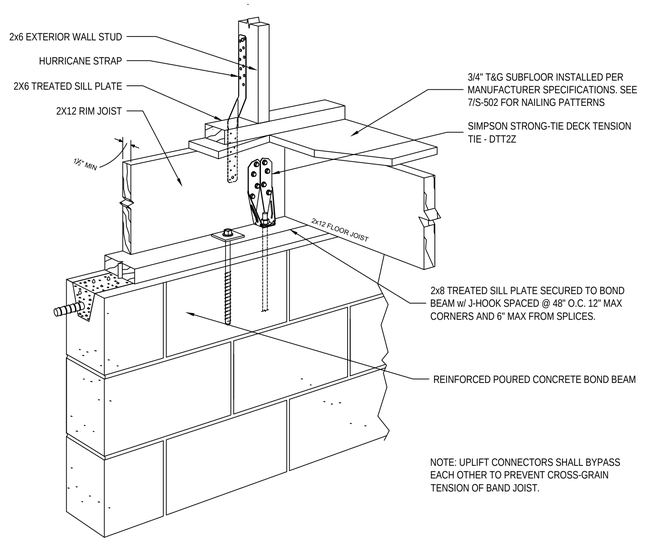
1 SECOND FLOOR FRAMING PLAN
1/2" = 1'-0"

PLAN NORTH | ACTUAL NORTH

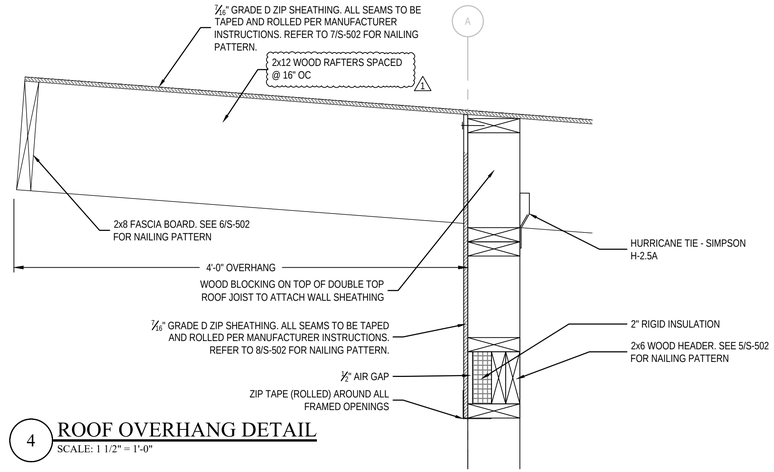


3 ROOF FRAMING PLAN
1/2" = 1'-0"

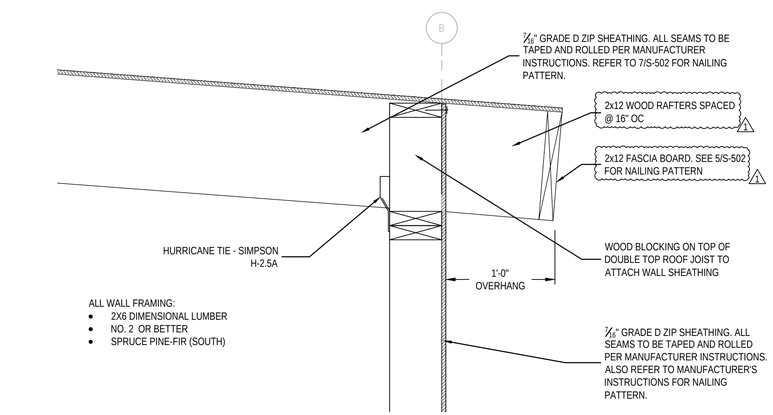
PLAN NORTH | ACTUAL NORTH



2 FLOOR FRAMING DETAIL
N.T.S.



4 ROOF OVERHANG DETAIL
SCALE: 1 1/2" = 1'-0"



5 ROOF OVERHANG DETAIL
SCALE: 1 1/2" = 1'-0"

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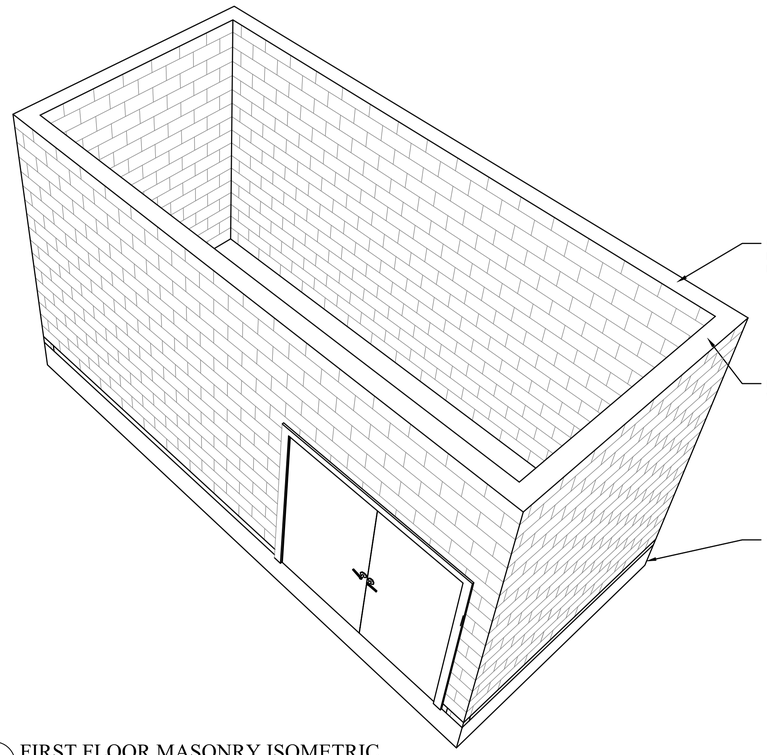
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 029469 JONATHAN E. LOCKLEAR
DocuSigned by: 5D0B3C4E6...
4/13/2023

PROJECT INFORMATION:

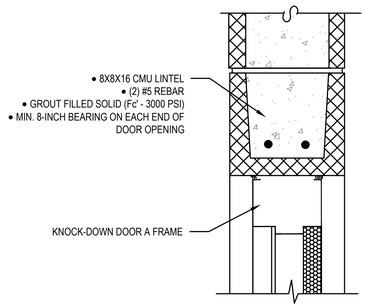
HARNETT CENTRAL PRESS BOX
HARNETT COUNTY SCHOOLS
2911 HARNETT CENTRAL RD
ANGIER, NC 27501

REV#	DATE	DESCRIPTION:
1.	4/13/2023	ROOF RAFTERS AND INSULATION CHANGED.
2.		
3.		
4.		
5.		

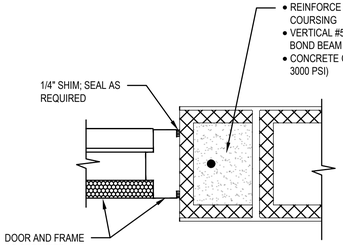
DATE: 1/10/2023
DRAWN BY: CKD
CHECKED BY: JEL
SHEET TITLE
FRAMING PLAN
SHEET NUMBER
S-102
PROJECT# 21-11110



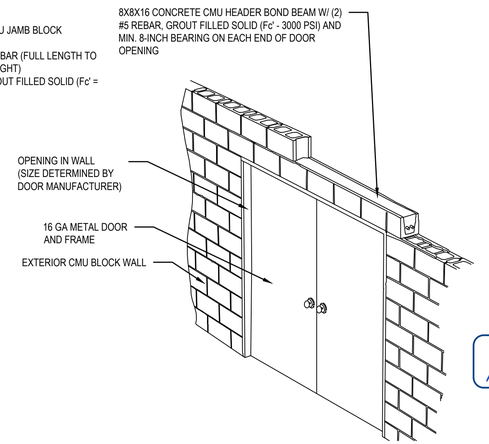
1 FIRST FLOOR MASONRY ISOMETRIC
N.T.S.

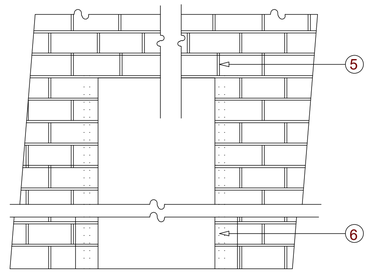


HEAD DETAIL



JAMB DETAIL





ELEVATION

BOND BEAM NOTES:
1. BOND BEAMS SHALL BE FILLED WITH GROUT AND REINFORCED.
2. GROUT BARRIERS SHALL BE INSTALLED UNDER BOND BEAM UNITS TO RETAIN THE GROUT AS REQUIRED.
3. REINFORCEMENT SHALL BE CONTINUOUS, EXCEPT THROUGH CONTROL JOINTS OR EXPANSION JOINTS. WHERE SPLICES ARE REQUIRED FOR CONTINUITY, REINFORCEMENT SHALL BE LAPPED 48 BAR DIAMETERS.
4. A MINIMUM CLEARANCE OF 1/2 INCH SHALL BE MAINTAINED BETWEEN REINFORCEMENT AND INTERIOR FACES OF UNITS.
5. 8X8X16 CONCRETE CMU HEADER BOND BEAM W/ (2) #5 REBAR, GROUT FILLED SOLID (Fc' - 3000 PSI) AND MIN. 8-INCH BEARING ON EACH END OF DOOR OPENING
6. FILL CONCRETE BLOCKS AT EACH JAMB w/ GROUT; PROVIDE CLEAN-OUT AT BASE OF EACH JAMB TO ENSURE COMPLETE FILLING OF BLOCK CELLS.
7. THE CONCRETE LINTEL A MIN. OF 8" ON EACH SIDE OF NEW OPENING.

PERSONNEL DOOR NOTES:
1. DOORS SHALL BE 6 PANEL, STEEL, AND PAINTED (OWNER TO APPROVE COLOR).
2. HARDWARE TO MATCH PSRC STANDARDS.

2 TYPICAL BOND BEAM OVER OPENING DETAILS
N.T.S.

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LOCKLEAR & JACOBS CONSULTING ENGINEERS P-0754 NORTH CAROLINA ENGINEERING CORPORATION

DocuSigned by:
JONATHAN E. LOCKLEAR SEAL 029460
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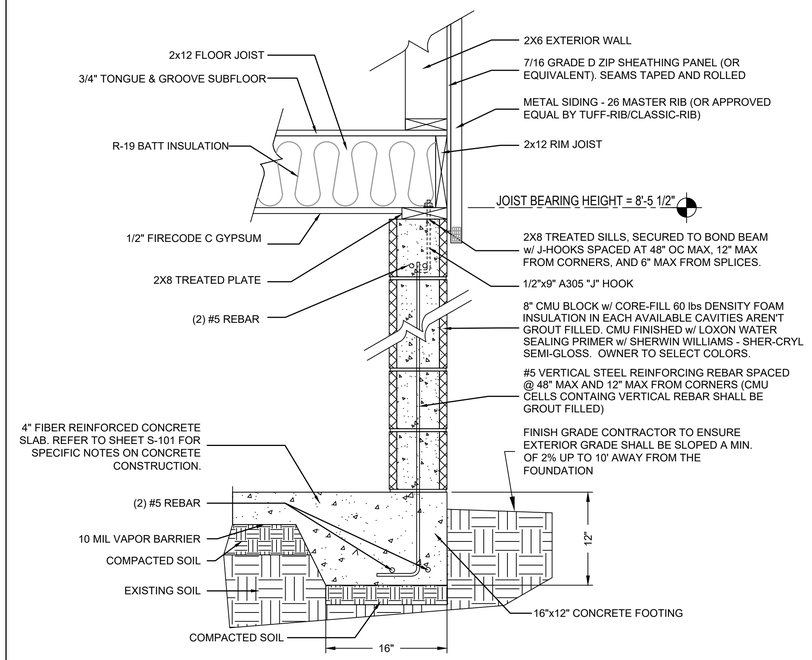
3/14/2023



3 EXTERIOR WALL SECTION
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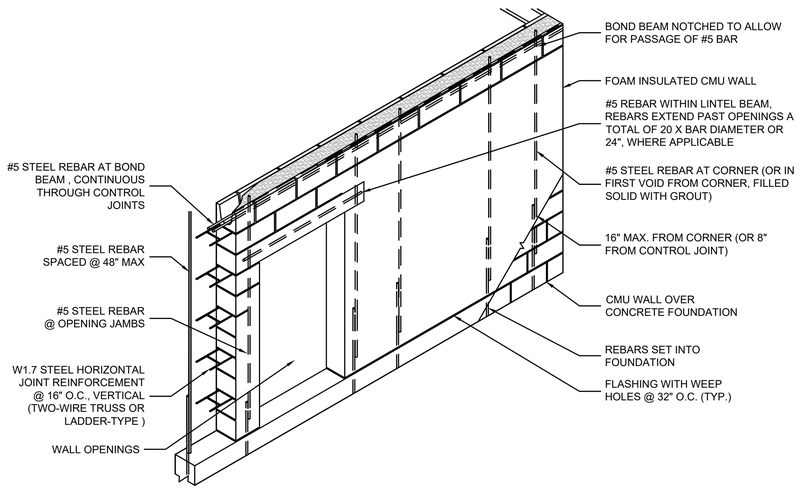
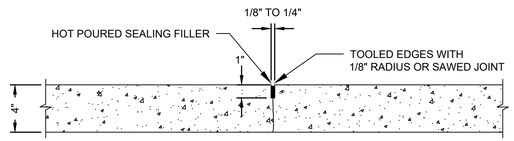
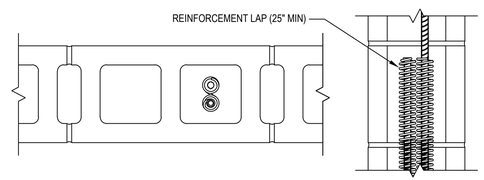


4 TYPICAL STEEL REINFORCEMENT IN CMU WALL
NTS



NOTE:
CUT JOINTS AS SOON AS CONCRETE HAS HARDENED ENOUGH NOT TO RAVEL DURING CUTTING (TYP WITHIN 8 HRS)

5 CONTROL JOINT DETAIL
N.T.S.



NOTES:
1. TO STRENGTHEN THE WALL TO ACCOMMODATE LARGER VERTICAL LOADS AS WELL AS RESIST LATERAL LOADS VERTICAL CMU WALL REINFORCEMENT SHALL BE USED.
2. VERTICAL CMU WALL REINFORCEMENT CONSISTS OF INSERTING #5 STEEL REBAR INTO OPEN CORES OF THE WALL, THEN FILLING THOSE CORES SOLID WITH A CONCRETE-LIKE GROUT.

6 TYPICAL REBAR SPLICE DETAIL
NTS

PROJECT INFORMATION:
HARNETT CENTRAL PRESS BOX
HARNETT COUNTY SCHOOLS
2911 HARNETT CENTRAL RD
ANGIER, NC 27501

REV# - DATE - DESCRIPTION:
1 -
2 -
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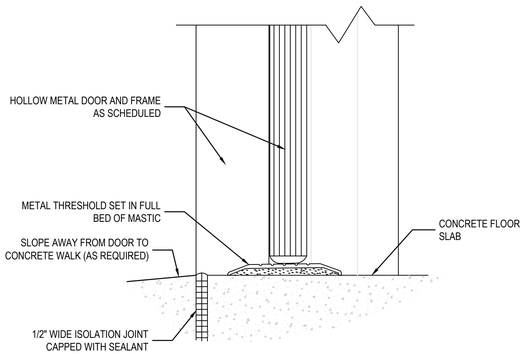
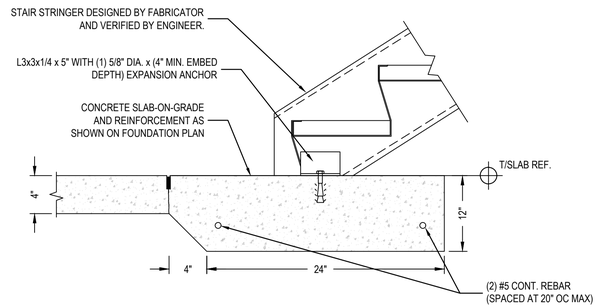
DATE: 1/10/2023
DRAWN BY: CKD
CHECKED BY: JEL
SHEET TITLE
STRUCTURAL DETAILS
SHEET NUMBER
S-501
PROJECT# 21-11110

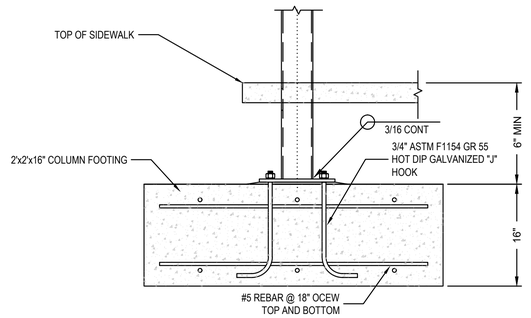
FINAL RELEASED FOR CONSTRUCTION



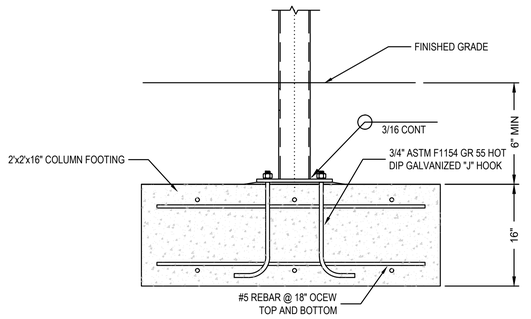
1 SILL AT EXTERIOR DOOR
NTS



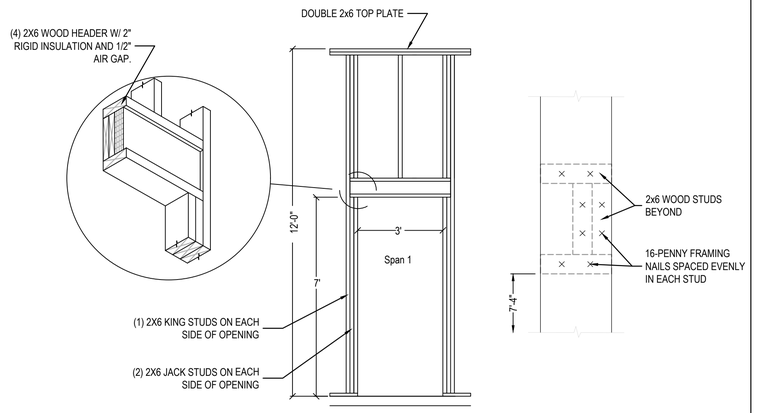
2 THICKENED SLAB ON GRADE UNDER STEEL STAIRS DETAIL
NTS



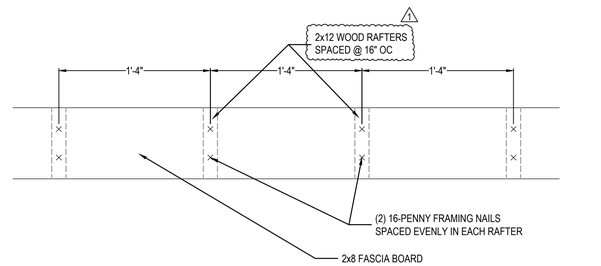
3 STEEL COLUMN FOOTER DETAIL
NTS



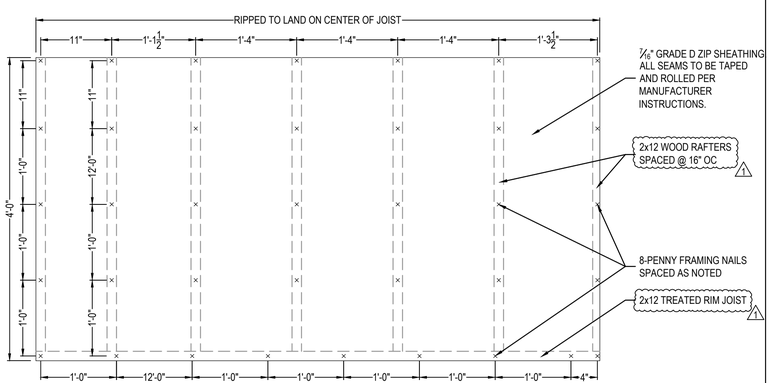
4 STEEL COLUMN FOOTER DETAIL
NTS



5 TYPICAL 36" OPENING IN EXTERIOR WALL DETAIL
NTS

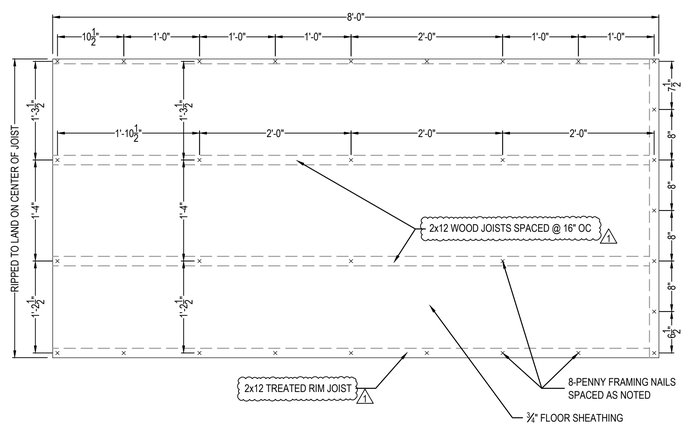


6 FASCIA BOARD NAILING PATTERN
NTS

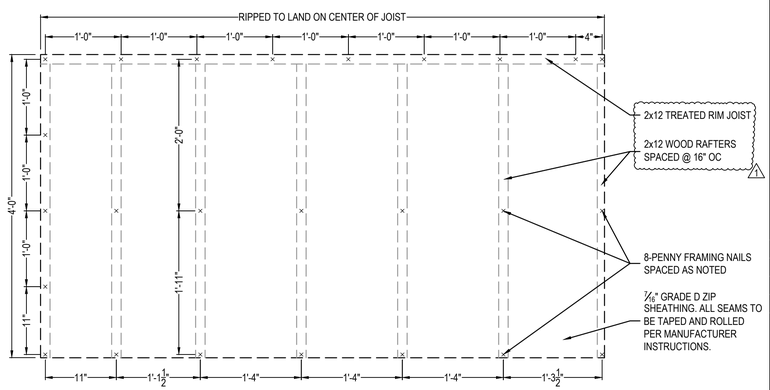


7 ROOF SHEATHING NAILING PATTERN
NTS

NOTE:
ON THE 4'-0" OVERHANG, THE NAIL SPACING IS TO BE 1'-0" OC.



8 FLOOR SHEATHING NAILING PATTERN
NTS



9 ROOF SHEATHING NAILING PATTERN
NTS

NOTE:
ON THE 1'-0" OVERHANG PART OF THE ROOF, THE NAIL SPACING IS TO BE 1'-0" OC ON THE PERIMETER AND 2'-0" OC TYPICAL ELSEWHERE.

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LOCKLEAR, LOCKLEAR & JACOBS P-0754

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 029469 JONATHAN E. LOCKLEAR
DocuSigned by: 2A0D7E9ABC4E8...
4/13/2023

PROJECT INFORMATION:
HARNETT CENTRAL PRESS BOX
HARNETT COUNTY SCHOOLS
2911 HARNETT CENTRAL RD
ANGIER, NC 27501

REV#	DATE - DESCRIPTION:
1.	4/13/2023 ROOF RAFTERS CHANGED, FLOOR JOIST SIZE CORRECTED.
2.	
3.	
4	
5.	

DATE: 1/10/2023
DRAWN BY: CKD
CHECKED BY: JEL
SHEET TITLE
STRUCTURAL DETAILS
SHEET NUMBER
S-502
PROJECT# 21-11110

FINAL RELEASED FOR CONSTRUCTION

PLUMBING ABBREVIATIONS

A/E	ARCHITECT / ENGINEER
AAV	AUTOMATIC AIR VENT
AD	AREA DRAIN/ACCESS DOOR
AFF	ABOVE FINISH FLOOR
AFG	ABOVE FINISH GRADE
AG	AIR GAP
AP	ACCESS PANEL
AS	AUTOMATIC SPRINKLER
ASD	ADJUSTABLE SPEED DRIVES
ASD	AUTOMATIC SPRINKLER DRAIN
ASHRAE	AMERICAN SOCIETY OF HEATING, REFRIGERATION, AIR CONDITIONING ENGINEERS
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS
ASPE	AMERICAN SOCIETY OF PLUMBING ENGINEERS
ASR	AUTOMATIC SPRINKLER RISER
AV	ACID VENT
AW	ACID WASTE
BFP	BACKFLOW PREVENTER
BFF	BELOW FINISH FLOOR
BFV	BUTTERFLY VALVE
BHP	BRAKE HORSEPOWER
BSP	BLACK STEEL PIPE
BT	BATHTUB
BV	BALL VALVE
C	CELSIUS
CA	COMPRESSED AIR
CFM	CUBIC FEET PER MINUTE
CGA	COMPRESSED GAS ASSOCIATION
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CO	CLEANOUT
CS	CLINICAL SINK
CV	CONTROL VALVE
CWR	CONDENSER WATER RETURN
CWS	CONDENSER WATER SUPPLY
DCW	DOMESTIC COLD WATER
DF	DRINKING FOUNTAIN
DFU	DRAINAGE FIXTURE UNITS
DHW	DOMESTIC HOT WATER
DHWR	DOMESTIC HOT WATER RETURN
DHWS	DOMESTIC HOT WATER SUPPLY
DI	DEIONIZED WATER
DN	DOWN
DOE	DEPARTMENT OF ENERGY
DS	DOWNSPOUT
DW	DISHWASHER
DWG	DRAWING
DWH	DOMESTIC WATER HEATER
DWR	DRINKING WATER RETURN
DWS	DRINKING WATER SUPPLY
DWV	DRAIN WASTE VENT
EL	ELEVATION
EPA	ENVIRONMENTAL PROTECTION AGENCY
EPACT	ENERGY POLICY ACT
ESC	ESCUTCHEON
ESH	EMERGENCY SHOWER
ET	EXPANSION TANK
EWH	ELECTRIC WATER HEATER
EWS	EYE WASH STATION
EWS/SH	EYE WASH/DRENCH SHOWER
EX	EXISTING
F	FAHRENHEIT
FCO	FLOOR CLEANOUT
FCW	FILTERED COLD WATER
FD	FLOOR DRAIN
FDC	FIRE DEPARTMENT CONNECTION
FM	FLOW METER
FS	FLOOR SINK
FS	FLOW SWITCH
FU	FIXTURE UNITS
GAL	GALLON
GCO	GRADE CLEANOUTS
GPD	GALLONS PER DAY
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GPR	GAS PRESSURE REGULATOR
GRS	GAS REGULATOR STATION
GT	GREASE TRAP
GV	GATE VALVE
GVTR	GAS VENT THROUGH ROOF
GWH	GAS FIRED WATER HEATER
HB	HOSE BIBB
HD	HUB DRAIN
HEX	HEAT EXCHANGER
HHWR	HEATING HOT WATER RETURN
HHWS	HEATING HOT WATER SUPPLY
HP	HORSEPOWER
HS	HAND SINK
HST	HOT WATER STORAGE TANK
HWB	HOT WATER BOILER
HWCP	HOT WATER CIRCULATING PUMP
HWP	HOT WATER PUMP
HYD	HYDRANT
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
IMB	ICE MAKER BOX
INV	INVERT
IPC	INTERNATIONAL PLUMBING CODE
IRW	IRRIGATION WATER
IV	ISOLATION VALVE
IW	INDIRECT WASTE
IWH	INSTANTANEOUS WATER HEATER
IWR	INDUSTRIAL WATER RETURN
IWS	INDUSTRIAL WATER SUPPLY
KW	KILOWATT
KWH	KILOWATT-HOUR
L/S	LITER PER SECOND
LA	LABORATORY AIR
LAV	LAVATORY
LBS/HR	POUNDS PER HOUR
LCW	LABORATORY COLD WATER
LHW	LABORATORY HOT WATER
LNG	LIQUID NATURAL GAS
LOX	LIQUID OXYGEN
LPG	LIQUEFIED PROPANE GAS
LV	LABORATORY VACUUM
LW	LOW WATER
M	METER
MA	MEDICAL AIR
MAV	MANUAL AIR VENT
MBH	1000 BTUH
MED	MEDICAL
MH	MANHOLE
MS	MOP SINK
MV	MEDICAL VACUUM
N2	NITROGEN
N20	NITROUS OXIDE
NC	NORMALLY CLOSED
NG	NATURAL GAS
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NOM	NOMINAL
NPW	NON POTABLE WATER
NTS	NOT TO SCALE
O2	OXYGEN
OC	ON CENTER
OD	OUTSIDE DIAMETER
OFD	OVERFLOW DRAIN
OR	OPERATING ROOM
OVFL	OVERFLOW
PA	PASCAL
PD	PRESSURE DROP OR DIFFERENCE
PDI	PLUMBING AND DRAINAGE INSTITUTE
PG	PRESSURE GAUGE
PP	PLUMBING PUMP
PPM	PARTS PER MILLION
PRS	PRESSURE REDUCING STATION
PRV	PRESSURE REDUCING VALVE
PSI	POUNDS PER SQUARE INCH
PSIA	POUNDS PER SQUARE INCH ATMOSPHERE
PSIG	POUNDS PER SQUARE INCH GAUGE
PTRV	PRESSURE TEMPERATURE RELIEF VALVE
PW	POTABLE WATER
RD	ROOF DRAIN
RDL	ROOF DRAIN LEADER
RL	ROOF LEADER
RP	RECIRCULATION PUMP
RPZ	REDUCED PRESSURE ZONE BACKFLOW DEVICE
RO	REVERSE OSMOSIS WATER
RWL	RAIN WATER LEADER
SA	SHOCK ARRESTOR
SC	SWING CHECK VALVE
SS	SANITARY SEWER
SCW	SOFTENED COLD WATER
SDMH	STORM DRAIN MANHOLE
SNK	SINK
SMH	SANITARY MANHOLE
SP	SUMP PUMP
SPR	SPRINKLER LINE
SQFT/SF	SQUARE FEET
SST	STAINLESS STEEL
ST	STORAGE TANK
SW	STORM WATER
TCV	TEMPERATURE CONTROL VALVE
TD	TEMPERATURE DIFFERENCE
TD	TRENCH DRAIN
TDH	TOTAL DYNAMIC HEAD
TEMP	TEMPERATURE
TMV	THERMOSTATIC MIXING VALVE
TP	TRAP PRIMER
TSTAT	THERMOSTAT
TWR	TEMPERED WATER RETURN
TWS	TEMPERED WATER SUPPLY
TYP	TYPICAL
UR	URINAL
V	VENT
VAC	VACUUM
VB	VACUUM BREAKER
VCO	VACUUM CLEANER OUTLET
VP	VACUUM PUMP
VS	VENT STACK
VSD	VARIABLE SPEED DRIVE
VTR	VENT THROUGH ROOF
W	WASTE
WC	WATER CLOSET
WCO	WALL CLEANOUT
WG	WATER GAGE
WH	WALL HYDRANT
WH	WATER HEATER
WHA	WATER HAMMER ARRESTER
WL	WATER LINE
WM	WATER METER
WPD	WATER PRESSURE DROP
WS	WASTE STACK
WSFU	WATER SUPPLY FIXTURE UNITS
YCO	YARD CLEANOUT
YH	YARD HYDRANT
ZV	ZONE VALVE

PLUMBING LEGEND

SYMBOL	DESCRIPTION
	SANITARY WASTE
SD	STORM DRAIN
OD	STORM OVERFLOW DRAIN
	SANITARY VENT
	DOMESTIC COLD WATER (CW)
	DOMESTIC HOT WATER (H.W)
DHWR	DOMESTIC HOT WATER RETURN (HWR)
G	GAS PIPE
	CAP
	DIRECTION OF SLOPE
	DIRECTION OF FLOW
D	DRAIN (INDIRECT)
	RISE AND DROP IN PIPING
CO	CLEANOUT
	GATE VALVE
	BALL VALVE
	BUTTERFLY VALVE
	CHECK VALVE
	UNION
SA	SHOCK ABSORBER (TYPE 'A')
	STRAINER W/ BLOW DOWN VALVE
	GAS COCK
	PRESSURE REDUCING VALVE
	PRESSURE RELIEF VALVE
	TEMPERATURE AND PRESSURE RELIEF VALVE
	GAUGE COCK
	PRESSURE GAUGE W/ GAUGE COCK
	THERMOMETER
WH	WALL HYDRANT
	HOSE BIBB
	SOLENOID VALVE
	FLOW SWITCH
	FLOOR DRAIN
	ROOF DRAIN
A	COMPRESSED AIR
F	FIRE LINE
SP	FIRE SPRINKLER PIPING
	WET FIRE SPRINKLER VALVE ASSEMBLY
	OS&Y GATE VALVE
OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
BTC	BRANCH TO CONNECTION
FL	FLOW LINE ELEVATION
SPU	STORM PIPING UNDERSLAB
	FIRE SPRINKLER RISER

NOTE: NOT ALL SYMBOLS SHOWN ARE NECESSARILY USED

PLUMBING NOTES

1. ALL SITE UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS ONLY. CONTRACTOR VERIFY EXACT LOCATION AND INVERT ELEVATION IN FIELD BEFORE BEGINNING WORK. DRAWINGS AND RISERS ARE DIAGRAMMATIC AND ARE NOT INTENDED TO SHOW ALL REQUIRED FITTINGS AND OFFSETS REQUIRED FOR ACTUAL INSTALLATION. PROVIDE OFFSETS IN PIPING AS NEEDED TO AVOID CONFLICTS WITH OTHER TRADES.
2. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITION OF THE NC STATE PLUMBING CODE AS WELL AS ALL LOCAL AND OTHER APPLICABLE CODES.
3. THE PLUMBING CONTRACTOR SHALL REVIEW ALL UTILITY SITE PLANS AND DRAWINGS FOR WORK BY OTHERS. LOCATION OF UTILITIES (WASTER AND WATER LINES, MANHOLES ETC) THAT ARE TO BE CONNECTED TO ARE ASSUMED. IT SHALL BE THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR TO VERIFY THESE LOCATIONS AND MAKE THE FINAL CONNECTION AS REQUIRED. COORDINATE ALL WORK WITH OTHER TRADES.
4. ALL WORK SHALL BE PERFORMED BY EXPERIENCED AND SKILLED CRAFTSMEN.
5. ALL FIXTURES ARE TO BE INSTALLED ACCORDING TO MANUFACTURER'S INSTRUCTIONS AND IN ACCORDANCE WITH THE LATEST EDITION OF THE NC PLUMBING CODE AS WELL AS ALL LOCAL AND OTHER APPLICABLE CODES.
6. WATER SUPPLY LINES ARE TO BE TYPE L COPPER. ALL DRAIN AND VENT PIPING MATERIAL TO BE SCH 40 PVC. VENTS WILL BE COMBINED BEFORE PENETRATING ROOF TO REDUCE ROOF PENETRATIONS.
7. SHUT OFF VALVES SHALL BE PROVIDED ON HOT AND COLD WATER LINES. ALL FIXTURES SHALL BE COMPLETE AND INCLUDE ALL STOPS, SUPPLIES, FAUCETS, DRAINS, TRAPS, ESCUTCHEONS, ETC.
8. HOT WATER LINES TO BE INSULATED FULL LENGTH WITH 1" INSULATION THAT MEETS 2018 NC ENERGY CODE.
9. ADA COMPLIANT UNDER SINK PIPE COVERS SHALL BE INSTALLED ON ALL LAVS.
10. THE ENTIRE WATER SYSTEM SHALL BE DISINFECTED PRIOR TO PLACING IN SERVICE. WATER LINES SHALL BE TESTED IN ACCORDANCE THE INDUSTRY STANDARDS AND DOMESTIC WATER SHALL BE STERILIZED IN COMPLIANCE WITH LOCAL STANDARDS.
11. HOSE BIBS SHALL BE MOUNTED 1' - 6" ABOVE FINISHED FLOOR. HOSE BIBS SHALL BE PROVIDED WITH A NON-REMOVABLE VACUUM BREAKER.
12. THE PLUMBING CONTRACTOR SHALL PROVIDE ALL OPENINGS REQUIRED FOR THE PLUMBING WORK AND SHALL INSTALL FIRE RATED SLEEVES WHEREVER PENETRATIONS OF RATED WALLS OR FLOORS ARE MADE. ANNULAR SPACES BETWEEN SLEEVES AND PIPES SHALL BE SEALED AS REQUIRED BY LOCAL AUTHORITY. THE PATCHING SHALL BE BY THE PLUMBING CONTRACTOR. FIRE STOP ALL PENETRATIONS OF FIRE RATED ASSEMBLIES AS NECESSARY TO MAINTAIN THE RATING OF WALL. REFER TO FLOOR PLAN DRAWINGS FOR ASSEMBLY RATINGS.
13. ALL SOIL, WASTE, AND STORM PIPING SHALL BE INSTALLED BELOW THE FLOOR UNLESS NOTED OTHERWISE.
14. PROVIDE CLEANOUTS AT THE BASE OF ALL SOIL, WASTE, VENT, AND STORM RISER OVER ONE STORY IN HEIGHT. PROVIDE CLEANOUTS AT EVERY 100 FT.
15. ALL STORM AND OVERFLOW DRAIN LINES DISCHARGING ONTO SPLASH BLOCKS SHALL DO SO THROUGH DOWNSPOUT NOZZLES.
16. PIPING PENETRATING A VAULT ENCLOSURE SHALL BE SLEEVED AND SEALED.
17. PROVIDE ACCESS PANELS FOR VALVES LOCATED ABOVE INACCESSIBLE CEILINGS.
18. ALL VENT-THRU-ROOF (VTR) TERMINATIONS SHALL BE COLOR-KEYED TO THE MATCH THE ADJACENT ROOFING COLOR. VENTS TO BE INSTALLED WITH DOUBLE FLASHING TO ALLOW MOVEMENT.
19. ALL HOLES AND NOTCHES FOR HORIZONTAL PLUMBING PIPES TO BE OVERSIZED TO COMPENSATE FOR SHRINKAGE.
20. ALL WATER HAMMER ARRESTORS MAY NOT BE SHOWN ON DRAWINGS. CONTRACTOR IS REQUIRED TO SIZE, PROVIDE AND LOCATE ALL WATER HAMMER ARRESTORS IN ACCORDANCE WITH PDI WH 201. APPROPRIATELY-SIZED ACCESS DOORS OR REMOVABLE PANELS SHALL BE PROVIDED WHERE WATER HAMMER ARRESTORS ARE CONCEALED. WATER HAMMER SHOCK ARRESTORS SHALL BE INSTALLED FOR FIXTURES WITH QUICK CLOSING VALVES. WATER HAMMER SHOCK ARRESTOR SHALL BE A HYDROTROL 5020 AS MANUFACTURED BY JAY R SMITH OR EQUAL BY SIOUX CHIEF / WATTS.
21. PIPING INSTALLED IN PLENUM SPACES SHALL MEET ASTM E-84, ASTM E-136 AND UL 723 STANDARDS FOR FLAME SPREAD AND SMOKE GENERATION. COORDINATE PLENUM LOCATIONS WITH MECHANICAL CONTRACTOR.
22. ALL FLOOR AND HUB DRAINS SHALL BE PROVIDED WITH INLINE TRAP SEAL DEVICES (IE TRAP GUARD/SEAL).
23. PROVIDE DRAIN VALVES AT ALL LOW POINTS IN ALL WATER PIPING SYSTEMS.
24. ALL WATER, VENT AND GAS PIPING SHALL BE INSTALLED ABOVE THE CEILING UNLESS NOTED OTHERWISE.
25. SLIP JOINTS SHALL NOT BE USED FOR DRAIN CONNECTIONS IN CONCEALED LOCATIONS, USE SOLDERED OR SCREWED JOINTS ONLY.
26. DIELECTRIC CONNECTIONS SHALL BE USED BETWEEN FERROUS AND NON-FERROUS PIPING.
27. ALL SUSPENDED MATERIALS AND EQUIPMENT SHALL BE INDIVIDUALLY SUPPORTED FROM THE BUILDING STRUCTURE. DO NOT SUSPEND ITEMS FROM THE CEILING OR ITS SUPPORT SYSTEM.
28. WATER AND WASTE PIPES SHALL BE A MINIMUM OF 5 FT APART. WHEN PIPES CROSS OR ARE CLOSER THAN 5 FT, WATER PIPE SHALL BE 12 INCHES ABOVE CROWN OF SEWER PIPE.
29. ALL PIPING SHALL BE RUN IN AREAS NOT SUBJECT TO FREEZING TEMPERATURES. PIPING IN EXTERIOR WALLS SHALL BE INSULATED AND RUN ON THE CONDITIONED SIDE OF THE WALL INSULATION. IF ROUTED IN UNCONDITIONED AREAS, PIPING MUST BE INSULATED WITH A MINIMUM OF R-6.5.
30. PROVIDE PRESSURE REDUCING VALVE AT ALL BUILDINGS WHERE PRESSURE EXCEEDS 80 PSI.

PLUMBING FIXTURE LEGEND

MARK	SYMBOL	DESCRIPTION	MANUFACTURER / MODEL	WATER LINE SIZES		
				COLD	HOT	VENT (MIN)
LAV		LAVATORY	AMERICAN STANDARD MODEL # 4869.004.020 WITH METERING FAUCET OR APPROVED EQUAL BY ZURN OR KOHLER	1/2"	1/2"	1-1/2"
WC		WATER CLOSET	AMERICAN STANDARD - FLUSH VALVE ADA TOILET MODEL #2857.128.020, OR APPROVED EQUAL BY ZURN OR TOTO WITH ELONGATED SEAT	1"	N/A	2"
SNK		DOUBLE SINK	ELKAY CR2918 DOUBLE BOWL STAINLESS WITH DELTA 400 FAUCET OR APPROVED EQUAL BY AMERICAN STANDARD OR MOEN	1/2"	1/2"	1-1/2"
CO		CLEAN-OUT	PVC CLEAN-OUT	N/A	N/A	N/A
FD		FLOOR DRAIN	ZURN, MODEL ZN415B, STRAINER & TRAP GUARD OR APPROVED EQUAL BY WATTS OR JONES STEPHENS	N/A	N/A	N/A
IWH	IWH	INSTANTANEOUS WATER HEATER	EEMAX SPEX4208T	3/4"	3/4"	N/A
IMB	IMB	ICE MAKER BOX	OATEY MODEL# 38689 OR APPROVED EQUAL BY SIOUX CHIEF OR EASTMAN	1/2"	N/A	N/A
REF		REFRIGERATOR	BY OWNER	N/A	N/A	N/A

DRAWING INDEX

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PROJECT INFORMATION:

HARNETT CENTRAL PRESS BOX
HARNETT COUNTY SCHOOLS
2911 HARNETT CENTRAL RD
ANGIER, NC 27501

REV#	DATE	DESCRIPTION:
1.		
2.		
3.		
4.		
5.		

DATE: 1/10/2023
DRAWN BY: CKD
CHECKED BY: RL
SHEET TITLE

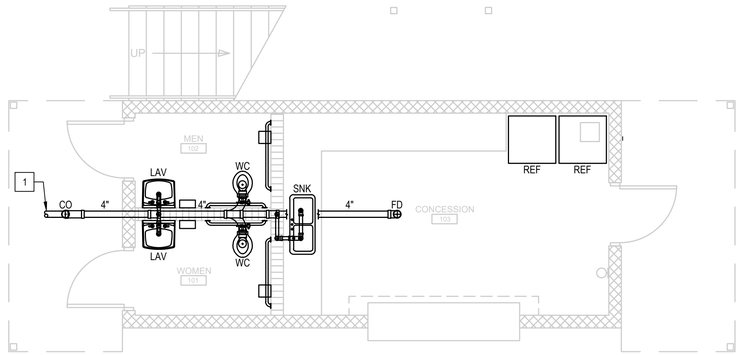
PLUMBING NOTES AND SCHEDULES

SHEET NUMBER

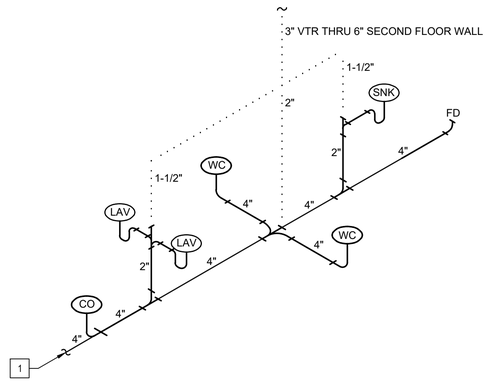
P-001

PROJECT# 21-11110

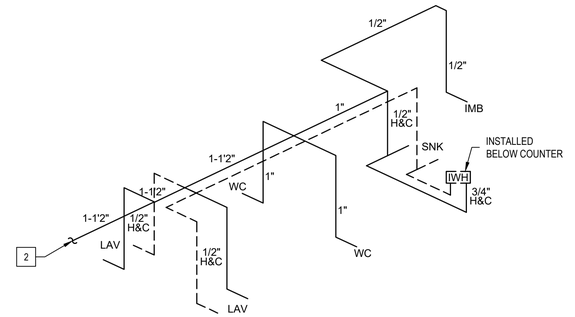
FINAL RELEASED FOR CONSTRUCTION



1 FIRST FLOOR WASTE PLAN
SCALE: 1/4" = 1'-0"



WASTE ISO



SUPPLY ISO

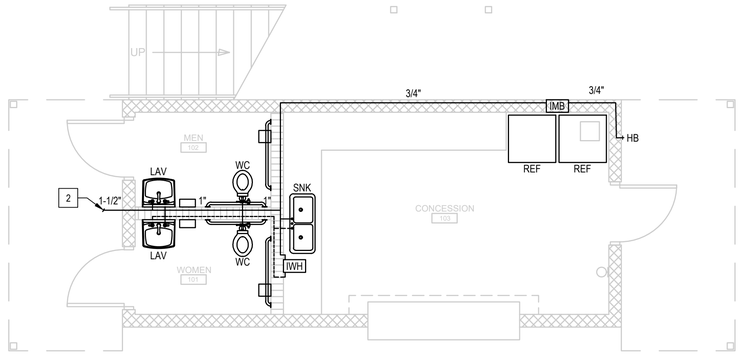
WASTE LEGEND	
SYMBOL	DESCRIPTION
————	WASTE PIPE
·····	WASTE VENT

NOTES:

1. INSTALL CLEANOUTS AS REQUIRED PER NC PLUMBING CODE.
2. PIPING TO HAVE 1/8"/FT MINIMUM SLOPE.
3. VENT PIPING THRU WALL TO ROOF (COMBINE VENTS BEFORE PENETRATING ROOF TO ELIMINATE EXCESS PENETRATIONS).
4. VENT PIPING SHOWN FOR REFERENCE. REFER TO CURRENT NC PLUMBING CODE FOR VENT PIPE SIZES & LOCATIONS.
5. MINIMUM OF (1) 3" VENT REQUIRED.

SUPPLY LEGEND	
SYMBOL	DESCRIPTION
————	COLD SUPPLY
- - - - - - - -	HOT SUPPLY

2 PLUMBING WASTE AND SUPPLY ISO'S
SCALE: NTS



3 FIRST FLOOR SUPPLY PLAN
SCALE: 1/4" = 1'-0"

KEY NOTES:

1 TIE-INTO EXISTING WASTE. COORDINATE EXACT LOCATION WITH OWNER AND TO PREVENT INTERFERENCE WITH STAIR SUPPORT LEGS ETC.

2 TIE-INTO EXISTING SUPPLY. COORDINATE EXACT LOCATION WITH OWNER AND TO PREVENT INTERFERENCE WITH STAIR SUPPORT LEGS ETC.

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LOCKLEAR, LOCKLEAR & JACOBS CONSULTING ENGINEERS P-0754

NORTH CAROLINA SEAL 042421 ENGINEER ROBERT LOCKLEAR

Docusigned by: Robert Locklear Serial#: 2A21F0B1-[illegible]

3/14/2023

PROJECT INFORMATION:

HARNETT CENTRAL PRESS BOX
HARNETT COUNTY SCHOOLS
2911 HARNETT CENTRAL RD
ANGIER, NC 27501

REV# - DATE - DESCRIPTION:
1
2
3
4
5

DATE: 1/10/2023

DRAWN BY: CKD

CHECKED BY: RL

SHEET TITLE

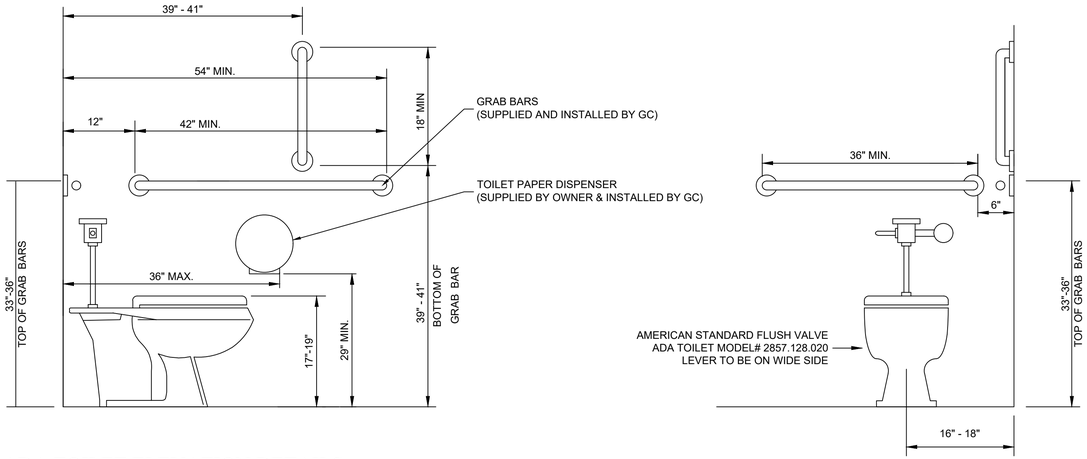
PLUMBING PLAN

SHEET NUMBER

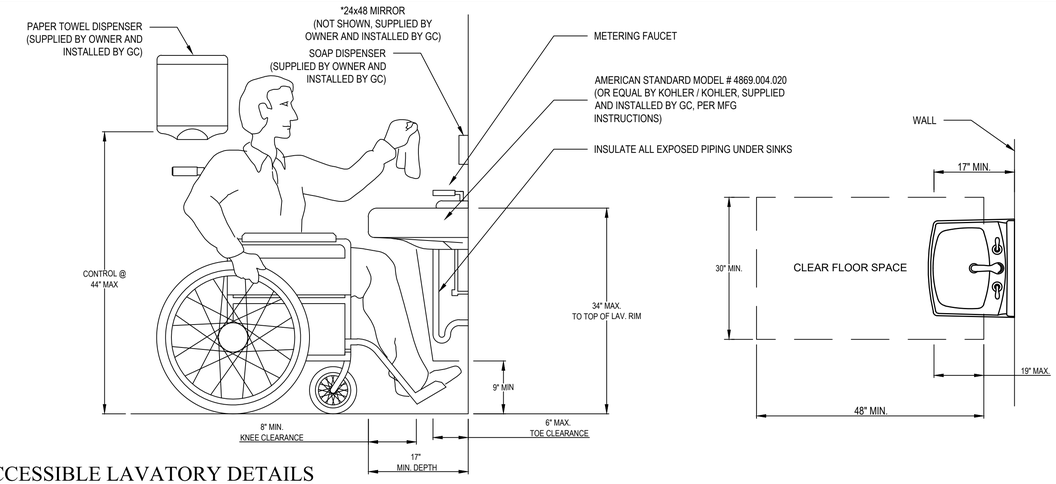
P-101

PROJECT# 21-11110

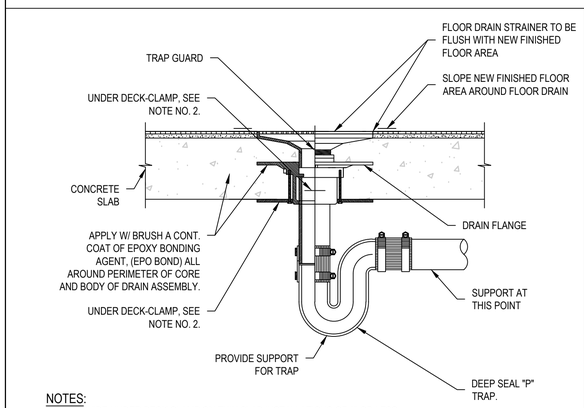
FINAL RELEASED FOR CONSTRUCTION



1 ADA TOILET ELEVATION DETAILS
NTS

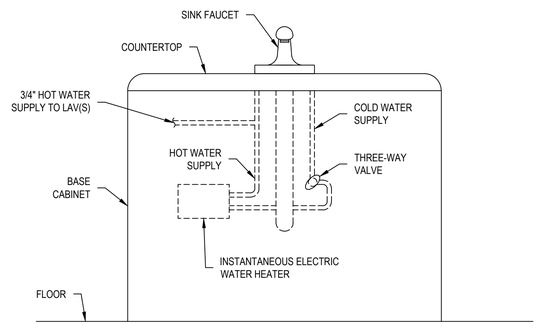


2 ACCESSIBLE LAVATORY DETAILS
NTS

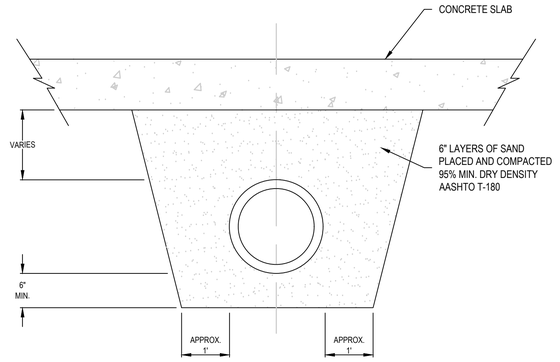


NOTES:
1. PROVIDE UNDER DECK CLAMP ON THIN SLAB INSTALLATIONS OF 5" OR LESS. SECURE CLAMP TO DRAIN, REF. SPECIFICATIONS.
2. NO-HUB FOR ABOVE GRADE INSTALLATION ONLY.
3. INCLUDE TRAP PRIMER.

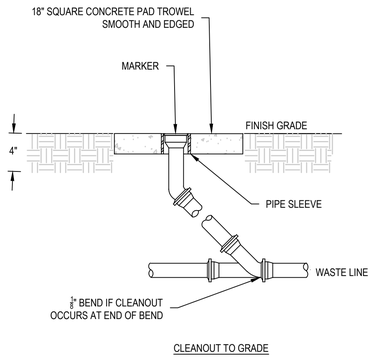
3 TYPICAL FLOOR DRAIN INSTALLATION DETAIL
NTS



4 INSTANTANEOUS WATER HEATER DETAIL
NTS



5 TYPICAL PIPE UNDER SLAB DETAIL
NTS



CLEANOUT TO GRADE

6 EXTERIOR CLEANOUT DETAIL
NTS

LOCKLEAR, LOCKLEAR & JACOBS
CONSULTING ENGINEERS
LL&J
P.O. BOX 3119
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NORTH CAROLINA REGISTERED P-0754 LOCKLEAR, LOCKLEAR & JACOBS

DocuSigned by: Robin Locklear 3/14/2023
NORTH CAROLINA SEAL 026880 ENGINEER ROBIN LOCKLEAR

PROJECT INFORMATION:
HARNETT CENTRAL PRESS BOX
HARNETT COUNTY SCHOOLS
2911 HARNETT CENTRAL RD
ANGIER, NC 27501

REV# - DATE - DESCRIPTION:
1. 2. 3. 4. 5.

DATE: 1/10/2023
DRAWN BY: CKD
CHECKED BY: RL
SHEET TITLE
PLUMBING DETAILS
SHEET NUMBER
P-301
PROJECT# 21-11110

FINAL RELEASED FOR CONSTRUCTION

MECHANICAL NOTES

1. THE DRAWINGS ARE DIAGRAMMATIC AND SHOW THE GENERAL ARRANGEMENT OF THE VENTILATION AND AIR CONDITIONING SYSTEMS. DETAILS OF CONSTRUCTION AND OF WORKMANSHIP WHERE NOT SPECIFICALLY DESCRIBED HEREIN OR INDICATED ON THE DRAWINGS SHALL BE SUBJECT TO THE ENGINEER'S APPROVAL. IT IS THE INTENT OF THESE SPECIFICATIONS TO PROVIDE COMPLETE SYSTEMS, LEFT IN GOOD WORKING ORDER, READY FOR OPERATION, INCLUDING NECESSARY LABOR AND MATERIALS, WHETHER OR NOT SPECIFICALLY SHOWN ON THE DRAWINGS OR MENTIONED HEREIN. IT IS NOT THE INTENTION OF THESE DRAWINGS TO SHOW ALL NECESSARY OFFSETS, OBSTRUCTIONS OR STRUCTURAL CONDITIONS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSTALL HIS WORK IN SUCH A MANNER TO AVOID OBSTRUCTIONS, PRESERVE HEADROOM AND KEEP OPENINGS AND PASSAGEWAYS CLEAR WITHOUT FURTHER COST OR INSTRUCTIONS.
2. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE LATEST APPLICABLE CODES AND STANDARDS LISTED BELOW. IN ADDITION THE WORK SHALL COMPLY WITH ANY LOCAL, STATE OR FEDERAL CODES, STANDARDS, AND REGULATIONS, HAVING JURISDICTION IN THE AREA WHERE THE EQUIPMENT OR WORK WILL BE INSTALLED.

AABC	AMERICAN AIR BALANCE COUNCIL
AMCA	AIR MOVING AND CONTROL ASSOCIATION, INC.
ANSI	AMERICAN NATIONAL STANDARD INSTITUTE
ARI	AIR CONDITIONING AND REFRIGERATION INSTITUTE
ASHARE	AMERICAN SOCIETY OF HEATING, REFRIGERATION, AND AIR CONDITIONING ENGINEERS
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS
ASTM	AMERICAN SOCIETY OF TESTING AND MATERIALS
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
SMACNA	SHEET METAL AND AIR CONDITION CONTRACTORS NATIONAL ASSOCIATION
UL	UNDERWRITERS LABORATORY
BOCA	THE BOCA NATIONAL MECHANICAL CODE LATEST EDITION

   ALL CONDITIONS ARE NOT COMPLETELY DETAILED ON THE DRAWINGS. CONTRACTOR SHALL VERIFY ALL FIELD DIMENSIONS AND EQUIPMENT LOCATIONS PRIOR TO FABRICATION AND PURCHASE OF NEW EQUIPMENT. (I.E. DIFFUSERS, ETC…)
3. THE CONTRACTOR SHALL SURVEY THE SITE AND MAKE ALL NECESSARY CHANGES REQUIRED BASED ON EXISTING CONDITIONS FOR PROPER INSTALLATION OF NEW WORK, AND INCLUDE ALL MATERIALS AND LABOR IN HIS BID PRICE. NO ALLOWANCE WILL BE MADE FOR FAILURE TO DO SO.
4. THE CONTRACTOR SHALL EXAMINE THE CONTRACT DOCUMENTS, CONDUCT A COMPLETE FIELD SURVEY TO FAMILIARIZE THEMSELVES WITH ALL THE REQUIREMENTS OF THE PROJECT, AND SHALL NOTIFY THE OWNER/ENGINEER OF ANY OBSERVED FAULTS AND AMBIGUITY IN THE CONTRACT DOCUMENTS.
5. BY SUBMISSION OF BID, THE CONTRACTOR SHALL ACKNOWLEDGE ACCEPTANCE OF THE CONTRACT DOCUMENTS AS AN ADEQUATE DEFINITION OF THE SCOPE OF WORK AND EXTRA COST CLAIMS BASED ON INADEQUACY OF CONTRACT DOCUMENTS WILL NOT BE CONSIDERED.
6. SUBMISSION OF A PROPOSAL SHALL BE CONSTRUCTED AS EVIDENCE THAT EXAMINATION OF PLANS HAVE BEEN MADE AND THAT THE CONTRACTOR IS FAMILIAR WITH EXISTING CONDITIONS AND DIFFICULTIES THAT WILL AFFECT THE EXECUTION OF THE WORK. LATER CLAIMS SHALL NOT BE MADE FOR LABOR, EQUIPMENT OR MATERIALS REQUIRED BECAUSE OF DIFFICULTIES ENCOUNTERED WHICH COULD HAVE BEEN FORESEEN DURING SUCH AS EXAMINATION.
7. ALL APPLICABLE CODES, LAWS AND REGULATIONS GOVERNING OR RELATING TO ANY PORTION OF THIS WORK ARE HEREBY INCORPORATED INTO AND MADE A PART OF THESE SPECIFICATIONS, AND THEIR PROVISIONS SHALL BE CARRIED OUT BY THE CONTRACTOR WHO SHALL INFORM THE OWNER/ENGINEER, PRIOR TO SUBMITTING A PROPOSAL, OF ANY WORK OR MATERIALS WHICH VIOLATE ANY OF THE ABOVE LAWS AND REGULATIONS. ANY WORK DONE BY THE CONTRACTOR CAUSING SUCH VIOLATION SHALL BE CORRECTED BY THE CONTRACTOR. PROVIDE ALL REQUIRED LABOR, MATERIALS, EQUIPMENT, AND SERVICES NECESSARY FOR A COMPLETE AND SAFE INSTALLATION OF HVAC SYSTEMS IN FULL CONFORMITY WITH REQUIREMENTS OF ALL AUTHORITIES HAVING JURISDICTION. INCLUDE ALL COSTS FOR PERMITS, LICENSES, CERTIFICATES, FILING AND INSPECTIONS REQUIRED BY AUTHORITIES HAVING JURISDICTION; AS INDICATED ON DRAWINGS AND/OR HEREIN SPECIFIED FOR THE SYSTEMS INCLUDED.
8. WORK SHALL BE INSTALLED IN A NEAT, WORKMANLIKE MANNER. INSTALL WORK SO AS TO BE READILY ACCESSIBLE FOR OPERATION, MAINTENANCE AND REPAIR. MINOR DEVIATIONS FROM DRAWINGS MAY BE MADE TO ACCOMPLISH THIS, BUT CHANGES WHICH INVOLVE EXTRA COST SHALL NOT BE MADE WITHOUT APPROVAL. ALL SYSTEMS SHALL BE CLEAN OF FOREIGN MATERIAL AND ROUGH SPOTS PRIOR TO BEING PLACES IN SERVICE AND BEFORE OPERATIONAL TESTS ARE PERFORMED. THE CONTRACTOR SHALL THOROUGHLY CLEAN HIS WORK AREA DAILY. CONTRACTOR SHALL THOROUGHLY CLEAN ALL AIR HANDLING UNITS AND REPLACE FILTERS, AS WELL AS REMOVE ALL TRASH AT COMPLETION OF WORK.
9. INSTALLATION OF ALL EQUIPMENTS AND THIS ACCESSORIES SHALL BE PER MANUFACTURER'S PUBLISHED RECOMMENDATIONS.
10. THE CONTRACTOR SHALL FURNISH A WRITTEN GUARANTEE TO REPLACE OR REPAIR PROMPTLY AND ASSUME RESPONSIBILITY FOR ALL EXPENSES INCURRED FOR ANY WORKMANSHIP AND EQUIPMENT IN WHICH DEFECTS DEVELOP WITHIN ONE YEAR FROM THE DATE OF ACCEPTANCE BY OWNER. THIS WORK SHALL BE DONE AS DIRECTED BY THE OWNER. THIS GUARANTEE SHALL ALSO PROVIDE THAT WHERE DEFECTS OCCUR, THE CONTRACTOR WILL ASSUME RESPONSIBILITY FOR ALL EXPENSES INCURRED IN REPAIRING AND REPLACING WORK OF OTHER TRADES AFFECTED BY DEFECTS, REPAIRS OR REPLACEMENTS IN EQUIPMENTS SUPPLIED BY THE CONTRACTOR.
11. SUPPORT ALL DUCTWORK FROM BUILDING STRUCTURE AND/OR FRAMING IN AN APPROVED MANNER. WHERE OVERHEAD CONSTRUCTION DOES NOT PERMIT FASTENING OF SUPPORTS FOR EQUIPMENT, FURNISH ADDITIONAL FRAMING.
12. FOR EXACT LOCATION OF CEILING DIFFUSERS, GRILLES AND REGISTERS REFER TO REFLECTED CEILING PLAN AND DETAILS. OBTAIN FROM THE ENGINEER THE LOCATION OF ANY APPARATUS NOT DEFINITELY LOCATED ON THE DRAWINGS. LOCATE EQUIPMENT AND ACCESSORIES IN SUCH A MANNER AS TO PROVIDE EASY ACCESS FOR PROPER SERVICE AND MAINTENANCE OF ALL EQUIPMENT AND ITEMS REQUIRING MAINTENANCE.
13. REVIEW WITH THE ENGINEER ANY CONDITION WHICH PREVENT ADEQUATE ACCESSIBILITY FOR MAINTENANCE PRIOR TO INSTALLATION OF THE WORK. ALL EQUIPMENT AND/OR ACCESSORIES THAT ARE INSTALLED WITHOUT PROPER ACCESS, IN THE OPINION OF THE ENGINEER, AND INSTALLED WITHOUT THE ENGINEER'S APPROVAL, SHALL BE REMOVED AND REVISED AS DIRECTED BY THE ENGINEER AT NO ADDITIONAL COST TO OWNER.
14. ALL WALL AND ROOF OPENINGS SHALL BE WATER PROOFED AND AIR TIGHT SEALED AND SHALL BE PROVIDED BY THE MECHANICAL CONTRACTOR.
15. ALL DUCTS SHALL BE FABRICATED OF GALVANIZED LOCK FORMING QUALITY STEEL, AND INSTALLED IN STRICT COMPLIANCE WITH THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) BULLETIN 90A, THE SHEET METAL AND AIR CONDITIONING CONTRACTORS AND NATIONAL ASSOCIATION (SMACNA) DUCT CONSTRUCTION STANDARDS. SHEET METAL DUCTS SHALL BE FABRICATED USING THE FOLLOWING MINIMUM GAUGES FOR RECTANGULAR DUCT:

DIMENSION OF LONGEST SIDE OF DUCT	MINIMUM GAUGE ALL FOUR SIDES
UP THRU 12"	26 (0.022")
13" THRU 30"	24 (0.028")
31" THRU 54"	22 (0.034")

16. ALL DUCT DIMENSIONS SHOWN ARE INSIDE METAL DIMENSIONS AND ARE IN INCHES. DUCT SIZES HAVE BEEN INCREASED, WHERE REQUIRED, TO ALLOW FOR LINING.
17. MECHANICAL CONTRACTOR SHALL TAKE ACTUAL MEASUREMENTS IN THE FIELD BEFORE FABRICATION AND SHEET METAL WORK AND SHALL OBSERVE AND ALLOW FOR CLEARANCES AND SPACE REQUIREMENTS FOR PIPING AND EQUIPMENT, OR OTHER OBSTRUCTIONS.
18. THE DUCTWORK SHALL INCLUDE FURNISHING AND INSTALLING GALVANIZED SHEET METAL DUCTS, FLEXIBLE CONNECTIONS ROOF/WALL EXHAUST CAP, DUCT SUPPORTERS, REGISTERS, GRILLES, DAMPERS, BRACING AND OTHER ACCESSORIES TO MAKE A COMPLETE AND OPERABLE SYSTEM.
19. PROVIDE SQUARE ELBOWS WITH TURNING VANES, AND SPLITTER DAMPERS IN BRANCHES, ALL TURNING VANES SHALL BE 16-GAUGE SINGLE THICKNESS METAL WITH A 4-INCH RADIUS. DOUBLE WALL TURNING VANES ARE NOT ACCEPTABLE.
20. ALL JOINTS IN DUCTS, CASINGS, AND PLENUMS SHALL BE SEALED TO PREVENT AIR LEAKAGE. ALL SEALANT AND TAPES SHALL HAVE A FLAME RATING UNDER 25 AND A SMOKE DEVELOPED BY HARDCAST, INC., UNITED SHEET METAL DUCT SEALER OR APPROVED EQUAL, DUCTWORK TAPE SHALL BE HARDCAST, INC., TYPE DT-5300 OR DT-5400 OR APPROVED EQUAL. TAPE ADHESIVE SHALL BE HARDCAST, INC, TYPE FTA-20, OR APPROVED EQUAL.
21. BRANCH TAKE-OFF TO THE CEILING MOUNTED DIFFUSERS, NOT EXCEEDING 8FT. IN LENGTH, SHALL BE BY PRE-INSULATED FLEXIBLE DUCT. FLEXIBLE DUCTS SHALL HAVE A R-6 MINIMUM VALUE AND COVERED WITH AN OUTER VAPOR BARRIER JACKET. FLEXIBLE DUCTS SHALL BE ATTACHED TO SHEET METAL MAIN DUCTS USING SPIN-IN CONICAL BELLMOUTH FITTINGS WITH DAMPERS AND LOCKING QUADRANTS.
22. ALL HVAC PENETRATIONS THROUGH FIRE RATED WALLS AND CEILING SHALL BE PROTECTED WITH FIRE DAMPERS, CLASSIFIED UNDER UL STANDARD 555.
23. A FLEXIBLE CONNECTION AT THE INLET AND OUTLET OF EACH FAN AND AIR CONDITIONING EQUIPMENT SHALL BE PROVIDED. CONNECTION SHALL BE VENTLAS (VENTFABRIC, INC.) OR APPROVED EQUAL, NOT LESS THAN 4 INCHES LONG, INSTALL IN ANGLE OR SHEET METAL FRAMES SECURELY FASTENED TO DUCTS AND EQUIPMENT. JOINTS IN FABRIC SHALL BE SEWN AND MADE AIRTIGHT WITH AN APPROVED SEALER.
24. ACCESS DOORS SHALL BE PROVIDED AT EACH FIRE DAMPER LOCATION. ACCESS DOORS SHALL BE RUSKIN (OR APPROVED EQUAL).
25. FURNISH AND INSTALL FULL SIZE COIL CONDENSATE DRAIN LINES FROM ALL AIR CONDITIONING UNITS AS INDICATED ON THE MECHANICAL DRAWINGS AND APPROVED BY THE ENGINEER. PIPE SHALL BE TYPE "L" COPPER.
26. REFER TO MANUFACTURER GUIDELINES FOR COPPER REFRIGERANT LINES WALL THICKNESS, TEMPER GRADES, AND INSTALLATION. FLUSH ALL LINES WITH NITROGEN.
27. REFER TO MANUFACTURER GUIDELINES FOR INSULATING REFRIGERANT LINES.
28. MECHANICAL CONTRACTOR SHALL FURNISH SUBMITTALS CONTAINING EQUIPMENT, DUCTWORK AND CONTROL DRAWINGS FOR APPROVAL PRIOR TO ORDERING ANY EQUIPMENT, OR MATERIAL.
29. DUCT INSULATION: R-8 INSULATION FOR ALL SUPPLY AND RETURN DUCT LOCATED IN BUILDING. DUCTWORK OUTSIDE THE BUILDING SHALL BE INSULATED EXTERNALLY USING 2" POLY ISO FOAM BOARD.
30. ALL NECESSARY OFFSETS AND ELEVATION CHANGES ARE NOT SHOWN ON THE DRAWINGS. CONTRACTOR TO REFLECT/COORDINATE THE REQUIRED RISE/DROPS WITH FIELD CONDITIONS.
31. ALL DUCTWORK SHALL BE RUN CONCEALED ABOVE CEILINGS AS HIGH AS POSSIBLE AND CONCEALED IN WALLS, CHASES, OR FURROUTS IN GENERAL LOCATIONS SHOWN, UNLESS NOTED OTHERWISE.
32. ALL WORK SHALL BE PERFORMED BY EXPERIENCED AND SKILLED CRAFTSMEN.
33. THE MECHANICAL CONTRACTOR SHALL PROVIDE ALL OPENINGS REQUIRED FOR THE REQUIRED PLUMBING WORK FOR HVAC EQUIPMENT AND SHALL INSTALL FIRE RATED SLEEVES WHEREVER PENETRATIONS OF RATED WALLS OR FLOORS ARE MADE. THE PATCHING REQUIRED FOR HVAC WORK SHALL BE BY THE MECHANICAL CONTRACTOR. THE MECHANICAL CONTRACTOR SHALL REVIEW ALL UTILITY SITE PLANS AND CIVIL SITE PLANS FOR WORK BY OTHERS.
34. ALL AIR HANDLING SYSTEMS TO BE TESTED AND BALANCED BY A NEBB OR AABC CERTIFIED FIRM.

MECHANICAL TAG LEGEND

SYMBOL	DESCRIPTION
SC-1 / XXX	TYPE OF SERVICE: S = SUPPLY, R = RETURN, E = EXHAUST, T = TRANSFER INSTALLED LOCATION: C = CEILING, D = DUCT, F = FLOOR, H = HIGH SIDEWALL, L = LOW SIDEWALL SCHEDULED DEVICE NO AIR QUANTITY IN CFM
AHU / 1	EQUIPMENT DESIGNATION UNIT NUMBER
X / M-X	SECTION NUMBER SHEET WHERE LOCATED
T 2-3	THERMOSTAT (UNIT & ZONE DESIGNATION)
1	KEYED NOTE
S	SMOKE DETECTOR
	CEILING SUPPLY DIFFUSER, REGISTER OR GRILLE AS SCHEDULED
	CEILING RETURN GRILLE OR REGISTER AS SCHEDULED
	SLOT DIFFUSER AS SCHEDULED
	SIDEWALL GRILLE OR REGISTER AS SCHEDULED
X"Ø / DUCT SIZE	ROUND DUCT (INTERNAL SIZE INDICATED)
# x #	DUCT SIZE, FIRST FIGURE IS SIDE SHOWN (INTERNAL SIZE INDICATED)
	FLEXIBLE DUCT
	MANUAL VOLUME DAMPER
M	MOTORIZED DAMPER
FD	FIRE DAMPER (1-1/2 HR RATED)
SD	SMOKE DAMPER
	TURNING VANES
CD	CONDENSATE DRAIN LINE
	FLOW IN DIRECTION OF ARROW
	SLOPE DOWN IN DIRECTION OF ARROW
	GATE VALVE
	BUTTERFLY VALVE
	BALL VALVE
	UNION
	CAP
	RISE AND DROP IN PIPING
C.R.	CONCENTRIC REDUCER
E.R.	ECCENTRIC REDUCER
H 2-3	HUMIDISTAT (UNIT & ZONE DESIGNATION)
S	TEMPERATURE SENSOR
S	SMOKE DETECTOR
RT	RETURN AIR THERMOSTAT

NOTE: NOT ALL SYMBOLS SHOWN ARE NECESSARILY USED

MECHANICAL ABBREVIATIONS

A	AIR OR COMPRESSED AIR	FF	FINAL FILTER	P	PUMP
AC	AIR CONDITIONING	FLA	FULL LOAD AMPS	PCF	POUNDS PER CUBIC FOOT
ACCH	AIR COOLED CHILLER	FLEX	FLEXIBLE	PD	PRESSURE DROP
ACD	AUTOMATIC CONTROL DAMPER	FLRDR	FLOOR DRAIN	PF	PRE-FILTER
ACP	AIR COMPRESSOR	FMS	FLOW MEASURING STATION	PH	PHASE
AD	ACCESS DOOR	FPM	FEET PER MINUTE	PHC	PRE-HEAT COIL
AEL	AIR ELIMINATOR	FPS	FEET PER SECOND	PRV	PRESSURE REDUCING VALVE
AF	AIR FOIL	FRP	FIBERGLASS REINFORCED PLASTIC	PSI	POUNDS PER SQUARE INCH
AFF	ABOVE FINISHED FLOOR	FS	FLOW SWITCH	PSIA	POUNDS PER SQUARE INCH - ABSOLUTE
AFG	ABOVE FINISHED GRADE	FT	FEET	PSID	POUNDS PER SQUARE INCH - DIFFERENTIAL
AHU	AIR HANDLING UNIT	FTK	FLASH TANK	PSIG	POUNDS PER SQUARE INCH - GAUGE
AMP	AMPERE	FTR	FIN TUBE RADIATION	PUX	PUMP/HEAT EXCHANGER
AP	ACCESS PANEL	G	GAS	PVC	POLYVINYL CHLORIDE
APD	AIR PRESSURE DROP	GA	GAUGE		
AS	AIR STREAM	GAL	GALLONS	R	RADIUS
ATC	AUTOMATIC TEMPERATURE CONTROL	GALV	GALVANIZED	RA	RETURN AIR
ATM	ATMOSPHERE	GFU	GLYCOL FEED UNIT	RD	RELIEF DAMPER
BDD	BACK-DRAFT DAMPER	GLYP	GLYCOL PUMP	RE	RELOCATE EXISTING
BF	BOOSTER FAN	GPH	GALLONS PER HOUR	RET	RETURN
BHP	BRAKE HORSEPOWER	GPM	GALLONS PER MINUTE	REF	REFRIGERANT
BI	BACKWARDS INCLINED	GR	GRADE	RF	RETURN FAN
BOD	BOTTOM OF DUCT	GX	GENERAL EXHAUST	RGH	RELIEF GRAVITY HOOD
BTU	BRITISH THERMAL UNIT			RH	RELATIVE HUMIDITY OR RELIEF HOOD
BTUH	BTU PER HOUR	H	HUMIDIFIER	RHC	REHEAT COIL
CC	COILING COIL	HB	HOSE BIB (CONNECTION)	RL	RELIEF LOUVER
CENT	CENTER OR CENTRIFUGAL	HC	HEATING COIL	RLA	RUNNING LOAD AMPS
CF	CUBIC FEET	HD	HEAD	RLF	RELIEF
CFM	CUBIC FEET PER MINUTE	HOA	HAND OFF AUTOMATIC	RPM	REVOLUTIONS PER MINUTE
CFP	CHEMICAL FEED PUMP	HP	HORSEPOWER OR HIGH POINT	RT	RETURN AIR THERMOSTAT
CH	CHILLED OR CHILLER	HR	HOUR	RTU	ROOF-TOP UNIT
CHW	CHILLED WATER	HRU	HEAT RECOVERY UNIT		
CHP	CHILLED WATER PUMP	HTG	HEATING	SA	SUPPLY AIR OR SOUND ATTENUATOR
CHWR	CHILLED WATER RETURN	HV	HEATING AND VENTILATION UNIT	SCR	SCREEN
CHWS	CHILLED WATER SUPPLY	HWR	HOT WATER RETURN	SCT	SATURATED CONDENSING TEMPERATURE
CO	CARBON MONOXIDE	HWS	HOT WATER SUPPLY	SD	SMOKE DETECTOR OR SMOKE DAMPER
CONN	CONNECTION	HZ	HERTZ (CYCLES PER SECOND)	SE	SMOKE EXHAUST
CONV	CONVERTER	ID	INSIDE DIAMETER	SEF	SMOKE EXHAUST FAN
CP	CONDENSATE PUMP	IH	INFRARED HEATER	SEN	SENSIBLE
CRAC	COMPUTER ROOM AC UNIT	IL	INTAKE LOUVER	SEP	SEPARATOR
CT	COOLING TOWER	IN	INCHES	SF	SUPPLY FAN
CTBD	COOLING TOWER BLOW DOWN			SFD	COMBINATION SMOKE / FIRE DAMPER
CUH	CABINET UNIT HEATER	KW	KILOWATT	SH	SUPPLY HOOD
CWP	CONDENSER WATER PUMP	KVU	KITCHEN VENTILATION UNIT	SHC	SENSIBLE HEAT CAPACITY
CWR	CONDENSER WATER RETURN			SIH	SUPPLY INTAKE HOOD
CWS	CONDENSER WATER SUPPLY	LAT	LEAVING AIR TEMPERATURE	SP	STATIC PRESSURE
		LB	POUND	SF	SQUARE FEET
D	DRAIN	LF	LINEAR FEET	SS	STAINLESS STEEL
DB	DRY BULB (TEMPERATURE)	LD	LINEAR DIFFUSER	SSF	SMOKE SUPPLY FAN
DEG	DEGREE	LP	LOW POINT	SUP	SUPPLY
DDC	DIRECT DIGITAL CONTROL	LPS	LOW PRESSURE STEAM		
DHC	DUCT RE-HEAT COIL	LRA	LOCKED ROTOR AMPS	T	TEMPERATURE OR THERMOSTAT
DIA	DIAMETER	LVR	LOUVER	TEFC	TOTALLY ENCLOSED FAN COOLED
DIM	DIMENSION	LVDR	LOUVERED DOOR	TEMP	TEMPERATURE
DP	DIFFERENTIAL PRESSURE	LVG	LEAVING	TK	TANK
		LWT	LEAVING WATER TEMPERATURE	TON	12,000 BTUH (COOLING CAPACITY)
EA	EACH OR EXHAUST AIR			TRF	TRANSFER AIR FAN
EAHU	EXHAUST AIR HANDLING UNIT	MAU	MAKE UP AIR UNIT	TRP	TRANSFER PUMP
EAT	ENTERING AIR TEMPERATURE	MAX	MAXIMUM	TSP	TOTAL STATIC PRESSURE
EDH	ELECTRIC DUCT HEATER	MBH	1000 BTUH	TSTAT	THERMOSTAT
EF	EXHAUST FAN	MCA	MINIMUM CIRCUIT AMPS	TX	TOILET EXHAUST
EMER	EMERGENCY	MCP	MAIN CONDENSATE PUMP	TYP	TYPICAL
EMS	ENERGY MANAGEMENT SYSTEM	MD	MOTORIZED DAMPER		
ERU	ENERGY RECOVERY OUTSIDE AIR PRE-CONDITIONER UNIT	MECH	MECHANICAL	UC	UNDERCUT (DOOR)
		MIN	MINIMUM	UH	UNIT HEATER
ESP	EXTERNAL STATIC PRESSURE	MU	MAKE-UP WATER		
ET	EXPANSION TANK	MUA	MAKE-UP AIR	V	VOLTS
EUH	ELECTRICAL UNIT HEATER			VAV	VARIABLE AIR VOLUME
EWT	ENTERING WATER TEMPERATURE	N	NEW	VD	VOLUME DAMPER
EX	EXISTING	NC	NOISE CRITERIA OR NORMALLY CLOSED	VEL	VELOCITY
EXH	EXHAUST			VFD	VARIABLE FREQUENCY DRIVE
EXT	EXTERNAL	NO	NORMALLY OPEN		
EXP	EXPANSION	NOM	NOMINAL	WB	WET BULB TEMPERATURE
				WC	WATER COLUMN
F	FAHRENHEIT OR FILTER	OA	OUTSIDE AIR	WCCH	WATER COOLED CHILLER
FA	FREE AREA OR FIRE ALARM	OAI	OUTSIDE AIR INTAKE	WG	WATER GAUGE
FC	FLEXIBLE CONNECTION	OC	ON CENTER	WPD	WATER PRESSURE DROP
FCU	FAN COIL UNIT	OD	OUTSIDE DIAMETER	WTD	WATER TEMPERATURE DIFFERENCE
FD	FLOOR DRAIN, FIRE DAMPER, OR FIRE DEPARTMENT	ODP	OPEN DRIP PROOF	WTS	WATER TEMPERATURE SENSOR
		OV	OUTLET VELOCITY		
FDP	FLUID DISTRIBUTION POINT				

NOTE: NOT ALL ABBREVIATIONS MAY APPLY TO PLANS

MECHANICAL SUMMARY
MECH. SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT

THERMAL ZONE
- WINTER DRY BULB: 27° F
- SUMMER DRY BULB: 95° F

INTERIOR DESIGN CONDITIONS
- WINTER DRY BULB: 70° F
- SUMMER DRY BULB: 75° F
- RELATIVE HUMIDITY: 50%

BUILDING HEATING LOAD: 15,000 BTU/HR

BUILDING COOLING LOAD: 2.6 TONS

MECHANICAL SPACING CONDITIONING SYSTEM
- UNITARY
  - DESCRIPTION OF UNIT: HEAT PUMP
  - HEATING EFFICIENCY: SEE EQUIPMENT SCHEDULES
  - COOLING EFFICIENCY: SEE EQUIPMENT SCHEDULES
  - SIZE CATEGORY OF UNIT:
- BOILER
  - SIZE CATEGORY. IF OVERSIZED, STATE REASON: N/A
- CHILLER
  - SIZE CATEGORY. IF OVERSIZED, STATE REASON: N/A

LIST EQUIPMENT EFFICIENCIES:

DRAWING INDEX

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LOCKLEAR, LOCKLEAR & JACKSON CONSULTING ENGINEERS P-0754

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 028880 ROBBIE LOCKLEAR

DocuSigned by: Robbie Locklear 5B0D2A1F8A4D5...

4/13/2023

PROJECT INFORMATION:

HARNETT CENTRAL PRESS BOX
HARNETT COUNTY SCHOOLS
2911 HARNETT CENTRAL RD
ANGIER, NC 27501

REV#	DATE	DESCRIPTION:
1	4/13/2023	THERMAL ZONE TEMPERATURES UPDATED.

DATE: 1/10/2023

DRAWN BY: CKD

CHECKED BY: RL

SHEET TITLE

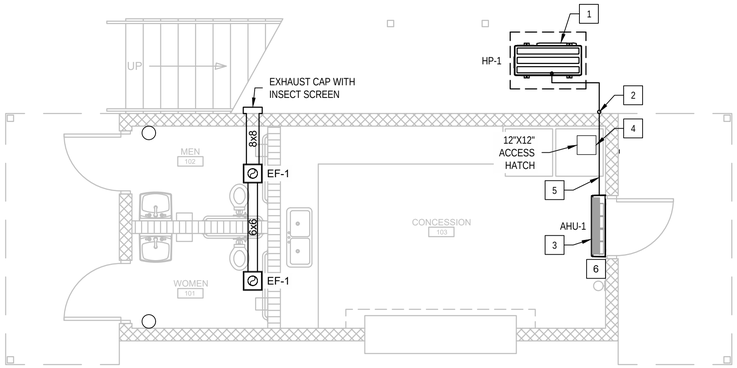
MECHANICAL NOTES LEGEND AND ABBREVS

SHEET NUMBER

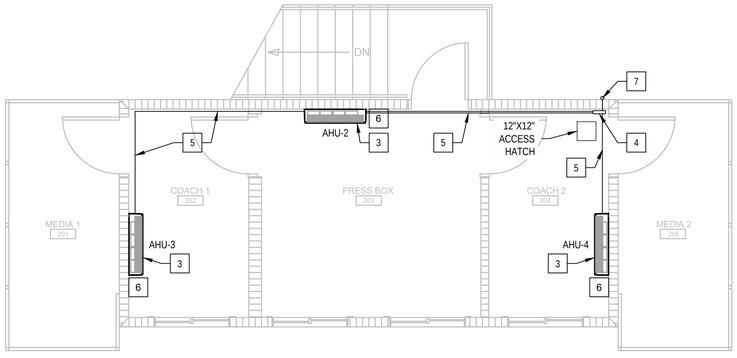
M-001

PROJECT# 21-11110

FINAL RELEASED FOR CONSTRUCTION



1 FIRST FLOOR MECHANICAL PLAN
SCALE: 1/4" = 1'-0"



2 SECOND FLOOR MECHANICAL PLAN
SCALE: 1/4" = 1'-0"

EQUIPMENT SCHEDULE

TAG	MITISUBISHI MODEL #	DESCRIPTION	VOLT, ϕ, Hz	MCA	MOCP	AIRFLOW (CFM)	NOMINAL COOLING CAPACITY	NOMINAL HEATING CAPACITY @ 17°F	SEER	EER
HP-1	NTXMSM36A142AA	HEAT PUMP	208-230, 1, 60	29	40	N/A	36,000 BTU/H	26,400 BTU/H	23	15
AHU-1,2	TPKFYP012LM140A	WALL MTD.	208-230, 1, 60	0.24	15	152-297	12,000 BTU/H	13,500 BTU/H	N/A	N/A
AHU-3,4	TPKFYP008LM140A	WALL MTD.	208-230, 1, 60	0.24	15	141-237	8,000 BTU/H	9,000 BTU/H	N/A	N/A

NOTES:
1. EQUIPMENT AS MANUFACTURED BY MITSUBISHI OR APPROVED EQUAL BY FUJITSU / LG / CARRIER.
2. LINE SET COVERS AS MANUFACTURED BY DIVERSITECH OR EQUAL BY RECTORSEAL / FORTRESS.
3. HARD WIRED THERMOSTATS FOR FOR EACH AREA (TOTAL OF 4 WIRED THERMOSTATS).
4. REFRIGERANT LINES TO BE HARD COPPER, REFRIGERANT LINE SIZING PER MANUFACTURER'S GUIDELINES.
5. AHU'S 2,3,4 TO REQUIRE CONDENSATE PUMP.

EXHAUST FAN SCHEDULE

TAG	MAKE	MODEL	MOUNTINGTYPE	CFM	EXT STATIC AT MAX FLOW (IN. WG)	MAX INPUT WATTS	AMPS	NOTES
EF-1	BROAN/NUTONE	765H80L	CEILING	80	.25	1300	12.5	FAN WITH 1300W HEATER

NOTES:
1. ACCEPTABLE ALTERNATE MANUFACTURES ARE BROAN AND PENN.
2. PROVIDE FAN WITH INSULATED HOUSING, FLEXIBLE DUCT CONNECTORS AND GRAVITY BACK DRAFT DAMPER.

KEY NOTES:

1 HEAT PUMP-1 (INSTALLED ON 4" CONCRETE PAD). COORDINATE LOCATION WITH OWNER/ENGINEER.

2 LINE SET TO TRANSITION UP EXTERIOR WALL TO THE FIRST LEVEL AND PENETRATE EXTERIOR WALL BELOW CEILING(COORDINATE LOCATION).

3 AHU (WALL MOUNTED). COORDINATE LOCATION WITH OWNER/ENGINEER.

4 BRANCH JOINT ABOVE ACCESS HATCH. COORDINATE LOCATION WITH OWNER/ENGINEER.

5 LINE SET(S) TO BE INSTALLED TIGHT AGAINST CEILING/WALL IN LINE SET COVER. LINE SET COVER TO CONTAIN ALL LINE SET(S), POWER, CONTROL, AND CONDENSATE. CONTRACTOR TO ENSURE LINE SET COVERS ARE ADEQUATELY SIZED.

6 INSTALL 7 DAY PROGRAMMABLE THERMOSTAT(TO BE MOUNTED ON THERMAL BLOCK). COORDINATE LOCATION WITH OWNER/ENGINEER.

7 LINE SET TO TRANSITION UP EXTERIOR WALL TO THE SECOND LEVEL AND PENETRATE EXTERIOR WALL BELOW CEILING(COORDINATE LOCATION).

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LOCKLEAR, LOCKLEAR & JACOBS P-0754

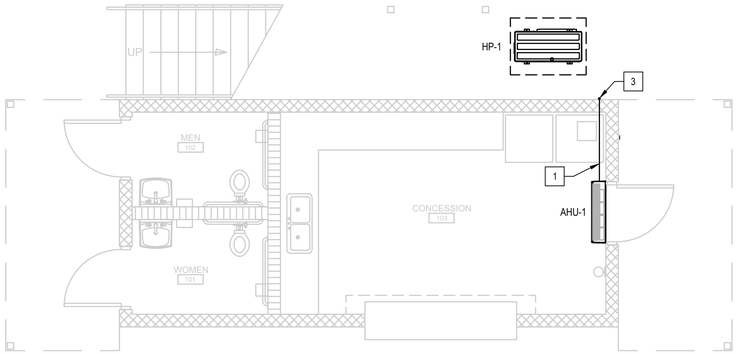
DocuSigned by: Robby Locklear 28CC1C71F9A425...
NORTH CAROLINA PROFESSIONAL SEAL 028880 ENGINEER ROBBIE LOCKLEAR
4/13/2023

PROJECT INFORMATION:
HARNETT CENTRAL PRESS BOX
HARNETT COUNTY SCHOOLS
2911 HARNETT CENTRAL RD
ANGIER, NC 27501

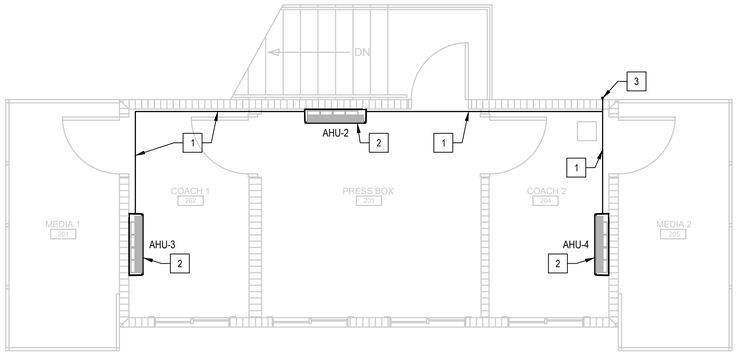
REV# - DATE - DESCRIPTION:
1 - 4/13/2023 - EXHAUST FAN MODEL CHANGED.
2 -
3 -
4 -
5 -

DATE: 1/10/2023
DRAWN BY: CKD
CHECKED BY: RL
SHEET TITLE
MECHANICAL PLAN
SHEET NUMBER
M-101
PROJECT# 21-11110

FINAL RELEASED FOR CONSTRUCTION



1 FIRST FLOOR MECHANICAL CONDENSATE PLAN
SCALE: 1/4" = 1'-0"



2 SECOND FLOOR MECHANICAL CONDENSATE PLAN
SCALE: 1/4" = 1'-0"

KEY NOTES:

1. LINE SET(S) TO BE INSTALLED TIGHT AGAINST CEILING/WALL IN LINE SET COVER. LINE SET COVER TO CONTAIN ALL LINE SET(S), POWER, CONTROL, AND CONDENSATE. CONTRACTOR TO ENSURE LINE SET COVERS ARE ADEQUATELY SIZED..
2. AHU TO INCLUDE CONDENSATE PUMP. COORDINATE CONDENSATE ROUTE WITH OWNER/ENGINEER.
3. CONDENSATE TO PENETRATE EXTERIOR WALL AND TRANSITION DOWN EXTERIOR WALL AND TERMINATE INTO DRY WELL. COORDINATE CONDENSATE DISCHARGE DRY WELL LOCATION WITH OWNER/ENGINEER. CONDENSATE SIZE AND MATERIAL PER MANUFACTURER. EXTERIOR CONDENSATE TO HAVE FULL LENGTH ALUMINUM COVER.

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P-0754

NORTH CAROLINA REGISTERED PROFESSIONAL ENGINEER SEAL 038080 ROBERT LOCKLEAR

DocuSigned by: Robert Locklear E88025A21F9A4B0...

3/14/2023

PROJECT INFORMATION:

HARNETT CENTRAL PRESS BOX
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2911 HARNETT CENTRAL RD
ANGIER, NC 27501

REV# - DATE - DESCRIPTION:
1
#2
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DATE: 1/10/2023
DRAWN BY: CKD
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SHEET TITLE

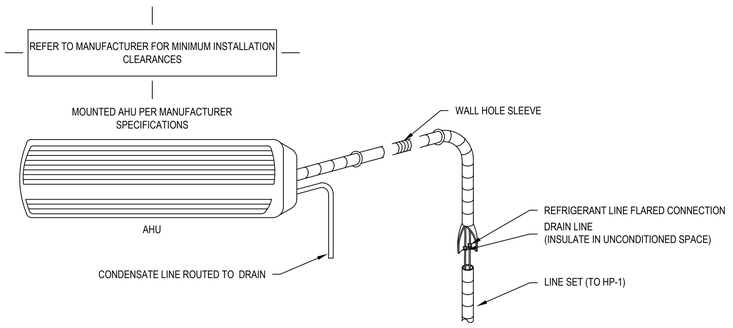
MECHANICAL CONDENSATE PLAN

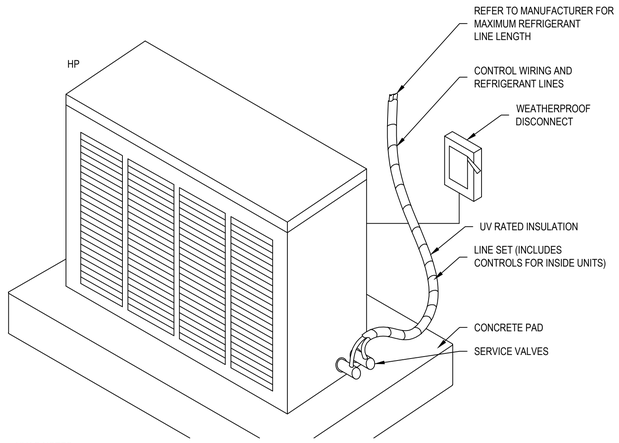
SHEET NUMBER

M-102

PROJECT# 21-11110

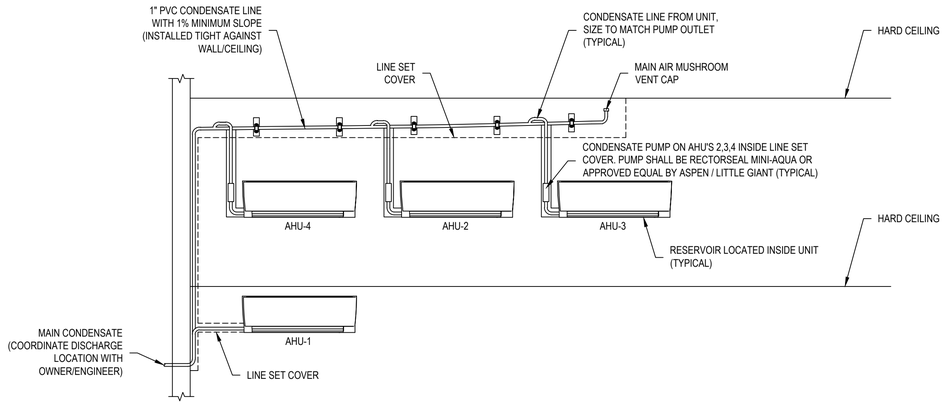
FINAL RELEASED FOR CONSTRUCTION





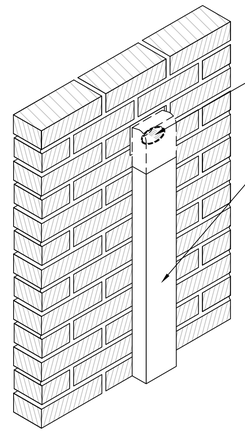
HVAC NOTES:
1. PROVIDE ALL CUTTING AND PATCHING NECESSARY FOR INSTALLATION OF FIXTURES, PIPING AND EQUIPMENT.
2. PATCH ALL OPENINGS IN BUILDING CONSTRUCTION WHERE PIPING PENETRATES WALLS, ROOF, ETC. PATCHING SHALL BE SAME MATERIALS AS SURROUNDING CONSTRUCTION. FINISH TO MATCH EXISTING CONSTRUCTION TO THE EXTENT POSSIBLE.
3. MINI SPLIT HEAT PUMP SYSTEM TO BE INSTALLED PER MANUFACTURER SPECIFICATIONS AND MINI SPLIT HEAT PUMP SYSTEM TO BE INSTALLED AND ALL APPLICABLE NATIONAL/LOCAL ELECTRICAL, MECHANICAL AND BUILDING CODES.
4. SYSTEM TO BE INSTALLED ACCORDING TO MANUFACTURER SPECIFICATIONS, ALL APPLICABLE NATIONAL AND LOCAL ELECTRICAL, MECHANICAL AND BUILDING CODES.
5. REFER TO MANUFACTURER FOR MINIMUM INSTALLATION CLEARANCES AND MAXIMUM REFRIGERANT LINE LENGTH.

1 TYPICAL MINI-SPLIT HEAT PUMP DETAIL
NTS



NOTES:
1. RESERVOIR TO HAVE HIGH LIMIT, AHU TO SHUT DOWN WHEN HIGH LIMIT IS REACHED.
2. ALL AHU'S TO BE SURFACE MOUNTED BELOW CEILING.

2 TYPICAL CONDENSATE DRAINAGE DETAIL
NTS



NOTES:
1. MECHANICAL CONTRACTOR SHALL INSTALL THE LINE SET COVER BY SPEEDICHANNEL OR EQUAL BY AIRTEC OR JOHNSTONE.
2. MECHANICAL CONTRACTOR SHALL INSTALL THE LINE SET COVER WITH 3/16" x 1-1/4" @ 15" TAPCON OR EQUAL BY HILTI OR SIMPSON STRONG-TIE.
3. MECHANICAL CONTRACTOR SHALL INSTALL PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.

3 TYPICAL LINE SET PITCH POCKET DETAIL
NTS

THIS DRAWING IS SCHEMATIC IN NATURE. FINAL ROUTING OF PIPING AND WIRING SHALL BE DETERMINED BY THE INSTALLING CONTRACTOR AND/OR DESIGNER OF RECORD ADDITIONAL REFRIGERANT CHARGE IS NEEDED DEPENDING ON THE SIZE AND LENGTH OF EXTENDED PIPING. PLEASE REFER THE AMOUNT OF PRE-CHARGE AND THE FORMULA OF CALCULATION WHICH IS MENTIONED ON THE DATA BOOK. 1.25MM²(16AWG): 1.25MM²(16AWG) OR MORE. 0.75MM²(20AWG): BETWEEN 0.5MM²(24AWG) AND 0.75MM²(20AWG).

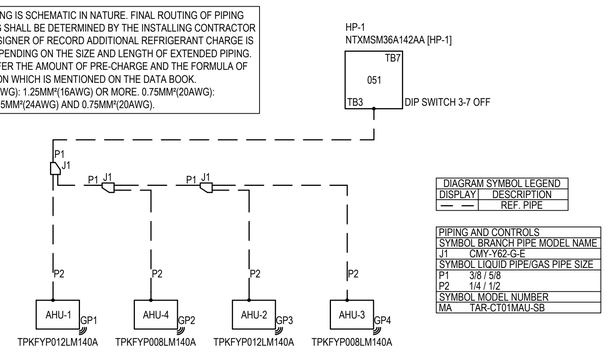
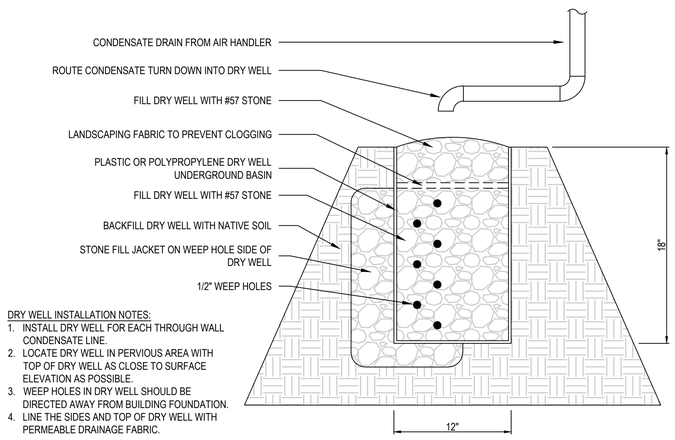


DIAGRAM SYMBOL LEGEND	
DISPLAY	DESCRIPTION
— —	REF. PIPE

PIPING AND CONTROLS	
SYMBOL	BRANCH PIPE MODEL NAME
J1	CMY-Y62-G-E
SYMBOL	LIQUID PIPE/GAS PIPE SIZE
P1	3/8 / 5/8
P2	1/4 / 1/2
SYMBOL	MODEL NUMBER
MA	TAR-CT01MAU-SB

4 TYPICAL DUCTLESS SYSTEM PIPING SCHEMATIC DETAIL
NTS



DRY WELL INSTALLATION NOTES:
1. INSTALL DRY WELL FOR EACH THROUGH WALL CONDENSATE LINE.
2. LOCATE DRY WELL IN PERVIOUS AREA WITH TOP OF DRY WELL AS CLOSE TO SURFACE ELEVATION AS POSSIBLE.
3. WEEP HOLES IN DRY WELL SHOULD BE DIRECTED AWAY FROM BUILDING FOUNDATION.
4. LINE THE SIDES AND TOP OF DRY WELL WITH PERMEABLE DRAINAGE FABRIC.

5 TYPICAL CONDENSATE DRY WELL INSTALLATION DETAIL
NTS

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NORTH CAROLINA REGISTERED PROFESSIONAL ENGINEER SEAL 020880 ROBBIE LOCKLEAR

DocuSigned by: Robbie Locklear 3/14/2023

PROJECT INFORMATION:

HARNETT CENTRAL PRESS BOX
HARNETT COUNTY SCHOOLS
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REV# - DATE - DESCRIPTION:
1. 2. 3. 4. 5.

DATE: 1/10/2023
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CHECKED BY: RL
SHEET TITLE

MECHANICAL DETAILS

SHEET NUMBER

M-301

PROJECT# 21-11110

FINAL RELEASED FOR CONSTRUCTION

ELECTRICAL NOTES:

1. THE CONTRACT DOCUMENTS CONSIST OF DRAWINGS, SPECIFICATIONS AND DESIGN INFORMATION PREPARED BY MULTIPLE DISCIPLINES AND MUST BE USED AS A WHOLE AND IN COORDINATION WITH EACH OTHER. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY APPARENT DISCREPANCIES OR OMISSION OF INFORMATION NOT SHOWN ON THE ELECTRICAL DRAWINGS. SHOP DRAWINGS SHALL BE PROVIDED WHERE NECESSARY FOR COORDINATION. THE CONTRACTOR IS RESPONSIBLE FOR CORRECTING ERRORS RESULTING FROM LACK OF COORDINATION OF DOCUMENTS.
2. THE CONTRACTOR SHALL BRING ANY CONFLICTS OR DISCREPANCIES TO THE ATTENTION OF THE ENGINEER IN WRITING PRIOR TO PROCEEDING WITH WORK.
3. THE CONTRACTOR SHALL FIELD VISIT THE SITE PRIOR TO BID TO FAMILIARIZE HIMSELF WITH THE SCOPE OF WORK.
4. ALL WORK SHALL BE DONE IN A FIRST CLASS WORKMANLIKE MANNER BY A LICENSED ELECTRICAL CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING A SAFE, CLEANLY, AND UNDISRUPTIVE JOB SITE THAT DOES NOT IMPEDE EGRESS PATHS OR OTHER TENANTS. DISRUPTIONS TO POWER AFFECTING OTHER TENANTS OR AREAS OUTSIDE THE SCOPE OF WORK SHALL BE COORDINATED WITH THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING OF HIS WORK. WHEN THE WORK IS COMPLETE, ALL ELECTRICAL DEVICES SHALL BE VACUUMED CLEAN. THE FINAL PRODUCT SHALL BE A FULLY FUNCTIONAL SYSTEM MEETING THE INTENT OF THE DRAWINGS/DOCUMENTS. WORKMANSHIP AND ALL MATERIALS AND EQUIPMENT SHALL BE GUARANTEED FOR A MINIMUM OF ONE YEAR IN WRITING COMMENCING UPON ACCEPTANCE OF INSTALLATION BY OWNER.
5. WITHIN 30 DAYS AFTER THE DATE OF THE SYSTEM ACCEPTANCE, RECORD DRAWINGS OF THE ACTUAL INSTALLATION SHALL BE PROVIDED TO THE BUILDING OWNER, INCLUDING A SINGLE-LINE DIAGRAM OF THE BUILDING ELECTRICAL DISTRIBUTION SYSTEM AND FLOOR PLANS INDICATING LOCATION AND AREA SERVED FOR ALL DISTRIBUTION. ADDITIONALLY, AN OPERATING MANUAL AND MAINTENANCE MANUAL SHALL BE PROVIDED TO THE BUILDING OWNER INCLUDING THE FOLLOWING: SUBMITTAL DATA STATING EQUIPMENT RATING AND SELECTED OPTIONS FOR EACH PIECE OF EQUIPMENT REQUIRING MAINTENANCE, OPERATION MANUALS AND MAINTENANCE MANUALS FOR EACH PIECE OF EQUIPMENT REQUIRING MAINTENANCE INCLUDING CLEARLY IDENTIFIED ROUTINE MAINTENANCE ACTIONS, AND NAMES AND ADDRESSES OF AT LEAST ONE QUALIFIED SERVICE AGENCY.
6. UNLESS PROVIDED WITH DIMENSIONS OR NOTED OTHERWISE, ELECTRICAL PLANS ARE STRICTLY DIAGRAMMATIC ONLY. REFER TO THE DRAWINGS FOR ALL DIMENSIONS, MOUNTING HEIGHTS, ETC. EFFORT HAS BEEN MADE TO PROPERLY ACCOUNT FOR ALL SPACE REQUIREMENTS, CLEARANCES, ETC. BUT SITE CONDITIONS AND PRODUCTS SELECTED MAY VARY AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN PROPER ARRANGEMENTS AND CLEARANCES. DRAWINGS SHALL NOT BE SCALED.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS, PAYING ALL ASSOCIATED FEES, AND DOCUMENTING AND FILING ALL PAPERWORK ASSOCIATED WITH THIS SCOPE OF WORK. WHEN THE WORK IS COMPLETE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED CERTIFICATES OF INSPECTION.
8. THE CONTRACTOR IS EXPECTED TO HAVE A FULL FUNCTIONAL KNOWLEDGE OF ELECTRICAL SYSTEMS AND WHETHER INDICATED ON THE DRAWINGS OR NOT SHALL PROVIDE THE CORRECT NUMBER OF WIRES, AT NO ADDITIONAL CHARGE, TO FACILITATE PROPER OPERATION OF ALL EQUIPMENT. QUANTITY OF WIRES WILL ONLY BE INDICATED WHERE NECESSARY FOR CLARIFICATION.
9. THE INSTALLATION SHALL BE IN COMPLIANCE WITH THE AMERICAN WITH DISABILITIES ACT (ADA), UNLESS INSTALLED FOR SPECIFIC USES EXEMPT FROM ADA OR IN AREAS NOT NORMALLY ACCESSED BY BUILDING OCCUPANTS.
10. THE ELECTRICAL CONTRACTOR SHALL REFER TO THE MECHANICAL AND PLUMBING DRAWINGS FOR EXACT LOCATIONS OF EQUIPMENT. PRIOR TO ORDERING ELECTRICAL EQUIPMENT SERVING MECHANICAL & PLUMBING EQUIPMENT, THE ELECTRICAL CONTRACTOR SHALL CONFIRM THE EQUIPMENT BEING ORDERED BY THE HVAC OR PLUMBING CONTRACTORS AND PROVIDE WIRING, CONDUIT, AND OVERCURRENT PROTECTION MEETING THE REQUIREMENTS AT NO ADDITIONAL COST. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING AND COORDINATING WITH THE HVAC CONTRACTOR FOR PROVIDING ANY NECESSARY LINE AND LOW VOLTAGE WIRING. FINAL TERMINATION TO BE MADE BY THE HVAC CONTRACTOR. ALL BREAKERS SUPPLYING HVAC LOADS SHALL BE HACR TYPE.
11. ALL MATERIALS AND EQUIPMENT FURNISHED SHALL BE NEW (UNLESS NOTED OTHERWISE) AND BEAR THE U.L. LISTING FOR THEIR INTENDED USE. MATCH BUILDING STANDARDS FOR MANUFACTURER AND TYPE OF EQUIPMENT FOR LIGHTS, EXIT SIGNS, FIRE ALARM DEVICES, WIRING DEVICES, AND ELECTRICAL DISTRIBUTION EQUIPMENT. WHERE NO BUILDING STANDARD EXISTS FOR ELECTRICAL EQUIPMENT, EQUIPMENT SHALL BE MANUFACTURED BY G.E., SQUARE-D, EATON CUTLER-HAMMER OR SIEMENS. INSTALL A PLASTIC-LAMINATE SIGN ON EACH NEW UNIT OF ELECTRICAL EQUIPMENT WITH 1/2" ENGRAVED LETTERING FOR IDENTIFICATION. IDENTIFICATION SHALL MATCH CONTRACT DOCUMENTS AND/OR INDICATE SOURCE FED (FOR DISCONNECTS, ETC).
12. THE FAULT CURRENT RATING OF ALL EQUIPMENT ADDED TO THE ELECTRICAL DISTRIBUTION SHALL MEET THE AVAILABLE FAULT CURRENT. EQUIPMENT SHALL BE FULLY RATED UNLESS NOTED OTHERWISE.
13. THE CONTRACTOR SHALL GIVE PERMISSION FOR THE AHJ, ENGINEER, INSPECTOR, ETC. TO PERFORM TESTS OF THE ELECTRICAL SYSTEM AS REQUIRED.
14. SWITCH OUTLETS SHALL NOT BE OBSTRUCTED BY DOOR SWINGS AND OCCUPANCY SENSORS SHALL HAVE FULL VIEW OF THE INTENDED SPACE.
15. SWITCH AND RECEPTACLES INDICATED IN THE SAME LOCATION SHALL BE MOUNTED UNDER A COMMON COVERPLATE UNLESS OTHERWISE NOTED.
16. EVEN IF THE PLANS INDICATE, OUTLETS SHALL NOT BE INSTALLED PRECISELY BACK TO BACK ON COMMON WALLS. REFER TO THE ARCHITECTURAL DRAWINGS FOR EXACT MOUNTING METHODS AND LOCATIONS.
17. JUNCTION AND PULL BOXES ARE ONLY INDICATED WHERE REQUIRED FOR LARGE SCALE COORDINATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING JUNCTION AND PULL BOXES AS REQUIRED BY THE CODE AND PER A STANDARD INSTALLATION, AND SHALL INCLUDE THIS IN THEIR BID. BOXES SHALL BE STEEL AND INCLUDE EARS INSIDE TO ATTACH COVERS. OUTLET BOXES SHALL BE FOUR INCH SQUARE DEEP TYPE. OUTLET BOXES FOR 120V OR HIGHER CIRCUITS SHALL INCLUDE A #12 AWG SOLID COPPER PIGTAIL. OUTLET BOXES LOCATED OUTDOOR OR EXPOSED TO WET CONDITIONS SHALL INCLUDE GASKETED COVERS. THE MAXIMUM GAP AROUND BOXES SHALL BE 1/8" OR SMALLER ON ALL EDGES. JUNCTION BOXES SHALL BE COLOR CODED WITH PAINT TO INDICATE THEIR USE AS FOLLOWS: NORMAL POWER - BLACK, STANDBY POWER - ORANGE, FIRE ALARM - RED, TELEPHONE/DATA - YELLOW, HVAC CONTROLS - BLUE.
18. CONDUCTORS SHALL BE LOOPED AROUND SCREW POSTS SO THAT ROTATION OF THE SCREW TENDS TO FURTHER WRAP THE CONNECTION. SCREW TERMINALS SHALL BE WRAPPED IN ELECTRICAL TAPE. AT LEAST 6" OF FREE CONDUCTOR SHALL BE LEFT AT EACH J-BOX, OUTLET AND SWITCH BACK-BOX, ETC FOR FUTURE SPLICING.
19. THE CONTRACTOR SHALL MAINTAIN THE FIRE RATING OF ALL FIRE-RATED PARTITIONS. IF A DEVICE WILL VOID THE FIRE RATING OF A WALL, IT SHALL BE INSTALLED IN AN ALTERNATE LOCATION PER THE ARCHITECT OR ENGINEER'S DIRECTION. ALL VOIDS AROUND CONDUITS AND/OR CORE DRILLS PENETRATING FIRE RATED PARTITIONS SHALL BE FILLED WITH FIRE-SAFING MATERIAL OR UL APPROVED FIRE RATING DEVICE. THE FIRE RATING OF A PARTITION SHALL NEVER BE COMPROMISED.
20. THE CONTRACTOR SHALL MAINTAIN THE INSULATION RATING AND VAPOR BARRIERS ON ALL PERIMETER WALLS. IF A DEVICE WILL DAMAGE OR COMPROMISE THE VAPOR BARRIER OR INSULATION, IT SHALL BE INSTALLED IN AN ALTERNATE LOCATION PER THE ARCHITECT OR ENGINEER'S DIRECTION.
21. ALL EQUIPMENT REQUIRING ACCESS SUCH AS J-BOXES, PULL BOXES, TRANSFORMERS, DRIVERS, ETC. SHALL BE INSTALLED IN ACCESSIBLE LOCATIONS. EXISTING ELECTRICAL DEVICES WHICH ARE LOCATED BEHIND INACCESSIBLE LOCATIONS DUE TO THE RENOVATION SHALL BE REROUTED AND MADE ACCESSIBLE.
22. CONDUITS AND/OR MATERIALS LOCATED IN ENVIRONMENTAL AIR PLENUMS SHALL BE PROPERLY LISTED FOR THE APPLICATION. INTERIOR CONCEALED RACEWAYS MAY BE AC OR MC CABLE IF ALLOWED BY THE AHJ. EXPOSED RACEWAYS, INCLUDING RACEWAYS EXPOSED IN THE BACK OF HOUSE SHALL BE GALVANIZED STEEL OR ALUMINUM EMT. MOTOR CONNECTIONS SHALL BE FLEXIBLE METAL CONDUIT FOR INTERIOR APPLICATIONS AND LIQUID TIGHT FLEX FOR EXTERIOR APPLICATIONS. ALL OTHER EXTERIOR CONDUITS SHALL BE GALVANIZED STEEL, ALUMINUM EMT OR RIGID STEEL IF EXPOSED TO STRIKING. EXTERIOR CONDUITS SHALL UTILIZE COMPRESSION CONNECTORS. AC/MC CABLE SHALL NOT TERMINATE AT PANELBOARDS. A GUTTER ABOVE THE ELECTRICAL PANELS SHALL BE PROVIDED WITH CONDUIT FROM THE GUTTER TO THE PANELBOARD.
23. CABLE AND CONDUIT ROUTING SHALL BE DONE IN A NEAT AND ORDERLY FASHION. LINES SHALL BE RUN PARALLEL TO ALL BUILDING FEATURES, AND SHALL BE GROUPED TOGETHER TO CREATE AN AESTHETICALLY PLEASING AND EASY TO FOLLOW ROUTE. CABLES SHALL BE PERMITTED TO BE BUNDLED BUT SHALL NOT EXCEED TEN IN QUANTITY. ROUTING SHALL BE COORDINATED WITH OTHER TRADES TO AVOID CONFLICT.
24. CONDUITS SHALL BE RIGIDLY SUPPORTED TO THE BUILDING STRUCTURE. AC AND MC CABLES SHALL BE SUPPORTED WITHIN 12" OF EVERY BOX, FITTING, ETC. AND SUPPORT SPACINGS SHALL NOT EXCEED 6' INTERVALS. RIGID CONDUIT SUPPORT SPACINGS FOR ALL CONDUIT TYPES SHALL BE IN ACCORDANCE WITH THE NEC. COUPLINGS AND FITTINGS SHALL BE STEEL WITH COMPRESSION OR SET STEEL SCREW CONNECTIONS. THERE SHALL NOT BE MORE THAN THE EQUIVALENT OF FOUR QUARTER BENDS (360 DEGREES TOTAL) BETWEEN PULL POINTS FOR POWER (120V OR HIGHER) CIRCUITS AND NOT MORE THAN THE EQUIVALENT OF TWO QUARTER BENDS (180 DEGREES TOTAL) BETWEEN PULL FOR LOW VOLTAGE (TELEPHONE, DATA, ETC) CIRCUITS. LOW VOLTAGE CONDUIT RUNS SHALL ALSO NOT EXCEED 100' BETWEEN PULL POINTS. ALL CONDUITS SHALL BE FASTENED AT BOTH ENDS. EXPANSION FITTINGS SHALL BE PROVIDED AT ALL BUILDING EXPANSION JOINTS OR WHERE NEEDED TO ALLOW FOR THERMAL EXPANSION.
25. CONDUIT SIZES INDICATED IN PANEL SCHEDULES AND ON THE SINGLE LINE ARE BASED ON TYPE THHN IN EMT. AS OTHER TYPES OF CONDUIT AND CONDUCTORS ARE PERMISSIBLE IN THIS PROJECT, THE CONTRACTOR SHALL ADJUST THE DIMENSION OF THE CONDUIT TO COMPLY WITH CHAPTER 9, TABLE 1 IN THE NEC. ADJUSTMENTS TO THE CONDUIT SIZE SHALL BE PART OF THE BID AND SHALL BE AT NO ADDITIONAL EXPENSE TO THE OWNER.
26. WIRE SIZES INDICATED ARE BASED UPON DIRECT ORTHOGONAL PATHS TO THE PANELBOARD. FEEDERS ARE SIZED FOR A MAXIMUM OF 2% VOLTAGE DROP, AND BRANCH CIRCUITS ARE DESIGNED FOR A MAXIMUM OF 3% VOLTAGE DROP. IF FIELD CONDITIONS DO NOT ALLOW THESE PATHS OR IF THE CONTRACTOR RUNS ADDITIONAL LENGTHS, THEY SHALL BE RESPONSIBLE FOR INCREASING WIRE SIZE TO ACCOUNT FOR VOLTAGE DROP AT NO ADDITIONAL COST. 20 AMP, 120 VOLT HOMERUNS EXCEEDING 57' SHALL BE A MINIMUM OF #10 AWG. 20 AMP, 277 VOLT HOMERUNS EXCEEDING 131' SHALL BE A MINIMUM OF #10 AWG. WIRING SMALLER THAN #12 AWG SHALL NOT BE USED FOR ANY INSTALLATIONS.
27. THE CONTRACTOR SHALL CIRCUIT PANELBOARDS EXACTLY AS INDICATED IN THE PANEL SCHEDULES. IF ANY DEVIATIONS ARE NECESSARY, THE ENGINEER SHALL BE NOTIFIED. TYPED DIRECTORY CARDS SHALL BE PROVIDED AT EACH PANELBOARD INDICATING LOAD SERVED AND FINAL ROOM NUMBERS PER THE NEC. WHEN EXISTING DIRECTORIES ARE REPLACED FOR RENOVATION WORK, EXISTING LOAD INFORMATION SHALL BE DIRECTLY TRANSFERRED TO THE NEW DIRECTORY CARDS.
28. NEUTRAL CONDUCTORS SHALL ONLY BE SHARED WHEN INDICATED ON THE DRAWINGS. WHERE NEUTRALS ARE INDICATED TO BE SHARED, THE NEUTRAL SHALL BE A MINIMUM OF #10 AWG.
29. CONDUCTORS SHALL BE COPPER. CONDUCTORS #10 AWG AND SMALLER SHALL BE SOLID, AND CONDUCTORS #8 AWG AND LARGER SHALL BE STRANDED. CONDUCTORS SHALL BE CODE TYPE THW, THHN, THWN, OR XHHW UNLESS OTHERWISE REQUIRED BY THE NEC. CONDUCTORS SHALL BE MARKED WITH INSULATION CODE, VOLTAGE RATING, AWG SIZE, AND MANUFACTURER AND INCLUDE A CONTINUOUS COLOR CODING FROM PANEL TO LOAD SERVED. WHERE CONTINUOUS MARKINGS ARE NOT AVAILABLE, USE COLOR CODED TAPE AT EACH TERMINATION. #8 AWG AND SMALLER CONDUCTORS SHALL BE SPLICED WITH SPRING CONNECTORS. #6 AWG AND LARGER SHALL BE SPLICED WITH BARREL CONNECTORS REQUIRING COMPRESSION ON EACH END.
30. ALL EMERGENCY EGRESS, STANDBY LIGHTING, AND EXIT LIGHTING SHALL HAVE A BATTERY WITH RUN TIME MEETING OR EXCEEDING 90 MINUTES. THE BATTERY SHALL NOT BE CAPABLE OF BEING DISCONNECTED. REGARDLESS OF MODEL NUMBER SPECIFIED, LIGHT FIXTURES SPECIFIED WITH BACKUP BATTERY SHALL HAVE THE TEST BUTTON INTEGRALLY MOUNTED WHERE POSSIBLE. WHERE FIXTURES ARE NOT AVAILABLE WITH INTEGRALLY MOUNTED TEST BUTTONS, THE TEST BUTTONS SHALL BE LOCATED IN A DISCRETE LOCATION AS DETERMINED BY THE ENGINEER, UP TO 50' AWAY FROM THE FIXTURE.
31. ALL LIGHT FIXTURES SHALL BE SUPPORTED FROM THE BUILDING STRUCTURAL SYSTEM BY SUPPORT WIRES, INDEPENDENT OF CEILING GRID SYSTEMS. TROFFER TYPE FIXTURES SHALL BE SUPPORTED BY WIRES AT ALL FOUR CORNERS. RECESSED DOWNLIGHTS SHALL BE SUPPORTED VIA HANGER BARS SUPPORTED BY WIRES AT ALL FOUR CORNERS. SUPPORT MEANS SHALL BE IN ACCORDANCE WITH LOCAL SEISMIC REQUIREMENTS.
32. THE EQUIPMENT GROUNDING SYSTEM SHALL CONSIST OF AN ELECTRICALLY CONTINUOUS METALLIC CONDUIT SYSTEM TOGETHER WITH INSULATED EQUIPMENT GROUNDING CONDUCTORS. EVERY ITEM SERVED BY THE ELECTRICAL SYSTEM SHALL BE PROPERLY GROUNDED IN ACCORDANCE WITH NEC ARTICLE 250. THIS SHALL INCLUDE RACEWAYS, JUNCTION/OUTLET BOXES, MACHINE FRAMES, ETC. ALL BRANCH CIRCUITS AND FEEDERS SHALL HAVE A GREEN INSULATED EQUIPMENT GROUNDING CONDUCTOR OR GROUND ELECTRODE SIZED IN ACCORDANCE WITH THE NEC. PROVIDE BONDING JUMPERS FOR ALL NON-CURRENT CARRYING CONDUCTORS OF DIFFERENT SYSTEMS TO ENSURE NO VOLTAGE POTENTIAL. METAL GAS PIPING SHALL ONLY BE GROUNDED AT EQUIPMENT HOUSING BOTH ELECTRICAL CIRCUITS AND UTILIZING GAS VIA THE EQUIPMENT GROUND ROUTED WITH THE CIRCUIT. ALL GROUND WIRES SHALL BE COPPER.
33. SUBMITTALS SHALL BE SUBMITTED ELECTRONICALLY, IN PDF FORMAT. THE CONTRACTOR SHALL ALLOW FOR A TOTAL OF 10 BUSINESS DAYS FOR REVIEW BY THE ENGINEER. SUBMITTALS SHALL INCLUDE PANELBOARDS, DISCONNECTS, WIRING DEVICES AND LIGHT FIXTURES. SUBMITTALS SHALL ONLY INCLUDE DATA RELEVANT TO THIS PROJECT; DATA SHEETS INDICATING SEVERAL PRODUCTS SHALL HAVE THE RELEVANT PRODUCTS HIGH-LITED OR CLEARLY IDENTIFIED. SIMILAR EQUIPMENT SHALL BE SUBMITTED IN ONE COMPLETE SUBMITTAL PACKAGE (I.E. ALL PANELBOARDS, ALL LIGHTING FIXTURES, ETC.).
34. PROVIDE PAD LOCKING HARDWARE ON CIRCUIT BREAKERS FOR EQUIPMENT WHICH IS HARDWIRED WITHOUT A LOCAL DISCONNECTING MEANS THAT ARE NOT WITHIN SIGHT OF THE PANELBOARD.
35. DUPLEX RECEPTACLES SHALL BE NEMA 5-20R.
36. WALL MOUNTED OCCUPANCY SENSORS SHALL BE ACUITY WSD PDT OR APPROVED EQUAL. CEILING MOUNTED OCCUPANCY SENSORS FOR CONFERENCE ROOMS, LOBBIES, AND OTHER SIMILAR AREAS SHALL BE DUAL TECHNOLOGY PASSIVE INFRARED AND ULTRASONIC SIMILAR TO ACUITY EMR PDT9. DEVICES SHALL BE MOUNTED SUCH THAT THE SENSORS HAVE FULL COVERAGE OF THE INTENDED AREAS AND PER THE MANUFACTURER'S RECOMMENDATIONS. PROVIDE ALL ACCESSORIES NECESSARY FOR A FULLY FUNCTIONING SYSTEM, INCLUDING POWER PACKS, CONTROL AND POWER WIRING, BACKBOXES, ETC. POWER PACKS FOR CEILING MOUNTED SENSORS SHALL BE PROVIDED, SIMILAR TO WATT STOPPER BZ-150. SENSORS SHALL BE WATT STOPPER, HUBBEL, COOPER, OR LUTRON PROVIDED IT IS EQUIVALENT OR EXCEEDS THE REQUIREMENTS LISTED HEREIN. THE CONTRACTOR SHALL FULLY COMMISSION THE OCCUPANCY SENSORS SYSTEM TO CONFIRM IT IS FUNCTIONING AS INTENDED.
37. MOLDED CASE CIRCUIT BREAKERS SHALL BE THERMAL MAGNETIC AND AMBIENT COMPENSATED INVERSE TIME-DELAY OVERLOAD AND INSTANTANEOUS SHORT CIRCUIT PROTECTED, FULL SIZE, BOLT-ON, WITH A QUICK-MAKE, QUICK-BREAK OVER-CENTER SWITCHING MECHANISM THAT IS MECHANICALLY TRIP-FREE FROM THE HANDLE SUCH THAT THE CONTACTS CAN NOT BE CLOSED AGAINST SHORT CIRCUITS. CONTACTS SHALL BE NON-WELDING SILVER ALLOY. TRIPPING DUE TO OVERLOAD OR SHORT CIRCUIT SHALL BE INDICATED BY THE BREAKER RESTING AT A MID POINT BETWEEN THE ON AND OFF POSITIONS. AMPERE AND FAULT CURRENT RATINGS SHALL BE CLEARLY VISIBLE. WHERE NEUTRALS ARE SHARED AMONG CIRCUITS, THE CONTRACTOR SHALL PROVIDE MULTI-POLE BREAKERS TO SIMULTANEOUSLY DISCONNECT ALL CIRCUITS IN THE EVENT OF ONE TRIPPING; IN THIS CASE SINGLE POLE BREAKERS MAY BE CONNECTED BY A COMMON TRIP HANDLE.
38. ALL FUSES SHALL BE DUAL-ELEMENT LOW PEAK CLASS RK1 AS MANUFACTURED BY BUSSMAN OR LITTLE FUSE. FUSE VOLTAGE RATING SHALL BE 250 VOLT FOR 120/208 VOLT SYSTEM.
39. DISCONNECT SWITCHES SHALL BE HEAVY DUTY TYPE, HIGH I2T RATED, APPROVED FOR SERVICE ENTRANCE APPLICATIONS. DISCONNECT SWITCHES SPECIFIED FOR 208 VOLT CIRCUITS SHALL BE RATED AT 240 VOLT. ALL DISCONNECTS SHALL BE QUICK-MAKE, QUICK-BREAK TYPE AND HAVE PROVISIONS FOR ACCOMMODATING R TYPE FUSES. SWITCHES IN EXTERIOR LOCATIONS SHALL BE NEMA TYPE 4X, AND INDOOR SWITCHES EXPOSED TO WET OR DAMP CONDITIONS SHALL BE NEMA TYPE 3R. SWITCHES SHALL HAVE PROVISIONS FOR PADLOCKING. SWITCHES SHALL BE PREVENTED FROM OPENING WHILE SWITCH IS ON. FUSED DISCONNECTS SHALL BE PROVIDED WHEN REQUIRED BY THE MANUFACTURER OR BY THE LOCAL INSPECTING AUTHORITY.
40. ALL 15 AND 20A RECEPTACLES LOCATED IN KITCHENS, WITHIN 6' OF SINKS, BATHROOMS, IN EXTERIOR LOCATIONS, IN AREAS EXPOSED TO WET CONDITIONS, ROOFTOPS SHALL BE GFI TYPE. IF A SIMPLEX RECEPTACLE IS REQUIRED, THE CIRCUIT BREAKER SHALL BE GFI TYPE.
41. PANELBOARDS SHALL HAVE COPPER FULL SIZE PHASE BUSSES, NEUTRAL BUSSES, AND BOLTED ON COPPER GROUNDING BUS WITH MAIN LUGS. BUS BAR CONNECTIONS SHALL BE COLUMN CONSECUTIVE PHASE-SEQUENCE TYPE. BUS BARS SHALL BE DRILLED AND EQUIPPED FOR BOLT-ON MOLDED CASE CIRCUIT BREAKERS. SHORT CIRCUIT BRACING AND BREAKER INTERRUPTING CAPACITY SHALL BE AS INDICATED ON THE PANEL SCHEDULES, BUT SHALL NOT BE BELOW 10,000 A.I.C. FOR 120/208V PANELS AND 14,000 A.I.C. FOR 277/480V PANELS. PANEL CONSTRUCTION SHALL BE HINGED DOOR IN DOOR COVERS WITH MASTER-KEYED DOOR LOCKS, GALVANIZED SHEET STEEL CABINETS WITH MULTIPLE KNOCKOUTS, WIRING GUTTERS, AND SPACE FOR A TYPED CIRCUIT DIRECTORY. MAIN BREAKERS OR MAIN LUGS ONLY SHALL BE PROVIDED AS INDICATED IN THE PANEL SCHEDULES. PANELS SHALL BE PROVIDED WITH FEED THRU LUGS UNLESS OTHERWISE NOTED.
42. UNDERGROUND CONDUIT SHALL BE PVC, EXTERIOR EXPOSED CONDUIT SHALL BE RIGID AND INTERIOR CONDUIT SHALL BE EMT.

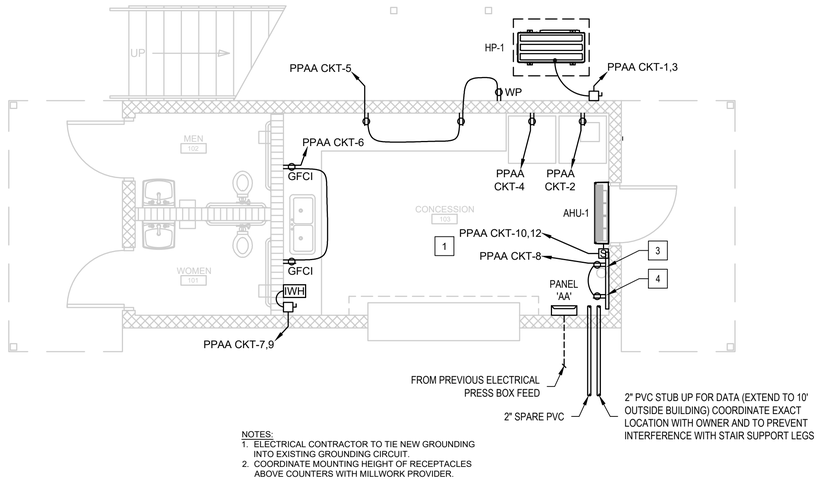
ELECTRICAL LEGEND

SYMBOL	DESCRIPTION
$	SINGLE POLE SWITCH
$3	THREE WAY WALL MOUNTED SWITCH
$O	WALL MOUNTED OCCUPANCY SENSOR
OS	CEILING MOUNTED OCCUPANCY SENSOR
EXIT	EMERGENCY EXIT COMBO LIGHT
	EMERGENCY LIGHT
RH	REMOTE HEAD
WP	WALL PACK LIGHT FIXTURE
	2'X2' LED TROFFER LIGHT FIXTURE
	2'X4' LED TROFFER LIGHT FIXTURE
	EXHAUST FAN
T	EXHAUST FAN THERMOSTAT
MDP	MAIN DISTRIBUTION PANEL
PP_	POWER PANEL '__'
TX1	TRANSFORMER
BC	BOX & 1" CONDUIT ABOVE CEILING
ATS	AUTOMATIC TRANSFER SWITCH
MTS	MANUAL TRANSFER SWITCH
PP	POWER PACK
	120V DUPLEX RECEPTACLE
GFI	GROUND FAULT INTERRUPTER DUPLEX RECEPTACLE
WP	GROUND FAULT INTERRUPTER DUPLEX RECEPTACLE W/ WEATHERPROOF IN-USE COVER
ACG	GROUND FAULT INTERRUPTER DUPLEX RECEPTACLE W/ WEATHERPROOF IN-USE COVER
L5-30R	30 AMP, NEMA L5-30R SINGLE, LOCKING RECEPTACLE (INSTALLED 80" ABOVE FINISHED FLOOR)
	QUAD RECEPTACLE
GFI	FLOOR MOUNTED GFI DUPLEX RECEPTACLE (PLASTIC FLOOR BOX W/ STAINLESS STEEL COVER)
	FLOOR MOUNTED QUAD RECEPTACLE W/ VOICE/DATA (DUAL DATA DROP & PLASTIC FLOOR BOX W/ STAINLESS STEEL COVER)
	VOICE/ DATA (DUAL DATA DROP, BOX & 3/4" EMT CONDUIT IN WALL TO ABOVE CEILING GRID)
	CEILING DUAL DATA DROP (BOX & 3/4" EMT CONDUIT ABOVE CEILING GRID)
AP	CEILING MOUNTED WIRELESS ACCESS POINT W/ POWER OVER ETHERNET (BOX & 3/4" EMT CONDUIT ABOVE CEILING)
	DOOR ENTRY - NUMBER PAD
	ELECTRICAL DOOR STRIKE
P	PUSH BUTTON FOR DOOR ENTRY (MOUNTED UNDER DESK)
CT	CONTROL TRANSFORMER 120V INPUT, COORDINATE OUTPUT W/ ELECTRIC DOOR STRIKE
CJB	ABOVE CEILING MOUNTED JUNCTION BOX FOR PROCEDURE LIGHT
	HOT WATER CIRCULATOR PUMP
TV	TV OUTLET (RECEPTACLE, DUAL DATA & COAX)
	DOOR ENTRY - CARD SWIPE
JB	JUNCTION BOX
	WALL MOUNTED TELEVISION W/ FULL MOTION ARTICULATING WALL MOUNT
	DISCONNECT (NEMA 1 INSIDE BUILDING & NEMA 3R OUTSIDE BUILDING)
FLR	FLOOR MOUNTED GFI QUAD RECEPTACLE (PLASTIC FLOOR BOX W/ STAINLESS STEEL COVER)
FLR	FLOOR MOUNTED VOICE/ DATA (PLASTIC FLOOR BOX W/ STAINLESS STEEL COVER)
PS	ALTRONIX AL1012ULACMCB, POWER SUPPLY/ CHARGES W/ MULTI-OUTPUT ACCESS POWER CONTROLLER

NOTE: NOT ALL SYMBOLS SHOWN ARE NECESSARILY USED

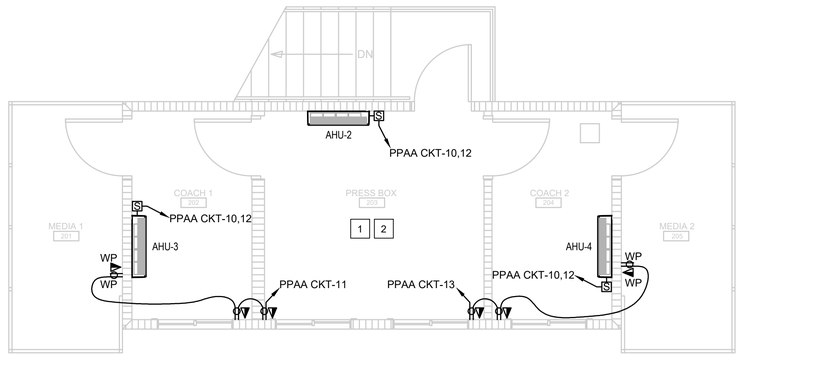
ELECTRICAL ABBREVIATIONS

1PH	SINGLE-PHASE	DMR SW	DIMMER SWITCH	MCC	MOTOR CONTROL CENTER
1P	SINGLE POLE	DPS	DOOR POSITION SWITCH	MDP	MAIN DISTRIBUTION PANEL
2/C	TWO-CONDUCTOR	DN	DOWN	MECH	MECHANICAL
3/C	THREE-CONDUCTOR	DPDT	DOUBLE POLE, DOUBLE THROW	MG	MOTOR GENERATOR
3PH	THREE-PHASE	DPST	DOUBLE POLE, SINGLE THROW	MH	MANHOLE
4/C	FOUR-CONDUCTOR	DR	DOOR CARD READER / PUSH TO EXIT	MIN	MINIMUM
4W	FOUR-WIRE		BUTTON	MOCP	MAXIMUM OVERCURRENT
		DRSW	DOOR SWITCH		PROTECTION
A/C UNIT	AIR CONDITIONING UNIT	DS	DISCONNECT SWITCH	MLO	MAIN LUGS ONLY
A/E	ARCHITECT/ENGINEER	DWG	DRAWING	MT	MOUNT
AAP	ALARM ANNUNCIATOR PANEL			MTD	MOUNTED
AC	ALTERNATING CURRENT OR ARMORED CABLE	EC	EMPTY CONDUIT	MTG	MOUNTING
		ED	ELECTRIC EXIT DEVICE	MTS	MANUAL TRANSFER SWITCH
ACC	ACCESSIBLE	EG	EQUIPMENT GROUND	MV	MEDIUM VOLTAGE
ADDL	ADDITIONAL	EL	ELEVATION	MVA	MEGAVOLT-AMPERE
ADJ	ADJACENT, ADJOINING	ELEC	ELECTRIC OR ELECTRICAL	MW	MEGAWATT MICROWAVE
ADO	AUTOMATIC DOOR OPENER	ELEV	ELEVATOR		
AF	AMPERE FRAME OR AMP FUSE	EMCP	EMERGENCY MONITORING	NA	NOT APPLICABLE
AFC	ABOVE FINISHED COUNTER, AUTOMATIC FREQUENCY CONTROL, OR AVAILABLE FAULT CURRENT		CONTROL PANEL	NEC	NATIONAL ELECTRICAL CODE
		EMER	EMERGENCY	NEMA	NATIONAL ELECTRICAL
		EMI	ELECTROMAGNETIC INTERFERENCE		MANUFACTURERS ASSOCIATION
AFF	ABOVE FINISHED FLOOR	EMT	ELECTRICAL METALLIC TUBING	NEUT OR N	NEUTRAL
AFG	ABOVE FINISHED GRADE	ENCL	ENCLOSURE	NFPA	NATIONAL FIRE PROTECTION
AH	AMPERE HOUR	EPO	EMERGENCY POWER OFF		ASSOCIATION
AHJ	AUTHORITY HAVING JURISDICTION	EPRF	EXPLOSION PROOF	NIC	NOT IN CONTRACT
AIC	AMPERE INTERRUPTING CAPACITY	ESMT	EASEMENT	NL	NIGHT LIGHT
ALT	ALTERNATE	EWC	ELECTRIC WATER COOLER	NO	NORMALLY OPEN
AMB OR A	AMBIENT	EWH	ELECTRIC WATER HEATER	NS	NO SCALE
AMP	AMPERE	EXIST	EXISTING	NTS	NOT TO SCALE
AP	WIRELESS ACCESS POINT				
ARCH	ARCHITECT	FA	FIRE ALARM	OC	ON CENTER
ASC	AMPS SHORT CIRCUIT	FAAP	FIRE ALARM ANNUNCIATOR PANEL	OD	OUTSIDE DIAMETER
AT	AMPERE TRIP	FABL	FIRE ALARM BELL	OL	OVERLOAD
ATS	AUTOMATIC TRAN



NOTES:
1. ELECTRICAL CONTRACTOR TO TIE NEW GROUNDING INTO EXISTING GROUNDING CIRCUIT.
2. COORDINATE MOUNTING HEIGHT OF RECEPTACLES ABOVE COUNTERS WITH MILLWORK PROVIDER.

1 FIRST FLOOR ELECTRICAL POWER PLAN
SCALE: 1/4" = 1'-0"



2 SECOND FLOOR ELECTRICAL POWER PLAN
SCALE: 1/4" = 1'-0"

ELECTRICAL SYMBOL LEGEND	
SYMBOL	DESCRIPTION
	120V DUPLEX RECEPTACLE
WP	GROUND FAULT INTERRUPTER DUPLEX RECEPTACLE W/ WEATHERPROOF IN-USE COVER
GFCI	GROUND FAULT INTERRUPTER DUPLEX RECEPTACLE
	DATA (DUAL DATA DROP, BOX AND 3/4" EMT CONDUIT IN WALL TO ABOVE CEILING)
WP	DATA (DUAL DATA DROP, BOX AND 3/4" EMT CONDUIT IN WALL TO ABOVE CEILING) W/ WEATHERPROOF IN-USE COVER
	DISCONNECT (NEMA 1 INSIDE BUILDING AND NEMA 3R OUTSIDE BUILDING)
	100A, SINGLE PHASE 208V, PANEL 'AA'
S	MOTOR RATED SWITCH
IWH	ELECTRIC INSTANTANEOUS WATER HEATER

KEY NOTES:

1. OWNER TO PROVIDE AND INSTALL ALL DATA CABLES.
2. LINE SET(S) TO BE INSTALLED TIGHT AGAINST CEILING/WALL IN LINE SET COVER. LINE SET COVER TO CONTAIN ALL LINE SET(S), POWER, CONTROL, AND CONDENSATE. CONTRACTOR TO ENSURE LINE SET COVERS ARE ADEQUATELY SIZED.
3. 3'X4' PAINTED FIRE RATED PLYWOOD COMM BOARD.
4. EXTEND (1) 2" CONDUIT FROM COMM BOARD TO ABOVE SECOND FLOOR CEILING (ROUTE CONDUIT INSIDE BLOCK WALL UP THRU SECOND FLOOR FRAMED WALL).

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P-0754

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 028880 ROBBIE LOCKLEAR

DocuSigned by: Robbie Locklear 3/14/2023

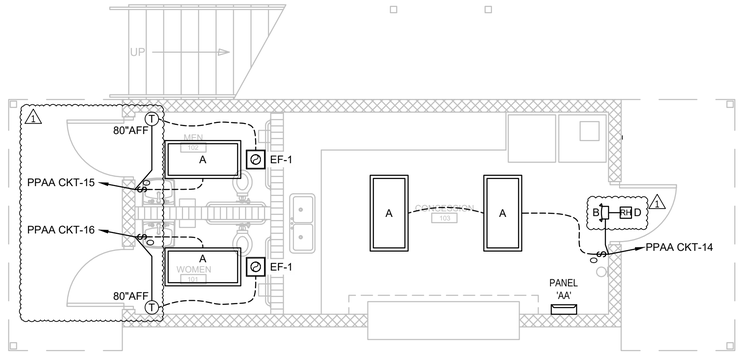
PROJECT INFORMATION:

HARNETT CENTRAL PRESS BOX
HARNETT COUNTY SCHOOLS
2911 HARNETT CENTRAL RD
ANGIER, NC 27501

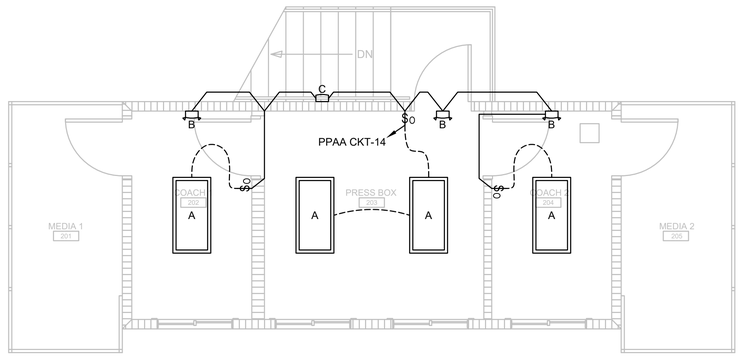
REV# - DATE - DESCRIPTION:
1
2
3
4
5

DATE: 1/10/2023
DRAWN BY: CKD
CHECKED BY: RL
SHEET TITLE
ELECTRICAL POWER PLAN
SHEET NUMBER
E-101
PROJECT# 21-11110

FINAL RELEASED FOR CONSTRUCTION



1 FIRST FLOOR ELECTRICAL LIGHTING PLAN
SCALE: 1/4" = 1'-0"



2 SECOND FLOOR ELECTRICAL LIGHTING PLAN
SCALE: 1/4" = 1'-0"

LIGHT FIXTURE SCHEDULE

TAG	DESCRIPTION	MOUNTING	VOLTS / WATTS	LUMENS	LAMP TYPE	MANUFACTURER	MODEL #
A	2'X4' LED LIGHT FIXTURE	SURFACE	120V / 42W	4550	LED	COOPER	24FP4740C
B	EMERGENCY LIGHT	WALL	120V / 1W	N/A	LED	COOPER	CU2-LED
C	OUTDOOR EMERGENCY LIGHT	WALL	120V / 2W	300	LED	COOPER	SELDWA50
D	REMOTE HEAD	WALL	1W	N/A	LED	COOPER	APWR1

NOTES:
1. LIGHT FIXTURES TO BE MANUFACTURED BY COOPER, LITHONIA OR METALUX.
2. ALL LIGHTING FIXTURES SHALL BE U.L. LISTED.
3. VERIFY ALL MOUNTING HEIGHTS WITH PRIOR TO ROUGH-IN.
4. COORDINATE ALL COLORS/FINISH OPTIONS OF LIGHT FIXTURES WITH THE OWNER/ENGINEER PRIOR TO PURCHASING.
5. ALL LIGHTING FIXTURES INDICATED WITHIN THE LIGHTING FIXTURE SCHEDULE SHALL BE PROVIDED WITH ALL REQUIRED MOUNTING HARDWARE, CONNECTORS AND ANY OTHER NEEDED FIXTURE OPTIONS FOR A COMPLETE AND OPERATIONAL INSTALLATION AS INTENDED ON THE DRAWINGS. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL REQUIRED COMPONENTS AT NO ADDITIONAL COST TO THE OWNER.
6. THE E.C. SHALL COORDINATE CLOSELY WITH THE ENGINEER AND/OR GENERAL CONTRACTOR FOR THE DESIRED MOUNTING METHODS OF THE LED LIGHT FIXTURES IN ALL LOCATIONS OF THE BUILDING AS SHOWN ON THE PLANS. THE E.C. SHALL COORDINATE AND VERIFY THE EXACT LOCATIONS FOR THE POWER SUPPLY (LOW-VOLTAGE TRANSFORMERS) WITH THE ENGINEER AND/OR GENERAL CONTRACTOR PRIOR TO ROUGH-IN. CONTRACTOR SHALL PROVIDE ALL MOUNTING HARDWARE AS REQUIRED TO MOUNT THESE FIXTURES AS DIRECTED BY THE ENGINEER.
7. ALL LIGHT SWITCH COVER PLATES TO BE STAINLESS STEEL.

ELECTRICAL SYMBOL LEGEND

SYMBOL	DESCRIPTION
$O	WALL MOUNTED OCCUPANCY SENSOR
T	WALL MOUNTED THERMOSTAT
	100A, SINGLE PHASE 208V, PANEL 'AA'
	OUTDOOR EMERGENCY LIGHT
	EMERGENCY LIGHT
	2'X4' LED LIGHT FIXTURE
	EXHAUST FAN

TYPICAL DEVICE MOUNTING HEIGHT

RECEPTACLES	18" AFF
LIGHT SWITCHES	48" AFF
EXIT SIGNS	NOTE 3
EMERGENCY LIGHTS	7'-6" AFF
DATA OUTLETS	18" AFF

NOTES:
1. DIMENSIONS ARE TO DEVICE CENTERLINE UNLESS OTHERWISE NOTED.
2. REFER TO POWER SYMBOLS FOR ADDITIONAL DEVICE MOUNTING REQUIREMENTS.
3. WHERE SHOWN WALL MOUNTED, EXIT SIGNS SHALL BE MOUNTED 8'-0" AFF OR 1' ABOVE DOOR TO CENTER LINE OF FIXTURE UNLESS OTHERWISE NOTED.

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LOCKLEAR, LOCKLEAR & JACOBS P-0754

Digitally signed by ROBERT LOCKLEAR
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 028880
4/13/2023

PROJECT INFORMATION:

HARNETT CENTRAL PRESS BOX
HARNETT COUNTY SCHOOLS
2911 HARNETT CENTRAL RD
ANGIER, NC 27501

REV# - DATE - DESCRIPTION:	
1 - 4/13/2023	EXT FAN CHANGED, CONCESSIONS EMER LGT RELOCATED AND REMOTE HD ADDED.
2 -	
3 -	
4 -	
5 -	

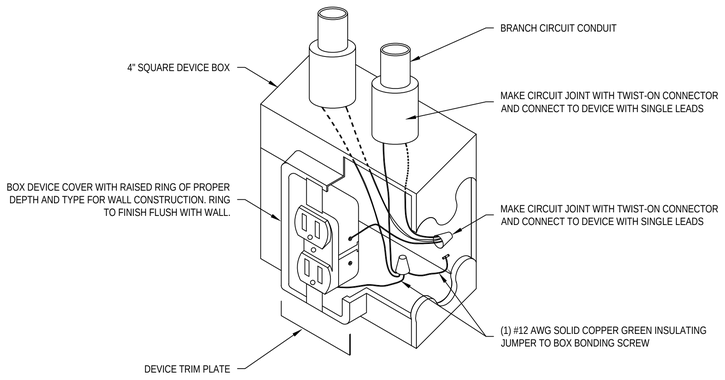
DATE: 1/10/2023
DRAWN BY: CKD
CHECKED BY: RL
SHEET TITLE

ELECTRICAL LIGHTING PLAN

SHEET NUMBER

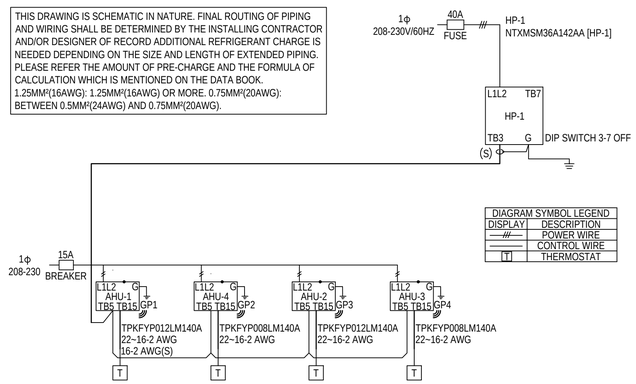
E-201

PROJECT# 21-11110

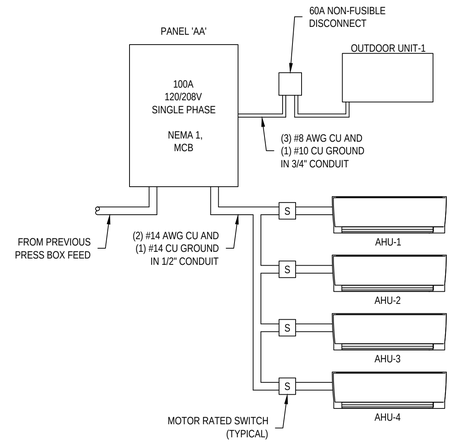


1 RECEPTACLE GROUNDING DETAIL
NTS

THIS DRAWING IS SCHEMATIC IN NATURE. FINAL ROUTING OF PIPING AND WIRING SHALL BE DETERMINED BY THE INSTALLING CONTRACTOR AND/OR DESIGNER OF RECORD ADDITIONAL REFRIGERANT CHARGE IS NEEDED DEPENDING ON THE SIZE AND LENGTH OF EXTENDED PIPING. PLEASE REFER THE AMOUNT OF PRE-CHARGE AND THE FORMULA OF CALCULATION WHICH IS MENTIONED ON THE DATA BOOK. 1.25MM²(16AWG): 1.25MM²(16AWG) OR MORE. 0.75MM²(20AWG): BETWEEN 0.5MM²(24AWG) AND 0.75MM²(20AWG).



2 TYPICAL DUCTLESS SYSTEM SCHEMATIC DETAIL
NTS



3 ELECTRICAL RISER DIAGRAM
NTS

MIN. WIRE SIZE	PANEL 'AA' DESCRIPTION	Watts	Bkr.	#	100 AMP 1-PHASE MAIN BREAKER Leg 'A'	Leg 'B'	#	Bkr.	Watts	GROUND BAR / NEUTRAL DESCRIPTION	MIN. WIRE SIZE
8	HEAT PUMP-1	3640	40	1	4140		2	20	500	REFRIGERATOR	12
		3640		3		4140	4	20	500	REFRIGERATOR	12
12	FIRST FLOOR RECP.	360	20	5	720		6	20	360	FIRST FLOOR RECP.	12
8	WATER HEATER	4160	40	7		4520	8	20	360	COMM BOARD	12
		4160		9	4160.5		10	15	0.5	AIR HANDLER UNITS	12
12	SECOND FLOOR RECP.	540	20	11		540.5	12		0.5		
12	SECOND FLOOR RECP.	540	20	13	915		14	20	375	LIGHTS	12
12	MENS RR	1500	20	15		3000	16	20	1500	WOMEN RR	12
				17	0		18				
				19		0	20				
				21	0		22				
				23		0	24				
	TOTAL Watts Leg 'A'				9935.5						
	TOTAL Watts Leg 'B'					12200.5					

Total Watts 22136

BUILDING TOTAL LOADS			
TOTAL Watts Leg 'A'	9935.5	SERVICE ENTRANCE	100 AMPS
TOTAL Watts Leg 'B'	12201	CONDUCTOR SIZE	3 AWG
		GROUND SIZE	6 AWG
		CONDUIT SIZE	1 1/2 INCH
TOTAL WATTS	22136		
TOTAL AMPS	92.23		

4 PANEL 'AA' SCHEDULE
NTS

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NORTH CAROLINA REGISTERED PROFESSIONAL ENGINEER SEAL 028880 ROBERT LOCKLEAR

4/13/2023

PROJECT INFORMATION:

HARNETT CENTRAL PRESS BOX
HARNETT COUNTY SCHOOLS
2911 HARNETT CENTRAL RD
ANGIER, NC 27501

REV#	DATE	DESCRIPTION
1.	4/13/2023	PANEL SCHEDULE UPDATED.
2.		
3.		
4.		
5.		

DATE: 1/10/2023
DRAWN BY: CKD
CHECKED BY: RL
SHEET TITLE

ELECTRICAL DETAILS

SHEET NUMBER

E-301

PROJECT# 21-11110

FINAL RELEASED FOR CONSTRUCTION