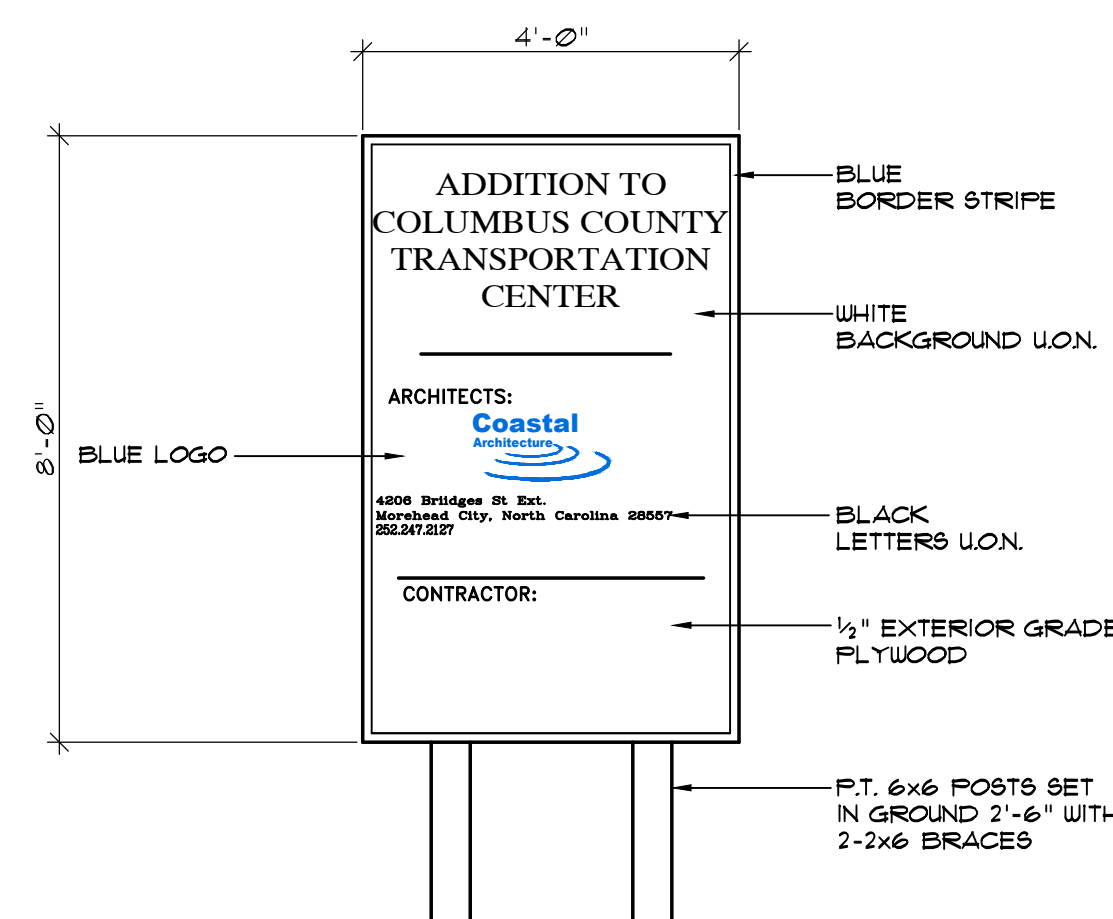


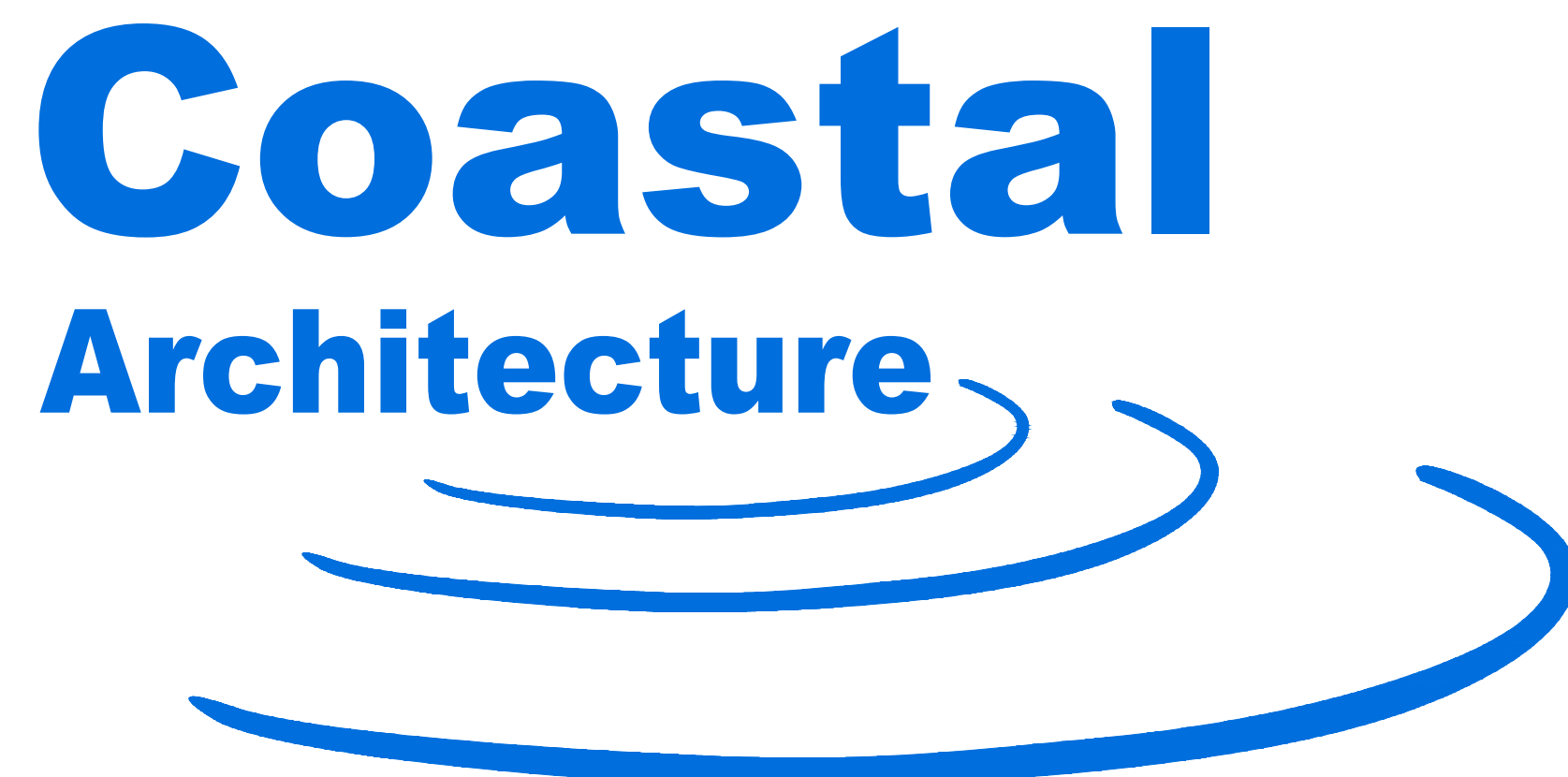
# ADDITION TO COLUMBUS COUNTY TRANSPORTATION CENTER

WHITEVILLE, NORTH CAROLINA



1 PROJECT SIGN  
CS-1 NOT TO SCALE

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



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- E-3 POWER PLAN
- E-4 ELECTRICAL PANELS/SERVICE

### USE OF Coastal Architecture, DRAWINGS, SPECIFICATIONS AND OTHER DOCUMENTS

The Drawings, Specifications and other documents prepared by Coastal Architecture, the Designer, for this project are instruments of service for use solely with respect to this project and, unless otherwise provided, the Designer shall be deemed the author of these documents and shall retain all common law, statutory and other reserved rights, including copyright protection. The Owner shall be permitted to retain copies of the Designer's drawings, Specifications, and other documents for information and reference in connection with the Owner's use and occupancy of this project. No portions in part or in whole of the Drawings, Specifications and other documents shall be duplicated or used by the Owner or others for additions to this Project, completion of this Project by others, or on other Projects without written consent by the Designer.



• Architectural Design  
• Planning  
• Interiors



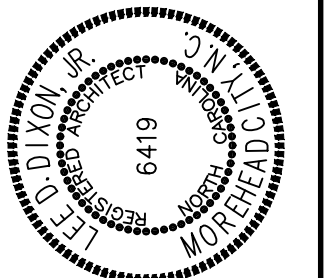
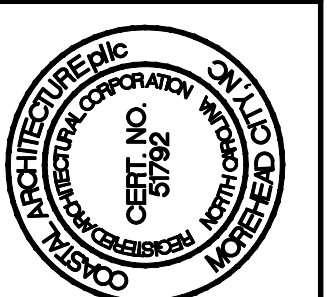
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ADDITION TO COLUMBUS COUNTY  
TRANSPORTATION CENTER  
WHITEVILLE, NORTH CAROLINA



COVER SHEET

25008

ISSUED: 04/10/26

DWG BY: MSG

CKD BY: LDD

REVISIONS

NO.	DESCRIPTION

SHEET NO.

CS-1  
OF

**APPENDIX B  
2018 BUILDING CODE SUMMARY  
FOR ALL COMMERCIAL PROJECTS  
(EXCEPT ONE- AND TWO-FAMILY DWELLINGS AND TOWNHOUSES)**

Name of Project: **ADDITION TO COLUMBUS COUNTY TRANSPORTATION CENTER**  
 Address: **230 LEGION DR, WHITEVILLE, NC** Zip Code: **28472**  
 Owner/Authorized Agent: **JOY JACOBS** Phone # (919) 641-3529 E-Mail: **joy.jacobs@columbuscc.org**  
 Owned By:  City/County  Private  State  County  State  
 Code Enforcement Jurisdiction:  City: **WHITEVILLE**  County  State

CONTACT:  
 DESIGNER: **Coastal Architecture** FIRM NAME: **Les Dixon** LICENSE #: **6419** TELEPHONE #: **(252) 241-2121** E-MAIL: **les@coastalarchitecture.net**  
 Architectural: **Ben Burks** **Ben Burks** **22036** **(919) 111-1916** **benburks@ncrr.com**  
 Electrical: **Ben Burks** **Ben Burks** **22036** **(919) 111-1916** **benburks@ncrr.com**  
 Fire Alarm: **Ben Burks** **Ben Burks** **22036** **(919) 111-1916** **benburks@ncrr.com**  
 Plumbing: **Ben Burks** **Ben Burks** **22036** **(919) 111-1916** **benburks@ncrr.com**  
 Mechanical: **Ben Burks** **Ben Burks** **22036** **(919) 111-1916** **benburks@ncrr.com**  
 Sprinkler-Standpipe: **( )**  
 Structural: **( )**  
 Retaining Walls > 5 feet High: **( )**  
 Other: **( )**

2018 NC BUILDING CODE:  New Building  Shell/Cor  1st Time Interior Completions  
 Addition  Phased Construction—Shell Core  
 2018 NC EXISTING BUILDING CODE:  Prescriptive  Alteration Level I  Historic Property  
 Repair  Alteration Level II  Change of Use  
 Chapter 14  Alteration Level III  
 CONSTRUCTED: (date) \_\_\_\_\_ CURRENT USE(S) (Ch. 3): \_\_\_\_\_  
 RENOVATED: (date) \_\_\_\_\_ PROPOSED USE(S) (Ch. 3): \_\_\_\_\_  
 OCCUPANCY CATEGORY (Table 1604.5): Current: \_\_\_\_\_ Proposed: \_\_\_\_\_

**BASIC BUILDING DATA**  
 Construction Type:  IA  IIA  III-A  IV  V-A  V-B  
 I-B  II-B  
 Sprinklers:  No  Partial  NFPA 13  NFPA 13R  NFPA 130  
 Standpipes:  No  Class  II  III  Wet  Dry  
 Primary Fire District:  No  Yes  Flood Hazard Area:  No  Yes  
 Special Inspections Required:  No  Yes

Floor	Existing (sq ft)	New (sq ft)	Subtotal
3rd Floor			
2nd Floor			
Mezzanine			
1st Floor	2,607 (INCLUDES COVERED AREAS)	832	3,434
Basement			
<b>TOTAL</b>	<b>2,607 (INCLUDES COVERED AREAS)</b>	<b>832</b>	<b>3,434</b>

**ENERGY SUMMARY**

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

Existing building envelope complies with code:  (if checked, the remainder of this section is not applicable.)  
 Exempt Building:  Provide code or statutory reference: \_\_\_\_\_

Climate Zone:  3A  4A  5A

**Method of Compliance:**  
 Energy Code:  Performance  Prescriptive  
 ASHRAE 90.1:  Performance  Prescriptive  
 Other:  Performance (specify source) \_\_\_\_\_

**THERMAL ENVELOPE:** (Prescriptive method only)  
 Roof/ceiling Assembly (each assembly)  
 Description of assembly: **PEMB ROOF W/ SIMPLE SAVER INSULATION**  
 U-Value of total assembly: \_\_\_\_\_  
 R-Value of insulation: **R-30**  
 Skylights in each assembly: \_\_\_\_\_  
 U-Value of skylight: \_\_\_\_\_  
 total square footage of skylights in each assembly: \_\_\_\_\_

Exterior Walls (each assembly)  
 Description of assembly: **PEMB W/ R-25 SIMPLE SAVER**  
 U-Value of total assembly: \_\_\_\_\_  
 R-Value of insulation: **R-25**  
 Openings (windows or doors with glazing)  
 U-Value of assembly: \_\_\_\_\_  
 Solar heat gain coefficient: \_\_\_\_\_  
 projection factor: \_\_\_\_\_  
 Door R-Values: \_\_\_\_\_

**Walls below grade (each assembly)**  
 Description of assembly: **N/A**  
 U-Value of total assembly: \_\_\_\_\_  
 R-Value of insulation: \_\_\_\_\_

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

**Floors slab on grade**  
 Description of assembly: **4" CONC. SLAB ON VAPOR BARRIER ON COMPACTED FILL**  
 U-Value of total assembly: \_\_\_\_\_  
 R-Value of insulation: **N/A**  
 Horizontal/vertical requirement: \_\_\_\_\_  
 slab heated: \_\_\_\_\_

**ALLOWABLE AREA**

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

**Accessory Occupancy Classification(s):** \_\_\_\_\_  
 Incidental Uses (Table 509):  
 This separation is not exempt as a Non-separated Use (see exceptions).  
**Special Uses (Chapter 4 – List Code Sections):** \_\_\_\_\_  
**Special Provisions: (Chapter 5 – List Code Sections):** \_\_\_\_\_  
**Mixed Occupancy:**  No  Yes Separation: \_\_\_\_\_ Hr. Exception: \_\_\_\_\_  
 Non-separated Use (508.3)  
 Separated Use (508.4)—See below for area calculations for each story, the area of the occupancy shall be such that the sum of the ratios of the actual floor area of each use divided by the allowable floor area for each use shall not exceed 1.  
 Select one  
 Actual Area of Occupancy A + Actual Area of Occupancy B  
 Allowable Area of Occupancy A Allowable Area of Occupancy B ≤ \_\_\_\_\_

STORY NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 506.24 AREA	(C) AREA FOR FRONTAGE INCREASES 1, 2	(D) ALLOWABLE AREA PER STORY OR UNLIMITED 3
1	BUSINESS	3,434	3,000	0	3,000

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

**STRUCTURAL DESIGN**

**DESIGN LOADS:**  
 Importance Factors: Wind (IW) \_\_\_\_\_  
 Snow (IS) \_\_\_\_\_  
 Seismic (IE) \_\_\_\_\_  
 Live Loads: Roof \_\_\_\_\_ psf  
 Mezzanine \_\_\_\_\_ psf  
 Floor \_\_\_\_\_ psf  
 Ground Snow Load: \_\_\_\_\_ psf  
 Wind Load: \_\_\_\_\_ psf

**SEISMIC DESIGN CATEGORY:**  A  B  C  D  
 Provide the following Seismic Design Parameters:  
 Occupancy Category (Table 1604.5)  I  II  III  IV  
 Spectral Response Acceleration SS \_\_\_\_\_ %g S1 \_\_\_\_\_ %g  
 Site Classification (ASCE 7)  A  B  C  D  E  F  
 Data Source:  Field Test  Presumptive  Historical Data  
**Basic structural system (check one)**  
 Bearing Wall  Dual w/Special Moment Frame  
 Building Frame  Dual w/intermediate R/C or Special Steel  
 Moment Frame  Inverted Pendulum  
 Analysis Procedure:  Simplified  Equivalent Lateral Force  Dynamic  
**Architectural, Mechanical, Components anchored?**  Yes  No

**LATERAL DESIGN CONTROL:**  Earthquake  Wind  
**SOIL BEARING CAPACITIES:**  
 Field Test (provide copy of test report) \_\_\_\_\_ psf  
 Presumptive Bearing capacity \_\_\_\_\_ psf  
 File size, type, and capacity \_\_\_\_\_

**ALLOWABLE HEIGHT**

	ALLOWABLE	SHOWN ON PLANS	CODE REFERENCE
Building Height in Feet (Table 504.3)	40	11'-9"	T504.3
Building Height in Stories (Table 504.4)	2	1	T504.4

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

**FIRE PROTECTION REQUIREMENTS**

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (feet)	RATING REQ'D	RATING PROVIDED (W/ REDUCTION)	DETAIL # AND SHEET #	DESIGN # FOR RATED ASSEMBLY	SHEET # FOR RATED PENETRATION	SHEET # FOR RATED JOINTS
Structural Frame including columns, girders, trusses	—	0	0				
Bearing Walls							
Exterior							
North	> 30	0	0				
East	> 30	0	0				
West	> 30	0	0				
South	> 30	0	0				
Nonbearing walls and partitions							
Exterior walls							
North	—	—	—				
East	—	—	—				
West	—	—	—				
South	—	—	—				
Interior walls and partitions							
Floor Construction including supporting beams and joists	0	0	0				
Floor Ceiling Assembly	1, 1/2	1, 1/2	G5	J901	L528		
Columns Supporting Floors	0	0	0				
Roof Construction, including supporting beams and joists	0	0	0				
Roof Ceiling Assembly	0	0	0				
Columns Supporting Roof	0	0	0				
Shaft Enclosures—Exit	N/A	N/A	N/A				
Shaft Enclosures—Other	2	2	G5	U905			
Corridor Separation	N/A	N/A	N/A				
Occupancy/Fire Barrier Separation	1	1	G5	L528			
Party/Fire Wall Separation	—	—	—				
Smoke Barrier Separation	—	—	—				
Smoke Partition	—	—	—				
Tenant/Dwelling Unit/Sleeping Unit Separation	1/2	1/2	G5	U305			
Incidental Use Separation	—	—	—				

\* Indicate section number permitting reduction

**MECHANICAL DESIGN**

**MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT**  
**Thermal Zone**  
 winter dry bulb: \_\_\_\_\_  
 summer dry bulb: \_\_\_\_\_  
**Interior design conditions**  
 winter dry bulb: \_\_\_\_\_  
 summer dry bulb: \_\_\_\_\_  
 Building heating load: \_\_\_\_\_  
**Building cooling load:** \_\_\_\_\_  
**Mechanical Spacing Conditioning System**  
 Unitary description of unit: \_\_\_\_\_  
 heating efficiency: \_\_\_\_\_  
 cooling efficiency: \_\_\_\_\_  
 size category of unit: \_\_\_\_\_  
 Boiler Size category, if oversized, state reason: \_\_\_\_\_  
 Chiller Size category, if oversized, state reason: \_\_\_\_\_  
**List equipment efficiencies:** \_\_\_\_\_

**ELECTRICAL DESIGN**

**ELECTRICAL SYSTEM AND EQUIPMENT**  
**Method of Compliance:**  
 Energy Code:  Prescriptive  Performance  
 ASHRAE 90.1:  Prescriptive  Performance  
 Lighting schedule (each fixture type)  
 lamp type required in fixture \_\_\_\_\_  
 number of lamps \_\_\_\_\_  
 ballast type used \_\_\_\_\_  
 number of ballasts in fixture \_\_\_\_\_  
 total wattage per fixture \_\_\_\_\_  
 total interior wattage specified versus allowed (whole building or space by space) \_\_\_\_\_  
 total exterior wattage specified versus allowed \_\_\_\_\_  
**Additional Prescriptive Compliance**  
 506.2.1 More Efficient Mechanical Equipment  
 506.2.2 Reduced Lighting Power Density  
 506.2.3 Energy Recovery Ventilation Systems  
 506.2.4 Higher Efficiency Service Water Heating  
 506.2.5 On-Site Supply of Renewable Energy  
 506.2.6 Automatic Daylighting Control Systems

**PERCENTAGE OF WALL OPENING CALCULATIONS**

FIRE SEPARATION DISTANCE (feet) FROM PROPERTY LINES	DEGREE OF OPENINGS PROTECTION (TABLE 705.8)	ALLOWABLE AREA (%)	ACTUAL SHOWN ON PLANS (%)
> 30	UP, 5	NO LIMIT	—

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

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

**ACCESSIBLE DWELLING UNITS (SECTION 1107)**

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

**NOT APPLICABLE**

**ACCESSIBLE PARKING (SECTION 1106)**

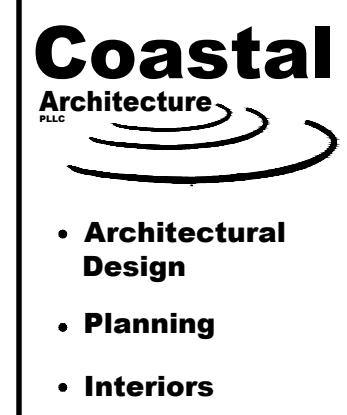
LOT OR PARKING AREA	TOTAL # OF PARKING SPACES		# OF ACCESSIBLE SPACES PROVIDED			TOTAL # ACCESSIBLE UNITS PROVIDED
	REQUIRED	PROVIDED	REGULAR WITH 5' ACCESS AISLE	132" ACCESS AISLE	8' ACCESS AISLE	
<b>TOTAL</b>						

**EXISTING**

**PLUMBING FIXTURE REQUIREMENTS (TABLE 2902.1)**

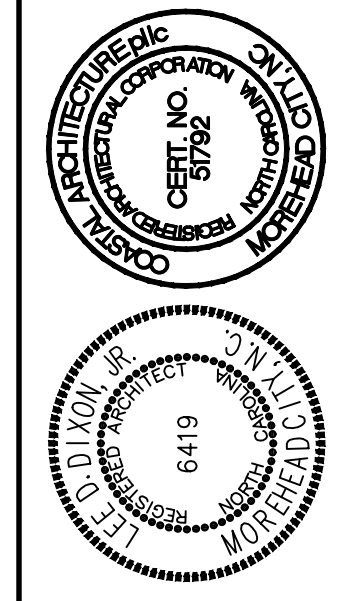
USE	WATERCLOSETS			LAVATORIES			SHOWERS/TUBS	DRINKING FOUNTAINS	
	Male	Female	Unisex	Male	Female	Unisex		Regular	Accessible
REQ'D	1	1	-	1	1	-	-	-	-
PROVIDED	1	2	-	1	1	-	-	-	-

**SPECIAL APPROVALS**  
 Special approval: (Local Jurisdiction, Department of Insurance, OSC, DPI, DHHS, ICC, etc., describe below)  
 \_\_\_\_\_  
**NOT APPLICABLE**



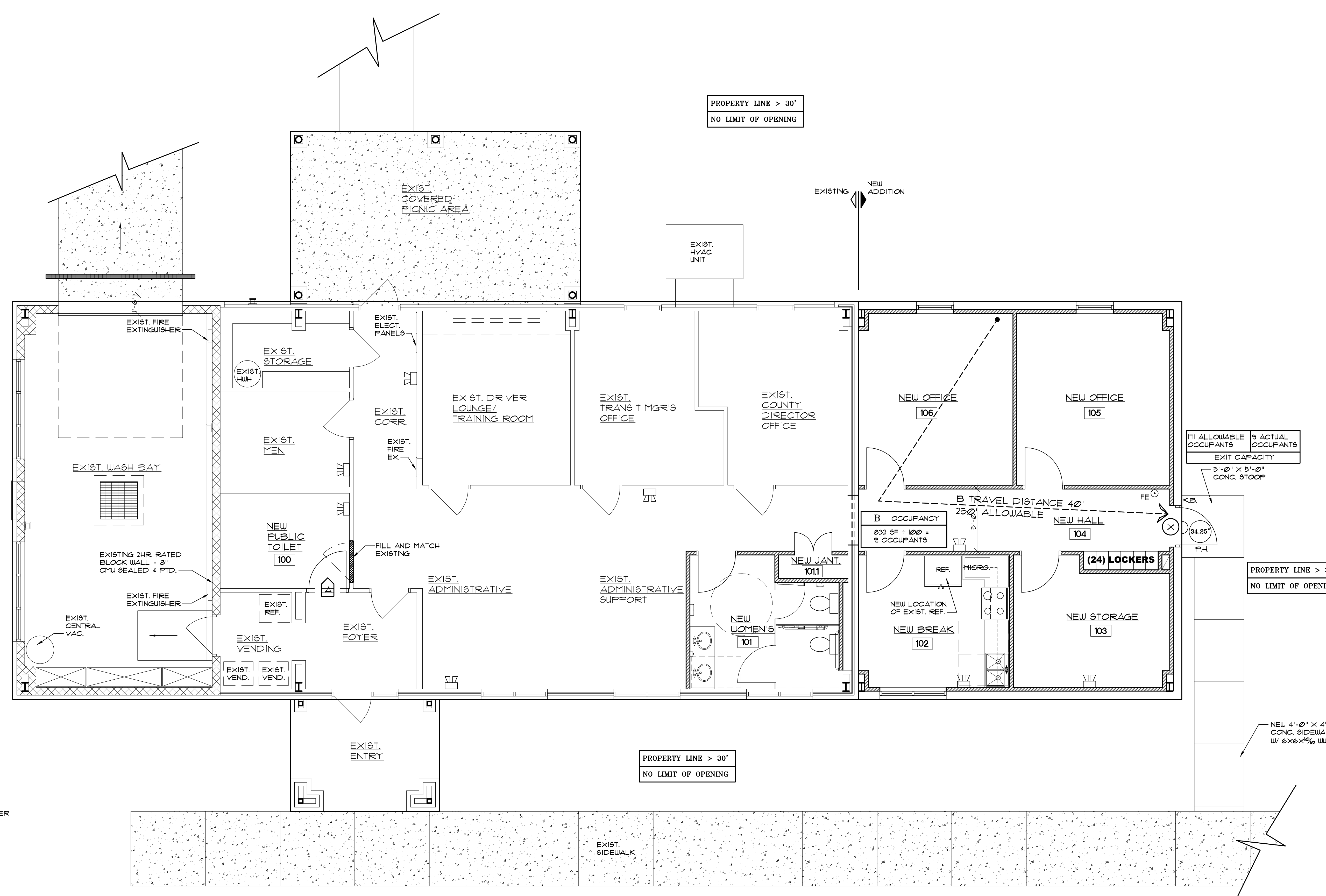
**Lee D. Dixon, Jr., AIA**  
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**ADDITION TO COLUMBUS COUNTY TRANSPORTATION CENTER**  
 WHITEVILLE, NORTH CAROLINA



**GENERAL DATA**  
**25008**  
 ISSUED: 04/10/26  
 DWG BY: MSG  
 CKD BY: LDD  
 REVISIONS  
 SHEET NO. **G-1**  
 OF

ADDITION TO COLUMBUS COUNTY TRANSPORTATION CENTER  
WHITEVILLE, NORTH CAROLINA



PROPERTY LINE > 30'  
NO LIMIT OF OPENING

PROPERTY LINE > 30'  
NO LIMIT OF OPENING

PROPERTY LINE > 30'  
NO LIMIT OF OPENING

PROPERTY LINE > 30'  
NO LIMIT OF OPENING

OCCUPANCY/LOAD TYPE KEYING:

B = BUSINESS

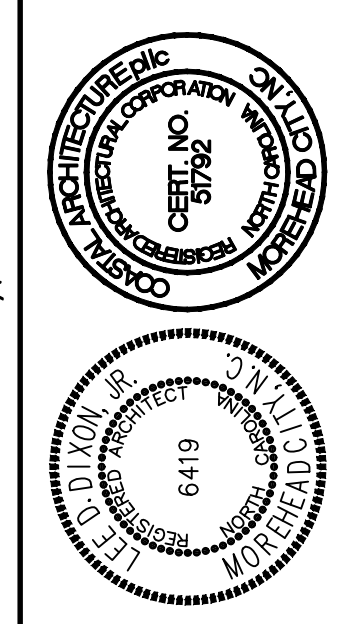
LEGEND:

- FE ⊙ = FIRE EXTINGUISHER ON STANDARD HOOK
- F.E.C. = FIRE EXTINGUISHER AND CABINET  
LARSEN SEMI-RECESSED F9 2409-R3  
BRUSHED CHROME W/ MP5 FIRE EXTINGUISHER
- ⊙ 34.25" = CLEAR EXIT WIDTH
- ⊗ = EXIT
- ⊕ = EMERGENCY LIGHT EXIT
- ⊖ = EGRESS LIGHT
- B.A. = BUILDING ADDRESS- 6" MIN. HEIGHT, ON CONTRASTING BACKGROUND, READILY VISIBLE FROM STREET
- K.B. = KNOX BOX, FIRE DEPARTMENT KEY LOCK BOX CONFIRM LOCATION W/ FIRE DEPARTMENT
- P.H. = PANIC HARDWARE

LEGEND

- ▨ EXIST. CMU BLOCK WALL
- ▬ NEW 3 1/2" METAL STUD WALL

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



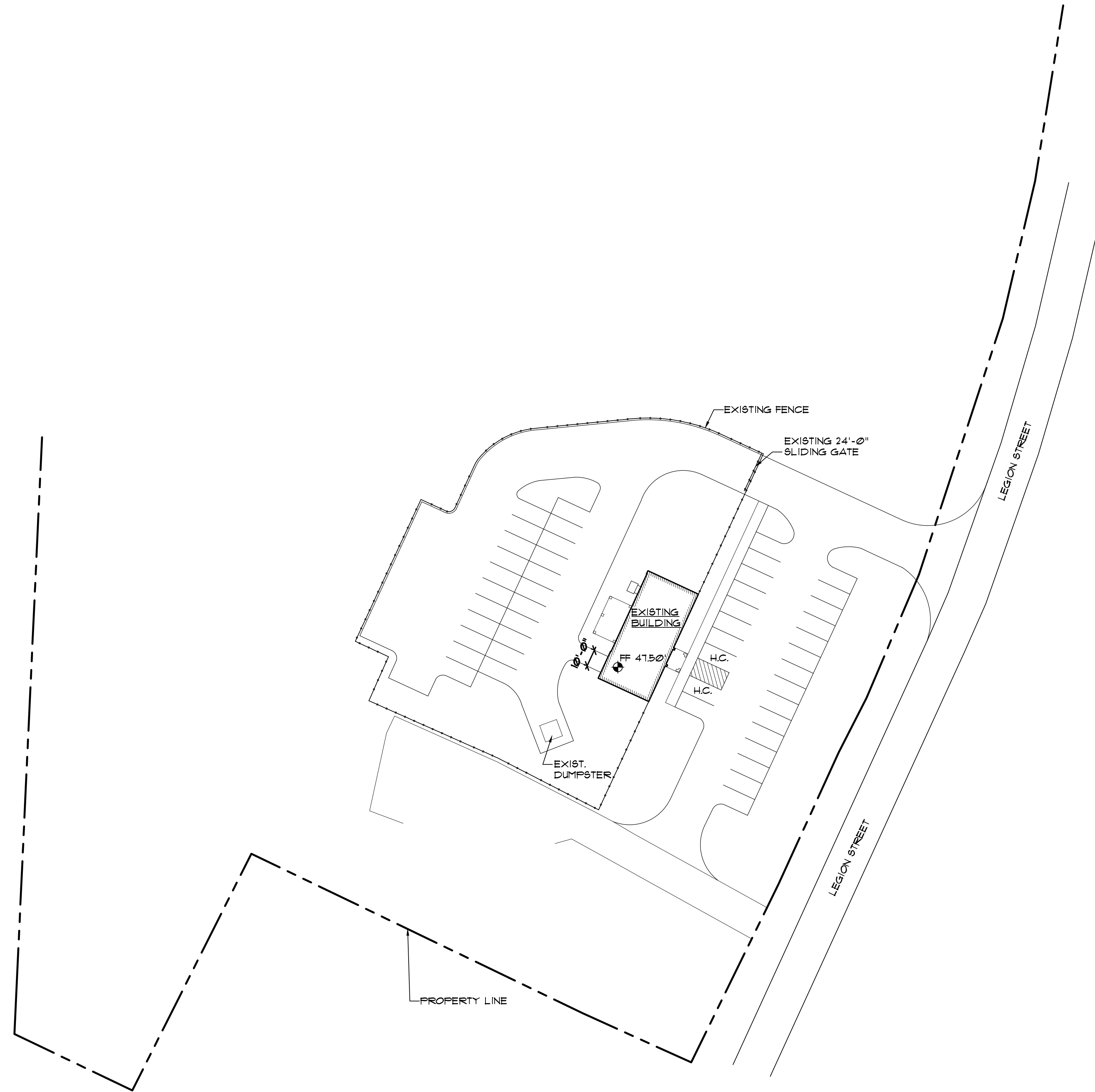
LIFE SAFETY PLAN

25008

ISSUED: 04/10/26  
DWG BY: MSG  
CKD BY: LDD

REVISIONS

SHEET NO.  
**G-2**  
OF



**EXISTING SITE PLAN**  
 SCALE: 1"=40'-0"



- Architectural Design
- Planning
- Interiors



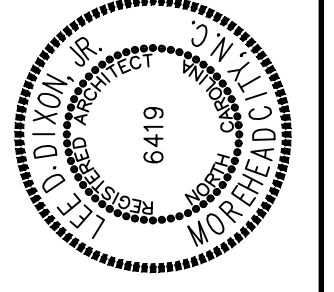
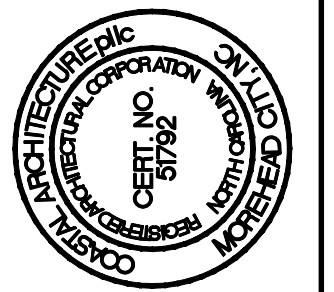
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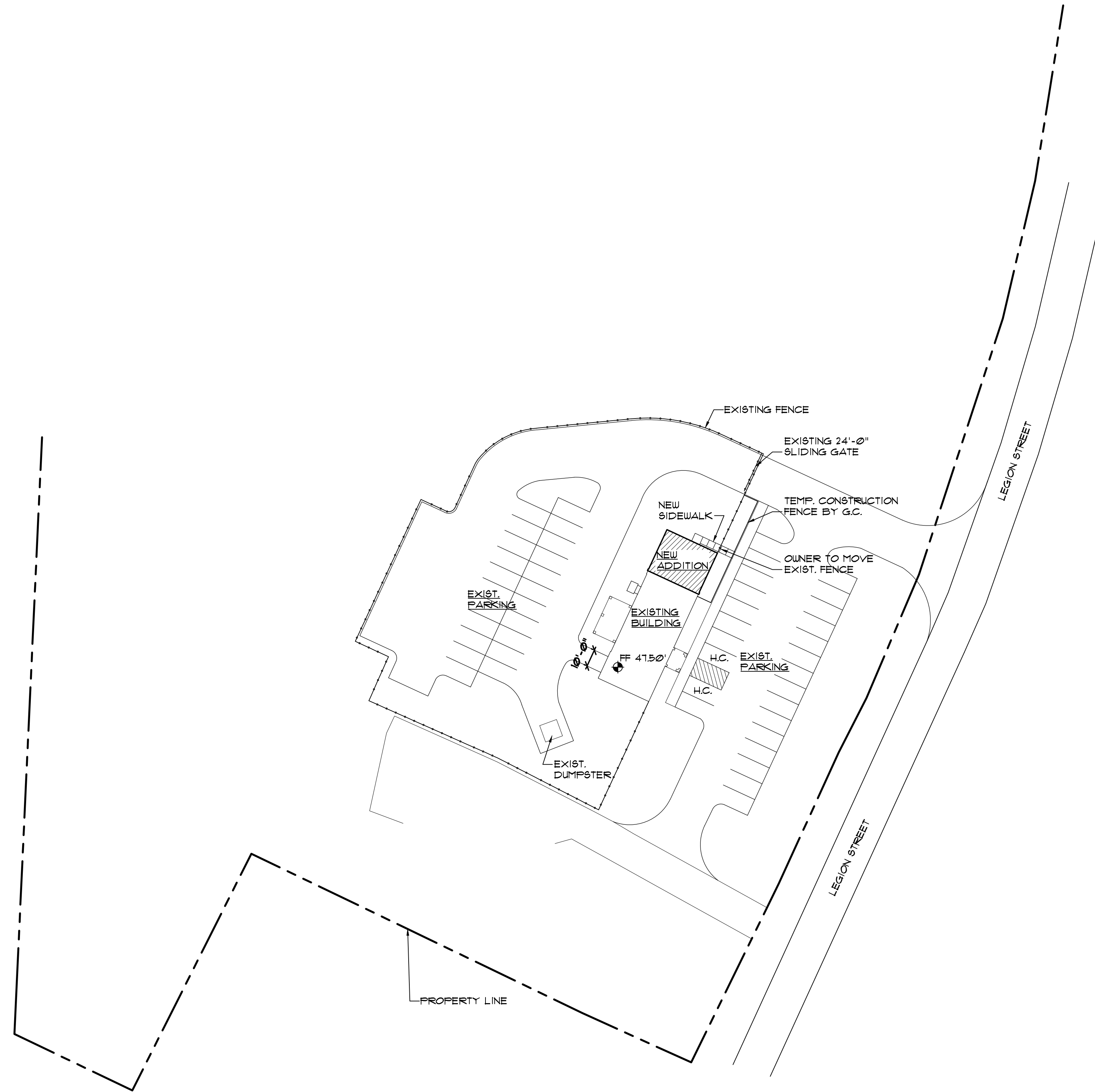
EXISTING SITE PLAN

**25008**

ISSUED: 04/10/26  
 DWG BY: MSG  
 CKD BY: LDD

NO.	DESCRIPTION

SHEET NO.  
**SD-0**  
 OF



**NEW SITE PLAN**  
 SCALE: 1"=40'-0"



- Architectural Design
- Planning
- Interiors

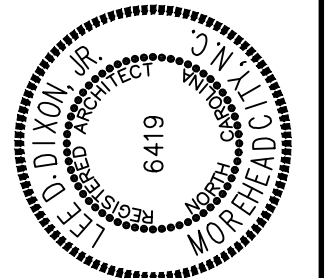
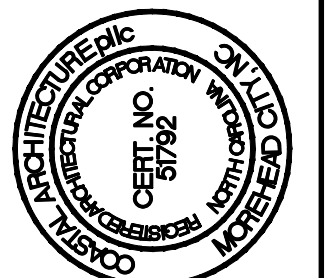


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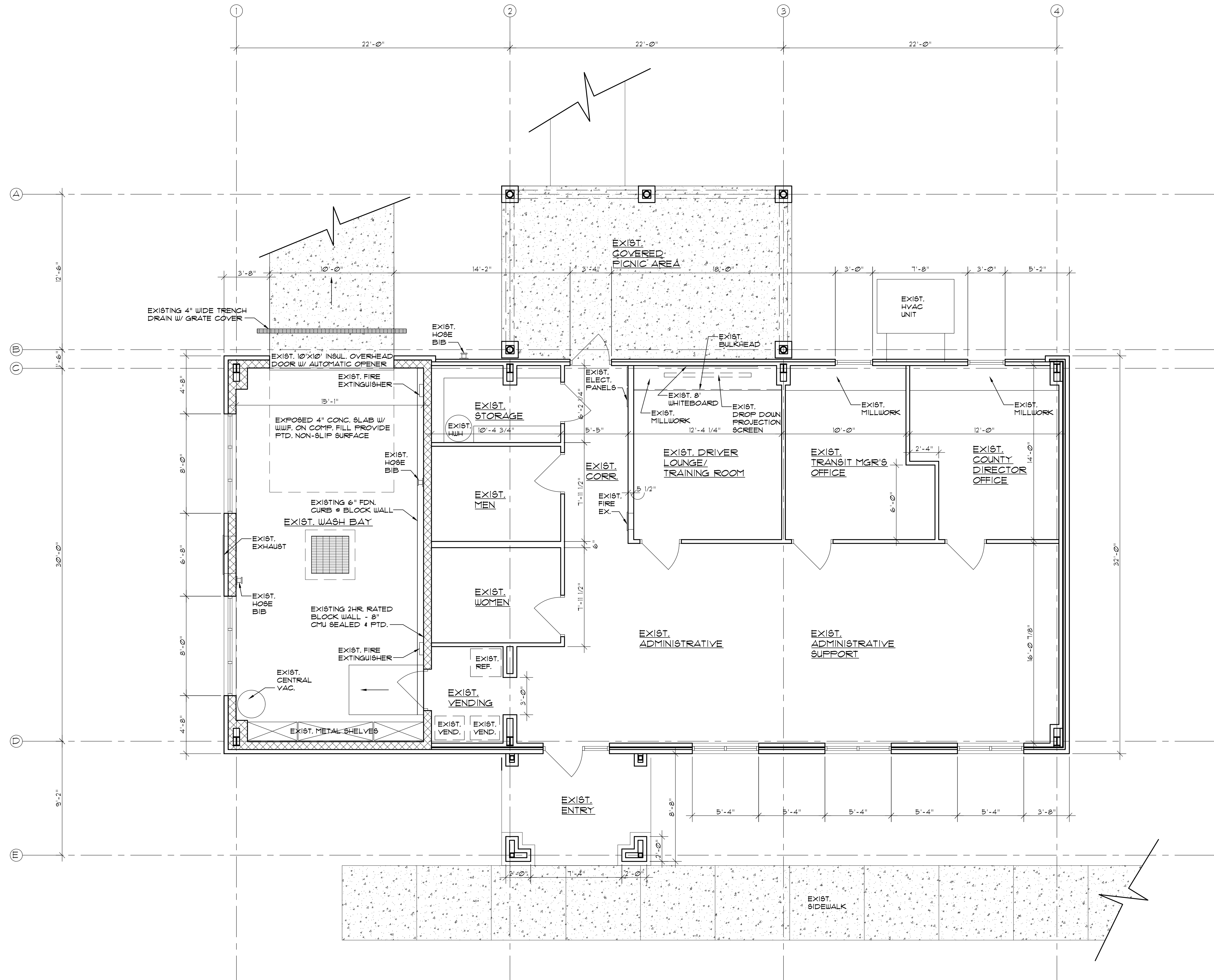
NEW SITE PLAN

**25008**

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 CKD BY: LDD

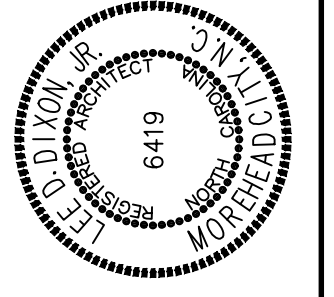
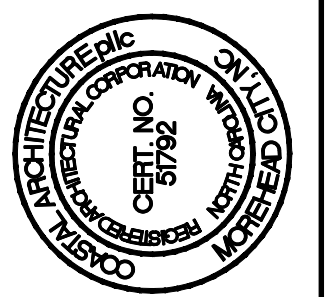
NO.	DESCRIPTION

SHEET NO.  
**SD-1**  
 OF



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

ADDITION TO COLUMBUS COUNTY  
 TRANSPORTATION CENTER  
 WHITEVILLE, NORTH CAROLINA



EXISTING FLOOR PLAN

25008

ISSUED: 04/10/26

DWG BY: MSG

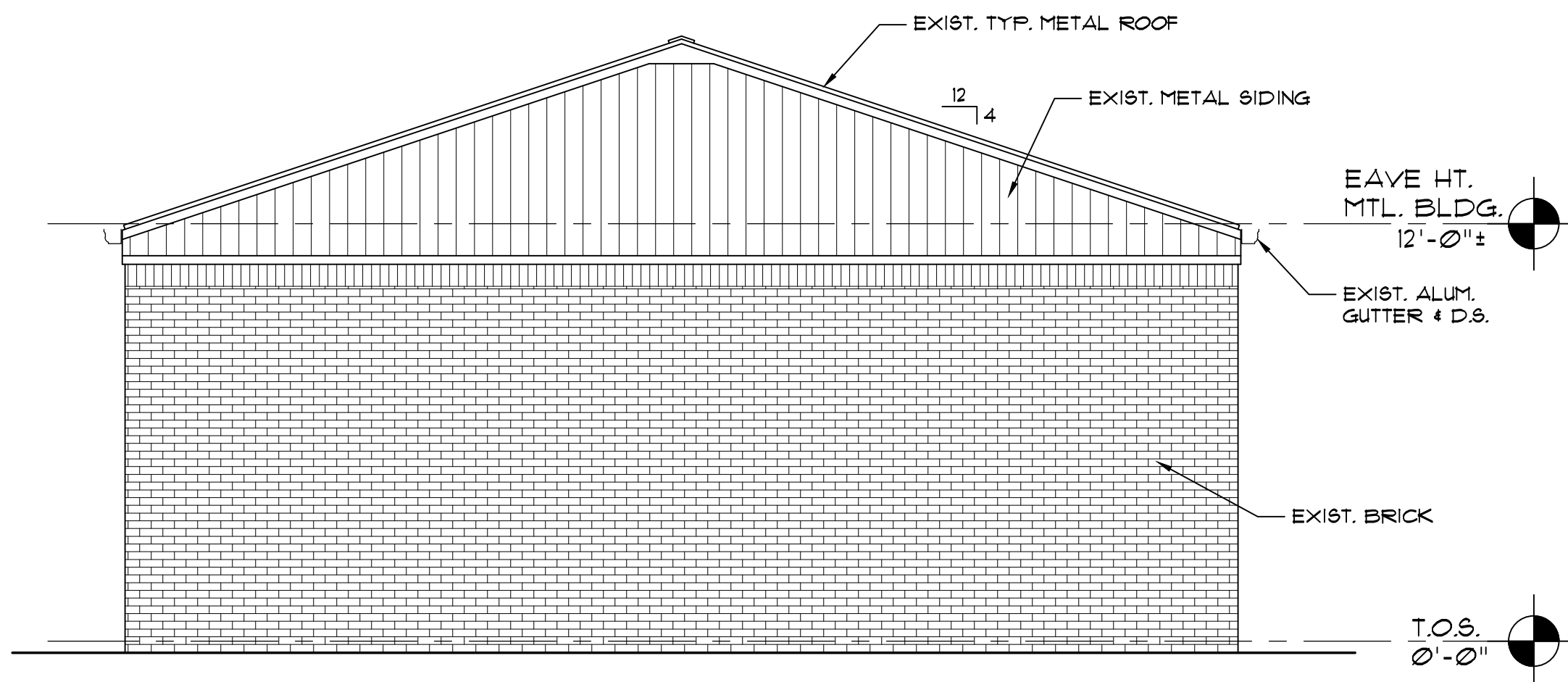
CKD BY: LDD

REVISIONS

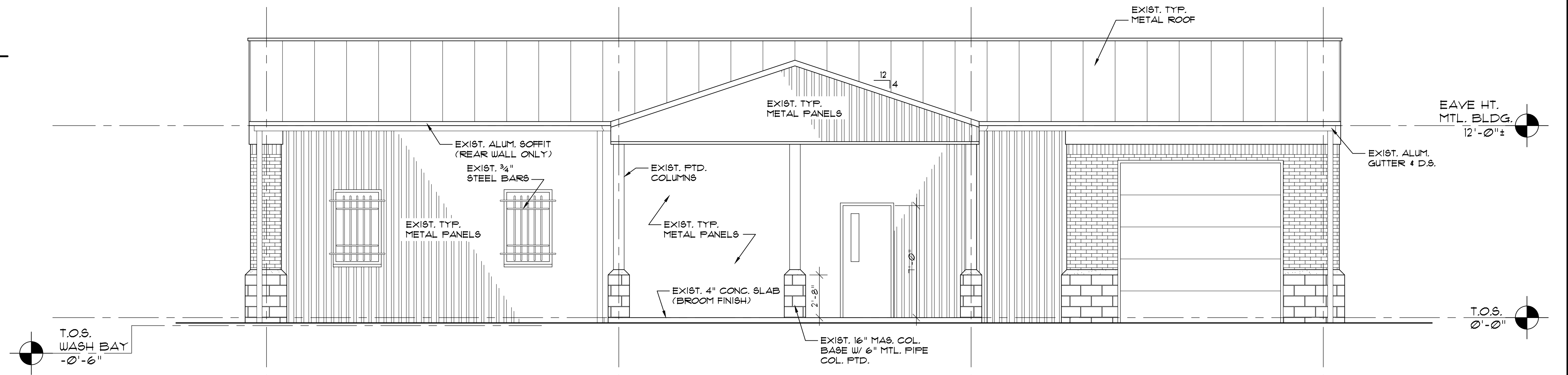
SHEET NO.

EX-1

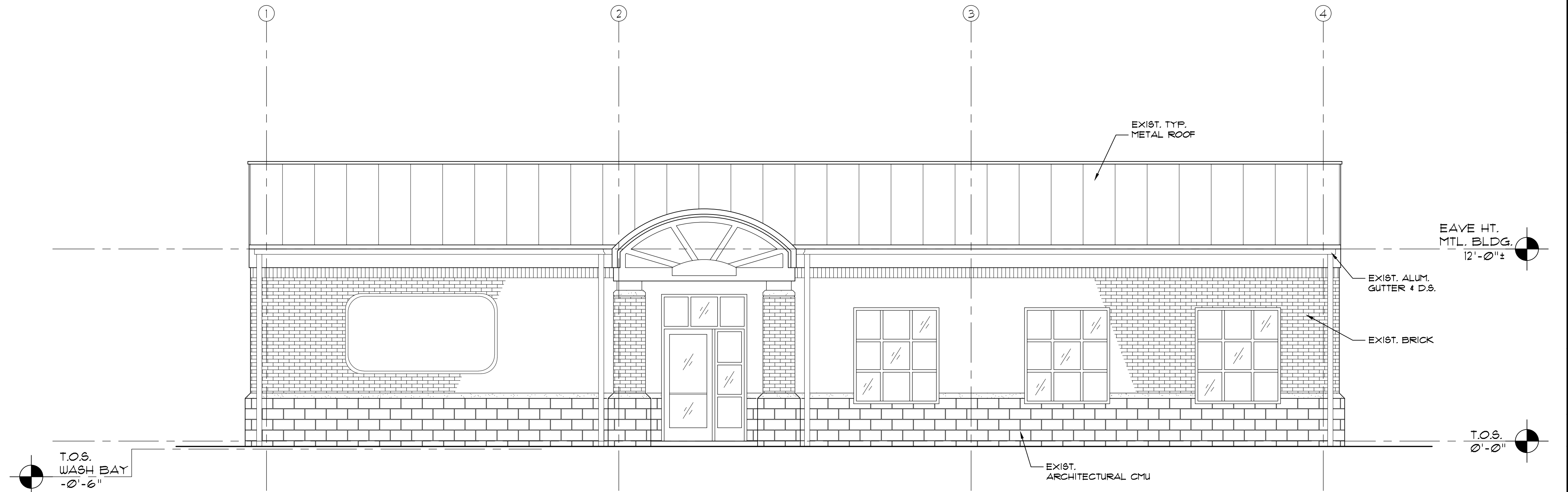
OF



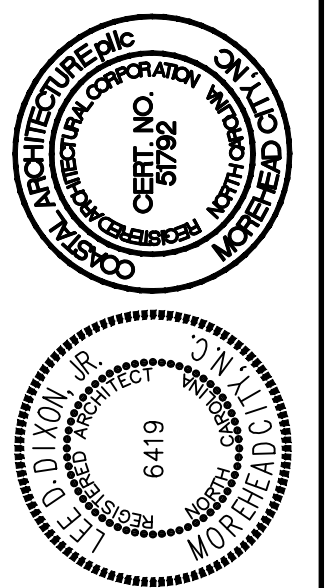
**EXISTING SIDE EXTERIOR ELEVATION**  
 EX-2 SCALE: 1/4"=1'-0"



**EXISTING REAR EXTERIOR ELEVATION**  
 EX-2 SCALE: 1/4"=1'-0"



**EXISTING FRONT EXTERIOR ELEVATION**  
 EX-2 SCALE: 1/4"=1'-0"



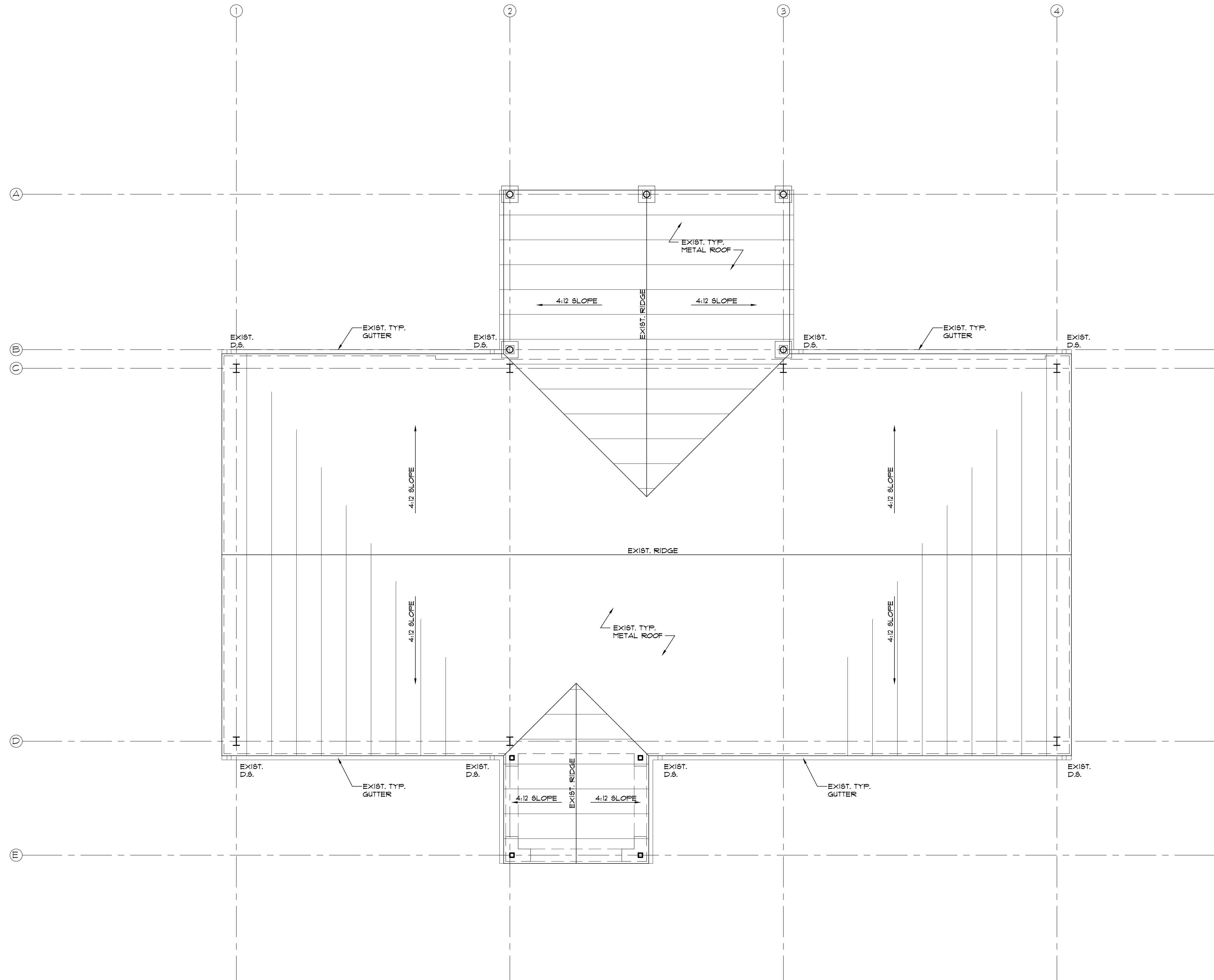
EXISTING EXTERIOR ELEVATIONS

**25008**

ISSUED: 04/10/26  
 DWG BY: MSG  
 CKD BY: LDD

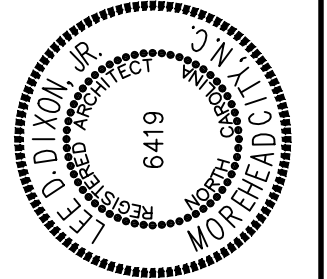
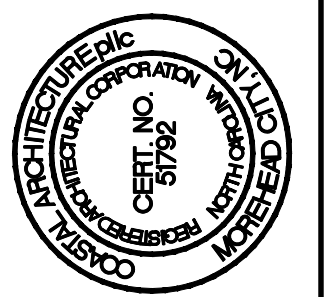
NO.	DESCRIPTION

SHEET NO.  
**EX-2**  
 OF



1 EXISTING ROOF PLAN  
 EX-3 SCALE: 1/4" = 1'-0"

ADDITION TO COLUMBUS COUNTY  
 TRANSPORTATION CENTER  
 WHITEVILLE, NORTH CAROLINA



EXISTING ROOF PLAN

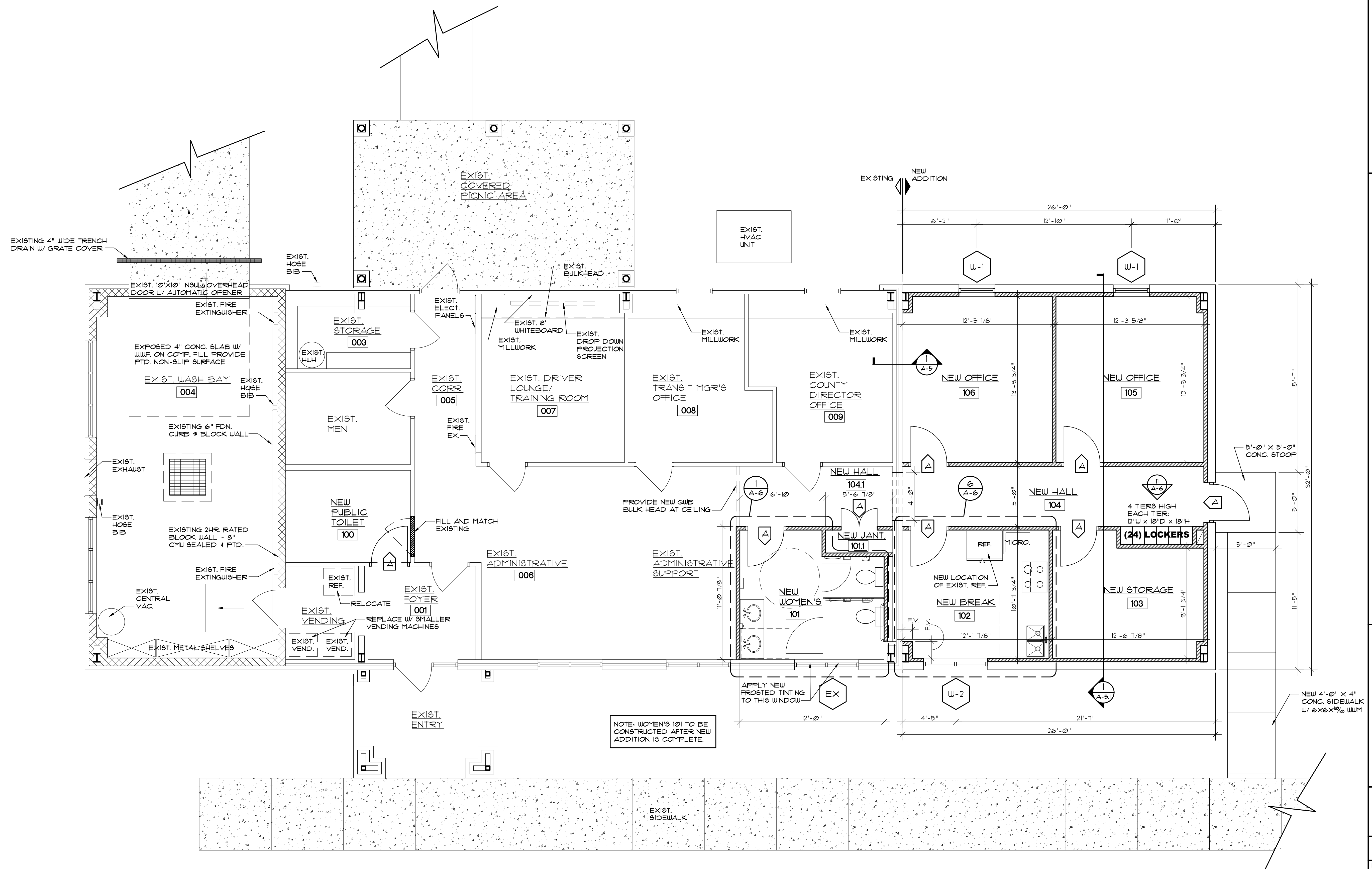
25008

ISSUED: 04/10/26  
 DWG BY: MSG  
 CKD BY: LDD

REVISIONS

SHEET NO.  
**EX-3**  
 OF

ADDITION TO COLUMBUS COUNTY  
TRANSPORTATION CENTER  
WHITEVILLE, NORTH CAROLINA

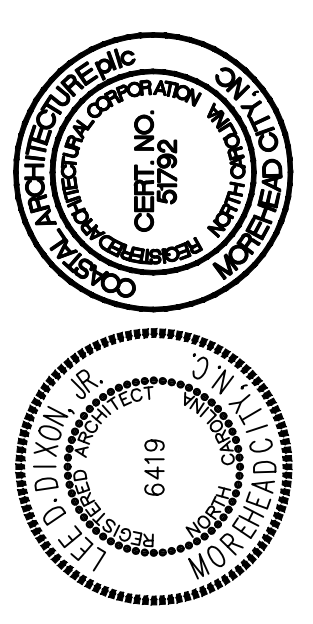
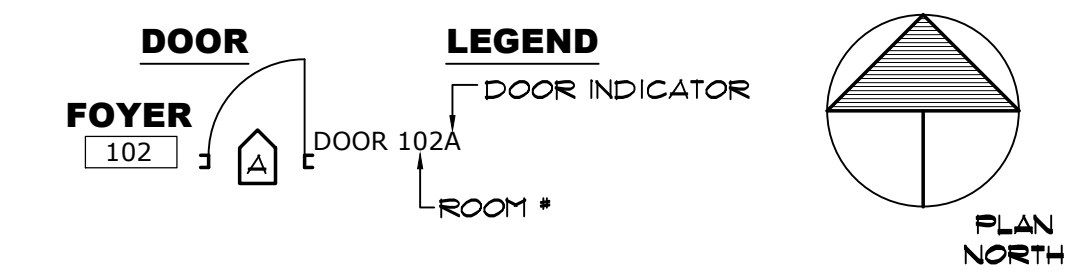


NOTE: WOMEN'S 101 TO BE CONSTRUCTED AFTER NEW ADDITION IS COMPLETE.

LEGEND

- EXIST. CMU BLOCK WALL
- NEW 3/8" METAL STUD WALL

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



NEW FLOOR PLAN

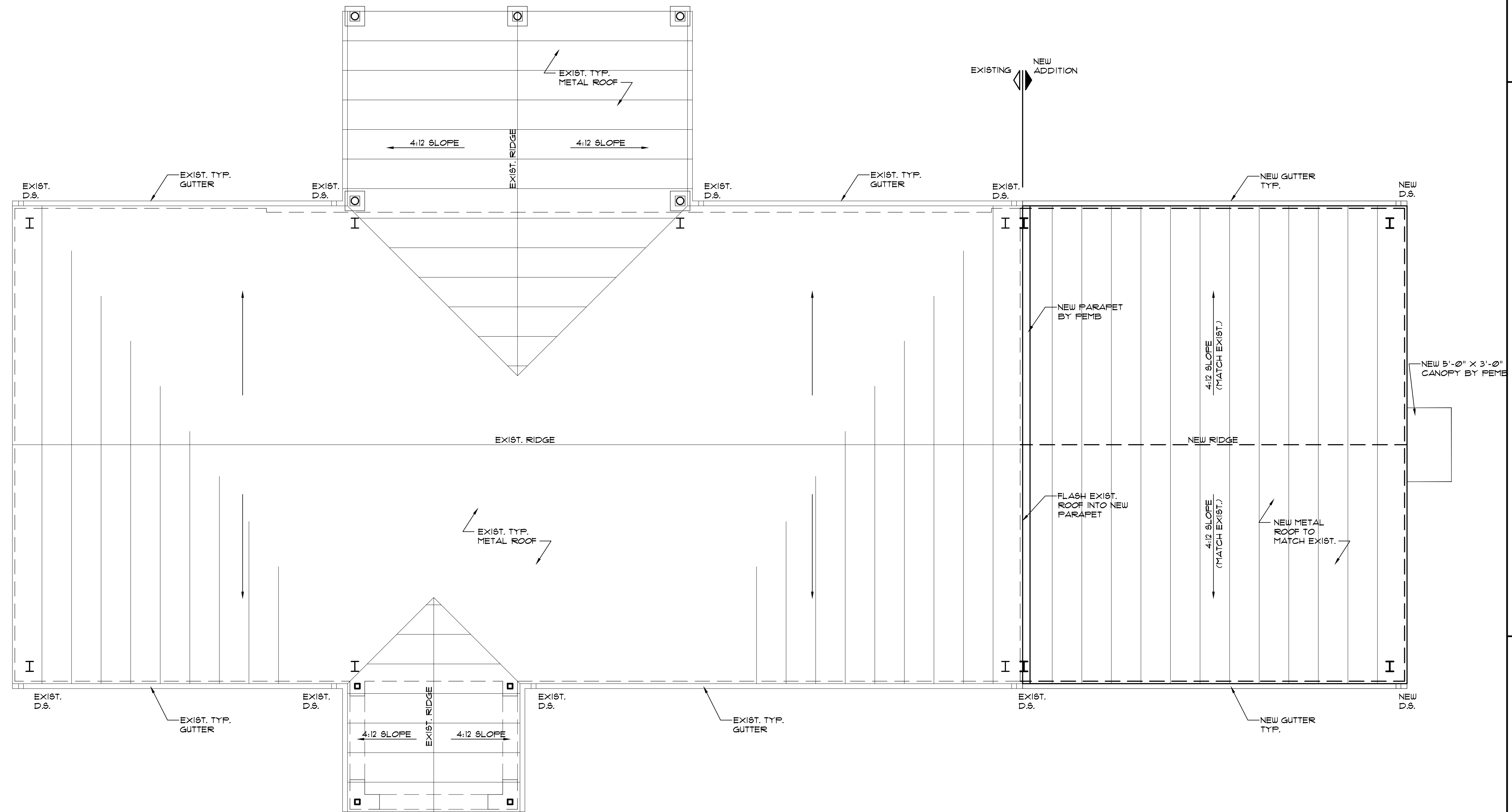
25008

ISSUED: 04/10/26  
DWG BY: MSG/SKC  
CKD BY: LDD

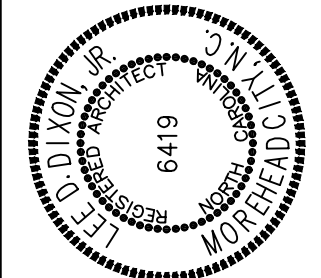
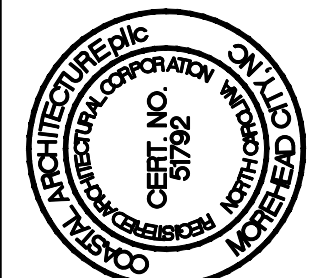
NO.	DESCRIPTION

SHEET NO.  
**A-1**  
OF

ADDITION TO COLUMBUS COUNTY  
TRANSPORTATION CENTER  
WHITEVILLE, NORTH CAROLINA



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



NEW ROOF PLAN

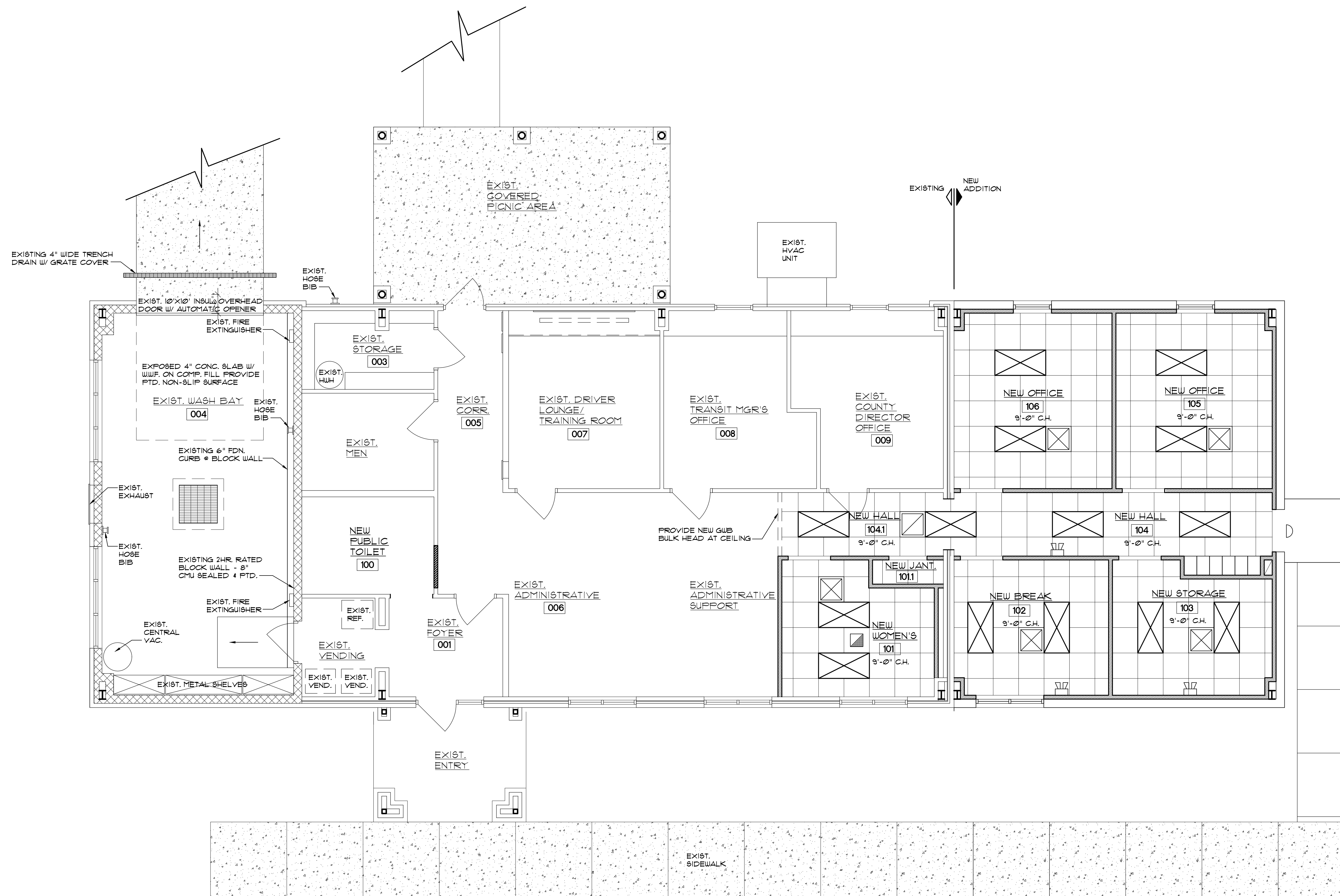
**25008**

ISSUED: 04/10/26  
DWG BY: MSG  
CKD BY: LDD

NO.	REVISIONS

SHEET NO.  
**A-2**  
OF

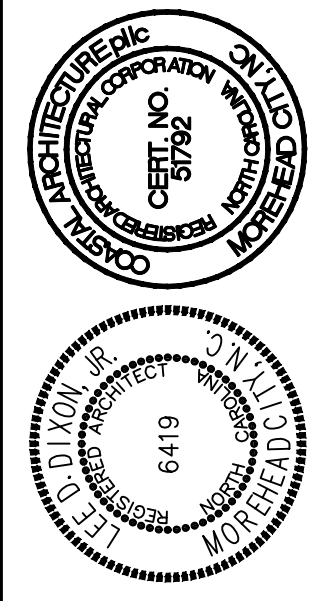
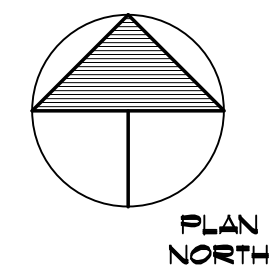
**ADDITION TO COLUMBUS COUNTY  
TRANSPORTATION CENTER  
WHITEVILLE, NORTH CAROLINA**



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

**LEGEND**

	EXIST. CMU BLOCK WALL
	NEW 3/8" METAL STUD WALL



NEW RCP PLAN

**25008**

ISSUED: 04/10/26  
DWG BY: MSG/SKC  
CKD BY: LDD

REVISIONS

NO.	DESCRIPTION

SHEET NO.  
**A-2.1**  
OF

WINDOW SCHEDULE					
MARK	SIZE (WxH)	TYPE	MAT.	GLASS	REMARKS
W-1	3'-0"W x 4'-0"H	FIXED	ALUM.	1" LOW E INSULATION	FIELD VERIFY TO MATCH EXISTING
W-2	5'-0"W x 5'-0"H	FIXED	ALUM.	1" LOW E INSULATION	FIELD VERIFY TO MATCH EXISTING
REMARKS					

DOOR SCHEDULE					
DOOR NO.	SIZE	DOOR		FRAME	REMARKS
		MAT.	TYPE		
100A	3'-0" x 7'-0"	WD	1	A	②
101A	3'-0" x 7'-0"	WD	1	A	
101A	FAIR 1'-6" x 7'-0"	WD	3	A	④
102A	3'-0" x 7'-0"	WD	2	A	
103A	3'-0" x 7'-0"	WD	1	A	① ③
104A	3'-0" x 7'-0"	ALUM.	4	B	
105A	3'-0" x 7'-0"	WD	2	A	
106A	3'-0" x 7'-0"	WD	2	A	

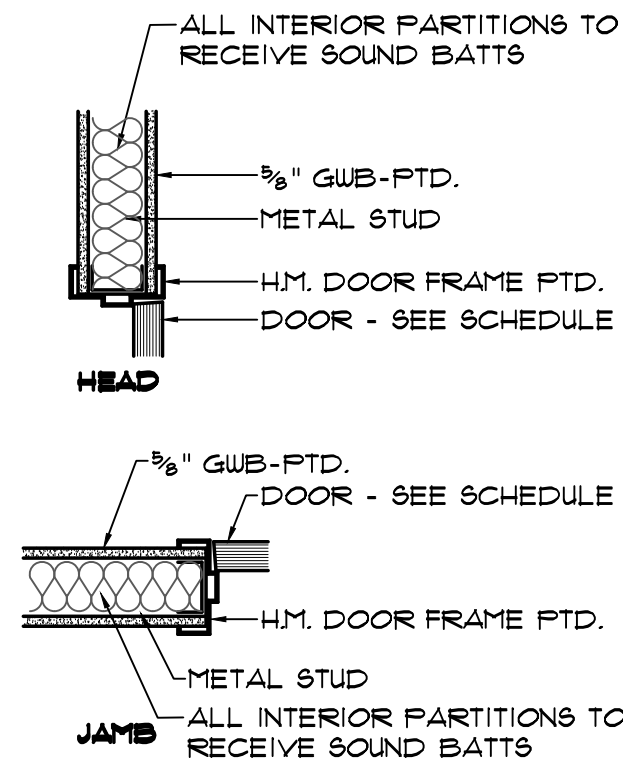
- REMARKS
- ① PROVIDE CLOSERS, THRESHOLD AND WEATHER STRIPPING.
  - ② PROVIDE CLOSERS
  - ③ CARD ACCESS
  - ④ PUSH FULL

- ALL GLASS TO BE TEMPERED
- ALL WOOD DOORS TO BE STAINED TO MATCH EXISTING.

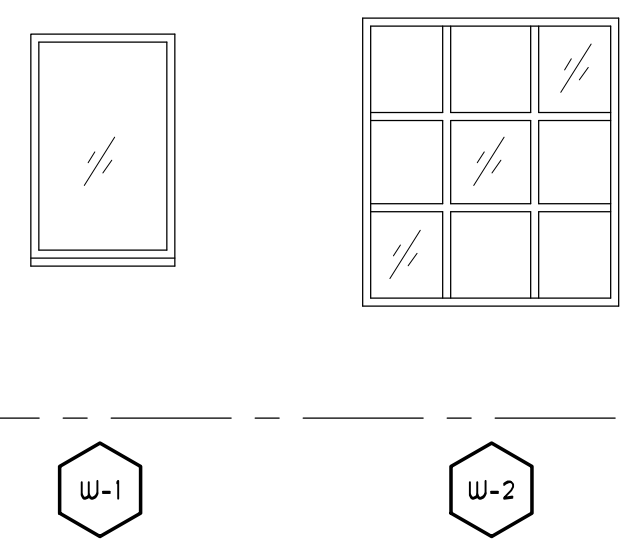
ROOM FINISH SCHEDULE							
ROOM NUMBERS	ROOM	FLOORS	BASE	WALLS	CEILING	HEIGHT (NOMINAL)	REMARKS
001	EXIST. FOYER	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	
002	EXIST. MEN						
003	EXIST. STORAGE						
004	EXIST. WASH BAY						
005	EXIST. CORR.	NEW LVP	NEW VINYL				
006	EXIST. ADMINISTRATIVE	NEW LVP	NEW VINYL				
007	EXIST. DRIVER LOUNGE/TRAINING RM.	EXISTING	EXISTING				
008	EXIST. TRANSIT MGR'S OFFICE						
009	EXIST. COUNTY DIRECTOR OFFICE						
100	NEW PUBLIC TOILET	NEW LVP	NEW VINYL	REPAINT GUB-PTD	EXISTING NEW S.A.T.	EXISTING 9'-0"	
101	NEW WOMEN'S						
101.1	NEW JANITOR						
102	NEW BREAK ROOM						
103	NEW STORAGE						
104	NEW HALL						
104.1	NEW HALL						
105	NEW OFFICE						
106	NEW OFFICE						

LVP = LUXURY VINYL PLANK (INSTALL IN STAGGERED PATTERN)  
 S.A.T. = SUSPENDED ACOUSTICAL TILE

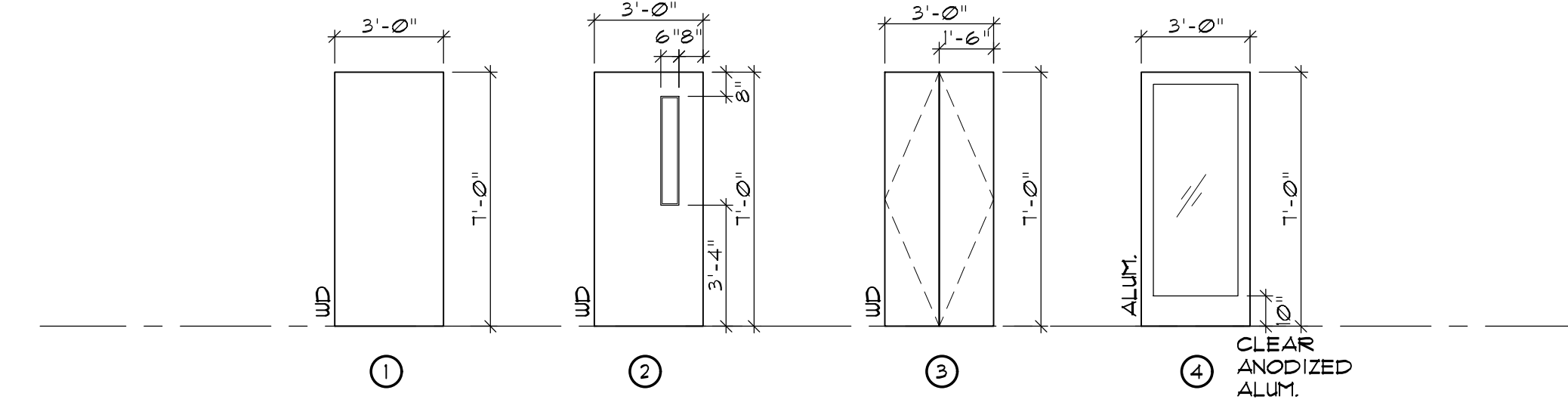
ROOM FINISH SCHEDULE REMARKS  
 ALL GUB TO BE MOLD AND MILDEW RESISTANT  
 PROVIDE TRANSITION STRIPS AT ALL CHANGES IN FLOOR MATERIAL



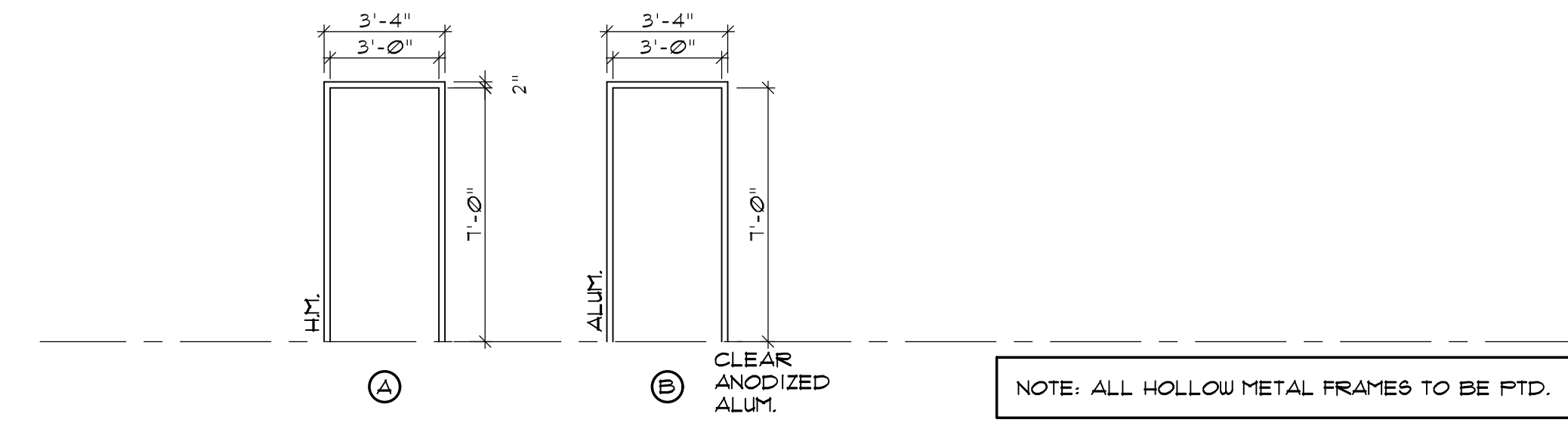
4  
A-3  
DOOR HEAD AND JAMB DETAIL  
 SEE DOOR SCHEDULE FOR RATED DOORS/FRAMES LOCATION  
 SCALE: 1/4" = 1'-0"



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



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



1  
A-3  
DOOR FRAME ELEVATIONS  
 SCALE: 1/4" = 1'-0"

**Coastal Architecture**

- Architectural Design
- Planning
- Interiors

**AIA**

Member of the American Institute of Architects

Lee D. Dixon, Jr., AIA  
 252-247-2127  
 lee@coastalarchitecture.net

4206 Bridges St. Ext., Suite C  
 Morehead City, NC 28557  
 www.CoastalArchitecture.net

ADDITION TO COLUMBUS COUNTY  
 TRANSPORTATION CENTER  
 WHITEVILLE, NORTH CAROLINA

REGISTERED PROFESSIONAL ARCHITECT  
 STATE OF NORTH CAROLINA  
 CERT. NO. 6419  
 LEE D. DIXON, JR.  
 MOREHEAD

DOOR WINDOW AND ROOM FINISH SCHEDULE

25008

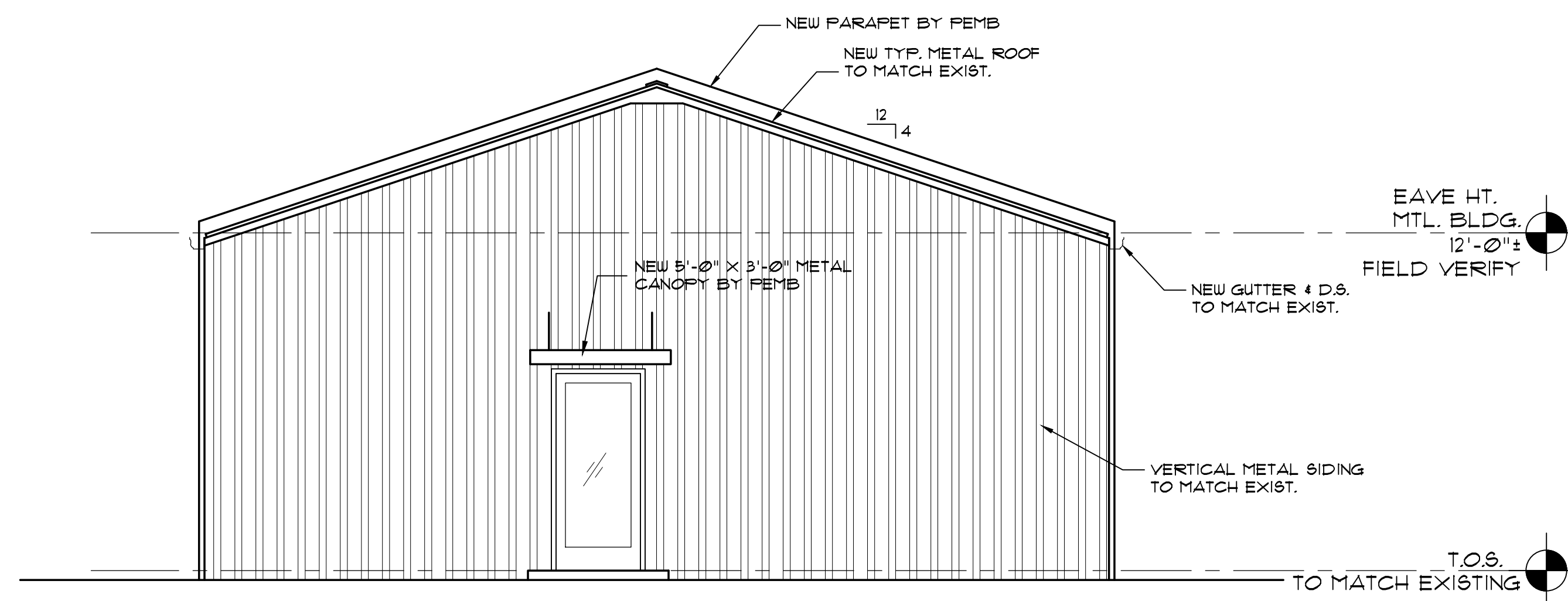
ISSUED: 04/10/26  
 DWG BY: MSG  
 CKD BY: LDD

REVISIONS

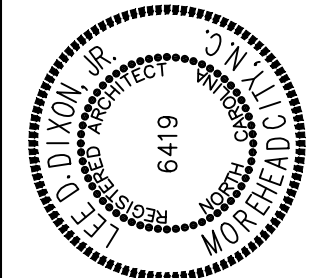
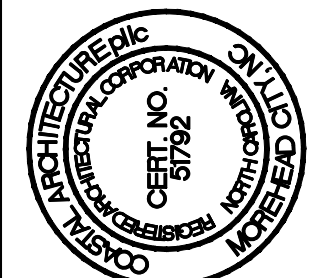
SHEET NO.  
**A-3**  
 OF



**ADDITION TO COLUMBUS COUNTY  
TRANSPORTATION CENTER  
WHITEVILLE, NORTH CAROLINA**



**NEW RIGHT SIDE  
EXTERIOR ELEVATION**  
SCALE: 1/4" = 1'-0"



NEW EXTERIOR ELEVATION

**25008**

ISSUED: 04/10/26

DWG BY: MSG

CKD BY: LDD

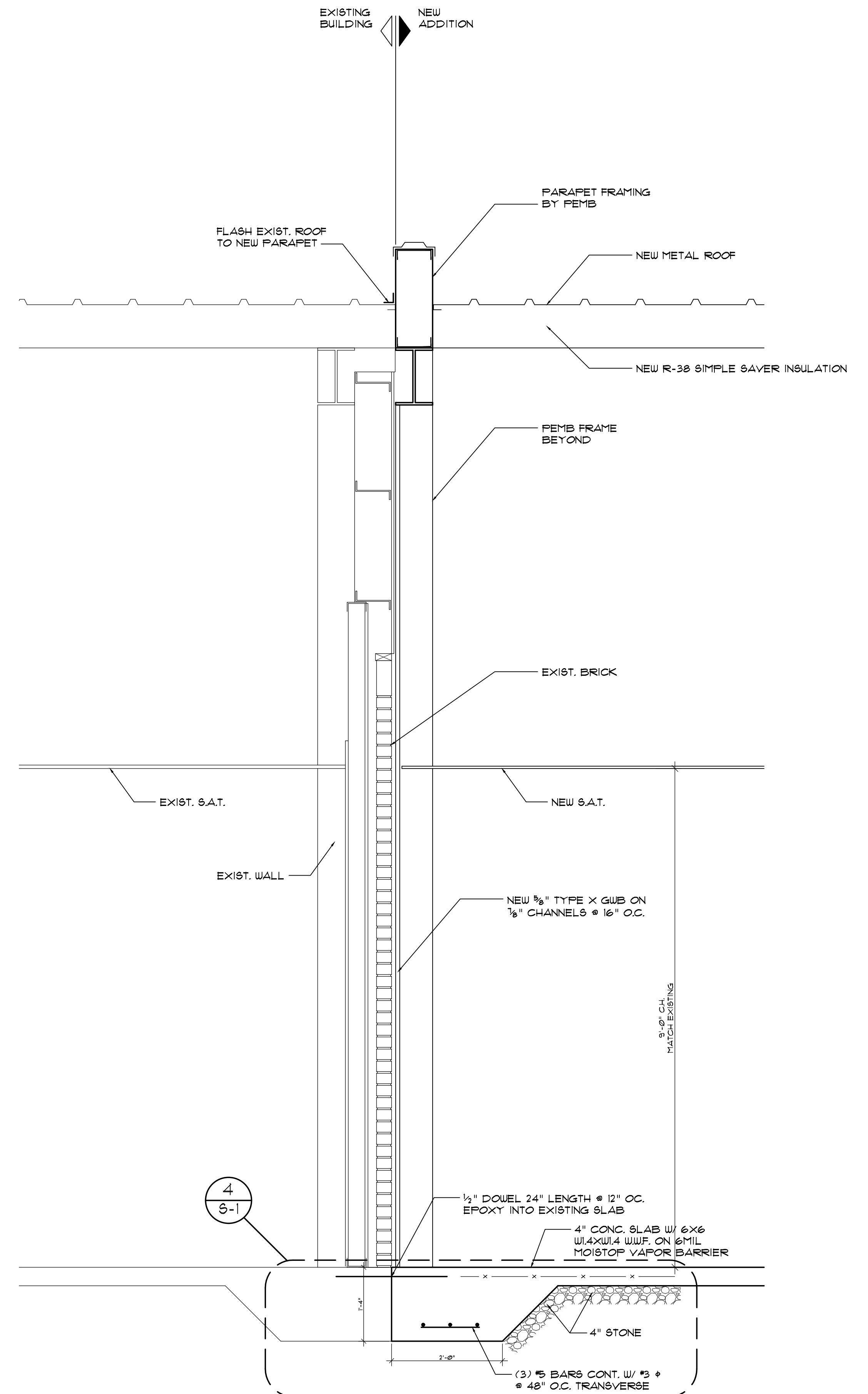
REVISIONS


SHEET NO.

**A-4.1**

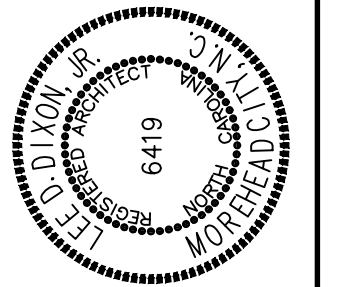
OF

ADDITION TO COLUMBUS COUNTY  
TRANSPORTATION CENTER  
WHITEVILLE, NORTH CAROLINA



4  
S-1

1  
A-5  
**NEW WALL SECTION**  
SCALE: 3/4" = 1'-0"



NEW WALL SECTION

**25008**

ISSUED: 04/10/26

DWG BY: MSG

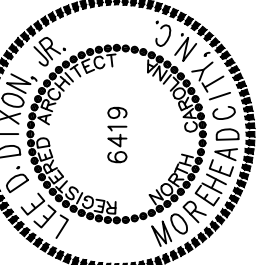
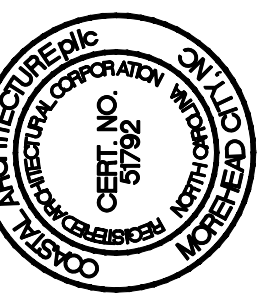
CKD BY: LDD

REVISIONS

SHEET NO.

**A-5**  
OF

**ADDITION TO COLUMBUS COUNTY  
TRANSPORTATION CENTER  
WHITEVILLE, NORTH CAROLINA**



NEW BUILDING SECTION

**25008**

ISSUED: 04/10/26

DWG BY: MSG

CKD BY: LDD

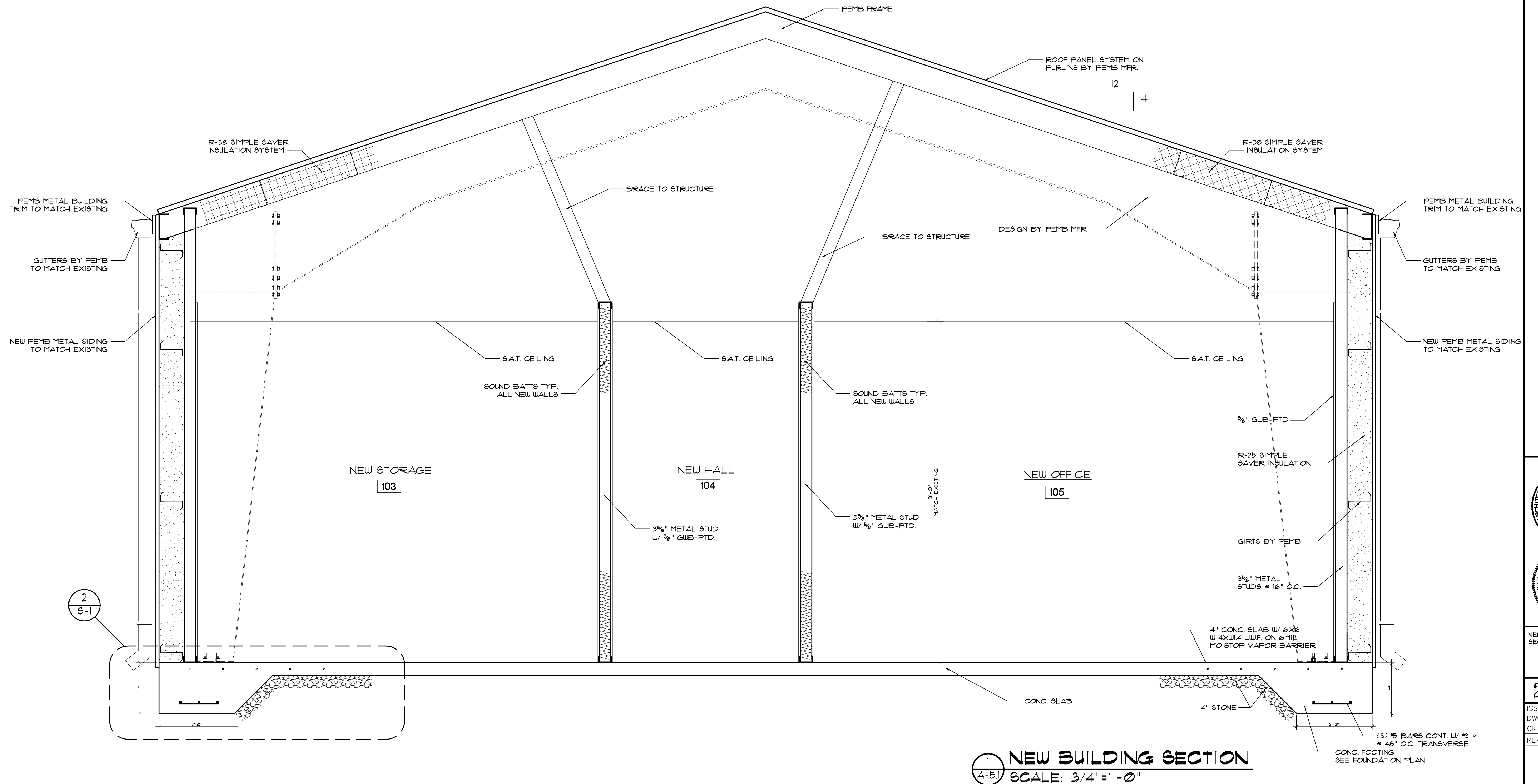
REVISIONS

NO.	DESCRIPTION

SHEET NO.

**A-5.1**

OF



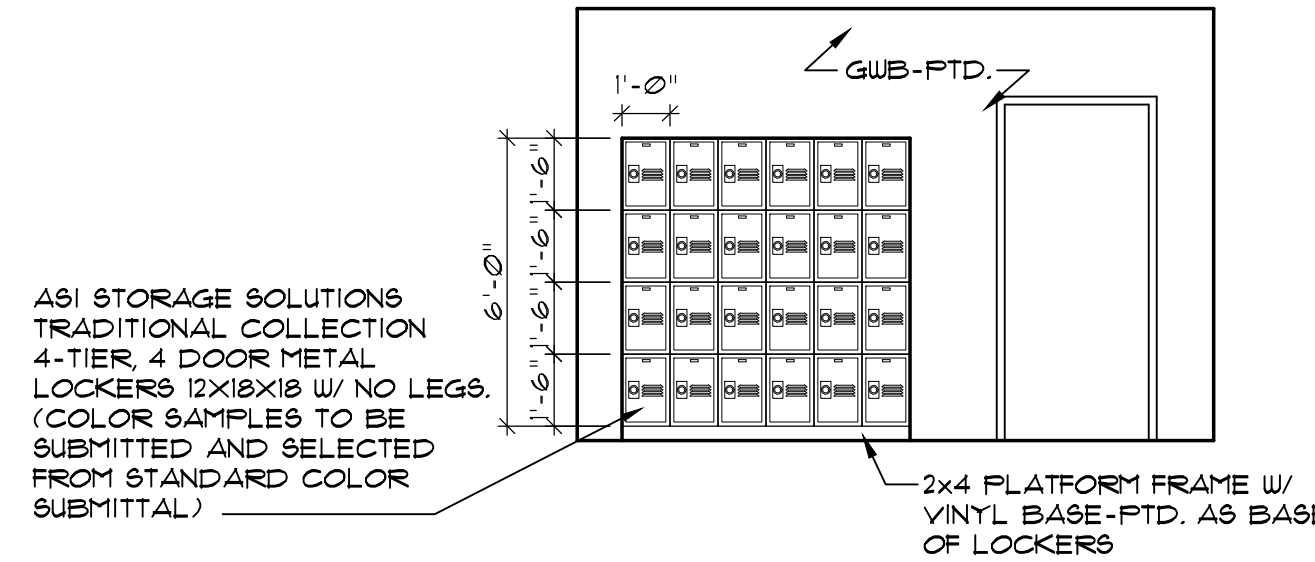
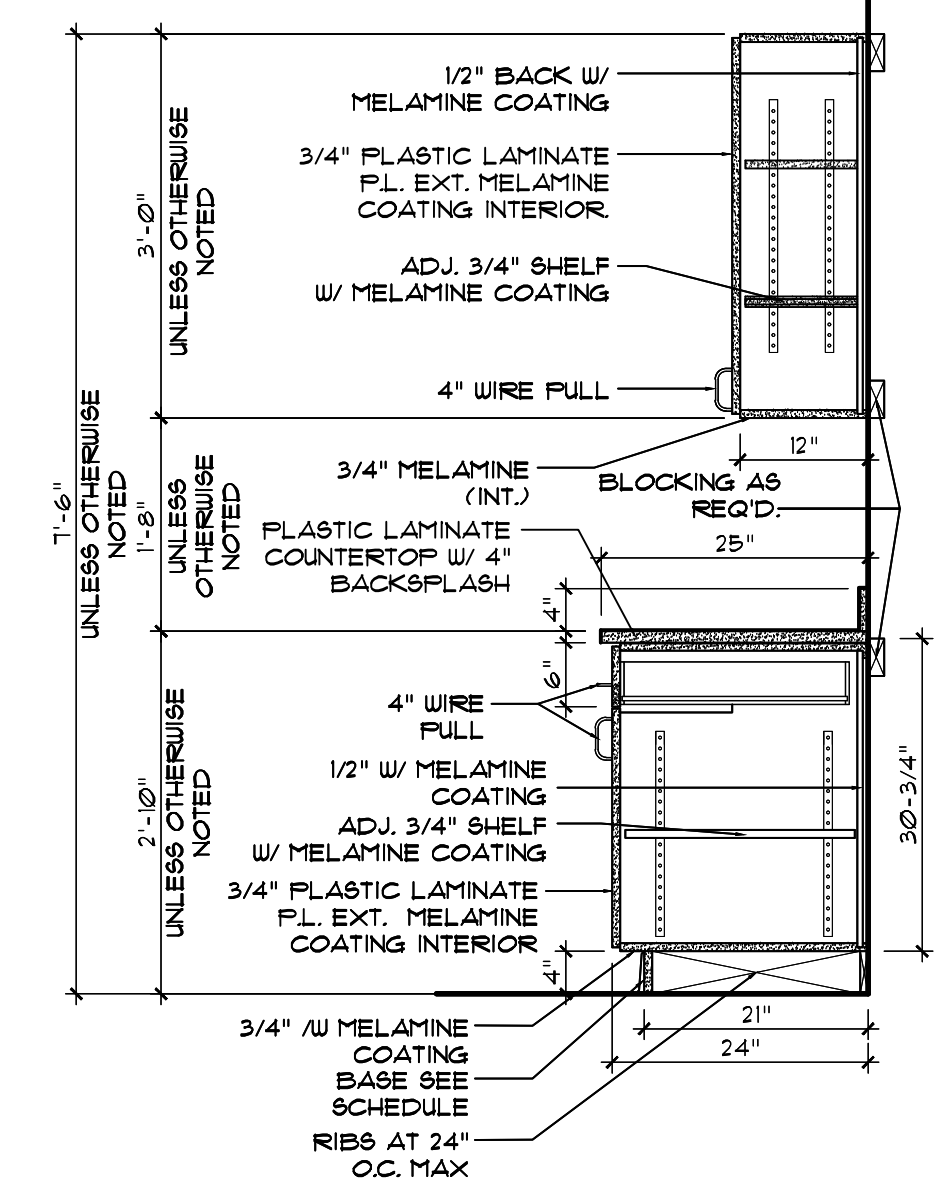
**1 NEW BUILDING SECTION**  
A-5.1 SCALE: 3/4" = 1'-0"

# TOILET ACCESSORIES SCHEDULE

MARK	ITEM	MT.HT.	REMARKS
TA-1	FRAMELESS MIRROR 5'-0"W X 3'-0"H	3'-4"	HT. TO BOTTOM OF MIRROR
TA-2	TOILET PAPER HOLDER B-4288	1'-8"	HT. TO TOP OF DISPENSER
TA-3	PAPER TOWEL DISPENSER B-9262	4'-0" MAX	HT. TO BOTTOM OF DISPENSER
TA-4	HANDICAP SOAP DISPENSER B-2013	4'-0" MAX	HT. TO BOTTOM OF DISPENSER
TA-5	SANITARY NAPKIN DISPOSAL B-270	2'-4" MAX	HT. TO TOP OF DISPENSER
TA-6	SEAT COVER DISPENSER B-221	4'-0" MAX	HT. TO TOP OF DISPENSER
TA-7	GRAB BAR 42" B-6806X42	3'-0" MAX	HT. TO CENTER
TA-8	GRAB BAR 36" B-6806X36	3'-0" MAX	HT. TO CENTER
TA-9	GRAB BAR 18" (VERTICAL) B-6806X18	3'-3" MAX	HT. TO BOTTOM OF CENTER OF BAR @ 40" FROM REAR WALL

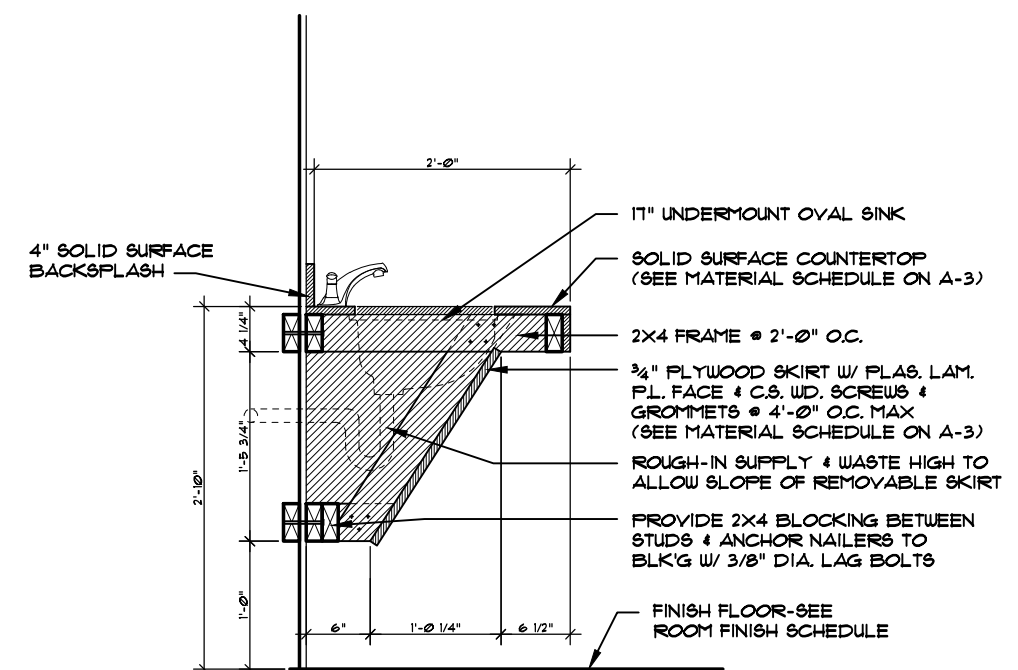
- NOTES:**
- MODEL NUMBERS ARE BOBRICK, UON, BRADLEY, FRANKLIN & ASI ARE APPROVED EQUALS. SUBMIT CUT SHEETS FOR APPROVAL.
  - SUBMIT SHOP DRAWINGS FOR ALL TOILET PARTITION CONFIGURATIONS.
  - ALL HANDRAILS SHALL BE BLOCKED TO SUPPORT A 250 LB. LOAD MINIMUM.
  - PROVIDE BLOCKING AS REQUIRED FOR ALL ACCESSORIES.

- GENERAL NOTES:**
- PLASTIC LAMINATE P.L. EXTERIOR/WHITE MELAMINE COATING INTERIOR
  - CONCEALED HINGES THROUGHOUT
  - 4" SATIN CHROME PULL WIRES
  - ALL SHELVING ADJUSTABLE W/ COUNTERSUNK STANDARDS
  - SEE A-3 MATERIALS SCHEDULE FOR PLASTIC LAMINATE AND SOLID SURFACE

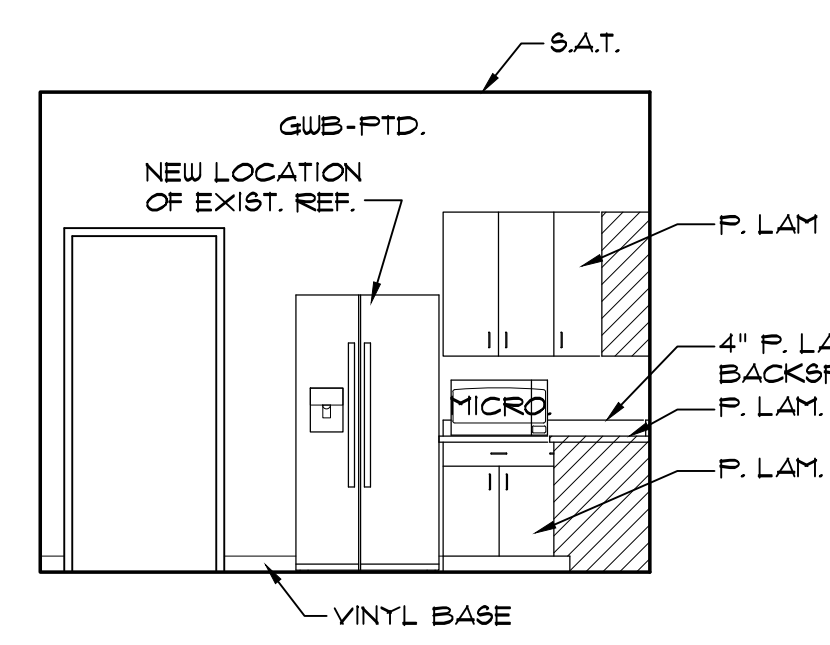


**LOCKER ELEVATION**  
SCALE: 1/4" = 1'-0"

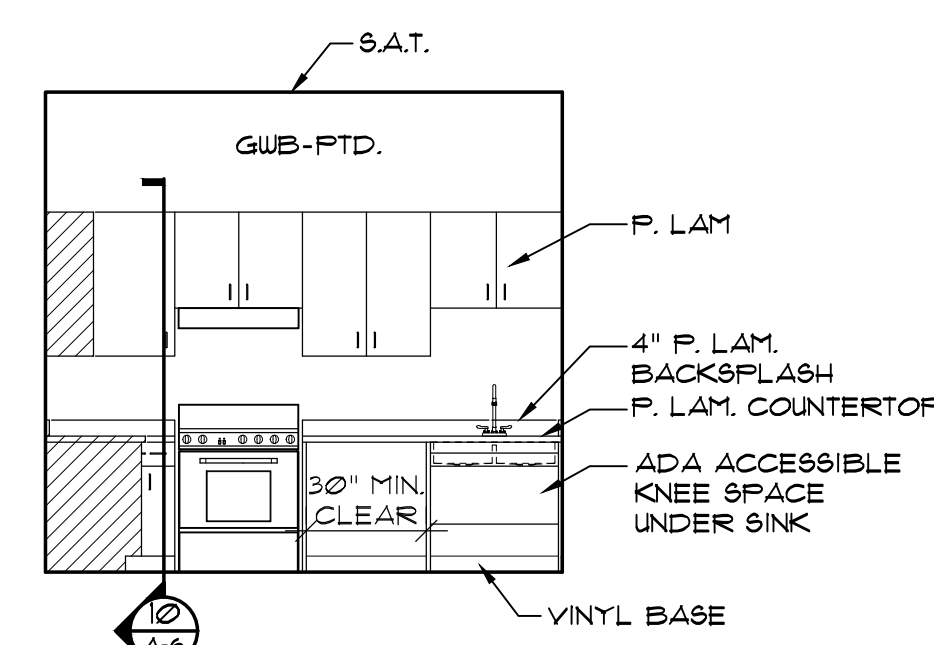
**KITCHEN CABINET SECTION**  
SCALE: 3/4" = 1'-0"



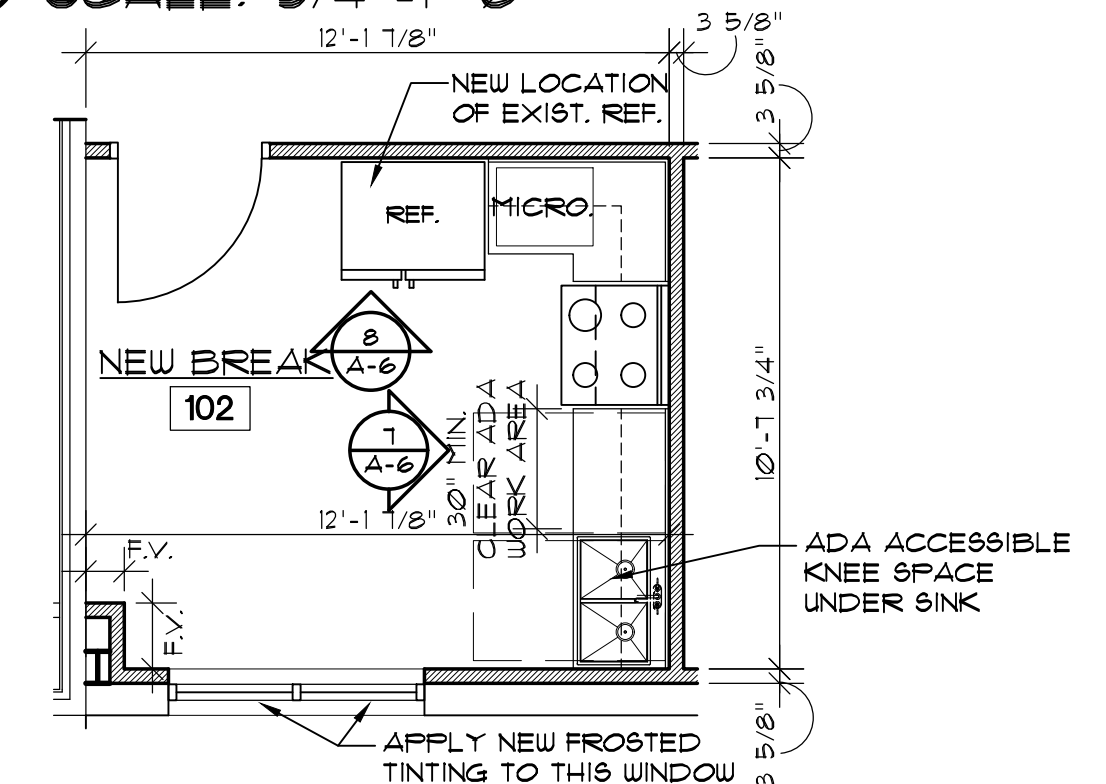
**VANITY DETAIL**  
SCALE: 3/4" = 1'-0"



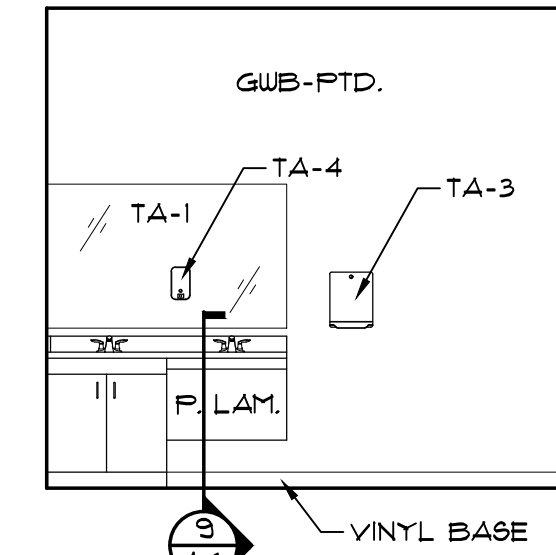
**NEW BREAK 102 ELEVATION**  
SCALE: 1/4" = 1'-0"



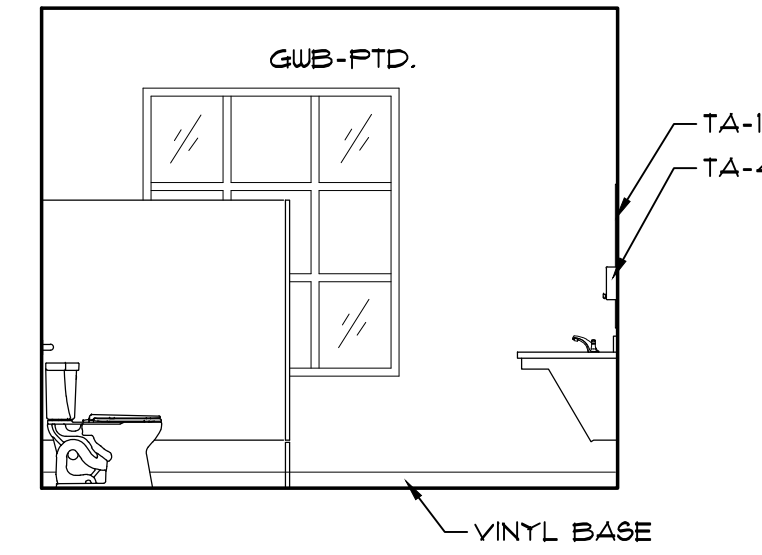
**NEW BREAK 102 ELEVATION**  
SCALE: 1/4" = 1'-0"



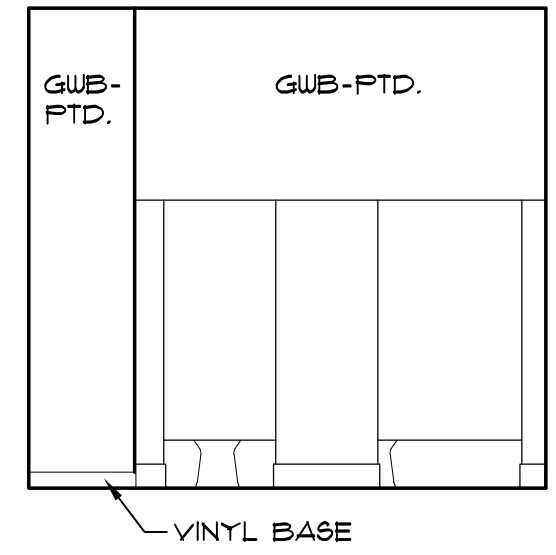
**NEW BREAK 102 ENLARGED PLAN**  
SCALE: 1/4" = 1'-0"



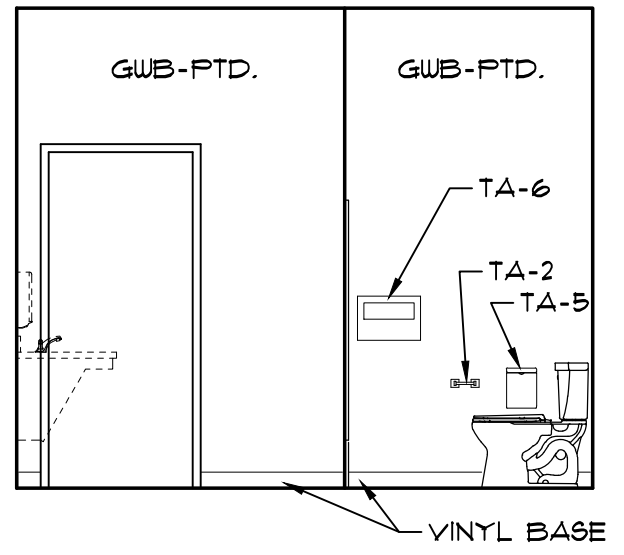
**NEW WOMENS 101 INTERIOR ELEV.**  
SCALE: 1/4" = 1'-0"



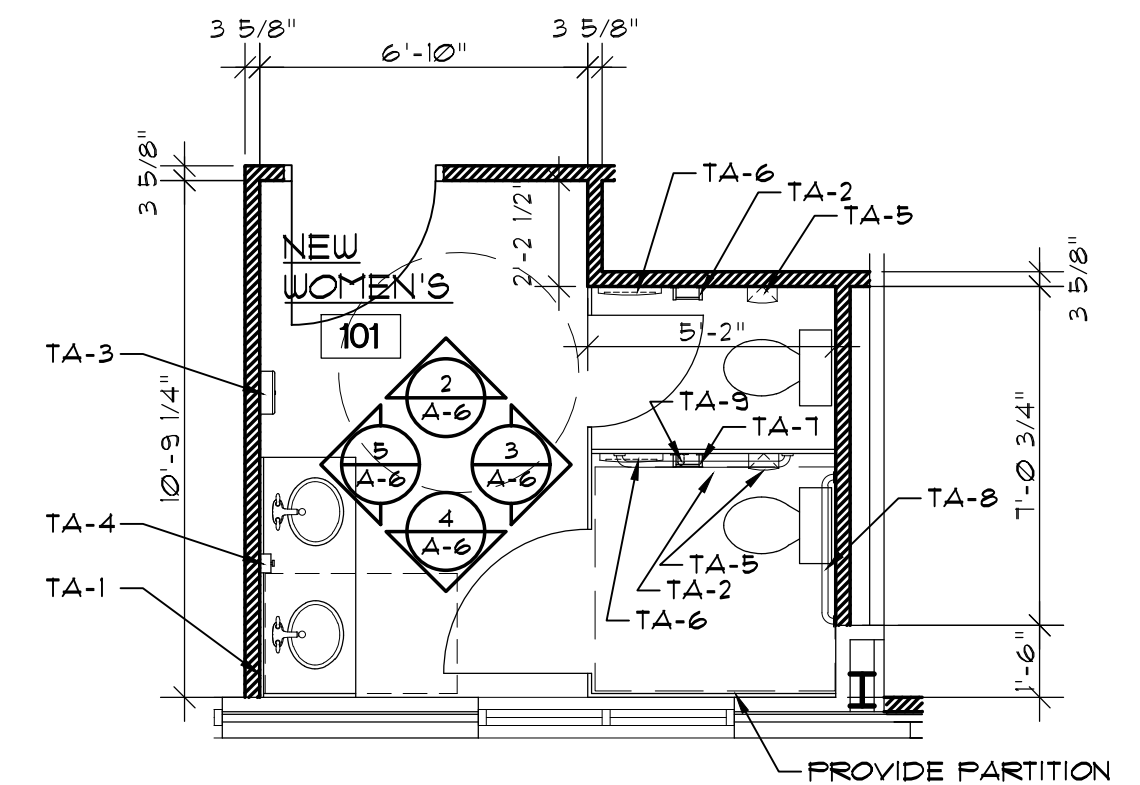
**NEW WOMENS 101 INTERIOR ELEV.**  
SCALE: 1/4" = 1'-0"



**NEW WOMENS 101 INTERIOR ELEV.**  
SCALE: 1/4" = 1'-0"



**NEW WOMENS 101 INTERIOR ELEV.**  
SCALE: 1/4" = 1'-0"



**NEW WOMENS 101 ENLARGED PLAN**  
SCALE: 1/4" = 1'-0"

**Coastal Architecture**

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**AIA**  
Member of the American Institute of Architects

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lee@coastalarchitecture.net

4206 Bridges St. Ext., Suite C  
Morehead City, NC 28557  
www.CoastalArchitecture.net

ADDITION TO COLUMBUS COUNTY  
TRANSPORTATION CENTER  
WHITEVILLE, NORTH CAROLINA

ARCHITECT'S SEAL

REGISTERED ARCHITECT

STATE OF NORTH CAROLINA

6419

ENLARGED PLANS

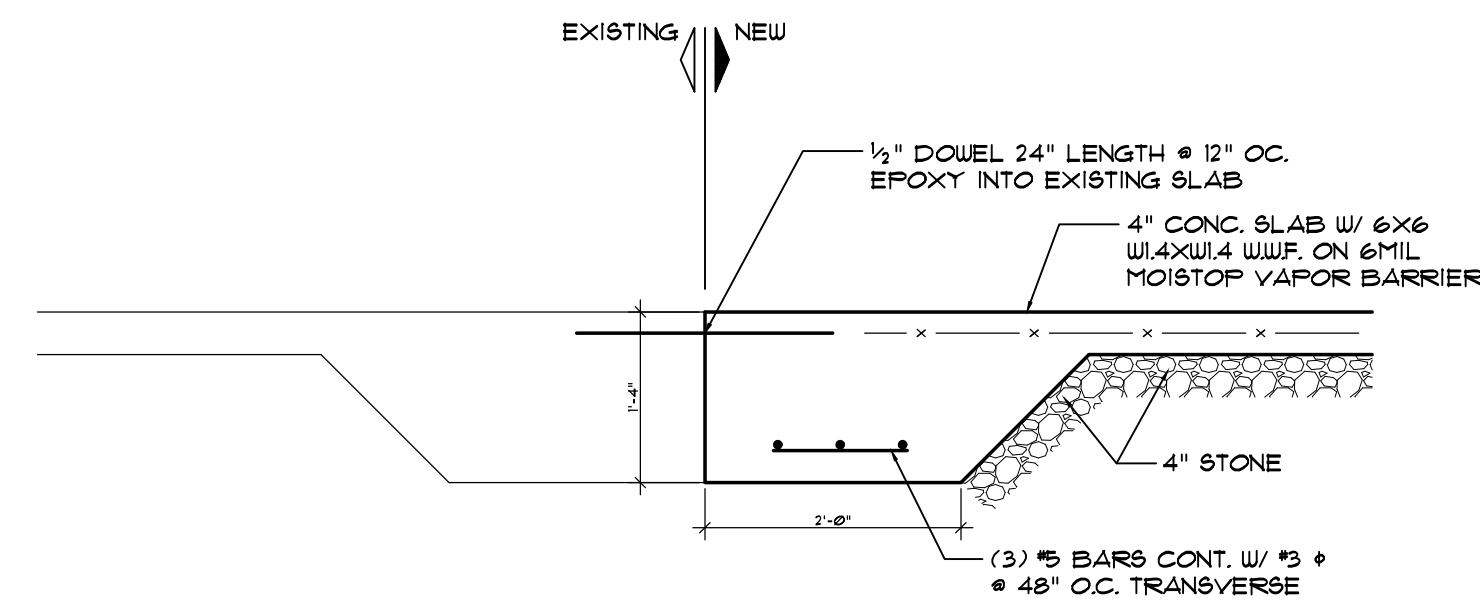
**25008**

ISSUED: 04/10/26  
DWG BY: MSG  
CKD BY: LDD

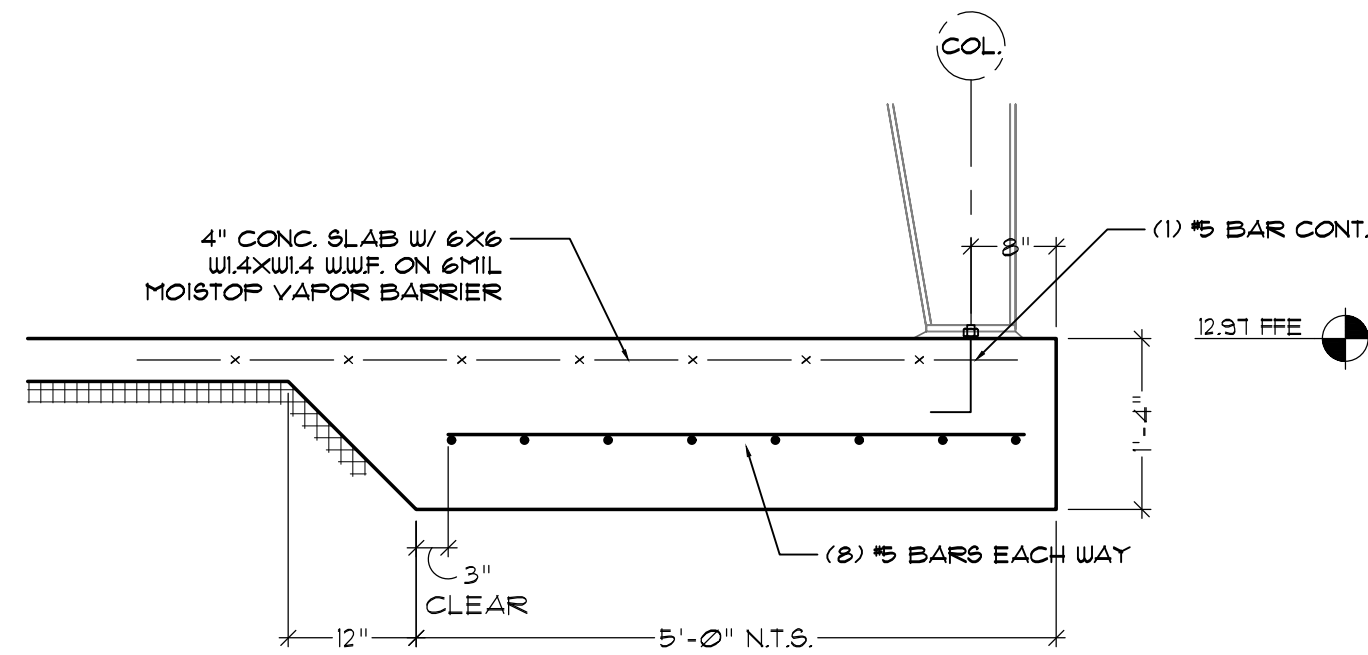
REVISIONS

SHEET NO.  
**A-6**  
OF

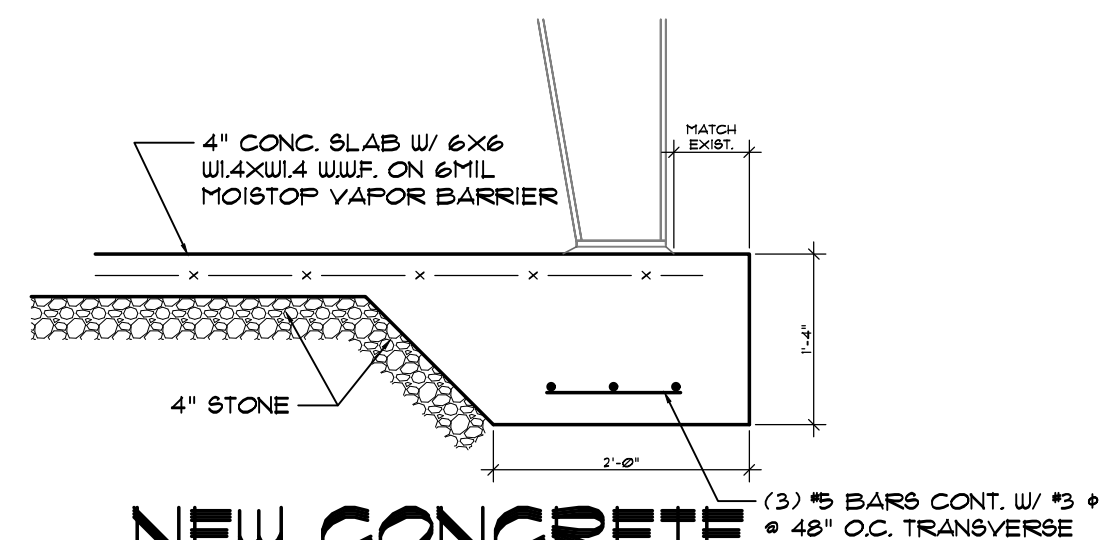
**ADDITION TO COLUMBUS COUNTY  
TRANSPORTATION CENTER  
WHITEVILLE, NORTH CAROLINA**



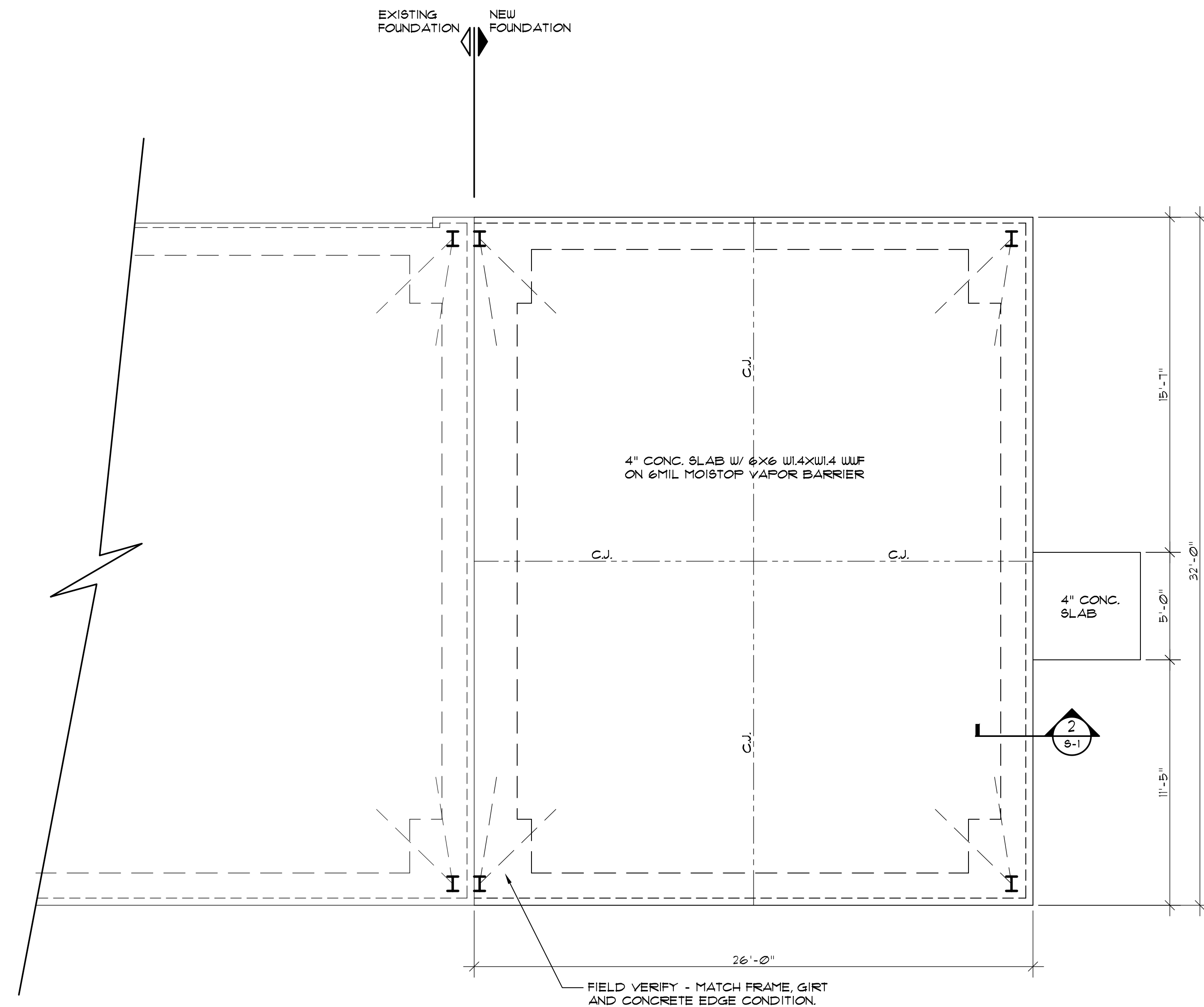
**4**  
**NEW CONCRETE FOOTING DETAIL**  
SCALE: 1/4" = 1'-0"



**3**  
**NEW CONCRETE FOOTING DETAIL**  
SCALE: 3/4" = 1'-0"



**2**  
**NEW CONCRETE FOOTING DETAIL**  
SCALE: 3/4" = 1'-0"



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

NEW FOUNDATION PLAN

**25008**

ISSUED:

DWG BY: MSG

CKD BY: LDD

REVISIONS

NO.	DESCRIPTION

SHEET NO.

**S-1**  
OF

**DIVISION 15A - PLUMBING**

**1.1 DESCRIPTION OF THE WORK**

- A. Work under this section includes, but is not necessarily limited to, furnishing and installing the following:
  1. Plumbing fixtures, water heaters, and any other equipment necessary.
  2. Cold and hot water piping and insulation.
  3. DWV piping.
  4. Connection of all equipment; drain, vent, water.
- B. All work under this contract shall be installed in compliance with the latest edition of the following codes and standards insofar as they apply:
  1. The National Electrical Code.
  2. 2018 N.C. Building Code: Plumbing, and all applicable category codes.
  3. American Society of Sanitary Engineering Standard 1010.
  4. All local codes and ordinances.
- C. These codes are minimum standards. If codes require a more stringent method of construction than the specifications require, the codes shall govern.
- D. The Plumbing Contractor shall be licensed in the State of North Carolina and have all local licenses required for the work.
- E. Obtain all permits, licenses, inspections, etc., required for the work, and pay for the same.

**1.2 INTENT**

- A. The intent of these specifications and accompanying drawings is to convey as reasonably as possible the requirements for a complete job ready for the building to operate. The Plumbing Contractor shall take this into consideration and include in his base bid allowance for contingencies as well allow him to provide minor pieces of equipment and labor not specifically indicated but required for the job to operate properly, at no additional cost to the Owner. The PC shall determine and coordinate with existing conditions.

**1.3 COORDINATION**

- A. Coordinate work with other contractors. Notify Architect of apparent conflicts early to expedite construction. If structural damage appears imminent, stop work and notify Architect for a decision before resuming operations.
- B. Locations shown are approximate. The Plumbing Contractor shall refer to the architectural drawings for placement of equipment, fixtures, etc. Where locations are not clear, the Contractor shall obtain the exact locations from the Architect.
- C. Coordinate all exterior piping connections w/Architect, site contractor/plans. Verify manhole elevations and provide backwater valves as required if fixtures are on finished floor elevation below next upstream manhole cover elevation. Fixtures on finished floor elevation above this cover elevation shall not discharge thru bw valve. Notify engineer of bw valve requirement, any issue prior to bid.

**1.4 SHOP DRAWINGS**

- A. Shop drawings shall be submitted for plumbing fixtures and for pipe. These may consist of the manufacturer's standard catalog or tear sheets and shall have the exact items being offered clearly identified.

**2.2 PIPING**

- A. Drain-Waste-Vent: All DWV piping shall be Schedule 40 PVC-DWV u.o.n., with the following exceptions: Use cast iron piping in all return air plenums, penetrations of rated walls/floors/ceilings, and in areas/walls adjacent to cooking equipment exhaust hoods. Review Arch. and Mech. drawings. ABS or cast iron piping shall be used for drainage/discharge with a temperature greater than 140 deg. F for a minimum distance of 10'-0".
- B. Hot and cold water piping above grade: Type "L" copper w/solder joints (ASTM-B88), hard drawn with wrought copper fittings (ANSI B16.22). PEX piping with copper fittings may be used with owner/tenant approval and as allowed per code. Copper piping shall be used in areas/walls adjacent to cooking equipment exhaust hoods. Review Arch. and Mech. drawings.
- C. Cold water piping below grade: Type "K" copper (ASTM-B88) soft drawn.
- D. Hangers: Use pipe hangers where required on 8-foot centers with saddles to avoid crushing insulation.
- E. Solder: 95/5. Lead free.
- F. Unions: Provide unions where indicated on drawings, in long runs of piping (except drainage) and at equipment to provide convenient disassembly. Provide dielectric unions when connecting copper tubing to equipment and piping made of ferrous materials.

**2.3 CLEANOUTS**

- A. Hex plugs in rough areas: Recessed plugs with cover plates in exposed locations.

**2.4 SHOCK ARRESTERS**

- A. Provide shock arresters as required by codes, manufacturer's recommendations and accepted industry standards for quality construction. Provide for all quick closing valves.

**B. Space pipe hangers per NCSBC- Plumbing Sect. 308.5.**

- C. Pipe hangers for insulated lines shall have suitable saddles to protect insulation.
- 3.4 INSULATION
  - A. All H/W and C/W piping shall be insulated with a min. of 1" inch elastomeric insulation (R=6.5 min.) in unconditioned areas. See NCSBC-Plumbing Sect. 305 for all protection requirements. All H/W piping of circulating systems shall be insulated with 1" insulation per Sect. C404.4 of the NCSBC 2018 Energy Conservation Code.
- 3.5 INSPECTIONS AND TESTS
  - A. Before being concealed, all water, soil and vent piping shall be tested to determine if they are water- and air-tight.
  - B. Prior to placing into service, entire system shall be tested for leaks in strict accordance with state and local codes.
- 3.6 STERILIZATION OF PIPING
  - A. Sterilize the new water piping thoroughly with a solution containing not less than 50 parts per million of available chlorine, using liquid chlorine, or sodium hydrochloride solution, introduced into the system in an approved manner. The sterilizing solution shall remain in the system in an approved manner. The sterilizing solution shall remain in the system for a period of 24 hours. After sterilization, flush the solution from the system with clean water until the residual chlorine content is not greater than 0.2 parts per million, unless otherwise directed.
- 3.7 SERVICE PRESSURE
  - A. Provide approved water-pressure reducing valve (PRV) if service pressure exceeds 80 psi to reduce pressure to 80 psi static or less and as required per NCSBC-Plumbing Sect. 604.8.
- 3.8 DRAINDOWN
  - A. Contractor to provide for complete plumbing system drain down.
- 3.9 CLEAN UP
  - A. During construction, keep the site clear of debris and upon completion, and before final inspection, clean up the premises to remove all evidence of his work. In addition, upon completion of construction, clean, wash, and/or polish all fixtures, equipment and exposed material and leave them bright and clean.
- 3.10 GUARANTEES
  - A. Guarantee all materials and labor included in the plumbing work for a period of one year from date of final acceptance by the Owner.
  - B. Any defects in the system which become evident during the guarantee period shall be corrected without cost to the Owner. This shall include the replacing of defective materials where required, and the repair of damage caused by leaking pipes, etc., and damage to building surfaces caused in making repairs.

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**GENERAL NOTES - PLUMBING**

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

**SYMBOL LEGEND - PLUMBING**

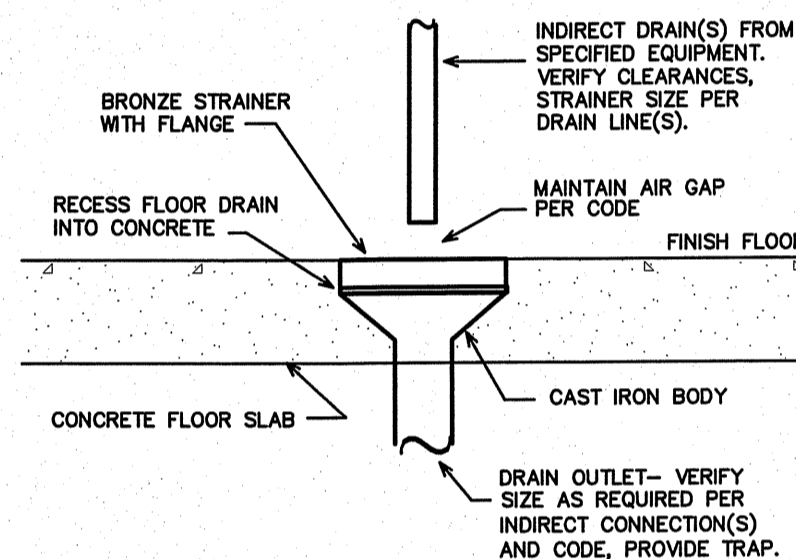
SYMBOL	DESCRIPTION (U.O.N.)
	WASTE PIPING (W)
	VENT PIPING (V)
	COLD WATER PIPING (CW)
	HOT WATER PIPING (HW)
	SHUT-OFF VALVE
	DIELECTRIC UNION
	CLEANOUT FINISH FLOOR
	WALL/HORIZONTAL CLEANOUT
	CLEANOUT FINISH GRADE-PROVIDE FLUSH CONCRETE COLLAR AND BRONZE COVER
	VENT THRU ROOF (VTR)
	ABOVE FINISHED FLOOR
	UNLESS OTHERWISE NOTED
	2 HOUR FIRE BARRIER

**LOAD SUMMARY - PLUMBING**

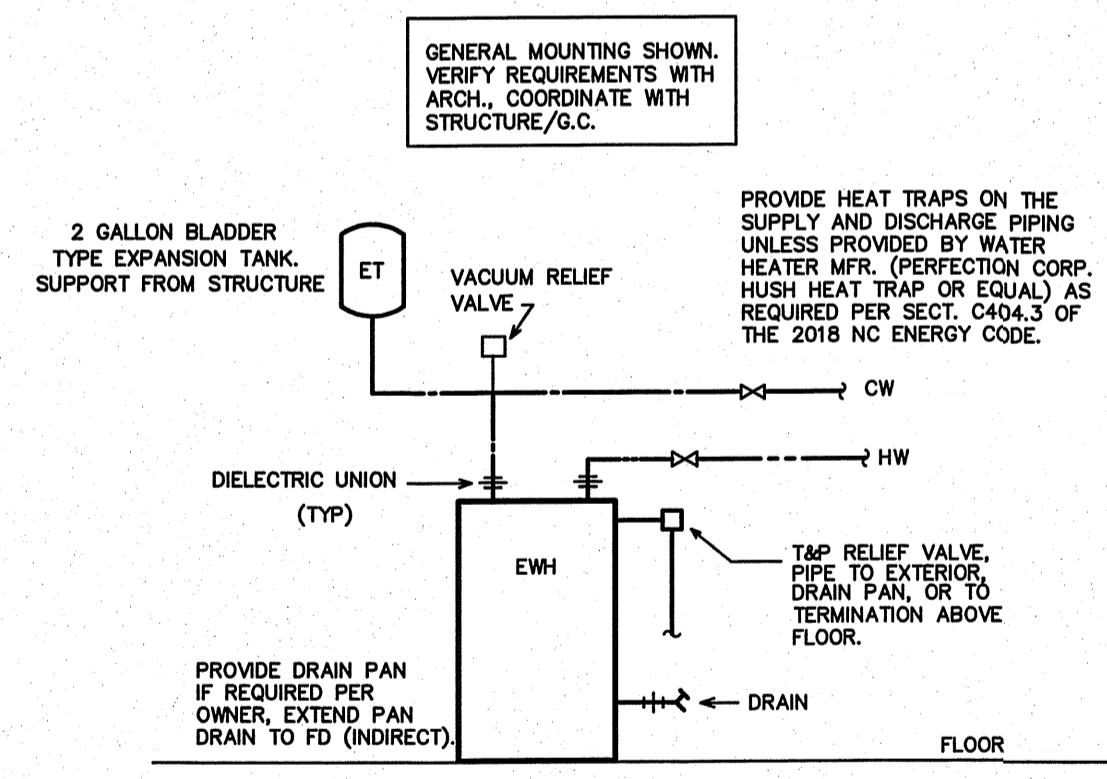
WASTE DEMAND (FD)	WATER DEMAND (FD)	WATER DEMAND (GPM)
14.0	26.0	38.4

**FIXTURE SCHEDULE - PLUMBING \***

- EW1 = EXISTING ELECTRIC WATER HEATER- STATE INDUSTRIES MODEL PV-6-10MS-K, 6 GALLON, 1650 WATTS. (SERVES EXISTING FIXTURES.)
  - ET\* EXPANSION TANK  
AMTROL MODEL ST-5, 2.0 GALLON, STEEL CONSTRUCTION, NON-ASME RATED.
  - EWH\* NEW ELECTRIC WATER HEATER  
A.O. SMITH MODEL EJC-10, 10 GALLON, 1650 WATTS, 120V, 3/4" INLET AND OUTLET. PROVIDE DRAIN PAN, EXPANSION TANK AND PRESSURE RELIEF VALVE.
  - FD\* FLOOR DRAIN  
ZURN MODEL Z415 WITH HEEL-PROOF TYPE B STRAINER, CAST IRON W/NICKEL BRONZE TOP, 5" STRAINER WITH 3" CONNECTION. PROVIDE TRAP PRIMER CONNECTION IF REQUIRED.
  - LAV\* LAVATORY (COUNTERTOP)  
KOHLER PENNINGTON SELF RIMMING COUNTERTOP LAVATORY, K-2196-4, 4" CENTERS, WHITE COLOR, ADA COMPLIANT. PROVIDE K-8998 P-TRAP WITH DELTA FAUCET MODEL 523LF-HGMDF, SHUT-OFF VALVES.
  - SI\* BREAK ROOM SINK  
ELKAY LR3319 DOUBLE BASIN STAINLESS STEEL SINK (MODEL LRAD3319 IF ADA COMPLIANCE REQUIRED), 18 GA., SELF-RIMMING, FURNISHED WITH THREE FAUCET HOLES AND CENTER DRAIN. PROVIDE ELKAY COMMERCIAL FAUCET MODEL LK10ATORL2 WITH TWO LEVER HANDLES, CHROME PLATED BRASS P-TRAP AND SHUT-OFF VALVES. COORDINATE EXACT UNIT WITH OWNER AND GENERAL CONTRACTOR. COORDINATE SIZE WITH CABINETS PRIOR TO ORDERING.
  - TMV\* THERMOSTATIC MIXING VALVE (ASSE 1070)  
WATTS LFUSG-B "LEAD FREE" GUARDIAN. INSTALL IN MAINTENANCE ACCESSIBLE LOCATION BELOW LAV/SINK OR ABOVE CEILING. SET HW OUTFLOW TO SPECIFIED TEMPERATURE (110 DEG. F (MAX.) LTHW).
  - VB\* ICE MAKER VALVE BOX  
OATEY VALVE BOX WITH 3/8" BRONZE SHUT-OFF VALVE. FLUSH TO WALL.
  - WC\* WATER CLOSET (FLOOR MOUNT FLUSH VALVE)  
KOHLER HIGHCLIFF WATER CLOSET, K-96057, ADA COMPLIANT, 1.6 GPF. PROVIDE WITH K-4731-C SEAT, WAX SEAL, CLOSET BOLT KIT. FOR UNITS NOT REQUIRING ADA COMPLIANCE (COORDINATE W/ARCHITECT), USE KOHLER WELLCOME K-96053 IF REQUIRED. PROVIDE SLOAN ROYAL T11-1.6 TOP SPUD FLUSHOMETER.
- \* OR APPROVED EQUAL. SUBMIT ALL ITEMS FOR APPROVAL BY TENANT AND ARCHITECT PRIOR TO ORDERING.  
ALL OTHER PLUMBING FIXTURES SHOWN ARE PROVIDED BY THE TENANT AND INSTALLED BY THE PLUMBING CONTRACTOR. SEE PLANS FOR NUMBER AND LOCATION. COORDINATE ALL REQUIREMENTS WITH EQUIPMENT SUPPLIER.



**1 FD DETAIL**  
SCALE: NOT TO SCALE



**2 EWH DETAIL**  
SCALE: NOT TO SCALE

NOTE: WATER HEATERS, PIPING, AND PIPING APPURTENANCES PROVIDED BY P.C. WATER HEATER SUPPORTS BY P.C.

**Coastal Architecture**  
PLC

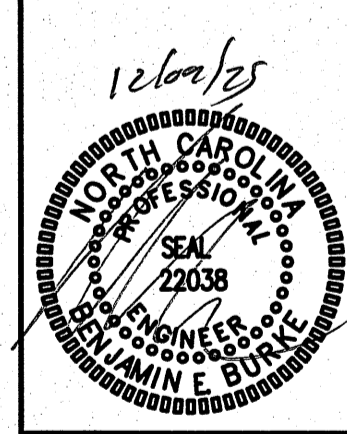
Architectural Design  
Planning  
Interiors

**ATA**

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**ADDITION TO COLUMBUS COUNTY TRANSPORTATION CENTER**  
 WHITEVILLE, NORTH CAROLINA



PLUMBING SPECIFICATIONS

**25008**

ISSUED: 12/09/2025  
DWG BY: MRH  
CKD BY: BEB

REVISIONS

ENGINEER

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SHEET NO.

**P-1**





PACKAGE UNIT EQUIPMENT SCHEDULE	
HVAC SYSTEM #1	
PACKAGE UNIT #1	EXISTING TO REMAIN

- \* OR APPROVED EQUAL
1. PROVIDE OUTDOOR TSTAT TO PREVENT ELECTRIC HEAT OPERATION WHEN HEAT PUMP CAN MEET THE HEATING LOAD

DUCTLESS SPLIT SYSTEM HEAT PUMP SCHEDULE	
DHP-1 OUTDOOR HEAT PUMP UNIT	* MITSUBISHI MODEL #MXZ-2C20NA3-1.66 TON OUTDOOR HEAT PUMP UNIT, 20 SEER. 208 VOLT, 1 PHASE, CONDENSING UNIT 17.2A MCA, 20A MSCP. FAN COIL UNIT IS POWERED VIA FIELD PROVIDED WIRING FROM OUTDOOR UNIT. SERVES (2) INDOOR FAN-COIL UNITS (DFC-1.1, DFC-1.2).
DFC-1 DIRECT EXPANSION FAN COIL UNIT	* MITSUBISHI MODEL #MSZ-FS09NA FAN COIL UNIT. NET COOLING CAPACITY = 9,000 BTUH, 137 CFM LOW TO 381 CFM HI. 0.5 TON NOMINAL. PROVIDE WIRED PROGRAMMABLE THERMOSTAT, AND CONDENSATE PUMP. FAN MOTOR 0.65, FLA 208 VOLT, SINGLE PH.
DFC-2 DIRECT EXPANSION FAN COIL UNIT	* MITSUBISHI MODEL #MSZ-FS06NA FAN COIL UNIT. NET COOLING CAPACITY = 9,000 BTUH, 137 CFM LOW TO 381 CFM HI. 0.5 TON NOMINAL. PROVIDE WIRED PROGRAMMABLE THERMOSTAT, AND CONDENSATE PUMP. FAN MOTOR 0.65, FLA 208 VOLT, SINGLE PH.

\* OR APPROVED EQUAL

EXHAUST FAN EQUIPMENT SCHEDULE	
EF-1	
EXHAUST FAN #1 (EF-#1)	* CARNES MODEL # VCD051C EXHAUST FAN, 140 CFM @ 1/4" SP, 710 RPM, 1.4 AMPS, 120V. THE ELECTRICAL CONTRACTOR SHALL PROVIDE THE SWITCH AND WIRE THE UNIT. THE HVAC CONTRACTOR SHALL PROVIDE UNIT, 6" RIGID DUCT TO EXTERIOR, FLASHING AND WALL CAP. LOCATE EXHAUST TERMINATION A MINIMUM OF 10'-0" FROM ANY INTAKES.

- \* OR APPROVED EQUAL
- NOTE: RUN EXHAUST DUCTS HORIZONTALLY AS REQUIRED TO MAINTAIN 10'-0" MINIMUM SEPARATION FROM ANY INTAKES.

AIR DISTRIBUTION SCHEDULE							
MARK	* MANUFACTURER	MODEL NO.	NECK SIZE	FACE SIZE	MATERIAL	SERVICE	NOTES
A	CARNES	SPAB224	SEE FLEXIBLE DUCT SCHEDULE	24" X 24"	STEEL	SUPPLY	LAY-IN CEILING, WHITE 4-WAY BLOW
RA	CARNES	SPRB229	SEE FLEXIBLE DUCT SCHEDULE	24" X 24"	STEEL	RETURN	LAY-IN CEILING, WHITE

- \* OR APPROVED EQUAL
- COORDINATE BORDER TYPE WITH THE CEILING TYPE. SEE ARCH SHEETS PROVIDE CUT SHEETS TO OWNER/ARCH. PRIOR TO ORDERING.

FLEXIBLE DUCTWORK SIZES MAXIMUM CFM'S		
SIZES	SUPPLY	RETURN
4"	100	100
6"	175	175
10"	250	250
12"	400	350
14"	550	500
16"	NA	900

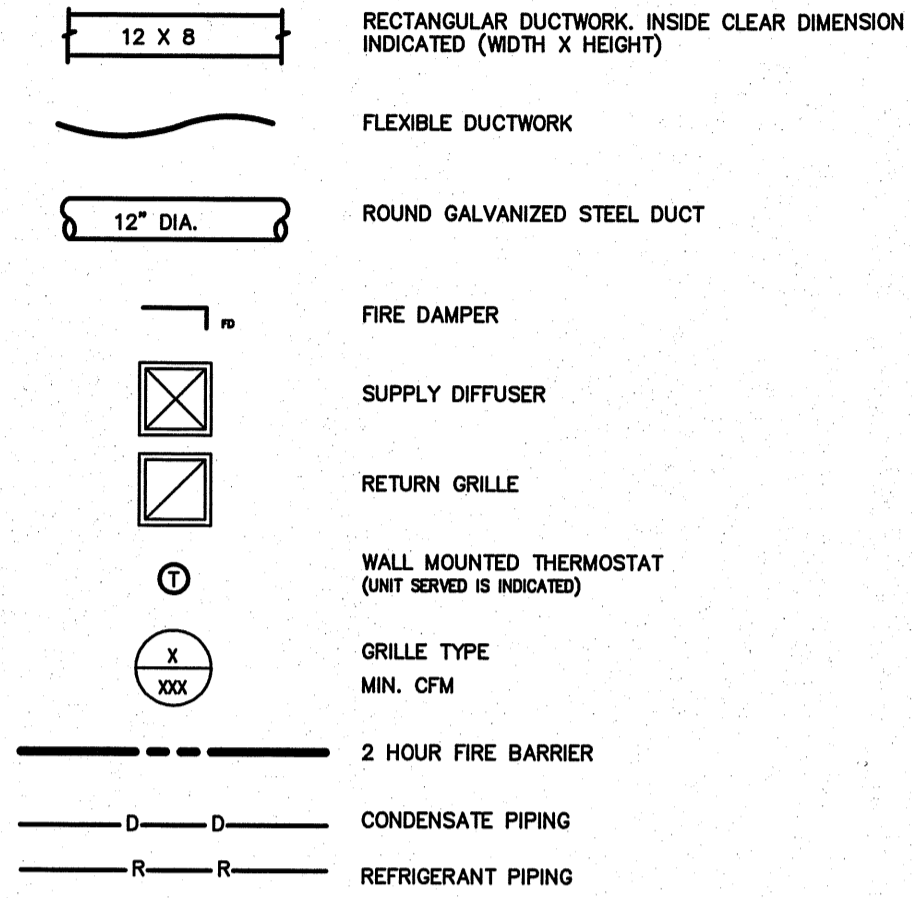
(CHANGE OUT EXISTING FLEX DUCTS AND COLLARS AS REQUIRED TO GET NEW CFM'S SHOWN)

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

### GENERAL NOTES - MECHANICAL

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE STATE CODE AND ALL LOCAL AND OTHER APPLICABLE CODES.
2. ANY PERMITS AND INSPECTION FEES SHALL BE SECURED AND PAID FOR BY THE MECHANICAL CONTRACTOR (MC).
3. ALL WORK SHALL BE PERFORMED BY EXPERIENCED AND SKILLED CRAFTSMEN. THE MC SHALL COORDINATE ALL OF HIS WORK WITH THE GENERAL CONTRACTOR (GC) AND OTHER TRADES.
4. THE LOCATION OF ALL DUCT, PIPING AND EQUIPMENT SHALL BE ADJUSTED TO ACCOMMODATE ANTICIPATED OR ENCOUNTERED INTERFERENCES.
5. THESE PLANS ARE DIAGRAMMATIC AND MAY NOT SHOW MINOR DETAILS AND LOCATIONS. FOR DIMENSIONS REFER TO THE ARCHITECTURAL PLANS.
6. THE MC SHALL BE RESPONSIBLE FOR ALL ELECTRICAL STARTERS INTERLOCKS, CONTROL WIRING CONDUIT AND POWER WIRING FROM DISCONNECTS TO HIS EQUIPMENT, USING A LICENSED ELECTRICIAN.
7. THE MC SHALL USE FIRE DAMPERS FOR PROTECTION OF THE OPENING IN ACCORDANCE WITH STATE AND LOCAL CODES IN ALL LOCATIONS WHERE PENETRATIONS OF RATED WALLS AND FLOORS OCCUR. SEE ARCHITECTURAL PLANS FOR RATED WALL AND FLOOR LOCATIONS. PROVIDE ACCESS DOORS AT ALL DAMPER LOCATIONS. LOCATE DOORS FOR EASY ACCESS.
8. INSTALL FLEXIBLE CONNECTORS ON SUPPLY AND RETURN DUCTWORK AHEAD OF ALL MECHANICAL EQUIPMENT. SHALL OPERATE FREE OF OBSTRUCTIONAL NOISE AND VIBRATION.
9. INSTALL TURNING VANES IN SUPPLY DUCTS AT ALL ELBOWS AND SPLITTER DAMPERS. PROVIDE BALANCING DAMPERS IN ALL DUCTS WHERE SHOWN OR REQUIRED FOR SYSTEM BALANCING.
10. DUCT DIMENSIONS ARE SHOWN INSIDE CLEAR.
11. THE MC SHALL KEEP THE PREMISES CLEAR OF DEBRIS FROM HIS WORK DURING CONSTRUCTION AND LEAVE THE AREA AND BUILDING CLEAN AT THE COMPLETION OF HIS WORK. HE SHALL ALSO LEAVE CLEAN ALL EXPOSED EQUIPMENT IN HIS CONTRACT.
12. PROVIDE ALL REQUIRED ROOF PENETRATIONS FOR THE INSTALLATION OF THE NEW EQUIPMENT. ALL FLASHINGS ARE BY THE MECHANICAL CONTRACTOR. ALL ROOFING WORK SHALL BE DONE BY A LICENSED ROOFING CONTRACTOR SO AS TO MAINTAIN ORIGINAL WARRANTY.
13. THE M.C. SHALL COORDINATE WITH AND PROVIDE EQUIPMENT SPEC. SHEETS TO THE GENERAL AND ELECTRICAL CONTRACTORS FOR REVIEW PRIOR TO ORDERING EQUIPMENT.
14. PROPERLY SUPPORT ALL DUCT WORK, AND EQUIP FROM STRUCTURE. PROVIDE ALL STRUCTURAL SUPPORTS FOR THE LOADS AS REQUIRED AT NO ADDITIONAL COST TO THE OWNER.
15. THE HVAC CONTRACTOR SHALL COORDINATE SUCH ROUTING WITH OTHERS, TO LINE HIS WORK TRUE TO ADJACENT SPACES AND IN A WORKMANLIKE MANNER AND TO USE ONLY SHORT RADIUS 90 DEGREE ELBOWS, WHERE REQUIRED, PIPING TO BE STURDILY SUPPORTED AND SEPERATED IN A MANNER SATISFACTORY TO THE ENGINEER.
16. THE HVAC CONTRACTOR SHALL PAINT ALL EXTERIOR PIPING WITH UV RESISTANT PAINT AS RECOMMENDED BY THE CLOSED CELL INSULATION MANUFACTURER.
17. INSULATE ALL CONDENSATE LINES FOR THEIR ENTIRE LENGTH WITH 1/2" CLOSED CELL INSULATION. INSTALL INSULATION PER THE MANUFACTURERS RECOMMENDATIONS.

### LEGEND - MECHANICAL



### APPENDIX B 2018 BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS

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

#### MECHANICAL SYSTEMS, SERVICE SYSTEM AND EQUIPMENT

Thermal Zone 3A

winter dry bulb 16F  
summer dry bulb 83F

Interior Design Conditions

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

Building Heating Load (Tenant space only) 36,880 BTU/hr

Building Cooling Load (Tenant space only) 59,500 BTU/hr

Mechanical Spacing Conditioning System

Unitary - The tenant space is served the following systems:  
(1) 5 Ton existing package unit  
(1) New Ductless Split System Heat Pump

Boiler - Not applicable to this project.

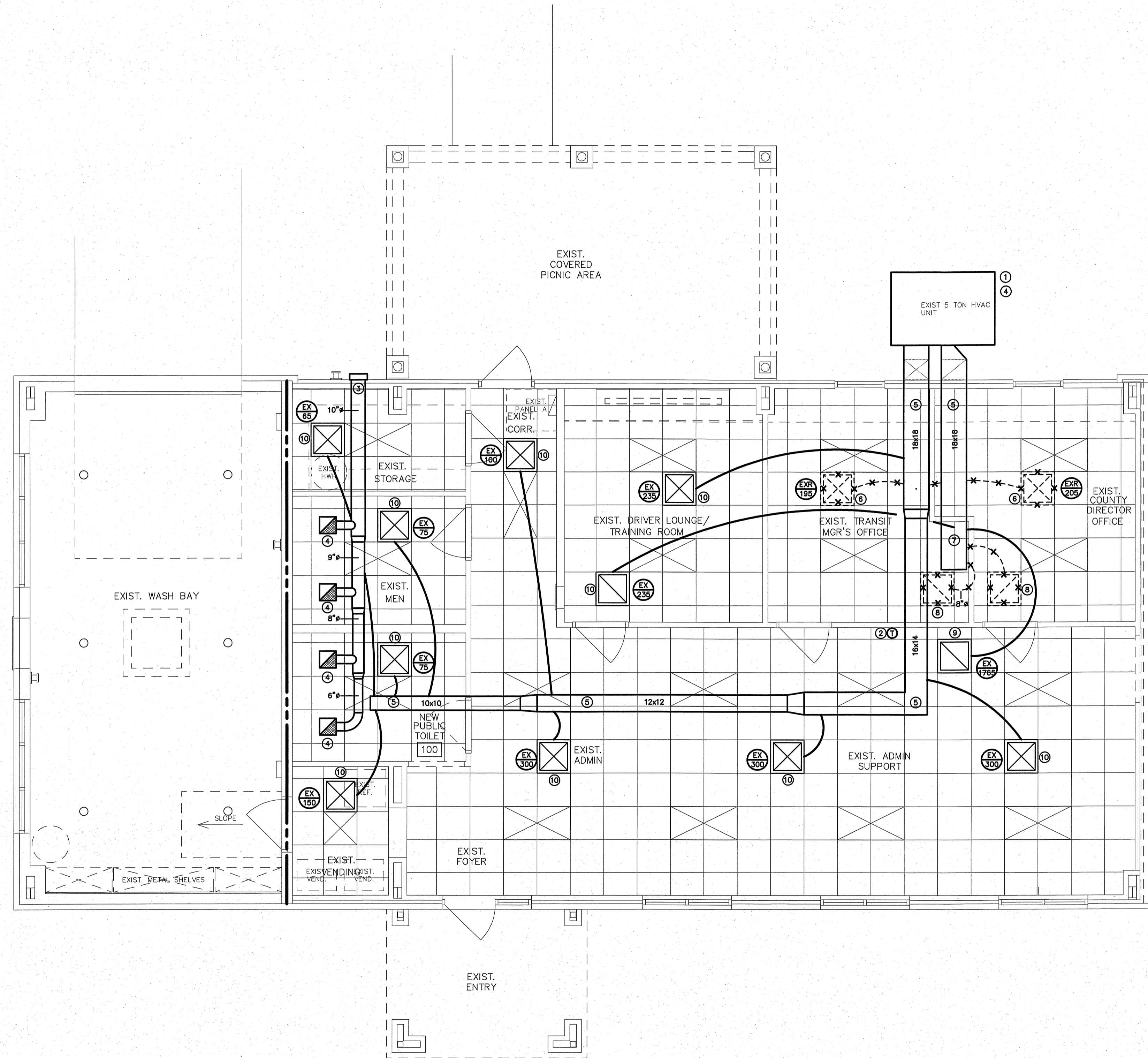
Chiller - Not applicable to this project.

Equipment efficiencies

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

OA SCHEDULE OUTDOOR VENTILATION AIR PROVIDED PER TABLE 403.3 NCSBC MECHANICAL CODE.							
APPLICATION	SQUARE FOOTAGE (SF)	AREA OUTDOOR AIR FLOW RATE (CFM/SF)	PEOPLE OUTDOOR AIR FLOW RATE (CFM/PERSON)	OCCUPANCY DENSITY RATE (# PEOPLE/1000SF)	OCCUPANCY (# PEOPLE)	AREA OUTDOOR AIR FLOW (CFM)	PEOPLE OUTDOOR AIR FLOW (CFM)
RECEPTION	652	0.06	-	-	2	39	-
BREAK ROOM	182	0.06	5	5	-	11	-
STORAGE	188	0.12	-	-	-	23	-
OFFICES	518	0.06	5	5	3	31	15
TOTAL REQUIRED							124
OUTDOOR AIR PROVIDED FROM EACH HVAC UNIT							
HVAC UNIT						OUTDOOR AIR (CFM)	**
RTU-1						400	
TOTAL PROVIDED						400	
APPLICATION CFM							
TOILETS						70 CFM/FLUSHING FIXTURE	
6 FLUSHING FIXTURE X 70 CFM = 280 CFM							
EXHAUST PROVIDED BY TWO EXHAUST FANS, MAKE UP AIR BY TRANSFER AIR							

- \*ACTUAL OCCUPANCY PER BUILDING TENANT AS ALLOWED BY 2018 NCSBC MECHANICAL CODE, SECTION 403.3.1.1, EXCEPTION.
- \*\* SET OUTDOOR AIR DAMPER CONTROLS TO PROVIDE OUTDOOR AIR AS INDICATED IN THIS SCHEDULE.

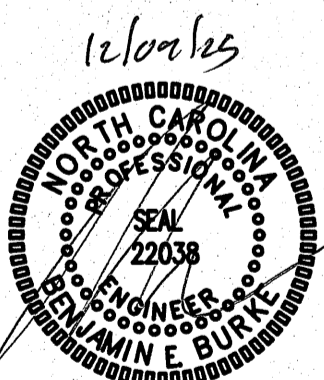


**1** EXISTING HVAC PLAN  
SCALE: 1/4" = 1'-0"

- ALL EXISTING MECHANICAL ITEMS TO REMAIN IN PLACE AND BE RECONNECTED AS SHOWN OR CLOSED OFF AND ABANDONED.
- EXISTING MECHANICAL ITEMS TO BE REMOVED AND DISCARDED, PATCH OPENING IN CEILING, WALL OR FLOOR TO MATCH ADJACENT SURFACE

- ① EXISTING 5 TON AIR HANDLING UNIT OUTSIDE NEAR PICNIC AREA. SUPPLY AND RETURN DUCT ROUTED UP TO PENETRATE INTO BUILDING ATTIC HIGH IN WALL.
- ② EXISTING THERMOSTAT TO REMAIN, REWIRE AS NEEDED.
- ③ FOR EXHAUST FANS, BEGIN WITH A 10" DIAMETER, FOLLOW REDUCTION DIAMETERS PER FAN. SEE DETAIL. RIGID EXHAUST DUCTS TO AN 10" EXHAUST DUCT AND TERMINATE AT A WALL MOUNTED EXHAUST CAP. EXHAUST DISCHARGE SHALL BE 10'-0" MIN. FROM ANY OUTSIDE AIR INTAKE.
- ④ EXISTING EXHAUST FANS TO REMAIN.
- ⑤ EXISTING RECTANGULAR RIGID DUCTWORK TO REMAIN.
- ⑥ REMOVE EXISTING SUPPLY DIFFUSER AND FLEXIBLE DUCT.
- ⑦ PATCH AND INSULATE ANY EXISTING DUCT PENETRATIONS NOT BEING USED FOR NEW LAYOUT.
- ⑧ REMOVE EXISTING RETURN AIR GRILLE AND FLEXIBLE DUCT.
- ⑨ EXISTING RETURN AIR GRILLE TO REMAIN.
- ⑩ EXISTING SUPPLY GRILLE TO REMAIN.

ENGINEER  
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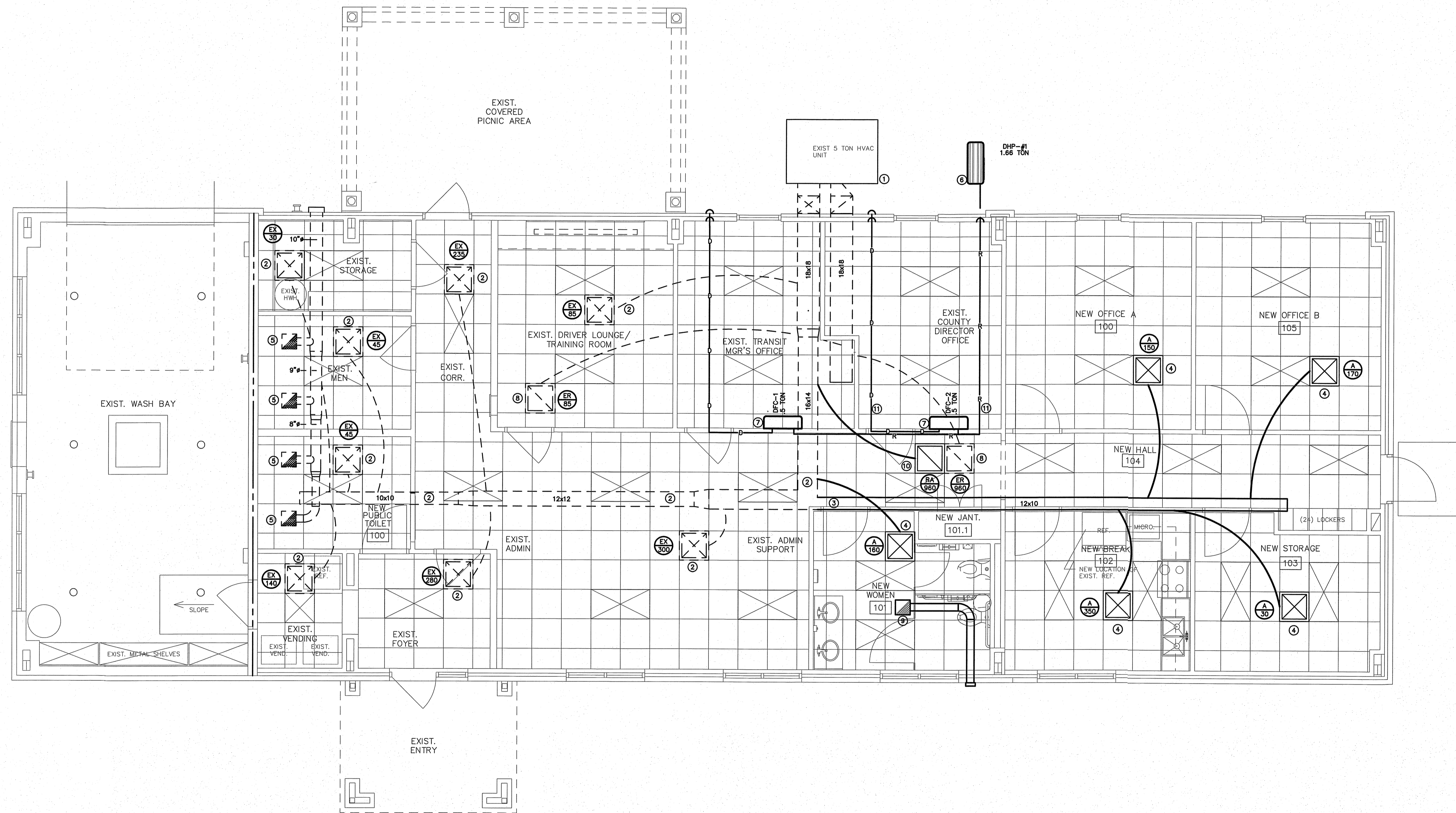


EXISTING  
HVAC PLAN

**25008**

ISSUED: 12/09/2025  
DWG BY: JN  
CKD BY: BEB  
REVISIONS

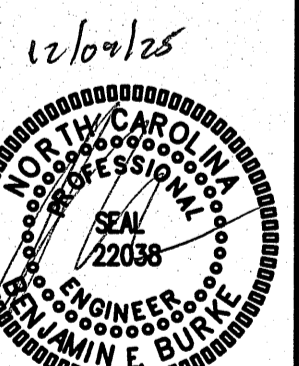
SHEET NO.  
**M-2**



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

**1** ALL NEW MECHANICAL ITEMS TO REMAIN IN PLACE AND BE RECONNECTED AS SHOWN OR CLOSED OFF AND ABANDONED.  
**2** ALL EXISTING MECHANICAL ITEMS TO REMAIN SEE SHEET M3 FOR ADDITIONAL INFORMATION.

- 1 EXISTING 5 TON EXTERIOR SINGLE PACKAGE UNIT TO REMAIN.
- 2 EXISTING RECTANGULAR RIGID DUCTWORK TO REMAIN.
- 3 NEW RECTANGULAR RIGID SUPPLY DUCTWORK CONCEALED ABOVE CEILING.
- 4 NEW SUPPLY AIR DIFFUSER. CONNECT NEW FLEXIBLE DUCT TO EXISTING RIGID SUPPLY AIR DUCT.
- 5 EXISTING TOILET EXHAUST FAN AND DUCTWORK TO REMAIN.
- 6 NEW DUCTLESS SPLIT SYSTEM HEAT PUMP MOUNTED ON CONCRETE PAD.
- 7 NEW WALL MOUNTED FAN COIL UNIT. MOUNT PER MANUFACTURERS INSTRUCTIONS.
- 8 EXISTING RETURN AIR GRILLE TO BE REMOVED.
- 9 NEW TOILET EXHAUST FAN AND DUCTWORK. 6" EXHAUST TO 8" WALL CAP
- 10 NEW RETURN AIR GRILLE.
- 11 RUN REFRIGERANT PIPING UP THROUGH CEILING TO HEAT PUMP UNIT. PROTECT WITH METAL LINESSET COVERS WHERE EXPOSED TO DAMAGE FROM EQUIPMENT AND/OR FURNITURE. FIRE SEAL REFRIGERANT PIPING PENETRATIONS.



PROPOSED HVAC  
PLAN

**25008**

ISSUED: 12/09/2025  
DWG BY: JN  
CKD BY: BEB  
REVISIONS

SHEET NO.  
**M-3**

**DIVISION 15 B - HEATING, VENTILATING AND AIR CONDITIONING**

**1.1 DESCRIPTION OF THE WORK**

- A. Work under this section includes, but is not necessarily limited to, furnishing and installing the following:
  1. Heating, ventilation, and air conditioning equipment.
  2. Ductwork.
  3. Grilles and diffusers.
  4. Controls and control wiring.
  5. Condensate piping.
- B. All work under this contract shall be installed in compliance with the latest edition of the following codes and standards insofar as they apply:
  1. ASHRAE Guide
  2. National Electric Code.
  3. 2018 NC State Building Code: Mech. Code.
  4. The Electrical Specifications for this project.
  5. SMACNA HVAC Duct Construction Standards.
  6. All local codes and ordinances.
  7. ARI ratings.
  8. 2018 NC State Building Code: Energy Conservation Code.
- C. These codes are minimum standards. If codes require a more stringent method of construction than the specifications require, the codes shall govern.
- D. The HVAC Contractor shall be licensed in North Carolina and have all local licenses required for the work.

**1.2 INTENT**

- A. The intent of these specifications and the accompanying drawing is to convey as reasonably as possible the requirements for a complete job ready for the building to operate. The HVAC Contractor shall take this into consideration and include in his bid allowance for contingencies as will allow him to provide minor pieces of equipment and labor not specifically indicated but required for the job to operate properly, at no additional cost to the Owner.

**1.3 COORDINATION**

- A. Coordinate work with other contractors. Notify Owner of apparent conflicts early to expedite construction. If structural damage appears imminent, stop work and notify Owner for a decision before resuming operations.
- B. Locations shown are approximate. The HVAC Contractor shall verify with owner, the placement of equipment, fixtures, outlets, etc. The drawings do not give exact details as to elevations and locations of various pipes, fittings, ducts, conduit, etc., and do not show all offsets and other installation details which may be required.
- C. Changes in duct or piping design caused by obstructions shall be submitted to Engineer in sketch form for study and comment prior to execution. Additional cost will not be allowed for this type of work.

**1.4 SHOP DRAWINGS**

- A. Shop drawings shall be submitted for all major items of equipment. These may consist of the manufacturer's standard catalog or tear sheets and shall have the exact items being offered clearly identified. Shop drawings shall include but are not limited to the following:
  1. All equipment and accessories.
  2. Grilles and diffusers.
  3. Unit sizes and requirements.

**PART 2 - PRODUCTS**

**2.1 EQUIPMENT**

- A. All air handling devices must have the manufacturer's recommended filter rack, for 1" thick filters.

**2.2 PIPING**

- A. Condensate drain piping shall be PVC pipe. Provide tee and plug at changes in direction. Route pipe to proper termination point. All condensate piping shall be insulated with flexible elastomeric insulation. Provide copper piping in plenum areas.

**2.3 DUCTWORK**

- A. Ductwork shall be built in accordance with SMACNA HVAC Duct construction standards. Furnish and install all supply, return, and ventilation ductwork shown, together with splitters, deflectors, dampers, etc. This work shall be constructed of new galvanized prime grade steel sheets. The gauges of metal to be used and the construction and bracing of joints shall be in accordance with the SMACNA recommendations.
- B. Seal all sheet metal joints with fiber impregnated mastic.
- C. Support from building structure on strap hangers not over 8 feet apart.
- D. Use manufactured turning vanes in each elbow where required or where indicated on drawings.
- E. Flexible connectors shall be 3 inches wide, of fireproof material and used to isolate noise between equipment and ductwork on supply and return side of all units.
- F. Round runouts, where used, shall be built in accordance with the above standards, and each runout shall also have manufactured side take off, adjustable quadrant damper at all accessible locations and shall be of Owens Corning INL-25 flexible duct with UL label. Flex duct lengths allowed up to 14 feet. Duct must be supported with sufficient hangers in order to prevent sags. Serpentine routing will not be permitted. Quadrant damper to be 22 gauge easily adjustable manually with exterior handle (similar to h&c Kwik-set) and is not to be mounted in side take-off.
- G. Kitchen exhaust hood exhaust air ductwork shall be shall have all welded seams. Ducts shall meet all requirements of NCSCB, Mechanical Code, Section 506. Minimum thickness of steel ducts shall be 16 gauge steel and 18 gauge for stainless steel.

**2.4 DUCT INSULATION (LOW PRESSURE)**

- A. All insulation, linings, coverings and adhesives shall have a flame spread classification of 25 or less and a smoke developed rating of not more than 50, exposed exterior piping.
- B. All duct insulation shall comply with Section 604, of the N. C. Building Code: Mechanical Code
- C. All supply and return ductwork shall be completely insulated, either internally or externally.
- D. Rectangular ductwork shall be lined with two-inch thick, 1.5 lb. per cubic foot density, duct liner, Armstrong, CSG Ultraliner, Johns Manville or approved equal.
- E. As an alternative to duct liner rectangular duct may be wrapped with Class 1 - 2, 3/4 lb. density (R-4.5) thick reinforced foil backed fiberglass insulation, Owens-corning Series ED or equal. Tape shall be Kraft reinforced foil tape or equal.
- F. Exhaust air duct does not require insulation, unless otherwise noted on the plans.
- G. Insulation shall be held in place with adhesive and welding pins 16" on center.
- H. Duct dimensions shown on the drawings are Net Inside Dimensions

**2.5 THERMOSTATS**

- A. Provide programmable electronic thermostats.
- B. Submit proposed thermostats for approval.

**2.6 ROOF PENETRATIONS**

- A. Provide pre-manufactured roof flashings compatible with equipment served.
- B. Coordinate roof work with roof system used. Provide proper flashing as required.
- C. Provide 1 year warranty on all roof work performed.

**2.7 DUCT SMOKE DETECTORS**

- A. Duct detectors are not required since units air flows are 2000 cfm or less per NCSCB: Mechanical Code, Section 606.2.

**PART 3 - EXECUTION**

**3.1 PIPING**

- A. The HVAC Contractor shall coordinate such routing with others, to line his work true to adjacent spaces and in a workmanlike manner and to use only short radius 90 degree elbows. Where required, piping to be sturdy supported and separated in a manner satisfactory to the Engineer.
- B. The HVAC Contractor shall paint all exterior refrigerant piping with UV resistant paint as recommended by the closed cell insulation manufacturer.
- C. Insulate all condensate lines for their entire length with 1/2" closed cell insulation. Install insulation per the manufacturer's recommendations.

**3.2 ELECTRICAL WORK**

- A. The electrical contractor shall provide all switches, starters, wire conduit for the air conditioning, heating and ventilation equipment. Control wiring shall be by the heating and air conditioning contractor.
- B. HVAC Contractor is responsible for verifying that power terminals have been properly grounded prior to operating equipment and must find connections to all equipment including control wiring.
- C. All materials and workmanship shall be in accordance with the electrical specifications for the project. All wiring shall be color coded, and as-built wiring diagram prepared showing all connections and colors of wiring and delivered to the Owner.
- D. Furnish certification for acceptance of control wiring from local electrical inspector prior to acceptance.

**3.3 CLEAN UP**

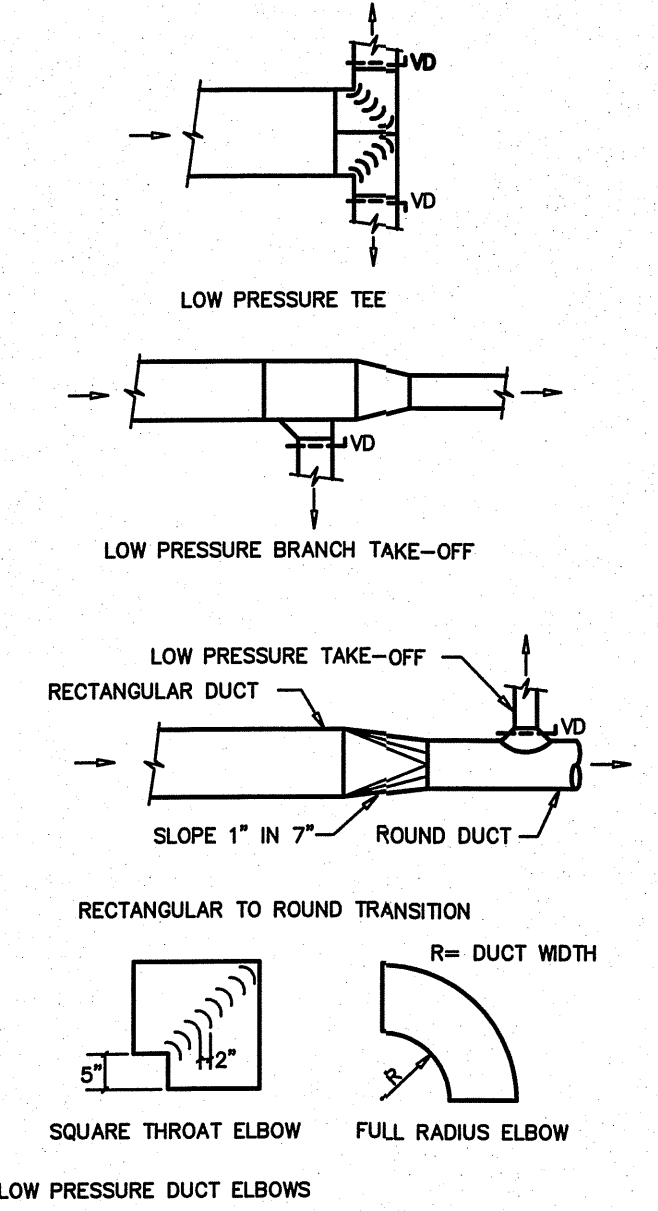
- A. During construction, keep the site clean of debris. Upon completion, and before final inspection, clean up the premises to remove all evidence of work. In addition upon completion of construction leave equipment clean.
- B. Furnish one box of clean filters, for each size required, at the time of final inspection to the owner.

**3.4 OPERATOR'S MANUAL AND DIAGRAM**

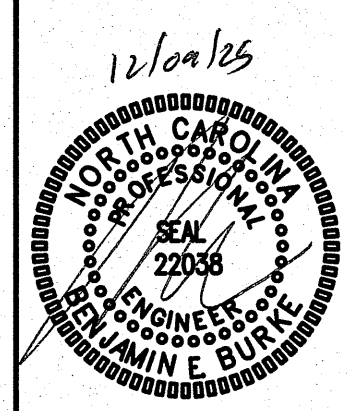
- A. The HVAC Contractor shall prepare in one copy a manual describing the proper maintenance and operation of the systems. This manual shall not consist of standard factory instructions (although these may be included) but shall be prepared to describe this particular job.
- B. The manual shall be bound, indexed, dated and signed by the HVAC Contractor.
- C. Qualified representative of the HVAC contractor shall meet with the designated representatives of the Owner and the Owner's representative shall be instructed in the proper operation and maintenance of the control system and other systems.

**3.5 GUARANTEE**

- A. Guarantee all materials and labor included in the HVAC work for a period of one year from date of final acceptance by the owner. In addition, motor compressors shall be a nonprorated five year warranty. Any part or parts of the work or equipment which prove to be defective during the guarantee period shall be replaced at no additional cost to the owner or tenant.
- B. All air flows must be measured and balanced to within 10% of design airflow. All equipment used must have a current certification. Provide two copies of the balance report to the owner at closeout. The HVAC contractor shall return and re-balance to occupant comfort after 90 days from close-out. Provide all balance dampers needed for satisfactory operation regardless if shown on the drawings or not, and shift location of thermostats thermostats if required for occupancy comfort.



**1 DUCT CONSTRUCTION DETAIL**  
SCALE: NOT TO SCALE

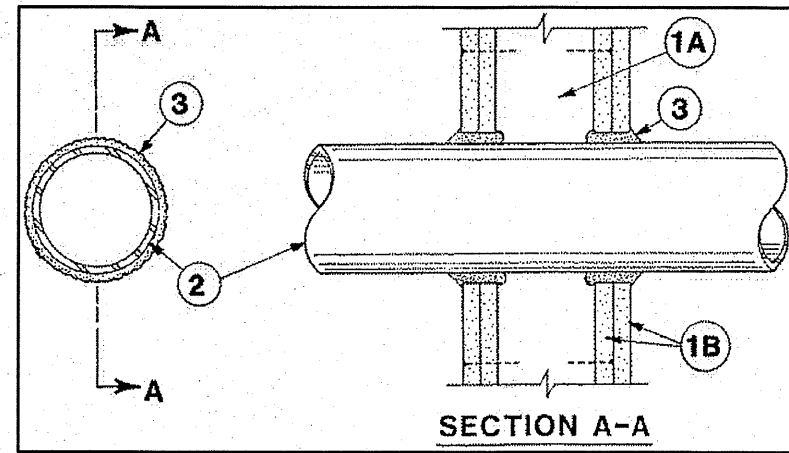


F Ratings --- 1, 2, 3 and 4 Hr (See Items 2 and 3)

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

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

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



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

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

B. **Gypsum Boards** --- Nom 1/2 or 5/8 in. thick, 4 ft. wide with square or tapered edges. The gypsum wallboard type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 28 in.

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

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

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

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

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

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

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

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

**OMEGA FLEX INC**

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

**GASTITE, DIV OF TITFLEX**

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

**WARD MFG LLC**

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

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

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

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

\*Bearing the UL Classification Mark

**DIVISION 16 - ELECTRICAL**

**PART 1 - GENERAL**

**1.1 DESCRIPTION OF THE WORK**

- A. Work under this section includes, but is not necessarily limited to, furnishing and installing the following:
  1. Electrical service and service equipment.
  2. Lighting and power distribution system.
  3. Provide lighting fixtures selected by owner with lamps to match.
  4. Wiring devices, boxes, cover plates, etc.
  5. Source of power for all items of equipment.
  6. Grounding.
  7. Other requirements and/or systems where shown.
- B. All work shall be complete and items, equipment, etc., shall be electrically connected for proper and correct operation.

- C. All work under this contract shall be installed in accordance with the latest edition of the following codes and standards insofar as they apply:
  1. The 2020 National Electrical Code.
  2. The National Electrical Safety Code.
  3. Underwriter's Laboratories, Inc., Standards and approved listings.
  4. Electrical Testing Laboratories standards.
  5. North Carolina Building Code, Latest Edition and Revisions.
  6. All local codes and ordinances.
- D. The Electrical Contractor shall be licensed in the State of North Carolina and have all local licenses required for the work.
- E. Obtain all permits, licenses, inspections, etc., required for the work and pay for the same. Furnish final certificate of inspection and approval from the electrical inspector having jurisdiction prior to acceptance of the work.
- F. All work shall be done by skilled mechanics and shall present a neat, trim, workmanlike condition when complete.

**1.2 INTENT**

- A. The intent of these specifications and the accompanying drawings is to convey as reasonably as possible the requirements for a complete job ready for the building to operate. The Electrical Contractor shall take this into consideration and include in his base bid allowance for contingencies as will allow him to provide minor pieces of equipment and labor not specifically indicated but required for the job to operate properly, at no additional cost to the Owner.

**1.3 COORDINATION**

- A. Coordinate work with other contractors. Notify Architect of apparent conflicts early to expedite construction. If structural damage appears imminent, stop work and notify Architect for a decision before resuming operations.
- B. Locations shown are approximate. The drawings do not give exact details as to elevations and locations of various pipes, fittings, ducts, conduit, etc., and do not show all offsets and other installation details which may be required. Coordinate all locations with architect before any rough-in.

**1.4 SHOP DRAWINGS**

- A. Shop drawings shall be submitted for panels and service equipment, lighting, wiring devices, and cover plates. These may consist of the manufacturer's standard catalog or tear sheets and shall have the exact items being offered clearly identified.

**PART 2 - PRODUCTS AND MATERIALS**

**2.1 GENERAL**

- A. All material shall be new and shall bear the manufacturer's name, trade name, and UL label where such standard has been established for the particular material. Materials shall be the standard products of manufacturer's regularly engaged in the manufacture of the required type of equipment and the manufacturer's latest approved design.

- 1. Boxes installed in concealed locations shall be set flush with the finished surfaces.
- 2. Provide rated boxes in all fire barriers & walls installed per code.

**2.2 NOT USED**

**2.3 CONDUCTORS**

- A. Conductors shall be color coded, sizes #8 and larger may be color taped on the job. Color coding shall be Standard Practice.
- B. Conductors shall be manufactured by Dodge, Southwire or approved equal. Conductors shall meet the latest requirements of NEMA and IPCEA and shall be UL approved.
- C. Metallic sheathed "MC" cable may be used where allowed by N.E.C.
- D. Conductors shall be spliced and taped as follows:
  1. Size #10 and #12, use Ideal "Wing Nuts" or TAB "Piggy" connectors. Connectors shall be rated for 150 degrees C for use in recessed lighting fixtures.
  2. Size #8 and larger shall be solderless screw and screw-clamping type, smoothly covered and sheathed with rubber gum type with final cover vinyl plastic electrical type. In lieu of rubber gum and vinyl plastic type, factory fabricated approved preformed insulating covers may be used. All connectors shall be UL approved.
  3. No split-bolt type connectors may be used.
- E. All branch wire and connections shall be copper and sized per National Electric Code.
- F. All conductors shall be continuous without splice between junction, outlet, device boxes, etc. No splicing will be permitted in panelboard cabinets, safety switches, etc.
- G. All wiring in mechanical spaces shall be plenum rated.
- H. Provide GFI protection within 6'-0" of any sink.
- I. All multi-wire branch circuits shall comply with 2020 NEC, 210.4(B).
- J. All wiring at medical facilities shall comply with 2020 NEC, 517.1.

**2.4 PANELBOARDS, SAFETY SWITCHES**

- A. Panelboards shall comply with NEMA Standard PB 1 - Latest Edition and as manufactured by Square D or ITE-Siemens.
- B. The contractor shall be responsible for correctly phasing the circuits in the panelboards.
- C. Safety switches shall be general duty type, size and rating as required for load service. Safety switches shall be fused or unfused as shown and/or as required. Safety switches serving motor loads shall be horsepower rated for load served.

**2.5 NOT USED**

**2.6 WIRING DEVICES**

- A. Wiring devices shall be commercial grade by Bryant, Leviton, or approved equal. With matching cover. Color by Architect.
- B. Wiring devices installed under a Kitchen Hood shall have stainless steel covers.
- C. Wiring devices installed over counters shall comply with ANSI A117.1.

**2.7 NOT USED**

**2.8 CONDUIT**

- A. PVC conduit will be allowed where N.E.C. approved.
- B. All service conduit shall be rigid where exposed below 6'-0" AFF or exposed to the elements or hazardous conditions.

**PART 3 - EXECUTION**

**3.1 CIRCUIT GROUNDING**

- A. All circuits shall contain an insulated, green, copper grounding conductor, sized in accordance with Table 250-95 of the NEC. Grounding conductors shall be connected to equipment grounding bus in panelboard and securely attached and grounded to the device or enclosure at the other end.

**3.2 GROUNDING TYPE CONVENIENCE OUTLETS AND SWITCHES**

- A. Outlets and switches shall be solidly grounded to equipment grounding system with a green colored insulated conductor. Electrical connections shall be continuous from equipment ground bus in panelboard to the hex nut on the convenience outlet or switch.

**3.3 MOTORS**

- A. All motors shall be connected to conduit system with short length (minimum length 24" and maximum length 36") of flexible liquidtight conduit.

**3.4 NOT USED**

**3.5 EQUIPMENT LABELING**

- A. Provide permanent name plates for all panelboards, safety switches, wiring troughs, etc., for identification of equipment controlled, services, etc. Nameplates shall be securely and permanently attached to equipment with stainless steel screws. Nameplates shall include the name of the equipment and where it is fed from.
- B. All switch plates, receptacle plates and outlet covers shall be labeled with machine printed vinyl labels identifying the circuit(s) within.
- C. All empty conduit runs shall be identified and indicated where they terminate.

**3.6 NOT USED**

**3.7 NOT USED**

**3.8 JUNCTION AND/OR PULL BOXES**

- A. Boxes shall be installed where necessary to avoid excessive runs and/or too many bends between outlets.

**3.9 PULL WIRE**

- A. Leave pull wire in each empty conduit run.

**3.10 NOT USED**

**3.11 GROUNDING**

- A. All grounding shall be in accordance with Article 250 of the NEC. In addition, the following requirements shall be met:
  1. Grounding conductors shall be installed so as to permit the shortest and most direct path from equipment to ground. All connections to grounding conductors shall be accessible.
  2. Equipment ground continuity shall be maintained through flexible metal conduit.
  3. All wiring devices equipped with grounding connection shall be solidly grounded to ground system with grounding conductors.
  4. The frame of all lighting fixtures shall be securely grounded to the equipment ground system with grounding conductors.
  5. All equipment enclosures, and non-current-carrying metallic parts of electrical equipment, raceway systems, etc., shall be effectively and adequately bonded to ground.
  6. All equipment enclosures, and non-current-carrying metallic parts of electrical equipment, raceway systems, etc., shall be effectively and adequately bonded to ground.

**3.12 ELECTRICAL WORK IN CONNECTION WITH OTHER WORK**

- A. **PLUMBING WORK:** The Electrical Contractor shall furnish and install switches and devices as shown and electrically connect electric water heaters, etc. All other electrical work required will be performed by the PLUMBING CONTRACTOR.

- B. **HEATING AND AIR CONDITIONING WORK:** The Electrical Contractor shall provide all disconnect switches, starters, and associated hardware for the equipment furnished including all line and load side wiring and conduit. Final connections to the equipment will be by the HVAC contractor. All control wiring will be accomplished by the HVAC contractor. Coordinate all work associated with the HVAC contractor.

**3.13 CLEAN UP**

- A. During construction, keep the site clean of debris. Upon completion, and before final inspection, clean up the premises to remove all evidence of work. In addition upon completion of construction leave equipment clean.

**3.14 GUARANTEE**

- A. Guarantee all materials and labor included in the electrical work for a period of one year from date of final acceptance by the Owner. Any part or parts of the work or equipment which prove to be defective during the guarantee period shall be replaced at no additional cost to the Owner.

**GENERAL NOTES**

- 1. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ALL LOCAL CODES HAVING JURISDICTION.
- 2. ALL BRANCH CIRCUIT CONDUCTORS TO BE COPPER (SERVICE CONDUCTORS MAY BE ALUMINUM WITH SAME AMPACITY AS COPPER CONDUCTORS. RE-SIZE CONDUCTORS AND CONDUIT PER NEC.)
- 3. ALL CIRCUITS TO BE 2 #12, 1 #12 GND IN 1 1/2" EMT CONDUIT AS A MINIMUM. PROVIDE WIRING FOR LARGER CIRCUITS AS REQUIRED BY NEC. RIGID CONDUIT IS REQUIRED WHERE EXPOSED BELOW 6'-0" A.F.F.
- 4. ALL EMPTY CONDUIT RUNS IN EXCESS OF 10 FEET SHALL BE PROVIDED WITH A PULL WIRE OR FISH TAPE/CORD.
- 5. CONTRACTOR SHALL VERIFY THAT ALL DOOR SWINGS ARE CORRECT BEFORE INSTALLING LIGHT SWITCH OUTLETS.
- 6. ALL BRANCH CIRCUIT CONDUCTORS FROM THE PANEL TO THE FIRST OUTLET SHALL BE INCREASED TO THE NEXT LARGER SIZE WHERE THE LENGTH OF THE HOME RUN EXCEEDS 120 FEET ON 120V AND 208V CIRCUITS.
- 7. THE CORRECT NUMBER OF WIRES MAY NOT BE INDICATED FOR ALL CIRCUITS. ONLY THOSE WHERE CLARIFICATION IS NECESSARY. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL WIRES NECESSARY FOR THE PROPER FUNCTION OF THE SYSTEM WHETHER INDICATED ON DRAWINGS OR NOT.
- 8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTLY PHASING THE CIRCUITS IN THE PANELBOARDS.
- 9. THE ELECTRICAL CONTRACTOR SHALL VERIFY THE TYPE OF CEILING SYSTEM WITH THE GENERAL CONTRACTOR TO INSURE THAT ALL LIGHTING FIXTURES ARE COMPATIBLE WITH THE CEILING SYSTEM BEING INSTALLED. LIGHTING FIXTURES SHOULD NOT BE ORDERED UNTIL TYPE OF CEILING HAS BEEN VERIFIED.
- 10. ELECTRICAL REQUIREMENTS INDICATED ON DRAWINGS MAY DIFFER FROM ACTUAL EQUIPMENT FURNISHED. IF FURNISHED EQUIPMENT DIFFERS FROM RATINGS ON DRAWINGS CONTRACTOR SHALL NOTIFY ARCHITECT/ENGINEER FOR APPROPRIATE ACTION TO BE TAKEN.
- 11. IT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO COORDINATE EXACT BREAKER REQUIREMENTS FOR ALL EQUIPMENT PRIOR TO ORDERING PANEL. ADJUST BREAKER AND WIRE SIZES AS REQUIRED.
- 12. PROVIDE BOXES, JACKS, WIRING AND CONDUIT FROM LOCATIONS SHOWN TO MTP LOCATION. VERIFY EXACT REQUIREMENTS WITH OWNER.
- 13. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL DISCONNECTS FOR MECHANICAL & PLUMBING EQUIPMENT. DISCONNECTS SHALL BE PER MANUFACTURER'S RECOMMENDATIONS AND FUSED PER NAME PLATE. PROVIDE NEMA 3R ENCLOSURES ON EXTERIOR. COORDINATE FUSE SIZES.
- 14. THE EC SHALL MEET WITH THE ARCHITECT AND TENANT PRIOR TO INSTALLING OUTLET BOXES TO VERIFY LOCATIONS AND MOUNTING HEIGHTS OF RECEPTACLES AND TELEPHONE OUTLETS.

**APPENDIX B**

**2018 BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS**

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

**ELECTRICAL SYSTEM AND EQUIPMENT**

**Method of Compliance**

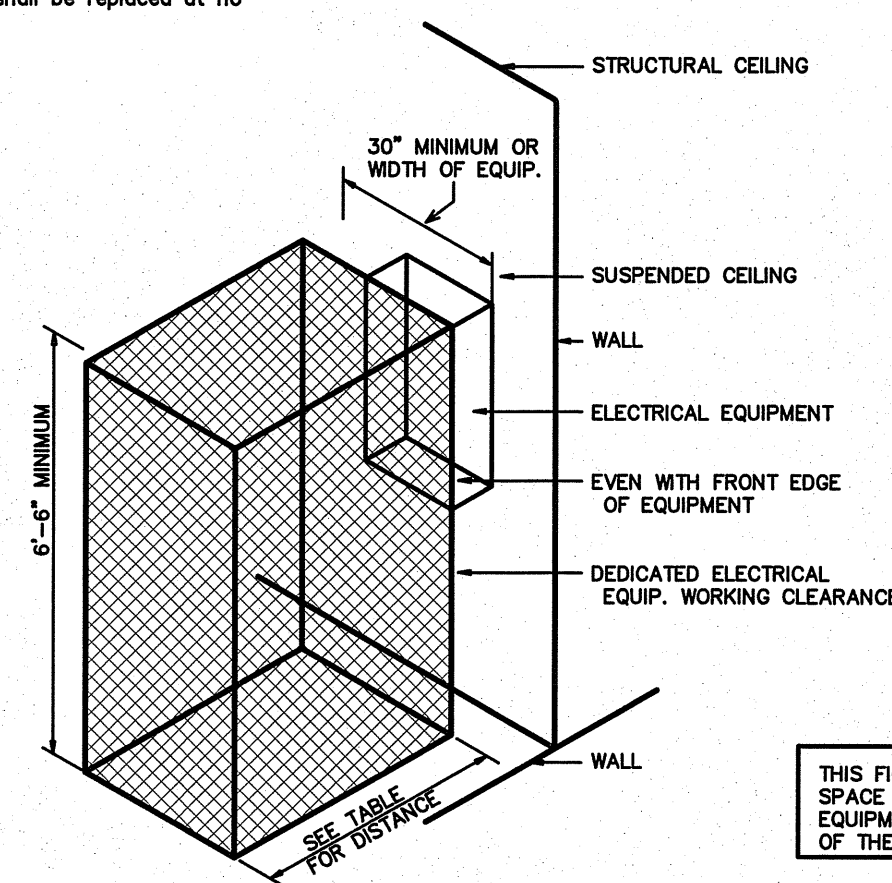
- Energy Code: Prescriptive  Energy Cost Budget
- ASHRAE 90.1: Prescriptive  Energy Cost Budget

**Lighting Schedule**

lamp type required in fixture number of lamps in fixture ballast type used in fixture number of ballasts in fixture total wattage in fixture total interior wattage specified vs. allowed total exterior wattage specified vs. allowed 400VA / 640VA 17VA / 600VA

**Additional Prescriptive Compliance**

- 508.2.1 More Efficient Mechanical Equipment
- 508.2.2 Reduced Lighting Power Density
- 508.2.3 Energy Recovery Ventilator Systems
- 508.2.4 Higher Efficiency Service Water Heater
- 508.2.5 On-Site Supply of Renewable Energy
- 508.2.6 automatic Daylighting Control System



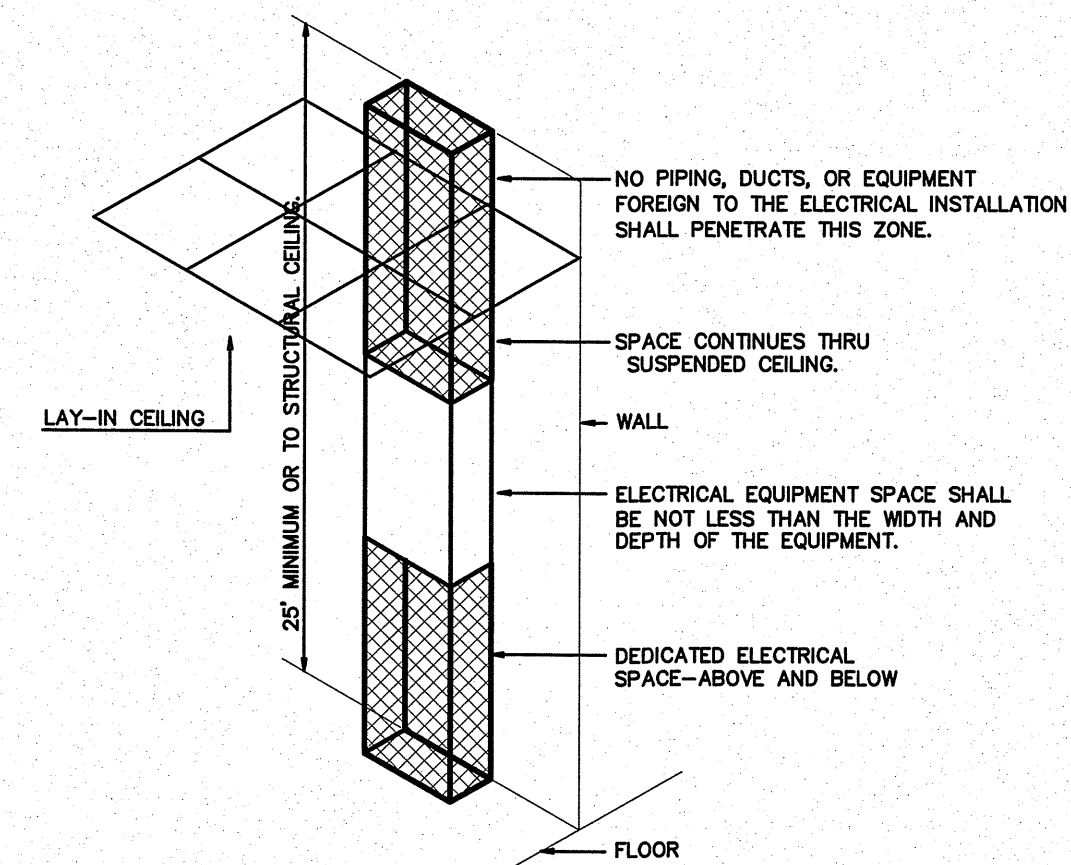
**ELECTRICAL EQUIPMENT WORKING CLEARANCE PER ARTICLE 110-26 OF N.E.C.**

VOLTAGE TO GROUND NOMINAL	WORKING CLEARANCES		
	CONDITION: 1	2	3
0-150	3	3	3
151-600	3	3-1/2	4

**1 ELECTRICAL CLEARANCES**  
SCALE: NTS

**ELECTRICAL LEGEND**

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

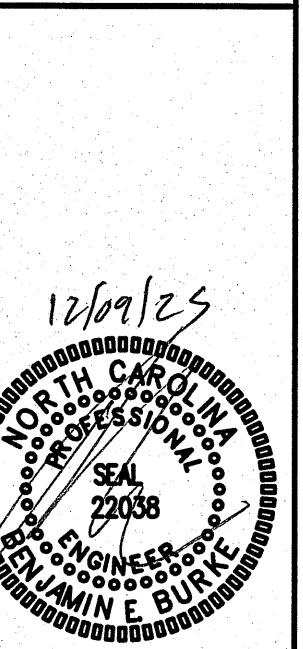


**ELECTRICAL EQUIPMENT DEDICATED SPACE PER ARTICLE 110.26.F.1 OF N.E.C.**

**2 DEDICATED SPACE**  
SCALE: NTS

**WHERE THE CONDITIONS ARE AS FOLLOWS:**

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



**ELECTRICAL NOTES**

**25008**

ISSUED: 12/09/2025

DWG BY: LS

CKD BY: BEB

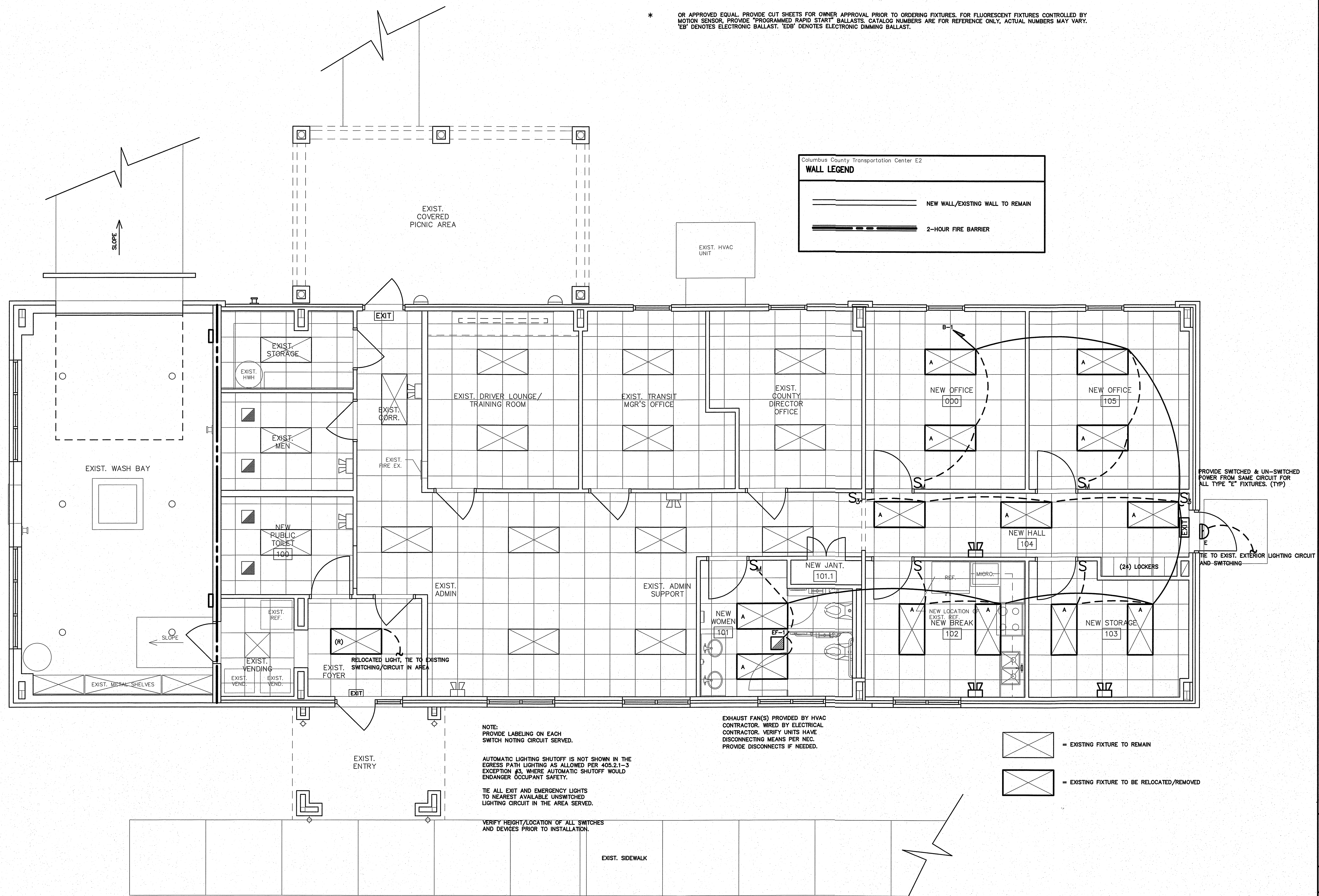
REVISIONS

SHEET NO.

**E-1**

Columbus County Transportation Center E2								
LIGHTING SCHEDULE *								
MARK	MANUFACTURER	CATALOG NO.	VOLT.	LAMPS	BALLAST	W/	REMARKS	
			NO.	TYPE	TYPE	FIXTURE		
A	COLUMBIA	CFP24-3440	120	LED	-	40	2X4 LAY-IN LED FIXTURE *	
E	COMPASS	CUSO	120	LED	-	17	EXTERIOR NORMAL/EMERGENCY LIGHT FIXTURE- COLOR BY ARCH *	
(R)	RELOCATED FIXTURE						17	RELOCATED 2X4 LED FIXTURE *
(EXIT)	COMPASS	CER	120	LED	-	2	LED EXIT SIGN, COLOR BY ARCH *	
(EIT)	COMPASS	CU2	120	LED	-	10	EMERGENCY LIGHT, BATTERY BACKUP, BATTERY DIAGNOSTICS, COLOR BY ARCH *	

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



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

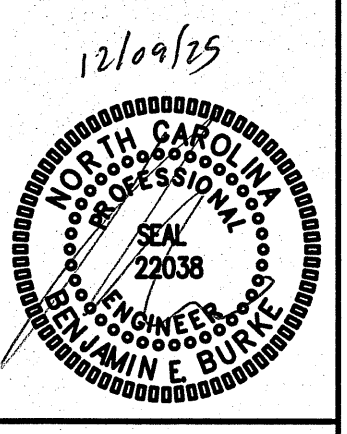
ENGINEER  
**BURKE DESIGN GROUP**  
3305-109 DURHAM DRIVE  
RALEIGH, NC 27603  
PHONE: (919) 771-1916  
FAX: (919) 779-0826  
email: ben@bdg-nc.com  
Corp. License # C-2652

**Coastal Architecture PLLC**  
Architectural Design  
Planning  
Interiors

**ATA**  
Member of the American Institute of Architects

Lee D. Dixon, Jr., AIA  
lee@coastalarch.com  
4206 Bridges St. Ext., Suite C  
Morehead City, NC 28557  
www.CoastalArchitecture.net

ADDITION TO COLUMBUS COUNTY TRANSPORTATION CENTER  
WHITEVILLE, NORTH CAROLINA

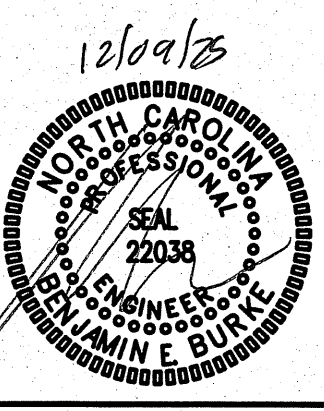


LIGHTING PLAN

25008

ISSUED: 12/09/2025  
DWG BY:  
CKD BY: BEB  
REVISIONS

SHEET NO.  
E-2



POWER  
PLAN

**25008**

ISSUED: 12/09/2025  
DWG BY: LS  
CKD BY: BEB

REVISIONS

SHEET NO.

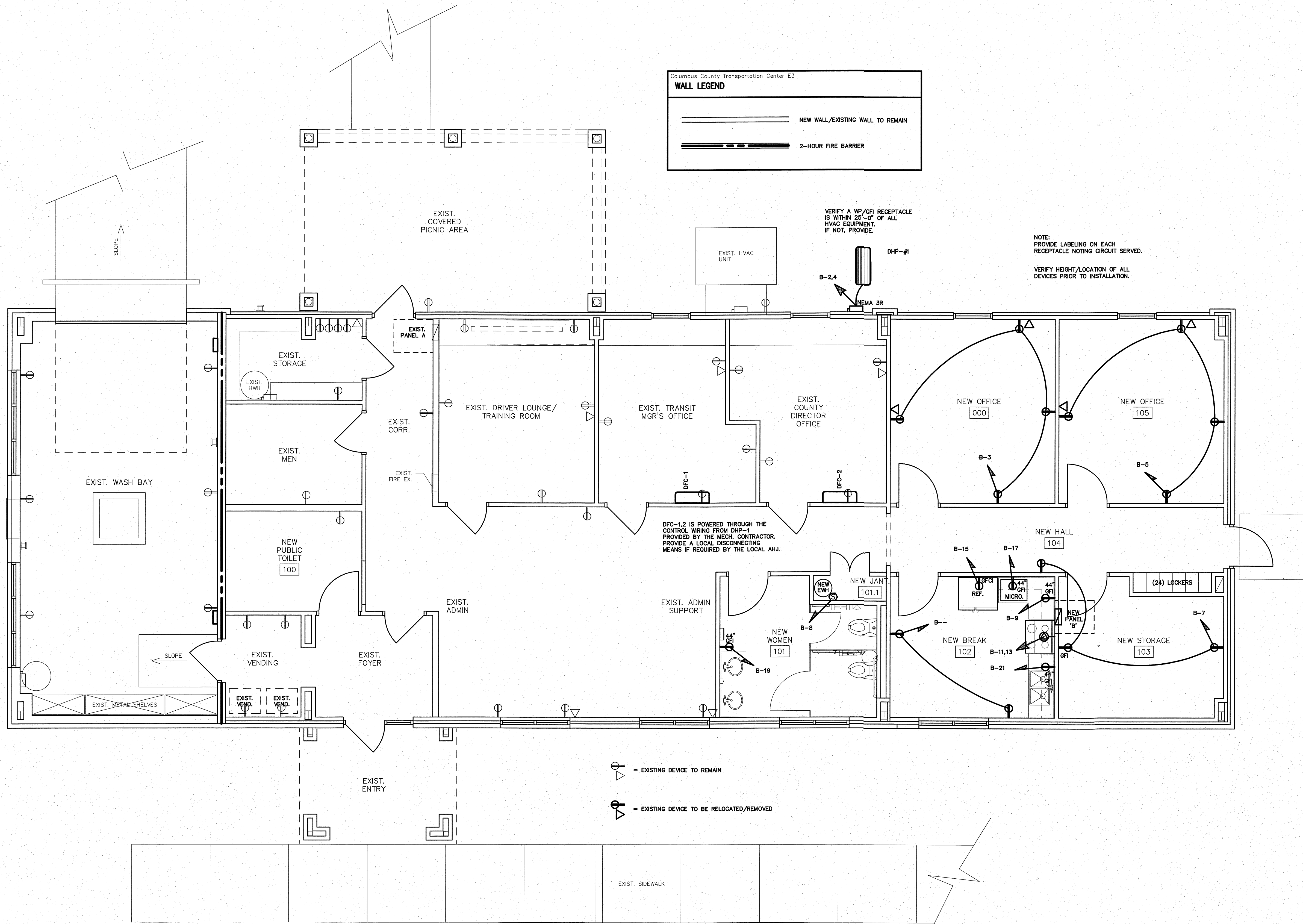
**E-3**

Columbus County Transportation Center E3

**WALL LEGEND**

————— NEW WALL/EXISTING WALL TO REMAIN

————— 2-HOUR FIRE BARRIER



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

ENGINEER  
**BURKE DESIGN GROUP**  
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COLUMBUS COUNTY TRANSPORTATION CENTER E4 REVISED PANEL - 'A'		MAKE: VERIFY TYPE: VERIFY	RATING: 208/120V 3 PHASE 4 WIRE MOUNTING: FLUSH MINIMUM AIC: VERIFY	200A MAIN CIRCUIT BREAKER EQUIPMENT GROUND BUS: YES NO SERVICE ENTRY RATED: YES NO		
LOAD SERVICE	CKT BRKR	WATTS PER PHASE A B C	CKT NO NEUTRAL A B C	CKT NO WATTS PER PHASE A B C	CKT BRKR	LOAD SERVICE
LTS	20A	---	1	2	20A	REC.
LTS	20A	---	3	4	20A	REC.
LTS,F-1,2,3,4	20A	---	5	6	20A	REC.
LTS	20A	---	7	8	20A	FAX
LTS	20A	---	9	10	20A	REC.
F-5	20A	---	11	12	20A	EQUIPMENT
LTS - EXTERIOR	20A	---	13	14	20A	EQUIPMENT
SITE LTS	20A	---	15	16	20A	EQUIPMENT
SITE LTS	20A	---	17	18	20A	EQUIPMENT
SITE LTS	20A	---	19	20	20A	REC.
SPACE	80A	---	21	22	20A	EWG
SPACE	80A	---	23	24	20A	VENDING
SPACE	80A	---	25	26	20A	VENDING
SPACE	80A	---	27	28	20A	VENDING
SPACE	80A	---	29	30	30A	HWT
SPACE	80A	---	31	32	20A	REC.
SPACE	80A	---	33	34	20A	REC.
SPACE	80A	---	35	36	20A	REC.
SPACE	80A	---	37	38	20A	SPARE
SPACE	80A	---	39	40	20A	PHONE
SPACE	80A	---	41	42	20A	SPARE
N.L.	20A	---	---	---	---	---
NOTES		SUB-TOTALS 'B'		200A BUS	SUB-TOTALS 'A'	
				200A LUGS	SUB-TOTALS 'B'	
				200A FEED	GRAND TOTAL	
				VERIFY SIZE	AMPS/PHASE	
						TOTAL CONNECTED LOAD

COLUMBUS COUNTY TRANSPORTATION CENTER E4 EXIS. PANEL - 'A'		MAKE: VERIFY TYPE: VERIFY	RATING: 208/120V 3 PHASE 4 WIRE MOUNTING: FLUSH MINIMUM AIC: VERIFY	200A MAIN CIRCUIT BREAKER EQUIPMENT GROUND BUS: YES NO SERVICE ENTRY RATED: YES NO																																																																																																		
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LTS	20A	720	7	8	20A	FAX																																																																																																
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F-5	20A	600	11	12	20A	EQUIPMENT																																																																																																
LTS - EXTERIOR	20A	960	13	14	20A	EQUIPMENT																																																																																																
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COLUMBUS COUNTY TRANSPORTATION CENTER E4 NEW PANEL - 'B'		MAKE: EATON TYPE: PRL1A OR APPROVED EQUAL	RATING: 208/120V 3 PHASE 4 WIRE MOUNTING: FLUSH MINIMUM AIC: VERIFY	M.L.O. MAIN CIRCUIT BREAKER EQUIPMENT GROUND BUS: YES NO SERVICE ENTRY RATED: YES NO																																																																																																		
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LTS	20A	400	1	2	1789	DHP-1																																																																																																
OFFICE REC.	20A	540	3	4	1789	20A																																																																																																
OFFICE REC.	20A	540	5	6	---	20A																																																																																																
STORAGE REC.	20A	360	7	8	1650	20A																																																																																																
BREAK ROOM REC.	20A	540	9	10	---	20A																																																																																																
RANGE/OVEN	50A	4000	11	12	---	20A																																																																																																
REFRIG.	20A	1800	13	14	---	SPACE																																																																																																
MICROWAVE	20A	1800	15	16	---	SPACE																																																																																																
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MISC	100%	---	---	---	---																																																																																																	
PHASE (TOTAL VA)		5159	5116	6340	20615																																																																																																	
TOTAL AMPS		76A	43A	53A	---																																																																																																	
		VOLT AMPS		57A	TOTAL AMPS																																																																																																	
		VOLTS X 1.732		---	---																																																																																																	

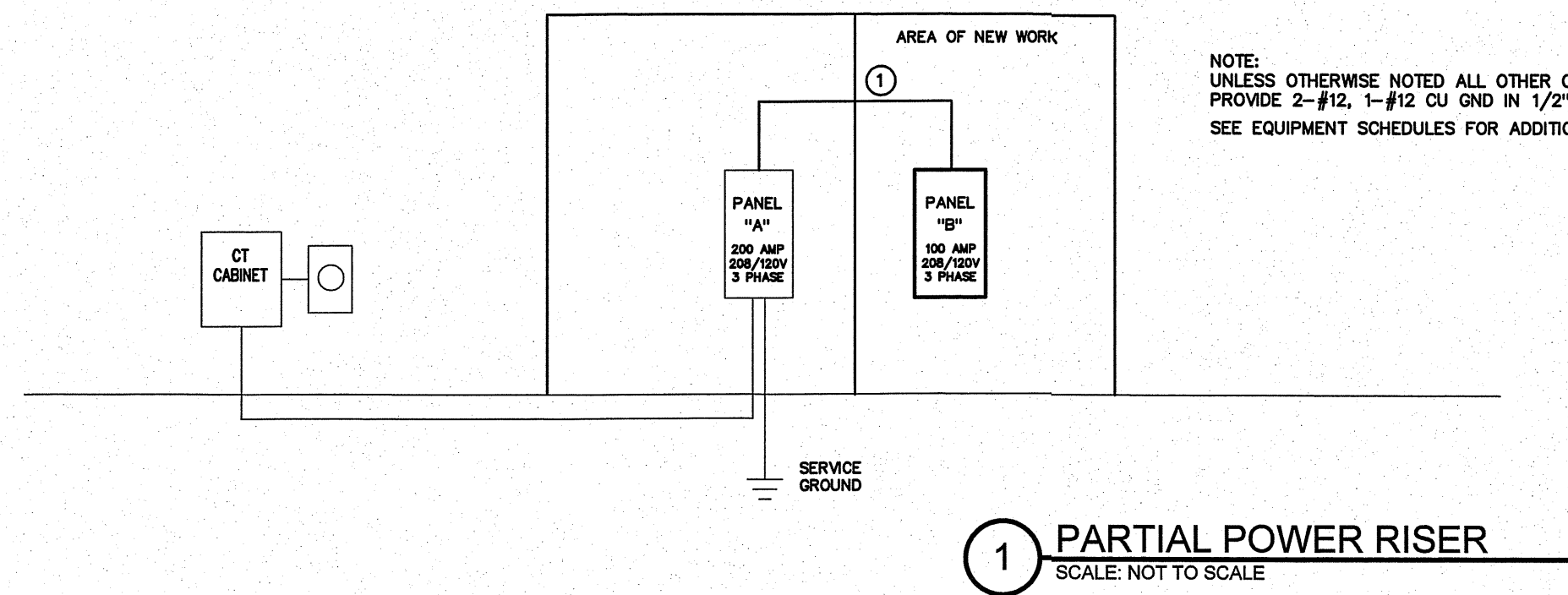
COLUMBUS COUNTY TRANSPORTATION CENTER E4 EQUIPMENT WIRING SCHEDULE					
EQUIPMENT	MCA	MOCP	VOLTS	PH	WIRE SIZE
DHP-1	17.2	20A	208V	1	2-#12, 1-#12 GND IN 3/4" CONDUIT
ENH	(1.65KW)	20A	120V	1	2-#12, 1-#12 GND IN 1/2" CONDUIT
RANGE	(8KW)	50A	120V	1	2-#8, 1-#10 GND IN 1/2" CONDUIT

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

### WIRING SIZE SCHEDULE

① 100A: 4-#3, 1-#8 CU GND, IN 1 1/4" CONDUIT

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



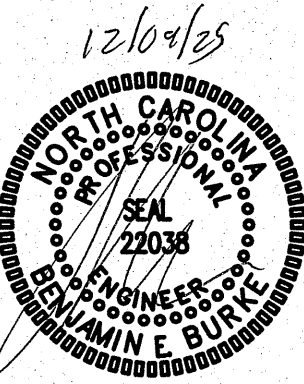
① PARTIAL POWER RISER  
SCALE: NOT TO SCALE



Member of the American Institute of Architects

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ADDITION TO COLUMBUS COUNTY  
TRANSPORTATION CENTER  
WHITEVILLE, NORTH CAROLINA



ELECTRICAL PANELS/  
SERVICE

25008

ISSUED: 12/09/2025  
DWG BY: LS  
CKD BY: BEB  
REVISIONS

ENGINEER  
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SHEET NO.  
**E-4**