Maritime Education Center

MARITIME HERITAGE FOUNDATION

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

BID DOCUMENTS
JUNE 7, 2024

VICINITY MAP

SITE MAP

PROJECT TEAM

OWNER
MARITIME HERITAGE FOUNDATION
THE MARITIME FOUNDATION OF BEAUFORT, NORTH
PO BOX 685
403 ANN STREET
BEAUFORT, NC 28516
T: 252.504.4100

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CLARK NEXSEN
421 NORTH HARRINGTON STREET, SUITE 600
RALEIGH, NC 27603
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STRUCTURAL ENGINEER
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301 N. WEST STREET, SUITE 105
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MECHANICAL, PLUMBING, ELECTRICAL AND FIRE PROTECTION ENGINEER
CLARK NEXSEN
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CIVIL ENGINEER
WITHERS RAVENEL
219 STATION RD #101
WILMINGTON, NC 28405
T: 910.256.9277

LANDSCAPE ARCHITECT
STEWART
223 S WEST ST STE 1100
RALEIGH, NC 27603
T: 919.380.8750

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145
SCO ID # : 24-27956-01A

DESIGNER

CLARKNEXSEN

421 NORTH HARRINGTON STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27603
919·828·1876

CLARK NEXSEN LICENSE NUMBER C-1028

CORPORATE SEAL

CLARK NEXSEN, INC. CERT NO. 50680 NORTH CAROLINA

PROFESSIONAL SEAL

DONALD DAVID KRAMPITZ 9836 REGISTERED ARCHITECT 6/7/24 NORTH CAROLINA RALEIGH, N.C.

SUBMITTAL

JUNE 7, 2024
BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

COVER SHEET

G-001

DESIGN: DDK
DRAWN: AST/WMP/MCK
REVIEW: MB

CN 10145

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SHEET INDEX

SHEET NUMBER	SHEET NAME
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C0.02	GENERAL NOTES
C0.03	BOUNDARY AND TOPOGRAPHIC SURVEY
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C9.04	WATER DETAILS
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SHEET NUMBER	SHEET NAME
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AE312	WALL SECTIONS
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ES402	ELECTRICAL SITE DETAILS
EG101	LIGHTNING PROTECTION PLAN
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EG502	LIGHTNING PROTECTION AND GROUNDING DETAILS
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EP401	ENLARGED POWER PLANS
EP601	EQUIPMENT CONNECTION SCHEDULE & POWER DETAILS
EP701	RISER DIAGRAMS
TELECOM	
TT101	FIRST & SECOND FLOOR TELECOM PLAN

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2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS

(Except 1 and 2-family dwellings and townhouses)
(Reproduce the following data on the building plans sheet 1 or 2)

Name of Project: MARITIME EDUCATION CENTER

Address: 293 W BEAUFORT ROAD EXT, BEAUFORT, NC Zip Code 28516

Owner / Authorized Agent: ERIN LAWRENCE, NORTH CAROLINA NATURAL AND CULTURAL RESOURCES

Phone # 252-504-4100 E-Mail: ERIN. LAWRENCE@DNCR.NC.GOV

Owned By: [X] City / County [ ] Private [ ] State

Code Enforcement Jurisdiction: [X] City: BEAUFORT [ ] County: _____ [ ] State

CONTACT: CHRIS BRASIER 919.576.2140 CBRASIER@CLARKNEXSEN.COM

DESIGNER	FIRM	NAME	LICENSE #	TELEPHONE #	E-MAIL
Architectural	CLARK NEXSEN	DON KRANBUEHL	9856	919.828.1876	dkranbuehl@clarknexsen.com
Civil	WITHERS RAVENEL	RYAN BERGERON	052479	910.477.4646	rbergeron@withersravenel.com
Electrical	CLARK NEXSEN	PATRICK ROSE	021538	919.828.1876	prose@clarknexsen.com
Fire Alarm	CLARK NEXSEN	CHRIS BORN	022212	757.961.7933	cborn@clarknexsen.com
Plumbing	CLARK NEXSEN	ANTHONY BRANDON	023940	704.840.1388	abrandon@clarknexsen.com
Mechanical	CLARK NEXSEN	WILLIAM CASTELVECCHI	055364	757.961.7754	wcastelvecchi@clarknexsen.com
Sprinkler-Standpipe	CLARK NEXSEN	CHRIS BORN	022212	757.961.7933	cborn@clarknexsen.com
Structural	LYNCH MYKINS	NICOLE ZECHMAN	052473	330.807.8176	nzechman@lynchmykins.com
Retaining Wall >5' High	LYNCH MYKINS	NICOLE ZECHMAN	052473	330.807.8176	nzechman@lynchmykins.com
Landscape	STEWART	DAVID AMALONG	2035	704.318.9912	damalong@stewartinc.com
Interiors	CLARK NEXSEN	MELANIE GOODSON	123	828.333.9381	melanie.goodson@clarknexsen.com

2018 NC BUILDING CODE: [X] New Building [ ] Addition [ ] Renovation
[ ] 1st Time Interior Completions
[ ] Shell / Core: Contact the local inspection jurisdiction for possible additional procedures and requirements
[ ] Phased Construction - Shell / Core: Contact the local inspection jurisdiction for possible additional procedures and requirements

2018 NC EXISTING BUILDING CODE: Existing: [ ] Prescriptive [ ] Repair [ ] Chapter 14
Alteration: [ ] Level I [ ] Level II [ ] Level III
[ ] Historic Property [ ] Change of Use

CONSTRUCTED: (date) _____ **CURRENT OCCUPANCY(S)** (Ch 3): _____

RENOVATED: (date) _____ **PROPOSED OCCUPANCY(S)** (Ch 3): _____

RISK CATEGORY (Table 1604.5): **Current**: [ ] I [ ] II [ ] III [ ] IV
Proposed: [ ] I [X] II [ ] III [ ] IV

BASIC BUILDING DATA

Construction Type: (check all that apply) [ ] I-A [ ] II-A [ ] III-A [ ] IV [ ] V-A / [ ] I-B [ ] II-B [X] III-B [ ] V-B

Sprinklers: [ ] No [ ] Partial [X] Yes [X] NFPA 13 [ ] NFPA 13R [ ] NFPA 13D

Standpipes: [X] No [ ] Yes [ ] Class I [ ] Class II [ ] Class III [ ] Wet [ ] Dry

Fire District: [X] No [ ] Yes **Flood Hazard Area:** [ ] No [X] Yes

Special Inspections Required: [X] No [ ] Yes (Contact the local inspection jurisdiction for additional procedures and requirements)

GROSS BUILDING AREA TABLE

FLOOR	EXISTING (SQ FT)	RENOVATION (SQ FT)	NEW (SQ FT)	SUB-TOTAL (SQ FT)
COVERED EXTERIOR AREA	0 SF	0 SF	4005 SF	4,005 SF
FIRST	0 SF	0 SF	5956 SF	5,956 SF
SECOND	0 SF	0 SF	2694 SF	2,694 SF
TOTAL	0 SF	0 SF	12655 SF	12,655 SF

ALLOWABLE AREA

Primary Occupancy Classification(s):

Assembly [ ] A-1 [ ] A-2 [X] A-3 [ ] A-4 [ ] A-5
Business [X]
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 Condition [ ] 1 [ ] 2
[ ] I-2 Condition [ ] 1 [ ] 2
[ ] I-3 Condition [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5
[ ] I-4 Condition
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): _____

Special Uses (Chapter 4 - List Code Sections): _____

Special Provisions (Chapter 5 - List Code Sections): _____

Mixed Occupancy: [ ] No [X] Yes Separation: ____ Hr Exception: _____

[X] Non-Separated Use (508.3)
The required type of construction for the building shall be determined by applying the height and area limitations for each of the applicable occupancies to the entire building. The most restrictive type of construction, so determined, shall apply the entire building.

[ ] Separated Use (508.3)
See below 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.

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

_____ + _____ + ... = _____ ≤ 1.00

FLOOR (STORY NO.)	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 506.2 (4) AREA	(C) AREA FOR FRONTAGE INCREASE (1,5)	(D) ALLOWABLE AREA PER STORY OR UNLIMITED (2,3)
FIRST FLOOR (12.25')	ASSEMBLY (A-3) / BUSINESS	9,961 SF	28,500 SF		
SECOND FLOOR	BUSINESS	2,694 SF	57,000 SF		
		12,655 SF			

1 Frontage area increases from Section 506.3 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)
e. Percent of frontage increase If = 100 [F/P-0.25] x W/30 = _____ (%)
2 Unlimited area applicable under conditons of Section 507.
3 Maximum Building Area = total number of stories in the building x D (maximum 3 stories) (506.2).
4 The maximum area of open parking garages must comply with Table 406.5.4.
5 Frontage increase is based on the unsprinklered area value in Table 506.2.

ALLOWABLE HEIGHT

	ALLOWABLE	SHOWN ON PLANS	CODE REFERENCE[1]
Building Height in Feet (Table 504.3)[2]	75'-0"	38'-9"	
Building Height in Stories (Table 504.4)[3]	3	2	

1. Provide code reference if the "Shown on Plans" quantity is not based on Table 504.3 or 504.4.
2. The maximum height of air traffic control towers must comply with Table 412.3.1.
3. The maximum height of open parking garages must comply wiht Table 406.5.4.

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	>30	0	0				
Bearing Walls	>30						
. Exterior		2	2	A5/GI003	U905		
. North		2	2				
. East		2	2				
. West		2	2				
. South		2	2				
. Interior	>30	0	0				
Nonbearing Walls and Partitions	>30	0	0				
. Exterior		0	0				
. North		0	0				
. East		0	0				
. West		0	0				
. South		0	0				
. Interior Walls and Partitions		0	0				
Floor Construction including supporting beams and joints		0	0				
Floor Ceiling Assembly		0	0				
Columns Supporting Floors		0	0				
Roof Construction including supporting beams and joints		0					
Roof Ceiling Assembly		0	0				
Columns Supporting Roof		0	0				
Shaft Enclosures - Exit		1	1	A1/GI003	U415		
Shaft Enclosures - Other		-	-				
Corridor Separation		-	-				
Occupancy/Fire Barrier Separation		-	-				
Party/Fire Wall Separation		-	-				
Smoke Barrier Separation		-	-				
Smoke Partition		-	-				
Tenant / Dwelling Unit / Sleeping Unit Separation		-	-				
Incidental Use Separation		-	-				

*Indicate section number permitting reduction

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 (%)

LIFE SAFETY SYSTEM REQUIREMENTS

Emergency Lighting: [X] Yes [ ] No
Exit Signs: [X] Yes [ ] No
Fire Alarm: [X] Yes [ ] No
Emergency Voice / Alarm Communication System: [X] Yes [ ] No
Smoke Detection Systems: [ ] Yes [X] No [ ] Partial _____
Carbon Monoxide Detection: [ ] Yes [X] No
Emergency Responder Radio Coverage: [ ] Yes [ ] No [X] Partial REFER TO SHEET E-001 AND EP701.

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
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

LIFE SAFETY PLAN REQUIREMENTS

Life Safety Plan Sheet #: GI101

[X] 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)
[X] Occupancy use for each area as it relates to occupant load calculation (Table 1004.1.2)
[X] Occupant loads for each area
[X] Exit access travel distances (1017)
[X] Common path of travel distances (Tables 1006.2.1 & 1006.3.2(1))
[ ] Dead end lengths (1020.4)
[X] Clear exit widths for each exit door
[X] Maximum calculated occupant load capacity each exit door can accommodate based on egress width (1005.3)
[X] 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
[X] 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 PARKING
(SECTION 1106)

LOT OR PARKING AREA	TOTAL # OF PARKING SPACES REQUIRED	TOTAL # OF PARKING SPACES PROVIDED	# OF ACCESSIBLE SPACES PROVIDED: REGULAR WITH 5' ACCESS AISLE	VAN SPACES WITH 132" ACCESS AISLE	VAN SPACES WITH 8' ACCESS AISLE	TOTAL # ACCESSIBLE PROVIDED
Lot 1A	29	24	2	0	0	2
Lot 1B		7	3	0	1	4
TOTAL	29	31	5	0	1	6

PLUMBING FIXTURE REQUIREMENTS
(TABLE 2902.1)

USE	WATERCLOSETS MALE	WATERCLOSETS FEMALE	WATERCLOSETS UNISEX	URINALS	LAVATORIES MALE	LAVATORIES FEMALE	LAVATORIES UNISEX	SHOWERS/ TUBS	DRINKING FOUNTAINS REGULAR	DRINKING FOUNTAINS ACCESSIBLE
EXISTING	-	-	-	-	-	-	-	-	-	-
NEW	1	3	4	2	3	3	4		3	3
REQUIRED	2	4	-		3	3	-	2	2	1

SPECIAL APPROVALS

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

ENERGY SUMMARY

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

Existing building envelope complies with code: [ ] No [ ] Yes (The remainder of this section is not applicable)

Exempt Building: [X] No [ ] Yes (Provide code or statutory reference): _____

Climate Zone: [X] 3A [ ] 4A [ ] 5A

Method of Compliance:
[X] Energy Code (Prescriptive)
[ ] Energy Code (Performance)
[ ] ASHRAE 90.1 (Prescriptive)
[ ] ASHRAE 90.1 (Performance)
(If "Other" specify source here: _____)

THERMAL ENVELOPE (Prescriptive Method Only)

Roof / Ceiling Assembly
Description of assembly: 4" CLT with Mineral Wool Board Insulation and Ventilated Nailbase (R-25 c.i. required)
U-Value of total assembly: 0.029
R-Value of insulation: R-29 c.i. (R-14.4 c.i. for Ventilated Nail Base, R-15 c.i. for Mineral Wool Board)
Skylights in each assembly: N/A
U-Value of skylight: N/A
Total square footage of skylights in each assembly: N/A

Exterior Walls
Description of assembly: Cedar Siding on 2"ci on CMU (R=7.6ci required)
U-Value of total assembly:
R-Value of insulation: 8.4 (2" MINERAL WOOL BOARD)
Openings (windows or doors with glazing)
U-Value of assembly: SUMMER (.209), WINTER (.238)
Solar heat gain coefficient: .29
Projection factor:
Door R-Values: 0.5

Walls below grade CMU AND/OR CONCRETE FOUNDATION WALLS
Description of assembly: CMU AND/OR CONCRETE FOUNDATION WALLS
U-Value of total assembly: 7.5 c.i. required (2" EXPS)
R-Value of insulation: 10 c.i.

Floors over unconditioned space NONE
Description of assembly: NONE
U-Value of total assembly:
R-Value of insulation:

Floors slab on grade 4" UNINSULATED CONCRETE
Description of assembly: 4" UNINSULATED CONCRETE
U-Value of total assembly: R-15 (Perimeter insulation of 24")
R-Value of insulation:
Horizontal/vertical requirement:
Slab heated:

2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
STRUCTURAL DESIGN
(More information provided on the structural sheets)

DESIGN LOADS:

Importance Factors: Snow (I_S) 1.0; Seismic (I_E) 1.0

Live Loads: Roof 20 psf; Second 150 psf; Floor 100 psf

Ground Snow Load: 10 psf

Wind Load: Basic Wind Speed 144 mph (ASCE-7); Exposure Category D

SEISMIC DESIGN CATEGORY: [ ] A [X] B [ ] C [ ] D

Provide the following Seismic Design Parameters:
Risk Category (Table 1604.5): I [ ] II [X] III [ ] IV [ ]
Spectral Response Acceleration: S_S 0.114 %g S_1 0.059 %g
Site Classification: (ASCE 7) [ ] A [ ] B [ ] C [X] D [ ] E [ ] F
Data Source: [X] Field Test [ ] Presumptive [ ] Historical Data
Basic structural system: (check one)
[X] Bearing Wall [ ] Dual w/ Special Moment Frame
[ ] Building Frame [ ] Dual w/ Intermediate R/C or Special Steel
[ ] Moment Frame [ ] Inverted Pendulum
Analysis Procedure: [ ] Simplified [X] Equivalent Lateral Force [ ] Dynamic
Architectural, Mechanical, Components anchored? [ ] Yes [X] No
LATERAL DESIGN CONTROL: Earthquake [ ] Wind [X]

SOIL BEARING CAPACITIES:
Field Test (provide copy of test report) 2000 psf
Presumptive Bearing capacity _____ psf
Pile size, type, and capacity _____

2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
MECHANICAL DESIGN
(More information provided on the mechanical sheets)

MECHANICAL SUMMARY

MECHANICAL SYSTEMS, SERVICE SYSTEMS, AND EQUIPMENT

Thermal Zone
winter dry bulb: 25.4°F
summer dry bulb: 87.0°F

Interior design conditions
winter dry bulb: 70.0°F
summer dry bulb: 75.0°F
relative humidity: 50%

Building heating load: 108 MBH MAIN, 91 MBH VENTILATION

Building cooling load: 10.9 TON MAIN, 11.3 TON VENTILATION

Mechanical Spacing Conditioning System
Unitary
description of unit: ELECTRICALLY OPERATED UNITARY AND APPLIED HEAT PUMP
heating efficiency: 2.25 COP @ 17°F DB/15°F WB OUTDOOR AIR
cooling efficiency: 10.8 EER/11.8 IEER
size of category of unit: AIR COOLED (COOLING MODE), ≥65 MBH AND <135 MBH, ALL OTHER HEAT, SPLIT SYSTEM
Boiler
Size category. If oversized, state reason.: N/A
Chiller
Size category. If oversized, state reason.: N/A

List equipment efficiencies: REFER TO MECHANICAL SHEETS M601 and M602

2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
ELECTRICAL DESIGN
(More information provided on the electrical sheets)

ELECTRICAL SUMMARY

ELECTRICAL SYSTEM AND EQUIPMENT

Method of Compliance:
[X] Energy Code (Prescriptive)
[ ] Energy Code (Performance)
[ ] ASHRAE 90.1 (Prescriptive)
[ ] ASHRAE 90.1 (Performance)

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

Additional Efficiency Package Options
(When using the 2018 NCECC; not required for ASHRAE 90.1) LED

[ ]	C406.2 More Efficient HVAC Equipment Performance	N/A
[X]	C406.3 Reduced Lighting Power Density	N/A
[ ]	C406.4 Enhanced Digital Lighting Controls	N/A
[ ]	C406.5 On-Site Renewable Energy	SEE LUMINAIRE SCHEDULE
[ ]	C406.6 Dedicated Outdoor Air System	TBD
[ ]	C406.7 Reduced Energy Use in Service Water Heating	TBD

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145
SCO ID # : 24-27956-01A

DESIGNER

CLARKNEXSEN
421 NORTH HARRINGTON STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27603
919-828-1876
CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

RONALD DAVID KRANBUEHL — REGISTERED ARCHITECT — 9856 — NORTH CAROLINA — RALEIGH N.C.

SUBMITTAL
JUNE 7, 2024
BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET
BUILDING CODE SUMMARY

GI002

DESIGN: DDK
DRAWN: AST/WMP/MCK
REVIEW: MB

CN 10145

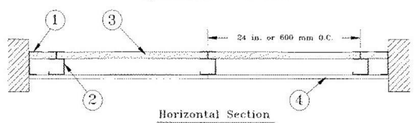
6/12/2024 11:25:27 PM
Autodesk Docs://Maritime Education Center/10145_Maritime Education Center_A23.rvt
10145

Design No. **U415**

February 14, 2022

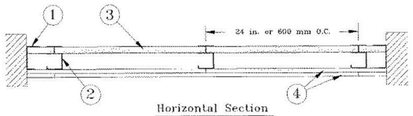
Nonbearing Wall Ratings — 1, 2, 3 or 4 Hr
*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

System A – 1 Hr.



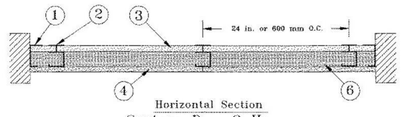
Horizontal Section

System B – 2 Hr.



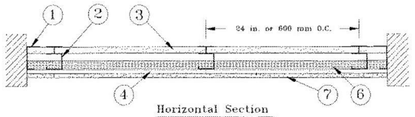
Horizontal Section

System C – 2 Hr.



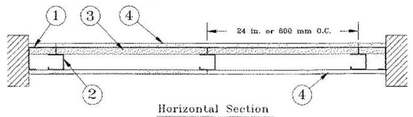
Horizontal Section

System D – 2 Hr.



Horizontal Section

System E – 2 Hr.

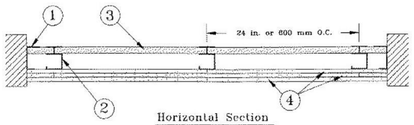


Horizontal Section

System F – 2 Hr.

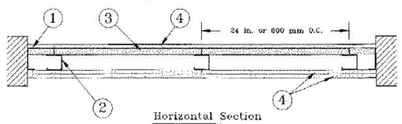
Horizontal Section

System G – 3 Hr.



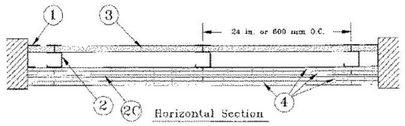
Horizontal Section

System H – 3 Hr.



Horizontal Section

System I – 4 Hr.



Horizontal Section

1. **Floor, Side and Ceiling Runners —** "J" - shaped runner, min 2-1/2 in. deep (min 4 in. deep when System C is used), with unequal legs of 1 in. and 2 in., fabricated from min 24 MSG (min 20 MSG when Item 4A, 4B, 4C, 4D or 7 are used) galv steel. Runners positioned with short leg toward finished side of wall. Runners attached to structural supports with steel fasteners located not greater than 2 in. from ends and not greater than 24 in. OC. "E" - shaped studs (Item 2A) may be used as side runners in place of "J" - shaped runners.

2. **Steel Studs —** "C-H" - shaped studs, min 2-1/2 in. deep (min 4 in. deep when System C is used), fabricated from min 25 MSG (min 20 MSG when Items 2D, 4A, 4B, 4C, 4D or 7 is used) galv steel. Cut to lengths 3/8 to 1/2 in. less than floor-to-ceiling height and spaced 24 in. or 600 mm OC (max 16 in. OC when Items 4A, 4B, 4C, or 4D are used).

2A. **Steel Studs —** (Not Shown) — "E" - shaped studs installed back to back in place of "C-H" - shaped studs (Item 2) "E" - shaped studs secured together with steel screws spaced a maximum 12 in. OC. Fabricated from min 25 MSG (min 20 MSG when Item 2D, 4A, 4B or 7 is used) galv steel, min 2-1/2 in. deep (min 4 in. deep when System C is used), with one leg 1 in. long and two legs 3/4 in. long. Shorter legs 1 in. apart to engage gypsum liner panels. Cut to lengths 3/8 to 1/2 in. less than floor to ceiling heights.

2B. **Furring Channels —** (Optional, Not Shown) — For use with single or double layer systems. Resilient furring channels fabricated from min 25MSG corrosion protected steel, installed horizontally, and spaced vertically a max 24 in. OC. Flange portion of channel attached to each intersecting "C-H" or "E" stud on side of stud opposite the 1 in. liner panels with 1/2 in. long Type S or S-12 pan-head steel screws. When furring channels are used, wallboard to be installed vertically only. . Not to be used with Type FRX-G gypsum board, lead backed gypsum boards (Items 4A-4D), or cementitious backer units (Item 7).

2C. **Furring Channels —** For use with System I - "Hat" - shaped, 25 MSG galv steel furring channels attached directly over the inner layers of wallboard to each stud with 2 in. long Type S pan head steel screws. Screws alternate from top flange to bottom flange at each stud intersection. Furring channels spaced vertically max 24 in. OC.

2D. **Steel Framing Members* —** (Optional, Not Shown) — For use with single or double layer systems. Furring channels and Steel Framing Members as described below. Not to be used with Type FRX-G gypsum board, lead backed gypsum boards (Items 4A-4D), or cementitious backer units (Item 7).
a. **Furring Channels —** Formed of No. 25 MSG galv steel. 2-9/16 in. or 2-23/32 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board installed vertically only and attached to furring channels as described in Item 4.

b. **Steel Framing Members* —** Used to attach furring channels (Item 2Da) to studs (Item 2 or 2A). Clips spaced max. 24 in. OC., and secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. Furring channels are friction fitted into clips. RSIC-1 clip for use with 2-9/16 in. wide furring channels. RSIC-1 (2.75) clip for use with 2-23/32 in. wide furring channels.
PAC INTERNATIONAL L L C — Types RSIC-1, RSIC-1 (2.75)

2E. **Steel Framing Members* —** (Optional, Not Shown) — Furring channels and Steel Framing Members as described below. . Not to be used with Type FRX-G gypsum board, lead backed gypsum boards (Items 4A-4D), or cementitious backer units (Item 7).
a. **Furring Channels —** Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire.Gypsum board attached to furring channels as described in Item 4.

b. **Steel Framing Members* —** Used to attach furring channels (Item 2Ea) to studs. Clips spaced 24 in. OC., and secured to studs with 2 in. coarse drywall screw with 1 in. diam washer through the center hole. Furring channels are friction fitted into clips.
STUDCO BUILDING SYSTEMS — RESILMOUNT Sound Isolation Clips - Type A237R

2F. **Steel Framing Members* —** (Optional, Not Shown) — For use with single or double layer systems. Furring channels and Steel Framing Members as described below. Not to be used with Type FRX-G gypsum board, lead backed gypsum boards (Items 4A-4D), or cementitious backer units (Item 7).
a. **Furring Channels —** Formed of No. 25 MSG galv steel. 2-3/8 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board installed vertically only and attached to furring channels as described in Item 3.

b. **Steel Framing Members* —** Used to attach furring channels (Item 2Da) to studs (Item 2 or 2A). Clips spaced max. 24 in. OC. GENIECLIPS secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. Furring channels are friction fitted into clips.
PLITEQ INC — Type GENIECLIP

2G. **Steel Framing Members* —** (Optional, Not Shown) — Furring channels and Steel Framing Members as described below. Not to be used with Type FRX-G gypsum board, lead backed gypsum boards (Items 4A-4D), or cementitious backer units (Item 7).
a. **Furring Channels —** Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item 2Gb. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire. Gypsum board attached to furring channels as described in Item 4.

b. **Steel Framing Members* —** Used to attach furring channels (Item 2Ga) to studs. Clips spaced 24 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips.
REGUPOL AMERICA — Type SonusClip

2H. **Steel Framing Members* —** (Optional, Not Shown) — Resilient channels and Steel Framing Members as described below. Not to be used with Type FRX-G gypsum board, lead backed gypsum boards (Items 4A-4D), or cementitious backer units (Item 7).
a. **Resilient Channels —** Formed of No. 25 MSG galv steel, spaced 24 in. OC, and perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and secured in place with two No. 8 15 x 1/2 in. Philips Modified Truss screws spaced 2-1/2 in. from the center of the overlap. Gypsum board attached to resilient channels as described in Item 4.

b. **Steel Framing Members* —** Used to attach resilient channels (Item 2Ha) to studs. Clips spaced 48 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Resilient channels are secured to clips with one No. 10 x 1/2 in. pan-head self-drilling screw.
KEENE BUILDING PRODUCTS CO INC — Type RC+ Assurance Clip

2I. **Steel Framing Members* —** (Optional, Not Shown) — For use with single or double layer systems. Furring channels and Steel Framing Members as described below. Not to be used with Type FRX-G gypsum board, lead backed gypsum boards (Items 4A-4D), or cementitious backer units (Item 7).
a. **Furring Channels —** Formed of No. 25 MSG galv steel. 2-23/32 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board installed vertically only and attached to furring channels as described in Item 4.

b. **Steel Framing Members* —** Used to attach furring channels (Item 2Ia) to studs (Item 2 or 2A). Clips spaced max. 24 in. OC., and secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. Furring channels are friction fitted into clips.
CLARKDIETRICH BUILDING SYSTEMS — Type ClarkDietrich Sound Clip

3. **Gypsum Board* —** Gypsum liner panels, nom 1 in. thick, 24 in. or 600 mm (for metric spacing) wide. Panels cut 1 in. less in length than floor to ceiling height. Vertical edges inserted in "H" portion of "C-H" studs or the gap between the two 3/4 in. legs of the "E" studs. Free edge of end panels attached to long leg of vertical "J" - runners with 1-5/8 in. long Type S steel screws spaced not greater than 12 in. OC. When wall height exceeds liner panel length, liner panel may be butted to extend to the full height of the wall. Horizontal joints need not be backed by steel framing. In System I, butt joints in liner panels are staggered min 36 in. Butt joints backed with 6 in. by 22 in. strips of 3/4 in. thick gypsum wallboard (Item 4). Wallboard strips centered over butt joints and secured to liner panels with six 1-1/2 in. long Type G steel screws, three screws along the 22 in. dimension at the top and bottom of the strips.
CGC INC — Type SLX

UNITED STATES GYPSUM CO — Type SLX

USG BORAL DRYWALL SFZ LLC — Type SLX

USG MEXICO S A DE C V — Type SLX

4. **Gypsum Board* —**

System A — 1 Hr

Gypsum panels, with beveled, square or tapered edges, nom 5/8 in. thick, 48 in. or 1200 mm wide, applied vertically or horizontally, attached to studs with 1 in. long Type S steel screws spaced 12 in. when installed vertically or 8 in OC when installed horizontally. Horizontal joints need not be backed by steel framing.

CGC INC — Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULIX, ULX, USGX, WRC, WRX

THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — Types C and SCX

UNITED STATES GYPSUM CO — Types AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SGX, SHX, ULIX, ULX, USGX, WRC, WRX, USGX.

USG BORAL DRYWALL SFZ LLC — Types C, SCX, SGX, USGX

USG MEXICO S A DE C V — Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULX, USGX, WRC, WRX

System B — 2 Hr

Gypsum panels, with beveled, square or tapered edges, nom 1/2 in. or 5/8 in. thick, 48 in. or 1200 mm wide, applied vertically or horizontally in two layers. Inner or base layer attached to studs with 1 in. long Type S steel screws spaced 24 in. OC when installed vertically or 16 in. OC when installed horizontally. Outer or face layer attached to studs with 1-5/8 in. long Type S steel screws spaced 12 in. OC when installed vertically and staggered 12 in. from base layer screws or 8 in. OC when installed horizontally and staggered 8 in. from base layer screws. Horizontal joints between inner and outer layers staggered a min of 12 in. Horizontal joints need not be backed by steel framing. Vertical joints centered over studs and staggered 24 in.

CGC INC — 1/2 in. Type C, IP-X2, IPC-AR or WRC; 5/8 in. Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULX, USGX, WRC, WRX

THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — Types C and SCX

UNITED STATES GYPSUM CO — 1/2 in. Types C, IP-X2, IPC-AR or WRC; 5/8 in. Types AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SGX, SHX, ULIX, ULX, USGX, WRC, WRX.

USG BORAL DRYWALL SFZ LLC — 1/2 in. Type C; 5/8 in. Types C, SCX, SGX, USGX

USG MEXICO S A DE C V — 1/2 in. Types C, IP-X2, IPC-AR or WRC; 5/8 in. Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULX, USGX, WRC, WRX

System C — 2 Hr

Gypsum panels, with beveled, square or tapered edges, nom 3/4 in. thick, 48 in. or 1200 mm wide, applied vertically or horizontally, secured with 1-1/4 in. long Type S steel screws spaced 8 in. OC along vertical edges and 12 in. OC in the field when installed vertically or 8 in. OC along the vertical edges and in the field when installed horizontally. Horizontal joints need not be backed by steel framing. Screws along side joints offset 4 in. Requires min 4 in. deep framing per Items 1, 2 and 3. Requires min 3 in. thick mineral wool batts per Item 6.

CGC INC — Types IP-X3 or ULTRACODE

UNITED STATES GYPSUM CO — Types IP-X3 or ULTRACODE

USG BORAL DRYWALL SFZ LLC — Type ULTRACODE

USG MEXICO S A DE C V — Types IP-X3 or ULTRACODE

System D — 2 Hr

Gypsum panels, with beveled, square or tapered edges, nom 5/8 in. thick, 48 in. or 1200 mm wide, applied vertically or horizontally, attached directly to studs with 1 in. long Type S steel screws spaced 24 in. when installed vertically or 16 in. OC when installed horizontally. Horizontal joints need not be backed by steel framing. Requires face layer of 1/2 or 5/8 in. thick cementitious backer units per Item 7 and min 1-1/2 in. thick mineral wool batts per Item 6.

CGC INC — Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULX, USGX, WRC, WRX

THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — Types C and SCX

UNITED STATES GYPSUM CO — Types AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SGX, SHX, ULIX, ULX, USGX, WRC, WRX.

USG BORAL DRYWALL SFZ LLC — Types C, SCX, SGX, USGX

USG MEXICO S A DE C V — Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULX, USGX, WRC, WRX

System E — 2 Hr

Gypsum panels, with beveled, square or tapered edges, nom 1/2 in. or 5/8 in. thick, 48 in. or 1200 mm wide, applied vertically or horizontally, attached to studs with 1 in. long Type S steel screws spaced 12 in. OC when installed vertically or 8 in. when installed horizontally. Horizontal joints need not be backed by steel framing.

CGC INC — 1/2 in. Types C, IP-X2, IPC-AR; 5/8 in. Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULX, USGX, WRC, WRX

THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — Types C and SCX

UNITED STATES GYPSUM CO — 1/2 in. Types C, IP-X2, IPC-AR; 5/8 in. Types AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SGX, SHX, ULIX, ULX, USGX, WRC, WRX.

USG BORAL DRYWALL SFZ LLC — 1/2 in. Type C; 5/8 in. Types C, SCX, SGX, USGX

USG MEXICO S A DE C V — 1/2 in. Types C, IP-X2, IPC-AR; 5/8 in. Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULX, USGX, WRC, WRX

System F — 2 Hr

Gypsum panels, with beveled, square or tapered edges, nom 1/2 in. or 5/8 in. thick, 48 in. or 1200 mm wide, applied vertically in two layers. Inner or base layer attached to resilient furring channels (Item 2B) with 1 in. long Type S steel screws spaced 24 in. Outer or face layer attached to resilient furring channels (Item 2B) with 1-5/8 in. long Type S steel screws spaced 12 in. OC and staggered 12 in. from base layer screws. Joints between inner and outer layers staggered 24 in.

CGC INC — 1/2 in. Type C, IP-X2, IPC-AR or WRC; 5/8 in. Types AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULX, USGX, WRC, WRX

THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — Types C and SCX

UNITED STATES GYPSUM CO — 1/2 in. Type C, IP-X2, IPC-AR or WRC; 5/8 in. Types AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SGX, SHX, ULIX, ULX, USGX, WRC, WRX.

USG BORAL DRYWALL SFZ LLC — 1/2 in. Type C; 5/8 in. Types C, SCX

USG MEXICO S A DE C V — 1/2 in. Types C, IP-X2, IPC-AR or WRC; 5/8 in. Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULX, USGX, WRC, WRX

System G — 3 Hr

Gypsum panels, with beveled, square or tapered edges, nom 5/8 in. thick, 48 in. or 1200 mm wide, applied vertically or horizontally in three layers. Inner or base layer attached to studs with 1 in. long Type S steel screws spaced 24 in. OC when installed vertically or 16 in OC when installed horizontally. Middle layer attached to studs with 1-5/8 in. long Type S steel screws spaced 24 in. when installed vertically or 16 in. OC when installed horizontally. Outer or face layer attached to studs with 2-1/4 in. long Type S steel screws spaced 16 in. when installed vertically or 12 in. OC when installed horizontally. Screws offset 6 in. from layer below. Horizontal joints on adjacent layers staggered a min of 12 in. . Horizontal joints need not be backed by steel framing. Vertical joints centered over studs and staggered 24 in. on adjacent layers.

CGC INC — Types C, IP-X2, IPC-AR, ULIX, WRC

THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — Type C

UNITED STATES GYPSUM CO — Types C, IP-X2, IPC-AR, ULIX, WRC

USG BORAL DRYWALL SFZ LLC — Type C

USG MEXICO S A DE C V — Types C, IP-X2, IPC-AR, WRC

System H — 3 Hr

Gypsum panels, with beveled, square or tapered edges, nom 5/8 in. thick, 48 in. or 1200 mm wide, applied vertically or horizontally, two layers over the flange of the "C" section of the studs, one layer over the flange of the "H" section of the studs. Inner or base layer attached to studs with 1 in. long Type S steel screws spaced 24 in. OC when installed vertically or 16 in. OC when installed horizontally. Face layer attached to studs with 1-5/8 in. long Type S steel screws spaced 16 in. when installed vertically or 12 in. OC when installed horizontally. Screws offset 6 in. from layer below. Horizontal joints on adjacent layers staggered a min of 12 in. Horizontal joints need not be backed by steel framing. Vertical joints centered over studs and staggered 24 in. on adjacent layers.

CGC INC — Types C, IP-X2, IPC-AR, ULIX, WRC

THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — Type C

UNITED STATES GYPSUM CO — Types C, IP-X2, IPC-AR, ULIX, WRC

USG BORAL DRYWALL SFZ LLC — Type C

USG MEXICO S A DE C V — Types C, IP-X2, IPC-AR, WRC

System I — 4 Hr

Gypsum panels, with beveled, square or tapered edges, nom 3/4 in. thick, 4 ft wide (or 1200 mm for metric spacing) wallboard with square or tapered edges. Total of four layers to be used. First and second (inner) layers applied vertically or horizontally over the steel studs. Horizontal joints need not be backed by steel framing. When applied vertically, joints centered over studs and staggered min 24 in., otherwise all joints staggered min 12 in. First layer secured to studs with 1-1/4 in. long Type S self-drilling, self-tapping bugle-head steel screws spaced 24 in. OC. Second layer secured to studs with 2-1/4 in. long Type S self-drilling, self-tapping bugle-head steel screws spaced 12 in. OC. Third layer applied vertically over the furring channels (Item 2C) with a 1-1/4 in. long Type S self-drilling, self-tapping bugle-head steel screws spaced 12 in. OC. Fourth layer applied vertically or horizontally with 2-1/4 in. long Type S self-drilling, self-tapping bugle-head steel screws spaced 12 in. OC. When applied vertically, joints to be staggered min 24 in. from third layer, otherwise all joints staggered min 12 in.

CGC INC — Types IP-X3 or ULTRACODE

UNITED STATES GYPSUM CO — Types IP-X3 or ULTRACODE

USG BORAL DRYWALL SFZ LLC — Type ULTRACODE

USG MEXICO S A DE C V — Types IP-X3 or ULTRACODE

4A. **Gypsum Board* —** (As an alternate to Item 4 Systems A, B, C, D, E, G, H, and I when used as the base layer, For direct attachment only) — Nom 5/8 in. or 3/4 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over 20 MSG steel studs and staggered min 1 stud cavity on opposite sides of studs. See Items 1, 2, 2A, 2B and 2D. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. For Joint Compound see Item 5. To be used with Lead Batten Strips (see Item 9) or Lead Discs or Tabs (see Item 10).
RAY-BAR ENGINEERING CORP — Type RB-LBG

4B. **Gypsum Board* —** (As an alternate to Item 4 Systems A, B, C, D, E, G, H, and I when used as the base layer, For direct attachment only) — Nominal 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 (or #6 by 1-1/4 in. long bugle head fine driller) steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field.
NEW ENGLAND LEAD BURNING CO INC, DBA NELCO — Type Nelco

4C. **Gypsum Board* —** (As an alternate to Item 4 Systems A, B, C, D, E, G, H, and I when used as the base layer, For direct attachment only) — Nom 5/8 or 3/4 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over 20 MSG steel studs and staggered min 1 stud cavity on opposite sides of studs. See Items 1, 2, 2A, 2B and 2D. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. For Joint Compound see Item 5. To be used with Lead Batten Strips (see Item 9A) or Lead Discs (see Item 10A). Lead batten strips, min 2 in. wide, max 10 ft long with a max thickness of 0.140 in. placed on the face of studs and attached to the stud with two 1 in. long Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip.
MAYCO INDUSTRIES INC — Type X-Ray Shielded Gypsum

4D. **Gypsum Board* —** (As an alternate to Item 4 Systems A, B, C, D, E, G, H, and I when used as the base layer, For direct attachment only) — Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws gypsum panel steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 2 in. wide, max 8 ft long with a max thickness of 0.140 in. placed on the face of studs and attached to the stud with construction adhesive and two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead discs, nominal 3/8 in. diam by max 0.085 in. thick. Compression fitted or adhered over the screw heads. Lead batten strips and discs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".
RADIATION PROTECTION PRODUCTS INC — Type RPP - Lead Lined Drywall

5. **Joint Tape and Compound —** (Not Shown)

Systems A, B, C, E, F, G, H, I

Joints on outer layers of gypsum boards (Item 4 and 4A) covered with paper tape and joint compound. Paper tape and joint compound may be omitted when gypsum boards are supplied with square edges. Exposed screw heads covered with joint compound.

6. **Batts and Blankets* —**

Systems A, B, E, F, G, H, I

(Optional) — Mineral wool or glass fiber batts partially or completely filling stud cavity. Any mineral wool or glass fiber batt mineral bearing the UL Classification Marking as to Fire Resistance.

Systems C & D

Min 3 in. (System C) and min 1-1/2 in. (System D) thick mineral wool batts, friction fitted between the studs and floor and ceiling runners.

ROCKWOOL — Type AFB, min. density 1.8 pcf / 28.8 kg/m^3

THERMAFIBER INC — Type SAFB, SAFB FF

7. **Cementitious Backer Units* —** (System D) — Nom 1/2 or 5/8 in. thick panels, square edge, attached to studs over gypsum wallboard with 1-5/8 in. long, Type S-12, corrosion resistant steel screws spaced 8 in. OC and staggered 8 in. from gypsum wall board screws. Joints covered with glass fiber mesh tape. Vertical joints staggered one stud cavity from gypsum wallboard joints. Horizontal joints staggered a min of 12 in. from the gypsum wallboard joints.
UNITED STATES GYPSUM CO — Type DCB

8. **Laminating Adhesive* —** (Optional, Not Shown) — Used to bond outer layer of Cementitious Backer Units (Item 7) to inner layers of Gypsum Board (Item 4) in System D. ANSI A136.1 Type 1 organic adhesive applied with 1/4 in. square notched trowel. See Adhesives (BYWR) in the Fire Resistance Directory or Adhesives (BJLZ) in the Building Materials Directory for names of Classified companies.

9. **Lead Batten Strips —** (Not Shown, For Use With Item 4A) — Lead batten strips, min 1-1/2 in. wide, max 10 ft long with a max thickness of 0.125 in. Strips placed on the interior face of studs and attached from the exterior face of the stud with two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 4A) and optional at remaining stud locations. Required behind vertical joints.

9A. **Lead Batten Strips —** (Not Shown, for use with Item 4C) — Lead batten strips, 2 in. wide, max 10 ft long with a max thickness of 0.140 in. Strips placed on the face of studs and attached to the stud with two min. 1 in. long min. Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip or with one min. 1 in. long min. Type S-8 pan head steel screw at the top of the strip. Lead batten strips to have a purity of 99.5% meeting the Federal specification QQ-L-201f, Grades "B, C or D". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 6) and optional at remaining stud locations.

10. **Lead Discs or Tabs —** (Not Shown, For Use With Item 4A) — Used in lieu of or in addition to the lead batten strips (Item 9) or optional at other locations - Max 3/4 in. diam by max 0.125 in. thick lead discs compression fitted or adhered over steel screw heads or max 1/2 in. by 1-1/4 in. by max 0.125 in. thick lead tabs placed on gypsum boards (Item 4A) underneath screw locations prior to the installation of the screws. Lead discs or tabs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".

10A. **Lead Discs —** (Not Shown, for use with Item 4C) — Max 5/16 in. diam by max 0.140 in. thick lead discs compression fitted or adhered over steel screw heads. Lead discs to have a purity of 99.5% meeting the Federal Specification QQ-L-201f, Grades "B, C or D".

11. **Lead Batten Strips —** (Not Shown, For Use With Item 4B) — Lead batten strips, 2 in. wide, max 10 ft long with a max thickness of 0.142 in. Strips placed on the face of studs and attached to the stud with two min. 1 in. long min. Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip or with one min. 1 in. long min. Type S-8 pan head steel screw at the top of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 4B) and optional at remaining stud locations.

12. **Lead Tabs —** (Not Shown, For Use With Item 4B) — 2 in. wide, 5 in. long with a max thickness of 0.142 in. Tabs friction-fit around front face of stud, the stud folded back flange, and the back face of the stud. Tabs required at each location where a screw (that secures the gypsum boards, Item 4B) will penetrate the steel stud. Lead tabs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead tabs may be held in place with standard adhesive tape if necessary.

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

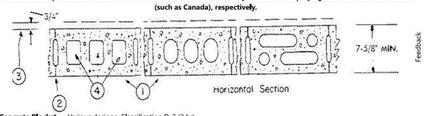
Last Updated on 2022-02-14

Design No. **U905**

April 14, 2023

Bearing Wall Rating — 2 HR.
Nonbearing Wall Rating — 2 HR
This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used — See Guide BXUV or BXUV7

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



1. **Concrete Blocks* —** Various designs. Classification D-2 (2 hr).

See **Concrete Blocks** category for list of eligible manufacturers.

2. **Mortar —** Blocks laid in full bed of mortar, nom. 3/8 in. thick, of not less than 2-1/4 and not more than 3-1/2 parts of clean sharp sand to 1 part Portland cement (proportioned by volume) and not more than 50 percent hydrated lime (by cement volume). Vertical joints staggered.

3. **Portland Cement Stucco or Gypsum Plaster —** Add 1/2 hr to classification if used. Where combustible members are framed in wall, plaster or stucco must be applied on the face opposite framing to achieve a max. Classification of 1-1/2 hr. Attached to concrete blocks (Item 1).

4. **Loose Masonry Fill —** If all core spaces are filled with loose dry expanded slag, expanded clay or shale (Rotary Kiln Process), water repellant vermiculite masonry fill insulation, or silicone treated perlite loose fill insulation add 2 hr to classification.

5. **Foamed Plastic* —** (Optional-Not Shown) — 1-1/2 in. thick max, 4 ft wide sheathing attached to concrete blocks (Item 1).
ATLAS ROOFING CORP — EnergyShield Pro Wall Insulation, EnergyShield Pro 2 Wall Insulation, EnergyShield CGF Pro, EnergyShield Ply Pro, EnergyShield® CGF, EnergyShield® PanelCast, EnergyShield® and "EnergyShield® XR

DUPONT DE NEMOURS, INC. — Types Thermax Sheathing, Thermax Light Duty Insulation, Thermax Heavy Duty Insulation, Thermax Metal Building Board, Thermax White Finish Insulation, Thermax ci Exterior Insulation, Thermax XARMOR ci Exterior Insulation, Thermax R+ Insulation, Thermax Plus Liner Panel, Thermax Heavy Duty Plus (HDP), TUFF-R™ ci Insulation, Thermax Butler Style Wall Insulation Board and Thermax Morton Heavy Duty Insulation Board

FIRESTONE BUILDING PRODUCTS CO L L C — "Envergé™ CI Foil Exterior Wall Insulation" and "Envergé™ CI Glass Exterior Wall Insulation"

HUNTER PANELS, A DIVISION OF CARLISLE CONSTRUCTION MATERIALS, LLC — Types "Xci-Class A", "Xci Foil (Class A)", "Xci 286"

RMAX, A BUSINESS UNIT OF SIKA CORPORATION — Types "TSX-8500", "ECOMAXci FR", "TSX-8510", "ECOMAX xi FR White", "ECOMAXci", "ECOMAXci FR Air Barrier", "Thermasheath-XP", "Thermasheath", "Durasheath"

JOHNS MANVILLE — Type "AP Foil-Faced Foam Sheathing"

5A. **Building Units* —** As an alternate to Items 5, min. 1-in thick polyisocyanurate composite foamed plastic insulation boards, nom. 48 by 48 or 96 in.

ATLAS ROOFING CORP — EnergyShield® Ply

HUNTER PANELS, A DIVISION OF CARLISLE CONSTRUCTION MATERIALS, LLC — "Xci NB", "Xci Ply"

RMAX, A BUSINESS UNIT OF SIKA CORPORATION — "Thermasheath-SE", "ECOBASEci", "ThermaBase-CI", "ECOMAXci FR Ply", "ECOMAXci Ply".

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

Last Updated on 2023-04-14

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145

SCO ID # : 24-27956-01A

DESIGNER

CLARKNEXSEN
421 NORTH HARRINGTON STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27603
919-828-1876

CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

UL DESIGNS

GI003

DESIGN: DDK
DRAWN: AST/WMP/MCK
REVIEW: MB

CN 10145

A1 U415 NOT TO SCALE

A5 U905 NOT TO SCALE

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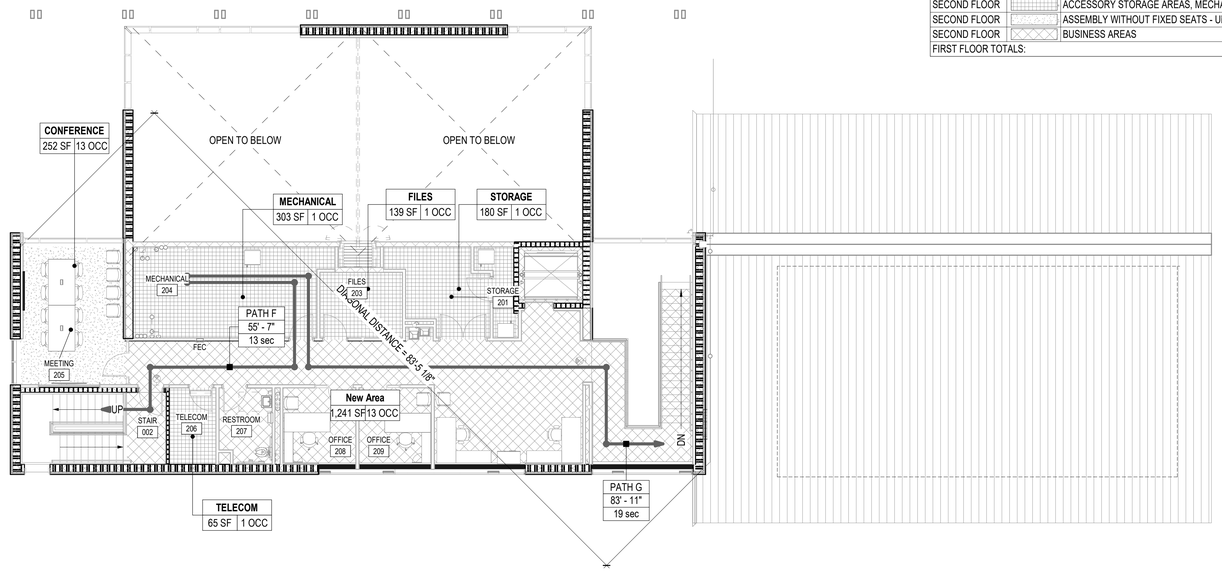


SECOND FLOOR LIFE SAFETY PLAN

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

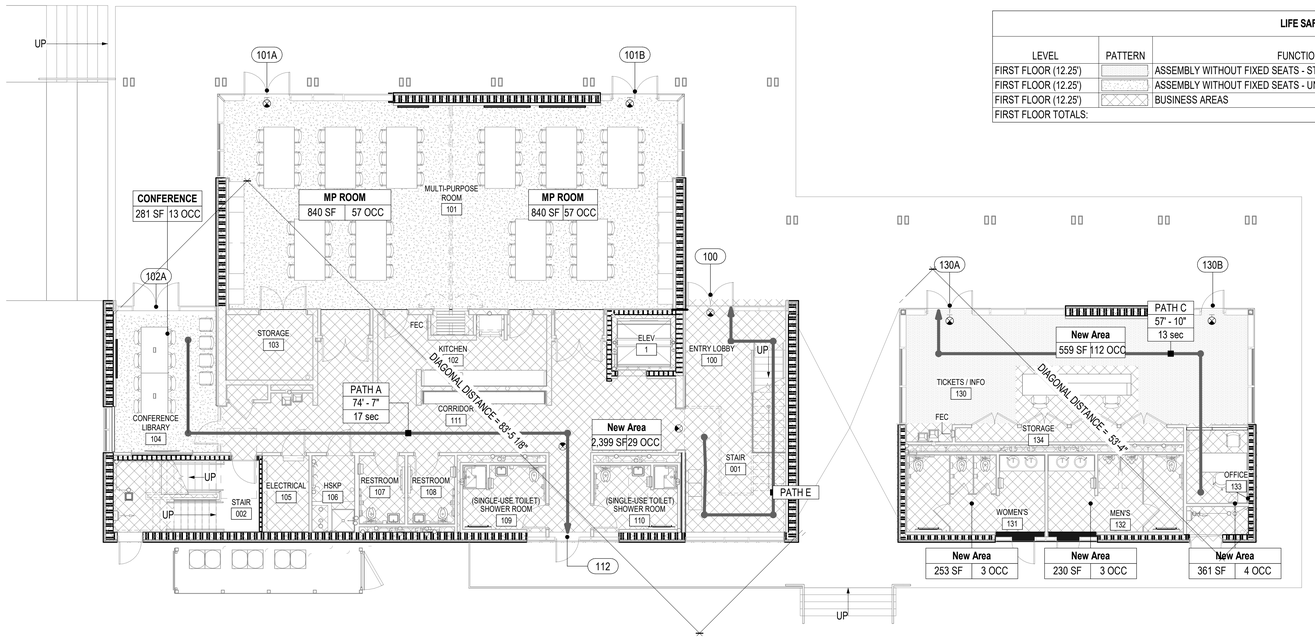
LIFE SAFETY - OCCUPANT CALCULATION - SECOND FLOOR

LEVEL	PATTERN	OCCUPANCY	SF PER PERSON	OCCUPANCY SF TYPE	AREA	*NUMBER OF OCCUPANTS
SECOND FLOOR		ACCESSORY STORAGE AREAS, MECHANICAL EQUIPMENT ROOM	300	GROSS	687 SF	4
SECOND FLOOR		ASSEMBLY WITHOUT FIXED SEATS - UNCONCENTRATED (TABLES AND CHAIRS)	15	NET + SEE NOTE B IN CODE	252 SF	13
SECOND FLOOR		BUSINESS AREAS	100	GROSS + SEE NOTE B IN CODE	1,241 SF	13
FIRST FLOOR TOTALS:					2,180 SF	30

* NUMBER OF OCCUPANTS IS AN AGGREGATE AND IS A RESULT OF ROUNDING UP INDIVIDUAL AREAS

LIFE SAFETY - STAIR SCHEDULE

TOP LEVEL	STAIR MARK	CLEAR STAIR WIDTH PROVIDED	EGRESS WIDTH FACTOR	OCCUPANT LOAD	
				MAX PROVIDED	REQUIRED
S-1					
SECOND FLOOR	S-1	48"	0.3	160	15
S-2					
SECOND FLOOR	S-2	48"	0.3	160	15



FIRST FLOOR LIFE SAFETY PLAN

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

LIFE SAFETY - OCCUPANT CALCULATION - FIRST FLOOR

LEVEL	PATTERN	FUNCTION OF SPACE	SF PER PERSON	OCCUPANCY SF TYPE	AREA	*NUMBER OF OCCUPANTS
FIRST FLOOR (12.25')		ASSEMBLY WITHOUT FIXED SEATS - STANDING SPACE AND QUEUING LINES	5	NET	559 SF	112
FIRST FLOOR (12.25')		ASSEMBLY WITHOUT FIXED SEATS - UNCONCENTRATED (TABLES AND CHAIRS)	15	NET + SEE NOTE B IN CODE	1,961 SF	127
FIRST FLOOR (12.25')		BUSINESS AREAS	100	GROSS + SEE NOTE B IN CODE	3,243 SF	39
FIRST FLOOR TOTALS:					5,763 SF	278

* NUMBER OF OCCUPANTS IS AN AGGREGATE AND IS A RESULT OF ROUNDING UP INDIVIDUAL AREAS

LIFE SAFETY - EGRESS DOOR SCHEDULE - FIRST FLOOR

DOOR NO.	CLEAR EGRESS WIDTH PROVIDED	EGRESS WIDTH FACTOR	OCCUPANT LOAD		DELAYED EGRESS (SECONDS)	ELECTROMAGNETIC LOCK	HOLD OPEN DEVICE	PANIC HARDWARE
			MAX PROVIDED	REQUIRED				
FIRST FLOOR (12.25')								
100	68"	0.2	340	30	NO	NO	NO	YES
101A	68"	0.2	340	57	NO	NO	NO	YES
101B	68"	0.2	340	57	NO	NO	NO	YES
102A	68"	0.2	340	13	NO	NO	NO	NO
112	32"	0.2	160	15	NO	NO	NO	NO
130A	68"	0.2	340	58	NO	NO	NO	YES
130B	32"	0.2	160	58	NO	NO	NO	YES

GENERAL NOTES

1. COORDINATE ALL FIRE EXTINGUISHERS LOCATIONS SHOWN ON PLANS W/ LOCAL FIRE OFFICIAL'S REQUIREMENTS.
2. PROVIDE & INSTALL ALL BLOCKING IN WALLS AS REQUIRED FOR MOUNTING FIRE EXTINGUISHERS.
3. COORDINATE INSTALLATION REQUIREMENTS OF EXIT SIGNS, ALL ASSOCIATED HARDWARE, JUNCTION BOXES, WIRING & REQUIRED EXIT DEVICES W/ ELECTRICAL DRAWINGS & LOCAL INSPECTOR.
4. RATED WALLS AND PARTITIONS REQUIRED TO HAVE PROTECTED OPENINGS SHALL BE PERMANENTLY STENCILED EVERY 10'-0" ABOVE THE CEILING OR CONCEALED SPACE.

   EXAMPLE:
   - 1-HOUR RATED BARRIER - PROTECT ALL OPENINGS

TRAVEL DISTANCE

PATH OF TRAVEL SCHEDULE

MARK	LENGTH
PATH A	74'-7"
PATH C	57'-10"
PATH E	51'-7"
PATH F	55'-7"
PATH G	83'-11"

CODE REFERENCE

NCBC 1019.3

IN OTHER THAN GROUP I-2 AND I-3 OCCUPANCIES, FLOOR OPENINGS CONTAINING EXIT ACCESS STAIRWAYS OR RAMPS THAT DO NOT COMPLY WITH ONE OF THE CONDITIONS LISTED IN THIS SECTION SHALL BE ENCLOSED WITH A SHAFT ENCLOSURE CONSTRUCTED IN ACCORDANCE WITH SECTION 713.

1. EXIT ACCESS STAIRWAYS AND RAMPS THAT SERVE OR ATMOSPHERICALLY COMMUNICATE BETWEEN ONLY TWO STORIES. SUCH INTERCONNECTED STORIES SHALL NOT BE OPEN TO OTHER STORIES.

LEGEND

- PATH ID — EGRESS TRAVEL PATH
- 101A — DOOR TAG. REFER TO LIFE SAFETY EGRESS DOOR SCHEDULE.
- A1 — STAIR TAG. REFER TO LIFE SAFETY EGRESS STAIR SCHEDULE
- FEC — FIRE EXTINGUISHER CABINET
- SPACE NAME / 9,876 SF | 385 OCC — SPACE NAME; OCCUPANT LOAD (PEOPLE); SPACE AREA

RATED PARTITION LEGEND

- ONE HOUR FIRE RATING
- TWO HOUR FIRE RATING

GRAPHIC SCALE(S)

1/8" = 1' - 0" 0 5' 10' 15' 30'

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

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CN PROJ # : 10145

SCO ID # : 24-27956-01A

DESIGNER

CLARKNEXSEN
421 NORTH HARRINGTON STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27603
919-828-1876
CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

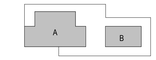
SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN



SHEET

FIRST FLOOR AND SECOND FLOOR LIFE SAFETY PLAN

GI101

DESIGN: DDK
DRAWN: AST/WMP/MCK
REVIEW: MB

CN 10145

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SURVEY NOTES:

1. THE FOLLOWING INFORMATION WAS USED FOR THE EXISTING SURVEY:
   a. COORDINATE SYSTEM: NORTH CAROLINA STATE PLANE FOOT
   b. PROJECT HORIZONTAL DATUM: NAD 83/2011
   c. VERTICAL DATUM: NAVD 88
   d. COORDINATE UNITS: US SURVEY FEET
   e. VERTICAL UNITS: US SURVEY FEET
2. PROPERTY BOUNDARY AND TOPOGRAPHIC SURVEY SHOWN AS PROVIDED BY JAMES I. PHILLIPS LAND SURVEYING, DATED SEPTEMBER 10, 2022.
3. WETLANDS, STREAMS, AND RIPARIAN BUFFERS SHOWN AS DELINEATED BY THE DAVEY RESOURCE GROUP AND MAPPED BY WITHERSRAVENEL, DATED JULY 18, 2023.
4. PROPERTY DOES FALL WITHIN FEMA FLOODPLAIN PER FEMA FIRM 3720730600J, EFFECTIVE DATE JULY 16, 2003.
5. NO DETERMINATION HAS BEEN MADE BY THE SURVEYOR AS TO THE FOLLOWING: UNDERGROUND STORAGE FACILITIES, UNDERGROUND UTILITIES, GRAVES, CEMETERIES, BURIAL GROUNDS, HAZARDOUS WASTE DEPOSITS OR MATERIALS.
6. SURVEY CONTROL POINTS PROVIDED IN NC STATE PLANE COORDINATES. ALL PROPOSED COORDINATES ARE GROUND COORDINATES. THE CONTRACTOR'S SURVEYOR IS RESPONSIBLE FOR ANY CONVERSIONS NEEDED FOR THE STAKEOUT OF THE PROPOSED GROUND COORDINATES SHOWN.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING ADDITIONAL CONTROLS THAT MAY BE NEEDED THROUGHOUT THE PROJECT.

GENERAL NOTES:

1. WORK ON THIS PROJECT SHALL CONFORM TO THE LATEST NORTH CAROLINA DEPARTMENT OF TRANSPORTATION (NCDOT) STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES, THE NORTH CAROLINA EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL, TOWN OF BEAUFORT STANDARDS AND SPECIFICATIONS, GEOTECHNICAL REPORTS, AND ANY OTHER APPLICABLE DESIGN STANDARDS AT THE TIME OF PLAN APPROVAL. IN THE EVENT OF CONFLICT BETWEEN ANY OF THESE STANDARDS, SPECIFICATIONS OR PLANS, THE MOST STRINGENT SHALL GOVERN, UNLESS OTHERWISE NOTED IN THESE PLANS.
2. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR HAVING VISITED THE SITE AND HAVING FAMILIARIZED THEMSELVES WITH THE EXISTING CONDITIONS PRIOR TO SUBMITTING A BID AND COMMENCING WORK.
3. ANY DISCREPANCIES, INCONSISTENCIES OR AMBIGUITIES FOUND BETWEEN THE DRAWINGS, SPECIFICATIONS, AND SITE CONDITIONS SHALL BE IMMEDIATELY REPORTED TO THE ENGINEER IN WRITING AND PRIOR TO BIDDING. WORK DONE BY THE CONTRACTOR AFTER THE DISCOVERY OF SUCH DISCREPANCIES, INCONSISTENCIES, OR AMBIGUITIES WITHOUT WRITTEN CLARIFICATION FROM THE ENGINEER AND APPROVAL BY OWNER SHALL BE DONE AT THE CONTRACTOR'S RISK AND EXPENSE.
4. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL JOBSITE SAFETY DURING ALL PHASES OF CONSTRUCTION. ALL WORK SHALL COMPLY WITH MUNICIPAL, TOWN OF BEAUFORT AND STATE REGULATIONS, AND OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS. CONTRACTOR SHALL COMPLY WITH THE LATEST REVISIONS AND INTERPRETATIONS OF THE DEPARTMENT OF LABOR SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION PROMULGATED UNDER THE OSHA ACT.
5. THE CONTRACTOR SHALL CALL "811" FOR PROPER IDENTIFICATION OF EXISTING UTILITIES AT LEAST 72 HOURS PRIOR TO ANY DEMOLITION, GRADING, OR CONSTRUCTION ACTIVITY.
6. THE CONTRACTOR IS RESPONSIBLE FOR HORIZONTALLY AND VERTICALLY LOCATING, AND SUBSEQUENTLY PROTECTING, ALL PUBLIC OR PRIVATE UTILITIES (SHOWN OR NOT SHOWN) THAT LIE IN OR ADJACENT TO THE PROJECT SITE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE UNDERGROUND UTILITIES. ALL UTILITIES AND FACILITIES ARE NOT NECESSARILY SHOWN. HAND DIGGING TO PROTECT UTILITIES FROM DAMAGE MAY BE REQUIRED.
7. ANY UTILITIES AND EXISTING SITE ELEMENTS (I.E. SIGNS, ROADWAYS, PATHS, STRUCTURES, NATURAL VEGETATION, OTHER EXISTING PROPERTY ITEMS, ETC.) DAMAGED DURING THE PROJECT BY THE CONTRACTOR'S WORKERS OR EQUIPMENT SHALL BE PROMPTLY REPAIRED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER AND ENGINEER.
8. CONTRACTOR SHALL MAKE EVERY EFFORT TO PRESERVE PROPERTY IRONS, MONUMENTS, OTHER PERMANENT POINTS AND LINES OF REFERENCE AND CONSTRUCTION STAKES. A NORTH CAROLINA LICENSED LAND SURVEYOR SHALL REPLACE, AT THE CONTRACTOR'S EXPENSE, PROPERTY IRONS, MONUMENTS, OTHER PERMANENT POINTS AND LINES OF REFERENCE AND CONSTRUCTION STAKES DESTROYED BY THE CONTRACTOR.
9. CONTRACTOR SHALL PLAN AND CONSTRUCT WORK IN ORDER TO CAUSE MINIMUM DISTURBANCE TO THE OWNER, ADJACENT PROPERTIES AND THE PUBLIC. CONTRACTOR SHALL COORDINATE WITH AND OBTAIN APPROVAL FROM STATE AND LOCAL REGULATORY AGENCIES ON TRAFFIC CONTROL PLANS.
10. ADJACENT STREETS AND SIDEWALKS SHALL BE MAINTAINED IN A CLEAN CONDITION, MUD AND DUST-FREE.
11. THE CONTRACTOR SHALL HAVE A COMPLETE SET OF CONTRACT DOCUMENTS AS WELL AS ALL PERMIT APPROVALS AND EXECUTED EASEMENTS ON THE JOB SITE AT ALL TIMES.
12. CONSTRUCTION STAKEOUT FOR THIS PROJECT MAY BE PERFORMED BY THE CONTRACTOR, USING A DIGITAL (CADD) FILE PROVIDED BY THE ENGINEER. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES FOUND BETWEEN THE DIGITAL FILE AND THE CRITICAL STAKING DIMENSIONS SHOWN ON THIS PLAN (I.E. PAVEMENT WIDTHS, CURB RADII, BUILDING SETBACKS, BUILDING FOOTPRINTS, ETC.). ANY MODIFICATIONS MADE BY OTHERS TO THE DIGITAL FILE PROVIDED BY THE ENGINEER SHALL RENDER IT VOID.
13. WETLANDS SHOWN SHALL NOT BE CLEARED, DRAINED, OR OTHERWISE DISTURBED UNLESS SPECIFICALLY PERMITTED BY THE UNITED STATES ARMY CORPS OF ENGINEERS (USACE) OR NC DIVISION OF COASTAL MANAGEMENT (DCM) OR NC DIVISION OF WATER RESOURCES (DWR), AS APPLICABLE.
14. ANY WETLANDS THAT ARE TEMPORARILY IMPACTED DUE TO CONSTRUCTION ACTIVITIES SHALL BE RETURNED TO PRE-CONSTRUCTION GRADE AND SEEDED WITH A WETLAND SEED MIX IN ACCORDANCE WITH THE SEDIMENT & EROSION CONTROL PLAN.
15. CONTRACTOR SHALL FURNISH AND INSTALL ALL PAVEMENT MARKINGS FOR FIRE LANES, PARKING STALLS, ACCESSIBLE PARKING SYMBOLS, AND MISCELLANEOUS STRIPING WITHIN PARKING LOT AND AROUND BUILDINGS AS SHOWN ON THE PLANS. ALL PAINT FOR PAVEMENT MARKINGS SHALL ADHERE TO NCDOT STANDARDS, UNLESS NOTED OTHERWISE.
16. ACCESSIBLE ROUTES AND PARKING AREAS MUST BE PROVIDED IN ACCORDANCE WITH THE CURRENT NORTH CAROLINA BUILDING CODE AND ADA STANDARDS FOR ACCESSIBLE DESIGN.
17. TESTING OF MATERIAL REQUIRED FOR THE CONSTRUCTION OF THE IMPROVEMENTS SHALL BE PERFORMED BY AN APPROVED AGENCY FOR TESTING MATERIALS. THE NOMINATION OF THE TESTING LAB AND THE PAYMENT OF EACH TESTING SERVICES SHALL BE MADE BY THE OWNER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO SHOW BY STANDARD TESTING PROCEDURES THAT THE WORK CONSTRUCTED MEETS THE REQUIREMENT OF THE NCDOT AND MUNICIPAL SPECIFICATIONS.

DEMOLITION NOTES:

1. CONTRACTOR SHALL COORDINATE WITH THE OWNER TO PROPERLY MAINTAIN, REMOVE OR RELOCATE EXISTING SERVICE CONNECTIONS WHEN NECESSARY.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING SURROUNDING NEIGHBORS ABOUT ANY POTENTIAL INTERRUPTION TO SERVICE OF ANY KIND.
3. EXISTING UTILITIES NOT INTENDED FOR DEMOLITION SHALL BE MAINTAINED, PROTECTED AND UNDISTURBED DURING CONSTRUCTION ACTIVITIES.
4. THE CONTRACTOR SHALL PROTECT ALL ADJACENT PROPERTY, STRUCTURES AND UTILITIES. DAMAGE TO PROPERTIES OF OTHERS DUE TO THE CONTRACTOR'S ACTIVITIES SHALL BE AT THE CONTRACTOR'S EXPENSE AND SHALL BE REPLACED BY THE CONTRACTOR TO THE SATISFACTION OF THE OWNER.
5. ALL MATERIAL CLEARED OR DEMOLISHED BY THE CONTRACTOR IN ORDER TO CONSTRUCT THE WORK SHALL BECOME THE PROPERTY OF THE CONTRACTOR, UNLESS OTHERWISE NOTED AND SHALL BE PROPERLY DISPOSED OF OFF-SITE.
6. SAW CUTS OF EXISTING PAVEMENTS, CURBS, GUTTERS AND SIDEWALKS SHALL PRODUCE A NEAT VERTICAL EDGE.
7. ALL DEMOLITION WORK SHALL BE DONE IN STRICT ACCORDANCE WITH AUTHORITIES HAVING JURISDICTION.
8. ALL PERMITS REQUIRED FOR THE DEMOLITION WORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN PRIOR TO THE START OF DEMOLITION ACTIVITIES.

STORM DRAINAGE NOTES:

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CURRENT TOWN OF BEAUFORT STANDARDS AND NCDOT STANDARD SPECIFICATIONS AND DETAILS.
2. CONTRACTOR SHALL VERIFY AND COORDINATE ALL DIMENSIONS SHOWN, INCLUDING, BUT NOT LIMITED TO THE HORIZONTAL AND VERTICAL LOCATION OF STRUCTURES AND UTILITIES CROSSING THE STORM SEWER PIPE.
3. CONTRACTOR SHALL PROVIDE ALL MATERIALS AND APPURTENANCES NECESSARY FOR COMPLETE INSTALLATION OF THE STORM SEWER DRAINAGE SYSTEM.
4. ALL STORM SEWER PIPE SHALL BE MINIMUM CLASS III REINFORCED CONCRETE PIPE (RCP), UNLESS OTHERWISE NOTED.
5. IF THERE ARE DISCREPANCIES BETWEEN THE PLAN AND FIELD CONDITIONS RELATED TO WHERE THE PROPOSED STORM SEWER PIPING TIES TO EXISTING STRUCTURES, PIPES, SWALES, ETC., THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND OWNER. AFTER NOTIFICATION TO ENGINEER AND OWNER, THE CONTRACTOR SHALL PERFORM THE AGREED UPON FIELD ADJUSTMENTS TO MATCH THE LOCATIONS OF THESE EXISTING FEATURES.
6. ALL STORM SEWER PIPE SHALL HAVE A MINIMUM COVER OF 1 FOOT TO THE PIPE CROWN.

GRADING NOTES:

1. ALL AREAS SHALL BE GRADED FOR POSITIVE DRAINAGE, AND AS SHOWN ON THESE PLANS. THE CONTRACTOR SHALL MAINTAIN ADEQUATE SITE DRAINAGE DURING ALL PHASES OF CONSTRUCTION. IN ADDITION TO THE MEASURES SHOWN IN THESE PLANS, THE CONTRACTOR SHALL USE INTERIM DIVERSION DITCHES, BERMS, OR OTHER METHODS AS REQUIRED TO DIRECT DRAINAGE AS SHOWN ON THESE PLANS AND TO PREVENT SILT AND CONSTRUCTION DEBRIS FROM FLOWING ONTO ADJACENT PROPERTIES, ROADWAYS, AND ENVIRONMENTALLY SENSITIVE AREAS SUCH AS BUFFERS AND WETLANDS. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND OWNER IN WRITING OF ANY DISCREPANCIES OR CONCERNS.
2. ALL SOILS USED FOR BACKFILL SHALL BE FREE OF UNSATISFACTORY MATERIALS INCLUDING ROCK OR GRAVEL LARGER THAN 3 INCHES IN ANY DIMENSION, DEBRIS, WASTE, FROZEN MATERIALS, VEGETATION AND OTHER DELETERIOUS MATTER. UNSATISFACTORY MATERIALS ALSO INCLUDE MAN-MADE FILLS AND REFUSE DEBRIS DERIVED FROM ANY SOURCE. THE CONTRACTOR SHALL CONSULT WITH THE SITE GEOTECHNICAL ENGINEER PRIOR TO BACKFILL PLACEMENT TO VERIFY BACKFILL MEETS PROJECT REQUIREMENTS.
3. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING ALL SOIL TESTING IS PERFORMED AND THE RESULTS FORWARDED TO THE ENGINEER AND OWNER.
4. MATERIALS USED TO CONSTRUCT EMBANKMENTS FOR ANY PURPOSE, BACKFILL AROUND DRAINAGE STRUCTURES, OR IN UTILITY TRENCHES FOR ANY OTHER DEPRESSION REQUIRING FILL OR BACKFILL SHALL MEET THE REQUIREMENTS OF THE PROJECT GEOTECHNICAL ENGINEER RECOMMENDATIONS.
5. THE CONTRACTOR SHALL, PRIOR TO ANY OPERATIONS INVOLVING FILLING OR BACKFILLING, SUBMIT TO THE OWNER AND PROJECT GEOTECHNICAL ENGINEER THE RESULTS OF THE PROCTOR TEST TOGETHER WITH A CERTIFICATION THAT THE SOIL TESTED IS REPRESENTATIVE OF THE MATERIALS TO BE USED ON THE PROJECT. TESTS SHALL BE CONDUCTED BY A NORTH CAROLINA CERTIFIED MATERIALS TESTING LABORATORY AND CERTIFICATIONS MADE BY A LICENSED PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF NORTH CAROLINA REPRESENTING THE LABORATORY.
6. ALL PAVEMENT SUBGRADES SHALL BE SCARIFIED TO A DEPTH OF 8 INCHES AND COMPACTED TO A MINIMUM DENSITY OF 100 PERCENT OF ASTM D1557 DENSITY AT OPTIMUM MOISTURE CONTENT UNLESS OTHERWISE SHOWN ON THE CONSTRUCTION PLANS OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER.
7. RETAINING WALLS OR MECHANICALLY STABILIZED EARTH WALLS SHALL BE DESIGNED AND CONSTRUCTED UNDER THE RESPONSIBLE CHARGE OF A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF NORTH CAROLINA AND COMPLY IN ALL ASPECTS WITH THE NC BUILDING CODE.
8. CONTOURS AND GUTTER GRADIENTS ARE APPROXIMATE. SPOT ELEVATIONS ARE TO BE USED IN CASE OF DISCREPANCY.
9. CONTRACTOR SHALL OBTAIN ALL PERMITS AS REQUIRED FOR BLASTING ROCK IF BLASTING ROCK IS REQUIRED. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH ALL REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION RELATED TO BLASTING AND SAFETY.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DEWATERING NECESSARY TO CONSTRUCT THE PROJECT AS SHOWN ON THE PLANS. DEWATERING SHALL BE INCIDENTAL TO GRADING OPERATIONS.
11. MASS GRADING OPERATIONS SHALL BE PHASED TO LIMIT EXPOSED AREAS. PRIOR TO PROCEEDING TO ANOTHER PHASE, THE PRESENT PHASE SHALL BE STABILIZED WITH ADEQUATE GROUND COVER SUFFICIENT TO RESTRAIN EROSION AND HAVE ALL INFRASTRUCTURE INSTALLED. SEE GROUND COVER REQUIREMENTS WITHIN THESE PLANS OR CONSULT THE MUNICIPAL EROSION CONTROL SPECIALIST.
12. THE FRAMES AND COVERS OF ALL EXISTING AND PROPOSED DRAINAGE, SANITARY SEWER, WATER MAIN, GAS AND ELECTRIC UTILITY STRUCTURES SHALL BE ADJUSTED TO MATCH PROPOSED FINISHED ELEVATIONS AND SLOPES UNLESS OTHERWISE SHOWN ON THE PLANS.
13. BEFORE ANY EARTHWORK IS DONE, THE CONTRACTOR SHALL STAKE OUT AND MARK THE LIMITS OF CONSTRUCTION AND OTHER ITEMS ESTABLISHED IN THE PLANS. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY SURVEYING FOR LINE AND GRADE CONTROL POINTS RELATED TO EARTHWORK.
14. REFERENCE STRUCTURAL DRAWINGS, SPECIFICATIONS, AND/OR DIRECTIVES PROVIDED BY THE PROJECT GEOTECHNICAL ENGINEER FOR BUILDING PAD AND PAVING SUBGRADE INFORMATION.

TREE PROTECTION NOTES:

1. ALL TREES THAT ARE TO REMAIN, WITHIN OR DIRECTLY ADJACENT TO THE LIMITS OF WORK, MUST BE PROTECTED WITH TREE PROTECTION FENCE AS INDICATED ON THE PLANS TO THE EXTENT OF THE TREE BOX OR THE DRIP LINE IN A PLANTING STRIP. THE DRIP LINE IS DEFINED AS THE GROUND AREA UNDER THE CANOPY OF THE TREE. FENCING IS TO BE INSTALLED PRIOR TO CONSTRUCTION, MAINTAINED THROUGHOUT, AND REMOVED ONLY AT THE END OF THE PROJECT.
2. NONE OF THE FOLLOWING SHALL OCCUR WITHIN THE ROOT ZONE OF A TREE WITHOUT PERMISSION OF LANDSCAPE ARCHITECT OR PROJECT ARBORIST: ALTERATION OR DISTURBANCE TO EXISTING GRADE; STAGING OR STORAGE OF CONSTRUCTION MATERIALS, EQUIPMENT USE, SOIL OR DEBRIS REMOVAL OR STOCKPILING; TRENCHING; OR DISPOSAL OF ANY LIQUIDS.
3. APPROVED EXCAVATIONS WITHIN THE DRIP LINE SHALL PROCEED WITH CARE BY USE OF HAND TOOLS OR EQUIPMENT THAT WILL NOT CAUSE INJURY TO TREE TRUNKS, BRANCHES AND ROOTS.
4. NO ROOTS GREATER THAN 2 INCHES IN DIAMETER SHALL BE CUT WITHOUT PERMISSION OF LANDSCAPE ARCHITECT OR PROJECT ARBORIST. EXPOSED ROOTS 2 INCHES AND LARGER IN DIAMETER SHALL BE WRAPPED IN BURLAP OR OTHER APPROVED MATERIAL AND KEPT MOIST AT ALL TIMES.
5. IF THERE ARE ANY TREE CONFLICTS ON THIS JOB SITE, PERMIT HOLDER MUST SUSPEND ALL WORK THAT CONTRIBUTES TO THE CONFLICT AND IMMEDIATELY CONTACT LANDSCAPE ARCHITECT OR PROJECT ARBORIST FOR DIRECTION AND CLEARANCE TO CONTINUE THE CONFLICTING WORK.
6. TREES THAT ARE PROTECTED SHALL BE THOROUGHLY WATERED AS REQUIRED TO KEEP ROOT BALLS FROM DRYING OUT, ESPECIALLY BETWEEN APRIL THROUGH SEPTEMBER.

UTILITIES NOTES:

1. GENERALLY, FILL MATERIAL SHALL BE IN PLACE AND COMPACTED BEFORE INSTALLATION OF PROPOSED UTILITIES.
2. ALL NECESSARY INSPECTIONS, CERTIFICATIONS, OR TESTING REQUIRED BY CODES OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO MUNICIPAL APPROVAL FOR THE FINAL CONNECTION OF SERVICE. CONTRACTOR SHALL BE RESPONSIBLE FOR PAYMENT OF TESTING SERVICES AND COORDINATION WITH UTILITY OWNER.
3. CONTRACTOR SHALL PROVIDE ALL MATERIALS AND APPURTENANCES NECESSARY FOR COMPLETE INSTALLATION OF THE IMPROVEMENTS SHOWN.
4. THE CONTRACTOR SHALL REPORT, IN WRITING ANY UTILITY CONFLICTS TO THE ENGINEER IMMEDIATELY UPON DISCOVERING CONFLICTS.
5. PRIOR TO UTILITY RELOCATION, REMOVAL OR ABANDONMENT, THE CONTRACTOR SHALL COORDINATE WITH THE LOCAL UTILITY PROVIDERS. KNOWN UTILITY PROVIDER INFORMATION IS CONTAINED ON THIS PLAN SHEET.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING SURROUNDING NEIGHBORS ABOUT ANY POTENTIAL INTERRUPTION TO SERVICE OF ANY KIND.
7. THE CONTRACTOR SHALL MAINTAIN A MINIMUM COVER OF 3 FEET ON ALL PROPOSED WATER LINES. THREE FEET SHALL BE MEASURED TO THE BOTTOM OF THE PROPOSED SUBGRADE WITHIN PAVED AREAS.
8. THE CONTRACTOR SHALL MAINTAIN A MINIMUM COVER OF 3 FEET ON ALL PROPOSED SANITARY LINES. THREE FEET SHALL BE MEASURED TO THE BOTTOM OF THE PROPOSED SUBGRADE WITHIN PAVED AREAS.
9. THE CONTRACTOR SHALL MAINTAIN SEPARATION OF WATER MAIN FROM SANITARY SEWER PIPING IN ACCORDANCE WITH THOSE DISTANCES SPECIFIED BY STATE AND/OR LOCAL CODE OR A MINIMUM OF 10 FEET HORIZONTAL OR 18 INCHES VERTICAL DISTANCE.
10. THE CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES FOR INSTALLATION OF ALL PROPOSED POWER AND COMMUNICATION LINES AND ASSOCIATED APPURTENANCES.

UTILITY CONTACT INFORMATION:

WATER AND SANITARY SEWER SERVICE:
PROVIDER: TOWN OF BEAUFORT
ADDRESS: 701 FRONT STREET
CONTACT: GREGORY MESHAW, PE
PHONE: 252-528-8769
EMAIL: G.MESHAW@BEAUFORTNC.ORG

EROSION & SEDIMENT CONTROL NOTES:

1. CONTRACTOR SHALL INSTALL EROSION CONTROLS IN ORDER WITH THE SEQUENCE PROVIDED.
2. CONTRACTOR SHALL ENSURE GRADING OPERATIONS ARE CONDUCTED IN A MANNER THAT DOES NOT ALLOW ANY SEDIMENT TO DRAIN OFFSITE OR INTO WATERCOURSES.
3. A GRAVEL CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED AT THE LOCATIONS SHOWN ON THE DRAWINGS AND AT EACH POINT OF CONSTRUCTION ACCESS.
4. CONTRACTOR SHALL CONSTRUCT DIVERSION DITCHES AS NECESSARY TO ENSURE ALL SEDIMENT IS DIRECTED INTO EROSION CONTROL MEASURES.
5. IF STORM CROSS DRAINAGE CANNOT BE INSTALLED PRIOR TO GRADING, TEMPORARY HDPE STORM DRAINAGE PIPE SHALL BE USED TO CROSS WET WEATHER CHANNELS, EXCLUDING ANY PROTECTED WETLANDS OR STREAMS.
6. ALL STORM DRAINAGE PIPE SHALL BE PROTECTED AS SHOWN ON THE PLANS DURING CONSTRUCTION.
7. CONTRACTOR SHALL PROVIDE RIPRAP LINED DISSIPATOR PADS AT THE STORM DRAINAGE PIPE DISCHARGE POINTS AS REQUIRED TO ENSURE POSITIVE DRAINAGE. SEE PLANS FOR DIMENSIONS AND DETAILS.
8. PERMANENT GROUND COVER SHALL BE ESTABLISHED PER APPROVED NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT.
9. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT AN EROSION CONTROL PERMIT AND ANY OTHER RELATED PERMITS ARE SECURED FOR ANY OFF-SITE WASTE OR BORROW AREAS. UNLESS OTHERWISE STATED IN THE PROJECT DOCUMENTS, THE CONTRACTOR IS RESPONSIBLE FOR SECURING ALL AGREEMENTS WITH LANDOWNERS FOR PLACEMENT OF WASTE SOIL OR REMOVAL OF BORROW. OFF-SITE PERMITS AND AGREEMENTS SHALL EXIST PRIOR TO CONSTRUCTION ACTIVITIES ON WASTE OR BORROW AREAS.
10. SOILS CONTAMINATED WITH ANY CHEMICAL, METAL OR PETROLEUM CONTAMINATION SHALL NOT BE TRANSPORTED ONTO THE PROPERTY AS BORROW / FILL SOILS. CONTAMINATED SOILS, IF DISCOVERED ON THE PROPERTY SHALL NOT BE TRANSPORTED OFFSITE WITHOUT TESTING, PERMITTING AND/OR OTHER REGULATORY APPROVALS COMMENSURATE WITH THE TYPE OF CONTAMINATION AND LOCATION.
11. TEMPORARY DIVERSIONS ARE TO REMAIN IN PLACE UNTIL THE STORM DRAINAGE SYSTEM IS IN PLACE, THE UPSTREAM AREA IS STABILIZED AND/OR APPROVAL FROM MUNICIPAL EROSION CONTROL INSPECTOR IS RECEIVED.

SEQUENCE OF CONSTRUCTION:

1. INSTALL CONSTRUCTION ENTRANCE.
2. INSTALL SILT FENCE AND TREE PROTECTION FENCE AS SHOWN ON PLANS.
3. CLEAR AND REMOVE FROM SITE ALL NOTED STRUCTURES, PAVEMENT, TREES, ROOTS, ROOT MAT, ETC. FROM THE AREA WITHIN DESIGNATED CLEARING LIMITS.
4. INSTALL/UPDATE NOTED EROSION CONTROL DEVICES INCLUDING SEDIMENT BASINS, SKIMMER BASINS, AND TEMPORARY DIVERSION DITCHES.
5. GRADE SITE AND INSTALL UTILITIES AS SHOWN ON PLANS. ALL TRENCHES SHALL BE BACKFILLED AND STABILIZED DAILY.
6. REMOVE TEMPORARY DIVERSION DITCHES AS NEEDED FOR SITE CONSTRUCTION. AFTER DITCH REMOVAL, CONTRACTOR SHALL VERIFY STORM WATER IS ROUTED THROUGH A VEGETATED SWALE OR SILT FENCE PRIOR TO LEAVING SITE.
7. PLANT GRASS OVER ALL GRADED AREAS AS NOTED IN STABILIZATION NOTES.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING AND RESTORING TO PRE-CONSTRUCTION CONDITIONS ANY AREAS OUTSIDE THE PROJECT LIMITS THAT MAY INADVERTENTLY BE DAMAGED DUE TO THE FAILURE OF THE EROSION MEASURES.
9. WHEN DEWATERING THE TEMPORARY BASINS, SEDIMENT FILTER BAGS SHALL BE USED AS SHOWN ON THE PLAN. SEDIMENT BAGS TO BE CONTINUOUSLY MONITORED DURING OPERATION.
10. DURING GRADING AND AFTER GRADING HAS BEEN COMPLETED, CONTRACTOR SHALL CONTINUE TO MAINTAIN PERMANENT AND TEMPORARY EROSION CONTROL MEASURES UNTIL FINAL INSPECTION AND APPROVAL BY THE ENGINEER.
11. WATER, FERTILIZE, MOW, AND MAINTAIN SPRIGGED, SODDED, AND PLANTED AREAS UNTIL FINAL APPROVAL BY THE STATE OF NORTH CAROLINA.
12. PERIMETER MEASURES MUST BE LEFT IN PLACE UNTIL ALL UPLAND AREAS ARE PERMANENTLY STABILIZED. AFTER SITE IS PERMANENTLY STABILIZED, REMOVE ALL TEMPORARY EROSION CONTROL MEASURES AND PROVIDE PERMANENT SEEDING WHERE TEMPORARY MEASURES HAVE BEEN REMOVED AND GROUND COVER IS NOT ADEQUATE. SEDIMENT BASINS MAY NOT BE REMOVED OR CONVERTED TO PERMANENT BMPS UNTIL ALL UPLAND AREAS ARE PERMANENTLY STABILIZED.
13. WHEN THE PROJECT IS COMPLETE, THE PERMITTEE SHALL CONTACT DEMLR TO CLOSE OUT THE E&SC PLAN.

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

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SCO ID # : 24-27956-01A

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PROFESSIONAL SEAL
NORTH CAROLINA PROFESSIONAL SEAL 052479 ENGINEER BRIAN C BERGERON
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6/6/2024

SUBMITTAL
JUNE 7, 2024
BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET
GENERAL NOTES

C0.01

DESIGN: RCB
DRAWN: GWR
REVIEW: RCB

CN 10145

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EROSION AND SEDIMENT CONTROL NOTES:

EROSION CONTROL AND SEQUENCE OF CONSTRUCTION NOTES:

1. EROSION AND SEDIMENT CONTROL (E&SC) PERMIT AND A CERTIFICATE OF COVERAGE (COC) MUST BE OBTAINED BEFORE ANY LAND DISTURBING ACTIVITIES OCCUR.
2. CONTACT THE DEMLR WILMINGTON REGIONAL OFFICE AT LEAST 48 HOURS PRIOR TO COMMENCING THE LAND-DISTURBING ACTIVITY.
3. PER NPDES REQUIREMENTS, A RAIN GAUGE, SELF-INSPECTIONS RECORDS, PERMIT, CERTIFICATE OF COVERAGE, AND S&E PLAN ARE REQUIRED TO BE MAINTAINED ON SITE AND ACCESSIBLE DURING INSPECTION. IT IS RECOMMENDED THAT THESE ITEMS BE PLACED IN A PERMITS BOX AT THE BEGINNING OR ENTRANCE OF PROJECT.
4. THE CONTRACTOR SHALL CONDUCT SELF-INSPECTIONS OF THE EROSION AND SEDIMENTATION CONTROL MEASURES AND COMPETE THE FOLLOWING COMBINED SELF-INSPECTION FORM FOUND ON THE DEMLR WEBSITE: HTTPS://DEQ.NC.GOV/ABOUT/DIVISIONS/ENERGY-MINERAL-LAND-RESOURCES/EROSION-SEDIMENT- CONTROL/FORMS. TWELVE MONTHS OF COMPLETE INSPECTION FORMS SHALL BE KEPT ON-SITE AND AVAILABLE FOR INSPECTION AT ALL TIMES. IT IS RECOMMENDED A COPY BE KEPT IN A PERMITS BOX.
5. SELF-INSPECTIONS FOR EROSION AND SEDIMENTATION CONTROL MEASURES ARE TO BE PERFORMED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF EVERY RAIN EVENT OF GREATER THAN 1 INCH. ANY NEEDED REPAIRS SHALL BE MADE IMMEDIATELY TO MAINTAIN MEASURES AS DESIGNED. ALL ESC MEASURES SHALL BE MAINTAINED AS SPECIFIED IN THE CONSTRUCTION DETAILS ON THIS PLAN. A RAIN GAUGE SHALL BE INSTALLED AT THE PROJECT SITE FOR MONITORING.

MAINTENANCE PLAN:

1. ALL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY RUNOFF-PRODUCING RAINFALL BUT IN NO CASE LESS THAN ONCE EVERY WEEK AND WITHIN 24 HOURS OF EVERYONE INCH RAINFALL. ANY NEEDED REPAIRS WILL BE MADE IMMEDIATELY TO MAINTAIN ALL PRACTICES AS DESIGNED.
2. ALL POINTS OF EGRESS WILL HAVE CONSTRUCTION ENTRANCES THAT WILL BE PERIODICALLY TOP-DRESSED WITH AN ADDITIONAL 2 INCHES OF #4 STONE TO MAINTAIN PROPER DEPTH. THEY WILL BE MAINTAINED IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE SITE. IMMEDIATELY REMOVE OBJECTIONABLE MATERIAL SPILLED WASHED OR TRACKED ONTO THE CONSTRUCTION ENTRANCE OR ROADWAYS.
3. SEDIMENT WILL BE REMOVED BEHIND THE SEDIMENT FENCE WHEN IT BECOMES 0.5 FEET DEEP AT THE FENCE. THE SEDIMENT FENCE WILL BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER. SILT FENCE STAKES WILL BE SPACED 6 FEET APART UNLESS A WIRE BACKING IS USED WITH 8 FOOT STAKE SPACING.
4. SEDIMENT WILL BE REMOVED FROM BASINS WHEN THE SEDIMENT POOL NO LONGER DRAINS OR WHEN THE ROCK IS DISLODGED. BAFFLES WILL BE REPAIRED OR REPLACED IF THEY COLLAPSE, TEAR, DECOMPOSE OR BECOME INEFFECTIVE. THEY WILL BE REPLACED PROMPTLY. SEDIMENT WILL BE REMOVED WHEN DEPOSITS REACH HALF THE HEIGHT OF THE 1ST BAFFLE.
5. INLET PROTECTION DEVICES SHALL BE INSPECTED AFTER EVERY RAINFALL EVENT. DAMAGED SILT FENCE SHALL BE REPLACED AND GRAVEL SHALL BE CLEANED OR REPLACED WHEN INLET NO LONGER DRAINS PROPERLY.
6. ALL SEEDED AREAS WILL BE FERTILIZED, RESEEDED AS NECESSARY, AND MULCHED ACCORDING TO SPECIFICATIONS IN THE VEGETATIVE PLAN TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER. ALL SLOPES WILL BE STABILIZED WITHIN 7-14 CALENDAR DAYS. ALL OTHER AREAS WILL BE STABILIZED WITHIN 15 WORKING DAYS.
7. SEDIMENT WILL BE REMOVED FROM AROUND TEMPORARY ROCK CHECK DAMS ONCE A WEEK AND AFTER EVERY RAIN EVENT.

STABILIZATION NOTES

1. SLOPES LEFT EXPOSED WILL, WITHIN 7-14 CALENDAR DAYS OF ANY PHASE OF GRADING, BE PLANTED OR OTHERWISE PROVIDED WITH GROUND COVER, DEVICES, OR STRUCTURES TO RESTRAIN EROSION.
2. ALL OTHER DISTURBED AREAS SHALL BE PLANTED OR OTHERWISE PROVIDED PERMANENT GROUND COVER WITHIN 15 WORKING DAYS OR 90 CALENDAR DAYS FOLLOWING COMPLETION OF CONSTRUCTION OR DEVELOPMENT WHICHEVER PERIOD IS SHORTER.

BUILDING WASTES HANDLING

1. NO LIQUID WASTES OR PARTS THEREOF SHALL BE DISCHARGED INTO STREAM OR STORM DRAINS.
2. DEDICATED AREAS FOR DEMOLITION, CONSTRUCTION AND OTHER WASTES MUST BE LOCATED 50' FROM STORM DRAINS AND STREAMS UNLESS NO REASONABLE ALTERNATIVES AVAILABLE.
3. EARTHEN-MATERIALS STOCKPILES MUST BE LOCATED 50' FROM STORM DRAINS AND STREAMS UNLESS NO REASONABLE ALTERNATIVES AVAILABLE.
4. CONCRETE MATERIALS MUST BE CONTROLLED TO AVOID CONTACT WITH SURFACE WATERS, WETLANDS, OR BUFFERS.

INSPECTIONS

1. INSPECT RAIN GAUGE & INSPECTIONS AFTER 1" RAIN EVENT.
2. INSPECTIONS ARE ONLY REQUIRED DURING "NORMAL BUSINESS HOURS".
3. INSPECTION REPORTS MUST BE AVAILABLE ON-SITE DURING BUSINESS HOURS UNLESS A SITE-SPECIFIC EXEMPTION IS APPROVED.
4. RECORDS MUST BE KEPT FOR 3 YEARS AND AVAILABLE UPON REQUEST.
5. ELECTRONICALLY AVAILABLE RECORDS MAY BE SUBSTITUTED UNDER CERTAIN CONDITIONS.

NPDES-SPECIFIC PLAN SHEETS NOTES

1. THIS PAGE IS SUBMITTED TO COMPLY WITH NPDES GENERAL STORMWATER PERMIT NCG010000.
2. THIS PAGE CAN BE APPROVED BY THE COUNTY PURSUANT TO NPDES GENERAL STORMWATER PERMIT NCG010000 ONLY.
3. THIS PAGE OF THE APPROVED PLANS IS ENFORCEABLE ELUSIVELY PURSUANT TO NPDES GENERAL STORMWATER PERMIT NCG010000.
4. THE COUNTY IS NOT AUTHORIZED TO ENFORCE THIS PAGE OF THE PLANS AND IT NOT PART OF THE APPROVED PLANS FOR THE PURPOSED OF ENFORCEMENT ACTION UNDER THE COUNTY CODE.

GROUND STABILIZATION CHART

SITE AREA DESCRIPTION	STABILIZATION	TIMEFRAME EXCEPTIONS
DIKES, SWALES, DITCHES, AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HQW ZONES.

SEEDING NON-WETLAND AREAS

A. TEMPORARY NON-WETLAND SEEDING

1. SEEDING SCHEDULE

TEMPORARY SEEDING OF NON-WETLAND AREAS

DATES	SEED MIXTURE SPECIES	APPLICATION RATE (LB/ACRE)
JAN 1 – MAY 1	RYE GRAIN	120
	SWITCHGRASS	50
MAY 1 – AUG 15	GERMAN MILLET	40
AUG 15 – DEC 30	RYE GRAIN	120

2. SOIL AMENDMENTS
   a. FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 2,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 750 LB/ACRE 10-10-10 FERTILIZER.
3. MULCH
   a. APPLY 4,000 LB/ACRE STRAW. ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING, OR A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.
4. MAINTENANCE
   a. WINTER, EARLY SPRING, AND SUMMER
      1) REFERTILIZE IF GROWTH IS NOT FULLY ADEQUATE. RESEED, REFERTILIZE, AND MULCH IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE.
   b. FALL
      1) REPAIR AND REFERTILIZE DAMAGED AREAS IMMEDIATELY. TOPDRESS WITH 50 LB/ACRE OF NITROGEN IN MARCH. IF IT IS NECESSARY TO EXTEND TEMPORARY COVER BEYOND JUNE 15 OVERSEED WITH 50 LB/ACRE KOBE LESPEDEZA IN LATE FEBRUARY OR EARLY MARCH.
5. TEMPORARY SEEDING MUST BE FOLLOWED UP WITH PERMANENT SEEDING AS SOON A PRACTICAL.

B. PERMANENT NON-WETLAND SEEDING

1. SEED ALL DISTURBED AREAS OF CONSTRUCTION.
2. NO SEEDING SHOULD BE UNDERTAKEN IN WINDY OR UNFAVORABLE WEATHER, WHEN THE GROUND IS TOO WET TO RAKE EASILY, WHEN IT IS IN A FROZEN CONDITION, OR TOO DRY.
3. THE SUBGRADE OF ALL AREAS TO BE SEEDED SHALL BE RAKED AND ALL RUBBISH, STICKS, ROOTS, AND STONES LARGER THAN 2 INCHES SHALL BE REMOVED.
4. THE SUBGRADE SHALL BE SCARIFIED OR OTHERWISE LOOSENED TO A MINIMUM DEPTH OF 4 INCHES.
5. APPLY GROUND AGRICULTURAL LIMESTONE AT A RATE OF 3,000 - 4,000 LB/ACRE.
6. APPLY 10-10-10 FERTILIZER AT A RATE OF 1,000 LB/ACRE. FERTILIZER SHALL BE UNIFORMLY SPREAD AND DISKED OR ROTO_TILLED TO A DEPTH OF AT LEAST 4 INCHES.
7. PERMANENT SEEDING
   a. IMMEDIATELY FOLLOWING THIS PREPARATION, PERMANENT SEED SHALL BE UNIFORMLY APPLIED AND LIGHTLY RAKED INTO THE SURFACE. LIGHTLY ROLL THE SURFACE AND WATER WITH FINE SPRAY. PERMANENT SEED SHALL BE APPLIED AT THE FOLLOWING RATES:

PERMANENT SEEDING OF NON-WETLAND AREAS

DATES	SEED MIXTURE SPECIES	APPLICATION RATE (LB/ACRE)
APR 15 – JUN 30	BERMUDA GRASS	25
MAY 1 – SEP 1	SWITCHGRASS	40
SEP 1 – APR 1	TALL FESCUE	120
SEP 1 – MAY 1	BIG BLUESTEM	80

   b. THE BEST SEEDING DATES ARE BETWEEN SEPTEMBER 1 THROUGH SEPTEMBER 30 AND FEBRUARY 15 THROUGH MARCH 20.
   c. POSSIBLE SEEDING DATES ARE BETWEEN SEPTEMBER 1 THROUGH OCTOBER 31 AND FEBRUARY 15 THROUGH APRIL 30.
   d. BETWEEN APRIL 15 AND AUGUST 15, ADD 10 LB/ACRE GERMAN MILLET OR 15 LB/ACRE OF SUDANGRASS.
   e. PRIOR TO MAY 1 OR AFTER AUGUST 15 ADD 25 LB/ACRE RYE (GRAIN).
8. APPLY MULCH AT A RATE OF 4,000 LB/ACRE.
9. APPLY TACKIFIER AT A RATE OF 10 GAL/1,000FT2.
10. THE CONTRACTOR SHALL KEEP ALL SEEDED AREAS WATERED AND IN GOOD CONDITION. RESEEDING SHALL BE DONE IF AND WHEN NECESSARY UNTIL A GOOD, HEALTHY, UNIFORM GROWTH IS ESTABLISHED OVER THE ENTIRE AREA SEEDED.
11. ON SLOPES, THE CONTRACTOR SHALL PROVIDE AGAINST WASHOUTS BY AN APPROVED METHOD. ANY WASHOUT THAT OCCURS SHALL BE REGRADED AND RESEEDED AT THE CONTRACTOR'S EXPENSE UNTIL GOOD SOD IS ESTABLISHED.

SEEDING WETLAND AREAS

A. TEMPORARY WETLAND SEEDING

1. SEEDING SCHEDULE

TEMPORARY SEEDING OF WETLAND AREAS

DATES	SEED MIXTURE SPECIES	APPLICATION RATE (LB/ACRE)
JAN 1 – MAY 1	RYE GRAIN	120
MAY 1 – AUG 15	GERMAN MILLET	40
AUG 15 – DEC 30	RYE GRAIN	120

2. SOIL AMENDMENTS
   a. FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 2,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 750 LB/ACRE 10-10-10 FERTILIZER.
3. MULCH
   a. APPLY 4,000 LB/ACRE STRAW. ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING, OR A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.
4. MAINTENANCE
   a. WINTER, EARLY SPRING, AND SUMMER
      1) REFERTILIZE IF GROWTH IS NOT FULLY ADEQUATE. RESEED, REFERTILIZE, AND MULCH IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE.
   b. FALL
      1) REPAIR AND REFERTILIZE DAMAGED AREAS IMMEDIATELY. TOPDRESS WITH 50 LB/ACRE OF NITROGEN IN MARCH.
5. TEMPORARY SEEDING MUST BE FOLLOWED UP WITH PERMANENT SEEDING AS SOON A PRACTICAL.

B. PERMANENT WETLAND SEEDING

1. SURFACE WATER CONTROL MEASURES TO BE INSTALLED ACCORDING TO PLAN.
2. AREAS TO BE SEEDED SHALL BE RIPPED AND SPREAD WITH AVAILABLE TOPSOIL 6" DEEP. TOTAL SEEDBED PREPARED DEPTH SHALL BE 6" TO 8" DEEP.
3. LOOSE ROCKS, ROOTS, AND OTHER OBSTRUCTIONS SHALL BE REMOVED FROM THE SURFACE SO THAT THEY WILL NOT INTERFERE WITH ESTABLISHMENT AND MAINTENANCE OF VEGETATION. SURFACE FOR FINAL SEEDBED PREPARATION, AT FINISH GRADES SHOWN, SHALL BE REASONABLY SMOOTH.
4. PROVIDE AGRICULTURAL LIME AT RATE REQUIRED TO BRING SOIL ACIDITY TO A PH OF 6, ACCORDING TO SOIL TEST REPORT.
5. LIME AND FERTILIZER SHALL BE APPLIED UNIFORMLY AND MIXED WITH THE SOIL DURING SEEDBED PREPARATION.
6. APPLY 10-20-10 COMMERCIAL FERTILIZER AT THE RATE OF 20 LBS/1,000FT2 FOR COOL SEASON MIX (SEE SCHEDULE).
7. IMMEDIATELY FOLLOWING THIS PREPARATION THE SEED SHALL BE UNIFORMLY APPLIED AND LIGHTLY RAKED INTO THE SURFACE. LIGHTLY ROLL THE SURFACE AND WATER WITH FINE SPRAY. SEED SHALL BE A MIX OF THE FOLLOWING SPECIES TO BE APPLIED AT THE FOLLOWING RATES:

PERMANENT SEEDING OF WETLAND AREAS

DATES	SEED MIXTURE SPECIES	APPLICATION RATE (LB/ACRE)
DEC 1 – APR 1	SWITCHGRASS (CARTHAGE)	3.5
DEC 1 – APRIL 15	SMARTWEED	2.0
DEC 1 – MAY 1	SOFT RUSH	2.5
DEC 1 – MAY 1	FOX SEDGE	2.5
THE SEED SHOULD BE A MIXTURE OF ALL SPECIES FOR A TOTAL APPLICATION RATE OF 14.5 LB/ACRE)		

8. CONTRACTOR SHALL BE REQUIRED TO PROVIDE A PERMANENT MIXTURE ACCORDING TO THE SCHEDULE.
9. TEMPORARY CROPS MUST BE INCORPORATED PRIOR TO SEEDING OF PERMANENT MIXTURES.
10. COVER CROPS OR TEMPORARY CROPS MUST BE MOWED AT PROPER TIME TO PREVENT SEED HEADS FROM MATURING. WHEAT MAY BE HARVESTED.
11. APPLY MULCH AT A RATE OF 4,000 LB/ACRE.
12. IF HYDROSEEDED, USE VIRGIN PAPER MULCH ONLY.
13. WETLANDS CROSSINGS SHALL BE COVERED WITH "TERRA JUTE" EROSION CONTROL NETTING OR EQUAL INSTALLED PER MANUFACTURER DIRECTIONS.

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MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145
SCO ID # : 24-27956-01A

DESIGNER
CLARKNEXSEN
421 NORTH HARRINGTON STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27603
919-828-1876
CLARK NEXSEN LICENSE NUMBER C-1028

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910-256-9277
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WITHERSRAVENEL LICENSE NUMBER F-1479

PROFESSIONAL SEAL
NORTH CAROLINA PROFESSIONAL SEAL 052479 ENGINEER RYAN C. BERGERON
DocuSigned by: Ryan C. Bergeron 117A80E855466...
6/6/2024

SUBMITTAL
JUNE 7, 2024
BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET
GENERAL NOTES

C0.02

DESIGN: RCB
DRAWN: GWR
REVIEW: RCB
CN 10145

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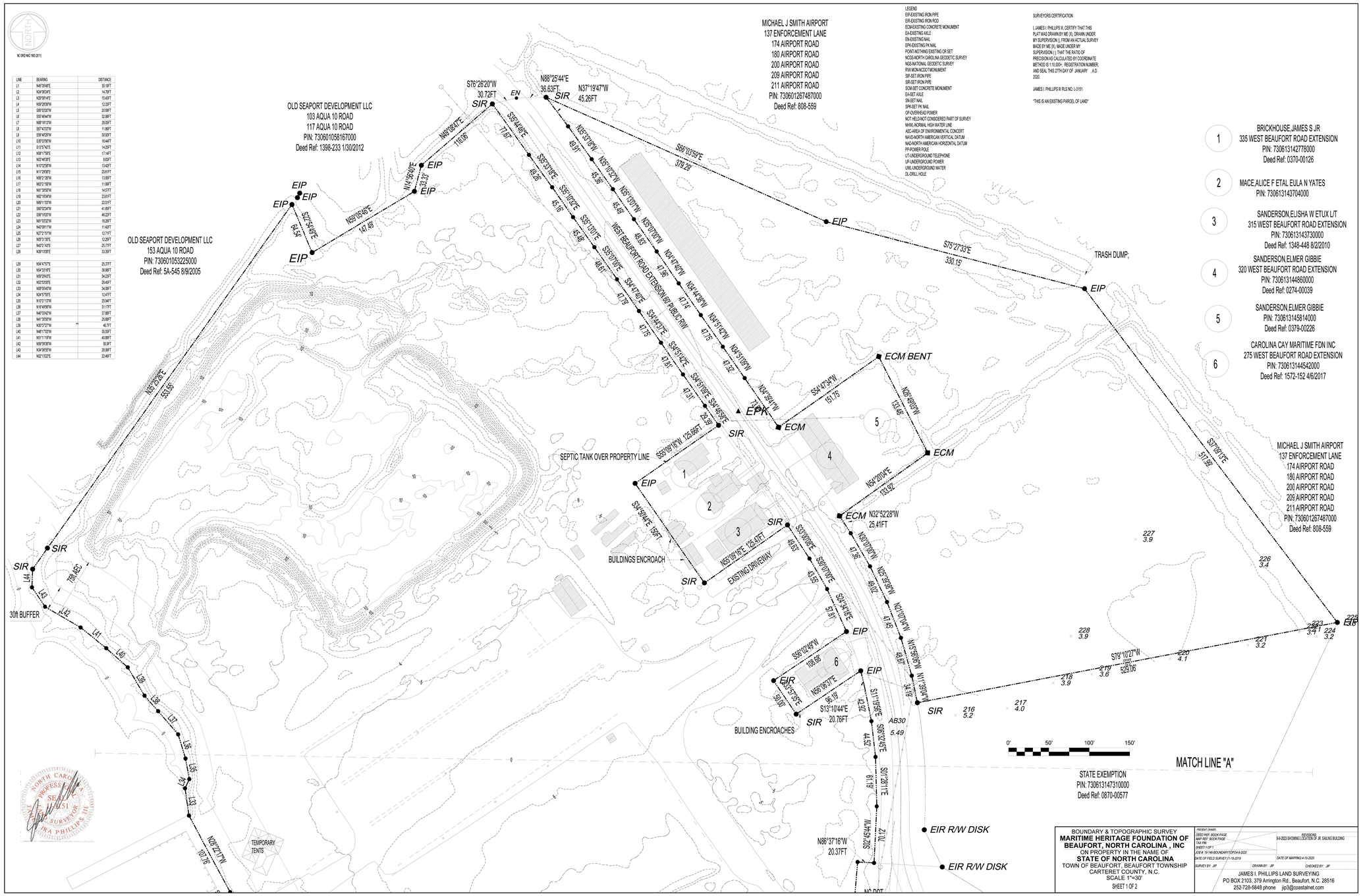

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L3	N29°08'14"E		15.43FT
L4	N19°28'09"W		12.23FT
L5	S85°03'20"W		20.99FT
L6	S59°46'44"W		32.99FT
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L18	N81°35'59"W		14.57FT
L19	N62°49'04"W		23.61FT
L20	N86°11'50"W		22.01FT
L21	S85°02'40"W		41.85FT
L22	S58°19'20"W		46.22FT
L23	N61°33'28"W		18.28FT
L24	N43°28'11"W		11.42FT
L25	N27°21'51"W		12.71FT
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L27	N43°21'42"E		25.77FT
L28	N39°15'05"E		33.29FT
L29	N54°47'57"E		25.37FT
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L33	N05°05'45"W		34.08FT
L34	N24°57'05"E		12.47FT
L35	N19°21'13"W		25.94FT
L36	N11°45'00"W		31.17FT
L37	N40°24'42"W		37.88FT
L38	N41°35'50"W		25.68FT
L39	N35°37'27"W	**	40.7FT
L40	N46°17'20"W		35.59FT
L41	N51°11'18"W		40.88FT
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1 BRICKHOUSE,JAMES S JR
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Deed Ref: 0370-00126

2 MACE,ALICE F ETAL EULA N YATES
PIN: 7306131437040000

3 SANDERSON,ELISHA W ETUX L/T
315 WEST BEAUFORT ROAD EXTENSION
PIN: 7306131437300000
Deed Ref: 1348-448 8/2/2010

4 SANDERSON,ELMER GIBBIE
320 WEST BEAUFORT ROAD EXTENSION
PIN: 7306131448600000
Deed Ref: 0274-00039

5 SANDERSON,ELMER GIBBIE
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Deed Ref: 0379-00226

6 CAROLINA CAY MARITIME FDN INC
275 WEST BEAUFORT ROAD EXTENSION
PIN: 7306131445420000
Deed Ref: 1572-152 4/6/2017

MICHAEL J SMITH AIRPORT
137 ENFORCEMENT LANE
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Deed Ref: 808-559

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MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145
SCO ID # : 24-27956-01A

DESIGNER

CLARKNEXSEN
421 NORTH HARRINGTON STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27603
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CIVIL ENGINEER

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WWW.WITHERSRAVENEL.COM
WITHERSRAVENEL LICENSE NUMBER F-1479

PROFESSIONAL SEAL

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

BOUNDARY AND TOPOGRAPHIC SURVEY

C0.03

DESIGN: RCB
DRAWN: GWR
REVIEW: RCB

CN 10145

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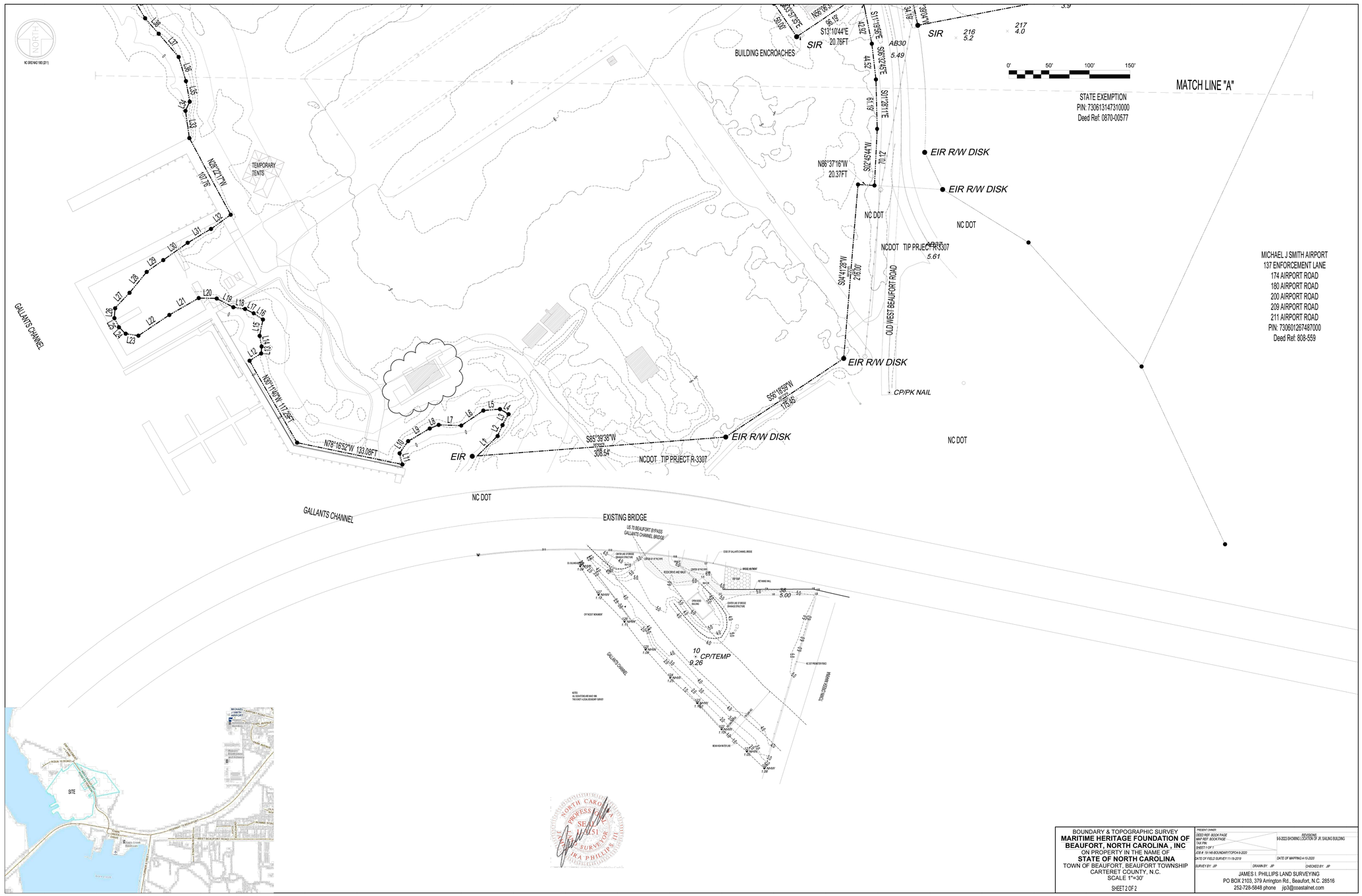

BOUNDARY & TOPOGRAPHIC SURVEY
MARITIME HERITAGE FOUNDATION OF BEAUFORT, NORTH CAROLINA , INC
ON PROPERTY IN THE NAME OF
STATE OF NORTH CAROLINA
TOWN OF BEAUFORT, BEAUFORT TOWNSHIP
CARTERET COUNTY, N.C.
SCALE 1"=30'
SHEET 2 OF 2

PRESENT OWNER
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MAP REF: BOOK PAGE
TAX PIN:
SHEET 1 OF 1
JOB # 19-146-BOUNDARYTOPO4-9-2020
DATE OF FIELD SURVEY 11-19-2019
SURVEY BY: JIP
DRAWN BY: JIP
CHECKED BY: JIP

REVISIONS
9-9-2022 SHOWING LOCATION OF JR. SAILING BUILDING
DATE OF MAPPING 4-10-2020

JAMES I. PHILLIPS LAND SURVEYING
PO BOX 2103, 379 Arrington Rd., Beaufort, N.C. 28516
252-728-5848 phone jip3@coastalnet.com

D:\AJOBS\2019SURVEYDATA\19-146-maritimemuseum\DELIVERABLES-BOUNDARYTOPO\19-146boundarytopo4-9-2020\AJOBS\2019SURVEYDATA\19-146-maritimemuseum\19-146boundarytopo4-9-2020.dwg, 9/10/2022 12:16:11 PM, AutoCAD PDF (High Quality Print).pc3

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SHEET
BOUNDARY AND TOPOGRAPHIC SURVEY

C0.04

DESIGN: RCB
DRAWN: GWR
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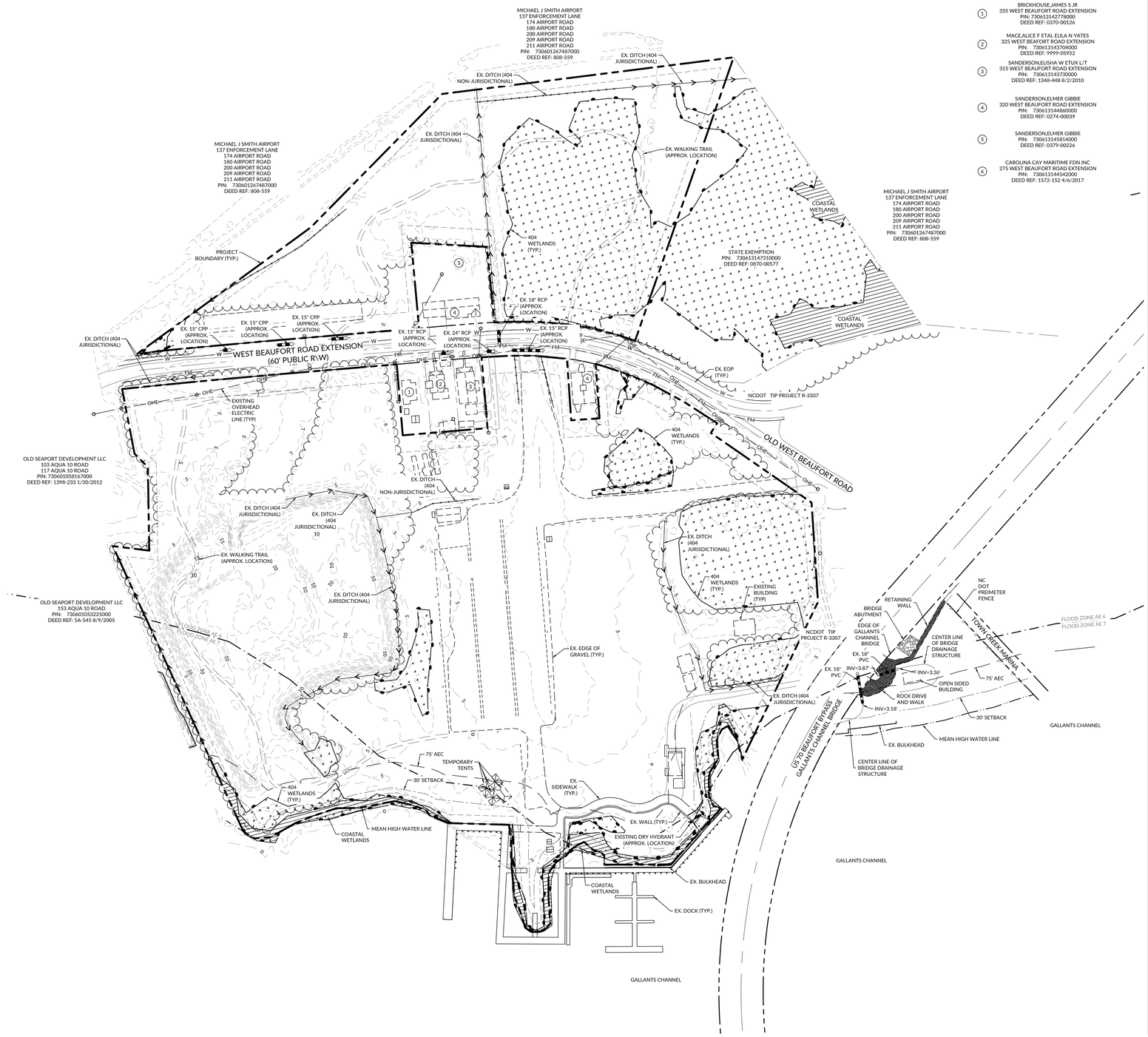

NOTES

1. EXISTING CONDITIONS SURVEY PROVIDED BY JAMES L PHILLIPS LAND SURVEYING, P.O. BOX 2103 379 ARRINGTON ROAD BEAUFORT, NC 28516 252-728-5848 (PHONE) JIP3@COASTALNET.COM
2. PROJECT LIES WITHIN FEMA FLOOD ZONE AE 6 FEMA PANEL 3720720600 (UNDER APPEAL PART OF COASTAL MODEL UPDATE LETTER OF FINAL DETERMINATION NOT EXPECTED TO BE ISSUED FOR 1-2 YEARS)

EXISTING CONDITIONS LEGEND

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	CONCRETE
	CURB LINE
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	EDGE OF PAVEMENT
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	RIGHT OF WAY
	GRAVEL
OHE	OVERHEAD ELECTRIC
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FM	FORCEMAIN
SS	SANITARY SEWER PIPE
	STORM PIPE
	DITCH (404 JURISDICTIONAL)
	DITCH (404 NON-JURISDICTIONAL)
W	WATER MAIN
	WETLAND
	COASTAL WETLAND
	FIRE HYDRANT
	LIGHT POLE
	POWER POLE
	SEWER MANHOLE

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PROFESSIONAL SEAL

NORTH CAROLINA PROFESSIONAL SEAL 052479 ENGINEER RYAN C BERGERON
Docusigned by: Ryan C Bergeron CF157A80E855466...
6/6/2024

SUBMITTAL
JUNE 7, 2024
BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET
OVERALL EXISTING CONDITIONS PLAN

C1.00

DESIGN: RCB
DRAWN: GWR
REVIEW: RCB

CN 10145

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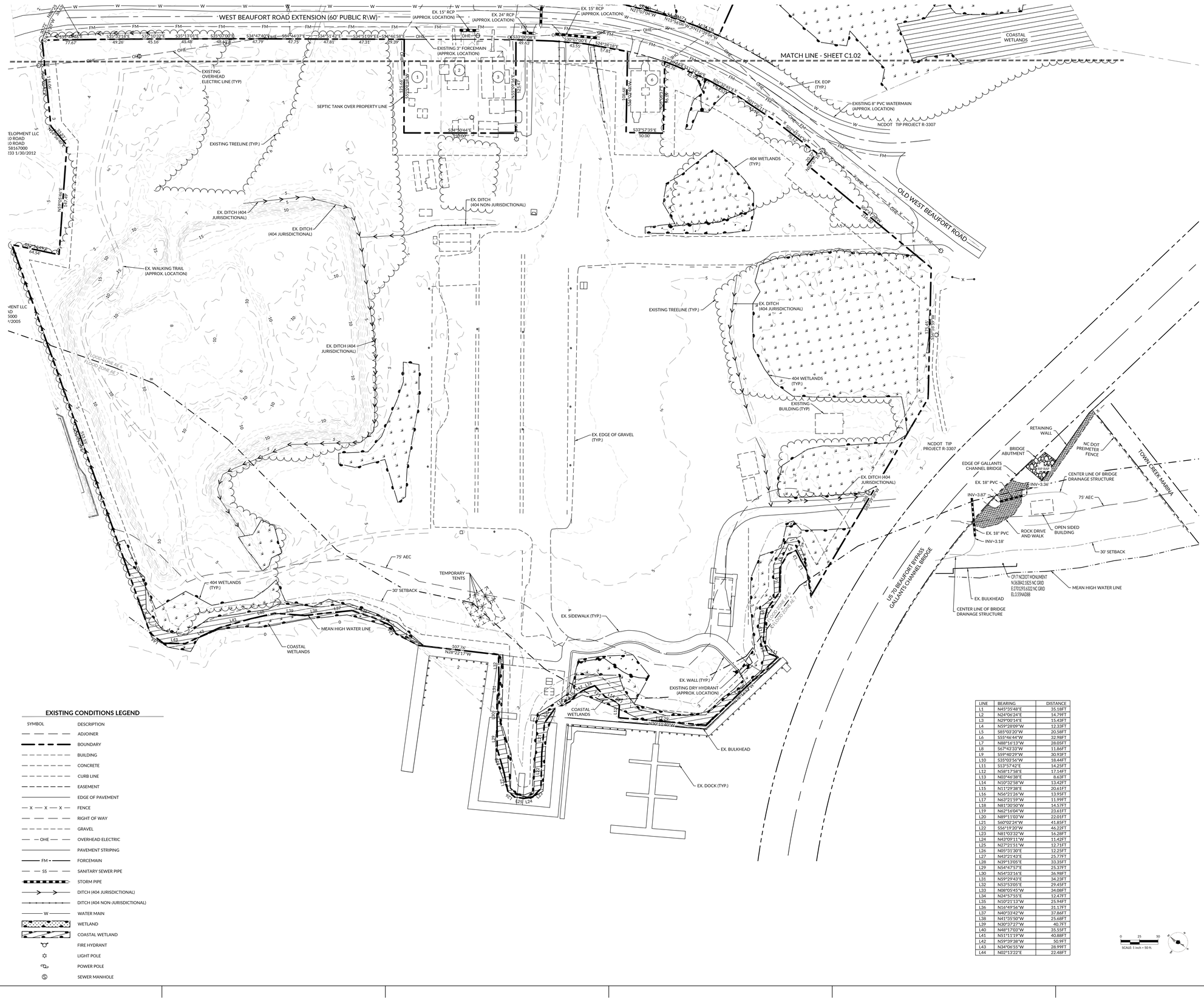

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EXISTING CONDITIONS LEGEND

SYMBOL	DESCRIPTION
	ADJOINER
	BOUNDARY
	BUILDING
	CONCRETE
	CURB LINE
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	EDGE OF PAVEMENT
— X — X — X —	FENCE
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	GRAVEL
— OHE —	OVERHEAD ELECTRIC
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	DITCH (404 JURISDICTIONAL)
	DITCH (404 NON-JURISDICTIONAL)
W	WATER MAIN
	WETLAND
	COASTAL WETLAND
	FIRE HYDRANT
	LIGHT POLE
	POWER POLE
S	SEWER MANHOLE

0 25 50
SCALE: 1 inch = 50 ft.

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PROFESSIONAL SEAL

NORTH CAROLINA PROFESSIONAL SEAL 052479 ENGINEER RYAN C. BERGERON
DocuSigned by: Ryan C. Bergeron CF117A88E8854A6...
6/6/2024

SUBMITTAL

JUNE 7, 2024
BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

EXISTING CONDITIONS PLAN

C1.01

DESIGN: RCB
DRAWN: GWR
REVIEW: RCB

CN 10145

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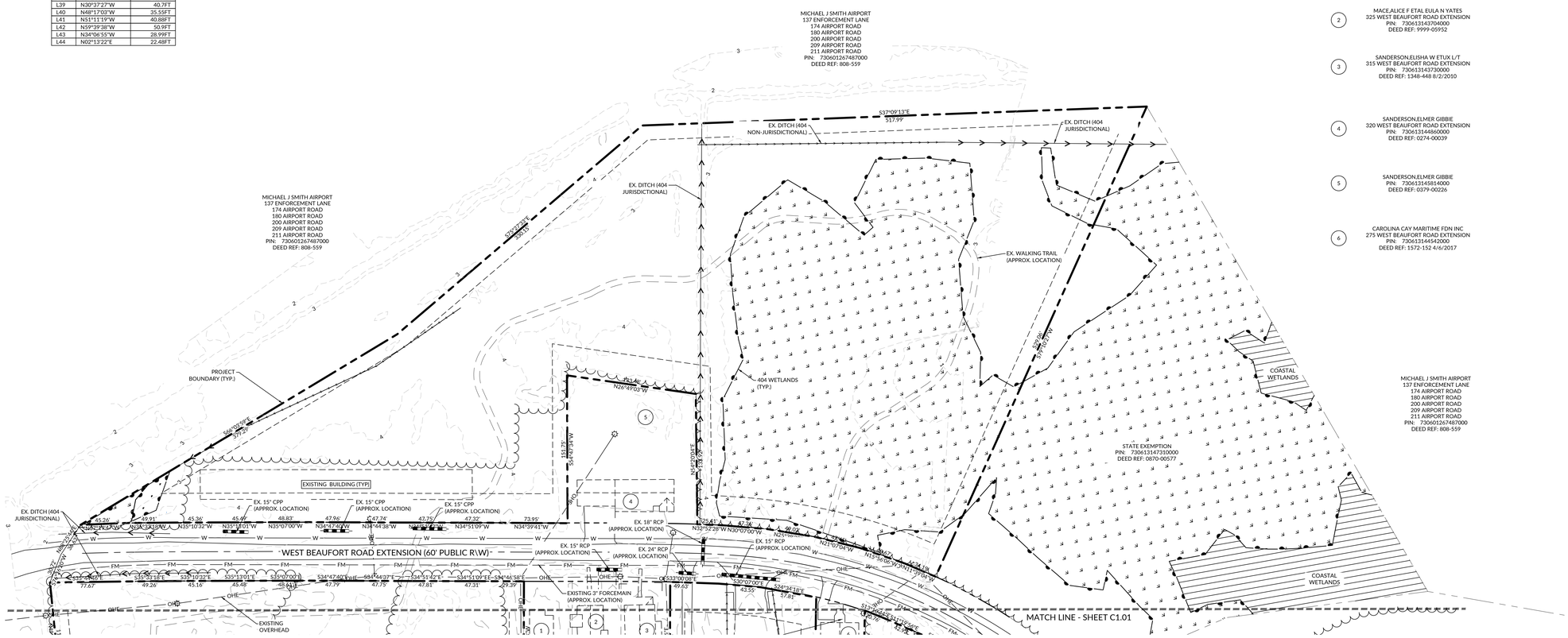
L3	N29°00'14"E	15.43FT
L4	N59°28'09"W	12.33FT
L5	S85°03'20"W	20.58FT
L6	S55°46'44"W	32.98FT
L7	N88°16'13"W	28.05FT
L8	S67°43'37"W	11.86FT
L9	S59°40'29"W	30.93FT
L10	S35°03'56"W	18.44FT
L11	S13°57'42"E	14.25FT
L12	N58°17'58"E	17.14FT
L13	N03°46'38"E	8.63FT
L14	N10°32'58"W	13.42FT
L15	N11°29'38"E	20.61FT
L16	N56°21'26"W	13.95FT
L17	N63°21'59"W	11.99FT
L18	N81°30'50"W	14.57FT
L19	N62°16'04"W	23.61FT
L20	N89°11'03"W	22.01FT
L21	S60°02'24"W	41.85FT
L22	S56°19'20"W	46.22FT
L23	N81°03'32"W	16.28FT
L24	N43°09'11"W	11.42FT
L25	N27°21'51"W	12.71FT
L26	N05°31'30"E	12.25FT
L27	N43°21'43"E	25.77FT
L28	N39°13'05"E	33.35FT
L29	N54°47'57"E	25.37FT
L30	N54°33'16"E	36.98FT
L31	N59°29'43"E	34.23FT
L32	N53°53'05"E	29.45FT
L33	N08°05'45"W	34.08FT
L34	N24°57'55"E	12.47FT
L35	N10°21'13"W	25.94FT
L36	N16°49'56"W	31.17FT
L37	N40°33'42"W	37.86FT
L38	N41°35'50"W	25.68FT
L39	N30°37'27"W	40.7FT
L40	N48°17'03"W	35.55FT
L41	N51°11'19"W	40.88FT
L42	N59°39'38"W	50.9FT
L43	N34°06'55"W	28.99FT
L44	N02°13'22"E	22.48FT



1	BRICKHOUSE,JAMES S JR 335 WEST BEAUFORT ROAD EXTENSION PIN: 730613142778000 DEED REF: 0370-00126
2	MACE,ALICE F ETAL EULA N YATES 325 WEST BEAUFORT ROAD EXTENSION PIN: 730613143704000 DEED REF: 9999-05952
3	SANDERSON,ELISHA W ETUX L/T 315 WEST BEAUFORT ROAD EXTENSION PIN: 730613143730000 DEED REF: 1348-448 8/2/2010
4	SANDERSON,ELMER GIBBIE 320 WEST BEAUFORT ROAD EXTENSION PIN: 730613144660000 DEED REF: 0274-00039
5	SANDERSON,ELMER GIBBIE PIN: 730613145814000 DEED REF: 0379-00226
6	CAROLINA CAY MARITIME FDN INC 275 WEST BEAUFORT ROAD EXTENSION PIN: 730613144542000 DEED REF: 1572-152 4/6/2017

EXISTING CONDITIONS LEGEND

SYMBOL	DESCRIPTION
	ADJOINER
	BOUNDARY
	BUILDING
	CONCRETE
	CURB LINE
	EASEMENT
	EDGE OF PAVEMENT
X X X	FENCE
	RIGHT OF WAY
	GRAVEL
OHE	OVERHEAD ELECTRIC
	PAVEMENT STRIPING
FM	FORCEMAIN
SS	SANITARY SEWER PIPE
	STORM PIPE
	DITCH (404 JURISDICTIONAL)
	DITCH (404 NON-JURISDICTIONAL)
W	WATER MAIN
	WETLAND
	COASTAL WETLAND
	FIRE HYDRANT
	LIGHT POLE
	POWER POLE
	SEWER MANHOLE

SCALE: 1 inch = 50 ft.

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145
SCO ID # : 24-27956-01A

DESIGNER

CLARKNEXSEN
421 NORTH HARRINGTON STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27603
919-828-1876
CLARK NEXSEN LICENSE NUMBER C-1028

CIVIL ENGINEER

WithersRavenel
219 STATION ROAD, SUITE 101
WILMINGTON, NORTH CAROLINA 28405
910-256-9277
WWW.WITHERSRAVENEL.COM
WITHERSRAVENEL LICENSE NUMBER F-1479

PROFESSIONAL SEAL

NORTH CAROLINA PROFESSIONAL SEAL 052479 ENGINEER RYAN C BERGERON
Docusigned by: Ryan C Bergeron CF117A8E6B5046...
6/6/2024

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

EXISTING CONDITIONS PLAN

C1.02

DESIGN: RCB
DRAWN: GWR
REVIEW: RCB

CN 10145

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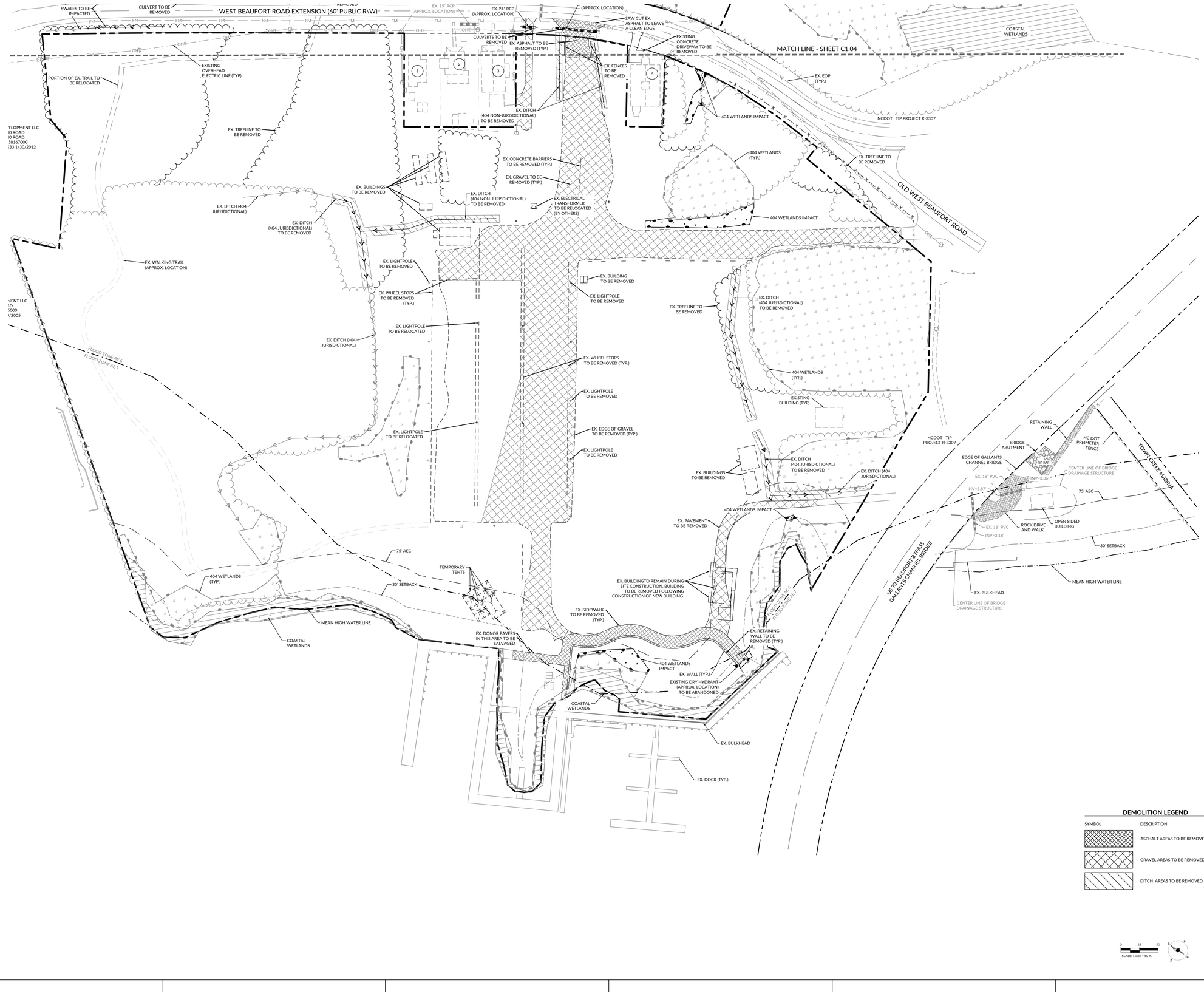

DEMOLITION LEGEND

SYMBOL	DESCRIPTION
	ASPHALT AREAS TO BE REMOVED
	GRAVEL AREAS TO BE REMOVED
	DITCH AREAS TO BE REMOVED

0 25 50
SCALE: 1 inch = 50 ft.

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145
SCO ID # : 24-27956-01A

DESIGNER

CLARKNEXSEN
421 NORTH HARRINGTON STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27603
919-828-1876
CLARK NEXSEN LICENSE NUMBER C-1028

CIVIL ENGINEER

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WILMINGTON, NORTH CAROLINA 28405
910-256-9277
WWW.WITHERSRAVENEL.COM
WITHERSRAVENEL LICENSE NUMBER F-1479

PROFESSIONAL SEAL

NORTH CAROLINA PROFESSIONAL SEAL 052479 ENGINEER RYAN C. BERGERON
DocuSigned by: Ryan C. Bergeron CF117A80E855468...
6/6/2024

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

DEMOLITION PLAN

C1.03

DESIGN: RCB
DRAWN: GWR
REVIEW: RCB

CN 10145

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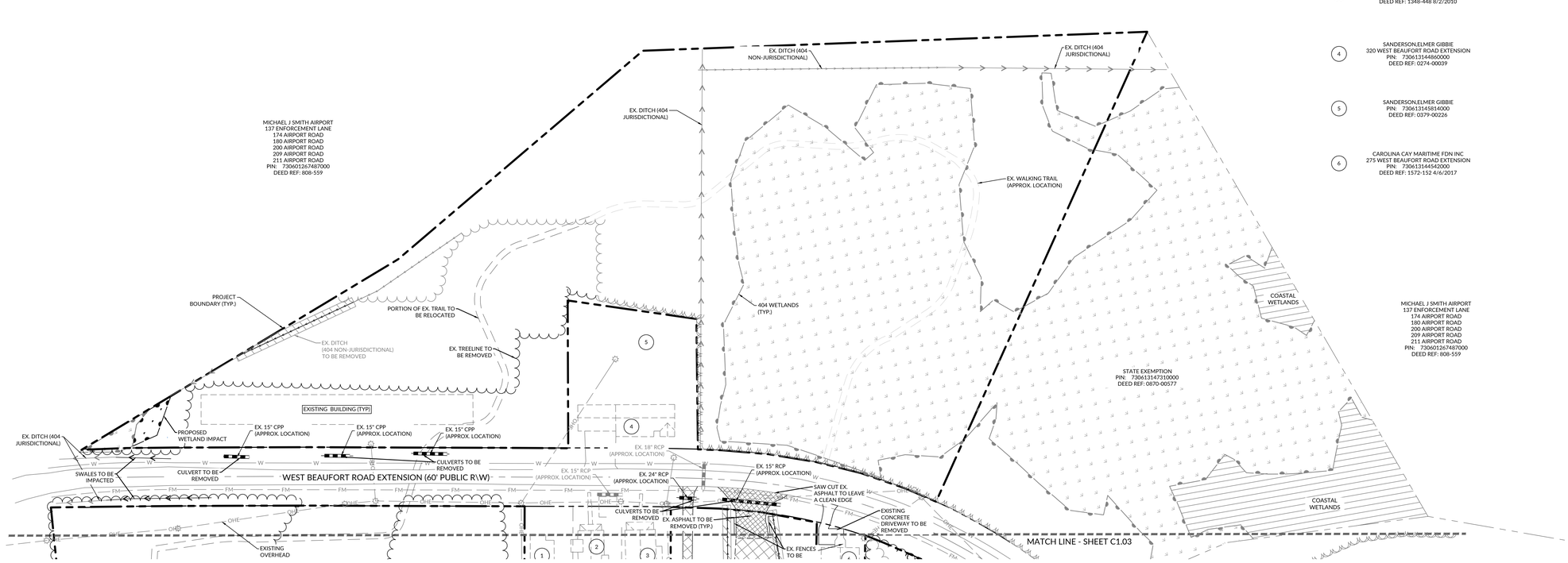

DEMOLITION LEGEND

SYMBOL	DESCRIPTION
	ASPHALT AREAS TO BE REMOVED
	GRAVEL AREAS TO BE REMOVED
	DITCH AREAS TO BE REMOVED

SCALE: 1 inch = ## ft.

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145
SCO ID # : 24-27956-01A

DESIGNER
CLARKNEXSEN
421 NORTH HARRINGTON STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27603
919-828-1876
CLARK NEXSEN LICENSE NUMBER C-1028

CIVIL ENGINEER
WithersRavenel
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910-256-9277
WWW.WITHERSRAVENEL.COM
WITHERSRAVENEL LICENSE NUMBER F-1479

PROFESSIONAL SEAL

NORTH CAROLINA PROFESSIONAL SEAL 052479 ENGINEER RYAN C. BERGERON
DocuSigned by: CF117A86E855466...
6/6/2024

SUBMITTAL
JUNE 7, 2024
BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET
DEMOLITION PLAN

C1.04

DESIGN: RCB
DRAWN: GWR
REVIEW: RCB

CN 10145

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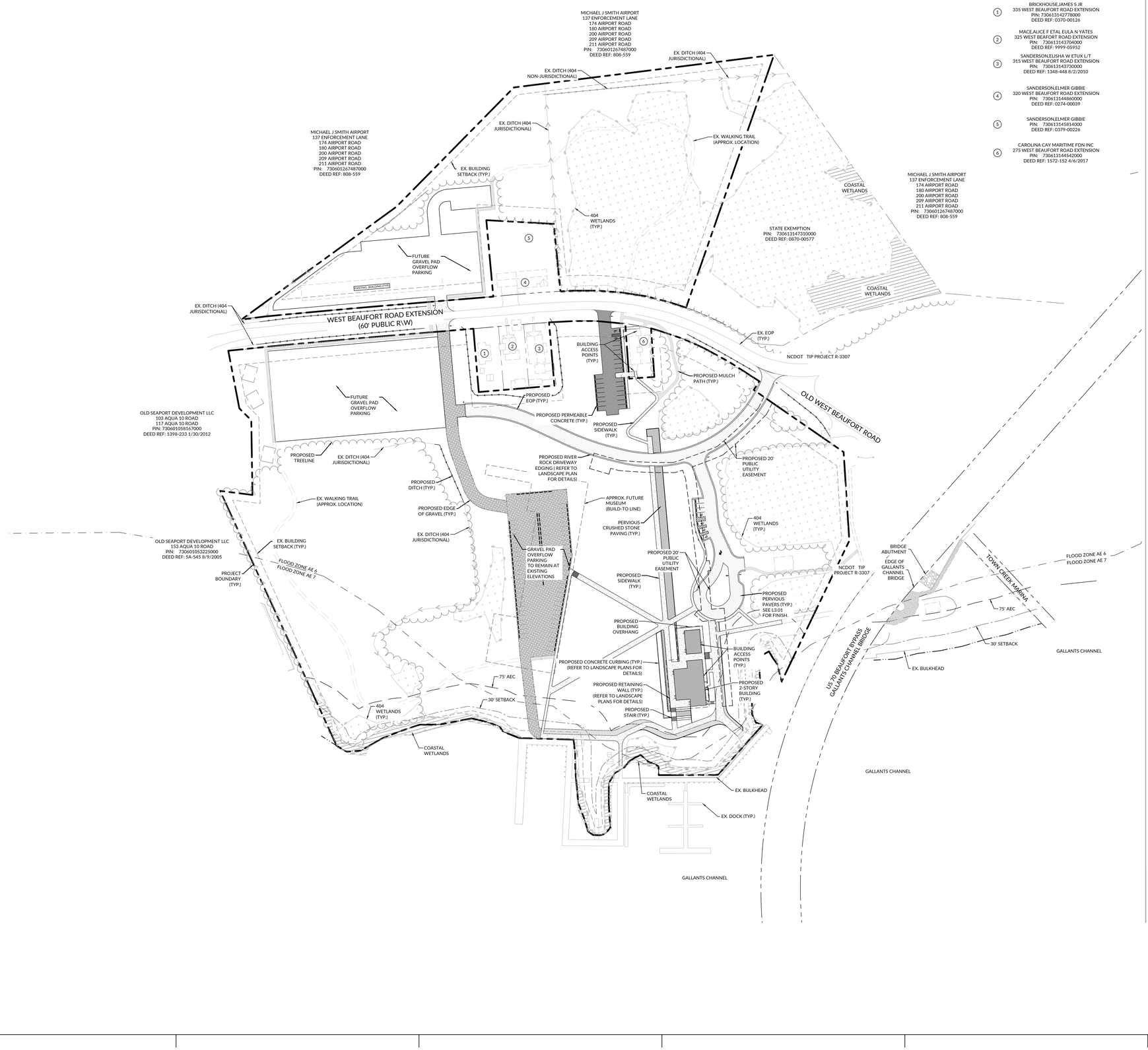

2. THE TOWN AS A PART OF THE FINAL
THE TOWN OF BEAUFORT RECOMME
ANALYSIS (TIA) BE PERFORMED PRIOF
FUTURE MUSEUM BUILDING PHASE.
3. ALL PERVIOUS HARDSCAPE SURFACE
THE DEVELOPER AND PROPERTY OW
BEAUFORT IS NOT RESPONSIBLE FOR
PERVIOUS PAVEMENT, ETC.

BUILDING SETBACKS:

FRONT: 30 FEET
SIDE: 15 FEET
REAR: 15 FEET

FLOOD PLAIN INVOLVEMENT:

DEVELOPMENT WHICH WILL TAKE PLACE WITHIN THE LIMITS OF THE 100 YEAR FLOODPLAIN AT ELEVATION 6' IS DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF EXECUTIVE ORDER NO. 123-UNIFORM FLOODPLAIN MANAGEMENT POLICY.

SITE LEGEND

SYMBOL	DESCRIPTION
	BOUNDARY
	EASEMENT
	RIGHT OF WAY
	BUILDING
	CONCRETE PAVING
	ASPHALT PAVING
	GRAVEL PAVING
	MULCH PATH
	GRASSPAVE2

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145
SCO ID # : 24-27956-01A

DESIGNER

CLARKNEXSEN
421 NORTH HARRINGTON STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27603
919-828-1876
CLARK NEXSEN LICENSE NUMBER C-1028

CIVIL ENGINEER

WithersRavenel
219 STATION ROAD, SUITE 101
WILMINGTON, NORTH CAROLINA 28405
910-256-9277
WWW.WITHERSRAVENEL.COM
WITHERSRAVENEL LICENSE NUMBER F-1479

PROFESSIONAL SEAL

NORTH CAROLINA PROFESSIONAL SEAL 052479 ENGINEER RYAN C BERGERON

DocuSigned by: Ryan Bergeron CF117A886B554A6...

6/12/2024

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

OVERALL SITE PLAN

C2.00

DESIGN: RCB
DRAWN: GWR
REVIEW: RCB

CN 10145

W:\21\21.14\21.1415 Beaufort Maritime Museum\Cdv\CAD\Drawing Sets\Construction\C2.00 OVERALL SITE.dwg, Wednesday, June 19, 2024 9:23:53 AM, CMOWES

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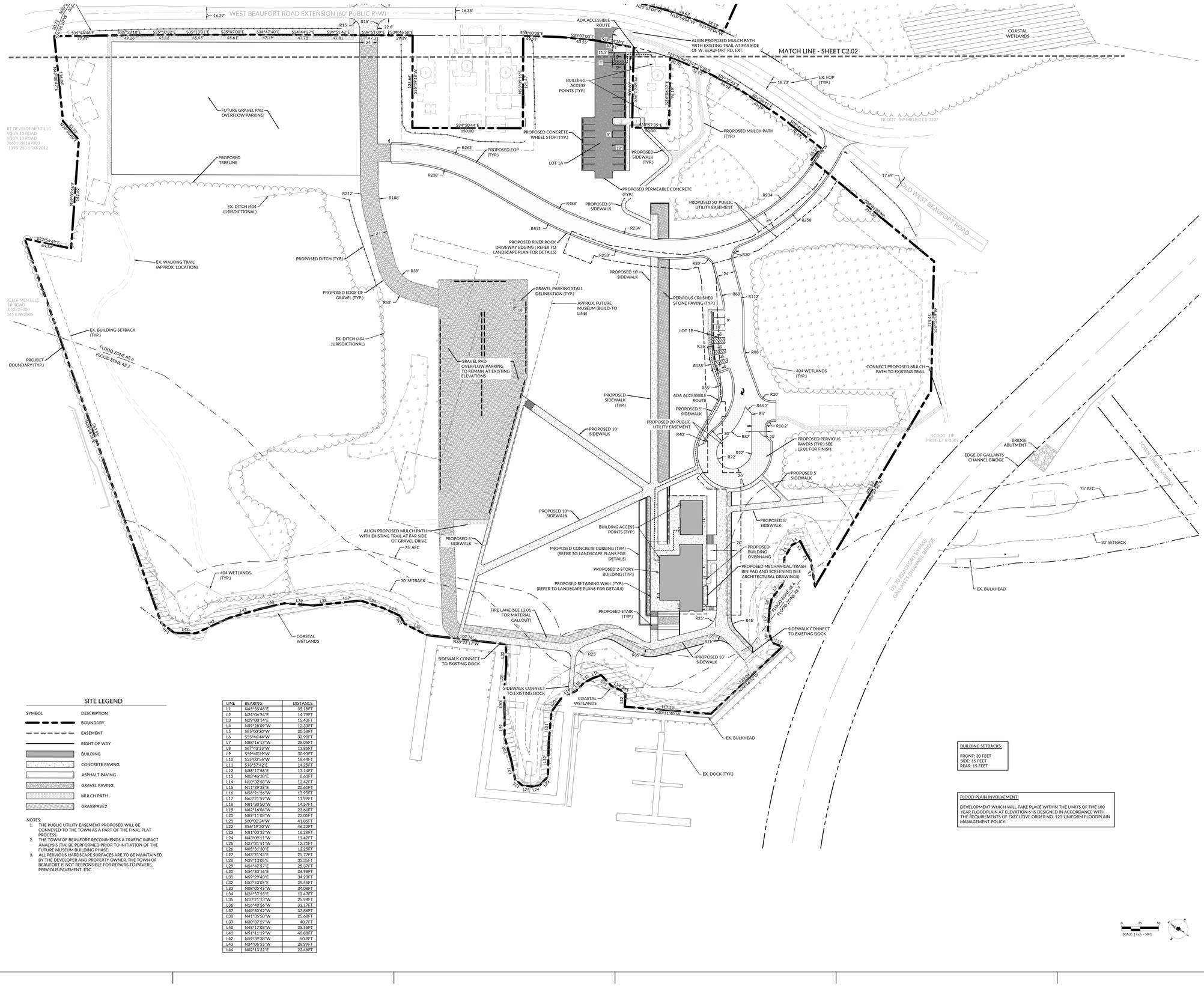

SITE LEGEND

SYMBOL	DESCRIPTION
	BOUNDARY
	EASEMENT
	RIGHT OF WAY
	BUILDING
	CONCRETE PAVING
	ASPHALT PAVING
	GRAVEL PAVING
	MULCH PATH
	GRASSPAVE2

NOTES:
1. THE PUBLIC UTILITY EASEMENT PROPOSED WILL BE CONVEYED TO THE TOWN AS A PART OF THE FINAL PLAT PROCESS.
2. THE TOWN OF BEAUFORT RECOMMENDS A TRAFFIC IMPACT ANALYSIS (TIA) BE PERFORMED PRIOR TO INITIATION OF THE FUTURE MUSEUM BUILDING PHASE.
3. ALL PERVIOUS HARDSCAPE SURFACES ARE TO BE MAINTAINED BY THE DEVELOPER AND PROPERTY OWNER. THE TOWN OF BEAUFORT IS NOT RESPONSIBLE FOR REPAIRS TO PAVERS, PERVIOUS PAVEMENT, ETC.

LINE	BEARING	DISTANCE
L1	N45°35'48"E	35.18FT
L2	N24°06'24"E	14.79FT
L3	N29°00'14"E	15.43FT
L4	N59°28'09"W	12.33FT
L5	S85°03'20"W	20.58FT
L6	S55°46'44"W	32.98FT
L7	N88°16'13"W	28.05FT
L8	S67°43'33"W	11.86FT
L9	S59°40'29"W	30.93FT
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L12	N58°17'58"E	17.14FT
L13	N03°46'38"E	8.63FT
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L16	N56°21'26"W	13.95FT
L17	N63°21'59"W	11.99FT
L18	N81°30'50"W	14.57FT
L19	N62°16'04"W	23.61FT
L20	N89°11'03"W	22.01FT
L21	S60°02'24"W	41.85FT
L22	S56°19'20"W	46.22FT
L23	N81°03'32"W	16.28FT
L24	N43°09'11"W	11.42FT
L25	N27°21'51"W	12.71FT
L26	N05°31'30"E	12.25FT
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L34	N24°57'55"E	12.47FT
L35	N10°21'13"W	25.94FT
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L37	N40°03'42"W	37.86FT
L38	N41°35'50"W	25.68FT
L39	N30°37'27"W	40.7FT
L40	N48°11'03"W	35.55FT
L41	N51°11'19"W	40.88FT
L42	N59°39'38"W	50.9FT
L43	N34°06'55"W	28.99FT
L44	N02°13'22"E	22.48FT

BUILDING SETBACKS:

FRONT: 30 FEET
SIDE: 15 FEET
REAR: 15 FEET

FLOOD PLAIN INVOLVEMENT:

DEVELOPMENT WHICH WILL TAKE PLACE WITHIN THE LIMITS OF THE 100 YEAR FLOODPLAIN AT ELEVATION 6' IS DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF EXECUTIVE ORDER NO. 123-UNIFORM FLOODPLAIN MANAGEMENT POLICY.

SCALE: 1 inch = 50 ft.

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145
SCO ID # : 24-27956-01A

DESIGNER

CLARKNEXSEN
421 NORTH HARRINGTON STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27603
919-828-1876
CLARK NEXSEN LICENSE NUMBER C-1028

CIVIL ENGINEER

WithersRavenel
219 STATION ROAD, SUITE 101
WILMINGTON, NORTH CAROLINA 28405
910-256-9277
WWW.WITHERSRAVENEL.COM
WITHERSRAVENEL LICENSE NUMBER F-1479

PROFESSIONAL SEAL

NORTH CAROLINA PROFESSIONAL SEAL 052479 ENGINEER RYAN C. BERGERON

Docusigned by: Ryan Bergeron CF117A8E0B554A6...

6/12/2024

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

SITE PLAN

C2.01

DESIGN: RCB
DRAWN: GWR
REVIEW: RCB

CN 10145

W:\21\22-1470\121411-Beaufort Maritime Museum CDs\CAD\Drawing Sets\Construction\C2.00 SITE.dwg, Wednesday, June 12, 2024 9:23:21 AM, RBERGERON

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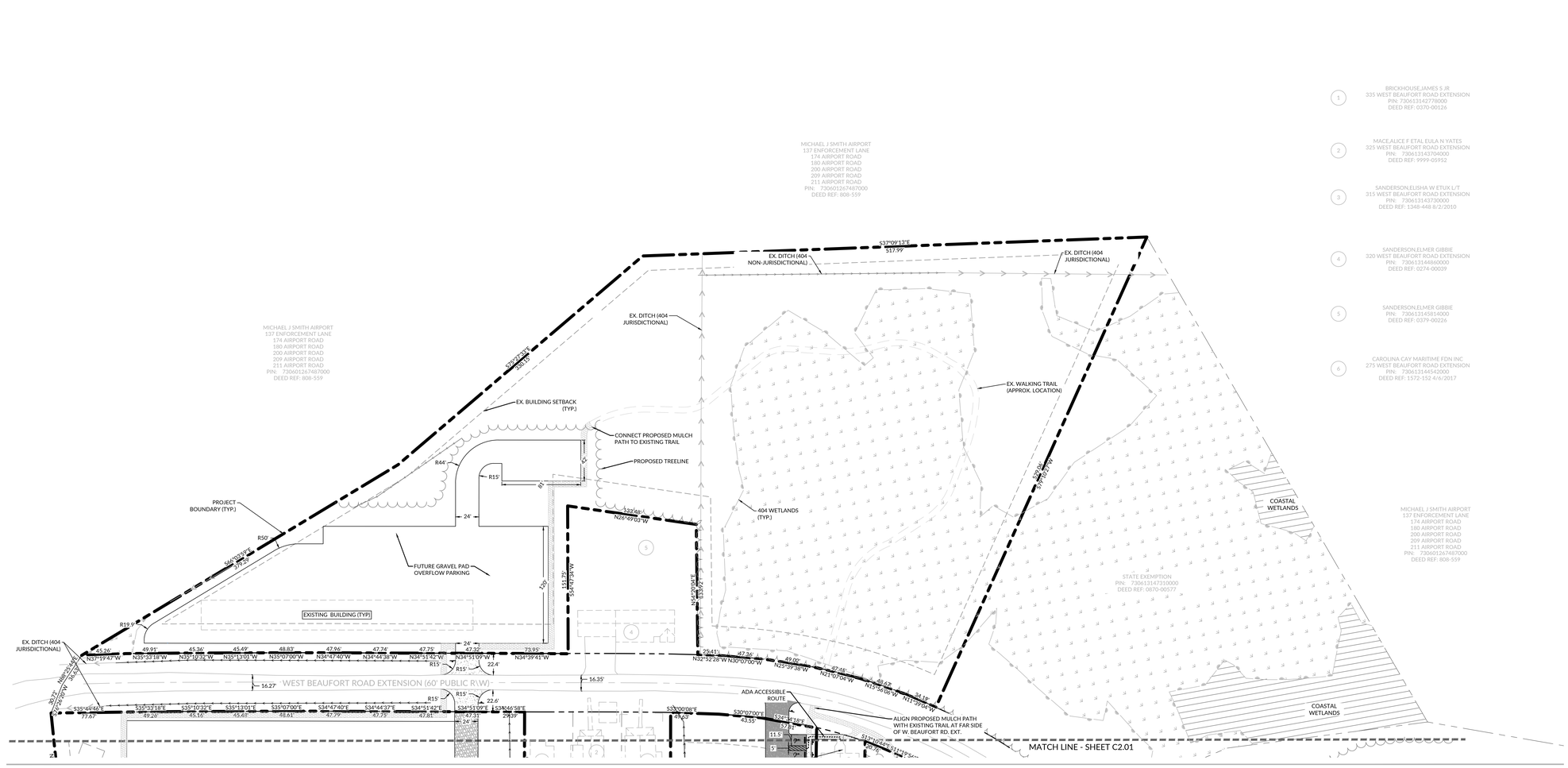

1 BRICKHOUSE,JAMES S JR
335 WEST BEAUFORT ROAD EXTENSION
PIN: 7306131427780000
DEED REF: 0370-00126

2 MACE,ALICE F ETAL EULA N YATES
325 WEST BEAUFORT ROAD EXTENSION
PIN: 7306131437040000
DEED REF: 9999-05952

3 SANDERSON,LEISHA W ETUX L/T
315 WEST BEAUFORT ROAD EXTENSION
PIN: 7306131437290000
DEED REF: 1348-448 8/2/2010

4 SANDERSON,ELMER GIBBIE
320 WEST BEAUFORT ROAD EXTENSION
PIN: 7306131446860000
DEED REF: 0274-00039

5 SANDERSON,ELMER GIBBIE
PIN: 7306131458140000
DEED REF: 0379-00226

6 CAROLINA CAY MARITIME FDN INC
275 WEST BEAUFORT ROAD EXTENSION
PIN: 7306131446542000
DEED REF: 1572-152 4/6/2017

SITE LEGEND

SYMBOL	DESCRIPTION
	BOUNDARY
	EASEMENT
	RIGHT OF WAY
	BUILDING
	CONCRETE PAVING
	ASPHALT PAVING
	GRAVEL PAVING
	MULCH PATH
	GRASSPAVE2

NOTES:
1. THE PUBLIC UTILITY EASEMENT PROPOSED WILL BE CONVEYED TO THE TOWN AS A PART OF THE FINAL PLAT PROCESS.
2. THE TOWN OF BEAUFORT RECOMMENDS A TRAFFIC IMPACT ANALYSIS (TIA) BE PERFORMED PRIOR TO INITIATION OF THE FUTURE MUSEUM BUILDING PHASE.
3. ALL PERVIOUS HARDSCAPE SURFACES ARE TO BE MAINTAINED BY THE DEVELOPER AND PROPERTY OWNER. THE TOWN OF BEAUFORT IS NOT RESPONSIBLE FOR REPAIRS TO PAVERS, PERVIOUS PAVEMENT, ETC.

BUILDING SETBACKS:

FRONT: 30 FEET
SIDE: 15 FEET
REAR: 15 FEET

FLOOD PLAIN INVOLVEMENT:

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0 25 50
SCALE: 1 inch = 50 ft.

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145
SCO ID # : 24-27956-01A

DESIGNER
CLARKNEXSEN
421 NORTH HARRINGTON STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27603
919-828-1876
CLARK NEXSEN LICENSE NUMBER C-1028

CIVIL ENGINEER
WithersRavenel
219 STATION ROAD, SUITE 101
WILMINGTON, NORTH CAROLINA 28405
910-256-9277
WWW.WITHERSRAVENEL.COM
WITHERSRAVENEL LICENSE NUMBER F-1479

PROFESSIONAL SEAL

NORTH CAROLINA PROFESSIONAL SEAL 052479 ENGINEER WILLIAM C. BERGERON

Docusigned by: QF117A86E855466...

6/12/2024

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

SITE PLAN

C2.02

DESIGN: RCB
DRAWN: GWR
REVIEW: RCB

CN 10145

W:\25 JO\145\23\471 Beaufort Maritime Museum\CDs\CAD\Drawing Sets\Construction\C2.XX-SITE.dwg Wednesday, June 12, 2024 9:23:24 AM - RBERGERON

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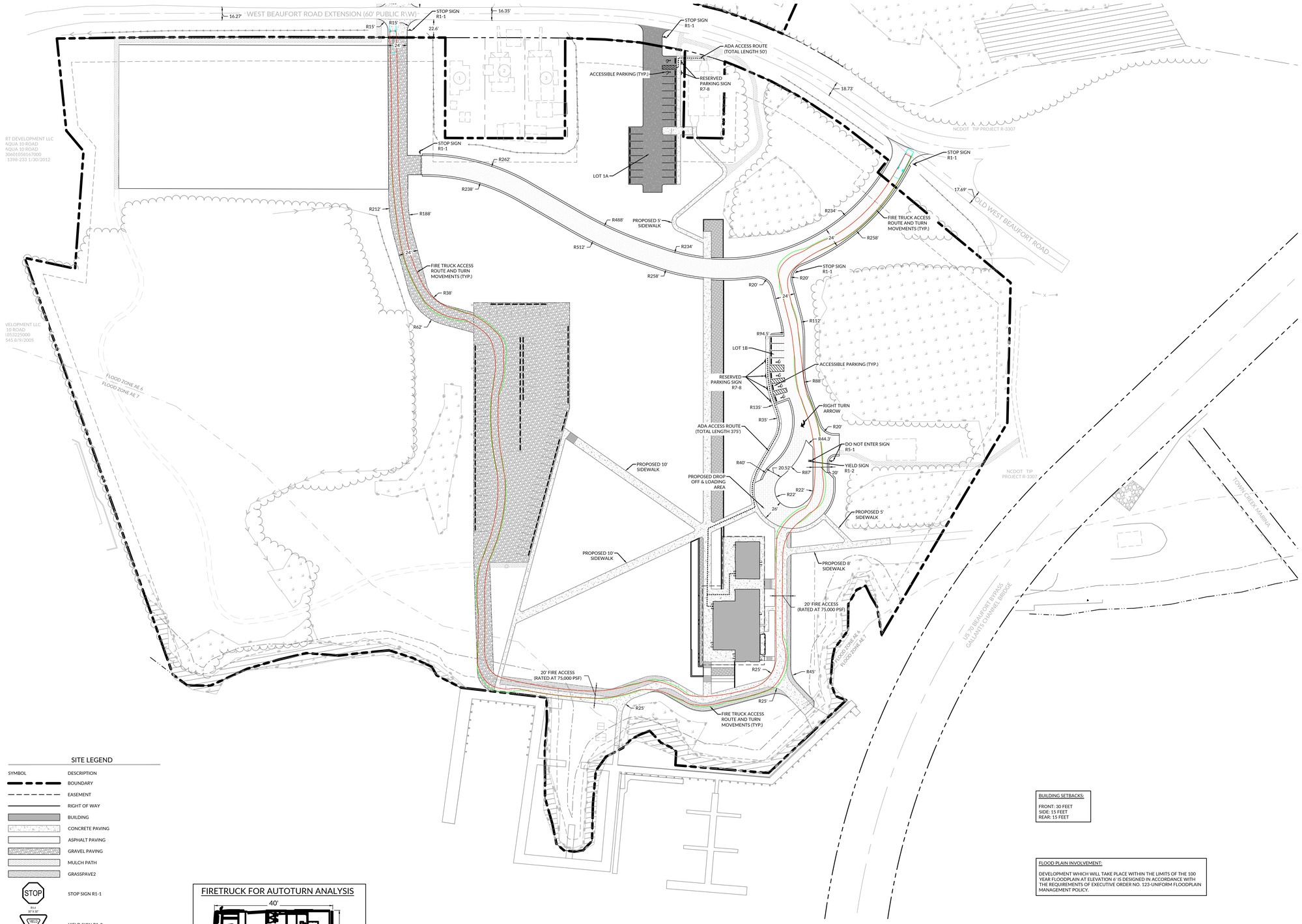
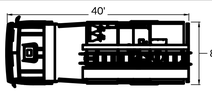


SITE LEGEND

SYMBOL	DESCRIPTION
	BOUNDARY
	EASEMENT
	RIGHT OF WAY
	BUILDING
	CONCRETE PAVING
	ASPHALT PAVING
	GRAVEL PAVING
	MULCH PATH
	GRASSPAVE2
STOP	STOP SIGN R1-1
YIELD	YIELD SIGN R1-2
RESERVED PARKING	RESERVED PARKING SIGN R7-8
DO NOT ENTER	DO NOT ENTER SIGN R5-1

FIRETRUCK FOR AUTOTURN ANALYSIS



NOTE:
ALL FIRE ACCESS ROUTES ARE TO BE RATED AT 75,000 PSF.

BUILDING SETBACKS:
FRONT: 30 FEET
SIDE: 15 FEET
REAR: 15 FEET

FLOOD PLAIN INVOLVEMENT:
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SCALE: 1 inch = 50 ft.

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145
SCO ID # : 24-27956-01A

DESIGNER

CLARKNEXSEN

421 NORTH HARRINGTON STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27603
919-828-1876

CLARK NEXSEN LICENSE NUMBER C-1028

CIVIL ENGINEER

WithersRavenel

219 STATION ROAD, SUITE 101
WILMINGTON, NORTH CAROLINA 28405
910-256-9277
WWW.WITHERSRAVENEL.COM
WITHERSRAVENEL LICENSE NUMBER F-1479

PROFESSIONAL SEAL

NORTH CAROLINA PROFESSIONAL SEAL 052479 ENGINEER RYAN C. BERGERON
DocuSigned by:
CF117A86E855466...
6/12/2024

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

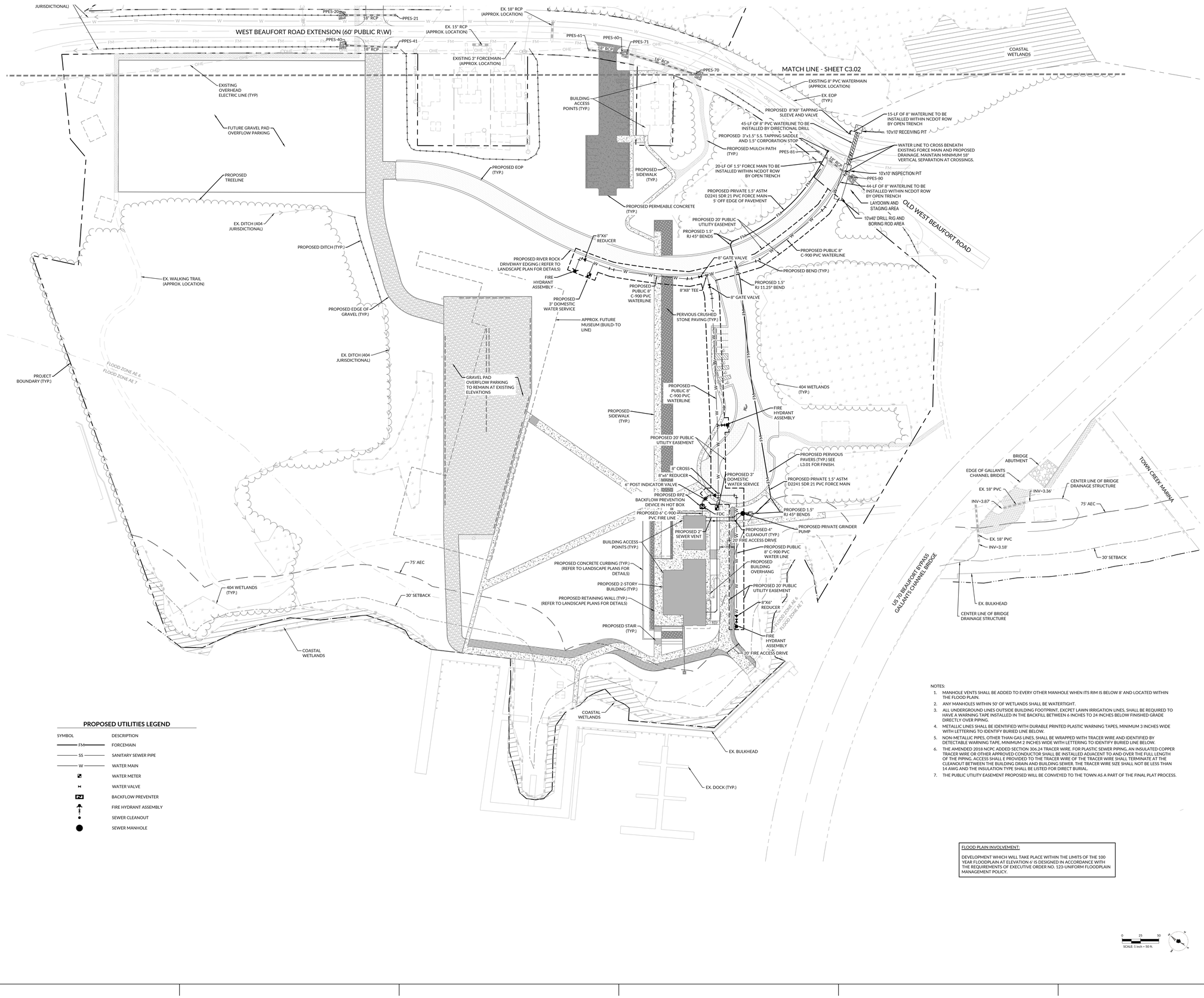
SIGNAGE AND ACCESS PLAN

C2.03

DESIGN: RCB
DRAWN: GWR
REVIEW: RCB

CN 10145

DocuSign Envelope ID: 20A6F60B-0DE6-4F86-AEDA-31EC00A38AC3



PROPOSED UTILITIES LEGEND

SYMBOL	DESCRIPTION
FM	FORCEMAIN
SS	SANITARY SEWER PIPE
W	WATER MAIN
	WATER METER
	WATER VALVE
	BACKFLOW PREVENTER
	FIRE HYDRANT ASSEMBLY
	SEWER CLEANOUT
	SEWER MANHOLE

NOTES:

1. MANHOLE VENTS SHALL BE ADDED TO EVERY OTHER MANHOLE WHEN ITS RIM IS BELOW 8' AND LOCATED WITHIN THE FLOOD PLAIN.
2. ANY MANHOLES WITHIN 50' OF WETLANDS SHALL BE WATERTIGHT.
3. ALL UNDERGROUND LINES OUTSIDE BUILDING FOOTPRINT, EXCPET LAWN IRRIGATION LINES, SHALL BE REQUIRED TO HAVE A WARNING TAPE INSTALLED IN THE BACKFILL BETWEEN 6 INCHES TO 24 INCHES BELOW FINISHED GRADE DIRECTLY OVER PIPING.
4. METALLIC LINES SHALL BE IDENTIFIED WITH DURABLE PRINTED PLASTIC WARNING TAPES, MINIMUM 3 INCHES WIDE WITH LETTERING TO IDENTIFY BURIED LINE BELOW.
5. NON-METALLIC PIPES, OTHER THAN GAS LINES, SHALL BE WRAPPED WITH TRACER WIRE AND IDENTIFIED BY DETECTABLE WARNING TAPE, MINIMUM 2 INCHES WIDE WITH LETTERING TO IDENTIFY BURIED LINE BELOW.
6. THE AMENDED 2018 NCPC ADDED SECTION 306.24 TRACER WIRE. FOR PLASTIC SEWER PIPING, AN INSULATED COPPER TRACER WIRE OR OTHER APPROVED CONDUCTOR SHALL BE INSTALLED ADJACENT TO AND OVER THE FULL LENGTH OF THE PIPING. ACCESS SHALL E PROVIDED TO THE TRACER WIRE OF THE TRACER WIRE SHALL TERMINATE AT THE CLEANOUT BETWEEN THE BUILDING DRAIN AND BUILDING SEWER. THE TRACER WIRE SIZE SHALL NOT BE LESS THAN 14 AWG AND THE INSULATION TYPE SHALL BE LISTED FOR DIRECT BURIAL.
7. THE PUBLIC UTILITY EASEMENT PROPOSED WILL BE CONVEYED TO THE TOWN AS A PART OF THE FINAL PLAT PROCESS.

FLOOD PLAIN INVOLVEMENT:

DEVELOPMENT WHICH WILL TAKE PLACE WITHIN THE LIMITS OF THE 100 YEAR FLOODPLAIN AT ELEVATION 6' IS DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF EXECUTIVE ORDER NO. 123-UNIFORM FLOODPLAIN MANAGEMENT POLICY.

SCALE: 1 inch = 50 ft.

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145
SCO ID # : 24-21956-01A

DESIGNER
CLARKNEXSEN
421 NORTH HARRINGTON STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27603
919-828-1876
CLARK NEXSEN LICENSE NUMBER C-1028

CIVIL ENGINEER
WithersRavenel
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910-256-9277
WWW.WITHERSRAVENEL.COM
WITHERSRAVENEL LICENSE NUMBER F-1479

PROFESSIONAL SEAL

NORTH CAROLINA PROFESSIONAL SEAL 052479 ENGINEER RYAN C. BERGERON

Docusigned by: Ryan C Bergeron CF117A86E855466...

6/12/2024

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

UTILITY PLAN

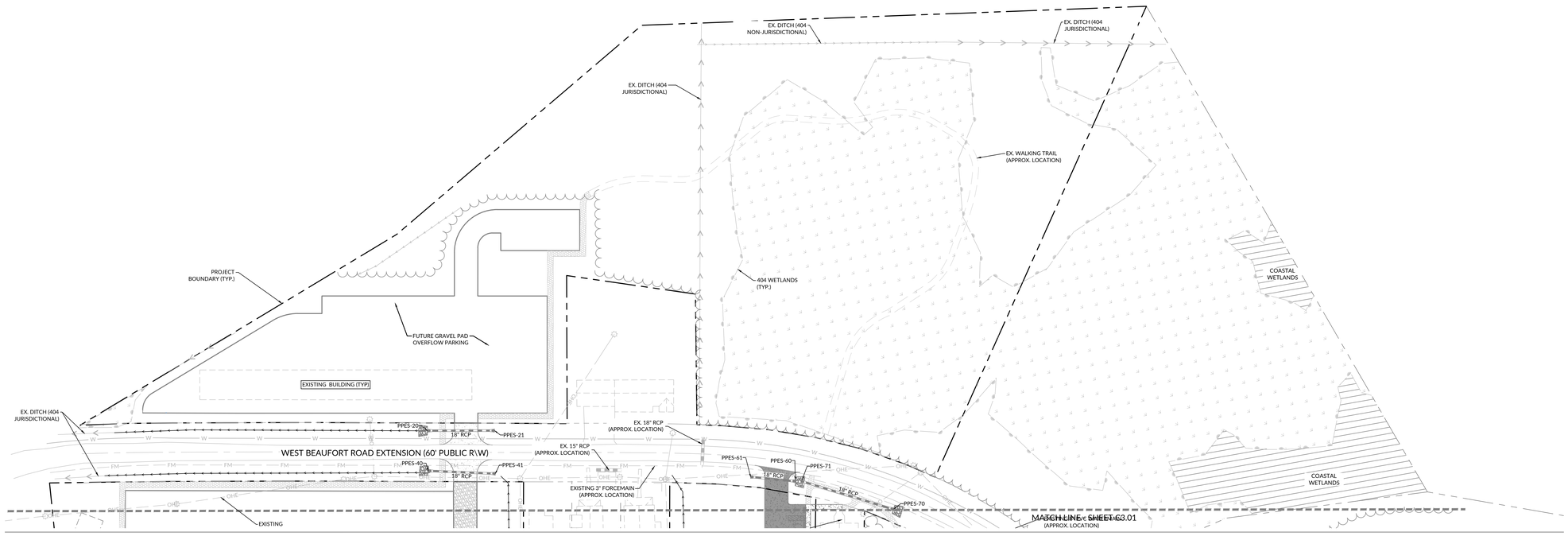
C3.01

DESIGN: RCB
DRAWN: GWR
REVIEW: RCB

CN 10145

W:\22\22-141\P22141 Beaufort Maritime Museum CDs\CAD\Drawing Sets\Construction\C3XX\UTILITY.dwg, Wednesday, June 12, 2024 12:21:17 AM, RBERGERON

DocuSign Envelope ID: 20A6F60B-0DE6-4F86-AEDA-31EC00A38AC3



PROPOSED UTILITIES LEGEND

SYMBOL	DESCRIPTION
FM	FORCEMAIN
SS	SANITARY SEWER PIPE
W	WATER MAIN
	WATER METER
	WATER VALVE
	BACKFLOW PREVENTER
	FIRE HYDRANT ASSEMBLY
	SEWER CLEANOUT
	SEWER MANHOLE

NOTES:

1. MANHOLE VENTS SHALL BE ADDED TO EVERY OTHER MANHOLE WHEN ITS RIM IS BELOW 8' AND LOCATED WITHIN THE FLOOD PLAIN.
2. ANY MANHOLES WITHIN 50' OF WETLANDS SHALL BE WATERTIGHT.
3. ALL UNDERGROUND LINES OUTSIDE BUILDING FOOTPRINT, EXCPET LAWN IRRIGATION LINES, SHALL BE REQUIRED TO HAVE A WARNING TAPE INSTALLED IN THE BACKFILL BETWEEN 6 INCHES TO 24 INCHES BELOW FINISHED GRADE DIRECTLY OVER PIPING.
4. METALLIC LINES SHALL BE IDENTIFIED WITH DURABLE PRINTED PLASTIC WARNING TAPES, MINIMUM 3 INCHES WIDE WITH LETTERING TO IDENTIFY BURIED LINE BELOW.
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6. THE AMENDED 2018 NCPC ADDED SECTION 306.24 TRACER WIRE. FOR PLASTIC SEWER PIPING, AN INSULATED COPPER TRACER WIRE OR OTHER APPROVED CONDUCTOR SHALL BE INSTALLED ADJACENT TO AND OVER THE FULL LENGTH OF THE PIPING. ACCESS SHALL E PROVIDED TO THE TRACER WIRE OF THE TRACER WIRE SHALL TERMINATE AT THE CLEANOUT BETWEEN THE BUILDING DRAIN AND BUILDING SEWER. THE TRACER WIRE SIZE SHALL NOT BE LESS THAN 14 AWG AND THE INSULATION TYPE SHALL BE LISTED FOR DIRECT BURIAL.
7. THE PUBLIC UTILITY EASEMENT PROPOSED WILL BE CONVEYED TO THE TOWN AS A PART OF THE FINAL PLAT PROCESS.

FLOOD PLAIN INVOLVEMENT:

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0 25 50
SCALE: 1 inch = 50 ft.

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145
SCO ID # : 24-27956-01A

DESIGNER

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919·828·1876

CLARK NEXSEN LICENSE NUMBER C-1028

CIVIL ENGINEER

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WWW.WITHERSRAVENEL.COM
WITHERSRAVENEL LICENSE NUMBER F-1479

PROFESSIONAL SEAL

NORTH CAROLINA PROFESSIONAL SEAL 052479 ENGINEER RYAN C. BERGERON

DocuSigned by:
CF117A86E855466...
6/12/2024

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

UTILITY PLAN

C3.02

DESIGN: RCB
DRAWN: GWR
REVIEW: RCB

CN 10145

W:\22\22-1470\221471-Beaufort-Maritime-Museum\CDs\CAD\Drawing Sets\Construction\C3.XX-UTILITY.dwg, Wednesday, June 12, 2024 9:23:01 AM - RBERGERON

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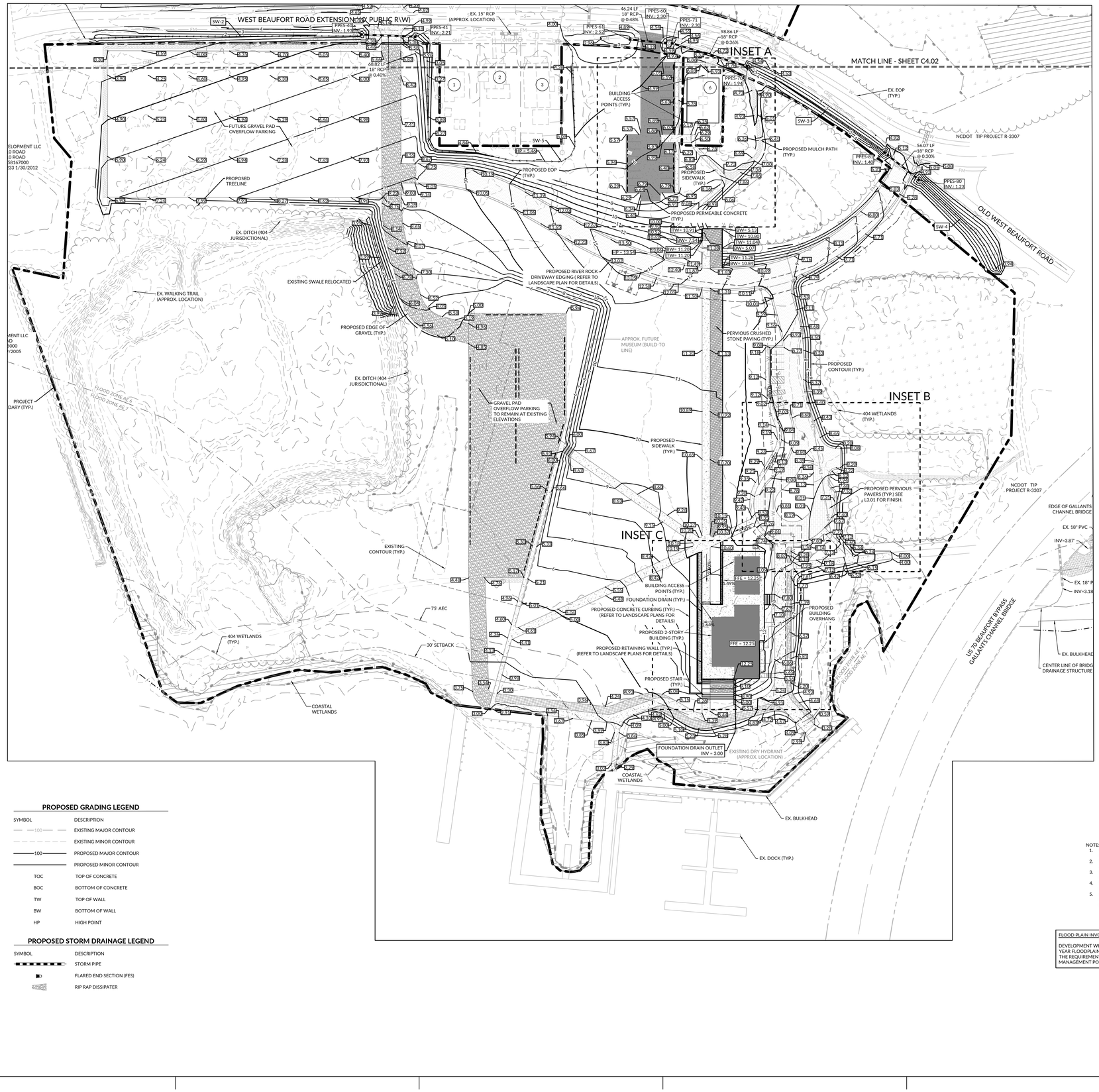

PROPOSED GRADING LEGEND

SYMBOL	DESCRIPTION
100	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
100	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
TOC	TOP OF CONCRETE
BOC	BOTTOM OF CONCRETE
TW	TOP OF WALL
BW	BOTTOM OF WALL
HP	HIGH POINT

PROPOSED STORM DRAINAGE LEGEND

SYMBOL	DESCRIPTION
	STORM PIPE
	FLARED END SECTION (FES)
	RIP RAP DISSIPATER

NOTE:
1. ALL RCP IS TO BE CLASS III UNLESS OTHERWISE NOTED.
2. SEE SHEET C6.01 FOR CHART WITH VELOCITY DISSIPATER DETAILS.
3. SEE SHEET C6.02 FOR DITCH CROSS SECTION DETAILS.
4. SEE SHEET C4.03 FOR INSET A, INSET B, AND INSET C
5. ALL ELEVATIONS ARE FROM EDGE OF PAVEMENT/GRAVEL/SIDEWALKS UNLESS OTHERWISE STATED

FLOOD PLAIN INVOLVEMENT:

DEVELOPMENT WHICH WILL TAKE PLACE WITHIN THE LIMITS OF THE 100 YEAR FLOODPLAIN AT ELEVATION 6' IS DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF EXECUTIVE ORDER NO. 123-UNIFORM FLOODPLAIN MANAGEMENT POLICY.

0 25 50
SCALE: 1 inch = 50 ft.

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145
SCO ID # : 24-21956-01A

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919-828-1876
CLARK NEXSEN LICENSE NUMBER C-1028

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910-256-9277
WWW.WITHERSRAVENEL.COM
WITHERSRAVENEL LICENSE NUMBER F-1479

PROFESSIONAL SEAL

NORTH CAROLINA PROFESSIONAL SEAL 052479 ENGINEER RYAN C. BERGERON

Docusigned by: Ryan C. Bergeron CF117A8E0B5546...

6/12/2024

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

GRADING & DRAINAGE PLAN

C4.01

DESIGN: RCB
DRAWN: GWR
REVIEW: RCB

CN 10145

W:\22\22-1470\23\41\1 Beaufort Maritime Museum CDs\CAD\Drawing Sets\Construction\C4.XX SYSTEM DRAINAGE.dwg Wetherdine, Jon 12, 2024 9:54:23 AM - RBERGERON

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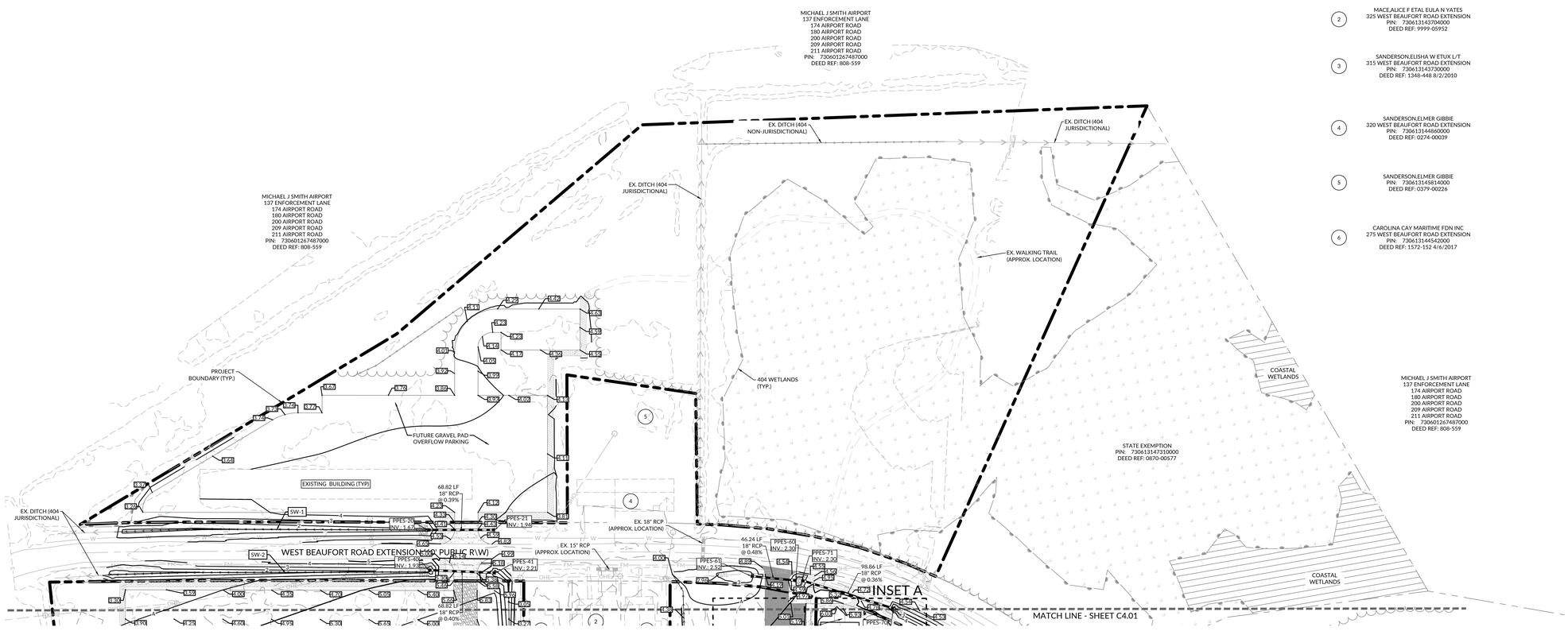

1 BRICKHOUSE,JAMES S JR
335 WEST BEAUFORT ROAD EXTENSION
PIN: 7306131427780000
DEED REF: 0370-00126

2 MACE,ALICE F ETAL EULA N YATES
325 WEST BEAUFORT ROAD EXTENSION
PIN: 7306131437040000
DEED REF: 9999-05932

3 SANDERSON,ELISHA W ETUX L/T
315 WEST BEAUFORT ROAD EXTENSION
PIN: 7306131437300000
DEED REF: 1348-448 8/2/2010

4 SANDERSON,ELMER GIBBIE
320 WEST BEAUFORT ROAD EXTENSION
PIN: 7306131446600000
DEED REF: 0274-00039

5 SANDERSON,ELMER GIBBIE
PIN: 7306131458140000
DEED REF: 0379-00226

6 CAROLINA CAY MARITIME FDN INC
275 WEST BEAUFORT ROAD EXTENSION
PIN: 7306131445420000
DEED REF: 1572-152 4/6/2017

PROPOSED GRADING LEGEND

SYMBOL	DESCRIPTION
— 100 —	EXISTING MAJOR CONTOUR
— — —	EXISTING MINOR CONTOUR
100	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
TOC	TOP OF CONCRETE
BOC	BOTTOM OF CONCRETE
TW	TOP OF WALL
BW	BOTTOM OF WALL
HP	HIGH POINT

PROPOSED STORM DRAINAGE LEGEND

SYMBOL	DESCRIPTION
	STORM PIPE
	FLARED END SECTION (FES)
	RIP RAP DISSIPATER

NOTE:
1. ALL RCP IS TO BE CLASS III UNLESS OTHERWISE NOTED.
2. SEE SHEET C6.01 FOR CHART WITH VELOCITY DISSIPATER DETAILS.
3. SEE SHEET C6.02 FOR DITCH CROSS SECTION DETAILS.
4. SEE SHEET C4.03 FOR INSET A, INSET B, AND INSET C.
5. ALL ELEVATIONS ARE FROM EDGE OF PAVEMENT/GRAVEL/SIDEWALKS UNLESS OTHERWISE STATED

FLOOD PLAIN INVOLVEMENT:

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SCALE: 1 inch = 50 ft.

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145
SCO ID # : 24-27956-01A

DESIGNER
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RALEIGH, NORTH CAROLINA 27603
919-828-1876
CLARK NEXSEN LICENSE NUMBER C-1028

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910-256-9277
WWW.WITHERSRAVENEL.COM
WITHERSRAVENEL LICENSE NUMBER F-1479

PROFESSIONAL SEAL

NORTH CAROLINA PROFESSIONAL SEAL 052479 ENGINEER RYAN C. BERGERON
Docusigned by: Ryan C Bergeron CF117A86E855466...
6/12/2024

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

GRADING & DRAINAGE PLAN

C4.02

DESIGN: RCB
DRAWN: GWR
REVIEW: RCB

CN 10145

W:\22-12-1-RY\22141 Beaufort Maritime Museum\CD\CAD\Drawing Sets\Construction\C4XX-STORM DRAINAGE.dwg, Wednesday, June 12, 2024 11:54:33 AM - RBERGERON

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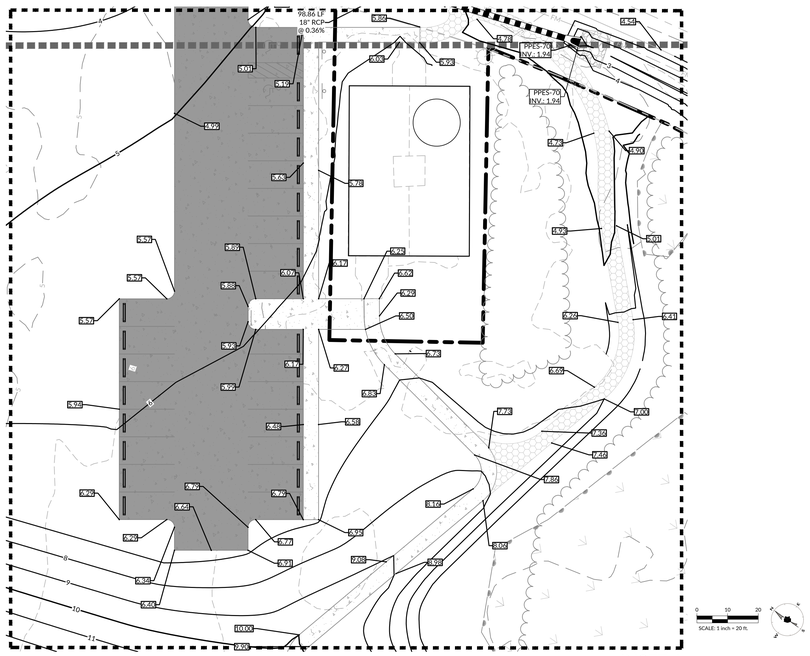
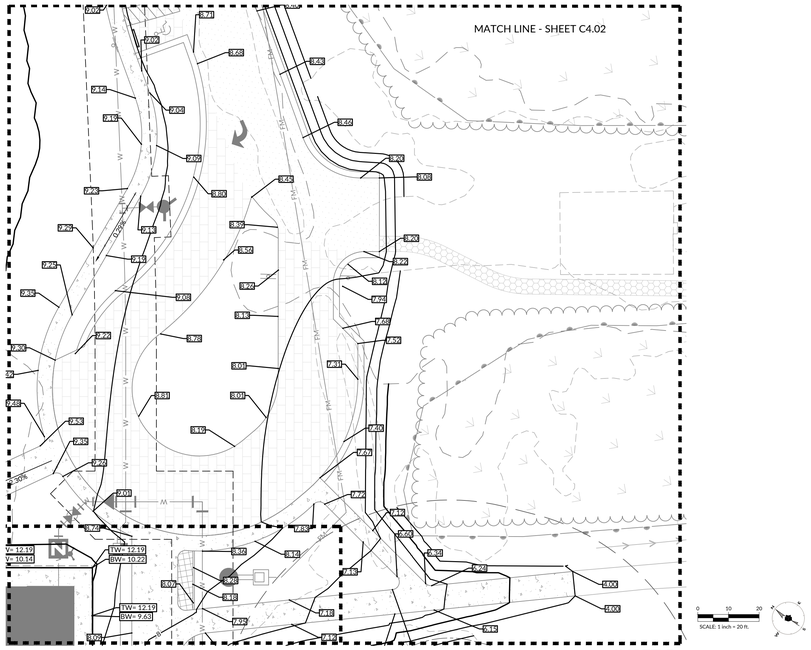
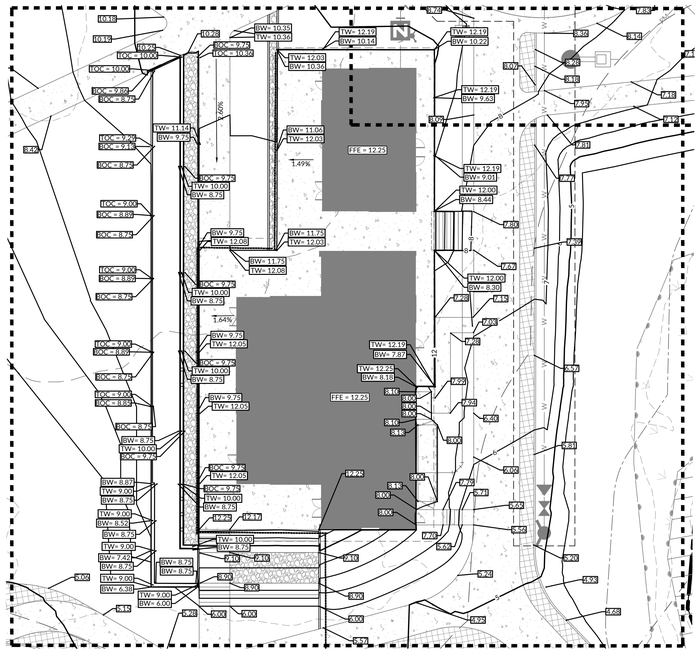


INSET A



INSET B



INSET C

PROPOSED GRADING LEGEND

SYMBOL	DESCRIPTION
100	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
100	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
TOC	TOP OF CONCRETE
BOC	BOTTOM OF CONCRETE
TW	TOP OF WALL
BW	BOTTOM OF WALL
HP	HIGH POINT

PROPOSED STORM DRAINAGE LEGEND

SYMBOL	DESCRIPTION
	STORM PIPE
	FLARED END SECTION (FES)
	RIP RAP DISSIPATER

NOTE:
1. ALL RCP IS TO BE CLASS III UNLESS OTHERWISE NOTED.
2. SEE SHEET C6.01 FOR CHART WITH VELOCITY DISSIPATER DETAILS.
3. SEE SHEET C6.02 FOR DITCH CROSS SECTION DETAILS.
4. SEE SHEET C4.03 FOR INSET A, INSET B, AND INSET C
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MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145
SCO ID # : 24-27956-01A

DESIGNER

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421 NORTH HARRINGTON STREET, SUITE 600
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919·828·1876

CLARK NEXSEN LICENSE NUMBER C-1028

CIVIL ENGINEER

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WITHERSRAVENEL LICENSE NUMBER F-1479

PROFESSIONAL SEAL

NORTH CAROLINA PROFESSIONAL SEAL 052479 ENGINEER RYAN C. BERGERON
DocuSigned by:
CF117A06E855466...
6/6/2024

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

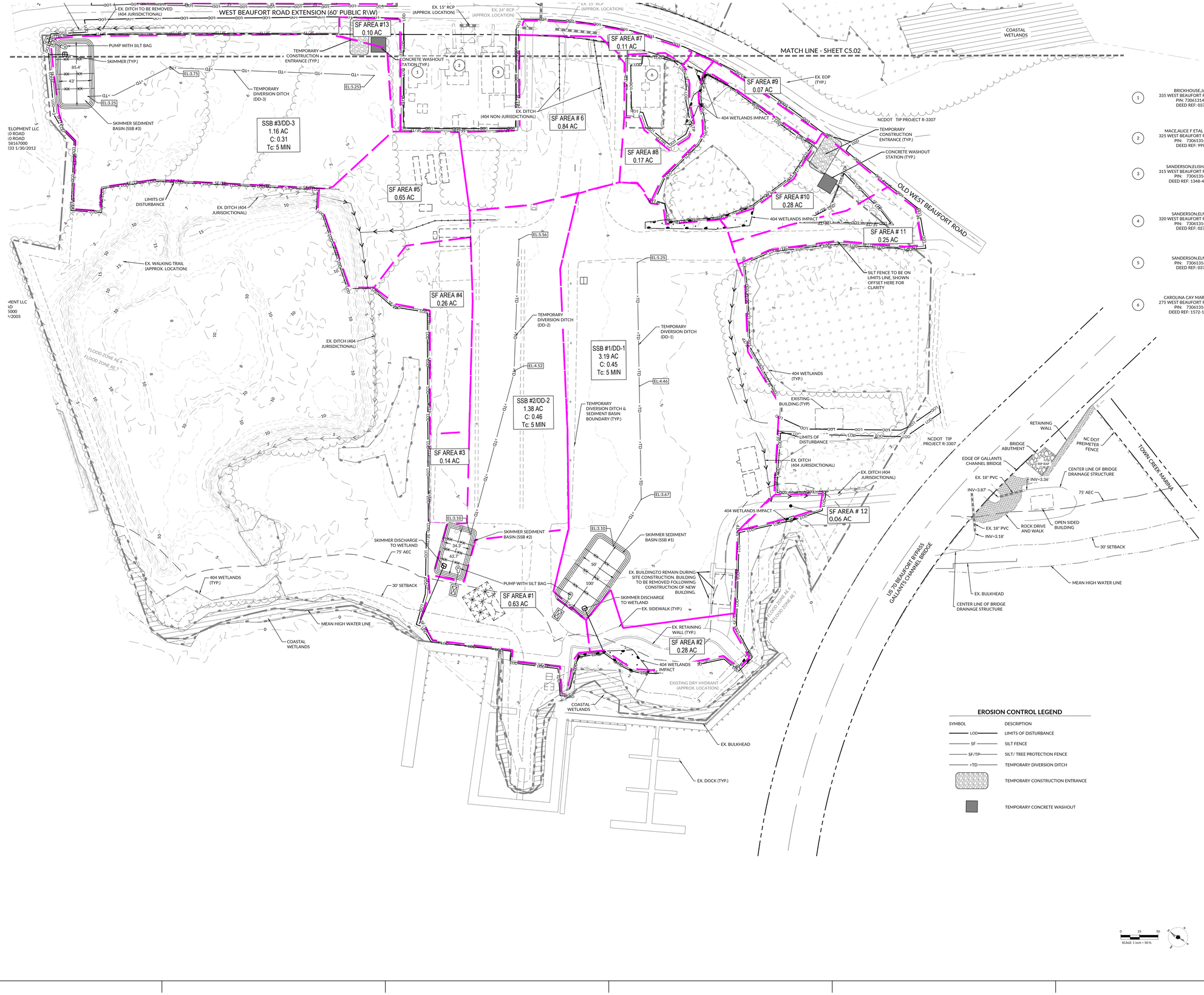
GRADING ENLARGEMENT

C4.03

DESIGN: RCB
DRAWN: GWR
REVIEW: RCB

CN 10145

DocuSign Envelope ID: 20A6F60B-0DE6-4F86-AEDA-31EC00A38AC3



MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

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CN PROJ # : 10145
SCO ID # : 24-21956-01A

DESIGNER

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CLARK NEXSEN LICENSE NUMBER C-1028

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PROFESSIONAL SEAL

NORTH CAROLINA PROFESSIONAL SEAL 052479 ENGINEER RYAN C. BERGERON
Docusigned by: Ryan C Bergeron CF117A80E855466...
6/12/2024

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

EROSION CONTROL PLAN (STAGE 1)

C5.01

DESIGN: RCB
DRAWN: GWR
REVIEW: RCB

CN 10145

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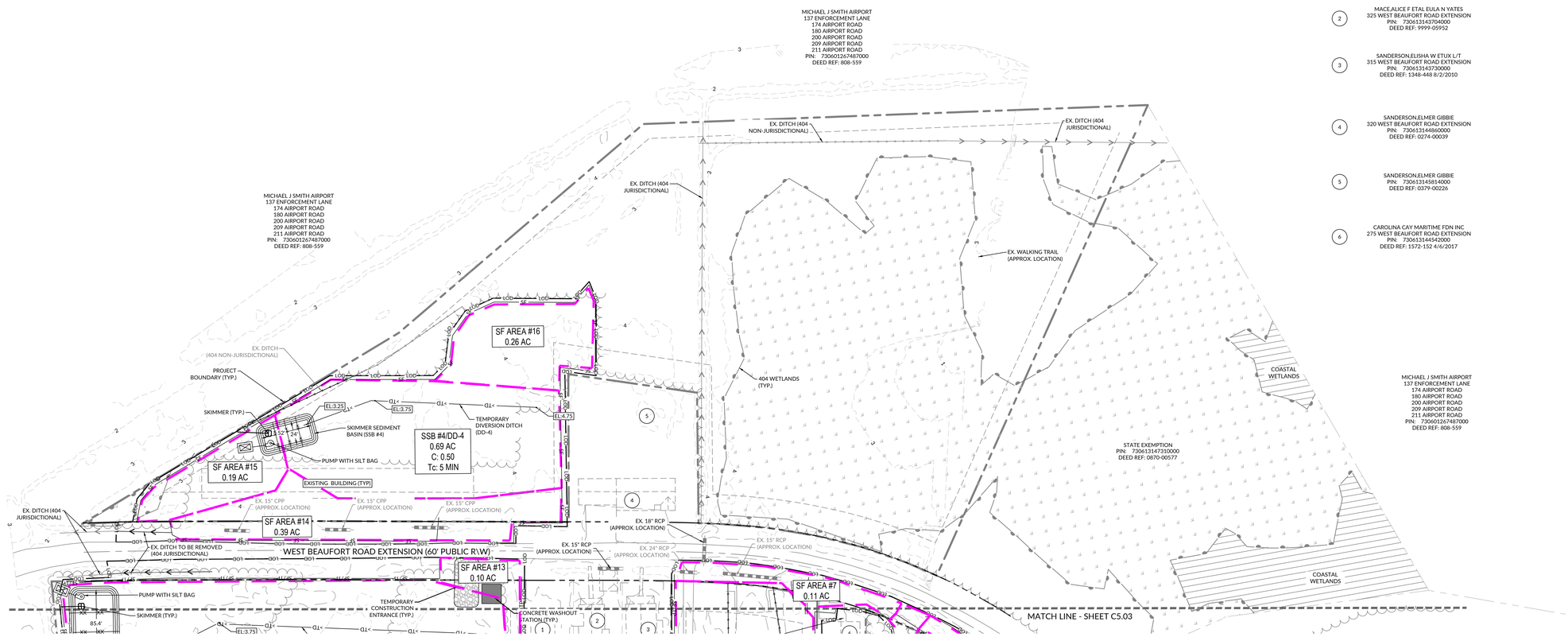
EROSION CONTROL LEGEND

SYMBOL	DESCRIPTION
LOD	LIMITS OF DISTURBANCE
SF	SILT FENCE
SF/TP	SILT/ TREE PROTECTION FENCE
>TD	TEMPORARY DIVERSION DITCH
	TEMPORARY CONSTRUCTION ENTRANCE
	TEMPORARY CONCRETE WASHOUT



1. BRICKHOUSE,JAMES S JR
335 WEST BEAUFORT ROAD EXTENSION
PIN: 730613142778000
DEED REF: 0370-00126

2. MACE,ALICE F ETAL EULA N YATES
325 WEST BEAUFORT ROAD EXTENSION
PIN: 730613143704000
DEED REF: 9999-05952

3. SANDERSON,ELISHA W ETUX L/T
315 WEST BEAUFORT ROAD EXTENSION
PIN: 730613143730000
DEED REF: 1348-448 8/2/2010

4. SANDERSON,ELMER GIBBIE
320 WEST BEAUFORT ROAD EXTENSION
PIN: 730613144860000
DEED REF: 0274-00039

5. SANDERSON,ELMER GIBBIE
PIN: 730613145814000
DEED REF: 0379-00226

6. CAROLINA CAY MARITIME FDN INC
275 WEST BEAUFORT ROAD EXTENSION
PIN: 730613144542000
DEED REF: 1572-152 4/6/2017

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145
SCO ID # : 24-27956-01A

DESIGNER

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919-828-1876

CLARK NEXSEN LICENSE NUMBER C-1028

CIVIL ENGINEER

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910-256-9277
WWW.WITHERSRAVENEL.COM

WITHERSRAVENEL LICENSE NUMBER F-1479

PROFESSIONAL SEAL

NORTH CAROLINA PROFESSIONAL SEAL 052479 ENGINEER RYAN C. BERGERON

DocuSigned by:
CF117A86E855466...
6/12/2024

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

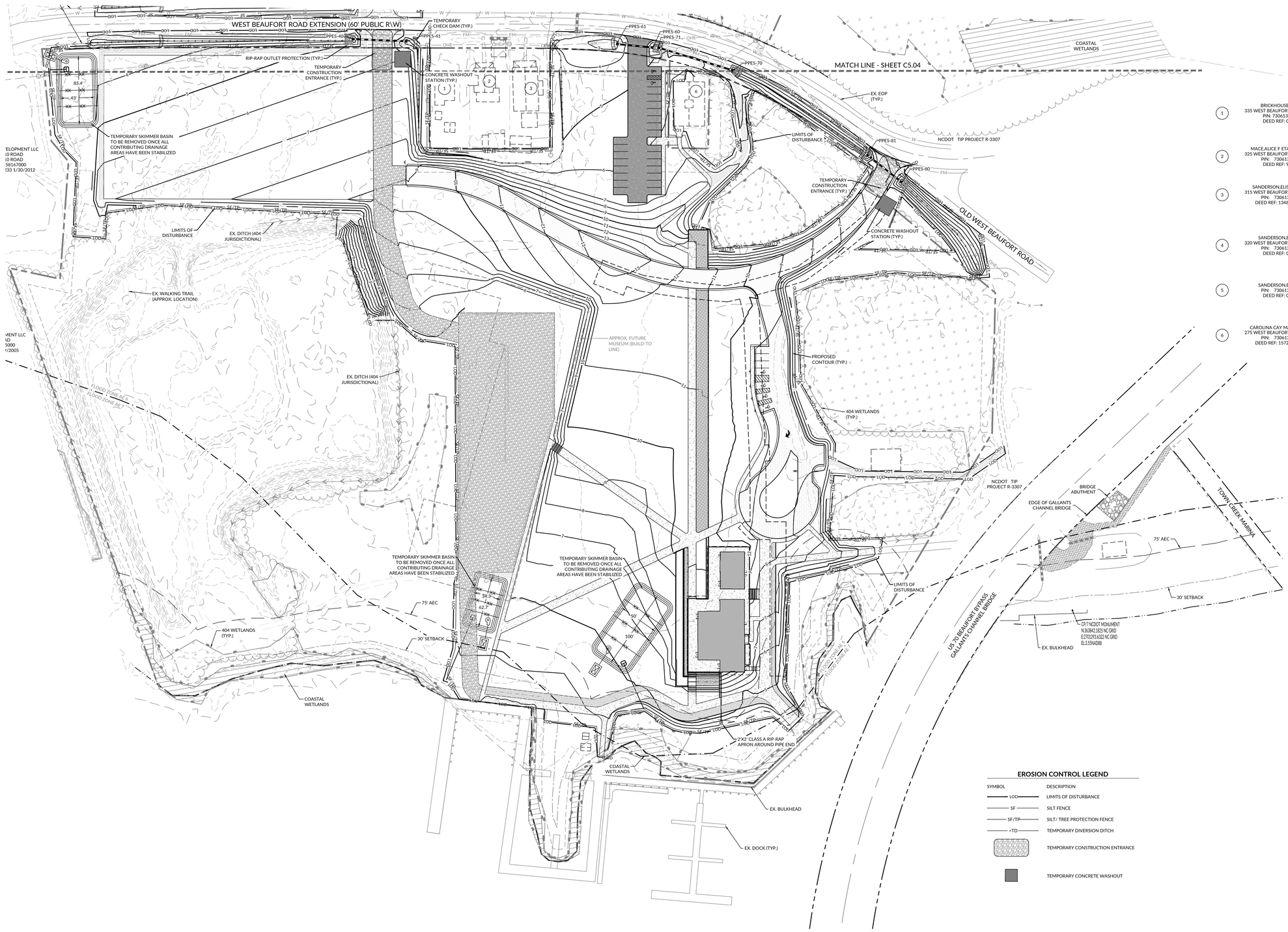
EROSION CONTROL PLAN (STAGE 1)

C5.02

DESIGN: RCB
DRAWN: GWR
REVIEW: RCB

CN 10145

DocuSign Envelope ID: 20A6F60B-0DE6-4F86-AEDA-31EC00A38AC3



EROSION CONTROL LEGEND

SYMBOL	DESCRIPTION
LOD	LIMITS OF DISTURBANCE
SF	SILT FENCE
SF/TP	SILT/ TREE PROTECTION FENCE
>TD	TEMPORARY DIVERSION DITCH
	TEMPORARY CONSTRUCTION ENTRANCE
	TEMPORARY CONCRETE WASHOUT

SCALE: 1 inch = 50 ft.

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145
SCO ID # : 24-27956-01A

DESIGNER

CLARKNEXSEN
421 NORTH HARRINGTON STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27603
919-828-1876
CLARK NEXSEN LICENSE NUMBER C-1028

CIVIL ENGINEER

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910-256-9277
WWW.WITHERSRAVENEL.COM
WITHERSRAVENEL LICENSE NUMBER F-1479

PROFESSIONAL SEAL

NORTH CAROLINA PROFESSIONAL SEAL 052479 ENGINEER RYAN C. BERGERON
Docusigned by: 6/12/2024

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

EROSION CONTROL PLAN (STAGE 2)

C5.03

DESIGN: RCB
DRAWN: GWR
REVIEW: RCB

CN 10145

W:\22\22-14701\23141\1 Beaufort Maritime Museum CDs\CAD\Drawing Sets\Construction\CS.00 EROSION - STAGE 2.dwg Wednesday, June 12, 2024 9:24:51 AM - RBERGERON

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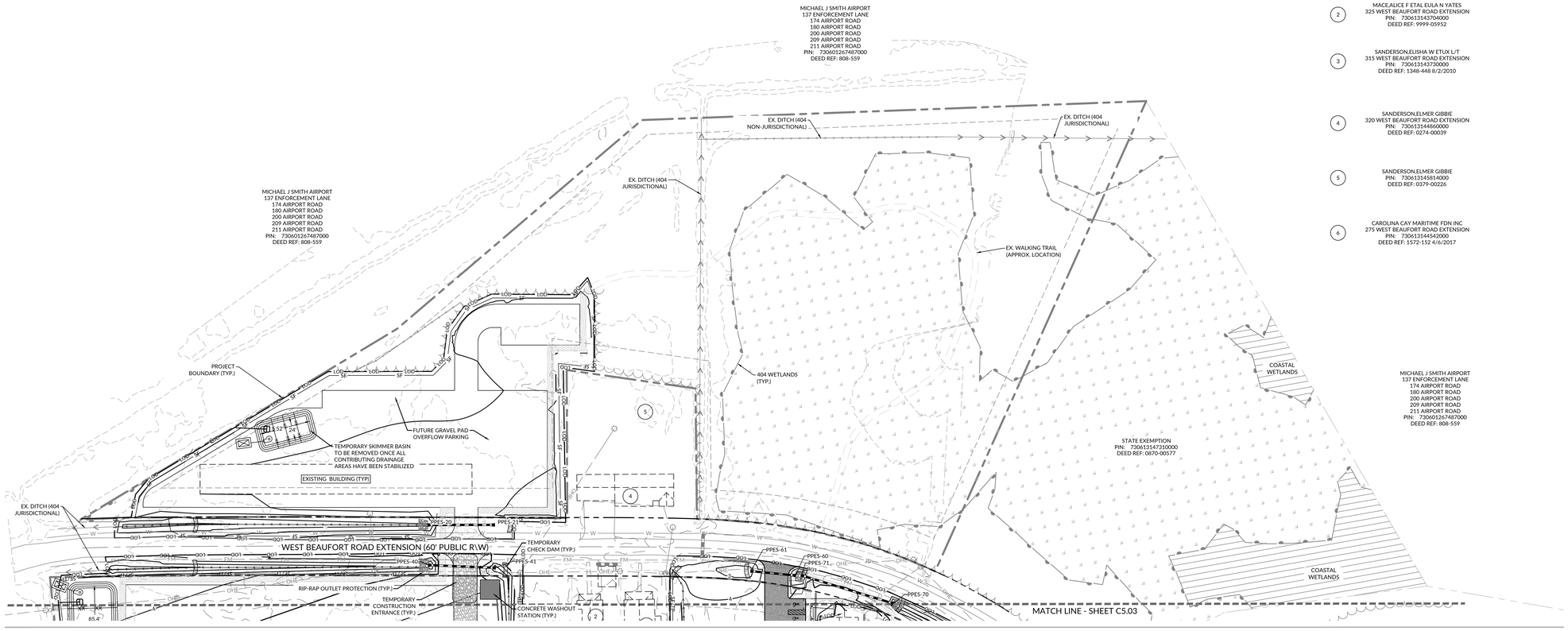
EROSION CONTROL LEGEND

SYMBOL	DESCRIPTION
LOD	LIMITS OF DISTURBANCE
SF	SILT FENCE
SF/TP	SILT/ TREE PROTECTION FENCE
>TD	TEMPORARY DIVERSION DITCH
	TEMPORARY CONSTRUCTION ENTRANCE
	TEMPORARY CONCRETE WASHOUT



1 BRICKHOUSE,JAMES S JR
335 WEST BEAUFORT ROAD EXTENSION
PIN: 730613142778000
DEED REF: 0370-00126

2 MACE,ALICE F ETAL EULA N YATES
325 WEST BEAUFORT ROAD EXTENSION
PIN: 730613143704000
DEED REF: 9999-05952

3 SANDERSON,ELISHA W ETUX L/T
315 WEST BEAUFORT ROAD EXTENSION
PIN: 730613143730000
DEED REF: 1348-448 8/2/2010

4 SANDERSON,ELMER GIBBIE
320 WEST BEAUFORT ROAD EXTENSION
PIN: 730613144860000
DEED REF: 0274-00039

5 SANDERSON,ELMER GIBBIE
PIN: 730613145814000
DEED REF: 0379-00226

6 CAROLINA CAY MARITIME FDN INC
275 WEST BEAUFORT ROAD EXTENSION
PIN: 730613144542000
DEED REF: 1572-152 4/6/2017

MICHAEL J SMITH AIRPORT
137 ENFORCEMENT LANE
174 AIRPORT ROAD
180 AIRPORT ROAD
200 AIRPORT ROAD
209 AIRPORT ROAD
211 AIRPORT ROAD
PIN: 730601267487000
DEED REF: 808-559

SCALE: 1 inch = 50 ft.

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145
SCO ID # : 24-27956-01A

DESIGNER

CLARKNEXSEN

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RALEIGH, NORTH CAROLINA 27603
919-828-1876

CLARK NEXSEN LICENSE NUMBER C-1028

CIVIL ENGINEER

WithersRavenel

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WILMINGTON, NORTH CAROLINA 28405
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WWW.WITHERSRAVENEL.COM
WITHERSRAVENEL LICENSE NUMBER F-1479

PROFESSIONAL SEAL

NORTH CAROLINA PROFESSIONAL SEAL 052479 ENGINEER RYAN C. BERGERON

DocuSigned by:
CF117A86E855466...
6/12/2024

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

EROSION CONTROL PLAN (STAGE 2)

C5.04

DESIGN: RCB
DRAWN: GWR
REVIEW: RCB

CN 10145

DocuSign Envelope ID: 1647350A-91F3-4D59-91DA-BA068EA38503

Date:

Page:

GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCG01 CONSTRUCTION GENERAL PERMIT

Implementing the details and specifications on this plan sheet will result in the construction activity being considered compliant with the Ground Stabilization and Materials Handling sections of the NCG01 Construction General Permit (Sections E and F, respectively). The permittee shall comply with the Erosion and Sediment Control plan approved by the delegated authority having jurisdiction. All details and specifications shown on this sheet may not apply depending on site conditions and the delegated authority having jurisdiction.

SECTION E: GROUND STABILIZATION

Required Ground Stabilization Timeframes

Site Area Description	Stabilize within this many calendar days after ceasing land disturbance	Timeframe variations
(a) Perimeter dikes, swales, ditches, and perimeter slopes	7	None
(b) High Quality Water (HQW) Zones	7	None
(c) Slopes steeper than 3:1	7	If slopes are 10 feet or less in length and are not steeper than 2:1, 14 days are allowed
(d) Slopes 3:1 to 4:1	14	-7 days for slopes greater than 50' in length and with slopes steeper than 4:1 -7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed
(e) Areas with slopes flatter than 4:1	14	-7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed unless there is zero slope

Note: After the permanent cessation of construction activities, any areas with temporary ground stabilization shall be converted to permanent ground stabilization as soon as practicable but in no case longer than 90 calendar days after the last land disturbing activity. Temporary ground stabilization shall be maintained in a manner to render the surface stable against accelerated erosion until permanent ground stabilization is achieved.

GROUND STABILIZATION SPECIFICATION

- Stabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the techniques in the table below:

Temporary Stabilization	Permanent Stabilization
· Temporary grass seed covered with straw or other mulches and tackifiers. · Hydroseeding · Rolled erosion control products with or without temporary grass seed · Appropriately applied straw or other mulch · Plastic sheeting	· Permanent grass seed covered with straw or other mulches and tackifiers · Geotextile fabrics such as permanent soil reinforcement matting · Hydroseeding · Shrubs or other permanent plantings covered with mulch · Uniform and evenly distributed ground cover sufficient to restrain erosion · Structural methods such as concrete, asphalt or retaining walls · Rolled erosion control products with grass seed

POLYACRYLAMIDES (PAMS) AND FLOCCULANTS

1. Select flocculants that are appropriate for the soils being exposed during construction, selecting from the *NC DWR List of Approved PAMS/Flocculants.*
2. Apply flocculants at or before the inlets to Erosion and Sediment Control Measures.
3. Apply flocculants at the concentrations specified in the *NC DWR List of Approved PAMS/Flocculants* and in accordance with the manufacturer's instructions.
4. Provide ponding area for containment of treated Stormwater before discharging offsite.
5. Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures.

EQUIPMENT AND VEHICLE MAINTENANCE

1. Maintain vehicles and equipment to prevent discharge of fluids.
2. Provide drip pans under any stored equipment.
3. Identify leaks and repair as soon as feasible, or remove leaking equipment from the project.
4. Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
5. Remove leaking vehicles and construction equipment from service until the problem has been corrected.
6. Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center that handles these materials.

LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE

1. Never bury or burn waste. Place litter and debris in approved waste containers.
2. Provide a sufficient number and size of waste containers (e.g dumpster, trash receptacle) on site to contain construction and domestic wastes.
3. Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
4. Locate waste containers on areas that do not receive substantial amounts of runoff from upland areas and does not drain directly to a storm drain, stream or wetland.
5. Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
6. Anchor all lightweight items in waste containers during times of high winds.
7. Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
8. Dispose waste off-site at an approved disposal facility.
9. On business days, clean up and dispose of waste in designated waste containers.

PAINT AND OTHER LIQUID WASTE

1. Do not dump paint and other liquid waste into storm drains, streams or wetlands.
2. Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
3. Contain liquid wastes in a controlled area.
4. Containment must be labeled, sized and placed appropriately for the needs of site.
5. Prevent the discharge of soaps, solvents, detergents and other liquid wastes from construction sites.

PORTABLE TOILETS

1. Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available. If 50 foot offset is not attainable, provide relocation of portable toilet behind silt fence or place on a gravel pad and surround with sand bags.
2. Provide staking or anchoring of portable toilets during periods of high winds or in high foot traffic areas.
3. Monitor portable toilets for leaking and properly dispose of any leaked material. Utilize a licensed sanitary waste hauler to remove leaking portable toilets and replace with properly operating unit.

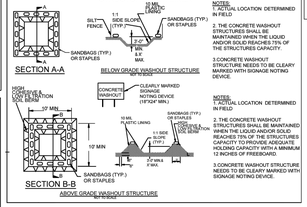
EARTHEN STOCKPILE MANAGEMENT

1. Show stockpile locations on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably available.
2. Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
3. Provide stable stone access point when feasible.
4. Stabilize stockpile within the timeframes provided on this sheet and in accordance with the approved plan and any additional requirements. Soil stabilization is defined as vegetative, physical or chemical coverage techniques that will restrain accelerated erosion on disturbed soils for temporary or permanent control needs.

HAZARDOUS AND TOXIC WASTE

1. Create designated hazardous waste collection areas on-site.
2. Place hazardous waste containers under cover or in secondary containment.
3. Do not store hazardous chemicals, drums or bagged materials directly on the ground.

ONSITE CONCRETE WASHOUT STRUCTURE WITH LINER



NOTES:
1. INSTALL LOCATION DETERMINED IN FIELD

2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY

3.CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARLY MARKED WITH SIGNAGE NOTING DEVICE

NOTES:
1. INSTALL LOCATION DETERMINED IN FIELD

2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY WITH A MINIMUM OF HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD.

3.CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARLY MARKED WITH SIGNAGE NOTING DEVICE.

CONCRETE WASHOUTS

1. Do not discharge concrete or cement slurry from the site.
2. Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.
3. Manage washout from mortar mixers in accordance with the above item and in addition place the mixer and associated materials on impervious barrier and within lot perimeter silt fence.
4. Install temporary concrete washouts per local requirements, where applicable. If an alternate method or product is to be used, contact your approval authority for review and approval. If local standard details are not available, use one of the two types of temporary concrete washouts provided on this detail.
5. Do not use concrete washouts for dewatering or storing defective curb or sidewalk sections. Stormwater accumulated within the washout may not be pumped into or discharged to the storm drain system or receiving surface waters. Liquid waste must be pumped out and removed from project.
6. Locate washouts at least 50 feet from storm drain inlets and surface waters unless it can be shown that no other alternatives are reasonably available. At a minimum, install protection of storm drain inlet(s) closest to the washout which could receive spills or overflow.
7. Locate washouts in an easily accessible area, on level ground and install a stone entrance pad in front of the washout. Additional controls may be required by the approving authority.
8. Install at least one sign directing concrete trucks to the washout within the project limits. Post signage on the washout itself to identify this location.
9. Remove leavings from the washout when at approximately 75% capacity to limit overflow events. Replace the tarp, sand bags or other temporary structural components when no longer functional. When utilizing alternative or proprietary products, follow manufacturer's instructions.
10. At the completion of the concrete work, remove remaining leavings and dispose of in an approved disposal facility. Fill pit, if applicable, and stabilize any disturbance caused by removal of washout.

HERBICIDES, PESTICIDES AND RODENTICIDES

1. Store and apply herbicides, pesticides and rodenticides in accordance with label restrictions.
2. Store herbicides, pesticides and rodenticides in their original containers with the label, which lists directions for use, ingredients and first aid steps in case of accidental poisoning.
3. Do not store herbicides, pesticides and rodenticides in areas where flooding is possible or where they may spill or leak into wells, stormwater drains, ground water or surface water. If a spill occurs, clean area immediately.
4. Do not stockpile these materials onsite.

NORTH CAROLINA Environmental Quality

EFFECTIVE DATE: 11/12/2020

NCG-01 GROUND COVER & MATERIALS HANDLING

Date:

Page:

PART II, SECTION G, ITEM (4)
DRAW DOWN OF SEDIMENT BASINS FOR MAINTENANCE OR CLOSE OUT

Sediment basins and traps that receive runoff from drainage areas of one acre or more shall use outlet structures that withdraw water from the surface when these devices need to be drawn down for maintenance or close out unless this is infeasible. The circumstances in which it is not feasible to withdraw water from the surface shall be rare (for example, times with extended cold weather). Non-surface withdrawals from sediment basins shall be allowed only when all of the following criteria have been met:

(a) The E&SC plan authority has been provided with documentation of the non-surface withdrawal and the specific time periods or conditions in which it will occur. The non-surface withdrawal shall not commence until the E&SC plan authority has approved these items,
(b) The non-surface withdrawal has been reported as an anticipated bypass in accordance with Part III, Section C, Item (2)(c) and (d) of this permit,
(c) Dewatering discharges are treated with controls to minimize discharges of pollutants from stormwater that is removed from the sediment basin. Examples of appropriate controls include properly sited, designed and maintained dewatering tanks, weir tanks, and filtration systems,
(d) Vegetated, upland areas of the sites or a properly designed stone pad is used to the extent feasible at the outlet of the dewatering treatment devices described in Item (c) above,
(e) Velocity dissipation devices such as check dams, sediment traps, and riprap are provided at the discharge points of all dewatering devices, and
(f) Sediment removed from the dewatering treatment devices described in Item (c) above is disposed of in a manner that does not cause deposition of sediment into waters of the United States.

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING
SECTION A: SELF-INSPECTION

Self-inspections are required during normal business hours in accordance with the table below. When adverse weather or site conditions would cause the safety of the inspection personnel to be in jeopardy, the inspection may be delayed until the next business day on which it is safe to perform the inspection. In addition, when a storm event of equal to or greater than 1.0 inch occurs outside of normal business hours, the self-inspection shall be performed upon the commencement of the next business day. Any time when inspections were delayed shall be noted in the Inspection Record.

Inspect	Frequency (during normal business hours)	Inspection records must include:
(1) Rain gauge maintained in good working order	Daily	Daily rainfall amounts. If no daily rain gauge observations are made during weekend or holiday periods, and no individual-day rainfall information is available, record the cumulative rain measurement for those unattended days (this will determine if a site inspection is needed). Days on which no rainfall occurred shall be recorded as "Zero." The permittee may use another rain-monitoring device approved by the Division.
(2) E&SC Measures	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours.	1. Identification of the measures inspected 2. Date and Time of the inspection 3. Name of the person performing the inspection 4. Indication of whether the measures were operating properly 5. Description of maintenance needs for the measure 6. Description, Evidence, and date of corrective actions taken
(3) Stormwater discharge outfalls(SDOs)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours.	1. Identification of the discharge outfalls inspected 2. Date and Time of the inspection 3. Name of the person performing the inspection 4. Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration 5. Indication of visible sediment leaving the site 6. Description, Evidence, and date corrective actions taken
(4) Perimeter of Site	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours.	If visible Sedimentation is found outside site limits, then record of the following shall be made: 1) Actions taken to clean up or stabilize sediment that has left the site limits 2) Description, Evidence and date of corrective actions taken 3) An explanation as to the actions taken to control future releases
(5) Streams or wetlands onsite or offsite (where accessible)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours.	If the stream or wetland has increased visible sedimentation or has visible increased turbidity from the construction activity, then a record of the following shall be made: 1)Description, Evidence and date of corrective actions taken 2)Records of required reports to the appropriate Division Regional Office per Part III, Section C, Item(2)(a) of this permit
(6) Ground Stabilization Measures	After each phase of grading	1. The phase of grading (installation of perimeter E&SC measures, clearing and grubbing, installation of storm drainage facilities, completion of all land-disturbing activity, construction or redevelopment, permanent ground cover) 2. Documentation that the required ground stabilization measures have been provided within the required timeframe or assurance that they will be provided as soon as possible.

NOTE: The rain inspection resets the required 7 calendar day inspection requirement.

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING
SECTION B: RECORDKEEPING

1. E&SC Plan Documentation

The approved E&SC plan as well as any approved deviation shall be kept on the site. The approved E&SC plan must be kept up-to-date throughout the coverage under this permit. The following items pertaining to the E&SC plan shall be kept on site and available for inspection at all times during normal business hours.

Item to Document	Document Requirements
(a) Each E&SC measure has been installed and does not significantly deviate from the locations, dimensions and relative elevations shown on the approved E&SC plan.	Initial and date each E&SC measure on a copy of the approved E&SC plan or complete, date and sign an inspection report that lists each E&SC measure shown on the approved E&SC plan. This documentation is required upon the initial installation of the E&SC measures are modified after initial installation.
(b) A phase of grading has been completed.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate completion of the construction phase.
(c) Ground cover is located and installed in accordance with the approved E&SC plan.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate compliance with approved ground cover specifications.
(d) The maintenance and repair requirements for all E&SC measures have been performed.	Complete, date and sign an inspection report.
(e) Corrective actions have been taken to E&SC measures.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate the completion of the corrective action.

2. Additional Documentation to be Kept on Site

In addition to the E&SC plan documents above, the following items shall be kept on the site and available for inspectors at all times during normal business hours, unless the Division provides a site-specific exemption based on unique site conditions that make this requirement not practical:

(a) This General Permit as well as the Certificate of Coverage, after it is received.

(b) Records of inspections made during the previous twelve months. The permittee shall record the required observations on the Inspection Record Form provided by the Division or a similar inspection form that includes all the required elements. Use of electronically-available records in lieu of the required paper copies will be allowed if shown to provide equal access and utility as the hard-copy records.

3. Documentation to be Retained for Three Years

All data used to complete the e-NOI and all inspection records shall be maintained for a period of three years after project completion and made available upon request. [40 CFR 122.41]

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING
SECTION C: REPORTING

1. Occurrences that Must be Reported

Permittees shall report the following occurrences:

(a) Visible sediment deposition in a stream or wetland.
(b) Oil spills if:
- They are 25 gallons or more,
- They are less than 25 gallons but cannot be cleaned up within 24 hours,
- They cause sheen on surface waters (regardless of volume), or
- They are within 100 feet of surface waters (regardless of volume).

(c) Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref: 40 CFR 110.3 and 40 CFR 117.3) or Section 102 of CERCLA (Ref: 40 CFR 302.4) or G.S. 143-215.85.
(d) Anticipated bypasses and unanticipated bypasses.
(e) Noncompliance with the conditions of this permit that may endanger health or the environment.

2. Reporting Timeframes and Other Requirements

After a permittee becomes aware of an occurrence that must be reported, he shall contact the appropriate Division regional office within the timeframes and in accordance with the other requirements listed below. Occurrences outside normal business hours may also be reported to the Department's Environmental Emergency Center personnel at (800) 858-0368.

Occurrence	Reporting Timeframe (After Discovery) and Other Requirements
(a) Visible sediment deposition in a stream or wetland	• Within 24 hours, an oral or electronic notification. • Within 7 Calendar Days, a report that contains a description of the sediment and actions taken to address the cause of the deposition. Division staff may waive the requirement for a written report on a case-by-case basis. • If the stream is named on the NC 303(d) list as impaired for sediment-related caused, the permittee may be required to perform additional monitoring, inspections or apply more stringent practices if staff determine that additional requirements are needed to assure compliance with the federal or state impaired-waters conditions.
(b) Oil spills and release of hazardous substances per Item 1(b)-(c) above	• Within 24 Hours, an oral or electronic notification. The notification shall include information about the date, time, nature, volume and location of the spill or release.
(c) Anticipated bypasses [40 CFR 122.41(m)(3)]	• *A report at least ten days before the date of the bypass, if possible.* The report shall include an evaluation of the anticipated quality and effect of the bypass.
(d) Unanticipated bypasses [40 CFR 122.41(m)(3)]	• Within 24 Hours, an oral or electronic notification • Within 7 calendar days, a report that includes an evaluation of the quality and effect of the bypass.
(e) Noncompliance with the conditions of this permit that may endanger health or the environment [40 CFR 122.41(l)(7)]	• Within 24 Hours, an oral or electronic notification • Within 7 calendar days, a report that contains a description of the noncompliance, and its causes; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue; and steps taken or planned to reduce, eliminate and prevent reoccurrence of the noncompliance. [40 CFR 122.41(l)(6). • Division staff may waive the requirement for a written report on a case-by-case basis.

NORTH CAROLINA Environmental Quality

EFFECTIVE DATE:11/12/2020

NCG-01 SELF INSPECTION

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145
SCO ID # : 24-21956-01A

DESIGNER

CLARKNEXSEN
421 NORTH HARRINGTON STREET, SUITE 600
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WITHERSRAVENEL LICENSE NUMBER F-1479

PROFESSIONAL SEAL

NORTH CAROLINA PROFESSIONAL SEAL 052479 ENGINEER RYAN C. BERGERON
DocuSigned by: Ryan C. Bergeron CF1174D0E0554A8...
6/6/2024

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

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KEY PLAN

SHEET

NCG01

C6.00

DESIGN: RCB
DRAWN: GWR
REVIEW: RCB

CN 10145

W:\22\22-1470\221471\Beaufort Maritime Museum CDs\CAD\Drawing Sets\Construction\NCG05.dwg Wednesday, June 5, 2024 8:56:33 AM - CMOWES

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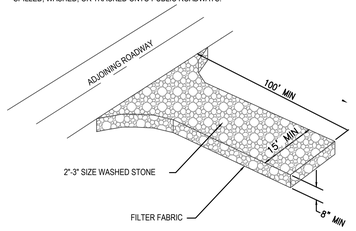
NOTES:

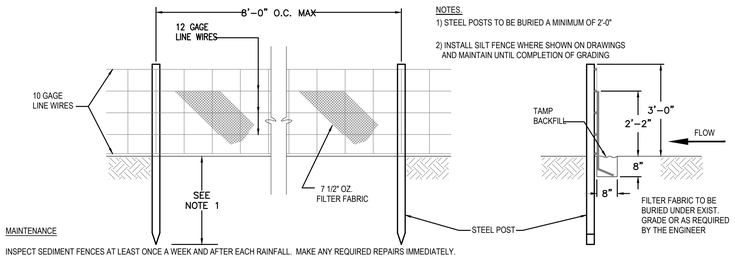
1. PROVIDE TURNING RADIUS SUFFICIENT TO ACCOMMODATE LARGE TRUCKS.
2. LOCATE ENTRANCE TO PROVIDE MAXIMUM UTILITY BY ALL CONSTRUCTION VEHICLES.
3. MUST BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING, OR DIRECT FLOW, OF MUD ONTO STREETS. PERIODIC TOPDRESSING WITH STONE WILL BE NECESSARY.
4. ANY MATERIAL WHICH MAKES IT ONTO THE ROAD MUST BE CLEANED UP IMMEDIATELY.
5. APPLICABLE AT ALL POINTS OF INGRESS EGRESS UNTIL SITE IS STABILIZED, FREQUENT CHECKS OF THE DEVICE AND TIMELY MAINTENANCE MUST BE PROVIDED.
6. WHEN TEMPORARY CONSTRUCTION ENTRANCES ARE LOCATED ON PAVED SURFACES, PLACE MINIMUM OF 2" OF SCREENINGS OR SAND TO HELP FACILITATE IN CLEAN-UP AND SITE RESTORATION.

MAINTENANCE:

MAINTAIN THE GRAVEL PAD IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE C CONSTRUCTION SITE. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH 2-INCH STONE. AFTER EACH RAINFALL, INSPECT ANY STRUCTURE USED TO TRAP SEDIMENT AND CLEAN IT OUT AS NECESSARY. IMMEDIATELY REMOVE ALL OBJECTIONABLE MATERIALS SPILLED, WASHED, OR TRACKED ONTO PUBLIC ROADWAYS.



TEMPORARY CONSTRUCTION ENTRANCE
NTS



NOTES:

1) STEEL POSTS TO BE BURIED A MINIMUM OF 2'-0"

2) INSTALL SILT FENCE WHERE SHOWN ON DRAWINGS AND MAINTAIN UNTIL COMPLETION OF GRADING

MAINTENANCE

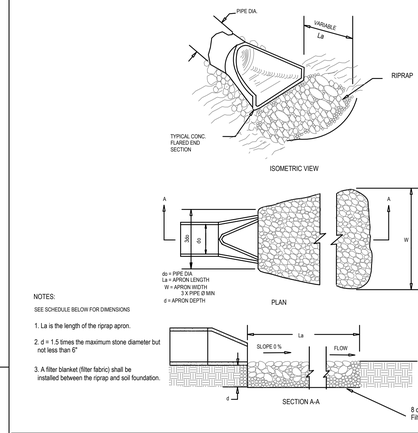
INSPECT SEDIMENT FENCES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY.

SHOULD THE FABRIC OF THE SEDIMENT FENCE COLLAPSE, TEAR, DECOMPOSE OR BECOME INEFFECTIVE, REPLACE IT PROMPTLY.

REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE. TAKE CARE TO AVOID UNDERMINING THE FENCE DURING CLEANOUT.

REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS AND BRING THE AREA TO GRADE AND STABILIZE IT AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

SILT FENCE
NTS



NOTES:

SEE SCHEDULE BELOW FOR DIMENSIONS

1. La is the length of the riprap apron.
2. d = 1.5 times the maximum stone diameter but not less than 6"
3. A filter blanket (filter fabric) shall be installed between the riprap and soil foundation.

dn = PIPE DIA.
La = APRON LENGTH
W = APRON WIDTH
3 X PIPE Ø MIN.
d = APRON DEPTH

CONSTRUCTION SPECIFICATION

1. EXCAVATE BELOW CHANNEL OUTLET AND WIDEN CHANNEL TO THE REQUIRED RIPRAP THICKNESS FOR EACH APRON. FOUNDATION TO BE CUT TO ZERO GRADE AND SMOOTHED.
2. PLACE FILTER CLOTH ON BOTTOM AND SIDES OF PREPARED FOUNDATION. ALL JOINTS TO OVERLAP A MINIMUM OF 1.0'.
3. EXERCISE CARE IN RIPRAP PLACEMENT TO AVOID DAMAGE TO FILTER FABRIC.
4. PLACE RIPRAP ON ZERO GRADE - TOP OF RIPRAP TO BE LEVEL WITH EXISTING OUTLET - NO OVERFALL AT ENDS.
5. RIPRAP TO BE HARD, ANGULAR, WELL GRADED CLASS B EROSION CONTROL STONE.
6. IMMEDIATELY AFTER CONSTRUCTION STABILIZED ALL DISTURBED AREAS WITH VEGETATION AS SHOWN IN VEGETATIVE PLAN.

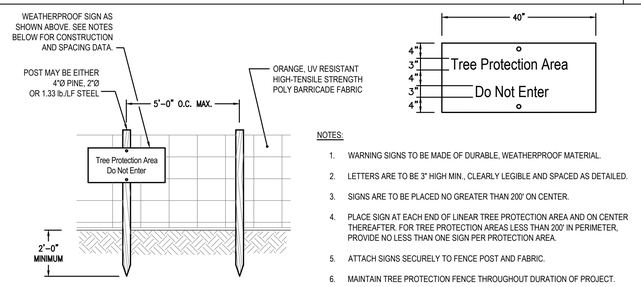
MAINTENANCE

INSPECT RIP RAP DISSIPATERS WEEKLY AND AFTER EACH SIGNIFICANT (½ INCH OR GREATER) RAINFALL EVENT TO SEE IF ANY EROSION AROUND OR BELOW THE RIP RAP HAS TAKEN PLACE, OR IF STONES HAVE BEEN DISLODGED. IMMEDIATELY MAKE ALL NEEDED REPAIRS TO PREVENT FURTHER DAMAGE.

VELOCITY DISSIPATOR DESIGN SUMMARY

OUTLET	PIPE (Do)	Q25	SLOPE	VELOCITY	ZONE	TYPE	LENGTH (La)	WIDTH (W1)	WIDTH (W2)	STONE CLASS	MIN. DEPTH
	(IN)	(CFS)	(%)	(FPS)	(Figure 8.06c)	(Figure 8.06d)	(FT)	(FT)	(FT)		(IN)
PPES-10	18	2.53	0.39	3.44	1	CHANNEL	6	4.5	3.9	A	9
PPES-20	18	0.23	0.39	1.57	1	CHANNEL	6	4.5	3.9	A	9
PPES-30	15 x 2	10.99	0.39	4.60	1	CHANNEL	7.1	5.3	4.6	A	9
PPES-40	18	2.31	0.40	3.42	1	OVERLAND	4.5	4.5	6	A	12
PPES-50	18	2.17	0.44	3.43	1	CHANNEL	6	4.5	3.9	A	9
PPES-60	18	0.66	0.44	2.31	1	CHANNEL	6	4.5	3.9	A	9
PPES-70	18	1.68	2.50	6.29	1	CHANNEL	6	4.5	3.9	A	9
PPES-80	18	2.18	0.38	3.26	1	CHANNEL	6	4.5	3.9	A	9

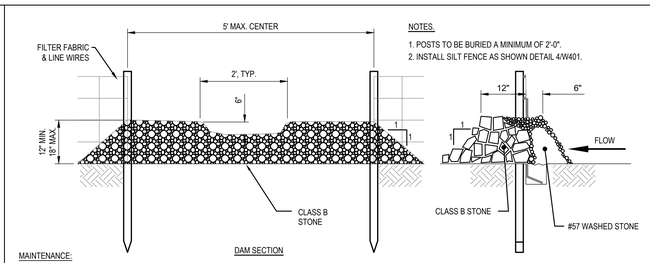
RIP RAP ENERGY DISSIPATER
N.T.S.



NOTES:

1. WARNING SIGNS TO BE MADE OF DURABLE, WEATHERPROOF MATERIAL.
2. LETTERS ARE TO BE 3" HIGH MIN., CLEARLY LEGIBLE AND SPACED AS DETAILED.
3. SIGNS ARE TO BE PLACED NO GREATER THAN 200' ON CENTER.
4. PLACE SIGN AT EACH END OF LINEAR TREE PROTECTION AREA AND ON CENTER THEREAFTER. FOR TREE PROTECTION AREAS LESS THAN 200' IN PERIMETER, PROVIDE NO LESS THAN ONE SIGN PER PROTECTION AREA.
5. ATTACH SIGNS SECURELY TO FENCE POST AND FABRIC.
6. MAINTAIN TREE PROTECTION FENCE THROUGHOUT DURATION OF PROJECT.

TREE PROTECTION FENCE
NTS



NOTES:

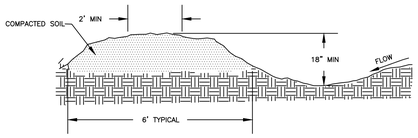
1. POSTS TO BE BURIED A MINIMUM OF 2'-0".
2. INSTALL SILT FENCE AS SHOWN DETAIL 4/W401.

MAINTENANCE:

INSPECT FOR SIGNIFICANT EROSION AROUND THE EDGES & BETWEEN SILT FENCE & DRAIN. INSTALL PROTECTIVE RIP-RAP LINERS IN PORTIONS OF THE CHANNEL WHERE EROSION OCCURS. REMOVE SEDIMENT ACCUMULATED BEHIND THE DRAINS AS REQUIRED PREVENTING DAMAGE TO SILT FENCE & ADJACENT VEGETATION. ADD STONES TO DRAINS AS REQUIRED MAINTAINING DESIGN HEIGHT & CROSS SECTION.

SILT FENCE OUTLET
NTS

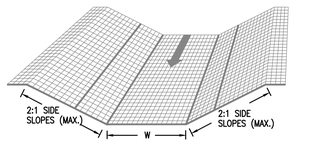
CHANNEL DESIGN INFORMATION												
CHANNEL I.D.	DRAINAGE AREA (AC)	WEIGHTED 'C' COEFFICIENT	CHANNEL FLOW (CFS)	CHANNEL SLOPE (%)	CHANNEL FLOW DEPTH (FT)	CHANNEL MINIMUM DEPTH (FT)	CHANNEL BOTTOM WIDTH (FT)	CHANNEL SIDE SLOPES	CHANNEL VELOCITY (FPS)	ALLOWABLE VELOCITY (FPS)	CHANNEL SHEAR STRESS (PSF)	ALLOWABLE SHEAR STRESS (PSF)	DITCH LINING
1	3.16	0.42	10.53	1.00	1.29	1.79	0.50	3 :1	1.87	8.00	0.80	2.10	NAG SC150BN OR EQUAL
2	1.38	0.50	5.47	1.00	1.10	1.60	0.50	3 :1	1.31	8.00	0.68	2.10	NAG SC150BN OR EQUAL
3	1.16	0.31	2.86	1.00	0.74	1.50	0.50	3 :1	1.43	5.00	0.45	1.60	NAG S75BN OR EQUAL
4	0.69	0.50	2.74	1.00	0.72	1.50	0.50	3 :1	1.41	5.00	0.45	1.60	NAG S75BN OR EQUAL



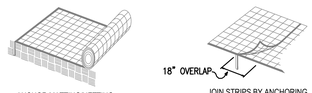
MAINTENANCE

INSPECT TEMPORARY DIVERSIONS ONCE A WEEK AND AFTER EVERY RAINFALL. IMMEDIATELY REMOVE SEDIMENT FROM THE FLOW AREA AND REPAIR THE DIVERSION RIDGE. CAREFULLY CHECK OUTLETS AND MAKE TIMELY REPAIRS AS NEEDED. WHEN THE AREA PROTECTED IS PERMANENTLY STABILIZED, REMOVED THE RIDGE AND THE CHANNEL TO BLEND WITH THE NATURAL GROUND LEVEL AND APPROPRIATELY STABILIZE IT.

TEMPORARY DIVERSION SWALE
NTS



IN CHANNELS, ROLL OUT STRIPS OF MATTING/NETTING PARALLEL TO THE DIRECTION OF FLOW AND OVER THE PROTECTIVE MULCH



ANCHOR MATTING/NETTING IN A 12" TRENCH

JOIN STRIPS BY ANCHORING AND OVERLAPPING

ROLLED EROSION CONTROL PRODUCT MAINTENANCE:

1. INSPECT ROLLED EROSION CONTROL PRODUCTS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1/2 INCH OR GREATER) RAINFALL EVENT, REPAIR IMMEDIATELY.
2. GOOD CONTACT WITH THE GROUND MUST BE MAINTAINED, AND EROSION MUST NOT OCCUR BENEATH THE RECP.
3. ANY AREAS OF THE RECP THAT ARE DAMAGED OR NOT IN CLOSE CONTACT WITH THE GROUND SHALL BE REPAIRED AND STAPLED.
4. IF EROSION OCCURS DUE TO POORLY CONTROLLED DRAINAGE, THE PROBLEM SHALL BE FIXED AND THE ERODED AREA PROTECTED.
5. MONITOR AND REPAIR THE RECP AS NECESSARY UNTIL GROUND COVER HAS ESTABLISHED.

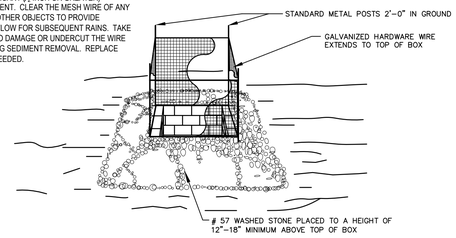
TEMPORARY

	Product Description	Longevity	Typical Slope Applications (H:V)	Channel Application Thresholds
S75BN	Leno woven biodegradable jute top net, 100% straw fiber matrix	12 months	4:1 - 3:1	1.6 psf / 5.0 fps
S150BN	Woven biodegradable jute top and bottom net, 100% straw fiber matrix	12 months	3:1 - 2:1	1.85 psf / 6.0 fps
SC150BN	Woven biodegradable jute top and bottom net, 70% straw/30% coconut fiber matrix	18 months	2:1 - 1:1	2.10 psf / 8.0 fps
C125	UV stable polypropylene top & bottom nets, 100% coconut fiber matrix	36 months	1:1 and Greater	2.25 psf / 10.0 fps

MATTING/NETTING PLACEMENT & SPECIFICATIONS
NTS

MAINTENANCE

INSPECT INLETS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (½ INCH OR GREATER) RAINFALL EVENT. CLEAR THE MESH WIRE OF ANY DEBRIS OR OTHER OBJECTS TO PROVIDE ADEQUATE FLOW FOR SUBSEQUENT RAINS. TAKE CARE NOT TO DAMAGE OR UNDERCUT THE WIRE MESH DURING SEDIMENT REMOVAL. REPLACE STONE AS NEEDED.



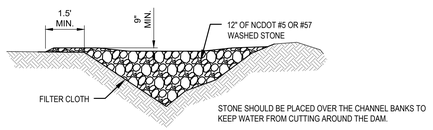
STANDARD CATCH BASIN/YARD INLET PROTECTION
NTS

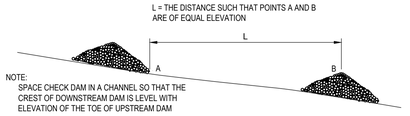
SEEDBED PREPARATION

1. CHISEL COMPACTED AREAS AND SPREAD TOPSOIL 3 INCHES DEEP OVER ADVERSE SOIL CONDITIONS, IF AVAILABLE.
2. RIP THE ENTIRE AREA TO 6 INCHES DEPTH.
3. REMOVE ALL LOOSE ROCK, ROOTS, AND OTHER OBSTRUCTIONS LEAVING SURFACE REASONABLY SMOOTH AND UNIFORM.
4. APPLY AGRICULTURAL LIME, FERTILIZER, AND SUPERPHOSPHATE UNIFORMLY AND MIX WITH SOIL.
5. CONTINUE TILLAGE UNTIL A WELL PULVERIZED, FIRM REASONABLY UNIFORM SEEDBED IS PREPARED 4 TO 6 INCHES DEEP.
6. SEED ON A FRESHLY PREPARED SEEDBED AND COVER SEED LIGHTLY WITH SEEDING EQUIPMENT OR CULTIPACK AFTER SEEDING.
7. MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH.
8. INSPECT ALL SEEDED AREAS AND MAKE NECESSARY REPAIRS OR RE-SEEDINGS WITHIN THE PLANTING SEASON, IF POSSIBLE. IF STAND SHOULD BE OVER 60% DAMAGED, RE-ESTABLISH FOLLOWING ORIGINAL LIME FERTILIZER AND SEEDING RATES.
9. CONSULT CONSERVATION INSPECTOR ON MAINTENANCE TREATMENT AND FERTILIZATION AFTER PERMANENT COVER IS ESTABLISHED.

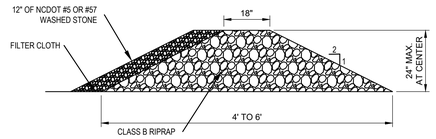
CONSULT CONSERVATION ENGINEER OR SOIL CONSERVATION SERVICE FOR ADDITIONAL INFORMATION CONCERNING OTHER ALTERNATIVES FOR VEGETATION OF DENUDED AREAS. THE VEGETATION RATES ARE THOSE WHICH DO WELL UNDER LOCAL CONDITIONS; OTHER SEEDING RATES COMBINATIONS ARE POSSIBLE.

* TEMPORARY-RESEED ACCORDING TO OPTIMUM SEASON FOR DESIRED PERMANENT VEGETATION. DO NOT ALLOW TEMPORARY COVER TO GROW OVER 12" IN HEIGHT BEFORE MOWING.





NOTE:
SPACE CHECK DAM IN A CHANNEL SO THAT THE CREST OF DOWNSTREAM DAM IS LEVEL WITH ELEVATION OF THE TOE OF UPSTREAM DAM



MAINTENANCE

INSPECT CHECK DAMS AND CHANNELS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (½ INCH OR GREATER) RAINFALL EVENT AND REPAIR IMMEDIATELY. CLEAN OUT SEDIMENT, STRAW, LIMBS, OR OTHER DEBRIS THAT COULD CLOG THE CHANNEL WHEN NEEDED.

ANTICIPATE SUBMERGENCE AND DEPOSITION ABOVE THE CHECK DAM AND EROSION FROM HIGH FLOWS ROUND THE EDGES OF THE DAM. CORRECT ALL DAMAGE IMMEDIATELY. IF SIGNIFICANT EROSION OCCURS BETWEEN DAMS, ADDITIONAL MEASURES CAN BE TAKEN SUCH AS, INSTALLING A PROTECTIVE RIP RAP LINER IN THE THAT PORTION OF THE CHANNEL.

REMOVE SEDIMENT ACCUMULATED BEHIND THE DAMS AS NEEDED TO PREVENT DAMAGE TO CHANNEL VEGETATION, ALLOW THE CHANNEL TO DRAIN THROUGH THE STONE CHECK DAM, AND PREVENT LARGE FLOWS FROM CARRYING SEDIMENT OVER THE DAM. ADD STONES TO DAMS AS NEEDED TO MAINTAIN DESIGN HEIGHT AND CROSS SECTION.

TEMPORARY CHECK DAM
NTS

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

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CN PROJ # : 10145
SCO ID # : 24-21956-01A

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WITHERSRAVENEL LICENSE NUMBER F-1479

PROFESSIONAL SEAL

NORTH CAROLINA PROFESSIONAL SEAL 052479 ENGINEER RYAN C. BERGERON
DocuSigned by: CF117ABBE855466...
6/6/2024

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

EROSION CONTROL NOTES & DETAILS

C6.01

DESIGN: RCB
DRAWN: GWR
REVIEW: RCB

CN 10145

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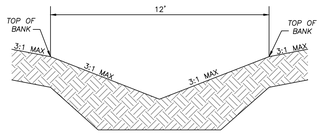
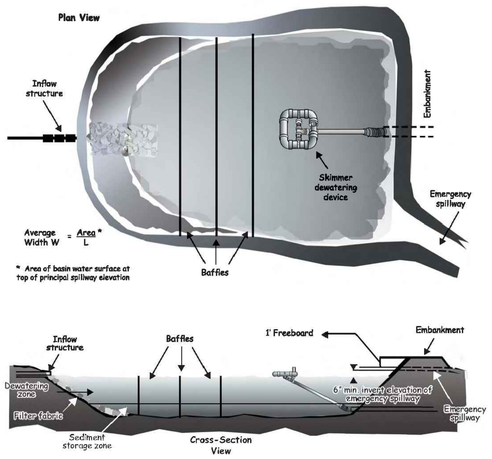


12' TRIANGULAR SWALE CROSS SECTION DETAIL

NOT TO SCALE

PERMANENT SWALE INFORMATION													
CHANNEL I.D.	DRAINAGE AREA (AC)	WEIGHTED 'C' COEFFICIENT	CHANNEL FLOW (CFS)	CHANNEL SLOPE (%)	CHANNEL FLOW DEPTH (FT)	CHANNEL MINIMUM DEPTH (FT)	CHANNEL BOTTOM WIDTH (FT)	CHANNEL SIDE SLOPES	CHANNEL VELOCITY (FPS)	ALLOWABLE VELOCITY (FPS)	CHANNEL SHEAR STRESS (PSF)	ALLOWABLE SHEAR STRESS (PSF)	DITCH LINING
SW-1	0.48	0.62	2.53	1.00	0.72	1.22	0.00	3 :1	1.32	8.00	0.45	2.10	NAG SC150BN OR EQUAL
SW-2	1.53	0.85	11.00	1.00	0.59	1.09	0.00	3 :1	8.18	10.00	0.37	2.25	NAG C125BN OR EQUAL
SW-3	0.45	0.43	1.66	1.00	0.65	1.15	0.00	3 :1	1.03	5.00	0.41	1.60	NAG S75BN OR EQUAL
SW-4	0.96	0.27	2.20	1.00	0.67	1.17	0.00	3 :1	1.31	5.00	0.42	1.60	NAG S75BN OR EQUAL
SW-5	1.16	0.53	5.25	0.79	0.50	1.00	0.00	3 :1	7.10	8.00	0.24	2.10	NAG SC150BN OR EQUAL



SKIMMER BASIN DETAIL

NTS

SKIMMER BASIN MAINTENANCE:

INSPECT SKIMMER SEDIMENT BASINS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (ONE-HALF INCH OR GREATER) RAINFALL EVENT AND REPAIR IMMEDIATELY. REMOVE SEDIMENT AND RESTORE THE BASIN TO ITS ORIGINAL DIMENSIONS WHEN SEDIMENT ACCUMULATES TO ONE-HALF THE HEIGHT OF THE FIRST BAFFLE. PULL THE SKIMMER TO ONE SIDE SO THAT THE SEDIMENT UNDERNEATH IT CAN BE EXCAVATED. EXCAVATE THE SEDIMENT FROM THE ENTIRE BASIN, NOT JUST AROUND THE SKIMMER OR THE FIRST CELL. MAKE SURE VEGETATION GROWING IN THE BOTTOM OF THE BASIN DOES NOT HOLD DOWN THE SKIMMER.

REPAIR THE BAFFLES IF THEY ARE DAMAGED. RE-ANCHOR THE BAFFLES IF WATER IS FLOWING UNDERNEATH OR AROUND THEM.

IF THE SKIMMER IS CLOGGED WITH TRASH AND THERE IS WATER IN THE BASIN, USUALLY JERKING ON THE ROPE WILL MAKE THE SKIMMER BOB UP AND DOWN AND DISLODGE THE DEBRIS AND RESTORE FLOW. IF THIS DOES NOT WORK, PULL THE SKIMMER OVER TO THE SIDE OF THE BASIN AND REMOVE THE DEBRIS. ALSO CHECK THE ORIFICE INSIDE THE SKIMMER TO SEE IF IT IS CLOGGED; IF SO REMOVE THE DEBRIS.

IF THE SKIMMER ARM OR BARREL PIPE IS CLOGGED, THE ORIFICE CAN BE REMOVED AND THE OBSTRUCTION CLEARED WITH A PLUMBER'S SNAKE OR BY FLUSHING WITH WATER. BE SURE AND REPLACE THE ORIFICE BEFORE REPOSITIONING THE SKIMMER.

CHECK THE FABRIC LINED SPILLWAY FOR DAMAGE AND MAKE ANY REQUIRED REPAIRS WITH FABRIC THAT SPANS THE FULL WIDTH OF THE SPILLWAY. CHECK THE EMBANKMENT, SPILLWAYS, AND OUTLET FOR EROSION DAMAGE, AND INSPECT THE EMBANKMENT FOR PIPING AND SETTLEMENT. MAKE ALL NECESSARY REPAIRS IMMEDIATELY. REMOVE ALL TRASH AND OTHER DEBRIS FROM THE SKIMMER AND POOL AREAS.

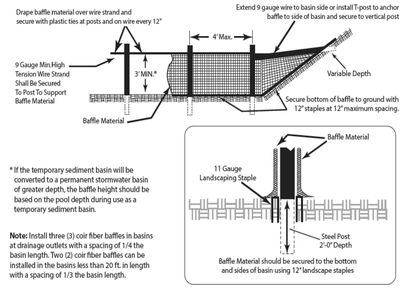
FREEZING WEATHER CAN RESULT IN ICE FORMING IN THE BASIN. SOME SPECIAL PRECAUTIONS SHOULD BE TAKEN IN THE WINTER TO PREVENT THE SKIMMER FROM PLUGGING WITH ICE.

TEMPORARY SKIMMER BASIN AND ORIFICE DESIGN SUMMARY

BASIN	TYPE	DRAINAGE AREA	DISTURBED AREA	C VALUE	PEAK FLOW	DEPTH	LENGTH	WIDTH	WEIR LENGTH	VOLUME REQUIRED	VOLUME PROVIDED	SURFACE AREA REQUIRED	SURFACE AREA PROVIDED	SKIMMER SIZE	ORIFICE SIZE	Dewatering Time
		(AC)	(AC)		(CFS)	(FT)	(FT)	(FT)	(FT)	(CF)	(CF)	(SF)	(SF)	(IN)	(IN)	(DAYS)
SSB #1	SKIMMER	3.19	2.32	0.42	13.29	4.0	100.0	50.0	13	4,176	10,077	5,780	5,845	2.5	1.75	3.12
SSB #2	SKIMMER	1.38	1.00	0.42	5.74	4.0	62.7	34.3	6	1,800	4,309	2,496	2,542	1.5	1.5	2.34
SSB #3	SKIMMER	1.16	0.42	0.50	5.78	4.0	85.4	43.0	6	756	4,309	2,513	2,542	1.5	1.5	2.34
SSB #4	SKIMMER	0.69	0.69	0.50	3.44	4.3	52.0	24.0	4	1,242	3,074	1,495	1,712	1.5	1	3.76

NOTES:

1. ALL SIDE SLOPES OF THE SKIMMER BASIN ARE TO BE AT 3:1 GRADE AND SHALL BE STABILIZED WITHIN 7 DAYS.
2. SEE EROSION CONTROL DETAILS FOR MORE INFORMATION.



* If the temporary sediment basin will be converted to a permanent stormwater basin of greater depth, the baffle height should be based on the pool depth during use as a temporary sediment basin.

Note: Install three (3) coir fiber baffles in basins at drainage outlets with a spacing of 1/4 the basin length. Two (2) coir fiber baffles can be installed in the basins less than 20 ft. in length with a spacing of 1/3 the basin length.

MAINTENANCE

INSPECT BAFFLES AT LEAST WEEKLY AND AFTER EACH RAINFALL EVENT. MAKE ANY REQUIRED REPAIRS IMMEDIATELY.

BE SURE TO MAINTAIN ACCESS TO THE BAFFLES. SHOULD THE FABRIC OF A BAFFLE COLLAPSE, TEAR, DECOMPOSE, OR BECOME INEFFECTIVE, REPLACE IT PROMPTLY.

REMOVE SEDIMENT DEPOSITS WHEN IT REACHES HALF FULL TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE BAFFLES. TAKE CARE TO AVOID DAMAGING THE BAFFLES DURING CLEANOUT. SEDIMENT DEPTH SHOULD NEVER EXCEED HALF THE DESIGNED STORAGE DEPTH.

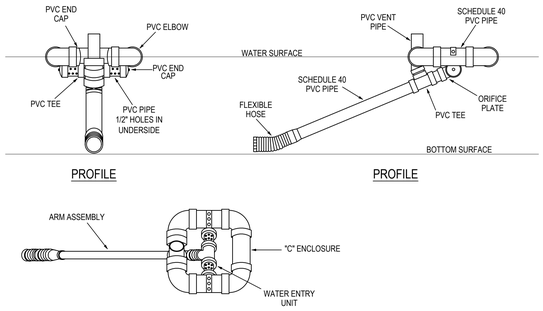
AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED, REMOVE ALL BAFFLE MATERIALS AND UNSTABLE SEDIMENT DEPOSITS, BRING THE AREA TO GRADE, AND STABILIZE IT.

CONSTRUCTION SPECIFICATION

1. GRADE THE BASIN SO THAT THE BOTTOM IS LEVEL FRONT TO BACK AND SIDE TO SIDE.
2. INSTALL POSTS OR SAW HORSES ACROSS THE WIDTH OF THE SEDIMENT TRAP.
3. STEEL POSTS SHOULD BE DRIVEN TO A DEPTH OF 24 INCHES, SPACED AT A MAXIMUM OF 4 FEET APART, AND INSTALLED UP THE SIDES OF THE BASIN AS WELL. THE TOP OF THE FABRIC SHOULD BE 6 INCHES HIGHER THAN THE INVERT OF THE SPILLWAY. TOPS OF BAFFLES SHOULD BE 2 INCHES LOWER THAN THE TOP OF THE BERM.
4. INSTALL AT LEAST THREE ROWS OF BAFFLES BETWEEN THE INLET AND OUTLET DISCHARGE POINT.
5. WHEN USING POSTS, ADD A SUPPORT WIRE OR ROPE ACROSS THE TOP OF THE MEASURE TO PREVENT SAGGING.
6. WRAP POROUS MATERIAL LIKE JUTE BACKED BY COIR MATERIAL, OVER A SAWHORSE OR THE TOP WIRE. HAMMER REBAR INTO THE SAWHORSE LEGS FOR ANCHORING. THE FABRIC SHOULD HAVE FIVE TO TEN PERCENT OPENINGS IN THE WEAVE. ATTACH FABRIC TO A ROPE AND A SUPPORT STRUCTURE WITH ZIP TIES, WIRE, OR STAPLES.
7. THE BOTTOM AND SIDES OF THE FABRIC SHOULD BE ANCHORED IN A TRENCH OR PINNED WITH 8 INCH EROSION CONTROL MATTING STAPLES.
8. DO NOT SPLICE THE FABRIC, BUT USE A CONTINUOUS PIECE ACROSS THE BASIN.

POROUS BAFFLE INSTALLATION DETAIL

NTS



FAIRCLOTH SKIMMER DETAIL

NTS

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145
SCO ID # : 24-27956-01A

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WITHERSRAVENEL LICENSE NUMBER F-1479

PROFESSIONAL SEAL

NORTH CAROLINA PROFESSIONAL SEAL 052479 ENGINEER RYAN C. BERGERON

DocuSigned by: Ryan Bergeron CF117A8E0B554A6...

6/6/2024

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

EROSION CONTROL & DRAINAGE DETAILS

C6.02

DESIGN: RCB
DRAWN: GWR
REVIEW: RCB

CN 10145

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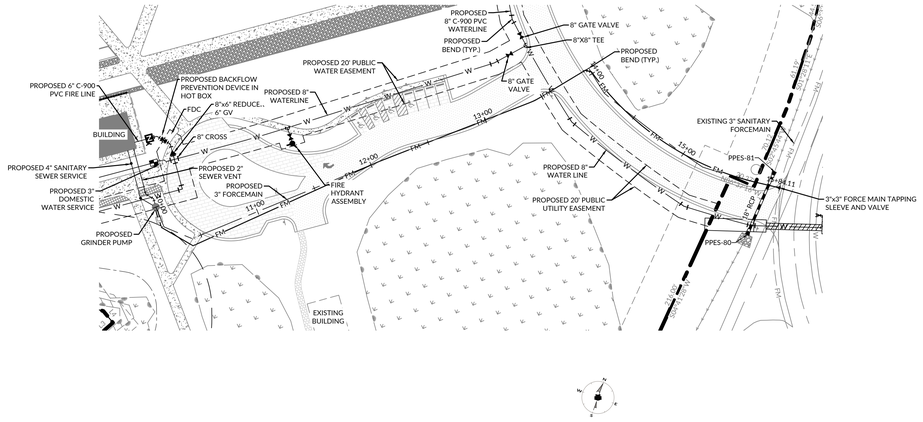

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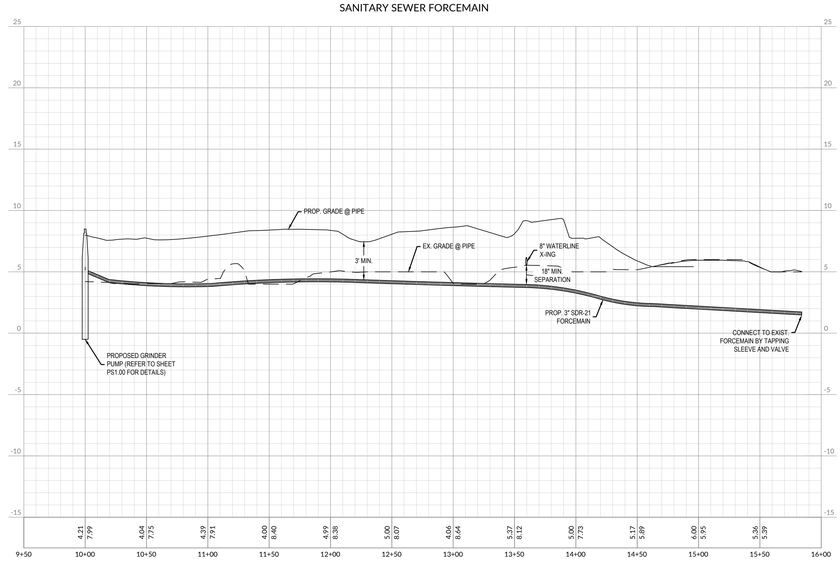

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145
SCO ID # : 24-27956-01A

DESIGNER

CLARKNEXSEN
421 NORTH HARRINGTON STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27603
919-828-1876
CLARK NEXSEN LICENSE NUMBER C-1028

CIVIL ENGINEER

WithersRavenel
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WILMINGTON, NORTH CAROLINA 28405
910-256-9277
WWW.WITHERSRAVENEL.COM
WITHERSRAVENEL LICENSE NUMBER F-1479

PROFESSIONAL SEAL

NORTH CAROLINA PROFESSIONAL SEAL 052479 ENGINEER BRYAN C. BERGERON
DocuSigned by: Bryan C. Bergeron CF117A86E855466...
6/6/2024

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

SANITARY FORCE MAIN PLAN & PROFILE

C7.00

DESIGN: RCB
DRAWN: GWR
REVIEW: RCB

CN 10145

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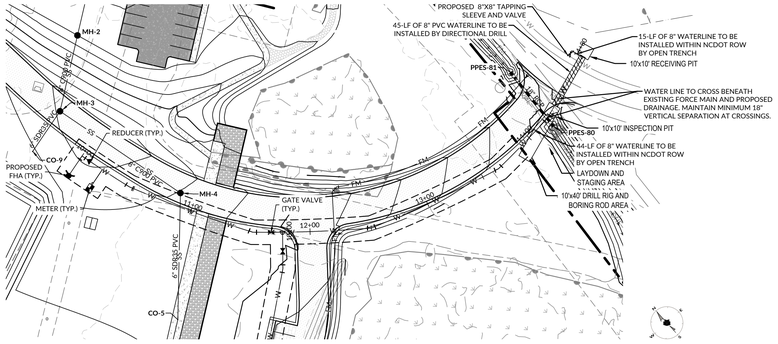

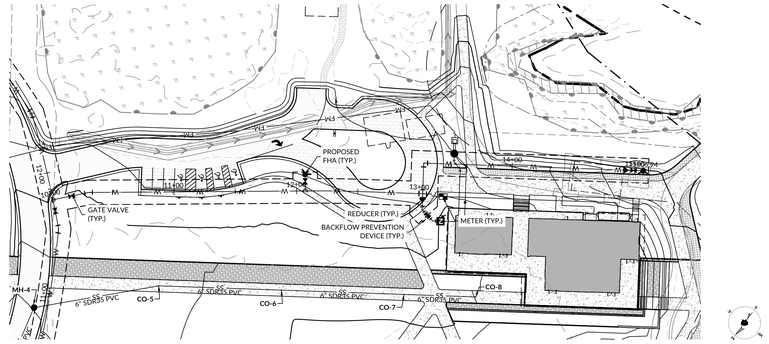

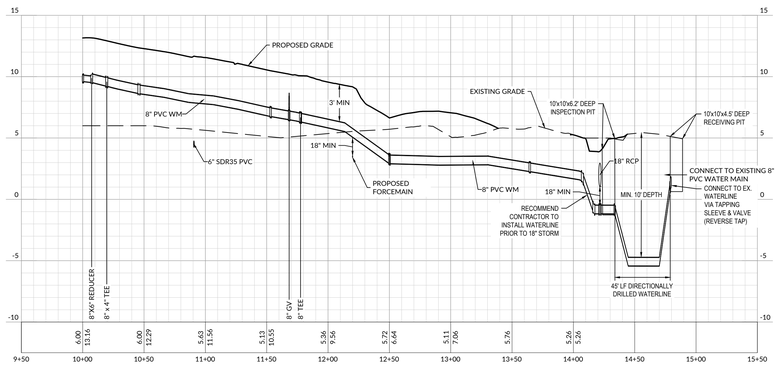

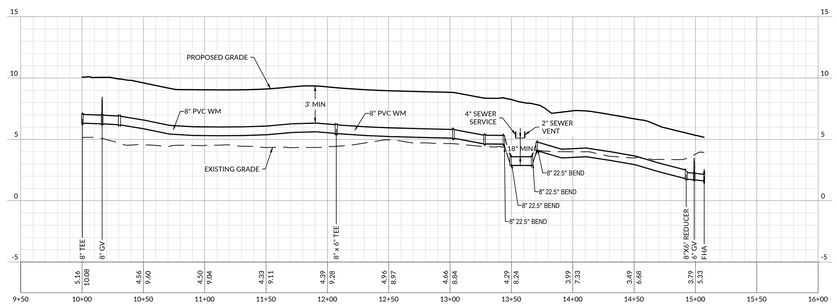

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145
SCO ID # : 24-27956-01A

DESIGNER
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919-828-1876
CLARK NEXSEN LICENSE NUMBER C-1028

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910-256-9277
WWW.WITHERSRAVENEL.COM
WITHERSRAVENEL LICENSE NUMBER F-1479

PROFESSIONAL SEAL

NORTH CAROLINA PROFESSIONAL SEAL 052479 ENGINEER RYAN C. BERGERON
DocuSigned by: Ryan C. Bergeron C911730BE8554B6...
6/6/2024

SUBMITTAL
JUNE 7, 2024
BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET
WATER PLAN & PROFILE

C7.01

DESIGN: RCB
DRAWN: GWR
REVIEW: RCB

CN 10145

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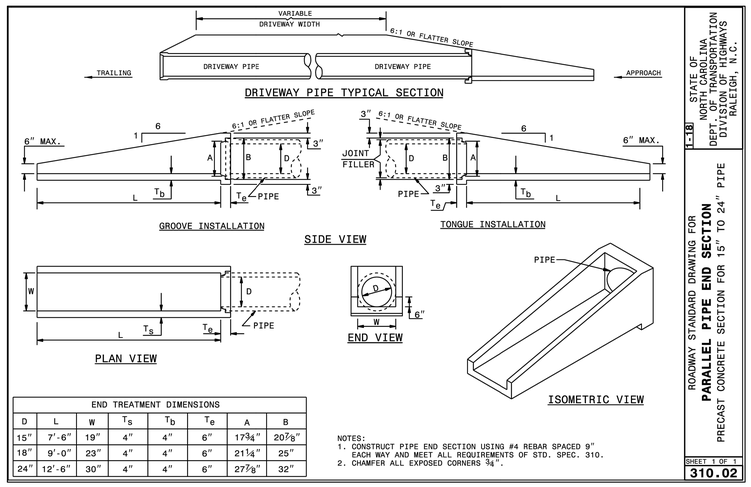


END TREATMENT DIMENSIONS							
D	L	W	T_s	T_b	T_e	A	B
15"	7'-6"	19"	4"	4"	6"	17¾"	20⅞"
18"	9'-0"	23"	4"	4"	6"	21¼"	25"
24"	12'-6"	30"	4"	4"	6"	27⅞"	32"

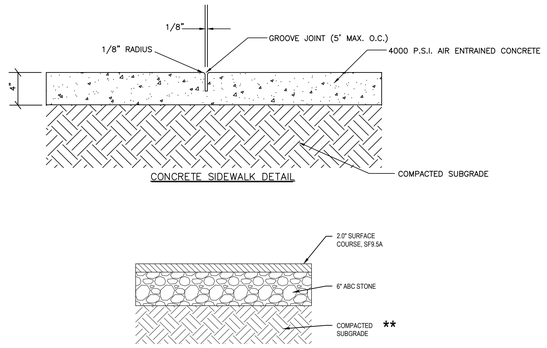
NOTES:
1. CONSTRUCT PIPE END SECTION USING #4 REBAR SPACED 9" EACH WAY AND MEET ALL REQUIREMENTS OF STD. SPEC. 310.
2. CHAMFER ALL EXPOSED CORNERS ¾".

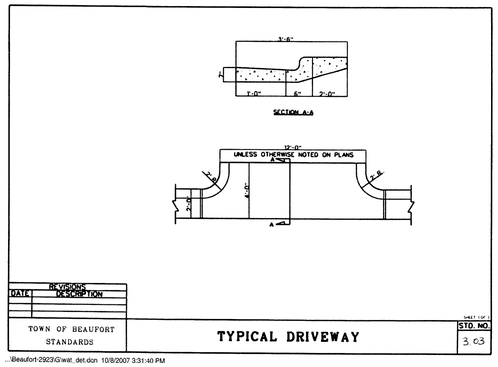
STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

1-18

ROADWAY STANDARD DRAWING FOR
PARALLEL PIPE END SECTION
PRECAST CONCRETE SECTION FOR 15" TO 24" PIPE

SHEET 1 OF 1
310.02





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THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

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SCO ID #: 24-27956-01A

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919-828-1876

CLARK NEXSEN LICENSE NUMBER C-1028

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WITHERSRAVENEL LICENSE NUMBER F-1479

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DocuSigned by:
CF117A86E65A46...
6/6/2024

SUBMITTAL

JUNE 7, 2024

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REVISIONS

KEY PLAN

SHEET

SITE DETAILS

C9.00

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REVIEW: RCB

CN 10145

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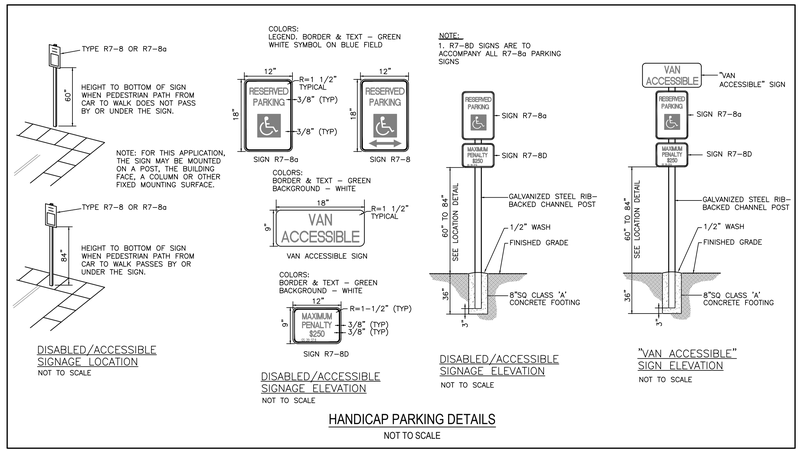
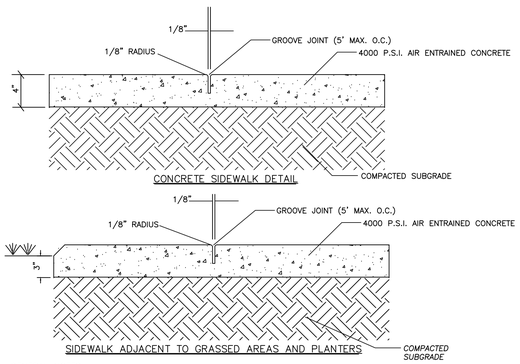
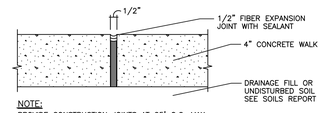




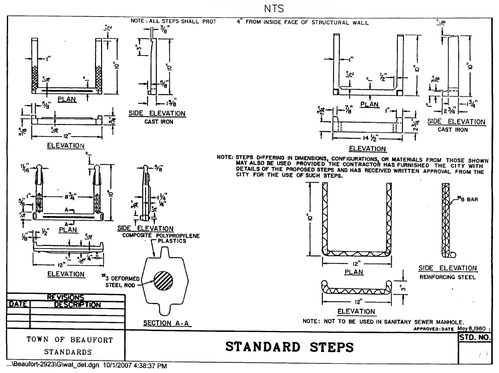
GENERAL NOTES:
1. A GROOVE JOINT 1" DEEP WITH 1/8" RADII SHALL BE REQUIRED IN THE CONCRETE SIDEWALK AT 5' INTERVALS.
2. ONE 1/2" EXPANSION JOINT WILL BE REQUIRED AT 45' INTERVALS.
3. A 1/2" EXPANSION JOINT WILL BE REQUIRED WHERE THE SIDEWALK ABUTS ANY CURB & GUTTER AND ANY RIGID STRUCTURES.
4. IN SIDEWALKS & PLAZA AREAS EXPANSION JOINTS ARE REQUIRED AT NO GREATER THAN 30' INTERVALS. CONCRETE SHALL BE 4000 PSI IN 28 DAYS.

CONCRETE SIDEWALK
NTS

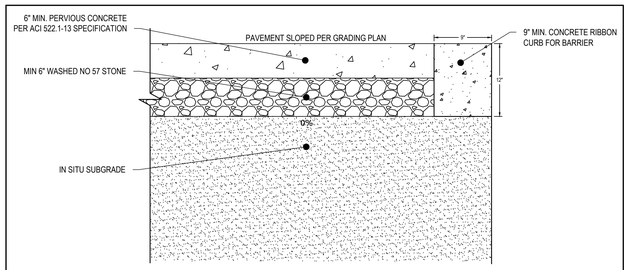


NOTE:
PROVIDE CONSTRUCTION JOINTS AT 25' O.C. MAX. IN EITHER DIRECTION WITH SQUARE FOOTAGE LESS THAN 400 S.F. AND AT CURVES, TANGENTS, AND CORNERS (UNLESS NOTED OTHERWISE).

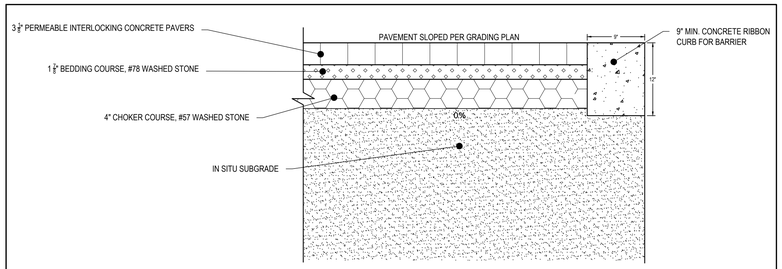
CONSTRUCTION JOINT
NTS



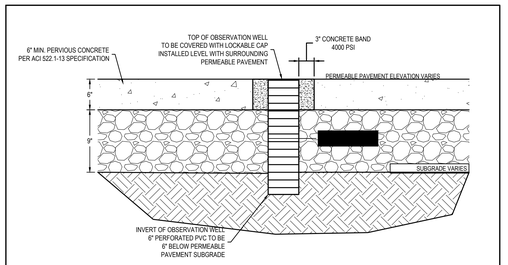
ADDITIONAL NOTES:
1. FOLLOW CONSTRUCTION SEQUENCE SPECIFIED BY NCDEQ STORMWATER DESIGN MANUAL C-5 PERMEABLE PAVEMENT.
2. MUST USE WASHED STONE TO PREVENT CLOGGING.
3. SLOPE OF SUBGRADE MAY NOT BE GREATER THAN 2%
4. A MINIMUM OF 50 INCHES/HOUR PAVEMENT SURFACE INFILTRATION RATE MUST BE MAINTAINED.
5. ASTM C1701 STANDARD TEST METHOD FOR INFILTRATION RATE OF IN PLACE PERVIOUS CONCRETE RECOMMENDED.
6. FOLLOW MAINTENANCE REQUIREMENTS SPECIFIED BY NCDEQ STORMWATER DESIGN MANUAL, SECTION C-5 PERMEABLE PAVEMENT.
7. SIGNAGE IS RECOMMENDED.
8. PERMEABLE PAVEMENT STRUCTURAL DESIGN BASED ON SOIL REPORT AND RECOMMENDATIONS, AND PERVIOUSPAVE V1.0 DESIGN SOFTWARE BY AMERICAN CONCRETE PAVEMENT ASSOCIATION (ACPA)



PERVIOUS CONCRETE IN PRIVATE PARKING AREAS DETAIL
NTS



PERVIOUS PAVERS WALKWAY DETAIL
NTS



OBSERVATION WELL DETAIL
NTS

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145
SCO ID # : 24-27956-01A

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NORTH CAROLINA PROFESSIONAL SEAL 052479 ENGINEER RYAN C. BERGERON
DocuSigned by: CF117A86E855466...
6/6/2024

SUBMITTAL
JUNE 7, 2024
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SHEET
SITE DETAILS

C9.01

DESIGN: RCB
DRAWN: GWR
REVIEW: RCB

CN 10145

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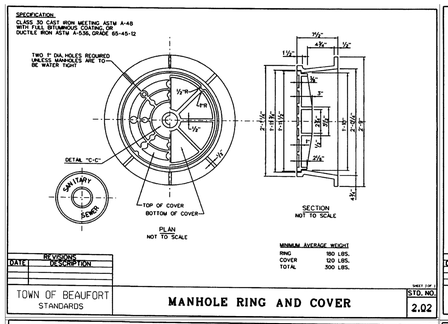

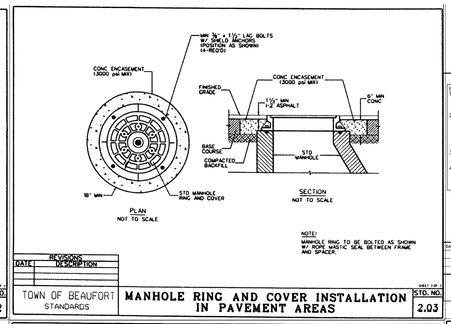

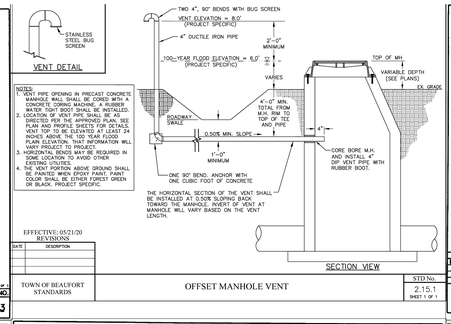

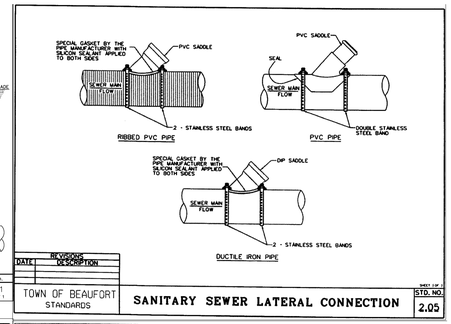

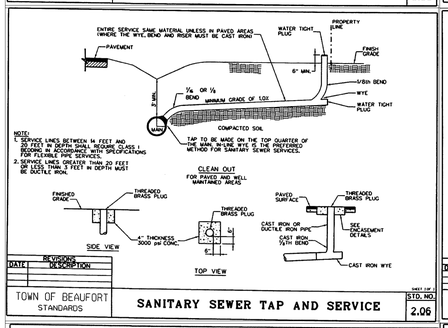

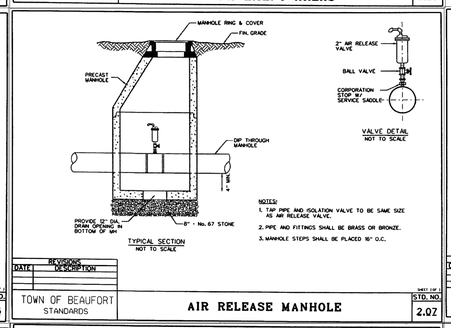

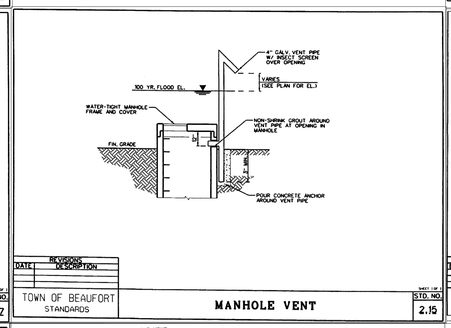

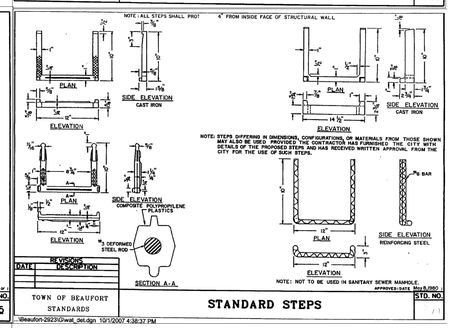

LOW PRESSURE AIR TESTING
FOR GRAVITY SEWER MAINS
MINIMUM TIME REQUIRED FOR A MAXIMUM 1.0 PSIG PRESSURE DROP
FOR SIZE AND LENGTH OF PIPE INDICATED

1 PIPE DIAMETER (IN)	2 MINIMUM TIME (min:SEC)	3 LENGTH FOR MINIMUM TIME (FT)	4 TIME FOR ADDITIONAL LENGTH (SEC)	SPECIFICATION TIME FOR LENGTH (L) SHOWN (min:SEC)						
				100 FT	150 FT	200 FT	250 FT	300 FT	350 FT	400 FT	450 FT
4	3:46	597	.388 L	3:46	3:46	3:46	3:46	3:46	3:46	3:46	3:46
6	5:48	398	.854 L	5:48	5:48	5:48	5:48	5:48	5:48	5:42	6:24
8	7:34	298	1.508 L	7:34	7:34	7:34	7:36	7:36	8:52	10:08	11:24
10	9:26	239	2.374 L	9:26	9:26	9:26	9:53	11:52	13:51	15:49	17:48
12	11:28	199	3.418 L	11:28	11:28	11:24	14:15	17:05	19:56	22:47	25:38
15	14:18	159	5.324 L	14:18	14:18	17:48	22:15	26:42	31:09	35:36	40:04
18	17:08	133	7.692 L	17:08	19:12	25:38	32:03	38:27	44:52	51:16	57:41
21	19:58	114	10.478 L	19:58	26:18	34:54	43:37	52:21	61:00	69:48	78:33
24	22:48	99	13.674 L	22:47	34:11	45:34	56:58	68:22	79:46	91:18	102:33
27	25:38	88	17.306 L	28:51	43:16	57:41	72:07	86:32	100:57	115:22	129:48
30	28:28	80	21.368 L	35:37	53:25	71:13	89:02	106:50	124:38	142:26	160:15
33	31:18	72	25.852 L	43:05	64:38	86:18	107:42	129:16	150:43	172:21	193:53
36	34:08	66	30.768 L	51:17	76:55	102:34	128:12	153:50	179:29	205:07	230:46

NOTE:
THIS TABLE IS FROM UNI-B-6-98. THE TABLE IS BASED ON A 0.0 ALLOWABLE AIR LOSS RATE IN TEST SECTION. C = 0.0015 CUBIC FEET/MINUTE/SQUARE FEET. TO SHORTEN REQUIRED TEST TIME, A MAXIMUM PRESSURE DROP OF 0.5 PSIG MAY BE USED AND TIME REQUIREMENTS REDUCED BY HALF.

REVISIONS
DATE DESCRIPTION
TOWN OF BEAUFORT
STANDARDS
LOW PRESSURE AIR TESTING
FOR GRAVITY SEWER MAINS
STD. NO.
2.11

RESULTANT THRUST AT FITTING AT 150 P.S.I. WATER PRESSURE

NOMINAL PIPE DIA.	TOTAL POUNDS				
	DEAD END	90° BEND	45° BEND	22½° BEND	11¼° BEND
4"	2,700	3,800	2,100	1,100	530
6"	5,600	8,000	4,300	2,200	1,100
8"	9,700	13,600	7,400	3,800	1,900
10"	14,500	20,500	11,100	5,700	2,900
12"	20,500	29,000	15,700	8,000	4,000
14"	27,600	39,000	21,100	11,000	5,400
16"	35,700	50,400	27,300	14,000	7,000
18"	44,800	63,400	34,400	17,500	8,800
20"	55,000	77,800	42,100	21,500	10,800
24"	78,500	111,000	60,000	31,600	15,400
30"	120,600	170,400	92,300	47,100	23,600
36"	172,800	244,400	132,300	67,500	33,900
42"	233,300	330,000	178,600	91,000	45,700
48"	304,000	430,000	232,700	118,500	59,600
54"	384,100	543,200	294,000	149,000	75,300

NOTES:
1. TO DETERMINE THE SIZE OF A CONCRETE THRUST BLOCK, DIVIDE THE TOTAL FORCE BY THE BEARING VALUE OF THE SOIL. THE RESULT IS THE NUMBER OF SQUARE FEET OF THE BEARING AREA OF THE THRUST BLOCK IN SQUARE FEET. APPROXIMATE VALUES FOR VARIOUS TYPES OF SOIL ARE LISTED IN THE TABLE BELOW.
2. CONCRETE SHALL HAVE A 28-DAY COMPRESSIVE STRENGTH OF 3000 PSI.
3. LEAVE JOINTS CLEAR OF CONCRETE.
4. POLYETHYLENE SHALL BE WRAPPED AROUND FITTING WHERE CONCRETE BLOCKING MAY BE REMOVED.

SOIL	BEARING LOAD (LBS/SQ. FT.)
MUCK	0
SOFT CLAY	1,000
SILT	1,500
SANDY SILT	3,000
SAND	4,000
SANDY CLAY	6,000
HARD CLAY	9,000

REVISIONS
DATE DESCRIPTION
TOWN OF BEAUFORT
STANDARDS
THRUST BLOCKING
STD. NO.
2.14

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MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ #: 10145
SCO ID #: 24-21956-01A

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6/6/2024

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

SANITARY SEWER AND WATER DETAILS

C9.02

DESIGN: RCB
DRAWN: GWR
REVIEW: RCB

CN 10145

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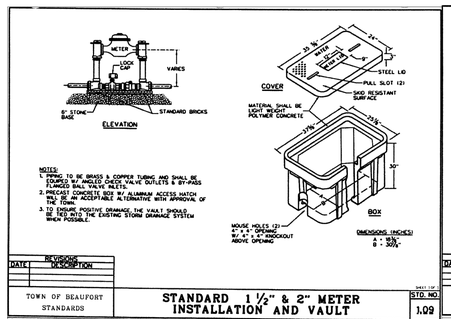


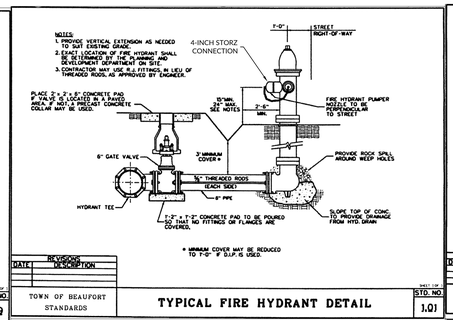
NOTES:
1. PIPING TO BE BRASS & COPPER TUBING AND SHALL BE SOLDERED W/ ANGLE STOP VALVE OUTLETS & BY-PASS TO BE INSTALLED AS SHOWN.
2. PRECAST CONCRETE BOX WITH ALUMINUM ACCESS HATCH WILL BE AN ACCEPTABLE ALTERNATIVE WITH APPROVAL OF THE TOWN.
3. TO ENSURE POSITIVE DRAINAGE, THE VAULT SHOULD BE TIED INTO THE EXISTING STORM DRAINAGE SYSTEM WHEN POSSIBLE.

REVISIONS	
DATE	DESCRIPTION

TOWN OF BEAUFORT STANDARDS

STANDARD 1 ½" & 2" METER INSTALLATION AND VAULT

STD. NO. 1.09

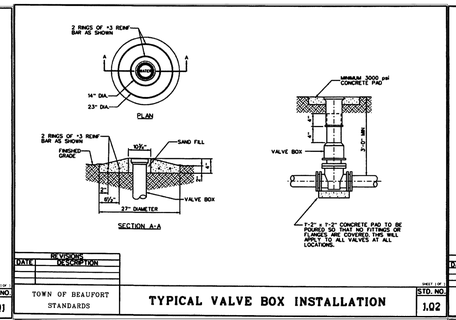


REVISIONS	
DATE	DESCRIPTION

TOWN OF BEAUFORT STANDARDS

TYPICAL FIRE HYDRANT DETAIL

STD. NO. 1.01

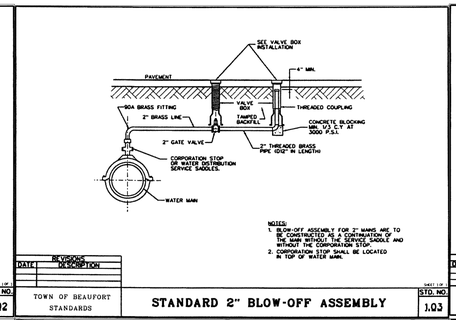


REVISIONS	
DATE	DESCRIPTION

TOWN OF BEAUFORT STANDARDS

TYPICAL VALVE BOX INSTALLATION

STD. NO. 1.02



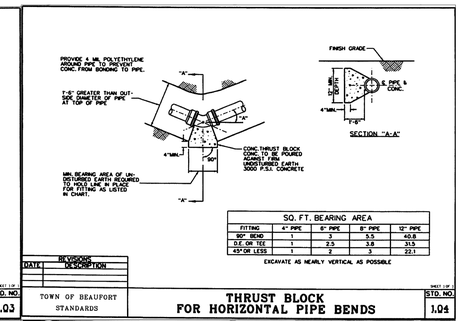
NOTES:
1. BLOW-OFF ASSEMBLY FOR 1" MAINS ARE TO BE CONSTRUCTED AS SHOWN, BUT WITH THE 1" MAIN WITHOUT THE SERVICE SADDLE AND WITHOUT THE CORPORATION STOP.
2. CORPORATION STOP SHALL BE LOCATED IN TOP OF WATER MAIN.

REVISIONS	
DATE	DESCRIPTION

TOWN OF BEAUFORT STANDARDS

STANDARD 2" BLOW-OFF ASSEMBLY

STD. NO. 1.03



SQ. FT. BEARING AREA

FITTING	4" PIPE	6" PIPE	8" PIPE	12" PIPE
90° BEND	1	3	5.5	40.8
0.F. OR TEE	1	2.5	3.8	31.5
45°OR LESS	1	2	3	22.1

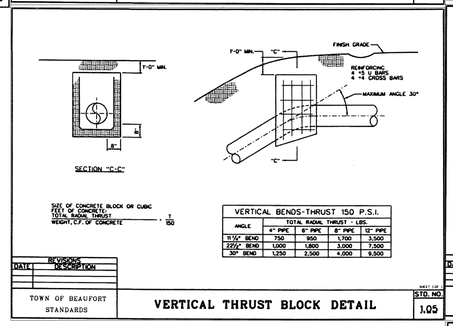
EXCAVATE AS NEARLY VERTICAL AS POSSIBLE

REVISIONS	
DATE	DESCRIPTION

TOWN OF BEAUFORT STANDARDS

THRUST BLOCK FOR HORIZONTAL PIPE BENDS

STD. NO. 1.04



VERTICAL BENDS-THRUST 150 P.S.I.

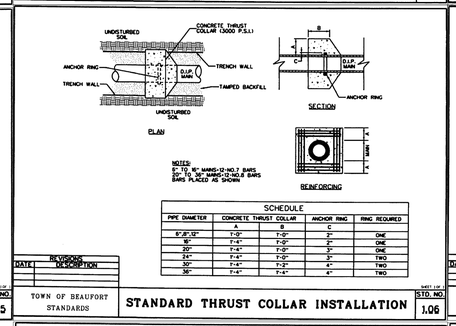
ANGLE	TOTAL RADIAL THRUST - LBS.			
	4" PIPE	6" PIPE	8" PIPE	12" PIPE
11¼° BEND	750	850	1,700	3,500
22½° BEND	1,000	1,800	3,000	7,500
30° BEND	1,250	2,500	4,000	9,500

REVISIONS	
DATE	DESCRIPTION

TOWN OF BEAUFORT STANDARDS

VERTICAL THRUST BLOCK DETAIL

STD. NO. 1.05



SCHEDULE

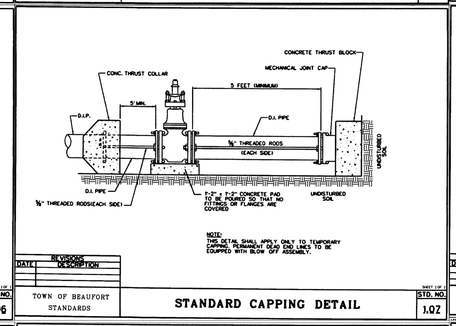
PIPE DIAMETER	CONCRETE THRUST COLLAR		ANCHOR RING	RING REQUIRED
	A	B	C	
6"-8"-12"	1'-0"	1'-0"	2"	ONE
16"	1'-6"	1'-0"	2"	ONE
20"	1'-6"	1'-0"	3"	ONE
24"	1'-6"	1'-0"	3"	TWO
30"	1'-6"	1'-3"	4"	TWO
36"	1'-6"	1'-6"	4"	TWO

REVISIONS	
DATE	DESCRIPTION

TOWN OF BEAUFORT STANDARDS

STANDARD THRUST COLLAR INSTALLATION

STD. NO. 1.06



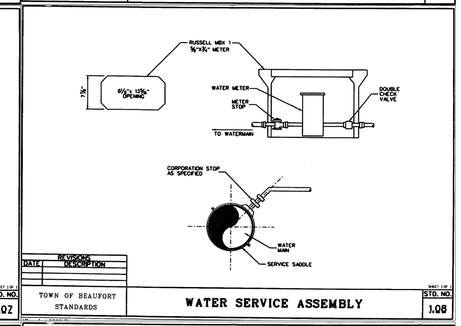
NOTE:
THIS DETAIL SHALL APPLY ONLY TO TEMPORARY CAPPING. PERMANENT DEAD END LINES TO BE CAPPED WITH BLOW OFF ASSEMBLY.

REVISIONS	
DATE	DESCRIPTION

TOWN OF BEAUFORT STANDARDS

STANDARD CAPPING DETAIL

STD. NO. 1.07

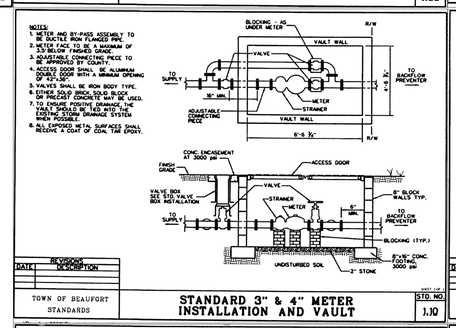


REVISIONS	
DATE	DESCRIPTION

TOWN OF BEAUFORT STANDARDS

WATER SERVICE ASSEMBLY

STD. NO. 1.08

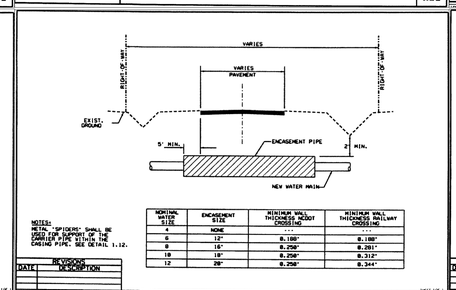


REVISIONS	
DATE	DESCRIPTION

TOWN OF BEAUFORT STANDARDS

STANDARD 3" & 4" METER INSTALLATION AND VAULT

STD. NO. 1.10



NOTES:
METAL "SPIDERS" SHALL BE USED FOR SUPPORT OF THE CARRIER PIPE WITHIN THE CASING PIPE. SEE DETAIL 1.12.

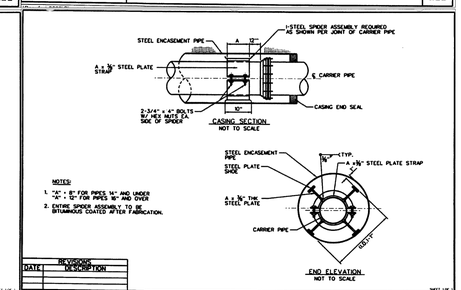
NOMINAL WATER MAIN SIZE	ENCASEMENT SIZE	MINIMUM WALL THICKNESS NCDOT CASING	MINIMUM WALL THICKNESS RAILWAY CROSSING
4	NONE		
6	12"	0.188"	0.188"
8	16"	0.250"	0.281"
10	18"	0.250"	0.312"
12	20"	0.250"	0.344"

REVISIONS	
DATE	DESCRIPTION

TOWN OF BEAUFORT STANDARDS

BORE CROSSING DETAIL

STD. NO. 1.11



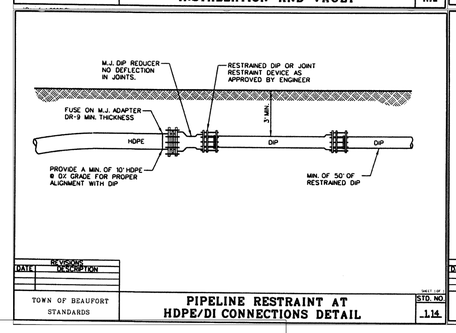
NOTES:
1. "A" = 8" FOR PIPES ¼" AND UNDER "A" = 12" FOR PIPES ⅜" AND OVER
2. ENTIRE SPIDER ASSEMBLY TO BE BITUMINOUS COATED AFTER FABRICATION.

REVISIONS	
DATE	DESCRIPTION

TOWN OF BEAUFORT STANDARDS

WATER LINE STEEL ENCASEMENT

STD. NO. 1.12

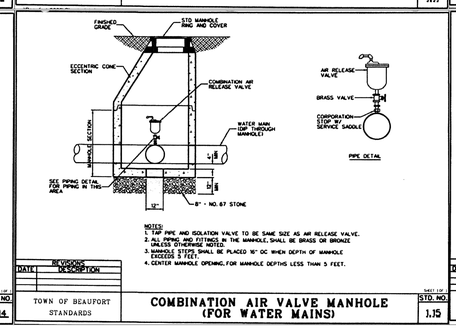


REVISIONS	
DATE	DESCRIPTION

TOWN OF BEAUFORT STANDARDS

PIPELINE RESTRAINT AT HDPE/DI CONNECTIONS DETAIL

STD. NO. 1.14



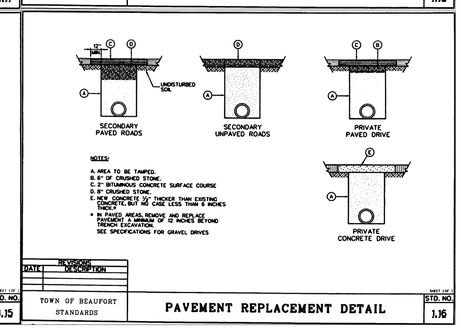
NOTES:
1. TAP PIPE AND ISOLATION VALVE TO BE SAME SIZE AS AIR RELEASE VALVE.
2. ALL PIPING AND FITTINGS IN THE MANHOLE, SHALL BE BRASS OR BRONZE UNLESS OTHERWISE NOTED.
3. MANHOLE STEPS SHALL BE PLACED 16" OC WHEN DEPTH OF MANHOLE EXCEEDS 5 FEET.
4. CENTER MANHOLE OPENING FOR MANHOLE DEPTHS LESS THAN 5 FEET.

REVISIONS	
DATE	DESCRIPTION

TOWN OF BEAUFORT STANDARDS

COMBINATION AIR VALVE MANHOLE (FOR WATER MAINS)

STD. NO. 1.15



NOTES:
A. AREA TO BE TAMPED.
B. 6" OF CRUSHED STONE.
C. 2" BITUMINOUS CONCRETE SURFACE COURSE
D. 8" CRUSHED STONE.
E. 8" OF CONCRETE, 2" THICKER THAN EXISTING CONCRETE, BUT NO CASE LESS THAN 6 INCHES THICK.
* IN PAVED AREAS, REMOVE AND REPLACE PAVEMENT TO A WIDTH OF 12 INCHES BEYOND TRENCH EXCAVATION.
SEE SPECIFICATIONS FOR GRAVEL DRIVES

REVISIONS	
DATE	DESCRIPTION

TOWN OF BEAUFORT STANDARDS

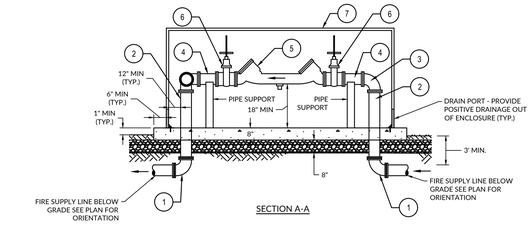
PAVEMENT REPLACEMENT DETAIL

STD. NO. 1.16

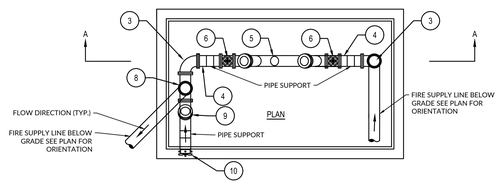
FITTING SCHEDULE

NO.	SIZE	DESCRIPTION
1	6"	MJ DI 90° ELBOW
2	6"	FLANGED TO PLAIN END DI PIPE
3	6"	FLANGED LONG RADIUS DI 90° ELBOW
4	6"	FLANGED DI SPOOL PIPE
5	6"	RPZ BACK FLOW PREVENTER, ASSE 1013 APPROVED
6	6"	OS & Y FLANGED GATE VALVE W/TAMPER SWITCH (MONITORED BY BUILDING FIRE ALARM SYSTEM)
7	149"x102.5"	ALUMINUM, UTILITY ENCLOSURE
8	6"	FLANGED DI TEE
9	6"	CHECK VALVE
10	4"	FIRE DEPARTMENT CONNECTION, 4-INCH STORZ CONNECTION

NOTES:
1. THE BACKFLOW DRAINS SHALL BE INSTALLED WITH AN AIR GAP AND PIPED TO OUTSIDE THE ENCLOSURE.
2. THE TOP OF THE VALVE STEM SHALL BE A MINIMUM OF 6" FROM THE INSIDE TOP OF THE UTILITY ENCLOSURE
3. THIS UTILITY ENCLOSURE SHALL BE HEATED AND INSULATED TO PREVENT FREEZING. THE UNIT HEATERS SHALL BE PROVIDED BY ENCLOSURE MANUFACTURER.
4. THIS ENCLOSURE SHALL HAVE ACCESS DOORS ON EACH SIDE FOR MAINTENANCE.
5. THE CONCRETE PAD FOR THE UTILITY ENCLOSURE SHALL BE 6" LARGER ON ALL SIDES THAN THE UTILITY ENCLOSURE EXTERIOR WALLS.
6. BFP TAMPER SWITCHES TO BE MONITORED BY BUILDING FIRE ALARM SYSTEM. PROVIDE MONITOR MODULE INSIDE BUILDING AND CONNECT TO FIRE ALARM SLC CIRCUIT. PROVIDE SURGE SUPPRESSOR ON WIRING THAT GOES OUTSIDE THE BUILDING.

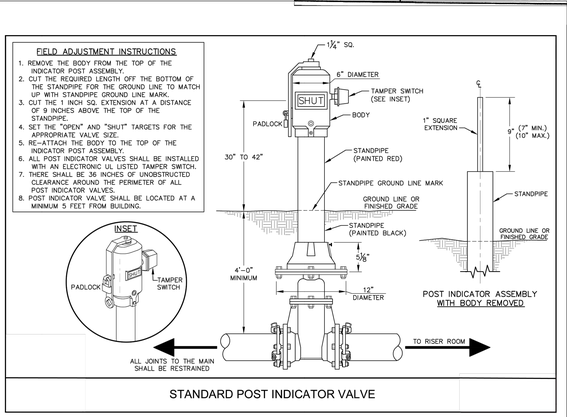


SECTION A-A

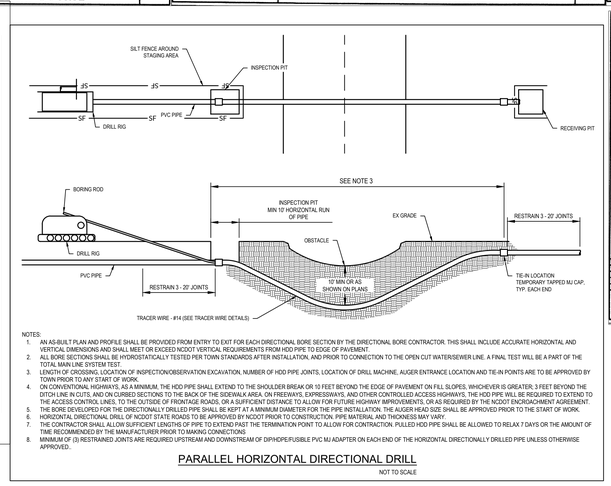


RPZ BACKFLOW PREVENTER

SCALE: NTS



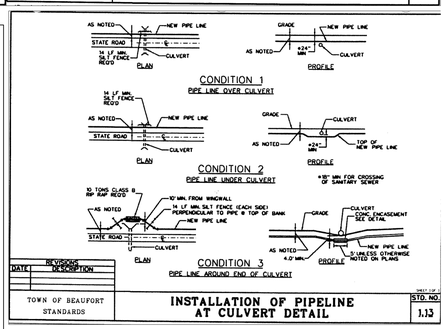
STANDARD POST INDICATOR VALVE



NOTES:
1. AN AS-BUILT PLAN AND PROFILE SHALL BE PROVIDED FROM ENTRY TO EXIT FOR EACH DIRECTIONAL BORE SECTION BY THE DIRECTIONAL BORE CONTRACTOR. THIS SHALL INCLUDE ACCURATE HORIZONTAL AND VERTICAL DIMENSIONS AND SHALL MEET OR EXCEED NCDOT VERTICAL REQUIREMENTS FROM HDD PIPE TO EDGE OF PAVEMENT.
2. ALL BORE SECTIONS SHALL BE HYDROSTATICALLY TESTED PER TOWN STANDARDS AFTER INSTALLATION, AND PRIOR TO CONNECTION TO THE OPEN CUT WATER/SEWER LINE. A FINAL TEST WILL BE A PART OF THE TOTAL MAIN LINE SYSTEM TEST.
3. LENGTH OF CROSSING, LOCATION OF INSPECTION/OBSERVATION EXCAVATION, NUMBER OF HDD PIPE JOINTS, LOCATION OF DRILL MACHINE, AUGER ENTRANCE LOCATION AND TIE-IN POINTS ARE TO BE APPROVED BY TOWN PRIOR TO ANY START OF WORK.
4. ON CONVENTIONAL HIGHWAYS, AS A MINIMUM, THE HDD PIPE SHALL EXTEND TO THE SHOULDER BREAK OR 10 FEET BEYOND THE EDGE OF PAVEMENT ON FILL SLOPES, WHICHEVER IS GREATER; 3 FEET BEYOND THE DITCH LINE IN CUTS, AND ON CURBED SECTIONS TO THE BACK OF THE SIDEWALK AREA. ON FREEWAYS, EXPRESSWAYS, AND OTHER CONTROLLED ACCESS HIGHWAYS, THE HDD PIPE WILL BE REQUIRED TO EXTEND TO THE ACCESS CONTROL LINES, TO THE OUTSIDE OF FRONTAGE ROADS, OR A SUFFICIENT DISTANCE TO ALLOW FOR FUTURE HIGHWAY IMPROVEMENTS, OR AS REQUIRED BY THE NCDOT ENCROACHMENT AGREEMENT.
5. THE BORE DEVELOPED FOR THE DIRECTIONALLY DRILLED PIPE SHALL BE KEPT AT A MINIMUM DIAMETER FOR THE PIPE INSTALLATION. THE AUGER HEAD SIZE SHALL BE APPROVED PRIOR TO THE START OF WORK.
6. HORIZONTAL DIRECTIONAL DRILL OF NCDOT STATE ROADS TO BE APPROVED BY NCDOT PRIOR TO CONSTRUCTION. PIPE MATERIAL AND THICKNESS MAY VARY.
7. THE CONTRACTOR SHALL ALLOW SUFFICIENT LENGTHS OF PIPE TO EXTEND PAST THE TERMINATION POINT TO ALLOW FOR CONTRACTION. PULLED HDD PIPE SHALL BE ALLOWED TO RELAX 7 DAYS OR THE AMOUNT OF TIME RECOMMENDED BY THE MANUFACTURER PRIOR TO MAKING CONNECTIONS.
8. MINIMUM OF (3) RESTRAINED JOINTS ARE REQUIRED UPSTREAM AND DOWNSTREAM OF DIP/HDPE/FUSIBLE PVC MJ ADAPTER ON EACH END OF THE HORIZONTAL DIRECTIONALLY DRILLED PIPE UNLESS OTHERWISE APPROVED..

PARALLEL HORIZONTAL DIRECTIONAL DRILL

NOT TO SCALE



REVISIONS	
DATE	DESCRIPTION

TOWN OF BEAUFORT STANDARDS

INSTALLATION OF PIPELINE AT CULVERT DETAIL

STD. NO. 1.13

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

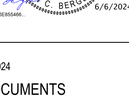
293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145
SCO ID # : 24-21956-01A

DESIGNER
CLARKNEXSEN
421 NORTH HARRINGTON STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27603
919-828-1876
CLARK NEXSEN LICENSE NUMBER C-1028

CIVIL ENGINEER
WithersRavenel
219 STATION ROAD, SUITE 101
WILMINGTON, NORTH CAROLINA 28405
910-256-9277
WWW.WITHERSRAVENEL.COM
WITHERSRAVENEL LICENSE NUMBER F-1479

PROFESSIONAL SEAL



SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

WATER DETAILS

C9.04

DESIGN: RCB
DRAWN: GWR
REVIEW: RCB

CN 10145

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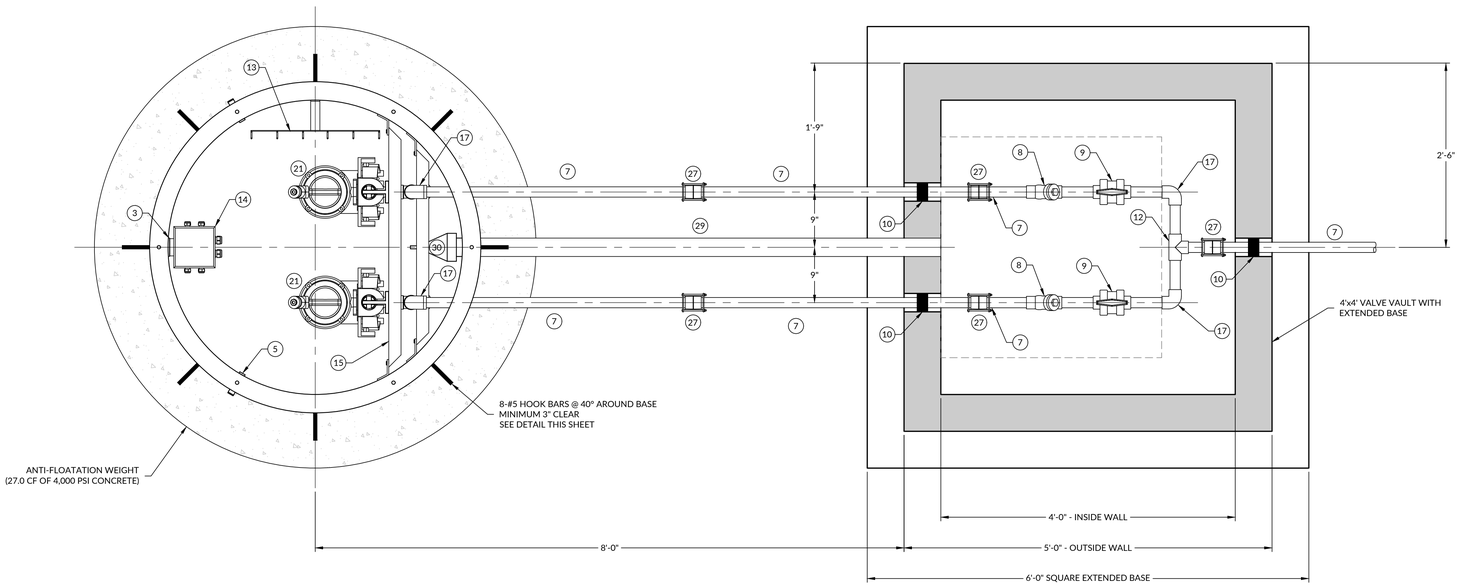
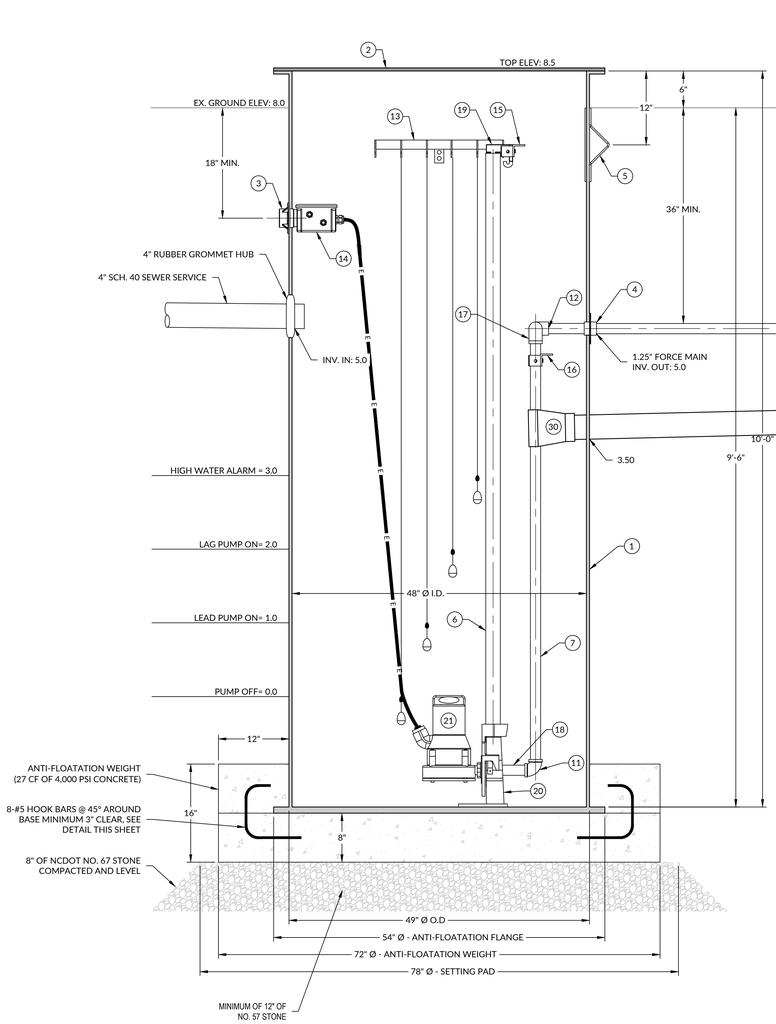
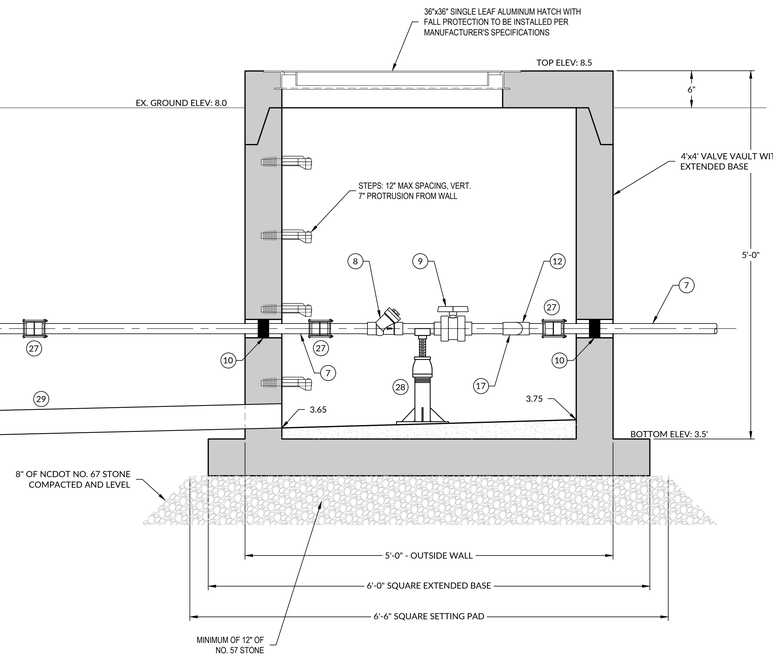


PUMP STATION PLAN LAYOUT
NOT TO SCALE

ITEM NO.	DESCRIPTION
1	48"Øx108" FIBERGLASS BASIN WITH FIBERGLASS ANTI-FLOAT RING
2	ALUMINUM ACCESS HATCH
3	2" NPT BOLT-ON COMPOSITE FG COUPLING
4	1¼" STAINLESS STEEL COUPLING WELDED IN PLATE
5	STAINLESS STEEL MINI LIFTING LUG, 3 TYP.
6	2" 304 STAINLESS STEEL PUMP REMOVAL RAIL
7	1½" SCH. 80 PVC PIPE
8	1½" SCH. 80 PVC BALL CHECK VALVE (SW)
9	1½" SCH. 80 PVC BALL VALVE (SW)
10	1½"Ø LINK SEAL
11	1½" STAINLESS STEEL 90° ELBOW
12	1½" SCH80 PVC TEE (SW)
13	SS FLOAT BRACKET W/(6) HOOKS
14	6"x6"x4" DUPLEX J-BOX - NEMA 4X
15	ALUMINUM UPPER GUIDERAIL BRACE FOR 48" TANK
16	ALUMINUM BRACING FOR 48" BASIN
17	1½" SCH. 80 PVC 90 ELBOW OR
18	1½" 304 STAINLESS STEEL PIPE
19	GUIDE RAIL TOP SUPPORT
20	PUMP BASE
21	GRINDER PUMP
22	¼" THICK ALUMINUM HATCH COVER ASSEMBLY
23	¼" THICK ALUMINUM HATCH
24	¼" x 2" ALUMINUM REINFORCING FLAT BAR
25	HATCH LOCK
26	RECESSED ALUMINUM HANDLE
27	1½" FLEXIBLE COUPLING
28	1¼" PIPE SUPPORT
29	3" SCH. 40 PVC DRAIN LINE (SLOPE 1/4" PER FOOT, MIN.)
30	3" DUCKBILL CHECK VALVE



PUMP STATION SECTION LAYOUT
NOT TO SCALE

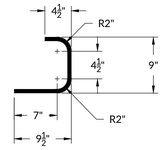


NOTES:
1. CONTRACTOR SHALL PROVIDE A COMPLETE SET OF SHOP DRAWINGS FOR ENGINEERS APPROVAL.
2. ALL ELECTRICAL WORK SHALL CONFORM TO LATEST NATIONAL, STATE AND LOCAL CODES AND REQUIREMENTS.
3. THE ELECTRICAL COMPONENTS WERE DESIGNED BASED ON PUMP MOTORS WITH A MINIMUM RATING OF 4.0 HP WITH ACROSS THE LINE STARTERS.
4. PUMPS TO HAVE STAGGERED START SO THAT ONLY 1 PUMP CAN BE STARTED AT ANY 1 TIME WITH A MINIMUM 5 SECOND ADJUSTABLE DELAY.
5. ALL ABOVE GRADE CONDUIT SHALL BE RIGID METALLIC. MEYERS HUBS SHALL BE USED AT ALL PANEL CONNECTIONS.
6. CONDUIT NUMBER AND SIZE ARE APPROXIMATE. CONTRACTOR TO VERIFY CONDUIT SIZE AND ENSURE ITS ADEQUACY FOR ITS INTENDED PURPOSE.
7. ALL ENCLOSURES SHALL BE NEMA 4X OR BETTER AS SHOWN ON THE ELECTRICAL SERVICE ARRANGEMENT.
8. ALL DISCONNECTS SHALL BE 240V HEAVY DUTY FUSIBLE 3 POLE IN A NEMA 4X SS ENCLOSURE.
9. ALARM HORN AND LIGHT ARE ACTIVATED ANYTIME THE PUMP CONTROLS INITIATES AN ALARM. SILENCER FOR ALARM HORN SHALL BE LOCATED IN PUMP CONTROL PANEL.
10. ALL FIELD WIRING AND CONNECTIONS BETWEEN PUMPS, FLOAT SWITCHES AND CONTROL PANEL SHALL BE BY CONTRACTOR.
11. FURNISH AND INSTALL SUITABLY SIZED EQUIPMENT GROUNDING CONDUCTORS IN ALL FEEDERS AND BRANCH CIRCUITS.
12. PANEL LAYOUT IS SCHEMATIC ONLY. CONTRACTOR SHALL DETERMINE LENGTH AND HEIGHT OF ELECTRICAL EQUIPMENT RACK, PROVIDED DIMENSIONS ARE FOR REFERENCE ONLY. MAINTAIN 6" MIN. CLEARANCE BETWEEN PANELS AND WEATHER HOOD SIDES.
13. CONTROL PANEL SHALL BE SUPPLIED WITH SEPARATE BREAKERS FOR EACH PUMP AND ALARM PANEL.
14. EQUIPMENT RACK SHALL BE CONSTRUCTED OF #1 OR BETTER PRESSURE TREATED LUMBER.
15. ALL ASSEMBLY AND MOUNTING HARDWARE SHALL BE 316 STAINLESS STEEL MINIMUM.

OPERATING CONDITION

ITEM	VALUE
DESIGN FLOW, GPM	28
DESIGN HEAD (TDH), FT	78
VOLTAGE	208
PHASE	3
HORSEPOWER, RECOMMENDED MINIMUM	3.75

NOTE:
DUTY POINT FOR ONE PUMP RUNNING IN A DUPLEX STATION.



HOOK BAR DETAIL
NOT TO SCALE

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145
SCO ID # : 24-21956-01A

DESIGNER

CLARKNEXSEN
421 NORTH HARRINGTON STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27603
919-828-1876
CLARK NEXSEN LICENSE NUMBER C-1028

CIVIL ENGINEER

WithersRavenel
219 STATION ROAD, SUITE 101
WILMINGTON, NORTH CAROLINA 28405
910-256-9277
WWW.WITHERSRAVENEL.COM
WITHERSRAVENEL LICENSE NUMBER F-1479

PROFESSIONAL SEAL

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

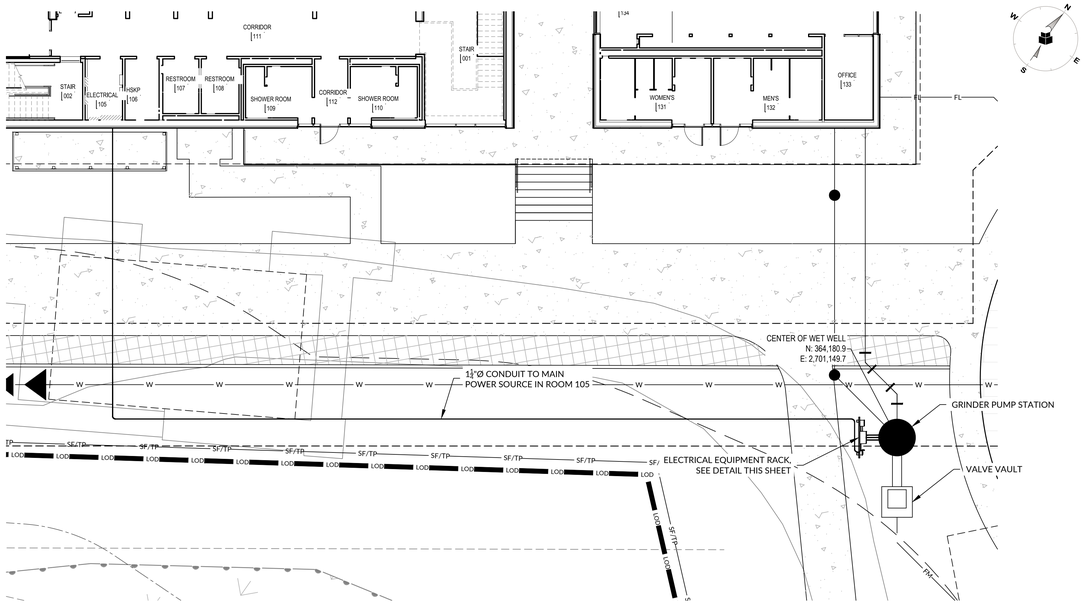
SHEET

GRINDER PUMP STATION DETAILS

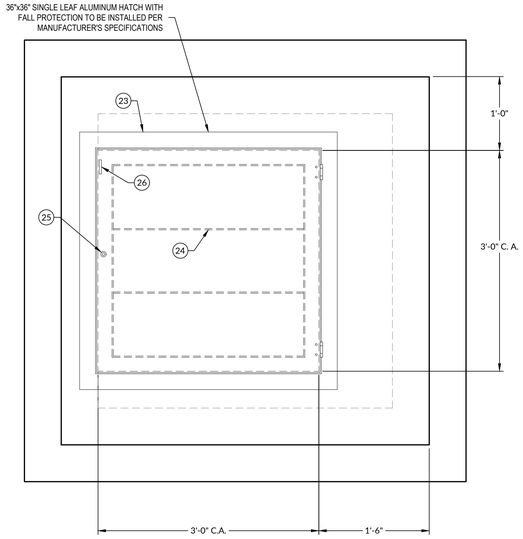
PS1.00

DESIGN: CNH
DRAWN: CNH
REVIEW: DAM

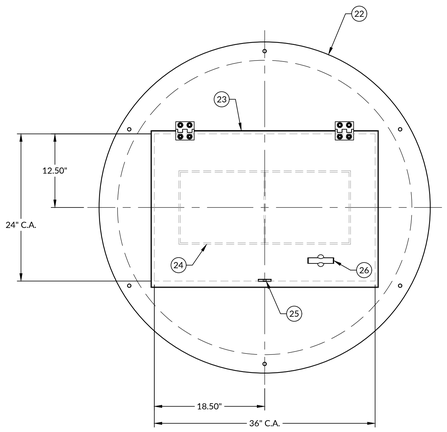
CN 10145



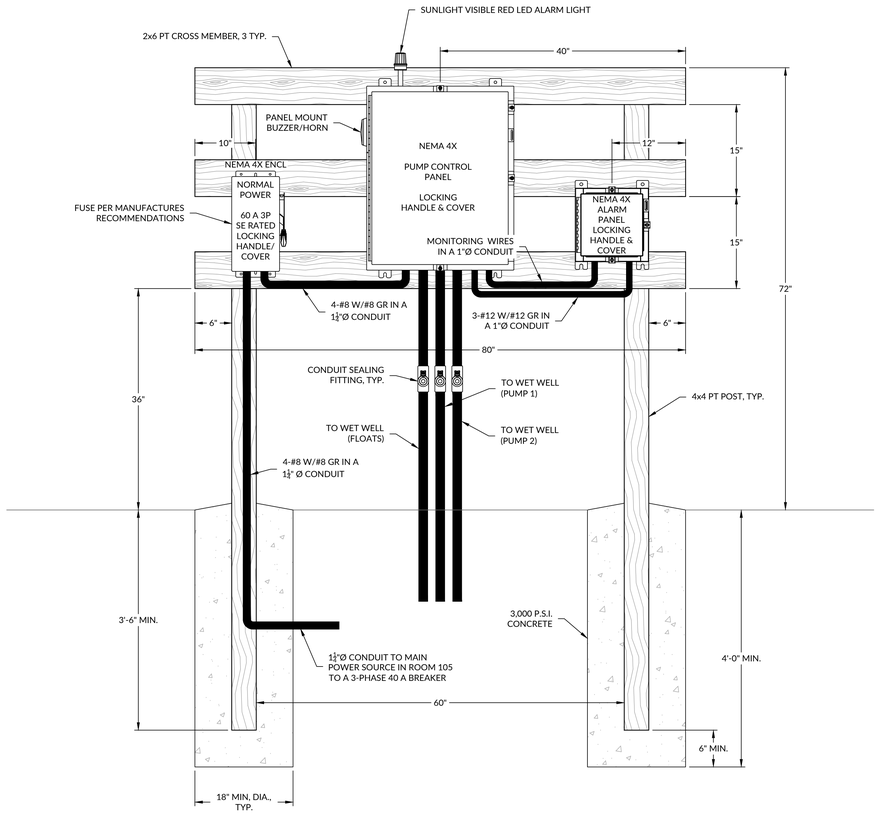
PUMP STATION SITE PLAN
NOT TO SCALE



VALVE VAULT HATCH LAYOUT
NOT TO SCALE



PUMP STATION HATCH LAYOUT
NOT TO SCALE



ELECTRICAL SERVICE ARRANGEMENT
NOT TO SCALE

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145
SCO ID # : 24-27956-01A

DESIGNER

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919-828-1876
CLARK NEXSEN LICENSE NUMBER C-1028

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WITHERSRAVENEL LICENSE NUMBER F-1479

PROFESSIONAL SEAL

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

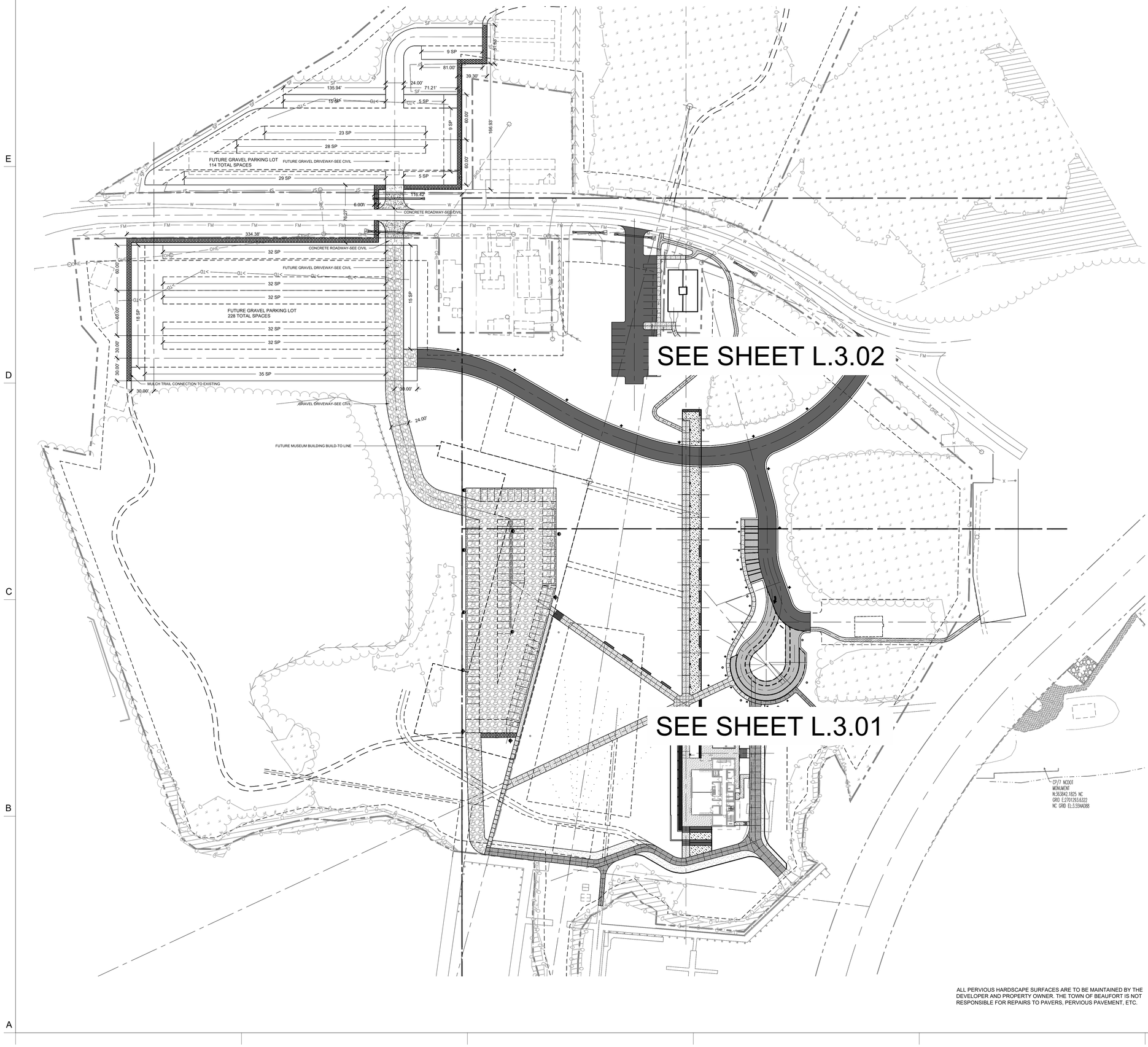
SHEET

GRINDER PUMP STATION DETAILS

PS2.00

DESIGN: CNH
DRAWN: CNH
REVIEW: DAM

CN 10145



ALL PERVIOUS HARDSCAPE SURFACES ARE TO BE MAINTAINED BY THE DEVELOPER AND PROPERTY OWNER. THE TOWN OF BEAUFORT IS NOT RESPONSIBLE FOR REPAIRS TO PAVERS, PERVIOUS PAVEMENT, ETC.

NORTH

0 25 50 100

SCALE: 1"=50'

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145
SCO ID # : 24-27956-01A

DESIGNER

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CLARK NEXSEN LICENSE NUMBER C-1028

CONSULTANT

STEWART

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T 919.380.8750

PROFESSIONAL SEAL

NORTH CAROLINA
LANDSCAPE
2033
06/12/2024
DAVID A. AMALONG

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

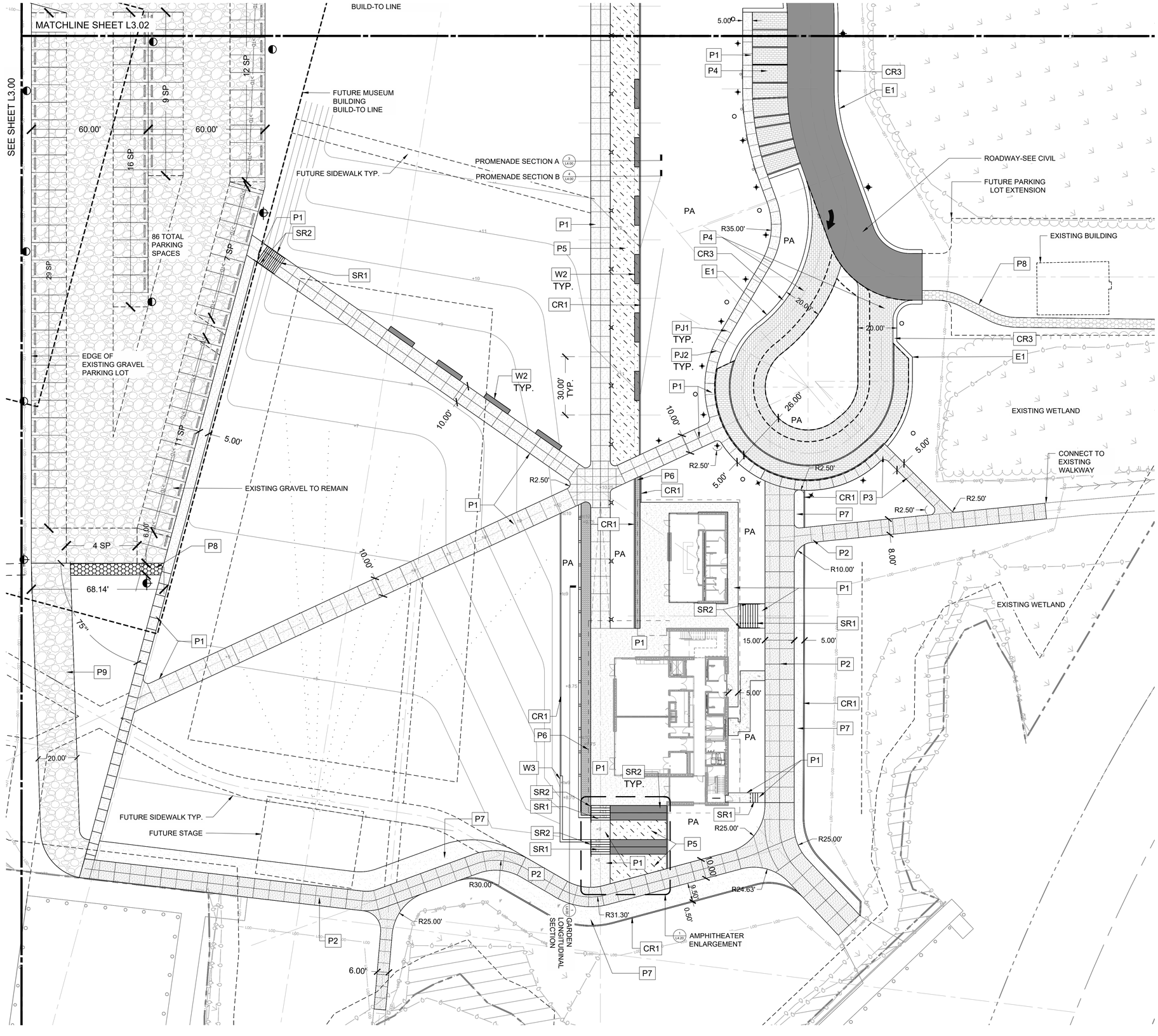
OVERALL LAYOUT AND MATERIALS PLAN

L3.00

PROJECT #: L22001

DESIGN: DA, GS
DRAWN: KP
REVIEW: DA

CN 10145



FINISH SCHEDULE

P - PAVEMENT		
KEY NAME	DESCRIPTION	DETAIL REF
P1	CONCRETE PAVEMENT- PEDESTRIAN - SP. FINISH	6/L4.00
P2	CONCRETE PAVEMENT- VEHICULAR	5/L4.00
P3	CONCRETE PAVEMENT - PEDESTRIAN - TYP.	6/L4.00
P4	CONCRETE UNIT PAVERS - VEHICULAR	4/L4.10
P5	DECOMPOSED GRANITE	1/L4.10
P6	STONE BAND AT GARDEN EDGE	
P7	GRASSPAVE2	
P8	MULCH PATHWAY	

CR - CURBS AND RAMPS		
CR1	FLUSH CURB	2/L4.20
CR2	SIDEWALK APRON	
CR3	RIVER ROCK DRIVEWAY EDGE	6/L4.20
CR4	MOUNTABLE CURB	

E - EDGING		
E1	STEEL EDGING	6/L4.20

SR - STAIRS, RAMPS, AND RAILINGS		
SR1	CAST-IN-PLACE CONCRETE STAIRS	4/L4.10
SR2	METAL HANDRAILS - STAIRS	5/L4.10
SR3	CONCRETE ACCESSIBLE RAMP	
SR4	METAL HANDRAILS - RAMPS	

W - WALLS		
W1	CIP CONCRETE AND WOOD AMPHITHEATER SEATWALL	7/L4.20
W2	CIP FREESTANDING CONCRETE AND WOOD SEATWALL	7/L4.20
W3	CIP CONCRETE GARDEN WALL	

L - LIGHTING		
KEY NAME	DESCRIPTION	DETAIL REF
L1	DUKE POLE LIGHT FIXTURE - 12' HT.	L8.00
L2	DUKE POLE LIGHT FIXTURE - 10' HT	L8.00
L3	BOLLARD OPTION 1 - LIGHTHOUSE	L8.00
L3	BOLLARD OPTION 2 - BYSTEAD	L8.00
L3	BOLLARD OPTION 3 - PROFILE	L8.00
L4	GROUND-MOUNTED LUMINAIRE	L8.00
L6	RECEPTACLE LOCATION	L8.00

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NORTH SCALE: 0 10 20 40 1"=20'

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THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145
SCO ID # : 24-27956-01A

DESIGNER

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CLARK NEXSEN LICENSE NUMBER C-1028

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PROFESSIONAL SEAL

NORTH CAROLINA LICENSED LANDSCAPE ARCHITECT 2033 06/12/2024 DAVID A. AMALONG

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

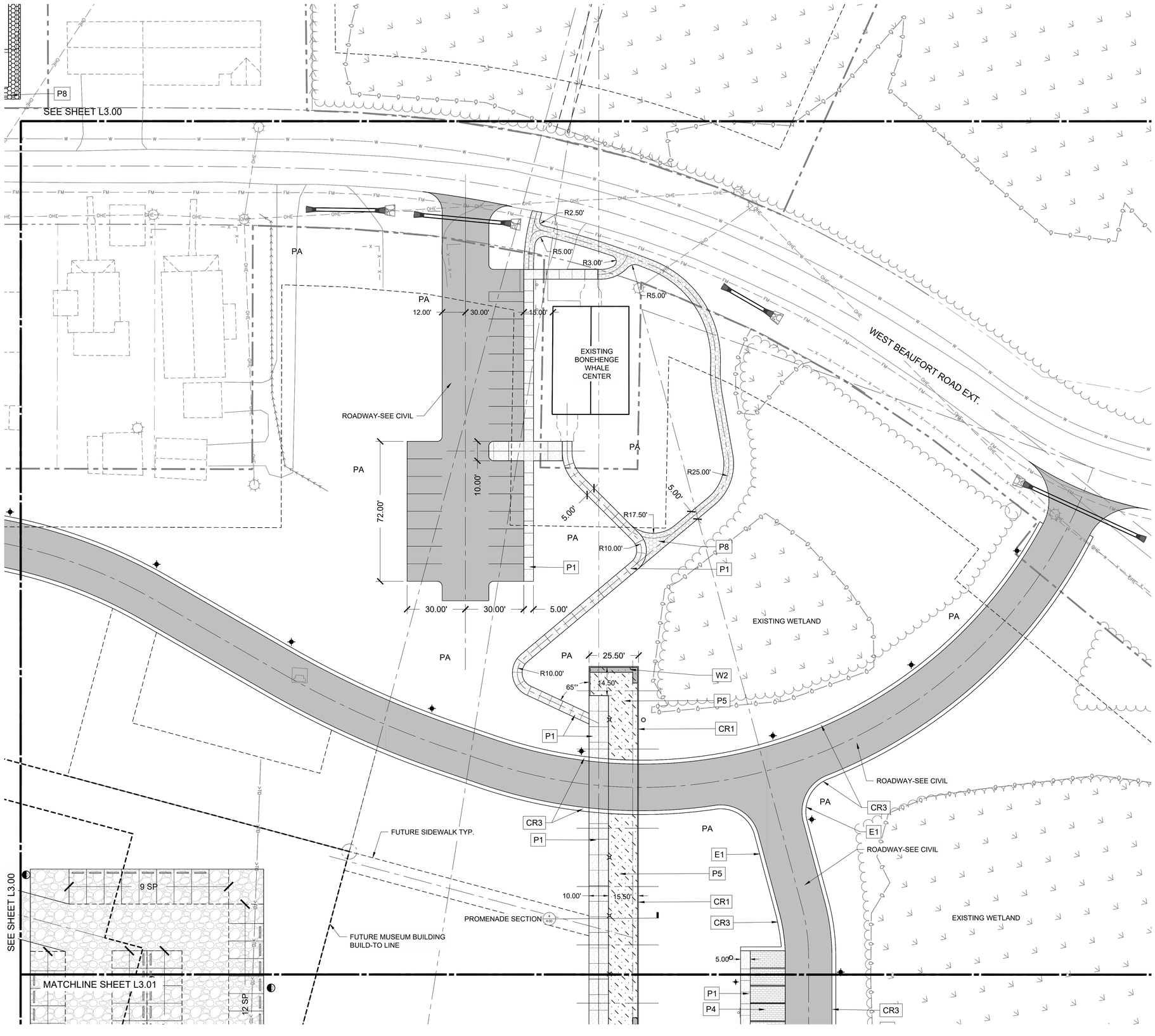
LAYOUT AND MATERIALS PLAN - ENARGEMENT

L3.01

PROJECT #: L22001

DESIGN: DA, GS
DRAWN: KP
REVIEW: DA

CN 10145



FINISH SCHEDULE

P - PAVEMENT		
KEY NAME	**DESCRIPTION**	**DETAIL REF**
P1	CONCRETE PAVEMENT- PEDESTRIAN - SP. FINISH	6/L4.00
P2	CONCRETE PAVEMENT- VEHICULAR	5/L4.00
P3	CONCRETE PAVEMENT - PEDESTRIAN - TYP.	6/L4.00
P4	CONCRETE UNIT PAVERS - VEHICULAR	4/L4.10
P5	DECOMPOSED GRANITE	1/L4.10
P6	STONE BAND AT GARDEN EDGE	
P7	GRASSPAVE2	
P8	MULCH PATHWAY	

CR - CURBS AND RAMPS		
CR1	FLUSH CURB	2/L4.20
CR2	SIDEWALK APRON	
CR3	RIVER ROCK DRIVEWAY EDGE	6/L4.20
CR4	MOUNTABLE CURB	

E - EDGING		
E1	STEEL EDGING	6/L4.20

SR - STAIRS, RAMPS, AND RAILINGS		
SR1	CAST-IN-PLACE CONCRETE STAIRS	4/L4.10
SR2	METAL HANDRAILS - STAIRS	5/L4.10
SR3	CONCRETE ACCESSIBLE RAMP	
SR4	METAL HANDRAILS - RAMPS	

W - WALLS		
W1	CIP CONCRETE AND WOOD AMPHITHEATER SEATWALL	7/L4.20
W2	CIP FREESTANDING CONCRETE AND WOOD SEATWALL	7/L4.20
W3	CIP CONCRETE GARDEN WALL	

L - LIGHTING		
KEY NAME	**DESCRIPTION**	**DETAIL REF**
L1	DUKE POLE LIGHT FIXTURE - 12' HT.	L8.00
L2	DUKE POLE LIGHT FIXTURE - 10' HT	L8.00
L3	BOLLARD OPTION 1 - LIGHTHOUSE	L8.00
L3	BOLLARD OPTION 2 - BYSTEAD	L8.00
L3	BOLLARD OPTION 3 - PROFILE	L8.00
L4	GROUND-MOUNTED LUMINAIRE	L8.00
L6	RECEPTACLE LOCATION	L8.00

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MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145
SCO ID # : 24-27956-01A

DESIGNER

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919-828-1876
CLARK NEXSEN LICENSE NUMBER C-1028

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PROFESSIONAL SEAL

SUBMITTAL

JUNE 7, 2024
BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

LAYOUT AND MATERIALS PLAN - ENLARGEMENT

L3.02

PROJECT #: L22001

DESIGN: DA, GS
DRAWN: KP
REVIEW: DA

CN 10145

FINISH SCHEDULE

P - PAVEMENT

KEY NAME	DESCRIPTION	DETAIL REF	MATERIAL	COLOR	FINISH	SIZE	PRODUCT NAME/No.	SUPPLIER	REMARKS
P1	CONCRETE PAVEMENT- PEDESTRIAN - SP. FINISH	6/L4.00	CONCRETE	STANDARD GRAY	TABBY	4" THICK	N/A	N/A	10'X10' MOCKUP REQUIRED FOR APPROVAL BY LA
P2	CONCRETE PAVEMENT- VEHICULAR	5/L4.00	CONCRETE	STANDARD GRAY	LIGHT BROOM	6" THICK	N/A	N/A	10'X10' MOCKUP REQUIRED FOR APPROVAL BY LA
P3	CONCRETE PAVEMENT - PEDESTRIAN - TYP.	6/L4.00	CONCRETE	STANDARD GRAY	LIGHT BROOM	4" THICK	N/A	N/A	10'X10' MOCKUP REQUIRED FOR APPROVAL BY LA
P4	CONCRETE UNIT PAVERS - VEHICULAR	4/L4.10	CONCRETE	TO BE SELECTED	TO BE SELECTED	TO BE SELECTED	HANOVER PREST PAVER	HANOVER	SAMPLES REQUIRED FOR APPROVAL BY LA
P5	DECOMPOSED GRANITE	1/L4.10	PAINT	STANDARD WHITE	N/A	PER DETAIL	N/A	N/A	10'X10' MOCKUP REQUIRED FOR APPROVAL BY LA
P6	STONE BAND AT GARDEN EDGE		RIVER ROCK	STANDARD		PER DETAIL	N/A	N/A	10'X10' MOCKUP REQUIRED FOR APPROVAL BY LA
P7	GRASSPAVE2		RECYCLED PLASTIC	N/A	N/A	10-12" BASE COURSE DEPTH	GRASSPAVE2	INVISIBLE STRUCTURES	10'X10' MOCKUP REQUIRED FOR APPROVAL BY LA
P8	MULCH PATHWAY		HARDWOOD MULCH	N/A	N/A	10-12" BASE COURSE DEPTH	GRASSPAVE2	INVISIBLE STRUCTURES	N/A

CR - CURBS AND RAMPS

CR1	FLUSH CURB	2/L4.20	CONCRETE	STANDARD GRAY	LIGHT BROOM	4" THICK	DETECTABLE WARNING PAVERS		SAMPLES REQUIRED FOR APPROVAL BY LA
CR2	SIDEWALK APRON		CONCRETE	STANDARD GRAY	LIGHT BROOM	6" THICK	TRUNCATED DOMES	URBAN ACCESSORIES	SAMPLES REQUIRED FOR APPROVAL BY LA
CR3	RIVER ROCK DRIVEWAY EDGE	6/L4.20	RIVER ROCK	STANDARD GRAY	SMOOTH	4"-7"	N/A	N/A	SAMPLES REQUIRED FOR APPROVAL BY LA
CR4	MOUNTABLE CURB		CONCRETE	STANDARD GRAY	LIGHT BROOM	6" THICK	N/A	N/A	SAMPLES REQUIRED FOR APPROVAL BY LA

E - EDGING

E1	STEEL EDGING	6/L4.20	WOOD	TO BE SELECTED	TO BE SELECTED	PER DETAIL	TO BE SELECTED	TO BE SELECTED	SAMPLES AND SHOP DRAWINGS REQUIRED FOR APPROVAL BY LA

SR - STAIRS, RAMPS, AND RAILINGS

SR1	CAST-IN-PLACE CONCRETE STAIRS	4/L4.10	CONCRETE	STANDARD GRAY	LIGHT BROOM	PER DETAIL			CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR APPROVAL BY LA
SR2	METAL HANDRAILS - STAIRS	5/L4.10	STEEL	BLACK	POWDERCOAT	PER DETAIL			CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR APPROVAL BY LA
SR3	CONCRETE ACCESSIBLE RAMP		CONCRETE	STANDARD GRAY	LIGHT BROOM	PER DETAIL			CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR APPROVAL BY LA
SR4	METAL HANDRAILS - RAMPS		STEEL	BLACK	POWDERCOAT	PER DETAIL			CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR APPROVAL BY LA

W - WALLS

W1	CIP CONCRETE AND WOOD AMPHITHEATER SEATWALL	7/L4.20	PRE-CAST STONE, THERMORY ASH	GP-13	POLISHED	PER DETAIL	N/A	N/A	SAMPLES, SHOP DRAWINGS, AND WALL MOCK UP REQUIRED FOR APPROVAL BY LA
W2	CIP FREESTANDING CONCRETE AND WOOD SEATWALL	7/L4.20	PRE-CAST STONE, THERMORY ASH	GP-13	POLISHED	PER DETAIL	N/A	N/A	SAMPLES, SHOP DRAWINGS, AND WALL MOCK UP REQUIRED FOR APPROVAL BY LA
W3	CIP CONCRETE GARDEN WALL		PRE-CAST STONE	GP-13	POLISHED	PER DETAIL	N/A	N/A	SAMPLES, SHOP DRAWINGS, AND WALL MOCK UP REQUIRED FOR APPROVAL BY LA

L - LIGHTING

KEY NAME	DESCRIPTION	DETAIL REF	MATERIAL	COLOR	FINISH	SIZE	PRODUCT NAME/No.	SUPPLIER	REMARKS
L1	DUKE POLE LIGHT FIXTURE - 12' HT.	L8.00	PER DETAIL	BLACK	POWDERCOAT	12' HT.	MOTIVE	LANDSCAPEFORMS	BY OTHERS, LOCATION SHOWN ONLY
L2	DUKE POLE LIGHT FIXTURE - 10' HT	L8.00	PER DETAIL	BLACK	POWDERCOAT	10' HT.	MOTIVE	LANDSCAPEFORMS	BY OTHERS, LOCATION SHOWN ONLY
L3	BOLLARD OPTION 1 - LIGHTHOUSE	L8.00	PER DETAIL	PER DETAIL	POWDERCOAT	PER DETAIL	L209	LAMPAS	BY OTHERS, LOCATION SHOWN ONLY
L3	BOLLARD OPTION 2 - BYSTEAD	L8.00	PER DETAIL	PER DETAIL	POWDERCOAT	PER DETAIL	BYSTEAD	POULSON	BY OTHERS, LOCATION SHOWN ONLY
L3	BOLLARD OPTION 3 - PROFILE	L8.00	PER DETAIL	PER DETAIL	POWDERCOAT	PER DETAIL	PROFILE	LANDSCAPEFORMS	BY OTHERS, LOCATION SHOWN ONLY
L4	GROUND-MOUNTED LUMINAIRE	L8.00	PER DETAIL	TO BE SELECTED	POWDERCOAT	N/A	GROUND MOUNTED LUMINAIRE	BEGA	BY OTHERS, LOCATION SHOWN ONLY
L6	RECEPTACLE LOCATION	L8.00	N/A	N/A	N/A	N/A	N/A	N/A	BY OTHERS, LOCATION SHOWN ONLY

ALL PERVIOUS HARDSCAPE SURFACES ARE TO BE MAINTAINED BY THE DEVELOPER AND PROPERTY OWNER. THE TOWN OF BEAUFORT IS NOT RESPONSIBLE FOR REPAIRS TO PAVERS, PERVIOUS PAVEMENT, ETC.

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145
SCO ID # : 24-27556-01A

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919-828-1876

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CONSULTANT

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PROFESSIONAL SEAL

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT DAVID A. ANDERSON 06/12/2024

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

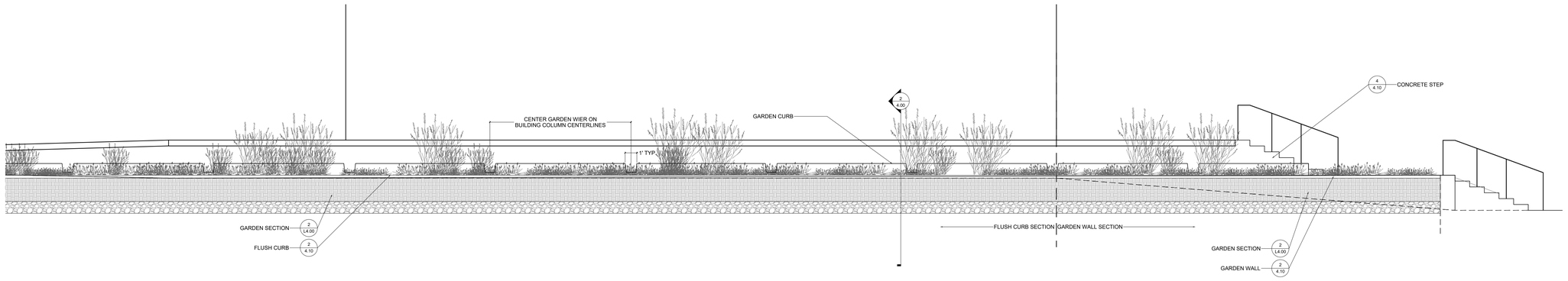
MATERIALS AND FINISH SCHEDULE

L3.03

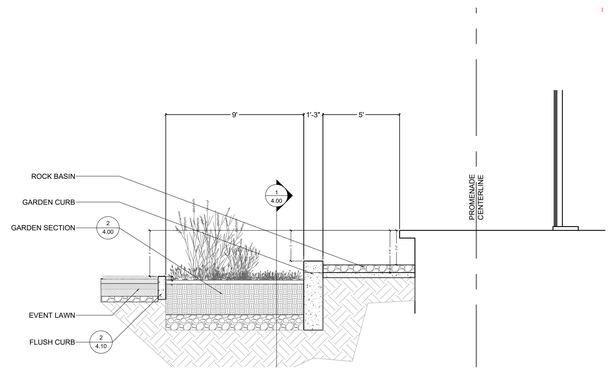
PROJECT #: L22001

DESIGN: DA, GS
DRAWN: KP
REVIEW: DA

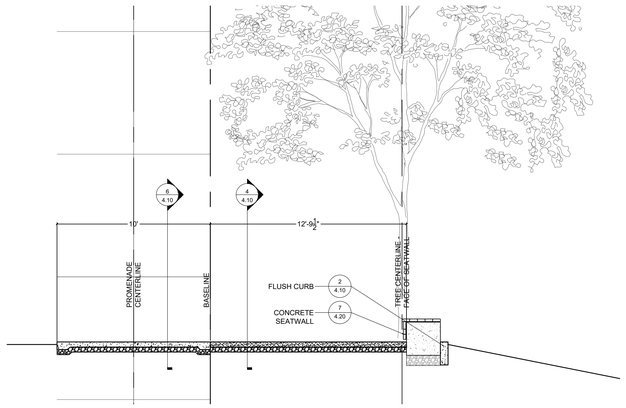
CN 10145



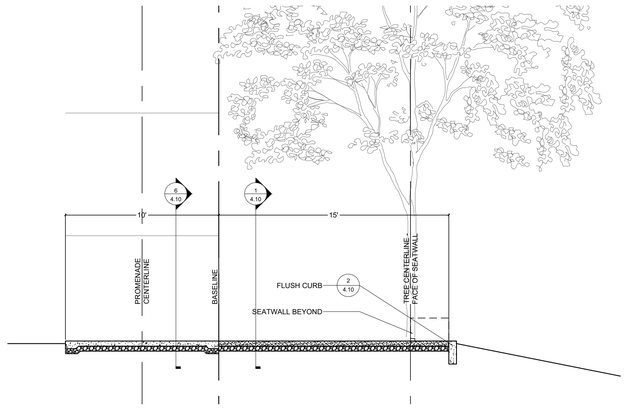
1 GARDEN LONGITUDINAL SECTION
SECTION — ¼" = 1'-0"



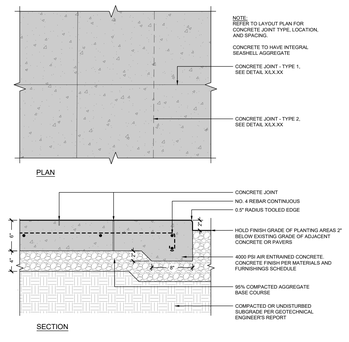
2 GARDEN CROSS SECTION
SECTION — ¼" = 1'-0"



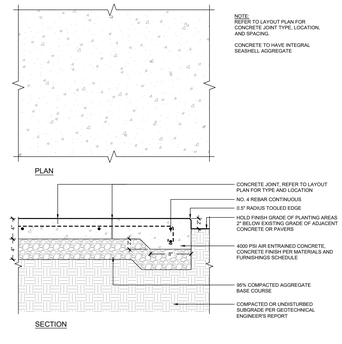
3 PROMENADE SECTION A
SECTION — ¼" = 1'-0"



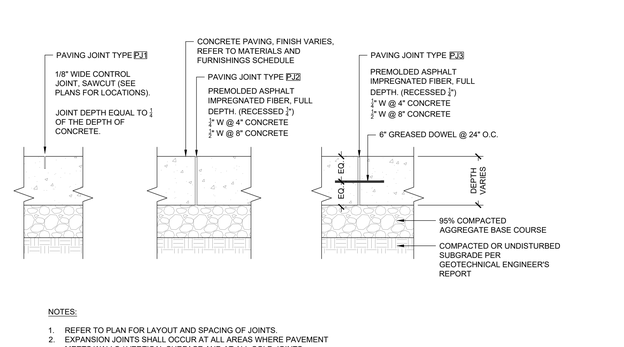
4 PROMENADE SECTION B
SECTION — ¼" = 1'-0"



5 CONCRETE SIDEWALK-VEHICULAR
SECTION — 1" = 1'-0"



6 CONCRETE SIDEWALK-PEDESTRIAN
SECTION — 1" = 1'-0"



NOTES:

1. REFER TO PLAN FOR LAYOUT AND SPACING OF JOINTS.
2. EXPANSION JOINTS SHALL OCCUR AT ALL AREAS WHERE PAVEMENT MEETS WALLS / VERTICAL SURFACE AND AT ALL COLD JOINTS.

7 CONCRETE JOINTS
SECTION — NTS

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

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CN PROJ # : 10145
SCO ID # : 24-27956-01A

DESIGNER

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T 919.380.8750

PROFESSIONAL SEAL

NORTH CAROLINA LANDSCAPE ARCHITECT 2133 06/12/2024 DAVID A. AMALONG

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

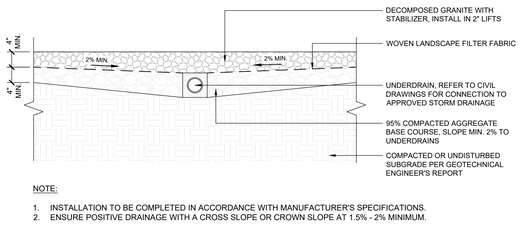
SITE DETAILS

L4.00

PROJECT #: L22001

DESIGN: DA, GS
DRAWN: KP
REVIEW: DA

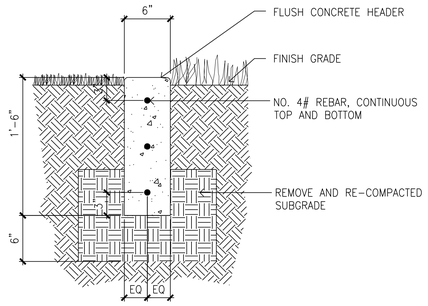
CN 10145



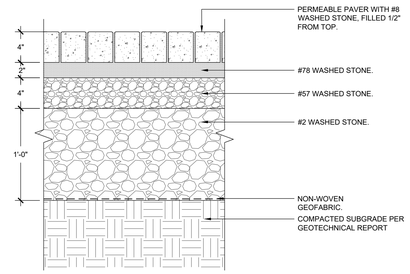
NOTE:

1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. ENSURE POSITIVE DRAINAGE WITH A CROSS SLOPE OR CROWN SLOPE AT 1.5% - 2% MINIMUM.

1 DECOMPOSED GRANITE
SECTION — ¾" = 1'-0"

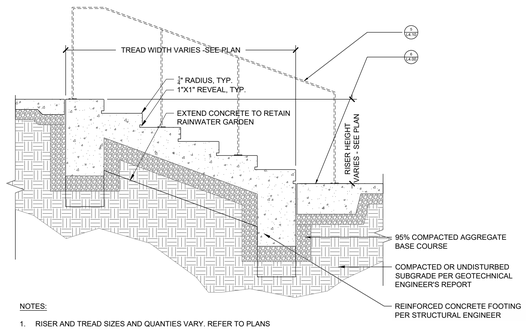


2 FLUSH CURB
SECTION — ½" = 1'-0"



NOTES:
1. SEE MATERIALS AND FURNISHINGS SCHEDULE FOR TYPE, COLOR, AND FINISH OF PAVER.
2. SECTION CONFORMS TO NCDENR BMP MANUAL
3. CONTRACTOR TO PROVIDE INFILTRATION TESTING ON SOIL TO ENGINEER PRIOR TO CONSTRUCTION OF PAVER SYSTEM.

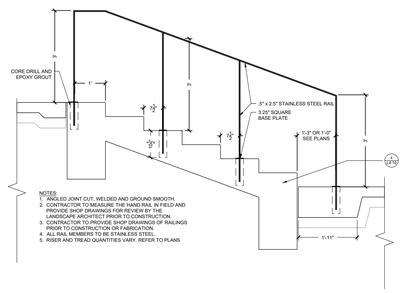
3 PERMEABLE PAVER
SECTION — 1 ½" = 1'-0"

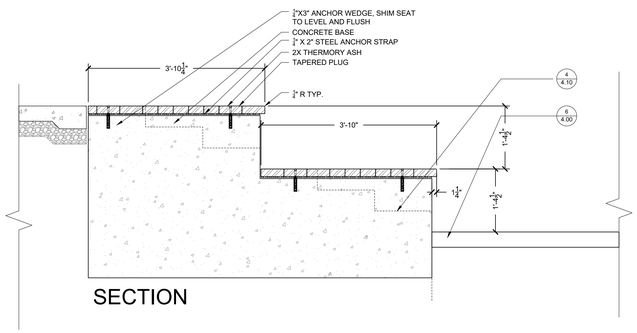


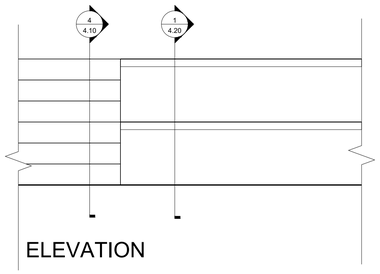
NOTES:

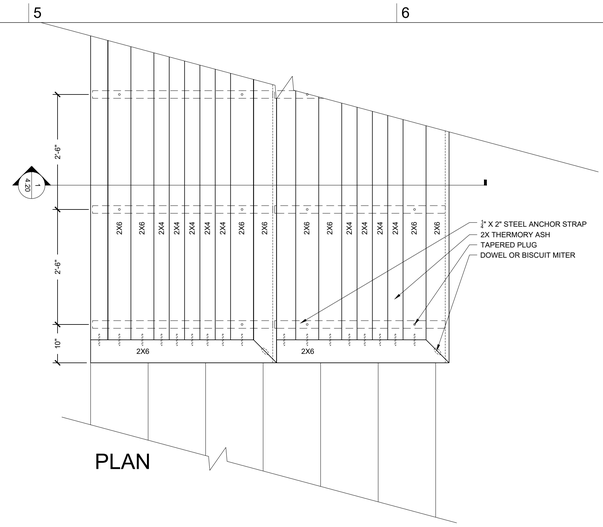
1. RISER AND TREAD SIZES AND QUANTIES VARY. REFER TO PLANS

4 CONCRETE STEP
SECTION — ½" = 1'-0"


CORE DRILL AND EPOXY GROUT
1'
3'
3'
3

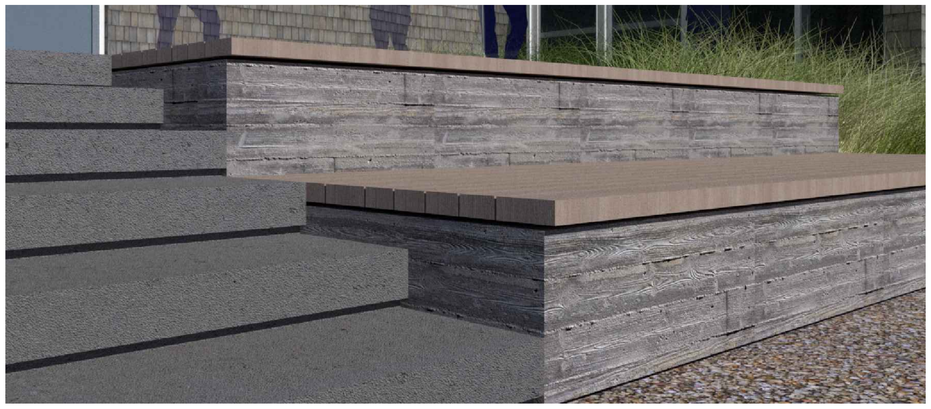




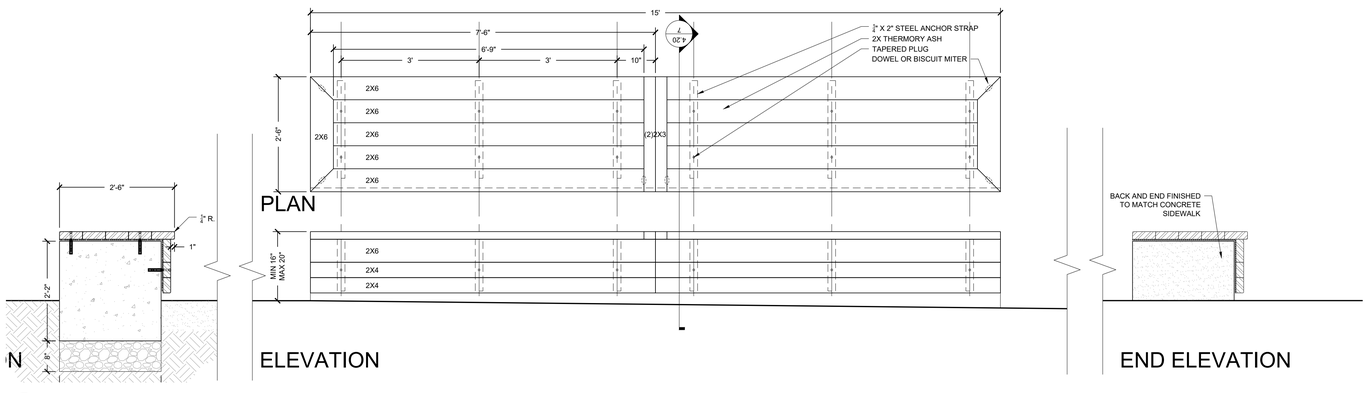


1 AMPHITHEATER SEATING ¾" = 1'-0"

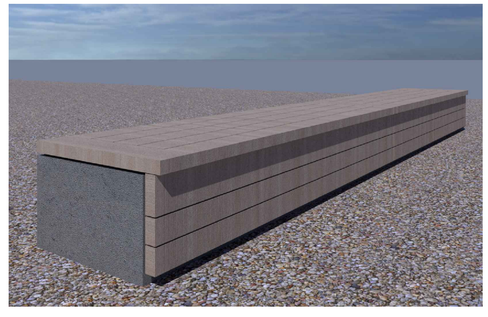
4 AMPHITHEATER SEATING NTS



6 AMPHITHEATER SEATING NTS



7 SEATWALL NTS



MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145
SCO ID # : 24-27956-01A

DESIGNER

CLARKNEXSEN

421 NORTH HARRINGTON STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27603
919·828·1876

CLARK NEXSEN LICENSE NUMBER C-1028

CONSULTANT

STEWART

223 S. WEST ST., #1100
RALEIGH, NC 27603
T 919.380.8750

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SUBMITTAL

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SCALE: AS NOTED

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L4.20

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REVIEW: DA

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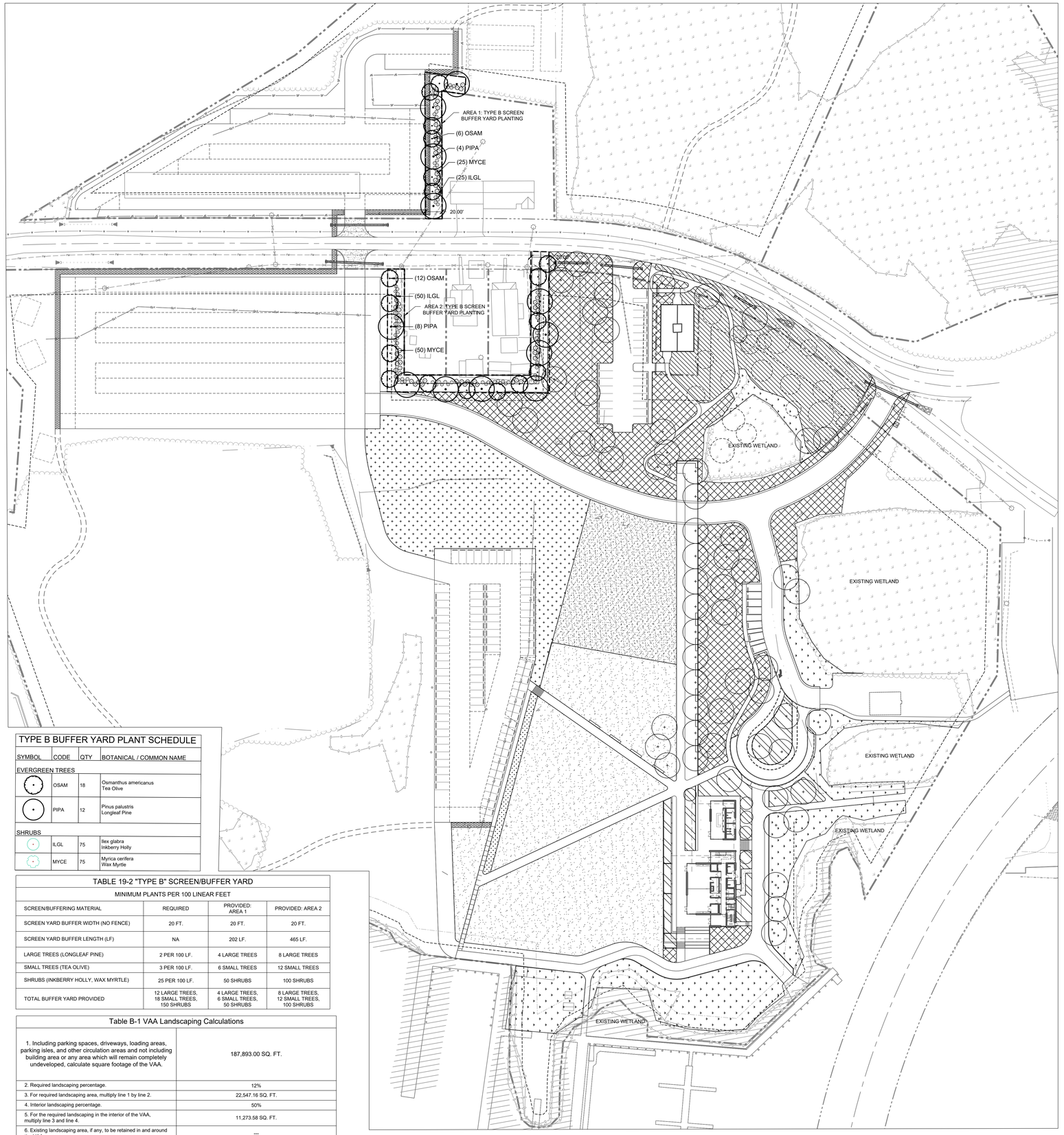

TYPE B BUFFER YARD PLANT SCHEDULE

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME
EVERGREEN TREES			
	OSAM	18	Osmanthus americanus Tea Olive
	PIPA	12	Pinus palustris Longleaf Pine
SHRUBS			
	ILGL	75	Ilex glabra Inkberry Holly
	MYCE	75	Myrica cerifera Wax Myrtle

TABLE 19-2 "TYPE B" SCREEN/BUFFER YARD

MINIMUM PLANTS PER 100 LINEAR FEET

SCREEN/BUFFERING MATERIAL	REQUIRED	PROVIDED: AREA 1	PROVIDED: AREA 2
SCREEN YARD BUFFER WIDTH (NO FENCE)	20 FT.	20 FT.	20 FT.
SCREEN YARD BUFFER LENGTH (LF)	NA	202 LF.	465 LF.
LARGE TREES (LONGLEAF PINE)	2 PER 100 LF.	4 LARGE TREES	8 LARGE TREES
SMALL TREES (TEA OLIVE)	3 PER 100 LF.	6 SMALL TREES	12 SMALL TREES
SHRUBS (INKBERRY HOLLY, WAX MYRTLE)	25 PER 100 LF.	50 SHRUBS	100 SHRUBS
TOTAL BUFFER YARD PROVIDED	12 LARGE TREES, 18 SMALL TREES, 150 SHRUBS	4 LARGE TREES, 6 SMALL TREES, 50 SHRUBS	8 LARGE TREES, 12 SMALL TREES, 100 SHRUBS

Table B-1 VAA Landscaping Calculations

1. Including parking spaces, driveways, loading areas, parking isles, and other circulation areas and not including building area or any area which will remain completely undeveloped, calculate square footage of the VAA.	187,893.00 SQ. FT.
2. Required landscaping percentage.	12%
3. For required landscaping area, multiply line 1 by line 2.	22,547.16 SQ. FT.
4. Interior landscaping percentage.	50%
5. For the required landscaping in the interior of the VAA, multiply line 3 and line 4.	11,273.58 SQ. FT.
6. Existing landscaping area, if any, to be retained in and around the VAA.	---
7. Subtract line 3 from line 6. This is the landscape area required.	22,547.16 SQ. FT.
TOTAL LANDSCAPE AREA PROVIDED	130,500.00 SQ. FT.

LEGEND

SHRUB AND GRASS MIXES

TEMPORARY SEED

ENHANCED LANDSCAPE

Longleaf Pine (Pinus palustris)
Switchgrass (panicum virgatum)
Eastern Gamagrass (Tripsacum dactyloides)
Little Bluestem (Schizachyrium scoparium)
Sweet Pepperbush (Clethra alnifolia)

WETLAND TRANSITION

31.0%Panicum rigidulum, PA Ecotype
(Redtop Panicgrass, PA Ecotype)
30.0%Carex albolutescens, Coastal Plain NC Ecotype
(Greenwhite Sedge, Coastal Plain NC Ecotype)
20.0%Elymus virginicus, AR Ecotype
(Virginia Wildrye, AR Ecotype)
10.0%Carex vulpinoidea, PA Ecotype
(Fox Sedge, PA Ecotype)
3.0%Helianthus angustifolius, Coastal Plain NC Ecotype
(Narrowleaf Sunflower, Coastal Plain NC Ecotype)
3.0%Juncus effusus, 'Suther'-Piedmont NC Ecotype
(Soft Rush, 'Suther'-Piedmont NC Ecotype)
1.0%Juncus tenuis, NC Ecotype
(Path Rush, NC Ecotype)
1.0%Ludwigia linearis, Coastal Plain SC Ecotype
(Narrowleaf Primrose Willow, Coastal Plain SC Ecotype)
0.5%Scirpus cyperinus, Coastal Plain NC Ecotype
(Woolgrass, Coastal Plain NC Ecotype)
0.5%Vernonia noveboracensis, PA Ecotype
(New York Ironweed, PA Ecotype)

GARDEN

40.4%Schizachyrium scoparium, Fort Indiantown Gap-PA Ecotype
(Little Bluestem, Fort Indiantown Gap-PA Ecotype)
20.0%Carex vulpinoidea, PA Ecotype
(Fox Sedge, PA Ecotype)
20.0%Elymus virginicus, Madison-NY Ecotype
(Virginia Wildrye, Madison-NY Ecotype)
9.0%Panicum clandestinum, Tioga
(Deertongue, Tioga)
5.5%Panicum rigidulum, PA Ecotype
(Redtop Panicgrass, PA Ecotype)
4.0%Chasmanthium latifolium, WV Ecotype
(River Oats, WV Ecotype)
0.5%Carex scoparia, PA Ecotype
(Blunt Broom Sedge, PA Ecotype)
0.3%Juncus effusus
(Soft Rush)
0.3%Juncus tenuis, PA Ecotype
(Path Rush, PA Ecotype)

COASTAL LANDSCAPE

29.0%Chasmanthium latifolium, WV Ecotype
(River Oats, WV Ecotype)
20.0%Elymus virginicus, AR Ecotype
(Virginia Wildrye, AR Ecotype)
15.5%Sorghastrum nutans, 'Holt'
(Indiangrass, 'Holt')
15.0%Panicum virgatum, 'Carthage', NC Ecotype
(Switchgrass, 'Carthage', NC Ecotype)
8.0%Panicum rigidulum, PA Ecotype
(Redtop Panicgrass, PA Ecotype)
3.0%Carex vulpinoidea, PA Ecotype
(Fox Sedge, PA Ecotype)
2.0%Agrostis hyemalis, Piedmont NC Ecotype
(Winter Bentgrass, Piedmont NC Ecotype)
2.0%Carex albolutescens, Coastal Plain NC Ecotype
(Greenwhite Sedge, Coastal Plain NC Ecotype)
1.5%Chamaecrista fasciculata, PA Ecotype
(Partridge Pea, PA Ecotype)
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TURF MIXES

EVENT LAWN

Stalok Fiber Reinforced Sod

TURFGRASS

Seed

TREES

Live Oak (Quercus virginiana)
Bald Cypress (Taxodium distichum)
American Hophornbeam (Ostrya virginiana)
Longleaf Pine (Pinus palustris)
Tea Olive (Osmanthus americanus)

SHRUBS

Cherry Laurel (Prunus caroliniana)
Southern Wax Myrtle (Morella cerifiera)
Sweet Pepperbush (Clethra alnifolia)
Inkberry Holly (Ilex glabra)
Wax Myrtle (Myrica ceferifa)

NORTH SCALE: 1"=50'

0 25 50 100

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OVERALL PLANTING PLAN

L7.00

PROJECT #: L22001

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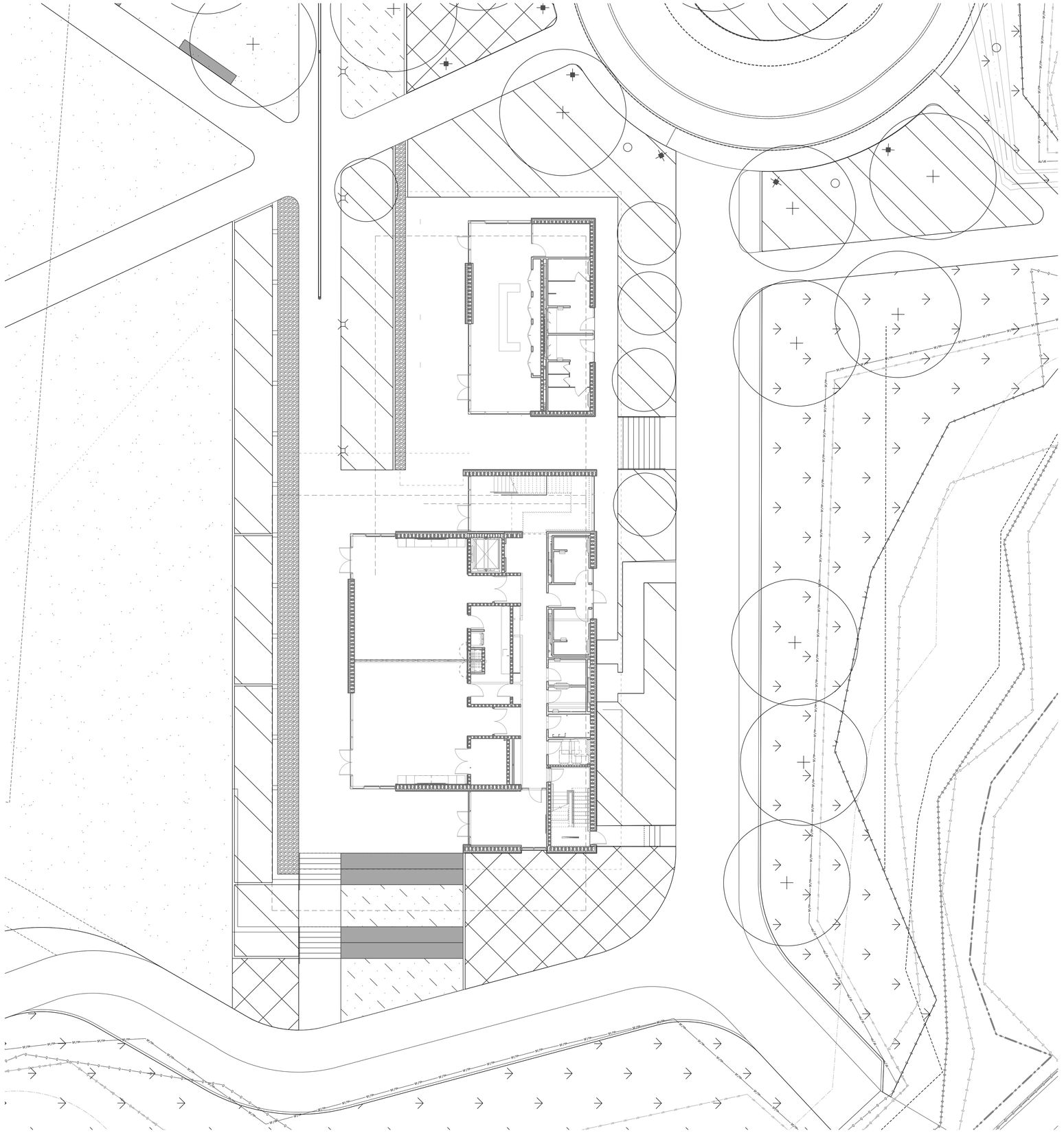
DRAWN: KP
REVIEW: DA

CN 10145



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REVISIONS

KEY PLAN

SHEET

ENLARGED PLANTING PLAN

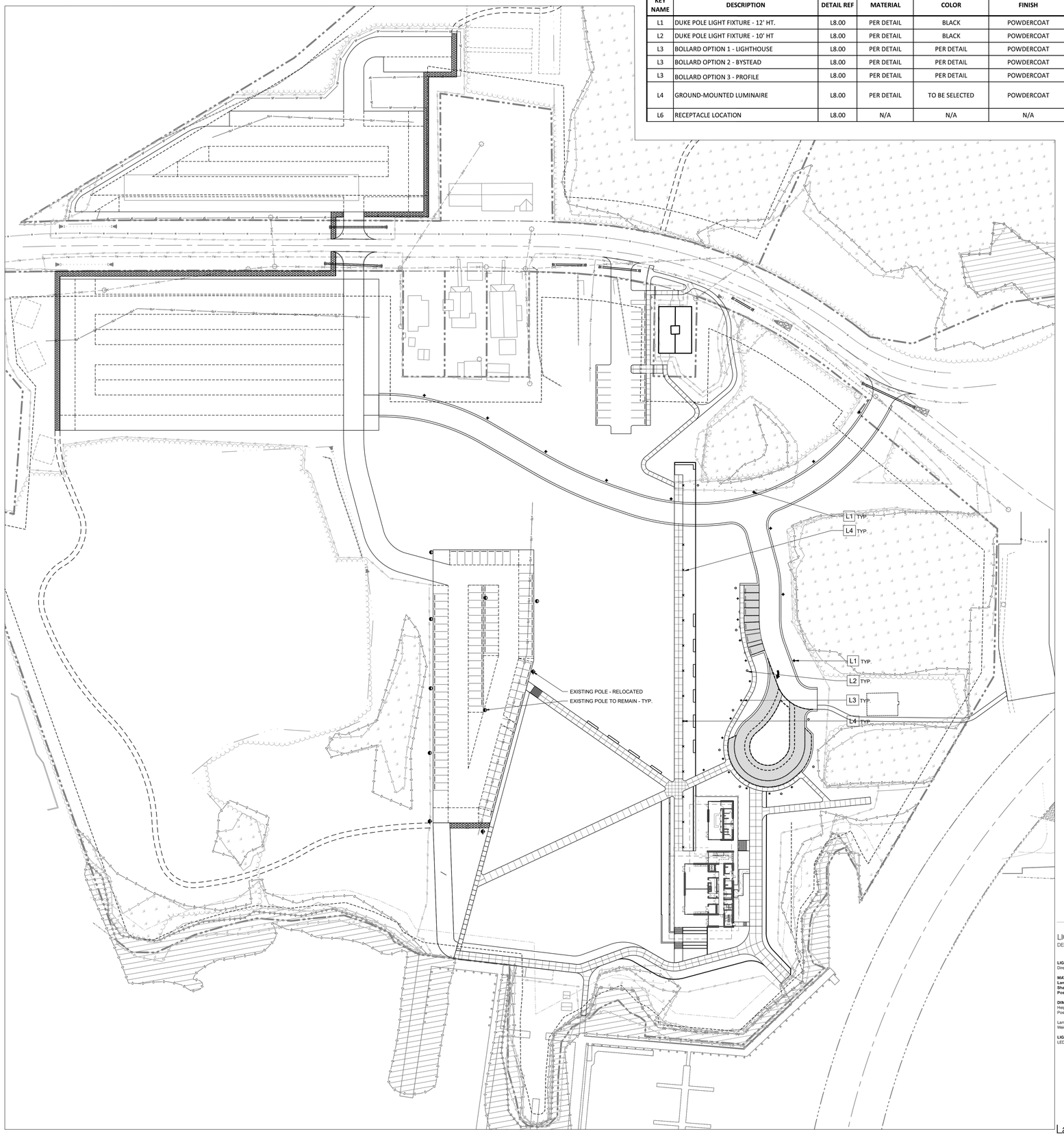
L7.01

PROJECT #: L22001

DESIGN: DA, GS
DRAWN: KP
REVIEW: DA

CN 10145

L - LIGHTING									
KEY NAME	DESCRIPTION	DETAIL REF	MATERIAL	COLOR	FINISH	SIZE	PRODUCT NAME/No.	SUPPLIER	REMARKS
L1	DUKE POLE LIGHT FIXTURE - 12' HT.	L8.00	PER DETAIL	BLACK	POWDERCOAT	12' HT.	MOTIVE	LANDSCAPEFORMS	BY OTHERS, LOCATION SHOWN ONLY
L2	DUKE POLE LIGHT FIXTURE - 10' HT	L8.00	PER DETAIL	BLACK	POWDERCOAT	10' HT.	MOTIVE	LANDSCAPEFORMS	BY OTHERS, LOCATION SHOWN ONLY
L3	BOLLARD OPTION 1 - LIGHTHOUSE	L8.00	PER DETAIL	PER DETAIL	POWDERCOAT	PER DETAIL	L209	LAMPAS	BY OTHERS, LOCATION SHOWN ONLY
L3	BOLLARD OPTION 2 - BYSTEAD	L8.00	PER DETAIL	PER DETAIL	POWDERCOAT	PER DETAIL	BYSTEAD	POULSON	BY OTHERS, LOCATION SHOWN ONLY
L3	BOLLARD OPTION 3 - PROFILE	L8.00	PER DETAIL	PER DETAIL	POWDERCOAT	PER DETAIL	PROFILE	LANDSCAPEFORMS	BY OTHERS, LOCATION SHOWN ONLY
L4	GROUND-MOUNTED LUMINAIRE	L8.00	PER DETAIL	TO BE SELECTED	POWDERCOAT	N/A	GROUND MOUNTED LUMINAIRE	BEGA	BY OTHERS, LOCATION SHOWN ONLY
L6	RECEPTACLE LOCATION	L8.00	N/A	N/A	N/A	N/A	N/A	N/A	BY OTHERS, LOCATION SHOWN ONLY



Motive Area Light

landscape forms

Spec Sheet | AJ500

Motive is a sophisticated family of lights that blurs the line between indoor and outdoor lighting to create out-of-the-ordinary settings. Designed by Justin Champaign, Motive celebrates the beauty of illumination and its interaction with architecture, objects, and space. The luminaires' neutral sculptural form address an array of applications for buildings and grounds, pathways, social spaces, and high-profile areas such as art installations and entrances.

Housing & Materials
A UV stable, impact modified diffused acrylic lens seals to the cast aluminum round luminaire housing. Luminaire mounts to a tenon on the top of pole and is secured with three stainless steel set screws. Top cover is secured by three magni-coated cap screws on top of the luminaire.

Electrical
Internally mounted surge protected 120V through 277V 50/60Hz electronic driver, 0-10V dimming, -40°C start temperature. Available with optional ANSI C136.41 twist lock receptacle Motive area light ships prewired.

Light Engine
Cast aluminum light cartridge with high powered LEDs mounted to a RoHS compliant circuit board delivers indirect lighting in conjunction with the spun aluminum reflector (not available on Lambertian). Replaceable cartridge provides ease of installation and serviceability. Available in 2700K, 3000K, 3500K, and 4000K, >80 CRI across all available color temperatures.

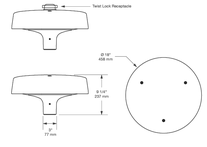
Distributions
Lambertian | TIV | TV

Warranty
LED lighting products are warranted for six years.

Certification
UL Listed for Wet Location, CE, International Dark Sky Approved, Buy America Compliant, RoHS Compliant

Designed by Justin Champaign

Click here for patent information related to this product.



Weight: 27 lbs (luminaire only)
EPA: 0.69 ft²

TM21 L70(10k): 60,000 hrs
Protection Class: IP66

Ground-mounted luminaire

Natural Cork ... 2006 lbs
Black Cork ... Die-cast aluminium
Protection class ... IP 65
Dimension A ... 4 ¼ " / 108 mm
Dimension B ... 4 ¼ " / 50 ½ inch

Ground-mounted luminaire

A series of wall- over luminaires to illuminate ground surfaces. Sculpted with a flat, circular aluminium diffuser and a cylindrical body. Three sizes. Three size-variants differ by recessed diffuser and trim ring, supplied with luminaire, or surface-mounted diffuser with no trim ring.

Luminaires 71 565 and 71 572 require a remote 24 V DC class 2 power supply unit (not included). Luminaires 71 566 and 71 567 require a remote 120 V AC power supply unit (not included).

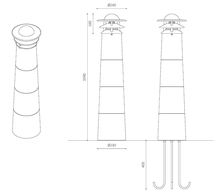
Diffuser and trim ring: Clear UV-stabilized polycarbonate.
Reflector: Made of pure anodized aluminium.

LED color temperatures: 2700K, 3000K, 3500K, 4000K

Luminaires 71 565 and 71 566 are supplied with 5 m (16 ft) 2x0.5mm² cable, with a plastic LSZ watertight luminaire ground lead for up to 20 years after date of purchase. Luminaires 71 572 and 71 567 are supplied with 5 m (16 ft) 3x0.5mm² cable, with characteristics and connection as for the round and square specification sheets, available on www.bega.com.

Housing: Die-cast aluminium body, textured powder coat with minimum 5 mil thickness. BEGA Colour® finish, a fluoropolymer technology, provides superior resistance to fading, chalking, and UV degradation. Standard colors as well as semi-matte anodized RAL and custom colors, are a substrate powder.

NPCL listed for North American standards. Suitable for wet locations. Protection class IP 65



LIGHTHOUSE L209 - BOLLARD LIGHT
DESIGN: PETER BYSTED

LIGHT DISTRIBUTION
Direct, rotationally symmetrical and diffused light distribution

MATERIALS
Lamp housing: Cast iron or powder coated cast iron
Shade: Satiné acrylic, UV resistant
Post: Cast iron or powder coated cast iron

DIMENSIONS
Height: 1039 mm
Post: Conical: Bottom Ø230 mm, top Ø160 mm
Lamp housing: Ø240 mm, Height 160 mm
Weight: 41,6 kg

LIGHT SOURCE
LED type: E27. Light source is not included and must be ordered separately

INSTALLATION
Embedding

CONNECTION
3 cables max 5 x 10 mm². Connection box and fuse are included

CLASSIFICATION
IP44, IK10, Insulation safety class II

Lampas

Lampas.com

NORTH SCALE: 1"=50'

0 25 50 100

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145
SCO ID # : 24-27956-01A

DESIGNER

CLARKNEXSEN

421 NORTH HARRINGTON STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27603
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CLARK NEXSEN LICENSE NUMBER C-1028

CONSULTANT

STEWART

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PROFESSIONAL SEAL

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT 2533 DAVID A. MATTSON
06/12/2024

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

PROJECT #: L22001

LIGHTING PLAN

L8.00

DESIGN: ##
DRAWN: ##
REVIEW: DA

CN 10145

GENERAL NOTES:

1. THE STRUCTURAL DRAWINGS MUST BE USED IN CONJUNCTION WITH THE ARCHITECTURAL, CIVIL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS, AND THE SPECIFICATIONS. THE CONTRACTOR MUST VERIFY THE REQUIREMENTS OF OTHER TRADES AS TO SLEEVES, CHASES, HANGERS, INSERTS, ANCHORS, HOLES, AND ADDITIONAL ITEMS TO BE PLACED OR SET IN THE STRUCTURAL WORK.

2. THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE PROVISIONS OF THE NORTH CAROLINA STATE BUILDING CODE, 2018 EDITION.

3. THE WORK OUTLINED IN THE BUILDING CODE IS SUBJECT TO SPECIAL INSPECTIONS AS DESCRIBED IN THE BUILDING CODE.

4. THE CONTRACTOR MUST PROVIDE TEMPORARY SHORING AND BRACING REQUIRED TO ERECT AND HOLD THE STRUCTURE IN PROPER ALIGNMENT UNTIL PERMANENT SUPPORTS AND LATERAL BRACING ARE IN PLACE.

5. DISCREPANCIES BETWEEN DRAWINGS, BETWEEN THE DRAWINGS AND THE SPECIFICATIONS, OR WITHIN THE SPECIFICATIONS, MUST BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER DURING THE BIDDING PROCESS IN TIME TO PERMIT CLARIFICATION BY ADDENDUM. IF INCONSISTENCIES, DISCREPANCIES OR CONTRADICTIONS IN THE CONTRACT DOCUMENTS ARE DISCOVERED AFTER THE CLOSE OF BIDDING QUESTIONS, THE CONTRACTOR MUST BE DEEMED BY SUBMITTAL OF THEIR BID, TO HAVE BID THE MOST COSTLY AS TO LABOR, MATERIALS, DURATION, SEQUENCE AND METHOD OF CONSTRUCTION TO PROVIDE THE WORK.

6. THESE STRUCTURAL DRAWINGS ARE ISSUED ON THE DATE INDICATED FOR THE PURPOSE DESIGNATED. THESE DRAWINGS MUST NOT BE ISSUED OR RELEASED FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN AUTHORIZATION OFTHE STRUCTURAL ENGINEER OF RECORD.

7. DETAILS LABELED AS "TYPICAL DETAILS" ON DRAWINGS APPLY TO SITUATIONS ON THE PROJECT THAT MAY OCCUR THROUGHOUT THE PROJECT. SUCH DETAILS APPLY WHETHER OR NOT DETAILS ARE REFERENCED AT EACH LOCATION. NOTIFY ENGINEER IF CLARIFICATIONS ARE REQUIRED REGARDING THE APPLICABILITY OF THE TYPICAL DETAILS.

8. DESIGN CRITERIA:

CLASSIFICATION OF BUILDING
- RISK CATEGORY II

SUPER IMPOSED ROOF DEAD LOADS - UNIFORM:
- ASPHALT SHINGLES ..... 3 PSF
- 1 1/2" INSULATION AND ROOF MEMBRANE ..... 3 PSF
- CEILING ..... 2 PSF
- SPRINKLERS ..... 3 PSF
- DUCTS, LIGHTS, MISC. MECHANICAL ..... 3 PSF
- FUTURE SOLAR PANEL ALLOWANCE ..... 5 PSF

SUPER IMPOSED FLOOR DEAD LOADS - UNIFORM:
- FLOOR FINISH ..... 3 PSF
- CEILING ..... 2 PSF
- SPRINKLERS ..... 3 PSF
- DUCTS, LIGHTS, MISC. MECHANICAL ..... 3 PSF
- COLLATERAL ..... 2 PSF

LIVE LOADS - UNIFORM:
- SLAB-ON-GRADE ..... 100 PSF
- SECOND FLOOR MECHANICAL SPACE ..... 150 PSF
- ROOF ..... 20 PSF

RAIN LOADS:
- RAIN INTENSITY ..... 4.13 IN/HR

SNOW LOADS:
- GROUND SNOW LOAD ..... 10 PSF
- FLAT ROOF LOAD ..... 7 PSF
- IMPORTANCE FACTOR (Is) 1.0
- THERMAL FACTOR (Ct) 1.0
- EXPOSURE FACTOR (Ce) 1.0

WIND LOADS:
- ULTIMATE DESIGN WIND SPEED (VULT) ..... 144 MPH
- NOMINAL DESIGN (VASD) WIND SPEED ..... 112 MPH
- EXPOSURE CATEGORY ..... D
- INTERNAL PRESSURE COEFFICIENT ..... ±0.18
- ULTIMATE COMPONENT AND CLADDING PRESSURES (EFFECTIVE AREA):
  - WALLS, ZONE 4 (100 SF) ..... 58 PSF
  - WALLS, ZONE 5 (100 SF) ..... 65 PSF
  - UPLIFT, ZONE 1 (100 SF) ..... 52 PSF
  - UPLIFT, ZONE 3 (100 SF) ..... 114 PSF
- ULTIMATE WIND BASE SHEARS (FOR MWFRS):
  - Vx ..... 95 KIPS
  - Vy ..... 175 KIPS

SEISMIC LOADS:
- SITE CLASSIFICATION ..... D
- SEISMIC DESIGN CATEGORY ..... B
- IMPORTANCE FACTOR (IE) 1.0
- SPECTRAL RESPONSE ACCELERATIONS:
  - S_S ..... 0.114 S_1 ..... 0.059
  - S_{MS} ..... 0.183 S_{M1} 0.141
  - S_{DS} ..... 0.122 S_{D1} 0.094
- ANALYSIS PROCEDURE ..... EQUIVALENT LATERAL FORCE
- LATERAL FORCE RESISTING SYSTEM ..... INTERMEDIATE REINFORCED MASONRY SHEAR WALLS
- RESPONSE MODIFICATION COEFFICIENT (R) 3.5
- SEISMIC RESPONSE COEFFICIENT (Cs) 0.035
- ULTIMATE SEISMIC BASE SHEAR (V) ..... 46 KIPS

LATERAL DESIGN CONTROL
- CONTROLLING LATERAL LOADS ..... WIND

FLOOD LOADS: (PER ASCE 24-14 AND ASCE 7-10)
- FLOOD DESIGN CLASS 2
- FLOOD INSURANCE RATE MAP (FIRM) NO. 3720730600J
- FLOOD INSURANCE STUDY (FIS) NO. 375346
- FLOOD ZONE ..... AE
- BASE FLOOD ELEVATION (BFE) ..... 6 FT
- DESIGN FLOOD ELEVATION (DFE) ..... 6 FT
- LOWEST OCCUPIED FLOOR ELEVATION ..... 12.25 FT
- ELEVATION OF LOWEST STRUCTURAL MEMBER (FOOTING BEARING ELEVATION) ..... 5 FT

FOUNDATION NOTES:

1. FOUNDATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE RECOMMENDATIONS IN THE SUBSURFACE EXPLORATION AND GEOTECHNICAL ENGINEERING REPORT PREPARED BY TERRACON, DATED JULY 7, 2023.

2. FOUNDATIONS HAVE BEEN DESIGNED FOR A NET ALLOWABLE SOIL BEARING PRESSURE OF 2,000 PSF ON FIRM STRUCTURAL FILL OR APPROVED EXISTING SOILS.

3. ALL FOUNDATION MUST BEAR A MINIMUM OF 18" BELOW ADJACENT GRADE.

4. PRIOR TO PLACING FOUNDATION CONCRETE, ALL FOUNDATION EXCAVATIONS MUST BE INSPECTED BY THE OWNER'S GEOTECHNICAL TESTING AGENCY TO EXPLORE THE EXTENT OF LOOSE, SOFT, EXPANSIVE, OR OTHERWISE UNSATISFACTORY SOIL MATERIAL AND TO VERIFY DESIGN BEARING PRESSURE. DIRECTION FOR CORRECTIVE ACTION WILL BE PROVIDED BY THE OWNER'S GEOTECHNICAL TESTING AGENCY WHERE UNSATISFACTORY SOILS ARE PRESENT.

5. EARTHWORK OPERATIONS SHOULD BE PERFORMED DURING THE WARMER, DRIER PERIODS OF THE YEAR (MAY THROUGH OCTOBER) TO AVOID PROBLEMS WITH A WET SUBGRADE.

6. NO UNBALANCED BACKFILLING MUST BE DONE AGAINST MASONRY OR CONCRETE WALLS UNLESS WALLS ARE SECURELY BRACED AGAINST OVERTURNING, EITHER BY TEMPORARY CONSTRUCTION BRACING OR BY PERMANENT CONSTRUCTION.

7. CONTROL GROUNDWATER AND SURFACE RUNOFF THROUGHOUT THE CONSTRUCTION PROCESS. INUNDATION AND LONG TERM EXPOSURE OF BEARING SURFACES WHICH RESULT IN DETERIORATION OF BEARING MUST BE PREVENTED.

8. EXPOSED GROUND SHOULD BE SLOPED AND MAINTAINED AT A MINIMUM OF 5% AWAY FROM THE BUILDING FOR AT LEAST 10 FEET BEYOND THE PERIMETER OF THE BUILDING. GRADE AROUND THE STRUCTURE SHOULD ALSO BE PERIODICALLY INSPECTED AND ADJUSTED, AS NECESSARY, AS PART OF THE STRUCTURE'S MAINTENANCE PROGRAM.

SITE PREPARATION, CONTROLLED FILL AND SURCHARGE NOTES:

1. OBTAIN AND BECOME THOROUGHLY FAMILIAR WITH THE CONDITIONS AND RECOMMENDATIONS DESCRIBED IN THE SUBSURFACE EXPLORATION AND GEOTECHNICAL ENGINEERING REPORT. THIS REPORT IS NOT A PART OF THE CONTRACT DOCUMENTS, AND MAY NOT BE REPRESENTATIVE OF ALL SITE CONDITIONS WHICH MAY BE ENCOUNTERED.

2. SITE PREPARATION AND CONTROLLED FILL MUST INCLUDE THE AREA ENCLOSED BY A LINE DRAWN 10 FEET OUTSIDE THE BUILDING FOOTPRINT.

3. REMOVE ALL VEGETATION, ROOT MAT, TOPSOIL, ASPHALT PAVING AND AGGREGATE BASE MATERIAL.

4. THE EXPOSED SUBGRADE MUST BE PROOFROLLED WITH A LARGE RUBBER-TIRED ROLLER OR LOADED DUMP TRUCK; PERFORM AT LEAST TWO PASSES IN EACH OF TWO PERPENDICULAR DIRECTIONS.

5. EXCAVATE SOFT SPOTS REVEALED BY PROOFROLLING AS DIRECTED.

6. AFTER SITE PREPARATION AND PRIOR TO PLACEMENT OF ANY FILL MATERIAL IN THE BUILDING PAD AREA OR PUMP STATION, SETTLEMENT PLATES MUST BE INSTALLED ON THE PREPARED SUBGRADE. INITIAL READINGS SHOULD BE TAKEN BY THE PROJECT SURVEYOR. READINGS SHOULD BE TAKEN TWICE A WEEK AND RECORDED TO THE NEAREST 100TH OF A FOOT. THE SETTLEMENT SHOULD SUBSTANTIALLY CEASE AFTER 30 DAYS, AND SHOULD BE CONFIRMED TO HAVE CEASED BY THE GEOTECHNICAL ENGINEER ON SITE A MINIMUM OF 4 SETTLEMENT PLATES SHOULD BE EQUALLY SPACED ACROSS THE BUILDING PAD AND ONE INSTALLED AT THE PUMP STATION AREA. SEE TYPICAL SETTLEMENT PLATE DETAIL.

7. FILL WITH SATISFACTORY STRUCTURAL FILL MATERIALS TO THE SPECIFIED ELEVATIONS.

8. FILL MUST BE PLACED IN LOOSE LIFTS NOT EXCEEDING 8 INCHES, WHEN MECHANICAL COMPACTION EQUIPMENT IS USED OR 4 INCHES WHEN HAND COMPACTION EQUIPMENT IS USED AND MUST BE COMPACTED TO AT LEAST 95 PERCENT OF MAXIMUM AND 98 PERCENT WITHIN 1 FOOT OF FINISHED SUBGRADE OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM D698).

9. PLACE SURCHARGE FILL IN ONE FOOT LOOSE LIFTS. UP TO THE SPECIFIED ELEVATION. THE DEPTH OF SURCHARGE IS BASED ON A SOIL UNIT WEIGHT OF 100 POUNDS PER CUBIC FOOT. FOR LESS DENSE MATERIALS, PROVIDE ADDITIONAL SURCHARGE OR PROVIDE COMPACTION AS REQUIRED TO YIELD THE EQUIVALENT TOTAL WEIGHT OF SURCHARGE.

10. THE CONTRACTOR MUST SECURE AND PAY FOR THE SERVICES OF A LICENSED LAND SURVEYOR TO MONITOR THE SETTLEMENT PLATES AS DESCRIBED IN THE GEOTECHNICAL REPORT.

CAST-IN-PLACE CONCRETE NOTES:

1. CONCRETE MUST BE IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE (ACI) 301 AND 318.

2. CONCRETE MUST BE NORMAL AND MUST OBTAIN 28 DAY COMPRESSIVE STRENGTHS AS FOLLOWS:
   A. FOOTINGS & FOUNDATIONS BELOW GRADE ..... 3,000 PSI
   B. SLAB-ON-GRADE ..... 4,000 PSI
   C. SUPPORTED FLOOR SLABS ..... 4,000 PSI
   D. EXTERIOR EXPOSED CONCRETE ..... 4,500 PSI
   E. CONCRETE NOT OTHERWISE NOTED ..... 4,000 PSI

3. REINFORCING MATERIALS MUST BE AS FOLLOWS:
   A. REINFORCING BARS - ASTM A615, GRADE 60, DEFORMED.
   B. DEFORMED BAR ANCHORS - ASTM A496, 70 KSI YIELD STRENGTH.
   C. WELDED WIRE REINFORCEMENT - ASTM A1064, WELDED STEEL WIRE REINFORCEMENT; PROVIDE SHEET TYPE, ROLL TYPE IS NOT ACCEPTABLE.

4. ALL REINFORCING STEEL AND EMBEDDED ITEMS SUCH AS ANCHOR RODS AND WELD PLATES MUST BE ACCURATELY PLACED AND ADEQUATELY TIED AND SUPPORTED BEFORE CONCRETE IS PLACED TO PREVENT DISPLACEMENT BEYOND PERMITTED TOLERANCES.

5. CONCRETE COVER TO REINFORCING STEEL MUST CONFORM TO THE MINIMUM COVER RECOMMENDATIONS IN ACI 318, UNLESS THE DRAWINGS SHOW GREATER COVER REQUIREMENTS.

6. LAP CONTINUOUS REINFORCING STEEL AS FOLLOWS, UNLESS OTHERWISE NOTED:

ALL OTHER REINFORCING			
BAR SIZE	CONC COMPRESSIVE STRENGTH (PSI)		
	3,000	4,000	4,500
#6 AND SMALLER	57xBD	50xBD	45xBD
#7 AND LARGER	72xBD	62xBD	56xBD

CONCRETE MASONRY NOTES:

1. CONCRETE MASONRY MATERIALS AND CONSTRUCTION MUST CONFORM TO THE AMERICAN CONCRETE INSTITUTE (ACI) 530.

2. CONCRETE MASONRY UNITS MUST CONFORM TO ASTM C90 AND MUST BE MADE WITH NORMAL WEIGHT AGGREGATE. MINIMUM NET AREA COMPRESSIVE STRENGTH OF MASONRY UNITS MUST BE 2,000 PSI AT 28 DAYS.

3. COMPRESSIVE STRENGTH OF MASONRY MUST BE DETERMINED BY THE UNIT STRENGTH METHOD AS SET FORTH IN ACI 530.1. THE NET AREA COMPRESSIVE STRENGTH OF MASONRY, f'm, MUST BE 2,000 PSI AT 28 DAYS.

4. MORTAR MUST BE TYPE 'M' OR 'S' AND MUST COMPLY WITH ASTM C270, PROPORTIONS OR PROPERTIES SPECIFICATION.

5. GROUT MUST COMPLY WITH EITHER THE PROPORTIONS OR PROPERTIES SPECIFICATION OF ASTM C476 AND THIS MIX MUST BE PROPORTIONED TO OBTAIN A DOCUMENTED 28 DAY COMPRESSIVE STRENGTH OF 2,500 PSI, WITH AN 8-11 INCH SLUMP WHEN PLACED IN THE CONCRETE MASONRY UNITS.

6. PLACE GROUT WITH POUR HEIGHT NOT TO EXCEED 5 FEET. CONSOLIDATE EACH POUR BY MECHANICAL VIBRATION. CONSOLIDATE AFTER INITIAL WATER LOSS AND SETTLEMENT OCCUR.

7. REINFORCING STEEL MUST COMPLY WITH ASTM A615, GRADE 60. SHOP FABRICATE REINFORCING BARS WHICH ARE SHOWN TO BE BENT OR HOOKED.

8. ALL BOND BEAMS, REINFORCED CELLS AND CELLS WITH EXPANSION BOLTS, EMBED PLATES OR OTHER ANCHORS AND ALL CELLS BELOW GRADE MUST BE GROUTED SOLID. GROUT PROCEDURE MUST COMPLY WITH ACI 530.1.

9. ALL CMU WALLS MUST BE REINFORCED CONTINUOUSLY FROM FOUNDATION TO TOP OF WALL. WHERE REINFORCING IS INTERRUPTED, OFFSET AND LAP ADDITIONAL BARS PER THE "TYPICAL OFFSET SPLICE AT MASONRY WALL DETAILS."

10. LAP ALL REINFORCING PER SCHEDULE BELOW, TYPICAL UNLESS OTHERWISE NOTED:

MASONRY LAP SCHEDULE	
REINF SIZE	52 x BAR DIAMETER
#4	26"
#5	33"
#6	39"
#7	46"
#8	52"

11. PROVIDE MECHANICAL SPLICES FOR ALL #9 BARS AND LARGER AND FOR ALL BARS AT CONTRACTOR'S OPTION.

12. PROVIDE ONE VERTICAL BAR EACH SIDE OF ALL OPENINGS AND CONTROL JOINTS, AND AT CORNERS AND INTERSECTIONS OF ALL MASONRY WALLS, BOTH BEARING AND NON-BEARING WALLS. SHOW CONTROL JOINT LOCATIONS ON THE REINFORCING STEEL SHOP DRAWINGS.

13. ALL NON-BEARING MASONRY WALLS MUST BE REINFORCED WITH #4 VERTICAL BARS AT 40 INCHES ON CENTER, TYPICAL UNLESS OTHERWISE NOTED. ALL NON-BEARING MASONRY WALLS MUST BE BRACED PER "TYPICAL NON-BEARING MASONRY PARTITION DETAILS."

14. PROVIDE REINFORCING STEEL DOWELS OF THE SAME SIZE AND SPACING AS VERTICAL REINFORCING FROM THE SUPPORTING STRUCTURE, UNLESS OTHERWISE NOTED.

15. PROVIDE STANDARD 9 GAGE LADDER TYPE HORIZONTAL JOINT REINFORCING IN CMU WALLS AT 16 INCHES ON CENTER AND IN TWO JOINTS IMMEDIATELY ABOVE AND BELOW ALL OPENINGS, EXTENDING A MINIMUM OF 2 FEET BEYOND THE JAMB ON EACH SIDE OF THE OPENING, EXCEPT AT CONTROL JOINTS.

16. PROVIDE HORIZONTAL BOND BEAMS WITH CONTINUOUS REINFORCING AS SHOWN IN THE SECTIONS AND DETAILS.

17. ALL MASONRY WALLS MUST HAVE VERTICAL CONTROL JOINTS AT 25FT MAXIMUM. REFER TO THE ARCHITECTURAL DRAWINGS FOR CONTROL JOINT LOCATIONS. CONTROL JOINTS MUST EXTEND THROUGH ENTIRE WALL THICKNESS, EXCEPT AT CONTINUOUS BOND BEAMS, WHERE THE MASONRY SHOULD BE SCORED ONLY.

18. DO NOT LOCATE CONTROL JOINTS WITHIN TWO FEET OF STEEL BEAM BEARING LOCATIONS.

STRUCTURAL STEEL NOTES:

1. STRUCTURAL STEEL MUST BE IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) 360.

2. STRUCTURAL STEEL MUST COMPLY WITH THE FOLLOWING SPECIFICATIONS:
   A. STRUCTURAL STEEL SHAPES, PLATES AND BARS UNLESS OTHERWISE NOTED - ASTM A36, Fy = 36 KSI
   B. STRUCTURAL STEEL W-SHAPES - ASTM A992, Fy = 50 KSI
   C. HOLLOW STRUCTURAL SECTIONS (HSS) SQUARE & RECTANGULAR - ASTM A500, GRADE C, Fy = 50 KSI
   D. STEEL CASTINGS - ASTM A216, GRADE WCB, MEDIUM STRENGTH CARBON STEEL
   E. ANCHOR RODS - ASTM F1554, GRADE 36 (TYPICAL UON)
   F. HIGH STRENGTH BOLTS - ASTM A325 (TYPICAL UON)
   G. FULLY PRETENSIONED BOLTS - ASTM F1852 (TWIST-OFF TYPE)
   H. WASHERS - ASTM F436
   I. NUTS - ASTM A563

3. UNLESS OTHERWISE NOTED, ALL REQUIRED DESIGN STRENGTHS AND REACTIONS INDICATED ARE BASED ON THE "LOADING COMBINATIONS USING STRENGTH DESIGN OR LOAD AND RESISTANCE FACTOR DESIGN" PER SECTION 1605.2 OF THE BUILDING CODE.

4. UNLESS OTHERWISE NOTED, BEAM CONNECTIONS MUST BE AISC "SIMPLE SHEAR CONNECTIONS" WITH ASTM A325 BOLTS DESIGNED FOR ONE HALF THE MAXIMUM TOTAL UNIFORM LOAD FOR LATERALLY SUPPORTED BEAMS GIVEN IN TABLE 3-6 OF THE "STEEL CONSTRUCTION MANUAL."

5. HIGH STRENGTH BOLTS MAY BE TIGHTENED TO THE "SNUG TIGHT" CONDITION IN LIEU OF FULL PRETENSIONING EXCEPT FOR THE FOLLOWING CONNECTIONS WHICH MUST BE FULLY PRETENSIONED:

6. REFER TO THE SPECIFICATIONS FOR REQUIREMENTS OF "DELEGATED DESIGN" CONNECTIONS.

7. FOR STRUCTURAL STEEL CONNECTIONS INDICATED AS "DELEGATED DESIGN", INCLUDE STRUCTURAL CALCULATIONS SIGNED AND SEALED BY THE QUALIFIED PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF NORTH CAROLINA RESPONSIBLE FOR THEIR PREPARATION. IN ADDITION, THE PROFESSIONAL ENGINEER RESPONSIBLE FOR CONNECTION DESIGN MUST REVIEW THE SHOP DRAWINGS PRIOR TO SUBMITTAL TO VERIFY THAT THE CONNECTIONS AS DETAILED ON THE SHOP DRAWINGS COMPLY WITH THE CONNECTION DESIGN REQUIREMENTS OF THE FINAL CALCULATIONS. A REVIEW LETTER, SIGNED AND SEALED BY THE PROFESSIONAL ENGINEER RESPONSIBLE FOR CONNECTION DESIGN MUST BE PROVIDED WITH THE SHOP DRAWINGS AND CALCULATION SUBMITTAL STATING THAT THIS REVIEW AND VERIFICATION HAS BEEN COMPLETED.

8. DELEGATED DESIGN CONNECTIONS ARE FOR SHEAR CONNECTIONS.

9. WELDING MUST BE IN ACCORDANCE WITH AWS D1.1, "STRUCTURAL WELDING CODE - STEEL." WELD ELECTRODES MUST BE E70XX LOW HYDROGEN. UNLESS OTHERWISE NOTED, PROVIDE CONTINUOUS FILLET WELDS WITH MINIMUM SIZE REQUIRED BY TABLE J2.4 AISC 360.

10. COORDINATE ALL MEMBER LOCATIONS, UNIT WEIGHTS, OPENING SIZES, AND CURB DIMENSIONS FOR MECHANICAL EQUIPMENT WITH THE ACTUAL EQUIPMENT FURNISHED.

11. STRUCTURAL STEEL SCHEDULED TO RECEIVE SPRAYED-ON FIREPROOFING MUST NOT BE PRIME PAINTED.

12. HOT-DIP GALVANIZE AFTER FABRICATION THE FOLLOWING:
   A. ANGLES AND PLATES SUPPORTING MASONRY IN EXTERIOR WALLS.
   B. LINTELS AND LINTEL ASSEMBLIES SUPPORTING MASONRY IN EXTERIOR WALLS.
   C. ALL STEEL EXPOSED TO WEATHER IN THE FINAL CONSTRUCTION.
   D. ITEMS IDENTIFIED AS GALVANIZED ON ARCHITECTURAL OR STRUCTURAL DRAWINGS.

13. THE FABRICATION OF STRUCTURAL STEEL FRAMING SHOWN TO BE CURVED MUST BE ACCOMPLISHED BY ROLLING IF FEASIBLE. WHERE ROLLING IS NOT FEASIBLE SUBMIT AN ALTERNATE METHOD FOR REVIEW AND APPROVAL.

14. STEEL MEMBERS MUST BE SPLICED ONLY WHERE INDICATED.

15. ALL STAIR LANDINGS, STAIRS, AND STAIR SUPPORTS TO BE DESIGNED BY STAIR MANUFACTURER. LAYOUT OF STAIRS, LANDINGS, HANDRAILS, ETC. MUST COMPLY WITH ARCHITECTURAL DRAWINGS. STRUCTURAL DESIGN CALCULATIONS AND DRAWINGS STAMPED BY A REGISTERED ENGINEER MUST BE SUBMITTED TO THE STRUCTURAL ENGINEER OF RECORD FOR REVIEW OF LOADING. ARCHITECT AND STAIR MANUFACTURER ARE RESPONSIBLE TO REVIEW FOR CODE AND ADA COMPLIANCE. STAIR MANUFACTURER MUST PROVIDE ALL POSTS AND CONNECTIONS TO SUPPORT STAIRS.

STEEL DECK NOTES:

1. STEEL DECK MUST BE IN ACCORDANCE WITH THE AMERICAN IRON AND STEEL INSTITUTE (AISI), "NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS" AND THE STEEL DECK INSTITUTE (SDI), "DESIGN MANUAL FOR COMPOSITE DECKS, FORM DECKS, AND ROOF DECKS."

2. STEEL DECK INSTALLATION MUST BE COMPOSITE DECK, 2" x 20 GAGE GALVANIZED. UNLESS OTHERWISE NOTED, ATTACH DECK TO SUPPORTS WITH 5/8 INCH DIAMETER PUDDLE WELDS AT 12 INCHES ON CENTER. THE FIRST & LAST RIB OF EACH SHEET MUST BE WELDED AT ALL SUPPORTS. SHEAR STUDS WELDED THROUGH DECK MAY REPLACE PUDDLE WELDING. FASTEN SIDELAPS WITH #10 SELF-TAPPING HEX HEAD SCREWS AT 3'-0" ON-CENTER (MAXIMUM) BETWEEN SUPPORTS. FASTEN EDGEMOST DECK PANEL TO STEEL FRAMING WITH 5/8 INCH DIAMETER PUDDLE WELDS AT SAME SPACING AS SIDELAP FASTENERS.

3. STEEL DECK MUST BE INSTALLED PERPENDICULAR TO SUPPORTS AND MUST HAVE A MINIMUM OF THREE CONTINUOUS SPANS. ENDLAPS MUST ONLY OCCUR AT SUPPORTS.

4. WELDING MUST BE IN ACCORDANCE WITH AWS D1.3 "STRUCTURAL WELDING CODE - SHEET STEEL".

5. SHEAR CONNECTORS FOR COMPOSITE FLOOR SYSTEMS MUST BE 3/4 INCH DIAMETER HEADED STUDS CONFORMING WITH ASTM A108, GRADE 1015 OR 1020. PROVIDE HEADED STUDS AS SHOWN ON PLANS AND DETAILS. NET IN-PLACE LENGTH MUST BE 1 1/2 INCHES ABOVE TOP OF COMPOSITE STEEL DECK .

6. CONDUIT AND PIPING MUST NOT BE PLACED IN ELEVATED SLABS.

STRUCTURAL GLUED LAMINATED TIMBER UNIT NOTES:

1. STRUCTURAL GLUED LAMINATED TIMBER FOR THIS STRUCTURE MUST BE IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION (AITC) "STANDARD SPECIFICATIONS FOR STRUCTURAL GLUED LAMINATED TIMBER OF SOFTWOOD SPECIES" ANSI/AITC A 190.1 & ASTM D3737.

2. STRUCTURAL GLUE LAMINATED TIMBER MEMBERS MUST BE FABRICATED FROM 2" LAMINATIONS AND MUST PROVIDE DESIGN VALUES EQUAL TO OR EXCEEDING THE FOLLOWING:
   A. 2,400 PSI IN BENDING, Fb
   B. 300 PSI IN HORIZONTAL SHEAR, Fv
   C. 1,650 PSI IN COMPRESSION PARALLEL TO GRAIN, Fc
   D. E = 1,800,000 PSI

3. SUBMIT SHOP DRAWINGS SIGNED AND SEALED BY A NORTH CAROLINA LICENSED PROFESSIONAL ENGINEER RESPONSIBLE FOR THE DESIGN OF STRUCTURAL GLUED LAMINATED UNITS. SHOP DRAWINGS MUST INCLUDE DESIGN LOADINGS AND REACTIONS APPLIED TO THE SUPPORTING STRUCTURE.

4. MEMBER SIZES SHOWN ARE APPROXIMATE ONLY AND MUST BE ADJUSTED TO SUIT ACTUAL STRESS AND DEFLECTION CRITERIA.

5. CONNECTION DETAILS SHOWN ARE SCHEMATIC ONLY. ALL CONNECTIONS MUST BE DEVELOPED BY THE MANUFACTURER TO SUIT THE SPECIFIED LOADS. DETAIL ALL CONNECTIONS ON SHOP DRAWINGS.

6. IN ADDITION TO THEIR OWN DEAD WEIGHT AND THE DEAD LOADS SHOWN OR INDICATED ON THE DRAWINGS, GLUED LAMINATED MEMBERS MUST BE DESIGNED TO SUPPORT THE LOADS INDICATED IN THE GENERAL NOTES.

7. STRUCTURAL GLUED LAMINATED TIMBER MUST COMPLY WITH ANSI/AITC A 190.1 & ASTM D3737. REFERENCE SPECIFICATIONS FOR COMBINATION SYMBOL, ALLOWABLE STRESSES, APPEARANCE GRADE, ADHESIVES, AND OTHER REQUIREMENTS.

8. STEEL PLATE CONNECTORS MUST COMPLY WITH ASTM A36 SPECIFICATIONS (Fy=36 KSI). BOLTS CONNECTING WOOD MEMBERS MUST COMPLY WITH ASTM A307 COMMON STEEL BOLTS WITH NUTS AND WASHERS AND BE A MINIMUM 3/4 INCH DIAMETER UNLESS OTHERWISE NOTED.

9. ALL CONNECTORS AND FASTENERS IN CONTACT WITH CHEMICALLY TREATED LUMBER (SUCH AS PRESERVATIVE TREATED) MUST BE GALVANIZED OR STAINLESS STEEL AS FOLLOWS:
   A. ALL FASTENERS AND ANCHORS MUST BE HOT-DIP GALVANIZED PER ASTM A153 UON.
   B. ALL CONNECTORS MUST BE GALVANIZED PER ASTM 653 GRADE G185 OR HOT-DIP GALVANIZED PER ASTM 123 UON.
   C. FOR TREATED LUMBER CONTAINING AMMONIA, SUCH AS ACZA, RETENTION LEVELS FOR ACQ ABOVE 0.40 OR EXPOSURE TO OCEAN SALTS, LARGE BODIES OF WATER, FIRES FERTILIZERS, ETC. CONNECTORS, FASTENERS AND ANCHORS MUST BE STAINLESS STEEL TYPE 304 OR 316.

10. THE CONTRACTOR MUST PROVIDE ALL TEMPORARY AND PERMANENT BRACING AS REQUIRED FOR SAFE ERECTION OF GLULAMS OR AS REQUIRED BY THE MANUFACTURER.

11. CONNECTION DESIGN INTENT IS SHOWN ON THE STRUCTURAL AND ARCHITECTURAL DRAWINGS. ALL CONNECTION HARDWARE FOR GLULAM TO GLULAM CONNECTIONS AND GLULAM TO SUPPORTING STRUCTURE CONNECTIONS, INCLUDING FOUNDATIONS, MUST BE SUPPLIED BY THE MANUFACTURER.

12. REFER TO THE SPECIFICATIONS AND ARCHITECTURAL DRAWINGS FOR TREATMENT, FINISH, SURFACE SEALERS, STAINS AND PAINTING REQUIREMENTS.

CROSS-LAMINATED TIMBER NOTES:

1. CROSS LAMINATED TIMBER PANELS MUST BE MANUFACTURED PER ANSI/APA PRG 320: STANDARD FOR PERFORMANCE-RATED CROSS-LAMINATED TIMBER.

2. SHEAR TRANSFER DOWELS FASTENERS FOR WIND AND SEISMIC RESISTANCE MUST USE ICC APPROVED FASTENERS AND DESIGNED BY MASS TIMBER ENGINEER TO DEVELOP CONNECTION MODES IIIs AND IV PER 2015 NDS SDPWS.

3. CROSS LAMINATED TIMBER PANELS MUST BE SOUTHERN YELLOW PINE GRADE NO.2 OR BETTER. MOISTURE CONTENT 12%.

4. GENERAL CONTRACTOR MUST COORDINATE WITH MASS TIMBER SUPPLIER WEATHER AND INSTALLATION PROTECTION OF MATERIALS UPON SITE DELIVERY AND AFTER INSTALLATION.

5. CONSTRUCTION TOLERANCES MUST CONFORM TO THE MASS TIMBER CONSTRUCTION MANUAL.

6. CONTRACTOR MUST COORDINATE RIGGING CONNECTION WITH MASS TIMBER SUPPLIER FOR ERECTION.

7. SUBMIT CALCULATIONS OF GRAVITY AND LATERAL CONNECTIONS SIGNED AND SEALED BY THE PROFESSIONAL ENGINEER LICENSED IN NORTH CAROLINA RESPONSIBLE FOR THEIR DESIGN.

8. CLT GRADES: PROVIDE CLT V3 BY SMARTLAM OR OTHER APPROVED.
   A. LUMBER SPECIES:
      a. LONGITUDINAL LAYERS: VISUALLY GRADED NO.2 SYP
      b. TRANSVERSE LAYERS: VISUALLY GRADED NO.3 SYP
   B. DENSITY ..... 36.3 LB/FT³
   C. SPECIFIC GRAVITY, G 0.55
   D. COMPRESSION PERPENDICULAR TO GRAIN ..... 410 PSI
   E. MAJOR DIRECTION:
      a. BENDING STRESS ..... 750 PSI
      b. MODULUS OF ELASTICITY ..... 1,400,000 PSI
      c. TENSION STRESS ..... 450 PSI
      d. COMPRESION STRESS ..... 1,250 PSI
      e. SHEAR STRESS ..... 175 PSI
      f. ROLLING SHEAR STRESS ..... 55 PSI
   F. MINOR DIRECTION:
      a. BENDING STRESS ..... 450 PSI
      b. MODULUS OF ELASTICITY ..... 1,300,000 PSI
      c. TENSION STRESS ..... 250 PSI
      d. COMPRESION STRESS ..... 725 PSI
      e. SHEAR STRESS ..... 175 PSI
      f. ROLLING SHEAR STRESS ..... 55 PSI

MARITIME HERITAGE FOUNDATION
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Maritime Education Center

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SCO ID # : 24-27956-01A

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CORPORATE SEAL

PROFESSIONAL SEAL

06/01/2024

SUBMITTAL
JUNE 7, 2024
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REVISIONS

POST-INSTALLED ANCHOR NOTES:

1. ALL POST INSTALLED ANCHORS INDICATED ON THE DRAWINGS ARE BY HILTI, INC, AND MUST BE CONSIDERED THE BASIS OF DESIGN PRODUCT. WHERE NOT EXPLICITLY INDICATED IN THE DRAWINGS, THE FOLLOWING ANCHORS/ADHESIVES MUST BE USED:
   - A. ANCHORAGE TO CONCRETE
     1. ADHESIVE ANCHORS FOR CRACKED AND UNCRACKED CONCRETE USE:
        - a. HILTI HIT-HY 200 SAFE SET SYSTEM WITH HILTI HOLLOW DRILL BIT (TE-CD OR TE-YD) AND VC 20/40 VACUUM SYSTEM (VC 20-U OR VC40U) WITH STEEL THREADED ROD PER ICC ESR-3187.
     2. SCREW ANCHORS FOR CRACKED AND UNCRACKED CONCRETE USE:
        - a. HILTI KWIK HUS EZ SCREW ANCHORS PER ICC ESR-3027.
   - B. REBAR DOWELING INTO CONCRETE
     1. ADHESIVE ANCHORS FOR CRACKED AND UNCRACKED CONCRETE USE:
        - a. HILTI HIT-HY 200 SAFE SET SYSTEM WITH HILTI HOLLOW DRILL BIT (TE-CD OR TE-YD) AND VC 20/40 VACUUM SYSTEM (VC 20-U OR VC 40-U) WITH CONTINUOUSLY DEFORMED REBAR PER ICC ESR-3187.
   - C. ANCHORAGE TO SOLID GROUTED MASONRY
     1. ADHESIVE ANCHORS USE:
        - a. HILTI HIT-HY 270 MASONRY ADHESIVE ANCHORING SYSTEM (ICC PENDING).
        - b. STEEL ANCHOR ELEMENT MUST BE HILTI HAS-E CONTINUOUSLY THREADED ROD.
     2. MECHANICAL ANCHORS USE:
        - a. HILTI KWIK HUS EZ SCREW ANCHORS PER ICC ESR 3056.
   - D. ANCHORAGE TO HOLLOW / MULTI-WYTHE MASONRY
     1. ADHESIVE ANCHORS USE:
        - a. HILTI HIT-HY 270 MASONRY ADHESIVE ANCHORING SYSTEM PERICCESR-3342.
        - b. STEEL ANCHOR ELEMENT MUST BE HILTI HAS-E CONTINUOUSLY THREADED ROD OR CONTINUOUSLY DEFORMED STEEL REBAR.
        - c. THE APPROPRIATE SIZE SCREEN TUBE MUST BE USED PER ADHESIVE MANUFACTURER'S RECOMMENDATION.
2. ALTERNATE POST INSTALLED ANCHOR PRODUCTS MAY BE SUBMITTED TO THE ENGINEER FOR REVIEW AND POSSIBLE APPROVAL. ALL SUBSTITUTION REQUESTS MUST BE ACCOMPANIED BY AN ICC ESR SHOWING COMPLIANCE WITH THE RELEVANT BUILDING CODE FOR SEISMIC USES, LOAD RESISTANCE, INSTALLATION CATEGORY, AND COMPREHENSIVE INSTALLATION INSTRUCTIONS. ADHESIVE ANCHOR EVALUATION WILL ALSO CONSIDER CREEP, IN-SERVICE TEMPERATURE AND INSTALLATION TEMPERATURE. ALTERNATE PRODUCTS MAY REQUIRE MODIFICATIONS TO ANCHOR DIAMETER, SPACING, AND EMBEDMENT.
3. INSTALL ANCHORS PER THE MANUFACTURER INSTRUCTIONS, AS INCLUDED IN THE ANCHOR PACKAGING.
4. THE CONTRACTOR MUST ARRANGE FOR AN ANCHOR MANUFACTURER'S REPRESENTATIVE TO PROVIDE ONSITE INSTALLATION TRAINING FOR ALL OF THEIR ANCHORING PRODUCTS SPECIFIED. THE STRUCTURAL ENGINEER OF RECORD MUST RECEIVE DOCUMENTED CONFIRMATION THAT ALL OF THE CONTRACTOR'S PERSONNEL WHO INSTALL ANCHORS ARE TRAINED PRIOR TO THE COMMENCEMENT OF ANCHOR INSTALLATION.
5. ANCHOR CAPACITY IS DEPENDANT UPON SPACING BETWEEN ADJACENT ANCHORS AND PROXIMITY OF ANCHORS TO EDGE OF CONCRETE. INSTALL ANCHORS IN ACCORDANCE WITH SPACING AND EDGE CLEARANCES INDICATED ON THE DRAWINGS.
6. EXISTING REINFORCING BARS IN THE CONCRETE STRUCTURE MAY CONFLICT WITH SPECIFIC ANCHOR LOCATIONS. UNLESS NOTED ON THE DRAWINGS THAT THE BARS CAN BE CUT, THE CONTRACTOR MUST LOCATE THE POSITION OF THE REINFORCING BARS AT THE LOCATIONS OF THE CONCRETE ANCHORS, BY FERROSCAN OR GPR.
7. ALL POST INSTALLED ANCHORS REQUIRE CONTINUOUS INSPECTIONS BY THE OWNER'S MATERIALS TESTING AGENCY TO VERIFY INSTALLATION HAS BEEN PERFORMED IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.

ABBREVIATIONS:

AFF	ABOVE FINISHED FLOOR	HT	HEIGHT
ARCH	ARCHITECT	HVY	HEAVY
BD	BAR DIAMETER	INT	INTERIOR
BF	BRACED FRAME	JBE	JOIST BEARING ELEVATION
BEJ	BUILDING EXPANSION JOINT	JT	JOINT
BLDG	BUILDING	KCJ	KEYED CONSTRUCTION JOINT
BM	BEAM	L	LOW
BOD	BOTTOM OF DECK	LLH	LONG LEG HORIZONTAL
BOT, B	BOTTOM	LLV	LONG LEG VERTICAL
BRG	BEARING	LSH	LONG SIDE HORIZONTAL
BTWN	BETWEEN	LSV	LONG SIDE VERTICAL
C TO C	CENTER TO CENTER	LTWT	LIGHTWEIGHT
CFMF	COLD-FORMED METAL FRAMING	LWC	LIGHTWEIGHT CONCRETE
		MAS	MASONRY
CIP	CAST-IN-PLACE	MATL	MATERIAL
CJ	CONTROL JOINT	MAX	MAXIMUM
CL	CENTERLINE	MECH	MECHANICAL
CLR	CLEAR	MF	MOMENT FRAME
CLT	CROSS-LAMINATED TIMBER	MFR	MANUFACTURER
CMU	CONCRETE MASONRY UNIT	MID	MIDDLE
COL	COLUMN	MIN	MINIMUM
CONC	CONCRETE	MOD	MODIFY
CONN	CONNECTION	MOS	MIDDEPTH OF SLAB
CONSTR	CONSTRUCTION	NOM	NOMINAL
CONT	CONTINUOUS	NTS	NOT TO SCALE
COORD	COORDINATE	OC	ON CENTER
CTR	CENTER	OPH	OPPOSITE HAND
CTRD	CENTERED	OPNG	OPENING
DBA	DEFORMED BAR ANCHOR	PAF	POWDER ACTUATED FASTENER
DBL	DOUBLE		
DC	DIAPHRAGM CHORD	PAR	PARALLEL
DCJ	DOWELED CONSTRUCTION JOINT	PC	PIECE
		PEMB	PRE-ENGINEERED METAL BUILDING
DIA, Ø	DIAMETER		
DJ	DOUBLE JOIST	PEN	PENETRATE, PENETRATION
DWGS	DRAWINGS	PERP	PERPENDICULAR
EA	EACH	PL	PLATE
EF	EACH FACE	PT	PRESERVATIVE TREATED
EJ	EXPANSION JOINT	R	RADIUS
EL	ELEVATION	REF	REFERENCE, REFER TO
ELEV	ELEVATOR	REINF	REINFORCE, REINFORCED, REINFORCING
EMBED	EMBEDMENT		
EOD	EDGE OF DECK	REQD	REQUIRED
EOS	EDGE OF SLAB	REQMTS	REQUIREMENTS
EQ	EQUAL	SCHED	SCHEDULE
EW	EACH WAY	SF	STEPPED FOOTING
EXIST	EXISTING	SGB	STEPPED GRADE BEAM
EXP	EXPANSION	SIM	SIMILAR
EXT	EXTERIOR	SJ	SAWED JOINT
FD	FLOOR DRAIN	SL	SLOPE
FDN	FOUNDATION	SOG	SLAB-ON-GRADE
FO	FACE OF	SPF	SIDEPLATE FRAME
FF EL	FINISHED FLOOR ELEVATION	STD	STANDARD
		SW	SHEAR WALL
FIN	FINISH	TBE	TRUSS BEARING ELEVATION
FIN FLR	FINISHED FLOOR	T&B	TOP & BOTTOM
FOB	FACE OF BUILDING	T&G	TONGUE AND GROOVE
FOC	FACE OF CONCRETE	THK	THICKNESS
FOM	FACE OF MASONRY	TOC	TOP OF CONCRETE
FOS	FACE OF SLAB/ STUD	TOF	TOP OF FOOTING
FRMG	FRAMING	TOM	TOP OF MASONRY
FTG	FOOTING	TOCP	TOP OF CONCRETE PEDESTAL
FV, ±	FIELD VERIFY	TOS	TOP OF STEEL
GALV	GALVANIZED	TS	THICKENED SLAB
GEN	GENERAL	TS/STR	THICKENED SLAB AT STAIR
GLB	GLULAM BEAM	TYP	TYPICAL
GR BM	GRADE BEAM	UON	UNLESS OTHERWISE NOTED
H	HIGH	VERT	VERTICAL
HK	HOOK	W/	WITH
HORIZ	HORIZONTAL	WP	WORKING POINT
HSS	HOLLOW STRUCTURAL SECTION	WSP	WOOD STRUCTURAL PANEL(S)
		WWR	WELDED WIRE REINFORCING
HSA	HEADED STUD ANCHOR		

PLAN LEGEND:

- (X) = COLUMN GRID MARK
- [X] = PLAN KEY NOTE MARK
- X / SX = SECTION/DETAIL NUMBER/LETTER = SECTION/DETAIL MARK; SHEET NUMBER WHERE SECTION/DETAIL MARK IS DRAWN
- X / SX|SX = SECTION/DETAIL NUMBER/LETTER = SECTION/DETAIL MARK; SHEET NUMBER WHERE SECTION/DETAIL MARK IS DRAWN; SHEET NUMBER WHERE SECTION/DETAIL MARK IS CUT
- ± = FIELD VERIFY
- SL = DIRECTION OF SLOPE
- = CHANGE IN ELEVATION
- = CHANGE IN SLOPE
- X'-X" = TOP OF SLAB ELEVATION MEASURED FROM REFERENCED FINISHED FLOOR ELEVATION = 0'-0"
- [X'-X"] = PRESUMED FINISH GRADE - VERIFY VALUE WITH FINAL SITE PLAN AND NOTIFY ENGINEER OF ANY DISCREPANCIES
- SF, PIPE = PIPE CROSSING FOOTING
- = SLAB-ON-GRADE JOINT
- WFX = WALL FOOTING MARK
- CFX = COLUMN FOOTING MARK
- (-X'-X") = TOP OF FOOTING ELEVATION MEASURED FROM REFERENCED FINISHED FLOOR ELEVATION = 0'-0"
- = BEARING WALL
- = BEARING WALL (FLOOR BELOW)
- = CMU SHEARWALL

- BOD = +X'-X" = BOTTOM OF DECK ELEVATION MEASURED FROM REFERENCED FINISHED FLOOR ELEVATION = 0'-0"
- GBE = +X'-X" = BOTTOM OF GLULLAM BEAM ELEVATION MEASURED FROM REFERENCED FINISHED FLOOR ELEVATION = 0'-0"
- TOS = +X'-X" = TOP OF STEEL ELEVATION MEASURED FROM REFERENCED FINISHED FLOOR ELEVATION = 0'-0"
- TOM = +X'-X" = TOP OF MASONRY ELEVATION MEASURED FROM REFERENCED FINISHED FLOOR ELEVATION = 0'-0"
- RTU-X XXXX# = MECHANICAL UNIT SUPPORTED ABOVE FRAMING (WEIGHT IN POUNDS) - COORD W/ MECH DWGS
- RTU-X XXXX# = MECHANICAL UNIT SUPPORTED BELOW FRAMING (WEIGHT IN POUNDS) - COORD W/ MECH DWGS
- = FLOOR / ROOF OPENING
- = WARP LINE OF ROOF DECK
- = MOMENT CONNECTION
- = BEAM SPLICE
- KB = KNUCKLED BEAM
- BBPX = BEAM BEARING PLATE MARK
- = MAJOR STRENGTH DIRECTION FOR CLT PANELS

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Corporation No. C-4360

CORPORATE SEAL

PROFESSIONAL SEAL

06 / 07 / 2024

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

GENERAL NOTES

S-002

DESIGN: NZ
DRAWN: JSR
REVIEW:

CN 10145

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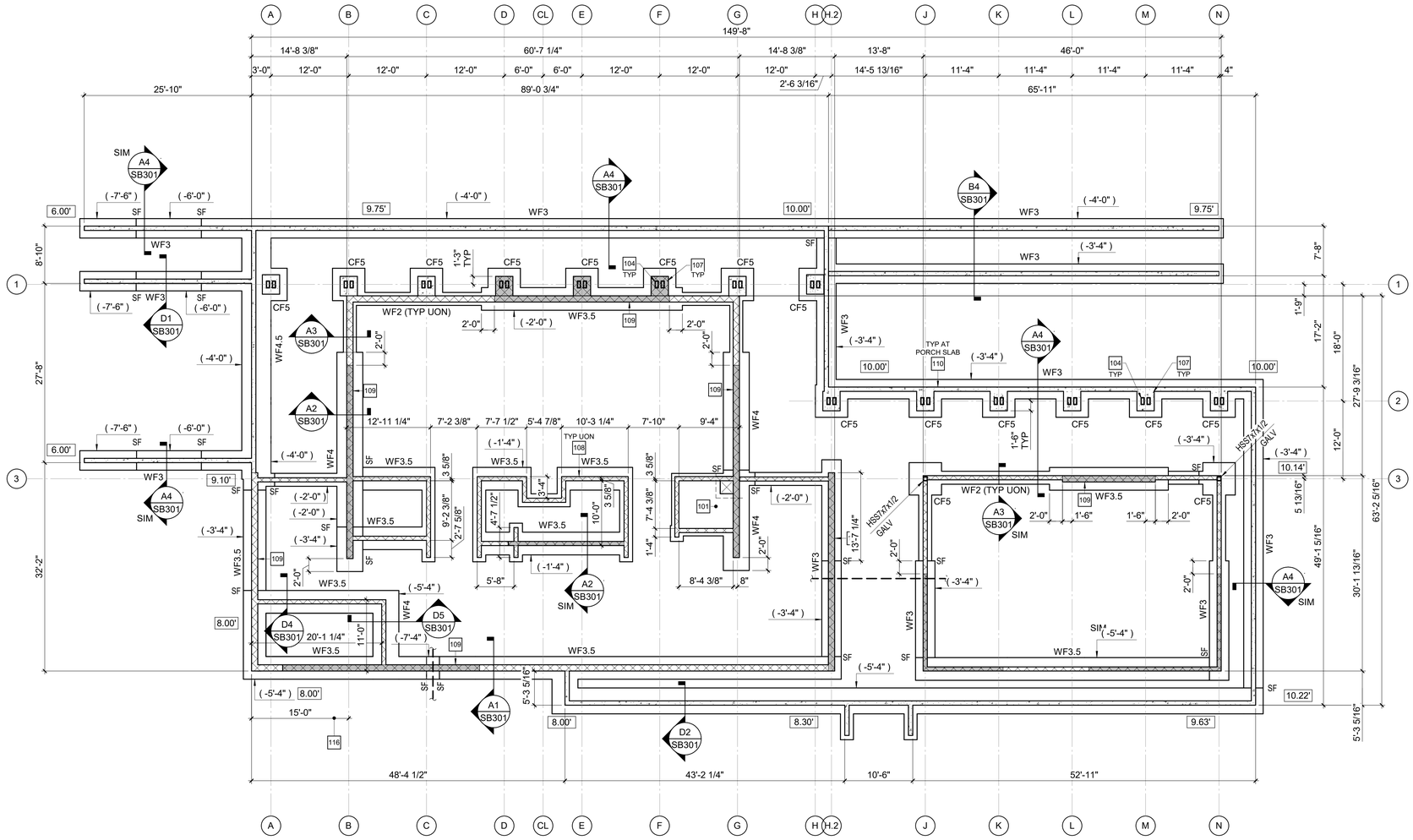
COLUMN FOOTING SCHEDULE

MARK	SIZE			REINFORCING		REMARKS
	LENGTH	WIDTH	DEPTH	BOTTOM	TOP	
CF5	5' - 0"	5' - 0"	1'-4"	(5) #5 EW	(5) #5 EW	-

WALL FOOTING SCHEDULE

MARK	SIZE		REINFORCING		REMARKS
	WIDTH	DEPTH	CONTINUOUS	TRANSVERSE	
WF2	2' - 0"	1'-4"	(3) #5 T&B	-	-
WF3	3' - 0"	1'-4"	(4) #5 T&B	#5 AT 12" OC T&B	-
WF3.5	3' - 6"	1'-4"	(4) #5 T&B	#5 AT 12" OC T&B	-
WF4	4' - 0"	1'-8"	(5) #5 T&B	#5 AT 12" OC T&B	-
WF4.5	4' - 6"	1'-8"	(5) #5 T&B	#5 AT 12" OC T&B	RETAINING WALL - REF SECTIONS FOR REINF



PLAN NORTH

B1 FOUNDATION PLAN

1/8" = 1'-0"

GENERAL NOTES

A. REFERENCE ARCHITECTURAL DRAWINGS FOR DIMENSIONS TO NONBEARING WALLS, WALL CONTROL JOINTS AND OPENINGS.

B. UNLESS OTHERWISE NOTED, ALL ELEVATIONS ARE BASED ON A FINISHED FIRST FLOOR REFERENCE OF 0'-0". ACTUAL FINISHED FLOOR ELEVATION IS 12.25'. FINISHED FLOOR ELEVATIONS AT EACH LEVEL ARE INDICATED ON SLAB PLANS. REFERENCE ARCHITECTURAL DRAWINGS FOR FINISHED FLOOR MATERIALS.

C. TOP OF ALL FOOTINGS MUST BE AT ELEVATION -1'-4" UNLESS OTHERWISE NOTED.

D. NOT ALL UTILITY LOCATIONS ARE SHOWN ON PLAN. THE CONTRACTOR MUST COORDINATE THE LOCATIONS, SIZES, AND INVERTS OF UTILITIES. AT LOCATIONS WHERE UTILITIES PASS BELOW THE TOP OF FOOTING ELEVATION, STEP THE TOP OF FOOTING DOWN ON EACH SIDE PER THE "STEPPED FOOTING DETAIL" AND SLEEVE THE UTILITY THROUGH THE FOUNDATION WALL. ALL PENETRATIONS IN MASONRY WALLS GREATER THAN 1'-4" REQUIRE A BOND BEAM LINTEL. WHERE UTILITIES RUN AT LEAST 12" BELOW FOUNDATIONS. REFERENCE TYPICAL PIPE SLEEVE BELOW WALL FOOTING DETAIL.

E. UNLESS OTHERWISE INDICATED, EXTEND WALL FOOTINGS A MINIMUM OF 6 INCHES BEYOND ENDS OF WALLS.

F. CONTRACTOR MUST COORDINATE CIVIL AND LANDSCAPE DRAWINGS FOR SITE WALL INFORMATION.

G. DIMENSIONS SHOWN ON FOUNDATION PLAN ARE TO COLUMN GRIDLINES AND OUTSIDE FACE OF FOUNDATION WALLS, UNLESS OTHERWISE NOTED.

KEY NOTES

101 ELEVATOR PIT & SQUARE SUMP PIT FOR ELEVATOR. REFER TO THE "TYPICAL ELEVATOR PIT DETAIL" & THE "ELEVATOR SUMP PIT DETAIL" ON SHEET SB501. COORDINATE DIMENSIONS WITH THE ARCHITECTURAL DRAWINGS, PLUMBING DRAWINGS & THE ELEVATOR MANUFACTURER.

104 (2) 5.5 x 12.375 GLULAM COLUMN. PROVIDE 5 1/2" GAP BETWEEN COLUMNS WHERE BEAM WILL FALL.

107 2'-8" x 3'-0" CONCRETE PEDESTAL. TOP OF PEDESTAL ELEVATION = 0'-0". REFER TO "TYPICAL CONCRETE PEDESTAL DETAIL" SHEET SB501.

108 8" CMU WALL.

109 12" CMU WALL.

110 8" CONCRETE WALL.

116 WALL REINFORCING TO BE #5 VERTICAL EACH FACE OF WALL AT 8" OC WITH DOWELS TO MATCH, OVER THIS LENGTH OF WALL.

GRAPHIC SCALE(S)

1/8" = 1' - 0" 0 5' 10' 15' 30'

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CORPORATE SEAL

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PROFESSIONAL SEAL

NORTH CAROLINA PROFESSIONAL SEAL 052473 ENGINEER NICOLE C. ZECHMAN
06/07/2024

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JUNE 7, 2024
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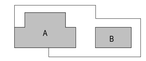
REVISIONS

KEY PLAN



SHEET

FOUNDATION PLAN

SB101

DESIGN: NZ
DRAWN: JSR
REVIEW:

CN 10145

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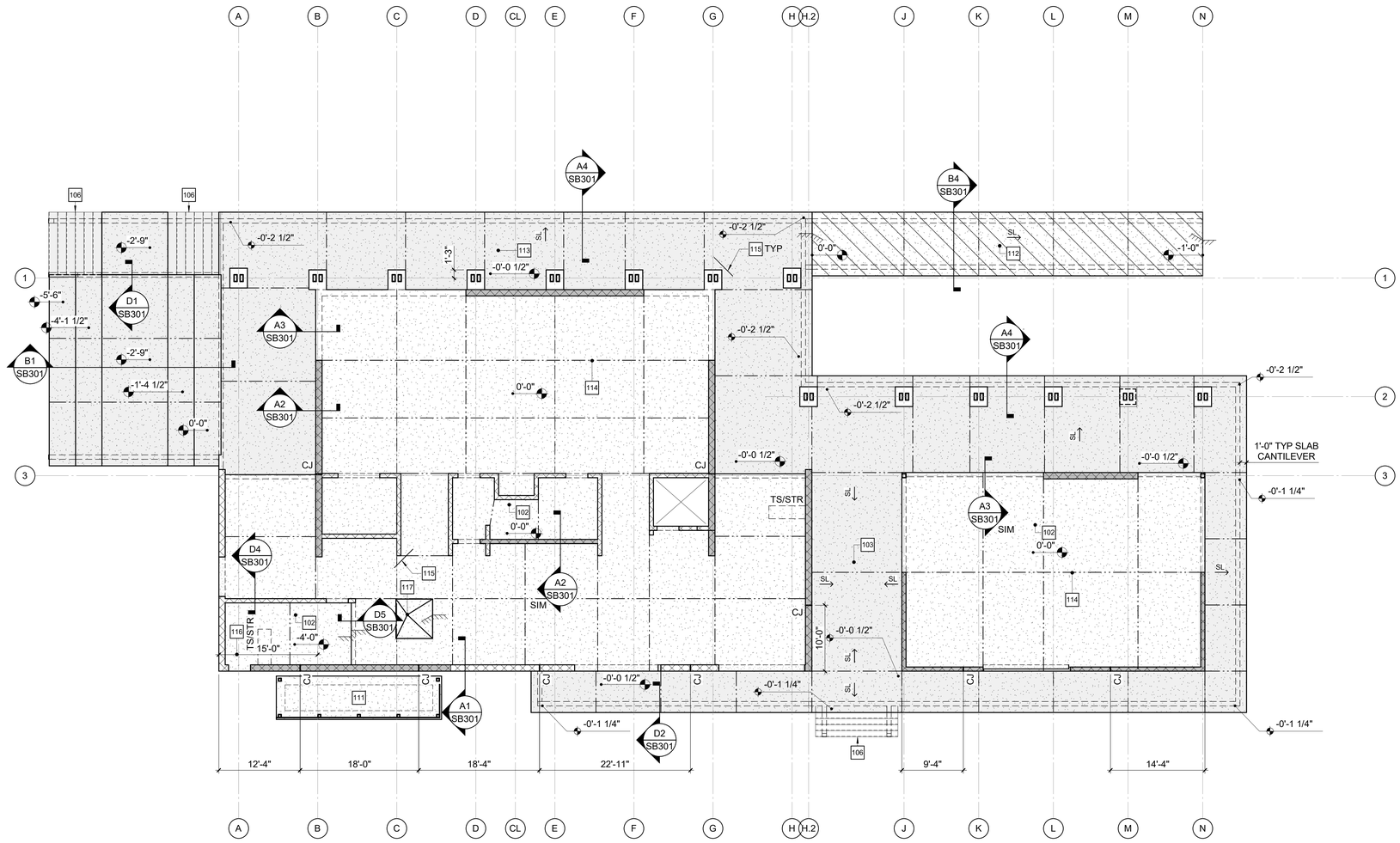

PLAN NORTH

B1 SLAB PLAN

1/8" = 1'-0"

GENERAL NOTES

A. REFERENCE ARCHITECTURAL DRAWINGS FOR DIMENSIONS TO NONBEARING WALLS, WALL CONTROL JOINTS AND OPENINGS.

B. UNLESS OTHERWISE NOTED, ALL ELEVATIONS ARE BASED ON A FINISHED FIRST FLOOR REFERENCE OF 0'-0". ACTUAL FINISHED FLOOR ELEVATION IS 12.25'. FINISHED FLOOR ELEVATIONS AT EACH LEVEL ARE INDICATED ON SLAB PLANS. REFERENCE ARCHITECTURAL DRAWINGS FOR FINISHED FLOOR MATERIALS.

C. REFERENCE ARCHITECTURAL DRAWINGS FOR EXACT LIMITS OF SLAB DEPRESSIONS AND OMITTED SLABS.

D. FLOOR SINKS AND DRAINS ARE NOT SHOWN ON PLAN. REFERENCE PME DRAWINGS FOR LOCATIONS.

E. REFERENCE CIVIL AND LANDSCAPE DRAWINGS FOR EXTERIOR CONCRETE SLABS AND PAVING NOT SHOWN ON PLAN.

F. SLAB-ON-GRADE JOINTS MUST BE SAWED JOINTS OR KEYED CONSTRUCTION JOINTS, UNLESS OTHERWISE NOTED. CONTRACTOR MUST COORDINATE ALL SLAB JOINTS WITH JOINTS IN BONDED FLOOR FINISHES. REFERENCE ARCHITECTURAL DRAWINGS FOR FLOOR FINISH JOINT LOCATIONS.

G. PLACE (1) #4 x 3'-0" IN MIDDLE OF SLAB AT RE-ENTRANT CORNERS WHERE A SLAB JOINT DOES NOT OCCUR.

KEY NOTES

102 4" CONCRETE SLAB-ON-GRADE OVER VAPOR RETARDER AND 4" DEPTH OF POROUS FILL UNLESS OTHERWISE INDICATED. REINFORCE SLAB WITH 6x6-W2.1xW2.1 WELDED WIRE REINFORCING PLACED 1" CLEAR BELOW TOP OF SLAB. MAINTAIN REINFORCEMENT IN POSITION ON BOLSTERS, CHAIRS OR SPACERS DURING CONCRETE PLACEMENT.

103 PORCH SLAB. 6" CONCRETE SLAB-ON-GRADE OVER 4" DEPTH OF POROUS FILL UNLESS OTHERWISE INDICATED. REINFORCE SLAB WITH #4 BARS AT 12" OC (MAXIMUM) EACH WAY PLACED 2" CLEAR BELOW TOP OF SLAB. MAINTAIN REINFORCEMENT IN POSITION ON BOLSTERS, CHAIRS OR SPACERS DURING CONCRETE PLACEMENT.

106 CONCRETE SLAB-ON-GRADE STAIR. REFER TO "TYPICAL CONCRETE STAIR-ON-GRADE DETAIL" ON SHEET SB502.

111 EXTERIOR EQUIPMENT PAD & SCREEN WALL. REFER TO "TYPICAL EXTERIOR EQUIPMENT PAD DETAIL" ON SHEET SB502. COORDINATE LOCATION WITH THE ARCHITECTURAL & MECHANICAL DRAWINGS. SCREEN WALL POSTS SHOWN ARE SCHEMATIC - REFER TO THE ARCHITECTURAL DRAWINGS FOR POST LOCATIONS. REFER TO SCREEN WALL MANUFACTURER'S REQUIREMENTS FOR ANCHORAGE TO EQUIPMENT PAD.

112 RAMP SLAB. 6" CONCRETE SLAB-ON-GRADE OVER 4" DEPTH OF POROUS FILL UNLESS OTHERWISE INDICATED. REINFORCE SLAB WITH #4 BARS AT 12" OC (MAXIMUM) EACH WAY PLACED 2" CLEAR BELOW TOP OF SLAB. MAINTAIN REINFORCEMENT IN POSITION ON BOLSTERS, CHAIRS OR SPACERS DURING CONCRETE PLACEMENT.

113 EXTERIOR SLAB TO STEP DOWN SLIGHTLY - REFER TO ARCHITECTURAL DRAWINGS.

114 SAWCUT CONTROL JOINTS. REFER TO TYPICAL DETAILS ON SB502.

115 RE-ENTRANT BARS. NOT ALL LOCATIONS ARE SHOWN. REFER TO TYPICAL DETAILS ON SB502.

116 WALL REINFORCING TO BE #5 VERTICAL EACH FACE OF WALL AT 8" OC WITH DOWELS TO MATCH, OVER THIS LENGTH OF WALL.

117 SLOPE SLAB TO FLOOR DRAIN. COORDINATE EXACT LOCATION, DEPTH & EXTENTS WITH THE ARCHITECTURAL & PLUMBING DRAWINGS.

GRAPHIC SCALE(S)

1/8" = 1' - 0" 0 5' 10' 15' 30'

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145
SCD ID # : 24-27956-01A

DESIGNER

CLARKNEXSEN

421 NORTH HARRINGTON STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27603
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CONSULTANT

lynchmykins
CALCULATE. COLLABORATE. CREATE.

Structural Engineers
1701 N. Graham St., Suite 103
Charlotte, NC 28206
980.353.5709 - lynchmykins.com
LM Project Number: LM23.081
Corporation No. C-4360

CORPORATE SEAL

NORTH CAROLINA CORPORATION C-4360 ENGINEERING LYNCHMYKINS CONSULTING STRUCTURAL ENGINEERS NOT TRANSFERABLE

PROFESSIONAL SEAL

NORTH CAROLINA PROFESSIONAL SEAL 052473 ENGINEER NICOLE C. ZECHMAN

06/07/2024

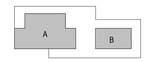
SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN



SHEET

SLAB PLAN

SB102

DESIGN: NZ
DRAWN: JSR
REVIEW:

CN 10145

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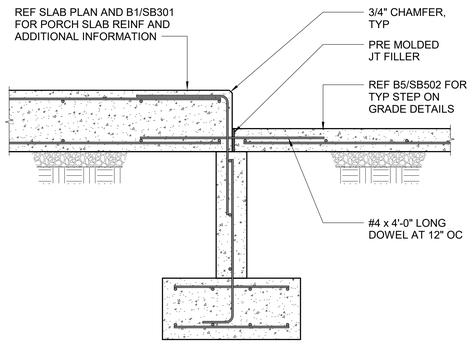
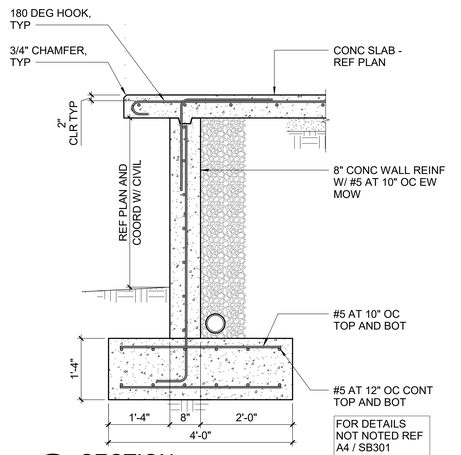


D1 SECTION
3/4" = 1'-0"



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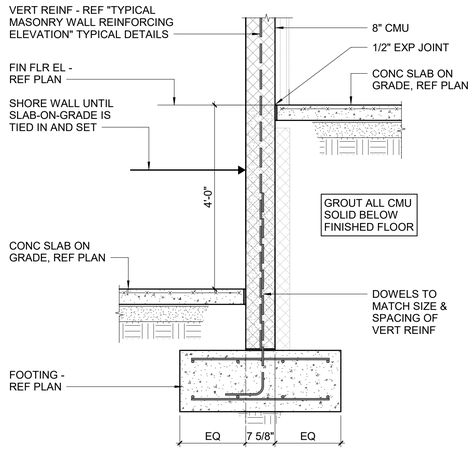

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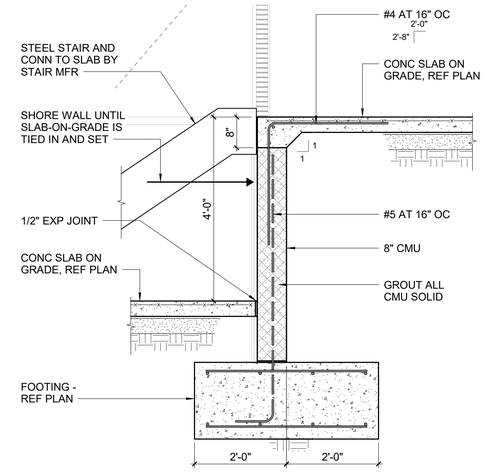

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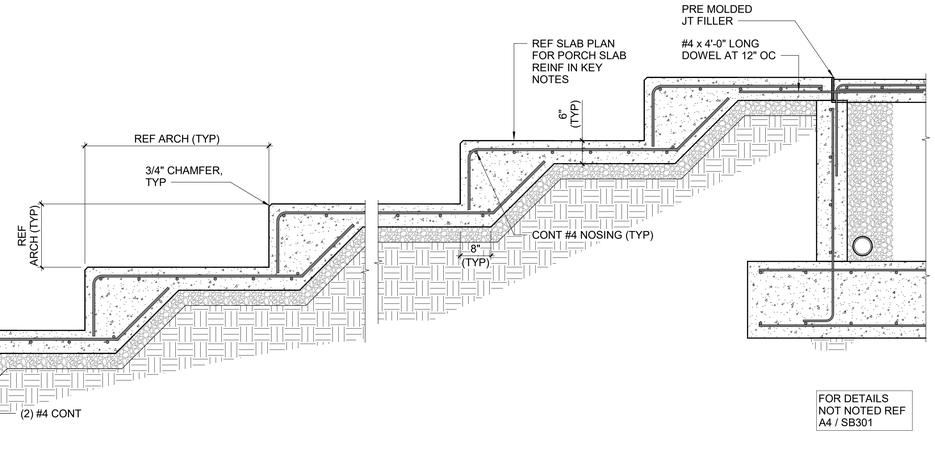

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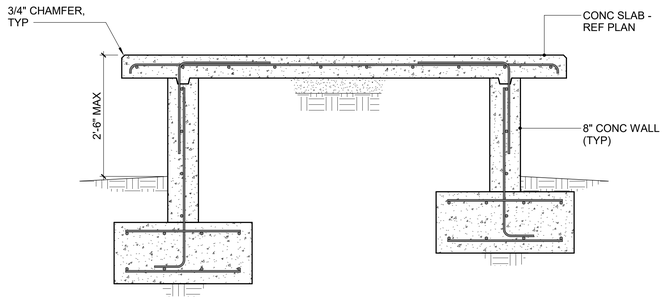

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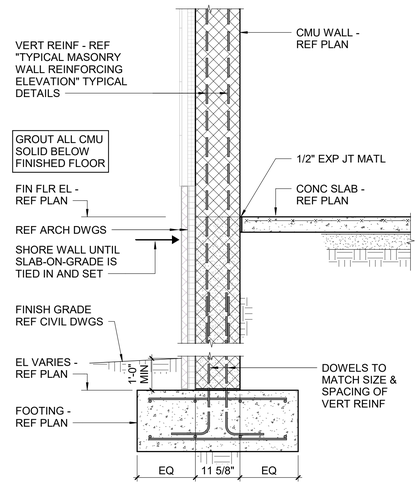

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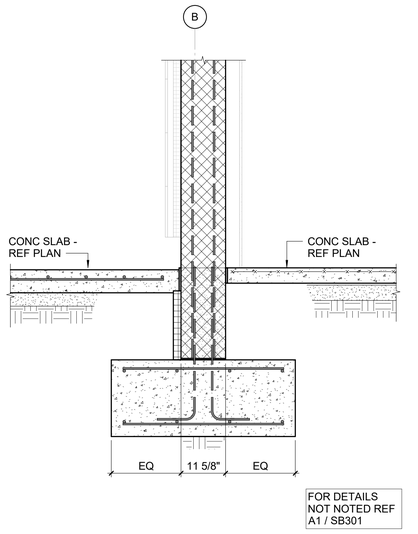

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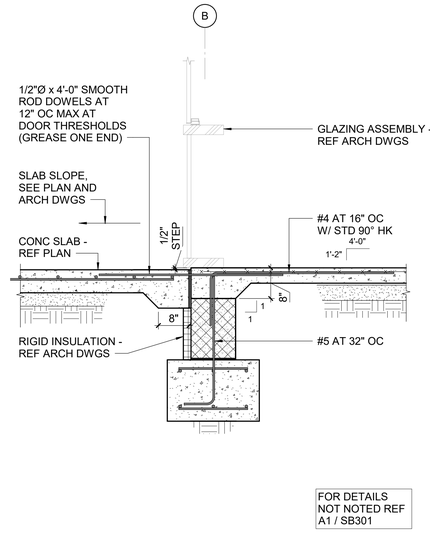

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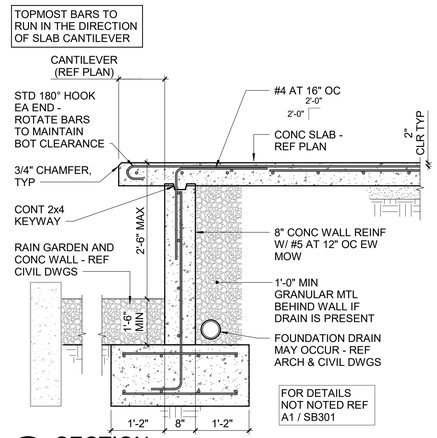

A4 SECTION
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LM Project Number: LM23.081
Corporation No. C-4360

CORPORATE SEAL

NORTH CAROLINA PROFESSIONAL ENGINEERING SEAL C-4360 LYNCH MYKINS STRUCTURAL ENGINEERS NOT VALID WITHOUT ELECTRONIC SIGNATURE

PROFESSIONAL SEAL

NORTH CAROLINA PROFESSIONAL SEAL 052473 ENGINEER NICOLE C. ZECHMAN

06 / 07 / 2024

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

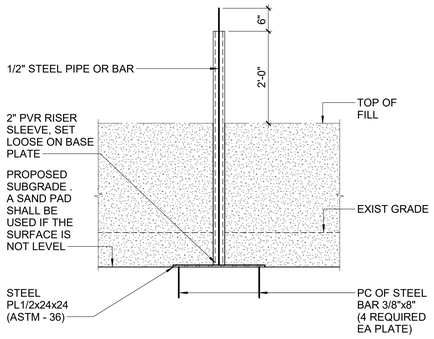
SHEET

FOUNDATION SECTIONS

SB301

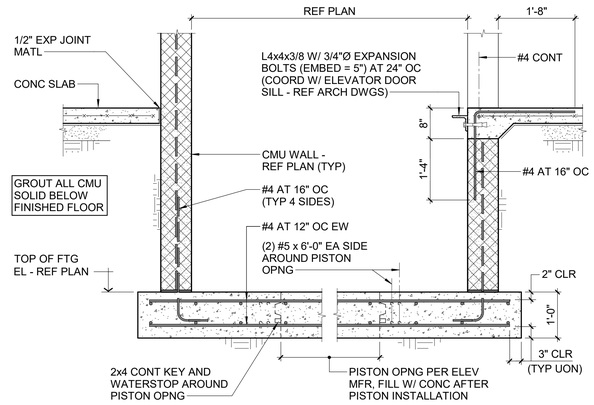
DESIGN: NZ
DRAWN: JSR
REVIEW:

CN 10145

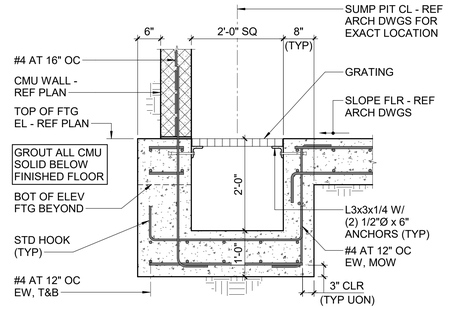


NOTE: PLATE, PIPE, AND RISER SLEEVE MUST BE PROTECTED BY BARRICADES OR OTHER DEVICES. DAMAGED OR DISTURBED SETTLEMENT PLATES AND PIPES SHALL BE REPLACED IMMEDIATELY BY INSTALLING A NEW PLATE IN THE SAME AREA, AND MONITORED BY THE GEOTECHNCAL ENGINEER ON SITE

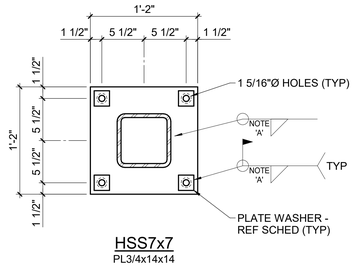
D1 TYPICAL SETTLEMENT PLATE DETAIL
NTS



C1 TYPICAL ELEVATOR PIT DETAIL
NTS



C2 ELEVATOR SUMP PIT DETAIL
NTS



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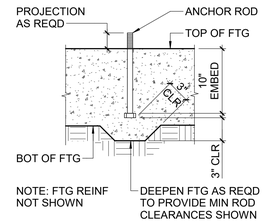
PL3/4x14x14

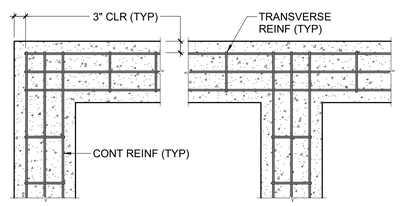


ANCHOR ROD

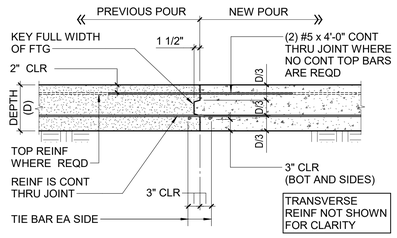
PLATE WASHER SCHEDULE			
ANCHOR ROD	SIZE	HOLE DIAMETER	THICKNESS
3/4"Ø	2" SQ	1 5/16"	1/4"

NOTE:
A. PROVIDE MINIMUM SIZE WELD PER AISC TABLE J2.4.
B. AT THE GENERAL CONTRACTOR'S OPTION, WHEN BASE PLATES ARE LESS THAN 1 1/4" THICK, USE 1 1/16"Ø PUNCHED HOLES FOR 3/4"Ø RODS WITH STD ASTM F844 WASHERS IN LIEU OF PLATE WASHERS.

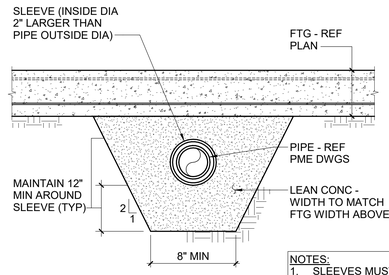
C4 BASE PLATE & ANCHOR ROD DETAILS
NTS



B1 TYPICAL WALL FOOTING CORNER & INTERSECTION DETAILS
NTS



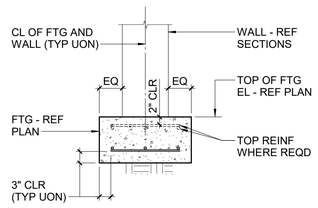
B2 TYPICAL WALL FOOTING CONSTRUCTION JOINT DETAIL
NTS



BELOW FOOTING

NOTES:
1. SLEEVES MUST NOT BE LOCATED IN OR UNDER COL FTGS.
2. TRANSVERSE REINFORCING NOT SHOWN FOR CLARITY.

B3 TYPICAL PIPE SLEEVE BELOW WALL FOOTING DETAIL
NTS



A1 TYPICAL WALL FOOTING DETAIL
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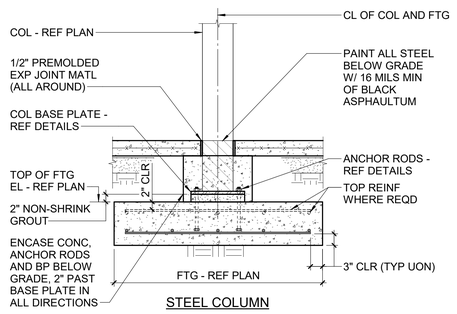
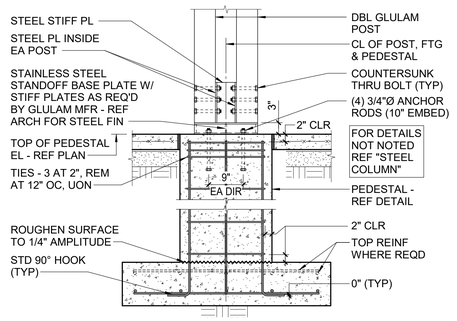


STEEL COLUMN



WOOD POST W/ CONCRETE PEDESTAL

A2 TYPICAL COLUMN & WOOD POST FOOTING DETAILS
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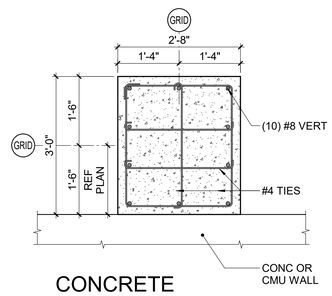

A4 CONCRETE PEDESTAL DETAIL
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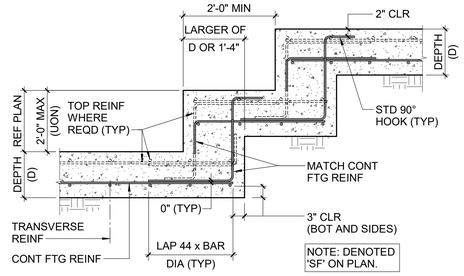

A5 TYPICAL STEPPED WALL FOOTING DETAIL
NTS

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

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SCO ID # : 24-27956-01A

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CORPORATE SEAL

PROFESSIONAL SEAL

SUBMITTAL
JUNE 7, 2024
BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET
FOUNDATION TYPICAL DETAILS

SB501

DESIGN: NZ
DRAWN: JSR
REVIEW:
CN 10145

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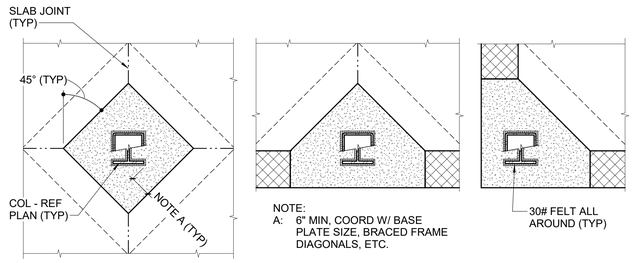

C1 TYPICAL COLUMN ISOLATION JOINT DETAIL
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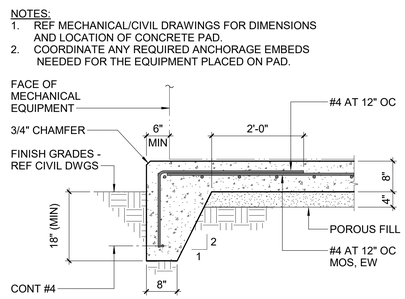

C3 TYPICAL EXTERIOR EQUIPMENT PAD DETAIL
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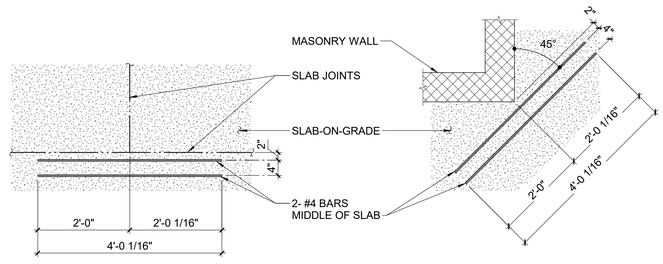

C5 TYPICAL CONTROL JOINT DETAIL
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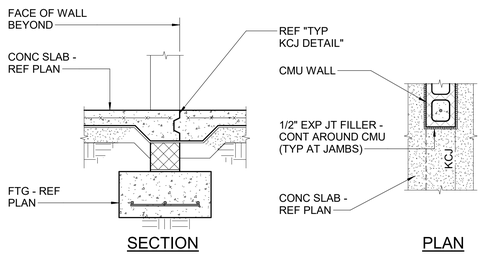

B1 TYPICAL DETAIL AT INTERIOR DOOR OPENINGS
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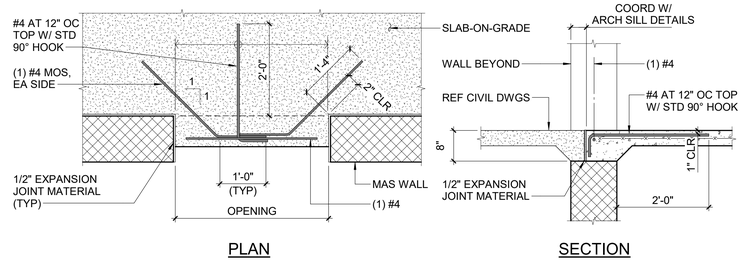

B2 TYPICAL EXTERIOR DOORS / OPENINGS DETAIL
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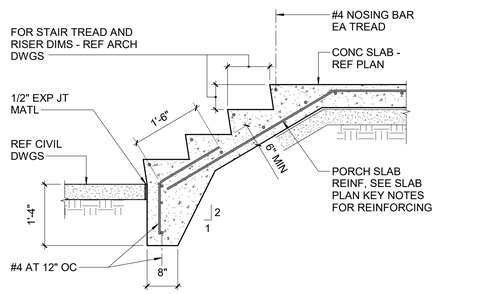

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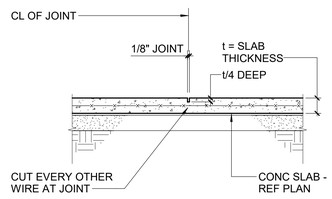

A1 TYPICAL CONTROL JOINT DETAIL
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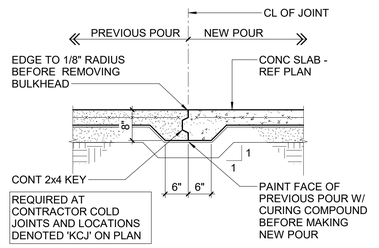

A2 TYPICAL KEYED CONSTRUCTION JOINT DETAIL
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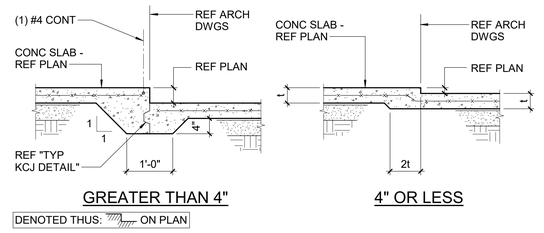
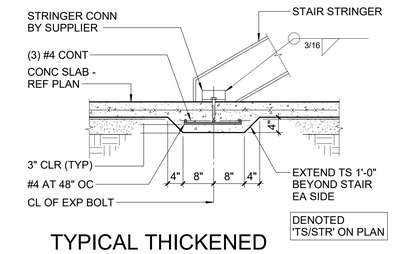


A3 TYPICAL DEPRESSED SLAB DETAILS
NTS



A5 TYPICAL THICKENED SLAB AT STAIR LANDING DETAIL
NTS

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PROFESSIONAL SEAL

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JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

FOUNDATION TYPICAL DETAILS

SB502

DESIGN: NZ
DRAWN: JSR
REVIEW:

CN 10145

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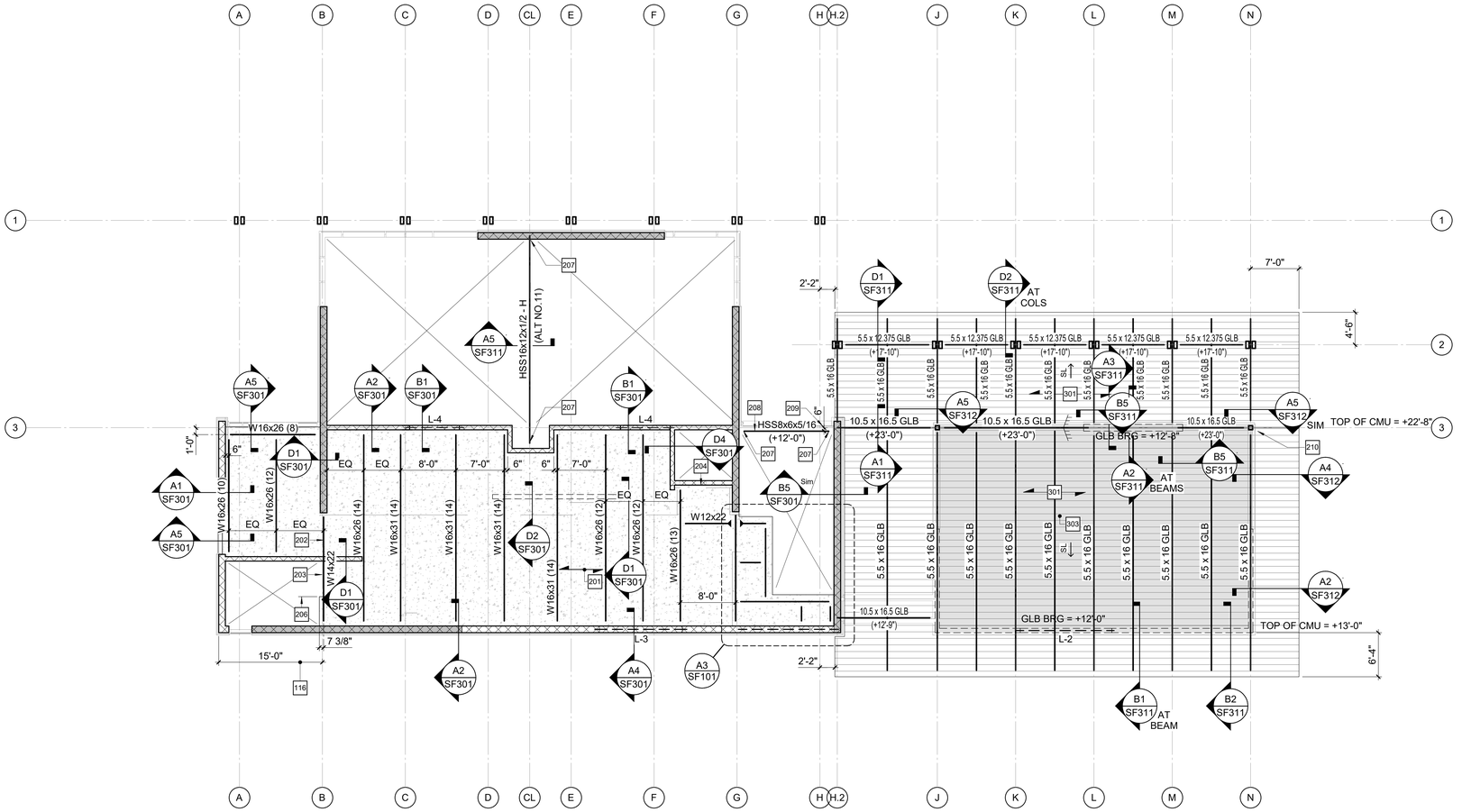
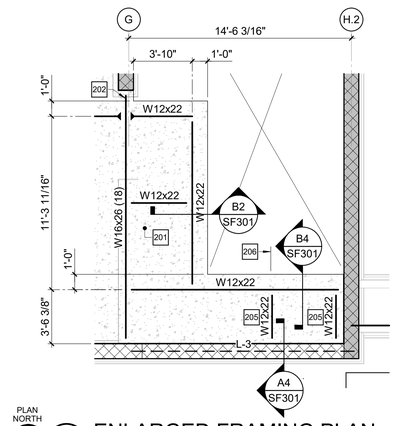


PLAN NORTH

B1 SECOND FLOOR & LOW ROOF FRAMING PLAN

1/8" = 1'-0"



PLAN NORTH

A3 ENLARGED FRAMING PLAN

1/4" = 1'-0"

GENERAL NOTES

A. REFERENCE FOUNDATION PLAN AND ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT SHOWN.

B. TOP OF FINISHED SECOND FLOOR ELEVATION MUST BE +12'-0".

C. COMPOSITE STEEL BEAM FRAMING MUST BE EQUALLY SPACED BETWEEN POINTS OF KNOWN DIMENSIONS (NOT TO EXCEED 10'-0" ON-CENTER).

D. CONCRETE ON ELEVATED METAL DECKS MUST BE POURED TO THE THICKNESS INDICATED. A MAXIMUM OF 1/2" ADDITIONAL CONCRETE BEYOND SPECIFIED THICKNESS IS PERMITTED.

E. CONCRETE MUST BE PLACED TO FINISHED FLOOR ELEVATION. ANTICIPATED FRAMING DEFLECTIONS UNDER WET WEIGHT OF CONCRETE PLUS 20 PSF CONSTRUCTION LIVE LOAD HAVE BEEN DENOTED ON THIS SHEET THUS (X").

F. CONTRACTOR MUST INCLUDE IN THEIR BID THE COST TO PLACE THE SLAB TO FINISHED FLOOR ELEVATION ACCOUNTING FOR ANTICIPATED SLAB AND BEAM DEFLECTIONS.

G. COORDINATE AND VERIFY ALL MEMBER LOCATIONS, DIMENSIONS, WEIGHTS, OPENING SIZES, AND CURB DIMENSIONS FOR ALL MECHANICAL EQUIPMENT WITH THE ACTUAL EQUIPMENT FURNISHED. INCLUDE THIS INFORMATION ON THE JOIST AND STRUCTURAL STEEL SHOP DRAWINGS.

H. CORDINATE ALL ROOF OVERHANG DIMENSIONS WITH THE ARCHITECTURAL DRAWINGS.

I. ALL GLULAM FRAMING AND CLT MUST BE PRESERVATIVE TREATED. REFER TO THE SPECIFICATIONS.

J. ALL FASTENERS MUST BE STAINLESS STEEL. REFER TO THE GENERAL NOTES.

KEY NOTES

116 WALL REINFORCING TO BE #5 VERTICAL EACH FACE OF WALL AT 8" OC WITH DOWELS TO MATCH, OVER THIS LENGTH OF WALL.

201 3" NORMAL WEIGHT CONCRETE SLAB ON 2" COMPOSITE METAL DECK (5" TOTAL) REINFORCED WITH 6x6-W2.1xW2.1 WELDED WIRE REINFORCING LOCATED 1" CLEAR BELOW TOP OF SLAB. DECK IS DESIGNED FOR A 3-SPAN CONDITION. DECK MANUFACTURER SHALL VERIFY SPAN CONDITION AND INCREASE DECK GAUGE AS REQUIRED FOR FOR 2-SPAN CONDITIONS.

202 BEAM BEARING INTO CENTER OF MASONRY WALL. REFER TO "TYPICAL STEEL BEAM BEARING ON MASONRY DETAILS" ON SHEET SF501.

203 REFER TO "TYPICAL STEEL STAIR SUPPORT DETAIL" ON SHEET SF502.

204 REFER TO "TYPICAL SLAB EDGE AT ELEVATOR DOOR DETAIL" ON SHEET SF502.

205 BEAM TO ALIGN WITH STAIR STRINGERS. COORDINATE LOCATION WITH THE ARCHITECTURAL DRAWINGS.

206 COORDINATE WITH THE ARCHITECTURAL DRAWINGS FOR THE EXTENT OF THE INITIAL SLAB EDGE.

207 PROVIDE 1/4" HSS END CAP AND BEAR ON CMU WALL SIMILAR TO "TYPICAL STEEL BEAM BEARING ON CMU DETAILS" ON SHEET SF501.

208 LATERAL CONNECTION TO BE PROVIDED BY CURTAIN WALL MANUFACTURER TO HSS.

209 6" FROM FACE OF GLAZING.

210 GLULAM GIRDER CANTILEVERS OVER TOP OF COLUMN.

301 CROSS LAMINATED TIMBER DECKING WITH A 3-ALT (4 1/8") LAYUP. LUMBER SPECIES SHALL BE SL-V4 OR GREATER STRENGTH. PANEL LAYOUT MUST BE COORDINATED WITH CROSS LAMINATED TIMBER SUPPLIER. PRODUCT DATA AND PANEL LAYOUT SHOP DRAWINGS TO ENGINEER FOR REVIEW & APPROVAL PRIOR TO FABRICATION.

303 SHADED AREA DENOTES PORTION OF ROOF DESIGNED FOR AN ADDITIONAL 5 PSF DUE TO POTENTIAL FUTURE PHOTOVOLTAIC PANELS.

GRAPHIC SCALE(S)

1/4" = 1' - 0" 0 1' 5' 10' 15'

1/8" = 1' - 0" 0 5' 10' 15' 30'

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145
SCD ID # : 24-27956-01A

DESIGNER

CLARKNEXSEN
421 NORTH HARRINGTON STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27603
919-828-1876

CONSULTANT

lynchmykins
CALCULATE. COLLABORATE. CREATE.
Structural Engineers
1701 N. Graham St., Suite 103
Charlotte, NC 28206
980.353.5709 - lynchmykins.com
LM Project Number: LM23.081
Corporation No. C-4360

CORPORATE SEAL

NORTH CAROLINA PROFESSIONAL SEAL C-4360 ENGINEERING LYNCH MYKINS STRUCTURAL ENGINEERS, P.A. NOT VALID WITHOUT ORIGINAL SIGNATURE

PROFESSIONAL SEAL

NORTH CAROLINA PROFESSIONAL SEAL 052473 ENGINEER WOJCIECH C. ZECHMAN

06/07/2024

SUBMITTAL

JUNE 7, 2024
BID DOCUMENTS

REVISIONS

KEY PLAN

A B

SHEET

SECOND FLOOR & LOW ROOF FRAMING PLAN

SF101

DESIGN: NZ
DRAWN: JSR
REVIEW:

CN 10145

6/10/2024 1:40:43 PM
Autodesk Docs://Maritime Education Center/10145_Maritime Education Center_S23.rvt
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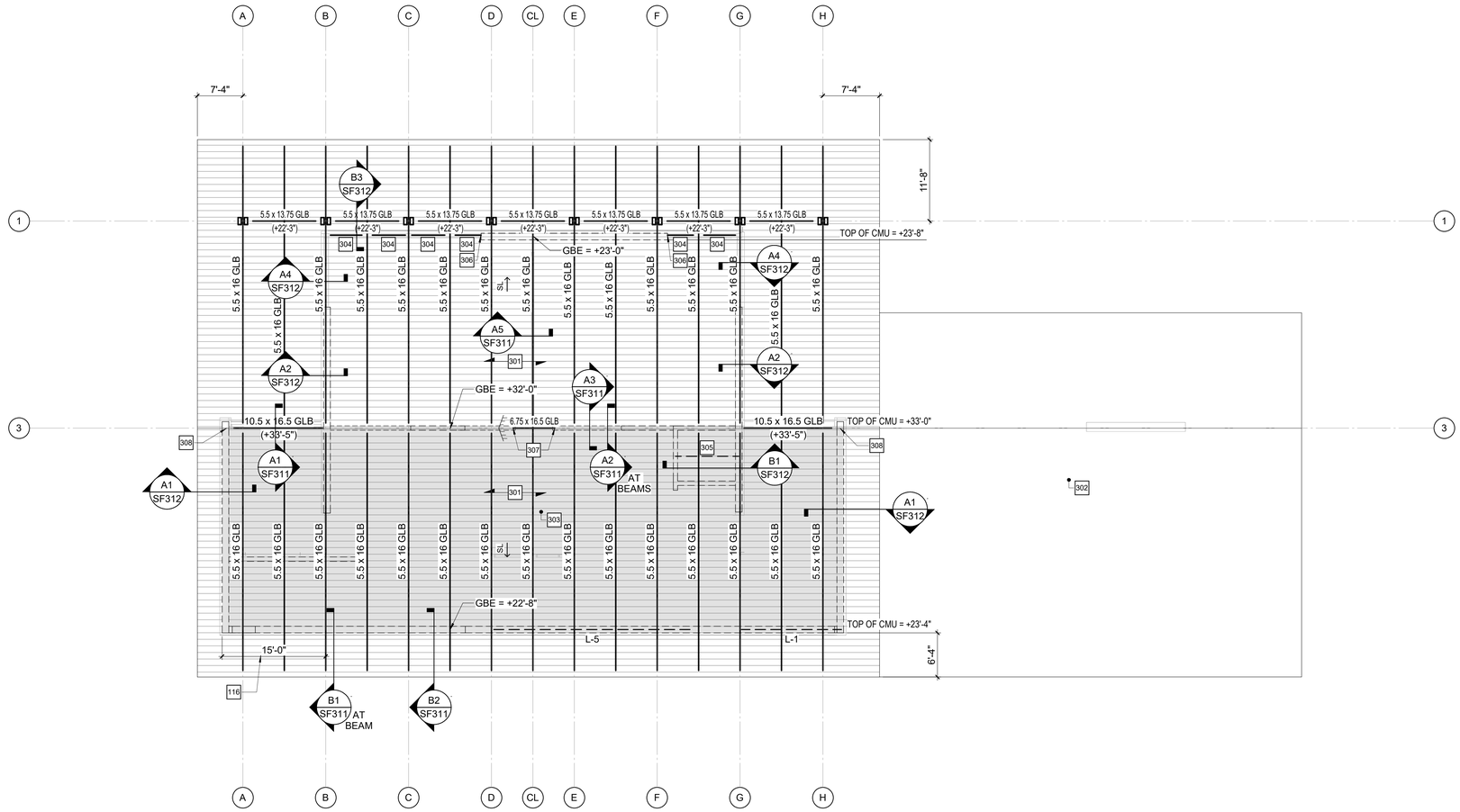

PLAN NORTH

B1 HIGH ROOF FRAMING PLAN

1/8" = 1'-0"

GENERAL NOTES

A. REFERENCE FOUNDATION PLAN AND ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT SHOWN.

B. TOP OF FINISHED SECOND FLOOR ELEVATION MUST BE +12'-0".

C. COMPOSITE STEEL BEAM FRAMING MUST BE EQUALLY SPACED BETWEEN POINTS OF KNOWN DIMENSIONS (NOT TO EXCEED 10'-0" ON-CENTER).

D. CONCRETE ON ELEVATED METAL DECKS MUST BE POURED TO THE THICKNESS INDICATED. A MAXIMUM OF 1/2" ADDITIONAL CONCRETE BEYOND SPECIFIED THICKNESS IS PERMITTED.

E. CONCRETE MUST BE PLACED TO FINISHED FLOOR ELEVATION. ANTICIPATED FRAMING DEFLECTIONS UNDER WET WEIGHT OF CONCRETE PLUS 20 PSF CONSTRUCTION LIVE LOAD HAVE BEEN DENOTED ON THIS SHEET THUS (X").

F. CONTRACTOR MUST INCLUDE IN THEIR BID THE COST TO PLACE THE SLAB TO FINISHED FLOOR ELEVATION ACCOUNTING FOR ANTICIPATED SLAB AND BEAM DEFLECTIONS.

G. COORDINATE AND VERIFY ALL MEMBER LOCATIONS, DIMENSIONS, WEIGHTS, OPENING SIZES, AND CURB DIMENSIONS FOR ALL MECHANICAL EQUIPMENT WITH THE ACTUAL EQUIPMENT FURNISHED. INCLUDE THIS INFORMATION ON THE JOIST AND STRUCTURAL STEEL SHOP DRAWINGS.

H. CORDINATE ALL ROOF OVERHANG DIMENSIONS WITH THE ARCHITECTURAL DRAWINGS.

I. ALL GLULAM FRAMING AND CLT MUST BE PRESERVATIVE TREATED. REFER TO THE SPECIFICATIONS.

J. ALL FASTENERS MUST BE STAINLESS STEEL. REFER TO THE GENERAL NOTES.

KEY NOTES

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302 LOW ROOF. REFER TO SHEET SF101.

303 SHADED AREA DENOTES PORTION OF ROOF DESIGNED FOR AN ADDITIONAL 5 PSF DUE TO POTENTIAL FUTURE PHOTOVOLTAIC PANELS.

304 (3) 1 3/4" x 16" LVL BLOCKING BETWEEN SLOPED BEAMS.

305 W8x21 ELEVATOR HOIST BEAM. MINIMUM BOTTOM OF BEAM ELEVATION = +12'-6" CLEAR FROM SECOND FLOOR SLAB. REFER TO "TYPICAL STEEL BEAM BEARING ON MASONRY DETAILS" ON SHEET SF501.

306 SIMPSON MBHU HANGER FROM LVL TO CMU WALL.

307 PROVIDE GIRDER BEARING PLATE 3/8"x7"x16" LONG WITH (2) 3/4" DIA x 12" LONG HEADED STUDS. REFER TO B5/SF311 FOR ADDITIONAL INFORMATION.

308 PLATE 1/2"x11" x1'-8" LONG WITH (3) 3/4"DIA x 12" LONG HEADED STUDS.

GRAPHIC SCALE(S)

1/8" = 1' - 0" 0 5' 10' 15' 30'

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CORPORATE SEAL

NORTH CAROLINA ENGINEERING CORPORATION C-4360 LYNCH MYKINS STRUCTURAL ENGINEERS

PROFESSIONAL SEAL

NORTH CAROLINA PROFESSIONAL SEAL 052473 ENGINEER NICOLE C. ZECHMAN

06/07/2024

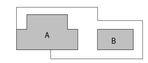
SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN



SHEET

HIGH ROOF FRAMING PLAN

SF102

DESIGN: NZ
DRAWN: JSR
REVIEW:

CN 10145

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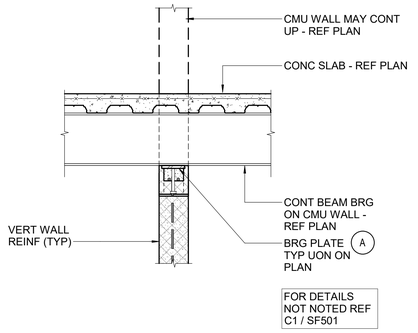

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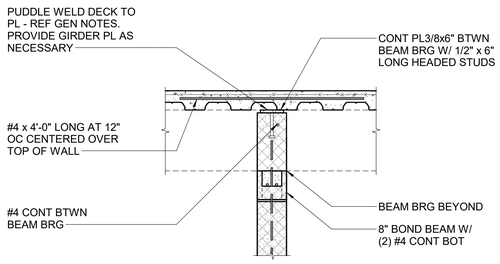

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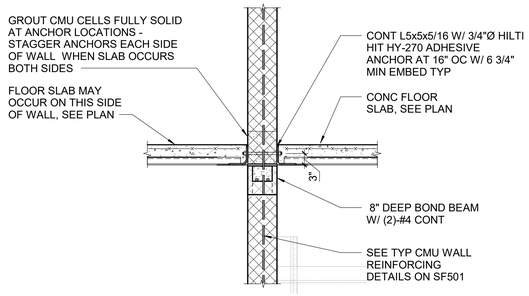

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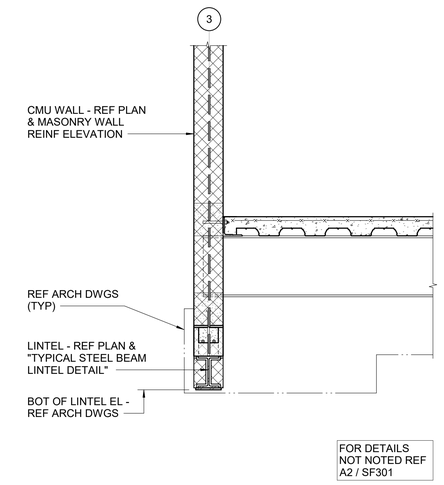

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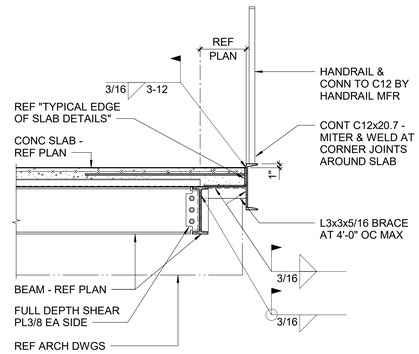

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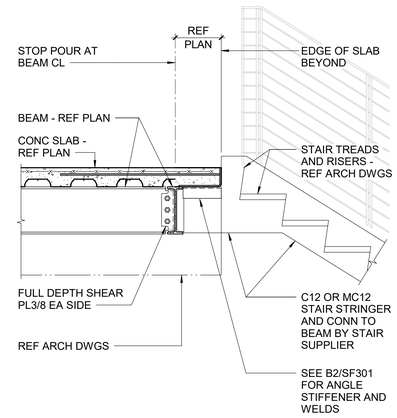

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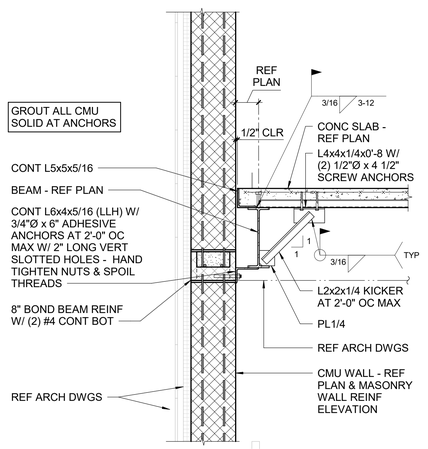
B5 SECTION
NTS



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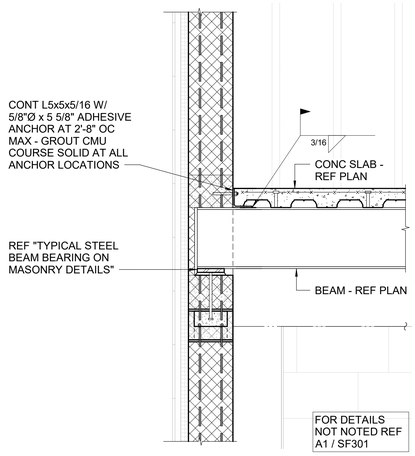

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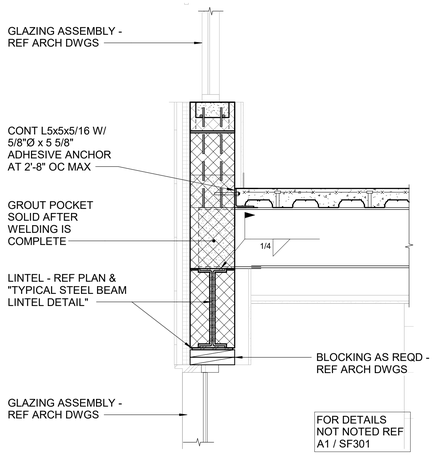

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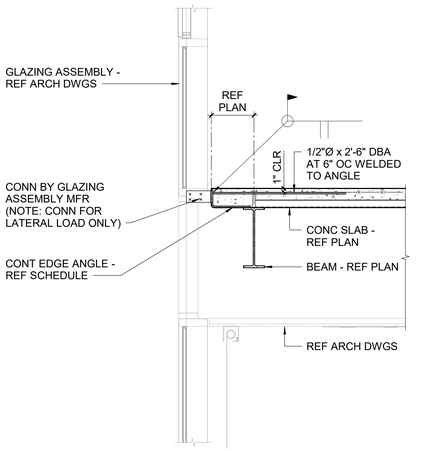

A5 SECTION
3/4" = 1'-0"

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CORPORATE SEAL

NORTH CAROLINA ENGINEERING CORPORATION C-4360

PROFESSIONAL SEAL

NORTH CAROLINA PROFESSIONAL SEAL 052473 ENGINEER JASON C. ZECHMAN

06/07/2024

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

FLOOR FRAMING SECTIONS

SF301

DESIGN: NZ
DRAWN: JSR
REVIEW:

CN 10145

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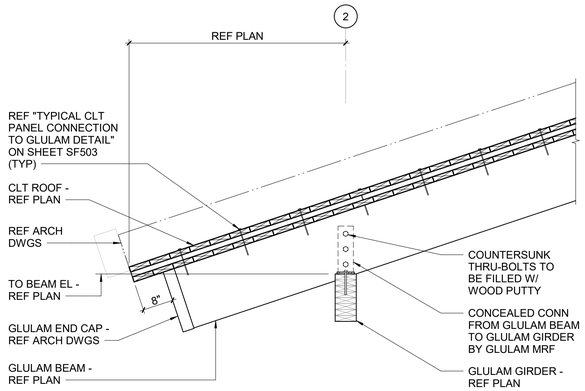

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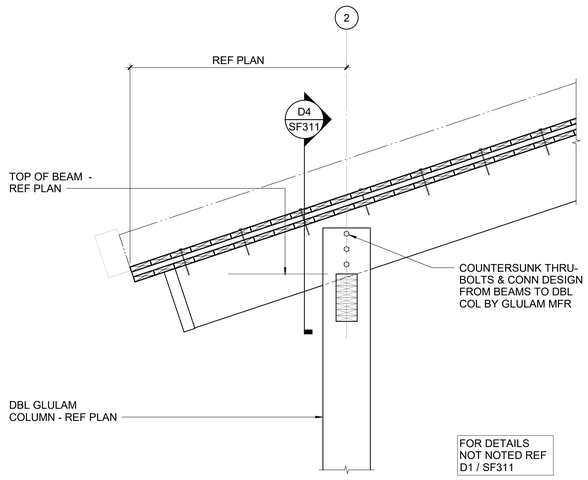

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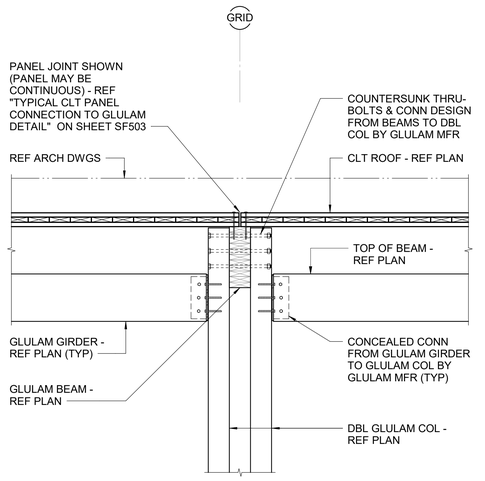

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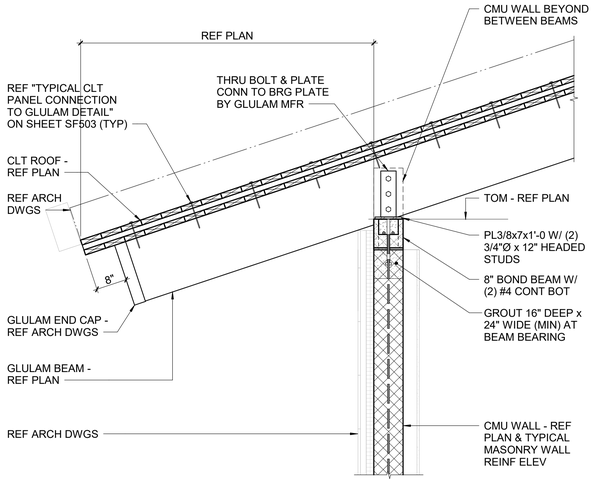

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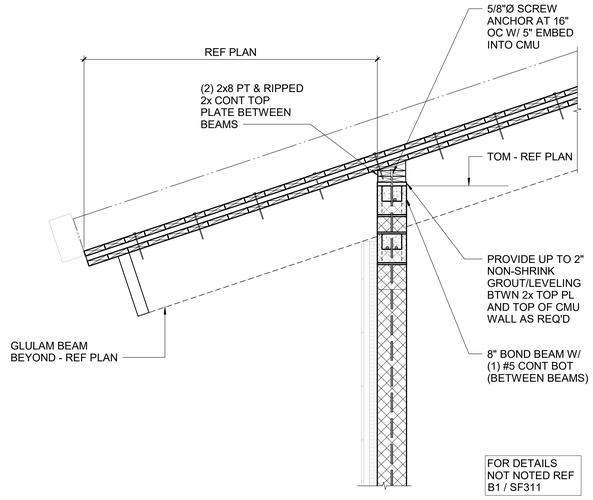

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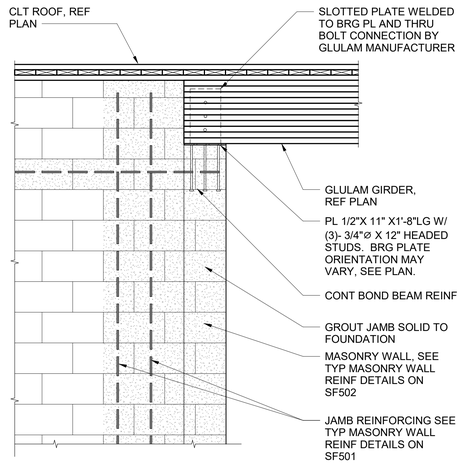

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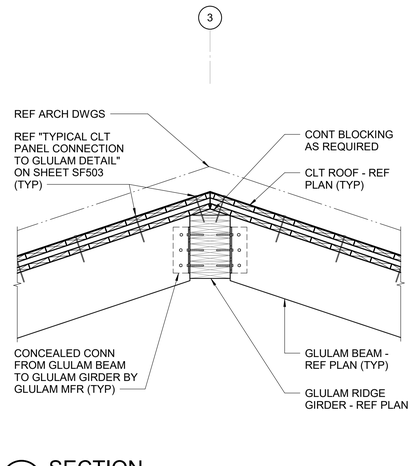

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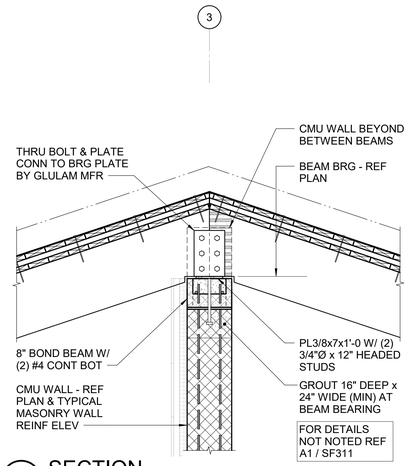

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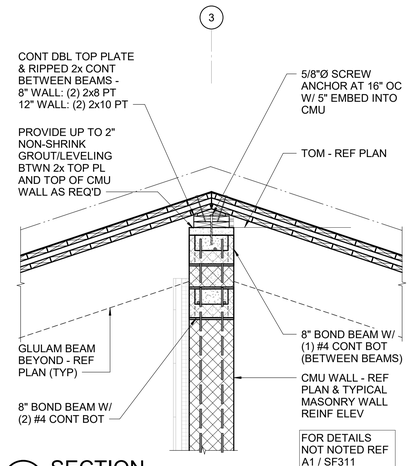

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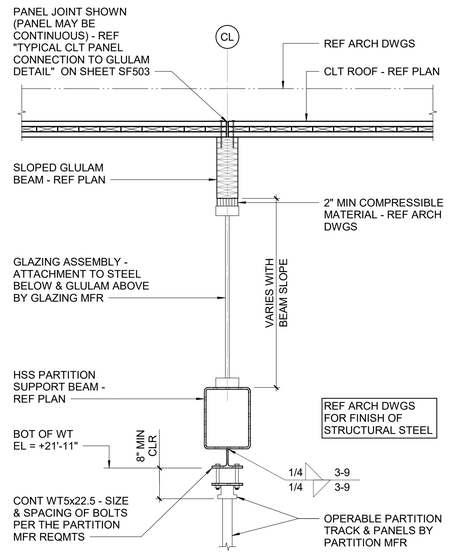

A5 SECTION (ALTERNATE NO.11)
3/4" = 1'-0"

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CORPORATE SEAL

PROFESSIONAL SEAL

06 / 07 / 2024

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

ROOF FRAMING SECTIONS

SF311

DESIGN: NZ
DRAWN: JSR
REVIEW:

CN 10145

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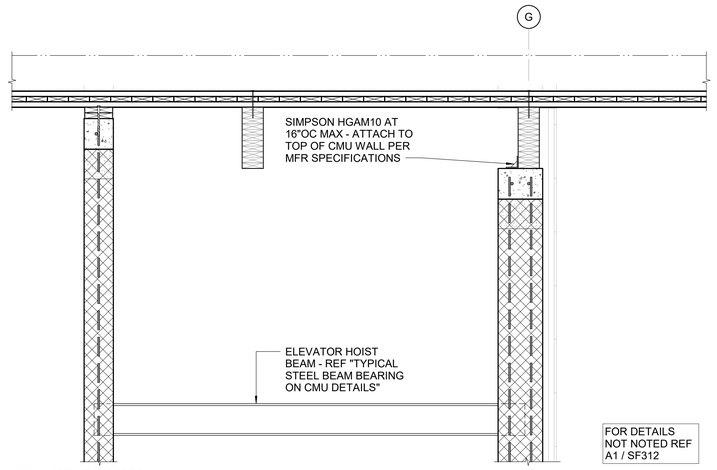

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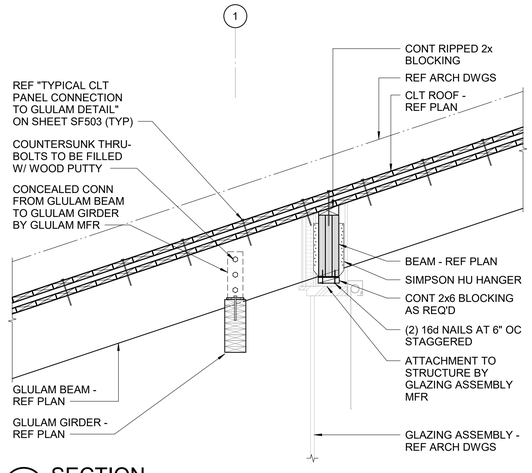

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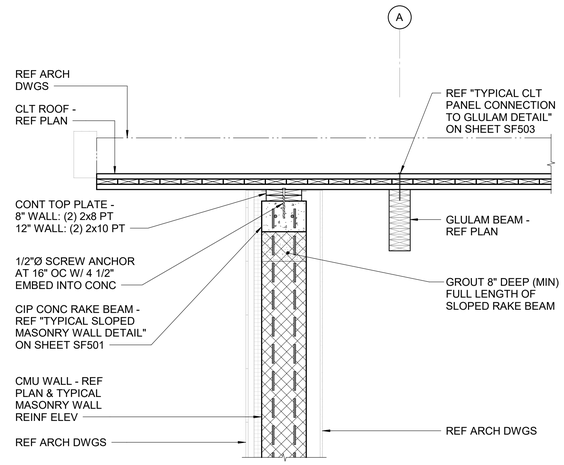

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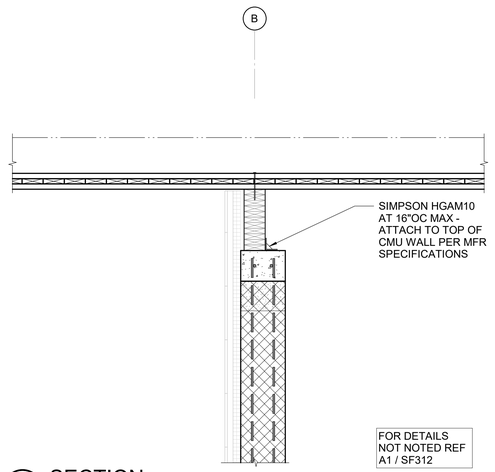

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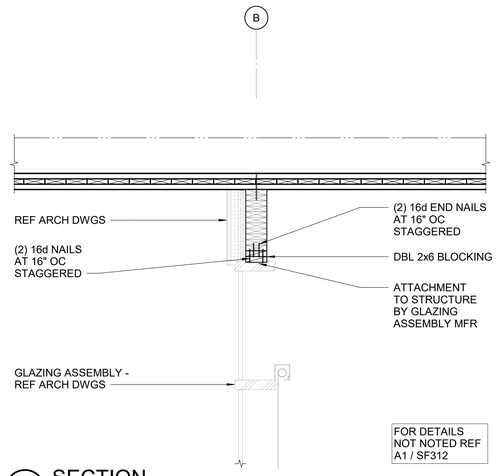

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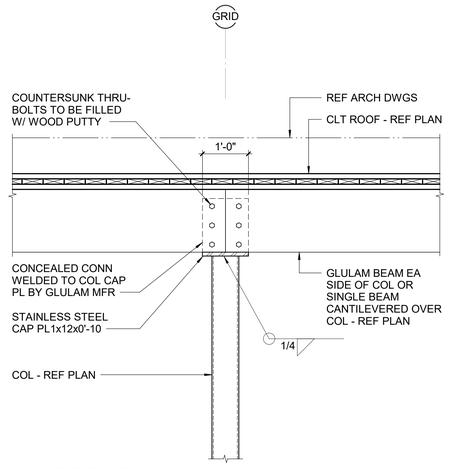

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NORTH CAROLINA PROFESSIONAL ENGINEERING SEAL C-4360 LYNCH MYKINS STRUCTURAL ENGINEERS, PLLC

PROFESSIONAL SEAL

NORTH CAROLINA PROFESSIONAL SEAL 052473 ENGINEER NICHOLAS C. ZECCHINI
06/07/2024

SUBMITTAL

JUNE 7, 2024
BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

ROOF FRAMING SECTIONS

SF312

DESIGN: NZ
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REVIEW:

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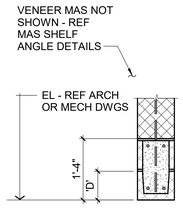
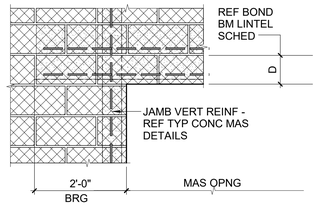
Autodesk Docs://Maritime Education Center/10145_Maritime Education Center_S23.rvt

BOND BEAM LINTEL SCHEDULE			
CLEAR SPAN	DEPTH 'D'	REINFORCING	
		8" WIDE	12" WIDE
0" TO 6'-0"	16"	(2) #5 EA COURSE	(2) #5 EA COURSE
6'-0" TO 8'-0"	24"	(3) #5	(3) #5

NOTES:
1. REFER TO ARCHITECTURAL DRAWINGS FOR SIZE AND LOCATION OF OPENINGS; FOR DUCT OPENINGS REFER TO MECHANICAL DRAWINGS.
2. REFER TO ARCHITECTURAL DRAWINGS FOR WIDTH OF LINTEL.
3. SCHEDULE APPLIES ONLY TO LINTELS NOT OTHERWISE SHOWN ON THE DRAWINGS.

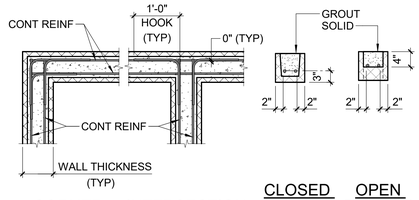


TYPICAL SECTION



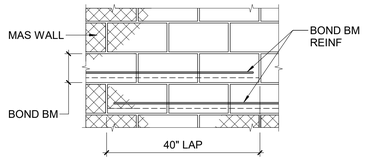
TYPICAL JAMB

D1 BOND BEAM LINTEL DETAILS
NTS

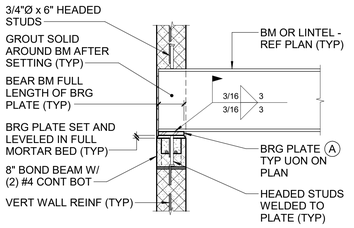


CORNER INTERSECTION CLOSED BOTTOM OPEN BOTTOM

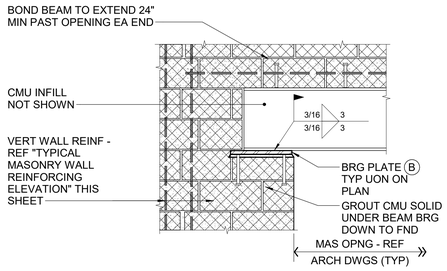
D4 TYPICAL BOND BEAM REINFORCING DETAILS
NTS



D5 TYPICAL STEPPED BOND BEAM DETAIL
NTS

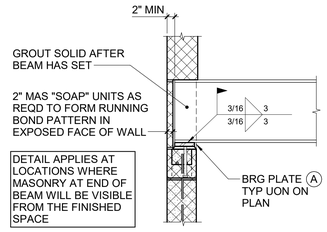


PERPENDICULAR TO WALL



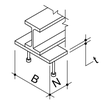
PARALLEL TO WALL

C1 TYPICAL STEEL BEAM BEARING ON MASONRY DETAILS
NTS

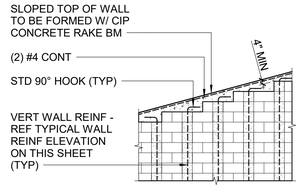


AT EXPOSED MASONRY

STEEL BEAM BEARING PLATE SCHEDULE				
TYPE	t	N	B	HEADED STUDS
(A)	3/4"	6"	12"	(2) 1/2"Ø x 8"
(B)	3/4"	16"	7"	(2) 1/2"Ø x 8"

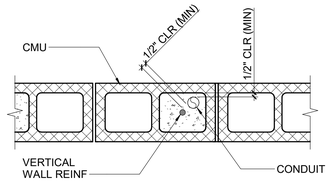


ISOMETRIC VIEW BEARING PLATES



C6 TYPICAL SLOPED MASONRY WALL DETAIL
NTS

NOTES:
1. LOCATE CONDUIT IN UNREINFORCED CELLS TO EXTENT POSSIBLE.
2. DO NOT PLACE CONDUIT PASSING HORIZONTALLY THROUGH PLANE OF WALL WITHOUT WRITTEN APPROVAL.
3. CONDUIT SIZES GREATER THAN OR EQUAL TO 1 1/2" DIAMETER MUST BE PLACED IN UNREINFORCED CELLS.



PLAN

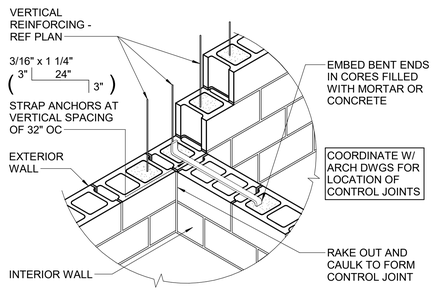
CONDUIT SIZE	AREA OF DISPLACEMENT (SINGLE CONDUIT)
1/2"Ø	0.196 in²
3/4"Ø	0.442 in²
1"Ø	0.785 in²
1 1/4"Ø	1.227 in²

TOTAL DISPLACEMENT CALC
1/2"Ø + 3/4"Ø CONDUIT IN SAME CELL = 0.196 in² + 0.442 in² = 0.638 in²

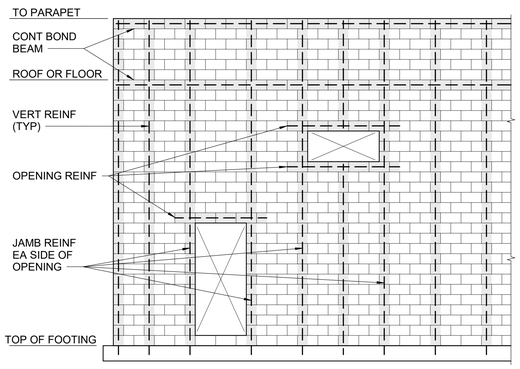
NOMINAL CMU SIZE	MAXIMUM AREA OF GROUT DISPLACEMENT*
4"	0.284 in²
6"	0.456 in²
8"	0.646 in²
10"	0.884 in²
12"	1.132 in²
14"	1.380 in²
16"	1.628 in²

NOTE *: PER ACI 530.1

B1 TYPICAL EMBEDDED CONDUIT IN MASONRY DETAIL
NTS

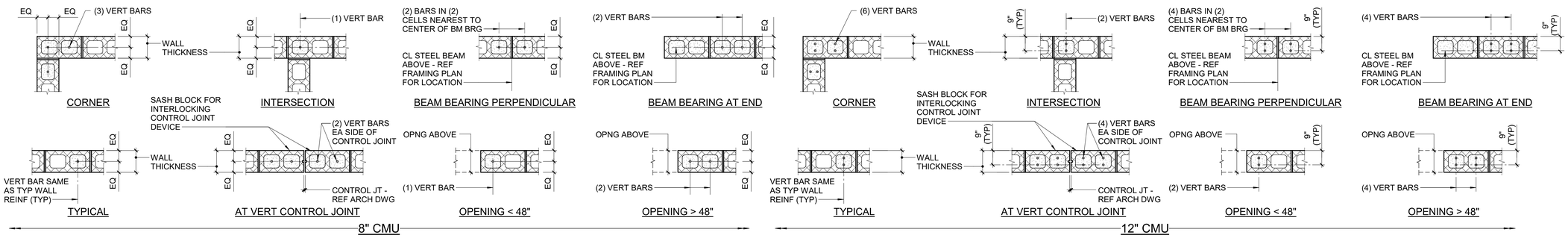


B2 TYPICAL DETAIL AT INTERSECTION OF EXTERIOR & INTERIOR CMU BEARING WALLS
NTS



NOTES:
1. VERTICAL REINFORCING:
   A. PROVIDE #5 BARS AT 16" OC MAX AT 8" CMU.
   B. PROVIDE #5 BARS AT 24" OC EA FACE OF WALL AT 12" CMU.
   C. PROVIDE (2) #5 BARS FULL HEIGHT EACH SIDE OF WALL OPENING UNLESS OTHERWISE NOTED ON PLAN. REINFORCING TO CLEAR THE END OF THE LINTEL.
   D. ALL VERTICAL BARS MUST HAVE DOWELS TO MATCH SIZE & SPACING.
2. HORIZONTAL REINFORCING:
   A. PROVIDE HORIZONTAL JOINT REINFORCING (GALVANIZED) 9 GA SIDE AND CROSS RODS SPACED AT 16"OC VERITCALLY, LADDER TYPE OR BOND BEAM REINFORCEMENT OF (1) #4 AT 4'-0" OC MAX VERTICALLY.
   B. PROVIDE (2) #4 AT THE TOP & BOTTOM OF ALL MASONRY OPENINGS 1'-4" OR LARGER, EXTEND
3. REFER TO SECTIONS & DETAILS FOR ADDITIONAL REINFORCING REQUIREMENTS.
4. ALL OPENINGS MUST BE COORDINATED WITH ARCHITECTURAL PLANS & ELEVATIONS.

B4 TYPICAL MASONRY WALL REINFORCING ELEVATION
NTS



A1 TYPICAL CONCRETE MASONRY REINFORCING DETAILS
NTS

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145
SCO ID # : 24-27996-01A

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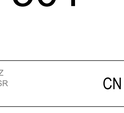
LM Project Number: LM23.081
Corporation No. C-4360

CORPORATE SEAL



PROFESSIONAL SEAL

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

FRAMING TYPICAL DETAILS

SF501

DESIGN: NZ
DRAWN: JSR
REVIEW:

CN 10145

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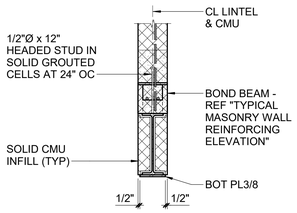
STEEL BEAM LINTEL SCHEDULE		
MARK	SIZE	REMARKS
L-1	W16x26	_
L-2	W16x36	BOTTOM PLATE NOT REQD
L-3	W21x44	_
L-4	W8x28	_
L-5	W18x50	_

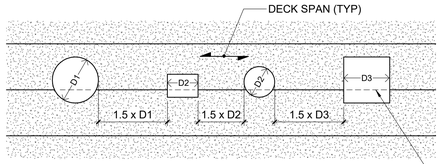
NOTES:
1. REFER TO ARCHITECTURAL DRAWINGS FOR SIZE AND LOCATION OF OPENINGS AND FOR LINTEL ELEVATIONS.
2. REFER TO BOND BEAM LINTEL DETAILS FOR LINTELS NOT SPECIFIED AS STEEL BEAM LINTELS.



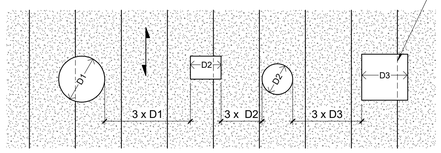
D1 TYPICAL STEEL BEAM LINTEL DETAILS
NTS

NOTES:

1. SEE MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION DRAWINGS FOR LOCATIONS AND SIZE OF FLOOR PENETRATIONS NOT SPECIFICALLY DETAILED ON THE STRUCTURAL FRAMING PLANS.
2. PENETRATIONS, LESS THAN OR EQUAL TO 6" IN ANY DIMENSION MUST BE PERMITTED IN THE ELEVATED SLAB ON METAL DECK WITHOUT REINFORCING, PROVIDED THE SPACING BETWEEN PENETRATIONS DOES NOT EXCEED THE FOLLOWING, AS DEPICTED BELOW:
   A. WHERE DECK SPAN IS PARALLEL TO THE GROUP OF PENETRATIONS: CLEAR SPACING MUST NOT BE LESS THAN 1.5 TIMES THE WIDTH / DIAMETER OF THE LARGER ADJACENT PENETRATION OR 4", WHICHEVER IS GREATER.
   B. WHERE DECK SPAN IS PERPENDICULAR TO THE GROUP OF PENETRATIONS: CLEAR SPACING MUST NOT BE LESS THAN 3 TIMES THE WIDTH OF THE LARGER ADJACENT PENETRATION, OR 8", WHICHEVER IS GREATER.
3. IF THE SPACING REQUIREMENTS BELOW CANNOT BE MET, THE CONTRACTOR MUST BE PERMITTED TO REINFORE THE SLAB PER THE TYPICAL FLOOR SLAB REINFORCING DETAIL AT OPENINGS LARGER THAN 6".
4. BLOCKOUTS OR DRILLED CORES ARE PERMITTED, HOWEVER, FLOOR DECK MUST REMAIN CONTINUOUS AND NOT BE CUT UNTIL CONCRETE HAS BEEN PLACED AND HAS REACHED 75% OF IT'S SPECIFIED DESIGN STRENGTH.

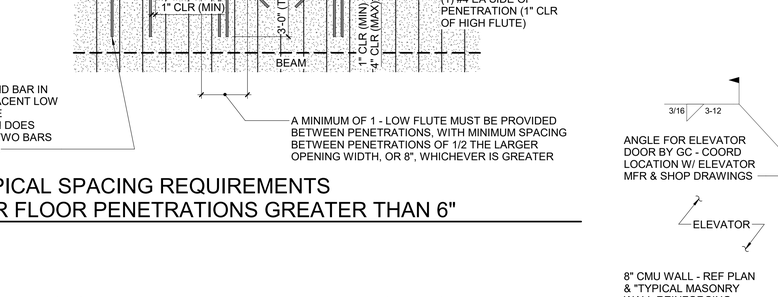


DECK SPAN PARALLEL TO OPENING GROUP



DECK SPAN PERPENDICULAR TO OPENING GROUP

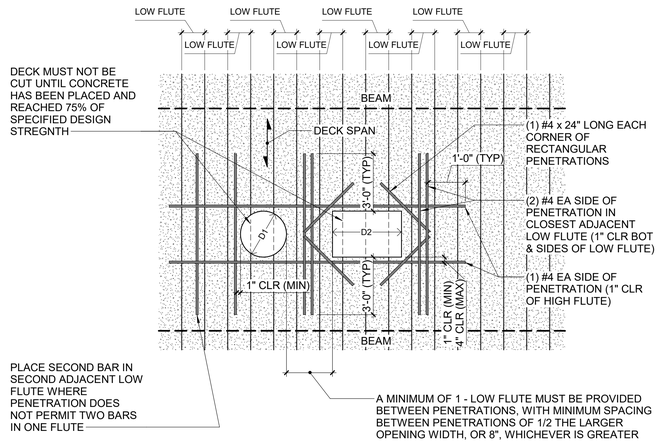
B1 TYPICAL SPACING REQUIREMENTS FOR FLOOR PENETRATIONS 6" WIDE OR LESS
NTS



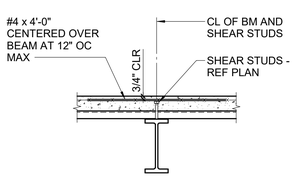
D3 TYPICAL NON-BEARING MASONRY PARTITION BRACING DETAILS
NTS

NOTES:

1. SEE MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION DRAWINGS FOR LOCATIONS AND SIZE OF FLOOR PENETRATIONS NOT SPECIFICALLY DETAILED ON THE STRUCTURAL FRAMING PLANS.
2. PENETRATIONS, GREATER THAN 6", BUT LESS THAN OR EQUAL TO 24" IN ANY DIRECTION MUST BE PERMITTED IN THE ELEVATED SLAB ON METAL DECK WITHOUT ADDITIONAL STRUCTURAL STEEL FRAMING, PROVIDED THE SLAB IS REINFORCED AS INDICATED BELOW.
3. A MINIMUM OF (1) LOW FLUTE MUST BE PROVIDED BETWEEN PENETRATIONS, WITH MINIMUM SPACING BETWEEN PENETRATIONS OF 1/2 THE LARGER OPENING WIDTH, OR 8", WHICHEVER IS GREATER.

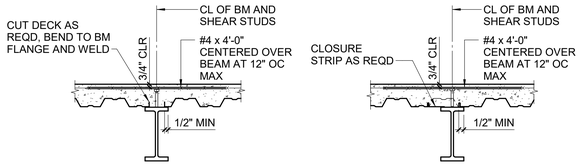


B2 TYPICAL SPACING REQUIREMENTS FOR FLOOR PENETRATIONS GREATER THAN 6"
NTS



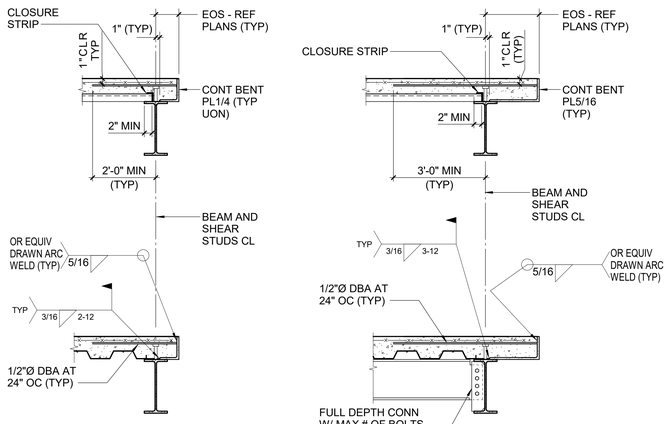
PERPENDICULAR

NOTE: SPACE STUDS EQUALLY ALONG BEAM FLANGE IN DECK RIBS. WHERE SPACING EXCEEDS 32" INCREASE NUMBER OF STUDS.

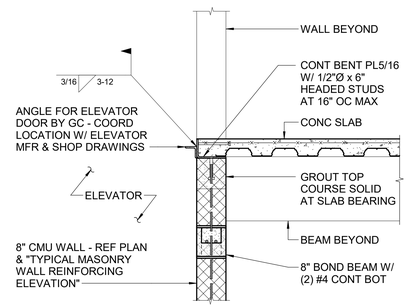


PARALLEL - DECK RIBS NOT ON BEAM

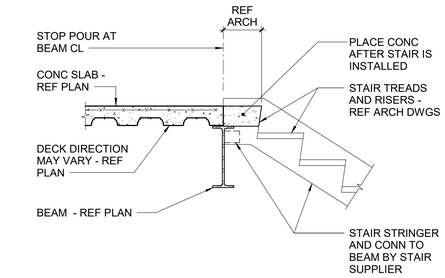
A1 TYPICAL COMPOSITE SLAB DETAILS
NTS



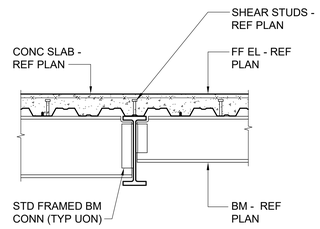
A2 TYPICAL EDGE OF COMPOSITE SLAB DETAILS
NTS



B4 TYPICAL SLAB EDGE AT ELEVATOR DOOR DETAIL
NTS



A4 TYPICAL STEEL STAIR SUPPORT DETAIL
NTS



A6 TYPICAL BEAM / BEAM CONNECTION DETAIL
NTS

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145
SCO ID # : 24-27956-01A

DESIGNER

CLARKNEXSEN
421 NORTH HARRINGTON STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27603
919-828-1876

CONSULTANT

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LM Project Number: LM23.081
Corporation No. C-4360

CORPORATE SEAL

NORTH CAROLINA ENGINEERING CORPORATION C-4360 LYNCHMYKINS CONSULTING STRUCTURAL ENGINEERS

PROFESSIONAL SEAL

NORTH CAROLINA PROFESSIONAL SEAL 052473 ENGINEER JOYCE E. C. ZECHMAN

06/01/2024

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

FRAMING TYPICAL DETAILS

SF502

DESIGN: NZ
DRAWN: JSR
REVIEW:

CN 10145

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A1 TYPICAL GLULAM BEAM PENETRATION DETAIL
NTS

A2 TYPICAL GLULAM BEAM TO GLULAM GIRDER CONNECTION DETAIL
NTS

CLT PANEL AT SPLICE OVER GLULAM BEAM OR PURLIN

CLT PANEL OVER GLULAM BEAM OR PURLIN

A4 TYPICAL CLT PANEL CONNECTION TO GLULAM BEAM
NTS

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MARITIME HERITAGE FOUNDATION
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LM Project Number: LM23.081
Corporation No. C-4360

CORPORATE SEAL

NORTH CAROLINA ENGINEERING CORPORATION C-4360 LYNCHMYKINS CONSTRUCTURAL ENGINEERS, PLLC

PROFESSIONAL SEAL

NORTH CAROLINA PROFESSIONAL SEAL 052473 ENGINEER NICOLE C. ZECHMAN

06/07/2024

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

FRAMING TYPICAL DETAILS

SF503

DESIGN: NZ
DRAWN: JSR
REVIEW:

CN 10145

RCP LEGEND

MECHANICAL

SUPPLY GRILLE

RETURN GRILLE

EXHAUST FAN

ELECTRICAL

INDICATES BRACKET, WALL MOUNTED ELECTRICAL LIGHT / FIXTURE / EQUIPMENT, ETC

LIGHT FIXTURES

EMERGENCY EGRESS LIGHT FIXTURES

CEILING MOUNTED EXIT LIGHT

CEILING MOUNTED EXIT LIGHT W/ ARROW

OS

CEILING MOUNTED OCCUPANCY SENSOR

CEILING MOUNTED RECEPTACLE

CEILING MOUNTED SECURITY CAMERA

FP

INDICATES BRACKET, WALL MOUNTED FIRE PROTECTION FIXTURE / EQUIPMENT, ETC

CONCEALED SPRINKLER HEAD

EXPOSED SPRINKLER HEAD

SIDE WALL SPRINKLER HEAD

ARCHITECTURAL

8'-0"

CEILING HEIGHT

EXP

EXPOSED CEILING

ACCESS PANEL

CEILING FAN

2' x 2' ACOUSTICAL PANEL CEILING

GWB CEILING / SOFFIT

CROSS LAMINATED TIMBER

SOUND ABSORBING WALL UNITS, SAW1

FIBER CEMENT SIDING

GENERAL PROJECT SYMBOLOGY

1

COLUMN GRID LINE

E1

EXISTING COLUMN GRID LINE

ROOM NAME
101

ROOM DESIGNATION

FIRST FLOOR
+12'-0"

ELEVATION DATUM

A1 NAME
SCALE:
ADDITIONAL ID INFO
VIEW REFERENCE
IF USED

DETAIL, SECTION, ELEVATION TITLE

PLAN NORTH INDICATOR
TRUE NORTH INDICATOR
NAME
SCALE:

PLAN TITLE AND NORTH ARROW

DETAIL / PLAN NUMBER
A1
AE402
SHEET WHERE SHOWN

DETAIL / ENLARGED PLAN

A1
A4 A1 A2
AE410
A3
ELEVATION NUMBER
SHEET WHERE SHOWN

INTERIOR ELEVATION

A1
AE201
ELEVATION NUMBER
SHEET WHERE SHOWN

EXTERIOR ELEVATION

SECTION NUMBER
A1 AE301
BUILDING
A1 AE301
SHEET WHERE SHOWN

BUILDING SECTION

A1
AE311
BUILDING
SECTION NUMBER
SHEET WHERE SHOWN

DETAIL / WALL SECTION

DETAIL NUMBER
A1

DETAIL SECTION

SHEET NUMBER REFERENCE NOTED IN GENERAL NOTES ON SHEET

A1 / AE101

A1 / AE101

PHOTOGRAPH / 3D VIEW REFERENCE

ARCHITECTURAL SYMBOLOGY

NEW WORK KEYNOTE

DEMOLITION KEYNOTE

A1 / AE101
MATCHLINE
ADJACENT AREA REFERENCE

REVISION TAG

W1 WINDOW / L1 LOUVER / C1 CURTAIN WALL / S1 STOREFRONT
DESIGNATION

SPECIALTY ITEM DESIGNATION

XX.X

PARTITION / WALL TYPE

120

DOOR NUMBER

FD

FLOOR DRAIN

12
4

ROOF SLOPE

DIRECTION OF SLOPE

FEB

FIRE EXTINGUISHER BRACKET

FEC

FIRE EXTINGUISHER CABINET

CJ
CONTROL JOINT

BSJ
BUILDING SEPARATION JOINT

EJ
EXPANSION JOINT

ARCHITECTURAL GENERAL NOTES

1. PLAN DIMENSIONS SHOWN ARE TO FACE OF FRAMING MEMBERS, FACE OF MASONRY, FACE OF EXISTING WALL AND TO CENTERLINE OF COLUMNS.
2. ALL NOTES, DETAILS, AND FEATURES DRAWN AS APPLICABLE FOR ONE CONDITION ARE APPLICABLE TO SIMILAR CONDITIONS, WHETHER OR NOT SPECIFICALLY INDICATED.
3. IN STUD WALLS, LOCATE ALL INTERIOR DOOR FRAMES A DISTANCE OF 4" (FOUR) INCHES FROM THE THROAT RETURN TO THE CLOSEST ADJACENT PERPENDICULAR PARTITION, UON. IN CMU WALLS, LOCATE MASONRY OPENING AT DOORS 8" (EIGHT) FROM THE PERPENDICULAR WALL.
4. ALL ELEVATIONS ARE MEASURED FROM THE REFERENCE ELEVATION +0'-0", WHICH IS THE TOP OF THE FIRST FLOOR SLAB, UON.
5. DO NOT SCALE DRAWINGS TO DETERMINE DIMENSIONS OR SIZES OF BUILDING ELEMENTS.
6. ALL WOOD BLOCKING AND MISCELLANEOUS STEEL SHOWN IN DETAILS AND SECTIONS SHALL BE CONTINUOUS, UON.
7. USE FIRE-RETARDANT TREATED WOOD PRODUCTS FOR ALL CONCEALED WOOD BLOCKING, UON.
8. USE PRESERVATIVE-TREATED WOOD PRODUCTS FOR ALL WOOD BLOCKING IN CONTACT WITH EXTERIOR MASONRY OR CONCRETE WALLS, AND FOR ALL WOOD BLOCKING IN CONTACT WITH CONCRETE SLABS ON GRADE.
9. VERIFY ALL DIMENSIONS. BRING ANY DISCREPANCIES TO THE IMMEDIATE ATTENTION OF THE ARCHITECT.
10. ANY CONFLICTING INFORMATION BETWEEN THE ARCHITECTURAL DRAWINGS AND ANY OTHER DRAWINGS, SPECIFICATIONS, AND/OR EXISTING CONDITIONS SHALL BE NOTED IN WRITING TO THE ARCHITECT FOR REVIEW AND MUST BE CLARIFIED PRIOR TO COMMENCING THE CONSTRUCTION IN QUESTION.
11. PROVIDE WOOD OR METAL BLOCKING BEHIND GWB AT THE FOLLOWING LOCATIONS:
    A. ALL WALL-MOUNTED OR CEILING-MOUNTED DOOR STOPS, DOOR HOLD-OPEN DEVICES, AND OTHER HARDWARE.
    B. ALL WALL-MOUNTED TOILET ACCESSORIES. AT GRAB BARS, PROVIDE BLOCKING CAPABLE OF RESISTING A MINIMUM LOAD OF 250 POUNDS APPLIED VERTICALLY OR HORIZONTALLY AT ANY POINT ON THE GRAB BAR.
    C. ALL WALL-MOUNTED PLUMBING FIXTURES, INCLUDING BUT NOT LIMITED TO LAVATORIES, SINKS, URINALS, WATER CLOSETS, AND WATER COOLERS. PROVIDE BLOCKING CAPABLE OF RESISTING A MINIMUM LOAD OF 400 POUNDS APPLIED VERTICALLY AT ANY POINT ON THE PLUMBING FIXTURE.
    D. ALL WALL-MOUNTED CABINETRY, SHELVING, AND SIMILAR ITEMS.
    E. ALL WALL-MOUNTED VIDEO MONITORS, AND SIMILAR ITEMS.
12. ALL MATERIALS USED IN THE PROJECT SHALL BE NEW AND PROVIDED BY THE CONTRACTOR, UON.
13. USE BITUMINOUS MEMBRANE TO SEPARATE PRESERVATIVE-TREATED WOOD PRODUCTS FROM CONTACT WITH ANY METAL SURFACE.
14. SEE FINISH SCHEDULE AND LEGEND FOR GENERAL FINISH NOTES, AND FINISH REMARKS.

ARCHITECTURAL ABBREVIATIONS

&	AND
@	AT
ACT	ACOUSTICAL CEILING TILE
ADJ	ADJUSTABLE, ADJUST
AFF	ABOVE FINISH FLOOR
AFS	ABOVE FINISH SLAB
ALT	ALTERNATE
ALUM	ALUMINUM
APPROX	APPROXIMATE
APC	ARCHITECTURAL PRECAST CONCRETE
BD	BOARD
BLDG	BUILDING
BLKG	BLOCKING
BRG	BEARING
BSJ	BUILDING SEPARATION JOINT
BUR	BUILT-UP ROOFING
℄	CENTER LINE
CG	CORNER GUARD
CJ	CONTROL JOINT
CL	COLUMN LINE
CLR	CLEAR
CLG	CEILING
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONST	CONSTRUCTION
CONT	CONTINUOUS
CPT	CARPET
CT	CERAMIC TILE
D	DEPTH / DRYER
DBL	DOUBLE
DIA	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DISP	DISPENSER
DN	DOWN
DS	DOWNSPOUT
DWG	DRAWING
EA	EACH
EJ	EXPANSION JOINT
ELEC	ELECTRICAL
ELEV	ELEVATION
EOS	EDGE OF SLAB
EPS	EXPANDED POLYSTYRENE
EQ	EQUAL
EQUIP	EQUIPMENT
EXIST	EXISTING
EXP	EXPANSION / EXPOSED
EXT	EXTERIOR
FD	FLOOR DRAIN
FEB	FIRE EXTINGUISHER BRACKET
FEC	FIRE EXTINGUISHER CABINET
FF	FINISH FLOOR
FGL	FIBERGLASS
FIN	FINISH
FLR	FLOOR
FO	FACE OF
FP	FIRE PROTECTION
FRT	FIRE RETARDANT TREATED
GA	GAUGE
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GFRG	GLASS FIBER REINFORCED GYPSUM
GL	GLASS
GWB	GYPSUM WALLBOARD
GYP	GYPSUM
HDW	HARDWARE
HDWD	HARDWOOD
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HT	HEIGHT
HVAC	HEATING, VENTILATION, & AIR CONDITIONING
ID	INSIDE DIAMETER
IGU	INSULATING GLASS UNIT
INSUL	INSULATION
INT	INTERIOR
JT	JOINT
KO	KNOCK OUT
L	LENGTH / LONG
MATL	MATERIAL
MAX	MAXIMUM
MECH	MECHANICAL
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MO	MASONRY OPENING
MTG	MOUNTING
MTL	METAL
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED OWNER INSTALLED
OH	OPPOSITE HAND
OPNG	OPENING
OPP	OPPOSITE
ORD	OVERFLOW ROOF DRAIN
PH	PANIC HARDWARE
PL	PLATE
PLAM	PLASTIC LAMINATE
PLYWD	PLYWOOD
POLYISO	POLYISOCYANURATE INSULATION
PR	PAIR
PTD	PAINTED
R	RADIUS
RD	ROOF DRAIN
REF	REFRIGERATOR
REINF	REINFORCING
REQ'D	REQUIRED
RM	ROOM
RO	ROUGH OPENING
RWL	RAIN WATER LEADER
SAB	SOUND ATTENUATING BLANKET
SAFB	SOUND ATTENUATING FIRE BLANKET
SF	SQUARE FEET
SIM	SIMILAR
SQ	SQUARE
SS	STAINLESS STEEL
STRUCT	STRUCTURAL
STD	STANDARD
STL	STEEL
SUSP	SUSPENDED
T & B	TOP & BOTTOM
TELE	TELECOMMUNICATION
THR	THRESHOLD
TOC	TOP OF CONCRETE
TOW	TOP OF WALL
TP	TOILET PARTITION
TTL	TOTAL
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
VB	VINYL BASE
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL
VIF	VERIFY IN FIELD
VTR	VENT THRU ROOF
W	WIDTH / WASHER
W/	WITH
W/O	WITHOUT
WC	WALLCOVERING
WD	WOOD
WDW	WINDOW
WO	WINDOW OPENING
WP	WORK POINT
WT	WEIGHT
XPS	EXTRUDED POLYSTYRENE

MATERIAL LEGEND

	ALUMINUM		GRAVEL		SPANDREL GLAZING
	BRICK		GWB / GROUT / SPRAY FIREPROOFING		STEEL
	CONCRETE		INSULATION - BATT / LOOSE / BLANKET		WOOD BLOCKING / FRAMING - CONTINUOUS
	CONCRETE MASONRY UNIT (CMU)		INSULATION - MINERAL WOOL		WOOD BLOCKING - INTERRUPTED
	EARTH		INSULATION - RIGID		
	FILL - GRANULAR		INSULATION - SPRAY FOAM		
	FILL - POROUS		PLYWOOD / MDF		

RATED PARTITION LEGEND

ONE HOUR FIRE RATING

TWO HOUR FIRE RATING

NOT ALL ABBREVIATIONS, SYMBOLS, AND LEGEND GRAPHICS LISTED ARE NECESSARILY USED ON THIS PROJECT. REFER TO DOCUMENTS FOR SPECIFIC INFORMATION.

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

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CN PROJ # : 10145

SCO ID # : 24-27956-01A

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CLARK NEXSEN LICENSE NUMBER C-1028

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DONALD DAVID KRAMBUCK
REGISTERED ARCHITECT
9856
6/7/24
RALEIGH N.C.

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

ARCHITECTURAL LEGEND, NOTES AND ABBREVIATIONS

A-001

DESIGN: DDK
DRAWN: AST/WMP
REVIEW: DDK

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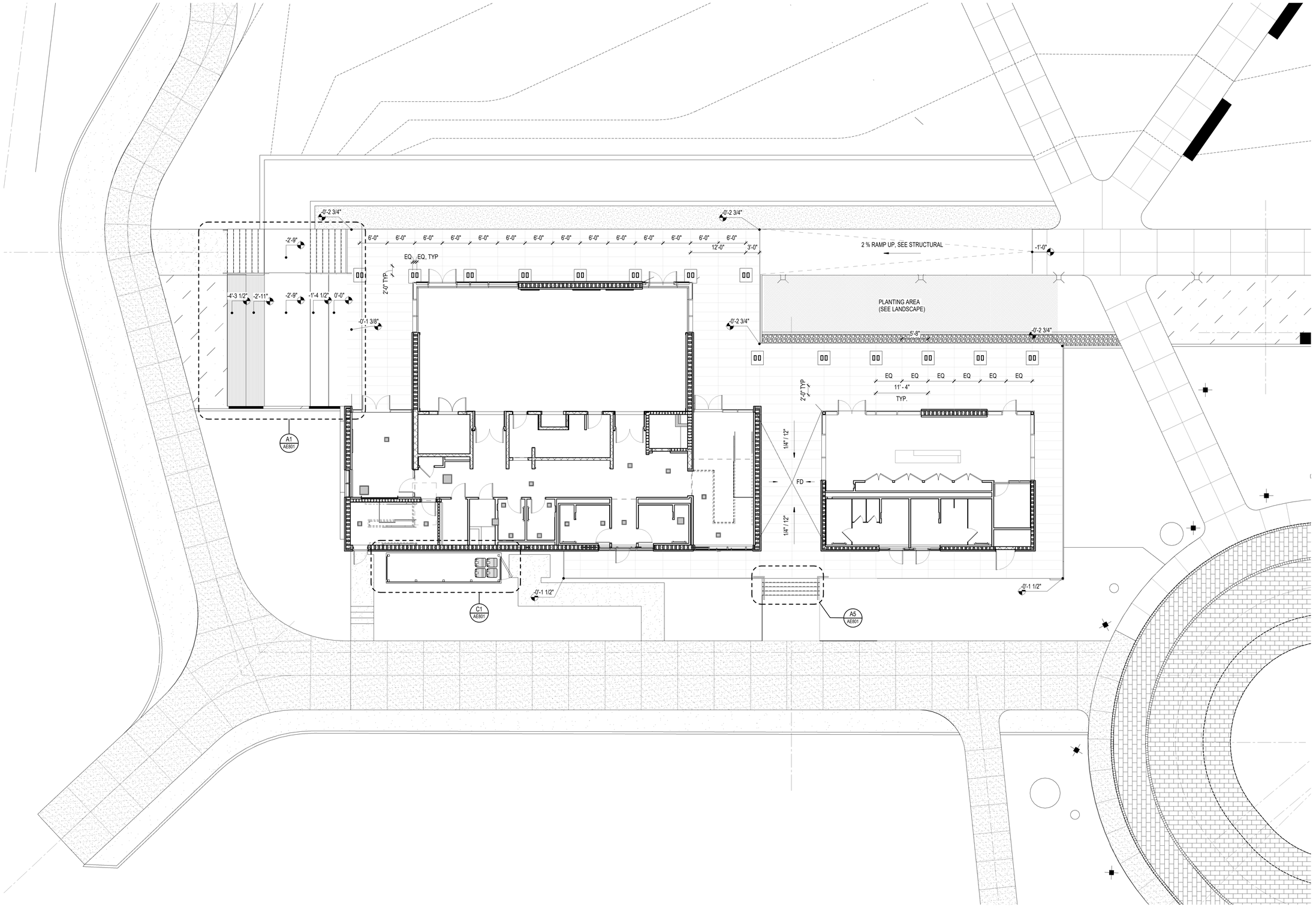

A1 ARCHITECTURAL SITE PLAN
SCALE: 1/8" = 1'-0"

GRAPHIC SCALE(S)
1/8" = 1' - 0"
0 5' 10' 15' 30'

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PROFESSIONAL SEAL

SUBMITTAL
JUNE 7, 2024
BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET
ARCHITECTURAL SITE PLAN

AS101

DESIGN: Designer
DRAWN: Author
REVIEW: Checker

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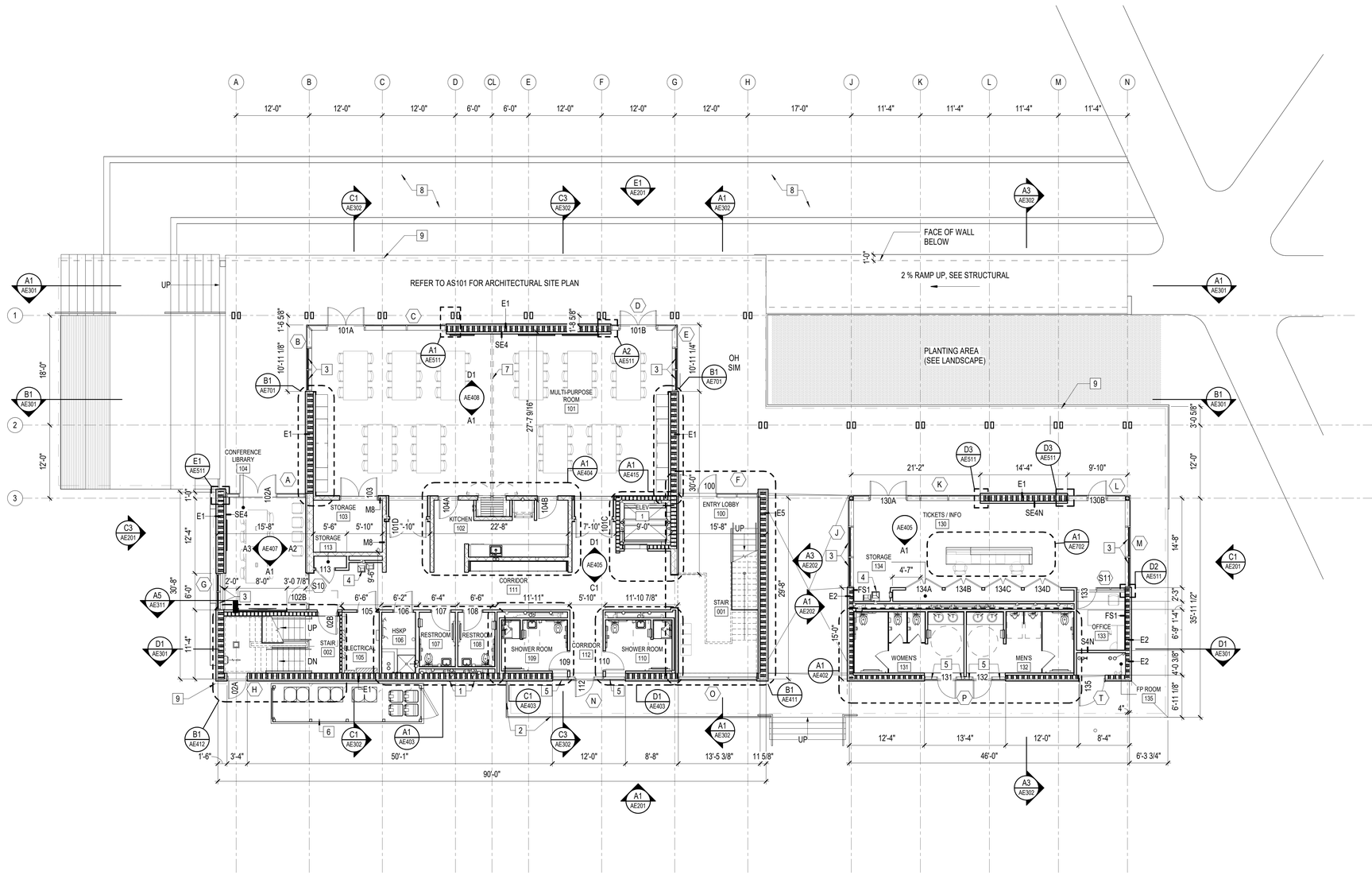

FIRST FLOOR PLAN

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

GENERAL NOTES

1. PLAN DIMENSIONS SHOWN ARE TO FACE OF FRAMING MEMBERS, FACE OF MASONRY, FACE OF EXISTING WALL, AND TO CENTER LINE OF COLUMNS, EXCLUSIVE OF INTERIOR WALLS.
2. ALL INTERIOR DIMENSIONS ARE TO FACE OF PARTITION ASSEMBLY AS DEFINED BY THE PARTITION SCHEDULE AND IS EXCLUSIVE OF ANY APPLIED FINISH.
3. REFER TO SHEET AE501 FOR THE PARTITION SCHEDULES. ALL INTERIOR PARTITIONS ARE TO BE TYPE S4N UNLESS OTHERWISE NOTED.
4. ALL DIMENSIONS TO BE FIELD VERIFIED PRIOR TO INSTALLATION OF EQUIPMENT / SHELVING / CASEWORK.
5. VERIFY AND COORDINATE PENETRATIONS THROUGH FLOOR SLABS, ROOF DECK AND PARTITIONS WITH PLUMBING, MECHANICAL, ELECTRICAL AND FP DRAWINGS.
6. VERIFY AND COORDINATE FINISH FLOOR ELEVATIONS WITH CIVIL AND STRUCTURAL PRIOR TO COMMENCING CONSTRUCTION. NOTIFY ARCHITECT IN WRITING BEFORE CONSTRUCTION OF ANY CONFLICTS.
7. REFER TO SHEET AE601 FOR DOOR SCHEDULE. REFER TO SHEET AE620 - AE623 FOR CURTAIN WALL, LOUVER, AND STOREFRONT ELEVATIONS.
8. ALL EXPOSED CMU IS GROUND FACE UNO.

KEY NOTES

1 OUTDOOR RINSE OFF SHOWER, REFER TO PLUMBING DRAWINGS.

2 STAINLESS STEEL CABLE AND GALVANIZED STEEL PLATE GUARDRAIL

3 OPERABLE WINDOW WITHIN CURTAIN WALL SYSTEM

4 DUAL HEIGHT WATER COOLER

5 FROSTED GLAZING PANEL

6 WOOD SLAT FENCE

7 OPERABLE FOLDING PARTITION WALL

8 CONCRETE STRUCTURE FOR ROOF WATER CAPTURE. SEE LANDSCAPE AND STRUCTURAL DRAWINGS

9 PATH OF FOUNDATION DRAIN, COORDINATE WITH CIVIL

RATED PARTITION LEGEND

ONE HOUR FIRE RATING

TWO HOUR FIRE RATING

GRAPHIC SCALE(S)

1/8" = 1' - 0" 0 5' 10' 15' 30'

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NORTH CAROLINA
RALEIGH N.C.

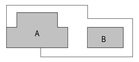
SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN



SHEET

FIRST FLOOR PLAN

AE101

DESIGN: DDK
DRAWN: AST/WMP
REVIEW: DDK

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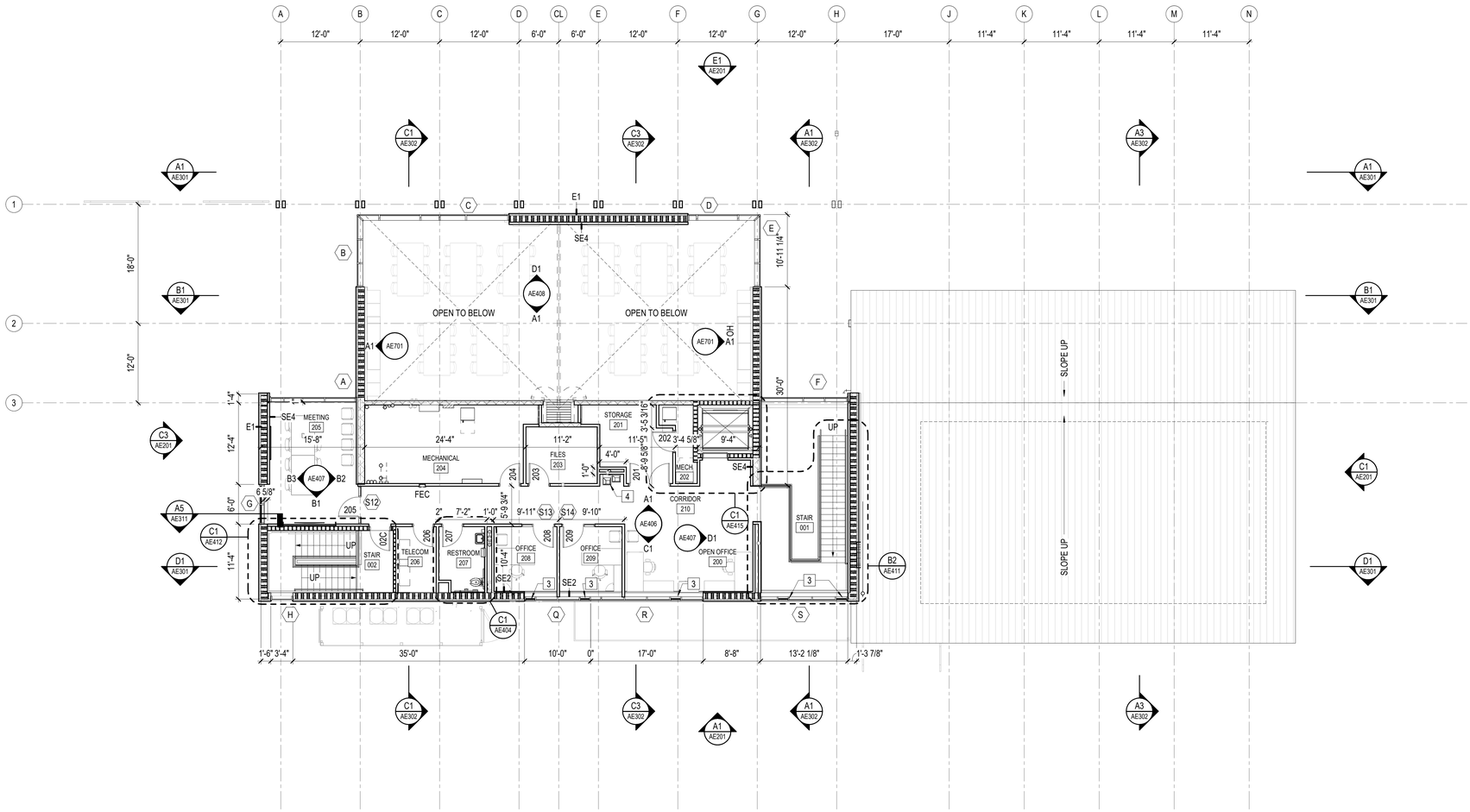

SECOND FLOOR PLAN

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

GENERAL NOTES

1. PLAN DIMENSIONS SHOWN ARE TO FACE OF FRAMING MEMBERS, FACE OF MASONRY, FACE OF EXISTING WALL, AND TO CENTER LINE OF COLUMNS, EXCLUSIVE OF INTERIOR WALLS.
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8. ALL EXPOSED CMU IS GROUND FACE UNO.

KEY NOTES

3 OPERABLE WINDOW WITHIN CURTAIN WALL SYSTEM

4 DUAL HEIGHT WATER COOLER

RATED PARTITION LEGEND

ONE HOUR FIRE RATING

TWO HOUR FIRE RATING

GRAPHIC SCALE(S)

1/8" = 1' - 0" 0 5' 10' 15' 30'

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SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

SECOND FLOOR PLAN

AE102

DESIGN: DDK
DRAWN: AST/WMP
REVIEW: DDK

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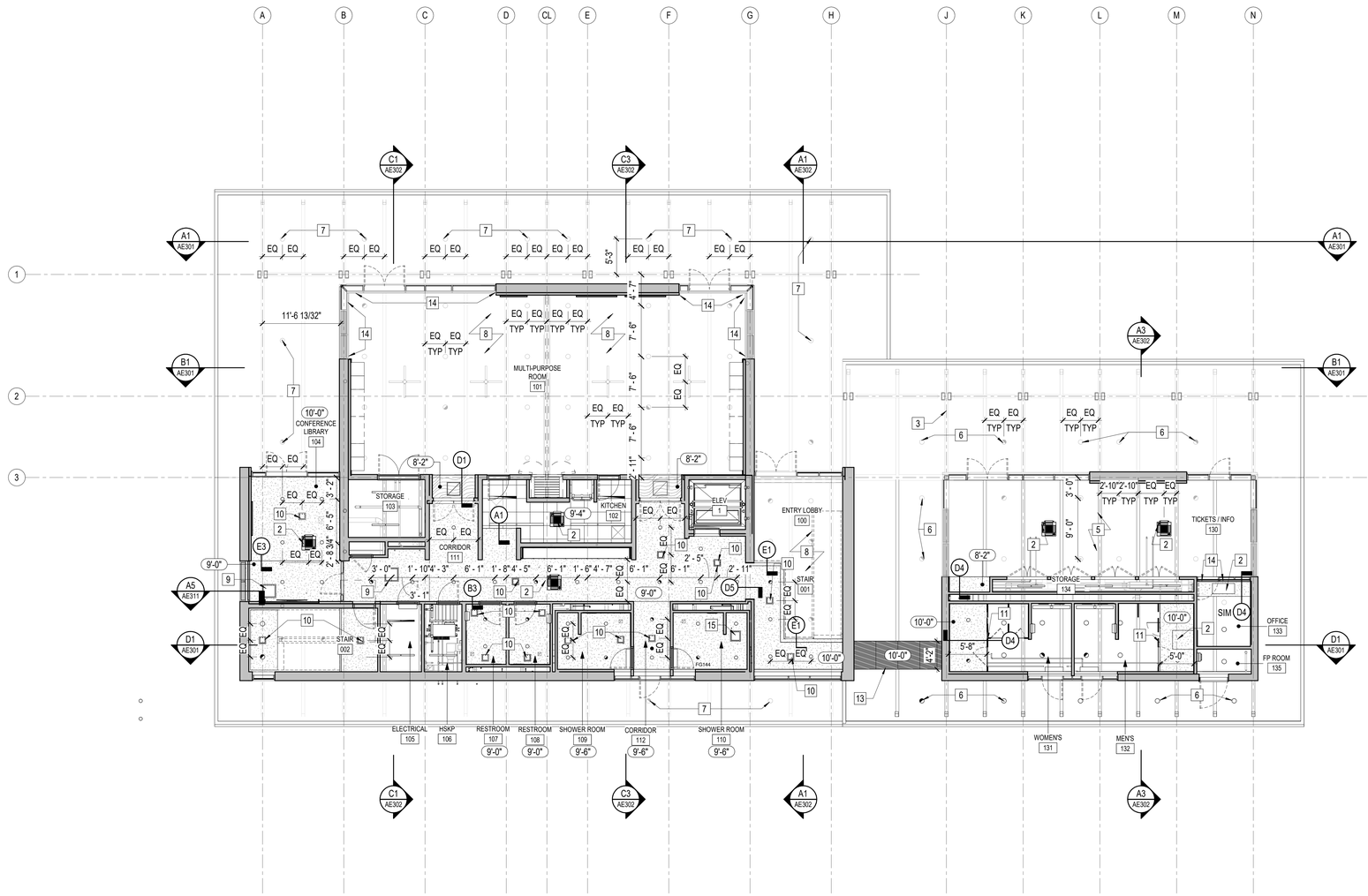

FIRST FLOOR REFLECTED CEILING PLAN

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

GENERAL NOTES

1. REFER TO SHEET A-001 FOR RCP LEGEND
2. REFER TO SHEETS AE530 FOR CEILING DETAILS.
3. ALL CEILINGS ARE 9'-0" AFF, UON.
4. HVAC, LIGHTING FIXTURES AND SPRINKLERS ARE SHOWN FOR GRAPHICAL PURPOSES ONLY. GC TO REFER TO PME DRAWINGS AND SPRINKLER PIPING SHOP DRAWINGS AND SHOULD NOTIFY ARCHITECT IMMEDIATELY OF ANY CONFLICTS OR DISCREPANCIES.
5. GENERAL CONTRACTOR TO COORDINATE ALL SOFFIT/ BULKHEAD FRAMING WITH FINAL LIGHTING FIXTURES & HVAC DIFFUSER LOCATIONS.
6. GENERAL CONTRACTOR TO FIELD VERIFY CEILING HEIGHTS SHOWN ON RCP DRAWINGS PRIOR TO INSTALLATION OF ALL MECHANICAL DUCTWORK, SPRINKLER PIPING, ELECTRICAL EQUIPMENT, CONDUITS, ETC. ARCHITECT TO BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES.
7. GENERAL CONTRACTOR TO INSTALL WIRE HANGERS @ ALL CORNERS OF LIGHT FIXTURES, REGISTERS, & GRILLES.
8. REFER TO SHEET AE530 FOR CEILING DETAILS. REFER TO INTERIOR & EXTERIOR SECTIONS FOR ADDITIONAL CEILING DETAILS NOT NOTED ON THIS SHEET.
9. ALL RECESSED LIGHTING SHALL BE CENTERED WITHIN THE SOFFIT DIMENSIONS, UON.
10. WHERE APC IS LOCATED, ALL FIXTURES INCLUDING BUT NOT LIMITED TO MOTION DETECTORS, FIRE ALARM DEVICES, & SPRINKLER HEADS, ARE TO BE LOCATED IN THE CENTER OF THE PANEL.
11. WHERE GWB SOFFITS SPAN LONGER THAN 30'-0", CONTROL JOINTS SHOULD BE LOCATED IN GWB SOFFIT EVERY 30'-0". ALIGN WITH CONTROL JOINTS IN GWB WALLS WHERE PRESENT.
12. REFRIGERANT LINES, CONDUIT, DUCTWORK AND SPRINKLER LINES SHOULD RUN AS CLOSE TO THE BEAMS AS POSSIBLE, UON.

KEY NOTES

#	
2	MECHANICAL EQUIPMENT WITH INTEGRAL ACCESS, REFER TO MECHANICAL DRAWINGS
3	GLULAM BEAMS ABOVE, REFER TO STRUCTURAL DRAWINGS, TYP.
5	LIGHT FIXTURE CONDUIT WITHIN ROOM IS TO BE RUN ABOVE CLT DECK AND BELOW ROOF INSULATION. JUNCTION BOXES ARE TO BE LOCATED WITHIN STORAGE 134 FOR ACCESS. REFER TO ROOF DETAILS AND ELECTRICAL DRAWINGS
6	LIGHT FIXTURE CONDUIT WITHIN LOW ROOF STRUCTURE TO BE RUN ABOVE CLT DECK AND BELOW ROOF INSULATION. JUNCTION BOXES ARE TO BE LOCATED WITHIN STORAGE 134 FOR ACCESS. REFER TO ROOF DETAILS AND ELECTRICAL DRAWINGS
7	LIGHT FIXTURE CONDUIT WITHIN HIGH ROOF STRUCTURE TO BE RUN ABOVE CLT DECK AND BELOW ROOF INSULATION. JUNCTION BOXES ARE TO BE LOCATED WITHIN MECHANICAL 204, FILES 203 OR STORAGE 201 FOR ACCESS. REFER TO ROOF DETAILS AND ELECTRICAL DRAWINGS
8	LIGHT FIXTURES WITHIN ROOM TO RUN CONDUIT WITHIN HIGH ROOF STRUCTURE TO BE RUN ABOVE CLT DECK AND BELOW ROOF INSULATION. JUNCTION BOXES ARE TO BE LOCATED WITHIN MECHANICAL 204, FILES 203 OR STORAGE 201 FOR ACCESS. REFER TO ROOF DETAILS AND ELECTRICAL DRAWINGS
9	24" X 24" FLUSH CEILING ACCESS PANEL, COORDINATE WITH MECHANICAL OR PLUMBING DRAWINGS.
10	12" X 12" FLUSH CEILING ACCESS PANEL, COORDINATE WITH MECHANICAL OR PLUMBING DRAWINGS.
11	36" x 18" FLUSH SOFFIT ACCESS PANEL, COORDINATE WITH MECHANICAL DRAWINGS.
13	FIBER CEMENT PANEL SOFFIT
14	MANUAL ROLLER SHADES, REFER TO INTERIOR DRAWINGS
15	18" X 18" FLUSH CEILING ACCESS PANEL, COORDINATE WITH MECHANICAL OR PLUMBING DRAWINGS.

RCP LEGEND

- 2' x 2' ACOUSTICAL PANEL CEILING
- GWB CEILING / SOFFIT
- FIBER CEMENT SIDING
- CROSS LAMINATED TIMBER
- SOUND ABSORBING PANELS, SAW1

GRAPHIC SCALE(S)

1/8" = 1' - 0" 0 5' 10' 15' 30'

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NORTH CAROLINA
RALEIGH N.C.

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

FIRST FLOOR REFLECTED CEILING PLAN

AE111

DESIGN: DDK
DRAWN: AST/WMP
REVIEW: DDK

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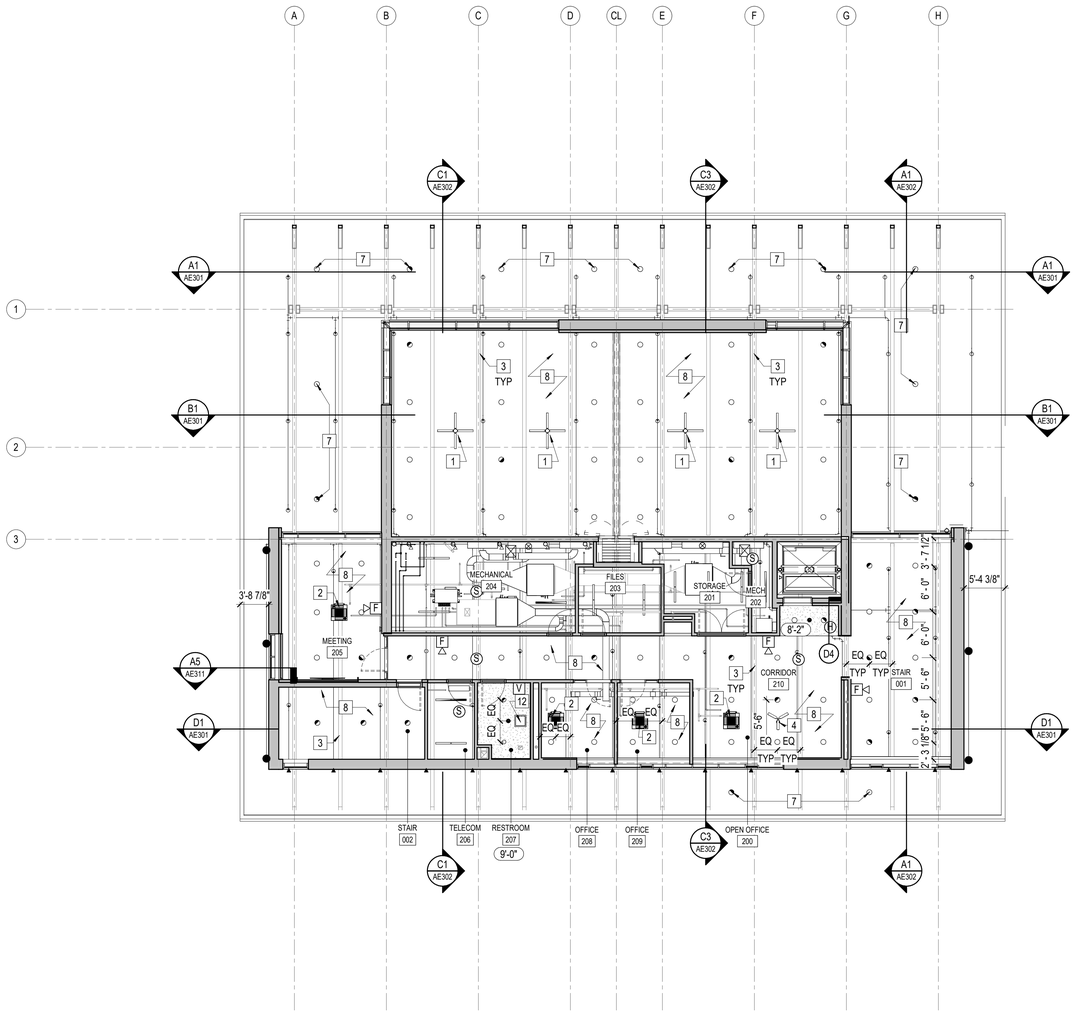

SECOND FLOOR

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

GENERAL NOTES

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2. REFER TO SHEETS AE530 FOR CEILING DETAILS.
3. ALL CEILINGS ARE 9'-0" AFF, UON.
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5. GENERAL CONTRACTOR TO COORDINATE ALL SOFFIT/ BULKHEAD FRAMING WITH FINAL LIGHTING FIXTURES & HVAC DIFFUSER LOCATIONS.
6. GENERAL CONTRACTOR TO FIELD VERIFY CEILING HEIGHTS SHOWN ON RCP DRAWINGS PRIOR TO INSTALLATION OF ALL MECHANICAL DUCTWORK, SPRINKLER PIPING, ELECTRICAL EQUIPMENT, CONDUITS, ETC. ARCHITECT TO BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES.
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11. WHERE GWB SOFFITS SPAN LONGER THAN 30'-0", CONTROL JOINTS SHOULD BE LOCATED IN GWB SOFFIT EVERY 30'-0". ALIGN WITH CONTROL JOINTS IN GWB WALLS WHERE PRESENT.
12. REFRIGERANT LINES, CONDUIT, DUCTWORK AND SPRINKLER LINES SHOULD RUN AS CLOSE TO THE BEAMS AS POSSIBLE, UON.

KEY NOTES

1 5'-0" (NON HVLS) CEILING MOUNTED FAN, CONDUIT TO RUN THROUGH CLT BELOW ROOF INSULATION INTO MECANICAL 204, FILES 203, OR STORAGE 201.

2 MECHANICAL EQUIPMENT WITH INTEGRAL ACCESS, REFER TO MECHANICAL DRAWINGS

3 GLULAM BEAMS ABOVE, REFER TO STRUCTURAL DRAWINGS, TYP.

4 3'-0" CEILING MOUNTED FAN

7 LIGHT FIXTURE CONDUIT WITHIN HIGH ROOF STRUCTURE TO BE RUN ABOVE CLT DECK AND BELOW ROOF INSULATION. JUNCTION BOXES ARE TO BE LOCATED WITHIN MECHANICAL 204, FILES 203 OR STORAGE 201 FOR ACCESS. REFER TO ROOF DETAILS AND ELECTRICAL DRAWINGS

8 LIGHT FIXTURES WITHIN ROOM TO RUN CONDUIT WITHIN HIGH ROOF STRUCTURE TO BE RUN ABOVE CLT DECK AND BELOW ROOF INSULATION. JUNCTION BOXES ARE TO BE LOCATED WITHIN MECHANICAL 204, FILES 203 OR STORAGE 201 FOR ACCESS. REFER TO ROOF DETAILS AND ELECTRICAL DRAWINGS

12 16" X 18" FLUSH CEILING ACCESS PANEL, COORDINATE WITH MECHANICAL OR PLUMBING DRAWINGS.

RCP LEGEND

- 2' x 2' ACOUSTICAL PANEL CEILING
- GWB CEILING / SOFFIT
- FIBER CEMENT SIDING
- CROSS LAMINATED TIMBER
- SOUND ABSORBING PANELS, SAW1

GRAPHIC SCALE(S)

1/8" = 1' - 0" 0 5' 10' 15' 30'

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145

SCO ID # : 24-27956-01A

DESIGNER

CLARKNEXSEN
421 NORTH HARRINGTON STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27603
919-828-1876
CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

RONALD DAVID KEASLER — REGISTERED ARCHITECT — 9858 — NORTH CAROLINA — RALEIGH, N.C.

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

SECOND FLOOR REFLECTED CEILING PLAN

AE112

DESIGN: DDK
DRAWN: AST/WMP
REVIEW: DDK

CN 10145

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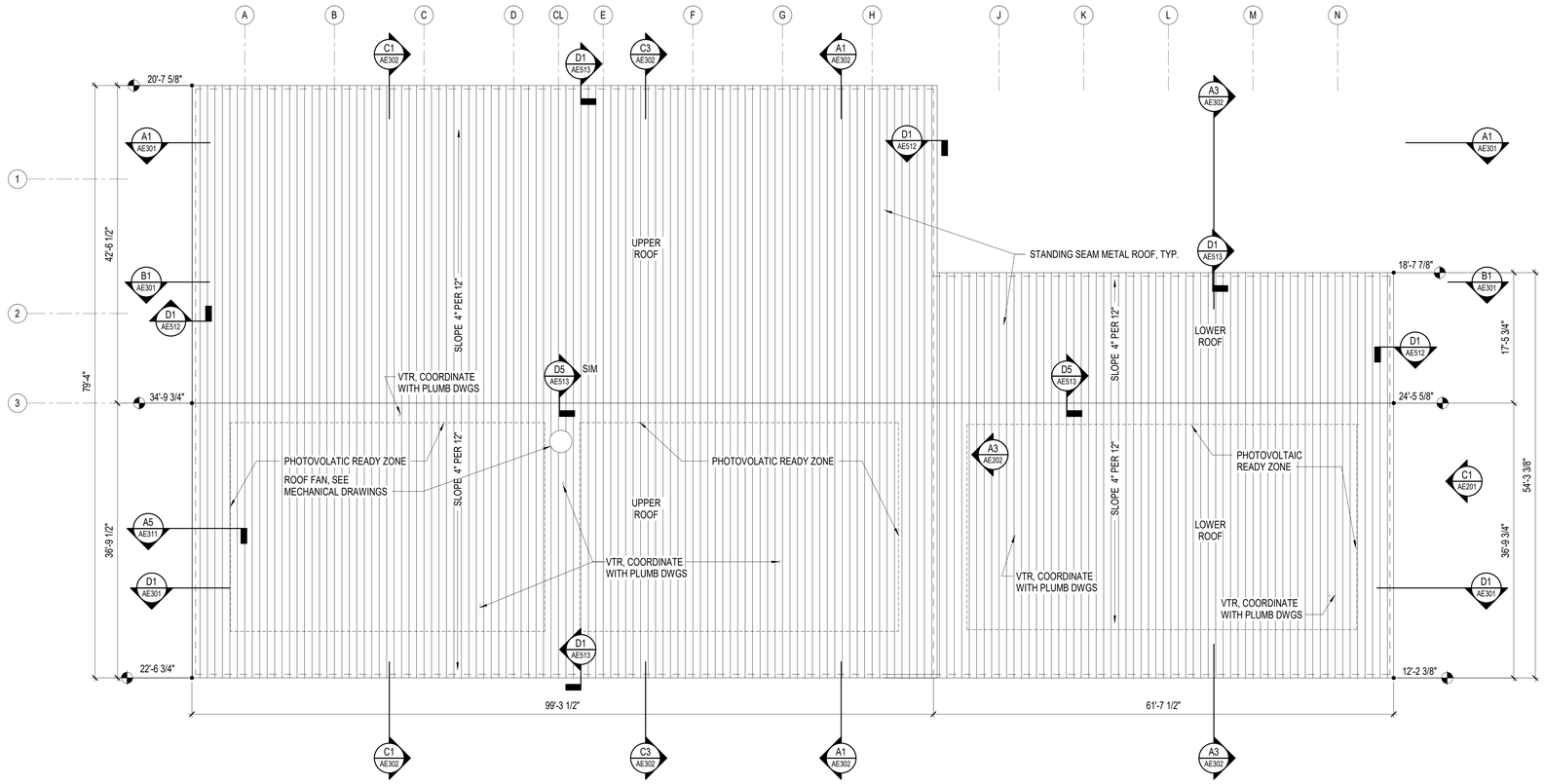


ROOF PLAN

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

GENERAL NOTES

1. COORDINATE WITH MECHANICAL AND PLUMBING DRAWINGS FOR LOCATION OF ROOF PENETRATIONS THAT MAY NOT BE SHOWN ON THIS DRAWING.
2. ALL ROOF ACCESSORIES ARE TO BE PROVIDED BY THE PLUMBING CONTRACTOR AND TO BE COORDINATED WITH THE ROOF STRUCTURE.
3. ALL ROOF DRAINS AND OVERFLOW DRAINS SHALL BE EQUIPPED WITH SCREENS.
4. SEE ELECTRICAL DRAWINGS FOR LIGHTNING PROTECTION SYSTEM PLANS AND DETAILS.
5. SEE SHEET AE512 AND AE513 FOR ROOF DETAILS.

GRAPHIC SCALE(S)

1/8" = 1' - 0" 0 5' 10' 15' 30'

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145

SCO ID # : 24-27956-01A

DESIGNER

CLARKNEXSEN

421 NORTH HARRINGTON STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27603
919-828-1876

CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

DONALD DAVID KRAMBECK, REGISTERED ARCHITECT, 9838, NORTH CAROLINA, RALEIGH, N.C.

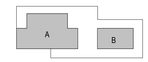
SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN



SHEET

ROOF PLAN

AE121

DESIGN: DDK
DRAWN: AST/WMP
REVIEW: DDK

CN 10145

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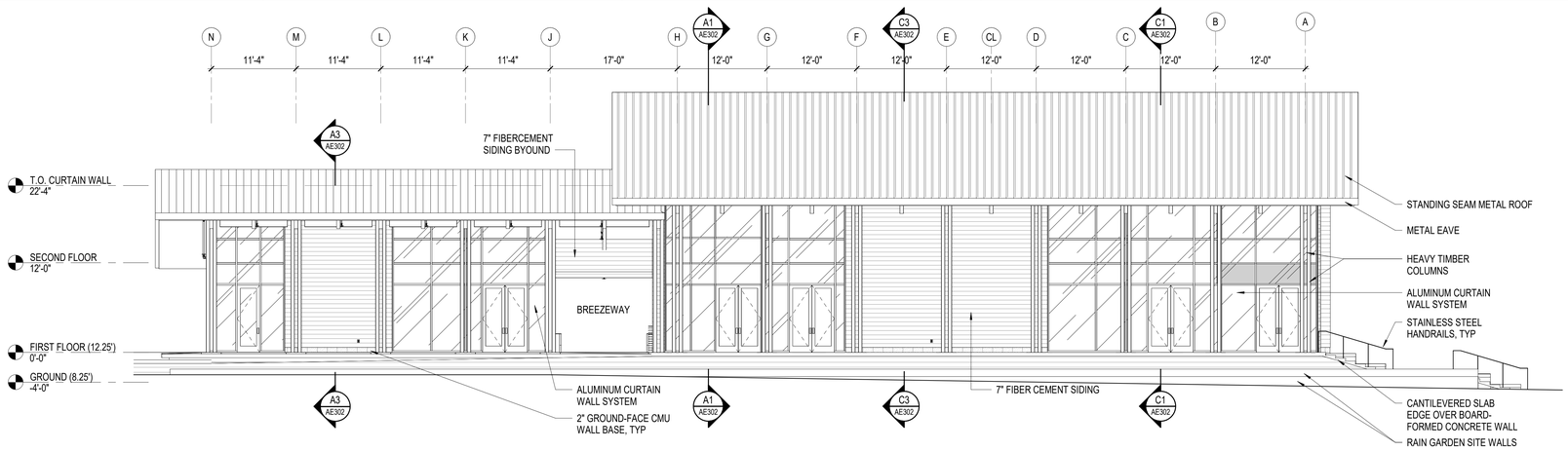
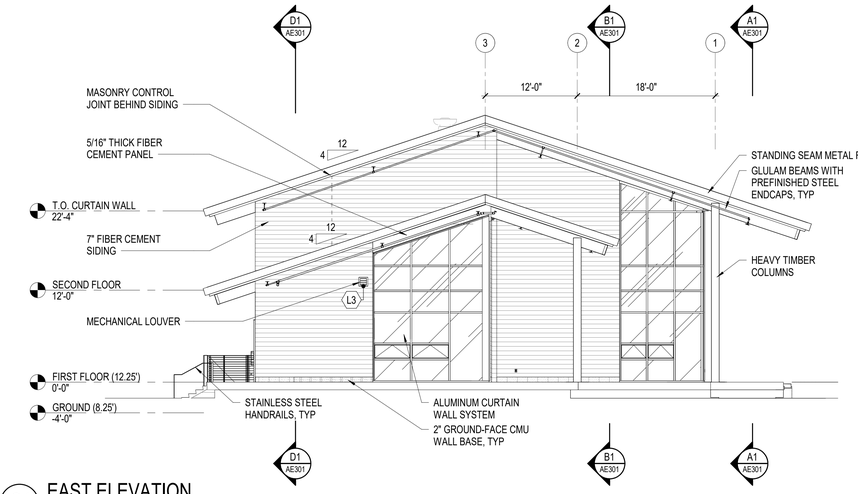


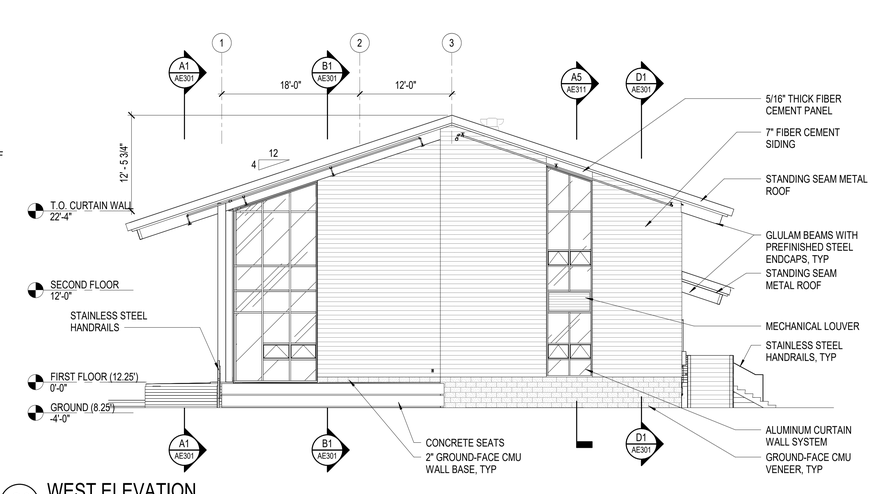
E1 NORTH ELEVATION

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



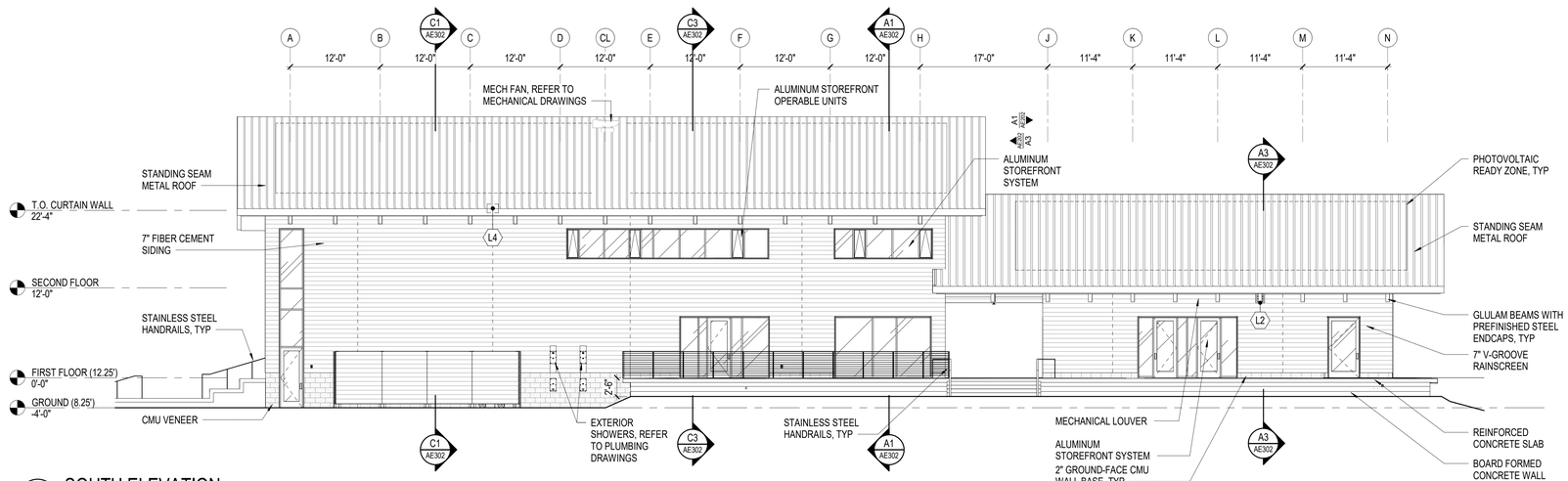
C1 EAST ELEVATION

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



C3 WEST ELEVATION

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



A1 SOUTH ELEVATION

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

GENERAL NOTES

1. REFER TO SHEET A-001 FOR ARCHITECTURAL SYMBOLS LEGEND.
2. REFER TO SHEET AE620 FOR CURTAIN WALL AND DOOR ELEVATIONS. REFER TO SHEET AE623 FOR LOUVER ELEVATIONS.
3. REFER TO AND COORDINATE WITH STRUCTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL FOR ADDITIONAL INFORMATION NOT SHOWN ON THIS DRAWING.
4. REFER TO AND COORDINATE WITH CIVIL AND LANDSCAPING DRAWINGS FOR ALL FINISHED GRADES.
5. HOLLOW METAL DOORS, FRAMES AND EXPOSED STEEL LINTELS TO BE PAINTED TO MATCH SIDING (COLOR TO BE SELECTED BY ARCHITECT).
6. ALL EXPOSED CMU IS GROUND FACE, UNLESS OTHERWISE NOTED.

GRAPHIC SCALE(S)

1/8" = 1' - 0" 0 5' 10' 15' 30'

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145

SCO ID # : 24-27956-01A

DESIGNER

CLARKNEXSEN
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RALEIGH, NORTH CAROLINA 27603
919-828-1876
CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

EXTERIOR ELEVATIONS

AE201

DESIGN: DDK
DRAWN: AST/WMP
REVIEW: DDK

CN 10145

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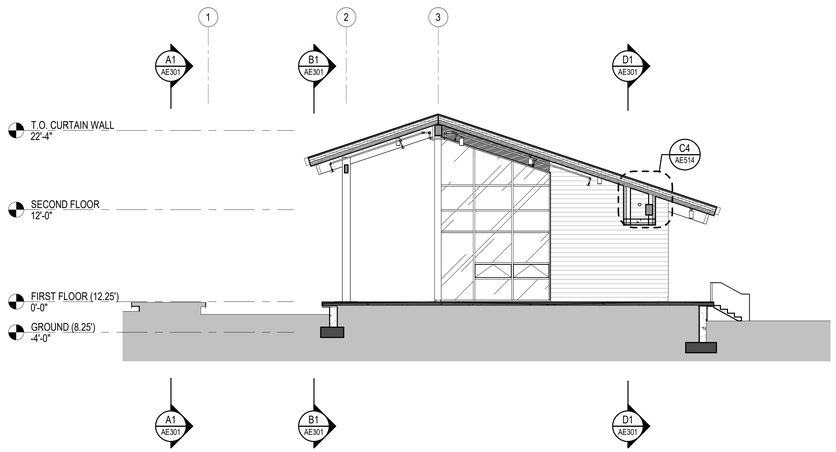
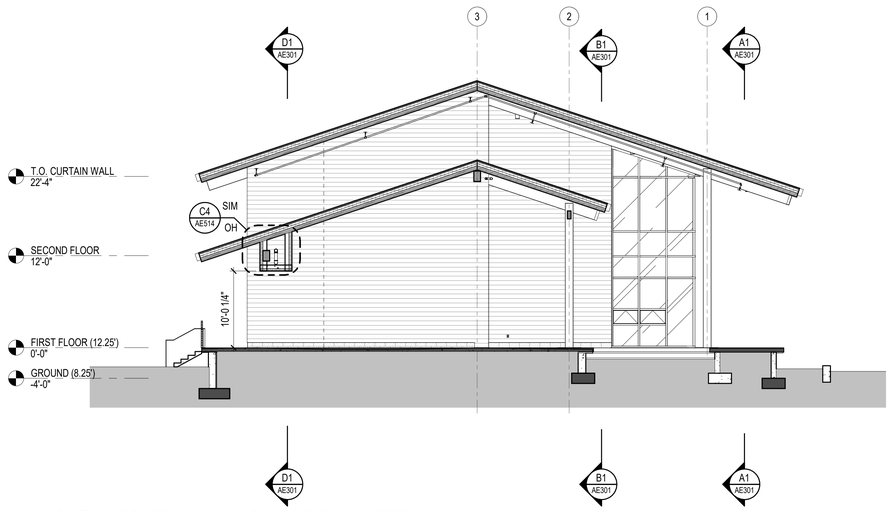


NORTH / SOUTH BUILDING SECTION - EAST ELEVATION OF EXTERIOR WALKWAY

A1 SCALE: 1/8" = 1'-0"



NORTH / SOUTH BUILDING SECTION - WEST ELEVATION OF EXTERIOR WALKWAY

A3 SCALE: 1/8" = 1'-0"

GENERAL NOTES

1. REFER TO SHEET A-001 FOR ARCHITECTURAL SYMBOLS LEGEND.
2. REFER TO SHEET AE620 FOR CURTAIN WALL AND DOOR ELEVATIONS. REFER TO SHEET AE623 FOR LOUVER ELEVATIONS.
3. REFER TO AND COORDINATE WITH STRUCTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL FOR ADDITIONAL INFORMATION NOT SHOWN ON THIS DRAWING.
4. REFER TO AND COORDINATE WITH CIVIL AND LANDSCAPING DRAWINGS FOR ALL FINISHED GRADES.
5. HOLLOW METAL DOORS, FRAMES AND EXPOSED STEEL LINTELS TO BE PAINTED TO MATCH SIDING (COLOR TO BE SELECTED BY ARCHITECT).
6. ALL EXPOSED CMU IS GROUND FACE, UNLESS OTHERWISE NOTED.

GRAPHIC SCALE(S)

1/8" = 1' - 0" 0 5' 10' 15' 30'

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Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145

SCO ID # : 24-27956-01A

DESIGNER

CLARKNEXSEN

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RALEIGH, NORTH CAROLINA 27603
919-828-1876

CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

DONALD DAVID KRAMBECK
REGISTERED ARCHITECT
9858
NORTH CAROLINA
RALEIGH, N.C.

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

EXTERIOR ELEVATIONS

AE202

DESIGN: Designer
DRAWN: Author
REVIEW: Checker

CN 10145

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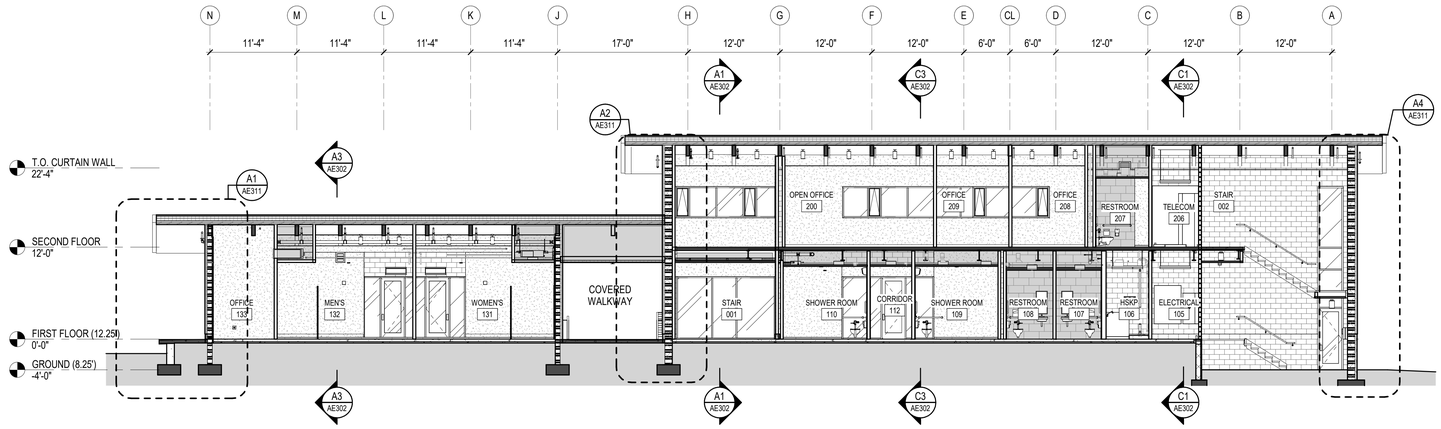
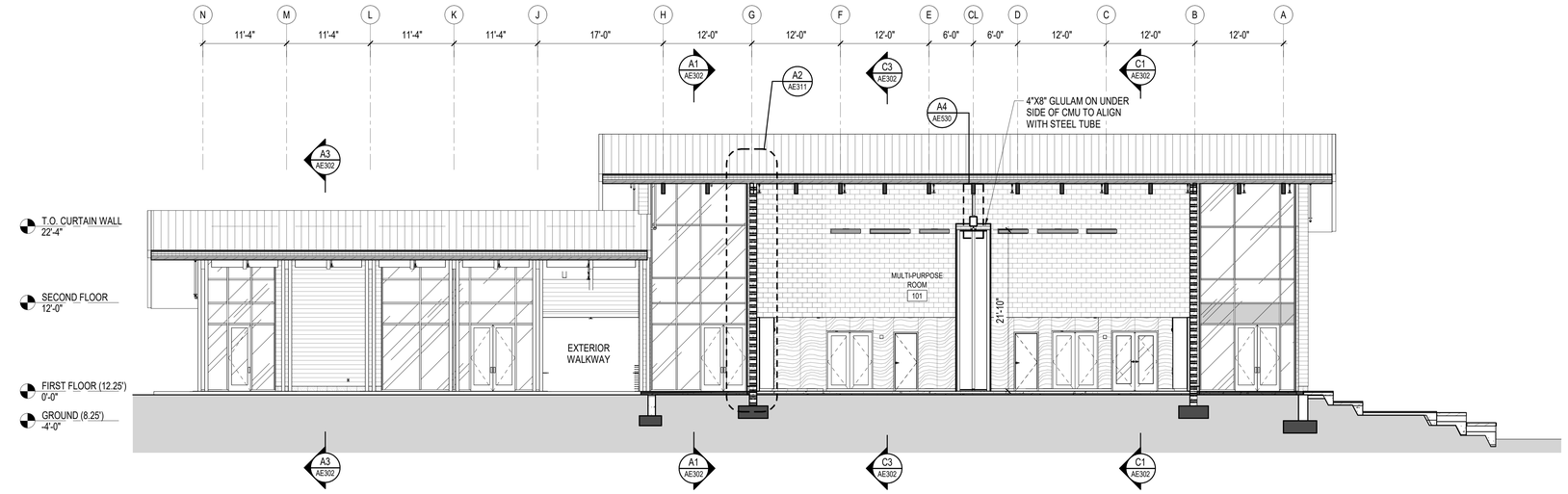


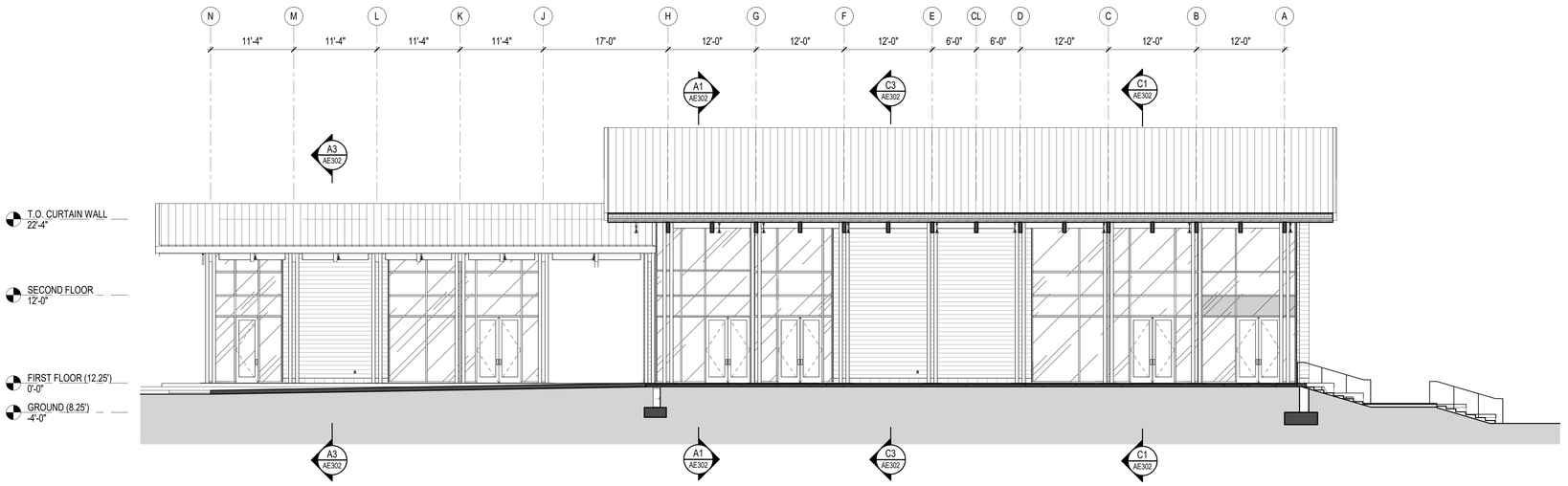
D1 EAST / WEST BUILDING SECTION - STAIR

SCALE: 1/8" = 1'-0" AE101



B1 EAST / WEST BUILDING SECTION - MULTIPURPOSE ROOM

SCALE: 1/8" = 1'-0" AE101



A1 EAST / WEST BUILDING SECTION - COVERED WALKWAY

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

GENERAL NOTES

1. REFER TO SHEET A-001 FOR ARCHITECTURAL SYMBOLS LEGEND.
2. REFER TO SHEET AE620 FOR CURTAIN WALL AND DOOR ELEVATIONS. REFER TO SHEET AE623 FOR LOUVER ELEVATIONS.
3. REFER TO AND COORDINATE WITH STRUCTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL FOR ADDITIONAL INFORMATION NOT SHOWN ON THIS DRAWING.
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GRAPHIC SCALE(S)

1/8" = 1' - 0" 0 5' 10' 15' 30'

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145

SCO ID # : 24-27956-01A

DESIGNER

CLARKNEXSEN

421 NORTH HARRINGTON STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27603
919-828-1876

CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

DONALD DAVID KRAMBUCK REGISTERED ARCHITECT 9856 NORTH CAROLINA RALEIGH N.C.

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

BUILDING SECTIONS

AE301

DESIGN: DDK
DRAWN: AST/WMP
REVIEW: DDK

CN 10145

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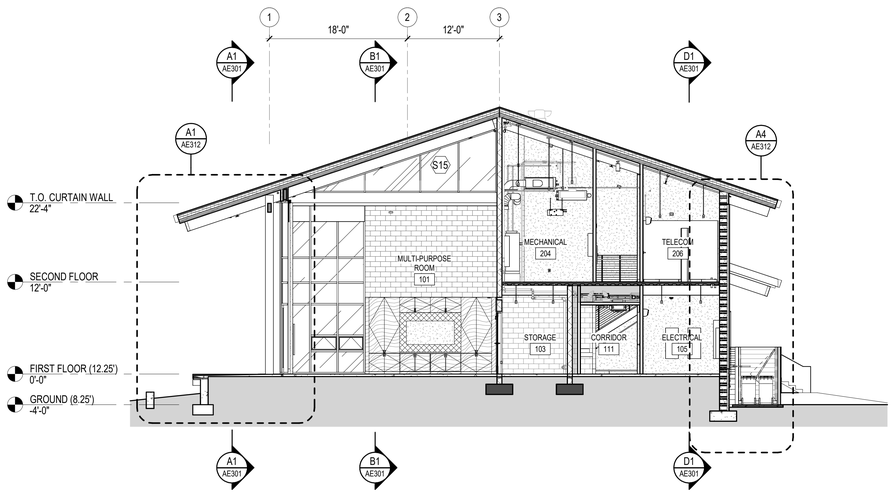
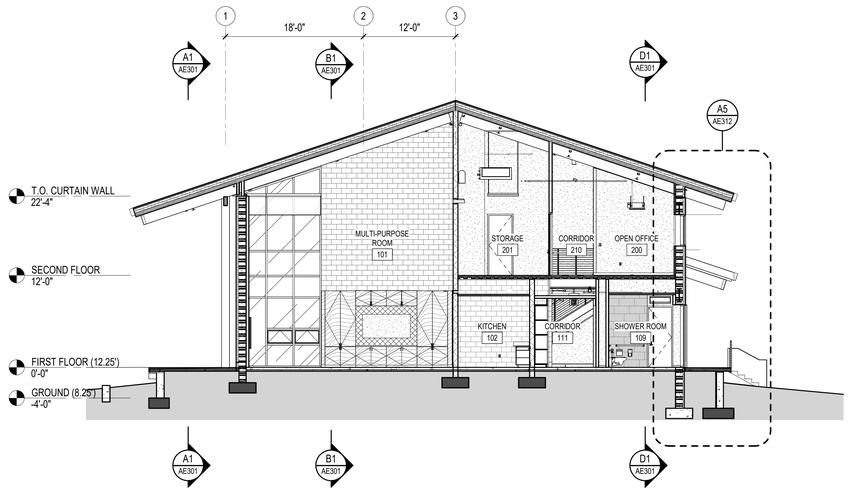
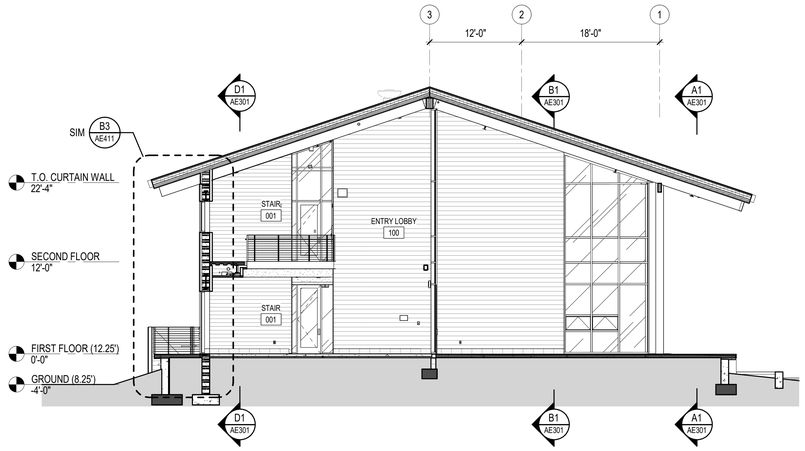


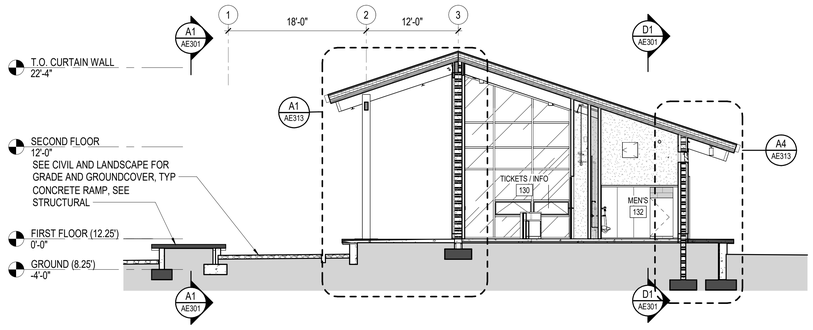
C1 NORTH / SOUTH BUILDING SECTION - MULTIPURPOSE ROOM
SCALE: 1/8" = 1'-0"



C3 NORTH / SOUTH BUILDING SECTION - MULTIPURPOSE ROOM
SCALE: 1/8" = 1'-0"



A1 NORTH / SOUTH BUILDING SECTION - ENTRY LOBBY
SCALE: 1/8" = 1'-0"



A3 NORTH / SOUTH BUILDING SECTION - TICKETING
SCALE: 1/8" = 1'-0"

GENERAL NOTES

1. REFER TO SHEET A-001 FOR ARCHITECTURAL SYMBOLS LEGEND.
2. REFER TO SHEET AE620 FOR CURTAIN WALL AND DOOR ELEVATIONS. REFER TO SHEET AE623 FOR LOUVER ELEVATIONS.
3. REFER TO AND COORDINATE WITH STRUCTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL FOR ADDITIONAL INFORMATION NOT SHOWN ON THIS DRAWING.
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GRAPHIC SCALE(S)

1/8" = 1' - 0" 0 5' 10' 15' 30'

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145
SCO ID # : 24-27956-01A

DESIGNER

CLARKNEXSEN

421 NORTH HARRINGTON STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27603
919·828·1876

CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

SUBMITTAL
JUNE 7, 2024
BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET
BUILDING SECTIONS

AE302

DESIGN: DDK
DRAWN: AST/WMP
REVIEW: DDK

CN 10145

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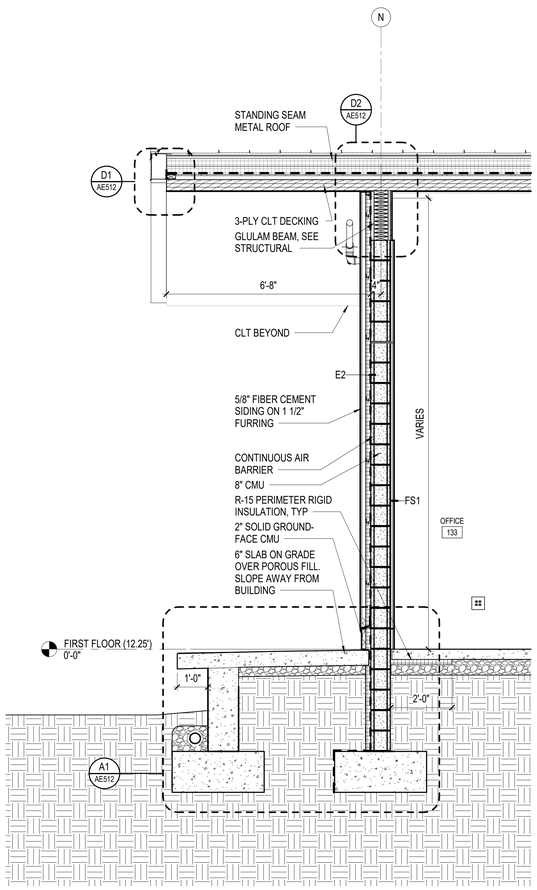
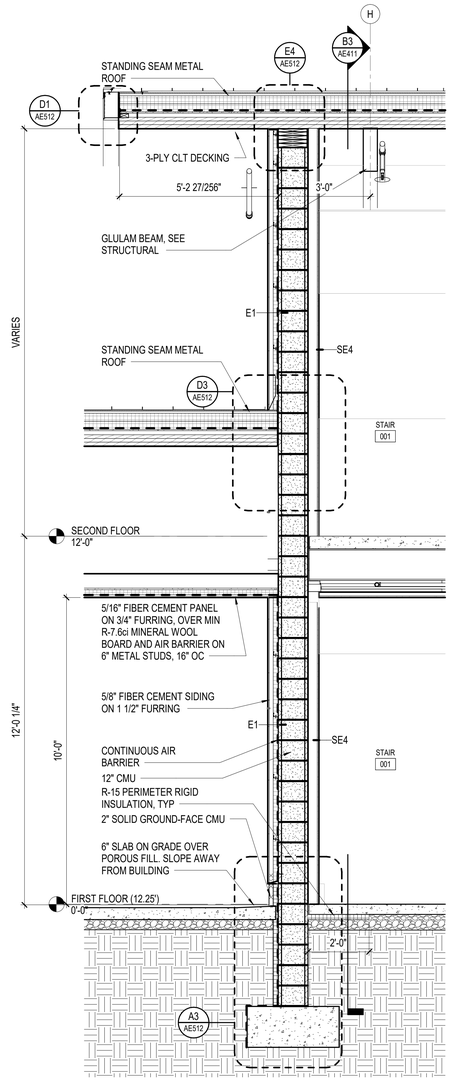


A1 WALL SECTION
SCALE: 1/2" = 1'-0"



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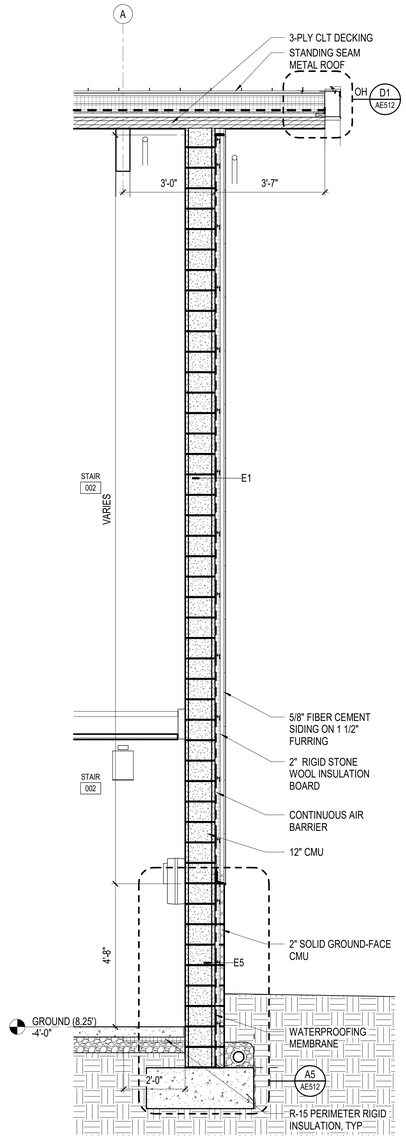

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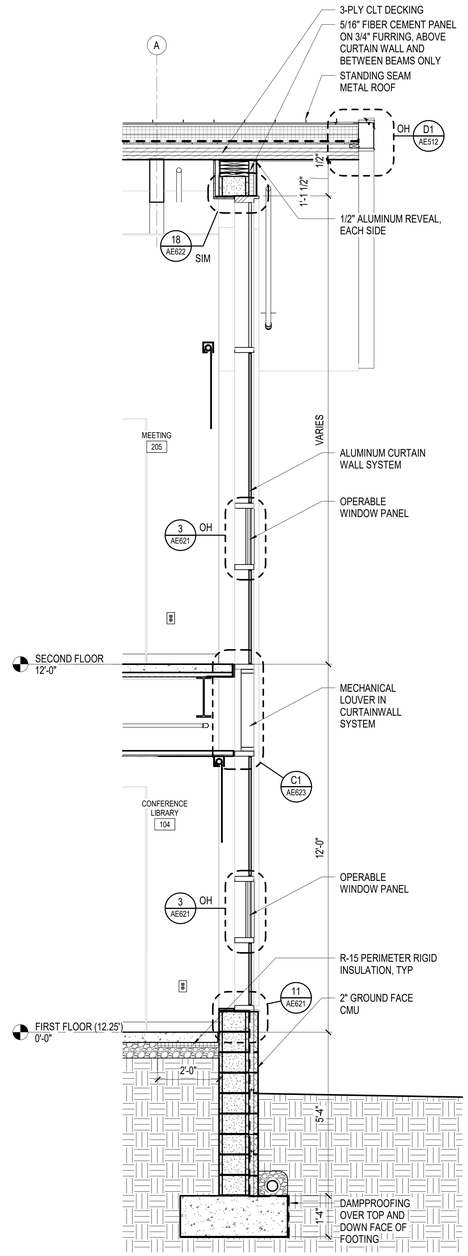

A5 WALL SECTION
SCALE: 1/2" = 1'-0"

1. REFER TO SHEETS AE621 AND AE622 FOR TYPICAL CURTAIN WALL DETAILS.

GRAPHIC SCALE(S)

1/2" = 1' - 0" 0 6" 1' 2' 3' 4' 5'

MARITIME HERITAGE FOUNDATION
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Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145
SCO ID # : 24-27956-01A

DESIGNER

CLARKNEXSEN

421 NORTH HARRINGTON STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27603
919·828·1876

CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

WALL SECTIONS

AE311

DESIGN: DDK
DRAWN: AST/WMP/MCK
REVIEW: DDK

CN 10145

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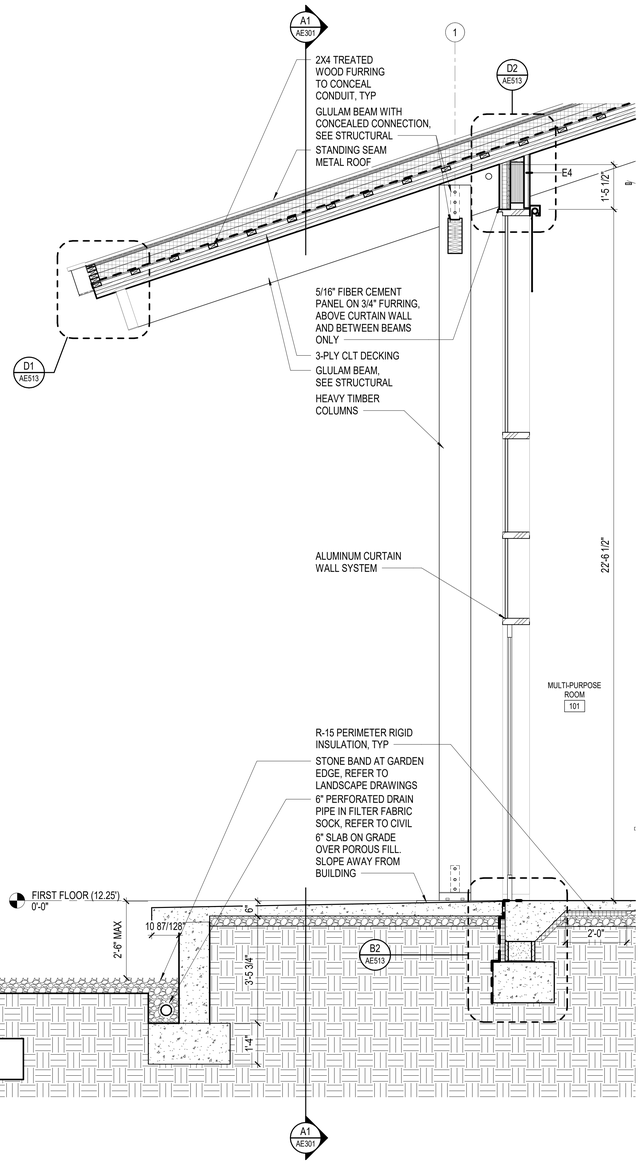
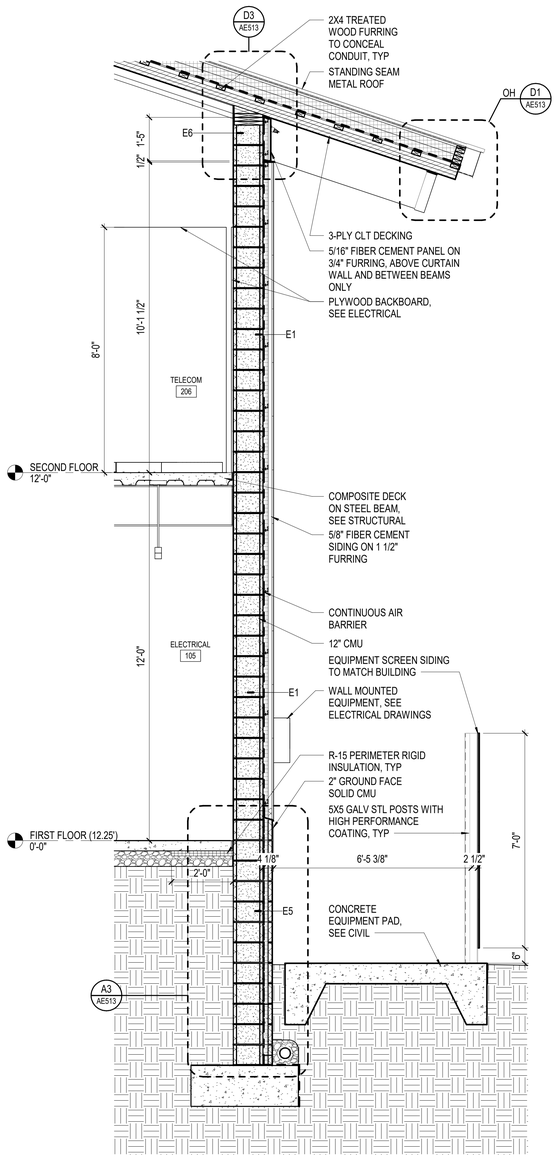


A1 WALL SECTION

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



A4 WALL SECTION

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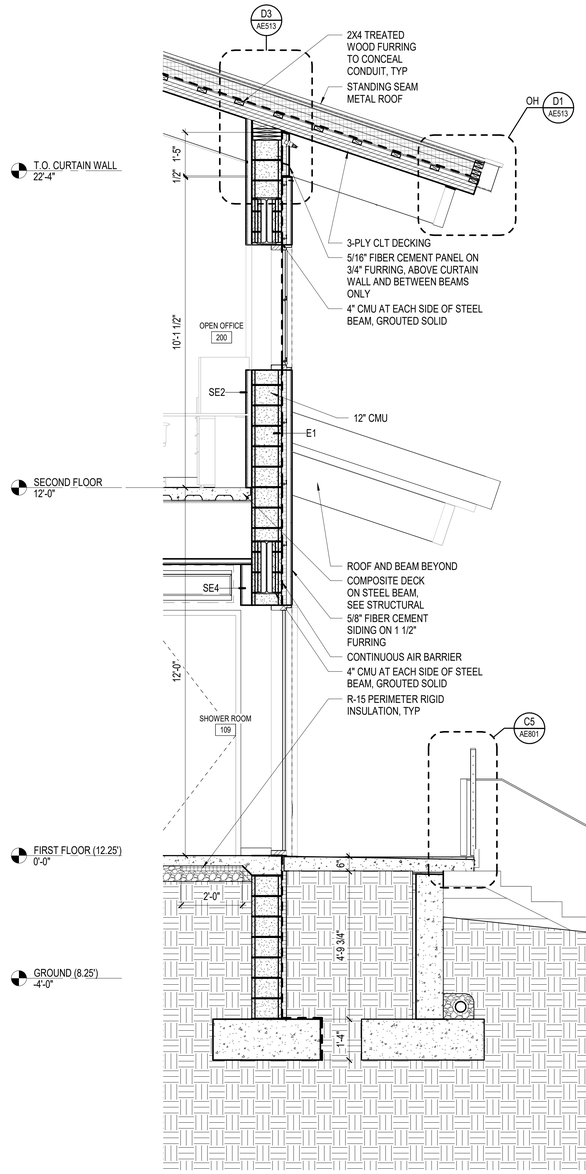

A5 WALL SECTION

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

1. REFER TO SHEETS AE621 AND AE622 FOR TYPICAL CURTAIN WALL DETAILS.

GRAPHIC SCALE(S)

1/2" = 1' - 0" 0 6" 1' 2' 3' 4' 5'

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145

SCO ID # : 24-27956-01A

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919-828-1876
CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

WALL SECTIONS

AE312

DESIGN: DDK
DRAWN: AST/WMP/MCK
REVIEW: DDK

CN 10145

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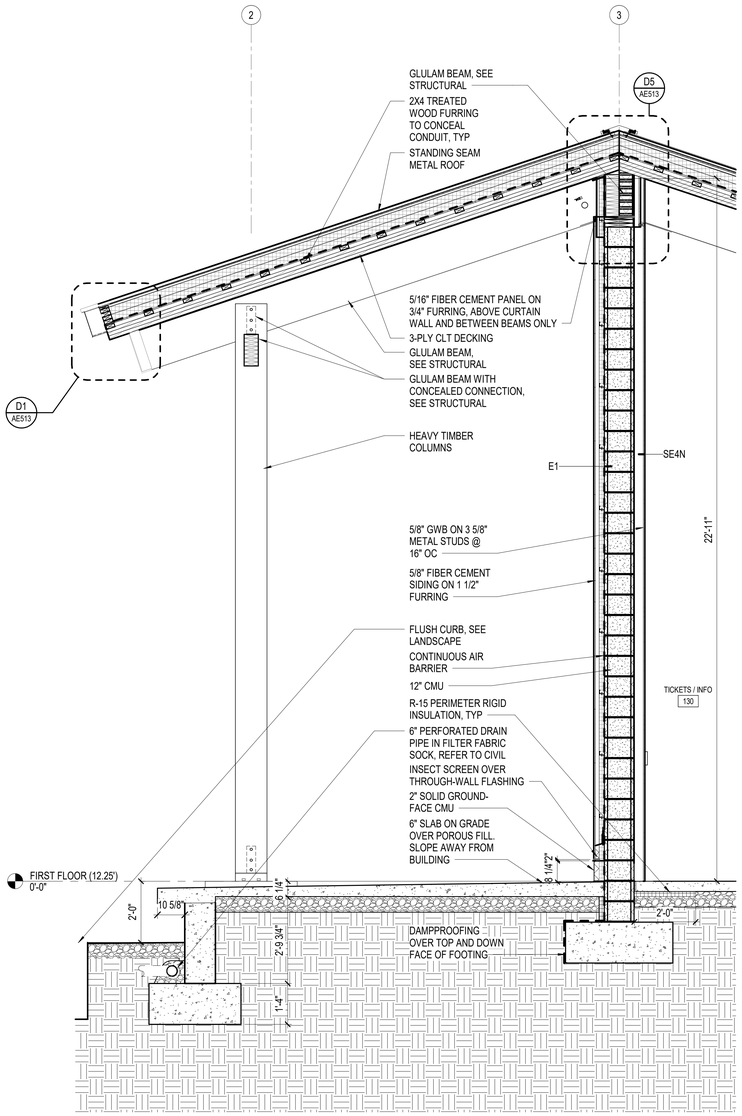
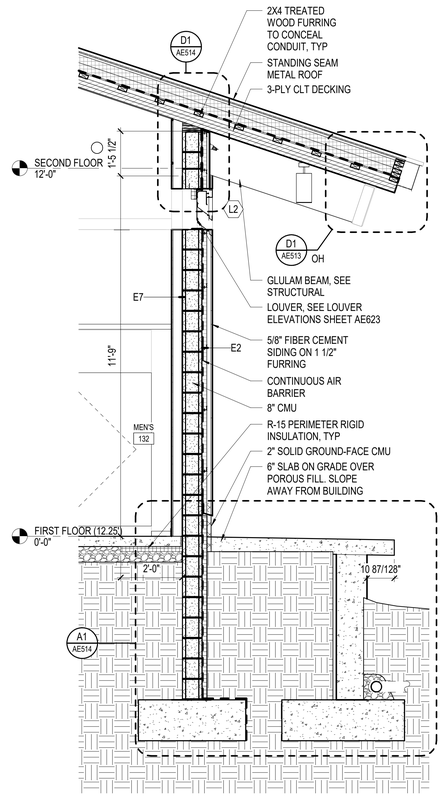


A1 WALL SECTION

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



A4 WALL SECTION

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

1. REFER TO SHEETS AE621 AND AE622 FOR TYPICAL CURTAIN WALL DETAILS.

GRAPHIC SCALE(S)

1/2" = 1' - 0" 0 6" 1' 2' 3' 4' 5'

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145

SCO ID # : 24-27956-01A

DESIGNER

CLARKNEXSEN

421 NORTH HARRINGTON STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27603
919-828-1876

CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

WALL SECTIONS

AE313

DESIGN: DDK
DRAWN: AST/WMP/MCK
REVIEW: DDK

CN 10145

6/12/2024 11:29:59 PM
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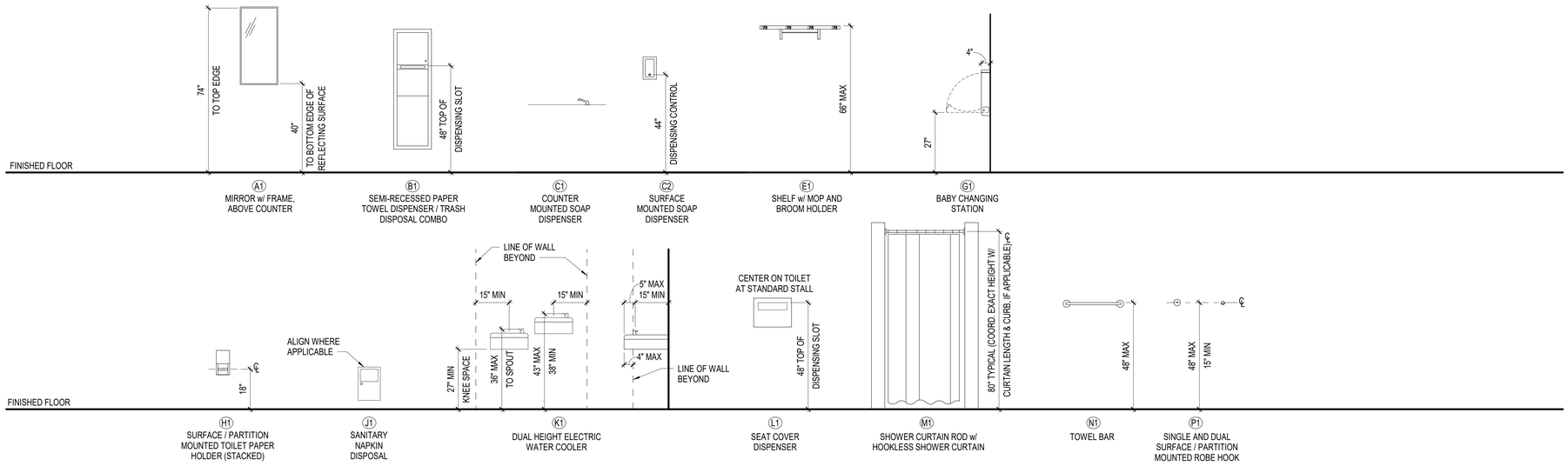
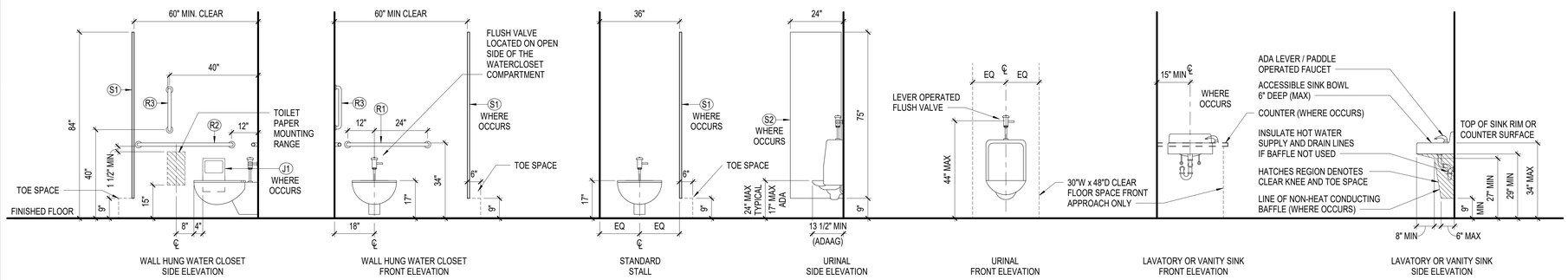
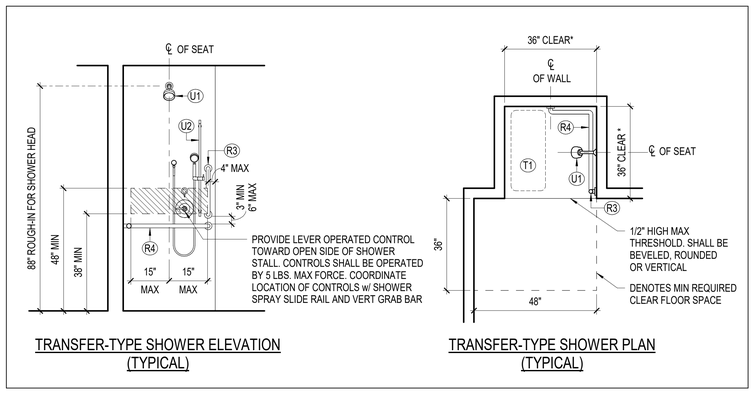
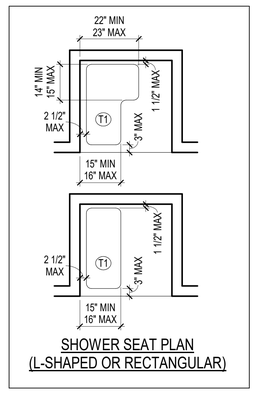
830





SPECIALTIES AND PLUMBING FIXTURES - MOUNTING HEIGHTS AND CLEARANCES





GENERAL NOTES:

1. * = DENOTES AN ABSOLUTE DIMENSION AND IS INCLUSIVE OF ANY APPLIED FINISHES.
2. SPECIALTIES AND FIXTURE MOUNTING HEIGHTS ARE BASED UPON ANSI A117.1 - 2017 AND 2021 NC BUILDING CODE. IT WILL BE THE RESPONSIBILITY OF THE GC TO ENSURE THAT ALL PLUMBING FIXTURES AND SPECIALTIES ARE INSTALLED IN ACCORDANCE WITH THESE GUIDELINES AND CODES.
3. HORIZONTAL GRAB BARS IN TOILET & SHOWERS TO BE MOUNTED SO THAT THE TOP OF THE GRIPPING SURFACE IS AT 33" MIN / 36" MAX AFF.
4. FLUSH CONTROLS SHALL BE LOCATED AT 44" MAX ABOVE FINISHED FLOOR ELEVATION AT WIDE SIDE OF WATER CLOSET.
5. HIGHEST CONTROL, OPERATING MECHANISM OR DISPENSING SLOT OF ALL SPECIALTIES SHALL BE 48" MAX ABOVE FINISHED FLOOR.
6. ALL OPERATING MECHANISMS SHALL REQUIRE 5 LB. MAX OPERATING FORCE.
7. PROVIDE BLOCKING AT ALL TOILET PLUMBING FIXTURE, SHOWER SEAT AND SPECIALTY LOCATIONS ADEQUATE TO SUPPORT MIN 250 LB. LOAD, UON.
8. OBJECTS WITH LEADING EDGES MORE THAN 27" ABOVE FINISHED FLOOR AND NOT MORE THAN 80" ABOVE FINISHED FLOOR SHALL PROTRUDE 4" MAX HORIZONTALLY INTO THE CIRCULATION PATH.
9. DIAMETER OF THE GRIPPING SURFACE OF A HANDRAIL MUST BE 1 1/4" - 1 1/2". THE SPACE BETWEEN A WALL AND A GRAB BAR MUST BE 1 1/2".

GENERAL NOTES

1. SEE SPECIFICATIONS FOR SPECIALTY MODELS & SHEET AE401 FOR TYPICAL MOUNTING HEIGHTS AND CLEARANCES..
2. ALL PARTITIONS ARE TYPE S4N UNLESS OTHERWISE NOTED. REFER TO SHEET AE501 FOR PARTITION TYPE DESCRIPTIONS.
3. REFER TO PLUMBING DRAWINGS FOR LOCATION OF HOSE BIBS.
4. REFER TO RCP SHEETS FOR ALL CEILING HEIGHT & MATERIAL DESIGNATIONS IN TOILET ROOMS.
5. GC TO PROVIDE & INSTALL ALL BLOCKING IN WALLS.
6. REFER TO AE521 FOR INTERIOR DETAILS.
7. REFER TO AE530 FOR CEILING DETAILS.
8. REFER TO IN601 FOR FINISH SCHEDULE AND FINISH LEGEND.

SHEET KEYNOTES

A1 1'-6" WIDE, 4'-0" HIGH, PLATE GLASS MIRROR w/ FRAME

B1 SEMI-RECESSED PAPER TOWEL DISPENSER / TRASH DISPOSAL COMBO

C1 COUNTER MOUNTED SOAP DISPENSER

C2 SURFACE MOUNTED SOAP DISPENSER

D1 ELECTRIC HAND DRYER (SINGLE)

E1 SHELF w/ MOP AND BROOM HOLDER

F1 4'-0" TALL STAINLESS STEEL WALL PANELS TO COMPLY WITH 2018 NCBC 1210.2.2.

F2 TOILET STALL FLIP SHELF

G1 BABY CHANGING STATION

H1 SURFACE / PARTITION MOUNTED TOILET PAPER HOLDER (STACKED)

J1 SURFACE MOUNTED SANITARY NAPKIN DISPOSAL

K1 DUAL HEIGHT ELECTRIC WATER COOLER

L1 SEAT COVER DISPENSER

M1 SHOWER CURTAIN ROD w/ HOOKLESS SHOWER CURTAIN

N1 TOWEL BAR

P1 SURFACE MOUNTED ROBE HOOK

R1 36" HORIZONTAL GRAB BAR

R2 42" HORIZONTAL GRAB BAR

R3 18" VERTICAL GRAB BAR

R4 TWO-WALL SHOWER GRAB BAR

R5 18" HORIZONTAL GRAB BAR

R6 12" HORIZONTAL GRAB BAR

S1 FLOOR MOUNTED, OVERHEAD BRACED TOILET PARTITIONS

S2 24" DEEP WALL HUNG URINAL SCREEN

T1 FOLDING SHOWER COMPARTMENT SEAT

U1 WALL MOUNTED SHOWER HEAD

U2 FLEXIBLE HAND HELD SHOWER SPRAY w/ 59" MIN LENGTH, PER ADA

V1 67" DIA. CLEAR FLOOR SPACE

X1 SOLID SURFACE COUNTER TOP W/ FIELD APPLIED BACKSPLASH AND SIDE SPLASHES (REFER TO DETAIL ?/?)

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

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CN PROJ # : 10145

SCO ID # : 24-27956-01A

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PROFESSIONAL SEAL

RONALD DAVID KRAMBECK · REGISTERED · ARCHITECT · 9836 · 04/30/24 · NORTH CAROLINA · RALEIGH, N.C.

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

SPECIALTIES AND PLUMBING FIXTURES - MOUNTING HEIGHTS AND CLEARANCES

AE401

DESIGN: DDK
DRAWN: AST/WMP
REVIEW: DDK

CN 10145

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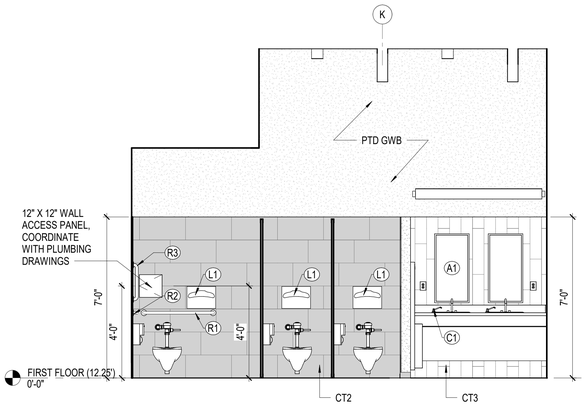
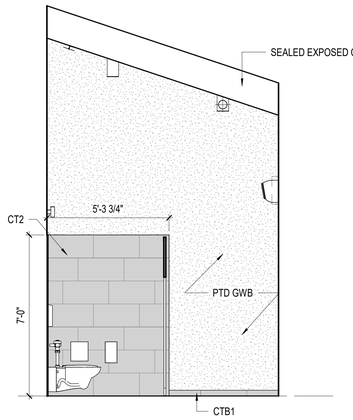
830



D1 131 NORTH
3/8" = 1'-0"



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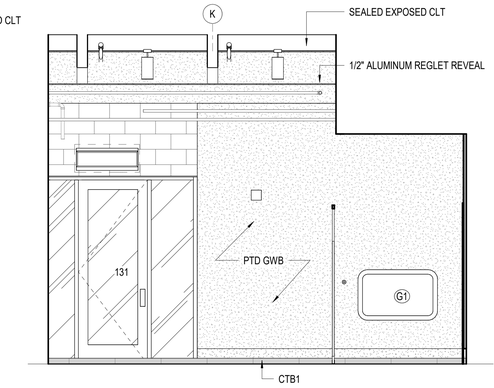

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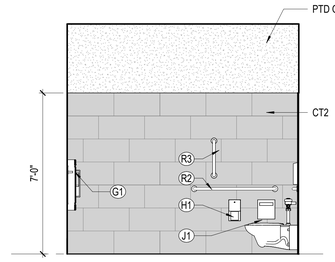
3/8" = 1'-0"



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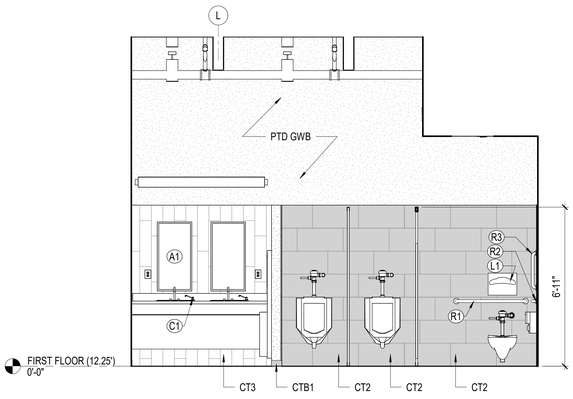
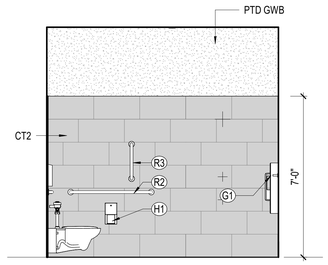


C1 132 NORTH
3/8" = 1'-0"



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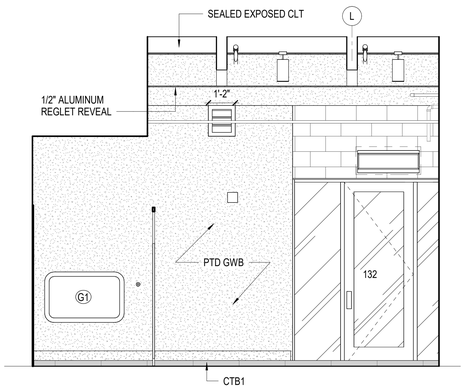

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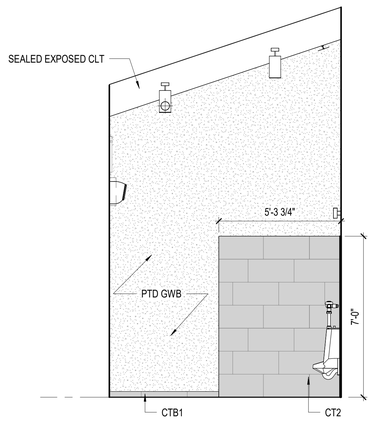

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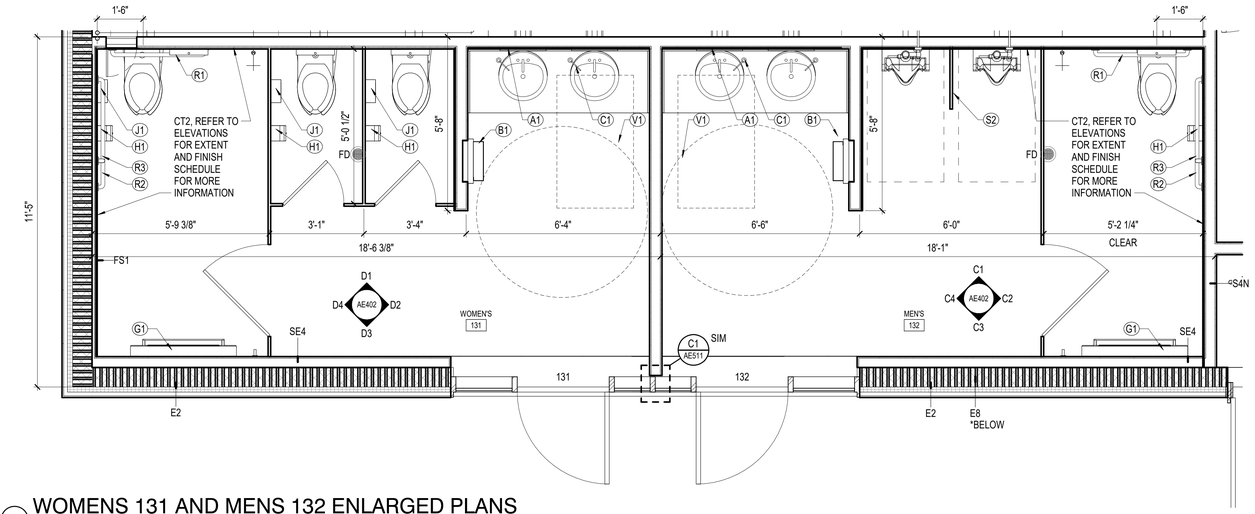
3/8" = 1'-0"



A1 WOMENS 131 AND MENS 132 ENLARGED PLANS
1/2" = 1'-0"

GENERAL NOTES

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B1	SEMI-RECESSED PAPER TOWEL DISPENSER / TRASH DISPOSAL COMBO
C1	COUNTER MOUNTED SOAP DISPENSER
G1	BABY CHANGING STATION
H1	SURFACE / PARTITION MOUNTED TOILET PAPER HOLDER (STACKED)
J1	SURFACE MOUNTED SANITARY NAPKIN DISPOSAL
L1	SEAT COVER DISPENSER
R1	36" HORIZONTAL GRAB BAR
R2	42" HORIZONTAL GRAB BAR
R3	18" VERTICAL GRAB BAR
S2	24" DEEP WALL HUNG URINAL SCREEN
V1	67" DIA. CLEAR FLOOR SPACE

RATED PARTITION LEGEND

ONE HOUR FIRE RATING

TWO HOUR FIRE RATING

GRAPHIC SCALE(S)

3/8" = 1' - 0" 0 1' 2' 3' 4' 5' 10'

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REVISIONS

KEY PLAN

SHEET

TOILET ROOM PLANS AND ELEVATIONS

AE402

DESIGN: DDK
DRAWN: AST/WMP
REVIEW: DDK

CN 10145

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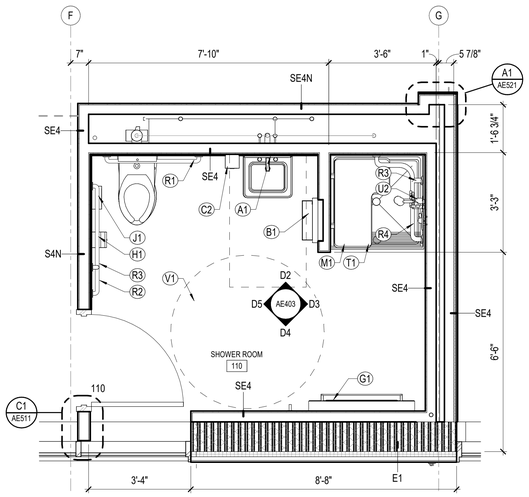
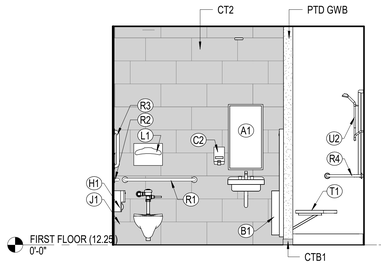


D1 SHOWER ROOM 110 ENLARGED PLAN
1/2" = 1'-0"



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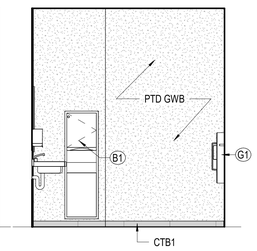
3/8" = 1'-0"



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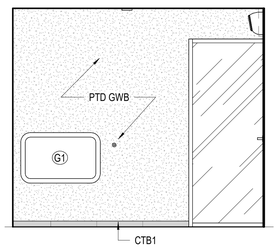
3/8" = 1'-0"



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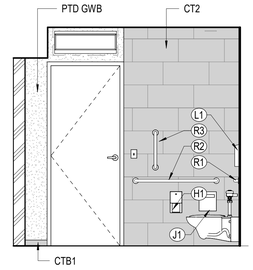
3/8" = 1'-0"



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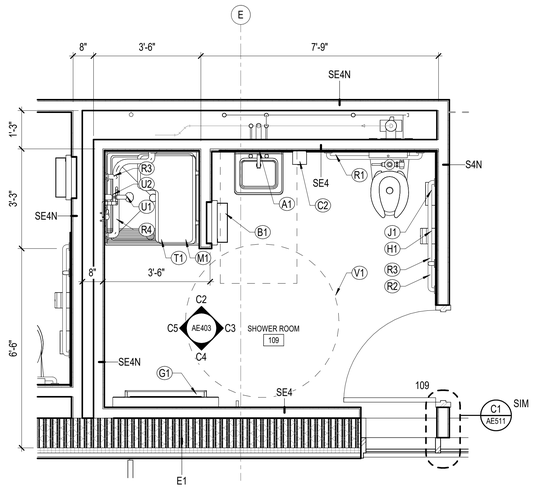
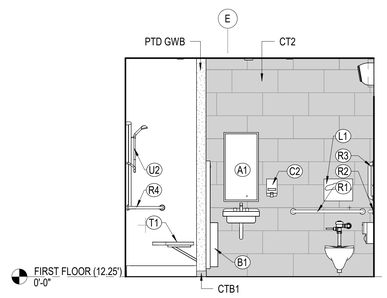
3/8" = 1'-0"



C1 SHOWER ROOM 109 ENLARGED PLAN
1/2" = 1'-0"



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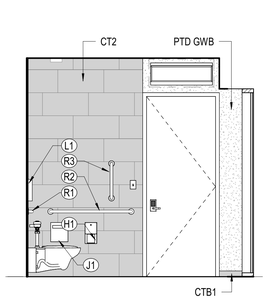
3/8" = 1'-0"



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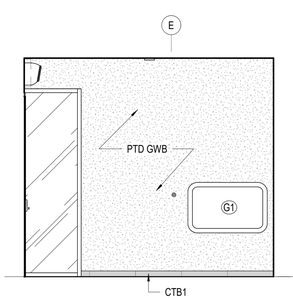

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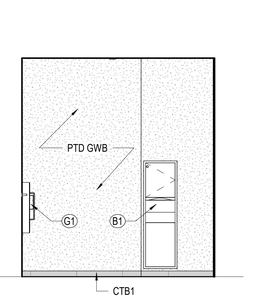
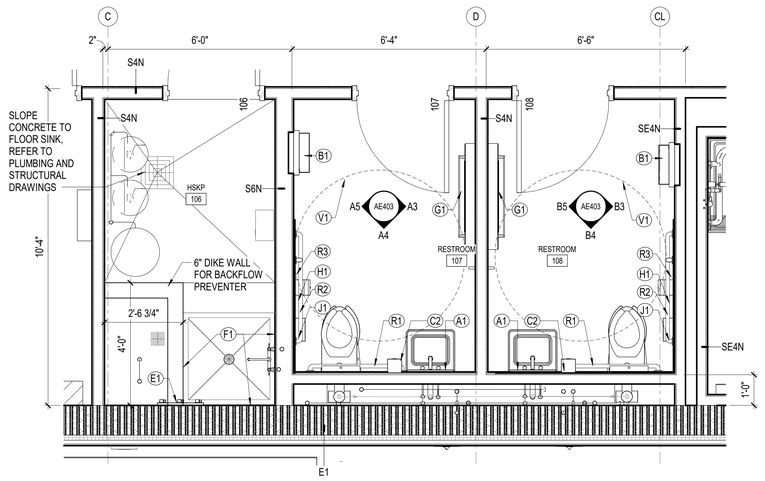
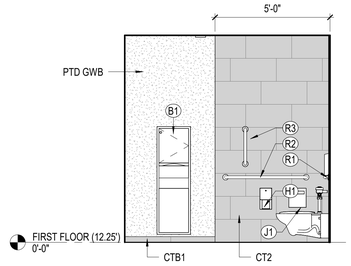


C5 109 WEST
3/8" = 1'-0"



A1 RESTROOM 107 AND 108 ENLARGED PLANS
1/2" = 1'-0"



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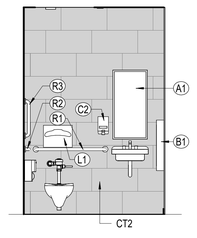
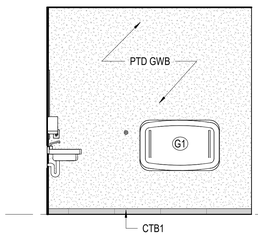
3/8" = 1'-0"



B4 108 SOUTH
3/8" = 1'-0"



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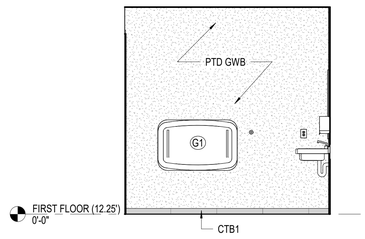

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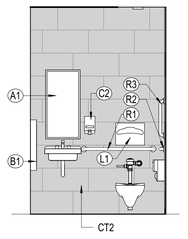
3/8" = 1'-0"



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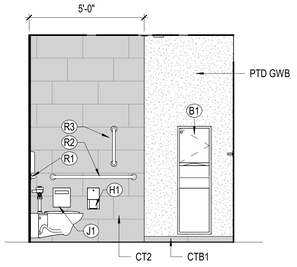

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H1	SURFACE / PARTITION MOUNTED TOILET PAPER HOLDER (STACKED)
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U2	FLEXIBLE HAND HELD SHOWER SPRAY w/ 59" MIN LENGTH, PER ADA
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RATED PARTITION LEGEND

ONE HOUR FIRE RATING

TWO HOUR FIRE RATING

GRAPHIC SCALE(S)

3/8" = 1' - 0" 0 1' 2' 3' 4' 5' 10'

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SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

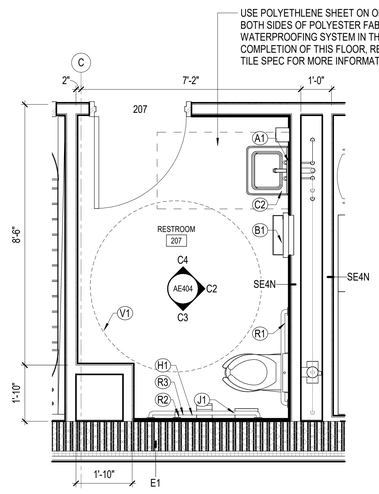
TOILET ROOM PLANS AND ELEVATIONS

AE403

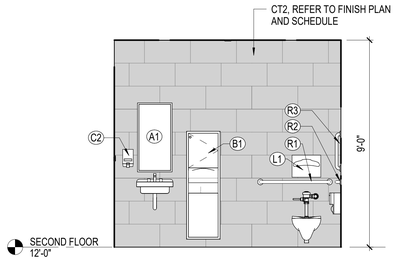
DESIGN: DDK
DRAWN: AST/WMP
REVIEW: DDK

CN 10145

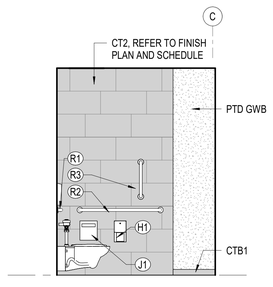
6/12/2024 11:30:19 PM
Autodesk Docs://Maritime Education Center/10145_Maritime Education Center_A23.rvt
630



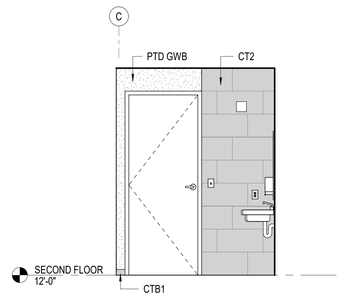
C1 RESTROOM 207 ENLARGED PLAN
1/2" = 1'-0"



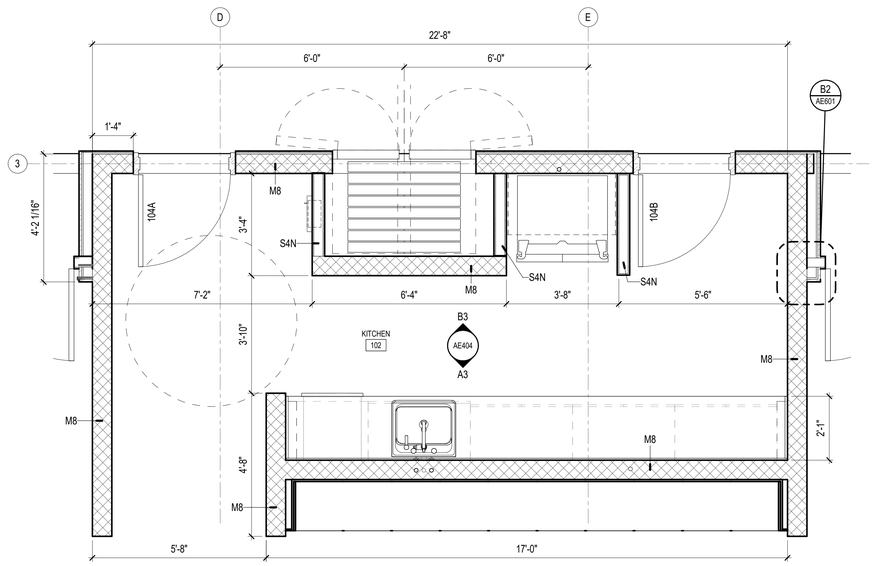
C2 207 EAST
3/8" = 1'-0"



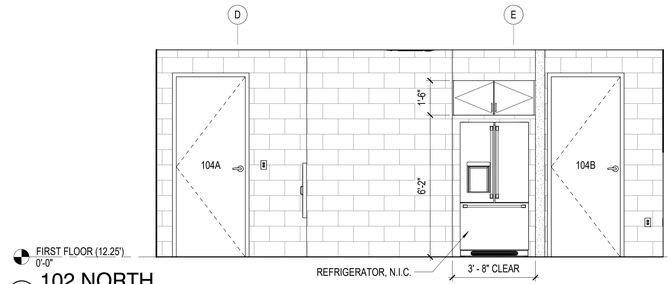
C3 207 SOUTH
3/8" = 1'-0"



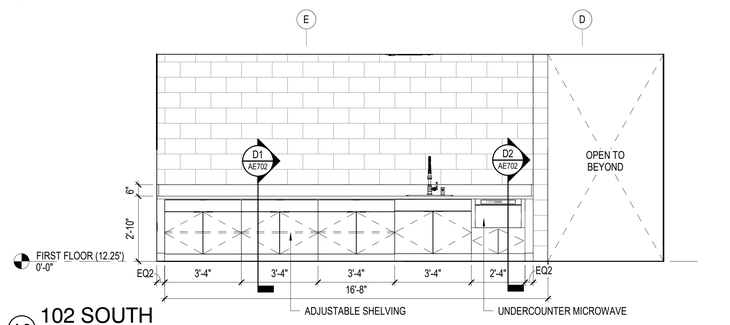
C4 207 NORTH
SCALE: 3/8" = 1'-0"



A1 KITCHEN ENLARGED PLAN
1/2" = 1'-0"



B3 102 NORTH
3/8" = 1'-0"



A3 102 SOUTH
3/8" = 1'-0"

GENERAL NOTES

1. SEE SPECIFICATIONS FOR SPECIALTY MODELS & SHEET AE401 FOR TYPICAL MOUNTING HEIGHTS AND CLEARANCES..
2. ALL PARTITIONS ARE TYPE S4N UNLESS OTHERWISE NOTED. REFER TO SHEET AE501 FOR PARTITION TYPE DESCRIPTIONS.
3. REFER TO PLUMBING DRAWINGS FOR LOCATION OF HOSE BIBS.
4. REFER TO RCP SHEETS FOR ALL CEILING HEIGHT & MATERIAL DESIGNATIONS IN TOILET ROOMS.
5. GC TO PROVIDE & INSTALL ALL BLOCKING IN WALLS.
6. REFER TO AE521 FOR INTERIOR DETAILS.
7. REFER TO AE530 FOR CEILING DETAILS.
8. REFER TO IN601 FOR FINISH SCHEDULE AND FINISH LEGEND.

(#) TOILETS ACCESSORIES

A1 1'-6" WIDE, 4'-0" HIGH, PLATE GLASS MIRROR w/ FRAME

B1 SEMI-RECESSED PAPER TOWEL DISPENSER / TRASH DISPOSAL COMBO

C2 SURFACE MOUNTED SOAP DISPENSER

H1 SURFACE / PARTITION MOUNTED TOILET PAPER HOLDER (STACKED)

J1 SURFACE MOUNTED SANITARY NAPKIN DISPOSAL

L1 SEAT COVER DISPENSER

R1 36" HORIZONTAL GRAB BAR

R2 42" HORIZONTAL GRAB BAR

R3 18" VERTICAL GRAB BAR

V1 67" DIA. CLEAR FLOOR SPACE

RATED PARTITION LEGEND

ONE HOUR FIRE RATING

TWO HOUR FIRE RATING

GRAPHIC SCALE(S)

1/2" = 1' - 0" 0 6" 1' 2' 3' 4' 5'

3/8" = 1' - 0" 0 1' 2' 3' 4' 5' 10'

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145

SCO ID # : 24-27956-01A

DESIGNER

CLARKNEXSEN
421 NORTH HARRINGTON STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27603
919-828-1876
CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

DONALD DAVID KRAMBORN
REGISTERED ARCHITECT
9856
04/12/24
NORTH CAROLINA
RALEIGH, N.C.

SUBMITTAL
JUNE 7, 2024
BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET
TOILET ROOM AND KITCHEN PLANS, INTERIOR AND CASEWORK ELEVATIONS

AE404

DESIGN: DDK
DRAWN: AST/WMP
REVIEW: DDK

CN 10145

6/12/2024 11:30:26 PM
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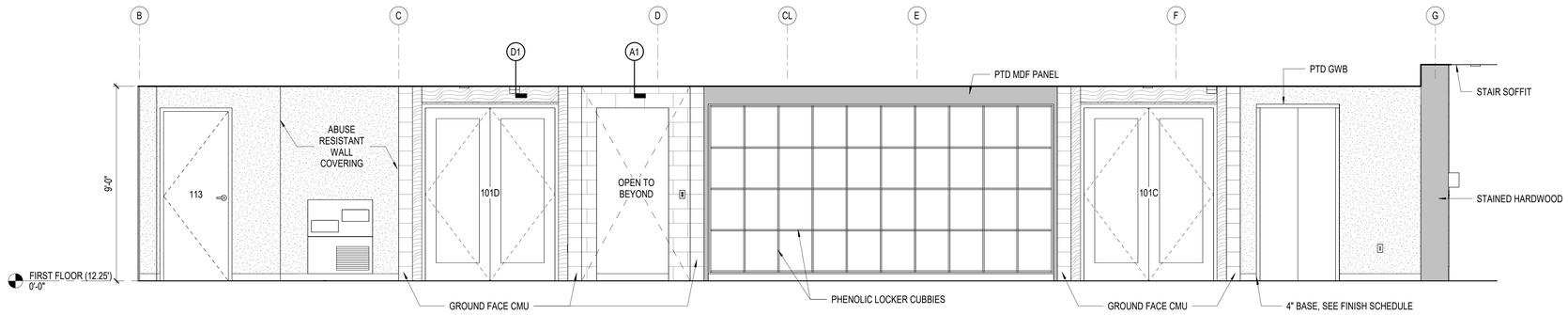
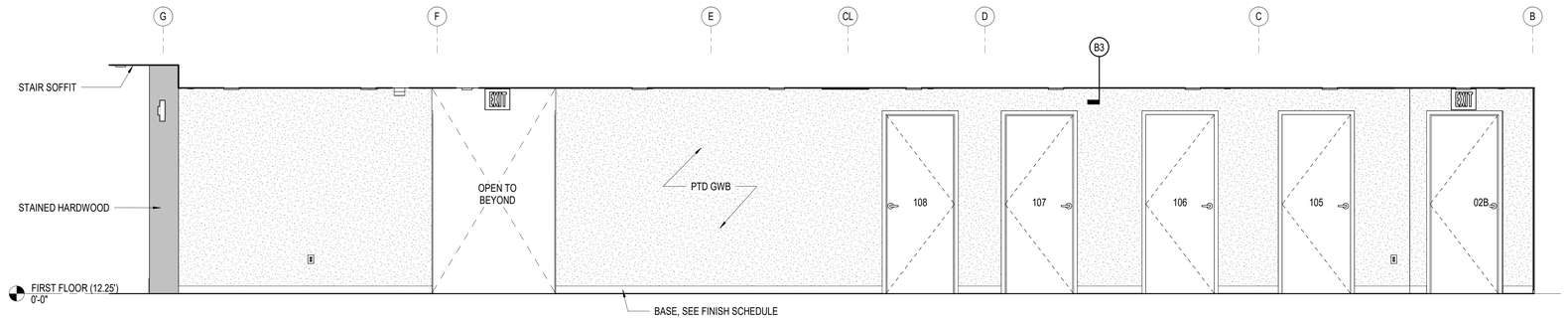


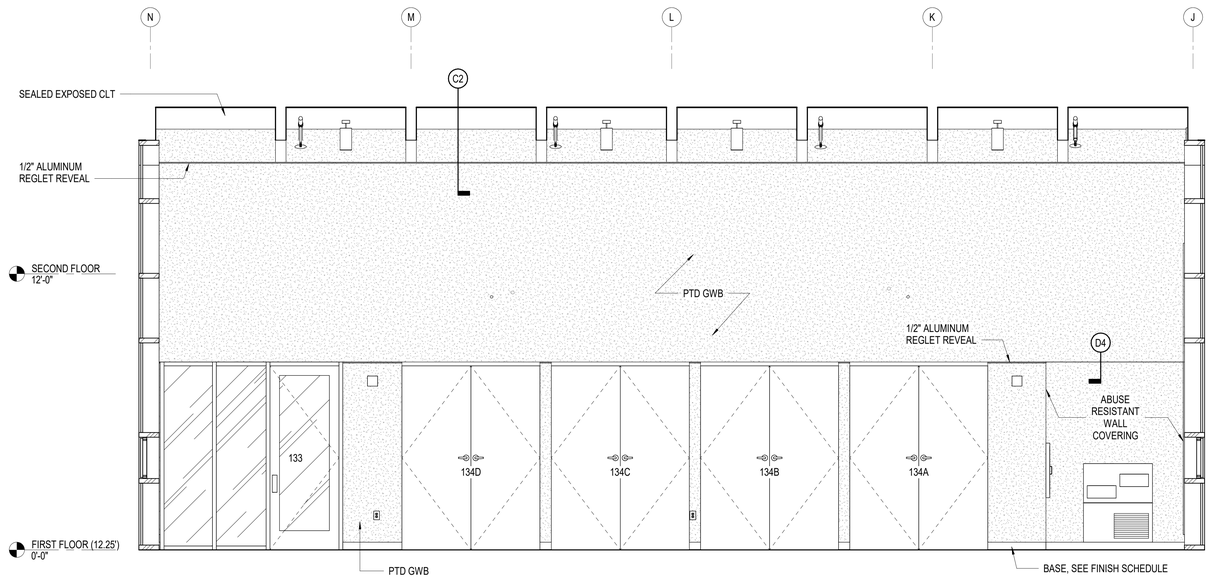
D1 CORRIDOR 111 NORTH ELEVATION

SCALE: 3/8" = 1'-0"



C1 CORRIDOR 111 SOUTH ELEVATION

SCALE: 3/8" = 1'-0"



A1 TICKETS / INFO 130 SOUTH ELEVATION

SCALE: 3/8" = 1'-0"

GENERAL NOTES

1. SEE SPECIFICATIONS FOR SPECIALTY MODELS & SHEET AE401 FOR TYPICAL MOUNTING HEIGHTS AND CLEARANCES..
2. ALL PARTITIONS ARE TYPE S4N UNLESS OTHERWISE NOTED. REFER TO SHEET AE501 FOR PARTITION TYPE DESCRIPTIONS.
3. REFER TO PLUMBING DRAWINGS FOR LOCATION OF HOSE BIBS.
4. REFER TO RCP SHEETS FOR ALL CEILING HEIGHT & MATERIAL DESIGNATIONS IN TOILET ROOMS.
5. GC TO PROVIDE & INSTALL ALL BLOCKING IN WALLS.
6. REFER TO AE521 FOR INTERIOR DETAILS.
7. REFER TO AE530 FOR CEILING DETAILS.
8. REFER TO IN601 FOR FINISH SCHEDULE AND FINISH LEGEND.

GRAPHIC SCALE(S)

3/8" = 1' - 0" 0 1' 2' 3' 4' 5' 10'

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

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CN PROJ # : 10145

SCO ID # : 24-27956-01A

DESIGNER

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RALEIGH, NORTH CAROLINA 27603
919·828·1876

CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

DONALD DAVID KRAMERICH
REGISTERED ARCHITECT
9856
04/19/24
NORTH CAROLINA
RALEIGH, N.C.

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

INTERIOR ELEVATIONS

AE405

DESIGN: Designer
DRAWN: Author
REVIEW: Checker

CN 10145

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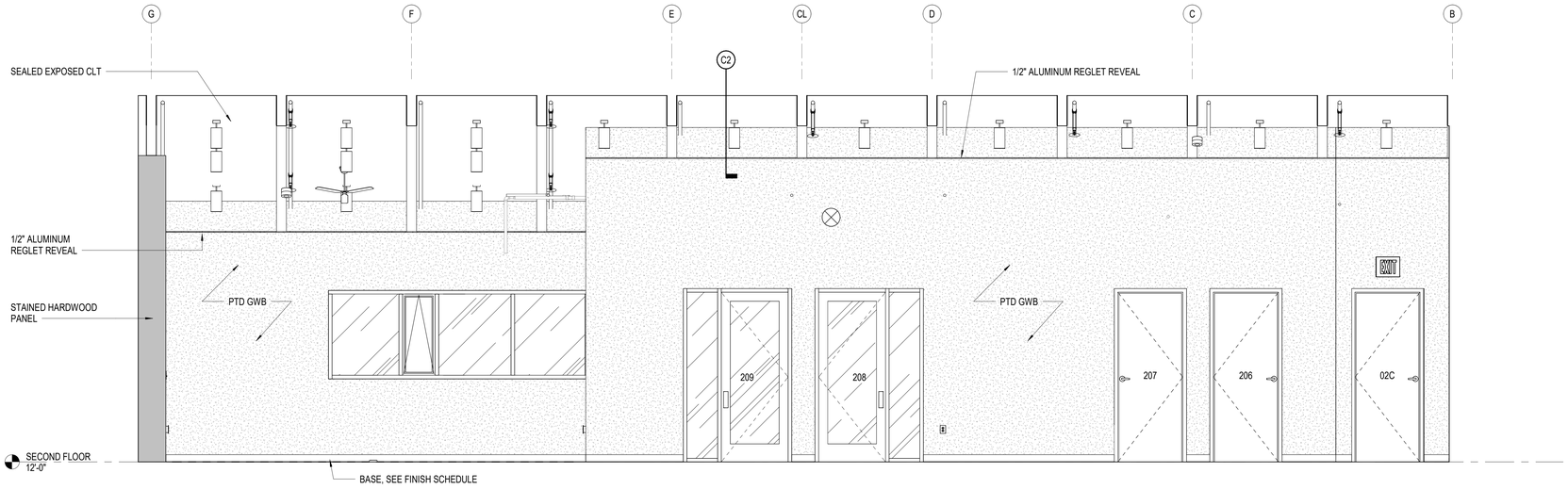
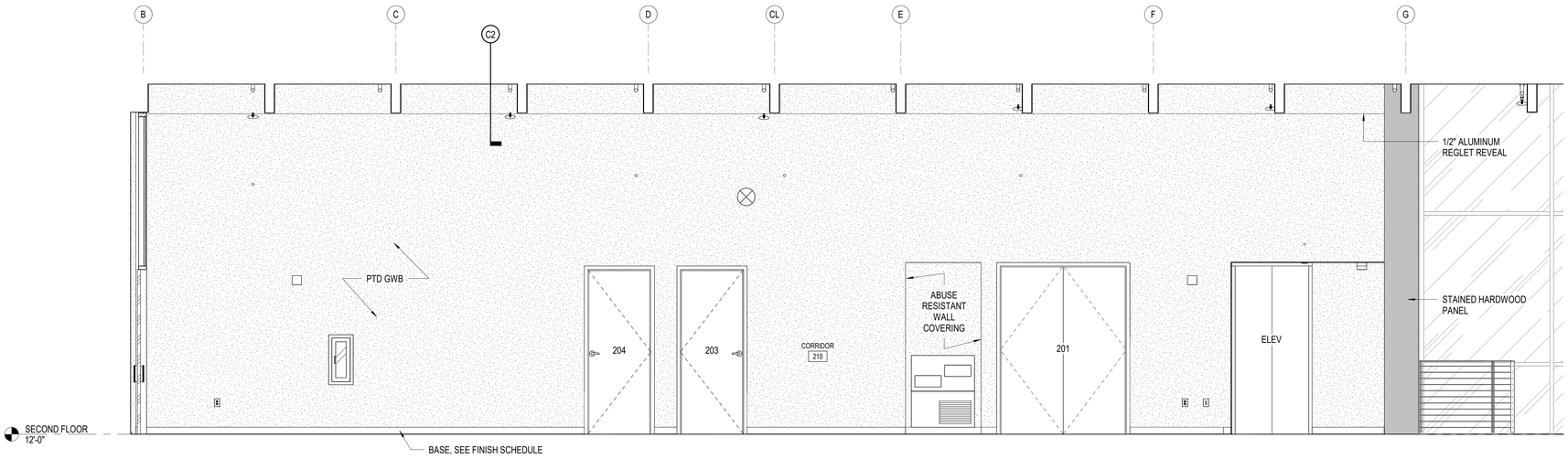


C1 CORRIDOR 210 SOUTH ELEVATION

SCALE: 3/8" = 1'-0"



A1 CORRIDOR 210 NORTH ELEVATION

SCALE: 3/8" = 1'-0"

GENERAL NOTES

1. SEE SPECIFICATIONS FOR SPECIALTY MODELS & SHEET AE401 FOR TYPICAL MOUNTING HEIGHTS AND CLEARANCES..
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7. REFER TO AE530 FOR CEILING DETAILS.
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GRAPHIC SCALE(S)

3/8" = 1' - 0" 0 1' 2' 3' 4' 5' 10'

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145

SCO ID # : 24-27956-01A

DESIGNER

CLARKNEXSEN

421 NORTH HARRINGTON STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27603
919·828·1876

CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

INTERIOR ELEVATIONS

AE406

DESIGN: DDK
DRAWN: AST/WMP
REVIEW: DDK

CN 10145

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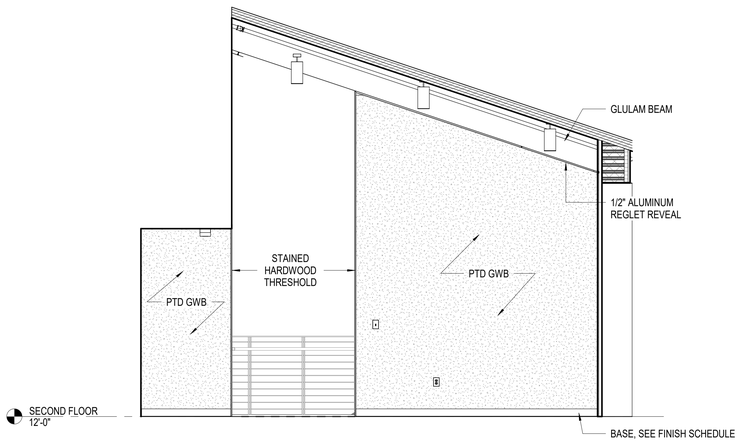
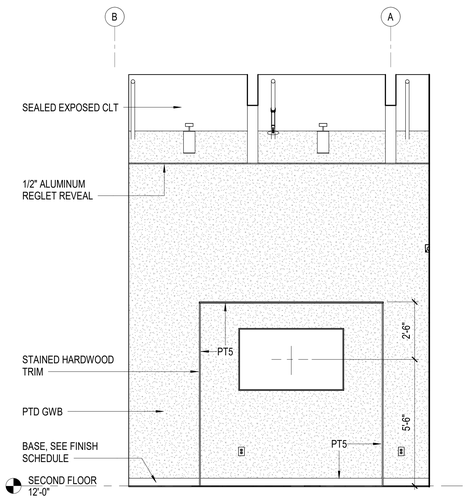


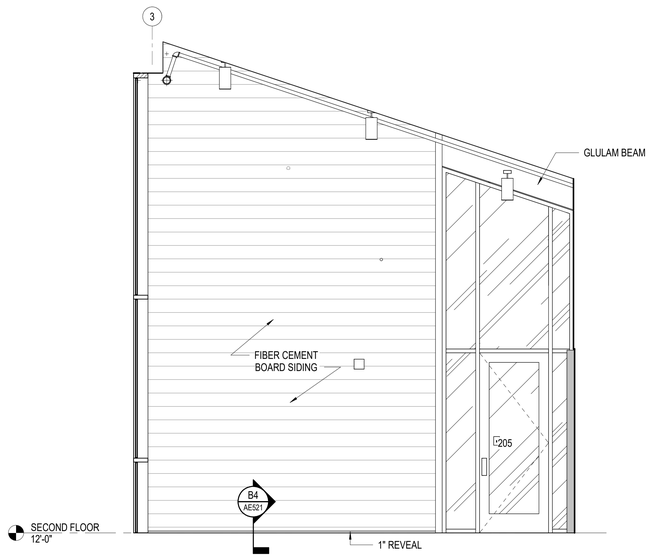
D1 OPEN OFFICE 200 EAST

SCALE: 3/8" = 1'-0"



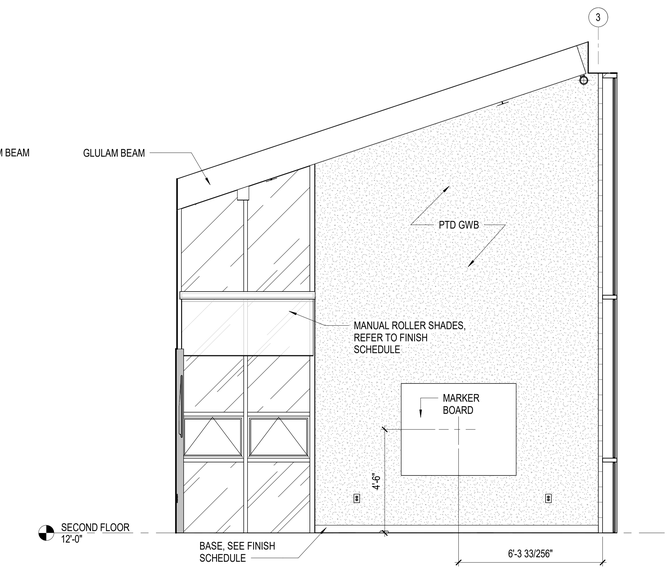
B1 MEETING 205 SOUTH

SCALE: 3/8" = 1'-0"



B2 MEETING 205 EAST

SCALE: 3/8" = 1'-0"



B3 MEETING 205 WEST

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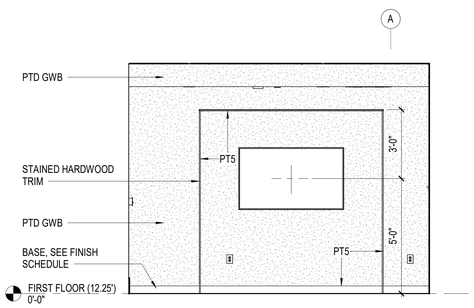
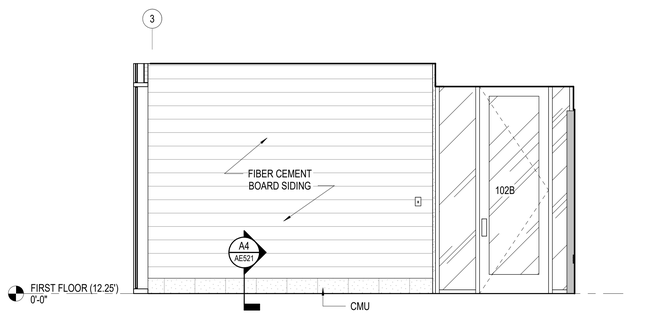


A1 CONFERENCE LIBRARY 104 SOUTH

SCALE: 3/8" = 1'-0"



A2 CONFERENCE LIBRARY 104 EAST

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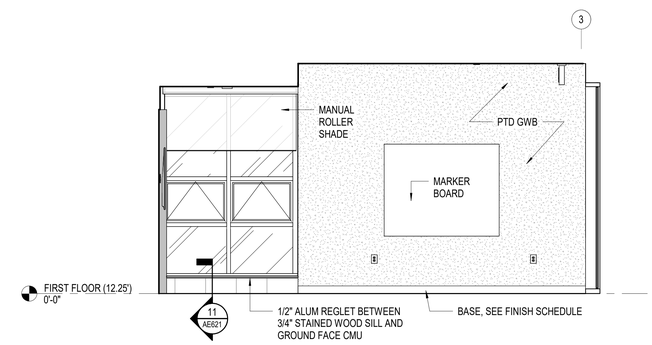

A3 CONFERENCE LIBRARY 104 WEST

SCALE: 3/8" = 1'-0"

GENERAL NOTES

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GRAPHIC SCALE(S)

3/8" = 1' - 0" 0 1' 2' 3' 4' 5' 10'

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145

SCO ID # : 24-27956-01A

DESIGNER

CLARKNEXSEN

421 NORTH HARRINGTON STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27603
919-828-1876

CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

DONALD DAVID KRAMBECK
REGISTERED ARCHITECT
9858
6/7/24
NORTH CAROLINA
RALEIGH, N.C.

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

INTERIOR ELEVATIONS

AE407

DESIGN: Designer
DRAWN: Author
REVIEW: Checker

CN 10145

6/12/2024 11:30:39 PM
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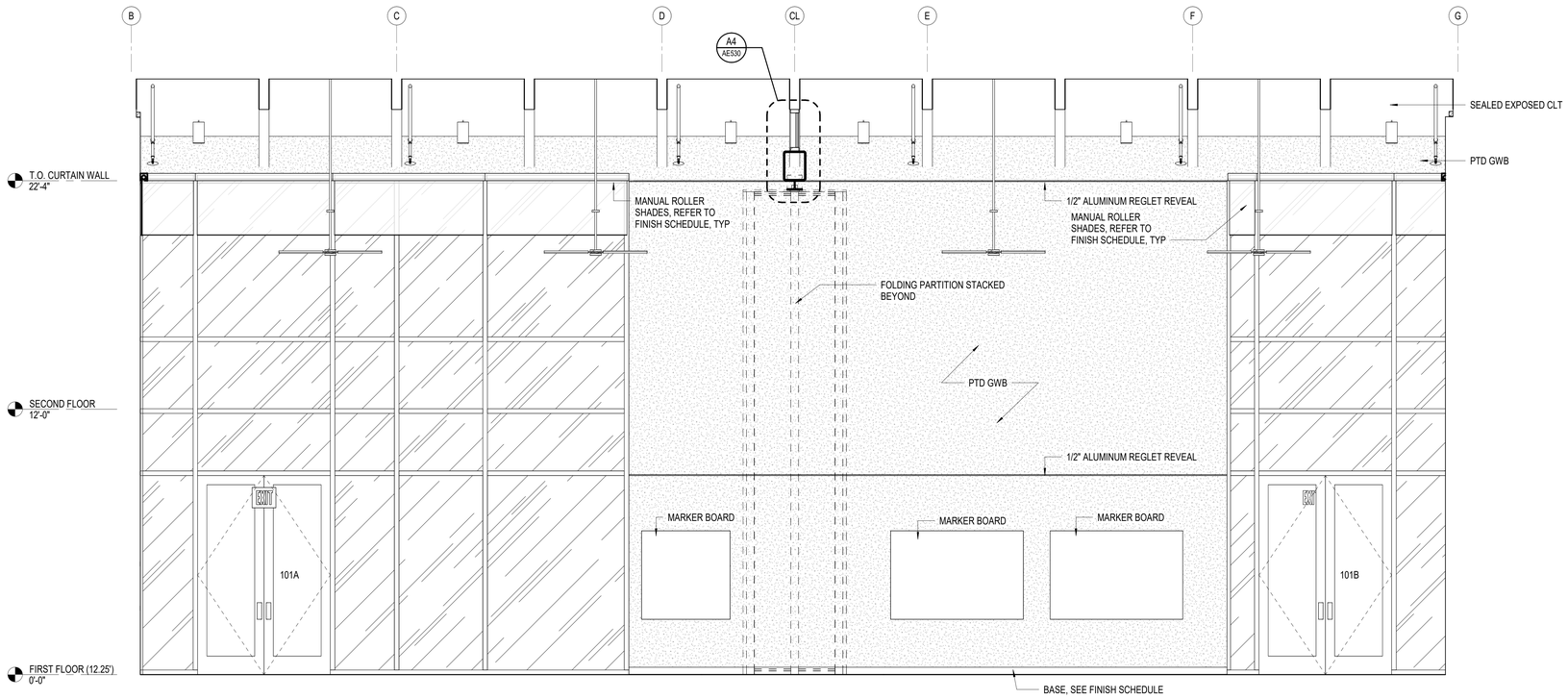
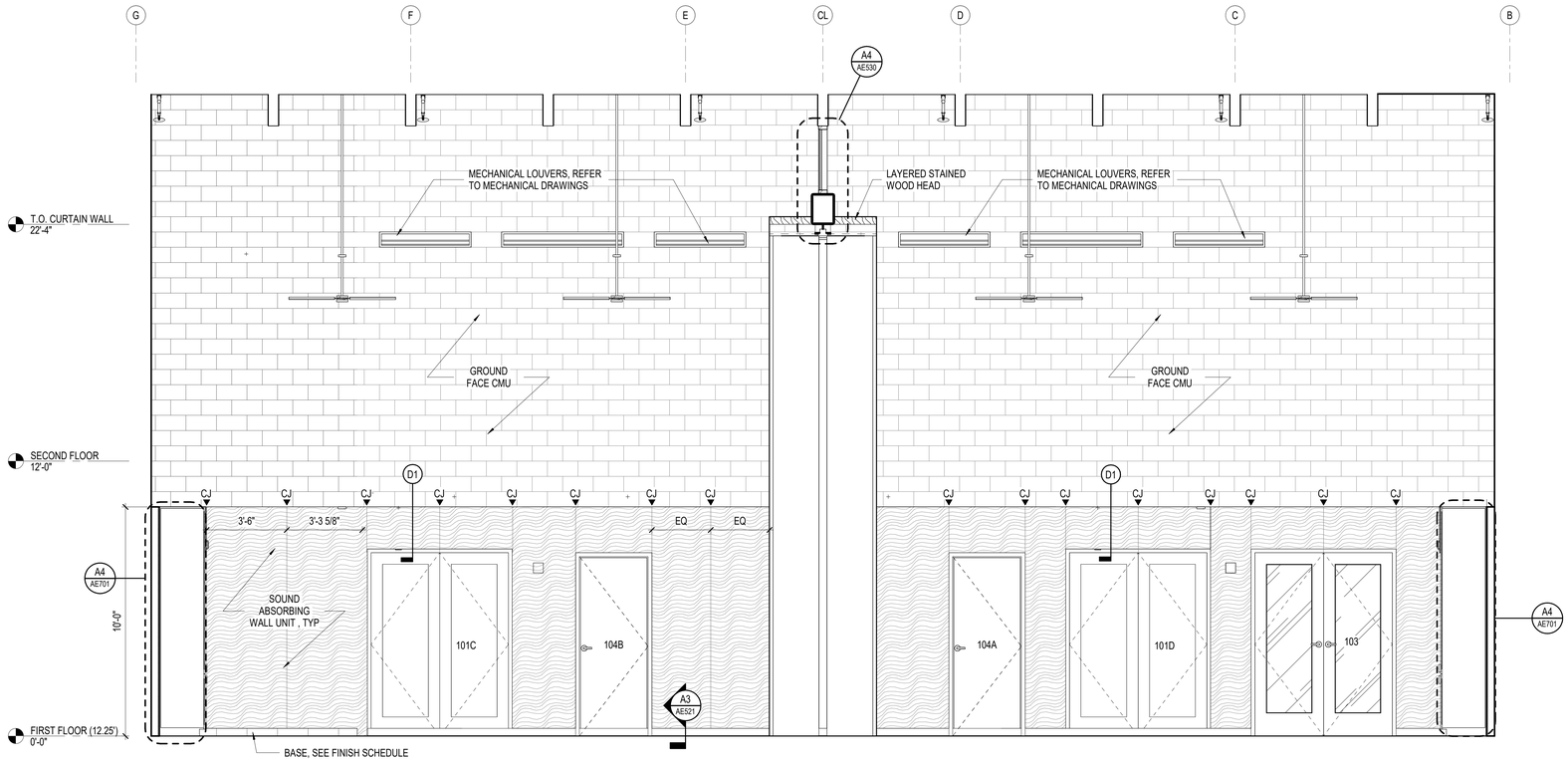


D1 MULTIPURPOSE ROOM NORTH ELEVATION

SCALE: 3/8" = 1'-0"



A1 MULTIPURPOSE ROOM SOUTH ELEVATION

SCALE: 3/8" = 1'-0"

GENERAL NOTES

1. SEE SPECIFICATIONS FOR SPECIALTY MODELS & SHEET AE401 FOR TYPICAL MOUNTING HEIGHTS AND CLEARANCES..
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GRAPHIC SCALE(S)

3/8" = 1' - 0" 0 1' 2' 3' 4' 5' 10'

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145

SCO ID # : 24-27956-01A

DESIGNER

CLARKNEXSEN

421 NORTH HARRINGTON STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27603
919·828·1876

CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

INTERIOR ELEVATIONS

AE408

DESIGN: Designer
DRAWN: Author
REVIEW: Checker

CN 10145

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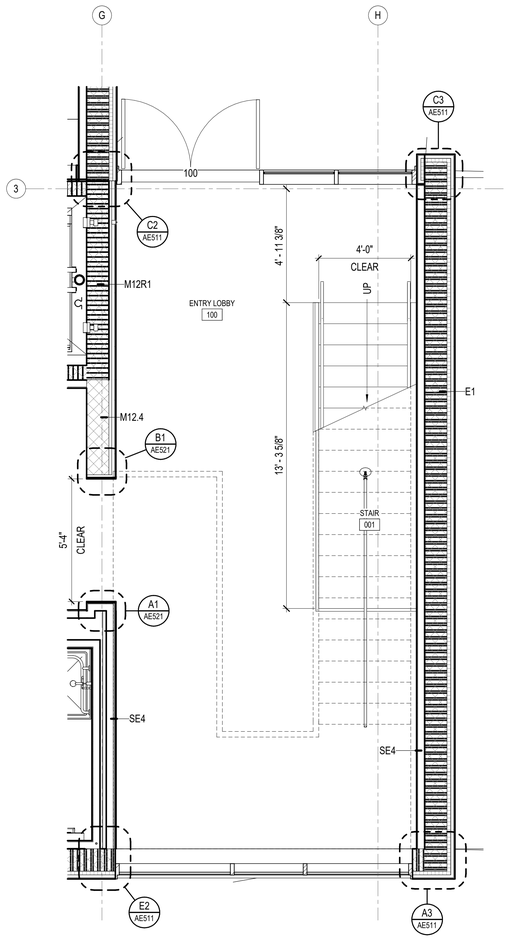
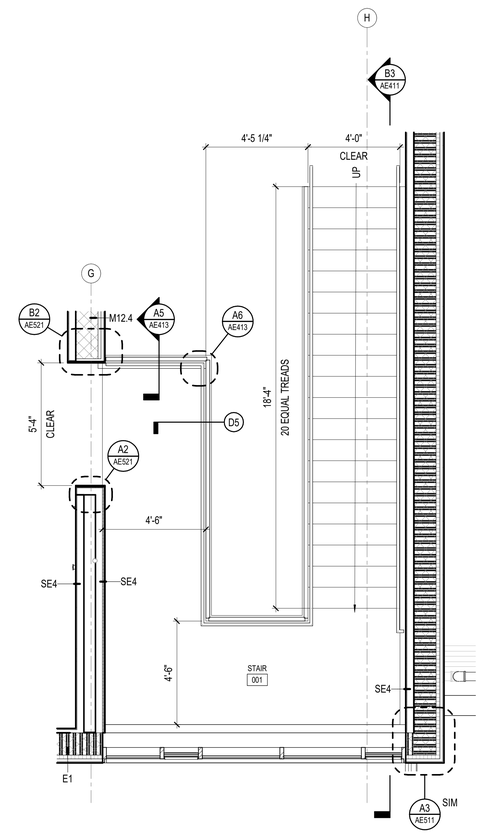
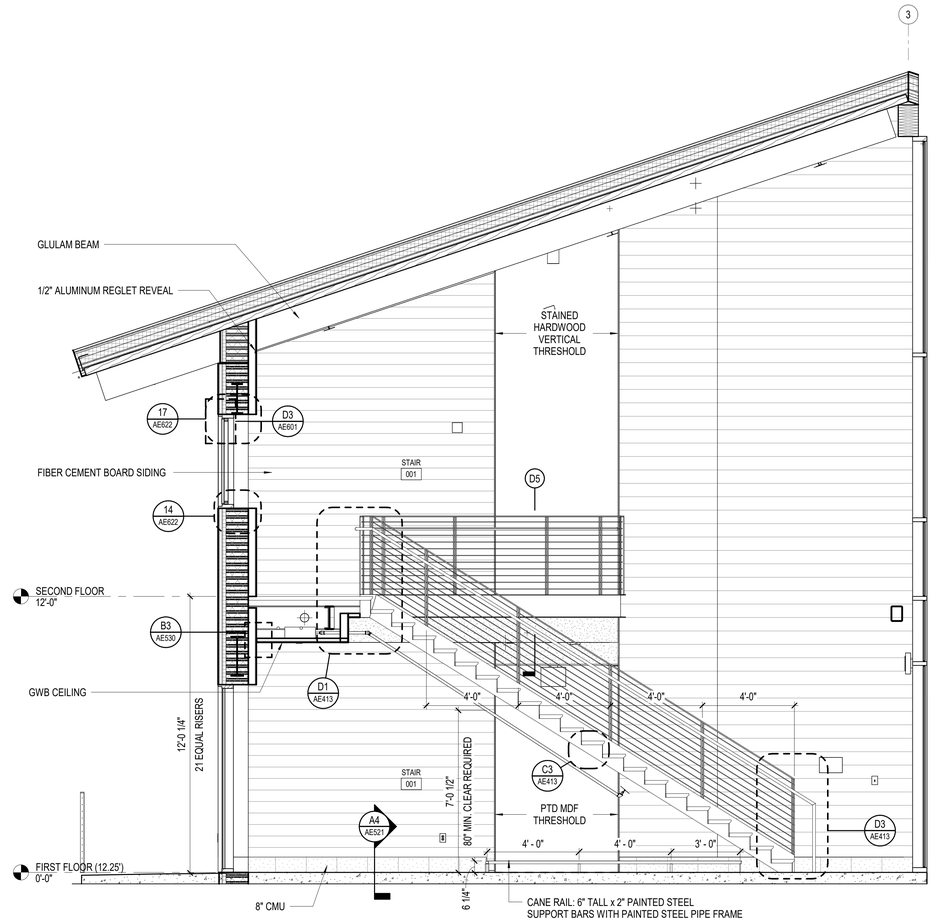


B1 STAIR 001 FIRST FLOOR ENLARGED PLAN
SCALE: 3/8" = 1'-0"



B2 STAIR 001 SECOND FLOOR ENLARGED PLAN
SCALE: 3/8" = 1'-0"



B3 STAIR 001 SECTION
SCALE: 3/8" = 1'-0"

RATED PARTITION LEGEND

ONE HOUR FIRE RATING

TWO HOUR FIRE RATING

GRAPHIC SCALE(S)

3/8" = 1' - 0" 0 1' 2' 3' 4' 5' 10'

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

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CN PROJ # : 10145

SCO ID # : 24-27956-01A

DESIGNER

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RALEIGH, NORTH CAROLINA 27603
919-828-1876

CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

RONALD DAVID KRAMBECK
REGISTERED ARCHITECT
9836
NORTH CAROLINA
RALEIGH N.C.

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

STAIR 001 PLANS AND SECTIONS

AE411

DESIGN: DDK
DRAWN: AST/WMP
REVIEW: DDK

CN 10145

6/12/2024 11:30:47 PM
Autodesk Docs://Maritime Education Center/10145_Maritime Education Center_A23.rvt
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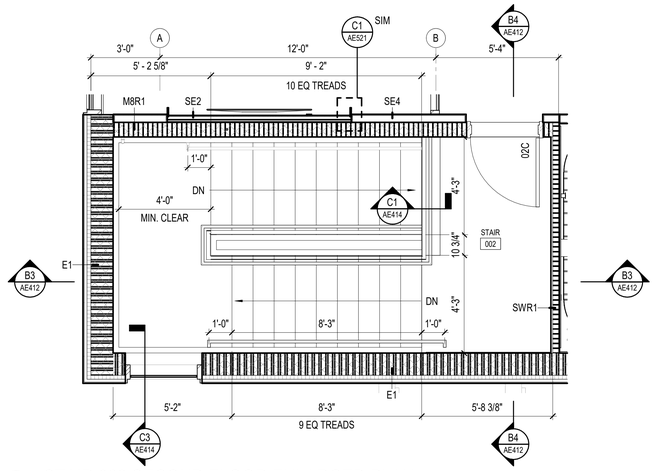
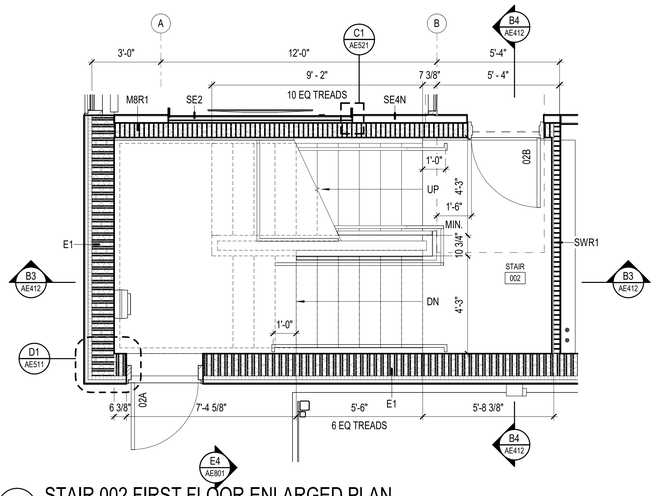


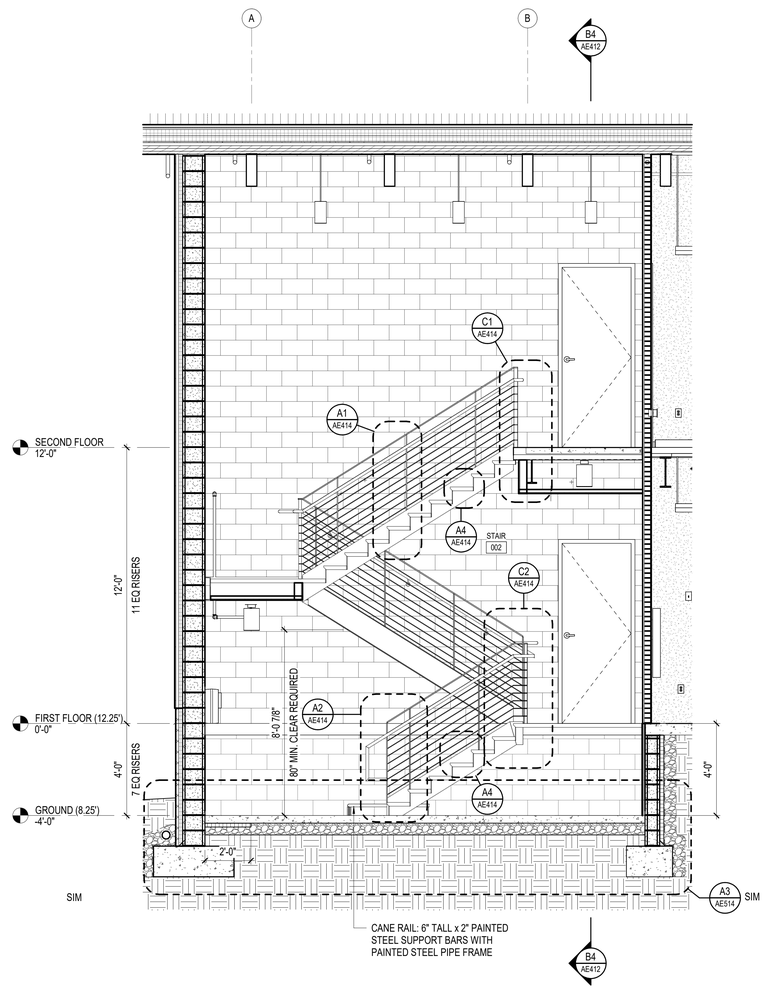
C1 STAIR 002 SECOND FLOOR ENLARGED PLAN

SCALE: 3/8" = 1'-0"



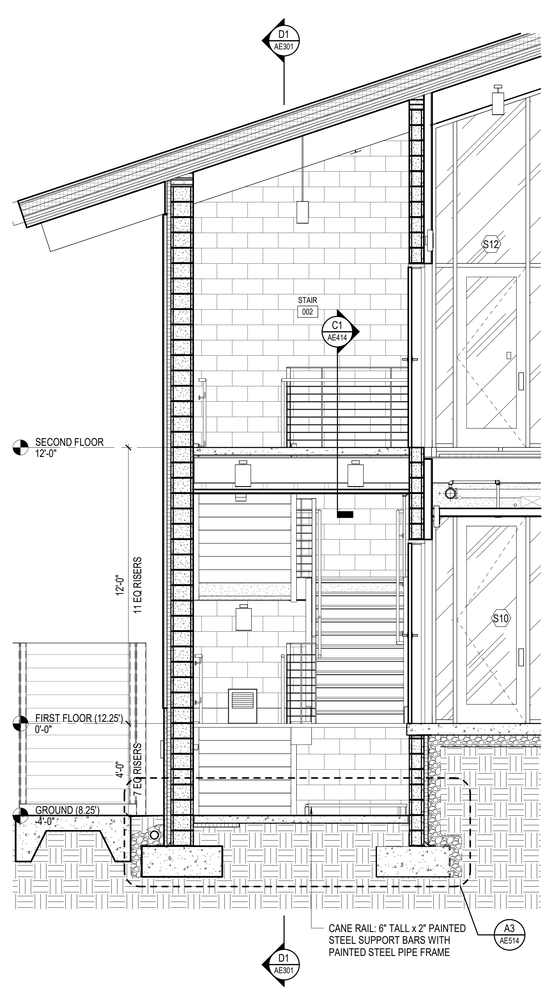
B1 STAIR 002 FIRST FLOOR ENLARGED PLAN

SCALE: 3/8" = 1'-0"



B3 STAIR 002 SECTION 1

SCALE: 3/8" = 1'-0"



B4 STAIR 002 SECTION 2

SCALE: 3/8" = 1'-0"

RATED PARTITION LEGEND

ONE HOUR FIRE RATING

TWO HOUR FIRE RATING

GRAPHIC SCALE(S)

3/8" = 1' - 0" 0 1' 2' 3' 4' 5' 10'

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145

SCO ID # : 24-27956-01A

DESIGNER

CLARKNEXSEN
421 NORTH HARRINGTON STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27603
919-828-1876

CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

DONALD DAVID KRAMSDORF
REGISTERED ARCHITECT
9856
6/7/24
NORTH CAROLINA
RALEIGH, N.C.

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

STAIR 002 PLANS AND SECTIONS

AE412

DESIGN: DDK
DRAWN: AST/WMP
REVIEW: DDK

CN 10145

6/12/2024 11:30:33 PM
Autodesk Docs://Maritime Education Center/10145_Maritime Education Center_A23.rvt
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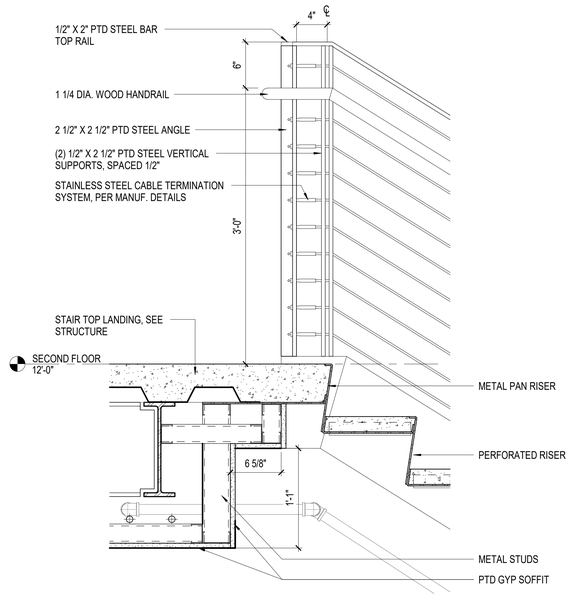
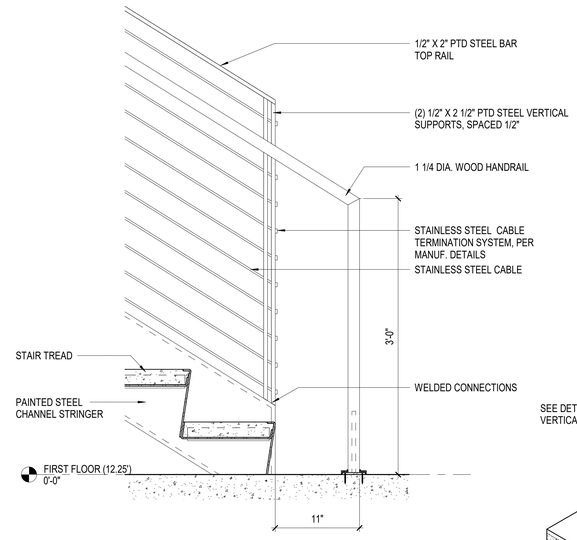


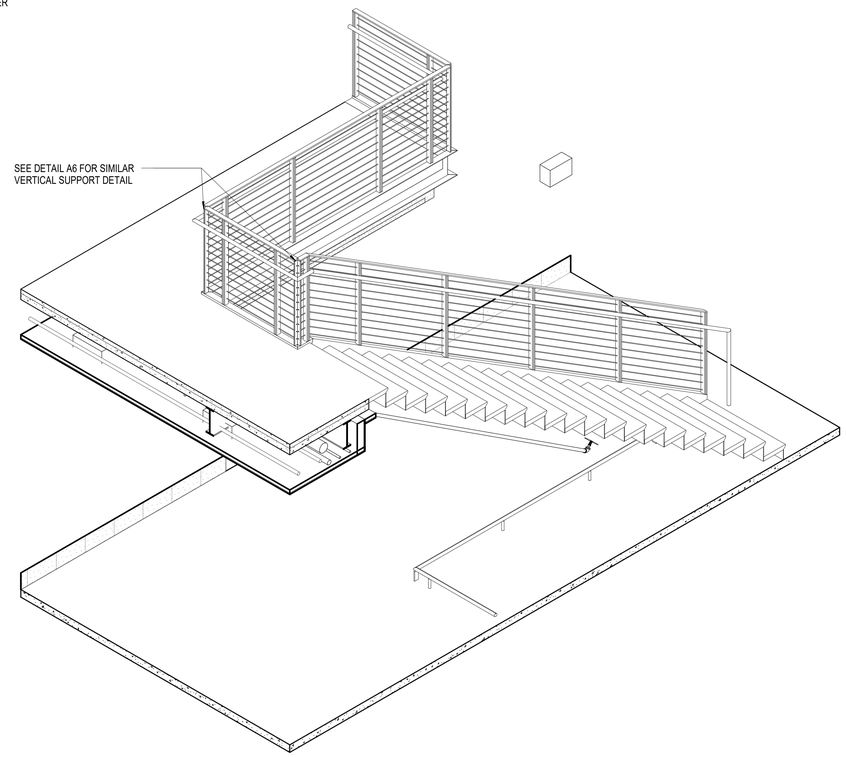
D1 STAIR 001 TOP LANDING DETAIL

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



D3 STAIR 001 BOTTOM LANDING DETAIL

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



C5 STAIR 001 AXON VIEW

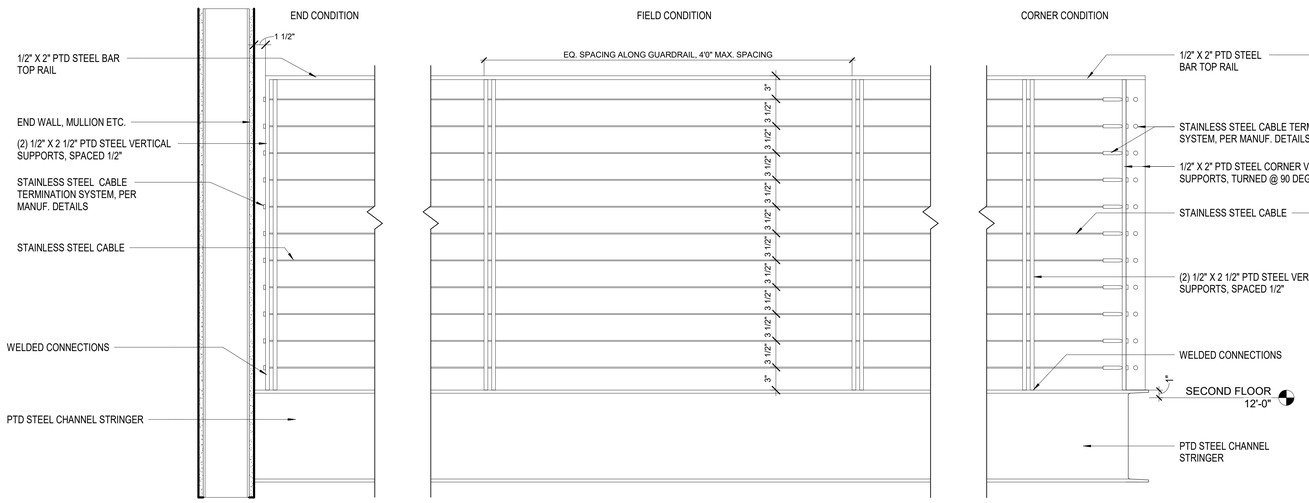
SCALE:

C1 TYPICAL STAIR 001 HANDRAIL DETAILS

SCALE: 3" = 1'-0"

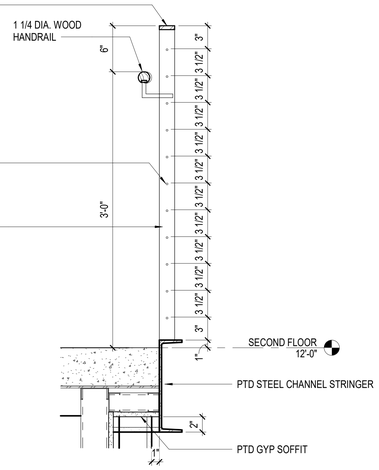
C3 STAIR 001 TREAD NOSING DETAIL WITH PREFORTATED RISER

SCALE: 3" = 1'-0"



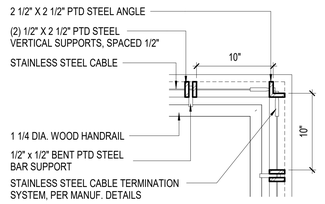
A1 TYPICAL CABLE GUARDRAIL ELEVATION

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



A5 TYPICAL CABLE GUARDRAIL SECTION

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



A6 PLAN DETAIL - GUARDRAIL CORNER 1

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

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CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

DONALD DAVID KRAMSDEN REGISTERED ARCHITECT 9856 6/7/24 NORTH CAROLINA RALEIGH N.C.

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

STAIR 001 DETAILS

AE413

DESIGN: Designer
DRAWN: Author
REVIEW: Checker

CN 10145

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Autodesk Docs://Maritime Education Center/10145_Maritime Education Center_A23.rvt
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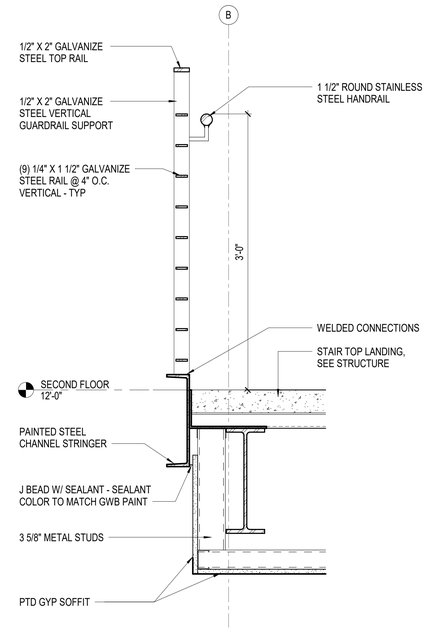
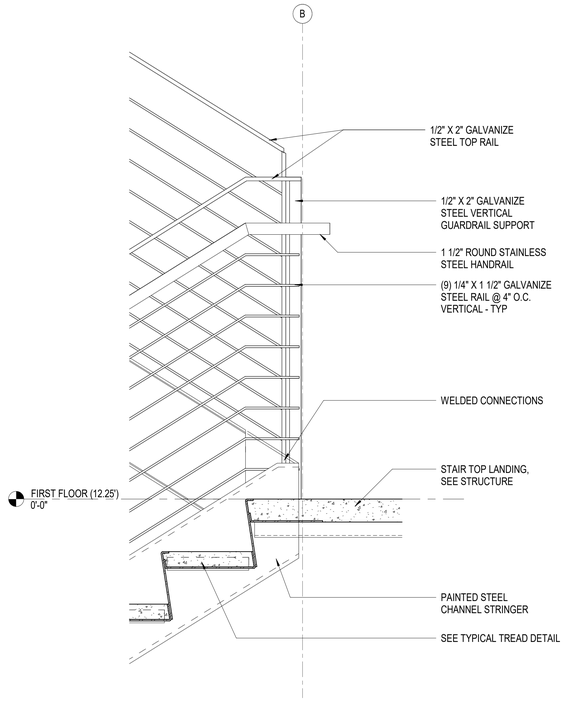


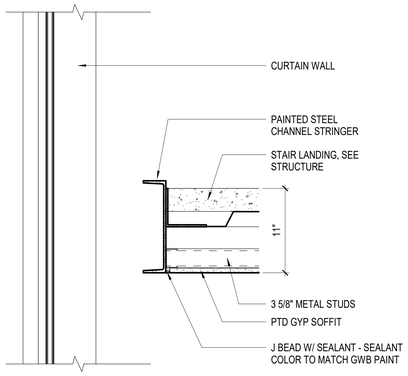
C1 GUARDRAIL AND SOFFIT DETAIL

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



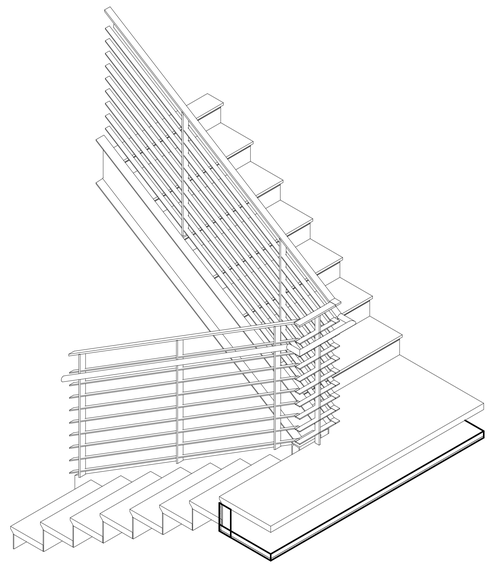
C2 STAIR 002 TOP LANDING DETAIL

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



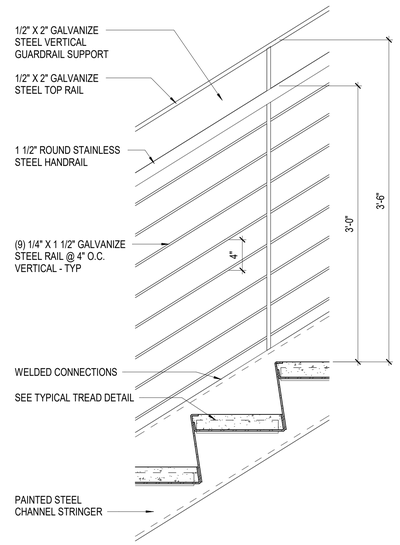
C3 STAIR 002 MIDDLE LANDING AND SOFFIT

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



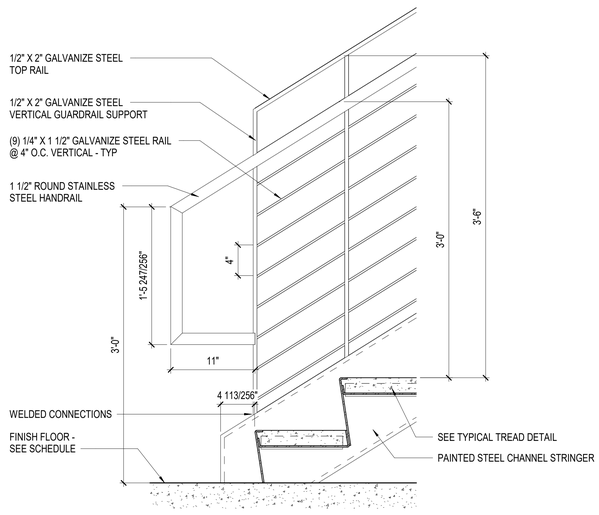
C4 STAIR 002 GUARDRAIL CORNER

SCALE:



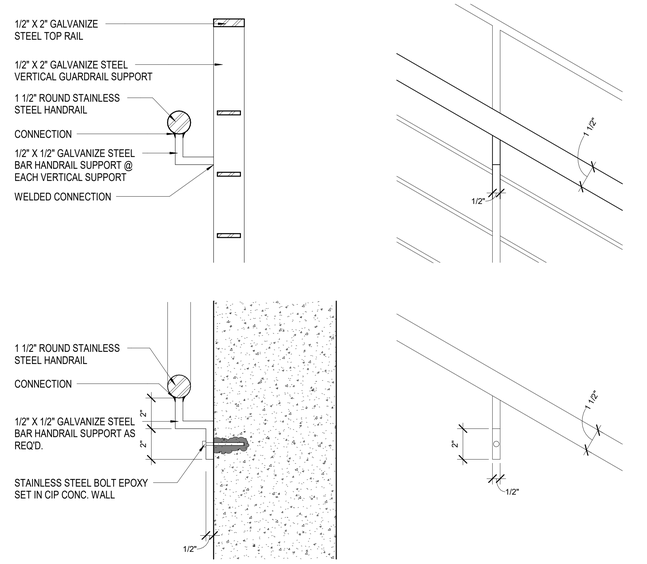
A1 STAIR 002 GUARDRAIL DETAIL

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



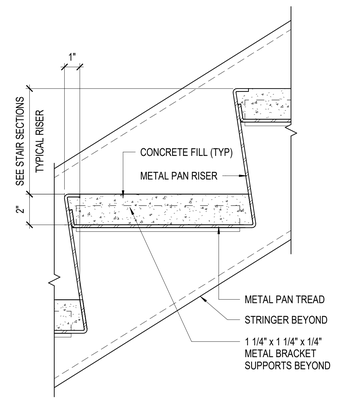
A2 STAIR 002 BOTTOM LANDING DETAIL

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



A3 STAIR 002 HANDRAIL DETAILS

SCALE: 3" = 1'-0"



A4 STAIR 002 TREAD NOSING DETAIL

SCALE: 3" = 1'-0"

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CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

RONALD DAVID KRAMERIUS — REGISTERED ARCHITECT — 9858 — SEAL 24 — NORTH CAROLINA — RALEIGH, N.C.

SUBMITTAL

JUNE 7, 2024

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KEY PLAN

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AE414

DESIGN: Designer
DRAWN: Author
REVIEW: Checker

CN 10145

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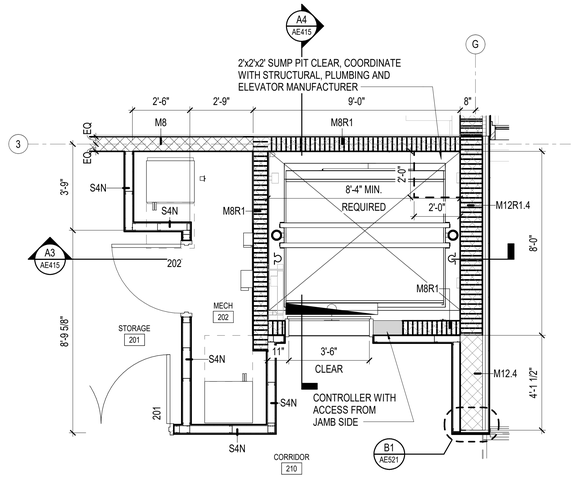
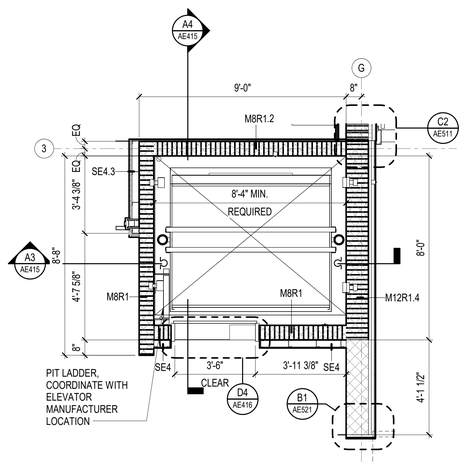


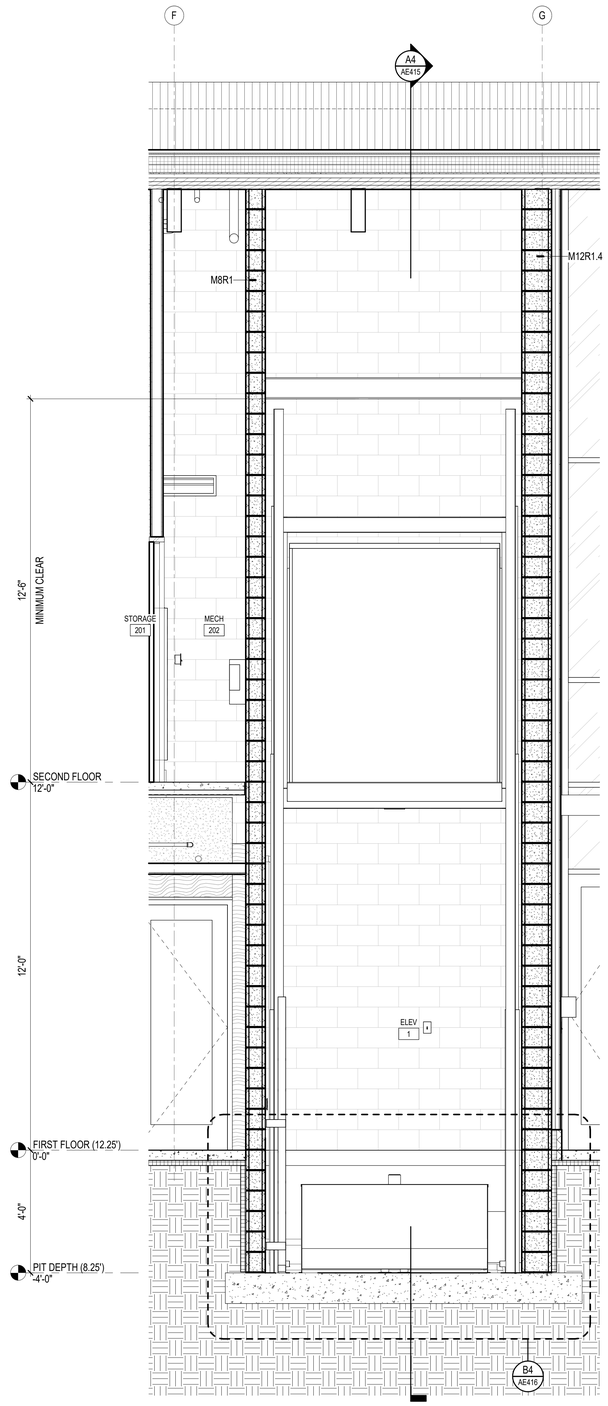
C1 SECOND FLOOR ELEVATOR ENLARGED PLAN

SCALE: 3/8" = 1'-0"



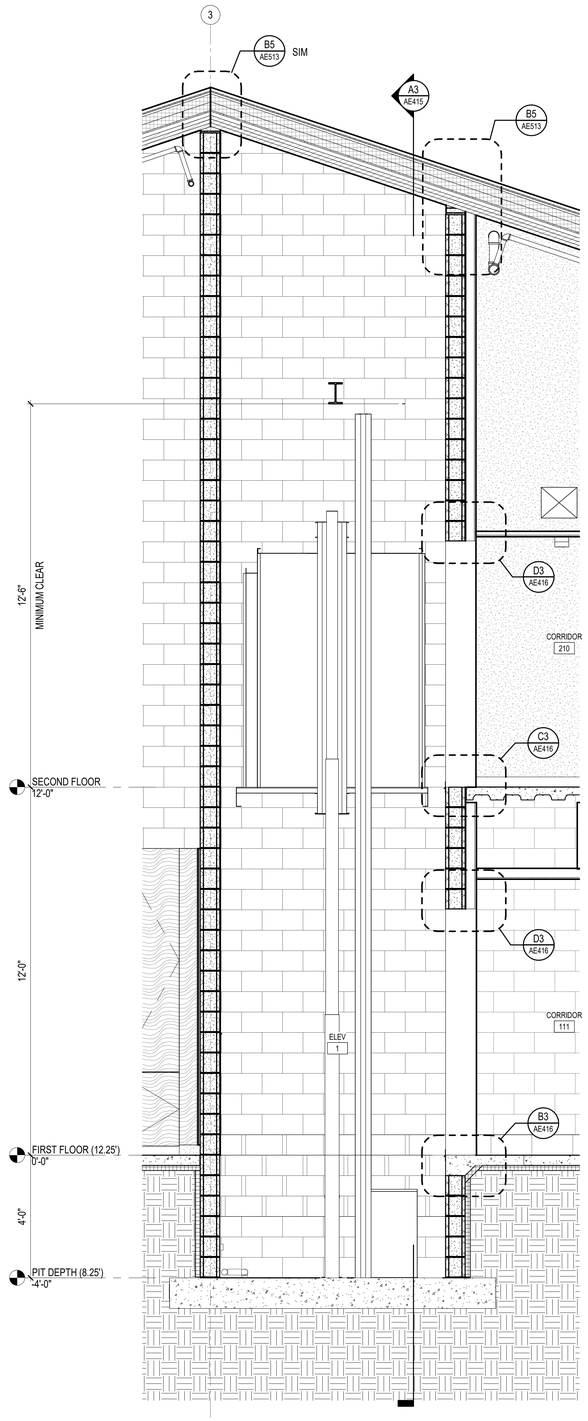
A1 FIRST FLOOR ELEVATOR ENLARGED PLAN

SCALE: 3/8" = 1'-0"



A3 ELEVATOR SECTION 1

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



A4 ELEVATOR SECTION 2

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

RATED PARTITION LEGEND

ONE HOUR FIRE RATING

TWO HOUR FIRE RATING

GRAPHIC SCALE(S)

1/2" = 1' - 0" 0 6" 1' 2' 3' 4' 5'

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CLARK NEXSEN LICENSE NUMBER C-1028

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AE415

DESIGN: DDK
DRAWN: AST/WMP
REVIEW: DDK

CN 10145

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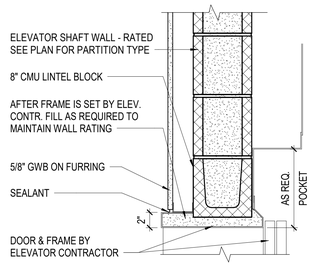
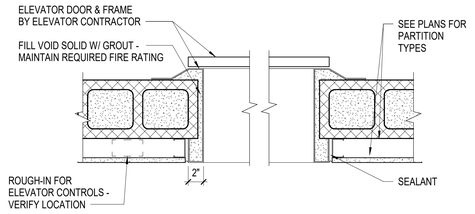


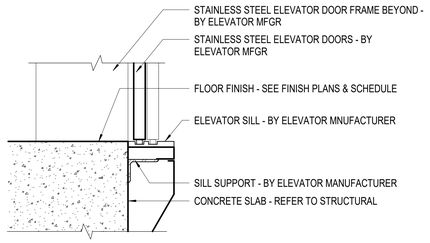
D3 ELEVATOR DOOR HEAD DETAIL

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



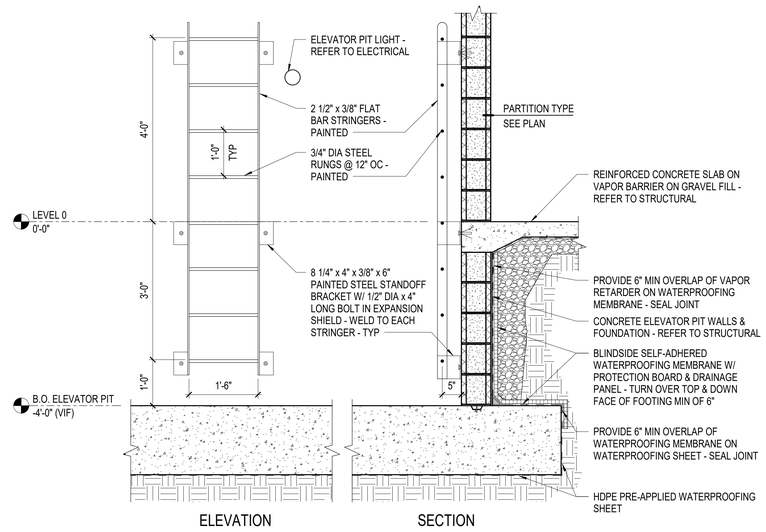
D4 ELEVATOR JAMB DETAIL

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



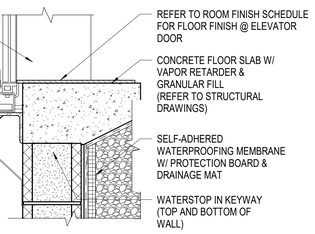
C3 ELEVATOR SILL DETAIL

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



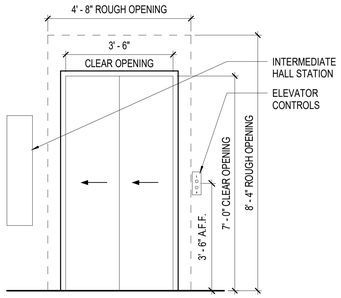
B4 ELEVATOR PIT DETAIL

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



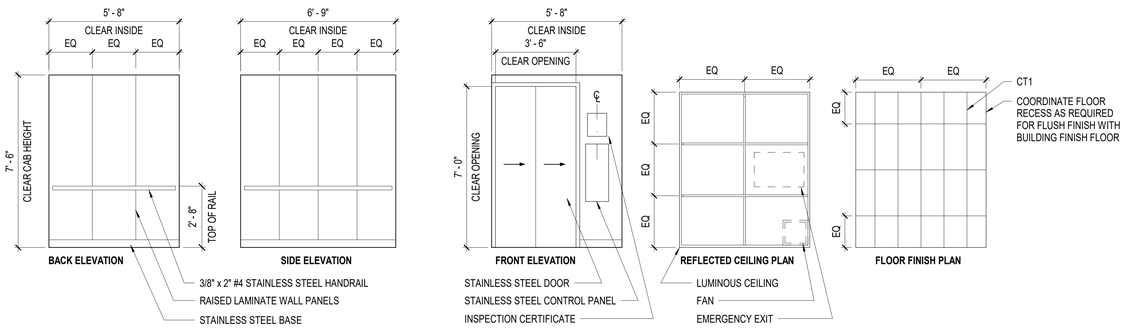
B3 ELEVATOR SILL DETAIL

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



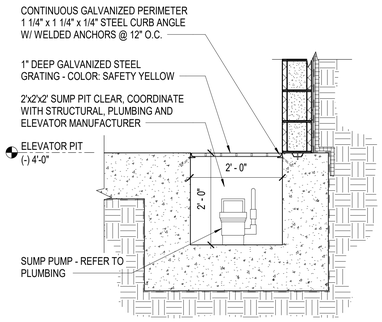
A1 ELEVATOR DOOR ELEVATION

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



A2 ELEVATOR_ELEVATIONS_CAB INTERIOR

SCALE: 3/8" = 1'-0"



A4 ELEVATOR SUMP PIT DETAIL

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

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SUBMITTAL

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BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

ELEVATOR DETAILS

AE416

DESIGN: Designer
DRAWN: Author
REVIEW: Checker

CN 10145

6/12/2024 11:31:09 PM
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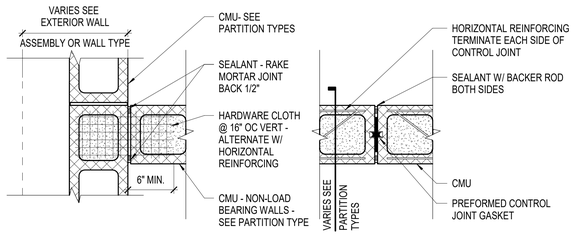
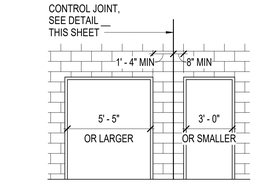


E1 CMU CONTROL JOINT DETAIL

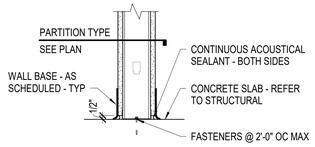
SCALE: 1 1/2" = 1'-0"



UNLESS OTHERWISE NOTED SPECIFICALLY TO OMIT CONTROL JOINT PROVIDE CONTROL JOINTS AT ALL OPENING AT MASONRY CONSTRUCTION AS INDICATED ABOVE.

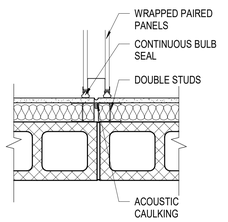
E3 CMU CONTROL JOINT ELEVATION - TYP

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



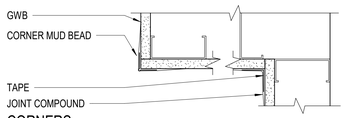
D1 PARTITION BASE DETAIL

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

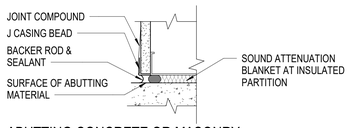


B1 FOLDING PARTITION - END

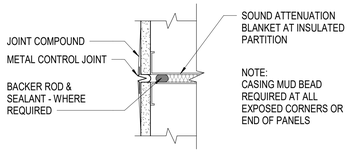
SCALE: 1 1/2" = 1'-0"



CORNERS



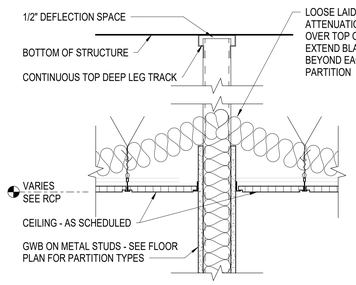
ABUTTING CONCRETE OR MASONRY



TYPICAL CONTROL JOINT

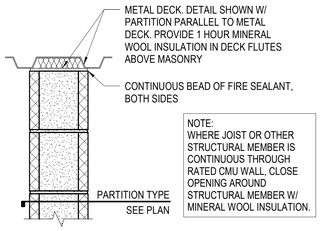
B2 GWB CONTROL JOINT DETAILS

SCALE: 3" = 1'-0"



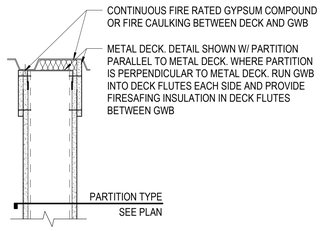
A1 SOUND PARTITION WITH GWB STOPPING ABOVE CEILING

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



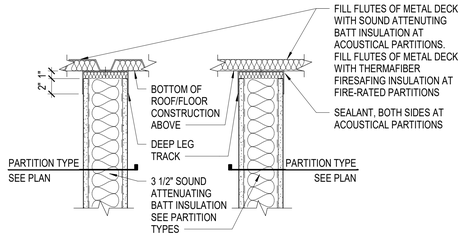
A2 RATED CMU PARTITION DETAIL

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



A3 RATED STUD PARTITION DETAIL

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



A4 PARTITION DETAIL - TOP OF WALL

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

INTERIOR PARTITION TYPES

TYPE	SYMBOL	TAG	DESCRIPTION
M - *MASONRY*		M8	8" CMU
		M12	12" CMU
MR - *MASONRY* - *RATED*		M8R1	8" CMU, 1 HR RATING, UL DESIGN #U905
		M12R1	12" CMU, 1 HR RATING, UL DESIGN #U905
SN - *STL STUD* - *INSULATED*		S4N	3 5/8" STL STUDS WITH 5/8" GWB (EACH SIDE) AND 3 1/2" SOUND ATTENUATION BLANKETS
		S6N	6" STL STUDS WITH 5/8" GWB (EACH SIDE) AND 3 1/2" SOUND ATTENUATION BLANKETS
SE - *STL STUD ENCLOSURE*		SE4	3 5/8" STL STUDS WITH 5/8" GWB (ONE SIDE) *SE4.1 TERMINATES AT 10'-0" AFF
SEN - *STL STUD ENCLOSURE* - *INSULATED*		SE4N	3 5/8" STL STUDS @ 16" OC WITH 5/8" GWB (ONE SIDE) AND 3 1/2" SOUND ATTENUATION BLANKETS
SWR - *SHAFT WALL* - *RATED*		SWR1	4" "I" SHAPED METAL STUDS WITH 1 LAYER OF 1" TYPE X GWB ON SHAFT SIDE AND 1 LAYER OF 5/8" TYPE X GWB ON OTHER SIDE. 1 HR RATING, UL DESIGN #U415
FS - *FURRING*		FS1	7/8" STL FURRING CHANNELS @ 16" OC WITH 5/8" GWB (ONE SIDE)

EXTERIOR WALL TYPES

TAG	SYMBOL	DESCRIPTION
E1 *2 HOUR RATED U905		INTERIOR FINISH AND FURRING VARY, SEE SCHEDULES, PLANS AND WALL SECTIONS VAPOR PERMEABLE AIR BARRIER ON EXTERIOR SIDE OF 12" CMU 2", MIN. R-7.6 c.i. MINERAL WOOL INSULATION BOARD IN HORIZONTAL Z CHANNELS AT 24" OC 1 1/2" VERTICAL METAL HAT CHANNELS AT 16" OC 5/8" FIBER CEMENT SIDING (SEE B5/AE501 FOR TYPICAL DETAIL, C5/AE501 FOR ALTERNATE)
E2 *2 HOUR RATED U905		INTERIOR FINISH AND FURRING VARY, SEE SCHEDULES, PLANS AND WALL SECTIONS VAPOR PERMEABLE AIR BARRIER ON EXTERIOR SIDE OF 8" CMU 2", MIN. R-7.6 c.i. MINERAL WOOL BOARD IN HORIZONTAL Z CHANNELS AT 24" OC 1 1/2" VERTICAL METAL HAT CHANNELS AT 16" OC 5/8" FIBER CEMENT SIDING (SEE B5/AE501 FOR TYPICAL DETAIL, C5/AE501 FOR ALTERNATE)
E3		PAINTED 5/8" GYPSUM BOARD 7/8" VERTICAL METAL HAT CHANNELS AT 16" OC GLULAM BEAM (2) LAYERS OF 5/8" GYPSUM SHEATHING VAPOR PERMEABLE AIR BARRIER 2", MIN. R-7.6 c.i. MINERAL WOOL BOARD IN HORIZONTAL Z CHANNELS AT 24" OC 1 1/2" VERTICAL METAL HAT CHANNELS AT 16" OC 5/8" FIBER CEMENT SIDING (SEE B5/AE501 FOR TYPICAL DETAIL, C5/AE501 FOR ALTERNATE)
E4		PAINTED 5/8" GYPSUM BOARD 1 1/2" VERTICAL METAL HAT CHANNELS AT 16" OC GLULAM BEAM (2) LAYERS OF 5/8" GYPSUM SHEATHING VAPOR PERMEABLE AIR BARRIER 2", MIN. R-7.6 c.i. MINERAL WOOL BOARD IN HORIZONTAL Z CHANNELS AT 24" OC 7/8" VERTICAL METAL HAT CHANNELS AT 16" OC 5/16" FIBER CEMENT PANEL
E5 *2 HOUR RATED U905		INTERIOR FINISH AND FURRING VARY, SEE SCHEDULES, PLANS AND WALL SECTIONS 12" CMU WATERPROOFING MEMBRANE 2", MIN. R-7.6 c.i. MINERAL WOOL BOARD IN HORIZONTAL Z CHANNELS AT 24" OC 2" SOLID GROUND FACE CMU ON MASONRY ANCHORS, 16" OC
E6 *2 HOUR RATED U905		VAPOR PERMEABLE AIR BARRIER ON 12" CMU MIN. R-7.6 c.i. MINERAL WOOL INSULATION BOARD IN HORIZONTAL Z CHANNELS AT 24" OC 3/4" VERTICAL WOOD FURRING AT 16" OC 5/16" FIBER CEMENT PANEL, CENTER VERTICAL JOINTS BETWEEN BEAMS
E7		PAINTED 5/8" GYPSUM BOARD 3 5/8" VERTICAL METAL STUDS AT 16" OC GLULAM BEAM VAPOR PERMEABLE AIR BARRIER 2", MIN. R-7.6 c.i. MINERAL WOOD BOARD IN HORIZONTAL Z CHANNELS AT 24" OC 7/8" VERTICAL METAL HAT CHANNELS AT 16" OC 5/16" FIBER CEMENT PANEL
E8 *2 HOUR RATED U905		INTERIOR FINISH AND FURRING VARY, SEE SCHEDULES, PLANS AND WALL SECTIONS 8" CMU VAPOR PERMEABLE AIR BARRIER 2", MIN. R-7.6 c.i. MINERAL WOOL BOARD IN HORIZONTAL Z CHANNELS AT 24" OC 2" SOLID GROUND FACE CMU ON MASONRY ANCHORS, 16" OC

SPECIFIC PARTITION TYPE NOTES: EX: S4.1

.1 - 10'-0" PARTIAL HEIGHT WALL. CAP WITH GWB.

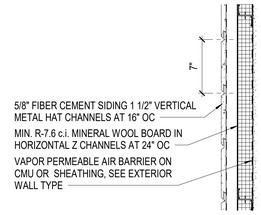
.2 - PL1 ON 1/2" MDF ON 5/8" ZCLIPS, REFER TO FINISH SCHEDULE.

.3 - 1" SAW-1 UNITS ON 5/8" ZCLIPS, REFER TO FINISH SCHEDULE.

.4 - 1 1/2" HORIZONTAL METAL HAT CHANNELS WITH 1 1/2" VERTICAL METAL HAT CHANNELS AT 16" OC WITH 5/8" FIBER CEMENT SIDING (SEE B5/AE501 FOR TYPICAL DETAIL, C5/AE501 FOR ALTERNATE)

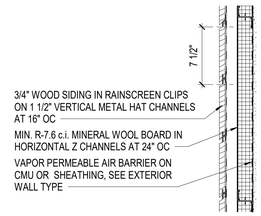
GENERAL PARTITION NOTES:

1. ALL INTERIOR WALLS SHALL BE S4N, UON.
2. REFER TO 'G' SERIES SHEETS FOR ALL UL DESIGNS.
3. METAL STUD GAUGE AND SPACING TO BE DETERMINED BY METAL STUD MANUFACTURER GUIDELINES AND TEST REPORTS IN ORDER TO MEET THE FOLLOWING PERFORMANCE REQUIREMENTS FOR HORIZONTAL DEFLECTION, UON IN THE SPECIFICATIONS.
   A. TYPICAL PARTITION STUD GAUGE SHALL BE DESIGNED TO AN L/120 DEFLECTION OR LESS AS REQUIRED BY CODE, UON.
   B. ON PARTITION TO RECEIVE TILE, PARTITION STUD GAUGE SHALL BE DESIGNED TO AN L/360 DEFLECTION OR LESS AS RECOMMENDED BY THE TILE COUNCIL OF NORTH AMERICA.
4. PARTITION DIMENSIONING AND PARTITION TYPE DESIGNATIONS ARE INDEPENDENT OF APPLIED FINISHES. REFER TO FINISH SCHEDULE FOR INFORMATION REGARDING APPLIED FINISHES.
5. ALL PARTITIONS TO RUN FROM FINISH FLOOR TO UNDERSIDE OF DECK, UON.
6. PROVIDE FIRE RETARDANT TREATED WOOD BLOCKING IN METAL STUD PARTITIONS FOR MOUNTING FIXTURES, MILLWORK, SHELVING, HARDWARE, DOOR STOPS AND OTHER EQUIPMENT.
7. PROVIDE WATER RESISTANT GWB FULL LENGTH OF TOILET / URINAL WALLS AND WITHIN 2 FEET HORIZONTALLY AND 4 FEET VERTICALLY OF SINKS, LAVATORIES AND JANITORS CLOSETS AND ARE NOT SCHEDULED TO RECEIVE TILE OR SHOWER / TUB SURROUNDS.
8. ON NON-RATED WALLS SCHEDULED TO RECEIVE TILE OR SHOWER / TUB SURROUNDS, PROVIDE CEMENTITIOUS BACKER BOARD IN LIEU OF GWB.
9. REFER TO LIFE SAFETY PLAN FOR LOCATIONS OF WALLS WITH HOURLY RATINGS.
10. INSTALL ALL FIRE RATED WALL ASSEMBLIES IN STRICT ACCORDANCE WITH APPLICABLE CODES, ORDINANCE, OR LAWS AND UL DESIGN.
11. ALL PENETRATIONS IN RATED WALL ASSEMBLIES SHALL BE BY UL APPROVED FIRE RATED ASSEMBLIES.
12. ALL FIRE RATED PARTITIONS SHALL BE LABELED ABOVE CEILING WITH 2" TALL (MIN) LETTERS AT NOT MORE THAN 8'-0" OC. AN EXAMPLE LABEL IS AS FOLLOWS: "ONE HOUR FIRE PARTITION"



C5 RAINSCREEN - TYP

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



B5 RAINSCREEN - ALT

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

GRAPHIC SCALE(S)

1 1/2" = 1' - 0" 0 3" 6" 9" 1' 2'

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145

SCO ID # : 24-27956-01A

DESIGNER

CLARKNEXSEN
421 NORTH HARRINGTON STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27603
919-828-1876
CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

DONALD DAVID KRAMBUCK REGISTERED ARCHITECT 9856 6/7/24 RALEIGH N.C.

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

PARTITION TYPES AND DETAILS

AE501

DESIGN: DDK
DRAWN: AST/WMP
REVIEW: DDK

CN 10145

6/12/2024 11:31:11 PM
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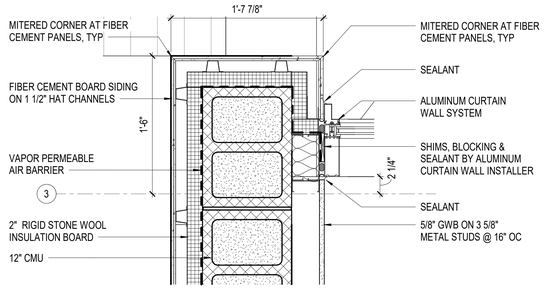
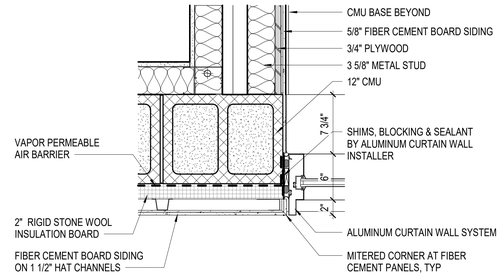


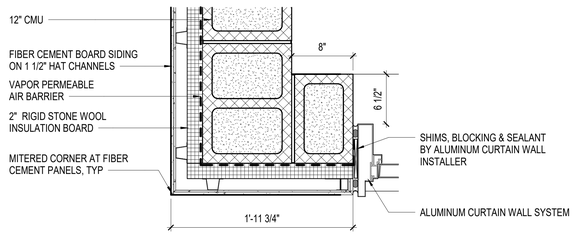
E1 PLAN DETAIL AT CONFERENCE LIBRARY 104

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



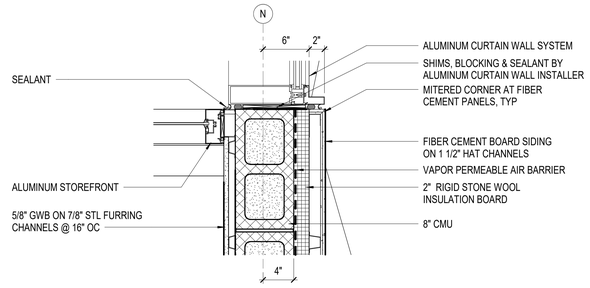
E2 PLAN DETAIL AT STAIR 001

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



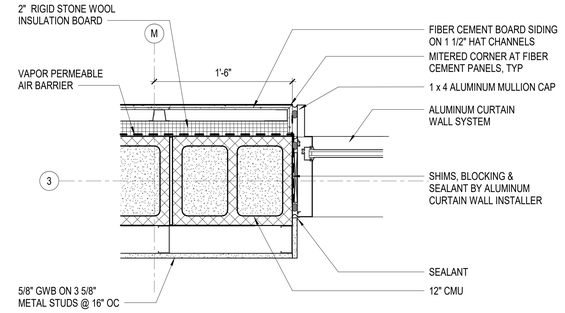
D1 PLAN DETAIL AT STAIR 002

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



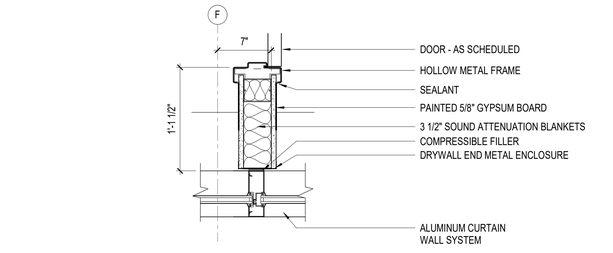
D2 PLAN DETAIL AT OFFICE 133

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



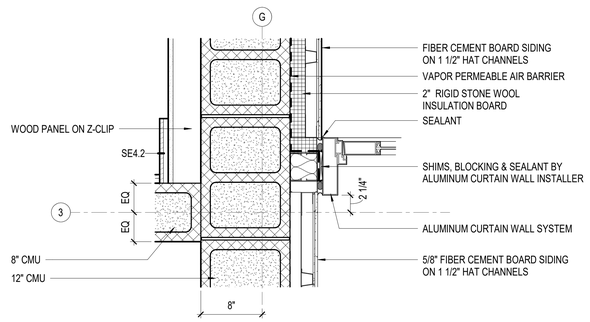
D3 PLAN DETAIL AT TICKETS / INFO 130

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



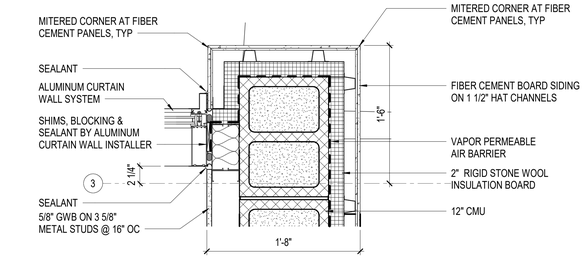
C1 PLAN DETAIL - MULLION AND WALL

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



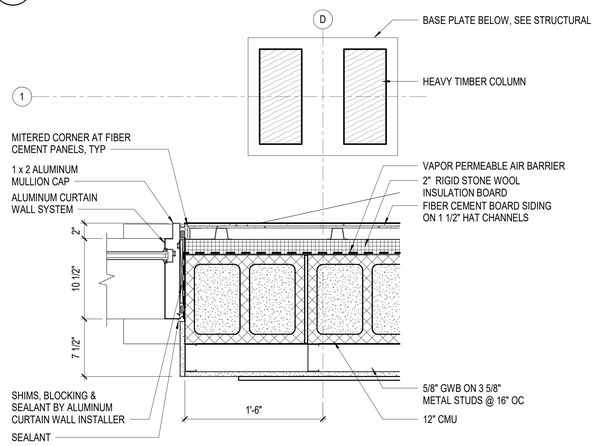
C2 PLAN DETAIL AT ENTRY LOBBY 100

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



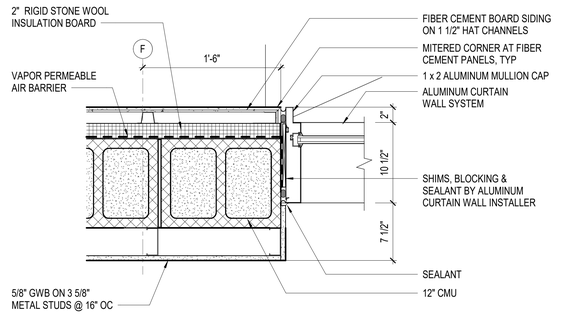
C3 PLAN DETAIL AT ENTRY LOBBY 100

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



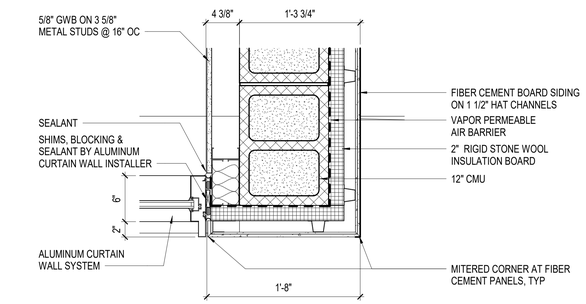
A1 PLAN DETAIL AT MULTI-PURPOSE ROOM 101

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



A2 PLAN DETAIL AT MULTI-PURPOSE ROOM 101

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



A3 PLAN DETAIL AT STAIR 001

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

GRAPHIC SCALE(S)

1 1/2" = 1' - 0" 0 3" 6" 9" 1' 2'

MARITIME HERITAGE FOUNDATION
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Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145

SCO ID # : 24-27956-01A

DESIGNER

CLARKNEXSEN

421 NORTH HARRINGTON STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27603
919-828-1876

CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

RONALD DAVID KRANBUEHL — REGISTERED LANDSCAPE ARCHITECT — 9856 — CERTIFICATE — RALEIGH, N.C.

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

EXTERIOR PLAN DETAILS

AE511

DESIGN: DDK
DRAWN: AST/WMP
REVIEW: DDK

CN 10145

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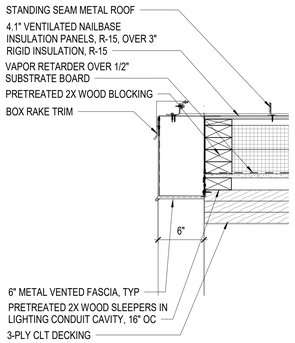

D1 SECTION DETAIL
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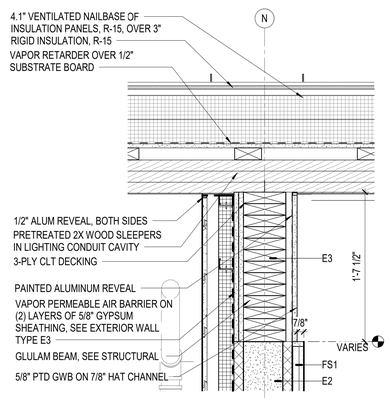

D2 SECTION DETAIL
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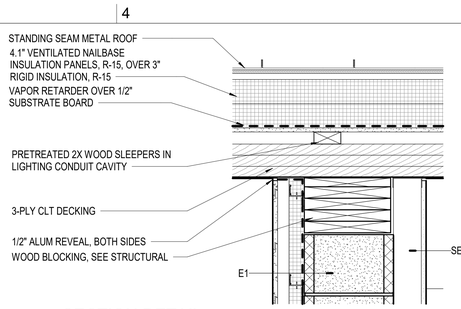

E4 SECTION DETAIL
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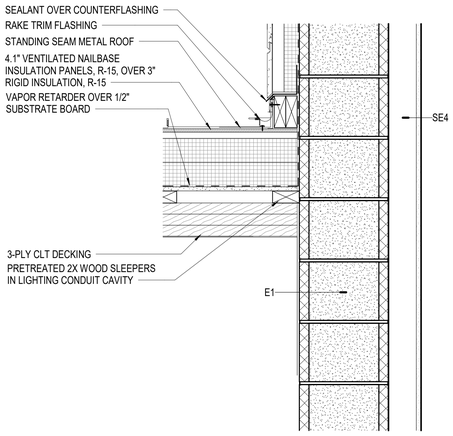

D3 SECTION DETAIL
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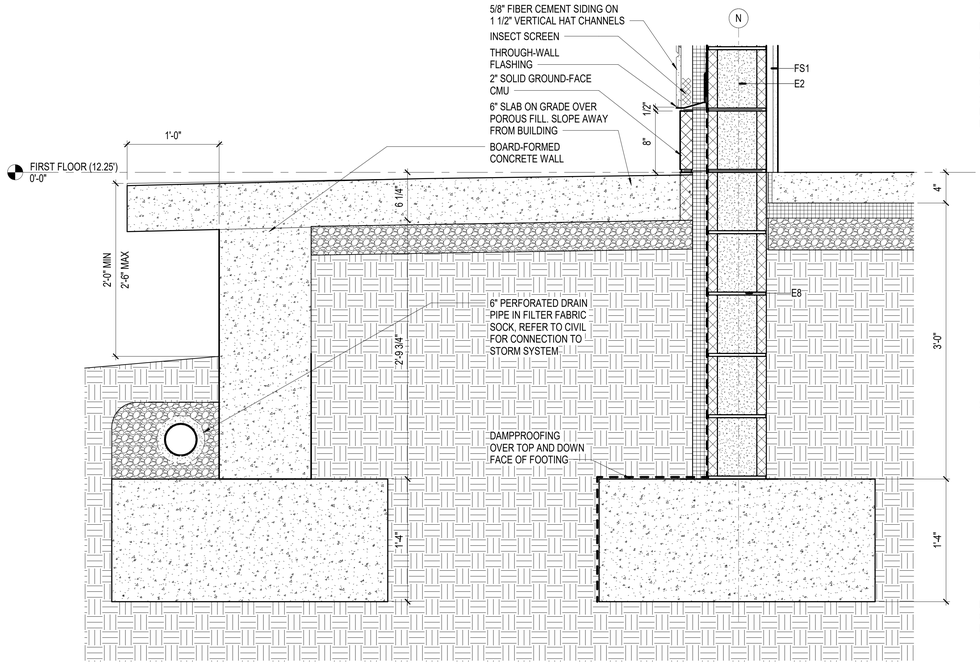

A1 SECTION DETAIL
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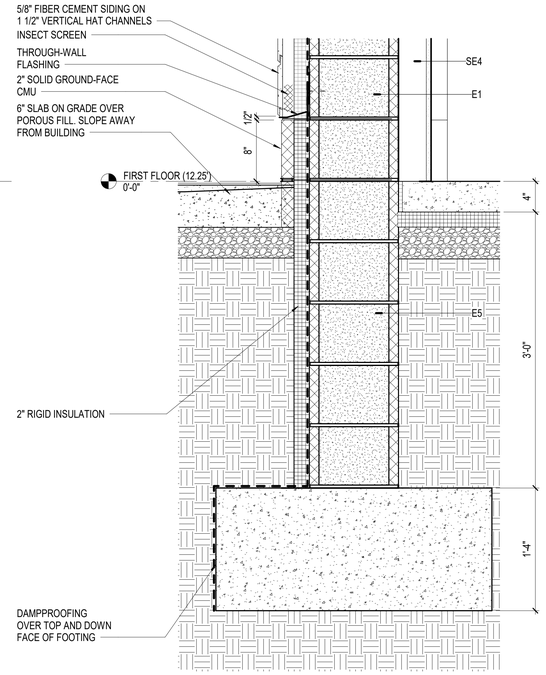

A3 SECTION DETAIL
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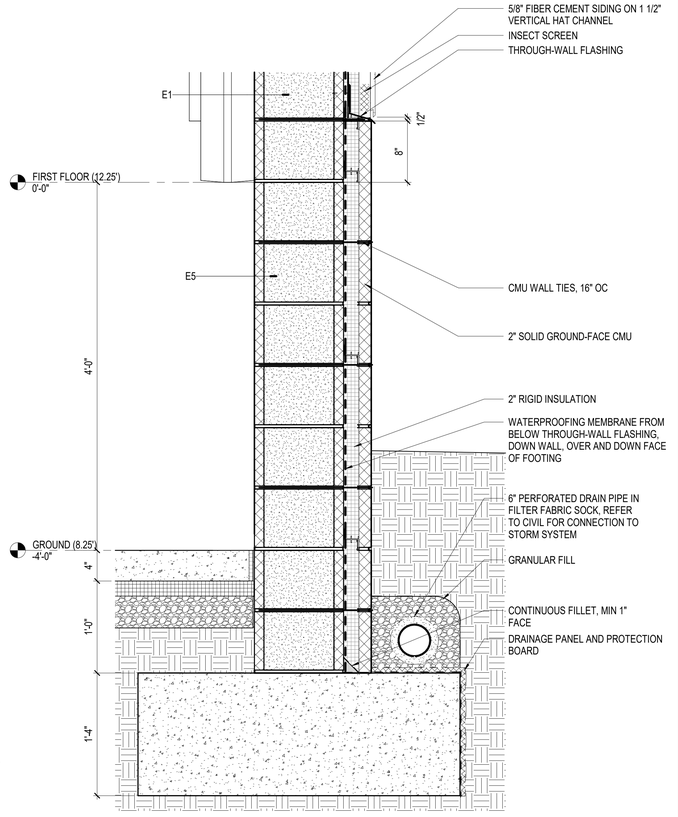

1. REFER TO SHEETS AE621 AND AE622 FOR TYPICAL CURTAIN WALL DETAILS.

A5 SECTION DETAIL
SCALE: 1 1/2" = 1'-0"

GRAPHIC SCALE(S)

1 1/2" = 1' - 0" 0 3" 6" 9" 1' 2'

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PROFESSIONAL SEAL

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

EXTERIOR SECTION DETAILS

AE512

DESIGN: DDK
DRAWN: AST/WMP/MCK
REVIEW: DDK

CN 10145

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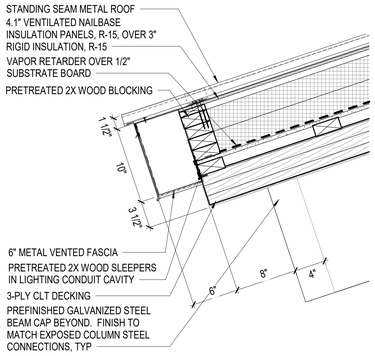

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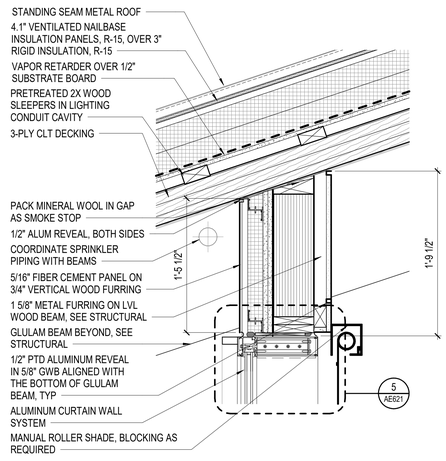

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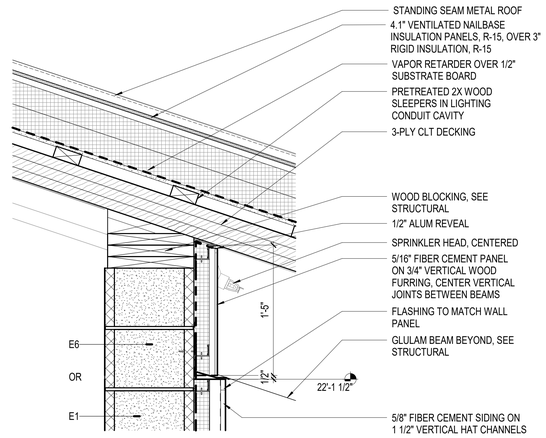

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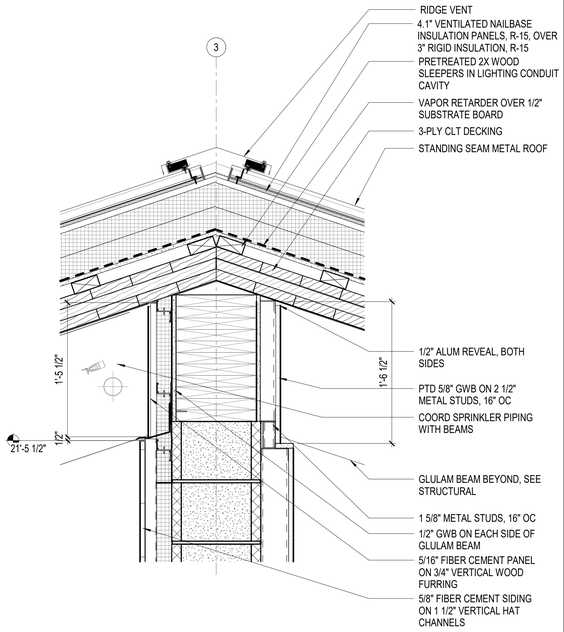

D5 SECTION DETAIL
SCALE: 1 1/2" = 1'-0"

B2 SECTION DETAIL
SCALE: 1 1/2" = 1'-0"

A3 SECTION DETAIL
SCALE: 1 1/2" = 1'-0"

B5 RATED PARTITION ROOF DETAIL
SCALE: 1 1/2" = 1'-0"

1. REFER TO SHEETS AE621 AND AE622 FOR TYPICAL CURTAIN WALL DETAILS.

GRAPHIC SCALE(S)
1 1/2" = 1' - 0"
0 3" 6" 9" 1' 2'

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RALEIGH, N.C.

SUBMITTAL
JUNE 7, 2024
BID DOCUMENTS

REVISIONS

KEY PLAN

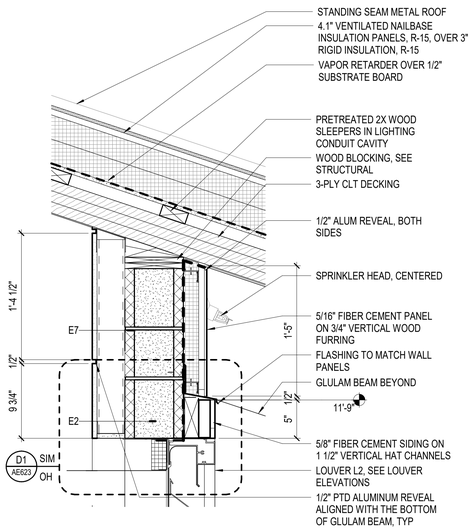
SHEET
EXTERIOR SECTION DETAILS

AE513

DESIGN: DDK
DRAWN: AST/WMP
REVIEW: DDK

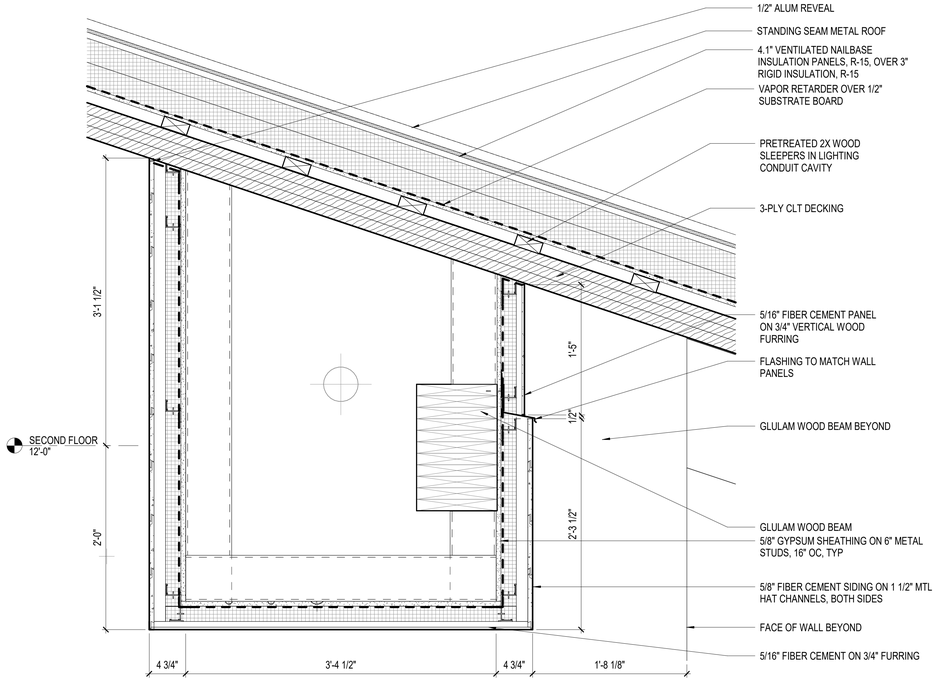
CN 10145

6/12/2024 11:31:29 PM
Autodesk Docs://Maritime Education Center/10145_Maritime Education Center_A23.rvt
830



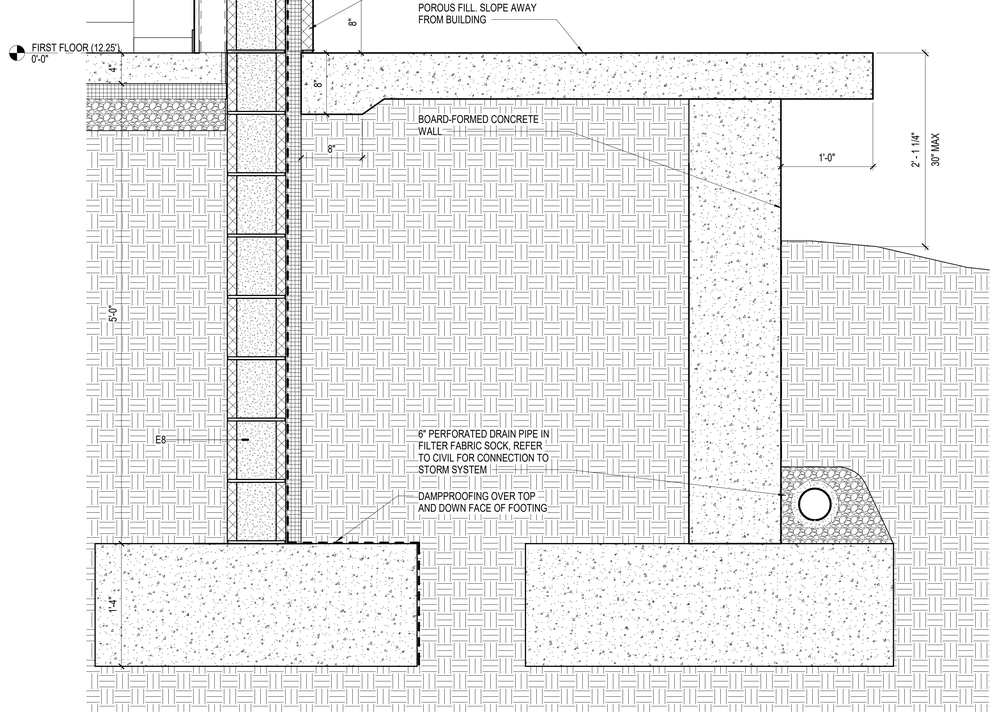
D1 SECTION DETAIL

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



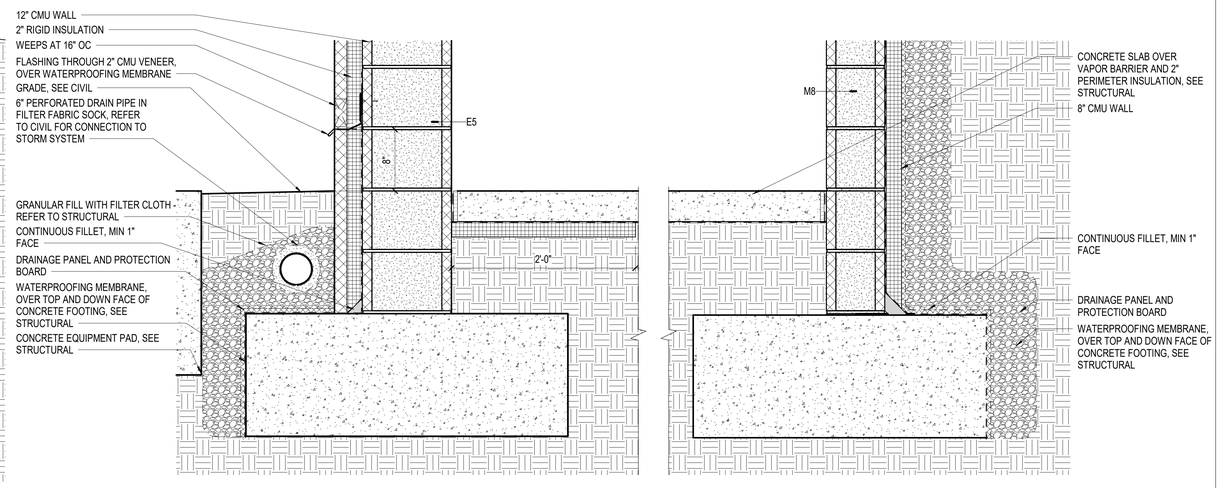
C4 SECTION DETAIL

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



A1 SECTION DETAIL

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



A3 SECTION DETAIL

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

1. REFER TO SHEETS AE621 AND AE622 FOR TYPICAL CURTAIN WALL DETAILS.

GRAPHIC SCALE(S)

1 1/2" = 1' - 0" 0 3" 6" 9" 1' 2'

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145

SCO ID # : 24-27956-01A

DESIGNER

CLARKNEXSEN

421 NORTH HARRINGTON STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27603
919-828-1876

CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

EXTERIOR SECTION DETAILS

AE514

DESIGN: DDK
DRAWN: AST/WMP
REVIEW: DDK

CN 10145

6/12/2024 11:31:33 PM
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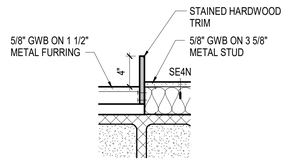
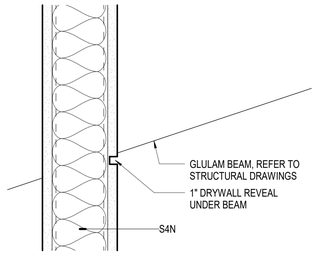
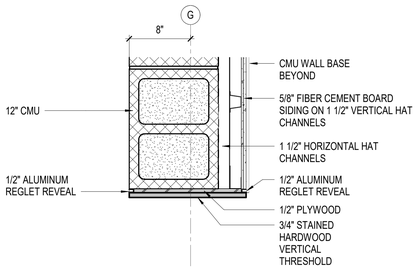


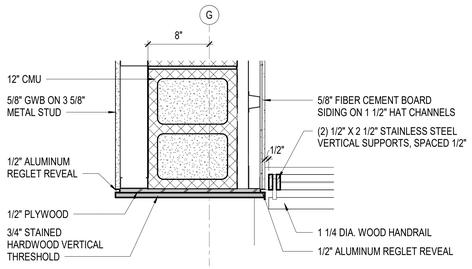
C1 PLAN DETAIL 8
SCALE: 1 1/2" = 1'-0"



C2 TYPICAL WALL DETAIL AT BEAM
SCALE: 3" = 1'-0"



B1 PLAN DETAIL 3
SCALE: 1 1/2" = 1'-0"



B2 PLAN DETAIL 4
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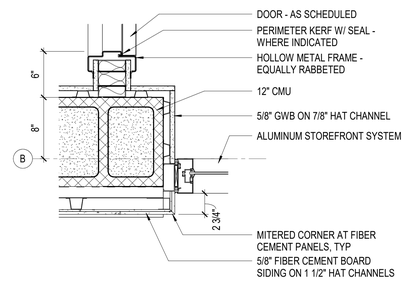
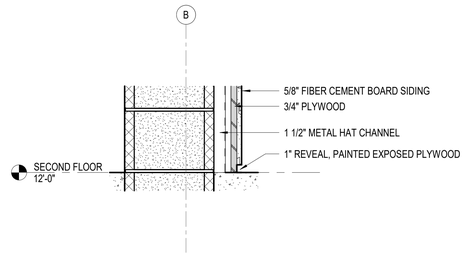
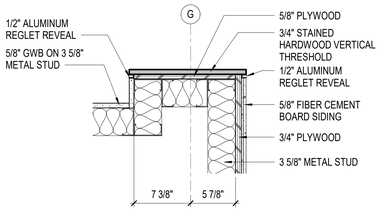


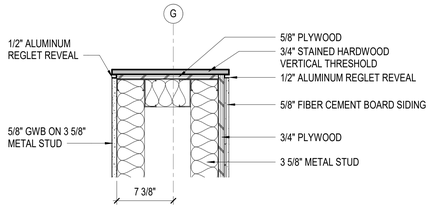
B3 PLAN DETAIL 5
SCALE: 1 1/2" = 1'-0"



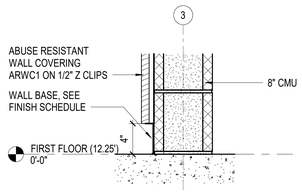
B4 SECTION DETAIL - WALL BASE 2
SCALE: 1 1/2" = 1'-0"



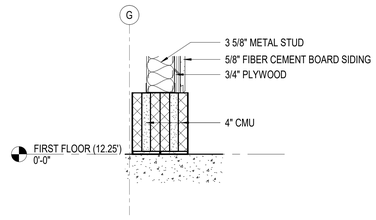
A1 PLAN DETAIL 1
SCALE: 1 1/2" = 1'-0"



A2 PLAN DETAIL 2
SCALE: 1 1/2" = 1'-0"



A3 SECTION DETAIL - WALL BASE
SCALE: 1 1/2" = 1'-0"



A4 SECTION DETAIL - WALL BASE @ LOBBY
SCALE: 1 1/2" = 1'-0"

GRAPHIC SCALE(S)

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

1 1/2" = 1' - 0" 0 3" 6" 9" 1' 2'

MARITIME HERITAGE FOUNDATION
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CN PROJ # : 10145

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919-828-1876

CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

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REGISTERED ARCHITECT
9856
6/7/24
NORTH CAROLINA
RALEIGH, N.C.

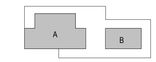
SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN



SHEET

INTERIOR DETAILS

AE521

DESIGN: DDK
DRAWN: AST/WMP
REVIEW: DDK

CN 10145

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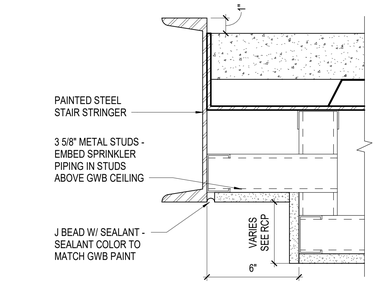
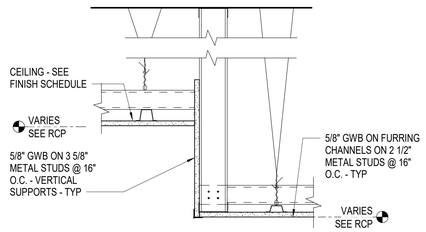


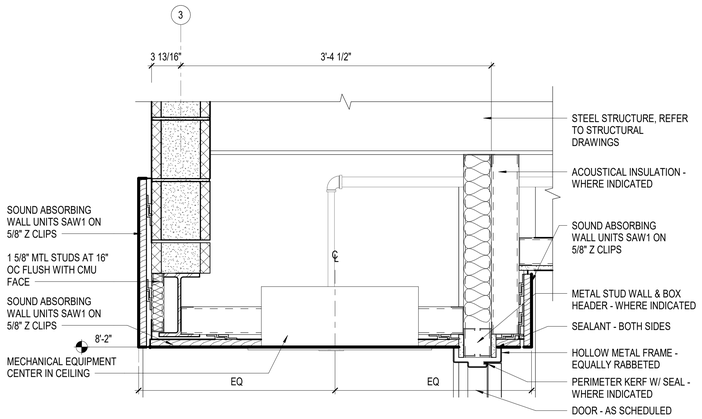
E1 CEILING UNDER STAIR LANDING DETAIL

SCALE: 3" = 1'-0"



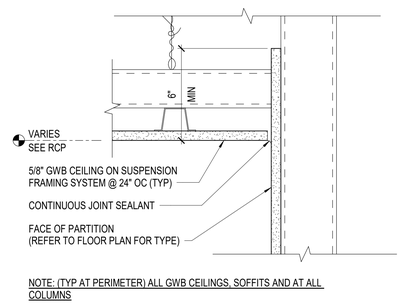
E3 BULKHEAD DETAIL

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



D1 SECTION DETAIL

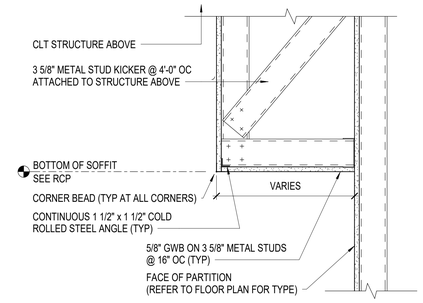
SCALE: 1 1/2" = 1'-0"



NOTE: (TYP AT PERIMETER) ALL GWB CEILINGS, SOFFITS AND AT ALL COLUMNS

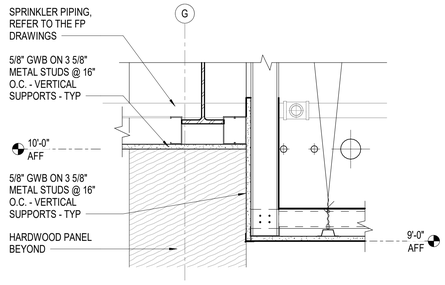
D3 GWB CEILING PERIMETER

SCALE: 3" = 1'-0"



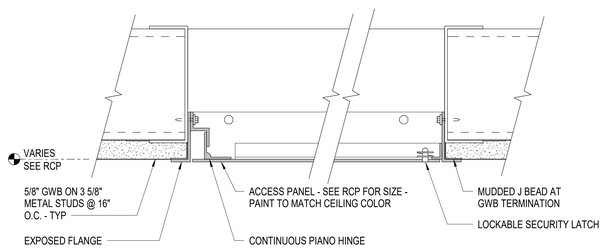
D4 BULKHEAD DETAIL

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



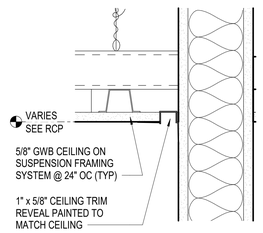
D5 CEILING DETAIL

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



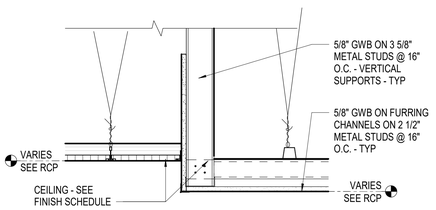
B1 ACCESS PANEL DETAIL

SCALE: 6" = 1'-0"



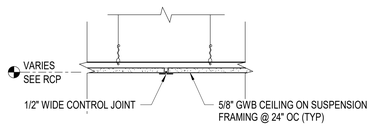
B3 SECTION DETAIL

SCALE: 3" = 1'-0"



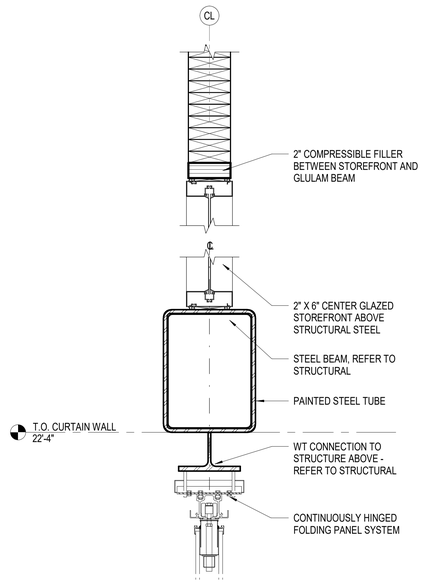
A1 SECTION DETAIL

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



A3 CONTROL JOINT AT GWB CEILING

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



A4 FOLDING PARTITION HEAD (ALTERNATE 11)

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

GRAPHIC SCALE(S)

3" = 1' - 0" — 0, 3", 6", 1'

6" = 1' - 0" — 0, 1", 2", 4", 6"

1 1/2" = 1' - 0" — 0, 3", 6", 9", 1', 2'

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SCO ID # : 24-27956-01A

DESIGNER

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RALEIGH, NORTH CAROLINA 27603
919-828-1876
CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

DONALD DAVID KRAMSDEN
REGISTERED ARCHITECT
9856
6/7/24
NORTH CAROLINA
RALEIGH N.C.

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

CEILING DETAILS

AE530

DESIGN: Designer
DRAWN: AST/WMP
REVIEW: Checker

CN 10145

6/12/2024 11:31:44 PM
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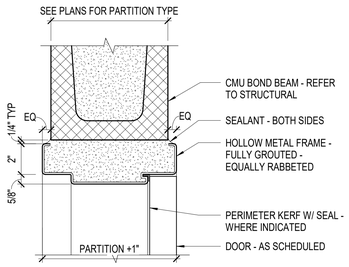
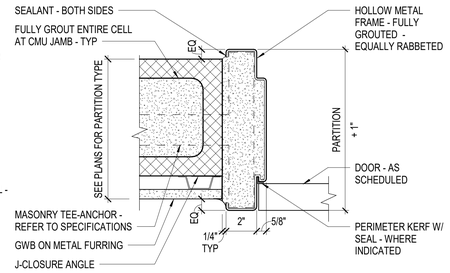
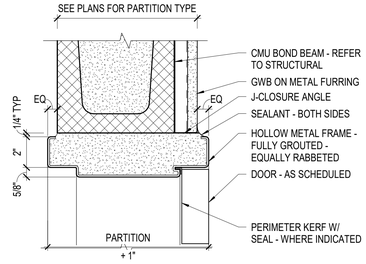


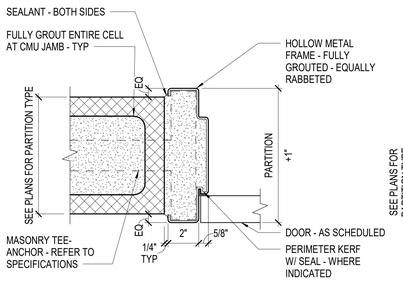
E1 HM FRAME HEAD DETAIL
SCALE: 3" = 1'-0"



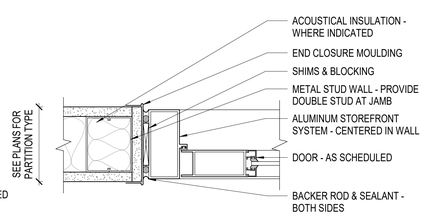
E2 HM FRAME JAMB DETAIL
SCALE: 3" = 1'-0"



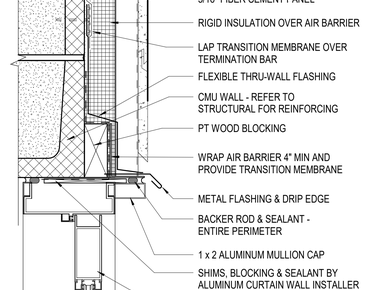
E3 HM FRAME HEAD DETAIL
SCALE: 3" = 1'-0"



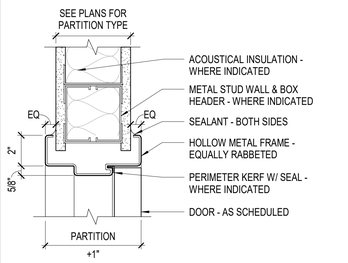
D1 HM FRAME JAMB DETAIL
SCALE: 3" = 1'-0"



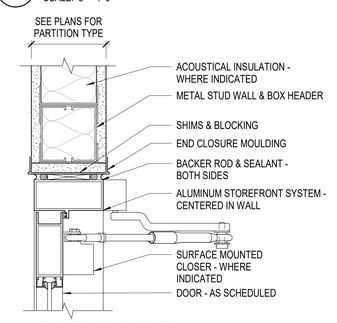
D2 SF JAMB DETAIL
SCALE: 3" = 1'-0"



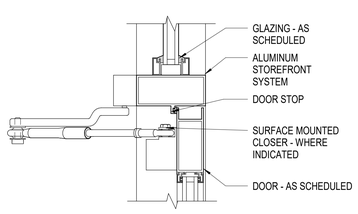
D3 6" CW DOOR HEAD DETAIL
SCALE: 3" = 1'-0"



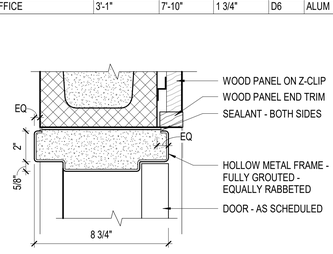
C1 HM FRAME HEAD DETAIL
SCALE: 3" = 1'-0"



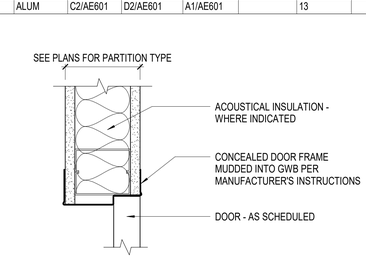
C2 SF HEAD DETAIL
SCALE: 3" = 1'-0"



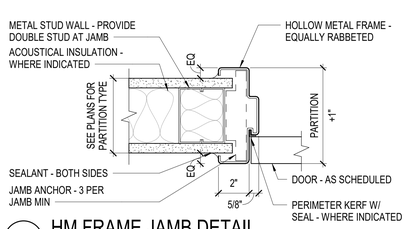
C3 SF HEAD DETAIL AT TRANSOM
SCALE: 3" = 1'-0"



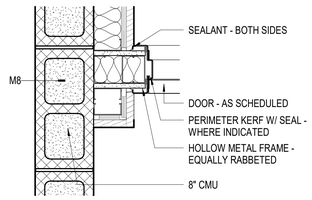
C4 DOOR HEAD AT WOOD WALL
SCALE: 3" = 1'-0"



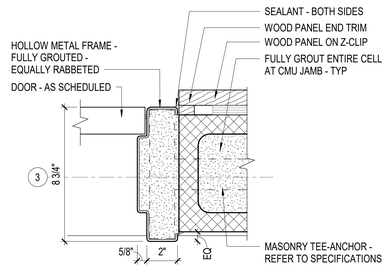
C5 CONCEALED FRAME HEAD DETAIL
SCALE: 3" = 1'-0"



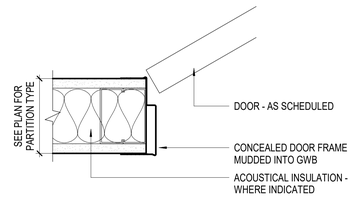
B1 HM FRAME JAMB DETAIL
SCALE: 3" = 1'-0"



B2 DOOR JAMB DETAIL
SCALE: 1 1/2" = 1'-0"



B3 DOOR JAMB DETAIL WOOD WALL
SCALE: 3" = 1'-0"



B5 CONCEALED FRAME JAMB DETAIL
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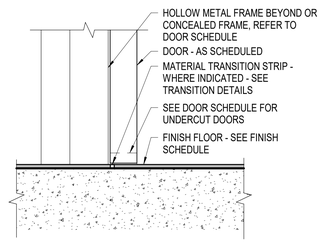
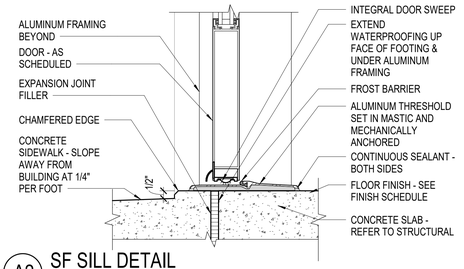


A1 HM FRAME SILL DETAIL
SCALE: 3" = 1'-0"



A2 SF SILL DETAIL
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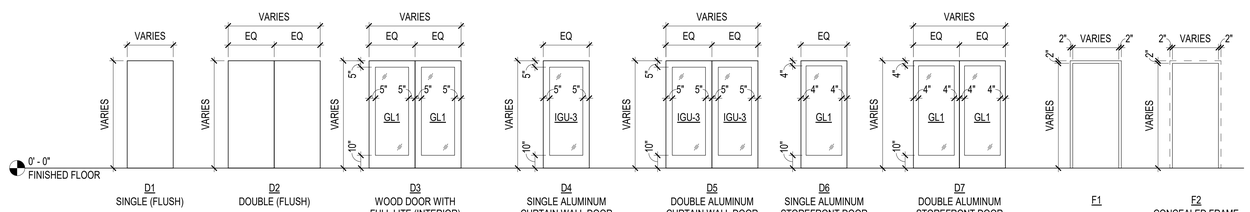

DOOR AND FRAME TYPES
SCALE: 1/4" = 1'-0"

*REFER TO SPECIFICATION 088000 FOR GLAZING TYPES

*FOR ALL OTHER FRAME TYPES REFER TO AE620 OR AE623

GRAPHIC SCALE(S)

1/8" = 1' - 0" 0 5' 10' 15' 30'

DOOR SCHEDULE

DOOR NO.	ROOM NAME	DOOR TOTAL WIDTH	DOOR HEIGHT	DOOR THICKNESS	DOOR TYPE	DOOR MATERIAL	FRAME TYPE	FRAME MATERIAL	FRAME HEAD	FRAME JAMB	FRAME SILL	FIRE RATING	HARDWARE SET (SEE SPECS)	COMMENTS
GROUND (8.25')														
02A	STAIR	2'-11"	8'-0"	1 3/4"	D4	ALUM	H	ALUM			B2/AE601		01	
FIRST FLOOR (12.25')														
02B	STAIR	3'-0"	7'-10"	1 3/4"	D1	WD	F1	STL	E3/AE601	E2/AE601	A1/AE601	60 MIN	12	
100	ENTRY LOBBY	6'-0"	9'-0"	1 3/4"	D5	ALUM	F	ALUM			A2/AE601		02	THERMAL TEMPERED SAFETY GLAZING
101A	MULTI-PURPOSE ROOM	6'-0"	9'-0"	1 3/4"	D5	ALUM	C	ALUM			A2/AE601		02	THERMAL TEMPERED SAFETY GLAZING
101B	MULTI-PURPOSE ROOM	6'-0"	9'-0"	1 3/4"	D5	ALUM	D	ALUM			A2/AE601		02	THERMAL TEMPERED SAFETY GLAZING
101C	MULTI-PURPOSE ROOM	6'-0"	8'-0"	2"	D3	WD	F1	STL	D1/AE530	B2/AE601	A1/AE601		11	TEMPERED SAFETY GLAZING
101D	MULTI-PURPOSE ROOM	6'-0"	8'-0"	2"	D3	WD	F1	STL	D1/AE530	B2/AE601	A1/AE601		11	TEMPERED SAFETY GLAZING
102A	CONFERENCE LIBRARY	6'-0"	9'-0"	1 3/4"	D5	ALUM	A	ALUM			A2/AE601		02	THERMAL TEMPERED SAFETY GLAZING
102B	CONFERENCE LIBRARY	3'-0"	9'-0"	1 3/4"	D6	ALUM	S10	ALUM	C3/AE601	B4/AE601	A1/AE601		05	TEMPERED SAFETY GLAZING
103	STORAGE	6'-0"	8'-0"	1 3/4"	D1	WD	F1	STL	C4/AE601	B3/AE601	A1/AE601	-	06	
104A	KITCHEN	3'-0"	7'-10"	1 3/4"	D1	WD	F1	STL	C4/AE601	B3/AE601	A1/AE601		07	
104B	KITCHEN	3'-0"	7'-10"	1 3/4"	D1	WD	F1	STL	C4/AE601	B3/AE601	A1/AE601		07	
105	ELECTRICAL	3'-0"	7'-10"	1 3/4"	D1	WD	F1	STL	C1/AE601	B1/AE601	A1/AE601		08	5/8" UNDERCUT
106	HSKP	3'-0"	7'-10"	1 3/4"	D1	WD	F1	STL	C1/AE601	B1/AE601	A1/AE601		09	5/8" UNDERCUT
107	RESTROOM	3'-0"	7'-10"	1 3/4"	D1	WD	F1	STL	C1/AE601	B1/AE601	A1/AE601		10	5/8" UNDERCUT
108	RESTROOM	3'-0"	7'-10"	1 3/4"	D1	WD	F1	STL	C1/AE601	B1/AE601	A1/AE601		10	5/8" UNDERCUT
109	SHOWER ROOM	3'-0"	7'-10"	1 3/4"	D1	WD	F1	STL	C1/AE601	B1/AE601	A1/AE601		10	5/8" UNDERCUT
110	SHOWER ROOM	3'-0"	7'-10"	1 3/4"	D1	WD	F1	STL	C1/AE601	B1/AE601	A1/AE601		10	5/8" UNDERCUT; FLOOR DOORSTOP
112	CORRIDOR	3'-0"	8'-0"	1 3/4"	D4	ALUM	S1	ALUM			A2/AE601		03	THERMAL TEMPERED SAFETY GLAZING
113	STORAGE	3'-0"	7'-10"	1 3/4"	D1	WD	F1	STL	C1/AE601	B1/AE601	A1/AE601		09	THERMAL TEMPERED SAFETY GLAZING
130A	TICKETS / INFO	6'-0"	9'-0"	1 3/4"	D5	ALUM	K	ALUM			A2/AE601		02	THERMAL TEMPERED SAFETY GLAZING
130B	TICKETS / INFO	3'-0"	9'-0"	1 3/4"	D4	ALUM	L	ALUM			A2/AE601		03	THERMAL TEMPERED SAFETY GLAZING
131	WOMEN'S	3'-0"	8'-0"	1 3/4"	D4	ALUM	S3	ALUM			A2/AE601		04	THERMAL TEMPERED SAFETY GLAZING
132	MEN'S	3'-0"	8'-0"	1 3/4"	D4	ALUM	S3	ALUM			A2/AE601		04	TEMPERED SAFETY GLAZING
133	OFFICE	3'-0"	8'-0"	1 3/4"	D6	ALUM	S11	ALUM	C2/AE601	D2/AE601	A1/AE601		13	3/4" UNDERCUT
134A	STORAGE	6'-0"	8'-0"	1 3/4"	D1	WD	F2	ALUM	C5/AE601	B5/AE601	A1/AE601	-	14	CONCEALED DOOR FRAME
134B	STORAGE	6'-0"	8'-0"	1 3/4"	D1	WD	F2	ALUM	C5/AE601	B5/AE601	A1/AE601	-	14	CONCEALED DOOR FRAME
134C	STORAGE	6'-0"	8'-0"	1 3/4"	D1	WD	F2	ALUM	C5/AE601	B5/AE601	A1/AE601	-	14	CONCEALED DOOR FRAME
134D	STORAGE	6'-0"	8'-0"	1 3/4"	D1	WD	F2	ALUM	C5/AE601	B5/AE601	A1/AE601	-	14	CONCEALED DOOR FRAME
135	FP ROOM	4'-0 3/4"	8'-0"	1 3/4"	D4	ALUM	S3	ALUM	D3/A601		A2/AE601		21	THERMAL TEMPERED SAFETY GLAZING
SECOND FLOOR														
02C	STAIR	3'-0"	7'-10"	1 3/4"	D1	WD	F1	STL	C1/AE601	B1/AE601	A1/AE601	60 MIN	12	
201	STORAGE	6'-0"	8'-0"	1 3/4"	D2	WD	F1	STL	C1/AE601	B1/AE601	A1/AE601	-	15	
202	MECH	3'-0"	7'-10"	1 3/4"	D1	WD	F1	STL	C1/AE601	B1/AE601	A1/AE601		16	
203	FILES	3'-0"	7'-10"	1 3/4"	D1	WD	F1	STL	C1/AE601	B1/AE601	A1/AE601		16	3/4" UNDERCUT
204	MECHANICAL	3'-0"	7'-10"	1 3/4"	D1	WD	F1	STL	C1/AE601	B1/AE601	A1/AE601		18	
205	MEETING	3'-0"	7'-10"	1 3/4"	D6	ALUM	S12	ALUM	C3/AE601		A1/AE601		19	TEMPERED SAFETY GLAZING
206	TELECOM	3'-0"	7'-10"	1 3/4"	D1	WD	F1	STL	C1/AE601	B1/AE601	A1/AE601		18	5/8" UNDERCUT
207	RESTROOM	3'-0"	7'-10"	1 3/4"	D1	WD	F1	STL	C1/AE601	B1/AE601	A1/AE601		20	5/8" UNDERCUT
208	OFFICE	3'-1"	7'-10"	1 3/4"	D6	ALUM	S13	ALUM	C2/AE601	D2/AE601	A1/AE601		13	
209	OFFICE	3'-1"	7'-10"	1 3/4"	D6	ALUM	S14	ALUM	C2/AE601	D2/AE601	A1/AE601		13	

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Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145
SCO ID # : 24-27956-01A

DESIGNER

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RALEIGH, NORTH CAROLINA 27603
919-828-1876

CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

DONALD DAVID KRAMBORN REGISTERED ARCHITECT 9856 NORTH CAROLINA 6/7/24 RALEIGH, N.C.

SUBMITTAL

JUNE 7, 2024
BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

DOOR SCHEDULE, DOOR / FRAME TYPES AND DETAILS

AE601

DESIGN: DDK
DRAWN: AST/WMP
REVIEW: DDK

CN 10145

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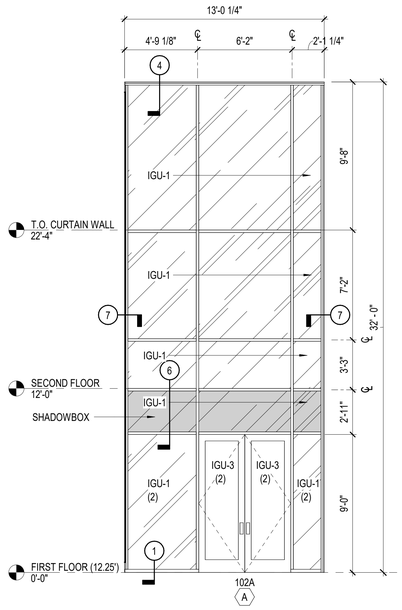

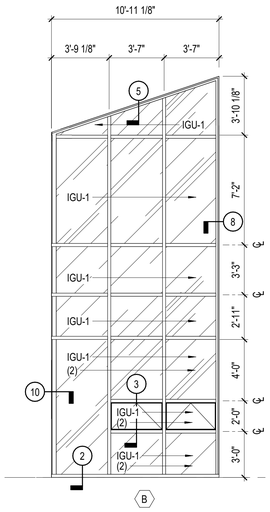

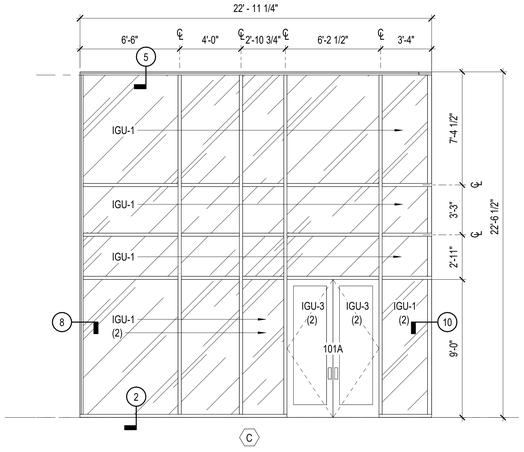

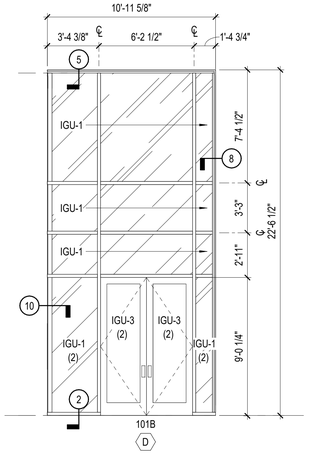

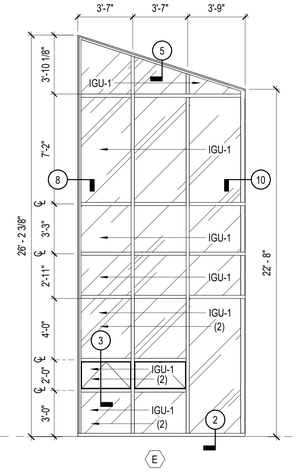

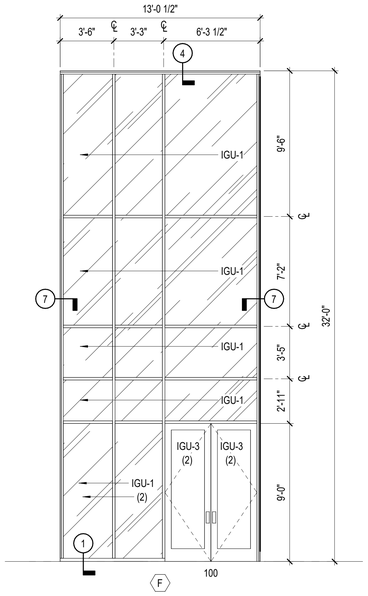

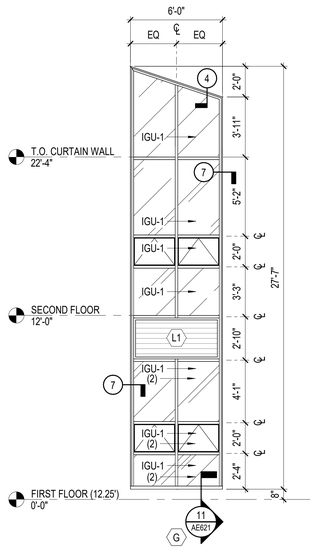

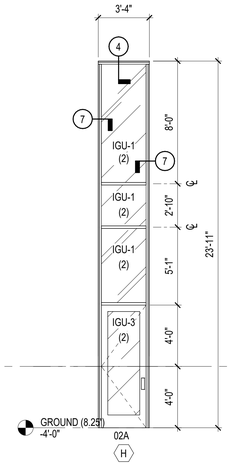

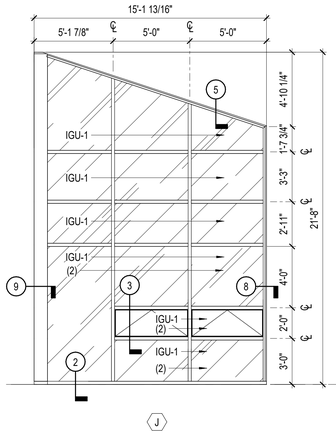

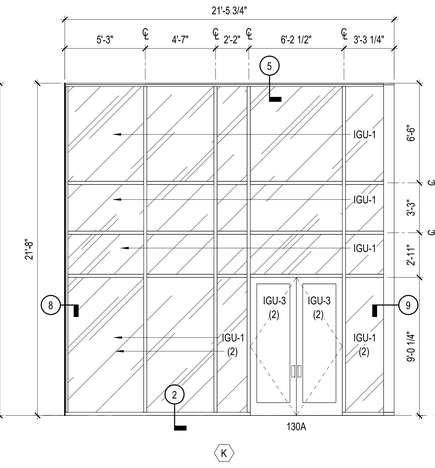

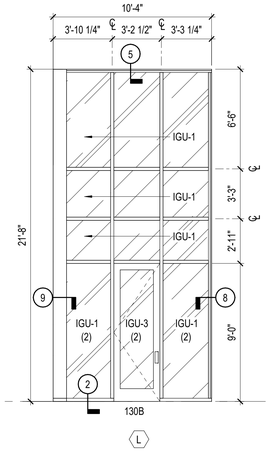

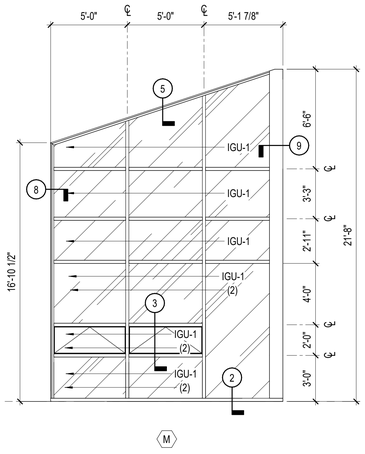

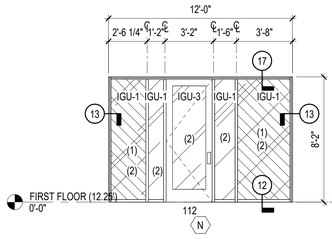

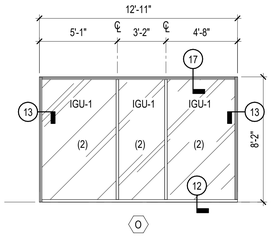

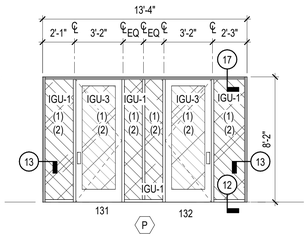

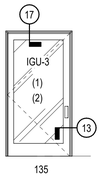

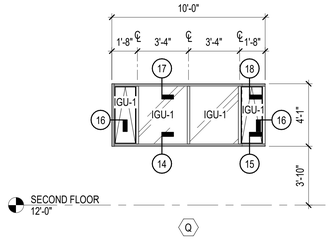

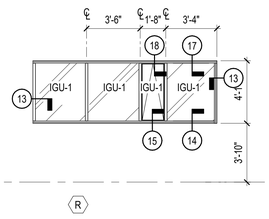

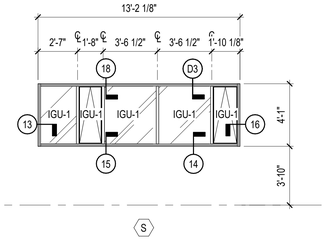

CURTAIN WALL ELEVATIONS

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

REMARKS NOTED ABOVE:
(1) FROSTED GLAZING
(2) SAFETY GLAZING PER NCBC 2406.4 FOR HAZAROUS LOCATION.

REFER TO SPECIFICATIONS FOR GLAZING SCHEDULE.

*** ALL EXTERIOR GLAZING LOCATED WITHIN "HAZARDOUS" LOCATIONS SHALL COMPLY WITH SECTION 2406.4 NCBC 2018 ON BOTH LEVELS. TYP.**

GENERAL NOTES

1. REFER TO SHEETS AE621 AND AE622 FOR TYPICAL CURTAIN WALL DETAILS.

GRAPHIC SCALE(S)

1/4" = 1' - 0" 0 1' 5' 10' 15'

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919-828-1876
CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

DONALD DAVID KRAMPEN REGISTERED ARCHITECT 19578 10/24 NORTH CAROLINA RALEIGH N.C.

SUBMITTAL

JUNE 7, 2024
BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

CURTAINWALL ELEVATIONS

AE620

DESIGN: DDK
DRAWN: AST/WMP
REVIEW: DDK

CN 10145

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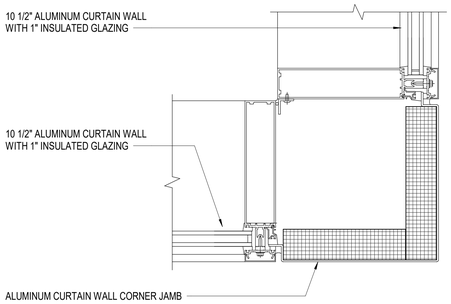
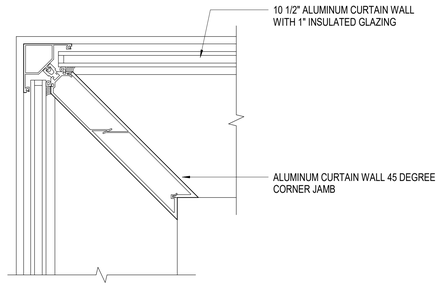


9 10.5" CW OUTSIDE CORNER JAMB DETAIL
SCALE: 3" = 1'-0"



10 10.5" CW 45 DEGREE CORNER JAMB DETAIL
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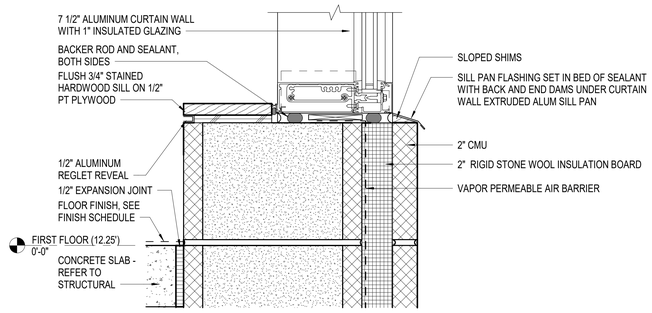
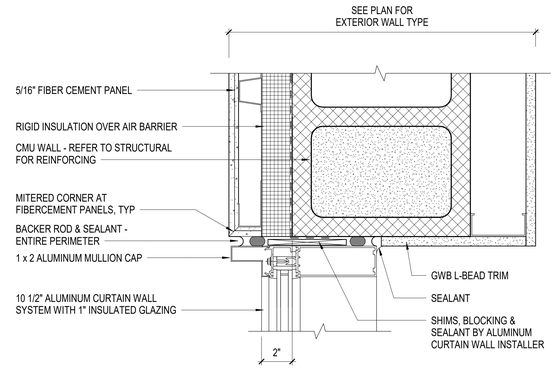
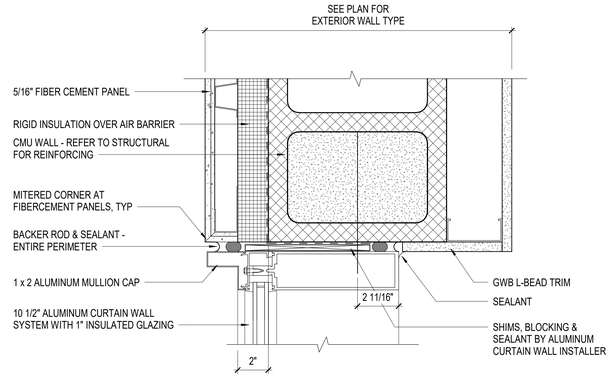


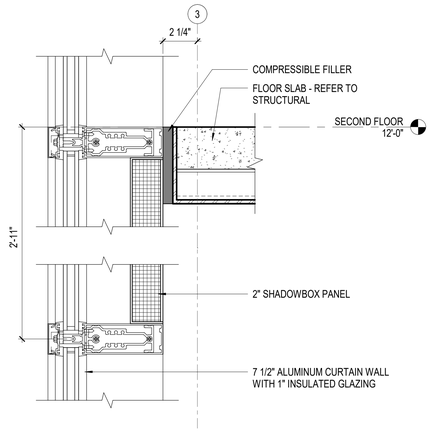
11 7.5" CW SILL DETAIL AT CURTAIN WALL G
SCALE: 3" = 1'-0"



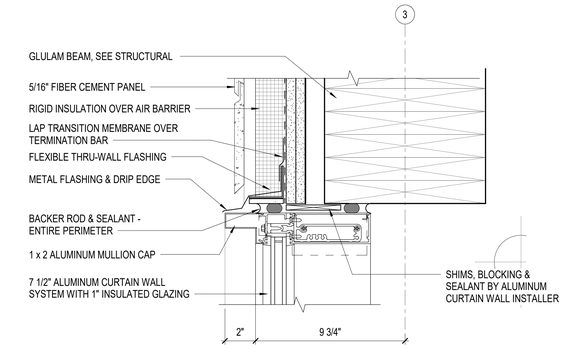
7 7.5" CW JAMB DETAIL
SCALE: 3" = 1'-0"



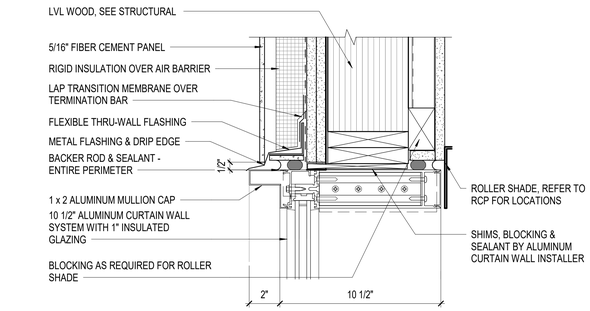
8 10.5" CW JAMB DETAIL
SCALE: 3" = 1'-0"



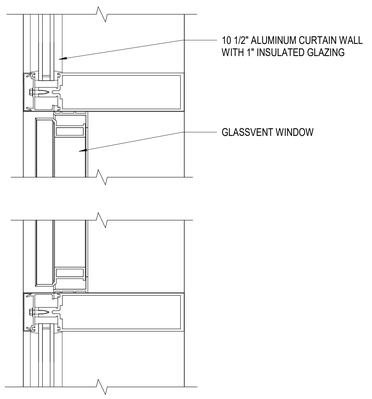
6 7.5" CW SHADOWBOX DETAIL
SCALE: 3" = 1'-0"



4 7.5" CW HEAD DETAIL
SCALE: 3" = 1'-0"



5 10.5" CW HEAD DETAIL
SCALE: 3" = 1'-0"



3 10.5" CW WINDOW HEAD AND SILL DETAIL
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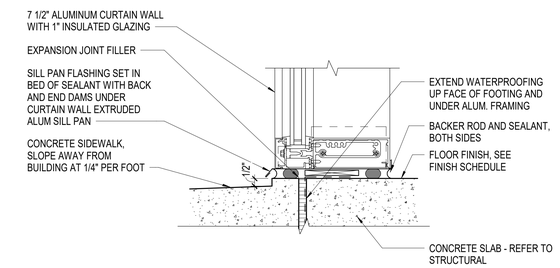

1 7.5" CW SILL DETAIL
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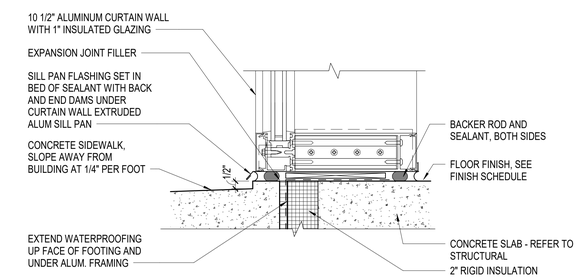

2 10.5" CW SILL DETAIL
SCALE: 3" = 1'-0"

GRAPHIC SCALE(S)

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

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919·828·1876
CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

DONALD DAVID KRAMBUCK
REGISTERED ARCHITECT
9856
04/12/24
NORTH CAROLINA
RALEIGH, N.C.

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

CURTAIN WALL DETAILS

AE621

DESIGN: Designer
DRAWN: Author
REVIEW: Checker

CN 10145

6/12/2024 11:32:02 PM
Autodesk Docs://Maritime Education Center/10145_Maritime Education Center_A23.rvt
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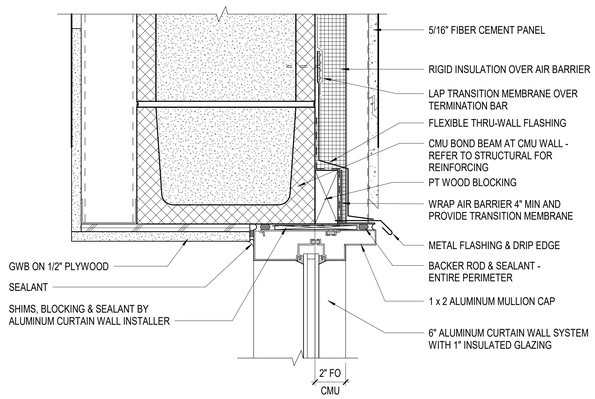
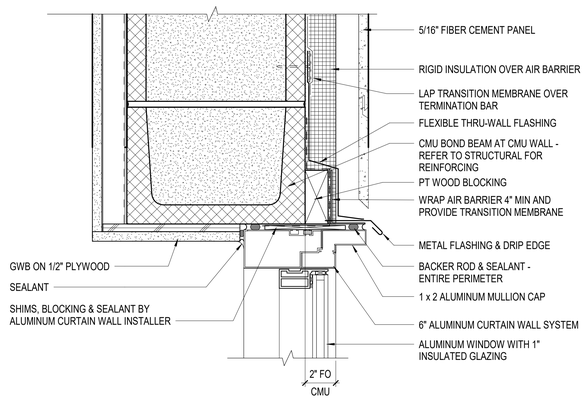
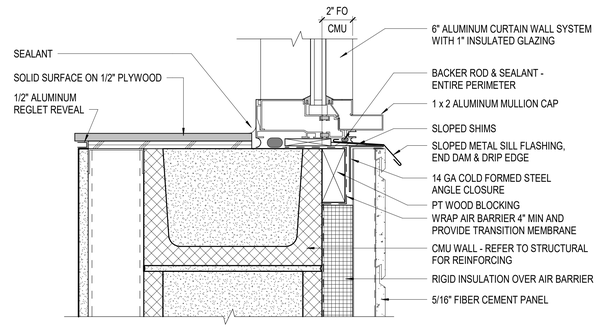


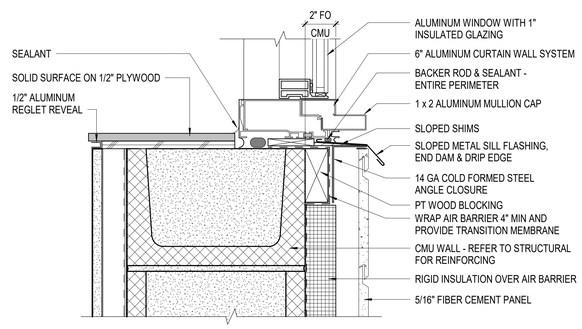
17 6" CW WINDOW HEAD DETAIL 1
SCALE: 3" = 1'-0"



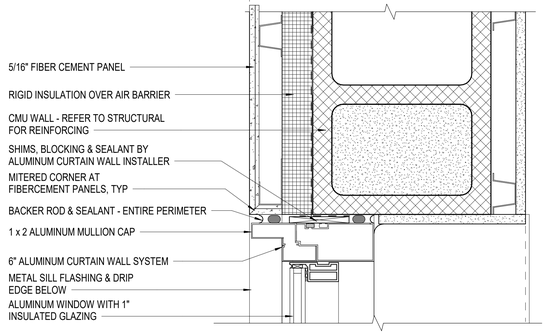
18 6" CW WINDOW HEAD DETAIL 2
SCALE: 3" = 1'-0"



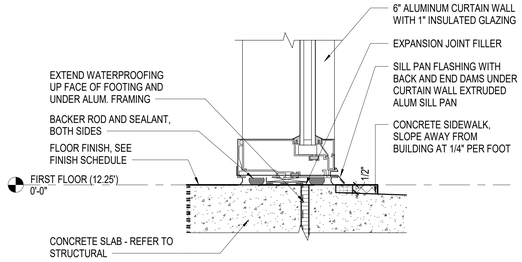
14 6" CW WINDOW SILL DETAIL 1
SCALE: 3" = 1'-0"



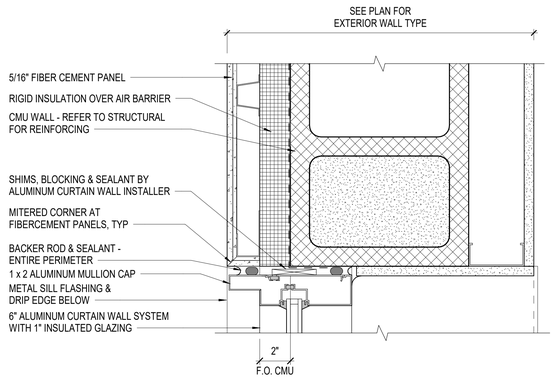
15 6" CW WINDOW SILL DETAIL 2
SCALE: 3" = 1'-0"



16 6" CW WINDOW JAMB DETAIL 2
SCALE: 3" = 1'-0"



12 6" CW SILL DETAIL AT SLAB
SCALE: 3" = 1'-0"



13 6" CW WINDOW JAMB DETAIL 1
SCALE: 3" = 1'-0"

GRAPHIC SCALE(S)
3" = 1' - 0" 0 3" 6" 1'

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145
SCO ID # : 24-27956-01A

DESIGNER

CLARKNEXSEN
421 NORTH HARRINGTON STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27603
919-828-1876
CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL
HAROLD DAVID KRAMBORN REGISTERED ARCHITECT 9856 6/7/24 NORTH CAROLINA RALEIGH N.C.

SUBMITTAL
JUNE 7, 2024
BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET
CURTAIN WALL DETAILS

AE622

DESIGN: Designer
DRAWN: Author
REVIEW: Checker
CN 10145

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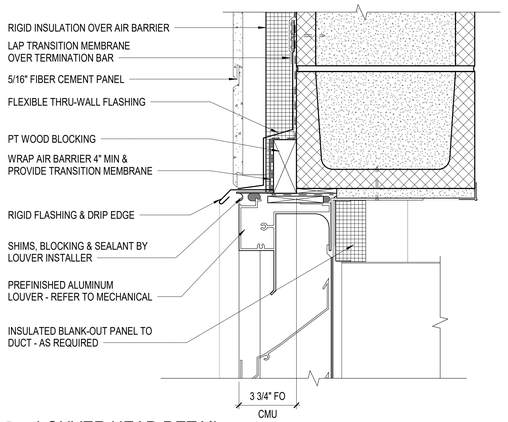
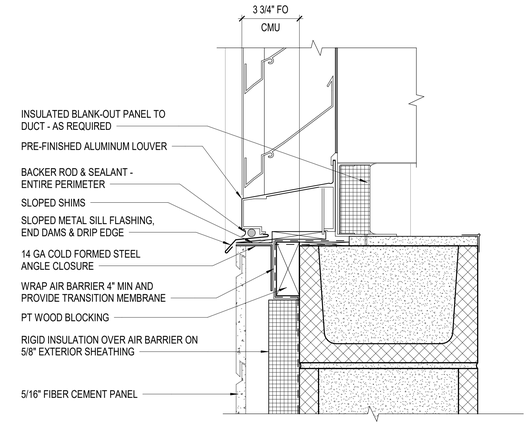


D1 LOUVER HEAD DETAIL

SCALE: 3" = 1'-0"



D2 LOUVER SILL DETAIL

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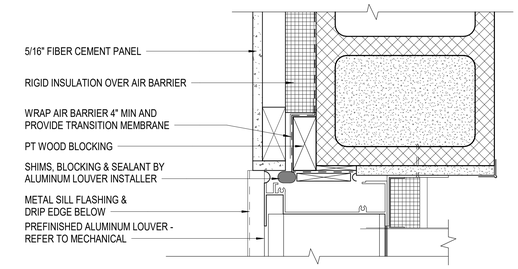

D3 LOUVER JAMB DETAIL

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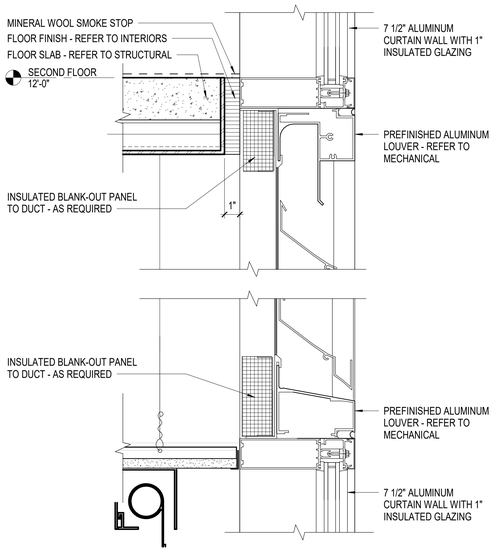
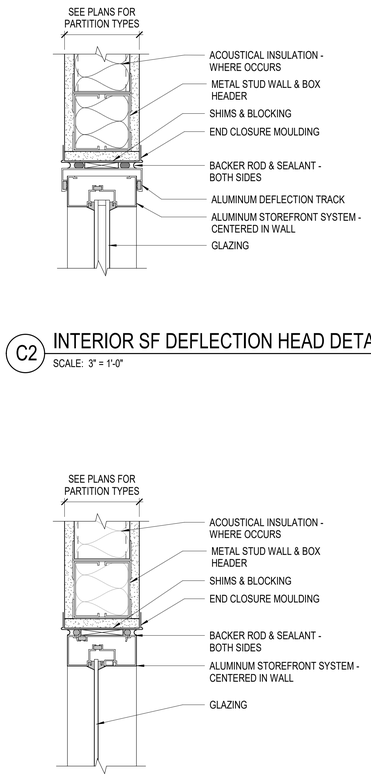


C1 CURTAIN WALL WITH LOUVER DETAIL

SCALE: 3" = 1'-0"

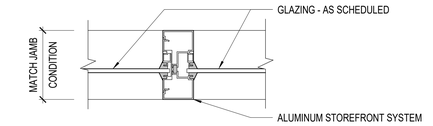


C2 INTERIOR SF DEFLECTION HEAD DETAIL

SCALE: 3" = 1'-0"

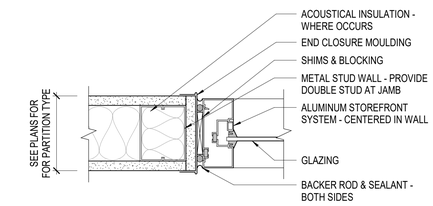
B2 INTERIOR SF HEAD DETAIL

SCALE: 3" = 1'-0"



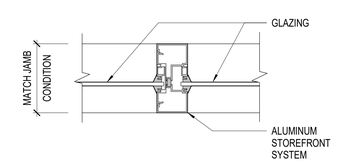
B1 INTERIOR SF JAMB DETAIL

SCALE: 3" = 1'-0"



A1 INTERIOR SF JAMB DETAIL

SCALE: 3" = 1'-0"



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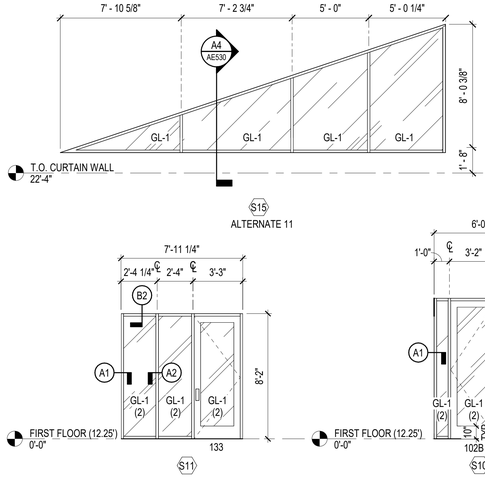
SCALE: 3" = 1'-0"

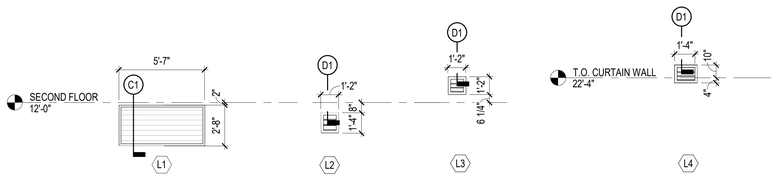


INTERIOR STOREFRONT ELEVATIONS

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

REMARKS NOTED ABOVE:
(1) FROSTED GLAZING
(2) SAFETY GLAZING PER NCBC 2406.4 FOR HAZAROUS LOCATION.

REFER TO SPECIFICATIONS FOR GLAZING SCHEDULE.



LOUVER ELEVATIONS

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

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145

SCO ID # : 24-27956-01A

DESIGNER

CLARKNEXSEN
421 NORTH HARRINGTON STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27603
919-828-1876

CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

DONALD DAVID KRAMBUK
REGISTERED ARCHITECT
NO. 24724
NORTH CAROLINA
RALEIGH, N.C.

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

INTERIOR STOREFRONT / LOUVER ELEVATIONS AND DETAILS

AE623

GRAPHIC SCALE(S)

1/4" = 1' - 0" 0 1' 5' 10' 15'

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

DESIGN: Designer
DRAWN: Author
REVIEW: Checker

CN 10145

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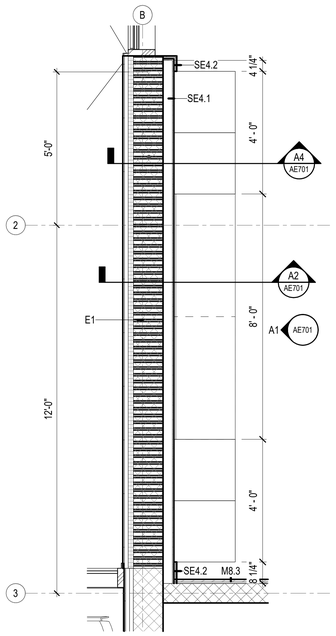
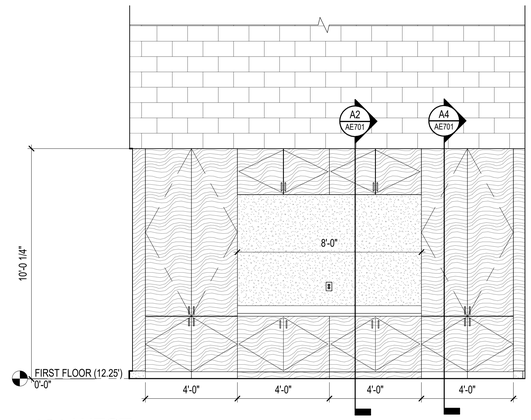
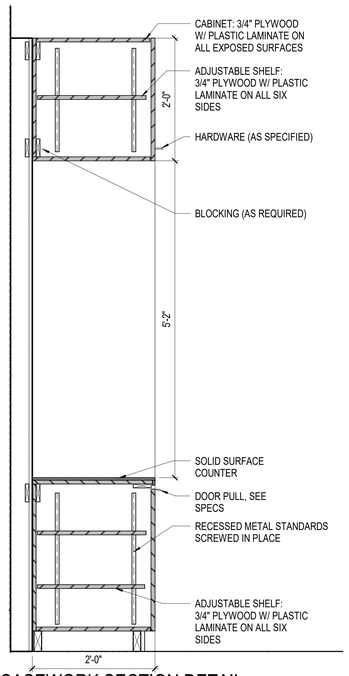


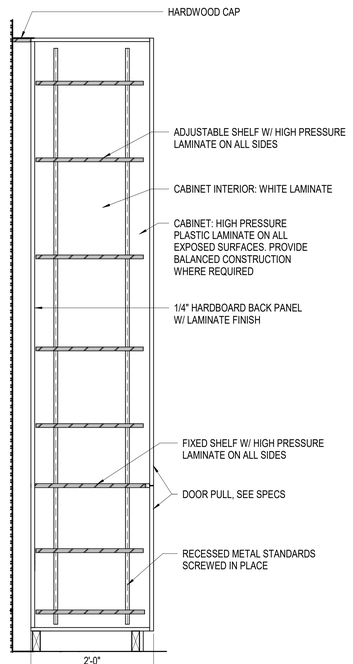
B1 MULTI-PURPOSE CLASSROOM CASEWORK
1/2" = 1'-0"



A1 101 WEST
3/8" = 1'-0"



A2 CASEWORK SECTION DETAIL
SCALE: 1" = 1'-0"



A4 CASEWORK SECTION DETAIL
SCALE: 1" = 1'-0"

GRAPHIC SCALE(S)

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

1 1/2" = 1' - 0" 0 3" 6" 9" 1' 2'

1/2" = 1' - 0" 0 6" 1' 2' 3' 4' 5'

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

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CN PROJ # : 10145

SCO ID # : 24-27956-01A

DESIGNER

CLARKNEXSEN

421 NORTH HARRINGTON STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27603
919·828·1876

CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

CASEWORK PLANS, SECTIONS AND DETAILS

AE701

DESIGN: DDK
DRAWN: AST/WMP
REVIEW: DDK

CN 10145

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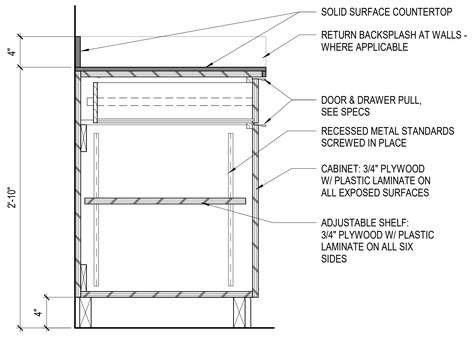
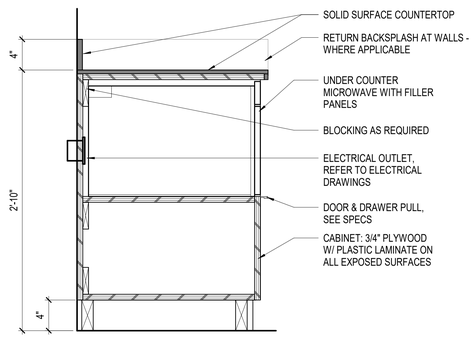


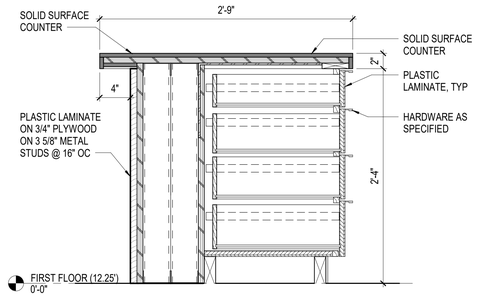
D1 BASE CABINET @ KITCHEN

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



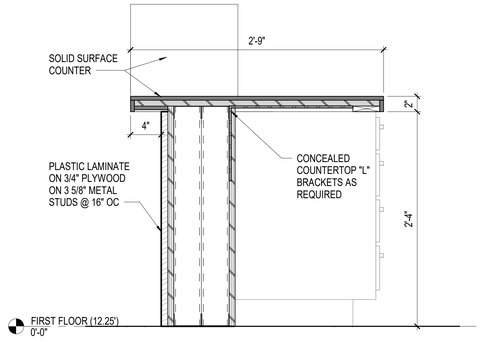
D2 BASE CABINET @ KITCHEN

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



C1 TICKETING DESK SECTION

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



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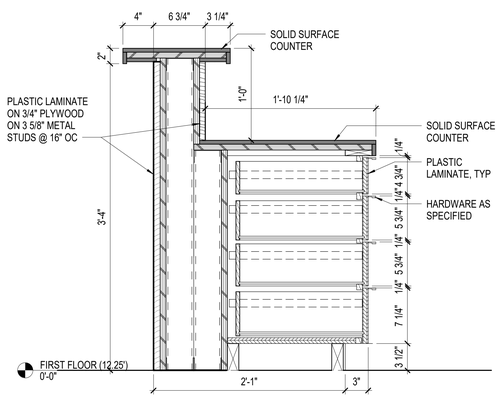

C4 TICKETING DESK SECTION

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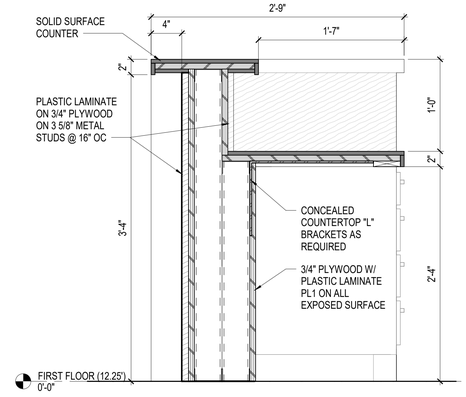

C5 TICKETING DESK SECTION

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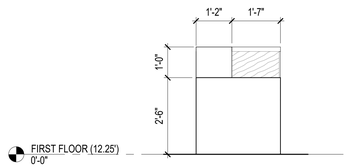
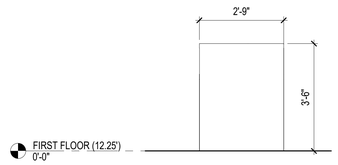


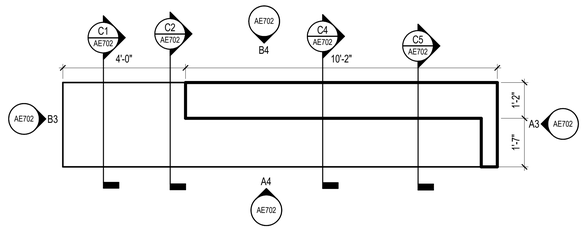
B3 TICKETING DESK ELEVATION

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



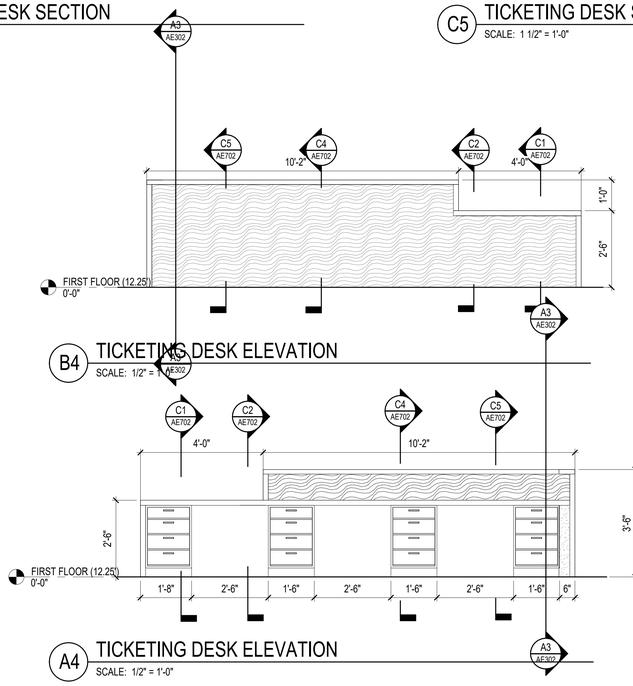
A3 TICKETING DESK ELEVATION

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



A1 TICKETING DESK PLAN

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



B4 TICKETING DESK ELEVATION

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

A4 TICKETING DESK ELEVATION

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

GRAPHIC SCALE(S)

1 1/2" = 1' - 0" 0 3" 6" 9" 1' 2'

1/2" = 1' - 0" 0 6" 1' 2' 3' 4' 5'

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145

SCO ID # : 24-27956-01A

DESIGNER

CLARKNEXSEN

421 NORTH HARRINGTON STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27603
919·828·1876

CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

RONALD DAVID KRAMBERG REGISTERED ARCHITECT 9836 NORTH CAROLINA RALEIGH, N.C.

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

CASEWORK PLANS, SECTIONS AND DETAILS

AE702

DESIGN: DDK
DRAWN: AST/WMP
REVIEW: DDK

CN 10145

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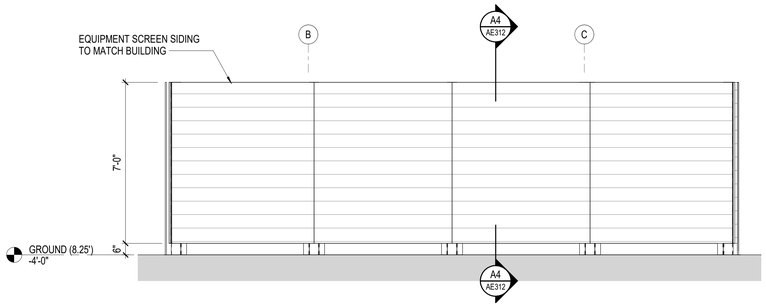
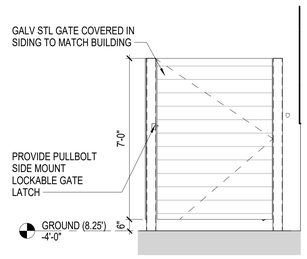
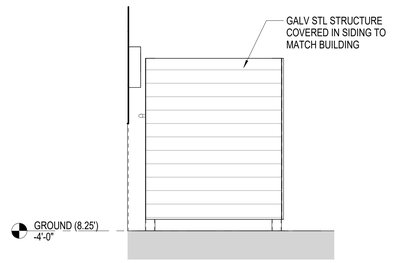


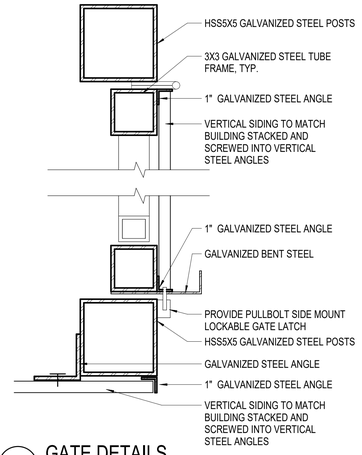
E1 SOUTH ELEVATION
SCALE: 3/8" = 1'-0"



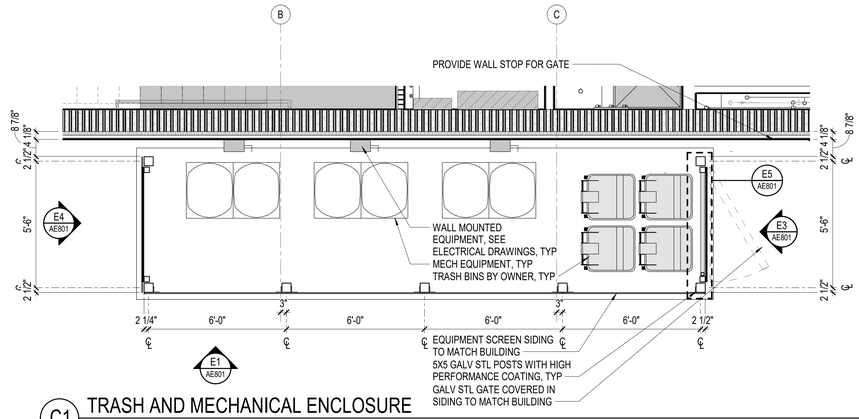
E3 EAST ELEVATION
SCALE: 3/8" = 1'-0"



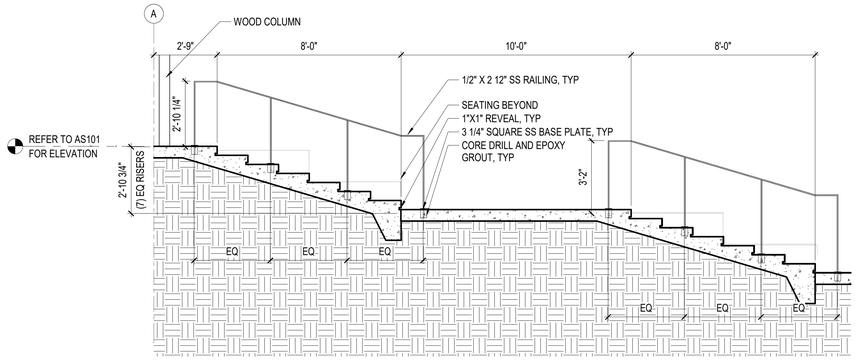
E4 WEST ELEVATION
SCALE: 3/8" = 1'-0"



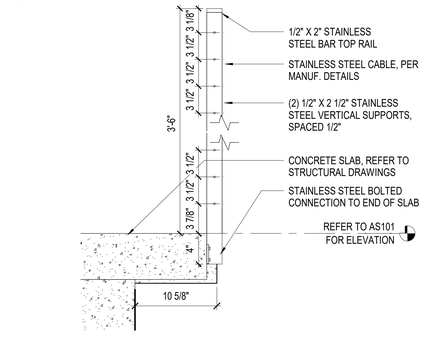
E5 GATE DETAILS
SCALE: 3" = 1'-0"



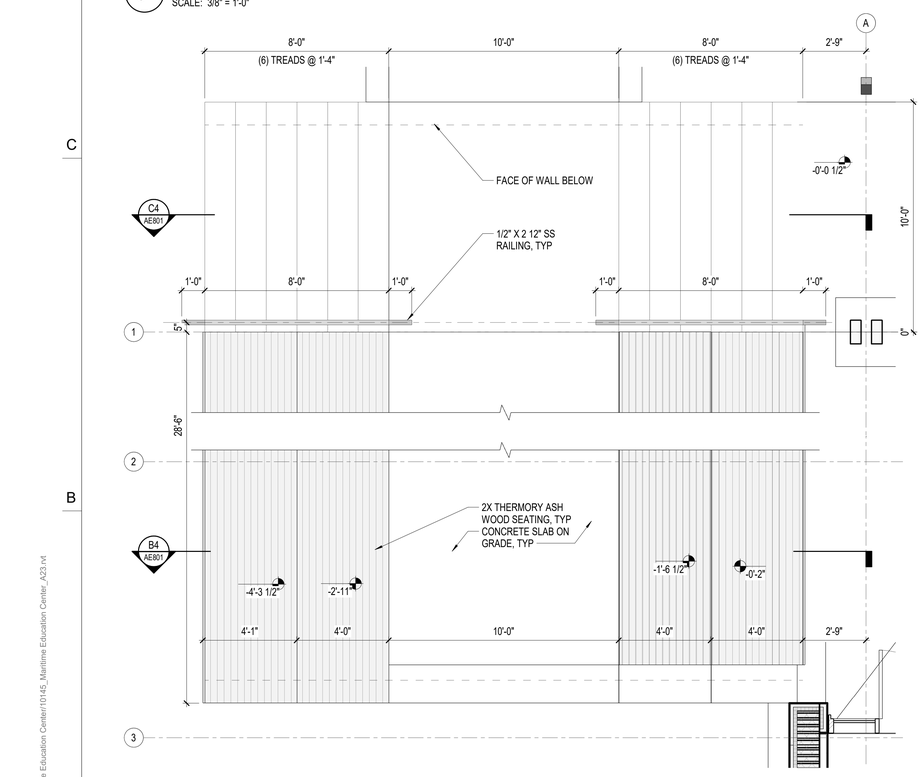
C1 TRASH AND MECHANICAL ENCLOSURE
SCALE: 3/8" = 1'-0"



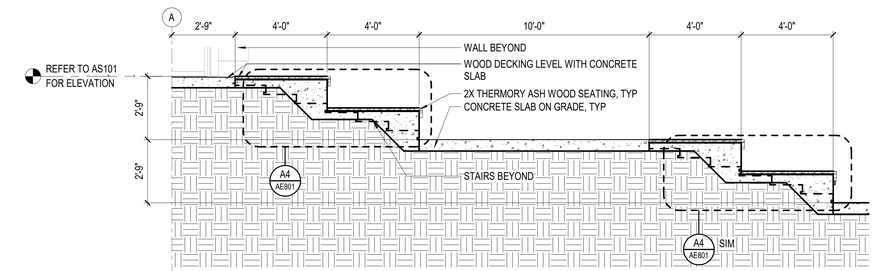
C4 SITE STAIR SECTION
SCALE: 3/8" = 1'-0"



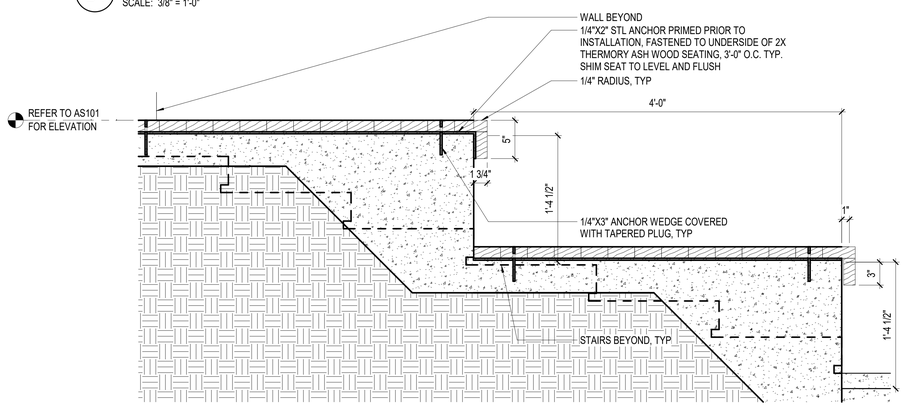
C5 EXTERIOR GUARDRAIL
SCALE: 1 1/2" = 1'-0"



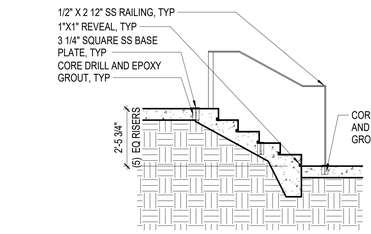
A1 CLASSROOM SITE STEPS
SCALE: 3/8" = 1'-0"



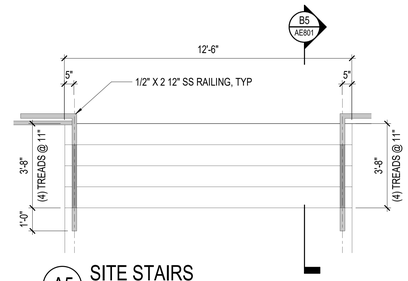
B4 SITE SEATING SECTION
SCALE: 3/8" = 1'-0"



A4 SITE SEATING DETAIL
SCALE: 1 1/2" = 1'-0"



B5 SITE STAIR SECTIONS
SCALE: 3/8" = 1'-0"



A5 SITE STAIRS
SCALE: 3/8" = 1'-0"

GRAPHIC SCALE(S)

3/8" = 1' - 0" 0 1' 2' 3' 4' 5' 10'

1 1/2" = 1' - 0" 0 3" 6" 9" 1' 2'

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145

SCO ID # : 24-27956-01A

DESIGNER

CLARKNEXSEN
421 NORTH HARRINGTON STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27603
919-828-1876
CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

DONALD DAVID KRAMERICH
REGISTERED ARCHITECT
9856
04/19/24
NORTH CAROLINA
RALEIGH, N.C.

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

SITE DETAILS

AE801

DESIGN: Designer
DRAWN: Author
REVIEW: Checker

CN 10145

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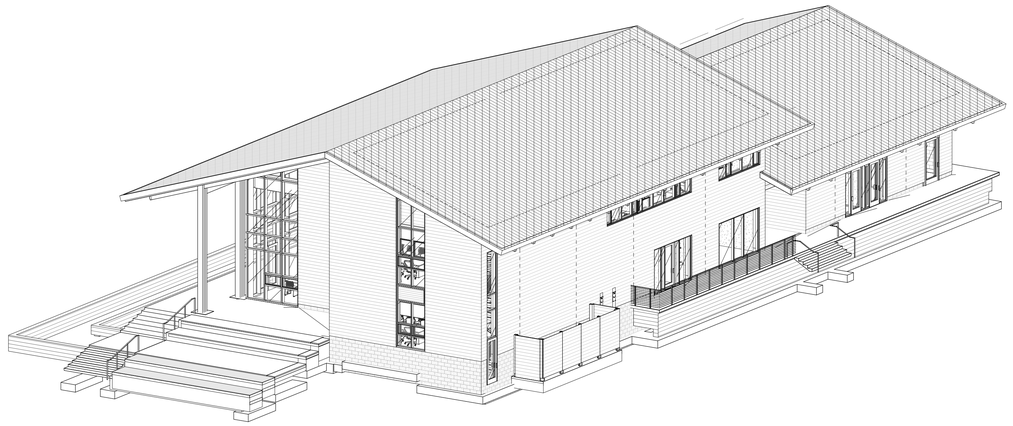
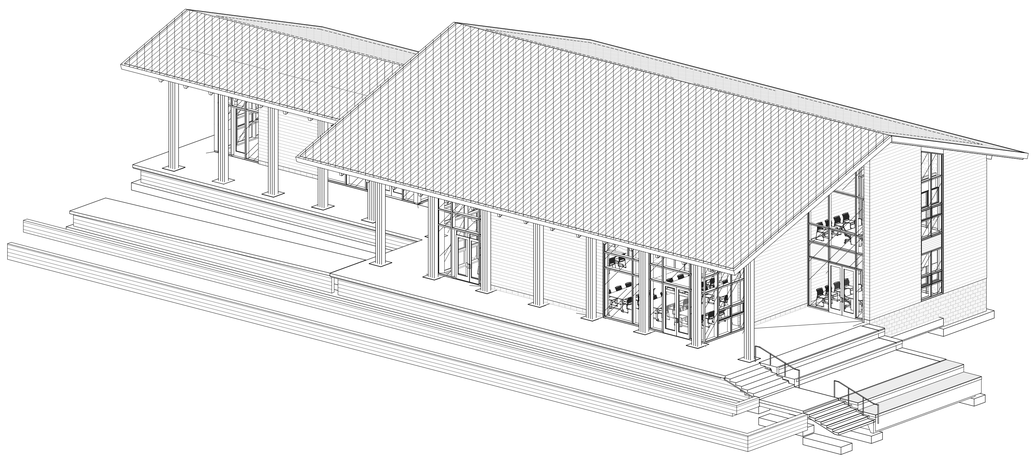


D1 NORTHEAST AXON
SCALE:



A1 SOUTHEAST AXON
SCALE:

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Maritime Education Center

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CN PROJ # : 10145

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DESIGNER

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SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

3D VIEWS

AE802

DESIGN: Designer
DRAWN: Author
REVIEW: Checker

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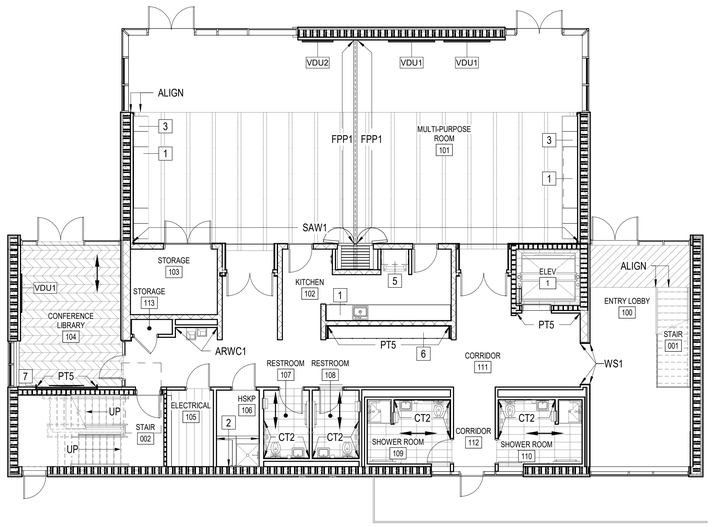

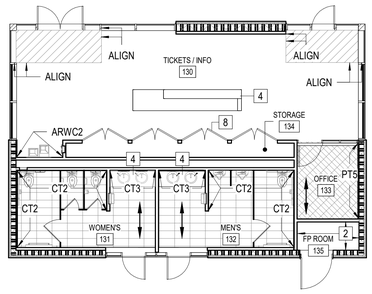

FIRST FLOOR FINISH PLAN

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

GENERAL NOTES

A. SEE FINISH SCHEDULE AND LEGEND FOR GENERAL FINISH NOTES, AND FINISH REMARKS.

B. SEE INTERIOR ELEVATIONS FOR MORE INFORMATION AND FINISH LOCATIONS.

KEY NOTES

1 SOLID SURFACE COUNTERTOP WITH PLASTIC LAMINATE BASE CABINETS.

2 ABUSE-RESISTANT WALL COVERING.

3 PLASTIC LAMINATE CASEWORK.

4 SOLID SURFACE COUNTERTOP WITH PLASTIC LAMINATE CASEWORK.

5 PLASTIC LAMINATE WALL CABINET.

6 STORAGE CUBBIES LK1.

7 STAINED WOOD.

8 CLOSET DOORS TO RECEIVE PAINT PT1.

FLOOR FINISH LEGEND

CT1
CPT1
CPT2
CPT3
RFT1
SC1
SF1
DIRECTION OF INSTALLATION

GRAPHIC SCALE(S)

1/8" = 1' - 0" 0 5' 10' 15' 30'

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

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CN PROJ # : 10145

SCO ID # : 24-27956-01A

DESIGNER

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919-828-1876
CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

MELANIE DOVER GOODSON
SEAL 0123
6.7.23
REGISTERED INTERIOR DESIGNER
NORTH CAROLINA

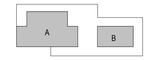
SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN



SHEET

FIRST FLOOR FINISH PLAN

IN101

DESIGN: MDG
DRAWN: MDG/IEV
REVIEW: MET

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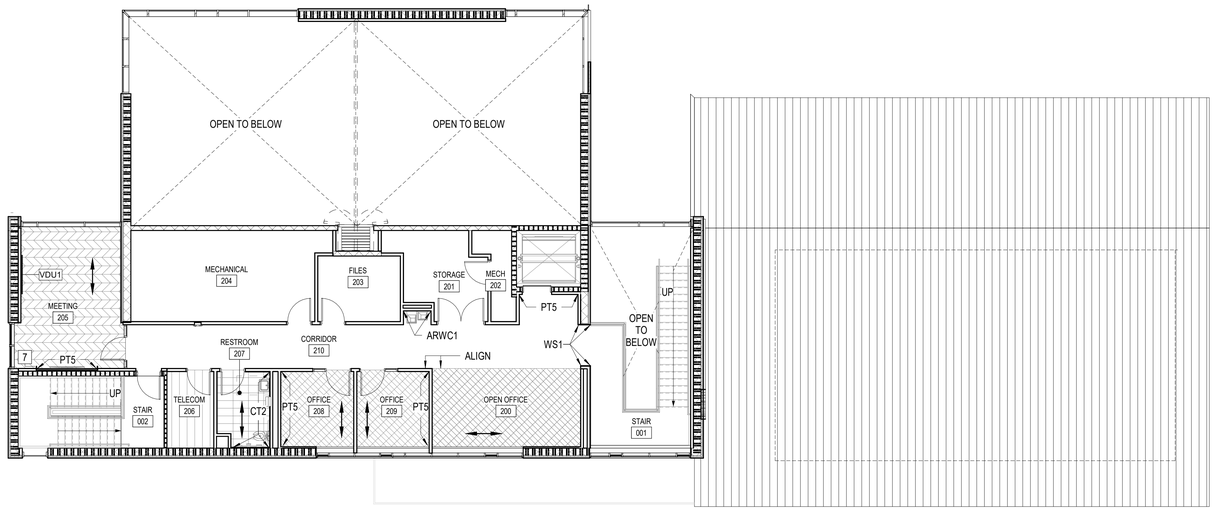

SECOND FLOOR FINISH PLAN

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

GENERAL NOTES

A. SEE FINISH SCHEDULE AND LEGEND FOR GENERAL FINISH NOTES, AND FINISH REMARKS.

B. SEE INTERIOR ELEVATIONS FOR MORE INFORMATION AND FINISH LOCATIONS.

KEY NOTES

7 STAINED WOOD.

FLOOR FINISH LEGEND

CT1
CPT1
CPT2
CPT3
SC1
SF1

DIRECTION OF INSTALLATION

GRAPHIC SCALE(S)

1/8" = 1' - 0" 0 5' 10' 15' 30'

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RALEIGH, NORTH CAROLINA 27603
919-828-1876

CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

MELANIE DOVER GOODSON
SEAL 0123
6.7.23
REGISTERED
INTERIOR DESIGNER
NORTH CAROLINA

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

SECOND FLOOR FINISH PLAN

IN102

DESIGN: MDG
DRAWN: MDG/IEV
REVIEW: MET

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FINISH SCHEDULE

NO.	NAME	FLOOR CODE	BASE CODE	WALLS CODE	CEILING MATERIAL	CEILING CODE	REMARKS
FIRST FLOOR (12.25')							
001	STAIR	SC1	RB3	PT1/FCS1/WS1	PAINTED GWB/CROSS LAMINATED TIMBER	PT2/WS1	
002	STAIR	SC1	RB1	PT1/DCMU1	PAINTED GWB/CROSS LAMINATED TIMBER	PT2/WS1	
100	ENTRY LOBBY	SC1	RB3	PT1/FCS1	CROSS LAMINATED TIMBER	WS1	
101	MULTI-PURPOSE ROOM	SC1/PCFT1	RB3	PT1/SAWU1/DCMU1	CROSS LAMINATED TIMBER/SOUND ABSORBING WALL UNITS	WS1/SAW1	1.
102	KITCHEN	SC1	RB3	PT1/DCMU1	ACOUSTICAL PANEL CEILING	APC1	
103	STORAGE	SC1	RB1	PT1/DCMU1	CROSS LAMINATED TIMBER	WS1	
104	CONFERENCE LIBRARY	CPT3	RB2	PT1/PT5/FCS1/DCMU1	PAINTED GWB	PT2	
105	ELECTRICAL	SF1	RB1	PT1/DCMU1	PAINTED GWB	PT2	
106	HSKP	SC1	RB1	PT1/DCMU1	PAINTED GWB	PT2	
107	RESTROOM	CT1	CTB1	PT1/CT2	PAINTED GWB	PT2	3.
108	RESTROOM	CT1	CTB1	PT1/CT2	PAINTED GWB	PT2	3.
109	SHOWER ROOM	CT1	CTB1	PT1/CT2	PAINTED GWB	PT2	
110	SHOWER ROOM	CT1	CTB1	PT1/CT2	PAINTED GWB	PT2	
111	CORRIDOR	SC1	RB3	PT1/PT5/ARWC1/DCMU1/WS1	PAINTED GWB	PT2	
112	CORRIDOR	SC1	RB3	PT1	PAINTED GWB	PT2	
113	STORAGE	SC1	RB1	PT1/DCMU1	CROSS LAMINATED TIMBER	WS1	
130	TICKETS / INFO	SC1/CPT3	RB3	PT1/ARWC2	PAINTED GWB/CROSS LAMINATED TIMBER	PT2/WS1	2.
131	WOMEN'S	CT1	CTB1	PT1/CT2/CT3	PAINTED GWB/CROSS LAMINATED TIMBER	PT2/WS1	3.
132	MEN'S	CT1	CTB1	PT1/CT2/CT3	PAINTED GWB/CROSS LAMINATED TIMBER	PT2/WS1	3.
133	OFFICE	CPT1	RB2	PT1	PAINTED GWB/CROSS LAMINATED TIMBER	PT2/WS1	
134	STORAGE	SC1	RB1	PT1	CROSS LAMINATED TIMBER	WS1	
135	FP ROOM	SC1	RB1	PT1/DCMU1/ARWC3	CROSS LAMINATED TIMBER	WS1	
SECOND FLOOR							
001	STAIR	SC1	RB3	PT1/FCS1/WS1	CROSS LAMINATED TIMBER	WS1	
002	STAIR	SC1	RB1	PT1/DCMU1	CROSS LAMINATED TIMBER	WS1	
200	OPEN OFFICE	CPT1	RB2	PT1	CROSS LAMINATED TIMBER	WS1	
201	STORAGE	SC1	RB1	PT1/DCMU1	CROSS LAMINATED TIMBER	WS1	
202	MECH	SC1	RB1	PT1/DCMU1	CROSS LAMINATED TIMBER	WS1	
203	FILES	SC1	RB1	PT1/DCMU1	CROSS LAMINATED TIMBER	WS1	
204	MECHANICAL	SC1	RB1	PT1/DCMU1	CROSS LAMINATED TIMBER	WS1	
205	MEETING	CPT3	RB2	PT1/PT5/FCS1	CROSS LAMINATED TIMBER	WS1	
206	TELECOM	SF1	RB1	PT1/DCMU1	CROSS LAMINATED TIMBER	WS1	3.
207	RESTROOM	CT1	CTB1	PT1/CT2	PAINTED GWB	PT2	
208	OFFICE	CPT1	RB2	PT1/PT5	CROSS LAMINATED TIMBER	WS1	
209	OFFICE	CPT1	RB2	PT1/PT5	CROSS LAMINATED TIMBER	WS1	
210	CORRIDOR	SC1	RB3	PT1/PT5/ARWC1/WS1	CROSS LAMINATED TIMBER	WS1	

FINISH LEGEND

CODE	MATERIAL	MANUFACTURER	STYLE	FINISH	COLOR	SIZE	REMARKS
APC1	ACOUSTICAL PANEL CEILING	ARMSTRONG	ULTIMA HIGH NRC, BEVELED TEGULAR 9/16", #1942; GRID: SUPRAFINE 9/16"	---	"WHITE"; GRID COLOR: " BLIZZARD WHITE"	24" X 24" X 7/8"	---
ARWC1	ABUSE-RESISTANT WALL COVERING	ALTRO	WHITEROCK WALL DESIGNS	---	"SUMMER WEAVE"	THICKNESS: 2.5MM	INSTALL FULL HEIGHT
ARWC2	ABUSE-RESISTANT WALL COVERING	ALTRO	WHITEROCK WALL DESIGNS	---	"WHITE MINERAL"	THICKNESS: 2.5MM	INSTALL FULL HEIGHT
ARWC3	ABUSE-RESISTANT WALL COVERING	INPRO	STAINLESS STEEL WALL PROTECTION	304; #4 BRUSHED	---	THICKNESS: 8 GAUGE	---
CG1	CORNER GUARD (PT1)	ACROVYN	VA SERIES; #VA200N	PVC-FREE ACROVYN IN SHADOWGRAIN TEXTURE	#933 "MISSION WHITE"	WING: 1-1/2"; 90 DEGREE	INSTALL FULL HEIGHT
CPT1	CARPET (OFFICES)	PATCRAFT	STATES OF WATER; TIDAL	---	#00450 "LAGUNA"	24" X 24"	INSTALLATION: ASHLAR
CPT2	CARPET (ENTRY)	MILLIKEN	OBEX TILE; CUTX/FIZZ	---	#FZX5-27 "GREY"	19.7" X 19.7"	INSTALLATION: ASHLAR
CPT3	CARPET (CONFERENCE)	PATCRAFT	STATES OF WATER; VAPOROUS	---	#00450 "LAGUNA"	24" X 24"	INSTALLATION: ASHLAR
CT1	PORCELAIN TILE (FLOOR)	FLORIDA TILE	DIVINITY	MATTE	#FTIDIV2012X24 "HORIZON"	12" X 24"; THICKNESS: 9 MM	INSTALLATION: 33% OFFSET
CT2	PORCELAIN TILE (WALL)	FLORIDA TILE	DIVINITY	MATTE	#FTIDIV1012X24 "DAWN"	12" X 24"; THICKNESS: 9 MM	INSTALLATION: 33% OFFSET
CT3	CERAMIC TILE (ACCENT)	MONDANI	EVOLVE	GLOSSY	#100-202G	6" X 24"; THICKNESS: 7.4MM	INSTALLATION: VERTICAL W/ 33% OFFSET
CTB1	PORCELAIN TILE BASE	FLORIDA TILE	DIVINITY	MATTE; EDGE FINISH: RECTIFIED	"DAWN" #P43N9-DIV	3" X 24"; THICKNESS: 9MM	TYPE: BULLNOSE
DCMU1	DECORATIVE CEMENT MASONRY UNIT	SEE SPECIFICATIONS	---	---	---	SEE ARCHITECTURAL SHEETS	TYPE: GROUND FACE
FCS1	FIBER CEMENT SIDING	SEE SPECIFICATIONS	---	---	---	SEE ARCHITECTURAL SHEETS	---
FPP1	FOLDING PANEL PARTITION	HUFCOR	SERIES 643E - ACOUSTICAL HARMONY; PATTERN: BAMBU	TRIM: GRAY; ALUMINUM TRACK: CLEAR ANODIZED	TO BE SELECTED BY DOR FROM MANUFACTURER'S FULL OFFERING	SEE INTERIOR ELEVATIONS	---
GR1	GROUT	MAPEI	---	---	#5107 "IRON"	---	EPOXY
GR2	GROUT	MAPEI	---	---	#5027 "SILVER"	---	EPOXY
GR3	GROUT	MAPEI	---	---	#5230 "ARMOR"	---	EPOXY
LK1	LOCKERS (CUBBIES)	COLUMBIA LOCKERS	TERRACORE PHENOLIC	---	TO BE SELECTED BY DOR FROM MANUFACTURER'S FULL OFFERING	---	---
PCFT1	POLYESTER COMPOSITION FLOOR TILE	SHAW CONTRACT	BOTTLEFLOOR COLLECTION; #5T455 FELTED	---	#55530 "FLEECE"	12" X 48"; THICKNESS: 0.158"	INSTALLATION: ASHLAR
PL1	PLASTIC LAMINATE	FORMICA	---	PURE GRAIN	#8576-PG "BLONDE CEDAR"	---	---
PL2	PLASTIC LAMINATE	FORMICA	---	PURE GRAIN	#1545-PG "RAW CEDAR"	---	---
PT1	PAINT (PRIMARY)	SHERWIN WILLIAMS	---	---	#SW9549 "TOUCH OF GREY"	---	---
PT2	PAINT (CEILING)	SHERWIN WILLIAMS	---	---	#SW7757 "HIGH REFLECTIVE WHITE"	---	---
PT3	PAINT (TRIM)	SHERWIN WILLIAMS	---	---	TO BE SELECTED BY DOR FROM MANUFACTURER'S FULL OFFERING	---	---
PT4	PAINT (STAIR SUPPORT AND RAILING)	SHERWIN WILLIAMS	---	---	#SW9163 "TIN LIZZIE"	---	---
PT5	PAINT (ACCENT)	SHERWIN WILLIAMS	---	---	#SW6239 "UPWARD"	---	---
RB1	RESILIENT BASE W/ SC1(BACK OF HOUSE) & SF1	TARKETT	STYLE: DURACOVE; PROFILE: COVE	---	#VL2 "WHISPERING MIST"	HEIGHT: 4"; THICKNESS: 1/8"	---
RB2	RESILEINT BASE W/ CPT1 & CPT2	TARKETT	STYLE: DURACOVE; PROFILE: TOELESS	---	#72 "HARBOUR"	HEIGHT: 4"; THICKNESS: 1/8"	---
RB3	RESILIENT BASE W/ CPT3 & SC1	TARKETT	MILLWORK WALL FINISHING SYSTEM; STYLE: MANDALAY; PROFILE: RECTANGULAR W/ 45 DEGREE CHAMFER TOP	---	#VL2 "WHISPERING MIST"	HEIGHT: 4-1/2"; THICKNESS: 3/8"	---
RWS1	ROLLER WINDOW SHADE	MECHO SHADE SYSTEM	MECHO/5X MANUAL ROLLER SHADES; ECHOVEIL 1750 1% OPENESS	---	#1769 "SILVER BIRCH"	---	---
SAW1	SOUND ABSORBING WALL UNIT	SOUNDPLY	LATUS ACOUSTIC WALL PANELS; #WP-LRM25; MICRO PERFERATED WOOD VENEER	SELECTED BY INTERIOR DESIGNER OF RECORD FROM MANUFACTURER'S FULL OFFERING	"ARCTIC OAK"	SEE INTERIOR ELEVATIONS	---
SC1	SEALED CONCRETE	SHERWIN WILLIAMS	---	---	MANUFACTURER'S STANDARD "CLEAR" SEALER	---	---
SF1	STATIC-CONTROL FLOORING	FLEXCO	DELANE ESD VINYL	---	#313 "RHYTHM & BLUES"	12" X 12"; THICKNESS: 1/8"	INSTALLATION: ASHLAR
SSM1	SOLID SURFACE MATERIAL	CORIAN	---	---	"EVENING PRIMA"	THICKNESS: 1/2"	PROFILE: EASED STRAIGHT EDGE
SSM2	SOLID SURFACE MATERIAL	WILSONART	---	---	#9208CS "WHITE STONE"	THICKNESS: 1/2"	PROFILE: EASED STRAIGHT EDGE
SSM3	SOLID SURFACE MATERIAL	FORMICA	EVERFORM	STANDARD	#416 "LUNA PEWTER"	THICKNESS: 1/2"	PROFILE: EASED STRAIGHT EDGE
TP1	TOILET PARTITION	SCRANTON PRODUCTS	HINY HIDERS	ORANGE PEEL	"STAINLESS HAMMERED"	---	---
VDU1	VISUAL DISPLAY UNIT	MOORECO	PORCELAIN STEEL WHITEBOARD	MAGNETIC PORCELAIN STEEL	"WHITE"	4' X 6'	TRIM: DELUXE ALUMINUM
VDU2	VISUAL DISPLAY UNIT	MOORECO	PORCELAIN STEEL WHITEBOARD	MAGNETIC PORCELAIN STEEL	"WHITE"	4' X 4'	TRIM: DELUXE ALUMINUM
WD1	WOOD DOORS	MASONITE ARCHITECTURAL	ASPIRO; PLAIN SLICED BIRCH	---	TO BE SELECTED BY DOR FROM MANUFACTURER'S FULL OFFERING	---	---
WS1	WOOD STAIN (CROSS LAMINATED TIMBER)	SHERWIN WILLIAMS	---	---	TO BE SELECTED BY DOR FROM MANUFACTURER'S FULL OFFERING	---	---
WS2	WOOD STAIN (HANDRAIL & TV SURROUND)	SHERWIN WILLIAMS	---	---	TO BE SELECTED BY DOR FROM MANUFACTURER'S FULL OFFERING	---	---

GENERAL FINISH NOTES

A. FINISHES ARE THE OWNER APPROVED BASIS OF DESIGN. PRODUCT SUBSTITUTIONS MUST BE APPROVED BY THE INTERIOR DESIGNER OF RECORD.

B. INSTALL FINISHES UTILIZING MANUFACTURER'S PUBLISHED GUIDELINES AND RECOMMENDED PRODUCTS.

C. WHERE MULTIPLE FINISHES ARE SCHEDULED, REFER TO FINISH PLANS, REFLECTED CEILING PLANS, AND / OR ELEVATIONS FOR LOCATIONS AND EXTENT.

D. PROVIDE ADA COMPLIANT TRANSITION STRIPS AT ALL FLOOR FINISH CHANGES. PROVIDE APPROPRIATE PROFILES IN RELATION TO FLOORING MATERIALS. COLORS TO BE SELECTED FROM MANUFACTURER'S FULL RANGE TO MATCH ADJACENT FLOOR FINISH. PROVIDE ADA COMPLIANT MARBLE THRESHOLDS AT ENTRY OF RESTROOMS.

E. WHERE FLOOR TRANSITIONS OCCUR IN DOORWAYS, CENTER TRANSITION BELOW DOOR, UNLESS OTHERWISE NOTED. IF TRANSITION EXCEEDS THE DOOR WIDTH, COORDINATE PLACEMENT SO THAT THE EXPOSED PORTION IS NOT SEEN ON THE MORE PUBLIC SIDE.

F. PROVIDE GROUT WITH THE FOLLOWING PORCELAIN TILES:
1. GR1 WITH PORCELAIN TILE CT1, CTB1
2. GR2 WITH PORCELAIN TILE CT3
3. GR3 WITH CERAMIC TILE CT2

G. PROVIDE THE FOLLOWING FLOOR - TO - FLOOR, FLOOR - TO - WALL, AND EXPOSED TILE EDGE TRANSITIONS:
1. PORCELAIN TILE FLOOR - TO - WALL: SCHLUTER ; DILEX -AHK
2. ALL EXPOSED TILE EDGES: SCHLUTER, JOLLY.
3. ALL EXPOSED OUTSIDE TILE - TO - TILE CORNERS: SCHLUTER ; FINEC
4. ALL INSIDE TILE - TO - TILE CORNERS: SCHLUTER; DILEX - EHK
5. FLOOR - TO - FLOOR: SCHLUTER; RENO-U, RENO-TK, OR SCHEINE.

H. PROVIDE STAINLESS STEEL WALL PANEL ARWC3 AT THE FOLLOWING LOCATIONS.
1. ROOM 106 HSKP: MOP SINK WET WALLS AND 6" CONCRETE DIKE WET WALLS; EXTEND 5'-0" AFF AND 1'-6" BEYOND EACH VERTICAL EDGE.
2. ROOM 135 FP: ALL WALLS; UP TO 8".

I. COMPLY WITH MANUFACTURER RECOMMENDATIONS AND CURRENT TCNA RECOMMENDATIONS AND METHODS, INCLUDING EJ171 MOVEMENT JOINT GUIDELINES FOR THE SUBSTRATE AND CERAMIC TILE PRODUCTS AND ACCESSORIES SPECIFIED. SUBMIT LOCATIONS OF MOVEMENT JOINTS TO ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION. MOVEMENT JOINT SEALANT COLOR TO MATCH GROUT.

J. WHERE LARGE FORMAT PORCELAIN TILE IS USED (ANY EDGE EXCEEDING 15"), SUBSURFACE VARIANCE SHALL NOT EXCEED 1/8" IN 10'-0" INCLUDING NO MORE THAN 1/16" IN 24" WHEN MEASURED FROM THE HIGH POINTS IN THE SURFACE. PROVIDE FLOOR LEVELING ACCOMMODATIONS AS NECESSARY TO MEET THIS REQUIREMENT. PROVIDE LHT MORTAR FOR ANT LARGE FORMAT TILE WITH AN EDGE EXCEEDING 15".

K. PAINT IN ACCORDANCE TO MPI GUIDELINES AND MANUFACTURER RECOMMENDATIONS FOR THE SUBSTRATES AND FINISHES SPECIFIED. PROVIDE NO LESS THAN TWO FINISH COATS OVER RECOMMENDED PRIMER. PROVIDE ADDITIONAL FINISH COATS AS REQUIRED TO ACHIEVE FULL COVERAGE. PRIMER AND FINISH COATS TO BE OF THE SAME MANUFACTURER.

L. PAINT COLUMNS AND PILASTERS TO MATCH ADJACENT / SCHEDULED WALL FINISH U.O.N.

M. PAINT EXPOSED CEILING STRUCTURE, DIFFUSERS, DUCT WORK, METAL DECKING, STRUCTURAL BRACING, JOISTS, TRUSSES, AND EXPOSED STEEL PT2 U.N.O.

N. PROVIDE PAINT PT4 ON STAIR SUPPORTS.

O. GROUND FACE DECORATIVE CONCRETE MASONRY UNIT WALLS DCMU1 REMAIN UNFINISHED U.N.O.

P. CROSS LAMINATED TIMBER CEILINGS RECEIVE WOOD STAIN WS1.

Q. WOOD HANDRAILS RECEIVE WOOD STAIN WS2.

R. PROVIDE FULL HEIGHT CORNER GUARDS AT ALL OUTSIDE CORNERS OF INTERIOR GYP.WALLS.

S. PROVIDE SOLID SURFACE MATERIAL SSM3 AT WINDOW SILLS AS INDICATED ON ARCHITECTURAL DETAIL SHEETS.

T. PROVIDE MANUAL ROLLER SHADES RWS1 AT THE FOLLOWING LOCATIONS:
1. INTERIOR CURTAIN WALL & ENTRY DOOR AT OFFICE 133.
2. EXTERIOR WINDOWS AT MULTI-PURPOSE ROOM 101, CONFERENCE LIBRARY 104, OPEN OFFICE 200, MEETING ROOM 205, AND OFFICES 208 & 209. REFER TO INTERIOR ELEVATION SHEETS AE407 & AE408 FOR MOUNTING LOCATIONS AT MULTI-PURPOSE ROOM 101.

U. PASSENGER ELEVATORS: PROVIDE RAISED LAMINATE WALL PANELS (TO BE SELECTED FROM MANUFACTURER'S FULL OFFERING BY INTERIOR DESIGN OF RECORD), STAINLESS STEEL HANDRAILS. STAINLESS STEEL SUSPENDED CEILING WITH LED DOWN LIGHTING, AND BRUSHED STAINLESS STEEL DOORS, RETURNS AND TRANSOMS. FLOOR RECEIVES TILE CT1 (INSTALLED WITH 1/3 OFFSET).

V. GENERAL CASEWORK:
1. KITCHEN: PROVIDE PLASTIC LAMINATE (PL1) CASEWORK WITH SOLID SURFACE COUNTERTOPS / BACKSPLASHES (SSM1).
2. RESTROOMS 131 & 132: PROVIDE PLASTIC LAMINATE (PL1) APRONS UNDERNEATH THE SOLID SURFACE COUNTERTOPS, BACKSPLASHES, AND ENDSPLASHES (SSM2).
3. RECEPTION DESK: PROVIDE PLASTIC LAMINATE (PL2) SURFACE COUNTERTOPS (SSM2).
4. CLASSROOMS: PROVIDE PLASTIC LAMINATE (PL2) CASEWORK WITH SOLID SURFACE COUNTERTOPS (SSM1).

FINISH REMARKS

1. INTERIOR DOORS ON SOUTH WALL OF MULTIPURPOSE ROOM 101 ARE TO RECEIVE STAIN WS1 ON ROOM SIDE ONLY.

2. CLOSET DOORS ARE TO RECEIVE PAINT PT1.

3. COMPLY WITH SECTION 1210.2.2 NCBC 2018 AS INDICATED ON FINISH PLANS AND ENLARGED ELEVATIONS.

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145

SCO ID # : 24-27956-01A

DESIGNER

CLARKNEXSEN

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RALEIGH, NORTH CAROLINA 27603
919-828-1876

CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

MELANIE DOVER GOODSON
SEAL 0123
6.7.23
REGISTERED
INTERIOR DESIGNER
NORTH CAROLINA

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

FINISH LEGEND & SCHEDULE

IN 601

DESIGN: MDG
DRAWN: MDG/IEV
REVIEW: BNJ

CN 10145

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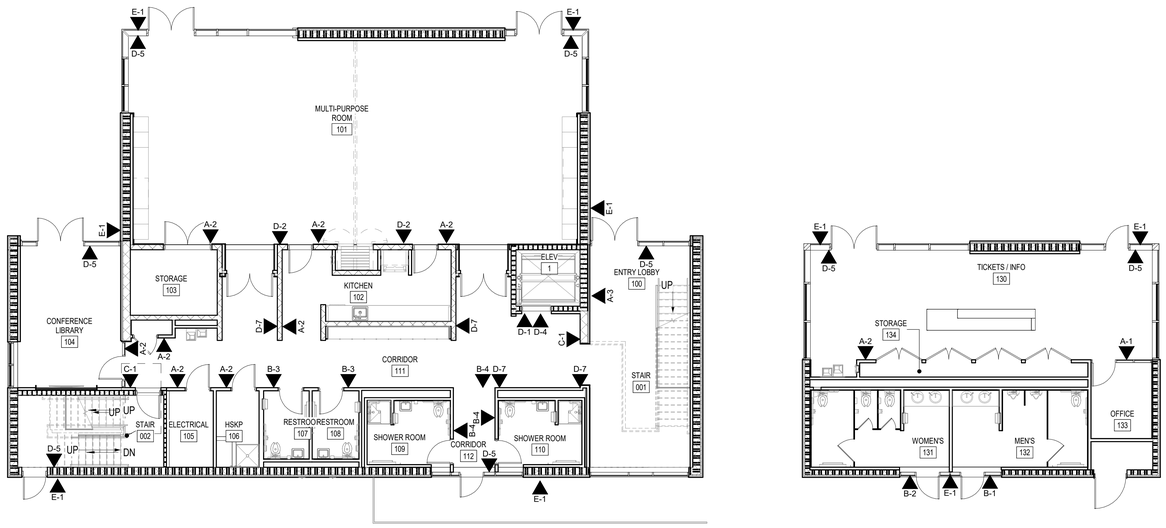

FIRST FLOOR SIGNAGE PLAN

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

GENERAL NOTES

A. SIGNAGE PLANS AND DETAILS ARE PROVIDED FOR INFORMATION ONLY. SIGNAGE IS OWNER FURNISHED, OWNER INSTALLED.

B. INTERIOR SIGNAGE WILL BE PROVIDED FOR IDENTIFICATION OF ALL INTERIOR SPACES. SIGNAGE WILL INCLUDE ROOM IDENTIFICATION, WAYFINDING, AND CODE REQUIRED SIGNAGE

C. THE CONTRACTOR IS RESPONSIBLE FOR SITE VERIFICATION OF CONDITIONS AND DIMENSIONS PRIOR TO FABRICATION AND INSTALLATION OF ITEMS DESCRIBED ON THE PLANS AND SPECIFICATIONS. PROVIDE ANY ADDITIONAL HARDWARE OR SIMILAR ITEMS THAT MAY BE REQUIRED FOR A COMPLETE INSTALLATION.

D. THE CONTRACTOR MUST PROVIDE ARCHITECT A SIGNAGE SCHEDULE TO VERIFY AND COORDINATE FINAL TEXT COPY, LOCATIONS, AND QUANTITIES PRIOR TO FABRICATION AND INSTALLATION.

E. SIGNAGE LOCATED ON THE EXTERIOR OF THE BUILDING SHOULD BE CONSTRUCTED OF MATERIALS APPROPRIATE FOR USE ON THE EXTERIOR AND RECOMMENDED / APPROVED BY THE MANUFACTURER.

F. PROVIDE OPAQUE BACKER FOR ALL SIGNAGE INSTALLED ON GLAZING.

G. PROVIDE TAMPER - RESISTANT HARDWARE / LOCKING DEVICE FOR ALL SIGNAGE.

H. REFER TO SHEET IG501 FOR SIGNAGE DETAILS AND NOTES.

SIGNAGE LEGEND

1/8" = 1' - 0" 0 5' 10' 15' 30'

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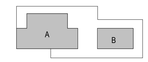
REVISIONS

KEY PLAN



SHEET

FIRST FLOOR SIGNAGE PLAN

IG101

DESIGN: MDG
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REVIEW: BNJ

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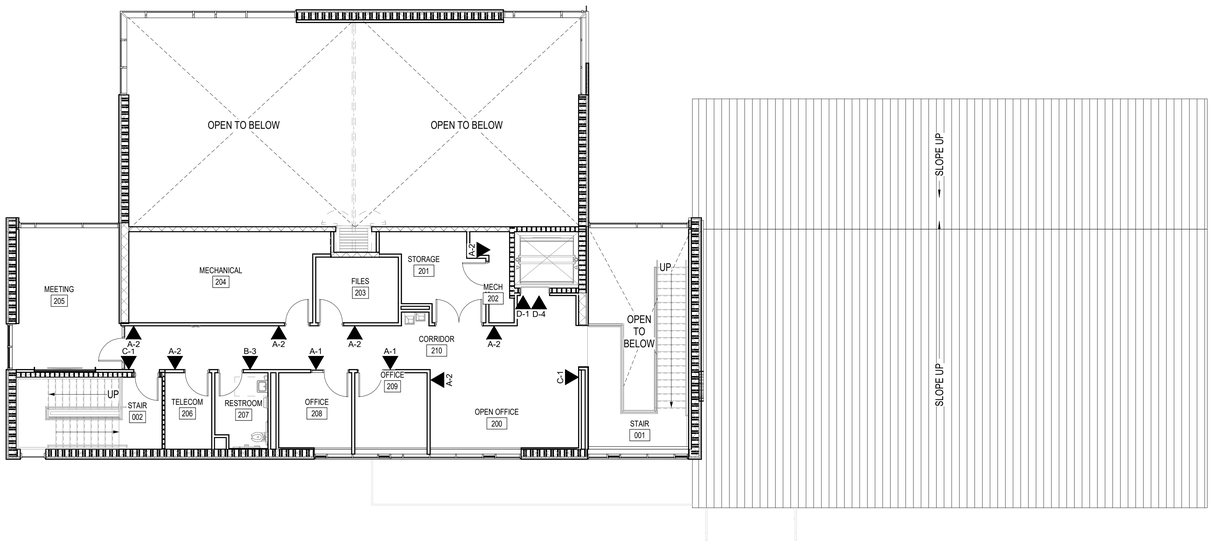

SECOND FLOOR SIGNAGE PLAN

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

GENERAL NOTES

A. SIGNAGE PLANS AND DETAILS ARE PROVIDED FOR INFORMATION ONLY. SIGNAGE IS OWNER FURNISHED, OWNER INSTALLED.

B. INTERIOR SIGNAGE WILL BE PROVIDED FOR IDENTIFICATION OF ALL INTERIOR SPACES. SIGNAGE WILL INCLUDE ROOM IDENTIFICATION, WAYFINDING, AND CODE REQUIRED SIGNAGE

C. THE CONTRACTOR IS RESPONSIBLE FOR SITE VERIFICATION OF CONDITIONS AND DIMENSIONS PRIOR TO FABRICATION AND INSTALLATION OF ITEMS DESCRIBED ON THE PLANS AND SPECIFICATIONS. PROVIDE ANY ADDITIONAL HARDWARE OR SIMILAR ITEMS THAT MAY BE REQUIRED FOR A COMPLETE INSTALLATION.

D. THE CONTRACTOR MUST PROVIDE ARCHITECT A SIGNAGE SCHEDULE TO VERIFY AND COORDINATE FINAL TEXT COPY, LOCATIONS, AND QUANTITIES PRIOR TO FABRICATION AND INSTALLATION.

E. SIGNAGE LOCATED ON THE EXTERIOR OF THE BUILDING SHOULD BE CONSTRUCTED OF MATERIALS APPROPRIATE FOR USE ON THE EXTERIOR AND RECOMMENDED / APPROVED BY THE MANUFACTURER.

F. PROVIDE OPAQUE BACKER FOR ALL SIGNAGE INSTALLED ON GLAZING.

G. PROVIDE TAMPER - RESISTANT HARDWARE / LOCKING DEVICE FOR ALL SIGNAGE.

H. REFER TO SHEET IG501 FOR SIGNAGE DETAILS AND NOTES.

SIGNAGE LEGEND

GRAPHIC SCALE(S)

1/8" = 1' - 0" 0 5' 10' 15' 30'

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NORTH CAROLINA

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

SECOND FLOOR SIGNAGE PLAN

IG102

DESIGN: MDG
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REVIEW: BNJ

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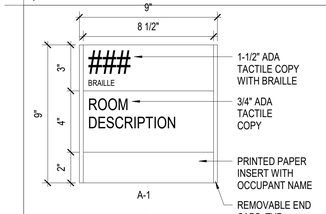

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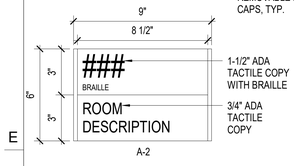

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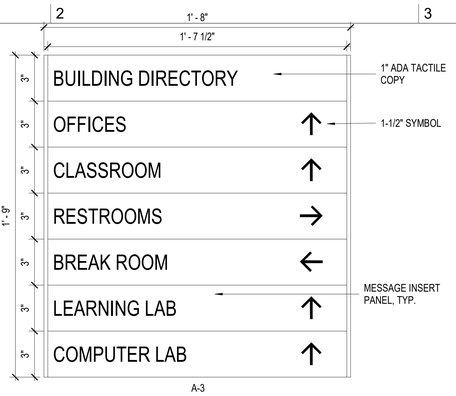

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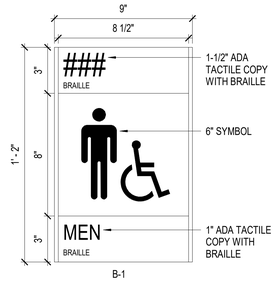

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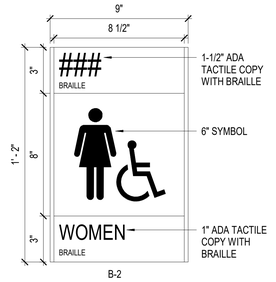

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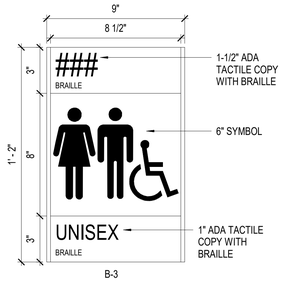

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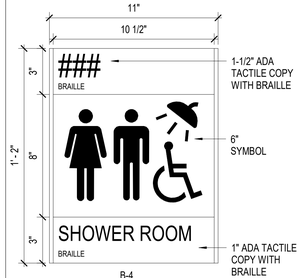

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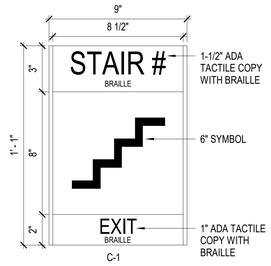

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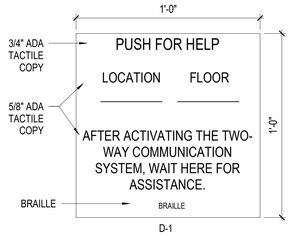

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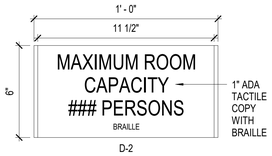

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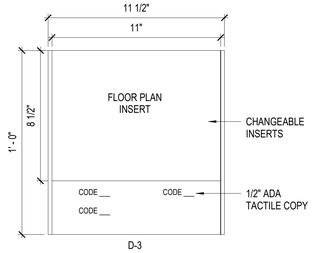

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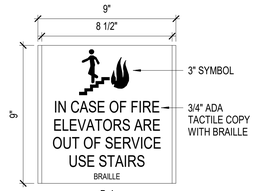

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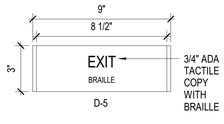

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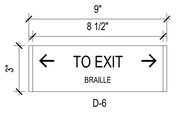

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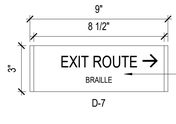

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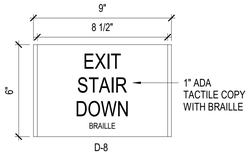

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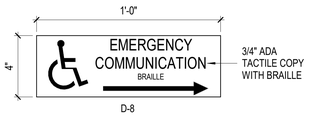

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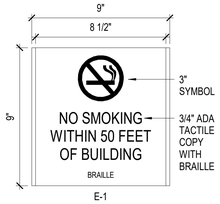
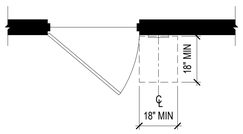


E-1

B1 SIGNAGE DETAILS

SCALE: 3" = 1'-0"



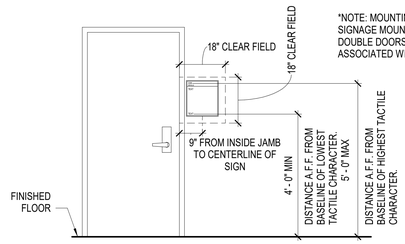
FOR SIGNS SHOWN ON PLANS THAT ARE NOT ASSOCIATED W/ A DOOR LOCATION, CLEAR SPACE BELOW THE SIGN MUST STILL BE MAINTAINED.

SIGNS CONTAINING TACTILE CHARACTERS SHALL HAVE AN 18" MINIMUM BY 18" MINIMUM SPACE ON THE FLOOR OR GROUND, CENTERED ON THE SIGN, BEYOND THE ARC OF ANY DOOR SWING BETWEEN THE CLOSED POSITION AND 45 DEGREE OPEN PANEL.

(INSTALL SIGN ON THE NEAREST ADJACENT WALL IF 18" MIN. OF CLEAR SPACE IS NOT AVAILABLE.) FOR LOCATIONS W/O AVAILABLE WALL SPACE CENTER SIGN ON DOOR.

A1 TYPICAL SIGNAGE LOCATIONS

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



*NOTE: MOUNTING HEIGHT DISTANCES ALSO APPLY FOR SIGNAGE MOUNTED ON DOORS, DOUBLE DOORS, BESIDE DOUBLE DOORS, OR IN LOCATIONS SHOWN ON PLANS AND NOT ASSOCIATED WITH A DOOR LOCATION.

A3 TYPICAL SIGNAGE MOUNTING HEIGHTS

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

GENERAL NOTES

A. SIGNAGE PLANS AND DETAILS ARE PROVIDED FOR INFORMATION ONLY. SIGNAGE IS OWNER FURNISHED, OWNER INSTALLED.

B. PROVIDE CODE REQUIRED SIGNAGE AT ALL INTERIOR DOORS. SIGNAGE MUST COMPLY WITH ALL CURRENT AND APPLICABLE CODES / REGULATIONS INCLUDED BUT NOT LIMITED TO THE ADA ACCESSIBILITY GUIDELINES. SIGNAGE MUST COMPLY WITH SCOPING AND TECHNICAL REQUIREMENTS FOR ACCESSIBILITY TO BUILDINGS AND FACILITIES BY INDIVIDUALS WITH DISABILITIES UNDER THE AMERICANS WITH DISABILITIES ACT (ADA) OF 1990 CHAPTER7, ICC A117.1-2009.

C. SIGNAGE VENDOR MUST VERIFY SIGNAGE TEXT, LOCATIONS, AND QUANTITIES WITH OWNER PRIOR TO FABRICATION.

D. PROVIDE SIGNAGE WITH APPROPRIATE MOUNTING HARDWARE. FASTEN SIGNS WITH MECHANICAL FASTENERS, AS RECOMMENDED BY THE MANUFACTURER. PROVIDE PRESSURE SENSITIVE TAPE FOR MOUNTING IN AREAS WHERE FASTENED TO DOORS OR RATED PARTITIONS.

E. REFER TO SIGNAGE PLANS FOR SIGNAGE LOCATIONS.

F. ALL BRAILLE MUST BE GRADE II.

G. BASIS OF DESIGN: SEDONA COLLECTION BY INPRO.
1. BACKPLATE: LAMINATE; IDOR FROM MANUFACTURER'S FULL OFFERING.
2. FACE-PLATE: TO BE SELECTED BY IDOR FROM MANUFACTURER'S FULL OFFERING.
3. RAISED ACCENT: TO BE SELECTED BY IDOR FROM MANUFACTURER'S FULL OFFERING.
4. RAISED TEXT: TO BE SELECTED BY IDOR FROM MANUFACTURER'S FULL OFFERING.

H. SIGNAGE LOCATED ON THE EXTERIOR OF THE BUILDING SHOULD BE CONSTRUCTED OF MATERIALS APPROPRIATE FOR USE ON THE EXTERIOR AND RECOMMENDED / APPROVED BY THE MANUFACTURER.

I. PROVIDE OPAQUE BACKER FOR ALL SIGNAGE INSTALLED ON GLAZING.

J. PROVIDE TAMPER - RESISTANT HARDWARE / LOCKING DEVICE FOR ALL SIGNAGE.

K. SIGNAGE REQUIREMENTS, MOUNTING HEIGHTS AND LOCATIONS SHALL COMPLY WITH SECTION 703 ICC A117.1-2009.

GRAPHIC SCALES

3" = 1' - 0"

1/2" = 1' - 0"

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SIGNAGE DETAILS AND NOTES

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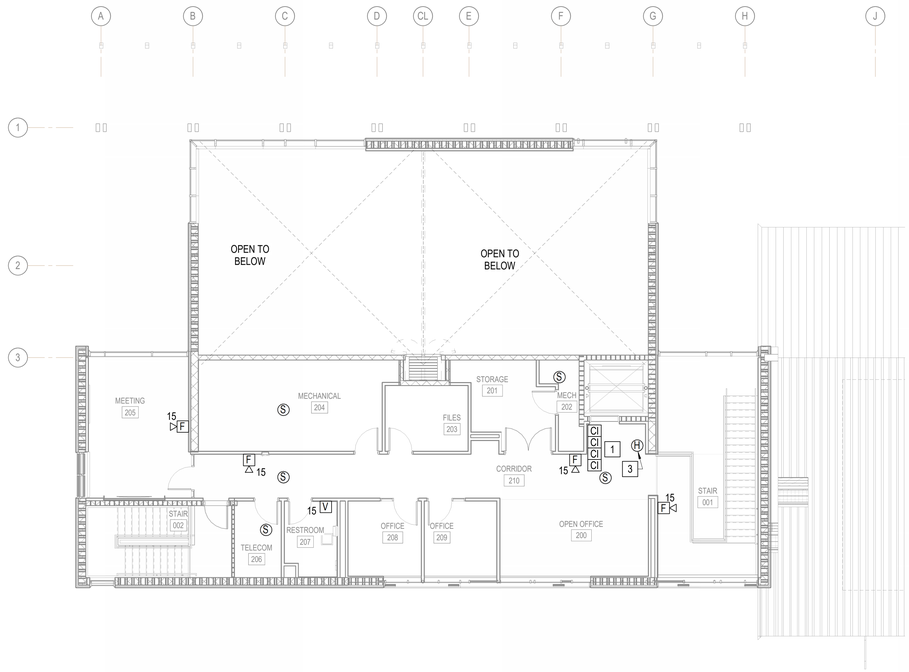
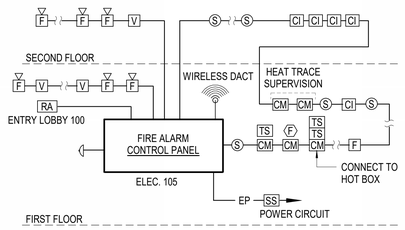


SECOND FLOOR FIRE ALARM PLAN

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



NOTES:

1. PROVIDE HORN/STROBE CIRCUITS AS REQUIRED. NO CIRCUIT SHALL BE LOADED MORE THAN 75 PERCENT PRIOR TO FINAL INSPECTION TO ALLOW ADDITIONAL UNITS TO BE ADDED AS MAY BE REQUIRED BY LOCAL AUTHORITY. STROBES SHALL BE SYNCHRONIZED. COORDINATE INTERLOCKS BETWEEN FIRE ALARM ACTIVATION AND HVAC SHUTDOWN AS REQUIRED.
2. COORDINATE WITH SPRINKLER CONTRACTOR FOR QUANTITY OF FLOW AND TAMPER SWITCH MONITORING POINTS AND THEIR EXACT LOCATION. THIS INCLUDES BACKFLOW PREVENTER WHICH IS LOCATED OUTSIDE OF BUILDING.
3. RISER DIAGRAM IS FOR REFERENCE ONLY. DEVICE LOCATIONS AND QUANTITIES SHALL BE AS SHOWN ON THE FLOOR PLANS.

D4 FIRE ALARM RISER DIAGRAM

NOT TO SCALE

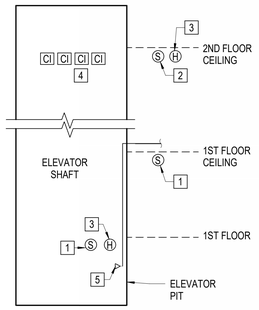
SYSTEM INPUT	ACTIVATE ALARM SIGNAL AT FACP	TRANSMIT ALARM SIGNAL TO RECEIVING STATION	ACTIVATE SUPERVISORY SIGNAL AT FACP	TRANSMIT SUPERVISORY SIGNAL TO RECEIVING STATION	ACTIVATE HORNS AND STROBES	TRANSMIT TROUBLE SIGNAL AT FACP	DISPLAY CHANGE OF STATUS	RECALL ELEVATOR TO RECEIVING STATION	RECALL ELEVATOR TO FIRST FLOOR	RECALL ELEVATOR TO SECOND FLOOR	SHUNT TRIP ELEVATOR POWER	FIRE HAT STEADY ILLUMINATION	FIRE HAT FLASHING ILLUMINATION
MANUAL PULL STATION	●	●			●		●						
SMOKE DETECTOR (ELEVATOR FIRST FLOOR AND PIT)	●	●			●		●	●			●		
SMOKE DETECTOR (ELEVATOR SECOND FLOOR)	●	●			●		●		●			●	
SMOKE DETECTOR	●	●			●		●						
SPRINKLER VALVE TAMPER SWITCH			●	●	●		●						
SPRINKLER FLOW SWITCH	●	●			●		●						
HEAT DETECTOR	●	●			●		●				●		●
ELEVATOR SHUNT TRIP SUPERVISION			●	●			●						
HEAT TRACE SUPERVISION			●	●			●						
FIRE ALARM AC POWER FAILURE					●	●	●						
FIRE ALARM SYSTEM LOW BATTERY					●	●	●						
OPEN CIRCUIT					●	●	●						
GROUND FAULT					●	●	●						

D5 FIRE ALARM SYSTEM SEQUENCE OF OPERATION MATRIX

NOT TO SCALE

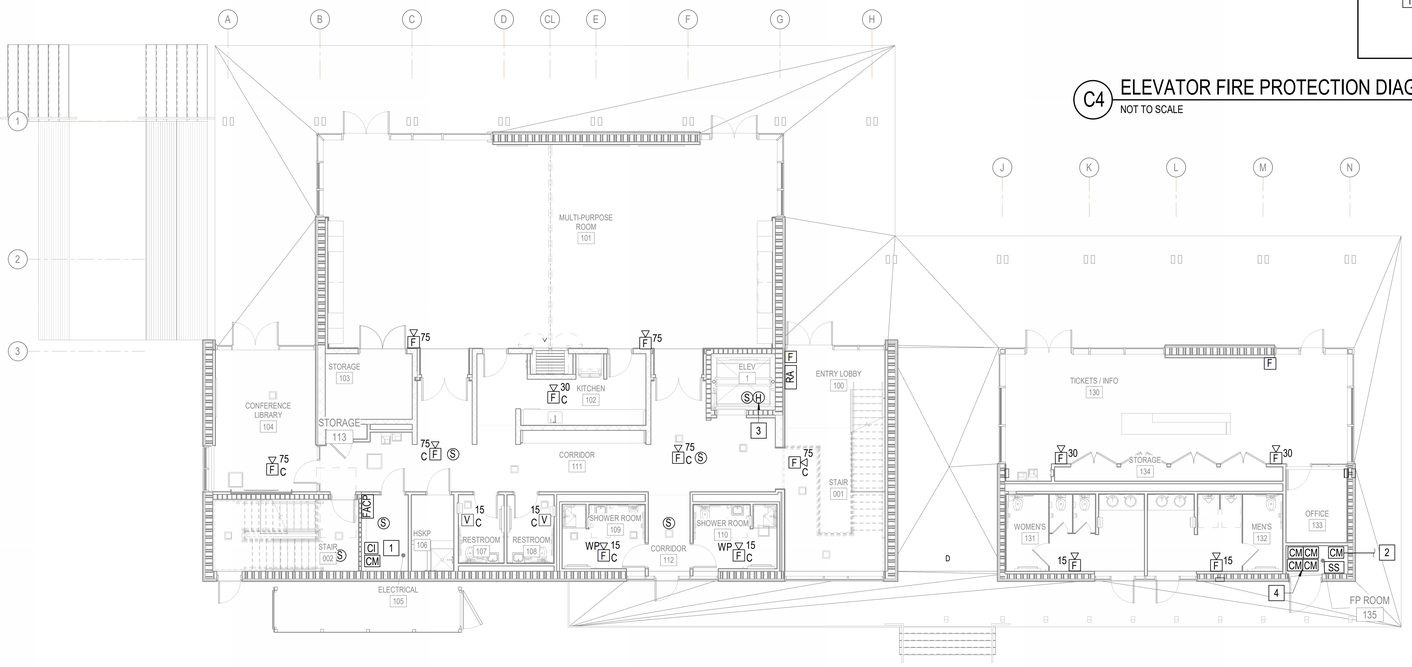
ELEVATOR NOTES

1. SMOKE DETECTOR - RECALLS ELEVATOR TO SECOND FLOOR.
2. SMOKE DETECTOR - RECALLS ELEVATOR TO FIRST FLOOR.
3. HEAT DETECTOR WITHIN 24" OF SPRINKLER, FOR ELEVATOR SHUNT TRIP.
4. RELAYS FOR ELEVATOR RECALL AND FIRE HAT. INSTALL INSIDE THE HOISTWAY ON THE FRONT WALL APPROXIMATELY 9 FEET ABOVE THE TOP FINISHED FLOOR LANDING.
5. SIDEWALL SPRINKLER LOCATED WITHIN 2 FEET OF THE ELEVATOR PIT FLOOR.



C4 ELEVATOR FIRE PROTECTION DIAGRAM

NOT TO SCALE



FIRST FLOOR FIRE ALARM PLAN

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

FIRE PROTECTION LEGEND

⟨#⟩	DEMOLITION NOTE IDENTIFICATION
#	CONSTRUCTION NOTE IDENTIFICATION
———	INDICATES NEW ITEM
XXX	ROOM NUMBER IDENTIFICATION
AFF	ABOVE FINISHED FLOOR
EP	ELECTRICAL POWER (120V AC)
WP	WEATHERPROOF (SUBSCRIPT)
C	CEILING MOUNTED (SUBSCRIPT)
FACP	FIRE ALARM CONTROL PANEL
RA	REMOTE ANNUCIATOR
S	SMOKE DETECTOR, CEILING MOUNTED
S	SMOKE DETECTOR, WALL MOUNTED
75 F	HORN/STROBE W/CANDELA RATING, WALL MOUNTED
C 75 F	HORN/STROBE W/CANDELA RATING, CEILING MOUNTED
WP 75 F	HORN/STROBE W/CANDELA RATING, WEATHER PROOF, CEILING MOUNTED
C 15 V	STROBE W/CANDELA RATING, CEILING MOUNTED
F	WATERFLOW SWITCH - PADDLE TYPE
CI	CONTROL INTERFACE MODULE
CM	CONTACT MONITOR MODULE
TS	TAMPER SWITCH
SS	SURGE SUPPRESSION
	ELECTRIC ALARM BELL

GENERAL NOTES

1. FIRE ALARM SYSTEM MUST BE INSTALLED IN ACCORDANCE WITH NFPA 72 - 2013 EDITION. PROVIDE WIRING AS RECOMMENDED BY MANUFACTURER. CONTRACTOR MUST SUBMIT SHOP DRAWINGS FOR REVIEW.
2. COORDINATE FIRE ALARM SYSTEM WITH ALL TRADES TO ENSURE PROPER COMPLIANCE WITH CODES AND TO AVOID CONFLICTS.

KEY NOTES

1. CONTROL INTERFACE FOR ELEVATOR SHUNT TRIP AND MONITOR MODULE FOR SUPERVISION OF SHUNT TRIP CIRCUIT.
2. MONITOR MODULE FOR BACKFLOW PREVENTER TAMPER SWITCHES. SEE CIVIL FOR HOT BOX LOCATION.
3. HEAT DETECTOR IS TO BE MAXIMUM 24 INCHES FROM THE SPRINKLER CLOSEST TO THE ELEVATOR DOOR FRAME.
4. MONITOR MODULES FOR WATERFLOW SWITCH, TAMPER SWITCH AND HEAT TRACE SUPERVISION (TWO MODULES REQUIRED, ONE FOR POWER SUPERVISION AND ONE FOR GENERAL TROUBLE ON HEAT TRACE CONTROLLER).

GRAPHIC SCALE(S)

1/8" = 1' - 0" 0 5' 10' 15' 30'

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145

SCO ID # : 23-26530-01A

DESIGNER

CLARKNEXSEN
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RALEIGH, NORTH CAROLINA 27603
919-828-1876
CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

SUBMITTAL

JUNE 24, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

FIRST & SECOND FLOOR FIRE ALARM PLAN

FA101

DESIGN: EVA
DRAWN: EVA
REVIEW: CHB

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SPRINKLER SYSTEM DESIGN DATA

SPACE	SYSTEM TYPE	OCCUPANCY TYPE	DESIGN DENSITY GPM/SF	DESIGN AREA SF	HOSE STREAM GPM	MAXIMUM SPRINKLER COVERAGE, SF
OFFICES AREAS, CORRIDORS, RESTROOMS	WET	LIGHT HAZARD	0.10	1500	100	225/168
ELECTRICAL, STORAGE, MECHANICAL	WET	ORDINARY HAZARD, GROUP 1	0.15	1500	250	130

NOTES:

1. ALL SPACES NOT SHOWN AS ORDINARY HAZARD GROUP 1 ARE LIGHT HAZARD.
2. ACTUAL FLOW RATES SHALL BE BASED ON HYDRAULIC CALCULATIONS.
3. REMOTE AREA REDUCTION WITH QUICK RESPONSE SPRINKLERS IS PERMITTED, IAW NFPA 13 REQUIREMENTS.
4. PROVIDE 30% INCREASE IN DESIGN AREA FOR SLOPED CEILINGS/ROOFS WHERE APPLICABLE.
5. SPRINKLER COVERAGE IN LIGHT HAZARD AREAS WITH EXPOSED COMBUSTIBLE OBSTRUCTED CONSTRUCTION IS 168 SQ FT MAXIMUM.

WATER FLOW TEST DATA

STATIC PRESSURE PSI	RESIDUAL PRESSURE PSI	FLOW RATE GPM
46	32	1078

NOTES: FLOW TEST WAS CONDUCTED ON DECEMBER 5, 2023. PRESSURE HYDRANT WAS LOCATED ALONG HIGHWAY 70 BETWEEN THE BRIDGE AND W BEAUFORT ROAD EXT AND FLOW HYDRANT 184 WAS LOCATED AT THE NEW HOUSING DEVELOPMENT. FLOW INDICATED ABOVE IS FROM WATER MODELING PERFORMED BY THE CIVIL ENGINEER FOR THE PROJECT SITE. THERE ARE NO HYDRANTS ADJACENT TO THE SITE FOR PURPOSES OF FLOW TESTING, THUS THE USE OF WATER MODELING. THESE NUMBERS REFLECT THE REQUIRED SCO REDUCTIONS OF 10 PSI TO STATIC AND RESIDUAL PRESSURE AND 10 PERCENT TO RESIDUAL FLOW.

FIRE FLOW ANALYSIS

THIS BUILDING IS TYPE III-B CONSTRUCTION AND THE FIRST FLOOR IS 5,994 SQUARE FEET. TABLE B105.1(2) OF THE 2018 NORTH CAROLINA FIRE CODE (2018 NCFC) INDICATES A REQUIRED FIRE FLOW OF 1,750 GPM FOR TWO HOURS. FROM WATER MODELING PERFORMED BY THE CIVIL ENGINEER AND BASED ON THE 12/5/23 WATERFLOW TEST, AVAILABLE FLOW AT 20 PSI IS 1,142 GPM FROM THE NEW FIRE HYDRANT AT THE SW CORNER OF THE BUIILDING.

THE LOCAL AUTHORITIES ARE UNWILLING TO CONSIDER USING THE BODY OF WATER ADJACENT TO THE PROJECT SITE, SO A SPRINKLER SYSTEM WAS ADDED TO THE PROJECT. PER 2018 NCFC TABLE B105.2, AN NFPA 13 SPRINKLER SYSTEM ALLOWS FIRE FLOW TO BE REDUCED TO 25% OF THE VALUE IN TABLE B105.1(2), BUT TO NO LESS THAN 1000 GPM. THE REQUIRED FIRE FLOW FOR THIS PROJECT IS 1000 GPM, AND THIS CAN BE SUPPLIED BY THE MUNICIPAL WATER SYSTEM AT A MINIMUM RESIDUAL PRESSURE OF 20 PSI.

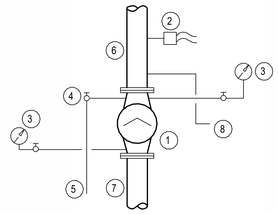
FIRE PROTECTION LEGEND

GENERAL

- DEMOLITION NOTE IDENTIFICATION
- CONSTRUCTION NOTE IDENTIFICATION
- INDICATES EXISTING ITEM
- INDICATES NEW ITEM
- INDICATES ITEM TO BE REMOVED
- REMOVE TO THIS POINT
- CONNECT NEW TO EXISTING
- XXX ROOM NUMBER IDENTIFICATION
- AFF ABOVE FINISHED FLOOR
- O.C. ON CENTER
- LH LIGHT HAZARD
- OH ORDINARY HAZARD
- EP ELECTRICAL POWER (120V AC)
- WP WEATHERPROOF (SUBSCRIPT)
- C CEILING MOUNTED (SUBSCRIPT)

SPRINKLER

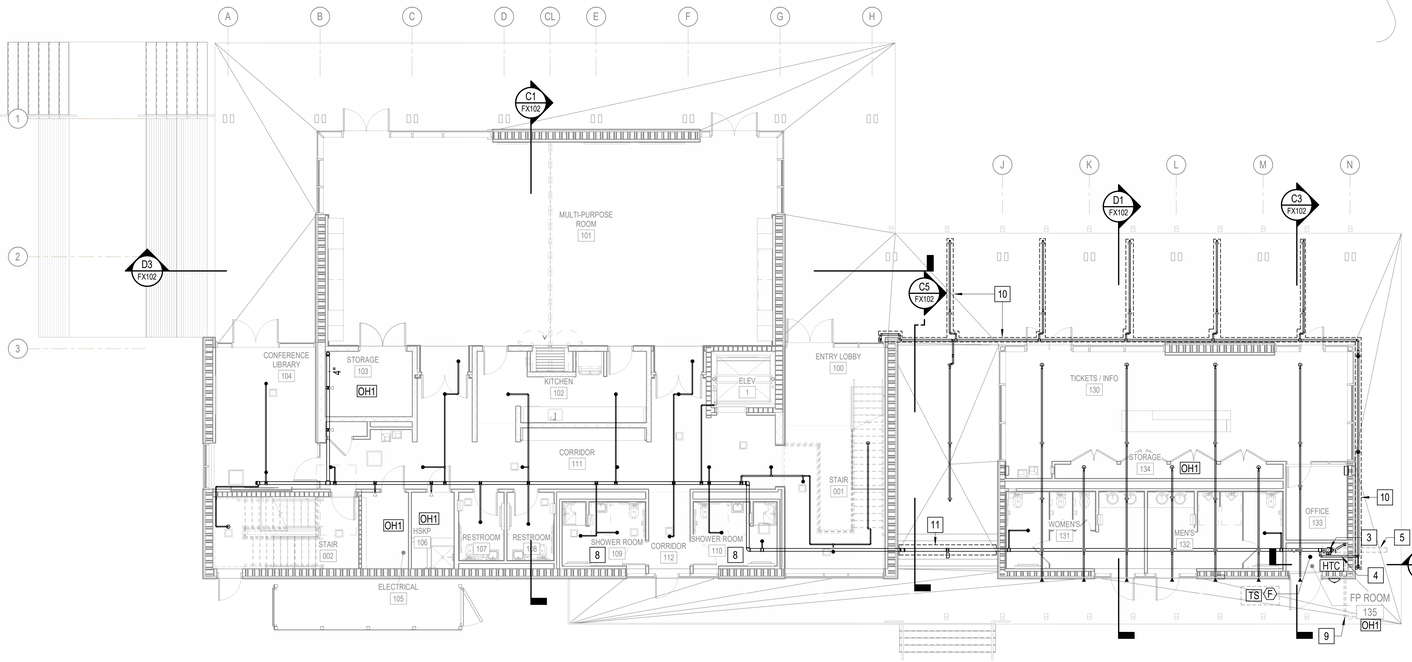
- HTC HEAT TRACE CONTROLLER, UL LISTED FOR SPRINKLER BRANCH PIPING
- GATE VALVE WITH TAMPER SWITCH
- CHECK VALVE
- FDC FIRE DEPARTMENT CONNECTION
- BALL VALVE
- BACKFLOW PREVENTER
- CAPPED PIPE
- RISER DOWN
- RISER UP
- UG UNDERGROUND PIPE
- SIDE WALL SPRINKLER
- SIDE WALL SPRINKLER - DRY
- PENDENT SPRINKLER
- PENDENT SPRINKLER - DRY
- PENDENT SPRINKLER - CONCEALED



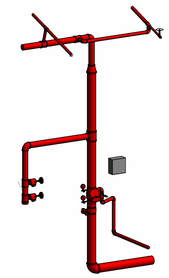
LEGEND

1. RISER CHECK VALVE
2. FLOW SWITCH
3. WATER PRESSURE GAUGE WITH GAUGE COCK
4. 2" MAIN DRAIN VALVE
5. DISCHARGE TO OUTSIDE BUILDING - ABOVE GRADE
6. TO SYSTEM
7. PIPE TO WATER MAIN
8. TO FIRE DEPARTMENT CONNECTION

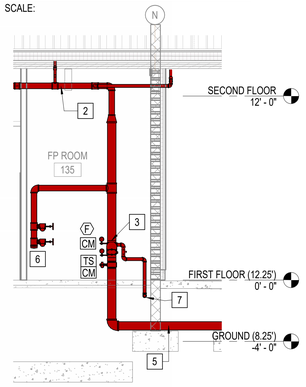
C4 WET PIPE RISER CHECK DETAIL
NOT TO SCALE



FIRST FLOOR FIRE PROTECTION PLAN
SCALE: 1/8" = 1'-0"



B5 SPRINKLER RISER ISOMETRIC
SCALE:



A5 SPRINKLER RISER ELEVATION
SCALE: 1/4" = 1'-0"

GENERAL NOTES

1. THIS PROJECT INCLUDES A WET PIPE SPRINKLER SYSTEM THROUGHOUT (INCLUDING BELOW EXTERIOR OVERHANGS AND ROOFS). THE SPRINKLER LAYOUT SHOWN ON THESE DRAWINGS HAS BEEN COORDINATED WITH THE ARCHITECT. THE CONTRACTOR MAY PROPOSE CHANGES TO THIS LAYOUT, BUT CONCURRENCE OF THE ARCHITECT WILL BE REQUIRED FOR ANY ADJUSTMENTS.
2. DESIGN AND PROVIDE THE SPRINKLER SYSTEM IN ACCORDANCE WITH NFPA 13 - 2013 EDITION . CONTRACTOR MUST SUBMIT SHOP DRAWINGS FOR REVIEW.
3. COORDINATE SPRINKLER SYSTEM WITH ALL TRADES TO ENSURE PROPER COMPLIANCE WITH CODES AND TO AVOID CONFLICTS.
4. IN AREAS WITH LAY-IN CEILING TILES, INSTALL SPRINKLER HEADS CENTER OF TILE.
5. DESIGN AND PROVIDE THE SPRINKLER SYSTEM FOR THE HAZARD OCCUPANCY SHOWN ON THIS SHEET AND BY HYDRAULIC CALCULATION.
6. RUN PIPING IN ROOMS AND CORRIDORS CONCEALED ABOVE CEILINGS. IN ROOMS WITH CEILINGS OF EXPOSED CONSTRUCTION, RUN THE PIPING EXPOSED USING UPRIGHT PENDENT AND SIDEWALL SPRINKLER HEADS, AS NOTED OTHERWISE.
7. NO PIPE PENETRATIONS OF STRUCTURAL MEMBERS, EXCEPT AS NOTED, ARE PERMITTED WITHOUT THE APPROVAL OF THE ARCHITECT/ENGINEER.
8. PROVIDE PIPE PENETRATIONS OF FIRE OR SMOKE PARTITIONS OR WALLS AND MAKE FIRE AND SMOKE TIGHT.
9. PROVIDE UL LISTED THROUGH PENETRATION FIRE STOPPING ASSEMBLIES FOR EACH PENETRATION OF FIRE-RATED ASSEMBLIES.
10. RUN SPRINKLER PIPING SUCH THAT IT DOES NOT RUN ABOVE ELECTRICAL PANELS, SWITCH GEAR, AND SIMILAR EQUIPMENT.
11. PROVIDE QUICK RESPONSE SPRINKLER HEADS THROUGHOUT.

KEY NOTES

2 TO BUILDING SPRINKLER SYSTEM.
3 RISER CHECK VALVE.
4 TO EXTERIOR BUILDING SPRINKLER PIPING. EXTERIOR SPRINKLER PIPING IS INSULATED AND HEAT TRACED, WITH HEAT TRACE MONITORED BY FIRE ALARM SYSTEM.
5 FIRE WATER ENTRY.
6 BACKFLOW PREVENTER FORWARD FLOW TEST CONNECTION
7 DRAIN TO EXTERIOR.
8 PROVIDE CORROSION RESISTANT SPRINKLERS IN THIS SPACE.
9 ROUTE DRAIN LINE BELOW WALKWAY AND TERMINATE AT FACE OF CONCRETE. REFER TO SECTION A4/AE313 FOR REFERENCE.
10 EXTERIOR SPRINKLER PIPE TO BE HEAT TRACE.
11 PIPING IN SOFFIT TO BE INSULATED AND HEAT TRACED.

GRAPHIC SCALE(S)

1/8" = 1' - 0" 0 5' 10' 15' 30'

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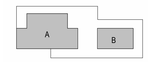
SUBMITTAL
JUNE 24, 2024
BID DOCUMENTS

REVISIONS

KEY PLAN



SHEET
FIRST FLOOR FIRE SUPPRESSION PLAN

FX101

DESIGN: EVA
DRAWN: EVA
REVIEW: CHB

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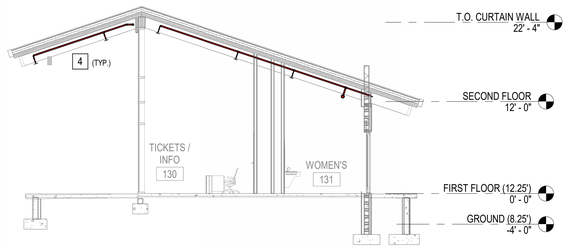
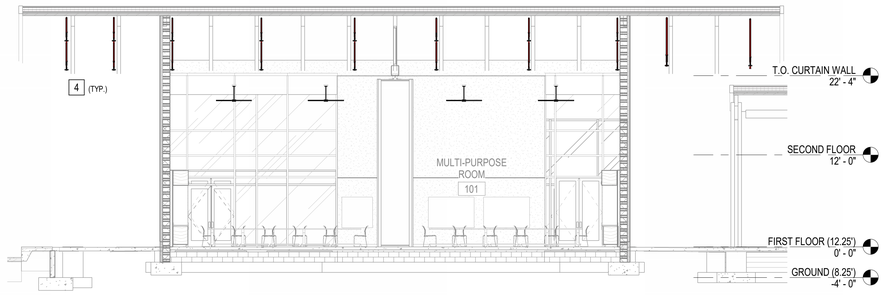


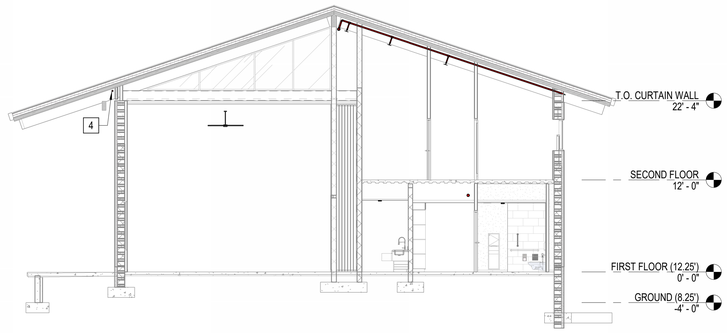
D1 BUILDING SECTION

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



D3 BUILDING SECTION

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



C1 BUILDING SECTION

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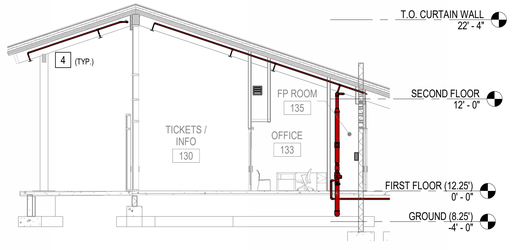

C3 BUILDING SECTION

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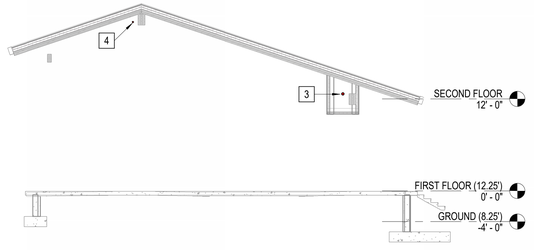
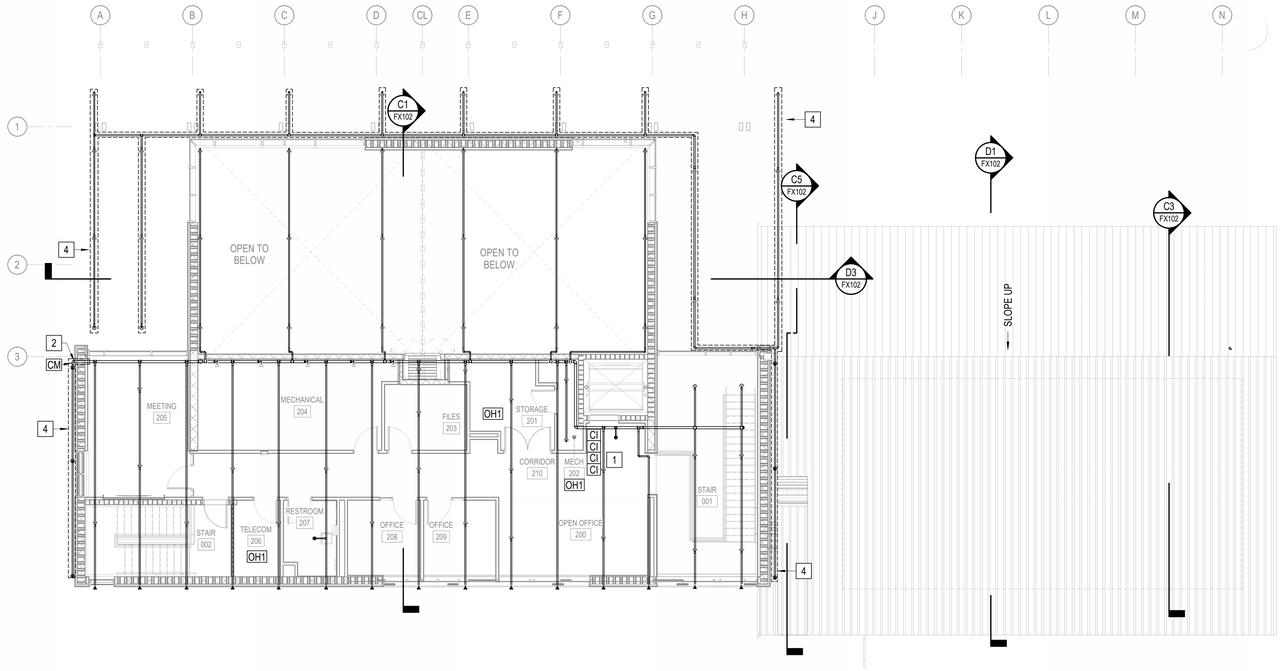


C5 BUILDING SECTION

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



SECOND FLOOR FIRE PROTECTION PLAN

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

KEY NOTES

#	
1	CONTROL INTERFACE MODULES FOR INTERCONNECTION WITH ELEVATOR CONTROLLER.
2	TO EXTERIOR BUILDING SPRINKLER. INSULATE AND HEAT TRACE, WITH HEAT TRACE MONITORED BY FIRE ALARM SYSTEM.
3	PIPING IN SOFFIT TO BE INSULATED AND HEAT TRACED.
4	EXTERIOR SPRINKLER PIPING TO BE INSULATED AND HEAT TRACED.

GRAPHIC SCALE(S)

1/8" = 1' - 0" 0 5' 10' 15' 30'

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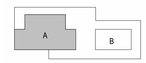

SHEET

SECOND FLOOR FIRE PROTECTION PLAN

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DESIGN: EVA
DRAWN: EVA
REVIEW: CHB

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PLUMBING LEGEND

SYMBOL	DESCRIPTION
SAN	SANITARY SEWER
V	SANITARY VENT
CW	COLD WATER
HW	HOT WATER 120°F
HWR	HOT WATER RETURN 120°F
RD	ROOF DRAINAGE
D	DRAIN PIPING
	FLOW ARROW
	VALVE IN RISER
	BALL VALVE
	BALANCING VALVE
	CHECK VALVE
	STRAINER
	SHOCK ABSORBER
WCO	WALL CLEANOUT
FCO	FLOOR CLEANOUT
C.O.T.G.	CLEANOUT TO GRADE
VTR	VENT THROUGH THE ROOF
	INVERT ELEVATION
6" SAN 87	PIPE SIZE PIPE SYSTEM ABBREVIATION RISER DESIGNATION — UTILITY RISER IDENTIFICATION

DOMESTIC WATER BOOSTER PUMP SCHEDULE

DESIGNATION	DESCRIPTION	LOCATION	MANUFACTURER	MODEL NO.	GPM	HEAD	HP	VOLTAGE	PHASE	REMARKS
DWBP-1	DOMESTIC WATER BOOSTER PUMP	MECH 204	XYLEM	MINIBOOST EXTREME 2A20	80	30 PSI	2	208	1	PACKAGED SKID MOUNTED UNIT
					80	30 PSI	2	208	1	

NOTE:
1. THE BASIS OF DESIGN MANUFACTURER IS XYLEM OR EQUIVALENT BY GOULDS OR GRUNDFOS.
2. THE PUMP PACKAGED SYSTEM SHALL BE VARIABLE FREQUENCY DRIVE
3. PUMP ALARMS SHALL BE MONITORED THROUGH THE BUILDING AUTOMATION SYSTEM.

PLUMBING FIXTURE SCHEDULE

SYMBOL	DESCRIPTION	CW	HW	SAN	VENT	CW FU	HW FU	SAN FU	FIXTURE COUNT	COMMENTS
P-1	WALLHUNG WATER CLOSET	1"		4"	2"	20	0	8	2	
P-1a	WALL HUNG LAVATORY - ADA	1"		4"	2"	70	0	28	7	
P-2	URINAL	3/4"		2"	2"	10	0	4	2	
P-3	WALL HUNG LAVATORY - ADA	1/2"	1/2"	2"	2"	3,5	2,5	5	5	
P-3a	COUNTERTOP LAVATORY	1/2"	1/2"	2"	2"	2,8	2	4	4	
P-4	COUNTERTOP SINK	1/2"	1/2"	2"	2"	1	1	2	1	
P-5	ELECTRIC WATER COOLER	1/2"		2"	2"	0,25	0	0,5	3	
P-6	MOP BASIN	1/2"	1/2"	3"	2"	2,25	2,25	2	1	
P-7	HOSE BIB	1/2"				2	0	0	2	
P-7a	EXTERIOR WALL HYDRANT	3/4"				0	0	0	1	
P-8	SHOWER	1/2"	1/2"	3"	2"	2,5	2	4	2	
P-9	ICEMAKER UTILITY BOX	1/2"				0	0	0	1	
P-10	OUTDOOR DUAL SHOWER	1/2"				2	2	0	2	
Grand total						116,3	11,75	57,5		

COLD WATER DEMAND
=75 GPM

FLOOR DRAIN SCHEDULE

SYMBOL	DESCRIPTION	MODEL	MANUF.	COMMENTS
3"FD-1	FLOOR DRAIN - TOILET	ZN-415-S	ZURN	DRAINS ARE PROVIDED WITH A TRAP GUARD
3"FD-2	FLOOR DRAIN - MECHANICAL	ZN-554	ZURN	DRAINS ARE PROVIDED WITH A TRAP GUARD
4"FD-2	FLOOR DRAIN - MECHANICAL	ZN-554	ZURN	DRAINS ARE PROVIDED WITH A TRAP GUARD

NOTE:
1. ALL DRAINS SHALL BE PROVIDED WITH DEEP SEAL TRAPS.
2. BARRIER TYPE TRAP SEAL PROTECTION SHALL BE ZURN, SURE SEAL OR QUAD SEAL.
3. MECHANICAL ROOM FLOOR DRAINS ARE PROVIDED WITH SEDIMENT BUCKETS.
4. THE 4" FD-2 RECEIVES THE EMERGENCY FIRE PROTECTION BACKFLOW PREVENTER RELIEF DISCHARGE. THE FLOOR DRAIN SHALL BE PROVIDED WITH A 1" INTERNAL DAM TO ALLOW THE RELIEF DISCHARGE ONLY FROM ENTERING THE 4"FD-2 FLOOR DRAIN.
5. THE BASIS OF DESIGN MANUFACTURER IS ZURN OR EQUIVALENT BY JR SMITH OR JOSAM.

HOT WATER RETURN PUMP SCHEDULE

SYMBOL	DESCRIPTION	MODEL	MANUFACTURER	GPM	HEAD	WATTS	VOLTAGE	PHASE
HWRP-1	HOT WATER RECIRCULATION PUMP	UPSe 15-58F	GRUNDFOS	6	9	85	120	1

NOTE:
1. PUMP PROVIDED WITH DRY CONTACTS.
2. PUMP PROVIDED WITH A TIME CLOCK SET TO OFF DURING NON-WORKING HOURS.
3. THE BASIS OF DESIGN MANUFACTURER IS GRUNDFOS OR EQUIVALENT BY BELL & GOSSETT OR ARMSTRONG.

ELECTRIC WATER HEATER SCHEDULE

SYMBOL	LOCATION	STORAGE	WATTAGE	VOLTAGE	PHASE	MODEL	MANUFACTURER
WH-1	MECH ROOM 204	120.0 gal	9000 W	208 V	1	DRE-120	AO SMITH

NOTE:
THE WATER HEATERS:
1. SHALL BE SET AT A 120° F DISCHARGE TEMPERATURE.
2. SHALL MEET THE STANDBY LOSS REQUIREMENTS OF THE U.S. DEPARTMENT OF ENERGY AND CURRENT EDITION OF AHRAE/IES 90.1. ENERGY EFFICIENCY PER IEC 60379:2007 IS 93.7 %

ELEVATOR SUMP PUMP SCHEDULE

Symbol	Description	GPM	Head	Model	Manufacturer	HP	Ph	Voltage	Comments
SP-1	ELEVATOR SUMP PUMP	50	45	WE1012H	GOULDS	1	1	208	PROVIDED WITH CONTROL PANEL WITH DRY CONTACTS FOR SYSTEM ALARM

NOTE:
1. THE BASIS OF DESIGN MANUFACTURER IS GOULDS OR EQUIVALENT BY GRUNDFOS OR STANCOR.
2. VERIFY THE REQUIRED LENGTH OF THE POWER AND CONTROL CABLES WITH THE FLOOR PLANS.
3. PROVIDED WITH ON/OFF/HIGH WATER ALARM FLOAT. FLOAT CONTROL DIMENSIONS ARE ABOVE THE BASIN SLAB.

a. PUMP OFF @ 2"
b. PUMP ON @ 24"
c. HIGH WATER ALARM @ 26"

BUILDING AUTOMATION SYSTEM MONITORING

SYMBOL	DESCRIPTION	MONITORING
SP-1	SUMP PUMP	ALARM FUNCTION
HWRP-1	HOT WATER RECIRCULATION PUMP	ALARM FUNCTION
DWBP-1	DOMESTIC WATER BOOSTER PUMP	ALARM FUNCTION

NOTE:

THE CONTROLS CONTRACTOR SHALL COORDINATE WITH THE PLUMBING CONTRACTOR FOR THE NOTED MONITORING FUNCTIONS AND PROVIDE ALL NECESSARY WIRING AND DEVICES REQUIRED TO DISPLAY THE MONITORING FUNCTIONS.

THE BUILDING AUTOMATION CONTRACTOR SHALL WRITE AND IMPLEMENT ALL PROGRAMMING STRATEGIES.

THE CONTROL SYSTEM COMPONENTS SHALL BE BACNET, OVER ETHERNET, LON OR MODBUS RTU.

PLUMBING GENERAL NOTES

NO.	DESCRIPTION
1	ALL OPENINGS FOR PIPING PENETRATIONS ARE GENERALLY PROVIDED BY THE PLUMBING CONTRACTOR.
2	PIPE HANGERS AND CONCRETE INSERTS UTILIZED FOR THIS PROJECT SHALL BE PROVIDED BY THE PLUMBING CONTRACTOR. THIS INCLUDES ALL SUPPLEMENTAL STEEL, ETC.
3	UNLESS SPECIFICALLY APPROVED BY THE STRUCTURAL ENGINEER NO BURIED PIPING UNDER THE SLAB SHALL BE INSTALLED WITHIN THE FOOTING BEARING
4	SLEEVES FOR PIPING PASSING THROUGH BELOW SLAB FOUNDATION WALLS SHALL BE COORDINATED AND PROVIDED BY THE PLUMBING CONTRACTOR.
5	ALL LINTELS REQUIRED IN MASONRY AND STUD WALLS FOR PIPING PENETRATIONS SHALL BE PROVIDED BY THE GENERAL CONTRACTOR.
6	COORDINATE VERTICAL PIPING WITH ARCHITECTURAL PLANS FOR EXACT LOCATION OF RISER.
7	CUTTING OF OPENINGS IN NEW CONSTRUCTION ASSOCIATED WITH THE PIPING SYSTEMS NOT SPECIFICALLY INDICATED ON ARCHITECTURAL SHEETS TO BE PROVIDED BY THE GENERAL CONTRACTOR, SHALL BE PROVIDED BY THE PLUMBING CONTRACTOR.
8	UNLESS APPROVED BY THE ENGINEER, NO HORIZONTAL PIPING IN THE MECHANICAL ROOM SHALL BE INSTALLED WITH A BOTTOM OF PIPE ELEVATION BELOW 8'-0"AFF.
9	ALL BURIED PRESSURE PIPING SHALL BE A MINIMUM OF 36" BELOW FINISHED GRADE TO TOP OF PIPE.
10	INSTALL ALL HANDICAP TOILET FLUSH HANDLES ON THE WIDE SIDE OF THE TOILET.
11	ALL MATERIALS INSTALLED WITHIN THE AIR PLENUM SHALL MEET THE ADOPTED NORTH CAROLINA STATE MECHANICAL CODE SECTION 602.
12	PROVIDE AN 18" x 18" x 6" CONCRETE PAD WITH CHAMFERED EDGES SURROUNDING ALL EXTERIOR CLEAN OUTS TO GRADE (C.O.T.G.).
13	ALL INDIRECT WASTE MUST DISCHARGE THROUGH AN AIR GAP WHICH IS AT LEAST TWICE THE DIAMETER OF THE INDIRECT WASTE PIPE PER THE ADOPTED NORTH CAROLINA STATE PLUMBING CODE.
14	VENTS SHALL RISE VERTICALLY 6" ABOVE THE FLOOD RIM BEFORE TURNING HORIZONTALLY AND PROVIDED WITH A CLEANOUT ON THE VERTICAL.
15	PROVIDE A WALL CLEANOUT OR FLOOR CLEANOUT AT THE BASE OF ALL SANITARY DRAINAGE VERTICAL RISERS.
16	THIS IS A COMMISSIONED PROJECT, WITH A COMMISSIONING AGENT HIRED BY THE OWNER. THE PLUMBING CONTRACTOR SHALL COORDINATE WITH THE OWNER'S HIRED COMMISSIONING AGENT AND PROVIDE ALL NECESSARY TIME, MATERIALS AND PROCEDURES REQUIRED FOR A FULLY COMMISSIONED PROJECT. SEE THE COMMISSIONING SPECIFICATION SECTIONS IN THE PROJECT MANUAL FOR FURTHER INFORMATION.
17	THE PLUMBING SUB-CONTRACTOR SHALL COORDINATE THE LOCATION OF THE MECHANICAL EQUIPMENT FLOOR DRAINS WITH THE MECHANICAL SUB-CONTRACTOR AND THE PROPOSED MECHANICAL EQUIPMENT.
18	THE ISOMETRIC AND PIPING SECTIONS ARE SCHEMATIC IN NATURE AND PROVIDED FOR GENERAL ROUTING CLARIFICATION OF PIPE SIZES. THE ISOMETRIC AND PIPING SECTIONS SHALL NOT BE USED FOR A SPECIFIC ESTIMATE TAKE-OFF OF VALVES, PIPE LENGTHS AND FITTINGS.
19	ALL PLUMBING VENTS SHALL BE INSTALLED AT A MINIMUM OF 15'-0" FROM ANY FRESH AIR INTAKES
20	COORDINATE THE INVERT ELEVATIONS WITH THE SITE UTILITY DRAWINGS. THE INVERT INDICATED ON THE PLUMBING DRAWINGS IS THE MINIMUM INVERT TO EXIT THE BUILDING. THE PLUMBING CONTRACTOR SHALL COORDINATE, VERIFY AND PROVIDE THE INVERT ELEVATIONS ON THE COORDINATION DRAWINGS.
21	THE PLUMBING CONTRACTOR'S WORK SHALL BE COORDINATED IN SUCH A MANNER AS TO NEVER BLOCK SERVICE PATHWAYS TO AND FROM THIS BUILDING.
22	THE PLUMBING CONTRACTOR IS REQUIRED TO PROVIDE 3" MINIMUM DURABLE PRINTED PLASTIC WARNING TAPE FOR EXTERIOR METALLIC PIPING DISTRIBUTION WITHIN THE SCOPE OF THE DIVISION 22 CONTRACT. THE WARNING TAPE SHALL BE IDENTIFIED FOR THE SPECIFIC UTILITY
23	THE PLUMBING CONTRACTOR IS REQUIRED TO PROVIDE 2" MINIMUM DETECTABLE TRACER WIRE FOR EXTERIOR NON-METALLIC PIPING DISTRIBUTION WITHIN THE SCOPE OF THE DIVISION 22 CONTRACT. THE TRACER WIRE SHALL BE IDENTIFIED FOR THE SPECIFIC UTILITY.
24	THE PLUMBING CONTRACTOR IS REQUIRED TO PROVIDE INSULATED COPPER TRACER WIRE OR OTHER APPROVED CONDUCTOR INSTALLED ADJACENT TO THE UNDERGROUND NON-METALLIC GAS PIPING. ACCESS SHALL BE PROVIDED TO THE TRACER WIRE OR THE TRACER SHALL TERMINATE ABOVEGROUND AT THE END OF THE NON-METALLIC PIPING. THE TRACER WIRE SHALL BE NOT LESS THAN 18 AWG AND THE INSULATION TYPE SHALL BE SUITABLE FOR DIRECT BURY.
25	THE PLUMBING CONTRACTOR IS REQUIRED TO ROD-OUT AND CLEAN ALL OF THE UNDERGROUND STORM AND SANITARY PIPING WITHIN THE FOOTPRINT OF THE NEW WORK.
26	THE SCHEDULED PLUMBING FIXTURE COUNTS SHALL NOT BE USED FOR ESTIMATE TAKE-OFFS.
28	ALL CLEANOUT ACCESS LOCATIONS SHALL BE COORDINATED WITH CASEWORK, WALLS AND EQUIPMENT. ALL FLOOR DRAINS AND CLEANOUTS NEED TO BE ACCESSIBLE. NO FLOOR DRAINS OR CLEANOUTS SHALL BE INSTALLED UNDER EQUIPMENT.
29	THIS PROJECT SHALL COMPLY WITH THE REQUIREMENTS OF THE 2018 NORTH CAROLINA PLUMBING CODE AND ALL OTHER APPLICABLE STATE BUILDING CODES.

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RALEIGH, NORTH CAROLINA 27603
919-828-1876

CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

NORTH CAROLINA PROFESSIONAL SEAL 023940 ENGINEER ANTHONY W. BRANSON

2024.06.06 09:41:42-04'00'

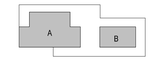
SUBMITTAL

JUNE 07, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN



SHEET

PLUMBING LEGEND,
SCHEDULES AND DETAILS

PE000

DESIGN: AWB
DRAWN: AWB
REVIEW: CN

CN 10145

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BASIS OF DESIGN FIXTURES

COMPONENT	EQUIVALENT MANUFACTURER	EQUIVALENT MANUFACTURER	EQUIVALENT MANUFACTURER
WATER CLOSET	AMERICAN STANDARD	KOHLER	ZURN
URINAL	AMERICAN STANDARD	KOHLER	ZURN
FLUSH VALVE	SLOAN	KOHLER	ZURN
LAVATORY	AMERICAN STANDARD	KOHLER	ZURN
FAUCET	AMERICAN STANDARD	KOHLER	ZURN
ELECTRIC WATER COOLER	ELKAY	HAWS	HALSEY TAYLOR
MOP SINK	FIAT	KOHLER	ZURN
MOP SINK FAUCET	CHICAGO	T & S BRASS	ZURN
WALL/ROOF HYDRANTS, HOSE BIB	WOODFORD	J.R. SMITH	ZURN
SINKS	JUST	ELKAY	TABCO
OUTDOOR SHOWER	SECUR-CARE	ACORN	WILLOUGHBY
SHOWER	SYMMONS	KOHLER	ZURN

PLUMBING FIXTURE SCHEDULE

SYMBOL	DESCRIPTION	TYPE	COMPONENT	DESCRIPTION	COMMENTS
P-1	WATER CLOSET	WALL MOUNTED,	CLOSET	AMERICAN STANDARD MODEL 3351.128, 1.28 GPF ELONGATED "WHITE" WALL MOUNTED VITREOUS CHINA WATER CLOSET, SIPHON JET FLUSHING ACTION, 1-1/2" TOP SPUD INLET, 2-1/8" FULLY GLAZED TRAPWAY DIAMETER, ASME 112.19.2/CSA B45.1.	SUPPORT SUPPLY PIPE THRU WALL WITH CHLORITE #107-26 COPPER BONDED STEEL BRACKET PIPE SUPPORT.
			VALVE	ZURN MODEL ZTR6200EV-LL 1.28 GPF BATTERY OPERATED, 10 YEAR LONG LIFE BATTERY, SENSOR ACTIVATED, HIGH-EFFICIENCY WATER CLOSET FLUSHOMETER WITH MANUAL OVERRIDE BUTTON.	
			SEAT	CHURCH "COMMERCIAL" MODEL 3155SSCT ELONGATED WHITE OPEN FRONT SEAT LESS COVER WITH SELF SUSTAINING S.S. CHECK HINGE WITH "DURAGUARD" ANTIMICROBIAL COATING.	
P-1a	WATER CLOSET ADA COMPLIANT	WALL MOUNTED,	CLOSET	AMERICAN STANDARD MODEL 3351.128, 1.28 GPF ELONGATED "WHITE" WALL MOUNTED VITREOUS CHINA WATER CLOSET, SIPHON JET FLUSHING ACTION, 1-1/2" TOP SPUD INLET, 2-1/8" FULLY GLAZED TRAPWAY DIAMETER, ASME 112.19.2/CSA B45.1.	PROVIDE PRECISION PLUMBING PRODUCTS BAC-2-BAC MANIFOLD WHERE APPLICABLE.
			VALVE	ZURN MODEL ZTR6200EV-LL 1.28 GPF BATTERY OPERATED, 10 YEAR LONG LIFE BATTERY, SENSOR ACTIVATED, HIGH-EFFICIENCY WATER CLOSET FLUSHOMETER WITH MANUAL OVERRIDE BUTTON.	
			SEAT	CHURCH "COMMERCIAL" MODEL 3155SSCT ELONGATED WHITE OPEN FRONT SEAT LESS COVER WITH SELF SUSTAINING S.S. CHECK HINGE WITH "DURAGUARD" ANTIMICROBIAL COATING.	
P-2	URINAL ADA COMPLIANT	WALL MOUNTED,	URINAL	AMERICAN STANDARD MODEL 6590.001, 0.125 GPF ELONGATED "WHITE" WALL MOUNTED URINAL. ZURN MODEL ZTR6203-ULF-LL 0.125 GPF, BATTERY OPERATED, 4 "AA" BATTERIES - 10 YEAR BATTERY LIFE, SENSOR ACTIVATED, HIGH-EFFICIENCY WATER CLOSET FLUSHOMETER WITH MANUAL OVERRIDE BUTTON	
P-3	LAVATORY ADA COMPLIANT	WALL HUNG	LAVATORY	KOHLER K-1997-SS1, WALL HUNG LAVATORY, VITREOUS CHINA, SINGLE FAUCET HOLE, OVERFLOW, FAUCET LEDGE.	
			FAUCET	ZURN Z6915-XL-ADM, BATTERY OPERATED FAUCET, SINGLE HOLE, INTEGRAL CAST BRASS SPOUT, 0.5 GPM, VANDAL PROOF PRESSURE COMPENSATING NON-AERATING SPRAY, ABOVE DECK MIXER, ADJUSTABLE CYCLE TIME CLOSURE DUAL SUPPLY FOR HOT AND COLD WATER SERVICE, STAINLESS STEEL HOSES, USER ADJUSTABLE TEMPERATURE CONTROL MIXER, 9 VOLT LITHIUM BATTERY	
			SUPPLY	ZURN ZH8820-XL-LRLK-8860-12-PC (1/2" x 3/8") - XL LEAD FREE HEAVY DUTY LOOSE KEY STOP & LAVATORY SUPPLY KIT (CONNECTION 3/8" IPS X 3/8" OD) WITH BRAIDED STAINLESS STEEL SUPPLIES	
			DRAIN	ZURN Z8743-PC GRID DRAIN & ZURN Z8700-88-PC (1-1/4") - CHROME PLATED P-TRAP SHALL BE CAST BRASS BODY WITH CLEANOUT WITH 17 GAUGE SEAMLESS TUBULAR WALL BEND AND FLANGE.	
			INSULATION	PLUMBEREX TRAP-GEAR MODEL 396 WHITE, ASTM-E 84-07 CLASS A INSULATION MATERIAL.	
P-3a	LAVATORY ADA COMPLIANT	UNDER MOUNT	LAVATORY	AMERICAN STANDARD MODEL 0496.300, (19.25"x16.0"), UNDER MOUNTED, WHITE VITREOUS CHINA LAVATORY WITH FRONT OVERFLOW, ADA COMPLIANT	
			FAUCET	ZURN Z6915-XL-ADM, BATTERY OPERATED FAUCET, SINGLE HOLE, INTEGRAL CAST BRASS SPOUT, 0.5 GPM, VANDAL PROOF PRESSURE COMPENSATING NON-AERATING SPRAY, ABOVE DECK MIXER, ADJUSTABLE CYCLE TIME CLOSURE DUAL SUPPLY FOR HOT AND COLD WATER SERVICE, STAINLESS STEEL HOSES, USER ADJUSTABLE TEMPERATURE CONTROL MIXER, 9 VOLT LITHIUM BATTERY	
			SUPPLY	ZURN ZH8820-XL-LRLK-8860-12-PC (1/2" x 3/8") - XL LEAD FREE HEAVY DUTY LOOSE KEY STOP & LAVATORY SUPPLY KIT (CONNECTION 3/8" IPS X 3/8" OD) WITH BRAIDED STAINLESS STEEL SUPPLIES	
			DRAIN	ZURN Z8743-PC GRID DRAIN & ZURN Z8700-88-PC (1-1/4") - CHROME PLATED P-TRAP SHALL BE CAST BRASS BODY WITH CLEANOUT WITH 17 GAUGE SEAMLESS TUBULAR WALL BEND AND FLANGE.	
			INSULATION	PLUMBEREX TRAP-GEAR MODEL 396 WHITE, ASTM-E 84-07 CLASS A INSULATION MATERIAL.	
P-4	SINGLE BOWL SINK ADA COMPLIANT	COUNTERTOP	SINK	JUST MFG. SL-ADA-2122-A-GR, ADA COMPLAINT SINGLE BOWL TYPE 304 18-8 STAINLESS STEEL SINK 21 x 22" x 5-1/2" DEEP WITH THREE HOLES FOR FAUCET, 4" ON CENTER; DRAIN: CENTER-REAR. J-35 CUP STRAINER AND 1-1/2" TAILPIECE	
			FAUCET	CHICAGO MODEL 786-E65VPCABCP, 8" FIXED CENTERS,1.0 GPM, VANDAL PROOF PRESSURE COMPENSATING LAMINAR FLOW NON-AERATING OUTLET , VANDAL PROOF 4" WRISTBLADE HANDLE, QUATURN COMPRESSION OPERATING CARTRIDGE 1/2" NPSM SUPPLY INLETS,CHROME PLATE FINISH	
P-5	ELECTRIC WATER COOLER W/ BOTTLE FILLER ADA COMPLIANT	RECESSED MOUNTED	–	ELKAY MODEL EZWS-ERPBM26K "NO-LEAD" BI-LEVEL "EZH2O", BARRIER-FREE, FILTERED, REFRIGERATED DRINKING FOUNTAIN WITH ELECTRONIC SENSOR BOTTLE FILLING STATION CHILLER RATED FOR 8 GPH STAINLESS STEEL CONSTRUCTION WITH ABS ALCOVE. CERTIFIED TO NSF/ANSI 42 AND 53., FLEXIBLE BUBBLER GUARD. LEAD-FREE IN MATERIALS AND CONSTRUCTION. SHALL COMPLY WITH ANSI 117.1 AND ADA. SHALL COMPLY WITH NSF/ANSI 61 & 372, BUILT-IN 100 MICRON STRAINER. MODIFY THE CHILLER LOCATION AND MOVE TO THE CHASE 115 VOLT, 1 AMP, 370 WATTS	
P-6	MOP BASIN	FLOOR MOUNTED	MOP BASIN	FIAT MODEL SB3636, 36" x 36" x 6" TERRAZZO RECEPTOR WITH STAINLESS STEEL CAP, (MSG) STAINLESS STEEL WALL GUARDS, (832AA) HOSE & WALL HOOK.	
			FAUCET	CHICAGO MODEL 897-CCP MOP SERVICE SINK FAUCET WITH VACUUM BREAKER AND INTEGRAL CHECKS.	
P-7	HOSE BIBB	–	HOSE BIBB	WOODFORD 24 INTERIOR HOSE BIBB W/ VACUUM BREAKER AND LOOSE TEE HANDLE, CHROME PLATED, MOUNT 12" A.F.F.	
P-7a	WALL HYDRANT	–	WALL HYDRANT	ZURN Z-1310 EXTERIOR WALL HYDRANT W/ VACUUM BREAKER AND TEE HANDLE, STAINLESS STEEL FACE, MOUNT 18" ABOVE THE FINISHED GRADE. THE WALL HYDRANT LENGTH SHALL BE CONFIRMED BY THE CONTRACTOR.	
P-8	SHOWER		SHOWER	TILE SHOWER REFER TO THE ARCHITECTURAL DRAWINGS. SHOWER SYSTEM SYMMONS MODEL S3605-H321-VX - SYM362SH METAL LEVER HANDLES; ADJUSTABLE STOP SCREW TO LIMIT HANDLE TURN; 30" SLIDE BAR FOR HAND SHOWER; SEPARATE DUAL OUTLET DIVERTER; 60" FLEXIBLE METAL HOSE; 1 MODE HAND SHOWER; DUAL CHECKS; 1 MODE SHOWERHEAD; 1.5 GPM STANDARD FLOW RESTRICTORS; IN-LINE VACUUM BREAKER; STANDARD POLISHED CHROME FINISH PROVIDE A 3" FD-1 FLOOR DRAIN	
P-9	ICE MAKER UTILITY BOX	–		OATEY MODEL 38490 ICE MAKER OUTLET BOX, 1/4 TURN BRASS BALL VALVE WITH WATER HAMMER ARRESTOR, COPPER SWEAT, PROVIDE FLEXIBLE BRAIDED HOSE FOR CONNECTION TO EQUIPMENT.	
P-10	OUTDOOR SHOWER DUAL PANEL		OUTDOOR SHOWER	SECUR-CARE MODEL LR1741FA, WALL SHOWER, FRONT ACCESS PANEL, MOUNTING FRAME, FABRICATED FROM 14 GAUGE, TYPE 304 STAINLESS STEEL WITH A #4 SATIN FINISH, TRIM SHALL BE STAINLESS STEEL, SHOWER VALVE SHALL BE A SINGLE TEMPERATURE, PUSH BUTTON, AIR-CONTROL, METERING, NON-HOLD OPEN TYPE, CONICAL SHOWER HEAD, 1.6 FLOW RESTRICTOR, SPRAY PATTERN IS NON-ADJUSTABLE, VALVE TIMING FROM 5 SECONDS TO 60 SECONDS - SET FOR 15 SECONDS. THE COMPLETE UNIT SHALL INCLUDE AN UPPER SHOWER PANEL AND A LOWER SHOWER PANEL. THE LOWER SHOWER PANEL SHALL BE INVERTED WITH THE SHOWER HEAD ROTATED 180°. PIPING TO THE SHOWER HEAD SHALL BE SLOPED DOWN TO ALLOW PIPE DRAINAGE AFTER EACH OPERATING CYCLING. REFER TO THE ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHTS.	

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919-828-1876

CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

NORTH CAROLINA PROFESSIONAL SEAL 023940 ENGINEER ANTHONY W. BRANCH

2024.06.06 09:42:17-04'00'

SUBMITTAL

JUNE 07, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

PLUMBING SCHEDULES

PE001

DESIGN: AWB
DRAWN: AWB
REVIEW: CN

CN 10145

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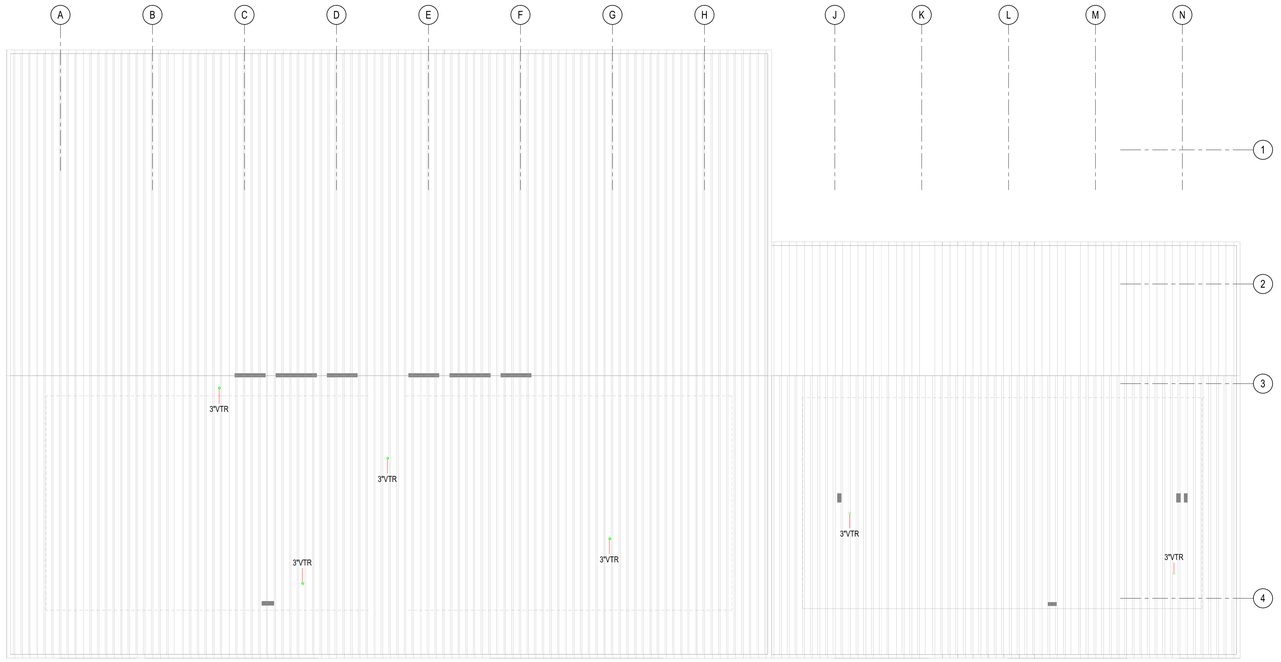
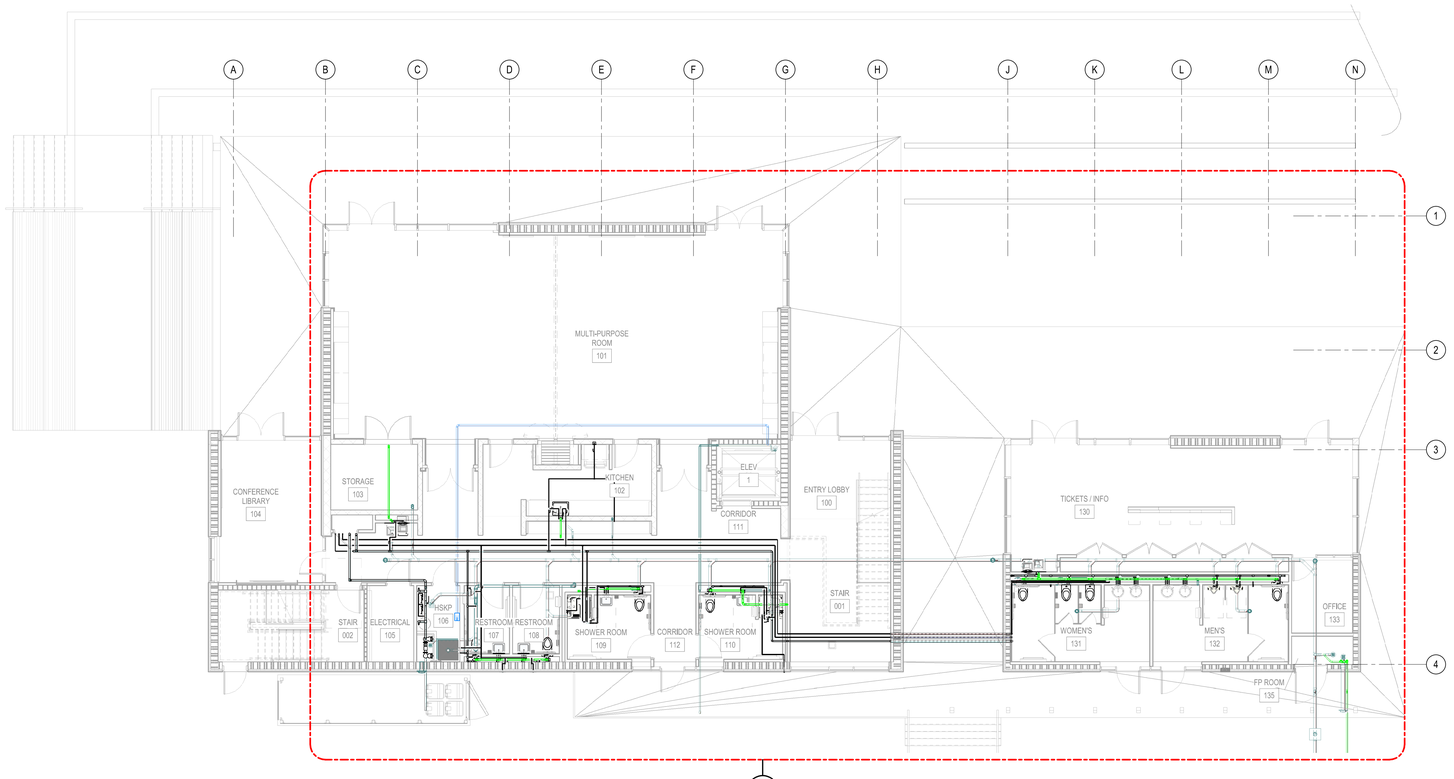


D1 ROOF PLUMBING PLAN

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



A1 LEVEL ONE PLUMBING PLAN

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

PLUMBING KEYNOTES

No.	DESCRIPTION
01	PIPING ROUTED BELOW THE FINISHED FLOOR SLAB OR THE FINISHED GRADE.
02	PIPING ROUTED EXPOSED AT THE STRUCTURE ABOVE OR CONCEALED ABOVE THE CEILING WITHIN THE FINISHED CEILING CAVITY.
03	FOR CONTINUATION OF THE PIPING FROM THIS POINT REFER TO THE SITE UTILITY DRAWINGS.
04	WATER HAMMER ARRESTOR SIZED PER PDI STANDARDS. LOCATED TO BE ACCESSIBLE FROM ABOVE THE CEILING.
05	PROVIDE SHOCK ABSORBER, SIOUX CHIEF MODEL 660 ON THE COLD WATER AND HOT WATER FLEX RISERS TO THE LAVATORY.
06	PROVIDE A 6" JR SMITH MODEL 1775-SC STAINLESS STEEL OVERFLOW NOZZLE COVER WITH BUG SCREEN AND HINGED COVER WITH A 6" CAST IRON PIPE THROUGH THE WALL.
07	P-10 UPPER AND LOWER SHOWER PANEL AIR ACTIVATED OPERATING VALVES LOCATED IN THE PLUMBING CHASE.

RATED PARTITION LEGEND

ONE HOUR FIRE RATING

TWO HOUR FIRE RATING

GRAPHIC SCALE(S)

1/8" = 1' - 0" 0 5' 10' 15' 30'

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PROFESSIONAL SEAL

NORTH CAROLINA PROFESSIONAL SEAL (23940) ENGINEER ANTHONY W. BRANDON

2024.06.06 09:42:48-04'00'

SUBMITTAL

JUNE 07, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

LEVEL ONE AND ROOF PLUMBING PLANS

PE101

DESIGN: AWB
DRAWN: AWB
REVIEW: CN

CN 10145

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PLUMBING KEYNOTES	
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07	P-10 UPPER AND LOWER SHOWER PANEL AIR ACTIVATED OPERATING VALVES LOCATED IN THE PLUMBING CHASE.

HEAT TAPE:

PROVIDE HEAT TAPE FOR THE FOLLOWING SYSTEMS ROUTED THROUGH THE UNCONDITIONED PIPE ENCLOSURE:

- COLD WATER
- HOT WATER
- HOT WATER RETURN

POWER CIRCUIT CONNECTION POINTS:
- REFER TO THE ELECTRICAL DRAWINGS

THE HEAT TAPE SHALL BE BASED ON THE FOLLOWING:
- 208 VOLT
- 4.1 WATTS PER FOOT

HEAT TAPE SHALL BE PROVIDED WITH THE FOLLOWING COMPONENTS:
- LINE SENSING THERMOSTATS:
- END SEAL KITS
- FIBERGLASS TAPE
- PIPE STRAPS
- CAUTION LABELS THAT HEAT TAPE IS BELOW THE INSULATION

HEAT TAPE BASED ON THE FOLLOWING MANUFACTURERS:
HEATLINE
PROTHERM
McMASTER-CARR

THE ELECTRIC WATER COOLER CHILLER WILL HAVE TO BE INSTALLED ON THE LEFT HAND SIDE OF THE UNIT TO AVOID A CONFLICT WITH THE WATER CLOSET CARRIER.

PIPING ROUTED THROUGH AN ENCLOSURE

B1 LEVEL ONE ENLARGED PLUMBING PLAN

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

RATED PARTITION LEGEND	
	ONE HOUR FIRE RATING
	TWO HOUR FIRE RATING

GRAPHIC SCALE(S)

1/4" = 1' - 0" 0 1' 5' 10' 15'

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CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

NORTH CAROLINA PROFESSIONAL SEAL 023940 ENGINEER ANTHONY W. BRANCATO

2024.06.06 09:46:00-04'00'

SUBMITTAL

JUNE 07, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

LEVEL ONE ENLARGED PLUMBING PLAN

PE102

DESIGN: AWB
DRAWN: AWB
REVIEW: CN

CN 10145

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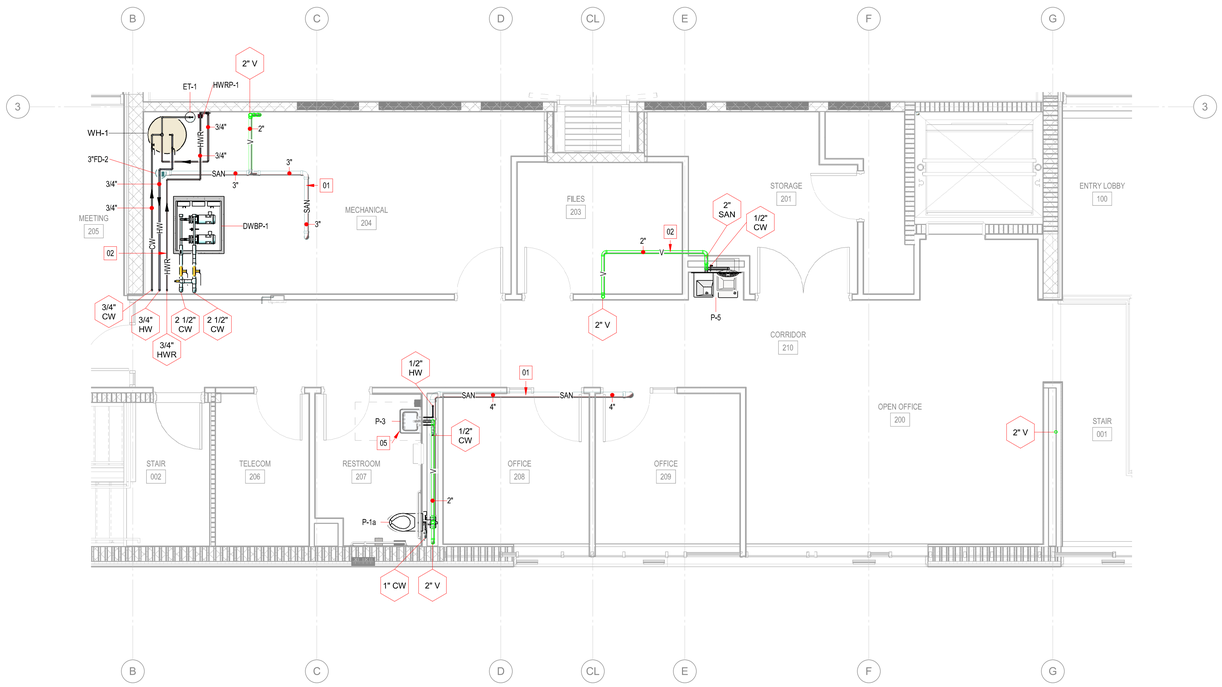
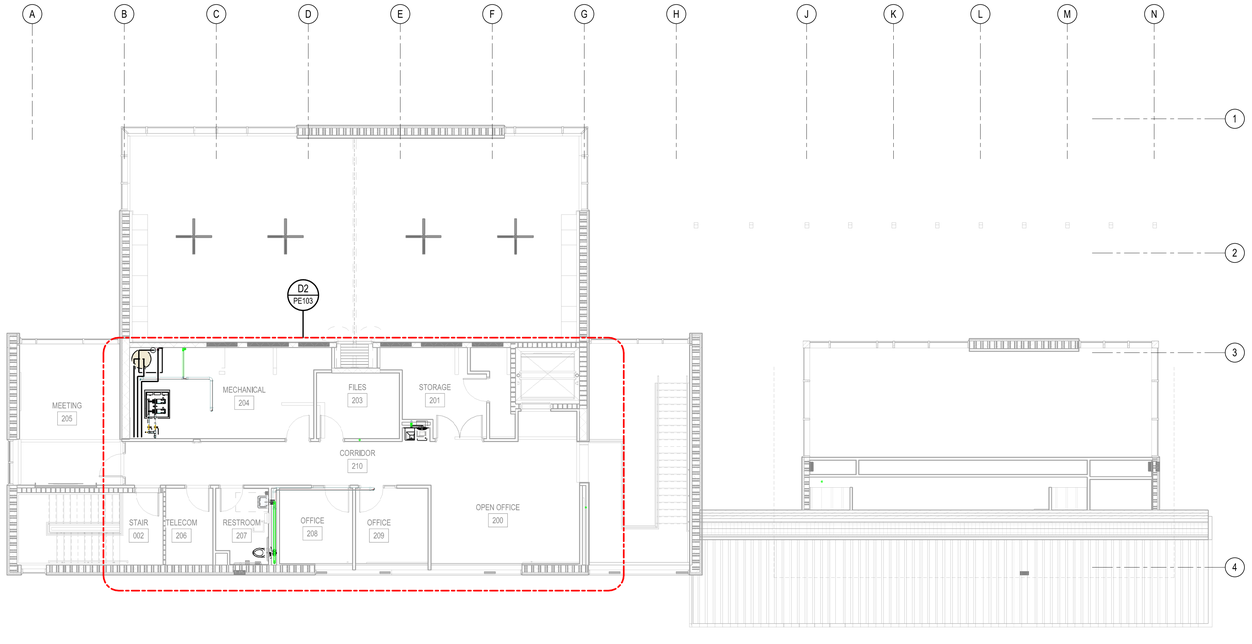


D2 LEVEL TWO ENLARGED PLUMBING PLAN

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



A2 LEVEL TWO PLUMBING PLAN

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

PLUMBING KEYNOTES

No.	DESCRIPTION
01	PIPING ROUTED BELOW THE FINISHED FLOOR SLAB OR THE FINISHED GRADE.
02	PIPING ROUTED EXPOSED AT THE STRUCTURE ABOVE OR CONCEALED ABOVE THE CEILING WITHIN THE FINISHED CEILING CAVITY.
03	FOR CONTINUATION OF THE PIPING FROM THIS POINT REFER TO THE SITE UTILITY DRAWINGS.
04	WATER HAMMER ARRESTOR SIZED PER PDI STANDARDS. LOCATED TO BE ACCESSIBLE FROM ABOVE THE CEILING.
05	PROVIDE SHOCK ABSORBER, SIOUX CHIEF MODEL 660 ON THE COLD WATER AND HOT WATER FLEX RISERS TO THE LAVATORY.
06	PROVIDE A 6" JR SMITH MODEL 1775-SC STAINLESS STEEL OVERFLOW NOZZLE COVER WITH BUG SCREEN AND HINGED COVER WITH A 6" CAST IRON PIPE THROUGH THE WALL.
07	P-10 UPPER AND LOWER SHOWER PANEL AIR ACTIVATED OPERATING VALVES LOCATED IN THE PLUMBING CHASE.

RATED PARTITION LEGEND

ONE HOUR FIRE RATING

TWO HOUR FIRE RATING

GRAPHIC SCALE(S)

1/8" = 1' - 0" 0 5' 10' 15' 30'

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145

SCO ID # : 24-27956-01A

DESIGNER

CLARKNEXSEN

421 NORTH HARRINGTON STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27603
919-828-1876

CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

NORTH CAROLINA PROFESSIONAL SEAL 023940 ENGINEER ANTHONY W. BRANNON

2024.06.06 09:46:37-04'00'

SUBMITTAL

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REVISIONS

KEY PLAN

SHEET

LEVEL TWO PLUMBING PLANS

PE103

DESIGN: AWB
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REVIEW: CN

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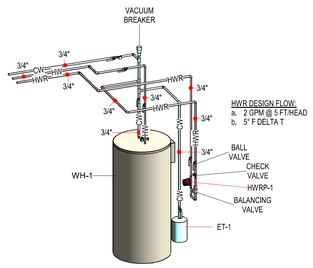
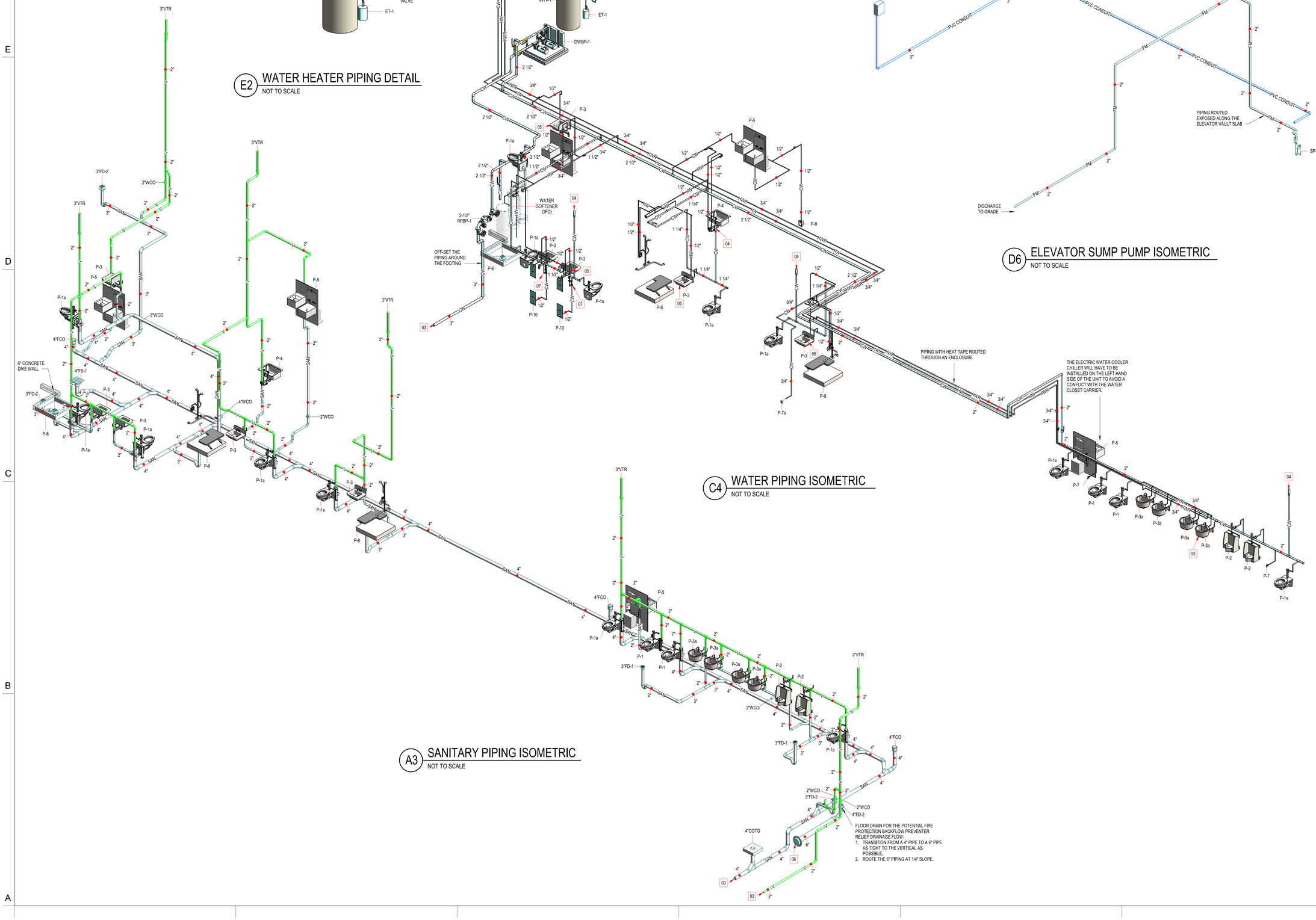
PLUMBING KEYNOTES	
No.	DESCRIPTION
01	PIPING ROUTED BELOW THE FINISHED FLOOR SLAB OR THE FINISHED GRADE.
02	PIPING ROUTED EXPOSED AT THE STRUCTURE ABOVE OR CONCEALED ABOVE THE CEILING WITHIN THE FINISHED CEILING CAVITY.
03	FOR CONTINUATION OF THE PIPING FROM THIS POINT REFER TO THE SITE UTILITY DRAWINGS.
04	WATER HAMMER ARRESTOR SIZED PER PDI STANDARDS. LOCATED TO BE ACCESSIBLE FROM ABOVE THE CEILING.
05	PROVIDE SHOCK ABSORBER, SIOUX CHIEF MODEL 660 ON THE COLD WATER AND HOT WATER FLEX RISERS TO THE LAVATORY.
06	PROVIDE A 6" JR SMITH MODEL 1775-SC STAINLESS STEEL OVERFLOW NOZZLE COVER WITH BUG SCREEN AND HINGED COVER WITH A 6" CAST IRON PIPE THROUGH THE WALL.
07	P-10 UPPER AND LOWER SHOWER PANEL AIR ACTIVATED OPERATING VALVES LOCATED IN THE PLUMBING CHASE.

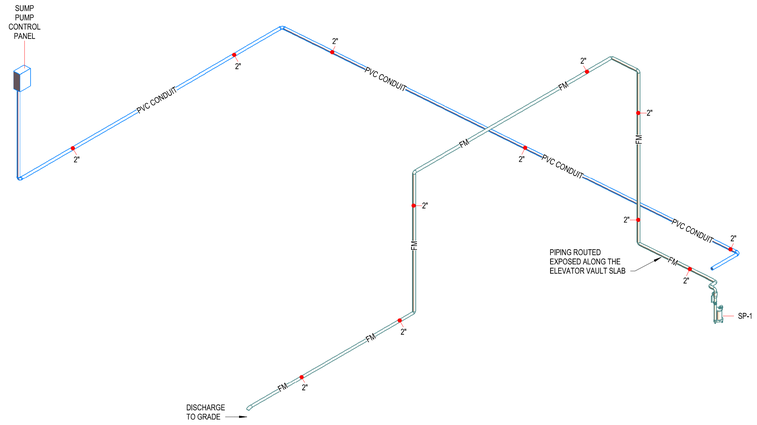


E2 WATER HEATER PIPING DETAIL
NOT TO SCALE



A3 SANITARY PIPING ISOMETRIC
NOT TO SCALE

C4 WATER PIPING ISOMETRIC
NOT TO SCALE



D6 ELEVATOR SUMP PUMP ISOMETRIC
NOT TO SCALE

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2024.06.06 09:45:31-04'00'

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KEY PLAN

SHEET

ISOMETRICS

PE201

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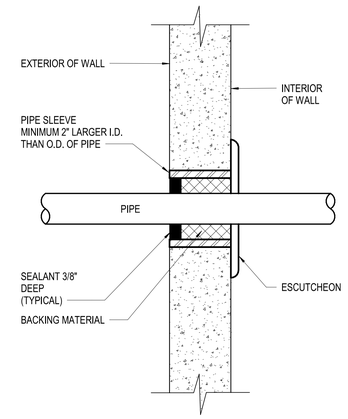
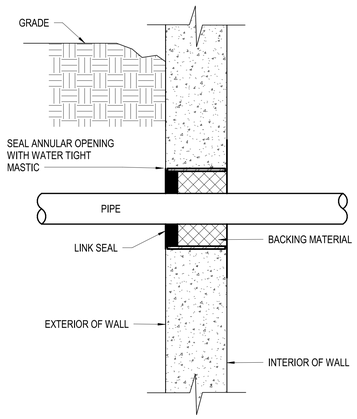
RATED ASSEMBLIES SCHEDULE

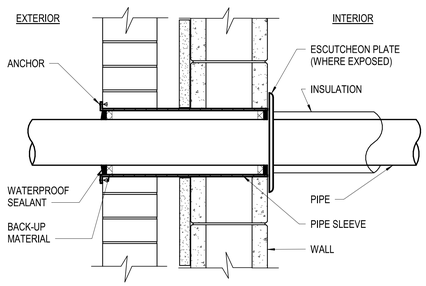
PENETRATING ITEM	CONCRETE BLOCK	GYPSUM WALL	CONCRETE FLOOR
SINGLE METAL PIPE	C-AJ 1226 (3 HR F RATING)	W-L 1054 (2 HR F RATING)	F-A 1016 (2 HR F RATING)
	C-AJ 1278 (3 HR F RATING)	W-L 1164 (2 HR F RATING)	F-A 1105 (2 HR F & T RATING)
	C-AJ 1597 (3 HR F & 2.75 HR T RATING)	W-L 1410 (2 HR F RATING)	
	C-AJ 1610 (2 HR F & T RATING)		
MULTIPLE METAL PIPES	C-AJ 5044 (3 HR F RATING)	W-L 1389 (2 HR F RATING)	F-A 1127 (2 HR F & T RATING)
		W-L 1408 (2 HR F RATING)	F-A 1066 (3 HR F RATING)
INSULATED METAL PIPE	C-AJ 5091 (2 HR F RATING, 1 HR T RATING)	W-L 5096 (2 HR F RATING)	F-A 5015 (2 HR F RATING)
	C-AJ 5096 (2 HR F RATING)	W-L 5027 (2 HR F RATING)	F-A 5016 (3 HR F & T RATING)



E3 ABOVE GRADE PIPE PENETRATION
NO SCALE

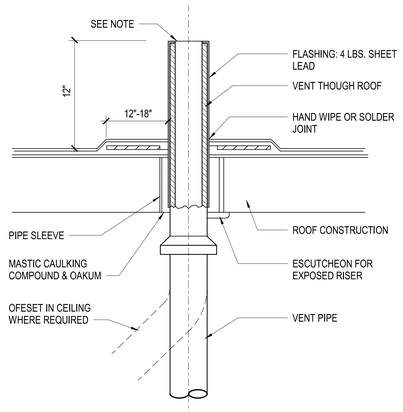


E5 BELOW GRADE PIPE PENETRATION
NO SCALE



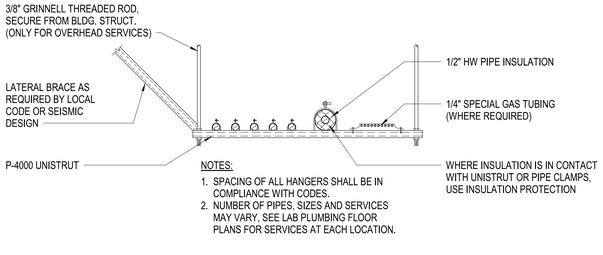
NOTE:
SET SLEEVE IN WALL AND ANCHOR DURING WALL CONSTRUCTION

C3 PIPE SLEEVE THRU EXTERIOR WALL
NO SCALE



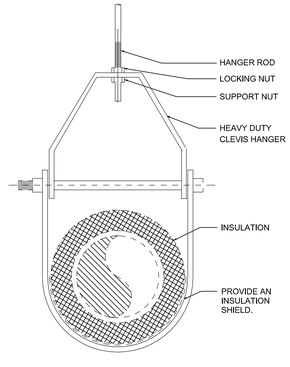
NOTE: 24" MIN. FROM ANY WALL OR VERTICAL SURFACE, COORDINATE WITH HVAC UNIT LOCATIONS.

C5 VENT THRU ROOF DETAIL
NO SCALE



NOTES:
1. SPACING OF ALL HANGERS SHALL BE IN COMPLIANCE WITH CODES.
2. NUMBER OF PIPES, SIZES AND SERVICES MAY VARY. SEE LAB PLUMBING FLOOR PLANS FOR SERVICES AT EACH LOCATION.

A1 TYPICAL OVERHEAD TRAPEZE PIPING SUPPORT
NO SCALE



MAXIMUM PIPE SUPPORT SPACING				
	HORIZONTAL			VERTICAL
PIPE SIZE	1"	1 1/4"	1 1/2" AND LARGER	ALL PIPE SIZES
COPPER PIPING	6 FT		10 FT	10 FT
PIPE SIZE	ALL PIPE SIZES			ALL PIPE SIZES
CAST IRON PIPING	5 FT, (10 FT WHERE 10 FOOT LENGTH OF PIPE ARE USED)			15 FT

NOTE: FOR TRAPEZE HANGER TAKE SPACING OF SMALLEST PIPE ON TRAPEZE.

A5 CLEVIS HANGER DETAIL
NO SCALE

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2024.06.06 09:44:49-04'00'

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REVISIONS

KEY PLAN

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PLUMBING DETAILS

PE300

DESIGN: AWB
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GENERAL

1	CONSTRUCTION NOTE IDENTIFICATION
	INDICATES NEW ITEM

ABBREVIATIONS

AD	ACCESS DOOR
ADJ	ADJUSTABLE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AFMS	AIRFLOW MEASUREMENT STATION
ALT	ALTERNATE
ALUM	ALUMINUM
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL
AVG	AVERAGE
BFF	BELOW FINISHED FLOOR
BFG	BELOW FINISHED GRADE
BFP	BACKFLOW PREVENTER
BHP	BRAKE HORSEPOWER
BLDG	BUILDING
BTU	BRITISH THERMAL UNIT
BTUH	BTU PER HOUR
CFM	CUBIC FEET PER MINUTE
CLG	COOLING
CONT	CONTINUATION
COP	COEFFICIENT OF PERFORMANCE
DB	DRY BULB
DDC	DIRECT DIGITAL CONTROL
DEG	DEGREE
DIA	DIAMETER
DP	DIFFERENTIAL PRESSURE
DPT	DEW POINT TEMPERATURE
DWG	DRAWING
DX	DIRECT EXPANSION
EAT	ENTERING AIR TEMPERATURE
ECM	ELECTRONICALLY COMMUTATED MOTOR
EER	ENERGY EFFICIENCY RATIO
EMCS	ENERGY MANAGEMENT CONTROL SYSTEM
ENT	ENTERING
ESP	EXTERNAL STATIC PRESSURE
EWT	ENTERING WATER TEMPERATURE
FPM	FEET PER MINUTE
FT	FEET
GA	GAUGE
GAL	GALLON
GALV	GALVANIZED
GPM	GALLONS PER MINUTE
GR	GRAINS OF MOISTURE
HP	HORSEPOWER
HR	HOUR
HSPF	HEATING SEASONAL PERFORMANCE FACTOR
HTG	HEATING
IEER	INTEGRATED ENERGY EFFICIENCY RATIO
IN	INCH
IPLV	INTEGRATED PART LOAD VALUE
KW	KILOWATT
LAT	LEAVING AIR TEMPERATURE
LB	POUND
LBS	POUNDS
LVG	LEAVING
LWT	LEAVING WATER TEMPERATURE
MAX	MAXIMUM
MBH	BTUH, THOUSANDS
MCDB	MEAN COINCIDENT DRY BULB
MCWB	MEAN COINCIDENT WET BULB
MERV	MINIMUM EFFICIENCY REPORTING VALUE
MIN	MINIMUM
MISC	MISCELLANEOUS
NA	NOT APPLICABLE
NC	NOISE CRITERIA
NIC	NOT IN CONTRACT
NR	NO REQUIREMENT
NTS	NOT TO SCALE
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
PD	PRESSURE DROP
PRV	PRESSURE REDUCING VALVE
PSI	POUNDS PER SQUARE INCH
RBJ	RUN BETWEEN JOISTS
RH	RELATIVE HUMIDITY
RM	ROOM
RPM	REVOLUTIONS PER MINUTE
RTJ	RUN THROUGH JOISTS
SEER	SEASONAL ENERGY EFFICIENCY RATIO
SP	STATIC PRESSURE
SQFT	SQUARE FEET
TEMP	TEMPERATURE
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
VAV	VARIABLE AIR VOLUME
VFD	VARIABLE FREQUENCY DRIVE
W/	WITH
W/O	WITHOUT
WG	WATER GAUGE

DUCTWORK

SINGLE LINE	DOUBLE LINE	
12x12	12x12	RECTANGULAR DUCT TAG (WIDTHxHEIGHT)
		RECTANGULAR DUCT
		RECTANGULAR SUPPLY DUCT TURN DOWN
		RECTANGULAR EXHAUST DUCT TURN DOWN
		RECTANGULAR RETURN DUCT TURN DOWN
		RECTANGULAR SUPPLY DUCT TURN UP
		RECTANGULAR EXHAUST DUCT TURN UP
		RECTANGULAR RETURN DUCT TURN UP
		RECTANGULAR DUCT TAP
		MITERED ELBOW WITHOUT TURNING VANES
		MITERED ELBOW WITH TURNING VANES
		RECTANGULAR DUCT RADIUS ELBOW (R=1.5W)
12ø	12ø	ROUND DUCT DIAMETER (INCHES)
		ROUND DUCT
		SUPPLY ROUND DUCT TURNING DOWN
		EXHAUST ROUND DUCT TURNING DOWN
		RETURN ROUND DUCT TURNING DOWN
		SUPPLY ROUND DUCT TURNING UP
		EXHAUST ROUND DUCT TURNING UP
		RETURN ROUND DUCT TURNING UP
		ROUND DUCT TAP
		ROUND DUCT RADIUS ELBOW (R=1.5D)
		CONCENTRIC DUCT TRANISTION
		ECCENTRIC DUCT TRANSITION
		FLEXIBLE DUCT
		ACOUSTICALLY LINED DUCTWORK
		SUPPLY AIRFLOW
		RETURN, EXHAUST, OR TRANSFER AIRFLOW
		INCLINED RISE WITH RESPECT TO AIRFLOW
		DECLINED DROP WITH RESPECT TO AIRFLOW

DUCTWORK ACCESSORIES

	FLEXIBLE DUCT CONNECTOR
	VOLUME DAMPER
BD	BACK DRAFT DAMPER
M	MOTORIZED CONTROL DAMPER
	VERTICAL FIRE DAMPER
	VERTICAL COMBINATION FIRE/SMOKE DAMPER
	VERTICAL SMOKE DAMPER
	HORIZONTAL FIRE DAMPER
	HORIZONTAL COMBINATION FIRE/SMOKE DAMPER
	HORIZONTAL SMOKE DAMPER

AIR DISTRIBUTION DEVICES

	CEILING SUPPLY AIR DEVICE
	ACTIVE THROW DIRECTION (TYP) INACTIVE / BLOCKED DIRECTION (TYP)
	CEILING SUPPLY AIR DEVICE WITH 2-WAY DIRECTIONALTHROW (OTHER CONFIGURATIONS SIMILAR)
	CEILING RETURN OR TRANSFER AIR DEVICE
	CEILING EXHAUST AIR DEVICE
	SIDEWALL AIR DEVICE
A6 (CFM)	AIR DEVICE TYPE. REFER TO SCHEDULE NECK DIAMETER (INCHES) AIR DEVICE WITH ROUND NECK TAG
G22/22 (CFM)	AIR DEVICE TYPE. REFER TO SCHEDULE NECK WIDTH / LENGTH (INCHES) AIR DEVICE WITH RECTANGULAR NECK TAG
E8-2-48 (CFM)	AIR DEVICE TYPE. REFER TO SCHEDULE NECK DIAMETER (INCHES) NUMBER OF SLOTS LENGTH OF SLOT (INCHES) LINEAR SLOT WITH ROUND NECK TAG

PIPING

SINGLE LINE	DOUBLE LINE	
6" CWS	6" CWS	PIPE TAG (DIAMETER AND SYSTEM ABBREVIATION)
		PIPE
		HYDRONIC PIPE TURN DOWN
		HYDRONIC PIPE TURN UP
		HYDRONIC PIPE TEE
		HYDRONIC PIPE TOP CONNECTION
		HYDRONIC PIPE BOTTOM CONNECTION
		DRAIN PIPE TURN DOWN
		DRAIN PIPE TURN UP
		DRAIN PIPE TEE
CO		CAPPED PIPE
	CO	CLEAN OUT

VALVES AND PIPING ACCESSORIES

	AUTOMATIC AIR VENT
	AUTOMATIC FLOW CONTROL VALVE
	BACKFLOW PREVENTER
	BALL VALVE
	BUTTERFLY VALVE
	CHECK VALVE
	CONCENTRIC REDUCER
	DIRECTION OF FLOW
	ECCENTRIC REDUCER
	FLANGED CONNECTION
	FLEXIBLE CONNECTION
	FLOW METER
	ISOLATION VALVE (BALL VALVE FOR 2" & UNDER, BUTTERFLY VALVE FOR 2-1/2" AND LARGER)
	GATE VALVE
	GLOBE VALVE
	MANUAL AIR VENT
	METERED BALANCING VALVE W/ PRESSURE TAPS
	NEEDLE VALVE
W,C,F	PIPE ANCHOR (W=WALL, C=CEILING, F=FLOOR)
	PIPE GUIDE
	PIPE SLEEVE
	PITCH
	PLUG VALVE
	PRESSURE GAUGE WITH GAUGE COCK
	PRESSURE REDUCING VALVE
PT	PRESSURE RELIEF VALVE
	PRESSURE/TEMPERATURE TEST PLUG
	SQUARE HEAD COCK
	STEAM TRAP
	STRAINER
	STRAINER W/ BLOW DOWN VALVE
	TWO-WAY CONTROL VALVE
	THREE-WAY CONTROL VALVE
	THERMOMETER
	THERMOSTATIC RADIATOR VALVE
	UNION
	VACUUM BREAKER

PIPING SYSTEM ABBREVIATIONS

D	CONDENSATE DRAIN
RL	REFRIGERANT LIQUID
RS	REFRIGERANT SUCTION
RS/RL	REFRIGERANT SUCTION/LIQUID

RATED PARTITION LEGEND

	ONE HALF HOUR FIRE RATING
	ONE HOUR FIRE RATING
	TWO HOUR FIRE RATING
	THREE HOUR FIRE RATING
	FOUR HOUR FIRE RATING
(SB)	SMOKE BARRIER (SB), SMOKE PARTITION (SP), OR PARTITION CAPABLE OF RESISTING THE PASSAGE OF SMOKE (S), AS NOTED

CONTROLS

AFMS	AIRFLOW MEASUREMENT STATION
AI0	ANALOG INPUT (TO PANEL)
AO0	ANALOG OUTPUT (OUT OF PANEL)
DI0	DIGITAL INPUT (TO PANEL)
DO0	DIGITAL OUTPUT (OUT OF PANEL)
CO2	CARBON DIOXIDE SENSOR
CO	CARBON MONOXIDE SENSOR
C	COMMON
	CONTROL WIRING (SIGNAL PATH)
CT	CURRENT TRANSMITTER
DP	DIFFERENTIAL PRESSURE SWITCH
DPS	DIFFERENTIAL PRESSURE SENSOR
DSD	DUCT SMOKE DETECTOR
EM	ELECTRIC METER
ECM	ELECTRONICALLY COMMUTATED MOTOR
ES	END SWITCH
E	EMERGENCY SHUTDOWN SWITCH
F	FAN ON-OFF SWITCH
VSF	FAN VARIABLE SPEED SWITCH
FL	FLOAT SWITCH
FS	FLOW SWITCH
FM	FLOW METER
FZ	FREEZESTAT
GM	GAS METER
HL	HIGH LIMIT TEMPERATURE SENSOR
H	HUMIDISTAT
H	HUMIDITY SENSOR
HT	HUMIDITY TRANSMITTER
TCP	LOCAL TEMPERATURE CONTROL PANEL
M	MOTOR
MS	MOTOR STARTER
NC	NORMALLY CLOSED
NO	NORMALLY OPENED
EP	POWER WIRING
OS	OCCUPANCY SENSOR
S	SENSOR
P	STATIC PRESSURE SENSOR
S	SWITCH
T	TEMPERATURE SENSOR
TT	TEMPERATURE TRANSMITTER
T	THERMOSTAT
TC	TIME CLOCK
VFD	VARIABLE FREQUENCY DRIVE
WM	WATER METER
C/C	COOLING COIL
	FAN
	FILTER
H/X	HEAT EXCHANGER
H/C	HEATING COIL
	PUMP

GENERAL NOTES

1. GENERAL NOTES ON THIS DRAWING ARE APPLICABLE TO EACH MECHANICAL DRAWING OF THIS SET. NOTES SPECIFIC TO INDIVIDUAL MECHANICAL DRAWINGS WILL BE SHOWN ON THE RESPECTIVE MECHANICAL DRAWING.
2. PROVIDE A COMPLETE HVAC SYSTEM TO INCLUDE ALL LABOR, MATERIALS, TOOLS, AND EQUIPMENT FOR A COMPLETE AND FUNCTIONAL SYSTEM INCLUDING ALL NECESSARY APPURTENANCES CUSTOMARILY INCLUDED IF NOT SPECIFICALLY CALLED OUT.
3. CONFORM WITH ALL APPLICABLE LAWS, CODES, AND REGULATIONS OF MUNICIPAL, STATE AND FEDERAL AUTHORITIES, INCLUDING THE 2018 NORTH CAROLINA MECHANICAL CODE AND 2018 NORTH CAROLINA ENERGY CONSERVATION CODE.
4. CONFORM TO APPLICABLE ASHRAE, NFPA, AND SMACNA STANDARDS AND OTHER REGULATORY BODIES HAVING JURISDICTION OVER THE CLASS OF WORK
5. MATERIALS AND EQUIPMENT SHALL HAVE STAMPS OR SEALS OF ARI, ASME, UL, AND ASTM.
6. MAKE TESTS FOR ACCEPTANCE AND APPROVAL AS REQUIRED BY CODE AND THE REQUIREMENTS OF APPLICABLE REGULATORY AGENCIES. REQUIRED TESTS SHALL BE PERFORMED IN THE PRESENCE OF THE CONTRACTING OFFICER UNLESS OTHERWISE WAIVED IN WRITING.
7. OBTAIN AND PAY FOR ALL PERMITS, LICENSES, DOCUMENTS, AND SERVICES RELATED TO INSTALLATION OF THE WORK.
8. COORDINATE WORK WITH THE OTHER TRADES IN ORDER TO RESOLVE ANY CONFLICT THAT MIGHT ARISE DUE TO THE LOCATION OF EQUIPMENT OR THE USE OF SPACE
9. EQUIPMENT OF HIGHER ELECTRICAL CHARACTERISTICS MAY BE SUBSTITUTED PROVIDED SUCH PROPOSED EQUIPMENT IS APPROVED IN WRITING AND CONNECTING ELECTRICAL SERVICE, CIRCUIT BREAKERS AND CONDUIT SIZES ARE APPROPRIATELY MODIFIED AT NO COST TO THE OWNER.
10. RUN ALL HORIZONTAL PIPING AND DUCTWORK ABOVE CEILING UNLESS OTHERWISE NOTED.
11. CUT OPENINGS, AS REQUIRED, IN THE EXISTING CONSTRUCTION FOR THE INSTALLATION OF PIPING, DUCTWORK, AND EQUIPMENT. PATCH AND REPAIR TO MATCH THE EXISTING ADJACENT CONSTRUCTION.
12. MAKE DUCT PENETRATIONS OF ALL WALLS WITH SHEET METAL DUCTS. FLEXIBLE DUCT PENETRATIONS OF WALLS ARE NOT ACCEPTABLE.
13. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATION OF DIFFUSERS, REGISTERS, AND GRILLES. FINISH AND COLOR TO BE SELECTED BY ARCHITECT FROM MANUFACTURER'S STANDARD PALETTE.
14. DUCTWORK SIZES ARE INSIDE CLEAR DIMENSIONS.
15. ALL ELBOWS IN DUCTWORK SHALL BE RADIUS ELBOWS UNLESS OTHERWISE NOTED. WHERE SQUARE ELBOWS ARE SHOWN, INSTALL DOUBLE WALL TURNING VANES. RADIUS ELBOWS SHALL HAVE A MINIMUM CENTERLINE RADIUS OF CURVATURE OF 1.5 TIMES DUCT WIDTH OR DIAMETER
16. DO NOT INSTALL EQUIPMENT, PIPING OR DUCTWORK OVER ANY ELECTRICAL EQUIPMENT OR ELECTRICAL SERVICE SPACE.
17. LAYOUT OF PIPING AND DUCTWORK IS DIAGRAMMATIC. RUN ALL EXPOSED PIPING AND DUCTWORK AS HIGH AS POSSIBLE UNLESS OTHERWISE NOTED. ALLOW FOR RISES, DROPS AND OFFSETS AS REQUIRED.
18. EXTEND DRAIN LINES AS INDICATED. ALL CONDENSATE DRAIN PIPING SHALL BE TRAPPED UNLESS SPECIFIED TO BE PUMPED AND PITCHED DOWN IN DIRECTION OF FLOW A MINIMUM OF 1/8" PER FOOT.
19. INSTALL MECHANICAL EQUIPMENT TO FACILITATE SERVICING, MAINTENANCE, AND REPAIR OR REPLACEMENT OF EQUIPMENT COMPONENTS. CONNECT EQUIPMENT FOR EASE OF DISCONNECTING, WITH A MINIMUM OF INTERFERENCE WITH OTHER INSTALLATIONS. PIPING SHALL NOT INTERFERE WITH FILTER PULL. MAINTAIN EQUIPMENT MANUFACTURER'S RECOMMENDED MINIMUM SERVICE CLEARANCE.
20. MECHANICAL CONTRACTOR SHALL PROVIDE AUTOMATIC CONTROL DEVICES, SUCH AS TEMPERATURE SENSORS, RELAYS, PRESSURE SWITCHES WHICH ARE ASSOCIATED WITH MECHANICAL EQUIPMENT AND ASSOCIATED CONTROL WIRING FROM STARTER TO THE CONTROL DEVICE. ELECTRICAL CONTRACTOR SHALL PROVIDE CONDUIT AND WIRING FROM POWER SOURCE TO DISCONNECT SWITCH, FROM DISCONNECT SWITCH TO STARTER, AND FROM STARTER TO THE EQUIPMENT.
21. ALL CONTROL WIRING EXCEPT IN EQUIPMENT ROOMS SHALL BE RUN CONCEALED. WIRING IN WALLS SHALL BE IN CONDUIT. ALL WIRING SHALL BE PLENUM RATED. CONTROL WIRING IN EXPOSED AREAS SHALL BE BUNDLED AND SECURED OR RUN IN CONDUIT. NO WIRING SHALL BE SURFACE MOUNTED IN FINISHED SPACES. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE.
22. LOCATE THERMOSTATS 48" ABOVE FINISHED FLOOR OR AS NOTED ON THE PLANS.
23. FOR EQUIPMENT WITH WATER CONNECTIONS, OR ANY COOLING EQUIPMENT, PROVIDE AUXILIARY DRAIN PANS UNDER EQUIPMENT LOCATED ABOVE CEILINGS.
24. LOCATE AND SIZE 5 1/2" THICK CONCRETE HOUSEKEEPING PADS AND CURBS IN ACCORDANCE WITH ACTUAL EQUIPMENT PURCHASED. EXTEND PAD BEYOND EQUIPMENT FOR 6" IN ALL DIRECTIONS.
25. REFER TO ELECTRICAL DRAWINGS FOR VOLTAGE AND PHASE REQUIREMENTS FOR ALL EQUIPMENT REQUIRING AN ELECTRICAL CONNECTION.
26. REFER TO SPECIFICATION SECTIONS 01 91 13 "GENERAL COMMISSIONING REQUIREMENTS" AND 230800 "COMMISSIONING OF HVAC" FOR COMMISSIONING REQUIREMENTS.

DUCT CONSTRUCTION AND LEAKAGE SCHEDULE

SYSTEM	SYSTEM DUCT TYPE	TYPE OF PRESSURE	SMACNA PRESSURE CLASS (IN WG)	SEAL CLASSIFICATION (PER SMACNA)	RECTANGULAR LEAKAGE CLASS (CFM/100 SQFT AT 1IN. WG)	ROUND AND FLAT OVAL LEAKAGE CLASS (CFM/100 SQFT AT 1IN. WG)
SUPPLY AIR DUCTWORK	FROM FAN COIL UNIT TO SUPPLY OUTLETS	POSITIVE	2	A	6	3
RETURN AIR DUCTWORK	ALL RETURN DUCTWORK	NEGATIVE	3	A	6	3
EXHAUST AND OUTSIDE AIR DUCTWORK	DUCTWORK UNDER POSITIVE CONDITIONS	POSITIVE	3	A	6	3
EXHAUST AND OUTSIDE AIR DUCTWORK	DUCTWORK UNDER NEGATIVE CONDITIONS	NEGATIVE	3	A	6	3
TRANSFER AND RELIEF AIR DUCTWORK	DUCTWORK UNDER POSITIVE CONDITIONS	POSITIVE	2	A	6	3

INDOOR DESIGN CONDITIONS SCHEDULE

SPACE TYPE	SUMMER		WINTER	
	DB (°F)	RH (%)	DB (°F)	RH (%)
CONDITIONED FOR COMFORT HEATING AND COOLING	75.0	50	70	-
UTILITY, STORAGE, AND TOILET ROOMS	80.0	50	60	-

OUTDOOR DESIGN CONDITIONS SCHEDULE

DESIGN CONDITION	DB (°F)	WB (°F)	NOTES
SUMMER	87.0	78.0	ASHRAE 1% COOLING DB / MCWB
WINTER	25.4	-	ASHRAE 99.6% HEATING DB
DEHUMIDIFICATION	83.4	80.1	ASHRAE 1% DEHUMIDIFICATION DPT / MCDB
AIR-COOLED HEAT REJECTION	97.0	-	AMBIENT +10°F

MARITIME HERITAGE FOUNDATION
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Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145

SCO ID # : 24-27956-01A

DESIGNER

CLARKNEXSEN
421 NORTH HARRINGTON STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27603
919-828-1876
CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

NORTH CAROLINA PROFESSIONAL 055364 ENGINEER WILLIAM G. CASTELLEDO 2024.06.06 10:29:40-04'00'

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

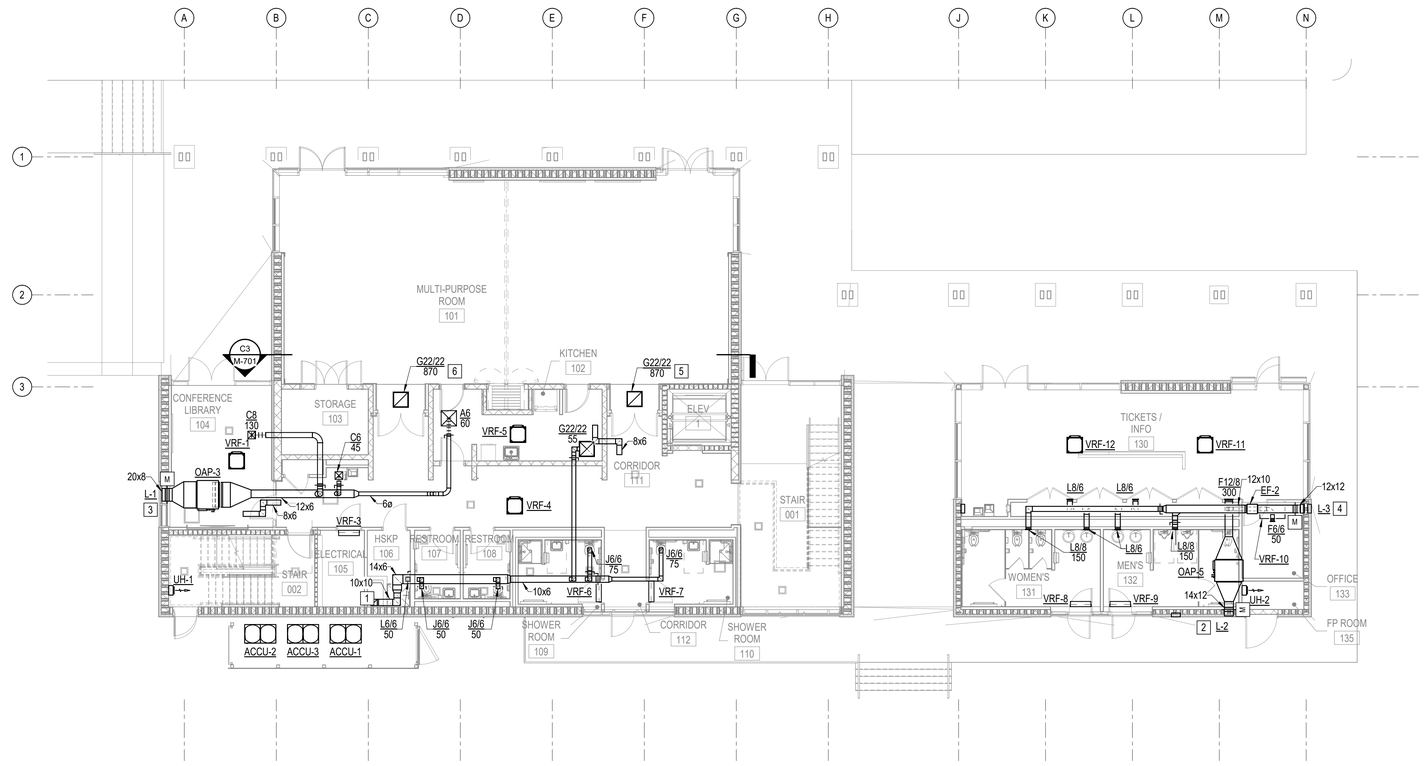
MECHANICAL LEGEND

M-001

DESIGN: WGC
DRAWN: KFO
REVIEW: KAD

CN 10145

6/5/2024 9:17:36 AM
Autodesk Docs://Maritime Education Center/10145_Maritime Education Center_M23.rvt
1500



FIRST FLOOR HVAC FLOOR PLAN

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

GENERAL NOTES

1 SEE SHEET M-001 FOR LEGEND AND GENERAL NOTES.
2 REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR VRF DIMENSIONAL LOCATIONS.

KEY NOTES

1 10" X 10" EA DUCT UP TO SECOND FLOOR.
2 INTAKE LOUVER. MINIMUM 0.4 SQUARE FEET FREE AREA. REFER TO ARCHITECTURAL SHEET AE621 FOR EXACT SIZE AND LOCATION.
3 INTAKE LOUVER. MINIMUM 0.3 SQUARE FEET FREE AREA. REFER TO ARCHITECTURAL SHEET AE621 FOR EXACT SIZE AND LOCATION.
4 EXHAUST LOUVER. MINIMUM 0.4 SQUARE FEET FREE AREA. REFER TO ARCHITECTURAL SHEET AE621 FOR EXACT SIZE AND LOCATION.
5 22"X22" DUCTWORK UP TO VRF-16 ON SECOND FLOOR. PROVIDE 1" MATTED FIBERGLASS INSULATION FOR SOUND ATTENUATION.
6 22"X22" DUCTWORK UP TO VRF-14 ON SECOND FLOOR. PROVIDE 1" MATTED FIBERGLASS INSULATION FOR SOUND ATTENUATION.

GRAPHIC SCALE(S)

1/8" = 1' - 0" 0 5' 10' 15' 30'

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SCO ID # : 24-27956-01A

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919-828-1876
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PROFESSIONAL SEAL

NORTH CAROLINA PROFESSIONAL 025364 2024.06.06 10:30:16-04'00' ENGINEER WILLIAM G. CASTELLEDO

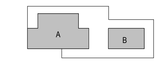
SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN



SHEET

FIRST FLOOR HVAC FLOOR PLAN

MH101

DESIGN: WGC
DRAWN: KFO
REVIEW: KAD

CN 10145

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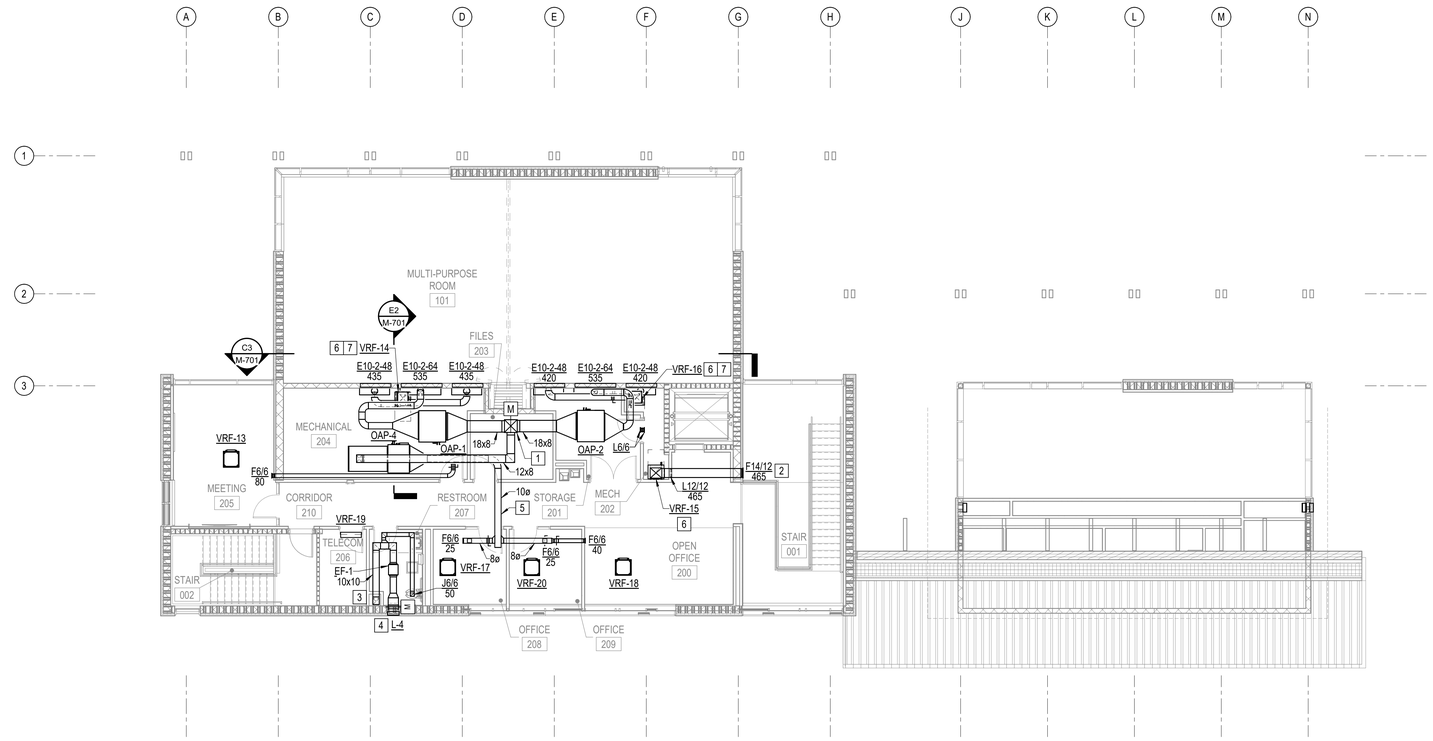

SECOND FLOOR HVAC FLOOR PLAN

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

GENERAL NOTES

1. SEE SHEET M-001 FOR LEGEND AND GENERAL NOTES.
2. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR VRF DIMENSIONAL LOCATIONS.

KEY NOTES

1. 20" X 20" UP TO GV-1 ON ROOF.
2. ADJUST BLADES TO THROW AIR ON ENTRY GLASS.
3. 10" X 10" EA DUCT DOWN TO FIRST FLOOR.
4. EXHAUST LOUVER. MINIMUM 0.5 SQUARE FEET FREE AREA. REFER TO ARCHITECTURAL SHEET AE621 FOR EXACT SIZE AND LOCATION.
5. RUN DUCT ADJACENT TO STRUCTURE.
6. PROVIDE UNISTRUT STAND FOR UNIT SUPPORT.
7. PROVIDE FIRESTOP OPENING PER HILTI SYSTEM NO. C-AJ-7111 OR APPROVED EQUAL.

GRAPHIC SCALE(S)

1/8" = 1' - 0" 0 5' 10' 15' 30'

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SCO ID # : 24-27956-01A

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919-828-1876
CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

SUBMITTAL

JUNE 7, 2024

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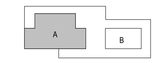
REVISIONS

KEY PLAN



SHEET

SECOND FLOOR HVAC FLOOR PLAN

MH102

DESIGN: WGC
DRAWN: KFO
REVIEW: KAD

CN 10145

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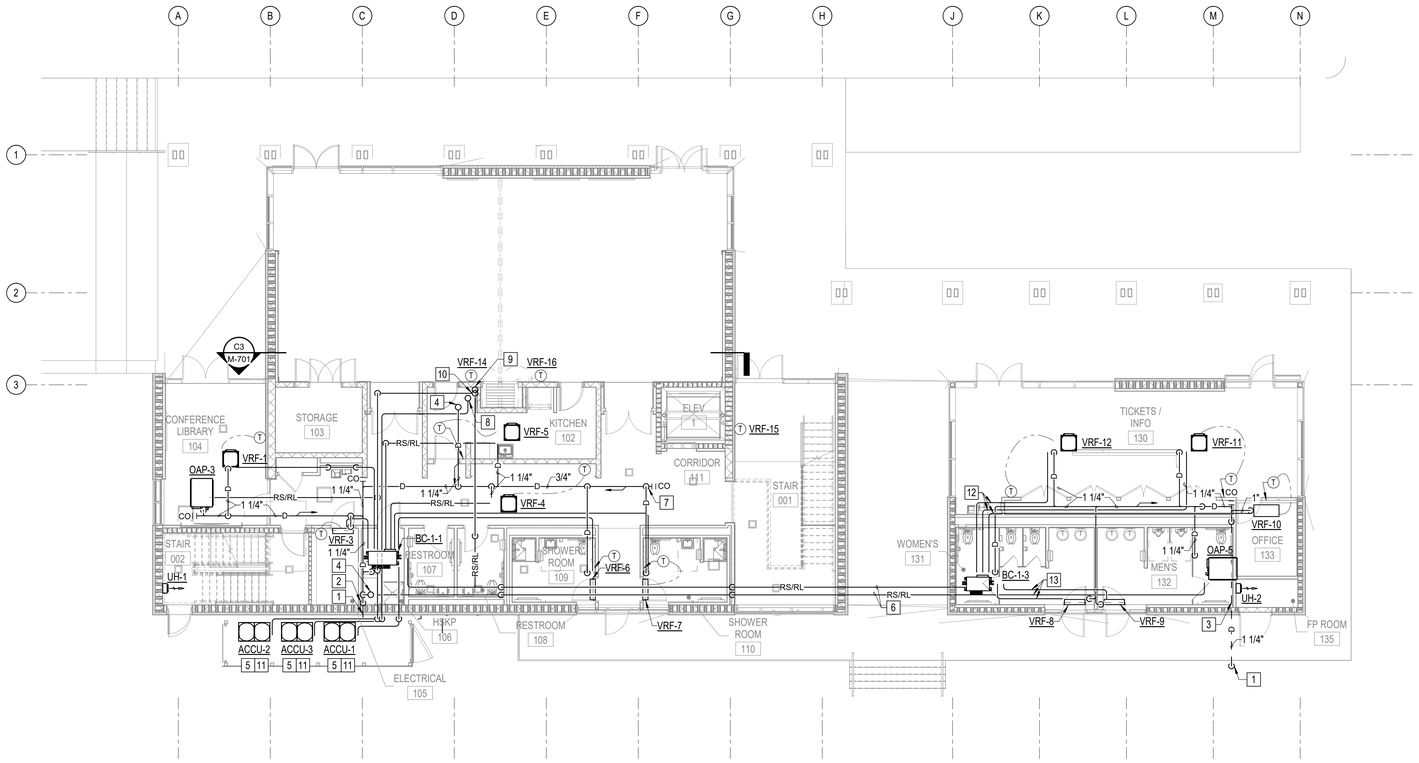

FIRST FLOOR PIPING FLOOR PLAN

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

GENERAL NOTES

1. SEE SHEET M-001 FOR LEGEND AND GENERAL NOTES.
2. ALL CONDENSATE DRAIN PIPING RUNOUTS ARE 3/4" UNLESS NOTED OTHERWISE.
3. PIPE IS RS/RL UNLESS OTHERWISE NOTED. SIZE PER MANUFACTURER'S REQUIREMENTS.
4. THE VARIABLE REFRIGERANT FLOW HVAC SYSTEM SHALL BE A DELEGATED DESIGN. ENGAGE A QUALIFIED PROFESSIONAL SPECIALIST, AS DEFINED IN SECTION 01 40 00 "QUALITY REQURIEMENTS," TO DESIGN COMPLETE AND OPERATION VRF HVAC SYSTEM(S) COMPLYING WITH REQUIREMENTS INDICATED ON THE DRAWINGS AND SPECIFICATIONS SECTION 23 81 29.

KEY NOTES

1. TURN CONDENSATE DRAIN DOWN TO SPLASH BLOCK.
2. DROP CONDENSATE DRAIN TO 12" AFF AND PENETRATE THROUGH EXTERIOR WALL.
3. RUN CONDENSATE DRAIN UNDER SLAB.
4. 1-1/4" CONDENSATE DOWN FROM SECOND FLOOR. SEE MP102 FOR CONTINUATION.
5. REFER TO VRF PIPING SCHEMATIC FOR REFRIGERANT PIPING ROUTING.
6. ROUTE PIPING IN ARCHITECTURAL SOFFIT.
7. PUMPED CONDENSATE DRAIN. CONNNECT PUMPED CONENSATE INTO TO OF GRAVITY DRAIN, TYP.
8. RS/RL UP TO OAP-1 AND OAP-2.
9. RS/RL UP TO BC-1-2.
10. RS/RL UP TO OAP-4.
11. ELEVATE EQUIPMENT 2 FEET ABOVE THE BASE FLOOD ELEVATION LEVEL. REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR SUPPORT DETAILS.
12. RUN VRF PIPING WITHIN CEILING ABOVE CLOSET.
13. RUN REFRIGERANT PIPING ALONG PLAN SOUTH WALL.

GRAPHIC SCALE(S)

1/8" = 1' - 0" 0 5' 10' 15' 30'

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SCO ID # : 24-27956-01A

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RALEIGH, NORTH CAROLINA 27603
919-828-1876
CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

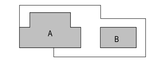
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 055364 2024.06.06 10:31:25-04'00' WILLIAM G. CASTELLECCI

SUBMITTAL

JUNE 7, 2024
BID DOCUMENTS

REVISIONS

KEY PLAN



SHEET

FIRST FLOOR PIPING FLOOR PLAN

MP101

DESIGN: WGC
DRAWN: KFO
REVIEW: KAD

CN 10145

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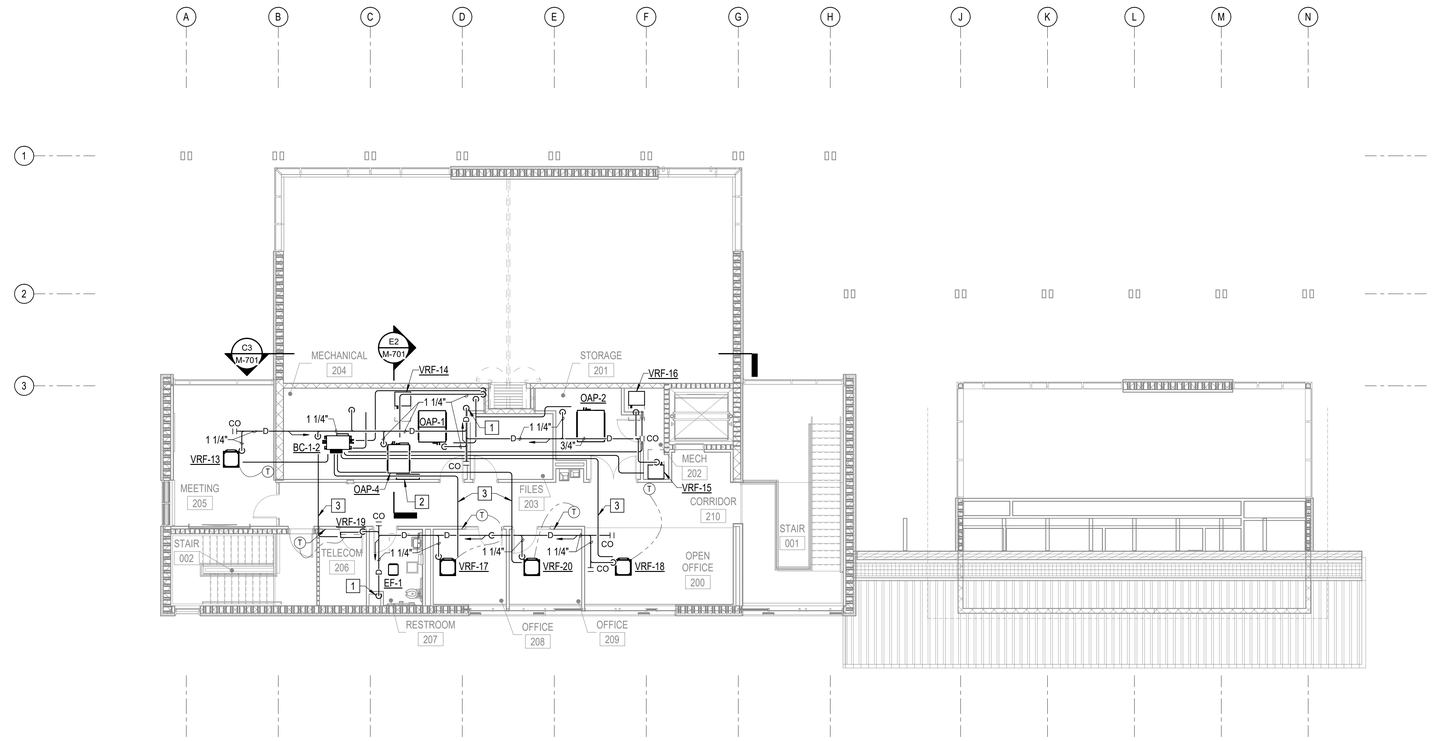

SECOND FLOOR PIPING FLOOR PLAN

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

GENERAL NOTES

1. SEE SHEET M-001 FOR LEGEND AND GENERAL NOTES.
2. ALL CONDENSATE DRAIN PIPING RUNOUTS ARE 3/4" UNLESS NOTED OTHERWISE.
3. PIPE IS RS/RL UNLESS OTHERWISE NOTED. SIZE PER MANUFACTURER'S REQUIREMENTS.
4. THE VARIABLE REFRIGERANT FLOW HVAC SYSTEM SHALL BE A DELEGATED DESIGN. ENGAGE A QUALIFIED PROFESSIONAL SPECIALIST, AS DEFINED IN SECTION 01 40 00 "QUALITY REQURIEMENTS," TO DESIGN COMPLETE AND OPERATION VRF HVAC SYSTEM(S) COMPLYING WITH REQUIREMENTS INDICATED ON THE DRAWINGS AND SPECIFICATIONS SECTION 23 81 29.

KEY NOTES

1. 1-1/4" CONDENSATE DOWN TO FIRST FLOOR. SEE MP101 FOR CONTINUATION.
2. VRF CENTRAL CONTROL PANEL AND FUTURE DDC CONTROL PANEL LOCATION.
3. RUN RS/RL PIPE ADJACENT TO STRUCTURE.

GRAPHIC SCALE(S)

1/8" = 1' - 0" 0 5' 10' 15' 30'

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DESIGNER

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421 NORTH HARRINGTON STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27603
919-828-1876
CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

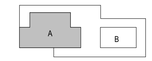
NORTH CAROLINA PROFESSIONAL 055364 2024.06.06 10:31:59-04'00' ENGINEER WILLIAM G. CASTELLEDO

SUBMITTAL

JUNE 7, 2024
BID DOCUMENTS

REVISIONS

KEY PLAN



SHEET

SECOND FLOOR PIPING FLOOR PLAN

MP102

DESIGN: WGC
DRAWN: KFO
REVIEW: KAD

CN 10145

6/5/2024 9:17:43 AM
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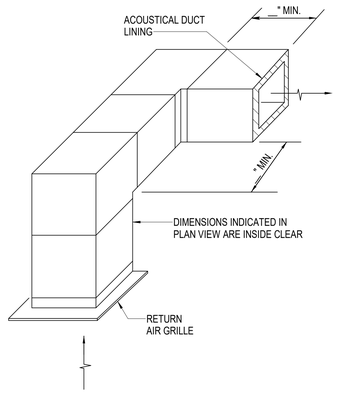
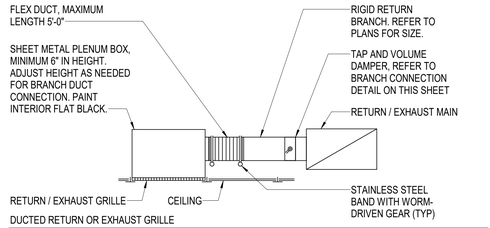
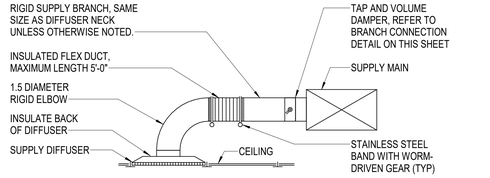


TRANSFER DUCT DETAIL

SCALE: NOT TO SCALE



DUCTED RETURN OR EXHAUST GRILLE

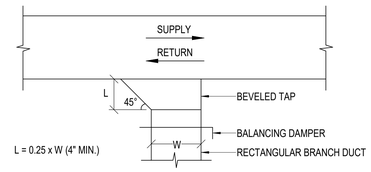


SUPPLY DIFFUSER

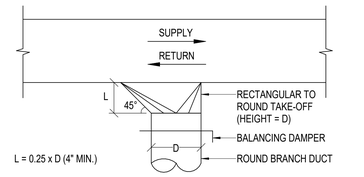
GENERAL NOTE: ALL DUCTWORK (FLEXIBLE AND METAL) MUST BE SUPPORTED PER SMACNA REQUIREMENTS.

TYPICAL AIR DEVICE DETAILS

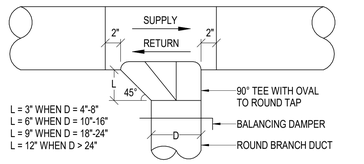
SCALE: NOT TO SCALE



RECTANGULAR MAIN - RECTANGULAR BRANCH



RECTANGULAR MAIN - ROUND BRANCH



ROUND (OR FLAT OVAL) MAIN - ROUND BRANCH

GENERAL NOTE: BALANCING DAMPERS ARE NOT SHOWN ON PLANS FOR CLARITY. PROVIDE BALANCING DAMPERS AT ALL SUB-MAIN AND BRANCH CONNECTIONS.

TYPICAL BRANCH CONNECTION DETAILS

SCALE: NOT TO SCALE

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293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145

SCO ID # : 24-27956-01A

DESIGNER

CLARKNEXSEN

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RALEIGH, NORTH CAROLINA 27603
919-828-1876

CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

NORTH CAROLINA PROFESSIONAL 055364 ENGINEER WILLIAM G. CASTELLEDA 2024.06.06 10:42:11-04'00'

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

DETAILS

M-501

DESIGN: WGC
DRAWN: KFO
REVIEW: KAD

CN 10145

6/5/2024 9:17:43 AM
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VRF INDOOR UNIT SCHEDULE

MARK	TYPE	LOCATION	SUPPLY FAN		COOLING CAPACITY							MIN SEER	HEAT PUMP (REVERSE CYCLE)				SPLIT SYSTEM OUTDOOR UNIT		NOTES
			CFM	ESP	TOTAL COOLING (MBH)	SENSIBLE COOLING (MBH)	LATENT COOLING (MBH)	EAT (°F)		LAT (°F)			CAPACITY (MBH)	EAT (°F)	LAT (°F)	HSPF	MARK (OUTDOOR UNIT)	LOCATION	
								DB	WB	DB	WB			DB	DB				
VRF-1	4-WAY CASSETTE	102 CONFERENCE LIBRARY	595	-	17.8	14.7	3.1	75.0	62.5	52.0	51.9	14.0	9.6	70.0	85.0	8.0	ACCU-1	EQUIPMENT YARD	1,2,3,4,5,6,7
VRF-2	NOT USED																		
VRF-3	WALL MOUNTED	105 ELECTRICAL	60	-	1.4	1.4	0.0	75.0	62.5	52.0	51.9	14.0	1.0	70.0	85.0	8.0	ACCU-1	EQUIPMENT YARD	1,2,3,4,5,6,7
VRF-4	4-WAY CASSETTE	111 CORRIDOR	125	-	3.1	3.1	0.0	75.0	62.5	52.0	51.9	14.0	2.0	70.0	85.0	8.0	ACCU-1	EQUIPMENT YARD	1,2,3,4,5,6,7
VRF-5	4-WAY CASSETTE	102 KITCHEN	85	-	3.3	2.1	1.2	75.0	62.5	52.0	51.9	14.0	1.4	70.0	85.0	8.0	ACCU-1	EQUIPMENT YARD	1,2,3,4,5,6,8
VRF-6	WALL MOUNTED	109 SHOWER ROOM	60	-	1.4	1.4	0.0	75.0	62.5	52.0	51.9	14.0	1.0	70.0	85.0	8.0	ACCU-1	EQUIPMENT YARD	1,2,3,4,5,6,7
VRF-7	WALL MOUNTED	110 SHOWER ROOM	60	-	1.4	1.4	0.0	75.0	62.5	52.0	51.9	14.0	1.0	70.0	85.0	8.0	ACCU-1	EQUIPMENT YARD	1,2,3,4,5,6,7
VRF-8	WALL MOUNTED	131 WOMEN'S	130	-	3.2	3.2	0.0	75.0	62.5	52.0	51.9	14.0	2.1	70.0	85.0	8.0	ACCU-1	EQUIPMENT YARD	1,2,3,4,5,6,7
VRF-9	WALL MOUNTED	132 MEN'S	85	-	2.0	2.0	0.0	75.0	62.5	52.0	51.9	14.0	1.4	70.0	85.0	8.0	ACCU-1	EQUIPMENT YARD	1,2,3,4,5,6,7
VRF-10	1-WAY CASSETTE	133 OFFICE	120	-	3.2	2.9	0.3	75.0	62.5	52.0	51.9	14.0	1.9	70.0	85.0	8.0	ACCU-1	EQUIPMENT YARD	1,2,3,4,5,6,7
VRF-11	4-WAY CASSETTE	130 TICKETS/INFO	500	-	13.2	12.4	0.8	75.0	62.5	52.0	51.9	14.0	8.1	70.0	85.0	8.0	ACCU-1	EQUIPMENT YARD	1,2,3,4,5,6,7
VRF-12	4-WAY CASSETTE	130 TICKETS/INFO	500	-	13.2	12.4	0.8	75.0	62.5	52.0	51.9	14.0	8.1	70.0	85.0	8.0	ACCU-1	EQUIPMENT YARD	1,2,3,4,5,6,7
VRF-13	4-WAY CASSETTE	205 MEETING	160	-	5.7	3.9	1.8	75.0	62.5	52.0	51.9	14.0	2.6	70.0	85.0	8.0	ACCU-1	EQUIPMENT YARD	1,2,3,4,5,6,7
VRF-14	MULTI-POSITION AHU	204 MECHANICAL	870	0.3	26.9	21.6	5.3	75.0	62.5	52.0	51.9	14.0	14.1	70.0	85.0	8.0	ACCU-1	EQUIPMENT YARD	1,2,3,4,5,6,7
VRF-15	MULTI-POSITION AHU	202 MECH	465	0.3	12.1	11.5	0.6	75.0	62.5	52.0	51.9	14.0	7.5	70.0	85.0	8.0	ACCU-1	EQUIPMENT YARD	1,2,3,4,5,6,7
VRF-16	MULTI-POSITION AHU	202 MECH	840	0.3	25.7	20.7	5.0	75.0	62.5	52.0	51.9	14.0	13.6	70.0	85.0	8.0	ACCU-1	EQUIPMENT YARD	1,2,3,4,5,6,7
VRF-17	4-WAY CASSETTE	208 OFFICE	125	-	3.3	3.1	0.2	75.0	62.5	52.0	51.9	14.0	2.0	70.0	85.0	8.0	ACCU-1	EQUIPMENT YARD	1,2,3,4,5,6,7
VRF-18	4-WAY CASSETTE	200 OPEN OFFICE	430	-	11.1	10.6	0.5	75.0	62.5	52.0	51.9	14.0	7.0	70.0	85.0	8.0	ACCU-1	EQUIPMENT YARD	1,2,3,4,5,6,7
VRF-19	WALL MOUNTED	206 TELECOM	55	-	1.3	1.3	0.0	75.0	62.5	52.0	51.9	14.0	0.9	70.0	85.0	8.0	ACCU-1	EQUIPMENT YARD	1,2,3,4,5,6,7
VRF-20	4-WAY CASSETTE	209 OFFICE	125	-	3.3	3.1	0.2	75.0	62.5	52.0	51.9	14.0	2.0	70.0	85.0	8.0	ACCU-1	EQUIPMENT YARD	1,2,3,4,5,6,7

NOTES:
1. BASIS OF DESIGN: TRANE VRF. APPROVED EQUALS: DAIKIN, LG, SAMSUNG.
2. PROVIDE WITH MANUFACTURERS CONTROL PACKAGE.
3. PROVIDE DISCONNECT SWITCH.
4. PROVIDE MERV 11 FILTER.
5. SIZE PIPING PER MANUFACTURERS REQUIREMENTS.
6. PROVIDE MANUFACTURER'S STANDARD CONDENSATE PUMP.
7. 30" X 30" CASSETTE.
8. 22" X 22" CASSETTE.

OUTSIDE AIR PROCESSING UNIT SCHEDULE

MARK	LOCATION	SUPPLY FAN		COOLING COIL							MIN SEER	HEAT PUMP (REVERSE CYCLE)				SPLIT SYSTEM OUTDOOR UNIT	
		CFM	ESP	TOTAL COOLING (MBH)	SENSIBLE COOLING (MBH)	LATENT COOLING (MBH)	EAT (°F)		LAT (°F)			CAPACITY (MBH)	EAT (°F)	LAT (°F)	HSPF	MARK (OUTDOOR UNIT)	LOCATION
							DB	WB	DB	WB			DB	DB			
OAP-1	204 MECHANICAL	535	0.3	59.1	20.4	38.7	83.4	80.1	50.0	49.9	14.0	25.8	25.4	70.0	8.0	ACCU-2	EQUIPMENT YARD
OAP-2	201 STORAGE	535	0.3	59.1	20.4	38.7	83.4	80.1	50.0	49.9	14.0	25.8	25.4	70.0	8.0	ACCU-2	EQUIPMENT YARD
OAP-3	102 CONFERENCE LIBRARY	230	0.3	25.4	8.8	16.6	83.4	80.1	50.0	49.9	14.0	11.1	25.4	70.0	8.0	ACCU-3	EQUIPMENT YARD
OAP-4	204 MECHANICAL	265	0.3	29.2	10.1	19.1	83.4	80.1	50.0	49.9	14.0	12.8	25.4	70.0	8.0	ACCU-3	EQUIPMENT YARD
OAP-5	132 MENS	350	0.3	38.6	13.3	25.3	83.4	80.1	50.0	49.9	14.0	16.9	25.4	70.0	8.0	ACCU-3	EQUIPMENT YARD

NOTES:
1. BASIS OF DESIGN: TRANE VRF.
2. PROVIDE WITH MANUFACTURERS CONTROL PACKAGE.
3. PROVIDE DISCONNECT SWITCH.
4. PROVIDE MERV 11 FILTER.
5. SIZE PIPING PER MANUFACTURERS REQUIREMENTS.
6. PROVIDE MANUFACTURER'S STANDARD CONDENSATE PUMP.

VRF OUTDOOR UNIT SCHEDULE

MARK	LOCATION	COOLING CAPACITY		HEAT PUMP (REVERSE CYCLE)		BASIS OF DESIGN		REFRIGERANT TYPE	NOTES
		TOTAL COOLING (MBH)	MIN EER	CAPACITY (MBH)	COP	MANUFACTURER	MODEL		
ACCU-1	EQUIPMENT YARD	127.4	11.0	91.6	2.25	TRANE	TUR	R-410A	1,2,3,4,6
ACCU-2	EQUIPMENT YARD	118.2	11.0	61.2	2.25	TRANE	NTX	R-410A	1,2,3,4,5
ACCU-3	EQUIPMENT YARD	93.2	11.0	48.4	2.25	TRANE	NTX	R-410A	1,2,3,4,5

NOTES:
1. PROVIDE WITH MANUFACTURERS CONTROL PACKAGE.
2. SIZE PIPING PER MANUFACTURERS REQUIREMENTS.
3. HEATING CAPACITY AND COP BASED ON 17°F DB OUTDOOR CONDITIONS.
4. VRF SYSTEM WITH HEAT RECOVERY.
5. UNIT ASSOCIATED WITH OUTDOOR AIR PROCESSING UNIT.
6. PROVIDE COIL AND CASING COATINGS WITH MINIUM 3,000 HOUR SALT SPRAY TEST (ASTM B117 AND ASTM D1654) COMPLIANCE FOR SEA COAST INSTALLATIONS.
7. AMBIENT DESIGN TEMPERATURE: MIN: 17°F; MAX: 97° F.

DIFFUSERS, REGISTERS AND GRILLES SCHEDULE

MARK	MODULE SIZE (IN)	SERVICE	MOUNTING	TYPE	MATERIAL	MAX PRESSURE DROP (IN. WG)	MAX NC	DAMPER TYPE	BASIS OF DESIGN		NOTES
									MANUFACTURER	MODEL	
A	24 X 24	SUPPLY	LAY-IN	PLAGUE	ALUMINUM	0.10	25	OPPOSED BLADE	TITUS	OMNI-AA	1,2,3,4,5
C	12 X 12 (NECK 6 & 8) 24 X 24 (NECK 10+)	SUPPLY	SURFACE MOUNT	3-CONE	ALUMINUM	0.10	25	OPPOSED BLADE	TITUS	TMS-AA	1,2,3,4,5
E	48 X 1	SUPPLY	SURFACE MOUNT	LINEAR SLOT	ALUMINUM	0.10	25	FACE-OPERATED BUTTERYFLY	TITUS	FL-10	1,2,7,8
F	NECK + 1.75	SUPPLY	SURFACE MOUNT	45° ADJUSTABLE BLADES	ALUMINUM	0.10	25	OPPOSED BLADE	TITUS	300FL	1,2,6
G	24 X 24	RETURN/ EXHAUST	LAY-IN	1/2"X1/2"X1/2" EGGCRATE	ALUMINUM	0.10	25	OPPOSED BLADE	TITUS	50F	1,2
J	NECK SIZE + 1.75"	RETURN/ EXHAUST	SURFACE MOUNT	1/2"X1/2"X1/2" EGGCRATE	ALUMINUM	0.10	25	OPPOSED BLADE	TITUS	50F	1,2,6
L	NECK + 1.75	RETURN / EXHAUST	SURFACE MOUNT	DOUBLE DEFLECTION	ALUMINUM	0.10	25	OPPOSED BLADE	TITUS	300FL	1,2,6

1. FINISH TO BE STANDARD COLOR AS SELECTED BY THE ARCHITECT.
2. COORDINATE BORDER TYPES AND MOUNTING FRAMES WITH ARCHITECTURAL REFLECTIVE CEILING PLANS.
3. MOLDED INSULATION BLANKET (R-6 MINIMUM).
4. 4-WAY THROW PATTERN UNLESS OTHERWISE NOTED ON FLOOR PLANS.
5. PROVIDE AIR BAFFLES AS NECESSARY TO ACHIEVE THROW PATTERN INDICATED ON PLANS.
6. PAINT INSIDE SURFACES OF DUCT VISIBLE FROM OUTSIDE DEVICE FLAT BLACK.
7. PROVIDE 2" TRIM FRAME PIECE.
8. PROVIDE INSULATED PLENUM.

MARITIME HERITAGE FOUNDATION
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Maritime Education Center

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CN PROJ # : 10145

SCO ID # : 24-27956-01A

DESIGNER

CLARKNEXSEN

421 NORTH HARRINGTON STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27603
919·828·1876

CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

NORTH CAROLINA PROFESSIONAL 17551 SEAL 2024.06.06 10:43:19-04'00' ENGINEER WILLIAM G. CASTELLISCHI

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

SCHEDULES

M-601

DESIGN: WGC
DRAWN: KFO
REVIEW: KAD

CN 10145

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EXHAUST FAN SCHEDULE

MARK	LOCATION	SERVICE	TYPE	CFM	ESP (IN. WG)	DRIVE	MAX HP	BASIS OF DESIGN	
								MANUFACTURER	MODEL
EF-1	207 RESTROOM	EXHAUST	INLINE	405	0.75	DIRECT	1/10	GREENHECK	SQ
EF-2	133 OFFICE	EXHAUST	INLINE	300	0.5	DIRECT	1/10	GREENHECK	SQ

1. DIRECT DRIVE EC MOTOR WITH FACTORY MOUNTED SPEED CONTROLLER.
2. PROVIDE DISCONNECT SWITCH.
3. PROVIDE GRAVITY BACKDRAFT DAMPER.

GRAVITY VENTILATOR SCHEDULE

MARK	LOCATION	SERVICE	APPLICATION	AIRFLOW (CFM)	THROAT SIZE (IN. ROUND)	MAX PRESSURE DROP (IN. WG)	BASIS OF DESIGN	
							MANUFACTURER	MODEL
GV-1	ROOF	OAP-1,2,4	INTAKE	1335	20	0.1	GREENHECK	GRSI

1. MAX INTAKE VELOCITY: 600 CFM
2. PROVIDE WITH BACKDRAFT DAMPER, GRAVITY OPERATED.
3. PROVIDE WITH INSECT SCREEN.

ELECTRIC UNIT HEATER SCHEDULE

MARK	LOCATION	TYPE	CAPACITY (KW)	CFM	MOUNTING HEIGHT (FT AFF)
UH-1	2 STAIR	SURFACE-MOUNT WALL	3.0	140	2
UH-2	2 STAIR	FLUSH-MOUNT WALL	3.0	140	2

NOTES: 1. BASIS OF DESIGN: TRANE UHAA.

LOUVER SCHEDULE

MARK	TYPE	AIR FLOW	MAX. FREE AREA VELOCITY	REQD. FREE AREA	MAX. PD	BASIS OF DESIGN - GREENHECK EHH					
						SIZE (IN)		LOUVER AREA	FREE AREA	FREE AREA VELOCITY	PD AT AIR FLOW
		(CFM)	(FPM)	(SF)	(IN. W.C.)	W	H	(SF)	(SF)	(FPM)	(IN. W.C.)
L-1	INTAKE	230	800	0.3	0.1	22	10	1.5	0.3	704	0.103
L-2	INTAKE	350	800	0.4	0.1	16	14	1.6	0.4	780	0.126
L-3	EXHAUST	300	800	0.4	0.1	14	14	1.4	0.4	786	0.144
L-4	EXHAUST	405	800	0.5	0.1	18	14	1.8	0.5	785	0.143

NOTES: 1. CLASS A WIND-DRIVEN RAIN LOUVERS
2. PROVIDE 1/2" BIRD SCREEN.

OUTDOOR AIR SCHEDULE

NUMBER	NAME	OCCUPANCY CATEGORY	ZONE FLOOR AREA	ZONE POPULATION	AIR DISTRIBUTION EFFECTIVENESS	MIN OUTDOOR AIRFLOW (CFM)	OUTDOOR AIRFLOW (CFM)
100	ENTRY LOBBY	Main entry lobbies	480	0	0.8	36	40
101	MULTIPURPOSE CLASSROOM 1	Classrooms (age 9 plus)	895	32	0.8	534.25	535
101	MULTIPURPOSE CLASSROOM 2	Classrooms (age 9 plus)	895	32	0.8	534.25	535
102	CONFERENCE LIBRARY	Conference / meeting	325	17	0.8	130.62	130
104	KITCHEN	Breakrooms (office buildings)	180	5	0.8	58.25	60
111	CORRIDOR	Corridors	560	0	0.8	42	45
130	STORAGE	Storage rooms	80	0	0.8	12	25
130	TICKETS/INFO	Main entry lobbies	480	6	0.8	73.5	300
133	OFFICE	Office space	105	1	0.8	14.12	50
200	CORRIDOR	Corridors	245	0	0.8	18.37	25
200	OPEN OFFICE	Office space	340	2	0.8	38	100
201	STORAGE	Storage rooms	165	0	0.8	24.75	25
203	FILES	Storage rooms	110	0	0.8	16.5	25
205	MEETING	Conference / meeting	195	10	0.8	77.12	80
208	OFFICE	Office space	90	1	0.8	13	50
209	OFFICE	Office space	90	1	0.8	13	50

MARITIME HERITAGE FOUNDATION
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293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145

SCO ID # : 24-27956-01A

DESIGNER

CLARKNEXSEN
421 NORTH HARRINGTON STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27603
919·828·1876
CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

NORTH CAROLINA PROFESSIONAL 055364 ENGINEER WILLIAM G. CASTELLEDA
2024.06.06 10:44:23-04'00'

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

SCHEDULES

M-602

DESIGN: WGC
DRAWN: KFO
REVIEW: KAD

CN 10145

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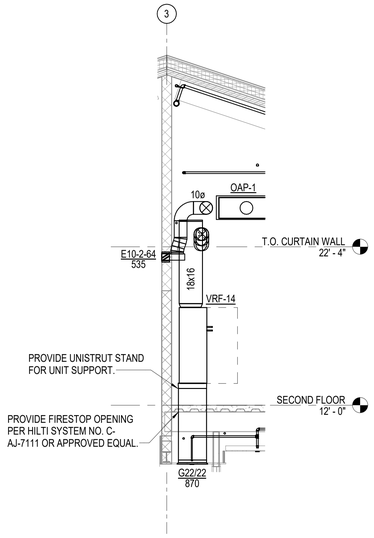


E2 SECTION

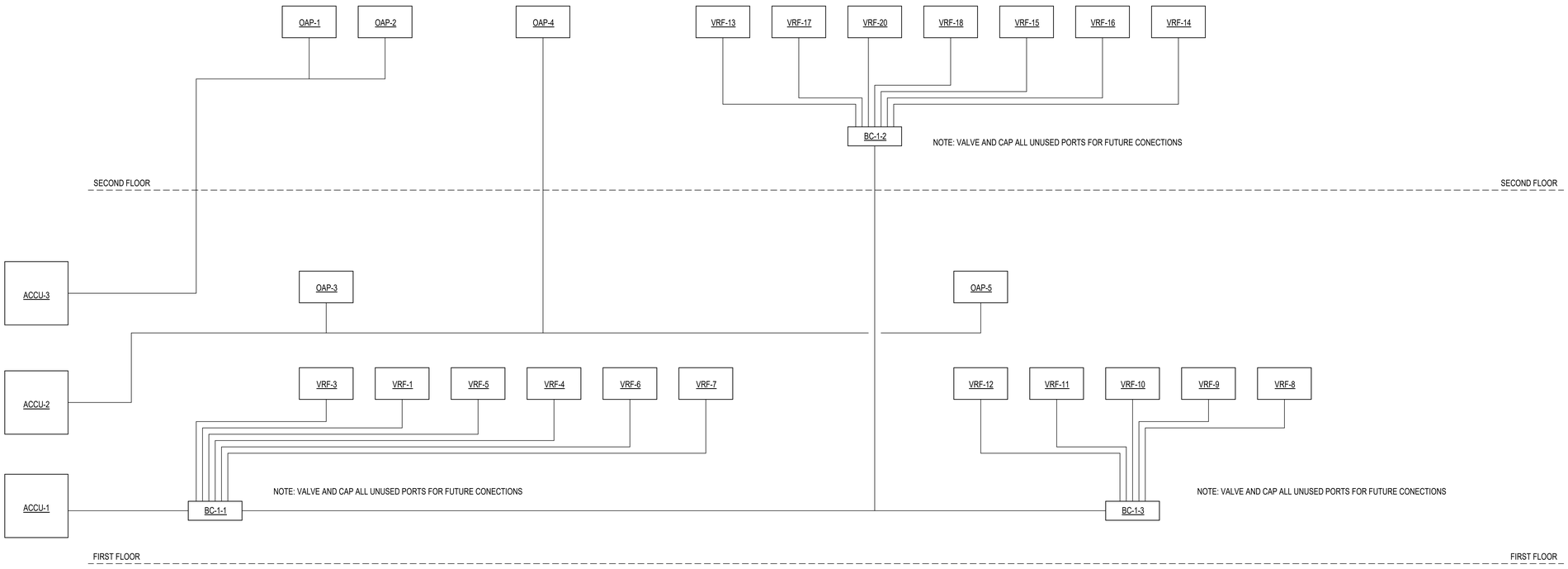
SCALE: 1/4" = 1'-0" | M-701

1/4" = 1' - 0" 0 1' 5' 10' 15'

C3 SECTION

SCALE: 1/4" = 1'-0" | MH101

1/4" = 1' - 0" 0 1' 5' 10' 15'



VRF SCHEMATIC

SCALE: NOT TO SCALE

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MARITIME HERITAGE FOUNDATION
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CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

SUBMITTAL

JUNE 7, 2024

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KEY PLAN

SHEET

DIAGRAMS AND SECTIONS

M-701

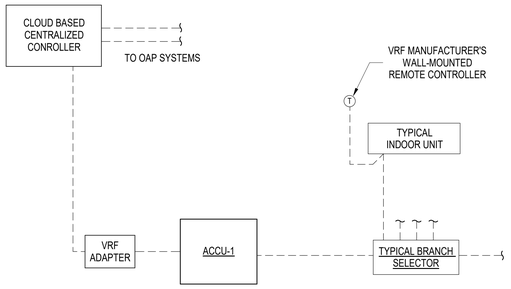
DESIGN: WGC
DRAWN: KFO
REVIEW: KAD

CN 10145

DDC POINTS LIST

INPUT							OUTPUT						
TYPE	POINT #	POINT DESCRIPTION	TREND	ALARM	GRAPHIC	NOTES	TYPE	POINT #	POINT DESCRIPTION	TREND	ALARM	GRAPHIC	NOTES
ANALOG	AI1	TYPICAL INDOOR UNIT SPACE TEMPERATURE (°F)	X	X	X	1;	ANALOG	AO1	COOLING TEMPERATURE SETPOINT (°F)	X		X	1;
	AI2	TYPICAL INDOOR UNIT DISCHARGE AIR TEMPERATURE (°F)	X		X	1;		AO2	HEATING TEMPERATURE SETPOINT (°F)	X		X	1;
DIGITAL	DI1	TYPICAL INDOOR UNIT ALARM STATUS	X	X	X	1;	DIGITAL	DO1	SYSTEM ENABLE	X		X	3;
	DI2	TYPICAL INDOOR UNIT FILTER STATUS	X	X	X	1;		DO2	FILTER STATUS RESET	X		X	1;
	DI3	TYPICAL INDOOR UNIT THERMOSTAT ON STATUS	X		X	1;							
	DI4	TYPICAL INDOOR UNIT FAN STATUS	X	X	X	1;							
	DI5	TYPICAL HEAT PUMP UNIT ALARM STATUS	X	X	X	2;							

NOTES:
1. POINT IS TYPICAL FOR EACH INDOOR UNIT.
2. POINT IS TYPICAL FOR EACH OUTDOOR UNIT.
3. POINT IS TYPICAL FOR EACH SYSTEM.
4. A BUILDING AUTOMATION SYSTEM IS NOT PART OF THIS PROJECT, BUT WILL BE PROVIDED IN A FUTURE PROJECT. BACNET POINTS INDICATED HERE MUST BE PROVIDED INTEGRAL TO THE EQUIPMENT FOR FUTURE CONNECTION.



SEQUENCE OF OPERATION

OVERVIEW:
THE VRF SYSTEMS SHALL OPERATE PER THEIR OWN INTERNAL SAFETIES AND CONTROLS. THE SYSTEMS WILL BE PROVIDED WITH A VRF ADAPTER FOR BACNET INTERFACE WITH A CLOUD BASED CENTRALIZED CONTROLLER. THE CENTRAL CONTROLLER SHALL ENABLE THE VRF SYSTEMS, SCHEDULE OCCUPANCY MODES, ADJUST SETPOINTS, AND MONITOR MISCELLANEOUS POINTS AS INDICATED.

ENABLEMENT:
UPON A CALL FOR HEATING OR COOLING FROM ANY INDOOR UNIT THE CENTRAL CONTROLLER SHALL ENABLE THE RESPECTIVE VRF SYSTEM. THE VRF SYSTEM SHALL ENERGIZE AND OPERATE PER ITS OWN INTERNAL CONTROLS AND SAFETIES. UPON ALL ZONE TEMPERATURES BEING SATISFIED, THE VRF SYSTEM SHALL DE-ENERGIZE AND BE DISABLED.

TO PREVENT SHORT CYCLING, THE HEAT PUMPS SHALL RUN FOR AND BE OFF FOR MINIMUM TIMES AS DETERMINED BY THE HEAT PUMP'S INTERNAL CONTROLS AND SAFETIES.

THE INDOOR UNITS CAN BE COMMANDED ON / OFF EITHER BY A USER DEFINED SCHEDULE IN THE CENTRAL CONTROLLER OR A USER OVERRIDE AT THE LOCAL CONTROLLER. IF ALL INDOOR UNITS ARE OFF, THE OUTDOOR UNIT MUST TURN OFF.

TYPICAL INDOOR UNIT CONTROLS:
THE INDOOR UNIT MUST MODULATE ITS INTERNAL LINEAR EXPANSION VALVE (LEV) TO MAINTAIN THE FOLLOWING TEMPERATURE SETPOINTS FOR HEATING AND COOLING VIA THE INDOOR UNIT'S INTERNAL CONTROLS:

- OCCUPIED MODE
  1. COOLING SETPOINT: 75F (ADJ.)
  2. HEATING SET POINT: 70F (ADJ.)
- UNOCCUPIED MODE:
  1. COOLING SETPOINT: 85F (ADJ.)
  2. HEATING SET POINT: 60F (ADJ.)

THE FAN MUST RUN ANYTIME THE UNIT IS COMMANDED TO RUN, UNLESS SHUT DOWN ON SAFETIES.

PROVIDE THE FOLLOWING ALARMS:
- HIGH SPACE TEMPERATURE: IF THE SPACE TEMPERATURE IS MORE THAN 5F (ADJ.) ABOVE SETPOINT FOR GREATER THAN 15 MINUTES (ADJ.).
- LOW SPACE TEMPERATURE: IF THE SPACE TEMPERATURE IS MORE THAN 5F (ADJ.) BELOW SETPOINT FOR GREATER THAN 15 MINUTES (ADJ.).
- ACTIVATION OF THE UNIT ALARM STATUS.

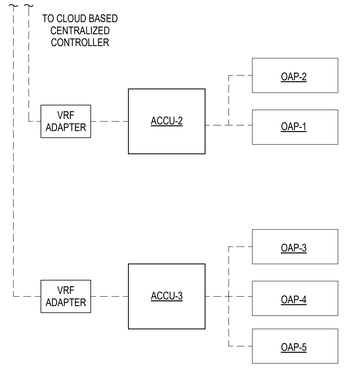
VRF WITH HEAT RECOVERY CONTROL DIAGRAM

SCALE: NOT TO SCALE

DDC POINTS LIST

INPUT							OUTPUT						
TYPE	POINT #	POINT DESCRIPTION	TREND	ALARM	GRAPHIC	NOTES	TYPE	POINT #	POINT DESCRIPTION	TREND	ALARM	GRAPHIC	NOTES
ANALOG	AI1	OAP UNIT DISCHARGE AIR TEMPERATURE (°F)	X	X	X	1;	ANALOG	AO1	COOLING TEMPERATURE SETPOINT (°F)	X		X	1;
	AI2	OUTDOOR AIR TEMPERATURE (°F)	X		X	2;		AO2	HEATING TEMPERATURE SETPOINT (°F)	X		X	1;
DIGITAL	DI1	OAP UNIT ALARM STATUS	X	X	X	1;	DIGITAL	DO1	SYSTEM ENABLE	X		X	3
	DI2	OAP UNIT FILTER STATUS	X	X	X	1;		DO2	FILTER STATUS RESET	X		X	1
	DI3	OAP UNIT FAN STATUS	X	X	X	1;							
	DI4	HEAT PUMP UNIT ALARM STATUS	X	X	X	2;							

NOTES:
1. POINT IS TYPICAL FOR EACH OUTSIDE AIR PROCCESSING UNIT.
2. POINT IS TYPICAL FOR EACH OUTDOOR UNIT.
3. POINT IS TYPICAL FOR EACH SYSTEM.
4. A BUILDING AUTOMATION SYSTEM IS NOT PART OF THIS PROJECT, BUT WILL BE PROVIDED IN A FUTURE PROJECT. BACNET POINTS INDICATED HERE MUST BE PROVIDED INTEGRAL TO THE EQUIPMENT FOR FUTURE CONNECTION.



SEQUENCE OF OPERATION

OVERVIEW:
THE VRF SYSTEMS SHALL OPERATE PER THEIR OWN INTERNAL SAFETIES AND CONTROLS. THE SYSTEMS WILL BE PROVIDED WITH A VRF ADAPTER FOR BACNET INTERFACE WITH A CLOUD BASED CENTRALIZED CONTROLLER. THE CENTRAL CONTROLLER SHALL ENABLE THE VRF SYSTEMS, SCHEDULE OCCUPANCY MODES, ADJUST SETPOINTS, AND MONITOR MISCELLANEOUS POINTS AS INDICATED.

ENABLEMENT:
ACCORDING TO THE OWNER'S OCCUPANCY SCHEDULE, THE CENTRAL CONTROLLER SHALL ENABLE AND ENERGIZE THE OUTSIDE AIR VRF SYSTEMS AND ALLOW IT TO OPERATE PER ITS OWN INTERNAL CONTROLS AND SAFETIES. DURING SCHEDULED UNOCCUPIED HOURS, THE VRF SYSTEMS SHALL DE-ENERGIZE AND BE DISABLED.

TO PREVENT SHORT CYCLING, THE HEAT PUMPS SHALL RUN FOR AND BE OFF FOR MINIMUM TIMES AS DETERMINED BY THE HEAT PUMP'S INTERNAL CONTROLS AND SAFETIES.

THE INDOOR UNITS CAN BE COMMANDED ON / OFF EITHER BY THE USER DEFINED SCHEDULE IN THE CENTRAL CONTROLLER OR A USER OVERRIDE AT THE LOCAL CONTROLLER OF ANY INDOOR UNIT ON THE NETWORK CONNECTED VRF SYSTEMS. IF THE OUTDOOR AIR PROCESSING UNIT IS OFF, THE OUTDOOR UNIT MUST TURN OFF. INTERLOCK OUTDOOR AIR DAMPER WITH THE UNIT. OPEN DAMPER WHEN UNIT IS ENABLED. CLOSE DAMPER WHEN UNIT IS OFF.

OUTSIDE AIR PROCCESSING UNIT CONTROLS:
THE OAP UNIT MUST MODULATE ITS INTERNAL LINEAR EXPANSION VALVE (LEV) TO MAINTAIN THE FOLLOWING LEAVING TEMPERATURE SETPOINTS FOR COOLING AND HEATING VIA THE UNIT'S INTERNAL CONTROLS:

- OCCUPIED MODE
  1. COOLING/DEHUMIDIFICATION MODE: WHEN THE OUTDOOR AIR TEMPERATURE IS ABOVE 60°F (ADJ.), MAINTAIN A DISCHARGE AIR TEMPERATURE OF 50°F (ADJ.).
  2. VENTILATION MODE: WHEN THE OUTDOOR AIR TEMPERATURE IS BELOW 60°F (ADJ.) AND ABOVE 50°F (ADJ.), DISABLE THE DX REFRIGERATION SYSTEM AND THE SUPPLY AIR TEMPERATURE SHALL FLOAT BETWEEN THE COOLING AND HEATING SUPPLY AIR SETPOINTS.
  3. HEATING MODE: WHEN THE OUTDOOR AIR TEMPERATURE IS BELOW 50°F (ADJ.), MAINTAIN A DISCHARGE AIR TEMPERATURE OF 70°F (ADJ.).
- UNOCCUPIED MODE
  1. UNIT IS OFF.

HIGH AND LOW TEMPERATURE LOCKOUTS MUST BE AVAILABLE AT THE CENTRAL CONTROLLER.

THE FAN MUST RUN ANYTIME THE UNIT IS COMMANDED TO RUN, UNLESS SHUT DOWN ON SAFETIES.

PROVIDE THE FOLLOWING ALARMS:
- HIGH DISCHARGE AIR TEMPERATURE: IF THE DISCHARGE TEMPERATURE IS MORE THAN 5F (ADJ.) ABOVE SETPOINT FOR GREATER THAN 15 MINUTES (ADJ.).
- LOW DISCHARGE AIR TEMPERATURE: IF THE DISCHARGE TEMPERATURE IS MORE THAN 5F (ADJ.) BELOW SETPOINT FOR GREATER THAN 15 MINUTES (ADJ.).
- ACTIVATION OF THE UNIT ALARM STATUS.

VRF OUTSIDE AIR PROCESSING SYSTEMS CONTROL DIAGRAM

SCALE: NOT TO SCALE

SEQUENCE OF OPERATIONS:
THE UNIT HEATER SHALL BE CONTROLLED BY ITS INTEGRAL THERMOSTAT TO MAINTAIN THE MANUALLY ADJUSTABLE SPACE TEMPERATURE SETPOINT.

ELECTRIC UNIT HEATER CONTROLS

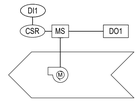
SCALE: NOT TO SCALE

DDC POINTS LIST

POINT #	POINT DESCRIPTION	TREND	ALARM	GRAPHIC
DI1	FAN STATUS	X	X	X
DO1	SYSTEM ENABLE	X		X

SEQUENCE OF OPERATION

EXHAUST FAN SHALL BE ENABLED ACCORDING TO OWNERS OCCUPANCY SCHEDULE. INTERLOCK EXHAUST FANS TO OAP UNITS. ON A FAILURE OF THE EXHAUST FAN AN ALARM SIGNAL MUST BE SENT TO THE DDC SYSTEM.



1. A BUILDING AUTOMATION SYSTEM IS NOT PART OF THIS PROJECT, BUT WILL BE PROVIDED IN A FUTURE PROJECT. BACNET POINTS INDICATED HERE MUST BE PROVIDED INTEGRAL TO THE EQUIPMENT FOR FUTURE CONNECTION.

EXHAUST FAN CONTROL DIAGRAM

SCALE: NOT TO SCALE

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SUBMITTAL

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BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

CONTROLS

M-801

DESIGN: WGC
DRAWN: KFO
REVIEW: KAD

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ELECTRICAL LEGEND

SYMBOL	DESCRIPTION
PROVIDE	**LIGHTING**
A NL	LIGHTING FIXTURE TYPE. SEE LIGHTING FIXTURE SCHEDULE ON SHEET EL601. "NL" INDICATES NIGHT LIGHT FIXTURE WITH UNSWITCHED BRANCH CIRCUIT WIRING, CONNECTED AHEAD OF ANY CONTROL SWITCHING.
	LIGHTING FIXTURE (⊣ INDICATES BRACKET, WALL MOUNTED FIXTURES).
	EMERGENCY LIGHTING FIXTURE (⊣ INDICATES BRACKET, WALL MOUNTED FIXTURES).
	EXIT LIGHTING FIXTURE. ARROW, WHEN USED, INDICATES DIRECTION (⊣ INDICATES BRACKET, WALL MOUNTED FIXTURES). FILLED IN QUADRANT(S) OF SYMBOL INDICATES NUMBER AND ORIENTATION OF ILLUMINATED FACES (SEE LEGEND NOTE 4).
	EMERGENCY BATTERY POWERED LIGHTING UNIT.
Sa	LOW VOLTAGE SWITCH. LOWER CASE LETTER INDICATES SWITCH TYPE (WATTAGE AS REQUIRED TO CONTROL THE FIXTURE(S) CONNECTED, UON. MOUNT 48" AFF UON.
S	SINGLE POLE SWITCH, 20A, 120/277V. MOUNT 48" AFF UON.
S2	DOUBLE POLE SWITCH, 20A, 120/277V. MOUNT 48" AFF UON.
S3	THREE WAY SWITCH, 20A, 120/277V. MOUNT 48" AFF UON.
S4	FOUR WAY SWITCH, 20A, 120/277V. MOUNT 48" AFF UON.
SD	DIMMER SWITCH (WATTAGE AS REQUIRED TO CONTROL THE FIXTURE(S) CONNECTED UON). MOUNT 48" AFF UON.
SOS	OCCUPANCY SENSOR CONTROLLER WALL MOUNTED 48" AFF UON.
(P)	PHOTO-ELECTRIC SWITCH, 208V RATED. INSTALL ON ROOF AND AIM TOWARDS NORTHERN SKY. SHIELD FROM ARTIFICIAL LIGHT SOURCES.
(OS)	OCCUPANCY SENSOR, CEILING MOUNTED
OS	OCCUPANCY SENSOR, WALL MOUNTED
	POWER DEVICES
	SINGLE OUTLET - 20A, 125VAC, MOUNT +48" AFF, UON.
C EWC	DUPLEX CONVENIENCE RECEPTACLE, 20A, 125VAC, MOUNT +18" AFF UON. "C" INDICATES CEILING MOUNTED RECEPTACLE. MOUNT FLUSH IN ACOUSTICAL CEILING TILE. SUPPORT RECEPTACLE FROM STRUCTURE. "EWC" INDICATES OUTLET FOR ELECTRIC WATER COOLER FED FROM GFI BREAKER. POSITION RECEPTACLE BEHIND WATER COOLER SO AS TO BE HIDDEN FROM SITE. COORDINATE EXACT MOUNTING HEIGHT AND POSITIONING WITH PLUMBING DWGS.
OR	DUPLEX CONVENIENCE RECEPTACLE, 20A, 125VAC. MOUNT +48" AFF OR +6" ABOVE BACKSPLASH OR COUNTERTOP WHERE COUNTER IS INDICATED.
	DUPLEX CONVENIENCE RECEPTACLE, 20A, 125VAC, WITH INTEGRAL CLASS A GROUND FAULT CIRCUIT INTERRUPTER. MOUNT +48" AFF OR +6" ABOVE BACKSPLASH OR COUNTERTOP WHERE COUNTER IS INDICATED.
WP	DUPLEX CONVENIENCE RECEPTACLE, 20A, 125VAC, WITH INTEGRAL CLASS A GROUND FAULT CIRCUIT INTERRUPTER. MOUNT +18" AFF UON. "WP" INDICATES WET LOCATION NEMA 4 RATED DEVICE WITH EXTRA DUTY, CAST ALUMINUM, WEATHERPROOF WHILE-IN-USE DEVICE COVER.
	QUADRUPLEX CONVENIENCE RECEPTACLE MOUNTED IN TWO-GANG OUTLET BOX - EACH RATED 20A, 125 VOLTS WITH SINGLE COVER PLATE, MOUNT +18" AFF UON.
	FLUSH FLOOR BOX WITH TWO 20A DUPLEX RECEPTACLES AND FOUR DATA PORTS WITH CAT 6A CABLES IN 1-1/4" CONDUIT ALL THE WAY TO THE TELECOM ROOM.
	SPECIAL PURPOSE RECEPTACLE
	FIRE RATED POKE-THRU WITH TWO 20A DUPLEX RECEPTACLES.
	FIRE RATED POKE-THRU WITH TWO 20A DUPLEX RECEPTACLES AND FOUR DATA PORTS, WITH CAT 6A CABLES IN 1-1/4" CONDUIT ALL THE WAY TO THE TELECOM ROOM.
	EQUIPMENT CONNECTIONS
(E)	EQUIPMENT CONNECTION. FOR MECHANICAL/PLUMBING EQUIPMENT: DISCONNECT SWITCHES, STARTERS, VFD'S, AND OTHER REQUIRED COMPONENTS FOR THE OPERATION OF THE EQUIPMENT SHALL BE FURNISHED BY THE MECHANICAL/PLUMBING CONTRACTOR. PROVIDE CONDUIT AND WIRING FROM THE POWER SOURCE TO THE DISCONNECT SWITCH, FROM THE DISCONNECT SWITCH TO THE STARTER/VFD, AND FROM THE STARTER/VFD TO THE FINAL EQUIPMENT CONNECTION.
(J)	JUNCTION BOX
(M)	MOTOR CONNECTION AS NOTED.
AHU-1	EQUIPMENT TAG - SEE EQUIPMENT CONNECTION SCHEDULE SHEET EP601.
3P 60/40	DISCONNECT SWITCH. REFER TO EQUIPMENT CONNECTION SCHEDULE SHEET EP601 FOR SIZE AND TYPE. OTHERWISE PROVIDE 600V IN NEMA 1 ENCLOSURE UON. 3P = NO. OF POLES, 60 = SWITCH RATING, 40 = FUSE RATING (NF INDICATES NON-FUSIBLE) (SEE LEGEND NOTE 5).
C 3P 60/40	ENCLOSED CIRCUIT BREAKER 480V IN NEMA 1 ENCLOSURE, 14 KAIC UON. 3P = NO. OF POLES, 100 = FRAME RATING, 40 = TRIP RATING (SEE LEGEND NOTE 5).
	DISCONNECT SWITCH PROVIDED INTEGRAL WITH EQUIPMENT.
	MAGNETIC MOTOR CONTROLLER (CONTROLLER FURNISHED WITH EQUIPMENT).
	MANUAL MOTOR CONTROLLER (CONTROLLER FURNISHED WITH EQUIPMENT).
VFC	VARIABLE FREQUENCY CONTROLLER CONNECTION (DRIVE FURNISHED WITH EQUIPMENT).
SM	MOTOR RATED SWITCH
	PUSH BUTTON
	DISTRIBUTION
	PANELBOARD - 208Y/120V

SYMBOL	DESCRIPTION
PROVIDE	**WIRE, CONDUIT AND RACEWAY**
	BRANCH CIRCUIT OR FEEDER WIRING IN CONDUIT. NO LABEL INDICATES 2# 12 CONDUCTORS IN 1#12 GND IN 1/2" CONDUIT. CONDUIT LARGER THAN 1/2", CONDUCTOR QUANTITY MORE THAN 3, OR WIRE LARGER THAN #12 SHALL BE AS INDICATD (SEE LEGEND NOTE 1).
L2A-1,3	HOMERUNS TO PANEL. PANEL AND CIRCUIT DESIGNATIONS AS INDICATED.
	INDICATES A CONDUIT RUN IN CONCEALED IN CEILING, WALL, FLOOR, OR ABOVE SUSPENDED CEILING UON.
	INDICATES UNSWITCHED LIGHTING CIRCUIT OR CONDUIT ROUTED BELOW FLOOR SLAB.
	CONDUIT TURNED UP
	CONDUIT TURNED DOWN
	LIGHTNING PROTECTION
(A) (B)	LPS AIR TERMINAL (SEE DETAILS 7/EG501 AND 8/EG501)
R	LPS ROOF CONDUCTOR
D	LPS MAIN DOWN CONDUCTOR
G	GROUND RING, BURIED A MINIMUM OF 18" BELOW FINISHED GRADE
	DRIVEN GROUND ROD, 3/4" DIA. X 10'-0". SEE DETAILS ON EG501 AND EG502
	DRIVEN GROUND ROD WITH INSPECTION PIT (SEE DETAIL 1/EG502)
	CONCEALED DOWNLEAD
	TELEPHONE AND DATA SYSTEMS
C	TELEPHONE OUTLET. MOUNT 18" AFF UON. "C" INDICATES TO MOUNT 48" AFF OR 6" ABOVE COUNTERTOP OR BACKSPLASH WHERE COUNTER IS INDICATED.
C	COMBINATION OUTLET BOX WITH (#)-8 PIN MODULAR JACKS. QUANTITY AND NETWORK TYPE (TELEPHONE, DATA) AS INDICATED. "C" INDICATES TO MOUNT 48 AFF OR 6" ABOVE BACKSPLASH OR COUNTRTOP WHERE COUNTER IS INDICATED.
TW	TWO-WAY COMMUNICATION SYSTEM, COMPACT HANDS-FREE, ANALOG, DIMENSIONS: 8.5" W X 10" H X 2.5" D. PROVIDE 1" CONDUIT FROM SYSTEM TO NEAREST CABLE TRAY. PROVIDE PHONE AND COORDINATE PROGRAMMING WITH OWNER TO RING AT APPROPRIATE DESK AND/OR 911. BOD IS RATH ELEVATOR EMERGENCY PHONE.
WAP	WIRELESS ACCESS POINT. PROVIDE 4" SQUARE JUNCTION BOX MOUNTED AT 96" AFF, WITH CAT 6A CABLE IN 1-1/4" CONDUIT ALL THE WAY TO THE TELECOM ROOM.
	FIRE-RETARDANT PLYWOOD BACKBOARD.
TV	FLAT PANEL WALL BOX, CHIEF PAC 256, FLUSH MOUNTED IN WALL. PROVIDE WALL BLOCKING. PROVIDE 20A/120 VAC QUAD RECEPTACLE AND DATA OUTLET WITH TWO JACKS (LOCATED WITHIN BOX) AND CABLING TO DATA ROOM.
	GENERAL
#	NOTE REFERENCE - TYPICALLY FOUND ON SAME SHEET WHERE SYMBOL IS USED, UON.
101	ROOM NUMBER.
XXX	FEEDER DESIGNATION. FOR FEEDER SCHEDULE, SEE SHEET EP701.

EMERGENCY RESPONDER RADIO COVERAGE

1. APPROVED RADIO COVERAGE FOR EMERGENCY RESPONDERS MAY BE REQUIRED WITHIN THIS BUILDING BASED UPON COVERAGE LEVELS OF THE PUBLIC SAFETY COMMUNICATIONS SYSTEMS OF THE JURISDICTION AND AT THE EXTERIOR OF THE BUILDING. RADIO COVERAGE SHALL COMPLY WITH 2018 NCSBC FIRE CODE AND ALL STATE AMENDMENTS.
2. THIS PROJECT PROVIDES INFRASTRUCTURE ONLY (i.e. RACEWAYS AND PATHWAYS ONLY) TO ACCOMMODATE THE INSTALLATION OF CABLING ASSOCIATED WITH THE INSTALLATION OF A DISTRIBUTED ANTENNA SYSTEM (DAS) FOR THE PURPOSE OF ENHANCING RADIO COVERAGE FOR EMERGENCY RESPONDERS.
3. THE BUILDING OWNER SHALL BE SOLELY RESPONSIBLE FOR PROCURING THE SERVICES OF A THIRD PARTY ENTITY TO DESIGN, FURNISH, AND INSTALL SYSTEM COMPONENTS NECESSARY TO ENHANCE RADIO COVERAGE TO BE ACCPETABLE TO THE AUTHORITY HAVING JURISDICITON. A SPECIFICATION FOR THE DAS IS INCLUDED IN THIS PROJECT FOR THE OWNER'S USE.

ELECTRICAL ABBREVIATIONS

A	AMPERE
A/C	AIR CONDITIONING
AF	AMPERE FRAME
AFCI	ARC FAULT CIRCUIT INTERRUPTER
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHU	AIR HANDLING UNIT
ASD	ADJUSTABLE SPEED DRIVE
AT	AMPERE TRIP
ATC	AUTOMATIC TEMPERATURE CONTROL
AWG	AMERICAN WIRE GAUGE
B.U.G.	BACKLIGHT / UPLIGHT / GLARE
BG	BELOW GRADE
BLDG	BUILDING
BRKR	BREAKER
C	CONDUIT
CB	CIRCUIT BREAKER
CCT	CORRELATED COLOR TEMPERATURE
CKT	CIRCUIT
CRI	COLOR RENDERING INDEX
DAS	DISTRIBUTED ANTENNA SYSTEM
DISC SW	DISCONNECT SWITCH
DT	DRY TYPE
DVP	DOMINION ENERGY
DWG	DRAWING
EA	EACH
EC	EMPTY CONDUIT
EF	EXHAUST FAN
ELEC	ELECTRICAL
EMT	ELECTRICAL METALLIC TUBING
EQUIP	EQUIPMENT
ETR	EXISTING TO REMAIN
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
EXIST	EXISTING
EXP	EXPLOSION PROOF EQUIPMENT
FACP	FIRE ALARM CONTROL PANEL
FC	FOOTCANDLE
FCU	FAN COIL UNIT
FLA	FULL LOAD AMPS
FLUOR	FLUORESCENT
FMC	FLEXIBLE METAL CONDUIT
FT	FEET
GFCI	GOVERNMENT FURNISHED, CONTRACTOR INSTALLED
GFGI	GOVERNMENT FURNISHED, GOVERNMENT INSTALLED
GFI	GROUND FAULT INTERRUPTER
GND	GROUND
GRS	GALVANIZED RIGID METAL CONDUIT
HDPE	HIGH DENSITY POLYETHYLENE CONDUIT
HH	HANDHOLE
HID	HIGH INTENSITY DISCHARGE
HP	HORSEPOWER
HPS	HIGH PRESSURE SODIUM
IMC	INTERMEDIATE METAL CONDUIT
KAIC	THOUSAND AMP CAPACITY, RMS SYMMETRICAL
KCMIL	THOUSAND CIRCULAR MILS
KVA	KILOVOLT AMPERE
KWH	KILOWATT HOUR
LAN	LOCAL AREA NETWORK
LCP	LIGHTING CONTROL PANEL
LED	LIGHT EMITTING DIODE
LFMC	LIQUIDTIGHT FLEXIBLE METAL CONDUIT
LPS	LIGHTNING PROTECTION SYSTEM
LTG	LIGHTING
LTS	LUMINAIRE
MC	METAL-CLAD CABLE
MCA	MINIMUM CIRCUIT AMPACITY
MCB	MAIN CIRCUIT BREAKER
MH	MANHOLE
MI	MINERAL-INSULATED, METAL-SHEATHED CABLE
MIN	MINIMUM
MLO	MAIN LUG ONLY
MOCP	MAXIMUM OVERCURRENT PROTECTION
MSB	MAIN SWITCHBOARD
MT	MOUNT
MTD	MOUNTED
MTG HT	MOUNTING HEIGHT
MV	MEDIUM VOLTAGE
N/C	NORMALLY CLOSED
N/O	NORMALLY OPEN
NAC	NOTIFICATION APPLIANCE CIRCUIT
NEC	NATIONAL ELECTRICAL CODE
NESC	NATIONAL ELECTRICAL SAFETY CODE
NEU	NEUTRAL
NF	NON FUSIBLE
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NTS	NOT TO SCALE
OBI	OUTLET BASE INFEED
OC	OCCUPANCY SENSOR
P	POLE
PBB	PRIMARY BONDING BUSBAR (FORMERLY TELECOMMUNICATIONS MAIN GROUNDING BUSBAR - TMGB)
PH	PHASE
PNL	PANEL
PVC	RIGID POLYVINYL CHLORIDE CONDUIT
QTY	QUANTITY
RCPT, RECEPT	RECEPTACLE
REQ'D	REQUIRED
RFI	RADIO FREQUENCY INTERFERENCE
RM	ROOM
RMC	RIGID METAL CONDUIT
S.E.	SERVICE ENTRANCE
S/N	SOLID NEUTRAL
SBB	SECONDARY BONDING BUSBAR (FORMERLY TELECOMMUNICATIONS GROUND BUSBAR - TGB)
SC	SPLIT CIRCUIT (SEE LEGEND NOTE 2)
SF	SUPPLY FAN
SPD	SURGE PROTECTIVE DEVICE
SW	SWITCH
TEL	TELEPHONE
TELECOM	TELECOMMUNICATIONS
TTB	TELEPHONE TERMINAL
TV	TELEVISION
TYP	TYPICAL
UG	UNDERGROUND
UH	UNIT HEATER
UON	UNLESS OTHERWISE NOTED
UP	UNDERGROUND PRIMARY POWER
US	UNDERGROUND SECONDARY POWER
V	VOLTAGE OR VOLTS
VAC	VOLTS ALTERNATING CURRENT
VDC	VOLTS DIRECT CURRENT
VFD	VARIABLE FREQUENCY DRIVE
W	WIRE
WAO	WORK AREA OUTLET
WH	WATER HEATER
WP	WEATHERPROOF
X	IN SCHEDULES, ITEM NOT APPLICABLE
XFMR	TRANSFORMER
Ø	PHASE

GENERAL NOTES

A. WIRING IN CONDUIT, MINIMUM SIZE ONE-HALF (1/2) INCH FOR ABOVE GROUND, AND THREE-QUARTER (3/4) INCH FOR UNDERGROUND RACEWAYS, WITH LARGER SIZES AS INDICATED OR REQUIRED BY NEC.
B. WIRE AND CABLE MUST BE #12 AWG MINIMUM.
C. FOR PURPOSES OF MOUNTING ELECTRICAL EQUIPMENT OR DEVICES IN AREAS WITH RAISED FLOORING, OR RAISED PLATFORMS, THE TOP OF THE RAISED FLOOR SURFACE MUST BE CONSIDERED THE FINISHED FLOOR LEVEL.
D. OPENINGS CREATED IN A FIRE OR SMOKE RATED WALL OR FLOOR BY PROVISION OF ANY ELECTRICAL DEVICE OR CONDUIT, MUST BE SEALED AFTER THE WORK IS COMPLETED WITH A UL APPROVED FIRE/SMOKE SEALANT TO RE-ESTABLISH THE PREVIOUS RATING OF THE WALL OR FLOOR. SEE ARCHITECTURAL PLANS FOR FIRE RATED WALLS/FLOORS AND THEIR RATING.
E. COORDINATE EXACT LOCATION OF CEILING MOUNTED LIGHTING FIXTURES AND SPEAKERS WITH ARCHITECTURAL REFLECTED CEILING PLANS.
F. FOR ALL CONDUITS INSTALLED BELOW THE BUILDING SLAB, PROVIDE AN EXTRA 12" LENGTH OF CONDUCTORS AT EACH END OR WITHIN JUNCTION BOXES TO ACCOMMODATE RACEWAY DEFLECTION BELOW GRADE CAUSED BY EARTH SETTLEMENT. IN ADDITION, PROVIDE IN-SLAB STUB-UP SUPPORTS FOR CONDUITS TRANSITIONING FROM BELOW TO ABOVE SLAB.

LEGEND NOTES

1. WIRE AND CONDUIT FOR MOTOR AND EQUIPMENT LOADS MUST BE CONTINUOUS IN SIZE AND COUNT FROM SOURCE TO FINAL CONNECTION. SIZE AND COUNT AS INDICATED ON THE CIRCUIT HOMERUN UNLESS OTHERWISE NOTED.
2. WHERE BRANCH CIRCUIT HOMERUNS ARE LABELED "SPLIT CIRCUIT" (SC), THE BRANCH CIRCUIT NUMBER INDICATED HAS BEEN USED ON MORE THAN ONE HOMERUN INDICATOR. ONE CONDUCTOR PER CIRCUIT BREAKER POLE WITHIN THE PANELBOARD ENCLOSURE. SPLICES NECESSARY TO COMPLY WITH THIS REQUIREMENT MUST BE MADE IN A SEPARATE SPLICE BOX OUTSIDE THE PANELBOARD ENCLOSURE. DEDICATED NEUTRALS ARE REQUIRED FOR EVERY CIRCUIT WHERE APPLICABLE.
3. WHERE A NEW-TO-EXISTING CONNECTION IS INDICATED, PROVIDE MATERIALS AND LABOR REQUIRED TO MAKE THE CONNECTION.
4. BRANCH CIRCUIT WIRING TO EXIT LIGHT FIXTURES AND TO THE BATTERY INVERTERS WITHIN FIXTURES WITH INTEGRAL BATTERY UNITS MUST BE UNSWITCHED, CONNECTED AHEAD OF ANY CONTROL SWITCHES.
5. A (*) IN THE FUSE RATING OR TRIP RATING POSITION FOR THIS SYMBOL INDICATES TO PROVIDE FUSE OR BREAKER TRIP RATING IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION.
6. WHERE EQUIPMENT OR DEVICES ARE NOTED AS "REMOVE", REMOVE CONDUCTORS ASSOCIATED WITH THESE ITEMS TO THE LAST ACTIVE ITEM ON THE CIRCUIT, OR TO THE BRANCH CIRCUIT BREAKER IF ALL ITEMS ON THE CIRCUIT ARE REMOVED. REMOVE CONDUITS FOR THESE CIRCUITS WHERE THEY RUN EXPOSED OR IN CEILING OR FLOOR PLENUMS. CONDUITS RUN CONCEALED IN WALLS OR FLOOR SLABS SHALL BE CUT OFF FLUSH WITH SURFACE AND ABANDONED. VOIDS IN WALLS OR FLOOR SLABS LEFT BY THE REMOVAL OF ELECTRICAL EQUIPMENT OR CONDUITS MUST BE FILLED WITH NON-SHRINK GROUT AND FINISHED TO MATCH ADJACENT SURFACES.

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PROFESSIONAL SEAL

NORTH CAROLINA PE SEAL 021538 ENGINEER PATRICK J. ROSE
2024.06.07 08:16:06-04'00'

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

ELECTRICAL LEGEND, NOTES AND ABBREVIATIONS

E-001

DESIGN: EAK
DRAWN: MSW
REVIEW: PJR

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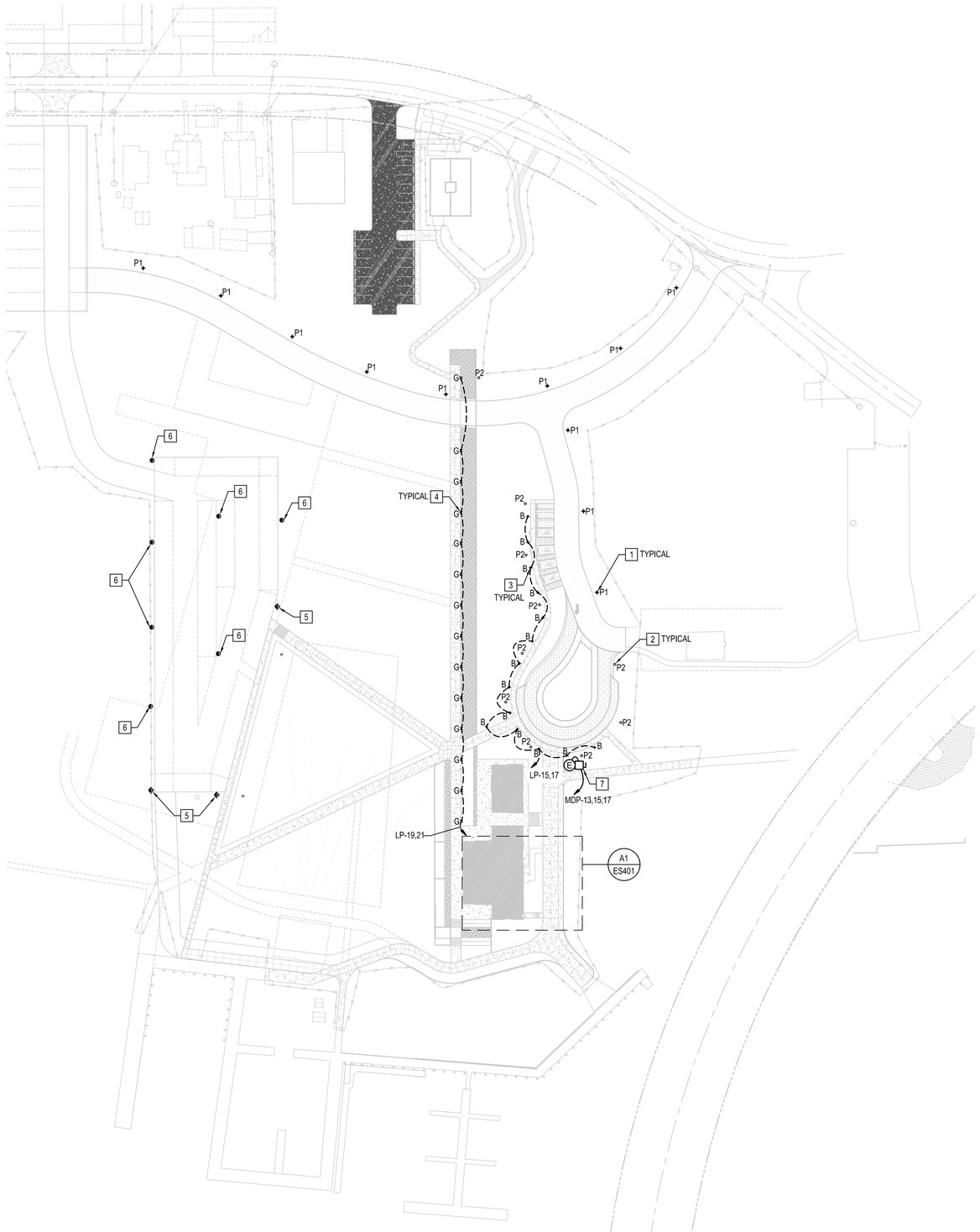

A2 SITE POWER, LIGHTING, AND TELECOM

SCALE: 1" = 50'-0"

GENERAL NOTES

A. REFER TO E-001 FOR GENERAL NOTES.
B. REFER TO LANDSCAPING DRAWINGS FOR LIGHT FIXTURE DETAILS.
C. COORDINATE WITH SITE PLAN SHEET L8.00.

KEY NOTES

1. 12' POLE LIGHT PROVIDED BY DUKE ENERGY.
2. 10' MOTIVE POLE LIGHT PROVIDED BY DUKE ENERGY.
3. RINCON BOLLARD.
4. BEGA IN-GROUND LIGHT.
5. EXISTING POLE BEING RELOCATED. TRACE CIRCUIT TO DETERMINE SOURCE OF POWER. LOCK OUT AND TAG CIRCUIT AND EXTEND EXISTING CONDUIT AND CONDUCTORS AS REQUIRED TO RE-FEED LIGHT FIXTURE.
6. EXISTING POLE TO REMAIN.
7. 30A/3P FUSIBLE NEMA 4X DISCONNECT (FUSE PER NAMEPLATE DATA) FOR GRINDER PUMP. MOUNT DISCONNECT ON A STAND WITHIN 50' AND WITHIN SIGHT.

GRAPHIC SCALE(S)

1"=50' 0 50' 100' 200'

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NORTH CAROLINA REGISTERED SEAL 021538 ENGINEER PATRICK J. ROSE
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KEY PLAN

SHEET

SITE POWER, LIGHTING AND TELECOM

ES101

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DRAWN: CMB
REVIEW: PJR

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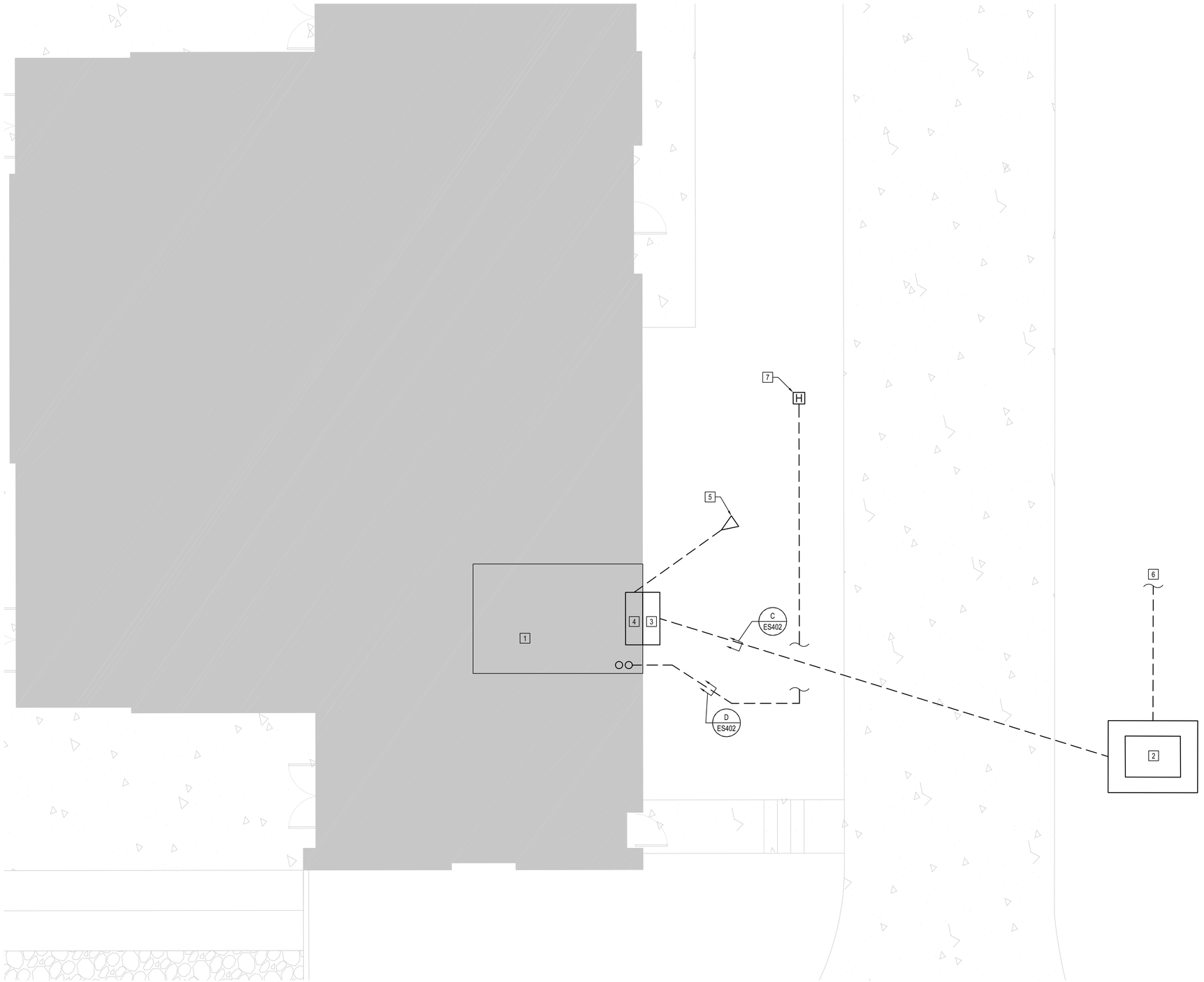

A1 ENLARGED SITE PLAN - POWER AND TELECOM

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

GENERAL NOTES

A. REFER TO E-001 FOR GENERAL NOTES.

X KEY NOTES

1. ELECTRICAL ROOM 105.
2. PAD-MOUNTED TRANSFORMER. REFER TO DETAIL A/ES402 FOR ADDITIONAL INFORMATION.
3. GENERATOR DOCKING STATION. REFER TO DETAIL 3/EP701 FOR ADDITIONAL INFORMATION.
4. MAIN DISTRIBUTION PANEL "MDP".
5. GROUND TRIAD WITH INSPECTION STATION. REFER TO DETAIL 3/EG502 AND B/ES402 FOR ADDITIONAL INFORMATION.
6. PRIMARY TRANSFORMER CABLING (BY DUKE ENERGY).
7. TELECOMMUNICATIONS HANDHOLE FOR SERVICE PROVIDER'S USE. REFER TO DETAIL SHEET TT101 FOR CONDUIT ROUTING FROM HANDHOLE TO TELECOM ROOM ON SECOND FLOOR.

GRAPHIC SCALE(S)

1/4" = 1'-0"

0 5' 10' 15'

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CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

NORTH CAROLINA SEAL 021538 ENGINEER PATRICK J. ROSE

2024.06.07 08:16:19-04'00'

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

ENLARGED SITE PLAN - POWER AND TELECOM

ES401

DESIGN: EAK
DRAWN: CMB
REVIEW: PJR

CN 10145

8/3/2023 11:38:11 AM
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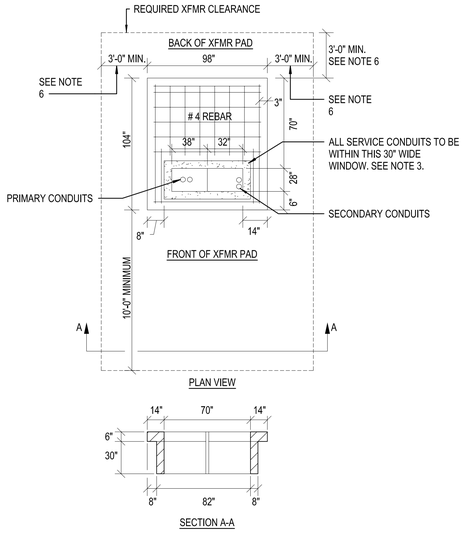
830



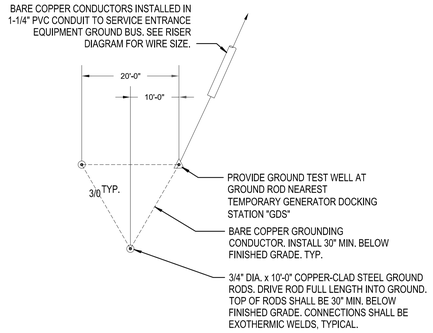
NOTES:

1. TRANSFORMER PAD SHALL BE INSTALLED IN A LOCATION TO REMAIN READILY ACCESSIBLE FOR LINE TRUCKS.
2. PROVIDE GROUNDING SYSTEM AS PER UTILITY COMPANY REQUIREMENTS AND SPECIFICATIONS.
3. SERVICE CONDUIT SHALL BE LOCATED IN THE EXTREME RIGHT SIDE OF THE SECONDARY COMPARTMENT.
4. OTHER UTILITIES ARE NOT TO BE INSTALLED UNDER TRANSFORMER PAD.
5. CONCRETE PAD SHALL BE CONSTRUCTED AS PER UTILITY COMPANY SPECIFICATIONS
6. WHERE A METER IS MOUNTED TO A TRANSFORMER, A CLEAR SPACE AROUND THE METER OF AT LEAST 3 FEET WIDE, 4 FEET DEEP, AND 8 FEET HIGH MUST BE PROVIDED AND ALWAYS AVAILABLE FOR READING, TESTING AND MAINTENANCE OPERATIONS. COORDINATE WITH UTILITY COMPANY FOR METHOD OF MOUNTING METER BASE. PROVIDE SEPARATE ENCLOSURE FOR CT'S IF REQUIRED BY THE UTILITY COMPANY.

A / ES402 SERVICE TRANSFORMER PAD DETAIL

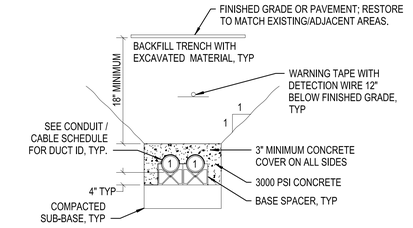
NO SCALE

UNDERGROUND CONDUIT AND CABLE SCHEDULE			
ID	CONDUIT SIZE	CONDUCTOR SIZE / QUANTITY	DESCRIPTION
1	3"	4#350 KCMIL (GROUNDED NEUTRAL)	SECONDARY FROM TRANSFORMER TO GENERAL DOCKING STATION "GDS".
2	2"	N/A	TELECOM CONDUITS WITH PULLSTRING FOR SERVICE PROVIDER'S USE.



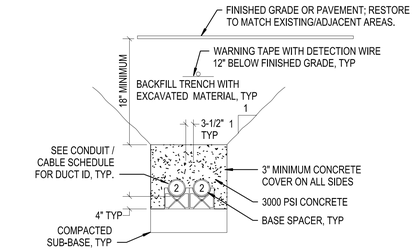
B / ES402 GROUNDING TRIAD

NO SCALE



C / ES402 DUCTBANK DETAIL - SERVICE

NO SCALE



D / ES402 DUCTBANK DETAIL - TELECOM

NO SCALE

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830

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145

SCO ID # : 24-27956-01A

DESIGNER

CLARKNEXSEN

421 NORTH HARRINGTON STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27603
919·828·1876

CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

NORTH CAROLINA
SEAL
021538
ENGINEER
PATRICK J. ROSE

2024.06.07 08:16:22-04'00'

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

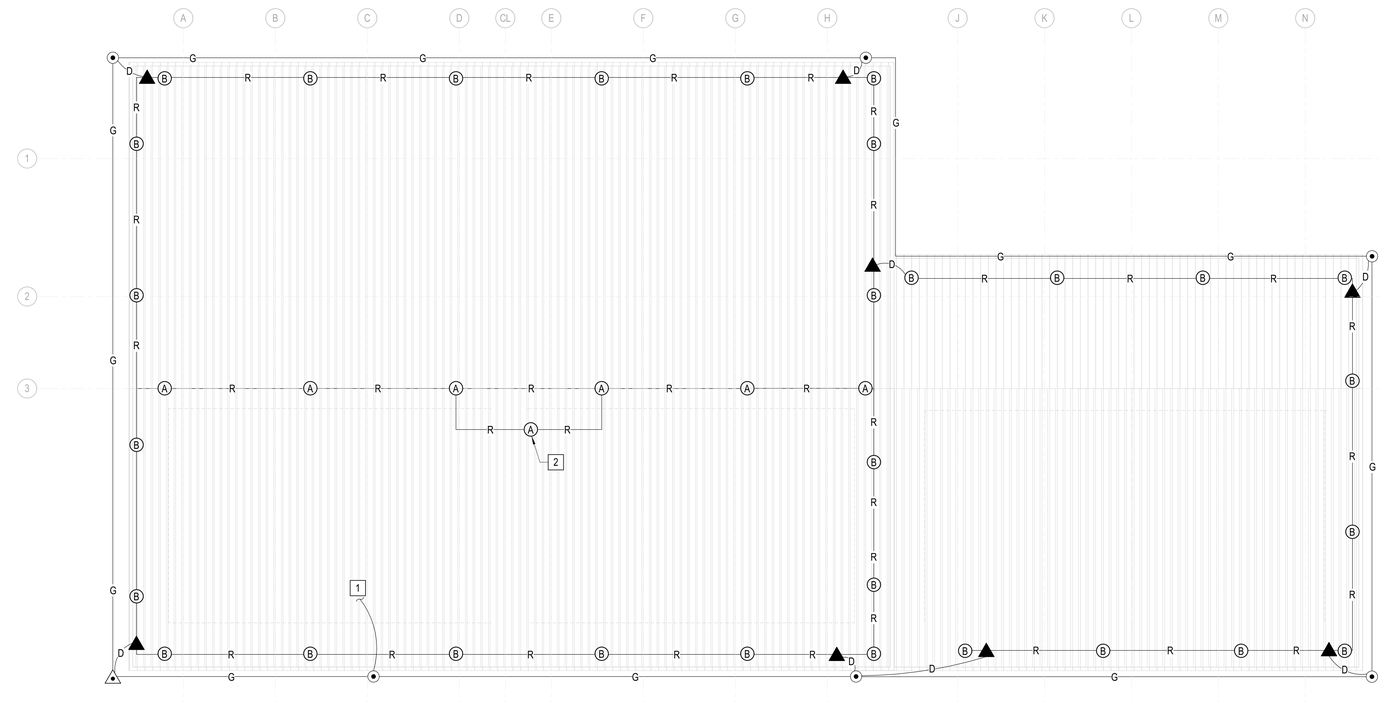
SHEET

ELECTRICAL SITE DETAILS

ES402

DESIGN: EAK
DRAWN: CMB
REVIEW: PJR

CN 10145



LIGHTNING PROTECTION PLAN
SCALE: 1/8" = 1'-0"

GENERAL NOTES

A. SEE ELECTRICAL SERVICE GROUND DETAIL ON SHEET EG502 FOR GROUNDING CONDUCTOR SIZES.
B. THIS DRAWING IS INTENDED TO SHOW THE GENERAL ARRANGEMENT OF A LIGHTNING PROTECTION SYSTEM FOR THIS FACILITY. AS SUCH THIS DRAWING DOES NOT SHOW COMPLETE DETAIL AND BONDING REQUIREMENTS. PROVIDE A COMPLETE SYSTEM INSTALLED IN ACCORDANCE WITH APPROVED LIGHTNING PROTECTION SYSTEMS SHOP DRAWINGS DESIGNED AND SEALED BY A NC LICENSED PROFESSIONAL ENGINEER WITH A UL LIGHTNING PROTECTION INSPECTION CERTIFICATE CERTIFIED TO NFPA 780.
C. ALUMINUM LIGHTNING PROTECTION SYSTEM COMPONENTS MUST NOT BE MOUNTED ON COPPER SURFACES. COPPER COMPONENTS MUST BE USED TO AVOID ELECTROLYTIC CORROSION.
D. METAL BODIES WITHIN 6'-0" OF THE LIGHTNING PROTECTION OR PROTRUDING THROUGH ROOF MUST BE BONDED TO THE SYSTEM IN ACCORDANCE WITH UL96A. THIS INCLUDES, BUT IS NOT LIMITED TO SCUTTLES, VENT UNITS, STACKS, VENTS INCLUDING GAS, WHISTLES, PRV HOUSINGS, ETC.
E. METAL BODIES WITHIN 6'-0" OF THE LIGHTNING PROTECTION MUST BE BONDED TO THE SYSTEM IN ACCORDANCE WITH UL96A.
F. ROOF TOP EQUIPMENT MUST BE PROTECTED AS REQUIRED TO MEET THE CODE REQUIREMENTS LISTED ABOVE INCLUDING THE INSTALLATION OF AIR TERMINALS AND OR BONDING. IF THE METAL THICKNESS OF AN OBJECT IS 3/16" OR GREATER, AIR TERMINALS MAY BE ELIMINATED IF THE OBJECT IS PROPERLY CONNECTED TO THE SYSTEM.
G. AIR TERMINALS MUST BE A MAXIMUM OF 24" FROM THE ROOF EDGE AND PROJECT A MINIMUM OF 10" ABOVE THE PROTECTED EDGE. THE SPACE BETWEEN AIR TERMINALS ARE NOT TO EXCEED 20 FEET. AIR TERMINALS THAT EXTEND 24" ABOVE THIS PROTECTED EDGE MUST NOT EXCEED SPACING GREATER THAN 2' EXCEPT FOR MID-AIR ROOF TERMINAL (50' SPACING).
H. LIGHTNING CONDUCTORS ARE TO MAINATAIN A HORIZONTAL OR DOWNWARD PATH. BENDS IN THE CONDUCTOR MUST HAVE A RADIUS OF 8 INCHES OR GREATER AND MUST HAVE AN ANGLE BEND OF 90 DEGREES OR GREATER.
I. EACH INDIVIDUAL ITEM OF THE LIGHTNING PROTECTION SYSTEM IS NOT LABELED FOR THE SAKE OF CLARITY BUT A COMPLETE SYSTEM MUST BE PROVIDED TO MEET UL REQUIREMENTS.

KEY NOTES

1 SEE DETAIL 3/EG502 AND BOND LIGHTNING PROTECTION SYSTEM TO SERVICE EQUIPMENT GROUND BAR PER NEC 250.106.
2 AIR TERMINAL FOR ROOFTOP GRAVITY VENTILATOR. COORDINATE EXACT LOCATION WITH MECHANICAL.

GRAPHIC SCALE(S)

1/8" = 1' - 0" 0 5' 10' 15' 30'

MARITIME HERITAGE FOUNDATION
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Maritime Education Center

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SCO ID # : 24-27956-01A

DESIGNER
CLARKNEXSEN
421 NORTH HARRINGTON STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27603
919-828-1876
CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL
NORTH CAROLINA SEAL 021538 ENGINEER PATRICK J. ROSE
2024.06.07 08:16:25-04'00'

SUBMITTAL
JUNE 7, 2024
BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET
LIGHTNING PROTECTION PLAN

EG101

DESIGN: EAK
DRAWN: MSW
REVIEW: PJR

CN 10145

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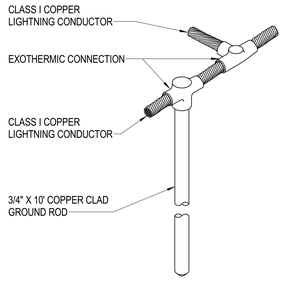
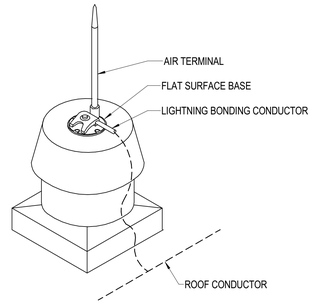


1 GROUND ROD DETAIL
NOT TO SCALE



6 EXHAUST FAN INSTALLATION DETAIL
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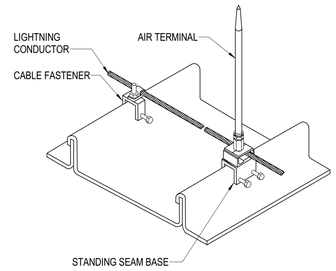
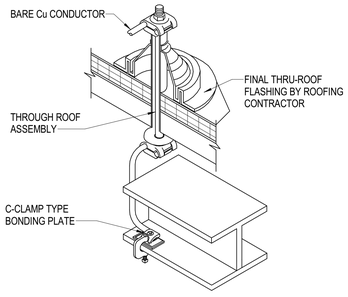
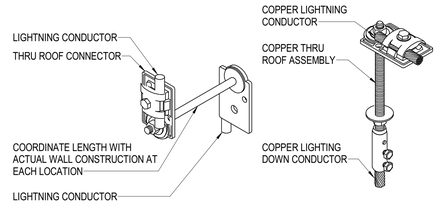


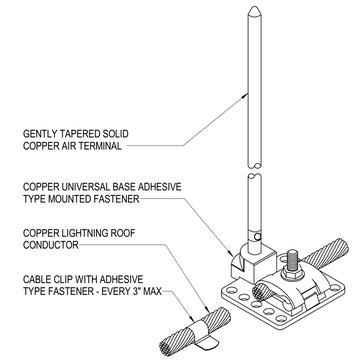
9 AIR TERMINAL DETAIL C
NOT TO SCALE



2 THRU ROOF DETAIL A
NOT TO SCALE



5 THRU-THE-WALL
NOT TO SCALE



8 AIR TERMINAL DETAIL B
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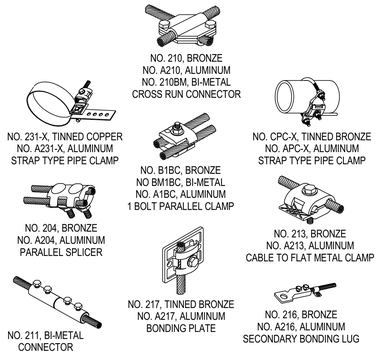

3 TYPICAL BONDING AND SPLICING DETAILS B
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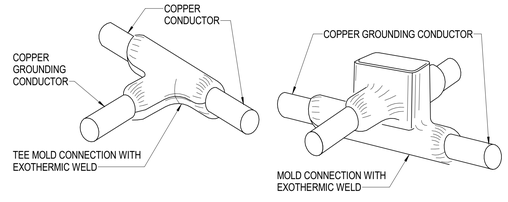
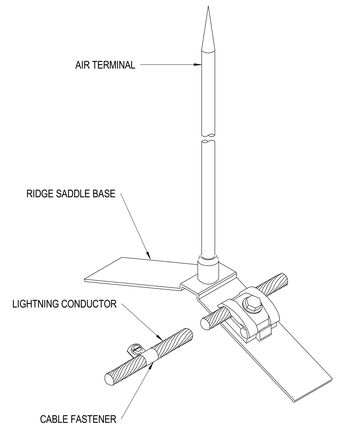


4 MOLD CONNECTIONS WITH EXOTHERMIC WELD
NOT TO SCALE



7 AIR TERMINAL DETAIL A
NOT TO SCALE

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Maritime Education Center

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SCO ID # : 24-27956-01A

DESIGNER

CLARKNEXSEN
421 NORTH HARRINGTON STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27603
919-828-1876
CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

NORTH CAROLINA REGISTERED SEAL 021538 ENGINEER PATRICK J. ROSE

2024.06.07 08:16:29-04'00'

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

LIGHTNING PROTECTION DETAILS

EG501

DESIGN: EAK
DRAWN: MSW
REVIEW: PJR

CN 10145

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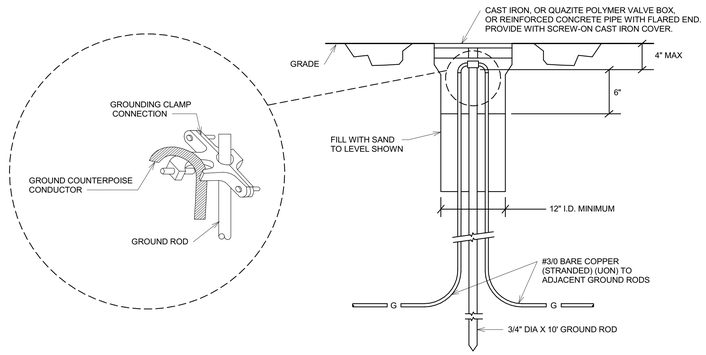
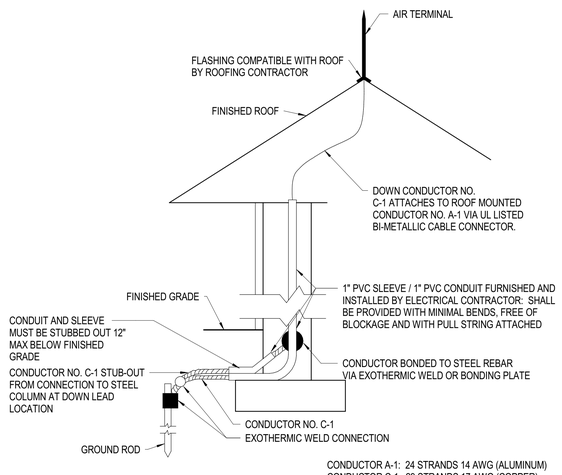


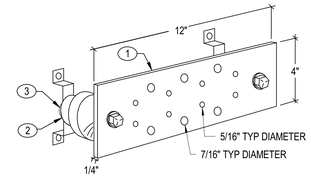
1 GROUND ROD INSPECTION DETAIL

NOT TO SCALE



2 CONCEALED DOWNLEAD

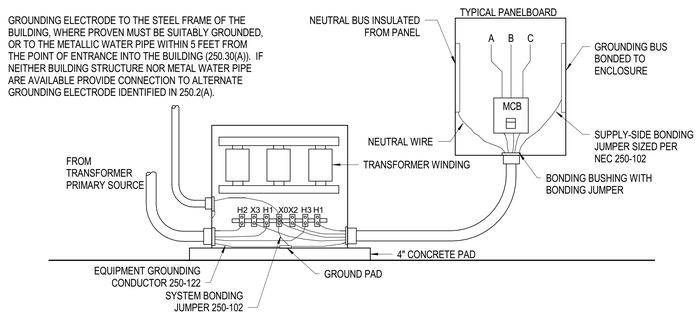
NOT TO SCALE



1. COPPER GROUND BAR, 1/4" X 4" X 10"
2. STANDOFF BRACKET ASSEMBLY WITH 2700V INSULATORS, TYP FOR 2.
3. LOCK WASHER, TYP OF 2.

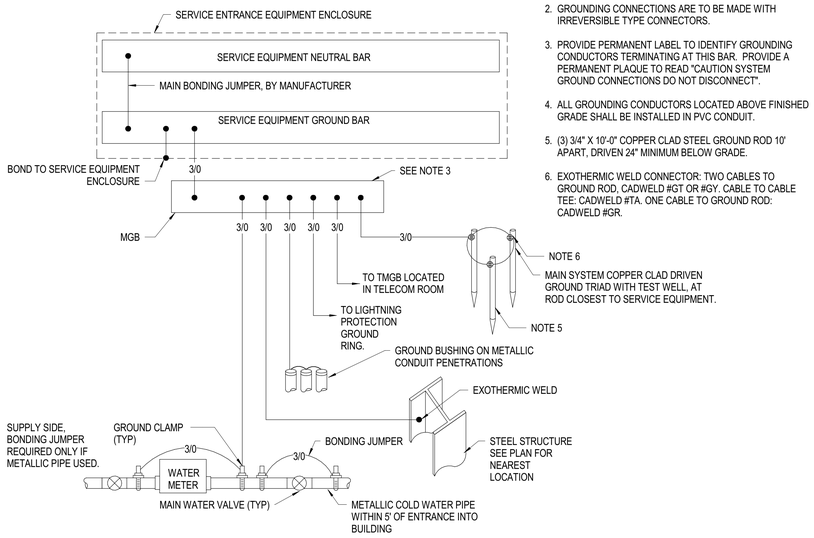
6 TELECOM GROUND BAR DETAIL (TMGB)

NOT TO SCALE



4 DRY-TYPE TRANSFORMER GROUNDING

NOT TO SCALE



NOTES:

1. GROUNDING ELECTRODE CONDUCTORS (GEC) AND EQUIPMENT GROUNDING CONDUCTORS (EGC) SHALL BE SIZED PER NEC 250.66 AND 250.122 RESPECTIVELY.
2. GROUNDING CONNECTIONS ARE TO BE MADE WITH IRREVERSIBLE TYPE CONNECTORS.
3. PROVIDE PERMANENT LABEL TO IDENTIFY GROUNDING CONDUCTORS TERMINATING AT THIS BAR. PROVIDE A PERMANENT PLAQUE TO READ "CAUTION SYSTEM GROUND CONNECTIONS DO NOT DISCONNECT".
4. ALL GROUNDING CONDUCTORS LOCATED ABOVE FINISHED GRADE SHALL BE INSTALLED IN PVC CONDUIT.
5. (3) 3/4" X 10'-0" COPPER CLAD STEEL GROUND ROD 10' APART, DRIVEN 24" MINIMUM BELOW GRADE.
6. EXOTHERMIC WELD CONNECTOR: TWO CABLES TO GROUND ROD, CADWELD #GT OR #GY. CABLE TO CABLE TEE: CADWELD #TA. ONE CABLE TO GROUND ROD: CADWELD #GR.

3 ELECTRICAL SERVICE GROUND DETAIL

NOT TO SCALE

MARITIME HERITAGE FOUNDATION
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2024.06.07 08:16:32-04'00'

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

LIGHTNING PROTECTION AND GROUNDING DETAILS

EG502

DESIGN: EAK
DRAWN: MSW
REVIEW: PJR

CN 10145

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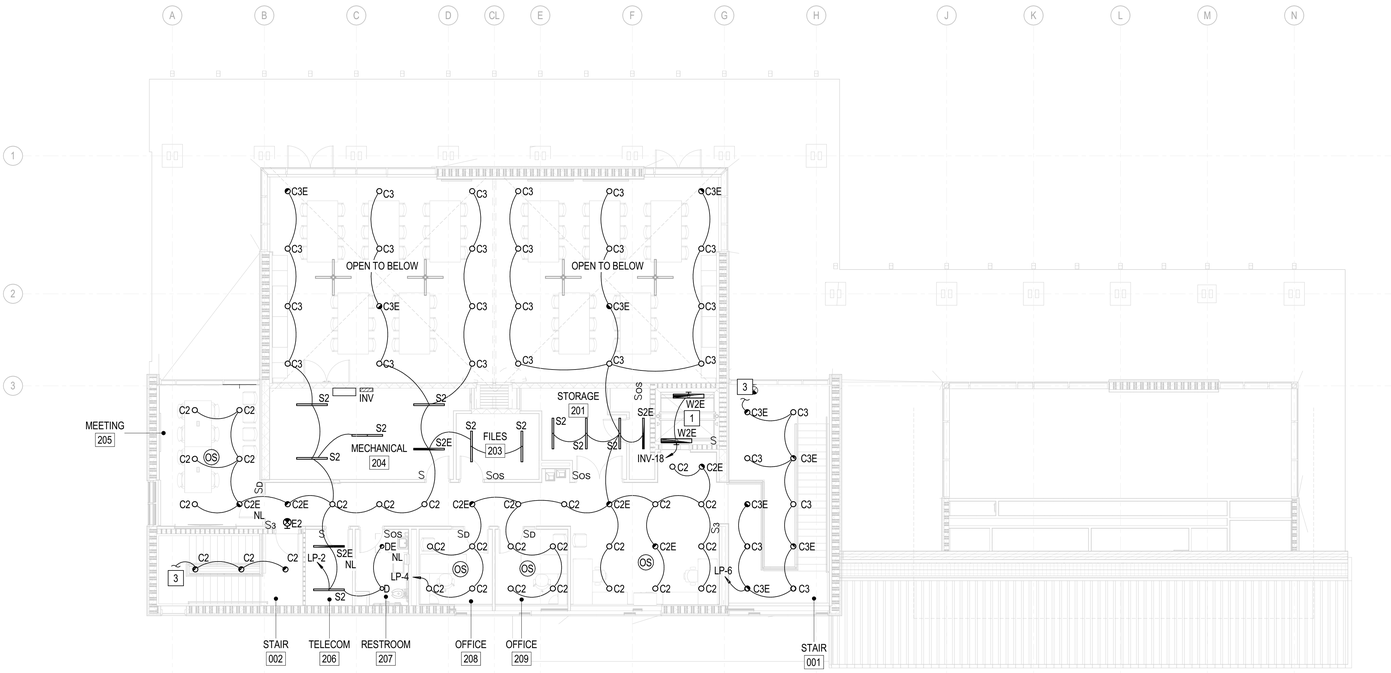
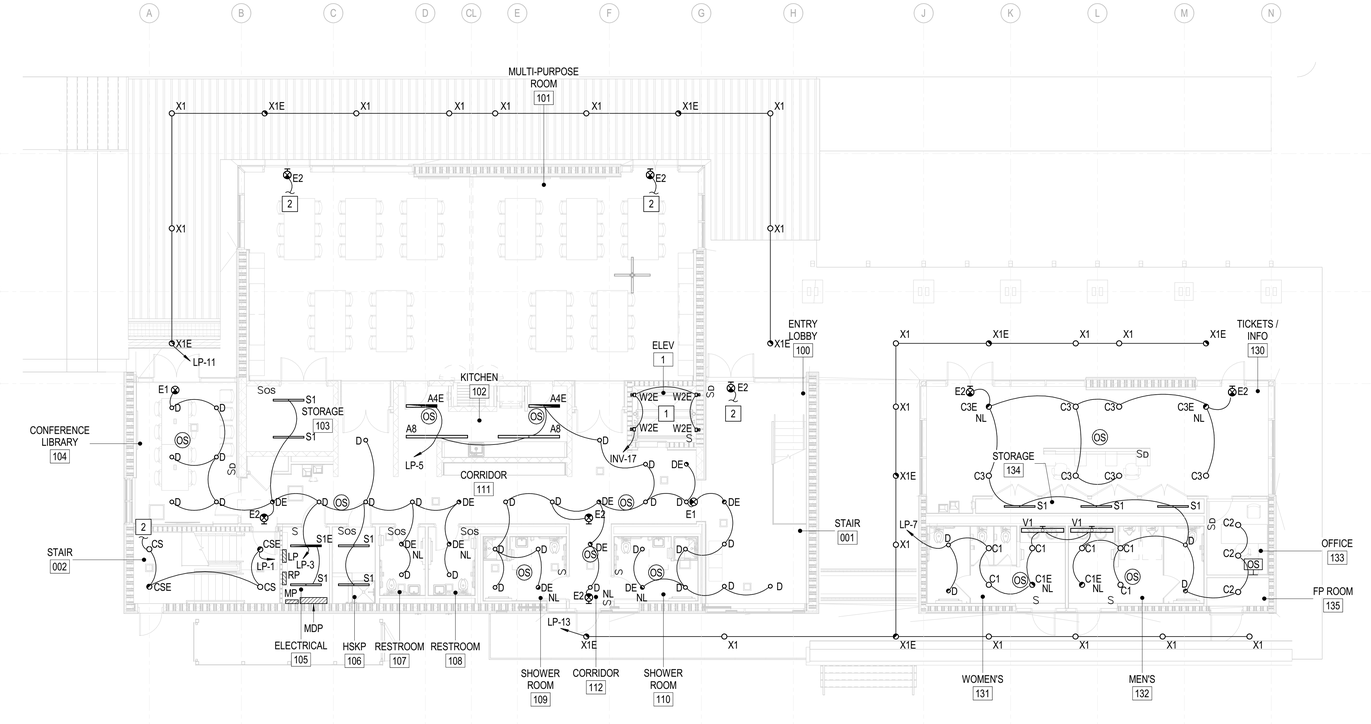


SECOND FLOOR LIGHTING PLAN

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



FIRST FLOOR LIGHTING PLAN

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

GENERAL NOTES

A. REFER TO E-001 FOR GENERAL NOTES

B. REFER TO ARCHITECTURAL RCPs TO COORDINATE LIGHT FIXTURE PLACEMENT.

KEY NOTES

1 COORDINATE PLACEMENT OF LIGHT FIXTURES IN THE PIT AND AT THE TOP OF THE SHAFT WITH THE ELEVATOR INSTALLER. THE FSAE STATUS PANEL IS TO BE CAPABLE OF ACTIVATING THE HOISTWAY LIGHTS.

2 TO LIGHT FIXTURES ABOVE. SEE SECOND FLOOR LIGHTING PLAN THIS SHEET.

3 TO LIGHT FIXTURES BELOW. SEE FIRST FLOOR LIGHTING PLAN THIS SHEET.

GRAPHIC SCALE(S)

1/8" = 1' - 0" 0 5' 10' 15' 30'

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2024.06.07 08:16:36-04'00'

SUBMITTAL

JUNE 7, 2024

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KEY PLAN

SHEET

FIRST & SECOND FLOOR LIGHTING PLANS

EL101

DESIGN: EAK
DRAWN: MSW
REVIEW: PJR

CN 10145

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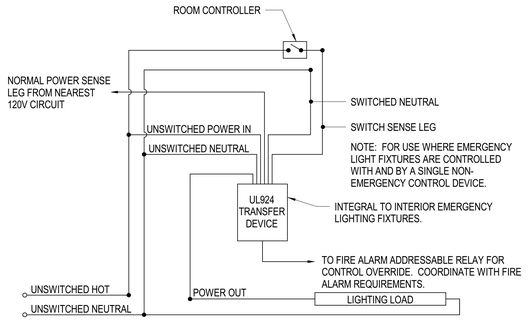
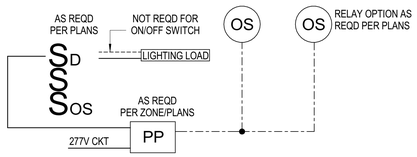


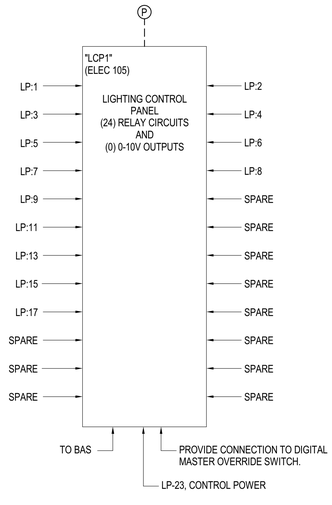
D1 UL924 TRANSFER DEVICE AS A CONTROL

NOT TO SCALE



C1 LOW VOLTAGE OCC SENSOR WITH LOCAL DIMMING

NOT TO SCALE



VISITOR CENTER - FIRST FLOOR

NOTES:

1. LIGHTING CONTROL PANEL SEQUENCE OF OPERATION SHALL BE FUNCTIONALLY TESTED. COORDINATE SEQUENCE OF OPERATION WITH OWNER.
2. PHOTOCELL SHALL CONTROL EXTERIOR LIGHTING ONLY, EXCLUDING LIGHTING IN THE SALLEYPORT AND BOMBPROOF AREAS (REFER TO EARTHWORKS PACKAGE).
3. PROVIDE INTERCONNECTION BETWEEN THE LIGHTING CONTROL PANELS AND BUILDING AUTOMATION SYSTEM.
4. REFER TO EP SHEETS FOR PANEL LOCATIONS.
5. EMERGENCY EGRESS LIGHTING SHALL TYPICALLY BE ALWAYS ON (EXTERIOR EMERGENCY EGRESS LIGHTING SHALL BE CONTROLLED VIA PHOTOCELL). EGRESS LIGHTING MAY, AT THE DISCRETION OF THE OWNER, BE SCHEDULED OFF DURING UNOCCUPIED HOURS WHEN THE FACILITY IS CLOSED.

A1 LIGHTING CONTROL DIAGRAMS

NOT TO SCALE

LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION	MANUFACTURER	MODEL NO.	CCT	CRI	LUMEN OUTPUT	VOLTAGE	WATTAGE	MOUNTING	NOTES
A4E	4' WIDE X 4' LONG LED LINEAR SLOT LUMINAIRE WITH 10W EMERGENCY BATTERY PACK, 800LUMEN/FT (MINIMUM), DIMMING DRIVER, 4000K CCT.	MARK ARCHITECTURAL EATON PHILIPS	SL4S-LOP-4FT-FLP-TG-80CRI-40K-800LMF-MIN1-120-1E10WLCP S23 SERIES 39C8LCKQ SERIES	4000 K	80	2936 lm	120 V	32 W	RECESSED	
A8	4' WIDE X 8' LONG LED LINEAR SLOT LUMINAIRE, 800LUMEN/FT (MINIMUM), DIMMING DRIVER, 4000K CCT.	MARK ARCHITECTURAL EATON PHILIPS	SL4S-LOP-8FT-FLP-TG-80CRI-40K-800LMF-MIN1-120-1E10WLCP S23 SERIES 39CK8LCKQ SERIES	4000 K	80	5872 lm	120 V	64 W	RECESSED	
B	BOLLARD SITE LIGHT FIXTURE, DIRECT/DIFFUSED DISTRIBUTION, E27 LIGHT SOURCE, 3.5 FT HEIGHT, POWDERCOAT FINISH.	LAMPAS POULSEN LANDSCAPE FORMS	L209 SERIES BYSTED SERIES BW100 SERIES	4000 K	80	950 lm	120 V	10 W	SURFACE	
C1	CYLINDER DOWNLIGHT, 6" DIA, 4000K CCT, MIN 1000 DELIVERED LUMENS, PENDANT MOUNT, BLACK FINISH.	GOTHAM LITHONIA INDY	EVO6PC-40-10-AR-LS-MD-MVOLT-GZ10-PCAN45-DBL LDN6CYL SERIES LC6 SERIES	4000 K	80	2056 lm	120 V	23 W	PENDANT, 2" MAX	
C1E	SAME AS C1, BUT WITH 10W EMERGENCY BATTERY PACK.	GOTHAM LITHONIA INDY	EVO6PC-40-10-AR-LS-MD-MVOLT-GZ10-PCAN45-E10WCP-DBL LDN6CYL SERIES LC6 SERIES	4000 K	80	2056 lm	120 V	23 W	PENDANT, 2" MAX	
C2	CYLINDER DOWNLIGHT, 6" DIA, 4000K CCT, MIN 2000 DELIVERED LUMENS, PENDANT MOUNT, BLACK FINISH.	GOTHAM LITHONIA INDY	EVO6PC-40-20-AR-LS-MD-MVOLT-GZ10-PCAN45-DBL LDN6CYL SERIES LC6 SERIES	4000 K	80	2056 lm	120 V	23 W	PENDANT, 2" MAX	
C2E	SAME AS C2, BUT WITH 10W EMERGENCY BATTERY PACK.	GOTHAM LITHONIA INDY	EVO6PC-40-20-AR-LS-MD-MVOLT-GZ10-PCAN45-E10WCP-DBL LDN6CYL SERIES LC6 SERIES	4000 K	80	2056 lm	120 V	23 W	PENDANT, 2" MAX	
C3	CYLINDER DOWNLIGHT, 6" DIA, 4000K CCT, MIN 4000 DELIVERED LUMENS, PENDANT MOUNT, BLACK FINISH.	GOTHAM LITHONIA INDY	EVO6PC-40-40-AR-LS-MD-MVOLT-GZ10-PCAN45-DBL LDN6CYL SERIES LC6 SERIES	4000 K	80	2056 lm	120 V	23 W	PENDANT, 2" MAX	
C3E	SAME AS C3, BUT WITH 10W EMERGENCY BATTERY PACK.	GOTHAM LITHONIA INDY	EVO6PC-40-40-AR-LS-MD-MVOLT-GZ10-PCAN45-E10WCP-DBL LDN6CYL SERIES LC6 SERIES	4000 K	80	2056 lm	120 V	23 W	PENDANT, 2" MAX	
CS	CYLINDER DOWNLIGHT, 6" DIA, 4000K CCT, MIN 2000 DELIVERED LUMENS, SURFACE MOUNT, BLACK FINISH.	GOTHAM LITHONIA INDY	EVO6SC-40-20-AR-LS-MD-MVOLT-GZ10-DBL LDN6CYL SERIES LC6 SERIES	4000 K	80	2056 lm	120 V	23 W	SURFACE	
CSE	SAME AS CS, BUT WITH 10W EMERGENCY BATTERY PACK.	GOTHAM LITHONIA INDY	EVO6SC-40-20-AR-LS-MD-MVOLT-GZ10-E10WCP-DBL LDN6CYL SERIES LC6 SERIES	4000 K	80	2056 lm	120 V	23 W	SURFACE	
D	LED DOWNLIGHT, 6" DIAMETER, 1000 LUMEN OUTPUT (MINIMUM), WHITE FLANGE, SPECULAR DIFFUSE.	LITHONIA EATON PHILIPS	LDN6-40/10-L06-AR-LS-120-GZ1 PORTFOLIO SERIES CALCULITE SERIES	4000 K	80	950 lm	120 V	10 W	RECESSED	
DE	SAME AS D, BUT WITH 10W EMERGENCY BATTERY PACK.	LITHONIA EATON PHILIPS	LDN6-40/10-L06-AR-LS-120-GZ1 PORTFOLIO SERIES CALCULITE SERIES	4000 K	80	950 lm	120 V	10 W	RECESSED	
E1	EDGE LIT LED EXIT SIGN, SINGLE FACE, RED LETTERS, RECESSED CEILING MOUNTED HOUSING.	LITHONIA SURE-LITES HUBBELL	EDGR-1-R EUX SERIES CEL SERIES				120 V	0 W	SEE DESCRIPTION	
E2	EDGE LIT LED EXIT SIGN, SINGLE FACE, RED LETTERS, WALL MOUNTED HOUSING.	LITHONIA SURE-LITES HUBBELL	EDG-1-R EUX SERIES CEL SERIES				120 V	0 W	SEE DESCRIPTION	
G	GROUND MOUNTED SITE LIGHT FIXTURE	BEGA CURRENT LUMASCAPE	IN-GRADE SERIES LIGHTVAULT 8 SERIES LS553LED SERIES	4000 K	80	950 lm	120 V	10 W	SURFACE	
S1	4' SWITCHABLE STRIPLIGHT LUMINAIRE, SET TO 4000 LUMENS OUTPUT 0-10V CONTINUOUS DIMMING DRIVER, 4000K CCT.	LITHONIA PHILIPS COOPER LIGHTING	CSS-L48-AL03-MVOLT-SWW3-80CRI FSS4 SERIES WPLD SERIES	4000 K	80	4000 lm	120 V	16 W	SURFACE	
S1E	SAME AS S1, BUT WITH INTEGRAL BATTERY PACK.	LITHONIA PHILIPS COOPER LIGHTING	CSS-L48-AL03-MVOLT-SWW3-80CRI FSS4 SERIES WPLD SERIES	4000 K	80	4000 lm	120 V	16 W	SURFACE	
S2	SAME AS S1, BUT PENDANT MOUNTED.	LITHONIA PHILIPS COOPER LIGHTING	CSS-L48-AL03-MVOLT-SWW3-80CRI FSS4 SERIES WPLD SERIES	4000 K	80	4000 lm	120 V	16 W	PENDANT AT 9'-0" AFF UON	
S2E	SAME AS S2, BUT WITH INTEGRAL BATTERY PACK.	LITHONIA PHILIPS COOPER LIGHTING	CSS-L48-AL03-MVOLT-SWW3-80CRI FSS4 SERIES WPLD SERIES	4000 K	80	4000 lm	120 V	16 W	PENDANT AT 9'-0" AFF UON	
V1	LED STRIP LIGHT, 300LMF DIRECT/INDIRECT, 4000K CCT, WALL MOUNT.	MARK ARCHITECTURAL LITHONIA FOCAL POINT	S4WID-LLP-5.5FT-80CRI-40K-300LMF-I80CRI-I40K-I300LMF-SCT-MIN10-FLL-DC-MVOLT-BLKT WC SERIES FSM4LW SERIES	4000 K	80	292 lm	120 V	24 W	WALL AT 8'-0" AFF	
W2E	4' SWITCHABLE STRIPLIGHT WALL MOUNT LUMINAIRE, SET TO 4000 LUMENS OUTPUT 0-10V CONTINUOUS DIMMING DRIVER, 4000K CCT, WITH INTEGRAL BATTERY PACK.	LITHONIA COLUMBIA KENALL	CSS-L48-AL03-MVOLT-SWW3-80CRI FSS4 SERIES WPLD SERIES	4000 K	80	4000 lm	120 V	16 W	WALL	
X1	PENDANT DOWNLIGHT, 6" DIA, 3000K CCT, MIN 2000 DELIVERED LUMENS, WET LOCATION, BLACK FINISH.	GOTHAM LITHONIA INDY	EVO6PC-30-20-AR-LS-MD-MVOLT-GZ10-PCAN45-WL-DBL LDN6CYL SERIES LC6 SERIES	4000 K	80	2056 lm	120 V	23 W	PENDANT, 2" MAX	
X1E	SAME AS X1, BUT WITH 10W EMERGENCY BATTERY PACK.	GOTHAM LITHONIA INDY	EVO6PC-30-20-AR-LS-MD-MVOLT-GZ10-PCAN45-E10WCP-WL-DBL LDN6CYL SERIES LC6 SERIES	4000 K	80	2056 lm	120 V	23 W	PENDANT, 2" MAX	

LIGHTING FIXTURE SCHEDULE NOTES:

1. PROVIDE SUITABLE TRIM AND APPURTENANCES TO MOUNT FIXTURES IN TYPE OF CEILING OR WALL AS SPECIFIED IN ARCHITECTURAL FINISH SCHEDULES REGARDLESS OF CATALOG NUMBER GIVEN.
2. PROVIDE 10% ADDITIONAL STOCK OF EACH EXIT SIGN TYPE AT NO ADDITIONAL COST TO THE OWNER.

MARITIME HERITAGE FOUNDATION
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CN PROJ # : 10145
SCO ID # : 24-27956-01A

DESIGNER

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RALEIGH, NORTH CAROLINA 27603
919-828-1876
CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

NORTH CAROLINA REGISTERED SEAL 021538 ENGINEER PATRICK J. ROSE

2024.06.07 08:16:40-04'00'

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

LIGHTING FIXTURE SCHEDULE

EL601

DESIGN: EAK
DRAWN: MSW
REVIEW: PJR

CN 10145

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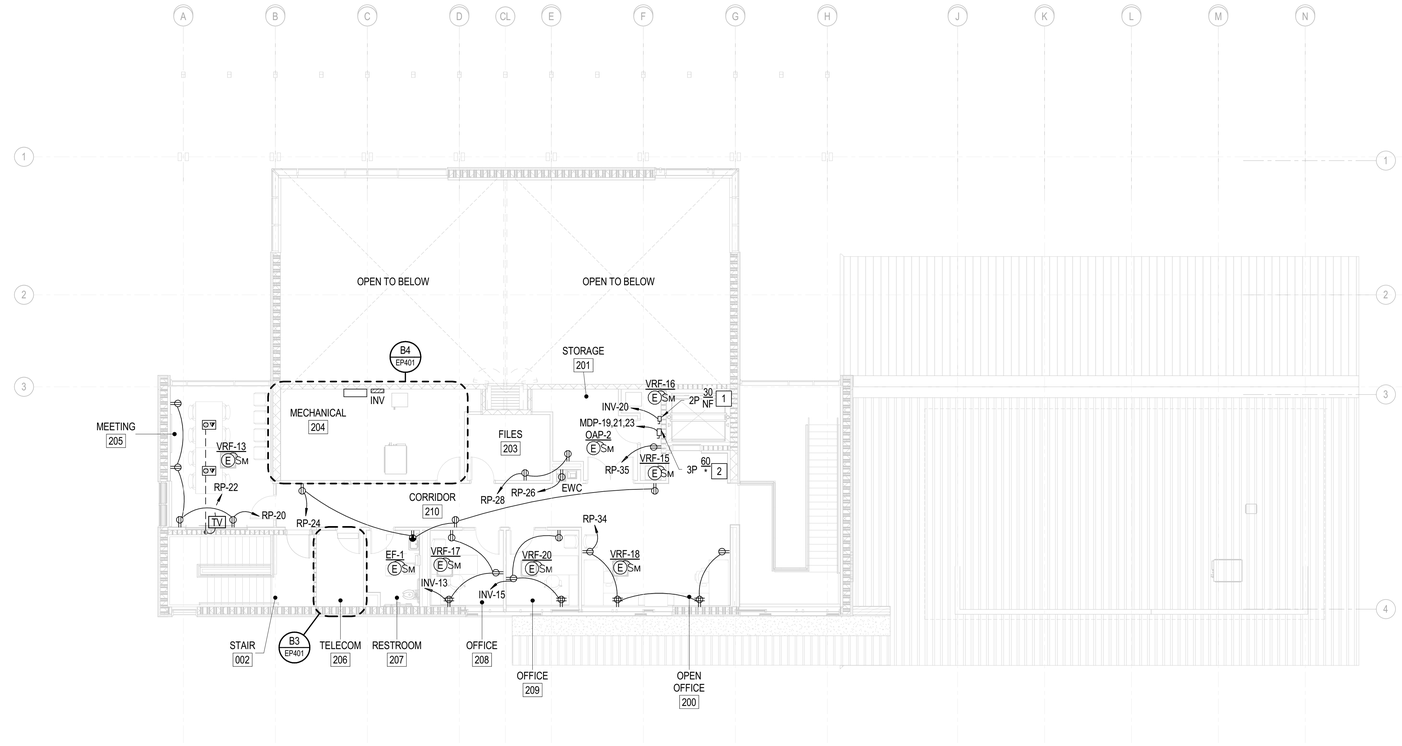
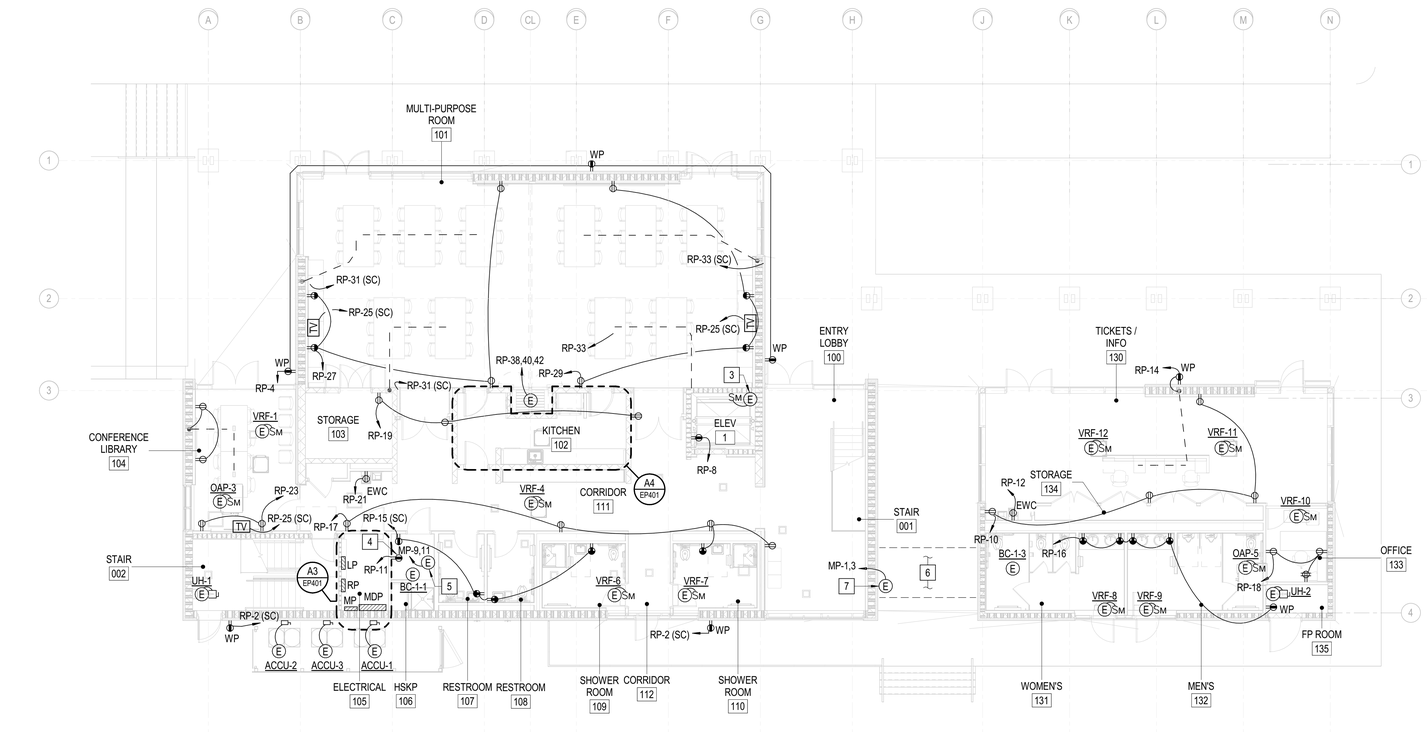


SECOND FLOOR POWER PLAN

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



FIRST FLOOR POWER PLAN

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

GENERAL NOTES

A. REFER TO E-001 FOR GENERAL NOTES.
B. REFER TO EQUIPMENT CONNECTION SCHEDULE ON EP601 FOR CIRCUITING OF MECHANICAL AND PLUMBING EQUIPMENT.

KEY NOTES

1 PROVIDE A 30A/2P DISCONNECT FOR ELEVATOR CAB LIGHTS. COORDINATE LOCATION WITH APPROVED ELEVATOR SHOP DRAWINGS.
2 PROVIDE A SHUNT-TRIP (INTERLOCK KIT) IN ELEVATOR FUSED DISCONNECT SWITCH, AND CONDUIT/WIRING FROM SHUNT TRIP TO FIRE ALARM CONTROL PANEL (FACP). COORDINATE LOCATION WITH APPROVED ELEVATOR SHOP DRAWINGS.
3 COORDINATE WITH DIV. 22 CONTRACTOR FOR WIRING TO SUMP PUMP.
4 DEDICATED RECEPTACLE FOR WATER SOFTENER CONTROLS. COORDINATE LOCATION WITH PLUMBING.
5 DEDICATED CIRCUIT FOR SUMP PUMP CONTROL PANEL. COORDINATE LOCATION WITH PLUMBING.
6 COORDINATE WITH ARCHITECTURAL SHEETS AND RUN POWER AND TELECOM CONDUITS TO THE EAST SECTION OF BUILDING IN CHASE LOCATED UNDER THE STAIRS.
7 COORDINATE REQUIREMENTS WITH PLUMBING DRAWINGS. PROVIDE CONNECTION TO HEAT TAPE FOR COLD WATER, HOT WATER, AND HOT WATER RETURN PIPING ROUTED THROUGH THE UNCONDITIONED PIPE ENCLOSURE. COORDINATE EXACT CONNECTION LOCATION PRIOR TO ROUGH-IN.

GRAPHIC SCALE(S)

1/8" = 1' - 0" 0 5' 10' 15' 30'

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PROFESSIONAL SEAL

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SEAL
021538
ENGINEER
PATRICK J. ROSE
2024.06.07 08:16:43-04'00'

SUBMITTAL
JUNE 7, 2024
BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET
FIRST & SECOND FLOOR POWER PLANS

EP101

DESIGN: EAK
DRAWN: MSW
REVIEW: PJR
CN 10145

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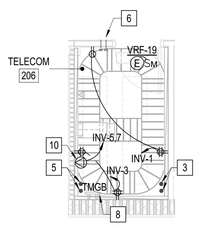
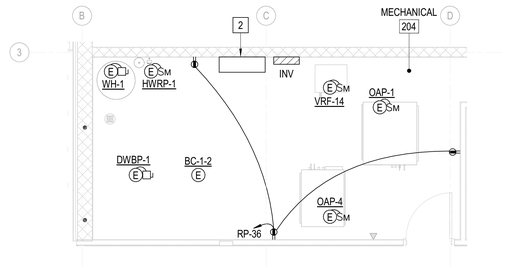
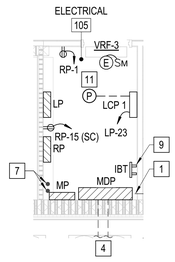


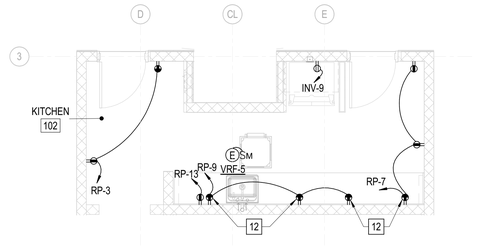
B3 ENLARGED POWER PLAN RM 206
SCALE: 1/4" = 1'-0"



B4 ENLARGED POWER PLAN RM 204
SCALE: 1/4" = 1'-0"



A3 ENLARGED POWER PLAN RM 105
SCALE: 1/4" = 1'-0"



A4 ENLARGED POWER PLAN RM 102
SCALE: 1/4" = 1'-0"

GENERAL NOTES

A. REFER TO E-001 FOR GENERAL NOTES.
B. REFER TO EQUIPMENT CONNECTION SCHEDULE ON EP601 FOR CIRCUITING OF MECHANICAL AND PLUMBING EQUIPMENT.

KEY NOTES

1 SEE DETAIL 3/EG502 AND BOND SERVICE EQUIPMENT GROUND BAR TO GROUND TRIAD INSTALLED OUTSIDE THE BUILDING.
2 PROVIDE AN INVERTER IN CABINET WITH BATTERIES SIZED BY THE MANUFACTURER'S REP TO RUN ALL LOADS IN PANEL "INV", PLUS 20%, FOR 90 MINUTES MINIMUM. REFER TO PANEL INV SCHEDULE ON EP602 FOR ADDITIONAL INFORMATION.
3 TWO 2" CONDUITS WITH PULLSTRING RUN FROM DATA ROOM TO ROOF WEATHER HEADS FOR DISTRIBUTED ANTENNA SYSTEM (DAS). STUB TO 12-INCH ABOVE CABLE TRAY IN DATA ROOM. STUB TO 8-INCH ABOVE ROOF.
4 CONDUITS CONTINUED FROM "GDS". COORDINATE PENETRATIONS WITH STRUCTURAL FOOTINGS.
5 TELECOM OSP CONDUITS ROUTED UP FROM MAIN ELECTRICAL ROOM ON FIRST FLOOR.
6 4" CONDUIT SLEEVES TO CORRIDOR.
7 TELECOM OSP CONDUITS ROUTED UP TO 2ND FLOOR TELECOM ROOM.
8 TELECOM MAIN GROUNDING BAR. REFER TO EP701 FOR MORE INFORMATION.
9 ENSURE THE IBT BAR IS MOUNTED OUT OF PANEL MDP WORKING SPACE TO COMPLY WITH NEC 110.26(A).
10 PROVIDE A NEMA 6-20R RECEPTACLE ADJACENT TO EQUIPMENT RACK. COORDINATE EXACT LOCATION AND NEMA CONFIGURATION WITH OWNER.
11 INSTALL PHOTOELECTRIC SWITCH ON ROOF AND AIM TOWARDS NORTHERN SKY. SHEILD FROM ARTIFICIAL LIGHT SOURCES.
12 RECEPTACLES TO BE LOCATED WITHIN BACKSPLASH AND ROTATED 90 DEGREES.

GRAPHIC SCALE(S)

1/4" = 1' - 0" 0 1' 5' 10' 15'

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CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

NORTH CAROLINA REGISTERED SEAL 021538 ENGINEER PATRICK J. ROSE

2024.06.07 08:16:47-04'00'

SUBMITTAL
JUNE 7, 2024
BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET
ENLARGED POWER PLANS

EP401

DESIGN: EAK
DRAWN: MSW
REVIEW: PJR

CN 10145

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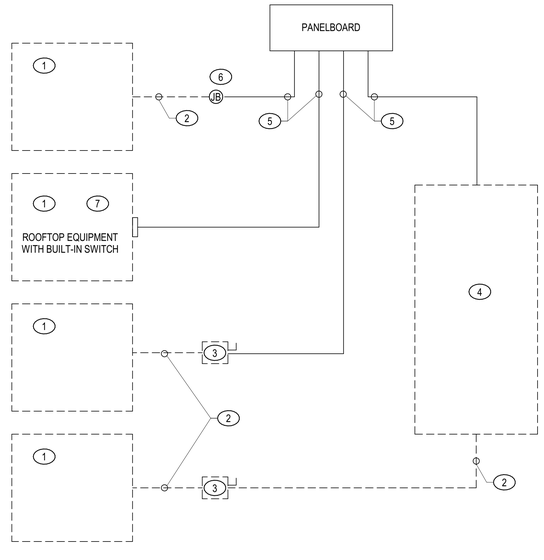
EQUIPMENT CONNECTION SCHEDULE

EQUIPMENT DESIGNATION	DESCRIPTION	LOCATION	LOAD RATING	FLA	MCA	MOCP	VOLTS	PHASE	DISCONNECT SWITCH NO. OF POLES	PANEL	CIRCUIT NUMBER	DISCONNECT SWITCH RATING	DISCONNECT SWITCH FUSE SIZE	DISCONNECT SWITCH NEMA TYPE	REMARKS
---	GRINDER PUMP	SITE	2.4KW	8.4A	10.5A	15A	208 V	3	3	MDP	13,15,17	30 A	SEE REMARKS	4X	CONFIRM DISCONNECT FISE SIZE WITH PUMP MOTOR NAMEPLATE.
ACCU-1	AIR COOLED CONDENSING UNIT	EXTERIOR	-	41.6A	52A	80A	208 V	3	3	MDP	25,27,29	100 A	NF	3R	
ACCU-2	AIR COOLED CONDENSING UNIT	EXTERIOR	-	39.2A	49A	80A	208 V	3	3	MDP	31,33,35	100 A	NF	3R	
ACCU-3	AIR COOLED CONDENSING UNIT	EXTERIOR	-	32.8A	41A	60A	208 V	3	3	MDP	26,28,30	60 A	NF	3R	
BC-1-1	BRANCH CONTROLLER	HSKP 106	-	0.96A	1.2A	20A	120 V	1	1	MP	2	0 A		1	
BC-1-2	BRANCH CONTROLLER	MECHANICAL 204	-	0.56A	0.7A	20A	120 V	1	1	MP	29	0 A		1	
BC-1-3	BRANCH CONTROLLER	WOMEN'S 131	-	0.56A	0.7A	20A	120 V	1	1	MP	2	0 A		1	
DWBP-1	DOMESTIC WATER BOOST PUMP	MECHANICAL 204	2 HP	13.2A	16.5A	20A	208 V	1	2	MP	16,18	30 A	NF	1	
EF-1	EXHAUST FAN	RESTROOM 207	1/10 HP	-	-	15A	208 V	1	2	MP	8,10	30 A	SEE REMARKS	1	PROVIDE MOTOR/HP RATED SWITCH FOR DISCONNECT.
HWRP-1	HOT WATER RECIRC PUMP	MECHANICAL 204	1/12 HP	1.2A	1.5A	15A	208 V	1	2	MP	12,14	30 A	SEE REMARKS	1	PROVIDE MOTOR/HP RATED SWITCH FOR DISCONNECT.
OAP-1	OAP UNIT	MECHANICAL 204	-	3.8A	4.80A	15A	208 V	1	2	INV	2,4	30 A	SEE REMARKS	1	PROVIDE MOTOR/HP RATED SWITCH FOR DISCONNECT.
OAP-2	OAP UNIT	STORAGE 201	-	3.8A	4.80A	15A	208 V	1	2	INV	6,8	30 A	SEE REMARKS	1	PROVIDE MOTOR/HP RATED SWITCH FOR DISCONNECT.
OAP-3	OAP UNIT	CONFERENCE LIBRARY 102	-	2.6A	3.30A	15A	208 V	1	2	INV	10,12	30 A	SEE REMARKS	1	PROVIDE MOTOR/HP RATED SWITCH FOR DISCONNECT.
OAP-4	OAP UNIT	OPEN OFFICE 200	-	2.6A	3.30A	15A	208 V	1	2	INV	2,4	30 A	SEE REMARKS	1	PROVIDE MOTOR/HP RATED SWITCH FOR DISCONNECT.
OAP-5	OAP UNIT	MEN'S 132	-	2.6A	3.30A	15A	208 V	1	2	INV	14,16	30 A	SEE REMARKS	1	PROVIDE MOTOR/HP RATED SWITCH FOR DISCONNECT.
UH-1	UNIT HEATER	STAIR 002	3 kW	14.4A	18A	25A	208 V	1	2	MP	4,6	30 A	NF	1	
UH-2	UNIT HEATER	FP ROOM 135	3 kW	14.4A	18A	25A	208 V	1	2	MP	17,19	30 A	NF	1	
VRF-1	VRF INDOOR UNIT	CONFERENCE LIBRARY 102	-	0.43A	0.54A	15A	208 V	1	2	MP	5,7	30 A	SEE REMARKS	1	PROVIDE MOTOR/HP RATED SWITCH FOR DISCONNECT.
VRF-3	VRF INDOOR UNIT	ELECTRICAL 105	-	0.19A	0.24A	15A	208 V	1	2	MP	5,7	30 A	SEE REMARKS	1	PROVIDE MOTOR/HP RATED SWITCH FOR DISCONNECT.
VRF-4	VRF INDOOR UNIT	CORRIDOR 111	-	0.31A	0.39A	15A	208 V	1	2	MP	5,7	30 A	SEE REMARKS	1	PROVIDE MOTOR/HP RATED SWITCH FOR DISCONNECT.
VRF-5	VRF INDOOR UNIT	KITCHEN 102	-	0.22A	0.28A	15A	208 V	1	2	MP	5,7	30 A	SEE REMARKS	1	PROVIDE MOTOR/HP RATED SWITCH FOR DISCONNECT.
VRF-6	VRF INDOOR UNIT	SHOWER ROOM 109	-	0.19A	0.24A	15A	208 V	1	2	MP	5,7	30 A	SEE REMARKS	1	PROVIDE MOTOR/HP RATED SWITCH FOR DISCONNECT.
VRF-7	VRF INDOOR UNIT	SHOWER ROOM 110	-	0.19A	0.24A	15A	208 V	1	2	MP	5,7	30 A	SEE REMARKS	1	PROVIDE MOTOR/HP RATED SWITCH FOR DISCONNECT.
VRF-8	VRF INDOOR UNIT	WOMEN'S 131	-	0.19A	0.24A	15A	208 V	1	2	MP	13,15	30 A	SEE REMARKS	1	PROVIDE MOTOR/HP RATED SWITCH FOR DISCONNECT.
VRF-9	VRF INDOOR UNIT	MEN'S 132	-	0.19A	0.24A	15A	208 V	1	2	MP	13,15	30 A	SEE REMARKS	1	PROVIDE MOTOR/HP RATED SWITCH FOR DISCONNECT.
VRF-10	VRF INDOOR UNIT	OFFICE 133	-	0.19A	0.24A	15A	208 V	1	2	MP	13,15	30 A	SEE REMARKS	1	PROVIDE MOTOR/HP RATED SWITCH FOR DISCONNECT.
VRF-11	VRF INDOOR UNIT	TICKETS/INFO 130	-	0.31A	0.39A	15A	208 V	1	2	MP	13,15	30 A	SEE REMARKS	1	PROVIDE MOTOR/HP RATED SWITCH FOR DISCONNECT.
VRF-12	VRF INDOOR UNIT	TICKETS/INFO 130	-	0.31A	0.39A	15A	208 V	1	2	MP	13,15	30 A	SEE REMARKS	1	PROVIDE MOTOR/HP RATED SWITCH FOR DISCONNECT.
VRF-13	VRF INDOOR UNIT	MEETING 205	-	0.19A	0.24A	15A	208 V	1	2	MP	21,23	30 A	SEE REMARKS	1	PROVIDE MOTOR/HP RATED SWITCH FOR DISCONNECT.
VRF-14	VRF INDOOR UNIT	MECHANICAL 204	-	0.31A	0.39A	15A	208 V	1	2	MP	21,23	30 A	SEE REMARKS	1	PROVIDE MOTOR/HP RATED SWITCH FOR DISCONNECT.
VRF-15	VRF INDOOR UNIT	MECHANICAL 204	-	0.31A	0.39A	15A	208 V	1	2	MP	21,23	30 A	SEE REMARKS	1	PROVIDE MOTOR/HP RATED SWITCH FOR DISCONNECT.
VRF-16	VRF INDOOR UNIT	STORAGE 201	-	0.31A	0.39A	15A	208 V	1	2	MP	21,23	30 A	SEE REMARKS	1	PROVIDE MOTOR/HP RATED SWITCH FOR DISCONNECT.
VRF-17	VRF INDOOR UNIT	OFFICE 208	-	0.31A	0.39A	15A	208 V	1	2	MP	21,23	30 A	SEE REMARKS	1	PROVIDE MOTOR/HP RATED SWITCH FOR DISCONNECT.
VRF-18	VRF INDOOR UNIT	OPEN OFFICE 200	-	0.31A	0.39	15A	208 V	1	2	MP	21,23	30 A	SEE REMARKS	1	PROVIDE MOTOR/HP RATED SWITCH FOR DISCONNECT.
VRF-19	VRF INDOOR UNIT	TELECOM 206	-	0.19A	0.24A	15A	208 V	1	2	MP	21,23	30 A	SEE REMARKS	1	PROVIDE MOTOR/HP RATED SWITCH FOR DISCONNECT.
VRF-20	VRF INDOOR UNIT	OFFICE 209	-	0.31A	0.39A	15A	208 V	1	2	MP	21,23	30 A	SEE REMARKS	1	PROVIDE MOTOR/HP RATED SWITCH FOR DISCONNECT.
WH-1	WATER HEATER	MECHANICAL 204	9000 W	43.7	54A	60A	208 V	1	2	MP	20,22	60 A	NF	1	

ELECTRICAL NOTES:

1. EQUIPMENT OF TRADES OTHER THAN ELECTRICAL.
2. CONDUIT AND WIRING BY HVAC, PLUMBING CONTRACTOR, OR OTHER TRADES.
3. IF AN ADDITIONAL DISCONNECT IS REQUIRED BY NEC, IT SHALL BE PROVIDED AND INSTALLED BY THE EQUIPMENT CONTRACTOR.
4. A COMBINATION STARTER OF VFD/VFC MAY BE USED IN LIEU OF A SEPARATE DISCONNECT SWITCH AND STARTER. LOCATE ADJACENT TO EQUIPMENT.
5. FEEDER CIRCUIT WIRING AND CONDUIT IN ELECTRICAL SCOPE. SEE PANELBOARD SCHEDULES FOR WIRE AND BREAKER SIZES.
6. JUNCTION BOX MAY BE SHOWN ON ELECTRICAL PLANS FOR SOME EQUIPMENT. IF NO STARTER OR DISCONNECT IS SUPPLIED, A JUNCTION BOX SHALL BE INSTALLED ADJACENT TO EQUIPMENT. THE ELECTRICAL CONTRACTOR SHALL PROVIDE LINE SIDE WIRING TO THE JUNCTION BOX. LOAD SIDE WIRING WILL BE PROVIDED BY MECHANICAL CONTRACTOR OR OTHER TRADES.
7. IF THE ROOFTOP FAN IS NOT PROVIDED WITH BUILT IN SWITCH, THE ELECTRICAL CONTRACTOR SHALL PROVIDE A DISCONNECT SWITCH.
8. IN ALL CASES THE EQUIPMENT CONTRACTOR SHALL MAKE FINAL CONNECTIONS, START UP, AND TEST EQUIPMENT.

NOTE:
IN A SINGLE PRIME CONTRACT, IT IS THE RESPONSIBILITY OF THE PRIME CONTRACTOR TO COORDINATE BETWEEN THE ELECTRICAL TRADES AND ALL OTHER TRADES.



A4 ELECTRICAL EQUIPMENT CONNECTION - DIVISION OF LABOR

NOT TO SCALE

MARITIME HERITAGE FOUNDATION
THE NORTH CAROLINA MARITIME MUSEUM

Maritime Education Center

293 W BEAUFORT ROAD EXT, BEAUFORT, NC 28516

CN PROJ # : 10145

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DESIGNER

CLARKNEXSEN

421 NORTH HARRINGTON STREET, SUITE 600
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919-828-1876

CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

NORTH CAROLINA
SEAL
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ENGINEER
PATRICK J. ROSE

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SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

EQUIPMENT CONNECTION SCHEDULE & POWER DETAILS

EP601

DESIGN: EAK
DRAWN: MSW
REVIEW: PJR

CN 10145

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PANEL MDP SCHEDULE

600 AMP MCB 208Y/120 VOLTS 3PH, 4W, 60 HZ MIN. 22 KAIC SURFACE MOUNTED

CKT. NO.	LOAD DESCRIPTION	COND SIZE	WIRE SIZE	BKR TRIP	AMPS	KVA	PH	KVA	AMPS	BKR TRIP	WIRE SIZE	COND SIZE	LOAD DESCRIPTION	CKT. NO.
1	SPARE			20			A			20			SPARE	2
3							B			20			SPARE	4
5	SPARE			20			C			20			SPARE	6
7	SPARE			20			A			20			SPARE	8
9	SPARE			20			B			20			SPARE	10
11	SPARE			20			C			20			SPARE	12
13	GRINDER PUMP	1/2	10	20	8.4	1.0	A			20			SPARE	14
15					8.4	1.0	B			20			SPARE	16
17					8.4	1.0	C			20			SPARE	18
19	ELEVATOR	1-1/4	4	60	30.0	3.6	A	3.3	27.8	60	4	1-1/2	10KVA INVERTER (NOTES 1 & 2)	20
21					30.0	3.6	B	3.3	27.8			1/2		22
23					30.0	3.6	C	3.3	27.8					24
25	ACCU-1	1-1/4	3	80	41.6	5.0	A	3.9	32.8	60	4	1-1/4	ACCU-3	26
27					41.6	5.0	B	3.9	32.8					28
29					41.6	5.0	C	3.9	32.8					30
31	ACCU-2	1-1/4	3	80	39.2	4.7	A	3.4	28.0	100	*	*	PANEL LP	32
33					39.2	4.7	B	2.3	19.0					34
35					39.2	4.7	C	2.5	21.0					36
37	PANEL RP	*	*	150	54.0	6.5	A	6.8	56.8	150	*	*	PANEL MP	38
39					68.0	8.2	B	9.3	77.1					40
41					47.0	5.6	C	6.3	52.4					42

TOTAL AMPS (CONN. LOAD) A: 318.6 B: 343.9 C: 300.3
TOTAL AMPS (FEEDTHRU) A: B: C:
TOTAL AMPS (CONN. LOAD + FEED-THRU) A: 318.6 B: 343.9 C: 300.3

PANELBOARD OPTIONS:

PANELBOARD NOTES:
1. VERIFY CIRCUIT SIZE FOR INVERTER AFTER THE UNIT IS SIZED BY A VENDOR BASED ON LOADS CONNECTED.
2. IF ALTERNATE NO. 2A IS ACCEPTED, LABEL THIS BREAKER AS "PANEL INV". REFER TO DETAIL 5/EP701 FOR ADDITIONAL INFORMATION.

LOAD DESCRIPTION	PANEL CONN LOAD		SUBFEED CONN LOAD		FEEDTHRU CONN LOAD		TOTAL LOAD		D.F. MULT.	TOTAL KVA DEMAND	
LIGHTING		KVA	8.2	KVA		KVA	8.2	KVA	1.25	10.2	KVA
RECEPTACLES		KVA	18.8	KVA		KVA	18.8	KVA	NEC	14.4	KVA
MECH EQUIP	40.9	KVA	19.6	KVA		KVA	60.4	KVA	1.00	60.4	KVA
ELECTRIC HEAT		KVA		KVA		KVA		KVA	1.25		KVA
MISCELLANEOUS	3.0	KVA	4.2	KVA		KVA	7.3	KVA	1.00	7.3	KVA
ELEVATOR	10.8	KVA		KVA		KVA	10.8	KVA	1.00	10.8	KVA
KITCHEN EQUIP.		KVA		KVA		KVA		KVA	0.65		KVA
		KVA		KVA		KVA		KVA			KVA
		KVA		KVA		KVA		KVA			KVA
		KVA		KVA		KVA		KVA			KVA
		KVA		KVA		KVA		KVA			KVA
TOTALS (CONN. KVA)	54.7	KVA	50.8	KVA		KVA	105.5	KVA		103.1	KVA
TOTALS (CONN. KVA + 20%)	65.7	KVA	60.9	KVA		KVA	126.6	KVA		123.8	KVA
TOTALS (CONN. AMPS)	151.9	AMPS	141.0	AMPS		AMPS	292.9	AMPS		286.3	AMPS
TOTALS (CONN. AMPS + 20%)	182.3	AMPS	169.2	AMPS		AMPS	351.4	AMPS		343.5	AMPS

PANEL RP SCHEDULE

150 AMP MLO 208Y/120 VOLTS 3PH, 4W, 60 HZ MIN. 18 KAIC SURFACE MOUNTED NEMA 1

CKT. NO.	LOAD DESCRIPTION	COND SIZE	WIRE SIZE	BKR TRIP	AMPS	KVA	PH	KVA	AMPS	BKR TRIP	WIRE SIZE	COND SIZE	LOAD DESCRIPTION	CKT. NO.
1	RECEPT - ELEC 105	1/2	12	20	1.5	0.2	A	0.4	3.0	20	12	1/2	RECEPT - EXTERIOR SOUTH	2
3	RECEPT - KITCHEN 102	1/2	12	20	3.0	0.4	B	0.5	4.5	20	10	1/2	RECEPT - EXTERIOR NORTH	4
5	SPARE			20			C			20			SPARE	6
7	RECEPT - RM 102 - COUNTER	1/2	12	20	4.5	0.5	A	0.2	1.5	20	10	1/2	RECEPT - ELEVATOR PIT	8
9	RECEPT - RM 102 - COUNTER	1/2	12	20	4.5	0.5	B	0.7	6.0	20	8	3/4	RECEPT - TICKETS 130	10
11	RECEPT - RM 106 - WATER SOFTNR CTRL	1/2	12	20	5.0	0.6	C	0.1	1.0	20	10	1/2	RECEPT - TICKETS 130 - EWC (NOTE 1)	12
13	RECEPT - KITCHEN 102 - MICROWAVE	1/2	12	20	10.0	1.2	A	0.5	4.5	20	8	3/4	RECEPT - TICKETS 130	14
15	RECEPT - HSKP 108, ELECTRICAL 105	1/2	12	20	6.0	0.7	B	0.9	7.5	20	8	3/4	RECEPT - WOMENS 131, FIT RM 135	16
17	RECEPT - CORR 111	1/2	12	20	7.5	0.9	C	0.7	6.0	20	8	3/4	RECEPT - OFFICE 133	18
19	RECEPT - CORR 111, STORAGE 103	1/2	12	20	4.5	0.5	A	0.7	6.0	20	10	1/2	RECEPT - MEETING 205	20
21	RECEPT - CORR 111 - EWC (NOTE 1)	1/2	12	20	2.2	0.1	B	0.7	6.0	20	10	1/2	RECEPT - MEETING 205 - TV/FLR BOX	22
23	RECEPT - CONF 104	1/2	12	20	7.5	0.9	C	0.5	4.0	20	8	3/4	RECEPT - CORR 210	24
25	RECEPT - TV RM 101, 104	1/2	12	20	6.0	0.7	A	0.1	1.0	20	10	1/2	RECEPT - CORR 210 - EWC (NOTE 1)	26
27	RECEPT - RM 101	1/2	12	20	8.0	0.7	B	0.4	3.0	20	8	3/4	RECEPT - FILES 203, STORAGE 201	28
29	RECEPT - RM 101	1/2	12	20	6.0	0.7	C			20			SPARE	30
31	RECEPT - RM 101 - FLOOR BOX	1/2	12	20	7.5	0.9	A			20			SPARE	32
33	RECEPT - RM 101 - FLOOR BOX	1/2	12	20	7.5	0.9	B	1.1	9.0	20	10	1/2	RECEPT - OPEN OFFICE 200	34
35	RECEPT - 2ND FLR ELEV CONTROL RM	1/2	12	20	1.5	0.2	C	0.5	4.5	20	10	1/2	RECEPT - MECH 204	36
37	FOLDING PARTITION - RM 101	1/2	12	20	4.0	0.5	A			20			SPARE	38
39					4.0	0.5	B			20			SPARE	40
41					4.0	0.5	C			20			SPARE	42

TOTAL AMPS (CONN. LOAD) A: 54.0 B: 68.0 C: 47.0
TOTAL AMPS (FEEDTHRU) A: B: C:
TOTAL AMPS (CONN. LOAD + FEED-THRU) A: 54.0 B: 68.0 C: 47.0

PANELBOARD OPTIONS:

PANELBOARD NOTES:
1. PROVIDE GFCI TYPE BREAKER.

LOAD DESCRIPTION	PANEL CONN LOAD		SUBFEED CONN LOAD		FEEDTHRU CONN LOAD		TOTAL LOAD		D.F. MULT.	TOTAL KVA DEMAND	
LIGHTING		KVA		KVA		KVA		KVA	1.25		KVA
RECEPTACLES	18.8	KVA		KVA		KVA	18.8	KVA	NEC	14.4	KVA
MECH EQUIP		KVA		KVA		KVA		KVA	1.00		KVA
ELECTRIC HEAT		KVA		KVA		KVA		KVA	1.25		KVA
MISCELLANEOUS	1.4	KVA		KVA		KVA	1.4	KVA	1.00	1.4	KVA
ELEVATOR		KVA		KVA		KVA		KVA	1.00		KVA
KITCHEN EQUIP.		KVA		KVA		KVA		KVA	0.65		KVA
		KVA		KVA		KVA		KVA			KVA
		KVA		KVA		KVA		KVA			KVA
		KVA		KVA		KVA		KVA			KVA
		KVA		KVA		KVA		KVA			KVA
TOTALS (CONN. KVA)	20.3	KVA		KVA		KVA	20.3	KVA		15.9	KVA
TOTALS (CONN. KVA + 20%)	24.3	KVA		KVA		KVA	24.3	KVA		19.0	KVA
TOTALS (CONN. AMPS)	56.3	AMPS		AMPS		AMPS	56.3	AMPS		44.0	AMPS
TOTALS (CONN. AMPS + 20%)	67.5	AMPS		AMPS		AMPS	67.5	AMPS		52.8	AMPS

PANEL MP SCHEDULE

150 AMP MLO 208Y/120 VOLTS 3PH, 4W, 60 HZ MIN. 18 KAIC SURFACE MOUNTED

CKT. NO.	LOAD DESCRIPTION	COND SIZE	WIRE SIZE	BKR TRIP	AMPS	KVA	PH	KVA	AMPS	BKR TRIP	WIRE SIZE	COND SIZE	LOAD DESCRIPTION	CKT. NO.
1	PLUMBING PIPING HEAT TRACE	1/2	12	15	0.8	0.1	A			20	12	1/2	BC-1-1, BC-1-3	2
3	(SEE NOTES 1,2,3)				0.8	0.1	B	1.5	14.4	25	10	1/2	UH-1	4
5	VRF-1, VRF-3, VRF-4, VRF-5, VRF-6, VRF-7	1/2	12	15	1.7	0.2	C	1.5	14.4					6
7					1.7	0.2	A	0.1	1.0	15	12	1/2	EF-1	8
9	ELEVATOR SUMP PUMP SP-1	1/2	10	25	12.7	1.3	B	0.1	1.0					10
11	CONTROL PANEL				12.7	1.3	C	0.1	1.2	15	12	1/2	HWRP-1	12
13	VRF-8, VRF-9, VRF-10, VRF-11, VRF-12	1/2	12	15	1.1	0.1	A	0.1	1.2					14
15					1.1	0.1	B	1.4	13.2	20	12	1/2	DWBP-1	16
17	UH-2	1/2	10	25	14.4	1.5	C	1.4	13.2					18
19					14.4	1.5	A	4.5	43.7	60	4	1-1/4	WH-1	20
21	VRF-13 THRU VRF-20	1/2	12	15	2.2	0.2	B	4.5	43.7					22
23					2.2	0.2	C			20			SPARE	24
25	SPARE			20			A			20			SPARE	26
27	SPARE			20			B			20			SPARE	28
29	RC-1-2	1/2	12	15	0.6	0.1	C			20			SPARE	30
31	SPARE			20			A			20			SPARE	32
33	SPARE			20			B			20			SPARE	34
35	SPARE			20			C			20			SPARE	36
37	SPARE			20			A			20			SPARE	38
39	SPARE			20			B			20			SPARE	40
41	SPARE			20			C			20			SPARE	42

TOTAL AMPS (CONN. LOAD) A: 56.8 B: 77.1 C: 52.4
TOTAL AMPS (FEEDTHRU) A: B: C:
TOTAL AMPS (CONN. LOAD + FEED-THRU) A: 56.8 B: 77.1 C: 52.4

PANELBOARD OPTIONS:

PANELBOARD NOTES:
1. PROVIDE WITH 30mA GROUND FAULT EQUIPMENT PROTECTION.
2. COORDINATE BREAKER SIZE WITH LENGTH AND WATTAGE OF HEAT TRACE PROVIDED.
3. PROVIDE LOCKABLE BREAKER.

LOAD DESCRIPTION	PANEL CONN LOAD		SUBFEED CONN LOAD		FEEDTHRU CONN LOAD		TOTAL LOAD		D.F. MULT.	TOTAL KVA DEMAND	
LIGHTING		KVA		KVA		KVA		KVA	1.25		KVA
RECEPTACLES		KVA		KVA		KVA		KVA	NEC		KVA
MECH EQUIP	19.6	KVA		KVA		KVA	19.6	KVA	1.00	19.6	KVA
ELECTRIC HEAT		KVA		KVA		KVA		KVA	1.25		KVA
MISCELLANEOUS	2.8	KVA		KVA		KVA	2.8	KVA	1.00	2.8	KVA
ELEVATOR		KVA		KVA		KVA		KVA	1.00		KVA
KITCHEN EQUIP.		KVA		KVA		KVA		KVA	0.65		KVA
		KVA		KVA		KVA		KVA			KVA
		KVA		KVA		KVA		KVA			KVA
		KVA		KVA		KVA		KVA			KVA
		KVA		KVA		KVA		KVA			KVA
TOTALS (CONN. KVA)	22.4	KVA		KVA		KVA	22.4	KVA		22.4	KVA
TOTALS (CONN. KVA + 20%)	26.8	KVA		KVA		KVA	26.8	KVA		26.8	KVA
TOTALS (CONN. AMPS)	62.0	AMPS		AMPS		AMPS	62.0	AMPS		62.0	AMPS
TOTALS (CONN. AMPS + 20%)	74.4	AMPS		AMPS		AMPS	74.4	AMPS		74.4	AMPS

PANEL LP SCHEDULE

100 AMP MLO 208Y/120 VOLTS 3PH, 4W, 60 HZ MIN. 14 KAIC SURFACE MOUNTED

CKT. NO.	LOAD DESCRIPTION	COND SIZE	WIRE SIZE	BKR TRIP	AMPS	KVA	PH	KVA	AMPS	BKR TRIP	WIRE SIZE	COND SIZE	LOAD DESCRIPTION	CKT. NO.
1	LTG - STAIR 002	1/2	12	20	1.0	0.1	A	1.2	10.0	20	10	1/2	LTG - SECOND FLOOR WEST	2
3	LTG - FIRST FLOOR WEST	1/2	12	20	5.0	0.6	B	1.1	9.0	20	10	1/2	LTG - SECOND FLOOR EAST	4
5	LTG - FIRST FLOOR EAST	1/2	12	20	5.0	0.6	C	0.2	2.0	20	10	1/2	LTG - STAIR 001	6
7	LTG - TICKETS	1/2	12	20	7.0	0.8	A			20			SPARE	8
9	SPARE			20			B			20			SPARE	10
11	LTG - EXTERIOR - WEST	1/2	12	20	8.0	1.0	C			20			SPARE	12
13	LTG - EXTERIOR - EAST	1/2	12	20	8.0	1.0	A			20			SPARE	14
15	LTG - SITE	1/2	10	20	3.0	0.4	B			20			SPARE	16
17					3.0	0.4	C			20			SPARE	18
19	LTG - SITE	1/2	10	20	2.0	0.2	A			20			SPARE	20
21					2.0	0.2	B			20			SPARE	22
23	LTG CONTROL PANEL LCP1	1/2	12	20	3.0	0.4	C			20			SPARE	24
25	SPARE			20			A			20			SPARE	26
27	SPARE			20			B			20			SPARE	28
29	SPARE			20			C			20			SPARE	30
31	SPARE			20			A			20			SPARE	32
33	SPARE			20			B			20			SPARE	34
35	SPARE			20			C			20			SPARE	36
37	SPARE			20			A			20			SPARE	38
39	SPARE			20			B			20			SPARE	40
41	SPARE			20			C			20			SPARE	42

TOTAL AMPS (CONN. LOAD) A: 28.0 B: 19.0 C: 21.0
TOTAL AMPS (FEEDTHRU) A: B: C:
TOTAL AMPS (CONN. LOAD + FEED-THRU) A: 28.0 B: 19.0 C: 21.0

PANELBOARD OPTIONS:

PANELBOARD NOTES:

LOAD DESCRIPTION	PANEL CONN LOAD		SUBFEED CONN LOAD		FEEDTHRU CONN LOAD		TOTAL LOAD		D.F. MULT.	TOTAL KVA DEMAND	
LIGHTING	8.2	KVA		KVA		KVA	8.2	KVA	1.25	10.2	KVA
RECEPTACLES		KVA		KVA		KVA		KVA	NEC		KVA
MECH EQUIP		KVA		KVA		KVA		KVA	1.00		KVA
ELECTRIC HEAT		KVA		KVA		KVA		KVA	1.25		KVA
MISCELLANEOUS		KVA		KVA		KVA		KVA	1.00		KVA
ELEVATOR		KVA		KVA		KVA		KVA	1.00		KVA
KITCHEN EQUIP.		KVA		KVA		KVA		KVA	0.65		KVA
		KVA		KVA		KVA		KVA			KVA
		KVA		KVA		KVA		KVA			KVA
		KVA		KVA		KVA		KVA			KVA
		KVA		KVA		KVA		KVA			KVA
TOTALS (CONN. KVA)	8.2	KVA		KVA		KVA	8.2	KVA		10.2	KVA
TOTALS (CONN. KVA + 20%)	9.8	KVA		KVA		KVA	9.8	KVA		12.2	KVA
TOTALS (CONN. AMPS)	22.6	AMPS		AMPS		AMPS	22.6	AMPS		28.3	AMPS
TOTALS (CONN. AMPS + 20%)	27.2	AMPS		AMPS		AMPS	27.2	AMPS		34.0	AMPS

PANEL INV SCHEDULE

60 AMP MLO 208Y/120 VOLTS 3PH, 4W, 60 HZ MIN. 10 KAIC SURFACE MOUNTED

CKT. NO.	LOAD DESCRIPTION	COND SIZE	WIRE SIZE	BKR TRIP	AMPS	KVA	PH	KVA	AMPS	BKR TRIP	WIRE SIZE	COND SIZE	LOAD DESCRIPTION	CKT. NO.
1	RECEPT - TELECOM 206	1/2	12	20	4.5	0.5	A			0.8	7.6	15	12	1/2	OAP-1, OAP-4	2
3	RECEPT - TELECOM 206	1/2	12	20	6.0	0.7	B			0.8	7.6					4
5	RECEPT - TELECOM 206	1/2	12	20	3.0	0.3	C			0.4	3.8	15	12	1/2	OAP-2	6
7					3.0	0.3	A			0.4	3.8					8
9	RECEPT - RM 102 - FRIDGE (NOTE 1)	1/2	12	20	8.0	1.0	B			0.3	2.6	15	12	1/2	OAP-3	10
11	SPARE			20			C			0.3	2.6					12
13	RECEPT - OFFICE 208	1/2	12	20	6.0	0.7	A			0.3	2.6	15	12	1/2	OAP-5	14
15	RECEPT - OFFICE 209	1/2	12	20	6.0	0.7	B			0.3	2.6					16
17	LTG - ELEVATOR PIT	1/2	12	20	1.0	0.1	C			0.1	0.5	20	10	1/2	LTG - ELEVATOR SHAFT	18
19	SPARE			20			A			0.6	5.0	20	12	1/2	ELEVATOR CAB LIGHTS	20
21	SPARE			20			B					20			SPARE	22
23	SPARE			20			C					20			SPARE	24

TOTAL AMPS (CONN. LOAD) A: 30.3 B: 31.1 C: 9.7
TOTAL AMPS (FEEDTHRU) A: B: C:
TOTAL AMPS (CONN. LOAD + FEED-THRU) A: 30.3 B: 31.1 C: 9.7

PANELBOARD OPTIONS:

PANELBOARD NOTES:
1. PROVIDE GFCI TYPE BREAKER.

LOAD DESCRIPTION	PANEL CONN LOAD		SUBFEED CONN LOAD		FEEDTHRU CONN LOAD		TOTAL LOAD		D.F. MULT.	TOTAL KVA DEMAND	
LIGHTING	0.8	KVA		KVA		KVA	0.8	KVA	1.25	1.0	KVA
RECEPTACLES	4.3	KVA		KVA		KVA	4.3	KVA	NEC	4.3	KVA
MECH EQUIP	3.5	KVA		KVA		KVA	3.5	KVA	1.00	3.5	KVA
ELECTRIC HEAT		KVA		KVA		KVA		KVA	1.25		KVA
MISCELLANEOUS		KVA		KVA		KVA		KVA	1.00		KVA
ELEVATOR		KVA		KVA		KVA		KVA	1.00		KVA
KITCHEN EQUIP.		KVA		KVA		KVA		KVA	0.65		KVA
		KVA		KVA		KVA		KVA			KVA
		KVA		KVA		KVA		KVA			KVA
		KVA		KVA		KVA		KVA			KVA
		KVA		KVA		KVA		KVA			KVA
TOTALS (CONN. KVA)	8.5	KVA		KVA		KVA	8.5	KVA		8.7	KVA
TOTALS (CONN. KVA + 20%)	10.2	KVA		KVA		KVA	10.2	KVA		10.5	KVA
TOTALS (CONN. AMPS)	23.6	AMPS		AMPS		AMPS	23.6	AMPS		24.2	AMPS
TOTALS (CONN. AMPS + 20%)	28.4	AMPS		AMPS		AMPS	28.4	AMPS		29.0	AMPS

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CN PROJ # : 10145

SCO ID # : 24-27956-01A

DESIGNER

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CLARK NEXSEN LICENSE NUMBER C-1028

PROFESSIONAL SEAL

NORTH CAROLINA REGISTERED SEAL 021538 ENGINEER PATRICK J. ROSE

2024.06.07 08:16:54-04'00"

SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

PANELBOARD SCHEDULES

EP602

DESIGN: EAK
DRAWN: MSW
REVIEW: PJR

CN 10145

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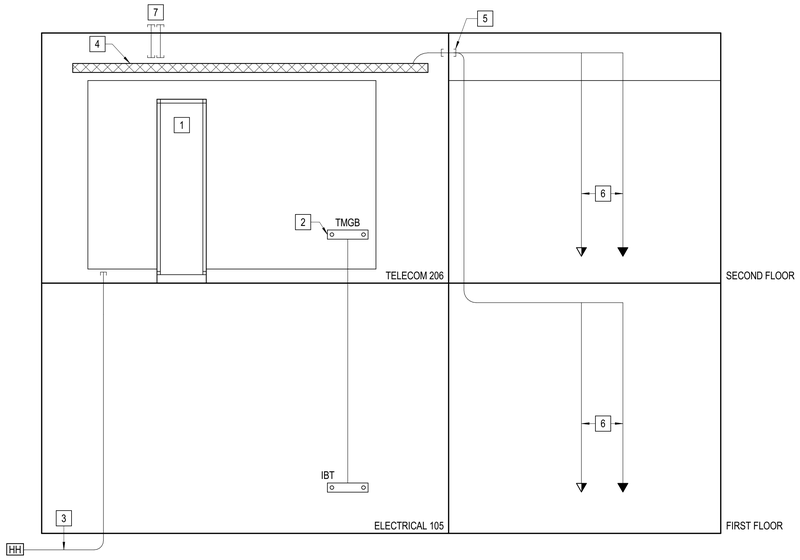
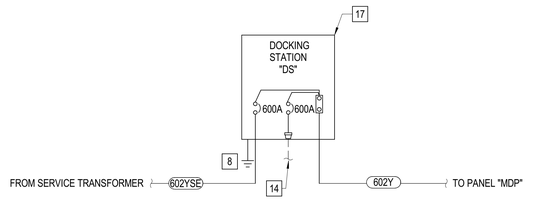
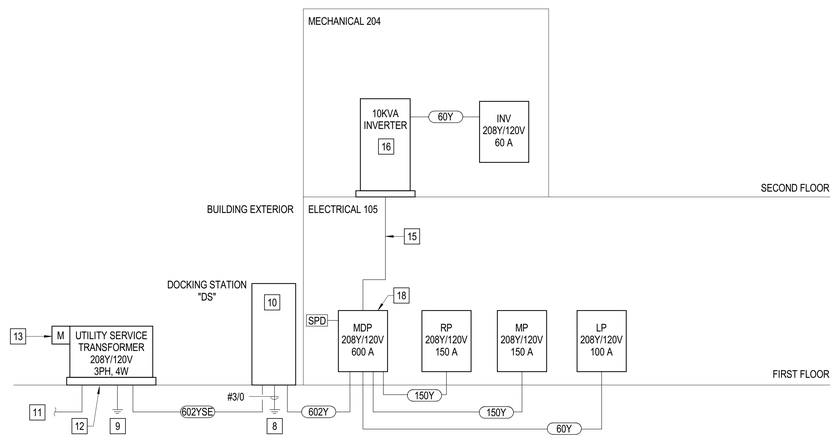


2 TELECOM RISER DIAGRAM
NOT TO SCALE

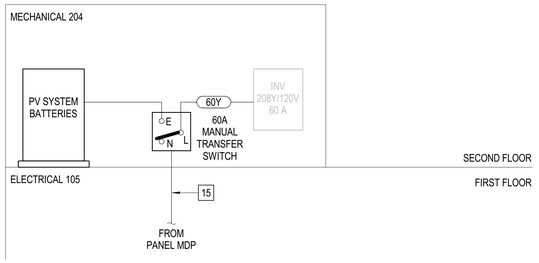


NOTES:
1. THREE-WAY MANUAL TRANSFER CONNECTION CABINET
   A. REMOTELY INSTALLED.
   B. UL LISTED SERVICE ENTRANCE RATED ASSEMBLY, 208Y/120V.
   C. ENCLOSURE:
      a. NEMA 250, TYPE 4X.
      b. BOTTOM-ENTRY CABLE DOOR.
      c. HINGED FRONT DOOR WITH PAD-LOCKABLE TEE HANDLE AND THREE-POINT LATCH.
   D. THREE 600 AMP BUSES.
      a. BUS #1: FOR PERMANENT UTILITY INPUT CONNECTION.
      b. BUS #2: WITH LUGS FOR PORTABLE GENERATOR INPUT CONNECTION OR PV SYSTEM BATTERY CONNECTION IF ALTERNATE NO. 2A IS ACCEPTED. IF ALTERNATE NO. 2A IS NOT ACCEPTED COORDINATE REQUIREMENT FOR MALE OR FEMALE CONNECTORS WITH OWNER.
      c. BUS #3: FOR POWER OUTPUT CONNECTION.
   E. TWO 600 AMP, 4-POLE FUSED DISCONNECT SWITCHES (SWITCHED NEUTRAL) WITH MECHANICAL INTERLOCK SUCH THAT ONLY ONE SWITCH CAN BE CLOSED AT ANY TIME, AND ALL SWITCHES (BREAKERS) MUST BE IN OPEN POSITION FOR ENCLOSURE DOOR TO BE OPENED.
      a. SWITCH #1: BETWEEN PERMANENT UTILITY INPUT BUS AND POWER OUTPUT BUS.
      b. SWITCH #2: BETWEEN PORTABLE GENERATOR OR PV SYSTEM BATTERY INPUT BUS AND POWER OUTPUT BUS.
   F. MECHANICAL LUGS FOR UP TO #500 KCMIL CABLE. REFER TO DRAWINGS FOR EXACT NUMBER AND SIZES OF CABLES
   G. CAM-LOCK CONNECTIONS:
      a. INLET-STYLE ASSEMBLY, RATED 600 AMPERES, MINIMUM.
      b. COLOR-CODED RECEPTACLES MARKED FOR CONNECTION SEQUENCE, WITH MECHANICAL LUG BARRIERS.
      c. PORTABLE GENERATOR OR PV SYSTEM BATTERY INPUT CONNECTION FOR TWO PARALLEL FEEDERS.
2. DOCKING STATION SHALL BE A COMPLETE SERVICE ENTRANCE RATED ASSEMBLY.
3. PROVIDE A PHENOLIC NAMEPLATE AT "DS" PER NEC ARTICLE 702.7(B) STATING: "WARNING: SHOCK HAZARD EXISTS IF GROUNDIND ELECTRODE CONDUCTOR OR BONDING JUMPER CONNECTION IN THIS EQUIPMENT IS REMOVED WHILE ALTERNATE SOURCE IS ENERGIZED"

3 DOCKING STATION DETAIL
NOT TO SCALE

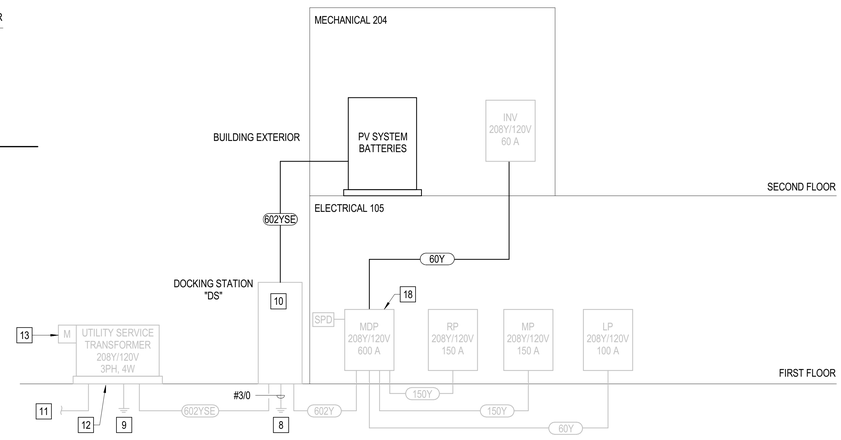


1 POWER RISER DIAGRAM
NOT TO SCALE



4 ALTERNATE NO. 2 MODIFICATIONS
NOT TO SCALE

NOTE: BOLD ITEMS INDICATE CHANGES FROM BASE BID.



5 ALTERNATE NO. 2A MODIFICATIONS
NOT TO SCALE

NOTE: BOLD ITEMS INDICATE CHANGES FROM BASE BID.

POWER FEEDER SCHEDULE

FEEDER MARK	FEEDER DESCRIPTION						REMARKS
	NO. OF SETS	PHASE	NEUTRAL	GROUND	CONDUIT		
60Y	1	3#4	1#4	1#8	1 1/2"		
150Y	1	3#1/0	1#1/0	1#6	1 1/2"		
602Y	2	3-350	1-350	1#1	3"		
602YSE	2	3-350	1-350	-	3"		GROUNDED NEUTRAL

GENERAL NOTES

A. REFER TO E-001 FOR GENERAL NOTES.
B. BASE BID INCLUDES INSTALLATION OF THE 10KVA INVERTER AND 60A INVERTER PANEL "INV" AS SHOWN IN DETAIL 1/EP701. REFER TO SPECIFICATION 012300 FOR ALTERNATES RELATED TO A PV SYSTEM AS FOLLOWS:

ALTERNATE NO. 1: ADDITION OF PV SYSTEM WITH NO BATTERY BACKUP AS SHOWN ON AE121 AND DESCRIBED IN SPECIFICATION 263100. THE SCOPE OF WORK INCLUDES INSTALLATION OF THE BASE BID 10KVA INVERTER AND 60A INVERTER PANEL "INV" AS SHOWN IN DETAIL 1/EP701.

ALTERNATE NO. 2: ADDITION OF PV SYSTEM WITH INVERTER, SWITCHING, CABLING, 90-MINUTE BATTERY BACKUP (FOR PANEL "INV" ONLY), AND MODIFICATIONS SHOWN IN DETAIL 4/EP701 AND DESCRIBED IN SPECIFICATION 263100. THE SCOPE OF WORK INCLUDES INSTALLATION OF THE PV SYSTEM, SWITCHING, CABLING, BATTERY CABINET(S), AND ALTERNATE POWER FEED TO 60A INVERTER PANEL "INV".

ALTERNATE NO. 2A: ADDITION OF PV SYSTEM WITH INVERTER, SWITCHING, CABLING, 90-MINUTE BATTERY BACKUP (FOR ENTIRE BUILDING), AND MODIFICATIONS SHOWN IN DETAIL 5/EP701 AND DESCRIBED IN SPECIFICATION 263100. THE SCOPE OF WORK INCLUDES INSTALLATION OF THE PV SYSTEM, SWITCHING, CABLING, BATTERY CABINET(S), AND ALTERNATE POWER FEED TO "DS" FOR BACKUP OF THE ENTIRE BUILDING.

KEY NOTES

1 19" WIDE TWO-POST TELECOM RACK.
2 MAIN TELECOM GROUNDING BAR. PROVIDE 30 WIRE CONNECTION FROM TMGB TO ITB IN MAIN ELECTRICAL ROOM. REFER TO DETAIL 3/EG502 FOR ADDITIONAL INFORMATION.
3 TELECOM DUCTBANK, REFER TO SITE PLANS FOR MORE INFORMATION.
4 LADDER RACK CABLE TRAY. REFER TO FLOORPLANS FOR ROUTING AND LOCATION.
5 CONDUIT SLEEVES, REFER TO FLOORPLANS FOR QUANTITY AND MORE INFORMATION.
6 ROUTE CONDUIT FROM EACH WAO TO TELECOM ROOM.
7 TWO 2" CONDUITS WITH PULLSTRING RUN FROM DATA ROOM TO ROOF WEATHER HEADS FOR DISTRIBUTED ANTENNA SYSTEM (DAS). STUB TO 12-INCH ABOVE CABLE TRAY IN DATA ROOM. STUB TO 8-INCH ABOVE ROOF.
8 REFER TO SERVICE GROUNDING DETAIL 3/EG502.
9 TRANSFORMER GROUNDING SHALL BE IN ACCORDANCE WITH UTILITY GROUNDING REQUIREMENTS.
10 GENERATOR DOCKING STATION, REFER TO DETAIL 3/EP701 FOR MORE INFORMATION.
11 PRIMARY WIRING BY UTILITY COMPANY.
12 REFER TO PAD DETAIL ON SHEET ES102.
13 COORDINATE METERING REQUIREMENTS WITH UTILITY COMPANY. PROVIDE CT CABINET, METER BASE AND INNERCONNECTING CONDUIT/WIRE TO "DS". LOCATE CT CABINET AND METER BASE PER UTILITY COMPANY REQUIREMENTS.
14 CONNECTION FOR TEMPORARY GENERATOR OR PV SYSTEM BATTERY, SHOWN FOR REFERENCE ONLY.
15 REFER TO PANEL SCHEDULE FOR FEEDER INFORMATION.
16 10KVA INVERTER WITH OUTPUT BRANCH CIRCUIT PANEL "INV". REFER TO PANEL INV SCHEDULE FOR ADDITIONAL INFORMATION. INVERTER AND BATTERIES TO BE SIZED TO PROVIDE 90 MINUTES OF BACKUP FOR LOADS SHOWN CONNECTED IN PANEL INV. SEE GENERAL NOTE B THIS SHEET FOR ADD ALTERNATE INFORMATION.
17 PROVIDE ADDITIONAL LUGS AT GENERATOR DOCKING STATION LINE SIDE FOR CONNECTION TO PV SYSTEM. COORDINATE LUG SIZE REQUIREMENTS WITH PV SYSTEM SUPPLIER PRIOR TO PROCUREMENT OF DOCKING STATION.
18 PROVIDE A PHENOLIC NAMEPLATE AT PANEL MDP PER NEC ARTICLE 702.7(A) STATING: "TEMPORARY GENERATOR (STANDBY POWER SOURCE) IS VIA DOCKING STATION (DS) LOCATED OUTDOORS."

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SUBMITTAL
JUNE 7, 2024
BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET
RISER DIAGRAMS

EP701

DESIGN: EAK
DRAWN: MSW
REVIEW: PJR

CN 10145

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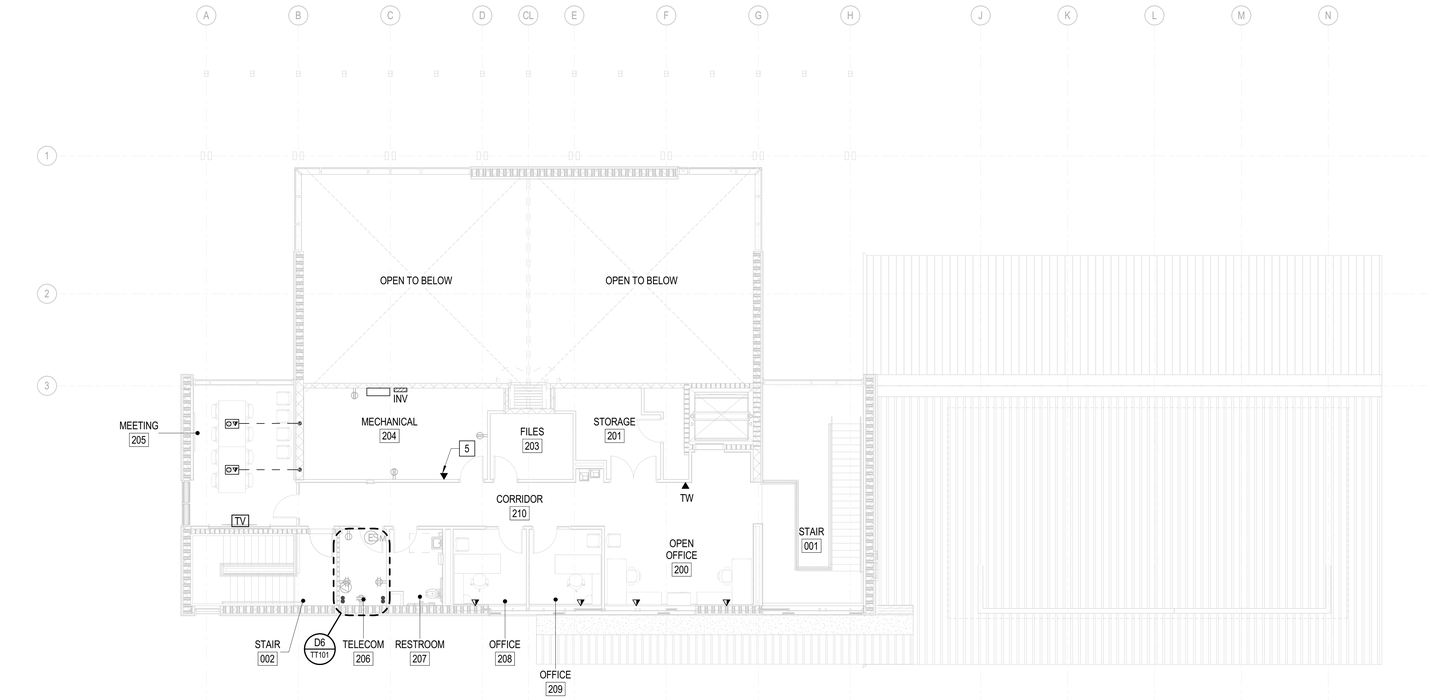
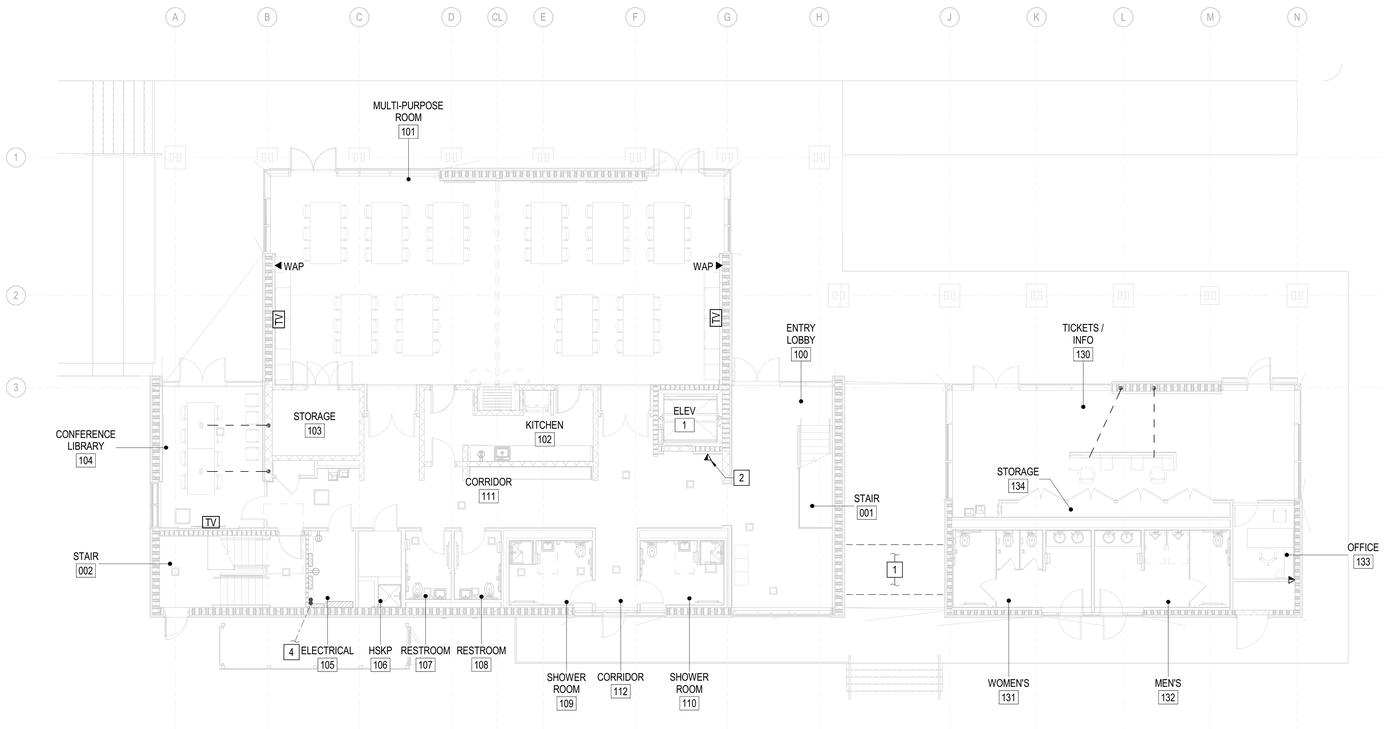


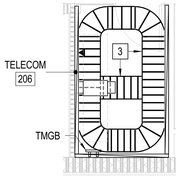
SECOND FLOOR TELECOM PLAN

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



FIRST FLOOR TELECOM PLAN

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



D6 ENLARGED TELECOM PLAN RM 206

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

GENERAL NOTES

A. REFER TO E-001 FOR GENERAL NOTES.

KEY NOTES

1. COORDINATE WITH ARCHITECTURAL SHEETS AND RUN POWER AND TELECOM CONDUITS TO THE EAST SECTION OF BUILDING IN CHASE LOCATED UNDER THE STAIRS.
2. DEDICATED DATA/VOICE FOR EMERGENCY COMMUNICATIONS FOR THE HEARING AND SPEECH IMPAIRED, AS WELL AS VIDEO MONITORING WITHIN ELEVATOR CAB. COORDINATE EXACT LOCATION WITH ELEVATOR INSTALLER.
3. TELECOM LADDER RACK CABLE TRAY INSTALLED AROUND THE PERIMETER OF THE ROOM AND ABOVE TELECOM RACK.
4. REFER TO SITE PLAN ES101 FOR CONTINUATION OF OSP TELECOM CONDUITS.
5. DEDICATED DATA OUTLET FOR BAS. COORDINATE EXACT LOCATION WITH MECHANICAL.

GRAPHIC SCALE(S)

1/4" = 1' - 0" 0 1' 5' 10' 15'

1/8" = 1' - 0" 0 5' 10' 15' 30'

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PATRICK J. ROSE

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SUBMITTAL

JUNE 7, 2024

BID DOCUMENTS

REVISIONS

KEY PLAN

SHEET

FIRST & SECOND FLOOR TELECOM PLAN

TT101

DESIGN: EAK
DRAWN: MSW
REVIEW: PJR

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