BALLY REFRIGERATED BOXES
LIFE SAFETY MODIFICATION

MOREHEAD CITY, NORTH CAROLINA

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Coastal Architecture PLLC

- Architectural Design
- Planning
- Interiors

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BALLY REFRIGERATED BOXES
LIFE SAFETY MODIFICATION
MOREHEAD CITY, NORTH CAROLINA

GENERAL ARCHITECTURAL CORPORATION CERTIFICATE NO. 5776

LEE D. DIXON REGISTERED ARCHITECT 6419 NORTH CAROLINA

COVER SHEET

22005

ISSUED: 03/14/23
DWG BY: TRA
CKD BY: LDD

REVISIONS

SHEET NO.
CS-1
OF

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APPENDIX B
2018 BUILDING CODE SUMMARY (2015 IBC)
FOR ALL COMMERCIAL PROJECTS
(EXCEPT ONE- AND TWO-FAMILY DWELLINGS AND TOWNHOUSES)

BALLY REFRIGERATED BOXES LIFE SAFETY MODIFICATION -
Name of Project: MAIN BUILDING NORTH WINDS, ENCLOSED BREEZEWAY, AND REAR BUILDING
Address: MOREHEAD CITY, NORTH CAROLINA Zip Code 28557
Owner/Authorized Agent: TED JENNINGS Phone # (252) 571 - 4081 E-Mail tjennings@ballyofboxes.com
Owned By: ☐ City/County ☒ Private ☐ State ☐ Federal
Code Enforcement Jurisdiction: ☐ City _____ ☒ County CARTERET ☐ State _____

CONTACT:

DESIGNER	FIRM	NAME	LICENSE #	TELEPHONE #	E-MAIL
Architectural	COASTAL ARCHITECTURE	LEE DIXON	6419	(252) 247-2127	lee@coastalarchitecturenet
Civil	THE GULLIPHER GROUP	RON GULLIPHER	C-4482	(252)113-0058	ron@tggpa.com
Electrical	BURKE DESIGN GROUP	BEN BURKE	22038	(919) 771-1916	benburke@ncrr.com
Fire Alarm	BURKE DESIGN GROUP	BEN BURKE	22038	(919) 771-1916	benburke@ncrr.com
Plumbing	BURKE DESIGN GROUP	BEN BURKE	22038	(919) 771-1916	benburke@ncrr.com
Mechanical	BURKE DESIGN GROUP	BEN BURKE	22038	(919) 771-1916	benburke@ncrr.com
Sprinkler-Standpipe	VSC Fire Security, Inc.	JEFF STUTLER	28783	(919) 645-5880	JStutler@vscfire.com
Structural				( )	
Retaining Walls > 5 feet High				( )	
Other				( )	

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

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

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

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

BASIC BUILDING DATA

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

GROSS BUILDING AREA TABLE

Floor	Existing (sq ft)	New (sq ft)	Subtotal
3rd Floor			
2nd Floor			
Mezzanine			
1st Floor	63277	-	63277
Basement			
TOTAL	63277	-	63277

ALLOWABLE AREA

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

Accessory Occupancy Classification(s): _____
Incidental Uses (Table 509): _____
This separation is not exempt as a Nonseparated Use (see exceptions).
Special Uses (Chapter 4 – List Code Sections): _____
Special Provisions: (Chapter 5 – List Code Sections): _____
Mixed Occupancy: ☐ N- ☒ Yes Separation: 0 Hr. Exception: 507.4
☒ Non-separated Use (508.3) 507.4 UNLIMITED AREA
☐ Separated Use (508.4) – See below for area calculations for each story, the area of the occupancy shall be such that the sum of the ratios of the actual floor area of each use divided by the allowable floor area for each use shall not exceed 1.

Select one

$\frac{\text{Actual Area of Occupancy A}}{\text{Allowable Area of Occupancy A}} + \frac{\text{Actual Area of Occupancy B}}{\text{Allowable Area of Occupancy B}}$ is 507.4 UNLIMITED AREA

_____ + _____ = _____ ≤ 1.00

STORY NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 506.2 AREA	(C) AREA FOR FRONTAGE INCREASES, 1	(D) ALLOWABLE AREA PER STORY OR UNLIMITED, 1
1	F-1/S-1	63277	UNLIMITED AREA PER 507.4		

1. Frontage area increases from Section 506.2 are computed thus:
   a. Perimeter which fronts a public way or open space having 20 feet minimum width = _____ (F)
   b. Total Building Perimeter = _____ (P)
   c. Ratio (F/P) = _____ (F/P)
   d. W = Minimum width of public way = _____ (W) UNLIMITED AREA PER 507.4
2. Unlimited area applicable under conditions of Section 507.
3. Maximum Building Area = total number of stories in the building × D (maximum 3 stories) (506.2).
4. The maximum area of open parking garages must comply with Table 406.5.4. The maximum area of air traffic control towers must comply with Table 412.3.1.
5. Frontage increase is based on the unsprinklered area value in Table 506.2.

ALLOWABLE HEIGHT

	ALLOWABLE	SHOWN ON PLANS	CODE REFERENCE
Building Height in Feet (Table 504.3)	EXISTING		
Building Height in Stories (Table 504.4)			

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

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	Ø	Ø				
Bearing Walls	-	-	-				
Exterior	-	-	-				
North	-	-	-				
East	-	-	-				
West	-	-	-				
South	-	-	-				
Nonbearing walls and partitions Exterior walls							
North	>30	Ø	Ø				
East	>30	Ø	Ø				
West	>30	Ø	Ø				
South	>30	Ø	Ø				
Interior walls and partitions	-	Ø	Ø				
Floor Construction Including supporting beams and joists	-	Ø	Ø				
Floor Ceiling Assembly	-	-	-				
Columns Supporting Floors	-	-	-				
Roof Construction, including supporting beams and joists	-	Ø	Ø				
Roof Ceiling Assembly							
Columns Supporting Roof	-	Ø	Ø				
Shaft Enclosures—Exit	-	-	-				
Shaft Enclosures—Other	-	-	-				
Corridor Separation	N/A						
Occupancy/Fire Barrier Separation	NON SEPARATED MIXED USE 507.4						
Party/Fire Wall Separation	-	3	3	EXISTING			
Smoke Barrier Separation	-	-	-				
Smoke Partition	-	-	-				
Tenant/Dwelling Unit/ Sleeping Unit Separation	N/A	-	-				
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 (%)
>30	UP. S	NL.	-

LIFE SAFETY SYSTEM REQUIREMENTS

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

LIFE SAFETY PLAN REQUIREMENTS

Life Safety Plan Sheet #: G-2

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

ACCESSIBLE DWELLING UNITS (SECTION 1107)

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

ACCESSIBLE PARKING (SECTION 1106)

LOT OR PARKING AREA	TOTAL # OF PARKING SPACES		# OF ACCESSIBLE SPACES PROVIDED			TOTAL # ACCESSIBLE PROVIDED
	REQUIRED	PROVIDED	REGULAR WITH 5' ACCESS AISLE	VAN SPACES WITH 132" ACCESS AISLE	VAN SPACES WITH 8' ACCESS AISLE	
TOTAL		EXISTING				

PLUMBING FIXTURE REQUIREMENTS (TABLE 2902.1)

USE	WATERCLOSETS			URINALS	LAVATORIES			SHOWERS/ TUBS	DRINKING FOUNTAINS	
	Male	Female	Unisex		Male	Female	Unisex		Regular	Accessible
REQ'D				EXISTING						
PROVIDED										

SPECIAL APPROVALS

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

ENERGY SUMMARY

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

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

Exempt Building: ☐ Provide code or statutory reference: _____

Climate Zone: ☐ 3A ☐ 4A ☐ 5A

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

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

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

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

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

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

STRUCTURAL DESIGN

DESIGN LOADS:
Importance Factors: Wind (IW) _____
Snow (IS) _____
Seismic (IE) _____

Live Loads: Roof _____ psf
Mezzanine _____ psf
Floor _____ psf

Ground Snow Load: _____ psf

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

SEISMIC DESIGN CATEGORY: EXISTING

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

LATERAL DESIGN CONTROL: ☐ Earthquake ☐ Wind

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

MECHANICAL DESIGN

MECHANICAL SUMMARY

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

Interior design conditions
winter dry bulb: _____
summer dry bulb: _____
SEE MECHANICAL
Building heating load: _____

Building cooling load: _____

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

List equipment efficiencies: _____

ELECTRICAL DESIGN

ELECTRICAL SUMMARY

ELECTRICAL SYSTEM AND EQUIPMENT

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

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

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

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BALLY REFRIGERATED BOXES
LIFE SAFETY MODIFICATION
MOREHEAD CITY, NORTH CAROLINA



GENERAL DATA FOR MAIN BUILDING, NORTH WINDS, ENCLOSED BREEZEWAY, AND REAR BUILDING

22005
ISSUED: 03/14/23
DWG BY: TRA
CKD BY: LDD
REVISIONS

SHEET NO.
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APPENDIX B
2018 BUILDING CODE SUMMARY (2015 IBC)
FOR ALL COMMERCIAL PROJECTS
(EXCEPT ONE- AND TWO-FAMILY DWELLINGS AND TOWNHOUSES)

BALLY REFRIGERATED BOXES
Name of Project: LIFE SAFETY MODIFICATION / WAREHOUSE BUILDING
Address: MOREHEAD CITY, NORTH CAROLINA Zip Code 28557
Owner/Authorized Agent: TED JENNINGS Phone # (252) 571 - 4081 E-Mail sjennings@ballysfreezers.com
Owned By: ☐ City/County ☒ Private ☐ State ☐ Federal
Code Enforcement Jurisdiction: ☐ City _____ ☒ County CARTERET ☐ State _____

CONTACT:

DESIGNER	FIRM	NAME	LICENSE #	TELEPHONE #	E-MAIL
Architectural	COASTAL ARCHITECTURE	LEE DIXON	6419	(252) 247-2127	lee@coastalarchitecturenet
Civil	THE CULLIPHER GROUP	RON CULLIPHER	C-4482	(252)113-0058	ron@tcgpa.com
Electrical	BURKE DESIGN GROUP	BEN BURKE	22038	(919) 771-1916	benburke@ncrr.com
Fire Alarm	BURKE DESIGN GROUP	BEN BURKE	22038	(919) 771-1916	benburke@ncrr.com
Plumbing	BURKE DESIGN GROUP	BEN BURKE	22038	(919) 771-1916	benburke@ncrr.com
Mechanical	BURKE DESIGN GROUP	BEN BURKE	22038	(919) 771-1916	benburke@ncrr.com
Sprinkler-Standpipe	VSC Fire Security, Inc.	JEFF STUTLER	28783	(919) 645-5880	JStutler@vscfire.com
Structural				( )	
Retaining Walls > 5 feet High				( )	
Other				( )	

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

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

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

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

BASIC BUILDING DATA

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

GROSS BUILDING AREA TABLE

Floor	Existing (sq ft)	New (sq ft)	Subtotal
3rd Floor			
2nd Floor			
Mezzanine			
1st Floor	9,872	-	9,872
Basement			
TOTAL	9,872	-	9,872

ENERGY SUMMARY

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

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

Exempt Building: ☐ Provide code or statutory reference: _____

Climate Zone: ☐ 3A ☐ 4A ☐ 5A

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

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

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

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

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

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

ALLOWABLE AREA

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

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

Select one

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

_____ + _____ = _____ ≤ 1.00

STORY NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 506.2 AREA	(C) AREA FOR FRONTAGE INCREASES, 1	(D) ALLOWABLE AREA PER STORY OR UNLIMITED, 1
1	S-1	9,872	UNLIMITED AREA PER 507.4		

1. Frontage area increases from Section 506.2 are computed thus:
a. Perimeter which fronts a public way or open space having 20 feet minimum width = _____ (F)
b. Total Building Perimeter = _____ (P) UNLIMITED AREA PER 507.4
c. Ratio (F/P) = _____ (F/P)
d. W = Minimum width of public way = _____ (W)
2. Unlimited area applicable under conditions of Section 507.
3. Maximum Building Area = total number of stories in the building × D (maximum 3 stories) (506.2).
4. The maximum area of open parking garages must comply with Table 406.5.4. The maximum area of air traffic control towers must comply with Table 412.3.1.
5. Frontage increase is based on the unsprinklered area value in Table 506.2.

ALLOWABLE HEIGHT

	ALLOWABLE	SHOWN ON PLANS	CODE REFERENCE
Building Height in Feet (Table 504.3)	EXISTING		
Building Height in Stories (Table 504.4)			

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

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	Ø	Ø				
Bearing Walls	-	-	-				
Exterior	-	-	-				
North	-	-	-				
East	-	-	-				
West	-	-	-				
South	-	-	-				
Nonbearing walls and partitions Exterior walls							
North	>30	Ø	Ø				
East	>30	Ø	Ø				
West	>30	Ø	Ø				
South	>30	Ø	Ø				
Interior walls and partitions	>30	Ø	Ø				
Floor Construction Including supporting beams and joists	Ø	Ø	Ø				
Floor Ceiling Assembly	-	-	-				
Columns Supporting Floors	-	-	-				
Roof Construction, including supporting beams and joists	Ø	Ø	Ø				
Roof Ceiling Assembly							
Columns Supporting Roof	Ø	Ø	Ø				
Shaft Enclosures—Exit	-	-	-				
Shaft Enclosures—Other	-	-	-				
Corridor Separation	-	-	-				
Occupancy/Fire Barrier Separation	-	-	-				
Party/Fire Wall Separation	-	3	EXISTING				
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 (%)
>30	UP. S	N.L.	-

LIFE SAFETY SYSTEM REQUIREMENTS

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

LIFE SAFETY PLAN REQUIREMENTS

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

ACCESSIBLE DWELLING UNITS (SECTION 1107)

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

ACCESSIBLE PARKING (SECTION 1106)

LOT OR PARKING AREA	TOTAL # OF PARKING SPACES		# OF ACCESSIBLE SPACES PROVIDED			TOTAL # ACCESSIBLE PROVIDED
	REQUIRED	PROVIDED	REGULAR WITH 5' ACCESS AISLE	VAN SPACES WITH 132" ACCESS AISLE	VAN SPACES WITH 8' ACCESS AISLE	
			N/A			
TOTAL						

PLUMBING FIXTURE REQUIREMENTS (TABLE 2902.1)

USE	WATERCLOSETS			URINALS	LAVATORIES			SHOWERS/ TUBS	DRINKING FOUNTAINS	
	Male	Female	Unisex		Male	Female	Unisex		Regular	Accessible
REQ'D				EXISTING						
PROVIDED										

SPECIAL APPROVALS

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

STRUCTURAL DESIGN

DESIGN LOADS:
Importance Factors: Wind (IW) _____
Snow (IS) _____
Seismic (IE) _____

Live Loads: Roof _____ psf
Mezzanine _____ psf
Floor _____ psf

Ground Snow Load: _____ psf

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

SEISMIC DESIGN CATEGORY: EXISTING

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

LATERAL DESIGN CONTROL: ☐ Earthquake ☐ Wind

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

MECHANICAL DESIGN

MECHANICAL SUMMARY

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

Interior design conditions
winter dry bulb: _____
summer dry bulb: _____
Heating load: SEE MECHANICAL
Building heating load: _____

Building cooling load: _____

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

List equipment efficiencies: _____

ELECTRICAL DESIGN

ELECTRICAL SUMMARY

ELECTRICAL SYSTEM AND EQUIPMENT

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

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

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

Coastal Architecture PLLC
- Architectural Design
- Planning
- Interiors

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BALLY REFRIGERATED BOXES
LIFE SAFETY MODIFICATION
MOREHEAD CITY, NORTH CAROLINA



GENERAL DATA FOR BALLY WAREHOUSE

22005
ISSUED: 03/14/23
DWG BY: TRA
CKD BY: LDD
REVISIONS

SHEET NO.
G-1.1
OF

THESE DRAWING AND SPECIFICATIONS REPRESENT AN INSTRUMENT OF SERVICE AND AS SUCH SHALL REMAIN IN OWNERSHIP WITH THE ARCHITECT. USE OR REPRODUCTION BY ANY MEANS, IN WHOLE OR IN PART, WITHOUT THE ARCHITECT'S WRITTEN CONSENT, IS PROHIBITED.

APPENDIX B
2018 BUILDING CODE SUMMARY (2015 IBC)
FOR ALL COMMERCIAL PROJECTS
(EXCEPT ONE- AND TWO-FAMILY DWELLINGS AND TOWNHOUSES)

BALLY REFRIGERATED BOXES
Name of Project: LIFE SAFETY MODIFICATION / OFFICE BUILDING
Address: MOREHEAD CITY, NORTH CAROLINA Zip Code 28557
Owner/Authorized Agent: TED JENNINGS Phone # (252) 571 - 4081 E-Mail sjennings@ballysfboxes.com
Owned By: ☐ City/County ☒ Private ☐ State ☐ Federal
Code Enforcement Jurisdiction: ☐ City ☒ County CARTERET ☐ State

CONTACT:

DESIGNER	FIRM	NAME	LICENSE #	TELEPHONE #	E-MAIL
Architectural	COASTAL ARCHITECTURE	LEE DIXON	6419	(252) 247-2127	lee@coastalarchitecturenet
Civil	THE GULLIPHER GROUP	RON GULLIPHER	C-4482	(252)113-0058	ron@tggpa.com
Electrical	BURKE DESIGN GROUP	BEN BURKE	22038	(919) 771-1916	benburke@ncrr.com
Fire Alarm	BURKE DESIGN GROUP	BEN BURKE	22038	(919) 771-1916	benburke@ncrr.com
Plumbing	BURKE DESIGN GROUP	BEN BURKE	22038	(919) 771-1916	benburke@ncrr.com
Mechanical	BURKE DESIGN GROUP	BEN BURKE	22038	(919) 771-1916	benburke@ncrr.com
Sprinkler-Standpipe	V&C Fire Security, Inc.	JEFF STUTLER	28783	(919) 645-5880	JStutler@vcfire.com
Structural				( )	
Retaining Walls > 5 feet High				( )	
Other				( )	

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

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

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

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

BASIC BUILDING DATA

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

GROSS BUILDING AREA TABLE

Floor	Existing (sq ft)	New (sq ft)	Subtotal
3rd Floor			
2nd Floor			
Mezzanine			
1st Floor	1,714	-	1,714
Basement			
TOTAL	1,714	-	1,714

NOTE: SPRINKLERS FOR THESE BUILDINGS ARE NOT REQUIRED BUT OUNER MAY SPRINKLER AT THEIR OPTION.

ENERGY SUMMARY

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

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

Exempt Building: ☐ Provide code or statutory reference: _____

Climate Zone: ☐ 3A ☐ 4A ☐ 5A

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

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

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

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

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

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

ALLOWABLE AREA

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

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

Select one

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

_____ + _____ = _____ ≤ 1.00

STORY NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 506.2 AREA	(C) AREA FOR FRONTAGE INCREASE1, 5	(D) ALLOWABLE AREA PER STORY OR UNLIMITED2, 3
1	BUSINESS	1,714	23,000	Ø	23,000

1. Frontage area increases from Section 506.2 are computed thus:
a. Perimeter which fronts a public way or open space having 20 feet minimum width = _____ (F)
b. Total Building Perimeter = _____ (P) NOT REQUIRED
c. Ratio (F/P) = _____ (F/P)
d. W = Minimum width of public way = _____ (W)
2. Unlimited area applicable under conditions of Section 507.
3. Maximum Building Area = total number of stories in the building × D (maximum 3 stories) (506.2).
4. The maximum area of open parking garages must comply with Table 406.5.4. The maximum area of air traffic control towers must comply with Table 412.3.1.
5. Frontage increase is based on the unsprinklered area value in Table 506.2.

STRUCTURAL DESIGN

DESIGN LOADS:
Importance Factors: Wind (IW) _____
Snow (IS) _____
Seismic (IE) _____

Live Loads: Roof _____ psf
Mezzanine _____ psf
Floor _____ psf

Ground Snow Load: _____ psf

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

SEISMIC DESIGN CATEGORY: EXISTING

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

LATERAL DESIGN CONTROL: ☐ Earthquake ☐ Wind

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

ALLOWABLE HEIGHT

	ALLOWABLE	SHOWN ON PLANS	CODE REFERENCE
Building Height in Feet (Table 504.3)	EXISTING		
Building Height in Stories (Table 504.4)			

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

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	-	-	-				
Bearing Walls	-	-	-				
Exterior	-	-	-				
North	>30	Ø	Ø				
East	>30	Ø	Ø				
West	>30	Ø	Ø				
South	>30	Ø	Ø				
Nonbearing walls and partitions Exterior walls							
North	-	-	-				
East	-	-	-				
West	-	-	-				
South	-	-	-				
Interior walls and partitions	-	-	-				
Floor Construction Including supporting beams and joists	Ø	Ø	Ø				
Floor Ceiling Assembly	-	-	-				
Columns Supporting Floors	-	-	-				
Roof Construction, including supporting beams and joists	Ø	Ø	Ø				
Roof Ceiling Assembly							
Columns Supporting Roof	-	-	-				
Shaft Enclosures—Exit	-	-	-				
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

MECHANICAL DESIGN

MECHANICAL SUMMARY

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

Interior design conditions
winter dry bulb: _____
summer dry bulb: _____
SEE MECHANICAL
Building heating load: _____

Building cooling load: _____

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

List equipment efficiencies: _____

ELECTRICAL DESIGN

ELECTRICAL SUMMARY

ELECTRICAL SYSTEM AND EQUIPMENT

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

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

SEE ELECTRICAL

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

PERCENTAGE OF WALL OPENING CALCULATIONS

FIRE SEPARATION DISTANCE (feet) FROM PROPERTY LINES	DEGREE OF OPENINGS PROTECTION (TABLE 705.8)	ALLOWABLE AREA (%)	ACTUAL SHOWN ON PLANS (%)
>30	N.S.	N.L.	-

LIFE SAFETY SYSTEM REQUIREMENTS

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

LIFE SAFETY PLAN REQUIREMENTS

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

ACCESSIBLE DWELLING UNITS (SECTION 1107)

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

ACCESSIBLE PARKING (SECTION 1106)

LOT OR PARKING AREA	TOTAL # OF PARKING SPACES		# OF ACCESSIBLE SPACES PROVIDED			TOTAL # ACCESSIBLE PROVIDED
	REQUIRED	PROVIDED	REGULAR WITH 5' ACCESS AISLE	VAN SPACES WITH 132" ACCESS AISLE	VAN SPACES WITH 8' ACCESS AISLE	
			N/A			
TOTAL						

PLUMBING FIXTURE REQUIREMENTS (TABLE 2902.1)

USE	WATERCLOSETS			URINALS	LAVATORIES			SHOWERS/ TUBS	DRINKING FOUNTAINS	
	Male	Female	Unisex		Male	Female	Unisex		Regular	Accessible
REQ'D				EXISTING						
PROVIDED										

SPECIAL APPROVALS

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

Coastal Architecture PLLC
- Architectural Design
- Planning
- Interiors

AIA
Member of the American Institute of Architects

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252-247-2127
lee@coastalarchitecture.net

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Morehead City, NC 28557
www.CoastalArchitecture.net

BALLY REFRIGERATED BOXES
LIFE SAFETY MODIFICATION
MOREHEAD CITY, NORTH CAROLINA

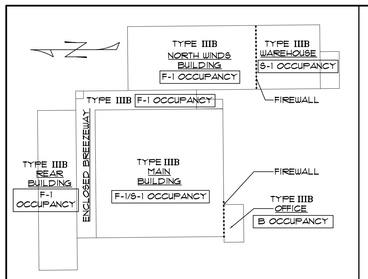


GENERAL DATA FOR EXISTING OFFICE BUILDING

22005
ISSUED: 03/14/23
DWG BY: TRA
CKD BY: LDD
REVISIONS

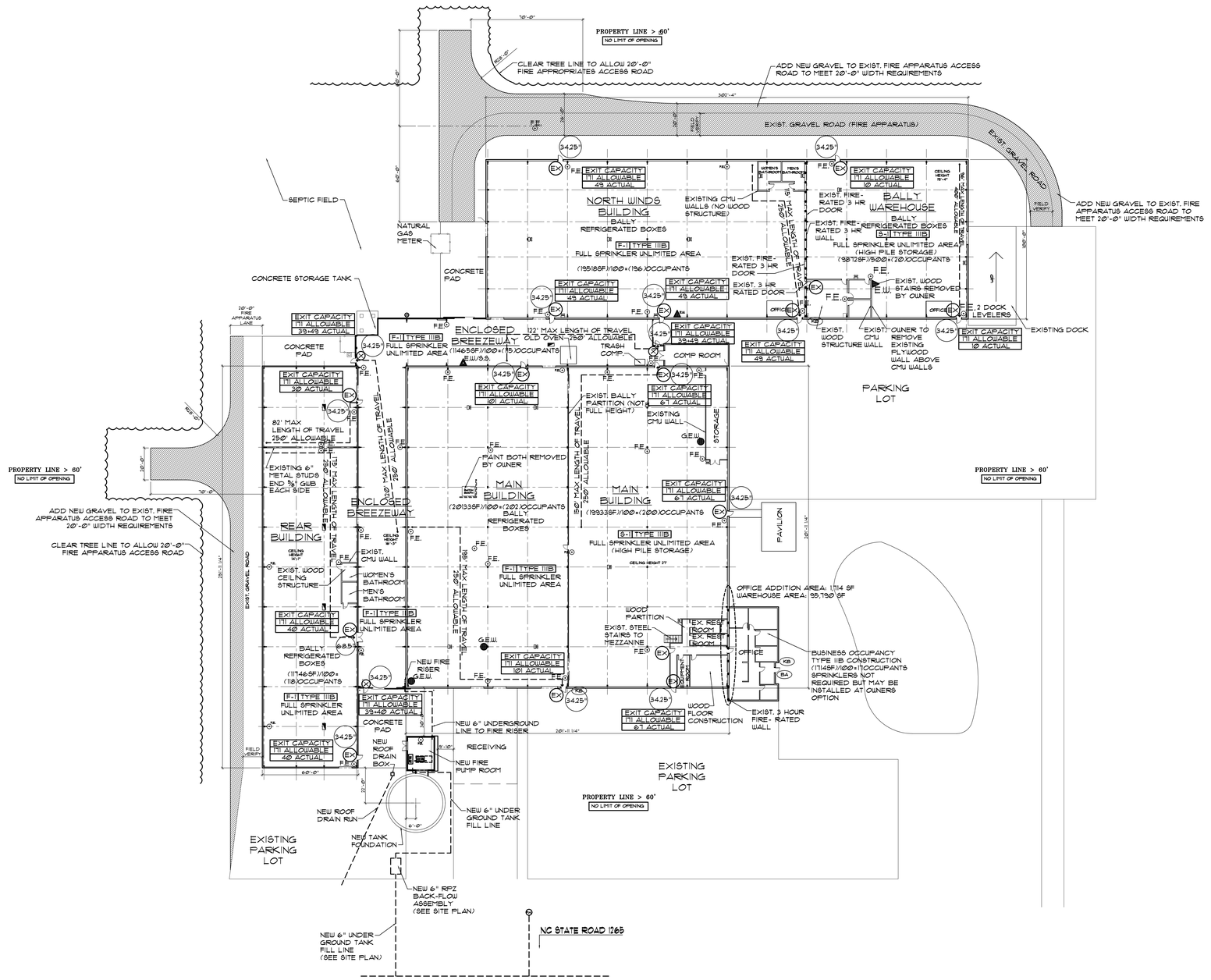
SHEET NO.
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KEY PLAN

SCALE: N.T.S.



OCCUPANCY/LOAD TYPE KEYING:

F-1 = FABRICATION

S-1 = STORAGE

LEGEND:

- KB — FIRE DEPARTMENT KNOX BOX (VERIFY LOCATION W/ FIRE DEPT.)
- BA — BUILDING ADDRESS (FIELD VERIFY)
- F.E. — FIRE EXTINGUISHER W/ STANDARD HOOK
- 34.25" — CLEAR EXIT WIDTH
- EX — EXISTING EXIT SIGNS
- ⊗ — NEW EXIT SIGNS
- FH — EXISTING FIRE HYDRANT
- E.W. — PLUMBED EYEWASH
- E.W./S.S. — PLUMBED EYEWASH WITH SHOWER
- G.E.W. — GRAVITY FED EYEWASH
- EMERGENCY LIGHT
- CEILING EMERGENCY LIGHT
- 3 HOUR FIRE RATED WALL

1 G-2 LIFE SAFETY PLAN

SCALE: 1"=30'-0"

PLAN NORTH

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BALLY REFRIGERATED BOXES LIFE SAFETY MODIFICATION

MOREHEAD CITY, NORTH CAROLINA

LICENSED ARCHITECTURAL CORPORATION — CERT. NO. C-2962

LICENSED GENERAL CONTRACTOR — NO. 6419

LIFE SAFETY PLAN

22005

ISSUED:	03/14/23
DWG BY:	TRA
CKD BY:	LDD

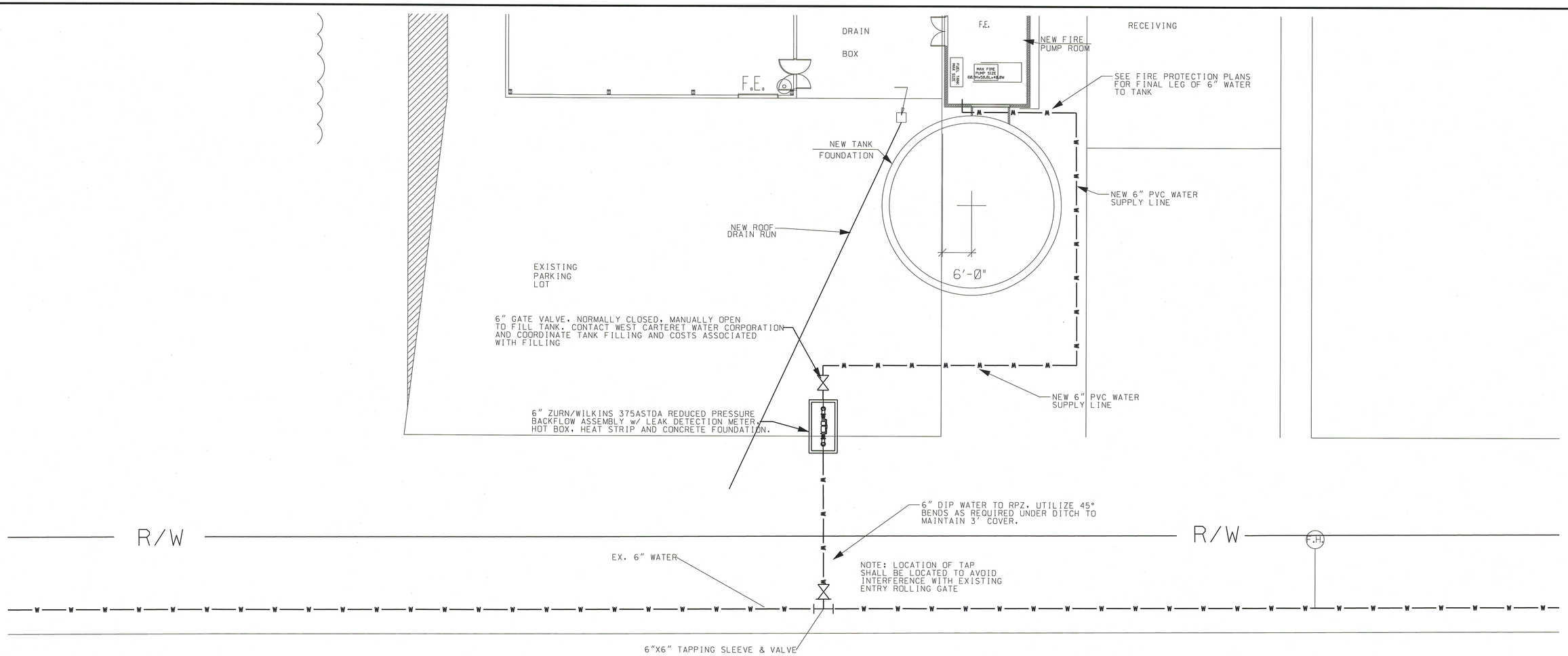
REVISIONS

SHEET NO.

G-2

OF

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NOTE: WEST CARTERET WATER CORPORATION WILL PROCURE AND INSTALL FROM NEW 6" TAP THROUGH THE RPZ AND 6" DOWNSTREAM VALVE. COORDINATE WITH THEM FOR FEES, COSTING AND TIME TABLES.

10 5 0 10 20
SCALE: 1"=10'

REVISIONS:

No.	BY	DATE	DESCRIPTION

FIRE SYSTEM WATER SUPPLY PLAN

BALLY REFRIGERATION

NEWPORT, CARTERET COUNTY, NORTH CAROLINA

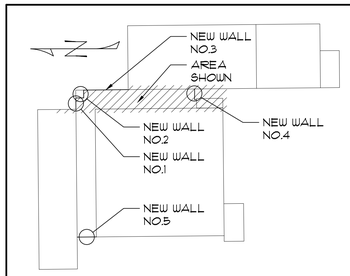
CLIENT: BALLY REFRIGERATION
C/O
ADDRESS: COASTAL ARCHITECTURE
LEE DIXON
4206 BRIDGES ST SUITE C
MOREHEAD CITY, NC 28557
PHONE: 252-247-2127

THE CULLIPHER GROUP, P.A.
ENGINEERING & SURVEYING SERVICES
151A HIGHWAY 24
MOREHEAD CITY, N.C. 28557
(252)773-0090
LICENSE NO. C-1482
RONALD D. CULLIPHER
4/5/23
RONALD D. CULLIPHER, P.E.

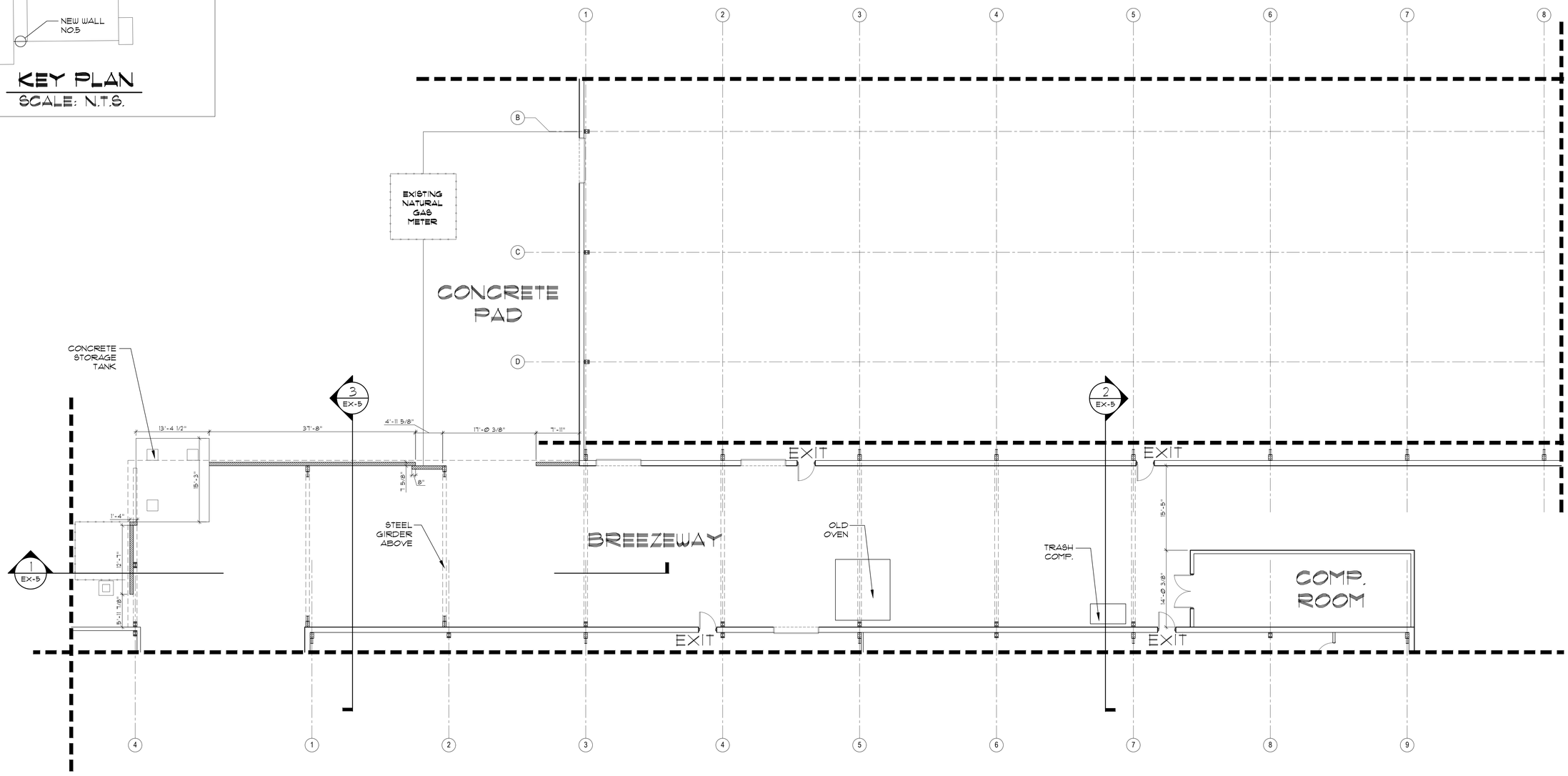
NORTH CAROLINA PROFESSIONAL SEAL 13343 ENGINEER RONALD D CULLIPHER

DESIGNED: RDC
DRAWN: RDC
CHECKED: RDC
APPROVED: RDC
DATE: 4/5/23
SCALE: 1"=10'

SHEET # 1 OF 1
PROJECT #:PM2735'-010
DESIGN FILE #:PM2735'-010 water connection plan.dgn



KEY PLAN
SCALE: N.T.S.



EXISTING BREEZEWAY PLAN
1 / EX-1
SCALE: 1/8"=1'-0"

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MOREHEAD CITY, NORTH CAROLINA

ENLARGED EXISTING BREEZEWAY PLAN

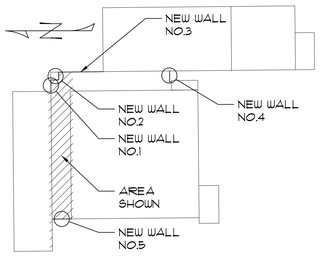
22005

ISSUED:	03/14/23
DWG BY:	TRA
CKD BY:	LDD

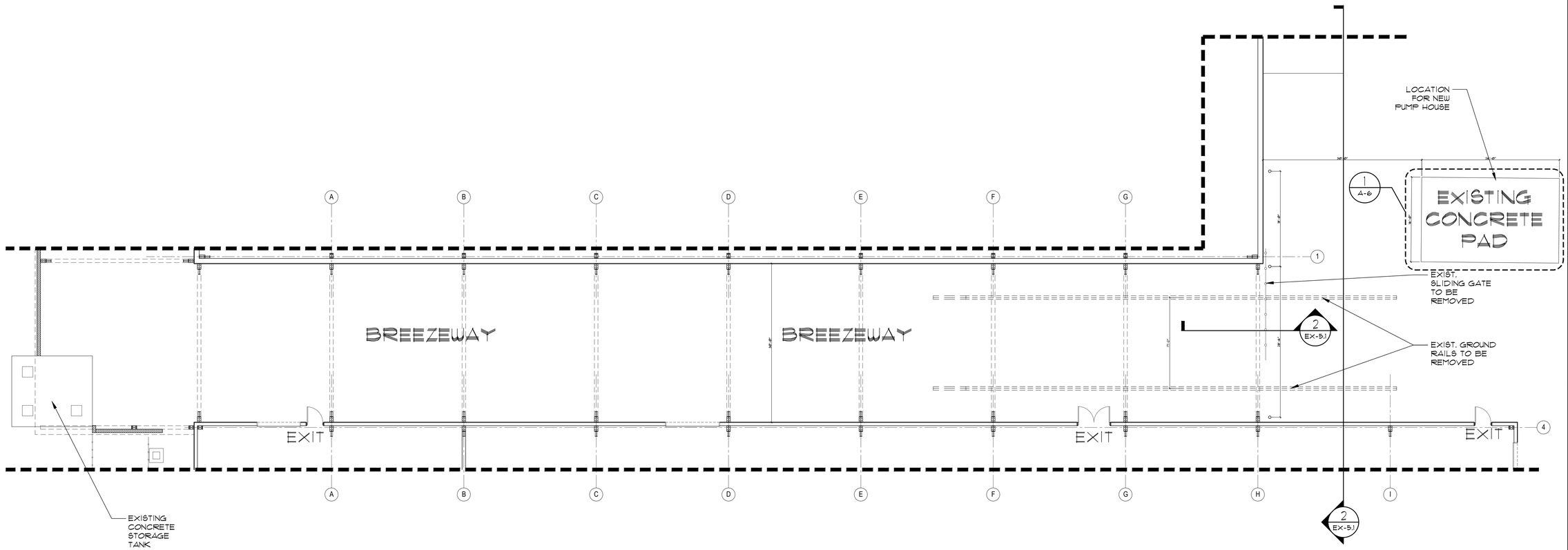
REVISIONS

SHEET NO.
EX-1
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KEY PLAN
SCALE: N.T.S.



1 EXISTING BREEZEWAY PLAN
EX-1.1
SCALE: 1/8"=1'-0"

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COASTAL ARCHITECTURE PLLC CERT. NO 5962

LEE D. DIXON JR. 6419 REGISTERED ARCHITECT NORTH CAROLINA

ENLARGED EXISTING BREEZEWAY PLAN

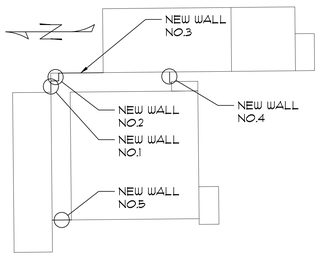
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CKD BY:	LDD

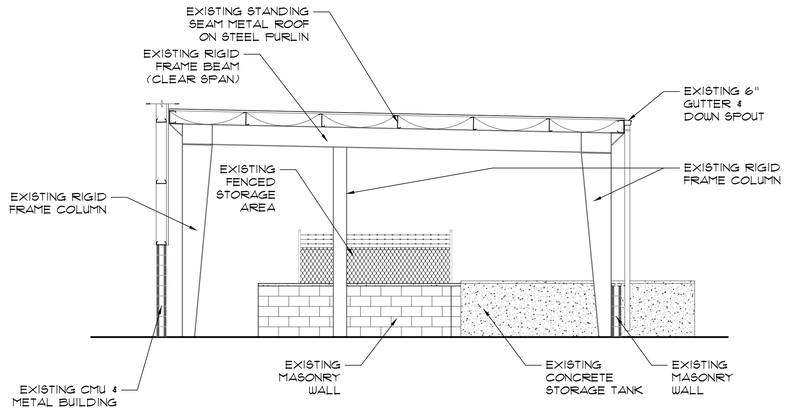
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OF

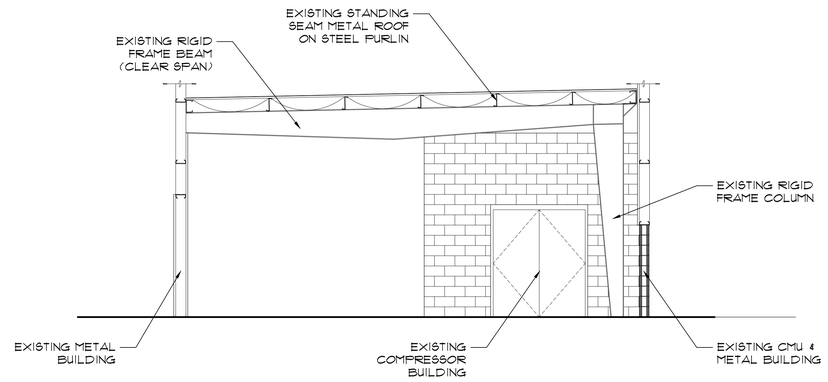
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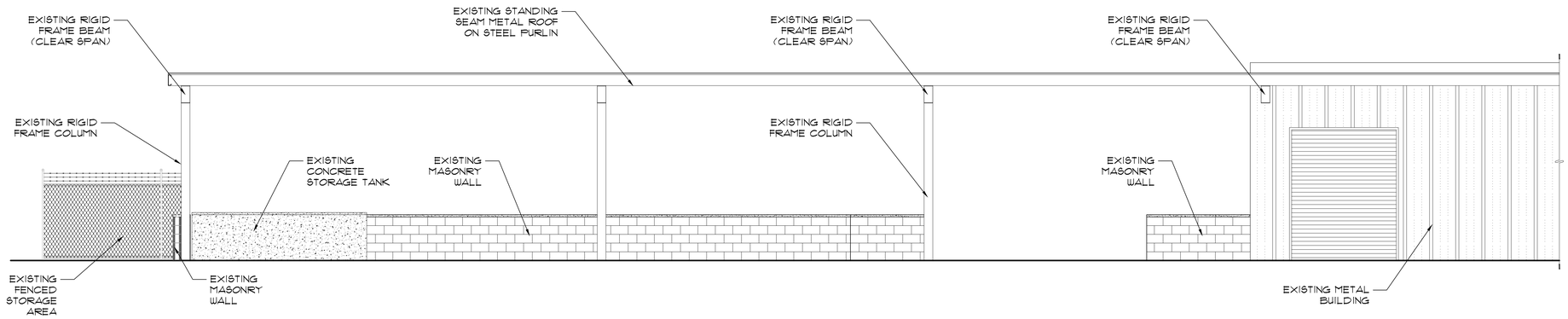
KEY PLAN
SCALE: N.T.S.



3 EX-5 BREEZEWAY SECTION
SCALE: 1/4"=1'-0"



2 EX-5 BREEZEWAY SECTION
SCALE: 1/4"=1'-0"



1 EX-5 BREEZEWAY SECTION
SCALE: 1/4"=1'-0"

PLAN NORTH

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MOREHEAD CITY, NORTH CAROLINA

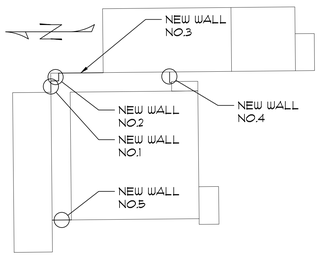
EXISTING BREEZEWAY SECTIONS

22005

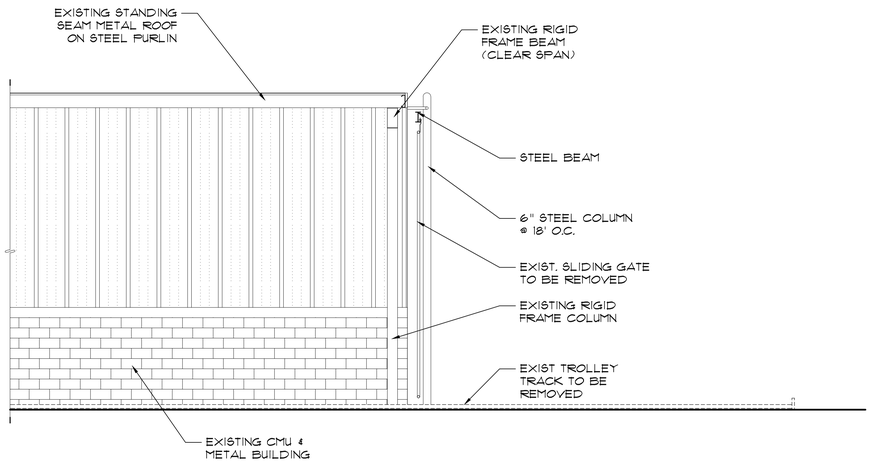
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REVISIONS

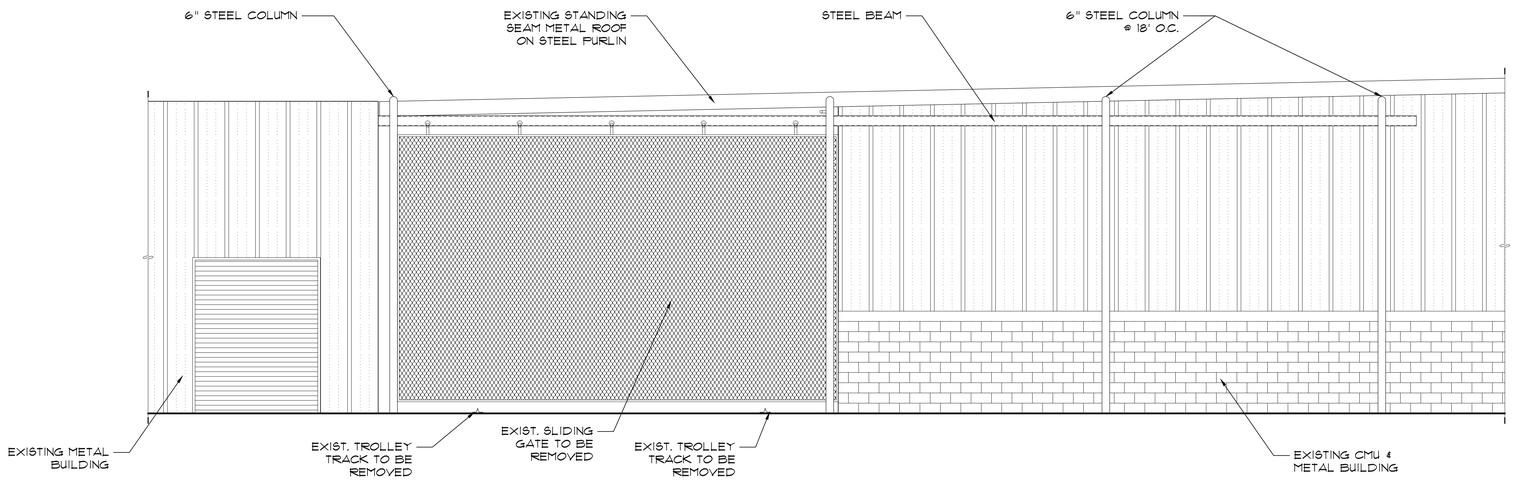
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EX-5
OF



KEY PLAN
SCALE: N.T.S.



2 EX-5.1 BREEZEWAY SECTION
SCALE: 1/4"=1'-0"



1 EX-5.1 BREEZEWAY SECTION
SCALE: 1/4"=1'-0"

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MOREHEAD CITY, NORTH CAROLINA

EXISTING BREEZEWAY SECTIONS

22005

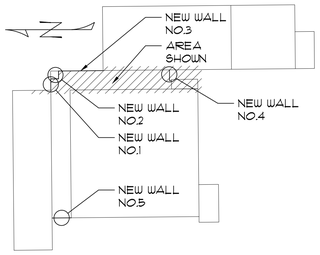
ISSUED:	03/14/23
DWG BY:	TRA
CKD BY:	LDD

REVISIONS

PLAN NORTH

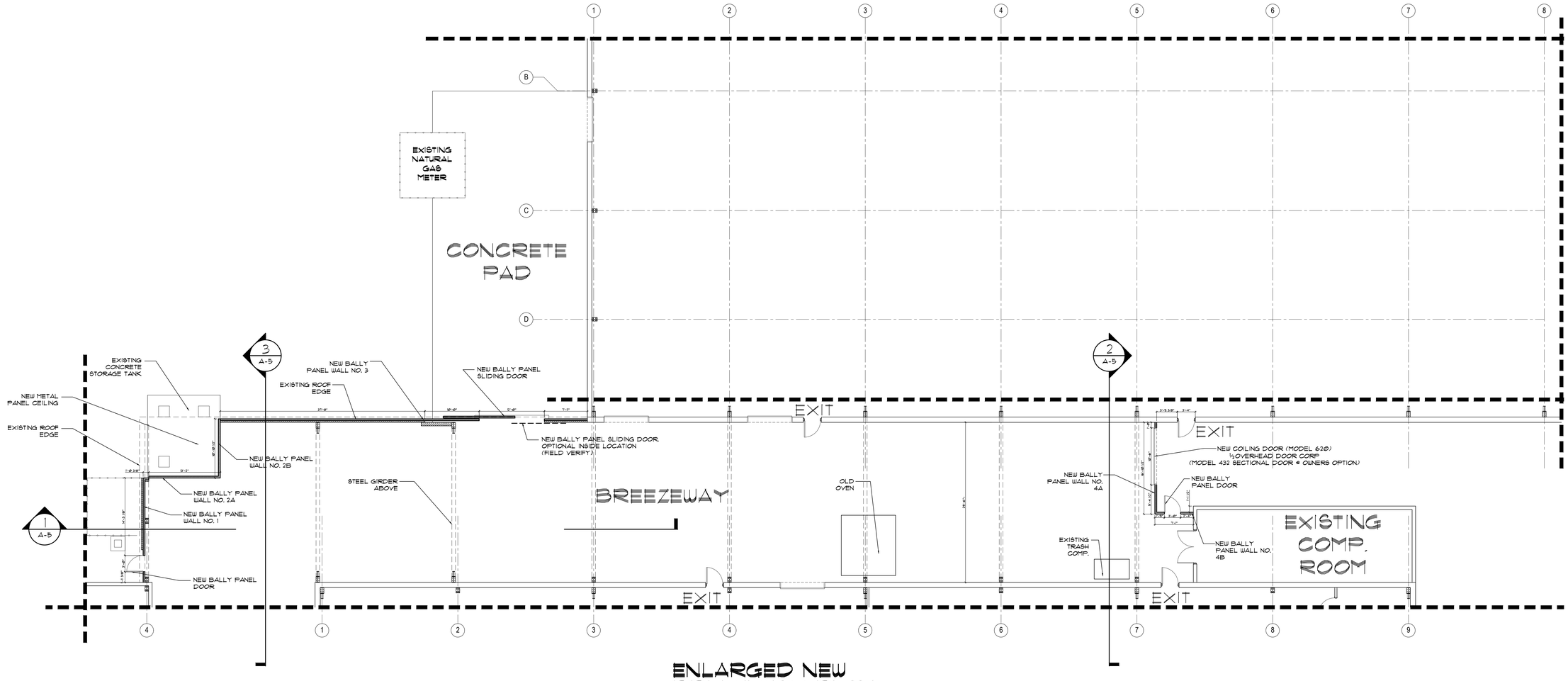
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OF

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KEY PLAN

SCALE: N.T.S.



1/A-1 ENLARGED NEW BREEZEWAY PLAN

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

SEE G-2 FOR FIRE EXTINGUISHING LOCATION.

PLAN NORTH

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BALLY REFRIGERATED BOXES LIFE SAFETY MODIFICATION

MOREHEAD CITY, NORTH CAROLINA

ENLARGED NEW BREEZEWAY PLAN

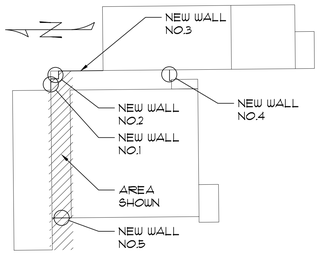
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ISSUED: 03/14/23
DWG BY: TRA
CKD BY: LDD

REVISIONS

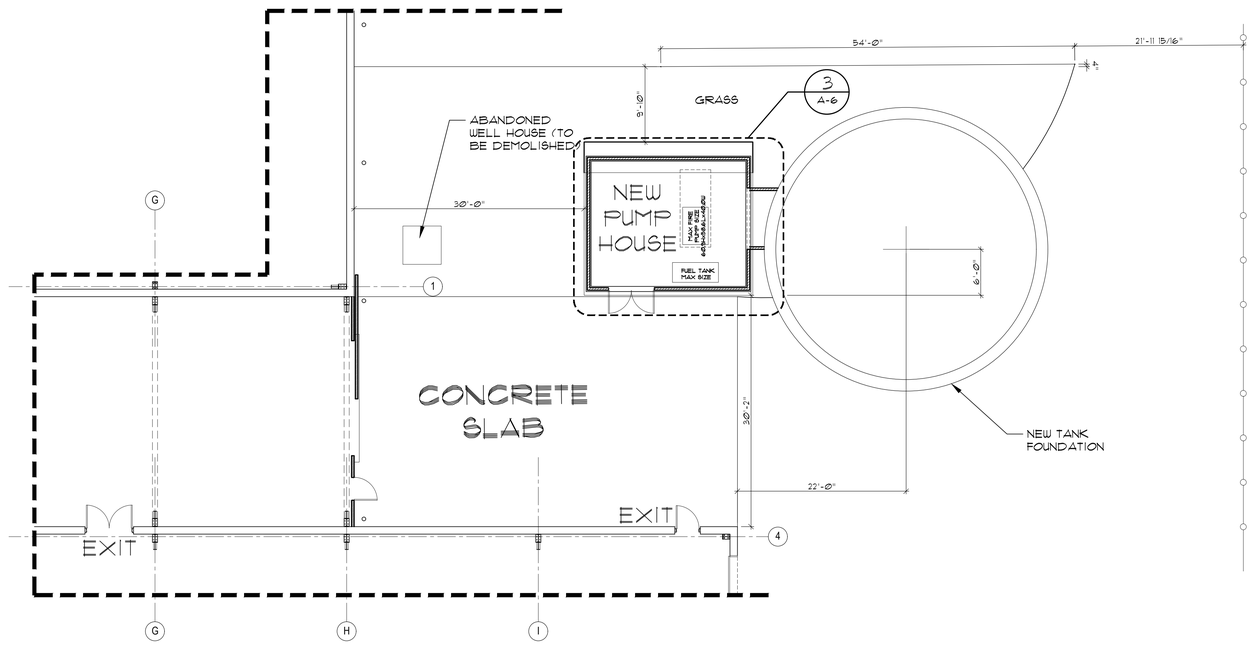
SHEET NO. A-1 OF

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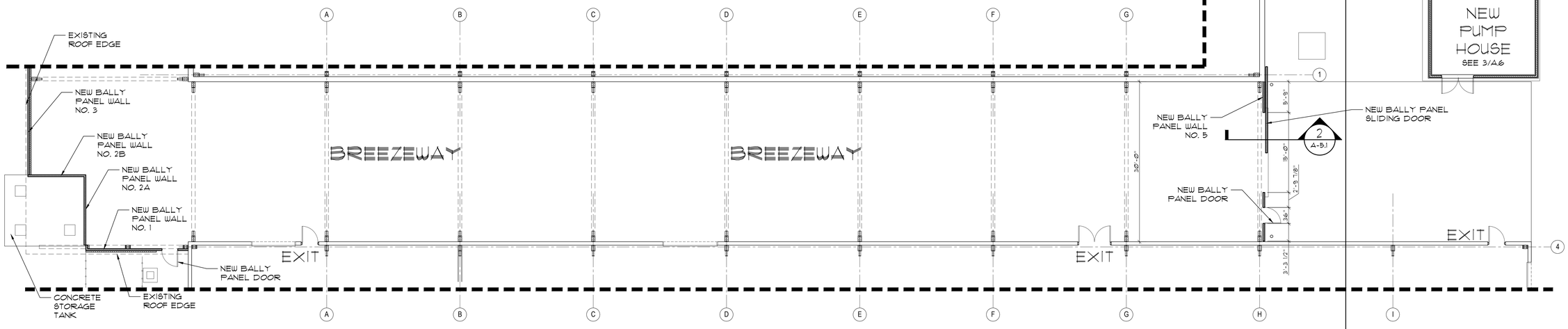
KEY PLAN

SCALE: N.T.S.



2 A-1.1 ENLARGED NEW PUMP HOUSE PLAN

SCALE: 1/8"=1'-Ø"



1 A-1.1 ENLARGED NEW BREEZEWAY PLAN

SCALE: 1/8"=1'-Ø"

PLAN NORTH

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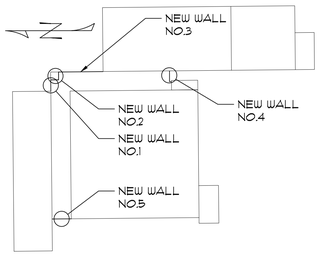
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LIFE SAFETY MODIFICATION
MOREHEAD CITY, NORTH CAROLINA

ENLARGED NEW BREEZEWAY AND PUMP HOUSE PLANS

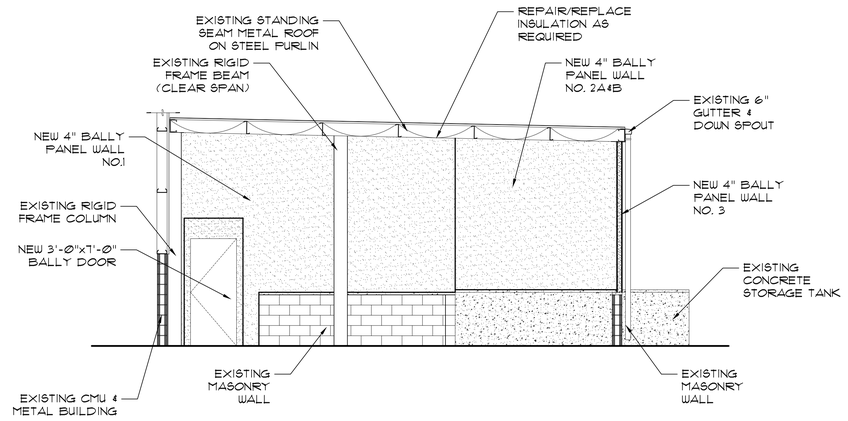
22005

ISSUED: 03/14/23
DWG BY: TRA
CKD BY: LDD
REVISIONS

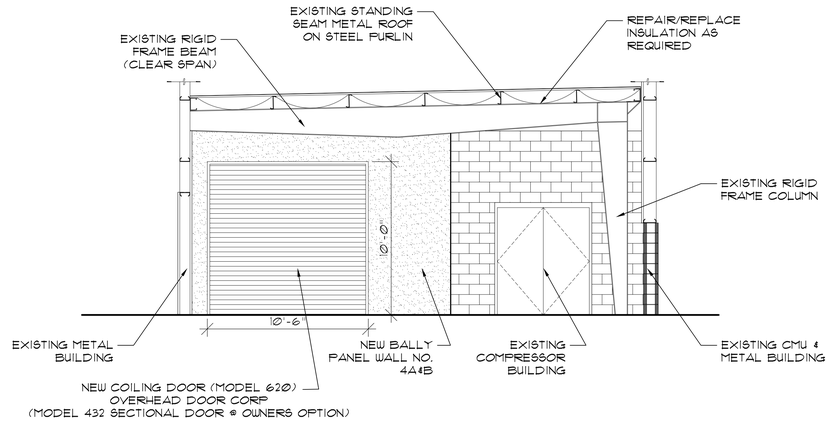
SHEET NO.
A-1.1
OF



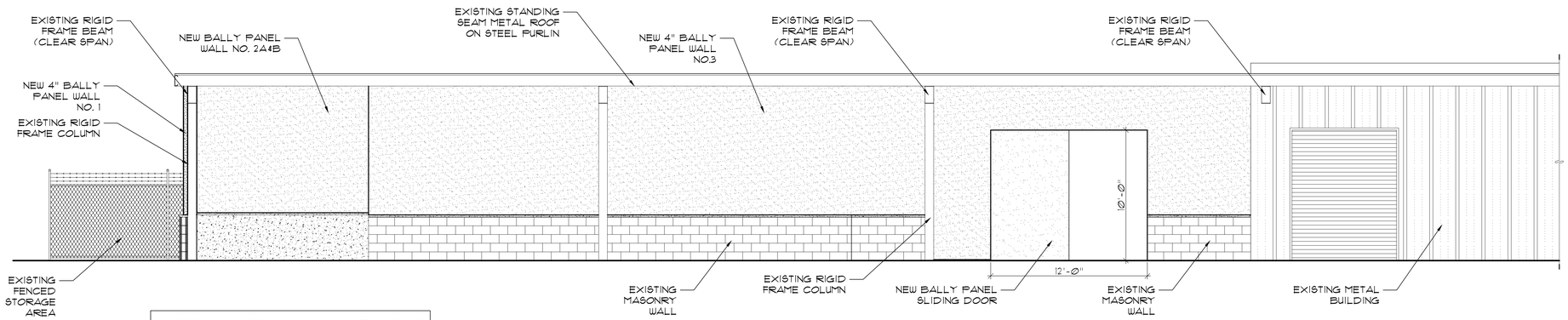
KEY PLAN
SCALE: N.T.S.



3/A-1 NEW BREEZEWAY SECTION
SCALE: 1/4"=1'-Ø"



2/A-1 NEW BREEZEWAY SECTION
SCALE: 1/4"=1'-Ø"



NOTE: ALL BALLY WALL PANELS AND ATTACHMENTS/SUPPORTS TO BE ENGINEERED BY BALLY. FIELD VERIFY ALL DIMENSIONS.

1/A-1 NEW BREEZEWAY SECTION
SCALE: 1/4"=1'-Ø"

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MOREHEAD CITY, NORTH CAROLINA

COASTAL ARCHITECTURE PLLC CERT. NO C-2762
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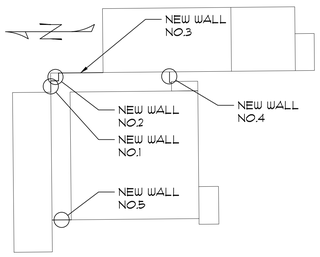
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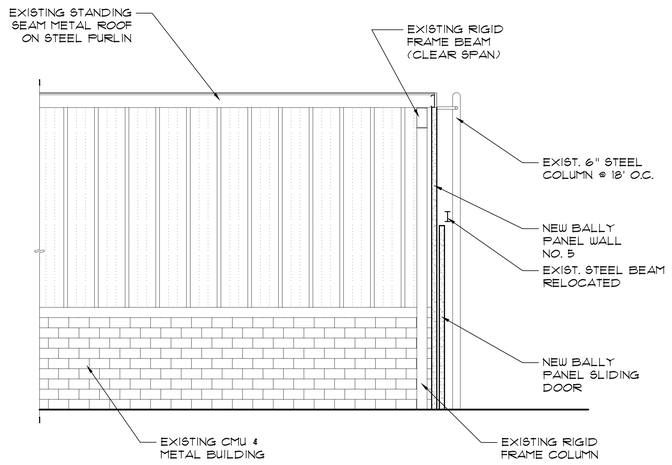
ISSUED:	03/14/23
DWG BY:	TRA
CKD BY:	LDD

REVISIONS

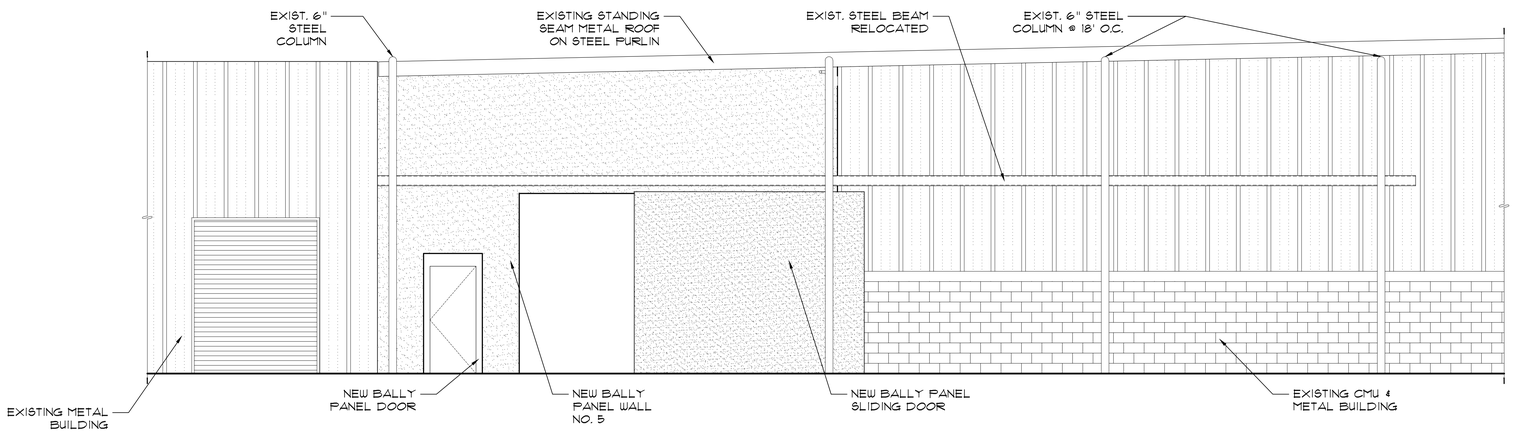
SHEET NO.
A-5
OF



KEY PLAN
SCALE: N.T.S.



2 / A-5.1 NEW BREEZEWAY SECTION
SCALE: 1/4"=1'-0"



1 / A-5.1 NEW BREEZEWAY SECTION
SCALE: 1/4"=1'-0"

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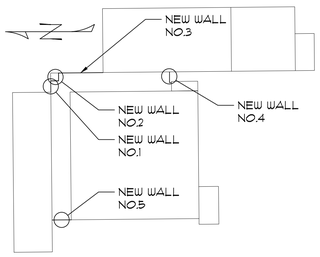
NEW BREEZEWAY SECTION

22005

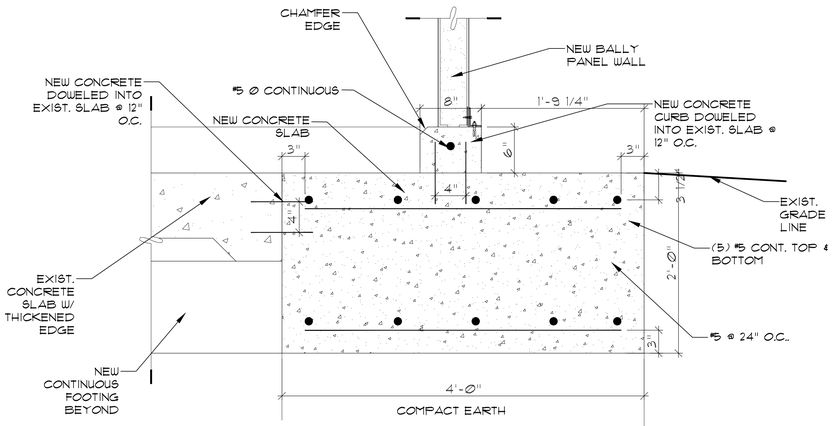
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DWG BY:	TRA
CKD BY:	LDD

REVISIONS

SHEET NO.
A-5.1
OF

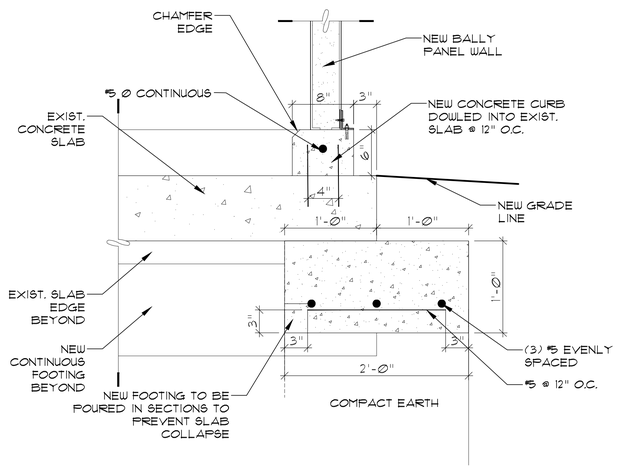


KEY PLAN
SCALE: N.T.S.

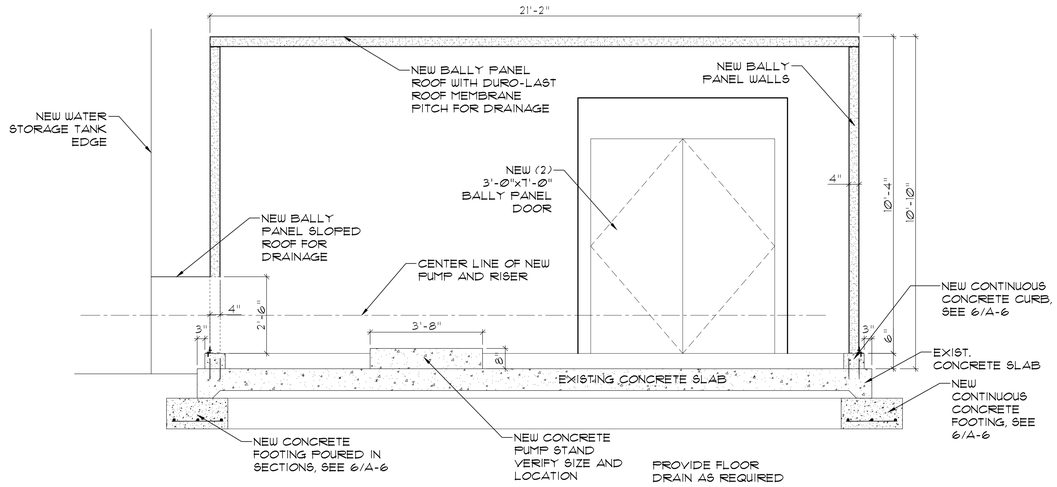


5 / A-6 FOOTING DETAIL
SCALE: 1½"=1'-0"

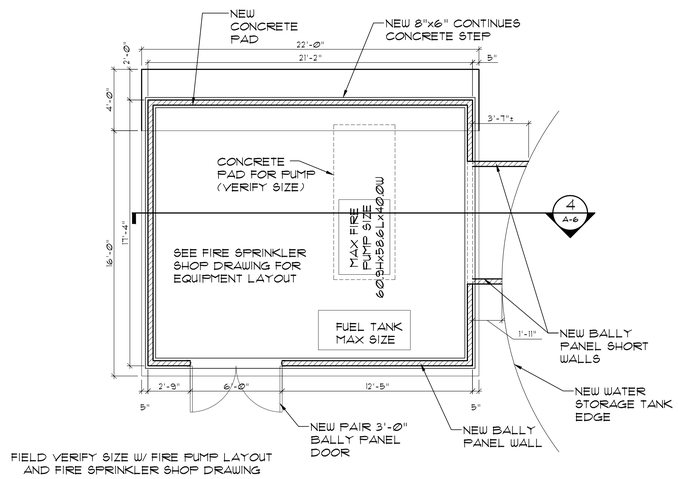
NOTE: ALL BALLY WALL PANELS AND ATTACHMENTS/SUPPORTS TO BE ENGINEERED BY BALLY. FIELD VERIFY ALL DIMENSIONS.



6 / A-6 FOOTING DETAIL
SCALE: ½"=1'-0"



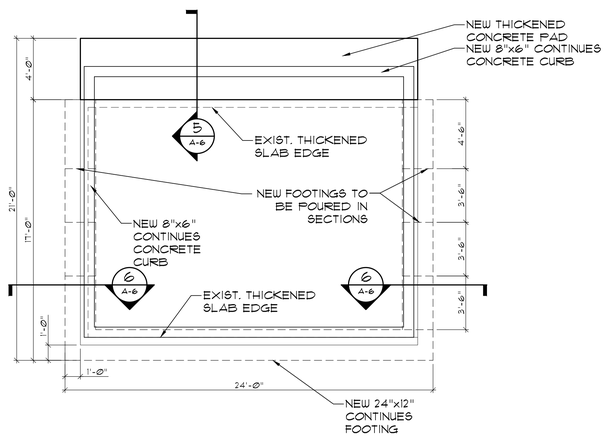
4 / A-6 NEW PUMP HOUSE SECTION
SCALE: ½"=1'-0"



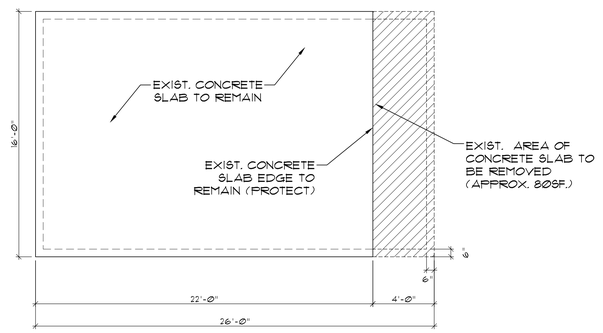
FIELD VERIFY SIZE W/ FIRE PUMP LAYOUT AND FIRE SPRINKLER SHOP DRAWING

3 / A-6 ENLARGED NEW PUMP HOUSE PLAN
SCALE: ¼"=1'-0"

(SEE ALSO FIRE SPRINKLER DRAWINGS AND MECHANICAL AND ELECTRICAL PLANS FOR FRESH AIR INTAKE.)



2 / A-6 ENLARGED NEW PUMP HOUSE FOUNDATION PLAN
SCALE: ¼"=1'-0"



1 / A-6 ENLARGED EXISTING CONCRETE PAD DEMO PLAN
SCALE: ¼"=1'-0"

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BALLY REFRIGERATED BOXES
LIFE SAFETY MODIFICATION
MOREHEAD CITY, NORTH CAROLINA

ENLARGED PUMP HOUSE PLAN, SECTION, AND DETAILS

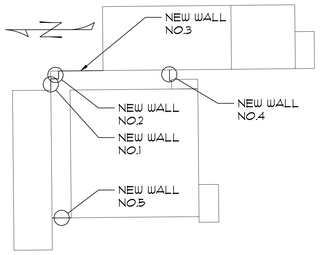
22005

ISSUED:	03/14/23
DWG BY:	TRA
CKD BY:	LDD

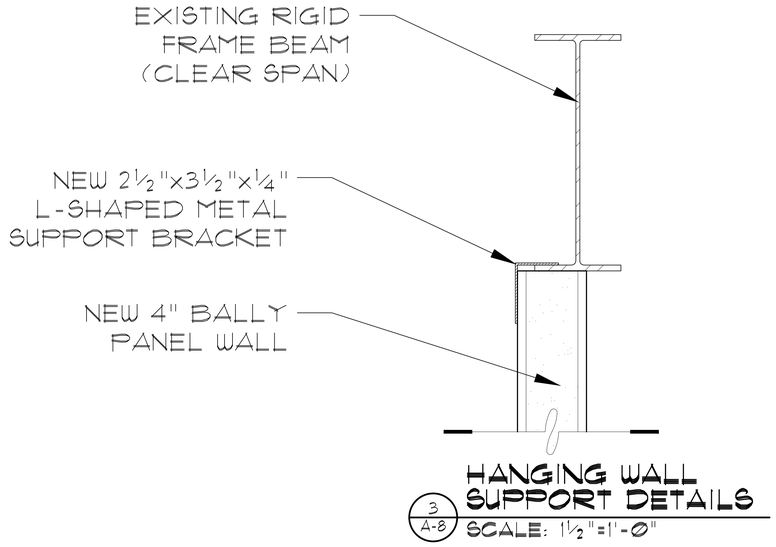
REVISIONS

SHEET NO.
A-6
OF

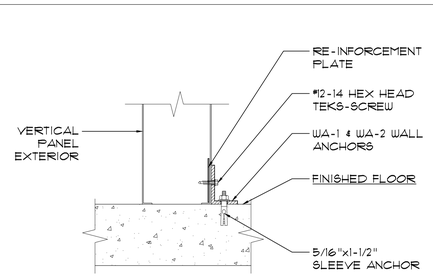
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KEY PLAN
SCALE: N.T.S.

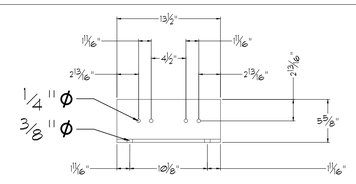


3 / A-8 HANGING WALL SUPPORT DETAILS
SCALE: 1½"=1'-0"

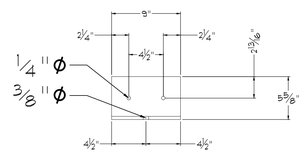


NOTE:
WA-2 WALL ANCHOR USED @ CORNER JOINTS AND WA-1 USED @ ALL OTHER VERTICAL JOINTS PLUS CENTERLINE OF 46" VERTICAL PANELS.

PANEL ATTACHMENT DETAIL (VERTICAL TO FLOOR)
(SEE INSTRUCTION #IM-265-88)



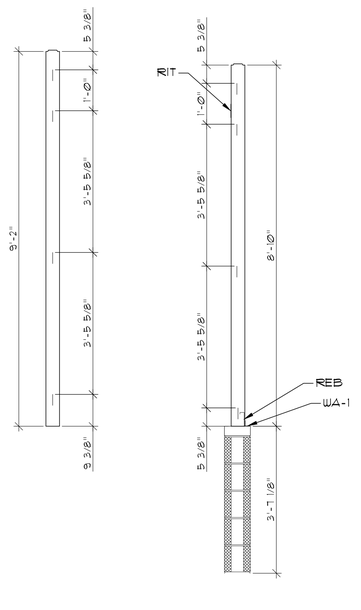
WA-2
1-5/8" X 2-1/2" X 6"-LONG



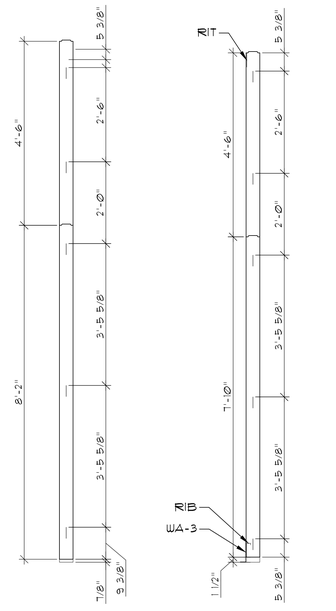
WA-1
1-5/8" X 2-1/2" X 4"-LONG

THIS INFORMATION PROVIDED BY BALLY
(FIELD VERIFY)

2 / A-8 WALL ANCHOR DETAILS
SCALE: 1½"=1'-0"



2 / A-8 SHORT HEIGHT WALL SECTION
SCALE: ¾"=1'-0"



1 / A-8 FULL HEIGHT WALL SECTION
SCALE: ¾"=1'-0"

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BALLY REFRIGERATED BOXES
LIFE SAFETY MODIFICATION
MOREHEAD CITY, NORTH CAROLINA

NEW BREEZEWAY DETAILS

22005
ISSUED: 03/14/23
DWG BY: TRA
CKD BY: LDD
REVISIONS

SHEET NO.
A-8
OF

DIVISION 15 B – HEATING, VENTILATING AND AIR CONDITIONING

1.1 DESCRIPTION OF THE WORK

A. Work under this section includes, but is not necessarily limited to, furnishing and installing the following:

1. Heating, ventilation, and air conditioning equipment.
2. Ductwork.
3. Grilles and diffusers.
4. Controls and control wiring.
5. Condensate piping.

B. All work under this contract shall be installed in compliance with the latest edition of the following codes and standards insofar as they apply:

1. ASHRAE Guide
2. National Electric Code.
3. 2018 NC State Building Code: Mech Code.
4. The Electrical Specifications for this project.
5. SMACNA HVAC Duct Construction Standards.
6. All local codes and ordinances.
7. ARI rating.
8. 2018 NC State Building Code: Energy Conservation Code.

C. These codes are minimum standards. If codes require a more stringent method of construction than the specifications require, the codes shall govern.

D. The HVAC Contractor shall be licensed in North Carolina and have all local licenses required for the work.

1.2 INTENT

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

1.3 COORDINATION

A. Coordinate work with other contractors. Notify Owner of apparent conflicts early to expedite construction. If structural damage appears imminent, stop work and notify Owner for a decision before resuming operations.

B. Locations shown are approximate. The HVAC Contractor shall verify with owner, the placement of equipment, fixtures, outlets, etc. The drawings do not give exact details as to elevations and locations of various pipes, fittings, ducts, conduit, etc., and do not show all offsets and other installation details which may be required.

C. Changes in duct or piping design caused by obstructions shall be submitted to Engineer in sketch form for study and comment prior to execution. Additional cost will not be allowed for this type of work.

1.4 SHOP DRAWINGS

A. Shop drawings shall be submitted for all major items of equipment. These may consist of the manufacturer's standard catalog or tear sheets and shall have the exact items being offered clearly identified. Shop drawings shall include but are not limited to the following:

1. All equipment and accessories.
2. Grilles and diffusers.
3. Unit sizes and requirements.

PART 2 –PRODUCTS

2.1 EQUIPMENT

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

2.2 PIPING

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

2.3 DUCTWORK

A. Ductwork shall be built in accordance with SMACNA HVAC Duct construction standards. Furnish and install all supply, return, and ventilation ductwork shown, together with splitters, deflectors, dampers, etc. This work shall be constructed of new galvanized prime grade steel sheets. The gauges of metal to be used and the construction and bracing of joints shall be in accordance with the SMACNA recommendations.

B. Seal all sheet metal joints with fiber impregnated mastic.

C. Support from building structure on strap hangers not over 8 feet apart.

D. Use manufactured turning vanes in each elbow where required or where indicated on drawings.

E. Flexible connectors shall be 3 inches wide, of fireproof material and used to isolate noise between equipment and ductwork on supply and return side of all units.

F. Round runouts, where used, shall be built in accordance with the above standards, and each runout shall also have manufactured side take off, adjustable quadrant damper at all accessible locations and shall be of Owens Corning INL-25 flexible duct with UL label. Flex duct lengths allowed up to 14 feet. Duct must be supported with sufficient hangers in order to prevent sags. Serpentine routing will not be permitted. Quadrant damper to be 22 gauge easily adjustable manually with exterior handle (similar to H&C Kwik-set) and is not to be mounted in side take-off.

2.4 DUCT INSULATION (LOW PRESSURE)

A. All insulation, linings, coverings and adhesives shall have a flame spread classification of 25 or less and a smoke developed rating of not more than 50, exposed exterior piping.

B. All duct insulation shall comply with Section 604, of the N. C. Building Code: Mechanical Code

C. All supply and return ductwork shall be completely insulated, either internally or externally.

D. Rectangular ductwork shall be lined with two-inch thick, 1.5 lb. per cubic foot density, duct liner, Armstrong, CSG Ultraliner, Johns Manville or approved equal.

E. As an alternative to duct liner rectangular duct may be wrapped with Class I – 2", 3/4 lb. density (R-8.5) thick reinforced foil back fiberglass insulation, Owens-corning Series ED or equal. Tape shall be Kraft reinforced foil tape or equal.

F. Exhaust air duct does not require insulation, unless otherwise noted on the plans.

G. Insulation shall be held inplace with adhesive and welding pins 16" on center.

H. Duct dimensions shown on the drawings are Net Inside Dimensions

2.5 THERMOSTATS

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

2.6 ROOF PENETRATIONS

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

2.7 DUCT SMOKE DETECTORS

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

PART 3 – EXECUTION

3.1 PIPING

A. The HVAC Contractor shall coordinate such routing with others, to line his work true to adjacent spaces and in a workmanlike manner and to use only short radius 90 degree elbows. Where required, piping to be sturdily supported and separated in a manner satisfactory to the Engineer.

B. The HVAC Contractor shall paint all exterior refrigerant piping, with UV resistant paint as recommended by the closed cell insulation manufacturer.

C. Insulate all condensate lines for their entire length with 1/2" closed cell insulation. Install insulation per the manufacturers recommendations.

3.2 ELECTRICAL WORK

A. The electrical contractor shall provide all switches, starters, wire conduit for the air conditioning, heating and ventilation equipment. Control wiring shall be by the heating and air conditioning contractor.

B. HVAC Contractor is responsible for verifying that power terminals have been properly grounded prior to operating equipment and must find connections to all equipment including control wiring.

C. All materials and workmanship shall be in accordance with the electrical specifications for the project. All wiring shall be color coded, and as-built wiring diagram prepared showing all connections and colors of wiring and delivered to the Owner.

D. Furnish certification for acceptance of control wiring from local electrical inspector prior to acceptance.

3.3 CLEAN UP

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

B. Furnish one box of clean filters, for each size required, at the time of final inspection to the owner.

3.4 OPERATOR'S MANUAL AND DIAGRAM

A. The HVAC Contractor shall prepare in one copy a manual describing the proper maintenance and operation of the systems. This manual shall not consist of standard factory instructions (although these may be included) but shall be prepared to describe this particular job.

B. The manual shall be bound, indexed, dated and signed by the HVAC Contractor.

C. Qualified representative of the HVAC contractor shall meet with the designated representatives of the Owner and the Owner's representative shall be instructed in the proper operation and maintenance of the control system and other systems.

3.5 GUARANTEE

A. Guarantee all materials and labor included in the HVAC work for a period of one year from date of final acceptance by the owner. In addition, motor compressors shall be a nonprorated five year warranty. Any part or parts of the work or equipment which prove to be defective during the guarantee period shall be replaced at no additional cost to the owner or tenant.

B. All air flows must be measured and balanced to within 10% of design airflows. All equipment used must have a current certification. Provide ten copies of the balance report to the owner at closeout. The HVAC contractor shall return and re-balance to occupant comfort after 90 days from close-out. Provide all balance dampers needed for satisfactory operation regardless if shown on the drawings or not, and shift location of thermostats themostats if required for occupancy comfort.

GAS RADIANT HEATER SCHEDULE

RADIANT HEATER #1 75,000 BTUH (RH-1)	* SPACE-RAY MODEL# PTS75-40, 41'-2" LONG NATURAL GAS RADIANT HEATER, WITH AUTOMATIC SPARK INGNITION, 75,000 BTUH MAX. INPUT, PROVIDE HEAT SHIELDS AS REQUIRED TO PROTECT ADJACENT PIPING, CONDUITS, ETC. PROVIDE GAS SHUT-OFF VALVE, UNION, DIRT LEG, AND FLEXIBLE CONNECTION. PROVIDE CHAIN MOUNTING KIT. PROVIDE ALL MANUFACTURERS RECOMMENDED CLEARANCES. PROVIDE 24V, 2-STAGE THERMOSTAT, HANGING KIT, AND ALL OTHER NECESSARY COMPONENTS AS REQUIRED BY MANUFACTURER, 1.8 AMP, 120 VOLT SINGLE PHASE POWER. PROVIDE EXTERNAL 25 VOLT TRANSFORMER AS REQUIRED.
RADIANT HEATER #2 75,000 BTUH (RH-2)	* SPACE-RAY MODEL# PTS75-40, 41'-2" LONG NATURAL GAS RADIANT HEATER, WITH AUTOMATIC SPARK INGNITION, 75,000 BTUH MAX. INPUT, PROVIDE HEAT SHIELDS AS REQUIRED TO PROTECT ADJACENT PIPING, CONDUITS, ETC. PROVIDE GAS SHUT-OFF VALVE, UNION, DIRT LEG, AND FLEXIBLE CONNECTION. PROVIDE CHAIN MOUNTING KIT. PROVIDE ALL MANUFACTURERS RECOMMENDED CLEARANCES. PROVIDE 24V, 2-STAGE THERMOSTAT, HANGING KIT, AND ALL OTHER NECESSARY COMPONENTS AS REQUIRED BY MANUFACTURER, 1.8 AMP, 120 VOLT SINGLE PHASE POWER. PROVIDE EXTERNAL 25 VOLT TRANSFORMER AS REQUIRED.
RADIANT HEATER #3 75,000 BTUH (RH-3)	* SPACE-RAY MODEL# PTS75-40, 41'-2" LONG NATURAL GAS RADIANT HEATER, WITH AUTOMATIC SPARK INGNITION, 75,000 BTUH MAX. INPUT, PROVIDE HEAT SHIELDS AS REQUIRED TO PROTECT ADJACENT PIPING, CONDUITS, ETC. PROVIDE GAS SHUT-OFF VALVE, UNION, DIRT LEG, AND FLEXIBLE CONNECTION. PROVIDE CHAIN MOUNTING KIT. PROVIDE ALL MANUFACTURERS RECOMMENDED CLEARANCES. PROVIDE 24V, 2-STAGE THERMOSTAT, HANGING KIT, AND ALL OTHER NECESSARY COMPONENTS AS REQUIRED BY MANUFACTURER, 1.8 AMP, 120 VOLT SINGLE PHASE POWER. PROVIDE EXTERNAL 25 VOLT TRANSFORMER AS REQUIRED.

* OR APPROVED EQUAL

EXHAUST FAN EQUIPMENT SCHEDULE

EF-1	
EXHAUST FAN #1 (EF-1)	* CARNES MODEL# LWBL30P2 SIDEWALL PROPELLER EXHAUST FAN, 1/2 HP, 725 RPM, 6600 CFM AT 0.25" SP, PROVIDE WALL BOX WITH MOTORSIDE GUARD, PROVIDE BACKDRAFT DAMPER ON EXTERIOR SIDE OF FAN. BELT DRIVE MOTOR, 115 VOLT SINGLE PHASE. THE ELECTRICAL CONTRACTOR SHALL PROVIDE THE SWITCH AND WIRE THE UNIT. INTERLOCK FAN CONTROLS WITH MOTORIZED DAMPERS ON NEW WALL INTAKE LOUVERS. WAREHOUSE.

* OR APPROVED EQUAL

GENERAL NOTES – MECHANICAL

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

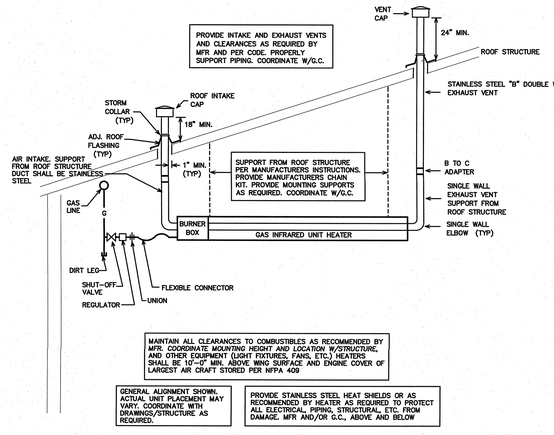
LEGEND – MECHANICAL

RADIANT HEATER

RH-1 — WALL MOUNTED THERMOSTAT (UNIT SERVED IS INDICATED)

G—G — GAS PIPING

3 HOUR FIRE BARRIER



1 RADIANT HEATER DETAIL
SCALE 1/4"=1'-0"

APPENDIX B

2018 BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS

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

MECHANICAL SYSTEMS, SERVICE SYSTEM AND EQUIPMENT

Thermal Zone

winter dry bulb	18F
summer dry bulb	93F

Interior Design Conditions

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

Building Heating Load — 75,100 BTU/hr

Building Cooling Load — N/A

Mechanical Spacing Conditioning System

Unitary – The tenant space is served the following systems:
(3) 75,000 BTUH radiant heaters

Boiler – Not applicable to this project.

Chiller – Not applicable to this project.

Equipment efficiencies

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

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BALLY REFRIGERATED BOXES RENOVATIONS
MOREHEAD CITY, NORTH CAROLINA

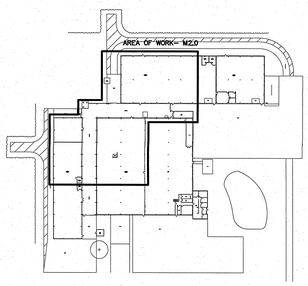
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 22005 BRIAN E. BURKE 3/22/23

HVAC, SPECs, NOTES, LEGEND, SCHED, DETAILS

22005
ISSUED: 3-13-2023
DWG BY: CLS/RM
CKD BY: BEB
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SHEET NO.
M-1.0



2 KEY PLAN
M-2.0 SCALE: NTS

KEYNOTES FOR M-2.0

1. EXISTING RADIANT HEATERS TO BE REMOVED.
2. NEW RADIANT HEATERS, MOUNT RH-3 ABOVE CRANE RAIL AND MAINTAIN THAT MOUNTING HEIGHT FOR RH-1&2.
3. NEW THERMOSTAT. MOUNT AT 48" AFF.
4. NEW GAS LINE, RUN CLOSE TO ROOF STRUCTURE
5. EXISTING GAS METER/SERVICE, VERIFY SERVICE PRESSURE PRIOR TO BID.
6. NEW HIGH WALL MOUNTED SIDE WALL PROPELLER EXHAUST FAN. COORDINATE EXACT MOUNTING HEIGHT WITH ARCHITECT. INTERLOCK FAN CONTROLS WITH INTAKE LOUVER/ DAMPER CONTROLS SO THAT WHEN FAN IS RUNNING THE DAMPERS OPEN AND WHEN THE FAN IS NOT RUNNING THE DAMPERS CLOSE.
7. NEW 42" X 36" OUTSIDE AIR INTAKE LOUVER EQUAL TO CARNES MODEL FXDC. PROVIDE MOTORIZED DAMPER BEHIND LOUVER. INTERLOCK CONTROLS FOR DAMPER WITH CONTROLS FOR NEW EXHAUST FAN EF-1 SO THAT WHEN FAN IS RUNNING THE DAMPER OPENS AND WHEN FAN IS NOT RUNNING THE DAMPER CLOSES.
8. EXISTING 2" GAS LINE BELOW GRADE FROM METER TO STUB-UP. VERIFY LINE SERVICE PRESSURE (EST. 5 PSI).
9. CONNECT TO EXISTING STUB-UP, PROVIDE PROPER REGULATOR FOR LOW PRESSURE (0.5 PSI/LESS THAN 2 PSI) SERVICE LINE TO NEW EQUIPMENT. PROVIDE PROPER SHUT-OFF VALVE, RISE NEW LINE ON EXTERIOR OF BUILDING, ROUTE AS REQUIRED TO RUN BELOW ROOF STRUCTURE/PENETRATE WALL AT/BELOW ROOF STRUCTURE. VERIFY LOCATION/ROUTING OF NEW LINES, PROPERLY SUPPORT NEW PIPING. PROPERLY SEAL WALL PENETRATION.

EXISTING NATURAL GAS SERVICE

BALLY REFRIGERATED BOXES

CONCRETE PAD

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

NATURAL GAS NOTE:
ALL LINE SHUT-OFF VALVES, REGULATORS, ETC., MUST BE ACCESSSIBLE FOR PROPER MAINTENANCE. PAINT ANY INTERIOR OR EXTERIOR EXPOSED GAS LINES PER CODE AND BUILDING STANDARD. PROVIDE PROPER STAND-OFFS/SUPPORTS FOR GAS LINES ON ROOF/EXTERIOR WALLS, BELOW ROOF, ETC. PROPERLY SEAL ROOF/EXT. WALL PENETRATIONS SO AS NOT TO VOID ANY EXISTING WARRANTIES.

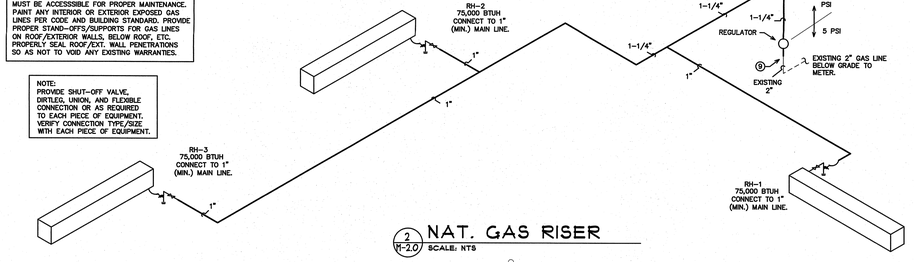
NOTE:
PROVIDE SHUT-OFF VALVE, DIRTLEG, UNION, AND FLEXIBLE CONNECTION OR AS REQUIRED TO EACH PIECE OF EQUIPMENT. VERIFY CONNECTION TYPE/SIZE WITH EACH PIECE OF EQUIPMENT.

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

0.5 PS/LESS THAN 2 PSI SYSTEM NOTE:
GAS PIPE SIZES BASED UPON A INITIAL PRESSURE OF LESS THAN 2 PSI AND A PRESSURE DROP OF 1/2" WC AT 250 FEET IN DEVELOPED LENGTH. PIPE SIZES SHOWN ARE NOMINAL INSIDE DIAMETER.
TOTAL CONNECTED LOAD (HOOD MANIFOLD ONLY) = 225,000 BTUH

2018 NCSBC, FUEL GAS CODE- TABLE 402.4(7)

5 PSI SYSTEM NOTE:
GAS PIPE SIZES BASED UPON A INITIAL PRESSURE OF 5 PSI AND A PRESSURE DROP OF 3 PSI AT 70 FEET IN DEVELOPED LENGTH. PIPE SIZES SHOWN ARE NOMINAL INSIDE DIAMETER.
TOTAL CONNECTED LOAD (OVERALL) = 225,000 BTUH



2 NAT. GAS RISER
M-2.0 SCALE: NTS

CONCRETE STORAGE TANK

EF-1

BREEZEWAY

RH-1
75 MBH

RH-2
75 MBH

RH-3
75 MBH

CONCRETE PAD

TRASH COMP.

COMP ROOM

STORAGE

PARTITION

BATCH BOOTH

WOMEN'S BATHROOM

EXISTING CRANE RAIL SYSTEM

RIGEM RIGHT

1 HVAC PLAN
M-2.0 SCALE: 1/8"=1'-0"

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BALLY REFRIGERATED BOXES RENOVATIONS

MOREHEAD CITY, NORTH CAROLINA

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 22026 BENJAMIN E. BURKE

3/22/23

PARTIAL HVAC FLOOR PLAN

22005

ISSUED:	3-13-2023
DWG BY:	CLS/RM
CKD BY:	BEB
REVISIONS	

SHEET NO.
M-2.0

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SEE M2.0 FOR GAS PLAN CONTINUATION.

BREEZEWAY

RH-2

PARTITION

BATCH BOOTH

STORAGE

BALLY REFRIGERATED BOXES

EXISTING CRANE RAIL SYSTEM

RH-3

WOMEN'S BATHROOM

MEN'S BATHROOM

BREEZEWAY

LOCATE OVER DOOR

BALLY REFRIGERATED BOXES

RIC'EM RIGHT

WOOD PARTITION

REST ROOM

REST ROOM

EQUIP. ROOM

EXIST. FIRE- RATED WALL

CONCRETE PAD

NEW PUMP HOUSE

NEW TANK FOUNDATION

RECEIVING

KEYNOTES FOR M-2.1

1. REMOVE EXISTING RADIANT HEATERS.
2. NEW RADIANT HEATERS, MOUNT RH-3 ABOVE CRANE RAIL AND MAINTAIN THAT MOUNTING HEIGHT FOR RH-1&2.
3. NEW THERMOSTAT. MOUNT AT 48" AFF.
4. NEW GAS LINE, RUN TIGHT TO ROOF STRUCTURE
5. NEW 42" X 36" OUTSIDE AIR INTAKE LOUVER EQUAL TO CARNES MODEL PVDC. PROVIDE MOTORIZED DAMPER BEHIND LOUVER. INTERLOCK CONTROLS FOR DAMPER WITH CONTROLS FOR NEW EXHAUST FAN EF-1 SO THAT WHEN FAN IS RUNNING THE DAMPER OPENS AND WHEN FAN IS NOT RUNNING THE DAMPER CLOSES.

AREA OF WORK - SHEET M2.1

1 HVAC PLAN
M-2.1 SCALE: 1/8"=1'-0"

2 KEY PLAN
M-2.1 SCALE: NTS

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 22038 BENJAMIN E. BURKE
3/27/23

PARTIAL HVAC FLOOR PLAN

22005

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DIVISION 16 – ELECTRICAL

PART 1 – GENERAL

1.1 DESCRIPTION OF THE WORK

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

B. All work shall be complete and items, equipment, etc., shall be electrically connected for proper and correct operation.

C. All work under this contract shall be installed in accordance with the latest edition of the following codes and standards insofar as they apply:
   1. The 2020 National Electrical Code.
   2. The National Electrical Safety Code.
   3. Underwriter's Laboratories, Inc., Standards and approved listings.
   4. Electrical Testing Labotories standards.
   5. North Carolina Building Code, Latest Edition and Revisions.
   6. All local codes and ordinances.

D. The Electrical Contractor shall be licensed in the State of North Carolina and have all local licenses required for the work.

E. Obtain all permits, licenses, inspections, etc., required for the work and pay for the same. Furnish final certificate of inspection and approval from the electrical inspector having jurisdiction prior to acceptance of the work.

F. All work shall be done by skilled mechanics and shall present a neat, trim, workmanlike condition when complete.

1.2 INTENT

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

1.3 COORDINATION

A. Coordinate work with other contractors. Notify Architect of apparent conflicts early to expedite construction. If structural damage appears imminent, stop work and notify Architect for a decision before resuming operations.

B. Locations shown are approximate. The drawings do not give exact details as to elevations and locations of various pipes, fittings, ducts, conduit, etc., and do not show all offsets and other installation details which may be required. Coordinate all locations with architect before any rough-in.

1.4 SHOP DRAWINGS

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

PART 2 – PRODUCTS AND MATERIALS

2.1 GENERAL

A. All material shall be new and shall bear the manufacturer's name, trade name, and UL label where such standard has been established for the particular material. Materials shall be the standard products of manufacturer's regularly engaged in the manufacturer of the required type of equipment and the manufacturer's latest approved design.
   1. Boxes installed in concealed locations shall be set flush with the finished surfaces.
   2. Provide rated boxes in all fire barriers & walls installed per code.

2.2 NOT USED

2.3 CONDUCTORS

A. Conductors shall be color coded, sizes #8 and larger may be color taped on the job. Color coding shall be: Standard Practice.

B. Conductors shall be manufactured by Dodge, Southwire or approved equal. Conductors shall meet the latest requirements of NEMA and IPCEA and shall be UL approved.

C. Metallic sheathed "MC" cable may be used where allowed by N.E.C.

D. Conductors shall be spliced and taped as follows:
   1. Size #10 and #12, use Ideal "Wing Nuts" or T&B "Piggy" connectors. Connectors shall be rated for 150 degrees C for use in recessed lighting fixtures.
   2. Size #8 and larger shall be solderless screw and screw-clamping type, smoothly covered and shaped with rubber gum type with final cover vinyl plastic electrical type. In lieu of rubber gum and vinyl plastic type, factory fabricated approved preformed insulating covers may be used. All connectors shall be UL approved.
   3. No split-bolt type connectors may be used.

E. All branch wire and connections shall be copper and sized per National Electric Code.

F. All conductors shall be continuous without splice between junction, outlet, device boxes, etc. No splicing will be permitted in panelboard cabinets, safety switches, etc.

G. All wiring in mechanical spaces shall be plenum rated.

H. Provide GFI protection within 6'–0" of any sink.

I. All multi-wire branch circuits shall comply with 2017 NEC, 210.4(B).

J. All wiring at medical facilities shall comply with 2017 NEC, 517.1.

2.4 PANELBOARDS, SAFETY SWITCHES

A. Panelboards shall comply with NEMA Standard PB 1 – Latest Edition and as manufactured by Square D or ITE–Siemens.

B. The contractor shall be responsible for correctly phasing the circuits in the panelboards.

C. Safety switches shall be general duty type, size and rating as required for load service. Safety switches shall be fused or unfused as shown and/or as required. Safety switches serving motor loads shall be horsepower rated for load served.

2.5 NOT USED

2.6 WIRING DEVICES

A. Wiring devices shall be commercial grade by Bryant, Leviton, or approved equal. With matching cover. Color by Architect.

B. Wiring devices installed under a Kitchen Hood shall have stainless steel covers.

C. Wiring devices installed over counters shall comply with ANSI A117.1.

2.7 NOT USED

2.8 CONDUIT

A. PVC conduit will be allowed where N.E.C. approved.

B. All service conduit shall be rigid where exposed below 8'–0" AFF or exposed to the elements or hazardous conditions.

PART 3 – EXECUTION

3.1 CIRCUIT GROUNDING

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

3.2 GROUNDING TYPE CONVENIENCE OUTLETS AND SWITCHES

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

3.3 MOTORS

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

3.4 NOT USED

3.5 EQUIPMENT LABELING

A. Provide permanent name plates for all panelboards, safety switches, wiring troughs, etc., for identification of equipment controlled, services, etc. Nameplates shall be securely and permanently attached to equipment with stainless steel screws. Nameplates shall include the name of the equipment and where it is fed from.

B. All switch plates, receptacle plates and outlet covers shall be labeled with machine printed vinyl labels identifying the circuit(s) within.

C. All empty conduit runs shall be identified and indicated where they terminate.

D. Provide typewritten directory in each panelboard to clearly identify each circuit, service, etc.

3.6 NOT USED

3.7 NOT USED

3.8 JUNCTION AND/OR PULL BOXES

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

3.9 PULL WIRE

A. Leave pull wire in each empty conduit run.

3.10 NOT USED

3.11 GROUNDING

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

3.12 ELECTRICAL WORK IN CONNECTION WITH OTHER WORK

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

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

3.13 CLEAN UP

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

3.14 GUARANTEE

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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

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

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

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

ELECTRICAL LEGEND

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

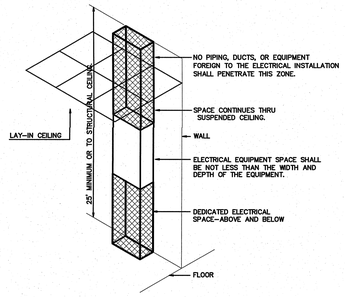
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LIGHTING/FIXTURE SCHEDULE *

MARK	MANUFACTURER	CATALOG NO.	VOLT.	LAMPS NO.	LAMPS TYPE	BALLAST W	BALLAST TYPE	W/ FIXTURE	REMARKS
X	COMPASS	CLW2–HTR–PC	120	–	LED	–	–	10	EMERGENCY EGRESS FIXTURE – DUAL MODE, NORMAL/EMERG. OPERATION W/ BUILT–IN PHOTOCELL *
EXIT	COMPASS	CEL	120	–	LED	–	–	–	LED EXIT SIGN W/ BATTERY, UNIVERSAL–MOUNT, SELF DIAGNOSTICS *
	DUAL–LITE	DYNHL12	120	–	LED	–	–	32	LED EMERG. LIGHT W/ BATTERY, UNIVERSAL–MOUNT, SELF DIAGNOSTICS *

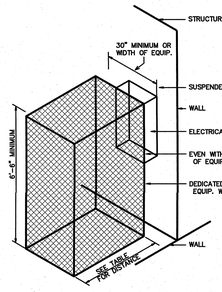
* OR APPROVED EQUAL. PROVIDE CUT SHEETS FOR OWNER APPROVAL PRIOR TO ORDERING FIXTURES. CATALOG NUMBERS ARE FOR REFERENCE ONLY, ACTUAL NUMBERS MAY VARY.

THE EMERGENCY LIGHTS AND EXIT SIGNS MUST HAVE INTEGRAL BATTERIES, CHARGERS AND TEST SWITCHES.



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

1 E–1 DEDICATED SPACE
SCALE: NTS



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

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

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

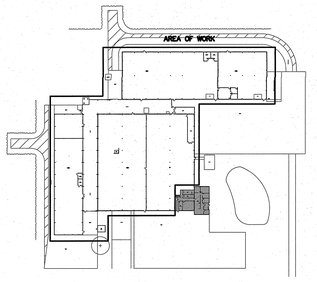
WHERE THE CONDITIONS ARE AS FOLLOWS:

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

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

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

2 E–1 ELECTRICAL CLEARANCES
SCALE: NTS



3 E–1 OVERALL / KEY PLAN
SCALE: NTS

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BALLY REFRIGERATED BOXES RENOVATIONS

MOREHEAD CITY, NORTH CAROLINA

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 22058 LEE DAVIS DIXON JR. 3/22/23

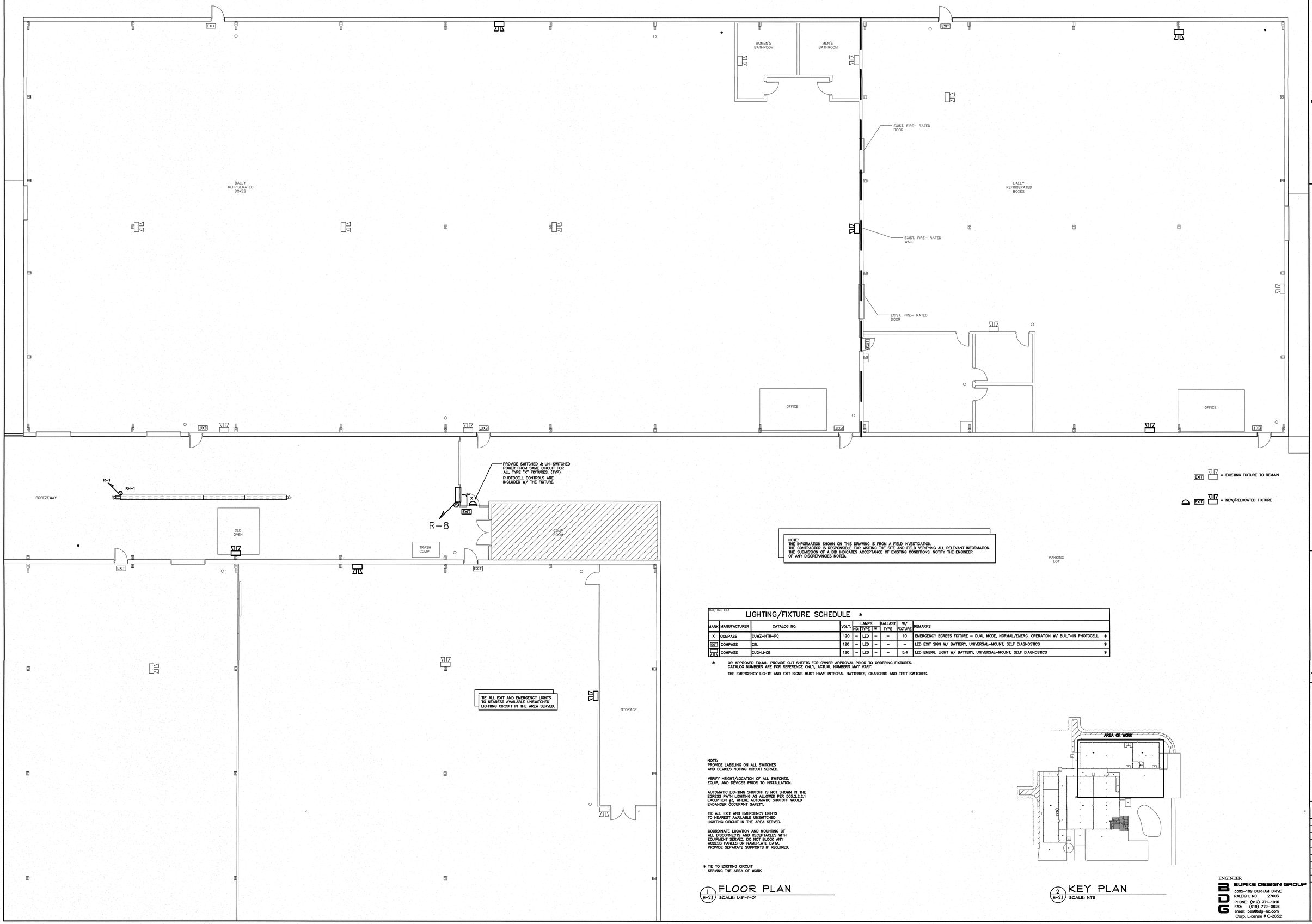
ELECTRICAL SPECIFICATIONS

22005

ISSUED: 2–22–2023
DWG BY: RM
CKD BY: BEB
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EXIT = EXISTING FIXTURE TO REMAIN

EXIT = NEW/RELOCATED FIXTURE

NOTE:
THE INFORMATION SHOWN ON THIS DRAWING IS FROM A FIELD INVESTIGATION.
THE CONTRACTOR IS RESPONSIBLE FOR VISITING THE SITE AND FIELD VERIFYING ALL RELEVANT INFORMATION.
THE SUBMISSION OF A BID INDICATES ACCEPTANCE OF EXISTING CONDITIONS. NOTIFY THE ENGINEER OF ANY DISCREPANCIES NOTED.

Bally Ref. E2.1

LIGHTING/FIXTURE SCHEDULE *

MARK	MANUFACTURER	CATALOG NO.	VOLT.	LAMPS NO.	LAMPS TYPE	LAMPS W.	BALLAST TYPE	W/ FIXTURE	REMARKS	
X	COMPASS	CUW2-HTR-PC	120	–	LED	–	–	10	EMERGENCY EGRESS FIXTURE – DUAL MODE, NORMAL/EMERG. OPERATION W/ BUILT-IN PHOTOCELL	*
EXIT	COMPASS	CEL	120	–	LED	–	–	–	LED EXIT SIGN W/ BATTERY, UNIVERSAL-MOUNT, SELF DIAGNOSTICS	*
	COMPASS	CU2HLHOB	120	–	LED	–	–	5.4	LED EMERG. LIGHT W/ BATTERY, UNIVERSAL-MOUNT, SELF DIAGNOSTICS	*

* OR APPROVED EQUAL. PROVIDE CUT SHEETS FOR OWNER APPROVAL PRIOR TO ORDERING FIXTURES.
CATALOG NUMBERS ARE FOR REFERENCE ONLY, ACTUAL NUMBERS MAY VARY.

THE EMERGENCY LIGHTS AND EXIT SIGNS MUST HAVE INTEGRAL BATTERIES, CHARGERS AND TEST SWITCHES.

NOTE:
PROVIDE LABELING ON ALL SWITCHES AND DEVICES NOTING CIRCUIT SERVED.

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

AUTOMATIC LIGHTING SHUTOFF IS NOT SHOWN IN THE EGRESS PATH LIGHTING AS ALLOWED PER 505.2.2.2.1 EXCEPTION #3. WHERE AUTOMATIC SHUTOFF WOULD ENDANGER OCCUPANT SAFETY.

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

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

* TIE TO EXISTING CIRCUIT SERVING THE AREA OF WORK

1 E-2.1 FLOOR PLAN
SCALE: 1/8"=1'-0"

2 E-2.1 KEY PLAN
SCALE: NTS

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BALLY REFRIGERATED BOXES RENOVATIONS

MOREHEAD CITY, NORTH CAROLINA

NORTH CAROLINA PROFESSIONAL SEAL 22052 ENGINEER BENJAMIN E. BURKE
3/22/23

OVERALL FLOOR PLAN

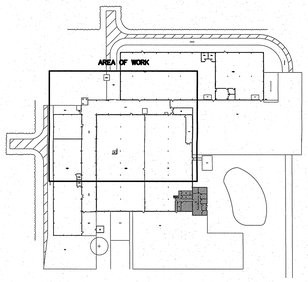
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SHEET NO.
E-2.1



2 E-22 KEY PLAN
SCALE: NTS

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THE SUBMISSION OF A BID INDICATES ACCEPTANCE OF EXISTING CONDITIONS. NOTIFY THE ENGINEER OF ANY DISCREPANCIES NOTED.

NATURAL GAS METER
CONCRETE PAD
BALLY REFRIGERATED BOXES
CONCRETE STORAGE TANK
EX
R-10
EF-1
EXIT = EXISTING FIXTURE TO REMAIN
EXIT = NEW/RELOCATED FIXTURE
R-1
RH-1
BREEZEWAY
INTAKE LOUVER
R-8
OLD OVEN
TRASH COMP.
COND. ROOM
CONCRETE PAD
(CM)
R-3
RH-2
PARTITION
BATCH BOOTH
STORAGE
BALLY REFRIGERATED BOXES
BREEZEWAY
BALLY REFRIGERATED BOXES
RIG'EM RIGHT
WOMEN'S BATHROOM
R-5
RH-3

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

NOTE:
PROVIDE LABELING ON ALL SWITCHES AND DEVICES NOTING CIRCUIT SERVED.

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

AUTOMATIC LIGHTING SHUTOFF IS NOT SHOWN IN THE EGRESS PATH LIGHTING AS ALLOWED PER 505.2.2.2.1 EXCEPTION #3. WHERE AUTOMATIC SHUTOFF WOULD ENDANGER OCCUPANT SAFETY.

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

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

* TIE TO EXISTING CIRCUIT SERVING THE AREA OF WORK

1 E-22 FLOOR PLAN
SCALE: 1/8"=1'-0"

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Planning
Interiors
AIA
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BALLY REFRIGERATED BOXES RENOVATIONS

MOREHEAD CITY, NORTH CAROLINA

NORTH CAROLINA REGISTERED PROFESSIONAL ENGINEER SEAL 22038 ENGINEER BENJAMIN E. BURKE
3/22/23

OVERALL FLOOR PLAN

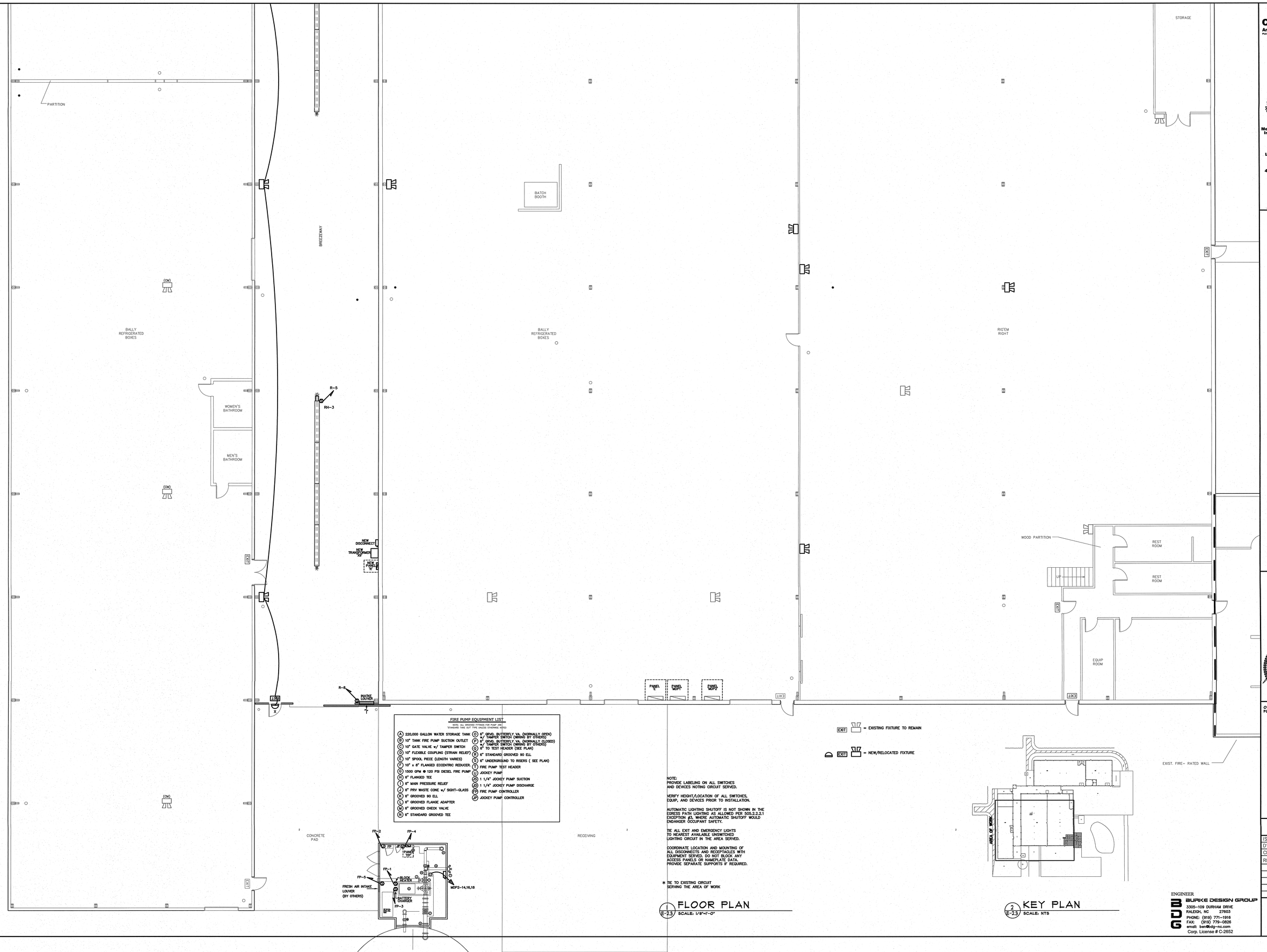
22005

ISSUED:	2-22-2023
DWG BY:	RM
CKD BY:	BEB

REVISIONS

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SHEET NO.
E-2.2



FIRE PUMP EQUIPMENT LIST

NOTE: ALL GROOVED FITTINGS FOR PUMP ARE "STANDARD TAKE OUT" TYPE UNLESS OTHERWISE NOTED

- (A) 220,000 GALLON WATER STORAGE TANK
- (B) 10" TANK FIRE PUMP SUCTION OUTLET
- (C) 10" GATE VALVE w/ TAMPER SWITCH
- (D) 10" FLEXIBLE COUPLING (STRAIN RELIEF)
- (E) 10" SPOOL PIECE (LENGTH VARIES)
- (F) 10" x 6" FLANGED ECCENTRIC REDUCER
- (G) 1500 GPM @ 120 PSI DIESEL FIRE PUMP
- (H) 8" FLANGED TEE
- (I) 6" MAIN PRESSURE RELIEF
- (J) 6" PRV WASTE CONE w/ SIGHT-GLASS
- (K) 8" GROOVED 90 ELL
- (L) 8" GROOVED FLANGE ADAPTER
- (M) 8" GROOVED CHECK VALVE
- (N) 8" STANDARD GROOVED TEE
- (O) 6" GRVD. BUTTERFLY VA. (NORMALLY OPEN) w/ TAMPER SWITCH (WIRING BY OTHERS)
- (P) 6" GRVD. BUTTERFLY VA. (NORMALLY CLOSED) w/ TAMPER SWITCH (WIRING BY OTHERS)
- (Q) 6" TO TEST HEADER (SEE PLAN)
- (R) 6" STANDARD GROOVED 90 ELL
- (S) 6" UNDERGROUND TO RISERS (SEE PLAN)
- (T) FIRE PUMP TEST HEADER
- (U) JOCKEY PUMP
- (JS) 1 1/4" JOCKEY PUMP SUCTION
- (JD) 1 1/4" JOCKEY PUMP DISCHARGE
- (FP) FIRE PUMP CONTROLLER
- (JP) JOCKEY PUMP CONTROLLER

EXIT = EXISTING FIXTURE TO REMAIN

EXIT = NEW/RELOCATED FIXTURE

NOTE:
PROVIDE LABELING ON ALL SWITCHES AND DEVICES NOTING CIRCUIT SERVED.

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

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

* TIE TO EXISTING CIRCUIT SERVING THE AREA OF WORK

1 E-2.3 FLOOR PLAN
SCALE: 1/8"=1'-0"

2 E-2.3 KEY PLAN
SCALE: NTS

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BALLY REFRIGERATED BOXES RENOVATIONS

MOREHEAD CITY, NORTH CAROLINA

NORTH CAROLINA REGISTERED PROFESSIONAL SEAL 22005 ENGINEER JOSEPH JEROMINE BURKE
3/2/23

OVERALL FLOOR PLAN

22005

ISSUED:	2-22-2023
DWG BY:	RM
CKD BY:	BEB

REVISIONS

SHEET NO.
E-2.3

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Bally Ref: E3

EXISTING PANEL 'MDP2'

MAKE: SQUARE D | TYPE: HCP32688 | RATING: 480/277V 3 PHASE 4 WIRE | MOUNTING: SURFACE | MINIMUM AIC: VERIFY | 800A MAIN CIRCUIT BREAKER | EQUIPMENT GROUND BUS ☒YES ☐NO | SERVICE ENTRY RATED ☒YES ☐NO

LOAD SERVICE	CKT BRKR	WATTS PER PHASE A	B	C	CKT NO	NEUTRAL A B C	CKT NO	WATTS PER PHASE A	B	C	CKT BRKR	LOAD SERVICE
SPACE		----			1		2	----				SPACE
SPACE			----		3		4		----			SPACE
SPACE				----	5		6			----		SPACE
EN6001 SPOT WELDER		----			7		8	----				SPACE
.	225A		----		9		10		----			SPACE
.				----	11		12			----		SPACE
SPARE		----			13		14	----				SPACE
.	70A		----		15		16		----			SPACE
.				----	17		18			----		SPACE
SPARE		----			19		20	----				HOOK WELDER
.	100A		----		21		22		----		150A	.
.				----	23		24			----		.
SPARE		----			25		26	----				HOOK POCKET WELDER
.	100A		----		27		28		----		200A	.
.				----	29		30			----		.
MAIN BREAKER		----			31		32	----				HOOK WELDER
.	800A		----		33		34		----		200A	.
.				----	35		36			----		.
NOTES	SUB-TOTALS 'B'	----	----	----		---A	BUS	----	----	----		SUB-TOTALS 'A'
						---A	LUGS	----	----	----		SUB-TOTALS 'B'
						---A	FEED	----	----	----		GRAND TOTAL
						VERIFY	SIZE	---A	---A	---A		AMPS/PHASE

TOTAL CONNECTED LOAD

Bally Ref: E3

REVISED PANEL 'MDP2'

MAKE: SQUARE D | TYPE: HCP32688 | RATING: 480/277V 3 PHASE 4 WIRE | MOUNTING: SURFACE | MINIMUM AIC: VERIFY | 800A MAIN CIRCUIT BREAKER | EQUIPMENT GROUND BUS ☒YES ☐NO | SERVICE ENTRY RATED ☒YES ☐NO

LOAD SERVICE	CKT BRKR	WATTS PER PHASE A	B	C	CKT NO	NEUTRAL A B C	CKT NO	WATTS PER PHASE A	B	C	CKT BRKR	LOAD SERVICE
SPACE		----			1		2	----				SPACE
SPACE			----		3		4		----			SPACE
SPACE				----	5		6			----		SPACE
EN6001 SPOT WELDER	49860				7		8	3092				PANEL 'R'
	225A	49860			9		10		2116		60A	WA XFMR X9
			49860		11		12			316		.
SPARE		----			13		14	1330				JOCKEY PUMP
	70A		----		15		16		1330		15A	.
				----	17		18			1330		.
SPARE		----			19		20	33240				HOOK WELDER
	100A		----		21		22		33240		150A	.
				----	23		24			33240		.
SPARE		----			25		26	44320				HOOK POCKET WELDER
	100A		----		27		28		44320		200A	.
				----	29		30			44320		.
MAIN BREAKER		----			31		32	44320				HOOK WELDER
	800A		----		33		34		44320		200A	.
				----	35		36			44320		.
NOTES	SUB-TOTALS 'B'	49860	49860	49860		800A	BUS	126302	125326	123526		SUB-TOTALS 'A'
						800A	LUGS	49860	49860	49860		SUB-TOTALS 'B'
						800A	FEED	176162	175186	173386		GRAND TOTAL
						VERIFY	SIZE	635A	632A	626A		AMPS/PHASE

EXISTING BREAKER/CIRCUIT TO REMAIN
NEW OR REVISED BREAKER/CIRCUIT

TOTAL CONNECTED LOAD

NEC ALLOWABLE DEMAND FACTORS

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

DIVERSIFIED LOAD SUMMARY

LOAD TYPE		DEMAND FACTOR①	A	B	C	TOTAL DIVERSIFIED LOAD
GENERAL LIGHTING	②	125%	----	----	----	----
TRACK LIGHTING		125%	----	----	----	----
GENERAL USE		±10KVA@50%	----	----	----	----
RECEPTACLES		>10KVA@50%	----	----	----	----
MOTORS AND EQUIPMENT	LARGEST	125%	82325	82325	82325	186975
	ALL OTHERS	100%	126302	125326	123526	375154
WATER HEATERS		125%	----	----	----	----
KITCHEN EQUIPMENT	③	100%	----	----	----	----
FIX. ELEC. SPACE HEAT.	④	100%	----	----	----	----
SHOW WINDOW LIGHTS	⑤	125%	----	----	----	----
SIGN		125%	----	----	----	----
MISC		100%	----	----	----	----
PHASE (TOTAL VA)			208627	207451	205857	562129
TOTAL AMPS			681A	677A	671A	VOLT AMPS / VOLTS X 1.732 = 676A TOTAL AMPS

Bally Ref: E3

NEW PANEL- 'R'

MAKE: CUTLER HAMMER | TYPE: PRL1A OR APPROVED EQUAL | RATING: 208/120V 3 PHASE 4 WIRE | MOUNTING: SURFACE | MINIMUM AIC: VERIFY | 100A MAIN CIRCUIT BREAKER | EQUIPMENT GROUND BUS ☒YES ☐NO | SERVICE ENTRY RATED ☒YES ☐NO

LOAD SERVICE	CKT BRKR	WATTS PER PHASE A	B	C	CKT NO	NEUTRAL A B C	CKT NO	WATTS PER PHASE A	B	C	CKT BRKR	LOAD SERVICE
RH-1	20A	216			1		2	1700				PANEL 'FP'
RH-2	20A		216		3		4		1700		60A	.
RH-3	20A			216	5		6			100		.
SPARE	20A	----			7		8	1176			20A	EF-1
SPARE	20A		----		9		10		200		20A	INTAKE LOUVERS
SPARE	20A			----	11		12			----	20A	SPARE
SPARE	20A	----			13		14	----			20A	SPARE
SPARE	20A		----		15		16		----		20A	SPARE
SPARE	20A			----	17		18			----	20A	SPARE
SPARE	20A	----			19		20	----			20A	SPARE
SPARE	20A		----		21		22		----		20A	SPARE
SPARE	20A			----	23		24			----	20A	SPARE
SPARE	20A	----			25		26	----			20A	SPARE
SPARE	20A		----		27		28		----		20A	SPARE
SPARE	20A			----	29		30			----	20A	SPARE
SPARE	20A	----			31		32	----			20A	SPARE
SPARE	20A		----		33		34		----		20A	SPARE
SPARE	20A			----	35		36			----	20A	SPARE
SPARE	20A	----			37		38	----			20A	SPARE
SPARE	20A		----		39		40		----		20A	SPARE
SPARE	20A			----	41		42			----	20A	SPARE
NOTES	SUB-TOTALS 'B'	216	216	216		100A	BUS	2876	1900	100		SUB-TOTALS 'A'
						100A	LUGS	216	216	216		SUB-TOTALS 'B'
						100A	FEED	3092	2116	316		GRAND TOTAL
						VERIFY	SIZE	26A	18A	3A		AMPS/PHASE

TOTAL CONNECTED LOAD

NEC ALLOWABLE DEMAND FACTORS

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

DIVERSIFIED LOAD SUMMARY

LOAD TYPE		DEMAND FACTOR①	A	B	C	TOTAL DIVERSIFIED LOAD
GENERAL LIGHTING	②	125%	----	----	----	----
TRACK LIGHTING		125%	----	----	----	----
GENERAL USE		±10KVA@50%	----	----	----	----
RECEPTACLES		>10KVA@50%	----	----	----	----
MOTORS AND EQUIPMENT	LARGEST	125%	1500	1500	270	3270
	ALL OTHERS	100%	1892	916	100	2908
WATER HEATERS		125%	----	----	----	----
KITCHEN EQUIPMENT	③	100%	----	----	----	----
FIX. ELEC. SPACE HEAT.	④	100%	----	----	----	----
SHOW WINDOW LIGHTS	⑤	125%	----	----	----	----
SIGN		125%	----	----	----	----
MISC		100%	----	----	----	----
PHASE (TOTAL VA)			3392	2416	370	6178
TOTAL AMPS			28A	20A	3A	VOLT AMPS / VOLTS X 1.732 = 17A TOTAL AMPS

Bally Ref: E3

NEW PANEL- 'FP'

MAKE: CUTLER HAMMER | TYPE: PRL1A OR APPROVED EQUAL | RATING: 208/120V 3 PHASE 4 WIRE | MOUNTING: SURFACE | MINIMUM AIC: VERIFY | MLO MAIN CIRCUIT BREAKER | EQUIPMENT GROUND BUS ☒YES ☐NO | SERVICE ENTRY RATED ☐YES ☒NO

LOAD SERVICE	CKT BRKR	WATTS PER PHASE A	B	C	CKT NO	NEUTRAL A B C	CKT NO	WATTS PER PHASE A	B	C	CKT BRKR	LOAD SERVICE
FIRE PUMP BLOCK HEATER	20A	1200			1		2	500			20A	FIRE PUMP CONTROLLER
FIRE PUMP BATTERY CHARGER	20A		1200		3		4		500		20A	JOCKEY PUMP CONTROLLER
FP ROOM OA LOUVER	20A			100	5		6			----	20A	SPARE
SPARE	20A	----			7		8	----			20A	SPARE
SPARE	20A		----		9		10		----		20A	SPARE
SPARE	20A			----	11		12			----	20A	SPARE
NOTES	SUB-TOTALS 'B'	1200	1200	100		100A	BUS	500	500	----		SUB-TOTALS 'A'
						100A	LUGS	1200	1200	100		SUB-TOTALS 'B'
						60A	FEED	1700	1700	100		GRAND TOTAL
						VERIFY	SIZE	14A	14A	1A		AMPS/PHASE

TOTAL CONNECTED LOAD

NEC ALLOWABLE DEMAND FACTORS

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

DIVERSIFIED LOAD SUMMARY

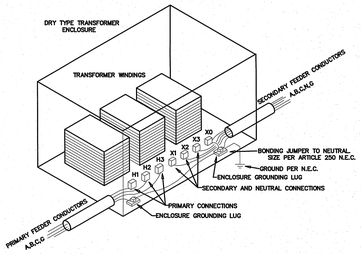
LOAD TYPE		DEMAND FACTOR①	A	B	C	TOTAL DIVERSIFIED LOAD
GENERAL LIGHTING	②	125%	----	----	----	----
TRACK LIGHTING		125%	----	----	----	----
GENERAL USE		±10KVA@50%	----	----	----	----
RECEPTACLES		>10KVA@50%	----	----	----	----
MOTORS AND EQUIPMENT	LARGEST	125%	1500	1500	125	3125
	ALL OTHERS	100%	500	500	----	1000
WATER HEATERS		125%	----	----	----	----
KITCHEN EQUIPMENT	③	100%	----	----	----	----
FIX. ELEC. SPACE HEAT.	④	100%	----	----	----	----
SHOW WINDOW LIGHTS	⑤	125%	----	----	----	----
SIGN		125%	----	----	----	----
MISC		100%	----	----	----	----
PHASE (TOTAL VA)			2000	2000	125	4125
TOTAL AMPS			17A	17A	1A	VOLT AMPS / VOLTS X 1.732 = 11A TOTAL AMPS

Bally Ref: E3

EQUIPMENT WIRING SCHEDULE

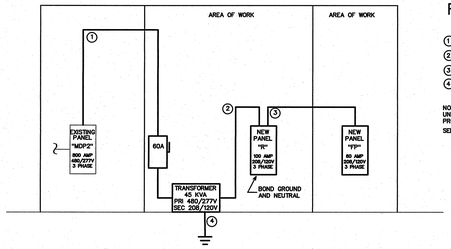
EQUIPMENT	MCA	MOCP	VOLTS	PH	WIRE SIZE
JOCKEY PUMP	(3HP)	15A	480V	3	3-#12, 1-#12 GND IN 1/2" CONDUIT

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



2 / E-3 TRANSFORMER WIRING DETAIL
SCALE: NTS

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



E-3 PARTIAL SERVICE RISER
SCALE: NTS

RISER WIRING SCHEDULE

1. 60A: 3-#6, 1-#10 CU GND, IN 1" CONDUIT
2. 100A: 4-#3, 1-#8 CU GND, IN 1 1/4" CONDUIT
3. 60A: 4-#6, 1-#10 CU GND, IN 1 1/4" CONDUIT
4. FOR XFMR: SIZE PER DERIVED PHASE CONDUCTORS USING TABLE 250.66; CONNECT TO NEAREST GROUNDING ELECTRODE PER NEC 250.30 (7) 2008

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

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BALLY REFRIGERATED BOXES RENOVATIONS

MOREHEAD CITY, NORTH CAROLINA

NORTH CAROLINA REGISTERED PROFESSIONAL SEAL 22036 ENGINEER BENJAMIN E BURKE

3/28/23

ELECTRICAL PANELS & RISER

22005

ISSUED: 2-22-2023
DWG BY: RM
CKD BY: BEB
REVISIONS

SHEET NO.
E-3

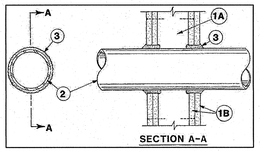
Syetem No. W-L-1001

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

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

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

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



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

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

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

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

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

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

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

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

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

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

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

   OMEGA FLEX INC

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

   GASTITE, DIV OF TITEFLEX

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

   WARD MFG LLC

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

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

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

3M COMPANY — CP 25WB+ or FB-3000 WT.

•Bearing the UL Classification Mark

DIVISION 16 — FIRE ALARM

PART 1 — GENERAL

1.1 DESCRIPTION OF THE WORK

A. Work under this section includes, but is not necessarily limited to, furnishing and installing the following:
   1. Fire alarm panel, wiring and devices

B. All work shall be complete and items, equipment, etc., shall be electrically connected for proper and correct operation.

C. All work under this contract shall be installed in accordance with the latest edition of the following codes and standards insofar as they apply:
   1. The 2017 National Electrical Code.
   2. NFPA 72
   3. Underwriter's Laboratories, Inc., Standards and approved listings.
   4. Electrical Testing Labatories standards.
   5. North Carolina Building Code, Latest Edition and Revisions.
   6. All local codes and ordinances.

D. The Fire Alarm Contractor shall be licensed in the State of North Carolina and have all local licenses required for the work

E. Obtain all permits, licenses, inspections, etc., required for the work and pay for the same. Furnish final certificate of inspection and approval from the electrical inspector having jurisdiction prior to acceptance of the work.

F. All work shall be done by skilled mechanics and shall present a neat, trim, workmanlike condition when complete.

1.2 INTENT

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

1.3 COORDINATION

A. Coordinate work with other contractors. Notify Architect of apporent conflicts early to expedite construction. If structural damage appears imminent, stop work and notify Architect for a decision before resuming operations.

B. Locations shown are approximate. The drawings do not give exact details as to elevations and locations of various pipes, fittings, ducts, conduit, etc., and do not show all offsets and other installation details which may be required. Coordinate all locations with architect before any rough-in.

1.4 SHOP DRAWINGS

A. Provide complete shop drawings per NCSFC section 907.1.2 to the local fire marshal prior to start of construction including:
   1. Floorplan with room names
   2. Location of all FA devices
   3. Location of panels
   4. Power connections
   5. Battery calculations
   6. Conductors types and sizes
   7. Voltages drop calculations
   8. Equipment cut-sheets, model numbers, etc.

PART 2 — PRODUCTS AND MATERIALS

2.1 GENERAL

A. All material shall be new and shall bear the manufacturer's name, trade name, and UL label where such standard has been established for the particular material. Materials shall be the standard products of manufacturer's regularly engaged in the manufacturer of the required type of equipment and the manufacturer's latest approved design.
   1. Boxes installed in concealed locations shall be set flush with the finished surfaces.
   2. Provide rated boxes in all fire barriers & walls installed per code.

PART 3 — EXECUTION

3.1 FIRE ALARM SYSTEM EQUIPMENT

A. Provide a complete operable fire alarm system as shown on the drawings and as required by State, and Local codes.

B. The main control panel is existing. The unit is an addressable type. Verify spare capacity is available prior to bid. Expand as required.

C. Provide a remote key test switch for the duct detectors. Locate as directed by the local AHJ.

D. All fire alarm system cables shall be installed in conduit. Size as required by the equipment supplier. Provide a submittal of all devices and a riser diagram for approval before installation of any equipment.

E. The return air smoke detectors will be furnished by the E.C. to the HVAC contractor for installation. The HVAC contr shall be responsible for the shut down of all AHU'S. The E.C. shall be responsible for all connections to the fire alarm controller.

3.2 CLEAN UP

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

3.3 GUARANTEE

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

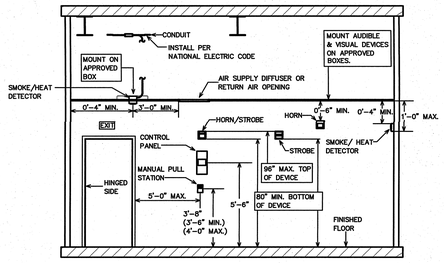
SYSTEM OUTPUTS

FACP ANNUNCIATION | NOTIFICATION | REQUIRED FIRE SAFETY CONTROL

SYSTEM INPUTS	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	
1 FIRE ALARM SYSTEM AC POWER FAILURE			●	●							●															1
2 FIRE ALARM SYSTEM LOW BATTERY					●	●						●														2
3 OPEN CIRCUIT					●	●						●														3
4 GROUND FAULT					●	●						●														4
5 NOTIFICATION APPLIANCE CIRCUIT SHORT					●	●						●														5
6 BUILDING MANUAL PULL STATIONS	●	●					●	●	●	●			●						●							6
7 CORRIDOR SMOKE DETECTORS	●	●					●	●	●	●			●	●				●	●		●	●	●			7
8 AREA SMOKE DETECTORS	●	●					●	●	●	●			●	●				●	●		●	●	●			8
9 HVAC AIR DUCT SMOKE DETECTORS			●	●			●				●									●						9
10 AREA HEAT DETECTORS	●	●					●	●	●	●			●	●				●	●		●	●	●			10
11 HOOD OR ROOM FIRE SUPPRESSION SYSTEM ALARM	●	●					●	●	●	●			●	●				●	●							11
12 SPRINKLER TAMPER SWITCH			●	●			●				●															12
13 SPRINKLER WATER FLOW IN BUILDING	●	●					●	●	●	●			●	●				●	●							13
14 SPRINKLER WATER FLOW IN ELEV EQUIP RM OR SHAFT	●	●					●	●	●	●			●	●		●	●	●	●							14
15 ELEV EQUIP RM AREA SMOKE DETECTOR	●	●					●	●	●	●			●	●		●		●	●							15
16 ELEV SHAFT AND ELEV EQUIP RM HEAT DETECTORS	●	●					●	●	●	●			●	●		●	●	●	●							16
17 ELEV LOBBY SMOKE DETECTORS — UPPER FLOORS	●	●					●	●	●	●			●	●				●	●		●	●	●			17
18 ELEV LOBBY SMOKE DETECTOR — RECALL FLOOR	●	●					●	●	●	●			●		●	●		●	●		●	●	●			18
19 ELEV CONTROLLER POWER SHUNT TRIP STATUS			●	●			●				●															19
20 FIRE PUMP POWER FAILURE/PHASE REVERSAL			●	●			●				●															20
21 FIRE PUMP RUNNING	●	●					●	●	●	●			●	●				●	●							21
22 FIRE PUMP SYSTEM NOT IN AUTOMATIC			●	●			●				●															22
23 LEGALLY REQUIRED GENERATOR SYSTEM LOW FUEL			●	●			●				●															23
24 LEGALLY REQUIRED GENERATOR NOT IN AUTOMATIC			●	●			●				●															24
25 AREA OF REFUGE TWO-WAY COMMUNICATIONS STATUS			●	●			●				●															25
26																										26
27																										27
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	

FIRE ALARM LEGEND

- HORN/STROBE SIGNALING DEVICE (XX) CANDELLA RATING; (S) INDICATES STROBE-ONLY
- PULL STATION
- SD SMOKE DETECTOR
- CO CO DETECTOR
- DUCT SMOKE DETECTOR
- FACP FIRE ALARM CONTROL PANEL
- RAP REMOTE ANNUNCIATOR PANEL
- 3 HOUR FIRE BARRIER

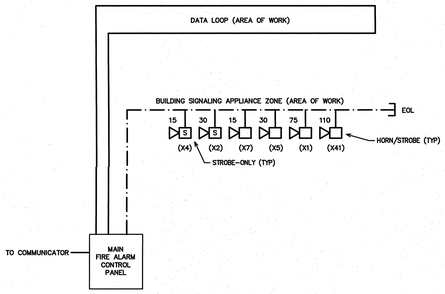


1 FA-1 DEVICE MOUNTING DETAIL
SCALE: NTS

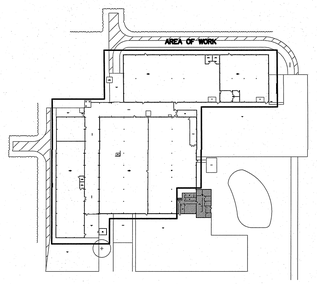
SEE PLAN FOR ACTUAL LOCATIONS OF DEVICES

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

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



2 FA-1 FIRE ALARM RISER
SCALE: NTS



3 E-1 OVERALL / KEY PLAN
SCALE: NTS

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BALLY REFRIGERATED BOXES RENOVATIONS

MOREHEAD CITY, NORTH CAROLINA

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 22005 BENJAMIN E. BURKE

3/22/23

FIRE ALARM SPECS & RISER

22005

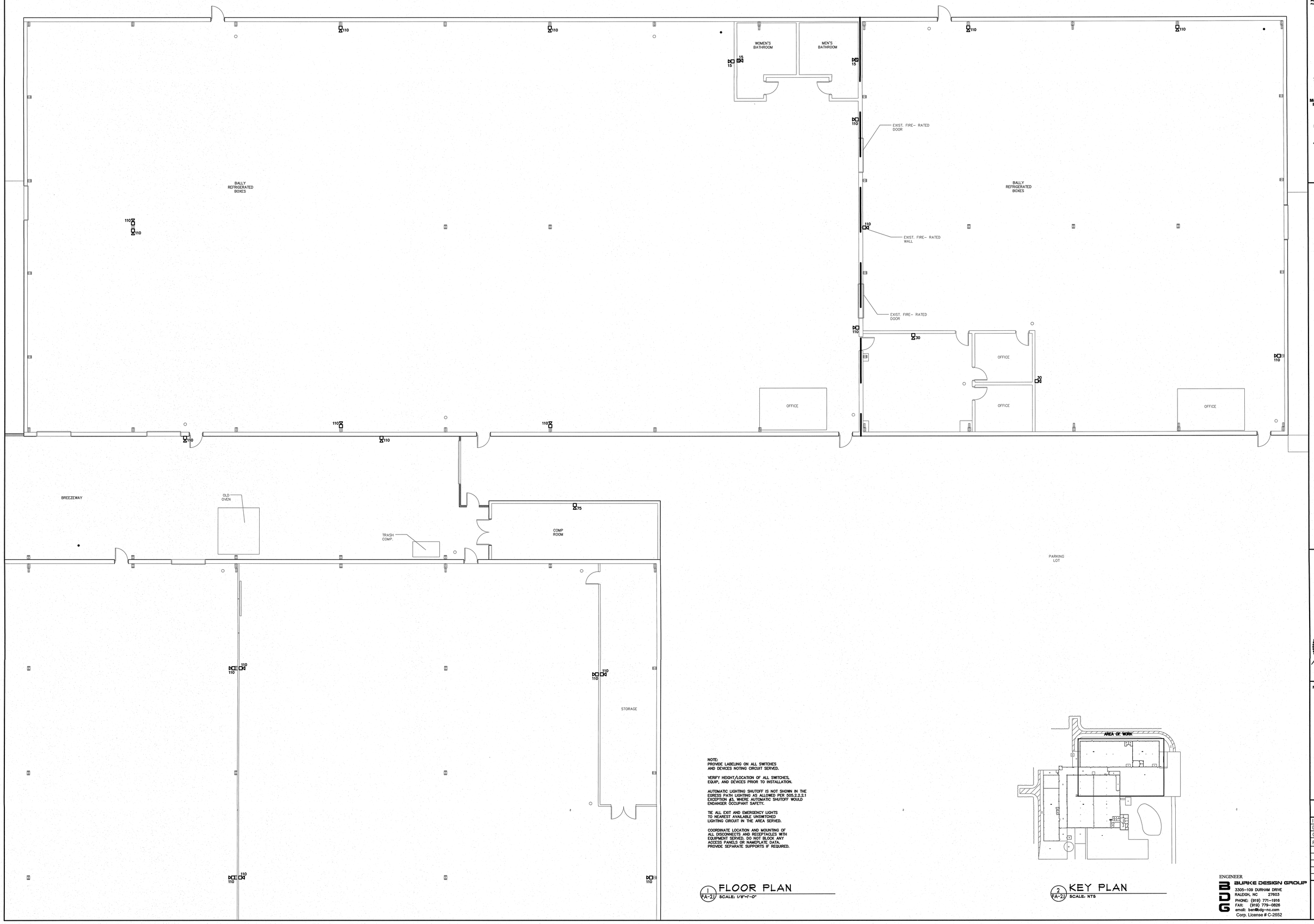
ISSUED:	2-22-2023
DWG BY:	RM
CKD BY:	BEB

REVISIONS

SHEET NO.

FA-1

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email: ben@dg-nc.com
Corp. License # C-2652



NOTE:
PROVIDE LABELING ON ALL SWITCHES AND DEVICES NOTING CIRCUIT SERVED.

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

AUTOMATIC LIGHTING SHUTOFF IS NOT SHOWN IN THE EGRESS PATH LIGHTING AS ALLOWED PER 505.2.2.2.1 EXCEPTION #3, WHERE AUTOMATIC SHUTOFF WOULD ENDANGER OCCUPANT SAFETY.

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

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

1 FA-2.1 FLOOR PLAN
SCALE: 1/8"=1'-0"

2 FA-2.1 KEY PLAN
SCALE: NTS

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BALLY REFRIGERATED BOXES RENOVATIONS
MOREHEAD CITY, NORTH CAROLINA

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 22005 BENJAMIN E BURKE
3/23/23

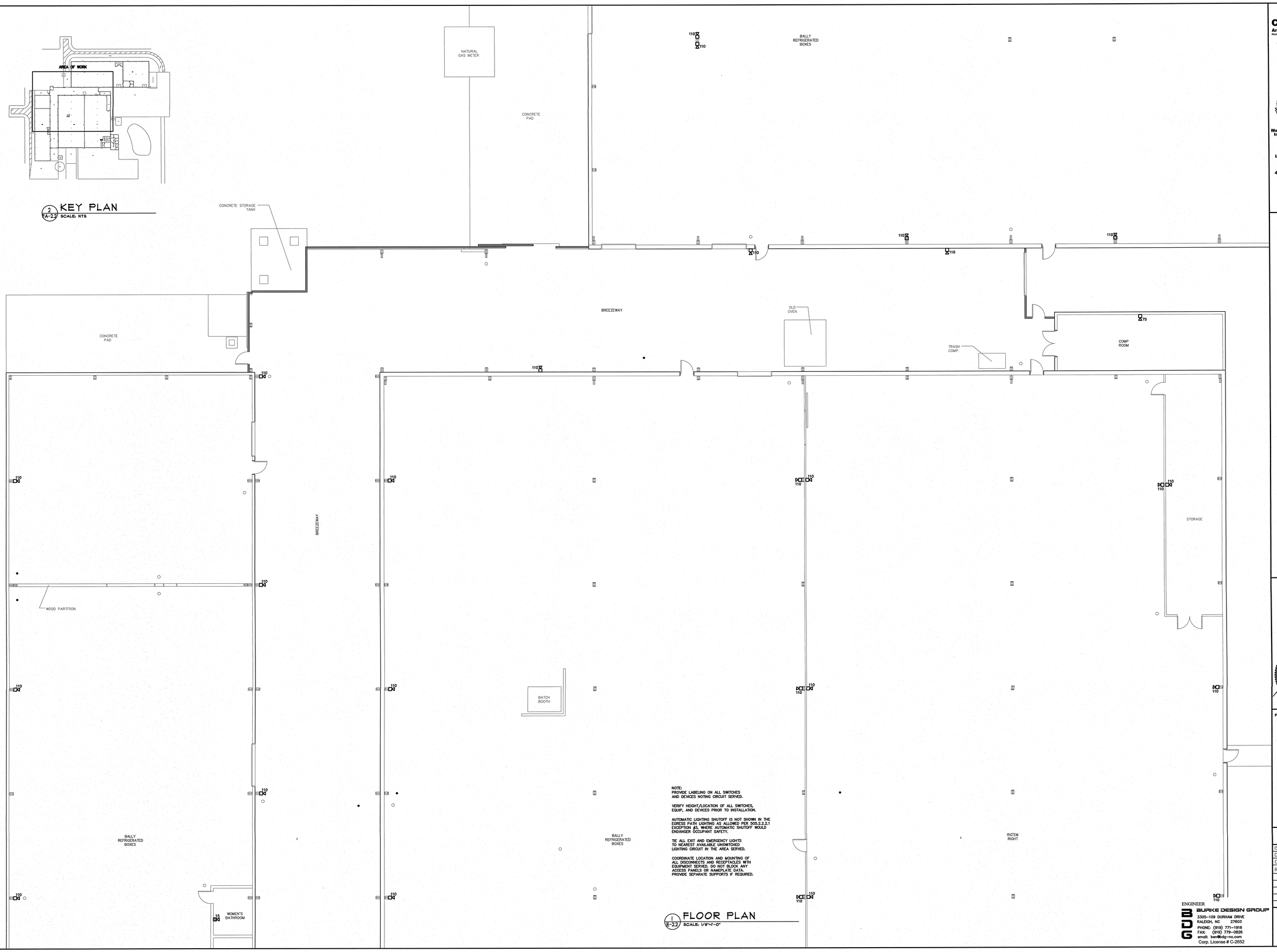
FIRE ALARM PLAN

22005
ISSUED: 2-22-2023
DWG BY: RM
CKD BY: BEB
REVISIONS

SHEET NO.
FA-2.1

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2 KEY PLAN
FA-2.2 SCALE: NTS



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1 FLOOR PLAN
E-22 SCALE: 1/8"=1'-0"

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BALLY REFRIGERATED BOXES RENOVATIONS

MOREHEAD CITY, NORTH CAROLINA

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 22036 BENJAMIN E. BURKE
3/22/23

FIRE ALARM PLAN

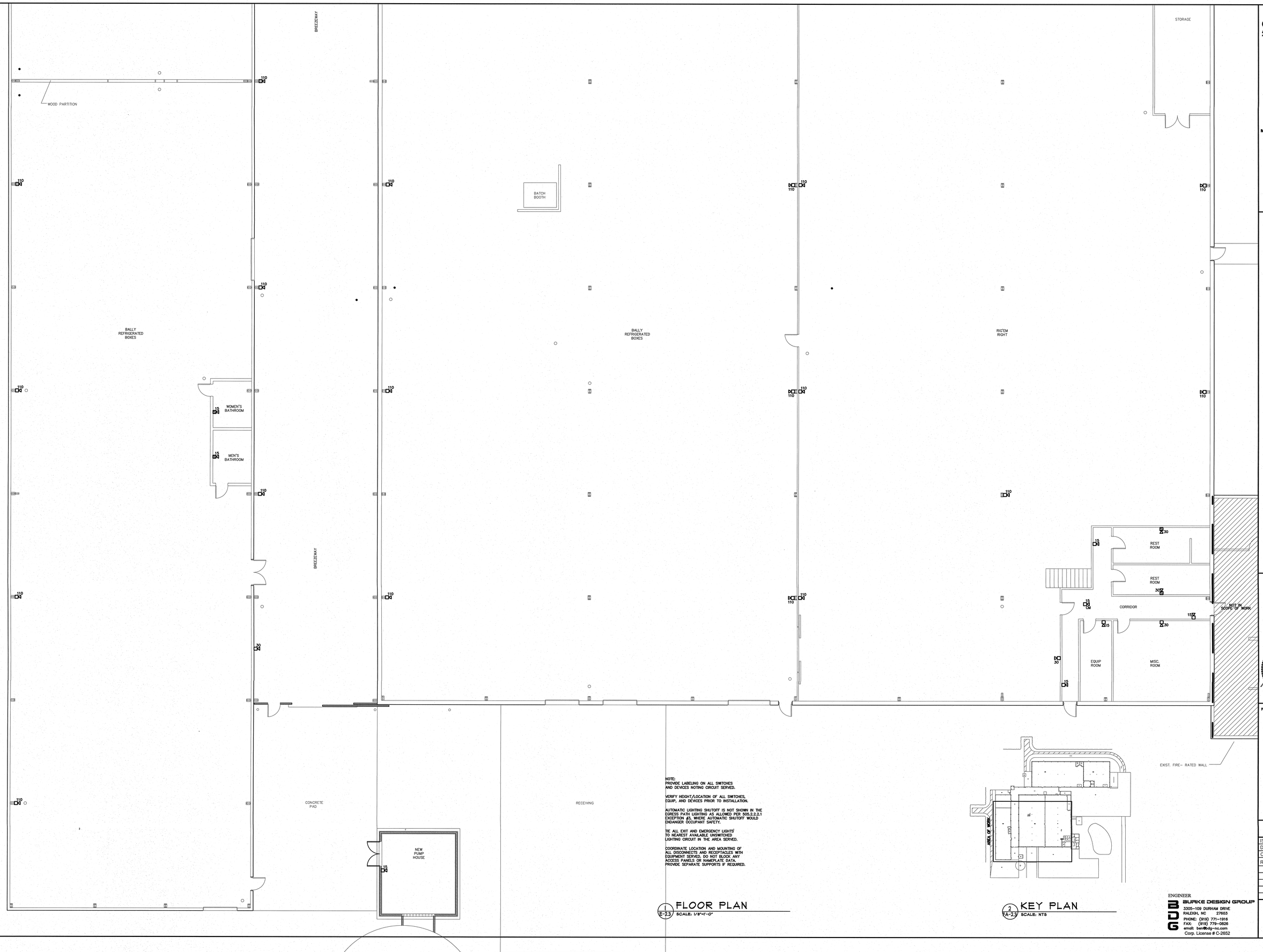
22005

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SHEET NO.
FA-2.2



NOTE:
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1 E-2.3 FLOOR PLAN
SCALE: 1/8"=1'-0"

2 FA-2.3 KEY PLAN
SCALE: NTS

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BALLY REFRIGERATED BOXES RENOVATIONS

MOREHEAD CITY, NORTH CAROLINA

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 23038 BENJAMIN E. BURKE
3/22/23

FIRE ALARM PLAN

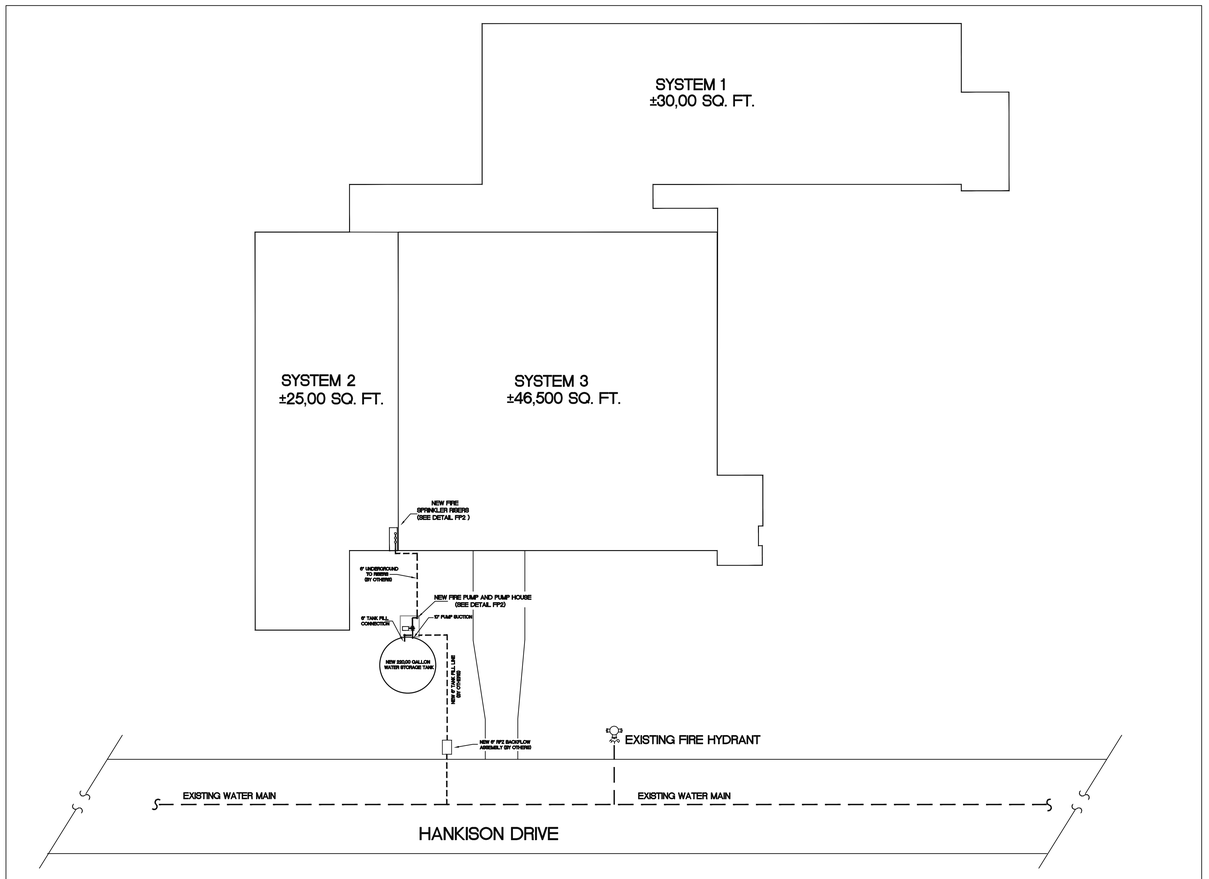
22005

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SITE PLAN

NOT TO SCALE

SPRINKLER DESIGN DATA

PROJECT NAME: BALLY'S REFRIDGERATED BOXES
PROJECT STREET ADDRESS: 170 HANKINSON DRIVE NEWPORT, NC
SUITE #: N/A FLOOR #: N/A
DRAWN BY: VSC PHONE #: N/A
OCCUPANCY DESCRIPTION: EXISTING - VARIES HAZARD CLASS: EXTRA /ORD 2

SYSTEM NO.: 1, 2, 3
BUILDING AREA: ± 101,500 SQ. FT.
CEILING HGT.: VARIES
TOTAL BLDG HGT.: 43'

DESIGN SUMMARY

DESIGN METHOD:	CALC	CALC	CALC	CALC	CALC	CALC
DESIGN AREA NO.:	1	2	3	4	5	6
LOCATION:	SYS 1-ESFR	SYS 1 ORD 2	SYS 3-ESFR	SYS 3 ORD 2	SYS 2-ORD 2	SYS 2-PASSAGE
TYPE OF SYSTEM:	WET	WET	WET	WET	WET	WET
HAZARD CLASS:	EXTRA GRP 1	ORD. GRP 2	EXTRA GRP 1	ORD. GRP 2	ORD. GRP 2	ORD. GRP 2
CRITERIA FROM:	NFPA 13	NFPA 13	NFPA 13	NFPA 13	NFPA 13	NFPA 13
DESIGN AREA:	1200 SQ. FT.	2589 SQ. FT.	1200 SQ. FT.	2609 SQ. FT.	2500 SQ. FT.	2500 SQ. FT.
SPKLR. SPACING:	100 SQ.FT.	130 SQ.FT.	100 SQ.FT.	130 SQ.FT.	130 SQ.FT.	130 SQ.FT.
DENSITY:	.1	.20	.1	.15	.20	.20
K-FACTOR:	16.8	8.0	16.8	8.0	8.0	8.0
HOSE ALLOWANCE:	500	250	500	250	250	250
# DESIGN SPKLR.:	12	21	12	25	24	30
REQUIREMENTS @:	BASE RISER	BASE RISER	BASE RISER	BASE RISER	BASE RISER	BASE RISER
GPM REQ'D:	1209.8	528.1	1210.5	647.7	610.5	822.7
PSI REQ'D:	99.8	27	107.9	31.1	45.1	103.3
NODE#	BOR	BOR	BOR	BOR	BOR	BOR
REQUIREMENTS @:	PUMP DISCHARGE	PUMP DISCHARGE	PUMP DISCHARGE	PUMP DISCHARGE	PUMP DISCHARGE	PUMP DISCHARGE
GPM REQ'D:	1709.8	778.1	1710.5	897.7	860.5	1072.7
PSI REQ'D:	108.4	29.9	117.2	34.9	48.7	108.6
NODE#	PMP	PMP	PMP	PMP	PMP	PMP
SAFETY FACTOR	20.1	112.3	11.4	105.6	92.3	28.9

FIRE PUMP DATA

RATED GPM : 1500
RATED PRES. : 120
DIESEL HP : 197
ELECTRIC VOLT : N/A
BOOST PRES : N/A
DISCHARGE PRES. : SEE HYD. CALCS
DISCHARGE FLOW : SEE HYD. CALCS

RESIDUAL (PSI) : SEE HYD. CALCS
FLOW (GPM) : SEE HYD. CALCS
COMBINED GPM : N/A
COMBINED STATIC : N/A
COMBINED RESIDUAL : N/A
SUCTION NODE # : 0893
DISCHARGE NODE # : 0891

WATER SUPPLY INFORMATION

NOTE: WATER SUPPLY IS PROVIDED BY NEW 220,000 US GALLON WATER STORAGE TANK. PUBLIC WATER MAIN FILLS TANK

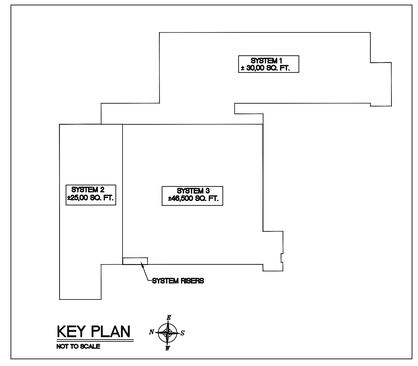
STATIC (PSI): 2
RESIDUAL (PSI): 1
FLOW (GPM): 1500

IS COPY OF FLOW TEST DATA INCLUDED WITH CALCULATIONS? : ☐ YES ☒ NO

IS STORAGE HEIGHT GREATER THAN 12 FEET? : ☐ YES ☒ NO

GENERAL NOTES

1. ALL WORK SHALL BE IN FULL COMPLIANCE WITH NFPA 13, 2013 ed., THE TOWN OF NEWPORT, AND THE NORTH CAROLINA STATE BUILDING CODE (2018 Ed.).
2. ALL LABOR AND MATERIALS REQUIRED SHALL BE FOR A COMPLETE WORKING SYSTEM WHICH MEET ALL REQUIREMENTS OF NFPA 13 2013 ed., THE TOWN OF NEWPORT, AND THE NORTH CAROLINA STATE BUILDING CODE (2018 Ed.).
3. ALL MATERIALS AND EQUIPMENT SHALL BE NEW, UL LISTED AND FM APPROVED FOR THE INTENDED USE AND SHALL BE INSTALLED IN FULL COMPLIANCE WITH MANUFACTURER'S RECOMMENDATIONS.
4. SPRINKLER HEADS ARE ESFR, AND QUICK RESPONSE UPRIGHT AND PENDENT TYPE SPACED FOR VARIOUS OCCUPANCIES. SEE DESIGN CRITERIA THIS SHEET.
5. ALL PIPE 1-1/4" AND SMALLER TO BE BLACK STL., SCH. 40 WITH THREADED ENDS JOINED BY CAST IRON SCREW FITTINGS.
6. ALL PIPE 1-1/2" AND LARGER TO BE BLACK STL., SCH. 10 WITH GROOVED ENDS JOINED BY GROOVE FITTINGS.
7. PIPE SIZE IS BASED ON HYDRAULIC CALCULATIONS FOR MULTIPLE OCCUPANCIES SEE DESIGN CRITERIA ON SHEET FP-1
9. ALL NEW WET SYSTEMS TO BE HYDROSTATICALLY TESTED IN ACCORDANCE WITH NFPA 13 (2013 Ed.).
10. NEW SPRINKLER SYSTEM IS WET TYPE SYSTEM, OWNER IS RESPONSIBLE TO MAINTAIN A MINIMUM 40 DEG. F. TO THE SPRINKLER SYSTEMS IN ORDER TO PREVENT FREEZING OF THE SYSTEMS.



Barry D. Bandy
WATER BASED SYSTEMS LAYOUT
N.I.C.E.T. LEVEL III
CERTIFICATE # 112781
N.C. LICENSE # 28783

NORTH CAROLINA LICENSED SPRINKLER CONTRACTOR NC # 28783 VSC FIRE & SECURITY, INC.

NOTES:
- PIPE PAINTING IS BY OTHERS
- SEISMIC BRACING IS NOT REQUIRED
- PIPE IDENTIFICATION IS NOT REQUIRED
- PIPE SLEEVES ARE NOT REQUIRED

PIPE INSULATION NOTE:
ALL PIPE INSULATION IS TO BE BY OTHERS, ANY DETAILS PROVIDED ARE FOR SUGGESTIONS ONLY, ALL INSULATION MUST BE INSTALLED BY A QUALIFIED INSTALLER
VSC FIRE & SECURITY ACCEPTS NO RESPONSIBILITY

2' 4' 6' 8' 10' 12' 14' 16' 18' 20'
1/8" GRAPHIC SCALE

SUBMITTAL

VSC FIRE · SECURITY, INC.
YOUR WORLD. PROTECTED.
COMPLETE FIRE PROTECTION AND LIFE SAFETY SYSTEMS SINCE 1958
WEB SITE ADDRESS: http://www.vscfs.com
FIRE · SECURITY

RALEIGH OFFICE
263 HEIN DRIVE
GARNER, NC 27529
(919) 645-5880 • FAX (919) 645-5881
• VIRGINIA • MARYLAND • NORTH CAROLINA • SOUTH CAROLINA • GEORGIA • FLORIDA • ARKANSAS • ALABAMA •

FOREMAN NOTE:
SPRINKLER HEAD LOCATIONS IN AREAS WITH SUSPENDED ACCOUSTICAL CEILING TILES ARE SHOWN IN CENTER OF TILE FOR DESIGN PURPOSES. THESE HEADS ARE REQUIRED TO BE CENTERED IN CEILING TILES PER CONTRACT SPECIFICATIONS.

☐ ALL MATERIAL TO BE FOREIGN or DOMESTIC
☐ VICTAULIC "FIRELOCK" GROOVED COUPLINGS/FITTINGS

PROJECT NORTH

"IMPORTANT"
THE OWNER HAS THE RESPONSIBILITY OF PROVIDING FREEZE PROTECTION IN AREAS THAT HAVE A WET PIPE SPRINKLER SYSTEM AS WELL AS A SUITABLE HEATED ENCLOSURE FOR DRY PIPE, DELUGE OR ANY OTHER TYPE VALVE CONTROLLING WATER SUPPLIES TO AUTOMATIC SPRINKLER SYSTEMS.

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PIPE & FITTING NOTES

☐ ALL LINE PIPING TO BE SCH. 40 W/ STANDARD 125# THREADED FITTINGS
☑ ALL LINE PIPING TO BE GROOVED W/ WELDED OUTLETS & GROOVED ENDS
☑ ALL MAIN PIPING TO BE SCH.10 W/ WELDED OUTLETS & GROOVED ENDS
☐ ALL MAIN PIPING TO BE W/ STANDARD 125# THREADED FITTINGS

HANGER NOTES

DENOTES HANGER LOCATION
DENOTES TRAPEZE HANGER LOCATION
☑ 3/8" ATR 1"-4" PIPE ☐ 1/2" ATR 5"-8" PIPE
☑ STEEL BEAM CLAMP, PIPE RING, & ATR
☐ CONCRETE ANCHOR, PIPE RING, & ATR
☑ WOOD HANGER ASSEMBLY, SEE DETAIL
☐ STAINLESS STEEL HANGER ASSEMBLY

DESIGN CRITERIA

TYPE SYSTEM: ☑ WET ☐ DRY ☐ PRE-ACTION
OCCUPANCY: SEE HYD. DATA
HAZARD: SEE HYD. DATA
DENSITY: GPM/SQ.FT.
REMOTE AREA: SQ. FT.
MAX. S.F./HD.:
TOTAL HOSE STREAM: ☐ 100 GPM ☐ 250 GPM ☐ 500 GPM ☐ 750 GPM ☐ 1000 GPM
LOCAL HOSE THREAD: NSHT

NFPA STANDARD: ☑ 13-2013 ☐ 14-2013 ☑ 20-2013 ☐ 24-2013
APPROVING AUTHORITY: TOWN OF NEWPORT
APPLICABLE CODE: NC BUILDING CODE - 2018

REMOTE AREA	DENSITY/AREA	INSIDE HOSE	OUTSIDE HOSE	REQ. @ BASE OF RISER
SEE DESIGN DATA THIS SHT.				

SPRINKLER SUMMARY

TOTAL SPRINKLERS THIS PROJECT ▶ 1036
TOTAL SPRINKLERS THIS DRAWING ▶ 0

SYM	TYPE	FINISH	TEMP	ORIF.	"K"	NPT	MFG / MODEL #	S.I.N.	ESCUTCH. / TEMP	QTY.
⊗	*ESFR UPRIGHT*	*BRASS*	*200°*	*17/32"*	*16.8*	*3/4"*	*Reliable -F1FR*	*TY7126*	*N/A*	*348*
○	*UPRIGHT*	*BRASS*	*200°*	*17/32"*	*8.0*	*3/4"*	*Reliable -F1FR80*	*RA6322*	*N/A*	*625*
◉	*QR PENDENT*	*CHROME*	*155°*	*1/2"*	*5.6*	*1/2"*	*Reliable -F1FR56*	*RA1414*	*RECESSED*	*63*

Plot Date: 1/3/2023 9:33 AM Plotted By: Allan A. Alt

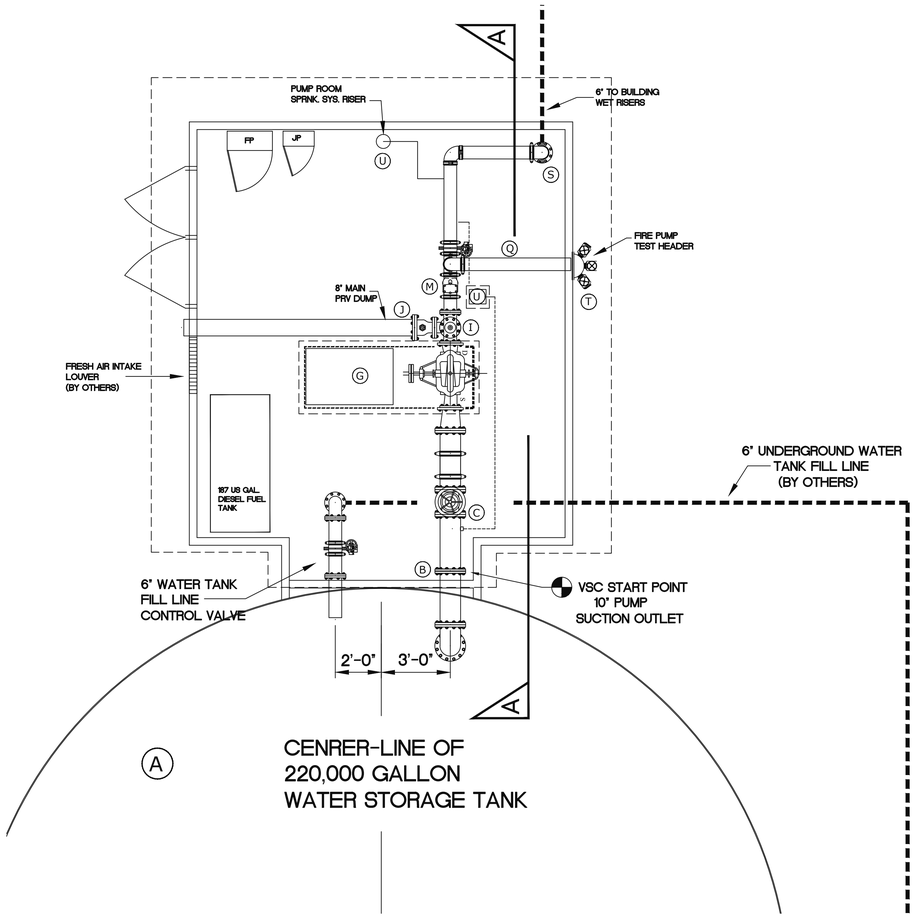
REVISIONS

BY	DESCRIPTION	DATE	#

JOB No.	PC9226
DATE	12-16-22
DESIGNER	ALT
SCALE	AS NOTED

SITE PLAN & NOTES
BALLY'S REFRIDGERATED BOXES
170 HANKINSON DRIVE
NEWPORT, NC

FILE: PC9226 Bally's SUBMITTAL.dwg
SHEET No. 1 OF 6



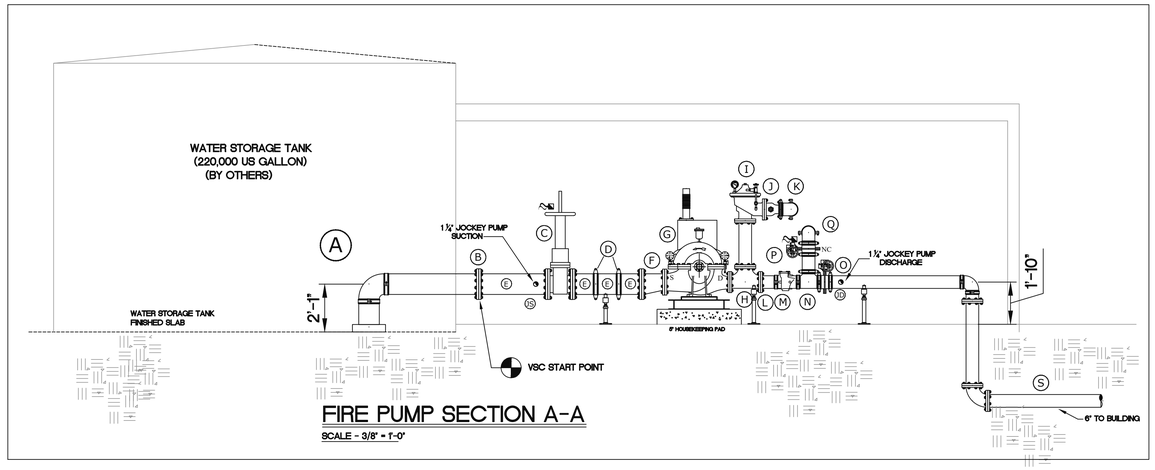
FIRE PUMP- PLAN VIEW

SCALE - 3/8" = 1'-0"

FIRE PUMP EQUIPMENT LIST

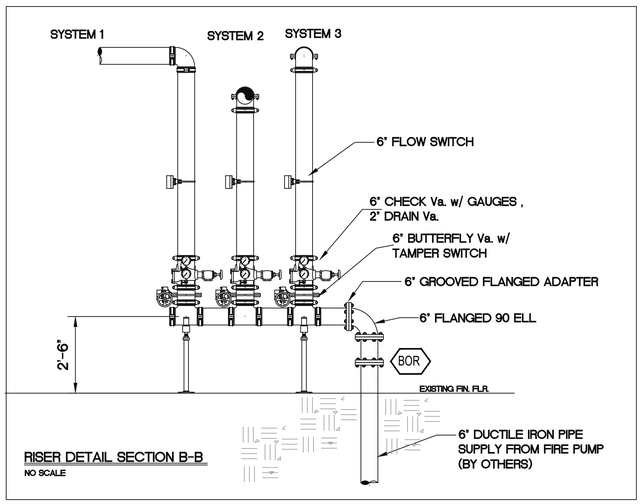
NOTE: ALL GROOVED FITTINGS FOR PUMP ARE 'STANDARD TAKE OUT' TYPE UNLESS OTHERWISE NOTED

- (A) 220,000 GALLON WATER STORAGE TANK
- (B) 10" TANK FIRE PUMP SUCTION OUTLET
- (C) 10" GATE VALVE w/ TAMPER SWITCH
- (D) 10" FLEXIBLE COUPLING (STRAIN RELIEF)
- (E) 10" SPOOL PIECE (LENGTH VARIES)
- (F) 10" x 8" FLANGED ECCENTRIC REDUCER.
- (G) 1500 GPM @ 120 PSI DIESEL FIRE PUMP
- (H) 6" FLANGED TEE
- (I) 6" MAIN PRESSURE RELIEF
- (J) 6" PRV WASTE CONE w/ SIGHT-GLASS
- (K) 6" GROOVED 90° ELL
- (L) 6" GROOVED FLANGE ADAPTER
- (M) 6" GROVED CHECK VALVE
- (N) 6" STANDARD GROOVED TEE
- (O) 6" GRVD. BUTTERFLY VA. (NORNALLY OPEN) w/ TAMPER SWITCH (WIRING BY OTHERS)
- (P) 6" GRVD. BUTTERFLY VA. (NORNALLY CLOSED) w/ TAMPER SWITCH (WIRING BY OTHERS)
- (Q) 6" TO TEST HEADER (SEE PLAN)
- (R) 6" STANDARD GROOVED 90° ELL
- (S) 6" UNDERGROUND TO RISERS (SEE PLAN)
- (T) FIRE PUMP TEST HEADER
- (U) PUMPHOUSE SPK SYS. RISER
- (JS) 1 1/4" JOCKEY PUMP SUCTION
- (JD) 1 1/4" JOCKEY PUMP DISCHARGE



FIRE PUMP SECTION A-A

SCALE - 3/8" = 1'-0"



RISER DETAIL SECTION B-B

NO SCALE

Barry D. Bandy

WATER BASED SYSTEMS LAYOUT
N.I.C.E.T. LEVEL III
CERTIFICATE # 112781
N.C. LICENSE # 28783

NORTH CAROLINA LICENSED SPRINKLER CONTRACTOR NC # 28783 VSC FIRE & SECURITY, INC.

NOTES:
- PIPE PAINTING IS BY OTHERS
- SEISMIC BRACING IS NOT REQUIRED
- PIPE IDENTIFICATION IS NOT REQUIRED
- PIPE SLEEVES ARE NOT REQUIRED

PIPE INSULATION NOTE:
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VSC FIRE & SECURITY ACCEPTS NO RESPONSIBILITY

2' 4' 6' 8' 10' 12' 14' 16' 18' 20'
1/8" GRAPHIC SCALE

SUBMITTAL

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JOB No.	PC9226
DATE	12-16-22
DESIGNER	ALT
SCALE	AS NOTED

FILE: PC9226 Bally's SUBMITTAL.dwg

FIRE PUMP PLAN & DETAILS
BALLY'S REFRIDGERATED BOXES
170 HANKINSON DRIVE
NEWPORT, NC

SHEET No. 2 OF 6

FOREMAN NOTE:
SPRINKLER HEAD LOCATIONS IN AREAS WITH SUSPENDED ACCOUSTICAL CEILING TILES ARE SHOWN IN CENTER OF TILE FOR DESIGN PURPOSES. THESE HEADS ARE REQUIRED TO BE CENTERED IN CEILING TILES PER CONTRACT SPECIFICATIONS.

- ☐ ALL MATERIAL TO BE FOREIGN or DOMESTIC
- ☐ VICTAULIC "FIRELOCK" GROOVED COUPLINGS/FITTINGS

PROJECT NORTH

"IMPORTANT"
THE OWNER HAS THE RESPONSIBILITY OF PROVIDING FREEZE PROTECTION IN AREAS THAT HAVE A WET PIPE SPRINKLER SYSTEM AS WELL AS A SUITABLE HEATED ENCLOSURE FOR DRY PIPE, DELUGE OR ANY OTHER TYPE VALVE CONTROLLING WATER SUPPLIES TO AUTOMATIC SPRINKLER SYSTEMS.

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PIPE & FITTING NOTES

- ☐ ALL LINE PIPING TO BE SCH. 40 W/ STANDARD 125# THREADED FITTINGS
- ☑ ALL LINE PIPING TO BE GROOVED W/ WELDED OUTLETS & GROOVED ENDS
- ☑ ALL MAIN PIPING TO BE SCH.10 W/ WELDED OUTLETS & GROOVED ENDS
- ☐ ALL MAIN PIPING TO BE W/ STANDARD 125# THREADED FITTINGS

HANGER NOTES

- DENOTES HANGER LOCATION
- DENOTES TRAPEZE HANGER LOCATION
- ☑ 3/8" ATR 1'-4" PIPE ☐ 1/2" ATR 5'-8" PIPE
- ☑ STEEL BEAM CLAMP, PIPE RING, & ATR
- ☐ CONCRETE ANCHOR, PIPE RING, & ATR
- ☑ WOOD HANGER ASSEMBLY, SEE DETAIL
- ☐ STAINLESS STEEL HANGER ASSEMBLY

DESIGN CRITERIA

TYPE SYSTEM: ☑ WET ☐ DRY ☐ PRE-ACTION
NFPA STANDARD: ☑ 13-2013 ☐ 14-2013 ☑ 20-2013 ☐ 24-2013
OCCUPANCY:
HAZARD:
DENSITY: GPM/SQ.FT.
REMOTE AREA: SQ. FT.
MAX. S.F./HD.:
TOTAL HOSE STREAM: ☐ 100 GPM ☐ 250 GPM ☐ 500 GPM ☐ 750 GPM ☐ 1000 GPM
LOCAL HOSE THREAD: NSHT
APPROVING AUTHORITY: TOWN OF NEWPORT
APPLICABLE CODE: NC BUILDING CODE - 2018

REMOTE AREA	DENSITY/AREA	INSIDE HOSE	OUTSIDE HOSE	REQ. @ BASE OF RISER

SEE HYDRAULIC DATA FPI

SPRINKLER SUMMARY

TOTAL SPRINKLERS THIS DRAWING ▶ ###

SYM	TYPE	FINISH	TEMP	ORIF.	"K"	NPT	MFG / MODEL #	S.I.N.	ESCUTCH. / TEMP	QTY.

REVISIONS

Plot Date: 1/3/2023 8:54 AM Plotted By: Allan A. Alt

BY	DESCRIPTION	DATE	#

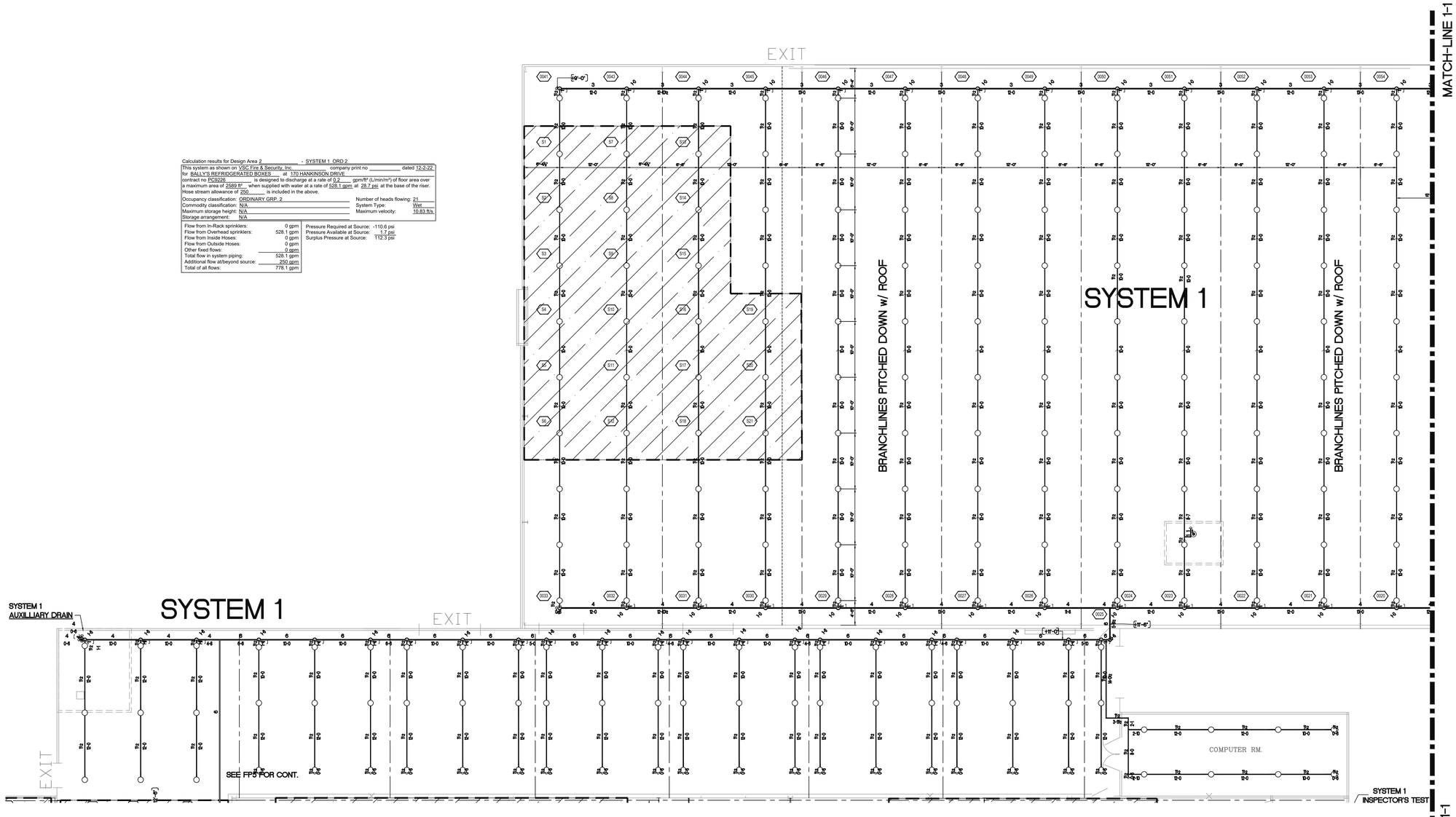
Calculation results for Design Area 2 - SYSTEM 1, ORD 2

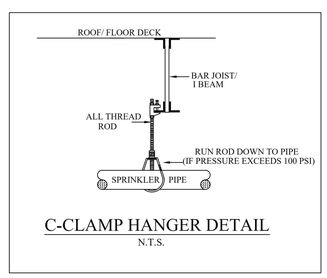
This system as shown on VSC Fire & Security, Inc. company print no _____ dated 12-2-22
for BALLY'S REFRIDGERATED BOXES at 170 HANKINSON DRIVE
contract no PC9226 is designed to discharge at a rate of 0.2 gpm/ft² (L/min/m²) of floor area over a maximum area of 2589 ft² when supplied with water at a rate of 528.1 gpm at 28.7 psi at the base of the riser.
Hose stream allowance of 250 is included in the above.

Occupancy classification:	ORDINARY GRP. 2	Number of heads flowing:	21
Commodity classification:	N/A	System Type:	Wet
Maximum storage height:	N/A	Maximum velocity:	10.83 ft/s
Storage arrangement:	N/A		

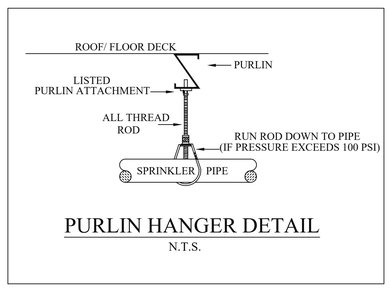
Flow from In-Rack sprinklers:	0 gpm
Flow from Overhead sprinklers:	528.1 gpm
Flow from Inside Hoses:	0 gpm
Flow from Outside Hoses:	0 gpm
Other fixed flows:	0 gpm
Total flow in system piping:	528.1 gpm
Additional flow at/beyond source:	250 gpm
Total of all flows:	778.1 gpm

Pressure Required at Source: -110.6 psi
Pressure Available at Source: 1.7 psi
Surplus Pressure at Source: 112.3 psi

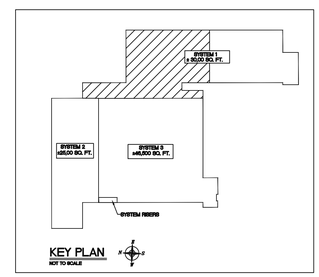




C-CLAMP HANGER DETAIL
N.T.S.



PURLIN HANGER DETAIL
N.T.S.



Barry D. Bandy

WATER BASED SYSTEMS LAYOUT
N.I.C.E.T. LEVEL III
CERTIFICATE # 112781
N.C. LICENSE # 28783

NORTH CAROLINA LICENSED SPRINKLER CONTRACTOR NC # 28783 VSC FIRE & SECURITY, INC.

NOTES:
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- SEISMIC BRACING IS NOT REQUIRED
- PIPE IDENTIFICATION IS NOT REQUIRED
- PIPE SLEEVES ARE NOT REQUIRED

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VSC FIRE & SECURITY ACCEPTS NO RESPONSIBILITY

1/8" GRAPHIC SCALE

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FOREMAN NOTE:
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☐ ALL MATERIAL TO BE FOREIGN or DOMESTIC
☐ VICTAULIC "FIRELOCK" GROOVED COUPLINGS/FITTINGS

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PROJECT NORTH

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PIPE & FITTING NOTES

- ☐ ALL LINE PIPING TO BE SCH. 40 W/ STANDARD 125# THREADED FITTINGS
- ☑ ALL LINE PIPING TO BE GROOVED W/ WELDED OUTLETS & GROOVED ENDS
- ☑ ALL MAIN PIPING TO BE SCH.10 W/ WELDED OUTLETS & GROOVED ENDS
- ☐ ALL MAIN PIPING TO BE W/ STANDARD 125# THREADED FITTINGS

HANGER NOTES

- DENOTES HANGER LOCATION
- DENOTES TRAPEZE HANGER LOCATION
- ☑ 3/8" ATR 1'-4" PIPE ☐ 1/2" ATR 5'-8" PIPE
- ☑ STEEL BEAM CLAMP, PIPE RING, & ATR
- ☐ CONCRETE ANCHOR, PIPE RING, & ATR
- ☑ WOOD HANGER ASSEMBLY, SEE DETAIL
- ☐ STAINLESS STEEL HANGER ASSEMBLY

DESIGN CRITERIA

TYPE SYSTEM: ☑ WET ☐ DRY ☐ PRE-ACTION
NFPA STANDARD: ☑ 13-2013 ☐ 14-2013 ☑ 20-2013 ☐ 24-2013
OCCUPANCY:
HAZARD:
DENSITY: GPM/SQ.FT.
REMOTE AREA: SQ. FT.
MAX. S.F./HD.:
TOTAL HOSE STREAM: ☐ 100 GPM ☐ 250 GPM ☐ 500 GPM ☐ 750 GPM ☐ 1000 GPM
LOCAL HOSE THREAD: NSHT
APPROVING AUTHORITY: TOWN OF NEWPORT
APPLICABLE CODE: NC BUILDING CODE - 2018

REMOTE AREA	DENSITY/AREA	INSIDE HOSE	OUTSIDE HOSE	REQ. @ BASE OF RISER

SEE DESIGN DATA FP1

SPRINKLER SUMMARY

TOTAL SPRINKLERS THIS PROJECT: 1036
TOTAL SPRINKLERS THIS DRAWING: 297

SYM	TYPE	FINISH	TEMP	ORIF.	"K"	NPT	MFG / MODEL #	S.I.N.	ESCUTCH. / TEMP	QTY.
⊗	*ESFR UPRIGHT*	*BRASS*	*200°*	*17/32"*	*16.8*	*3/4"*	*Reliable -F1FR*	*TY7126*	*N/A*	*108*
○	*UPRIGHT*	*BRASS*	*200°*	*17/32"*	*8.0*	*3/4"*	*Reliable -F1FR80*	*RA6322*	*N/A*	*172*
◉	*QR PENDENT*	*CHROME*	*155°*	*1/2"*	*5.6*	*1/2"*	*Reliable -F1FR56*	*RA1414*	*RECESSED*	*17*

Plot Date: 1/3/2023 8:55 AM

BY	DESCRIPTION	DATE	#
	REVISIONS		

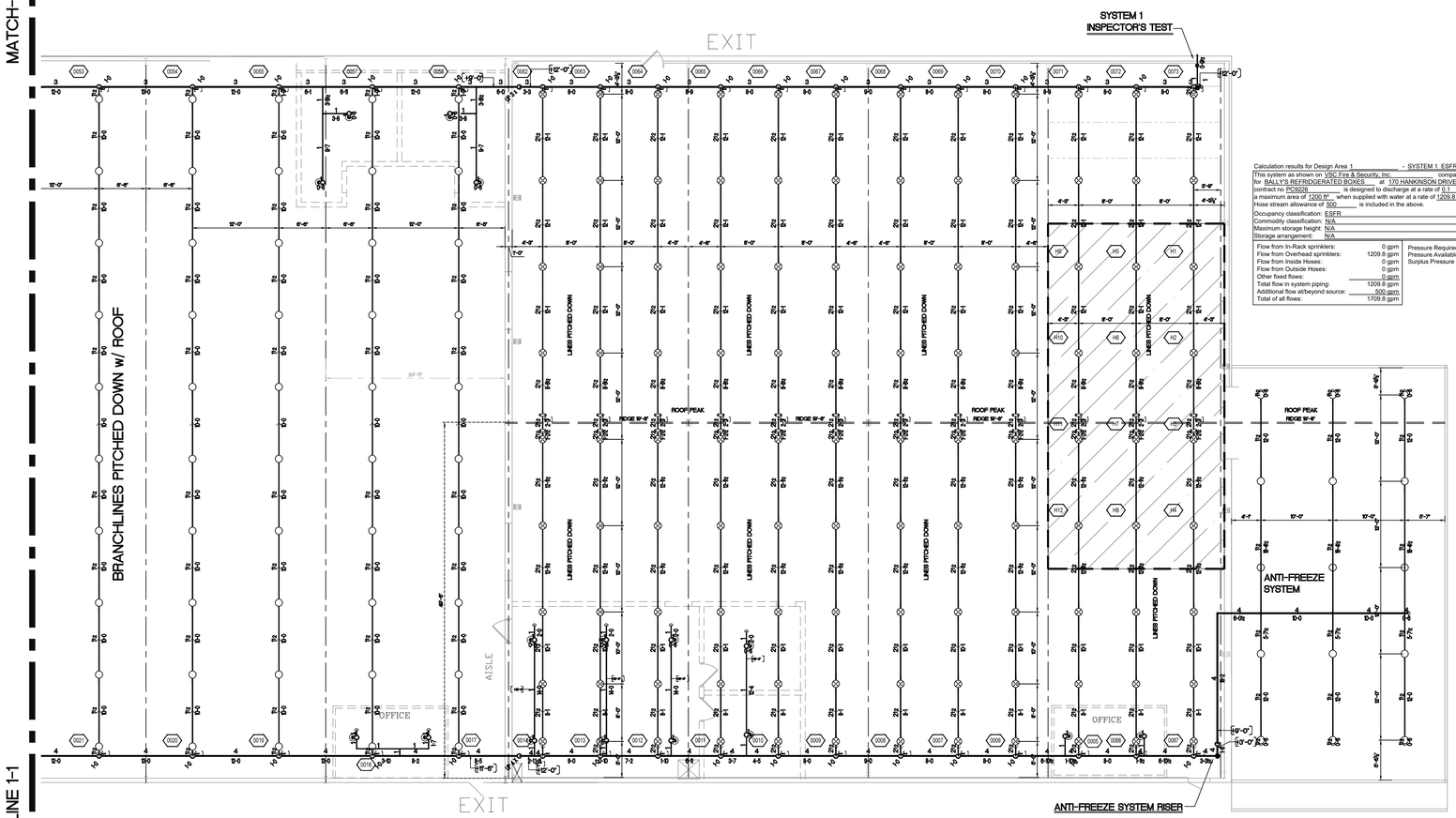
JOB No.	PC9226
DATE	11-24-22
DESIGNER	ALT
SCALE	AS NOTED

PART. SYSTEM 1 NORTH PIPING
FILE: PC9226 Bally's SUBMITTAL.dwg

BALLY'S REFRIDGERATED BOXES
170 HANKINSON DRIVE
NEWPORT, NC

SHEET No. 3 OF 6

MATCH-LINE 1-1



MATCH-LINE 1-1

Calculation results for Design Area 1 - SYSTEM 1 ESFR

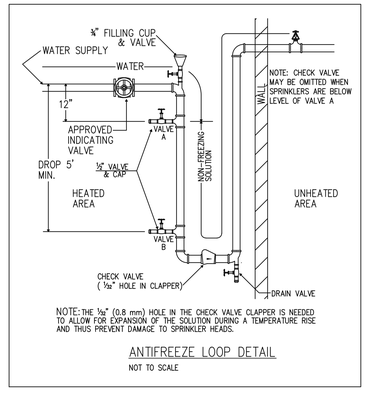
This system as shown on VSC Fire & Security, Inc. company print no _____ dated 12-2-22
for BALLY'S REFRIDGERATED BOXES at 170 HANKINSON DRIVE
contract no PO9226 is designed to discharge at a rate of 0.1 gpm/ft² (L/min/m²) of floor area over
a maximum area of 1200 ft² when supplied with water at a rate of 1209.8 gpmat 102.6 psiat the base of the riser.
Hose stream allowance of 500 is included in the above.

Occupancy classification: ESFR
Commodity classification: N/A
Maximum storage height: N/A
Storage arrangement: N/A

Number of heads flowing: 12
System Type: Wet
Maximum velocity: 21.02 f/s

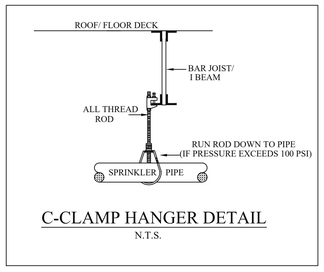
Flow from In-Rack sprinklers:	0 gpm
Flow from Overhead sprinklers:	1209.8 gpm
Flow from Inside Hoses:	0 gpm
Flow from Outside Hoses:	0 gpm
Other fixed flows:	0 gpm
Total flow in system piping:	1209.8 gpm
Additional flow atbeyond source:	500 gpm
Total of all flows:	1709.8 gpm

Pressure Required at Source: -19.4 psi
Pressure Available at Source: 0.7 psi
Surplus Pressure at Source: 20.1 psi

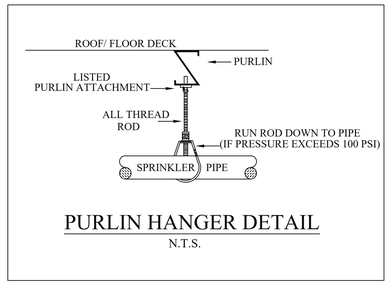


NOTE: THE 1/32" (0.8 mm) HOLE IN THE CHECK VALVE CLAPPER IS NEEDED TO ALLOW FOR EXPANSION OF THE SOLUTION DURING A TEMPERATURE RISE AND THUS PREVENT DAMAGE TO SPRINKLER HEADS.

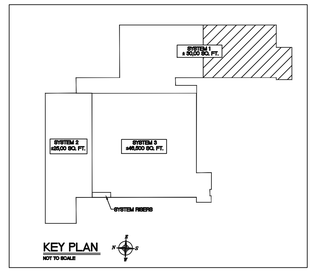
ANTIFREEZE LOOP DETAIL
NOT TO SCALE



C-CLAMP HANGER DETAIL
N.T.S.



PURLIN HANGER DETAIL
N.T.S.



Barry D. Bandy

WATER BASED SYSTEMS LAYOUT
N.I.C.E.T. LEVEL III
CERTIFICATE # 112781
N.C. LICENSE # 28783

SUBMITTAL

NOTES:
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PROJECT NORTH

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- ☑ ALL LINE PIPING TO BE GROOVED W/ WELDED OUTLETS & GROOVED ENDS
- ☑ ALL MAIN PIPING TO BE SCH.10 W/ WELDED OUTLETS & GROOVED ENDS
- ☐ ALL MAIN PIPING TO BE W/ STANDARD 125# THREADED FITTINGS

HANGER NOTES

- DENOTES HANGER LOCATION
- DENOTES TRAPEZE HANGER LOCATION
- ☑ 3/8" ATR 1'-4" PIPE ☐ 1/2" ATR 5'-8" PIPE
- ☑ STEEL BEAM CLAMP, PIPE RING, & ATR
- ☐ CONCRETE ANCHOR, PIPE RING, & ATR
- ☑ WOOD HANGER ASSEMBLY, SEE DETAIL
- ☐ STAINLESS STEEL HANGER ASSEMBLY

DESIGN CRITERIA

TYPE SYSTEM: ☑ WET ☐ DRY ☐ PRE-ACTION
NFPA STANDARD: ☑ 13-2013 ☐ 14-2013 ☑ 20-2013 ☐ 24-2013
OCCUPANCY: _____
HAZARD: _____
DENSITY: _____ GPM/SQ.FT.
REMOTE AREA: _____ SQ. FT.
MAX. S.F./HD.: _____
TOTAL HOSE STREAM: ☐ 100 GPM ☐ 250 GPM ☐ 500 GPM ☐ 750 GPM ☐ 1000 GPM
LOCAL HOSE THREAD: NSHT
APPROVING AUTHORITY: TOWN OF NEWPORT
APPLICABLE CODE: NC BUILDING CODE - 2018

REMOTE AREA	DENSITY/AREA	INSIDE HOSE	OUTSIDE HOSE	REQ. @ BASE OF RISER
	SEE DESIGN DATA FP1			

SPRINKLER SUMMARY

TOTAL SPRINKLERS THIS PROJECT ▶ 1036
TOTAL SPRINKLERS THIS DRAWING ▶ 297

SYM	TYPE	FINISH	TEMP	ORIF.	"K"	NPT	MFG / MODEL #	S.I.N.	ESCUTCH. / TEMP	QTY.
⊗	*ESFR UPRIGHT*	*BRASS*	*200°*	*17/32"*	*16.8*	*3/4"*	*Reliable -F1FR*	*TY7126*	*N/A*	*108*
○	*UPRIGHT*	*BRASS*	*200°*	*17/32"*	*8.0*	*3/4"*	*Reliable -F1FR80*	*RA6322*	*N/A*	*172*
◉	*QR PENDENT*	*CHROME*	*155°*	*1/2"*	*5.6*	*1/2"*	*Reliable -F1FR56*	*RA1414*	*RECESSED*	*17*

Plot Date: 1/3/2023 8:57 AM

REVISIONS

Plotted By: Allan A. Alt

BY	DESCRIPTION	DATE	#
			1
			2
			3
			4
			5
			6

1/8" GRAPHIC SCALE

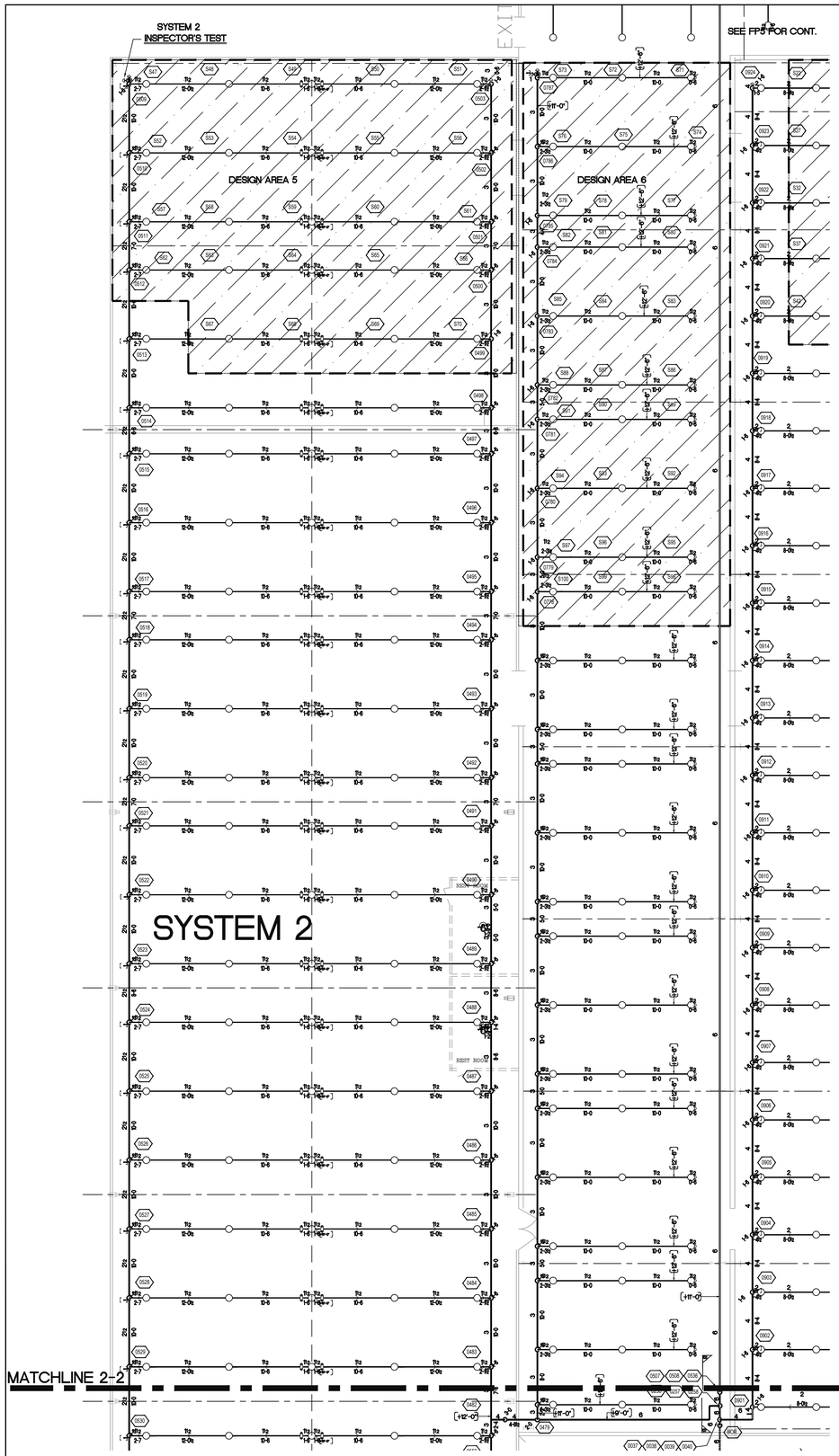
JOB No.	PC9226
DATE	12-16-22
DESIGNER	ALT
SCALE	AS NOTED

PART. SYSTEM 1 SOUTH PIPING

BALLY'S REFRIDGERATED BOXES
170 HANKINSON DRIVE
NEWPORT, NC

FILE: PC9226 Bally's SUBMITTAL.dwg

SHEET No. 4 OF 6



Calculation results for Design Area 5 - SYS 2 ORD GRP 2

This system as shown on VSC Fire & Security, Inc. company print no _____ dated 12-2-22
for BALLY'S REFRIDGERATED BOXES at 170 HANKINSON DRIVE
contract no PO9226 is designed to discharge at a rate of 0.2 gpm/ft² (L/min/m²) of floor area over a maximum area of 2501 ft² when supplied with water at a rate of 610.5 gpm at 47.2 psi at the base of the riser. Hose stream allowance of 250 is included in the above.

Occupancy classification: ORDINARY GRP. 2
Commodity classification: N/A
Maximum storage height: N/A
Storage arrangement: N/A

Number of heads flowing: 24
System Type: Wet
Maximum velocity: 16.58 ft/s

Flow from In-Rack sprinklers:	0 gpm
Flow from Overhead sprinklers:	610.5 gpm
Flow from Inside Hoses:	0 gpm
Flow from Outside Hoses:	0 gpm
Other fixed flows:	0 gpm
Total flow in system piping:	610.5 gpm
Additional flow at/beyond source:	250 gpm
Total of all flows:	860.5 gpm

Pressure Required at Source: -90.7 psi
Pressure Available at Source: 1.6 psi
Surplus Pressure at Source: 92.3 psi

Calculation results for Design Area 6 - SYS 2 ORD PASSAGEWAY

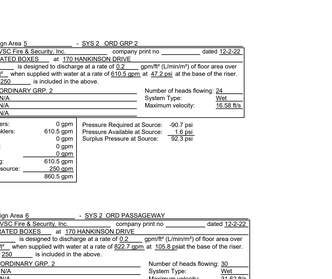
This system as shown on VSC Fire & Security, Inc. company print no _____ dated 12-2-22
for BALLY'S REFRIDGERATED BOXES at 170 HANKINSON DRIVE
contract no PO9226 is designed to discharge at a rate of 0.2 gpm/ft² (L/min/m²) of floor area over a maximum area of 2501 ft² when supplied with water at a rate of 822.7 gpm at 105.8 psiat the base of the riser. Hose stream allowance of 250 is included in the above.

Occupancy classification: ORDINARY GRP. 2
Commodity classification: N/A
Maximum storage height: N/A
Storage arrangement: N/A

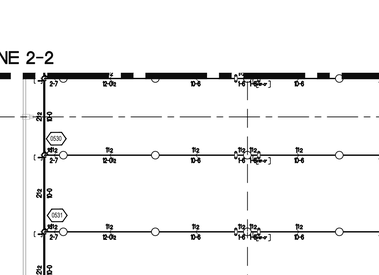
Number of heads flowing: 30
System Type: Wet
Maximum velocity: 31.62 ft/s

Flow from In-Rack sprinklers:	0 gpm
Flow from Overhead sprinklers:	822.7 gpm
Flow from Inside Hoses:	0 gpm
Flow from Outside Hoses:	0 gpm
Other fixed flows:	0 gpm
Total flow in system piping:	822.7 gpm
Additional flow at/beyond source:	250 gpm
Total of all flows:	1072.7 gpm

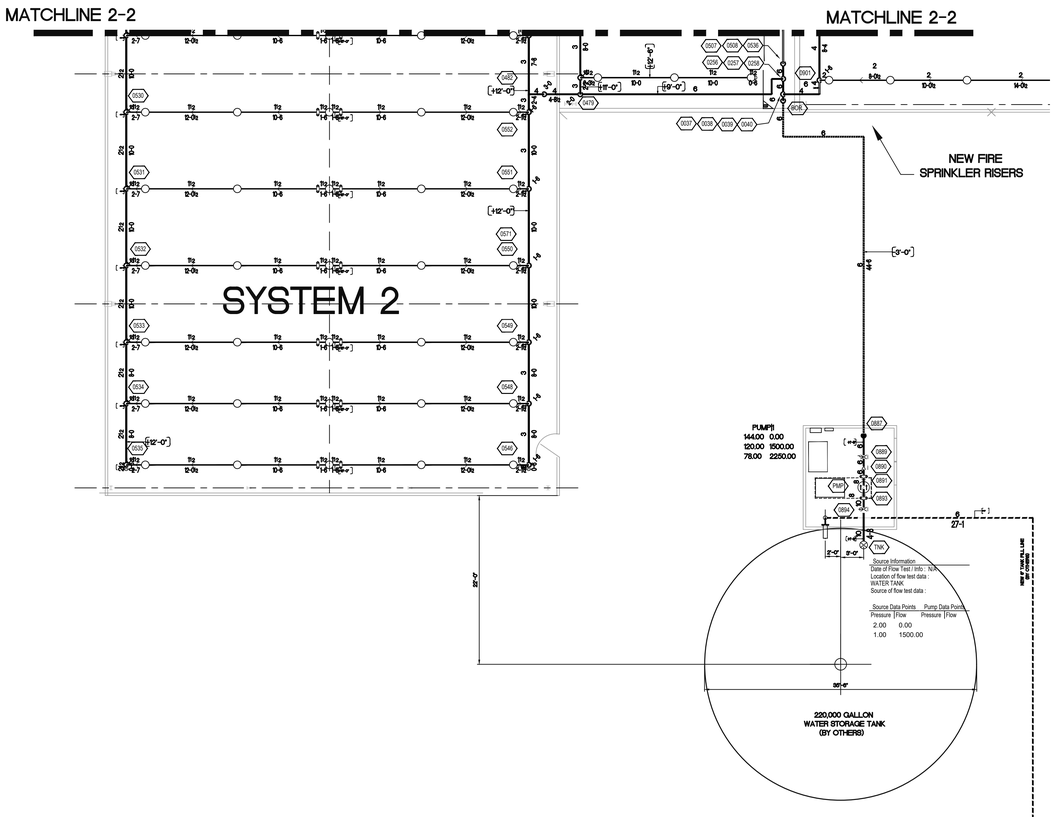
Pressure Required at Source: -27.5 psi
Pressure Available at Source: 1.5 psi
Surplus Pressure at Source: 28.9 psi

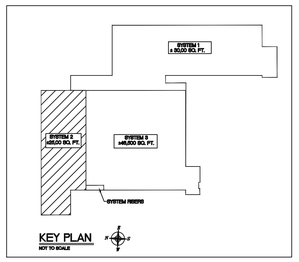


C-CLAMP HANGER DETAIL
N.T.S.



PURLIN HANGER DETAIL
N.T.S.





Barry D. Bandy

WATER BASED SYSTEMS LAYOUT
N.I.C.E.T. LEVEL III
CERTIFICATE # 112781
N.C. LICENSE # 28783

NOTES:
- PIPE PAINTING IS BY OTHERS
- SEISMIC BRACING IS NOT REQUIRED
- PIPE IDENTIFICATION IS NOT REQUIRED
- PIPE SLEEVES ARE NOT REQUIRED

PIPE INSULATION NOTE:
ALL PIPE INSULATION IS TO BE BY OTHERS, ANY DETAILS PROVIDED ARE FOR SUGGESTIONS ONLY, ALL INSULATION MUST BE INSTALLED BY A QUALIFIED INSTALLER
VSC FIRE & SECURITY ACCEPTS NO RESPONSIBILITY

1/8" GRAPHIC SCALE

SUBMITTAL

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FOREMAN NOTE:
SPRINKLER HEAD LOCATIONS IN AREAS WITH SUSPENDED ACCOUSTICAL CEILING TILES ARE SHOWN IN CENTER OF TILE FOR DESIGN PURPOSES. THESE HEADS ARE REQUIRED TO BE CENTERED IN CEILING TILES PER CONTRACT SPECIFICATIONS.

☐ ALL MATERIAL TO BE FOREIGN or DOMESTIC
☐ VICTAULIC "FIRELOCK" GROOVED COUPLINGS/FITTINGS

IMPORTANT
THE OWNER HAS THE RESPONSIBILITY OF PROVIDING FREEZE PROTECTION IN AREAS THAT HAVE A WET PIPE SPRINKLER SYSTEM AS WELL AS A SUITABLE HEATED ENCLOSURE FOR DRY PIPE, DELUGE OR ANY OTHER TYPE VALVE CONTROLLING WATER SUPPLIES TO AUTOMATIC SPRINKLER SYSTEMS.

PROJECT NORTH

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PIPE & FITTING NOTES

- ☐ ALL LINE PIPING TO BE SCH. 40 W/ STANDARD 125# THREADED FITTINGS
- ☑ ALL LINE PIPING TO BE GROOVED W/ WELDED OUTLETS & GROOVED ENDS
- ☑ ALL MAIN PIPING TO BE SCH.10 W/ WELDED OUTLETS & GROOVED ENDS
- ☐ ALL MAIN PIPING TO BE W/ STANDARD 125# THREADED FITTINGS

HANGER NOTES

- DENOTES HANGER LOCATION
- DENOTES TRAPEZE HANGER LOCATION
- ☑ 3/8" ATR 1'-4" PIPE ☐ 1/2" ATR 5'-8" PIPE
- ☑ STEEL BEAM CLAMP, PIPE RING, & ATR
- ☐ CONCRETE ANCHOR, PIPE RING, & ATR
- ☑ WOOD HANGER ASSEMBLY, SEE DETAIL
- ☐ STAINLESS STEEL HANGER ASSEMBLY

DESIGN CRITERIA

TYPE SYSTEM: ☑ WET ☐ DRY ☐ PRE-ACTION
NFPA STANDARD: ☑ 13-2013 ☐ 14-2013 ☑ 20-2013 ☐ 24-2013
OCCUPANCY: _____
APPROVING AUTHORITY: TOWN OF NEWPORT
HAZARD: _____
APPLICABLE CODE: NC BUILDING CODE - 2018
DENSITY: _____ GPM/SQ.FT.
REMOTE AREA: _____ SQ. FT.
MAX. S.F./HD.: _____
TOTAL HOSE STREAM: ☐ 100 GPM ☐ 250 GPM ☐ 500 GPM ☐ 750 GPM ☐ 1000 GPM
LOCAL HOSE THREAD: NSHT

REMOTE AREA	DENSITY/AREA	INSIDE HOSE	OUTSIDE HOSE	REQ. @ BASE OF RISER

SEE DESIGN DATA FP1

SPRINKLER SUMMARY — TOTAL SPRINKLERS THIS DRAWING ▶ 209

SYM	TYPE	FINISH	TEMP	ORIF.	"K"	NPT	MFG / MODEL #	S.I.N.	ESCUTCH. / TEMP	QTY.
⊗	*ESFR UPRIGHT*	*BRASS*	*200°*	*17/32"*	*16.8*	*3/4"*	*Reliable -F1FR*	*TY7126*	*N/A*	*0*
○	*UPRIGHT*	*BRASS*	*200°*	*17/32"*	*8.0*	*3/4"*	*Reliable -F1FR80*	*RA6322*	*N/A*	*207*
◉	*QR PENDENT*	*CHROME*	*155°*	*1/2"*	*5.6*	*1/2"*	*Reliable -F1FR56*	*RA1414*	*RECESSED*	*2*

	BY	DESCRIPTION	DATE	#
Plot Date: 1/3/2023 8:59 AM		REVISIONS		Plotted By: Allan A. Alt

JOB No.	PC9226
DATE	11-24-22
DESIGNER	ALT
SCALE	AS NOTED

SITE PLAN & NOTES

BALLY'S REFRIDGERATED BOXES
170 HANKINSON DRIVE
NEWPORT, NC

FILE: PO9226 Bally's SUBMITTAL.dwg

SHEET No. 5 OF 6

SYSTEM 1
INSPECTOR'S TEST

LOW POINT DRAIN

SYSTEM 3

RIDGE

LINES PITCHED DOWN

PARTIAL HEIGHT PARTITION

ESFR COVERAGE 15 FT PAST PARTIAL HEIGHT PARTITION PER NFPA23

STORAGE BELOW

EXIT

NEW FIRE SPRINKLER RISERS

Calculation results for Design Area 3 - SYSTEM 3 ESFR

This system as shown on VSC Fire & Security, Inc. company print no _____ dated 12-2-22
for BALLY'S REFRIDGERATED BOXES at 170 HANKINSON DRIVE
contract no PO9226 is designed to discharge at a rate of 0.1 gpm/ft² (L/min/m²) of floor area over a maximum area of 1200 ft² when supplied with water at a rate of 1210.5 gpm at 111.3 psi at the base of the riser. Hose stream allowance of 500 is included in the above.

Occupancy classification: ESFR
Commodity classification: N/A
Maximum storage height: N/A
Storage arrangement: N/A
Number of heads flowing: 12
System Type: Wet
Maximum velocity: 27.25 ft/s

Flow from In-Rack sprinklers:	0 gpm
Flow from Overhead sprinklers:	1210.5 gpm
Flow from Inside Hoses:	0 gpm
Flow from Outside Hoses:	0 gpm
Other fixed flows:	0 gpm
Total flow in system piping:	1210.5 gpm
Additional flow at/beyond source:	500 gpm
Total of all flows:	1710.5 gpm

Pressure Required at Source:	-10.6 psi
Pressure Available at Source:	0.7 psi
Surplus Pressure at Source:	11.4 psi

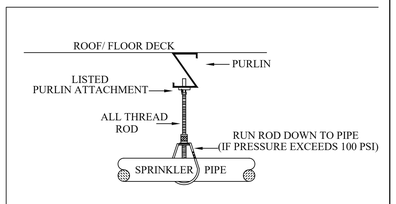
Calculation results for Design Area 4 - SYSTEM 3 ORD 2

This system as shown on VSC Fire & Security, Inc. company print no _____ dated 12-2-22
for BALLY'S REFRIDGERATED BOXES at 170 HANKINSON DRIVE
contract no PO9226 is designed to discharge at a rate of 0.2 gpm/ft² (L/min/m²) of floor area over a maximum area of 2603 ft² when supplied with water at a rate of 647.7 gpm at 33.2 psi at the base of the riser. Hose stream allowance of 250 is included in the above.

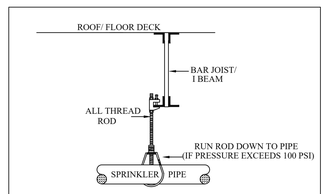
Occupancy classification: ORDINARY GRP 2
Commodity classification: N/A
Maximum storage height: N/A
Storage arrangement: N/A
Number of heads flowing: 25
System Type: Wet
Maximum velocity: 14.58 ft/s

Flow from In-Rack sprinklers:	0 gpm
Flow from Overhead sprinklers:	647.7 gpm
Flow from Inside Hoses:	0 gpm
Flow from Outside Hoses:	0 gpm
Other fixed flows:	0 gpm
Total flow in system piping:	647.7 gpm
Additional flow at/beyond source:	250 gpm
Total of all flows:	897.7 gpm

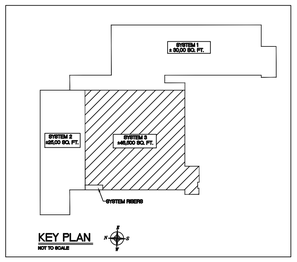
Pressure Required at Source:	-103.9 psi
Pressure Available at Source:	1.6 psi
Surplus Pressure at Source:	105.6 psi



PURLIN HANGER DETAIL
N.T.S.



C-CLAMP HANGER DETAIL
N.T.S.



NORTH CAROLINA LICENSED SPRINKLER CONTRACTOR FIRE & SECURITY, INC. NC # 28783

Barry D. Bandy

WATER BASED SYSTEMS LAYOUT
N.I.C.E.T. LEVEL III
CERTIFICATE # 112781
N.C. LICENSE # 28783

NOTES:
- PIPE PAINTING IS BY OTHERS
- SEISMIC BRACING IS NOT REQUIRED
- PIPE IDENTIFICATION IS NOT REQUIRED
- PIPE SLEEVES ARE NOT REQUIRED

PIPE INSULATION NOTE:
ALL PIPE INSULATION IS TO BE BY OTHERS, ANY DETAILS PROVIDED ARE FOR SUGGESTIONS ONLY, ALL INSULATION MUST BE INSTALLED BY A QUALIFIED INSTALLER
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1/8" GRAPHIC SCALE

TOTAL SPRINKLERS THIS PROJECT ▶ 1036
TOTAL SPRINKLERS THIS DRAWING ▶ 452
Plot Date: 1/3/2023 10:12 AM Plotted By: Allan A. Alt

FOREMAN NOTE:
SPRINKLER HEAD LOCATIONS IN AREAS WITH SUSPENDED ACCOUSTICAL CEILING TILES ARE SHOWN IN CENTER OF TILE FOR DESIGN PURPOSES. THESE HEADS ARE REQUIRED TO BE CENTERED IN CEILING TILES PER CONTRACT SPECIFICATIONS.

☐ ALL MATERIAL TO BE FOREIGN or DOMESTIC
☐ VICTAULIC "FIRELOCK" GROOVED COUPLINGS/FITTINGS

PIPE & FITTING NOTES
- ☐ ALL LINE PIPING TO BE SCH. 40 W/ STANDARD 125# THREADED FITTINGS
- ☑ ALL LINE PIPING TO BE GROOVED W/ WELDED OUTLETS & GROOVED ENDS
- ☑ ALL MAIN PIPING TO BE SCH.10 W/ WELDED OUTLETS & GROOVED ENDS
- ☐ ALL MAIN PIPING TO BE W/ STANDARD 125# THREADED FITTINGS

HANGER NOTES
- DENOTES HANGER LOCATION
- DENOTES TRAPEZE HANGER LOCATION
- ☑ 3/8" ATR 1'-4" PIPE ☐ 1/2" ATR 5'-8" PIPE
- ☑ STEEL BEAM CLAMP, PIPE RING, & ATR
- ☐ CONCRETE ANCHOR, PIPE RING, & ATR
- ☑ WOOD HANGER ASSEMBLY, SEE DETAIL
- ☐ STAINLESS STEEL HANGER ASSEMBLY

DESIGN CRITERIA
TYPE SYSTEM: ☑ WET ☐ DRY ☐ PRE-ACTION
NFPA STANDARD: ☑ 13-2013 ☐ 14-2013 ☐ 20-2013 ☐ 24-2013
OCCUPANCY: XXX
APPROVING AUTHORITY: TOWN OF NEWPORT
HAZARD: XXX
APPLICABLE CODE: NC BUILDING CODE - 2018
DENSITY: .10 GPM/SQ.FT.
REMOTE AREA: 1500 SQ. FT.
MAX. S.F./HD.: 225
TOTAL HOSE STREAM: ☐ 100 GPM ☐ 250 GPM ☐ 500 GPM ☐ 750 GPM ☐ 1000 GPM
LOCAL HOSE THREAD: NSHT

REMOTE AREA	DENSITY/AREA	INSIDE HOSE	OUTSIDE HOSE	REQ. @ BASE OF RISER

SEE HYDRAULIC DATA FPI

SPRINKLER SUMMARY

SYM	TYPE	FINISH	TEMP	ORIF.	"K"	NPT	MFG / MODEL #	S.I.N.	ESCUTCH. / TEMP	QTY.
⊗	*ESFR UPRIGHT*	*BRASS*	*200°*	*17/32"*	*16.8*	*3/4"*	*Reliable -F1FR*	*TY7126*	*N/A*	*240*
○	*UPRIGHT*	*BRASS*	*200°*	*17/32"*	*8.0*	*3/4"*	*Reliable -F1FR80*	*RA6322*	*N/A*	*168*
◉	*QR PENDENT*	*CHROME*	*155°*	*1/2"*	*5.6*	*1/2"*	*Reliable -F1FR56*	*RA1414*	*RECESSED*	*44*

REVISIONS

BY	DESCRIPTION	DATE	#

JOB No.	PO9226
DATE	12-12-22
DESIGNER	ALT
SCALE	AS NOTED

SYSTEM 3 PIPING
BALLY'S REFRIDGERATED BOXES
170 HANKINSON DRIVE
NEWPORT, NC

FILE: PO9226 Bally's SUBMITTAL.dwg
SHEET No. 6 OF 6

PROJECT NORTH

"IMPORTANT"
THE OWNER HAS THE RESPONSIBILITY OF PROVIDING FREEZE PROTECTION IN AREAS THAT HAVE A WET PIPE SPRINKLER SYSTEM AS WELL AS A SUITABLE HEATED ENCLOSURE FOR DRY PIPE, DELUGE OR ANY OTHER TYPE VALVE CONTROLLING WATER SUPPLIES TO AUTOMATIC SPRINKLER SYSTEMS.

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