foodbank
OF CENTRAL & EASTERN NORTH CAROLINA



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254 North Front Street, Suite 201
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910.791.4000

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5815 Oleander Drive, Suite 250
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VICINITY MAP



DRAWING INDEX

CS-1 COVER SHEET
CS-2 BUILDING DATA AND APPENDIX B
CS-3 FIRE RATED ASSEMBLIES

CIVIL:

~~C-2.0 SITE PLAN~~

ARCHITECTURAL:

A0.1 ARCHITECTURAL SITE PLAN
A1.1 FIRST FLOOR PLAN
A1.2 DEPRESSED SLAB PLAN - WALL TYPE SCHEDULE
A1.3 ENLARGED KITCHEN PLAN
A1.4 ENLARGED PLANS AND DETAILS
A1.5 ENLARGED PLANS AND DETAILS

A2.1 REFLECTED CEILING PLAN

A3.0 EXTERIOR ELEVATIONS

A4.0 BUILDING SECTIONS
A4.1 BUILDING SECTIONS
A5.0 WALL SECTIONS
A5.1 WALL SECTIONS
A5.2 WALL SECTIONS

A6.0 FINISH SCHEDULE
A6.1 DOOR SCHEDULE, DOOR AND WINDOW ELEVATIONS
A6.2 DOOR DETAILS
A6.3 WINDOW DETAILS

A7.1 FURNITURE PLAN AND MILLWORK
A7.2 ENLARGED PLANS AND INTERIOR ELEVATIONS

A9.0 ROOF PLAN
A9.1 ROOF DETAILS
A9.2 ROOF DETAILS

INTERIOR DESIGN:

~~ID-1 FLOOR PATTERN PLAN~~
~~ID-2 PAINT PLAN~~

STRUCTURAL:

S1.1 GENERAL NOTES
S1.2 TYICAL DETAILS
S2.1 FOUNDATION PLAN
S2.2 ROOF FRAMING PLAN
S3.1 FOUNDATION SECTIONS & DETAILS
S4.1 FOUNDATION SECTIONS & DETAILS

PLUMBING:

P-0.1 PLUMBING NOTES, SCHEDULES, ABBREVIATIONS AND LEGEND

PS1.1 PLUMBING SANITARY SEWER AND STORM DRAINAGE PLAN
PS1.2 PLUMBING SANITARY SEWER ROOF PLAN
PS1.3 ENLARGED SANITARY SEWER AND STORM DRAINAGE PLANS

PW1.1 PLUMBING DOMESTIC WATER PLAN
PW1.2 PLUMBING DOMESTIC WATER ROOF PLAN
PW1.3 ENLARGED DOMESTIC WATER PLANS

PG1.1 PLUMBING GAS PIPING PLAN
PG1.2 PLUMBING GAS PIPING ROOF PLAN

P-5.1 PLUMBING DETAILS
P-5.2 WASTE-VENT RISER DIAGRAM
P-5.3 WASTE-VENT RISER DIAGRAM
P-5.4 UL DETAILS

MECHANICAL:

M-0.1 MECHANICAL NOTES, ABBREVIATIONS AND LEGEND
M-5.1 MECHANICAL DETAILS
M-6.1 MECHANICAL SCHEDULES
M-7.1 MECHANICAL HOOD DETAILS AND SCHEDULES
M-7.2 MECHANICAL HOOD EXHAUST FANS, DETAILS AND SCHEDULE
M-7.3 MECHANICAL HOOD MAU DETAILS, SCHEDULES AND DIAGRAMS
M-7.4 MECHANICAL HOOD CONTROL DIAGRAMS

MH1.1 MECHANICAL HVAC FLOOR PLAN
MH1.2 MECHANICAL HVAC FLOOR PLAN
MH1.3 MECHANICAL HVAC FLOOR PLAN
MH1.4 MECHANICAL HVAC FLOOR PLAN
MH1.5 MECHANICAL HVAC ROOF PLAN

ELECTRICAL:

E-0.1 ABBREVIATIONS, LEGEND AND SUMMARIES
E-0.2 ELECTRICAL SITE PLAN
E-0.3 ELECTRICAL GENERAL NOTES
E-0.4 ELECTRICAL POWER RISER DIAGRAM AND DETAILS
E-0.5 ELECTRICAL DETAILS
E-0.6 ELECTRICAL PANEL SCHEDULES
E-0.7 ELECTRICAL LIGHTING FIXTURE SCHEDULE AND ENERGY SUMMARY
E-0.8 ELECTRICAL TELECOM RISER DIAGRAM AND DETAILS

EP1.1 ELECTRICAL POWER FIRST FLOOR PLAN
EP1.2 ELECTRICAL POWER ROOF AND ENLARGED PLANS

EL1.1 ELECTRICAL LIGHTING FIRST FLOOR PLAN
EL1.2 ELECTRICAL LIGHTING ROOF PLAN

FA0.1 FIRE ALARM RISER DIAGRAM, LEGEND AND NOTES
FA0.2 FIRE ALARM FIRE DETAILS
FA1.1 FIRE ALARM FIRST FLOOR PLAN

FIRE SPRINKLER SYSTEM:

FP001 GENERAL FIRE SPRINKLER NOTES
FP002 SITE PLAN
FP101A FIRE SPRINKLER FLOOR PLAN AREA A
FP101B FIRE SPRINKLER FLOOR PLAN AREA B
FP101C FIRE SPRINKLER COLD STORAGE FLOOR PLAN
FP201 FIRE SPRINKLER RISER/PUMP ROOM PLAN
FP301 BUILDING SECTIONS AND ISOMETRIC VIEWS

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The Wilmington Food Bank
Greenfield Street
Wilmington, North Carolina 28403

CONSTRUCTION DOCUMENTS - FINAL PRICING SET 11.10.2021

REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

Project Manager	Drawn By
	AJT
Date	Reviewed By
May 2021	GCH
Project ID	-

Sheet Title
Cover Sheet

Sheet No.
CS-1

2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS

Name of Project: The Wilmington Rood Bank
Address: Greenfield Street, Wilmington, North Carolina Zip Code 28403
Owner/Authorized Agent: ?? Phone #: -- E-mail --
Owned By: ☒ City / County ☒ Private ☐ State
Code Enforcement Jurisdiction ☒ City ☒ County New Hanover ☐ State

CONTACT: Text

DESIGNER	FIRM	NAME	LIC. #	TELE. #	E-MAIL
Architectural	Bowman,Murray,Hemingway Architects	Chip Hemingway	7487	910.762.2621	hemingway@bmharch.com
Civil	Paramounte Engineering, Inc.	--	---		---
Electrical	CBHF Engineers	Jason Famiglietti	---	910.791.4000	jfam@cbhfengineers.com
Fire Alarm	CBHF Engineers	Jason Famiglietti	---	910.791.4000	jfam@cbhfengineers.com
Plumbing	CBHF Engineers	Brent Stanley	---	910.791.4000	bstanley@cbhfengineers.com
Mechanical	CBHF Engineers	Troy Grady	---	910.791.4000	tgrady@cbhfengineers.com
Sprinkler-Standpipe					
Structural	Woods Engineering	Don Woods	19475	910.343.8007	donwoods@woodseng.com
Retaining Walls					
Other					

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

2018 NC CODE FOR: ☒ New Construction ☐ Addition ☐ Renovation ☐ 1st Time Interior Completion ☐ Shell / Core ☐ Phased Construction - Shell / Core

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

CONSTRUCTED (date): n/a **ORIGINAL OCCUPANCY**(S) (CH. 3) n/a
RENOVATED (date): n/a **CURRENT OCCUPANCY**(S) (CH. 3) n/a

RISK CATEGORY (table 1604.5):
Current: ☐ I ☐ II ☐ III ☐ IV
Proposed: ☐ I ☐ II ☐ III ☒ IV

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 ☒ Yes ☒ NFPA 13 ☐ NFPA 13R ☐ NFPA 13D
Standpipes: ☒ No ☐ Yes
Class ☐ I ☐ II ☐ III ☐ Wet ☐ Dry
Fire District: ☒ No ☐ Yes (Primary) **Flood Hazard Area:** ☒ No ☐ Yes
Special Inspections Required: ☐ No ☒ Yes

	Existing (SF)	New (SF)	Reno / Alter (SF)	Sub-Total
6th Floor				
5th Floor				
4th Floor				
3rd Floor				
2nd Floor	n/a	n/a	n/a	n/a
Mezzanine				
1st Floor	0	31,105	n/a	31,105
Basement				
Total	0	31,105	n/a	31,105

ALLOWABLE AREA

Primary Occupancy Classification
Assembly ☐ A-1 ☐ A-2 ☒ A-3 ☐ A-4 ☐ A-5
Business ☒
Educational ☐
Factory ☒ F-1 Moderate ☐ F-2 Low
Hazardous ☐ H-1 ☐ H-2 ☐ H-3 ☐ H-4 ☐ H-5
Institutional ☐ I-1 Condition ☐ 1 ☐ 2
☐ I-2 Condition ☐ 1 ☐ 2
☐ I-3 Condition ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
☐ I-4
Mercantile ☒
Residential ☐ R-1 ☐ R-2 ☐ R-3 ☐ R-4
Storage ☐ S-1 ☒ S-2 ☒ High piled
☐ Parking Garage ☐ Open ☐ Enclosed ☐ Repair Garage
Utility & Misc ☐

Accessory Occupancy Classification(s): n/a
Incidental Uses *(Table 509):* n/a
Special Uses *(Chapter 4 - List Code Sections)* n/a
Special Provisions *(Chapter 5 - List Code Sections)* n/a
Mixed Occupancy: ☐ No ☒ Yes Separation: 0 Hr. Exception:

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

☐ 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.

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

$$\frac{\quad}{\quad} + \frac{\quad}{\quad} \leq 1.00$$

Story No.	Description and Use	(A) Bldg Area per Story (Actual)	(B) Table 506.2[4] Area	(C) Area for Frontage Increase [1,5]	(D) [2,3] Allowable Area per Story or Unlimited
1	ASSEMBLY [A3]	31,105	38,000	7,125	45,125

[1] Frontage area increases from Section 506.3 are computed thus:
a. Perimeter which fronts a public way or open space having 20 feet minimum width = 813 (F)
b. Total Building Perimeter = 813 (P)
c. Ratio (F/P) = 1 (F/P)
d. W = Minimum width of public way = 30 + (W)
e. Percent of frontage increase If = 100 [F/P - 0.25] x W/30 = 75 (%)

[2] Unlimited area applicable under conditions of Section 507.
[3] Maximum Building Area = total number of stories in the building x D (maximum 3 stories) (506.2).
[4] The maximum area of open parking garages must comply with Table 406.5.4
[5] Frontage increase is based on the unsprinklered area value in Table 506.2.

ALLOWABLE HEIGHT

	ALLOWABLE	SHOWN ON PLANS	CODE REFERENCE [1]
BUILDING HEIGHT IN FEET (TABLE 504.3) [2]	65	32	
BUILDING HEIGHT IN STORIES (TABLE 504.4) [3]	3	1	

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

FIRE PROTECTION REQUIREMENTS

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	RATING REQ'D	RATING PROVIDED (W/ REDUCTION)	DETAIL # AND SHEET #	DESIGN # FOR RATED ASSEMBLY	DESIGN # FOR RATED PENETRATION	DESIGN # FOR RATED JOINTS
Structural Frame, including columns, girders and trusses		0-HR					
Exterior	30+	0-HR					
North							
East							
West							
South							
Nonbearing Walls and Partitions Exterior	30+	0-HR					
North							
East							
West							
South							
Interior Walls & Partitions		0-HR					
Floor Construction Including Support Beams and Joists		0-HR					
Floor Ceiling Assembly		n/a					
Column Supporting Floors		n/a					
Roof Construction Including Supporting Beams & Joists		0-HR					
Roof Ceiling Assembly		n/a					
Column Supporting Roof		n/a					
Shaft Enclosure - Exit		n/a					
Shaft Enclosure - Other		n/a					
Corridor Separation		n/a					
Occupancy / Fire Barrier Separation		0-HR	1-HR	U-419 (#1/CS-3)			
Party/Fire Wall Separation		n/a					
Smoke Barrier Separation		n/a					
Smoke Partition		n/a					
Tenant/Dwelling Unit / Sleeping Unit Separation		n/a					
Incidental Use Separation		n/a					

[*] Indicate Section Number Permitting Reduction

PERCENTAGE OF WALL OPENING CALCULATIONS

FIRE SEPARATION DISTANCE (FEET FROM PROPERTY LINES)	DEGREES OF OPENINGS PROTECTION (TABLE 705.8)	ALLOWABLE AREA (%)	ACTUAL SHOWN ON PLANS (%)
30 +	UP, NS	NO LIMIT	N/A

LIFE SAFETY SYSTEM REQUIREMENTS

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

ACCESSIBLE DWELLING UNITS
(Section 1107)

[NOT APPLICABLE]

LIFE SAFETY PLAN REQUIREMENTS

Life Safety Plan Sheet # : 1/CS-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 types 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 (1006.2.1 & 2006.3.2(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 and supporting construction for a fire barrier/fire partition/smoke barrier.

☒ Location of doors with panic hardware (1010.1.10)
☐ Location of doors with delayed egress locks and the amount of delay (1010.1.9.7)
☐ Location of doors with electromagnetic egress locks (1010.1.9.9)
☐ Location of doors equipped with hold-open devices
☐ Location of emergency escape windows (1030)
☐ The square footage of each fire area (202)
☐ The square footage of each smoke compartment for Occupancy Classification I-2 (407.5)
☐ Note any code exceptions or table notes that may have been utilized regarding the items above

ACCESSIBLE PARKING
(Section 1106)

LOT OR PARKING AREA	TOTAL # OF PARKING SPACES		# OF ACCESSIBLE SPACES PROVIDED			TOTAL ACCESSIBLE PROVIDED
	REQUIRED	PROVIDED	REGULAR WITH 5' ACCESS AISLE	VAN SPACE WIDTH 132" ACCESS AISLE	8' ACCESS AISLE	
ON-SITE	n/a	72			4	4
TOTAL						

PLUMBING FIXTURE REQUIREMENTS
(TABLE 2902.1)

		WATERCLOSETS			URINALS	LAVATORIES			SHOWER / TUBS	DRINKING FOUNTAINS	
		MALE	FEMALE	UNISEX		MALE	FEMALE	UNISEX		REGULAR	ACCESSIBLE
TOTAL	EXIST'G										
	NEW	2	4	2	2	3	3		1	1	1
	REQ'D	2	3			2	2		0	1	1

Occupancy Calculations:
Business Area = 4,864 SF @ 1 per 100 SF = 47 occupants
Commercial Kitchen = 2,333 SF @ 1 per 200 = 12 occupants
Volunteer work area = 1,423 SF @ 1 per 100 = 15 occupants
Warehouse = 18,780 SF @ 1 per 500 = 38 occupants
Community Meeting = 1,410 SF @ 1 per 15 = 94
Total Occupants = 206

Plumbing Fixture Calculation:
Business = 47 occ = 24 male & 24 female
Water Closets = 1 per 25 up to 50 = 24 / 25 = 0.96 WC each sex
Lavatories = 1 per 40 up to 80 = 24 / 40 = 0.63 LAV each sex

Kitchen = 12 occ = 6 male & 6 female
Water Closets = 1 per 500 = 6 / 500 = 0.02 WC each sex
Lavatories = 1 per 750 = 6 / 750 = 0.01 LAV each sex

Volunteer Work Area = 15 = 8 male & 8 female
Water Closets = 1 per 25 up to 50 = 8 / 25 = 0.32 WC each sex
Lavatories = 1 per 40 up to 80 = 8 / 40 = 0.20 LAV each sex

Warehouse = 38 occ. = 19 male & 19 female
Water Closets = 1 per 100 = 19 / 100 = 0.19 WC each sex
Lavatories = 1 per 100 = 19 / 100 = 0.19 LAV each sex

Community Meeting = 94 occ. = 47 male & 47 female
Water Closets (male) = 1 per 125 = 47 / 125 = 0.38 WC male
Lavatories (male) = 1 per 200 = 47 / 200 = 0.24 LAV male
Water Closets (female) = 1 per 65 = 47 / 65 = 0.72 WC female
Lavatories (female) = 1 per 200 = 47 / 200 = 0.24 LAV female

Fixtures Required:

WC male = 0.96 [B] + 0.02 [F1] + 0.32 [B] + 0.19 [S1] + 0.38 [A3] = 1.87 = 2 WC male total
LAV male = 0.63 [B] + 0.01 [F1] + 0.20 [B] + 0.19 [S1] + 0.24 [A3] = 1.27 = 2 LAV male total

WC female = 0.96 [B] + 0.02 [F1] + 0.32 [B] + 0.19 [S1] + 0.72 [A3] = 2.21 = 3 WC female total
LAV female = 0.63 [B] + 0.01 [F1] + 0.20 [B] + 0.19 [S1] + 0.24 [A3] = 1.27 = 2 LAV female total

Drinking Fountains = 1 per 500 occ = 206 / 500 = 0.42 = 1

SPECIAL APPROVALS

Special Approval: (Local Jurisdiction, Department of Insurance, SCO, DPI, DHHS, ICC, etc., describe below)
New Hanover County

ENERGY SUMMARY

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

Existing building envelope complies with code: ☐ No ☐ Yes (The remainder of this section is not applicable)
Exempt Building: ☒ No ☐ Yes (Provide Code or Statutory Reference)

Climate Zone: ☒ 3A ☐ 4A ☐ 5A

Method of Compliance:
Energy Code: ☐ Performance ☒ Prescriptive (*U*-factor method)
ASHREA 90.1: ☐ Performance ☐ Prescriptive
(If "Other" specify source here)

THERMAL ENVELOPE (U - Factor Method of Compliance)

Roof / Ceiling Assembly (each assembly)
Description of Assembly: Membrane roof on 5/8" cover board on R-25 rigid insulation (5") on metal deck
U-Value of Total Assembly: 0.04
R-Value of Insulation: R-25
Skylights in each assembly: na
U-Value of skylight: n/a
Total sq ft of skylights in each assembly: n/a

Exterior Walls (each assembly)
Description of Assembly: Tilt-up concrete with integral C.I. Tilt-up concrete with interior side C.I. insulation
U-Value of Total Assembly: 0.123 at Integral C.I. (warehouse) 0.083 at Interior Insulated (all other)
R-Value of Insulation: 7.6 min. at Integral C.I. / R-18 at interior insul.
Openings (windows or doors with glazing)
U-Value of Assembly: 0.25 max.
Solar Heat Gain Coefficient: Unit shall provide less than 0.25 SHGC
Projection Factor: n/a
Door R-Values: R1.3 min. / U 0.77 max.

Walls Below Grade (each assembly) n/a

Floors Over Unconditioned Space n/a

Floors Slab on Grade
Description of Assembly: slab-on-grade
U-Value of Total Assembly: 0.73
R-Value of Insulation: n/a
Horizontal / Vertical Requirement: n/a
Slab Heated: n/a

LEGEND

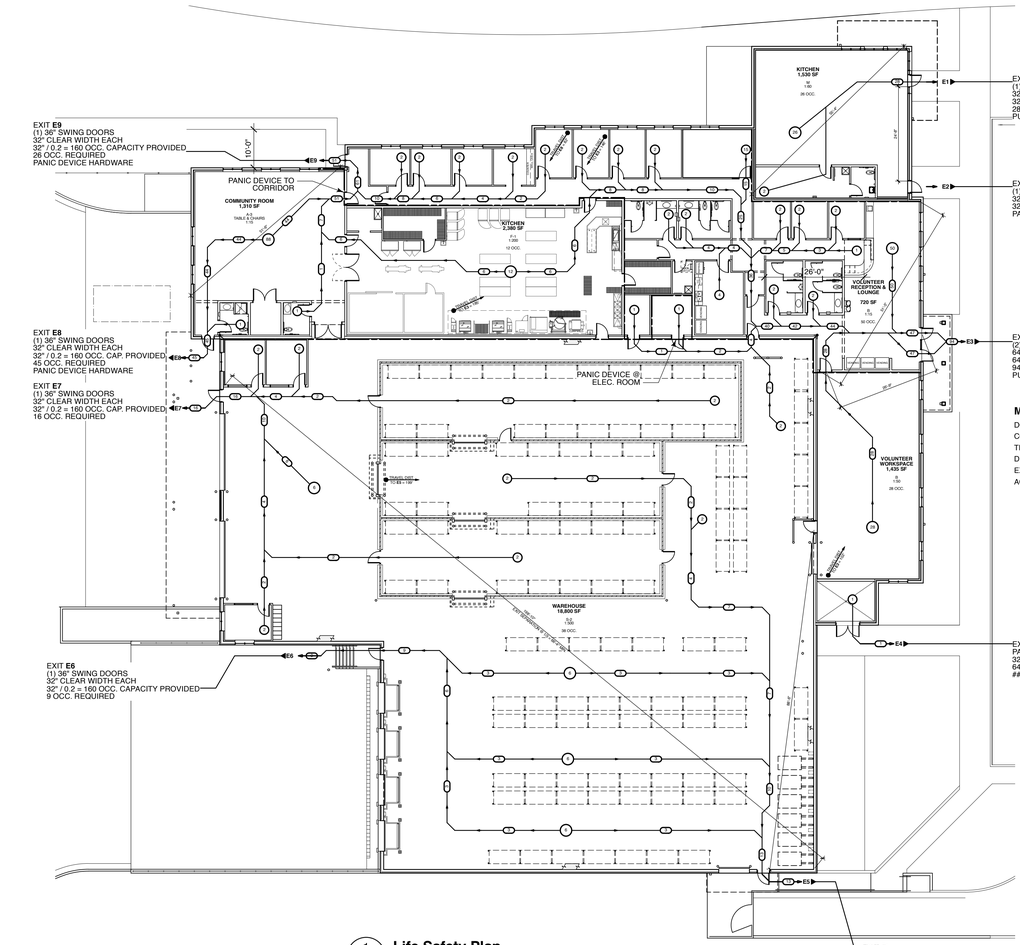
EXIT DISCHARGE DOOR #
(#) ROOM OCCUPANCY LOAD
(#) OCCUPANCY LOAD - PATH OF TRAVEL

FIRST FLOOR OCCUPANCY LOAD TABLE

FIRST FLOOR: 31,105 Total Square Feet

TOTAL OCCUPANTS FOR FIRST FLOOR:
208 TOTAL = 104 WOMEN & 104 MEN

TOTAL:	**208 OCCUPANTS**
WOMEN:	**104**
MEN:	**104**



1 CS-2 **Life Safety Plan**
Scale: 1/16" = 1'-0"

MEANS OF EGRESS DATA:

DOOR CLEAR WIDTH = 32" MIN., TYP. ALL
COMMON PATH OF TRAVEL = 75 FT MAX.
TRAVEL DISTANCE = 250 FT MAX., 199 FT SHOWN
DEAD END CORRIDOR = 50 FT MAX., 26 FT SHOWN
EXITS PER STORY = 2 REQ'D, 9 PROVIDED
ACCESSIBLE MEAN OF EGRESS = 2 MIN., 8 PROVIDED

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REGISTERED LANDSCAPE ARCHITECTS 7487 NORTH CAROLINA WILMINGTON, N.C.

REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

Project Manager	Drawn By AJT
Date May 2021	Reviewed By GCH
Project ID -	

Sheet Title
Building Data and Appendix B

Sheet No.
CS-2

The Wilmington Food Bank
Greenfield Street
Wilmington, North Carolina 28403

1 HOUR RATED PARTITION

1 / CS-3

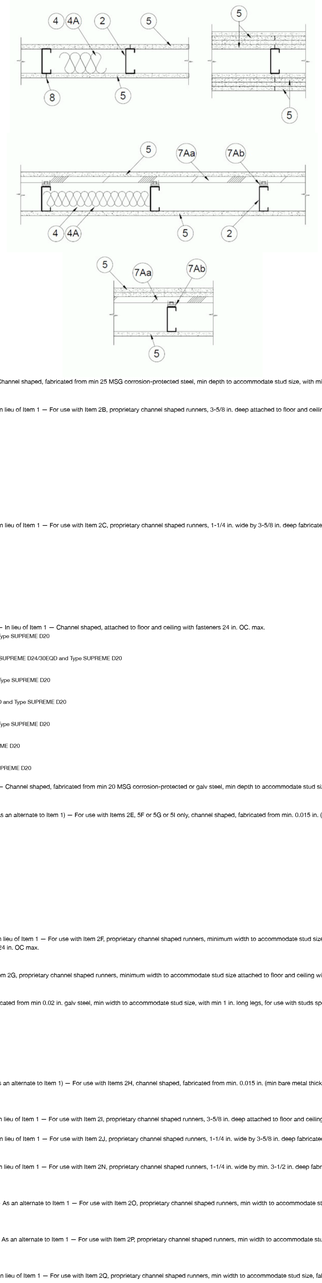
Scale: no scale

Design No. U419

July 31, 2021

Nonbearing Wall Ratings — 1, 2, 3 or 4 Hr (See Items 4 & 5 through 5J)

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



1. **Floor and Ceiling Runners** — (Not Shown) — For use with Item 2 — Channel shaped, fabricated from min 25 MSG corrosion-protected steel, min depth to accommodate stud size, with min 1-1/4 in. long legs, attached to floor and ceiling with fasteners 24 in. OC max.

1A. **Framing Members* — Floor and Ceiling Runner** — Not Shown — In lieu of Item 1 — For use with Item 2B, proprietary channel shaped runners, 3-5/8 in. deep attached to floor and ceiling with fasteners 24 in. OC max.
CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper25™ Track

CRACO MFG INC — SmartTrack25™

MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper25™ Track

FUSION BUILDING PRODUCTS — Viper25™ Track

IMPERIAL MANUFACTURING GROUP INC — Viper25™ Track

1B. **Framing Members* — Floor and Ceiling Runner** — Not Shown — In lieu of Item 1 — For use with Item 2C, proprietary channel shaped runners, 1-1/4 in. wide by 3-5/8 in. deep fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper20™ Track

MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™ Track

FUSION BUILDING PRODUCTS — Viper20™ Track

IMPERIAL MANUFACTURING GROUP INC — Viper20™ Track

1C. **Framing Members* — Floor and Ceiling Runners** — (Not Shown) — In lieu of Item 1 — Channel shaped, attached to floor and ceiling with fasteners 24 in. OC. max.
ALLSTEEL & GYPSUM PRODUCTS INC — Type SUPREME D24/30EQD and Type SUPREME D20

CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV — Type SUPREME D24/30EQD and Type SUPREME D20

QUAIL RUN BUILDING MATERIALS INC — Type SUPREME D24/30EQD and Type SUPREME D20

SCAFCO STEEL STUD MANUFACTURING CO — Type SUPREME D24/30EQD and Type SUPREME D20

STEEL CONSTRUCTION SYSTEMS INC — Type SUPREME D24/30EQD and Type SUPREME D20

TELLING INDUSTRIES L L C — Type SUPREME D24/30EQD and Type SUPREME D20

UNITED METAL PRODUCTS INC — Type SUPREME D24/30EQD and Type SUPREME D20

1D. **Floor and Ceiling Runners** — (Not Shown) — For use with Item 2A — Channel shaped, fabricated from min 20 MSG corrosion-protected or galv steel, min depth to accommodate stud size, with min 1 in. long legs, attached to floor and ceiling with fasteners spaced max 24 in. OC.

1E. **Framing Members* — Floor and Ceiling Runners** — (Not Shown, As an alternate to Item 1) — For use with Items 2E, 5F or 5G or 5I only, channel shaped, fabricated from min. 0.015 in. (min bare metal thickness) galvanized steel, attached to floor and ceiling with fasteners 24 in. OC. max.
CLARKDIETRICH BUILDING SYSTEMS — CD ProTRAK

DMFCWBS L L C — ProTRAK

MBA METAL FRAMING — ProTRAK

RAM SALES L L C — Ram ProTRAK

STEEL STRUCTURAL PRODUCTS L L C — Tri-S ProTRAK

1F. **Framing Members* — Floor and Ceiling Runner** — Not Shown — In lieu of Item 1 — For use with Item 2F, proprietary channel shaped runners, minimum width to accommodate stud size, with 1- 1/8 in. long legs fabricated from min 0.015 in. (min bare metal thickness) galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
SUPER STUD BUILDING PRODUCTS — The Edge

1G. **Framing Members* — Floor and Ceiling Runner** — For use with Item 2G, proprietary channel shaped runners, minimum width to accommodate stud size attached to floor and ceiling with fasteners 24 in. OC max.
STUDCO BUILDING SYSTEMS — CROCSTUD Track

1H. **Floor and Ceiling Runners** — (Not Shown) — Channel shaped, fabricated from min 0.02 in. galv steel, min width to accommodate stud size, with min 1 in. long legs, for use with studs specified below and fabricated from min 0.018 in. galv steel or thicker, attached to floor and ceiling with fasteners spaced max 24 in. OC.
MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™ Track VT100

FUSION BUILDING PRODUCTS — Viper20™ Track VT100

IMPERIAL MANUFACTURING GROUP INC — Viper20™ Track VT100

1I. **Framing Members* — Floor and Ceiling Runners** — (Not Shown, As an alternate to Item 1) — For use with Items 2H, channel shaped, fabricated from min. 0.015 in. (min bare metal thickness) galvanized steel, attached to floor and ceiling with fasteners 24 in. OC. max.
TELLING INDUSTRIES L L C — TRUE-TRACK™

1J. **Framing Members* — Floor and Ceiling Runner** — Not Shown — In lieu of Item 1 — For use with Item 2I, proprietary channel shaped runners, 3-5/8 in. deep attached to floor and ceiling with fasteners 24 in. OC max.

1K. **Framing Members* — Floor and Ceiling Runner** — Not Shown — In lieu of Item 1 — For use with Item 2J, proprietary channel shaped runners, 1-1/4 in. wide by 3-5/8 in. deep fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.

1L. **Framing Members* — Floor and Ceiling Runner** — Not Shown — In lieu of Item 1 — For use with Item 2N, proprietary channel shaped runners, 1-1/4 in. wide by min. 3-1/2 in. deep fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
RESCUE METAL FRAMING, L L C — AlphaTRAK

1M. **Framing Members* — Floor and Ceiling Runners** — Not Shown — As an alternate to Item 1 — For use with Item 2O, proprietary channel shaped runners, min width to accommodate stud size, galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
RONDO BUILDING SERVICES PTY LTD — Rondo Wall Stud

1N. **Framing Members* — Floor and Ceiling Runners** — Not Shown — As an alternate to Item 1 — For use with Item 2P, proprietary channel shaped runners, min width to accommodate stud size, galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
OEG BUILDING MATERIALS — OEG Track

1O. **Framing Members* — Floor and Ceiling Runner** — Not Shown — In lieu of Item 1 — For use with Item 2Q, proprietary channel shaped runners, min width to accommodate stud size, fabricated from min. 25 MSG (0.018 in. min. bare metal thickness), attached to floor and ceiling with fasteners spaced 24 in. OC max.
CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper X Track

2. **Steel Studs** — Channel shaped, fabricated from min 25 MSG corrosion-protected steel, min depth as indicated under Item 5, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.

2A. **Steel Studs** — (As an alternate to Item 2, For use with Items 5B, 5E, 5H, 5J or Type ULIX) — Channel shaped, fabricated from min 20 MSG corrosion-protected or galv steel, 3-1/2 in. min depth, spaced a max of 16 in. OC. Studs friction-fit into floor and ceiling runners. Studs to be cut 5/8 to 3/4 in. less than assembly height.

2B. **Framing Members* - Steel Studs** — (As an alternate to Item 2, For use with Items 5C, 5I or Type ULIX) — Proprietary channel shaped studs, 3-5/8 in. deep spaced a max of 24 in. OC. Studs to be cut 3/4 in less than the assembly height and installed with a 1/2 in. gap between the end of the stud and track at the bottom of the wall. For direct attachment of gypsum board only.
CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper25™

CRACO MFG INC — SmartStrud25™

MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper25™

FUSION BUILDING PRODUCTS — Viper25™

IMPERIAL MANUFACTURING GROUP INC — Viper25™

2C. **Framing Members* — Steel Studs** — Not Shown — In lieu of Item 2 — proprietary channel shaped steel studs, min depth as indicated under Item 5, spaced a max if 24 in. OC, fabricated from min 0.018 in. thick galv steel. Studs cut 3/8 in. to 3/4 in. less in lengths than assembly heights.
CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper20™

MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™

FUSION BUILDING PRODUCTS — Viper20™

IMPERIAL MANUFACTURING GROUP INC — Viper20™

2D. **Framing Members* — Steel Studs** — In lieu of Item 2 — Channel shaped studs, min depth as indicated under Item 5, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
ALLSTEEL & GYPSUM PRODUCTS INC — Type SUPREME D24/30EQD and Type SUPREME D20

CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV — Type SUPREME D24/30EQD and Type SUPREME D20

QUAIL RUN BUILDING MATERIALS INC — Type SUPREME D24/30EQD and Type SUPREME D20

SCAFCO STEEL STUD MANUFACTURING CO — Type SUPREME D24/30EQD and Type SUPREME D20

STEEL CONSTRUCTION SYSTEMS INC — Type SUPREME D24/30EQD and Type SUPREME D20

TELLING INDUSTRIES L L C — Type SUPREME D24/30EQD and Type SUPREME D20

UNITED METAL PRODUCTS INC — Type SUPREME D24/30EQD and Type SUPREME D20

2E. **Framing Members* — Steel Studs** — (Not Shown, As an alternate to Item 2) — For use with Items 5F or 5G or 5I or Type ULIX only, channel shaped studs, min depth as indicated under Item 5F, 5G or 5I, fabricated from min. 0.015 in. (min bare metal thickness) galvanized steel, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
CLARKDIETRICH BUILDING SYSTEMS — CD ProSTUD

DMFCWBS L L C — ProSTUD

MBA METAL FRAMING — ProSTUD

RAM SALES L L C — Ram ProSTUD

STEEL STRUCTURAL PRODUCTS L L C — Tri-S ProSTUD

2F. **Framing Members* — Steel Studs** — Not Shown — In lieu of Item 2 — proprietary channel shaped steel studs, minimum width indicated under Item 5, 1-1/4 in. deep fabricated from min 0.015 in. (min bare metal thickness) galvanized steel. Studs 3/8 in. to 3/4 in. less in lengths than assembly heights.
SUPER STUD BUILDING PRODUCTS — The Edge

2G. **Framing Members* — Steel Studs** — Not Shown — In lieu of Item 2 — proprietary channel shaped studs, minimum width indicated under Item 5, Studs to be cut 3/8 to 3/4 in less than the assembly height.
STUDCO BUILDING SYSTEMS — CROCSTUD

2H. **Framing Members* — Steel Studs** — (Not Shown, As an alternate to Item 2) — Fabricated from min. 0.015 in. (min bare metal thickness) galvanized steel, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
TELLING INDUSTRIES L L C — TRUE-STUD™

2I. **Framing Members* — Steel Studs** —

2J. **Framing Members* — Metal Studs** — Not Shown — In lieu of Item 2 — proprietary channel shaped steel studs, min depth as indicated under Item 5, spaced a max if 24 in. OC, fabricated from min 0.018 in. thick galv steel. Studs cut 3/8 in. to 3/4 in. less in lengths than assembly heights

2K. **Framing Members* — Steel Studs** — As an alternate to Item 2 — For use with Item 1, channel shaped studs, fabricated from min 25 MSG corrosion-protected steel, min depth as indicated under Item 5, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.
EB METAL INC — NITROSTUD

2L. **Framing Members* — Steel Studs** — As an alternate to Item 2 — For use with Item 1, channel shaped studs, fabricated from min 25 MSG corrosion-protected steel, min depth as indicated under Item 5, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.
OLMAR SUPPLY INC — PRIMESTUD

2M. **Framing Members* — Steel Studs** — As an alternate to Item 2 — For use with Item 1, channel shaped studs, fabricated from min 25 MSG corrosion-protected steel, min depth as indicated under Item 5, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.
MARINO/WARE, DIV OF WARE INDUSTRIES INC — StudRite™

2N. **Framing Members* — Steel Studs** — As an alternate to Item 2 — proprietary channel shaped steel studs, min depth 3-1/2 in. and as indicated under Item 5, spaced a max of 24 in. OC, fabricated from min 0.018 in. thick galv steel. Studs cut 3/8 in. to 3/4 in. less in length than assembly height.
RESCUE METAL FRAMING, L L C — AlphaSTUD

2O. **Framing Members* — Steel Studs** — As an alternate to Item 2 — proprietary channel shaped steel studs, min width as indicated under Item 5, galv steel. Studs to be cut 3/8 to 3/4 in. less in lengths than assembly height. Spaced 24 in. OC max.
RONDO BUILDING SERVICES PTY LTD — Rondo Lipped Wall Stud

2P. **Framing Members* — Steel Studs** — As an alternate to Item 2 — proprietary channel shaped steel steel studs, min width as indicated under Item 5, min 25 MSG galv steel. Studs to be cut 3/8 to 3/4 in. less in lengths than assembly height. Spaced 24 in. OC max.
OEG BUILDING MATERIALS — OEG Stud

2Q. **Framing Members* — Steel Studs** — Not Shown — In lieu of Item 2 — For use with Item 1O, proprietary channel shaped steel studs, min depth as indicated under Item 5, spaced a max of 24 in. OC, fabricated from min 25 MSG (0.018 in. min. bare metal thickness). Studs cut 3/8 in. to 3/4 in. less in lengths than assembly heights.
CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper X

3. **Wood Structural Panel Sheathing** — (Optional, For use with Item 5 Only) — (Not Shown) — 4 ft wide, 7/16 in. thick oriented strand board (OSB) or 15/32 in. thick structural 1 sheathing (plywood) complying with DOC PS1 or PS2, or APA Standard PRP-108, manufactured with exterior glue, applied horizontally or vertically to the steel studs. Vertical joints centered on studs, and staggered one stud space from wallboard joints. Attached to studs with flat-head self-drilling tapping screws with a min. head diam. of 0.292 in. at maximum 6 in. OC. in the perimeter and 12 in. OC. in the field. When used, gypsum panels attached over OSB or plywood panels and fastener lengths for gypsum panels increased by min. 1/2 in.

4. **Batts and Blankets*** — (Required as indicated under Item 5) — Mineral wool batts, friction fitted between studs and runners. Min nom thickness as indicated under Item 5.
See **Batts and Blankets** (BNKW or BZJZ) Categories for names of Classified companies.

4A. **Batts and Blankets* —** (Optional) — Placed in stud cavities, any glass fiber or mineral wool insulation bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance.
See **Batts and Blankets** (BNKW or BZJZ) Categories for names of Classified companies.

4B. **Fiber, Sprayed* —** (Optional, for use with Type ULIX) Where insulation is required - Spray applied granulated mineral fiber material. The fiber is applied with adhesive at a minimum density of 4.0 pcf to completely fill the wall cavity in accordance with the application instructions supplied with the product. See **Fiber, Sprayed** (CAJQ).
AMERICAN ROCKWOOL MANUFACTURING, LLC — Type Rockwool Premium Plus

4C. **Foamed Plastic* —** (Where Batts and Blankets*, Item 4, are optional, for use with Item 5K) — Spray applied, foamed plastic insulation, at any thickness from partial fill to completely filling stud cavity, for 2 hour rated assemblies only. When foamed plastic is used, minimum stud depth shall be 3-1/2 in.
CARLISLE SPRAY FOAM INSULATION — Types SealTite Pro Closed Cell (CC), SealTite Pro Open Cell (OC), SealTite Pro OCX, SealTite Pro No Trim 21, SealTite Pro One Zero, Foamulate Closed Cell, Foamulate OCX, Foamulate 70, and Foamulate HFO.

5. **Gypsum Board* —** Gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Vertical joints in adjacent layers (multilayer systems) staggered one stud cavity. Horizontal joints need not be backed by steel framing. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered. Horizontal edge joints and horizontal butt joints in adjacent layers (multilayer systems) staggered a min of 12 in. Horizontal edge joints and horizontal butt joints in adjacent layers (multilayer systems) with Type ULIX need not be staggered. The thickness and number of layers for the 1 hr, 2 hr, 3 hr and 4 hr ratings are as follows:

Gypsum Board Protection on Each Side of Wall

Rating, Hr	Min Stud Depth, in. Items 2, 2C, 2D, 2F, 2G, 2O	No. of Layers & Thkns of Insulation of Panel	Min Thkns of Insulation (Item 4)
1	3-1/2	1 layer, 5/8 in. thick	Optional
1	2-1/2	1 layer, 1/2 in. thick	1-1/2 in.
1	1-5/8	1 layer, 3/4 in. thick	Optional
2	1-5/8	2 layers, 1/2 in. thick	Optional
2	1-5/8	2 layers, 5/8 in. thick	Optional
2	3-1/2	1 layer, 3/4 in. thick	3 in.
3	1-5/8	3 layers, 1/2 in. thick	Optional
3	1-5/8	2 layers, 3/4 in. thick	Optional
3	1-5/8	3 layers, 5/8 in. thick	Optional
4	1-5/8	4 layers, 5/8 in. thick	Optional
4	1-5/8	4 layers, 1/2 in. thick	Optional
4	2-1/2	2 layers, 3/4 in. thick	2 in.

CGC INC — 1/2 in. thick Type C, IP-X2 or IPC-AR; WRC, 5/8 in. thick Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULIX, WRX or WRC; 3/4 in. thick Types IP-X3 or ULTRACODE

THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — 1/2 in. thick Type C and 5/8 in. thick Type SCX

UNITED STATES GYPSUM CO — 1/2 in. thick Type C, IP-X2, IPC-AR or WRC; 5/8 in. thick Type SCX, SGX, SHX, ULIX, WRX, IP-X1, AR, C, WRC, FRX-G, IP-AR, IP-X2, IPC-AR; 3/4 in. thick Types IP-X3 or ULTRACODE

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

USG MEXICO S A DE C V — 1/2 in. thick Type C, IP-X2, IPC-AR or WRC; 5/8 in. thick Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRX, WRC or; 3/4 in. thick Types IP-X3 or ULTRACODE

When Item 7B, **Steel Framing Members***, is used, Nonbearing Wall Rating is limited to 1 Hr. Min. stud depth is 3-1/2 in., min. thickness of insulation (Item 4) is 3 in., and two layers of gypsum board panels (1/2 in. or 5/8 in. thick) shall be attached to furring channels as described in Item 6. One layer of gypsum board panels (1/2 in. or 5/8 in. thick) attached to opposite side of stud without furring channels as described in Item 6.

5A. **Gypsum Board* —** (As an alternate to Item 5) — 5/8 in. thick, 24 to 54 in. wide, applied horizontally as the outer layer to one side of the assembly. Secured as described in Item 6.
CGC INC — Type SHX.

UNITED STATES GYPSUM CO — Type FRX-G, SHX.

USG MEXICO S A DE C V — Type SHX.

5B. **Gypsum Board* —** (Not Shown) — As an alternate to Item 5 when used as the base layer on one or both sides of wall when 5/8 in or 3/4 in. thick products are specified. For direct attachment only to steel studs Item 2A, (not to be used with Item 3) — Nom 5/8 in. or 3/4 in. may be used as alternate to all 5/8 in. or 3/4 in. shown in Item 5, Wallboard Protection on Each Side of Wall table. Nom 5/8 in. or 3/4 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Gypsum board secured to 20 MSG steel studs Item 2A with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. To be used with Lead Batten Strips (see Item 11) or Lead Discs or Tabs (see Item 12).
RAY-BAR ENGINEERING CORP — Type RB-LBG

5C. **Gypsum Board* —** (For Use With Item 2B) — Rating Limited to 1 Hour. 5/8 in. thick, 48 in. wide, Gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. (Vertical Application) - The gypsum board is to be installed on each side of the studs with 1 in. long Type S coated steel screws spaced 8 in. OC starting 4 in. from the edge of the board at the vertical edges and 12 in. OC starting 6 in. from the edge of the board at the center of each board. Gypsum boards are to be secured to the top and bottom track with screws spaced 8 in. OC starting 4 in. from the board edge. Fasteners shall not penetrate through both the stud and the track at the same time. Vertical joints are to be centered over studs and staggered one stud cavity on opposite sides of studs. (Horizontal Application) - The gypsum board is to be installed on each side of the studs with 1 in. long Type S coated steel screws spaced 8 in. OC starting 4 in. from the edge of the board at the vertical edges and 12 in. OC starting 6 in. from the edge of the board at the center of each board. Gypsum boards are to be secured to the top and bottom track with screws spaced 8 in. OC starting 4 in. from the board edge. Fasteners shall not penetrate through both the stud and the track at the same time. All horizontal joints are to be backed as outlined under section Vt of Volume 1 in the Fire Resistive Directory.
CGC INC — Type SCX, ULIX.

THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — Type SCX

UNITED STATES GYPSUM CO — Type SCX, SGX, ULIX.

USG BORAL DRYWALL SFZ LLC — Type SCX

USG MEXICO S A DE C V — Type SCX

5D. **Gypsum Board* —** (As an alternate to Item 5) — 5/8 in. thick, 48 in. wide, applied vertically or horizontally. Secured as described in Item 6. For use with Items 1 and 2 only.
CGC INC — Type USGX

UNITED STATES GYPSUM CO — Type USGX

USG BORAL DRYWALL SFZ LLC — Type USGX

USG MEXICO S A DE C V — Type USGX

5E. **Gypsum Board* —** (Not Shown) — (As an alternate to Item 5 when used as the base layer on one or both sides of wall when 1/2 in. or 5/8 in thick products are specified, For direct attachment only to steel studs Item 2A, not to be used with Item 3). Nominal 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 (or No. 6 by 1-1/4 in. long bugle head fine drilled steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field.
NEW ENGLAND LEAD BURNING CO INC, DBA NELCO — Nelco

5F. **Gypsum Board* —** (As an alternate to Item 5) — For use with Items 1E and 2E and limited to 1 Hour Rating only, Gypsum panels with beveled, square or tapered edges, applied vertically, and fastened to the steel studs with 1 in. long Type S screws spaced 8 in. OC along vertical and bottom edges and 12 in. OC in the field. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Steel stud depth shall be a minimum 3-5/8 in.
THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — Type SCX

UNITED STATES GYPSUM CO — 5/8 in. thick Type SCX, SGX, ULIX

USG BORAL DRYWALL SFZ LLC — 5/8 in. thick Type SCX, SGX

5G. **Gypsum Board* —** (As an alternate to Item 5) — For use with Items 1E and 2E only, Gypsum panels with beveled, square or tapered edges, applied vertically or horizontally, as specified in the table below and fastened to the steel studs as described in Item 6. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Vertical joints in adjacent layers (multilayer systems) staggered one stud cavity. Horizontal joints need not be backed by steel framing. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered. Horizontal edge joints and horizontal butt joints in adjacent layers (multilayer systems) staggered a min of 12 in. The thickness and number of layers for the 2 hr, 3 hr and 4 hr ratings are as follows:

Gypsum Board Protection on Each Side of Wall

Rating, Hr	Min Stud Depth, in. Item 2E	No. of Layers & Thkns of Panel	Min Thkns of Insulation (Item 4)
2	1-5/8	2 layers, 1/2 in. thick	Optional
2	1-5/8	2 layers, 5/8 in. thick	Optional
3	1-5/8	3 layers, 1/2 in. thick	Optional
3	1-5/8	3 layers, 5/8 in. thick	Optional
4	1-5/8	4 layers, 5/8 in. thick	Optional
4	1-5/8	4 layers, 1/2 in. thick	Optional

CGC INC — 1/2 in. thick Type C, IP-X2 or IPC-AR; 5/8 in. thick Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULIX, WRX or WRC; 3/4 in. thick Types IP-X3 or ULTRACODE

THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — 1/2 in. thick Types C and 5/8 in. thick SCX

UNITED STATES GYPSUM CO — 1/2 in. thick Type C, IP-X2, IPC-AR or; 5/8 in. thick Type SCX, SGX, SHX, ULIX, WRX, IP-X1, AR, C, WRC, FRX-G, IP-AR, IP-X2, IPC-AR; 3/4 in. thick Types IP-X3 or ULTRACODE

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

USG MEXICO S A DE C V — 1/2 in. thick Type C, IP-X2, IPC-AR or; 5/8 in. thick Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRX, WRC or; 3/4 in. thick Types IP-X3 or ULTRACODE

5H. **Gypsum Board* —** (Not Shown) — (As an alternate to Item 5 when used as the base layer on one or both sides of wall when 5/8 or 3/4 in thick products are specified. For direct attachment only to steel studs Item 2A, (not to be used with Item 3) - Nom 5/8 or 3/4 in. may be used as alternate to all 5/8 or 3/4 in. shown in Item 5, Wallboard Protection on Each Side of Wall table. Nom 5/8 or 3/4 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over 20 MSG steel studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Gypsum board secured to 20 MSG steel studs Item 2B with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. For Joint Compound see Item 5. To be used with Lead Batten Strips (see Item 11A) or Lead Discs (see Item 12A).
MAYCO INDUSTRIES INC — Type X-Ray Shielded Gypsum

5I. **Gypsum Board* —** (As an alternate to Item 5) — Nom. 5/8 in. thick gypsum panels with beveled, square or tapered edges installed as described in Item 5. Steel stud minimum depth shall be as indicated in Item 5.
CGC INC — Type ULIX, ULX

UNITED STATES GYPSUM CO — Type ULIX, ULX

USG MEXICO S A DE C V — Type ULX

5J. **Gypsum Board* —** (Not Shown) — (As an alternate to Item 5 when used as the base layer on one or both sides of wall when 1/2 in. or 5/8 in thick products are specified, For direct attachment only to steel studs Item 2A, not to be used with Item 3). Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 2 in. wide, max 8 lb long with a max thickness of 0.14 in. placed on the face of studs and attached to the stud with construction adhesive and two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead discs, nominal 3/8 in. diam by max 0.085 in. thick. Compression fitted or adhered over the screw heads. Lead batten strips and discs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".
RADIATION PROTECTION PRODUCTS INC — Type RPP - Lead Lined Drywall

5K. **Gypsum Board* —** (As an alternate to Item 5 when Foam Plastic insulation (Item 4C) is used) — Any 5/8 in. thick, 4 ft. wide, Gypsum Board listed in Item 5 above. Applied vertically with vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Gypsum panels secured to studs with 1 in. long Type S steel screws spaced 8 in. OC at perimeter and in the field. For 2 layer assemblies outer layer will be attached to studs over inner layer with the 1-5/8 in. long steel screws spaced 8 in. OC.

6. **Fasteners** — (Not Shown) — For use with Items 2 and 2F - Type S or S-12 steel screws used to attach panels to studs (Item 2) or furring channels (Item 7). **Single layer systems:** 1 in. long for 1/2 and 5/8 in. thick panels or 1-1/4 in. long for 3/4 in. thick panels, spaced 8 in. OC when panels are applied horizontally, or 8 in. OC along vertical and bottom edges and 12 in. OC in the field when panels are applied vertically. **Single layer system with Type ULIX:** 1 in. long, spaced 12 in. OC in the field and perimeter, when panels are applied horizontally or vertically.**Two layer systems:** First layer- 1 in. long for 1/2 and 5/8 in. thick panels or 1-1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC with screws offset 8 in. from first layer.**Three-layer systems:** First layer- 1 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Third layer- 2-1/4 in. long for 1/2 in., 5/8 in. thick panels or 2-5/8 in. long for 5/8 in. thick panels, spaced 12 in. OC. Screws offset min 6 in. from layer below. **Four-layer systems:** First layer- 1 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Third layer- 2-1/4 in. long for 1/2 in. thick panels or 2-5/8 in. long for 5/8 in. thick panels, spaced 24 in. OC. Fourth layer- 2-5/8 in. long for 1/2 in. thick panels or 3 in. long for 5/8 in. thick panels, spaced 12 in. OC. Screws offset min 6 in. from layer below.

7. **Furring Channels** — (Optional, Not Shown, for single or double layer systems) — Resilient furring channels fabricated from min 25 MSG corrosion-protected steel, spaced vertically a max of 24 in. OC. Flange portion attached to each intersecting stud with 1/2 in. long Type S-12 steel screws. Not for use with Item 5A.

7A. **Framing Members* —** (Optional on one or both sides, not shown, for single or double layer systems) — As an alternate to Item 7, furring channels and Steel Framing Members as described below:
a. **Furring Channels** — Formed of No. 25 MSG galv steel, 2-3/4 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board attached to furring channels as described in Item 6. Not for use with Item 5A.

b. **Steel Framing Members* —** Used to attach furring channels (Item 7Aa) to studs (Item 2). Clips spaced max. 48 in. OC. RSIC-1 and RSIC-1 (2.75) clips secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. RSIC-V and RSIC-V (2.75) clips secured to studs with No. 8 x 9/16 in. minimum self-drilling, S-12 steel screw through the center hole. Furring channels are friction fitted into clips. RSIC-1 and RSIC-V clips for use with 2-3/32 in. wide furring channels.
PAC INTERNATIONAL L L C — Types RSIC-1, RSIC-V, RSIC-1 (2.75), RSIC-V (2.75).

7B. **Framing Members* —** (Optional, Not Shown) — As an alternate to Item 7, for single or double layer systems, furring channels and Steel Framing Members on only one side of studs as described below:
a. **Furring Channels** — Formed of No. 25 MSG galv steel, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Batts and Blankets placed in stud cavity as described in Item 5. Two layers of gypsum board attached to furring channels as described in Item 5. Not for use with Item 5A.

b. **Steel Framing Members* —** Used to attach furring channels (Item 7Ba) to one side of studs (Item 2) only. Clips spaced 48 in. OC., and secured to studs with two No. 8 x 2-1/2 in. coarse drywall screws, one through the hole at each end of the clip. Furring channels are friction fitted into clips.
KINETICS NOISE CONTROL INC — Type Isomax

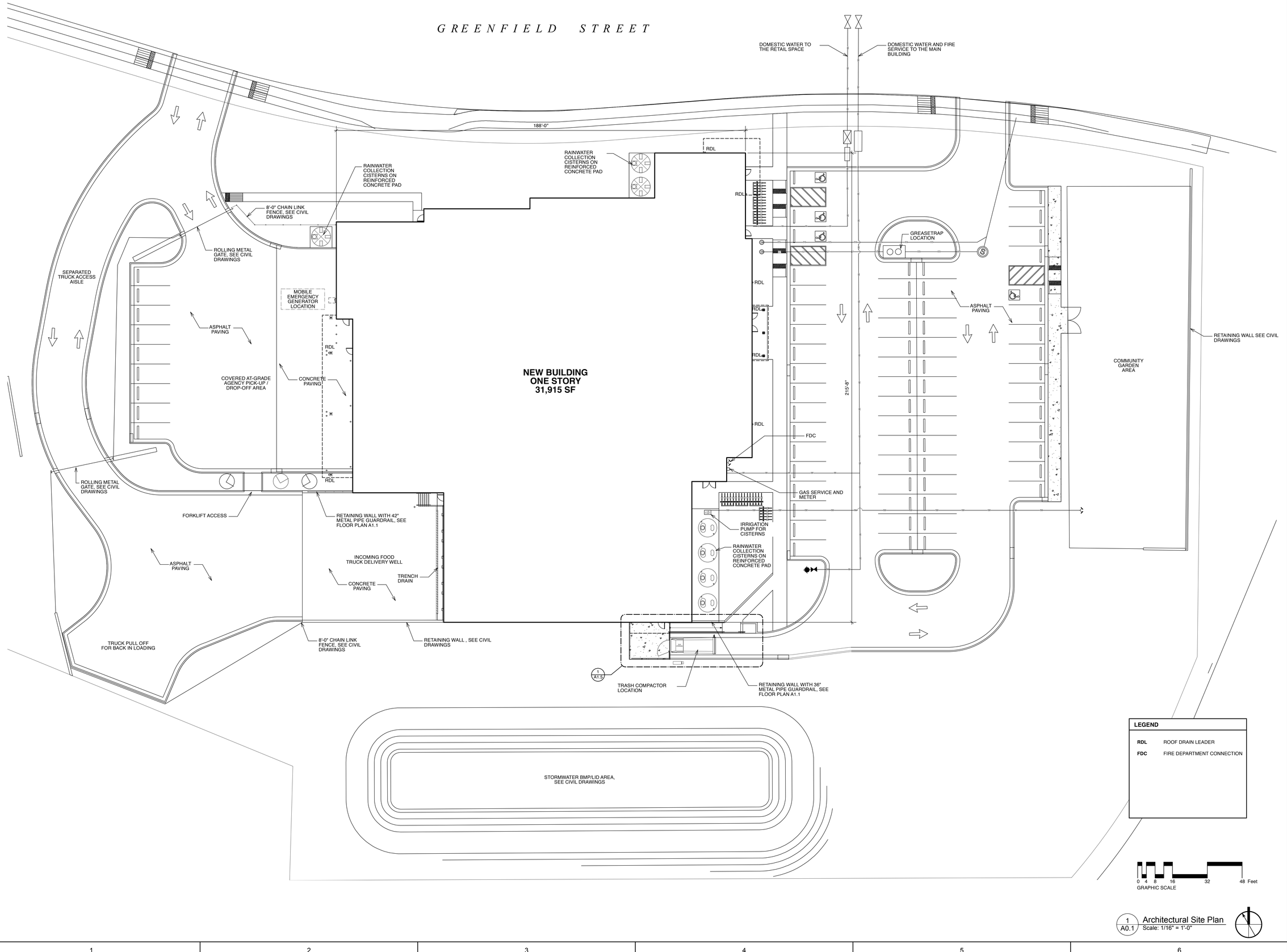
7C. **Framing Members* —** (Not Shown) — (Optional on one or both sides, not shown, for single or double layer systems) — As an alternate to Item 7, furring channels and Steel Framing Members as described below:
a. **Furring Channels** — Formed of No. 25 MSG galv steel. 2-3/8 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board attached to furring channels as described in Item 6. Not for use with Item 5A.

b. **Steel Framing Members* —** Used to attach furring channels (Item 7Ca) to studs (Item 2). Clips spaced max. 48 in. OC. GENIECLIPS secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. Furring channels are friction fitted into clips.
PLITEQ INC — Type GENIECLIP

7D. **Steel Framing Members* —** (Optional on one or both sides, not shown, for single or double layer systems) — Furring channels and Steel Framing Members as described below:
a. **Furring Channels** — Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire.. Gypsum board attached to furring channels as described in Item 6. Not for use with Item 5A.

b. **Steel Framing Members* —** Used to attach furring channels (Item 7Da) to studs. Clips spaced 48 in. OC., and secured to studs with 2 in. coarse drywall screw with 1 in. diam washer through the center hole. Furring channels are friction fitted into clips
STUDCO BUILDING SYSTEMS — RESILMOUNT Sound Isolation Clips - Type A237 *or* A237/R

7E. **Steel Framing Members* —** (Optional on one or both sides, not shown, for single or double layer systems) — Furring channels and Steel Framing Members as described below:
a. **Furring Channels** — Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item 7Eb. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire.. Gypsum board attached to furring channels as described in Item



LEGEND

RDL	ROOF DRAIN LEADER
FDC	FIRE DEPARTMENT CONNECTION

0 4 8 16 32 48 Feet
GRAPHIC SCALE

1 A0.1 Architectural Site Plan
Scale: 1/16" = 1'-0"

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GEORGE CAPERS HEMINGWAY REGISTERED ARCHITECT 7487 NORTH CAROLINA WILMINGTON, NC

The Wilmington Food Bank
Greenfield Street
Wilmington, North Carolina 28403

REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

Project Manager	Drawn By MG/AT
Date 11.10.2021	Reviewed By CH
Project ID -	

Sheet Title
Architectural Site Plan

Sheet No.
A0.1

GREENFIELD STREET

188'-0"

CONC. SIDEWALK

FENCE

ROLLING GATE

CISTERN; CONNECT OVERFLOW TO U.G. DRAINAGE

ASPHALT CONCRETE

MOBILE EMERGENCY GENERATOR LOCATION

PARKING LOT (SEE SITE PLAN)

DASHED LINE OF CANOPY ABOVE

FOOD LOADING DROP-OFF & PICK-UP

6" SLOW STOP BOLLARD (TYP. EXTERIOR)

4" SLOW STOP BOLLARD (TYP. INTERIOR)

COLUMN w/15"x15" CONC. ENCASEMENT TO 72" AFF (TYP. AT EXTERIOR)

OVERHEAD DOOR, MOTORIZED (TYP.)

AGENCY SHOPPING
141

FIRE EXIT ONLY

CISTERNS; CONNECT OVERFLOW TO U.G. DRAINAGE

CONC. PAD (TYP.)

RETAIL ENTRANCE

DASHED LINE OF CANOPY ABOVE (SEE PLAN #4 / A2.1)

THIRD PARTY RETAIL SPACE
103
1,525 SQ FT
1:60 = 25 OCCUPANTS
(NO CEILING - OPEN TO STRUCTURE)

STAFF ENTRY
100

RETAIL STORAGE
102

UNISEX
101

OFFICE 7
108

OFFICE 6
107

OFFICE 5
106

OFFICE 4
105

CONFERENCE ROOM
104

OFFICE 10
110

OFFICE 9
(10'-4" x 9'-4")
112

OFFICE 8
111

MAIL RM
110

VEST.
114

COMMUNITY MEETING ROOM
115
88 PEOPLE / TABLES & CHAIRS
1,410 SQ FT
(NO CEILING - OPEN TO STRUCTURE)

CORRIDOR
109

CAN WASH
114B

STOR.
121

COMMERCIAL KITCHEN
2,333 SQ FT
120

QUARRY TILE BASE (SEE WALL BASE "TB"-#2/A1.2) (TYPICAL KITCHEN & DRY STORAGE)

84"X96" DOUBLE-ACTING DOOR OPENING

WALK-IN FREEZER

WALK-IN REFRIG.

KITCHEN HOOD

MENS
123

WOMENS
129

STOR.
124

STOR.
122

JAN. CLST.
125

MECH. ROOM
126

ELEC. ROOM
127

BREAK ROOM
128

OFFICE 3
131

OFFICE 2
132

OFFICE 1
133

COFFEE / SINK

CORRIDOR
130

RECEPTION
134

MENS
138

WOMENS
139

CORRIDOR
137

VOLUNTEER LOUNGE
135
(NO CEILING)
(OPEN TO STRUCTURE)

VOLUNTEER ENTRANCE
135B

PARKING LOT (SEE SITE PLAN)

DASHED LINE OF CANOPY ABOVE

CONCRETE PATIO

VESTIBULE
116

MENS
117

STORAGE
118

WOMENS
119

OFFICE 12
144

OFFICE 11
145

OFFICE 13
143

(20) LOCKERS

ONE HOUR FIRE BARRIER

4" SLOW STOP DBL RAIL

WALK-IN FREEZER (0')
148
1,960 SF (21' x 93'-4")
(20) RACKS
INSULATED PANEL CEILING
23'-4" C.H.

3 SHELF RACK

FLEXIBLE GUARDRAIL

WALK UNDER TO EXIT

WALK-IN COOLER (45')
147
1,540 SF (21' x 73'-4")
(14) RACKS
INSULATED PANEL CEILING
-4" C.H.

INSULATED ROLL-UP CURTAIN DOOR, MOTORIZED (TYP.)

PREFAB INSULATED PANEL WALL ASSEMBLY (TYP.)

6"x6" CONC. CURB

WALK-IN REFRIGERATOR (36')
146
1,540 SF (21' x 73'-4").H.
(14) RACKS
INSULATED PANEL CEILING

4 SHELF RACK

RISER ROOM
149

SPRINKLER RISER w/FIRE PUMP

RETAINING WALL

42" HIGH PIPE GUARDRAIL, SEE DETAIL 3/A1.5

WAREHOUSE
140

4" SLOW STOP COLUMN PROTECTION

VERTICAL DOCK LEVELER w/ 10" PIT (TYP. 4 LOC.)

TRENCH DRAIN

RAMP DOWN TO LOADING DOCK (SLOPE 1/4 IN./ FT)

T.O. DRAIN (-4'-0")

SLOPE UP TO WALL 1" FROM DRAIN

LOADING DOCK
142

FIN.FL. 0'-0"

TYPICAL 42"x96" POST & BEAM RACK UNIT

PROVIDE 18" WIDE PAINTED WHITE BORDER ALONG EXTERIOR WALL WITHIN WAREHOUSE

FORK LIFT

CISTERNS; CONNECT OVERFLOW TO U.G. DRAINAGE

VOLUNTEER WORK AREA
136
1,423 SQ FT
(NO CEILING)
(OPEN TO STRUCTURE)

42" HIGH PIPE GUARDRAIL, SEE DETAIL 3/A1.5

FENCE, SEE CIVIL DRAWINGS

RETAINING WALL

8' GALV. CHAINLINK FENCE

FACE OF 6" LOADING DOCK PROJECTION

CONCRETE PLATFORM

DASHED LINE OF CANOPY ABOVE

TRASH COMPACTOR AND RAMP PLAN, SEE DETAIL 1/A1.5

190'-8"

LEGEND

- EXTERIOR WALL: TILT-UP CONCRETE WITH INTERIOR INSULATION
- EXTERIOR WALL: TILT-UP CONCRETE WITH INTEGRAL INSULATION
- INTERIOR FRAME PARTITION w/ SOUND ATTENUATION INSUL.
- 1 HOUR FIRE BARRIER
- A — WALL TYPE (SEE SCHEDULE ON SHT#A1.2)
- A — WINDOW DESIGNATION
- 55 — DOOR DESIGNATION
- FD — FLOOR DRAIN
- FX● — SURFACE MOUNTED FIRE EXTINGUISHER
- FEC ■ — SEMI-RECESSED FIRE EXTINGUISHER CABINET
- COORDINATE FIRE EXTINGUISHER LOCATIONS WITH FIRE MARSHALL PRIOR TO INSTALLATION

NOTE:
DIMENSIONS ARE TO FACE OF FRAMING.

0 2 4 8 16 24 Feet
GRAPHIC SCALE

1 A1.1 Floor Plan
Scale: 1/8" = 1'-0"

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REGISTERED LANDSCAPE ARCHITECT — 7487 — NORTH CAROLINA — WILMINGTON, NC

The Wilmington Food Bank

Greenfield Street
Wilmington, North Carolina 28403

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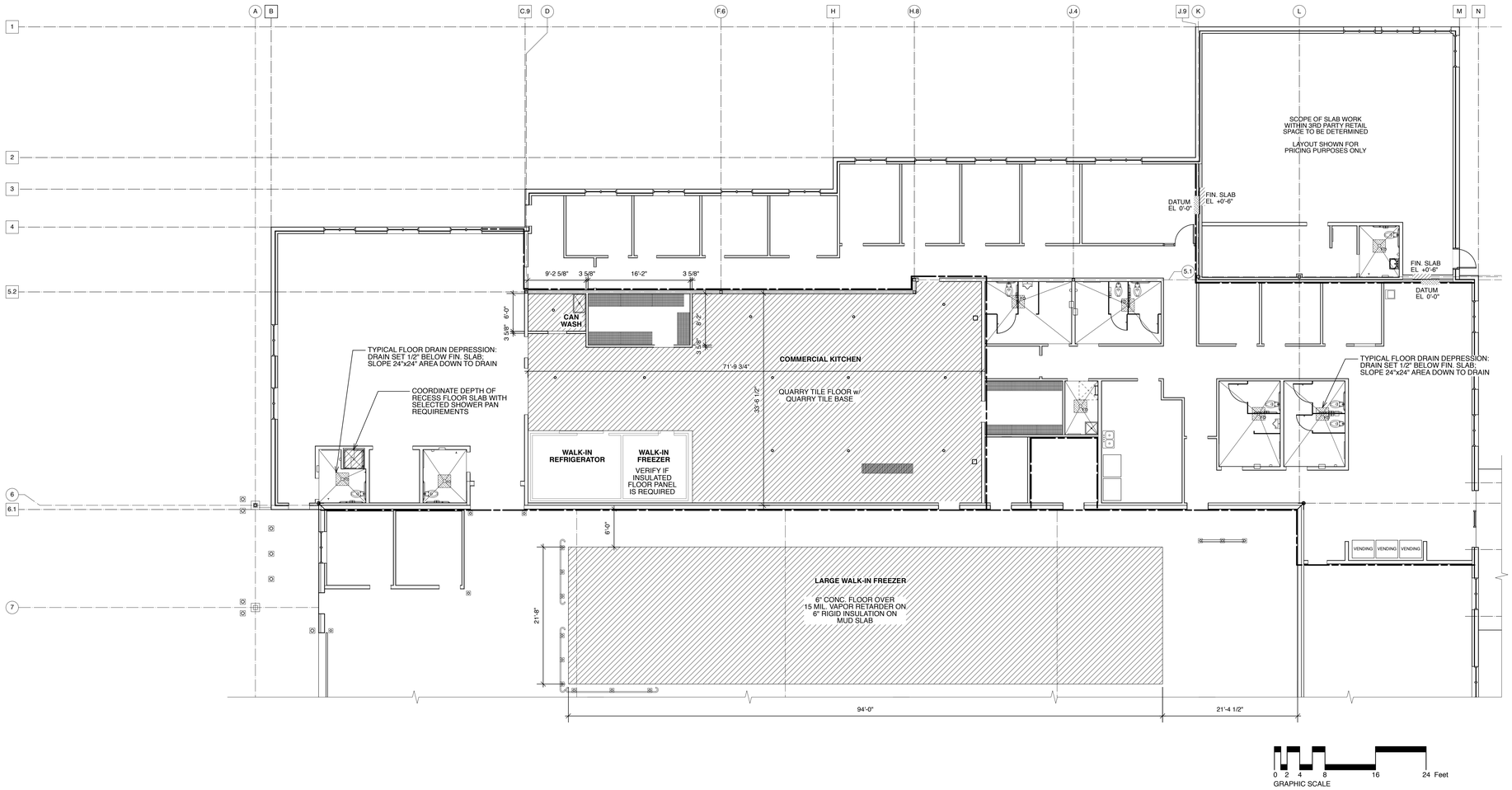
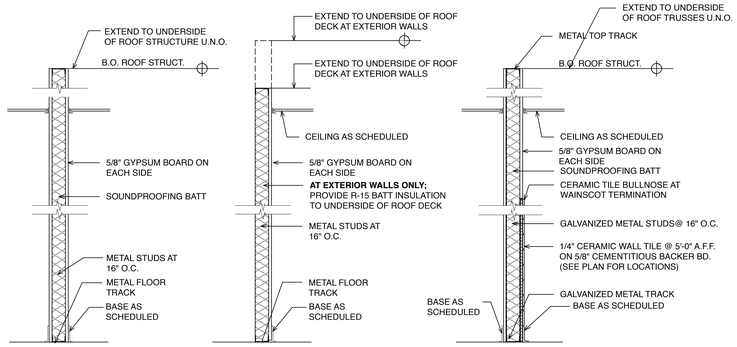
Project Manager	Drawn By MG/DP/AT
Date 11.10.2021	Reviewed By CH
Project ID -	

Sheet Title
First Floor Plan

Sheet No.
A1.1



2 A1.2 Depressed Slab Plan
Scale: 1/8" = 1'-0"

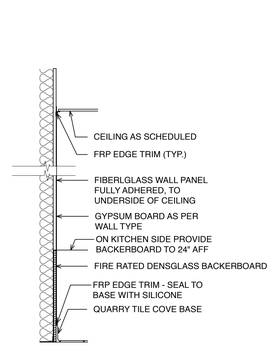


WALL ASSEMBLY TYPE 'A'
A1 = 3 5/8" STUD
A2 = 6" STUD
A3 = 8" STUD

WALL ASSEMBLY TYPE 'F'
F1 = 2 1/2" STUD
F2 = 3 5/8" STUD
F3 = 6" STUD

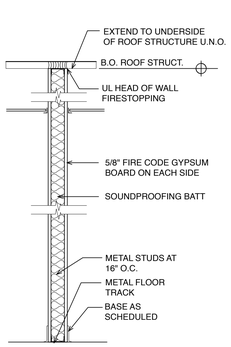
WALL ASSEMBLY TYPE 'T'
T1 = 3 5/8" STUD
T2 = 6" STUD

TILE HEIGHT:
T1 @ ##
T2 @ ##



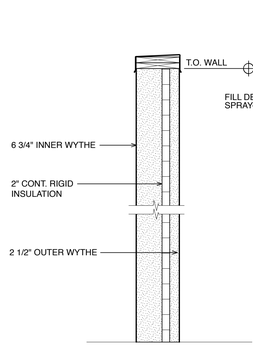
TILE BASE CONDITION 'TB'
USE AT INTERIOR OF KITCHEN AND DRY STORAGE ROOMS

STAINLESS STEEL WALL PANEL HAS SIMILAR INSTALL

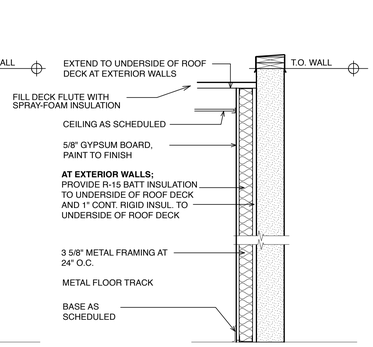


WALL ASSEMBLY TYPE 'X'
X1 = 3 5/8" STUD
X2 = 6" STUD
X3 = 8" STUD

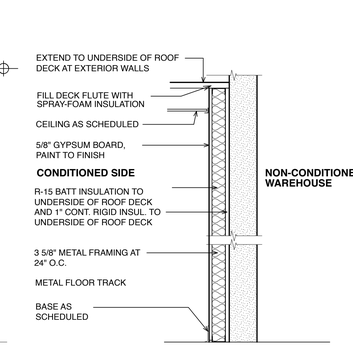
UL ASSEMBLY - U419
(SEE #1 / CS-3)
Follow UL design requirements for rated wall construction.



WALL ASSEMBLY "TI"
TILT-UP CONCRETE SANDWICH PANEL w/INTEGRAL INSULATION



WALL ASSEMBLY "TN"
TILT-UP CONCRETE PANEL NON-INSULATED



WALL ASSEMBLY "TF"
INSULATED FURRED WALL @ TILT-UP CONCRETE PANEL

1 A1.2 Wall Type Schedule
Scale: 3/4" = 1'-0"

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Wilmington, North Carolina 28403

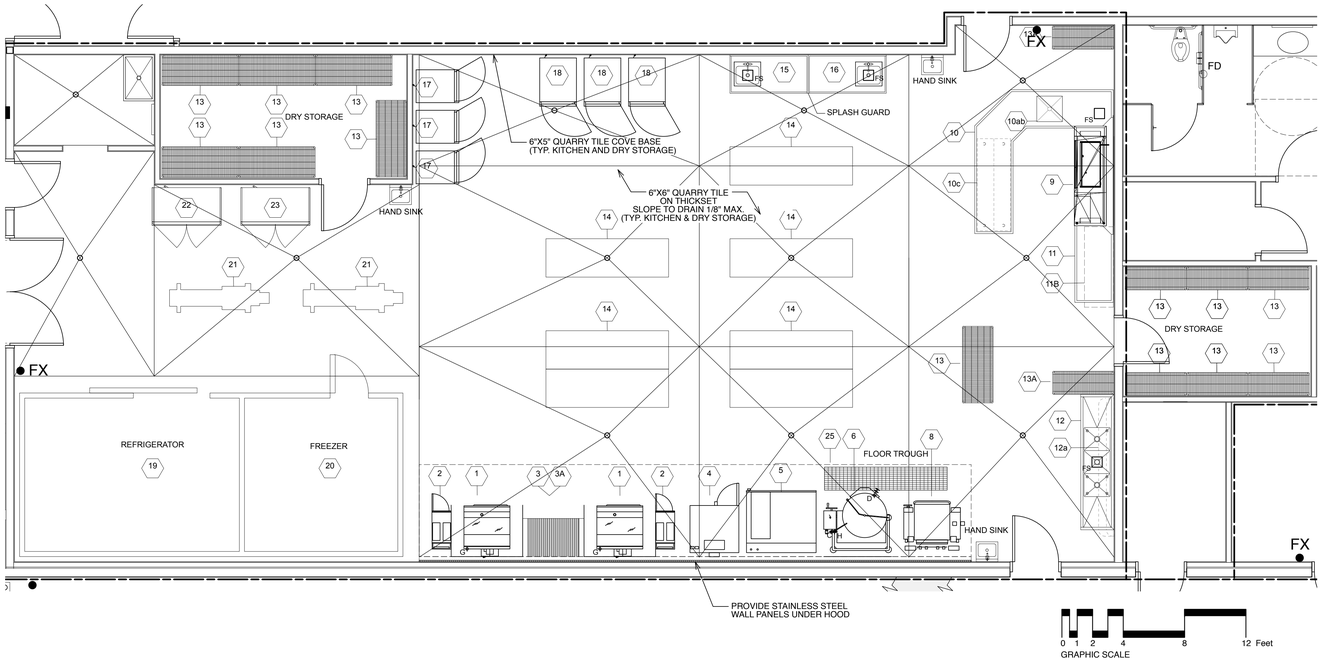
REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

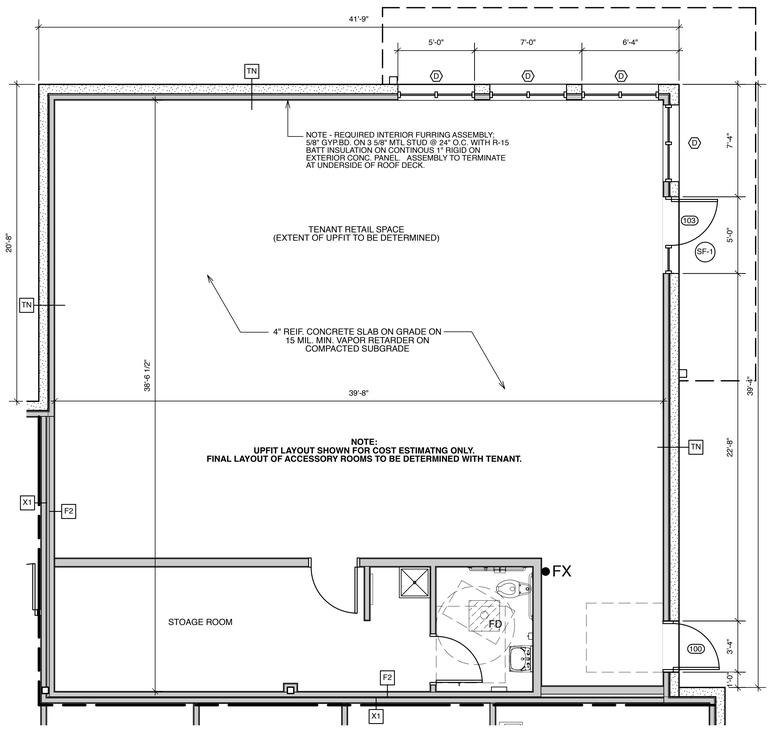
Project Manager	Drawn By MG/DP/AT
Date 11.10.2021	Reviewed By CH
Project ID -	

Sheet Title
Depressed Slab Plan Wall Type Schedule

Sheet No.
A1.2



1 A1.3 Enlarged Kitchen Plan
Scale: 1/4" = 1'-0"



3 A1.3 Retail Space w/Canopy
Scale: 1/4" = 1'-0"

KITCHEN EQUIPMENT SCHEDULE

	NO.	QTY	ITEM / DESCRIPTION	MANUFACTURER	MODEL NUMBER	ELECTRICAL V	PH	AMP	KVA	HP	PLUMBING SUPPLY POC COLD	SUPPLY POC HOT	WASTE SIZE	REMARKS	SUPPLIED BY	INSTALL BY
	1	2	36" NATURAL GAS RANGE W/ 6 BURNERS	VULCAN	36C-6BN ENDURANCE	115	--	15	--	--	--	--	--	QUICK CONNECT GAS KIT AND CASTERS; 215,000BTU	--	--
	2	2	NATURAL GAS FRYER W/ QUICK CONNECT GAS KIT	PITCO	40D	--	--	--	--	--	--	--	--	CASTERS; 107,000btu	--	--
	3	1	GAS GRILL W/ QUICK CONNECT GAS KIT	GLOBE	GCB48G-RK	--	--	--	--	--	--	--	--	QUICK CONNECT GAS KIT; 160,000btu	--	--
	3a	1	STAINLESS STEEL EQUIPMENT STAND W/ CASTERS	REGENCY	30" X 48"	--	--	--	--	--	--	--	--	--	--	--
	4	1	DOUBLE GAS CONVECTION OVEN	BLODGETT	SHO 100G	115	1	6	--	--	--	--	--	RECOMMEND PASS & SEYMOUR, MODEL 2095, GFCI	--	--
	5	1	COMBINATION OVEN W/ SMOKING KIT	LAINOX	NAGB 102	115	1	15	--	--	--	--	--	140,000btu	--	--
	6	1	TILTING STEAM JACKETED KETTLE	CLEVELAND	KGL80T	115	1	10	--	--	1/2"	1/2"	--	190,000btu	--	--
OMIT #7	~~7~~	~~1~~	~~GAS STOCK POT RANGE W/ QUICK CONNECT GAS~~	~~VULCAN~~	~~VSP100~~	--	--	--	--	--	--	--	--	~~QUICK CONNECT GAS KIT; 110,000btu~~	--	--
	8	1	GAS TILTING SKILLET 40 GALLON	GROEN	BPM 40 GC	115	1	5	--	--	--	--	--	QUICK CONNECT GAS KIT; 144,000btu	--	--
	9	1	CONVEYOR RACK MACHINE	CHAMPION	70 DRFFPW	208	3	74	--	--	--	--	--	LOW TEMP HIGH EFFICIENCY;SPECIFY DIRECTION OF OPERATION WHEN ORDERING	--	--
	10	**1**	**CUSTOM STAINLESS STEEL DIRTY SIDE DISH TABLE**	**TITAN**	--	--	--	--	--	--	--	--	--	**PROVIDE SPLASH GUARD BEHIND SINK**	--	--
	10a	1	STRAINER	REGENCY	STRAINER	--	--	--	--	--	--	--	--	--	--	--
	10b	1	PREWASH FIXTURE W/ SPRAYER	T&S	5PR-8W00	--	--	--	--	--	--	--	--	--	--	--
	10c	**1**	**DISHTABLE RACK**	**ADVANCE TABCO**	**DTA-79S**	--	--	--	--	--	--	--	--	--	--	--
	11	1	30" X 60" STAINLESS STEEL CLEAN DISH TABLE	REGENCY	--	--	--	--	--	--	--	--	--		--	--
	11c	**1**	**63" STAINLESS STEEL CLEAN DISH SHELF**	**REGENCY**	**600WR63**	--	--	--	--	--	--	--	--	**WALL MOUNTED**	--	--
	12	**1**	**3-COMPARTMENT SINK W/ DUAL DRAINBOARDS**	**JOHN BOOS**	**3PB1824-2D24**	--	--	--	--	--	--	--	--	16 GAUGE, 24" DRAIN BOARDS, 18x24x12 BOWLS	--	--
	12a	**1**	**POT RACK, 108", WALL MOUNTED**	**ADVANCE TABCO**	**GW-108**	--	--	--	--	--	--	--	--	16 GAUGE, 24" DRAIN BOARDS, 18x24x12 BOWLS	--	--
	13	9	72" H GREEN EPOXY 4-SHELF UNIT W/ CASTERS	METRO	24" X 60"	--	--	--	--	--	--	--	--	--	--	--
	13a	4	72" H GREEN EPOXY 4-SHELF UNIT W/ CASTERS	METRO	18" X 46"	--	--	--	--	--	--	--	--	--	--	--
	14	8	30" X 96" SS WORK TABLE W/ UNDERSHELF	REGENCY	30" X 96"	--	--	--	--	--	--	--	--	--	--	--
	15	1	SS PREP COUNTER W/ 18" X 18" BOWL OPEN BASE	TITAN	--				--	--	--	--	--	**PROVIDE SPLASH GUARD BETWEEN #15 AND #16**	--	--
	16	1	SS PREP COUNTER W/ 18" X 18" BOWL OPEN BASE	TITAN	--				--	--	--	--	--	--	--	--
	17	3	INSULATED HOT HOLDING CABINET	CRES COR	H-135 UA-11	115	1	13	--	--	--	--	--	--	--	--
	18	3	QUICKTHERM OVEN	CRES COR	RO-151-FUA-18DE	208	1	50	--	--	--	--	--	--	--	--
	19	1	14' X 10' WALK-IN COOLER W/ AIR CURTAIN	BROWN	--	--	--	--	--	--	--	--	--	--	--	--
	20	1	10' X 10' WALK-IN FREEZER W/ 42" SWING DOOR	BROWN	--	--	--	--	--	--	--	--	--	--	--	--
	21	2	TRAY SEALING SYSTEM	OLIVER	MX2	115	1	6	--	--	--	--	--	--	--	--
	22	1	2-DOOR FREEZER W/ CASTERS	BEVERAGE AIR	FB49HC	115	1	11		3/4				--	--	--
	23	1	2-DOOR REFRIGERATOR W/ CASTERS	BEVERAGE AIR	RB 49HC-1S	115	1	5.4		1/3				--	--	--
	24	**-**	**KITCHEN HOOD (SEE MECHANICAL DRAWINGS)**	--	--									**PROVIDE STAINLESS STEEL WALL PANELS UNDER HOOD**	--	--
	25	**-**	**FLOOR TROUGH w/GRATE, 96"**	**REGENCY**	**600FT1896SS**										--	--

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REV.	DATE	DESCRIPTION

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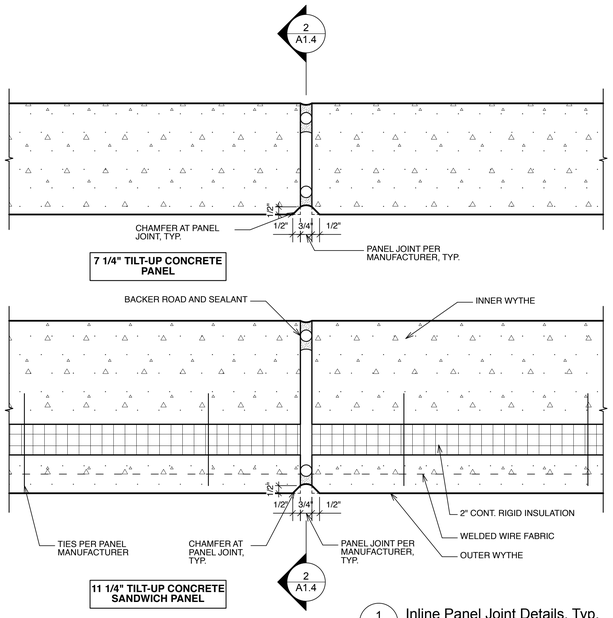
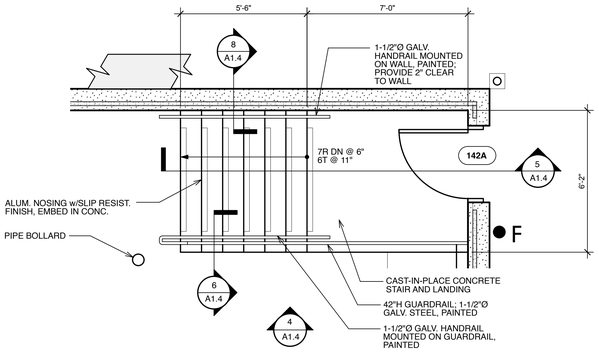
Project Manager	Drawn By MG/DP/AT
Date 11.10.2021	Reviewed By CH
Project ID -	

Sheet Title
Enlarged Kitchen Plan

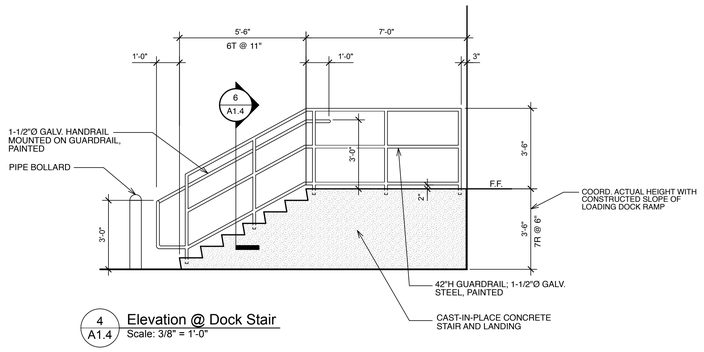
Sheet No.
A1.3



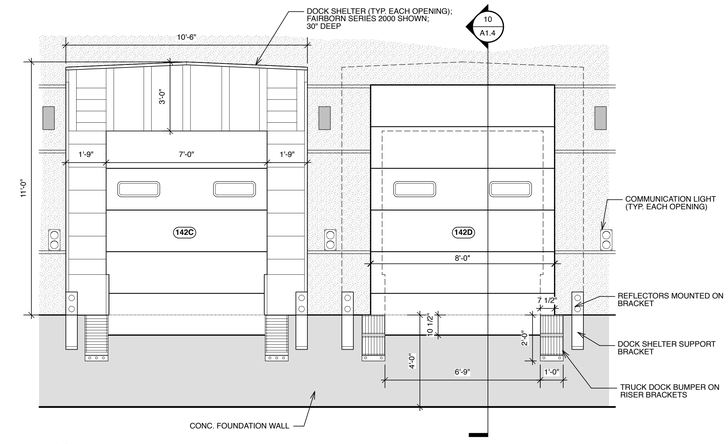
1 A1.4 Inline Panel Joint Details, Typ.
Scale: 3" = 1'-0"



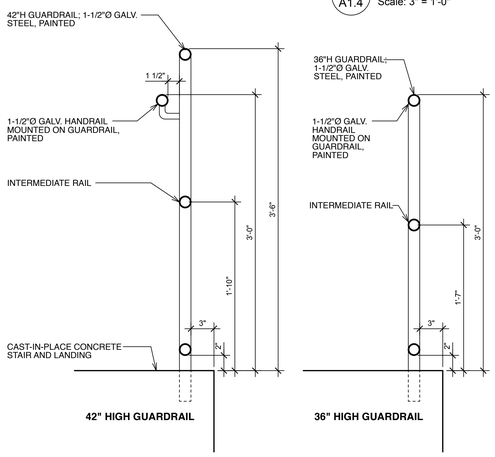
3 A1.4 Plan @ Dock Stair
Scale: 3/8" = 1'-0"



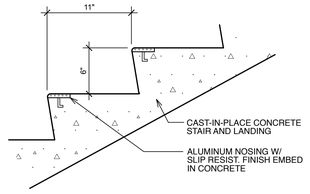
4 A1.4 Elevation @ Dock Stair
Scale: 3/8" = 1'-0"



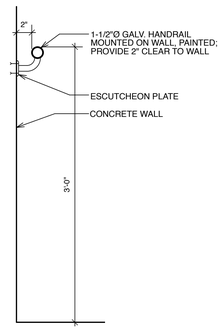
11 A1.4 Partial Elevation @ Truck Dock
Scale: 3/8" = 1'-0"



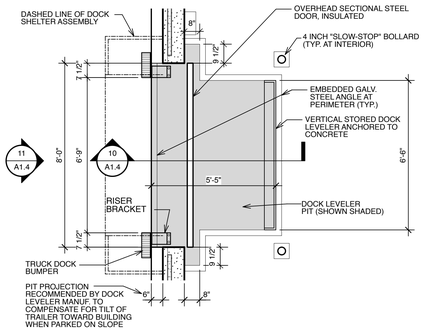
6 A1.4 Section @ Guardrail
Scale: 1 1/2" = 1'-0"



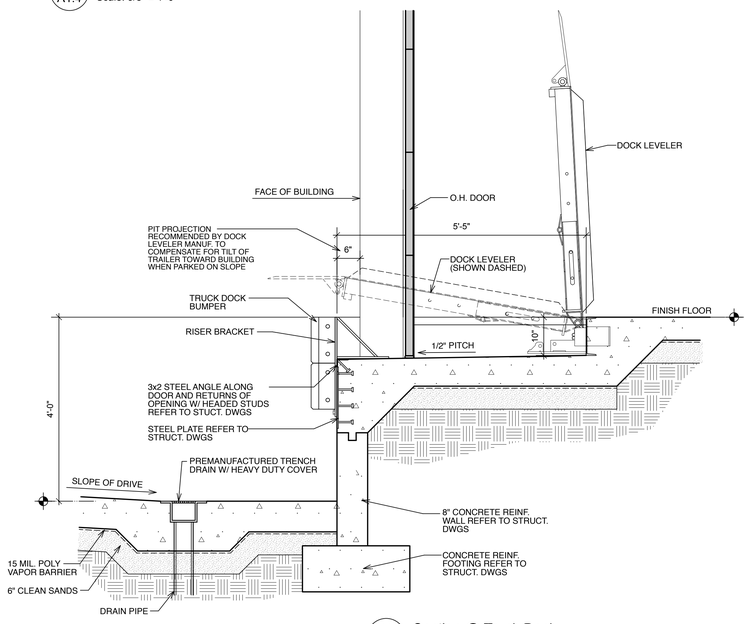
7 A1.4 Section @ Stair Tread
Scale: 1 1/2" = 1'-0"



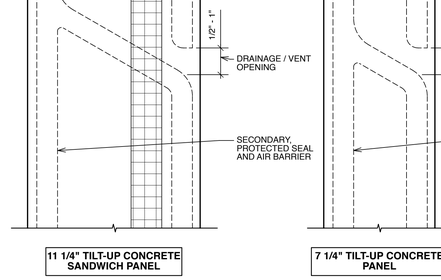
8 A1.4 Detail @ Handrail
Scale: 1 1/2" = 1'-0"



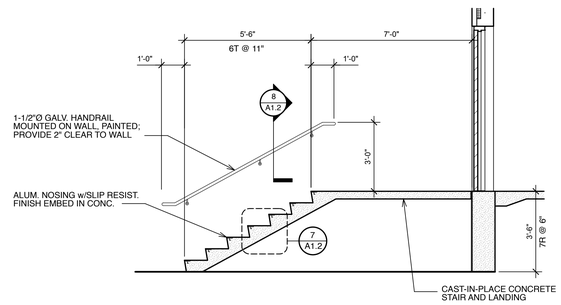
9 A1.4 Enlarged Plan @ Truck Dock
Scale: 3/8" = 1'-0"



10 A1.4 Section @ Truck Dock
Scale: 3/4" = 1'-0"



2 A1.4 Inline Panel Joint / Weep Section, Typ.
Scale: 3" = 1'-0"



5 A1.4 Section @ Dock Stair
Scale: 3/8" = 1'-0"

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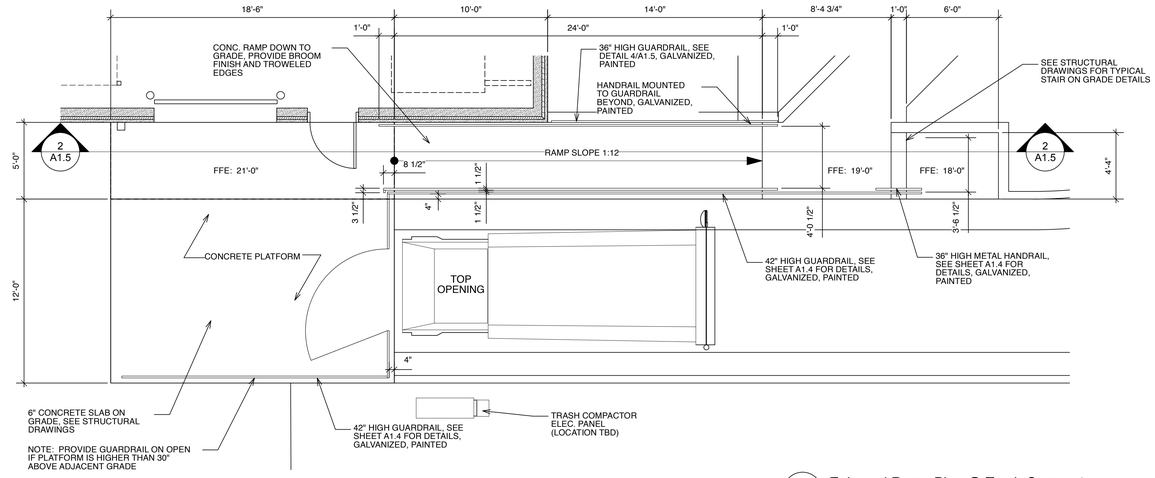
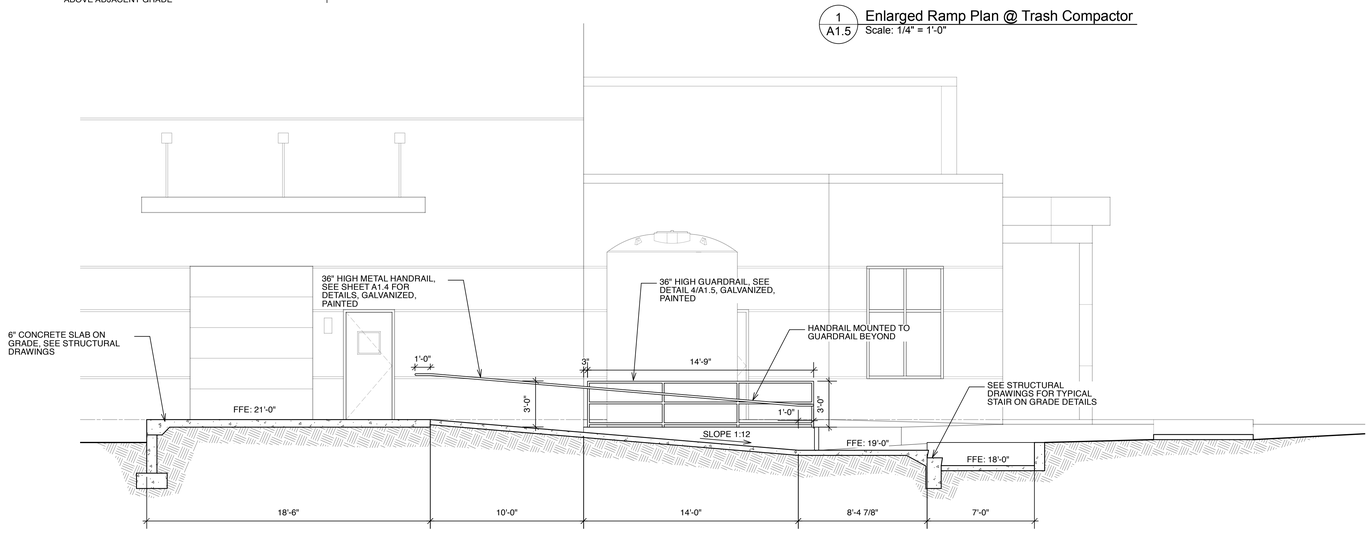
Sheet Title
Enlarged Plans & Details

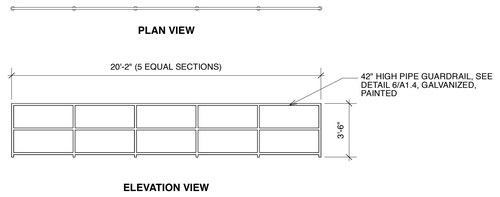
Sheet No.
A1.4



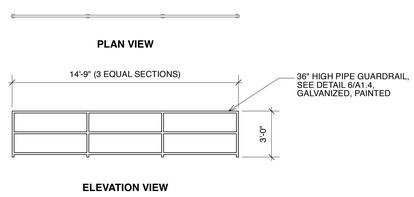
1 A1.5 Enlarged Ramp Plan @ Trash Compactor
Scale: 1/4" = 1'-0"



2 A1.5 Ramp Section @ Trash Compactor
Scale: 1/4" = 1'-0"



3 A1.5 Guardrail @ Loading Dock
Scale: 1/4" = 1'-0"



4 A1.5 Guardrail @ Trash Compactor
Scale: 1/4" = 1'-0"

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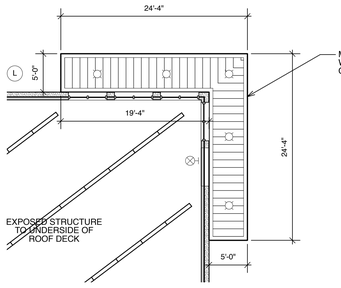
Project ID -	

Sheet Title

Enlarged Plans and Details

Sheet No.

A1.5



3 A2.1 Reflected Ceiling at Retail Canopy
Scale: 1/8" = 1'-0"

2 A2.1 Reflected Ceiling at Trash Compactor Canopy
Scale: 1/8" = 1'-0"

CEILING PLAN GENERAL NOTES

1. CEILING HEIGHTS INDICATED ARE NOMINAL. IF FIXTURE DOES NOT INDICATE HEIGHT ARCHITECT TO BE CONTACTED FOR THIS INFORMATION.
2. CONTRACTOR IS REQUIRED TO CONSULT WITH ARCHITECT PRIOR TO ADDING SOFFITS OR ALTERING CEILING HEIGHTS INDICATED.
3. REFER TO ELECTRICAL DRAWINGS FOR LIGHT FIXTURE DESIGNATION AND FULL SCOPE OF LIGHT FIXTURES.

CEILING PLAN SYMBOLS LEGEND

SOLAR TUBE SYMBOLS

- SOLAR TUBE LIGHTING

LIGHTING SYMBOLS
(SEE ALSO ELECTRICAL DRAWINGS)

- SURFACE MOUNTED / SHORT PENDANT FIXTURE
- UNDER CABINET LIGHTING
- GYPSUM WALLBOARD CEILING
- 2X2 LAY-IN ACOUSTICAL CEILING TILE
- 2X2 LAY-IN GRID FIXTURE
- 2X4 LAY-IN GRID FIXTURE
- PENDANT LINEAR
- FLUSH MOUNT FIXTURE
- WALL SCONCE
- 4'-0" SUSPENDED UTILITY FIXTURE
- EXIT LIGHT, SEE ELECTRICAL DRAWINGS

MECHANICAL; LOW VOLTAGE; & MISC. CEILING SYMBOLS
(SEE ALSO MECHANICAL DRAWINGS)

- SUPPLY DIFFUSER
- RETURN AIR GRILL
- EXHAUST FAN
- SPRINKLER HEAD
- ACCESS PANELS & ROOF ACCESS HATCHES

CEILING TYPE LEGEND

CEILING TAG

A | ELEV. — TYPE / HEIGHT

- ACT-1 | ELEV. — TEGULAR 2X2 ACOUSTIC CEILING TILE SYSTEM; FINE FISSURED TILE WITH STANDARD NRC RATING.
- ACT-2 | ELEV. — SQUARE EDGE 2X2 ACOUSTIC CEILING TILE SYSTEM; FINE FISSURED TILE WITH STANDARD NRC RATING.
- ACT-3 | ELEV. — SQUARE EDGE 2X2 ACOUSTIC CEILING TILE SYSTEM; WASHABLE CEILING TILE.
- GWB | ELEV. — GYPSUM WALL BOARD ON FRAMING OR SUSPENDED GRID

PARTITION HEIGHT LEGEND

- PARTITION TERMINATES AT 6" ABOVE FINISH CEILING; BRACE TO STRUCTURE AS NECESSARY
- PARTITION FRAMING AND ONE SIDE OF GYPSUM WALLBOARD EXTENDS TO UNDERSIDE OF ROOF DECK.
- PARTITION FRAMING AND BOTH SIDES OF GYPSUM WALLBOARD EXTENDS TO UNDERSIDE OF ROOF DECK.

GRAPHIC SCALE: 0 2 4 8 16 24 Feet

1 Reflected Ceiling Plan
Scale: 1/8" = 1'-0"

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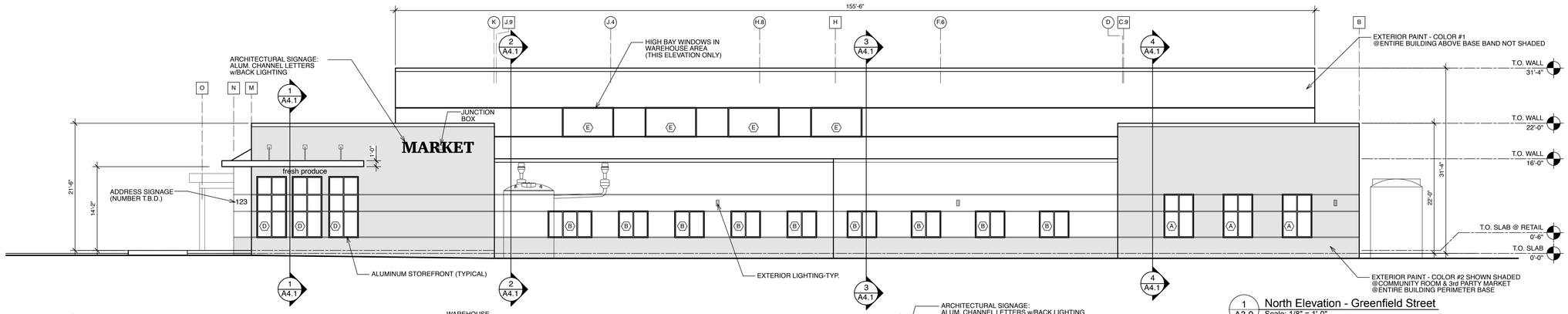
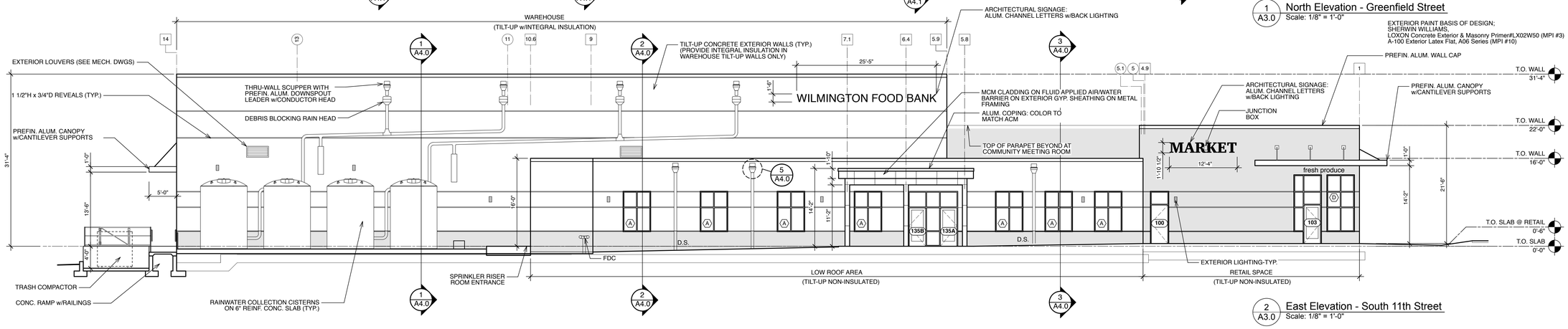
Project ID	-

Sheet Title
Reflected Ceiling Plan

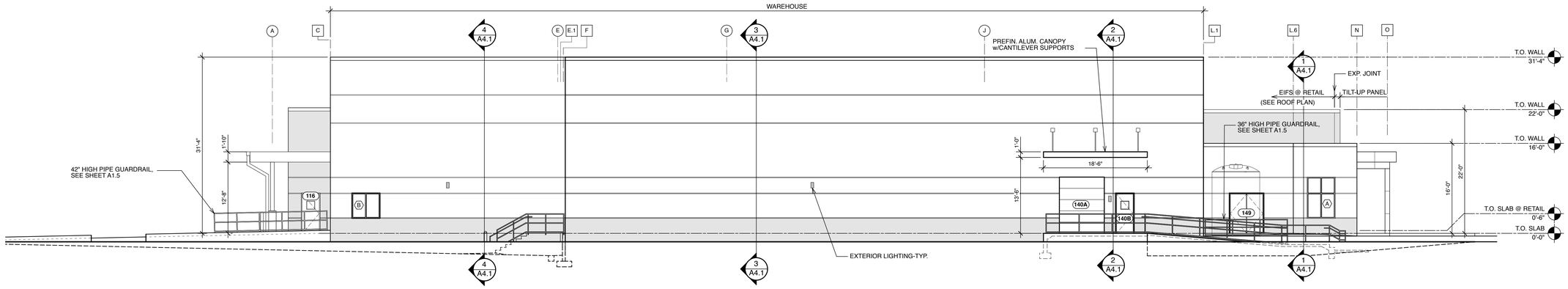
Sheet No.
A2.1



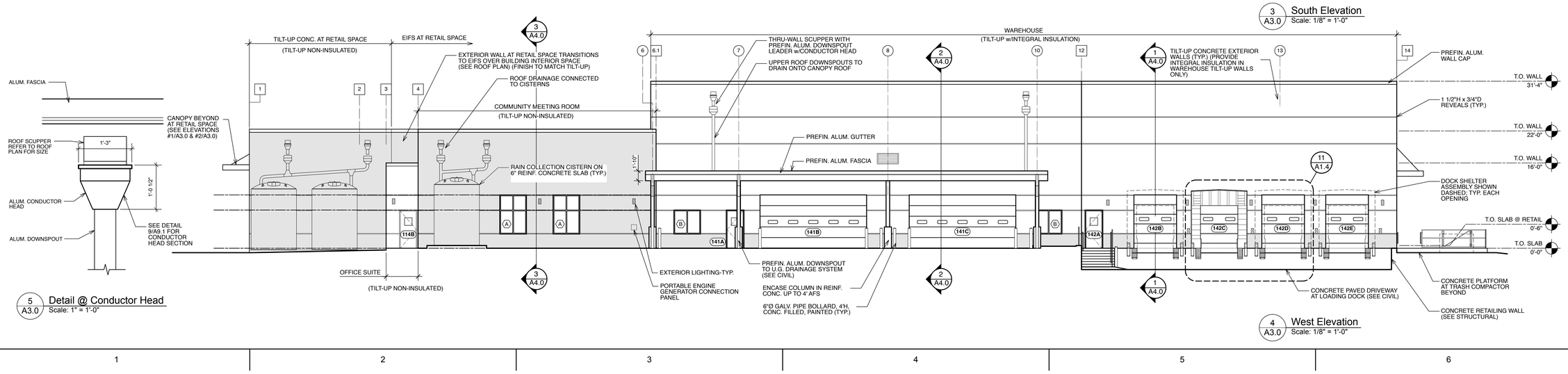
1 A3.0 North Elevation - Greenfield Street
Scale: 1/8" = 1'-0"



2 A3.0 East Elevation - South 11th Street
Scale: 1/8" = 1'-0"



3 A3.0 South Elevation
Scale: 1/8" = 1'-0"



4 A3.0 West Elevation
Scale: 1/8" = 1'-0"

5 A3.0 Detail @ Conductor Head
Scale: 1" = 1'-0"

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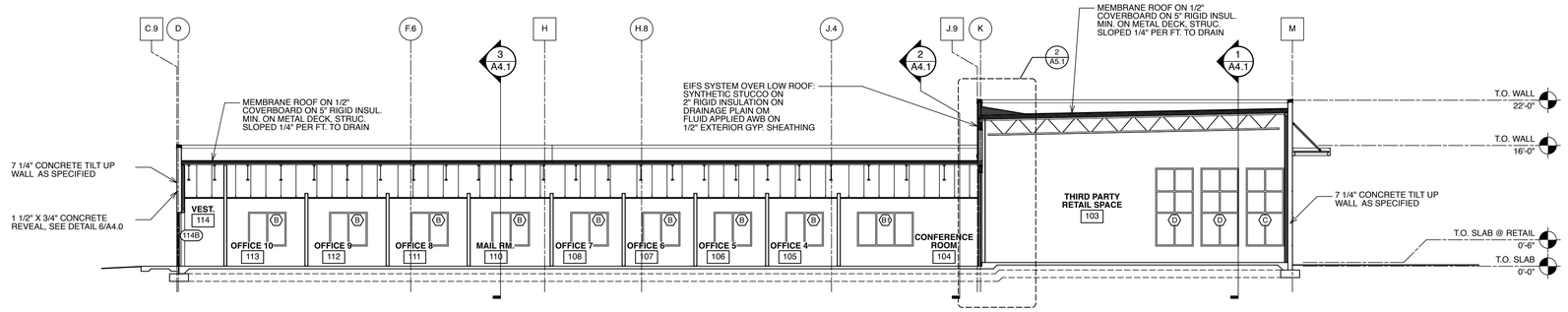
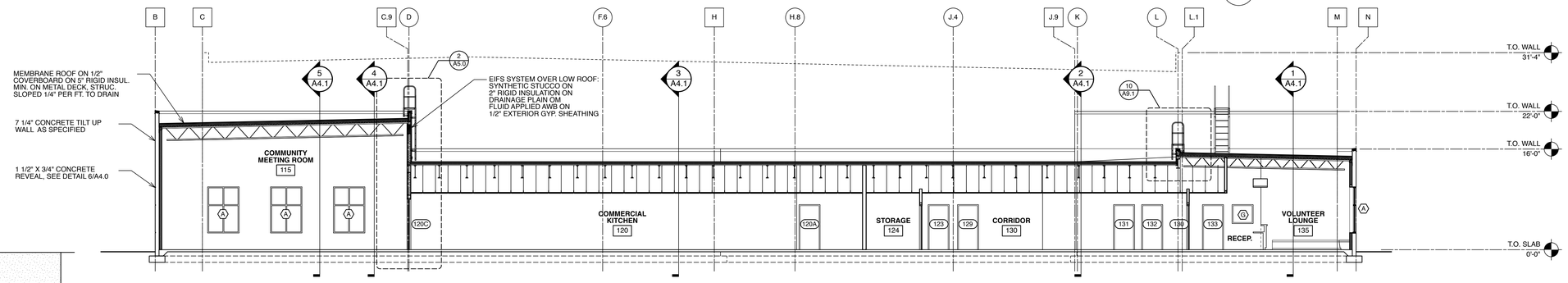
Sheet Title
Exterior Elevations

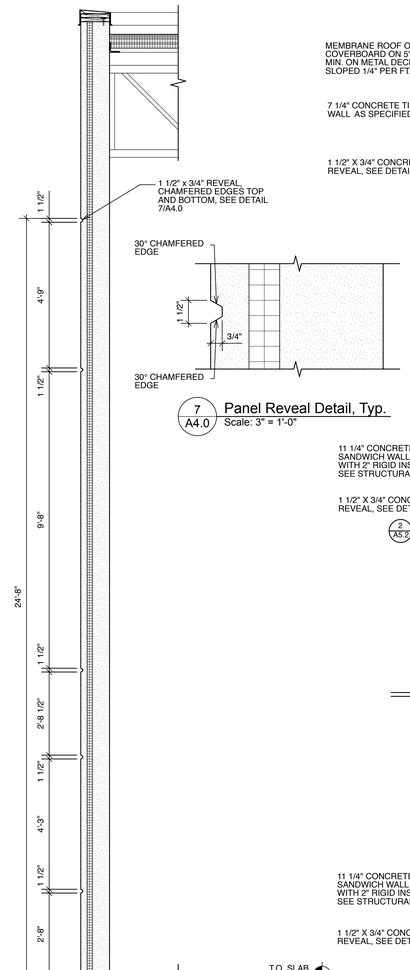
Sheet No.
A3.0



4 A4.0 Building Section
Scale: 1/8" = 1'-0"

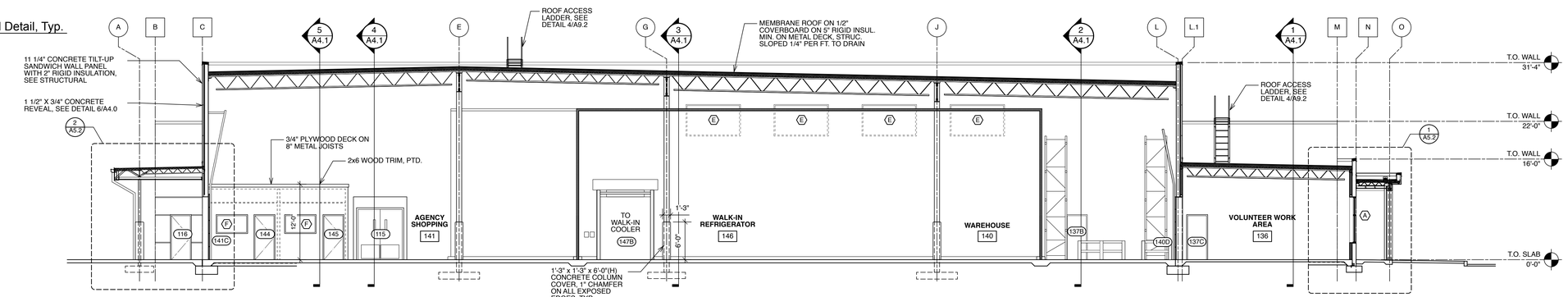


3 A4.0 Building Section
Scale: 1/8" = 1'-0"

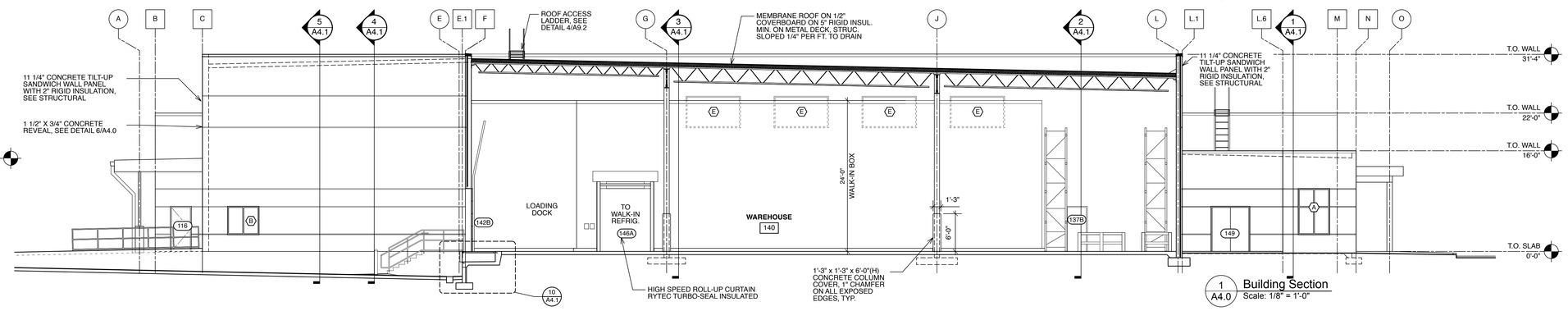


7 A4.0 Panel Reveal Detail, Typ.
Scale: 3" = 1'-0"

6 A4.0 Enlarged Panel Reveal Layout
Scale: 1/2" = 1'-0"



2 A4.0 Building Section
Scale: 1/8" = 1'-0"



1 A4.0 Building Section
Scale: 1/8" = 1'-0"

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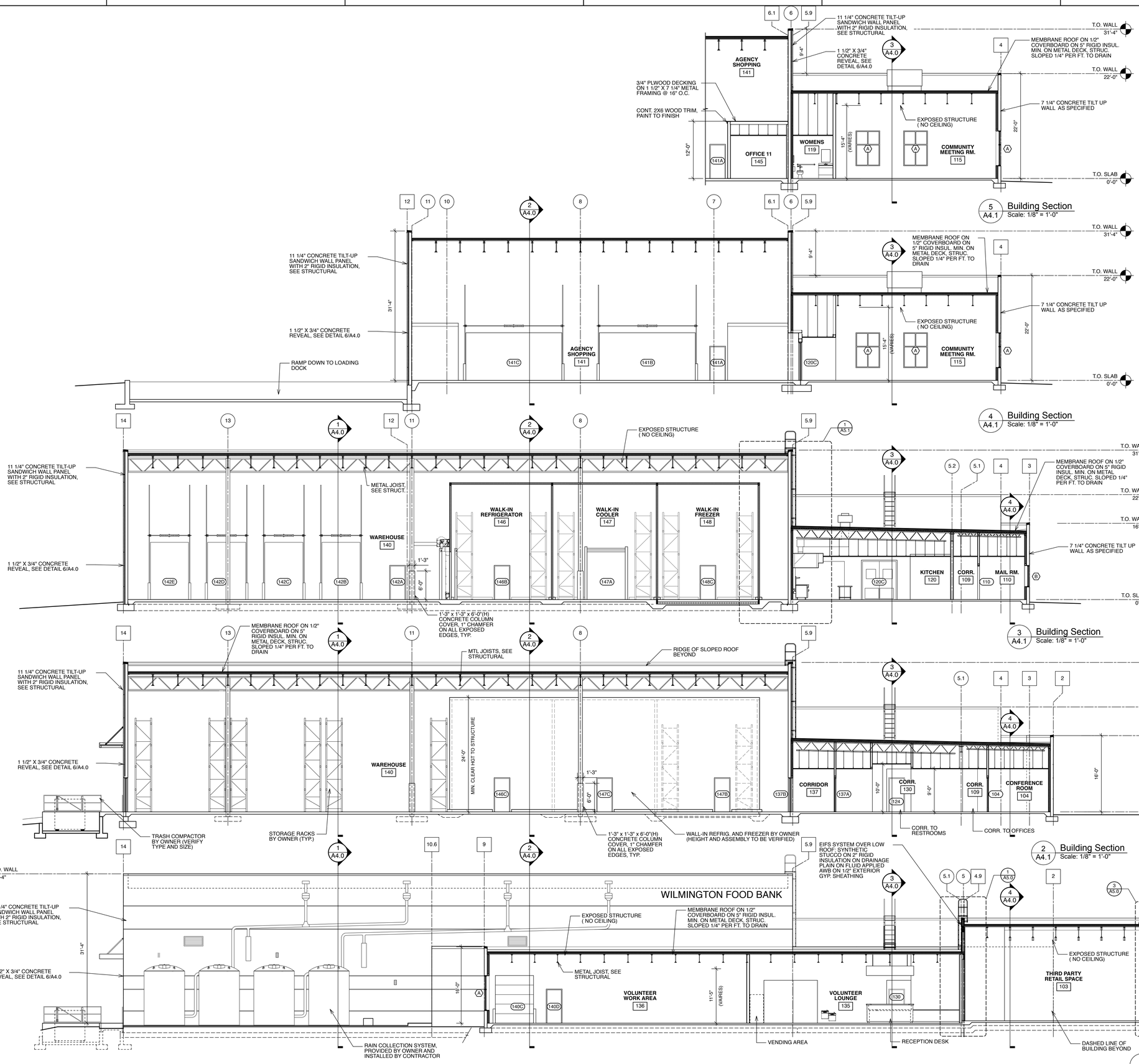
Project Manager	Drawn By: MEG
Date: 11.10.2021	Reviewed By: GCH
Project ID: -	

Sheet Title
Building Sections

Sheet No.
A4.0



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Date	Reviewed By
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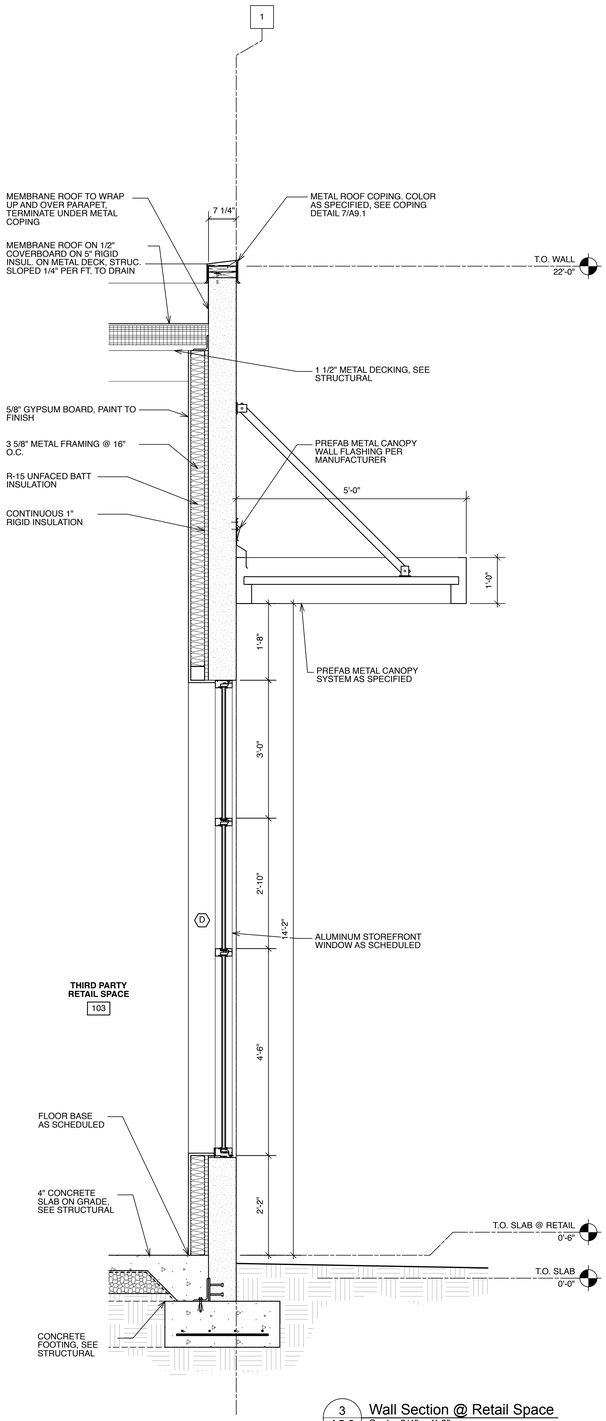
Project ID	
-	

Sheet Title

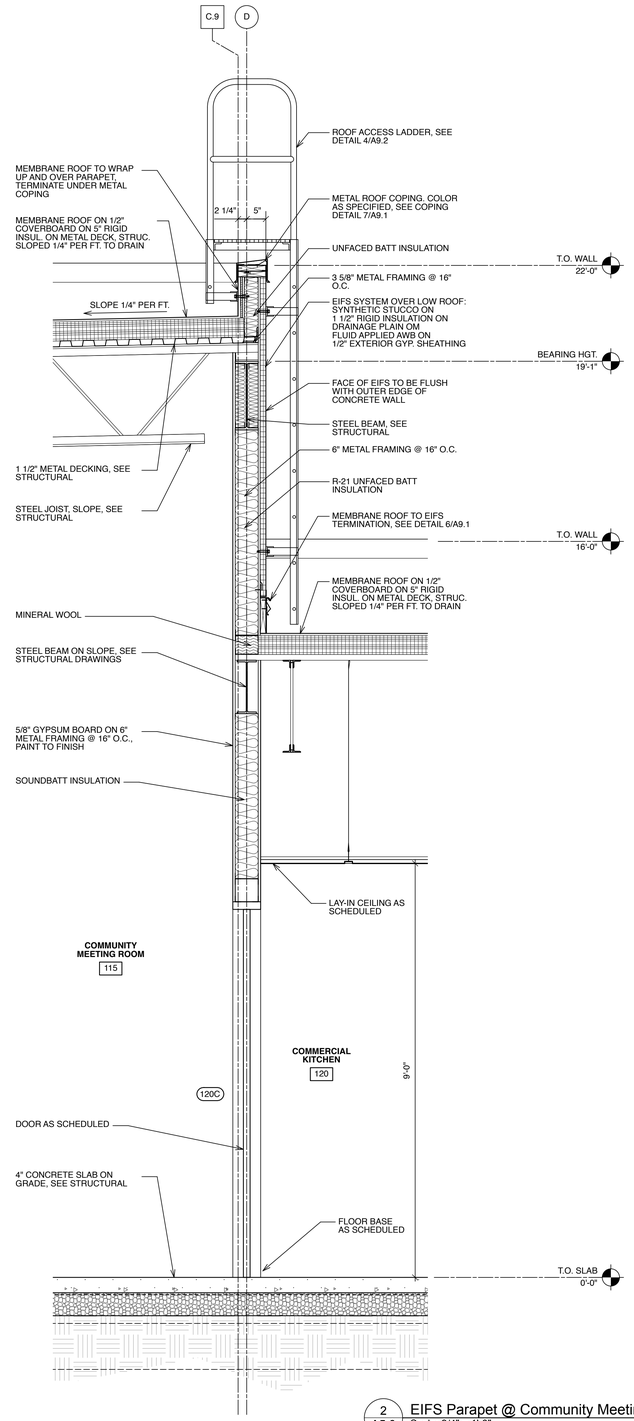
Building Sections

Sheet No.

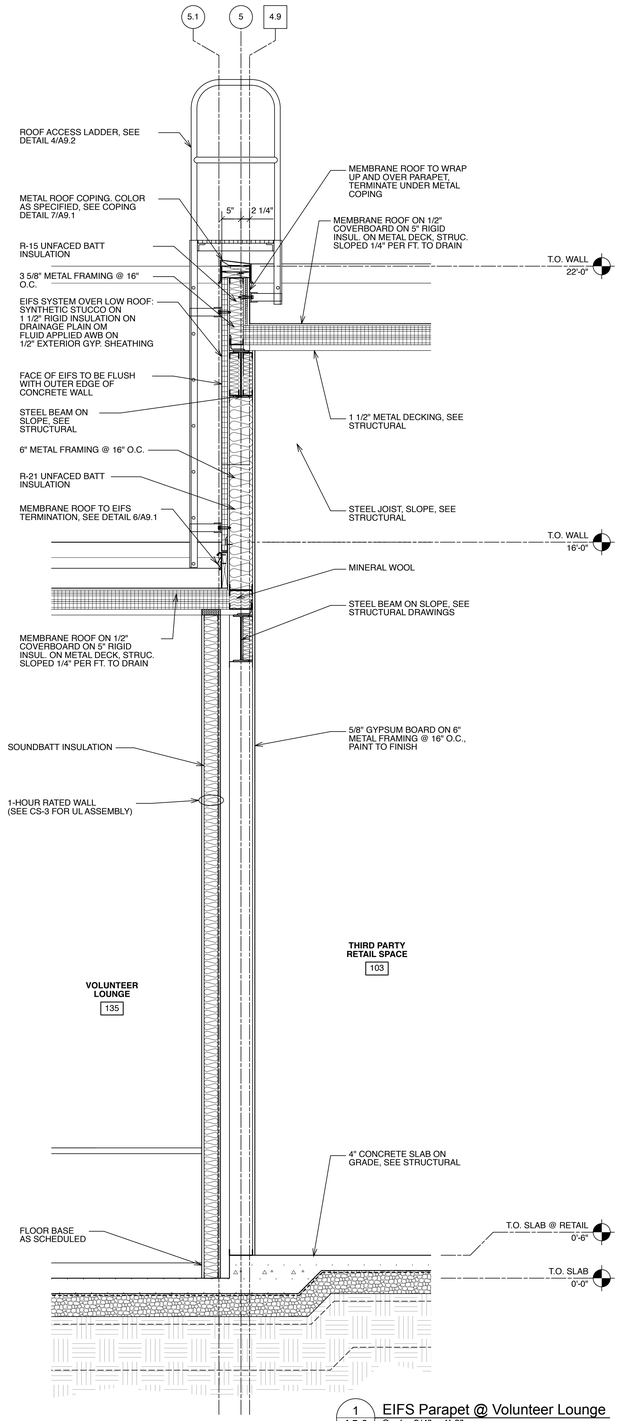
A4.1



3 A5.0 Wall Section @ Retail Space
Scale: 3/4" = 1'-0"



2 A5.0 EIFS Parapet @ Community Meeting Room
Scale: 3/4" = 1'-0"



1 A5.0 EIFS Parapet @ Volunteer Lounge
Scale: 3/4" = 1'-0"

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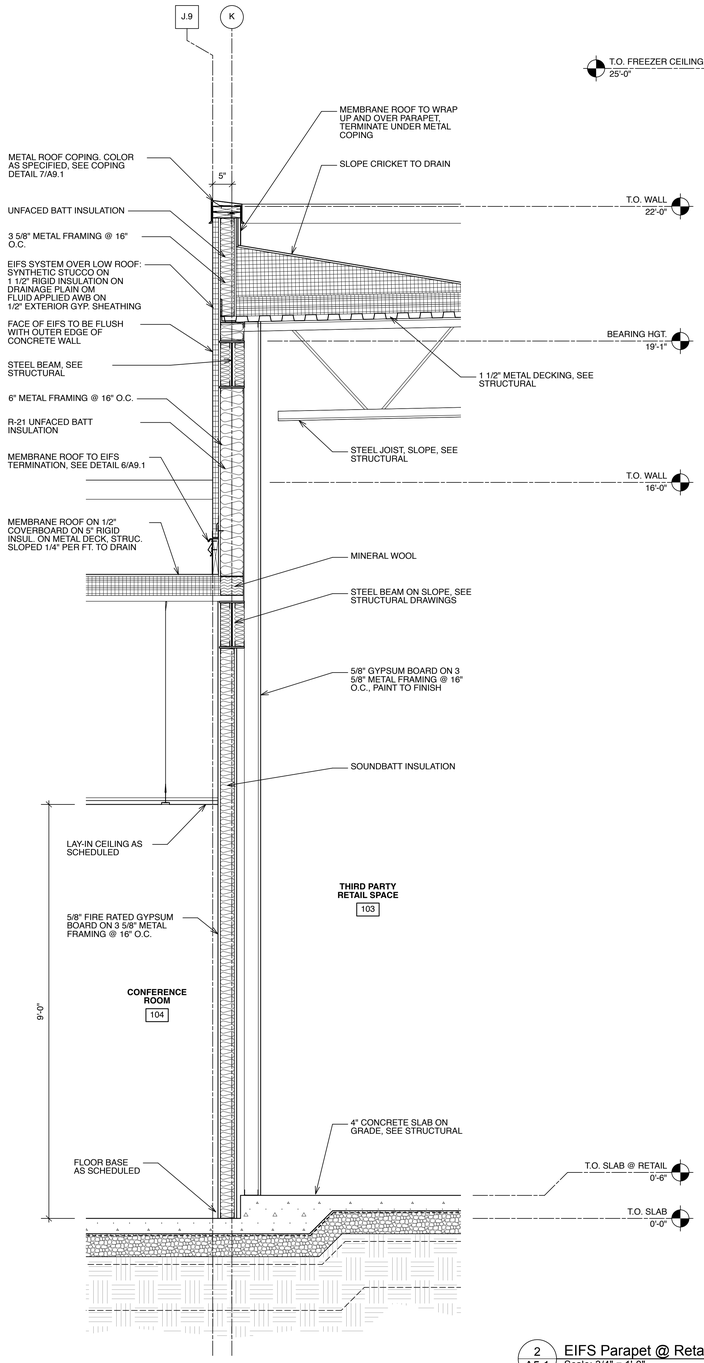
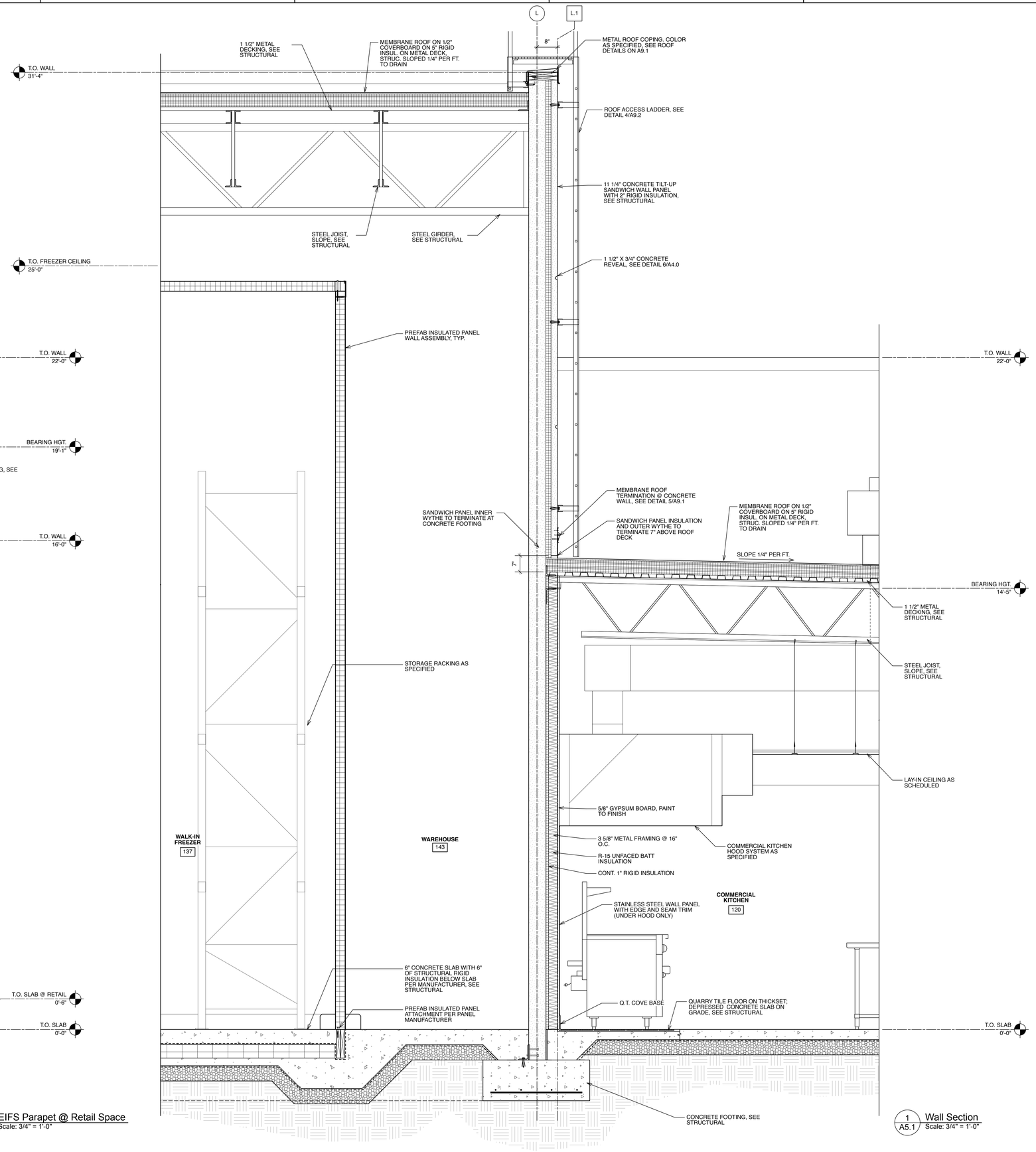
Project Manager	Drawn By MEG
Date 11.10.2021	Reviewed By GCH
Project ID -	

Sheet Title
Wall Sections

Sheet No.
A5.0



2 / A5.1 EIFS Parapet @ Retail Space
Scale: 3/4" = 1'-0"



1 / A5.1 Wall Section
Scale: 3/4" = 1'-0"

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Wilmington, North Carolina 28403

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NO.	DATE	ISSUE NOTE

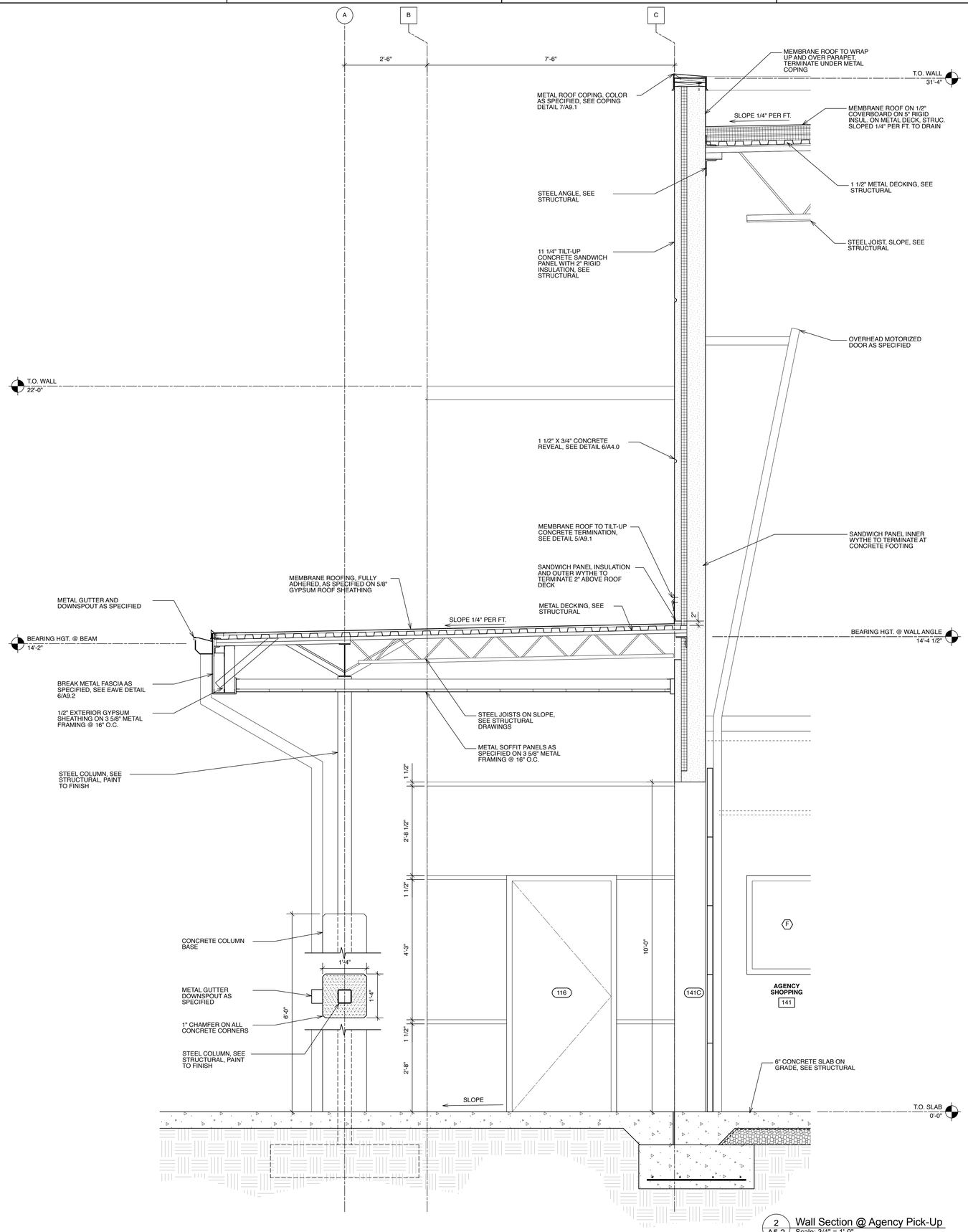
Project Manager	Drawn By
	MEG
Date	Reviewed By
11.10.2021	GCH
Project ID	-

Sheet Title

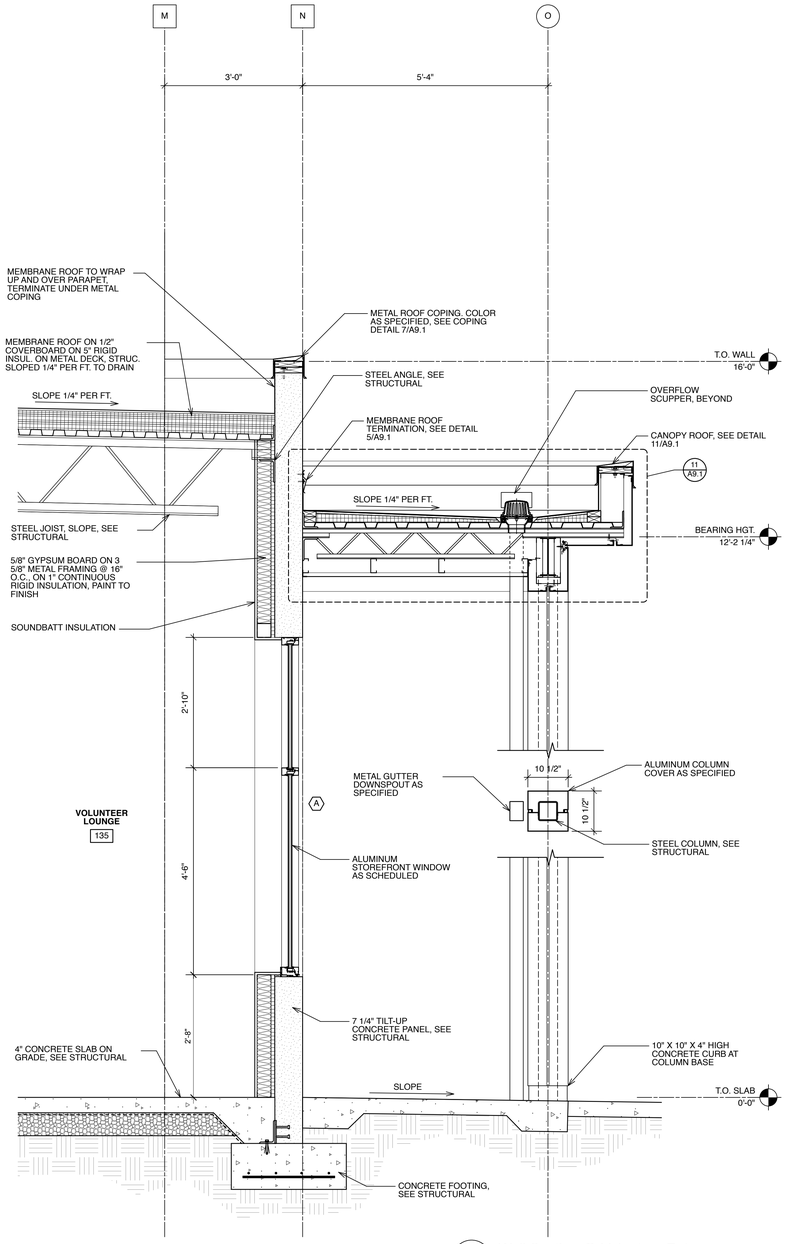
Wall Sections

Sheet No.

A5.1



2 / A5.2 Wall Section @ Agency Pick-Up
Scale: 3/4" = 1'-0"



1 / A5.2 Wall Section @ Volunteer Entrance
Scale: 3/4" = 1'-0"

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GEORGE CARTER HEMINGWAY III REGISTERED ARCHITECT 7487 NORTH CAROLINA WILMINGTON, NC

The Wilmington Food Bank

Greenfield Street
Wilmington, North Carolina 28403

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Wall Sections

Sheet No.

A5.2

Finish Schedule

NO.	ROOM NAME	FLOOR		BASE		WALLS		CEILING		NOTES	NO.
		MATERIAL	FINISH	MAT.	FINISH	MATERIAL	FINISH	MATERIAL	FINISH		
100	RETAIL ENTRY	CONCRETE	RESILIENT	RESILIENT	PRE-FINISHED	GYP. BD.	PAINT	OPEN TO STR.	PAINT		100
101	RETAIL TOILET	CONCRETE	TILE	RESILIENT	PRE-FINISHED	GYP. BD.	PAINT	EGAP	--		101
102	RETAIL STORAGE	CONCRETE	RESILIENT	RESILIENT	PRE-FINISHED	GYP. BD.	PAINT	EGAP	--		102
103	RETAIL SALES	CONCRETE	RESILIENT	RESILIENT	PRE-FINISHED	GYP. BD.	PAINT	OPEN TO STR.	PAINT		103
104	CONFERENCE RM	CONCRETE	CARPET	RESILIENT	PRE-FINISHED	GYP. BD.	PAINT	EGAP	PAINT		104
105	OFFICE #4	CONCRETE	CARPET	RESILIENT	PRE-FINISHED	GYP. BD.	PAINT	EGAP	--		105
106	OFFICE #5	CONCRETE	CARPET	RESILIENT	PRE-FINISHED	GYP. BD.	PAINT	EGAP	--		106
107	OFFICE #6	CONCRETE	CARPET	RESILIENT	PRE-FINISHED	GYP. BD.	PAINT	EGAP	--		107
108	OFFICE #7	CONCRETE	CARPET	RESILIENT	PRE-FINISHED	GYP. BD.	PAINT	EGAP	--		108
109	CORRIDOR	CONCRETE	RESILIENT	RESILIENT	PRE-FINISHED	GYP. BD.	PAINT	EGAP	--		109
110	MAIL ROOM	CONCRETE	RESILIENT	RESILIENT	PRE-FINISHED	GYP. BD.	PAINT	EGAP	--		110
111	OFFICE #8	CONCRETE	CARPET	RESILIENT	PRE-FINISHED	GYP. BD.	PAINT	EGAP	--		111
112	OFFICE #9	CONCRETE	CARPET	RESILIENT	PRE-FINISHED	GYP. BD.	PAINT	EGAP	--		112
113	OFFICE #10	CONCRETE	CARPET	RESILIENT	PRE-FINISHED	GYP. BD.	PAINT	EGAP	--		113
114	VESTIBULE	CONCRETE	RESILIENT	RESILIENT	PRE-FINISHED	GYP. BD.	PAINT	EGAP	--		114
115	COMMUNITY RM	CONCRETE	RESILIENT	RESILIENT	PRE-FINISHED	GYP. BD.	PAINT	OPEN TO STR.	PAINT		115
116	VESTIBULE	CONCRETE	RESILIENT	RESILIENT	PRE-FINISHED	GYP. BD.	PAINT	GYP. BD.	PAINT		116
117	MENS ROOM	CONCRETE	TILE	RESILIENT	PRE-FINISHED	GYP. BD.	PAINT/TILE	GYP. BD.	PAINT	SEAL GROUT	117
118	STORAGE	CONCRETE	RESILIENT	RESILIENT	PRE-FINISHED	GYP. BD.	PAINT	GYP. BD.	PAINT		118
119	WOMEN'S ROOM	CONCRETE	TILE	RESILIENT	PRE-FINISHED	GYP. BD.	PAINT/TILE	GYP. BD.	PAINT	SEAL GROUT	119
120	KITCHEN	CONCRETE	TILE	TILE	PRE-FINISHED	GYP. BD.	FRP	OPEN TO STR.			120
121	DRY STORAGE	CONCRETE	TILE	TILE	PRE-FINISHED	GYP. BD.	FRP	GYP. BD.	PAINT		121
122	DRY STORAGE	CONCRETE	TILE	TILE	PRE-FINISHED	GYP. BD.	FRP	GYP. BD.	PAINT		122
123	MENS ROOM	CONCRETE	TILE	RESILIENT	PRE-FINISHED	GYP. BD.	PAINT/TILE	EGAP	--	SEAL GROUT	123
124	STORAGE	CONCRETE	RESILIENT	RESILIENT	PRE-FINISHED	GYP. BD.	PAINT	EGAP	--		124
125	JANITOR CLOSET	CONCRETE	RESILIENT	RESILIENT	PRE-FINISHED	GYP. BD.	PAINT	OPEN TO STR.	PAINT		125
126	MECHANICAL RM	CONCRETE	RESILIENT	RESILIENT	PRE-FINISHED	GYP. BD.	PAINT	OPEN TO STR.	PAINT		126
127	ELECTRICAL RM	CONCRETE	RESILIENT	RESILIENT	PRE-FINISHED	GYP. BD.	PAINT	OPEN TO STR.	PAINT		127
128	BREAKROOM	CONCRETE	RESILIENT	RESILIENT	PRE-FINISHED	GYP. BD.	PAINT	EGAP	--		128
129	WOMENS ROOM	CONCRETE	TILE	RESILIENT	PRE-FINISHED	GYP. BD.	PAINT/TILE	EGAP	--	SEAL GROUT	129
130	CORRIDOR	CONCRETE	CARPET	RESILIENT	PRE-FINISHED	GYP. BD.	PAINT	EGAP	--		130
131	OFFICE #3	CONCRETE	CARPET	RESILIENT	PRE-FINISHED	GYP. BD.	PAINT	EGAP	--		131
132	OFFICE #2	CONCRETE	CARPET	RESILIENT	PRE-FINISHED	GYP. BD.	PAINT	EGAP	--		132
133	OFFICE #1	CONCRETE	CARPET	RESILIENT	PRE-FINISHED	GYP. BD.	PAINT	EGAP	--		133
134	RECEPTION	CONCRETE	RESILIENT	RESILIENT	PRE-FINISHED	GYP. BD.	PAINT	GWB/OPEN STR.	PAINT		134
135	VOLUNTEER LOUNGE	CONCRETE	RESILIENT	RESILIENT	PRE-FINISHED	GYP. BD.	PAINT	OPEN TO STR.	PAINT		135
136	VOL. WORK AREA	CONCRETE	RESILIENT	RESILIENT	PRE-FINISHED	GYP. BD.	PAINT	OPEN TO STR.	PAINT		136
137	CORRIDOR	CONCRETE	RESILIENT	RESILIENT	PRE-FINISHED	GYP. BD.	PAINT	EGAP	--		137
138	MENS ROOM	CONCRETE	TILE	RESILIENT	PRE-FINISHED	GYP. BD.	PAINT/TILE	EGAP	--	SEAL GROUT	138
139	WOMENS ROOM	CONCRETE	TILE	RESILIENT	PRE-FINISHED	GYP. BD.	PAINT/TILE	EGAP	--	SEAL GROUT	139
140	WHAREHOUSE	CONCRETE	DENSIFIER	-	--	CONC.	--	OPEN TO STR.	PAINT	ASHFORD FORMULA	140
141	AGENCY SHOPPING	CONCRETE	DENSIFIER	-	--	CONC.	--	OPEN TO STR.	PAINT	ASHFORD FORMULA	141
142	LOADING DOCK	CONCRETE	DENSIFIER	-	--	CONC.	--	OPEN TO STR.	PAINT	ASHFORD FORMULA	142
143	OFFICE #13	CONCRETE	CARPET	RESILIENT	PRE-FINISHED	GYP. BD.	PAINT	EGAP	--		143
144	OFFICE #12	CONCRETE	CARPET	RESILIENT	PRE-FINISHED	GYP. BD.	PAINT	EGAP	--		144
145	OFFICE #11	CONCRETE	CARPET	RESILIENT	PRE-FINISHED	GYP. BD.	PAINT	EGAP	--		145
146	WALK-IN REFRIG.	CONCRETE	RESINIOUS	CONC.	RESINIOUS	PREFAB PANEL	--	PREFAB PANEL	--	SHERWIN WILLIAMS "FasTop T100" RESIN FLOORING	146
147	WALK-IN COOLER	CONCRETE	RESINIOUS	CONC.	RESINIOUS	PREFAB PANEL	--	PREFAB PANEL	--	SHERWIN WILLIAMS "FasTop T100" RESIN FLOORING	147
148	WALK-IN FREEZER	CONCRETE	RESINIOUS	CONC.	RESINIOUS	PREFAB PANEL	--	PREFAB PANEL	--	SHERWIN WILLIAMS "FasTop T100" RESIN FLOORING	148

FINISH SELECTION NOTES:

1. ALL BUILDING SYSTEM SPRINKLER PIPE EXPOSED TO VIEW SHALL BE PAINTED - TYPICAL.
2. EXPOSED GRID ACOUSTICAL PANEL (EGAP) CEILING TILES

Finish Abbreviations

LVT - LUXURY VINYL TILE
VCT - VINYL COMPOSITION TILE
RB-1 - BASE #1 SEE SPECIFICATION
RB-2 - BASE #2 SEE SPECIFICATION
RB-3 - BASE #3 SEE SPECIFICATION
EGAP - EXPOSED GRID ACOUSTICAL PANEL
GYP. BD. - GYPSUM BOARD
PT. - PAINT
T&G WD. - TONGUE & GROOVE WOOD

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Finish Schedule and Wall Types

Sheet No.

A6.0

DOOR SCHEDULE

OPENING			DOOR						FRAME						RATING			
DOOR NO.	LEAVES	TO ROOM	WIDTH	HEIGHT	THICKNESS	MATERIAL	FINISH	ELEVATION	FRAME MATERIAL	FINISH	ELEVATION	HEAD	JAMB	SILL	GLAZING	Fire Rating	COMMENTS	HW SET	DOOR NO.
100	SINGLE	**EXIT** EXTERIOR	3'-0"	7'-4"	1 3/4"	HM	FF	D-3	HM	FF	F-2	DH-15	DJ-15	DS-15	1" INSUL.	——	GLAV, INSULATED	HW-2	100
101	SINGLE	UNISEX TIOLET ROOM	3'-0"	7'-0"	1 3/4"	HM	PAINT	D-1	HM	PAINT	F-1	DH-1	DJ-1	DS-1				HW-6	101
102	SINGLE	RETAIL STORAGE	3'-0"	7'-0"	1 3/4"	HM	PAINT	D-3	HM	PAINT	F-1	DH-1	DJ-1	DS-1				HW-5	102
103	SINGLE	**EXIT** EXTERIOR	3'-0"	7'-0"	1 3/4"	ALS/GL	FF	AL-1	AL	FF	SF-1	DH-10	DJ-10	DS-10				HW-1	103
104	SINGLE	CONFERENCE ROOM	3'-0"	7'-0"	1 3/4"	ALS/GL	FF	AL-2	AL	FF	SF-2	DH-2	DJ-2	DS-2				HW-1	104
105	SINGLE	OFFICE 4	3'-0"	7'-0"	1 3/4"	SC WOOD	STAIN	D-2	HM	PAINT	F-1	DH-1	DJ-1	DS-1				HW-5	105
106	SINGLE	OFFICE 5	3'-0"	7'-0"	1 3/4"	SC WOOD	STAIN	D-2	HM	PAINT	F-1	DH-1	DJ-1	DS-1				HW-5	106
107	SINGLE	OFFICE 6	3'-0"	7'-0"	1 3/4"	SC WOOD	STAIN	D-2	HM	PAINT	F-1	DH-1	DJ-1	DS-1				HW-5	107
108	SINGLE	OFFICE 7	3'-0"	7'-0"	1 3/4"	SC WOOD	STAIN	D-2	HM	PAINT	F-1	DH-1	DJ-1	DS-1				HW-5	108
110	SINGLE	MAIL ROOM	4'-0"	7'-0"	CASED OPENING			D-2	HM	PAINT	F-1								110
111	SINGLE	OFFICE 8	3'-0"	7'-0"	1 3/4"	SC WOOD	STAIN	D-2	HM	PAINT	F-1	DH-1	DJ-1	DS-1				HW-5	111
112	SINGLE	OFFICE 9	3'-0"	7'-0"	1 3/4"	SC WOOD	STAIN	D-2	HM	PAINT	F-1	DH-1	DJ-1	DS-1				HW-5	112
113	SINGLE	OFFICE 10	3'-0"	7'-0"	1 3/4"	SC WOOD	STAIN	D-2	HM	PAINT	F-1	DH-1	DJ-1	DS-1				HW-5	113
114A	SINGLE	VESTIBULE	3'-0"	7'-0"	1 3/4"	SC WOOD	STAIN	D-2	HM	PAINT	F-1	DH-1	DJ-1	DS-1				HW-7	114A
114B	SINGLE	**EXIT** EXTERIOR	3'-0"	7'-0"	1 3/4"	HM	PAINT	D-5	HM	PAINT	F-1	DH-4	DJ-4	DS-4			INSULATED EXTERIOR DOOR	HW-2	114B
114C	SINGLE	VESTIBULE	3'-0"	7'-0"	1 3/4"	SC WOOD	STAIN	D-2	HM	PAINT	F-1	DH-8	DJ-8	DS-8		60 MIN.		HW-11	114C
115	DOUBLE	COMMUNITY MEETING RM	3'-6"	8'-0"	1 3/4"	HM	PAINT	D-4	HM	PAINT	F-1	DH-7	DJ-7	DS-7	F.R.	60 MIN.		HW-13	115
116	SINGLE	**EXIT** EXTERIOR	3'-0"	7'-0"	1 3/4"	HM	PAINT	D-5	HM	PAINT	F-1	DH-4	DJ-4	DS-4			INSULATED EXTERIOR DOOR	HW-3	116
117	SINGLE	MENS ROOM	3'-0"	7'-0"	1 3/4"	SC WOOD	STAIN	D-1	HM	PAINT	F-1	DH-1	DJ-1	DS-1				HW-6	117
118	DOUBLE	STORAGE	3'-0"	7'-0"	1 3/4"	HM	PAINT	D-3	HM	PAINT	F-1	DH-1	DJ-1	DS-1				HW-12	118
119	SINGLE	WOMENS TOILET ROOM	3'-0"	7'-0"	1 3/4"	SC WOOD	STAIN	D-1	HM	PAINT	F-1	DH-1	DJ-1	DS-1				HW-6	119
											F-1								
120A	SINGLE	KITCHEN	3'-0"	7'-0"	1 3/4"	HM	PAINT	D-5	HM	PAINT	F-1	DH-1	DJ-1	DS-1	F.R.	60 MIN.		HW-10	120A
120B	SINGLE	KITCHEN	3'-0"	7'-0"	1 3/4"	HM	PAINT	D-5	HM	PAINT	F-1	DH-7	DJ-7	DS-7	F.R.	60 MIN.		HW-7	120B
120C	DOUBLE	KITCHEN	3'-6"	8'-0"	1 1/2"	ABS	FF	D-6	MTL	PAINT	F-1	DH-6	DJ-6	DS-6					120C
120D	SINGLE	KITCHEN	3'-0"	7'-0"	1 3/4"	HM	PAINT	D-5	HM	PAINT	F-1	DH-5	DJ-5	DS-5	F.R.	60 MIN.		HW-10	120D
121	SINGLE	KITCHEN	3'-0"	7'-0"	1 3/4"	HM	PAINT	D-3	HM	PAINT	F-1	DH-1	DJ-1	DS-1				HW-8	121
122	SINGLE	KITCHEN	3'-0"	7'-0"	1 3/4"	HM	PAINT	D-3	HM	PAINT	F-1	DH-1	DJ-1	DS-1		60 MIN.		HW-8	122
123	SINGLE	MENS ROOM	3'-0"	7'-0"	1 3/4"	SC WOOD	STAIN	D-1	HM	PAINT	F-1	DH-1	DJ-1	DS-1				HW-7	123
124	SINGLE	STORAGE	3'-0"	7'-0"	1 3/4"	HM	PAINT	D-3	HM	PAINT	F-1	DH-1	DJ-1	DS-1				HW-5	124
125	SINGLE	JANITORS CLOSET	3'-0"	7'-0"	1 3/4"	HM	PAINT	D-3	HM	PAINT	F-1	DH-1	DJ-1	DS-1				HW-5	125
126	SINGLE	MECHANICAL ROOM	3'-0"	7'-0"	1 3/4"	HM	PAINT	D-3	HM	PAINT	F-1	DH-11	DJ-11	DS-11		60 MIN.		HW-9	126
127	SINGLE	ELECTRICAL ROOM	3'-0"	7'-0"	1 3/4"	HM	PAINT	D-3	HM	PAINT	F-1	DH-11	DJ-11	DS-11		60 MIN.		HW-11	127
128	SINGLE	BREAKROOM	3'-0"	7'-0"	1 3/4"	HM	PAINT	D-5	HM	PAINT	F-1	DH-1	DJ-1	DS-1				HW-7	128
129	SINGLE	WOMENS TOILET ROOM	3'-0"	7'-0"	1 3/4"	SC WOOD	STAIN	D-1	HM	PAINT	F-1	DH-1	DJ-1	DS-1				HW-7	129
131	SINGLE	OFFICE 3	3'-0"	7'-0"	1 3/4"	SC WOOD	STAIN	D-2	HM	PAINT	F-1	DH-1	DJ-1	DS-1				HW-5	131
132	SINGLE	OFFICE 2	3'-0"	7'-0"	1 3/4"	SC WOOD	STAIN	D-2	HM	PAINT	F-1	DH-1	DJ-1	DS-1				HW-5	132
133	SINGLE	OFFICE 1	3'-0"	7'-0"	1 3/4"	SC WOOD	STAIN	D-2	HM	PAINT	F-1	DH-1	DJ-1	DS-1				HW-5	133
135A	SINGLE	EXTERIOR	3'-0"	7'-0"	1 3/4"	ALS/GL	FF	AL-1	AL	FF	SF-3	DH-13	DJ-13	DS-13				HW-1	135A
135B	SINGLE	EXTERIOR	3'-0"	7'-0"	1 3/4"	ALS/GL	FF	AL-1	AL	FF	SF-3	DH-13	DJ-13	DS-13				HW-1	135B
137A	SINGLE	CORRIDOR #137	3'-0"	7'-0"	1 3/4"	HM	PAINT	D-4	HM	PAINT	F-1	DH-1	DJ-1	DS-1	F.R.	60 MIN.		HW-7	137A
137B	SINGLE	CORRIDOR #137	3'-0"	7'-0"	1 3/4"	HM	PAINT	D-4	HM	PAINT	F-1	DH-3	DJ-3	DS-3	F.R.	60 MIN.		HW-10	137B
137C	SINGLE	CORRIDOR #137	3'-0"	7'-0"	1 3/4"	HM	PAINT	D-4	HM	PAINT	F-1	DH-1	DJ-1	DS-1	F.R.	60 MIN.		HW-10	137C
138	SINGLE	MENS TOILET ROOM	3'-0"	7'-0"	1 3/4"	SC WOOD	STAIN	D-1	HM	PAINT	F-1	DH-1	DJ-1	DS-1				HW-7	138
139	SINGLE	WOMENS TOILET ROOM	3'-0"	7'-0"	1 3/4"	SC WOOD	STAIN	D-1	HM	PAINT	F-1	DH-1	DJ-1	DS-1				HW-7	139
140A	SINGLE	EXTERIOR	8'-0"	11'-0"				OH-3		PAINT		DH-12	DJ-12	DS-12			INSULATED		140A
140B	SINGLE	**EXIT** EXTERIOR	3'-0"	7'-0"	1 3/4"	HM	PAINT	D-5	HM	PAINT	F-1	DH-11	DJ-11	DS-11			INSULATED	HW-4	140B
140C	SINGLE	VOLUNTEER WORK AREA	8'-0"	10'-0"				OH-2				DH-9	DS-9						140C
140D	SINGLE	WAREHOUSE	3'-0"	7'-0"	1 3/4"	HM	PAINT	D-4	HM	PAINT	F-1	DH-3	DJ-3	DS-3				HW-10	140D
141A	SINGLE	**EXIT** EXTERIOR	3'-0"	7'-0"	1 3/4"	HM	PAINT	D-5	HM	PAINT	F-1	DH-11	DJ-11	DS-11			INSULATED	HW-3	141A
141B	SINGLE	FOOD LOADING & PICK-UP	20'-0"	10'-0"				OH-1				DH-12	DJ-12	DS-12			INSULATED		141B
141C	SINGLE	FOOD LOADING & PICK-UP	20'-0"	10'-0"				OH-1				DH-12	DJ-12	DS-12			INSULATED		141C
142A	SINGLE	INCOMING FOOD TRUCKS	3'-0"	7'-0"	1 3/4"	HM	PAINT	D-5	HM	PAINT	F-1	DH-11	DJ-11	DS-11			INSULATED	HW-3	142A
142B	SINGLE	INCOMING FOOD TRUCKS	8'-0"	10'-0"				OH-2				DH-12	DJ-12	DS-12			INSULATED		142B
142C	SINGLE	INCOMING FOOD TRUCKS	8'-0"	10'-0"				OH-2				DH-12	DJ-12	DS-12			INSULATED		142C
142D	SINGLE	INCOMING FOOD TRUCKS	8'-0"	10'-0"				OH-2				DH-12	DJ-12	DS-12			INSULATED		142D
142E	SINGLE	INCOMING FOOD TRUCKS	8'-0"	10'-0"				OH-2				DH-12	DJ-12	DS-12			INSULATED		142E
143	SINGLE	OFFICE 13	3'-0"	7'-0"	1 3/4"	HM	PAINT	D-2	HM	PAINT	F-1	DH-1	DJ-1	DS-1				HW-5	143
144	SINGLE	OFFICE 12	3'-0"	7'-0"	1 3/4"	HM	PAINT	D-2	HM	PAINT	F-1	DH-1	DJ-1	DS-1				HW-5	144
145	SINGLE	OFFICE 11	3'-0"	7'-0"	1 3/4"	HM	PAINT	D-2	HM	PAINT	F-1	DH-1	DJ-1	DS-1				HW-5	145
146A	SINGLE	WALK-IN REFRIGERATOR	8'-0"	10'-0"			FF	--				DH-8	DJ-8	DS-8			INSULATED, ROLL-UP CURTAIN		146A
146B	SINGLE	WALK-IN REFRIGERATOR EXIT	2'-10"	7'-0"			FF	--				--	--	--			INSULATED		146B
146C	SINGLE	WALK-IN REFRIGERATOR EXIT	2'-10"	7'-0"			FF	--				--	--	--			INSULATED		146C
147A	SINGLE	WALK-IN COOLER	8'-0"	10'-0"			FF	--				DH-8	DJ-8	DS-8			INSULATED, ROLL-UP CURTAIN		147A
147B	SINGLE	WALK-IN COOLER	8'-0"	10'-0"			FF	--				DH-8	DJ-8	DS-8			INSULATED, ROLL-UP CURTAIN		147B
147C	SINGLE	WALK-IN COOLER EXIT	2'-10"	7'-0"			FF	--				--	--	--			INSULATED		147C
148A	SINGLE	WALK-IN FREEZER	8'-0"	10'-0"			FF	--				DH-8	DJ-8	DS-8			INSULATED, ROLL-UP CURTAIN		148A
148B	SINGLE	WALK-IN COOLER EXIT	2'-10"	7'-0"			FF	--				--	--	--			INSULATED		148B
148C	SINGLE	WALK-IN FREEZER EXIT	2'-10"	7'-0"			FF	--				--	--	--			INSULATED		148C
148D	SINGLE	WALK-IN FREEZER EXIT	2'-10"	7'-0"			FF	--				--	--	--			INSULATED		148D
149	DOUBLE	**EXIT** EXTERIOR	3'-0"	7'-0"	1 3/4"	HM	PAINT	D-3	HM	PAINT	F-1	DH-14	DJ-14	DS-14			INSULATED		149

DOOR MATERIAL LEGEND

AL	ALUMINUM
FG	FIBERGLASS
FR	FIRE RATED
GL	GLASS
HCW	HOLLOW CORE WOOD
HM	HOLLOW METAL
SCWD	SOLID CORE WOOD
SS	STAINLESS STEEL

DOOR FRAME MATERIAL LEGEND

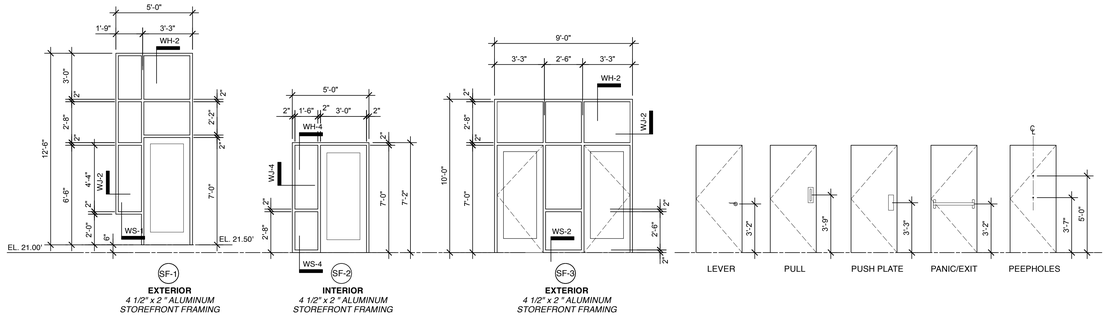
ALS	ALUMINUM STOREFRONT
ALC	ALUMINUM CURTAINWALL SYSTEM
ALI	ALUMINUM INTERIOR SYSTEM
FG	FIBERGLASS
HM	HOLLOW METAL
SS	STAINLESS STEEL
STL	STEEL
WD	WOOD

DOOR/FRAME FINISH LEGEND

AN	ANODIZED
FF	FACTORY/SHOP FINISHED-PAINT, STAIN, LAMINATE, ETC.
PNT	PAINT
ST	STAINED - FIELD APPLIED

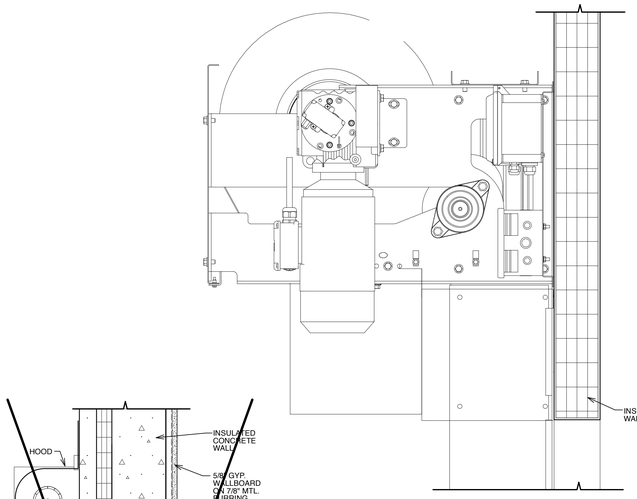
HARDWARE SETS

REFER TO SPECIFICATION SECTION 087100 - DOOR HARDWARE FOR HARDWARE SETS



1 A6.1 Integral Door & Window Framing Elevations
Scale: 1/4" = 1'-0"

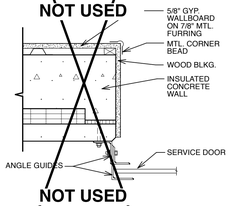
3'-0"
2'-6"
3'-0"
2'-6"
2'-6"
2'-6



DH-8 - HEAD DETAIL
SCALE: 1 1/2" = 1'-0"

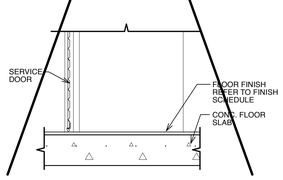
DH-9 - HEAD DETAIL
SCALE: 1 1/2" = 1'-0"

NOT USED

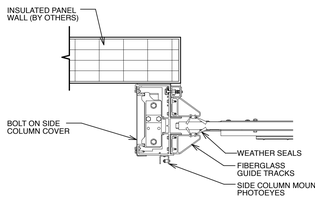


NOT USED

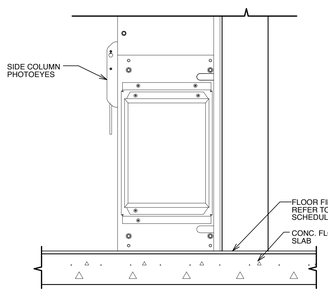
DJ-9 - JAMB DETAIL
SCALE: 1 1/2" = 1'-0"



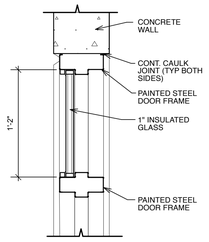
DS-9 - SILL DETAIL
SCALE: 1 1/2" = 1'-0"



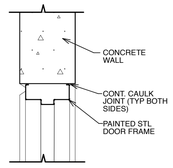
DJ-8 - JAMB DETAIL
SCALE: 1 1/2" = 1'-0"



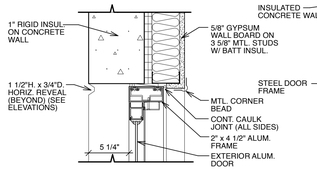
DS-8 - SILL DETAIL
SCALE: 1 1/2" = 1'-0"



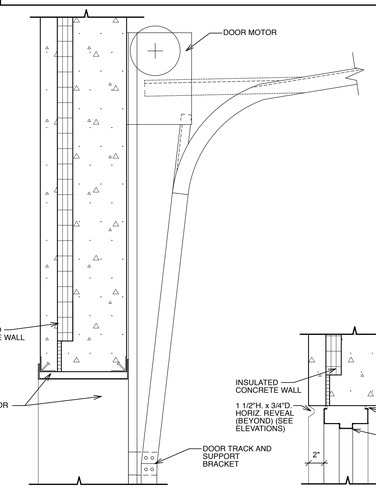
DH-15 - HEAD DETAIL
SCALE: 1 1/2" = 1'-0"



DH-14 - HEAD DETAIL
SCALE: 1 1/2" = 1'-0"

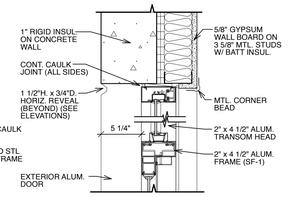


DH-13 - HEAD DETAIL
SCALE: 1 1/2" = 1'-0"

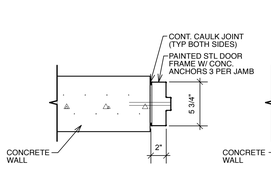


DH-12 - HEAD DETAIL
SCALE: 1 1/2" = 1'-0"

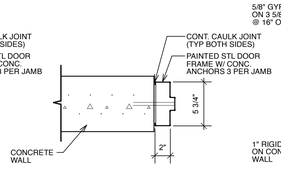
DH-11 - HEAD DETAIL
SCALE: 1 1/2" = 1'-0"



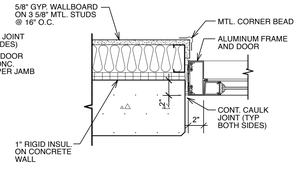
DH-10 - HEAD DETAIL
SCALE: 1 1/2" = 1'-0"



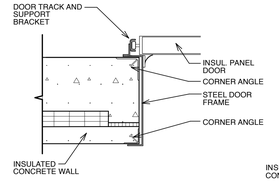
DJ-15 - JAMB DETAIL
SCALE: 1 1/2" = 1'-0"



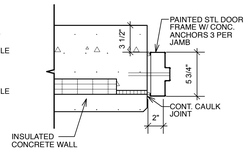
DJ-14 - JAMB DETAIL
SCALE: 1 1/2" = 1'-0"



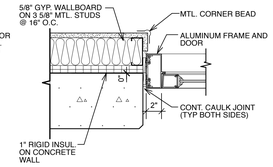
DJ-13 - JAMB DETAIL
SCALE: 1 1/2" = 1'-0"



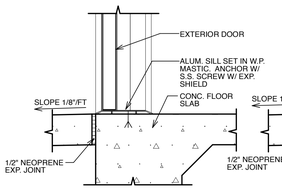
DJ-12 - JAMB DETAIL
SCALE: 1 1/2" = 1'-0"



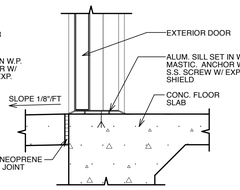
DJ-11 - JAMB DETAIL
SCALE: 1 1/2" = 1'-0"



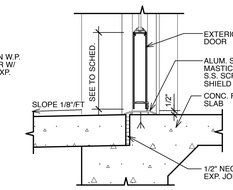
DJ-10 - JAMB DETAIL
SCALE: 1 1/2" = 1'-0"



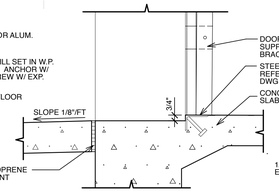
DS-15 - SILL DETAIL
SCALE: 1 1/2" = 1'-0"



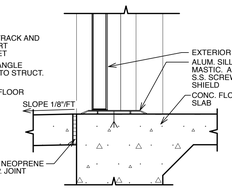
DS-14 - SILL DETAIL
SCALE: 1 1/2" = 1'-0"



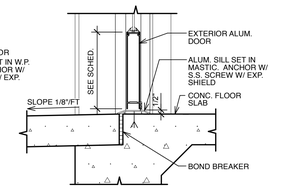
DS-13- SILL DETAIL
SCALE: 1 1/2" = 1'-0"



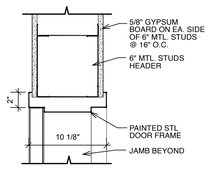
DS-12 - SILL DETAIL
SCALE: 1 1/2" = 1'-0"



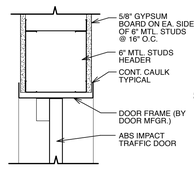
DS-11 - SILL DETAIL
SCALE: 1 1/2" = 1'-0"



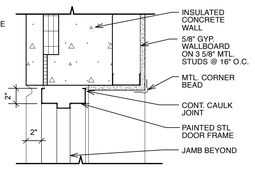
DS-10 - SILL DETAIL
SCALE: 1 1/2" = 1'-0"



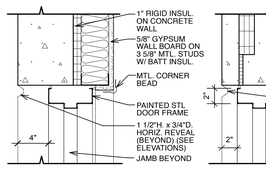
DH-7 - HEAD DETAIL
SCALE: 1 1/2" = 1'-0"



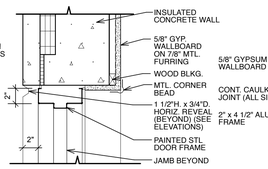
DH-6 - HEAD DETAIL
SCALE: 1 1/2" = 1'-0"



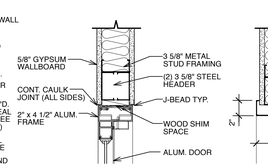
DH-5 - HEAD DETAIL
SCALE: 1 1/2" = 1'-0"



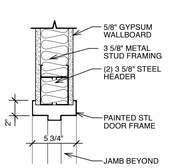
DH-4 - HEAD DETAIL
SCALE: 1 1/2" = 1'-0"



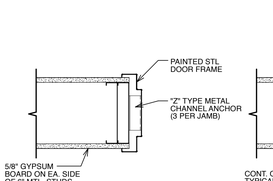
DH-3 - HEAD DETAIL
SCALE: 1 1/2" = 1'-0"



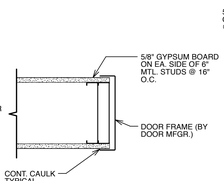
DH-2 - HEAD DETAIL
SCALE: 1 1/2" = 1'-0"



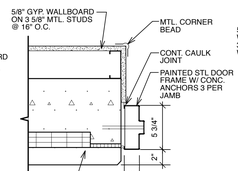
DH-1 - HEAD DETAIL
SCALE: 1 1/2" = 1'-0"



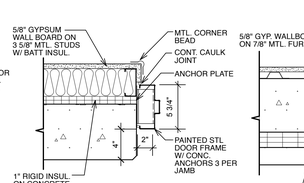
DJ-7 - JAMB DETAIL
SCALE: 1 1/2" = 1'-0"



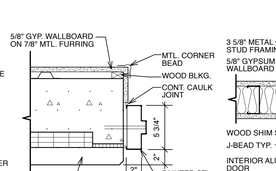
DJ-6 - JAMB DETAIL
SCALE: 1 1/2" = 1'-0"



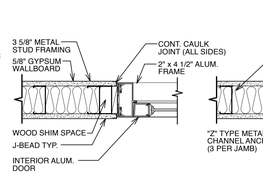
DJ-5 - JAMB DETAIL
SCALE: 1 1/2" = 1'-0"



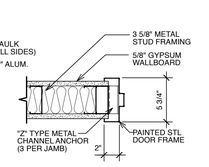
DJ-4 - JAMB DETAIL
SCALE: 1 1/2" = 1'-0"



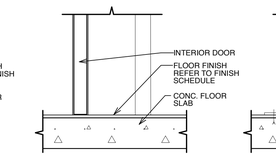
DJ-3 - JAMB DETAIL
SCALE: 1 1/2" = 1'-0"



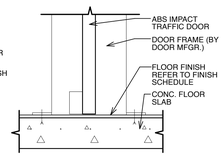
DJ-2 - JAMB DETAIL
SCALE: 1 1/2" = 1'-0"



DJ-1 - JAMB DETAIL
SCALE: 1 1/2" = 1'-0"



DS-7 - SILL DETAIL
SCALE: 1 1/2" = 1'-0"



DS-6 - SILL DETAIL
SCALE: 1 1/2" = 1'-0"

DS-5 - SILL DETAIL
SCALE: 1 1/2" = 1'-0"

DS-4 - SILL DETAIL
SCALE: 1 1/2" = 1'-0"

DS-3 - SILL DETAIL
SCALE: 1 1/2" = 1'-0"

DS-2 - SILL DETAIL
SCALE: 1 1/2" = 1'-0"

DS-1 - SILL DETAIL
SCALE: 1 1/2" = 1'-0"

1 / A6.2 Door Details
Scale: 1 1/2" = 1'-0"

BOWMAN MURRAY HEMINGWAY
ARCHITECTS
514 Market Street
Wilmington, NC 28401
Tel - (910) 762-2621

BOWMAN, MURRAY, HEMINGWAY ARCHITECTS, P.C. REGISTERED ARCHITECTURAL CORPORATION NORTH CAROLINA WILMINGTON, N.C. CERT. NO. 50424

CERTIFIED CAREERS REGISTRY REGISTERED ARCHITECT 7487 NORTH CAROLINA WILMINGTON, NC

The Wilmington Food Bank
Greenfield Street
Wilmington, North Carolina 28403

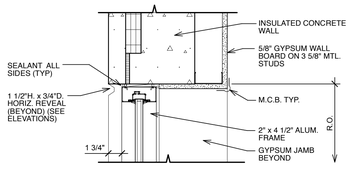
REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

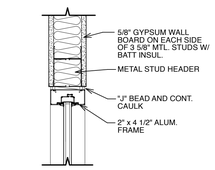
Project Manager	Drawn By: DP
Date: 11.10.2021	Reviewed By: GCH
Project ID: -	

Sheet Title
Door Details

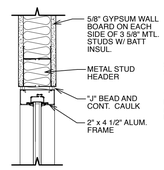
Sheet No.
A6.2



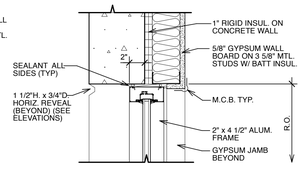
WH-5 - HEAD DETAIL
SCALE: 1 1/2" = 1'-0"



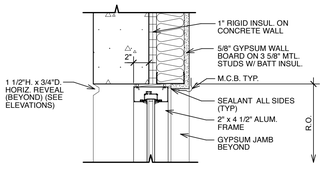
WH-4 - HEAD DETAIL
SCALE: 1 1/2" = 1'-0"



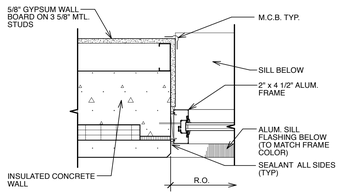
WH-3 - HEAD DETAIL
SCALE: 1 1/2" = 1'-0"



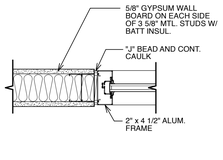
WH-2 - HEAD DETAIL
SCALE: 1 1/2" = 1'-0"



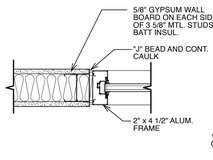
WH-1 - HEAD DETAIL
SCALE: 1 1/2" = 1'-0"



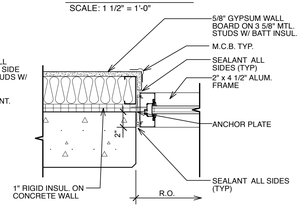
WJ-5 - JAMB DETAIL
SCALE: 1 1/2" = 1'-0"



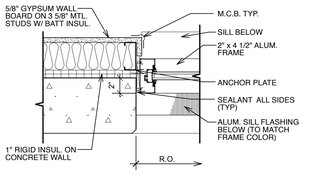
WJ-4 - JAMB DETAIL
SCALE: 1 1/2" = 1'-0"



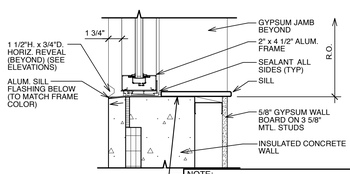
WJ-3 - JAMB DETAIL
SCALE: 1 1/2" = 1'-0"



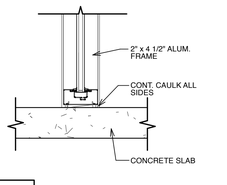
WJ-2 - JAMB DETAIL
SCALE: 1 1/2" = 1'-0"



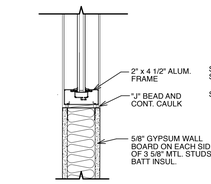
WJ-1 - JAMB DETAIL
SCALE: 1 1/2" = 1'-0"



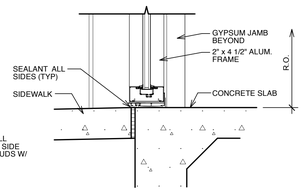
WS-5 - SILL DETAIL
SCALE: 1 1/2" = 1'-0"



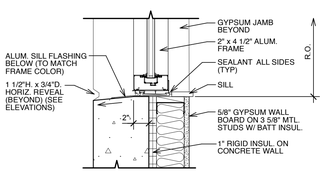
WS-4 - SILL DETAIL
SCALE: 1 1/2" = 1'-0"



WS-3 - SILL DETAIL
SCALE: 1 1/2" = 1'-0"



WS-2 - SILL DETAIL
SCALE: 1 1/2" = 1'-0"



WS-1 - SILL DETAIL
SCALE: 1 1/2" = 1'-0"

1 / A6.3 Window Frame Details
Scale: 1 1/2" = 1'-0"

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GEORGE CARERS HEMINGWAY — REGISTERED ARCHITECT — 7487 — NORTH CAROLINA — WILMINGTON, NC

The Wilmington Food Bank
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Wilmington, North Carolina 28403

REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

Project Manager	Drawn By: DP
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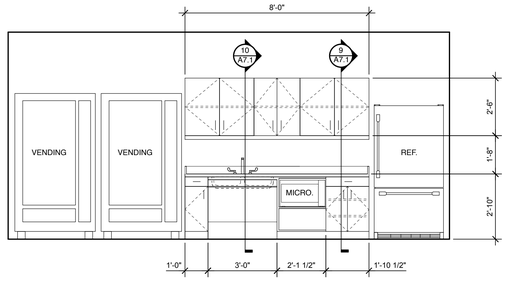
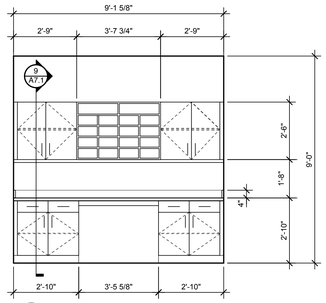
Project ID: -	

Sheet Title
Window Details

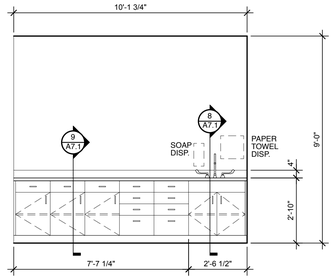
Sheet No.
A6.3



2 A7.1 Elevation @ Breakroom
Scale: 3/8" = 1'-0"



3 A7.1 Elevation @ Mail Room
Scale: 3/8" = 1'-0"



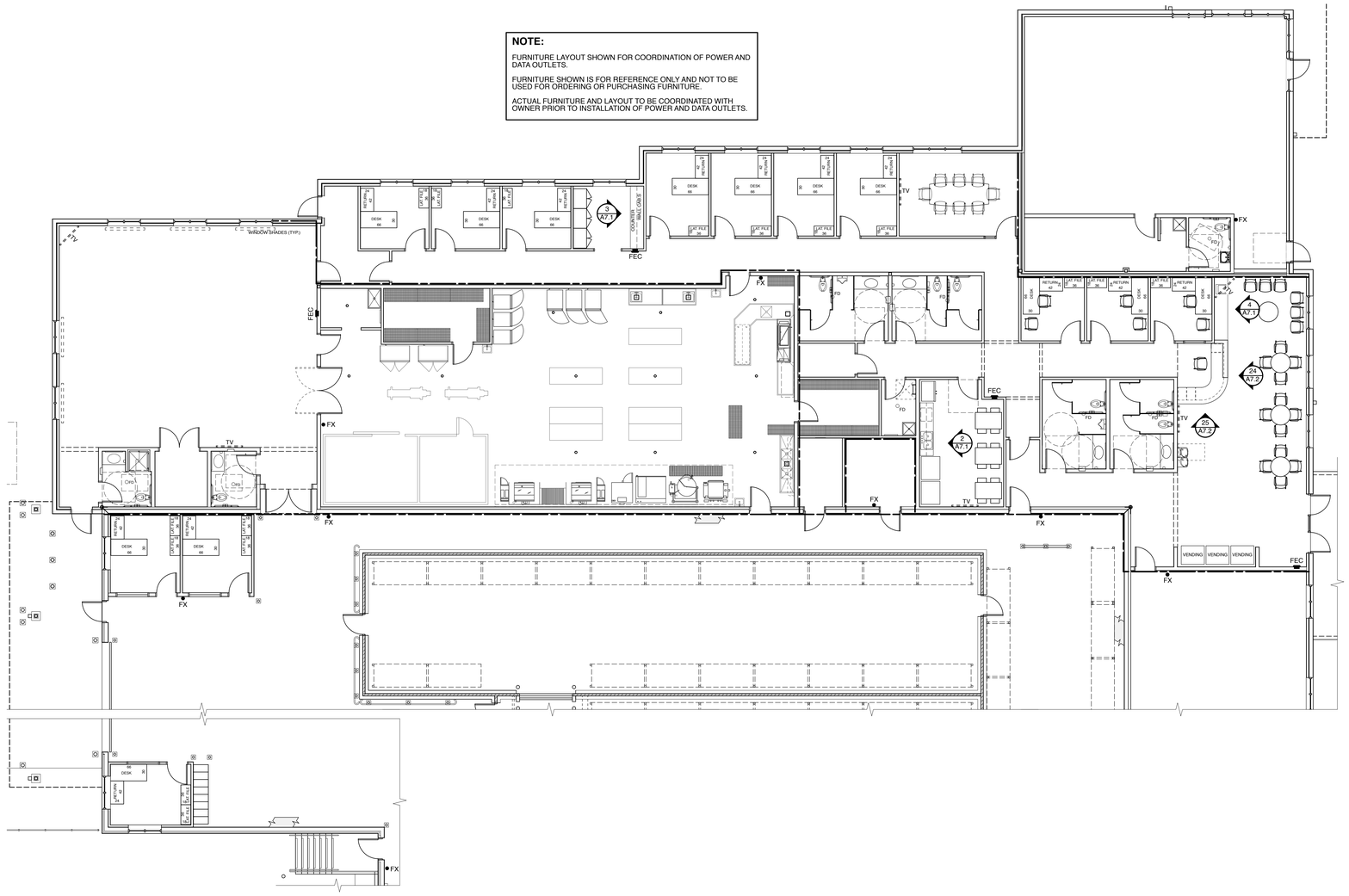
4 A7.1 Elevation @ Volunteer Lounge
Scale: 3/8" = 1'-0"

NOTE:

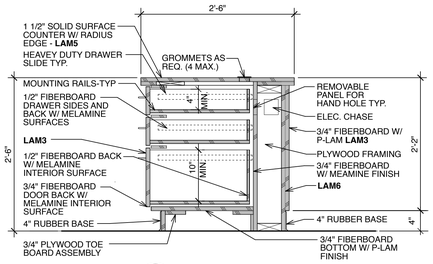
FURNITURE LAYOUT SHOWN FOR COORDINATION OF POWER AND DATA OUTLETS.

FURNITURE SHOWN IS FOR REFERENCE ONLY AND NOT TO BE USED FOR ORDERING OR PURCHASING FURNITURE.

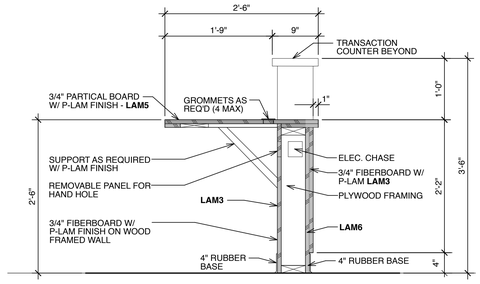
ACTUAL FURNITURE AND LAYOUT TO BE COORDINATED WITH OWNER PRIOR TO INSTALLATION OF POWER AND DATA OUTLETS.



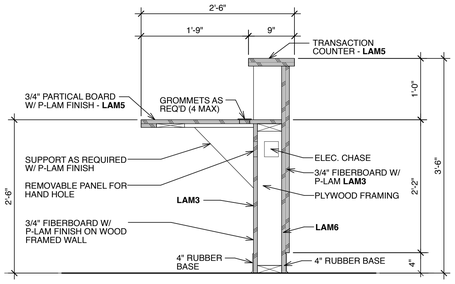
1 A7.1 Furniture and Millwork Plan
Scale: 1/8" = 1'-0"



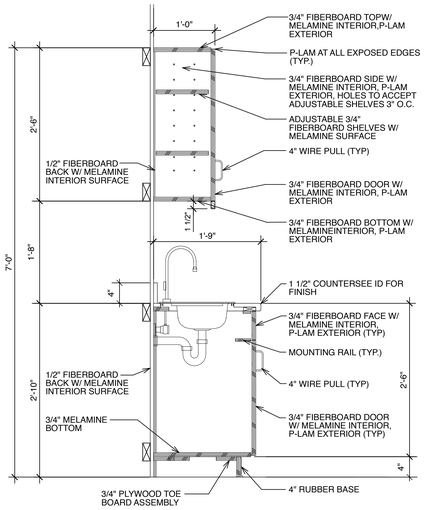
5 A7.1 Section @ Millwork
Scale: 1" = 1'-0"



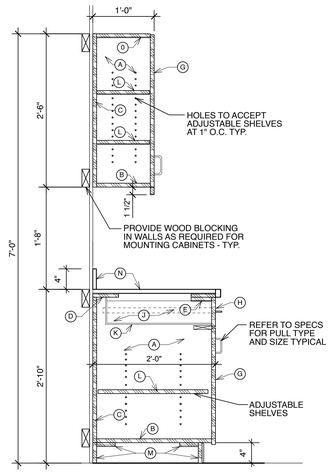
6 A7.1 Section @ Millwork
Scale: 1" = 1'-0"



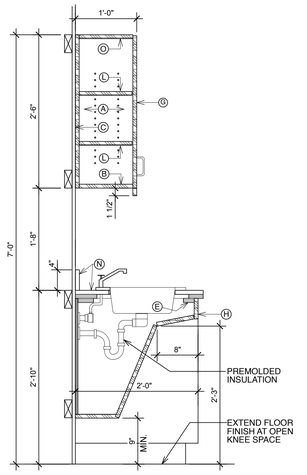
7 A7.1 Section @ Millwork
Scale: 1" = 1'-0"



8 A7.1 Section @ Millwork
Scale: 1" = 1'-0"



9 A7.1 Section @ Millwork
Scale: 1" = 1'-0"



10 A7.1 Section @ Millwork
Scale: 1" = 1'-0"

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REGISTERED ARCHITECT GEORGE CARTER JR. HEMINGWAY 7487 NORTH CAROLINA WILMINGTON, N.C.

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Project Manager	Drawn By
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Date	Reviewed By
11.10.2021	CH
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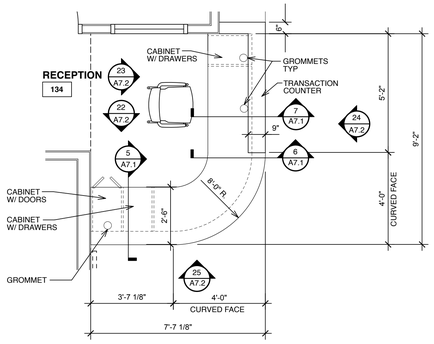
-	

Sheet Title

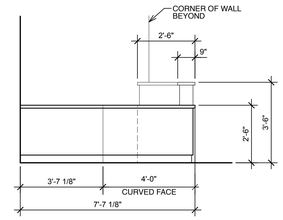
Furniture Plan & Millwork

Sheet No.

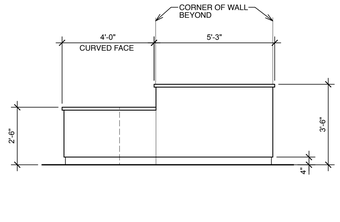
A7.1



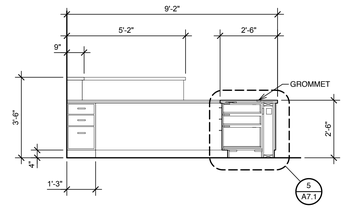
6 / A7.2 Enlarged Millwork Plan @ Reception Desk
Scale: 3/8" = 1'-0"



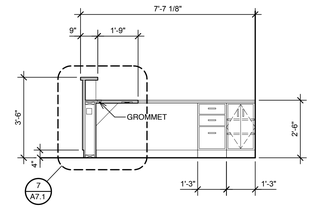
25 / A7.2 Elevation @ Lounge Desk
Scale: 3/8" = 1'-0"



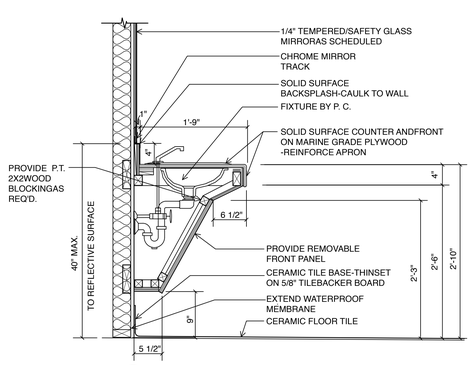
24 / A7.2 Elevation @ Lounge Desk
Scale: 3/8" = 1'-0"



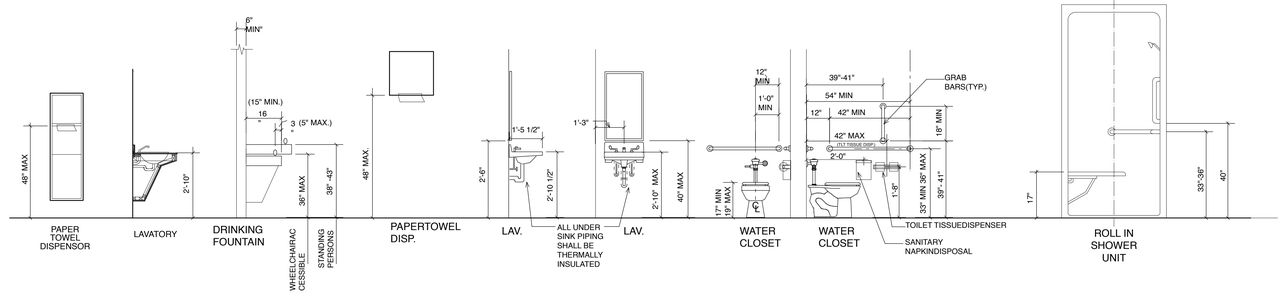
23 / A7.2 Elevation @ Lounge Desk
Scale: 3/8" = 1'-0"



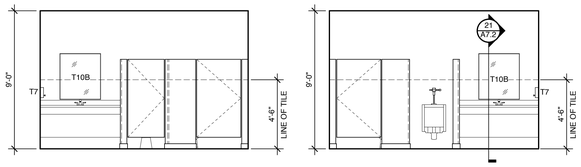
22 / A7.2 Elevation @ Lounge Desk
Scale: 3/8" = 1'-0"



21 / A7.2 Lavatory Sink Detail
Scale: 1" = 1'-0"

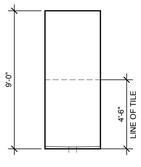


20 / A7.2 ADA Fixture Mounting Requirements
Scale: 3/8" = 1'-0"

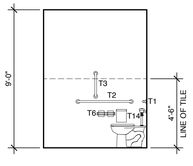


19 / A7.2 Elevation
Scale: 1/4" = 1'-0"

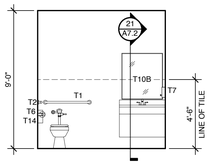
18 / A7.2 Elevation
Scale: 1/4" = 1'-0"



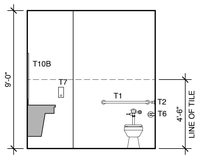
17 / A7.2 Elevation @ Can Wash
Scale: 1/4" = 1'-0"



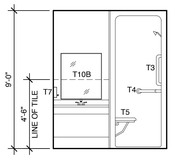
16 / A7.2 Elevation
Scale: 1/4" = 1'-0"



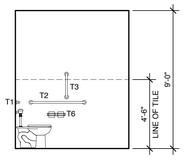
15 / A7.2 Elevation
Scale: 1/4" = 1'-0"



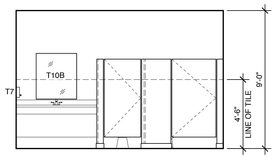
14 / A7.2 Elevation
Scale: 1/4" = 1'-0"



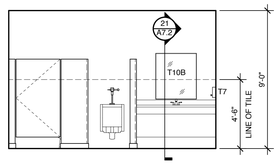
13 / A7.2 Elevation
Scale: 1/4" = 1'-0"



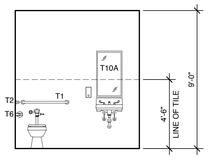
12 / A7.2 Elevation
Scale: 1/4" = 1'-0"



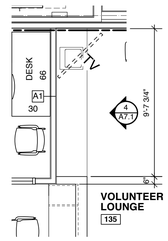
11 / A7.2 Elevation
Scale: 1/4" = 1'-0"

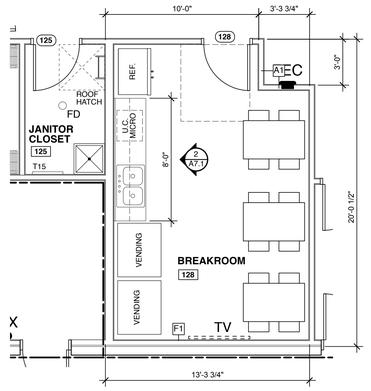


10 / A7.2 Elevation
Scale: 1/4" = 1'-0"



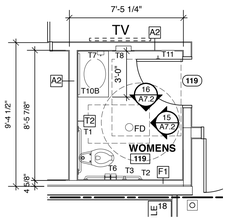
9 / A7.2 Elevation
Scale: 1/4" = 1'-0"



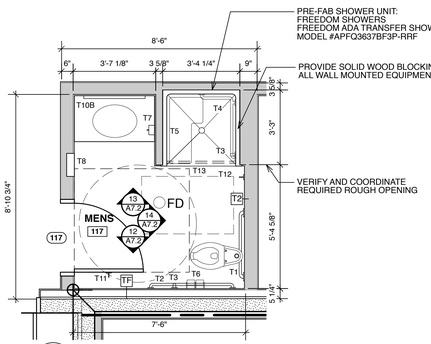


8 / A7.2 Enlarged Millwork Plan
Scale: 1/4" = 1'-0"

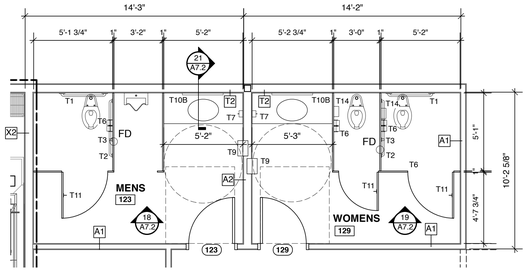
7 / A7.2 Enlarged Millwork Plan
Scale: 1/4" = 1'-0"

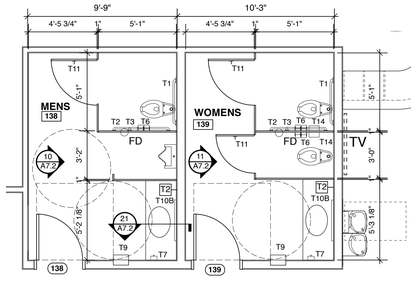


5 / A7.2 Enlarged Toilet Room Plan
Scale: 1/4" = 1'-0"

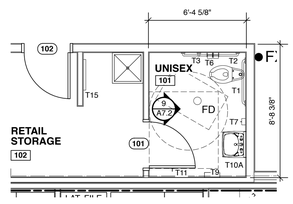


4 / A7.2 Enlarged Toilet Room Plan
Scale: 3/8" = 1'-0"





1 / A7.2 Enlarged Toilet Room Plan
Scale: 1/4" = 1'-0"



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REGISTERED CAREY JAMES HEMINGWAY — REGISTERED ARCHITECT — 7487 — NORTH CAROLINA — WILMINGTON, NC

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NO.	DATE	ISSUE NOTE

Project Manager	Drawn By
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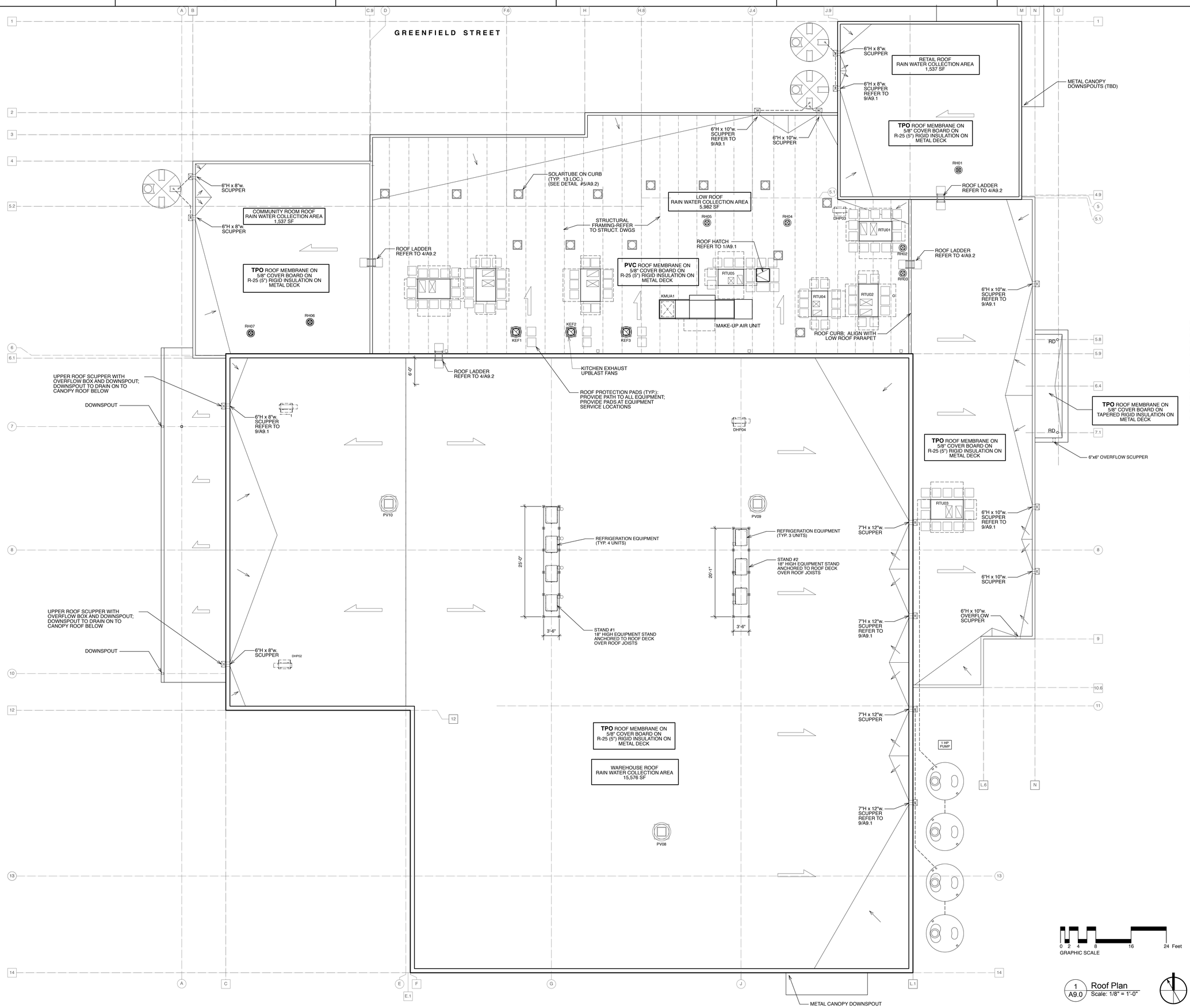
Sheet Title
Enlarged Plans & Interior Elevations

Sheet No.
A7.2



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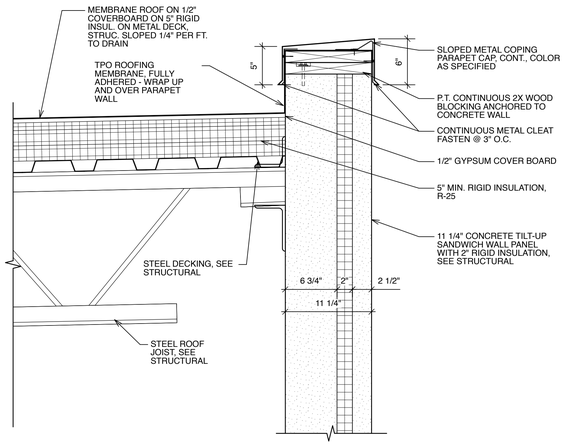
Date: 11.10.2021	Reviewed By: CH
Project ID: -	

Sheet Title

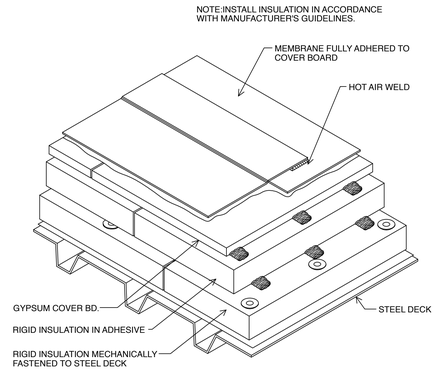
Roof Plan

Sheet No.

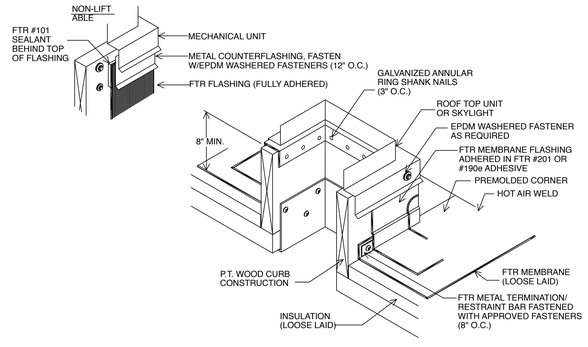
A9.0



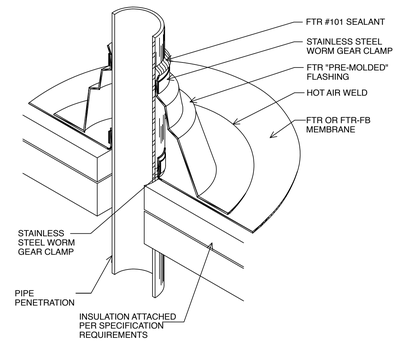
1 A9.1 **Roof Parapet Detail @ Warehouse**
Scale: 1 1/2" = 1'-0"



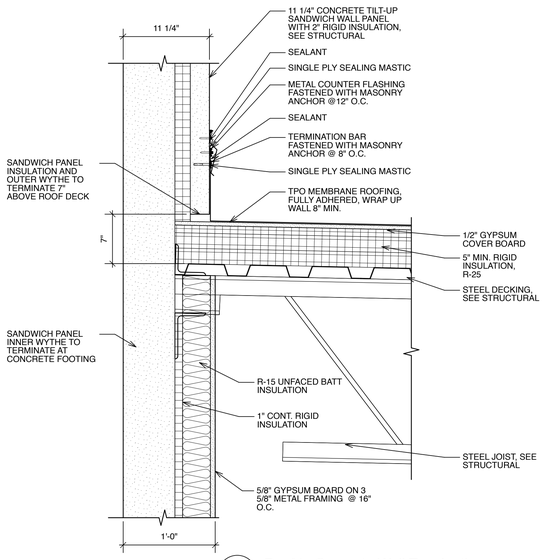
2 A9.1 **Roof System Diagram**
Scale: 1 1/2" = 1'-0"



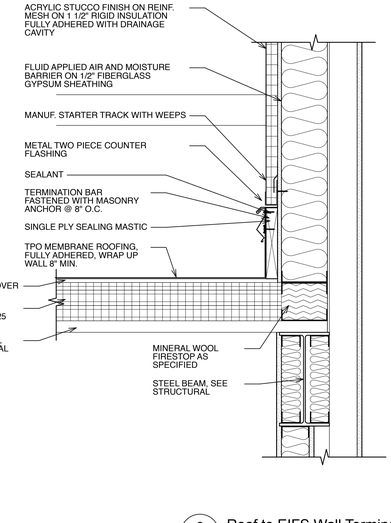
3 A9.1 **Flashing @ Equipment Curb**
Scale: 1 1/2" = 1'-0"



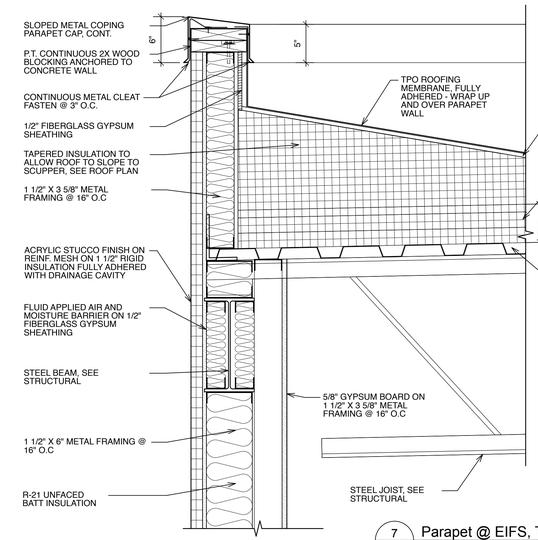
4 A9.1 **Pre-Molded Pipe Boot Detail**
Scale: 1 1/2" = 1'-0"



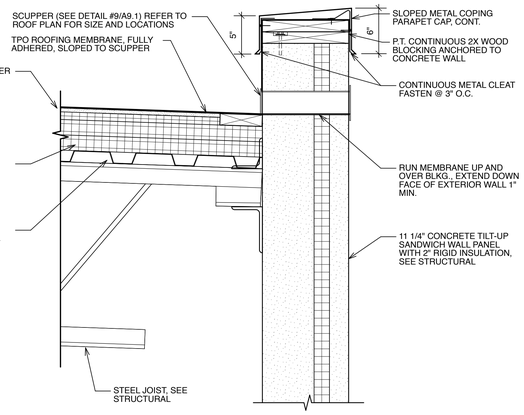
5 A9.1 **Roof to Concrete Wall Termination**
Scale: 1 1/2" = 1'-0"



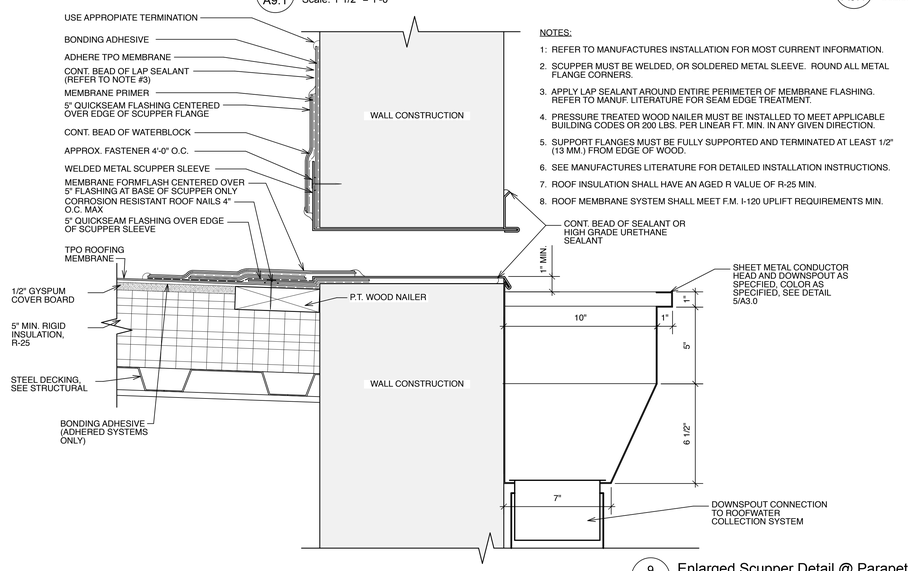
6 A9.1 **Roof to EIFS Wall Termination**
Scale: 1 1/2" = 1'-0"



7 A9.1 **Parapet @ EIFS, Typical**
Scale: 1 1/2" = 1'-0"



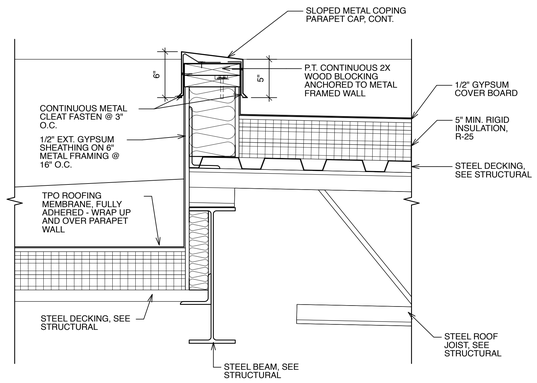
8 A9.1 **Scupper Detail, Typical**
Scale: 1 1/2" = 1'-0"



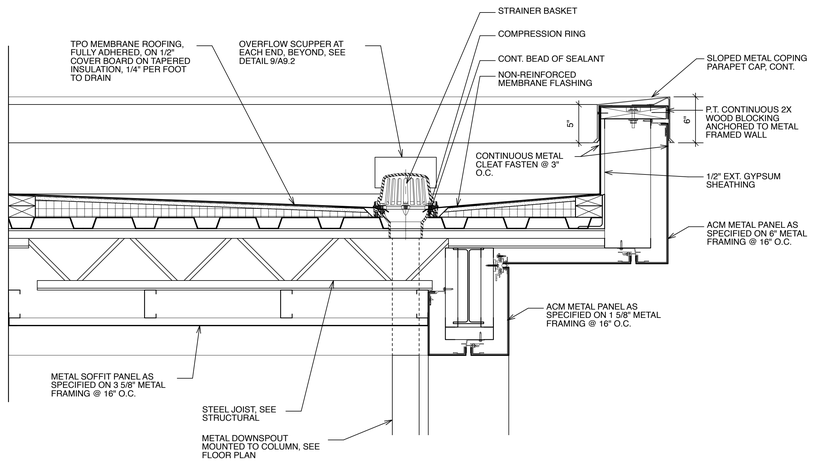
NOTES:

1: REFER TO MANUFACTURES INSTALLATION FOR MOST CURRENT INFORMATION.
2. SCUPPER MUST BE WELDED, OR SOLDERED METAL SLEEVE. ROUND ALL METAL FLANGE CORNERS.
3. APPLY LAP SEALANT AROUND ENTIRE PERIMETER OF MEMBRANE FLASHING. REFER TO MANUF. LITERATURE FOR SEAM EDGE TREATMENT.
4. PRESSURE TREATED WOOD NAILER MUST BE INSTALLED TO MEET APPLICABLE BUILDING CODES OR 200 LBS. PER LINEAR FT. MIN. IN ANY GIVEN DIRECTION.
5. SUPPORT FLANGES MUST BE FULLY SUPPORTED AND TERMINATED AT LEAST 1/2" (13 MM.) FROM EDGE OF WOOD.
6. SEE MANUFACTURES LITERATURE FOR DETAILED INSTALLATION INSTRUCTIONS.
7. ROOF INSULATION SHALL HAVE AN AGED R VALUE OF R-25 MIN.
8. ROOF MEMBRANE SYSTEM SHALL MEET F.M. I-120 UPLIFT REQUIREMENTS MIN.

9 A9.1 **Enlarged Scupper Detail @ Parapet, Typical**
Scale: 3" = 1'-0"



10 A9.1 **Roof Curb Detail**
Scale: 1 1/2" = 1'-0"



11 A9.1 **Canopy Roof and Drain Detail**
Scale: 1 1/2" = 1'-0"

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The Wilmington Food Bank
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REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

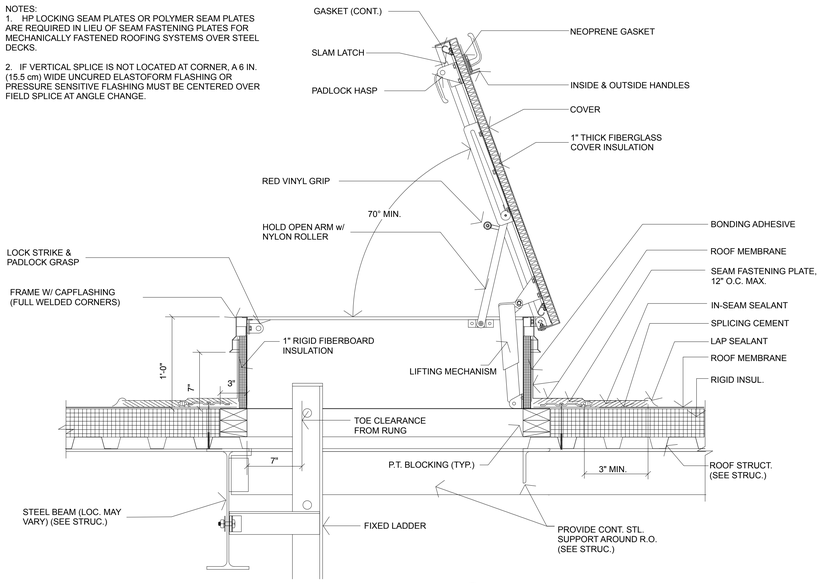
Project Manager	Drawn By: MEG
Date: 11.10.2021	Reviewed By: GCH
Project ID: -	

Sheet Title: **Roof Details**

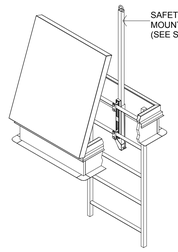
Sheet No.: A9.1

NOTES:
1. HP LOCKING SEAM PLATES OR POLYMER SEAM PLATES ARE REQUIRED IN LIEU OF SEAM FASTENING PLATES FOR MECHANICALLY FASTENED ROOFING SYSTEMS OVER STEEL DECKS.

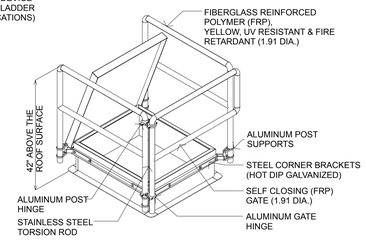
2. IF VERTICAL SPLICE IS NOT LOCATED AT CORNER, A 6 IN. (15.5 cm) WIDE UNCURED ELASTOFORM FLASHING OR PRESSURE SENSITIVE FLASHING MUST BE CENTERED OVER FIELD SPLICE AT ANGLE CHANGE.



1 A9.2 Roof Hatch Detail, Typical
Scale: 1 1/2" = 1'-0"

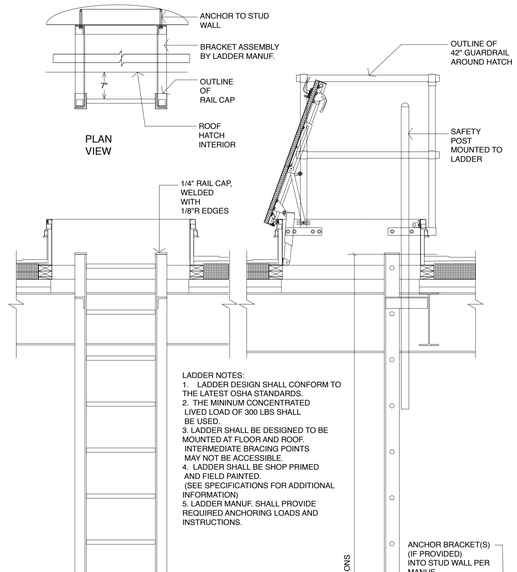


ACCESS LADDER SAFETY POST BY G.C.
-SEE SPECIFICATIONS

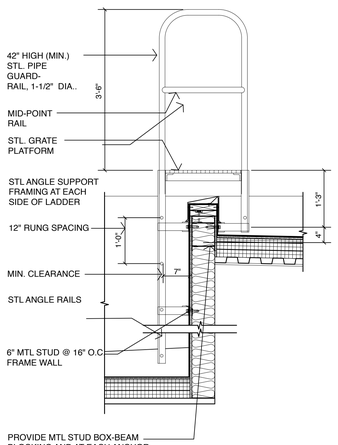


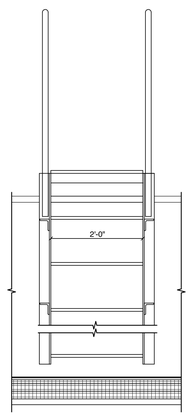
ROOF HATCH FALL PROTECTION RAILING BY G.C.
-SEE SPECIFICATIONS

2 A9.2 Roof Hatch Accesories
Scale: 1 1/2" = 1'-0"



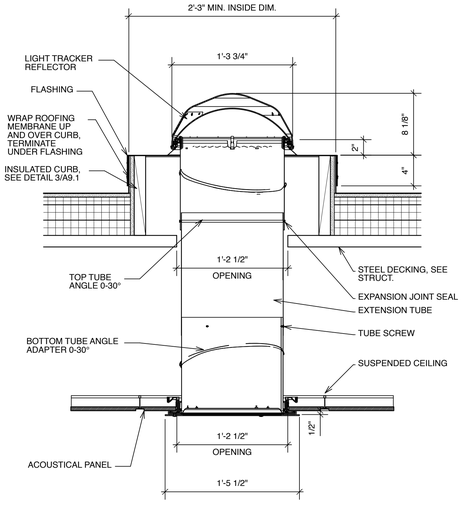
3 A9.2 Roof Hatch Access Ladder Details, Typ.
Scale: 3/4" = 1'-0"



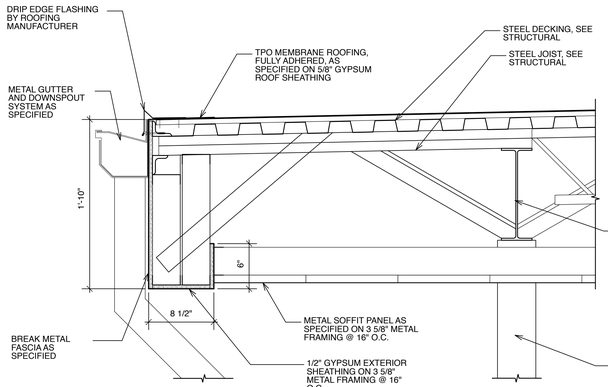


FRONT VIEW

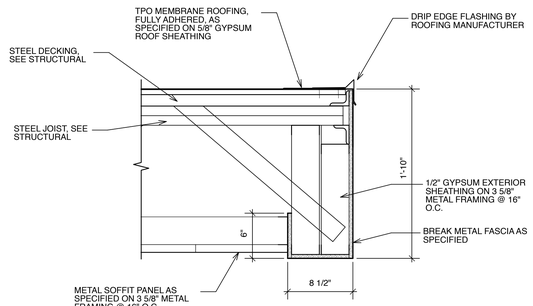
4 A9.2 Access Ladder @ Parapet, Typ.
Scale: 3/4" = 1'-0"



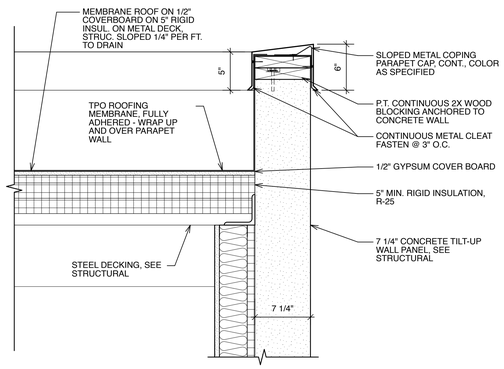
5 A9.2 Solatube / Skylight Detail
Scale: 1 1/2" = 1'-0"



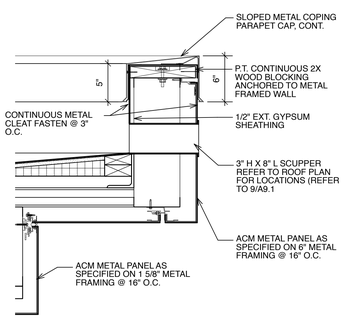
6 A9.2 Eave/Gutter Detail @ Canopy Roof
Scale: 1 1/2" = 1'-0"



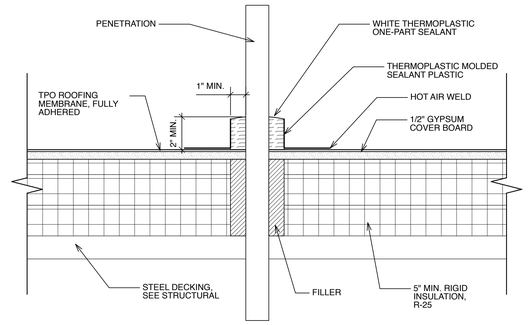
7 A9.2 Rake Detail @ Canopy Roof
Scale: 1 1/2" = 1'-0"



8 A9.2 Parapet @ 7 1/4" Tilt-Up Wall
Scale: 1 1/2" = 1'-0"



9 A9.2 Overflow Scupper Detail @ Canopy Roof
Scale: 1 1/2" = 1'-0"



10 A9.2 Thermoplastic Molded Sealant Detail
Scale: 3" = 1'-0"

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REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

Project Manager	Drawn By MEG
Date 11.10.2021	Reviewed By GCH
Project ID -	

Sheet Title
Roof Details

Sheet No.
A9.2

1.0 CODES AND STANDARDS:

1.1 "2018 North Carolina State Building Code" and "International Building Code", 2015.

1.2 "Minimum Design Loads for Buildings and other Structures" SEI/ASCE 7-16.

1.3 "Building Code Requirements for Structural Concrete (ACI 318-14)" American Concrete Institute 2014.

1.4 "Manual of Standard Practice", Concrete Reinforcing Steel Institute, latest edition.

1.5 "Specification for Structural Steel Buildings (AISC 360-10)" American Institute of Steel Construction, 2011 – 14th Edition

1.6 "Structural Welding Code – Steel (AWS D1.1)" and "Structural Welding Code – Reinforcing Steel (AWS D1.4)", American Welding Society.

1.7 "Specification for the Design of Cold-Formed Steel Structural Members", American Iron and Steel Institute (AISI), S100-12.

1.8 "Standard Specifications for Joist Girders (JG-10)", "Standard Specifications for Open Web Steel Joists, K-Series (K-10)", "Standard Specifications for Long Span Steel Joist, LH Series and Deep Longspan Steel Joists, DLH Series (LH/DLH-1.1)", Steel Joist Institute

1.9 "Design Manual For Floor Decks and Roof Decks", Steel Deck Institute, latest edition.

2.0 DESIGN LOADS:
Project Located in: City of Wilmington, County of New Hanover, State of North Carolina.

2.1 Risk Category = **IV**

2.2 Gravity Loads: (Reduced where allowed)

GRAVITY LOADS		
Location	**Uniform (psf)**	**Concentrated (lbs) (Over 2.5'x2.5')**
Roof Loads:		
Dead Load	20	
Live Load	20	300
Floor Live Loads:		
Office	65	2000
Retail	100	
Mechanical & Electrical Rooms	150	
Warehouse Light Storage	125	

2.3 Drifting Snow Loads per N.C. Building Code.

Pg = 10 psf
I = 1.2
Ce = 0.9
Ct = 1.0

2.4 Wind Loads per N.C. State Building Codes, 2018 edition (IBC 2015) & ASCE 7-16 (3-second gust)

Main Wind Force Resisting System:
Vult = 160 mph
Vasd = 124 mph
Exposure Category "B"

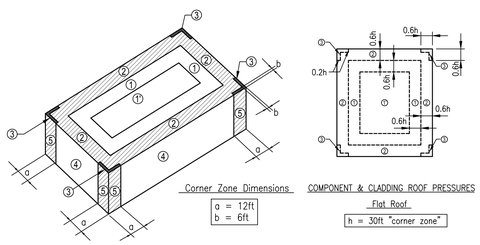
Building is enclosed & Internal Pressure coefficient (GCpi) = +0.18 & -0.18
Topographic Factor Kzt = 1.0
Wind Directionality Factor, Kd = 0.85

Calculated Wind Base Shear (For MWFRS)
Vx = 160k Vy = 181k

Components and Cladding:
Vult = 160 mph
Vasd = 124 mph
Exposure Category "B"

Components and Cladding Wind Pressure (psf)									
Walls	Area = 10ft²		Area = 20ft²		Area = 50ft²		Area = 100ft²		Area = 500ft²
Zone 4	46.1	-49.9	44.0	-47.9	41.3	-45.2	39.2	-43.1	39.2	-43.1
Zone 5	46.1	-61.6	44.0	-57.5	41.3	-52.0	39.2	-47.9	39.2	-47.9
Roof	Area = 10ft²		Area = 20ft²		Area = 50ft²		Area = 100ft²		Area = 500ft²	
Zone 1	18.7	-73.4	17.5	-68.6	16.1	-62.2	16.0	-57.3	16.0	-57.3
Zone 1'	18.7	-42.2	17.5	-42.2	16.1	-42.2	16.0	-42.2	16.0	-42.2
Zone 2	18.7	-97.2	17.5	-90.5	16.1	-82.3	16.0	-76.1	16.0	-76.1
Zone 3	18.7	-131.9	17.5	-119.5	16.1	-103.1	16.0	-90.5	16.0	-90.5

Notes:
1. Areas noted are effective wind areas as per ASCE 7-16, 26.2 definitions.
2. See figures below for Zone locations.
3. Plus and minus signs signify pressures acting toward and away from surfaces, respectively.
4. Design pressures shown in table are strength design wind pressures. Allowable stress design wind pressures may be calculated by factoring the pressures by 0.6.
5. Design pressures for effective wind areas between those noted in schedule may be interpolated.
6. Tributary area = greater of LxW or LxL/3.
7. Deflections may be calculated based on 42% of these loads.



Corner Zone Dimensions
a = 12ft
b = 6ft

COMPONENT & CLADDING ROOF PRESSURES
Flat Roof
h = 30ft "corner zone"

SEE COMPONENT CLADDING LOADING DIAGRAM ON SHEET S4.1

2.5 Seismic Loads per 2018 North Carolina State Building Code (IBC 2015) & ASCE 7-16

Risk Category = **IV**
Site class = "D" (Per Geotechnical Report)
Spectral Response Coefficients:
SDS = 0.167g
SD1 = 0.11g
Cs = 0.063g

Seismic Design Category = C
Seismic Importance Factor = 1.5
Basic Seismic – Force – Resisting System
Building Frame System – Intermediate Precast Shearwalls

RX=RY=4.0, OX=OY=2.5, CDX=CDY=4.0
Design Base Shear Vx = 220k Vy = 220k
Building Height Limit = NV
Analysis Procedure – 12.8.1 ASCE 7-10
Equivalent Lateral Force Procedure

2.6 Guardrail designed per North Carolina State Building Code, Section 1607.8

Guardrail:
Uniform load = 50 plf, any direction – per 1607.8.1
Concentrated load = 200 lbs, any direction – per 1607.8.1.1
Intermediate Rail: (all those except handrail) per 1607.8.1.2

2.7 Flood Loads:
Project is not located in a flood zone.

3.0 FOUNDATIONS:

3.1 Foundation design is based on geotechnical report 22:30552 by ECS Southeast, LLP, Wilmington, NC dated July 28, 2021. This report is available for inspection at the office of the architect or owner. The recommendations contained in this report are herein made part of the requirements of these contract documents.

3.2 Footings shall bear on strata capable of sustaining a minimum bearing pressure of 2,000 psf.

3.3 Top of footing (T/FTG) elevations are shown on the drawings or are to be determined by the Contractor in the field in accordance with the guidelines set forth in the drawings.

3.4 Bottom of exterior footings, grade beams and walls shall bear at a minimum depth of 1'-0" below final grade for frost protection.

3.5 Testing and Inspection:
a. All areas to have slabs on grade shall be proof rolled in accordance with and under observation of the Geotechnical Engineer and approved prior to preparation for concrete placement.

b. All foundation bearing strata shall be inspected and approved by the Geotechnical Engineer prior to any concrete placement.

c. Geotechnical Engineer shall be the sole judge as to suitability of all foundation and/or slab bearing strata.

d. Footing bearing elevations shall be adjusted in the field as required to meet the design bearing pressures by additional excavation or compaction and/or backfilling or by other means acceptable to the Geotechnical Engineer.

3.6 Undercutting to remove existing fill beneath footings and slab shall be performed at the direction of the Geotechnical Engineer.

3.7 Engineered Fill: All fill material shall be selected in accordance with the Geotechnical Report Material shall be a clean, low plastic soil with a plasticity index less than 30 (less than 15 is preferred), liquid limit less than 50, and unit weight of 120 pcf (+ 5 pcf)

3.8 Compaction: All fill shall be placed in loose lifts not exceeding 8 inches in thickness and compacted to a minimum of 96 percent Standard Proctor (ASTM D-698) except that the top 12 inches shall be compacted to a minimum of 98 percent Standard Proctor. Moisture shall be controlled to within 3 percent above or below optimum content.

3.9 Remove all topsoil and organic materials. The stripping should extend at least 10' beyond the proposed construction limits.

3.10 Contractor shall review all construction considerations as outlined in the Geotechnical report and bid accordingly.

4.0 CONCRETE:

4.1 Concrete Strength:
All concrete shall be in accordance with the American Concrete Institute (ACI) 301 and 318.

4.2 Concrete shall have a 28 day compressive strength and density as follows:
a. Footings, Grade Beams, Office and Retail Interior Slab-on-grade.....3,000psi, Density = ±145pcf
b. Warehouse Slab-on-grade.....4,000psi Density = ±145pcf
c. Exterior Slab on Grade.....4,000psi, Density = ±145pcf
d. Tilt-up Wall.....4,000psi Density = ±145pcf

4.3 Concrete Mix Designs:
a. Submittals: Submit written reports of each proposed concrete mix not less than 15 days prior to the start of work.
b. Mix designs, including water, cement ratios and slumps, shall be prepared in accordance with ACI 301-05, Section 4, Cement shall conform to ASTM C 150 Type 1 or at contractor's option, ASTM C 595 Type IP where fly ash is permitted. Normal weight aggregate shall conform to ASTM C 33 and light weight aggregate shall conform to ASTM C 330. No admixtures containing calcium chloride shall be permitted in any concrete.
c. Aggregate size shall be #67 stone for supported slabs or other formed concrete elements; #57 stone for slabs on grade and footings or other concrete elements formed from and poured against earth; #89 stone for masonry grout.
d. Water reducing admixture shall be used in all concrete.
e. Air entraining admixture in accordance with ACI 301 shall be used in all concrete exposed freezing and thawing during construction or service conditions.
f. Concrete subjected to freezing/thawing shall have a maximum water/cement ratio of 0.45 and shall contain the amount of air entraining agent specified in ACI 301-05 Section 4.

4.4 Curing:
See specifications for curing method options and apply within two (2) hours after completion of finishing to all concrete flatwork and walls, U.N.O., other than footings and grade beams.

4.5 Use a non-corrosive, non-chloride accelerating admixture in concrete exposed to temperatures below 40 degrees. Uniformly heat the water and aggregates to a temperature of not less than 50 degrees. Place and cure concrete in accordance with ACI 306.

4.6 When hot weather conditions exist, place and cure concrete in accordance with ACI 301. Cool ingredients before mixing to maintain concrete temp. at time of placement below 90 degrees.

4.7 Reinforcing in all abutting concrete, including footings shall be continuous through or around all corners or intersections. Dowels or splices shall be equal in size and spacing to the reinforcing in the abutting members.

4.8 Refer to architectural drawings for door and window openings, drips, reglets, washes, masonry anchors, brick ledge elevations, slab depressions and miscellaneous embedded plates, bolts, anchors, angles, etc.

4.9 Refer to plumbing, mechanical and electrical drawings for underfloor, perimeter and other drains and for sleeves, outlet boxes, conduit, anchors, etc. The various trades are responsible for their items.

4.10 Base plates, anchor rods, support angles and other steel exposed to earth or granular fill shall be covered with a minimum of 3" of concrete.

4.11 Fill slabs, not shown on the structural drawings and all exterior slabs to be broom finished, shall be reinforced with a minimum of 6 x 6 x W2.0 x W2.0 WWM unless noted otherwise on other drawings.

4.12 Finish surfaces to the following tolerances, according to ASTM E 1155, for a randomly trafficked floor surface:
a. Specified overall values of flatness, F(F) 25; and of levelness, F(L) 20; with minimum local values equal to ½ of the overall flatness and levelness values.
b. The composite F(F) and F(L) numbers shall be measured and reported within 72 hours after completion of slab concrete finishing operations and before removal of any supporting shores.

4.13 Non-shrink grout shall be pre-mixed, non-corrosive, non-metallic, non-staining containing silica sands, Portland cement, shrinkage compensating and water reducing agents. Product shall only require the addition of water. Minimum compressive strength shall be 2500 psi after one day and 7000 psi after 28 days. Grout shall be free of gas producing or air releasing and oxidizing agents and contain no corrosive iron, aluminum or gypsum.

4.14 Provide concrete grout – not mortar – for reinforced masonry lintel and bond beams where indicated on drawing or as scheduled.

4.15 Tolerance for anchor rods and other embedded items shall be per the AISC Code of Standard Practice Section 7.5.

4.16 Unless otherwise shown in the architectural drawings, provide 3/4-inch chamfers at all column, wall, slab or beam edges that are exposed to view in the finished structure.

4.17 Concrete cover for cast-in-place concrete reinforcement:
Concrete cast against & permanently exposed to earth:.....3 Inches
Concrete exposed to earth or weather:
No. 6 through No. 18 Bars:.....2 Inches
No. 5 Bar and smaller:.....1½" Inches
Concrete not exposed to weather or in contact with ground:
Slabs, Walls, Joists:
No. 11 Bar and smaller:.....¾" Inches
Beams, Columns:
Primary Reinforcement, Ties, Stirrups:.....1½" Inches

5.0 REINFORCING STEEL:

5.1 Reinforcing shall be domestic new billet steel conforming to ASTM A615, Grade 60 or 60S including stirrups and ties, except that reinforcing which is required to be welded shall conform to ASTM A706.

5.2 Field bending of concrete reinforcing steel is not permitted.

5.3 Welded wire mat and fabric shall conform to ASTM A184 and A185 respectively and shall be provided in flat sheets. Welded wire mat/fabric shall be lapped 0'-6" at all splices.

5.4 Bar Splices:

	f'c = 3,000psi		f'c = 4,000psi		f'c = 5,000psi	
Bar Size	**Ld (in)**	**Class "B" Lap Splice (in)**	**Ld (in)**	**Class "B" Lap Splice (in)**	**Ld (in)**	**Class "B" Lap Splice (in)**
#3	17	22	15	19	13	17
#4	22	29	19	25	17	23
#5	28	36	24	31	22	28
#6	33	43	29	37	26	34
#7	48	63	42	54	38	49
#8	55	72	48	62	43	56

1. Values are based on normal weight concrete.
2. Ld = minimum embed of rebar
3. Class "B" lap splice refers to minimum distance bars must be lapped for a full tension splice.

6.0 COLD-FORMED STEEL FRAMING:

6.1 All members shall be designed in accordance with the American Iron and Steel Institute (AISI) "Specifications for the Design of Cold-formed Steel Structural Members", Latest Edition.

6.2 All framing members shall be formed from corrosion-resistant steel corresponding to the requirements of ASTM A446, with a minimum yield strength of 33 ksi for joists and studs and 33 ksi for runners.

6.3 All members shown are standard designations of Steel Stud Manufacturers Association (SSMA)

6.4 Design of members indicated in structural drawings is based on minimum properties of products produced per SSMA standards of members specified. No substitution of materials is acceptable for use without prior approval of the structural engineer. Substitutions shall meet or exceed all properties produced per SSMA standards of members specified.

6.5 All shop drawing submittals shall show layout, spacing, sizes, thicknesses and types of cold-formed metal framing, fabrication, and fastening and anchorage details, including mechanical fasteners. Show reinforcing channels, opening framing, supplemental framing, strapping, bracing, bridging, splices, accessories, connection details and attachment to adjoining work.

6.6 Shop drawings, design calculations and other structural data shall be prepared and sealed by a qualified engineer. The Structural Engineer shall be legally qualified to practice in the jurisdiction where the project is located and shall be experienced in providing engineering services of the kind indicated.

6.7 All framing components shall be cut squarely for attachment to perpendicular members or as required for an angular fit tight against abutting members. All load bearing stud/walls shall be factory assembled into panels with studs bearing squarely and fully in top and bottom tracks.

6.8 Fastening components shall be by self-drilling screws or by welding as defined below UNO on the drawings.

6.9 Screwed connections:
a. Screws shall be type S-12 or type S-4 for all framing members per manufacturer's recommendations.
b. A minimum of three (3) exposed threads shall penetrate through at joined materials.
c. Corrosion-resistant cadmium-plated screws shall be used for screws attaching metal lath, masonry ties, and other exterior materials.

6.10 Welded connections:
a. Gas metal arc welding (GMAW) shall be used for 20 ga. Or lighter members. AWSE-705-3, E-705-E, E-705-6 wire electrodes .030"-.035" diameter shall be used with carbon dioxide, argon-oxygen or argon-carbon dioxide shielding. Welding equipment 60-100 amperes at 25 volts using 220-volt 3-phase electric service.
b. Shielded metal arc welding (SMAW) shall be used for 18 ga' and heavier members. AWS E-6012, E-6013, or E-7014 electrodes of 3/32" or 1/8" diameter shall be used. Welding equipment heat setting shall be varied dependent on material thickness.
c. All welds shall be touched up with zinc rich paint, or paint similar to that used by the framing member manufacturer.

6.11 Alignment of studs (plumbness) and walls (straightness) shall be within 1/960 of their respective heights and lengths.

6.12 Studs shall be plumbed, aligned, and securely attached to top and bottom runners. Splices in studs are not permitted.

6.13 Where manufacturer's recommendations for erection, attachment, assembly, bracing, alignment, or other installation, or assembly requirements are more stringent than indicated in these drawings, the manufacturer's recommendations shall apply.

STEEL THICKNESS						
Gauge:	**Mils**	**Design Thickness**		**Minimum Thickness**		**Yield Strength**
		Inches	**mm**	**Inches**	**mm**	**ksi**
20	33	0.0346	0.879	0.0329	0.836	33
18	43	0.0451	1.146	0.0428	1.087	33
16	54	0.0566	1.438	0.0538	1.367	50
14	68	0.0713	1.811	0.0677	1.720	50
12	97	0.1017	2.583	0.0966	2.454	50

7.0 STEEL JOISTS:

7.1 All steel joists shall be designed, fabricated, and erected in accordance with the SJI Specifications.

7.2 Joist ends shall be fixed and bridging shall be placed prior to application of any loads.

7.3 End Support:
a. Minimum bearing requirements shall be in accordance with the SJI Specification. Extended joist ends for bearing on masonry shall be provided by the joist manufacturer where required to accommodate bearing conditions shown on the drawings.
b. K Series joists shall be welded to supports with 1/8" fillet welds, one each side, 2" long.
c. Bolt joists as indicated below to structural steel supports at column centerlines or where joists do not space on centerlines, bolt connections for each joist adjacent to centerline. K Series: 2 Ø 1/2-inch diameter bolts (minimum)

7.4 Joist bridging:
a. Shall be placed in accordance with the SJI Specification U.N.O. and shall be horizontal rods or angles at top & bottom chords for all K Series joists.
b. Bridging that terminates at or is interrupted by structural steel members, shall be welded or bolted thereto. Provide diagonal ("X") bridging for ends of bridging lines terminating at walls/beams.

7.5 Holes in joist chords are not permitted, except at bearing and bolted connections.

7.6 All joists (40) forty feet and longer shall require a row of bolted bridging to be in place before slackening of hoisting lines.

8.0 STRUCTURAL STEEL:

8.1 All structural steel shall be of the grades indicated below, unless noted otherwise on plans or details.
Rolled shapes ASTM A992 Gr. 50
Steel pipe ASTM A53, Type E or S, Grade B, Fy-35ksi
Structural tubing ASTM A500, Grade B, Fy-46ksi
Plates and bars ASTM A36 U.N.O.
Anchor rods ASTM F1554, Grade 36 U.N.O.
Miscellaneous ASTM A36 U.N.O.

8.2 All structural steel shall be detailed, fabricated and erected in accordance with the AISC Code of Standard Practice. The fabricator is responsible for the design of connections not shown on the structural drawings. For the purpose of the connection design, the fabricator shall retain a professional engineer registered in the state where the project is located. The engineer shall seal and sign each shop drawing containing connection design. A note shall accompany the drawings stating that the seal is for "Connection Design Only".

8.3 Connection Design:
a. Generally, connections shown on the drawings are schematic and are intended to show the relationship of the members.
b. Connections shall be designed for one-half (1/2) the allowable uniform load on the member, as defined in Part 3, "Allowable Loads on Beams" tables in the AISC "Manual of Steel Construction", 14th Edition, See plan notes for design methodology and minimum reactions.

8.4 Bolted connections:
a. Bearing type connections shall be snug tight with A325N or A490N bolts, U.N.O. Oversized and long-slotted holes are NOT permitted U.N.O. At single shear plate connections, provide bearing type fasteners with horizontal short slotted holes. All bolts shall be snug tight. DO NOT over torque bolts.
b. Protruding bolt heads, shafts or nuts shall not extend nor prohibit the application of architectural finishes or placement of steel deck at its correct location and elevation.
c. Connection designer is responsible for verifying the axial capacity after a section is reduced for bolt holes. Member size may be increased or plates added to maintain required capacity.
d. Bolted connections shall be assembled and inspected in accordance with RCSC-2009 (Specification for Structural Joints Using High-Strength Bolts).

8.5 Welded connections:
a. All welding shall be in accordance with the "Structural Welding Code – Steel" (AWS D1.1) of the American Welding Society, Latest Edition.
b. Electrodes for welding shall comply with the requirements of Table 4.1.1 of the AWS code.
c. At Moment Connections and Braced Frames Provide filler Metal that has a minimum CVN Toughness of 20 ft-lbs at minus 20 degrees F, As determined by AWS classification or Manufacturer Certification.
d. Proof of welder certification shall be available at the job site during times of inspection.

8.6 Minimum plate thickness shall be 3/8" U.N.O.; minimum bolt diameter shall be 3/4-inch U.N.O.; minimum shop weld shall be 3/16" and minimum field weld shall be 1/4-inch U.N.O.

8.7 All re-entrant corners (such as copes and blocks) shall be cut and shaped notch free with a radius of at least 1/2-inch.

9.0 STEEL DECK:

9.1 Steel roof deck shall be galvanized, Type B, 1 1/2" deep, 20 gauge, U.N.O.

9.2 For steel roof deck spans, mechanically fasten side laps at mid-span using "Buildex", self-tapping TEKS No. 10 or larger machine screws or as noted on plan.
Provide additional sidelap fasteners where noted on plan.
Fasten roof deck to supporting members as noted on plan.

9.3 Do not hang pipes or ducts from steel roof deck. Fasten roof deck to supporting members as noted on plan.

9.4 At exposed structure areas to be painted, provide galvanized and bottom primed white.

10.0 CONSTRUCTION AND SAFETY:

10.1 Woods Engineering P.A.'s responsibility is limited to the details and information shown on these drawings. It is the responsibility of the Contractor to provide adequate safety measures required by local codes as well as OSHA Standards for the Construction Industry.
This should include, but not be limited to the following:
Shoring to protect new as well as existing structures.
Necessary Scaffolding.
Material Handling Equipment.
Trench Boxing.

11.0 SPECIAL INSPECTIONS:

11.1 Refer to Specification Section 014533 for all Special Inspections requirements.

12.0 SHOP DRAWING SUBMITTAL:

12.1 See Project Manual

12.2 Contractor shall submit Electronic copies (PDF format) of each shop drawing for review. Shop drawings shall be reviewed by the Contractor prior to submission to the Engineer. The Contractor shall allow 10 working days for shop drawing approval.

ABBREVIATIONS

@	AT	HT	HIP TRUSS
&	AND	IFM	INSIDE FACE OF MASONRY
AB	ANCHOR BOLTS	INT	INTERIOR
ACI	AMERICAN CONCRETE INSTITUTE	JBE	JOIST BEARING ELEVATION
ADDL	ADDITIONAL	JT	JOINT
AFF	ABOVE FINISHED FLOOR	K	KIP-S
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION	KB	KICKER BRACE
		KSI	KIPS PER SQUARE INCH
AISI	AMERICAN IRON AND STEEL INSTITUTE	(L)	LONG SIDE REINFORCEMENT
		LB	LONG BAR
ALT	ALTERNATE	LBS	POUNDS
ARCH	ARCHITECTS – ARCHITECTURAL	LLH	LONG LEG HORIZONTAL
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	LLV	LONG LEG VERTICAL
		LO	LOW
AWS	AMERICAN WELDING SOCIETY	LOC	LOCATION
B, BOTT	BOTTOM	LWC	LIGHT WEIGHT CONCRETE
BCX	BOTTOM CHORD EXTENSION	MAX	MAXIMUM
BFF	BELOW FINISHED FLOOR	MC	MOMENT CONNECTION
BLDG	BUILDING	MECH	MECHANICAL
BM	BEAM	MFR	MANUFACTURER
BOS	BOTTOM OF STEEL	MID	MIDDLE
BRG	BEARING	MIN	MINIMUM
BTWN	BETWEEN	MISC	MISCELLANEOUS
CFS	COLD FORMED STEEL	MOW	MIDDLE OF WALL
CJ	CONTRACTION JOINT	MP	MASONRY PILASTER
CL	CENTERLINE	d	NAILS – PENNY
CLR	CLEAR	No	NUMBER
CMU	CONCRETE MASONRY UNITS	NS	NEAR SIDE
COL	COLUMN	NTS	NOT TO SCALE
CONC	CONCRETE	NWC	NORMAL WEIGHT CONCRETE
CONN	CONNECTION	OC	ON CENTER
CONST JT	CONSTRUCTION JOINT	OFB	OUTSIDE FACE OF BRICK
CONT	CONTINUOUS	OFM	OUTSIDE FACE OF MASONRY
CONTR	CONTRACTOR	OFS	OUTSIDE FACE OF STUD
CSJ	COMPOSITE STEEL JOIST	OPNG	OPENING
CTRD	CENTERED	OPP	OPPOSITE HAND
DBA	DEFORMED BAR ANCHOR	PEBS	PRE-ENGINEERED BUILDING SUPPLIER
DD	DELEGATED DESIGN		
DEFL	DEFLECTION	PED	PEDESTAL
DEPR	DEPRESSION – DEPRESSED	PL	PLATE
DET	DETAIL	PSF	POUNDS PER SQUARE FOOT
DIAG	DIAGONAL	PSI	POUNDS PER SQUARE INCH
ø	DIAMETER	PSL	PARALLEL STRAND LUMBER
DIM	DIMENSION	PLF	POUNDS PER LINEAR FOOT
DIST	DISTANCE	PT	PRESSURE TREATED
DWG(S)	DRAWING(S)	REF	REFERENCE
DWL(S)	DOWEL(S)	REINF	REINFORCING
EA	EACH	REQD	REQUIRED
ELEV	ELEVATION	(S)	SHORT SIDE REINFORCEMENT
EMBED	EMBEDDED – EMBEDMENT	SB	SHORT BAR
ENG	ENGINEER	SCHD	SCHEDULE
EOR	ENGINEER OF RECORD	SF	STEP FOOTING
EQ	EQUAL	SIM	SIMILAR
EQUIP	EQUIPMENT	SOG	SLAB ON GRADE
EF	EACH FACE	SPEC(S)	SPECIFICATION(S)
EJ	EXPANSION JOINT	SPF	SPRUCE PINE FUR
EOD	EDGE OF DECK	SQ	SQUARE
EOM	EDGE OF MASONRY	STD	STANDARD
EOS	EDGE OF SLAB	STIFF	STIFFENER
EOW	EDGE OF WALL	STIRR	STIRRUP
EW	EACH WAY	STL	STEEL
EXIST	EXISTING	STR	STRUCTURAL
EXP	EXPANSION	SW	SHEAR WALL
EXT	EXTERIOR	SYP	SOUTHERN YELLOW PINE
FDN	FOUNDATION	T	TOP
FFE	FINISHED FLOOR ELEVATION	TCX	TOP CHORD EXTENSION
FS	FAR SIDE	TOC	TOP OF CONCRETE
FTG	FOOTING	TOS	TOP OF STEEL
GA	GAUGE	TOW	TOP OF WALL
GALV	GALVANIZED	TYP	TYPICAL
GT	GIRDER TRUSS	UNO	UNLESS NOTED OTHERWISE
HD	HEADED	VB	VEHICLE BARRIER
HI	HIGH	VERT	VERTICAL
HORIZ	HORIZONTAL	VIF	VERIFY IN FIELD
HSS	HOLLOW STRUCTURAL SECTION	W	WITH
		WWF	WELDED WIRE FABRIC

DO NOT SCALE DIGITAL OR HARD COPIES OF THESE DRAWINGS:

Unless Specifically Noted – Drawings, Plans, Sections, Details, Etc. are a graphic representation of the framing conditions and/or requirements.
Rebar lengths, bends & etc. SHALL NOT be determined by scaling any drawings included in this set of documents. Lengths & sizes shall be determined by the schedules only, or specifically requested if not numerically shown. Submit a written request to Woods Engineering, PA if further clarification is needed.

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NORTH CAROLINA PROFESSIONAL ENGINEERS CORPORATE SEAL No. C-1806

NORTH CAROLINA PROFESSIONAL ENGINEERS SEAL 19475 JON R. WOODS

ISSUED FOR PRICING

The Wilmington Food Bank
Greenfield Street
Wilmington, North Carolina 28403

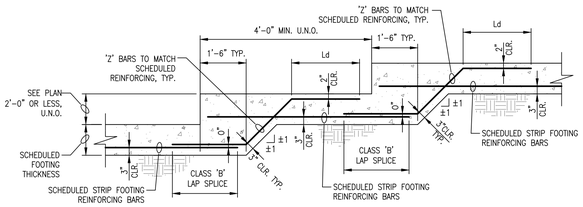
REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

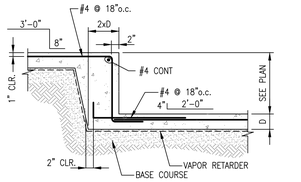
Project Manager	Drawn By
Date: Oct. 20, 2021	Reviewed By
Project ID: 123456789	

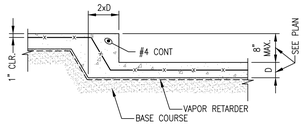
Sheet Title: General Notes

Sheet No.: S1.1

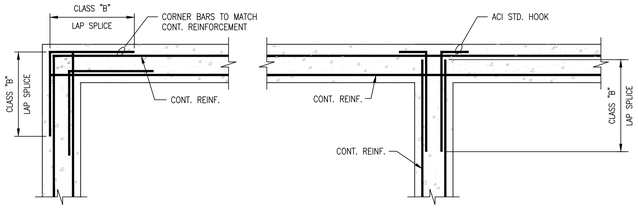


STEP FOOTING DETAIL
SCALE: 1/2" = 1'-0"





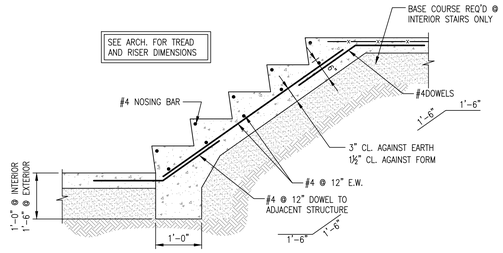
TYPICAL SLAB STEP
SCALE: 3/4" = 1'-0"



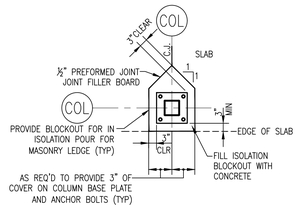
② FOOTING CORNERS

② FOOTING INTERSECTION

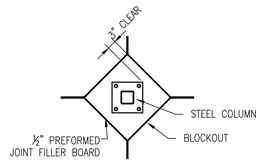
TYPICAL CORNER
REINFORCING FOR CONCRETE FOOTINGS
SCALE: 3/4" = 1'-0"



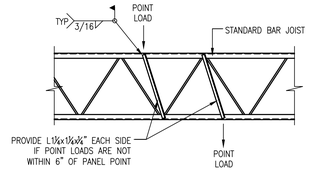
TYPICAL
STAIR ON GRADE
SCALE: 3/4" = 1'-0"



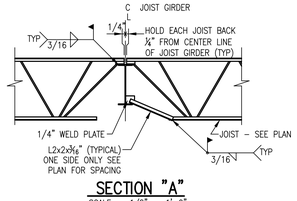
TYPICAL ISOLATION JOINT
AT SLAB EDGE
NOT TO SCALE



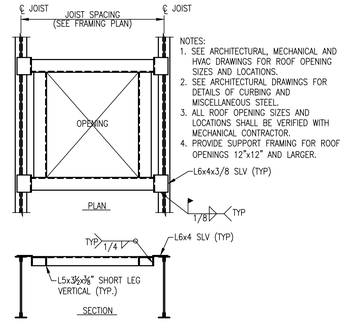
ISOLATION JOINT DETAIL
NOT TO SCALE



DETAIL OF
TYPICAL JOIST REINFORCEMENT
NOT TO SCALE



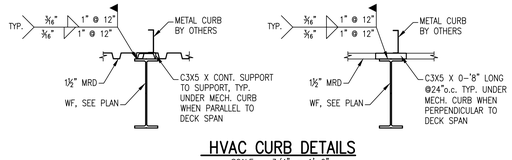
SECTION "A"
SCALE: 1/2" = 1'-0"
GIRDER BOTTOM FLANGE
(BRACE TYP.)



NOTES:
1. SEE ARCHITECTURAL, MECHANICAL AND HVAC DRAWINGS FOR ROOF OPENING SIZES AND LOCATIONS.
2. SEE ARCHITECTURAL DRAWINGS FOR DETAILS OF CURBING AND MISCELLANEOUS STEEL.
3. ALL ROOF OPENING SIZES AND LOCATIONS SHALL BE VERIFIED WITH MECHANICAL CONTRACTOR.
4. PROVIDE SUPPORT FRAMING FOR ROOF OPENINGS 12"x12" AND LARGER.

DETAIL OF
TYPICAL ROOF OPENING
NOT TO SCALE

AT CONTRACTOR'S OPTION:
USE QUICKFRAMES
WWW.QUICKFRAMES.US



HVAC CURB DETAILS
SCALE: 3/4" = 1'-0"

GENERAL NOTE:
DETAILS SHOWN ON THIS SHEET ARE GENERIC IN NATURE AND MAY NOT PORTRAY EXACT CONDITIONS. THESE DETAILS ARE INTENDED TO PROVIDE GENERAL GUIDELINES FOR TYPICAL CONSTRUCTION CONDITIONS.

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WOODS ENGINEERING, P.A. CORPORATE SEAL No. C-1806 NORTH CAROLINA

NORTH CAROLINA PROFESSIONAL SEAL 19475 ENGINEER JON R. WOODS

ISSUED FOR PRICING

The Wilmington Food Bank
Greenfield Street
Wilmington, North Carolina 28403

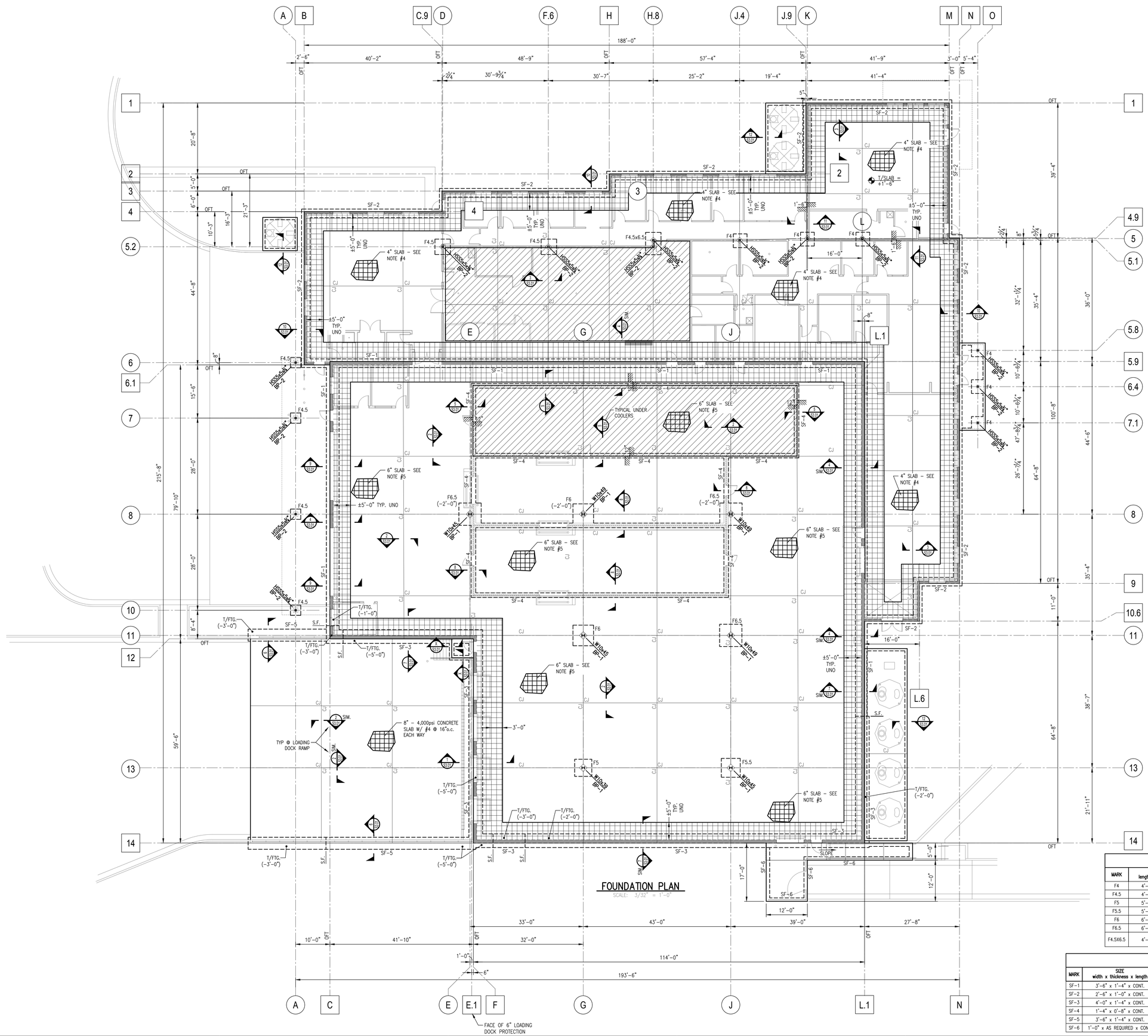
REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

Project Manager	Drawn By
Date: Oct. 20, 2021	Reviewed By
Project ID: 123456789	

Sheet Title: Typical Details

Sheet No.: S1.2



FOUNDATION PLAN

SCALE: 3/32" = 1'-0"

FOUNDATION LEGEND:

- FX — SPREAD FOOTING DESIGNATION SEE SCHEDULE THIS SHEET
- SF-X — STRIP FOOTING DESIGNATION SEE SCHEDULE THIS SHEET
- S.F. — INDICATES STEP FOOTING – SEE S1.0 SERIES SHEETS FOR TYPICAL DETAILS
- CJ — SLAB CONTROL OR CONSTRUCTION JOINT – SEE DETAILS ON TYPICAL DETAIL SHEET
- INDICATES LOAD BEARING TILT UP CONCRETE WALL
- XXX — STEEL COLUMN, SEE PLAN FOR SIZE AND LOCATION
- X — GRID DESIGNATION AT CENTERLINE OF COLUMN U.N.O.
- X — GRID DESIGNATION AT OUTSIDE FACE OF LOAD BEARING WALL
- INDICATES ?" SLAB DEPRESSION – COORDINATE EXACT LIMITS w/ARCH. DWGs & SEE S1.02 FOR TYPICAL SLAB DEPRESSION DETAILS
- F.D. — FLOOR DRAIN – COORDINATE WITH PLUMBING DRAWINGS
- INDICATES SLAB TO BE POURED AFTER TILT-UP CONSTRUCTION IS COMPLETE

FOUNDATION PLAN NOTES:

1. SEE SHEET S1.01 FOR ADDITIONAL GENERAL NOTES, FOUNDATION NOTES, CONCRETE NOTES, AND REINFORCING STEEL NOTES. ALSO, SEE SHEET S1.02 FOR TYPICAL DETAILS. TYPICAL DETAILS ARE GENERALLY NOT SHOWN ON PLAN BUT RATHER ARE INTENDED TO DEFINE TYPICAL CONSTRUCTION CONDITIONS.
2. DATUM ELEVATION = TOP OF SLAB ELEVATION = ASSUMED 0'-0" = 21.00' M.S.L. OTHER ELEVATIONS ARE NOTED AS (+ OR –) FROM DATUM ELEVATION.
3. TOP OF FOOTINGS SHALL BE (–1'–0") FROM DATUM ELEVATION, U.N.O.
4. SLAB–ON–GRADE SHALL BE 4" THICK 3000 psi CONCRETE WITH 6x6xW2.9xW2.9 FLAT SHEETS ON 15 mil VAPOR RETARDER, ON 4" WELL COMPACTED GRANULAR FILL ON WELL COMPACTED SUB GRADE. VERIFY COMPACTION w/QUALIFIED GEOTECHNICAL ENGINEER
5. WAREHOUSE SLAB–ON–GRADE SHALL BE 6" THICK 4000 psi CONCRETE WITH WWF 6x6xW4xW4 FLAT SHEETS OR APPROVED EQUAL ON 15 mil VAPOR RETARDER, ON 6" WELL COMPACTED GRANULAR FILL (NC DOT CABC STONE) ON WELL COMPACTED SUB GRADE. VERIFY COMPACTION WITH QUALIFIED GEOTECHNICAL ENGINEER
6. REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND OTHER DISCIPLINE DRAWINGS FOR OPENINGS AND DEPRESSIONS NOT SHOWN ON THESE DRAWINGS.
7. E.O.S. = EDGE OF SLAB
8. U.N.O. = UNLESS NOTED OTHERWISE
9. S.F. = STEP FOOTING, SEE TYPICAL DETAIL ON S1.02
10. O.F.T. = OUTSIDE FACE OF TILT–UP CONCRETE WALL

SPREAD FOOTING (FX) SCHEDULE

MARK	SIZE length x width x thickness	REINFORCEMENT (TOP BARS EACH WAY UNO)	REINFORCEMENT (BOTTOM BARS EACH WAY UNO)
F4	4'–0" X 4'–0" X 1'–0"	(4) #4 E.W.	(4) #5 E.W.
F4.5	4'–6" X 4'–6" X 1'–0"	(5) #4 E.W.	(5) #5 E.W.
F5	5'–0" X 5'–0" X 1'–0"	(6) #4 E.W.	(6) #5 E.W.
F5.5	5'–6" X 5'–6" X 1'–0"	(6) #4 E.W.	(6) #5 E.W.
F6	6'–0" X 6'–0" X 1'–0"	(7) #4 E.W.	(7) #5 E.W.
F6.5	6'–6" X 6'–6" X 1'–1"	(7) #4 E.W.	(7) #5 E.W.
F4.5X6.5	4'–6" X 6'–6" X 1'–1"	(5) #4 LONG & (7) #4 SHORT	(5) #5 LONG & (7) #5 SHORT

STRIP FOOTING (SF–X) SCHEDULE

MARK	SIZE width x thickness x length	REINFORCEMENT	REMARKS
SF–1	3'–6" x 1'–4" x CONT.	(4) #5 CONT. / #5 @ 16" SHORT	SEE DETAIL 4–4/S3.01
SF–2	2'–6" x 1'–0" x CONT.	(3) #5 CONT.	SEE DETAIL 4–4/S3.01 SIM.
SF–3	4'–0" x 1'–4" x CONT.	(5) #5 CONT. / #5 @ 16" SHORT	SEE DETAIL 7–7/S3.01
SF–4	1'–4" x 0'–8" x CONT.	(2) #4 CONT.	SEE DETAIL 5–5 & 8–8/S3.01
SF–5	3'–6" x 1'–4" x CONT.	#5 @ 10"o.c. TOP SHORT & (4)#5 CONT. LONG	SEE DETAIL 6–6/S3.01
SF–6	1'–0" x AS REQUIRED x CONT.	(1)#4 TOP & (2)#4 BOTTOM	

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NORTH CAROLINA WOODS ENGINEERING, P.A. CORPORATE SEAL No. C-1806 NORTH CAROLINA

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 036161 ROBERT C. WOODS

NOT FOR CONSTRUCTION

ISSUED FOR PRICING

The Wilmington Food Bank
Greenfield Street
Wilmington, North Carolina 28403

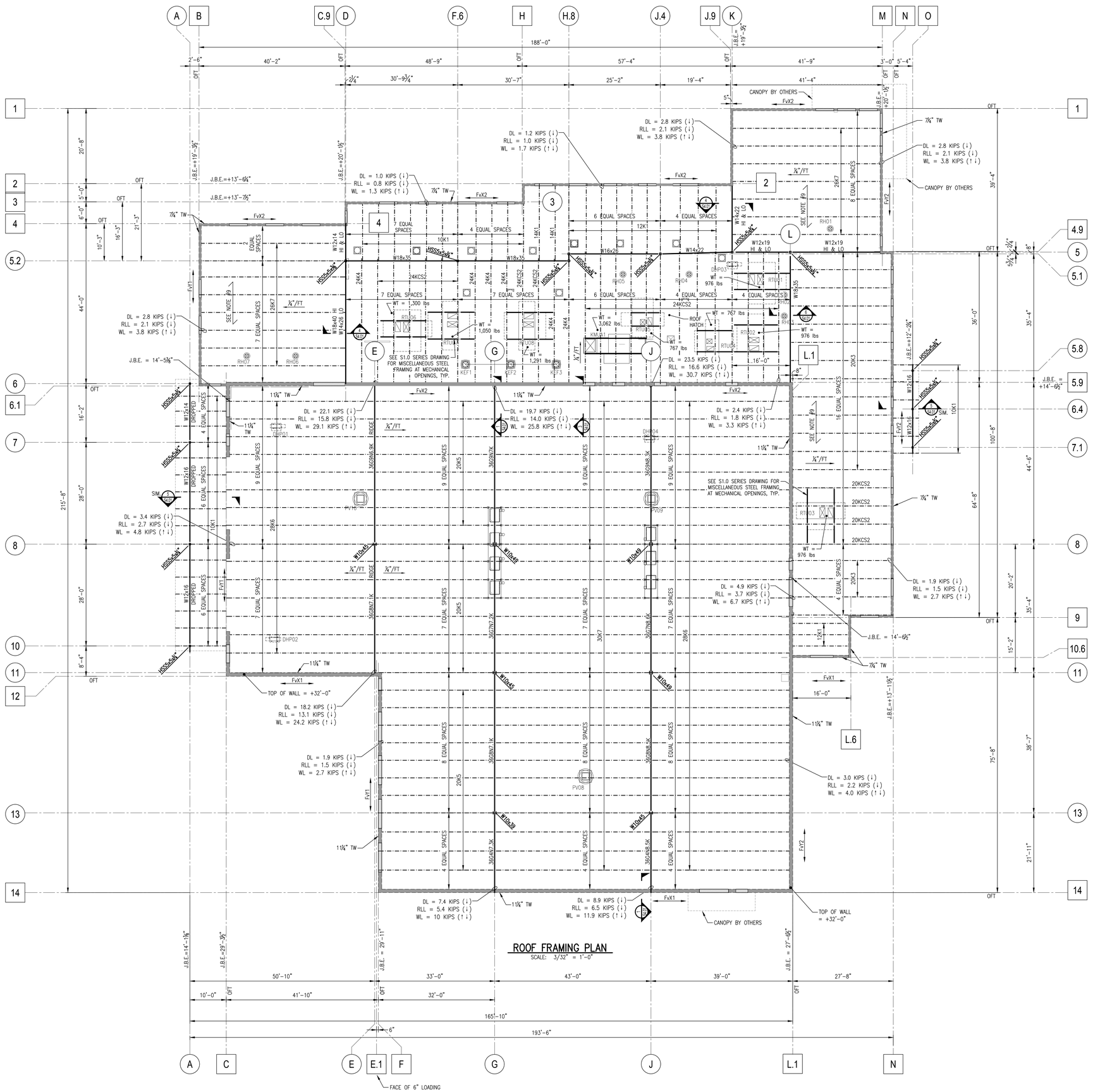
REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

Project Manager | Drawn By
Date: Oct. 20, 2021 | Reviewed By
Project ID: 123456789

Sheet Title: Foundation Plan

Sheet No.: S2.1

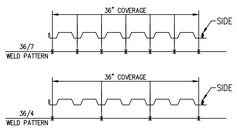


ROOF FRAMING LEGEND

- INDICATES LOAD BEARING TILT UP CONCRETE WALL
- HSS5x5x¼ — STEEL COLUMN, SEE PLAN FOR SIZE AND LOCATION
- X — GRID DESIGNATION AT CENTERLINE OF COLUMN U.N.O.
- X — GRID DESIGNATION AT OUTSIDE FACE OF LOAD BEARING WALL
- x" TW — x = THICKNESS OF TILT-UP WALL SYSTEM

ROOF FRAMING PLAN NOTES

1. ELEVATIONS SHOWN ON PLAN ARE REFERENCED TO FINISHED FIRST FLOOR DATUM – SEE S2.01.
2. SEE SHEET S1.01 FOR GENERAL STEEL, JOIST, DECK AND LIGHT GAUGE FRAMING NOTES. ALSO SEE SHEET S1.02 FOR TYPICAL DETAILS NOT SHOWN ON PLAN.
3. TYPICAL ROOF DECK IS 1½" DEEP, 20 ga., GALVANIZED, TYPE 'B' METAL ROOF DECK.
4. METAL ROOF DECK SHALL BE ATTACHED TO SUPPORTING MEMBERS WITH HILTI X-HSN 24 FOR STEEL THICKNESS EQUAL TO OR LESS THAN ⅜" AND HILTI X-ENP 19 OTHERWISE IN A 36/4 PATTERN U.N.O. ON PLAN – EXCEPT WITHIN 18'-0" OF ROOF EDGE PROVIDE FASTENERS IN 36/7 PATTERN. PROVIDE (1) HILTI SCC TEK SIDELAP SCREW PER SPAN, U.N.O. ON PLAN.



5. ALL JOISTS SHALL BE DESIGNED FOR A NET UPLIFT PRESSURE OF ?? psf.
6. PROVIDE JOIST BRIDGING PER SJI RECOMMENDATIONS.
7. ALL BEAMS, GIRDERS AND COLUMNS SHALL BE ASTM A992, GRADE 50.
8. ABBREVIATIONS:
   DL = SERVICE DEAD LOAD PER JOIST OR JOIST GIRDER
   LL = SERVICE REDUCED LIVE LOAD PER JOIST OR JOIST GIRDER
   WL = STRENGTH WIND LOADS PER MEMBER
   FvX or Y = DIAPHRAGM SHEAR FLOW LOADS TO TILT-UP CONCRETE WALLS
9. IN EXPOSED ROOF DECK AREAS TO BE PAINTED, PROVIDE 1½" DEEP, 20ga. TYPE B METAL ROOF DECK GALVANIZED AND BOTTOM PRIMED, WHITE.

SHEAR FLOW TABLE	
SHEAR FLOW IN LINE OF WALL MARK	SHEAR FLOW (KLF)
FvX1 (PLAN X)	WL = 0.56 KLF, EQ = 0.61 KLF
FvX2 (PLAN X)	WL = 0.29 KLF, EQ = 0.32 KLF
FvY1 (PLAN Y)	WL = 0.5 KLF, EQ = 0.61 KLF
FvY2 (PLAN Y)	WL = 0.33 KLF, EQ = 0.4 KLF

NOTE: WIND AND SEISMIC LOADS ARE STRENGTH DESIGN LOADS PER ASCE 7-10

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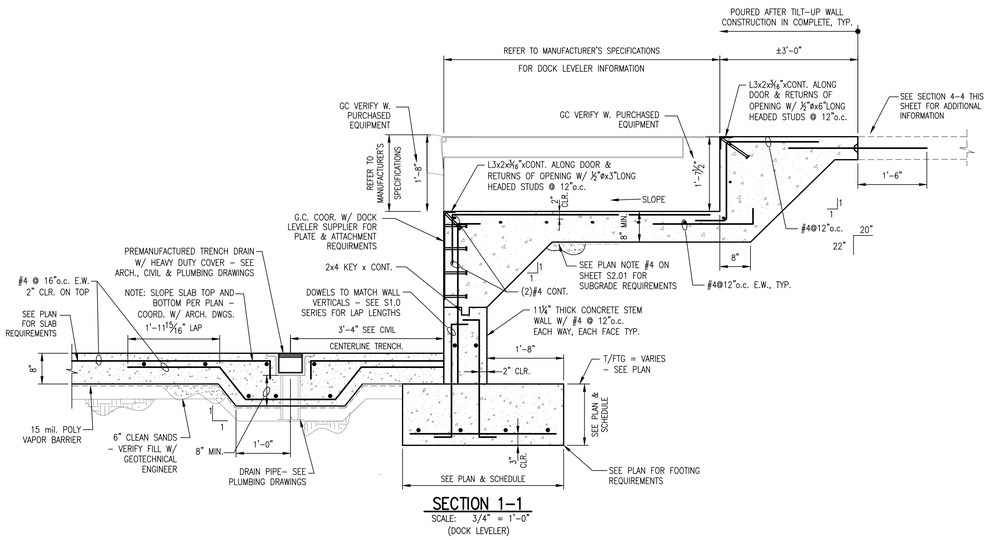
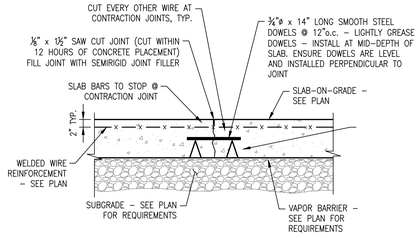
Project ID: 123456789	

Sheet Title: Roof Framing Plan

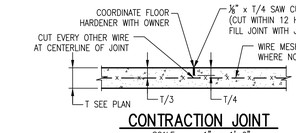
Sheet No.: S2.2



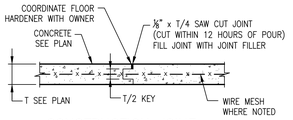
SECTION 1-1
SCALE: 3/4" = 1'-0"
(DOCK LEVELER)



SECTION 2-2
DOWELED CONTRACTION JOINT DETAIL
SCALE: 3/4" = 1'-0"
TYP. AT WAREHOUSE

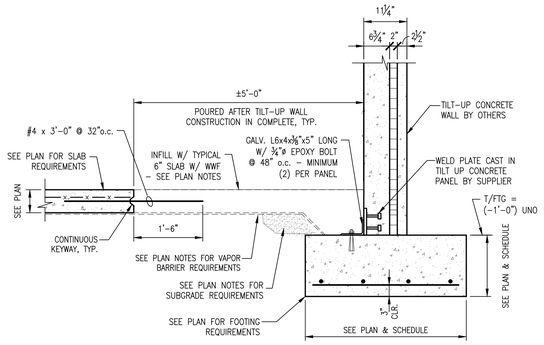


CONTRACTION JOINT
SCALE: 1" = 1'-0"
WITH WIRE MESH

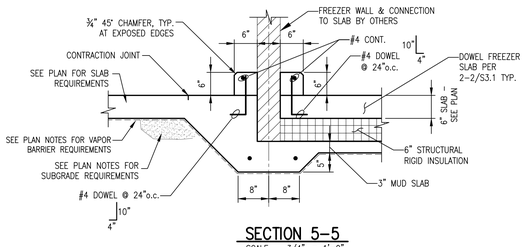


CONSTRUCTION JOINT
SCALE: 1" = 1'-0"
WITH WIRE MESH

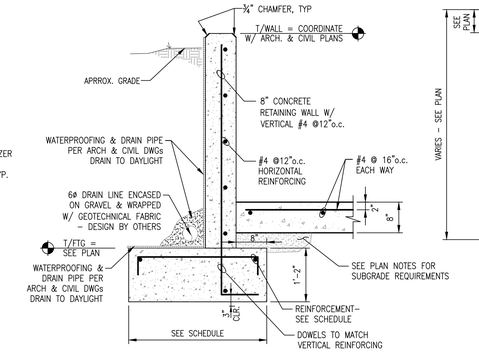
SECTION 3-3
SCALE: 1" = 1'-0"
TYPICAL AT OFFICE AND RETAIL



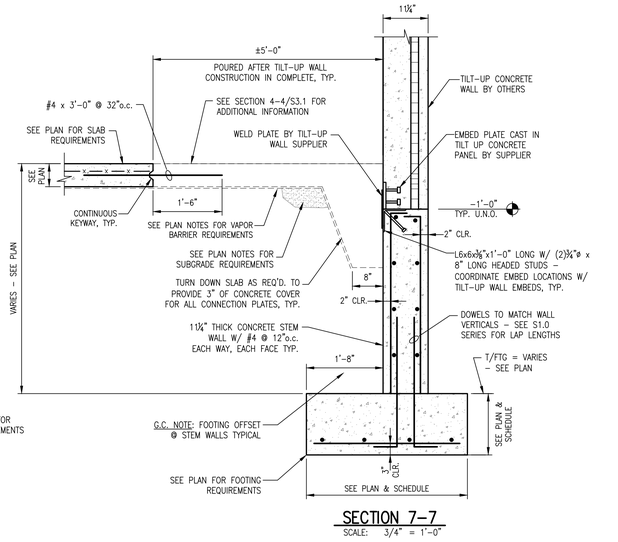
SECTION 4-4
SCALE: 3/4" = 1'-0"



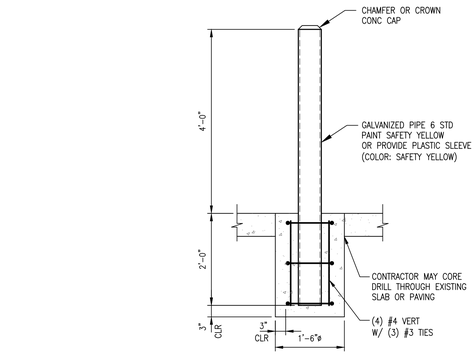
SECTION 5-5
SCALE: 3/4" = 1'-0"



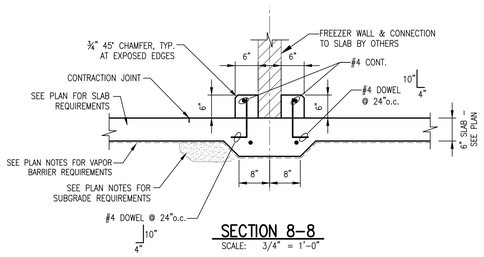
SECTION 6-6
SCALE: 3/4" = 1'-0"



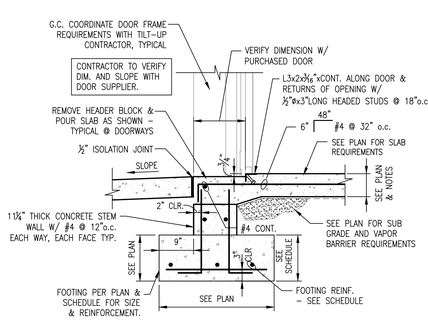
SECTION 7-7
SCALE: 3/4" = 1'-0"



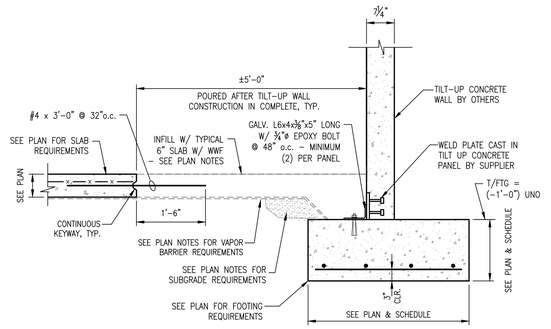
BOLLARD DETAIL
SCALE: 3/4" = 1'-0"



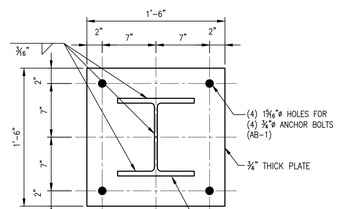
SECTION 8-8
SCALE: 3/4" = 1'-0"



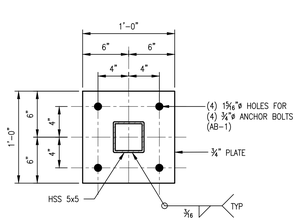
SECTION 9-9
SCALE: 3/4" = 1'-0"



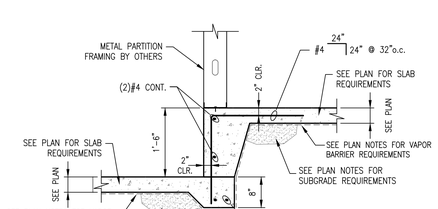
SECTION 10-10
SCALE: 3/4" = 1'-0"



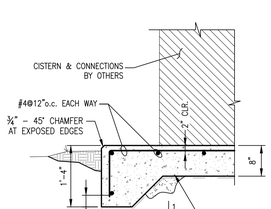
DETAIL 'BP-1'
SCALE: 1 1/2" = 1'-0"
(W10 BASEPLATE)
TYPICAL, UNO



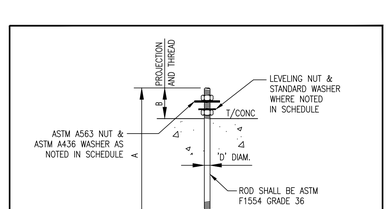
DETAIL 'BP-2'
SCALE: 1 1/2" = 1'-0"
(HSS5x5 BASEPLATE)
TYPICAL, UNO



SECTION 11-11
SCALE: 3/4" = 1'-0"



SECTION 12-12
SCALE: 3/4" = 1'-0"
TYPICAL CISTERN PAD



ANCHOR BOLT SCHEDULE							
MARK	BOLT DIAM. D	HOLE DIAMETER	A	B	WASHER O.D. x t	LEVELING NUT	REMARKS
AB-1	3/4"	15/16"	1'-2"	5"	2" x 1/4"	YES	

NOTE: ALL ANCHOR BOLTS GREATER OR EQUAL TO 1 1/2"ø SHALL HAVE HEAVY HEX HEAD NUTS.

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NORTH CAROLINA PROFESSIONAL SEAL 19475 ENGINEER JON R. WOODS

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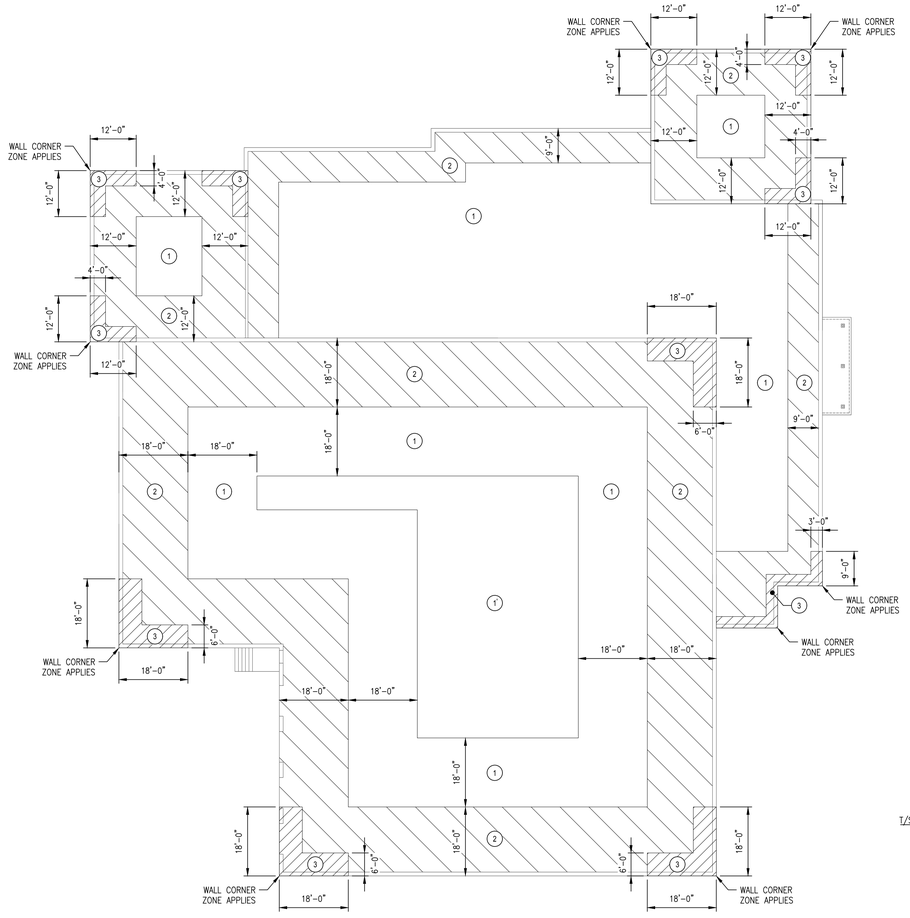
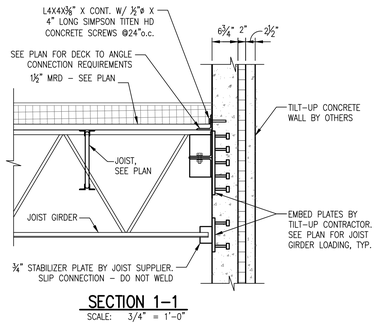
Sheet Title: Foundation Sections & Details

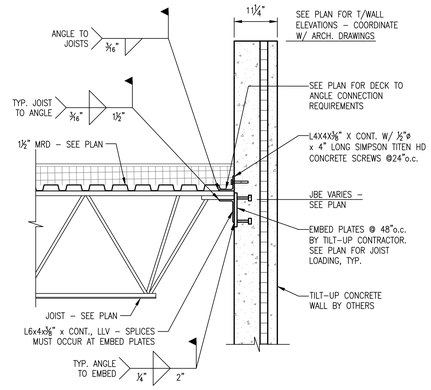
Sheet No.: S3.1



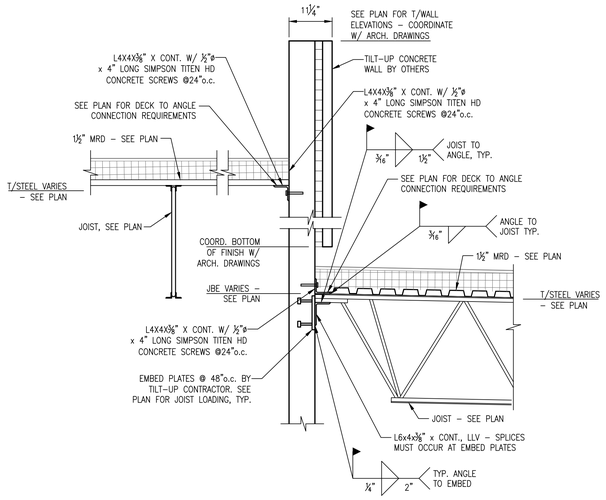
COMPONENT CLADDING LOADING DIAGRAM
SCALE: NTS = 1'-0"



SECTION 1–1
SCALE: 3/4" = 1'-0"

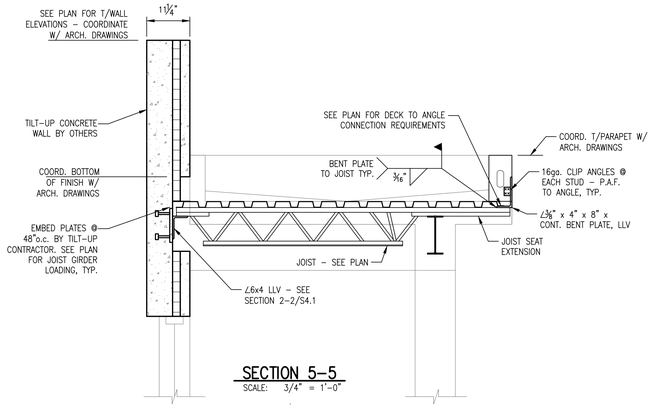


SECTION 2–2
SCALE: 3/4" = 1'-0"

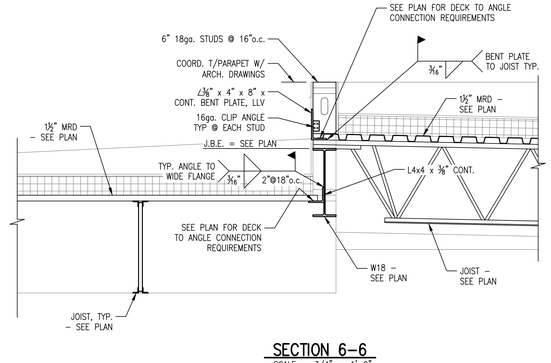


SECTION 3–3
SCALE: 3/4" = 1'-0"

SECTION 4–4
SCALE: 3/4" = 1'-0"



SECTION 5–5
SCALE: 3/4" = 1'-0"



SECTION 6–6
SCALE: 3/4" = 1'-0"

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Project ID: 123456789	

Sheet Title: Foundation Sections & Details

Sheet No.: S4.1

PLUMBING FIXTURE SCHEDULE

DRAWING CODE	FIXTURE		DESCRIPTION	MANUFACTURER	MODEL	ALTERNATE APPROVED MANUFACTURERS	NOTES	PIPE SIZE DCW	DHW	WASTE	VENT
WC1	TANK TYPE WATER CLOSET, FLOOR MTD, 1.6GPF, ADA	BOWL	16.5" HIGH BOWL, ELONGATED, V.C., 2-1/8" TRAPWAY; CADET PRO	AMERICAN STANDARD	215AA.004	ZURN, KOHLER	6,9	1/2"	-	4"	2"
		SEAT	OFLC w/ SELF-SUSTAINING S.S. CHECK HINGE; HEIGHT 17-19" AFF	CHURCH	295SSCT	BEMIS, OLSONITE					
WC2	TANK TYPE WATER CLOSET, FLOOR MTD, 1.6GPF	BOWL	15" HIGH BOWL, ELONGATED, V.C., 2-1/8" TRAPWAY; CADET PRO	AMERICAN STANDARD	215CA.004	ZURN, KOHLER	9	1/2"	-	4"	2"
		SEAT	OFLC w/ SELF-SUSTAINING S.S. CHECK HINGE	CHURCH	295SSCT	BEMIS, OLSONITE					
UR1	URINAL WALL HUNG, 0.5GPF, ADA	BOWL	VITREOUS CHINA, WASHOUT, ELONGATED RIM MTD. 17 A.F.F. MAX., 3/4"TOP SPUD	AMERICAN STANDARD	6590.001	ZURN, KOHLER	1	3/4"	-	2"	2"
		FLUSH VALVE	11.5 HIGH	SLOAN	186-0.5-YBYC	ZURN, TEC					
LAV1	LAVATORY WALL HUNG, 0.5GPM, ADA	BOWL	21"x20" VITREOUS CHINA, VITREOUS CHINA SHROUD/KNEE GUARD, 4" CENTERS W/ OVERFLOW, RIM 34" AFF MAX.	AMERICAN STANDARD	0954.004EC / 0059.020EC	KOHLER, TOTO	1,2,3,9,	1/2"	1/2"	2"	2"
		FAUCET	4" CENTERSET, HOT-COLD, METERING, VANDAL RESISTANT	MOEN	8886	SYMMONS, DELTA					
		DRAIN	GRID STRAINER	MCGUIRE	155A	DEARBORN, DELTA					
		MIXING VALVE	LEAD FREE THERMOSTATIC MIXING VALVE - SETPOINT = 90°F INSTALL ON HOT WATER SUPPLY, ASSE 1070	CASH ACME	HG-135	LEONARD, WATTS					
LAV2	COUNTERTOP LAVATORY,0.5GPM, ADA	BOWL	20x17 VITREOUS CHINA, 34"A.F.F., MAX.	AMERICAN STANDARD	0476.028	ZURN, CRANE	2,4,5,9,	1/2"	1/2"	2"	2"
		FAUCET	4" CENTERSET, SINGLE LEVER HANDLE, SOLID BRASS CONSTRUCTION, CERAMIC CARTRIDGE, HIGH TEMP LIMIT STOP	MOEN	8413F05	ZURN, DELTA					
		DRAIN	GRID STRAINER	MCGUIRE	155A	DEARBORN, DELTA					
		MIXING VALVE	LEAD FREE THERMOSTATIC MIXING VALVE - SETPOINT = 90°F INSTALL ON HOT WATER SUPPLY, ASSE 1070	CASH ACME	HG-135	LEONARD, WATTS					
LAV3	COUNTERTOP LAVATORY, HANDS-FREE, ADA	BOWL	20x17 VITREOUS CHINA, 34"A.F.F., MAX.	AMERICAN STANDARD	0476.028	ZURN, CRANE	2,4,5,9,	1/2"	1/2"	2"	2"
		FAUCET	SOLID BRASS BODY, CHROME PLATED FINISH, 4"CENTERSET, INFARED SENSOR, BATTERY POWERED. 0.5GPM	MOEN	CA8301	SLOAN, ZURN					
		DRAIN	GRID STRAINER	MCGUIRE	155A	DEARBORN, DELTA					
		MIXING VALVE	LEAD FREE THERMOSTATIC MIXING VALVE - SETPOINT = 90°F INSTALL ON HOT WATER SUPPLY, ASSE 1070	CASH ACME	HG-135	LEONARD, WATTS					
HS1	HAND SINK, ADA	BOWL	WALL MOUNT, STAINLESS STEEL WITH SPLASH MOUNTED GOOSENECK FAUCET, 3-1/2" BASKET DRAIN	ADVANCE TABCO	7-PS-60	JOHN BOOS, REGENCY		1/2"	1/2"	2"	2"
		MIXING VALVE	LEAD FREE THERMOSTATIC MIXING VALVE - SETPOINT = 90°F INSTALL ON HOT WATER SUPPLY, ASSE 1070	CASH ACME	HG-135	LEONARD, WATTS					
SK1	1-COMPARTMENT COUNTERTOP SINK, ADA	BOWL	17"x20"x5-1/2", 18 GA S.S., 2 HOLE DRILL, 34"A.F.F. MAX.	ELKAY	LRAD172055	JUST, ACORN	2,4,5,9,	1/2"	1/2"	2"	2"
		FAUCET	BRASS CONSTRUCTION, CHROME PLATED FINISH, 4"CENTERSET, 3-5/8" SPOUT REACH, 4"WRIST BLADE HANDLES, VANDAL RESISTANT, 1.5GPM	MOEN	8278SMF15	DELTA, ZURN					
		DRAIN	BASKET STRAINER	ELKAY	LK35	ZURN, MOEN					
SK2	1-COMPARTMENT COUNTERTOP SINK, 8" DEEP (ADA SIDE APPROACH)	BOWL	17"x20"x8, 18 GA S.S., 3 HOLE DRILL, 34" A.F.F. MAX	ELKAY	LR2522	JUST, ACORN	2,4,5,9,	1/2"	1/2"	2"	2"
		FAUCET	180° SWING SPOUT, SINGLE LEVER HANDLE, 3 HOLE, 1.5GPM, SOLID BRASS CONSTRUCTION, CHROME FINISH	MOEN	8701	DELTA, ZURN					
		DRAIN	BASKET STRAINER	ELKAY	LK35	ZURN, MOEN					
MS1	MOP SINK	BASIN	36"x36"x12" TERRAZZO WITH 6" DROP FRONT, STAINLESS STEEL CAPS ON ALL CURBS	FIAT	TSB3002	FLORESTONE, ZURN		1/2"	1/2"	3"	2"
		FAUCET	BRASS CONSTRUCTION, ROUGH CHROME FINISH, INTEGRAL VACUUM BREAKER, INTEGRAL CHECK STOPS, 3/4"THREADED SPOUT, SERVICE STOPS, WALL MOUNT, VANDAL RESISTANT, LEVER HANDLES	MOEN	8124	DELTA, ZURN					
		ACCESSORIES	HOSE/BRACKET, MOP HANGER	MOEN	8198, 8199	DELTA, ZURN					
CW1	CAN WASH	BASIN	JOB-BUILT BY G.C.	-	-	-	10	1/2"	1/2"	3"	2"
		FAUCET	NON-FREEZE, HOT -COLD	WOODFORD	HC-67	SMITH, ZURN					
		DRAIN	MED. DUTY, 12" DIA. C.I. GRATE, SEDIMENT BUCKET	JR SMITH	2143	ZURN, WATTS					
SH1	PREFAB TRANSFER SHOWER, ADA	ENCLOSURE	36x36 ACRYLIC- 1/2" CURB MAX. w/ GRAB BARS, FOLD-UP SEAT, CENTER DRAIN, CURTAIN ROD AND SHOWER CURTAIN, VINYL FLEXIBLE DAM, BRASS DRAIN	AQUATIC	3636BFS	ACRYLINE, AQUARIUS		1/2"	1/2"	2"	2"
		VALVE	PRESS. BALANCED MIXING VALVE, LEVER HANDLE, DIVERTER, HEAD W/ ARM, FLANGE, WALL/HAND SHOWER, FLEXIBLE METAL HOSE, IN-LINE VAC. BREAKER, 30"SLIDE BAR, 1.5GPM	MOEN	8342EP15	DELTA, SYMMONS					
		DRAIN	INCLUDED	-	-	-					
EWC1	WALL HUNG WATER COOLER, ADA	FIXT	SPLIT LEVEL, S.S. TOP, LIGHT GREY BODY, BOTTLE FILLING STATION, 8 GPH @ 50/80/90, 120V/1PH WITH FILTER	ELKAY	ELZSTL8WSLP	HALSEY TAYLOR, OASIS	1,11	1/2"	-	2"	2"
GWH1	GAS WATER HEATER, 60 GAL, DIRECT VENT	FIXT	GLASS LINED, NAT GAS, 120 MBH INPUT, 138 GPH RCVY. @ 100 DEG RISE, 95% THERMAL EFFICIENCY	A.O. SMITH	BTH-120	BRADFORD WHITE, RHEEM	13,14	1-1/2"	1-1/2"	-	-
		EXP TANK	5 GAL DIAPHRAGM, 5 YEAR WARRANTY		TW 12-5					-	-
GWH2	GAS WATER HEATER, 100 GAL, DIRECT VENT	FIXT	GLASS LINED, NAT GAS, 199.9 MBH INPUT, 235 GPH RCVY. @ 100 DEG RISE, 97% THERMAL EFFICIENCY	A.O. SMITH	BTH-199	BRADFORD WHITE, RHEEM	12,14	3/4"	3/4"	-	-
		EXP TANK	10 GAL DIAPHRAGM. 5 YEAR WARRANTY		PMC-10					-	-
CP1	HOT WATER RECIRCULATION PUMP	FIXT	IN-LINE WET ROTOR, STAINLESS STEEL VOLUTE, 3-SPEED, 115/1/60, 125W. BUILT IN THERMAL PROTECTION. 10GPM@10'TDH	GRUNDFOS	UPS 15-55	B&G, MYERS			-	MATCH	-	-
CP2	HOT WATER RECIRCULATION PUMP	FIXT	IN-LINE WET ROTOR, STAINLESS STEEL VOLUTE, 3-SPEED, 115/1/60, 125W. BUILT IN THERMAL PROTECTION. 10GPM@10'TDH	GRUNDFOS	UPS 15-55	B&G, MYERS			-	MATCH	-	-
FCO	FLOOR CLEANOUT	FIXT	C.I. BODY, 6-1/2"TOPS, ADJUSTABLE, SCORIATED, NICKEL BRONZE TOP	SIOUX CHIEF	834	ZURN, SMITH		-	-	MATCH	-
GCO	GRADE CLEANOUT	FIXT	C.I. BODY, RECESSED BRONZE PLUG.	SIOUX CHIEF	877	ZURN, SMITH		-	-	MATCH	-
WCO	WALL CLEANOUT	FIXT	ROUND S/S ACCESS COVER & SCREW, RECESS BRONZE THRD. PLUG	SIOUX CHIEF	870	ZURN, SMITH		-	-	MATCH	-
FD1	FLOOR DRAIN	FIXT	FINISHLINE ADJUSTABLE, SCH. 40 HUB CONNECTION, PVC BASE ADAPTER, SQUARE NICKEL BRONZE STRAINER, VANDAL RESISTANT SCREWS, TRAP PRIMER CONNECTION	SIOUX CHIEF	832	ZURN, SMITH	7	-	-	MATCH	-
FS1	FLOOR SINK	FIXT	8x8x6 A.R.C.I. RECEPTOR, MEMBRANE CLAMP, DOME STRAINER, 1/2 GRATE	SIOUX CHIEF	861	ZURN, SMITH		-	-	MATCH	-
FS2	FLOOR SINK	FIXT	12x12x8 A.R.C.I. RECEPTOR, MEMBRANE CLAMP, DOME STRAINER, 1/2 GRATE	SIOUX CHIEF	861	ZURN, SMITH		-	-	MATCH	-
FT1	FLOOR TROUGH	FIXT	12"X24"X6" STAINLESS STEEL								
FT2	FLOOR TROUGH	FIXT	30"x30" 14 GA., STAINLESS STEEL, 4"DEEP WITH SG-ADA GRATING	IMC TEDDY	FT-3030-SG-ADA						
RD1	ROOF DRAIN	FIXT	15" DIAMETER ROOF DRAIN. ENAMEL COATED CAST IRON BODY, GRAVEL GUARD AND DOME STRAINER, DECK CLAMP	SIOUX CHIEF	868-1504	ZURN, SMITH		-	-	MATCH	
GI	GREASE INTERCEPTOR	FIXT	1000 GALLON PRECAST CONCRETE. FINAL SIZING TBD BY CFPUA	-	-			-	-	MATCH	-
HB1	INTERIOR HOSE BIBB	FIXT	POLISHED CHROME, VACUUM BREAKER, WHEEL HANDLE, 3/4" HOSE THREAD	WOODFORD	24	ZURN, WATTS		1/2"	-	-	-
WH1	WALL HYDRANT	FIXT	CHROME PLATED BRASS, ANTI-SIPHON, VACUUM BREAKER, REMOVABLE TEE HANDLE, 3/4" HOSE THREAD	WOODFORD	65	ZURN, WATTS		3/4"	-	-	-
RH1	ROOF HYDRANT	FIXT	FREEZELESS, ANTI-SIPHON, VACUUM BREAKER, 3/4" HOSE THREAD, NO DRAIN REQUIRED	WOODFORD	SRH-MS	ZURN, WATTS		3/4"	-	-	-
OB1	ICE MAKER BOX	FIXT	ABS HOUSING, 1/4 TURN BALL VALVE, CHROME PLATED BRASS, SHOCK ARRESTORS	SIOUX CHIEF	696	OATEY, IPS		1/2"	-	-	-
RPZ	BACKFLOW PREVENTER	FIXT	REDUCED PRESS. ZONE TYPE, LEAD FREE	WATTS	LF009	FEBCO, WILKINS		MATCH			

NOTES
1. PROVIDE MATCHING CAST IRON AND STEEL FLOOR SUPPORT CARRIER WITH BEARING PLATE AND WALL HANGER.
2. PROVIDE BRASS 1-1/2" TAILPIECE, CAST BRASS SLIP JOINT P-TRAP WITH CLEANOUT; PROVIDE ADA OFFSET ARRANGEMENT WHERE REQUIRED.
3. PROVIDE ADA INSULATION KIT
4. COORDINATE WITH MILLWORK.
5. COORDINATE ADA MILLWORK ENCLOSURE FOR WATER AND DRAIN PIPING UNDER SINK.
6. TRIP LEVER OR FLUSH HANDLE TO BE LOCATED ON WIDE SIDE OF STALL OR TOILET ROOM.
7. PROVIDE TRAP PRIMER
8. FIELD ROUTE 1" DRAIN PAN DRAIN PIPING TO CLOSEST INDIRECT DRAIN OR SPILL TO GRADE.
9. PROVIDE 1/2" IPS X 3/8" OD ANGLE BRASS STOP(S) WITH RIGID COPPER RISERS. ALL EXPOSED PIPING SHALL BE CHROME PLATED.
10. PROVIDE INLINE CHECK VALVES FOR WATER SUPPLY LINES.
11. PROVIDE 1/2"IPS x 3/8" O.D. BRASS STOP CONCEALED BEHIND CABINET.
12. WATER HEATER SETPOINT TEMPERATURE TO BE 140ºF.
13. WATER HEATER SETPOINT TEMPERATURE TO BE 125ºF.
14. PROVIDE WITH AND INSTALL CONDENSATE NEUTRALIZATION KIT.

GAS LOAD SCHEDULE

FIXTURE TAG	DESCRIPTION	BTUH RATING	QUANTITY	TOTAL
KEC#1	36" NATURAL GAS RANGE W/ 6 BURNERS	215,000	2	430,000
KEC#2	NATURAL GAS FRYER	107,000	2	214,000
KEC#3	GAS GRILL	160,000	1	160,000
KEC#4	DOUBLE GAS CONVECTION OVEN	100,000	1	100,000
KEC#5	COMBINATION OVEN WITH SMOKING KIT	140,000	1	140,000
KEC#6	TILTING STEAM JACKETED KETTLE	190,000	1	190,000
KEC#7	STOCK POT RANGE	110,000	1	110,000
KEC#8	40 GALLON TILTING SKILLET	144,000	1	144,000
GWH1	GAS-FIRED WATER HEATER	120,000	1	120,000
GWH2	GAS-FIRED WATER HEATER	199,900	1	199,900
RTU01	ROOFTOP GAS-PACK	60,000	1	60,000
RTU02	ROOFTOP GAS-PACK	60,000	1	60,000
RTU03	ROOFTOP GAS-PACK	60,000	1	60,000
RTU04	ROOFTOP GAS-PACK	60,000	1	60,000
RTU05	ROOFTOP GAS-PACK	60,000	1	60,000
RTU06	ROOFTOP GAS-PACK	120,000	1	120,000
RTU07	ROOFTOP GAS-PACK	80,000	1	80,000
RTU08	ROOFTOP GAS-PACK	120,000	1	120,000
KMUA1	KITCHEN MAKEUP AIR UNIT	400,000	1	400,000
GUH01	GAS-FIRED UNIT HEATER	30,000	1	30,000
GUH02	GAS-FIRED UNIT HEATER	30,000	1	30,000
GUH03	GAS-FIRED UNIT HEATER	30,000	1	30,000
GUH04	GAS-FIRED UNIT HEATER	30,000	1	30,000
GUH05	GAS-FIRED UNIT HEATER	30,000	1	30,000
GUH06	GAS-FIRED UNIT HEATER	30,000	1	30,000
GUH07	GAS-FIRED UNIT HEATER	30,000	1	30,000
		30,000	1	30,000
TOTAL LOAD				3,067,900
BUILDING SERVICE GAS PRESSURE				2 psi

KITCHEN EQUIPMENT SCHEDULE

MARK	FIXTURE	PIPE SIZE CW	HW 140°F	WASTE	VENT	GAS	REMARKS
1	36" NATURAL GAS RANGE W/ 6 BURNERS					3/4"	215 MBH
2	NATURAL GAS FRYER					3/4"	107 MBH
3	GAS GRILL					3/4"	160 MBH
4	DOUBLE GAS CONVECTION OVEN					3/4"	100 MBH
5	COMBINATION OVEN WITH SMOKING KIT	3/4"					140 MBH
6	TILTING STEAM JACKETED KETTLE	1/2"	1/2"	ID	-	3/4"	190 MBH
7	DELETED	-	-	-	-	-	
8	40 GALLON TILTING SKILLET	1/2"	1/2"	ID	-	1/2"	144 MBH
9	DISHWASHER	1/2"	1/2"	ID	-	-	
10	DIRTY DISHTABLE WITH PRE-RINSE FAUCET	1/2"	1/2"	ID	-	-	
12	3 COMPARTMENT SINK	1/2"	1/2"	ID	-	-	
15	PREP SINK	1/2"	1/2"	ID	-	-	
16	PREP SINK	1/2"	1/2"	ID	-	-	
HS1	HAND SINK	1/2"	1/2"	2"	2"	-	

NOTES:
1. ID INDICATES INDIRECT DRAIN
2. PLUMBING CONTRACTOR TO ROUGH-IN AND MAKE FINAL PLUMBING CONNECTIONS TO ALL KITCHEN EQUIPMENT. COORDINATE w/ KITCHEN EQUIPMENT SUPPLIER.

PLUMBING ABBREVIATIONS

(X)	EXISTING
AAV	AIR ADMITTANCE VALVE
A.F.F.	ABOVE FINISHED FLOOR
A.R.C.I.	ACID RESISTANT CAST IRON
ADA	AMERICANS WITH DISABILITIES ACT
BRZ.	BRONZE
BT	BATHTUB
C.I.	CAST IRON
CO	CLEANOUT
CONC.	CONCRETE
DCW	DOMESTIC COLD WATER
DHW	DOMESTIC HOT WATER
DIA.	DIAMETER
E.C.I.	ENAMELED CAST IRON
EC	ELECTRICAL CONTRACTOR
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FS	FLOOR SINK
GA.	GAUGE
GAL.	GALLON
GC	GENERAL CONTRACTOR
GCO	GRADE CLEANOUT
GPF	GALLONS PER FLUSH
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GWH	GAS-FIRED WATER HEATER
HB	HOSE BIBB
INCL.	INCLUDED
KS	KITCHEN SINK
LAV	LAVATORY
LP	LIQUID PROPANE
MS	MOP SERVICE BASIN
NAT.	NATURAL GAS
NKL.	NICKEL
NON SIMULT.	NON SIMULTANEOUS
O.F.L.C.	OPEN FRONT LESS COVER
OB	OUTLET BOX
OC	ON CENTER
ORDL	OVERFLOW ROOF DRAIN LEADER
PC	PLUMBING CONTRACTOR
PRESS. BAL.	PRESSURE BALANCED
RCVY.	RECOVERY
RDL	ROOF DRAIN LEADER
SA	WATER HAMMER ARRESTOR
SH	SHOWER
SK	SINK
SLD.	SLIDE
SS	STAINLESS STEEL
TDH	TOTAL DYNAMIC HEAD
UR	URINAL
V	VENT
VB	VACUUM BREAKER
VC	VITREOUS CHINA
VR	VANDAL RESISTANT
VTR	VENT THROUGH ROOF
W	WASTE
WC	WATER CLOSET
WCO	WALL CLEANOUT
WH	WALL HYDRANT

NOTE: ALL ABBREVIATIONS MAY NOT BE USED IN PROJECT.

PLUMBING LOADS

WASTE (DRAINAGE FIXTURE UNITS)	69.5
WATER	45 GPM

PLUMBING LEGEND

CA	COMPRESSED AIR PIPING
C C	CONDENSATE PIPING
140°F 140°F	DOMESTIC 140°F WATER PIPING
140R	DOMESTIC 140°F RETURN WATER PIPING
	DOMESTIC COLD WATER PIPING
	DOMESTIC HOT WATER CIRCULATION PIPING
	DOMESTIC HOT WATER PIPING
F F	FILTERED WATER PIPING
SP	FIRE SPRINKLER PIPING
FM	FORCE MAIN PIPING
NG	GAS PIPING (NAT. OR LP)
GW	GREASE WASTE PIPING
N2	NITROUS OXIDE PIPING
O2	O2 (OXYGEN) PIPING
	OVERFLOW ROOF DRAIN PIPING
RD	ROOF DRAIN PIPING
	SANITARY VENT PIPING
	SANITARY WASTE PIPING
T T	TEPID WATER PIPING
VAC	VACUUM PIPING
	BACKFLOW PREVENTION DEVICE
	BALL VALVE
	CHECK VALVE
	CIRCUIT SETTER (BALANCING VALVE)
	CIRCULATION PUMP
	CONTROL VALVE
	EXTENT OF DEMOLITION
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FS	FLOOR SINK
	GAS-REGULATOR VALVE
	GATE VALVE
	GATE VALVE IN RISER
GCO	GRADE CLEANOUT
HB	HOSE BIBB
	PIPE CAP
	PIPE ELBOW
	PIPE ELBOW DOWN
	PIPE ELBOW UP
	PIPE TEE
	PIPE TEE DOWN
	PIPE TEE UP
SP FM	SUMP PUMP
1	DEMOLITION KEYED NOTE TAG
1	NEW WORK KEYED NOTE
	POINT OF CONNECTION - NEW TO EXISTING
	PRESSURE REDUCING VALVE
	SOLENOID VALVE
M 140°F	THERMOSTATIC MIXING VALVE
WCO	WALL CLEANOUT
WH	WALL HYDRANT
	WASHING MACHINE BOX
SA	WATER HAMMER ARRESTOR

NOTE: ALL ITEMS LISTED IN THIS SCHEDULE MAY NOT BE USED IN PROJECT

PLUMBING GENERAL NOTES

1. SCOPE OF WORK: THESE DRAWINGS AND ACCOMPANYING SPECIFICATIONS DESCRIBE SCOPE OF WORK REQUIRED FOR PLUMBING SYSTEMS. LABOR AND MATERIAL SHALL BE PROVIDED AS REQUIRED FOR A COMPLETE, WORKMANLIKE INSTALLATION OF ALL SYSTEMS SHOWN ON DIAGRAMMATIC DRAWINGS AND/OR AS SPECIFIED HEREIN.
2. CONTRACTOR: THE WORD "CONTRACTOR", "PLUMBING CONTRACTOR", AND "P.C." AS USED HEREIN SHALL MEAN THE PLUMBING INSTALLER UNLESS OTHERWISE QUALIFIED.
3. DRAWINGS: DRAWINGS ARE DIAGRAMMATIC AND MAY NOT COMPLETELY DESCRIBE EVERY DETAIL OF THE INSTALLATION. HOWEVER, CONTRACTOR IS RESPONSIBLE FOR FURNISHING COMPLETE SYSTEMS INCLUDING ALL REQUIRED EQUIPMENT AND ACCESSORIES TO OBTAIN FULLY FUNCTIONING PLUMBING SYSTEMS.
4. CODE COMPLIANCE: COMPLY WITH THE LATEST EDITIONS OF THE FOLLOWING STANDARDS AND CODES, INSOFAR AS THEY APPLY:

   NORTH CAROLINA STATE BUILDING CODE (CODE), LATEST EDITION AND REVISIONS.

   LOCAL JURISDICTION REQUIREMENTS.
5. PERMITS AND INSPECTIONS: OBTAIN ALL PERMITS, LICENSES, INSPECTIONS, ETC., REQUIRED FOR THE WORK AND PAY FOR SAME. FURNISH A FINAL CERTIFICATE OF INSPECTION AND APPROVAL FROM THE AUTHORITY HAVING JURISDICTION PRIOR TO ACCEPTANCE OF THE WORK.
6. SUPERVISION: PROVIDE SKILLED SUPERINTENDENTS TO SUPERVISE THE WORK FROM THE BEGINNING TO COMPLETION AND FINAL INSPECTION.
7. PROGRESS OF WORK: PERFORM WORK IN ACCORDANCE WITH SCHEDULE AND REQUIREMENTS OF THE GENERAL CONTRACTOR. UNDER NO CIRCUMSTANCES SHALL THIS CONTRACTOR DELAY THE OVERALL PROJECT SCHEDULE.
8. COORDINATION: COORDINATE PLUMBING WORK WITH THE WORK OF OTHER TRADES. LOCATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE UNLESS SPECIFICALLY DIMENSIONED. ARRANGE PLUMBING SO AS NOT TO INTERFERE WITH THE WORK OF OTHER TRADES. VERIFY ACTUAL BUILDING STRUCTURE PRIOR TO DUCT FABRICATION AND ADJUST LAYOUT AS REQUIRED. INCLUDE ALL OFFSETS IN DUCTS, FITTINGS, PIPING, ETC. AS REQUIRED TO PROPERLY INSTALL EQUIPMENT.
9. EQUIPMENT LOCATIONS: DETERMINE EXACT EQUIPMENT AND MATERIALS LOCATIONS TO PROVIDE BEST ARRANGEMENT AND TO FACILITATE PROPER MAINTENANCE AND SERVICING OF EQUIPMENT.
10. LISTING AND LABELING: ALL EQUIPMENT SHALL BE LABELED OR LISTED BY UL OR OTHER APPROVED TESTING AGENCY WHERE REQUIRED.
11. STORAGE SPACE: CONSULT WITH THE GENERAL CONTRACTOR REGARDING JOB SITE STORAGE FOR PLUMBING MATERIALS TO BE INSTALLED UNDER THIS PROJECT. STORAGE SPACE MUST BE SECURED AND CONTRACTOR'S REPRESENTATIVE MUST BE ON JOB BEFORE ANY MATERIAL MAY BE RECEIVED.
12. CLEANUP: REMOVE ALL DEBRIS GENERATED IN THE ACCOMPLISHMENT OF WORK UNDER THIS PROJECT. CLEAN, REPLACE OR REPAIR ALL SURFACES SOILED OR DAMAGED DURING THE COURSE OF THE WORK. REMOVE DEBRIS DAILY SO TO MAINTAIN SAFE WORKING CONDITIONS.
13. RECORD DRAWINGS: MAINTAIN ONE SET OF "RED-LINED" RECORD DRAWINGS ON SITE AT ALL TIMES AND PROVIDE DRAWINGS TO ARCHITECT/ENGINEER PRIOR TO FINAL INSPECTION.

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 043801 TROY O. GRADY
2021.11.09 12:12:44-05'00'

The Wilmington Food Bank
Greenfield Street
Wilmington, North Carolina 28403

REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

Project Manager: TOG	Drawn By: JBS
Date: 11.09.2021	Reviewed By: TOG
Project ID: CBHF: 20187	

Sheet Title: PLUMBING NOTES, SCHEDULES, ABBREVIATIONS AND LEGEND

Sheet No.: P-0.1

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KEYED NOTES

1. 4" WASTE TO SANITARY SEWER. SEE SITE UTILITY PLAN FOR CONTINUATION
2. 4" GREASE WASTE TO GREASE INTERCEPTOR. SEE SITE UTILITY PLAN FOR CONTINUATION

SEE D5/PS1.3 FOR CONTINUATION

SEE D5/PS1.3 FOR CONTINUATION

OFFICE 07 108
OFFICE 06 107
OFFICE 05 106
OFFICE 04 105
CONFERENCE ROOM 104
OFFICE11 113
OFFICE 10 112
OFFICE 09 111
MAIL RM 110
C4 PS1.3
VEST. 114
COMM. MEETING ROOM 115
GCO
INV. EL. = -1.58'
INV. EL. = -1.82'
B1 PS1.3
VEST. 116
MEN'S 117
STORAGE 118
WOMEN'S 119
COMM. KITCHEN 120
MEN'S 121
WOMEN'S 127
STORAGE 122
STORAGE 123
JAN. CLST. 125
ELEC. ROOM 124B
MECH ROOM 124A
BREAKROOM 126
RETAIL STORAGE 102
UNISEX 101
C1 PS1.3
OFFICE 03 130
OFFICE 02 131
OFFICE 01 133
SK1
GCO
INV. EL. = -3.57'
GCO
INV. EL. = -3.1'
B2 PS1.3
RECEPTION 134
A1 PS1.3
MEN'S 128
WOMEN'S 132
VOLUNTEER LOUNGE 135
SEE SITE UTILITY PLAN FOR CONTINUATION
RD
2"RDL FROM RD1
OFFICE 13 140
OFFICE 12 139
AGENCY PICK-UP
AGENCY PICK-UP
AGENCY PICK-UP
OFFICE 14 141
FD1
NOTE: COORDINATE EXACT LOCATION OF FLOOR DRAINS FOR COOLERS WITH G.C.
2"V-STACK; WCO
2"VTR
WAREHOUSE 143
VOLUNTEER WORK AREA 136
WCO
INCOMING FOOD TRUCK
INCOMING FOOD TRUCK
TOP OPENING
RD

SANITARY SEWER AND STORM DRAINAGE PLAN

E1 — 1/8" = 1'-0" — PLAN NORTH

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 043801 TROY O. GRADY
2021.11.09 12:12:46-05'00'

The Wilmington Food Bank
Greenfield Street
Wilmington, North Carolina 28403

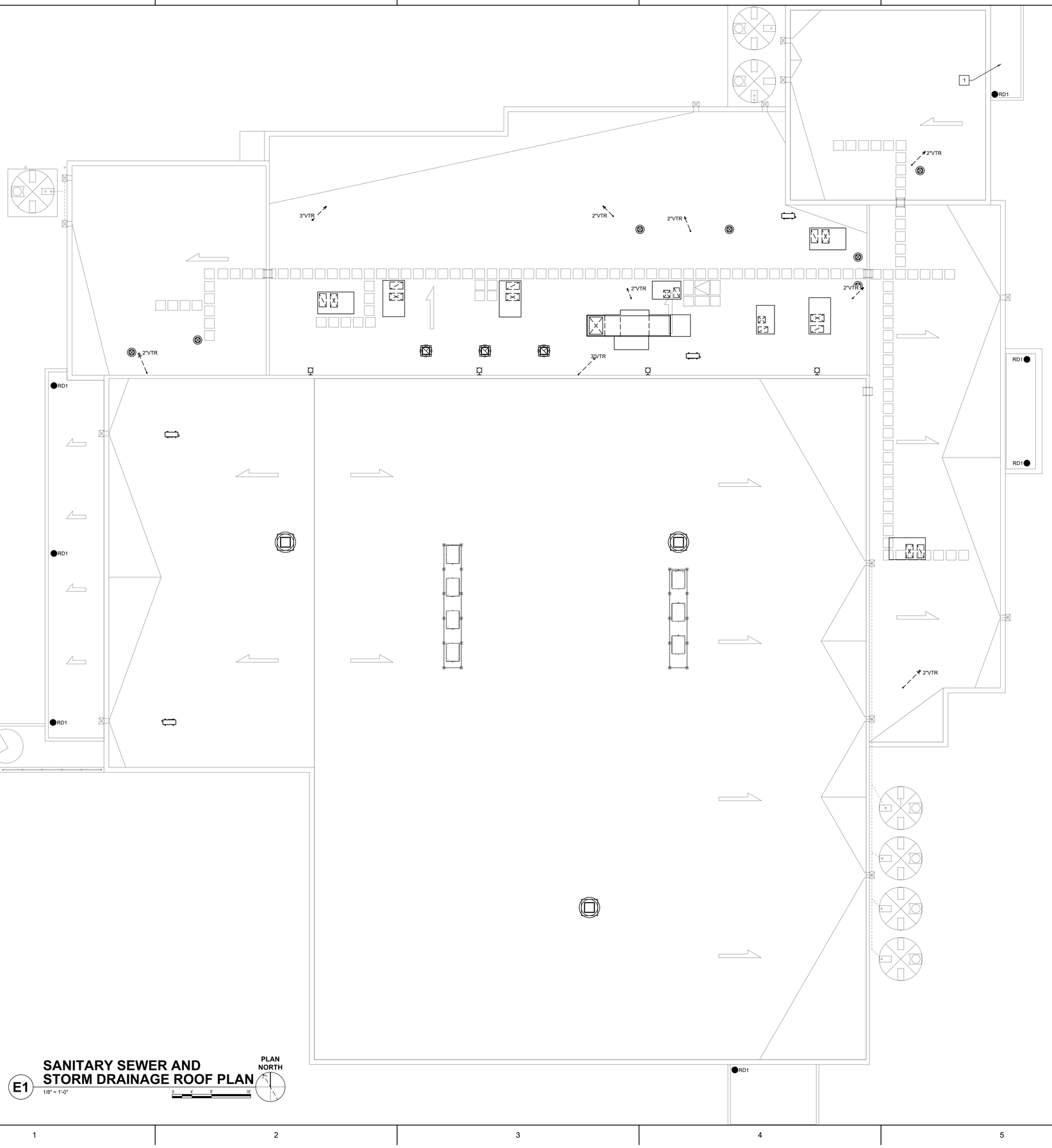
REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

Project Manager	Drawn By
TOG	JBS
Date: 11.09.2021	Reviewed By: TOG
Project ID: CBHF: 20187	

Sheet Title: PLUMBING SANITARY SEWER AND STORM DRAINAGE PLAN

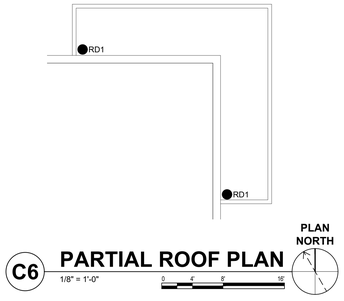
Sheet No.: PS1.1



SANITARY SEWER AND STORM DRAINAGE ROOF PLAN

E1 — 1/8" = 1'-0"

PLAN NORTH



PARTIAL ROOF PLAN

C6 — 1/8" = 1'-0"

PLAN NORTH

KEYED NOTES

1 SEE PARTIAL ROOF PLAN THIS SHEET.

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 043801 TROY O GRADY

2021.11.09 12:12:46-05'00'

The Wilmington Food Bank
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NO.	DATE	ISSUE NOTE

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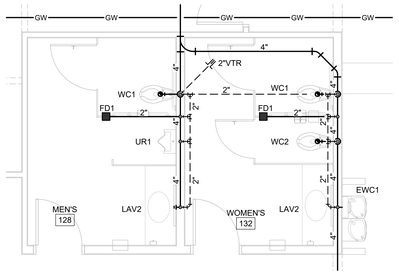
Project ID: CBHF: 20187	

Sheet Title: PLUMBING SANITARY SEWER ROOF PLAN

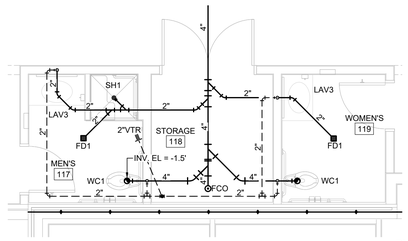
Sheet No.: PS1.2



A1 ENLARGED WASTE-VENT PLAN

1/4" = 1'-0"

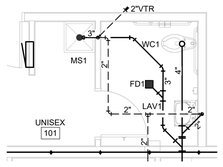
PLAN NORTH



B1 ENLARGED WASTE-VENT PLAN

1/4" = 1'-0"

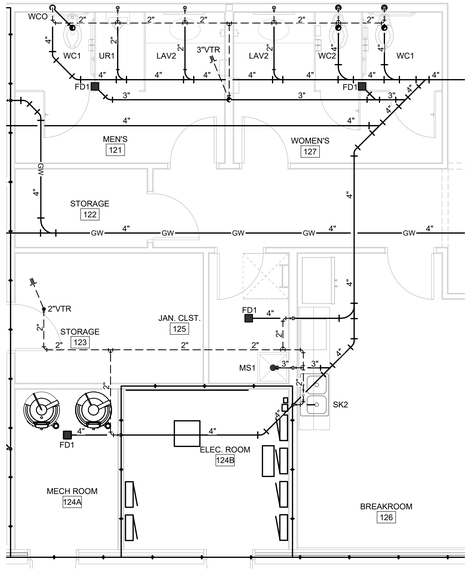
PLAN NORTH



C1 ENLARGED WASTE-VENT PLAN

1/4" = 1'-0"

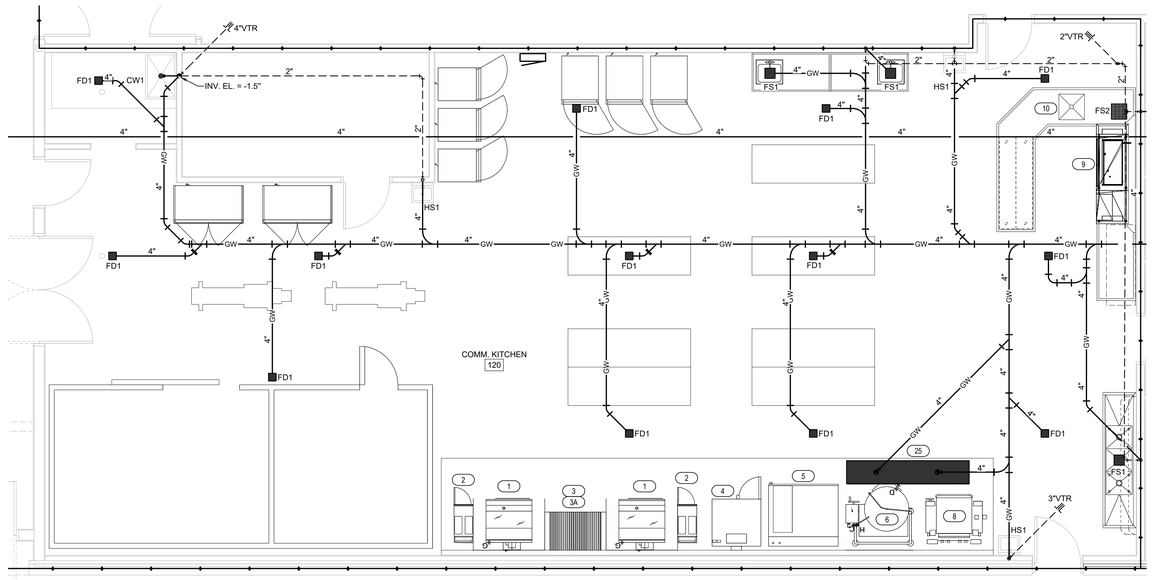
PLAN NORTH



B2 ENLARGED WASTE-VENT PLAN

1/4" = 1'-0"

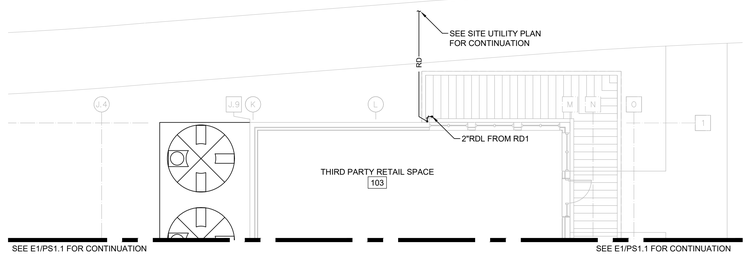
PLAN NORTH



C4 ENLARGED WASTE-VENT PLAN

1/4" = 1'-0"

PLAN NORTH



D5 PARTIAL WASTE-VENT AND STORM DRAINAGE PLAN

1/8" = 1'-0"

PLAN NORTH

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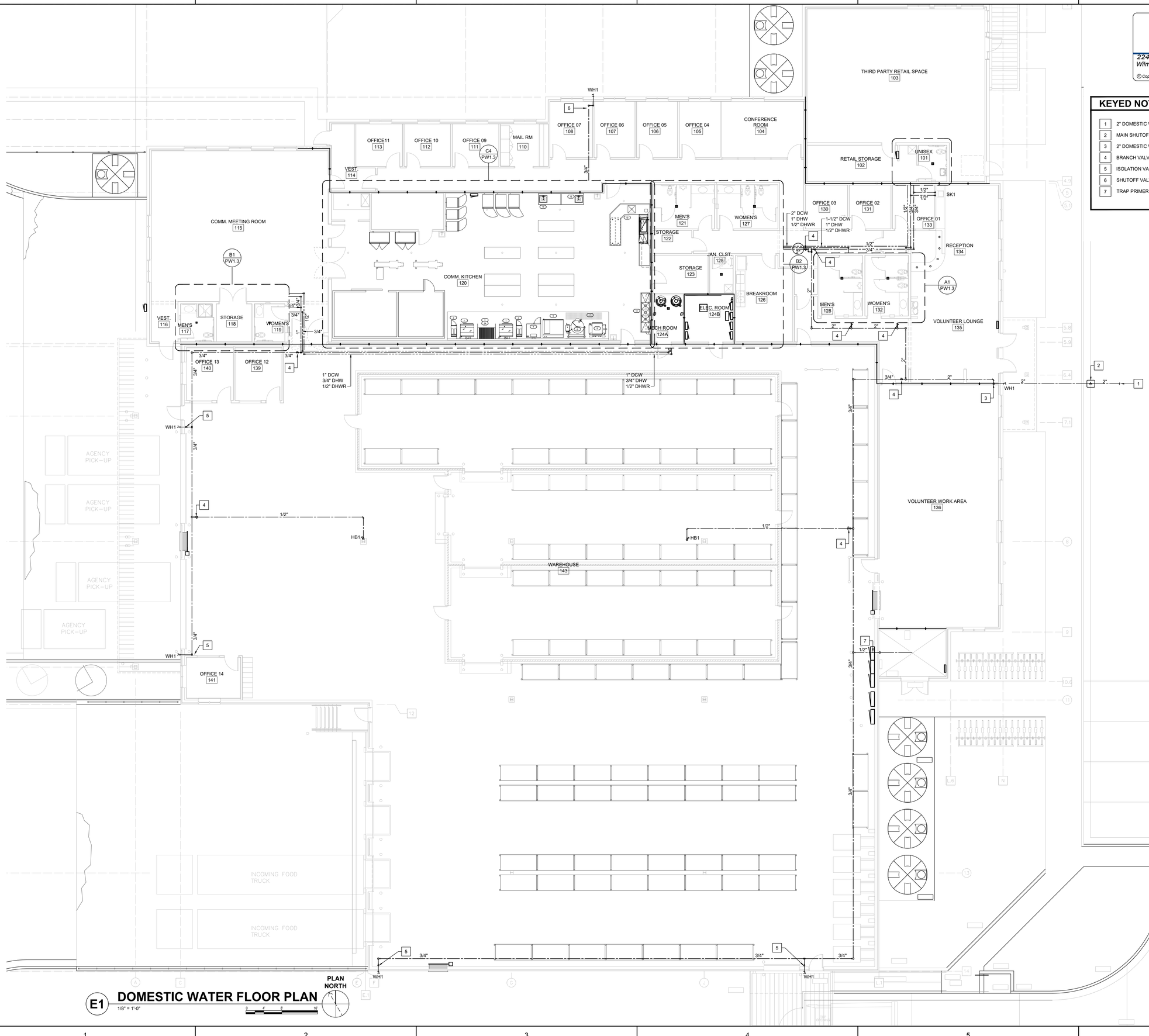
Sheet Title: ENLARGED SANITARY SEWER AND STORM DRAINAGE PLANS

Sheet No.: PS1.3



KEYED NOTES

1	2" DOMESTIC WATER SERVICE. SEE SITE UTILITY PLAN FOR CONTINUATION
2	MAIN SHUTOFF VALVE IN VALVE BOX
3	2" DOMESTIC WATER SERVICE RISER IN WALL CAVITY.
4	BRANCH VALVE
5	ISOLATION VALVE IN RISER
6	SHUTOFF VALVE
7	TRAP PRIMER

E1 DOMESTIC WATER FLOOR PLAN
1/8" = 1'-0"

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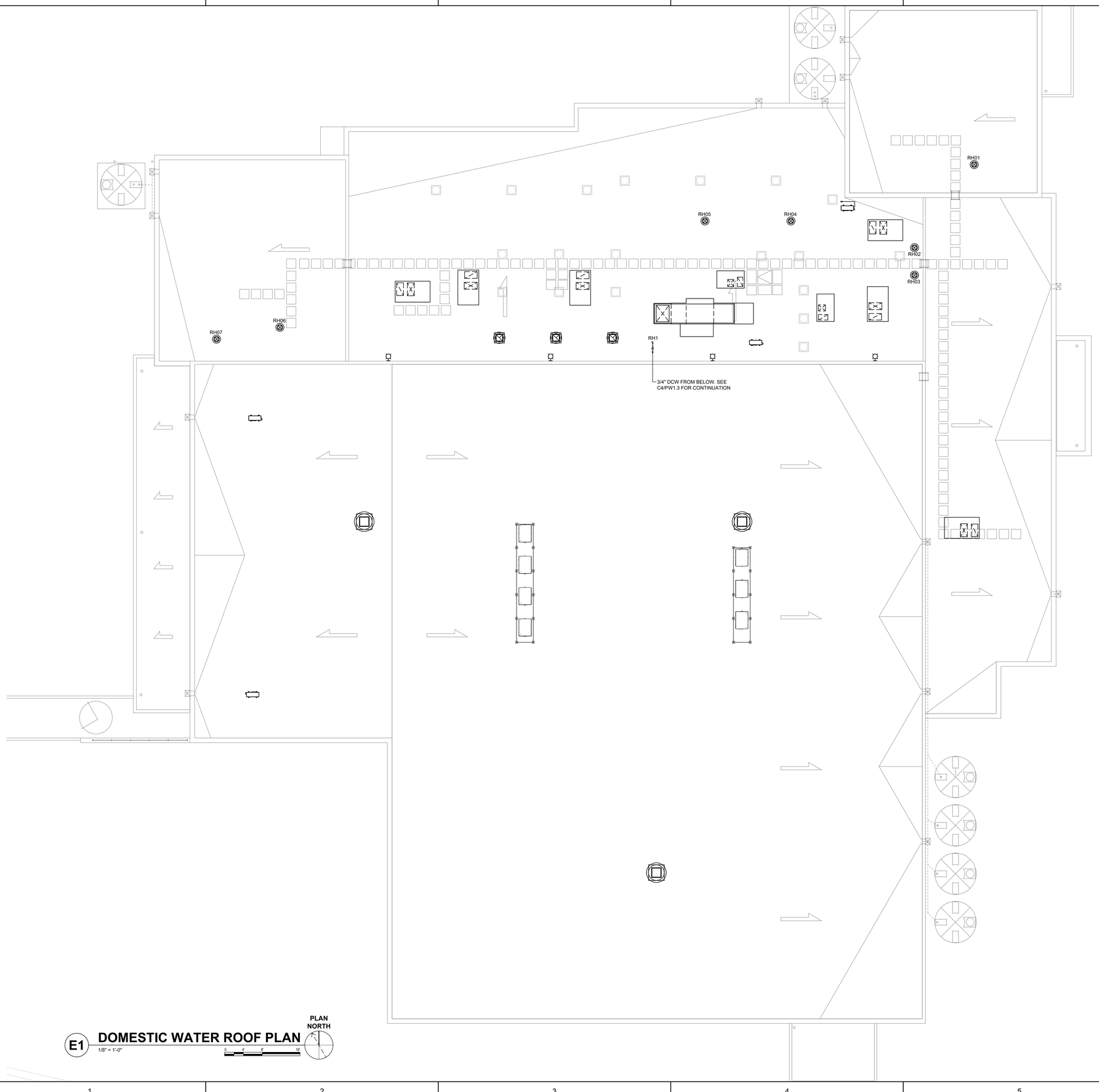
Sheet Title: PLUMBING DOMESTIC WATER PLAN

Sheet No.: PW1.1



E1 **DOMESTIC WATER ROOF PLAN**
1/8" = 1'-0"

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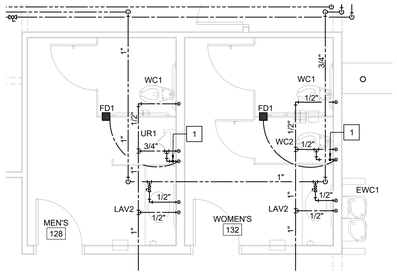
Sheet Title
PLUMBING DOMESTIC WATER ROOF PLAN

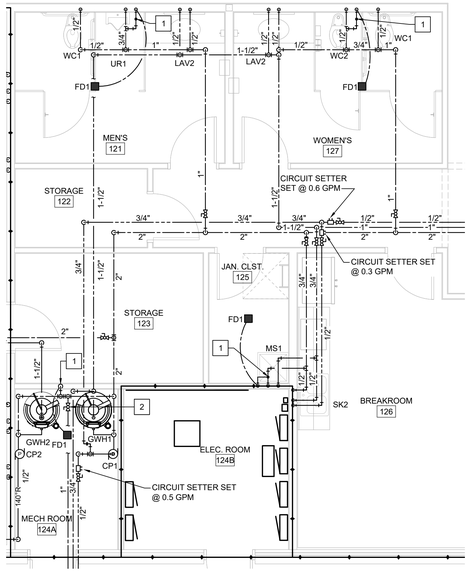
Sheet No.
PW1.2



A1 ENLARGED DOMESTIC WATER PLAN

1/4" = 1'-0"

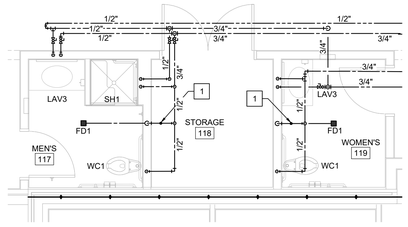
PLAN NORTH



B2 ENLARGED DOMESTIC WATER PLAN

1/4" = 1'-0"

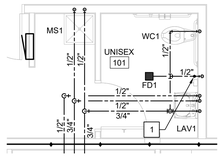
PLAN NORTH



B1 ENLARGED DOMESTIC WATER PLAN

1/4" = 1'-0"

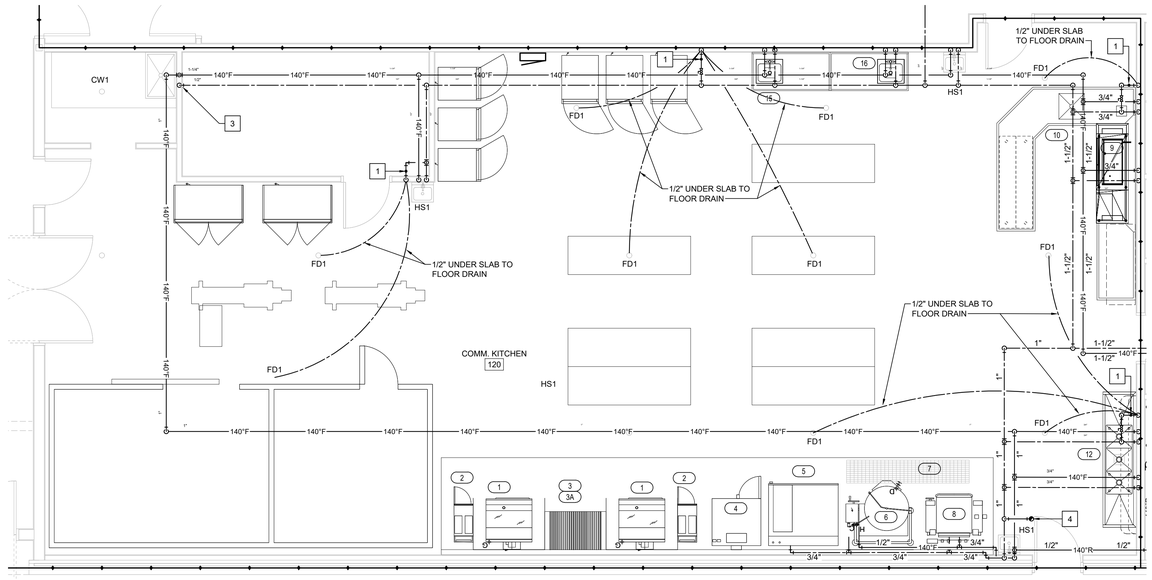
PLAN NORTH



C1 ENLARGED DOMESTIC WATER PLAN

1/4" = 1'-0"

PLAN NORTH



C4 ENLARGED DOMESTIC WATER PLAN

1/4" = 1'-0"

PLAN NORTH

KEYED NOTES

1	PROVIDE AND INSTALL TRAP PRIMER
2	BRANCH VALVE
3	1/2" DCW AND DHW DOWN IN WALL
4	3/4" DCW UP TO RH1 ON ROOF

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Sheet Title: ENLARGED DOMESTIC WATER PLANS

Sheet No.: PW1.3

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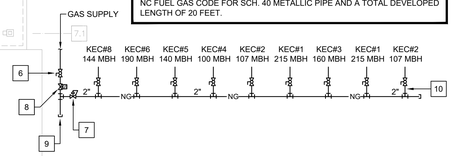
KEYED NOTES

1	GAS SERVICE BY GAS COMPANY
2	GAS METER AND REGULATOR ASSEMBLY BY GAS COMPANY
3	INSTALL ISOLATION VALVE IN RISER. ROUTE 1-1/4" GAS PIPING UP EXTERIOR WALL TO EQUIPMENT ON ROOF. SEE PG1.2 FOR CONTINUATION
4	INSTALL ISOLATION VALVE IN RISER. PENETRATE EXTERIOR WALL AND ROUTE PIPING ABOVE CEILING
5	BRANCH VALVE
6	ISOLATION VALVE IN RISER
7	2PSI-11"WC PRESSURE REGULATOR
8	EMERGENCY SHUTOFF VALVE WIRED TO CLOSE UPON ACTIVATION OF HOOD FIRE SUPPRESSION SYSTEM.
9	DIRT LEG.
10	1"TAP AND SHUTOFF VALVE, TYPICAL
11	REFER TO DETAIL E4/P5.1 FOR FUTHER INFORMATION

NOTE: HIGH PRESSURE GAS PIPING SIZED PER TABLE 402.4(5) OF THE 2018 NC FUEL GAS CODE, SCH. 40 METALLIC PIPE AND A TOTAL DEVELOPED LEGTH OF 400 LINEAR FEET.

NOTE: LOW PRESSURE GAS PIPING SIZED PER TABLE 402.4(2) OF THE 2018 NC FUEL GAS CODE FOR SCH. 40 METALLIC PIPE AND A TOTAL DEVELOPED LENGTH OF 20 FEET.



C6 COOK LINE GAS PIPING RISER DIAGRAM

NOT TO SCALE

E1 NATURAL GAS PIPING PLAN

1/8" = 1'-0"

PLAN NORTH

SEAL 043801 NORTH CAROLINA PROFESSIONAL ENGINEER TROY O. GRADY
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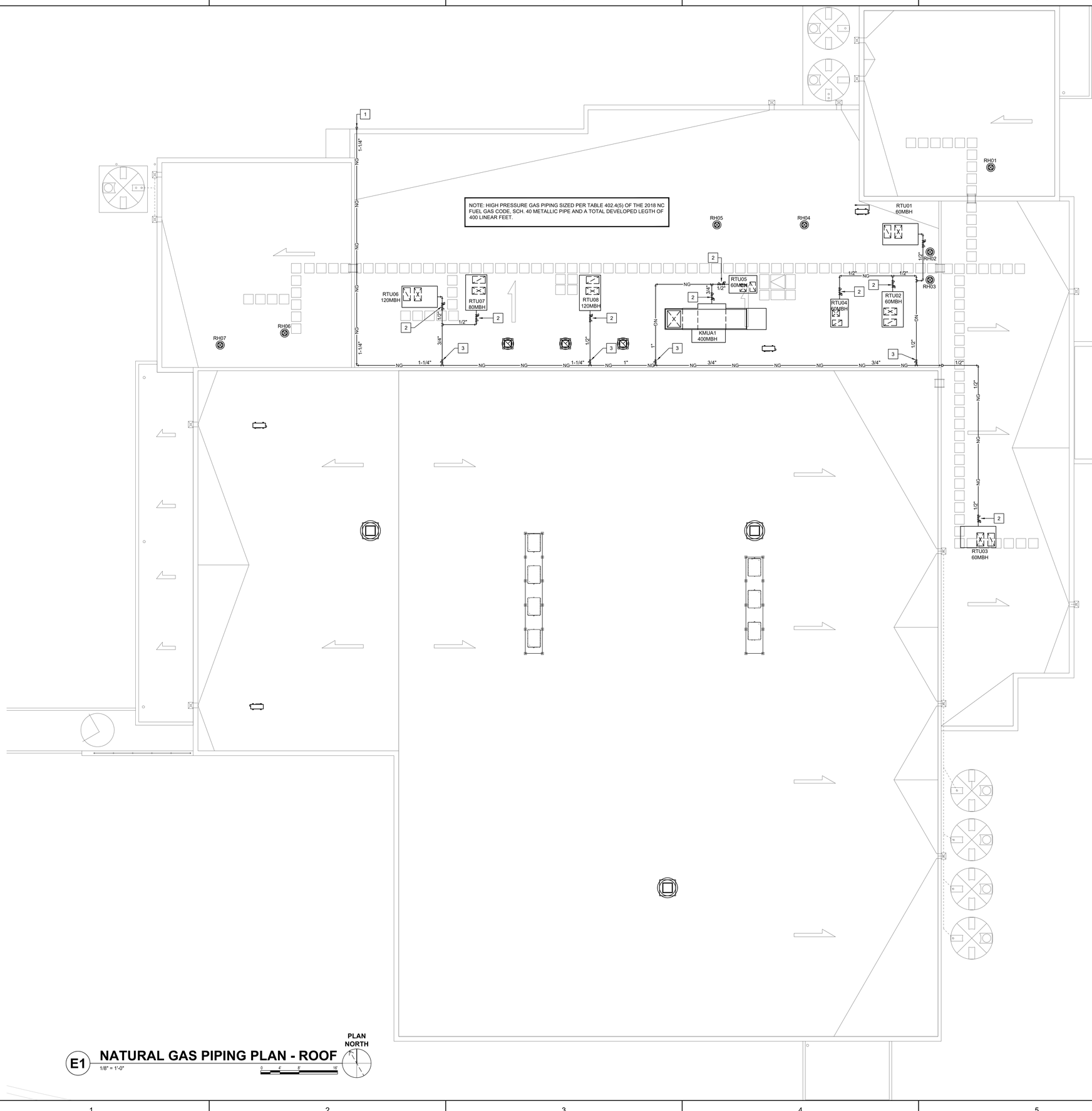
Sheet Title: PLUMBING GAS PIPING PLAN

Sheet No.: PG1.1



E1 **NATURAL GAS PIPING PLAN - ROOF**
1/8" = 1'-0"

PLAN NORTH

KEYED NOTES

1. 1-1/4" GAS PIPING FROM BELOW. SEE PG1.2 FOR CONTINUATION
2. ISOLATION VALVE AND 2PSI-11"WC PRESSURE REGULATOR
3. BRANCH VALVE

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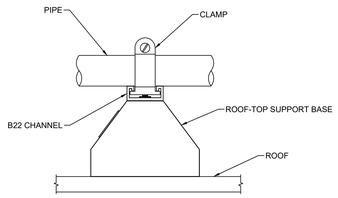
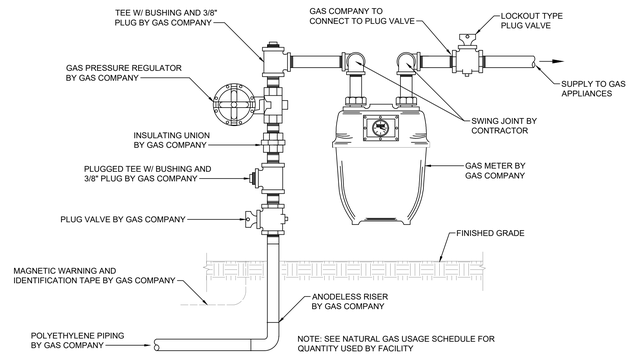
Sheet Title: PLUMBING GAS PIPING ROOF PLAN

Sheet No.: PG1.2



B1 TYPICAL ROOF TOP PIPE SUPPORT DETAIL
NOT TO SCALE



B3 GAS SERVICE ENTRANCE DETAIL
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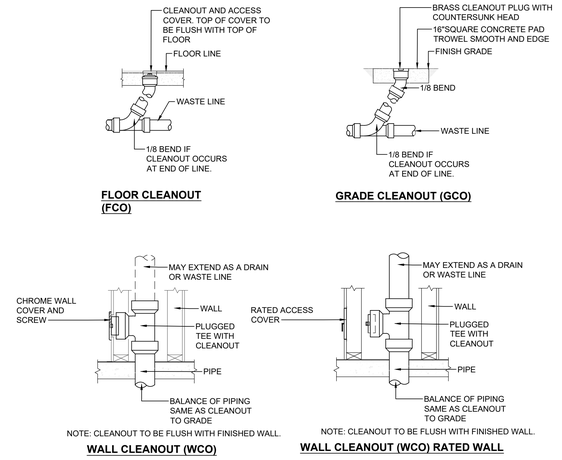

B4 CLEANOUT DETAILS
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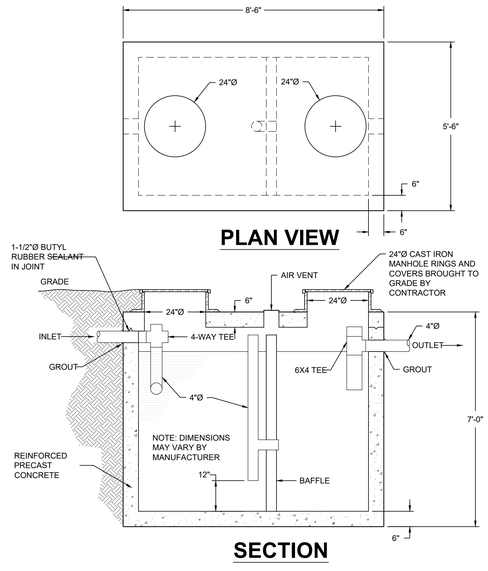
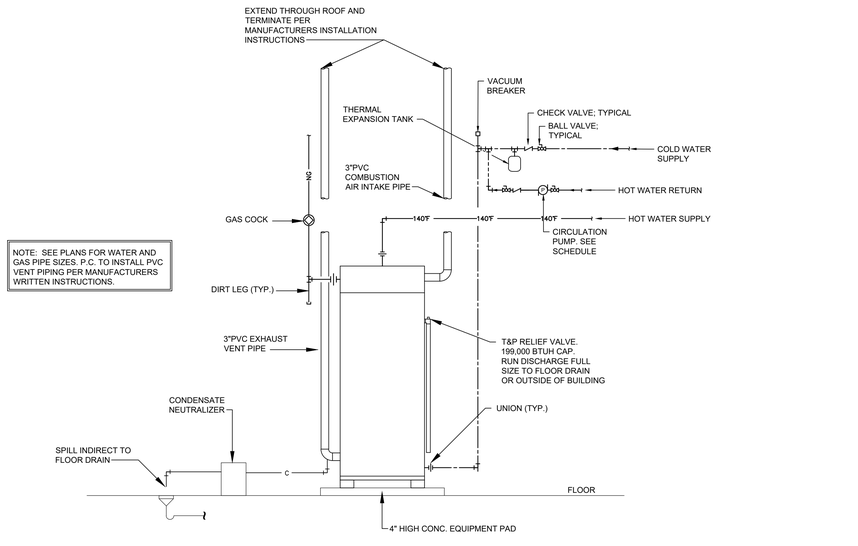


D3 GREASE INTERCEPTOR DETAIL
NOT TO SCALE



D4 GAS-FIRED WATER HEATER DETAIL
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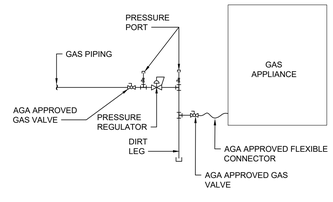

E4 GAS-FIRED APPLIANCE CONNECTION DETAIL
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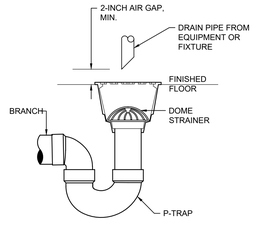

E6 FLOOR SINK DETAIL
NOT TO SCALE

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Sheet No.: P-5.1

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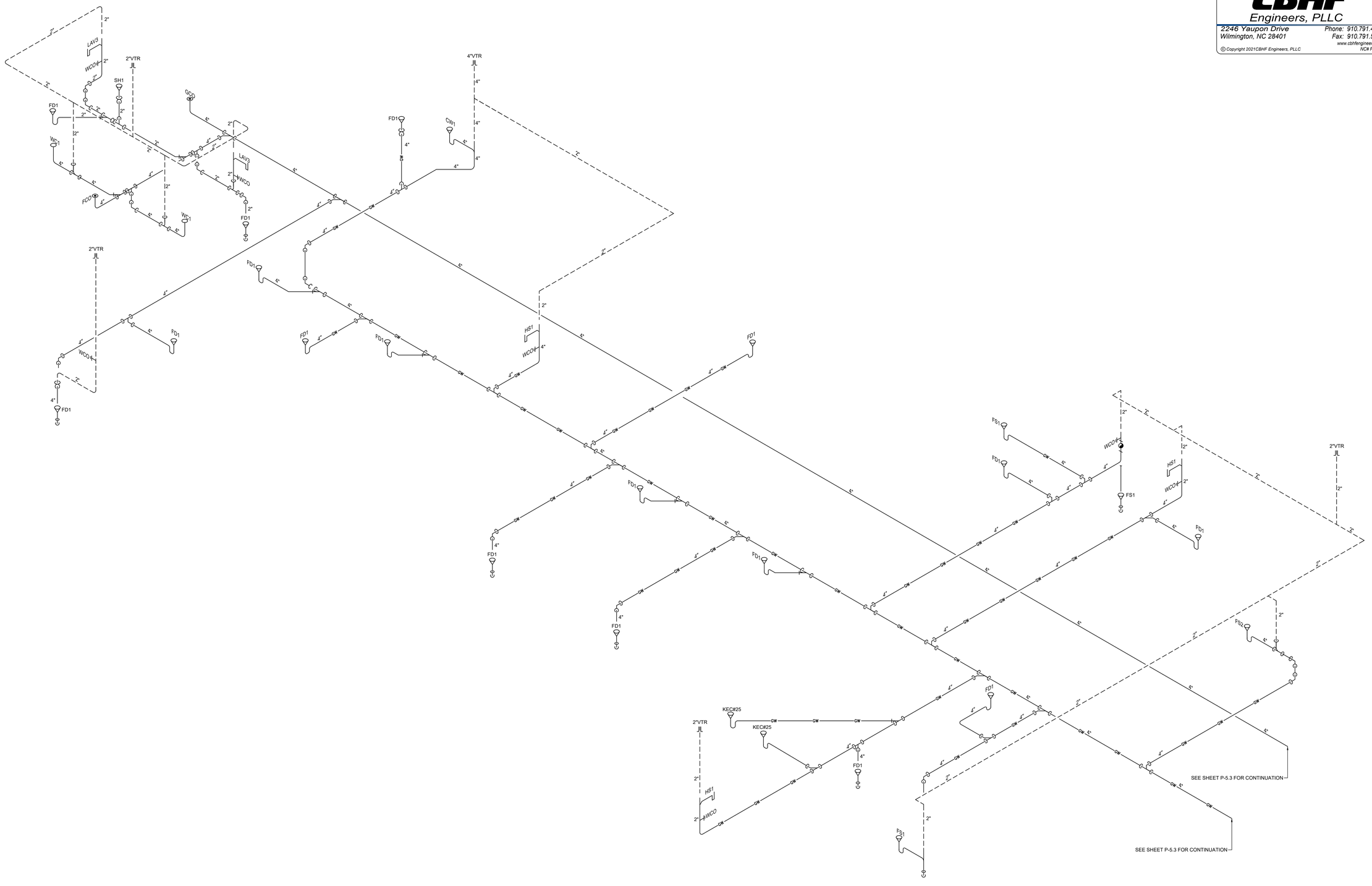

E1 **PARTIAL WASTE-VENT RISER DIAGRAM**
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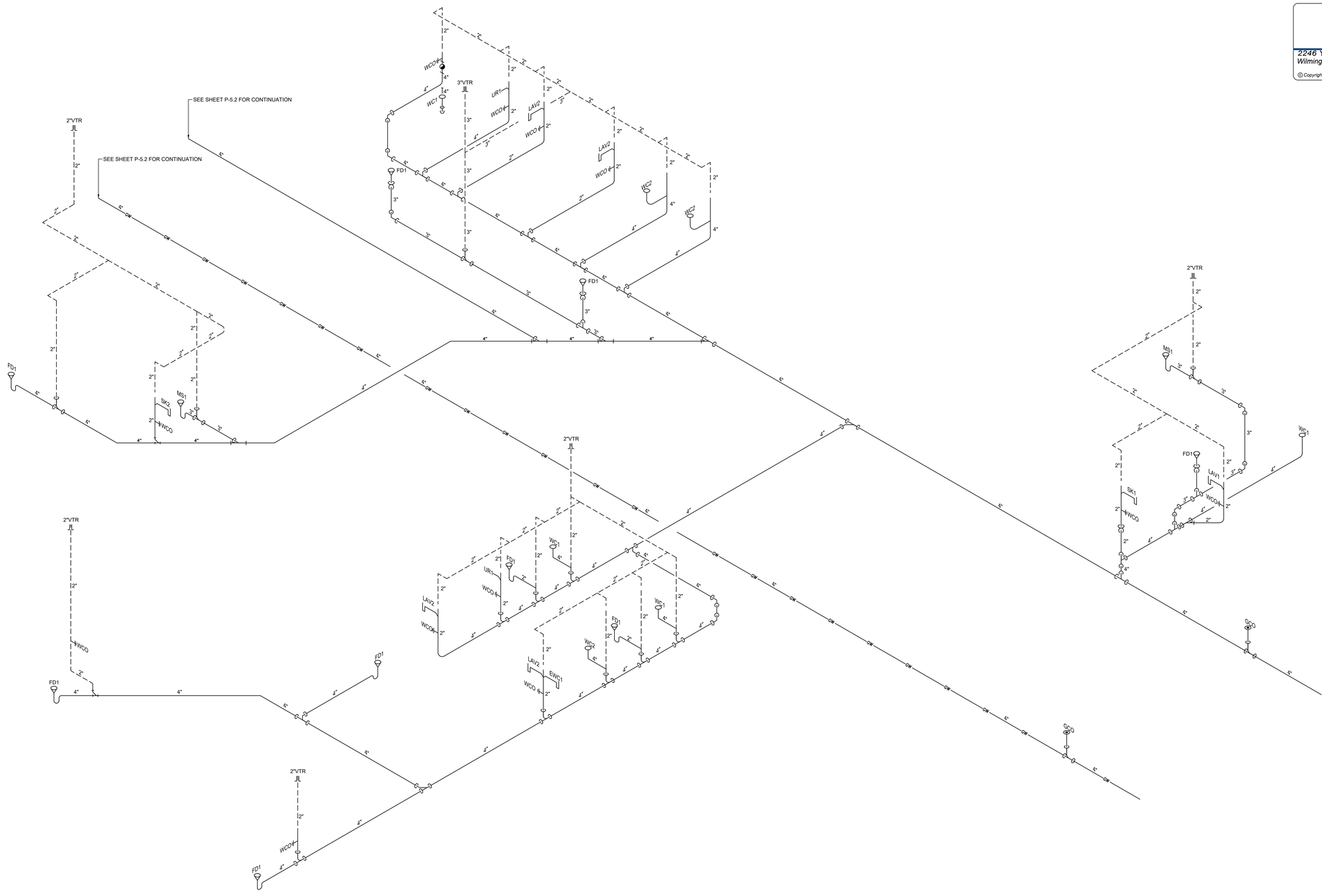
Sheet Title
WASTE-VENT RISER DIAGRAM

Sheet No.
P-5.2



E1 **PARTIAL WASTE-VENT RISER DIAGRAM**
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Project ID CBHF: 20187	

Sheet Title
WASTE-VENT RISER DIAGRAM

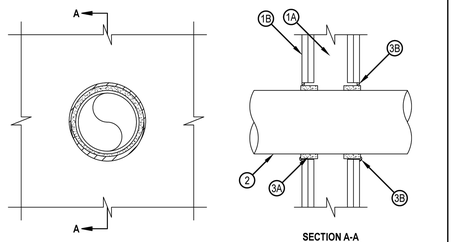
Sheet No.
P-5.3

System No. W-L-2406

WL 2406

Classified by Underwriters Laboratories, Inc. to UL 1479

F Ratings — 1 and 2 Hr (See Item 1)
T Ratings — 0, 1/2 and 3/4 Hr (See Item 2)
L Rating At Ambient - 1.2 CFM/sq ft (See Item 3B)
L Rating At 400 F - Less Than 1 CFM/sq ft (See Item 3B)



SECTION A-A

1. Wall Assembly — The 1 or 2 hr fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300, U400, V400 or W400 Series Wall and 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 or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 3-1/2 in. (89 mm) wide and spaced max 24 in. (610 mm) OC.
   B. Gypsum Board* — One or two layers of nom 5/8 in. (16 mm) thick gypsum board, as specified in the individual Wall and Partition Design. See Table under Item 3B for max diam of opening.
2. Through-Penetrants — One nonmetallic pipe installed within the firestop system. See Table under Item 3B for annular space required in the firestop system. Pipe to be rigidly supported on both sides of wall assembly. The following types and sizes of nonmetallic pipes may be used:
   A. Polyvinyl Chloride (PVC) Pipe — Nom 6 in. (152 mm) diam (or smaller) Schedule 40 cellular or solid core PVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping system.
   B. Chlorinated Polyvinyl Chloride (CPVC) Pipe — Nom 6 in. (152 mm) diam (or smaller) SDR 13.5 CPVC pipe for use in closed (process or supply) piping system.
   C. Acrylonitrile Butadiene Styrene (ABS) Pipe — Nom 4 in. (102 mm) diam (or smaller) Schedule 40 cellular or solid core ABS pipe for use in closed (process or supply) or vented (drain, waste or vent) piping system.

The T Rating for 2 hr fire-rated walls is 0 hr. The T Rating for 1 hr fire-rated walls is 3/4 hr for nom 1-1/2, 2 and 3 in. (38, 51 and 76 mm) diam through penetrants. The T Rating for 1 hr fire-rated walls is 1/2 hr for nom 4 and 6 in. (102 and 152 mm) diam through penetrants.

Hilti Firestop Systems

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Page: 1 of 2

System No. W-L-2406

WL 2406

Classified by Underwriters Laboratories, Inc. to UL 1479

3. Firestop System — The firestop system shall consist of the following:
   A. Fill, Void or Cavity Material* — Wrap Strip — See Table under Item 3B for min size of intumescent wrap strip. The wrap strip is continuously wrapped around the outer circumference of the pipe once and slid into the annular space such that approx 1/8 in. (3 mm) of the wrap strip protrudes from the wall surface. Wrap strip is held in place with integral fastening tape. Wrap strip installed on each surface of wall.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 648S - 1.5" US, CP 648S - 2" US, CP 648S - 3" US, CP 648S - 4" US and CP 648S - 6" US
   B. Fill, Void or Cavity Material* — Caulk — Min 1/4 in. (6 mm) thickness of fill material applied within the annulus, flush with both surfaces of wall. For 2 hr fire-rated walls, 1/4 in. (6 mm) bead fill material also applied at wrap strip/gypsum wall interface. In 1 hr fire-rated walls, fill material is optional for nom 1-1/2, 2, 3 and 4 in. (38, 51, 76 and 102 mm) diam penetrants. In 2 hr fire-rated walls, fill material is optional for nom 1-1/2, 2 and 3 in. (38, 51 and 76 mm) diam penetrants. Fill material is required to be used to attain L Ratings.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-One Sealant or FS-ONE MAX Intumescent Sealant

Nom Pipe Diam, in. (mm)	Wrap Strip	Wrap Strip Size, thick. X width, in. (mm)	Max Diam of Opening, in. (mm)	Annular Space, in. (mm)	
				Min	Max
1-1/2 (38)	CP 648S - 1.5" US	3/16 x 1 (5 x 25)	2-3/8 (60)	3/16 (5)	5/16 (8)
2 (51)	CP 648S - 2" US	3/16 x 1 (5 x 25)	3 (76)	3/16 (5)	5/16 (8)
3 (76)	CP 648S - 3" US	3/16 x 1-3/4 (5 x 44)	4 (102)	3/16 (5)	5/16 (8)
4 (102)	CP 648S - 4" US	3/8 x 1-3/4 (10 x 44)	5-3/8 (137)	3/8 (10)	1/2 (13)
6 (152)	CP 648S - 6" US	1/2 x 1-3/4 (13 x 44)	8 (203)	9/16 (14)	13/16 (21)

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

Hilti Firestop Systems

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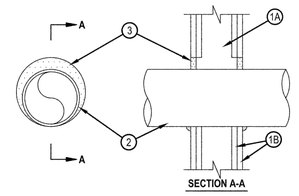
Page: 2 of 2

System No. W-L-1054

WL 1054

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Ratings —1 and 2 Hr (See Items 1 and 3)	F Ratings — 1 and 2 Hr (See Items 1 and 3)
T Rating — 0 Hr	FT Rating — 0 Hr
L Rating at Ambient — Less Than 1 CFM/sq ft	FH Ratings —1 and 2 Hr (See Items 1 and 3)
L Rating at 400 F — Less Than 1 CFM/sq ft	FTH Rating — 0 Hr
	FTH Rating — 0 Hr
	L Rating at Ambient — Less Than 1 CFM/sq ft L Rating at 400 F — Less Than 1 CFM/sq ft



SECTION A-A

1. Wall Assembly — The 1 or 2 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300 or U400 Series Wall and 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 or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 2-1/2 in. (64 mm) wide and spaced max 24 in. (610 mm) OC. When steel studs are used and the diam of opening exceeds the width of stud cavity, the opening shall be framed on all sides using lengths of steel stud installed between the vertical studs and screw-attached to the steel studs at each end. The framed opening in the wall shall be 4 to 6 in. (102 to 152 mm) wider and 4 to 6 in. (102 to 152 mm) higher than the diam of the penetrating item such that, when the penetrating item is installed in the opening, a 2 to 3 in. (51 to 76 mm) clearance is present between the penetrating item and the framing on all four sides.
   B. Gypsum Board* — 5/8 in. (16 mm) thick, 4 ft (122 cm) wide with square or tapered edges. The gypsum board 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 32-1/4 in. (819 mm) for steel stud walls. Max diam of opening is 14-1/2 in. (368 mm) for wood stud walls.

The F and FH Ratings of the firestop system are equal to the fire rating of the wall assembly.

2. Through-Penetrants — One metallic pipe, conduit or tubing to be installed either concentrically or eccentrically within the firestop system. The annular space shall be min 0 in. to max 2-1/4 in. (57 mm). Pipe may be installed with continuous point contact. Pipe, conduit or tubing may be installed at an angle not greater than 45 degrees from perpendicular. 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 30 in. (762 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
   B. Iron Pipe — Nom 30 in. (762 mm) diam (or smaller) cast or ductile iron pipe.
   C. Conduit — Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing or 6 in. (152 mm) . diam steel conduit.
   D. Copper Tubing — Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tubing.
   E. Copper Pipe — Nom 6 in. (152 mm) diam (or smaller) regular (or heavier) copper pipe.
3. Fill, Void or Cavity Material* — Sealant — Min 5/8 in. (16 mm) thickness of fill material applied within the annulus, flush with both surfaces of wall. At the point or continuous contact locations between pipe and wall, a min 1/2 in. (13 mm) diam bead of fill material shall be applied at the pipe wall interface on both surfaces of wall.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-One Sealant or FS-ONE MAX Intumescent Sealant

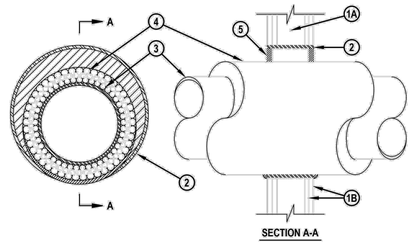
* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

System No. W-L-5096

WL 5096

Classified by Underwriters Laboratories, Inc. to UL 1479 and CAN/ULC-S115

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Ratings - 1 and 2 Hr (See Item 1)	F Ratings - 1 and 2 Hr (See Item 1)
T Ratings - 0, 1/2 and 1 (See Items 3 and 4)	FT Ratings - 0, 1/2 and 1 (See Items 3 and 4)
	FH Ratings - 1 and 2 Hr (See Item 1)
	FTH Ratings - 0, 1/2 and 1 (See Items 3 and 4)



SECTION A-A

1. Wall Assembly — The 1 or 2 hr fire rated wallboard/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300, U400, V400 or W400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
   A. Studs — Wall framing shall consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 2-1/2 in. (64 mm) wide and spaced max 24 in. (610 mm) OC.
   B. Gypsum Board* — Nom 5/8 in. (16 mm) thick, 4 ft (1.2 m) wide with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300, U400, V400 or W400 Series Design in the Fire Resistance Directory. Max diam of openings is 14-1/2 in. (368 mm) for wood stud walls. Max diam of opening is 18-5/8 in. (473 mm) for steel studs walls or sized to the outside diam of steel sleeve (Item 2) when optional steel sleeve is used.

   The hourly F and FH Ratings of the firestop system are equal to the hourly fire rating of the wall assembly in which it is installed.
2. Steel Sleeve — (Optional) Max 18 in. (457 mm) diam Schedule 40 (or heavier) steel pipe sleeve inserted in opening core drilled through wall. Length of steel sleeve to be equal to thickness of wall.
3. Through Penetrant — One metallic pipe or tubing installed concentrically or eccentrically within the firestop system. Pipe or tube to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes or tube may be used:
   A. Steel Pipe — Nom 12 in. (305 mm) diam (or smaller) Schedule 40 (or heavier) steel pipe. When steel pipe is used, T, FT and FTH Ratings are 1/2 hr and 1 hr when installed in 1 and 2 hr rated walls, respectively.
   B. Copper Tube — Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tube. When copper tube is used, T, FT and FTH Ratings are 1/2 hr and 1 hr when installed in 1 and 2 hr rated walls, respectively.
   C. Copper Pipe — Nom 6 in. (152 mm) diam (or smaller) Regular (or heavier) copper pipe. When copper pipe is used, T, FT and FTH Ratings are 1/2 and 1 hr when installed in 1 and 2 hr rated walls respectively.
4. Pipe Covering* — Max. 2 in. (51 mm) thick hollow cylindrical heavy density (nom 3.5 pcf or 56 kg/m³) glass fiber units, jacketed on the outside with an all service jacket. Longitudinal joints sealed with metal fasteners or factory-applied SSL tape. Transverse joints secured with metal fasteners or with butt tape supplied with the product. The annular space between insulated penetrant and periphery of opening shall be min 0 in. (point contact) to max 1-7/8 in. (48 mm).
   When pipe covering thickness is less than 2 in. (51 mm), T, FT and FTH Ratings are 0 hr.
   See Pipe and Equipment Covering-Materials (BRGU) category in the Building Materials Directory for names of manufacturers. Any pipe covering material meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 or less may be used.
5. Fill, Void or Cavity Material*-Sealant — Min 5/8 in. (16 mm) or thickness of fill material applied within annulus, flush with both surfaces of wall assembly for At point contact an additional 1/2 in. (13 mm)bead of sealant shall be applied to the insulated pipe/ wall interface.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant or FS-ONE MAX Intumescent Sealant.

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

Hilti Firestop Systems

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 043801 TROY O. GRADY

2021.11.09 12:12:45-05'00'

The Wilmington Food Bank
Greenfield Street
Wilmington, North Carolina 28403

REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

Project Manager	Drawn By
Date 11.09.2021	Reviewed By
Project ID	CBHF: 20187

Sheet Title

U.L DETAILS

Sheet No.

P-5.4

MECHANICAL ABBREVIATIONS

ABBREVIATION	TERM
ADJ	ADJUSTABLE
AMCA	AIR MOVEMENT AND CONTROL ASSOCIATION
AMP	AMPERE (AMP, AMPS)
ASTM	AMERICAN SOCIETY OF TESTING AND MATERIALS
CFM	CUBIC FEET PER MINUTE
CIP	CAST IN PLACE
CMU	CONCRETE MASONRY UNIT
COP	COEFFICIENT OF PERFORMANCE
DB	DRY BULB
DEG OR °	DEGREE
EA	EXHAUST AIR
EG	EXHAUST GRILLE
EAT	ENTERING AIR TEMPERATURE
ECM	ELECTRONICALLY COMMUTATED MOTOR
EER	ENERGY EFFICIENCY RATIO
ESP	EXTERNAL STATIC PRESSURE
F	FAN
°F	FAHRENHEIT
FLA	FULL LOAD AMPS
FT	FEET
HC	HOT WATER COIL
HGT OR H	HEIGHT
HP	HORSEPOWER
HR	HOUR(S)
IN.	INCH
IN.-WG	INCHES WATER GAUGE
KW	KILOWATT
LAT	LEAVING AIR TEMPERATURE
LBS	POUNDS
L	LOUVER
MAX	MAXIMUM
MBH	1000 BTUH
MCA	MINIMUM CIRCUIT AMPACITY
MCWB	MEAN COINCIDENT WET BULB
MIN.	MINIMUM
MOCP	MAXIMUM OVER CURRENT PROTECTION
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
OZ	OUNCE
OA	OUTSIDE AIR
%	PERCENT
RA	RETURN AIR
RG	RETURN GRILLE
RPM	REVOLUTIONS PER MINUTE
RTU	ROOF TOP UNIT
SA	SUPPLY AIR
SF	SQUARE-FEET
SG	SUPPLY GRILLE
SQ	SQUARE
TG	TRANSFER GRILLE
TYP	TYPICAL
UH	UNIT HEATER
V/PH/HZ	VOLT/PHASE/HERTZ
VTR	VENT THROUGH ROOF
W	WIDTH
WB	WET BULB

NOTE: ALL ABBREVIATIONS MAY NOT BE USED IN PROJECT.

MECHANICAL LEGEND

T	TEMPERATURE SENSOR
TH	TEMPERATURE/HUMIDITY SENSOR
D	DUCT SMOKE DETECTOR
	INDICATES TO DEMOLISH
GM	GAS METER
	GAS SHUTOFF VALVE
	EXTENT OF DEMOLITION
	POINT OF CONNECTION
	MANUAL VOLUME DAMPER
M	MOTORIZED DAMPER
	DIFFUSER/ REGISTER/ GRILLE NO. AS SHOWN ON PLAN AND SCHEDULE
	SG,RG,TG,EG
	AIRFLOW, CFM

NOTE: ALL ITEMS MAY NOT BE USED IN PROJECT.

MECHANICAL SUMMARY

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT

CLIMATE ZONE	3A - WARM/HUMID
WINTER DRY BULB:	23°F
SUMMER DRY BULB	95°F
INTERIOR DESIGN CONDITIONS	
WINTER DRY BULB	70°F
SUMMER DRY BULB	75°F
RELATIVE HUMIDITY	60% RH*
	*DESIGN- NOT CONTROLLED
BUILDING HEATING LOAD:	396.0 MBH
BUILDING COOLING LOAD:	484.22 MBH
MECHANICAL SPACING CONDITIONING SYSTEM	SEE SCHEDULES
UNITARY	
DESCRIPTION OF UNIT:	SEE SCHEDULES
HEATING EFFICIENCY:	SEE SCHEDULES
COOLING EFFICIENCY:	SEE SCHEDULES
SIZE CATEGORY OF UNIT:	SEE SCHEDULES
BOILER	
SIZE CATEGORY, IF OVERSIZED STATE REASON:	N/A
CHILLER	
SIZE CATEGORY, IF OVERSIZED STATE REASON:	N/A
LIST EQUIPMENT EFFICIENCIES:	SEE SCHEDULES

MECHANICAL GENERAL NOTES:

1. ALL MECHANICAL WORK SHALL BE IN STRICT COMPLIANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES AND STANDARDS.
2. ALL DIMENSIONS AND ELEVATIONS FOR NEW EQUIPMENT, DUCTWORK, PIPING AND APPARATUS ARE APPROXIMATE AND ARE ONLY FOR CONTRACTOR'S GUIDANCE. CONTRACTOR SHALL SUBMIT DIMENSIONS AND ELEVATIONS VERIFIED IN THE FIELD. DUCTWORK AND PIPING INDICATED ON THE DRAWINGS, SECTIONS AND PROSPECTIVE VIEWS ARE SHOWN DIAGRAMMATICALLY. DUCT AND PIPE ELEVATIONS IN EXACT LOCATIONS SHALL BE DETERMINED BY THE INSTALLING CONTRACTOR AND DETAILED ON THE SHOP DRAWINGS.
3. ALL DUCT DIMENSIONS INDICATED ON PLAN ARE CLEAR INSIDE DIMENSIONS. CONTRACTOR MUST ACCOUNT FOR THE THICKNESS OF EXTERIOR INSULATION WHEN DETERMINING INSTALLATION CLEARANCES.
4. THE CONTRACTOR SHALL TEMPORARILY COVER ALL EXPOSED DUCT AND PIPE OPENINGS WITH A NON-COMBUSTIBLE MATERIAL, AND SEAL THEM AIR TIGHT TO PREVENT CONTAMINATION OF THE RESPECTIVE SYSTEMS DURING CONSTRUCTION.
5. CONTRACTOR SHALL REMOVE AND DISPOSE OF OFFSITE ALL DEMOLISHED WORK IN ACCEPTABLE AND SAFE MANNER AND SHALL KEEP ALL NON-WORK AREAS CLEAN AND SAFE.
6. ALL EXISTING EQUIPMENT AND CONNECTIONS THAT NEED TO BE TEMPORARILY DEMOLISHED FOR RIGGING AND / OR INSTALLATION SHALL BE REINSTALLED AND BROUGHT BACK TO ORIGINAL CONDITIONS PRIOR TO TEMPORARY REMOVAL.
7. INSTALL WORK SO AS TO BE READILY ACCESSIBLE FOR OPERATION, MAINTENANCE AND REPAIR. MINOR DEVIATIONS FROM DRAWINGS MAY BE MADE TO ACCOMPLISH THIS, BUT CHANGES WHICH INVOLVE EXTRA COST SHALL NOT BE MADE WITHOUT APPROVAL.

MECHANICAL PIPE LEGEND

C	CONDENSATE PIPING
R	REFRIGERANT LINE SETS

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The Wilmington Food Bank
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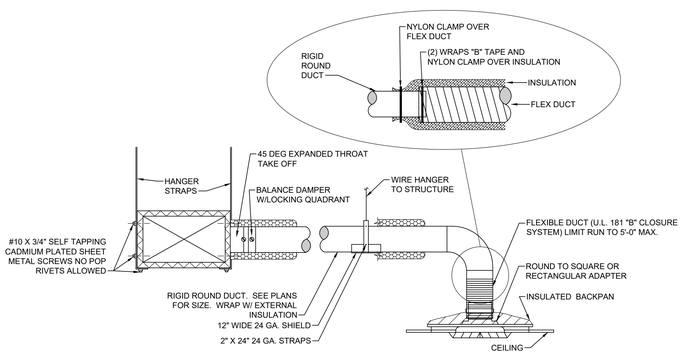
REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

Project Manager	Drawn By: WTB
Date: 11.09.2021	Reviewed By: TOG
Project ID: CBHF: 20187	

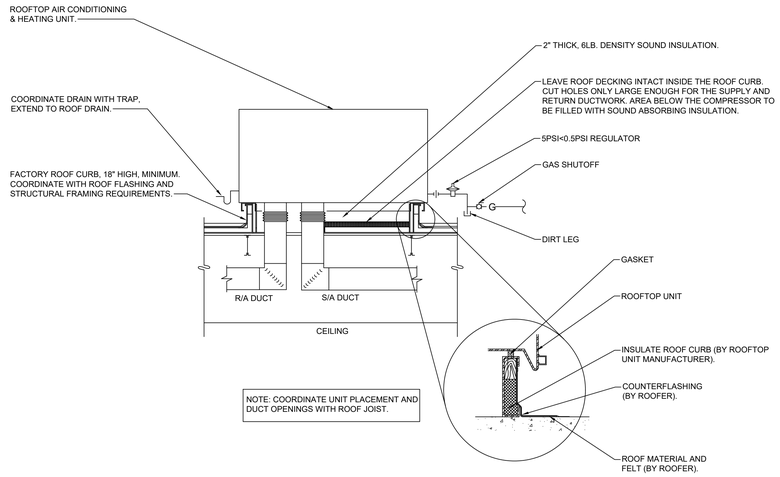
Sheet Title: MECHANICAL NOTES, ABBREVIATIONS AND LEGEND

Sheet No.: M-0.1



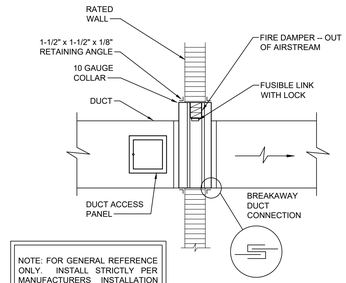
B1 TYPICAL DIFFUSER CONNECTION DETAIL

NOT TO SCALE



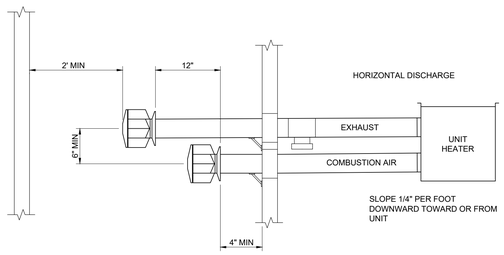
B3 ROOFTOP UNIT DETAIL

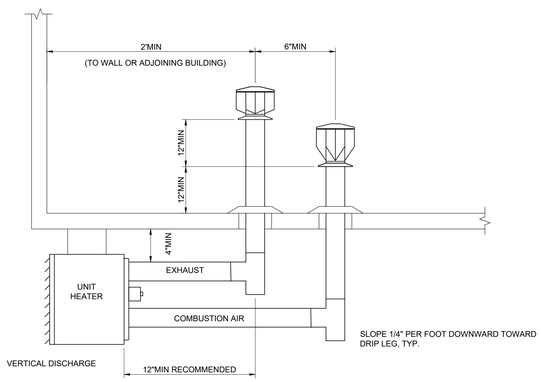
NOT TO SCALE



B5 FIRE DAMPER DETAIL

NOT TO SCALE

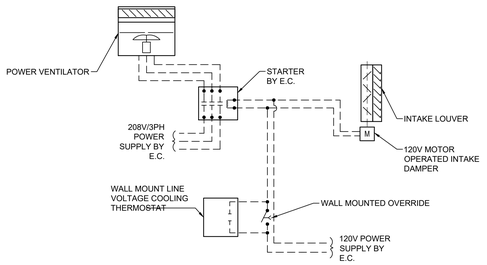




NOTE: UNIT HEATER VENT DETAIL SHOWS GENERAL GUIDANCE FOR HEATERS SCHEDULED, REFER TO MANUFACTURERS INSTALLATION MANUAL FOR COMPLETE REQUIREMENTS.

E1 GAS UNIT HEATER DETAIL

NOT TO SCALE



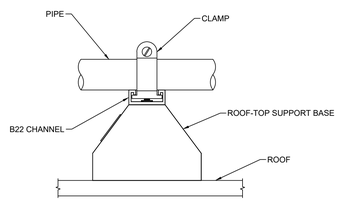
SEQUENCE OF OPERATION

1. EXHAUST FAN SHALL NOT OPERATE DURING TIMES WHEN THE SPACE TEMPERATURE IS BELOW SETPOINT.
2. UPON RISE IN SPACE TEMPERATURE, EXHAUST FAN SHALL OPERATE AT THE SCHEDULED FLOW.
3. UPON WALL SWITCH ACTIVATION, EXHAUST FAN SHALL OPERATE REGARDLESS OF THERMOSTAT OUTPUT.

NOTE: PROVIDE ALL RELAYS AND ACCESSORIES REQUIRED FOR PROPER OPERATION.

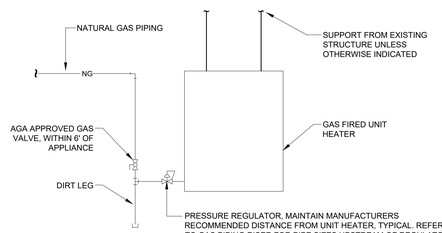
C4 POWER VENTILATOR CONTROL DETAIL

NOT TO SCALE



E3 TYPICAL ROOF TOP PIPE SUPPORT DETAIL

NOT TO SCALE



E5 GAS FIRED UNIT HEATER DETAIL

NOT TO SCALE

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REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

Project Manager	Drawn By: WTB
Date: 11.09.2021	Reviewed By: TOG
Project ID: CBHF: 20187	

Sheet Title: MECHANICAL DETAILS

Sheet No.: M-5.1

PACKAGED UNIT SCHEDULE

DRAWING CODE	BASIS OF DESIGN MANUFACTURER	ALTERNATE APPROVED MANUFACTURER	BASIS OF DESIGN MODEL	SYSTEM TYPE	COOLING (AHRI STANDARD)			HOT GAS REHEAT		NATURAL GAS HEATING			EVAPORATOR FAN			ELECTRICAL			WEIGHT (LBS.)	NOTES	ACCESSORIES
					TOTAL (MBH)	SENSIBLE (MBH)	EFFICIENCY	REHEAT CAPACITY (MBH)	COOLING LDB W/ REHEAT (°F)	GAS INPUT (MBH)	GAS OUTPUT (MBH)	STAGES	SUPPLY AIRFLOW (CFM)	OUTSIDE AIRFLOW (CFM)	ESP (IN. WG.)	POWER SUPPLY (V/PH/HZ)	MCA	MOCP			
RTU01	TRANE	YORK, DAIKIN	YHC047E3RXA	GAS-PACK	49	34	EER 13.0	28.7	73.1	60	49	1	1,600	245	0.50	208/3/60	30.0	40	976	1,2	A,B,C,D,E,F
RTU02	TRANE	YORK, DAIKIN	YHC047E3RXA	GAS-PACK	49	34	EER 13.0	28.7	73.1	60	49	1	1,600	145	0.50	208/3/60	30.0	40	976	1,2	A,B,C,D,E,F
RTU03	TRANE	YORK, DAIKIN	YHC047E3RXA	GAS-PACK	49	34	EER 13.0	28.7	73.1	60	49	1	1,600	145	0.50	208/3/60	30.0	40	976	1,2	A,B,C,D,E,F
RTU04	TRANE	YORK, DAIKIN	YHC037E3RXA	GAS-PACK	34	27	EER 13.0	20.2	72.1	60	48	1	1,200	80	0.50	208/3/60	24.0	30	767	1,2	A,B,C,D,E,F
RTU05	TRANE	YORK, DAIKIN	YHC037E3RXA	GAS-PACK	34	27	EER 13.0	20.2	72.1	60	48	1	1,200	140	0.50	208/3/60	24.0	30	767	1,2	A,B,C,D,E,F
RTU06	TRANE	YORK, DAIKIN	YHC102F3RXA	GAS-PACK	94	68	EER 12.5	77.8	81.2	120	96	1	2,720	450	0.80	208/3/60	42.0	50	1300	1,2	A,B,C,D,E,F
RTU07	TRANE	YORK, DAIKIN	YSC072H3RXA	GAS-PACK	75	55	EER 11.2	-	-	80	64.8	1	2,400	170	0.80	208/3/60	35.0	50	1045	1,2	B,C,D,E,F
RTU08	TRANE	YORK, DAIKIN	YHC092F3RXA	GAS-PACK	88	66	EER 12.6	68.8	76.5	120	96	1	3,000	210	0.80	280/3/60	42.0	50	1291	1,2	A,B,C,D,E,F

NOTES:
1. REFER TO SPECIFICATIONS FOR FURTHER INFORMATION.
2. COILS TO BE COATED FOR EXPOSURE TO ASTM B117-90 3000 HOUR SALT SPRAY RESISTANCE TEST WITH NO DEGRADATION.

ACCESSORIES:
A. PROVIDE WITH HOT GAS RE-HEAT FOR DEHUMIDIFICATION CYCLE.
B. STAINLESS STEEL GAS HEAT EXCHANGER.
C. PROVIDE HUMIDISTAT AND AUTO CHANGEOVER PROGRAMMABLE THERMOSTAT.
D. COIL GUARDS.
E. EQUIPMENT SPECIFIC SEISMIC/WIND RATED CURB, RESTRAINT AND FASTENERS w/ ENGINEER CERTIFICATION. COORDINATE HEIGHT OF CURB WITH TO ENSURE CURB IS TALL ENOUGH TO ACCOMMODATE PROPER FLASHING AND TO MAINTAIN ROOF WARRANTY
F. MOTORIZED OUTDOOR AIR DAMPER

LOUVER SCHEDULE

DRAWING CODE	BASIS OF DESIGN MANUFACTURER	BASIS OF DESIGN MODEL	ALTERNATE APPROVED MANUFACTURERS	TYPE	FRAME	DESCRIPTION	MATERIAL	LOUVER DEPTH (IN.)	SIZE (W x H) (IN.)	SERVICE	INTERLOCKED WITH	AIRFLOW (CFM)	PERFORMANCE RATINGS			NOTES	ACCESSORIES
													FREE AREA (SF)	S.P. LOSS (IN.H20)	WATER PENETRATION (OZ./SF)		
L1	RUSKIN	ELF6375DXD	GREENHECK, POTTORFF	FIXED	CHANNEL	HORIZONTAL, WIND-DRIVEN-RAIN-RESISTANT	ALUMINUM	6	48 X 24	INTAKE	PV08	3,300	4.13	0.1	1.28	1,2	A,B
L2	RUSKIN	ELF6375DXD	GREENHECK, POTTORFF	FIXED	CHANNEL	HORIZONTAL, WIND-DRIVEN-RAIN-RESISTANT	ALUMINUM	6	48 X 24	INTAKE	PV09	3,300	4.13	0.1	1.28	1,2	A,B
L3	RUSKIN	ELF6375DXD	GREENHECK, POTTORFF	FIXED	CHANNEL	HORIZONTAL, WIND-DRIVEN-RAIN-RESISTANT	ALUMINUM	6	48 X 24	INTAKE	PV10	3,300	4.13	0.1	1.28	1,2	A,B

NOTES:
1. REFER TO SPECIFICATION FOR FURTHER INFORMATION.
2. FINISH AS SELECTED BY ARCHITECT FROM MANUFACTURER'S FULL RANGE OF COLOR AND GLOSS.

ACCESSORIES:
A. BIRD SCREEN. MATERIAL TO MATCH LOUVER MATERIAL.
B. MOTORIZED DAMPER INTERLOCKED WITH FAN

ROOF HOOD SCHEDULE

DRAWING CODE	BASIS OF DESIGN MANUFACTURER	BASIS OF DESIGN MODEL	APPROVED MANUFACTURERS	TYPE	AIRFLOW (CFM)	CONSTRUCTION MATERIAL	ROOF CURB	SCREENING		FINISH	CAPACITIES AND CHARACTERISTICS					NOTES	ACCESSORIES
							CONFIGURATION	TYPE	MATERIAL		HEIGHT (IN.)	DIAMETER (IN.)	BASE (IN.)	THROAT AREA (SQ. FT.)	PRESSURE DROP (IN. WG.)		
RH01	GREENHECK	GRSR-8	TWIN CITY, PENNBARRY	EXHAUST	50	ALUMINUM	FLAT W/ FLASHING	INSECT	ALUMINUM	ANODIZED	7.25	20.5	19.0	1.30	0.00	1	A
RH02	GREENHECK	GRSR-8	TWIN CITY, PENNBARRY	EXHAUST	100	ALUMINUM	FLAT W/ FLASHING	INSECT	ALUMINUM	ANODIZED	7.25	20.5	19.0	1.30	0.00	1	A
RH03	GREENHECK	GRSR-8	TWIN CITY, PENNBARRY	EXHAUST	100	ALUMINUM	FLAT W/ FLASHING	INSECT	ALUMINUM	ANODIZED	7.25	20.5	19.0	1.30	0.00	1	A
RH04	GREENHECK	GRSR-8	TWIN CITY, PENNBARRY	EXHAUST	100	ALUMINUM	FLAT W/ FLASHING	INSECT	ALUMINUM	ANODIZED	7.25	20.5	19.0	1.30	0.00	1	A
RH05	GREENHECK	GRSR-8	TWIN CITY, PENNBARRY	EXHAUST	50	ALUMINUM	FLAT W/ FLASHING	INSECT	ALUMINUM	ANODIZED	7.25	20.5	19.0	1.30	0.00	1	A
RH06	GREENHECK	GRSR-8	TWIN CITY, PENNBARRY	EXHAUST	50	ALUMINUM	FLAT W/ FLASHING	INSECT	ALUMINUM	ANODIZED	7.25	20.5	19.0	1.30	0.00	1	A
RH07	GREENHECK	GRSR-8	TWIN CITY, PENNBARRY	EXHAUST	50	ALUMINUM	FLAT W/ FLASHING	INSECT	ALUMINUM	ANODIZED	7.25	20.5	19.0	1.30	0.00	1	A

NOTES:
1. REFER TO SPECIFICATIONS FOR FURTHER INFORMATION.

ACCESSORIES:
A. INSECT SCREEN - MATCH VENTILATOR MATERIAL.

GAS-FIRED UNIT HEATER SCHEDULE

DRAWING CODE	DESIGN	MODEL	ALTERNATE APPROVED MFRS	FUEL	TYPE			GAS			FLUE	MIN. AIRFLOW	MOTOR		VOLTAGE	FLA	MAX. MTG.	NOTES	ACCESSORIES
	BASIS MFR.				FAN	COMBUSTION / CONTROL	VENTING	INPUT (BTUH)	OUTPUT (BTUH)	EFF.(%)	OUTLET (IN)	(CFM)	HP	RPM	(V/PH/HZ)	(AMPS)	HEIGHT (FT.)		
GUH01	MODINE	HDS30	MCQUAY, TRANE	NATURAL GAS	PROPELLER	ENCLOSED / SINGLE STAGE	POWERED	30,000	24,600	80	3	505	1/15	1550	120/1/60	3.7	10.0	1,2	A,B
GUH02	MODINE	HDS30	MCQUAY, TRANE	NATURAL GAS	PROPELLER	ENCLOSED / SINGLE STAGE	POWERED	30,000	24,600	80	3	505	1/15	1550	120/1/60	3.7	10.0	1,2	A,B
GUH03	MODINE	HDS30	MCQUAY, TRANE	NATURAL GAS	PROPELLER	ENCLOSED / SINGLE STAGE	POWERED	30,000	24,600	80	3	505	1/15	1550	120/1/60	3.7	10.0	1,2	A,B
GUH04	MODINE	HDS30	MCQUAY, TRANE	NATURAL GAS	PROPELLER	ENCLOSED / SINGLE STAGE	POWERED	30,000	24,600	80	3	505	1/15	1550	120/1/60	3.7	10.0	1,2	A,B
GUH05	MODINE	HDS30	MCQUAY, TRANE	NATURAL GAS	PROPELLER	ENCLOSED / SINGLE STAGE	POWERED	30,000	24,600	80	3	505	1/15	1550	120/1/60	3.7	10.0	1,2	A,B
GUH06	MODINE	HDS30	MCQUAY, TRANE	NATURAL GAS	PROPELLER	ENCLOSED / SINGLE STAGE	POWERED	30,000	24,600	80	3	505	1/15	1550	120/1/60	3.7	10.0	1,2	A,B
GUH07	MODINE	HDS30	MCQUAY, TRANE	NATURAL GAS	PROPELLER	ENCLOSED / SINGLE STAGE	POWERED	30,000	24,600	80	3	505	1/15	1550	120/1/60	3.7	10.0	1,2	A,B

NOTES:
1. REFER TO SPECIFICATIONS FOR FURTHER INFORMATION.
2. VENT IN ACCORDANCE WITH BUILDING CODE AND MANUFACTURER'S INSTRUCTIONS.

ACCESSORIES:
A. SINGLE STAGE THERMOSTAT.
B. AGA APPROVED REGULATOR.

DUCTLESS SPLIT SYSTEM SCHEDULE

DRAWING CODE (INDOOR)	DRAWING CODE (OUTDOOR)	BASIS OF DESIGN MANUFACTURER	MODEL INDOOR UNIT	MODEL OUTDOOR UNIT	ALTERNATE APPROVED MANUFACTURERS	ARI COOLING 80/67/95		ARI HEATING 70/47	MIN SEER	MIN COP	INDOOR UNIT				OUTDOOR UNIT				NOTES	ACCESSORIES
						TOTAL (MBH)	SENS (MBH)	TOTAL (MBH)			FAN SA MIN-MAX (CFM)	ELECTRICAL VOLTAGE (V/PH/HZ)	MCA (AMPS)	WEIGHT (LBS)	ELECTRICAL VOLTAGE (V/PH/HZ)	MCA (AMPS)	MOCP (AMPS)	WEIGHT (LBS)		
DAH1.1	DHP01	MITSUBISHI	NTXWST09A112A	NTXMPH20A1222AA	DAIKIN, LG	9.0	8.0	10.9	17.2	4.4	145-399	208-230/1/60	1	22	208-230/1/60	29.5	40	187	1,2	A,B,C,D,E
DAH1.2		MITSUBISHI	NTXWST09A112A		DAIKIN, LG	9.0	8.0	10.9	17.3	4.4	145-399	208-230/1/60	1	22					1,2	A,B,C,D,E
DAH02	DHP02	MITSUBISHI	NTXWPH06B112AA	NTXSPB06B112AA	DAIKIN, LG	6.0	5.76	8.7	19.1	4.7	137-381	208-230/1/60	1	29	208-230/1/60	10	15	83	1,2	A,B,C,D,E
DAH03	DHP03	MITSUBISHI	NTXCKS09A112AA	NTXSKS09A112AA	DAIKIN, LG	9.0	7.83	12.0	22.4	3.9	230-300	208-230/1/60	0.25	31	208-230/1/60	9	15	81	1	A,B,C,D,E
DAH04	DHP04	MITSUBISHI	NTXWPH12B112AA	NTXSPH12B112AA	DAIKIN, LG	12.0	9.96	12.3	26.1	4.2	137-424	208-230/1/60	1	29	208-230/1/60	10	15	83	1	A,B,C,D,E

NOTES:
1. REFER TO SPECIFICATIONS FOR FURTHER INFORMATION.
2. REFRIGERANT LINE SET AND CONDENSATE PIPES MUST BE CONCEALED IN WALL

ACCESSORIES:
A. ELECTRICAL CONTRACTOR TO PROVIDE CONDUIT AND CONDUCTOR FROM OUTDOOR UNIT TO INDOOR UNIT.
B. SEACOAST COATING PROTECTION ON OUTDOOR UNIT.
C. ROOF MOUNTING RAILS AND ACCESSORIES.
D. PROVIDE BLUE DIAMOND CONDENSATE PUMP AND RESERVOIR OR EQUAL. INTERLOCK TO SHUTDOWN UNIT.
E. WIRED WALL-MOUNTED REMOTE CONTROLLER WITH VANDAL PROOF ENCLOSURE.

POWER VENTILATOR SCHEDULE

DRAWING CODE	BASIS OF DESIGN MANUFACTURER	BASIS OF DESIGN MODEL	ALTERNATE APPROVED MANUFACTURERS	FAN TYPE	SERVICE	CAPACITIES				ELECTRICAL				SONES	NOTES	ACCESSORIES
						AIRFLOW (CFM)	ESP (IN. WG.)	DRIVE ARRANGEMENT	FAN RPM	MOTOR TYPE	MOTOR SIZE (HP)	V/PH/HZ	FLA			
PV01	GREENHECK	SP-A50-90-VG	TWIN CITY, PENNBARRY	CEILING-MOUNTED VENTILATORS	EXHAUST	50	0.25	DIRECT	808	ECM	6W	115/1/60	0.29	0.7	1,2	A,B,F
PV02	GREENHECK	SP-A90-130-VG	TWIN CITY, PENNBARRY	CEILING-MOUNTED VENTILATORS	EXHAUST	100	0.25	DIRECT	960	ECM	12W	115/1/60	0.29	1.4	1,2	A,B,F
PV03	GREENHECK	SP-A90-130-VG	TWIN CITY, PENNBARRY	CEILING-MOUNTED VENTILATORS	EXHAUST	100	0.25	DIRECT	960	ECM	12W	115/1/60	0.29	1.4	1,2	A,B,F
PV04	GREENHECK	SP-A90-130-VG	TWIN CITY, PENNBARRY	CEILING-MOUNTED VENTILATORS	EXHAUST	100	0.25	DIRECT	960	ECM	12W	115/1/60	0.29	1.4	1,2	A,B,F
PV05	GREENHECK	SP-A50-90-VG	TWIN CITY, PENNBARRY	CEILING-MOUNTED VENTILATORS	EXHAUST	50	0.25	DIRECT	808	ECM	6W	115/1/60	0.29	0.7	1,2	A,B,F
PV06	GREENHECK	SP-A50-90-VG	TWIN CITY, PENNBARRY	CEILING-MOUNTED VENTILATORS	EXHAUST	50	0.25	DIRECT	808	ECM	6W	115/1/60	0.29	0.7	1,2	A,B,F
PV07	GREENHECK	SP-A50-90-VG	TWIN CITY, PENNBARRY	CEILING-MOUNTED VENTILATORS	EXHAUST	50	0.25	DIRECT	808	ECM	6W	115/1/60	0.29	0.7	1,2	A,B,F
PV08	GREENHECK	G-300-VG	TWIN CITY, PENNBARRY	CENTRIFUGAL ROOF VENTILATORS	EXHAUST	3,300	0.25	DIRECT	326	ECM	5	208/3/60	11.2	5.2	1,2	A,B,C,D,E
PV09	GREENHECK	G-300-VG	TWIN CITY, PENNBARRY	CENTRIFUGAL ROOF VENTILATORS	EXHAUST	3,300	0.25	DIRECT	326	ECM	5	208/3/60	11.2	5.2	1,2	A,B,C,D,E
PV10	GREENHECK	G-300-VG	TWIN CITY, PENNBARRY	CENTRIFUGAL ROOF VENTILATORS	EXHAUST	3,300	0.25	DIRECT	326	ECM	5	208/3/60	11.2	5.2	1,2	A,B,C,D,E

NOTES:
1. REFER TO SPECIFICATION SECTION 233423 - HVAC POWER VENTILATORS FOR FURTHER INFORMATION.
2. PROVIDE CURB ADAPTOR AS REQUIRED.

ACCESSORIES:
A. BIRDSCREEN
B. GRAVITY DAMPER.
C. EQUIPMENT SPECIFIC SEISMIC/WIND RATED CURB, RESTRAINT AND FASTENERS w/ ENGINEER CERTIFICATION.
D. CURB SEAL
E. CONTROLLED VIA ON/OFF/AUTO SWITCH WITH THERMOSTAT.
F. CONTROLLED VIA OCCUPANCY SENSOR. REFER TO ELECTRICAL PLANS.

ELECTRIC HEATER SCHEDULE

DRAWING CODE	BASIS OF DESIGN MANUFACTURER	BASIS OF DESIGN MODEL	ALTERNATE APPROVED MANUFACTURERS	DESCRIPTION			ELECTRIC COIL		SUPPLY AIR	ELECTRICAL			WEIGHT (LBS)	MOUNTING HEIGHT (FT)	NOTES	ACCESSORIES
				TYPE	FAN	DISCHARGE	CAPACITY (KW)	STEPS	AIRFLOW (CFM)	POWER (V/PH/HZ)	FLA	MOCP				
EUH01	INDEECO	925U05000VA	QMARK, MARKEL	UNIT HEATER	PROPELLER	HORIZONTAL	3.8	1	300.0	208/1/60	18.4	-	20	8	1	A,B

NOTES:
1. REFER TO SPECIFICATIONS FOR FURTHER INFORMATION.

ACCESSORIES:
A. FACTORY INSTALLED THERMOSTAT, OVERHEAT SWITCH AND FAN DELAY SWITCH.
B. PROVIDE WALL MOUNTING BRACKET.

DIFFUSERS, REGISTERS AND GRILLES SCHEDULE

DRAWING CODE	BASIS OF DESIGN MANUFACTURER	BASIS OF DESIGN MODEL	ALTERNATE APPROVED MANUFACTURERS	TYPE	SERVICE	NECK SIZE (IN.)	BRANCH CONN. SIZE (IN.)	MODULE SIZE (IN.)	MATERIAL	FINISH	MOUNTING	NOTES	ACCESSORIES
S1	PRICE	ASPD	METALAIRE, TITUS	SQUARE PLAQUE CEILING DIFFUSER	SUPPLY	6Ø	-	24 X 24	ALUMINUM	WHITE	T-BAR	1,2	A
S2	PRICE	ASPD	METALAIRE, TITUS	SQUARE PLAQUE CEILING DIFFUSER	SUPPLY	8Ø	-	24 X 24	ALUMINUM	WHITE	T-BAR	1,2	A
S3	PRICE	ASPD	METALAIRE, TITUS	SQUARE PLAQUE CEILING DIFFUSER	SUPPLY	10Ø	-	24 X 24	ALUMINUM	WHITE	T-BAR	1,2	A
S4	PRICE	ASPD	METALAIRE, TITUS	SQUARE PLAQUE CEILING DIFFUSER	SUPPLY	12Ø	-	24 X 24	ALUMINUM	WHITE	T-BAR	1,2	A
S5	PRICE	SDGE	METALAIRE, TITUS	SPIRAL DUCT GRILLE	SUPPLY	-	-	12 X 6	ALUMINUM	WHITE	DUCT SURFACE	1	B
S6	PRICE	SDGE	METALAIRE, TITUS	SPIRAL DUCT GRILLE	SUPPLY	-		14 X 10	ALUMINUM	WHITE	DUCT SURFACE	1	B
S7	PRICE	RCDE	METALAIRE, TITUS	ROUND CEILING DIFFUSER	SUPPLY	8Ø	-	-	ALUMINUM	WHITE	DUCT SURFACE	1	B
S8	PRICE	620	METALAIRE, TITUS	LOUVER FACE DIFFUSER	SUPPLY	-	-	14 X 4	ALUMINUM	WHITE	WALL SURFACE	1	A
R1	PRICE	630	METALAIRE, TITUS	FIXED FACE GRILLE	RETURN	22 X 22	-	24 X 24	ALUMINUM	WHITE	T-BAR	1,2	-
R2	PRICE	630	METALAIRE, TITUS	FIXED FACE GRILLE	RETURN	-	-	28 X 20	ALUMINUM	WHITE	DUCT/WALL SURFACE	1	-
R3	PRICE	630	METALAIRE, TITUS	FIXED FACE GRILLE	RETURN	-	-	32 X 30	ALUMINUM	WHITE	DUCT/WALL SURFACE	1	-

NOTES:
1. REFER TO SPECIFICATION SECTION 233713 - DIFFUSERS, REGISTERS, AND GRILLES FOR FURTHER INFORMATION.
2. DUCT BRANCH CONNECTION SIZE TO BE EQUAL TO THE NECK SIZE OF DIFFUSER UNLESS NOTED OTHERWISE ON PLANS.

ACCESSORIES:
A. VOLUME DAMPER.
B. INTEGRAL VOLUME DAMPER.

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 043801 TROY O. GRADY
2021.11.09 12:12:43-05'00'

The Wilmington Food Bank
Greenfield Street
Wilmington, North Carolina 28403

REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

Project Manager	Drawn By
	WTB
Date: 11.09.2021	Reviewed By: TOG
Project ID: CBHF: 20187	

Sheet Title: MECHANICAL SCHEDULES

Sheet No.: M-6.1

HOOD INFORMATION

HOOD NO.	MARK	MODEL	HOOD DIMENSIONS (IN.)			HOOD CONSTR.	COOKING LOAD / DUTY RATING	EXHAUST						SUPPLY		TOTAL WEIGHT LBS.	SECTION LOCATION
			LENGTH	WIDTH	HEIGHT			TOTAL CFM	COLLAR(S)					MUA CFM	AC CFM		
									WIDTH	LENGTH	DIA.	CFM	S.P.				
1	HOOD1	XXEW-144-S	144	60	24	430 SS WHERE EXPOSED	HEAVY	2820	10	26		2820	0.58	2450		422.788	LEFT
2	HOOD1	XXEW-144-S	144	60	24	430 SS WHERE EXPOSED	HEAVY	2820	10	26		2820	0.58	2151		422.788	MIDDLE
3	HOOD1	XXEW-144-S	144	60	24	430 SS WHERE EXPOSED	HEAVY	2820	10	26		2820	0.58	2166		426.288	RIGHT

HOOD INFORMATION

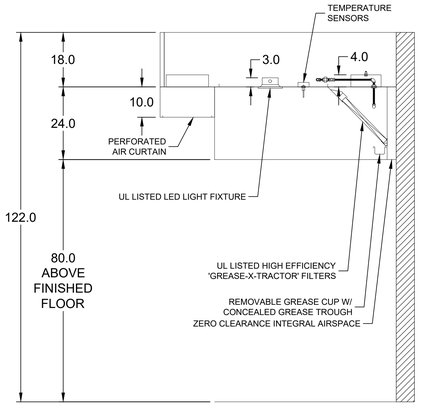
HOOD NO.	MARK	LIGHTING DETAILS			GREASE FILTRATION DETAILS				UTILITY CABINET(S)				
		FIXTURE TYPE BULB / LAMP INFO	QTY	FOOT CANDLES	TYPE / MODEL MATERIAL	QTY	SIZE (IN.)		LOCATION	FIRE SYSTEM		CONTROLS	
							L	H		TYPE	SIZE	MODEL	INTERFACE
1	HOOD1	ROUND LED	3	69.77	X-TRACTOR	4	16	20	LEFT			XKC	TOUCHSCREEN
					STAINLESS STEEL	4	20						
2	HOOD1	ROUND LED	3	69.77	X-TRACTOR	4	16	20					
					STAINLESS STEEL	4	20						
3	HOOD1	ROUND LED	3	69.77	X-TRACTOR	4	16	20					
					STAINLESS STEEL	4	20						

SUPPLY PLENUM INFORMATION

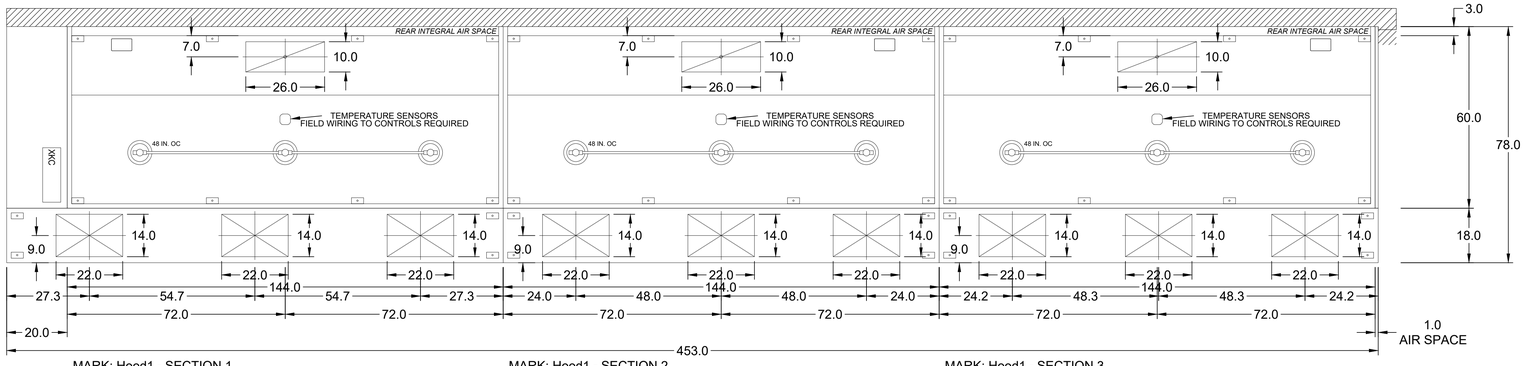
HOOD NO.	MARK	POS.	TYPE	SIZE (IN.)			INSULATED	DAMPER(S)	LED LIGHT(S)		TOTAL CFM	COLLARS								
				L	W	H			SUPPLIED	QTY		TYPE	MOUNTING	QTY	W	L	DIA.	CFM	S.P.	VEL.
1	HOOD1	FRONT	ASP	164	18	10	YES	YES	NO		2450	MUA	FACTORY	3	14	22		817	0.15	382
2	HOOD1	FRONT	ASP	144	18	10	YES	YES	NO		2151	MUA	FACTORY	3	14	22		717	0.15	335
3	HOOD1	FRONT	ASP	145	18	10	YES	YES	NO		2166	MUA	FACTORY	3	14	22		722	0.15	338

HOOD OPTIONS

- UL 710 LISTED W/ OUT EXHAUST FIRE DAMPER - UL #R25625
- BACK INTEGRAL AIR SPACE - 3 IN WIDE - ZERO CLEARANCE
- RIGHT NON-INTEGRAL AIR SPACE - 1 IN THICK - ZERO CLEARANCE
- 18 IN HIGH CEILING ENCLOSURES - FRONT LEFT RIGHT - FIELD INSTALLED
- FACTORY MOUNTED EXHAUST COLLAR(S)
- BACKSPLASH 80.00 IN HIGH 453.00 IN LONG
- RIGHT SIDESPLASH 80.00 IN HIGH 1.00 IN LONG
- PERFORMANCE ENHANCING LIP (PEL) TECHNOLOGY
- STANDING SEAM CONSTRUCTION FOR SUPERIOR STRENGTH



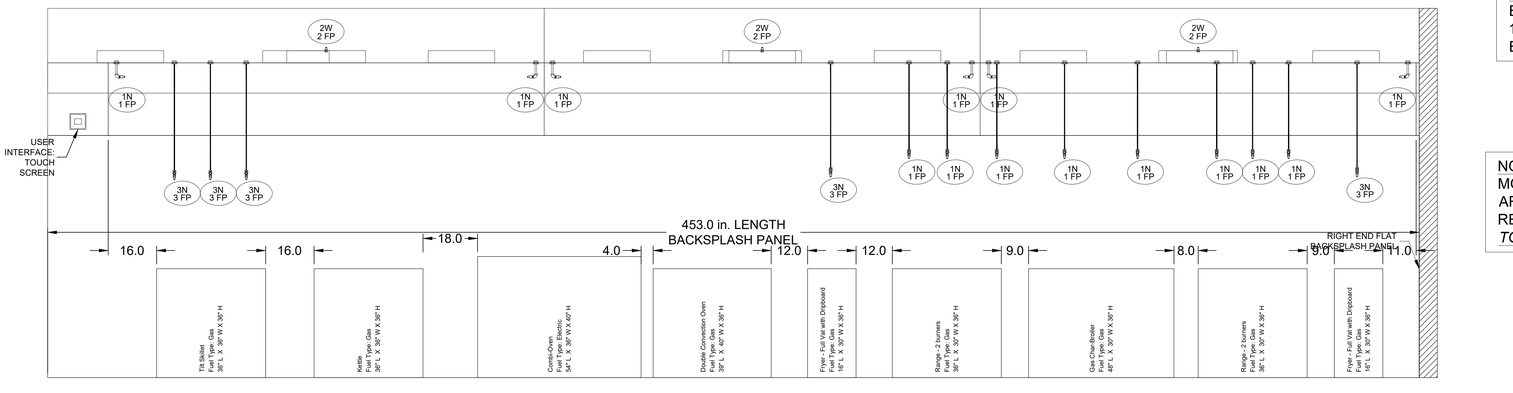
MARK: Hood1 (LAST HOOD IN ROW)
SECTION VIEW



MARK: Hood1 - SECTION 1
PLAN VIEW

MARK: Hood1 - SECTION 2
PLAN VIEW

MARK: Hood1 - SECTION 3
PLAN VIEW



MARK: Hood1 - SECTION 1
ELEVATION VIEW

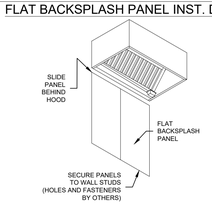
MARK: Hood1 - SECTION 2
ELEVATION VIEW

MARK: Hood1 - SECTION 3
ELEVATION VIEW

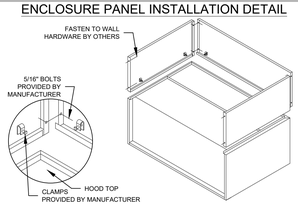
NOTE: DIFFUSERS SHOULD BE INSTALLED A MINIMUM OF 10' AWAY FROM HOOD FOR BEST PERFORMANCE.

NOTE: TEMPERATURE SENSORS MOUNTED IN HOOD CAPTURE AREA TO MEET IMC 507.1.1 REQUIREMENT.
TO BE WIRED BY ELECTRICIAN

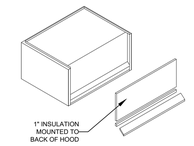
FLAT BACKSPLASH PANEL INST. DETAIL



ENCLOSURE PANEL INSTALLATION DETAIL



ZERO CLEARANCE TO BACK OF HOOD



NOTES:
TO BE UL LISTED THERE MUST BE BACKSPLASH PANELS MOUNTED THE FULL LENGTH OF THE HOOD AGAINST THE COMBUSTIBLE WALL

HOOD HANGING HEIGHT FOR FIRE SYSTEMS

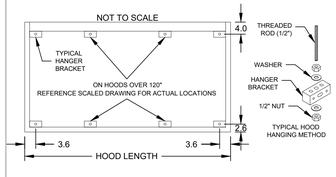
VERIFICATION OF HOOD HANGING HEIGHT ABOVE FINISHED FLOOR (A.F.F.) IS REQUIRED FOR CORRECT PLACEMENT OF FIRE SYSTEM NOZZLES.

- ☐ RECOMMENDED HANGING HEIGHT = 80" FROM FINISHED FLOOR TO LOWER FRONT EDGE OF HOOD.
- ☐ OTHER HANGING HEIGHT = _____" FROM FINISHED FLOOR TO LOWER EDGE OF HOOD.

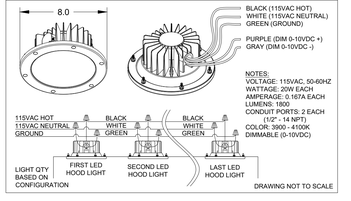
SUPPLY PLENUM HANGER BRACKET DETAIL



HOOD HANGER BRACKET DETAIL



ROUND LED LIGHT DETAIL



NOTE: BASIS OF DESIGN IS BY ACCUREX AND FOR REFERENCE ONLY. MECHANICAL CONTRACTOR TO INCLUDE PURCHASE AND INSTALL IN PRICING. VERIFY AND COORDINATE WITH ACTUAL KITCHEN EQUIPMENT PROVIDED.

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SOUTH CAROLINA PROFESSIONAL ENGINEER SEAL 043801 TROY O GRADY
2021.11.09 12:12:43-05'00'

The Wilmington Food Bank
Greenfield Street
Wilmington, North Carolina 28403

REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

Project Manager	Drawn By: WTB
Date: 11.09.2021	Reviewed By: TOG
Project ID: CBHF: 20187	

Sheet Title
MECHANICAL HOOD DETAILS AND SCHEDULES

Sheet No.
M-7.1

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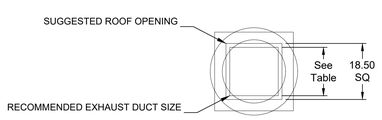
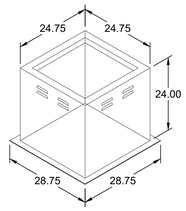
Direct Drive Upblast Centrifugal Roof Exhaust Fan

MARK INFORMATION		FAN INFORMATION						MOTOR INFORMATION					
QTY	MARK	MODEL	VOLUME (CFM)	TOTAL EXTERNAL SP (IN WG)	FAN RPM	OPERATING POWER (HP)	WEIGHT (LB.)	SIZE (HP)	V/C/P	ENCLOSURE	MOTOR RPM	WINDINGS	NEC FLA*
1	KEF-1	XRUD-160-VG	2,820	1.03	1,337	0.9	121	2	208/60/3	TF	1725	1	7.5
1	KEF-2	XRUD-160-VG	2,820	1.03	1,337	0.9	121	2	208/60/3	TF	1725	1	7.5
1	KEF-3	XRUD-160-VG	2,820	1.03	1,337	0.9	121	2	208/60/3	TF	1725	1	7.5

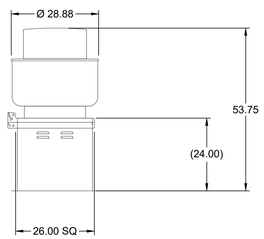
*NEC FLA - Based on table 430.250 or 430.248 of National Electrical Code 2020. Actual motor FLA may vary for sizing thermal overload, consult factory"

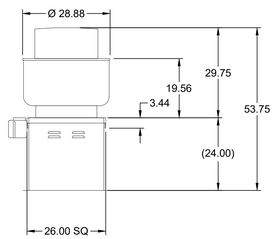
KEF-1, KEF-2, KEF-3 : SELECTED OPTIONS AND ACCESSORIES
One piece fully welded windband
Tapered bushing wheel hub
Breather tube outlet area min. 4.4 sq. in. (sizes 99-480), 2.0 sq. in. (sizes 60-95)
Min. windband material thickness: 0.051" aluminum (060-240), 0.064" aluminum (240HP, 240XP), 0.080" aluminum (sizes 300-480)
Larger Curb Cap Size - 26 Square
UL/cUL 762 Listed - "Power Ventilators for Rest. Exh. Appliances"
Switch, NEMA-3R, Toggle, Shipped with Unit
Hinge, Factory Installed
Grease Trap (PN 475538)





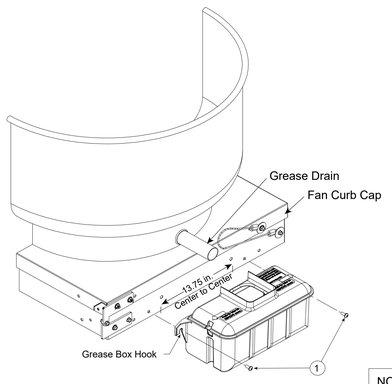
DUCT TYPE	SIZE
STANDARD	16 SQ
FIRE-WRAPPED	8 SQ





DUCT DIMENSIONS ARE LARGEST POSSIBLE DUCT TO FIT THROUGH CURB. CONSULT SYSTEM DESIGN ENGINEER FOR RECOMMENDED DUCT SIZE.

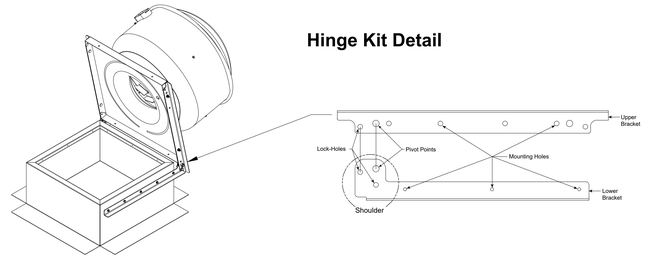
OVERALL HEIGHT MAY BE GREATER DEPENDING ON MOTOR, ADAPTER, AND/OR HINGE BASE.



Grease Trap Detail

NOTE: GREASE TRAP REQUIRED FOR UL762 FANS PER IMC 506.5.3.

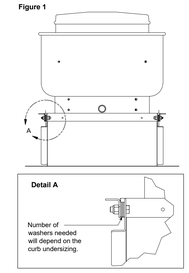
Hinge Kit Detail



Final assembly view with hinge in hold open position.

1. Install the 1/2 inch-13 nylock nut on the 1/2 inch-13 x 2-1/2 inch bolt until finger tight. See Figure 1, and Detail A.

Figure 1



Depending on size of unit, the number of mounting holes, three or four, have been appropriately placed for the safe attachment of the lower bracket.

2. To lock hinge in closed position, insert 3/8 inch-16 x 2-1/2 inch lock bolt in lock-hole position on both sides as shown in Figure 2. Apply and tighten 3/8 inch-16 nylock nuts to both lock bolts.

Figure 2

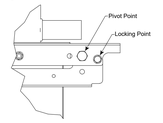
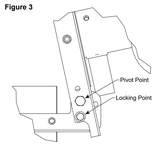


Figure 3

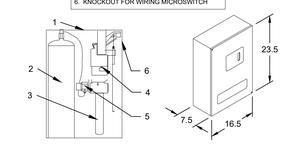


3. To lock hinge in hold-open position, tip fan open until upper bracket meets lower bracket and insert 3/8 inch-16 x 2-1/2 lock bolt in lock-hole position on both sides for safe securement. See Figure 3.

ANSUL R102 (WET CHEMICAL) FIRE PROTECTION SYSTEM - MODEL FSSC

CONTROL PANEL

1. STAINLESS STEEL ENCLOSURE
2. AGENT STORAGE TANK
3. EXPELLENT GAS CARTRIDGE
4. ANSUL AUTOMAN RELEASE
5. REGULATOR
6. KNOCKOUT FOR WIRING MICROSWITCH



NOT TO SCALE

NOTES:

WET CHEMICAL FIRE PROTECTION SYSTEM TO BE ANSUL R-102, DESIGNED IN COMPLIANCE WITH UL 300 REQUIREMENTS.
-VERIFICATION OF ALL COOKING EQUIPMENT MAKE, MODEL AND LOCATION REQUIRED FOR ALL FIRE PROTECTION SYSTEMS.
-ALL FIRE SYSTEM PIPING IS STANDARDLY TO THE RIGHT END OF THE HOOD UNLESS A WALL IS LOCATED ON THE RIGHT END.
-ANSUL AUTOMAN RELEASE TO BE LOCATED WITHIN 60" OF HOOD.

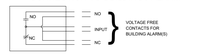
THE BASIC FIRE SYSTEM WILL INCLUDE THE FOLLOWING:
-GAS SHUT-OFF VALVE. IF REQUIRED, TO BE SUPPLIED BY MANUFACTURER (UP TO 2" DIAMETER AS STANDARD), AND INSTALLED BY A LICENSED PLUMBER.
-MICRO SWITCH TO BE SUPPLIED BY MANUFACTURER FOR CONNECTION TO, BUT NOT LIMITED TO, BUILDING ALARM SYSTEM(S), EXHAUST AND SUPPLY FANS AND ELECTRICAL POWER SHUT DOWN. FIELD WIRING AND CONNECTIONS TO BE PERFORMED BY A LICENSED ELECTRICIAN.

THE BASIC FIRE SYSTEM DOES NOT INCLUDE THE FOLLOWING:
-FULL DUMP TEST OTHER THAN WHT IS SPECIFIED PER THE INSTALLATION MANUAL, OR TO SATISFY A STATE OR LOCAL CODE. PERMIT AND TESTING FEES ARE NOT INCLUDED UNLESS NOTED UNDER THE EQUIPMENT SCHEDULE FOR THE FIRE SYSTEM.
-MORE THEN TWO TRIPS TO THE JOBSITE OR SPECIAL TRANSPORTATION, OR OVERNIGHT LODGING REQUIREMENTS IN REMOTE AREAS. NORMAL TRAVEL DISTANCE IS FIRST 50 MI. (80.5 KM) FROM OFFICE.
- SPECIAL CLASSES OR ADDITIONAL LABOR FOR ACCESS TO SECURITY SENSITIVE AREAS.
-INSTALLATION OF GAS SHUT-OFF VALVE.
-SPECIAL DRAWINGS REQUIRED TO SATISFY STATE OR LOCAL CODE. PLAN EXAMINATION FEES, PE OR FS APPROVAL STAMP.
-UNION LABOR, GOVERNMENT LABOR, OR PREVAILING WAGES REQUIRED FOR FINAL FIELD HOOK-UP.
-ANY AND ALL ELECTRICAL COMPONENTS/CONNECTIONS REQUIRED TO SHUT DOWN FANS, SHUT OFF DEVICE FOR ELECTRIC COOKING EQUIPMENT (SHUNT TRIP BREAKER), OR ACTIVATE AN ALARM SYSTEM, ETC.
-ANY DISMANTLING OR REASSEMBLY REQUIRED TO GAIN ACCESS TO THE FIRE SUPPRESSION PIPING LOCATED ON THE TOP OF THE HOOD.
-ROUGH-IN HIDDEN CONDUIT FOR REMOTE PULL STATION OR GAS VALVE (FLUSH MOUNTED PULL STATION).
-INSTALLATION OF MORE THAN (1) REMOTE PULL STATIONS OR DISTANCES GREATER THAN 20 FT (6.1M.)
-PARTS OR LABOR REQUIRED TO CORRECT PIPING DUE TO COOKING EQUIPMENT CHANGES OR DEVIATION FROM PLANS. OR ANY CHARGES FOR MISSING OR ADDITIONAL PARTS OTHER THEN THOSE INDICATED ON THE FIRE SUPPRESSION DETAIL.

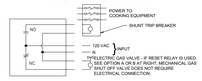
WIRING DIAGRAMS W/DPDT MICRO SWITCH

DPDT SWITCHES PROVIDED BY MANUFACTURER MAY BE WIRED PER TYPICAL EXAMPLES SHOWN. VERIFY WITH LOCAL CODES AND EQUIPMENT SUPPLIED AS THE CONNECTION NEEDED FOR YOUR INSTALLATION.

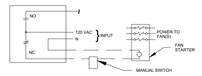
CONNECTION TO BUILDINGS ALARM



CONNECTION TO COOKING EQUIPMENT SHUT DOWN



CONNECTION TO FAN SHUT DOWN



DO NOT SHUT DOWN EXHAUST FANS WITH THIS METHOD OF WIRING, IF PROHIBITED BY LOCAL CODES.

NOTES:
1. —— —— DENOTES FIELD INSTALLATION.
2. —— —— DENOTES FACTORY INSTALLATION.
3. DO NOT USE BLACK WIRE ON SNAP-ACTION SWITCH IN NORMAL INSTALLATION. BLACK WIRE TO BE USED ONLY FOR EXTRANEOUS ALARM, LIGHT CIRCUITS, ETC.

NOTE: BASIS OF DESIGN IS BY ACCUREX AND FOR REFERENCE ONLY. MECHANICAL CONTRACTOR TO INCLUDE PURCHASE AND INSTALL IN PRICING. VERIFY AND COORDINATE WITH ACTUAL KITCHEN EQUIPMENT PROVIDED.

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 043801 TROY O GRADY
2021.11.09 12:12:43-05'00'

The Wilmington Food Bank
Greenfield Street
Wilmington, North Carolina 28403

REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

Project Manager	Drawn By
	WTB
Date 11.09.2021	Reviewed By TOG
Project ID CBHF: 20187	

Sheet Title
MECHANICAL HOOD EXHAUST FANS DETAILS AND SCHEDULE

Sheet No.
M-7.2

EQUIPMENT SCHEDULE

Tempered Make-Up Air Unit — Mark: KMUA-1

Qty	Accurex Model	Volume	External SP	Total SP	FRPM	Operating Power	Weight
1	XDGX-P124-H32-MF-10	6,768 CFM	0.65 in. wg	1.677 in. wg	1082	3.34 hp	3,032 lb

Motor Information

Size	V/C/P	Enclosure	Motor with Shaft Grounding	Motor RPM	Windings	MCA	MOP
5 hp	208/60/3	ODP	No	1180	1	64.9	80

Heating

Type	Gas Type	Temperature			Energy			Connection Gas	Building Gas Pressure	Control Access
		Winter DB	Max Δ	Max LAT	Input	Output	Efficiency			
Direct Gas	Natural	18.8 F	50.3 F	69.1 F	400.0 MBH	368.0 MBH	92%	3/4"	1/2 PSI	11a

Cooling

Cooling Type	Coil Model	Rows Deep	Fins Per Inch	Face Velocity	Total Energy	Sensible Energy	Leaving Dry Bulb	Leaving Wet Bulb
Packaged DX	DX38S01Q10-34x54	1	10	531 ft/min	131.2 MBH	76.7 MBH	83.8 F	73.9 F

Coil SP	Refrigerant	Suction Temp	Liquid Temp	Super Heat	Code 18/19	Suction Conn Qty / Size	Liquid Conn Qty / Size
NA	R-410a	44.1 F	110 F	8 F	0	NA	NA

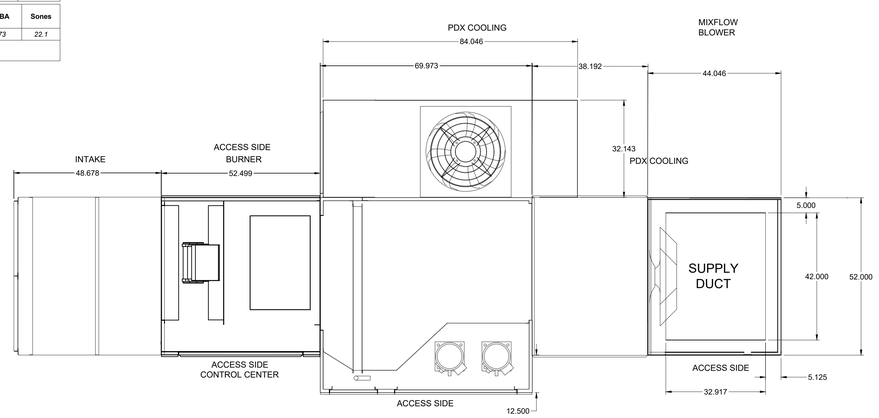
Outlet Sound Power By Octave Band

62.5	125	250	500	1000	2000	4000	8000	LwA	dBA	Sones
79.6	75.9	76.8	79.2	76.6	76.4	78.6	70.8	84	73	22.1

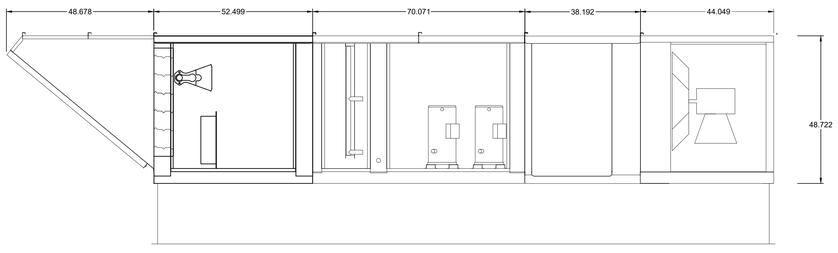
- LwA - A weighted sound power level re 10^-12 watts per ANSI S1.4
- dBA - A weighted sound pressure level base on 111.6dB attenuation per octabe band at 5.0 ft.
- Noise Criteria (NC) based on an average attenuation of 111.6 dB per octabe band at 5.0 ft.

OPTIONS AND ACCESSORIES

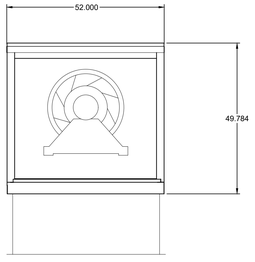
Air Flow Arrangement: Variable Volume
Weatherhood: Aluminum Mesh, 20x25x2 - (6)
Damper: Inlet
Outdoor Air Intake Position: End
Discharge Position: Bottom
Coating: Galvanized
Cooling Coil Coating - None
Insulation: Double Wall - Cool Source On
Supply Fan Control: VFD
VFD Control: External 0-10 VDC
Hinged Access
Access Side: Right-Hand
Control Center
Heat Inlet Air Sensor
Cool Inlet Air Sensor
Unit Controls: Terminal Strip
Temperature Control: Discharge
Direct Gas Options/Accessories
Approvals: ETL
FM Compliant
Flame Sensing: Flame Rod



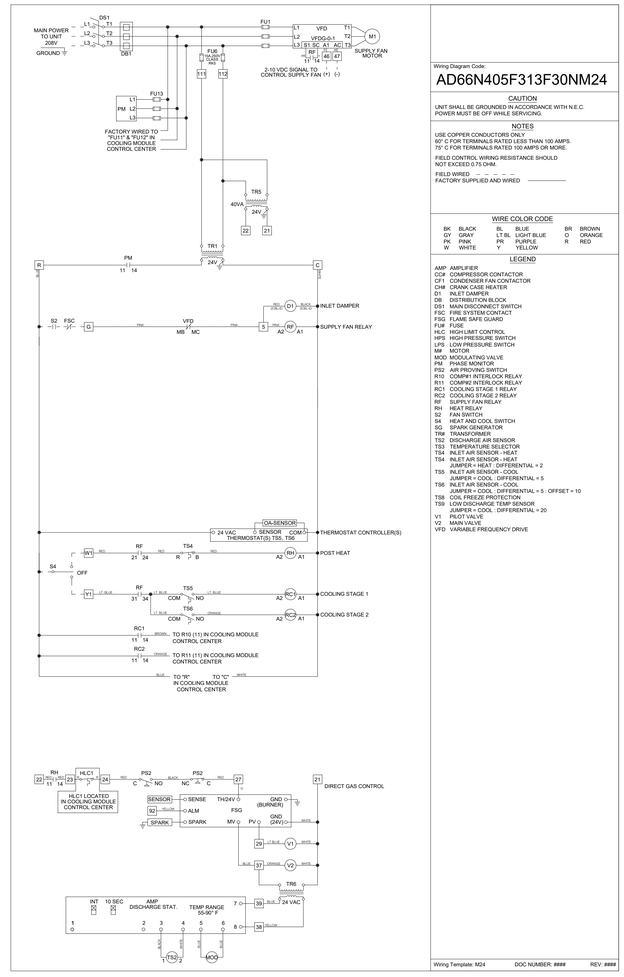
PLAN VIEW



ELEVATION VIEW



END VIEW



Wiring Diagram Code:

AD66N405F313F30NM24

CAUTION

UNIT SHALL BE GROUNDED IN ACCORDANCE WITH N.E.C.
POWER MUST BE OFF WHILE SERVICING.

NOTES

USE COPPER CONDUCTORS ONLY
60° C FOR TERMINALS RATED LESS THAN 100 AMPS.
75° C FOR TERMINALS RATED 100 AMPS OR MORE

FIELD CONTROL WIRING RESISTANCE SHOULD NOT EXCEED 0.75 OHM.

FIELD WIRED
FACTORY SUPPLIED AND WIRED

WIRE COLOR CODE

BK	BLACK	BL	BLUE	BR	BROWN
GY	GRAY	LT BL	LIGHT BLUE	O	ORANGE
PK	PINK	PR	PURPLE	R	RED
W	WHITE	Y	YELLOW		

LEGEND

AMP AMPLIFIER
CC# COMPRESSOR CONTACTOR
CF1 CONDENSER FAN CONTACTOR
CH# CRANK CASE HEATER
D1 INLET DAMPER
DB DISTRIBUTION BLOCK
DS1 MAIN DISCONNECT SWITCH
FSC FIRE SYSTEM CONTACT
FSG FLAME SAFE GUARD
FU# FUSE
HLC HIGH LIMIT CONTROL
HPS HIGH PRESSURE SWITCH
LPS LOW PRESSURE SWITCH
M# MOTOR
MOD MODULATING VALVE
PM PHASE MONITOR
PS2 AIR PROVING SWITCH
R10 COMP#1 INTERLOCK RELAY
R11 COMP#2 INTERLOCK RELAY
RC1 COOLING STAGE 1 RELAY
RC2 COOLING STAGE 2 RELAY
RF SUPPLY FAN RELAY
RH HEAT RELAY
S2 FAN SWITCH
S4 HEAT AND COOL SWITCH
SG SPARK GENERATOR
TR# TRANSFORMER
TS2 DISCHARGE AIR SENSOR
TS3 TEMPERATURE SELECTOR
TS4 INLET AIR SENSOR - HEAT
TS4 INLET AIR SENSOR - HEAT
JUMPER = HEAT , DIFFERENTIAL = 2
TS5 INLET AIR SENSOR - COOL
JUMPER = COOL , DIFFERENTIAL = 5
TS6 INLET AIR SENSOR - COOL
JUMPER = COOL , DIFFERENTIAL = 5 : OFFSET = 10
TS8 COIL FREEZE PROTECTION
TS9 LOW DISCHARGE TEMP SENSOR
JUMPER = COOL , DIFFERENTIAL = 20
V1 PILOT VALVE
V2 MAIN VALVE
VFD VARIABLE FREQUENCY DRIVE

Wiring Template: M24 DOC NUMBER: #### REV: ####

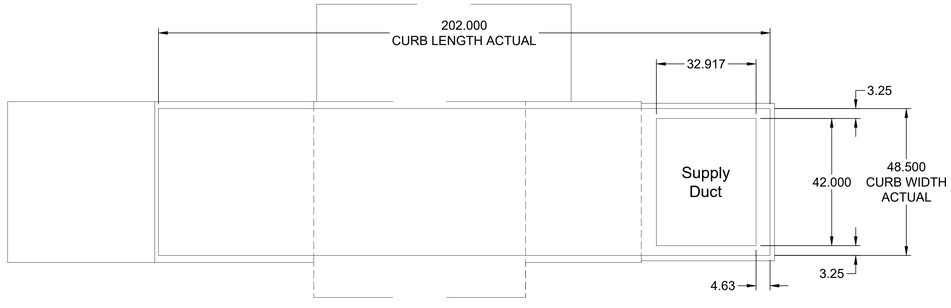
NOTE: Roof Opening Requirements:

Minimum Roof Opening: The minimum roof opening size is the illustrated duct diameter plus 0.25 in. on all sides.
For example: If the duct size is 14 x 14 in. square, the minimum roof opening size is 14.5 x 14.5 in. square.

Maximum Roof Opening: There must be a minimum perimeter of 1.75 in. between the roof opening and the roof curb.
For example: If the roof curb is 75 x 30 in. square, the maximum roof opening is 71.5 x 26.5 in. inches square.

NOTE: The weatherhood and filter sections of the make-up air unit are not supported by the curb.
This is by design, in order to help alleviate water infiltration issues.

FOOTPRINT



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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 043801 TROY O GRADY
2021.11.09 12:12:43-05'00'

The Wilmington Food Bank
Greenfield Street
Wilmington, North Carolina 28403

REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

Project Manager	Drawn By: WTB
Date: 11.09.2021	Reviewed By: TOG
Project ID: CBHF: 20187	

Sheet Title:
MECHANICAL HOOD MAU DETAILS, SCHEDULES AND DIAGRAMS

Sheet No.
M-7.3

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CONTROL INFORMATION

MARK	ELECTRICAL CONTROL PACKAGE		USER INTERFACE	
	MODEL	LOCATION	TYPE	LOCATION
EP-1	XKC-DCV-SR-31-3-1-0	LEFT CABINET ON HOOD1	FULL COLOR TOUCHSCREEN	CABINET – LEFT CABINET ON HOOD1

FANS CONTROLLED

FAN #	TYPE	FAN	FAN MARK	ZONE	CFM	MOTOR HP	MOTOR VOLT	CYCLE	MOTOR PHASE	MOTOR STARTER IN PANEL	VFD IN PANEL
1	EXHAUST	E1	KEF-1	1	2820	2	208	60	3	NO	NO
2	EXHAUST	E2	KEF-2	2	2820	2	208	60	3	NO	NO
3	EXHAUST	E3	KEF-3	3	2820	2	208	60	3	NO	NO
4	SUPPLY	S1	KMUA-1	3	6768	5	208	60	3	NO	NO

CONTROL FEATURES

- HOOD LIGHT CONTROL
- TEMP SENSORS (FACTORY INSTALLED) - QTY. 3
- ROOM SENSOR (SHIPPED LOOSE) - QTY. 1
- DRY FIRE CONTACTS - QTY. 1
- LIGHTS OFF DURING FIRE
- EXHAUST MAX DURING FIRE
- SUPPLY OFF DURING FIRE
- HIGH TEMPERATURE ALARM

DOC NUMBER | REV:

CAUTION
UNIT MUST BE GROUNDED IN ACCORDANCE WITH N.E.C. POWER MUST BE OFF WHILE SERVICING.

ATTENTION
L'APPAREIL DOIT ÊTRE MIS À LA TERRE CONFORMEMENT AU CODE C.E. L'ALIMENTATION DOIT ÊTRE COUPÉE DURANT L'ENTRETIEN.

C UL US LISTED 43BM

COMMERCIAL APPLIANCE OUTLET CENTER
ELECTRICAL RATINGS: 110-240V,1PHASE, 50-60HZ,15A
BASE FILE #E200616, ML FILE #E313951

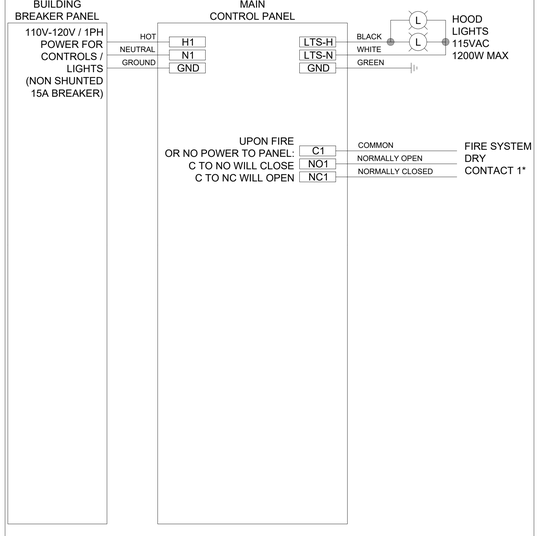
THESE DRAWINGS SHALL NOT BE REMOVED FROM THIS EQUIPMENT. USE COPPER CONDUCTORS RATED TO 90°C UNLESS SPECIFIED. TORQUE CONTROL & GROUND BLOCKS TO 8 LBS. IN. TORQUE POWER LUGS/SCREWS TO COMPONENT RATINGS LISTED. TORQUE CONTROL BOARD SCREW TERMINALS TO 3.5 LBS. IN. FIELD CONTROL WIRING RESISTANCE SHOULD NOT EXCEED 0.75 OHM. SEE IOM FOR ADDITIONAL INFORMATION, OR CALL FACTORY AT 1-800-371-6858.

NE PAS RETIRER CES DESSINS DE CET ÉQUIPEMENT. SAUF INDICATION CONTRAIRE, UTILISER DES CONDUCTEURS EN CUIVRE CLASSÉS 90 °C. SERRER LES BORNES DE COMMANDE ET DE MISE À LA TERRE À 8 LB-PO. SERRER LES COSSES/VIS D'ALIMENTATION AUX COUPLES INDIQUÉS POUR LE COMPOSANT. SERRER LES BORNES À VIS DE LA CARTE DE COMMANDE À 3,5 LB-PO. LA RÉSISTANCE DU CÂBLAGE DE COMMANDE LOCAL NE DOIT PAS DÉPASSER 0,75 OHM. POUR PLUS D'INFORMATION, CONSULTER LE MANUEL OU APPELER 1-800-371-6858

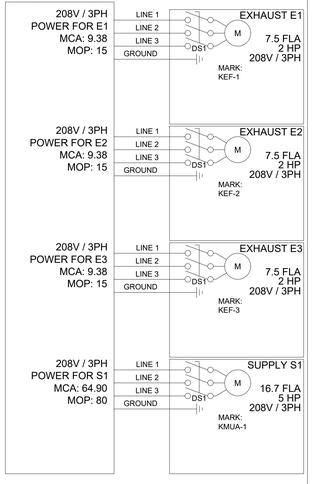
PRG VERSION: V3
FIELD WIRED (CÂBLÉ LOCALEMENT)
FACTORY WIRED (CÂBLÉ À L'USINE)

WIRING DIAGRAM CODE:
JOB NAME: WILMINGTON FOOD BANK R1
MODEL: XKC-DCV-SR-31-3-1-0
SERIAL NUMBER: WDSN#
MARK: EP-1

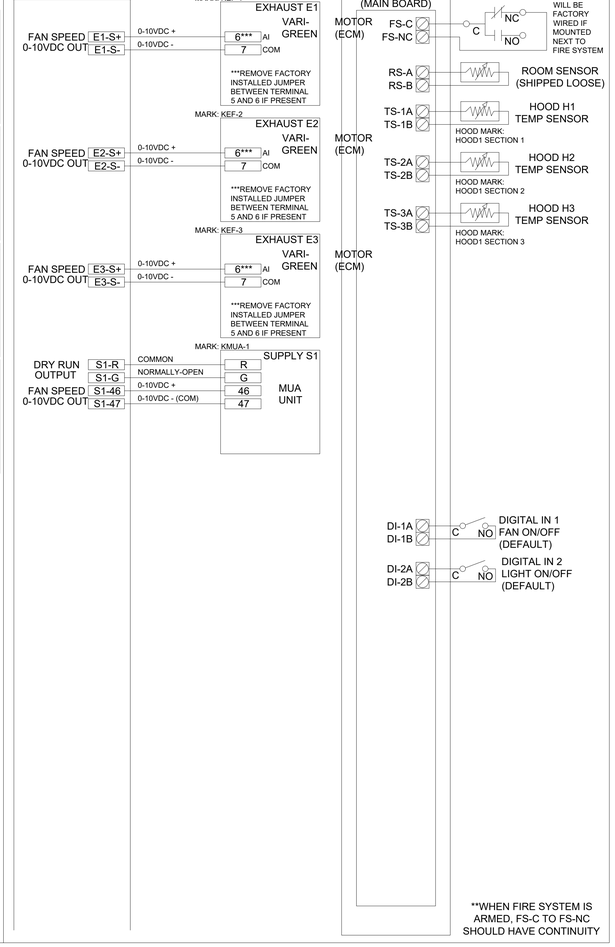
POWER WIRING FOR KITCHEN CONTROLS
(WIRING TO BE DONE BY ELECTRICIAN)



POWER WIRING FROM BREAKER PANEL DIRECT TO FANS
(WIRING TO BE DONE BY ELECTRICIAN)

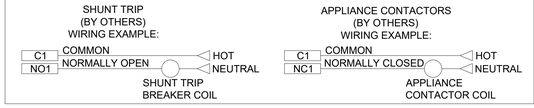


CONTROL WIRING FOR KITCHEN CONTROLS
(WIRING TO BE DONE BY ELECTRICIAN, IF NO CONTROLS CONTRACTOR. USE 18-22GA WIRE UNLESS SPECIFIED.)



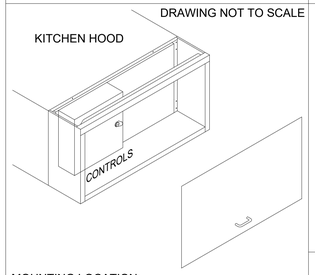
**WHEN FIRE SYSTEM IS ARMED, FS-C TO FS-NC SHOULD HAVE CONTINUITY

*FIRE SYSTEM DRY CONTACT WIRING EXAMPLES



CABINET DETAILS

DRAWING NOT TO SCALE



MOUNTING LOCATION:
UTILITY CABINET ON HOOD
(INNER CONTROL BOX: 18 X 20 X 6)

NOTES:
1) WHEN CONTROLS ARE MOUNTED IN HOOD-MOUNTED OR WALL-MOUNTED UTILITY CABINET, FOR HOOD OR WALL CABINET DIMENSIONS SEE HOOD SUBMITTAL.

2) MINIMUM OF 36" OF CLEARANCE RECOMMENDED IN FRONT OF CONTROL CABINET

USER INTERFACE DETAILS

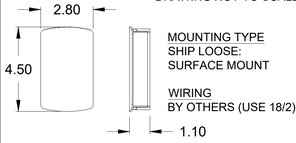
MOUNTING TYPE
FACTORY MOUNTED:
UTILITY CABINET - LEFT END OF HOOD

USER INTERFACE CONTROL
FANS AND LIGHTS

INTERFACE CABLE LENGTH
7FT (FACTORY PROVIDED)

ROOM SENSOR DETAILS

DRAWING NOT TO SCALE



MOUNTING TYPE
SHIP LOOSE:
SURFACE MOUNT

WIRING
BY OTHERS (USE 18/2)

ZONE CONFIGURATION

ZONE #	ZONE	ROOM TEMP
1	Z1	MB-RS
2	Z2	MB-RS
3	Z3	MB-RS

HOOD CONFIGURATION

HOOD #	HOOD	HOOD MARK	ZONE	EXHAUST	SUPPLY	MB-TEMP SENSORS	HCB
1	H1	HOOD1 SECTION 1	Z1	E1		TS1	NO
2	H2	HOOD1 SECTION 2	Z2	E2		TS2	NO
3	H3	HOOD1 SECTION 3	Z3	E3	S1	TS3	NO

FAN CONFIGURATION

FAN #	TYPE	FAN	FAN MARK	ZONE	MIN CFM	MAX CFM	MODBUS VFD	VFD ADDRESS	MIN FREQ.	MAX FREQ.	MIN VDC	MAX VDC
1	EXHAUST	E1	KEF-1	Z1	1410	2820	NO	-	-	-	5.0	10.0
2	EXHAUST	E2	KEF-2	Z2	1410	2820	NO	-	-	-	5.0	10.0
3	EXHAUST	E3	KEF-3	Z3	1410	2820	NO	-	-	-	5.0	10.0
4	SUPPLY	S1	KMUA-1	Z3	3384	6768	NO	-	-	-	0.0	10.0

WIRING DIAGRAM CODE:
JOB NAME: WILMINGTON FOOD BANK R1
MODEL: XKC-DCV-SR-31-3-1-0
SERIAL NUMBER: WDSN#
MARK: EP-1
DOC NUMBER: | REV:

DEFAULT SETTINGS / PARAMÈTRES PAR DÉFAUT

FACTORY SETTINGS
TYPE: VAV
CONFIGURATION: STANDARD
ZONES: 3
HOODS: 3
SUMPS: 0
EXHAUST FANS: 3
SUPPLY FANS: 1
MB ROOM SENSOR: YES
MB TEMP SENSORS: 3
HIGH TEMP FAULT: YES
FREEZE PROTECTION: YES
GAS RESET: NO
FAN PROVING: NO
BMS: NONE

ZONE SETTINGS
SEE ZONE CONFIGURATION IN TABLE ON LEFT

HOOD SETTINGS
SEE HOOD CONFIGURATION IN TABLE ON LEFT

EXHAUST FAN SETTINGS
SEE FAN CONFIGURATION IN TABLE ON LEFT

SUPPLY FAN SETTINGS
SEE FAN CONFIGURATION IN TABLE ON LEFT

SENSOR SETTINGS
SEE HOOD CONFIGURATION IN TABLE ON LEFT

USER INTERFACE SETTINGS (MB)
FAN & LIGHT BUTTONS: SHOW BOTH (SEPERATE)

USER INTERFACE SETTINGS (HCB)
NA

GENERAL SETTINGS
TIME ZONE: CENTRAL DAYLIGHT (DEFAULT)

FIRE/FAULT SETTINGS
EXHAUST DURING FIRE: MAX
SUPPLY DURING FIRE: OFF
LIGHTS DURING FIRE: OFF

BMS SETTINGS
NA

PRG VERSION: V3

NOTE: BASIS OF DESIGN IS BY ACCUREX AND FOR REFERENCE ONLY. MECHANICAL CONTRACTOR TO INCLUDE PURCHASE AND INSTALL IN PRICING. VERIFY AND COORDINATE WITH ACTUAL KITCHEN EQUIPMENT PROVIDED.

SOUTH CAROLINA PROFESSIONAL ENGINEER SEAL 043801 TROY O GRADY
2021.11.09 12:12:43-05'00'

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Sheet Title
MECHANICAL HOOD CONTROL DIAGRAMS

Sheet No.
M-7.4

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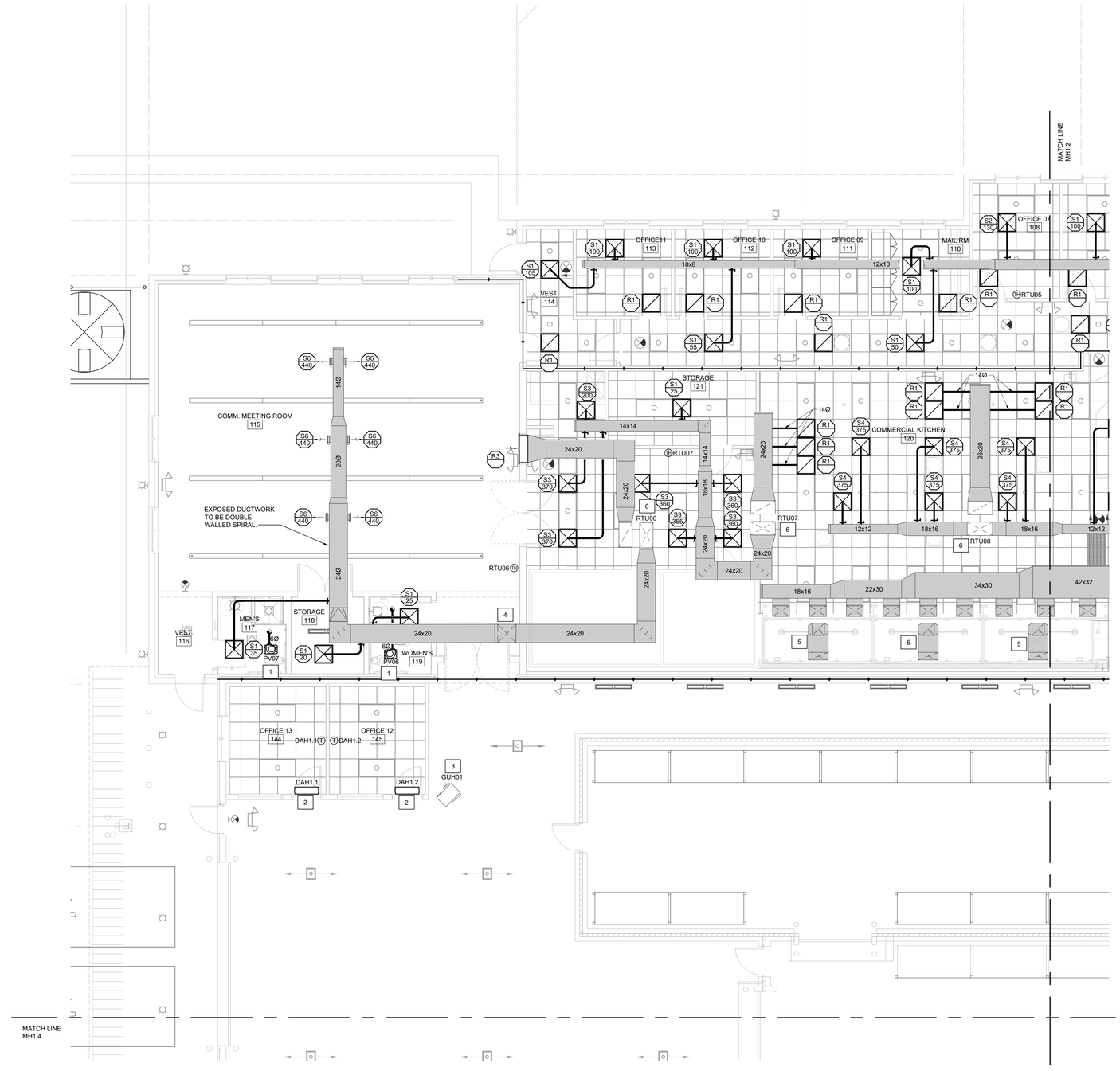
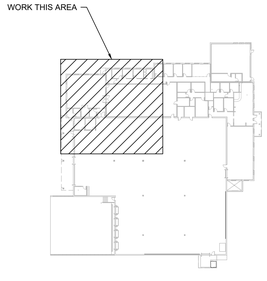


KEYED NOTES

1. INSTALL POWER VENTILATOR IN CEILING WHILE MAINTAINING MANUFACTURERS RECOMMENDED CLEARANCES.
2. INSTALL INDOOR MINI-SPLIT UNIT HIGH ON WALL WHILE MAINTAINING MANUFACTURERS RECOMMENDED CLEARANCES. FIELD ROUTE REFRIGERANT PIPING TO ASSOCIATED OUTDOOR UNIT ON ROOF. FIELD ROUTE CONDENSATE PIPING UP TO ROOF AND DRAIN TO CLOSEST ROOF DRAIN.
3. SUSPEND GAS FIRED UNIT HEATER FROM STRUCTURE ABOVE WHILE MAINTAINING MANUFACTURERS RECOMMENDED SERVICE CLEARANCE. ROUTE VENT PIPING UP AND THRU ROOF.
4. TRANSITION DUCTWORK AS REQUIRED TO ROUTE HIGH IN SPACE.
5. ROUTE EXHAUST DUCTWORK UP TO ASSOCIATED KITCHEN EXHAUST FAN. TRANSITION DUCTWORK AS REQUIRED.
6. ROUTE SUPPLY AIR AND RETURN AIR UP TO ROOF TOP UNIT.

E1 PARTIAL FIRST FLOOR PLAN
3/16" = 1'-0"

PLAN NORTH



E6 KEYPLAN
NOT TO SCALE

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2021.11.09 12:12:43-05'00'

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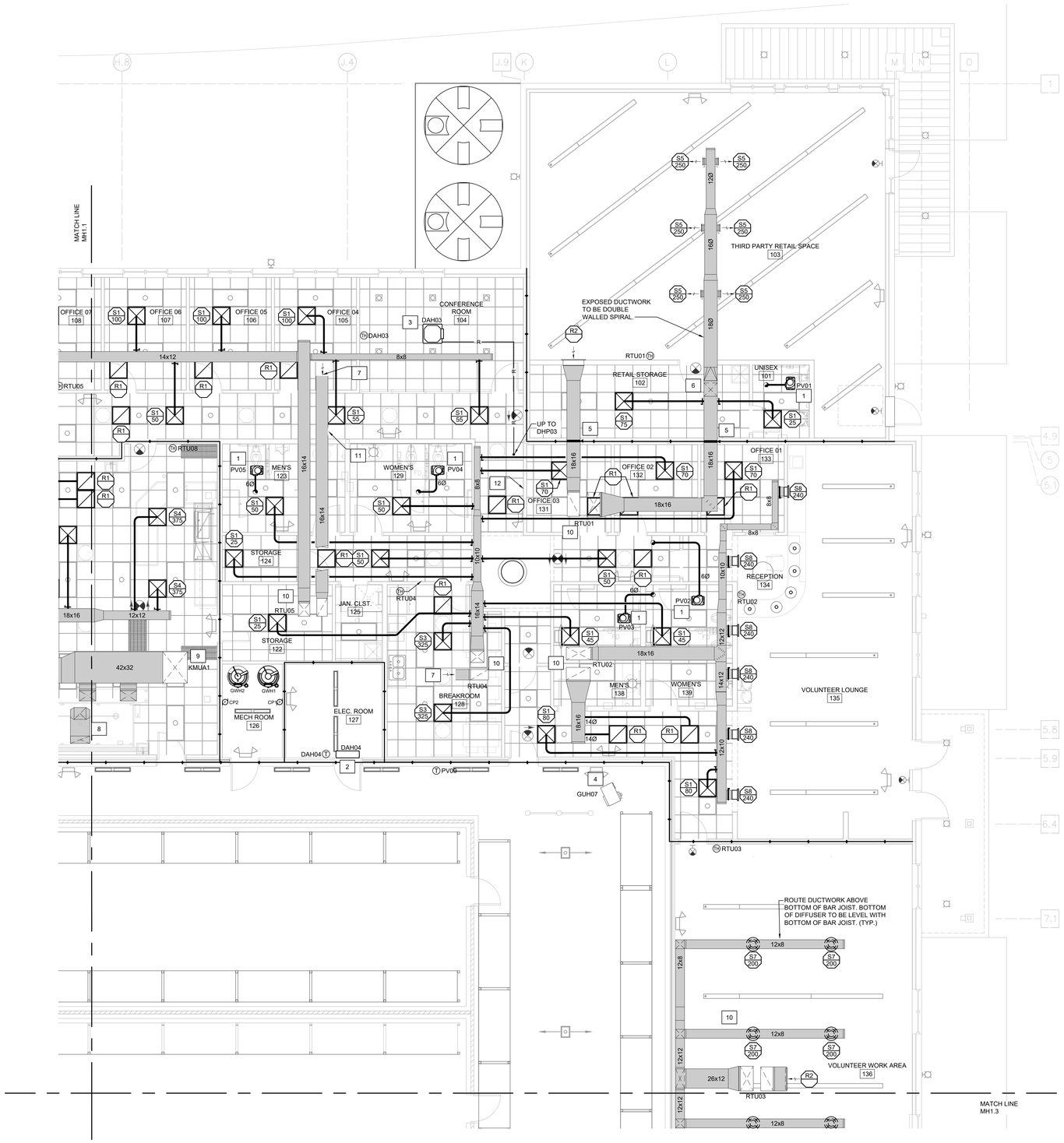
Sheet Title
MECHANICAL HVAC FLOOR PLAN

Sheet No.
MH1.1



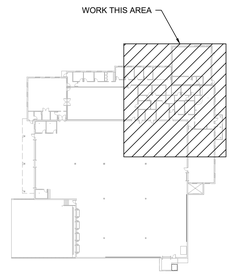
E1 PARTIAL FIRST FLOOR PLAN

3/16" = 1'-0"

PLAN NORTH

KEYED NOTES

1. INSTALL POWER VENTILATOR IN CEILING WHILE MAINTAINING MANUFACTURERS RECOMMENDED CLEARANCES.
2. INSTALL INDOOR MINI-SPLIT UNIT HIGH ON WALL WHILE MAINTAINING MANUFACTURERS RECOMMENDED CLEARANCES. FIELD ROUTE REFRIGERANT PIPING TO ASSOCIATED OUTDOOR UNIT ON ROOF. FIELD ROUTE CONDENSATE PIPING UP TO ROOF AND DRAIN TO CLOSEST ROOF DRAIN.
3. MOUNT INDOOR DUCTLESS AIR HANDLER IN CEILING GRID. FIELD ROUTE REFRIGERANT PIPING TO ASSOCIATED OUTDOOR UNIT ON ROOF. FIELD ROUTE CONDENSATE PIPING UP TO ROOF AND DRAIN TO CLOSEST ROOF DRAIN.
4. SUSPEND GAS FIRED UNIT HEATER FROM STRUCTURE ABOVE WHILE MAINTAINING MANUFACTURERS RECOMMENDED SERVICE CLEARANCE. ROUTE VENT PIPING UP AND THRU ROOF.
5. INSTALL FIRE DAMPER IN DUCT THAT PENETRATE FIRE RATED WALLS.
6. TRANSITION DUCTWORK AS REQUIRED TO ROUTE HIGH IN SPACE.
7. SECURE 1/2" X 1/2" WELD WIRE SCREEN TO OPEN END OF R/A DUCT.
8. ROUTE EXHAUST DUCTWORK UP TO ASSOCIATED KITCHEN EXHAUST FAN. TRANSITION DUCTWORK AS REQUIRED.
9. ROUTE SUPPLY AIR DUCTWORK UP TO KITCHEN MAKE UP AIR UNIT ON ROOF.
10. ROUTE SUPPLY AIR AND RETURN AIR UP TO ROOF TOP UNIT.
11. PROVIDE 10" X 8 " OPENING IN RETURN AIR DUCT. SECURE 1/2" X 1/2" WELD WIRE OVER OPENING IN DUCT.
12. PROVIDE A 10" X 8" OPENING IN THE FULL HEIGHT GYP WALL ABOVE CEILING FOR PLENUM RETURN AIR.



E6 KEYPLAN

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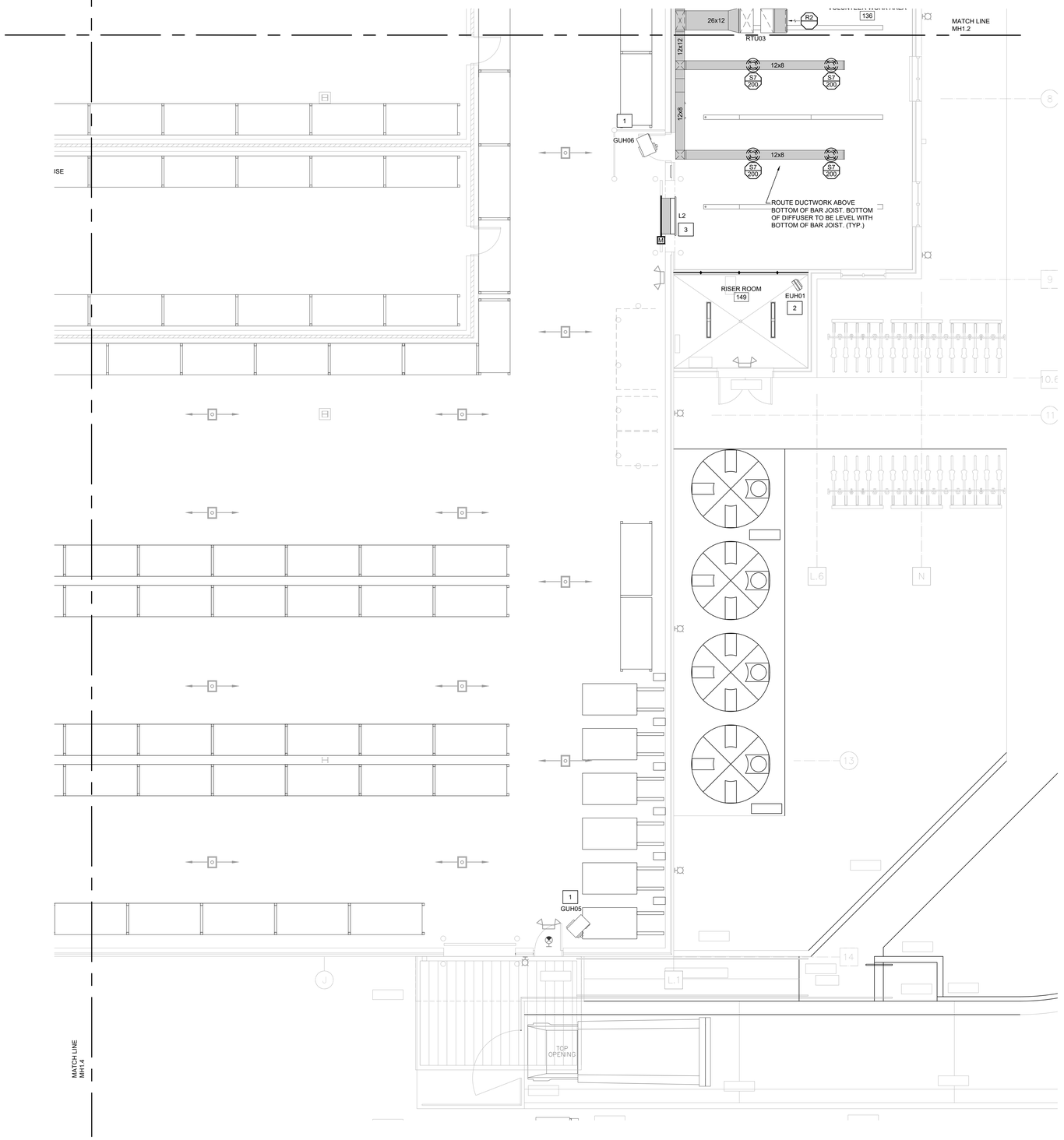
Sheet Title: MECHANICAL HVAC FLOOR PLAN

Sheet No.: MH1.2

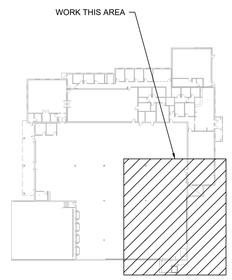


E1 **PARTIAL FIRST FLOOR PLAN**
3/16" = 1'-0"

PLAN NORTH

KEYED NOTES

1. SUSPEND GAS FIRED UNIT HEATER FROM STRUCTURE ABOVE WHILE MAINTAINING MANUFACTURERS RECOMMENDED SERVICE CLEARANCE. ROUTE VENT PIPING UP AND THRU ROOF.
2. SUSPEND ELECTRIC UNIT HEATERS FROM STRUCTURE ABOVE WHILE MAINTAINING REQUIRED CLEARANCES FOR MAINTENANCE.
3. INSTALL INTAKE LOUVER WITH 120 VOLT MOTORIZED DAMPER INTERLOCKED TO POWER VENTILATOR. SEE C5/M-5.1 FOR CONTROL DETAILS.



E6 **KEYPLAN**
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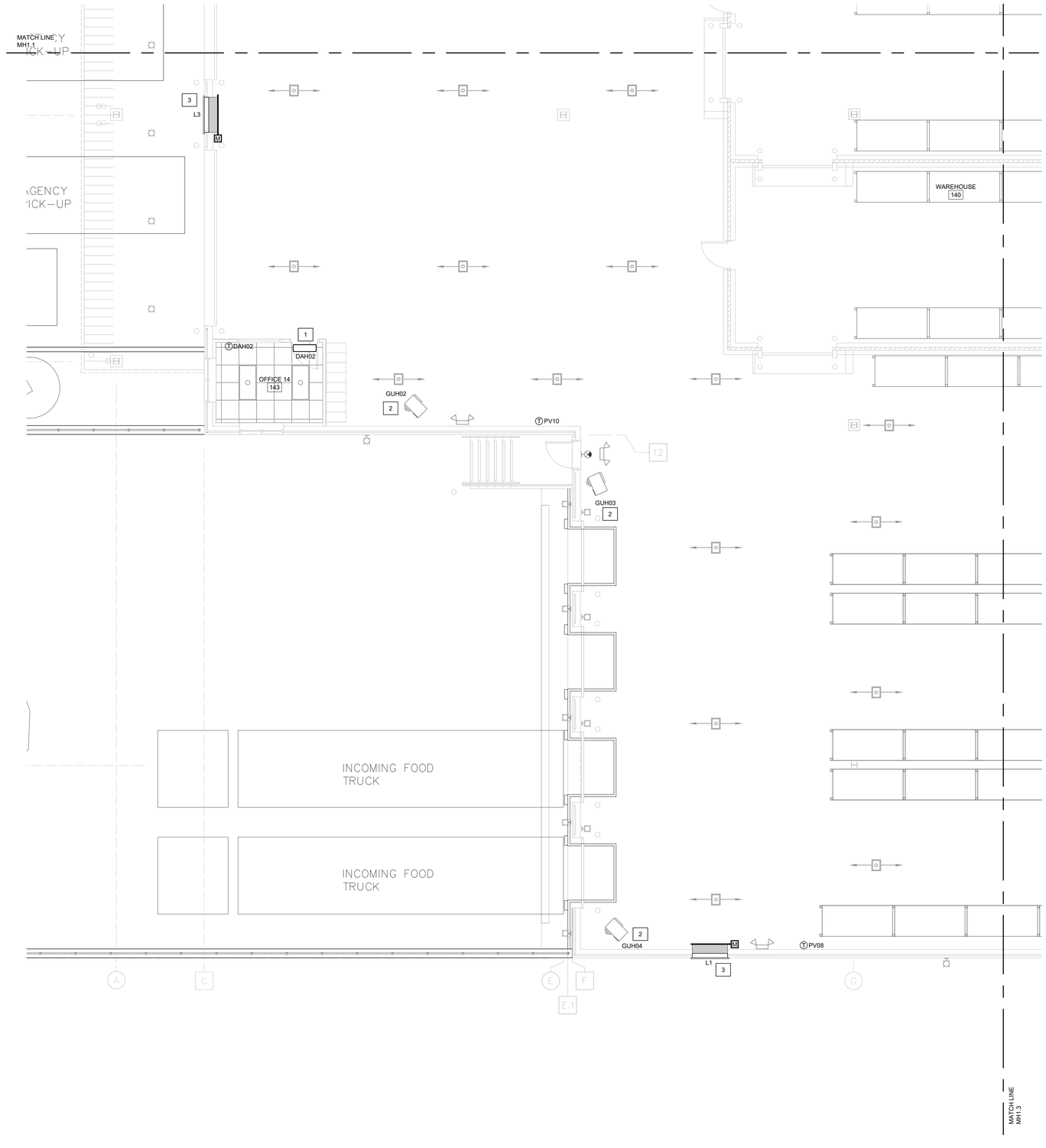
Sheet Title
MECHANICAL HVAC FLOOR PLAN

Sheet No.
MH1.3

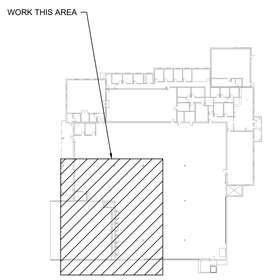


KEYED NOTES

1. INSTALL INDOOR MINI-SPLIT UNIT HIGH ON WALL WHILE MAINTAINING MANUFACTURERS RECOMMENDED CLEARANCES. FIELD ROUTE REFRIGERANT PIPING TO ASSOCIATED OUTDOOR UNIT ON ROOF. FIELD ROUTE CONDENSATE PIPING UP TO ROOF AND DRAIN TO CLOSEST ROOF DRAIN.
2. SUSPEND GAS FIRED UNIT HEATER FROM STRUCTURE ABOVE WHILE MAINTAINING MANUFACTURERS RECOMMENDED SERVICE CLEARANCE. ROUTE VENT PIPING UP AND THRU ROOF.
3. INSTALL INTAKE LOUVER WITH 120 VOLT MOTORIZED DAMPER INTERLOCKED TO POWER VENTILATOR. SEE CS/M-5.1 FOR CONTROL DETAILS.

E1 PARTIAL FIRST FLOOR PLAN
3/16" = 1'-0"

PLAN NORTH



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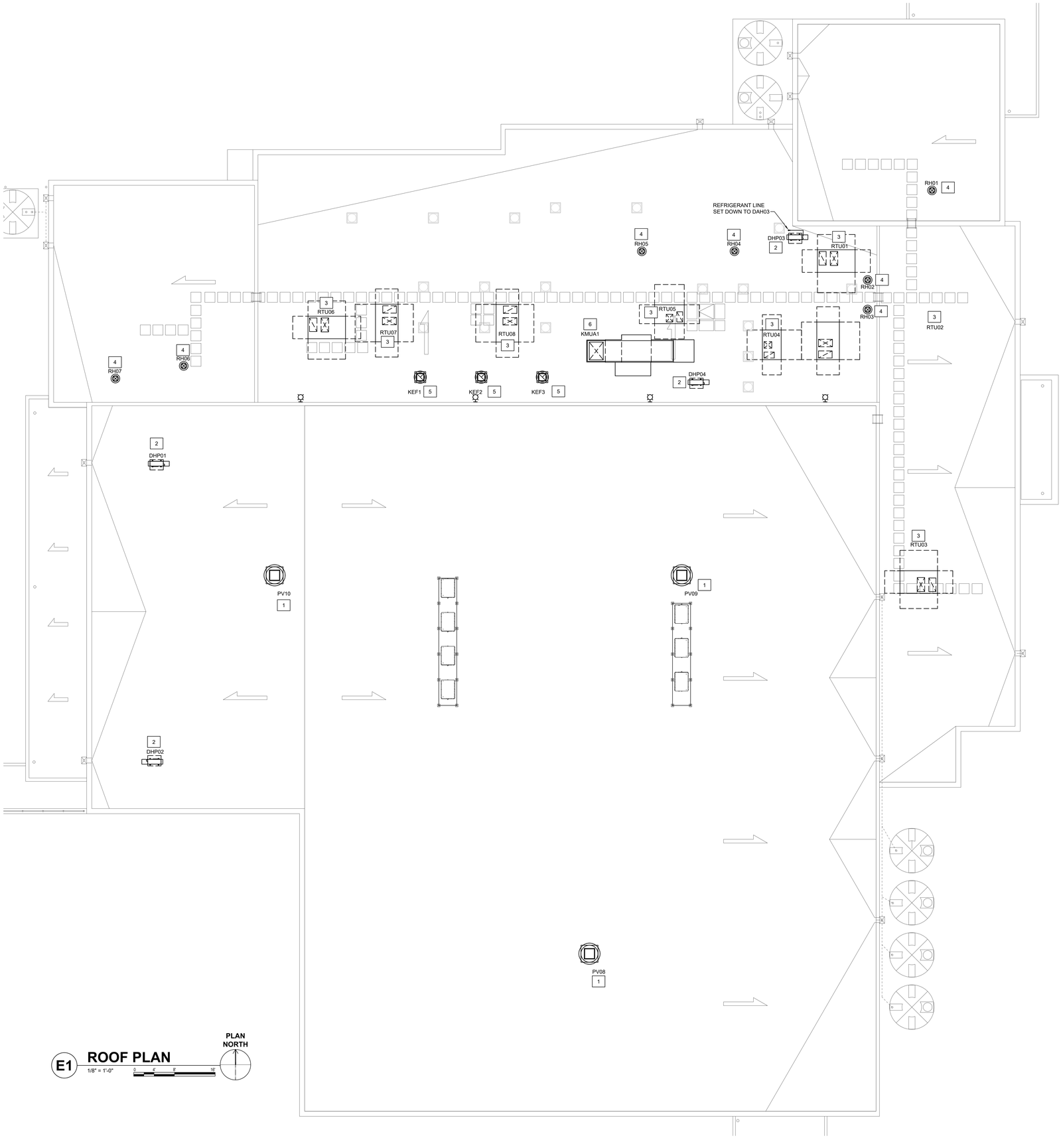
Sheet No.: MH1.4



KEYED NOTES

1. INSTALL ROOF TOP POWER VENTILATOR ON ROOF CURB. SEE C5/M-5.1 FOR CONTROL DETAILS.
2. INSTALL OUTDOOR MINI-SPLIT UNIT ON ROOF IN LOCATION SHOWN ON PLANS WHILE MAINTAINING MANUFACTURERS RECOMMENDED CLEARANCES. FIELD ROUTE REFRIGERANT PIPING TO ASSOCIATED INDOOR UNIT.
3. INSTALL ROOF TOP UNIT ON ROOF CURB WHILE MAINTAINING MANUFACTURERS RECOMMENDED CLEARANCES.. SEAL WEATHER TIGHT. ROUTE CONDENSATE PIPING TO NEAREST ROOF DRAIN. PIPE MUST BE SUPPORTED BY STANDS AND SLOPED TO ROOF DRAIN.
4. INSTALL ROOF HOOD ON ROOF CURB.
5. INSTALL KITCHEN EXHAUST FAN WHILE MAINTAINING MANUFACTURERS RECOMMENDED CLEARANCES.
6. INSTALL ROOF TOP KITCHEN MAKE UP AIR UNIT WHILE MAINTAINING MANUFACTURERS RECOMMENDED CLEARANCES.

E1 ROOF PLAN
1/8" = 1'-0"
0 4' 8' 16'

PLAN NORTH

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Sheet Title
MECHANICAL HVAC ROOF PLAN

Sheet No.
MH1.5

ELECTRICAL LEGEND

SYMBOL	DESCRIPTION
	CEILING FAN, SEE LIGHTING FIXTURE SCHEDULE FOR TYPE
	2x4 LIGHT FIXTURE, RECESSED OR SURFACE MOUNTED
	2x2 LIGHT FIXTURE, RECESSED OR SURFACE MOUNTED
	4FT OR 8FT LIGHT FIXTURE, RECESSED OR SURFACE MOUNTED
	4FT OR 8FT CHANNEL LIGHT FIXTURE, SUSPENDED OR SURFACE MOUNTED
	UNDER COUNTER LIGHT FIXTURE
	DIRECT/INDIRECT FIXTURE, SUSPENDED
	TRACK WITH LIGHT KIT
	RECESSED LIGHT FIXTURE
	SURFACE LIGHT FIXTURE
	RECESSED WALL WASH LIGHT FIXTURE
	WALL MOUNTED LIGHT FIXTURE
	EXIT SIGN, SINGLE FACE, CEILING, CHEVRON INDICATES DIRECTION.
	EXIT SIGN, DOUBLE FACE, CEILING MOUNTED, CHEVRON INDICATES DIRECTION.
	EXIT SIGN W/EMERGENCY LIGHTING UNIT, CEILING MOUNTED, CHEVRON INDICATES DIRECTION.
	EXIT SIGN, SINGLE FACE, WALL/END MOUNTED, CHEVRON INDICATES DIRECTION.
	EXIT SIGN, DOUBLE FACE, WALL/END MOUNTED, CHEVRON INDICATES DIRECTION.
	EXIT SIGN W/EMERGENCY LIGHTING UNIT, WALL/END MOUNTED, CHEVRON INDICATES DIRECTION.
	EMERGENCY LIGHTING UNIT, 2-HEAD WITH BATTERY BACK-UP, WALL MOUNTED, "NOT SWITCHED"
	EMERGENCY LIGHTING UNIT, 2-HEAD WITH BATTERY BACK-UP, CEILING MOUNTED, "NOT SWITCHED"
	**FOR ALL LIGHTING FIXTURE TYPES ABOVE: LETTER ADJACENT TO FIXTURE INDICATES FIXTURE TYPE, SEE LIGHTING FIXTURE SCHEDULE
	POWER & SWITCH LEG
	UNSWITCHED LEG
	CONDUIT, HOME RUN TO PANEL BOARD
PE	PHOTOCELL, REMOTE MOUNTED, 120V, 10 SECOND TIME DELAY, UL WET LOCATION, RATED FOR 1500 W @ 120 VAC AND 4000 W @ 277 VAC (FOR USE WITH LAMP SOURCE(S) SHOWN.
$	SWITCH, SINGLE POLE, 120/277VAC, 20A, MOUNTED AT 46" AFF UNLESS OTHERWISE NOTED, SEE ELECTRICAL DEVICES MOUNTING HEIGHT DETAIL. LOWER CASE LETTER INDICATES FIXTURE SWITCHING, WHEN INDICATED.
$3	3-WAY SWITCH, 120/277 VAC, 20A, MOUNTED AT 46" AFF UNLESS OTHERWISE NOTED SEE ELECTRICAL DEVICES MOUNTING HEIGHT DETAIL. LOWER CASE LETTER INDICATES FIXTURE SWITCHING, WHEN INDICATED.
$4	4-WAY SWITCH 120/277 VAC, 20A, MOUNTED AT 46" AFF UNLESS OTHERWISE NOTED SEE ELECTRICAL DEVICES MOUNTING HEIGHT DETAIL. LOWER CASE LETTER INDICATES FIXTURE SWITCHING, WHEN INDICATED.
$$	INDICATES BI-LEVEL SWITCHING, 1 SWITCH SWITCHES OUTSIDE LAMPS, 1 SWITCH SWITCHES INSIDE LAMPS. SEE ELECTRICAL DEVICES MOUNTING HEIGHT DETAIL. LOWER CASE LETTER INDICATES FIXTURE SWITCHING, WHEN INDICATED.
$WP	WEATHERPROOF SWITCH, SINGLE POLE 120/277 VAC, 20A, MOUNTED AT 46" AFF UNLESS OTHERWISE NOTED.
D$	DIMMER SWITCH, 0-10V OR LINE VOLTAGE RATING AS REQUIRED BY LIGHTING FIXTURE(S). LINE VOLTAGE RATED DIMMERS MUST BE 1500W FOR 120 VAC AND 4000W 277VAC MINIMUM.
AFC$	ADJUSTABLE FAN CONTROL, 120/277VAC, SINGLE POLE, 20A, MOUNTED AT 46" AFF UNLESS OTHERWISE NOTED, SEE ELECTRICAL DEVICES MOUNTING HEIGHT DETAIL. LOWER CASE LETTER INDICATES FIXTURE SWITCHING, WHEN INDICATED

SYMBOL	DESCRIPTION
OS	CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR, 360° COVERAGE 2 = SECOND CONTACT TO BE PROVIDED FOR CONNECTION TO BUILDING MANAGEMENT
OS	CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR, LONG RANGE COVERAGE 2 = SECOND CONTACT TO BE PROVIDED FOR CONNECTION TO BUILDING MANAGEMENT
OS	WALL MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR, 180° COVERAGE 2 = SECOND CONTACT TO BE PROVIDED FOR CONNECTION TO BUILDING MANAGEMENT
OS	WALL MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR, PIR TECHNOLOGY OCCUPANCY SENSOR, LOW VOLTAGE (24VDC) 19mA DRAW, WATTSTOPPER CX100-1, LONG RANGE SENSOR. INSTALL WHERE FREE OF OBSTRUCTIONS.
OS	WALL MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR, PIR TECHNOLOGY OCCUPANCY SENSOR, LOW VOLTAGE (24VDC) 19mA DRAW, WATTSTOPPER CX100-3, TWO SIDED AISLEWAY. INSTALL WHERE FREE OF OBSTRUCTIONS.
O$	WALL MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR, SINGLE BUTTON ON/OFF CONTROL, 180° COVERAGE, MOUNTED AT 46" AFF UNLESS OTHERWISE NOTED.
O$2	WALL MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR, DUAL BUTTON ON/OFF CONTROL, 180° COVERAGE, MOUNTED AT 46" AFF UNLESS OTHERWISE NOTED.
O$D	WALL MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR, DUAL BUTTON ON/OFF CONTROL WITH 0-10V DIMMING, 180° COVERAGE, MOUNTED AT 46" AFF UNLESS OTHERWISE NOTED. WATTSTOPPER DW-311 OR EQUAL.
O$F	WALL MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR, DUAL BUTTON ON/OFF CONTROL, 180° COVERAGE, ADDITIONAL POWER SUPPLY FOR FAN OPERATION, MOUNTED AT 46" AFF UNLESS OTHERWISE NOTED.
$T	WALL MOUNTED DIGITAL TIMED SWITCH (5 MIN'S TO 12 HR'S), SINGLE BUTTON ON/OFF CONTROL, MOUNTED AT 46" AFF UNLESS OTHERWISE NOTED.
	RECESSED SINGLE GANG BOX WITH BLANK COVER PLATE, MOUNTED 16" AFF, UNLESS OTHERWISE NOTED
	RECESSED DEDICATED SINGLE OUTLET, 120VAC, 20A, MOUNTED AS INDICATED ON DRAWING.
	RECEPTACLE, DUPLEX, 120VAC, 20A, MOUNTED 16" AFF, UNLESS OTHERWISE NOTED. SEE ELECTRICAL MOUNTING HEIGHT DETAIL
	RECEPTACLE, DUPLEX, 120VAC, 20A, MOUNTED 6" ABOVE COUNTER TOP OR BACK SPLASH.
	RECEPTACLE, QUADPLEX, 120VAC, 20A MOUNTED 16"AFF UNLESS OTHERWISE NOTED. SEE ELECTRICAL MOUNTING HEIGHT DETAIL
	RECEPTACLE, QUADPLEX, 120VAC, 20A, MOUNTED 6" ABOVE COUNTER TOP OR BACK SPLASH.
	RECEPTACLE, DUPLEX, GROUND FAULT CIRCUIT INTERRUPTER TYPE, 120VAC, 20A, MOUNTED 16" AFF, UNLESS OTHERWISE NOTED. SEE ELECTRICAL MOUNTING HEIGHT DETAIL
	RECEPTACLE, DUPLEX, GROUND FAULT CIRCUIT INTERRUPTER TYPE, 120VAC, 20A, MOUNTED 6" ABOVE COUNTER TOP OR BACK SPLASH.
	RECEPTACLE, QUADPLEX, GROUND FAULT CIRCUIT INTERRUPTER TYPE, 120VAC, 20A MOUNTED 16"AFF UNLESS OTHERWISE NOTED. SEE ELECTRICAL MOUNTING HEIGHT DETAIL
	RECEPTACLE, QUADPLEX, GROUND FAULT CIRCUIT INTERRUPTER TYPE, 120VAC, 20A, MOUNTED 6" ABOVE COUNTER TOP OR BACK SPLASH.
	RECEPTACLE, 208VAC, 2 POLE, 3 WIRE, WALL MOUNTED, SIZE AS INDICATED ON DRAWING
	RECEPTACLE, 480VAC, 2 POLE, 3 WIRE, WALL MOUNTED, SIZE AS INDICATED ON DRAWING
	RECEPTACLE, DUPLEX, 120VAC, 20A CEILING MOUNTED (LAY-IN / GYPBOARD / SUSPENDED)
	RECEPTACLE, DUPLEX, 120VAC, 20A RECESSED FLOOR MOUNTED.
	UPS FED RECEPTACLE, DUPLEX, 120VAC, 20A, MOUNTED 16" AFF, UNLESS OTHERWISE NOTED. SEE ELECTRICAL MOUNTING HEIGHT DETAIL
	UPS FED RECEPTACLE, QUADPLEX, 120VAC, 20A, MOUNTED 16" AFF, UNLESS OTHERWISE NOTED. SEE ELECTRICAL MOUNTING HEIGHT DETAIL
	**FOR ALL RECEPTACLE TYPES ABOVE: +XX" - INDICATES MOUNTING HEIGHT OF DEVICE IN INCHES AFF (IF PROVIDED). SEE ELECTRICAL MOUNTING HEIGHT DETAIL WP - LISTED WEATHER-RESISTANT TYPE DEVICE WITH WEATHERPROOF IN USE COVER TR - TAMPER RESISTANT S - INDICATES THE TOP RECEPTACLE OF THE DEVICE IS CONTROLLED VIA WALL SWITCH H - DEVICE MOUNTED HORIZONTALLY U - USB IN-WALL CHARGER
30A/3/3R W/ 30AF	DISCONNECT SWITCH, FUSED, HEAVY DUTY, SIZE AS INDICATED ON DRAWINGS ##A = DISCONNECT SIZE / # = NUMBER OF POLES / # = NEMA RATING, /##AF = FUSE SIZE
CB	ENCLOSED BREAKER, HEAVY DUTY, SIZE AS INDICATED ON DRAWINGS ##A = BREAKER SIZE / # = NUMBER OF POLES / # = NEMA RATING,
VFD	VARIABLE FREQUENCY DRIVE (VFD)
"Equip" #AMP HMCP (#HP) NEMA #	COMBINATION STARTER WITH CIRCUIT BREAKER DISCONNECT, FULL VOLTAGE, SIZE AS INDICATED ON DRAWINGS
M$##	MANUAL MOTOR STARTER, ELECTRICAL CONTRACTOR SHALL COORDINATE POLES AND SIZE WITH EQUIPMENT ## = AMPERAGE RATING WHEN INDICATED ON DRAWING
	↕ BUTTON CONTROLLER

SYMBOL	DESCRIPTION
	2 START/STOP PUSHBUTTON CONTROLLER
	3 UP/STOP/DN PUSHBUTTON CONTROLLER
EPO	WALL MOUNTED 120V EMERGENCY OFF PUSH BUTTON WITH RED MUSHROOM STYLE HEAD WITH MANUAL PULL REST, NORMALLY OPEN, WITH CLEAR PROTECTIVE COVER. MOUNTED AT 46" AFF UNLESS OTHERWISE NOTED.
	WALL MOUNTED PUSH PLATE MOUNTED AT 46" AFF UNLESS OTHERWISE NOTED.
208/120V	PANELBOARD, SURFACE OR RECESSED MOUNTED AS SHOWN. SIZE, RATINGS, AND MOUNTING AS INDICATED ON PANEL SCHEDULE. CONTRACTOR IS RESPONSIBLE FOR REQUIRED CLEARANCE IN FRONT OF ELECTRICAL PANEL. SEE NEC TABLE 110.26 WORKING SPACES FOR ADDITIONAL CLEARANCE CONDITIONS.
	TRANSFORMER, SIZE AS INDICATED ON DRAWING
	METER
M	ELECTRICAL MOTOR
	GROUND BUS, "E" INDICATES ELECTRICAL GROUND BAR, "TG" INDICATES TELECOMMUNICATIONS GROUND BAR
	CABLE TRAY, LADDER TYPE
	CABLE TRAY, CENTER HUNG TYPE
	CABLE TRAY, BASKET TYPE
1	KEY NOTE SYMBOL
1	REVISION DELTA
WP WAP WALL CLNG	WIRELESS ACCESS POINT, 1 DATA IN A DUAL GANG BOX WITH A SINGLE GANG PLASTER RING, OWNER SHALL PROVIDE SURGE PROTECTOR AND WAP DEVICE, THE ELECTRICAL CONTRACTOR SHALL INSTALL. WP - LISTED WEATHER-RESISTANT TYPE DEVICE
	COMBINATION DATA/TELEPHONE OUTLET, MOUNTED 18" AFF UNLESS OTHERWISE NOTED. PROVIDE 11/4" W/ PULL STRING TO ABOVE ACCESSIBLE GRID CEILING. FOR OUTLETS LOCATED BELOW HARD (GYPBOARD) CEILINGS, PROVIDE 11/4" CONDUIT W/ PULL STRING TO TELEPHONE/DATA ROOM. TELECOM/DATA CABLE PROVIDED AND INSTALLED BY OTHERS
	WALL TELEPHONE OUTLET, MOUNTED 60" AFF UNLESS OTHERWISE NOTED. PROVIDE 11/4" CONDUIT TO ABOVE ACCESSIBLE GRID CEILING W/ PULL STRING. FOR OUTLETS LOCATED BELOW HARD (GYPBOARD) CEILINGS, PROVIDE 11/4" CONDUIT W/ PULL STRING TO TELEPHONE/DATA ROOM. TELECOM/DATA CABLES PROVIDED AND INSTALLED BY OTHERS.
2G VMB	COMBINATION POWER/DATA/TELEPHONE BOX, RECESSED FLOOR MOUNTED (CAST-IN-PLACE). PROVIDE BRASS COVER PLATE WITH FLUSH ACCESS COVERS FOR EACH PLUG IN CONNECTION. PROVIDE 1 1/4 "CONDUIT W/ PULL STRING UNDER SLAB TO TELEPHONE/DATA ROOM. TELECOM/DATA CABLES PROVIDED AND INSTALLED BY OTHERS 2G = GANG FLOOR BOX WITH ONE DUPLEX RECEPTACLE AND ONE GANG FOR VOICE AND DATA
	JUNCTION BOX - WALL MOUNTED +##" - INDICATES MOUNTING HEIGHT OF DEVICE IN INCHES AFF (IF PROVIDED)
	JUNCTION BOX - CEILING / ABOVE CEILING MOUNTED
	JUNCTION BOX - FLOOR MOUNTED

SYMBOL	DESCRIPTION
	WALL MOUNTED DOUBLE GANG BOX FOR TELEVISION MOUNTED AT 72" AFF UNLESS NOTED OTHERWISE. BOX SHALL HAVE DUPLEX RECEPTACLE AND DATA CONNECTIONS FOR TELEVISION CABLES. BOX SHALL BE PASS & SEYMOUR TV2MW OR APPROVED EQUIVALENT. PROVIDE 1 1/4" CONDUIT W/ PULL STRING TO ACCESSIBLE CEILING CAVITY. FOR BOXES LOCATED BELOW HARD (GYPBOARD) CEILINGS, PROVIDE 1 1/4" CONDUIT W/ PULL STRING TO TELEPHONE/DATA ROOM. CABLES PROVIDED AND INSTALLED BY OTHERS
	CEILING MOUNTED DOUBLE GANG BOX FOR TELEVISION RECESSED IN CEILING. BOX SHALL HAVE DUPLEX RECEPTACLE AND DATA CONNECTIONS FOR TELEVISION AS DIRECTED BY OWNER. BOX SHALL BE PASS & SEYMOUR TV2MW OR APPROVED EQUIVALENT.
	ELECTRIC STRIKE
	MAGNETIC LOCK
	DOOR CONTACTS
	CARD READER
	KEYPAD
	MOTION DETECTOR (TYPE DENOTED)
WP	WALL MOUNTED CAMERA, WP INDICATES WEATHERPROOF
	CEILING MOUNTED CAMERA
S	CEILING MOUNTED SPEAKER
S	WALL MOUNTED SPEAKER
	FLOOR MOUNTED DATA RACK
	WALL MOUNTED DATA RACK
	PROJECTOR PAN, CEILING MOUNTED
	1 HOUR RATED FIRE WALL
(X)	1 HOUR RATED FIRE WALL - EXISTING
	2 HOUR RATED FIRE WALL
(X)	2 HOUR RATED FIRE WALL - EXISTING
	3 HOUR RATED FIRE WALL
(X)	3 HOUR RATED FIRE WALL - EXISTING
OHP	OVERHEAD PRIMARY CONDUCTORS
(X)OHP	OVERHEAD PRIMARY CONDUCTORS - EXISTING
UGP	UNDERGROUND PRIMARY CONDUCTORS
(X)UGP	UNDERGROUND PRIMARY CONDUCTORS - EXISTING
OHS	OVERHEAD SECONDARY CONDUCTORS
(X)OHS	OVERHEAD SECONDARY CONDUCTORS - EXISTING
UGS	UNDERGROUND SECONDARY CONDUCTORS
(X)UGS	UNDERGROUND SECONDARY CONDUCTORS - EXISTING
	COPPER CLASS 1 CONDUCTOR ON ROOF
	ALUMINUM CLASS 1 CONDUCTOR ON ROOF
UGG	COPPER CLASS 1 CONDUCTOR BELOW GRADE
C C	CONTROL CABLE CONDUIT

LOAD SUMMARY - NORMAL

VOLTAGE	PHASE
208	3
LARGEST MOTOR APPROX. AMPS	50 AMPS
LARGEST MOTOR APPROX. AMPS x .25	13 AMPS
HVAC	
HVAC LOAD	49,509 VA
SUB-TOTAL HVAC DEMAND	49,509 VA
SUB-TOTAL HVAC DEMAND	137 AMPS
EQUIPMENT	
FORK LIFT CHARGERS	38,904 VA
GAS HEATERS	1,080 VA
MISC. EQUIPMENT	14,040 VA
SUB-TOTAL EQUIPMENT DEMAND	54,024 VA
SUB-TOTAL EQUIPMENT DEMAND	150 AMPS
ADD FOR LARGEST MOTOR	13 AMPS
TOTAL EQUIPMENT DEMAND	162 AMPS
LIGHTING	
LIGHTS (INTERIOR, BASED ON NEC 220.12)	6,658 VA
LIGHTS (EXTERIOR) (est)	2,186 VA
SIGN	1,500 VA
TOTAL LIGHTING LOAD	10,344 VA
TOTAL DEMAND FOR LIGHTING	29 AMPS
RECEPTACLES	
RECEPTACLES	21,640 VA
FIRST 10000VA	10,000 VA
REMAINDER @ 50%	5,820 VA
TOTAL DEMAND FOR RECEPTACLE/POWER PANELS	15,820 VA
TOTAL DEMAND FOR RECEPTACLE/POWER PANELS	44 AMPS
TOTAL DEMAND BUILDING AMPS	373 AMPS
TOTAL DEMAND BUILDING AMPS	134,200 VA
TOTAL BUILDING CONNECTED LOAD	131,614 VA

LOAD SUMMARY - OVERALL

VOLTAGE	PHASE
208	3
LARGEST MOTOR APPROX. AMPS	50 AMPS
LARGEST MOTOR APPROX. AMPS x .25	13 AMPS
HVAC	
HVAC LOAD	107,189 VA
SUB-TOTAL HVAC DEMAND	107,189 VA
SUB-TOTAL HVAC DEMAND	288 AMPS
EQUIPMENT	
WALK-IN COOLERS/FREEZER CONDENSORS	54,868 VA
WALK-IN COOLERS/FREEZER EVAPORATORS	25,119 VA
COMPACTOR	9,906 VA
LEVELERS	4,704 VA
FORK LIFT CHARGERS	58,356 VA
ELECTRIC HEATERS	10,920 VA
GAS HEATERS	4,388 VA
FANS	22,157 VA
MOTORIZED DOORS	10,824 VA
DISH MACHINE	26,661 VA
MISC. EQUIPMENT	17,142 VA
SUB-TOTAL EQUIPMENT DEMAND	245,045 VA
SUB-TOTAL EQUIPMENT DEMAND	680 AMPS
ADD FOR LARGEST MOTOR	13 AMPS
TOTAL EQUIPMENT DEMAND	693 AMPS
KITCHEN EQUIPMENT	
KITCHEN EQUIPMENT	49,608 VA
SUB-TOTAL EQUIPMENT DEMAND	49,608 VA
DEMAND FACTOR 65% (6 UNITS OR OVER)	32,245 VA
SUB-TOTAL EQUIPMENT DEMAND	138 AMPS
TOTAL EQUIPMENT DEMAND	90 AMPS
LIGHTING	
LIGHTS (INTERIOR, BASED ON NEC 220.12)	41,786 VA
LIGHTS (EXTERIOR) (est)	3,122 VA
SIGN	1,500 VA
TOTAL LIGHTING LOAD	46,408 VA
TOTAL DEMAND FOR LIGHTING	129 AMPS
RECEPTACLES	
RECEPTACLES	36,300 VA
FIRST 10000VA	10,000 VA
REMAINDER @ 50%	13,150 VA
TOTAL DEMAND FOR RECEPTACLE/POWER PANELS	23,150 VA
TOTAL DEMAND FOR RECEPTACLE/POWER PANELS	64 AMPS
TOTAL DEMAND BUILDING AMPS	1,273 AMPS
TOTAL DEMAND BUILDING AMPS	458,540 VA
TOTAL BUILDING CONNECTED LOAD	454,361 VA

LOAD SUMMARY - STANDBY

VOLTAGE	PHASE
208	3
LARGEST MOTOR APPROX. AMPS	50 AMPS
LARGEST MOTOR APPROX. AMPS x .25	13 AMPS
HVAC	
HVAC LOAD	57,680 VA
SUB-TOTAL HVAC DEMAND	57,680 VA
SUB-TOTAL HVAC DEMAND	160 AMPS
EQUIPMENT	
WALK-IN COOLERS/FREEZER CONDENSORS	54,868 VA
WALK-IN COOLERS/FREEZER EVAPORATORS	25,119 VA
COMPACTOR	9,906 VA
LEVELERS	4,704 VA
FORK LIFT CHARGERS	19,452 VA
ELECTRIC HEATERS	10,920 VA
GAS HEATERS	3,308 VA
FANS	22,157 VA
MOTORIZED DOORS	10,824 VA
DISH MACHINE	26,661 VA
MISC. EQUIPMENT	3,102 VA
SUB-TOTAL EQUIPMENT DEMAND	191,021 VA
SUB-TOTAL EQUIPMENT DEMAND	530 AMPS
ADD FOR LARGEST MOTOR	13 AMPS
TOTAL EQUIPMENT DEMAND	543 AMPS
KITCHEN EQUIPMENT	
KITCHEN EQUIPMENT	49,608 VA
SUB-TOTAL EQUIPMENT DEMAND	49,608 VA
DEMAND FACTOR 65% (6 UNITS OR OVER)	32,245 VA
SUB-TOTAL EQUIPMENT DEMAND	138 AMPS
TOTAL EQUIPMENT DEMAND	90 AMPS
LIGHTING	
LIGHTS (INTERIOR, BASED ON NEC 220.12)	35,128 VA
LIGHTS (EXTERIOR) (est)	936 VA
TOTAL LIGHTING LOAD	36,064 VA
TOTAL DEMAND FOR LIGHTING	100 AMPS
RECEPTACLES	
RECEPTACLES	14,660 VA
FIRST 10000VA	10,000 VA
REMAINDER @ 50%	2,330 VA
TOTAL DEMAND FOR RECEPTACLE/POWER PANELS	12,330 VA
TOTAL DEMAND FOR RECEPTACLE/POWER PANELS	34 AMPS
TOTAL DEMAND BUILDING AMPS	927 AMPS
TOTAL DEMAND BUILDING AMPS	333,843 VA
TOTAL BUILDING CONNECTED LOAD	322,747 VA

TYPICAL ABBREVIATIONS:

A, AMP	AMPERE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHU	AIR HANDLING UNIT
AIC	AMPERE INTERRUPTING CAPACITY
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BOF	BOTTOM OF FIXTURE
BRKR	BREAKER
C, GND	CONDUIT
CAB	CABINET
CAT	CATALOG
CL	CHLORINE
CB	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION
CKT	CIRCUIT
CLG	CEILING
CP	CONTROL PANEL
CR	CONTROL RELAY, CORROSION RESISTANT
CS	CONTROL SWITCH
CV	CONTROL VALVE
CT	CURRENT TRANSFORMER
CU	COPPER
EF	EXHAUST FAN
EM	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
ENCL	ENCLOSURE
EQ, EQIP	EQUIPMENT
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
EPRF	EXPLOSION PROOF
FA	FIRE ALARM
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
FBO	FURNISHED BY OTHERS
FLA	FULL LOAD AMPS
FLUOR	FLUORESCENT
FLR	FLOOR
FWE	FURNISHED WITH EQUIPMENT
GEN	GENERATOR
G, GND	GROUND
GFI, GFCI	GROUND FAULT CIRCUIT INTERRUPTER
HH	HANDHOLE
HID	HIGH INTENSITY DISCHARGE
HOA	HAND-OFF-AUTO
HP	HORSE POWER
HPF	HIGH POWER FACTOR
HPS	HIGH PRESSURE SODIUM
HTR	HEATER
HV	HIGH VOLTAGE
Hz	HERTZ
IMC	INTERMEDIATE METALLIC CONDUIT
INCAND	INCANDESCENT
JB	JUNCTION BOX
K	THOUSAND
Kcmil	THOUSAND CIRCULAR MILLS
KVA	KILOVOLT AMPERE
KW	KILOWATTS
KWH	KILOWATT-HOURS
LP	LIGHTING PANEL, LIGHT POLE
LTG	LIGHTING
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MCP	MOTOR CIRCUIT PROTECTOR
MDP	MAIN DISTRIBUTION PANEL
MFR	MANUFACTURER
MH	MANHOLE
MLO	MAIN LUGS ONLY
MTD	MOUNTED
MTG	MOUNTING
MTS	MANUAL TRANSFER SWITCH
MV	MEDIUM VOLTAGE
N, NEUT	NEUTRAL
N/A	NOT APPLICABLE
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRIC CODE
NIC	NOT IN CONTRACT
NIL	NIGHT LIGHT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
P	POLE
PA	PUBLIC ADDRESS
PB	PULL BOX, PUSH-BUTTON
PF	POWER FACTOR
PH,ϕ	PHASE
PLC	PROGRAMMABLE LOGIC CONTROLLER
PNL	PANEL
PP	POWER PANEL, POWER POLE
PT	POTENTIAL TRANSFORMER
PWR	POWER
RECPT,RC	PRECEPTACLE
REQ'D	REQUIRED
RGS	RIGID GALVANIZED STEEL CONDUIT
RM	ROOM
RTU	REMOTE TELEMETRY UNIT
SCR	DC MOTOR DRIVE
SH	SHEET
SM	SURFACE MOUNTED
SPEC	SPECIFICATION
SS	SELECTOR SWITCH
SST	STAINLESS STEEL
SW	SWITCH
SWBD	SWITCHBOARD
SWGR	SWITCH GEAR
TEL	TELEPHONE
TPS	TWISTED PAIR SHIELDED
TVSS, SPD	TRANSIENT VOLTAGE SURGE SUPPRESSER
TYP	TYPICAL
UG, UGND	UNDERGROUND
UH	UNIT HEATER
UON	UNLESS OTHERWISE NOTED
UTIL	UTILITY
V	VOLTS
VFD	VARIABLE FREQUENCY DRIVE
W	WIRE, WATT
WH	WATT-HOUR
WP	WEATHERPROOF
XFMR	TRANSFORMER
(X)	EXISTING

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Date: 2021.11.09 19:51:16 -05'00'

The Wilmington Food Bank
Greenfield Street
Wilmington, North Carolina 28403

REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

Project Manager	Drawn By: WPJ
Date: 11.09.2021	Reviewed By: JPF
Project ID: CBHF: 20187	

Sheet Title: ABBREVIATIONS, LEGEND AND SUMARIES

Sheet No.: E0.1

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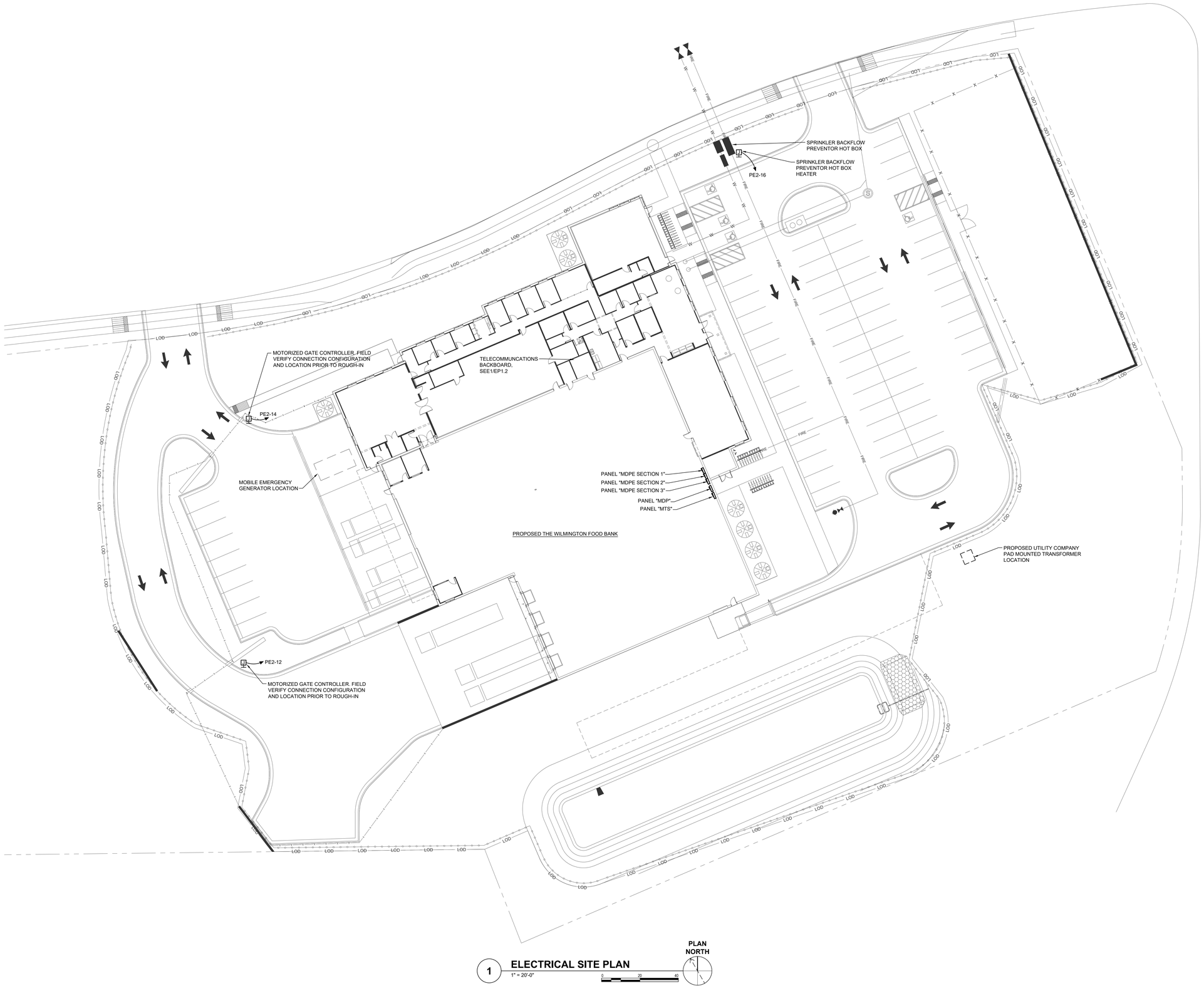

1 **ELECTRICAL SITE PLAN**
1" = 20'-0"
0 20 40
PLAN NORTH

The Wilmington Food Bank
Greenfield Street
Wilmington, North Carolina 28403

REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

Project Manager	Drawn By WPJ
Date 11.09.2021	Reviewed By JPF
Project ID CBHF: 20187	

Sheet Title
ELECTRICAL SITE PLAN

Sheet No.
E0.2

ELECTRICAL GENERAL NOTES

1. THE CONTRACTOR SHALL REVIEW ALL DRAWINGS AND SPECIFICATIONS FOR WORK REQUIREMENTS, THE AMOUNT OF SPACE AVAILABLE FOR ELECTRICAL EQUIPMENT, AND LAYOUT HIS WORK IN A COMPATIBLE AND COMPLEMENTARY MANNER.

2. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THOROUGHLY FAMILIARIZING HIMSELF WITH ANY CONTRACTUAL REQUIREMENTS AS MAY BE SET FORTH IN THE OTHER DIVISIONS OF THE PROJECT SPECIFICATIONS.

3. UNLESS SPECIFICALLY NOTED OTHERWISE, SYSTEMS PROVIDED OR INSTALLED BY THE ELECTRICAL CONTRACTOR SHALL BE COMPLETE AND FULLY-FUNCTIONING AFTER INSTALLATION. INCIDENTAL COMPONENTS MAY NOT BE SHOWN, AND ALL WORK WHICH MAY BE REASONABLY IMPLIED AS BEING INCIDENTAL TO THIS WORK, BUT REQUIRED FOR THE PROPER OPERATION OF THE EQUIPMENT OR SYSTEM, SHALL BE PROVIDED BY THE CONTRACTOR AND INCLUDED IN THE BID. ADDITIONAL CIRCUITS SHALL BE INSTALLED WHEREVER NEEDED TO CONFORM TO THE SPECIFIC REQUIREMENTS OF EQUIPMENT.

4. TEMPORARY POWER CONNECTIONS AS REQUIRED SHALL BE PROVIDED BY THE CONTRACTOR AND INCLUDED IN THE BID. ALL TEMPORARY EQUIPMENT WIRING SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE. THE CONTRACTOR SHALL PROVIDE DETAILS, METHODS, MATERIALS, ETC. FOR REVIEW PRIOR TO MAKING TEMPORARY CONNECTIONS. FURNISH AND INSTALL ALL EQUIPMENT AND MATERIALS INCLUDING CONTROL EQUIPMENT, MOTOR STARTERS, BRANCH AND FEEDER CIRCUIT BREAKERS, PANELBOARDS, TRANSFORMERS, ETC. FOR TEMPORARY POWER. COORDINATE WITH THE ELECTRICAL UTILITY COMPANY AS REQUIRED.

5. THE WORK SHALL INCLUDE COMPLETE TESTING OF ALL EQUIPMENT AND WIRING AT THE COMPLETION OF WORK AND ANY MINOR CORRECTIONS, CHANGES OR ADJUSTMENTS NECESSARY FOR THE PROPER FUNCTIONING OF THE SYSTEM AND EQUIPMENT.

6. ALL EQUIPMENT SHOWN DOTTED OR DASHED IS BY OTHERS.

7. ALL ELECTRICAL EQUIPMENT SHALL, AT ALL TIMES DURING CONSTRUCTION, BE ADEQUATELY PROTECTED AGAINST MECHANICAL INJURY, OR DAMAGE BY WATER AND/OR THE ELEMENTS. ELECTRICAL EQUIPMENT SHALL NOT BE STORED OUT OF DOORS, BUT SHALL BE STORED IN DRY PERMANENT SHELTERS. IF AN APPARATUS HAS BEEN DAMAGED, OR HAS BEEN SUBJECT TO POSSIBLE INJURY BY WATER OR THE ELEMENTS, SUCH DAMAGE SHALL BE REPLACED AT NO ADDITIONAL COST.

8. DO NOT SCALE ELECTRICAL DRAWINGS. REFER TO THE ARCHITECTURAL DRAWINGS FOR DIMENSIONS.

9. CIRCUIT LAYOUTS ARE NOT INTENDED TO SHOW THE NUMBER OF FITTINGS, OR OTHER INSTALLATION DETAILS. UNLESS NOTED OTHERWISE, THE EXACT ROUTING OF FEEDER AND BRANCH CIRCUIT RACEWAYS AND CABLES IS THE RESPONSIBILITY OF THE CONTRACTOR. RISER AND GENERAL CIRCUIT ARRANGEMENTS ARE SHOWN SCHEMATICALLY/DIAGRAMMATICALLY ONLY. THE CONTRACTOR SHALL ROUTE CONDUITS AS REQUIRED BY THE CONDITIONS OF THE INSTALLATION.

10. UNLESS DIMENSIONED, DEVICE LOCATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE. ADJUST EXACT LOCATIONS AS REQUIRED TO SERVE THE INTENDED PURPOSE AND TO AVOID CONFLICTS AND INTERFERENCES WITH OTHER TRADES. EXACT DEVICE LOCATIONS SHALL BE AS INDICATED ON THE ARCHITECTURAL DRAWINGS OR AS DIMENSIONED. IF NOT SHOWN ON THE ARCHITECTURAL DRAWINGS OR DIMENSIONED ON THE ELECTRICAL DRAWINGS, VERIFY EXACT LOCATION WITH THE ARCHITECT/ENGINEER PRIOR TO ROUGH-IN.

11. CONDUIT TERMINATING IN PRESSED STEEL BOXES SHALL HAVE DOUBLE LOCKNUTS AND INSULATED BUSHINGS. CONDUITS TERMINATING IN GASKETED ENCLOSURES SHALL BE TERMINATED WITH GROUNDING TYPE CONDUIT HUBS.

12. DEVICE BOXES SHOWN BACK-TO-BACK SHALL BE OFFSET A MINIMUM OF TWELVE (12) INCHES TO REDUCE SOUND TRANSMISSION BETWEEN ROOMS.

13. BRANCH CIRCUIT HOMERUNS SHOWN ON DRAWINGS INDICATE PHASE CONDUCTORS, NEUTRAL AND EQUIPMENT GROUND CONDUCTORS AS REQUIRED. ADDITIONAL CONDUCTORS REQUIRED FOR CONTROL SHALL BE INCLUDED EVEN IF NOT EXPLICITLY SHOWN.

14. SEAL ALL CONDUIT OPENINGS THROUGH EXTERIOR BUILDING WALLS WATERTIGHT.

15. IN WET LOCATIONS AND EXTERIOR, ALL WIRING DEVICES SHALL BE WEATHER-RESISTANT LISTED WITH WEATHERPROOF WHILE IN USE COVER. LIGHTING FIXTURES SHALL BE APPROPRIATELY RATED AND LISTED FOR THE ENVIRONMENT INCLUDING 0 DEGREE BALLASTS FOR FLUORESCENT.

16. RACEWAYS PENETRATING FLOORS, CEILINGS OR WALLS SHALL BE PROPERLY SEALED SMOKETIGHT.

17. RACEWAYS PENETRATING RATED FLOOR, CEILING OR WALL ASSEMBLIES SHALL BE PROPERLY SEALED IN ACCORDANCE WITH THE CORRESPONDING UNDERWRITERS LABORATORIES (OR OTHER APPROVED THIRD PARTY TESTING AGENCY) APPROVED AND LISTED FIRESTOPPING MATERIALS AND MANUFACTURER APPROVED INSTALLATION TECHNIQUES COMPLYING WITH ALL APPLICABLE CODES. SEE ARCHITECTURAL DRAWINGS FOR IDENTIFICATION OF RATED WALLS AND CEILINGS.

18. LIGHTING FIXTURES, SPEAKER ASSEMBLIES, ETC. MOUNTED IN FIRE-RATED CEILINGS SHALL BE PROVIDED WITH UL-LISTED, PRE-FABRICATED OR FIELD FABRICATED SHROUDS/ACCESSORIES NECESSARY TO MAINTAIN THE CEILING FIRE RATING.

19. ALL RACEWAYS SHALL BE CONCEALED WHERE POSSIBLE EXCEPT THOSE SHOWN TO BE EXPOSED ON DRAWINGS.

20. INSTALL EXPOSED RACEWAYS PARALLEL TO OR AT RIGHT ANGLES TO NEARBY SURFACES OR STRUCTURAL MEMBERS, AND FOLLOW THE SURFACE CONTOURS AS MUCH AS POSSIBLE. NO DIAGONAL RUNS WILL BE ALLOWED. ALL CONDUITS SHALL BE RUN STRAIGHT AND TRUE. RUN PARALLEL OR BANKED RACEWAYS TOGETHER ON COMMON SUPPORTS WHERE PRACTICAL. MAKE BENDS IN PARALLEL OR BANKED RUNS FROM SAME CENTERLINE TO MAKE BENDS PARALLEL.

21. PROVIDE AND PLACE ALL SLEEVES FOR CONDUITS PENETRATING WALLS, FLOORS, PARTITIONS, ETC. LOCATE ALL NECESSARY SLOTS FOR ELECTRICAL WORK AND FORM BEFORE CONCRETE IS POURED.

22. PATCHING OF WATERPROOFED SURFACES SHALL RENDER THE AREA OF THE PATCHING COMPLETELY WATERPROOF.

23. ALL MOTORS AND OTHER VIBRATING EQUIPMENT SHALL BE CONNECTED TO THE CONDUIT SYSTEM BY MEANS OF A SHORT SECTION (18 INCH MINIMUM) OF FLEXIBLE CONDUIT UNLESS OTHERWISE INDICATED. AN EQUIPMENT GROUNDING CONDUCTOR SHALL BE INSTALLED INSIDE THE FLEXIBLE CONDUIT AND TERMINATE AT THE LOAD END WITH AN APPROVED GROUNDING CLAMP OR LUG.

24. SURFACE MOUNTED PANELBOARDS, JUNCTION, OUTLET AND PULL BOXES, RACEWAYS, ETC., INSTALLED ON EXTERIOR SURFACES OR INSIDE ON EXTERIOR WALLS SHALL BE SUPPORTED BY SPACERS TO PROVIDE A 1/4" MINIMUM CLEARANCE BETWEEN THE WALL AND EQUIPMENT.

25. CEILING MOUNTED DEVICES INSTALLED IN ACOUSTICAL TILE CEILING AREAS SHALL BE SUPPORTED FROM THE STRUCTURE ABOVE WITH RODS OF SUFFICIENT SIZE TO PREVENT VERTICAL MOVEMENT OF THE OUTLET BOX. BRIDGES ALONE ARE NOT ADEQUATE UNLESS SPECIFICALLY APPROVED. CEILING MOUNTED EXIT LIGHT FIXTURES SHALL BE INSTALLED LEVEL. DO NOT SUPPORT DEVICES FROM ACCOUSTICAL CEILING TILE.

26. EXCAVATION AND TRENCHING REQUIRED FOR THE INSTALLATION OF ELECTRICAL POWER AND TELECOMMUNICATIONS RACEWAYS SHALL BE PROVIDED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF DIVISION 26 OF THE PROJECT SPECIFICATIONS.

27. PRIOR TO TRENCHING IN ANY AREA, THE CONTRACTOR SHALL CONTACT ELECTRICAL, COMMUNICATIONS/DATA/FIBER, CABLE TELEVISION, GAS AND WATER UTILITY PROVIDERS AND HAVE ALL UTILITIES IN THE AREA IDENTIFIED. DAMAGE TO ANY UNDERGROUND UTILITIES OR STRUCTURES SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE PROJECT.

28. ALL UNDERGROUND RACEWAYS SHALL BE IDENTIFIED BY UNDERGROUND LINE MARKING TAPE LOCATED DIRECTLY ABOVE THE RACEWAY AT 6 TO 8 INCHES BELOW FINISHED GRADE. SEE SPECIFICATIONS SECTION 260553.

29. PROVIDE ADHESIVE BACKED RECEPTACLE DEVICE PLATE LABELS IDENTIFYING THE CIRCUIT FEEDING THE DEVICE. LABELS SHALL INDICATE PANEL AND CIRCUIT NUMBER. ALSO PROVIDE IDENTIFICATION FOR MULTIWIRE BRANCH CIRCUIT PHASE CONDUCTORS IN PANELBOARD. SEE SPECIFICATIONS SECTION 260553 FOR REQUIREMENTS.

30. FINAL TYPED PANELBOARD DIRECTORIES INSTALLED IN THE PANELBOARD DOOR POCKET SHALL INCLUDE FINAL ACTUAL ROOM NAMES AND NUMBERS IN ADDITION TO THE GENERAL DESCRIPTION SHOWN ON THE PANEL SCHEDULES ON THE DRAWINGS.

31. CONDUCTOR SIZING IS BASED ON 75 DEGREE C. COPPER NEC RATINGS, UNLESS NOTED OTHERWISE. THE CONTRACTOR SHALL VERIFY, PRIOR TO INSTALLATION OF CONDUCTORS OR CONDUIT FEEDING ANY EQUIPMENT, THE ELECTRICAL EQUIPMENT IS RATED FOR USE WITH 75 DEGREE C. WIRING. IF ANY EQUIPMENT IS RATED FOR USE WITH LESS THAN 75 DEGREE C. CONDUCTORS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER IMMEDIATELY FOR EVALUATION/CORRECTION.

32. DO NOT PULL CONDUCTORS UNTIL THE CONDUIT SYSTEM IS COMPLETE IN EVERY DETAIL. IN THE CASE OF CONCEALED WORK, "COMPLETE" MEANS UNTIL ALL ROUGH PLASTERING OR MASONRY HAS BEEN COMPLETED.

33. WHERE SIZE IS NOT SHOWN ON THE DRAWINGS, BRANCH CIRCUITS SHALL CONSIST OF #12 OR #10 AWG MINIMUM PHASE, NEUTRAL AND EQUIPMENT GROUND CONDUCTORS IN 1/2" MINIMUM RACEWAY.

34. USE #10 AWG CONDUCTORS FOR 20 AMPERE, 120 VOLT BRANCH CIRCUITS WITH A TOTAL INSTALLED LENGTH GREATER THAN 75 FEET AND/OR BRANCH CIRCUIT HOMERUNS LONGER THAN 50 FEET, I.E.; #12 AWG INCREASED TO #10 AWG FOR RECEPTACLE BRANCH CIRCUITS OVER 75 FEET TOTAL LENGTH (INCLUDING THE HOMERUN SEGMENT) AND HOMERUNS OVER 50 FEET.
35. ALTERNATE MULTIWIRE RECEPTACLE CIRCUITS SUCH THAT ADJACENT RECEPTACLES ARE ON DIFFERENT CIRCUITS

36. COMMON NEUTRAL CONDUCTORS OF MULTIWIRE RECEPTACLE BRANCH CIRCUIT HOMERUNS SHALL BE #10 AWG MINIMUM.

37. PROVIDE SEPARATE, INDIVIDUAL NEUTRAL CONDUCTORS FOR RECEPTACLE CIRCUITS MARKED FOR COMPUTER OR PRINTER USE. SEE LEGEND AND/OR DRAWINGS FOR DEFINITION.

38. KEEP CONDUCTOR SPLICES TO A MINIMUM. INSTALL SPLICES AND TAPES THAT POSSESS EQUIVALENT OR BETTER MECHANICAL STRENGTH AND INSULATION RATINGS THAN CONDUCTORS BEING SPLICED. USE SPLICE AND TAP CONNECTORS COMPATIBLE WITH CONDUCTOR MATERIAL. INSTALL CONDUCTORS AT EACH OUTLET WITH AT LEAST 6 INCHES OF SLACK. CONNECT OUTLETS AND COMPONENTS TO WIRING AND TO GROUND AS INDICATED AND INSTRUCTED BY THE MANUFACTURER.

39. DO NOT SPLICE BRANCH CIRCUIT HOMERUNS WITHOUT THE PERMISSION OF THE ARCHITECT/ENGINEER. HOMERUNS SHALL BE CONTINUOUS FROM THE LAST OUTLET BOX TO THE SERVING PANELBOARD.

40. DO NOT COMBINE BRANCH CIRCUIT HOMERUNS UNLESS SPECIFICALLY INDICATED ON THE DRAWINGS.

41. DO NOT CHANGE CIRCUITING SHOWN WITHOUT PERMISSION OF THE ARCHITECT/ENGINEER.

42. TROUGH TAPS SHALL BE AT SWITCH AMPACITY, UNLESS NOTED OTHERWISE.

43. INSTALL WIRING DEVICES AT HEIGHTS AS SHOWN ON THE DRAWINGS. ALSO COORDINATE MOUNTING HEIGHTS WITH THE ARCHITECTURAL DRAWINGS AND CASEWORK DETAILS. IF CONFLICTING, ARCHITECTURAL DRAWINGS AND DETAILS SHALL GOVERN.

44. PROVIDE GROUND FAULT CIRCUIT-INTERRUPTER PROTECTION FOR PERSONNEL IN ACCORDANCE WITH THE NEC INCLUDING ALL ELECTRIC WATER COOLERS, EXTERIOR RECEPTACLES AND RECEPTACLES IN AREAS SUBJECT TO POSSIBLE WET CONDITIONS. ALL RECEPTACLES INSTALLED WITHIN 6 FEET OF A SINK SHALL BE GFI PROTECTED. ALL RECEPTACLES IN NON-RESIDENTIAL KITCHENS SHALL BE GFI PROTECTED.

45. IN AREAS IN WHICH DUAL LEVEL SWITCHING IS INDICATED (TYPICALLY BY 2 OR MORE ADJACENT, GANGED SWITCHES), PROVIDE THE APPROPRIATE NUMBER OF CONDUCTORS TO FACILITATE THIS FUNCTION (AS TYPICALLY SHOWN).

46. CONNECT BATTERY PACK TYPE EMERGENCY AND EXIT LIGHTING TO THE UNSWITCHED LIGHTING CIRCUIT SERVING THE SPACE LIGHTED BY THE EMERGENCY AND EXIT FIXTURES. THESE CONNECTIONS ARE INTENTIONALLY NOT SHOWN TO MAINTAIN DRAWING FOR CLARITY.

47. COORDINATE LIGHTING FIXTURE LOCATIONS WITH THE ARCHITECTURAL REFLECTED CEILING PLAN. IF CONFLICTS ARE NOTED, REQUEST CLARIFICATION FROM THE ARCHITECT/ENGINEER BEFORE PROCEDING.

48. ADJACENT SWITCHES SHALL BE GANGED. INSTALL BARRIERS BETWEEN UNLIKE VOLTAGE SECTIONS.

49. SEPARATE NEUTRALS ARE REQUIRED FOR ALL DIMMED LIGHTING CIRCUITS.

50. WHERE THE DRAWINGS INDICATE A LIGHTING FIXTURE IS TO BE PROVIDED WITH SPECIAL FEATURES/SWITCHING (DIMMING, EMERGENCY BATTERY BALLAST, MULTI-LEVEL, ETC), THE CONTRACTOR SHALL PROVIDE THESE FIXTURES WITH THE APPROPRIATE BALLASTING TO ACCOMMODATE THE SPECIAL FEATURE. THE CONTRACTOR SHALL PROVIDE THE FIXTURES AS INDICATED IN THE LIGHTING FIXTURE SCHEDULE WITH MODIFICATIONS AS REQUIRED BY DRAWING NOTES.

51. COORDINATE LOCATIONS OF PLUMBING, MECHANICAL, FOOD SERVICE, DATA AND TELEPHONE AND AUDIO/VISUAL EQUIPMENT AND OF OWNER-PROVIDED EQUIPMENT WITH THE RESPECTIVE CONTRACTORS AND VENDORS AND THE OWNER BEFORE ROUGH-IN. ADJUST LIGHTING FIXTURES, RECEPTACLES AND ELECTRICAL EQUIPMENT TO ACCOMMODATE THIS EQUIPMENT. ADVISE THE ARCHITECT/ENGINEER OF CONFLICTS BEFORE ROUGH-IN

52. BEFORE COMMENCING WORK OR ORDERING MATERIALS, THE CONTRACTOR SHALL COORDINATE WITH OTHER TRADES AND VERIFY THE NAMEPLATE RATINGS OF ALL EQUIPMENT (MOTORS, HEATERS, COMPRESSORS, ETC.) AND ADJUST THE RATINGS OF THE ELECTRICAL EQUIPMENT (SWITCHES, FUSES, CIRCUIT BREAKERS, FEEDERS, ETC.) AS APPROPRIATE TO SERVE THIS EQUIPMENT.

53. ENERGIZE EQUIPMENT ONLY AFTER OBTAINING PERMISSION FROM THE CONTRACTOR PROVIDING THE EQUIPMENT.

54. UNLESS SPECIFICALLY NOTED OTHERWISE, THE ELECTRICAL CONTRACTOR SHALL MAKE FINAL CONNECTIONS TO ALL UTILIZATION EQUIPMENT SHOWN ON THE DRAWINGS. VERIFY THE TYPE OF FINAL CONNECTION AND PROVIDE APPROPRIATE WIRING METHOD. THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE MECHANICAL, PLUMBING AND GENERAL CONTRACTORS, PRIOR TO ORDERING OR INSTALLATION OF ANY EQUIPMENT, TO VERIFY MECHANICAL AND PLUMBING EQUIPMENT REQUIREMENTS ARE PROVIDED IN THE ELECTRICAL DESIGN. THE CONTRACTOR WILL NOT BE COMPENSATED FOR COSTS ASSOCIATED WITH CHANGING THE ELECTRICAL SYSTEMS TO MATCH UTILIZATION EQUIPMENT, EVEN IF THE ELECTRICAL WORK IS INSTALLED PER THE ELECTRICAL DRAWINGS.

55. THE MECHANICAL AND PLUMBING CONTRACTORS SHALL FURNISH ALL STARTERS AND CONTROLS FOR THEIR EQUIPMENT. THE ELECTRICAL CONTRACTOR SHALL MOUNT STARTERS FURNISHED BY THE MECHANICAL AND PLUMBING CONTRACTORS, THE ELECTRICAL CONTRACTOR PROVIDE ALL SAFETY SWITCHES, WIRING AND CONNECTIONS TO LINE SIDE AND LOAD SIDE OF STARTERS AND SAFETY SWITCHES COMPLETE TO MECHANICAL EQUIPMENT. FOR RESISTANCE TYPE LOADS WHERE STARTERS OR CONTACTORS ARE NOT REQUIRED, THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL POWER WIRING AND CONNECTIONS COMPLETE TO EQUIPMENT. THE MECHANICAL AND PLUMBING CONTRACTORS SHALL PROVIDE ALL CONTROL WIRING AND CONNECTIONS AND DEVICES FOR THEIR EQUIPMENT.
56. THE ELECTRICAL CONTRACTOR SHALL COORDINATE ALL EQUIPMENT TERMINATIONS, PLUGS AND CORDSETS WITH VENDOR EQUIPMENT AND VERIFY ALL DEVICE LOCATIONS FOR SPECIALITY EQUIPMENT WITH CASEWORK PRIOR TO ROUGH-IN.

57. THE LAYOUT AND PLACEMENT OF ELECTRICAL DISTRIBUTION EQUIPMENT IN ELECTRICAL AND MECHANICAL EQUIPMENT ROOMS IS BASED ON PUBLISHED EQUIPMENT SIZES AND SHALL BE FOLLOWED AS CLOSELY AS POSSIBLE. DEVIATIONS FROM CONFIGURATIONS SHOWN IS THE RESPONSIBILITY OF THE CONTRACTOR. PROVIDE NATIONAL ELECTRIC CODE REQUIRED CLEARANCES FOR ALL ELECTRICAL EQUIPMENT, PANELBOARDS, TRANSFORMERS, SAFETY SWITCHES, SWITCHBOARDS, ETC. COORDINATE RESOLUTION OF CONFLICTS WITH OTHER TRADES. ADVISE THE ARCHITECT/ENGINEER OF CONFLICTS BEFORE ROUGH-IN.

58. COORDINATION WITH THE UTILITY COMPANY FOR PLACEMENT OF THE UTILITY'S FACILITIES AND THE CONTRACTOR'S SERVICE ENTRANCE RACEWAYS AND CONNECTIONS TO THE CONTRACTOR'S SERVICE ENTRANCE CONDUCTORS IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.

59. TELECOMMUNICATIONS AND DATA CABLES WILL BE PROVIDED AND INSTALLED BY THE OWNER. LEAVE PULL WIRES OR ROPES OF ADEQUATE TENSILE STRENGTH IN ALL EMPTY CONDUITS.

60. PROVIDE TELEPHONE, CABLE TELEVISION, FIBER AND DATA SERVICE ENTRANCE CONDUIT IN SIZES AND LOCATIONS AS SHOWN ON THE DRAWINGS AND AS REQUIRED BY THE OWNER AND THE SERVICE UTILITIES. CABLE TELEVISION UTILITY SERVICE ENTRANCE CABLES WILL BE PROVIDED AND INSTALLED BY THE OWNER'S SERVICE UTILITIES. LEAVE PULL WIRES OR ROPES OF ADEQUATE TENSILE STRENGTH IN ALL EMPTY CONDUITS.

61. EXACT SPACING OF SMOKE AND HEAT DETECTORS AND A/V DEVICES SHALL BE FOLLOWED AS CLOSELY AS POSSIBLE WITH POSITIONS SHOWN ON THE DRAWINGS. DETECTOR SPACING IS BASED UPON NFPA 72 INCLUDING APPENDIX A. SLIGHT ADJUSTMENTS MAY BE MADE IN SPACING IF REQUIRED BY FIELD CONDITIONS, BUT SPACING SHALL NOT EXCEED ADA, NFPA AND EQUIPMENT MANUFACTURERS SPACING CRITERIA. DO NOT INSTALL SMOKE DETECTORS WITHIN 3 FEET OF SUPPLY AIR DIFFUSERS OR RETURN GRILLES. PROVIDE FLEX CONDUIT CONNECTION TO SMOKE AND HEAT DETECTORS OF ADEQUATE LENGTH TO ALLOW HORIZONTAL ADJUSTMENT OF FOUR FEET FROM POSITION INDICATED ON DRAWINGS.

62. SHOP DRAWINGS MUST BE SUBMITTED BY THE FIRE ALARM CONTRACTOR COMPLYING WITH THE FIRE ALARM PLAN REVIEW REQUIREMENTS POLICY - JANUARY 2006 BEFORE PERMITTING BY THE WILMINGTON FIRE DEPARTMENT. THESE DRAWINGS DO NOT CONSTITUTE APPROVAL AND MAY CHANGE AFTER A FULL REVIEW BY THE WILMINGTON FIRE DEPARTMENT. A SEPARATE PERMIT MUST BE OBTAINED PRIOR TO INSTALLATION.

63. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR FIRE ALARM WORK ON THIS PROJECT. THIS INCLUDES BUT NOT LIMITED TO DE-PROGRAMMING REMOVED DEVICES, PUTTING SYSTEM ON TEST, PROTECTING EXISTING DEVICES DURING CONSTRUCTION, ETC. EC SHALL INCLUDE IN BID THE COST FOR THE SCHOOL'S FIRE ALARM VENDOR TO PERFORM THIS WORK. THE CURRENT NHCS FIRE ALARM VENDOR IS KELLER'S INC. THE EC SHALL BE RESPONSIBLE FOR PAYING FOR ANY FALSE ALARMS CAUSED BY THE CONSTRUCTION FOR THIS PROJECT.

64. INSTALLATION INFORMATION PACKED WITH LIGHTING FIXTURES, DEVICES AND EQUIPMENT SHALL BE RETAINED FOR INCLUSION IN THE OPERATIONS AND MAINTENANCE MANUALS.

65. SAFETY: COMPLY WITH OSHA AND NEC ARC FLASH PROTECTION REQUIREMENTS.

66. ALL SWITCHES, RECEPTACLE AND LIGHTS SHALL COMPLY WITH ANSI 117.2 FOR ADA REQUIREMENTS.

67. FOOD SERVICE EQUIPMENT ELECTRICAL NOTES

    A. THE ELECTRICAL CONTRACTOR SHALL MAKE FINAL ELECTRICAL CONNECTIONS TO ALL FOOD SERVICE AND RELATED KITCHEN EQUIPMENT.

    B. THE CIRCLE SYMBOL WITH NUMBER IDENTIFIES FOOD SERVICE EQUIPMENT AS IT IS SHOWN ON THE FOOD SERVICE EQUIPMENT DRAWINGS. SEE FOOD SERVICE EQUIPMENT DRAWINGS FOR ADDITIONAL INFORMATION.

    C. SEE FOOD SERVICE EQUIPMENT DRAWINGS FOR EXACT EQUIPMENT LOCATIONS, DIMENSIONS, CONNECTION TYPE, POWER AND CIRCUIT REQUIREMENTS, CIRCUIT BREAKER SIZE, WIRING DEVICE TYPE, RATING AND CONFIGURATION AND ROUGH-IN LOCATIONS AND PROVIDE SUITABLE ELECTRICAL EQUIPMENT, DEVICES, CONNECTIONS, CIRCUITS AS REQUIRED BY THE FOOD SERVICE EQUIPMENT DRAWINGS.

    D. THE ELECTRICAL CONTRACTOR SHALL VERIFY ROUGH-IN REQUIREMENTS, LOCATIONS, MOUNTING HEIGHTS, ORIENTATION, VOLTAGE, PHASE, AMPS, HP, KW, ETC. FOR ALL FOOD SERVICE EQUIPMENT PRIOR TO ROUGH-IN.

    E. PROVIDE LOCAL DISCONNECTING MEANS FOR EQUIPMENT AS REQUIRED BY CODES AND THE AHJ.

    F. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL DISCONNECT SWITCHES, INTERLOCKS, CONDUIT, WIRING AND INSTALLATION AS SPECIFICALLY OUTLINED ON THE FOOD SERVICE EQUIPMENT DRAWINGS.

    G. FINAL CONNECTION TO HARD WIRED FOOD SERVICE EQUIPMENT SHALL BE MADE WITH LIQUIDTIGHT FLEXIBLE CONDUIT.

    H. COORDINATE ALL CONNECTIONS TO EQUIPMENT WITH THE FOOD SERVICE EQUIPMENT CONTRACTOR.

    I. ENERGIZE EQUIPMENT ONLY AFTER OBTAINING PERMISSION FROM THE CONTRACTOR PROVIDING THE EQUIPMENT.

    J. ALL CONVENIENCE OUTLETS IN THE KITCHEN SHALL BE INSTALLED HORIZONTALLY AND RATED 20 AMPS UNLESS NOTED OTHERWISE OR REQUIRED BY EQUIPMENT. ALL 125 VOLT RECEPTACLES MOUNTED IN THE KITCHEN SHALL BE GFCI TYPE. RECEPTACLES SHALL BE OF STANDARD NEMA CONFIGURATIONS.

    K. ALL RACEWAYS SHALL BE CONCEALED IN WALLS WHERE POSSIBLE, OTHERWISE, STUB UP THROUGH FLOOR AT EQUIPMENT APPROX. 6" ABOVE FLOOR TO CLEAR EQUIPMENT BASES.

    L. THE EXHAUST HOOD WILL BE FURNISHED PREWIRED BY THE FOOD SERVICE EQUIPMENT CONTRACTOR WITH LIGHT FIXTURES AND SWITCHES/CONTROLS FOR LIGHTS AND FANS. THE ELECTRICAL CONTRACTOR SHALL MAKE FINAL CONNECTIONS TO THE ELECTRICAL TERMINAL BOX PROVIDED WITH THE HOOD AND MAKE CONNECTIONS FROM THE TERMINAL BOX TO THE EXHAUST AND MAKE UP AIR FANS AS SHOWN.

    M. FURNISH SHUNT TRIP CIRCUIT BREAKERS FOR ELECTRICAL FOOD SERVICE EQUIPMENT INSTALLED UNDER THE EXHAUST HOOD. CONNECT TO DE-ENERGIZE THESE UNITS UPON ACTIVATION OF THE EXHAUST HOOD FIRE SUPPRESSION SYSTEM. COORDINATE CONNECTIONS WITH THE FOOD SERVICE EQUIPMENT CONTRACTOR.

    N. THE DISH MACHINE WILL BE FURNISHED BY THE FOOD SERVICE EQUIPMENT CONTRACTOR PREWIRED TO AN INTEGRAL CONTROL PANEL READY FOR FINAL CONNECTION BY THE ELECTRICAL CONTRACTOR.

    O. PROVIDE SEAL-OFF FITTINGS FOR ALL CONDUITS ENTERING OR LEAVING REFRIGERATED WALK-IN BOXES.

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 35230 JASON P. FAMIGLIETTI

Digitally signed by JasonP.Famiglietti Date: 2021.11.09 18:20:25-05'00'

The Wilmington Food Bank
Greenfield Street
Wilmington, North Carolina 28403

REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

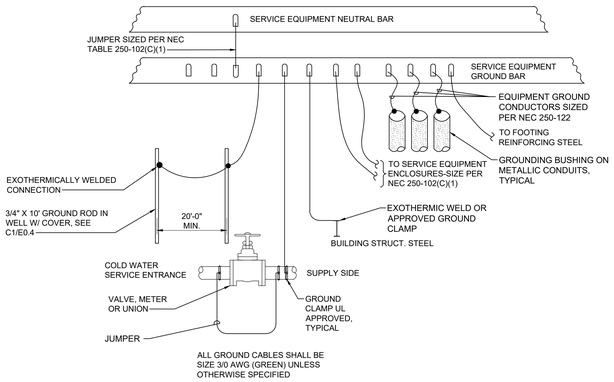
Project Manager	Drawn By WPJ
Date 11.09.2021	Reviewed By JPF
Project ID CBHF: 20187	

Sheet Title

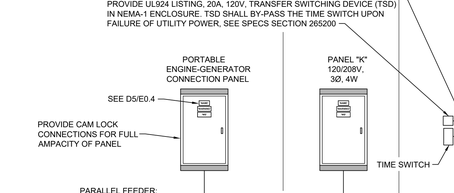
ELECTRICAL GENERAL NOTES

Sheet No.

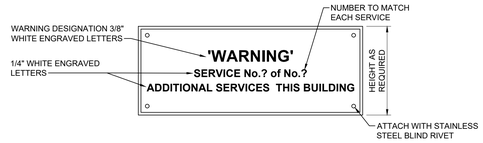
E0.3



B1 SERVICE GROUNDING DETAIL
NOT TO SCALE

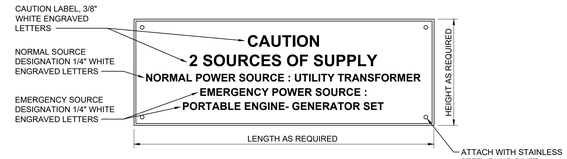


C1 GROUNDING INSPECTION WELL DETAIL
NOT TO SCALE



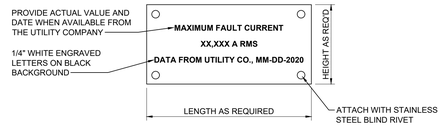
NOTE:
PROVIDE A WARNING SIGN AT EACH SERVICE ENTRANCE THAT INDICATES AN ADDITIONAL SERVICE AT INDICATED LOCATION. THE SIGNS SHALL BE 1/2" WIDER THAN TEXT WIDTH AND HEIGHT (RED FACE). LETTERS ARE TO BE WHITE WITH SIZES AS INDICATED. LABEL PER NEC 230.2(E)

A3 WARNING LABEL DETAIL (TYPICAL EACH SERVICE)
NOT TO SCALE

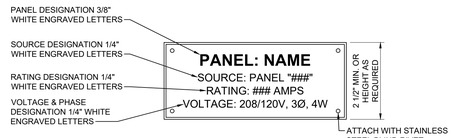


NOTE: SEE SPECS. SECTION 260553 FOR NAMEPLATE MATERIAL AND ENGRAVING COLORS.

A4 CAUTION NAMEPLATE DETAIL
NOT TO SCALE

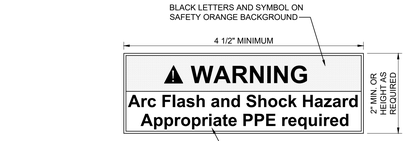


A5 FAULT CURRENT NAMEPLATE DETAIL
NOT TO SCALE



NOTE: SEE SPECS. SECTION 260553 FOR NAMEPLATE MATERIAL AND ENGRAVING COLORS.

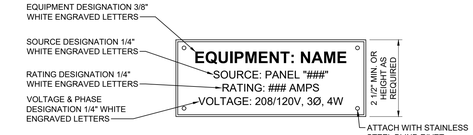
B2 TYPICAL PANELBOARD NAMEPLATE DETAIL
NOT TO SCALE



NOTES:
1. LABEL SHOWN CAN BE SOURCED FROM SAFETYSIGN.COM, OTHER SUPPLIERS ARE COMPLIANTSIGNS.COM & SETON.COM

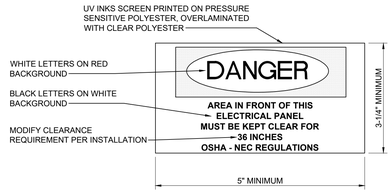
2. THIS WARNING LABEL MINIMALLY COMPLIES WITH NEC, HOWEVER IF ELECTRICAL EQUIPMENT IS LIKELY TO REQUIRE EXAMINATION OR MAINTENANCE WHILE ENERGIZED A DETAILED SHORT CIRCUIT AND ARC FLASH HAZARD ANALYSIS IS RECOMMENDED.

B4 ELECTRICAL EQUIPMENT WARNING LABEL DETAIL
NOT TO SCALE



NOTE: SEE SPECS. SECTION 260XXX FOR NAMEPLATE MATERIAL AND ENGRAVING COLORS.

B5 TYPICAL EQUIPMENT NAMEPLATE DETAIL
NOT TO SCALE



C5 NEC WORKING SPACE LABEL DETAIL
NOT TO SCALE

AVAILABLE FAULT CURRENT

AT PANEL MTS: 28,939 AMPS
AT PANEL MDP: 13,715 AMPS
AT PANEL MDPE SECT 1: 28,070 AMPS
AT PANEL MDPE SET 2: 28,070 AMPS
AT PANEL MDPE SECT 3: 28,070 AMPS
AT PANEL P1: 4,628 AMPS
AT PANEL P2: 5,951 AMPS
AT PANEL PE1: 7,853 AMPS
AT PANEL PE2: 5,542 AMPS
AT PANEL PE3: 4,774 AMPS
AT PANEL K: 10,027 AMPS
AT PORTABLE E-G CONNECTION PANEL: 17,929 AMPS

NOTE:
1. SHORT CIRCUIT CALCULATION COMPLETED ON 11/09/2021. BASED ON A 500 KVA PAD MOUNTED TRANSFORMER @ 2.8% IMPEDANCE, AND 4.8 X/R. WITH 143 FEET OF SERVICE ENTRANCE CONDUCTOR. VERIFY ACTUAL PARAMETERS WITH UTILITY COMPANY PRIOR TO INSTALLATION

2. SERVICE EQUIPMENT SHALL BE LEGIBLY MARKED WITH MAX. AVAILABLE FAULT CURRENT, INCLUDING THE DATE THE FAULT CURRENT CALCULATIONS WERE PERFORMED, PER NEC 110.24

PANEL "MTS" KIRK KEY OPERATION

PANELBOARD MTS - 1200A COPPER BUS, 3 PHASE, 4 WIRE, 120/208V WITH 100% COPPER NEUTRAL AND EQUIPMENT GROUND BUSES, NEMA-3R ENCLOSURE, 65,000 AIC PANELBOARD RATING AND 3 CIRCUIT BREAKERS:
CB#1: MAIN (UTILITY) CIRCUIT BREAKER, 1200A, 3 POLE, LSIG ELECTRONIC TRIP
CB#2: BRANCH (PORTABLE GENERATOR FEEDER) CIRCUIT BREAKER, 1200A, 3 POLE, LSI ELECTRONIC TRIP
CB#3: BRANCH (PANEL MDPE FEEDER) CIRCUIT BREAKER, 1200A, 3 POLE, THERMAL MAGNETIC TRIP

PANELBOARD WILL FUNCTION AS A MAIN SERVICE CIRCUIT BREAKER AND A MANUAL TRANSFER SWITCH TO POWER PANEL MDPE FROM THE PORTABLE GENERATOR VIA A REMOTE GENERATOR CONNECTION BOX WITH CAM LOCK CONNECTIONS.

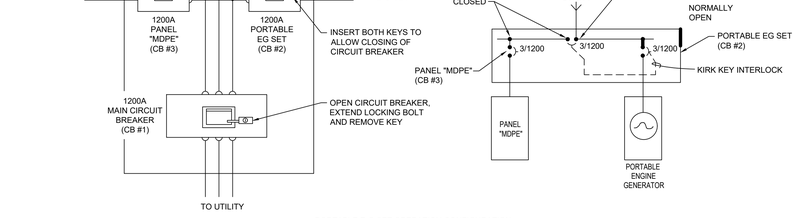
PROVIDE KIRK KEY MECHANICAL INTERLOCKS FOR CIRCUIT BREAKERS CB#1 AND CB#2.

KEY INTERLOCK SCHEME TO TRANSFER TO PORTABLE GENERATOR SOURCE POWER FOR PANEL MDPE:
1) OPEN CB#1 (UTILITY MCB), ROTATE KIRK KEY TO LOCK THE BREAKER HANDLE IN THE OPEN POSITION AND REMOVE KEY.
2) OPEN CB#3 (PANEL MDPE FEEDER) CIRCUIT BREAKER,
5) VERIFY THE PANEL BUS IS DE-ENERGIZED,
3) INSERT KEY IN CB#2 (PORTABLE GENERATOR FEEDER) KIRK KEY MECHANICAL INTERLOCK AND ROTATE TO ALLOW THE BREAKER TO BE CLOSED,
6) CLOSE CB#2,
7) CONNECT THE PORTABLE GENERATOR TO THE CONNECTION BOX, START THE PORTABLE GENERATOR AND ALLOW IT TO STABILIZE,
5) VERIFY THE PANEL BUS IS ENERGIZED AT THE PROPER VOLTAGE BETWEEN ALL PHASES AND PHASE TO NEUTRAL,
8) CLOSE CB#3 (PANEL MDPE FEEDER) CIRCUIT BREAKER,
9) PANEL MDPE IS NOW ENERGIZED BY THE PORTABLE GENERATOR AND PANEL MDP IS DE-ENERGIZED.

RETURN TO UTILITY POWER SEQUENCE:
1) OPEN CB#3 (PANEL MDPE FEEDER) CIRCUIT BREAKER,
2) OPEN CB#2 (PORTABLE GENERATOR FEEDER) AND INSERT KEY INTO THE KIRK KEY MECHANICAL INTERLOCK AND LOCK THE BREAKER HANDLE IN THE OPEN POSITION,
3) VERIFY THE PANEL BUS IS DE-ENERGIZED,
4) REMOVE THE KEY FROM CB#2 (PORTABLE GENERATOR FEEDER) MECHANICAL INTERLOCK AND INSERT THE KEY IN CB#1 (UTILITY MCB) MECHANICAL INTERLOCK AND ROTATE THE KEY TO ALLOW THE BREAKER TO BE CLOSED,
5) CLOSE CB#1,
6) PANELS MDP AND MDPE ARE NOW ENERGIZED BY THE UTILITY.
7) SHUT DOWN THE PORTABLE GENERATOR FOLLOWING THE RECOMMENDED COOL DOWN TIME.

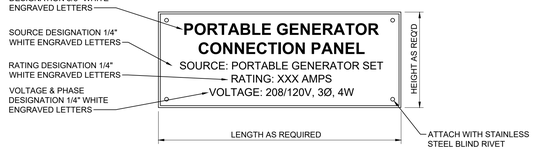
ONLY QUALIFIED PERSONNEL SHOULD PERFORM OPERATIONS. FOLLOW NFPA 70E GUIDELINES AND WEAR PROPER PPE DURING ALL CIRCUIT BREAKER OPERATIONS.

PROVIDE A PERMANENT PLACARD STATING THE ABOVE OPERATING INSTRUCTIONS AND CAUTIONS, BOTH ADDING THE PORTABLE GENERATOR SOURCE AND RETURNING TO UTILITY SOURCE POWER.



PORTABLE E-G SET OPERATION CONFIGURATION

D3 PANEL "MTS" KIRK KEY DETAIL
NOT TO SCALE



NOTE: SEE SPECS. SECTION 260553 FOR NAMEPLATE MATERIAL AND ENGRAVING COLORS

D5 PORTABLE GENERATOR CONNECTION PANEL NAMEPLATE DETAIL
NOT TO SCALE

(1) PARALLEL FEEDER: 12#500 IN 3 - 3" CND
(2) 4#500 - 3" CND.

E3 POWER RISER DIAGRAM
NOT TO SCALE

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NC# P-0506

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 35230 JOSEPH P. FAMIGLIETTI

The Wilmington Food Bank
Greenfield Street
Wilmington, North Carolina 28403

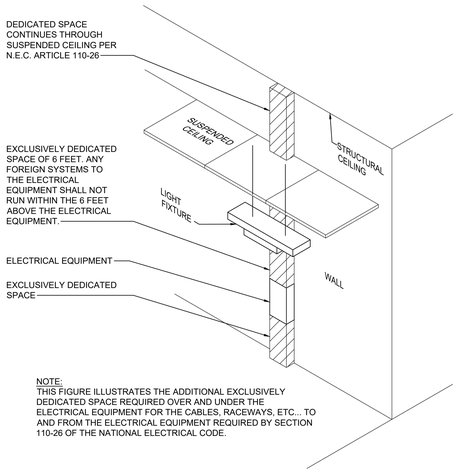
REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

Project Manager	Drawn By WPJ
Date 11.09.2021	Reviewed By JPF
Project ID	CBHF: 20187

Sheet Title
ELECTRICAL POWER RISER DIAGRAM AND DETAILS

Sheet No.
E0.4



B1 **DEDICATED SPACE FOR ELECTRICAL**
NOT TO SCALE

TABLE 110.26(A)(1) - WORKING SPACES

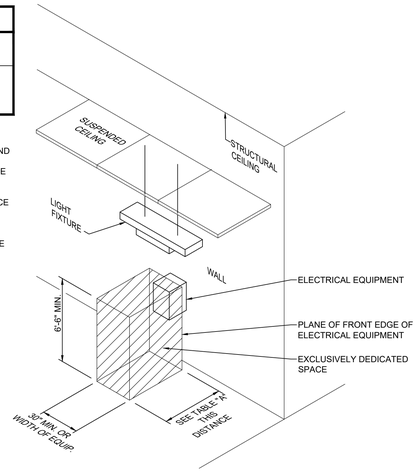
NOMINAL VOLTAGE TO GROUND	MINIMUM CLEAR DISTANCE (FEET)		
	CONDITION 1	CONDITION 2	CONDITION 3
0 - 150	900mm (3 ft)	900mm (3 ft)	900mm (3 ft)
151 - 600	900mm (3 ft)	1.0m (3 ft 6 in.)	1.2 m (4 ft.)
151 - 600	900mm (3 ft)	1.2 m (4 ft.)	1.5 m (5 ft.)

NOTE: WHERE THE "CONDITIONS" ARE AS FOLLOWS:

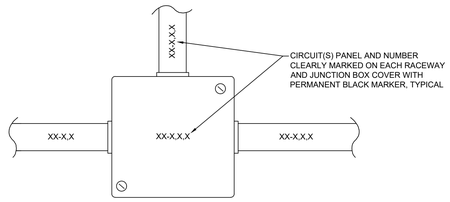
CONDITION 1 - EXPOSED LIVE PARTS ON ONE SIDE OF WORKING SPACE AND NO LIVE OR GROUNDED PARTS ON THE OTHER SIDE OF THE WORKING SPACE, OR EXPOSED LIVE PARTS ON BOTH SIDES OF THE WORKING SPACE THAT ARE EFFECTIVELY GUARDED BY INSULATING MATERIALS.

CONDITION 2 - EXPOSED LIVE PARTS ON ONE SIDE OF THE WORKING SPACE AND GROUNDED PARTS ON THE OTHER SIDE OF WORKING SPACE. CONCRETE BRICK, OR TILE WALLS SHALL BE CONSIDERED GROUNDED.

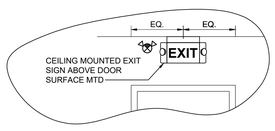
CONDITION 3 - EXPOSED LIVE PARTS ON BOTH SIDES OF THE WORK SPACE

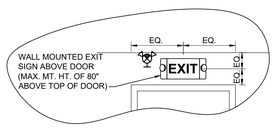


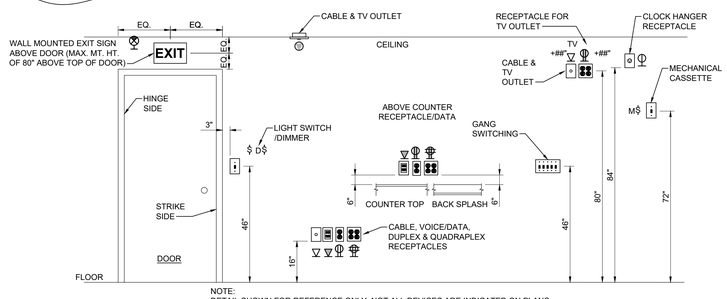
B3 **WORKING CLEARANCE FOR ELECTRICAL**
NOT TO SCALE



C3 **CIRCUIT IDENTIFICATION DETAIL**
NOT TO SCALE

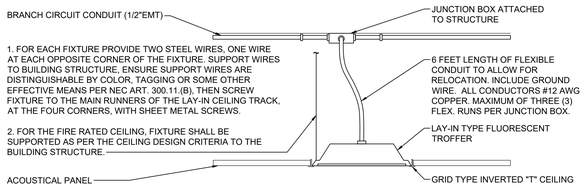




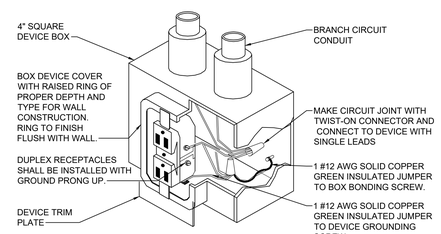


NOTE:
DETAIL SHOWN FOR REFERENCE ONLY. NOT ALL DEVICES ARE INDICATED ON PLANS.

E1 **ELECTRICAL DEVICES - MOUNTING HEIGHT DETAIL**
NOT TO SCALE



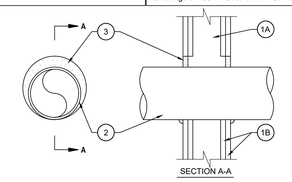
D3 **LIGHTING FIXTURE MOUNTING DETAIL**
NOT TO SCALE



E3 **RECEPTACLE GROUNDING DETAIL**
NOT TO SCALE

System No. W-L-1054
January 21, 2020

ANSI / UL1479 (ASTM E814)	CAN / ULC S115
F Ratings - 1 and 2 Hr (See Items 1 & 3)	F Ratings - 1 and 2 Hr (See Items 1 & 3)
T Ratings - 0 Hr	FT Ratings - 0 Hr
L Ratings at Ambient - Less Than 1 CFM / sq ft	FH Ratings - 1and 2 HR (See Items 1 and 3)
L Ratings at 400 F - Less Than 1 CFM / sq ft	FTH Ratings - 0 Hr
	FTH Ratings - 0 Hr L Rating at Ambient - Less Than 1 CFM / sq ft
	L Ratings at 400 F - Less Than 1 CFM / sq ft



SECTION A-A

1. WALL ASSEMBLY — THE 1 OR 2 HR FIRE-RATED GYPSUM WALLBOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES WALL AND 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 OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2 BY 4 IN. (51 BY 102 MM) LUMBER SPACED 16 IN. (406 MM) OC. STEEL STUDS TO BE MIN 2-1/2 IN. (64 MM) WIDE AND SPACED MAX 24 IN. (610 MM) OC. FOR M RATING, STEEL STUDS TO BE MIN 3-5/8 IN. (92 MM) WIDE WHEN STEEL STUDS ARE USED AND THE DIAM OF OPENING EXCEEDS THE WIDTH OF STUD CAVITY, THE OPENING SHALL BE FRAMED ON ALL SIDES USING LENGTHS OF STEEL STUD INSTALLED BETWEEN THE VERTICAL STUDS AND SCREW-ATTACHED TO THE STEEL STUDS AT EACH END. THE FRAMED OPENING IN THE WALL SHALL BE 4 TO 6 IN. (102 TO 152 MM) WIDER AND 4 TO 6 IN. (102 TO 152 MM) HIGHER THAN THE DIAM OF THE PENETRATING ITEM SUCH THAT, WHEN THE PENETRATING ITEM IS INSTALLED IN THE OPENING, A 2 TO 3 IN. (51 TO 76 MM) CLEARANCE IS PRESENT BETWEEN THE PENETRATING ITEM AND THE FRAMING ON ALL FOUR SIDES.
   B. GYPSUM BOARD* — 5/8 IN. (16 MM) THICK, 4 FT (122 CM) WIDE WITH SQUARE OR TAPERED EDGES. THE GYPSUM BOARD 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 32-1/4 IN. (819 MM) FOR STEEL STUD WALLS. MAX DIAM OF OPENING IS 14-1/2 IN. (368 MM) FOR WOOD STUD WALLS. THE F AND FH RATINGS OF THE FIRESTOP SYSTEM ARE EQUAL TO THE FIRE RATING OF THE WALL ASSEMBLY. THE M RATING IS APPLICABLE ONLY TO 1 HR RATED WALLS.
2. THROUGH-PENETRANTS — ONE METALLIC PIPE, CONDUIT OR TUBING TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. THE ANNULAR SPACE SHALL BE MIN 0 IN. TO MAX 2-1/4 IN. (57 MM). PIPE MAY BE INSTALLED WITH CONTINUOUS POINT CONTACT. 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 30 IN. (762 MM) DIAM (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE.
   B. IRON PIPE — NOM 30 IN. (762 MM) DIAM (OR SMALLER) CAST OR DUCTILE IRON PIPE.
   C. CONDUIT — NOM 4 IN. (102 MM) DIAM (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING OR 6 IN. (152 MM) . DIAM STEEL CONDUIT.
   D. COPPER TUBING — NOM 6 IN. (152 MM) DIAM (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING.
   E. COPPER PIPE — NOM 6 IN. (152 MM) DIAM (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.
3. FILL, VOID OR CAVITY MATERIAL* — SEALANT — MIN 5/8 IN. (16 MM) THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH WITH BOTH SURFACES OF WALL. AT THE POINT OR CONTINUOUS CONTACT LOCATIONS BETWEEN PIPE AND WALL, A MIN 1/2 IN. (13 MM) DIAM BEAD OF FILL MATERIAL SHALL BE APPLIED AT THE PIPE WALL INTERFACE ON BOTH SURFACES OF WALL.

Movement Direction	Penetrant Item	Nominal Penetrant Diameter	Annular Space	Movement	Sealant Depth	F-Rating	L Rating with Movement
Y	2A, 2C*	2 in.	Max 2-1/4 in.	5%	5/8 in.	1 hr	N/A
Z	2A, 2C*	2 in.	2-1/4 in.	0.25 in.	5/8 in.	1 hr	N/A

* INDICATES SUCH PRODUCTS SHALL BEAR THE UL OR CUL CERTIFICATION MARK FOR JURISDICTIONS EMPLOYING THE UL OR CUL CERTIFICATION

E5 **1 AND 2 HOUR FIREWALL PENETRATION DETAIL**
NOT TO SCALE

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 35230 FAMIGLIETTI
Digitally signed by Joseph Famiglietti
Date: 2021.11.09 16:14:59 -05'00'

The Wilmington Food Bank
Greenfield Street
Wilmington, North Carolina 28403

REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

Project Manager	Drawn By: WPJ
Date: 11.09.2021	Reviewed By: JPF
Project ID: CBHF: 20187	

Sheet Title
ELECTRICAL DETAILS

Sheet No.
E0.5

PANEL MTS

SERVICE EQUIPMENT LISTED

TYPE: NEMA 1 | 208 V, | 3 PH, | 4 WIRE | PROVIDE IF | XX | EQUIP. GND BUS
BOLT-ON | MOUNT: WALL | CHECKED: | XX | NEUTRAL BUS
DOOR-IN-DOOR, HINGED FRONT COVER | FEED: BOTTOM | | | GUTTER TAPS
SUB-FEED LUGS

LOAD SERVED	LOAD VA	CKT BKR	CKT #	LOAD VA A	LOAD VA B	LOAD VA C	CKT #	CKT BKR	LOAD VA	LOAD SERVED
PANEL "MDPE"		3/1200	1				2	3/1200		PORTABLE E-G SET
							TOTAL V. AMPS		1,200	A. BUS (COPPER)
NOTE:							CONN. AMPS		1,200	A. MAIN CIRCUIT BREAKER

**ARC ENERGY REDUCTION REQUIRED AT ALL BREAKERS 1200AMPS OR MORE.

65 KAIC MIN.

PANEL MDP

SERVICE EQUIPMENT LISTED

TYPE: NEMA 1 | 208 V, | 3 PH, | 4 WIRE | PROVIDE IF | XX | EQUIP. GND BUS
BOLT-ON | MOUNT: WALL | CHECKED: | XX | NEUTRAL BUS
| FEED: BOTTOM | | | GUTTER TAPS
SUB-FEED LUGS

LOAD SERVED	LOAD VA	CKT BKR	CKT #	LOAD VA A	LOAD VA B	LOAD VA C	CKT #	CKT BKR	LOAD VA	LOAD SERVED
	3,242			6,484					3,242	
LIFT TRUCK CHARGER	3,242	3/35	1		6,484		2	3/35	3,242	LIFT TRUCK CHARGER
	3,242					6,484			3,242	
	3,242			6,484					3,242	
LIFT TRUCK CHARGER	3,242	3/35	3		6,484		4	3/35	3,242	LIFT TRUCK CHARGER
	3,242					6,484			3,242	
SPARE		3/30	5				6	3/20		SPARE
				2,882					2,882	
SPARE		3/30	7		2,882		8	3/35	2,882	RTU01
						2,882			2,882	
	2,306			4,612					2,306	
RTU04	2,306	3/30	9		4,612		10	3/30	2,306	RTU05
	2,306					4,612			2,306	
	2,882			5,764					2,882	
RTU03	2,882	3/40	11		5,764		12	3/40	2,882	RTU02
	2,882					5,764			2,882	
	6,921			16,330					9,409	
PANEL "P1"	8,795	3/150	13		19,313		14	3/150	10,518	PANEL "P2"
	7,018					13,612			6,594	
SPACE		3/100	15				16	3/100		SPACE
NOTE:				42,556	45,539	39,839	TOTAL V. AMPS		400	A. BUS (COPPER)
				355	379	332	CONN. AMPS		400	A. MAIN CIRCUIT BREAKER

42 KAIC MIN.

PANEL MDPE1 - SECT 1

TYPE: NEMA 1 | 208 V, | 3 PH, | 4 WIRE | PROVIDE IF | XX | EQUIP. GND BUS
BOLT-ON | MOUNT: SURFACE | CHECKED: | XX | NEUTRAL BUS
DOOR-IN-DOOR, HINGED FRONT COVER | FEED: TOP | | | GUTTER TAPS
| | | XX | SUB-FEED LUGS

LOAD SERVED	LOAD VA	CKT BKR	CKT #	LOAD VA A	LOAD VA B	LOAD VA C	CKT #	CKT BKR	LOAD VA	LOAD SERVED
WALK-IN COOLER #1 EVAP. UNIT	408	2/20	1	815			2	2/20	408	WALK-IN COOLER #2 EVAP. UNIT
	408		3		815		4		408	
WALK-IN COOLER #1 EVAP. UNIT	408	2/20	5			815	6	2/20	408	WALK-IN COOLER #2 EVAP. UNIT
	408		7	815			8		408	
WALK-IN FREEZER EVAP. UNIT	3,236	2/50	9		3,413		10	2/20	177	WALK-IN COOLER #1 MOTORIZED DOOR
	3,236		11			3,413	12		177	
WALK-IN FREEZER EVAP. UNIT	3,236	2/50	13	3,413			14	2/20	177	WALK-IN COOLER #2 MOTORIZED DOOR
	3,236		15		3,413		16		177	
WALK-IN FREEZER EVAP. UNIT	3,236	2/50	17			3,413	18	2/20	177	WALK-IN COOLER #2 MOTORIZED DOOR
	3,236		19	3,413			20		177	
SPARE		2/30	21		177		22	2/20	177	WALK-IN FREEZER MOTORIZED DOOR
			23			177	24			
PANEL "PE3"		3/100	25	2,496			26	2/30	2,496	WALK-IN FREEZER MOTOR.DOOR HTR.
			27		2,496		28		2,496	
	8,696		29			17,631	30		8,935	
PANEL "PE2"	12,390	3/150	31	19,753			32	3/150	7,363	PANEL "PE1"
	8,294		33		16,344		34		8,050	
			35			31,458	36		31,458	
SPACE		3/400	37	26,690			38	3/400	26,690	PANEL "K"
			39		29,719		40		29,719	
NOTES:				57,397	56,378	56,909	TOTAL V. AMPS		1,200	A. BUS (COPPER)
				478	470	474	CONN. AMPS		1,200	A. MAIN LUGS

65 KAIC MIN.

PANEL MDPE2 - SECT 2

TYPE: NEMA 1 | 208 V, | 3 PH, | 4 WIRE | PROVIDE IF | XX | EQUIP. GND BUS
BOLT-ON | MOUNT: SURFACE | CHECKED: | XX | NEUTRAL BUS
DOOR-IN-DOOR, HINGED FRONT COVER | FEED: TOP | | | GUTTER TAPS
| | | XX | SUB-FEED LUGS

LOAD SERVED	LOAD VA	CKT BKR	CKT #	LOAD VA A	LOAD VA B	LOAD VA C	CKT #	CKT BKR	LOAD VA	LOAD SERVED
	3,302		1			4,647	2		1,345	
TRASH COMPACTOR	3,302	3/35	3	4,647			4	3/20	1,345	PV08
	3,302		5		4,647		6		1,345	
	3,242		7			4,587	8		1,345	
LIFT TRUCK CHARGER	3,242	3/35	9	4,587			10	3/20	1,345	PV09
	3,242		11		4,587		12		1,345	
	3,242		13			4,587	14		1,345	
LIFT TRUCK CHARGER	3,242	3/35	15	4,587			16	3/20	1,345	PV10
	3,242		17		4,587		18		1,345	
	4,035		19			5,152	20		1,117	
RTU06	4,035	3/50	21	5,152			22	3/20	1,117	KEF-1
	4,035		23		5,152		24		1,117	
	3,363		25			4,479	26		1,117	
RTU07	3,363	3/50	27	4,479			28	3/20	1,117	KEF-2
	3,363		29		4,479		30		1,117	
	4,035		31			5,152	32		1,117	
RTU08	4,035	3/50	33	5,152			34	3/20	1,117	KEF-3
	4,035		35		5,152		36		1,117	
			37			7,794	38		7,794	
SPARE		3/80	39	7,794			40	3/80	7,794	KMUA1
			41		7,794		42		7,794	
NOTES:				38,062	38,062	37,230	TOTAL V. AMPS		1,200	A. BUS (COPPER)
				317	317	310	CONN. AMPS		1,200	A. MAIN LUGS

65 KAIC MIN.

PANEL MDPE3 - SECT 3

TYPE: NEMA 1 | 208 V, | 3 PH, | 4 WIRE | PROVIDE IF | XX | EQUIP. GND BUS
BOLT-ON | MOUNT: SURFACE | CHECKED: | XX | NEUTRAL BUS
DOOR-IN-DOOR, HINGED FRONT COVER | FEED: TOP | | | GUTTER TAPS
SUB-FEED LUGS

LOAD SERVED	LOAD VA	CKT BKR	CKT #	LOAD VA A	LOAD VA B	LOAD VA C	CKT #	CKT BKR	LOAD VA	LOAD SERVED
	2,027		1	4,496			2		2,469	
COOLER 1 COND. UNIT	2,027	3/35	3		4,496		4	3/40	2,469	FREEZER 1 COND. UNIT
	2,027		5			4,496	6		2,469	
	2,027		7	4,496			8		2,469	
COOLER 1 COND. UNIT	2,027	3/35	9		4,496		10	3/40	2,469	FREEZER 1 COND. UNIT
	2,027		11			4,496	12		2,469	
	2,027		13	4,496			14		2,469	
COOLER 2 COND. UNIT	2,027	3/35	15		4,496		16	3/40	2,469	FREEZER 1 COND. UNIT
	2,027		17			4,496	18		2,469	
	2,027		19	2,027			20			
COOLER 2 COND. UNIT	2,027	3/35	21		2,027		22	3/		SPACE
	2,027		23			2,027	24			
			25				26			
SPACE		3/	27				28	3/		SPACE
			29				30			
			31				32			
SPACE		3/	33				34	3/		SPACE
			35				36			
			37				38			
SPACE		3/	39				40	3/		SPACE
			41				42			
NOTES:				15,516	15,516	15,516	TOTAL V. AMPS		1,200	A. BUS (COPPER)
				129	129	129	CONN. AMPS		1,200	A. MAIN LUGS

65 KAIC MIN.

PANEL P1

TYPE: NEMA 1 | 208 V, | 3 PH, | 4 WIRE | PROVIDE IF | XX | EQUIP. GND BUS
BOLT-ON | MOUNT: SURFACE | CHECKED: | XX | NEUTRAL BUS
DOOR-IN-DOOR, HINGED FRONT COVER | FEED: TOP | | | GUTTER TAPS
SUB-FEED LUGS

LOAD SERVED	LOAD VA	CKT BKR	CKT #	LOAD VA A	LOAD VA B	LOAD VA C	CKT #	CKT BKR	LOAD VA	LOAD SERVED
RECEPTACLES 140	1,080	1/20	1	2,080			2	1/20	1,000	REFRIGERATOR 128
SPARE		1/20	3		1,500		4	1/20	1,500	MICROWAVE 128
SPARE		1/20	5			1,000	6	1/20	1,000	RECEPTACLE 128
SPARE		1/20	7	1,000			8	1/20	1,000	VENDING MACHINE 128
SPARE		1/20	9		1,000		10	1/20	1,000	VENDING MACHINE 128
SPARE		1/20	11			1,000	12	1/20	1,000	VENDING 135
SPARE		1/20	13	1,000			14	1/20	1,000	VENDING 135
SPARE		1/20	15		1,000		16	1/20	1,000	VENDING 135
SPARE		1/20	17			900	18	1/20	900	RECEPTACLES ON ROOF
SPARE		1/20	19	1,260			20	1/20	1,260	RECEPTACLES ON ROOF
SPARE		1/20	21		1,260		22	1/20	1,260	EXTERIOR RECEPTACLES
SPARE		1/20	23				24	1/20		SPARE
SPARE		1/20	25				26	1/20		SPARE
DHP02	832	2/15	27		832		28	1/20		SPARE
	832		29			832	30	1/20		SPARE
DHP03	749	2/15	31	749			32	1/20		SPARE
	749		33		749		34	1/20		SPARE
DHP04	832	2/15	35			832	36	1/20		SPARE
	832		37	832			38	1/20		SPARE
DHP01	2,454	2/40	39		2,454		40	2/40		SPARE
	2,454		41			2,454	42			SPARE
NOTES:				6,921	8,795	7,018	TOTAL V. AMPS		100	A. BUS (COPPER)
				58	73	59	CONN. AMPS		100	A. MAIN LUGS

10 KAIC MIN.

PANEL P2

TYPE: NEMA 1 | 208 V, | 3 PH, | 4 WIRE | PROVIDE IF | XX | EQUIP. GND BUS
BOLT-ON | MOUNT: SURFACE | CHECKED: | XX | NEUTRAL BUS
DOOR-IN-DOOR, HINGED FRONT COVER | FEED: TOP | | | GUTTER TAPS
SUB-FEED LUGS

LOAD SERVED	LOAD VA	CKT BKR	CKT #	LOAD VA A	LOAD VA B	LOAD VA C	CKT #	CKT BKR	LOAD VA	LOAD SERVED
LIGHTING 101,102,104-108, 110-113	983	1/20	1	2,063			2	1/20	1,080	RECEPTACLES 112,113
LIGHTING 103	978	1/20	3		1,978		4	1/20	1,000	RECEPTACLE 110
LIGHTING 123,125,126,128,131-134,143,145	794	1/20	5			1,794	6	1/20	1,000	RECEPTACLE 110
EXTERIOR LIGHTING THRU TS	386	1/20	7	1,386			8	1/20	1,000	RECEPTACLE 110
EXTER. BUILDING SIGNAGE THRU TS	1,800	1/20	9		2,880		10	1/20	1,080	RECEPTACLES 108,111
RECEPTACLES 101,102109,125	1,260	1/20	11			2,340	12	1/20	1,080	RECEPTACLES 106,107
RECEPTACLES 103	720	1/20	13	2,340			14	1/20	1,620	RECEPTACLES 104,105
RECEPTACLES 103	540	1/20	15		1,080		16	1/20	540	RECEPTACLES 109,114
FIRE ALARM CONTROL UNIT (NOTE 1)	200	1/20	17			700	18	1/20	500	MOTORIZED PROJECTION SCREEN 115
RECEPTACLES 135	1,080	1/20	19	1,280			20	1/20	200	PROJECTOR 115
SPARE		1/20	21		500		22	1/20	500	MOTORIZED PROJ. PLATFORM 115
SPARE		1/20	23			360	24	1/20	360	RECEPTACLES 117,118
SPARE		1/20	25	1,620			26	1/20	1,620	RECEPTACLES 143,144,145
SPARE		1/20	27		1,920		28	1/20	1,920	IRRIGATION CONTROLLER AND PUMP
SPARE		1/20	29			500	30	1/20	500	EWC 135 (NOTE 2)
SPARE		1/20	31	360			32	1/20	360	RECEPTACLES 134
SPARE		1/20	33		540		34	1/20	540	RECEPTCLES 135
SPARE		1/20	35			540	36	1/20	540	RECEPTACLES 128
SPARE		1/20	37	360			38	1/20	360	RECEPTACLES 138,139
SPARE		1/20	39		1,620		40	1/20	1,620	RECEPTACLES 131,132,137
SPARE		1/20	41			360	42	1/20	360	RECEPTACLES 123,129
NOTES:				9,409	10,518	6,594	TOTAL V. AMPS		225	A. BUS (COPPER)
				78	88	55	CONN. AMPS		150	A. MAIN LUGS

1 PROVIDE CIRCUIT BREAKER LOCKING DEVICE FOR FACU ALONG WITH IDENTIFYING CIRCUIT BREAKER IN ACCORDANCE WITH NEC 760.41
2 GFI CIRCUIT BREAKER

22 KAIC MIN.

PANEL K

TYPE: NEMA 4X | 208 V, | 3 PH, | 4 WIRE | PROVIDE IF | XX | EQUIP. GND BUS
BOLT-ON | MOUNT: FLUSH | CHECKED: | XX | NEUTRAL BUS
DOOR-IN-DOOR, HINGED FRONT COVER | FEED: TOP | | | GUTTER TAPS
SUB-FEED LUGS

LOAD SERVED	LOAD VA	CKT BKR	CKT #	LOAD VA A	LOAD VA B	LOAD VA C	CKT #	CKT BKR	LOAD VA	LOAD SERVED
INSUL. HOT HOLD CAB. (17) - NOTE 3	1,560	1/20	1	3,360			2	1/20	1,800	36" RANGE (1) - NOTE 1
INSUL. HOT HOLD CAB. (17) - NOTE 3	1,560	1/20	3		1,560		4			SPACE FOR SHUNT TRIP FEATURE
INSUL. HOT HOLD CAB. (17) - NOTE 3	1,560	1/20	5			3,360	6	1/20	1,800	36" RANGE (1) - NOTE 1
TRAY SEALING SYSTEM (21) - NOTE 3	720	1/20	7	720			8			SPACE FOR SHUNT TRIP FEATURE
TRAY SEALING SYSTEM (21) - NOTE 3	720	1/20	9		1,440		10	1/20	720	DOUBLE GAS OVEN (4) - NOTE 1
2 DOOR FREEZER (22) - NOTE 3	1,320	1/20	11			1,320	12			SPACE FOR SHUNT TRIP FEATURE
2 DOOR REFRIGERATOR (23) - NOTE 3	648	1/20	13	2,448			14	1/20	1,800	CONVECTION OVEN (5) - NOTE 1
GAS SHUTOFF VALVE	200	1/20	15		200		16			SPACE FOR SHUNT TRIP FEATURE
HOOD TEMP. SENSORS	200	1/20	17			1,400	18	1/20	1,200	TILTING STEAM KETTLE (6) - NOTE 1
HOOD CONTROLS/LIGHTS	1,800	1/15	19	1,800			20			SPACE FOR SHUNT TRIP FEATURE
HOOD EXTINGUISHING SYSTEM	200	1/20	21		800		22	1/20	600	TILTING SKILLET (8) - NOTE 1
SPARE		1/20	23				24			SPACE FOR SHUNT TRIP FEATURE
SPARE		1/20	25	100			26	1/20	100	WALK-IN COOLER DOOR HEATER/LTS
SPARE		1/20	27		200		28	1/20	200	WALK-IN FREEZER DOOR HEATER/LTS
SPARE		1/20	29			192	30	1/20	192	WALK-IN COOLER EVAP UNIT (20)
SPARE		1/15	31	540			32	1/20	540	RECEPTACLES 120
SPARE		1/20	33				34	1/20		SPARE
SPARE		1/20	35				36	1/20		SPARE
QUICKTHERM OVEN (18) - NOTE 3	5,200	2/50	37	6,323			38	2/20	1,123	WALK-IN FREEZER EVAP. UNIT (20)
	5,200		39		6,323		40		1,123	
QUICKTHERM OVEN (18) - NOTE 3	5,200	2/50	41			7,280	42	2/30	2,080	WALK-IN COOLER COND. UNIT(19)
	5,200		43	7,280			44		2,080	
QUICKTHERM OVEN (18) - NOTE 3	5,200	2/50	45		7,280		46	2/30	2,080	WALK-IN FREEZER COND. UNIT (20)
	5,200		47			7,280	48		2,080	
			49	8,887			50		8,887	
SPACE		3/100	51		8,887		52	3/100	8,887	CONVEYOR RACK MACHINE (9)
			53			8,887	54		8,887	NOTE 3
NOTES:				31,458	26,690	29,719	TOTAL V. AMPS		400	A. BUS (COPPER)
				262	222	248	CONN. AMPS		350	A. MAIN LUGS

1 PROVIDE SHUNT TRIP CIRCUIT BREAKER.
2. HVAC AND REFRIG. EQUIPMENT SHALL USE HACR BREAKERS.
3. GFI CIRCUIT BREAKER.
4. CONFIRM CIRCUIT BREAKER REQUIREMENTS WITH EQUIPMENT VENDOR

22 KAIC MIN.

PANEL PE1

TYPE: NEMA 1 | 208 V, | 3 PH, | 4 WIRE | PROVIDE IF | XX | EQUIP. GND BUS
BOLT-ON | MOUNT: SURFACE | CHECKED: | XX | NEUTRAL BUS
DOOR-IN-DOOR, HINGED FRONT COVER | FEED: BOTTOM | | | GUTTER TAPS
SUB-FEED LUGS

LOAD SERVED	LOAD VA	CKT BKR	CKT #	LOAD VA A	LOAD VA B	LOAD VA C	CKT #	CKT BKR	LOAD VA	LOAD SERVED
LIGHTING 135,136	1,260	1/20	1	2,160			2	1/20	900	RECEPTACLES 115
LIGHTING 109,114,123,127,129,138,139	1,286	1/20	3		2,366		4	1/20	1,080	RECEPTACLES 115
LIGHTING 120,121,122	1,693	1/20	5			2,413	6	1/20	720	FLOORBOXES 115
LIGHTING 115, 117,118,119	1,151	1/20	7	2,151			8	1/20	1,000	RECEPTACLE 103
LIGHTING 140	325	1/20	9		1,325		10	1/20	1,000	RECEPTACLE 103
LIGHTING 140	1,561	1/20	11			2,561	12	1/20	1,000	RECEPTACLE 103
LIGHTING 140	1,044	1/20	13	2,044			14	1/20	1,000	RECEPTACLE 103
LIGHTING 140	522	1/20	15		1,522		16	1/20	1,000	RECEPTACLE 103
EXTER. LIGHTING THRU ELV AND TS	456	1/20	17			1,456	18	1/20	1,000	RECEPTACLE 103
EXTERIOR LIGHTING THRU TS	480	1/20	19	1,480			20	1/20	1,000	RECEPTACLE 103
SPARE		1/20	21		1,000		22	1/20	1,000	RECEPTACLE 103
SPARE		1/20	23			720	24	1/20	720	TELECOM BACKBOARD 127
SPARE		1/20	25	200			26	1/20	200	GWH1, GWH2 126
SPARE		1/20	27		250		28	1/20	250	CP1, CP2
SPARE		1/20	29			900	30	1/20	900	RECEPTACLES 136
SPARE		1/20	31	900			32	1/20	900	RECEPTACLES 136
SPARE		1/20	33		900		34	1/20	900	RECEPTACLES 136
SPARE		1/20	35				36	1/20		SPARE
SPARE		1/20	37				38	1/20		SPARE
SPARE		1/20	39				40	1/20		SPARE
SPARE		1/20	41				42	1/20		SPARE
NOTES:				8,935	7,363	8,050	TOTAL V. AMPS		225	A. BUS (COPPER)
				74	61	67	CONN. AMPS		150	A. MAIN LUGS

1 PROVIDE CIRCUIT BREAKER LOCKING DEVICE FOR FACU ALONG WITH IDENTIFYING CIRCUIT BREAKER IN ACCORDANCE WITH NEC 760.41
2. PROVIDE GFI BREAKER (HEAT TRACE)

22 KAIC MIN.

PANEL PE2

TYPE: NEMA 1 | 208 V, | 3 PH, | 4 WIRE | PROVIDE IF | XX | EQUIP. GND BUS
BOLT-ON | MOUNT: SURFACE | CHECKED: | XX | NEUTRAL BUS
DOOR-IN-DOOR, HINGED FRONT COVER | FEED: BOTTOM | | | GUTTER TAPS
SUB-FEED LUGS

LOAD SERVED	LOAD VA	CKT BKR	CKT #	LOAD VA A	LOAD VA B	LOAD VA C	CKT #	CKT BKR	LOAD VA	LOAD SERVED
GUH01,02,03,04	1,776	1/20	1	2,616			2	1/20	840	WALK-IN FREEZER DOOR HEATERS
GUH05,06,07	1,332	1/20	3		2,292		4	1/20	960	WALK-IN FREEZER DRAIN HEATER
LOUVER L1,L2,L3	300	1/20	5			500	6	1/20	200	WALK-IN FREEZER LIGHTS
SPARE		1/20	7	200			8	1/20	200	WALK-IN COOLER #1 AND #2 LIGHTS
OVERHEAD DOOR 140	1,176	1/20	9		2,856		10	1/20	1,680	WALK-IN COOLER #1 AND #2 DOOR HTR
OVERHEAD DOOR 140	1,176	1/20	11			2,352	12	1/20	1,176	GATE CONTROLLER
OVERHEAD DOOR 140	1,176	1/20	13	2,352			14	1/20	1,176	GATE CONTROLELR
OVERHEAD DOOR 140	1,176	1/20	15		2,976		16	1/20	1,800	SPRINKLER HOT BOX HEATER
OVERHEAD DOOR 140	1,176	1/20	17			1,176	18	1/20		SPARE
OVERHEAD DOOR 140	1,176	1/20	19	1,176			20	1/20		SPARE
OVERHEAD DOOR 140	1,176	1/20	21		1,176		22	1/20		SPARE
DOCK LEVELER 140	1,176	1/20	23			1,176	24	1/20		SPARE
DOCK LEVELER 140	1,176	1/20	25	1,176			26	1/20		SPARE
DOCK LEVELER 140	1,176	1/20	27		1,176		28	1/20		SPARE
DOCK LEVELER 140	1,176	1/20	29			1,176	30	1/20		SPARE
OVERHEAD DOOR 140	1,176	1/20	31	1,176			32	1/20		SPARE
SPARE		1/20	33				34	1/20		SPARE
SPARE		1/20	35				36	1/20		SPARE
SPARE		1/20	37				38	1/20		SPARE
SPARE		1/20	39		1,914		40	2/20	1,914	EUH01 149
SPARE		1/20	41			1,914	42		1,914	
NOTES:				8,696	12,390	8,294	TOTAL V. AMPS		225	A. BUS (COPPER)
				72	103	69	CONN. AMPS		150	A. MAIN LUGS

1 PROVIDE CIRCUIT BREAKER LOCKING DEVICE FOR FACU ALONG WITH IDENTIFYING CIRCUIT BREAKER IN ACCORDANCE WITH NEC 760.41
2. PROVIDE GFI BREAKER (HEAT TRACE)

22 KAIC MIN.

PANEL PE3

TYPE: NEMA 1 | 208 V, | 3 PH, | 4 WIRE | PROVIDE IF | XX | EQUIP. GND BUS
BOLT-ON | MOUNT: SURFACE | CHECKED: | XX | NEUTRAL BUS
DOOR-IN-DOOR, HINGED FRONT COVER | FEED: BOTTOM | | | GUTTER TAPS
SUB-FEED LUGS

LOAD SERVED	LOAD VA	CKT BKR	CKT #	LOAD VA A	LOAD VA B	LOAD VA C	CKT #	CKT BKR	LOAD VA	LOAD SERVED
SPARE		1/20	1				2	1/20		SPARE
SPARE		1/20	3				4	1/20		SPARE
SPARE		1/20	5				6	1/20		SPARE
SPARE		1/20	7				8	1/20		SPARE
SPARE		1/20	9				10	1/20		SPARE
SPARE		1/20	11				12	1/20		SPARE
SPARE		1/20	13				14	1/20		SPARE
SPARE		1/20	15				16	1/20		SPARE
SPARE		1/20	17				18	1/20		SPARE
SPARE		1/20	19				20	1/20		SPARE
SPARE		1/20	21				22	1/20		SPARE
SPARE		1/20	23				24	1/20		SPARE
SPARE		1/20	25				26	1/20		SPARE
SPARE		1/20	27				28	1/20		SPARE
SPARE		1/20	29				30	1/20		SPARE
NOTES:							TOTAL V. AMPS		100	A. BUS (COPPER)
							CONN. AMPS		100	A. MAIN LUGS

10 KAIC MIN.

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Date: 2021.11.09 19:16:49-05'00'

The Wilmington Food Bank
Greenfield Street
Wilmington, North Carolina 28403

REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

Project Manager	Drawn By: WPJ
Date: 11.09.2021	Reviewed By: JPF
Project ID: CBHF: 20187	

Sheet Title
ELECTRICAL PANEL SCHEDULES

Sheet No.
E0.6

LIGHTING FIXTURE SCHEDULE

MARK	DESCRIPTION	MANUFACTURER/SERIES	NOM. SIZE	SOURCE / TEMP(oK) / DELIVERED LUMENS	VOLTS	WATTS	LENS	COLOR/ MATERIAL	MOUNTING HEIGHT	DRIVER/ DIMMING	REMARKS
L1	LAY-IN VOLUMETRIC LED	LITHONIA "2BLT4" SERIES	2'x4'	LED / 3500K / 4800 LUMENS	120	38	ADP	WHITE/ ALUMINUM	RECESSED CEILING	LED DRIVER GZ10 0-10V DIMMING	
L2	LAY-IN VOLUMETRIC LED	LITHONIA "2BLT2" SERIES	2'x2'	LED / 3500K / 4000 LUMENS	120	32	ADP	WHITE/ ALUMINUM	RECESSED CEILING	LED DRIVER GZ10 0-10V DIMMING	
L3	LAY-IN GRID LED	LITHONIA "2GTL" SERIES	2'x4'	LED / 3500K / 6000 LUMENS	120	49	ACRYLIC	WHITE/ ALUMINUM	RECESSED CEILING	LED DRIVER GZ10 0-10V DIMMING	
L4	LAY-IN GRID LED	LITHONIA "2GTL" SERIES	2'x4'	LED / 3500K / 4800 LUMENS	120	36	ACRYLIC	WHITE/ ALUMINUM	RECESSED CEILING	LED DRIVER GZ10 0-10V DIMMING	
L5	PENDANT MOUNTED LED	LITHONIA "CDS" SERIES	4'	LED / 3500K / 4606 LUMENS	120	35	POLYCARBONATE	WHITE/ STEEL	PENDANT	LED DRIVER 0-10V DIMMING	
L6	SURFACE MOUNTED LED	LITHONIA "LBL4W" SERIES	4'	LED / 3500K / 6500 LUMENS	120	50	ACRYLIC	WHITE/ ALUMINUM	SURFACE CEILING	LED DRIVER NODIM	
L7	PENDANT MOUNTED LED	STARTEK "BEAMD" SERIES	LENGTH AS INDICATED	LED / 3500K / 1000 LUMENS/LF	UNIV.	7.4 W/LF	WIDE DIFFUSE	BLACK/ ALUMINUM	PENDANT 12'-0"	LED DRIVER 0-10V DIMMING	80 CRI, ACB10 MOUNTING
L8	PENDANT MOUNTED LED	STARTEK "BEAMD" SERIES	LENGTH AS INDICATED	LED / 3500K / 1000 LUMENS/LF	UNIV.	7.4 W/LF	WIDE DIFFUSE	BLACK/ ALUMINUM	PENDANT 12'-0"	LED DRIVER 0-10V DIMMING	80 CRI, ACB10 MOUNTING
L9	PENDANT MOUNTED LED	STARTEK "BEAMD" SERIES	LENGTH AS INDICATED	LED / 3500K / 1000 LUMENS/LF	UNIV.	7.4 W/LF	WIDE DIFFUSE	BLACK/ ALUMINUM	PENDANT 16'-0"	LED DRIVER 0-10V DIMMING	80 CRI, ACB10 MOUNTING
L10	PENDANT MOUNTED LED	STARTEK "BEAMD" SERIES	LENGTH AS INDICATED	LED / 3500K / 1000 LUMENS/FL	UNIV.	7.4 W/LF	WIDE DIFFUSE	BLACK/ ALUMINUM	PENDANT 17'-0"	LED DRIVER 0-10V DIMMING	80 CRI, ACB10 MOUNTING
L11A	PENDANT MOUNTED HIGHBAY LED	LITHONIA "CPHB" SERIES	11.5" x 14"	LEDs / 4000K / 12000 LUMENS	MVOLT	87	GCL	WHITE/ ALUMINUM	PENDANT 25'-0"	LED DRIVER GZ10 0-10V DIMMING	SEF, 70 CRI WD DIST., LSXR6 CONTROLS
L11B	PENDANT MOUNTED HIGHBAY LED	LITHONIA "CPHB" SERIES	11.5" x 14"	LEDs / 4000K / 15000 LUMENS	MVOLT	102	GCL	WHITE/ ALUMINUM	PENDANT 25'-0"	LED DRIVER GZ10 0-10V DIMMING	SEF, 70 CRI WD DIST., LSXR6 CONTROLS
L11C	PENDANT MOUNTED HIGHBAY LED	LITHONIA "CPHB" SERIES	11.5" x 14"	LEDs / 4000K / 18000 LUMENS	MVOLT	133	GCL	WHITE/ ALUMINUM	PENDANT 25'-0"	LED DRIVER GZ10 0-10V DIMMING	SEF, 70 CRI WD DIST., LSXR6 CONTROLS
L11D	PENDANT MOUNTED HIGHBAY LED	LITHONIA "CPHB" SERIES	11.5" x 14"	LEDs / 4000K / 12000 LUMENS	MVOLT	87	GCL	WHITE/ ALUMINUM	PENDANT 25'-0"	LED DRIVER GZ10 0-10V DIMMING	SEF, 70 CRI WD DIST., LSXR50 CONTROLS
L12	RECESSED LED DOWNLIGHT	LITHONIA "LDN4" SERIES	4"	LEDs / 3500K / 3000 LUMENS	120	32		WHITE/ ALUMINUM	RECESSED CEILING	LED DRIVER GZ1 0-10V DIMMING	7
L12A	RECESSED LED DOWNLIGHT	LITHONIA "EVO4SH" SERIES	4"	LEDs / 3500K / 1000 LUMENS	120	8.8		WHITE/ ALUMINUM	RECESSED CEILING	LED DRIVER 0-10V DIMMING	3,10
L13	PENDANT MOUNTED LARGE CHANDALIER	GENERATION LIGHTING "EC10312" SERIES	38" x 23"	12-60W G16-1/2 (5.5W) LED EQUIV. 3500K	120	66		MIDNIGHT BLACK	PENDANT		9
L13A	PENDANT MOUNTED MEDIUM CHANDALIER	GENERATION LIGHTING "EC10310" SERIES	27.25" x 16.75"	12-60W G16-1/2 (5.5W) LED EQUIV. 3500K	120	66		MIDNIGHT BLACK	PENDANT		9
L14	WALL MOUNTED VANITY LED	GENERATION LIGHTING "VS24405" SERIES	40" x 10"	5-75W A19 (11W) EDISON LED EQUIV. 3500K	120	55	CLEAR SEEDED GLASS	SATIN NICKEL	WALL OVER MIRROR		9
L14A	WALL MOUNTED VANITY LED	GENERATION LIGHTING "VS24403" SERIES	24" x 9.62"	3-75W A19 (11W) EDISON LED EQUIV. 3500K	120	33	CLEAR SEEDED GLASS	SATIN NICKEL	WALL OVER MIRROR		9
L15	SURFACE MOUNTED WET LOCATION LED	LITHONIA "FEM LED" SERIES	4'	LEDs / 3500K / 6000 LUMENS	120	38	LPPFL ACRYLIC	FIBERGLASS	SURFACE CEILING	LED DRIVER GZ10 0-10V DIMMING	WD DISTRIBUTION, 80 CRI, WET LOCATION LABEL
L16	WALL MOUNTED LED DOCK LIGHT	TPI FOSTONIA "DKLED-42" SERIES	42"	LED / 25L40K / 3300 LUMENS	120	30		YELLOW	WALL		IP65 RATED
L17	SURFACE MOUNTED LED	KENALL "MR17FL" SERIES	17"	LED / 25L40K / 3116 LUMENS	120	30	PEARLESCENT POLYCARBOANTE	MATTE WHITE	SURFACE CANOPY	LED DRIVER	NEOPRENE GASKET, STAILESS STEEL HARDWARE, WET LOCATION LISTING
L18	SURFACE MOUNTED LED	KENALL "MR17FL" SERIES	17"	LED / 3500K / 3116 LUMENS	120	30	PEARLESCENT POLYCARBOANTE	MATTE WHITE	SURFACE CANOPY	LED DRIVER	NEOPRENE GASKET, STAILESS STEEL HARDWARE, WET LOCATION LISTING
L19A	WALL MOUNTED LED	LITHONIA "WST LED P1" SERIES	8.5" x 17"	LED / 4000K / 1513 LUMENS	120	12		TO BE DETERMINED	WALL	LED DRIVER	VW DISTRIBUTION WET LOCATION LISTING
L19B	WALL MOUNTED LED	LITHONIA "WST LED P1" SERIES	8.5" x 17"	LED / 4000K / 1494 LUMENS	120	12		TO BE DETERMINED	WALL	LED DRIVER	VF DISTRIBUTION WET LOCATION LISTING
L20	WALL MOUNTED LED	LITHONIA "WST LED P2" SERIES	8.5" x 17"	LED / 4000K / 3163 LUMENS	120	25		TO BE DETERMINED	WALL	LED DRIVER	VF DISTRIBUTION WET LOCATION LISTING
L21	WALL MOUNTED LED	LITHONIA "WST LED P3" SERIES	8.5" x 17"	LED / 4000K / 6025 LUMENS	120	50		TO BE DETERMINED	WALL	LED DRIVER	VF DISTRIBUTION WET LOCATION LISTING
L24	PENDANT MOUNTED LED	GENERATION LIGHTING "6585101-112" SERIES	15.25" X15.75"	1-75W A19 (11W) LED EQUIV. 3500K	120	11		MIDNIGHT BLACK	PENDANT CEILING		9
L25	WALL MOUNTED LED	LITHONIA "WL4" SERIES	4'	LED / 3500K / 4000 LUMENS	120	39.5	ACRYLIC	WHITE	WALL 8'-0"	LED DRIVER GZ10 0-10V DIMMING	
X1	RECESSED CEILING MOUNTED EXIT	LITHONIA "LQM" SERIES		RED LED	120	5		WHITE	RECESSED CEILING		
X2	WALL MOUNTED EXIT	LITHONIA "LQM" SERIES		LED	120	5		WHITE	WALL 8'-0"		
E1	WALL MOUNTED EMERGENCY	LITHONIA "ELM6L" SERIES		LED 1100 LUMEN	120	10.6		WHITE	WALL 7'-6"		

REMARKS:

1. BI-LEVEL SWITCHING
2. DAMP LOCATION
3. WET LOCATION
4. WIREGUARD
5. LED REQUIRED SURGE PROTECTION
6. FINALCOLOR SELECTION BY ARCHITECT
7. LO4 APERTURE/AR TRIM LD FINISH/TRW TRIM
8. VERIFY FINAL MOUNTING HEIGHT WITH ARCHITECT
9. PROVIDED BY INTERIOR DESIGNER, INSTALLED BY CONTRACTOR
10. DFF, SMO LENS

GENERAL NOTES:

A. THE CONTRACTOR SHALL VERIFY THE LEAD TIME OF ALL PRODUCTS SPECIFIED IN THIS SCHEDULE AT THE TIME OF PACKAGE QUOTE.
B. DURING THE BID PROCESS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER OF ANY DELIVERY/SCHEDULING ISSUES.
C. NO SUBSTITUTIONS WILL BE ALLOWED DUE TO THE LACK OF COORDINATION OF DELIVERY DATES AND CONSTRUCTION SCHEDULE AFTER BID.
D. ALL EXPEDITED EXPENSES SHALL BE THE RESPONSIBILITY OF THE CONTRACTORS.
E. THE ELECTRICAL CONTRACTOR SHALL RECEIVE APPROVAL FOR ALL LIGHTING FIXTURES FROM THE ARCHITECT/OWNER PRIOR TO PURCHASE AND ROUGH-IN.
F. FIXTURES TO BE INSTALLED IN CEILINGS INDICATED ON THE ARCHITECTURAL PLANS AS HAVING INSULATION IN CONTACT WITH THE CEILING SURFACE SHALL BE MANUFACTURER RATED "IC". PROVIDE SHROUDS AS NECESSARY FOR FIXTURES THAT ARE NOT "IC" RATED.
G. ALL LIGHTING FIXTURES PENETRATING RATED FLOOR/CEILING ASSEMBLY SHALL BE PROVIDED WITH ACCESSORIES TO MAINTAIN ASSEMBLY FIRE RATING. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL RATINGS.
H. "NL" ADJACENT TO FIXTURE INDICATES AN UNSWITCHED 24 HOUR NIGHT LIGHT. THE FIXTURE SHALL BE CONNECTED TO THE UNSWITCHED INDICATED CIRCUIT.
I. LED MODULES SHALL BE REPLACEABLE.
J. ACRYLIC PRISMATIC LENSES SHALL BE 0.125" NOMINAL MINIMUM THICKNESS.
K. ALL EXIT AND EMERGENCY FIXTURES SHALL COMPLY WITH NCSBC [APPLICABLE STATE BUILDING CODE] STANDARDS AND HAVE AUTOMATIC TESTING DEVICES.
L. LED EMERGENCY BATTERY SHALL PROVIDE FULL RATED FIXTURE, 1400 MINIMUM LUMENS OUTPUT FOR 90 MINUTES MINIMUM.
M. SEE SPECIFICATIONS SECTIONS 265100 AND 265200 FOR ADDITIONAL REQUIREMENTS.
O. LIGHTING FIXTURES HAVE BEEN SELECTED AND SPECIFIED TO ACHIEVE REQUIRED/DESIRED ILLUMINATION LEVELS AND OTHER CHARACTERISTICS IN THEIR RESPECTIVE AREAS. SPECIFIED FIXTURES HAVE SPECIFIC CHARACTERISTICS WHICH MAY CREATE UNIQUE ILLUMINATION RESULTS ESSENTIAL TO THE PROJECT. LIGHTING FIXTURES PROVIDED SHALL MEET THE ASTHETICS, DETAILS, AND SPECIFICATIONS STATED ABOVE AND IN THE DIVISION 26 SPECIFICATIONS, AND MOUNTING HEIGHTS AND SPACINGS SHOWN ON THE DRAWINGS. ANY DEVIATIONS FROM THE SPECIFIED FIXTURES SHALL DEEM ALL PARTIES IN THE SUPPLY CHAIN AND CONTRACTOR RESPONSIBLE FOR PROVIDING DETAILED COMPARISONS OF THE SPECIFIED FIXTURE AND THE PROPOSED FIXTURE FOR ARCHITECT AND ENGINEER REVIEW IN DETERMINING EQUALITY. PROVIDE COMPLETE POINT BY POINT ILLUMINATION STUDIES FOR ALL SUBSTITUTIONS.
P. SUBSTITUTIONS MAY BE APPROVED BY THE ARCHITECT AND ENGINEER IF THEY ARE JUDGED TO BE EQUAL TO THE SPECIFIED FIXTURES. "EQUAL" MAY INCLUDE, AT THE SOLE DISCRETION OF THE ARCHITECT AND ENGINEER, LENS MATERIAL AND CHARACTERISTICS, COLORS, REFLECTORS, HOUSING MATERIAL AND CONFIGURATION, FINISHES, PHOTOMETRICS, EFFICIENCY, OPTIONS, FUNCTIONALITY, ETC.

2018 APPENDIX B BUILDING CODE SUMMARY
ELECTRICAL SUMMARY
ELECTRICAL SYSTEMS AND EQUIPMENT

METHOD OF COMPLIANCE:

ENERGY CODE: ☑ PRESCRIPTIVE ☐ PERFORMANCE
ASHRAE 90.1: ☐ PRESCRIPTIVE ☐ PERFORMANCE

LIGHTING SCHEDULE (EACH FIXTURE TYPE)

LAMP TYPE REQUIRED IN FIXTURE: SEE FIXTURE SCHEDULE
NUMBER OF LAMPS IN FIXTURE: SEE FIXTURE SCHEDULE
BALLAST TYPE USED IN THE FIXTURE: SEE FIXTURE SCHEDULE
NUMBER OF BALLASTS IN FIXTURE: SEE FIXTURE SCHEDULE
TOTAL WATTAGE PER FIXTURE: SEE FIXTURE SCHEDULE

TOTAL INTERIOR WATTAGE: (WHOLE BUILDING OR SPACE BY SPACE)

ALLOWED =	28,346	WATTS
ADDITIONAL 10% =	25,511	WATTS
SPECIFIED =	11,779	WATTS

EXTERIOR ALLOWANCE:
(TRADEABLE SURFACES)

ALLOWED =	3,056	WATTS
SPECIFIED =	1,358	WATTS

(NON-TRADEABLE SURFACES:)

ALLOWED =	N/A	WATTS
SPECIFIED =	N/A	WATTS

ADDITIONAL PRESCRIPTIVE COMPLIANCE

☐ C406.2 MORE EFFICIENT HVAC EQUIPMENT PERFORMANCE
☑ C406.3 REDUCED LIGHTING POWER DENSITY
☐ C406.4 ENHANCED DIGITAL LIGHTING CONTROLS
☐ C406.5 ON-SITE RENEWABLE ENERGY
☐ C406.6 DEDICATED OUTSIDE AIR SYSTEM
☐ C406.7 REDUCED ENERGY USE IN SERVICE WATER HEATING

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 35230 JOSEPH P. FAMIGLIETTI
Digitally signed by Joseph Famiglietti
Date: 2021.11.09 13:18:05-05'00'

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Wilmington, North Carolina 28403

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Sheet Title: ELECTRICAL LIGHTING FIXTURE SCHEDULE AND ENERGY SUMMARY

Sheet No.: E0.7

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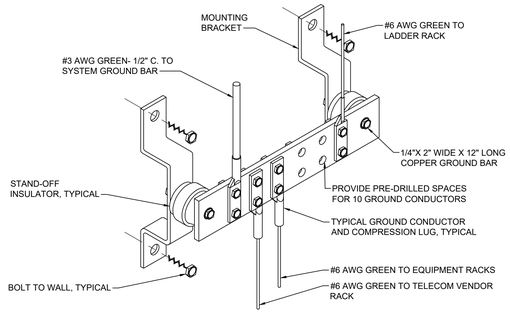
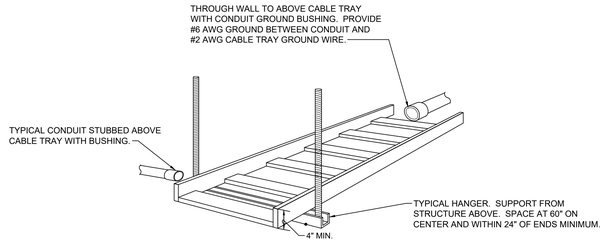
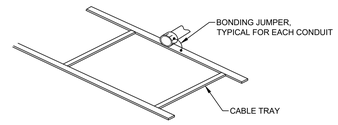


C1 TELECOMMUNICATIONS GROUND BAR DETAIL
NOT TO SCALE

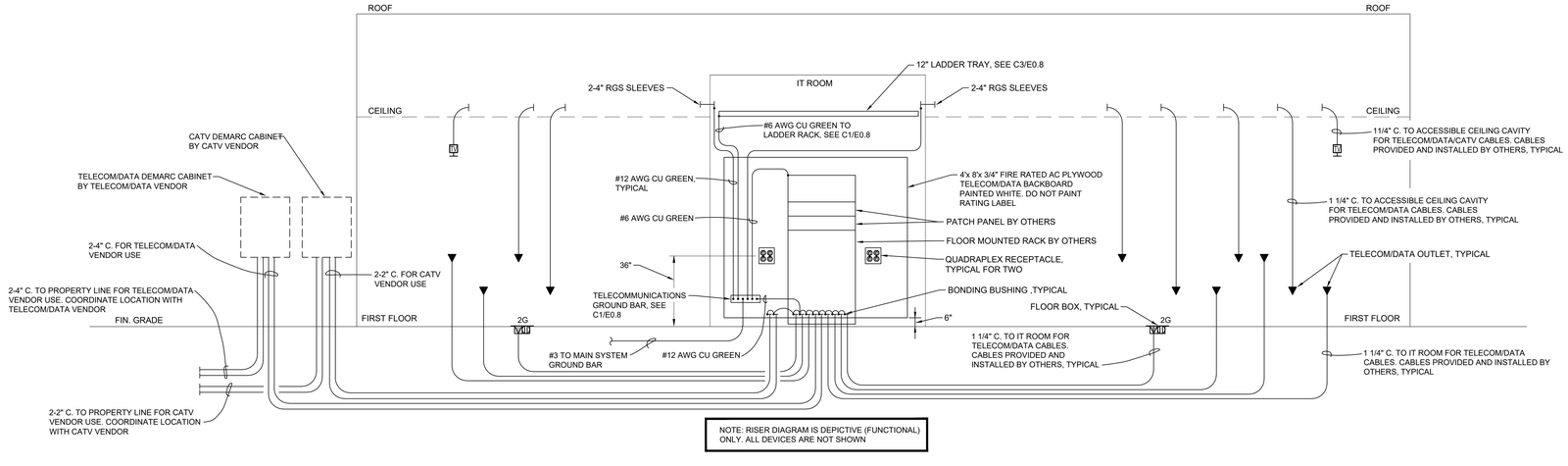


NOTES:
1. CONTRACTOR SHALL PROVIDE PATHWAY FOR ALL LISTED SYSTEMS CABLING. TRAY MUST COMPLY WITH UFC 3-580-1 FOR CABLE TRAY FILL REQUIREMENTS. IN NO CASE MAY THE CABLE TRAY BE LESS THAN THE STATED MINIMUM SIZE.
2. MOUNT CABLE TRAY AT A MINIMUM OF 12" BELOW MECHANICAL DUCT WORK BUT AS HIGH AS POSSIBLE TO AVOID TAMPERING.
3. TYPICAL MOUNTING METHOD.

C3 LADDER AND BASKET TRAY DETAIL
NOT TO SCALE



C5 CONDUIT/TRAY BONDING DETAIL
NOT TO SCALE



NOTE: RISER DIAGRAM IS DEPICTIVE (FUNCTIONAL) ONLY. ALL DEVICES ARE NOT SHOWN

E2 FUNCTIONAL TELECOMMUNICATION / CATV RISER DIAGRAM
NOT TO SCALE

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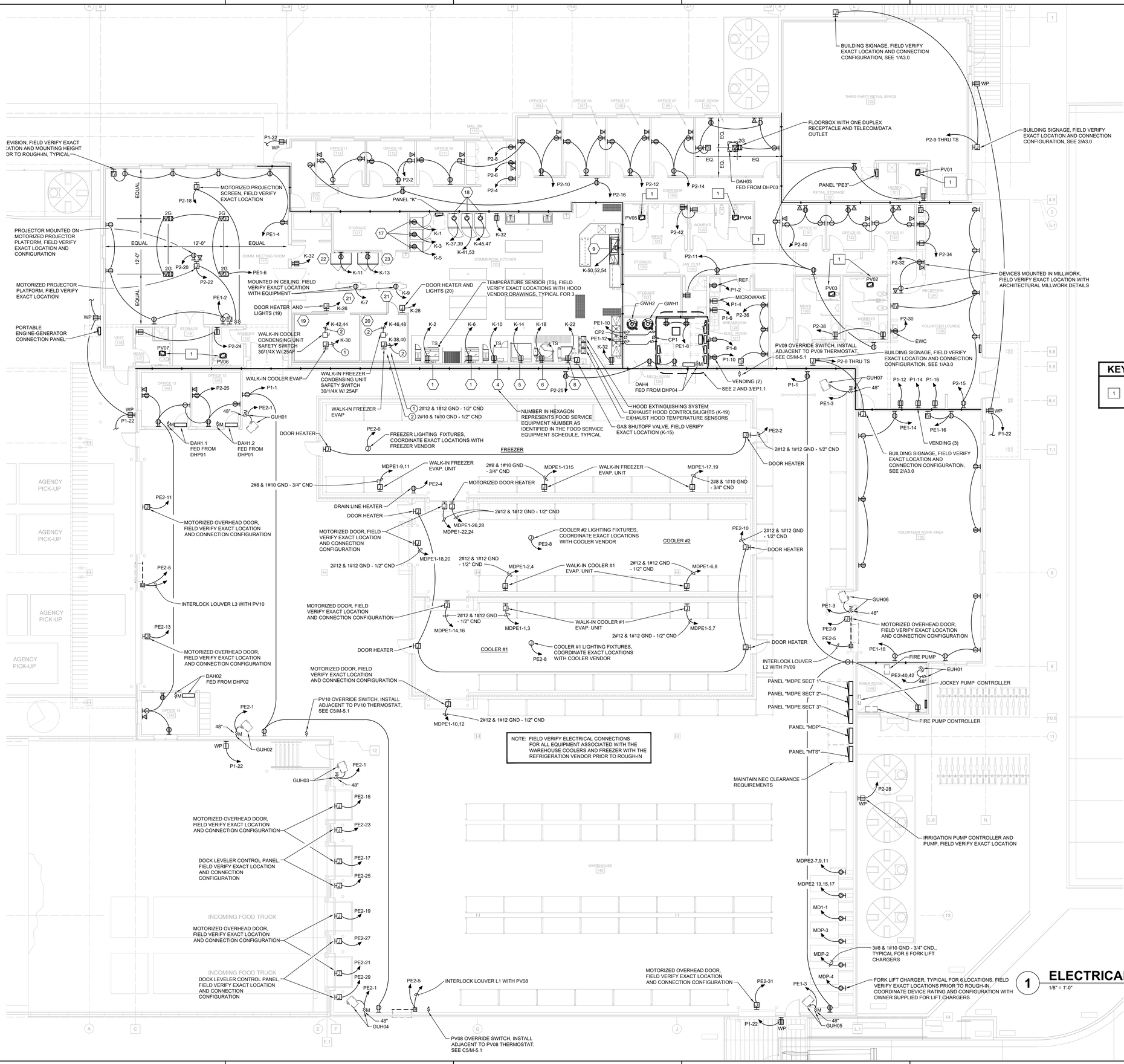
Sheet Title
ELECTRICAL TELECOMM. / CATV RISER DIAGRAM AND DETAILS

Sheet No.
E0.8


BUILDING SIGNAGE, FIELD VERIFY EXACT LOCATION AND CONNECTION CONFIGURATION, SEE 1/A3.0
FLOORBOX WITH ONE DUPLEX RECEPTACLE AND TELECOM/DATA OUTLET
DAH03 FED FROM DHP03
PANEL "PE3"
P2-9 THRU TS
BUILDING SIGNAGE, FIELD VERIFY EXACT LOCATION AND CONNECTION CONFIGURATION, SEE 2/A3.0
DEVICES MOUNTED IN MILLWORK, FIELD VERIFY EXACT LOCATION WITH ARCHITECTURAL MILLWORK DETAILS
PANEL "PE4"
PANEL "PE2"
PANEL "PE1"
PANEL "PE5"
PANEL "PE6"
PANEL "PE7"
PANEL "PE8"
PANEL "PE9"
PANEL "PE10"
PANEL "PE11"
PANEL "PE12"
PANEL "PE13"
PANEL "PE14"
PANEL "PE15"
PANEL "PE16"
PANEL "PE17"
PANEL "PE18"
PANEL "PE19"
PANEL "PE20"
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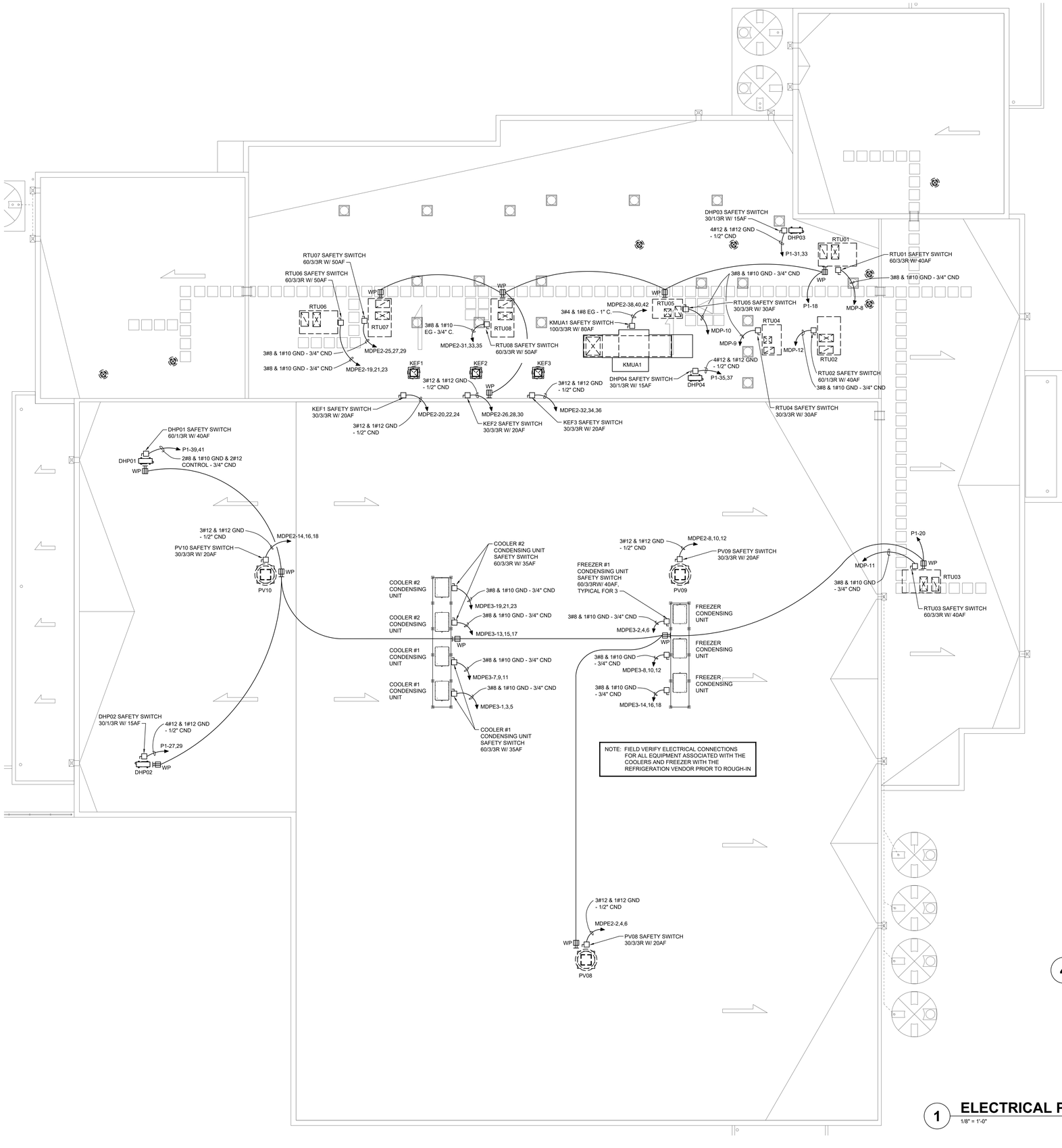
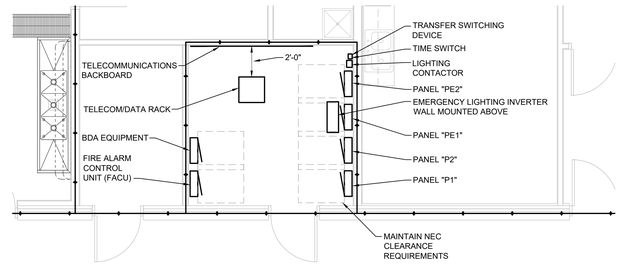
PANEL "PE22"
PANEL "PE23"
PANEL "PE24"
PANEL



1 ELECTRICAL POWER ROOF PLAN

1/8" = 1'-0"

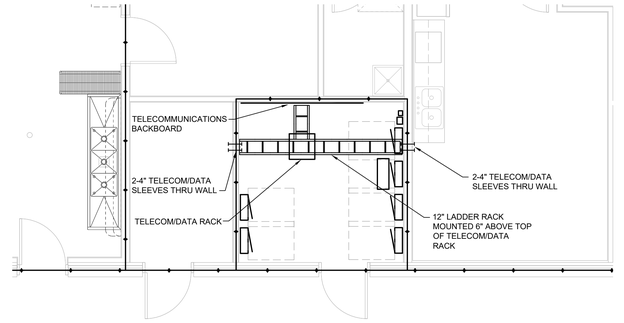
PLAN NORTH



2 ENLARGED ELECTRICAL ROOM 124B PLAN

1/4" = 1'-0"

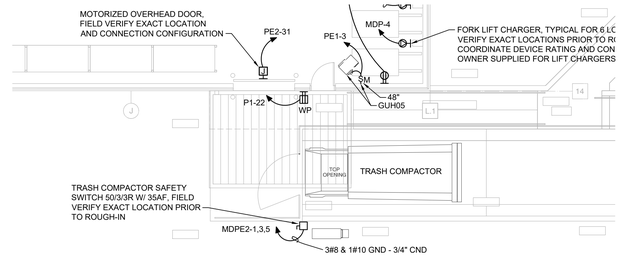
PLAN NORTH



3 ENLARGED TELE/.DATA ROOM 124B PLAN

1/4" = 1'-0"

PLAN NORTH



4 PARTIAL ELECTRICAL FIRST FLOOR POWER PLAN

1/4" = 1'-0"

PLAN NORTH

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Sheet Title

ELECTRICAL POWER ROOF AND ENLARGED PLANS

Sheet No.

EP1.2

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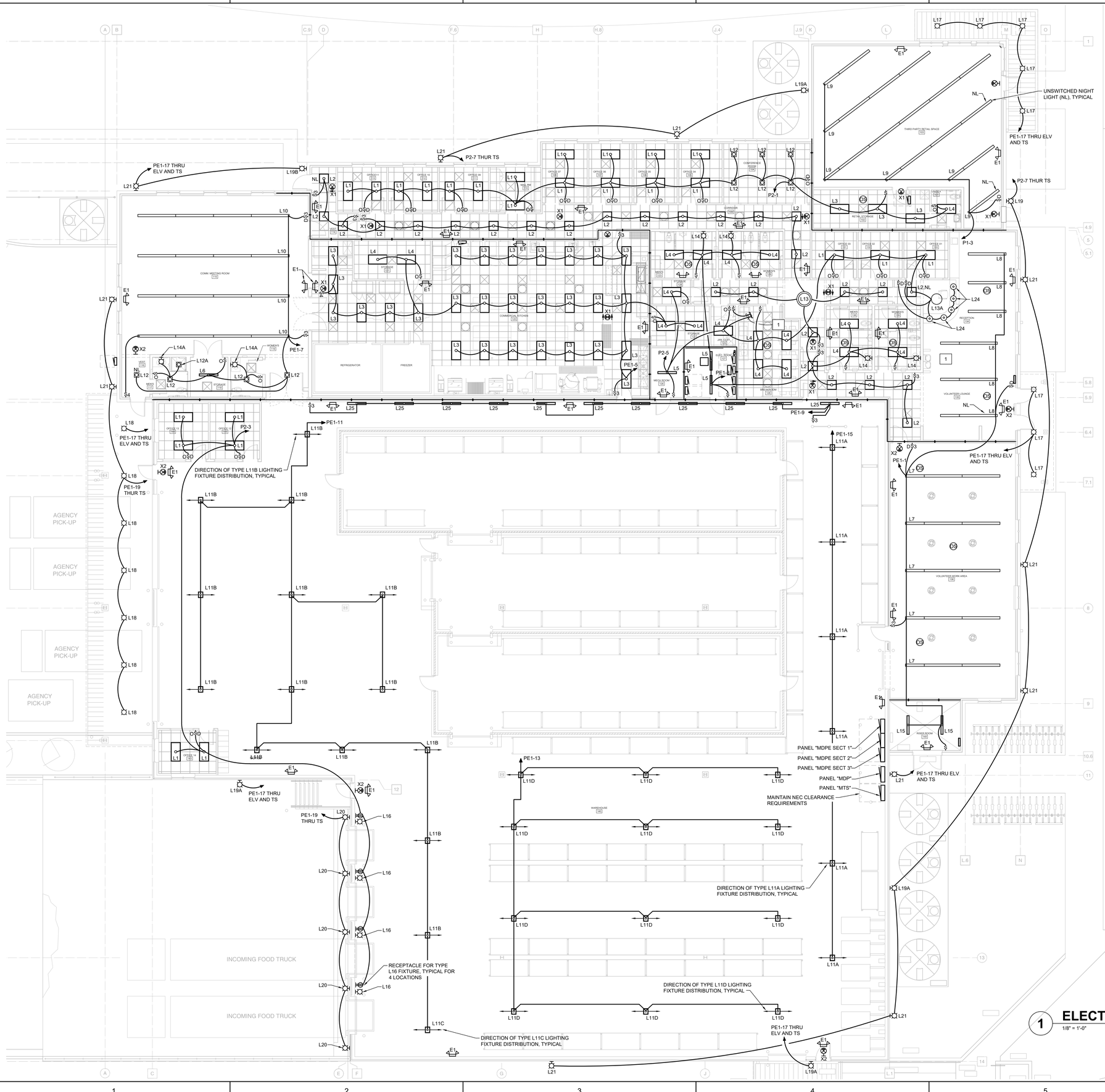
KEYED NOTES

1	UP TO LIGHTS ON ROOF



1 ELECTRICAL LIGHTING FIRST FLOOR PLAN

1/8" = 1'-0"

PLAN NORTH

0 4' 8' 16'

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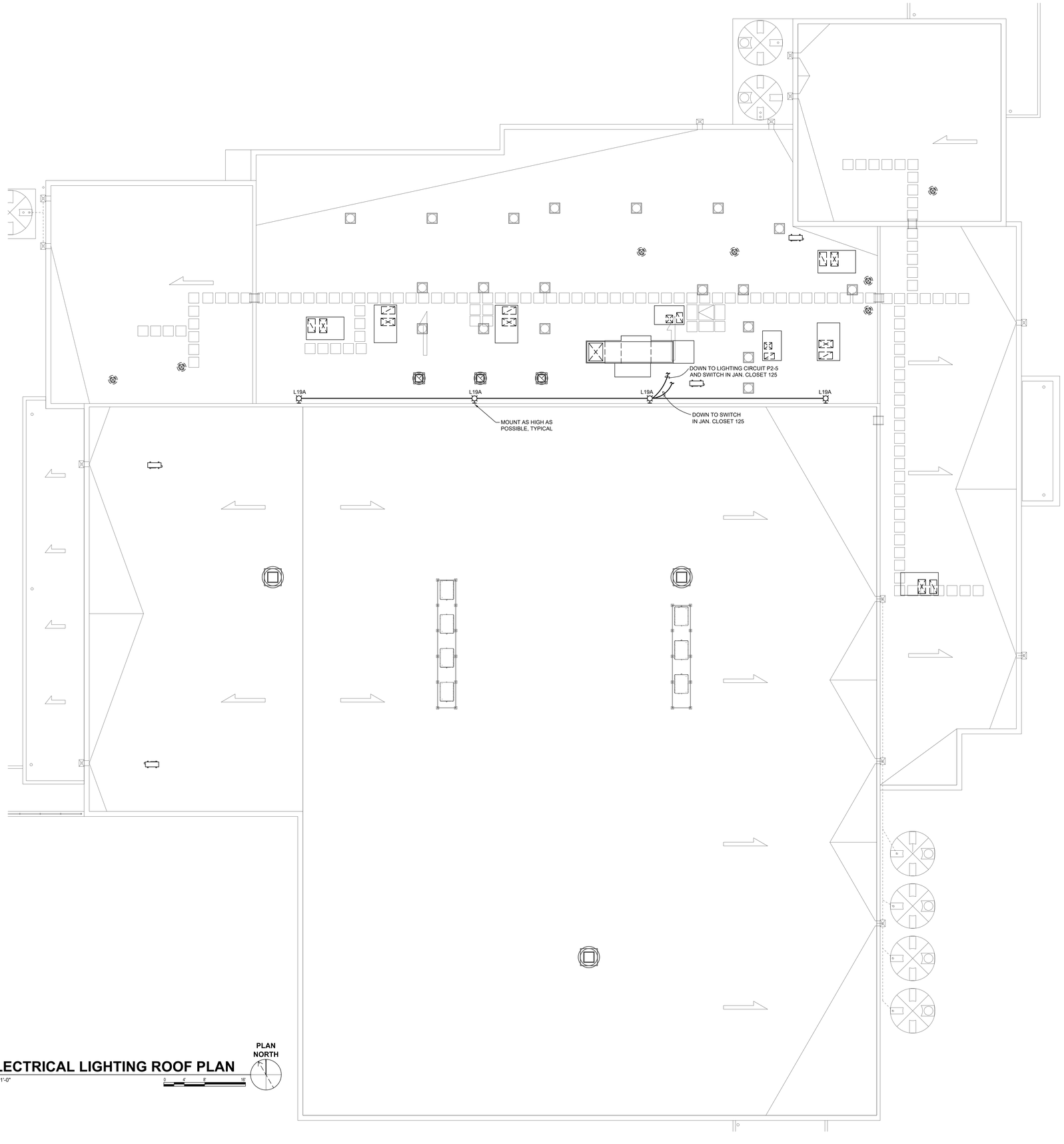
Sheet Title: ELECTRICAL LIGHTING FIRST FLOOR PLAN

Sheet No.: EL1.1



1 **ELECTRICAL LIGHTING ROOF PLAN**
1/8" = 1'-0"

PLAN NORTH

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Sheet Title
ELECTRICAL LIGHTING ROOF PLAN

Sheet No.
EL1.2

MANUAL FIRE ALARM SYSTEM NOTES

1. AS A MINIMUM THE FIRE ALARM SYSTEM SHALL INCLUDE SMOKE DETECTORS, HORN/STROBES AND KITCHEN HOOD EXTINGUISHING SYSTEM AND SPRINKLER MONITORING WITH FIRE RATED CABLE. THE FIRE ALARM SYSTEM SHALL MEET NFPA REQUIREMENTS, THE NATIONAL ELECTRICAL CODE, THE STATE CODES, AND THE LOCAL BUILDING CODES.
2. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL CABLE, MATERIALS AND EQUIPMENT AS SHOWN ON THE DRAWINGS/OR HEREIN SPECIFIED. ALL SYSTEM COMPONENTS SPECIFIED HEREIN, AS WELL AS THEIR INSTALLATION, SHALL COMPLY WITH APPLICABLE STANDARDS OF THE NATIONAL ELECTRICAL CODE, NATIONAL FIRE PROTECTION ASSOCIATION, AND LOCAL CODES HAVING AUTHORITY. ALL EQUIPMENT SHALL BE UL LISTED FOR FIRE ALARM SYSTEM USE.
3. THE SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND SHALL BE INSTALLED AND CONNECTED UNDER THE DIRECTION AND SUPERVISION OF A MANUFACTURER'S REPRESENTATIVE. UPON COMPLETION OF INSTALLATION, THE MANUFACTURER'S REPRESENTATIVE SHALL PERFORM ALL OPERATIONAL TESTS AND ADJUSTMENTS AND CERTIFY IN WRITING THAT THE SYSTEM IS PROPERLY INSTALLED AND FUNCTIONS AS SPECIFIED.
4. ALL WIRING SHALL BE SYSTEM OR UL LISTED FIRE RATED CABLE AND COLOR CODED TO ALLOW EASE OF IDENTIFICATION OF THE DIFFERENT CIRCUITRY REQUIRED FOR THE SYSTEM. NO CIRCUIT SHALL CHANGE COLOR AT ANY POINT END TO END.
5. THE, MANUFACTURER'S AUTHORIZED REPRESENTATIVE SHALL PROVIDE SUPERVISION OF FINAL SYSTEM PANEL CONNECTIONS, PERFORM A COMPLETE FUNCTIONAL TEST OF THE SYSTEM, AND A WRITTEN REPORT TO THE CONTRACTOR ATTESTING THE PROPER OPERATION OF THE COMPLETED SYSTEM.
6. THE CONTRACTOR SHALL PROVIDE A ONE YEAR WARRANTY FOR THE ALARM SYSTEM, ALONG WITH OTHER FORMS OR CERTIFICATE REQUIRED BY THE LOCAL JURISDICTION.
7. SYSTEM OPERATION

7.1 THE OPERATION OF ANY SYSTEM ALARM INDICATOR, SHALL CAUSE ALL ALARM SIGNALS, BOTH AUDIBLE AND VISUAL TO ENERGIZE.

7.2 THE DEVICE FROM WHICH THE ALARM ORIGINATED SHALL BE INDICATED AT THE CONTROL PANEL, BOTH AUDIBLY AND VISUALLY. THE APPROPRIATE ALARM LED SHALL PULSE AND SHALL BE ILLUMINATED CONTINUOUSLY AFTER IT HAS BE ACKNOWLEDGED AT THE CONTROL PANEL.

7.3 FIRE ALARM SYSTEM SHALL USE A 120 VOLT POWER SOURCE WITH BATTERY BACK-UP. FIRE ALARM SYSTEM SHALL BE 24 VOLT.

7.4 THE SYSTEM SHALL BE A MONITORED ALARM SYSTEM.

8. EQUIPMENT SHALL CONSIST OF THE FOLLOWING:

8.1 MASTER FIRE ALARM CONTROL PANEL WITH BATTERY BACK-UP.

8.2 COMBINATION AUDIO AND VISUAL SIGNAL; AUDIO VISUAL FIRE ALARM SIGNAL SHALL BE SURFACE MOUNTED WITH FLASHER. UNITS SHALL BE RED IN COLOR. THE LEXAN LENS SHALL BE TRIANGULAR IN SHAPE TO SIGNIFICANTLY IMPROVE SIDE VIEWING VISIBILITY. THE UNIT SHALL MOUNT ON A STANDARD FOUR INCH ELECTRICAL BOX. A MATCHING TRIM PLATE SHALL BE SUPPLIED. THE LENS SHALL BE LETTERED RED "FIRE". THE AUDIO VISUAL SIGNALS SHALL MEET REQUIREMENTS OF ADA.

8.4 SMOKE DETECTOR: PROVIDE SOLID STATE PHOTO ELECTRIC TYPE WITH TWO WIRE OPERATION AND 360° SMOKE ENTRY.

8.5 DUCT MOUNTED SMOKE DETECTORS: NFPA 72, ANALOG/INTELLIGENT/ADDRESSABLE PHOTOELECTRIC TYPE WITH REMOTE ALARM INDICATING LIGHT, DUCT SAMPLING TUBES EXTENDING WIDTH OF DUCT, AND VISUAL INDICATION OF DETECTOR ACTUATION, IN DUCT-MOUNTED HOUSING.

9. PROVIDE FIRE ALARM CONTROL PANEL.

9.1 IN THE EVENT OF A VALVE CLOSURE THAT ACTIVATES A TAMPER SWITCH, THE TROUBLE SIGNALS (BOTH AUDIBLE AND VISUAL) SHALL ACTIVATE AT THE CONTROL PANEL. IN ADDITION, THE ASSOCIATED CIRCUIT TROUBLE LED SHALL ILLUMINATE TO INDICATE THE TAMPER SWITCH CLOSURE, BY MEANS OF A SILENCING SWITCH, IT SHALL BE POSSIBLE TO TEMPORALLY SILENCE THE AUDIBLE ALARM, THE AUDIBLE ALARM SHALL REACTIVATE AUTOMATICALLY ON A PERIODIC BASIS UNTIL THE SYSTEM IS CORRECTED. IT SHALL NOT BE POSSIBLE TO EXTINGUISH THE TROUBLE LIGHT UNTIL THE SYSTEM IS CORRECTED.

10.1 ALL WIRING SHALL BE INSTALLED IN COMPLIANCE WITH N.E.C., NFPA 72, ALL STATE AND LOCAL REQUIREMENTS AND IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

10.2 SLEEVE AND SEAL ALL PENETRATIONS THROUGH FIRE WALLS.

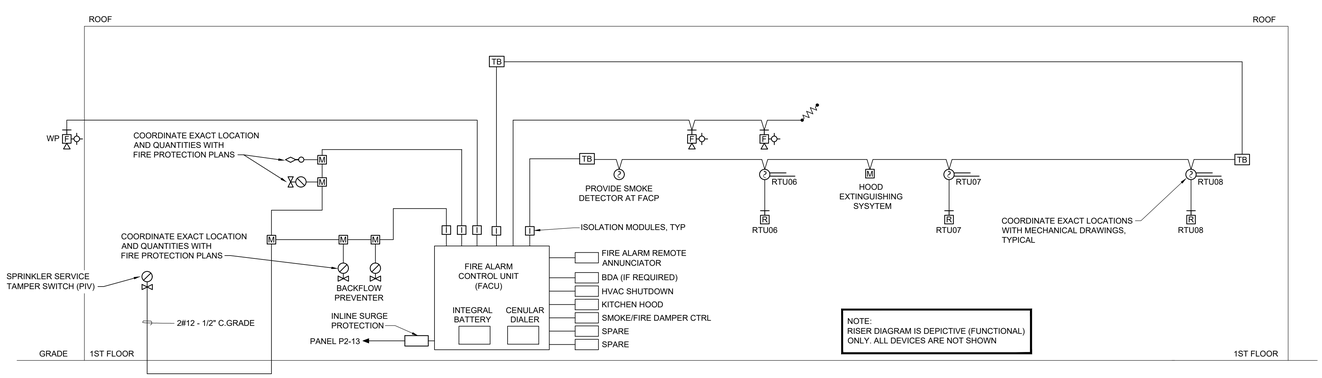
10.3 WIRING SHALL BE A MINIMUM OF NO. 14 AWG UNLESS OTHERWISE NOTED.

11. ALL WORK PERFORMED AND ALL MATERIAL FURNISHED UNDER THIS CONTRACT SHALL BE FREE FROM DEFECTS AND SHALL REMAIN SO FOR A PERIOD OF AT LEAST ONE YEAR FROM THE DATE OF ACCEPTANCE.
12. THE SMOKE DUCT DETECTOR SHALL BE FURNISHED AND TERMINATED BY THE FIRE ALARM CONTRACTOR, INSTALLED BY THE MECHANICAL CONTRACTOR.
13. SHOP DRAWINGS MUST BE SUBMITTED BY THE FIRE ALARM CONTRACTOR COMPLYING WITH THE FIRE ALARM PLAN REVIEW REQUIREMENTS POLICY - JANUARY 2006 BEFORE PERMITTING BY THE WILMINGTON FIRE DEPT. THESE DRAWINGS DO NOT CONSTITUTE APPROVAL AND MAY CHANGE AFTER A FULL REVIEW BY THE WILMINGTON FIRE DEPT. A SEPARATE PERMIT MUST BE OBTAINED PRIOR TO INSTALLATION.
14. FIRE ALARM CONTRACTOR IS RESPONSIBLE FOR MODULES TO SHUTDOWN HVAC EQUIPMENT DURING ALARM CONDITION.
15. PROVIDE (1) 2" CONDUIT FOR A DEDICATED PHONE LINE FOR FIRE PROTECTION DIALER AND BACKUP LINE FROM EXTERIOR CABINET TO FACP.
16. ALL FIRE ALARM WORK AND DEVICES SHALL BE INSTALLED AND TERMINATED BY A NICET LEVEL 2 FIRE ALARM TECHNICIAN.
17. IN THE EVENT OF AN ALARM THERE SHALL BE A "GLOBAL" SHUT DOWN OF ALL AIR HANDLERS.
18. ELECTRICAL CONTRACTOR SHALL INTERLOCK HOOD SUPPLY FAN INTO FIRE SUPPRESSION SYSTEM SO THAT IT SHUTS DOWN WHEN THE FIRE ALARM SYSTEM ACTIVATES.
19. THE FIRE ALARM CONTROL PANEL SHALL MONITOR THE KITCHEN HOOD AND SOUND THE ALARM IF FIRE SUPPRESSION SYSTEM ACTIVATES, FIRE ALARM SYSTEM SHALL ALSO SHUT DOWN HOOD SUPPLY FAN IN CASE OF ALARM CONDITION.
20. PROVIDE U.L. CERTIFICATION FOR THE SYSTEM AS REQUIRED BY THE NEW HANOVER COUNTY FIRE MARSHALL.

FIRE ALARM LEGEND

SYMBOL	DESCRIPTION
F	FIRE ALARM MANUAL STATION, 48" AFF
F	FIRE ALARM ABORT KILL SWITCH, 48" AFF
K	FIRE DEPT. KNOX BOX, 60" AFF
15cd F	FIRE ALARM HORN/STROBE DEVICE, 80" AFF, "15cd" INDICATES CANDELA RATING
F	FIRE HORN (ONLY) DEVICE, 80" AFF
15cd F	FIRE ALARM HORN/STROBE DEVICE, CEILING MOUNTED, "15cd" INDICATES CANDELA RATING
15cd F	FIRE ALARM VISUAL (ONLY) DEVICE, 80" AFF, "15cd" INDICATES CANDELA RATING
15cd F	FIRE ALARM VISUAL (ONLY) CEILING MOUNTED "15cd" INDICATES CANDELA RATING
15cd F	FIRE ALARM SPEAKER/STROBE DEVICE, 80" AFF, "15cd" INDICATES CANDELA RATING
F	FIRE ALARM SPEAKER DEVICE, 80" AFF
15cd F	FIRE ALARM SPEAKER/STROBE DEVICE, CEILING MOUNTED, "15cd" INDICATES CANDELA RATING
F	FIRE ALARM SPEAKER DEVICE, CEILING MOUNTED
F	FIRE ALARM BELL, 80" AFF
F	FIRE ALARM BELL/STROBE, 80" AFF
F	FIRE ALARM CHIME, 80" AFF, "15cd" INDICATES CANDELA RATING
15cd F	FIRE ALARM CHIME/STROBE, 80" AFF, "15cd" INDICATES CANDELA RATING
H	HEAT DETECTOR, CEILING MOUNTED
S	SMOKE DETECTOR, CEILING MOUNTED
SC	SMOKE/CO2 DETECTOR, CEILING MOUNTED
S	DUCT MOUNTED SMOKE DETECTOR
H	DUCT MOUNTED HEAT DETECTOR
G	DOOR HOLD OPEN DEVICE BY G.C.
S BT — S BR	FIRE ALARM LINEAR BEAM SMOKE DETECTOR, INSTALLED APPROX. 12" BELOW CEILING, OR PER LISTING. PROVIDE REMOTE TEST/STATUS SWITCH AT 60" AFF BELOW DEVICE
	SPRINKLER FLOW SWITCH
	SPRINKLER TAMPER SWITCH
	LEVEL SWITCH
P	PRESSURE SWITCH
T	TEMPERATURE SWITCH
R	REMOTE INDICATING DEVICE (RAIL), CEILING MOUNTED
R	REMOTE INDICATING DEVICE (RAIL), WALL MOUNTED
M	MONITOR MODULE
M	MONITOR MODULE, WALL MOUNTED
I	ISOLATION MODULE
C	CONTROL MODULE
C	CONTROL MODULE, WALL MOUNTED
FACP	FIRE ALARM CONTROL PANEL (FACP)
FA REMOTE ANN	FIRE ALARM REMOTE ANNUNCIATOR PANEL
GV	GAS VALVE CONTROL MODULE
	END OF LINE RESISTER (EOR)

(SYMBOLS SHOWN FOR REFERENCE ONLY AND MAY NOT IMPLY CONTRACTUAL REQUIREMENTS)



E4 FIRE ALARM RISER DIAGRAM
NOT TO SCALE

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Wilmington, North Carolina 28403

REV.	DATE	DESCRIPTION

NO.	DATE	ISSUE NOTE

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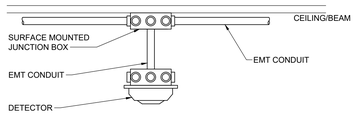
Sheet Title
FIRE ALARM RISER DIAGRAM, LEGEND AND NOTES

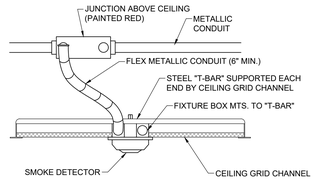
Sheet No.
FA0.1

VSS



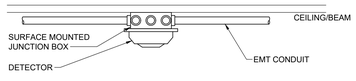
A1 TYPICAL SUSPENDED DEVICE DETAIL

NOT TO SCALE



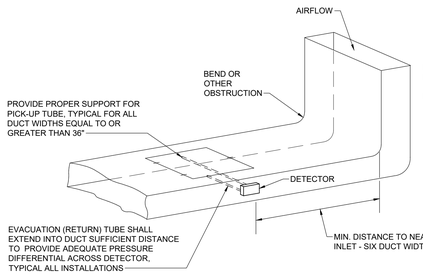
B1 TYPICAL CEILING MOUINTED DEVICE DETAIL

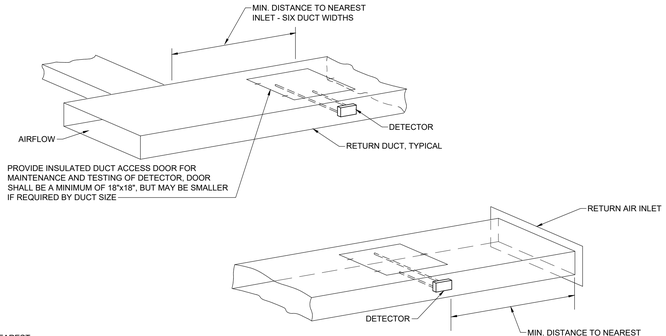
NOT TO SCALE



C1 TYPICAL SURFACE DEVICE DETAIL

NOT TO SCALE

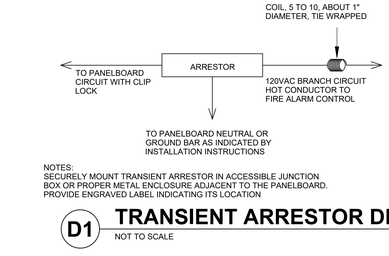




NOTE:
DUCT DETECTORS SHALL BE INSTALLED AS
RECOMMENDED BY THE DEVICE MANUFACTURER

C5 TYPICAL DUCT DETECTOR PLACEMENT DETAILS

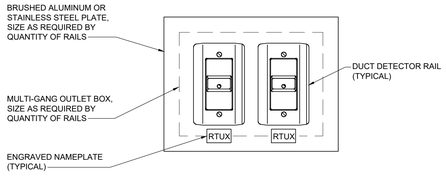
NOT TO SCALE



NOTES:
SECURELY MOUNT TRANSIENT ARRESTOR IN ACCESSIBLE JUNCTION
BOX OR PROPER METAL ENCLOSURE ADJACENT TO THE PANELBOARD.
PROVIDE ENGRAVED LABEL INDICATING ITS LOCATION

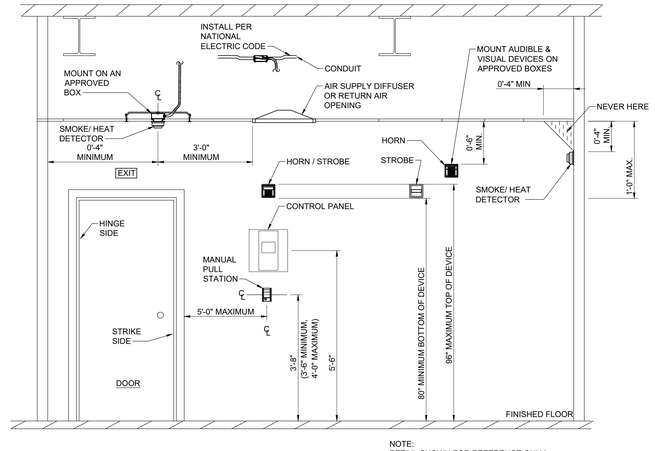
D1 TRANSIENT ARRESTOR DETAIL

NOT TO SCALE



E1 AHU FA RAIL INSTALLATION DETAIL

NOT TO SCALE



NOTE:
DETAIL SHOWN FOR REFERENCE ONLY,
NOT ALL DEVICES ARE INDICATED ON
PLANS.

E5 DEVICE MOUNTING DETAIL

NOT TO SCALE

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Sheet Title
FIRE ALARM DETAILS

Sheet No.
FA0.2

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THIRD PARTY RETAIL SPACE 103
VEST. 114
OFFICE 07 108
OFFICE 06 107
OFFICE 05 106
OFFICE 04 105
CONFERENCE ROOM 104
OFFICE11 113
OFFICE 10 112
OFFICE 09 111
MAIL RM 110
CORRIDOR 109
RETAIL STORAGE 102
UNISEX 101
RTU06,07,08
OFFICE 03 131
OFFICE 02 132
OFFICE 01 133
MEN'S 123
WOMEN'S 129
COMM. MEETING ROOM 115
RTU06
STORAGE 121
STORAGE 124
JAN. CLST. 125
MEN'S 138
WOMEN'S 139
RECEPTION 134
COMMERCIAL KITCHEN 126
RTU07
RTU08
STORAGE 122
ELEC. ROOM 127
VOLUNTEER LOUNGE 135
WP 100
VEST. 116
STORAGE 118
MEN'S 117
WOMEN'S 119
MECH ROOM 128
FIRE ALARM REMOTE ANNUNCIATOR
HOOD EXTINGUISHING SYSTEM
FIRE ALARM CONTROL UNIT (FACU)
BDA EQUIPMENT
BREAKROOM 129
OFFICE 13 144
OFFICE 12 145
FREEZER
AGENCY PICK-UP
AGENCY PICK-UP
AGENCY PICK-UP
AGENCY PICK-UP
COOLER #2
COOLER #1
WAREHOUSE 140
OFFICE 14 143
VOLUNTEER WORK AREA 136
JOCKEY PUMP COTROLLER
FIRE PUMP
FIRE PROTECTION FLOW AND TAMPER SWITCHES. COORDINATE EXACT QUANTITY AND LOCATIONS WITH FIRE PROTECTION DRAWINGS
RISER ROOM 149
FIRE ALARM REMOTE ANNUNCIATOR
FIRE PUMP CONTROLLER
INCOMING FOOD TRUCK
INCOMING FOOD TRUCK

1 FIRE ALARM FIRST FLOOR PLAN
1/8" = 1'-0"

PLAN NORTH

The Wilmington Food Bank
Greenfield Street
Wilmington, North Carolina 28403

REV.	DATE	DESCRIPTION

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Sheet Title
FIRE ALARM FIRST FLOOR PLAN

Sheet No.
FA1.1

FIRE SPRINKLER PROJECT SCOPE

1 THE SCOPE OF THIS PROJECT INCLUDES THE COMPLETE CONSTRUCTION OF A WET PIPE AUTOMATIC SPRINKLER SYSTEM, DESIGNED TO PROTECT THE NEW CONSTRUCITON, SINGLE-STORY FOOD BANK FACILITY.
2 A SINGLE WET PIPE SPRINKLER RISER WILL SERVE THE ENTIRE BUILDING, FOR A TOTAL OF APPROXIMATELY 31,100 SQUARE FEET.
3 A FIRE PUMP IS REQUIRED BASED UPON HYDRAULIC CALCULATIONS PERFORMED UTILIZING HYDRANT FLOW TEST INFORMATION. THE FIRE PUMP BASIS OF DESIGN IS A 1000 GPM, 50 PSI, 50 HP FIRE ELECTRIC FIRE PUMP.
4 THE FIRE PUMP CONTROLLER SHALL BE ACROSS THE LINE STARTING METHOD. A SECONDARY POWER SOURCE IS NOT REQUIRED, AS THE PRIMARY POWER SOURCE IS CONSIDERED RELIABLE IN ACCORDANCE WITH NFPA 20. THEREFORE, AN AUTOMATIC TRANSFER SWITCH IS NOT REQUIRED PER THE CITY OF WILMINGTON.
5 THE FACILITY IS CLASSIFIED AS SEISMIC DESIGN CATEGORY "C". SEISMIC PROTECTION OF THE SPRINKLER SYSTEM IS REQUIRED.
6 COLD STORAGE COOLERS AND FREEZERS SHALL BE PROTECTED BY DRY BARREL PENDENT ESFR SPRINKLERS SUPPLIED BY OVERHEAD WET PIPE SPRINKLER SYSTEM IN WAREHOUSE.

FIRE SPRINKLER GENERAL REQUIREMENTS

1 DESIGN AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE FOLLOWING CODES AND STANDARDS: 2018 NORTH CAROLINA BUILDING CODE, 2018 NORTH CAROLINA FIRE CODE, NFPA 13 STANDARD FOR THE INSTALLATION OF FIRE SPRINKLER SYSTEMS (2013), NFPA 20 STANDARD FOR THE INSTALLATION OF STATIONARY PUMPS FOR FIRE PROTECTION (2013), NFPA 24 STANDARD FOR THE INSTALLATION OF PRIVATE FIRE SERVICE MAINS AND THEIR APPURTENANCES (2013), NFPA 25 STANDARD FOR THE INSPECTION, TESTING, AND MAINTENANCE OF WATER-BASED FIRE PROTECTION SYSTEMS (2011), NFPA 70 NATIONAL ELECTRICAL CODE (2017), NFPA 72 NATIONAL FIRE ALARM AND SIGNALING CODE (2013), AND ALL LOCAL AHJ REQUIREMENTS.
2 NO CHANGES TO THE "FP" SHEETS BY THE SPRINKLER SUBCONTRACTOR ARE ALLOWED EXCEPT FOR ADDING SHOP DRAWING INFORMATION. ALL REQUIRED REVISIONS TO THE "FP" SHEETS (OTHER THAN MINOR REVISIONS FOR THE PURPOSE OF COORDINATION) AND ANY ABNORMAL CONDITIONS THAT WOULD RESULT IN NON-COMPLIANCE SHALL BE SUBMITTED IN WRITING AND SHALL BE APPROVED BY PERFORMANCE BASED FIRE PROTECTION ENGINEERING, PLLC AND THE AHJ.
3 THE FIRE SPRINKLER SYSTEMS IN THIS BUILDING SHALL BE MONITORED BY A CENTRAL STATION SIGNALING SYSTEM FURNISHED AND INSTALLED BY THE FIRE ALARM CONTRACTOR. ALL TAMPER SWITCHES AND WATER FLOW INDICATORS SHALL BE INSTALLED BY THE SPRINKLER CONTRACTOR AND WIRED TO THE CENTRAL STATION SIGNALING SYSTEM BY THE ALARM CONTRACTOR.
4 ALL PIPE LENGTHS SHOWN ARE CENTER TO CENTER DIMENSIONS.
5 ALL INSPECTOR'S TEST CONNECTIONS AND LOW POINT DRAINS SHALL BE IN ACCORDANCE WITH NFPA 13 AND SHALL BE DISPLAYED ON SHOP DRAWINGS. MOUNT CONTROL VALVES FOR INSPECTOR'S TEST CONNECTION AND LOW POINT DRAINS INSIDE BUILDING AT 5'-0" A.F.F. PIPE DRAIN LINES TO EXTERIOR OF BUILDING. COORDINATE WITH THE ARCHITECT FOR ACCEPTABLE LOCATIONS.
6 SPRINKLERS IN T-BAR CEILING SHALL BE PLACED IN QUARTER POINT OR CENTER OF 2x4 TILE. IN ALL SOFFITED AREAS, SPRINKLER HEADS SHALL BE ALIGNED WITH ADJACENT LIGHTING.
7 SIGNAGE SHALL BE PROVIDED AS REQUIRED, INCLUDING RISER ROOM IDENTIFICATION, FDC, TEST CONNECTIONS AND HYDRAULIC PLACARD.
8 FLOW SWITCH SHALL BE CONNECTED TO AN OUTSIDE ALARM BELL OR OTHER AUDIBLE ALARM DEVICE AT EACH RISER. APPROVED IDENTIFICATION SIGNS SHALL BE PROVIDED ON THE OUTSIDE ALARM BELL "SPRINKLER FIRE ALARM - WHEN ALARM SOUNDS CALL 911 / FIRE DEPARTMENT"
9 REFERENCE THE CIVIL DRAWINGS FOR ADDITIONAL FIRELINE INFORMATION AND ACTUAL LENGTHS OF PIPE. THE LAYOUT SHOWN ON THE CIVIL DRAWINGS WILL SUPERCEDE WHAT IS SHOWN ON THE FIRE PROTECTION SITE PLAN. THE FIRE PROTECTION SITE PLAN IS FOR HYDRAULIC REFERENCE ONLY.
10 THIS AREA IS NOT KNOWN TO HAVE PROBLEMS WITH MICROBIAL INDUCED CORROSION. NO PREVENTATIVE MEASURES ARE DESIGNED INTO THIS SYSTEM.
11 THE FIRE DEPARTMENT CONNECTION (FDC) IS A 5" STORZ TYPE CONNECTION AND IS ANTICIPATED TO BE LOCATED REMOTELY ON THE SITE. REFER TO CIVIL SITE UTILITY PLANS FOR COORDINATION.

FIRE SPRINKLER CONTRACTOR REQUIREMENTS

1 THE FIRE SPRINKLER SUBCONTRACTOR IS RESPONSIBLE FOR ALL CUTTING, SEALING, PATCHING, AND PAINTING REQUIRED FOR INSTALLATION OF THE SPRINKLER SYSTEM. ALL PENETRATIONS OF RATED ASSEMBLIES SHALL BE FIRE STOPPED WITH AN APPROVED MATERIAL AS PRESCRIBED IN THE APLICABLE CODES AND STANDARDS.
2 THE FIRE SPRINKLER SUBCONTRACTOR SHALL BE LICENSED AS REQUIRED BY THE STATE AND LOCAL AHJ FOR THE DESIGN AND INSTALLATION OF AUTOMATIC SPRINKLER SYSTEMS.
3 ALL WELDING SHALL BE DONE BY CERTIFIED WELDERS AS REQUIRED BY THE STATE AND LOCAL AHJ.
4 THE FIRE SPRINKLER CONTRACTOR SHALL PREPARE A SHOP DRAWING SUBMITTAL AND EQUIPMENT CUTSHEET PACKAGE SUBMITTAL, AND SUBMIT TO THE ENGINEER AND AUTHORITY HAVING JURISDICTION, FOR APPROVAL. APPROVAL OF SHOP DRAWINGS AND EQUIPMENT SHALL BE OBTAINED PRIOR TO STARTING WORK.
5 SPRINKLER CONTRACTOR IS RESPONSIBLE TO COORDINATE AND ADJUST SPRINKLER HEADS AND PIPING TO ACCOUNT FOR ELECTRICAL, MECHANICAL, STRUCTURE AND ALL OTHER TRADES AT NO ADDITIONAL COST.
6 CONTRACTOR SHALL PROVIDE OWNER WITH TEST CERTIFICATES, CARE & MAINTENANCE BOOK, COPY OF NFPA 25, SPARE HEAD CABINET WITH SPRINKLERS, AND REQUIRED SPRINKLER WRENCHES IN ACCORDANCE WITH NFPA 13.
7 DELIVERY OF ALL MATERIALS AND EQUIPMENT TO THE JOB SITE SHALL BE SCHEDULED TO ASSURE COMPLIANCE WITH THE PREDETERMINED CONSTRUCTION SCHEDULE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR STORAGE AND HANDLING ALL MATERIALS AND EQUIPMENT ON THE JOB SITE, INCLUDING FURNISHING OF ANY STORAGE FACILITIES OR STRUCTURE REQUIRED.
8 THE SYSTEM SHOWN ON THESE PLANS REQUIRES A CONNECTION TO THE UNDERGROUND FIRE PROTECTION MAIN. THE CONTRACTOR WHO INSTALLS THE UNDERGROUND PIPING FROM THE POINT OF SERVICE IS RESPONSIBLE FOR COMPLETING THE INSTALLATION TO THE ABOVE GROUND FIRE SPRINKLER SYSTEM CONNECTION FLANGE OR GROOVED CONNECTION. ALL FIRE PROTECTION UNDERGROUND DOWNSTREAM OF THE POINT OF SERVICE IDENTIFIED ON THE PLANS SHALL BE INSTALLED BY A LICENSED CLASS I, CLASS II, OR CLASS V FIRE PROTECTION CONTRACTOR AS REQUIRED BY THE STATE FIRE MARSHAL. THE UNDERGROUND CONTRACTOR IS RESPONSIBLE FOR COMPLETING THE CONTRACTOR'S MATERIAL AND TEST CERTIFICATE FOR UNDERGROUND PIPING DOCUMENT. ABOVE GROUND CONTRACTORS MAY NOT COMPLETE THE CONTRACTOR'S MATERIAL AND TEST CERTIFICATE FOR THE UNDERGROUND PIPING OR PORTION THEREOF WHICH HAVE BEEN INSTALLED BY OTHERS.

FIRE SPRINKLER MATERIAL REQUIREMENTS

1 ALL MATERIALS SHALL BE UL LISTED OR FM APPROVED.
2 ALL INTERIOR PIPE SHALL BE BLACK STEEL: SCHEDULE 10 FOR PIPES 2 1/2" AND LARGER AND SCHEDULE 40 FOR PIPES 2" AND SMALLER.
3 ALL EXTERIOR PIPE (INCLUDING NIPPLES OR SPOOL PIECES EXTENDING THROUGH EXTERIOR WALLS) SHALL BE SCHEDULE 40 GALVANIZED STEEL.
4 ALL INTERIOR GROOVED FITTINGS SHALL COME WITH THE FACTORY APPLIED COATING.
5 ALL INTERIOR THREADED FITTINGS SHALL BE CAST IRON, DUCTILE IRON OR MALLEABLE IRON.
6 ALL EXTERIOR FITTINGS SHALL BE GALVANIZED.
7 PROVIDE RIGID COUPLINGS THROUGHOUT, EXCEPT FLEXIBLE COUPLINGS SHALL BE INSTALLED AS FOLLOWS: WITHIN 24 IN. OF THE TOP AND BOTTOM OF ALL RISERS; ON BOTH SIDES OF CONCRETE OR MASONRY WALLS WITHIN 1 FT. OF THE WALL SURFACE; WITHIN 24 IN. OF BUILDING EXPANSION JOINTS; WITHIN 24 IN. OF THE TOP AND BOTTOM OF DROPS TO HOSE LINES, RACK SPRINKLERS, AND MEZZANINES, REGARDLESS OF PIPE SIZE; WITHIN 24 IN. OF THE TOP OF DROPS EXCEEDING 15 FT. IN LENGTH TO PORTIONS OF SYSTEMS SUPPLYING MORE THAN ONE SPRINKLER, REGARDLESS OF PIPE SIZE; ABOVE AND BELOW ANY INTERMEDIATE POINTS OF SUPPORT FOR A RISER OR OTHER VERTICAL PIPE.
8 HANGER LOCATION FOR ALL PIPING SHALL BE IN ACCORDANCE WITH NFPA 13. ALTERNATE UL AND FM HANGER METHODS ARE ACCEPTED AT NO ADDITIONAL COST TO THE OWNER. PROVIDE UL AND FM LITERATURE TO PERFORMANCE BASED FIRE PROTECTION ENGINEERING, PLLC AND THE AHJ FOR REVIEW AND ACCEPTANCE.
9 SEISMIC PROTECTION OF SPRINKLER PIPING IS REQUIRED IN ACCORDANCE WITH NFPA 13, SECTION 9.3.

FIRE SPRINKLER TESTING REQUIREMENTS

1 THE FIRE SPRINKLER SYSTEM SHALL BE HYDROSTATICALLY PRESSURE TESTED IN ACCORDANCE WITH NFPA 13.
2 ALL PIPING AND ATTACHED APPURTENANCES SUBJECTED TO SYSTEM WORKING PRESSURE SHALL BE HYDROSTATICALLY TESTED AT 200 PSI AND SHALL MAINTAIN THAT PRESSURE WITHOUT LOSS FOR 2 HOURS.
3 LOSS SHALL BE DETERMINED BY A DROP IN GAUGE PRESSURE OR VISUAL LEAKAGE.
4 THE TEST PRESSURE SHALL BE READ FROM A GAUGE LOCATED AT THE LOW POINT OF THE SYSTEM OR PORTION BEING TESTED. THE PRESSURES IN PIPING AT HIGHER ELEVATIONS SHALL BE PERMITTED TO BE LESS THAN 200 PSI WHEN ACCOUNTING FOR ELEVATION LOSSES. SYSTEMS OR PORTIONS OF SYSTEMS THAT CAN BE ISOLATED SHALL BE PERMITTED TO BE TESTED SEPARATELY.
5 THE FIRE PUMP SHALL BE TESTED IN ACCORDANCE WITH NFPA 20.

FIRE SPRINKLER LEGEND

PLAN	PROFILE	DESCRIPTION
		FIRE SPRINKLER HEAD
		TEE
		ELBOW
		ENDCAP
		REDUCER
		BUTTERFLY VALVE
		OS&Y GATE VALVE
		2 1/2" HOSE VALVE
		CHECK VALVE
		FLOOR CONTROL VALVE

ANNOTATION LEGEND

PLAN	DESCRIPTION
X" / X' - X"	PIPE DIAMETER OVER PIPE LENGTH
X	KEY NOTE TAG
XX	HAZARD CLASSIFICATION TAG
	MATCHLINE
	REMOTE AREA

SHEET LIST

SHEET NAME	SHEET NUMBER
GENERAL FIRE SPRINKLER NOTES	FP001
SITE PLAN	FP002
FIRE SPRINKLER FLOOR PLAN AREA A	FP101A
FIRE SPRINKLER FLOOR PLAN AREA B	FP101B
FIRE SPRINKLER COLD STORAGE FLOOR PLAN	FP101C
FIRE SPRINKLER RISER/PUMP ROOM PLAN	FP201
BUILDING SECTIONS AND ISOMETRIC VIEWS	FP301
FIRE SPRINKLER DETAILS	FP401

FIRE SPRINKLER SYSTEM DESIGN SCHEDULE

AREAS	SYSTEM TYPE	HAZARD CLASSIFICATION	SYMBOL	DENSITY (GPM/SQFT)	DESIGN AREA (SQFT)	HOSE ALLOWANCE (GPM)	DURATION (MIN)	MAX HEAD SPACING (SQFT)	HEAD TYPE	K-FACTOR	POSITION	FINISH	TEMPERATURE (°F)	REMARKS
OFFICE, RESTROOM, BREAKROOM	WET-PIPE	LIGHT HAZARD	LH	0.10	1,500[b]	100	60	225[c]	QUICK RESPONSE STANDARD SPRAY	5.6	UPRIGHT CONCEALED PENDENT	BRASS WHITE POLYESTER	165	*
MECHANICAL, STORAGE	WET-PIPE	ORDINARY HAZARD (GROUP 1)	OH1	0.15	1,500[b]	250	60	130[c]	QUICK RESPONSE STANDARD SPRAY	5.6	UPRIGHT PENDENT	BRASS WHITE POLYESTER	165	*
RACK STORAGE	WET-PIPE	STORAGE	ESFR	12 SPRINKLERS @ 15 PSI [a]		250	60	100	EARLY SUPPRESSION FAST RESPONSE	25.2	PENDENT	BRASS WHITE POLYESTER	212	*
COLD STORAGE	WET-PIPE	STORAGE	ESFR	12 SPRINKLERS @ 35 PSI [a]		250	60	100	EARLY SUPPRESSION FAST RESPONSE	16.8	DRY-BARREL PENDENT	BRASS WHITE POLYESTER	212	*
LOADING DOCK, RETAIL STORAGE	WET-PIPE	ORDINARY HAZARD (GROUP 2)	OH2	0.20	1,500[b]	250	60	130[c]	QUICK RESPONSE STANDARD SPRAY	8.0	UPRIGHT [d] PENDENT	BRASS WHITE POLYESTER	212	*

a. DESIGN AREA OF 12 SPRINKLERS FOR ESFR TYPE SPRINKLERS IN ACCORDANCE WITH NFPA 23.4.4.3
b. DESIGN AREA IS PERMITTED TO BE REDUCED FOR QUICK RESPONSE SPRINKLER HEADS IN ACCORDANCE WITH NFPA 13 11.2.3.2.3
c. EXTENDED COVERAGE SPRINKLERS ARE PERMITTED WHERE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.
d. INSTALL DRY-TYPE HORIZONTAL SIDEWALL FOR PROTECTION OF EXTERIOR CANOPIES.

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REV.	DATE	DESCRIPTION

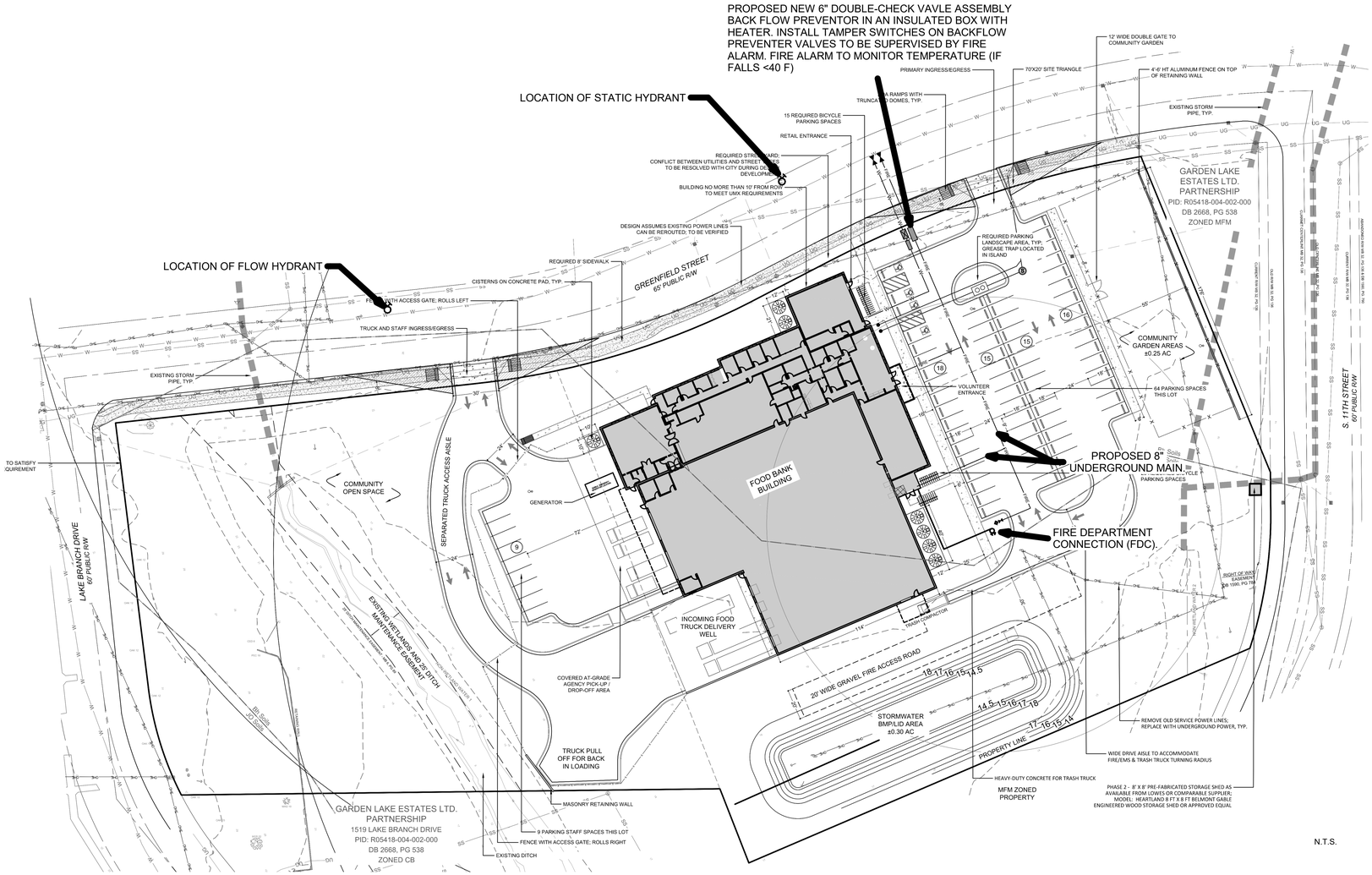
Project Manager: DFS
Drawn By: KDS
Date: 10/25/2021
Reviewed By: DFS
Project ID:

Sheet Title: GENERAL FIRE SPRINKLER NOTES

Sheet No.: FP001

WATER SUPPLY INFORMATION

STATIC PRESSURE	72.00 psi
RESIDUAL PRESSURE	60.00 psi
FLOW	855.74 GPM
CONDUCTED BY	DAVID COLE
WITNESSED BY	MARY WILSON
TEST DATE	07/30/21
TEST TIME	9:00 AM
PROPOSED FIRE PUMP RATING	50 PSI @ 1000 GPM



SITE PLAN (FOR HYDRAULIC REFERENCE ONLY)

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Date: 10/25/2021	Reviewed By: DFS
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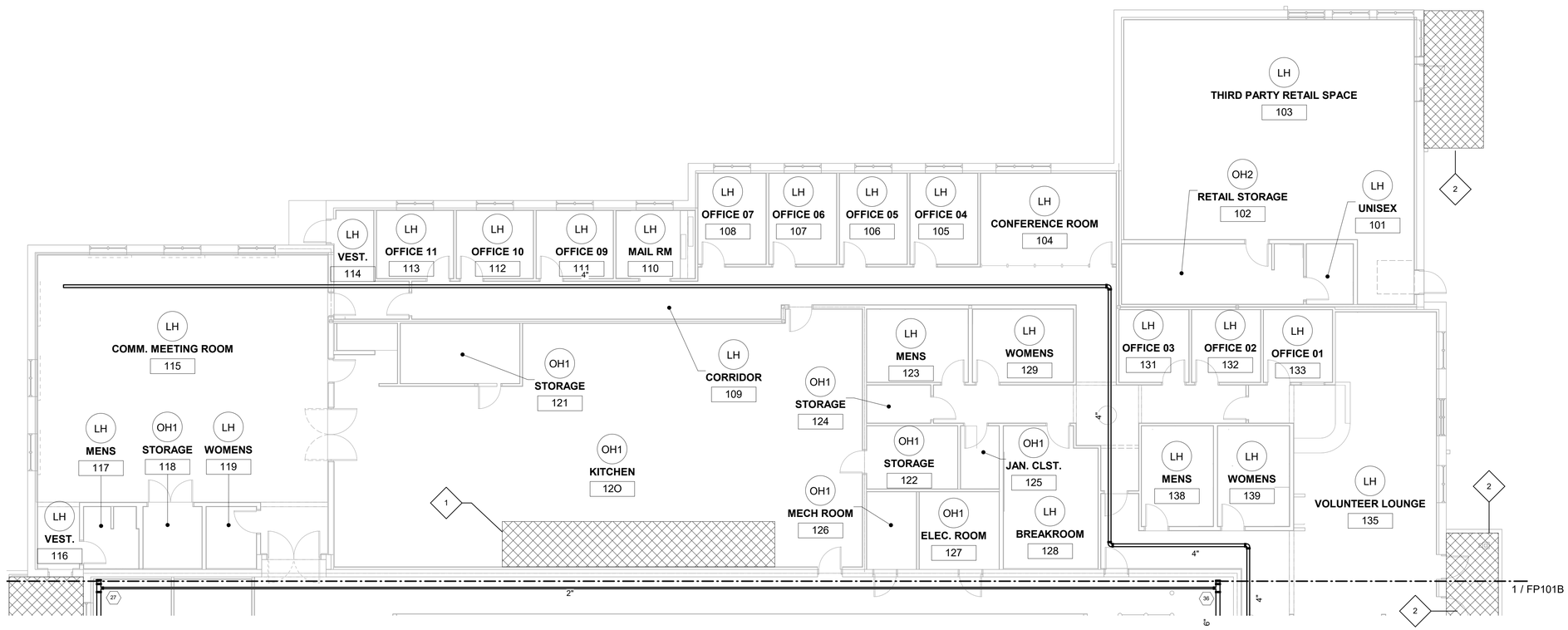
Sheet Title: SITE PLAN

Sheet No.: FP002

KEYNOTE LEGEND

1 SPRINKLER PROTECTION NOT REQUIRED WHERE PROTECTED BY RANGE HOOD SUPPRESSION SYSTEM; PROVIDED BY OTHERS.

2 SPRINKLER PROTECTION OMITTED FROM BENEATH EXTERIOR CANOPY. CANOPY IS ANTICIPATED TO BE OF NONCOMBUSTIBLE CONSTRUCTION, WITH NO COMBUSTIBLE STORAGE BENEATH.



1 FIRE SPRINKLER FLOOR PLAN - AREA A
1/8" = 1'-0"

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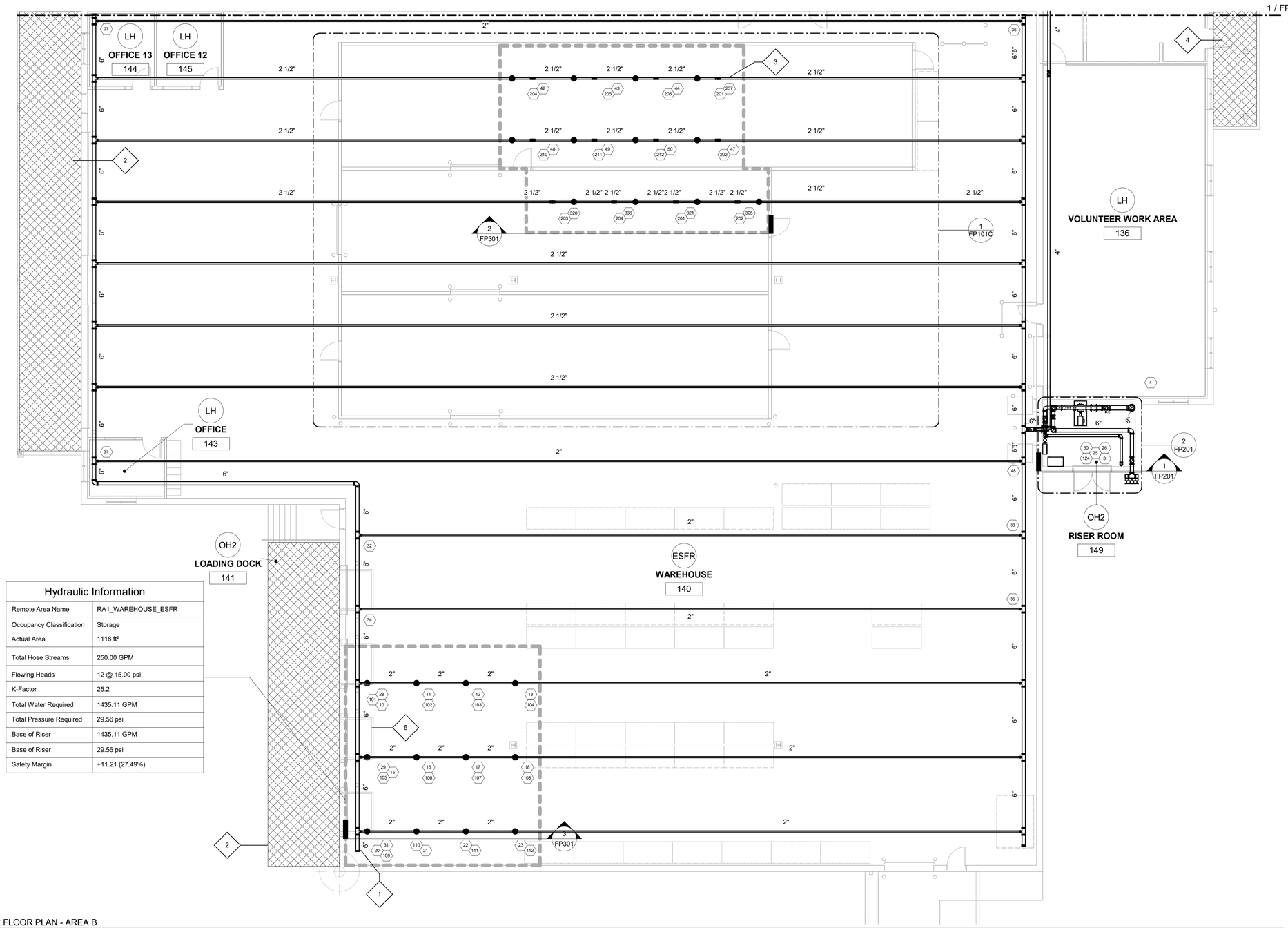
Project ID

Sheet Title
FIRE SPRINKLER FLOOR PLAN AREA A

Sheet No.
FP101A

KEYNOTE LEGEND

1. INSTALL AUTOMATIC AIR VENT AT HIGH POINT IN SYSTEM. PIPE DRAIN TO EXTERIOR OF BUILDING AND PROVIDE SPLASH BLOCK.
2. PROVIDE SPRINKLER PROTECTION BENEATH EXTERIOR CANOPY UTILIZING DRY-TYPE HORIZONTAL SIDEWALL SPRINKLERS.
3. NOTE LARGER BRANCHLINE SIZES IN THIS AREA DUE TO HYDRAULIC DEMAND OF K 16.8 DRY PENDENT ESFR.
4. SPRINKLER PROTECTION OMITTED FROM BENEATH EXTERIOR CANOPY. CANOPY IS ANTICIPATED TO BE OF NONCOMBUSTIBLE CONSTRUCTION, WITH NO COMBUSTIBLE STORAGE BENEATH.
5. PROVIDE SPRINKLER PROTECTION FOR TRACK-STYLE GARAGE DOORS WHEN IN OPEN/OVERHEAD POSITION.



Hydraulic Information	
Remote Area Name	RA1_WAREHOUSE_ESFR
Occupancy Classification	Storage
Actual Area	1118 ft²
Total Hose Streams	250.00 GPM
Flowing Heads	12 @ 15.00 psi
K-Factor	25.2
Total Water Required	1435.11 GPM
Total Pressure Required	29.56 psi
Base of Riser	1435.11 GPM
Base of Riser	29.56 psi
Safety Margin	+11.21 (27.49%)

1 FIRE SPRINKLER FLOOR PLAN - AREA B
1/8" = 1'-0"

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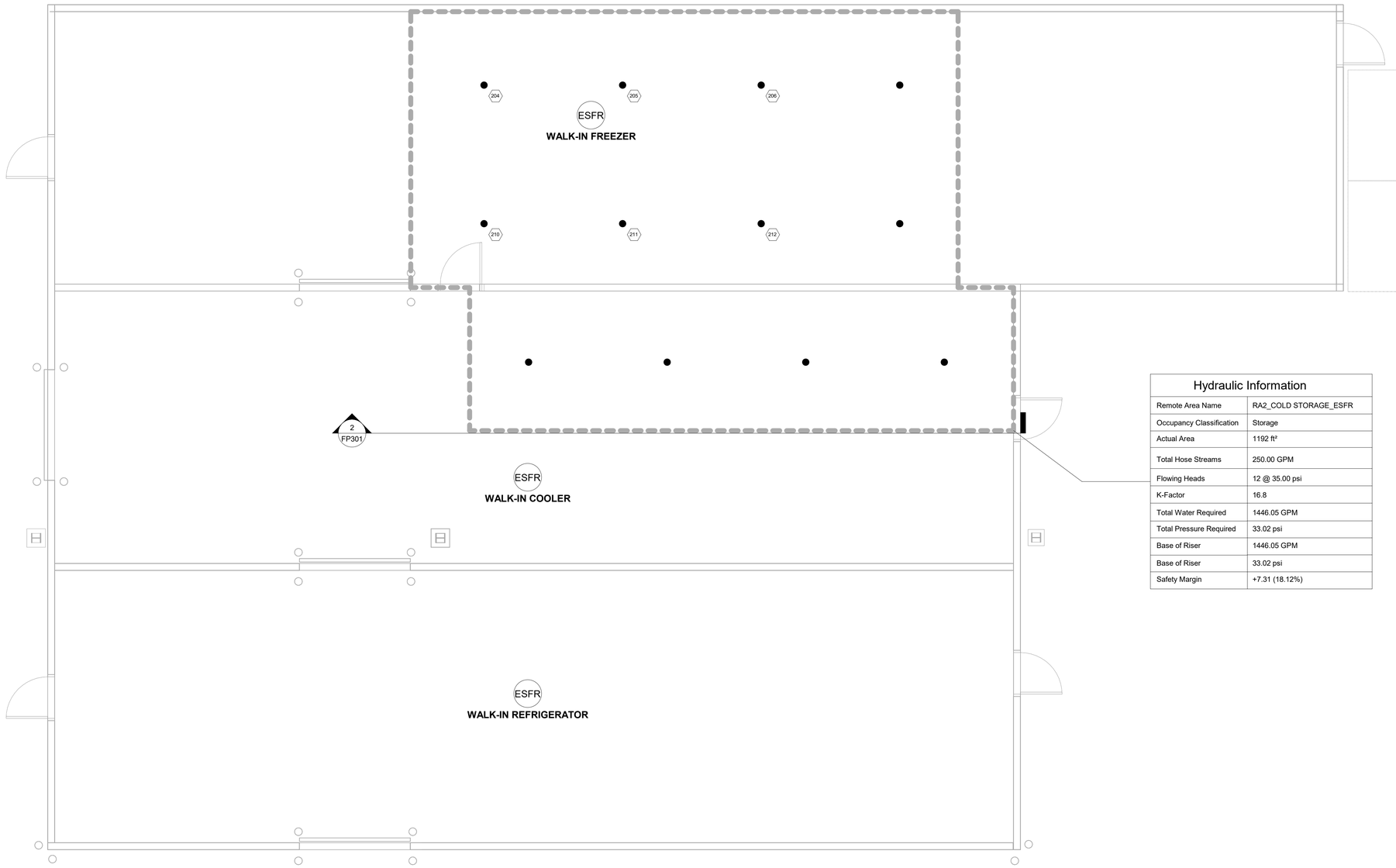
Sheet Title
FIRE SPRINKLER FLOOR PLAN AREA B

Sheet No.
FP101B

KEYNOTE LEGEND



Hydraulic Information	
Remote Area Name	RA2_COLD STORAGE_ESFR
Occupancy Classification	Storage
Actual Area	1192 ft²
Total Hose Streams	250.00 GPM
Flowing Heads	12 @ 35.00 psi
K-Factor	16.8
Total Water Required	1446.05 GPM
Total Pressure Required	33.02 psi
Base of Riser	1446.05 GPM
Base of Riser	33.02 psi
Safety Margin	+7.31 (18.12%)

1 FIRE SPRINKLER COLD STORAGE FLOOR PLAN
1/4" = 1'-0"

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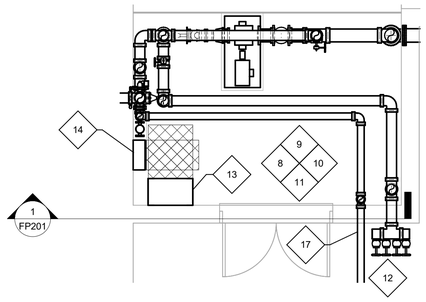
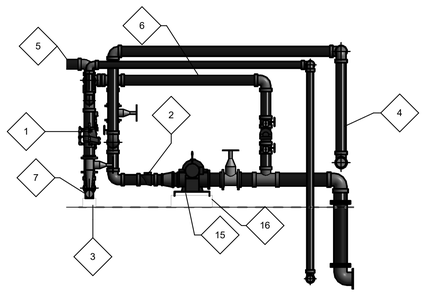
Sheet Title
FIRE SPRINKLER COLD STORAGE FLOOR PLAN

Sheet No.
FP101C



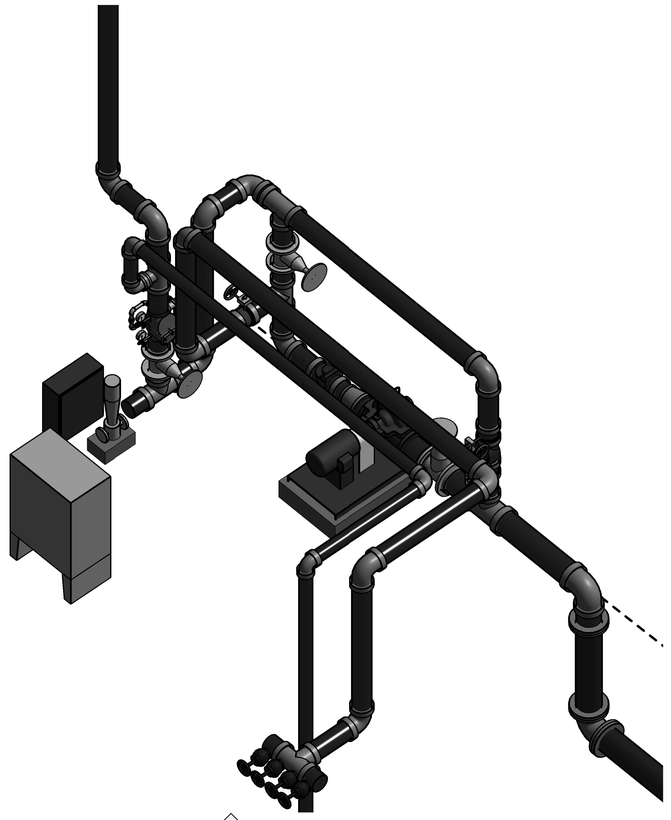
2 FIRE SPRINKLER RISER/FIRE PUMP ROOM
1/4" = 1'-0"



1 SECTION VIEW - FIRE PUMP
1/4" = 1'-0"

KEYNOTE LEGEND

1 ALARM CHECK VALVE AND TRIM. PIPE MAIN DRAIN TO SPLASH BLOCK AT EXTERIOR OF BUILDING.
2 CHECK VALVE.
3 HOUSE KEEPING PAD FOR JOCKEY PUMP MOUNTING.
4 FEED FROM SUPPLY.
5 FEED TO WET-PIPE FIRE SPRINKLER SYSTEM.
6 FIRE PUMP BYPASS LINE.
7 JOCKEY PUMP (PRESSURE MAINTENANCE PUMP).
8 THE FIRE PUMP ROOM SHALL BE PROVIDED WITH A MEANS TO CONTOL TEMPERATURE AND HUMIDITY. THE TEMPERATURE SHALL BE MAINTAINED ABOVE 40°F.
9 THE FIRE PUMP ROOM SHALL NOT BE USED FOR STORAGE AND SHALL BE FREE FROM ALL PENETRATIONS NONESSENTIAL TO THE OPERATION OF THE FIRE PUMP.
10 THE FIRE PUMP ROOM FLOOR SHALL BE PITCHED FOR ADEQUATE DRAINAGE AWAY FROM ELECTRICAL EQUIPMENT AND PROVIDED WITH A FLOOR DRAIN.
11 EMERGENCY LIGHTING SHALL BE PROVIDED IN THE PUMP ROOM.
12 FIRE PUMP TEST HEADER WITH FOUR (4) 2 1/2" HOSE CONNECTIONS.
13 ACROSS THE LINE ELECTRIC FIRE PUMP CONTROLLER (NO TRANSFER SWITCH).
14 JOCKEY PUMP CONTROLLER.
15 HORIZONTAL SPLIT CASE FIRE PUMP. BASIS OF DESIGN IS A 1000 GPM AT 50 PSI PUMP WITH A 50 HP MOTOR.
16 HOUSE KEEPING PAD FOR FIRE PUMP MOUNTING.
17 SUPPLY TO FDC.
18 FEED TO FREE STANDING FIRE DEPARTMENT CONNECTION.



3 PUMP ROOM ISOMETRIC

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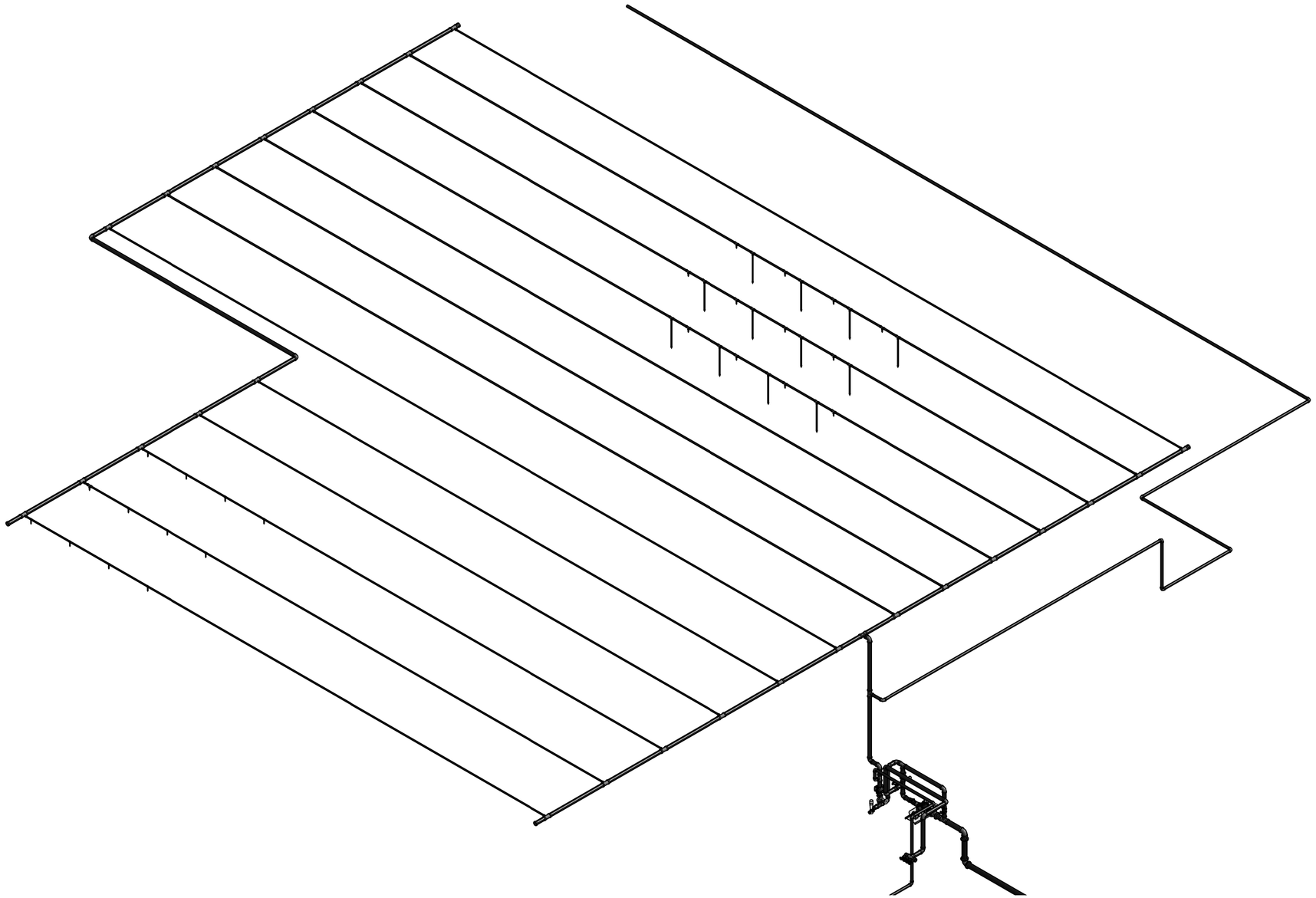
Sheet Title
FIRE SPRINKLER RISER/PUMP ROOM PLAN

Sheet No.
FP201



1 FIRE SPRINKLER ISOMETRIC VIEW





2 COLD STORAGE SECTION
1/8" = 1'-0"





3 WAREHOUSE SECTION
1/8" = 1'-0"

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Sheet Title
BUILDING SECTIONS AND ISOMETRIC VIEWS

Sheet No.
FP301