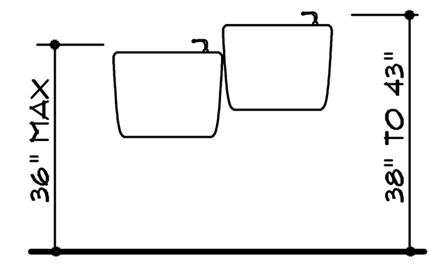
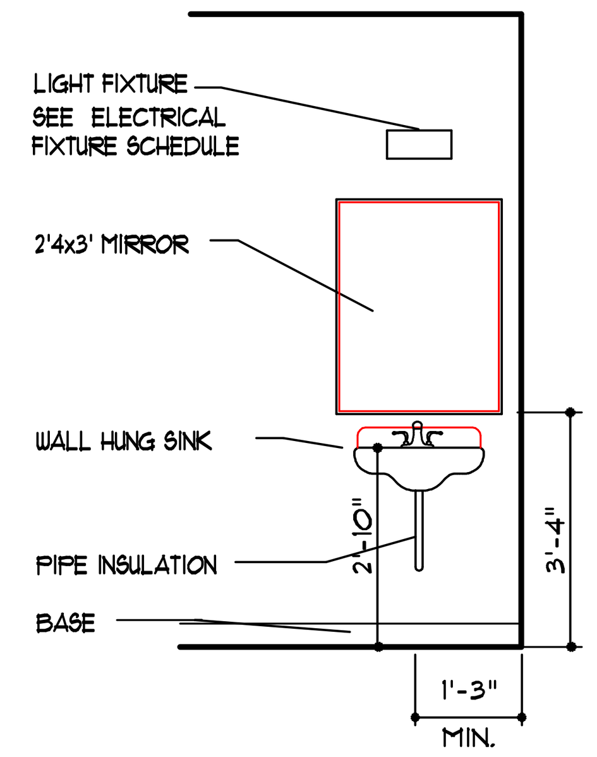
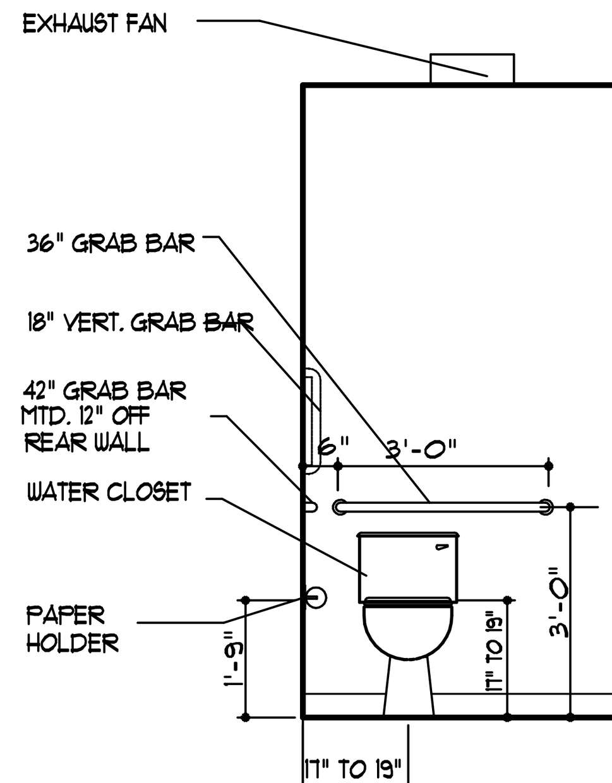


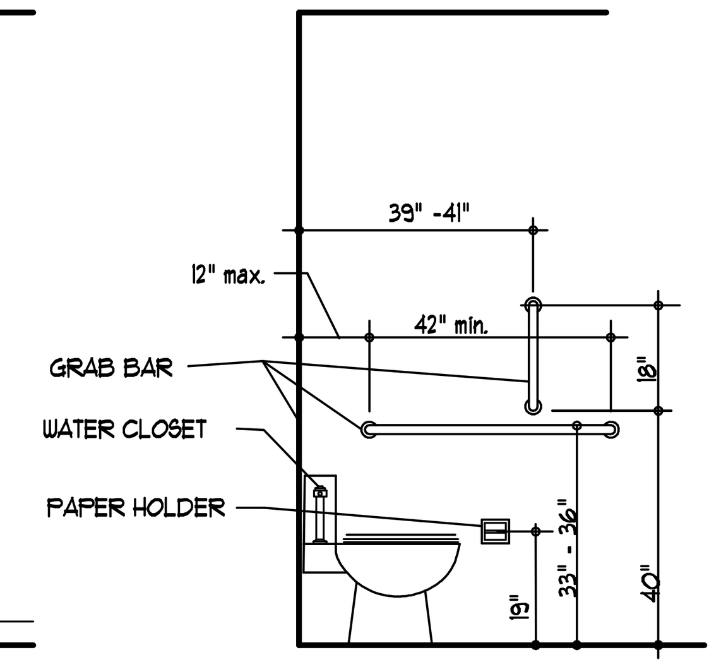
WATER FOUNTAIN



SINK ELEVATION



NOTE:
PROVIDE BLOCKING IN ALL WALLS BEHIND GRAB BARS & WALL HUNG SINKS AS PER HANDICAPPED CODE



TYP. TOILET ELEVATION

NOTE: ALL DIMENSIONS TAKEN TO FACE OF FINISH SURFACE

NOTE:
ADA UNITS WILL INCLUDE AN ELECTRIC DOOR LIFT OPERATOR WITH BATTERY BACKUP, PHOTO EYES, EMERGENCY RELEASE AND KEYPAD FOR OPERATION. KEYPAD WILL BE MOUNTED WITHIN ACCESSIBLE REACH RANGES PER ANSI 308.
MANUFACTURER: LIFTMASTER 8950W OR EQUAL

HORIZONTAL SLIDING DOORS SHALL COMPLY WITH SECTION 1010.1.4.3 OF NCBC. ELECTRICAL TO BE COORDINATED.

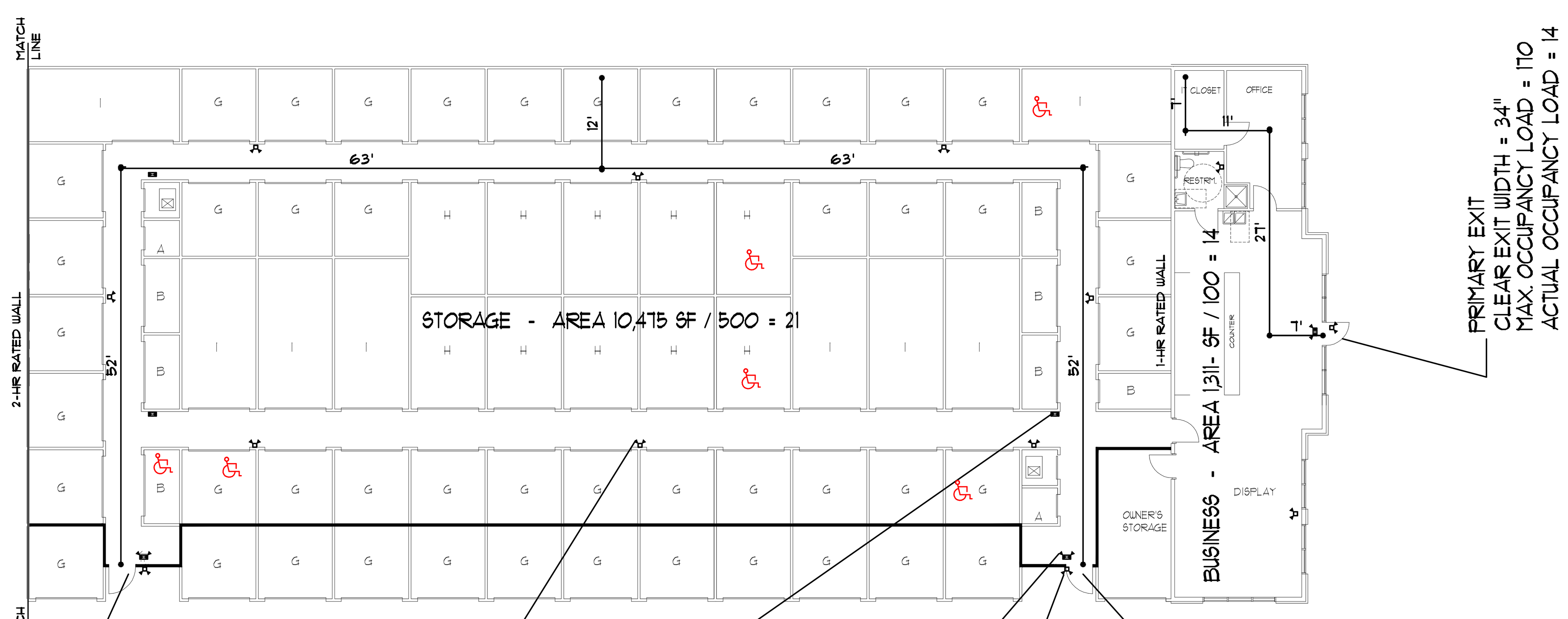
OCCUPANT DISPERSAL FROM EXITS TO PUBLIC ROAD SHOWN ON SITE PLAN

SECONDARY EXIT
CLEAR EXIT WIDTH = 41"
MAX. OCCUPANCY LOAD = 205
ACTUAL OCCUPANCY LOAD = 12

FLOOR PLAN - AREA 'A'

1/16" = 1'-0"

PRIMARY EXIT
CLEAR EXIT WIDTH = 41"
MAX. OCCUPANCY LOAD = 205
ACTUAL OCCUPANCY LOAD = 12



PRIMARY EXIT
CLEAR EXIT WIDTH = 34"
MAX. OCCUPANCY LOAD = 170
ACTUAL OCCUPANCY LOAD = 14

SECONDARY EXIT
CLEAR EXIT WIDTH = 41"
MAX. OCCUPANCY LOAD = 205
ACTUAL OCCUPANCY LOAD = 12

EXIT SIGN
EMERGENCY LIGHT

EXIT SIGN W/
EMERGENCY LIGHT

EXTERIOR
EMERGENCY LIGHT

PRIMARY EXIT
CLEAR EXIT WIDTH = 41"
MAX. OCCUPANCY LOAD = 205
ACTUAL OCCUPANCY LOAD = 12

LIFE SAFETY & OCCUPANCY PLAN

1/16" = 1'-0"

BUILDING 'A'
NEW STORAGE FACILITY FOR
HARNETT SELF STORAGE
SPOUT SPRINGS, NC

APPENDIX "B" BUILDING CODE SUMMARY

Name of project: BLDG. 'A' NEW FACILITY FOR HARNETT SELF STORAGE
Address: - Zip Code
Owner or Authorized Agent: VIC SMITH Phone: 336-855-1286 E-mail: erskinesmith@bellsoutn.net
Owned By: ☐ City/County ■ Private ☐ State
Code Enforcement Jurisdiction: ■ City SANFORD ☐ County

CONTACT: Victor J. Smith

DESIGNER	FIRM	NAME	LICENSE NO.	TELEPHONE NO.	E-MAIL ADDRESS
Architectural	ERSKINE-SMITH Architecture, PLLC	Victor J. Smith	6687	336-855-1286	erskinesmith@bellsoutn.net
Civil					
Electrical	EUBANKS HUMPHERY ENGINEERING PC	BRYAN E. HUMPHREY	032588	336-379-0663	behumphrey@bellsouth.net
Fire Alarm					
Plumbing	EUBANKS HUMPHERY ENGINEERING PC	BRYAN E. HUMPHREY	032588	336-379-0663	behumphrey@bellsouth.net
Mechanical	EUBANKS HUMPHERY ENGINEERING PC	BRYAN E. HUMPHREY	032588	336-379-0663	behumphrey@bellsouth.net
Sprinkler-Standpipe					
Structural					
Retaining Walls >5' High					
Other					

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

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

CONSTRUCTION (date) ______ ORIGINAL OCCUPANCY (Ch. 3): ______
RENOVATED: (date) ______ PROPOSED OCCUPANCY (Ch. 3): S-1 STORAGE

RISK CATEGORY (Table 1604.5): Current ☐ I ■ II ☐ III ☐ IV
Proposed ☐ I ■ II ☐ III ☐ IV

BASIC BUILDING DATA
Construction Type: ☐ I-A ☐ II-A ☐ III-A ☐ IV ☐ V-A
☐ I-B ■ II-B ☐ III-B ☐ 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 Flood Hazard Area: ■ No ☐ Yes
Special Inspections Required: ■ NO ☐ YES (Contact the local inspections jurisdiction for additional procedures and requirements)
Manual Fire Alarm System with Notification: ■ No ☐ Yes

Gross Building Area:

FLOOR	EXISTING (SQ FT)	NEW (SQ FT)	SUB-TOTAL
4th Floor			
3rd Floor			
2nd Floor			
Mezzanine	Area A	2-hr WALL Area B w/ office	
1st Floor	11,683 sf	11,800	
Basement			
TOTAL	11,683 sf	11,800	23,483 SF TOTAL

ALLOWABLE AREA

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

Accessory Occupancy Classification(s): BUSINESS
Incidental Uses (Table 509): NA
Special Uses (Chapter 4 - List Code Sections): NA
Special Provisions: (Chapter 5- List Code Sections): NA

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 Mixed Occupancy (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 allowable floor area for each use shall not exceed 1.

Actual Area of Occupancy A / Allowable Area of Occupancy A + Actual Area of Occupancy E / Allowable Area of Occupancy E ≤ 1

______ + ______ + _ _ = ______ ≤ 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) ALLOWABLE AREA PER STORY OR UNLIMITED 2,3

(1) Frontage area increases from Section 506.2 are computed thus:
a. Perimeter which fronts a public way or open space having 20 feet minimum width = ______ (F)
b. Total Building Perimeter = ______ (P)
c. Radio (F/P) = ______ (F/P)
d. W = Minimum width of public way = ______ (W)
e. Percent of frontage increase If = 100 (F/P - 0.25) x W/30 = ______ %
(2) Unlimited area applicable under conditions of Sections 507
(3) Maximum Building Area = total number of stories in the building x D (506.2)
(4) The maximum area of open parking garages must comply with 406.5.4. The maximum area of air traffic control towers must comply with 412.3.1.
(5) Frontage increase is based on the unsprinklered area value in table 506.2

ALLOWABLE HEIGHT

	Allowable	Show on plans	Code Reference
Building Height in Feet (Table 504.3)	55 FT.	20'	
Building Height in Stories (Table 504.4)	2	1	

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

NS = BUILDING NOT EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM

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 Framing, including columns, girders, trusses		0					
Bearing walls							
Exterior							
NORTHWEST	86'	0					
NORTHEAST	68'	0					
SOUTHEAST WALL (ASSUMED PROPERTY LINE)	15'	0					
SOUTHWEST WALL	364'	0					
Interior		0					
Nonbearing walls and partitions Exterior Walls							
North	N/A	0					
East	N/A	0					
West	N/A	0					
South	N/A	0					
Interior walls & partitions		0					
Floor construction including supporting beams and joists		0					
Floor Ceiling Assembly		0					
Columns Supporting Roof		0					
Roof construction including supporting beams and joists		0					
Floor Ceiling Assembly		0					
Columns Supporting Roof		N/A					
Shafts Enclosures - Exit		N/A					
Shafts Enclosures - Others		N/A					
Corridor Separation		N/A					
Occupancy/Fire Barrier Separation		1-hr	1-hr	U-419	7/A-3		
Party/Fire Wall Separation		2-hr	2-hr	U-419	3/A-3		
Smoke Barrier Separation		N/A					
Tenant / Dwelling Unit/ Sleeping Unit Separation		N/A					
Incidental Use Separation		N/A					

* Indicate section number permitting reduction

PERCENTAGE OF WALL OPENINGS CALCULATIONS

Fire Separation Distance (Feet) from Property Line	Degree of Opening Protection (Table 705.8)	Allowable Area (%)	Actual Shown on Plan (%)
NORTH 100'	UNPROTECTED, NONSPRINKLERED	NO LIMIT	0
WEST 36'	UNPROTECTED, NONSPRINKLERED	NO LIMIT	0
SOUTH 25'	UNPROTECTED, NONSPRINKLERED	NO LIMIT	0
EAST 19' ASSUMED PROPERTY LINE	UNPROTECTED, NONSPRINKLERED	NO LIMIT PER TABLE 705.8.1 ex. 2	54%

LIFE SAFETY PLAN REQUIREMENTS

Life Safety Plan Sheet #: COVER SHEET
NA ☐ Fire and/or smoke rated wall locations (Chapter 7)
☐ Assumed and real property line locations (if not on site plan)
■ Exterior wall opening area with respect to distance to assumed property lines (705.8)
■ Occupancy Use for each area as it relates to occupancy load calculation (Table 1004.1.2)
■ Occupant loads for each area
■ Exit access travel distance (1017)
■ Common path of travel distance (Table 1006.2.1 & 1006.3.2(1))
NA ☐ 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
NA ☐ A separate schematic plan indicating where fire rated floor ceiling and/or roof structure is provided for purposes of occupancy separation
NA ☐ Location of doors with panic hardware (1010.1.10)
NA ☐ Location of doors with delayed egress locks and the amount of delay (1010.1.9.7)
NA ☐ Location of doors with electromagnetic egress locks (1010.1.9.9)
NA ☐ Location fo doors equipped with hold-open devices
NA ☐ location of emergency escape windows (1030)
NA ☐ The square footage of each fire area (202)
NA ☐ The square footage of each smoke compartment for Occupancy Classification I-2 (407.5)
NA ☐ note any code exceptions or table notes that may have been utilized regarding the items above

ACCESSIBLE DWELLING UNITS (Section 1107)

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

ACCESSIBLE PARKING (Section 1106)

LOT OR PARKING AREAS	TOTAL # OF PARKING SPACES REQUIRED	TOTAL # OF PARKING SPACES PROVIDED	# OF ACCESSIBLE SPACES PROVIDED: REGULAR WITH 5' ACCESS AISLE	VAN SPACES WIDTH: 132" ACCESS AISLE	VAN SPACES WIDTH: 8' ACCESS ISLE	TOTAL NO. ACCESSIBLE PROVIDED
TOTAL		SEE SITE PLAN				

PLUMBING FIXTURE REQUIREMENTS (Table 2902.1)

USE		WATER CLOSETS MALE	WATER CLOSETS FEMALE	WATER CLOSETS UNISEX	URINALS	LAVATORIES MALE	LAVATORIES FEMALE	LAVATORIES UNISEX	SHOWERS/ TUBS	DRINKING FOUNTAINS REGULAR	DRINKING FOUNTAINS ACCESSIBLE
OUTSIDE	EXISTING										
	NEW										
INSIDE	EXISTING										
	NEW	1 UNISEX IN BLDG. "A"				1 UNISEX IN BLDG. "A"				N/A	
TOTAL	REQUIRED	1 UNISEX IN BLDG. "A"				1 UNISEX IN BLDG. "A"				N/A	
	PROVIDED	1 UNISEX IN BLDG. "A"				1 UNISEX IN BLDG. "A"					

SPECIAL APPROVALS

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

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

Climate Zone ■ 3 ☐ 4 ☐ 5

Method of Compliance
☐ Prescriptive (Energy Code)
☐ Performance (Energy Code)
☐ Prescriptive (ASHRAE 90.1)
☐ Performance (ASHRAE 90.1)

THERMAL ENVELOPE
Roof/ceiling Assembly (each assembly)
Description of assembly ______
U-Value of total assembly ______
R-Value of insulation ______
Skylights in each assembly ______
U-Value of skylight ______
total square footage of skylights in each assembly ______

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

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

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

Floors slab on grade
Description of assembly ______
U-Value of total assembly ______
R-Value of insulation ______
Horzontial/vertical requirement ______
slab heated ______

NOT REQUIRED PER 2012 NC-EEC

UNIT MIX - TOTAL 4 BLDG.

SIZE	MARK	A	B	C	J	TOTAL	ACCESSIBLE UNITS
5'x5'	A	4	-	-	-	66	BLDG. A 5
5'x10'	B	13	6	8	-	81	
10'x10'	G	105	-	-	3	57	BLDG. A 5
10'x15'	H	24	52	-	-	183	
10'x20'	I	16	-	60	-	88	BLDG. J 3
10'x30'	K	-	-	-	26	44	
12'x30'	Z	-	-	-	15	30	
	TOTAL	162	58	68	44	332	13
NET SQ. FT. PER BLDG		18,284	8,100	12,400	13,500	55,284 SQ. FT. NET TOTAL	
GROSS SQ. FT. PER BLDG		23,508	8,100	12,400	13,500	57,508 SQ. FT. GROSS TOTAL	

UNIT CALCULATIONS

CODE REQUIREMENTS	PERCENTAGE	# OF UNITS	# OF ADA UNITS REQ.
5% OF THE FIRST 200 UNITS	5%	200	10
2% OF REMAINING UNITS	2%	132	2.64
TOTAL		332	3

NOTE: ALL ACCESSIBLE STORAGE UNTIS DOORS SHALL HAVE A MAX. 5 LB. PULL

ERSKINE-SMITH
ARCHITECTURE, P.L.L.C.
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3406-A West Wendover Avenue
Greensboro, N.C. 27407
Phone (336) 855-1286 Fax 855-5602

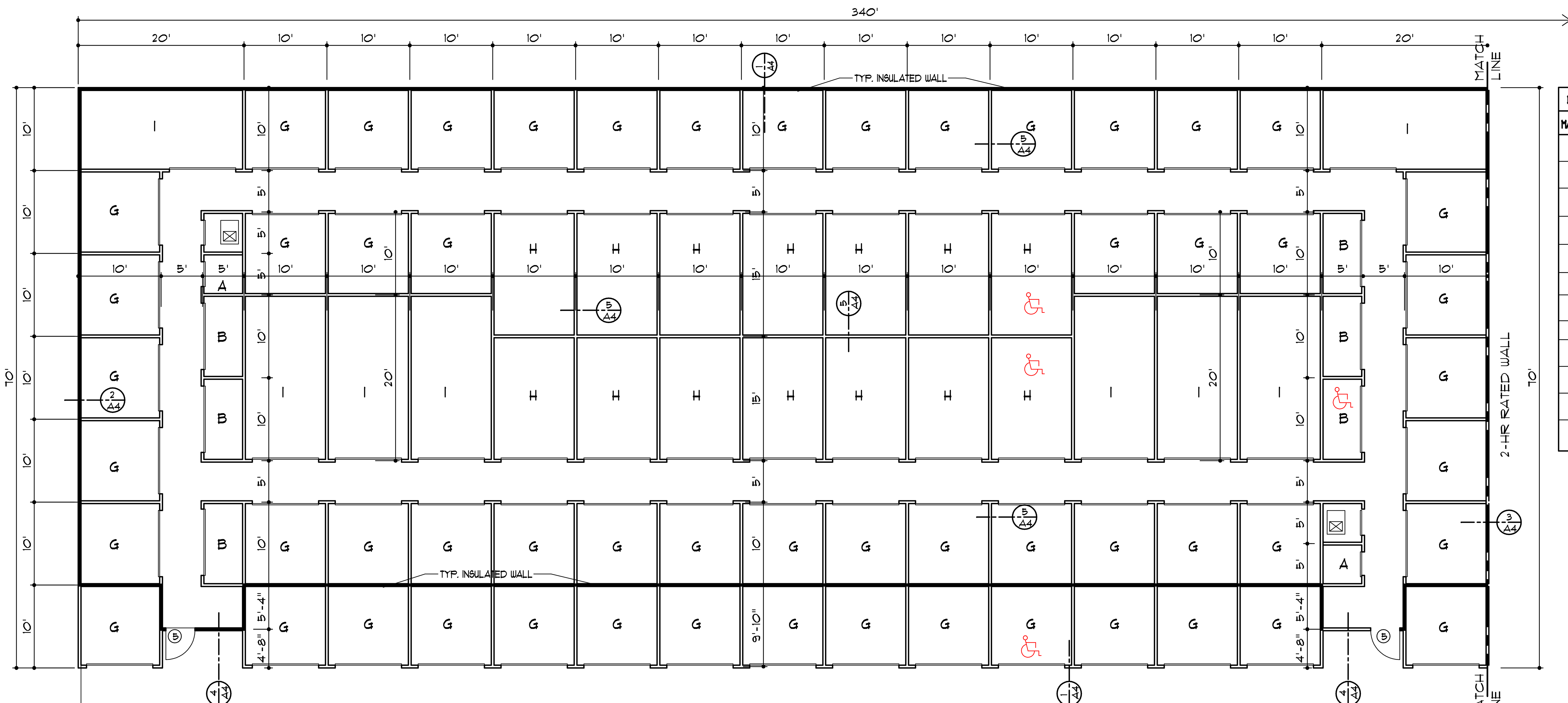
VICTOR J. SMITH REGISTERED ARCHITECT 6687 NORTH CAROLINA GREENSBORO, NC
07-29-2022
[illegible]

ERSKINE-SMITH ARCHITECTURE PLLC REGISTERED ARCHITECTURAL COMPANY 51579 NORTH CAROLINA GREENSBORO, NC

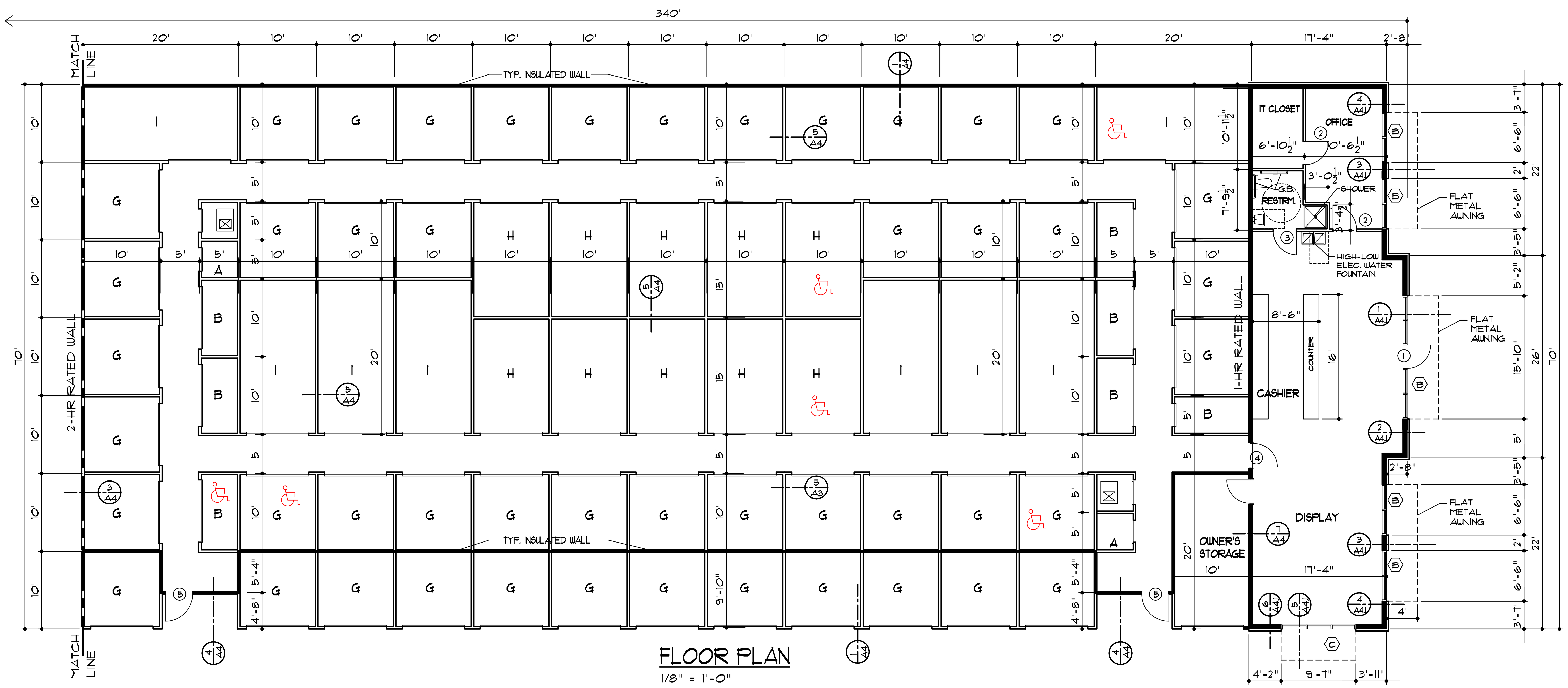
NEW STORAGE FACILITY FOR BLDG. 'A'
HARNETT SELF STORAGE
SPOUT SPRINGS, NC

REVISIONS	BY

DRAWN BY: VJS
CHECKED BY: RHE
DATE: 07-29-2022
SCALE: 1/16" = 1'-0"
FILE:
SHEET NUMBER: COVER
BLDG. A



FLOOR PLAN
1/8" = 1'-0"



FLOOR PLAN
1/8" = 1'-0"

DOOR SCHEDULE

MARK	QUANITY	UNIT SIZE	MATERIAL	GLAZING	FRAME	HARDWARE
1	1	3'-0" x 7'-0" x 1 3/4"	ALUM. STOREFRONT IN STOREFRONT "A"	FULL LITE	ALUM.	PUSH / PILL W/ LOCK SET, 1½ pr BUTT HINGE, SILENCERS, DOOR STOP, CLOSER
2	2	3'-0" x 7'-0" x 1 3/4"	SOLID CORE BIRCH	N/A	16 ga. METAL	LEVER HANDLE LOCK SET, 1½ pr BUTT HINGE, SILENCERS, DOOR STOP
3	1	3'-0" x 7'-0" x 1 3/4"	SOLID CORE BIRCH	N/A	16 ga. METAL	LEVER HANDLE PASSAGE SET, 1½ pr BUTT HINGE, SILENCERS, DOOR STOP
4	1	3'-0" x 7'-0" x 1 3/4"	SOLID CORE METAL	N/A	16 ga. METAL	LEVER HANDLE LOCK SET, 1½ pr BUTT HINGE, DOOR STOP, ½" HC THRESHOLD, CLOSER, (20 MIN. ASSEMBLY)
5	4	3'-6" x 7'-0" x 1 3/4"	INSUL. METAL	6"x30" VISION PANEL	16 ga. METAL	LEVER HANDLE LOCK SET, 2 pr BUTT HINGE, SILENCERS CLOSER, ½" HC THRESHOLD, WEATHER-STRIPPING

NOTE: 1. ALL INTERIOR OVERHEAD DOORS BY "METAL BUILDING COMPANY"

WINDOW SCHEDULE

MARK	QUANITY	UNIT SIZE	MATERIAL	GLAZING	FRAME	HARDWARE
A	1	15'-10" x 8'-0"	ALUM. STOREFRONT	FULL LITE	ALUM.	ALUM. STOREFRONT W/ 1" LOW-E INSUL. GLASS WITH DOOR #1
B	4	6'-6" x 8'-0"	ALUM. STOREFRONT	FULL LITE	ALUM.	ALUM. STOREFRONT W/ 1" LOW-E INSUL. GLASS
C	1	9'-7" x 8'-0"	ALUM. STOREFRONT	FULL LITE	ALUM.	ALUM. STOREFRONT W/ 1" LOW-E INSUL. GLASS

UNIT MIX - TOTAL 4 BLDG.

SIZE	MARK	BUILDING TYPE A	B	C	J	TOTAL	ACCESSIBLE UNITS
5'x5'	A	4	-	-	-	66	BLDG. A 5
5'x10'	B	13	6	8	-	81	
10'x10'	G	105	-	-	3	57	BLDG. A 5
10'x15'	H	24	52	-	-	183	
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10'x30'	K	-	-	-	26	44	
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	TOTAL	162	58	68	44	332	
NET SQ. FT. PER BLDG		18,284	8,100	12,400	13,500	55,284 SQ. FT. NET TOTAL	
GROSS SQ. FT. PER BLDG		23,508	8,100	12,400	13,500	57,508 SQ. FT. GROSS TOTAL	

NOTE:
ADA UNITS WILL INCLUDE AN ELECTRIC DOOR LIFT OPERATOR WITH BATTERY BACKUP, PHOTO EYES, EMERGENCY RELEASE AND KEYPAD FOR OPERATION. KEYPAD WILL BE MOUNTED WITHIN ACCESSIBLE REACH RANGES PER ANSI 308.
MANUFACTURER: LIFT MASTER 8950W OR EQUAL

HORIZONTAL SLIDING DOORS SHALL COMPLY WITH SECTION 1010.1.4.3 OF NCBC. ELECTRICAL TO BE COORDINATED.

OCCUPANT DISPERSAL FROM EXITS TO PUBLIC ROAD SHOWN ON SITE PLAN

NOTE:
1. EXTERIOR WALL DIMENSIONS TAKEN FROM EXTERIOR FACE OF STUD
2. INTERIOR WALL DIMENSIONS TAKEN FROM CENTER LINE OF WALL
3. OVERHEAD DOORS FOR STORAGE UNITS SUPPLIED AND SIZED BY METAL BLDG. MANUFACTURER.
4. EXTERIOR WALLS TO BE INSULATED EXCEPT AT EXTERIOR STORAGE UNITS
5. WALL BETWEEN EXTERIOR ENTRANCE STORAGE UNITS AND INTERIOR STORAGE UNITS TO BE INSULATED.
6. WALLS BETWEEN OFFICE & STORAGE AREA TO BE INSULATED
7. PROVIDE BLOCKING BEHIND SINK, TOILET, WATER FOUNTAIN & SHOWER
8. SHOWER UNIT TO BE ACCESSIBLE TYPE WITH ½" THRESHOLD & GRAB BARS

BUILDING 1/A

BLDG. A

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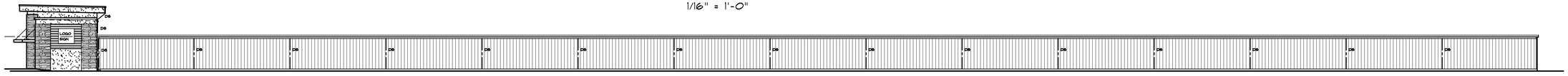
NEW STORAGE FACILITY FOR HARNETT SELF STORAGE
SPOUT SPRINGS, NC

REVISIONS	BY

DRAWN BY : VJS
CHECKED BY : VJS
DATE : 07-29-2022
SCALE : 1/8" = 1'-0"
FILE :
SHEET NUMBER :
A-1

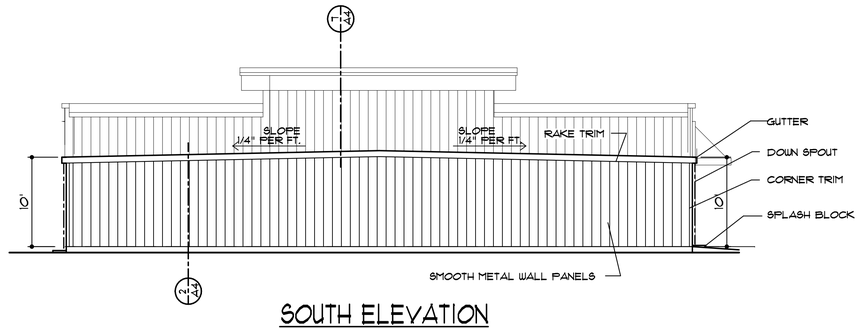
EAST ELEVATION

1/16" = 1'-0"



WEST ELEVATION

1/16" = 1'-0"



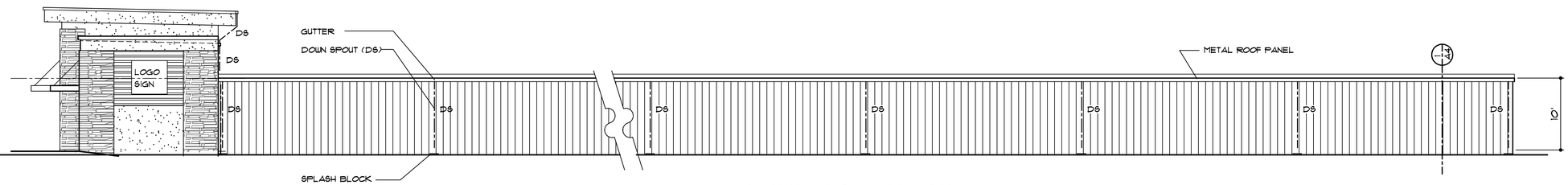
SOUTH ELEVATION

1/8" = 1'-0"

ALL RAIN LEADER TO HAVE SPLASH BLOCKS

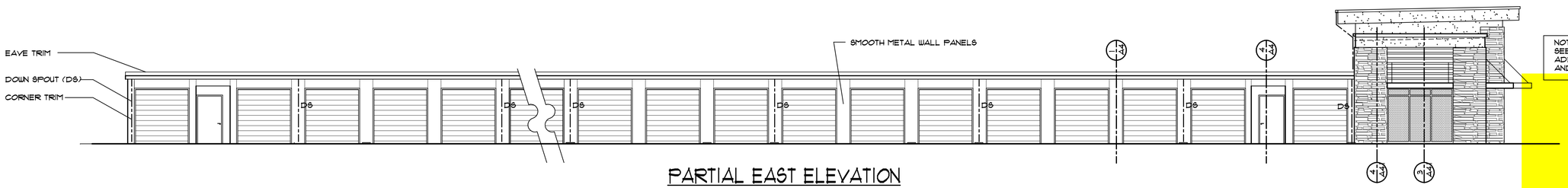
DOWN SPOUTS & GUTTERS

ROOF AREA = 13,500 SF
GUTTER LENGTH = 450'LF
GUTTER SIZE = 5"w X 4"d
DOWN SPOUT (3"x4") = 16
AREA PER DOWN SPOUT = 844 sf



PARTIAL WEST ELEVATION

1/8" = 1'-0"



PARTIAL EAST ELEVATION

1/8" = 1'-0"

NOTE:
SEE SHEET A-3 FOR ADDITIONAL NOTES AND DIMENSIONS

BLDG. A

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NEW STORAGE FACILITY FOR HARNETT SELF STORAGE

SPOUT SPRINGS, NC

REVISIONS	BY

DRAWN BY : VJS
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DATE : 07-29-2022
SCALE : 1/8" = 1'-0"
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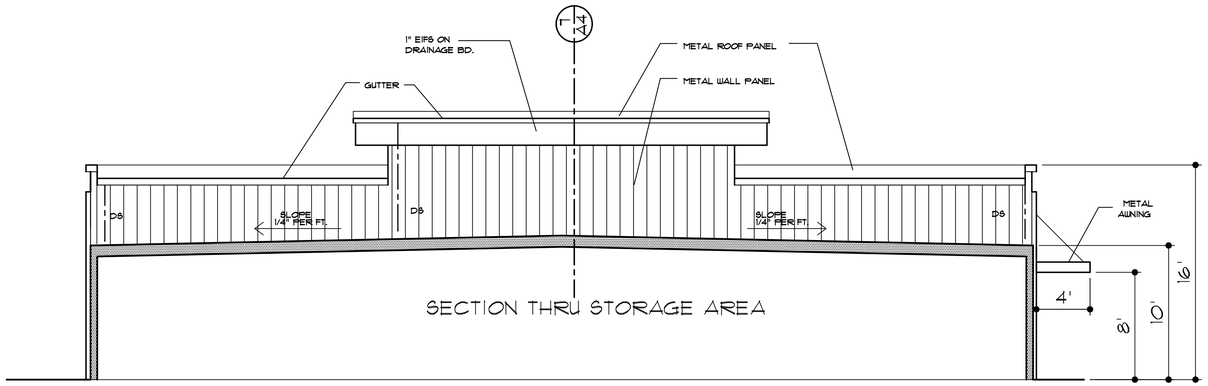
SHEET NUMBER :

A-2



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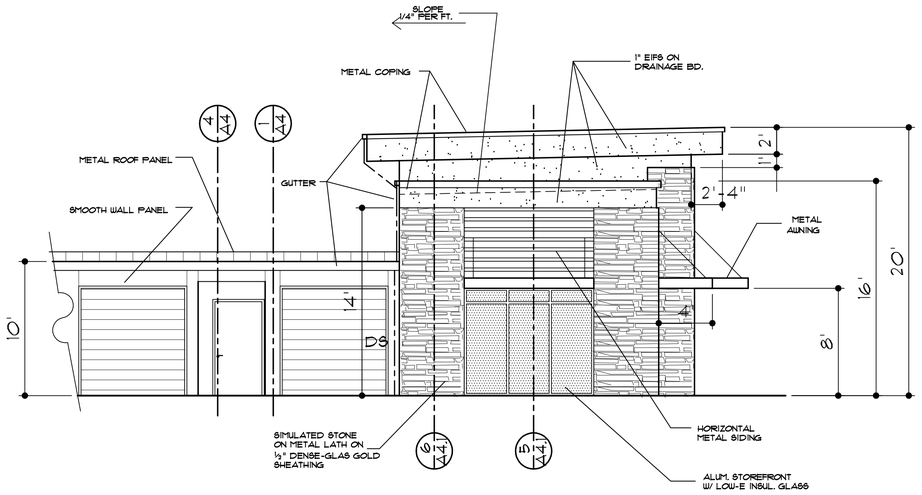

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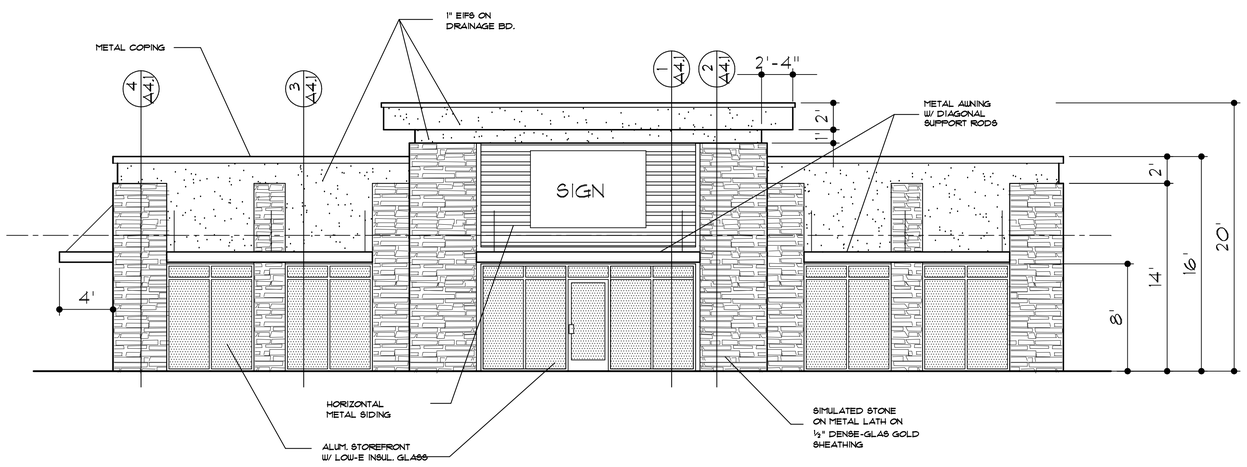

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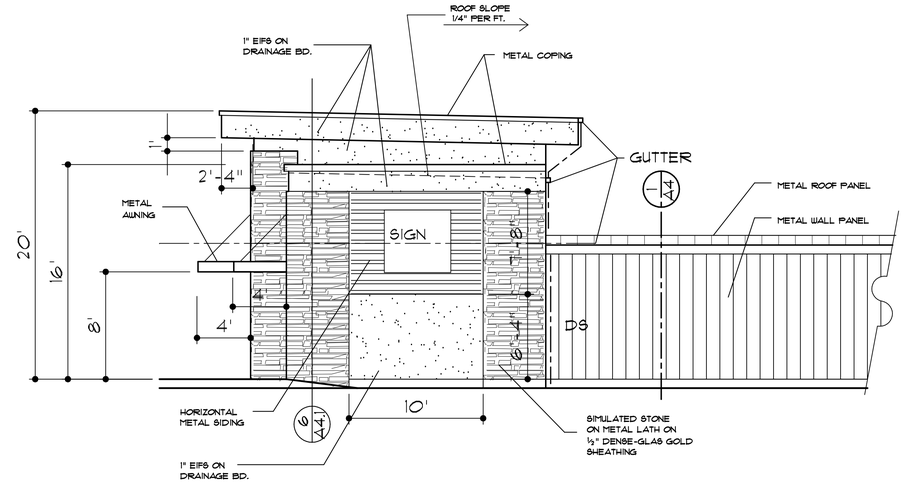

WEST ELEVATION

BLDG. A

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NEW STORAGE FACILITY FOR HARNETT SELF STORAGE

SPOUT SPRINGS, NC

REVISIONS	BY

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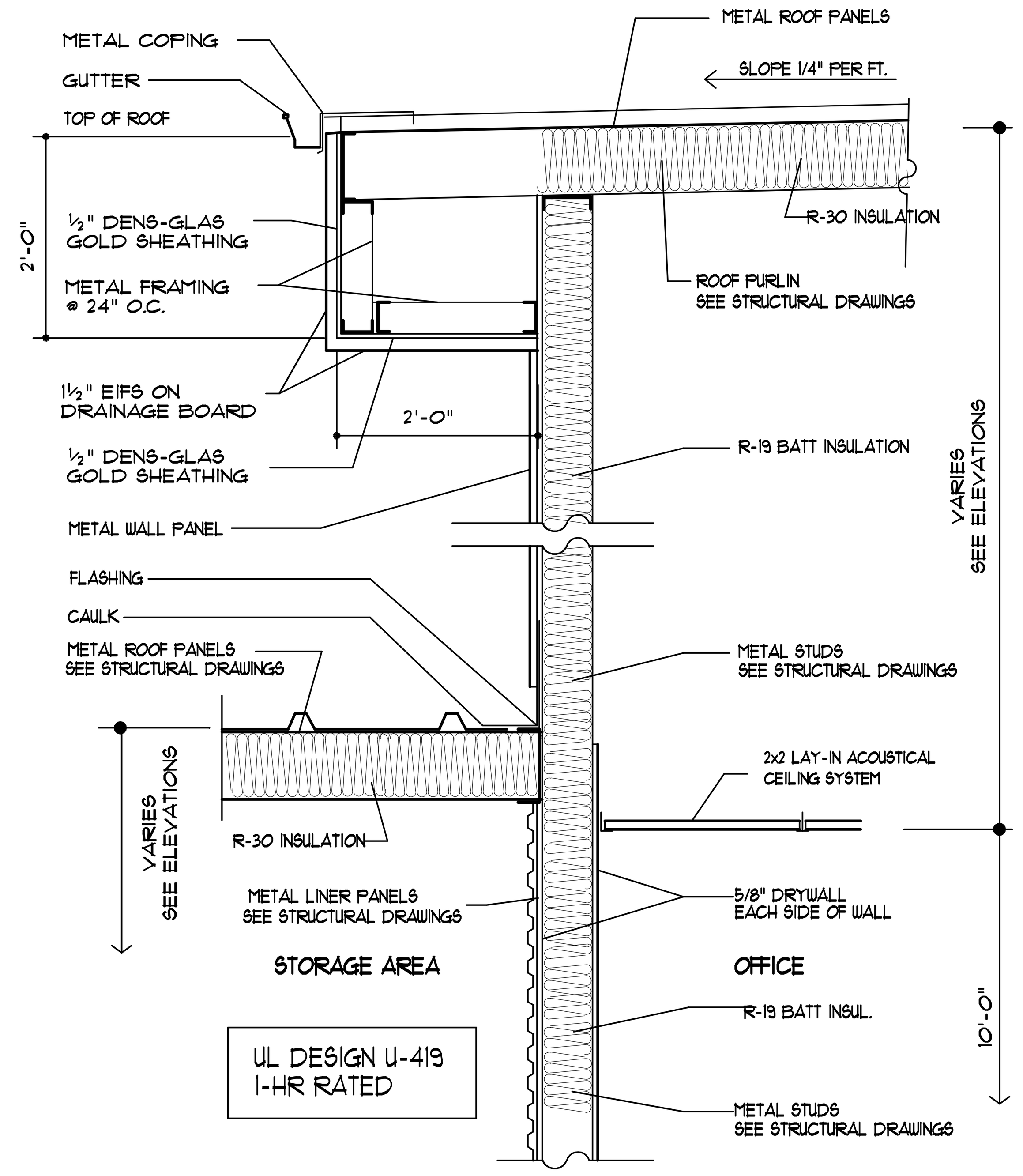
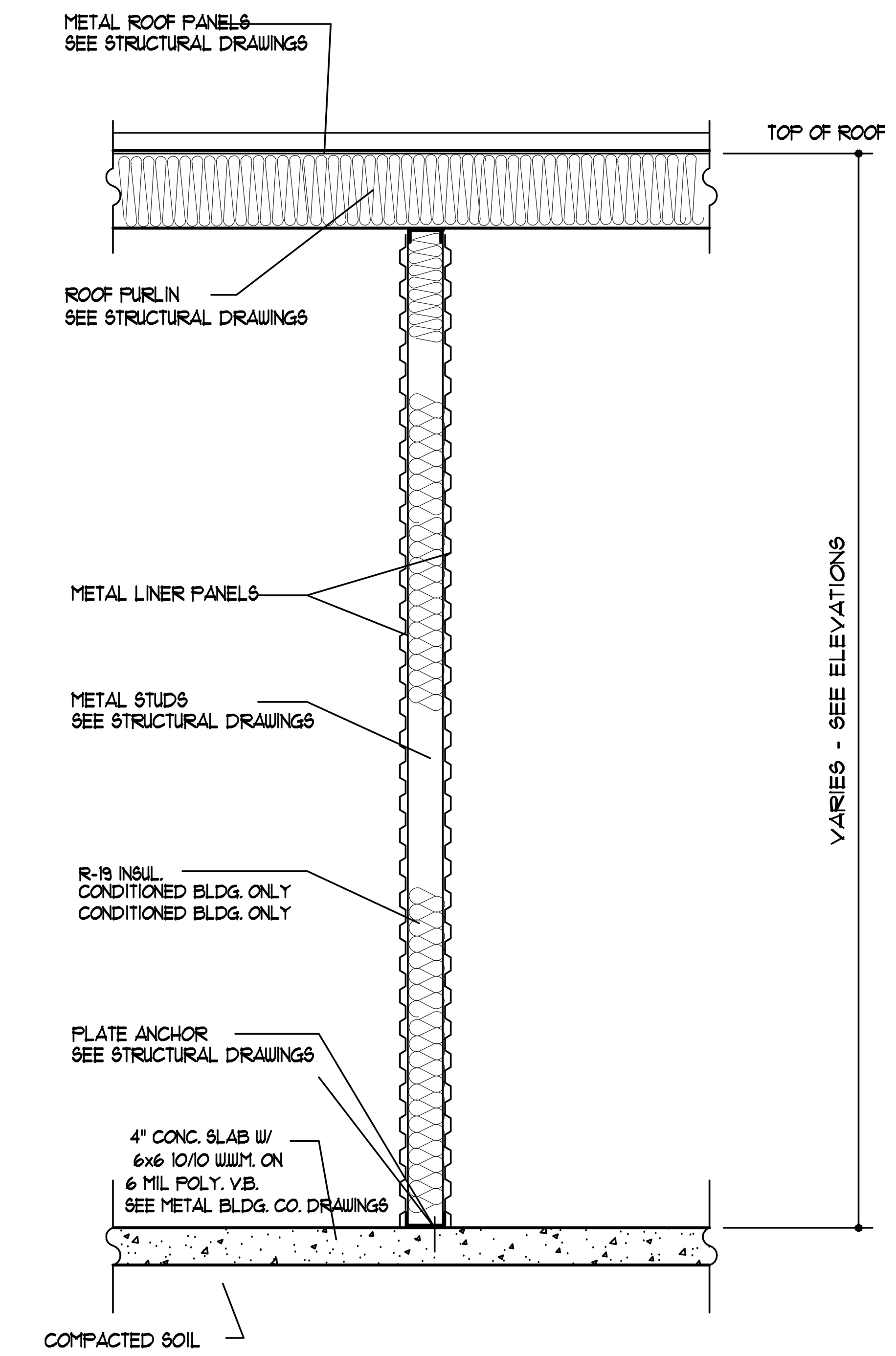
DATE : 07-29-2022
SCALE : 3/16" = 1'-0"
FILE :
SHEET NUMBER :

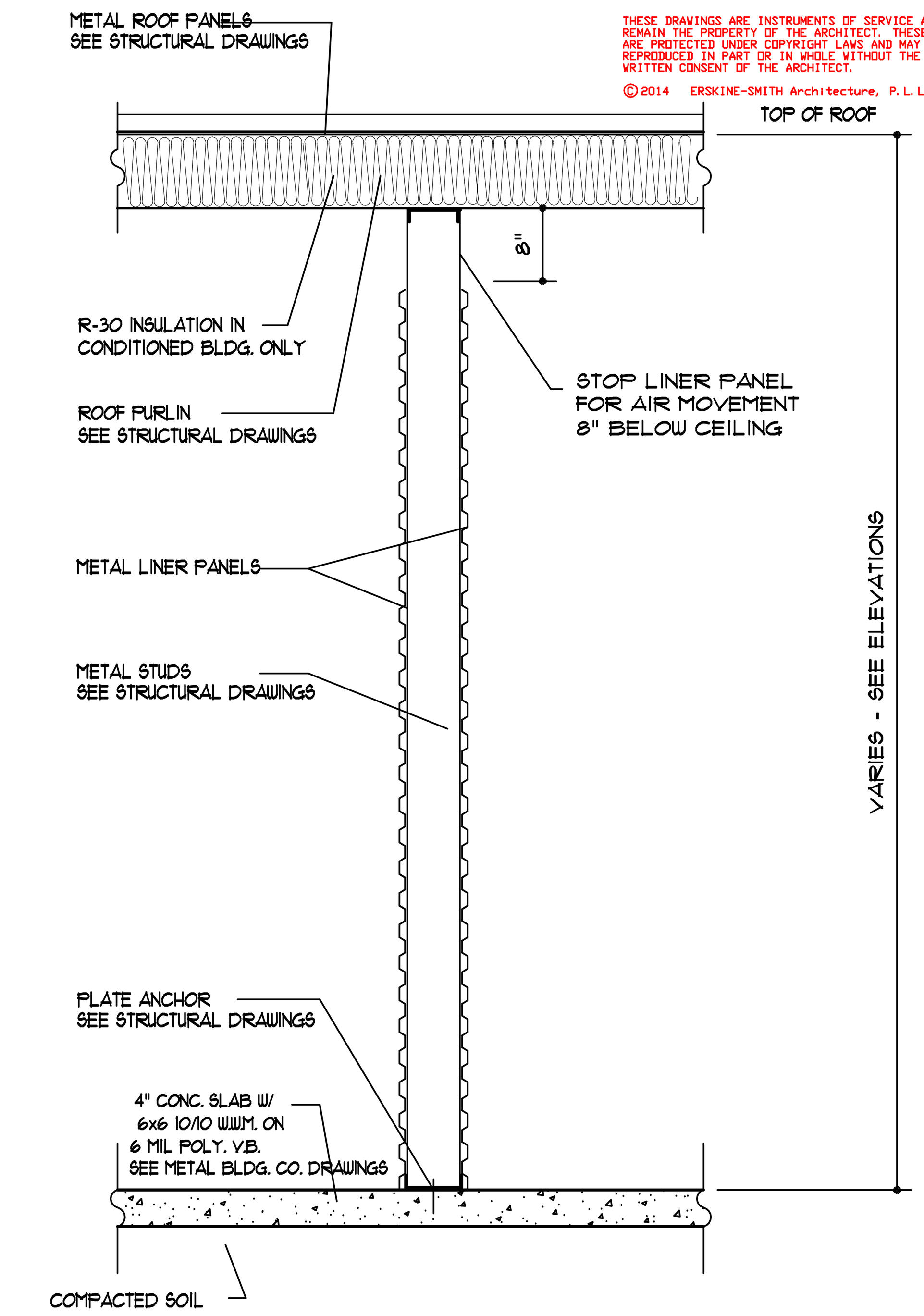
A-3



7 / A-4 — TYP. ROOF DET. AT ROOF OFFSET



6 / A-4 — MAINTENANCE ROOM WALL DET.



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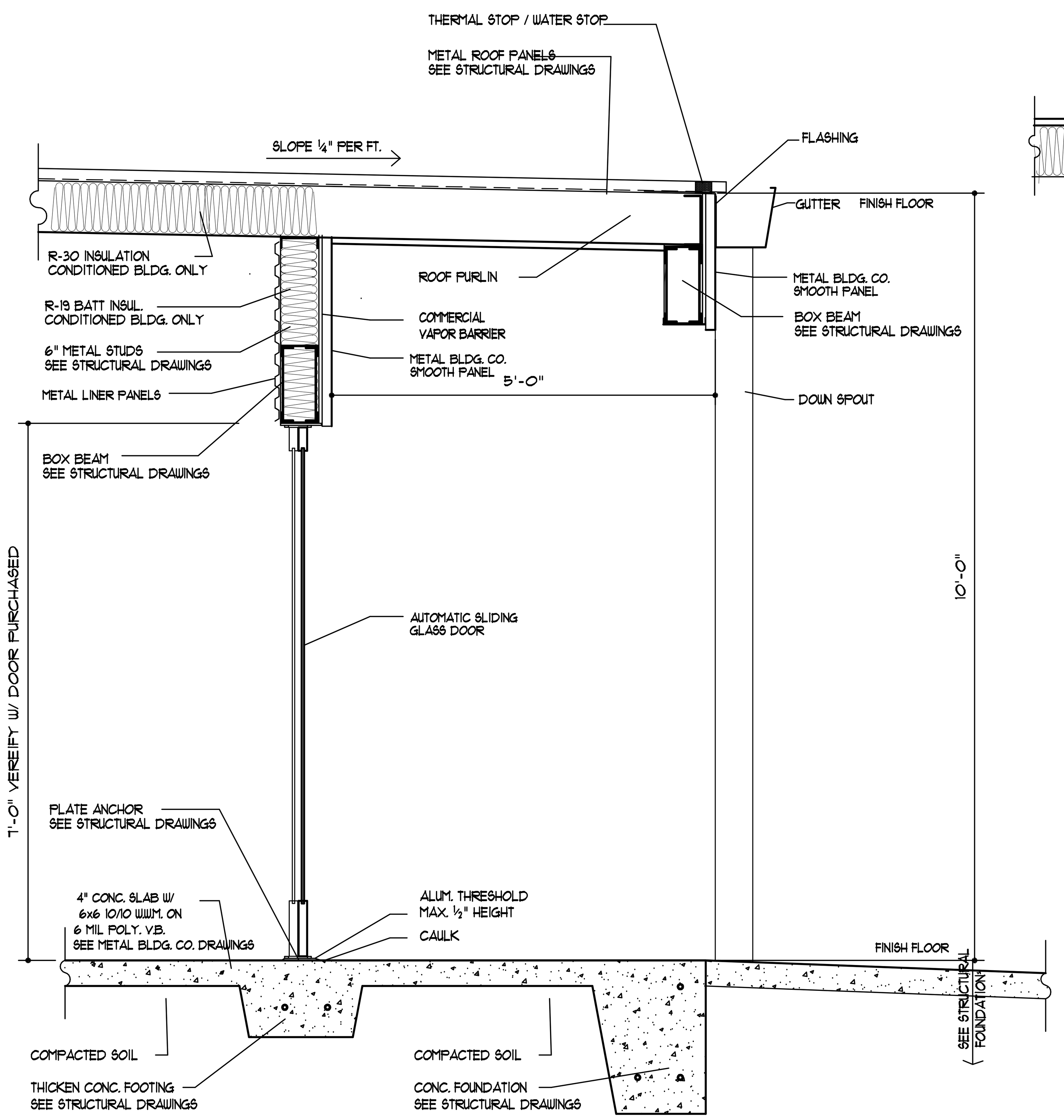
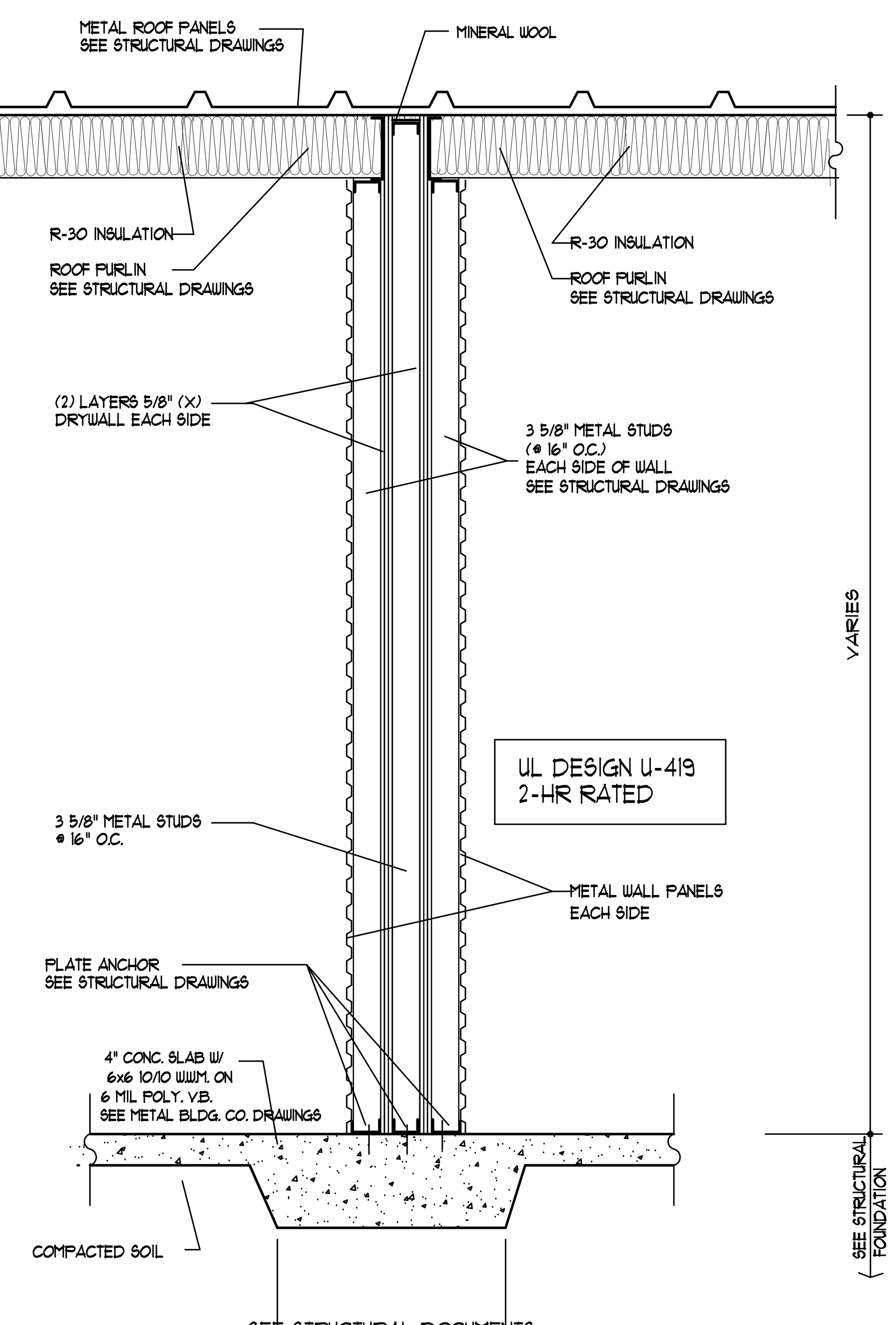
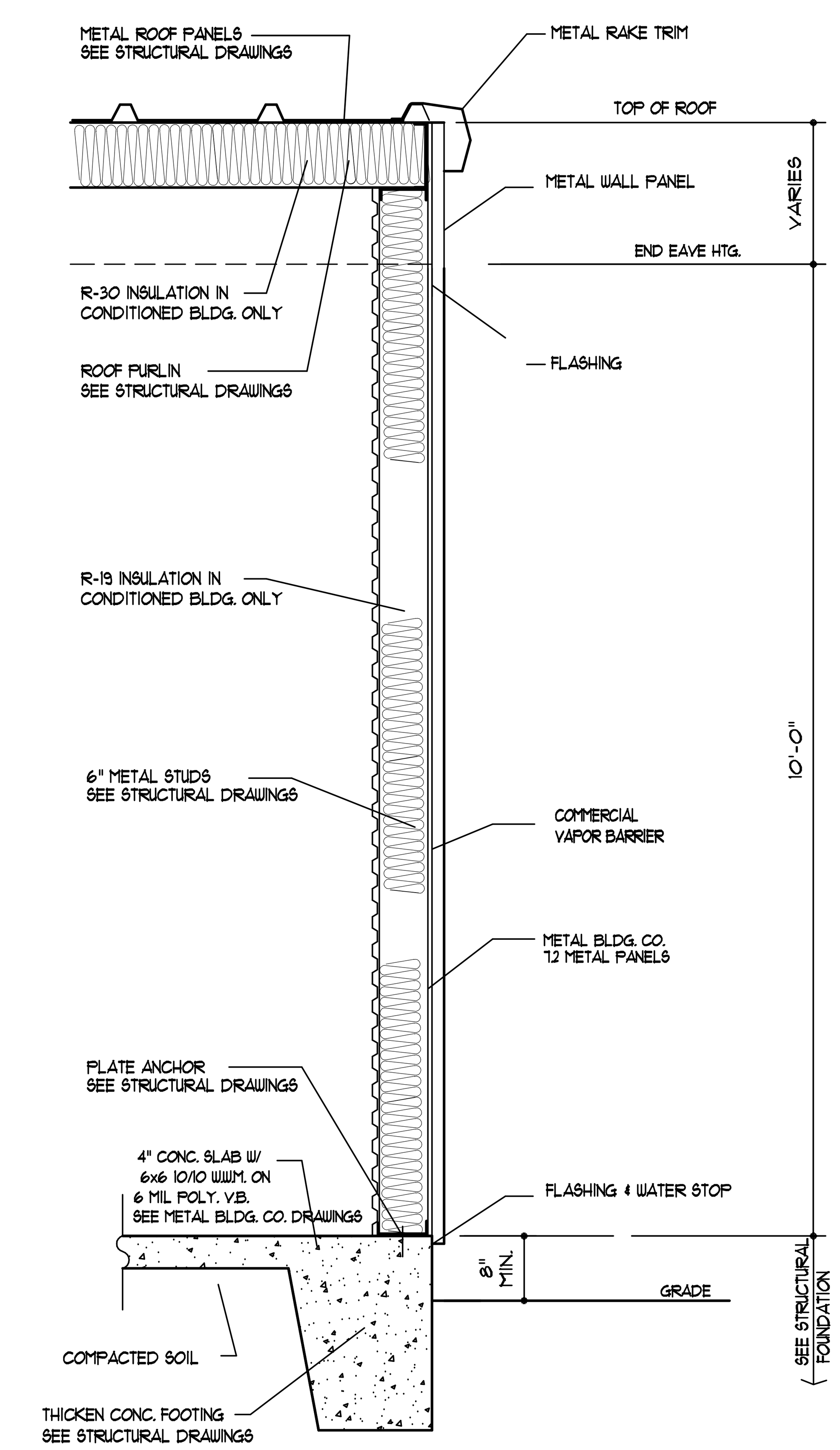


4 / A-4 — TYP. ENTRANCE WALL DET.
AT ENTRANCE

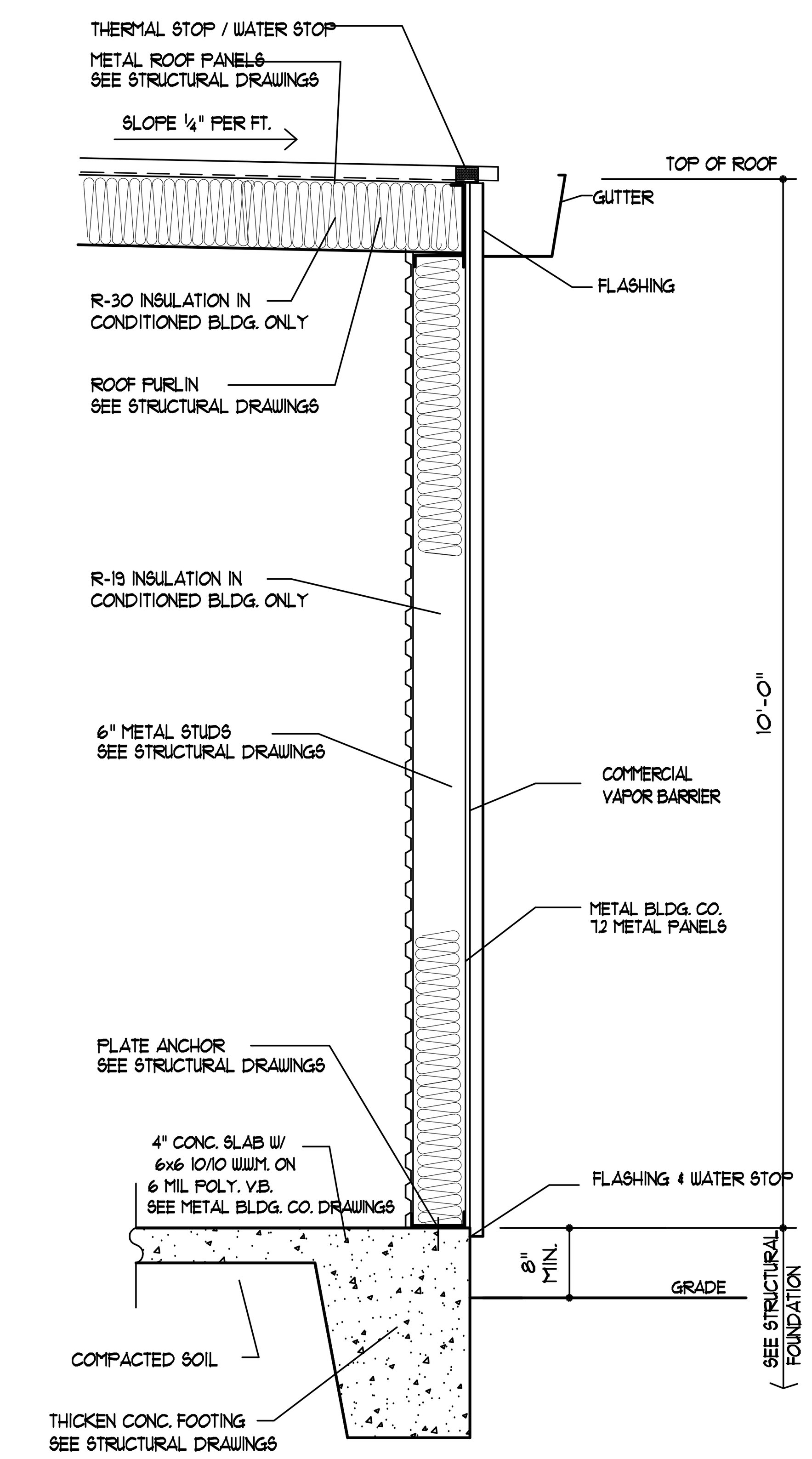
NOTE:
STRUCTURAL ENGINEERS DESIGN & DETAILS SHALL OVERRIDE ARCHITECTURAL DETAILS



3 / A-4 — 2-HR. RATED FIRE WALL DETAIL



2 / A-4 — TYP. EXTERIOR END WALL DET.



1 / A-4 — TYP. EXTERIOR WALL DET.

NOTE: DO NOT SCALE DRAWINGS
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NEW STORAGE FACILITY FOR HARNETT SELF STORAGE
SPOUT SPRINGS, NC

REVISIONS	BY
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DRAWN BY : VJS
CHECKED BY : VJS
DATE : 07-29-2022
SCALE : 3/4" = 1'-0"
FILE :
SHEET NUMBER :
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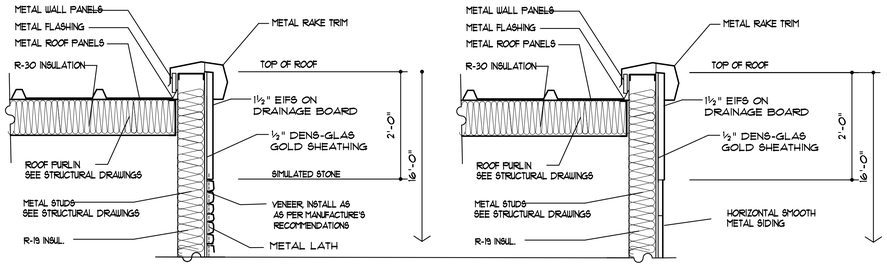
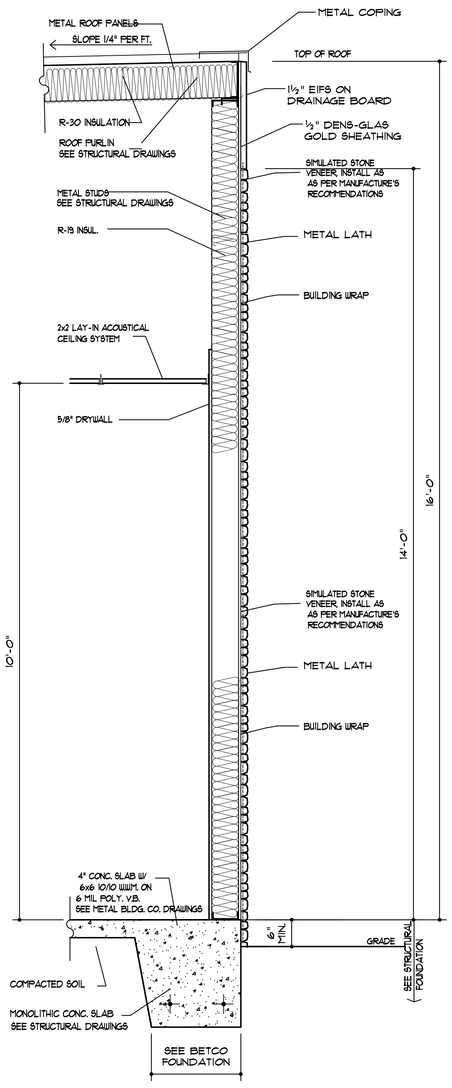


6 A-4.1 TYP. EXTERIOR END WALL

5 A-4.1 TYP. EXTERIOR END WALL



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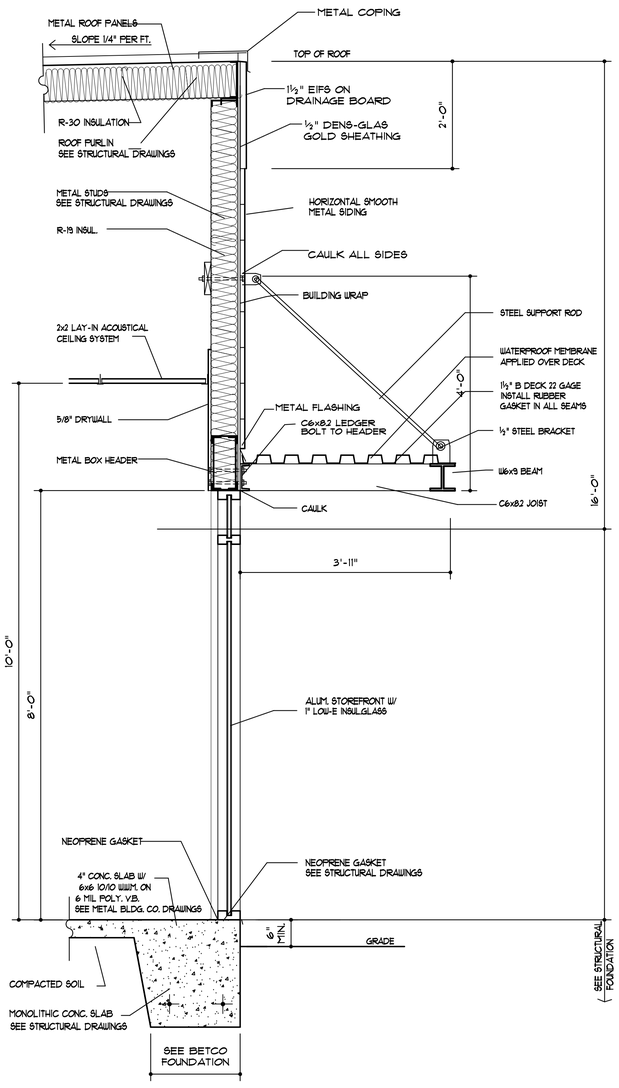

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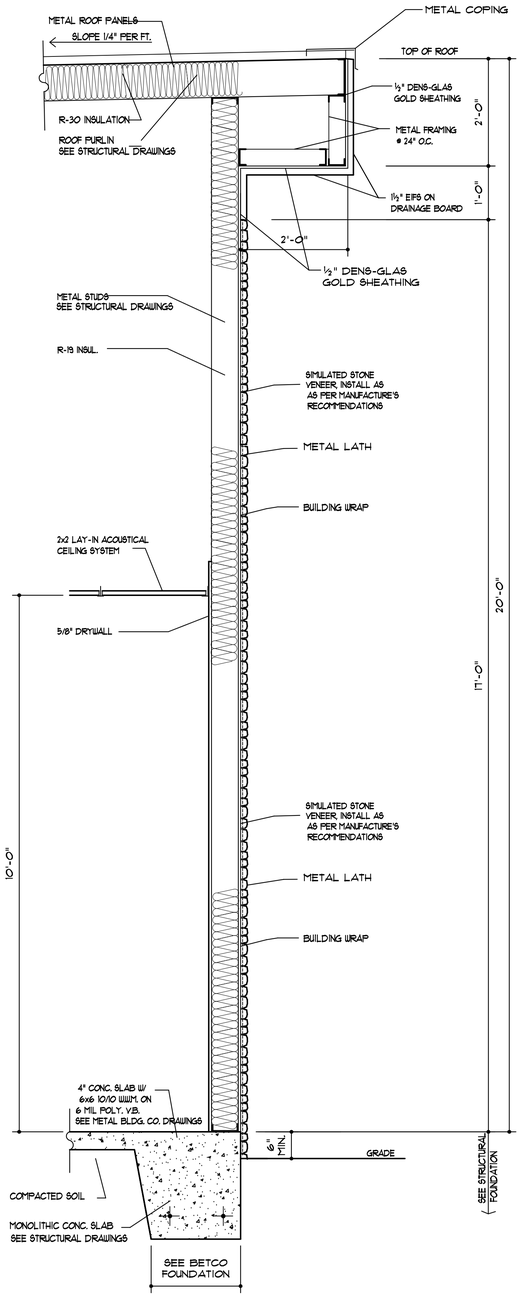

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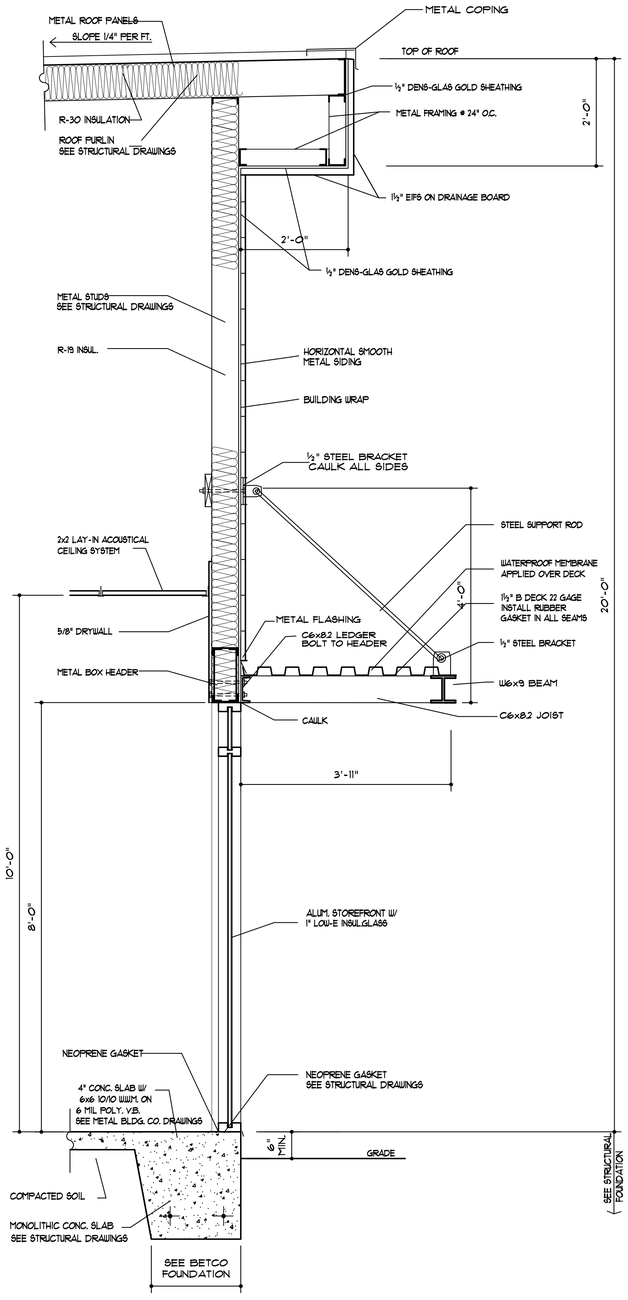

1 A-4.1 TYP. EXTERIOR END WALL

NOTE: DO NOT SCALE DRAWINGS
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NEW STORAGE FACILITY FOR HARNETT SELF STORAGE

SPOUT SPRINGS, NC

REVISIONS	BY

DRAWN BY : VJS
CHECKED BY : VJS
DATE : 03-08-2022
SCALE : 3/4" = 1'-0"
FILE :

SHEET NUMBER :
A-4.1
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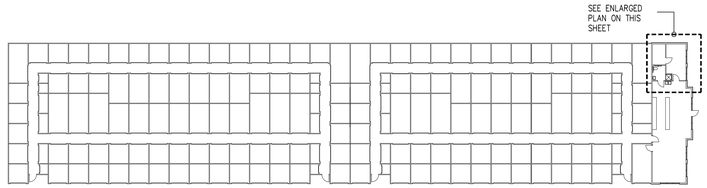

KEY PLAN
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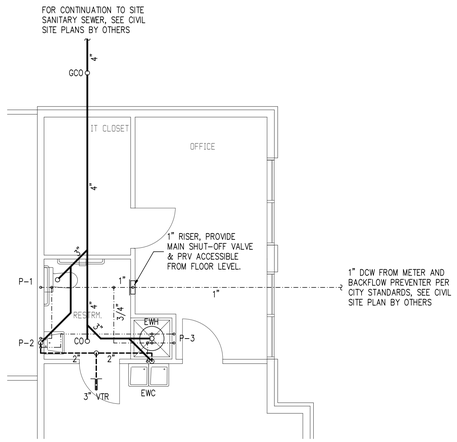
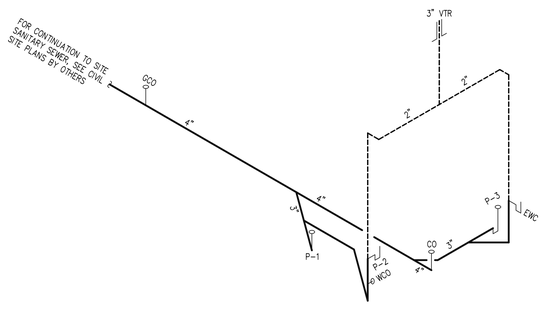




DWV RISER DIAGRAM
NO SCALE

PIPING SYMBOL LEGEND

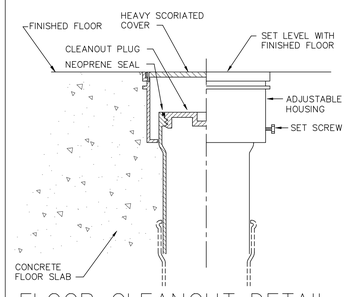
	SANITARY SOIL OR WASTE PIPING
SAN	SANITARY BUILDING DRAIN
	ATMOSPHERIC VENT
CO	CLEAN-OUT
	COLD WATER
	HOT WATER (110°)
G	NATURAL GAS
HB	HOSE BIB
AFH	ANTI FREEZE HYDRANT
	PIPE TURNING UP/DOWN
	SHUTOFF VALVE (BALL TYPE)
	CHECK VALVE
P-#	FIXTURE IDENTIFICATION
	CONNECT TO EXISTING

PLUMBING ABBREVIATION LEGEND

AAV	AIR ADMITTANCE VALVE, STUDOR OR EQUAL
ABV	ABOVE
AFH	ANTI-FREEZE HYDRANT
CLG	CEILING
CW	COLD WATER
CO	CLEAN-OUT
CV	CIRCUIT VENT
EC	ELECTRICAL CONTRACTOR
EWC	ELECTRIC WATER COOLER
FD	FLOOR DRAIN
FS	FLOOR SINK
FW	FILTERED WATER
GCO	GRADE CLEAN OUT (AT FINISH GRADE IN CONC. PAD
GC	GENERAL CONTRACTOR
HB	HOSE BIBB
HW	HOT WATER
HWCP	HOT WATER CIRCULATION PUMP
MC	MECHANICAL CONTRACTOR
P-X	PLUMBING FIXTURE NO. "X", SEE FIXTURE SCHEDULE
RD	ROOF DRAIN
RDL	ROOF DRAIN LEADER
V	VENT
VTR	VENT THROUGH ROOF
W	WASTE
WCO	WALL CLEAN-OUT

PLUMBING FIXTURE SCHEDULE

MARK	DESCRIPTION	MINIMUM CONNECTIONS				REMARKS
		WASTE	VENT	CW	HW	
P-1	ACCESSIBLE (ADA) FLOOR MOUNT, FLUSH TANK WATERCLOSET	3"	2"	1/2"	NA	WHITE VITREOUS CHINA, ELONGATED BOWL, WHITE OPEN FRONT SEAT W/ SELF-SUSTAINING CHECK HINGES, 1.6 GPF SEAT HEIGHT PER N.C. ACCESSIBILITY CODE
P-2	ACCESSIBLE (ADA) WALL-HUNG LAVATORY	2"	2"	1/2"	1/2"	WHITE VITREOUS CHINA, SINGLE LEVER FAUCET, ASSE 1070 MIXING VALVE, C.P. GRID STRAINER & TAILPIECE W/ 1-1/2" P-TRAP W/ C.O., C.P. RIGID SUPPLIES W/ ANGLE STOPS. ADA TRAP AND SUPPLY INSULATION KIT
P-3	MOP SINK	3" FD	2"	1/2"	1/2"	PRE-CAST RECEPTOR W/ FLOOR DRAIN ROUGH C.P. MIXING WALL FAUCET W/ VAC. BRKR., BUCKET HOOK, WALL BRACE, HOSE THREAD OUTLET, MOP RACK & WALL GUARDS.
EWC	ACCESSIBLE (ADA) ELECTRIC WATER COOLER	2"	2"	1/2"	NA	DUAL HEIGHT BASINS WITH FLOOR CARRIER CHAIR, 120V 8-GPH, LEAD-FREE, CFC-FREE
EWH	ELECTRIC WATER HEATER	NA	NA	3/4"	3/4"	20 GALLON STORAGE, 1500 WATT, 120V 1PH W/ T&P RELIEF, VACUUM BREAKER, EXPANSION TANK AND CATCH-PAN. BRADFORD-WHITE, STATE, A.O. SMITH OR EQUAL.



FLOOR CLEANOUT DETAIL
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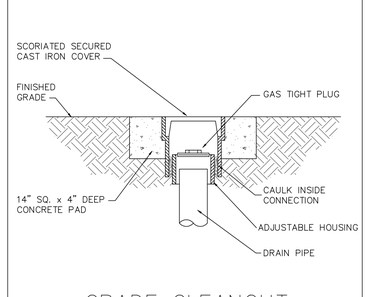

GRADE CLEANOUT
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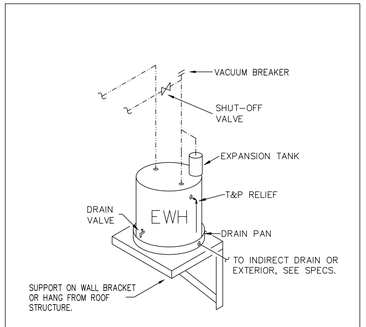

WATER HEATER DETAIL
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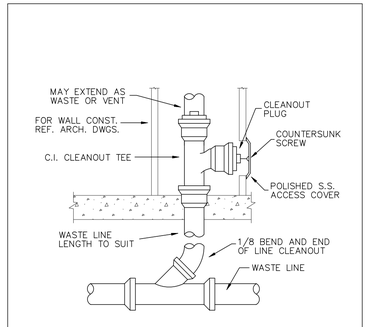


WALL CLEANOUT DETAIL
NO SCALE

PLUMBING SPECIFICATIONS

GENERAL

ALL PLUMBING WORK SHALL BE IN STRICT ACCORDANCE WITH THE CURRENTLY ADOPTED EDITION OF THE NORTH CAROLINA PLUMBING CODE THE AND APPLICABLE REFERENCED STANDARDS.

THE WORK INCLUDES PROVIDING MATERIALS, FITTINGS AND ACCESSORIES NECESSARY FOR A COMPLETE FUNCTIONING PLUMBING SYSTEM. ALL MATERIALS FURNISHED BY THE CONTRACTOR SHALL BE NEW AND UNUSED AND FREE FROM DEFECTS. ANY ITEM NOT SPECIFICALLY SHOWN ON THE DRAWINGS OR CALLED FOR IN THE SPECIFICATIONS, BUT THAT IS NORMALLY REQUIRED TO CONFORM TO THE INTENT, ARE TO BE CONSIDERED A PART OF THE CONTRACT. THE WORK MAY ALSO INCLUDE ROUGH-IN AND FINAL CONNECTIONS TO EQUIPMENT PROVIDED BY OTHERS. ALL WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES AND/OR ORDINANCES AND IS SUBJECT TO INSPECTION.

HOOK-UP CHARGES, PERMITS, LOCAL FEES AND ALL OTHER EXPENSES RELATED TO A COMPLETE AND FUNCTIONING PLUMBING SYSTEM SHALL BE INCLUDED IN THE CONTRACTORS BID. THE CONTRACTOR SHALL COOPERATE FULLY WITH LOCAL COMPANIES WITH RESPECT TO THEIR SERVICES.

THE INTENT OF THE DRAWINGS IS TO INDICATE THE GENERAL EXTENT OF WORK REQUIRED FOR THE PROJECT. THE DRAWINGS FOR PLUMBING WORK ARE DIAGRAMMATIC, SHOWING THE GENERAL LOCATIONS & TYPES OF FIXTURES AND EQUIPMENT REQUIRED. THE DRAWINGS SHALL NOT BE SCALED FOR EXACT MEASUREMENTS. REFER TO MANUFACTURER'S STANDARD ROUGH-IN DRAWINGS FOR PLUMBING FIXTURE INSTALLATION REQUIREMENTS. COMPLY WITH ALL APPLICABLE ADA INSTALLATION REQUIREMENTS.

COORDINATION: COORDINATE WITH THE WORK OF OTHER SECTIONS, EQUIPMENT FURNISHED BY OTHERS, REQUIREMENTS OF THE OWNER, AND WITH THE CONSTRAINTS OF THE EXISTING CONDITIONS OF THE PROJECT SITE. ANY WORK THAT IS INSTALLED BY THIS CONTRACTOR THAT RESULTS IN CONFLICT, DUE TO LACK OF COORDINATION BETWEEN TRADES, SHALL BE CHANGED AS DIRECTED BY THE ARCHITECT/ENGINEER WITHOUT ADDITIONAL COMPENSATION TO THE CONTRACTOR.

DEFINITIONS

FURNISH MEANS TO SUPPLY AND DELIVER TO PROJECT SITE, READY FOR INSTALLATION. INSTALL MEANS TO PLACE IN POSITION AND MAKE CONNECTIONS FOR SERVICE OR USE. PROVIDE MEANS TO FURNISH AND INSTALL, COMPLETE AND READY FOR INTENDED USE.

FIRESTOPPING IS A MATERIAL OR COMBINATION OF MATERIALS USED TO RETAIN INTEGRITY OF FIRE-RATED CONSTRUCTION BY MAINTAINING AN EFFECTIVE BARRIER AGAINST THE SPREAD OF FLAME, SMOKE, AND HOT GASES THROUGH PENETRATIONS IN FIRE RATED WALL AND FLOOR ASSEMBLIES.

PROVIDE LABOR AND MATERIALS TO REPAIR OR REPLACE DEFECTIVE PARTS AND MATERIALS AS REQUIRED FOR ONE YEAR AFTER SUBSTANTIAL COMPLETION OR OWNER ACCEPTANCE OF THE COMPLETED PROJECT.

PROVIDE ALL FITTINGS, ACCESSORIES, OFFSETS, AND MATERIALS NECESSARY TO FACILITATE THE PLUMBING SYSTEM'S FUNCTIONING AS INDICATED BY THE DESIGN AND THE EQUIPMENT INDICATED.

PIPING SYSTEMS

GENERAL:

MATERIALS PENETRATING FIRE RATED CONSTRUCTION SHALL BE PROVIDED AS LISTED IN AN APPROVED U.L. TESTED FIRESTOP SYSTEM.

ALL PIPING SHALL BE RUN PARALLEL TO BUILDING LINES AND SUPPORTED AND ANCHORED AS REQUIRED TO FACILITATE EXPANSION AND CONTRACTION. ALL PIPING SHALL BE CONCEALED EXCEPT IN UNFINISHED SPACES. INSTALL AS REQUIRED TO MEET ALL CONSTRUCTION CONDITIONS AND TO ALLOW FOR INSTALLATION OF OTHER WORK SUCH AS DUCTS AND ELECTRICAL CONDUIT. AT ALL CONNECTIONS BETWEEN FERROUS PIPING AND NONFERROUS PIPING, PROVIDE AN ISOLATING DIELECTRIC UNION. ALL HANGERS SHALL BE COMPATIBLE WITH PIPING MATERIAL TO PREVENT CORROSION.

SEWER AND WASTE PIPING:

PROVIDE ALL DRAINS AND SEWERS WITHIN THE SPACE WITH CONNECTION TO THE EXISTING DRAINAGE SYSTEMS ON-SITE. SANITARY DRAINAGE PIPING ABOVE FLOOR SHALL BE HUBLESS CAST-IRON PIPE, FITTINGS AND CONNECTIONS OR DWV PVC PLASTIC SCHEDULE 40 PIPING WITH SOLVENT WELD FITTINGS. SANITARY DRAINAGE PIPING BELOW GRADE SHALL BE SERVICE-WEIGHT HUB AND SPIGOT TYPE CAST-IRON WITH NEOPRENE GASKET JOINTS OR DWV PVC PLASTIC SCHEDULE 40 PIPING WITH SOLVENT WELD FITTINGS.

FOR PLASTIC SEWER PIPING, AN INSULATED COPPER TRACER WIRE OR OTHER APPROVED CONDUCTOR SHALL BE INSTALLED ADJACENT TO AND OVER THE FULL LENGTH OF THE PIPING. ACCESS SHALL BE PROVIDED TO THE TRACER WIRE OR THE TRACER WIRE SHALL TERMINATE AT THE CLEANOUT BETWEEN THE BUILDING DRAIN AND BUILDING SEWER. THE TRACER WIRE SIZE SHALL BE NOT LESS THAN 14 AWG AND THE INSULATION TYPE SHALL BE LISTED FOR DIRECT BURIAL.

BUILDING SEWER PIPING WITHIN 5 FT OF WATER PIPING BELOW GRADE SHALL BE CAST-IRON PIPE PER ASTM A 74, CISPI 301, AND ASTM A 888 OR SHALL BE SCHEDULE 40 PVC DWV PIPE CONFORMING TO ASTM F 1488.

PIPE FITTINGS SHALL BE APPROVED FOR INSTALLATION WITH THE PIPING MATERIAL INSTALLED AND SHALL CONFORM TO THE RESPECTIVE PIPE STANDARDS REFERENCED IN THE N.C. PLUMBING CODE.

ALL DRAINAGE PIPING SHALL BE UNIFORMLY PITCHED, MINIMUM 1/8" PER FOOT FOR 3" AND LARGER AND 1/4" PER FOOT FOR 2" AND SMALLER UNLESS OTHERWISE REQUIRED BY EXISTING CONDITIONS, OR INDICATED ON THE DRAWINGS.

CLEANOUTS:

PROVIDE CLEANOUTS AT THE END OF EACH HORIZONTAL RUN, AND AT THE BASE OF ALL VERTICAL WASTE AND DRAIN PIPES. CLEANOUTS SHALL BE OF THE SAME SIZE AS THE PIPES THEY SERVE, CONFORMING TO CODE REQUIREMENTS. PROVIDE SUITABLE WALL OR FLOOR CLEANOUTS WITH ACCESSORIES TO OBSCURE FROM VIEW.

VENTS:

PROVIDE A COMPLETE SYSTEM OF STANDARD WEIGHT CAST IRON NO-HUB VENT RISERS WHERE THE CEILING SPACE IS USED AS A RETURN AIR PLENUM OR USE DWV PLASTIC WHERE THERE IS A DUCTED RETURN AIR SYSTEM. DO NOT USE DWV PLASTIC IN RETURN AIR PLENUM SPACES.

THE VENT SYSTEM SHALL BE CARRIED THROUGH THE ROOF WITH APPROPRIATE FLASHING.

WATER DISTRIBUTION PIPING:

LAYOUT WATER PIPING SO THAT THE ENTIRE SYSTEM CAN BE DRAINED. HOT AND COLD WATER PIPING SHALL CONFORM TO NSF 61 AND ONE OF THE CORRESPONDING STANDARDS LISTED IN TABLE 605.3(SERVICE PIPE) & 605.4(DISTRIBUTION PIPE) OF THE 2018 NC PLUMBING CODE. PROVIDE WATER HAMMER ARRESTERS AT EACH FIXTURE OR GROUP OF FIXTURES AS REQUIRED. INSTALL CHROME PLATED BRASS ESCUTCHEON PLATES AT ALL PENETRATIONS THROUGH FINISHED SURFACES (INCLUDING CABINET INTERIORS).

TEST WATER SYSTEM AND PROVE TIGHT UNDER A WATER PRESSURE OF NOT LESS THAN 100 PSI OR FOR PIPING SYSTEMS OTHER THAN PLASTIC, BY AN AIR TEST OF NOT LESS THAN 100 PSI. WATER SHALL BE OBTAINED FROM A POTABLE SOURCE OF SUPPLY. WHEN TESTING INDICATES MATERIALS OR WORKMANSHIP IS DEFICIENT, REPLACE OR REPAIR AS REQUIRED, AND REPEAT TEST UNTIL STANDARDS ARE ACHIEVED.

INSULATE ALL HOT WATER SUPPLY AND RETURN PIPING & CW PIPING OUTSIDE OF BUILDING INSULATION ENVELOPE (EXCEPT AT FIXTURE CONNECTIONS) WITH 1 INCH OF INSULATION HAVING A CONDUCTIVITY NOT EXCEEDING 0.28 BTU PER INCH/h•°F.°. INSULATE COLD WATER PIPING WITH 1/2 INCH OF INSULATION TO PREVENT CONDENSATION. INSULATE ANY EXPOSED CONDENSATE PIPING WITH WASTE TEMPERATURE BELOW 60 DEGREES F.

SHUTOFF VALVES WITH UNIONS SHALL BE PROVIDED FOR SERVICE TO EACH PLUMBING FIXTURE TO FACILITATE ISOLATION FOR REPAIR OR REPLACEMENT. VALVES SHALL BE EQUAL TO JENKINS BALL VALVE, CHROME-FINISHED BRONZE, TEFLON SEATS AND PACKING, 400 LB. W.O.G., SOLDER END.

INSTALLATION

FOLLOW MANUFACTURER'S INSTRUCTIONS FOR INSTALLING, CONNECTING, AND ADJUSTING ALL EQUIPMENT AND PLUMBING SYSTEM COMPONENTS.

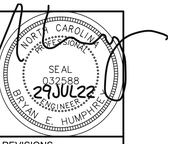
THOROUGHLY CLEAN ITEMS BEFORE INSTALLATION. CAP PIPE OPENINGS TO EXCLUDE DIRT UNTIL FIXTURES ARE INSTALLED AND FINAL CONNECTIONS HAVE BEEN MADE. PROCEED AS RAPIDLY AS CONSTRUCTION WILL PERMIT. SET FIXTURES LEVEL AND IN PROPER ALIGNMENT. INSTALL SUPPLIES IN PROPER ALIGNMENT WITH FIXTURES. INSTALL SILICONE SEALANT BETWEEN FIXTURES AND ADJACENT MATERIAL, FOR SANITARY JOINT, AND OMIT ESCUTCHEONS.

ACCESS PANELS SHALL BE PROVIDED WHERE CONCEALED CONTROL DEVICES, VALVES, ETC. ARE CONCEALED WITHIN WALLS. WHERE ACCESS FOR ADJUSTMENT AND MAINTENANCE IS POSSIBLE THROUGH LAY-IN SUSPENDED CEILINGS, ACCESS PANELS ARE NOT REQUIRED.

ROOF PENETRATIONS SHALL COMPLY WITH "SMACNA" AND "NRCA" STANDARDS, AND WITH THE REQUIREMENTS OF THE ROOFING WARRANTY, IF APPLICABLE. DO NOT PERFORM ROOFING PENETRATIONS IN A MANNER WHICH WOULD VOID OR OTHERWISE LIMIT THE ROOFING WARRANTY.

PLUMBING PLAN

SCALE: 3/16" = 1'-0"



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BUILDING SYSTEMS PLANS FOR :

HARNETT SELF STORAGE

SPOUT SPRINGS, NC

JOB NO.
2278

ORIGINAL ISSUE DATE
29JUL22

DRAWN BY
JMK

CHECKED BY
BEH

SHEET NO.

P-1

OF 1

HVAC ABBREVIATIONS

ABV	ABOVE
AD	DUCT ACCESS DOOR
BDD	BACK–DRAFT–DAMPER
CD	CEILING DIFFUSER
CFM	CUBIC FEET/MINUTE
COMP	COMPRESSOR
DMPR	DAMPER
EC	ELECTRICAL CONTRACTOR
ECR	EGGCRATE RETURN GRILLE
ED	EXHAUST DUCT
EF	EXHAUST FAN
EG	EXHAUST GRILLE
ER	EXHAUST REGISTER
EVAP	EVAPORATOR
FRAG	FILTERED RETURN AIR GRILLE
FD	FIRE DAMPER, PER ASSEMBLY RATING
FOB	FLAT ON BOTTOM DUCT TRANSITION
FOT	FLAT ON TOP DUCT TRANSITION
GC	GENERAL CONTRACTOR
GD	GREASE EXHAUST DUCT
KES	KITCHEN EQUIPMENT SUPPLIER
MUAI	MAKE–UP AIR INTAKE
MUAD	MAKE–UP AIR DUCT
MUAF	MAKE–UP AIR FAN
OAI	OUTSIDE–AIR–INTAKE
OAD	OUTSIDE AIR DUCT
PC	PLUMBING CONTRACTOR
PDD	PERFORATED FACE DIRECTIONAL DIFFUSER
RAD	RETURN–AIR DUCT
RAG	RETURN AIR GRILLE
RAR	RETURN AIR REGISTER
RCD	ROUND CEILING DIFFUSER
RDR	ROUND DUCT REGISTER
RH	RADIANT HEATER
RTS	ROUND TO SQUARE DUCT TRANSITION
RTU	ROOFTOP HVAC UNIT
SAD	SUPPLY AIR DUCT
SAF	SUPPLY AIR FAN
SR	SUPPLY REGISTER
SG	SUPPLY GRILLE
STR	SQUARE TO ROUND DUCT TRANSITION
TG	TRANSFER GRILLE, EQUAL TO RAG
T'STAT	THERMOSTAT
UCD	UNDER–CUT DOOR 1"
VAVCD	VARIABLE VOLUME CEILING DIFFUSER

HVAC PLAN SYMBOLS

WXH	RECTANGULAR & ROUND DUCTWORK ABOVE CEILING, NET INTERNAL SIZE AS INDICATED GALVANIZED STEEL SHEET CONSTRUCTED TO SMACNA LOW PRESSURE STANDARD. INSULATED.
	CEILING DIFFUSER (CD). 24X24 LAY–IN SQUARE CONE DIFFUSER. PROVIDE VOLUME DAMPER AT DUCT TAKEOFF FOR BALANCING. NECK SIZE AS INDICATED.
	RETURN AIR GRILLE (RAG). 24X24 LAY–IN PERFORATED FACE. PROVIDE VOLUME DAMPER AT NECK CONNECTION OR DUCT TAKE–OFF FOR BALANCING. NECK SIZE AS INDICATED.
DUCT	RETURN AIR REGISTER (RAR) WITH INTEGRAL DAMPER. SIZE AS INDICATED.
EF	EXHAUST FAN, CFM AS INDICATED.
EF/LT	COMBO EXHAUST FAN & LIGHT, CFM AS INDICATED. CF LAMP OPTION.
	VOLUME DAMPER TAKE–OFF. USE TO ROUGH BALANCE AIR SYSTEM. THEN FASTEN DAMPERS SECURELY IN PLACE.
	VOLUME DAMPER W/ 45° TAKE–OFF. USE TO ROUGH BALANCE AIR SYSTEM. THEN FASTEN DAMPERS SECURELY IN PLACE.
T	PROGRAMMABLE ELECTRONIC THERMOSTAT +48" AFF TO TOP

NOTE: THIS PROJECT MAY NOT USE EVERY SYMBOL OR DEVICE APPEARING ON THIS LEGEND.

SPLIT HEAT PUMP AIR HANDLER SCHEDULE

BASED ON TRANE SERIES AIR HANDLERS. EQUIVALENT SYSTEMS BY OTHER MANUFACTURERS MAY BE SUBMITTED FOR REVIEW AND ACCEPTANCE BY ENGINEER. PLANS BASED ON THESE SYSTEMS, CHANGES TO WORK OF OTHERS CAUSED BY SUBSTITUTIONS ARE IN THE CONTRACT, M.C. COORDINATE WITH G.C..

SYSTEM MARK	MODEL NO.	CFM	ESP HIGH SPEED (HORIZ.)	POWER	FAN FLA 230/1	AUXILLIARY HTG. COIL KW/STEPS/PH (KW@208V)	MINIMUM CKT. AMPS	MAX. CKT. BRKR	BALANCE OUTDOOR AIRFLOW TO ... (CFM)
AHU–1	TEM6A0C48H41SA	1600	0.50"	208V/3PH	6.8	10.8/1/3	45	45	90

SPLIT HEAT PUMP OUTDOOR UNIT SCHEDULE

BASED ON TRANE SERIES HEAT PUMPS. EQUIVALENT SYSTEMS BY OTHER MANUFACTURERS MAY BE SUBMITTED FOR REVIEW AND ACCEPTANCE BY ENGINEER. PLANS BASED ON THESE SYSTEMS, CHANGES TO WORK OF OTHERS CAUSED BY SUBSTITUTIONS ARE IN THE CONTRACT, M.C. COORDINATE WITH G.C.

SYSTEM MARK	MODEL NO.	NET CLG CAPACITY, MBH	SENSIBLE NET CLG CAPACITY, MBH	REV. CYC. HTG. CAP. (HIGH TEMP) MBH	ARI RATED EFFICIENCY	POWER	COMP. RLA	COND. FLA	MCA	MAX CKT. BRKR
AHU–1	4TWA7048A3	47.7	35.7	46.5	17.5 SEER, 9.0 HSPF	208V/3PH	14.0	0.93	18	30

DEHUMIDIFIER SCHEDULE

TAG	MAKE	MODEL	CAPACITY	AIRFLOW @ 0.2" W.C.	VOLTAGE	FLA	MOP
DH	APRILAIRE	E100	100 PPD	267 CFM	120V	8.3A	15A

PROVIDE WALL MOUNT DEHUMIDIFIER CONTROL MODEL 76. PROVIDE DRAIN PAN, CONDENSATE PUMP & WATER LEVEL SENSOR TO SHUT DOWN UNIT. DISCHARGE CONDENSATE TO DRY WELL.

VENTILATION FOR ACCEPTABLE INDOOR AIR QUALITY

BASED ON 2018 SC MECHANICAL CODE

STORAGE AREA

BULDING'S PRIMARY USE IS STORAGE AND IS INTENDED TO BE OCCUPIED ONLY OCCASIONALLY AND FOR SHORT PERIODS OF TIME. REFERENCE CHAPER 2 "OCCUPIABLE SPACE" DEFINITION.

BUILDING AREA DOES NOT MEET DEFINITION OF "OCCUPIABLE SPACE". MECHANICAL VENTILATION IS NOT REQUIRED FOR THIS BUILDING.

SALES OFFICE AREA AHU–1

1078 SF X 5 PPL/1000 SF = 5 PPL X 5 CFM/PPL + 1078 SF X .06 CFM/SF = 89 CFM

2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS

MECHANICAL design

mechanical summary

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT

Thermal Zone
winter dry bulb: 18° F
summer dry bulb: 91.5° F

Interior design conditions
winter dry bulb: 68° F
summer dry bulb: 75° F
relative humidity: 50%

Building heating load: 214.2 MBH

Building cooling load: 19.9 TONS

Mechanical Spacing Conditioning System
Unitary
description of unit: SEE SCHEDULE(S)
heating efficiency: SEE SCHEDULE(S)
cooling efficiency: SEE SCHEDULE(S)
size category of unit: SEE SCHEDULE(S)
Boiler
Size category. If oversized, state reason.: ________
Chiller
Size category. If oversized, state reason.: ________

List equipment efficiencies: SEE SCHEDULE(S)

MITSUBISHI ELECTRIC TRANE HVAC US: CITY MULTI VRF OUTDOOR UNIT SCHEDULE

	System Tag	System 1
	Tag Reference	HP
Nominal Data	M-NET Address	51
	Model Number	PUMY-P48NKMU3-BS
	Modules	P48
	Nominal Cooling Capacity (BTU/h)	48,000.0
	Nominal Heating Capacity (BTU/h)	54,000.0
	Cooling Efficiency IEER/EER [SEER]	0 / 12.2 [19.55]
	Heating COP @ 47°F [HSPF]	4.08 [11.5]
	Nom System Connected Capacity (% of NOM)	100.0%
Design Conditions	Design Cooling Outdoor Temp DB (°F)	95.0
	Design Heating Outdoor Temp WB (°F)	43.0
	Max Pipe Length from BC or 1st Joint (feet)	33.9
	Refig Pipe Dim High/Low Pressure (inch) (See Note 4)	3/8 / 5/8
Performance Data	Corrected Cooling Total Capacity (BTU/h)	46,222.2
	Corrected Heating Capacity (BTU/h)	50,748.9
	Sound Pressure (dBA)	51/54
Compressor Data	Compressor Type	SCROLL
	Compressor Quantity	1
	Preliminary Added Field Charge (See Note 5)	8.7
Electrical Data	Voltage / Phase	208/230V / 1-phase
	MCA 208/230 or [460V]	29
	Recommended Fuse Size (RFS)	30
	MOCP	44
Notes / Options	Applicable System Notes - See Notes Below	1, 2, 3, 4, 5, 6, 7, 8, 9

Notes & Options:

1 Nominal cooling capacities are based on indoor coil EAT of 80/67°F (DB/WB), outdoor of 95°F (DB)
2 Nominal heating capacities are based on indoor coil EAT of 70°F (DB), outdoor of 43°F (WB)
3 Efficiency values for EER, IEER, COP are based on AHRI 1230 test method for mixture of ducted & non-ducted indoor units.
4 For systems with multiple modules, refrigerant pipe dimensions indicate total system combined piping downstream of module twinning.
5 Added field charge listed is in addition to factory charge, this must be updated based upon final as-built piping layout.
6 Factory representatives shall review the project prior to and throughout the installation of CITY MULTI equipment
7 Factory representatives shall startup and commission CITY MULTI equipment upon completion of equipment installations
8 Factory representatives shall provide on-site assistance for the BMS integration of the CITY MULTI equipment
9 Factory representatives shall provide end-user training on the CITY MULTI equipment upon completion of the installation of equipment

MITSUBISHI ELECTRIC TRANE HVAC US: CITY MULTI VRF INDOOR UNIT SCHEDULE

	System Tag	System 1	System 1
	Tag Reference	AHU	AHU
Nominal Data	Room Name		
	M-NET Address	1	2
	Model	PCFY-P24NKMU-ER1	PCFY-P24NKMU-ER1
	Type	Ceiling-Suspended	Ceiling-Suspended
	Nominal Cooling Capacity (BTU/h)	24,000.0	24,000.0
	Nominal Heating Capacity (BTU/h)	27,000.0	27,000.0
Design Conditions	Cooling Design Entering Temp DB/WB (°F) / [Water in temp]	80.0/67.0	80.0/67.0
	Heating Design Entering Temp DB/WB (°F) / [Water in temp]	70.0	70.0
	Cooling Diversity Full/Partial (See Note 5, 6)	FULL DEMAND	FULL DEMAND
	Heating Diversity Full/Partial (See Note 5, 6)	FULL DEMAND	FULL DEMAND
	Refrig Pipe Dim Liquid/Suction (inch)	3/8 / 5/8	3/8 / 5/8
Performance Data	Cooling Total Capacity (BTU/h)	23,111.1	23,111.1
	Cooling Sensible Capacity (BTU/h)	15,277.8	15,277.8
	Heating Capacity (BTU/h)	25,374.5	25,374.5
	Estimated Cooling Coil LAT (°F) / [LWT]	57.3	57.3
	Estimated Heating Coil LAT (°F) / [LWT]	107.0	107.0
Fan / Water Flow Data	Fan Speed Setting	HIGH	HIGH
	Peak Fan Airflow (cfm) / [Design gpm]	636	636
	Max Fan ESP Setting 208V/230V (IN WG)		
	Sound Pressure Per Fan Speed 208V/230V (dBA)	31-33-35-37	31-33-35-37
Electrical Data	Voltage / Phase	208/230V/1-phase	208/230V/1-phase
	Power Cooling 208V/230V (kW)	0.04	0.04
	Power Heating 208V/230V (kW)	0.04	0.04
	Electrical MCA/MFS	0.52/0.52/15	0.52/0.52/15
	Condensate Removal Rate (gal/hr)	1.01	1.01
Notes / Options	Applicable System Notes - See Notes Below	1, 2, 3, 4, 5, 6	1, 2, 3, 4, 5, 6

Notes & Options:

1 Nominal cooling capacities are based on indoor coil EAT of 80/67°F (DB/WB), outdoor of 95°F (DB)
2 Nominal heating capacities are based on indoor coil EAT of 70°F (DB), outdoor of 43°F (WB)
3 See outdoor unit schedule for outdoor ambient conditions, connected capacity, and other factors associated with corrected capacities
4 See schematic piping/control diagram for indication of required indoor unit remote controllers, system controllers, and integration devices.
5 Full demand corrected capacity includes de-rate associated with indoor vs. outdoor connected capacity indicated on outdoor unit schedule for associated system. Partial corrected capacity assumes sufficient diversity exists such that the connected capacity de-rate does not apply. It is the designer's responsibility to ensure "Diamond System Builder" is set in the appropriate output capacity setting (full demand/partial demand) prior to generating this schedule.
6 It is recommended to always base heating corrected capacity on full demand.

NOTE: VRF MANUFACTURER SHALL PROVIDE UPDATED SCHEDULES & PIPING DIAGRAMS BASED ON ACTUAL LAYOUT OF EQUIPMENT.

MECHANICAL SPECIFICATIONS

THE WORK INCLUDES PROVIDING MATERIALS, FITTINGS AND ACCESSORIES NECESSARY FOR A COMPLETE FUNCTIONING HVAC SYSTEM. ALL MATERIALS FURNISHED BY THE CONTRACTOR SHALL BE NEW AND UNUSED AND FREE FROM DEFECTS. ANY ITEM NOT SPECIFICALLY SHOWN ON THE DRAWINGS OR CALLED FOR IN THE SPECIFICATIONS, BUT THAT IS NORMALLY REQUIRED TO CONFORM TO THE INTENT, ARE TO BE CONSIDERED A PART OF THE CONTRACT. THE WORK MAY ALSO INCLUDE ROUGH–IN AND FINAL CONNECTIONS TO EQUIPMENT PROVIDED BY OTHERS. ALL WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES AND/OR ORDINANCES AND IS SUBJECT TO INSPECTION.

PROVIDE EQUIPMENT INDICATED ON THE DRAWINGS, AND AS REQUIRED FOR A COMPLETE FUNCTIONING SYSTEM. INSTALL ALL HVAC EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

ALL HVAC WORK SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST ADOPTED EDITIONS OF THE SOUTH CAROLINA BUILDING CODES. INCLUDE PERMITS AND INSPECTION FEES IN CONTRACT.

THE INTENT OF THE DRAWINGS IS TO INDICATE THE GENERAL EXTENT OF WORK REQUIRED FOR THE PROJECT. THE DRAWINGS FOR MECHANICAL WORK ARE DIAGRAMMATIC, SHOWING THE LOCATION, TYPE, DEVICES AND EQUIPMENT REQUIRED. THE DRAWINGS SHALL NOT BE SCALED FOR EXACT MEASUREMENTS. PROVIDE ALL EQUIPMENT, DEVICES, ACCESSORIES, DUCTWORK, OFFSETS, TRANSITIONS, MATERIALS, ETC. NECESSARY TO FACILITATE THE SYSTEM'S FUNCTIONING AS INDICATED BY THE DESIGN AND THE EQUIPMENT FURNISHED BY OTHERS.

DEFINITIONS: FURNISH MEANS TO SUPPLY AND DELIVER TO PROJECT SITE, READY FOR INSTALLATION. INSTALL MEANS TO PLACE IN POSITION AND MAKE CONNECTIONS FOR SERVICE OR USE. PROVIDE MEANS TO FURNISH AND INSTALL, COMPLETE AND READY FOR INTENDED USE.

FIRESTOPPING IS A MATERIAL OR COMBINATION OF MATERIALS USED TO RETAIN INTEGRITY OF FIRE–RATED CONSTRUCTION BY MAINTAINING AN EFFECTIVE BARRIER AGAINST THE SPREAD OF FLAME, SMOKE, AND HOT GASES THROUGH PENETRATIONS IN FIRE RATED WALL, FLOOR/CEILING AND ROOF/CEILING ASSEMBLIES.

WARRANTY: PROVIDE LABOR AND MATERIALS TO REPAIR OR REPLACE DEFECTIVE PARTS AND MATERIALS AS REQUIRED FOR ONE YEAR AFTER SUBSTANTIAL COMPLETION OR OWNER ACCEPTANCE OF THE COMPLETED PROJECT.

PROVIDE OPERATION MANUALS, MAINTENANCE MANUALS AND SCHEMATICS FOR ALL MECHANICAL EQUIPMENT INSTALLED.

COORDINATION: COORDINATE WITH THE WORK OF OTHER SECTIONS, EQUIPMENT FURNISHED BY OTHERS, REQUIREMENTS OF THE OWNER, AND WITH THE CONSTRAINTS OF THE EXISTING CONDITIONS OF THE PROJECT SITE.

CONDENSATE DISPOSAL SHALL BE PROVIDED ACCORDING TO MANUFACTURERS INSTALLATION INSTRUCTIONS. CONDENSATE SHALL NOT DISCHARGE INTO AN AREA SO AS TO CAUSE A NUISANCE. AN AUXILIARY DRAIN PAN WITH A SEPARATE SECONDARY DRAIN SHALL BE PROVIDED WHERE DAMAGE TO ANY BUILDING COMPONENTS WILL OCCUR AS A RESULT OF OVERFLOW OF THE EQUIPMENT DRAIN PAN OR STOPPAGE IN THE CONDENSATE DRAIN PIPING. THE SECONDARY DRAIN SHALL DISCHARGE TO A CONSPICUOUS POINT OF DISPOSAL TO ALERT OCCUPANTS IN THE EVENT OF A STOPPAGE OF THE PRIMARY DRAIN. CONDENSATE DRAINS SHALL BE TRAPPED ACCORDING TO MANUFACTURER.

COORDINATE ALL REQUIRED ROOF AND WALL OPENINGS WITH THE GENERAL CONTRACTOR. PROVIDE ALL CURBS, FLASHING, SLEEVES, SUPPORTING FRAMES, REINFORCING ANGLES, ETC. WHICH ARE REQUIRED UNLESS DIRECTED OTHERWISE.

DUCT DIMENSIONS: UNLESS OTHERWISE NOTED, DUCT DIMENSIONS ON THE DRAWINGS ARE INSIDE CLEAR DIMENSIONS.

SHEETMETAL DUCTWORK: PROVIDE SHEETMETAL DUCTWORK FABRICATED AND INSTALLED IN ACCORDANCE WITH ASHRAE AND SMACNA STANDARDS. DUCTWORK SHALL BE ASTM A653 GALVANIZED STEEL SHEET, LOCK–FORMING QUALITY, HAVING G90 ZINC COATING IN CONFORMANCE WITH ASTM A90. ALL ANGLE IRON USED FOR SUPPORT SHALL BE GALVANIZED. CONNECTIONS TO WALLS OR FLOOR SHALL BE AIR TIGHT WITH ANGLE IRON AND CAULKING. SEAL ALL DUCT SEAMS, TRANSVERSE AND LONGITUDINAL, AIR TIGHT. PROVIDE TURNING VANES AT ALL 90° ELBOWS.

ROUND SHEET METAL DUCT: PROVIDE UL 181, CLASS 1, ROUND SPIRAL LOCKSEAM DUCT CONSTRUCTED OF GALVANIZED STEEL COMPLYING WITH SMACNA STANDARDS.

FLEXIBLE AIR DUCT: PROVIDE FACTORY ASSEMBLED CLASS 0 OR CLASS 1 AIR DUCT TESTED IN ACCORDANCE WITH UL 181 WITH INSULATION AND REINFORCED OUTER PROTECTIVE COVER/VAPOR BARRIER. FLEXIBLE DUCT SHALL MEET NFPA 90A WITH FLAME SPREAD UNDER 25, SMOKE DEVELOPED UNDER 50, AND SHALL BE RATED FOR MINIMUM 2" W.G. PRESSURE AND 0 TO 250°F TEMPERATURE. FLEXIBLE DUCTS SHALL BE INSTALLED SO THAT NO BEND HAS A MEAN RADIUS OF LESS THAN ONE AND HALF TIME THE DUCT DIAMETER. ALL FLEXIBLE DUCTWORK SHALL BE CUT TO THE LENGTHS NECESSARY FOR EACH APPLICATION, AND NO JOINTING OF PIECES OF FLEXIBLE DUCTWORK WILL BE PERMITTED. JOINTS BETWEEN FLEXIBLE AND SHEET METAL DUCTS SHALL BE MADE WITH APPROVED METAL BAND CLAMPS.

EXPOSED DUCTWORK: EXPOSED DUCTWORK SHALL BE CLEANED OF DEBRIS AND OIL, THEN WIPED DOWN WITH VINEGAR OR OTHER SURFACE PREPARING CHEMICAL TO PREPARE DUCT FOR PAINT.

DUCT INSULATION: PROVIDE BLANKET TYPE FIBERGLASS INSULATION COMPLYING WITH ASTM C 1290 & NFPA 90A & 90B & WITH FACTORY APPLIED KRAFT PAPER BONDED TO ALUMINUM FOIL, REINFORCED WITH FIBERGLASS VAPOR BARRIER/JACKET. JACKET SHALL CONFORM TO ASTM C–1136, TYPE II. CLOSED–CELL NEOPRENE INSULATION SIMILAR TO ARMAFLEX MAY BE USED IN LIEU OF BLANKET TYPE INSULATION.

ALL SUPPLY AND RETURN AIR DUCTS AND PLENUMS SHALL BE INSULATED WITH A MINIMUM OF R–6 INSULATION WHEN LOCATED IN UNCONDITIONED SPACES INSIDE THE BUILDING AND R–8 MINIMUM WHEN LOCATED OUTSIDE THE BUILDING INSULATION ENVELOPE OR IN ATTIC. WHEN LOCATED WITHIN THE BUILDING ENVELOPE ASSEMBLY, THE DUCT OR PLENUM SHALL BE SEPARATED FROM THE BUILDING EXTERIOR OR UNCONDITIONED SPACE BY A MINIMUM OF R–8. "R" VALUES SHALL BE AS INSTALLED.

DUCT LINER: (WHERE INDICATED) PROVIDE MINIMUM 1" THICK, 1.5 PCF DENSITY, NEOPRENE COATED, LONG TEXTILE FIBER TYPE DUCT LINER CONFORMING TO ASTM C 1071, WITH COATING ON THE AIR STREAM SIDE CONFORMING TO NFPA 90A & 90B. DUCT LINER ADHESIVE SHALL BE AS RECOMMENDED BY DUCT LINER MANUFACTURER, AND SHALL COMPLY WITH ASTM C–916. DUCT LINER FASTENERS SHALL COMPLY WITH SMACNA "HVAC DUCT CONSTRUCTION STANDARDS", LATEST EDITION.

DUCT SEALANT: SEAL DUCT JOINTS, SEAMS AND CONNECTIONS IN ACCORDANCE WITH SC MECHANICAL AND ENERGY CODES. ARRANGE FOR INSPECTIONS IN ACCORDANCE WITH LOCAL AHJ.

DUCT & EQUIPMENT HANGERS: PROVIDE HANGERS AND SUPPORTS TO SECURE EQUIPMENT OR DUCTWORK IN PLACE, PREVENT VIBRATION, & PROVIDE FOR EXPANSION AND CONTRACTION. PROVIDE INSULATION PROTECTION SADDLES TO ACCOMMODATE INSULATION. INSTALL SUPPORTS OF STRENGTH AND RIGIDITY TO SUIT LOADING WITHOUT UNDULY STRESSING BUILDING. SELECT HANGERS AND SUPPORTS CONSTRUCTED FOR THE SPECIFIC APPLICATION AND IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDED MAXIMUM LOADING. FASTEN HANGERS AND SUPPORTS TO BUILDING STRUCTURE.

DUCT TURNING VANES: (TO BE PROVIDED WHERE RADIUS ELBOWS WILL NOT FIT SPACE CONSTRAINTS) PROVIDE FABRICATED TURNING VANES AND VANE RUNNERS, CONSTRUCTED IN ACCORDANCE WITH SMACNA "HVAC DUCT CONSTRUCTION STANDARDS". PROVIDE TURNING VANES CONSTRUCTED OF CURVED BLADES, SUPPORTED WITH BARS PERPENDICULAR TO BLADES, AND SET INTO SIDE STRIPS SUITABLE FOR MOUNTING IN DUCTWORK. FOLLOW SMACNA GUIDELINES FOR SPACING SUPPORT, AND CONSTRUCTION. ALL BLADES SHALL BE SINGLE WIDTH TYPE.

TESTING AND BALANCING: TEST AND ADJUST ALL MECHANICAL SYSTEMS AND EQUIPMENT TO ASSURE PROPER BALANCE AND OPERATION. ELIMINATE NOISE AND VIBRATION, AND ASSURE PROPER FUNCTION OF CONTROLS. BALANCE ALL SYSTEMS TO WITHIN 5% OF AIR FLOWS INDICATED ON THE DRAWINGS. MARK FINAL BALANCE POSITIONS ON DAMPERS WITH PERMANENT MARKER.

TEMPERATURE CONTROLS: PROVIDE SEVEN DAY PROGRAMMABLE THERMOSTAT COMPATIBLE TO HVAC UNIT(S) AND CONTROL WIRING. THERMOSTAT SHALL HAVE AN ACCESSIBLE MANUAL OVERRIDE THAT WILL RETURN TO THE PRESETBACK OR SHUTDOWN SCHEDULE WITHOUT REPROGRAMMING. THERMOSTAT SHALL MEET SETPOINT ADJUSTMENT FOR UNOCCUPIED MODE: HEATING DOWN TO 55 DEGREES AND COOLING UP TO 85 DEGREES. THERMOSTAT SHALL HAVE AN AUTOMATIC CHANGEOVER FEATURE BETWEEN HEATING & COOLING AND SHALL HAVE A SEPARATE FAN CONTROL. AUTOMATIC CHANGEOVER FUNCTION SHALL INCORPORATE A 5°F°F DEADBAND.

PROGRAMMING:

THE CONTRACTOR SHALL PROGRAM ALL THERMOSTATS AT PROJECT COMPLETION. COORDINATE WITH TENANT FOR PROGRAM SETTINGS.

*PROVIDE ALL CONTROL WIRING, THERMOSTATS, TRANSFORMERS, ETC. TO MEET SEQUENCE OF OPERATION

HVAC SYMBOLS, SCHEDULES & NOTES

NO SCALE

NORTH CAROLINA PROFESSIONAL SEAL 032588 ENGINEER BRYAN E. HUMPHREY
29JUL22
[illegible]

REVISIONS

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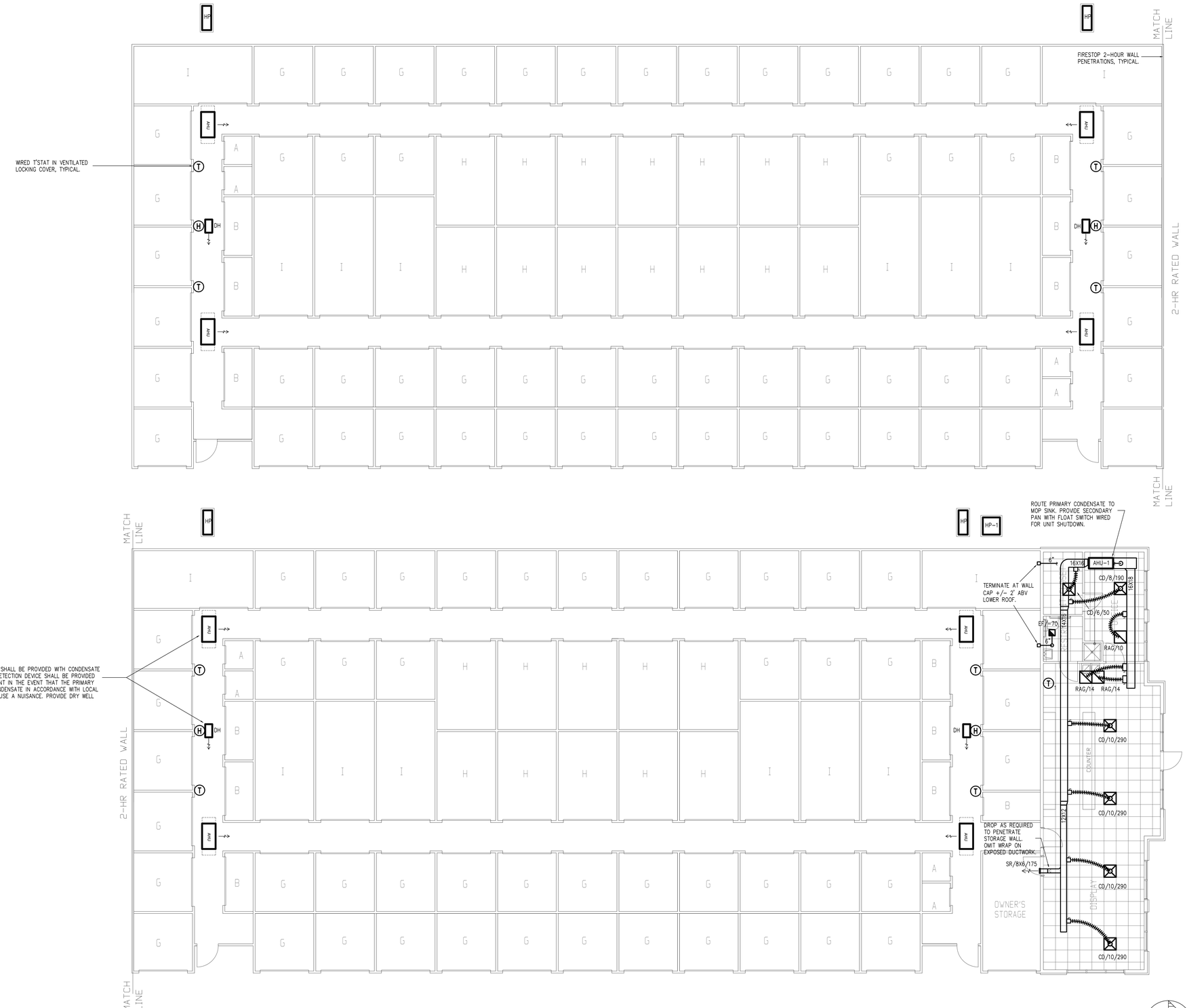
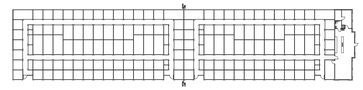
FIRM LICENSE: C-2272

BUILDING SYSTEMS PLANS FOR :
HARNETT SELF STORAGE
SPOUT SPRINGS, NC

JOB NO. 2278
ORIGINAL ISSUE DATE 29JUL22
DRAWN BY JMK
CHECKED BY BEH
SHEET NO.
M-1
OF 2





KEY PLAN
NO SCALE

REF. NORTH

HVAC PLAN

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

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 032588 BRIAN E. HUMPHREY 29JUL22

REVISIONS

BUILDING SYSTEMS PLANS FOR:

HARNETT SELF STORAGE

SPOUT SPRINGS, NC

JOB NO. 2278

ORIGINAL ISSUE DATE 29JUL22

DRAWN BY JMK

CHECKED BY BEH

SHEET NO.

M-2

OF 2

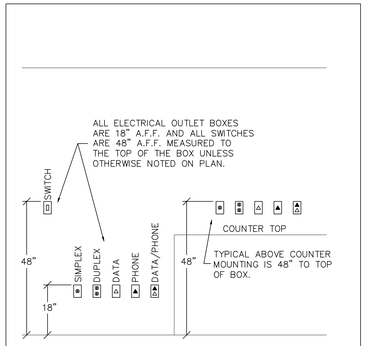
ABBREVIATIONS

DESCRIPTION	ABBREV.
ABOVE	ABV
AUTOMATIC DOOR OPENER	ADO
AMPERE FRAME	AF
AMPERE TRIP	AT
BARE COPPER	BC
ELECTRICAL CONDUIT	C
CIRCUIT BREAKER	CB, C/B
DIRECT BURIAL	DB
DENTAL EQUIPMENT SUPPLIER	DES
ELECTRICAL CONTRACTOR	EC
EQUIPMENT GROUND	EG
ELECTRIC WATER COOLER	EWC
FIRE ALARM	FA
FIRESTOP	FS
FUSED SAFETY SWITCH	FSS
GENERAL CONTRACTOR	GC
GROUND TERMINAL BOX	GTB
GROUND FAULT CIRCUIT INTERRUPTER	GFCI
LOCAL TEMPERATURE CONTROL PANEL	LTCP
LIGHT FIXTURES	LTS
MAIN DISTRIBUTION PANEL	MDP
MAIN LUGS ONLY	MLO
MECHANICAL CONTRACTOR	MC
NON-FUSED SAFETY SWITCH	NFSS
NIGHT LIGHT	NL
PHOTO CELL	PCELL
PLUMBING CONTRACTOR	PC
POWER OPERATED DAMPER	POD
POWER TYPE ROOF VENTILATION	PTRV
RECEPTACLE	REC
SAFETY SWITCH	SS
TIME CLOCK	TC
WIRE	W
WEATHER PROOF IN USE	WP

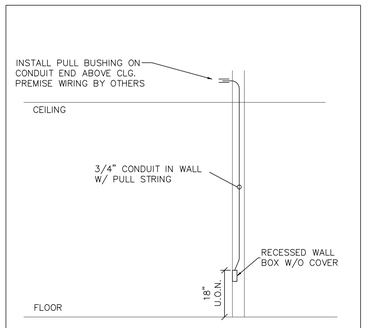
ELECTRICAL SYMBOL LEGEND

ONLY SYMBOLS USED ON PLANS APPLY.
DIMENSIONS (+X) ARE TO TOP OF BOX

SYMBOL	DESCRIPTION
	CIRCUIT BREAKER PANEL BOARD
	CIRCUITRY, CONCEALED WHERE FEASIBLE 2 CONDUCTORS UNLESS INDICATED OTHERWISE BY HASH MARKS
	HOME RUN TO PANEL
	SAFETY DISCONNECT SWITCH, NEMA RATING AMPACITY AND FUSING AS REQUIRED
	120V DUPLEX GROUNDED RECEPTACLE, 18" AFF U.O.N WP = WEATHER PROOF U = DUAL USB PORTS IG = ISOLATED GROUND 120V
	120V DUPLEX GFCI RECEPTACLE, 18" AFF U.O.N
	QUADRAPLEX GROUNDED RECEPTACLE, 18" AFF U.O.N
	SPECIAL PURPOSE RECEPTACLE AS NOTED
	JUNCTION BOX
EF	EXHAUST FAN INSTALLED BY OTHERS
	DATA COMMUNICATIONS OUTLET, 18" AFF U.O.N (BOX, CONDUIT TO CLG SPACE ONLY)
	TELEPHONE OUTLET, 18" AFF U.O.N., (BOX, CONDUIT TO CEILING SPACE ONLY)
TEL	TELEPHONE EQUIP. BACKBOARD, SIZE AS REQUIRED
TV	CABLE TV OUTLET, WIRE BACK TO SERVICE BOX.
	CIRCUITRY
	UNDERGROUND CIRCUITRY



ELECTRICAL OUTLET MOUNTING DETAIL
NO SCALE



TYPICAL TELEPHONE/DATA OUTLET DETAIL
NO SCALE

LIGHTING SYMBOL LEGEND

ONLY SYMBOLS USED ON PLANS APPLY.
DIMENSIONS (+X) ARE TO TOP OF BOX

SYMBOL	DESCRIPTION
	WALL MOUNTED LIGHT FIXTURE
	CEILING MOUNTED LIGHT FIXTURE
	2X4 LIGHT FIXTURE
	2X2 LIGHT FIXTURE
	BATTERY PACK EXIT SIGN
	BATTERY PACK EMERGENCY LIGHT
	BATTERY PACK COMBINATION EXIT/EMERGENCY LIGHT
	REMOTE EXIT DISCHARGE FIXTURE
S	SWITCH 48" TO TOP AFF
S_3	3-WAY SWITCH 48" TO TOP AFF
S_4	4-WAY SWITCH 48" TO TOP AFF
S_D	DIMMER SWITCH 48" TO TOP AFF
S_P	SWITCH W/ PILOT LAMP
	HOME RUN TO PANEL
	CIRCUITRY
	UNSWITCHED CIRCUITRY
OS W	WALL SWITCH OCCUPANCY SENSOR
OS 360	CEILING MOUNT OCCUPANCY SENSOR, 360° SENSOR VIEW.
OS	DIRECTIONAL CEILING/WALL MOUNT OCCUPANCY SENSOR

SERVICE AND FEEDER LOAD SUMMARY

PER NEC ARTICLE 220

GROSS SQUARE FOOTAGE = 23,911

LOAD	QUANTITY	RATE	LOAD (VA)	DEMAND FACTOR	DEMAND LOAD (VA)
LIGHTING (SORAGE)	22583 SF	.25 VA/SF	5645	1.25	7057
LIGHTING (OFFICE)	1328 SF	3.5 VA/SF	4648	1.25	5810
EXT. LIGHTING	NA	NA	2800	1.25	3500
SIGNAGE	2	1200VA/	2400	1.25	3000
RECEPTACLES	28	180VA/REC	5040	1.00	5040
HVAC	NA	NA	24480	1.00	24480
EWH	1	NA	1500	1.00	1500
KIT. EQUIP	NA	NA	0	0.65	0
TOTAL					50387
AMPERAGE @ 120/208V 3PH 4W					140A
SERVICE CONDUCTORS SPECIFIED					200A

2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
ELECTRICAL design

electrical summary

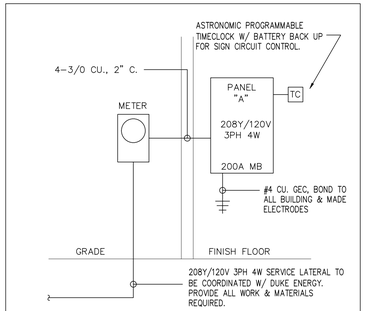
ELECTRICAL SYSTEM AND EQUIPMENT

Method of Compliance: Energy Code - Prescriptive

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

TOTAL INTERIOR WATTAGE SPECIFIED VS ALLOWED: 7,043 VS 13,505
WHOLE BUILDING ( ) SPACE BY SPACE (X)
EXTERIOR LIGHTING WATTAGE SPECIFIED VS ALLOWED: 1,758 VS 3,459

Additional Efficiency Package Options
(When using the 2018 NCECC; not required for ASHRAE 90.1)
☐ 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 Outdoor Air System
☐ C406.7 Reduced Energy Use in Service Water Heating



POWER RISER DIAGRAM
NO SCALE

ELECTRICAL SPECIFICATIONS

ALL WORK SHALL COMPLY WITH LAWS APPLYING TO ELECTRICAL INSTALLATIONS IN EFFECT, AND WITH THE MOST RECENT EDITION OF THE NATIONAL ELECTRICAL CODE, ADA, APPLICABLE SECTIONS OF OTHER NFPA, OSHA, LIFE SAFETY CODES AND RECOMMENDATIONS, AND THE INTERIM AMENDMENTS IN EFFECT AT THE TIME OF THE PROPOSAL.

THE WORK INCLUDES PROVIDING MATERIALS, DEVICES, WIRING, FIXTURES, ETC. NECESSARY FOR A COMPLETE FUNCTIONING ELECTRICAL SYSTEM. ALL MATERIALS FURNISHED BY THE CONTRACTOR SHALL BE NEW AND UNUSED AND FREE FROM DEFECTS. INSTALL, CONNECT AND ADJUST ALL EQUIPMENT PER MANUFACTURER'S INSTRUCTIONS. ANY ITEM NOT SPECIFICALLY SHOWN ON THE DRAWINGS OR CALLED FOR IN THE SPECIFICATIONS, BUT THAT IS NORMALLY REQUIRED TO CONFORM TO THE INTENT, ARE TO BE CONSIDERED A PART OF THE CONTRACT. ALL MATERIALS USED SHALL BE NEW AND SHALL CONFORM TO THE STANDARDS ESTABLISHED BY THE UNDERWRITERS LABORATORIES INCORPORATED.

THE INTENT OF THE DRAWINGS IS TO INDICATE THE GENERAL EXTENT OF WORK REQUIRED FOR THE PROJECT. THE DRAWINGS FOR ELECTRICAL WORK ARE DIAGRAMMATIC, SHOWING THE LOCATION, TYPE, DEVICES AND EQUIPMENT REQUIRED. THE DRAWINGS SHALL NOT BE SCALED FOR EXACT MEASUREMENTS. PROVIDE ALL FIXTURES, DEVICES, ACCESSORIES, OFFSETS, AND MATERIALS NECESSARY TO FACILITATE THE SYSTEM'S FUNCTIONING AS INDICATED BY THE DESIGN AND THE EQUIPMENT FURNISHED BY OTHERS.

HOOK-UP CHARGES, PERMITS, LOCAL FEES AND ALL OTHER EXPENSES RELATED TO A COMPLETE AND FUNCTIONING ELECTRICAL SYSTEM SHALL BE INCLUDED IN THE CONTRACTORS BID. THE CONTRACTOR SHALL COOPERATE FULLY WITH UTILITY SERVICE PROVIDERS WITH RESPECT TO THEIR SERVICES.

COORDINATION: COORDINATE WITH THE WORK OF OTHER SECTIONS, EQUIPMENT FURNISHED BY OTHERS, REQUIREMENTS OF THE OWNER, AND WITH THE CONSTRAINTS OF THE EXISTING CONDITIONS OF THE PROJECT SITE. ANY WORK THAT IS INSTALLED BY THIS CONTRACTOR THAT RESULTS IN CONFLICT, DUE TO LACK OF COORDINATION BETWEEN TRADES, SHALL BE CHANGED AS DIRECTED BY THE ARCHITECT/ENGINEER WITHOUT ADDITIONAL COMPENSATION TO THE CONTRACTOR.

COORDINATE WITH THE LOCAL ELECTRIC UTILITY COMPANY AND TELEPHONE COMPANY AS TO THE REQUIREMENTS FOR SERVICE CONNECTIONS AND PROVIDE ALL LABOR, MATERIALS, AND TESTING NECESSARY.

DEFINITIONS: FURNISH MEANS TO SUPPLY AND DELIVER TO PROJECT SITE, READY FOR INSTALLATION. INSTALL MEANS TO PLACE IN POSITION AND MAKE CONNECTIONS FOR SERVICE OR USE. PROVIDE MEANS TO FURNISH AND INSTALL, COMPLETE AND READY FOR INTENDED USE. WIRING MEANS THE INCLUSION OF ALL RACEWAYS, FITTINGS, CONDUCTORS, CONNECTORS, JUNCTION AND OUTLET BOXES, SPLICES, CONNECTIONS, TAPE, AND ALL OTHER ITEMS NECESSARY AND/OR REQUIRED IN CONNECTION WITH SUCH WORK. CONDUIT MEANS THE INCLUSION OF ALL HANGERS, SLEEVES, SUPPORTS, FITTINGS, ETC.

FIRESTOPPING IS A MATERIAL OR COMBINATION OF MATERIALS USED TO RETAIN INTEGRITY OF FIRE-RATED CONSTRUCTION BY MAINTAINING AN EFFECTIVE BARRIER AGAINST THE SPREAD OF FLAME, SMOKE, AND HOT GASES THROUGH PENETRATIONS IN FIRE RATED WALL AND FLOOR ASSEMBLIES.

WARRANTY: PROVIDE LABOR AND MATERIALS TO REPAIR OR REPLACE DEFECTIVE PARTS AND MATERIALS AS REQUIRED FOR ONE YEAR AFTER SUBSTANTIAL COMPLETION OR OWNER ACCEPTANCE OF THE COMPLETED PROJECT.

ELECTRICAL DESIGN HAS BEEN BASED ON THE INSTALLATION OF 75°C°C CONDUCTORS CONNECTED TO TERMINAL LUGS AND EQUIPMENT, U.L. LISTED FOR A MINIMUM 75°C.°C. CONDUCTORS TERMINATED ON EQUIPMENT OR DEVICES WITH A LOWER RATING (60°C)°C) OR NO RATING SHOWN, SHALL HAVE CONDUCTOR SIZE INCREASED TO CONFORM TO NEC TABLE 310-16.

ALL EQUIPMENT SHALL BE EQUAL TO OR EXCEED THE MINIMUM REQUIREMENTS OF NEMA, IEEE, AND UL.

DISCONNECT SWITCHES SHALL BE HEAVY-DUTY, QUICK-MAKE, QUICK-BREAK TYPE, NEMA 1 ENCLOSURE FOR INDOOR LOCATIONS (NEMA 3R FOR OUTDOOR LOCATIONS). SWITCHES SHALL BE AS MANUFACTURED BY SQUARE 'D', GENERAL ELECTRIC, OR SIEMEN'S (I.T.E.). PROVIDE FUSES AS MANUFACTURED BY BUSSMAN, GOULD-SHAWMUT, OR LITTLE-FUSE. ALL CONDUCTOR TERMINALS TO BE U.L. LISTED FOR A MINIMUM OF 75°C.°C. SWITCHES USED AS SERVICE ENTRANCE EQUIPMENT TO BE U.L. LISTED AS "SER" RATED EQUIPMENT. WHERE MULTIPLE DISCONNECTS ARE USED AS A SERVICE ENTRANCE MEANS, A NEUTRAL CONDUCTOR SHALL BE RUN TO THE NEUTRAL TERMINAL IN EACH SERVICE DISCONNECT AND SHALL BE BONDED PER NEC.

PANEL BOARDS SHALL BE AS MANUFACTURED BY SQUARE-D OR EQUAL MEETING U.L. STANDARDS 50 AND 67, WITH U.L. LABEL. PANELS USED AS SERVICE ENTRANCE EQUIPMENT TO BE U.L. LISTED AS "SER" RATED EQUIPMENT. PANELBOARDS SHALL BE FULLY RATED.

BREAKERS: THERMAL MAGNETIC TYPE, QUICK-MAKE, QUICK-BREAK, PLUG-IN TYPE OF SINGLE UNIT CONSTRUCTION. TWO POLE BREAKERS SHALL BE SINGLE UNIT COMMON TRIP TYPE. BREAKERS USED AS SWITCHES FOR 120V LIGHTING CIRCUITS SHALL BE APPROVED FOR THAT USE AND MARKED "SWD".

GROUNDING SYSTEM: PERMANENTLY AND EFFECTIVELY GROUND ALL METALLIC CONDUIT, SUPPORTS, CABINETS, PANELBOARDS AND SYSTEM NEUTRAL CONDUCTORS. MAINTAIN CONTINUITY OF EQUIPMENT GROUND THROUGHOUT THE SYSTEM. GROUND CLAMPS SHALL BE APPROVED TYPE, SPECIFICALLY DESIGNED FOR GROUNDING. WHERE GROUNDING CONDUCTOR IS ENCLOSED IN CONDUIT, GROUND CLAMP SHALL BE OF A TYPE WHICH GROUNDS BOTH CONDUCTOR AND CONDUIT. ALL CIRCUITS IN FLEXIBLE METAL OR PLASTIC CONDUIT SHALL INCLUDE A GROUND WIRE SIZED IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE.

CONDUCTORS: INSULATED SOFT ANNEALED 98% PURE COPPER WITH COLOR CODING, B AND S GAGE, #10 AND SMALLER TO BE SOLID, #8 AND LARGER TO BE STRANDED, MINIMUM #12 UNLESS OTHERWISE INDICATED. CONDUCTORS MUST BE INSTALLED IN ACCORDANCE WITH N.E.C. AND CANNOT BE SUPPORTED FROM CEILING SUPPORT WIRES. THHN MAY NOT BE USED UNDERGROUND, AT SERVICE ENTRANCE, OUTSIDE, OR IN WET LOCATIONS. ALL INSULATION TO BE RATED FOR 600 V.

LIGHT FIXTURES & LAMPS ARE TO BE FURNISHED BY E.C. AS NOTED ON THE LIGHT FIXTURE SCHEDULE. FIXTURE INSTALLATION SHALL BE BY THE ELECTRICAL CONTRACTOR ACCORDING TO LOCAL CODE AUTHORITY. THE ELECTRICAL CONTRACTOR SHALL REVIEW MATERIALS AT THE TIME OF DELIVERY AND IMMEDIATELY REPORT ANY DAMAGE OR MISSING PIECES.

LIGHT FIXTURE QUANTITIES AND INPUT WATTAGES LISTED IN LIGHT FIXTURE SCHEDULE ARE FOR ENGINEERING ENERGY CALCULATIONS ONLY AND ARE NOT TO BE USED BY CONTRACTOR FOR QUANTITY TAKE-OFFS.

EMERGENCY LIGHTING SHALL HAVE A MINIMUM OF 90 MIN. BATTERY BACK-UP, OR AS REQUIRED BY LOCAL CODE AUTHORITY.

LAYOUT BRANCH CIRCUIT WIRING AND ARRANGEMENT OF HOME RUNS FOR MAXIMUM ECONOMY AND EFFICIENCY. INCREASE WIRE SIZE IF VOLTAGE DROP EXCEEDS 3% OR 100 FEET OF LENGTH.

CONCEAL WIRING SYSTEM ABOVE SUSPENDED CEILINGS OR IN WALL OR FLOOR CONSTRUCTION WHERE POSSIBLE. INSTALL CONDUITS PARALLEL TO BUILDING LINES, AND TO CLEAR ALL OPENING, DEPRESSIONS, PIPES, DUCTS, STRUCTURE, ETC.

ALL WIRING SHALL BE IN CONDUIT, UNLESS SPECIFICALLY NOTED OTHERWISE.

INSTALL CONDUIT CONTINUOUS BETWEEN BOXES AND CABINETS WITH NO MORE THAN FOUR (4) 90 DEGREE BENDS. SECURELY FASTEN IN PLACE WITH STRAPS, HANGERS AND STEEL SUPPORTS AS REQUIRED. DO NOT SUPPORT CONDUIT FROM SUSPENDED CEILING GRID OR SUSPENSION WIRES. REAM CONDUIT ENDS BEFORE INSTALLATION AND THOROUGHLY CLEAN BEFORE INSTALLATION. OPENINGS SHALL BE PLUGGED OR COVERED TO KEEP CONDUIT CLEAN.

CONDUIT SHALL BE SIZED TO COMPLY WITH NEC FOR NUMBER AND SIZE OF CONDUCTORS INSTALLED, MINIMUM 24" BELOW GRADE. PROVIDE SCHEDULE 40 PVC PLASTIC OR RIGID STEEL CONDUIT BELOW GRADE, MINIMUM 3/4". PROVIDE ELECTRICAL METAL TUBING (EMT), FLEXIBLE METAL CONDUIT (IN LENGTHS 6' OR LESS) FOR INTERIOR LOCATIONS. EMT CONNECTORS AND COUPLING SHALL BE SET-SCREW TYPE. CLAMP CONDUIT TO BOXES WITH BUSHING INSIDE AND LOCKNUT OUTSIDE.

BELOW GRADE RACEWAYS SHALL BE CONSIDERED WET LOCATION AND SHALL BE SEALED PER NEC 300.5 (G) WITH A SEALANT IDENTIFIED FOR USE WITH INSTALLED CONDUCTORS/INSULATION.

"MC" TYPE CABLES MAY BE USED IN SPACES WHERE NOT SUBJECT TO PHYSICAL DAMAGE OR CORROSION. "MC" & "AC" CABLE MUST BE INSTALLED IN A WORKMANLIKE MANNER AND PERPENDICULAR OR PARALLEL TO BUILDING LINES. CABLE MUST BE INSTALLED IN ACCORDANCE WITH N.E.C. ARTICLE 330.

ALL CONDUIT AND RACEWAY SYSTEMS SHALL BE INSTALLED WITH SEPARATE GROUND CONDUCTOR. CONDUIT SYSTEM IS NOT TO BE USED AS THE SOLE GROUNDING MEANS.

TOUCH UP OR REFINISH DAMAGED SURFACES OF FIXTURES AND EQUIPMENT, EXPOSED TO VIEW.

DATA & TELEPHONE PREMISES WIRING & CABLES TO BE FURNISHED AND INSTALLED BY OWNER. RACEWAY AND/OR CONDUIT TO BE PROVIDED BY E.C. VERIFY EXACT MOUNTING LOCATIONS WITH ARCHITECT PRIOR TO FASTENING RACEWAY OR CONDUIT TO WALL, CEILING OR FLOOR. FASTEN TO SURFACE AS RECOMMENDED BY MANUFACTURER. MOUNT SO RACEWAY IS IN THE LEAST OBVIOUS LOCATION. REAM ALL CUTS SMOOTH. PROVIDE ALL REQUIRED BOXES, EXTENSIONS, FITTINGS, ELBOWS AND DEVICES FOR A COMPLETE INSTALLATION

REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF LIGHTING FIXTURES AND OTHER CEILING MOUNTED EQUIPMENT.

FOR EQUIPMENT FURNISHED BY OWNER OR OTHER CONTRACTORS; ELECTRICAL CONTRACTOR TO VERIFY EXACT LOAD, TYPE OF CONNECTION AND MOUNTING HEIGHT FOR EACH BOX OR EQUIPMENT ITEM TO BE INSTALLED. ALL HARDWIRED CONNECTIONS TO EQUIPMENT TO BE MADE WITH FLEXIBLE LIQUID-TITE METAL CONDUIT WITH GREEN GROUND CONDUCTOR INSTALLED INSIDE RACEWAY. GROUND CONDUCTOR SHALL BE BONDED AT BOTH ENDS.

COORDINATE ALL REQUIRED ROOF AND WALL OPENINGS WITH THE GENERAL CONTRACTOR. PROVIDE ALL CURBS, FLASHING, SLEEVES, SUPPORTING FRAMES, REINFORCING ANGLES, ETC. WHICH ARE REQUIRED UNLESS DIRECTED OTHERWISE.

MINIMUM WIRE SIZE – 20 AMP BRANCH CIRCUIT SHALL BE AWG LISTED SIZE PER DISTANCE SHOWN BELOW. DISTANCE SHALL BE MEASURED FROM THE PANELBOARD CIRCUIT BREAKER TO THE FURTHEST OUTLET ALONG THE CIRCUIT PATH.

A. #12 LESS THAN 100 FEET
B. #10 BETWEEN 100-150 FEET
C. #8 BETWEEN 150 – 250 FEET
D. #6 OVER 250 FEET

ON ALL 20 AMP BRANCH CIRCUITS, CONDUCTORS LARGER THAN #10 AWG SHALL BE REDUCED TO #10 AWG WITHIN 10 FEET OF PANEL BOARD AND DEVICE IN JUNCTION BOXES ON RATED TERMINAL STRIPS.

ALUMINUM CONDUCTORS ARE NOT PERMITTED, EXCEPT AT SERVICE ENTRANCE. CONDUCTOR CONNECTION MUST BE PER MANUFACTURER'S REQUIREMENTS.

ELECTRICAL SYMBOLS, DETAILS & NOTES

NO SCALE

NORTH CAROLINA PROFESSIONAL SEAL 032588 ENGINEER BRYAN E. HUMPHREY 29JUL22

REVISIONS

EUBANKS ENGINEERING PC
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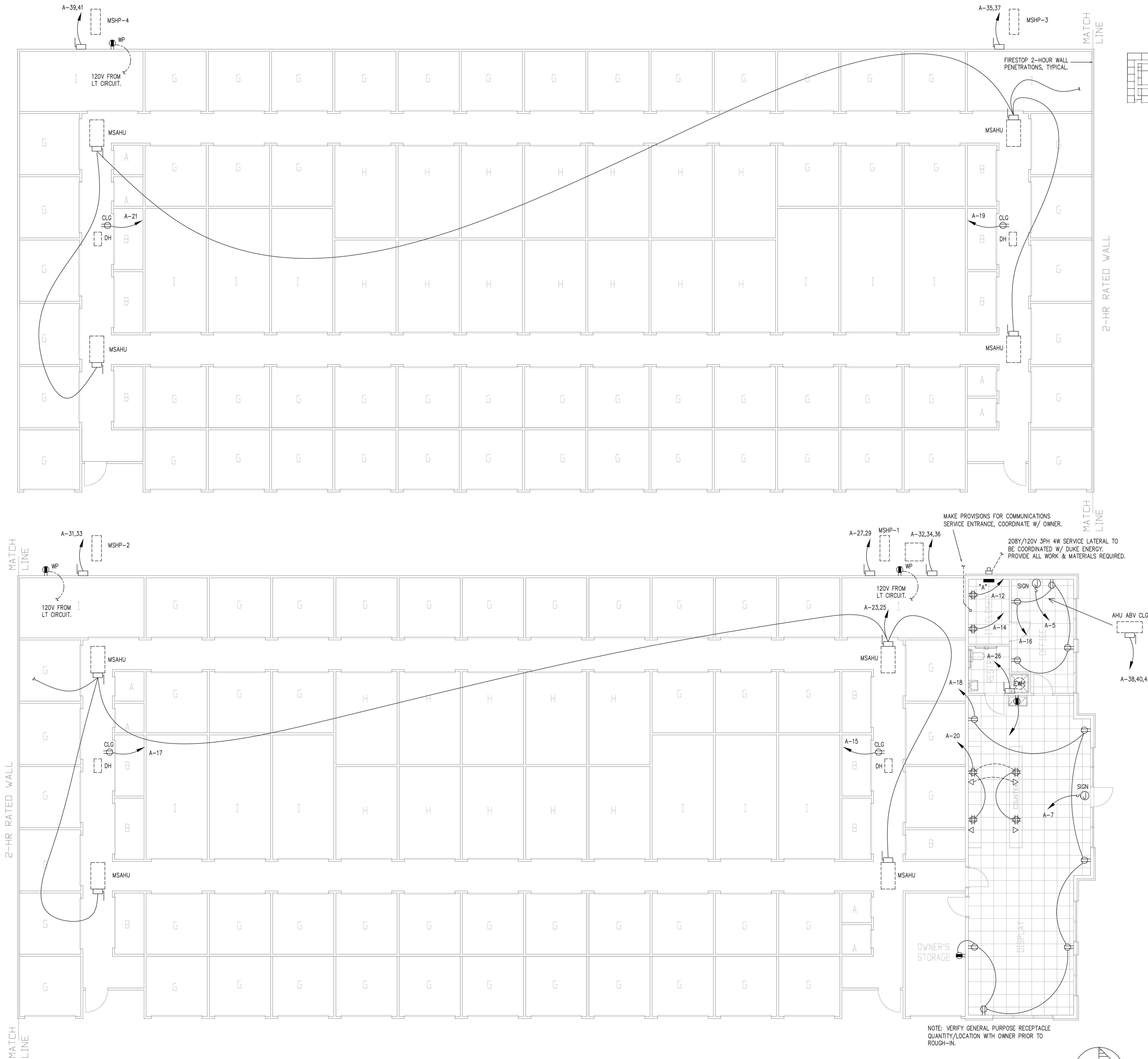
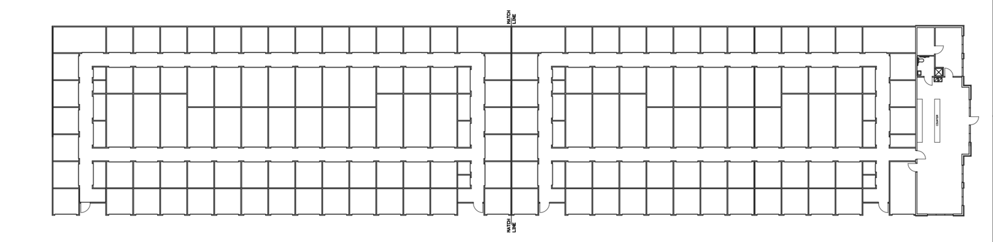
FIRM LICENSE: C-2272

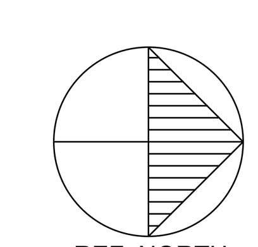
BUILDING SYSTEMS PLANS FOR:
HARNETT SELF STORAGE
SPOUT SPRINGS, NC

JOB NO. 2278
ORIGINAL ISSUE DATE 29JUL22
DRAWN BY JMK
CHECKED BY BEH
SHEET NO.
E-1
OF 5





KEY PLAN
NO SCALE



POWER PLAN

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

NORTH CAROLINA PROFESSIONAL SEAL 032588 29JUL22 ENGINEER BRYAN E. HUMPHREY

[illegible]

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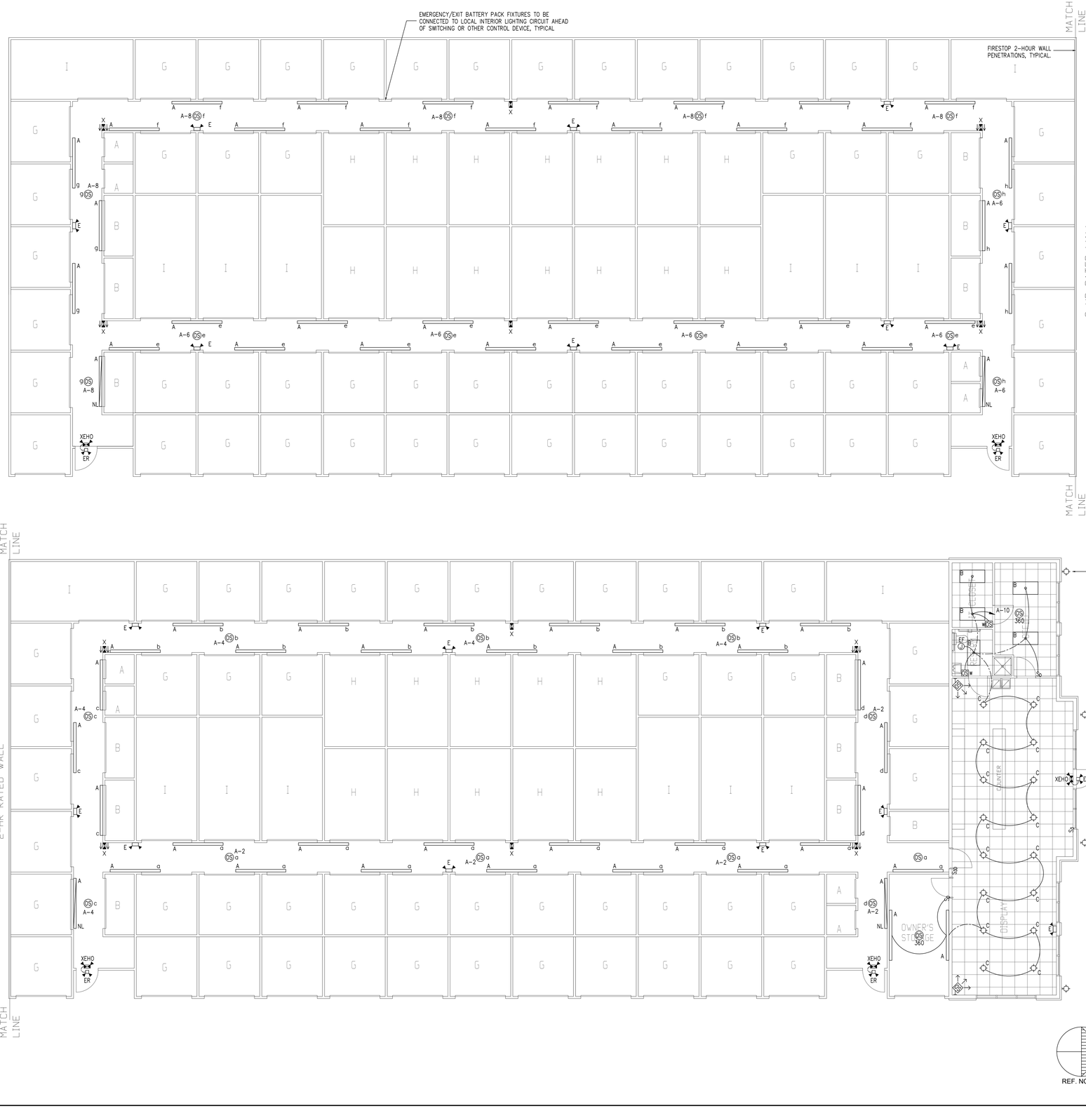
BUILDING SYSTEMS PLANS FOR :

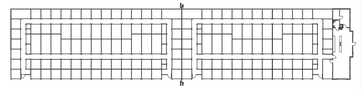
HARNETT SELF STORAGE

SPOUT SPRINGS, NC

JOB NO.	2278
ORIGINAL ISSUE DATE	29JUL22
DRAWN BY	JMK
CHECKED BY	BEH
SHEET NO.	E-2

NOTE: OCCUPANCY SENSOR LAYOUT IS SCHEMATIC & INTENDED TO INDICATE CONTROL ZONES. COORDINATE SELECTION, QUANTITIES & LOCATION WITH SENSOR SUPPLIER AS REQUIRED TO CONTROL THE INDICATED ZONES. COORDINATE INSTALLATION WITH OTHER TRADES. PROVIDE ALL WORK REQUIRED FOR A COMPLETE INSTALLATION. ACCEPTABLE MANUFACTURERS ARE WATTSTOPPER, LEGRAND, LUTRON, LEVITON OR HUBBELL. CONTRACTOR'S WORK TO INCLUDE ALL LABOR & MATERIALS NECCESSARY FOR AND INCIDENTAL TO THE DELIVERY, INSTALLATION AND FURNISHING OF A COMPLETELY OPERATIONAL OCCUPANCY SENSOR LIGHTING CONTROL SYSTEM. MAKE ALL ADJUSTMENTS REQUIRED TO CONTROL INDICATED ZONES. AVOID INSTALLING SENSORS WITHIN 8' OF AIR HANDLERS, DEHUMIDIFIERS OR AIR VENTS.





KEY PLAN
NO SCALE

REF. NORTH

LIGHTING PLAN

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

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 03288 29JUL22 BRYAN E. HUMPHREY

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SPOUT SPRINGS, NC

JOB NO. 2278
ORIGINAL ISSUE DATE 29JUL22
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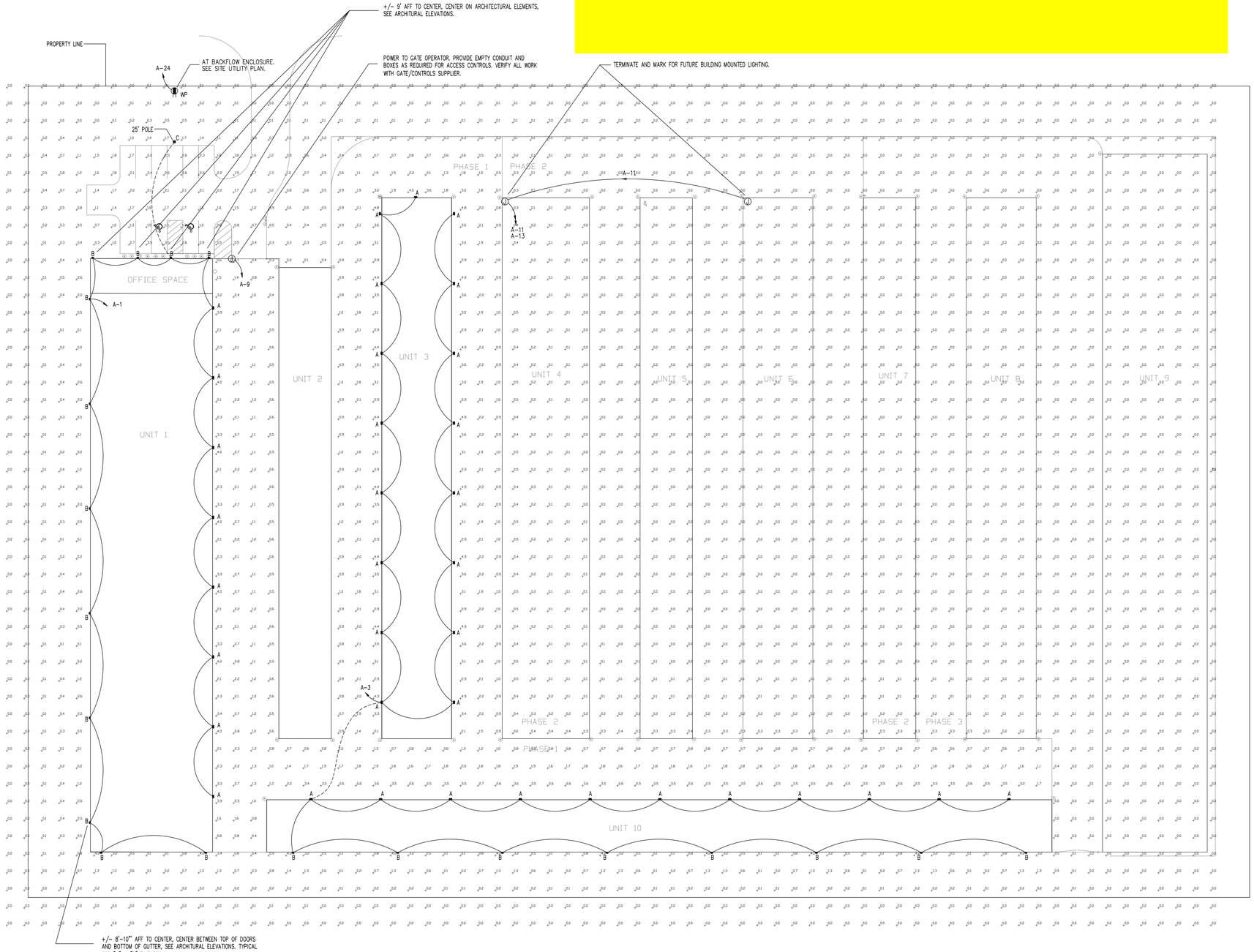
SHEET NO.

E-3

OF 5

ELECTRICAL FOR BUILDINGS 1/A,2/B10/J

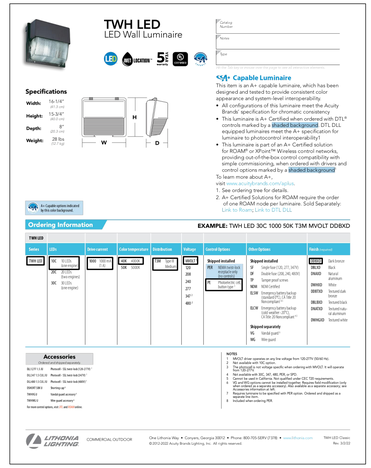


REF. NORTH

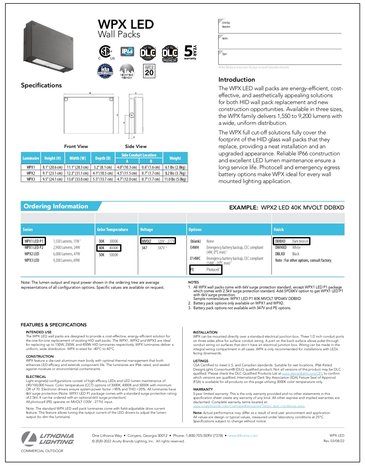
AREA LIGHTING & SITE ELECTRICAL PLAN

SCALE: 1" = 30'-0"

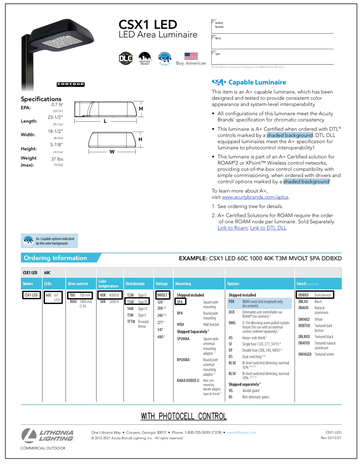
"A" FIXTURE



"B" FIXTURE



"C" FIXTURE



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BUILDING SYSTEMS PLANS FOR:

HARNETT SELF STORAGE

SPOUT SPRINGS, NC

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DRAWN BY JMK

CHECKED BY BEH

SHEET NO.

E-4

OF 5

LIGHT FIXTURE SCHEDULE

SIMILAR FIXTURES BY OTHER MANUFACTURERS ARE GENERALLY ACCEPTABLE FOR SUBMITTAL BUT SUBJECT TO REVIEW AND APPROVAL

MARK	MANUFACTURER	CATALOG NUMBER	LAMPS	POWER	NO.	WATTS EA.	INT. WATTS	EXT. WATTS	REMARKS
A	LITHONIA	CSS L96 AL04 MVOLT SWW3 80CRI	LED	120V	71	88	6248	NA	8' LINEAR LED STRIP LIGHT W/ ROUND DIFFUSE LENS, SET TO 10,000 LUMENS AND COLOR TEMP. TO 40K
B	LITHONIA	2TL4 60L FW A12 EZ1 LP835	LED	120V	5	47	235	NA	LED, 2X4 RECESSED STATIC TROFFER WITH ACRYLIC LENS
C	LITHONIA	LDN6 35/30 L06 AR LSS MVOLT	LED	120V	16	35	560	NA	6" OPEN DOWNLIGHT, SEMI-SPECULAR REFLECTOR
E	LITHONIA	ELM4L	STANDARD	120V	16	NA	NA	NA	EMERGENCY LIGHT WITH DUAL ADJUSTABLE HEADS AND EMERGENCY BATTERY PACK.
X	LITHONIA	LQM S W 3 R 120/277 EL N	LED	120V	12	5	NA	NA	SINGLE FACE ILLUMINATED EXIT SIGN WITH EMERGENCY BATTERY PACK & EXTRA FACE.
XEHO	LITHONIA	LHQM LED R HO	STANDARD	120V	5	5	NA	NA	COMBO ILLUMINATED EXIT SIGN & EMERGENCY LIGHT WITH HIGH OUTPUT BATTERY PACK
ER	LITHONIA	ELA B T QWP L0309	STANDARD	120V	5	NA	NA	NA	OUTDOOR REMOTE DUAL HEAD EMERGENCY FIXTURE POWERED FROM XEHO FIXTURE
NOTE: FIXTURE QUANTITIES LISTED ARE NOT TO BE RELIED UPON FOR TAKE-OFF PURPOSES.							7043	480	

MOUNTING: PANEL - A — MAIN 200A; BUS 225A

FLUSH — 120 \ 208 VOLTS — 3 PHASE 4 WIRE — Y — AIC 22K

LOAD	VOLT AMPS φA	VOLT AMPS φB	VOLT AMPS φC	LTG	REC	HVC	KIT	MSC	WIRE	BKR	CKT	BUS A	BUS B	BUS C	CKT	BKR	WIRE	MSC	KIT	HVC	REC	LTG	VOLT AMPS φA	VOLT AMPS φB	VOLT AMPS φC	LOAD
EXTERIOR LTS	1400								#12	20	1	■			2	20	#12						1400			LTS
EXTERIOR LTS		1400							#12	20	3		■		4	20	#12							1400		LTS
SIGN (TIMECLOCK)			1200						#12	20	5			■	6	20	#12								1600	LTS
SIGN (TIMECLOCK)	1200								#12	20	7	■			8	20	#12						1600			LTS
GATE OPERATOR		1200							#12	20	9		■		10	20	#12							1200		LTS
FUTURE EXTERIOR LTS									#10	20	11			■	12	20	#12								360	REC
FUTURE EXTERIOR LTS									#10	20	13	■			14	20	#12						360			REC
DEHUMIDIFIER		960							#12	15	15		■		16	20	#12							720		REC
DEHUMIDIFIER			960						#12	15	17			■	18	20	#12								1260	REC
DEHUMIDIFIER	960								#12	15	19	■			20	20	#12						1140			REC
DEHUMIDIFIER		960							#12	15	21		■		22	20										SPARE
MSA HUs			160						#12	15	23			■	24	20	#12								180	REC AT RPZ
"	160								"	"	25	■			26	20	#12						1500			EWH
MSHP-1		3015							#8	40	27		■		28	20										SPARE
"			3015						"	"	29			■	30	20										SPARE
MSHP-2	3015								#8	40	31	■			32	30	#10						1800			HP-1
"		3015							"	"	33		■		34	"	"							1800		"
MSHP-3			3015						#8	40	35			■	36	"	"								1800	"
"	3015								"	"	37	■			38	45	#8						4080			AHU-1
MSHP-4		3015							#8	40	39		■		40	"	"							4080		"
"			3015						"	"	41			■	42	"	"								4080	"
SPACE											43	■			44											SPACE
"											45		■		46											"
"											47			■	48											"
"											49	■			50											"
"											51		■		52											"
"											53			■	54											"

VOLT - AMPS PER PHASE	φA	21630	φB	22765	φC	20645
AMPS PER PHASE		180		190		172
TOTAL VOLT - AMPS =	65040		AMPS =	180.67	LCL =	

NOTES: AVAILABLE FAULT CURRENT TO BE DETERMINED IN COOPERATION WITH DUKE ENERGY BEFORE PURCHASING EQUIPMENT

PROJECT: | DATE: August 2, 2022 | BY: BEH | REV.

ELECTRICAL SCHEDULES

NO SCALE

NORTH CAROLINA PROFESSIONAL SEAL 032688 ENGINEER BRYAN E. HUMPHREY 29JUL22

REVISIONS

EUBANKS ENGINEERING PC
HUMPHREY
102 Paisley St., Suite 200 Phone 336.379.0663
Greensboro, NC 27401 Fax 336.379.0053
FIRM LICENSE: C-2272

BUILDING SYSTEMS PLANS FOR:

HARNETT SELF STORAGE

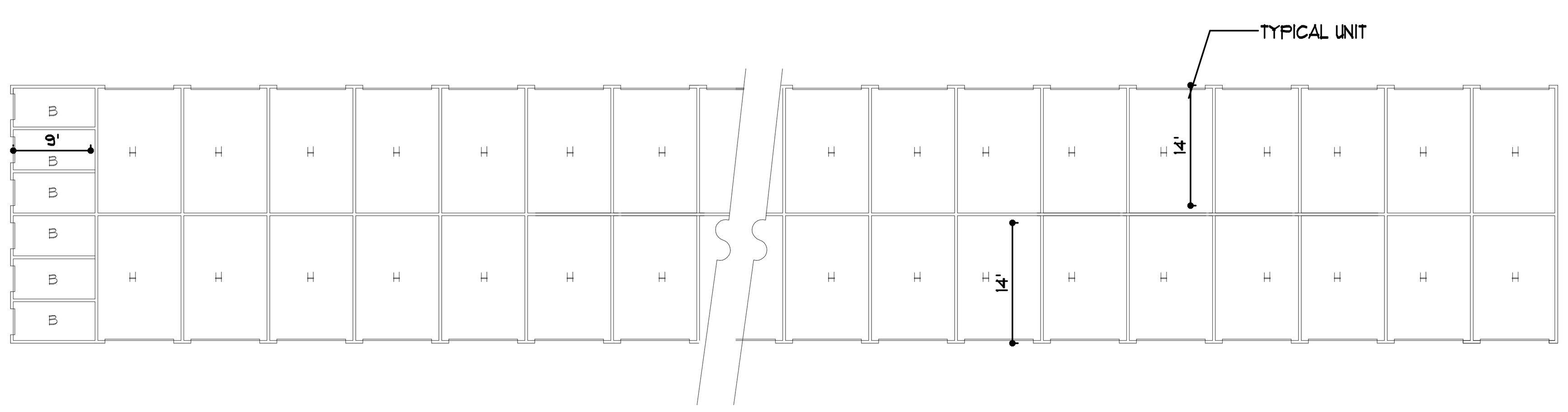
SPOUT SPRINGS, NC

JOB NO. 2278
ORIGINAL ISSUE DATE 29JUL22
DRAWN BY JMK
CHECKED BY BEH
SHEET NO.

E-5

OF 5

BUILDING 'B'
NEW STORAGE FACILITY FOR
HARNETT SELF STORAGE
SPOUT SPRINGS, NC



LIFE SAFETY & OCCUPANCY PLAN
1/16" = 1'-0"

OCCUPANCY
STORAGE
8,100 SF / 500 = 16.2

BUILDING 2/B

APPENDIX "B" BUILDING CODE SUMMARY

Name of project: BLDG. 'B' NEW FACILITY FOR HARNETT SELF STORAGE
Address: - Zip Code
Owner or Authorized Agent: VIC SMITH Phone: 336-855-1286 E-mail: erskinesmith@bellsoutn.net
Owned By: ☐ City/County ■ Private ☐ State
Code Enforcement Jurisdiction: ■ City SANFORD ☐ County

CONTACT: Victor J. Smith

DESIGNER	FIRM	NAME	LICENSE NO.	TELEPHONE NO.	E-MAIL ADDRESS
Architectural	ERSKINE-SMITH Architecture, PLLC	Victor J. Smith	6687	336-855-1286	erskinesmith@bellsoutn.net
Civil					
Electrical					
Fire Alarm					
Plumbing					
Mechanical					
Sprinkler-Standpipe					
Structural					
Retaining Walls >5' High					
Other					

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

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

CONSTRUCTION (date) ______ ORIGINAL OCCUPANCY (Ch. 3) : ______
RENOVATED: (date) ______ PROPOSED OCCUPANCY (Ch. 3) : S-1 STORAGE

RISK CATEGORY (Table 1604.5): Current ☐ I ■ II ☐ III ☐ IV
Proposed ☐ I ■ II ☐ III ☐ IV

BASIC BUILDING DATA
Construction Type: ☐ I-A ☐ II-A ☐ III-A ☐ IV ☐ V-A
☐ I-B ■ II-B ☐ III-B ☐ 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 Flood Hazard Area: ■ No ☐ Yes
Special Inspections Required: ■ NO ☐ YES (Contact the local inspections jurisdiction for additional procedures and requirements)
Manual Fire Alarm System with Notification: ■ No ☐ Yes

Gross Building Area:

FLOOR	EXISTING (SQ FT)	NEW (SQ FT)	SUB-TOTAL
4th Floor			
3rd Floor			
2nd Floor			
Mezzanine			
1st Floor		8,100 sf	
Basement			
TOTAL		8,100 sF	

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

Accessory Occupancy Classification(s): NA
Incidental Uses (Table 509) : NA
Special Uses (Chapter 4 - List Code Sections): NA
Special Provisions: (Chapter 5- List Code Sections): NA

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 Mixed Occupancy (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 allowable floor area for each use shall not exceed 1.

Actual Area of Occupancy A / Allowable Area of Occupancy A + Actual Area of Occupancy E / Allowable Area of Occupancy E ≤ 1

______ + ______ + _ _ = ______ ≤ 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) ALLOWABLE AREA PER STORY OR UNLIMITED [2,3]

(1) Frontage area increases from Section 506.2 are computed thus:
a. Perimeter which fronts a public way or open space having 20 feet minimum width = ______ (F)
b. Total Building Perimeter = ______ (P)
c. Radio (F/P) = ______ (F/P)
d. W = Minimum width of public way = ______ (W)
e. Percent of frontage increase If = 100 (F/P - 0.25) x W/30 = ______ %
(2) Unlimited area applicable under conditions of Sections 507
(3) Maximum Building Area = total number of stories in the building x D (506.2)
(4) The maximum area of open parking garages must comply with 406.5.4. The maximum area of air traffic control towers must comply with 412.3.1.
(5) Frontage increase is based on the unsprinklered area value in table 506.2

ALLOWABLE HEIGHT

	Allowable	Show on plans	Code Reference
Building Height in Feet (Table 504.3)	55 FT.	12'	
Building Height in Stories (Table 504.4)	2	1	

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

NS = BUILDING NOT EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM

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 Framing, including columns, girders, trusses		0					
Bearing walls							
Exterior							
NORTHWEST	86'	0					
NORTHEAST	68'	0					
SOUTHEAST WALL (ASSUMED PROPERTY LINE)	15'	0					
SOUTHWEST WALL	364'	0					
Interior		0					
Nonbearing walls and partitions Exterior Walls							
North	N/A	0					
East	N/A	0					
West	N/A	0					
South	N/A	0					
Interior walls & partitions		0					
Floor construction including supporting beams and joists		0					
Floor Ceiling Assembly		0					
Columns Supporting Roof		0					
Roof construction including supporting beams and joists		0					
Floor Ceiling Assembly		0					
Columns Supporting Roof		N/A					
Shafts Enclosures - Exit		N/A					
Shafts Enclosures - Others		N/A					
Corridor Separation		N/A					
Occupancy/Fire Barrier Separation		N/A					
Party/Fire Wall Separation		N/A					
Smoke Barrier Separation		N/A					
Tenant / Dwelling Unit/ Sleeping Unit Separation		N/A					
Incidental Use Separation		N/A					

* Indicate section number permitting reduction

PERCENTAGE OF WALL OPENINGS CALCULATIONS

Fire Separation Distance (Feet) from Property Line	Degree of Opening Protection (Table 705.8)	Allowable Area (%)	Actual Shown on Plan (%)
NORTH 35'	UNPROTECTED. NONSPRINKLERED	NO LIMIT	0
WEST 19 ASSUMED PROPERTY LINE	UNPROTECTED. NONSPRINKLERED	NO LIMIT PER TABLE 705.8.1 ex. 2	64%
SOUTH 17.5' ASSUMED PROPERTY LINE	UNPROTECTED. NONSPRINKLERED	NO LIMIT PER TABLE 705.8.1 ex. 2	56%
EAST 14.5' ASSUMED PROPERTY LINE	UNPROTECTED. NONSPRINKLERED	NO LIMIT PER TABLE 705.8.1 ex. 2	54%

LIFE SAFETY PLAN REQUIREMENTS

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

ACCESSIBLE DWELLING UNITS (Section 1107)

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

ACCESSIBLE PARKING (Section 1106)

LOT OR PARKING AREAS	TOTAL * OF PARKING SPACES REQUIRED	TOTAL * OF PARKING SPACES PROVIDED	* OF ACCESSIBLE SPACES PROVIDED: REGULAR WITH 5' ACCESS AISLE	VAN SPACES WIDTH 132" ACCESS AISLE	VAN SPACES WIDTH 8' ACCESS ISLE	TOTAL NO. ACCESSIBLE PROVIDED
TOTAL		SEE SITE PLAN				

PLUMBING FIXTURE REQUIREMENTS (Table 2902.1)

USE		WATER CLOSETS MALE	WATER CLOSETS FEMALE	WATER CLOSETS UNISEX	URINALS	LAVATORIES MALE	LAVATORIES FEMALE	LAVATORIES UNISEX	SHOWERS/ TUBS	DRINKING FOUNTAINS REGULAR	DRINKING FOUNTAINS ACCESSIBLE
OUTSIDE	EXISTING										
	NEW										
INSIDE	EXISTING										
	NEW	RESTROOM IN ADJACENT BLDG. A									
TOTAL	REQUIRED										
	PROVIDED										

SPECIAL APPROVALS

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

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

Climate Zone ■ 3 ☐ 4 ☐ 5

Method of Compliance
☐ Prescriptive (Energy Code)
☐ Performance (Energy Code)
☐ Prescriptive (ASHRAE 90.1)
☐ Performance (ASHRAE 90.1)

THERMAL ENVELOPE
Roof/ceiling Assembly (each assembly)
Description of assembly
U-Value of total assembly
R-Value of insulation
Skylights in each assembly
U-Value of skylight
total square footage of skylights in each assembly
Exterior Walls (each assembly)
Description of assembly
U-Value of total assembly
R-Value of insulation
Openings (windows or doors with glazing)
U-Value of assembly
solar heat gain coefficient
projection factor
Door R-Values:
Walls below grade (each assembly)
Description of assembly
U-Value of total assembly
R-Value of insulation
Floors over unconditioned space (each assembly)
Description of assembly
U-Value of total assembly
R-Value of insulation
Floors slab on grade
Description of assembly
U-Value of total assembly
R-Value of insulation
Horizontal/vertical requirement
slab heated

NOT REQUIRED PER 2012 NC-EEC

STRUCTURAL DESIGN

DESIGN LOADS :
Importance Factors : Snow (Is) ______
Seismic (Ie) ______
Live Loads : Roof ______ psf
Mezzanine ______ psf
Floor ______ psf
Ground Snow Load : ______ psf
Wind Loads : Ultimate Wind Speed ______ mph (ASCE-7)
Exposure Category ______

SEISMIC DESIGN CATEGORY ☐ A ☐ B ☐ C ☐ D
Provide the following Seismic Design Parameters :
Risk Category (Table 1604.5) ☐ I ☐ II ☐ III ☐ IV
Spectral Response Acceleration Sms ______ %g Sm1 ______ %g
Site Classification (ASCE 7) A ☐ B ☐ C ☐ D ☐ E ☐ F
Data Source: ☐ Field Test ☐ Presumptive ☐ Historical Data
Basic structural system (check one)
☐ Bearing Wall ☐ Dual w/ Special Moment Frame
☐ Building Frame (Upper Walls) ☐ Dual w/ Intermediate R/C or Special Steel
☐ Moment Frame ☐ Inverted Pendulum
Analysis Procedure ☐ Simplified ☐ Equivalent Lateral Force ☐ Dynamic
Architectural, Mechanical, components anchored? ☐ Yes ☐ No

LATERAL DESIGN CONTROL : ☐ Earthquake (Lower Level - Bldg. A & B)
☐ Wind (Upper Level - Bldg. A & B and C & D)

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

SEE STRUCTURAL ENGINEER

UNIT MIX - TOTAL 4 BLDG. ♿

SIZE	MARK	A	B	C	J	TOTAL	ACCESSIBLE UNITS
5'x5'	A	4	-	-	-	66	BLDG. A 5
5'x10'	B	13	6	8	-	81	
10'x10'	G	105	-	-	3	57	
10'x15'	H	24	52	-	-	183	BLDG. A 5
10'x20'	I	16	-	60	-	88	
10'x30'	K	-	-	-	26	44	BLDG. J 3
12'x30'	Z	-	-	-	15	30	
	TOTAL	162	58	68	44	332	13
NET SQ. FT. PER BLDG		18,284	8,100	12,400	13,500	55,284 SQ. FT. NET TOTAL	
GROSS SQ. FT. PER BLDG		23,508	8,100	12,400	13,500	57,508 SQ. FT. GROSS TOTAL	

UNIT CALCULATIONS

CODE REQUIREMENTS	PERCENTAGE	* OF UNITS	* OF ADA UNITS REQ.
5% OF THE FIRST 200 UNITS	5%	200	10
2% OF REMAINING UNITS	2%	132	2.64
TOTAL		332	3

NOTE: ALL ACCESSIBLE STORAGE UNTIS DOORS SHALL HAVE A MAX. 5 LB. PULL

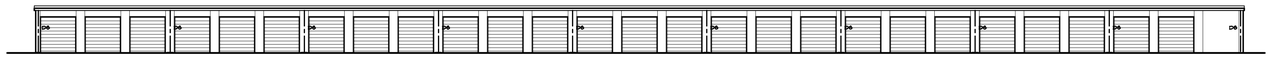
ERSKINE-SMITH
ARCHITECTURE, P.L.L.C.
architecture research planning
3406-A West Wendover Avenue
Greensboro, N.C. 27407
Phone (336) 855-1286 Fax 855-5602

VICTOR J. SMITH REGISTERED ARCHITECT 6687 07-29-2022 NORTH CAROLINA GREENSBORO, NC
[illegible]
ERSKINE-SMITH ARCHITECTURE PLLC REGISTERED ARCHITECTURAL COMPANY 51579 NORTH CAROLINA GREENSBORO, NC

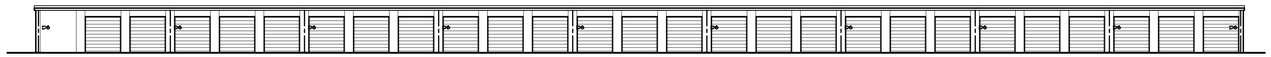
NEW STORAGE FACILITY FOR BLDG. 'B'
HARNETT SELF STORAGE
SPOUT SPRINGS, NC

REVISIONS	BY

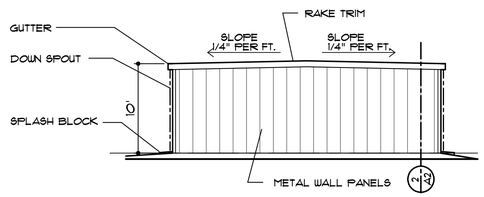
DRAWN BY : VJS
CHECKED BY : RHE
DATE : 07-29-2022
SCALE : 1/16" = 1'-0"
FILE :
SHEET NUMBER :
COVER
BLDG. B



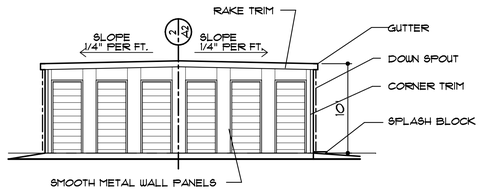
WEST ELEVATION
1/16" = 1'-0"



EAST ELEVATION
1/16" = 1'-0"



NORTH ELEVATION
1/8" = 1'-0"

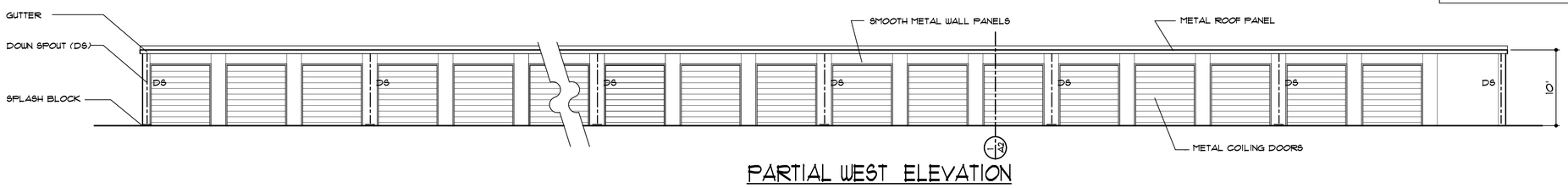


SOUTH ELEVATION
1/8" = 1'-0"

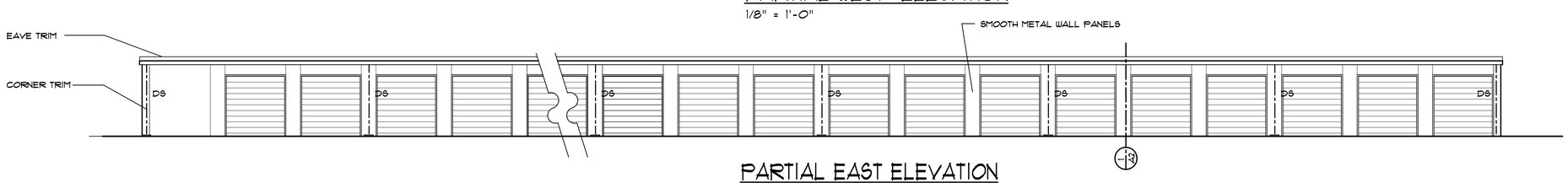
ALL RAIN LEADER TO HAVE SPLASH BLOCKS

DOWN SPOUTS & GUTTERS

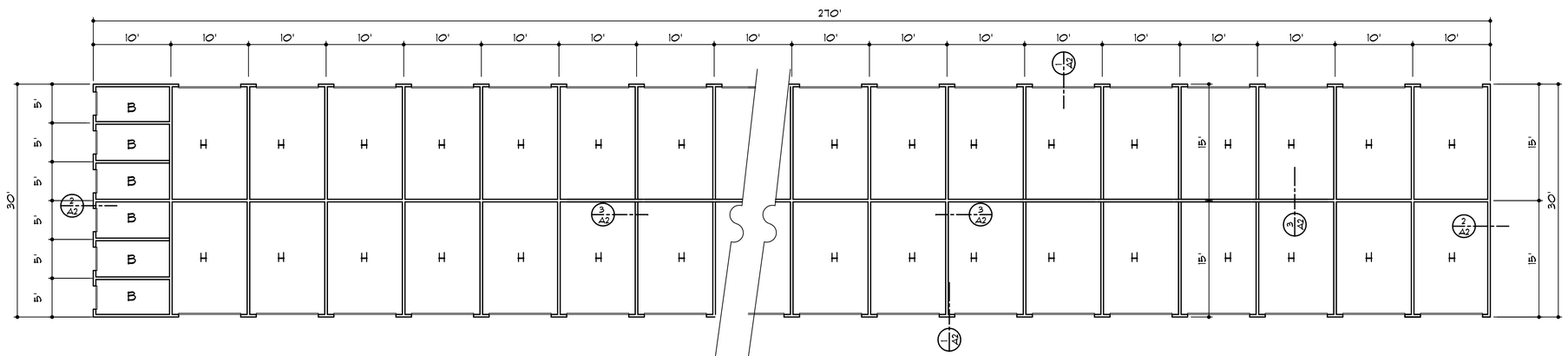
ROOF AREA = 13,500 SF
GUTTER LENGTH = 450'LF
GUTTER SIZE = 5"w X 4"d
DOWN SPOUT (3"x4") = 16
AREA PER DOWN SPOUT = 844 sf



PARTIAL WEST ELEVATION
1/8" = 1'-0"



PARTIAL EAST ELEVATION
1/8" = 1'-0"



FLOOR PLAN
1/8" = 1'-0"

BLDG. B 8,100 SF

NEW STORAGE FACILITY FOR HARNETT SELF STORAGE
SPOUT SPRINGS, NC

ERSKINE-SMITH ARCHITECTURE
architecture research planning
3406-A West Wendover Avenue
Greensboro, N.C. 27407
Phone (336) 855-1286 Fax 855-5602

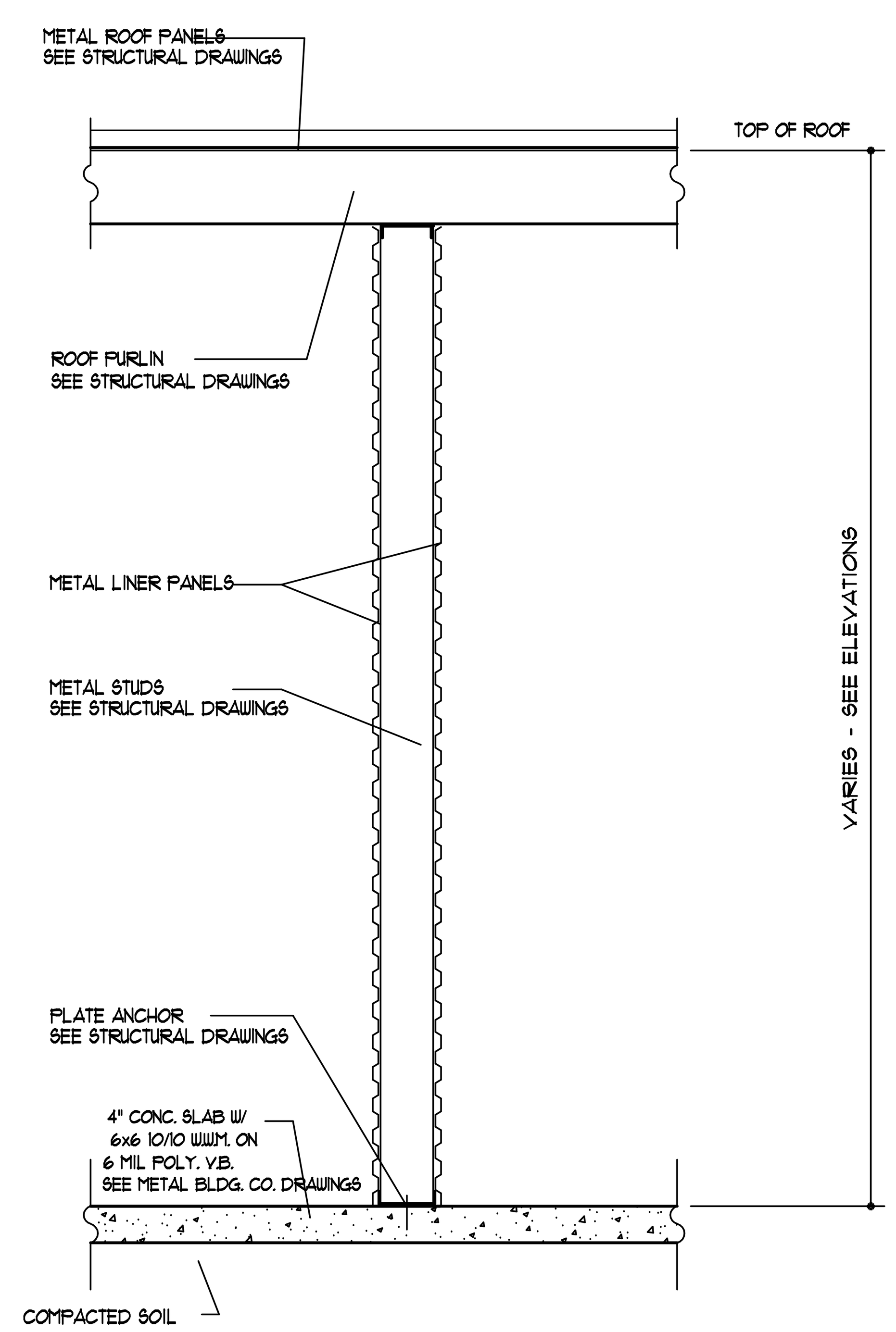
VICTOR J. SMITH — REGISTERED — 6687 — 07-29-2022 — NORTH CAROLINA — GREENSBORO, NC

ERSKINE-SMITH ARCHITECTURE PLLC — REGISTERED ARCHITECTURAL COMPANY — 51579 — NORTH CAROLINA — GREENSBORO, NC

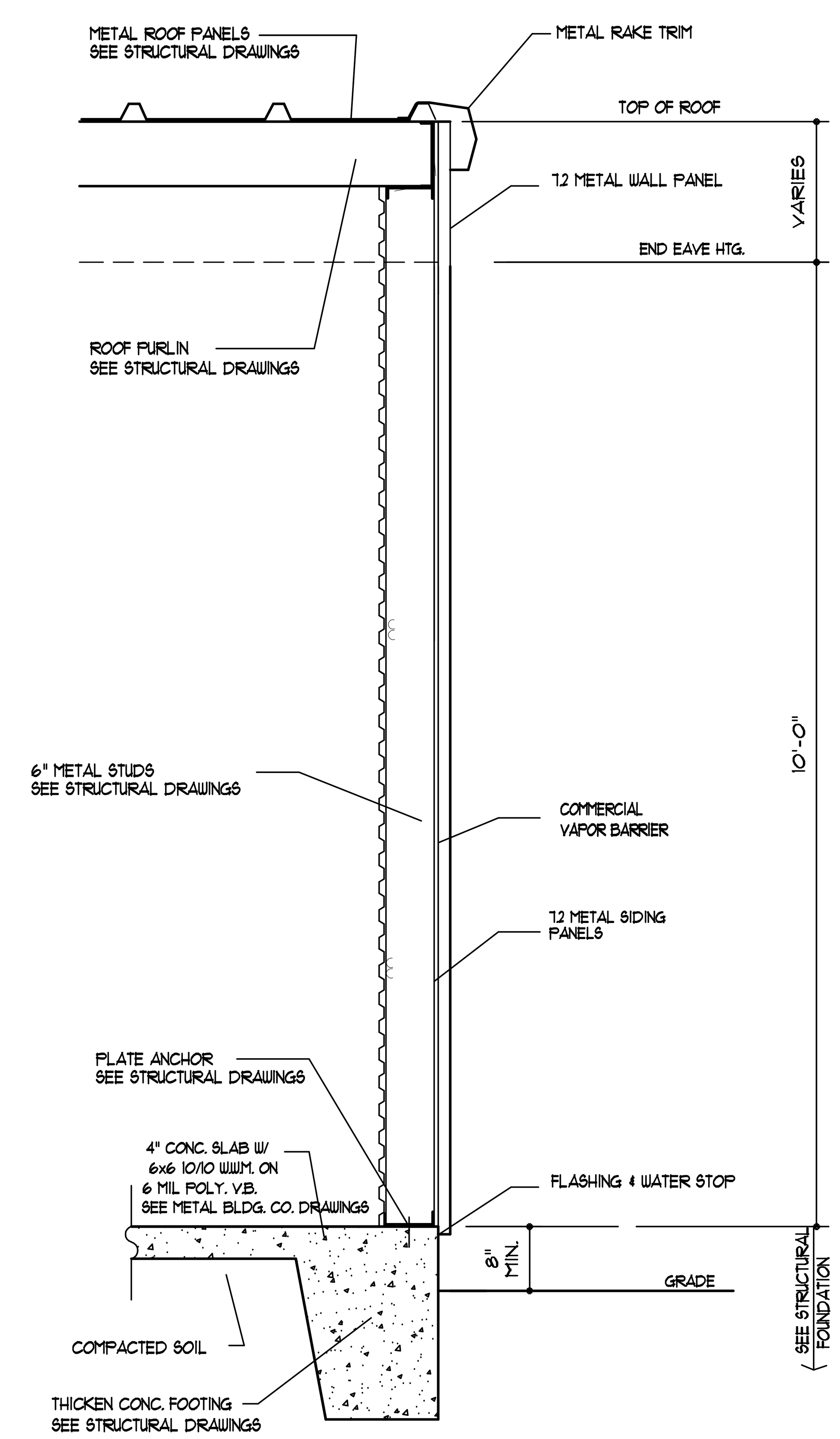
REVISIONS	BY

DRAWN BY : VJS
CHECKED BY : VJS
DATE : 07-29-2022
SCALE : AS SHOWN
FILE :
SHEET NUMBER :

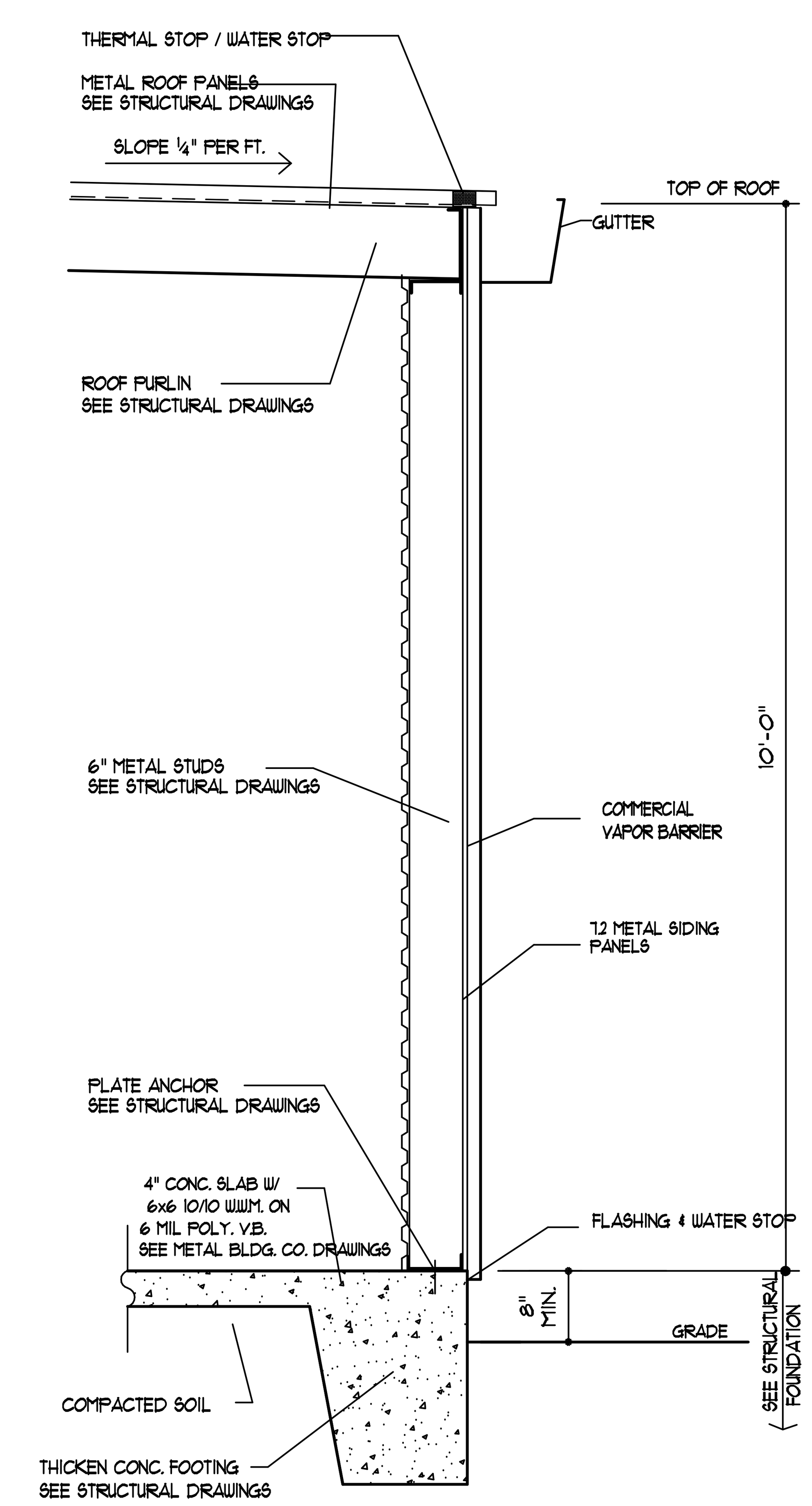
A-1



5 / A-2 TYP. INTERIOR WALL DET.



2 / A-2 TYP. EXTERIOR END WALL DET.



1 / A-2 TYP. EXTERIOR WALL DET.

NOTE: DO NOT SCALE DRAWINGS
PDF & PRINTING CHANGES SCALE

ERSKINE-SMITH
ARCHITECTURE, P.L.L.C.
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3406-A West Wendover Avenue
Greensboro, N.C. 27407
Phone (336) 855-1286 Fax 855-5602

VICTOR J. SMITH REGISTERED ARCHITECT 6687 07-29-2022 NORTH CAROLINA GREENSBORO, NC

ERSKINE-SMITH ARCHITECTURE, PLLC REGISTERED ARCHITECTURAL COMPANY 51579 NORTH CAROLINA GREENSBORO, NC

NEW STORAGE FACILITY FOR BLDG. 'B'
HARNETT SELF STORAGE
SPOUT SPRINGS,, NC

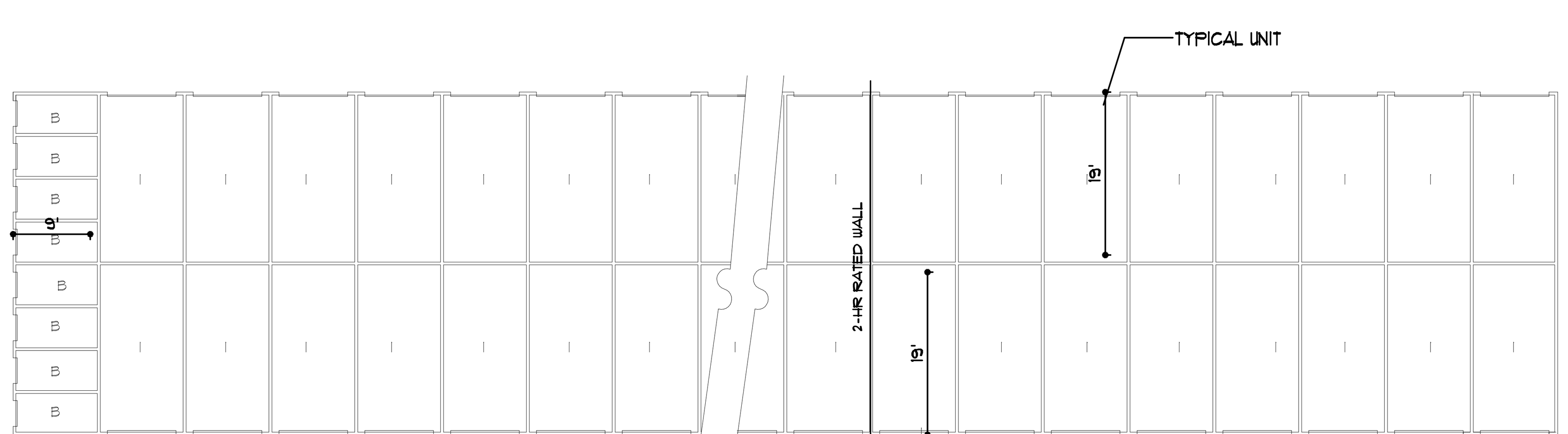
REVISIONS	BY
⚠1	

DRAWN BY : VJS
CHECKED BY : VJS
DATE : 07-29-2022
SCALE : 3/4" = 1'-0"
FILE :
SHEET NUMBER :
A-2
BLDG. 'B'

BUILDING 'C'

Reviewed for For Code Compliance
Leslie Jackson
12/05/2022 2:19:29 PM

NEW STORAGE FACILITY FOR
HARNETT SELF STORAGE
SPOUT SPRINGS, NC



LIFE SAFETY & OCCUPANCY PLAN
1/16" = 1'-0"

OCCUPANCY
STORAGE
12.400 SF / 500 = 25

BUILDING 3/C

APPENDIX "B" BUILDING CODE SUMMARY

Name of project: BLDG. 'C' NEW FACILITY FOR HARNETT SELF STORAGE
Address: - Zip Code
Owner or Authorized Agent: VIC SMITH Phone: 336-855-1286 E-mail: erskinesmith@bellsoutn.net
Owned By: □ City/County ■ Private □ State
Code Enforcement Jurisdiction: ■ City SANFORD □ County

CONTACT: Victor J. Smith

DESIGNER	FIRM	NAME	LICENSE NO.	TELEPHONE NO.	E-MAIL ADDRESS
Architectural	ERSKINE-SMITH Architecture, PLLC	Victor J. Smith	6687	336-855-1286	erskinesmith@bellsoutn.net
Civil					
Electrical					
Fire Alarm					
Plumbing					
Mechanical					
Sprinkler-Standpipe					
Structural					
Retaining Walls >5' High					
Other					

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

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

CONSTRUCTION (date) ______ ORIGINAL OCCUPANCY (Ch. 3): ______
RENOVATED: (date) ______ PROPOSED OCCUPANCY (Ch. 3): S-1 STORAGE
RISK CATEGORY (Table 1604.5): Current □ I ■ II □ III □ IV
Proposed □ I ■ II □ III □ IV

BASIC BUILDING DATA
Construction Type: □ I-A □ II-A □ III-A □ IV □ V-A
□ I-B ■ II-B □ III-B □ 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 Flood Hazard Area: ■ No □ Yes
Special Inspections Required: ■ NO □ YES (Contact the local inspections jurisdiction for additional procedures and requirements)
Manual Fire Alarm System with Notification: ■ No □ Yes

Gross Building Area:

FLOOR	EXISTING (SQ FT)	NEW (SQ FT)	SUB-TOTAL
4th Floor			
3rd Floor			
2nd Floor			
Mezzanine	AREA 'A'	AREA 'B'	
1st Floor	9200 sf	3200 sf	
Basement			
TOTAL	9200 sF	12,400 sF	12,400 sf TOTAL

2-hr WALL

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

Accessory Occupancy Classification(s): NA
Incidental Uses (Table 509): NA
Special Uses (Chapter 4 - List Code Sections): NA
Special Previsions: (Chapter 5- List Code Sections): NA

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 Mixed Occupancy (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 allowable floor area for each use shall not exceed 1.

Actual Area of Occupancy A / Allowable Area of Occupancy A + Actual Area of Occupancy E / Allowable Area of Occupancy E ≤ 1

______ + ______ + _ _ = ______ ≤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) ALLOWABLE AREA PER STORY OR UNLIMITED 2,3

(1) Frontage area increases from Section 506.2 are computed thus:
a. Perimeter which fronts a public way or open space having 20 feet minimum width = ______ (F)
b. Total Building Perimeter = ______ (P)
c. Radio (F/P) = ______ (F/P)
d. W = Minimum width of public way = ______ (W)
e. Percent of frontage increase If = 100 (F/P - 0.25) x W/30 = ______ %
(2) Unlimited area applicable under conditions of Sections 507
(3) Maximum Building Area = total number of stories in the building x D (506.2)
(4) The maximum area of open parking garages must comply with 406.5.4. The maximum area of air traffic control towers must comply with 412.3.1.
(5) Frontage increase is based on the unsprinklered area value in table 506.2

ALLOWABLE HEIGHT

	Allowable	Show on plans	Code Reference
Building Height in Feet (Table 504.3)	55 FT.	12'	
Building Height in Stories (Table 504.4)	2	1	

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

NS = BUILDING NOT EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM

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 Framing, including columns, girders, trusses		0					
Bearing walls							
Exterior							
NORTHWEST	86'	0					
NORTHEAST	68'	0					
SOUTHEAST WALL (ASSUMED PROPERTY LINE)	15'	0					
SOUTHWEST WALL	364'	0					
Interior		0					
Nonbearing walls and partitions Exterior Walls							
North	N/A	0					
East	N/A	0					
West	N/A	0					
South	N/A	0					
Interior walls & partitions		0					
Floor construction including supporting beams and joists		0					
Floor Ceiling Assembly		0					
Columns Supporting Roof		0					
Roof construction including supporting beams and joists		0					
Floor Ceiling Assembly		0					
Columns Supporting Roof		N/A					
Shafts Enclosures - Exit		N/A					
Shafts Enclosures - Others		N/A					
Corridor Separation		N/A					
Occupancy/Fire Barrier Separation		N/A					
Party/Fire Wall Separation		2-hr	2-hr	U-419	3/A-3		
Smoke Barrier Separation		N/A					
Tenant / Dwelling Unit/ Sleeping Unit Separation		N/A					
Incidental Use Separation		N/A					

* Indicate section number permitting reduction

PERCENTAGE OF WALL OPENINGS CALCULATIONS

Fire Separation Distance (Feet) from Property Line	Degree of Opening Protection (Table 705.8)	Allowable Area (%)	Actual Shown on Plan (%)
NORTH 35'	UNPROTECTED, NONSPRINKLERED	NO LIMIT	0
WEST 14.5 ASSUMED PROPERTY LINE	UNPROTECTED, NONSPRINKLERED	NO LIMIT PER TABLE 705.8.1 ex. 2	64%
SOUTH 17.5' ASSUMED PROPERTY LINE	UNPROTECTED, NONSPRINKLERED	NO LIMIT PER TABLE 705.8.1 ex. 2	56%
EAST 14.5' ASSUMED PROPERTY LINE	UNPROTECTED, NONSPRINKLERED	NO LIMIT PER TABLE 705.8.1 ex. 2	64%

LIFE SAFETY PLAN REQUIREMENTS

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

ACCESSIBLE DWELLING UNITS (Section 1107)

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

ACCESSIBLE PARKING (Section 1106)

LOT OR PARKING AREAS	TOTAL # OF PARKING SPACES REQUIRED	TOTAL # OF PARKING SPACES PROVIDED	# OF ACCESSIBLE SPACES PROVIDED: REGULAR WITH 5' ACCESS AISLE	VAN SPACES WIDTH: 132" ACCESS AISLE	VAN SPACES WIDTH: 8' ACCESS ISLE	TOTAL NO. ACCESSIBLE PROVIDED
TOTAL		SEE SITE PLAN				

PLUMBING FIXTURE REQUIREMENTS (Table 2902.1)

USE		WATER CLOSETS MALE	WATER CLOSETS FEMALE	WATER CLOSETS UNISEX	URINALS	LAVATORIES MALE	LAVATORIES FEMALE	LAVATORIES UNISEX	SHOWERS/ TUBS	DRINKING FOUNTAINS REGULAR	DRINKING FOUNTAINS ACCESSIBLE
OUTSIDE	EXISTING										
	NEW										
INSIDE	EXISTING										
	NEW	RESTROOM IN ADJACENT BLDG. A									
TOTAL	REQUIRED										
	PROVIDED										

SPECIAL APPROVALS

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

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

Climate Zone ■ 3 □ 4 □ 5

Method of Compliance
□ Prescriptive (Energy Code)
□ Performance (Energy Code)
□ Prescriptive (ASHRAE 90.1)
□ Performance (ASHRAE 90.1)

THERMAL ENVELOPE
Roof/ceiling Assembly (each assembly)
Description of assembly ______
U-Value of total assembly ______
R-Value of insulation ______
Skylights in each assembly ______
U-Value of skylight ______
total square footage of skylights in each assembly ______

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

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

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

Floors slab on grade
Description of assembly ______
U-Value of total assembly ______
R-Value of insulation ______
Horzontial/vertical requirement ______
slab heated ______

NOT REQUIRED PER 2012 NC-EEC

STRUCTURAL DESIGN

DESIGN LOADS:
Importance Factors: Snow (Is) ______
Seismic (Ie) ______
Live Loads: Roof ______ psf
Mezzanine ______ psf
Floor ______ psf
Ground Snow Load: ______ psf
Wind Loads: Ultimate Wind Speed ______ mph (ASCE-7)
Exposure Category ______

SEISMIC DESIGN CATEGORY □ A □ B □ C □ D
Provide the following Seismic Design Parameters:
Risk Category (Table 1604.5) □ I □ II □ III □ IV
Spectral Response Acceleration Sms ______ %g Sm1 ______ %g
Site Classification (ASCE 7) A □ B □ C □ D □ E □ F
Data Source: □ Field Test □ Presumptive □ Historical Data
Basic structural system (check one)
□ Bearing Wall □ Dual w/ Special Moment Frame
□ Building Frame (Upper Walls) □ Dual w/ Intermediate R/C or Special Steel
□ Moment Frame □ Inverted Pendulum
Analysis Procedure □ Simplified □ Equivalent Lateral Force □ Dynamic
Architectural, Mechanical, components anchored? □ Yes □ No

LATERAL DESIGN CONTROL: □ Earthquake (Lower Level - Bldg. A & B)
□ Wind (Upper Level - Bldg. A & B and C & D)

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

SEE STRUCTURAL ENGINEER

UNIT MIX - TOTAL 4 BLDG. ♿

SIZE	MARK	BUILDING TYPE A	B	C	J	TOTAL	ACCESSIBLE UNITS
5'x5'	A	4	-	-	-	66	BLDG. A 5
5'x10'	B	13	6	8	-	81	
10'x10'	G	105	-	-	3	57	
10'x15'	H	24	52	-	-	183	BLDG. A 5
10'x20'	I	16	-	60	-	88	
10'x30'	K	-	-	-	26	44	BLDG. J 3
12'x30'	Z	-	-	-	15	30	
	TOTAL	162	58	68	44	332	13
NET SQ. FT. PER BLDG		18,284	8,100	12,400	13,500	55,284 SQ. FT. NET TOTAL	
GROSS SQ. FT. PER BLDG		23,508	8,100	12,400	13,500	57,508 SQ. FT. GROSS TOTAL	

UNIT CALCULATIONS

CODE REQUIREMENTS	PERCENTAGE	# OF UNITS	# OF ADA UNITS REQ.
5% OF THE FIRST 200 UNITS	5%	200	10
2% OF REMAINING UNITS	2%	132	2.64
TOTAL		332	3

NOTE: ALL ACCESSIBLE STORAGE UNTIS DOORS SHALL HAVE A MAX. 5 LB. PULL

ERSKINE-SMITH
ARCHITECTURE, P.L.L.C.
architecture research planning
3406-A West Wendover Avenue
Greensboro, N.C. 27407
Phone (336) 855-1286 Fax 855-5602

VICTOR J. SMITH
REGISTERED ARCHITECT
6687
07-29-2022
NORTH CAROLINA
GREENSBORO, NC
[illegible]

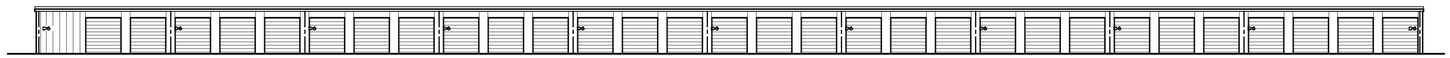
ERSKINE-SMITH ARCHITECTURE PLLC
REGISTERED ARCHITECTURAL COMPANY
51579
NORTH CAROLINA
GREENSBORO, NC

NEW STORAGE FACILITY FOR BLDG. 'C'
HARNETT SELF STORAGE
SPOUT SPRINGS, NC

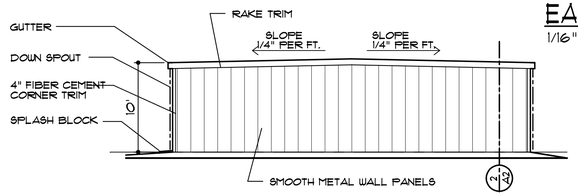
REVISIONS	BY

DRAWN BY: VJS
CHECKED BY: RHE
DATE: 07-29-2022
SCALE: 1/16" = 1'-0"
FILE:
SHEET NUMBER:
COVER
BLDG. C

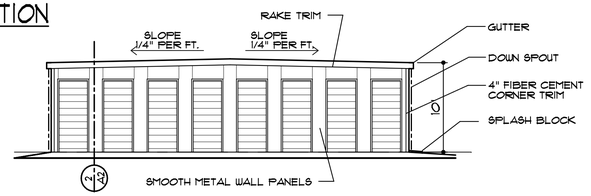
WEST ELEVATION
1/16" = 1'-0"



EAST ELEVATION
1/16" = 1'-0"



NORTH ELEVATION
1/8" = 1'-0"

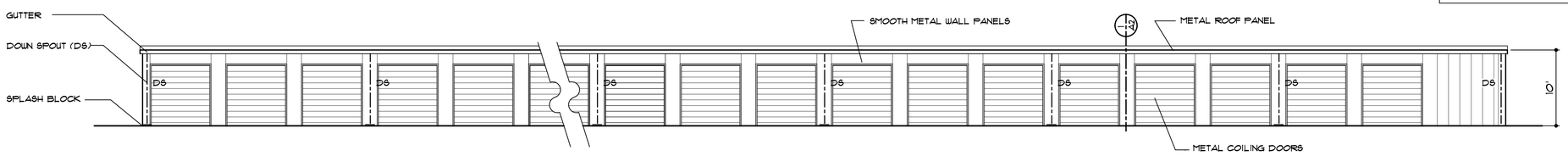


SOUTH ELEVATION
1/8" = 1'-0"

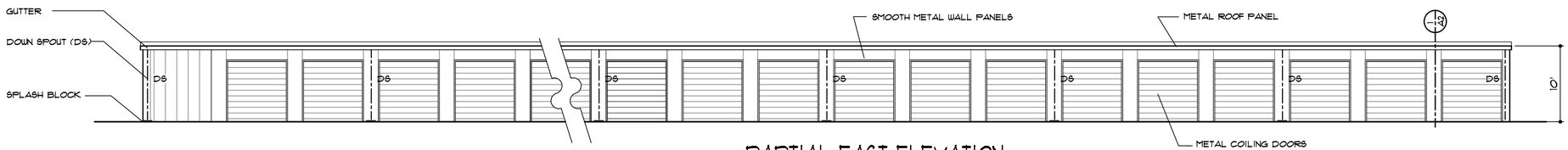
ALL RAIN LEADER TO HAVE SPLASH BLOCKS

DOWN SPOUTS & GUTTERS

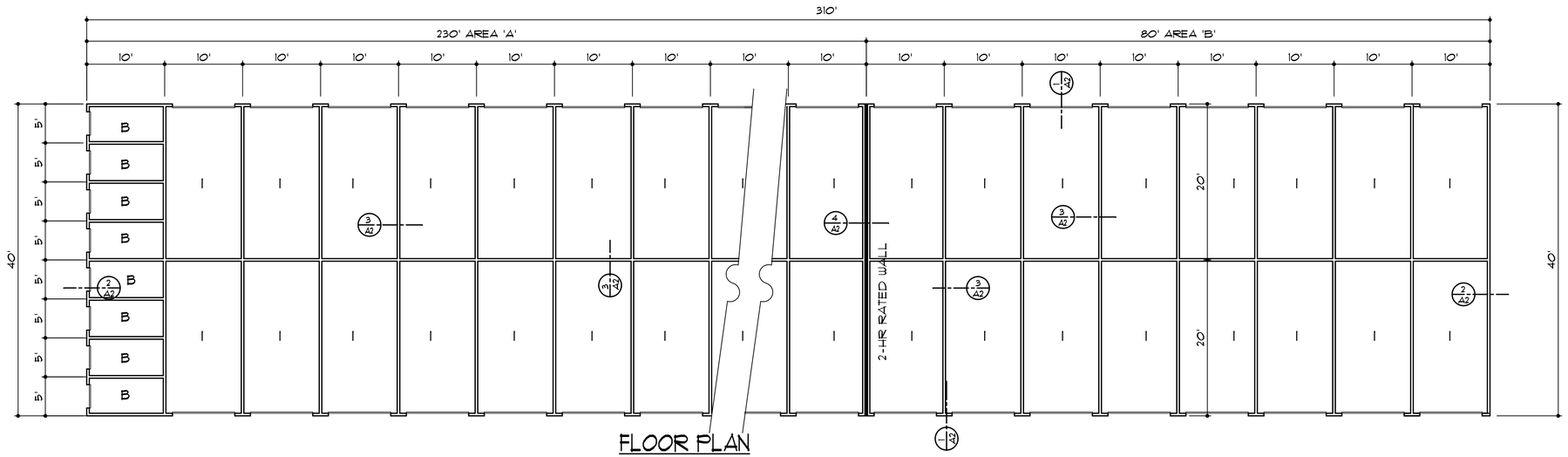
ROOF AREA = 13,500 SF
GUTTER LENGTH = 450'LF
GUTTER SIZE = 5"w X 4"d
DOWN SPOUT (3"x4") = 16
AREA PER DOWN SPOUT = 844 sf



PARTIAL WEST ELEVATION
1/8" = 1'-0"



PARTIAL EAST ELEVATION
1/8" = 1'-0"



FLOOR PLAN
1/8" = 1'-0"

ERSKINE-SMITH ARCHITECTURE
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VICTOR J. SMITH — REGISTERED — 6687 — 07-29-2022 — NORTH CAROLINA — GREENSBORO, NC

ERSKINE-SMITH ARCHITECTURE PLLC — REGISTERED ARCHITECTURAL COMPANY — 51579 — NORTH CAROLINA — GREENSBORO, NC

NEW STORAGE FACILITY FOR HARNETT SELF STORAGE

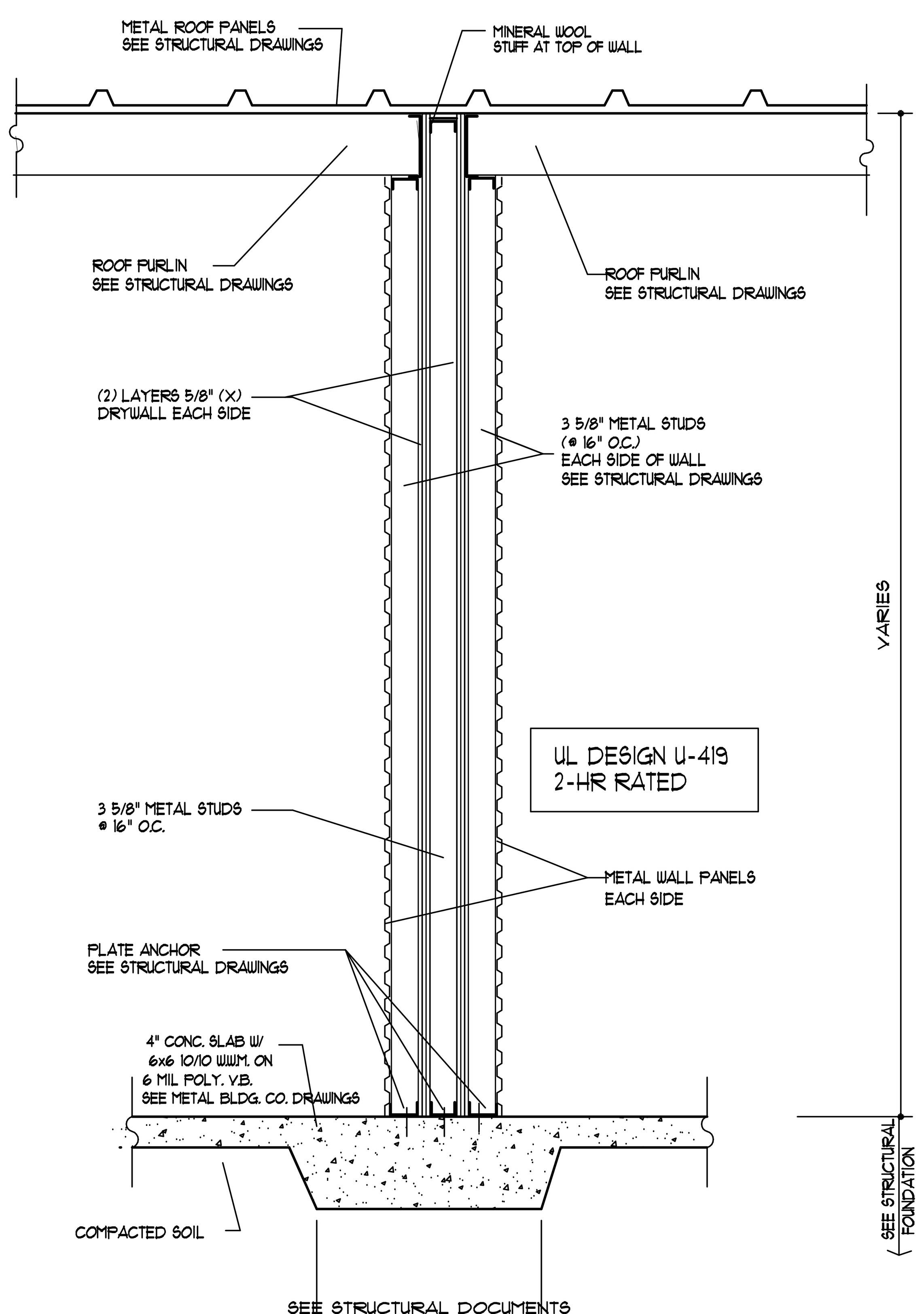
SPOUT SPRINGS, NC

BLDG. C 12,400. C

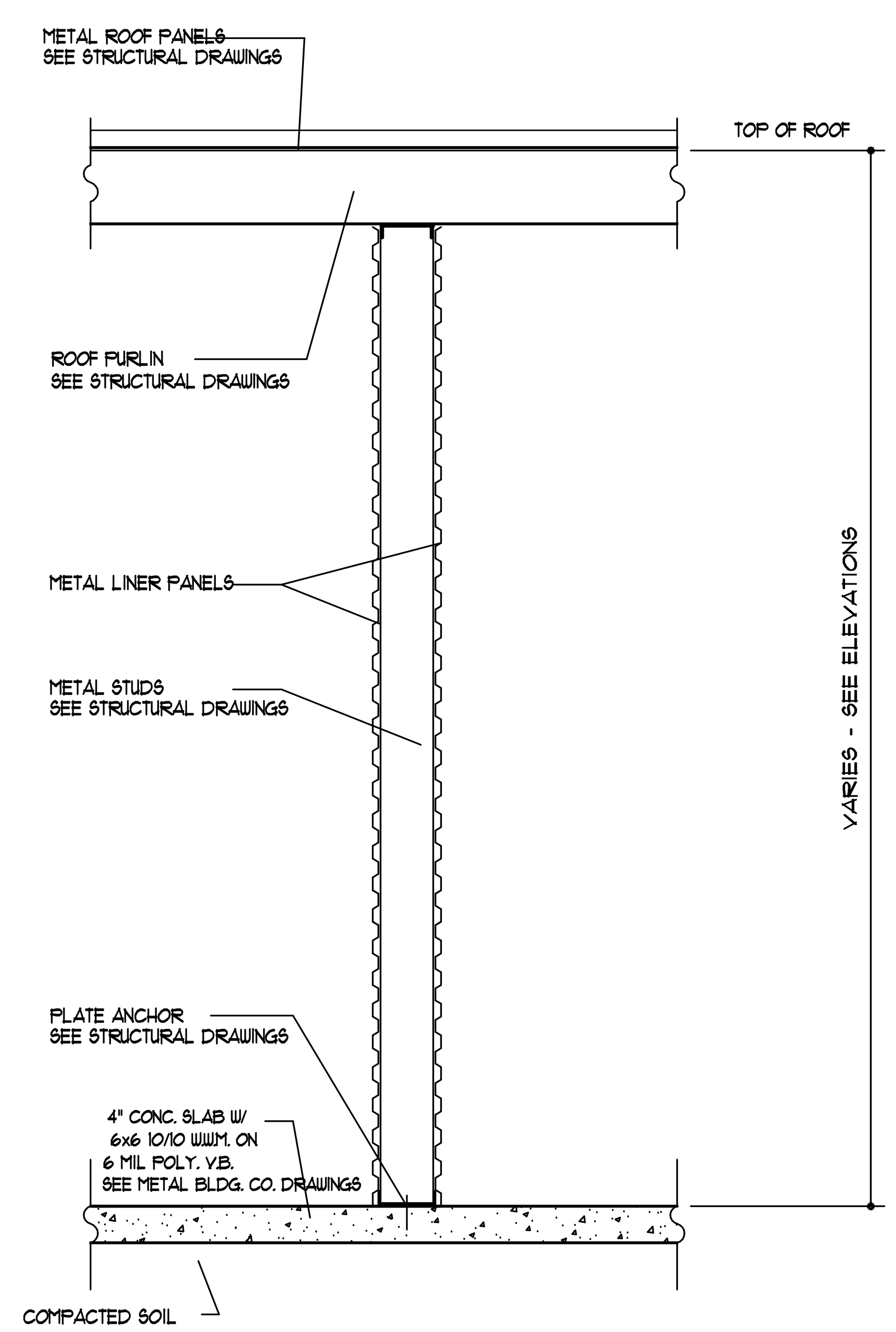
REVISIONS	BY

DRAWN BY : VJS
CHECKED BY : VJS
DATE : 07-29-2022
SCALE : AS SHOWN
FILE :
SHEET NUMBER :

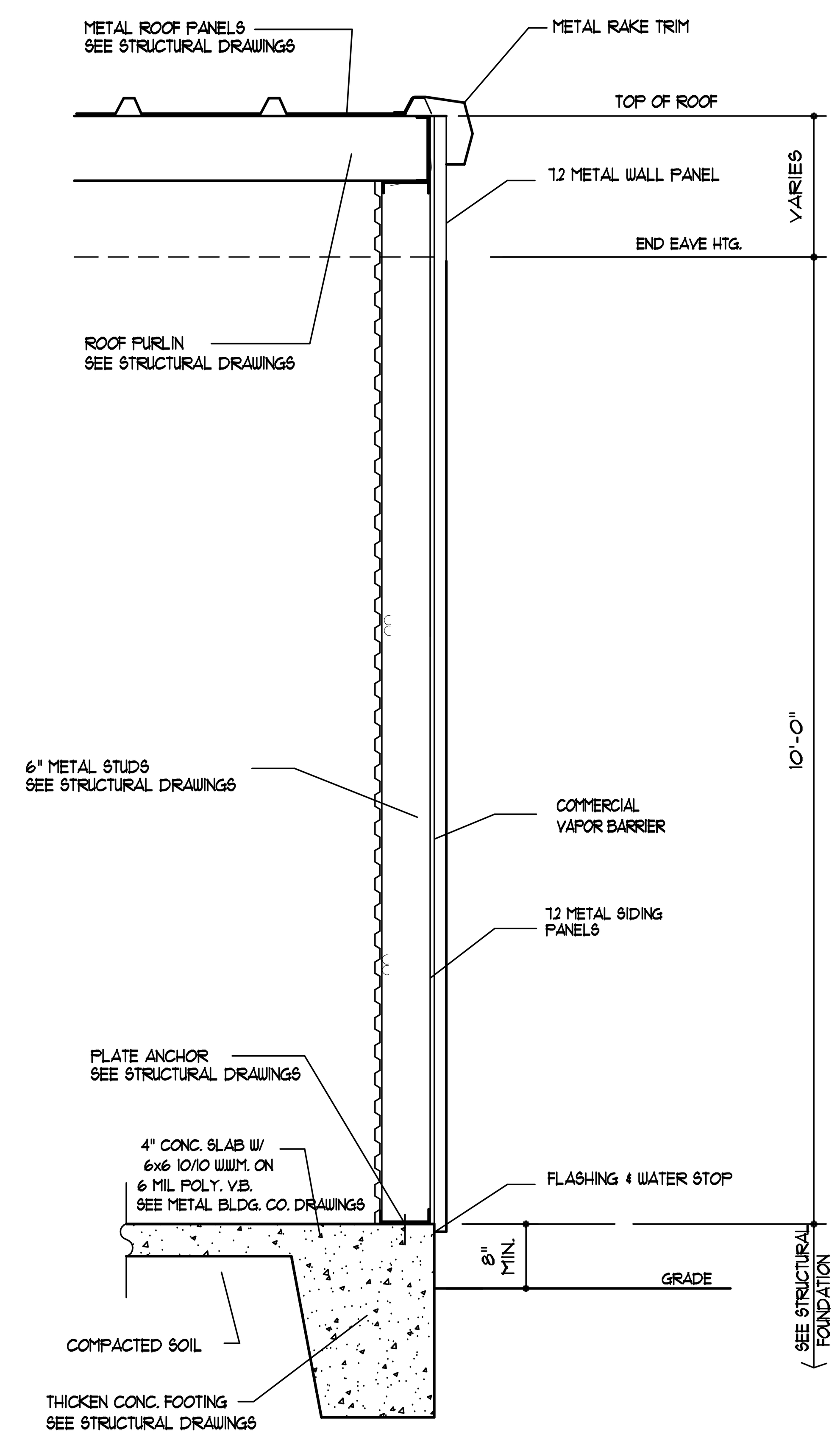
A-1



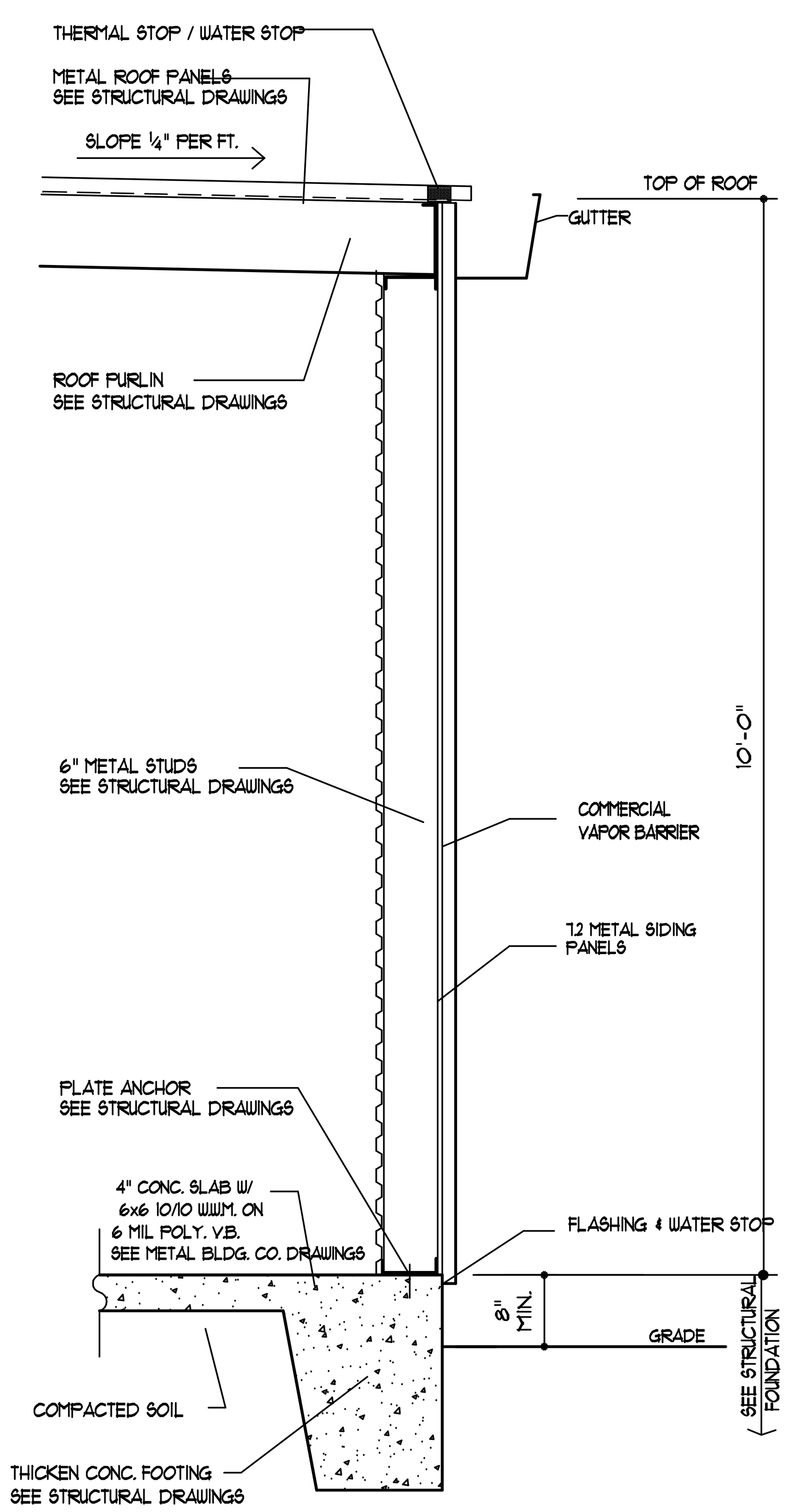
4/A-2 2-HR. RATED FIRE WALL DETAIL



5/A-2 TYP. INTERIOR WALL DET.



2/A-2 TYP. EXTERIOR END WALL DET.



1/A-2 TYP. EXTERIOR WALL DET.

NOTE: DO NOT SCALE DRAWINGS
PDF & PRINTING CHANGES SCALE

ERSKINE-SMITH
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Greensboro, N.C. 27407
Phone (336) 855-1286 Fax 855-5602

VICTOR J. SMITH REGISTERED ARCHITECT 6687 07-29-2022 NORTH CAROLINA GREENSBORO, NC

ERSKINE-SMITH ARCHITECTURE, P.L.L.C. REGISTERED ARCHITECTURAL COMPANY 51579 NORTH CAROLINA GREENSBORO, NC

NEW STORAGE FACILITY FOR BLDG. 'C'
HARNETT SELF STORAGE
SPOUT SPRINGS,, NC

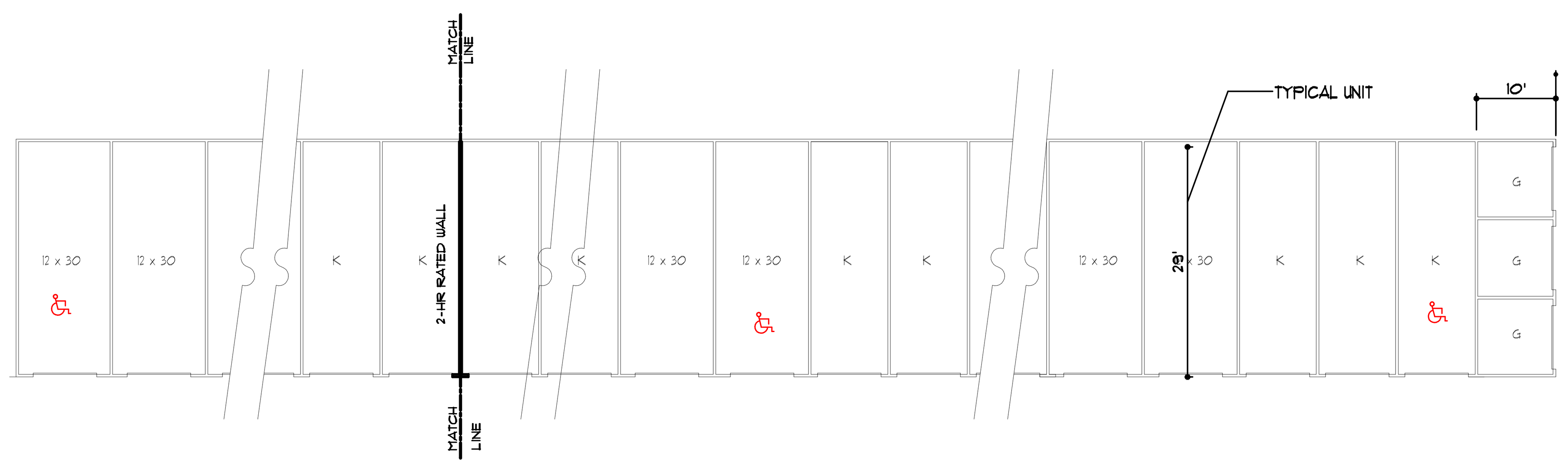
REVISIONS	BY
1	

DRAWN BY : VJS
CHECKED BY : VJS
DATE : 07-29-2022
SCALE : 3/4" = 1'-0"
FILE :

SHEET NUMBER :
A-2
BLDG. 'C'

BUILDING 'J'
NEW STORAGE FACILITY FOR
HARNETT SELF STORAGE
SPOUT SPRINGS, NC

Reviewed for For Code Compliance
Leslie Jackson
12/05/2022 3:01:28 PM



OCCUPANCY
STORAGE
13,500 SF / 500 = 27

LIFE SAFETY & OCCUPANCY PLAN
1/16" = 1'-0"

NOTE:
ADA UNITS WILL INCLUDE AN ELECTRIC DOOR LIFT OPERATOR WITH BATTERY BACKUP, PHOTO EYES, EMERGENCY RELEASE AND KEYPAD FOR OPERATION. KEYPAD WILL BE MOUNTED WITHIN ACCESSIBLE REACH RANGES PER ANSI 308.
MANUFACTURER: LIFTMASTER 8950W OR EQUAL

HORIZONTAL SLIDING DOORS SHALL COMPLY WITH SECTION 1010.1.4.3 OF NCBC. ELECTRICAL TO BE COORDINATED.

OCCUPANT DISPERSAL FROM EXITS TO PUBLIC ROAD SHOWN ON SITE PLAN

E

BUILDING
10/J

APPENDIX "B" BUILDING CODE SUMMARY

Name of project: BLDG. 'J' NEW FACILITY FOR HARNETT SELF STORAGE
Address: - Zip Code
Owner or Authorized Agent: VIC SMITH Phone: 336-855-1286 E-mail: erskinesmith@bellsoutn.net
Owned By: ☐ City/County ■ Private ☐ State
Code Enforcement Jurisdiction: ■ City SANFORD ☐ County

CONTACT: Victor J. Smith

DESIGNER	FIRM	NAME	LICENSE NO.	TELEPHONE NO.	E-MAIL ADDRESS
Architectural	ERSKINE-SMITH Architecture, PLLC	Victor J. Smith	6687	336-855-1286	erskinesmith@bellsoutn.net
Civil					
Electrical					
Fire Alarm					
Plumbing					
Mechanical					
Sprinkler-Standpipe					
Structural					
Retaining Walls >5' High					
Other					

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

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

CONSTRUCTION (date) ______ ORIGINAL OCCUPANCY (Ch. 3) : ______
RENOVATED: (date) ______ PROPOSED OCCUPANCY (Ch. 3) : S-1 STORAGE
RISK CATEGORY (Table 1604.5): Current ☐ I ■ II ☐ III ☐ IV
Proposed ☐ I ■ II ☐ III ☐ IV

BASIC BUILDING DATA
Construction Type: ☐ I-A ☐ II-A ☐ III-A ☐ IV ☐ V-A
☐ I-B ■ II-B ☐ III-B ☐ 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 Flood Hazard Area: ■ No ☐ Yes
Special Inspections Required: ■ NO ☐ YES (Contact the local inspections jurisdiction for additional procedures and requirements)
Manual Fire Alarm System with Notification: ■ No ☐ Yes

Gross Building Area:

FLOOR	EXISTING (SQ FT)	NEW (SQ FT)		SUB-TOTAL
4th Floor				
3rd Floor				
2nd Floor				
Mezzanine		AREA 'A'	AREA 'B'	
1st Floor		6,540 sf	6,960 sf	
Basement				
TOTAL		6,540 sf	6,960 sf	13,500 sf TOTAL

2-hr WALL

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

Accessory Occupancy Classification(s): NA
Incidental Uses (Table 509) : NA
Special Uses (Chapter 4 - List Code Sections): NA
Special Previsions: (Chapter 5- List Code Sections): NA

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 Mixed Occupancy (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 allowable floor area for each use shall not exceed 1.

Actual Area of Occupancy A / Allowable Area of Occupancy A + Actual Area of Occupancy E / Allowable Area of Occupancy E ≤ 1

______ + ______ + _ _ = ______ ≤ 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) ALLOWABLE AREA PER STORY OR UNLIMITED 2, 3

(1) Frontage area increases from Section 506.2 are computed thus:
a. Perimeter which fronts a public way or open space having 20 feet minimum width = ______ (F)
b. Total Building Perimeter = ______ (P)
c. Radio (F/P) = ______ (F/P)
d. W = Minimum width of public way = ______ (W)
e. Percent of frontage increase If = 100 (F/P - 0.25) x W/30 = ______ %
(2) Unlimited area applicable under conditions of Sections 507
(3) Maximum Building Area = total number of stories in the building x D (506.2)
(4) The maximum area of open parking garages must comply with 406.5.4. The maximum area of air traffic control towers must comply with 412.3.1.
(5) Frontage increase is based on the unsprinklered area value in table 506.2

ALLOWABLE HEIGHT

	Allowable	Show on plans	Code Reference
Building Height in Feet (Table 504.3)	55 FT.	12'	
Building Height in Stories (Table 504.4)	2	1	

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

NS = BUILDING NOT EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM

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 Framing, including columns, girders, trusses		0					
Bearing walls							
Exterior							
NORTHWEST	86'	0					
NORTHEAST	68'	0					
SOUTHEAST WALL (ASSUMED PROPERTY LINE)	15'	0					
SOUTHWEST WALL	364'	0					
Interior		0					
Nonbearing walls and partitions Exterior Walls							
North	N/A	0					
East	N/A	0					
West	N/A	0					
South	N/A	0					
Interior walls & partitions		0					
Floor construction including supporting beams and joists		0					
Floor Ceiling Assembly		0					
Columns Supporting Roof		0					
Roof construction including supporting beams and joists		0					
Floor Ceiling Assembly		0					
Columns Supporting Roof		N/A					
Shafts Enclosures - Exit		N/A					
Shafts Enclosures - Others		N/A					
Corridor Separation		N/A					
Occupancy/Fire Barrier Separation		N/A					
Party/Fire Wall Separation		2-hr	2-hr	U-419	3/A-3		
Smoke Barrier Separation		N/A					
Tenant / Dwelling Unit/ Sleeping Unit Separation		N/A					
Incidental Use Separation		N/A					

* Indicate section number permitting reduction

PERCENTAGE OF WALL OPENINGS CALCULATIONS

Fire Separation Distance (Feet) from Property Line	Degree of Opening Protection (Table 705.8)	Allowable Area (%)	Actual Shown on Plan (%)
NORTH 35' ASSUMED PROPERTY LINE	UNPROTECTED, NONSPRINKLERED	NO LIMIT NO LIMIT PER TABLE 705.8.1 ex. 2	51%
WEST 15 ASSUMED PROPERTY LINE	UNPROTECTED, NONSPRINKLERED	NO LIMIT NO LIMIT PER TABLE 705.8.1 ex. 2	47%
SOUTH 25'	UNPROTECTED, NONSPRINKLERED	NO LIMIT	0
EAST 122'	UNPROTECTED, NONSPRINKLERED	NO LIMIT	0

LIFE SAFETY PLAN REQUIREMENTS

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

ACCESSIBLE DWELLING UNITS (Section 1107)

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

ACCESSIBLE PARKING (Section 1106)

LOT OR PARKING AREAS	TOTAL # OF PARKING SPACES REQUIRED	TOTAL # OF PARKING SPACES PROVIDED	# OF ACCESSIBLE SPACES PROVIDED: REGULAR WITH 5' ACCESS AISLE	VAN SPACES WIDTH 132" ACCESS AISLE	VAN SPACES WIDTH 8' ACCESS ISLE	TOTAL NO. ACCESSIBLE PROVIDED
TOTAL		SEE SITE PLAN				

PLUMBING FIXTURE REQUIREMENTS (Table 2902.1)

USE		WATER CLOSETS MALE	WATER CLOSETS FEMALE	WATER CLOSETS UNISEX	URINALS	LAVATORIES MALE	LAVATORIES FEMALE	LAVATORIES UNISEX	SHOWERS/ TUBS	DRINKING FOUNTAINS REGULAR	DRINKING FOUNTAINS ACCESSIBLE
OUTSIDE	EXISTING										
	NEW										
INSIDE	EXISTING										
	NEW	RESTROOM IN ADJACENT BLDG. A									
TOTAL	REQUIRED										
	PROVIDED										

SPECIAL APPROVALS

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

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

Climate Zone ■ 3 ☐ 4 ☐ 5

Method of Compliance
☐ Prescriptive (Energy Code)
☐ Performance (Energy Code)
☐ Prescriptive (ASHRAE 90.1)
☐ Performance (ASHRAE 90.1)

THERMAL ENVELOPE
Roof/ceiling Assembly (each assembly)
Description of assembly ______
U-Value of total assembly ______
R-Value of insulation ______
Skylights in each assembly ______
U-Value of skylight ______
total square footage of skylights in each assembly ______

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

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

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

Floors slab on grade
Description of assembly ______
U-Value of total assembly ______
R-Value of insulation ______
Horzontial/vertical requirement ______
slab heated ______

NOT REQUIRED PER 2012 NC-EEC

STRUCTURAL DESIGN

DESIGN LOADS :
Importance Factors : Snow (Is) ______
Seismic (Ie) ______
Live Loads : Roof ______ psf
Mezzanine ______ psf
Floor ______ psf
Ground Snow Load : ______ psf
Wind Loads : Ultimate Wind Speed ______ mph (ASCE-7)
Exposure Category ______

SEISMIC DESIGN CATEGORY ☐ A ☐ B ☐ C ☐ D
Provide the following Seismic Design Parameters :
Risk Category (Table 1604.5) ☐ I ☐ II ☐ III ☐ IV
Spectral Response Acceleration Sms ______ %g Sm1 ______ %g
Site Classification (ASCE 7) A ☐ B ☐ C ☐ D ☐ E ☐ F
Data Source: ☐ Field Test ☐ Presumptive ☐ Historical Data
Basic structural system (check one)
☐ Bearing Wall ☐ Dual w/ Special Moment Frame
☐ Building Frame (Upper Walls) ☐ Dual w/ Intermediate R/C or Special Steel
☐ Moment Frame ☐ Inverted Pendulum
Analysis Procedure ☐ Simplified ☐ Equivalent Lateral Force ☐ Dynamic
Architectural, Mechanical, components anchored? ☐ Yes ☐ No

LATERAL DESIGN CONTROL : ☐ Earthquake (Lower Level - Bldg. A & B)
☐ Wind (Upper Level - Bldg. A & B and C & D)

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

SEE STRUCTURAL ENGINEER

UNIT MIX - TOTAL 4 BLDG. ♿

SIZE	MARK	A	B	C	J	TOTAL	ACCESSIBLE UNITS
5'x5'	A	4	-	-	-	66	BLDG. A
5'x10'	B	13	6	8	-	81	5
10'x10'	G	105	-	-	3	57	
10'x15'	H	24	52	-	-	183	BLDG. A
10'x20'	I	16	-	60	-	88	5
10'x30'	K	-	-	-	26	44	BLDG. J
12'x30'	Z	-	-	-	15	30	3
	TOTAL	162	58	68	44	332	13
NET SQ. FT. PER BLDG		18,284	8,100	12,400	13,500	55,284 SQ. FT. NET TOTAL	
GROSS SQ. FT. PER BLDG		23,508	8,100	12,400	13,500	57,508 SQ. FT. GROSS TOTAL	

(A, B, C, J under BUILDING TYPE)

UNIT CALCULATIONS

CODE REQUIREMENTS	PERCENTAGE	# OF UNITS	# OF ADA UNITS REQ.
5% OF THE FIRST 200 UNITS	5%	200	10
2% OF REMAINING UNITS	2%	132	2.64
TOTAL		332	3

NOTE: ALL ACCESSIBLE STORAGE UNTIS DOORS SHALL HAVE A MAX. 5 LB. PULL

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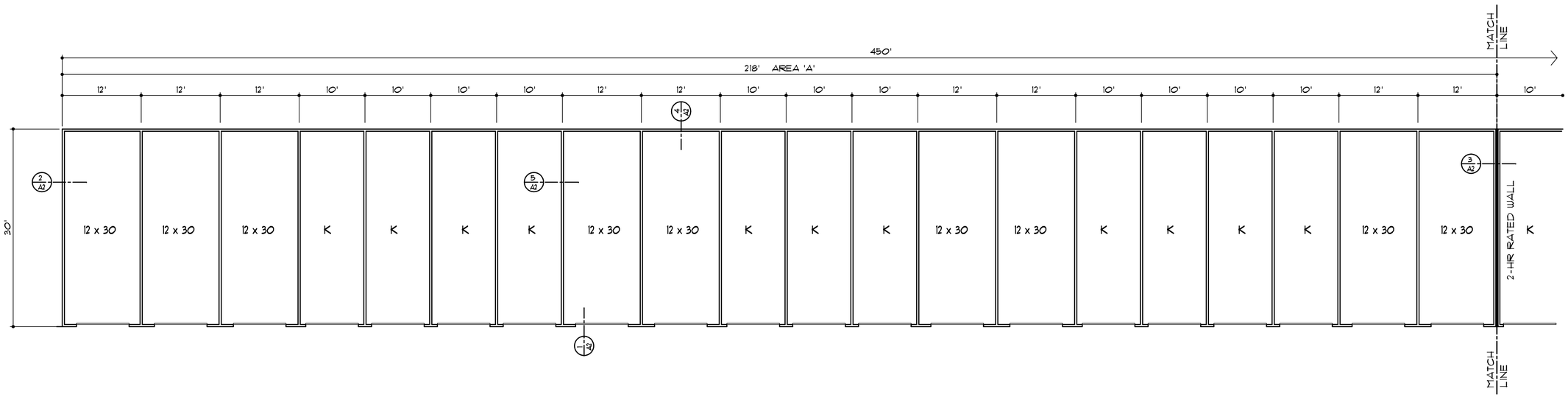
VICTOR J. SMITH REGISTERED ARCHITECT 6687 07-29-2022 NORTH CAROLINA GREENSBORO, NC
ERSKINE-SMITH ARCHITECTURE PLLC REGISTERED ARCHITECTURAL COMPANY 51579 NORTH CAROLINA GREENSBORO, NC

NEW STORAGE FACILITY FOR BLDG. 'J'
HARNETT SELF STORAGE
SPOUT SPRINGS, NC

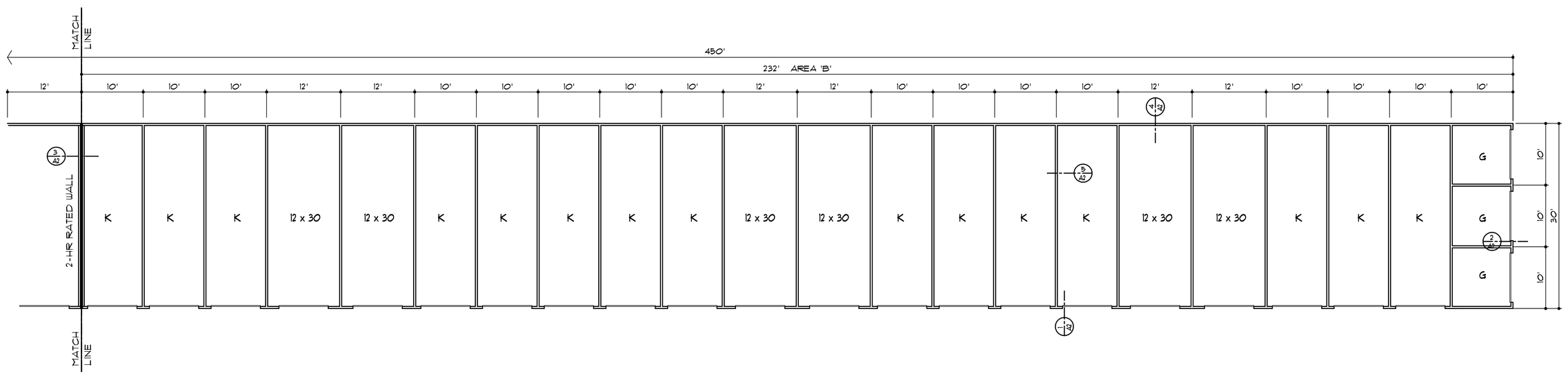
REVISIONS	BY

DRAWN BY : VJS
CHECKED BY : RHE
DATE : 07-29-2022
SCALE : 1/16" = 1'-0"
FILE :
SHEET NUMBER :
COVER
BLDG. J



PARTIAL FLOOR PLAN

1/8" = 1'-0"



PARTIAL FLOOR PLAN

1/8" = 1'-0"

BLDG. J 13,500 sf

NEW STORAGE FACILITY FOR HARNETT SELF STORAGE

SPOUT SPRINGS, NC

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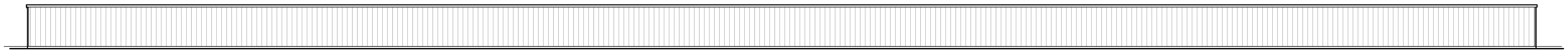
ERSKINE-SMITH ARCHITECTURE PLLC REGISTERED ARCHITECTURAL COMPANY 51579 NORTH CAROLINA GREENSBORO

REVISIONS	BY

DRAWN BY : VJS
CHECKED BY : VJS
DATE : 07-29-2022
SCALE : AS SHOWN
FILE : ????
SHEET NUMBER :

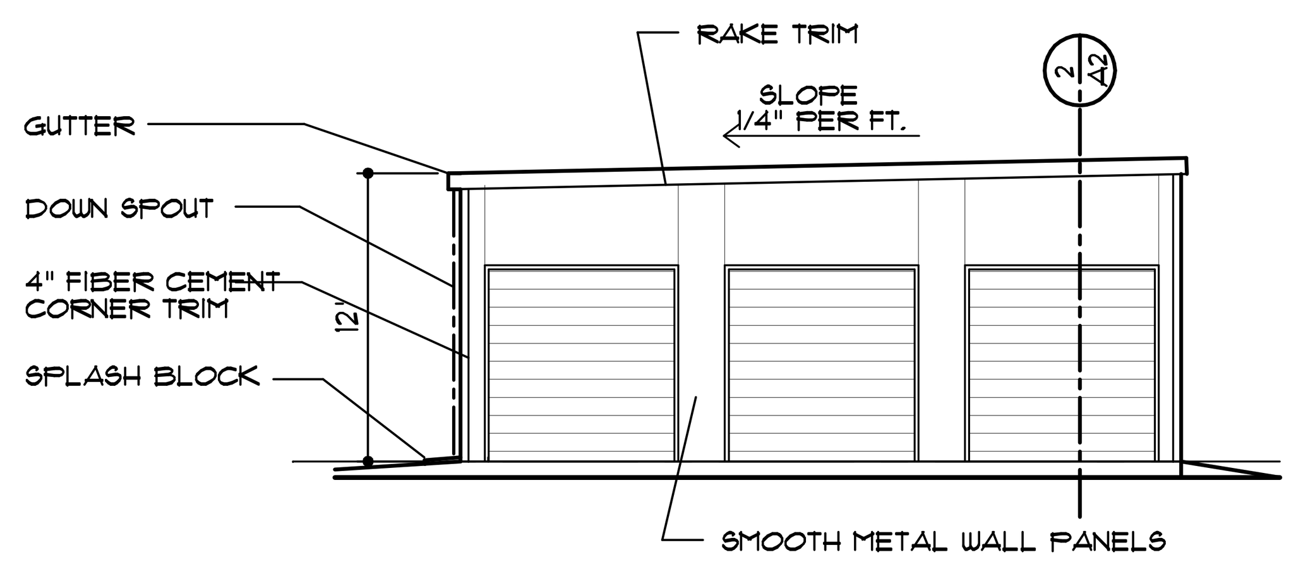
A-1

NORTH ELEVATION
1/16" = 1'-0"

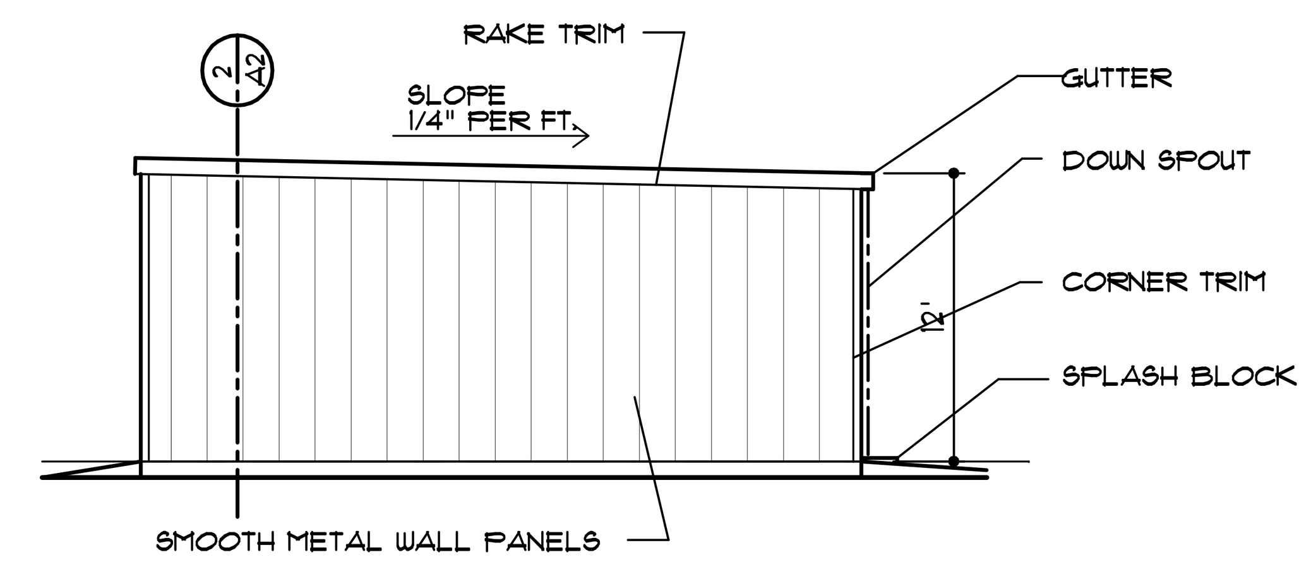


SOUTH ELEVATION
1/16" = 1'-0"

BUILDING 10



WEST ELEVATION
1/8" = 1'-0"

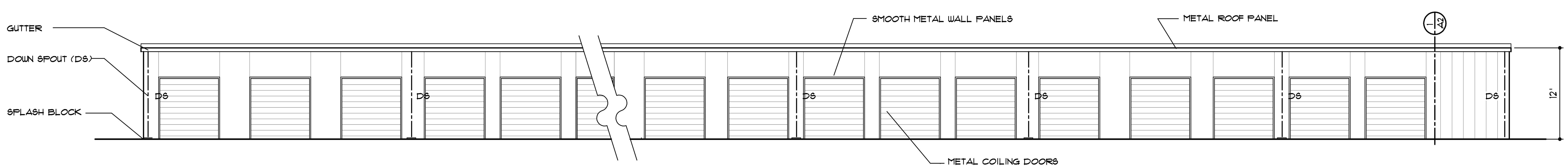


EAST ELEVATION
1/8" = 1'-0"

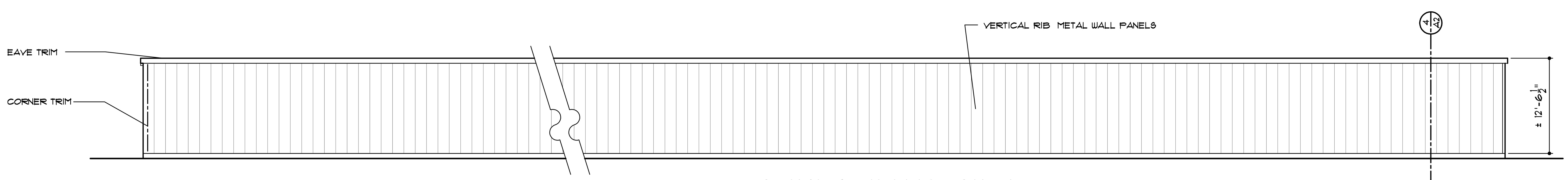
ALL RAIN LEADER TO HAVE SPLASH BLOCKS

DOWN SPOUTS & GUTTERS

ROOF AREA = 13,500 SF
GUTTER LENGTH = 450'LF
GUTTER SIZE = 5"w X 4"d
DOWN SPOUT (3"x4") = 16
AREA PER DOWN SPOUT = 844 sf



PARTIAL NORTH ELEVATION
1/8" = 1'-0"



PARTIAL SOUTH ELEVATION
1/8" = 1'-0"

BLDG. J

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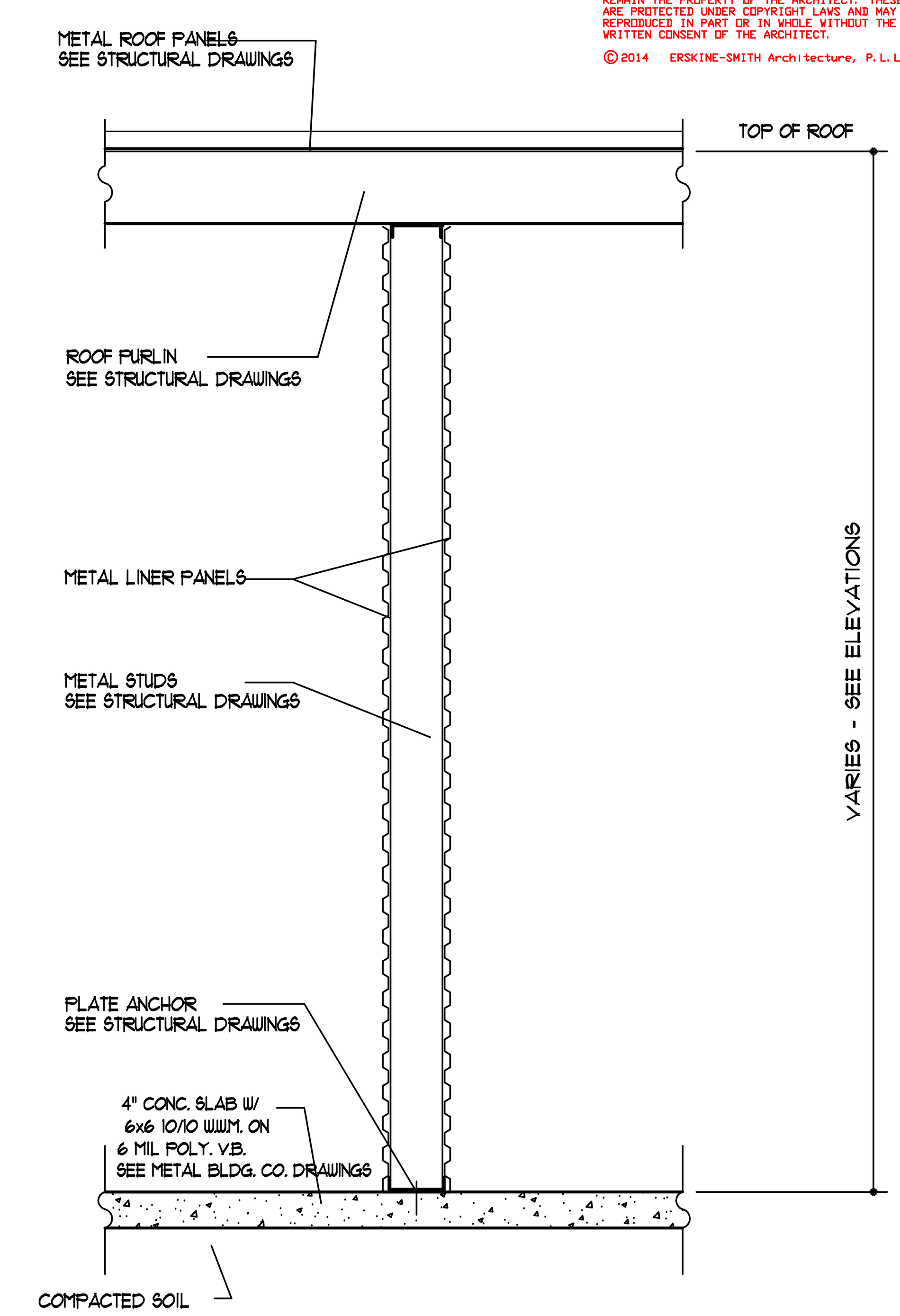
NEW STORAGE FACILITY FOR
HARNETT SELF STORAGE
SPOUT SPRINGS,, NC

REVISIONS	BY

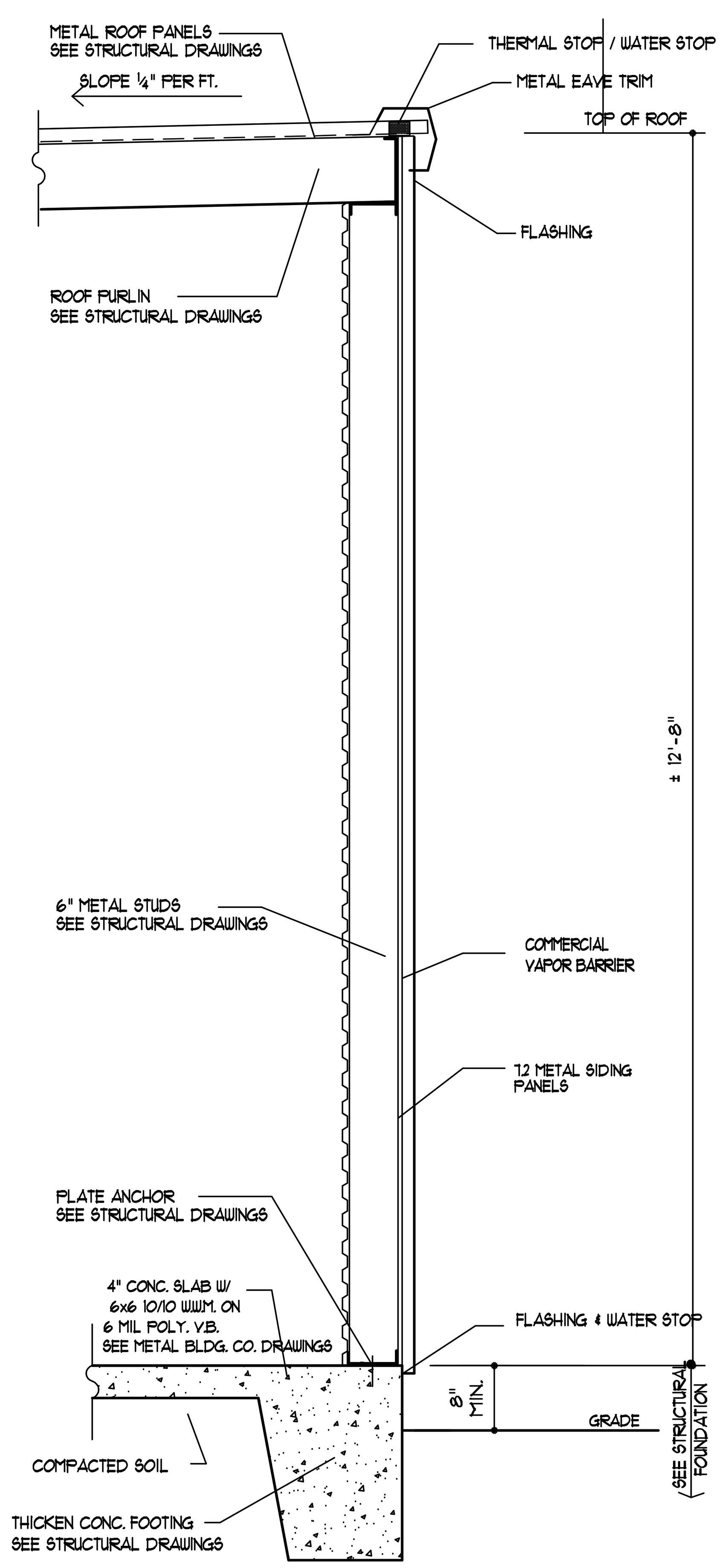
DRAWN BY : VJS
CHECKED BY : VJS
DATE : 07-29-2022
SCALE : AS SHOWN
FILE :
SHEET NUMBER :

A-2

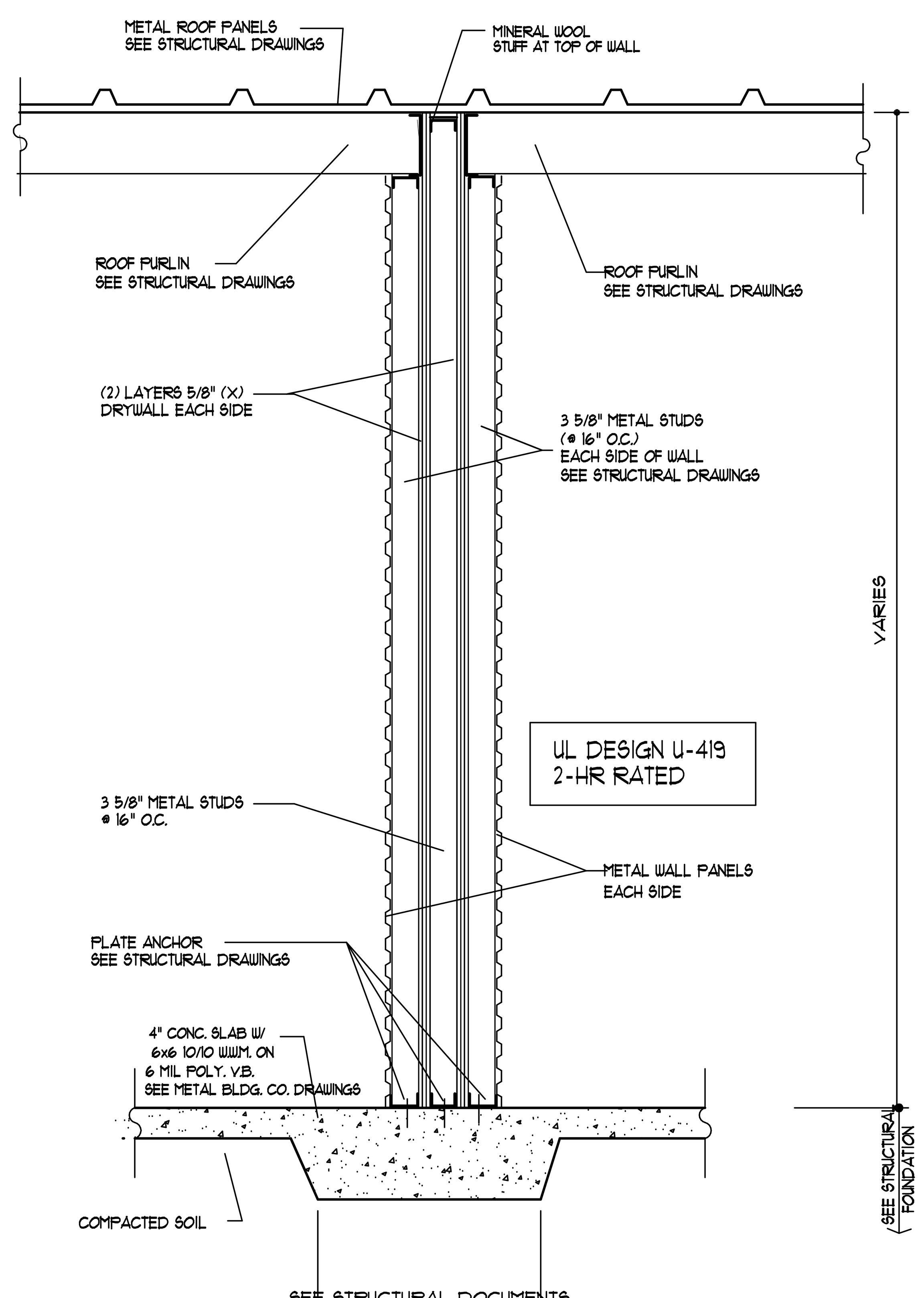
NOTE:
STRUCTURAL ENGINEERS DESIGN & DETAILS SHALL OVERRIDE ARCHITECTURAL DETAILS



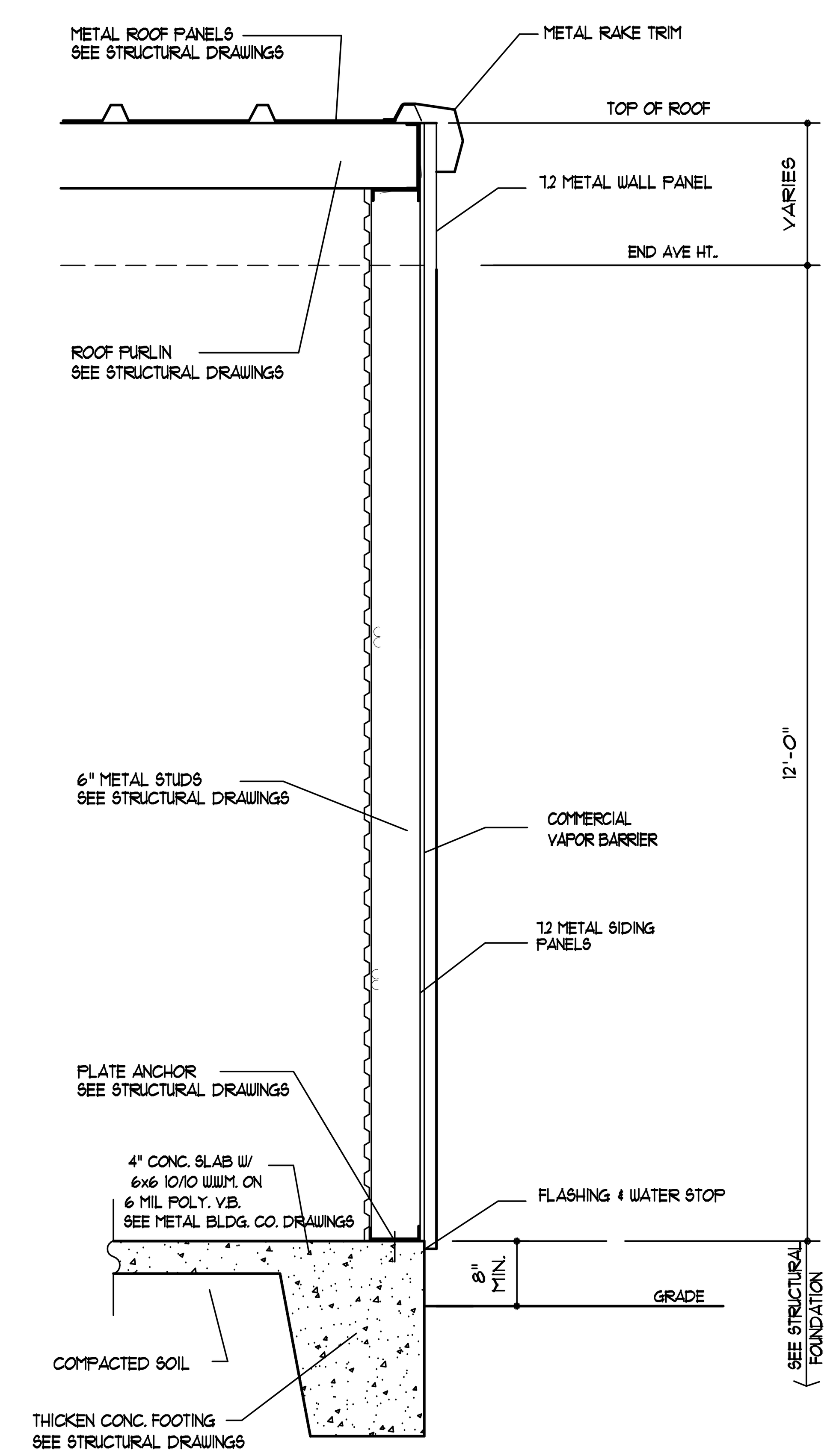
5 / A-3 TYP. INTERIOR WALL DET.



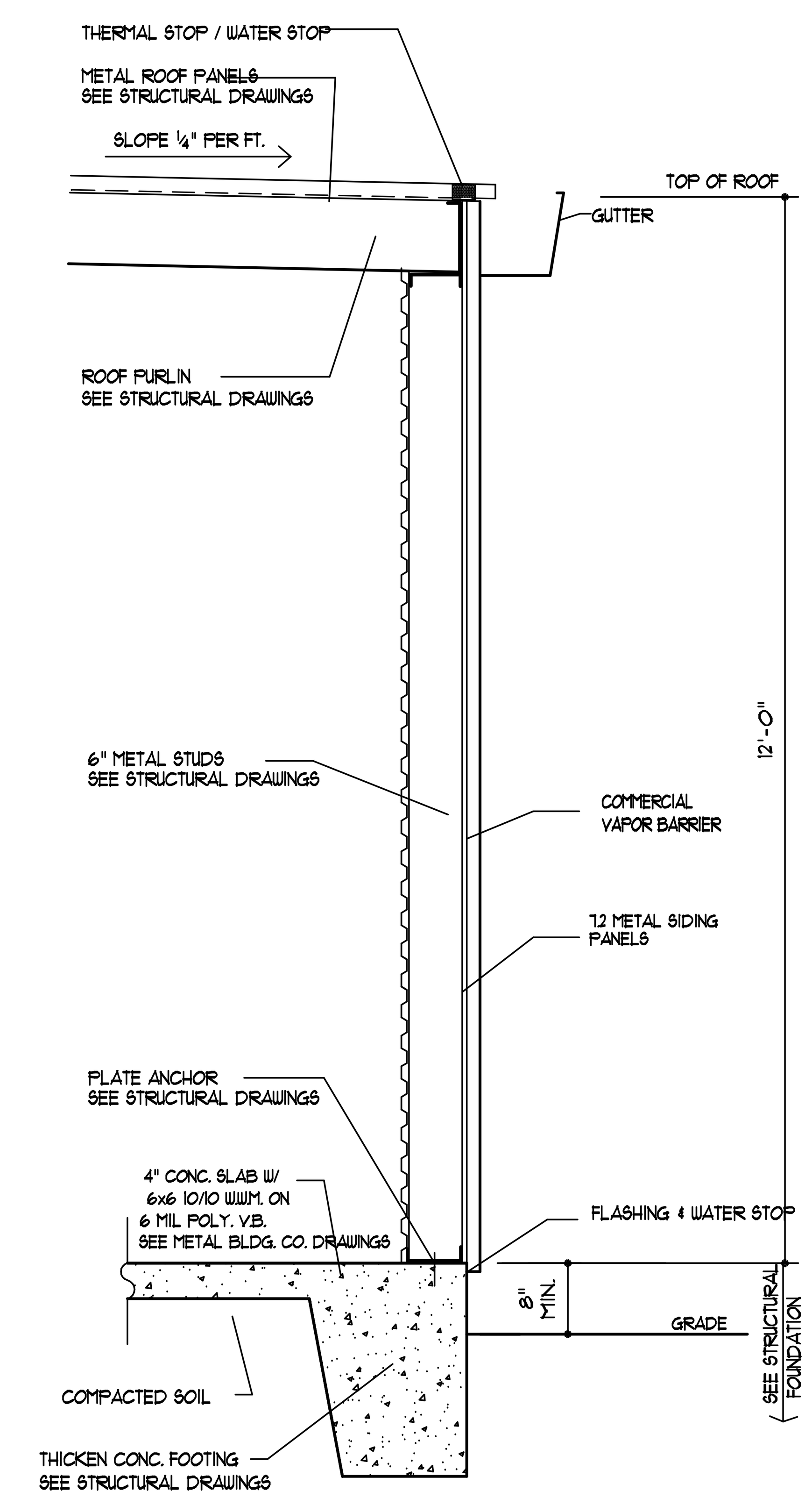
4 / A-3 TYP. EXTERIOR WALL DET.



3 / A-3 2-HR. RATED FIRE WALL DETAIL



2 / A-3 TYP. EXTERIOR END WALL DET.



1 / A-3 TYP. EXTERIOR WALL DET.

NOTE: DO NOT SCALE DRAWINGS
PDF & PRINTING CHANGES SCALE

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NEW STORAGE FACILITY FOR
HARNETT SELF STORAGE
SPOUT SPRINGS, NC

REVISIONS	BY
⚠1	

DRAWN BY : VJS
CHECKED BY : VJS
DATE : 07-29-2022
SCALE : 3/4" = 1'-0"
FILE :
SHEET NUMBER :
A-3
BLDG. 'J'