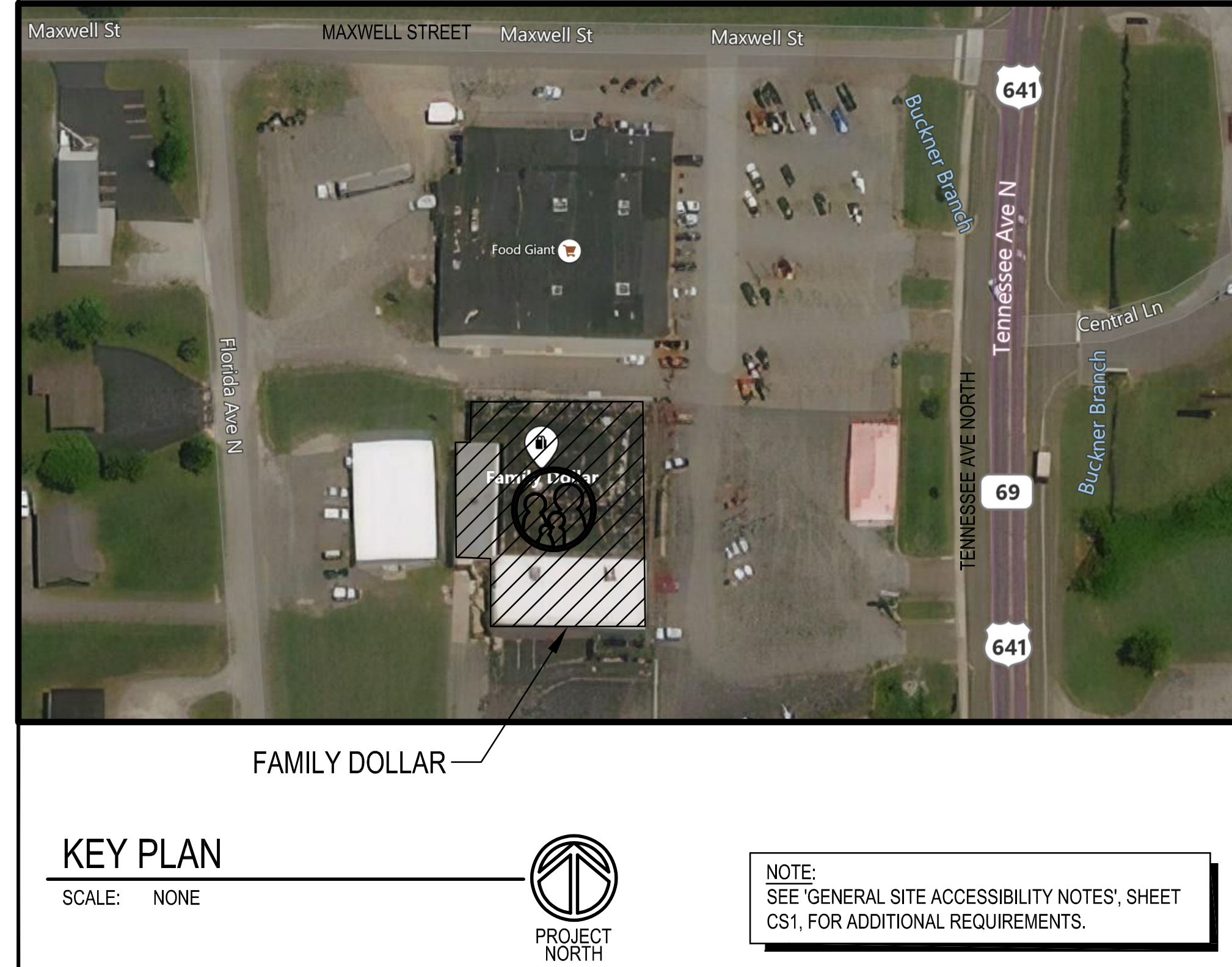


# FAMILY DOLLAR

## 503 TENNESSEE AVE N PARSONS, TENNESSEE PROJECT # 805621

STORE # \_\_\_\_\_  
TURNOVER DATE \_\_\_\_\_  
OPEN DATE \_\_\_\_\_  
CONTRACTOR \_\_\_\_\_  
SVN TN ASJS SHELL MALL / RELOCATION EXPANSION

ABBREVIATIONS		SYMBOLS		KEY PLAN		INDEX OF DRAWINGS	
ACT	ACOUSTICAL CEILING TILE	MAX	MAXIMUM		ELEVATION MARKER		ELEVATION DATUM
ADA	AMERICAN DISABILITIES ACT	MFG, MANUF	MANUFACTURE, MANUFACTURER		ENLARGED DETAIL INDICATOR		BREAK LINE
AFB	ABOVE FINISHED FLOOR	MIN	MINIMUM, MINUTE		WALL SECTION MARKER		EXISTING DOOR
ARCH	ARCHITECT, ARCHITECTURAL	MTD	MOUNTED		INTERIOR ELEVATION MARKER		NEW DOOR
APPROX	APPROXIMATE	MTL	METAL		DEMOLITION NOTE		NEW WALL CONSTRUCTION
BD	BOARD	NIC	NOT IN CONTRACT		REVISION MARKER		CMU
BLDG	BUILDING	OC	ON CENTER		DOOR NUMBER		CONCRETE
CEM	CEMENT PLASTER FINISH	OPP	OPPOSITE				
CLG	CEILING	PEJ	PREFORMED EXPANSION JOINT				
CLR	CLEAR	PLAM	PLASTIC LAMINATE				
CMU	CONCRETE MASONRY UNIT	PLYWD	PLYWOOD				
COL	COLUMN	PR	PAIR				
DF	DRINKING FOUNTAIN	PSI	POUNDS PER SQUARE INCH				
DTL	DETAIL	PTD	PAINTED				
DWG	DRAWING	RELO	RELOCATE				
EA	EACH	REQD	REQUIRED				
EIFS	EXTERIOR INSULATION FINISH SYSTEM	SC	SOLID CORE				
ELEV	ELEVATION	SF	SQUARE FEET				
EQ	EQUAL	SHT	SHEET				
EXIST	EXISTING	SIM	SIMILAR				
EXTING	EXTINGUISHER	STRUCT	STRUCTURAL				
FE	FIRE EXTINGUISHER	T	THICK, THICKNESS				
FR	FIRE RATING	TG	TEMPERED GLASS				
FRP	FIBERGLAS REINFORCED PANEL	THRESH	THRESHOLD				
FIN	FINISH, FINISHED	TYP	TYPICAL				
FT	FOOT, FEET	UL	UNDERWRITERS LABORATORIES				
FTG	FOOTING	UON	UNLESS OTHERWISE NOTED				
FV	FIELD VERIFY	VCT	VINYL COMPOSITION TILE				
GA	GAGE	VTR	VENT THROUGH ROOF				
GWB	GYPSSUM WALL BOARD	W	WIDE, WIDTH				
H	HIGH	WD	WOOD				
HDW	HARDWARE	W	WITH				
HM	HOLLOW METAL	WWF	WELDED WIRE FABRIC				
HGT	HEIGHT	AND	AND				
HOL	HOLLOW	&	&				
HORIZ	HORIZONTALLY	∠	ANGLE				
HR	HOUR	AT	AT				
HVAC	HEATING, VENTILATION AND AIR CONDITIONING	∅, DIA	CENTER LINE				
JT	JOINT	#	DEGREES				
L	LENGTH, LONG	Ø	DIAMETER				
LAM	LAMINATE	#	NUMBER				
LVT	LUXURY VINYL TILE	±	PLUS OR MINUS				

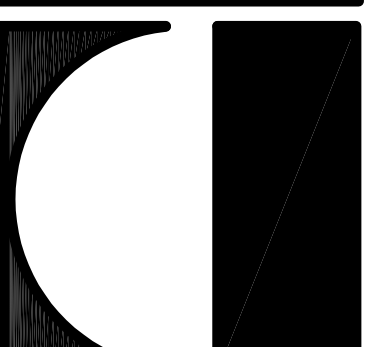


INDEX OF DRAWINGS	
<input checked="" type="checkbox"/>	ARCHITECTURAL
<input checked="" type="checkbox"/>	CS1 NOTES, LEGEND AND KEY PLAN
<input checked="" type="checkbox"/>	D1 DEMOLITION PLAN
<input checked="" type="checkbox"/>	A1 FLOOR PLAN AND WALL CONSTRUCTION TYPES
<input checked="" type="checkbox"/>	A1.1 FIXTURE / EGRESS PLAN, DETAILS AND ELEVATIONS
<input checked="" type="checkbox"/>	A1.2 ENLARGED PLAN, SECTION AND ELEVATIONS
<input checked="" type="checkbox"/>	A2 REFLECTED CEILING PLAN, LEGEND AND DETAIL
<input checked="" type="checkbox"/>	A3 INTERIOR ELEVATIONS
<input checked="" type="checkbox"/>	A3.1 EXTERIOR ELEVATIONS
<input checked="" type="checkbox"/>	A4 SCHEDULES, NOTES, DETAILS AND SECTIONS
<input type="checkbox"/>	STRUCTURAL
<input type="checkbox"/>	S-1 EXISTING ROOF FRAMING PLAN W/ STRUCTURAL MODIFICATIONS
<input type="checkbox"/>	S-2.0 STRUCTURAL ELEVATIONS, SECTIONS AND DETAILS
<input type="checkbox"/>	MECHANICAL / PLUMBING
<input type="checkbox"/>	MP-1 HVAC & PLUMBING PLAN / ISOMETRICS & KEYED NOTES
<input type="checkbox"/>	MP-2 SCHEDULES & DETAILS
<input type="checkbox"/>	MP-3 SPECIFICATIONS
<input type="checkbox"/>	ELECTRICAL
<input type="checkbox"/>	E-1 POWER PLAN
<input type="checkbox"/>	E-2 LIGHTING PLAN
<input type="checkbox"/>	E-3 SCHEDULES, NOTES & DETAILS
<input type="checkbox"/>	E-4 NOTES & RISER DIAGRAM
<input type="checkbox"/>	FIRE PROTECTION
<input type="checkbox"/>	FP1 FIRE SPRINKLER PLAN AND RISER DETAIL
<input type="checkbox"/>	FP2 FIRE SPRINKLER SPECIFICATION, NOTES AND DETAILS
<input type="checkbox"/>	FA1 FIRE ALARM PLAN - NEW WORK
<input type="checkbox"/>	FA2 FIRE ALARM NOTES, CALCULATIONS AND MATRIX
<input type="checkbox"/>	FA3 FIRE ALARM SPECIFICATIONS
<input type="checkbox"/>	FOR REFERENCE ONLY
<input type="checkbox"/>	DS1 REPAIR UNITS DETAILS AND SPECIFICATIONS
<input type="checkbox"/>	EM-1 ENERGY MANAGEMENT PLAN
<input type="checkbox"/>	EM-2 ENERGY MANAGEMENT PLAN
<input type="checkbox"/>	EM-3 ENERGY MANAGEMENT PLAN
<input type="checkbox"/>	EM-4 ENERGY MANAGEMENT PLAN

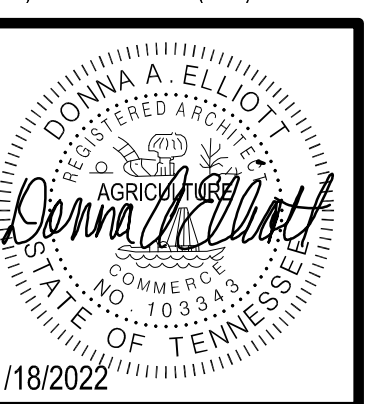
GENERAL NOTES		NEW WORK NOTES		GENERAL SITE ACCESSIBILITY NOTES		BUILDING CODE SUMMARY		PROJECT DIRECTORY																																												
1. CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE LOCAL, STATE, AND NATIONAL CODES AND REGULATIONS. CONSTRUCTION SHALL ALSO COMPLY WITH LANDLORD'S CRITERIA (UNLESS PRECLUDED BY CODE).	2. ALL WOOD FRAMEWORK, WOOD BLOCKING AND PLYWOOD SHALL BE FIRE RETARDANT TREATED PER CODE.	3. ALL FINISH MATERIALS SHALL MEET FLAME SPREAD AND SMOKE DEVELOPMENT RATING CLASS C (OR CLASS 3).	4. WALL CONSTRUCTION BY THE TENANT'S CONTRACTOR IS SHOWN HATCHED.	5. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS PRIOR TO BID TO DETERMINE THE EXTENT OF WORK. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND THE TENANT OF ANY DISCREPANCIES PRIOR TO BIDDING.	6. ALL MATERIALS INDICATED ARE NEW, UNLESS SPECIFICALLY NOTED AS EXISTING, AND SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. ITEMS INDICATED AS TENANT SUPPLIED SHALL BE INSTALLED BY THE CONTRACTOR PER TENANT'S REQUIREMENTS AND/OR MANUFACTURER'S PUBLISHED STANDARDS.	7. ALL EXISTING MATERIALS TO REMAIN WHICH ARE DAMAGED OR OTHERWISE DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE PATCHED OR REPAIRED TO MATCH THE EXISTING ADJACENT MATERIALS, SO THAT THE REPAIR IS IMPERCEPTIBLE.	8. DURING THE COURSE OF CONSTRUCTION, IF THE CONTRACTOR UNCOVERS ANY CODE VIOLATION KNOWN TO HIM OR ANY DISCREPANCY WITH THE DESIGN, CONTRACTOR SHALL NOTIFY THE ARCHITECT OF SUCH IMMEDIATELY.	9. CONTRACTOR SHALL ASSEMBLE AND INSTALL MATERIALS' PRODUCTS IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND INDUSTRIAL ASSOCIATION STANDARDS.	10. FIELD VERIFY AND/OR REPORT ASBESTOS-CONTAINING MATERIAL TO ARCHITECT AND TENANT UPON DISCOVERY.	11. ALL INTERIOR CONCRETE SHALL BE PORTLAND CEMENT BASED TO INCLUDE PATCHING, FLOATING/LEVELING OF FLOORS AND INFILLING.	12. ANY DETAIL WHICH MAY BE INCOMPLETE OR LACKING IN THE PLANS OR SPECIFICATIONS SHALL NOT CONSTITUTE CLAIM FOR EXTRA COMPENSATION. SUCH DETAIL, IF REQUESTED BY THE CONTRACTOR, SHALL BE SUPPLIED BY THE ENGINEER/ARCHITECT AND SUBMITTED TO THE CONTRACTOR IN ADVANCE OF ITS REQUIREMENT ON THE JOB. THE TRUE INTENT OF THE PLANS AND SPECIFICATIONS IS TO PRODUCE A COMPLETE WORKING FACILITY AND INCOMPLETE DETAIL WILL NOT ABROGATE THIS INTENT.	13. THE CONTRACTOR SHALL PROVIDE ALL SHOP DRAWINGS (WITH THEIR STAMP OF APPROVAL) AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION FOR APPROVAL BY THE ARCHITECT/ENGINEER OF RECORD.	1. PROVIDE TENANT IDENTIFICATION SIGN AT REAR DOOR PER LANDLORD'S CRITERIA.	2. (8) 2A-10BC RATED FIRE EXTINGUISHERS TO BE TENANT SUPPLIED, SIMILAR TO JL INDUSTRIES MODEL COSMIC SE. LOCATE EXTINGUISHERS AS SHOWN. PROVIDE WALL BRACKETS AND MOUNT CONTROLS AT 48" AFF MAX. PROVIDE "FIRE EXTINGUISHER" SIGNS ON WALL DIRECTLY ABOVE EACH UNIT. CONTRACTOR SHALL HAVE EXTINGUISHERS INSPECTED AND TAGGED.	3. THE CONTRACTOR SHALL VERIFY THAT TOILET ROOM(S), INCLUDING FIXTURES AND ACCESSORIES (BOTH EXISTING AND NEW) MEET ALL APPLICABLE LOCAL, STATE AND FEDERAL ACCESSIBILITY CODES AND LAWS.	4. PROVIDE EXTERIOR LIGHT ABOVE REAR DOOR, AS APPROVED BY LANDLORD, IF ONE DOES NOT EXIST WITHIN 10 FEET OF REAR DOOR.	5. PAINT ALL EXPOSED SURFACE MOUNTED CONDUIT TO MATCH ADJACENT WALL COLOR (IE WHITE OR YELLOW).	6. CONTRACTOR SHALL CAULK AROUND TOP AND BOTTOM EDGES OF COLUMN SURROUNDS TO AVOID INJURY.	7. REPAIR AND CLEAN ALL EXISTING MATERIALS (IE STOREFRONT FRAMING AND GLAZING, WALLS, CEILING, ETC) TO REMAIN TO A LIKE NEW CONDITION.	8. NOTIFY FAMILY DOLLAR CONSTRUCTION PM AS TO THE CONDITION OF EXPOSED CONCRETE BLOCK WALL TO REMAIN ON THE SALES FLOOR. FAMILY DOLLAR WILL MAKE THE DETERMINATION AS TO WHETHER THE WALL'S CONDITION IS SUITABLE FOR PAINTING OR NEEDS TO BE FURRED OUT WITH METAL STUDS AND GWB.	9. CONTRACTOR SHALL INSTALL TENANT SUPPLIED FIXTURES TO INCLUDE BUT NOT LIMITED TO CART CORRAL, PERIMETER WALL GONDOLA, FLOOR GONDOLA, BALLOON CENTER, HANGING BALLOON CORRALS, HELIUM TANK CABINET (SALES FLOOR), AND MOBILE FIXTURES PER TENANT'S FIXTURE PLAN.	10. DOORS AND FRAMES (OTHER THAN THOSE LISTED AS EXIST) ARE TENANT SUPPLIED FOR CONTRACTOR INSTALLATION. STOREFRONT DOORS (WHEN NOTED) SHALL BE SUPPLIED AND INSTALLED BY CONTRACTOR AS REQUIRED. AUTOMATIC DOORS (WHEN NOTED) WILL BE SUPPLIED AND INSTALLED BY TENANT'S VENDOR (CONTRACTOR IS RESPONSIBLE FOR ELECTRICAL CONNECTION.)	11. CONTRACTOR SHALL REMOVE ANY EXISTING SIGNAGE THAT HAS PREVIOUS TENANT'S NAME (INTERIOR AND/OR EXTERIOR.) ANY SIGNAGE THAT IS REQUIRED SHALL BE REPLACED IN LIKE KIND WITH DOLLAR TREE'S NAME.	12. CONTRACTOR SHALL VERIFY IF THERE IS AN EXISTING ACCESS PANEL TO TENANT'S SIGNAGE. IF ACCESS PANEL DOES NOT EXIST, INSTALL 2'-0" X 2'-0" ACCESS PANEL EITHER INSIDE AT DOLLAR TREE'S SPACE ABOVE THE CEILING (VERIFY FIRE RATINGS AND CODE REQUIREMENTS) OR IN THE EXTERIOR SOFFIT TO MATCH CANOPY CONSTRUCTION AS ALLOWED BY LANDLORD. CONFIRM WITH SIGN VENDOR FOR LOCATION PRIOR TO INSTALLING.	13. CONTRACTOR SHALL INSTALL TENANT SUPPLIED INTERIOR GRAPHICS AND SIGNS TO INCLUDE BUT NOT LIMITED TO PERIMETER WALL GRAPHICS/SIGNAGE, HANGING GRAPHICS/SIGNAGE AND STOREFRONT WINDOW DECALS. CONTACT THE CONSTRUCTION PM FOR GRAPHIC/SIGNAGE DRAWINGS.	14. CONTRACTOR SHALL SEAL ALL EXTERIOR PENETRATIONS INCLUDING CRACKS, HOLES, GAPS, AND EXISTING PENETRATIONS. CONTRACTOR SHALL SELECT MATERIAL APPROPRIATE FOR CONDITION TO PROVIDE PERMANENT RODENT-PROOF INFILL (INSULATION SPRAY FOAM IS NOT AN ACCEPTABLE FINISHED MATERIAL.)	15. CONTRACTOR SHALL POST ON BULLETIN BOARD IN OFFICE FINAL INSPECTIONS & CERTIFICATE OF OCCUPANCY.	16. ALL PLAQUE SIGNAGE SHALL BE ATTACHED TO MOUNTING SURFACE WITH CONSTRUCTION ADHESIVE.	IN ACCORDANCE WITH CHAPTER 11, ACCESSIBILITY - SECTIONS 1104 AND 1106 OF THE INTERNATIONAL BUILDING CODE, 2012 EDITION, THE EXTERIOR ROUTES OF TRAVEL AND ACCESSIBLE PARKING ARE EXISTING PRIOR TO THE OCCUPANCY OF THE NEW TENANT. NO CHANGE OF OCCUPANCY OR EXTERIOR SITE MODIFICATION SHALL OCCUR WITHOUT PRIOR PERMITTING AND COMPLIANCE TO ABOVE MENTIONED CODE. REQUIRED SITE DEVELOPMENT OR COMPLIANCE TO ABOVE MENTIONED CODE SHALL BE SOLE RESPONSIBILITY OF LANDLORD AND/OR OWNER OF EXISTING BUILDING AND SITE.	APPLICABLE BUILDING CODE: 2012 INTERNATIONAL BUILDING CODE	APPLICABLE PLUMBING CODE: 2012 INTERNATIONAL PLUMBING CODE	USE GROUP: M - MERCANTILE	CONSTRUCTION TYPE: II B	NUMBER OF STORIES: ONE	DECK HEIGHT: 15'-0" - 11'-3"	SPRINKLERED: YES	TOTAL BUILDING AREA: 17,707 SF	NOT USED LEASE AREA: 4,551 SF	OCCUPANCY LOAD: UNOCCUPIED AREA 4.551 / 30 = 152	TOTAL FAMILY DOLLAR AREA: 13,156 SF	OCCUPANCY LOAD: SALES AREA 10,725 / 30 = 358 PRE-SALES 2,431 / 300 = 9 TOTAL = 367	PROJECT ADDRESS: FAMILY DOLLAR 503 TENNESSEE AVE NORTH PARSONS, TN 38363	BUILDING DEPT PHONE NO: (731) 847-6358	FIRE MONITORING REQUIRED: REFER TO FIRE PROTECTION SHEETS	SECURITY NOTES: RISK CLASS 0	SECURITY CHECKPOINT (ALL LOCATIONS)	ARCHITECT RMM ARCHITECTS, PC 1317 EXECUTIVE BLVD, SUITE 200 CHESAPEAKE, VIRGINIA 23320 PHONE (757) 622-2828 FAX (757) 622-6883 CRAIG YARBOROUGH, PM	TENANT FAMILY DOLLAR STORES, INC. 500 VOLVO PARKWAY CHESAPEAKE, VA 23320 PHONE (757) 321-5218 FAX (757) 321-5300 CHARLES GOMEZ	PLUMB, MECH, ELEC ENGINEER OLG ENGINEERING 301 INDUSTRIAL BLVD TULLAHOMA, TENNESSEE 37388 PHONE (931) 454-9940 FAX (931) 454-2338 TIM LITTLE, PM	STRUCTURAL ENGINEER CLARK, GEER, LATHAM & ASSOCIATES, INC 3901 SPRINGHILL AVENUE MOBILE, ALABAMA 36608 PHONE (251) 344-7073 FAX (251) 343-9179 THOMAS LATHAM	SIGN CONTRACTOR ALLEN INDUSTRIES 6434 BURNT POPLAR RD GREENSBORO, NC 27409 PHONE: (888) 294-2007 EXT. 3117 BRYAN DANIEL	LANDLORD ACE HARDWARE OF PARSONS 413 TENNESSEE AVE NORTH PARSONS, TN 38363 PHONE: (731) 549-5731 JOE WHITE

1-20-2022  
mark revisions

1-18-2022  
2/20/23  
date project designed drawn checked



1317 Executive Blvd, Suite 200  
Chesapeake, VA 23320  
(757) 622-2828 / fax (757) 622-6883

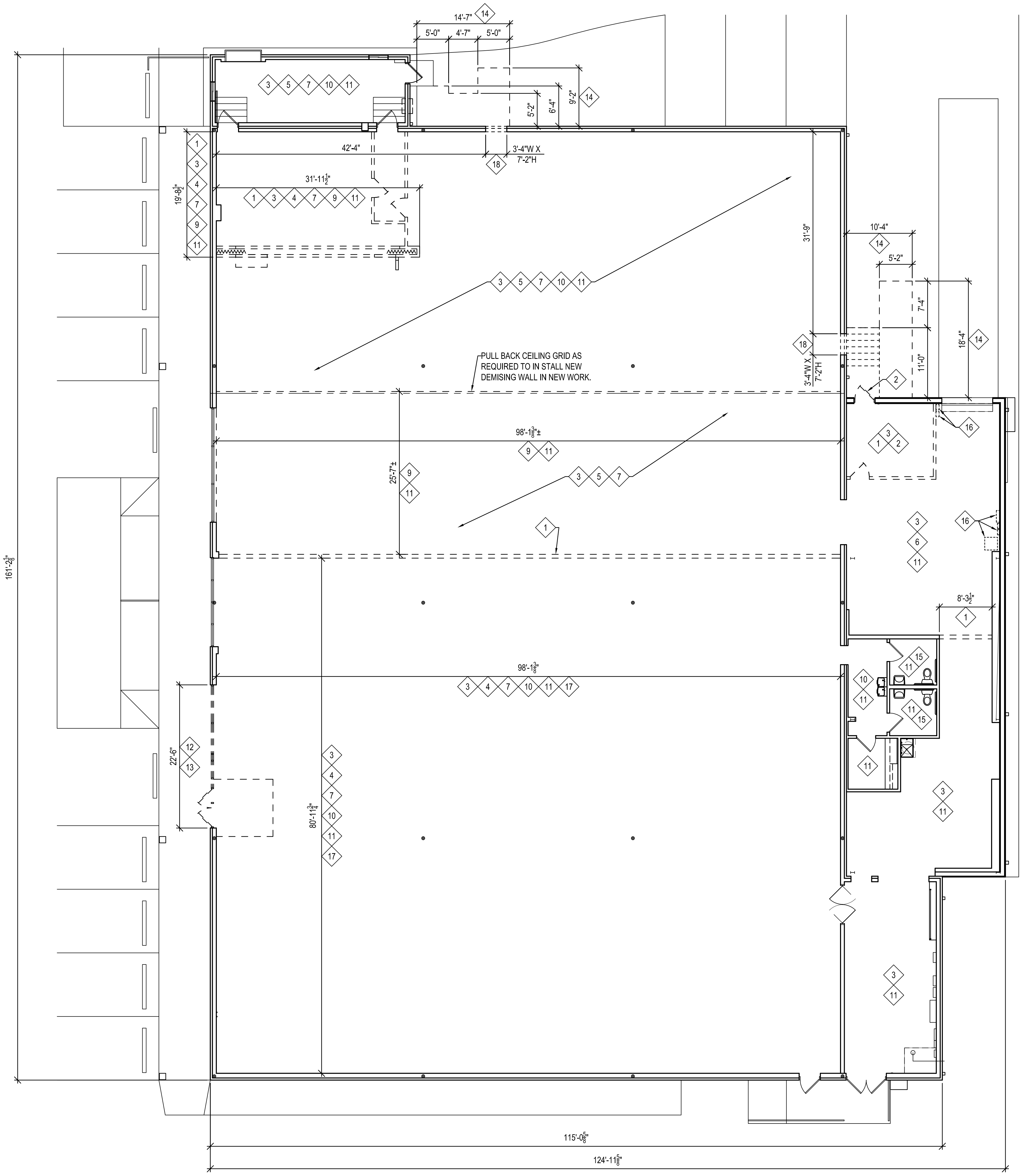


project drawing sheet

FAMILY DOLLAR  
503 TENNESSEE AVENUE NORTH, DEAL #805621  
PARSONS, TENNESSEE  
NOTES, LEGEND AND KEY PLAN

CS1

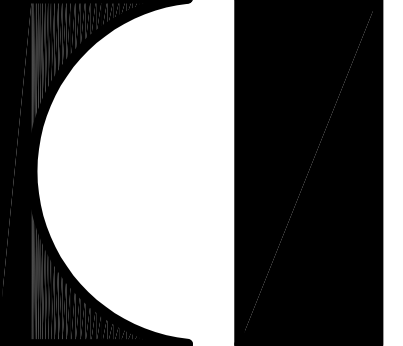
- DEMOLITION NOTES**
- 1 REMOVE PARTITION SHOWN DASHED LINE COMPLETE.
  - 2 REMOVE DOOR AND FRAME COMPLETE.
  - 3 REMOVE EXISTING WALL FIXTURES AND FINISHES COMPLETE.
  - 4 FLOORING CONTRACTOR (TENANT HIRED) SHALL REMOVE EXISTING CARPET COMPLETE. GC SHALL NOT INCLUDE IN BID.
  - 5 FLOORING CONTRACTOR (TENANT HIRED) SHALL REMOVE EXISTING VCT FLOORING COMPLETE. GC SHALL NOT INCLUDE IN BID.
  - 6 FLOORING CONTRACTOR (TENANT HIRED) SHALL REMOVE EXISTING LAMINATE COMPLETE. GC SHALL NOT INCLUDE IN BID.
  - 7 REMOVE EXISTING BASE COMPLETE.
  - 8 REMOVE EXISTING GWB CEILING COMPLETE.
  - 9 REMOVE EXISTING ACT AND GRID COMPLETE.
  - 10 EXISTING CEILING GRID TO REMAIN. REMOVE EXIST CEILING TILES COMPLETE.
  - 11 REMOVE EXISTING LIGHT FIXTURES COMPLETE.
  - 12 REMOVE EXIST STOREFRONT DOORS, TRANSOM AND THRESHOLD COMPLETE.
  - 13 REMOVE EXIST STOREFRONT FRAMING AND GLAZING COMPLETE.
  - 14 REMOVE EXIST CONCRETE LANDING AND STAIRS COMPLETE. REFER TO STRUCTURAL DWGS.
  - 15 REMOVE EXISTING TOILET FIXTURES OR ACCESSORIES NOT IN COMPLIANCE WITH CURRENT HANDICAPPED CODES OR ADA LAWS.
  - 16 FOR REMOVAL AND/OR RELOCATION OF EXISTING ELECTRICAL PANELS AND TRANSFORMER SEE ELECTRICAL SHEETS.
  - 17 (COORDINATE WITH FAMILY DOLLAR) REMOVE EXISTING CHECKOUT COUNTERS, FLOOR FIXTURES, WALL FIXTURE, AND SHELVING COMPLETE.
  - 18 REMOVE PORTION OF EXISTING BRICK VENEER AND METAL STUDS WALL AS INDICATED FOR INSTALLATION OF DOOR IN NEW WORK. REFER TO STRUCTURAL DRAWINGS.



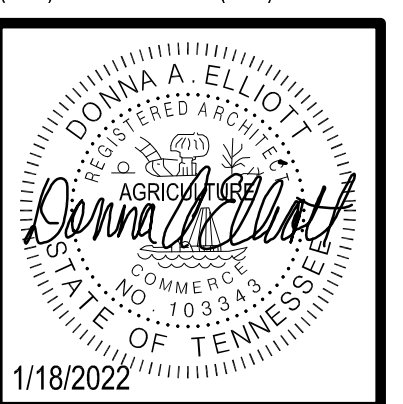
**DEMOLITION PLAN**  
 SCALE: 1/8" = 1'-0"  


mark	date	by	description

date	project	designed	drawn	checked	DNE
1-18-2022	2106-03	CSY	CSY		



**RMM ARCHITECTS, PC**  
 1317 Executive Blvd, Suite 200  
 Chesapeake, VA 23320  
 (757)622-2828 | fax (757)622-6883



1/18/2022

**FAMILY DOLLAR**  
 503 TENNESSEE AVENUE NORTH, DEAL #806621  
 PARSONS: TENNESSEE  
 DEMOLITION PLAN

project drawing

sheet

**D1**

### WALL CONSTRUCTION TYPES

- 1 EXTERIOR DEMISING WALL: EXISTING BRICK, METAL STUD AND GWB. PATCH AND REPAIR TO LIKE NEW CONDITION. SEE DETAIL 3/A4. FINISH PER FINISH SCHEDULE, SHEET A4.
- 2 PARTITION WALL: 6" (20 GA) METAL STUDS @ 16" OC WITH ONE LAYER 5/8" GWB EACH SIDE TO ROOF DECK. SEE DETAIL 7/A4. FINISH PER FINISH SCHEDULE, SHEET A4.
- 3 PARTITION WALL: EXISTING METAL STUD AND GWB PARTITION. PATCH AND REPAIR TO LIKE NEW CONDITION. SEE DETAIL 4/A4. FINISH PER FINISH SCHEDULE, SHEET A4.
- 4 INFILL PARTITION: 3 5/8" (20 GA) METAL STUDS @ 12" OC WITH ONE LAYER 5/8" GWB ON EXPOSED SIDE. ALIGN EXIST ADJACENT SURFACES. FINISH PER FINISH SCHEDULE, SHEET A4.
- 5 EXTERIOR DEMISING WALL: EXISTING PRE-ENGINEERED METAL BUILDING WALL WITH INTERIOR GWB. PATCH AND REPAIR WALL AS REQUIRED. FINISH PER FINISH SCHEDULE, THIS SHEET.
- 6 EXTERIOR DEMISING WALL: EXISTING BRICK, METAL STUD AND GWB. PATCH AND REPAIR AS REQUIRED.

### FAMILY DOLLAR GENERAL NOTES

#### KEY BOX NOTE:

G.C. SHALL PROVIDE KEY BOX FOR LOCK ACCESS DURING PUNCH-OUT AND TURN-OVER. COMBINATION MUST MATCH LAST FOUR DIGITS OF STORE NUMBER.

DESIGNER NOTE: GC TO PROVIDE EYE BOLT EMBEDDED 12" MIN. INTO TOP OF LOADING AREA BOLLARD WITH DIAMETER SIZED FOR KEY LOCK BOX.

#### KNOX BOX NOTE:

IF A KNOX BOX ENTRY SYSTEM IS REQUIRED BY THE CODES GOVERNING THE CONSTRUCTION OF THE PROJECT, PROVIDE RECESSED KNOX BOX PROVIDED BY THE GC PRIOR TO THE COMPLETION OF THE PROJECT. LOCATE PER LOCAL CODE REQUIREMENTS. KNOX BOX CONTACT - 866-625-4563

#### CERTIFICATE OF OCCUPANCY

G.C. IS RESPONSIBLE FOR THE "CERTIFICATE OF OCCUPANCY". CERTIFICATE TO BE FRAMED AND MOUNTED IN THE MANAGERS OFFICE. IF MUNICIPALITY DOES NOT ISSUE A CoO, IT IS THE RESPONSIBILITY OF THE G.C. TO GET A LETTER FROM THE MUNICIPALITY STATING AS SUCH ON CITY/COUNTY LETTERHEAD AND THAT LETTER IS TO BE FRAMED AND MOUNTED IN MANAGER'S OFFICE.

#### SIGN FOR GROUND UP STORES SIGN FOR IN-LINE STORES



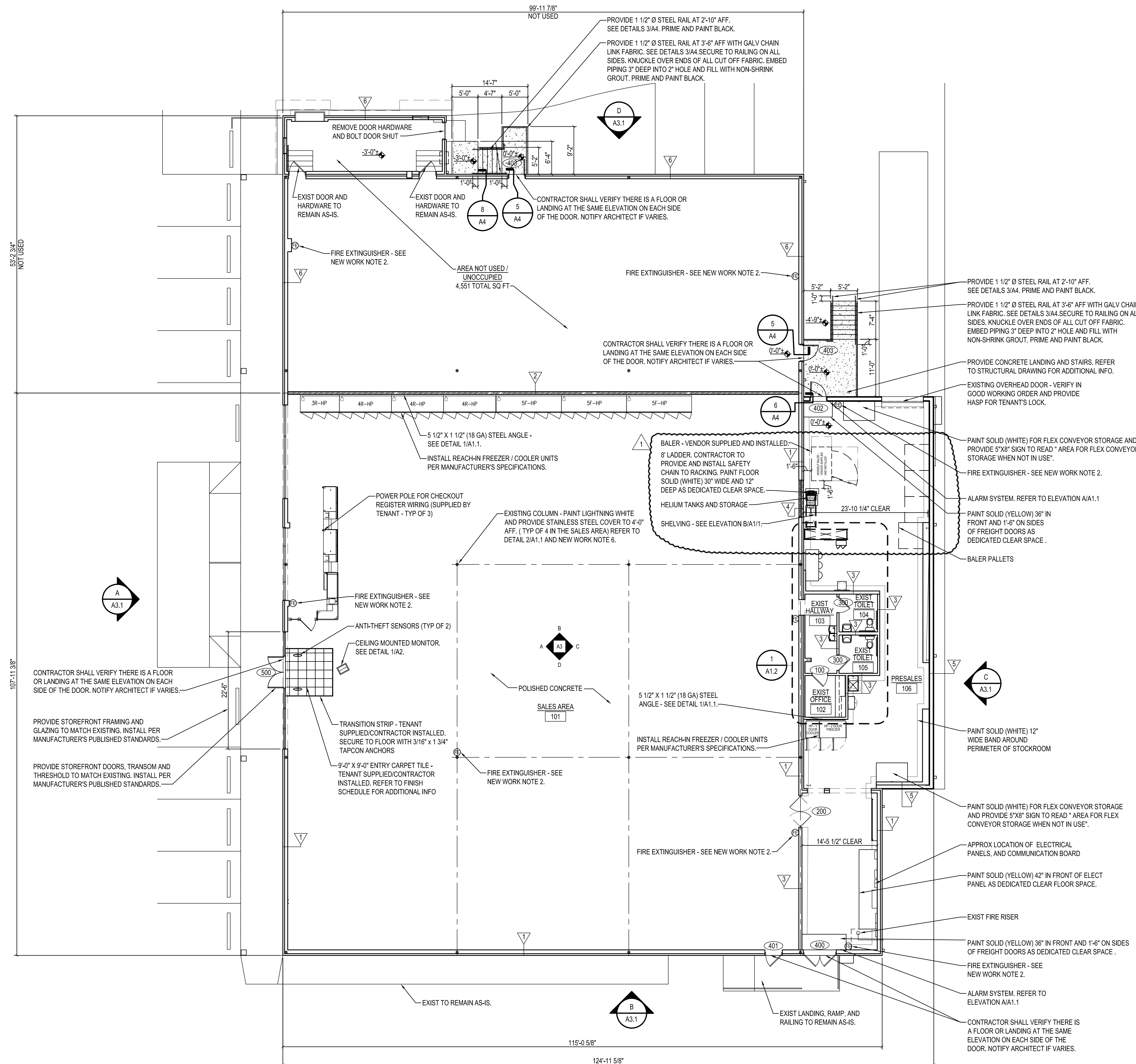
#### SMOKE FREE NOTE: PROVIDE SIGNAGE AT EVERY ENTRY POINT ON EXTERIOR WALL INTO THE BUILDING PER THE GROUND UP OR IN-LINE STORE TYPE ABOVE. SIGNS MUST BE 10"x7" IN SIZE. THE MATERIAL IS PREFERRED TO BE ALUMINUM. SIGNS MAY BE FOUND AT WWW.compliancesigns.com

#### HIGH PILED STORAGE NOTE:

NO HIGH PILED STORAGE, AS DEFINED BY THE CODES GOVERNING THE JURISDICTION IN WHICH THE PROJECT IS CONSTRUCTED, SHALL BE ALLOWED.

#### FREEZER / COOLER NOTE:

ALL REACH-IN FREEZER / COOLER UNITS ARE SELF CONTAINED. REFER TO SHEET DS1 FOR SPECIFICATION.



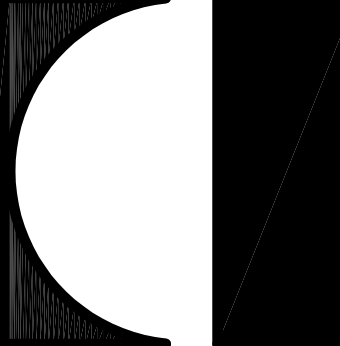
### FLOOR PLAN

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



mark	revisions	date	by	description
1		1-20-2022	CSY	TEANM CHANGES

date	project	designed	drawn	checked	DNE
1-18-2022	2100573	CSY	CSY		



**RMM ARCHITECTS, PC**  
1317 Executive Blvd, Suite 200  
Chesapeake, VA 23320  
(757)622-2828 | fax (757)622-6883



project  
drawing  
sheet

**FAMILY DOLLAR**  
503 TENNESSEE AVENUE NORTH, DEAL #805621  
PARSONS, TENNESSEE  
FLOOR PLAN AND WALL CONSTRUCTION TYPES

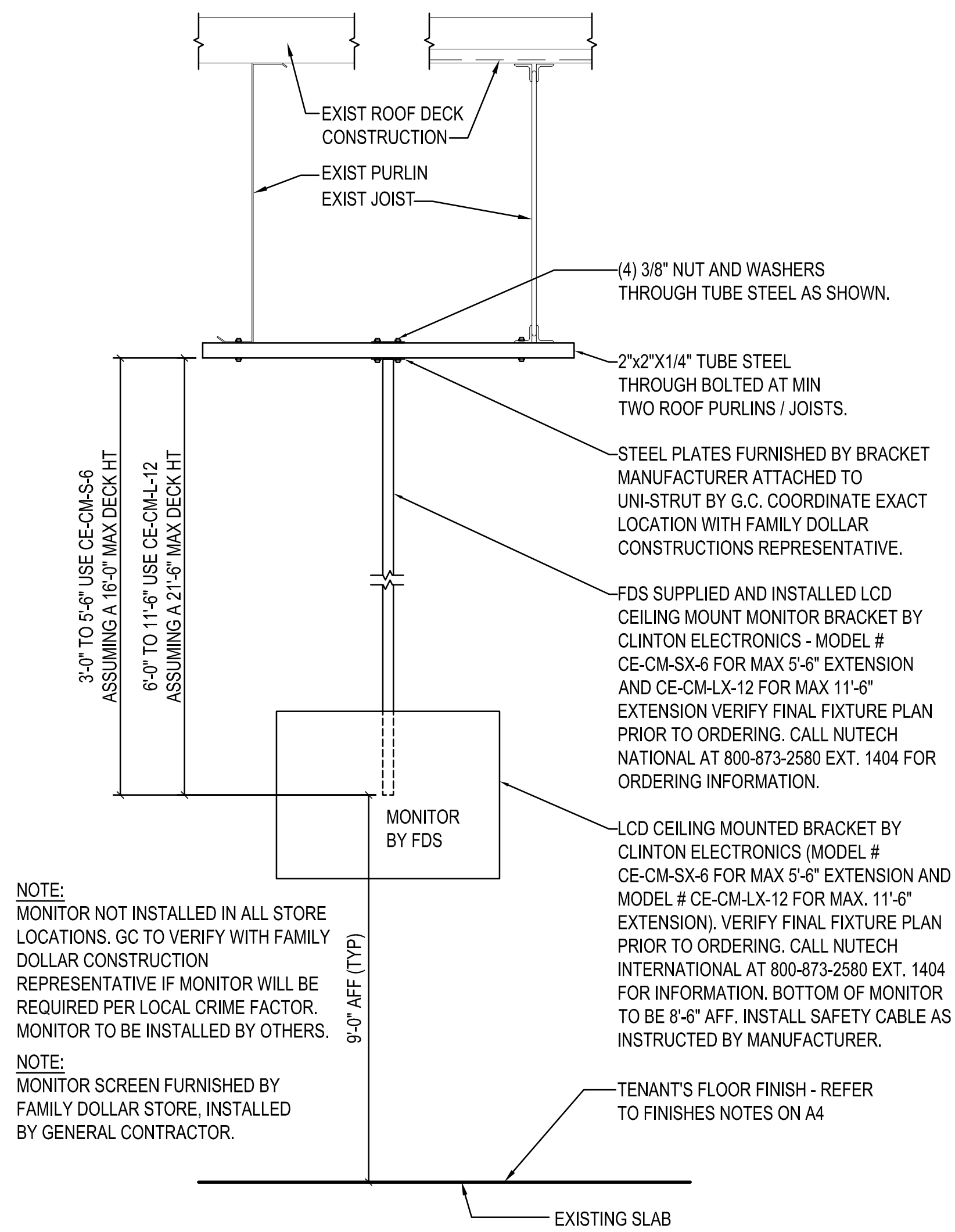
project  
drawing  
sheet

sheet

A1







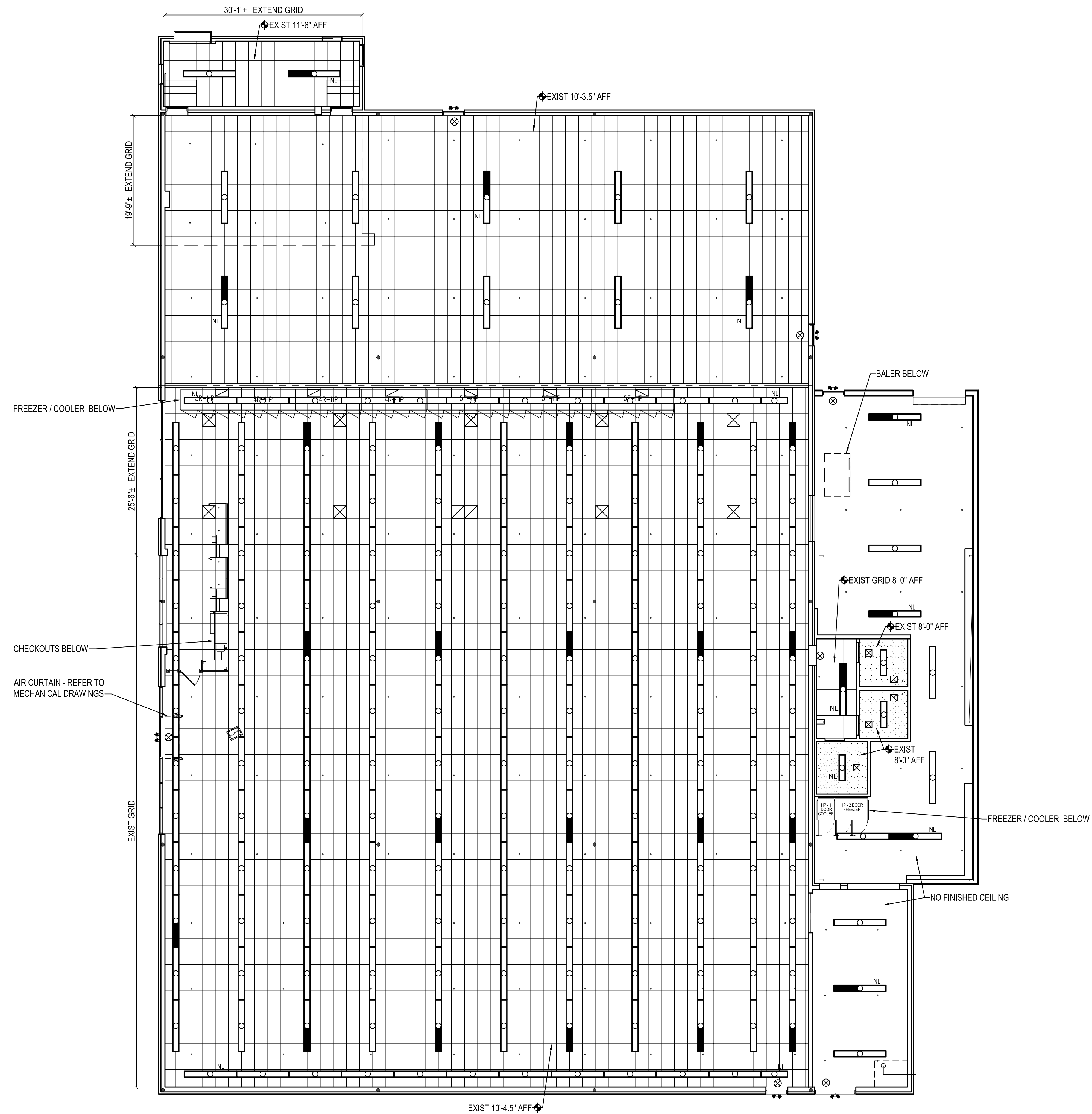
NOTE:  
MONITOR NOT INSTALLED IN ALL STORE LOCATIONS. GC TO VERIFY WITH FAMILY DOLLAR CONSTRUCTION REPRESENTATIVE IF MONITOR WILL BE REQUIRED PER LOCAL CRIME FACTOR. MONITOR TO BE INSTALLED BY OTHERS.

NOTE:  
MONITOR SCREEN FURNISHED BY FAMILY DOLLAR STORE, INSTALLED BY GENERAL CONTRACTOR.

**1** MONITOR DETAIL  
SCALE: 1" = 1'-0"

- NOTE: 1. THE ELECTRICIAN SHALL INSTALL ADDITIONAL #12 WIRE TIE SUPPORTS FROM THE CEILING GRID TO THE STRUCTURE ABOVE FOR SUPPORT OF THE LIGHT FIXTURES CLIPPED ON THE GRID.  
NOTE: 2. LIGHT FIXTURES ARE TENANT SUPPLIED / CONTRACTOR INSTALLED.  
NOTE: 3. MOUNT LIGHTS 10'-0" AFF IN STOCKROOM.

REFLECTED CEILING LEGEND	
	2'-0"X4'-0" ACOUSTICAL CEILING TILE AND GRID- SEE FINISH NOTE 4.
	EXIST GWB - PAINT WHITE UNLESS OTHERWISE NOTED.
	8'-0" STRIP LED LIGHT FIXTURE WITH LAMPS ON NIGHT LIGHT CIRCUIT. SURFACE MOUNT TO GWB AND ACT CEILING.
	8'-0" STRIP LED LIGHT FIXTURE. SURFACE MOUNT TO GWB AND ACT CEILING.
	8'-0" STRIP LED LIGHT FIXTURE WITH LAMPS ON EMERGENCY LIGHT CIRCUIT WITH BATTERY PACK. SURFACE MOUNT TO GWB AND ACT CEILING. FOR FIXTURES WITH 4 LAMPS, THE EMERGENCY BATTERY PACK WILL ONLY OPERATE 2 OF THE LAMPS.
	4'-0" STRIP LED LIGHT FIXTURE WITH LAMPS ON NIGHT LIGHT CIRCUIT. SURFACE MOUNT TO TO GWB AND ACT CEILING.
	4'-0" STRIP LED LIGHT FIXTURE. SURFACE MOUNT TO ACT AND GWB CEILING.
	4'-0" STRIP LED LIGHT FIXTURE WITH LAMPS ON EMERGENCY LIGHT CIRCUIT WITH BATTERY PACK. SURFACE MOUNT TO TO GWB AND ACT CEILING.
	EXIT LIGHT
	VENTILATION FAN
	DIFFUSER
	RETURN AIR GRILLE
	POWER POLE
	EMERGENCY LIGHT FIXTURE
	SECURITY MONITOR



**REFLECTED CEILING PLAN**  
SCALE: 1/8" = 1'-0"



date	project	designed	drawn	checked
1-18-2022	2100573	CSY	CSY	DNE

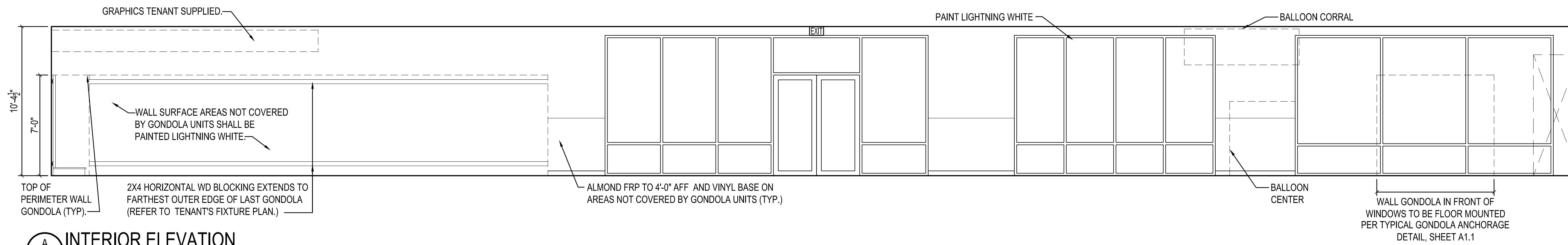
  

mark	revisions
1	1-20-2022 date
CSY	1-20-2022 date
CSY	description

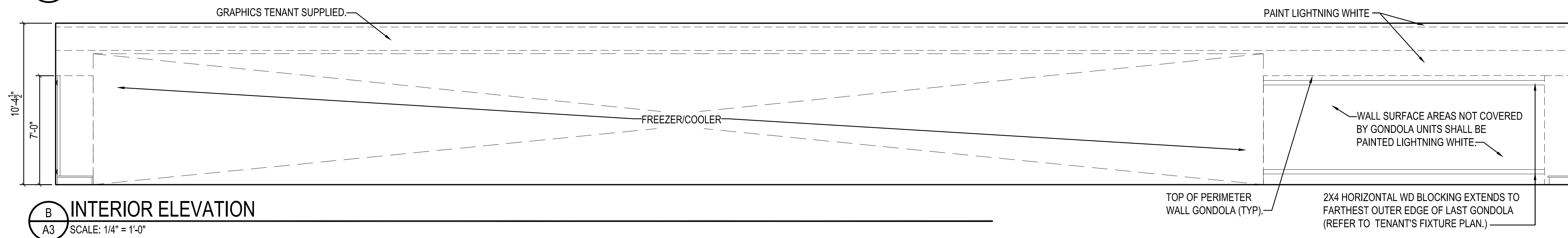
**RRMM ARCHITECTS, PC**  
1317 Executive Blvd, Suite 200  
Chesapeake, VA 23320  
(757) 622-2828 / fax (757) 622-6883

1/18/2022

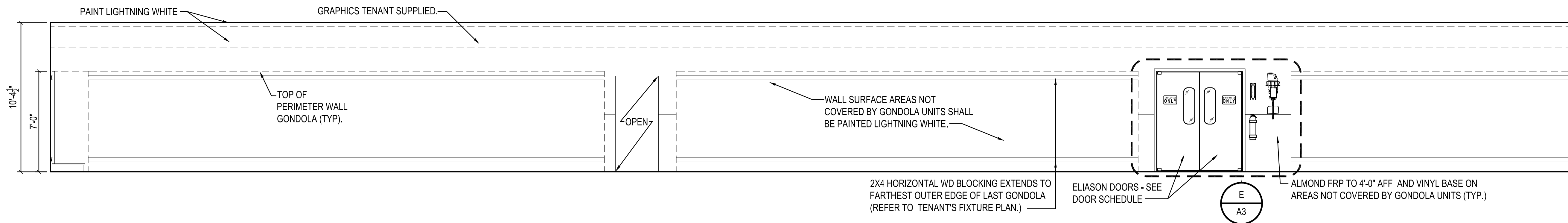
**FAMILY DOLLAR**  
503 TENNESSEE AVENUE NORTH, DEAL #805621  
PARSONS, TENNESSEE  
REFLECTED CEILING PLAN AND LEGEND



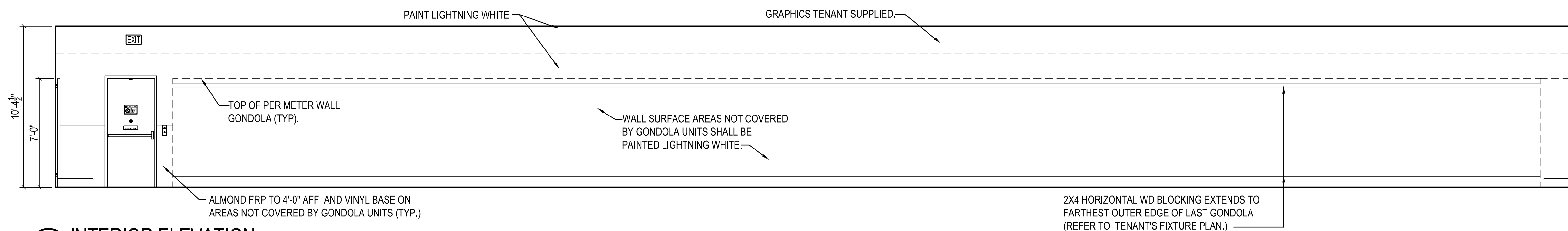
**A** INTERIOR ELEVATION  
A3 SCALE: 1/4" = 1'-0"



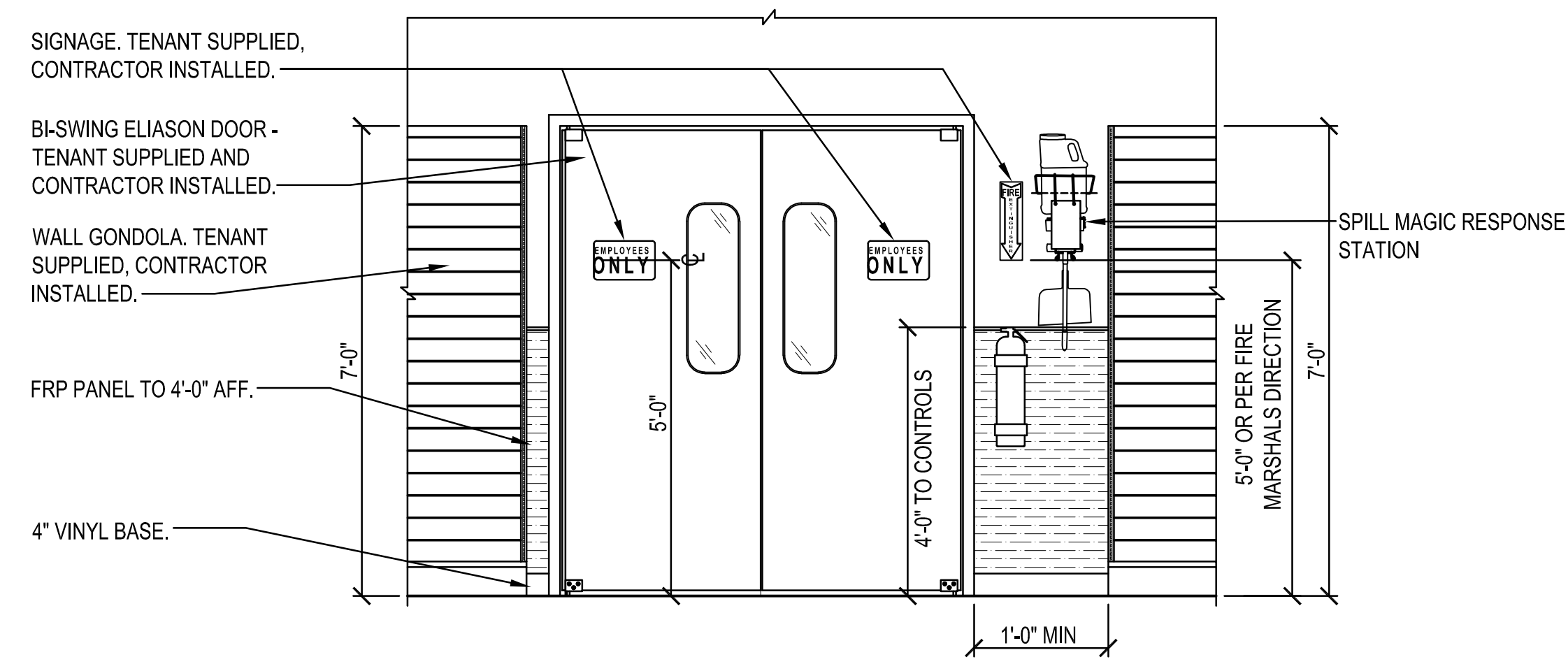
**B** INTERIOR ELEVATION  
A3 SCALE: 1/4" = 1'-0"



**C** INTERIOR ELEVATION  
A3 SCALE: 1/4" = 1'-0"



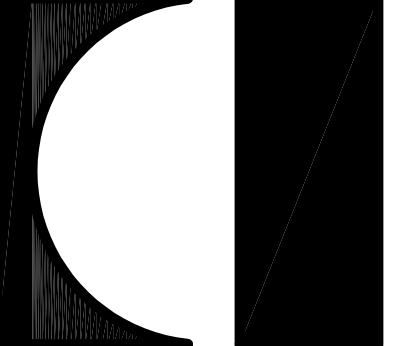
**D** INTERIOR ELEVATION  
A3 SCALE: 1/4" = 1'-0"



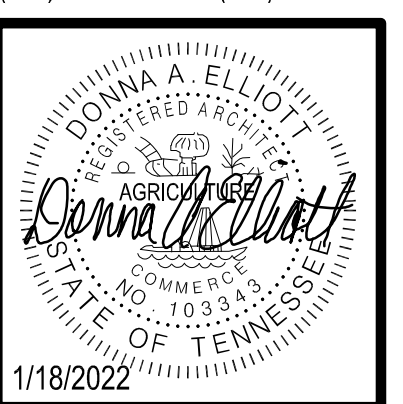
**E** SALES / STOCKROOM ELIASON DOOR ELEVATION  
A3 SCALE: 1/2" = 1'-0"

mark	date	by	description

date	project	designed	drawn	checked
1-18-2022	2106273	CSY	CSY	DNE



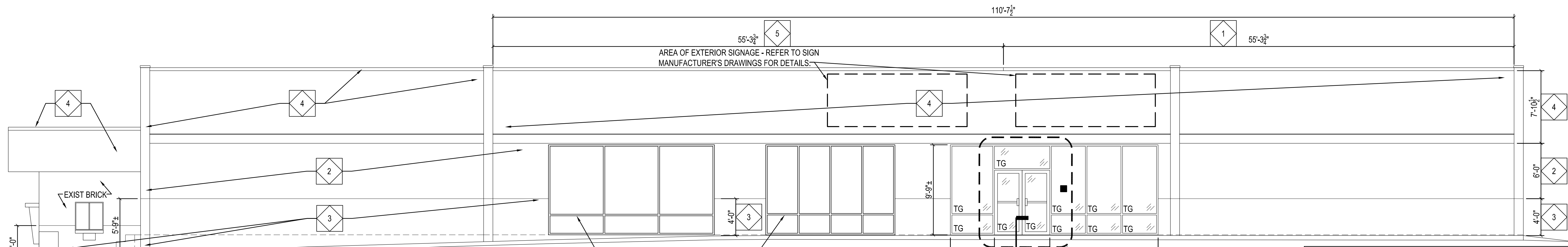
**RRMM ARCHITECTS, PC**  
1317 Executive Blvd, Suite 200  
Chesapeake, VA 23320  
(757)622-2828 | fax (757)622-6883



**FAMILY & POLAR**  
503 TENNESSEE AVENUE NORTH, DEAL #806621  
PARSONS, TENNESSEE  
INTERIOR ELEVATIONS

project sheet drawing

sheet  
**A3**



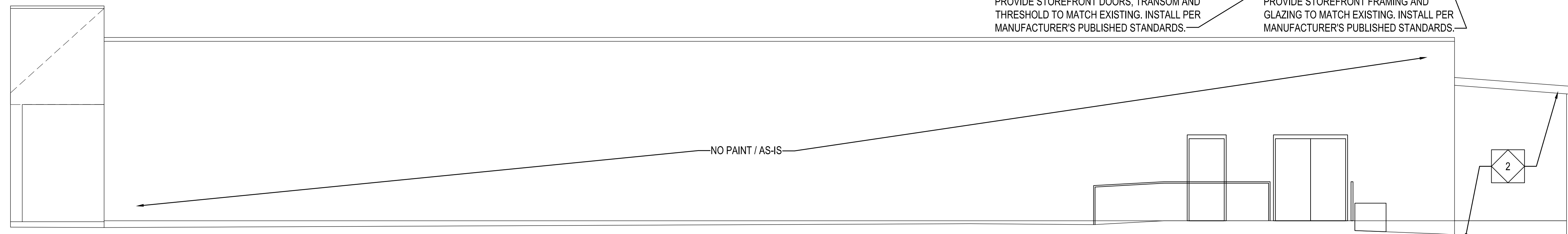
**A** EXTERIOR ELEVATION  
A3.1 SCALE: 3/16" = 1'-0"

NOTE: SIGNS, LOCATION, NUMBER AND SIZE ARE NOT APPROVED UNDER THIS BUILDING PERMIT. A SEPARATE SIGN LOCATION PERMIT IS REQUIRED FOR EACH SIGN.

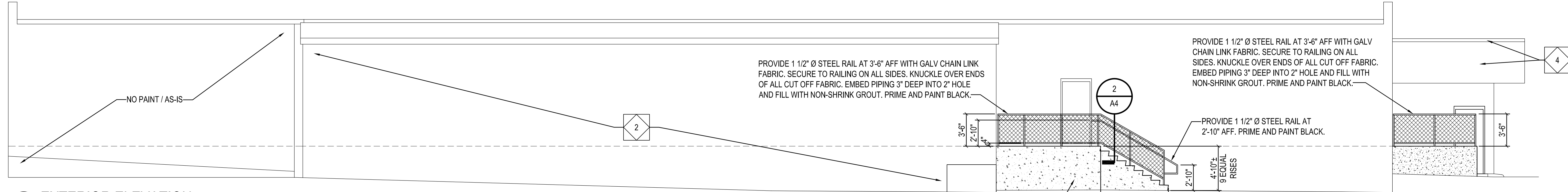
NOTES: CONTRACTOR SHALL REMOVE AND DISPOSE OF ANY AND ALL PREVIOUS TENANT'S EXTERIOR SIGNAGE LEFT BEHIND. ALL EXISTING MATERIALS TO REMAIN WHICH ARE DAMAGED OR OTHERWISE DISTURBED BY REMOVAL OF PREVIOUS TENANT SIGNAGE SHALL BE PATCHED OR REPAIRED AND PAINTED TO MATCH EXISTING ADJACENT MATERIALS SO THAT THE REPAIR IS IMPERCEPTIBLE. CONTRACTORS SHALL NOT INCLUDE THIS SCOPE OF WORK IN THEIR BID AND WILL BE HANDLED VIA CHANGE ORDER AFTER SITE EVALUATION IS DONE BY WINNING BIDDER. CONTRACTOR SHALL FORWARD THE EVALUATION AND PRICE QUOTE TO THE CONSTRUCTION PM FOR APPROVAL PRIOR TO PERFORMING ANY AND ALL WORK.

PAINT FACADE PER COLORS NOTED: CONTACT FAMILY DOLLAR CONSTRUCTION PM. PRIOR TO PAINTING.

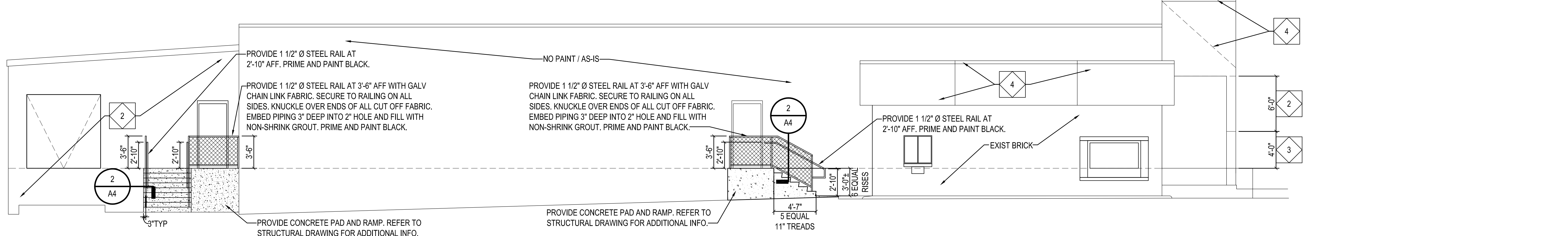
1	PAINT: SHERWIN WILLIAMS "SAFETY RED" SW#4081 - SATIN FINISH	3	PAINT: SHERWIN WILLIAMS "VIRTUAL TAUPE" SW#7039 - SATIN FINISH	5	PAINT: SHERWIN WILLIAMS "ENVY" LRV 18% #2032.10 - SATIN FINISH
2	PAINT: SHERWIN WILLIAMS "BALANCED BEIGE" SW#7037 - SATIN FINISH	4	PAINT: SHERWIN WILLIAMS "AESTHETIC WHITE" SW#7035 - SATIN FINISH		



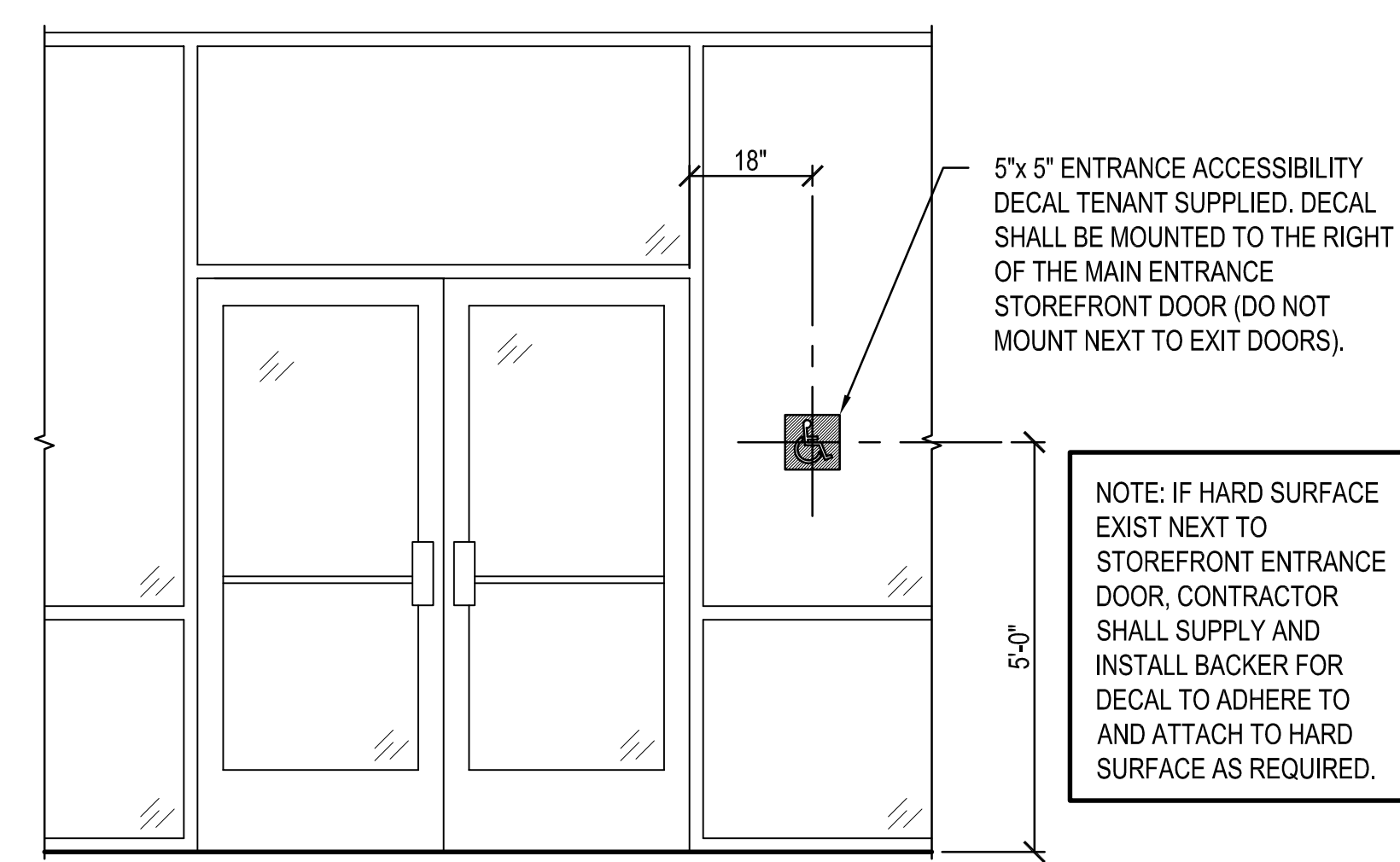
**B** EXTERIOR ELEVATION  
A3.1 SCALE: 3/16" = 1'-0"



**C** EXTERIOR ELEVATION  
A3.1 SCALE: 3/16" = 1'-0"



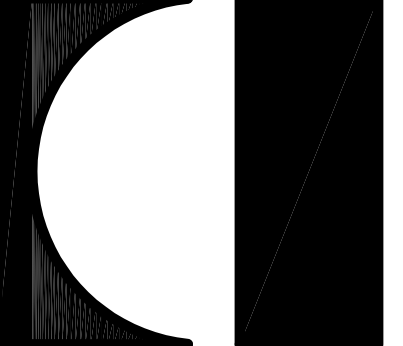
**D** EXTERIOR ELEVATION  
A3.1 SCALE: 3/16" = 1'-0"



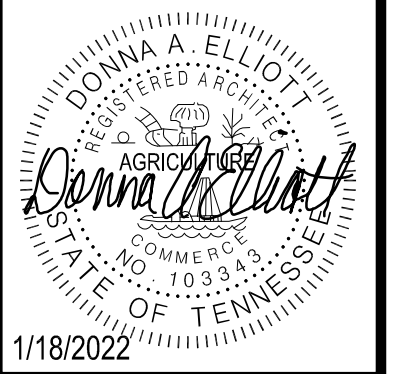
**E** ACCESSIBILITY DECAL AT STOREFRONT ENTRANCE  
A3.1 SCALE: 1/2" = 1'-0"

mark	revisions	by	date	description

date	project	designed	drawn	checked
1-18-2022	2108/03	CSY	CSY	DNE



**RRMM ARCHITECTS, PC**  
1317 Executive Blvd, Suite 200  
Chesapeake, VA 23320  
(757) 622-2828 | fax (757) 622-6883



1/18/2022

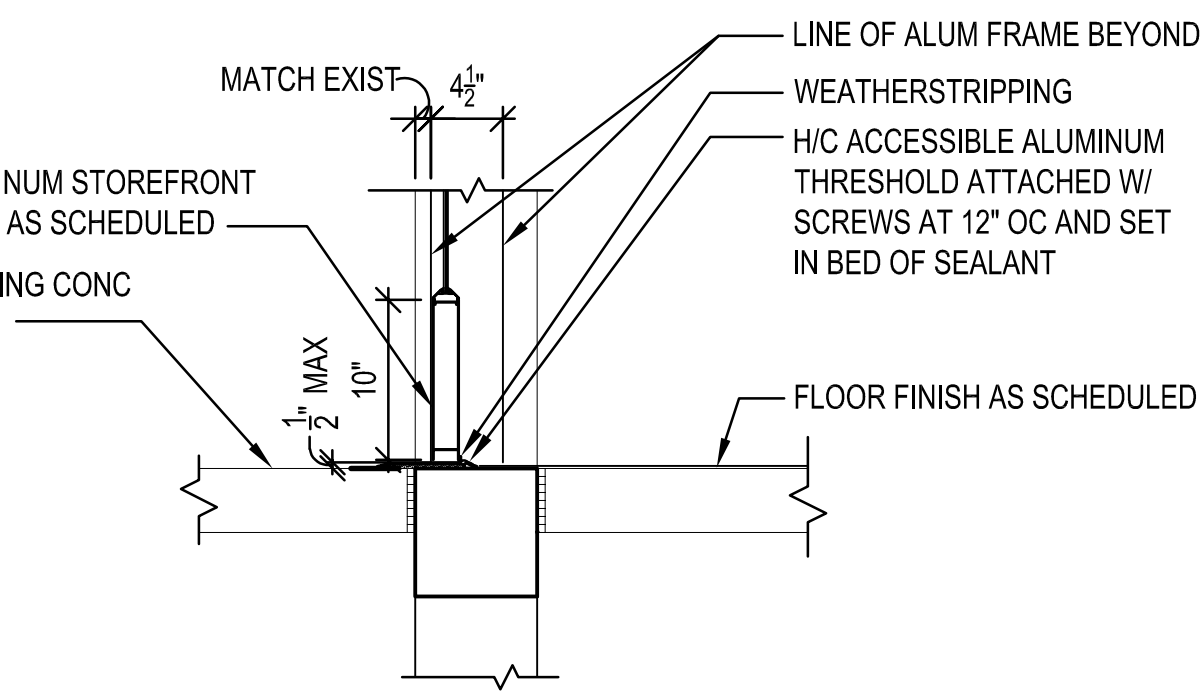
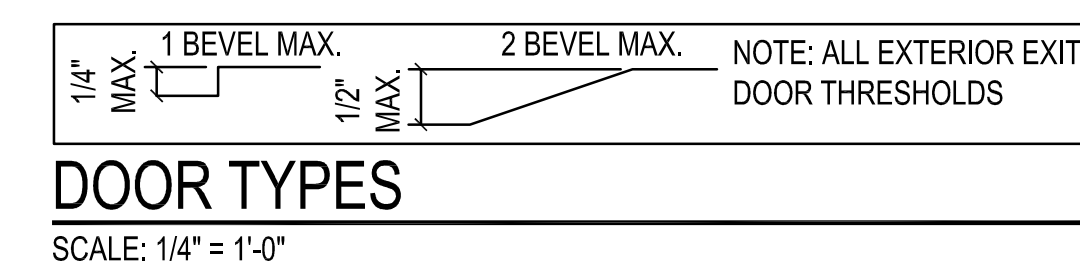
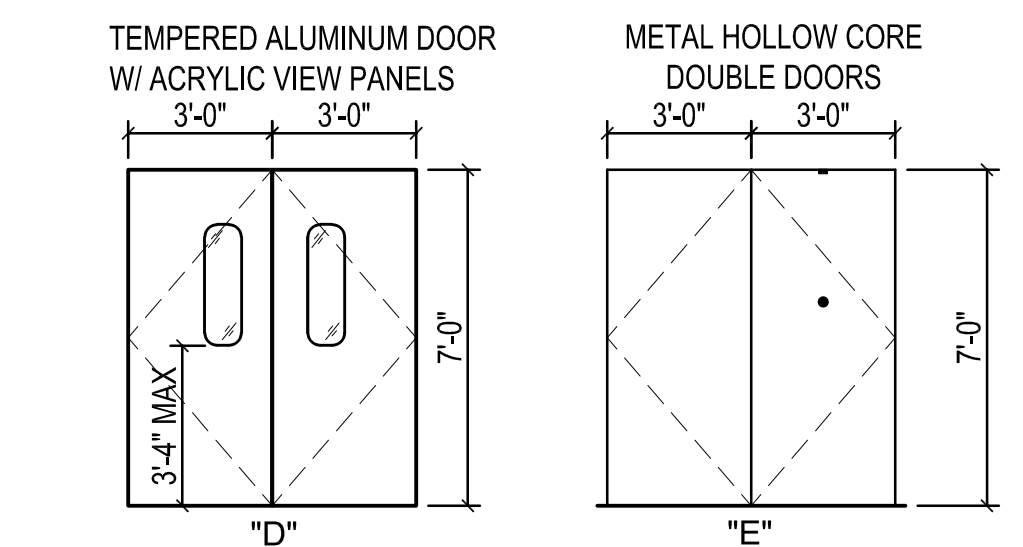
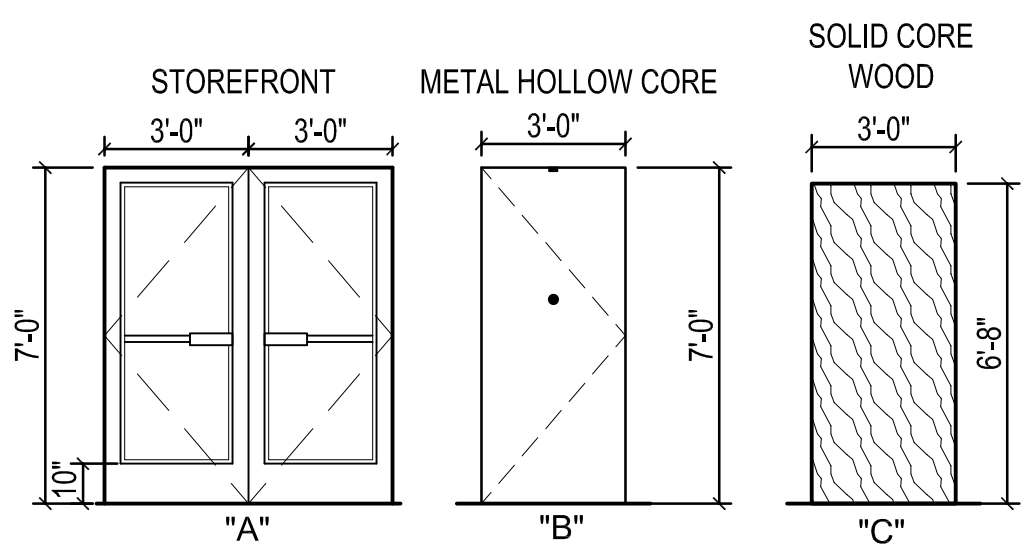
**FAMILY DOLLAR**  
503 TENNESSEE AVENUE NORTH, DEAL #806621  
PARSONS, TENNESSEE  
EXTERIOR ELEVATIONS

project drawing

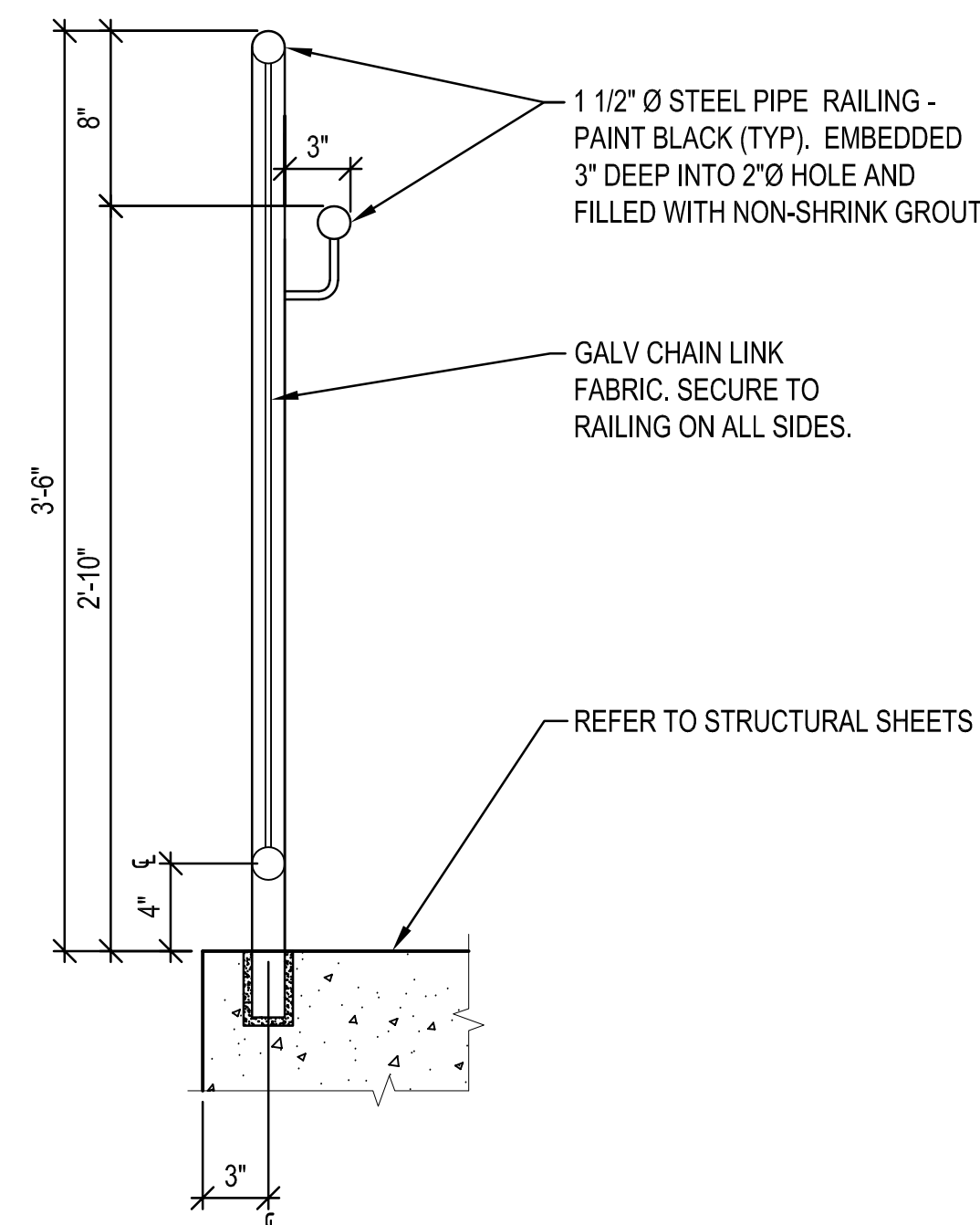
sheet

A3.1

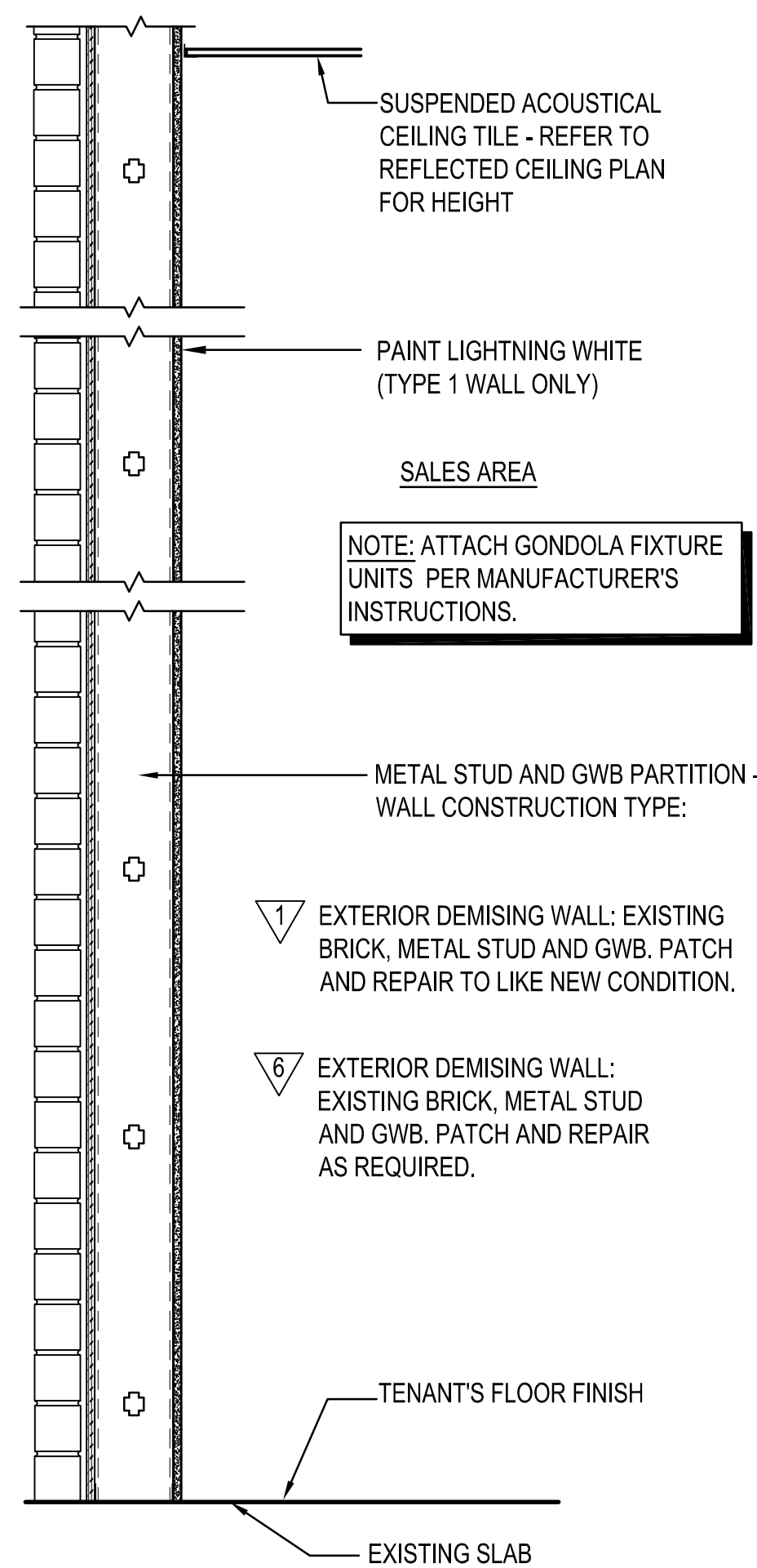




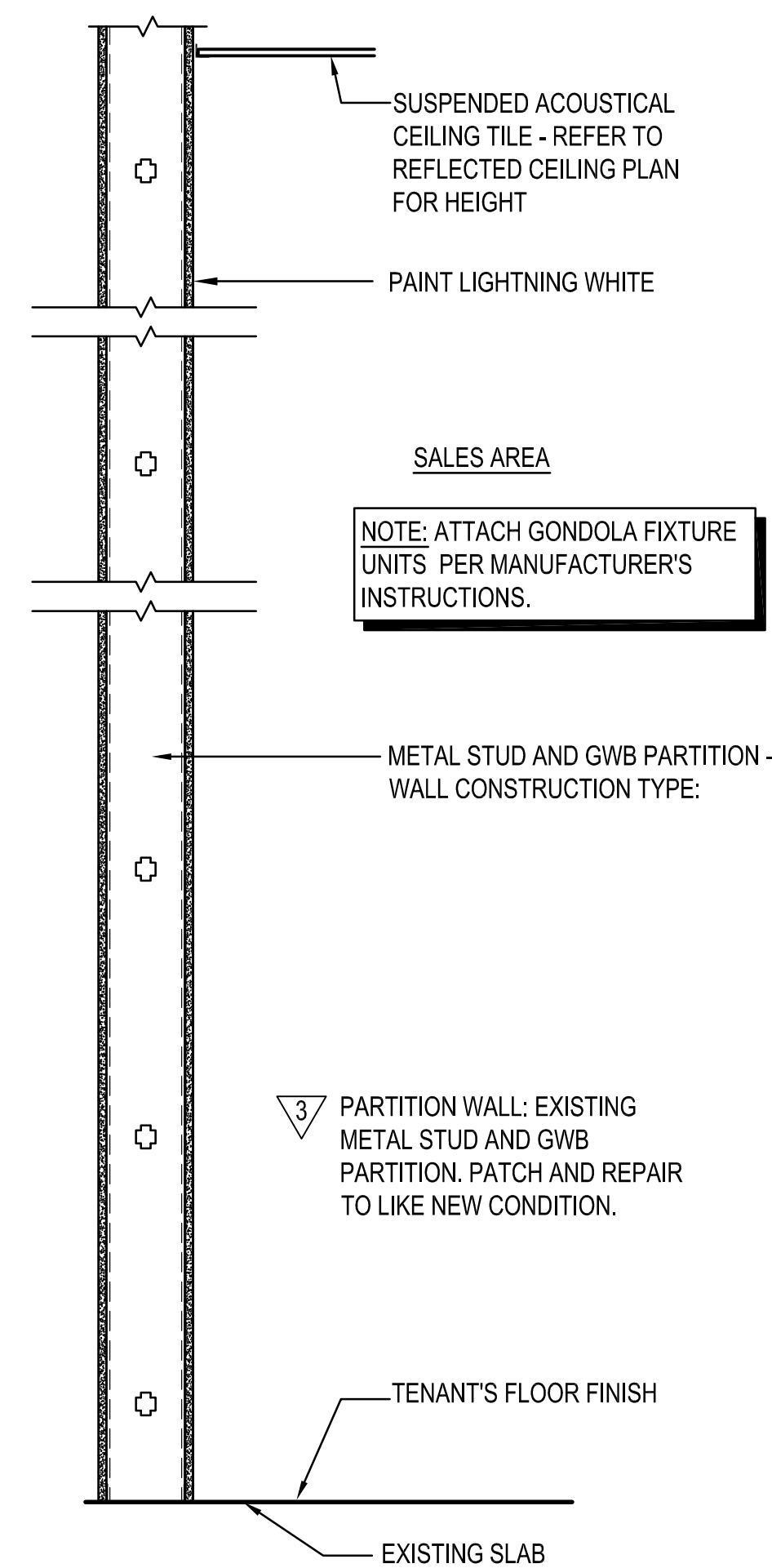
1 SILL DETAIL AT STOREFRONT DOOR SCALE: 1/4" = 1'-0"



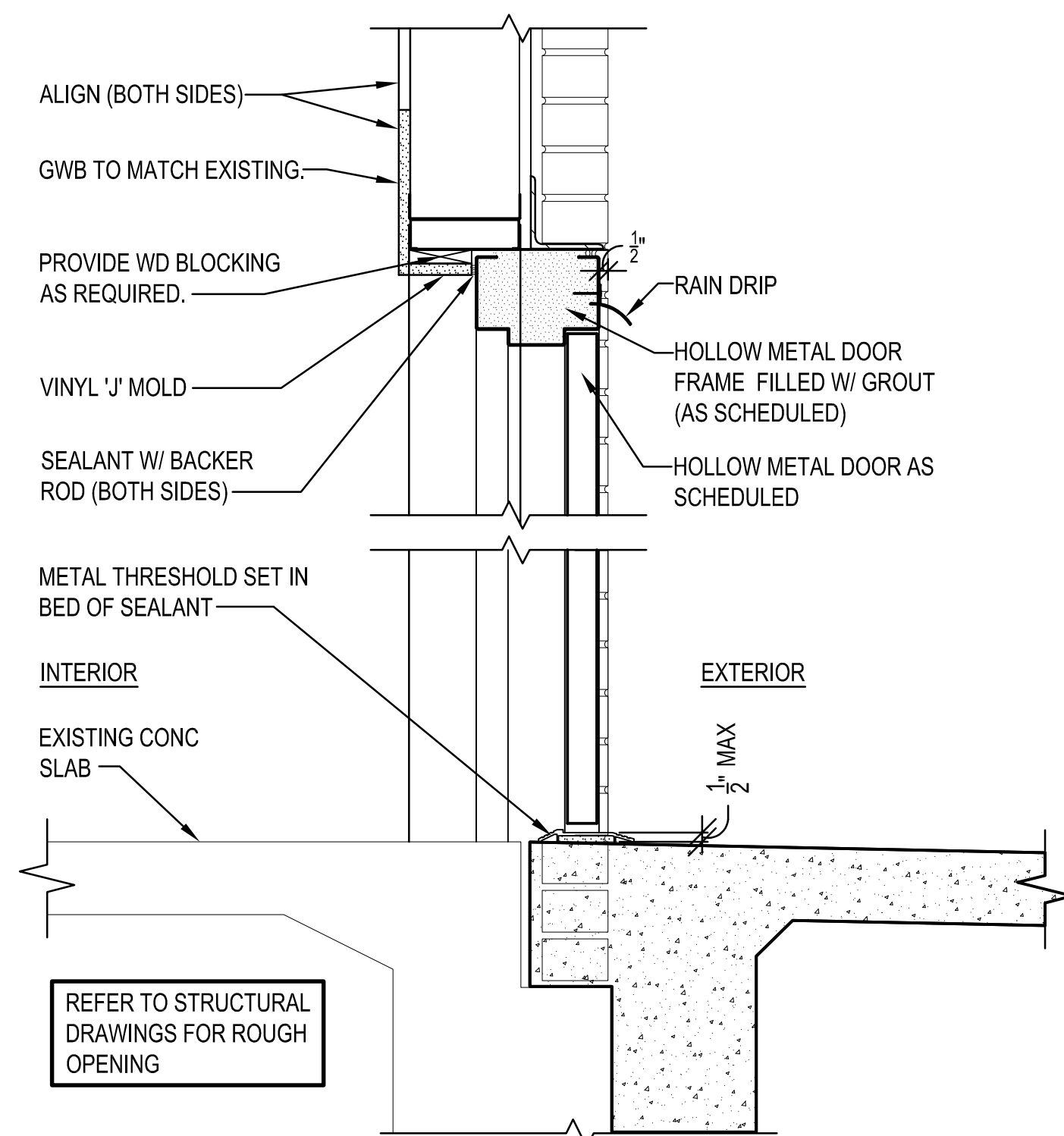
2 RAIL DETAIL SCALE: 1 1/2" = 1'-0"



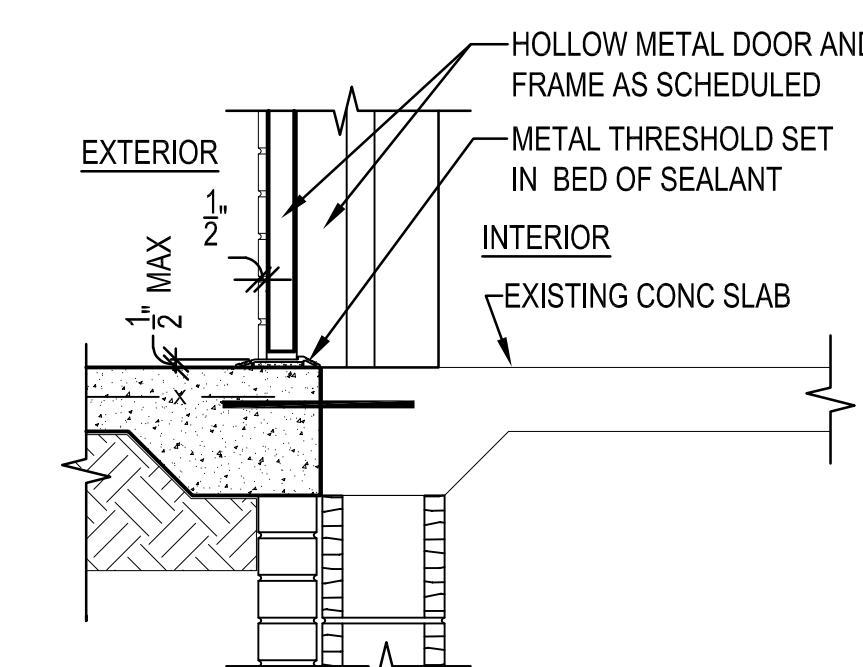
3 WALL SECTION - CONSTRUCTION TYPE: 1 & 6 SCALE: 1" = 1'-0"



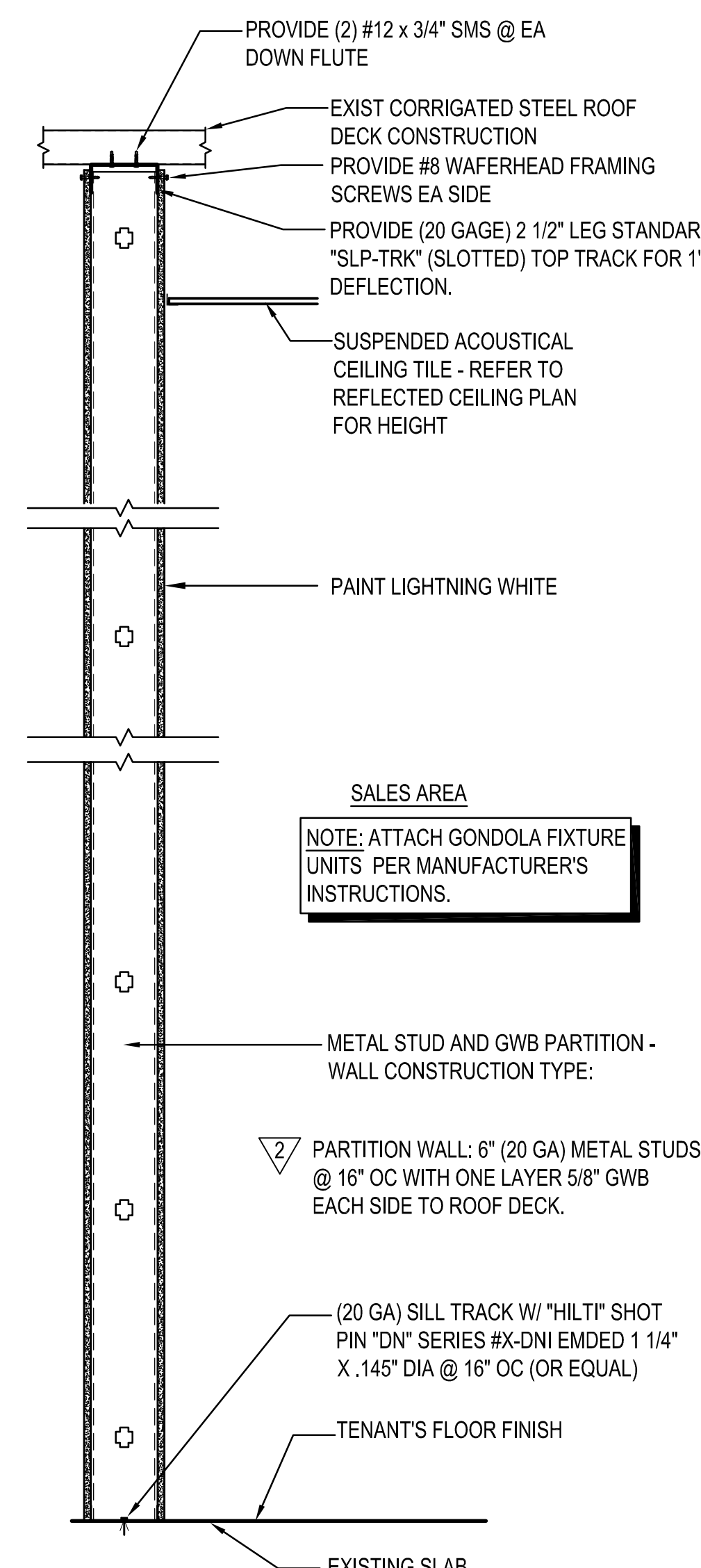
4 WALL SECTION - CONSTRUCTION TYPE: 3 SCALE: 1" = 1'-0"



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



6 SILL AT REAR DOOR SCALE: 1" = 1'-0"



7 WALL SECTION - CONSTRUCTION TYPE: 2 SCALE: 1" = 1'-0"

DOOR SCHEDULE

#	DOORS			MATERIAL	DETAILS				FR	HDW NOTES	DOOR NOTES
	W	H	T		TYPE	HEAD	JAMB	SILL			
100	3'-0"	8'-8"	1 3/4"	EXIST SC WOOD	C	-	-	-		100A	3.5,14
200	PR 3'-0"	7'-0"	.063"	EXIST TP. ALUM ALLOY	D	-	-	-		200A	2.3,5.7,10,12
300	3'-0"	6'-8"	1 3/4"	EXIST SC WOOD	C	-	-	-		300C	3.5,6.9,14
400	PR 3'-0"	7'-0"	1 3/4"	EXIST HOLLOW METAL	E	-	-	-		400A	3.4,5.8
401	3'-0"	7'-0"	1 3/4"	EXIST HOLLOW METAL	B	-	-	-		400C	3.4,5.8,11
402	3'-0"	7'-0"	1 3/4"	HOLLOW METAL	B	-	-	6/A4		400C	4.5,8,11
403	3'-0"	7'-0"	1 3/4"	HOLLOW METAL	B	5/A4	2/S2.0	5/A4		400G	4.8,11
500	PR 3'-0"	7'-0"	1 3/4"	ALUM & GLASS	A	-	-	1/A4		500A	1,3,8,13

DOOR NOTES

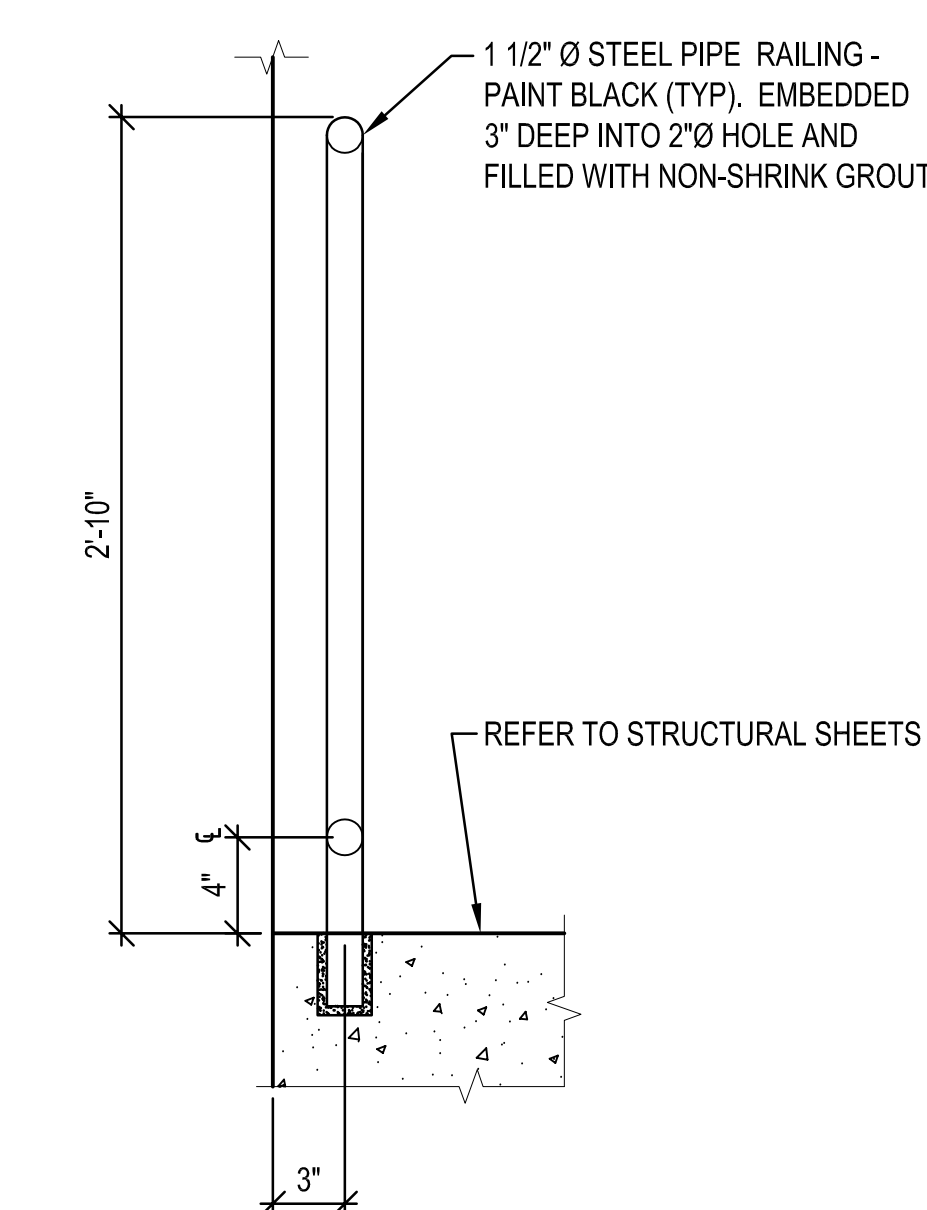
- PROVIDE A SIGN POSTED ON THE EGRESS SIDE, ON OR ADJACENT TO THE DOOR STATING: "THIS DOOR TO REMAIN UNLOCKED WHEN BUILDING IS OCCUPIED." THE SIGN SHALL BE IN LETTERS 1" HIGH ON A CONTRASTING BACKGROUND.
- NEW DOORS - SUPPLIED BY TENANT - ELIASON BI-SWING DOORS W/ WINDOW.
- DOOR, FRAME AND HINGES ARE EXISTING. PROVIDE AND INSTALL ANY MISSING ITEMS OF HARDWARE PER HARDWARE NOTES.
- PROVIDE (ONE) PEEP HOLE TO VIEW OUT. MOUNT @ 4'-3" AFF.
- PAINT DOOR AND FRAME W/ WHITE SEMI-GLOSS ENAMEL PAINT.
- INSTALL TENANT SUPPLIED SIGNAGE PER ELEVATION G/A1.2
- REINFORCE JAMBS WITH WOOD BLOCKING.
- CONTRACTOR TO PROVIDE AND INSTALL DOOR SWEEP ON ALL EXTERIOR DOORS TO PREVENT WATER, WIND AND DEBRIS INFILTRATION.
- MOUNT TENANT SUPPLIED COAT HOOK AT 48" AFF. ON BACK SIDE OF DOOR.
- PAINT DOOR FRAME WHITE WITH SEMI-GLOSS ENAMEL PAINT. DOOR TO REMAIN WITH ORIGINAL FINISH.
- PROVIDE SIGNAGE THAT READS "EMERGENCY EXIT ONLY."
- PROVIDE SIGNAGE THAT READS "EMPLOYEES ONLY."
- PROVIDE NYLON WASHER/GROMMETS AT THE DOOR HANDLES AND CRASH BARS TO PREVENT METAL ON METAL CONTACT.
- ALL DOOR FRAME, CASED OPENING AND HARDWARE MATERIAL WILL BE SUPPLIED BY TENANT. GC IS RESPONSIBLE FOR INSTALLATION.

GENERAL HARDWARE NOTES

- THRESHOLDS AT EGRESS DOORS SHALL BE NO MORE THAN 1/2" (MAX) HEIGHT AFF.
- ALL DOOR HANDLES, PULLS, LATCHES, LOCKS AND OTHER OPERATING DEVICES SHALL BE INSTALLED 34" (MIN) TO 44" (MAX) AFF AND SHALL BE "SINGLE-HANDED" OPERABLE WITHOUT USE OF KEY OR SPECIAL KNOWLEDGE.
- WHERE EGRESS DOORS ARE USED IN PAIRS, THE UNLATCHING OF THE LEAF SHALL NOT REQUIRE MORE THAN ONE (1) OPERATION AS MENTIONED IN GENERAL HARDWARE NOTE #2 ABOVE.
- CONTROLS AND OPERATING MECHANISMS SHALL BE LEVER-TYPE (OR EQUAL) PROVIDING OPERATION WITH ONE HAND AND NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST.
- THE FORCE REQUIRED TO ACTIVATE CONTROLS OF INTERIOR HINGED DOORS SHALL BE NO GREATER THAN 5 POUNDS (22.2 N).
- DOORS EQUIPPED WITH CLOSERS SHALL BE ADJUSTED SO THAT THE SWEEP PERIOD FROM AN OPEN POSITION OF 70 DEGREES WILL TAKE AT LEAST 3 SECONDS TO MOVE TO A POINT 3" FROM THE LATCH, MEASURED FROM THE LEADING EDGE OF THE DOOR.

HARDWARE NOTES

- HDW # 100A  
1 1/2 PAIR HINGES: STANDARD WEIGHT  
1 MECHANICAL PUSH BUTTON LOCKSET WITH LEVER HANDLE  
1 CLOSER  
1 FLOOR STOP
- HDW # 200A  
LWP-3 ALUMINUM TRAFFIC DOOR  
EASY SWING HINGE SYSTEM  
9" X 30" CLEAR ACRYLIC WINDOW  
FLUSH HOLLOW METAL FRAME - DRYWALL
- HDW # 300C  
1 1/2 PAIR HINGES: STANDARD WEIGHT  
1 PRIVACY SET WITH LEVER HANDLE  
1 CLOSER  
(FLOOR/WALL STOP IF SHIPPED WITH HARDWARE)
- HDW # 400A  
3 PAIR HINGES: 4 1/2" HEAVY WEIGHT, NON-REMOVABLE PINS  
1 NON-ALARMED, NON-KEYED PANIC BAR DEVICE: WITH STAND ALONE ALARM REFER TO DOOR ALARM MOUNTING DETAIL  
2 OVERHEAD HOLDERS/STOPS  
2 FLUSH BOLTS (ON INACTIVE LEAF)  
1 DUST PROOF STRIKE  
1 PEEP HOLE  
1 ALUM THRESHOLD (1/2" MAX HEIGHT)  
1 WEATHER STRIP  
1 RAIN DRIP  
1 ASTRAGAL
- HDW # 400C  
1 1/2 PAIR HINGES: STANDARD WEIGHT, NON-REMOVABLE PINS  
1 NON-ALARMED, NON-KEYED PANIC BAR DEVICE: WITH STAND ALONE ALARM - REFER TO DOOR ALARM MOUNTING DETAIL.  
1 CLOSER WITH STOP ARM  
1 PEEP HOLE  
1 ALUM THRESHOLD (1/2" MAX HEIGHT)  
1 SWEEP  
1 WEATHER STRIP  
1 RAIN DRIP
- HDW # 400G  
1 1/2 PAIR HINGES: STANDARD WEIGHT, NON-REMOVABLE PINS  
1 NON-ALARMED, NON-KEYED PANIC BAR DEVICE W/ KEYPED EXTERIOR TRIM: WITH STAND ALONE ALARM. REFER TO DOOR ALARM MOUNTING DETAIL.  
1 CLOSER WITH STOP ARM  
1 PEEP HOLE  
1 ALUM THRESHOLD (1/2" MAX HEIGHT)  
1 SWEEP  
1 WEATHER STRIP  
1 RAIN DRIP
- HDW # 500A  
HINGES PER STOREFRONT MANUFACTURER (BY GENERAL CONTRACTOR)  
2 CLOSERS WITH STOP ARM AND DROP PLATE  
2 PUSH PLATES (BY GENERAL CONTRACTOR)  
2 PULL HANDLES (BY GENERAL CONTRACTOR)  
1 KABA CYLINDER (SUPPLIED BY TENANT)  
1 COMMERCIAL GRADE DEADLOCK W/ THUMB URN ON SALES SIDE (BY GENERAL CONTRACTOR)
- NOTE: CONTRACTOR SHALL VERIFY CLOSER DOES NOT HAVE A HOLD-OPEN FEATURE. IF CLOSER DOES, THE CONTRACTOR SHALL REPLACE WITH NEW CLOSER.



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

1-16-2022  
1-18-2022

project  
date

2/20/23  
project

designer  
date

CSY  
drawn

CSY  
checked

DNE

description  
by

mark  
date

revisions

**RMM ARCHITECTS, PC**  
1317 Executive Blvd, Suite 200  
Chesapeake, VA 23320  
(757) 622-2828 | fax (757) 622-6883

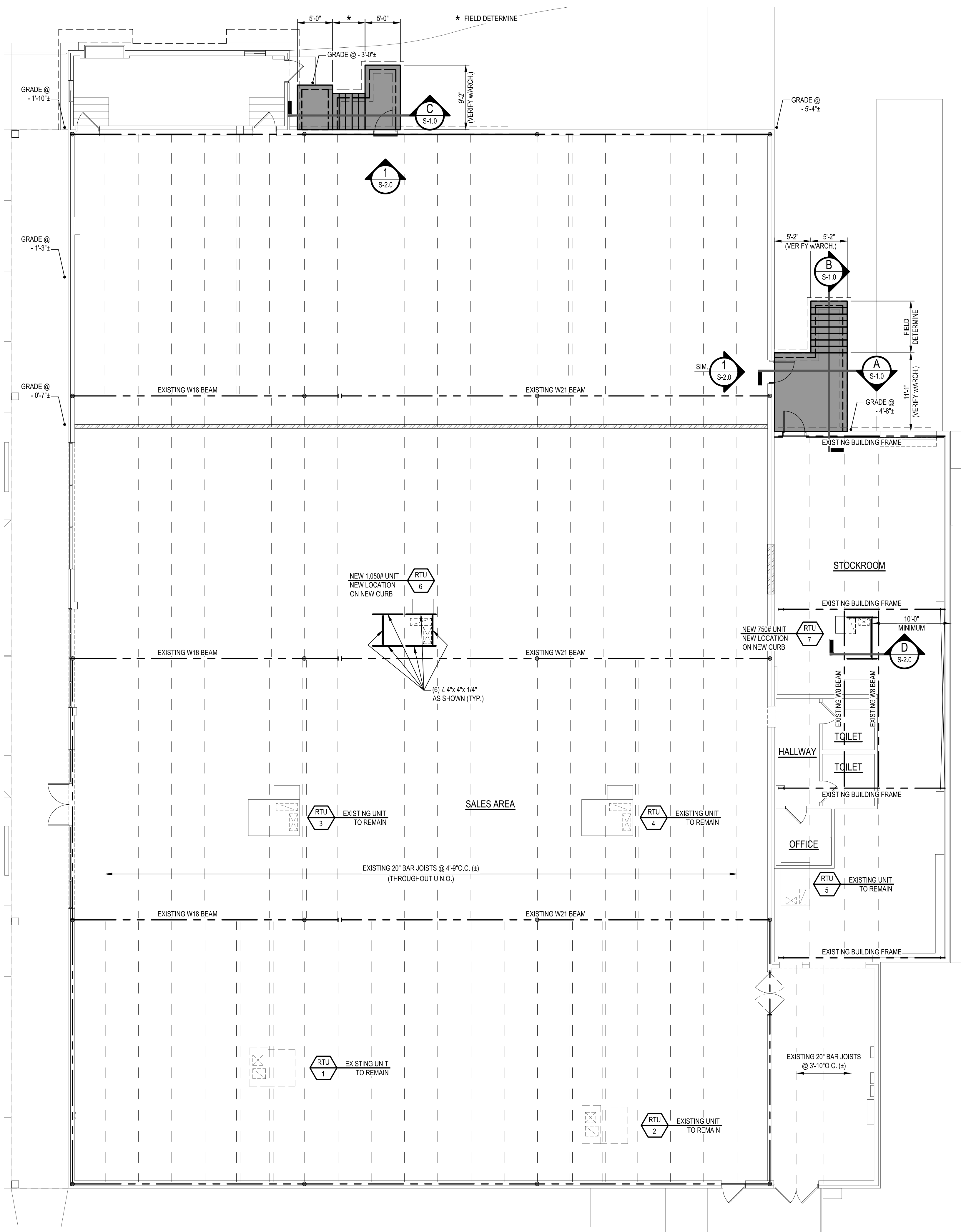
Donna A. Elliott  
REGISTERED ARCHITECT  
STATE OF TENNESSEE  
1/18/2022

**FAMILY & POLAR**  
503 TENNESSEE AVENUE NORTH, DEAL #805621  
PARSONS, TENNESSEE  
SCHEDULES, NOTES, DETAILS AND SECTIONS

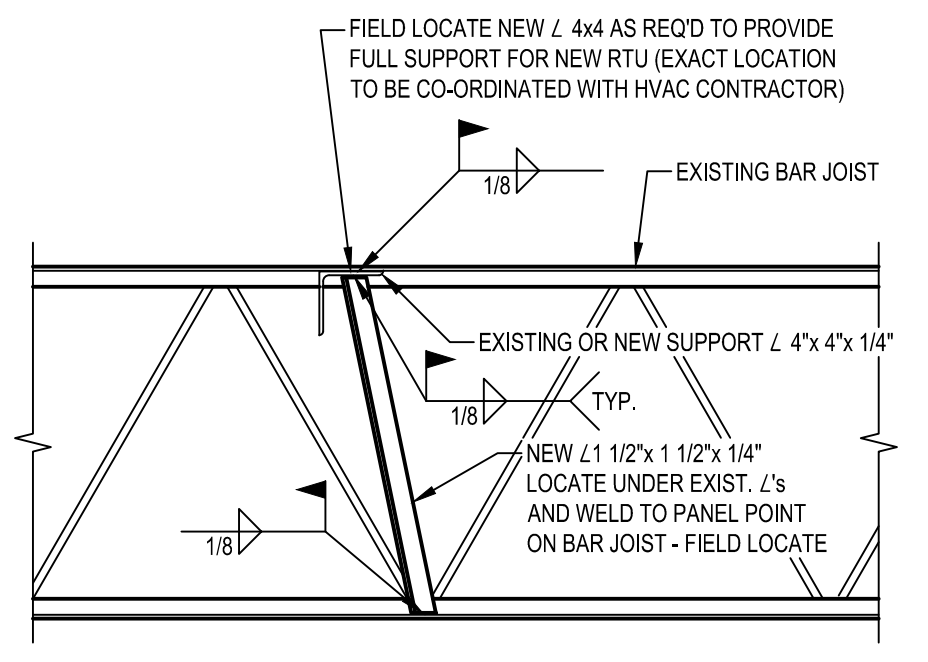
project  
drawing

sheet

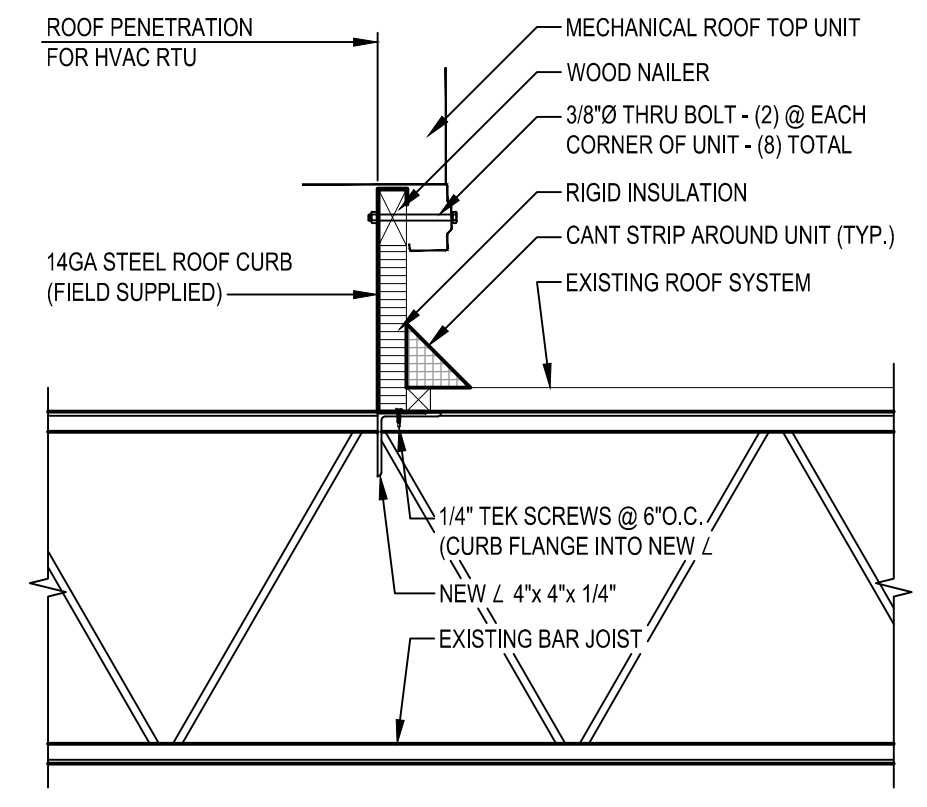
A4



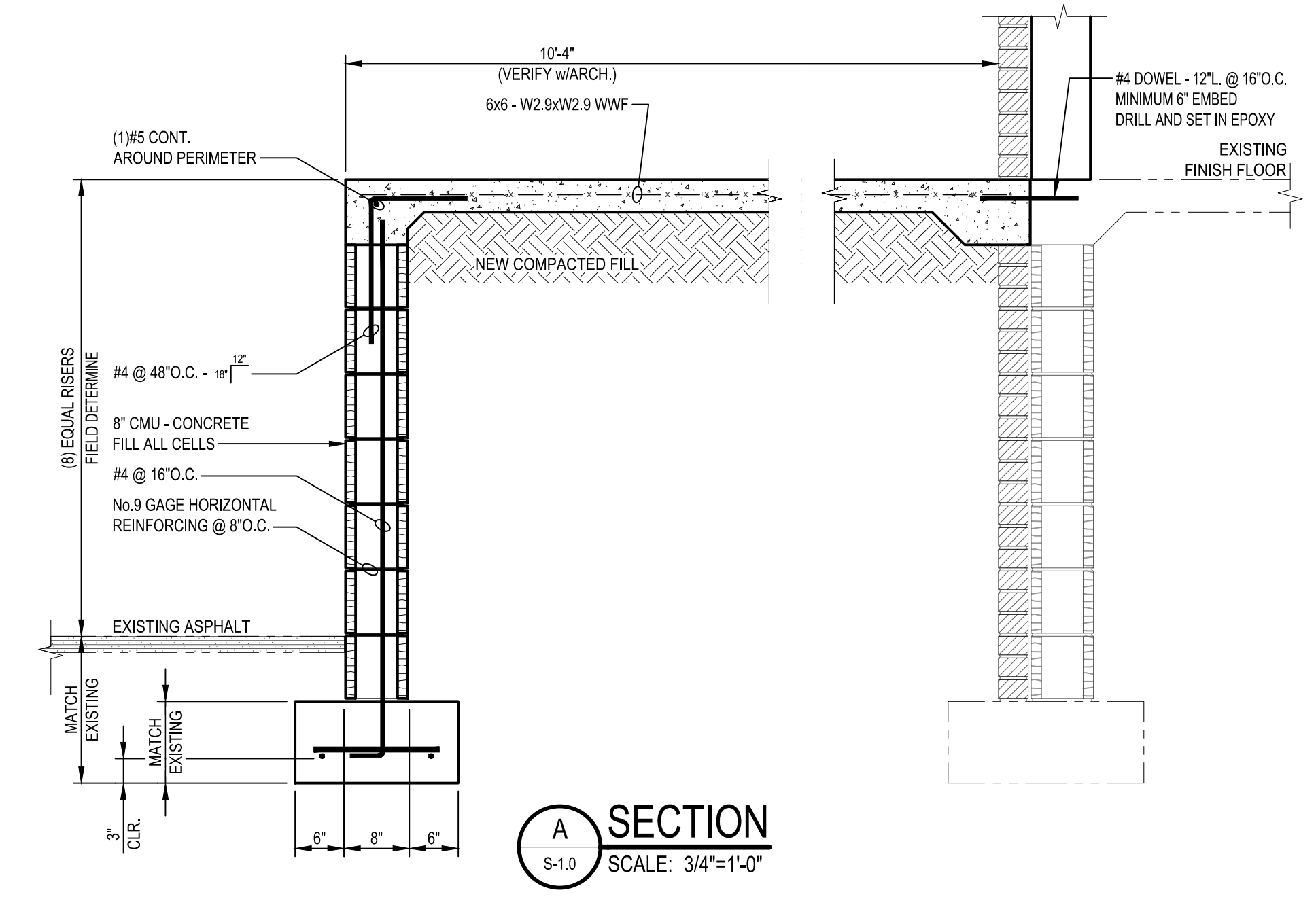
**EXISTING ROOF FRAMING PLAN  
w/STRUCTURAL MODIFICATIONS**  
SCALE: 1/8" = 1'-0"



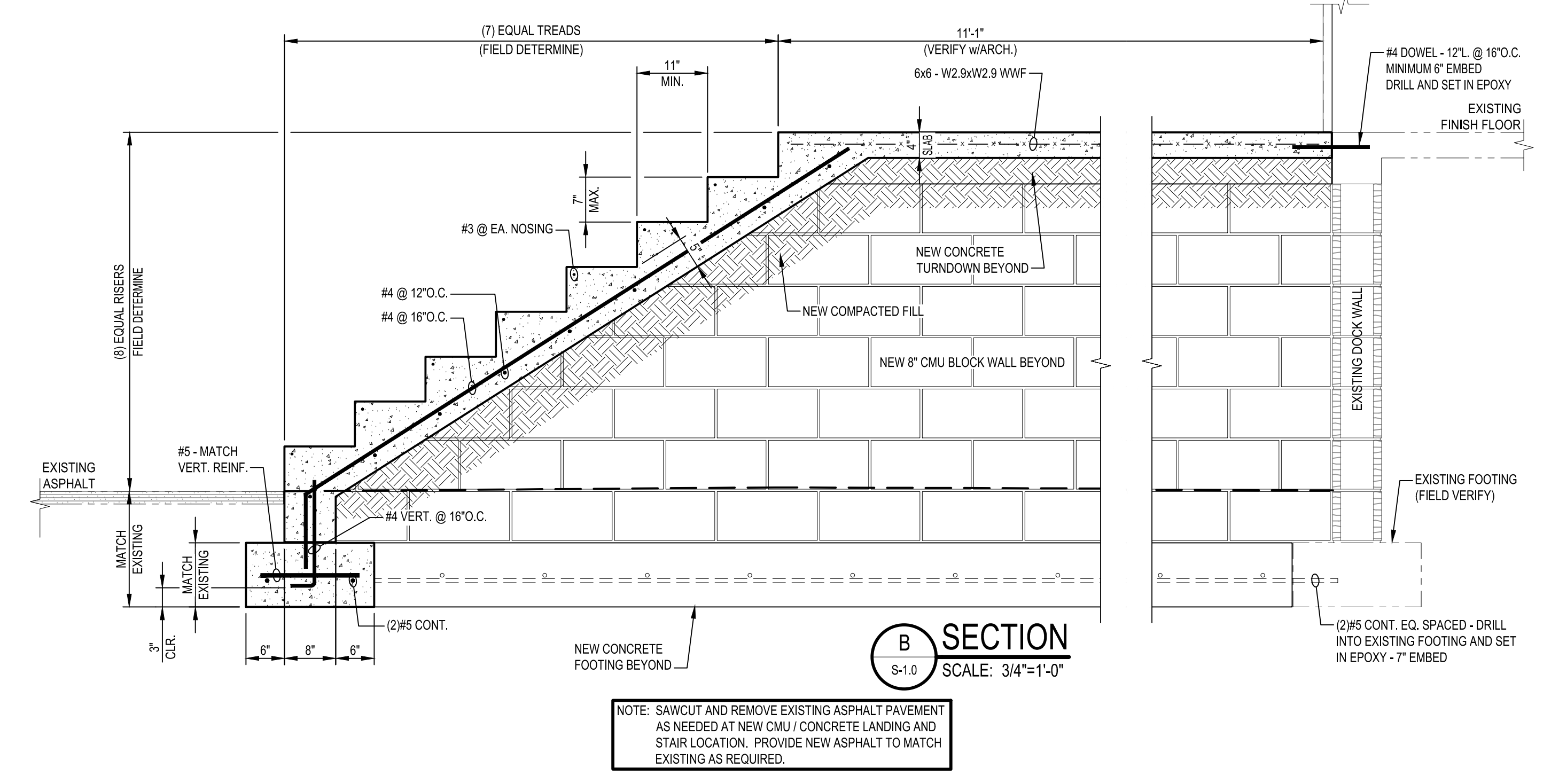
**BAR JOIST REINFORCEMENT  
AND HVAC SUPPORT (TYP.)**  
SCALE: 1"=1'-0" (AS REQ'D)



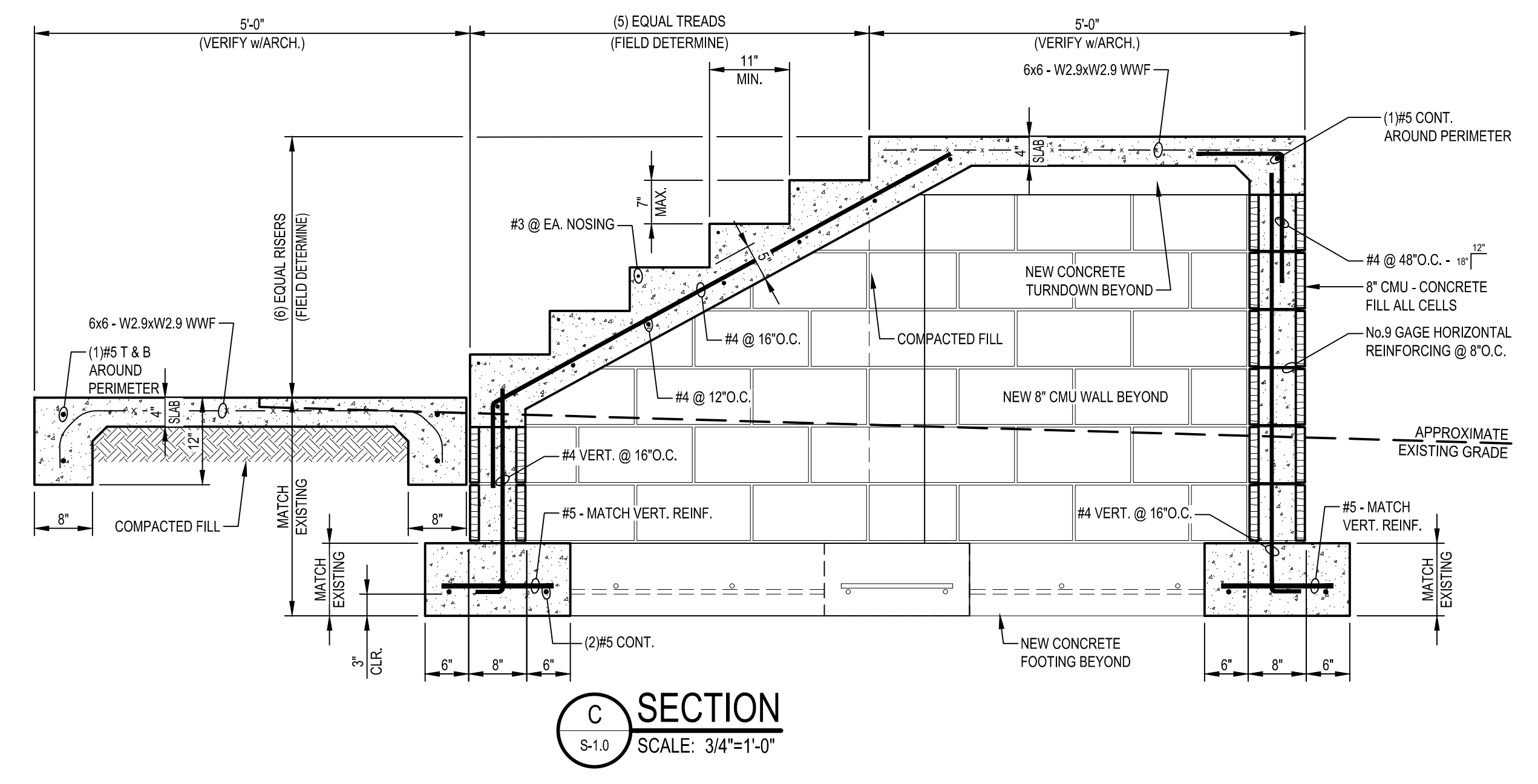
**NEW HVAC RTU TO  
NEW ROOF CURB**  
SCALE: 1"=1'-0"



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



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



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

- STRUCTURAL NOTES:**
- FIELD VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION.
  - COORDINATE ALL WORK WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
  - UPON COMPLETION OF DEMOLITION WORK, CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES IN ASSUMED CONDITIONS PRIOR TO MAKING ANY NEW STRUCTURAL MODIFICATIONS.
  - ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM A-36.
  - ALL WELDING SHALL BE PERFORMED IN ACCORDANCE WITH AWS AND SHALL BE PERFORMED BY AWS CERTIFIED WELDERS USING EPOXY RODS.
  - ALL WELDS SHALL BE INSPECTED BY AWS CERTIFIED WELDING INSPECTORS.
  - CONCRETE SHALL BE 3,000 PSI MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS.
  - REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60.
  - EPOXY SHALL BE SIKADUR HP MOD 32 OR EQUAL.
  - CONTRACTOR SHALL SUPPLY ROOF TOP UNIT CURBS OF APPROPRIATE DIMENSIONS AND PROVIDE NEW 4"x4"x1/4" MEMBERS TO ENSURE CURBS ARE FULLY SUPPORTED.
  - STRUCTURE DESIGN LOADS: 2018 INTERNATIONAL BUILDING CODE  
DL = ACTUAL LOAD  
WL = EXPOSURE "B" V<sub>WIND</sub> = 115 mph V<sub>ASD</sub> = 90 mph  
GROUND SNOW LOAD = 10 psf  
FROST DEPTH = 0'  
BUILDING OCCUPANCY CATEGORY I IMPORTANCE FACTOR 1.0 (I<sub>w</sub>)  
ENCLOSED BUILDING, INTERNAL PRESSURE COEFFICIENT +/- 0.18 (GCp)  
LL ROOF = 20 psf REDUCED AS ALLOWED BY CODE

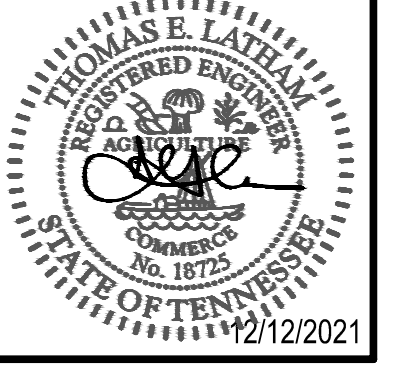
- SCOPE OF STRUCTURAL WORK**
- PROVIDE NEW CONCRETE LANDING AND STAIR ON EXISTING CMU WALL AT SIDE EXTERIOR WALL OF SPACE.
  - PROVIDE (2) NEW ROOF TOP UNITS (RTU's) AT LOCATIONS COORDINATED WITH MECHANICAL ENGINEER. PROVIDE NEW ROOF CURBS AND STRUCTURAL SUPPORT AS SHOWN.

CLARK, GEET, LATIAM  
ENGINEERS ARCHITECTS  
1000 N. HARRIS BLVD., SUITE 100  
MEMPHIS, TN 38103  
TEL: 901.521.1111  
WWW.CGLA.COM

date	project	designed	drawn	checked	mark	revisions
12-14-2021	2180373	TBC/DAB	JEH	TEL		

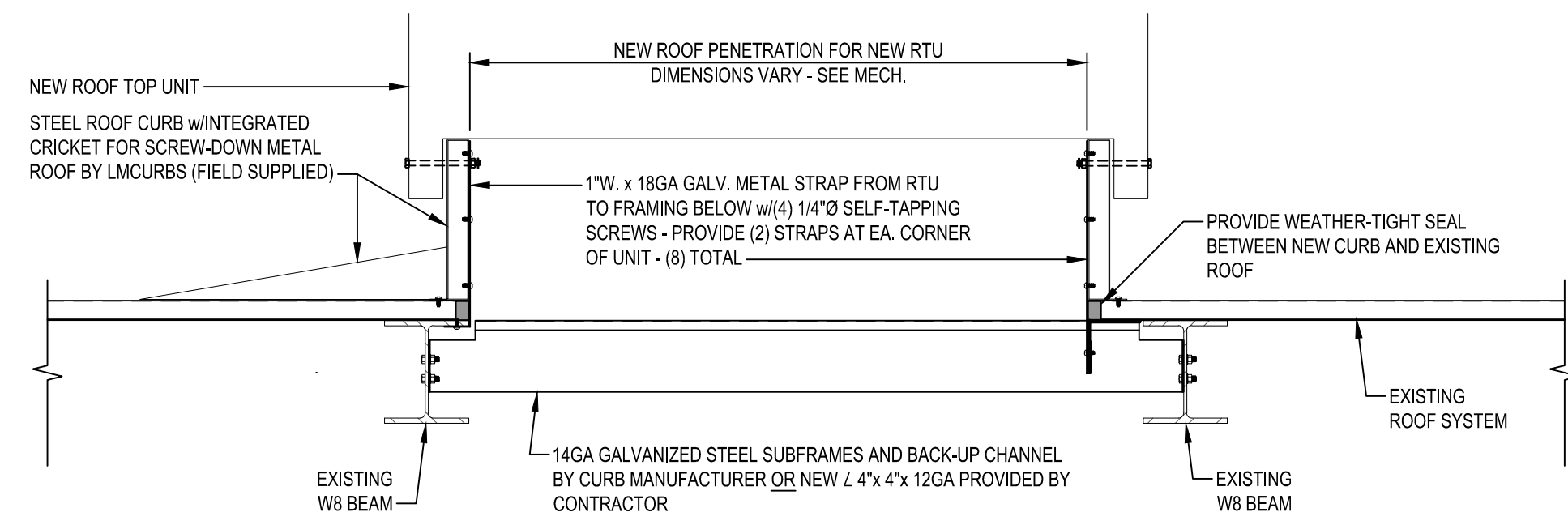
date	project	designed	drawn	checked	mark	revisions
12-14-2021	2180373	TBC/DAB	JEH	TEL		

**RRMM ARCHITECTS, PC**  
1317 Executive Blvd, Suite 200  
Chesapeake, VA 23320  
(757)622-2828 / fax (757)622-8883

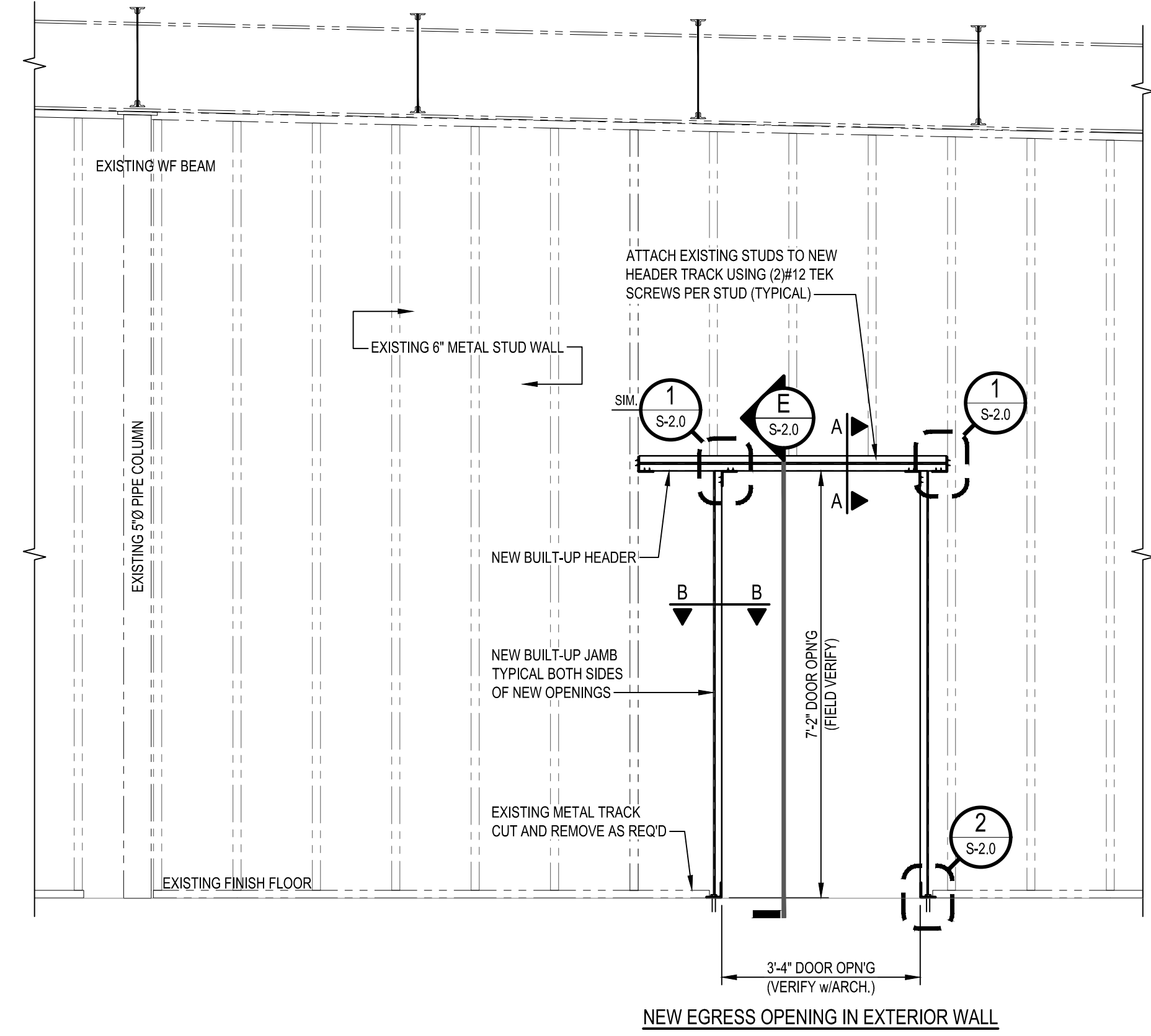


**DOLLAR TREE**  
503 TENNESSEE AVENUE NORTH, DEAL #806621  
PARSONS, TENNESSEE  
EXISTING ROOF FRAMING PLAN  
w/STRUCTURAL MODIFICATIONS

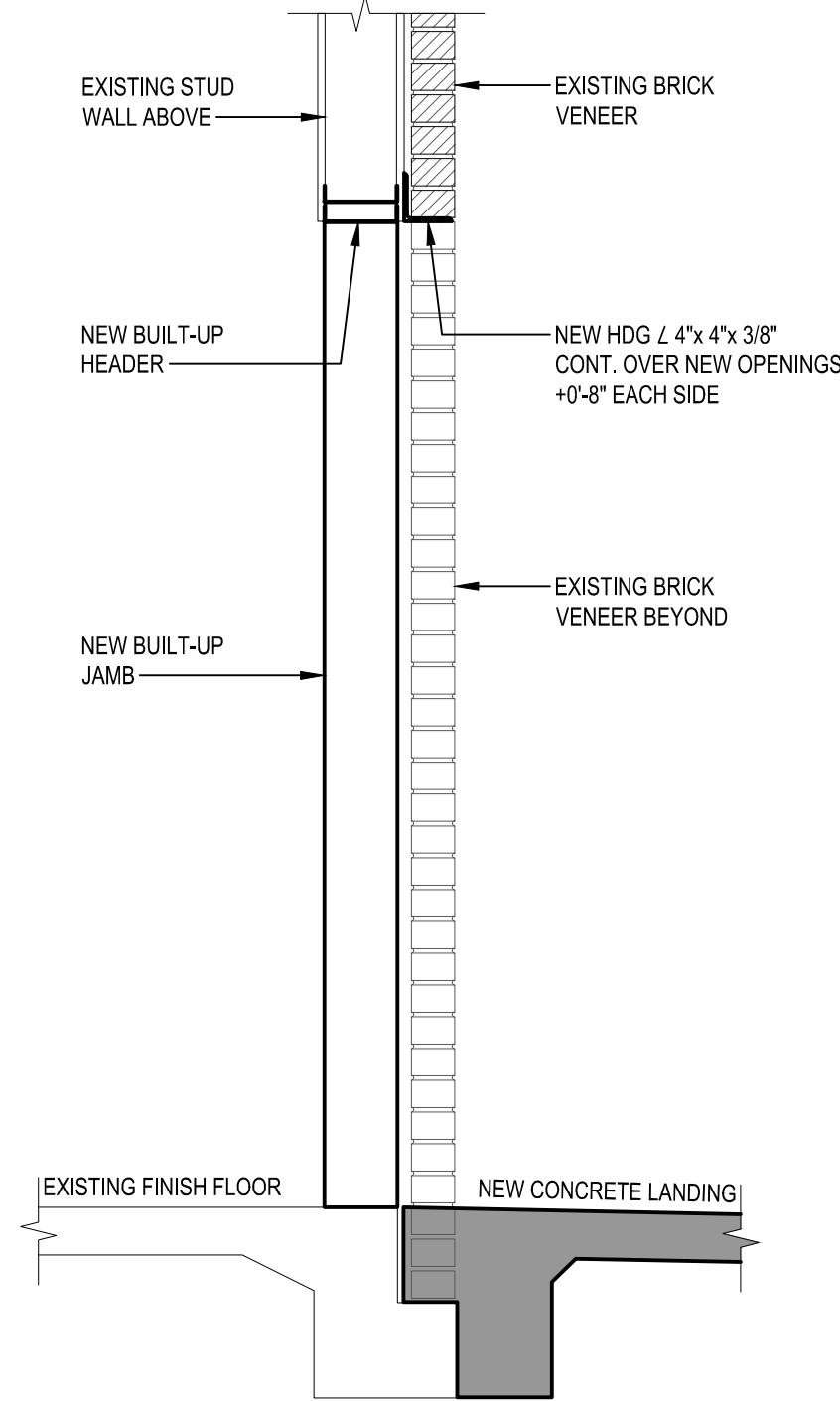
project drawing  
sheet  
**S-1.0**



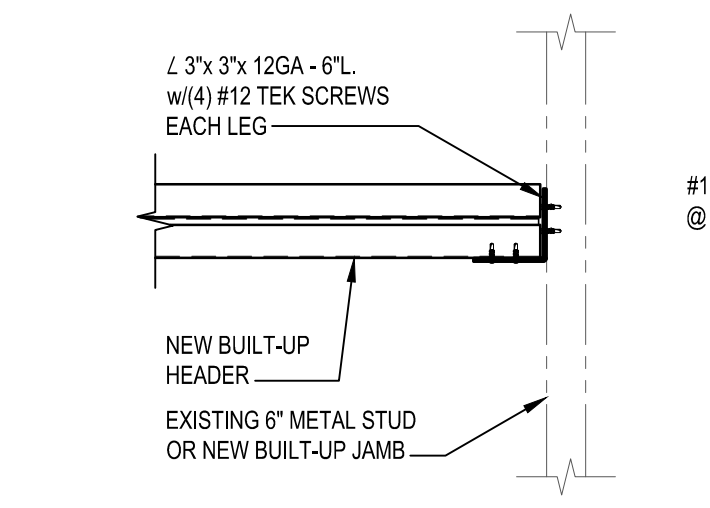
**D SECTION**  
SCALE: NONE



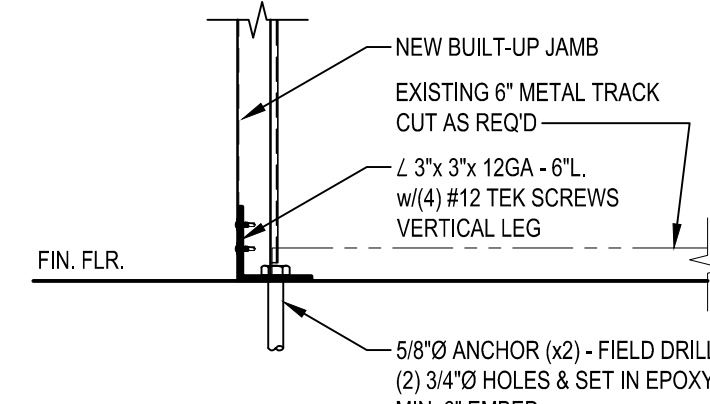
**1 ELEVATION**  
SCALE: 1/2"=1'-0"



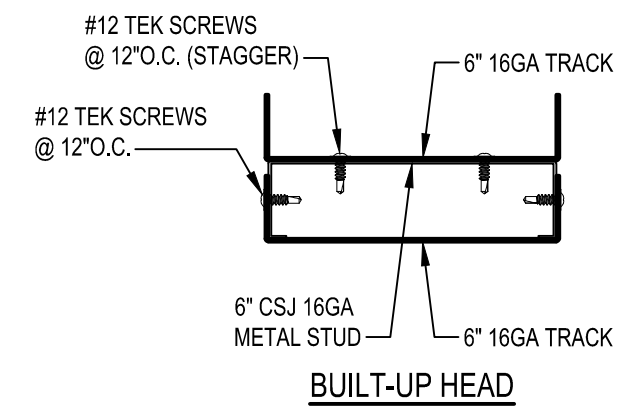
**E SECTION**  
SCALE: 3/4"=1'-0"



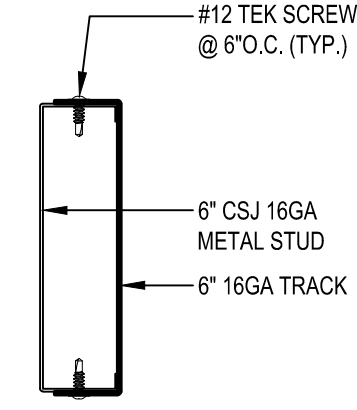
**1 DETAIL**  
SCALE: 1 1/2"=1'-0"



**2 DETAIL**  
SCALE: 1 1/2"=1'-0"



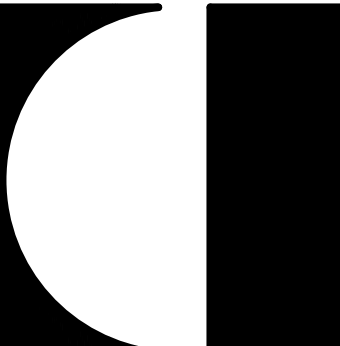
**SECTION "A-A"**  
SCALE: 3"=1'-0"



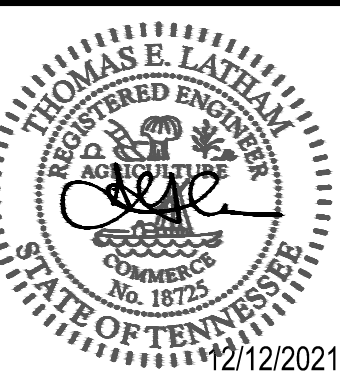
**SECTION "B-B"**  
SCALE: 3"=1'-0"

mark	date	revisions
by		description

date	project	designed	drawn	checked	TEL
12-14-2021	2130373	TBC/DAB	JEH		



**RRMM ARCHITECTS, PC**  
1317 Executive Blvd, Suite 200  
Chesapeake, VA 23320  
(757) 622-2828 / fax (757) 622-8883



**DOLLAR TREE**  
503 TENNESSEE AVENUE NORTH, DEAL #806621  
PARSONS, TENNESSEE  
STRUCTURAL ELEVATIONS, SECTIONS AND DETAILS



EXISTING ROOFTOP UNIT SCHEDULE (gas heat/elec. cool)																			
MARK	MFG/MODEL	DISCHARGE	TONS	ESP	CFM	OUTSIDE AIR		ENTERING AIR		NET COOLING CAPACITY (MEH)		HEATING FUEL	HEATING CAPACITY		AFUE	ELECTRICAL	MCA/MOCP	ACCESSORIES	UNIT WEIGHT (LBS)
						CFM (MIN)	CFM (MAX)	CONDENSING	SENSIBLE	INPUT	OUTPUT		VOLT / PH / HZ						
XRTU-1	REEEM RGEA404B	DOWNFLOW	4	0.8	1600	50	400	80°F DB 67°F WB @ 95°F AMBIENT	EXISTING	EXISTING	NATURAL GAS	100	100	82	208/3/60	25/35	2,3,4,5	EXISTING	
XRTU-2	REEEM KRRLB04B	DOWNFLOW	4	0.8	1600	50	400	80°F DB 67°F WB @ 95°F AMBIENT	EXISTING	EXISTING	NATURAL GAS	100	100	82	208/3/60	34/50	2,3,4,5	EXISTING	
XRTU-3	YORK ZY60B	DOWNFLOW	15	1.0	3000	250	800	80°F DB 67°F WB @ 95°F AMBIENT	EXISTING	EXISTING	NATURAL GAS	180	144	82	208/3/60	40,4,50	1,3,4,5	EXISTING	
XRTU-4	YORK ZY60B	DOWNFLOW	15	1.0	3000	250	800	80°F DB 67°F WB @ 95°F AMBIENT	EXISTING	EXISTING	NATURAL GAS	180	144	82	208/3/60	40,4,50	1,3,4,5	EXISTING	
XRTU-5	YORK ZY604	DOWNFLOW	3	0.8	1200	50	150	80°F DB 67°F WB @ 95°F AMBIENT	EXISTING	EXISTING	NATURAL GAS	112	90	82	208/3/60	23,1,25	1,3,4,5	EXISTING	
XRTU-6	TRANE YSC20	DOWNFLOW	10	1.0	4000	0	0	80°F DB 67°F WB @ 95°F AMBIENT	114.5	84.8	EXIST	200	160	82	208/3/60	50,1,60	6	EXISTING	

ACCESSORIES PROVIDED AND INSTALLED BY TENANT CONTRACTOR:

1. PROVIDE AND INSTALL NEW DIFFERENTIAL ENTHALPY ECONOMIZER WITH BAROMETRIC RELIEF
2. PROVIDE AND INSTALL NEW DIFFERENTIAL ENTHALPY ECONOMIZER WITH BAROMETRIC RELIEF ON EXISTING HORIZONTAL DUCT ABOVE ROOF
3. PROVIDE AND INSTALL NEW LOUVERED CONDENSER COIL GUARDS

ACCESSORIES PROVIDED BY TENANT FOR TENANT CONTRACTOR INSTALLATION:

4. CO2 DEMAND CONTROL VENTILATION, 0A MIN. OPEN POSITION SHALL BE THE MIN. AND SHALL MODULATE OPEN UP TO THE MAX. TO MAINTAIN MAXIMUM CO2 LEVELS IN THE BREATHING AREA OF 1000 PPM RELATIVE TO THE OA AMBIENT.
5. INSTALL EMS CONTROLS PACKAGE
6. INSTALL EMS CONTROLS PACKAGE, SET TO MAINTAIN MINIMAL SPACE CONDITIONING (55 HEATING TO COOLING) (ADJUSTABLE PER TENANT RQMTS)

NOTE:  
CONTRACTOR SHALL BE RESPONSIBLE FOR ALL STARTUP AND WARRANTY WORK. VERIFY ELECTRICAL POWER PRIOR TO INSTALLING UNITS. FAILURE TO DO SO SHALL RESULT IN CONTRACTOR FURNISHING CORRECT UNITS OR POWER AT NO ADDITIONAL COST TO TENANT. OUTSIDE AIR QUANTITIES BASED ON ASHRAE 62.1-2004 TABLE 6-1 BUILDING AND PEOPLE COMPONENTS FOR AN ENGINEERED VENTILATION SYSTEM EMPLOYING A CO2 MONITORING SYSTEM.

ROOFTOP UNIT SCHEDULE (gas heat/elec. cool)																			
MARK	MFG/MODEL	DISCHARGE	TONS	ESP	CFM	OUTSIDE AIR		ENTERING AIR		NET COOLING CAPACITY (MEH)		HEATING FUEL	HEATING CAPACITY		AFUE	ELECTRICAL	MCA/MOCP	ACCESSORIES	UNIT WEIGHT (LBS)
						CFM (MIN)	CFM (MAX)	CONDENSING	SENSIBLE	INPUT	OUTPUT		VOLT / PH / HZ						
RTU-6	CARRIER 48XCE00B	DOWNFLOW	15	1.0	2410	300	800	80°F DB 67°F WB @ 95°F AMBIENT	49.3	12.2	12.0	NATURAL GAS	180	140	82	208/3/60	42,6,50	1,3,4,5,6,7,8	1050
RTU-7	CARRIER 48XCEA02	DOWNFLOW	4	1.0	1400	50	150	80°F DB 67°F WB @ 95°F AMBIENT	50.6	38.1	15.6	NATURAL GAS	115	92.3	82	208/3/60	25,3,30	1,4,5,6,7,8	150

ACCESSORIES PROVIDED AND INSTALLED BY TENANT CONTRACTOR:

1. FULL PERIMETER INSULATED ROOF CURB OR ADAPTER CURB AS REQUIRED, SLOPED PER ROOF REQUIREMENTS FOR LEVEL UNIT INSTALLATION
2. DRAIN PAN OVERFLOW SWITCH FOR UNIT SHUT-DOWN

ACCESSORIES PROVIDED BY TENANT FOR TENANT CONTRACTOR INSTALLATION:

3. CO2 DEMAND CONTROL VENTILATION, 0A MIN. OPEN POSITION SHALL BE THE MIN. AND SHALL MODULATE OPEN UP TO THE MAX. TO MAINTAIN MAXIMUM CO2 LEVELS IN THE BREATHING AREA OF 1000 PPM RELATIVE TO THE OA AMBIENT.
4. DIFFERENTIAL ENTHALPY ECONOMIZER WITH BAROMETRIC RELIEF
5. INSTALL EMS CONTROLS PACKAGE
6. LOUVERED CONDENSER COIL GUARDS
7. UNIT MOUNTED NON-POWERED WEATHERPROOF GFCI OUTLET
8. UNIT MOUNTED DISCONNECT SWITCH

NOTE:  
CONTRACTOR SHALL BE RESPONSIBLE FOR ALL STARTUP AND WARRANTY WORK. VERIFY ELECTRICAL POWER PRIOR TO INSTALLING UNITS. FAILURE TO DO SO SHALL RESULT IN CONTRACTOR FURNISHING CORRECT UNITS OR POWER AT NO ADDITIONAL COST TO TENANT. OUTSIDE AIR QUANTITIES BASED ON ASHRAE 62.1-2004 TABLE 6-1 BUILDING AND PEOPLE COMPONENTS FOR AN ENGINEERED VENTILATION SYSTEM EMPLOYING A CO2 MONITORING SYSTEM.

VENTILATION AIR CALCULATIONS															
Zone	Unit	Occupancy Category	DOAS / SZ / HZ	Area (sf)	People OA Rate (cfm/per)	Area OA Rate (cfm/sf)	Occupant Density (#/1000 sf)	Occupants	Breathing Zone OA Flow (cfm)	Zone Air Distribution Eff. (Ez)	Zone Outdoor Airflow (cfm)	System Ventilation Eff. (Ev)	OA Intake Flow Required (cfm)	Total OA Delivered (CFM)	Unit OA Delivered (CFM)
SALES	XRTU-1	RETAIL	SZ	10,763	7.5	0.12	15	161	2502	1.0	2502	0.8	3128	3200	400
	XRTU-2														400
	XRTU-3														800
	XRTU-4														800
	RTU-6														800
STOCK	XRTU-5	STORAGE	SZ	1,854	0.0	0.12	0	0	222	1.0	222	0.8	218	300	150
	RTU-7														150

PLUMBING FIXTURE SCHEDULE									
PROVIDED BY TENANT'S VENDOR FOR INSTALLATION BY CONTRACTOR									
MARK	FIXTURE TYPE	MANUFACTURER MODEL NO.	FIXTURE CONNECTIONS				REMARKS		
			CM	HM	H	V			
HC	HANDICAP WATER CLOSET	ZURN MODEL 25560 11" H ELONGATED PRESSURE ASSIST 1.6 G.P.F.	1/2"	---	3"	2"	FURNISH ADA CLOSET & TANK, ADA OPEN FRONT SEAT, SELF SUSTAINING HINGE, FLOOR FLANGE, CLOSET BOLTS & CAPS, MAX RING, SUPPLY STOP & TUBE FLUSH CONTROL MUST BE LOCATED ON THE WIDE/ACCESS SIDE OF THE HC (SIDE OPPOSITE THE HALL).		

NOTE:  
INSTALL ALL PLUMBING FIXTURES TO BE FULLY ACCESSIBLE TO INDIVIDUALS WITH DISABILITIES IN ACCORDANCE WITH LATEST ISSUE OF THE AMERICANS WITH DISABILITIES ACT AND ALL CURRENT STATE AND LOCAL CODES. PROVIDING ACCESSIBILITY AND USABILITY FOR PHYSICALLY HANDICAPPED PEOPLE AND/OR GOVERNING CODES. ALL PLUMBING FIXTURES, EQUIPMENT, TRIM, & FITTINGS SHALL COMPLY WITH LOCAL, STATE AND FEDERAL REGULATIONS AND CODES, INCLUDING BUT NOT LIMITED TO, WATER AND ENERGY CONSERVATION CODES. THE SCHEDULED AND/OR SPECIFIED PLUMBING FIXTURES AND EQUIPMENT REPRESENT THE MINIMUM CRITERIA AND SHALL BE THE BASIS FOR THE CONTRACTOR'S BASE BID. IF THE SCHEDULED OR SPECIFIED FIXTURES OR EQUIPMENT DO NOT COMPLY WITH GOVERNING CODES OR REGULATIONS IN ALL RESPECTS, THE CONTRACTOR SHALL PROVIDE AN ALTERNATE BID FOR COMPLYING FIXTURES, EQUIPMENT, TRIM, OR FITTINGS. THE ABSENCE OF AN ALTERNATE BID SHALL BE CONSTRUED TO MEAN THAT THE CONTRACTOR'S BID INCLUDES ALL COSTS NECESSARY TO MEET ALL REGULATIONS & CODES. ALL PIPING AND VALVES BELOW LAVATORY SHALL BE INSULATED WITH PVC LAY GUARDS AND CONFIGURED TO PROTECT AGAINST CONTACT PROVIDED WITH LAV KIT. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER LAVATORY.

EXHAUST FAN SCHEDULE						
CONTRACTOR PROVIDED, CONTRACTOR INSTALLED						
MARK	MFG/MODEL	CFM	RPM	ESP IN INCHES	MOTOR HP	ELECTRICAL V / PH / HZ
EF-1	YORK-PEN BARRY CILHTDA	200	1354	0.50	71 W	115 / 1 / 60
EF-2	YORK-PEN BARRY CILHTDA	1000	1082	0.50	1/3	115 / 1 / 60
EF-3	YORK-PEN BARRY CILHTDA	1000	1082	0.50	1/3	115 / 1 / 60

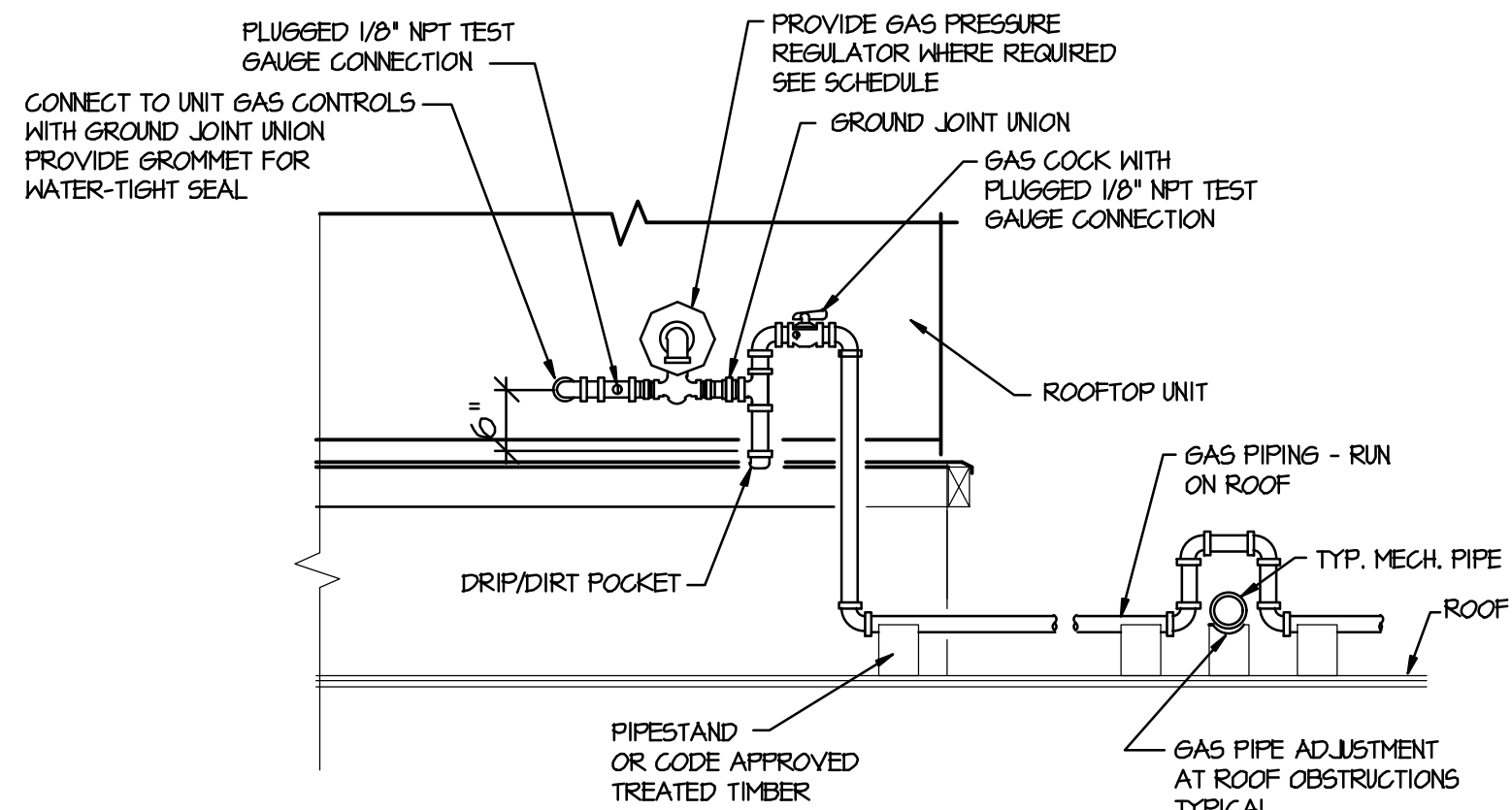
ACCESSORIES/OPTIONS:  
 1. GALVANIZED WALL CAP WITH INSECT SCREEN  
 2. BACKDRAFT DAMPER  
 3. PLUS DISCONNECT  
 4. SPEED CONTROLLER  
 5. VIBRATION ISOLATION MOUNT KIT  
 6. CONTROLLED BY LINE VOLTAGE THERMOSTAT TO START FAN AT 85°F AND STOP FAN AT 75°F.  
 7. FAN SHALL BE INTERLOCKED WITH MOTION SENSOR.  
 8. 21TV TRANSFORMER.

GRILLE, REGISTER & DIFFUSER SCHEDULE						
CONTRACTOR PROVIDED, CONTRACTOR INSTALLED						
MARK	MFG	MODEL	MATERIAL	DEVICE SIZE	MOUNTING	TYPE
A	TITLE & BALEY	T64	STEEL	12" X 10"	DUCT	SUPPLY
B	TITLE & BALEY	S1200	STEEL	24" X 24"	LAY-IN	SUPPLY
C	TITLE & BALEY	CRESOO	ALUMINUM	24" X 24"	LAY-IN	RETURN
D	TITLE & BALEY	CRESOO	ALUMINUM	12" X 24"	LAY-IN	RETURN

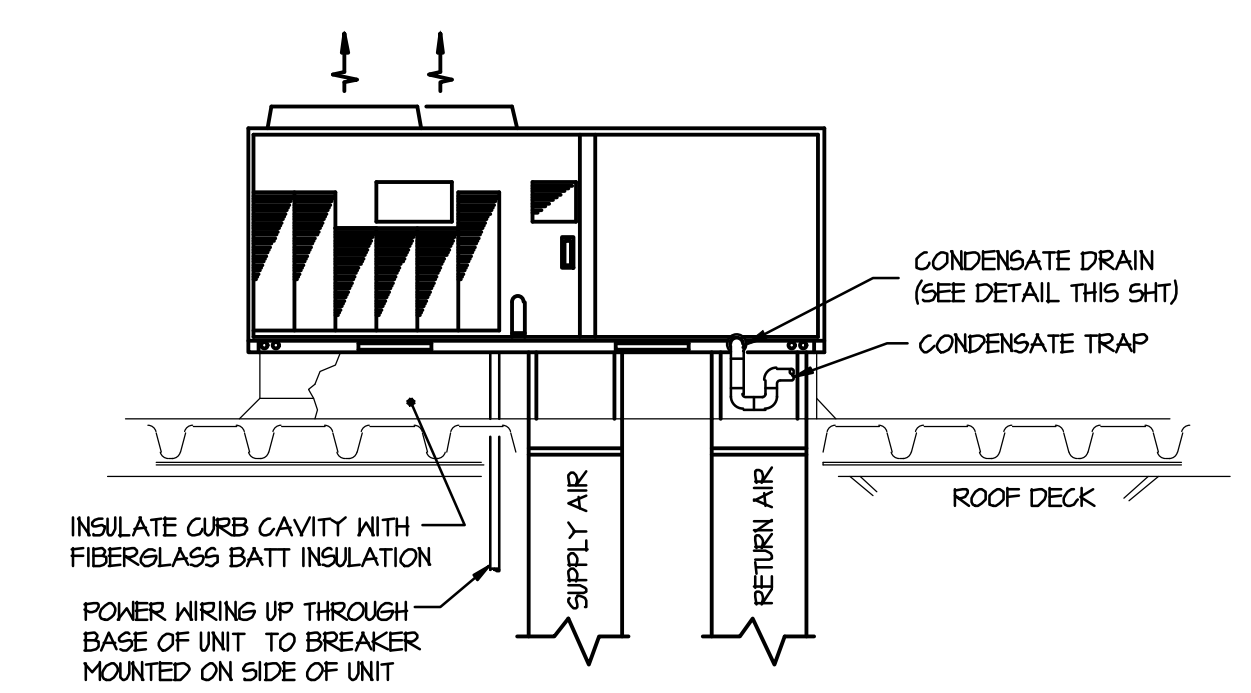
NOTE: PROVIDE TYPE "A" DIFFUSERS WITH DAMPERS.

AIR CURTAIN SCHEDULE									
PROVIDED BY TENANT FOR INSTALLATION BY CONTRACTOR									
MARK	MFG/MODEL	OUTLET VELOCITY (FFM)	VELOCITY @ 80" BELOW (FFM)	CFM	HEATING CAPACITY (BTU)	MCA/MOCP	ELECTRICAL V / PH / HZ	ACCESSORIES	
AG-1	POWERED ANNE EYE-212	3262	124	1980	-	-	120/1/60	1,2,4,5,6,7,8,9	

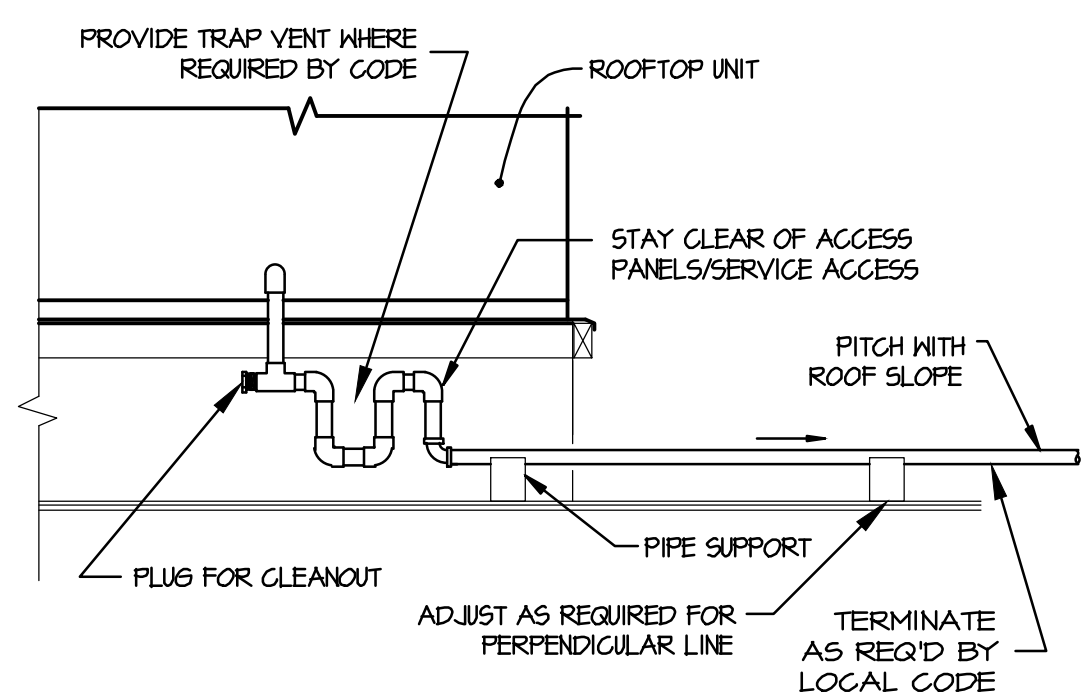
ACCESSORY OPTIONS:  
 1. MEETS IBCG BUILDING CODE ALLOWING AMCA CERTIFIED AIR CURTAIN IN LIEU OF VESTIBULE  
 2. PROVIDE TWO DOOR SWITCHES AND DELAY TIMER TO 30 SECONDS  
 3. PROVIDE WITH THERMOSTAT AND TIME DELAY RELAY  
 4. REMOTE MOUNTED VARIABLE SPEED ON/OFF SWITCH  
 5. SINGLE POINT POWER CONNECTION  
 6. CLEANABLE WIRE MESH FILTERS  
 7. EG PROVIDE DISCONNECT SWITCH, DISCONNECT SWITCH AND WIRING TO BE CONCEALED  
 8. MOUNT UNIT WITH CONCEALED FASTENERS. PROVIDE TRANSOM MOUNTING BRACKET AS REQUIRED.  
 9. INSTALL BOTTOM OF CURTAIN 2 INCHES ABOVE TOP OF DOOR (86" ± AFF)



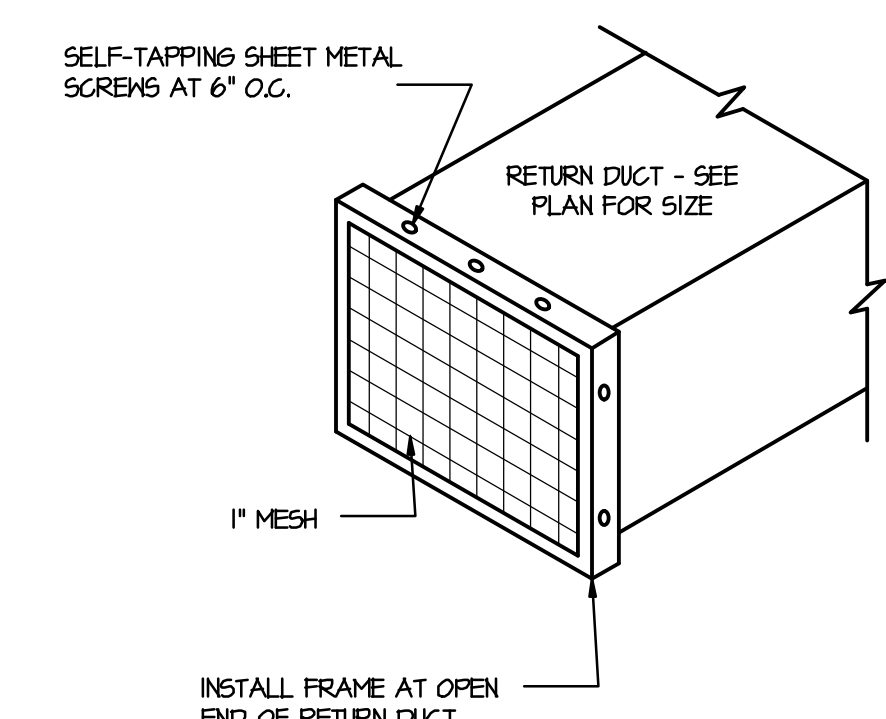
NOTE: COORDINATE PIPING SUPPORTS WITH LANDLORD'S ROOFING CONTRACTOR.  
 NOTE: CONTRACTOR SHALL VERIFY ALL MECHANICAL GAS FIRED EQUIPMENT CONNECTION LOCATIONS IN THE FIELD PRIOR TO INSTALLING ANY GAS PIPE MAINS OR BRANCHES.  
**ROOFTOP UNIT GAS PIPING DETAIL**  
 NTS



NOTE: COORDINATE ALL ROOF PENETRATION REQUIREMENTS WITH LANDLORD'S ROOFING CONTRACTOR. UNITS SHALL BE INSTALLED LEVEL TO INSURE PROPER CONDENSATE DRAINAGE.  
**TYPICAL ROOFTOP UNIT INSTALLATION**  
 NTS



**ROOFTOP UNIT CONDENSATE PIPING DETAIL**  
 NTS



**REMOVABLE METAL FRAME DETAIL**  
 NOT TO SCALE

301 Industrial Blvd  
 Tullahoma, TN 37388  
 Office: 931.454.9980  
 2605 Elm Hill Pike/SHC  
 Nashville, TN 37214  
 Office: 615.678.6622  
 oigengineering.com

Oliver • Little • Ginson  
**OIG**  
 Engineering, Inc.

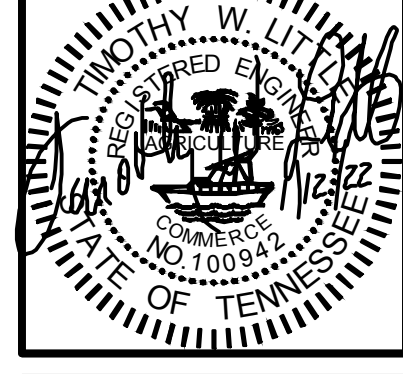
description  
 by  
 mark  
 date  
 revisions

01-12-2022  
 64421  
 TNL  
 TNL  
 BDC

date  
 project  
 designed  
 draw  
 checked



**RRMM ARCHITECTS, P.C.**  
 1317 Executive Blvd, Suite 200  
 Chesapeake, VA 23320  
 (757)622-2828 / fax (757)622-6883



project  
 drawing  
 sheet

**FAMILY DOLLAR**  
 503 TENNESSEE AVENUE NORTH, DEAL #805621  
 PARSONS, TENNESSEE  
 SCHEDULES & DETAILS

GENERAL MECHANICAL CONDITIONS

TENANT SHALL FURNISH SELECTED MECHANICAL EQUIPMENT, ACCESSORIES AND CONTROLS AS SCHEDULED AND AS SPECIFIED. THE MECHANICAL SUBCONTRACTOR(S) SHALL BE RESPONSIBLE FOR DELIVERY COORDINATION, RECEIVING, STORING, SETTING, STARTUP AND INSTALLING ALL TENANT FURNISHED EQUIPMENT AS WELL AS THE ONE YEAR PARTS AND LABOR WARRANTY FROM THE DATE OF STORE OPENING.

A. SCOPE

- 1. PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO PROPERLY INSTALL AIR CONDITIONING SYSTEMS WHERE SHOWN ON DRAWINGS AND AS SCHEDULED.
2. PROVIDE EQUIPMENT AS SPECIFIED TOGETHER WITH ALL NECESSARY DUCTS, GRILLES, REGISTERS, CONTROLS, PIPING, LOW VOLTAGE FANS, CONTROL WIRING, HANGERS, STANDS, EQUIPMENT SUPPORTS, FLASHING AT EQUIPMENT, DUCT AND PIPE INSULATION, UNLESS OTHERWISE NOTED.
3. RELATED WORK BY OTHERS:
a. PAINTING EXCEPT AS HEREIN SPECIFIED.
b. LINE VOLTAGE WIRING AND CONDUIT.
c. ELECTRICAL SUPPLY CONNECTION TO EQUIPMENT.
B. ALL WORK SHALL CONFORM TO ALL FEDERAL, STATE AND LOCAL CODES AND ANY LANDLORD REQUIREMENTS AS SPECIFIED IN THE EXECUTED LEASE AGREEMENT.
C. THE CONTRACTOR SHALL EXAMINE THE PREMISES AND VERIFY THE EXISTING CONDITIONS UNDER WHICH HE WILL BE OBLIGATED TO OPERATE IN PERFORMING HIS PART OF THE WORK OR THAT WILL IN ANY MANNER AFFECT THE WORK UNDER CONTRACT.
D. ALL EQUIPMENT FURNISHED SHALL FIT THE SPACE AVAILABLE, WITH CONNECTIONS, ETC., IN THE REQUIRED LOCATIONS AND WITH ADEQUATE SPACE FOR OPERATING AND SERVICING.
E. ALL MECHANICAL EQUIPMENT SHALL CONFORM WITH THE REQUIREMENTS OF THE STATE MECHANICAL CODE, THE STATE BUILDING CODE, THE STATE ENERGY CODE, NFPA 90A, 96.101 AND ALL APPLICABLE LOCAL CODES AND ORDINANCES.
F. DRAWINGS FOR MECHANICAL WORK ARE DIAGRAMMATIC SHOWING THE GENERAL LOCATION, TYPE, LAYOUT AND EQUIPMENT REQUIRED.
G. THE CONTRACTOR SHALL INSTALL ALL PIPING, DUCTWORK, FIXTURES AND EQUIPMENT AS REQUIRED TO CONFORM TO THE STRUCTURE, AVOID OBSTRUCTIONS, PRESERVE CEILING HEIGHTS AND HEADROOM AND MAKE ALL EQUIPMENT REQUIRING MAINTENANCE OR REPAIR ACCESSIBLE.
H. THE CONTRACTOR SHALL INSTALL MECHANICAL SYSTEMS AS SHOWN, NOTED AND SPECIFIED. EQUIPMENT MAY NOT BE SUBSTITUTED UNLESS WRITTEN APPROVAL BY THE ENGINEER OR TENANT'S REPRESENTATIVE IS OBTAINED.

HVAC UNITS (NEW)

- WHERE EXISTING HVAC COMPONENTS ARE TO REMAIN FOR REUSE, CONTRACTOR SHALL MODIFY, SERVICE, ETC., PER PLANS, SCHEDULES, AND NOTES

- A. CONTRACTOR SHALL COORDINATE THE DELIVERY, RECEIVING, STORAGE, RIGGING, HOISTING, INSTALLATION AND START UP OF HEATING AND COOLING UNITS INCLUDING ALL ACCESSORIES AS SCHEDULED AND AS INDICATED ON THE DRAWINGS.
B. HVAC UNITS SHALL BE FURNISHED COMPLETE WITH CASING, REFRIGERATION SYSTEM, HEATING SECTION (AS SCHEDULED ON DRAWINGS), FANS, MOTORS AND DRIVES, FILTERS, AUTOMATIC CONTROLS, AND OPTIONS AND ACCESSORIES AS SCHEDULED ON DRAWINGS.
C. TEMPERATURE CONTROLS.
1. HVAC UNITS SHALL BE FURNISHED WITH FACTORY INSTALLED AND TESTED COMPONENTS TO PROVIDE TWO STAGES OF COOLING, TWO STAGES OF HEATING (WHERE APPLICABLE), ANTI-RECYCLE TIMER, FIVE (5) MINUTE COMPRESSOR STAGING RELAY, AND OTHER ITEMS AS SCHEDULED ON DRAWINGS.
D. SEQUENCE OF OPERATION
1. OCCUPIED HOURS.
a. UNIT OUTDOOR AIR DAMPER SHALL OPEN TO ITS MINIMUM POSITION AND UNIT SUPPLY FAN SHALL OPERATE CONTINUOUSLY.
b. FOR UNITS CONNECTED TO THE CO2 SENSOR SYSTEM, UNIT OUTDOOR AIR DAMPER SHALL MODULATE FROM ITS MINIMUM SCHEDULED POSITION TO ITS MAXIMUM SCHEDULED POSITION IN RESPONSE TO SPACE MOUNTED CO2 SENSOR (BY OTHERS) SET AT 800 PPM.
c. UNIT HEATING SHALL ENGAGE CYCLING COMPRESSOR(S), HEATING (HEAT EXCHANGER, COMPRESSOR (HEAT PUMP), AND ELECTRIC HEAT AS EQUIPPED) AND SHALL STAGE TO MAINTAIN SPACE SETPOINT.
2. UNOCCUPIED HOURS.
a. UNIT OUTDOOR AIR DAMPER SHALL REMAIN CLOSED AND UNIT SUPPLY FAN SHALL CYCLE ON A SIGNAL FROM SPACE SENSOR.
b. UNIT HEATING SHALL ENGAGE CYCLING COMPRESSOR(S), HEATING (HEAT EXCHANGER, COMPRESSOR (HEAT PUMP), AND ELECTRIC HEAT AS EQUIPPED) AND SHALL STAGE TO MAINTAIN

HVAC UNITS (CONTINUED)

- 3. UNIT ECONOMIZER CYCLE (WHERE EQUIPPED) SHALL BE INITIATED UPON A SIGNAL FROM OUTDOOR AND RETURN AIR TEMPERATURE AND ENTHALPY SENSORS. OUTDOOR AIR DAMPER, RETURN AIR DAMPER, AND UNIT COMPRESSOR(S) SHALL CYCLE TO MAINTAIN SPACE SETPOINT. ECONOMIZER CYCLE SHALL OVER RIDE CO2 MONITORING SYSTEM.
4. SMOKE ALARM (WHERE REQUIRED).
a. UNIT OUTDOOR AIR DAMPER SHALL CLOSE AND UNIT SUPPLY FAN SHALL STOP ON A SIGNAL FROM DUCT SMOKE DETECTOR. DUCT SMOKE DETECTOR SHALL SEND A SIGNAL TO REMOTE ALARM DEVICE.

GRILLES, REGISTERS AND DIFFUSERS

- A. THE CONTRACTOR SHALL PROVIDE GRILLES, REGISTERS AND DIFFUSERS WHERE INDICATED AND AS SCHEDULED ON THE DRAWINGS.
B. GRILLES, REGISTERS AND DIFFUSERS SHALL BE PROVIDED WITH OPPOSED BLADE VOLUME DAMPERS AS SCHEDULED ON THE DRAWINGS.
C. GRILLES, REGISTERS AND DIFFUSERS SHALL BE PROVIDED WITH FRAME TYPES TO MATCH THE SURFACE INTO WHICH THEY WILL BE INSTALLED.
D. GRILLES, REGISTERS AND DIFFUSERS SHALL BE PROVIDED WITH FACTORY APPLIED WHITE FINISH.
E. DESIGN IS BASED ON PRODUCTS MANUFACTURED BY TITUS. PRODUCTS OF EQUIVALENT PERFORMANCE, CONSTRUCTION AND APPEARANCE MAY BE SUPPLIED.

EXHAUST FANS

- A. THE CONTRACTOR SHALL PROVIDE EXHAUST FANS WHERE INDICATED AND AS SCHEDULED ON THE DRAWINGS.
B. INLINE EXHAUST FANS SHALL BE FURNISHED WITH VIBRATION ISOLATING HANGARS AND ALL RELATED HARDWARE.
C. ALL EXHAUST FANS SHALL BE FURNISHED WITH BACK DRAFT DAMPER, INSECT SCREEN, MOTOR AND DRIVE, AND OPTIONS AND ACCESSORIES AS SCHEDULED ON DRAWINGS.

DUCTWORK

- A. ALL DUCTWORK SHALL BE CONSTRUCTED OF GALVANIZED STEEL SHEET METAL AND BE FABRICATED ACCORDING TO THE LATEST EDITION OF THE SMACNA HVAC DUCT CONSTRUCTION STANDARDS FOR METAL AND FLEXIBLE DUCTWORK.
B. ALL ELBOWS SHALL HAVE PROPER RADIUS OR CONTRACTOR SHALL PROVIDE TURNING VANES AS REQUIRED BY SMACNA DUCT CONSTRUCTION MANUAL.
C. ALL DUCT CONNECTIONS TO EQUIPMENT SHALL BE LOADED TYPE VINYL, VIBRATION ELIMINATION CONNECTIONS, (FC) FLEXIBLE CONNECTIONS.
D. FLEX DUCT: PROVIDE FACTORY ASSEMBLED CLASS I AIR DUCT (UL 10) WITH FIBERGLASS INSULATION AND REINFORCED OUTER PROTECTIVE COVER/VAPOR BARRIER. FLEX DUCT SHALL MEET NFPA 90A WITH FLAME SPREAD UNDER 25, SMOKE DEVELOPED UNDER 50, AND SHALL BE RATED FOR 1" W.G. PRESSURE AND 0 TO 250 DEGREE TEMPERATURE. MAXIMUM LENGTH SHALL BE 5'-0". MINIMUM CENTER LINE BEND RADIUS SHALL BE 1 1/2 DUCT DIAMETERS. VAPOR BARRIER SHALL BE SEALED AT EACH END AFTER CONNECTION TO DUCT AND AIR DEVICE.
E. ALL NEW SUPPLY AND RETURN DUCTWORK SHALL BE INSULATED, NO EXCEPTIONS. INSULATE WITH EXTERNAL DUCT WRAP OR WITH SHOP APPLIED DUCT LINER. DUCT WRAP SHALL BE FOIL REINFORCED KRAFT FACING. ALL INSULATION SHALL MEET NFPA 90A FLAME SPREAD UNDER 25 AND SMOKE DEVELOPED UNDER 50. THICKNESS, DENSITY AND "R" VALUE SHALL BE PER CODE. INSULATION SHALL BE FASTENED TO DUCTWORK PER MANUFACTURER'S INSTRUCTIONS AND SMACNA STANDARDS. ROUND BRANCH DUCTWORK SHALL BE INSULATED WITH 1" THICK FIBERGLASS SLEEVE WITH FOIL JACKET AND ALL JOINTS AND TERMINATIONS SEALED WITH FOIL DUCT TAPE.

EXECUTION

- A. ALL DUCTWORK TRANSITIONS SHALL BE (FOI) "FLAT ON TOP" UNLESS OTHERWISE SPECIFIED ON PLAN. ALL DUCT DIMENSIONS LISTED ARE INNER AIR STREAM DIMENSIONS.
B. ALL DUCTWORK SHALL BE ROUTED ABOVE THE SUSPENDED CEILING SPACE UNLESS OTHERWISE NOTED ON THE PLANS. ALL DUCTWORK SHALL BE SUSPENDED FROM TOP CHORD OF STRUCTURE AND ACCORDING TO THE LATEST EDITION OF THE SMACNA HVAC DUCT CONSTRUCTION STANDARDS FOR METAL AND FLEXIBLE DUCTWORK.
C. ALL OUTSIDE AIR INTAKES SHALL BE A MINIMUM OF 10'-0" AWAY FROM EXHAUST DISCHARGE OPENINGS AND PLUMBING VENT STACKS.
D. PROVIDE UL APPROVED FIRE DAMPERS FOR ALL PENETRATIONS THROUGH FIRE RATED WALLS, PARTITIONS, CEILINGS, AND FLOORS. INSTALL FIRE DAMPERS AS PER MANUFACTURER'S DIRECTIONS AND AS PER UL GUIDELINES.
E. PROVIDE ROUND SPIN-IN FITTINGS WITH LOCKING VOLUME DAMPER FOR EVERY INLET AND OUTLET ATTACHMENT TO THE MAIN TRUNK DUCT WHETHER SHOWN ON THE PLANS OR NOT. PROVIDE ADDITIONAL LOCKING VOLUME DAMPERS AT ALL SECONDARY BRANCH TAKEOFFS FROM DUCTWORK MAINS AND AS INDICATED ON PLANS. PROVIDE INSPECTION ACCESS PANELS IN DUCTS AT ALL FIRE DAMPERS.
F. SUPPLY, RETURN AND POSITIVE PRESSURE EXHAUST DUCTWORK SHALL BE SEALED IN ACCORDANCE WITH SMACNA SEAL CLASS 'C'.
G. CORE-DRILL OR SAW-CUT EXISTING WALLS, ROOF, ETC. AS REQUIRED FOR PIPING OR DUCTWORK AND FIRE-STOP OPENING AROUND PIPE OR DUCTWORK. VERIFY LOCATION OF STRUCTURAL BEAMS, JOISTS, ETC. BEFORE DRILLING OR CUTTING. NOTIFY ARCHITECT OF ANY DISCREPANCIES.
H. WHEREVER FOUNDATION WALLS, OUTSIDE WALLS, ROOFS, ETC. ARE CUT FOR INSTALLATION OF SYSTEMS, THEY SHALL BE PATCHED TO MATCH EXISTING CONSTRUCTION AND SEALED WEATHER TIGHT. WORK SHALL BE PERFORMED BY CRAFTSMEN SKILLED IN THEIR RESPECTIVE TRADES.

EXECUTION (CONTINUED)

- I. PROVIDE 3 SETS OF PLEATED DISPOSABLE FILTERS. ONE SET TO BE USED UNTIL COMPLETION OF CONSTRUCTION PHASE. INSTALL ONE SET AT COMPLETION OF CONSTRUCTION PHASE AND DELIVER ONE SET TO OWNER AND LABEL EACH SET OF FILTERS TO DENOTE THEIR RESPECTIVE HVAC UNITS.
J. PROVIDE TWO OPERATION AND MAINTENANCE MANUALS BOUND IN 8-1/2" X 11" PAGE BINDERS, TITLED "OPERATION AND MAINTENANCE MANUAL". SUBDIVIDE BINDER CONTENTS WITH PAGE DIVIDERS BY SYSTEM AND EQUIPMENT. INCLUDE ALL SHOP DRAWINGS, AS-BUILT DRAWINGS AND WARRANTIES. SUBMISSION OF THESE DOCUMENTS SHALL BE WITHIN 90 DAYS OF SYSTEM ACCEPTANCE, PER ENERGY CODE, AND A REQUIREMENT FOR FINAL PAYMENT.

TESTING, ADJUSTING, BALANCING AND INSPECTION

- A. WORK SHALL BE PERFORMED AFTER THE COMPLETE INSTALLATION AND STARTUP OF ALL EQUIPMENT, DUCT SYSTEMS AND TEMPERATURE AND ENERGY MANAGEMENT CONTROLS AND COMPLETED PRIOR TO TURNOVER FOR THE START OF STOCKING.
B. CONTRACTOR SHALL SUBMIT TEST AND BALANCE REPORT TO GENERAL CONTRACTOR FOR SUBMITTAL TO TENANT'S PROJECT MANAGER AND LOCAL CODE AUTHORITY (IF REQUIRED).
C. BALANCING OF AIR DEVICES SHALL BE ACCOMPLISHED BY ADJUSTING BRANCH TAKEOFF DAMPER AT MAIN TRUNK DUCT. DAMPERS IN THE NECKS OF AIR DEVICES SHALL BE USED FOR FINAL TRIM ONLY AND IN NO CASE FOR GREATER THAN 10% OF THE INDICATED VOLUME FOR THE INDIVIDUAL AIR DEVICE.
D. WHERE EXISTING DUCT IS TO BE REUSED, CONTRACTOR SHALL PROVIDE AND INSTALL NEW MANUAL DAMPERS WITH LOCKING QUADRANT IN THE RUNOUT DUCT AT THE CONNECTION TO THE TRUNK DUCT AS REQUIRED FOR THE COMPLETION OF BALANCING.
E. TESTING AND BALANCING CONTRACTOR SHALL ALSO INSPECT THE COMPLETED AND OPERATIONAL HVAC EQUIPMENT, DUCT SYSTEMS AND TEMPERATURE AND ENERGY MANAGEMENT CONTROLS PRIOR TO TURNOVER OF THE STORE FOR THE START OF STOCKING. TESTING AND BALANCING CONTRACTOR SHALL SUBMIT THE COMPLETED TENANT'S HVAC FIELD INSPECTION REPORT TO THE GENERAL CONTRACTOR FOR SUBMITTAL TO TENANT'S PROJECT MANAGER FOR REVIEW.

FIRE AND SMOKE PARTITION PENETRATIONS (WHERE REQUIRED)

- A. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH ALL FIRE RATED CONSTRUCTION AND INSTALL HIS WORK SO AS TO MAINTAIN THE INTEGRITY OF THE FIRE CODE RATING. MAINTAIN RATING OF FIRE RATED AND SMOKE RATED CONSTRUCTION. SLEEVES SHALL BE STEEL OR PRE-MANUFACTURED SLEEVES SIMILAR TO PIPE SHIELDS, INC., FOR BARE PIPE THROUGH FIRE WALLS AND FLOORS, MODEL WFB, DFB OR GDFB. FOR PLASTIC PIPE, USE TYPE WFB WITH ONE INCH THICK CALCIUM SILICATE INSULATION ENCASED IN METAL SLEEVE EXTENSION TWO FEET EITHER SIDE OF FIRE RATED WALLS OR FLOOR. SEAL ANNULAR SPACE AROUND CONDUITS. FOR FIRE AND SMOKE RATED FLOORS, WALLS AND PARTITIONS, USE UL LISTED MATERIAL THAT MAINTAINS FIRE RATED WALL AND FLOOR INTEGRITY. SIMILAR TO RTV FOAM, DOM CORNING "FIRE STOP" OR PIPE SHIELDS, INC., MODEL WFB, DFB, OR GDFB. FOR NON-RATED WALLS AND PARTITIONS, USE MINERAL OR GLASS FIBER INSULATION.

GENERAL PLUMBING CONDITIONS

- A. SCOPE
1. PROVIDE ALL LABOR, MATERIALS, TOOLS AND EQUIPMENT NECESSARY TO COMPLETE THE WORK, INCLUDING INSTALLATION OF PLUMBING PIPING AND FIXTURES. ALL MATERIALS SHALL BE NEW AND BE INSTALLED IN A WORKMANLIKE MANNER IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS.
2. PROVIDE EXCAVATION AND BACK FILL OF ALL TRENCHES INCIDENTAL TO THE PLUMBING WORK AS SHOWN ON THE DRAWINGS. BACK FILL SHALL COMPACTED TO 90%.
3. PROVIDE ALL BACKING, SUPPORTS AND CARRIERS FOR FIXTURES.
4. PROVIDE ALL CUTTING AND PATCHING OF THE CONSTRUCTION WORK, ROUGH FINISH AND TRIM, WHICH MAY BE REQUIRED FOR THE INSTALLATION OF EQUIPMENT. ALL PATCHING SHALL MATCH ALL SURROUNDING WORK.
5. CONTRACTOR SHALL MAKE ALL PLUMBING AND PIPING CONNECTIONS TO EQUIPMENT SPECIFIED TO BE FURNISHED BY TENANT OR UNDER OTHER SECTIONS OF THE SPECIFICATIONS INCLUDING FINAL CONNECTIONS TO AIR CONDITIONING AND HEATING EQUIPMENT.
6. CONTRACTOR SHALL PROVIDE SUFFICIENT APPROVED WATER HAMMER ARRESTORS (MADE "SHOCKSTOP", OR EQUIVALENT) TO PREVENT WATER HAMMER.
7. CONTRACTOR SHALL THOROUGHLY CLEAN ALL FIXTURES, EQUIPMENT AND PIPING AFTER INSTALLATION.
8. CONTRACTOR SHALL PROVIDE APPROVED ACCESS DOORS IN FRAMED HOLES FOR ALL VALVES, TRAPS WHICH MUST BE INSTALLED IN INACCESSIBLE LOCATIONS.
9. CONTRACTOR SHALL PROVIDE CUTOFF DATA FOR ALL SINKS AND LAVATORIES TO ALL OTHER RELATED TRADES.
10. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS, INSPECTIONS AND CERTIFICATES IN CONNECTION WITH THE HIS WORK AND MAKE ALL ARRANGEMENTS WITH UTILITY COMPANIES FOR SERVICE AND CONNECTIONS AND PAY ALL FEES, CHARGES PERMITS AND METER CHARGES.

MATERIALS

- A. DRAIN, WASTE AND VENT
1. SERVICE WEIGHT, CAST IRON HUB AND SPIGOT PIPE AND FITTINGS WITH NEOPRENE GASKET JOINTS. NO-HUB SERVICE WEIGHT PIPE AND FITTINGS MAY BE USED ABOVE GRADE WHEN PERMITTED BY LOCAL CODE.
2. SCHEDULE 40, GALVANIZED STEEL PIPE AND BANDED MALLEABLE IRON SCREEN FITTINGS.
3. SCHEDULE 40 AND 80 PVC OR ABS PIPING WITH DWV PATTERN FITTINGS MAY BE USED WHERE ALLOWED BY LOCAL CODE. FOAM CORE PVC PIPING WILL NOT BE APPROVED. NO PVC SHALL BE INSTALLED IN RETURN AIR PLENUMS.

B. HOT AND COLD WATER

- 1. ABOVE GRADE.
a. TYPE "L" COPPER TUBING, HARD TEMPER, COLD DRAIN WITH WROUGHT COPPER LEAD FREE SWEAT FITTINGS. CONNECTIONS TO FIXTURES AND EQUIPMENT SHALL BE MADE WITH 88% RED BRASS IPS SIZE PIPE OR COMPRESSION ANGLE STOPS. PROVIDE DIELECTRIC UNIONS WHERE CONNECTING PIPING OF DISSIMILAR MATERIALS.
b. PVC FOR COLD WATER AND CPVC FOR HOT WATER MAY BE SUBSTITUTED FOR COPPER PIPING WHERE ALLOWED BY LOCAL CODE AUTHORITY FOR ABOVE GRADE WATER PIPING ONLY.
c. PEX PIPING FOR HOT AND COLD WATER MAY BE SUBSTITUTED WHERE ALLOWED BY LOCAL CODE AUTHORITY. CONNECTION AT WATER HEATERS MUST BE TYPE "L" COPPER PIPING. CONTRACTOR IS RESPONSIBLE FOR CORRECTLY SIZING AND INSTALLING ALL PEX PIPING PER MANUFACTURER'S REQUIREMENTS.
2. BELOW GRADE.
a. TYPE "K" COPPER TUBING, HARD OR SOFT TEMPER, WITH WROUGHT COPPER LEAD FREE SWEAT FITTINGS. NOTE: NO FITTINGS SHALL BE PERMITTED BELOW GRADE INSIDE BUILDING.
b. PEX PIPING MAY BE SUBSTITUTED WHERE ALLOWED BY LOCAL CODE AUTHORITY. CONTRACTOR IS RESPONSIBLE FOR CORRECTLY SIZING AND INSTALLING ALL PEX PIPING PER MANUFACTURER'S REQUIREMENTS.
C. AIR CONDITIONING CONDENSATE
1. TYPE "M" COPPER TUBING, HARD TEMPER, COLD DRAIN WITH WROUGHT COPPER LEAD FREE SWEAT FITTINGS.
2. PVC PIPING MAY BE SUBSTITUTED FOR AIR CONDITIONING CONDENSATE PIPING ABOVE ROOF ONLY WHERE ALLOWED BY LOCAL CODE AUTHORITY. ALL AIR CONDITIONING CONDENSATE PIPING SHALL BE OF THE SAME MATERIAL.
D. NATURAL GAS PIPING
1. SCHEDULE 40 BLACK IRON PIPE WITH 150 LB. BLACK MALLEABLE THREADED OR SOCKET WELDED FITTINGS.

EXECUTION

- A. GENERAL REQUIREMENTS
1. CONTRACTOR SHALL EXAMINE THE PREMISES AND SATISFY HIMSELF OF EXISTING CONDITIONS UNDER WHICH HE WILL BE OBLIGATED TO OPERATE IN PERFORMING HIS PART OF THE WORK THAT IN ANY MANNER AFFECT THE WORK UNDER THE CONTRACT. THE CONTRACTOR SHALL COOPERATE WITH OTHER TRADES SO THAT THE INSTALLATION OF ALL EQUIPMENT MAY BE PROPERLY COORDINATED.
2. ALL EQUIPMENT FURNISHED SHALL FIT THE SPACE AVAILABLE, WITH CONNECTION, ETC., IN THE REQUIRED LOCATIONS AND WITH ADEQUATE SPACE FOR OPERATION AND SERVICE.
3. ALL PIPING, EXCEPT FIXTURE SUPPLIES, SHALL BE CONCEALED, CUT ACCURATELY TO EXACT MEASUREMENTS TAKEN AT THE BUILDING AND WORKED CAREFULLY INTO PLACE WITHOUT FORCING OR SPRINGING. CHANGES IN DIRECTION OF ALL PIPING SHALL BE MADE WITH FITTINGS. CHANGES IN PIPE SIZE SHALL BE MADE WITH REDUCING FITTINGS.
4. NO WATER OR DRAIN LINES SHALL BE PERMITTED OVER ELECTRICAL OR TELECOMMUNICATION PANELS OR IN TELECOMMUNICATION ROOMS.
5. PROVIDE PROTECTIVE METAL COVER PLATES OVER STUDS AND JOISTS WHERE PIPES PENETRATE CLOSE TO EDGE OF STUD OR JOIST
6. PROVIDE CHROME PLATED ESCUTCHEONS WHERE PIPES PASS THROUGH FLOORS, WALLS AND CEILINGS IN FINISHED SPACES.
7. ALL PIPING SHALL BE INSTALLED WITH ADEQUATE PROVISION FOR EXPANSION AND CONTRACTION USING SINKS JOINTS, PIPE CLAMPS, ANCHORS AND EXPANSION JOINTS. FITTINGS SHALL BE 50 SPACED THAT THEY WILL NOT INTERFERE WITH SLIDING OF PIPE ON SUPPORTS.
8. ALL OPENINGS IN THE ROOF SHALL BE FLASHED WATERTIGHT PER THE INSTRUCTION OF THE LANDLORD'S ROOFING CONTRACTOR TO MAINTAIN ROOF WARRANTY.
B. DRAIN, WASTE AND VENT
1. ALL WASTE PIPING SHALL BE PITCHED A MINIMUM OF 1/4" PER FOOT WHERE POSSIBLE. PIPING GREATER THAN 4" DIAMETER MAY BE PITCHED AT 1/8" PER FOOT, ONLY WHERE REQUIRED BY EXISTING CONDITIONS, SUBJECT TO THE APPROVAL OF THE AUTHORITY HAVING JURISDICTION.
2. DRAINS AND P-TRAPS: IT GA. C.P. BRASS WHERE EXPOSED TO VIEW EXTENDING TO WALL. NOMINAL SIZE OF DRAIN AND TRAP SHALL NOT BE SMALLER THAN THE FIXTURE OUTLET TO WHICH IT IS ATTACHED.
3. VENTS SHALL EXTEND NOT LESS THAN 12" THROUGH ROOF. THEY SHALL BE GATHERED TOGETHER WHERE POSSIBLE INTO ONE VENT OF EQUIVALENT AREA. VENTS SHALL BE FLASHED AS INDICATED ON THE DRAWINGS. ALL VENTS SHALL BE A MINIMUM OF 10'-0" FROM ANY FRESH AIR INTAKES, OR GREATER IF REQUIRED BY LOCAL CODE.
4. CLEANOUTS, SAME SIZE AS PIPE, SHALL BE INSTALLED IN SOIL AND WASTE LINES AT EVERY CHANGE OF DIRECTION AND AT EVERY 100 FEET OF RUN WHETHER SHOWN ON THE DRAWINGS OR NOT; AND SHALL BE ACCESSIBLE IN ALL CASES. WHEN OCCURRING IN FINISHED WALL OR FLOOR, SET FLUSH WITH SURROUNDING SURFACE.

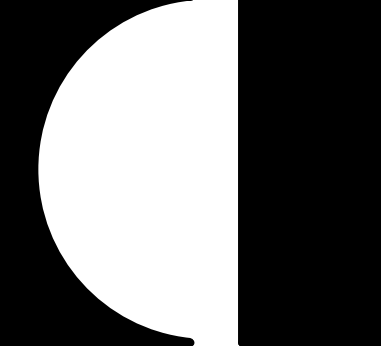
EXECUTION (CONTINUED)

- 5. CLEANOUTS AS A MINIMUM SHALL BE LOCATED SO THAT ALL SOIL AND WASTE LINES WITHIN OR UNDER BUILDING ARE ACCESSIBLE FOR CLEANING WITHOUT PASSING THROUGH MORE THAN ONE NINETY DEGREE OR TWO FORTY FIVE DEGREE BENDS. CLEANOUT COVERS SHALL BE SET FLUSH WITH FLOORS AND GRADE WITH EXPOSED PLASTIC NUT AT WALLS.
C. HOT AND COLD WATER
1. ALL WATER PIPING SHALL BE PITCHED IN DIRECTION OF FLOW TO ALLOW FOR SYSTEM DRAINING. INSTALL PIPING PARALLEL TO MAJOR BUILDING ELEMENTS.
2. INSTALL WATER PRESSURE REGULATOR, "WATTS" OR "MILKINS", WHERE AVAILABLE UTILITY PRESSURE EXCEEDS 80 PSI.
3. INSTALL WATER MAIN SHUTOFF VALVES (WATTS, OR APPROVED EQUAL FULL PORT BALL VALVE), UPSTREAM OF PRESSURE REGULATOR.
4. INSTALL ACCESSIBLE HOT AND COLD WATER STOPS AT ALL FIXTURES.
5. INSTALL DIELECTRIC ISOLATORS WHERE INCOMPATIBLE PIPING MATERIALS COME IN CONTACT.
6. INSTALL TEMPERATURE AND PRESSURE RELIEF VALVES AS REQUIRED BY CODE.
D. NATURAL GAS
1. INSTALL NATURAL GAS PIPING AS INDICATED ON DRAWINGS AND AS REQUIRED BY LOCAL CODES.
2. INSTALL SHUTOFF VALVES CLOSE TO FIXTURE AND APPLIANCE CONNECTIONS, AND AHEAD OF UNION AND DIRT LEG AT ROOFTOP UNITS.
3. UNIONS SHALL BE INSTALLED ON BOTH SIDES OF ALL EQUIPMENT AND WHERE REQUIRED TO FACILITATE REMOVAL OF EQUIPMENT.
4. PROVIDE GAS PRESSURE REGULATING VALVES WITH TURNED DOWN VENTS AT ALL GAS APPLIANCES WHEN DISTRIBUTION PRESSURE IS GREATER THAN 7" W.C.
5. PROVIDE GAS MAIN SHUTOFF VALVE WITH LEVER TYPE HANDLE PLACED ON ON HOUSE SIDE OF METER.
6. PAINT ALL EXTERIOR PIPING INCLUDING PIPING INSTALLED ON ROOF WITH TWO COATS OF RUST INHIBITING EXTERIOR PAINT.
7. SUPPORT PIPING ON ROOF PER INSTRUCTION OF LANDLORD'S ROOFING CONTRACTOR TO MAINTAIN ROOF WARRANTY.
E. INSULATION
1. ALL WATER PIPING, HORIZONTAL AND VERTICAL SHALL BE INSULATED WITH FIBERGLASS PIPE INSULATION WITH AN ALL PURPOSE VAPOR BARRIER JACKET. USE MINIMUM 1" INSULATION ON WATER PIPING. ALL INSULATING MATERIALS SHALL HAVE A MAXIMUM 25 FLAME SPREAD RATING AND 50 SMOKE DEVELOPED RATING.
2. APPROVED INSULATION BLOCKING SHALL BE PLACED BETWEEN SHEET METAL JACKET AND BOTTOM OF THE PIPE WHERE JACKET ALONE CANNOT PREVENT CRUSHING. INSULATION JACKET OR VAPOR BARRIER SHALL BE SEALED AFTER INSTALLING BLOCKING (SEE HANGERS, SUPPORTS AND SLEEVES).
F. HANGERS, SUPPORTS AND SLEEVES
1. ALL DRAIN, WASTE, HOT AND COLD WATER, AND NATURAL GAS PIPING EXPOSED, ABOVE GRADE AND IN FINISHED AREAS, SHALL BE SUPPORTED IN PLACE WITH SECURELY FASTENED SOLID PIPE HANGERS NOT OVER 8'-0" APART AND AT EACH CHANGE IN DIRECTION, (5'-0" ON CAST IRON PIPE).
2. PIPE HANGERS SHALL BE INSTALLED AROUND THE OUTSIDE OF INSULATION WITH VAPOR BARRIERS, AND INSULATION SHALL BE PROTECTED AGAINST CRUSHING BY SHEET METAL JACKET OF PROPER AREA AND WEIGHT.
3. ALL WATER PIPING RUNNING THROUGH FLOORS OR WALLS SHALL BE ISOLATED FROM THE PENETRATION WITH A SLEEVE. MAINTAIN THE FIRE RATINGS OF ALL WALL AND FLOOR PENETRATIONS BY USE OF APPROVED FIRE STOP MATERIALS.
4. SLEEVES THROUGH WALLS SHALL BE CUT SO AS TO BE FLUSH WITH THE FINISHED SURFACE OF THE WALL. IN EACH CASE AND SHALL BE MADE WATERTIGHT.
6. TESTING
1. DRAIN, WASTE AND VENT LINES SHALL PASS INSPECTION UNDER HEAD OF WATER BY SYSTEM WITH WATER TO TOP OF HIGHEST VENT STACK.
2. WATER LINES SHALL PASS INSPECTION OF FOUR (4) HOURS UNDER 150 PSI PRESSURE. BEFORE ANY USE OF SYSTEM IS MADE FOR DOMESTIC PURPOSES, IT SHALL BE DISINFECTED BY SLOWLY FILLING WITH WATER TO WHICH A DISINFECTING AGENT HAS BEEN INJECTED AT A RATE OF 50 P.P.M. OF CHLORINE, WHICH SHOULD BE ALLOWED TO STAND IN THE PIPING FOR AT LEAST 24 HOURS, AFTER WHICH TESTS FOR RESIDUAL CHLORINE SHALL SHOW NOT LESS THAN FIVE (5) P.P.M. OF RESIDUAL CHLORINE AT EVERY WATER OUTLET IN THE BUILDING. IF THE RESIDUAL IS LESS THAN FIVE PPM, THE DISINFECTION SHALL BE REPEATED UNTIL THE REQUIRED RESIDUAL IS OBTAINED AT EVERY OUTLET. AFTER REQUIRED RESIDUAL IS OBTAINED AT EVERY OUTLET, THE SYSTEM SHALL BE FLUSHED UNTIL THE CHLORINE LEVEL AT EVERY OUTLET IS REDUCED TO THAT OF INCOMING WATER SUPPLY.
3. GAS LINES SHALL STAND A PRESSURE OF 25 PSI FOR A PERIOD OF 15 MINUTES WITHOUT PERCEPTIBLE DROP.
4. ALL TESTING SHALL BE PERFORMED BY CONTRACTOR AT HIS OWN EXPENSE.
H. WARRANTY
1. ALL MATERIALS FURNISHED AND INSTALLED UNDER THIS CONTRACT SHALL BE NEW AND FREE FROM ALL DEFECTS IN MATERIALS AND WORKMANSHIP AND SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF ACCEPTANCE BY TENANT.

301 Industrial Blvd. Tullahoma, TN 37388. Office: 931.454.9940. 2605 Elm Hill PK/SH/C Nashville, TN 37214. Office: 615.678.6022. oliver@oliver-ginjon.com

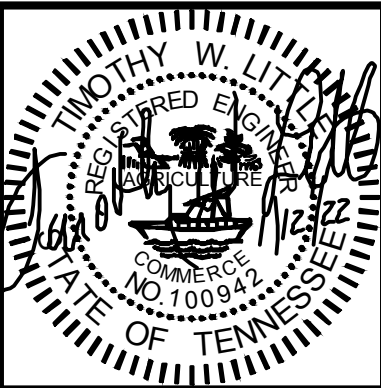
Oliver • Little • Ginjon ENGINEERING, INC. description by mark revisions

01-12-2022 64421 TML TML BDC date project designed drawn checked



RRMM ARCHITECTS, PC

1317 Executive Blvd, Suite 200 Chesapeake, VA 23320 (757)622-2828 / fax (757)622-8883



project drawing specifications sheet

FAMILY DOLLAR 503 TENNESSEE AVENUE NORTH, DEAL #806621 PARSONS, TENNESSEE

MP-3



ANY NEW LIGHTING WILL BE PROVIDED BY TENANT FOR TENANT'S CONTRACTOR INSTALLATION

LIGHT FIXTURE SCHEDULE							
FIXT. SYM	LIGHT DESCRIPTION	VOLTS	WATTS	LAMP QTY, WATTS, TYPE	LAMPS	MOUNTING	SCHEDULE NOTES
☐	EMERGENCY LIGHT (EXTERIOR)	SEE ELEC. PANEL	2	(2) 1 WATT LED		WALL OVER EXTERIOR DOOR	EMERGENCY LIGHT WITH REMOTE BATTERY
☐	EMERGENCY LIGHT (INTERIOR)	SEE ELEC. PANEL	2	(2) 1 WATT LED		SURFACE	EMERGENCY LIGHT UNIT
⊗	EXIT LIGHT	SEE ELEC. PANEL	5		FURNISHED WITH FIXTURE	CEILING UNLESS OTHERWISE REQUIRED BY CODE	L.E.D. SINGLE-FACE EXIT SIGN W/EMERGENCY BATTERY NOTES: D
—○—	8'-0" STRIP LIGHT	SEE ELEC. PANEL	36	(2) 18W LED	FURNISHED WITH FIXTURE	CEILING SURFACE	INTERIOR/EXTERIOR STRIP NOTES: A, C, D, E, F, G
—○—	8'-0" STRIP LIGHT (EMERGENCY LIGHT)	SEE ELEC. PANEL	36	(2) 18W LED	FURNISHED WITH FIXTURE	CEILING SURFACE	EMERGENCY LIGHT WITH INTEGRAL BATTERY PACK NOTES: A, C, D, E, F, G
—○—	4'-0" STRIP LIGHT	SEE ELEC. PANEL	18	(1) 18W LED	FURNISHED WITH FIXTURE	CEILING SURFACE	INTERIOR/EXTERIOR STRIP NOTES: A, C, D, E, F, G
—○—	4'-0" STRIP LIGHT (EMERGENCY LIGHT)	SEE ELEC. PANEL	18	(1) 18W LED	FURNISHED WITH FIXTURE	CEILING SURFACE	EMERGENCY LIGHT WITH INTEGRAL BATTERY PACK NOTES: A, C, D, E, F, G
—○—	4'-0" STRIP LIGHT (TWO-LAMP EMERGENCY LIGHT)	SEE ELEC. PANEL	36	(2) 18W LED	FURNISHED WITH FIXTURE	CEILING SURFACE	EMERGENCY LIGHT WITH INTEGRAL BATTERY PACK NOTES: A, C, D, E, F, G

**LIGHT FIXTURE SCHEDULE NOTES:**

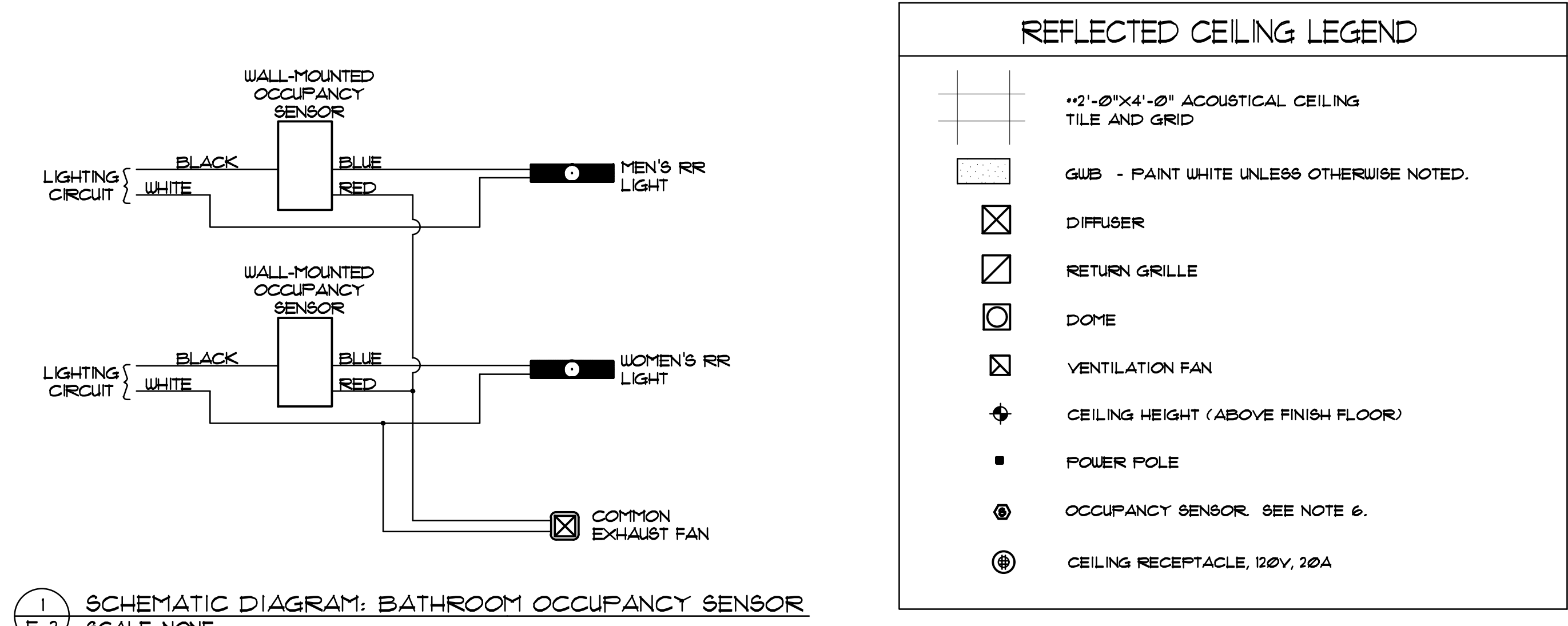
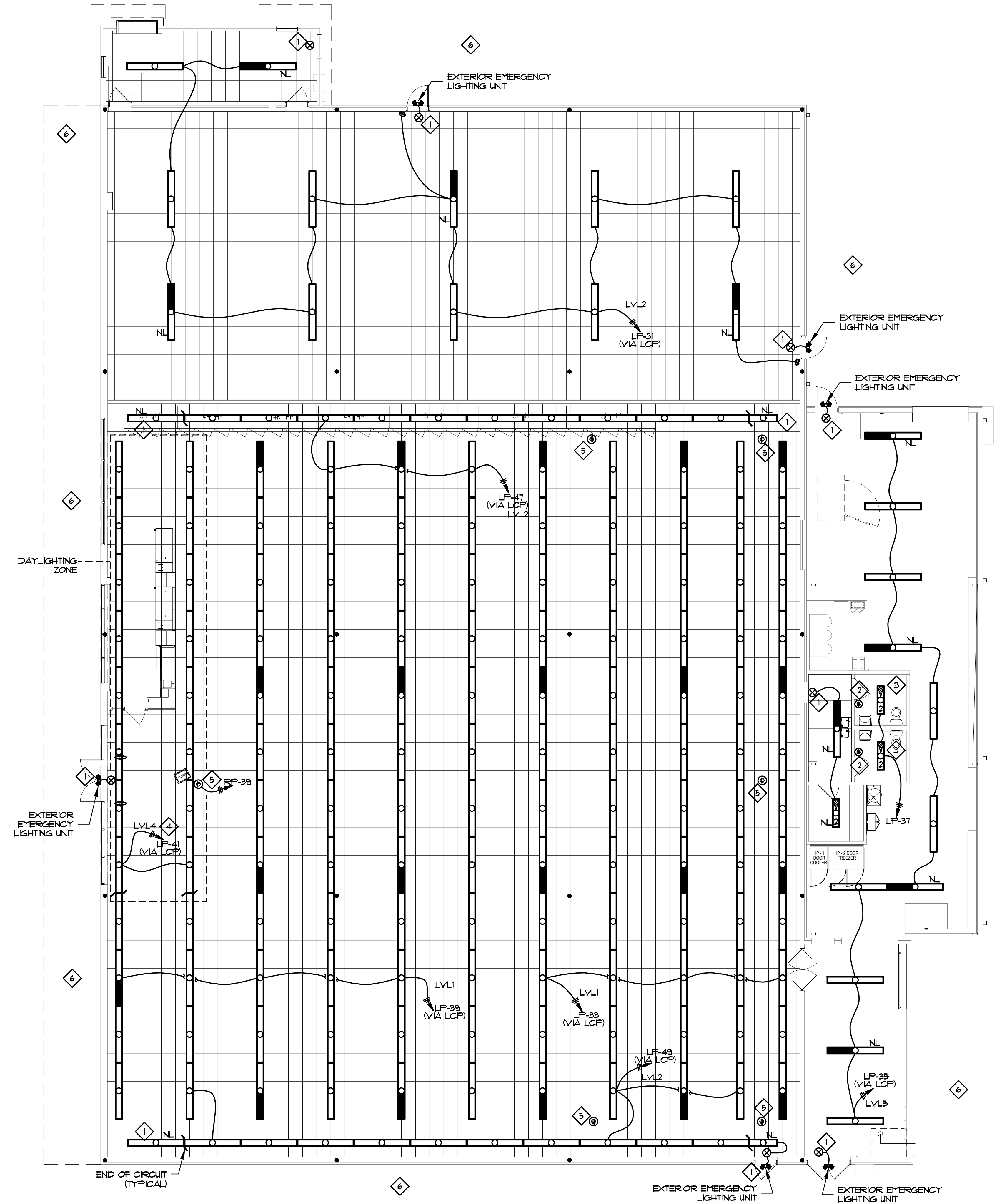
- DESIGNATED FIXTURE SHALL HAVE LED LAMPS.
- CUT INSULATION (WHEN BATT TYPE IS USED) OR PROVIDE SHIELD AROUND FIXTURE (WHEN BLOW-IN TYPE IS USED) TO KEEP INSULATION A MINIMUM OF 3" AWAY FROM FIXTURE.
- ATTACH FIXTURE TO T-BAR PER NEC 410-36.
- FIXTURE PROVIDED WITH DUAL VOLTAGE 120/277V POWER SUPPLY. VERIFY VOLTAGE FOR EACH FIXTURE LOCATION.
- EMERGENCY FIXTURE WITH BUILT-IN BATTERY BACK-UP.
- LIGHT FIXTURES DENOTED BY "NL" SHALL REMAIN ON DURING NON-BUSINESS WORKING HOURS.
- WITH NO FINISHED CEILING, LIGHT FIXTURES ABOVE THE SALES FLOOR SHALL BE SUSPENDED @ 12'-0" A.F.F. AND LIGHT FIXTURES ABOVE THE STOCKROOM SHALL BE SUSPENDED @ 10'-0" A.F.F.
- FOR EXISTING FIXTURES THAT ARE TO REMAIN, THE CONTRACTOR SHALL REPLACE ALL EXISTING LAMPS WITH NEW LAMPS PROVIDED BY THE CONTRACTOR.

CONTRACTOR SHALL INSTALL ADDITIONAL WIRE TE SUPPORTS FROM THE CEILING GRID TO THE STRUCTURE ABOVE FOR SUPPORT OF THE LIGHT FIXTURES CLIPPED ON THE GRID.  
PROVIDE DEDICATED NEUTRAL FOR EACH LIGHTING CIRCUIT.

ALL EXISTING ELECTRICAL EQUIPMENT/DEVICES, AND ASSOCIATED CONDUIT AND WIRING NOT SHOWN ON THIS PLAN OR IN ELECTRICAL RISER ON SHEET E-3 SHALL BE REMOVED COMPLETE.

**LIGHTING PLAN NOTES:**

- ALL EXIT SIGNS, NIGHT LIGHTS, AND EXTERIOR EMERGENCY LIGHTS SHALL BE CIRCUITED TO PANEL "LP", CIRCUIT 30. WIRING NOT SHOWN FOR DRAWING CLARITY.
- TOILET ROOMS SHALL HAVE OCCUPANCY SENSORS INSTALLED AND CONNECTED AS SHOWN IN DETAIL #1 - SCHEMATIC DIAGRAM, THIS SHEET. MOUNT ON WALL NEXT TO DOOR INSIDE RESTROOM. LIGHTS AND OCCUPANCY SENSORS TO BE WIRED INDEPENDENTLY OF THE ENERGY MANAGEMENT SYSTEM VIA CIRCUIT LP-37.
- EXISTING TOILET ROOM EXHAUST SYSTEM TO REMAIN AS INSTALLED AND CIRCUITED. CONNECT TO OCCUPANCY SENSORS PER THE SCHEMATIC DIAGRAM ON THIS SHEET.
- THE LIGHT FIXTURES WITHIN THE DESIGNATED DAYLIGHTING ZONE IN FIRST TWO ROWS WILL BE PROVIDED WITH INDEPENDENT CONTROL FOR DAY-LIGHTING PER IECC. THESE CIRCUITS SHALL BE ROUTED THROUGH THE LCP FOR DAY-LIGHTING CONTROL.
- PROVIDE RECEPTACLE IN CEILING FOR SECURITY MONITOR EQUIPMENT AND CONNECT TO CIRCUIT RP-39. CONFIRM RECEPTACLE LOCATION WITH PD SITE SPECIFIC FIXTURE PLAN PRIOR TO BEGINNING CONSTRUCTION.
- ALL EXISTING EXTERIOR LIGHTING AND PYLON SIGNAGE SHALL BE HOOKED-UP, RELAMPED (ALL FIXTURES), FULLY TESTED AND REPAIRED AS REQUIRED, AND FULLY OPERATIONAL PRIOR TO COMPLETION. CIRCUITS SHALL BE ROUTED THROUGH THE ENERGY MANAGEMENT SYSTEM, LEVEL 3 CONTRACTOR, FOR CONTROL.



**LIGHTING PLAN**  
SCALE: 1/8"=1'-0"  
NORTH

date	project	designed	drawn	checked
01-12-2022	64421	DWB	DWB	AGS

mark date  
revisions

**RRMM ARCHITECTS, P.C.**  
1317 Executive Blvd, Suite 200  
Chesapeake, VA 23320  
(757)622-2828 / fax (757)622-6883

DALE GIPSON  
REGISTERED PROFESSIONAL ENGINEER  
STATE OF TENNESSEE  
10447

**FAMILY DOLLAR**  
503 TENNESSEE AVENUE NORTH, DEAL #805621  
PARSONS, TENNESSEE

project  
drawing  
LIGHTING PLAN





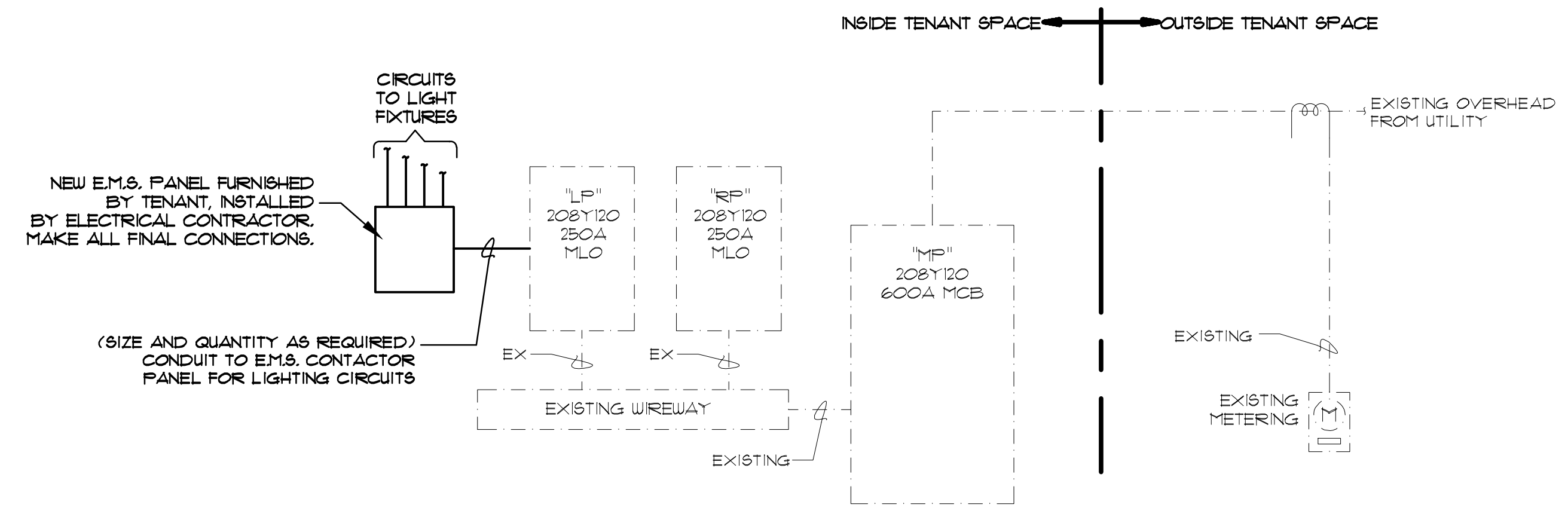
**GENERAL ELECTRICAL NOTES**

- ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE AND ALL LOCAL AND STATE CODES.
- ALL MATERIAL, DEVICES, APPLIANCES, AND EQUIPMENT SHALL BE NEW AND SHALL CONFORM TO THE STANDARDS OF THE UNDERWRITER'S LABORATORIES, INC. AND THE NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION.
- ALL ELECTRICAL PERMITS AND INSPECTION FEES SHALL BE OBTAINED AND PAID FOR BY THE ELECTRICAL CONTRACTOR. DRAWINGS ARE DIAGNOSTIC ONLY AND INDICATE ONLY THE GENERAL ARRANGEMENT. SEE ARCHITECTURAL DRAWINGS FOR EXACT DIMENSIONS, DO NOT SCALE PLANS.
- ELECTRICAL CONTRACTOR SHALL GUARANTEE ALL WORK AND MATERIALS FOR ONE YEAR EFFECTIVE THE DAY THE PROJECT IS ACCEPTED BY THE OWNER.
- ELECTRICAL CONTRACTOR SHALL MAKE ALL ELECTRICAL POWER CONNECTIONS TO HVAC, PLUMBING AND OTHER EQUIPMENT AS REQUIRED.
- A COMPLETE GROUNDING SYSTEM SHALL BE PROVIDED AND INSTALLED IN ACCORDANCE WITH ARTICLE 250 OF THE NEC, AND AS SHOWN ON THE DRAWINGS.
- ALL CUTTING AND PATCHING OF WALLS AND FLOORS FOR ELECTRICAL EQUIPMENT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.
- CONDUCTORS SHALL BE COPPER RATED AT NOT LESS THAN 600 VOLTS. MINIMUM SIZE SHALL BE #2 AWG UNLESS OTHERWISE NOTED ON THE DRAWINGS. ALL WIRE #6 AWG AND LARGER SHALL BE STRANDED. ALL CONDUCTORS #6 AND SMALLER SHALL BE SOLID, UNLESS OTHERWISE NOTED. BRANCH CIRCUIT CONDUCTORS SHALL BE TYPE THHN/THWN OR XHHW AS REQUIRED.
- ALL WIRING SHALL BE INSTALLED IN ACCORDANCE WITH NEC. TYPE MC CABLE IS THE PREFERRED WIRING METHOD, USE EMT WHERE MC IS PROHIBITED, USE RIGID STEEL CONDUIT WHERE EXPOSED OUTDOORS, USE LIQUID TIGHT FPC FOR ALL CONNECTIONS TO MOTORS AND CONDENSING UNITS. MINIMUM CONDUIT SIZE TO BE 3/4". EC TO RUN ALL ELECTRICAL OVERHEAD IN A NEAT AND ORGANIZED FASHION.
- PROVIDE A FULLWIRE IN ALL EMPTY CONDUITS.
- PROVIDE A TYPED DIRECTORY IN ALL PANELBOARDS CLEARLY DESCRIBING THE LOCATION OF AND TYPE OF LOAD BEING SERVED FOR ALL CIRCUITS. PROVIDE ENGRAVED PHENOLIC NAMEPLATES FOR ALL PANELBOARDS AND DISCONNECT SWITCHES, WHITE LETTERS ON BLACK BACKGROUND.
- FUSES 0 - 600 AMPS SHALL BE UL CLASS "RK-1" LOW PEAK DUAL ELEMENT TIME DELAY WITH 200/2000 AMPERE INTERRUPTING RATINGS AS MANUFACTURED BY BUSMANN, UNLESS NOTED OTHERWISE.
- ALL TERMINALS/LUGS SHALL BE "B" RATED. ALL TERMINALS, SPLICING CONNECTORS, LUGS, ETC SHALL BE IDENTIFIED FOR USE WITH THE MATERIAL (CU/AL) OF THE CONDUCTOR AND SHALL BE PROPERLY INSTALLED.
- VERIFY ALL REQUIREMENTS AND COORDINATE EXACT LOCATION OF INCOMING ELECTRICAL SERVICE WITH LOCAL POWER COMPANY PRIOR TO PROJECT START-UP. NOTIFY ENGINEER OF ANY CHANGES AS MAY BE REQUIRED.
- ALL ELECTRICAL DEVICES (SWITCHES AND OUTLETS) SHALL BE "WHITE" WITH WHITE NYLON UNBREAKABLE WALL COVER PLATES EXCEPT THAT IG OUTLETS SHALL BE "ORANGE".
- THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL ELECTRICAL EQUIPMENT FROM FOREIGN MATERIAL DURING CONSTRUCTION (PAINT, SPACKLE, ETC.).
- PENETRATIONS OF REQUIRED SMOKE PARTITIONS SHALL BE SEALED USING METHODS APPROVED UNDER THE STATE BUILDING CODE. COORDINATION WITH THE GENERAL CONTRACTOR SHALL BE MAINTAINED TO INSURE THAT THIS SMOKE STOPPING IS ACCOMPLISHED.
- WHERE PENETRATIONS ARE MADE THROUGH A REQUIRED FIRE-RESISTIVE WALL, FLOOR, OR PARTITION FOR THE PURPOSE OF RUNNING RACEWAY CARRYING ELECTRICAL, TELEPHONE, TELEVISION, OR LOCAL COMMUNICATION AND/OR SIGNALING CIRCUITS, THE OPENING AROUND THE RACEWAY SHALL BE FIRE STOPPED PER THE STATE BUILDING CODE. COORDINATION WITH THE GENERAL CONTRACTOR SHALL BE MAINTAINED TO INSURE THAT THIS FIRE STOPPING IS ACCOMPLISHED. USE APPROVED UL OR EQUIVALENT ASSEMBLIES.
- IN REQUIRED FIRE RATED WALLS AND PARTITIONS, OPENINGS FOR INSTALLATION OF BOXES THAT ARE GREATER THAN 16 SQUARE INCHES SHALL BE PROTECTED AS REQUIRED BY UL. COORDINATE CLOSELY WITH THE GENERAL CONTRACTOR TO INSURE THAT THE INTEGRITY OF THE UL RATING IS MAINTAINED.
- WHERE A HOME RUN IS SHOWN THE CIRCUIT SHALL BE INSTALLED IN A DEDICATED CONDUIT, DO NOT COMBINE WITH OTHER CIRCUITS. WHERE A CIRCUIT HOMERUN IS NOT SHOWN, THE CONTRACTOR SHALL COMBINE CIRCUITS AS FOLLOWS: A MAXIMUM OF THREE 20A BRANCH CIRCUITS MAY BE COMBINED IN A COMMON HOMERUN WITH SEPARATE NEUTRALS FOR A MAXIMUM TOTAL OF SIX CURRENT CARRYING CONDUCTORS. ALL BRANCH CIRCUITS LARGER THAN 20A SHALL BE SEPARATELY HOMERUN TO THE PANEL.
- EACH DISCONNECT SHALL BE EQUIPPED WITH A GROUND BAR.
- PROVIDE GREEN EQUIPMENT GROUNDING CONDUCTOR WITH ALL FEEDER AND BRANCH CIRCUITS.
- DEVICE HEIGHTS INDICATED ARE TO THE CENTER OF THE DEVICE OR EQUIPMENT UNLESS NOTED OTHERWISE. RECEPTACLE AND DATA/TELEPHONE OUTLETS SHOWN ADJACENT ON DRAWINGS SHALL BE MOUNTED 6" APART ON CENTER HORIZONTALLY.
- COORDINATE ALL DEVICES AND OUTLETS ABOVE OR BELOW WITH CASEWORK INSTALLATION AND FDS IN ORDER TO POSITION AT THE PROPER LOCATION AND HEIGHT.
- ALL EXTERIOR FIXTURES AND DEVICES SHALL BE RATED FOR OPERATION AT 0° F AND SHALL BE DWP OR WET LABELED AS REQUIRED.
- THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ALL ELECTRICAL EQUIPMENT, DEVICES, ETC IN ACCORDANCE WITH LOCAL SEISMIC CODE REQUIREMENTS. PROVIDE SEISMIC RESTRAINTS, ACCESSORIES AND INSTALLATION DETAIL AS REQUIRED.
- THE CONTRACTOR SHALL VISIT THE SITE AND BECOME THOROUGHLY FAMILIAR WITH ALL DETAILS OF THE WORK AND WORKING CONDITIONS. VERIFY ALL FIELD CONDITIONS INCLUDING LOCATION OF UTILITY LINES, STRUCTURES AND ADVISE THE ENGINEER OF ANY DISCREPANCY THAT MAY PREVENT OR HINDER THE SPECIFIED WORK FROM BEING COMPLETED.
- THE CONTRACTOR SHALL STUDY THE STRUCTURE AND FINISH CONDITIONS AFFECTING THE WORK AND SHALL COORDINATE THE WORK ACCORDINGLY. THE CONTRACTOR SHALL PROVIDE ALL ACCESSORIES, HANGERS, AND ANCHORS AS NECESSARY TO MEET SUCH CONDITIONS WITHOUT ADDITIONAL COST TO THE OWNER.
- PRIOR TO ACCOMPLISHING ANY WORK IN ANY AREA, ALL WORK SHALL BE PLANNED AND COORDINATED WITH OTHER TRADES AND THE OWNER. THE CONDUIT ROUTING SHALL BE COORDINATED WITH DUCTWORK AND OTHER OBSTACLES SO AS TO PROVIDE THE MOST EFFICIENT AND AESTHETICALLY PLEASING INSTALLATIONS.
- PROPERLY SUPPORT ALL WORK AND EQUIPMENT INSTALLED UNDER THIS CONTRACT. STUDY ALL DRAWINGS, MANUFACTURER'S INSTRUCTIONS, AND CATALOG DATA TO DETERMINE HOW EQUIPMENT ACCESSORIES, AND RELATED ITEMS ARE TO BE SUPPORTED, MOUNTED OR SUSPENDED. PROVIDE ALL BOLTS, INSERTS, BRACKETS, STRUCTURAL SUPPORTS, AND ACCESSORIES FOR PROPER SUPPORT OF EQUIPMENT BEING FURNISHED UNDER THIS CONTRACT.

**RISER LEGEND**

---	DASH DOT LINE TYPE INDICATES EXISTING EQUIPMENT TO REMAIN
----	HIDDEN LINE TYPE INDICATES EQUIPMENT FURNISHED AND INSTALLED BY LANDLORD.
—	CONTINUOUS LINE TYPE INDICATES NEW EQUIPMENT TO BE INSTALLED
- - - -	PHANTOM LINE TYPE INDICATES EXISTING EQUIPMENT TO BE RELOCATED

ALL EXISTING ELECTRICAL EQUIPMENT, DEVICES, AND ASSOCIATED CONDUIT AND WIRING NOT SHOWN ON THIS PLAN OR IN ELECTRICAL RISER ON SHEET E-3 SHALL BE REMOVED COMPLETE.



**2 RISER DIAGRAM**  
E-3 SCALE: NONE

301 Industrial Blvd.  
Tulahoma, TN 37388  
Office: 931.454.9940  
2605 Elm Hill PKWY/1C  
Nashville, TN 37214  
Office: 615.678.6022  
otgengineering.com

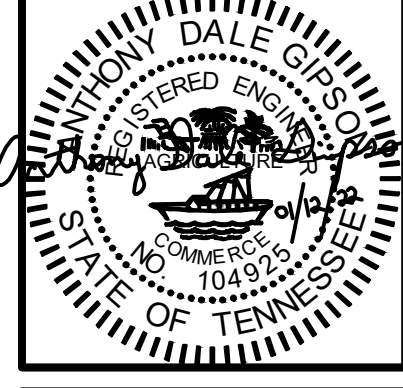
**Oliver • Little • Gipson**  
**OLIG**  
Engineering, Inc.

description	by	date	mark	revisions

01-12-2022	64421	DWB	DWB	ASB
date	project	designed	drawn	checked



**RRMM**  
ARCHITECTS, P.C.  
1317 Executive Blvd, Suite 200  
Chesapeake, VA 23320  
(757)622-2828 / fax (757)622-8883

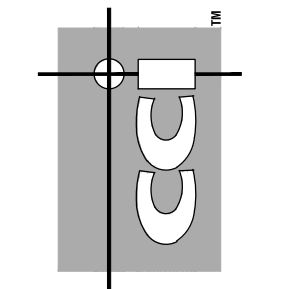


project

drawing

sheet

503 TENNESSEE AVENUE NORTH, DEAL #805621  
PARSONS, TENNESSEE  
NOTES & RISER DIAGRAM



2143 WOODLAND PKWY, SUITE 300  
ST. LOUIS, MISSOURI 63146-4235  
314-997-2633  
www.cciconsultants.com

SYMBOL KEY	
	EXISTING PIPING TO REMAIN
	NEW PIPING
	CONNECT TO EXISTING PIPE AND/OR FITTING
	EXISTING BRASS UPRIGHT ON 1" SPRIG
	EXISTING FLUSH CHROME PENDENT
	NEW CHROME PENDENT ON 2-PIECE TELESCOPING ESCUTCHEON
	APPROXIMATE CENTER LINE ELEVATION OF EXISTING PIPE ABOVE FINISHED FLOOR AND/OR BELOW METAL DECK
	RECOMMENDED CENTER LINE ELEVATION OF NEW PIPE ABOVE FINISHED FLOOR
	RISE FROM LEFT TO RIGHT AND DROP FROM RIGHT TO LEFT
	NOT IN SCOPE

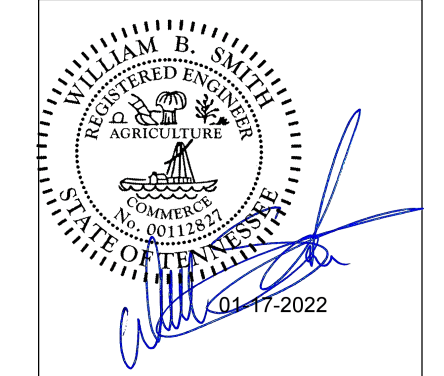
SEE SHEET FP2 FOR NOTES, DETAILS, AND SPECIFICATION

ALL ARM-OVERS TO NEW SPRINKLERS ARE 1" DIAMETER

date	project	designed	drawn	checked	mark	date	description
01-18-2022	21200-73	SMS	SMS	WBS			

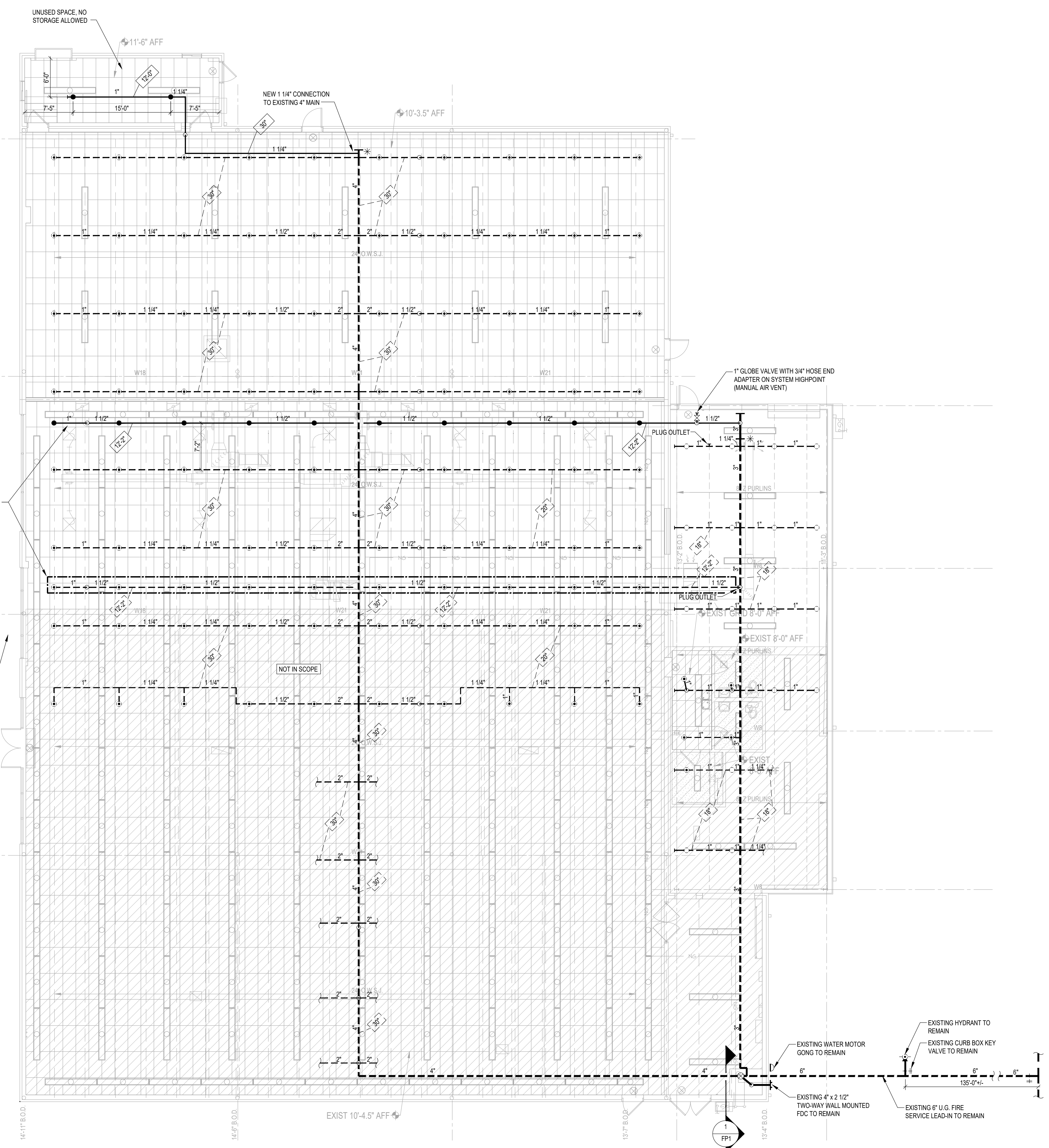


1317 Executive Blvd., Suite 200  
Chesapeake, VA 23320  
(757) 622-2628 / fax (757) 622-8883



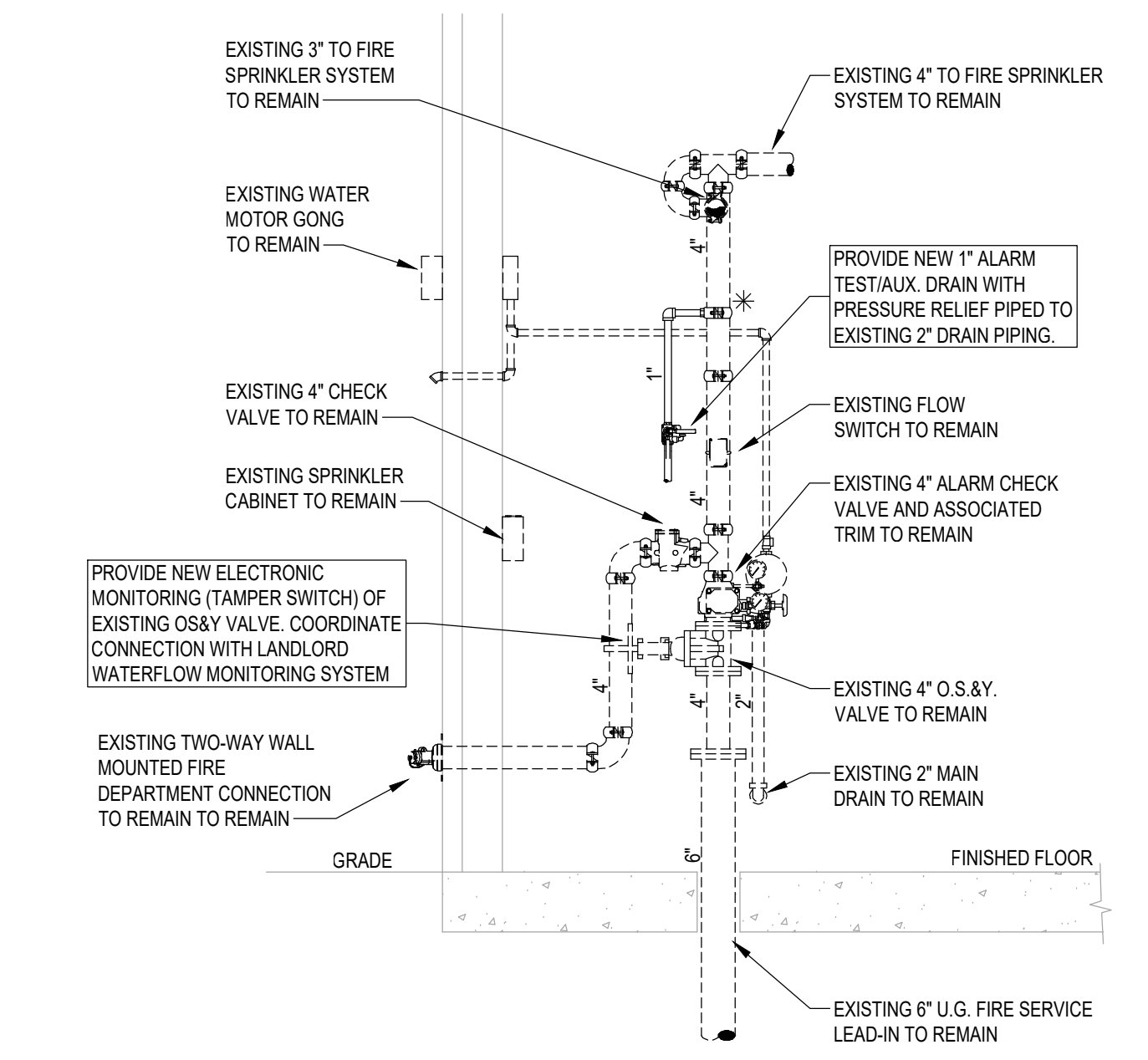
ENGINEER OF RECORD:  
WILLIAM S. SMITH, PE  
LICENSE NO. 16712  
503 TENNESSEE AVENUE NORTH, DEAL #005621  
PARSONS, TENNESSEE

503 TENNESSEE AVENUE NORTH, DEAL #005621  
PARSONS, TENNESSEE  
FIRE SPRINKLER PLAN AND RISER DETAIL



DISCONNECT AND RELOCATE EXISTING BRANCH LINE CURRENTLY ALONG EXISTING DEMISING WALL. INSTALL ALONG NEW DEMISING WALL AS SHOWN.

EXISTING NON-COMBUSTIBLE CANOPY WITH NO STORAGE (NO SPRINKLER PROTECTION REQUIRED)



ELEVATION AT EXISTING FIRE SPRINKLER RISER

1  
FP1 NOT TO SCALE FIN. FLOOR ELEV. = 100'-0"

FIRE SPRINKLER PLAN  
SCALE: 1/8" = 1'-0" FIN. FLOOR ELEV. = 100'-0"



sheet  
**FP1**

SECTION 15300 - FIRE SPRINKLER SYSTEMS

PART 1 - GENERAL

- 1.01 SUMMARY
A. RELATED DOCUMENTS: CONDITIONS OF THE CONTRACT, DIVISION 1 - GENERAL REQUIREMENTS AND DRAWINGS APPLY TO THE WORK OF THIS SECTION.
1.02 DESCRIPTION OF WORK
A. PROVIDE ALL REQUIRED LABOR, MATERIALS, EQUIPMENT, TESTING AND SERVICES NECESSARY FOR A COMPLETE AND OPERATIONAL REMODELED FIRE PROTECTION SYSTEM FOR THE PROPOSED SPACE AS HEREINAFTER DESCRIBED AND AS SHOWN ON THE ENGINEERING DRAWINGS.
B. WORK SHALL BEGIN WHERE INDICATED AND SHALL INCLUDE THE FOLLOWING:
1. REMODELED WET PIPE FIRE SPRINKLER SYSTEM FOR THE FAMILY DOLLAR TENANT EXPANSION.
2. COORDINATION OF WORK AND SCHEDULES WITH OTHER TRADES.
C. INTERIOR WORK - PROVIDE THE FOLLOWING:
1. ELECTRICALLY SUPERVISION OF EXISTING CONTROL VALVES.
2. OVERHEAD PIPE, FITTINGS, HANGERS AND SPRINKLERS.
3. TEST CONNECTION AND AUXILIARY DRAINS.
D. IT IS INTENDED THAT THE ENGINEERING DRAWINGS AND SPECIFICATION SHALL DESCRIBE AND PROVIDE FOR A WORKING INSTALLATION COMPLETE IN EVERY DETAIL AND ALL ITEMS NECESSARY FOR SUCH COMPLETE INSTALLATION SHALL BE PROVIDED WHETHER OR NOT SPECIFICALLY MENTIONED HEREIN OR SHOWN ON THE ENGINEERING DRAWINGS.

- 1.03 REFERENCES
A. ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE CODES AND REFERENCED DESIGN STANDARDS:
1. INTERNATIONAL BUILDING CODE -2012 EDITION
2. INTERNATIONAL FIRE CODE - 2012 EDITION
3. NFPA 13, SPRINKLER SYSTEMS - 2010 EDITION
1.04 SYSTEM DESCRIPTION
A. REMODELED FIRE SPRINKLER SYSTEM DESIGN CRITERIA SHALL BE STRICTLY PER THIS SPECIFICATION.
B. REMODELED FIRE SPRINKLER SYSTEM TO PROVIDE FIRE PROTECTION FOR THE AREAS INDICATED ON THE ENGINEERING DRAWINGS.
C. INTERFACE REMODELED FIRE SPRINKLER SYSTEM WITH BUILDING FIRE AND SMOKE ALARM SYSTEMS.
D. OFFICE AREAS (LIGHT HAZARD WET PIPE FIRE SPRINKLER SYSTEM):
• DENSITY - 0.10 GPM/SQ FT
• OPERATING AREA - 1,500 SQ FT
• TEMPERATURE CLASSIFICATION / NOMINAL K-FACTOR / RESPONSE TYPE - ORD / 5.6 / SR
• HOSE STREAM ALLOWANCE - 100 GPM
• DURATION - 0.50 HR
E. SALES STOCK ROOM AND RECEIVING (ORDINARY HAZARD GROUP 2 WET PIPE FIRE SPRINKLER SYSTEM):
• DENSITY - 0.20 GPM/SQ FT
• OPERATING AREA - 1,500 SQ FT
• TEMPERATURE CLASSIFICATION / NOMINAL K-FACTOR / RESPONSE TYPE - ORD / 5.6 / SR
• HOSE STREAM ALLOWANCE - 250 GPM
• DURATION - 1.0 HR
F. SPRINKLER SPACING SHALL BE AS SHOWN ON THE ENGINEERING DRAWINGS.
G. UNFINISHED AREAS - LOCATE SPRINKLERS AS SHOWN ON THE ENGINEERING DRAWINGS.
H. EXISTING FIRE DEPARTMENT CONNECTION TO REMAIN.
I. PROVIDE ALL NECESSARY OFFSETS, RAISES OR DROPS IN MAIN OR BRANCH LINE PIPING AND AUXILIARY DRAINS REQUIRED BY BUILDING CONDITIONS WHETHER OR NOT SHOWN ON THE ENGINEERING DRAWINGS.
J. EXAMINE THE JOB CONDITIONS AND VERIFY ALL MEASUREMENTS, DISTANCES, ELEVATIONS, CLEARANCES, PIPE SIZES, ETC.
K. IT IS UNDERSTOOD, UNLESS SPECIFICALLY INDICATED OTHERWISE, THAT THE PIPE SIZES AS SHOWN ON THE ENGINEERING DRAWINGS WILL BE USED.

- 1.05 QUALITY ASSURANCE
A. INSTALLER QUALIFICATIONS
1. INSTALLER'S RESPONSIBILITIES INCLUDE PREPARING SHOP DRAWING SUBMITTAL, FABRICATING AND INSTALLING SPRINKLER SYSTEMS.
B. INSTALLER SHALL BE STATE AND LOCALLY LICENSED.
C. EQUIPMENT AND COMPONENTS NOT SPECIFICALLY SPECIFIED SHALL BE LISTED BY UNDERWRITERS LABORATORIES INC. FOR FIRE PROTECTION SYSTEMS INSTALLATION.
D. ALL FIRE SPRINKLER SYSTEM COMPONENTS SHALL BE INSTALLED FREE OF ANY RUST, CORROSION OR VISIBLE DAMAGE. ALL ITEMS NOT COMPLYING WITH THIS REQUIREMENT SHALL BE REPLACED WITHOUT COST TO THE OWNER.

- 2.00 PROJECT CONDITIONS
A. INTERRUPTION OF EXISTING SPRINKLER SERVICE: DO NOT INTERRUPT SPRINKLER SERVICE TO FACILITIES OCCUPIED BY OWNER OR OTHERS UNLESS PERMITTED UNDER THE FOLLOWING CONDITIONS AND THEN ONLY AFTER ARRANGING TO PROVIDE TEMPORARY SPRINKLER SERVICE ACCORDING TO REQUIREMENTS INDICATED:
1. NOTIFY CONSTRUCTION MANAGER IN ADVANCE OF PROPOSED INTERRUPTION OF SPRINKLER SERVICE
2. DO NOT PROCEED WITH INTERRUPTION OF SPRINKLER SERVICE WITHOUT CONSTRUCTION MANAGER'S WRITTEN PERMISSION.
3. PROVIDE TEMPORARY PIPING, FITTINGS AND VALVES AS REQUIRED TO MAINTAIN SPRINKLER SERVICE.
1.07 REGULATORY REQUIREMENTS
A. ALL WORK SHALL MEET THE REQUIREMENTS OF SECTION 1.03.
B. THE FIRE SPRINKLER CONTRACTOR SHALL NOT PURSUE ANY APPROVALS OR INTERPRETATIONS OF CODES CONSTRUCTION DOCUMENT EXCEPT THROUGH CCI.
C. SPRINKLER PIPING SHALL NOT BE CONCEALED WHERE IT IS INACCESSIBLE UNLESS IT IS FIRST INSPECTED AND ACCEPTED BY A REPRESENTATIVE OF THE AUTHORITY HAVING JURISDICTION.
D. ANY WORK PERFORMED PRIOR TO THE SATISFACTORY REVIEW BY CCI AND APPROVAL BY THE AUTHORITY HAVING JURISDICTION AND THE INSURANCE UNDERWRITER WILL BE SOLELY AT THE FIRE SPRINKLER CONTRACTOR'S RISK.
E. THE SYSTEM WILL NOT BE ACCEPTABLE UNTIL FINAL TESTING AND RECEIPT OF THE CONTRACTOR'S MATERIAL AND TEST CERTIFICATE HAS BEEN OBTAINED.
1.08 SUBMITTALS
A. THE ENGINEERING DRAWINGS HAVE BEEN PREPARED USING AUTOCAD. THE ENGINEERING DRAWINGS ARE 100% CADD. THESE DOCUMENTS WILL BE MADE AVAILABLE TO THE SUCCESSFUL FIRE SPRINKLER CONTRACTOR IN EITHER ELECTRONIC FORM OR HARD COPY. UTILIZATION OF THESE DOCUMENTS FOR THE DEVELOPMENT OF SHOP DRAWINGS AND SUBMITTALS DOES NOT RELIEVE THE FIRE SPRINKLER CONTRACTOR FROM ANY OF HIS RESPONSIBILITIES REQUIRED HEREIN.
B. SUBMIT THE FOLLOWING:
1. SHOP DRAWINGS. SUBMIT IN PDF FORMAT OR TWO (2) HARD COPIES OF EACH DRAWING. DRAWINGS WILL BE RETURNED IN THE SAME FORMAT RECEIVED. SUBMITTAL MUST BE COMPREHENSIVE OF ENTIRE PROJECT, COMPLETE IN ALL DETAIL AND THE SAME SCALE AS THE ENGINEERING DRAWINGS.
2. MANUFACTURER'S LITERATURE ON ALL SYSTEM EQUIPMENT. SUBMIT IN PDF FORMAT OR TWO (2) HARD COPIES OF THE LITERATURE. LITERATURE WILL BE RETURN IN THE SAME FORMAT AS RECEIVED. LITERATURE SHALL CLEARLY IDENTIFY EXACTLY WHAT COMPONENTS ARE BEING PROVIDED WHICH SHALL INCLUDE: FINISH, SIZE, TYPE, OPTIONS, ETC. LITERATURE WHICH IS NOT CLEARLY IDENTIFIED WILL BE REJECTED.
C. CCI WILL REVIEW THIS SUBMITTAL FOR CONSISTENCY WITH CCI'S CONSTRUCTION DOCUMENTS.
D. AFTER THE SATISFACTORY REVIEW BY CCI, PROVIDE SUBMITTALS TO THE AUTHORITY HAVING JURISDICTION AND THE INSURANCE UNDERWRITER FOR APPROVAL.
E. THE FIRE SPRINKLER CONTRACTOR SHALL BE RESPONSIBLE FOR RESPONDING, IN WRITING, TO ANY COMMENTS FROM THE AUTHORITY HAVING JURISDICTION OR THE INSURANCE UNDERWRITER WITHIN TEN (10) WORKING DAYS AFTER THE RECEIPT OF THEIR COMMENTS. COPIES OF THE RESPONSE SHALL BE SENT TO THE GENERAL CONTRACTOR AND CCI.
1.09 AS-BUILT DRAWINGS
A. PROVIDE AS-BUILT DRAWINGS IN ACCORDANCE WITH REQUIREMENTS OF THE GENERAL CONDITIONS OF THE CONTRACT AND NFPA 13.
1.10 OPERATION AND MAINTENANCE DATA
A. PROVIDE OPERATING AND MAINTENANCE INSTRUCTIONS TO THE OWNER IN ACCORDANCE WITH REQUIREMENTS OF THE GENERAL CONDITIONS OF THE CONTRACT AND NFPA 13.
1.11 WARRANTY
A. REPAIR ALL DEFECTIVE WORKMANSHIP OR REPLACE ALL DEFECTIVE MATERIALS FOR A PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE BY THE OWNER. WORKMANSHIP OR EQUIPMENT FOUND TO BE DEFECTIVE DURING THAT PERIOD SHALL BE REPLACED WITHOUT COST TO THE OWNER.

- PART 2 - PRODUCTS
2.01 PIPING
A. UNDERGROUND PIPING: NONE.
B. OVERHEAD PIPE: PER LOCAL REQUIREMENTS AND NFPA 13. ALL PIPE SHALL HAVE A CORROSION RESISTANCE RATIO (CRR) EQUAL TO OR GREATER THAN 1.00. REFER TO THE CURRENT UL FIRE PROTECTION EQUIPMENT DIRECTORY - STEEL SPRINKLER PIPE FOR ACCEPTABLE MANUFACTURERS, SIZES, AND JOINING METHODS.
2.02 JOINING OF PIPE AND FITTINGS
A. ALL PIPE SHALL BE JOINED IN ACCORDANCE WITH NFPA 13 AND MANUFACTURER'S RECOMMENDATIONS.
B. FITTINGS SHALL BE 175 PSI SCREWED OR FLANGED BLACK CAST IRON OR APPROVED EQUAL SUCH AS MECHANICAL, GROOVED, FLAN END OR WELDED CONNECTIONS. WHERE GROOVED FITTINGS AND COUPLINGS ARE USED TOGETHER, THEY SHALL BE OF THE SAME MANUFACTURER.
C. BUSHINGS SHALL NOT BE USED.
D. FLEXIBLE COUPLINGS SHALL BE IDENTIFIED ON THE SHOP DRAWINGS.
2.03 HANGERS AND SLEEVES
A. SLEEVES SHALL BE SET FOR ALL PIPES PASSING THROUGH CONCRETE FLOORS, FOUNDATIONS AND MASONRY WALLS.
B. PROVIDE PRIMED ESCUTCHEON PLATES AT ALL WALL PENETRATIONS WHERE THE HOLE WOULD OTHERWISE BE EXPOSED TO VIEW.
C. ALL HANGERS TO BE OF APPROVED MATERIALS AND SPACED IN ACCORDANCE WITH NFPA 13 AND THE PIPING MANUFACTURER'S SPECIFICATIONS.
D. THE SECTION MODULUS REQUIRED BY NFPA 13 SHALL BE PROVIDED FOR ALL TRAPEZOIDAL MEMBERS SUPPORTING PIPING.

- 2.04 VALVES
A. INTERIOR VALVES:
1. GLOBE VALVE: BRONZE THREADED; RENEWABLE COMPOSITION DISC; 175 PSI RATED WORKING PRESSURE.
a. ACCEPTABLE MANUFACTURERS: CRANE, MILWAUKEE, NIBCO, STOCKHAM OR APPROVED EQUAL.
2.05 SUPERVISORY SWITCHES
A. SWITCHES SHALL BE MOUNTED SO AS NOT TO INTERFERE WITH THE NORMAL OPERATION OF THE VALVE. ADJUST TO OPERATE WITHIN TWO REVOLUTIONS OF THE VALVE CONTROL OR WHEN THE STEM HAS MOVED NO MORE THAN ONE-FIFTH OF THE DISTANCE FROM ITS NORMAL POSITION; TWO SINGLE POLE, DOUBLE THROW SWITCHES SHALL BE PROVIDED SUITABLE FOR OPERATION ON 24-VOLT D.C. OR 110-VOLT A.C.; DUST TIGHT CONSTRUCTION; TAMPER RESISTANT SCREWS ON ENCLOSURE.
1. ACCEPTABLE MANUFACTURERS: GUARDIAN, POTTER ELECTRIC, STARFIRE, SYSTEM SENSOR OR APPROVED EQUAL.
B. THE SUPERVISORY SWITCH SHALL BE FURNISHED AND INSTALLED BY THE FIRE SPRINKLER CONTRACTOR AND WIRED COMPLETE BY THE FIRE ALARM CONTRACTOR.
2.06 SPRINKLERS
A. TYPES:
1. CHROME PENDENT - GLASS BULB STANDARD RESPONSE PENDENT SPRINKLER WITH POLISHED CHROME 2-PIECE TELESCOPING ESCUTCHEON.
B. ACCEPTABLE MANUFACTURERS: GLOBE, RELIABLE, TYCO, VICTAULIC AND VIKING.
C. ONLY SPRINKLERS MANUFACTURED AFTER JANUARY 1, 2020 WILL BE ACCEPTED FOR USE.
D. ONLY SPRINKLERS MANUFACTURED UTILIZING BELLEVILLE SPRING SEALS WILL BE ACCEPTABLE FOR USE.
E. PROVIDE AT THE RISER A SPARE SPRINKLER CABINET STOCKED WITH SPRINKLERS AND ESCUTCHEON ASSEMBLIES PROPORTIONATE TO THOSE PROVIDED IN THE BUILDING AND ALL NECESSARY SPRINKLER WRENCHES.
F. IF FLEXHEAD, OR A SIMILAR PRODUCT, IS USED, HYDRAULIC CALCULATIONS SHALL BE PROVIDED TO INCLUDE THE ADDITIONAL FRICTION LOSS, AND PIPE SIZES ADJUSTED IF REQUIRED AT NO ADDITIONAL COST.
2.07 SIGNS
A. APPROVED ENAMELED METAL SIGNS SHALL BE SECURELY ATTACHED AT ALL MAIN DRAINS, AUXILIARY DRAINS, ALARM TEST CONNECTIONS AND CONTROL VALVES.
B. PROVIDE A PERMANENTLY ATTACHED PLACARD INDICATING HYDRAULIC DESIGN INFORMATION IN ACCORDANCE WITH NFPA 13 AND PLACED AT THE RISER. A MOCK-UP OF PLACARD SHALL BE INCLUDED WITH EQUIPMENT LITERATURE.
C. PROVIDE A PERMANENTLY ATTACHED PLACARD INDICATING GENERAL INFORMATION IN ACCORDANCE WITH NFPA 13 AND PLACED AT THE RISER. A MOCK-UP OF PLACARD SHALL BE INCLUDED WITH EQUIPMENT LITERATURE.
D. PROVIDE AT THE RISER A PLAN INDICATING THE AREA SERVED BY THE CONTROL VALVE. THE PLAN SHALL ALSO INCLUDE THE LOCATION OF EACH LOW POINT OR AUXILIARY DRAIN VALVE. THE PLAN SHALL CLEARLY IDENTIFY THE SYSTEM ASSOCIATED WITH EACH LOW POINT AND AUXILIARY DRAIN VALVE. THIS PLAN SHALL BE FRAMED WITH A PLEXIGLASS COVER AND SHALL BE PERMANENTLY ATTACHED TO A WALL. PLAN SHALL BE LARGE ENOUGH TO CLEARLY DEFINE THE AREAS PROTECTED BY EACH SYSTEM.
2.08 TEST AND DRAIN CONNECTIONS
A. PROVIDE COMBINATION ALARM TEST/MAIN DRAIN VALVE WITH PRESSURE RELIEF EQUAL TO THE GF MANUFACTURING CO. MODEL 1011A, 1 IN. SIZE WITH 1/4 IN. TEST ORIFICE WHERE INDICATED ON DRAWINGS.
B. AUXILIARY DRAINS CONSISTING OF PLUGS OR GLOBE VALVES AND PLUGS WHERE CAPACITY OF TRAPPED PIPE SECTION EXCEEDS 5 GALLONS, SHALL BE PROVIDED TO DRAIN ALL POINTS IN THE SYSTEM THAT CANNOT BE DRAINED BACK TO MAIN RISER.
2.09 ALARM TEST CONNECTION
A. PROVIDE ALARM TEST CONNECTIONS FOR THE SYSTEM AS REQUIRED.
PART 3 - EXECUTION
3.01 COORDINATION WITH OTHER TRADES
A. COORDINATE CLOSELY WITH ALL OTHER TRADES TO EXPEDITE CONSTRUCTION AND AVOID INTERFERENCE.
3.02 PAINTING AND PATCHING
A. PAINTING OF SPRINKLER PIPING IS NOT INCLUDED IN THIS CONTRACT. ALL EXPOSED SPRINKLER PIPING SHALL BE THOROUGHLY CLEANED, REMOVING ALL DIRT, OIL, ETC. AND MADE READY TO RECEIVE PAINT IN ACCORDANCE WITH THE GENERAL CONDITIONS OF THE CONTRACT.
B. HOLES IN WALLS OR FLOORS CUT DURING THE PERFORMANCE OF THIS WORK SHALL BE PATCHED IF THE HOLES CANNOT BE COVERED BY STANDARD ESCUTCHEON PLATES SO AS TO COMPLETELY CONCEAL THE CUTS WHERE THEY WOULD OTHERWISE BE EXPOSED TO VIEW.
C. FIRE STOP ALL PENETRATIONS OF FIRE RATED ASSEMBLIES.
3.03 SYSTEM TESTS
A. HYDROSTATICALLY TEST ENTIRE SYSTEM IN ACCORDANCE WITH NFPA 13.
B. TEST SHALL BE WITNESSED BY THE AUTHORITY HAVING JURISDICTION AND OWNER'S AUTHORIZED AGENT.
C. PRELIMINARY TESTING PROCEDURES SHALL BE CONDUCTED AS MENTIONED ABOVE TO ASSURE PROPER OPERATION WHEN THE FINAL TESTING IS PERFORMED.
D. THE CONTRACTOR'S MATERIAL AND TEST CERTIFICATES AS SHOWN IN NFPA 13 MUST BE COMPLETED AND SUBMITTED TO THE ENGINEER BEFORE FINAL ACCEPTANCE MAY BE GIVEN.
E. WHEN THE SYSTEMS ARE INITIALLY COMMISSIONED (FILLED WITH WATER), USE THE MANUAL AIR VENT AND HOSE END ADAPTER AT THE END OF EACH SYSTEM, ATTACH A HOSE TO THE EXTERIOR AND OPEN THE VALVE UNTIL WATER IS DISCHARGED THROUGH THE HOSE. REPEAT THIS PROCEDURE FOR EACH SYSTEM AND ANY TIME THE SYSTEM IS DRAINED AND REFILLED.

END OF SECTION

HANGER NOTES
1. ALL HANGERS TO BE OF APPROVED MATERIALS AND SPACED IN ACCORDANCE WITH NFPA 13 AND THE PIPING MANUFACTURER'S SPECIFICATIONS.
SPRINKLER BELOW DUCT NOTE
PROVIDE SPRINKLER PROTECTION BELOW DUCTS IN EXPOSED STRUCTURE AREAS PER NFPA 13.
CONSTRUCTION NOTES
1. DURING CONSTRUCTION, FIRE SPRINKLER CONTRACTOR SHALL KEEP FIRE SPRINKLER SYSTEMS OUT OF CONSTRUCTION AREA FULLY CHARGED AND OPERATIONAL DURING BUSINESS HOURS.
2. COORDINATE REQUIRED SHUT-DOWNS OF THE EXISTING SYSTEMS WITH THE OWNER, INSURANCE UNDERWRITER, AND FIRE DEPARTMENT.
3. PROVIDE TEMPORARY PIPING AND FITTINGS AS REQUIRED TO MAINTAIN SERVICE TO FIRE SPRINKLER SYSTEMS DURING CONSTRUCTION.
4. COORDINATE CONSTRUCTION PHASES WITH OWNER AND GENERAL CONTRACTOR.

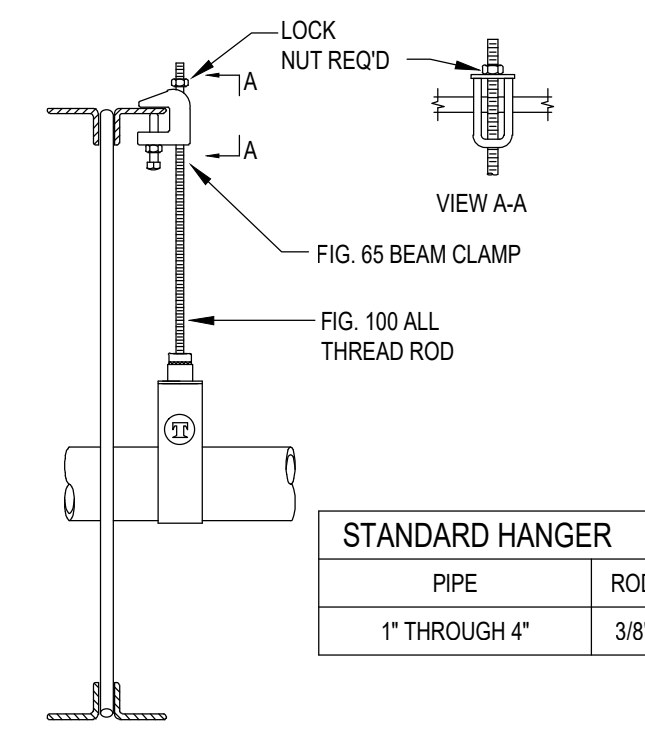
HYDRAULIC CALCULATIONS
HYDRAULIC CALCULATIONS ARE NOT REQUIRED PER TENNESSEE STATE FIRE MARSHAL'S OFFICE, PLANS EXAMINER DENNIS RHODES. DUE TO THE OCCUPANCY TYPE REMAINING MERCANTILE AND THE EXISTING SYSTEM DESIGNED TO 0.20 GPM SQ. FT. / 1,500 SQ. FT. AND LESS THAN 20 SPRINKLERS ARE AFFECTED.

SPRINKLER NOTES
1. ALL SPRINKLERS ARE 5.6 K-FACTOR.
2. SPRINKLER SPACING IN LIGHT HAZARD AREAS - MAXIMUM 225 SQ FT PER SPRINKLER AND MAXIMUM 15 FT BETWEEN SPRINKLERS.
3. SPRINKLER SPACING IN ORDINARY HAZARD AREAS - MAXIMUM 130 SQ FT PER SPRINKLER AND MAXIMUM 15 FT BETWEEN SPRINKLERS.

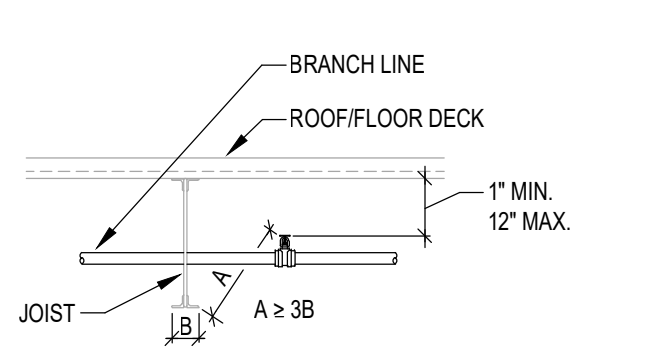
GENERAL NOTES
1. PROVIDE ALL NECESSARY OFFSETS, RAISES OR DROPS IN PIPING AND AUXILIARY DRAINS REQUIRED BY BUILDING CONDITIONS WHETHER OR NOT SHOWN ON THE DRAWINGS.
2. EXAMINE THE JOB CONDITIONS AND VERIFY ALL MEASUREMENTS, DISTANCES, ELEVATIONS, CLEARANCES, PIPE SIZES, ETC.
3. ARCHITECTURAL, CIVIL, STRUCTURAL, MECHANICAL AND ELECTRICAL BACKGROUND INFORMATION IS SHOWN FOR COORDINATION PURPOSES ONLY. REFER TO THE PROPER DRAWINGS FOR EXACT LOCATIONS, SIZES, AND QUANTITIES OF OTHER TRADES' WORK.
4. THE ENGINEERING DRAWINGS HAVE BEEN PREPARED USING AUTOCAD. THE DRAWINGS ARE 100% CADD. THESE DOCUMENTS WILL BE MADE AVAILABLE TO THE SUCCESSFUL FIRE SPRINKLER CONTRACTOR IN EITHER ELECTRONIC FORM OR HARD COPY.
5. SUPPLY ONLY ONE (1) SPRINKLER FROM A SINGLE BRANCH LINE OUTLET. PROVIDE NEW BRANCH LINES AS REQUIRED.
6. SPRINKLERS NEAR A HEAT SOURCE (UNIT HEATERS, DIFFUSERS, STEAM MAINS, SKYLIGHTS, ETC.) SHALL HAVE TEMPERATURE RATINGS IN ACCORDANCE WITH NFPA 13.
7. IT IS UNDERSTOOD, UNLESS SPECIFICALLY INDICATED OTHERWISE, THAT THE PIPE SIZES AS SHOWN ON THE BID DOCUMENTS WILL BE USED.
8. ALL UNUSED OUTLETS ON EXISTING BRANCH LINES SHALL BE PLUGGED.

MAXIMUM HANGER SPACING
1" - 1 1/4" BLACK STEEL PIPE - 12 FT MAXIMUM HANGER SPACING
1 1/2" - 3" BLACK STEEL PIPE - 15 FT MAXIMUM HANGER SPACING

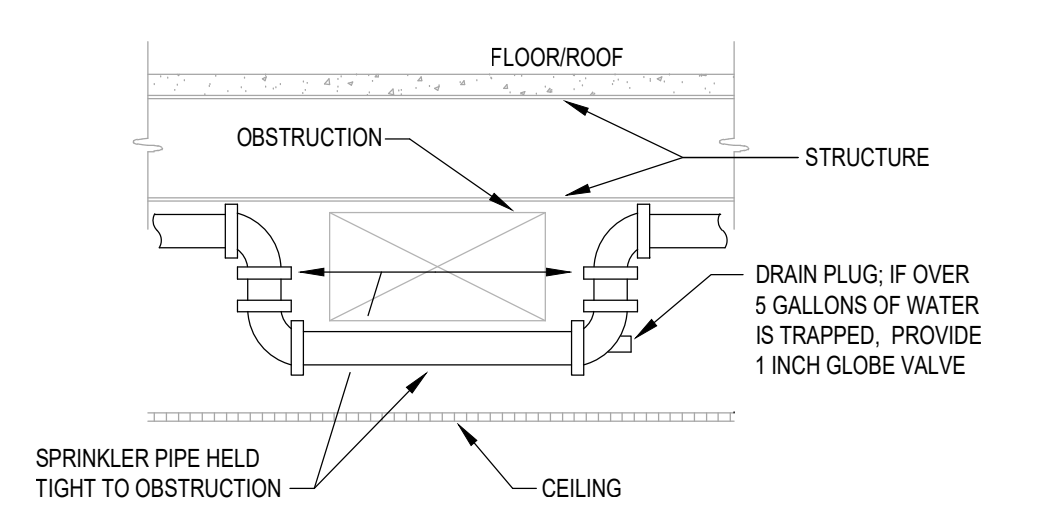
FIRE SPRINKLER DEMOLITION NOTES
1. FIRE SPRINKLER CONTRACTOR'S SCOPE OF WORK SHALL INCLUDE:
• SHUT DOWN AND DRAINING OF ALL EXISTING SYSTEMS.
• DEMOLITION OF EXISTING SPRINKLERS, PIPING, HANGERS, ETC. WHERE INDICATED ON THE PLANS.
2. DISCONNECT AND DEMOLISH ALL EXISTING SPRINKLERS BACK TO EXISTING BRANCH LINE OUTLETS. CAP ALL UNUSED OUTLETS AS REQUIRED.
3. FIRE SPRINKLER CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING ANY EXISTING PIPE OR FITTINGS TO REMAIN THAT ARE DAMAGED AS A RESULT OF THEIR WORK AT NO COST TO THE OWNER.



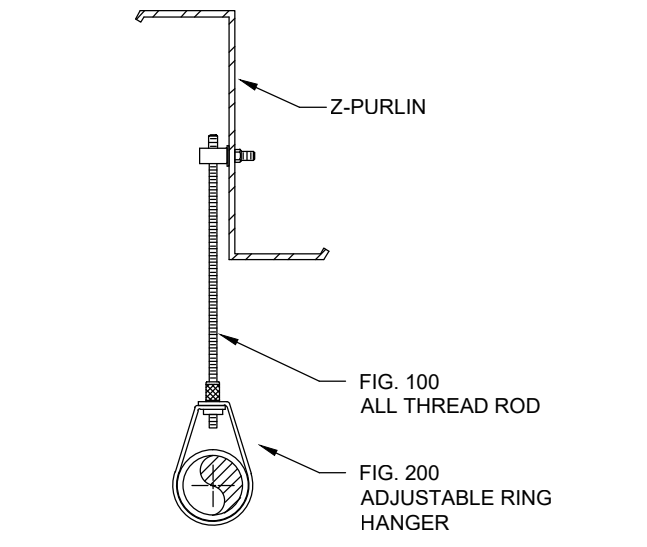
TOP BEAM CLAMP, ROD AND RING
NOT TO SCALE



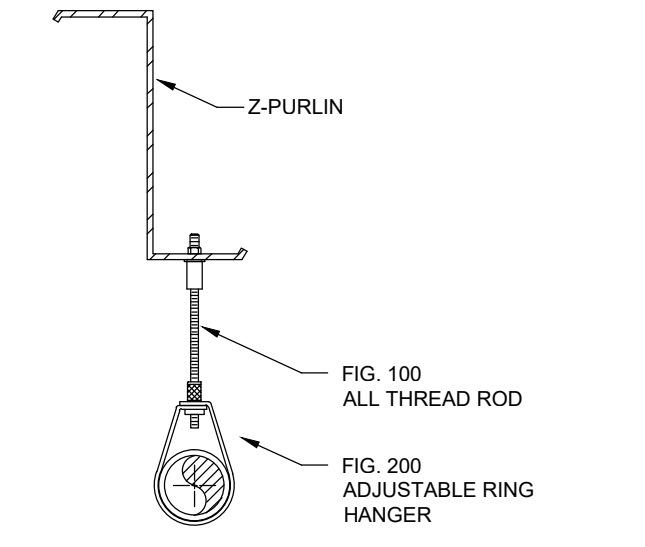
TYPICAL JOIST CLEARANCE REQUIREMENTS FOR UPRIGHT SPRINKLERS
NOT TO SCALE



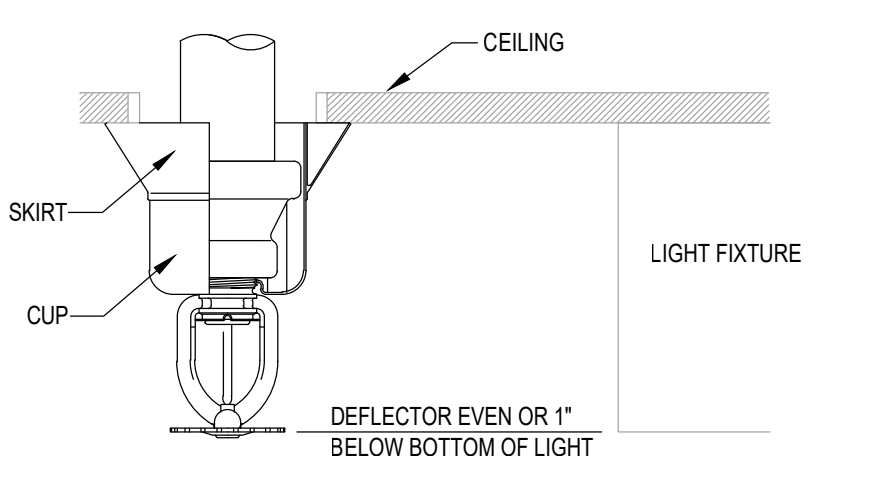
TYPICAL OFFSET AT OBSTRUCTION
NOT TO SCALE



SIDE OF PURLIN ATTACHMENT, ROD AND RING
NOT TO SCALE



BOTTOM OF PURLIN ATTACHMENT, ROD AND RING
NOT TO SCALE



2 PIECE TELESCOPING ESCUTCHEON DETAIL
NOT TO SCALE

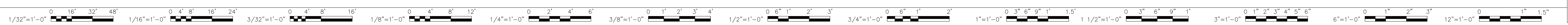


Table with 4 columns: date, project, design, date, description, by, mark, revisions.

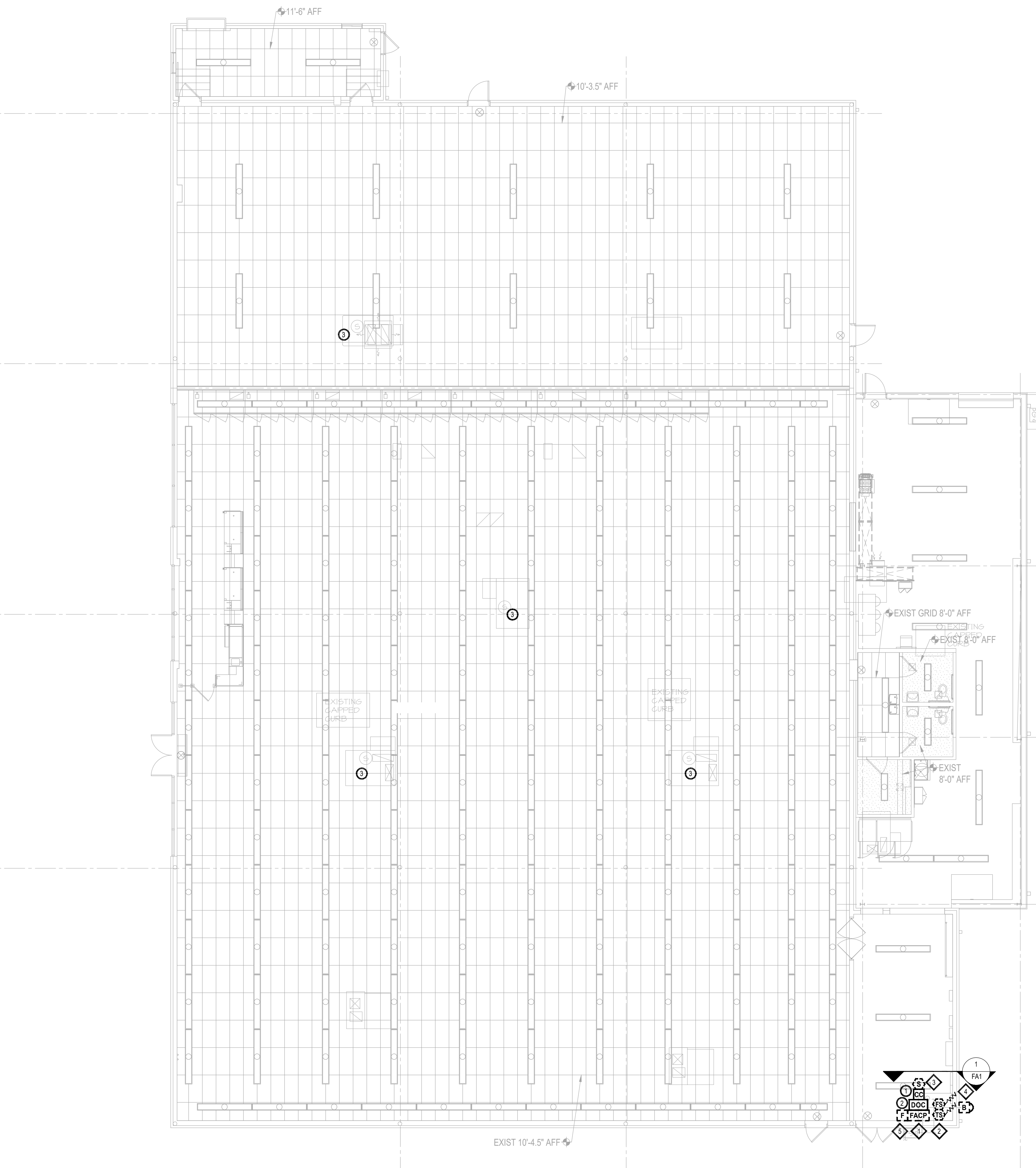
Table with 4 columns: date, project, design, date, description, by, mark, revisions.

RMM ARCHITECTS, PC logo and address: 1317 Executive Blvd., Suite 200, Chesapeake, VA 23320, (757) 622-2628 / fax (757) 622-8883.



ENGINEER OF RECORD: WILLIAM B. SMITH, PE, LICENSE NO. 19732, STATE OF TENNESSEE. 2043 WOODLAND HWY., SUITE 300, ST. LOUIS, MISSOURI 63146-4283. PHONE: 314-997-9883. COMPLETE CERTIFICATE OF AUTHORITY NO. 799.

DOLLAR TREE logo and address: 503 TENNESSEE AVENUE NORTH, DEAL #005621, PARSONS, TENNESSEE. FIRE SPRINKLER SPECIFICATION, NOTES AND DETAILS.



**FIRE ALARM PLAN - NEW WORK**  
SCALE: 1/8" = 1'-0"

PROJECT INFORMATION	
PROJECT NAME:	DOLLAR TREE - PARSONS, TN
LOCATION:	503 TENNESSEE AVENUE NORTH
FIRE PROTECTION:	100% SPRINKLERED
OCCUPANCY:	MERCANTILE (EXISTING)

- SCOPE OF WORK**
- THE EXISTING LANDLORD WATERFLOW MONITORING SYSTEM SHALL REMAIN AS CURRENTLY CONFIGURED.
  - THE EXISTING SMOKE DETECTOR SHALL REMAIN AS CURRENTLY CONFIGURED.
  - THE EXTERIOR WATERFLOW BELL APPLIANCE SHALL REMAIN AS CURRENTLY CONFIGURED.
  - THE EXISTING MANUAL PULL STATION SHALL REMAIN AS CURRENTLY CONFIGURED.
  - THE NEW SCOPE OF WORK ON THE EXISTING LANDLORD'S FIRE ALARM SYSTEM SHALL CONSIST OF THE FOLLOWING:
    - A CELLULAR COMMUNICATOR TO REPORT ALL ALARM, SUPERVISORY, AND TROUBLE SIGNAL OFF-SITE.
    - A DOCUMENTATION CABINET ADJACENT TO THE FACP.

REMOTE SUPERVISING STATION FACILITY INFORMATION	
MONITORING COMPANY NAME:	ADT
ADDRESS:	4221 W JOHN CARPENTER FREEWAY IRVING, TX 75063
TELEPHONE NUMBER:	(316) 858-6694

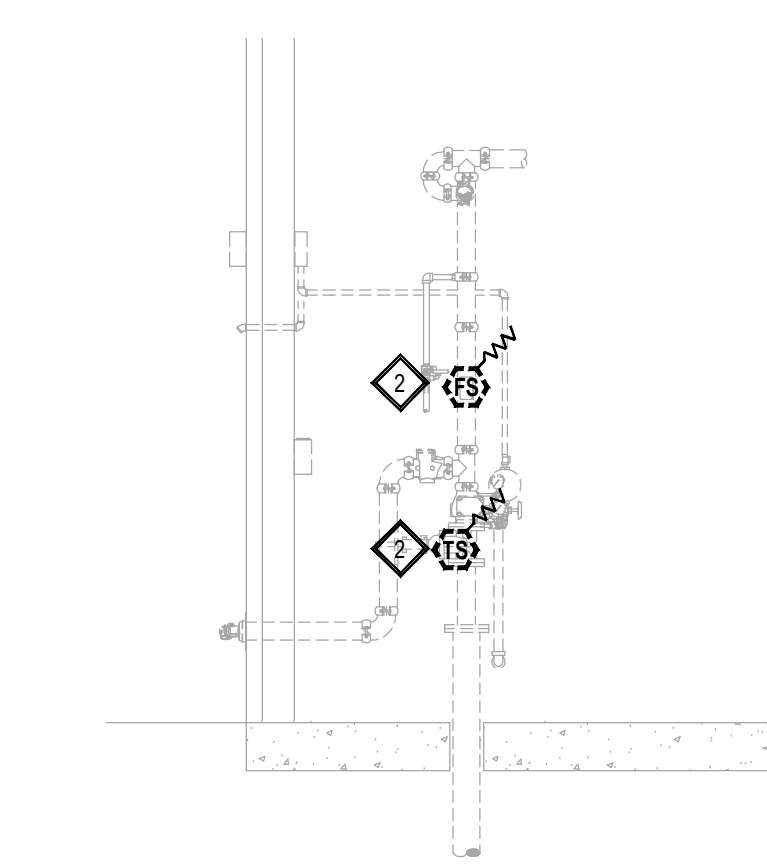
THE INSTALLING CONTRACTOR SHALL CONTACT ADT AT THE NUMBER ABOVE AT LEAST 28 DAYS PRIOR TO THE TCO DATE THE PANEL NEEDS DOWNLOADED. ASK FOR THE DOLLAR TREE SUPPORT TEAM SO AN ACCOUNT MANAGER CAN BE ASSIGNED. PROVIDE POINT ID INFORMATION AND VERIFY CORRECT SIGNALS ARE BEING RECEIVED PRIOR TO INSPECTIONS BY THE FIRE MARSHAL.

- APPLICABLE CODES**
- ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE CODES AND REFERENCED DESIGN STANDARDS.
- 2012 TENNESSEE BUILDING CODE
  - 2012 TENNESSEE FIRE CODE
  - 2012 TENNESSEE MECHANICAL CODE
  - 2017 NATIONAL ELECTRICAL CODE
  - 2016 EDITION NFPA 72 NATIONAL FIRE ALARM AND SIGNALING CODE
- CONFLICTS BETWEEN THE REFERENCE NFPA STANDARDS, FEDERAL OR STATE CODES, SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF ENGINEER OF RECORD (EOR) FOR RESOLUTION.

- FIRE ALARM EXISTING TO REMAIN KEYED NOTES (DENOTED AS ◊)**
- THE EXISTING LANDLORD'S FIRE ALARM CONTROL PANEL AND ASSOCIATED EQUIPMENT LOCATED WITHIN THE FIRE SPRINKLER RISER ROOM SHALL REMAIN AS CURRENTLY CONFIGURED. THE LANDLORD'S FIRE ALARM CONTROL PANEL SHALL TRANSMIT FIRE ALARM, SUPERVISORY, AND TROUBLE SIGNALS OFF-SITE VIA NEW STARLINK FIRE-SLE-LTEA-FIRE.
  - THE EXISTING FIRE SPRINKLER WATERFLOW SWITCHES AND TAMPER SWITCHES ARE ELECTRONICALLY SUPERVISED BY THE LANDLORD'S FIRE ALARM SYSTEM AND SHALL REMAIN AS CURRENTLY CONFIGURED.
  - THE EXISTING SMOKE DETECTOR AND ASSOCIATED CABLING/CONDUIT SHALL REMAIN AS CURRENTLY CONFIGURED. FIELD VERIFY THE EXISTING SMOKE DETECTOR IS IN GOOD WORKING CONDITION AND OPERATIONAL. IF THE EXISTING SMOKE DETECTOR IS NOT IN GOOD WORKING CONDITION, REPLACE THE EXISTING SMOKE DETECTOR.
  - THE EXISTING EXTERIOR WATERFLOW BELL APPLIANCE AND THE ASSOCIATED CABLING/CONDUIT SHALL REMAIN AS CURRENTLY CONFIGURED.
  - THE EXISTING MANUAL PULL STATION AND ASSOCIATED CABLING/CONDUIT SHALL REMAIN AS CURRENTLY CONFIGURED.

- FIRE ALARM KEYED NOTES (DENOTED AS ○)**
- PROVIDE A STARLINK (SLE-LTEA-FIRE) DUAL PATH COMMUNICATOR FOR THE PRIMARY AND SECONDARY MEANS OF TRANSMISSION TO THE APPROVED OFF-SITE MONITORING STATION. THE PRIMARY MEANS OF TRANSMISSION SHALL UTILIZE AN IP-BASED NETWORK CONNECTION. THE SECONDARY SHALL UTILIZE A CELLULAR SIGNAL. MOUNT THE STARLINK COMMUNICATOR AT A LOCATION WITH ACCEPTABLE SIGNAL STRENGTH FROM THE WIRELESS NETWORK. CONNECTION COORDINATE ALL PROGRAMMING, SIGNALS TRANSMISSION AND CONNECTIONS WITH THE OFF-SITE MONITORING STATION. COORDINATE ALL NETWORK CONNECTION REQUIREMENTS WITH THE GENERAL CONTRACTOR.
  - PROVIDE A DOCUMENTATION CABINET (RED ENCLOSURE) ADJACENT TO THE FIRE ALARM CONTROL PANEL TO HOUSE ALL SYSTEM DOCUMENTS IN ACCORDANCE WITH NFPA 72. SYSTEM DOCUMENTS SHALL INCLUDE (AT A MINIMUM) RECORD DRAWINGS, EQUIPMENT DATA SHEETS, SOFTWARE AND FIRMWARE CONTROL DOCUMENTATION. THE DOCUMENTATION CABINET SHALL BE PROMINENTLY LABELED "SYSTEM RECORD DOCUMENTS" AND SHALL BE ACCESSIBLE BY AUTHORIZED PERSONNEL ONLY AND PROTECTED FROM PUBLIC ACCESS.
  - THE EXISTING DUCT SMOKE DETECTORS, REMOTE TEST STATIONS, AND ASSOCIATED CABLING/CONDUIT SHALL REMAIN AS CURRENTLY CONFIGURED. FIELD VERIFY THE EXISTING DUCT SMOKE DETECTORS AND REMOTE TEST STATIONS ARE IN GOOD WORKING CONDITION, OPERATIONAL, AND SUPERVISED BY THE LANDLORD FIRE ALARM SYSTEM. IF THE EXISTING DUCT SMOKE DETECTORS AND REMOTE TEST STATIONS ARE NOT IN GOOD WORKING CONDITION, REPLACE THE EXISTING DUCT SMOKE DETECTOR AND REMOTE TEST STATION. IF THE EXISTING DUCT SMOKE DETECTORS AND REMOTE TEST STATIONS ARE NOT SUPERVISED BY THE LANDLORD FIRE ALARM SYSTEM, PROVIDE CONNECTIONS TO LANDLORD FIRE ALARM SYSTEM. PROVIDE NEW FIRE ALARM CABLING/CONDUIT AS NEEDED.

FIRE ALARM SYMBOL KEY	
	NEW CELLULAR COMMUNICATOR (STARLINK FIRE SLE-LTEA-FIRE)
	NEW DOCUMENTATION CABINET
	LANDLORD FIRE ALARM CONTROL PANEL - EXISTING TO REMAIN
	MANUAL PULL STATION - EXISTING TO REMAIN
	PHOTOELECTRIC SMOKE DETECTOR (COMPATIBLE WITH LANDLORD SYSTEM) - EXISTING TO REMAIN
	WATERFLOW SWITCH - EXISTING TO REMAIN
	TAMPER SWITCH - EXISTING TO REMAIN
	EXTERIOR WALL MOUNTED WATERFLOW BELL APPLIANCE - EXISTING TO REMAIN
	END OF LINE RESISTOR



**FIRE SPRINKLER RISER ELEVATION**  
SCALE: 1/4" = 1'-0"

2143 WOODLAND PARKWAY, SUITE 300  
ST. LOUIS, MISSOURI 63166-4235  
314-997-9833  
www.cci.com

---

date	project	designed	drawn	checked	mark	date	by	description
01-18-2022	2100-73	PHR	PHR	PHR	ADT			

---

1317 Executive Blvd, Suite 200  
Chesapeake, VA 23320  
(757) 622-2628 | fax (757) 622-8883

**ENGINEER OF RECORD:**  
JACOB P. HENKE, PE  
LICENSE NO. 00118467

CODE CONSULTANTS, INC.  
2043 WOODLAND PARKWAY, SUITE 300  
ST. LOUIS, MO 63166-4235  
PHONE: 314-997-9833  
CORPORATE CERTIFICATE OF AUTHORITY NO. 6216

project: DOLLAR TREE  
 drawing: 503 TENNESSEE AVENUE NORTH, DEAL #005621  
 sheet: FIRE ALARM PLAN - NEW WORK

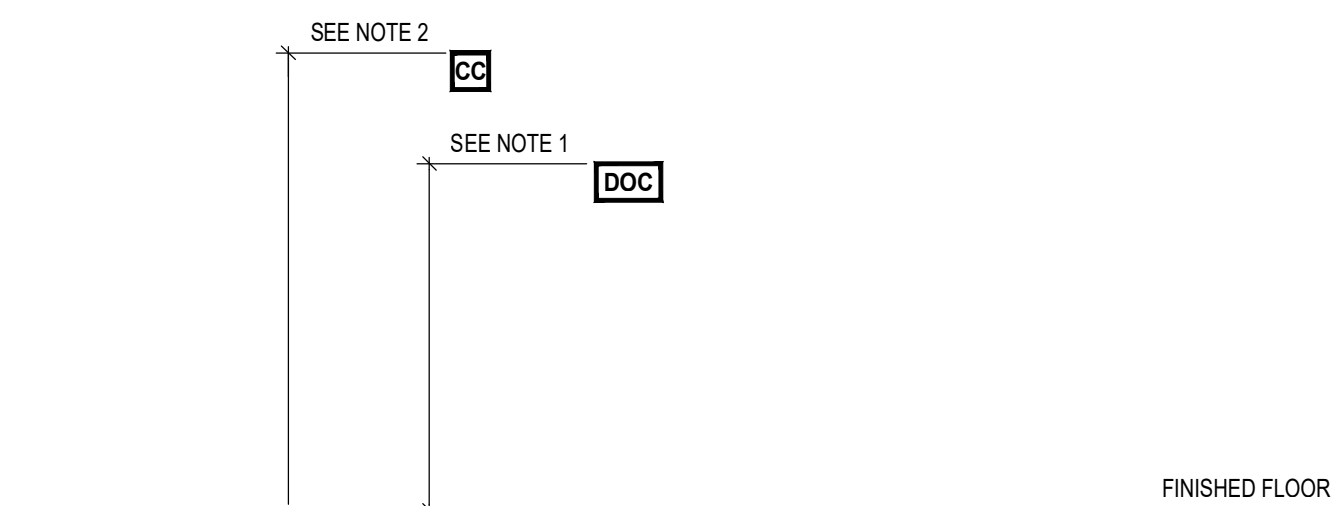
FA1

### FIRE ALARM MATRIX

	ACTIVATES ALARM CONDITION AT THE EXISTING FIRE ALARM CONTROL PANEL	TRANSmits ALARM SIGNAL TO AN APPROVED MONITORING STATION	ACTIVATES ALARM SIGNAL TO AN APPROVED MONITORING STATION	TRANSmits SUPERVISORY SIGNAL TO AN APPROVED MONITORING STATION	ACTIVATES ALARM SIGNAL TO AN APPROVED MONITORING STATION	TRANSmits SUPERVISORY SIGNAL TO AN APPROVED MONITORING STATION	ACTIVATES ALARM SIGNAL TO AN APPROVED MONITORING STATION	TRANSmits SUPERVISORY SIGNAL TO AN APPROVED MONITORING STATION	ACTIVATES ALARM SIGNAL TO AN APPROVED MONITORING STATION	TRANSmits SUPERVISORY SIGNAL TO AN APPROVED MONITORING STATION	ACTIVATES ALARM SIGNAL TO AN APPROVED MONITORING STATION	TRANSmits SUPERVISORY SIGNAL TO AN APPROVED MONITORING STATION	ACTIVATES ALARM SIGNAL TO AN APPROVED MONITORING STATION	TRANSmits SUPERVISORY SIGNAL TO AN APPROVED MONITORING STATION	ACTIVATES ALARM SIGNAL TO AN APPROVED MONITORING STATION	TRANSmits SUPERVISORY SIGNAL TO AN APPROVED MONITORING STATION
<b>FIRE SPRINKLER SYSTEMS</b>																
- WATERFLOW SWITCH	●	●														
- CONTROL VALVE TAMPER SWITCH			●	●												
<b>SMOKE DETECTION DEVICES</b>																
- SPOT TYPE	●	●														
<b>MANUAL PULL STATION</b>	●															
<b>ABNORMAL CELLULAR COMMUNICATOR SIGNAL</b>				●	●											
<b>LOSS OF PRIMARY POWER AT THE FACP OR CC</b>				●	●											
<b>ABNORMAL CIRCUIT (OPEN, GROUND FAULT, SHORT) OR DEVICE</b>				●	●											

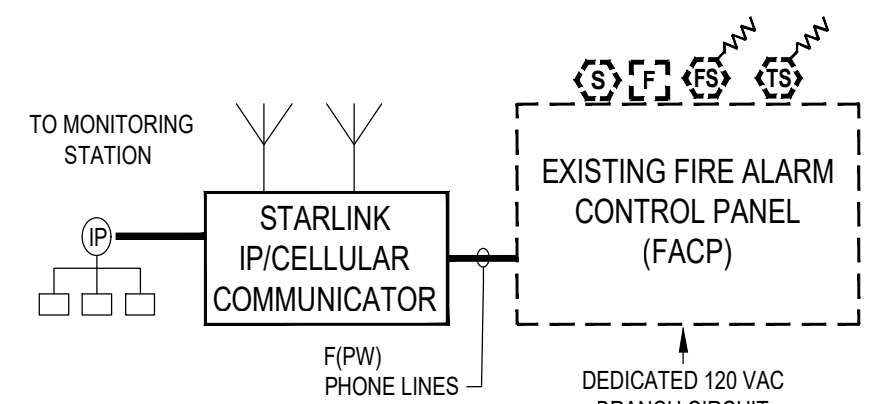
**NOTE:**

- THIS MATRIX ONLY INCLUDES THE ITEMS WITHIN THIS SCOPE OF WORK.
- ALL EXISTING INITIATION DEVICES SHALL REMAIN AS CURRENTLY CONFIGURED.
- ALL EXISTING OUTPUT FUNCTIONS SHALL REMAIN AS CURRENTLY CONFIGURED. THE NEW OUTPUT FUNCTIONS DESCRIBED ABOVE IN THE FIRE ALARM MATRIX ARE FOR THE NEW FIRE ALARM EQUIPMENT LOCATED IN THE DOLLAR TREE SPACE.



- NOTES:**
- COORDINATE EXACT MOUNTING HEIGHT OF THE DOCUMENTATION CABINET ADJACENT TO THE FIRE ALARM CONTROL PANEL WITH THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
  - MOUNT THE STARLINK COMMUNICATOR AT A LOCATION WITH ACCEPTABLE SIGNAL STRENGTH FROM THE WIRELESS NETWORK CONNECTION. COORDINATE ALL PROGRAMMING, SIGNALS TRANSMISSION AND CONNECTIONS WITH THE OFF-SITE MONITORING STATION. COORDINATE EXACT MOUNTING HEIGHT WITH THE OWNER'S REPRESENTATIVE, ELECTRICAL CONTRACTOR, AND AHJ PRIOR TO INSTALLATION.

**TYPICAL MOUNTING HEIGHT DETAIL**  
NOT TO SCALE



- NOTES:**
- ENSURE SUFFICIENT BATTERY BACKUP IS PROVIDED TO THE FACP TO ACCEPT THE NEW FIRE ALARM EQUIPMENT.
  - PROVIDE A SUFFICIENT QUANTITY OF MODULES TO SATISFY THE DRAWING AND SPECIFICATION REQUIREMENTS.

**FIRE ALARM SYSTEM RISER DIAGRAM**  
NOT TO SCALE

- #### INSTALLATION NOTES
- ALL WORK SHALL BE IN ACCORDANCE WITH NFPA STANDARDS AND ALL LOCAL ADOPTED CODES.
  - FIRE ALARM CABLING SHALL BE ACCEPTABLE TO THE FIRE ALARM EQUIPMENT MANUFACTURER FOR THE INTENDED PURPOSE. SHOULD MANUFACTURER OF FIRE ALARM EQUIPMENT REQUIRE DIFFERENT TYPE OR SIZE OF CABLE THAN HEREIN SPECIFIED, THE LARGER OR MORE STRINGENT TYPE OF CABLE SHALL BE USED.
  - ALL FIRE ALARM CABLING SHALL BE FIRE POWER LIMITED TYPE FPL, FPLR, OR FPLP AS REQUIRED BY THE NATIONAL ELECTRICAL CODE. SEE WIRING LEGEND FOR CABLE TYPES AND SIZES.
  - PROVIDE ALL REQUIRED CONDUIT, BACKBOXES, AND FITTINGS FOR THE FIRE ALARM SYSTEM CABLING.
  - FIRE ALARM CABLING SHALL BE RED IN COLOR.
  - FIRE ALARM CABLING SHALL NOT BE PAINTED.
  - ALL CABLE RUNS SHALL BE NEATLY BUNDLED, WRAPPED TIGHT AND PROPERLY SECURED. ANY CABLING NOT INSTALLED IN A NEAT AND PROFESSIONAL MANNER SHALL BE PULLED OUT AND RE-RUN BY INSTALLER AT NO ADDITIONAL COST TO OWNER.
  - CONTRACTOR RUNNING CABLING MUST MARK BOTH ENDS OF CABLING, PROVIDE A WIRE LEGEND FOR ALL LOCATIONS, AND PROVIDE A CONTINUITY TEST LOG FOR EACH CABLE.
  - EXPOSED CABLING SHALL BE RUN PARALLEL AND PERPENDICULAR TO BUILDING STRUCTURE. EXPOSED CABLING SHALL NOT BE RUN IN A "SPAN" FASHION BETWEEN BAR JOISTS OR BEAMS (I.E. CABLING SHALL BE ROUTED ALONG PATH OF JOISTS AND BEAMS). ALL CABLING SHALL BE SECURED TO THE STRUCTURAL CEILING BETWEEN JOISTS OR BEAMS.
  - ALL CABLING SHALL BE SUPPORTED FROM BUILDING STRUCTURE AND NOT FROM GRID, TILES OR SUPPORT WIRES. EXPOSED CABLING SHALL BE SUPPORTED BY BUILDING STRUCTURE AT NO MORE THAN FIVE (5) FOOT INTERVALS USING APPROVED "O" RINGS AND "J" HOOKS.
  - ALL FIRE ALARM CABLING BELOW THE STRUCTURE, IN ELECTRICAL AND MECHANICAL ROOMS (SUBJECT TO PHYSICAL DAMAGE), CONCEALED ABOVE CEILING OR IN PARTITIONS (SUBJECT TO PHYSICAL DAMAGE) SHALL BE INSTALLED IN METALLIC CONDUIT.
  - ALL POWER LIMITED FIRE ALARM CABLING ABOVE THE STRUCTURE, ABOVE LAY-IN CEILING, OR CONCEALED ABOVE CEILING OR IN PARTITIONS (NOT SUBJECT TO PHYSICAL DAMAGE) ARE NOT REQUIRED TO BE INSTALLED IN CONDUIT.
  - ALL NON-POWER LIMITED FIRE ALARM CABLING FOR THE FIRE ALARM SYSTEM SHALL BE INSTALLED IN CONDUIT.
  - ALL CONDUIT SHALL BE TERMINATED AT THE BAR JOIST LEVEL WITH SOME FORM OF GROMMET OR BOX CONNECTOR.
  - ALL CONDUIT LOCATED IN DRYWALL SHALL BE TERMINATED NO LESS THAN SIX (6) INCHES ABOVE THE CEILING TILE.
  - FOR DRYWALL APPLICATIONS, ALL CONDUIT AND BACKBOXES SHALL BE RECESSED INSIDE THE WALL.
  - ALL FIRE ALARM CABLING IN FINISHED AREAS SHALL BE CONCEALED.
  - COORDINATE DRILLING OF ANY HOLES (I.E. COLUMN PENETRATIONS) WITH THE OWNER'S REPRESENTATIVE AND ALL OTHER TRADES PRIOR TO INSTALLATION.
  - ALL FIRE ALARM DEVICES AND APPLIANCES SHALL BE INSTALLED IN OR ON A PROPER BACKBOX. NO DEVICES OR APPLIANCE SHALL BE INSTALLED WITHOUT A BACKBOX.
  - ALL CABLING, CONDUIT, AND BACKBOXES SHALL BE PROPERLY SUPPORTED AND SEISMICALLY BRACED, AS REQUIRED BY ALL APPLICABLE CODES AND THE LOCAL JURISDICTION.
  - ALL WIRING CONDUCTORS ENTERING FIRE ALARM PANEL(S) SHALL BE IN CONDUIT AND ENTER FROM THE SIDE OF THE FIRE ALARM PANEL(S).
  - CONDUIT FILL SHALL NOT EXCEED 40%.
  - ALL FIRE ALARM JUNCTION BOXES SHALL BE RED IN COLOR.
  - ALL FIRE ALARM CABLING RISERS SHALL BE INSTALLED IN EMT CONDUIT.

- #### FIRESTOP NOTES
- ALL THROUGH-PENETRATIONS OF FIRE-RATED WALLS AND FLOORS SHALL BE FIRE-STOPPED.
  - FIRE-RATED GYPSUM BOARD WALLS CONSTRUCTED AS DESCRIBED IN THE INDIVIDUAL U300 OR U400 SERIES DESIGNS IN THE U.L. FIRE RESISTANCE DIRECTORY (GENERALLY DOUBLE THICKNESS WALLBOARD) SHALL BE FIRE-STOPPED WITH U.L. SYSTEMS.
  - ALL REINFORCED LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOORS OR WALLS, AND ALL U.L. CLASSIFIED CONCRETE BLOCK WALLS SHALL BE FIRE-STOPPED WITH U.L. SYSTEMS.

- #### GENERAL NOTES
- THE FIRE ALARM SYSTEM SHALL UTILIZE THE EXISTING FIRE ALARM CONTROL PANEL. ALL NEW FIRE ALARM DEVICES WITHIN THE DOLLAR TREE SPACE SHALL BE CONNECTED DIRECTLY TO THE EXISTING FIRE ALARM CONTROL PANEL. THE FIRE ALARM CONTROL PANEL SHALL TRANSMIT FIRE ALARM, SUPERVISORY, AND TROUBLE SIGNALS OFF-SITE VIA NEW STARLINK FIRE S-E-L-E-T-E-R-FIRE.
  - EXISTING FIRE ALARM CIRCUITS SHALL REMAIN AS CURRENTLY CONFIGURED. NEW FIRE ALARM CIRCUITS SHALL MEET THE FOLLOWING MINIMUM REQUIREMENTS:
    - INITIATION DEVICE CIRCUITS (IDC) - CLASS B
    - SUPERVISORY CIRCUITS - CLASS B
    - SIGNALING LINE CIRCUITS (SLC) - CLASS B
    - AUXILIARY CIRCUITS - CLASS B
    - CIRCUITS FOR RELAY COIL OPERATION SHALL BE 24 VDC MAXIMUM WITH A SEPARATE OR INTEGRAL FIELD COLLAPSING DIODE.
  - THE EXISTING FIRE ALARM CONTROL PANEL (FACP) AND ASSOCIATED EQUIPMENT LOCATED OUTSIDE THE DOLLAR TREE SPACE SHALL REMAIN AS CURRENTLY CONFIGURED. FIELD VERIFY THAT ALL CABINETS HAVE A HINGED DOOR KEYPED IN COMMON WITH ALL OTHER KEYPED DEVICES THROUGHOUT THE SYSTEM.
  - THE EXISTING SPRINKLER WATERFLOW AND CONTROL VALVE TAMPER SWITCHES SERVING DOLLAR TREE SPACE ARE LOCATED IN THE COMMON SPRINKLER RISER ROOM AND SHALL REMAIN AS CURRENTLY CONFIGURED.
  - THE INSTALLING FIRE ALARM CONTRACTOR SHALL FIELD VERIFY EXISTING FIRE ALARM CONTROL PANEL (FACP) HAS SUFFICIENT STANDBY SECONDARY BATTERY CAPACITY TO ACCOMMODATE THE NEW FIRE ALARM EQUIPMENT. IF ADEQUATE SECONDARY BATTERY CAPACITY IS NOT PROVIDED, CONTRACTOR SHALL PROVIDE LARGER BATTERIES WITHOUT EXCEEDING EXISTING FACP MANUFACTURERS CHARGING CAPABILITIES. BATTERY CABINET SHALL BE PROVIDED AS NEEDED.
  - UPON LOSS OF BUILDING POWER, THE ENTIRE SYSTEM SHALL TRANSFER TO SECONDARY POWER WITHIN TEN (10) SECONDS, AND WITHOUT LOSS OF SIGNALS. THE SYSTEM SHALL OPERATE UNDER SECONDARY POWER IN NORMAL OR TROUBLE CONDITIONS FOR TWENTY-FOUR (24) HOURS AND HAVE SUFFICIENT POWER TO SUPPORT COMPLETE ALARM CONDITION OPERATION FOR A SUBSEQUENT FIVE (5) MINUTES AT MAXIMUM CONNECTED LOAD.
  - DEVICES AND APPLIANCE LOCATIONS AS SHOWN ON THE FIRE ALARM PLANS ARE NOT DIMENSIONED FOR EXACT INSTALLATION. COORDINATE EXACT PLACEMENT OF ALL DEVICES AND APPLIANCES WITH THE ARCHITECTURAL PLANS AND GENERAL CONTRACTOR PRIOR TO INSTALLATION.
  - ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ELECTRICAL BACKGROUND INFORMATION IS SHOWN FOR COORDINATION PURPOSES ONLY. REFER TO THE PROPER DRAWINGS FOR EXACT LOCATIONS, SIZES AND QUANTITIES OF OTHER TRADES WORK.
  - ALL THROUGH-PENETRATIONS OF FIRE-RATED WALLS AND FLOORS SHALL BE FIRE-STOPPED.
  - ALL JUNCTION BOXES SHALL BE ACCESSIBLE FOR SERVICE. PROVIDE ANY REQUIRED ACCESS PANELS.
  - ALL SIGNALING LINE CIRCUITS AND INITIATING DEVICE CIRCUITS SHALL BE SUPERVISED IN ACCORDANCE WITH NFPA 72.
  - PROVIDE ANY REQUIRED SEISMIC BRACING FOR ALL FIRE ALARM SYSTEM DEVICES, CONDUIT AND BACKBOXES.
  - PROVIDE A PRINTED LABEL FOR EACH INITIATING DEVICE INDICATING THE SPECIFIC ADDRESS FOR THAT DEVICE. THE LABEL SHALL INCLUDE THE PROGRAMMING ADDRESS AND DEVICE NUMBER. THE LABEL SHALL BE LOCATED ON THE BASE OF ALL DETECTORS AND THE COVER PLATES OF EACH ADDRESSABLE DEVICE.



2413 WOODLAND PARKWAY, SUITE 300  
ST. LOUIS, MISSOURI 63116-4235  
314-997-9833  
www.ccciconsultants.com

---

01-18-2022	2/20/23	PHR	PHR	ADJ
date	project	designed	drawn	checked

---

	description
	by
	date
	mark
	revisions

---



**RRMM ARCHITECTS, PC**  
1317 Executive Blvd., Suite 200  
Chesapeake, VA 23320  
(757)622-2628 | fax (757)622-8883

---



Jacob P. Henke, PE  
2022-01-17

---

**ENGINEER OF RECORD:**  
JACOB P. HENKE, PE  
LICENSE NO. 00118487

CODE CONSULTANTS, INC.  
2413 WOODLAND PARKWAY, SUITE 300  
ST. LOUIS, MO 63116-4235  
PHONE: 314-997-9833  
CORPORATE CERTIFICATE OF AUTHORITY  
NO. 6212

---

project **DOLLAR TREE**

503 TENNESSEE AVENUE NORTH, DEAL #006621  
PARSONS, TENNESSEE

drawing FIRE ALARM NOTES, CALCULATIONS AND MATRIX

---

sheet

# FA2

PART 1 - GENERAL

Table with 4 columns: Item Number, Description, Quantity, and Unit. Rows include sections for RELATED DOCUMENTS, SUMMARY, DEFINITIONS, REFERENCES, SYSTEM DESCRIPTION, DOCUMENTATION CABINET, RACEWAY, EXECUTION, WARRANTY, CONTROL PANELS, and CELLULAR COMMUNICATOR.

Vertical sidebar containing project information: PROJECT #056621, DOLLAR TREE 503 TENNESSEE AVENUE NORTH, DEAL #056621, PARSONS, TENNESSEE, FIRE ALARM SPECIFICATIONS, and a drawing sheet number FA3.



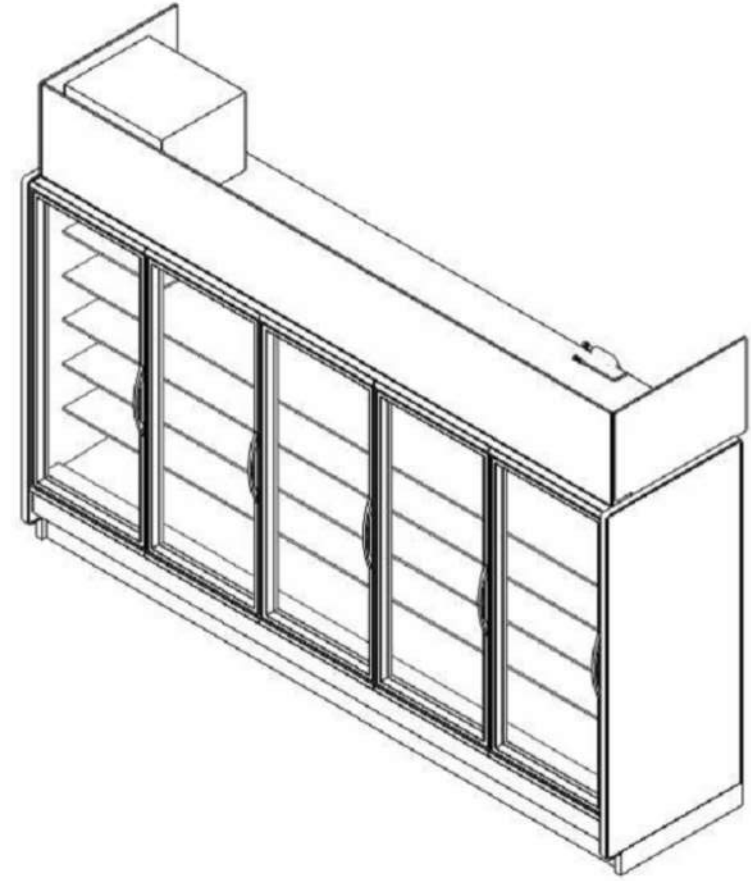
ENGINEER OF RECORD: JACOB P. HERMIE, PE. LICENSE NO. 17186. CODE CONSULTANTS, INC. 244 WOODLAND PARKWAY, SUITE 300 ST. LOUIS, MISSOURI 63146-2235 PHONE: (636) 991-9333 CORPORATE CERTIFICATE OF AUTHORITY NO. 0275

# REACH-IN FREEZER/COOLER UNIT

## JNRBHS A

High Narrow Reach-In Self Contained Merchandiser  
1, 2, 3, 4, 5 Door & 4' (Dairy/Deli/Beverage)

- GENERAL NOTES:**
- Lighting Controls and Anti-Sweat Heat Controls are Required
  - Option 1: OEM Provided: Occupancy Sensor Based Lighting Controls (On/Off) & Hilphoenix provided embedded Anti-Sweat Controls are standard, unless otherwise specified.
  - Option 2: End User Provided: Lighting Controls should be Occupancy Sensor Based or on a minimum 8 Hour Off Schedule. Customer provided A/S Heat Controls should be set to 30% minimum off time at 75°F/55%RH.
  - 1 Door & 4' case lengths available in 120V R404A/R448A condensing unit configuration.
  - 2, 3, 4 & 5 door lengths available in 208V R404A/R448A condensing unit configuration.



SHIPPING WEIGHT	
Case	Weight
JNRBHS A	---



JNRBHS A		
Rev. Date	Rev. #	Rev. Title
10-16-19	11	DATA UPDATE
10-16-19	10	ENDVIEW UPDATE



REACH-IN FREEZER/COOLER SHEET 1 OF 8

## JNRBHS A (R404A)

High Narrow Reach-In Self Contained Merchandiser  
1, 2, 3, 4, 5 Door & 4' (Dairy/Deli/Beverage)

SYSTEM REQUIREMENT (R-404A REFRIGERANT)					
Case Length	Volts	Phase	Frequency	Minimum Circuit Ampacity (MCA)	Maximum Overcurrent Protection (MOP)
2 Door	208	1	60	16.3	20
3 Door	208	1	60	16.5	20
4 Door	208	1	60	16.6	20
5 Door	208	1	60	16.4	20

\* 24 Hour Energy values include evaporator fans, standard LEDs, anti-condensate heat & condensing unit.

GUIDELINES AND CONTROL SETTINGS (R-404A REFRIGERANT)					
Case Length	Application	Superheat Set Point @ Bulb (°F)	Discharge Air (°F)	Set Point Differential (°F)	Discharge Air Velocity (FPM)
2-5 Door	Beverage	6-8	35	6	230
2-5 Door	Dairy	6-8	30	6	230
2-5 Door	Deli	6-8	29	6	230

CONDENSING UNIT DATA (R-404A REFRIGERANT)								
Case Length	Volts	Phase	Frequency	Horsepower	Running Load Amps (RLA) (Amps)	Locked Rotor Amps (LRA) (Amps)	Refrigerant	Lbs. of Refrigerant
2 Door	208	1	60	1/3	4.2	16.8	R404A	2.2
3 Door	208	1	60	1/3	4.2	16.8	R404A	2.6
4 Door	208	1	60	1/3	4.2	16.8	R404A	3.0
5 Door	208	1	60	1/2	5.3	26.5	R404A	3.5

DEFROST CONTROLS (R-404A REFRIGERANT)				
Case Length	Defrosts Per Day	Run-Off Time (Min)	Fail-Safe (Min)	Termination Temp (°F)
2-5 Door	2	0	45	44

DEFROST SCHEDULE (R-404A REFRIGERANT)	
Defrosts Per Day	Time
2	12 a.m. - 12 p.m.

- NOTES:**
- "--" indicates that this feature is not an option on this case model.
  - Listed discharge air velocity represents the average velocity at the peak of defrost. Temperature and defrost settings listed below are recommended start-up settings. Final operational settings may need to be adjusted for the store conditions in which the case operates.
  - The recommended evaporator temperatures may need to be adjusted based on system setup, store conditions, etc. The minimum recommended evaporator temperature is 4°F below the listed evaporator temperature.
  - The 24 Hour Energy Value is based upon AHRI 1200 test conditions with Hilphoenix provided Lights, occupancy sensor based (on/off) lighting control and dew point based anti-sweat heat controller.



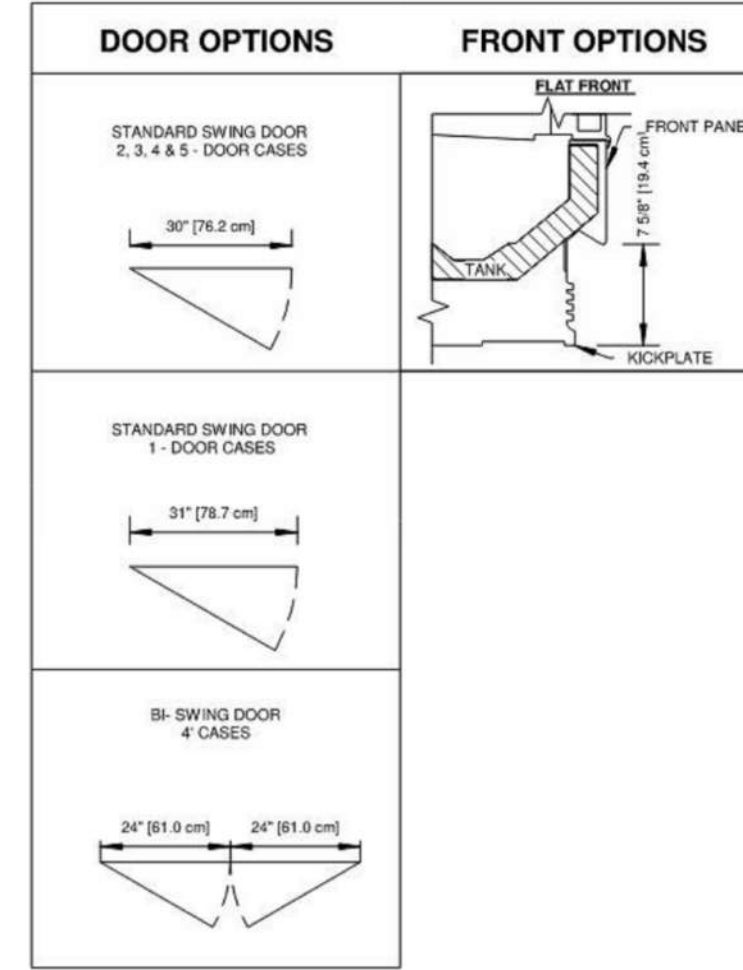
JNRBHS A (R404A)		
Rev. Date	Rev. #	Rev. Title
10-16-19	11	DATA UPDATE
10-16-19	10	ENDVIEW UPDATE



REACH-IN FREEZER/COOLER SHEET 2 OF 8

## JNRBHS A

High Narrow Reach-In Self Contained Merchandiser  
1, 2, 3, 4, 5 Door & 4' (Dairy/Deli/Beverage)



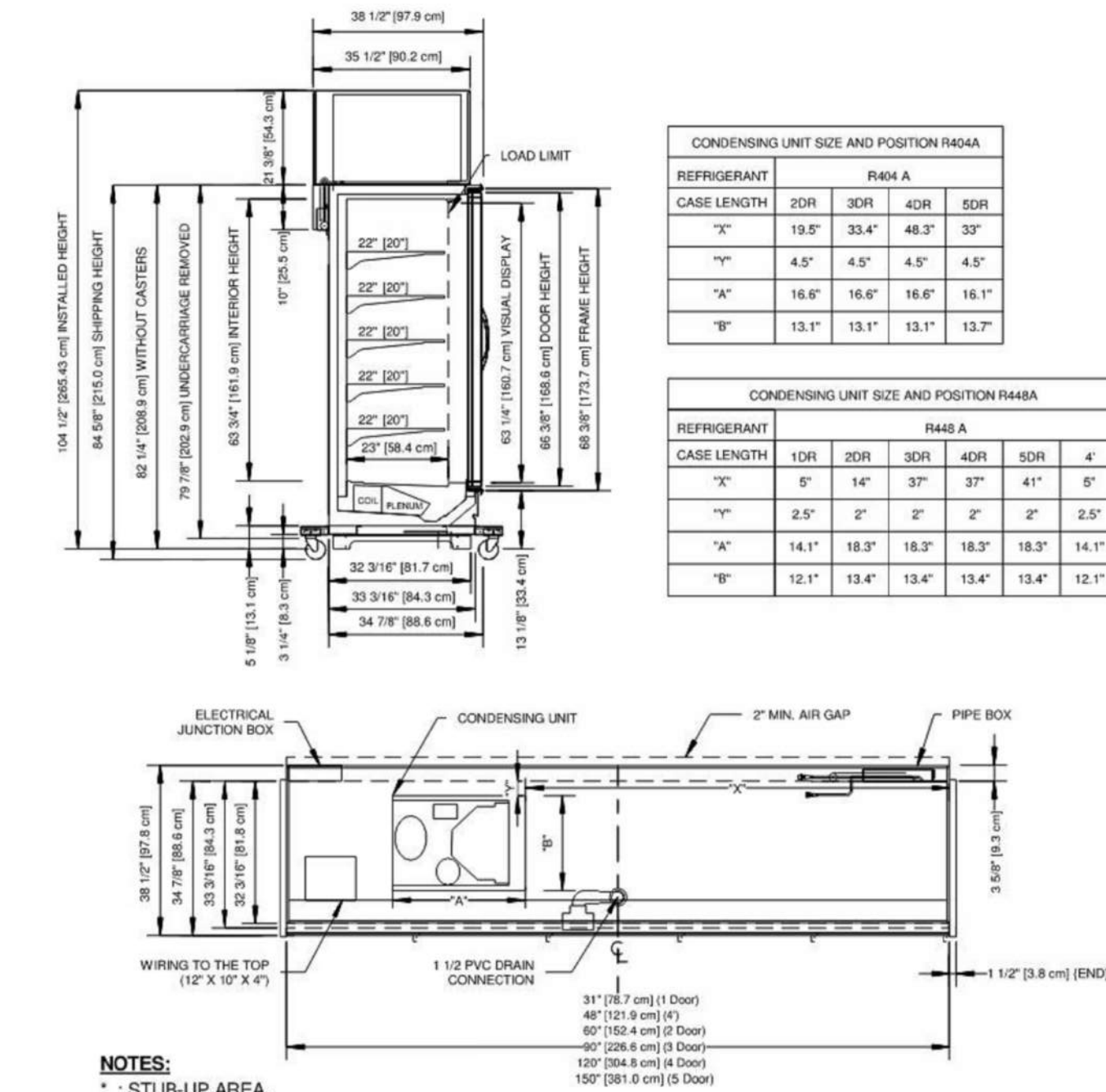
JNRBHS A		
Rev. Date	Rev. #	Rev. Title
10-16-19	11	DATA UPDATE
10-16-19	10	ENDVIEW UPDATE



REACH-IN FREEZER/COOLER SHEET 3 OF 8

## JNRBHS A

High Narrow Reach-In Self Contained Merchandiser  
1, 2, 3, 4, 5 Door & 4' (Dairy/Deli/Beverage)



- NOTES:**
- STUB-UP AREA
  - RECOMMENDED STUB-UP CENTERLINE FOR ELECTRICAL AND HUB DRAINS
  - Specialized Base Frame: Case fits through 80" doorway with shipping undercarriage removed.
  - 2" lifting brackets (installed) & 3.25" ship loose risers combine for 5" baseframe once installed.
  - Drain traps ship loose.
  - Ends add approximately 1" to case height, 1/2" to the back & 1" to the front.



JNRBHS A		
Rev. Date	Rev. #	Rev. Title
10-16-19	11	DATA UPDATE
10-16-19	10	ENDVIEW UPDATE

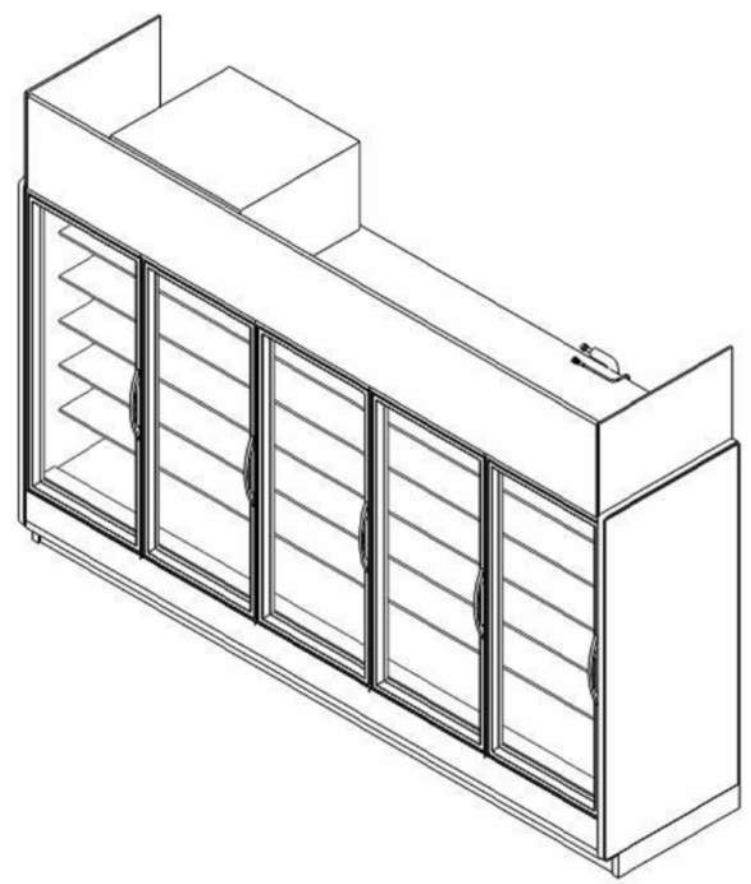


REACH-IN FREEZER/COOLER SHEET 4 OF 8

## JNRZHS A

High Narrow Reach-In Self Contained Merchandiser  
2, 3, 4 & 5 Door (Frozen Food)

- GENERAL NOTES:**
- Lighting Controls and Anti-Sweat Heat Controls are Required
  - Option 1: OEM Provided: Occupancy Sensor Based Lighting Controls (On/Off) & Hilphoenix provided embedded Anti-Sweat Controls are standard, unless otherwise specified.
  - Option 2: End User Provided: Lighting Controls should be Occupancy Sensor Based or on a minimum 8 Hour Off Schedule. Customer provided A/S Heat Controls should be set to 30% minimum off time at 75°F/55%RH.
  - 2, 3, 4 & 5 door case lengths are available in 208V R404A / R448A Condensing Unit Configuration.



SHIPPING WEIGHT	
Case	Weight
JNRZHS A	---



JNRZHS A		
Rev. Date	Rev. #	Rev. Title
10-17-19	7	ENDVIEW UPDATE
9-12-19	6	DATA UPDATE



REACH-IN FREEZER/COOLER SHEET 5 OF 8

## JNRZHS A (R404A)

High Narrow Reach-In Self Contained Merchandiser  
2, 3, 4 & 5 Door (Frozen Food)

SYSTEM REQUIREMENT (R404A)					
Case Length	Volts	Phase	Frequency	Minimum Circuit Ampacity (MCA)	Maximum Overcurrent Protection (MOP)
2 Door	208	1	60	24.1	30.0
3 Door	208	1	60	24.9	30.0
4 Door	208	1	60	26.8	30.0
5 Door	208	1	60	30.0	30.0

\* 24 Hour Energy values include evaporator fans, standard LEDs, anti-condensate heat & condensing unit.

GUIDELINES AND CONTROL SETTINGS (R404A)					
Case Length	Superheat Set Point @ Bulb (°F)	Set Point Differential (°F)	Discharge Air (°F)	Discharge Air Velocity (FPM)	
2 Door	3-5	6	-9	300	
3 Door	3-5	6	-9	300	
4 Door	3-5	6	-9	300	
5 Door	3-5	6	-9	300	

CONDENSING UNIT DATA (R404A)								
Case Length	Volts	Phase	Frequency	Horsepower	Running Load Amps (RLA) (Amps)	Locked Rotor Amps (LRA) (Amps)	Refrigerant	Lbs. of Refrigerant
2 Door	208	1	60	3/4	9.0	43.0	R404A	2.9
3 Door	208	1	60	1	9.3	46.0	R404A	3.4
4 Door	208	1	60	1 1/4	12.6	55.0	R404A	3.7
5 Door	208	1	60	2	12.0	55.0	R404A	6.2

DEFROST CONTROLS (R404A)				
Defrosts Per Day	Run Off Time (Min)	Electric Defrost	Fail-Safe (Min)	Termination Temp (°F)
1	0	Electric	45	48

DEFROST SCHEDULE (R404A)	
Defrosts Per Day	Time
1	12 midnight

- NOTES:**
- "--" indicates that this feature is not an option on this case model.
  - Listed discharge air velocity represents the average velocity at the peak of defrost. Temperature and defrost settings listed below are recommended start-up settings. Final operational settings may need to be adjusted for the store conditions in which the case operates.
  - The recommended evaporator temperatures may need to be adjusted based on system setup, store conditions, etc. The minimum recommended evaporator temperature is 4°F below the listed evaporator temperature.
  - The 24 Hour Energy Value is based upon AHRI 1200 test conditions with Hilphoenix provided Lights, occupancy sensor based (on/off) lighting control and dew point based anti-sweat heat controller.



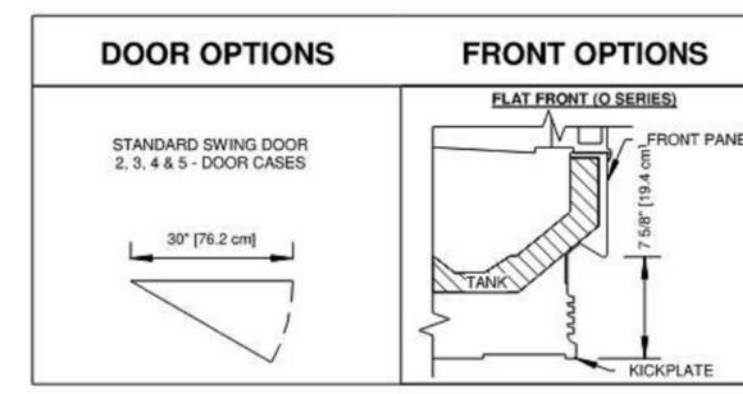
JNRZHS A (R404A)		
Rev. Date	Rev. #	Rev. Title
10-17-19	7	ENDVIEW UPDATE
9-12-19	6	DATA UPDATE



REACH-IN FREEZER/COOLER SHEET 6 OF 8

## JNRZHS A

High Narrow Reach-In Self Contained Merchandiser  
2, 3, 4 & 5 Door (Frozen Food)



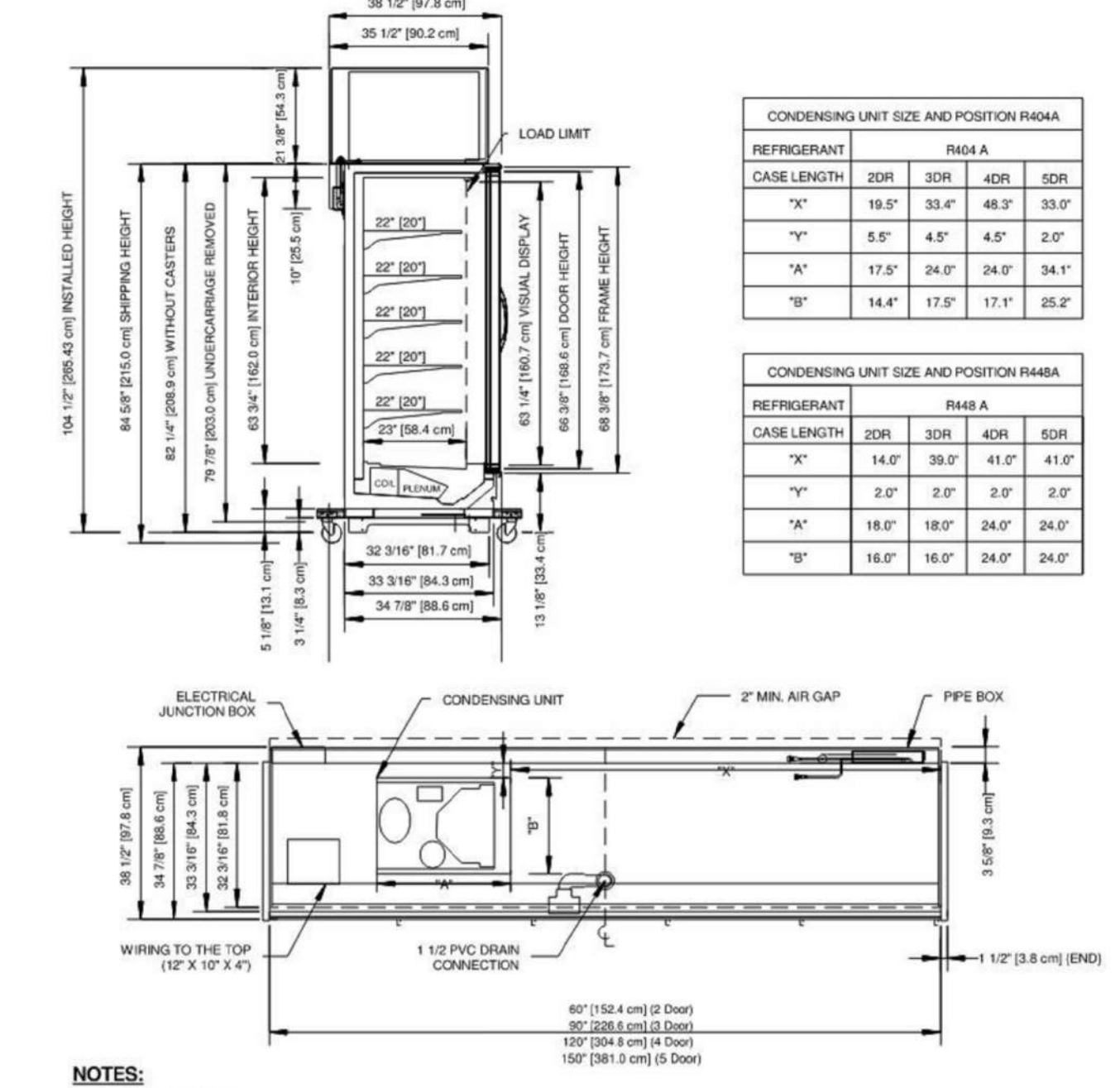
JNRZHS A		
Rev. Date	Rev. #	Rev. Title
10-17-19	7	ENDVIEW UPDATE
9-12-19	6	DATA UPDATE



REACH-IN FREEZER/COOLER SHEET 7 OF 8

## JNRZHS A

High Narrow Reach-In Self Contained Merchandiser  
2, 3, 4 & 5 Door (Frozen Food)



- NOTES:**
- STUB-UP AREA
  - RECOMMENDED STUB-UP CENTERLINE FOR ELECTRICAL AND HUB DRAINS
  - Specialized Base Frame: Case fits through 80" doorway with shipping undercarriage removed.
  - 2" lifting brackets (installed) & 3.25" ship loose risers combine for 5" baseframe once installed.
  - Drain traps ship loose.
  - Ends add approximately 1" to case height, 1/2" to the back & 1" to the front.

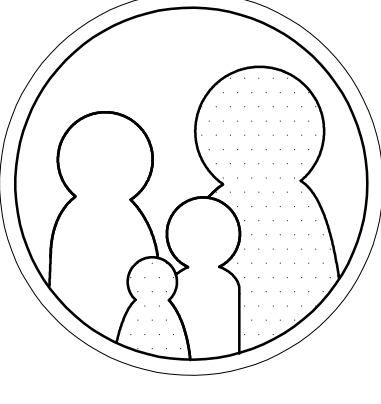


JNRZHS A		
Rev. Date	Rev. #	Rev. Title
10-17-19	7	ENDVIEW UPDATE
9-12-19	6	DATA UPDATE



REACH-IN FREEZER/COOLER SHEET 8 OF 8

date	project	designed	drawn	checked



FOR REFERENCE ONLY

FAMILY DOLLAR  
REACH-IN UNITS DETAILS AND SPECIFICATIONS

project drawing

sheet DS1



**I. GENERAL CONTRACTOR'S RESPONSIBILITIES:**

- a. Read Cylon Retail Solutions (CRS) / Dollar Tree (DT) Documentation Package.
- b. Review all DT drawings.
  - Contact Cylon Retail Solutions Inc. at (888) 211-6789 and submit a fully completed EMS Installation Survey.
  - Confirm CRS Survey Form is fully completed and EMAILED to CRS National Account Team at [Surveys@Cylon.com](mailto:Surveys@Cylon.com) or FAXED to (855) 224-0879, **24 Hours Prior to scheduling the EMS Commissioning.**
  - EMS Commissioning dates cannot be scheduled until fully completed EMS Installation Surveys have been received and approved by the CRS National Deployment Team.
- c. Schedule remote EMS commissioning **24 hours prior** to the requested commissioning date.

**II. ELECTRICAL RESPONSIBILITIES:**

**Power to all EMS equipment and devices must be OFF while terminations are made.**

- a. Provide all labor and installation material, as required, for a complete and operational EMS for this DT store location.
- b. Receive and store all CRS material in a dry and secure place until the EMS installation is completed.
- c. The EMS equipment will be supplied by CRS and installed by an approved DT contractor.
- d. Review the entire set of plans, perform a job site survey and inventory the CRS equipment to ensure the proper equipment has been ordered and received for a complete and operational CRS EMS.
- e. If any material is missing or additional equipment is required, immediately call CRS at (888) 211-6789 to request an order.
- f. Approved Contractor shall verify number of controlled lighting circuits against the design, report discrepancies, which cannot be resolved in the field, to the CRS National Account Support Team at (888) 211-6789 and wait for resolution instructions.
- g. Coordinate the EMS installation with the Mechanical Contractor to avoid any interference that may delay progress during construction.
- h. Perform all work in accordance with all National, State and Local Codes for this project.
  - i. All EMS cables are to be installed per National and Local Codes. It is the Electrical Contractor's responsibility to determine if National and Local Codes permit Class 2 cables to be installed exposed within the building structure or if a full conduit system is required.
  - j. EMT connectors and bushings are to be installed at the top of every conduit sleeve and threaded connector to protect EMS cables from abrasions.
  - k. All cables are to be clearly and distinctly labeled within one foot of both ends.
- l. Furnish and install all required conduit, boxes, wire ways, fittings, straps, hangers and wiring for a complete and operational EMS as required.
- m. Furnish and install a dedicated 120 VAC circuit with breaker lock for the EMS Panel.
  - i. Label breaker: DO NOT TURN OFF / EMS
  - ii. Confirm wiring is completed as per this documentation package before applying power. Improper wiring will cause damage to equipment.
- n. Mount the EMS Panel adjacent to the electrical panels.
- o. Install an Ethernet cable run from the eSCI RJ-45 jack located in the EMS Panel to the network switch specified by the DT networking team.
- p. Call CRS at 888.211.6789 to verify Network Connectivity **before proceeding with the EMS installation.**
- q. Install and terminate the CRS BACnet communication trunk, in a daisy chain fashion, from the EMS Panel to each of the Thermostat Controls and all other BACnet devices. (see this documentation package for requirements)
- r. When applicable, mount the Auxiliary I/O Panel adjacent to the EMS Panel and ensure both panels are connected to the same Earth Ground.
- s. When applicable, ensure the Auxiliary I/O panel is connected in series with the other BACnet devices on the BACnet communications trunk.
- t. Mount and terminate the Outdoor Sensor Assembly (OSA) on the HVAC unit that resides closest to the EMS Panel. When installing, make sure OSA enclosure is:
  - i. Mounted on a 1" rigid riser with an 'LB' secured to the back of the OSA (Refer to OTS/OLS Detail as shown on EM-4)
  - ii. Mounted 3 feet above the HVAC unit
  - iii. Mounted facing north, away from the combustion heat blower and condenser fan
  - iv. Weather-proofed
  - v. Mounted with the white PVC sensor pointed downward
  - vi. Positioned to allow the Outdoor Light Sensor exposure to full ambient daylight but is not shadowed or exposed to any artificial illumination
- u. When applicable, mount and terminate the CO2 Sensor as per the location specified by the DT drawings and this documentation package.
- v. Mount and terminate the Override Button assembly as per the location specified by the DT drawings and this documentation package.
- w. Do not adjust the DIP Switches for the EMS Override Buttons. They are factory preset for:
  - i. MSTP Address = 35
  - ii. Baud Rate = 19200
  - iii. Network Termination = Off
  - x. When applicable, mount and terminate the Indoor Ambient Light Sensor(s) as per the location specified by the DT drawings and the Special Instructions in this documentation package.
  - y. Install and wire load sides of lighting contactors for designated lighting loads and zones as required by DT and this documentation package
    - i. Employee Zone = 40% of Sales floor and 100% of all Stockroom areas
    - ii. Customer Zone = Remaining 60% of Sales Floor
    - iii. Exterior Zone = Building Exterior and Parking Lights
  - z. When applicable, Daylight Zone = First two (2) rows of lights along the store-front windows.
- aa. Furnish and install a 3-pole, 20-amp breaker/disconnect at the Main Electrical Distribution Panel (MDP) for the Phase Loss Power Monitor and Energy Meter.
- ab. When applicable, furnish and install a 3-pole, 20-amp breaker/disconnect at each Electrical Distribution Panel for each additional Phase Loss Power Monitor
- bb. Terminate wiring as specified in this documentation package.
  - i. Label Main Electrical Distribution Panel breaker/disconnect: DO NOT TURN OFF / PHASE FAILURE & ENERGY METER
  - ii. When applicable, label auxiliary Electrical Distribution Panel breaker/disconnect: DO NOT TURN OFF / PHASE FAILURE
- cc. Confirm wiring is completed as per this documentation package before applying power. Improper wiring will cause damage to equipment.
- dd. Install and terminate the CRS Modbus communication trunk from the eSCI Controller to the Energy Meter. (Refer to OEM instructions and this documentation package for requirements)
- ee. Permanently mount and terminate the Electrical Meter in close proximity to the main utility power feed.
- ff. Permanently mount the 3 Current Sensors, one each, around the 3 phases of the main utility feed.
- gg. Terminate the 3 Current Sensors to the Energy Meter, correctly maintaining Electrical Phase and Meter Input relationships.
- hh. Using the OEM Instructions, configure the EMS Energy Meter for:
  - i. Proper Current Transformer (CT) Ratio - Current Sensor Primary (Ct) = 400 - 1500 Amp
  - ii. Nominal Line to Line Voltage = 480 Vac
  - iii. Baud Rate = 19200
  - iv. Address = 1
  - v. Voltage Input Mode = True 3 Phase
  - vi. CT Auto Rotation = Auto Rotate

**Note:** The EMS is designed to monitor a single primary 3 phase power feed. Contact CRS for support when attempting to monitor multiple power feeds

- hh. Provide a technician, on site, for an approximate 2-hour remote telephone checkout with CRS.
- ii. Coordinate with the Mechanical Contractor to verify HVAC control during the CRS remote telephone checkout.
- jj. Prior to scheduling the Remote Commissioning Checkout, the Electrical Contractor will:
  - i. Confirm CRS Survey Form is completed and EMAILED to CRS National Account Team at [Surveys@Cylon.com](mailto:Surveys@Cylon.com) or FAXED to (855) 224-0879, **24 Hours Prior to scheduling the EMS Commissioning.**
  - ii. Confirm the Mechanical Contractor will be present during the CRS Remote Commissioning Checkout.
  - iii. Contact CRS to schedule the EMS Commissioning, **24 hours prior** at (888) 211-6789.

**III. MECHANICAL RESPONSIBILITIES:**

**Power to all EMS equipment and devices must be OFF while terminations are made.**

- a. Provide labor and installation material, as required, for a complete and operational EMS for this DT store location.
- b. Verify number and type of HVAC units against the design, report discrepancies, which cannot be resolved in the field, to the CRS National Account Support Team at (888) 211-6789 and wait for resolution instructions.
- c. Perform all work in accordance with all National, State and Local Codes for this project.
- d. Mount and terminate the SimpleSTAT module(s) as per the location(s) specified by the DT drawings and this documentation package.
- e. Utilizing 18/8 cable between the SimpleSTAT module and HVAC unit.
  - i. Terminate C, R, G, Y1, Y2, W1 and W2 on the HVAC unit for control of fan, cooling and heating.
  - ii. Terminate the communications cables to the SimpleSTAT(s) as shown in this documentation package.
- f. Set address on the SimpleSTAT module, as shown in the SimpleSTAT installation instructions. When communications to the EMS is in a failed state, the SimpleSTAT will operate 24/7 as a stand-alone STAT using the following temperature setpoints:
  - i. Default Cooling Setpoint = 72.0 °F
  - ii. Default Heating Setpoint = 69.0 °F
- g. Utilizing the Downrods and associated hardware, specified by the DT drawings and the "Special Instructions" section of this documentation package, mount and terminate the Remote Space Temperature Sensor(s) as per the location(s) specified by the DT drawings.
  - i. In close proximity to the zone return air grille and away from supply air drafts.
  - ii. Install and secure the Remote Temperature Sensor wire to the Thermostat Controller.
  - h. Mount the Supply Duct Temperature sensor of each HVAC unit.
    - i. The remote Supply Duct Temperature Sensor should be mounted in the main Supply Air Duct on the interior side of the HVAC unit's building penetration.
    - ii. Utilizing 18/2 wire, terminate the supply duct temperature sensor wire to the Thermostat module as shown in this documentation package.
  - i. Provide Electrical Contractor with roof plan layout, showing location of HVAC Units on the roof.
  - j. Provide a technician, on site, for an approximate 2-hour remote telephone checkout with CRS.
  - k. Coordinate with the Electrical Contractor to verify proper HVAC control during the CRS Remote Commissioning Checkout.

**IV. CYLON RETAIL SOLUTIONS RESPONSIBILITIES:**

- a. The following services will be supplied by CRS:
  - i. Shipping of all contracted EMS components for the job.
  - ii. Programming and downloading of CRS equipment and software.
  - iii. Provide telephone technical support at (888) 211-6789.
  - iv. Remote system checkout with installing contractor
- b. Verification of proper operation of the following items by exercising the controlled load:
  - i. Timed operation of all applicable EMS lighting loads - Interior and Exterior.
  - ii. Outside light level control of all applicable EMS lighting loads - Interior and Exterior.
  - iii. Operation of HVAC heating stages, as indoor environment allows.
  - iv. Operation of HVAC cooling stages, as indoor and outdoor environments allow.
  - v. Verification of HVAC unit sensor readings - space and supply temperatures.
- c. If any end unit (e.g. lighting, HVAC unit, supply air fan, etc.) cannot be operated for mechanical or electrical reasons, CRS will verify the proper operation of the EMS control devices (e.g. contactors, discrete I/O) leading up to the unit, in order to fully verify the operations of the EMS.
- d. CRS will issue an "EMS Check-Out Number" once all store systems are verified as operational.

DEVICE LEGEND	
SYMBOL	DESCRIPTION
	HVAC UNIT CONTROLLER (SIMPLESTAT)
	HVAC UNIT CONTROLLER (TRC)
	DUCT TEMPERATURE SENSOR
	SPACE TEMPERATURE SENSOR
	OUTDOOR LIGHT SENSOR
	OUTDOOR TEMPERATURE & RELATIVE HUMIDITY SENSORS
	REMOTE TEMPERATURE SENSOR
	INDOOR CO2 SENSOR
	INDOOR RELATIVE HUMIDITY SENSOR
	INDOOR LIGHT SENSOR
	O/H DOOR SENSOR
	SECURITY INTERFACE DEVICE
	eBUILDING SYSTEM CONTROLLER
	REMOTE OVERRIDE SWITCH
	OCCUPANCY SENSOR

CABLE LEGEND				
KEY	SIZE	TYPE	MFG.	MFG. PART #
	18/2	SHIELDED PLENUM	WINDY CITY	# 002320-S
	18/4	SHIELDED PLENUM	WINDY CITY	# 002340-S
	18/8	NON SHIELDED PLENUM	WINDY CITY	# 002392-S
	18/10	NON SHIELDED PLENUM	WINDY CITY	# 002393-S
	24/8	CAT5 E PLENUM	WINDY CITY	# 5556140-S



**Cylon**  
RETAIL SOLUTIONS

25 Sundial Ave - Suite 310 W  
Manchester, NH 03103

**FAMILY DOLLAR**  
**DRAWING NOTES**  
**(FOR REFERENCE ONLY)**

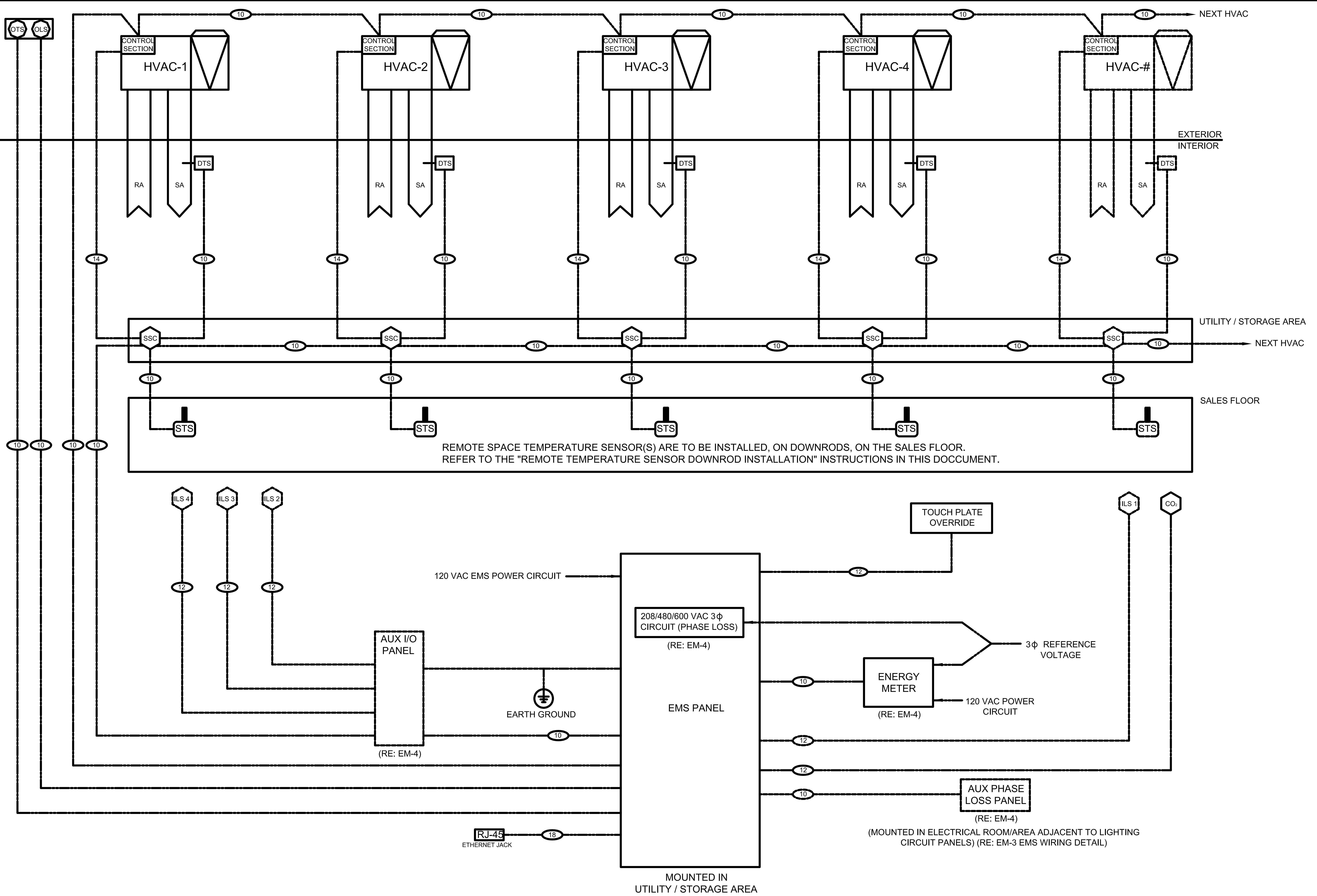
REVISION: 1	
DATE: 06/05/20	ECN#: 2396
LOOSE DT OPTION	
REVISION:	
DATE:	ECN#:
REVISION:	
DATE:	ECN#:
REVISION:	
DATE:	ECN#:
DRAWN: WPC	ENGINEER: CGP
PART #: 94-403	OPTION: P

**ENERGY MANAGEMENT PLAN**

**EM-1 of 4**

**FAMILY DOLLAR**  
**LINE DIAGRAM**  
(FOR REFERENCE ONLY NOT TO SCALE)

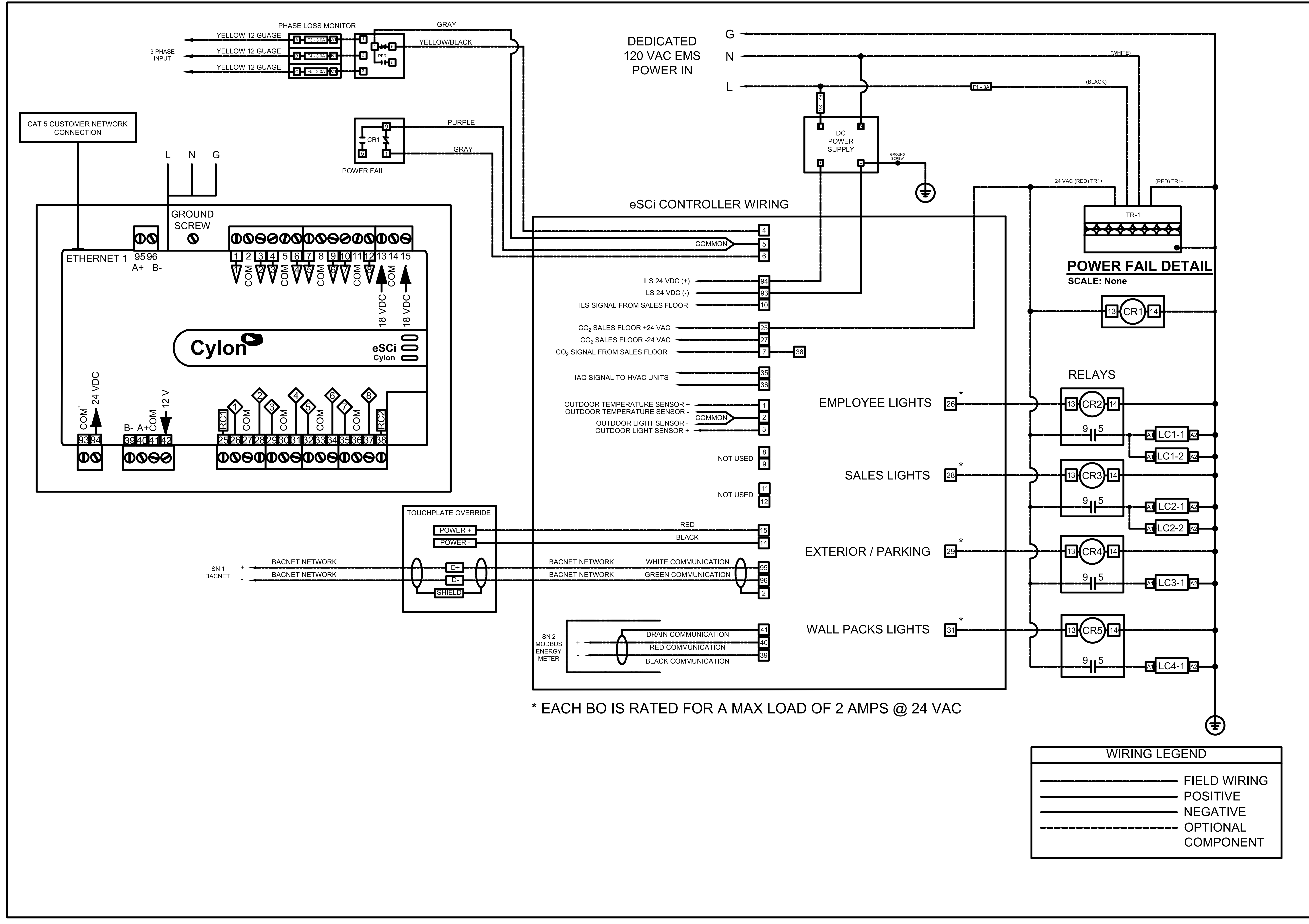
REVISION: 1	DATE: 06/05/20	ECN#: 2396
LOOSE DT OPTION		
REVISION: ---	DATE: ---	ECN#: ---
REVISION: ---	DATE: ---	ECN#: ---
REVISION: ---	DATE: ---	ECN#: ---
REVISION: ---	DATE: ---	ECN#: ---
DRAWN: WPC	CHECKED: CGP	PART #: 94-403
	OPTION: P	



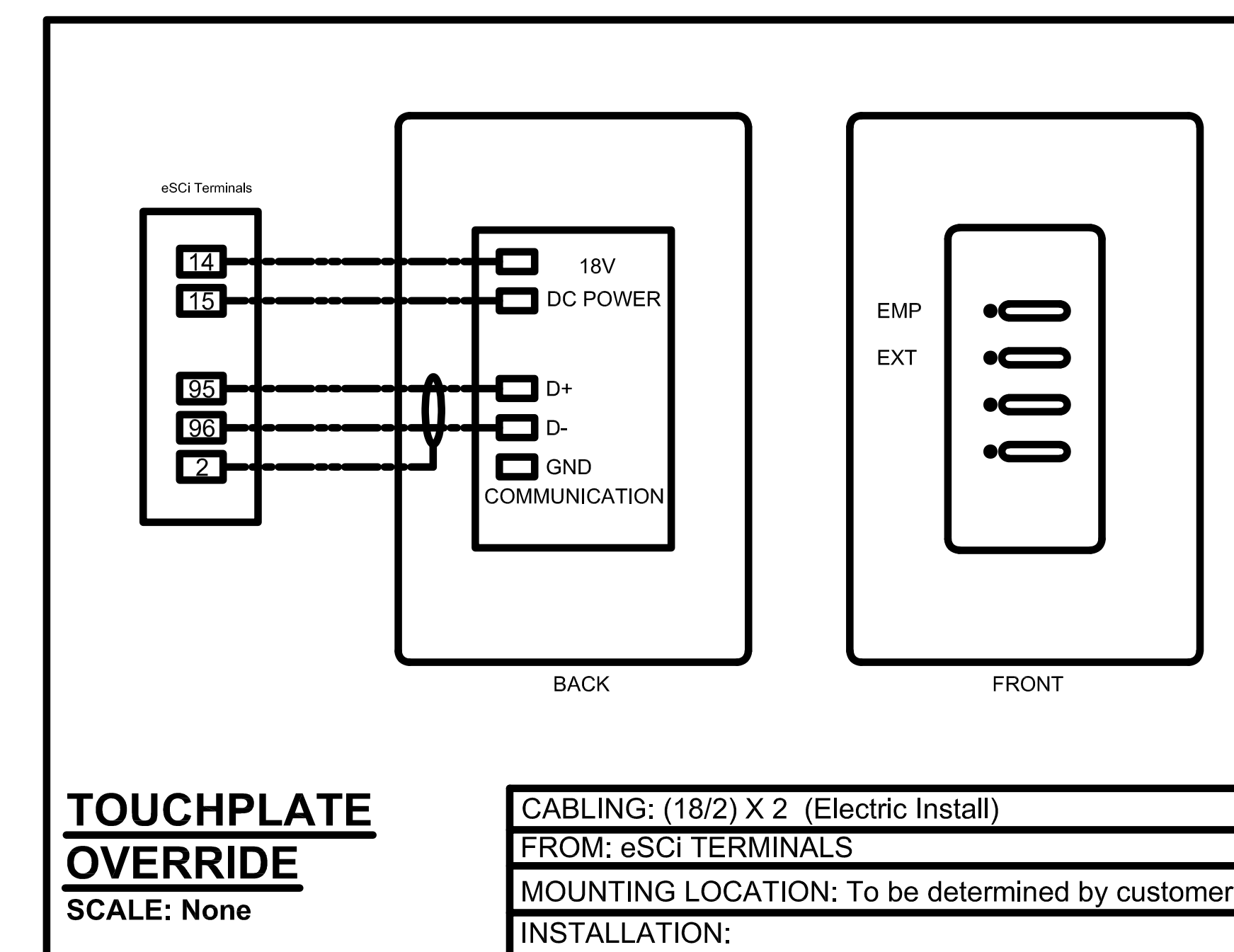
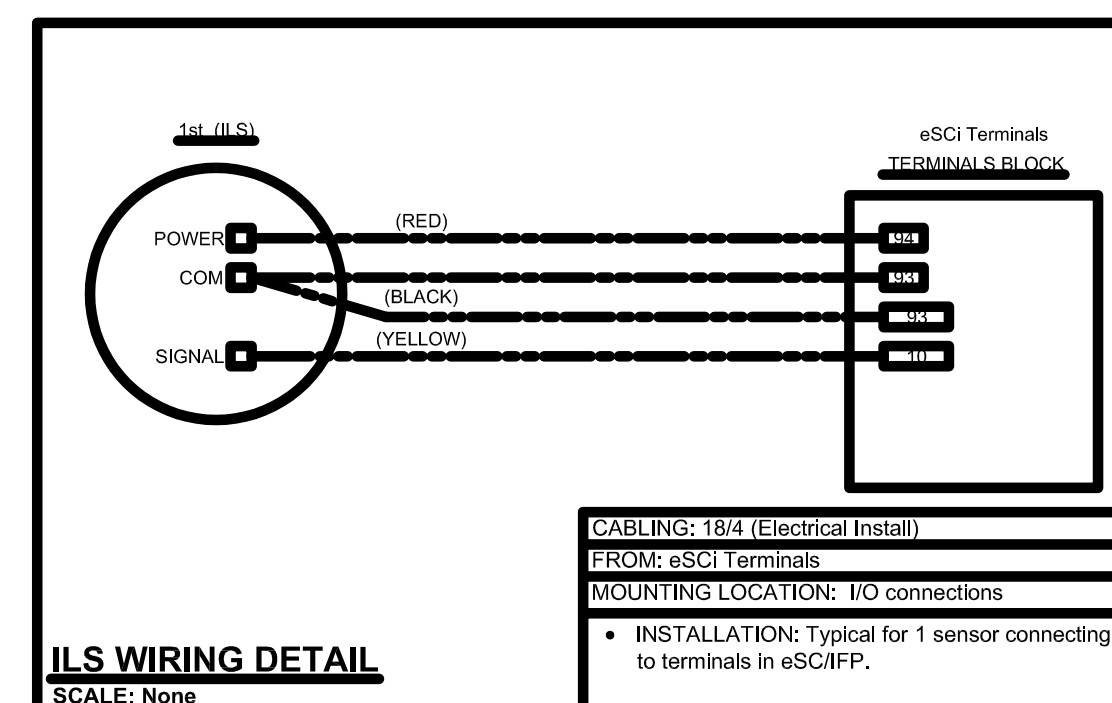
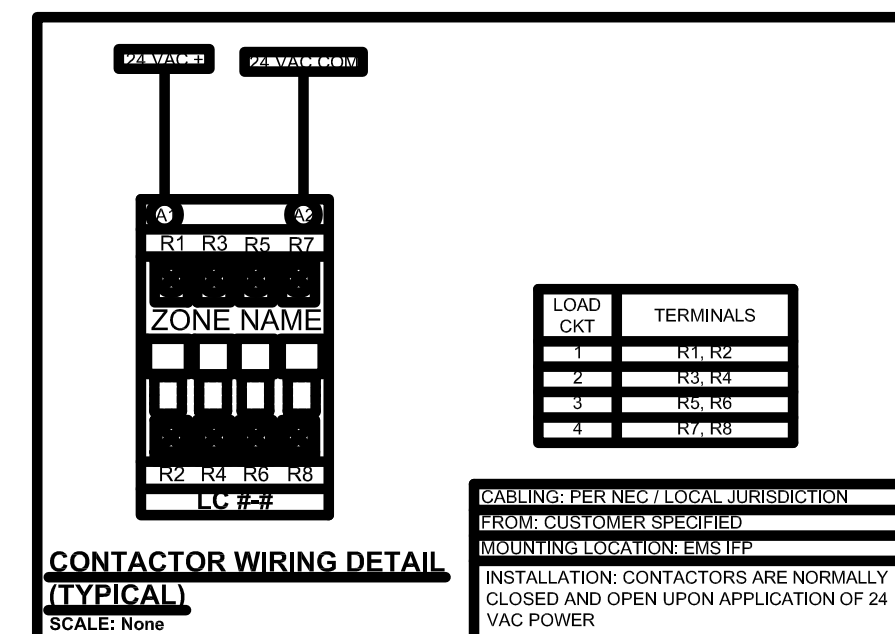
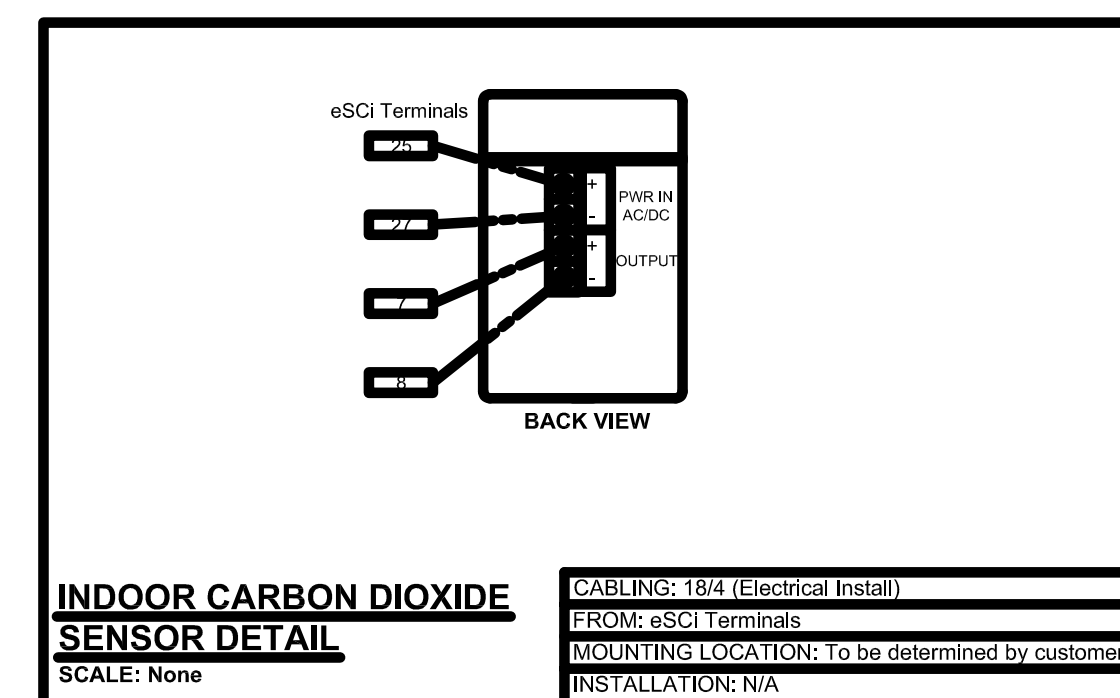
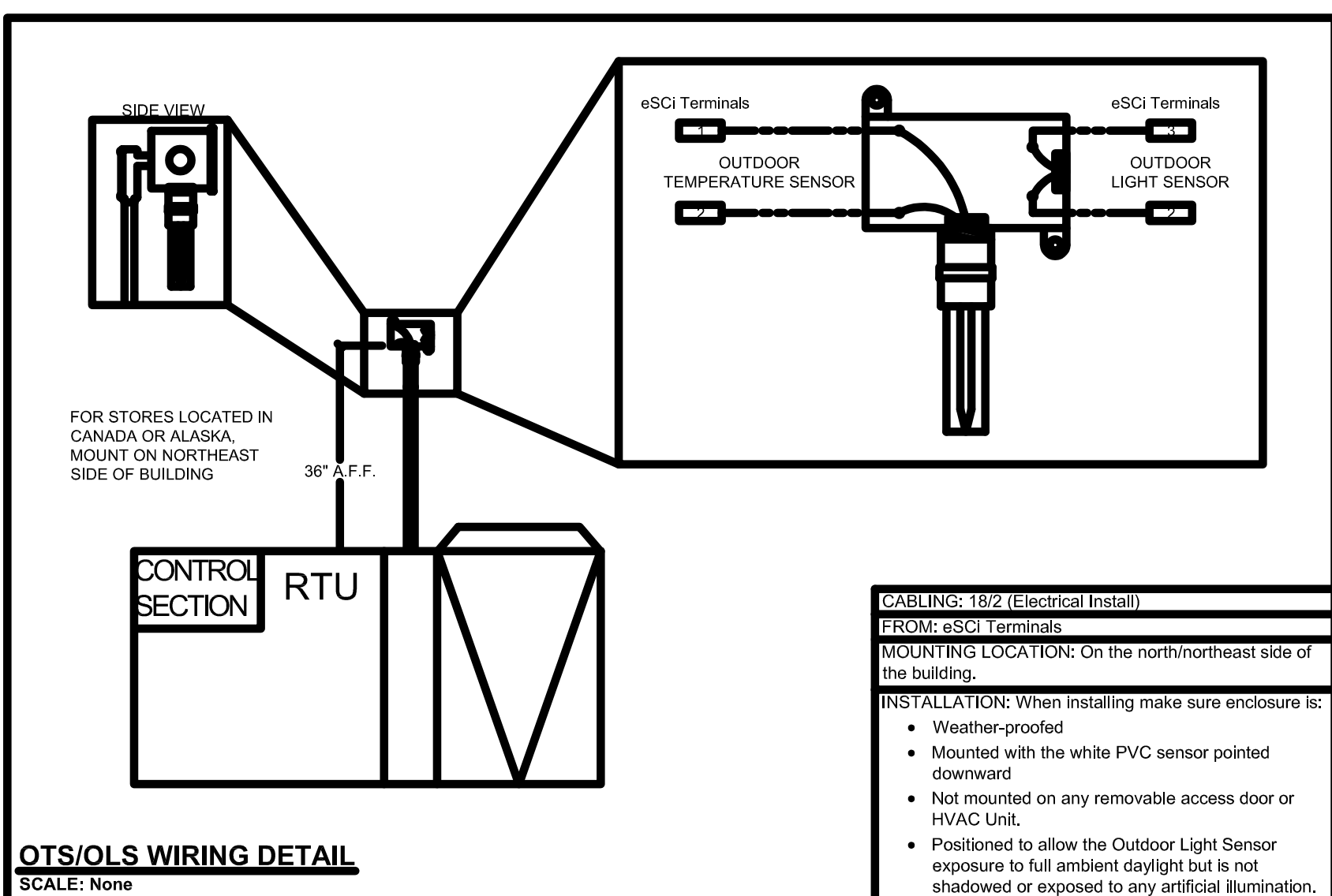
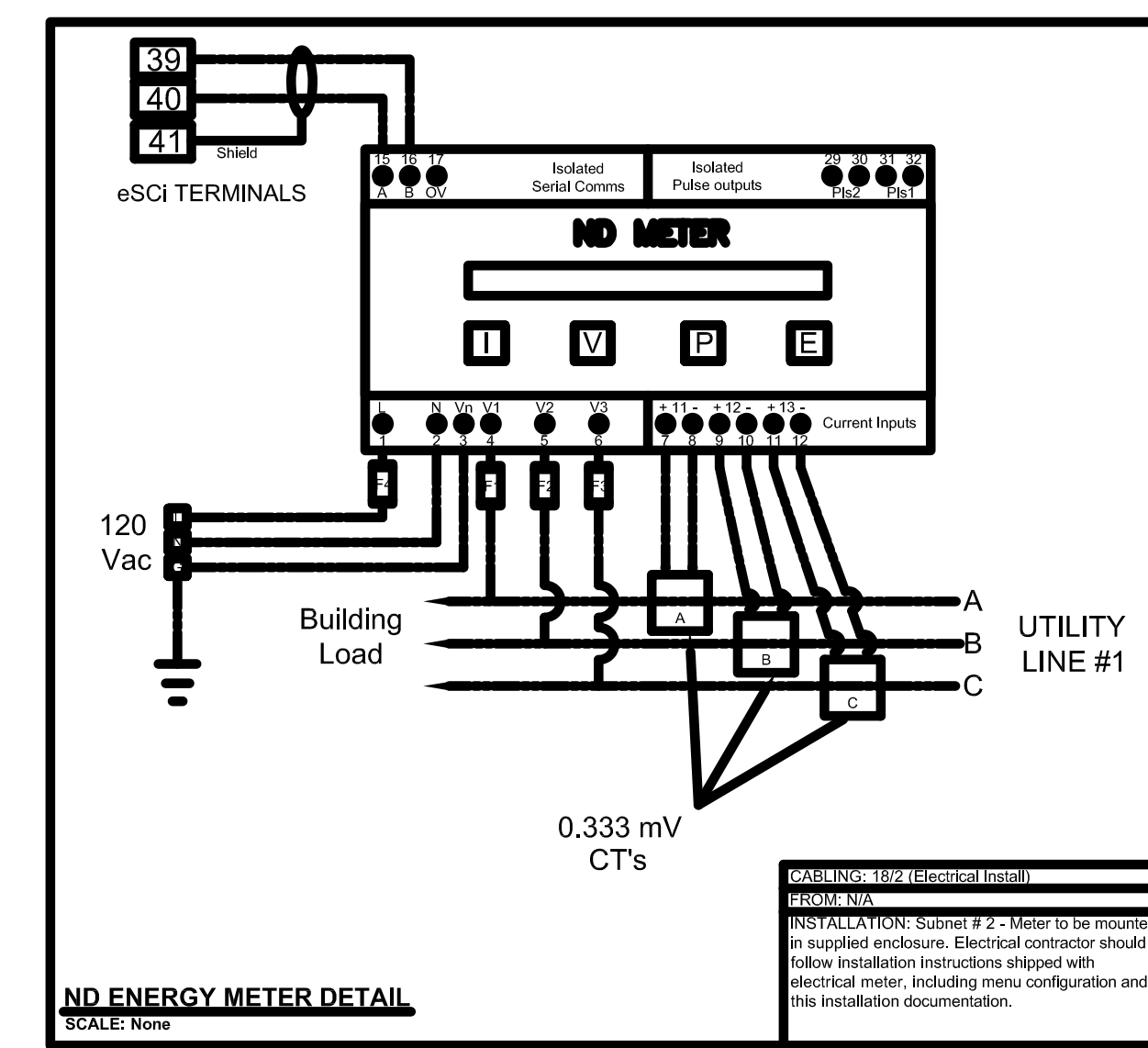
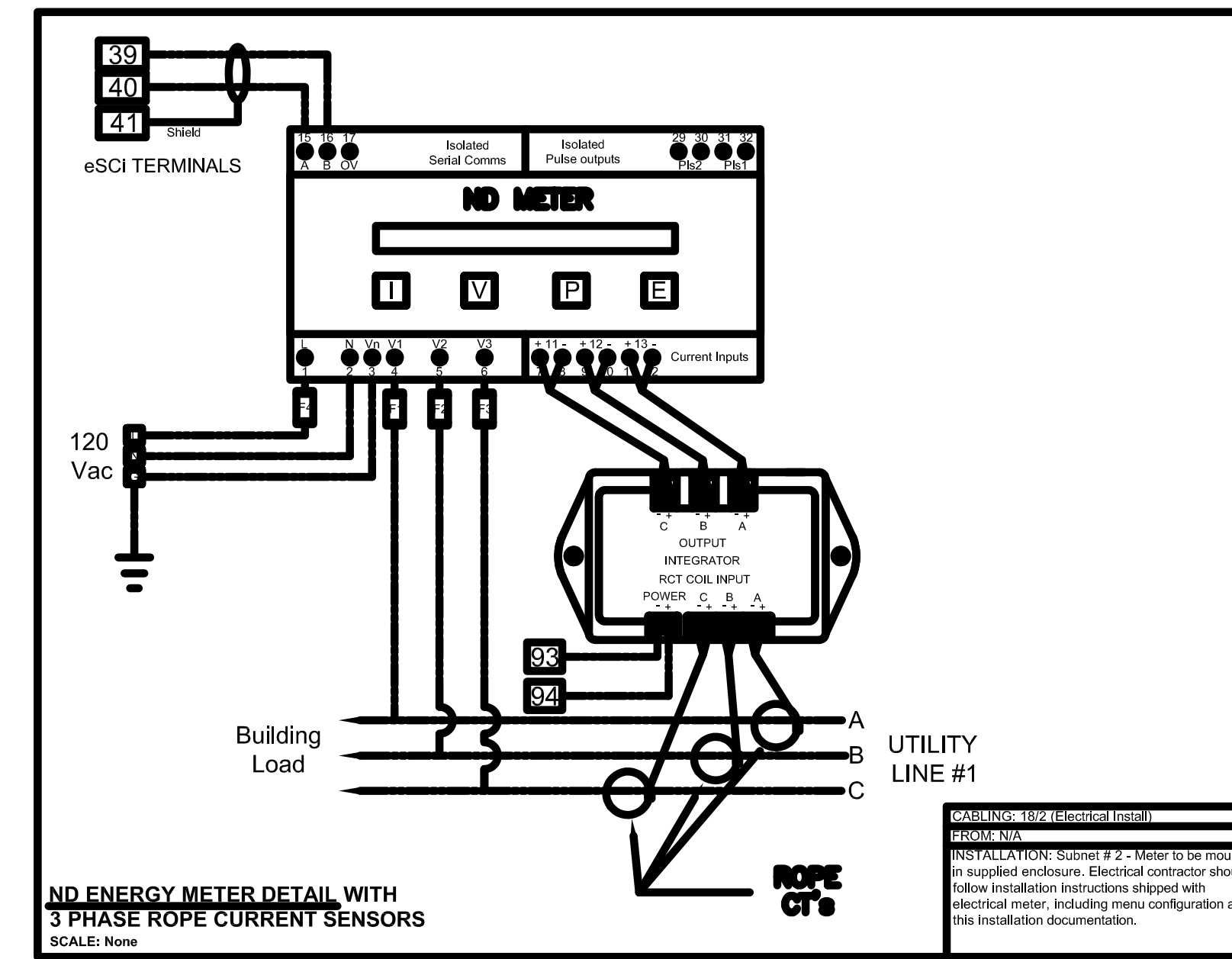
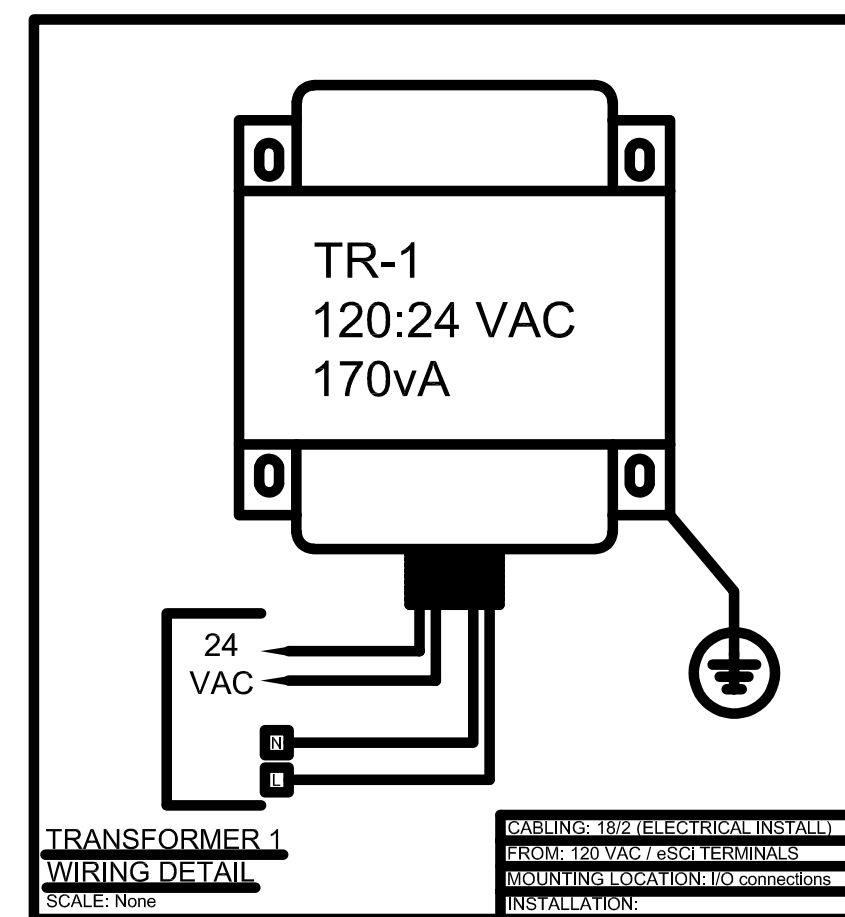
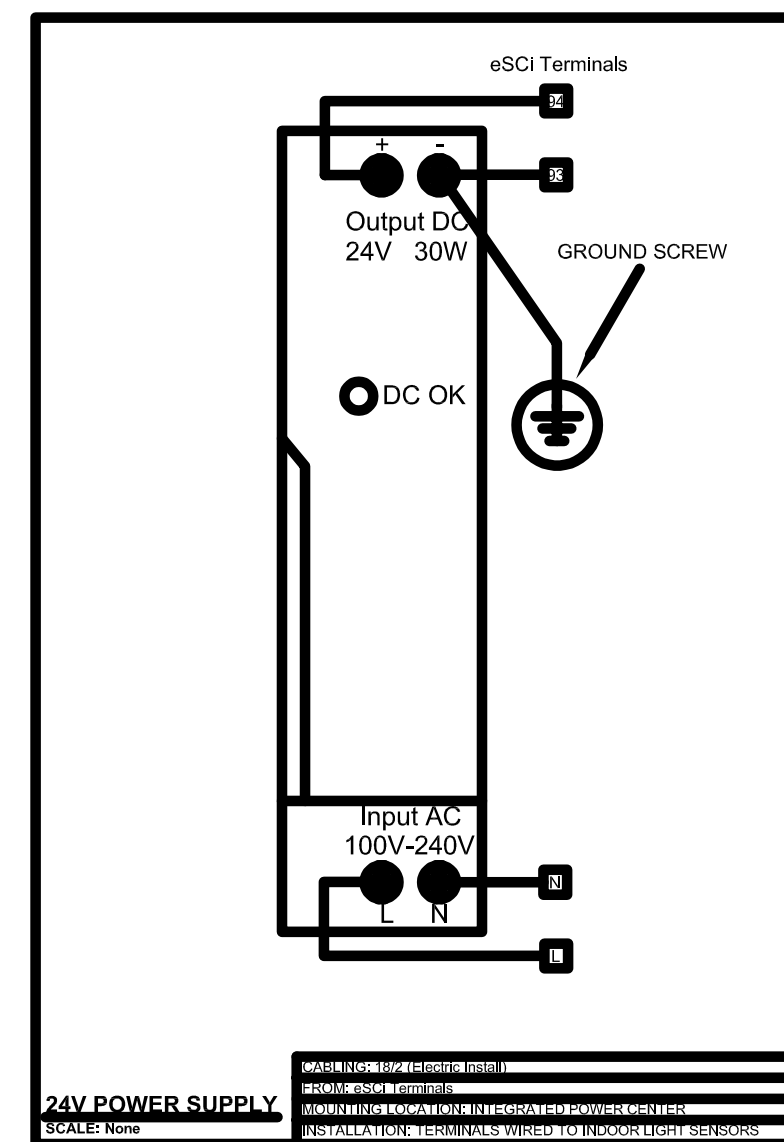
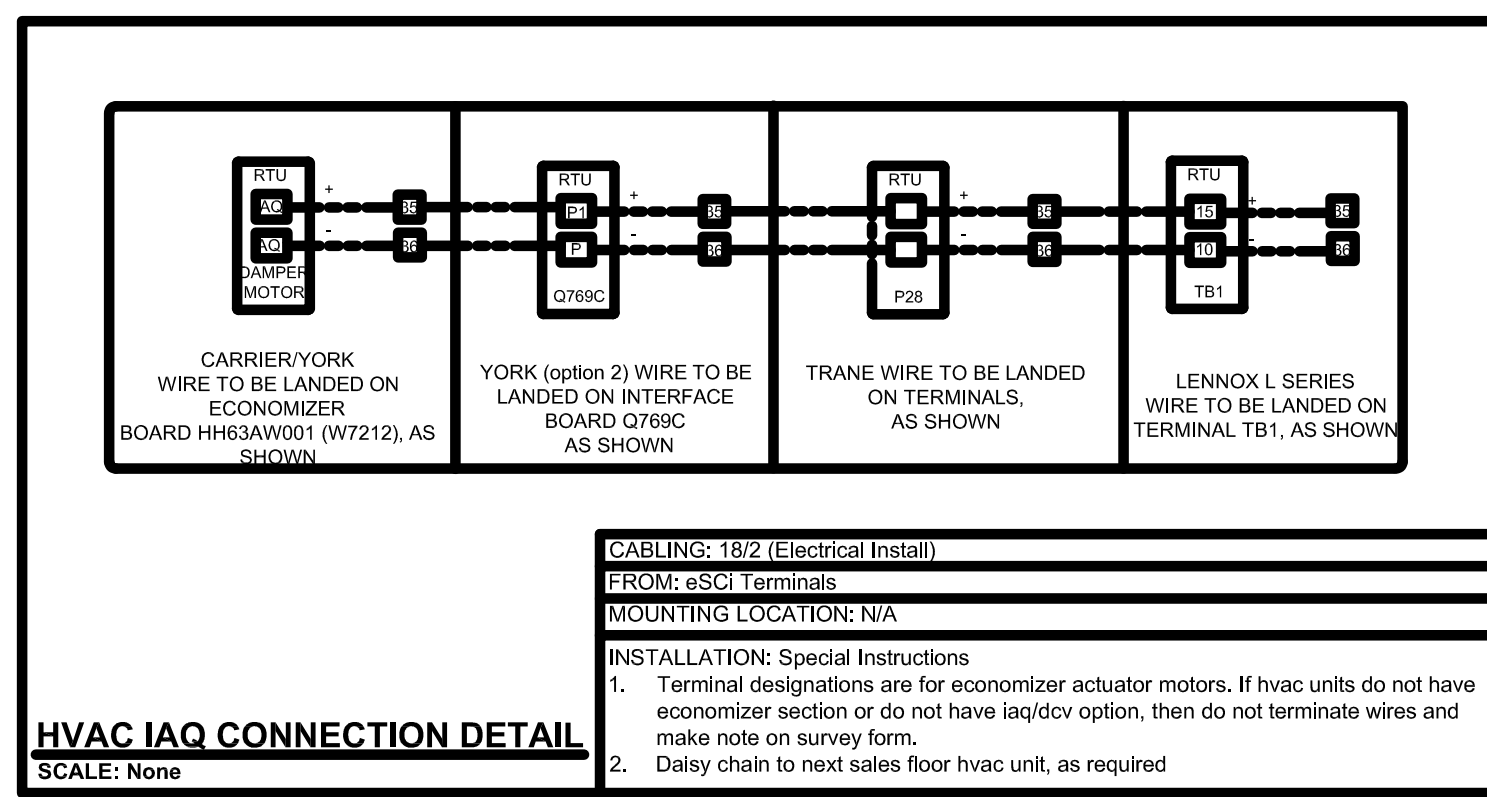
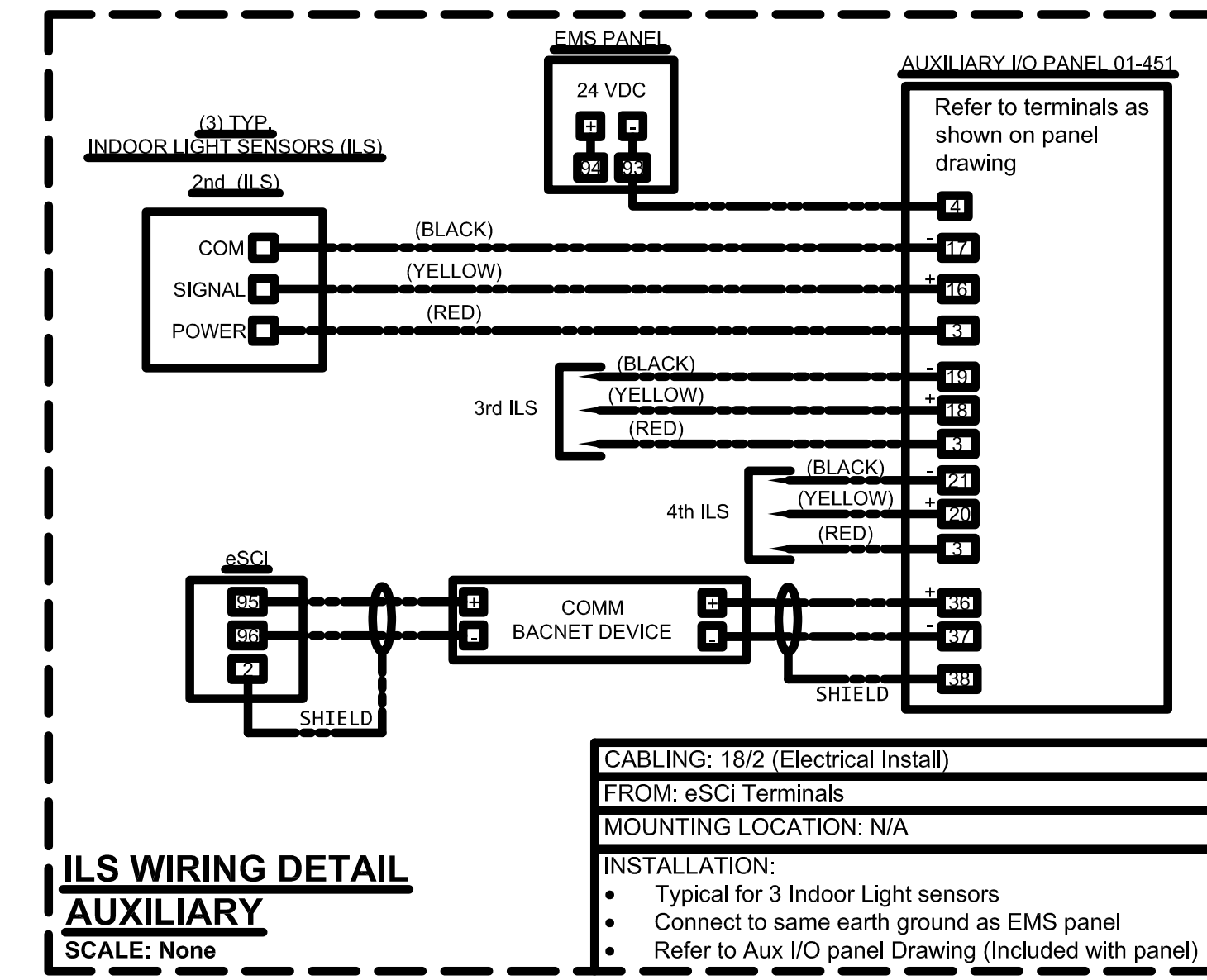
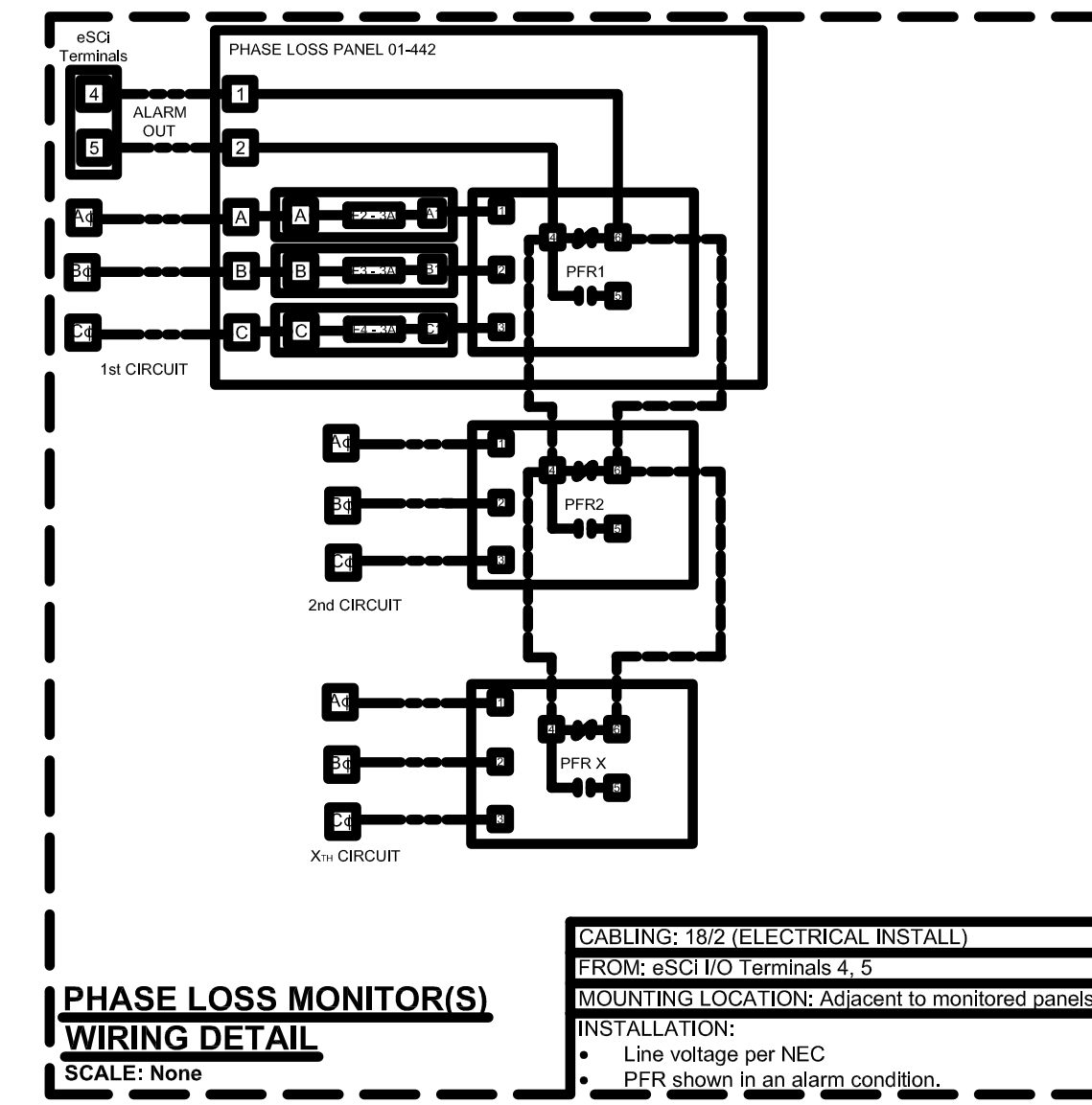
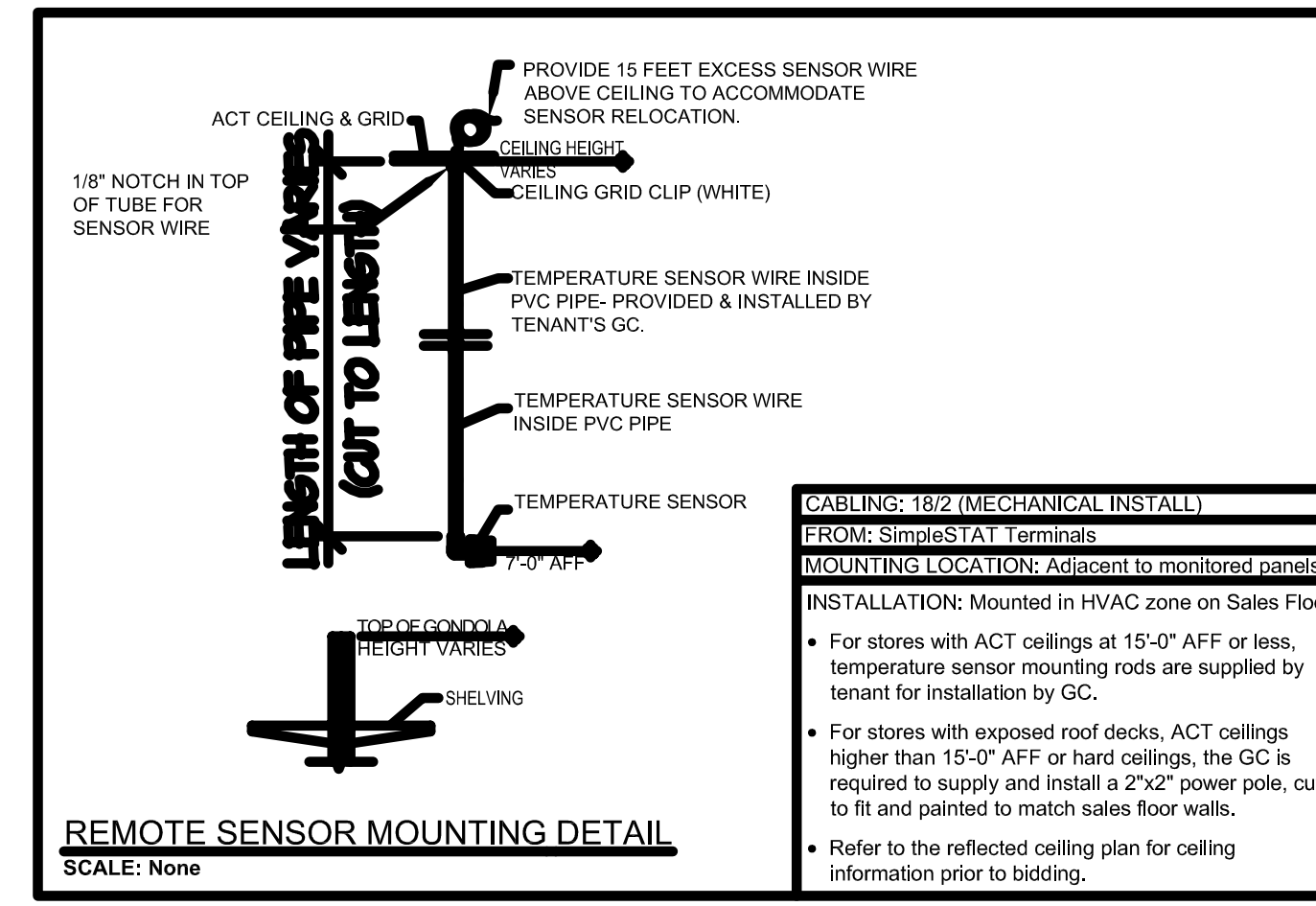
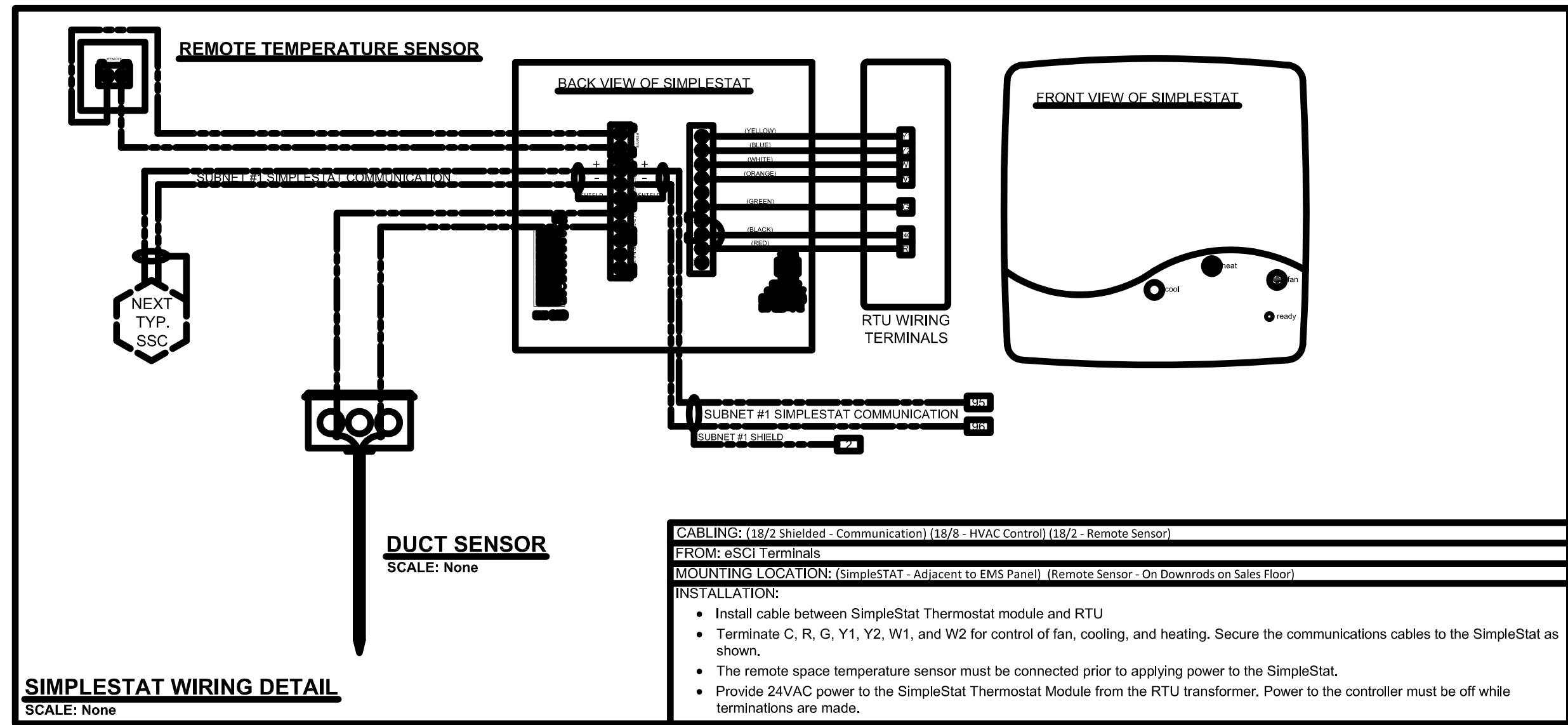
**ENERGY MANAGEMENT SYSTEM SINGLE LINE DIAGRAM**  
SCALE: None

WIRING LEGEND	
---	FIELD WIRING
—	POSITIVE
- - -	NEGATIVE
- · - · -	OPTIONAL COMPONENT

# FAMILY DOLLAR FIELD WIRING (FOR REFERENCE ONLY NOT TO SCALE)



REVISION: 1	DATE: 06/05/20	ECN#: 2396
LOOSE DT OPTION		
REVISION: ---	DATE: ---	ECN#: ---
REVISION: ---	DATE: ---	ECN#: ---
REVISION: ---	DATE: ---	ECN#: ---
REVISION: ---	DATE: ---	ECN#: ---
REVISION: ---	DATE: ---	ECN#: ---
REVISION: ---	DATE: ---	ECN#: ---
DRAWN: WPC	CHECKED: CGP	PART #: 94-403
OPTION: P		



**Cylon** RETAIL SOLUTIONS  
25 Sundial Ave - Suite 310 W  
Manchester, NH 03103

**FAMILY DOLLAR EQUIPMENT DETAILS**  
(FOR REFERENCE ONLY NOT TO SCALE)

REVISION: 1	DATE: 06/05/20	ECN#: 2396
LOOSE DT OPTION		
REVISION: ---	DATE: ---	ECN#: ---
REVISION: ---	DATE: ---	ECN#: ---
REVISION: ---	DATE: ---	ECN#: ---
REVISION: ---	DATE: ---	ECN#: ---
DRAWN: WPC	CHECKED: CGP	
PART #: 94-403	OPTION: P	