

DOLLAR TREE

HOBBY LOBBY CENTER
2225 MISSOURI BLVD.
JEFFERSON CITY, MO 65109
DEAL # 13255 STORE # 9204

DOLLAR TREE "LOW/MEDIUM SECURITY"
NO SECURITY MEASURE NECESSARY

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

SYMBOLS		GENERAL NOTES		NEW WORK NOTES	
	ELEVATION MARKER	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).	1. PROVIDE TENANT IDENTIFICATION SIGN AT REAR DOOR PER LANDLORD'S CRITERIA.	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.	20. PROVIDE NEW ALUMINUM AND GLASS STOREFRONT SYSTEM EQUAL TO KAWNEER TRIFAB VG 451 SERIES, STICK SYSTEM FABRICATION, TO MATCH EXISTING. PROVIDE TEMPERED 1" INSULATED LOW E GLAZING AS INDICATED. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF ALL FIELD CONDITIONS, AND FOR ALL ACCESSORY PARTS AND HARDWARE REQUIRED. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE LANDLORD FOR APPROVAL PRIOR TO CONSTRUCTION.
	ENLARGED DETAIL INDICATOR	2. ALL WOOD FRAMEWORK, WOOD BLOCKING AND PLYWOOD SHALL BE FIRE RETARDANT TREATED PER CODE.	2. THE CONTRACTOR SHALL VERIFY THAT TOILET ROOMS), INCLUDING FIXTURES AND ACCESSORIES (BOTH EXISTING AND NEW) MEET ALL APPLICABLE LOCAL, STATE AND FEDERAL ACCESSIBILITY CODES AND LAWS.	13. CONTRACTOR SHALL NOTIFY CONSTRUCTION PM OF ANY NECESSARY REPAIRS TO ROOF PRIOR TO PERFORMING ANY OR ALL WORK.	21. ALL PLAQUE SIGNAGE INCLUDING BUT NOT LIMITED TO TOILET SIGNS, LADDER STORAGE SIGN, AND FLEX CONVEYOR SIGN SHALL BE ATTACHED TO MOUNTING SURFACE WITH CONSTRUCTION ADHESIVE.
	WALL SECTION MARKER	3. ALL FINISH MATERIALS SHALL MEET FLAME SPREAD AND SMOKE DEVELOPMENT RATING CLASS C (OR CLASS 3).	4. PROVIDE EXTERIOR LIGHT ABOVE REAR DOOR, AS APPROVED BY LANDLORD. IF ONE DOES NOT EXIST WITHIN 10 FEET OF REAR DOOR.	14. 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.	22. 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.)
	INTERIOR ELEVATION MARKER	4. WALL CONSTRUCTION BY THE TENANT'S CONTRACTOR IS SHOWN HATCHED.	5. PAINT ALL EXPOSED SURFACE MOUNTED CONDUIT TO MATCH ADJACENT WALL COLOR (IE WHITE OR YELLOW).	15. 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.	17. CONTRACTOR SHALL INSTALL NEW ENTRY "DECO RIB" CARPET TILE W/ TRANSITION STRIP. TRANSITION STRIP TO BE SECURED TO FLOOR W/ 3/16" X 1 3/4" TAPCON SCREWS.
	DEMOLITION NOTE	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. CONTRACTOR SHALL CAULK AROUND TOP AND BOTTOM EDGES OF COLUMN SURROUNDS TO AVOID INJURY. REFER TO DETAIL 4/CS2 FOR ADDITIONAL INFORMATION.	16. 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.	18. CONTRACTOR SHALL POST ON BULLETIN BOARD IN OFFICE FINAL INSPECTIONS AND CERTIFICATE OF OCCUPANCY.
		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. REPAIR AND CLEAN ALL EXISTING MATERIALS (IE STOREFRONT FRAMING AND GLAZING, WALLS, CEILING, ETC) TO REMAIN TO A LIKE NEW CONDITION.	19. AT ROOF, FLASH NEW MECHANICAL EQUIPMENT CURBS IN ACCORDANCE WITH ROOFING MANUFACTURER'S RECOMMENDATIONS. REFER TO MECHANICAL AND/OR STRUCTURAL DRAWINGS FOR MORE INFORMATION. GENERAL CONTRACTOR SHALL COORDINATE WITH CONSTRUCTION PM PRIOR TO STARTING WORK & TO USE LANDLORD'S ROOFING CONTRACTOR AS NOT TO VOID LANDLORD ROOF WARRANTY.	
		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. NOTIFY DOLLAR TREE'S CONSTRUCTION PM AS TO THE CONDITION OF EXPOSED CONCRETE BLOCK WALL TO REMAIN ON THE SALES FLOOR. DOLLAR TREE 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.		
		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 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), HELIUM TANK BRACKETS (STOCKROOM, SEE DETAIL), GRAVITY CONVEYOR SYSTEM, AND MOBILE FIXTURES PER TENANT'S FIXTURE PLAN. CALIFORNIA PROJECTS ONLY, CONTRACTOR SHALL STRAP ALL FIXTURES AS PER THE SEISMIC DRAWINGS PROVIDED. CONTACT THE CONSTRUCTION PM IF FIXTURE/SEISMIC DRAWING WAS NOT MADE AVAILABLE TO YOU DURING YOUR BIDDING PROCESS.		
		9. CONTRACTOR SHALL ASSEMBLE AND INSTALL MATERIALS/ PRODUCTS IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND INDUSTRIAL/ASSOCIATION STANDARDS.	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).		
		10. FIELD VERIFY AND/OR REPORT ASBESTOS-CONTAINING MATERIAL TO ARCHITECT AND TENANT UPON DISCOVERY.	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.		
		11. SMOKE AND FIRE PARTITIONS SHALL BE CONSTRUCTED PER THE DESIGNATED UL DESIGN AND SHALL BE EXTENDED VERTICALLY TO THE BOTTOM OF THE STRUCTURE ABOVE. PROVIDE FIRE STOPS AND SEAL ALL PIPE AND CONDUIT PENETRATIONS WITH SEALANT THAT COMPLIES WITH THE MINIMUM FIRE RATED REQUIREMENTS FOR THE PARTITION. DUCT PENETRATIONS SHALL BE PROTECTED WITH SMOKE AND/OR FIRE DAMPERS.			
		12. ALL INTERIOR CONCRETE SHALL BE PORTLAND CEMENT BASED TO INCLUDE PATCHING, FLOATING/LEVELING OF FLOORS AND INFILLING.			
		13. FIRE WALLS, FIRE BARRIERS, FIRE PARTITIONS, SMOKE BARRIERS AND SMOKE PARTITIONS SHALL BE PERMANENTLY IDENTIFIED WITH SIGNS OR STENCILING. LETTERING SHALL BE NOT LESS THAN 3" IN HEIGHT LOCATED ABOVE AN ACCESSIBLE CEILING AND REPEATED IN INTERVALS NOT EXCEEDING 30' HORIZONTALLY ALONG THE WALL OR PARTITION. SUGGESTED WORDING SHALL BE "FIRE AND/OR SMOKE BARRIER-PROTECT ALL OPENINGS."			
		14. 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.			
		15. 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.			

PROJECT DIRECTORY		BUILDING CODE SUMMARY		GENERAL NOTES		NEW WORK NOTES	
PROJECT MANAGERS:	CASCO 12 SUNNEN DRIVE, SUITE 100 ST. LOUIS, MO 63143 PHONE: (314) 821-1100 FAX: (314) 821-4162 CONTACT: BRIAN NAST EMAIL: brian.nast@thedocompanies.com	APPLICABLE BUILDING CODE:	INTERNATIONAL BUILDING CODE, 2015 EDITION	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).	1. PROVIDE TENANT IDENTIFICATION SIGN AT REAR DOOR PER LANDLORD'S CRITERIA.	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.	20. PROVIDE NEW ALUMINUM AND GLASS STOREFRONT SYSTEM EQUAL TO KAWNEER TRIFAB VG 451 SERIES, STICK SYSTEM FABRICATION, TO MATCH EXISTING. PROVIDE TEMPERED 1" INSULATED LOW E GLAZING AS INDICATED. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF ALL FIELD CONDITIONS, AND FOR ALL ACCESSORY PARTS AND HARDWARE REQUIRED. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE LANDLORD FOR APPROVAL PRIOR TO CONSTRUCTION.
TENANT:	DOLLAR TREE / FAMILY DOLLAR 500 VOLVO PARKWAY CHESAPEAKE, VIRGINIA 23320 PHONE: (757) 991-5831 EXT. 14831 CELL: (757) 406-1444 CONTACT: KEITH SULLIVAN EMAIL: ksull169@dollartree.com	APPLICABLE PLUMBING CODE:	INTERNATIONAL PLUMBING CODE, 2015 EDITION	2. ALL WOOD FRAMEWORK, WOOD BLOCKING AND PLYWOOD SHALL BE FIRE RETARDANT TREATED PER CODE.	2. THE CONTRACTOR SHALL VERIFY THAT TOILET ROOMS), INCLUDING FIXTURES AND ACCESSORIES (BOTH EXISTING AND NEW) MEET ALL APPLICABLE LOCAL, STATE AND FEDERAL ACCESSIBILITY CODES AND LAWS.	13. CONTRACTOR SHALL NOTIFY CONSTRUCTION PM OF ANY NECESSARY REPAIRS TO ROOF PRIOR TO PERFORMING ANY OR ALL WORK.	21. ALL PLAQUE SIGNAGE INCLUDING BUT NOT LIMITED TO TOILET SIGNS, LADDER STORAGE SIGN, AND FLEX CONVEYOR SIGN SHALL BE ATTACHED TO MOUNTING SURFACE WITH CONSTRUCTION ADHESIVE.
LANDLORD:	CHENG ZENG PROPERTIES, LLC 2219-D MISSOURI BLVD. JEFFERSON CITY, MO 65106 PHONE: (573) 645-1688 CONTACT: DANNY CHENG EMAIL: DannyCheng1688@gmail.com	APPLICABLE MECHANICAL CODE:	INTERNATIONAL MECHANICAL CODE, 2015 EDITION	3. ALL FINISH MATERIALS SHALL MEET FLAME SPREAD AND SMOKE DEVELOPMENT RATING CLASS C (OR CLASS 3).	4. PROVIDE EXTERIOR LIGHT ABOVE REAR DOOR, AS APPROVED BY LANDLORD. IF ONE DOES NOT EXIST WITHIN 10 FEET OF REAR DOOR.	14. 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.	22. 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.)
SIGN CONTRACTOR:	JONES SIGN 1711 SCHEURING RD. DE PERE, WI. 54115 PHONE: (800) 536-7446 x1088 FAX: (920) 983-9145 CONTACT: MICKY WISKOW	APPLICABLE ELECTRICAL CODE:	NATIONAL ELECTRICAL CODE, 2014 EDITION	4. WALL CONSTRUCTION BY THE TENANT'S CONTRACTOR IS SHOWN HATCHED.	5. PAINT ALL EXPOSED SURFACE MOUNTED CONDUIT TO MATCH ADJACENT WALL COLOR (IE WHITE OR YELLOW).	15. 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.	17. CONTRACTOR SHALL INSTALL NEW ENTRY "DECO RIB" CARPET TILE W/ TRANSITION STRIP. TRANSITION STRIP TO BE SECURED TO FLOOR W/ 3/16" X 1 3/4" TAPCON SCREWS.
BUILDING DEPARTMENT:	CITY OF JEFFERSON BUILDING REGULATIONS DIVISION 320 E McCARTY ST JEFFERSON CITY, MO 65101 PHONE: (573) 634-6451	APPLICABLE FIRE CODE:	INTERNATIONAL FIRE CODE, 2015 EDITION	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. CONTRACTOR SHALL CAULK AROUND TOP AND BOTTOM EDGES OF COLUMN SURROUNDS TO AVOID INJURY. REFER TO DETAIL 4/CS2 FOR ADDITIONAL INFORMATION.	16. 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.	18. CONTRACTOR SHALL POST ON BULLETIN BOARD IN OFFICE FINAL INSPECTIONS AND CERTIFICATE OF OCCUPANCY.
FREEZER/COOLER VENDOR:	ORIGIN RETAIL SOLUTIONS 12220 BIRMINGHAM HIGHWAY BUILDING 90 MILTON, GA 30004 PHONE: (770) 374-9362 CONTACT: TONY O'CONNOR	APPLICABLE ENERGY CODE:	IECC, 2015 EDITION	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. REPAIR AND CLEAN ALL EXISTING MATERIALS (IE STOREFRONT FRAMING AND GLAZING, WALLS, CEILING, ETC) TO REMAIN TO A LIKE NEW CONDITION.	19. AT ROOF, FLASH NEW MECHANICAL EQUIPMENT CURBS IN ACCORDANCE WITH ROOFING MANUFACTURER'S RECOMMENDATIONS. REFER TO MECHANICAL AND/OR STRUCTURAL DRAWINGS FOR MORE INFORMATION. GENERAL CONTRACTOR SHALL COORDINATE WITH CONSTRUCTION PM PRIOR TO STARTING WORK & TO USE LANDLORD'S ROOFING CONTRACTOR AS NOT TO VOID LANDLORD ROOF WARRANTY.	
		APPLICABLE ACCESSIBILITY CODE:	ICC/ANSI, A117.1, CURRENT EDITION, TAS	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. NOTIFY DOLLAR TREE'S CONSTRUCTION PM AS TO THE CONDITION OF EXPOSED CONCRETE BLOCK WALL TO REMAIN ON THE SALES FLOOR. DOLLAR TREE 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.		
		TYPE OF CONSTRUCTION:	TYPE II B	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 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), HELIUM TANK BRACKETS (STOCKROOM, SEE DETAIL), GRAVITY CONVEYOR SYSTEM, AND MOBILE FIXTURES PER TENANT'S FIXTURE PLAN. CALIFORNIA PROJECTS ONLY, CONTRACTOR SHALL STRAP ALL FIXTURES AS PER THE SEISMIC DRAWINGS PROVIDED. CONTACT THE CONSTRUCTION PM IF FIXTURE/SEISMIC DRAWING WAS NOT MADE AVAILABLE TO YOU DURING YOUR BIDDING PROCESS.		
		USE GROUP:	M - MERCANTILE	9. CONTRACTOR SHALL ASSEMBLE AND INSTALL MATERIALS/ PRODUCTS IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND INDUSTRIAL/ASSOCIATION STANDARDS.	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).		
		NUMBER OF STORIES:	ONE (1)	10. FIELD VERIFY AND/OR REPORT ASBESTOS-CONTAINING MATERIAL TO ARCHITECT AND TENANT UPON DISCOVERY.	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.		
		SPRINKLERED:	YES	11. SMOKE AND FIRE PARTITIONS SHALL BE CONSTRUCTED PER THE DESIGNATED UL DESIGN AND SHALL BE EXTENDED VERTICALLY TO THE BOTTOM OF THE STRUCTURE ABOVE. PROVIDE FIRE STOPS AND SEAL ALL PIPE AND CONDUIT PENETRATIONS WITH SEALANT THAT COMPLIES WITH THE MINIMUM FIRE RATED REQUIREMENTS FOR THE PARTITION. DUCT PENETRATIONS SHALL BE PROTECTED WITH SMOKE AND/OR FIRE DAMPERS.			
		FIRE MONITORING REQUIRED:	YES	12. ALL INTERIOR CONCRETE SHALL BE PORTLAND CEMENT BASED TO INCLUDE PATCHING, FLOATING/LEVELING OF FLOORS AND INFILLING.			
		TOTAL LEASE AREA:	14,487	13. FIRE WALLS, FIRE BARRIERS, FIRE PARTITIONS, SMOKE BARRIERS AND SMOKE PARTITIONS SHALL BE PERMANENTLY IDENTIFIED WITH SIGNS OR STENCILING. LETTERING SHALL BE NOT LESS THAN 3" IN HEIGHT LOCATED ABOVE AN ACCESSIBLE CEILING AND REPEATED IN INTERVALS NOT EXCEEDING 30' HORIZONTALLY ALONG THE WALL OR PARTITION. SUGGESTED WORDING SHALL BE "FIRE AND/OR SMOKE BARRIER-PROTECT ALL OPENINGS."			
		AREA CALCULATIONS:	SALES: 12,137 SF NON-SALES: 2,350 SF TOTAL AREA: 14,487 SF	14. 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.			
		OCCUPANCY CALCULATIONS:	SALES 12,137 SF / 60 SF = 203 OCCUPANTS NON-SALES 2,350 SF / 300 SF = 8 OCCUPANTS TOTAL: 211 OCCUPANTS	15. 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.			
		EGRESS CALCULATIONS:	SALES AREA: 203 x 0.20 INCHES = 40.6 INCHES NON-SALES AREA: 8 x 0.20 INCHES = 1.60 INCHES TOTAL EGRESS WIDTH REQUIRED: = 42.20 INCHES				
		EGRESS PROVIDED 99 INCHES >	42.20 INCHES REQUIRED THEREFORE OK				
GENERAL SITE ACCESSIBILITY NOTES							
1. THE EXTERIOR ROUTES OF TRAVEL AND ACCESSIBLE PARKING ARE EXISTING PRIOR TO THE OCCUPANCY OF THE NEW TENANT. ALL ACCESSIBILITY COMPLIANCE AND SITE PLANNING ISSUES OUTSIDE THE DOLLAR TREE/FAMILY DOLLAR SPACE SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER, THEIR CONSULTANTS, PROPERTY MANAGERS, AND/OR ASSIGNED REPRESENTATIVES.							
2. 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.							
SCOPE OF WORK							
1. TENANT FIT UP OF THE FORMER MERCANTILE SPACE.							
2. ADDING NEW ADA COMPLIANT RESTROOMS.							
3. REUSING EXISTING ELECTRICAL PANELS. REMOVING ONE PANEL.							
4. ADDING NEW EMS SYSTEM.							
5. INSTALLING NEW WALK-IN FREEZER/COOLER AND NEW REACH-IN FREEZER/COOLERS.							
6. BUILDING NEW WALL BETWEEN SALES AND PRE-SALES.							
7. BUILDING NEW OFFICE IN SALES AREA & EMPLOYEE AREA IN STOCKROOM.							
8. REMOVING 4 EXISTING RTU AND ADDING 5 NEW RTU.							
9. NEW MECHANICAL DUCTWORK.							
10. NEW ELECTRICAL TO ALL NEW LIGHTS, RECEPTACLES, ETC.							
11. NEW PLUMBING FOR NEW ADA RESTROOMS.							
12. PAINTING WALLS.							
13. POLISH CONCRETE FLOORS.							
14. ADDING NEW CHECKOUTS AND SALES FIXTURES.							

DRAWING INDEX AND DATES		FOR REFERENCE ONLY	
REVISION	DATE	DESCRIPTION	DATE
●	08/24/2022	CS1 NOTES, CODE DATA, DRAWING INDEX, AND KEY PLAN	08/25/2022
●	08/24/2022	CS2 PARTIAL FLOORING PLAN, NOTES, AND ACCESSIBILITY DETAILS	08/25/2022
●	08/24/2022	D1 DEMOLITION PLAN & NOTES	08/25/2022
●	08/24/2022	D2 DEMOLITION REFLECTED CEILING PLAN & NOTES	08/25/2022
●	08/24/2022	A1 FLOOR PLAN, WALL CONSTRUCTION TYPES AND ENLARGED OFFICE, TOILET, AND EMPLOYEE AREA PLANS	08/25/2022
●	08/24/2022	A2 REFLECTED CEILING PLAN, LEGEND & NOTES, OFFICE ELEVATIONS & TOILET ELEVATIONS	08/25/2022
●	08/24/2022	A2.1 SEISMIC CEILING SECTIONS, DETAILS & NOTES	08/25/2022
●	08/24/2022	A3 EXTERIOR ELEVATION & INTERIOR ELEVATIONS	08/25/2022
●	08/24/2022	A4 DETAILS, SECTIONS & SCHEDULES	08/25/2022
●	08/24/2022	A4.1 DETAILS & SECTIONS	08/25/2022
●	08/24/2022	A4.2 DETAILS & SECTIONS	08/25/2022
●	08/24/2022	E1 ELECTRICAL POWER PLAN	08/25/2022
●	08/24/2022	E2 ELECTRICAL LIGHTING PLAN	08/25/2022
●	08/24/2022	E3 ELECTRICAL RISER DIAGRAM AND PANEL SCHEDULES	08/25/2022
●	08/24/2022	E4 ELECTRICAL SPECIFICATIONS	08/25/2022
●	08/24/2022	MP1 FLOOR PLAN HVAC/PLUMBING	08/25/2022
●	08/24/2022	MP2 SCHEDULES AND DETAILS HVAC/PLUMBING	08/25/2022
●	08/24/2022	MP3 SPECIFICATIONS HVAC/PLUMBING	08/25/2022
●	08/24/2022	S1 GENERAL NOTES, PARTIAL FOUNDATION PLAN AND DETAILS	08/25/2022
●	08/24/2022	S2 ROOF FRAMING PLAN AND DETAILS	08/25/2022
●	08/24/2022	SA1.1 FIXTURE PLAN	08/25/2022
●	08/24/2022	SA2.1 FIXTURE DETAILS	08/25/2022
●	08/24/2022	SA2.2 FIXTURE DETAILS	08/25/2022
●	08/24/2022	SA2.3 FREEZER / COOLER ANCHORAGE	08/25/2022
●	08/24/2022	FAD1 FIRE ALARM PLAN - DEMOLITION WORK	08/25/2022
●	08/24/2022	FA1 FIRE ALARM PLAN - NEW WORK	08/25/2022
●	08/24/20		

ENVIRONMENTAL HEALTH NOTES

- THIS FACILITY CARRIES ONLY 100% PRE-PACKAGED FOOD TO INCLUDE THE FREEZER/COOLER PRODUCT.
- THIS FACILITY IS A NON DINING FACILITY. NO DINING SEATING WILL BE PROVIDED TO CUSTOMERS.
- THIS FACILITY DOES NOT PERFORM ANY TYPE OF FOOD PREPARATION WITHIN THE STORE FOR CUSTOMER CONSUMPTION AND/OR EMPLOYEE CONSUMPTION.
- THIS FACILITY HAS NO FOOD EQUIPMENT WITHIN THE STORE.
- THIS FACILITY WILL HAVE 3 TO 4 EMPLOYEES PER SHIFT MAXIMUM. ONE STORE MANAGER, ONE TO TWO CASHIERS AND ONE STOCKER.
- EMPLOYEE LOCKERS- EASILY CLEANABLE LOCKERS WILL BE PROVIDED TO ALL EMPLOYEES. REFER TO FIXTURE PLAN FOR LOCATION.
- MOP SINK- THIS FACILITY WILL BE SUPPLIED WITH A 24"x36" FLOOR MOUNTED MOP SINK WITH APPROVED VACUUM BREAKER FAUCET. WALLS SURROUNDING MOP SINK WILL HAVE FRP TO 8'-0" ABOVE FINISH FLOOR FOR EASY CLEANABLE SURFACE.
- NSF, ANSI AND UL APPROVED- ALL EQUIPMENT WITHIN THIS FACILITY IS NSF, ANSI AND UL APPROVED. CUT SHEETS FOR EQUIPMENT AVAILABLE UPON REQUEST.
- FINISH SCHEDULE- A FINISH SCHEDULE IS INCLUDED IN THIS SET OF CONSTRUCTION DOCUMENTS AND LOCATED ON SHEET A4 FOR YOUR USE.
- QUESTIONS- EXAMINER PLEASE FEEL FREE TO CONTACT THE ARCHITECT AND ENGINEERS LISTED ON SHEET CS1 WITH ANY QUESTIONS OR ITEMS YOU NEED CLARIFICATION ON. ALSO YOU CAN CONTACT KEITH JOHNSON, DIRECTOR OF ARCHITECTURAL SERVICES FOR DOLLAR TREE STORES, INC AT 757-321-5435.

GENERAL SPRINKLER NOTES

- MODIFY EXISTING SPRINKLER SYSTEM AS REQUIRED TO ACCOMMODATE THE FLOOR PLAN.
- SHOP DRAWINGS OF THE SPRINKLER SYSTEM MODIFICATIONS SHALL BE PREPARED BY THE CONTRACTOR AND SUBMITTED TO THE APPROPRIATE DEPARTMENTS OF THE COUNTY FIRE INSPECTION DIVISION, STATE FIRE MARSHALL, INSURANCE UNDERWRITERS, MECHANICAL ENGINEER AND ANY OTHER OFFICES HAVING JURISDICTION OVER THE SPRINKLER SYSTEM. THE CONTRACTOR SHALL RECEIVE WRITTEN APPROVALS PRIOR TO PERFORMING ANY MODIFICATIONS.
- THE CONTRACTOR SHALL SUBMIT THE APPROVED SPRINKLER DRAWINGS TO THE LANDLORD PRIOR TO MAKING ANY MODIFICATIONS.
- THE CONTRACTOR SHALL EXTEND THE SPRINKLER SYSTEM AND PROVIDE DRY PENDANT HEADS IN WALK-IN COOLER AND FREEZER SECTIONS PER NFPA 13 REQUIREMENTS.

MOLD & MILDEW NOTES

- THE FOLLOWING REQUIREMENTS SHALL APPLY TO ALL NEW AND REMODEL CONSTRUCTION PROJECTS
- IN THE EVENT THE CONTRACTOR DISCOVERS, AT ANY TIME DURING DEMOLITION, CONSTRUCTION, AND/OR REMODELING OPERATIONS, EXISTING CONDITIONS THAT COULD INCLUDE THE PRESENCE OF MOLD AND/OR MILDEW, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE AND THE ARCHITECT/ENGINEER OF RECORD, IN WRITING, OF THE CONCERNS AND/OR SUSPICIONS.
- CONCURRENTLY, THE CONTRACTOR SHALL BE RESPONSIBLE TO RETAIN A MOLD AND MILDEW CERTIFIED TESTING AGENCY TO PERFORM AN INVESTIGATION AND TESTING AS REQUIRED TO EVALUATE THE NATURE AND EXTENT OF THE PROBLEM. IF THE TESTING AGENCY CONFIRMS HAZARDS, THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN A MINIMUM OF TWO (2) BIDS FROM COMPANIES QUALIFIED AND LICENSED TO PERFORM ALL NECESSARY REMEDIATION WORK, COMPLYING WITH ALL LOCAL, STATE, AND FEDERAL ENVIRONMENTAL REGULATIONS, CODES, AND STATUTES.
- ONCE DISCOVERY OR SUSPICION OF MOLD AND/OR MILDEW IS MADE, THE CONTRACTOR SHALL TAKE ALL REASONABLE AND PRACTICAL PRECAUTIONS TO PROTECT ALL CONSTRUCTION PERSONNEL AND THE PUBLIC FROM EXPOSURE TO MOLD AND/OR MILDEW, AND SUCH PRECAUTIONS SHALL REMAIN IN PLACE UNTIL SUCH TIME AS THE OWNER OR HEALTH AUTHORITY DIRECTS OTHERWISE. CONSTRUCTION OPERATIONS SHALL NOT BE STOPPED OR CURTAILED, EXCEPT IN THE AREA OF MOLD/MILDEW CONCERN, DUE TO THESE REQUIRED PRECAUTIONS.
- THE CONTRACTOR SHALL MAKE ALL REASONABLE EFFORTS TO AVOID CONDITIONS FAVORABLE TO THE DEVELOPMENT OF MOLD AND MILDEW, ESPECIALLY IN VOIDS WHICH WILL BE CONCEALED AND NOT VENTILATED. IN ALL CASES, INTERIOR SPACES AND INTERIOR FINISHED CONSTRUCTION SHALL BE MAINTAINED IN DRY AND WELL-VENTILATED CONDITIONS.
- THE CONTRACTOR SHALL COMPLY WITH FEDERAL ENVIRONMENTAL AND OSHA REGULATIONS AND ALL LOCAL AND STATE HEALTH DEPARTMENT REQUIREMENTS AND RECOMMENDATIONS REGARDING MOLD AND MILDEW.
- ALL PENETRATIONS SHALL BE SEALED WATER-TIGHT TO PREVENT MOISTURE MIGRATION FROM ENTERING THE BUILDING OR WALL CAVITIES.
- ALL CONDENSATE DRAIN PANS SHALL BE CLEANED AND KEPT FREE FROM DEBRIS UNTIL AND WHEN THE FACILITY IS TURNED OVER TO THE OWNER OR TENANT. ENSURE POSITIVE DRAINAGE AT ALL DRAIN PANS. ENSURE THAT ALL "COLD" SURFACES ARE INSULATED AND COVERED WITH A FULLY SEALED AND CONTINUOUS VAPOR BARRIER. ("COLD" SURFACES INCLUDE, BUT ARE NOT LIMITED TO, DOMESTIC COLD WATER PIPING, CHILLED WATER PIPING, INTERIOR RAIN LEADERS, OUTDOOR AIR INTAKES, AND DUCTWORK CARRYING AIR CONDITIONED SUPPLY AIR.)
- ENSURE THAT THERE ARE NO WATER LEAKS IN CONCEALED PLUMBING CHASES. RETURN AIR PATHS AND PLENUMS SHALL BE KEPT DRY. ALL EXISTING SUPPLY AIR PATHS AND ALL EXISTING DUCTWORK TO BE RE-USED SHALL BE CLEANED AND TREATED AS REQUIRED TO REMOVE THE POTENTIAL FOR MOLD AND MILDEW. ALL DAMP AREAS SHALL BE DRIED THOROUGHLY PRIOR TO ENCLOSURE.

GENERAL FIRE PROTECTION NOTE

CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF LANDLORD'S AND FIRE MARSHAL'S FIRE ALARM REQUIREMENTS; SYSTEM DESIGN/BUILD, APPROVAL BY LANDLORD AND FIRE MARSHAL AND INSTALLATION USING FIRE ALARMS PANELS SPECIFIED BELOW. ARRANGE FOR CONNECTION AND MONITORING BY VECTOR SECURITY ONLY. YOU MUST PROVIDE ONE OF THE ALARM PANELS LISTED BELOW SO THAT VECTOR SECURITY CAN MONITOR THE SYSTEM:

- SILENT KNIGHT 5700 - TO BE USED WHEN AHJ REQUIRES AN ADDRESSABLE PANEL.
- DMP XR100 - TO BE USED AS A BA/FA COMBO PANEL.
- BOSCH 074120V2 - TO BE USED AS A BA/FA COMBO PANEL.
- MIRSTONE FS100 4RD - TO BE USED AS A STANDARD FA PANEL.

CONTACT VECTOR SECURITY AT 703-468-6100. ASK FOR THE DOLLAR TREE SUPPORT TEAM AT LEAST 7 DAYS PRIOR TO THE DATE YOU NEED THE PANEL DOWNLOADED SO WE CAN ASSIGN AN ACCOUNT MANAGER. YOU WILL NEED TO PROVIDE ZONE INFORMATION AND VERIFY CORRECT SIGNALS ARE BEING RECEIVED PRIOR TO INSPECTIONS BY THE FIRE MARSHAL. REFER TO NOTES IN SLM FOR ADDITIONAL IMPORTANT INFORMATION.

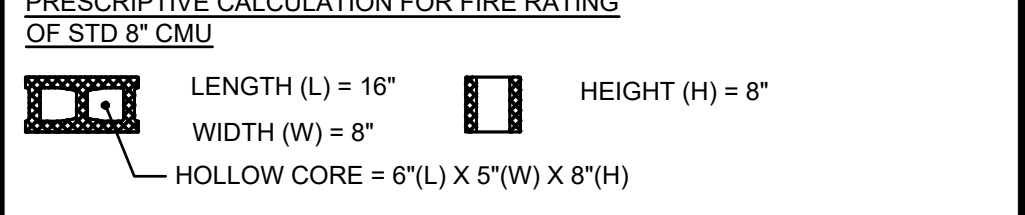
GENERAL NOTES

- GENERAL**
- MATERIALS, EQUIPMENT, AND ASSEMBLIES SHOWN OR SPECIFIED ARE MINIMUM REQUIREMENTS OR PERFORMANCE STANDARDS. LOCAL JURISDICTIONS MAY REQUIRE PERFORMANCE STANDARDS BEYOND THOSE SHOWN OR SPECIFIED. FURTHERMORE, LOCAL JURISDICTIONS MAY PREVENT THE USE OF COMMONLY ACCEPTED MATERIALS. CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH ALL LOCAL REQUIREMENTS FOR LICENSING, MATERIALS, AND PERFORMANCE STANDARDS. PRIOR TO SUBMITTING BID, ALL CONFLICTS BETWEEN THE CONTRACT DOCUMENTS AND LOCAL REQUIREMENTS SHALL BE BROUGHT TO THE OWNER'S ATTENTION AND RESOLVED, BY MUTUAL AGREEMENT. PRIOR TO SUBMISSION OF BID OR HIGHEST PRICED WORK, LOCAL REQUIREMENTS VERSUS SPECIFIED REQUIREMENTS SHALL BE INCLUDED IN THE BID.
 - THIS DESIGN CRITERIA IS PROVIDED FOR BUILDING OFFICIAL REVIEW CONVENIENCE ONLY AND IS NOT INTENDED FOR USE BY COMPONENT DESIGNERS OR MANUFACTURERS AS THEIR SOLE DESIGN CRITERIA WITHOUT VERIFICATION. EACH DESIGNER AND/OR MANUFACTURER MUST INDEPENDENTLY CONFIRM ALL CODE CRITERIA WITH WHICH HIS ELEMENTS OR COMPONENTS MUST COMPLY, INCLUDING BUT NOT LIMITED TO LOADING, APPLICATION, FUNCTIONALITY, ETC. PERFORMANCE CRITERIA PROVIDED ELSEWHERE BY A SPECIFIC DISCIPLINE SHOULD BE REGARDED AS THE MINIMUM STANDARDS ACCEPTABLE TO THE CLIENT. EACH SUPPLIER MUST EVALUATE THESE MINIMUMS AGAINST SPECIFIC INDUSTRY STANDARDS AS WELL AS CODES, LAWS, ORDINANCES, AND UNDERWRITERS REQUIREMENTS GOVERNING HIS PRODUCT AS WELL AS OWNER INSURER REQUIREMENTS, AS APPLICABLE. THE MOST STRINGENT OF THESE CRITERIA SHALL GOVERN.

PRESCRIPTIVE METHOD

1. THE CONTRACTOR SHALL FIELD INSPECT EXISTING MASONRY ASSEMBLES FOR UL CLASSIFICATION AND/OR MASONRY MANUFACTURER MARKINGS. CORE DRILL EACH WALL TO DETERMINE UNIT THICKNESS AND CORE FILL MATERIAL. REPORT FINDINGS TO ARCHITECT PRIOR TO CONSTRUCTION. FIRE RATING SHALL BE DETERMINED BY THE "PRESCRIPTIVE METHOD" ACCORDING TO SECTION 721 AND TABLE 720.1(2) OF THE INTERNATIONAL BUILDING CODE, CURRENT EDITION.

* PER THE UNDERWRITERS LABORATORY FIRE RESISTANCE DIRECTORY - VOLUME 1, 2000 EDITION, THE (CAZT) "CONCRETE BLOCKS" CATEGORY COVERS SOLID AND HOLLOW BLOCKS OF PORTLAND CEMENT AND FINE AND COARSE AGGREGATES BLOCKS PRODUCED IN ACCORDANCE WITH THE STANDARD FOR CONCRETE MASONRY UNITS (UL-618) ARE CLASSIFIED WITHOUT FURTHER FIRE TESTS.



PRESCRIPTIVE CALCULATION FOR FIRE RATING OF 30, 60, 90 CMU

$$V_{TOT} = V_{UNIT} - 2(V_{CORE})$$

$$V_{TOT} = 1024 - 2(240) = 544$$

$$V_{UNIT} = L \times W \times H = 16 \times 8 \times 8 = 1024$$

$$V_{CORE} = L \times W \times H = 6 \times 5 \times 8 = 240$$

MINIMUM EQUIVALENT THICKNESS_{MIN} SECTION 721.3.1.1

$$T_{MIN} = V_{TOT} / L \times H$$

$$T_{MIN} = 544 / 16 \times 8 = 4.25$$

TYPE OF AGGREGATE	FIRE RATING (HOURS)				
	1.0	1.5	2.0	2.5	3.0
PUMICE OR EXPANDED SLAG	2.1	2.7	3.2	3.6	4.0
EXPANDED SHALE, CLAY, OR SLATE	2.6	3.3	3.6	4.0	4.0
LIMESTONE, CINDERS, OR UNEXPANDED SLAG	2.7	3.4	4.0		
CALCAREOUS OR SILICEOUS GRAVEL	2.8	3.6	4.2		

PARTIAL TABLE 721.3.2

FREEZER/COOLER NOTES

1. WALK-IN FREEZER COOLER UNIT IS TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS. THE UNIT IS SELF-CONTAINED AND DOES NOT REQUIRE A FLOOR SINK DRAIN. THE INTERIOR CEILING AND WALL FINISH ARE A NSF APPROVED GALVANIZED FINISH. THE FREEZER FLOOR IS TO HAVE AN ALUMINUM DIAMOND TREAD FINISH.

SPECIAL INSPECTIONS NOTES

THE OWNER WILL EMPLOY THE SERVICES OF ONE OR MORE SPECIAL INSPECTORS TO PROVIDE SPECIAL INSPECTIONS DURING CONSTRUCTION FOR THE REQUIRED SPECIAL INSPECTION ITEMS.

THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE HIS COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.

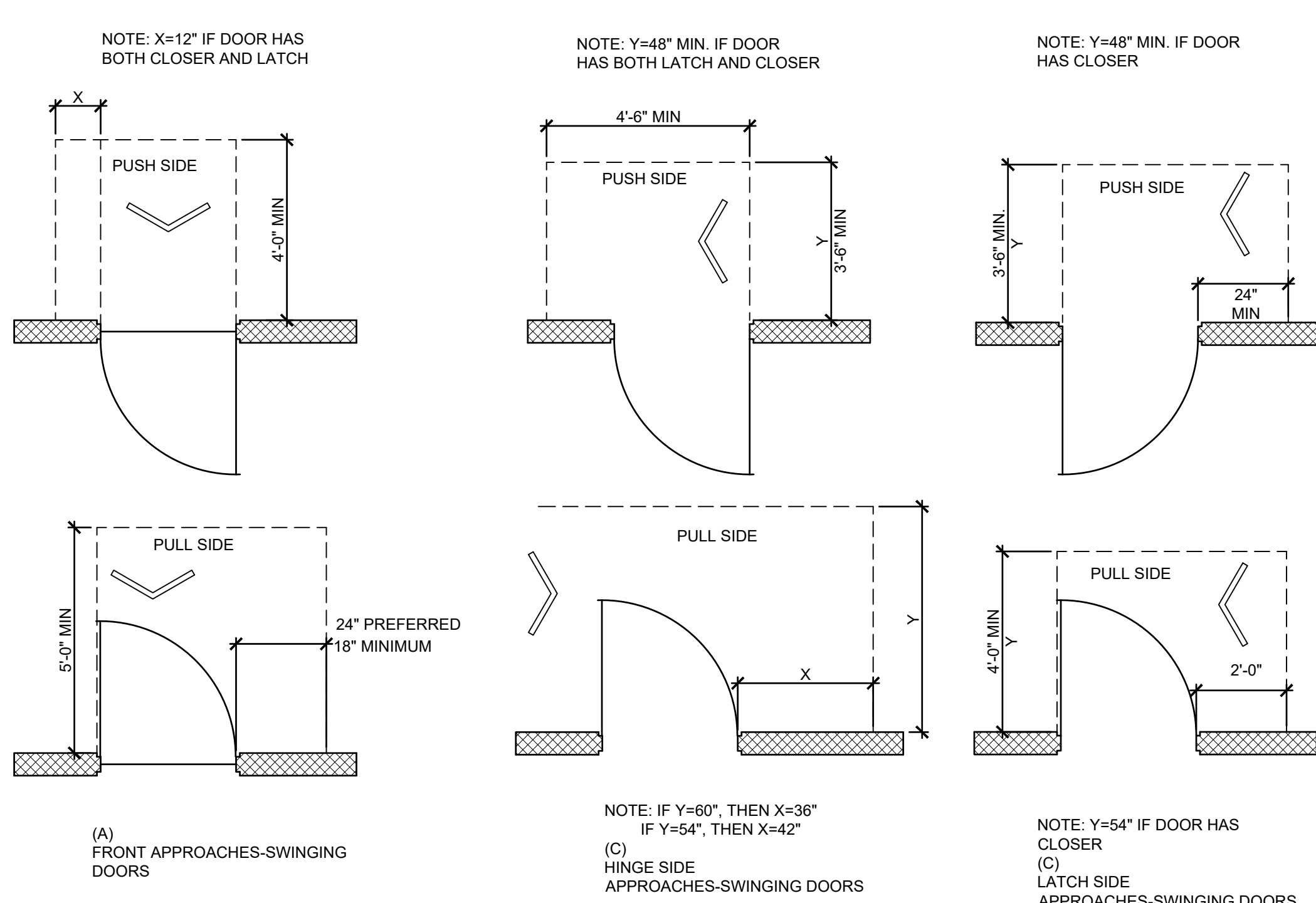
DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR:

- OBSERVE THE WORK ASSIGNED FOR CONFORMANCE WITH THE APPROVE DESIGN DRAWINGS AND SPECIFICATIONS. THE INSPECTOR MAY NOT ALTER, MODIFY, ENLARGE OR WAIVE ANY OF THE REQUIREMENTS OF THE DOCUMENTS.
- FURNISH INSPECTION REPORTS TO THE OWNER, THE BUILDING OFFICIAL, AND THE PROFESSIONAL OF RECORD. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. THEN, IF UNCORRECTED, SUBMIT A COMPLETE LIST TO ALL OUTSTANDING DISCREPANCIES ON A WEEKLY BASIS TO THE OWNER, THE BUILDING OFFICIAL, AND THE PROFESSIONAL OF RECORD UNTIL ALL CORRECTIONS HAVE BEEN COMPLETED.
- SUBMIT A FINAL SIGNED REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTIONS WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE CODE.

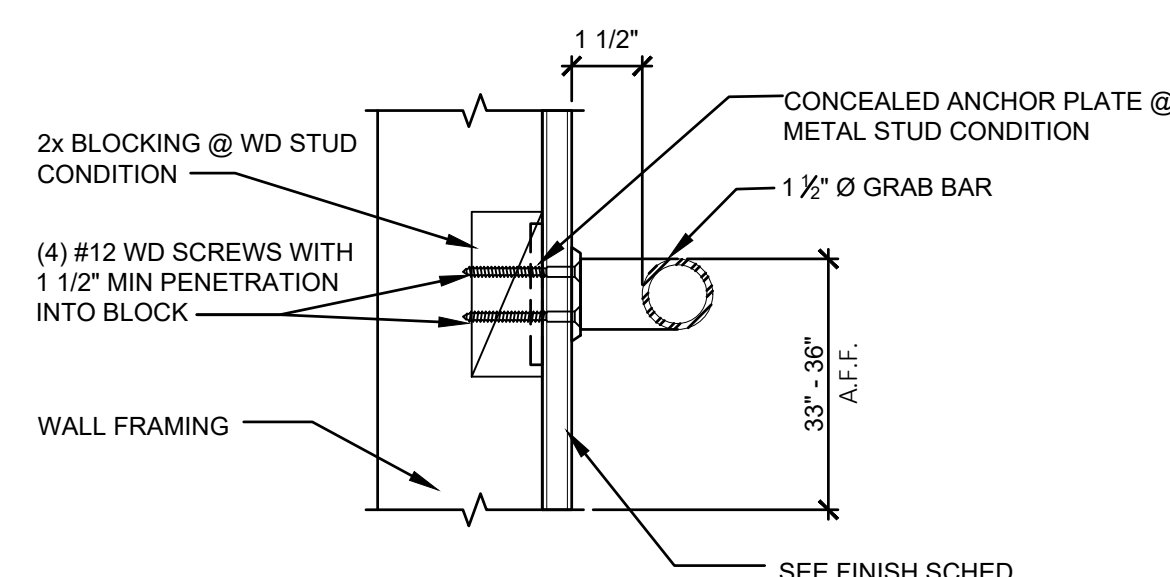
REFER TO STRUCTURAL FOR THE REQUIRED SPECIAL INSPECTIONS

SPECIAL INSPECTIONS

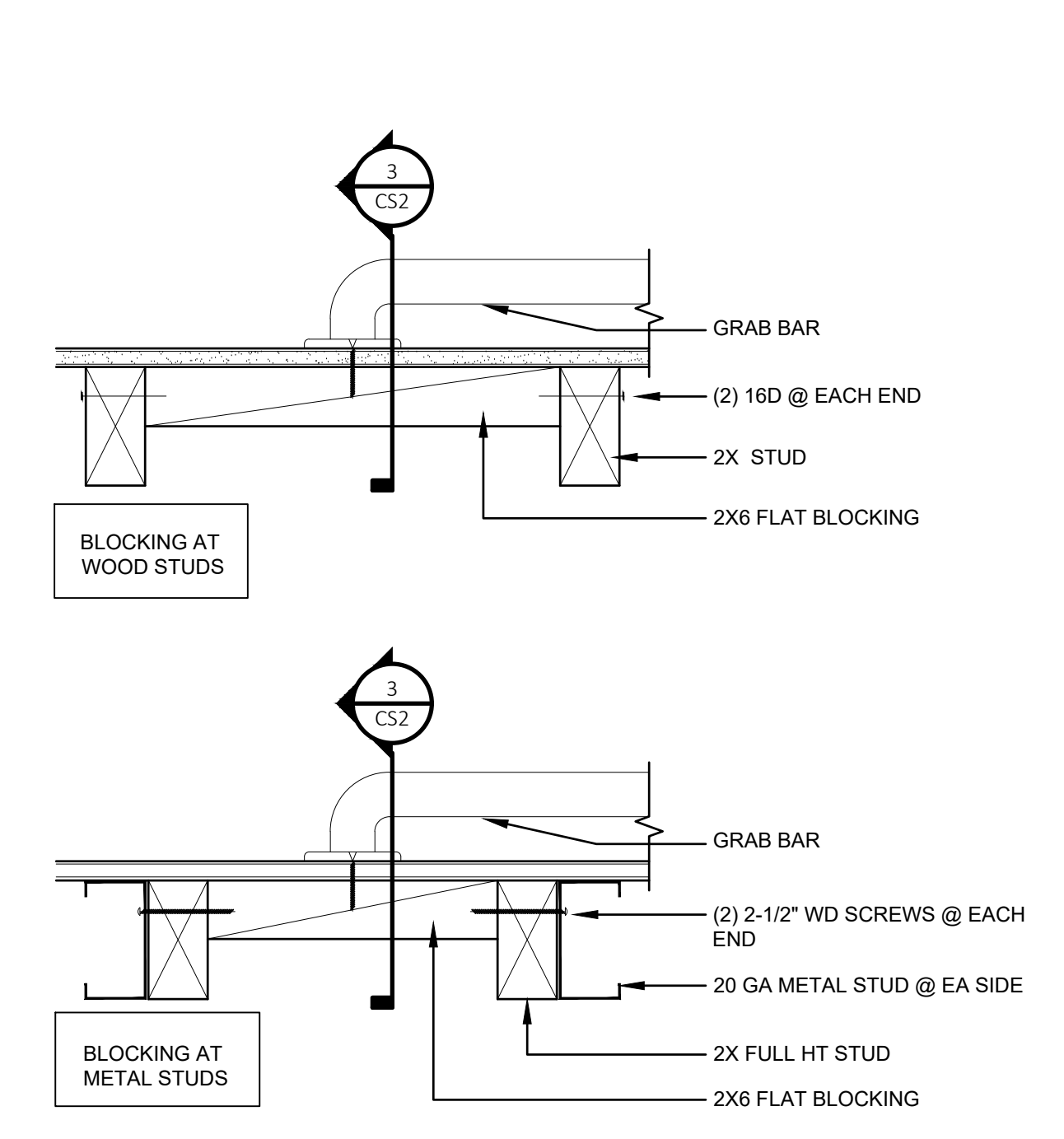
SPECIAL INSPECTIONS ARE REQUIRED PER CODE. REFER TO THE STRUCTURAL DRAWINGS FOR THE SPECIAL INSPECTIONS REQUIRED.



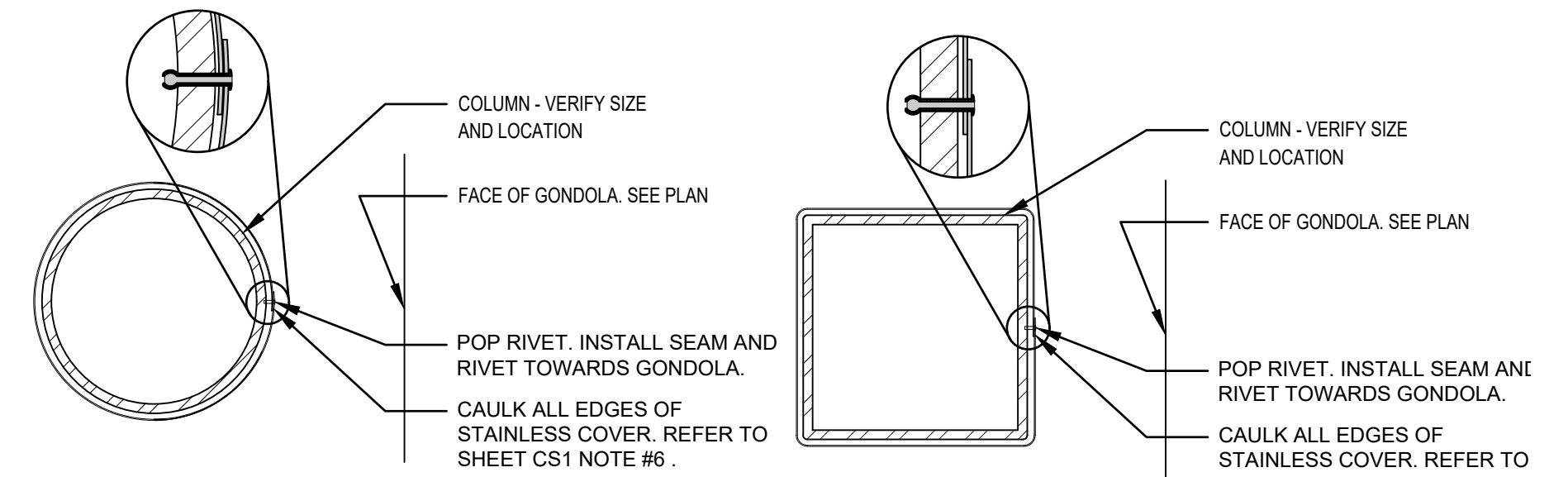
1 DIRECTION OF APPROACH
SCALE: 3/8" = 1'-0"



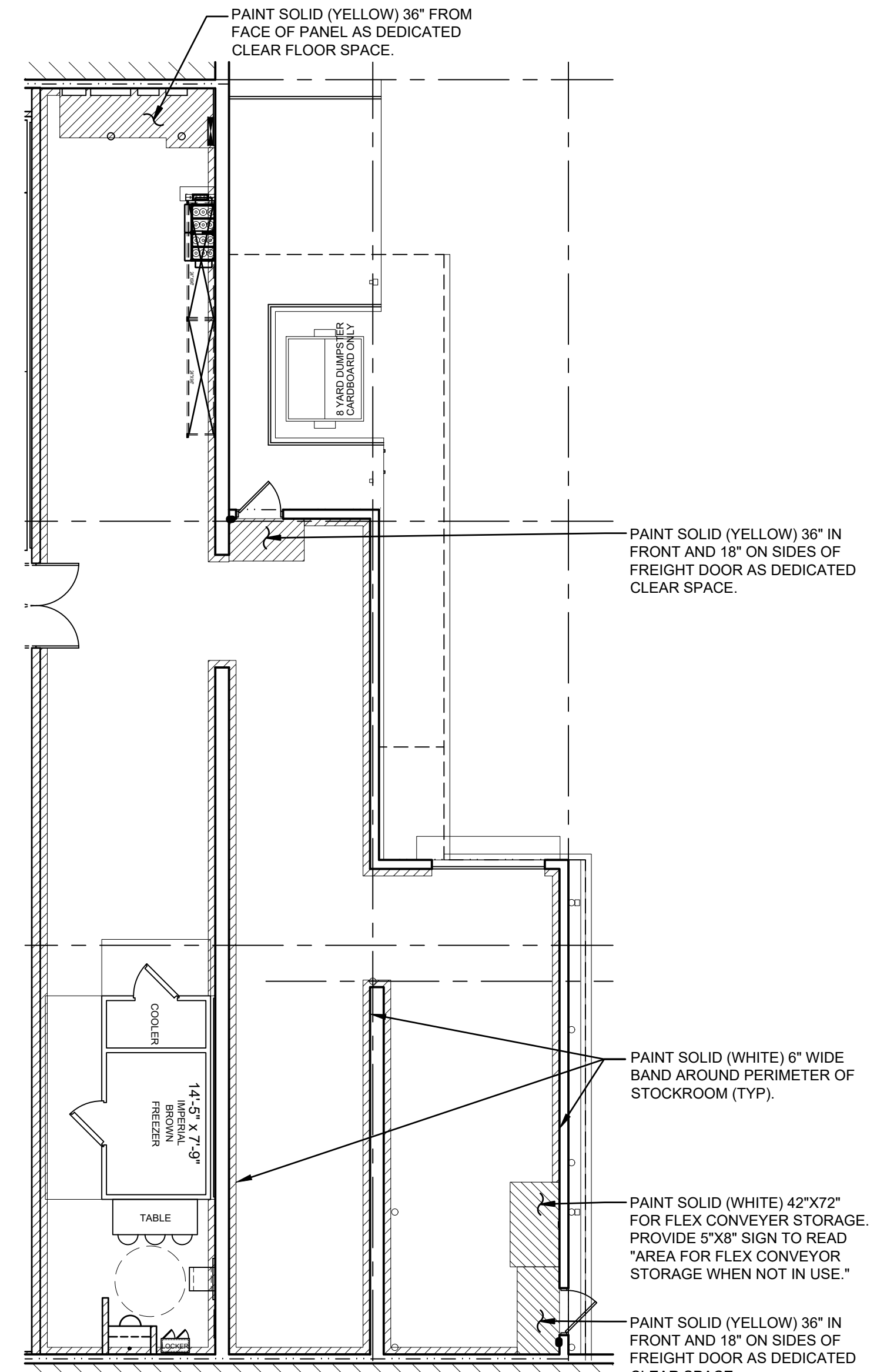
3 GRAB BAR SECTION
SCALE: 3" = 1'-0"



2 GRAB BAR BLOCKING SECTION
SCALE: 3" = 1'-0"

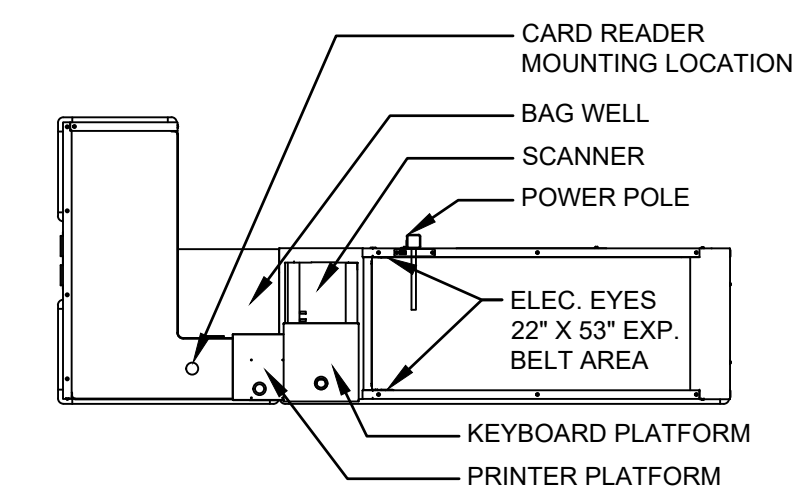


4 COLUMN DETAIL
SCALE: 3" = 1'-0"

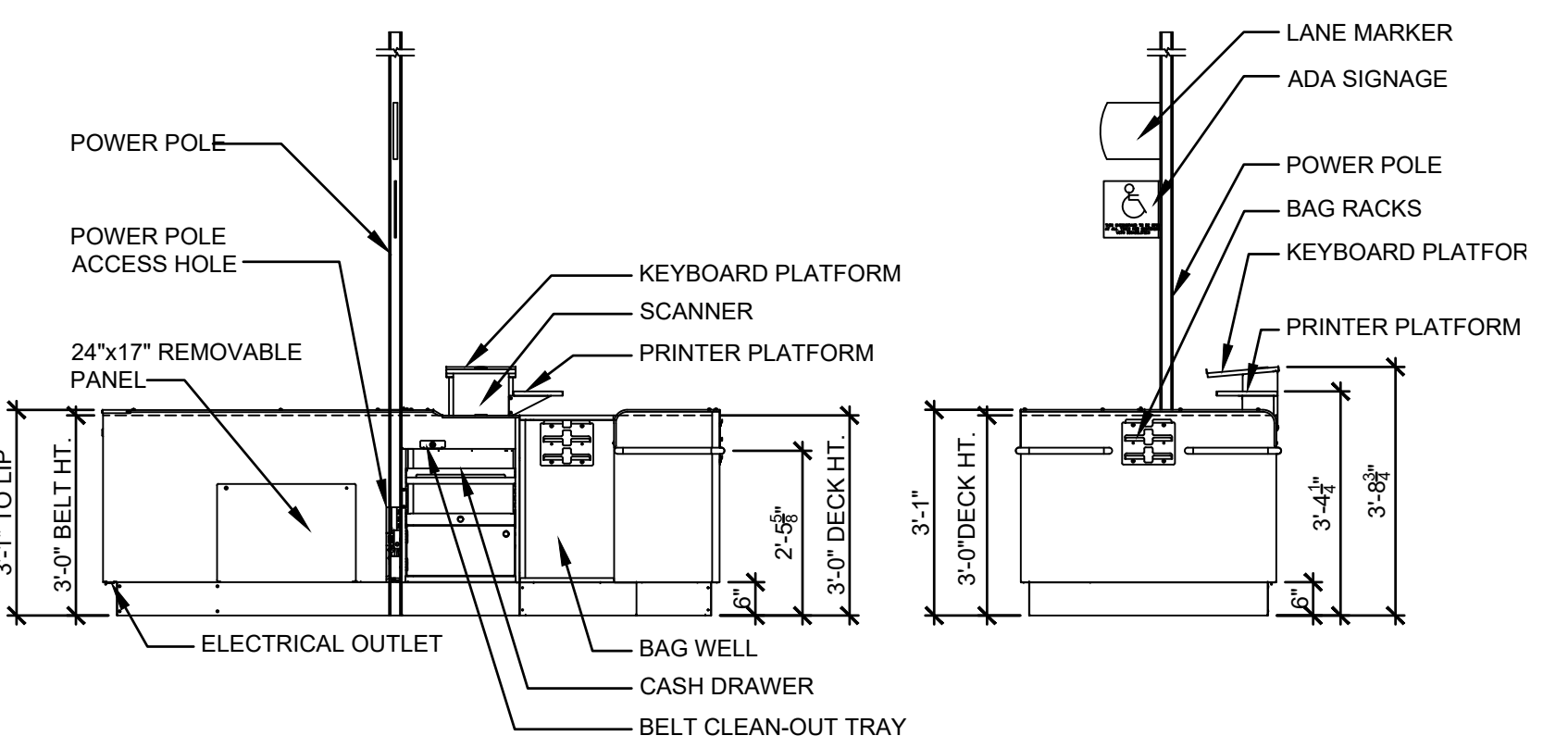


5 PARTIAL FLOORING PLAN
SCALE: 1/8" = 1'-0"

NOTE:
1. CHECKOUTS ARE TENANT SUPPLIED.
2. CHECKOUT AISLES SHALL COMPLY WITH 2015 INTERNATIONAL BUILDING CODE SECTION 1109.12.2 (PROVIDE 2 when 5 or more)
3. PROVIDE SIGN DISPLAYING THE INTERNATIONAL SYMBOL OF ACCESSIBILITY IN BLUE AND WHITE ABOVE THE CHECKOUT AISLE IN THE SAME LOCATION AS THE CHECKOUT NUMBER OR TYPE OF CHECKOUT IDENTIFICATION.



PLAN VIEW



CHECKER SIDE ELEVATION

FRONT ELEVATION

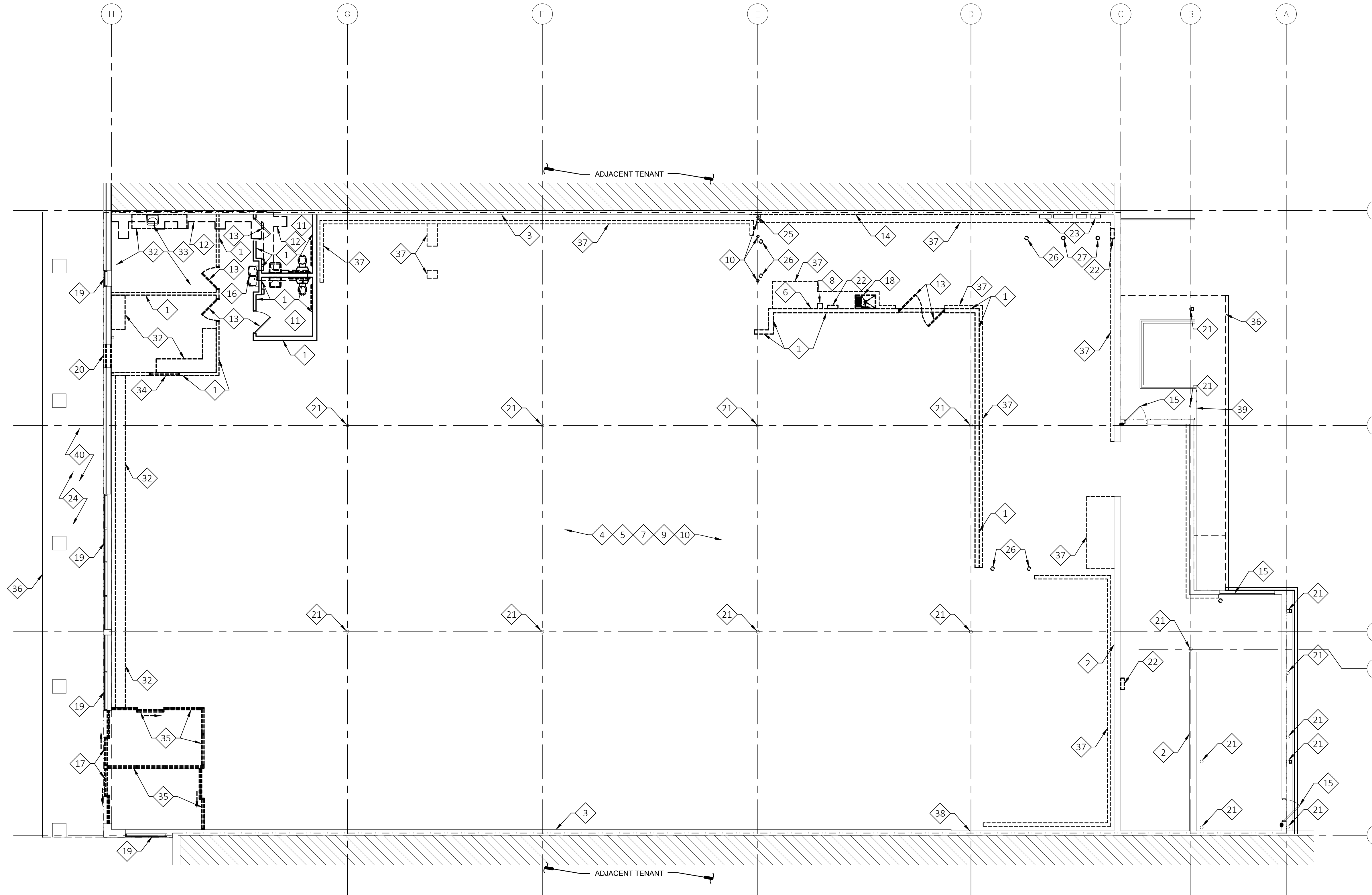
6 TYPICAL CHECKOUT
SCALE: N.T.S.

description	by	date	mark	revisions

date	project	designed	drawn	checked
08/01/22	220227	BKL	BKL	CLS

CASCO DIVERSIFIED CORPORATION ARCHITECTURAL FIRM LICENSE #000329 EXPIRES 12/31/23

PROFESSIONAL OF RECORD
Caron M. Stevenson
License No. 008611
Expiration Date: 12-31-22
PHONE: 314.821.1100



1
D1
DEMOLITION PLAN
SCALE: 1/8" = 1'-0"
NORTH

*** GENERAL CONTRACTOR NOTE:**
IF MODIFICATION TO THE EXISTING CONCRETE SLAB CONSTRUCTION IS REQUIRED IN ANY WAY, INCLUDING BUT NOT LIMITED TO CUTTING, DRILLING, OR ROUTING, THE GENERAL CONTRACTOR SHALL OBSERVE EXISTING CONCRETE SLAB(S) THROUGHOUT THE PLANNED AREA OF WORK AND SUBMIT EVIDENCE TO THE PROJECT ARCHITECT/ENGINEER OF RECORD ILLUSTRATING THE TYPE(S) OF SLAB CONSTRUCTION, I.E. "SLAB ON GRADE," "REINFORCED STRUCTURAL CONCRETE," ETC. THE SLAB CONSTRUCTION SHALL NOT BE MODIFIED UNTIL THE ARCHITECT/ENGINEER OF RECORD PROVIDES RESPECTIVE WRITTEN DIRECTION.

GENERAL DEMOLITION NOTES	DEMOLITION KEY NOTES
1. IT IS THE GENERAL CONTRACTOR'S RESPONSIBILITY TO FAMILIARIZE THEMSELF WITH ALL APPLICABLE CODES, RULES, PROCEDURES OR CONSTRAINTS OF ANY KIND PRIOR TO COMMENCEMENT OF DEMOLITION INCLUDING ANY FEDERAL, STATE, CITY, MUNICIPAL, OR LANDLORD REQUIREMENTS.	1. DEMOLISH EXISTING MTL, STUD AND GWB PARTITIONS COMPLETE (SHOWN DASHED, TYP.) VERIFY THAT THESE WALLS ARE NOT BEARING WALLS PRIOR TO DEMOLITION. NOTIFY ARCHITECT IMMEDIATELY.
2. IT IS THE GENERAL CONTRACTOR'S RESPONSIBILITY TO KEEP ORDERLY WORKING CONDITIONS WITHIN, AND AROUND THE PREMISES - REMOVE ALL DEBRIS IN THE APPROPRIATE MANNER.	2. EXISTING INTERIOR MASONRY WALLS TO REMAIN.
3. SPACE IS TO BE BROOM CLEAN READY FOR BUILD OUT OF NEW SPACE & FINISHES.	3. EXISTING DEMISING WALL TO REMAIN.
4. GENERAL CONTRACTOR IS RESPONSIBLE FOR CONTRACTING TRASH REMOVAL SERVICE. TRASH REMOVAL MUST BE COORDINATED WITH ON-SITE PROPERTY MANAGEMENT.	4. REMOVE EXISTING WALL FIXTURES AND FINISHES COMPLETE.
5. CONTRACTOR TO PROTECT DEMISING WALL FRAMING & REPLACE ALL DAMAGED AREAS.	5. REMOVE ANY ITEMS ATTACHED TO PERIMETER WALLS, KNEE WALL(S), & FURRED COLUMNS. EXISTING PERIMETER FURRING AND CYP. BD. SHALL REMAIN. REPAIR & RESTORE TO LIKE NEW CONDITION PREPARE FOR APPLICATION OF NEW FINISHES.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING & PAYING FOR ALL DEMOLITION PERMITS.	6. REMOVE EXISTING MISC. CONDUIT COMPLETE.
7. THIS DRAWING REFLECTS AVAILABLE DEMOLITION INFORMATION, HOWEVER, IT SHALL BE THE RESPONSIBILITY OF ALL CONTRACTORS TO VISIT THE SITE & REVIEW ALL CONSTRUCTION DOCUMENTS TO FULLY DETERMINE THE SCOPE & INTENT OF THE DEMOLITION ACTIVITY.	7. FLOORING CONTRACTOR (TENANT HIRED) SHALL REMOVE EXISTING VCT FLOORING COMPLETE. GC SHALL NOT INCLUDE IN BID.
8. REFER TO ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL SPECIFIC DEMOLITION INFORMATION & INSTRUCTION AS TO WHAT EXISTING EQUIPMENT AND/OR CONSTRUCTION IS TO REMAIN.	8. REMOVE EXIST PLYWOOD FRAMING.
9. CONTRACTOR IS TO INSPECT THE PREMISES PRIOR TO SUBMITTING A BID AND BE RESPONSIBLE FOR ALL DEMOLITION WORK REQUIRED FOR NEW CONSTRUCTION.	9. REMOVE CONDUIT AND PIPING COMPLETE PROTRUDING THROUGH FLOOR TO 6" BELOW FINISHED FLOOR. PATCH AND FILL, PREPARE FLOOR FOR NEW FINISH.
10. GENERAL CONTRACTOR IS TO PROVIDE ALL NECESSARY DUST & TRAFFIC BARRIERS & TEMPORARY PARTITIONS AS REQUIRED TO MAINTAIN A SAFE & CLEAN ENVIRONMENT FOR THE PUBLIC, EMPLOYEES, AND PROPERTY THROUGHOUT THE PROJECT.	10. CAP ALL UNUSED DRAINS & CLEANOUTS 6" BELOW CONC. FLOOR. PATCH AND REPAIR CONCRETE SLAB AS REQUIRED.
11. ANY EXISTING MECHANICAL EQUIPMENT TO BE ABANDONED MUST BE COMPLETELY REMOVED AND PROPERLY DISPOSED OF, AND ANY REPAIRS TO THE ROOFING SYSTEMS DUE TO REMOVAL OF SAID EQUIPMENT MUST BE COMPLETED.	11. DEMOLISH ALL RESTROOM FIXTURES AND ACCESSORIES COMPLETE. CAP ALL UNUSED STUB-UPS 6" BELOW CONC. FLOOR. PATCH AND REPAIR CONCRETE SLAB AS REQUIRED.
12. IN ALL WALLS & FIXTURES THAT ARE TO BE REMOVED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR DISCONNECTION OF THE SOURCE AND REMOVING OR CAPPING ANY ELECTRICAL, PLUMBING AND/OR GAS LINES THAT ARE DISCLOSED AND NOT SCHEDULED FOR REUSE.	12. REMOVE PORTION OF EXISTING FLOOR SLAB IN THIS AREA FOR INSTALLATION OF NEW PLUMBING LINES. REFER TO A1 AND PLUMBING DRAWINGS FOR LOCATION OF RESTROOMS AND ADDITIONAL INFORMATION. PATCH AND REPAIR SLAB AS REQUIRED AFTER PLUMBING LINE ARE INSTALLED.
	13. CONTRACTOR TO PATCH/REPAIR/REPLACE EXISTING FLOORS, WALLS, AND CEILINGS TO MATCH ADJACENT CONSTRUCTION DUE TO DEMOLITION OF FIXTURES, EQUIPMENT, AND ETC.
	14. THE CONTRACTOR SHALL ADHERE TO PROPER RECOVERY AND DISPOSAL OF ALL REFRIGERANTS. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR COMPLIANCE WITH STATE AND FEDERAL REGULATIONS RELATING TO CLEAN AIR AND/OR VENTING OF CFC AND/OR HCFC REFRIGERANTS UNTIL THE EQUIPMENT IS TURNED OVER TO TENANT FOR OPERATION AND MAINTENANCE. THIS RESPONSIBILITY SHALL INCLUDE ALL WORK RELATING TO DISCHARGING ANY AND ALL HVAC REFRIGERANT SYSTEMS OF ANY EXISTING EQUIPMENT REUSED OR REMOVED.
	15. G.C. SHALL PROVIDE ALL TEMPORARY SHORING, BRACING & PINNING OF WALLS REQUIRED TO MAINTAIN INTEGRITY OF WALL CONSTRUCTION DURING DEMOLITION & UNTIL WALL HAS BEEN COMPLETED.
	16. REMOVE EXISTING DRINKING FOUNTAIN COMPLETE. CAP ALL UNUSED STUB-UPS 6" BELOW CONC. FLOOR. PATCH AND REPAIR CONCRETE SLAB AS REQUIRED.
	17. EXISTING STOREFRONT DOORS, TRANSOMS, AND THRESHOLDS TO BE REMOVED COMPLETE. PREPARE OPENING FOR INSTALLATION OF NEW GLAZING AND NEW STOREFRONT DOORS.
	18. REMOVE EXISTING MOP SINK COMPLETE. CAP ALL UNUSED STUB-UPS 6" BELOW CONC. FLOOR. PATCH AND REPAIR CONCRETE SLAB AS REQUIRED.
	19. EXIST. ALUM/GLASS STOREFRONT TO REMAIN.
	20. REMOVE PORTION OF EXTERIOR MASONRY WALLS FOR ROUGH OPENING FOR NEW HOLLOW METAL DOORS.
	21. EXIST. T.S. COLUMNS TO REMAIN.
	22. EXISTING ELECTRIC PANEL TO BE REMOVED COMPLETE. REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
	23. EXISTING ELECTRICAL PANELS / EQUIPMENT TO REMAIN. REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
	24. EXISTING CONCRETE SIDEWALK TO REMAIN.
	25. REMOVE / RELOCATE EXISTING PIPE AS REQUIRED. COORDINATE WITH MECHANICAL / PLUMBING.
	26. REMOVE EXISTING BOLLARDS COMPLETE. PATCH AND REPAIR CONCRETE SLAB AS REQUIRED.
	27. EXIST. BOLLARDS TO REMAIN.
	28. REMOVE EXIST PLYWOOD FOR NEW SALES AREA. PATCH AND REPAIR WALL / STUDS AS REQUIRED TO RECEIVE NEW GYPSUM BD. SEE A1.0 FOR ADDITIONAL INFORMATION.
	29. EXISTING DOOR TO REMAIN.
	30. REMOVE EXISTING WINDOW FRAME AND GLAZING COMPLETE.
	31. REMOVE EXISTING STOREFRONT FRAMING, GLAZING, AND DOORS COMPLETE.
	32. DEMOLISH COUNTER, MILLWORK, AND FURNITURE COMPLETE.
	33. DEMOLISH SINK COMPLETE. CAP ALL UNUSED STUB-UPS 6" BELOW CONC. FLOOR. PATCH AND REPAIR CONCRETE SLAB AS REQUIRED.
	34. REMOVE EXISTING STOREFRONT FRAMING, GLAZING, AND DOORS COMPLETE.
	35. EXISTING CANOPY ABOVE TO REMAIN.
	36. CONC. CURBS / RAISED CONC. PADS TO BE REMOVED BY LANDLORD. G.C TO FIELD VERIFY THESE WERE REMOVED.
	37. REMOVE PIECE OF MISC. PLYWOOD ON CMU AND PREPARE FOR NEW FURRING TO MATCH ADJACENT EXISTING FURRING TO REMAIN.
	38. EXISTING SHIPS LADDER TO REMAIN.
	39. EXISTING EXTERIOR RAILINGS TO REMAIN. PAINT PER DT CPM.

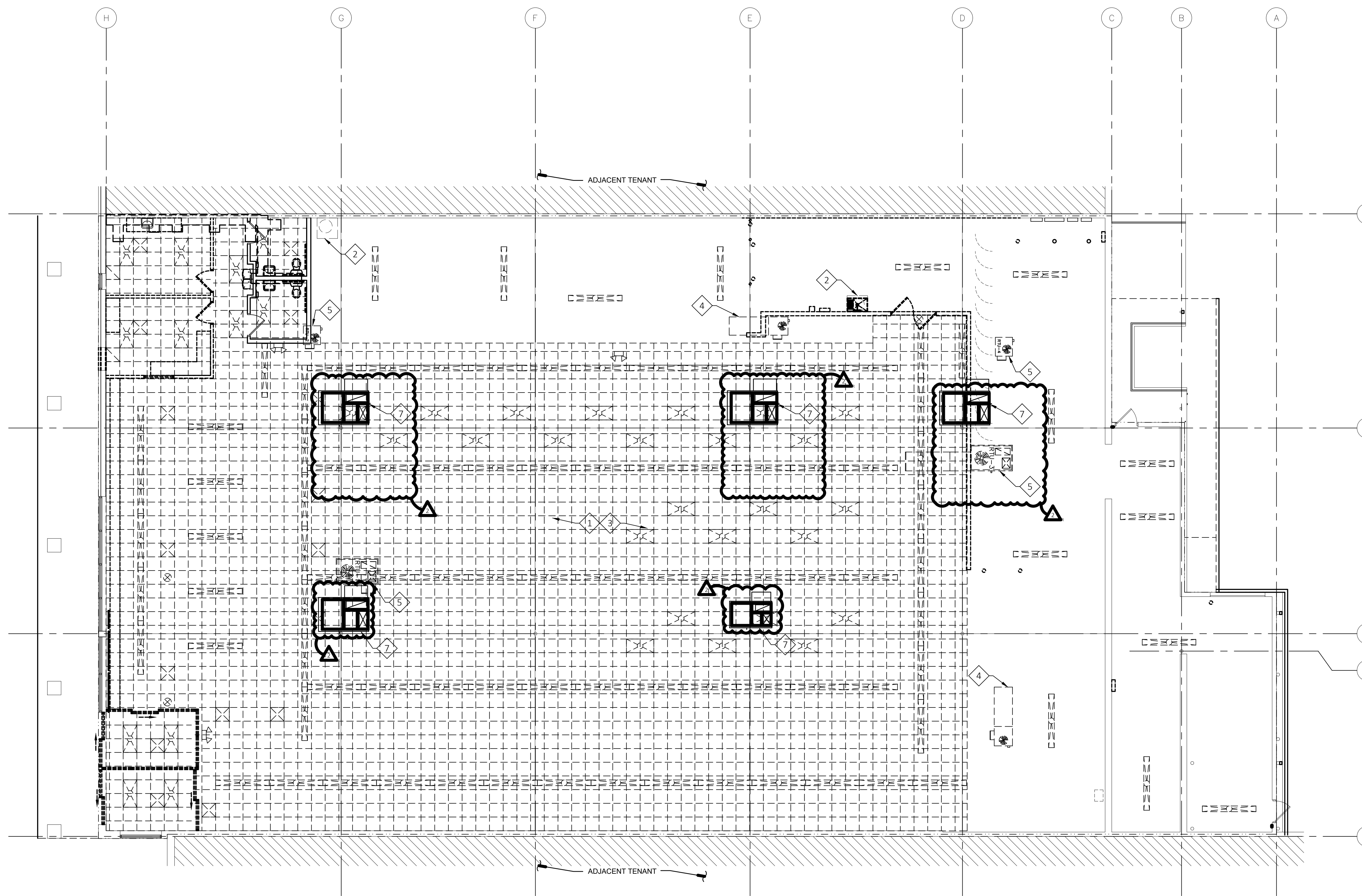
NOTE:
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date	project	designed	drawn	checked	mark	date	description
08/01/22	2202227	XXX	XXX	XXX			

CASCO DIVERSIFIED CORPORATION
ARCHITECTURAL FIRM
LICENSE #000329
EXPIRES 12/31/23

PROFESSIONAL OF RECORD
Caron M. Stevenson
License No. 008613
Expiration Date 12-31-22
PHONE: 314.821.1100

project: **DOLLAR TREES**
HOBBY LOBBY CENTER
2225 MISSOURI BLVD., JEFFERSON CITY, MO 65109
drawing: DEMOLITION PLAN AND DEMOLITION NOTES



1
D2 DEMOLITION CLG PLAN
SCALE: 1/8" = 1'-0"
NORTH

***GENERAL CONTRACTOR NOTE:**
IF MODIFICATION TO THE EXISTING CONCRETE SLAB CONSTRUCTION IS REQUIRED IN ANY WAY, INCLUDING BUT NOT LIMITED TO CUTTING, DRILLING, OR ROUTING, THE GENERAL CONTRACTOR SHALL OBSERVE EXISTING CONCRETE SLAB(S) THROUGHOUT THE PLANNED AREA OF WORK AND SUBMIT EVIDENCE TO THE PROJECT ARCHITECT/ENGINEER OF RECORD ILLUSTRATING THE TYPE(S) OF SLAB CONSTRUCTION, I.E. "SLAB ON GRADE," "REINFORCED STRUCTURAL CONCRETE," ETC. THE SLAB CONSTRUCTION SHALL NOT BE MODIFIED UNTIL THE ARCHITECT/ENGINEER OF RECORD PROVIDES RESPECTIVE WRITTEN DIRECTION.

GENERAL DEMOLITION NOTES

- IT IS THE GENERAL CONTRACTOR'S RESPONSIBILITY TO FAMILIARIZE THEMSELF WITH ALL APPLICABLE CODES, RULES, PROCEDURES, OR CONSTRAINTS OF ANY KIND PRIOR TO COMMENCEMENT OF DEMOLITION INCLUDING ANY FEDERAL, STATE, CITY, MUNICIPAL, OR LANDLORD REQUIREMENTS.
- IT IS THE GENERAL CONTRACTOR'S RESPONSIBILITY TO KEEP ORDERLY WORKING CONDITIONS WITHIN AND AROUND THE PREMISES - REMOVE ALL DEBRIS IN THE APPROPRIATE MANNER.
- SPACE IS TO BE BROOM CLEAN READY FOR BUILD OUT OF NEW SPACE & FINISHES.
- GENERAL CONTRACTOR IS RESPONSIBLE FOR CONTRACTING TRASH REMOVAL SERVICE. TRASH REMOVAL MUST BE COORDINATED WITH ON-SITE PROPERTY MANAGEMENT.
- CONTRACTOR TO PROTECT DEMISING WALL FRAMING & REPLACE ALL DAMAGED AREAS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING & PAYING FOR ALL DEMOLITION PERMITS.
- THIS DRAWING REFLECTS AVAILABLE DEMOLITION INFORMATION, HOWEVER, IT SHALL BE THE RESPONSIBILITY OF ALL CONTRACTORS TO VISIT THE SITE & REVIEW ALL CONSTRUCTION DOCUMENTS TO FULLY DETERMINE THE SCOPE & INTENT OF THE DEMOLITION ACTIVITY.
- REFER TO ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL SPECIFIC DEMOLITION INFORMATION & INSTRUCTION AS TO WHAT EXISTING EQUIPMENT AND/OR CONSTRUCTION IS TO REMAIN.
- CONTRACTOR IS TO INSPECT THE PREMISES PRIOR TO SUBMITTING A BID AND BE RESPONSIBLE FOR ALL DEMOLITION WORK REQUIRED FOR NEW CONSTRUCTION.
- GENERAL CONTRACTOR IS TO PROVIDE ALL NECESSARY DUST & TRAFFIC BARRIERS & TEMPORARY PARTITIONS AS REQUIRED TO MAINTAIN A SAFE & CLEAN ENVIRONMENT FOR THE PUBLIC, EMPLOYEES, AND PROPERTY THROUGHOUT THE PROJECT.
- ANY EXISTING MECHANICAL EQUIPMENT TO BE ABANDONED MUST BE COMPLETELY REMOVED AND PROPERLY DISPOSED OF, AND ANY REPAIRS TO THE ROOFING SYSTEMS DUE TO REMOVAL OF SAID EQUIPMENT MUST BE COMPLETED.
- IN ALL WALLS & FIXTURES THAT ARE TO BE REMOVED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR DISCONNECTION OF THE SOURCE AND REMOVING OR CAPPING ANY ELECTRICAL, PLUMBING AND/OR GAS LINES THAT ARE DISCLOSED AND NOT SCHEDULED FOR REUSE.
- CONTRACTOR TO PATCH/REPAIR/REPLACE EXISTING FLOORS, WALLS, AND CEILINGS TO MATCH ADJACENT CONSTRUCTION DUE TO DEMOLITION OF

FIXTURES, EQUIPMENT, AND ETC.

- THE CONTRACTOR SHALL ADHERE TO PROPER RECOVERY AND DISPOSAL OF ALL REFRIGERANTS. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR COMPLIANCE WITH STATE AND FEDERAL REGULATIONS RELATING TO CLEAN AIR AND/OR VENTING OF CFC AND/OR HCFC REFRIGERANTS UNTIL THE EQUIPMENT IS TURNED OVER TO TENANT FOR OPERATION AND MAINTENANCE. THIS RESPONSIBILITY SHALL INCLUDE ALL WORK RELATING TO DISCHARGING ANY AND ALL HVAC REFRIGERANT SYSTEMS OF ANY EXISTING EQUIPMENT REUSED OR REMOVED.
- G.C. SHALL PROVIDE ALL TEMPORARY SHORING, BRACING & PINNING OF WALLS REQUIRED TO MAINTAIN INTEGRITY OF WALL CONSTRUCTION DURING DEMOLITION & UNTIL WALL HAS BEEN COMPLETED.

DEMOLITION KEY NOTES

- EXIST SPRINKLER SYSTEM TO BE MODIFIED AS REQUIRED TO MEET LOCAL CODES. SEE FIRE PROTECTION NOTES ON C-1. SPRINKLER SYSTEM TO BE SERVICED TO ENSURE PROPER OPERATION.
- EXISTING WATER HEATER AND SHELF TO BE REMOVED COMPLETE.
- DEMOLISH CEILING GRID, TILE, LIGHTS (BACK TO SOURCE), AND ALL OTHER RELATED CEILING ITEMS COMPLETE (I.E. DIFFUSERS, SPEAKERS, EMERG. LIGHTS, DUCTWORK, ETC.)
- REMOVE CONDENSING UNITS COMPLETE. PATCH AND REPAIR ROOF AS REQUIRED. CONTRACTOR SHALL USE LANDLORD'S ROOFING CONTRACTOR SO WORK WILL NOT VOID WARRANTY.
- RTU TO BE REMOVED COMPLETE. CURB TO REMAIN. CONTRACTOR SHALL CAP CURB WEATHER TIGHT AND INSULATE. REFER TO MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION. CONTRACTOR SHALL USE LANDLORD'S ROOFING CONTRACTOR SO WORK WILL NOT VOID WARRANTY.
- NOT USED
- CUT ROOF DECK AND ROOF MEMBRANE AS REQUIRED FOR INSTALLATION OF NEW CURB AND UNIT. PATCH AND REPAIR ROOF AS REQUIRED. REFER TO MECHANICAL & STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION. CONTRACTOR SHALL USE LANDLORD'S ROOFING CONTRACTOR SO WORK WILL NOT VOID WARRANTY.

NOTE:
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CLARIFICATIONS	
description	
JLB	by
08/24/2022	date
Δ	mark
	revisions

date	project	designed	drawn	checked
08/01/22	2202227	JLB	JLB	SKV

CASCO DIVERSIFIED CORPORATION
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- ### WALL CONSTRUCTION TYPES
- 1 TENANT DEMISING WALL: EXISTING MASONRY WALL WITH METAL SIDING. FINISH PER FINISH SCHEDULE, SHEET A4.
 - 2 TENANT DEMISING WALL: EXISTING METAL STUDS WITH GYPSUM BOARD ON EACH SIDE TO UNDER SIDE OF ROOF DECK. PATCH AND REPAIR TO LIKE NEW CONDITION. SEE DETAIL 9/A4 FOR ADDITIONAL REQUIREMENTS. REFER TO SHEET A3 FOR GONDOLA LOCATION IF REQUIRED. REFER TO SECTION 8/A4 FOR GONDOLA ATTACHMENT. FINISH PER FINISH SCHEDULE, SHEET A4.
 - 3 PARTITION WALL: NEW 6" METAL STUDS @ 16" O.C. WITH ONE LAYER OF 5/8" GWB (WR GWB @ PLUMBING FIXTURES) SALES SIDE ONLY TO ROOF DECK. NON-SALES SIDE SHALL HAVE 5/8" GWB TO 12" AFF. REFER TO DETAIL 9/A4 FOR ADDITIONAL REQUIREMENTS. REFER TO SHEET A3 FOR GONDOLA LOCATION IF REQUIRED. REFER TO SECTION 8/A4 FOR GONDOLA ATTACHMENT. FINISH PER FINISH SCHEDULE, SHEET A4.
 - 4 PARTITION WALL: NEW 3 5/8" (20 GAUGE) METAL STUDS @ 16" O.C. WITH 5/8" GWB (WR GWB @ PLUMBING FIXTURES) ON EACH SIDE TO 6" A.F.C. BRACE WALL TO STRUCTURE AS REQUIRED. REFER TO DETAIL 11/A4 FOR ADDITIONAL INFORMATION. FINISH PER FINISH SCHEDULE, SHEET A4.
 - 5 PARTITION WALL: NEW 3 5/8" (20 GAUGE) METAL STUDS @ 16" O.C. WITH ONE LAYER 5/8" GWB EACH SIDE TO 8'-0" AFF. FINISH PER FINISH SCHEDULE SHEET A4. REFER TO DETAIL 6/A4 FOR ADDITIONAL INFORMATION.
 - 6 PARTITION WALL: NEW 6" (20 GAUGE) METAL STUDS @ 16" O.C. WITH ONE LAYER OF 5/8" WR GWB TO FINISHED CEILING. FINISH PER FINISH SCHEDULE, SHEET A4.
 - 7 PARTITION WALL: NEW 6" (20 GAUGE) METAL STUDS @ 16" O.C. WITH 5/8" GWB (WR GWB @ PLUMBING FIXTURES) ON EACH SIDE TO 6" A.F.C. SEE DETAIL 9/A4 FOR ADDITIONAL INFORMATION. REFER TO SHEET A3 FOR GONDOLA LOCATION IF REQUIRED. REFER TO SECTION 8/A4 FOR GONDOLA ATTACHMENT. FINISH PER FINISH SCHEDULE, SHEET A4.
 - 8 PARTITION WALL: NEW 3 5/8" (20 GAUGE) METAL STUDS @ 16" O.C. WITH ONE LAYER OF 5/8" GWB ON ONE SIDE ONLY TO 6" A.F.C. BRACE WALL TO STRUCTURE AS REQUIRED. FINISH PER FINISH SCHEDULE, SHEET A4.
 - 9 TENANT DEMISING WALL: EXISTING MASONRY WALL WITH NEW METAL FURRING AND GWB TO MATCH EXISTING TO 6" A.F.C. SEE DETAIL 11/A4 FOR ADDITIONAL REQUIREMENTS. REFER TO SHEET A3 FOR GONDOLA LOCATION IF REQUIRED. REFER TO SECTION 8/A4 FOR GONDOLA ATTACHMENT. FINISH PER FINISH SCHEDULE, SHEET A4.
 - 10 TENANT DEMISING WALL: EXISTING MASONRY WALL. FINISH PER FINISH SCHEDULE, SHEET A4.
 - 11 TENANT DEMISING WALL: EXISTING MASONRY WALL WITH EXISTING METAL FURRING AND GWB. PATCH AND REPAIR TO LIKE NEW CONDITION. EXTEND GYP. BD. TO 6" A.F.C. AS REQUIRED. SEE DETAIL 11/A4 FOR ADDITIONAL REQUIREMENTS. REFER TO SHEET A3 FOR GONDOLA LOCATION IF REQUIRED. REFER TO SECTION 8/A4 FOR GONDOLA ATTACHMENT. FINISH PER FINISH SCHEDULE, SHEET A4.
 - 12 PARTITION WALL: NEW 1 1/4" (20 GAUGE) METAL FURRING CHANNELS @ 16" O.C. WITH ONE LAYER OF 5/8" GWB (WR GWB @ PLUMBING FIXTURES) TO 6" A.F.C. FINISH PER FINISH SCHEDULE, SHEET A4.
 - 13 TENANT DEMISING WALL: EXISTING EXTERIOR WALL AND GWB. PATCH AND REPAIR TO LIKE NEW CONDITION. EXTEND GYP. BD. TO 6" A.F.C. AS REQUIRED. SEE DETAIL 11/A4 FOR ADDITIONAL REQUIREMENTS. REFER TO SHEET A3 FOR GONDOLA LOCATION IF REQUIRED. REFER TO SECTION 8/A4 FOR GONDOLA ATTACHMENT. FINISH PER FINISH SCHEDULE, SHEET A4.
 - 14 TENANT DEMISING WALL: EXISTING METAL STUDS WITH NEW GYPSUM BOARD ON DOLLAR TREE'S SALES AREA SIDE TO UNDER SIDE OF ROOF DECK. SEE DETAIL 9/A4 FOR ADDITIONAL REQUIREMENTS. REFER TO SHEET A3 FOR GONDOLA LOCATION IF REQUIRED. REFER TO SECTION 8/A4 FOR GONDOLA ATTACHMENT. FINISH PER FINISH SCHEDULE, SHEET A4.
 - 15 PARTITION WALL: NEW 1 1/4" (20 GAUGE) METAL FURRING CHANNELS @ 16" O.C. WITH 5/8" GWB ON ONE SIDE ONLY TO 6" A.F.C. PROVIDE GRILLES FOR VENTILATION AS REQUIRED AT TOP AND BOTTOM @ 16" O.C. - AMERICAN GRILLE AG10 OR EQUAL. BRACE WALL TO STRUCTURE AS REQUIRED. SEE DETAIL 10/A4 FOR ADDITIONAL REQUIREMENTS. FINISH PER FINISH SCHEDULE, SHEET A4.

EXISTING SIDEWALK AND SITE CONDITIONS NOT A PART OF PROJECT SCOPE. LANDLORD PROPERTY.

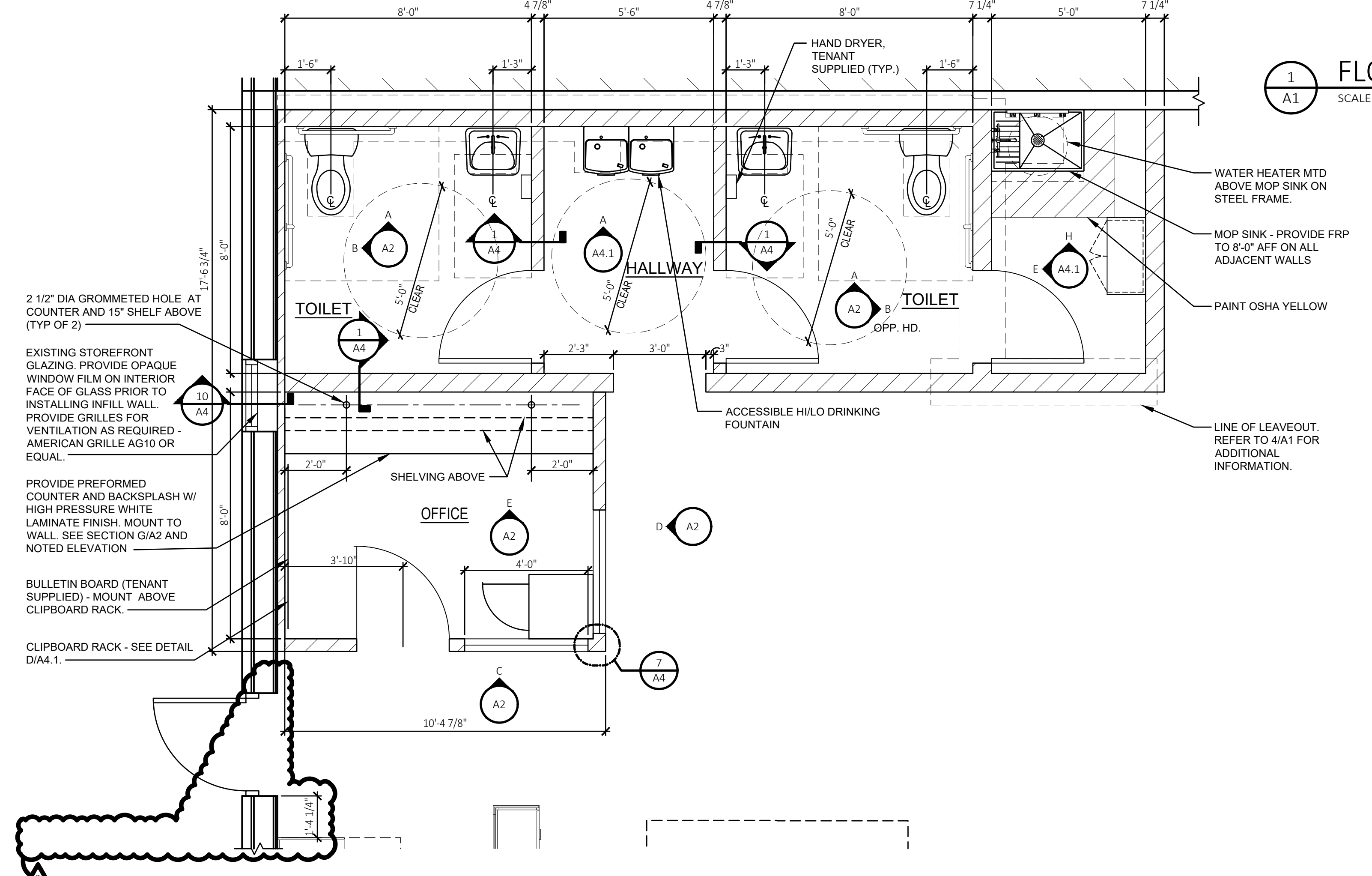
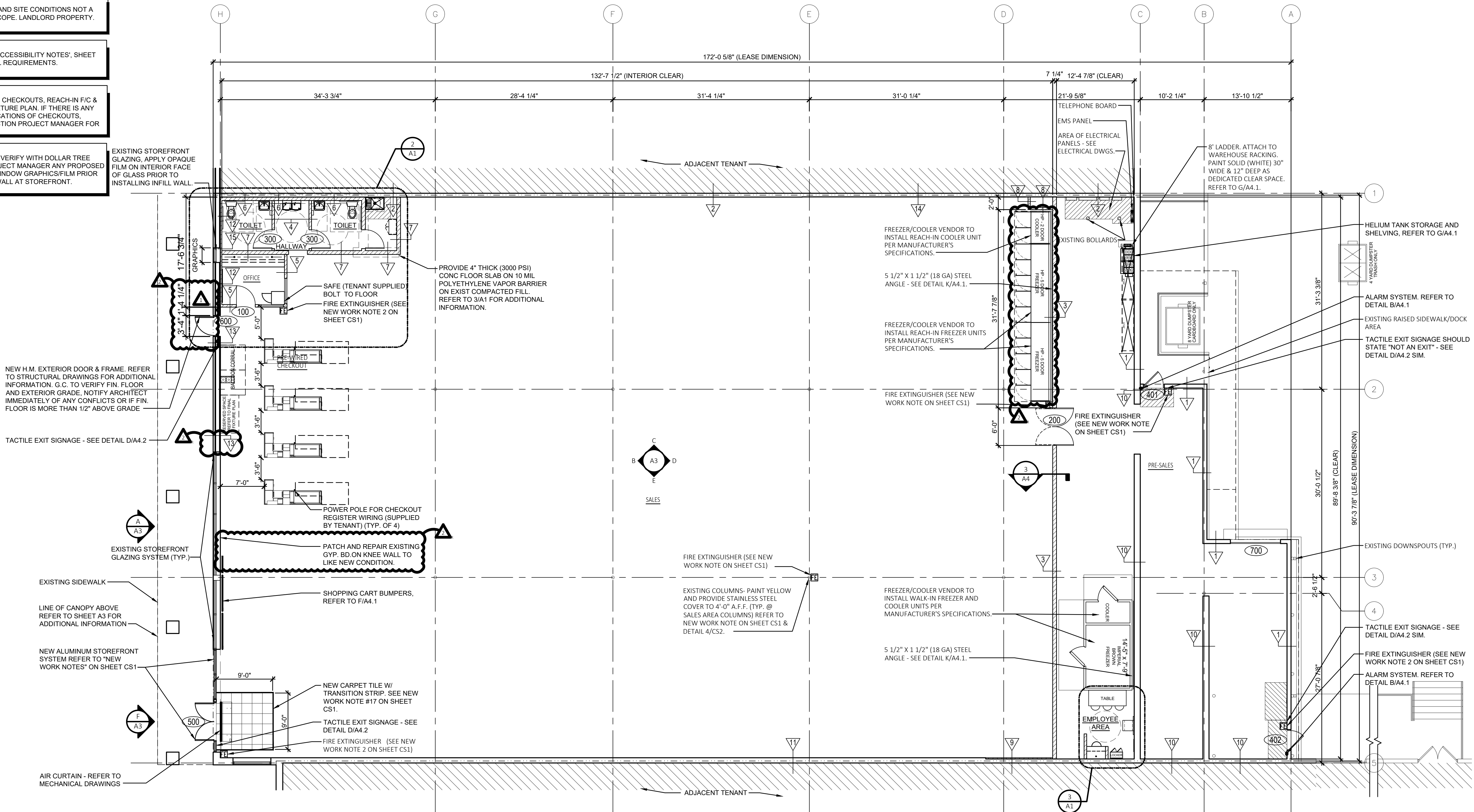
NOTE: SEE 'GENERAL SITE ACCESSIBILITY NOTES' SHEET CS1, FOR ADDITIONAL REQUIREMENTS.

NOTE: VERIFY LOCATION OF CHECKOUTS, REACH-IN FIC & WALK-IN FIC WITH FIXTURE PLAN. IF THERE IS ANY CONFLICTS WITH LOCATIONS OF CHECKOUTS, CONTACT CONSTRUCTION PROJECT MANAGER FOR DIRECTION.

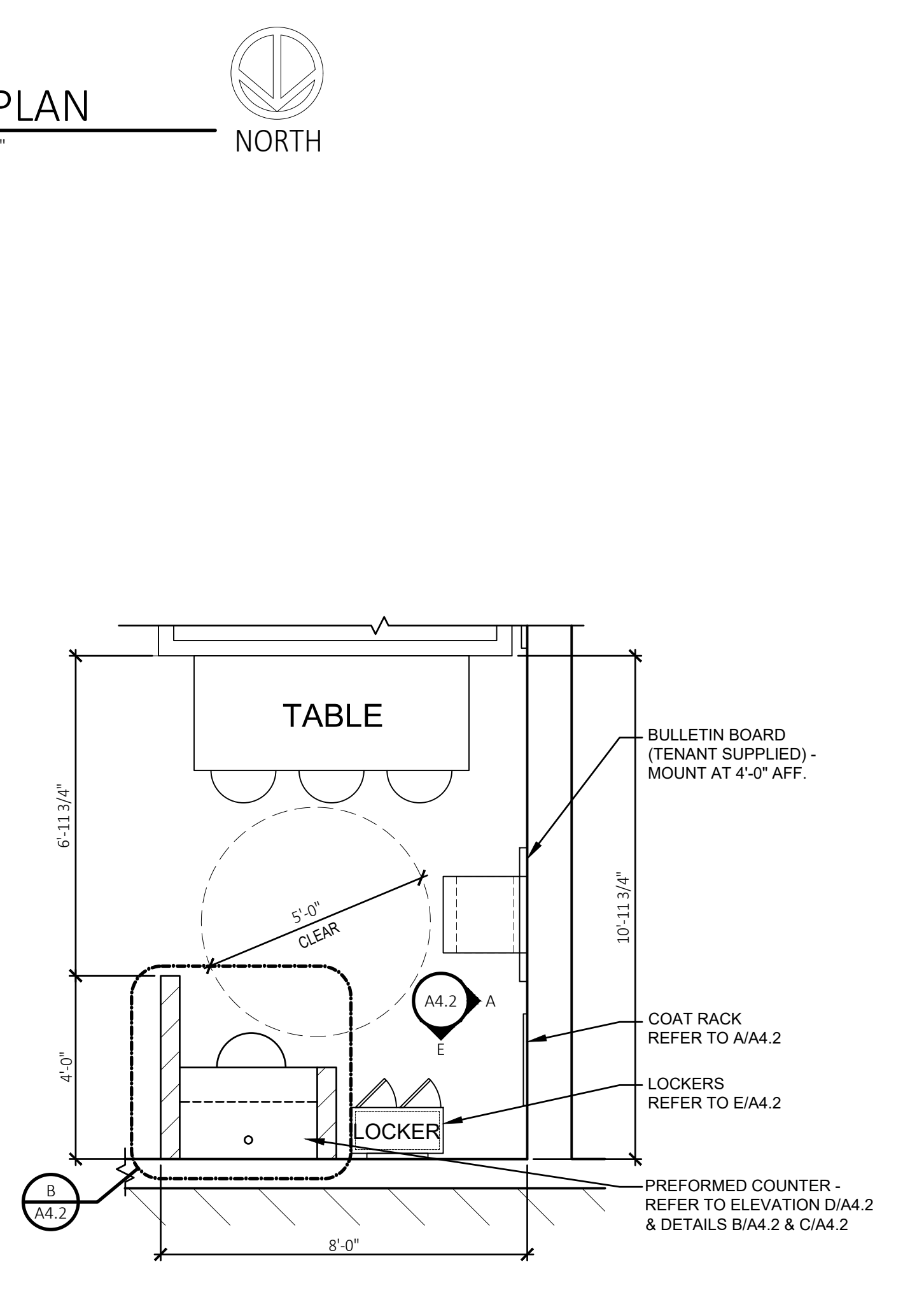
NOTE: CONTRACTOR SHALL VERIFY WITH DOLLAR TREE CONSTRUCTION PROJECT MANAGER ANY PROPOSED CUSTOM INTERIOR WINDOW GRAPHICS/FILM PRIOR TO BUILDING INFILL WALL AT STOREFRONT.

DOLLAR TREE GENERAL INFORMATION:

SHOPPING CENTER:	HOBBY LOBBY CENTER
CITY:	JEFFERSON CITY
STATE:	MISSOURI
CEILING HEIGHT (SALES AREA):	10'-0" AFF
SPRINKLERED:	YES
SQUARE FOOTAGES	
TOTAL SPACE LEASED:	14,487 SF
SALES FLOOR AREA:	12,137 SF
NON-SALES AREA:	2,350 SF 16.2 %
USABLE STOCKROOM:	1,812 SF 12.5 %
USABLE SALES FLOOR:	11,539
DECK HEIGHT:	11'-2" - 16'-8 3/4" AFF

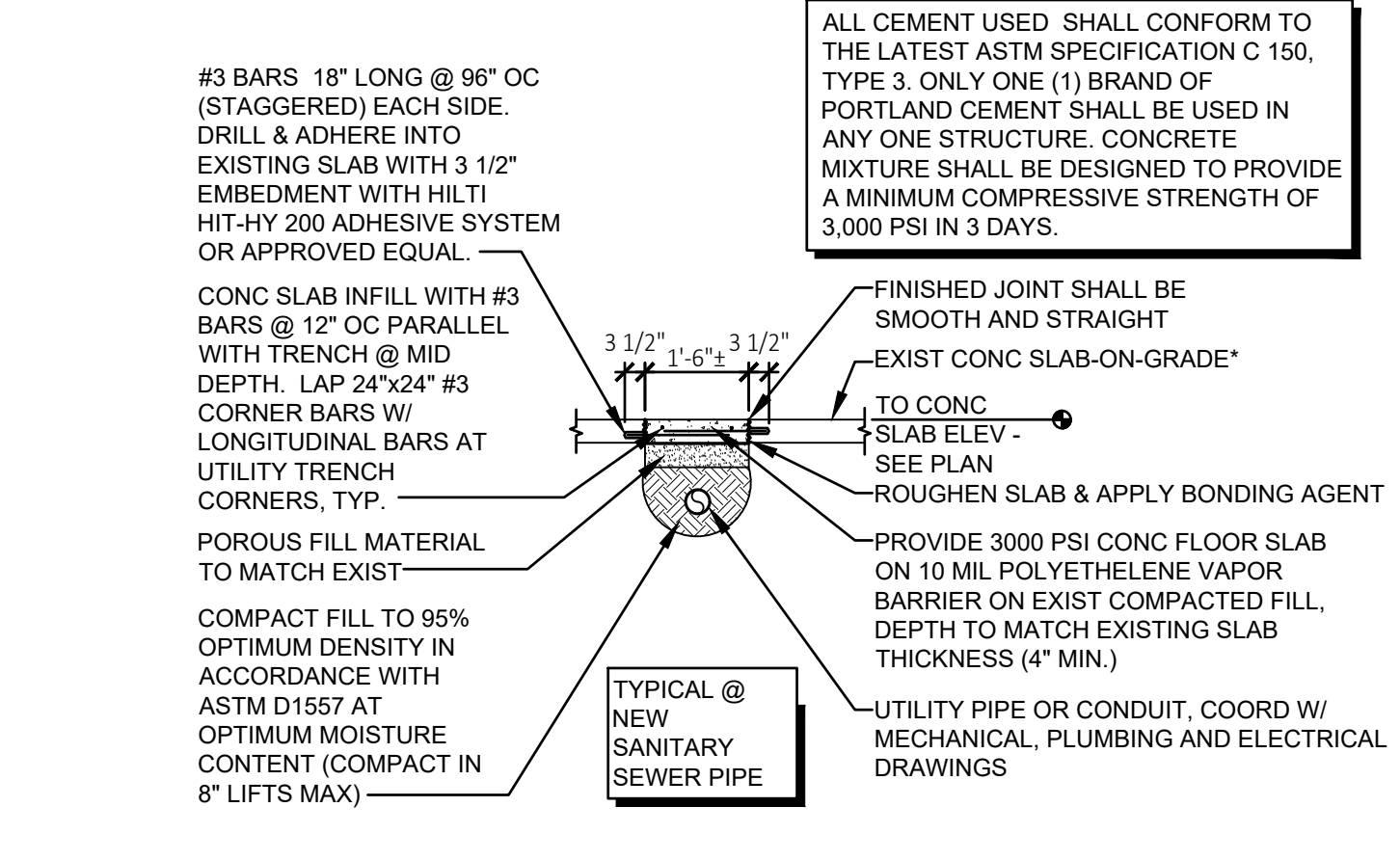


1 ENLARGED TOILET AND OFFICE PLAN
SCALE: 3/8" = 1'-0"



4 ENLARGED EMPLOYEE AREA
SCALE: 3/8" = 1'-0"

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4 SLAB INFILL DETAIL
SCALE: 3/8" = 1'-0"

CLARIFICATIONS

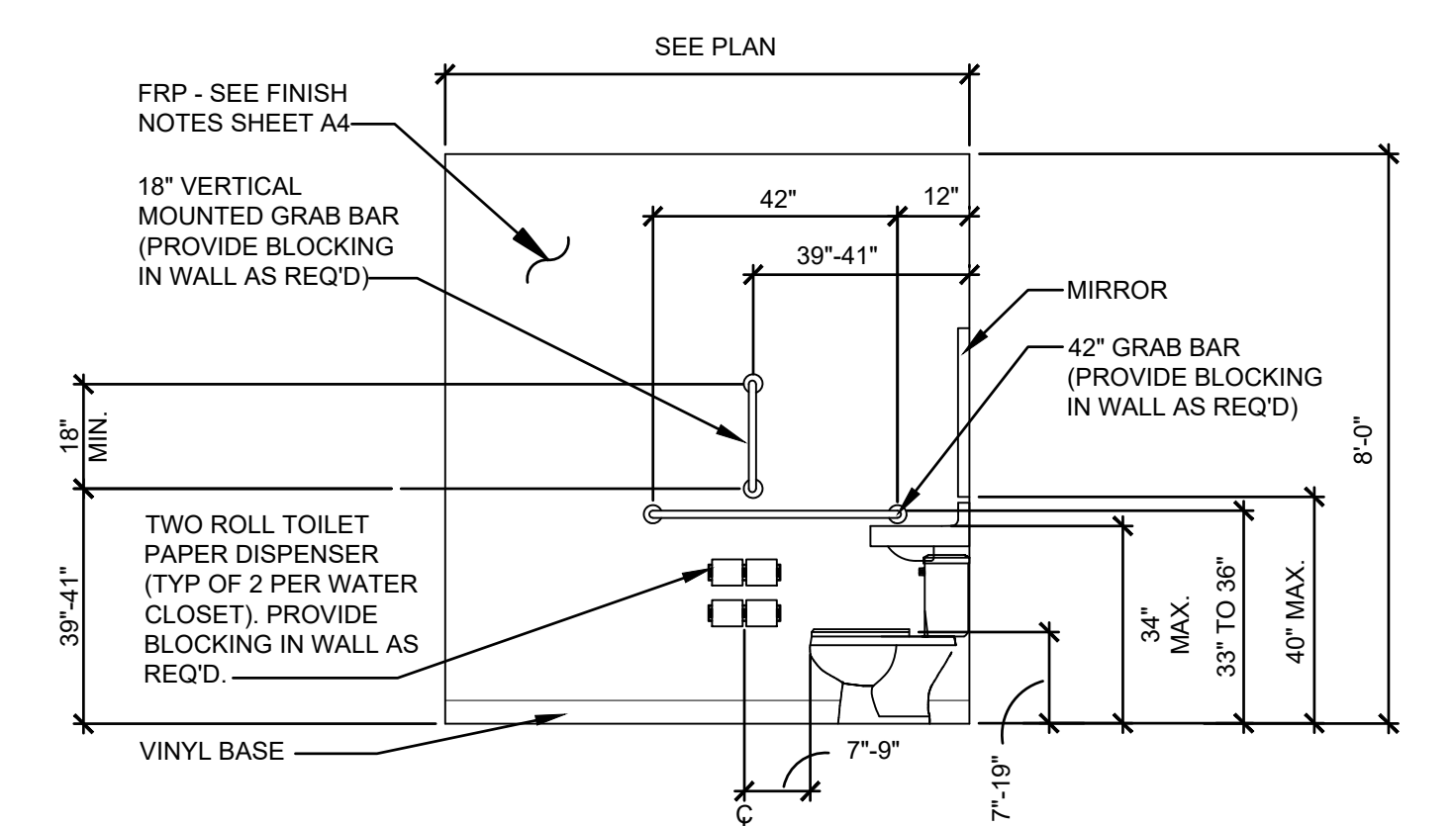
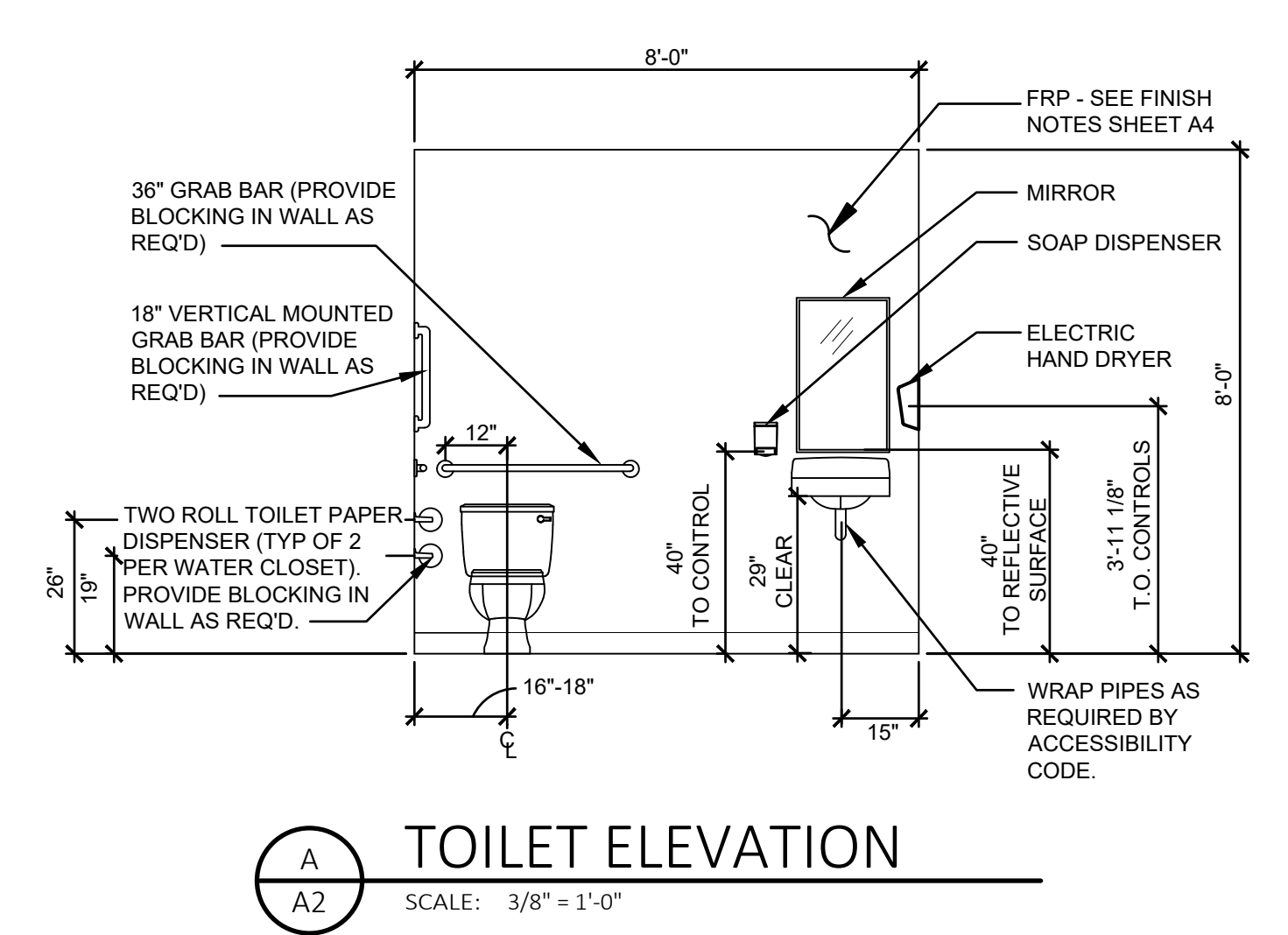
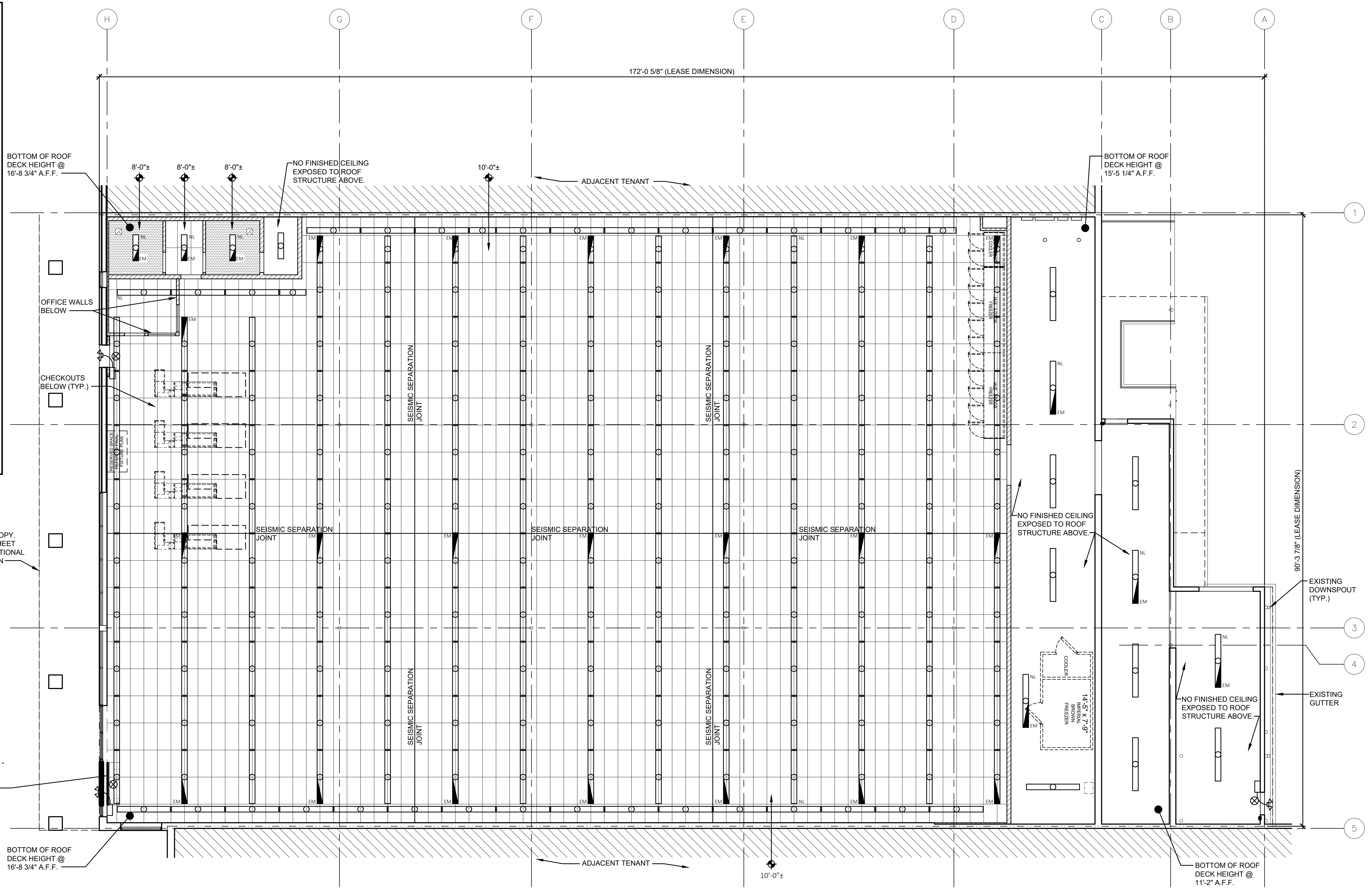
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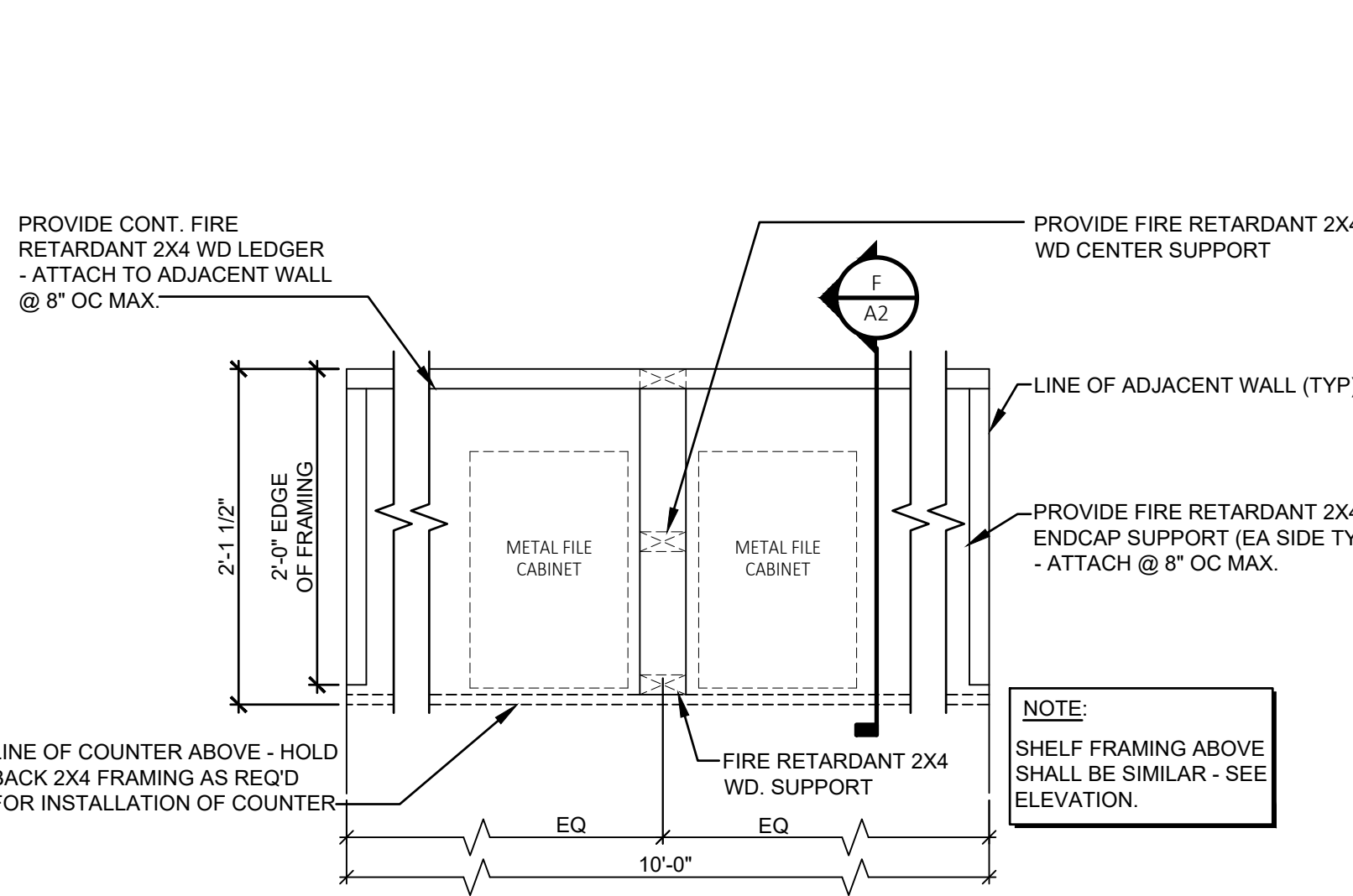
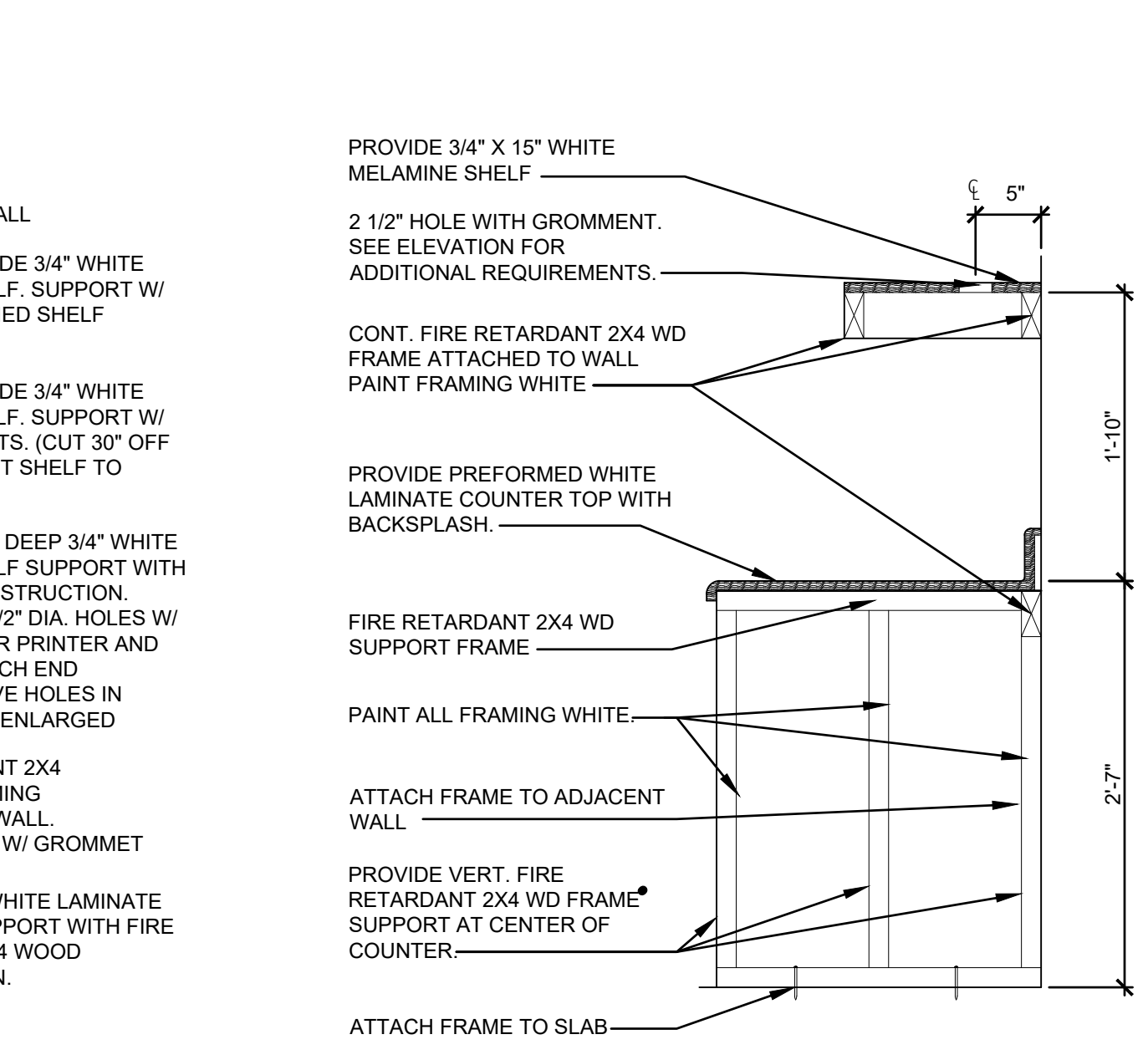
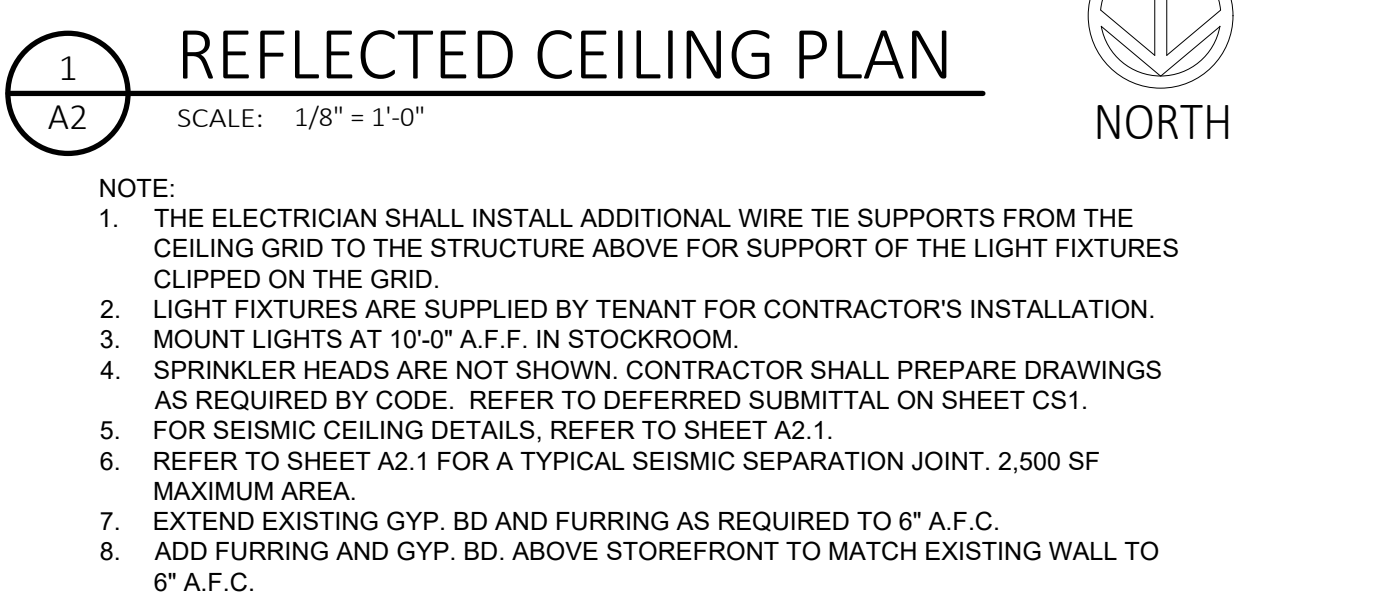
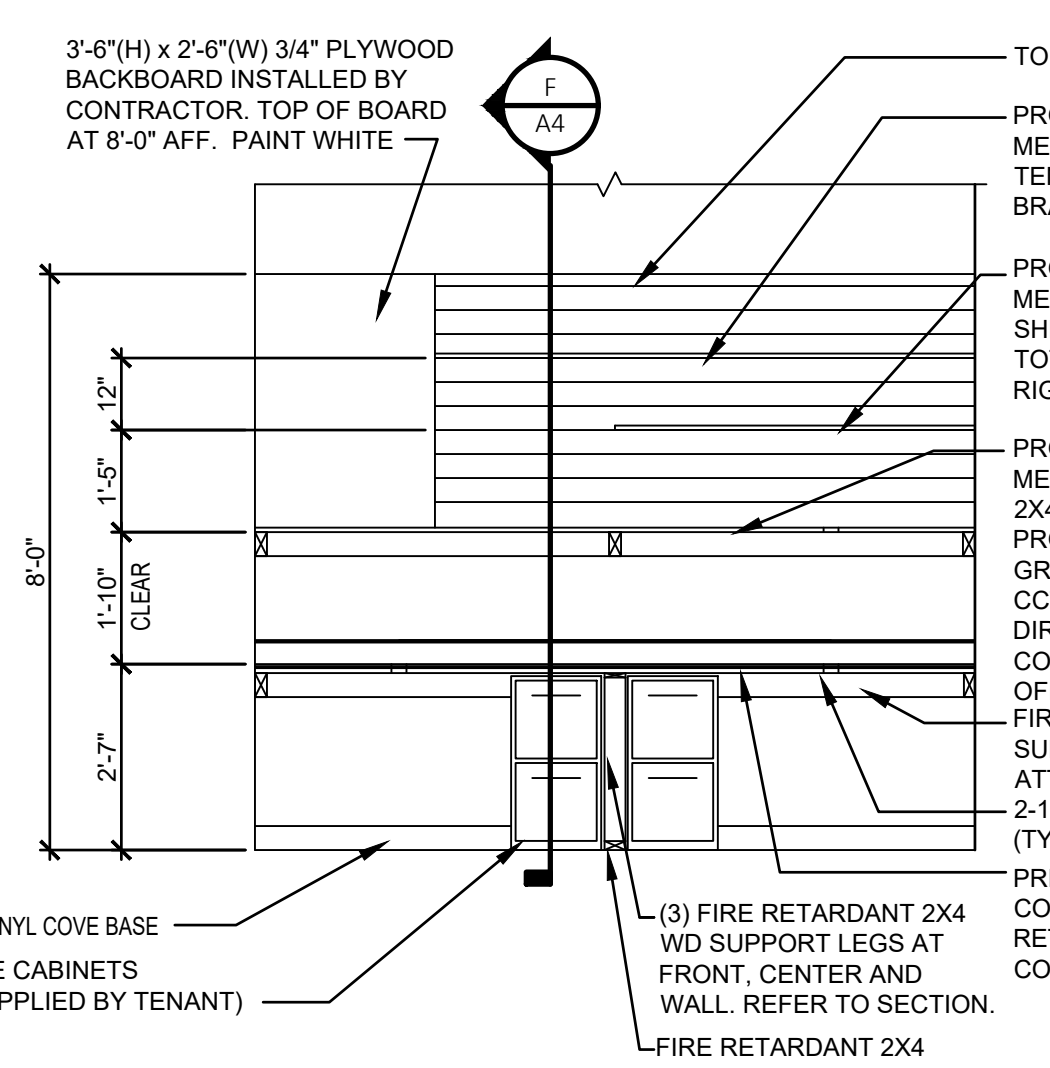
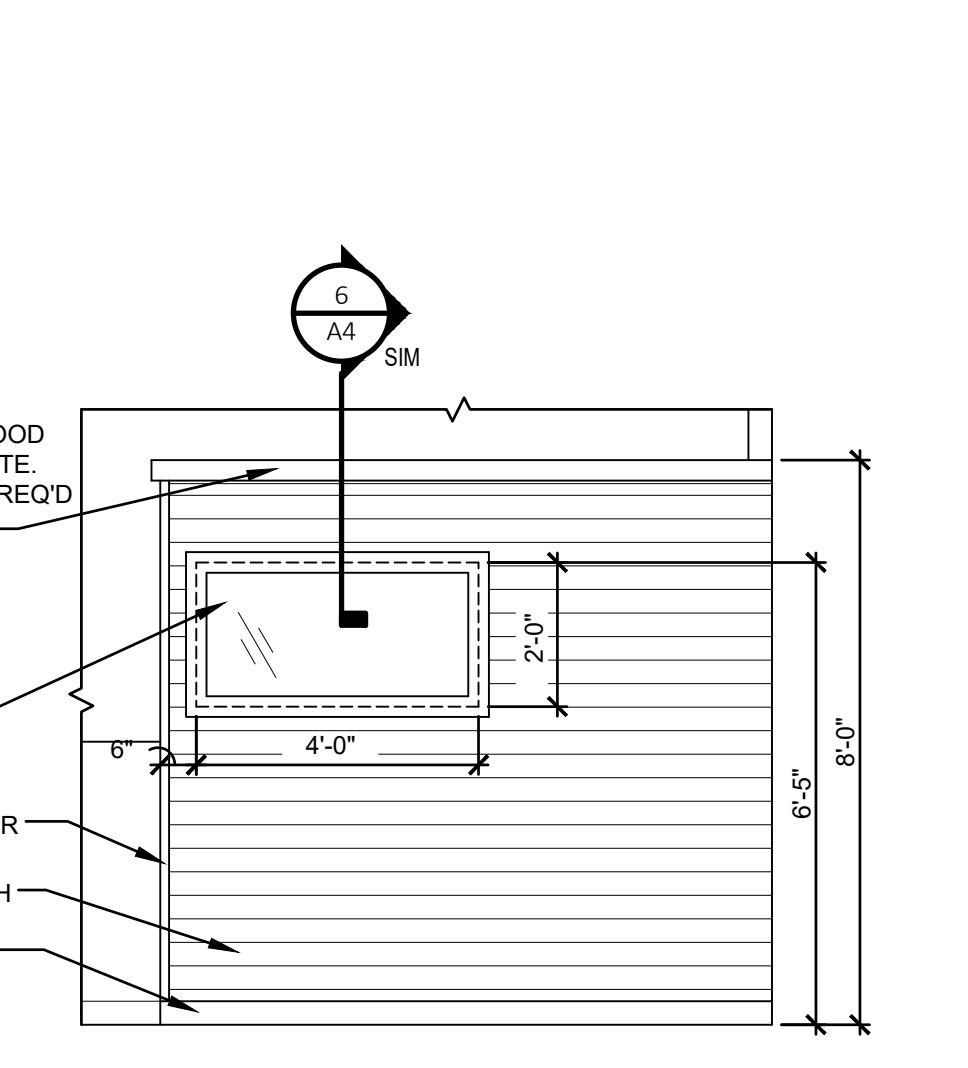
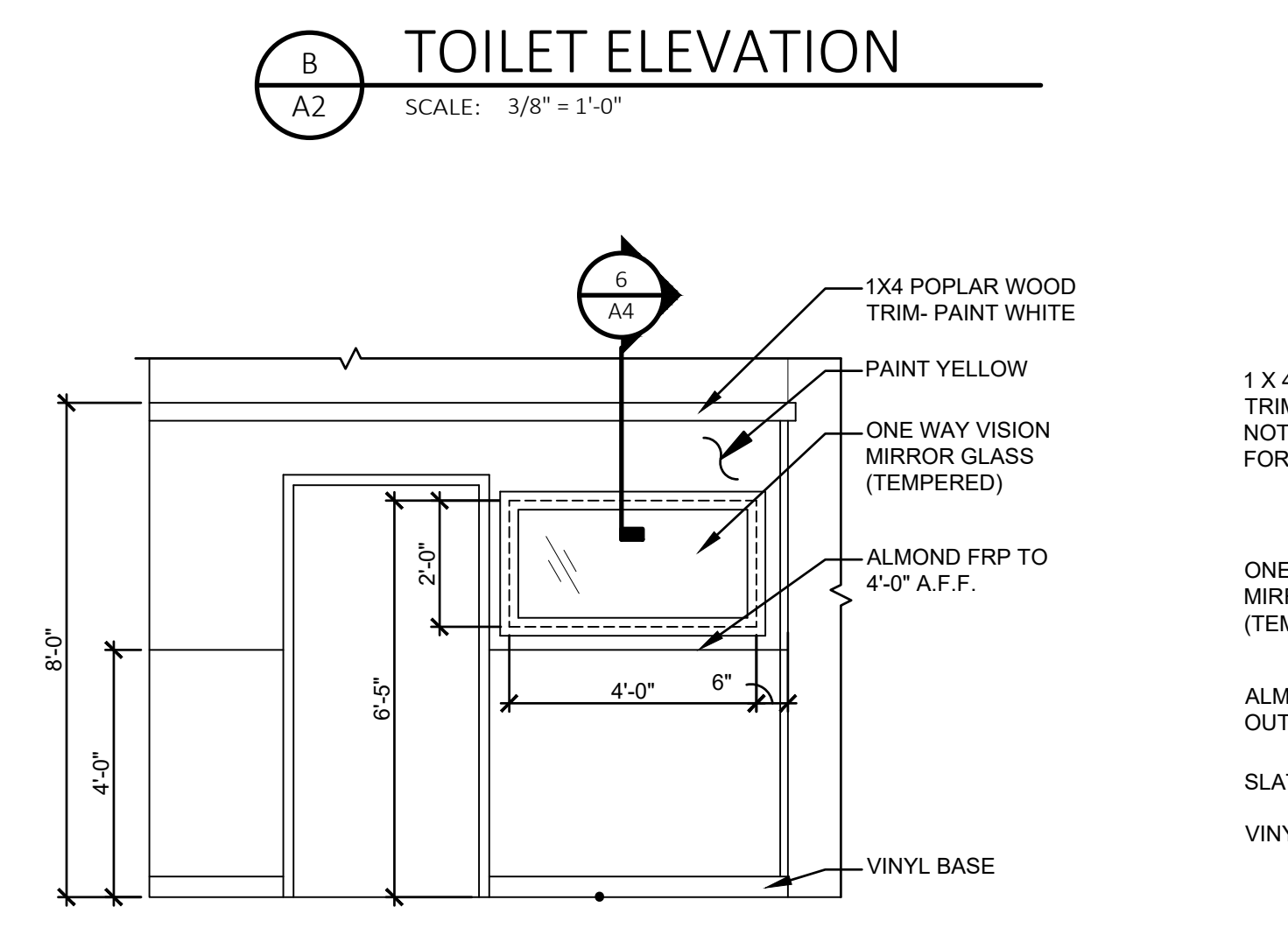
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License No. 008611
Expiration Date 12-31-22
PHONE: 314.821.1100

project
drawing
DOLLAR TREE
HOBBY LOBBY CENTER
2225 MISSOURI BLVD., JEFFERSON CITY, MO 65109
FLOOR PLAN, WALL CONSTRUCTION TYPES AND ENLARGED OFFICE, TOILET, AND EMPLOYEE AREA PLANS

REFLECTED CEILING LEGEND	
	NEW 2'-0" X 4'-0" ACOUSTICAL CEILING TILE AND GRID- SEE FINISH NOTE 4.
	NEW GWB - PAINT WHITE UNLESS OTHERWISE NOTED.
	NEW 8'-0" STRIP LED LIGHT FIXTURE WITH LAMPS ON NIGHT LIGHT CIRCUIT. SURFACE MOUNT TO GWB, ACT CEILING OR PER DETAIL NOTED.
	NEW 8'-0" STRIP LED LIGHT FIXTURE. SURFACE MOUNT TO GWB, ACT CEILING OR PER DETAIL NOTED.
	NEW 8'-0" STRIP LED LIGHT FIXTURE WITH LAMPS ON EMERGENCY LIGHT CIRCUIT WITH BATTERY PACK. SURFACE MOUNT TO GWB, ACT CEILING OR PER DETAIL NOTED. FOR FIXTURES WITH 2 LAMPS, THE EMERGENCY BATTERY PACK WILL ONLY OPERATE 1 OF THE LAMPS.
	NEW 4'-0" STRIP LED LIGHT FIXTURE WITH LAMPS ON NIGHT LIGHT CIRCUIT. SURFACE MOUNT TO TO GWB, ACT CEILING OR PER DETAIL NOTED.
	NEW 4'-0" STRIP LED LIGHT FIXTURE. SURFACE MOUNT TO ACT, GWB CEILING OR PER DETAIL NOTED.
	NEW 4'-0" STRIP LED LIGHT FIXTURE WITH LAMPS ON EMERGENCY LIGHT CIRCUIT WITH BATTERY PACK. SURFACE MOUNT TO TO GWB, ACT CEILING OR PER DETAIL NOTED.
	EXIST 4'-0" STRIP LIGHT FIXTURE. SURFACE MOUNT TO GWB, ACT CEILING OR PER DETAIL NOTED.
	EXIST 8'-0" STRIP LIGHT FIXTURE. SURFACE MOUNT TO GWB, ACT CEILING OR PER DETAIL NOTED.
	NEW 8'-0" LED STRIP LIGHT WITH INTEGRAL BATTERY UNIT. SURFACE MOUNT TO TO GWB, ACT CEILING OR PER DETAIL NOTED. EMERGENCY LIGHT - WIRE BATTERY INVERTER TO HOT WIRE. FOR FIXTURES WITH 2 LAMPS, THE INTEGRAL BATTERY WILL ONLY OPERATE 1 OF THE LAMPS.
	NEW 4'-0" STRIP LED LIGHT WITH INTEGRAL BATTERY UNIT. SURFACE MOUNT TO TO GWB, ACT CEILING OR PER DETAIL NOTED. EMERGENCY LIGHT - WIRE BATTERY INVERTER TO HOT WIRE.
	CEILING OCCUPANCY SENSOR MODEL CMR-PDT-2P
	EXIT LIGHT
	SECURITY CAMERA DOME
	SECURITY CAMERA DOME MTD ON WALL @ 10'-0" AFF.
	VENTILATION FAN
	CEILING HEIGHT ABOVE FINISH FLOOR
	DIFFUSER
	RETURN AIR GRILLE
	POWER POLE
	CONCENTRIC DIFFUSER/RETURN
	MIRROR PANEL
	EXTERIOR EMERGENCY LIGHT AND BATTERY BACKUP.
	INTERIOR EMERGENCY LIGHT AND BATTERY BACKUP.
	SECURITY MONITOR
	SPRINKLER HEAD (SHOWN FOR INFORMATIONAL PURPOSES ONLY. SPRINKLER CONTRACTOR SHALL PREPARE DRAWINGS AS REQUIRED BY CODE FOR RELOCATION OR ADDITION OF HEADS.)



NOTE:
 TOILET ACCESSORIES ARE TENANT SUPPLIED - INCLUDING GRAB BARS, TOILET PAPER DISPENSER, MIRROR AND HAND DRYER.
 THE ELECTRIC HAND DRYER WILL NOT EXTEND MORE THAN 4\"/>



CASCO
 12 Summit Drive, Suite 100, St. Louis, MO 63143 T: 314.821.1100

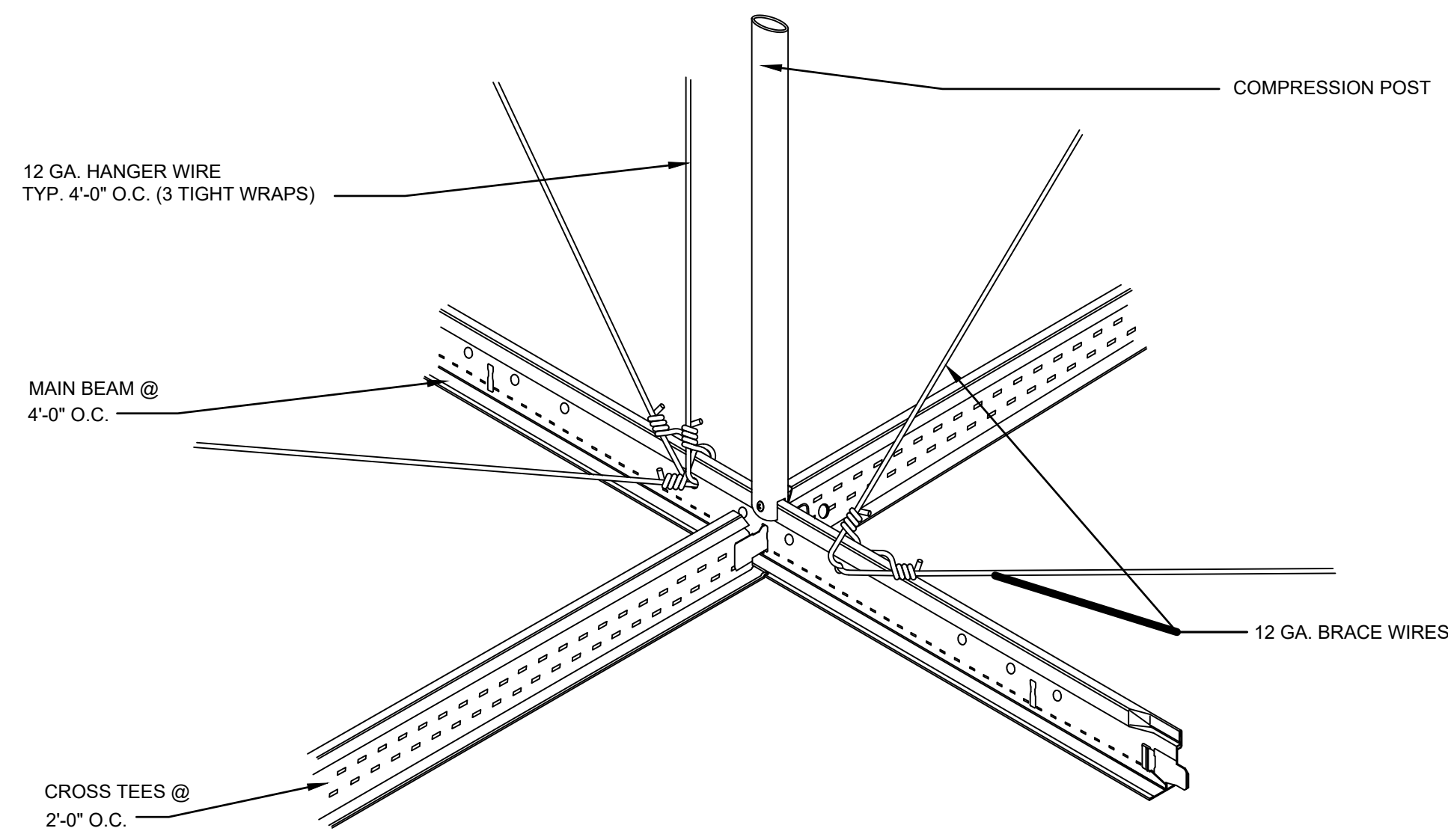
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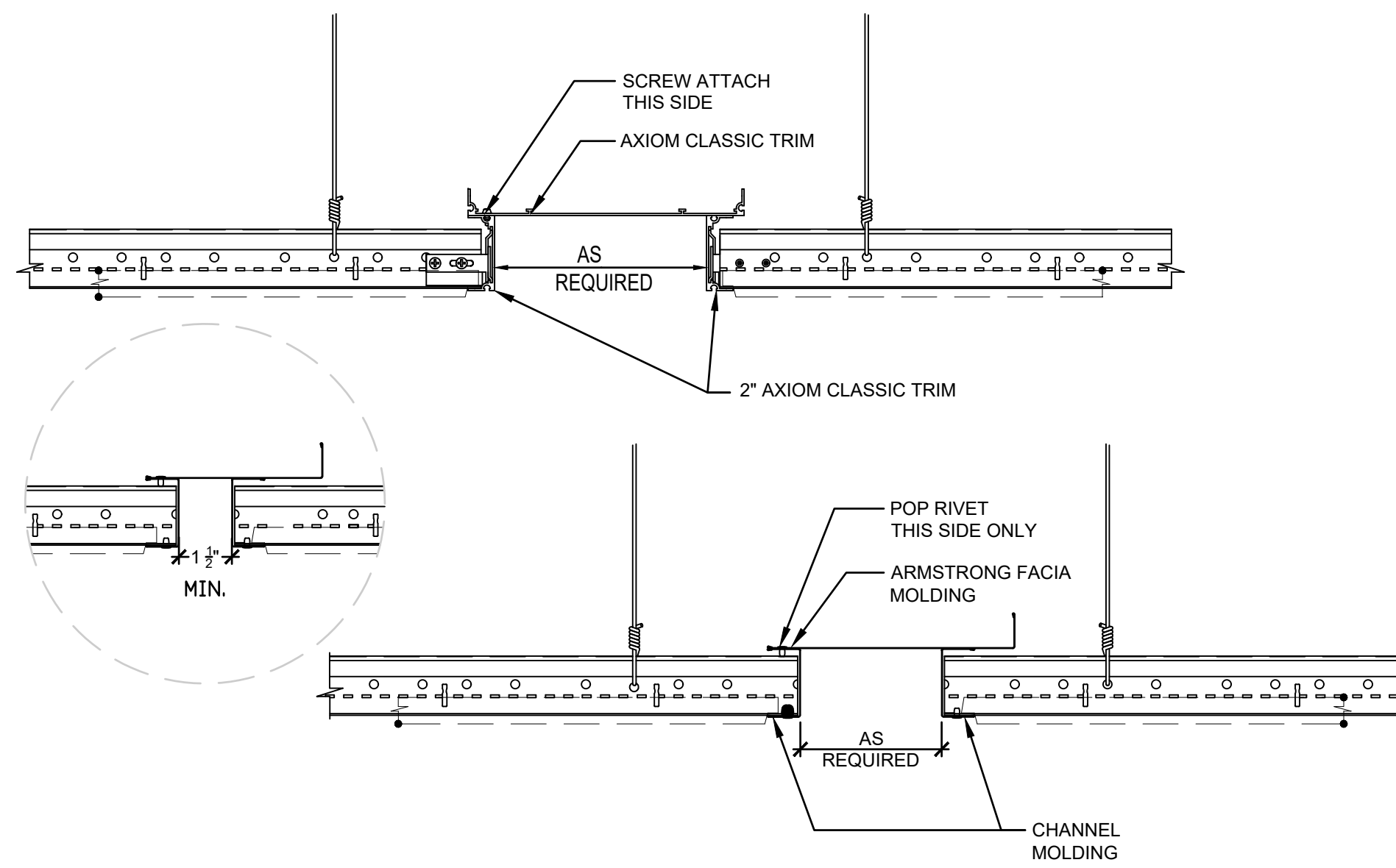
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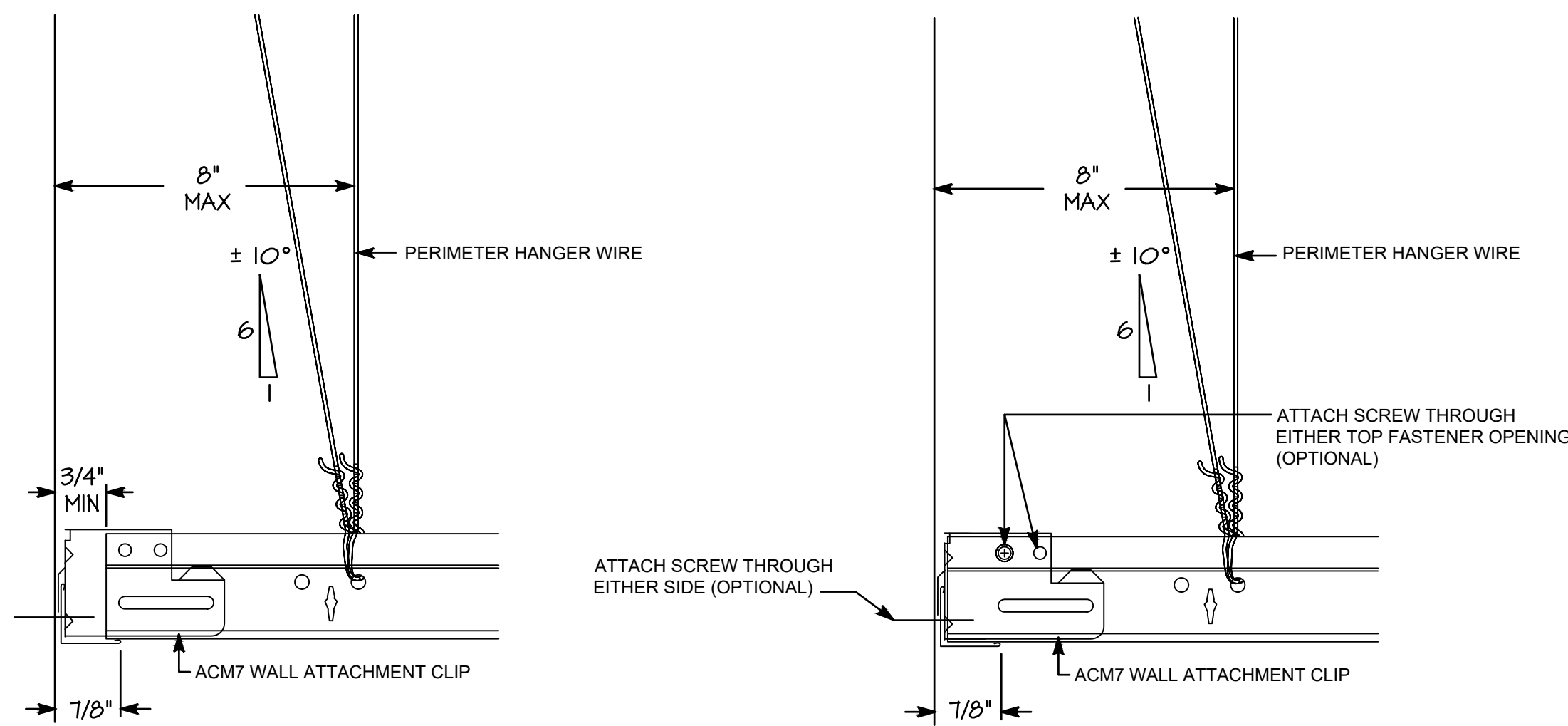
DOLLAR TREE
 HOBBY LOBBY CENTER
 2225 MISSOURI BLVD., JEFFERSON CITY, MO 65109
 REFLECTED CEILING PLAN, LEGEND AND NOTES,
 OFFICE ELEVATIONS & TOILET ELEVATIONS



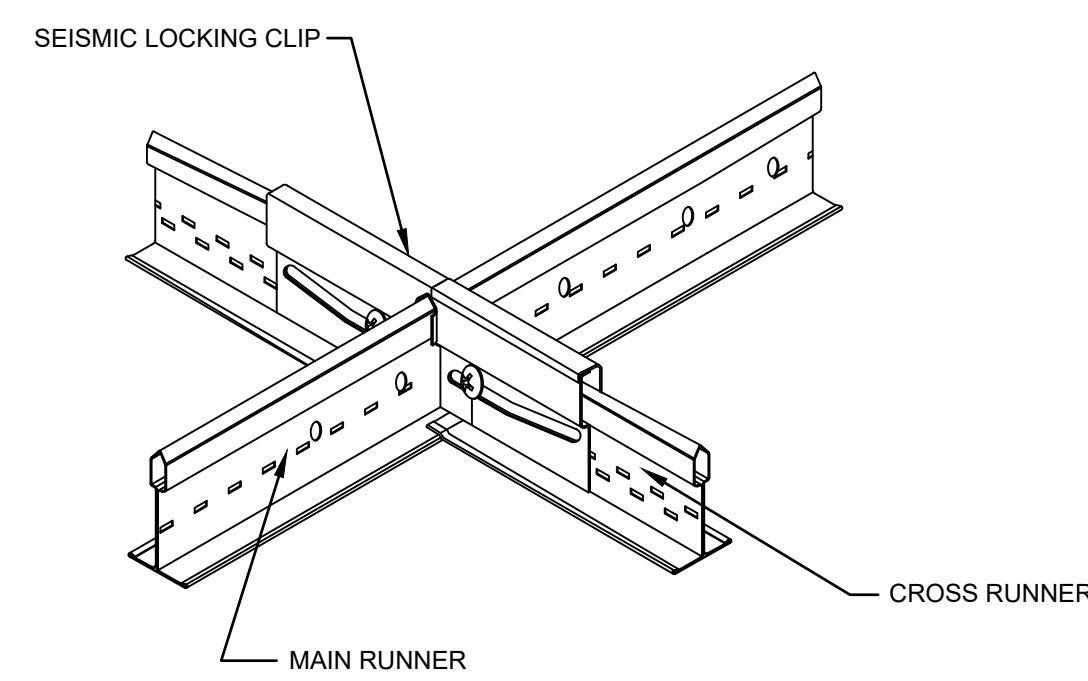
1 SUSPENDED CEILING DETAIL
SCALE: 1/8" = 1'-0"



3 ACCEPTABLE SEISMIC SEPARATION JOINTS
SCALE: 1/8" = 1'-0"



2 TYPICAL PERIMETER WALL MOLDING DETAIL
SCALE: 1/8" = 1'-0"



4 SUSPENDED CEILING DETAIL
SCALE: 1/8" = 1'-0"

NOTE:
CONTRACTOR SHALL INSTALL SEISMIC BRACING AS SHOWN. ANY DEVIATION FROM DESIGN TO 'EQUAL' SYSTEM SHALL REQUIRE PRIOR APPROVAL OF DOLLAR TREE CONSTRUCTION PM, ARCHITECT, AND CODE COMPLIANCE JURISDICTION. REQUEST FOR DEVIATION SHALL BE SUBMITTED IN FORM OF SHOP DRAWINGS WITH ALL ACCOMPANYING SPECIFICATION SHEETS. CONTRACTOR SHALL DETERMINE AND COMPLY WITH ALL REQUIRED INSPECTIONS AND APPROVAL OF CEILING SYSTEM APPLICATION.

PREFERRED SEISMIC CEILING BRACING SYSTEM MANUFACTURER SHALL BE ARMSTRONG.

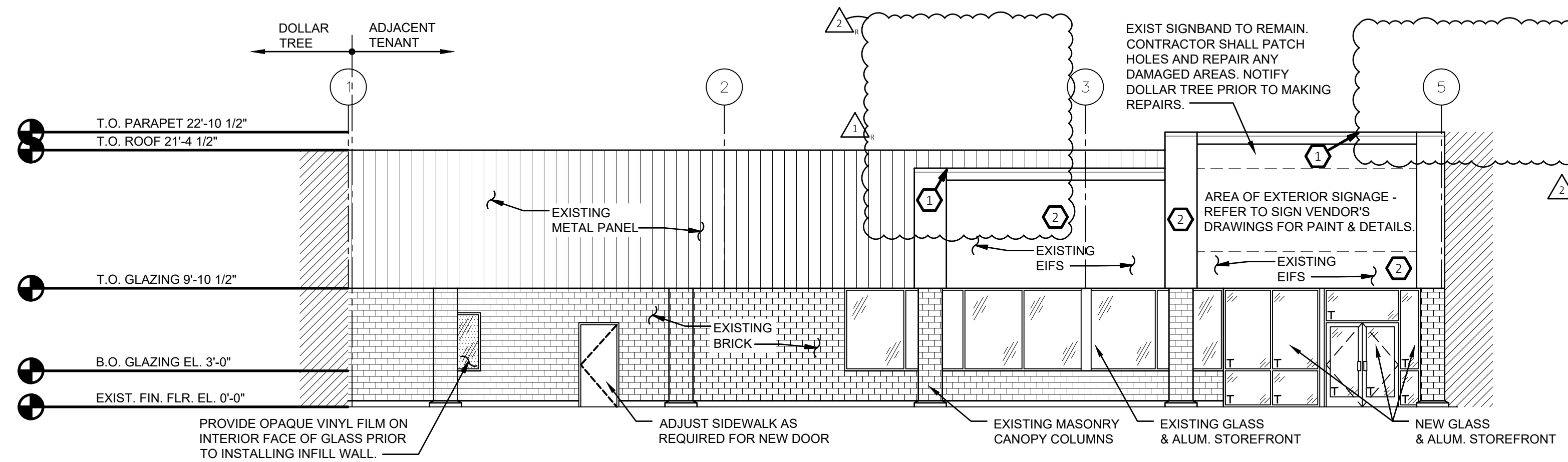
1. BRACING OF SUSPENDED CEILINGS SHALL COMPLY WITH ALL LOCAL AND NATIONAL SEISMIC CODES TO RESIST LATERAL LOADS PER APPROPRIATE SEISMIC ZONE.
 - A. A HEAVY DUTY T-BAR GRID SYSTEM SHALL BE USED.
 - B. THE WIDTH OF THE PERIMETER SUPPORTING CLOSURE ANGLE SHALL BE NOT LESS THAN 2" IN EACH ORTHOGONAL HORIZONTAL DIRECTION, ONE END OF THE CEILING GRID SHALL BE ATTACHED TO THE CLOSURE ANGLE, THE OTHER END IN EACH HORIZONTAL DIRECTION SHALL HAVE A 3/4" CLEARANCE FROM THE WALL AND SHALL REST UPON AND BE FREE TO SLIDE ON THE 2" CLOSURE ANGLE. THE MAIN AND CROSS RUNNERS SHALL BE TIED TOGETHER TO PREVENT TWISTING.
 - C. PROVIDE NO. 12 GAUGE VERTICAL SUPPORT WIRES ON THE MAIN AND CROSS RUNNERS A MAXIMUM DISTANCE OF 8" FROM THE WALL. ADDITIONAL VERTICAL SUPPORT WIRES ARE NEEDED IN THE FOLLOWING LOCATIONS:
 1. 4' ON CENTER SPACING ALONG THE MAIN RUNNER.
 2. LIGHT FIXTURES MUST BE POSITIVELY ATTACHED TO THE CEILING GRID WITH AN ATTACHMENT CAPABLE OF CARRYING 100% OF THE WEIGHT OF THE LIGHT FIXTURE. LIGHT FIXTURES WEIGHING UP TO 56 POUNDS REQUIRE TWO VERTICAL SUPPORT WIRES. THESE WIRES MAY BE SLACK. LIGHT FIXTURES WEIGHING MORE THAN 56 POUNDS SHALL REQUIRE INDEPENDENT SUPPORT FROM THE SHELL BUILDING STRUCTURE ABOVE THE CEILING.
 3. MECHANICAL AIR TERMINALS WEIGHING LESS THAN 20 POUNDS SHALL BE POSITIVELY ATTACHED TO THE CEILING GRID. AIR TERMINALS WEIGHING 20 POUNDS BUT NOT MORE THAN 56 POUNDS SHALL BE SECURED TO THE SHELL BUILDING STRUCTURE ABOVE THE CEILING IN ADDITION TO ATTACHING THE AIR TERMINAL TO THE CEILING GRID. THESE TWO NO. 12 GAUGE WIRES MAY BE SLACK. AIR TERMINALS WEIGHING MORE THAN 56 POUNDS SHALL REQUIRE INDEPENDENT SUPPORT FROM THE SHELL BUILDING STRUCTURE ABOVE THE CEILING.
 - D. SPRINKLER HEADS AND OTHER PENETRATIONS OF THE SUSPENDED CEILING SHALL HAVE A 2" OVERSIZE RING, SLEEVE, OR ADAPTOR TO ALLOW 1" HORIZONTAL MOVEMENT IN ALL DIRECTIONS.
 - E. ALL PARTITIONS GREATER THAN 6' IN HEIGHT SHALL BE INDEPENDENTLY BRACED TO THE BUILDING SHELL STRUCTURE. PARTITIONS MAY NOT BE SUPPORTED BY THE BRACED SUSPENDED CEILING ALONE.
 - F. IN ADDITION TO ITEMS A THROUGH E ABOVE, SUSPENDED CEILINGS EXCEEDING 1,000 SQ. FT. IN AREA REQUIRE FOUR NO. 12 GAUGE SPLAY WIRES AND A RIGID VERTICAL COMPRESSION POST EVERY 12 FT. ON CENTER STARTING A MAXIMUM OF 6 FT. FROM EACH WALL. THE SPLAY WIRES SHALL BE SECURED TO THE MAIN RUNNER WITHIN 2 INCHES OF THE CROSS RUNNER INTERSECTION AND SPLAYED 90 DEGREES FROM EACH OTHER AT AN ANGLE NOT EXCEEDING 45 DEGREES FROM THE PLANE OF THE CEILING.
 - G. IN ADDITION TO ITEMS A THROUGH F ABOVE, SUSPENDED CEILINGS EXCEEDING 2,500 SQ. FT. SHALL HAVE A SEPARATION JOINT. REFER TO SHEET A2 FOR LOCATIONS.
 - H. BRACING WIRES TO BE ATTACHED A MAXIMUM OF 45° TO THE PLANE OF THE CEILING AND PARALLEL TO THE COMPONENTS AT THE BRACING POINT. BRACE WIRES TO BE TAUT AND TIED BOTH ENDS WITH THREE TIGHT WRAPS.

date	project	designed	drawn	checked	mark	date	description
08/01/22							

CASCO DIVERSIFIED CORPORATION
ARCHITECTURAL FIRM
LICENSE #000329
EXPIRES 12/31/23

PROFESSIONAL OF RECORD
Caron M. Stevenson
License No. 008613
Expiration Date 12-31-22
PHONE: 314.821.1100

project **DOLLAR TREE**
HOBBY LOBBY CENTER
2225 MISSOURI BLVD., JEFFERSON CITY, MO 65109
drawing SEISMIC CEILING SECTIONS, DETAILS & NOTES



A
A3 EXTERIOR ELEVATION
 SCALE: 1/8" = 1'-0"

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.

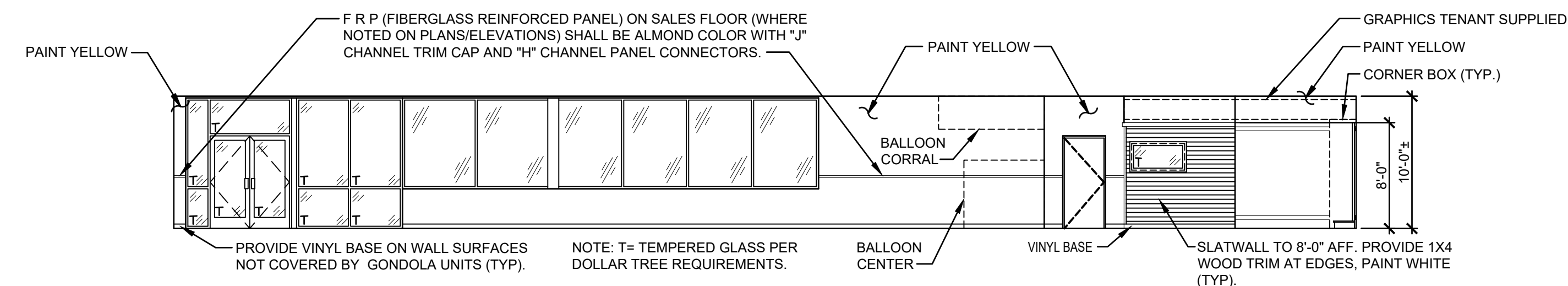
NOTE: SIGNS, LOCATION, NUMBER AND SIZE ARE NOT APPROVED UNDER THIS BUILDING PERMIT. A SEPARATE SIGN LOCATION PERMIT IS REQUIRED FOR EACH SIGN.

CONTRACTOR SHALL VERIFY WITH DOLLAR TREE CONSTRUCTION PROJECT MANAGER ANY PROPOSED CUSTOM INTERIOR WINDOW GRAPHICS/FILM PRIOR TO BUILDING INFILL WALL AT STOREFRONT.

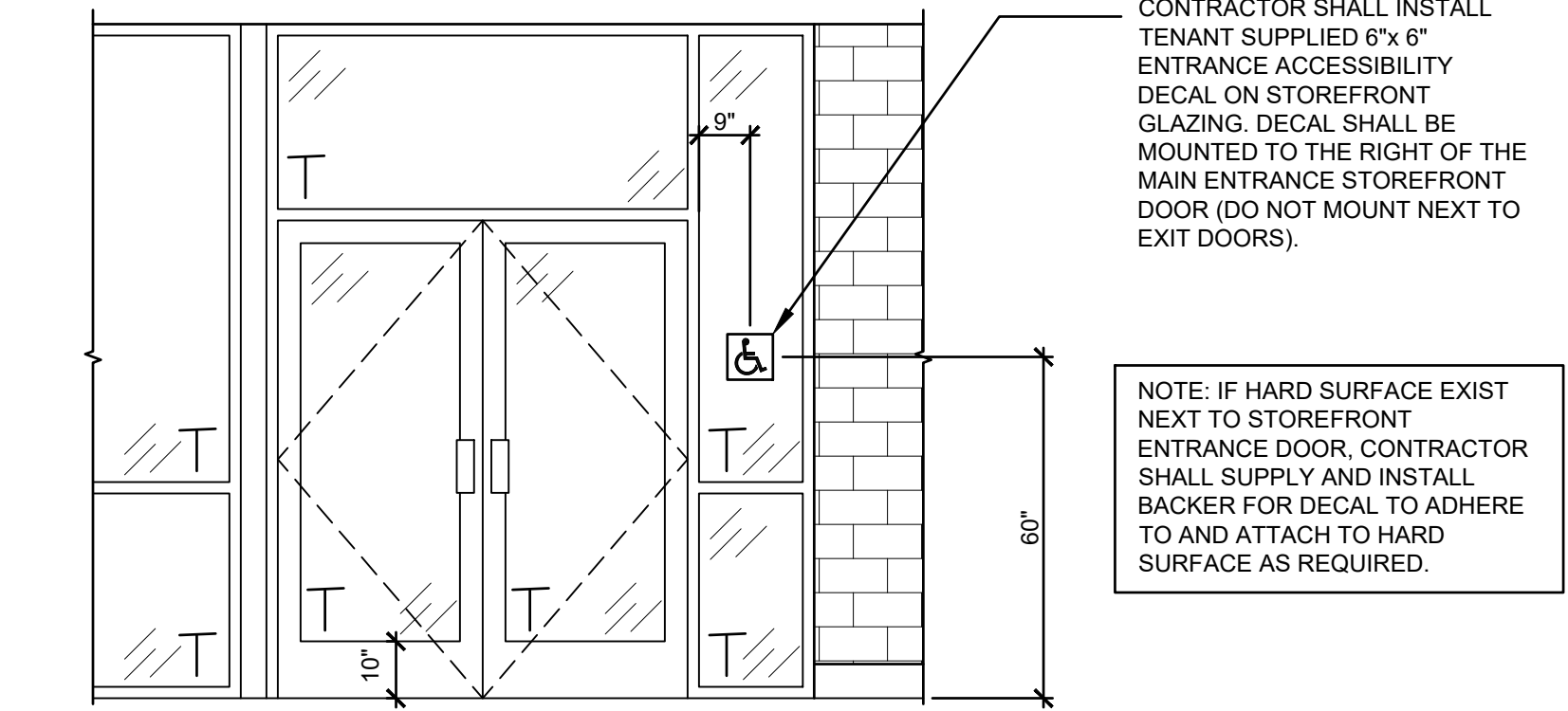
NOTE: PAINT EXTERIOR BUILDING PER APPROVED DOLLAR TREE RENDERING.

PAINT FACADE PER COLORS NOTED: CONTACT DOLLAR TREE CONSTRUCTION PM PRIOR TO PAINTING. GC SHALL COORDINATE PAINT COLOR & LOCATION W/ FINAL SIGN RENDERING.

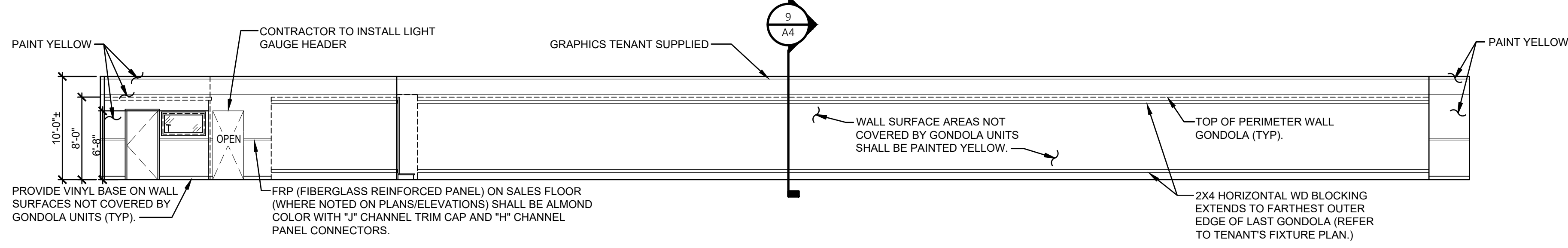
① PAINT: SHERWIN WILLIAMS "ENVY" LRV 18% #2032.10 - SATIN FINISH
 ② PAINT: SHERWIN WILLIAMS "AESTHETIC WHITE" SW#7035 - SATIN FINISH



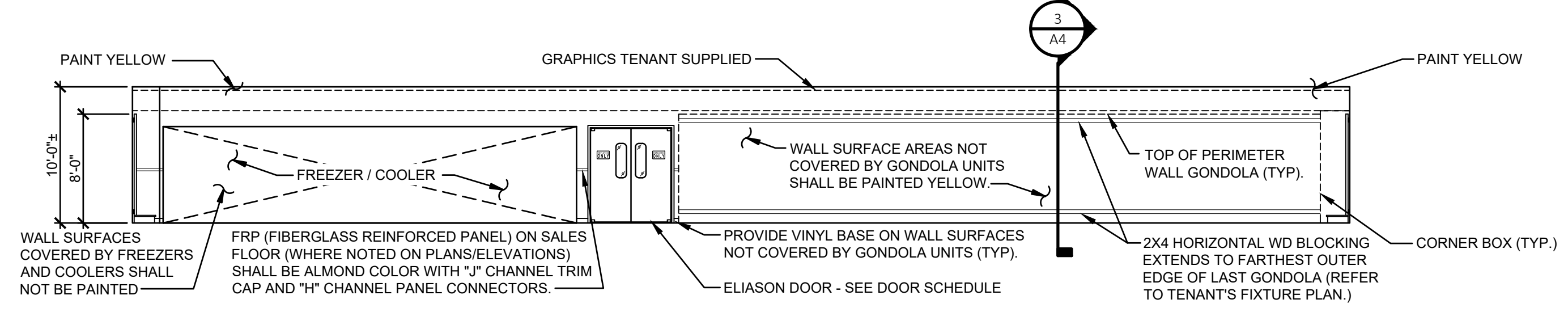
B
A3 INTERIOR ELEVATION
 SCALE: 1/8" = 1'-0"
 NOTE: T= TEMPERED GLASS PER DOLLAR TREE REQUIREMENTS.



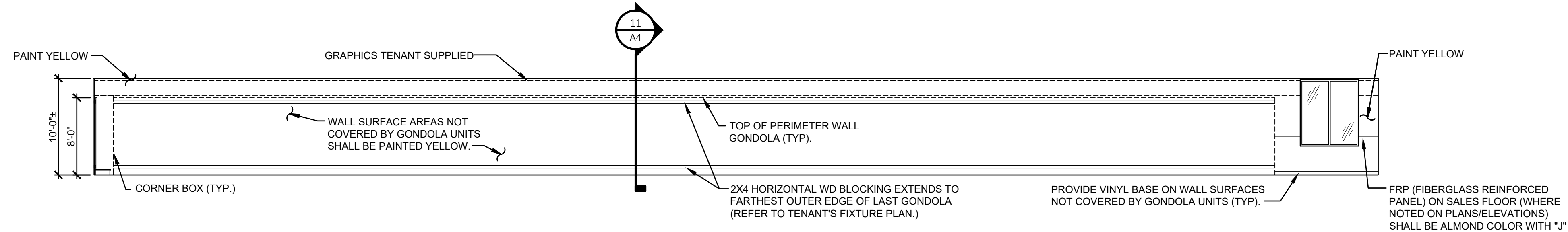
F
A3 INTERNATIONAL SYMBOL OF ACCESSIBILITY AT STOREFRONT ENTRANCE
 SCALE: 3/8" = 1'-0"



C
A3 INTERIOR ELEVATION
 SCALE: 1/8" = 1'-0"



D
A3 INTERIOR ELEVATION
 SCALE: 1/8" = 1'-0"



E
A3 INTERIOR ELEVATION
 SCALE: 1/8" = 1'-0"

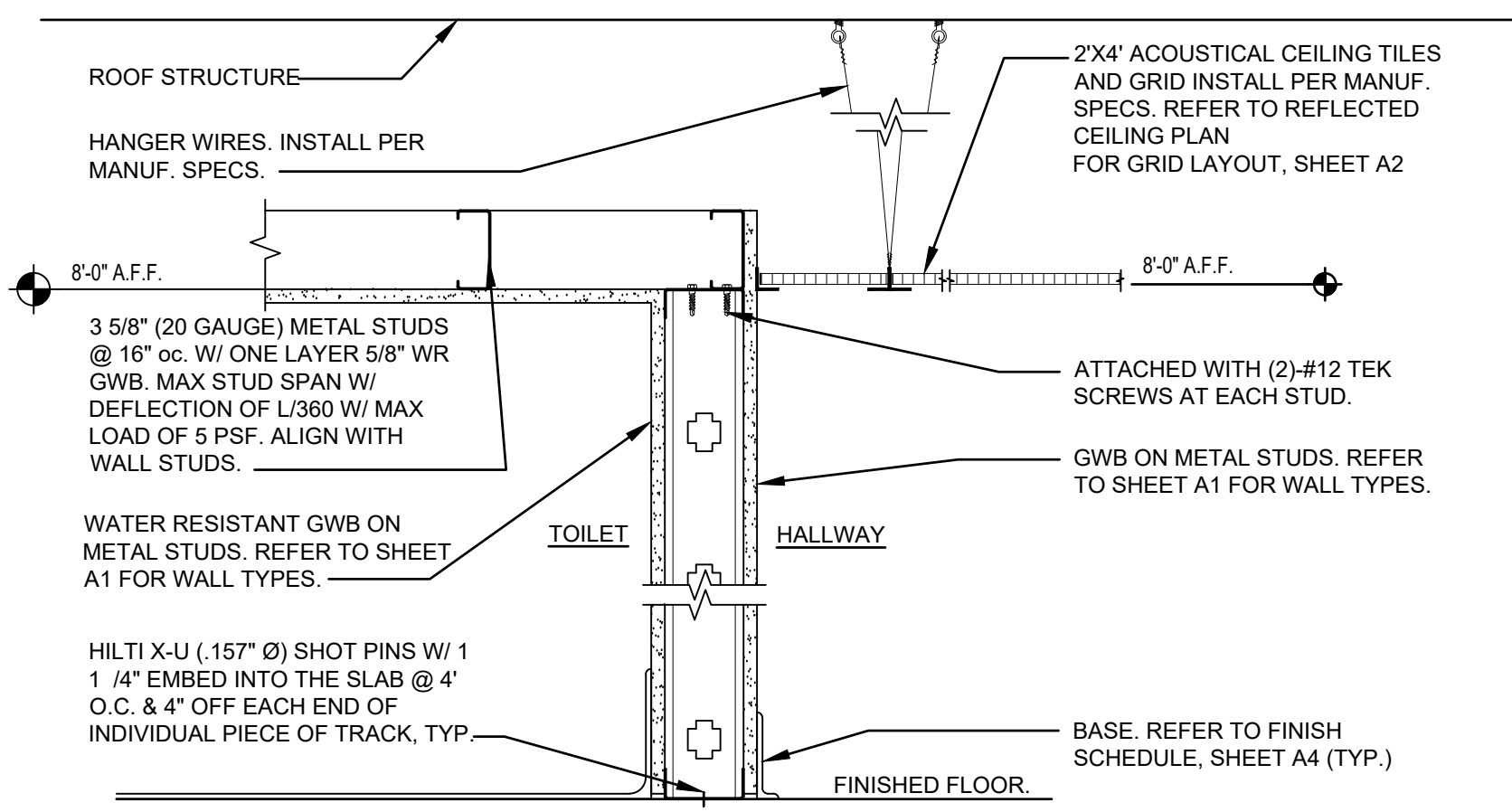
CLARIFICATIONS	description
JLB	KMS
08/24/2022	08/11/2022
mark	date
revisions	

date	project	designed	drawn	checked
08/01/22	2202227	JLB	JLB	BAN

CASCO DIVERSIFIED CORPORATION ARCHITECTURAL FIRM LICENSE #000329 EXPIRES 12/31/23

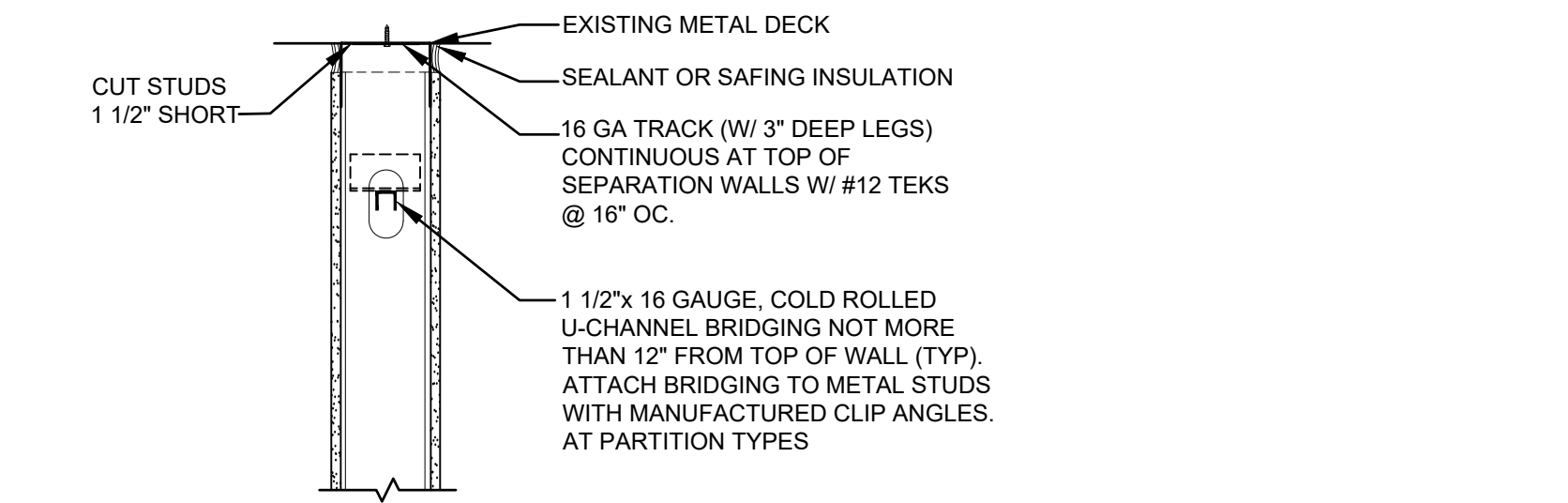
PROFESSIONAL OF RECORD
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DOLLAR TREE
 HOBBY LOBBY CENTER
 2225 MISSOURI BLVD., JEFFERSON CITY, MO 65109
 EXTERIOR ELEVATION & INTERIOR ELEVATIONS

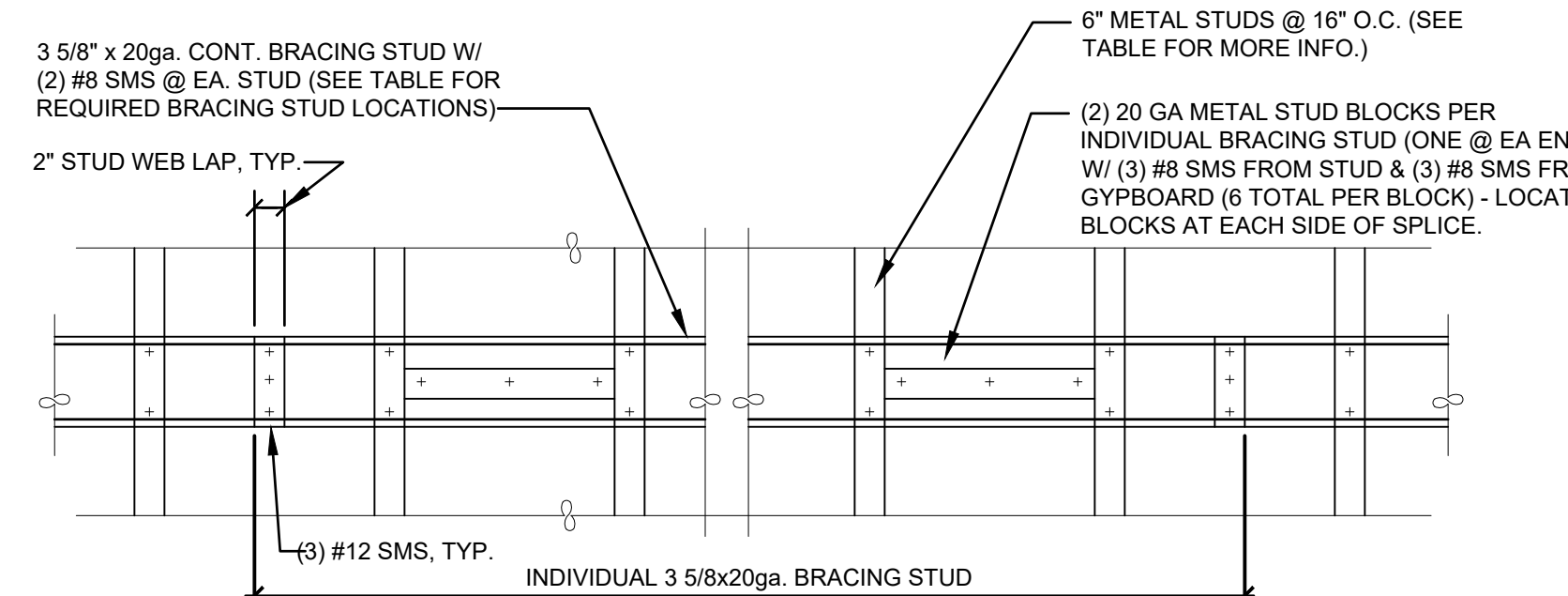


NOTE:
1. REFER TO FINISH SCHEDULE FOR ALL FINISHES, SHEET A4

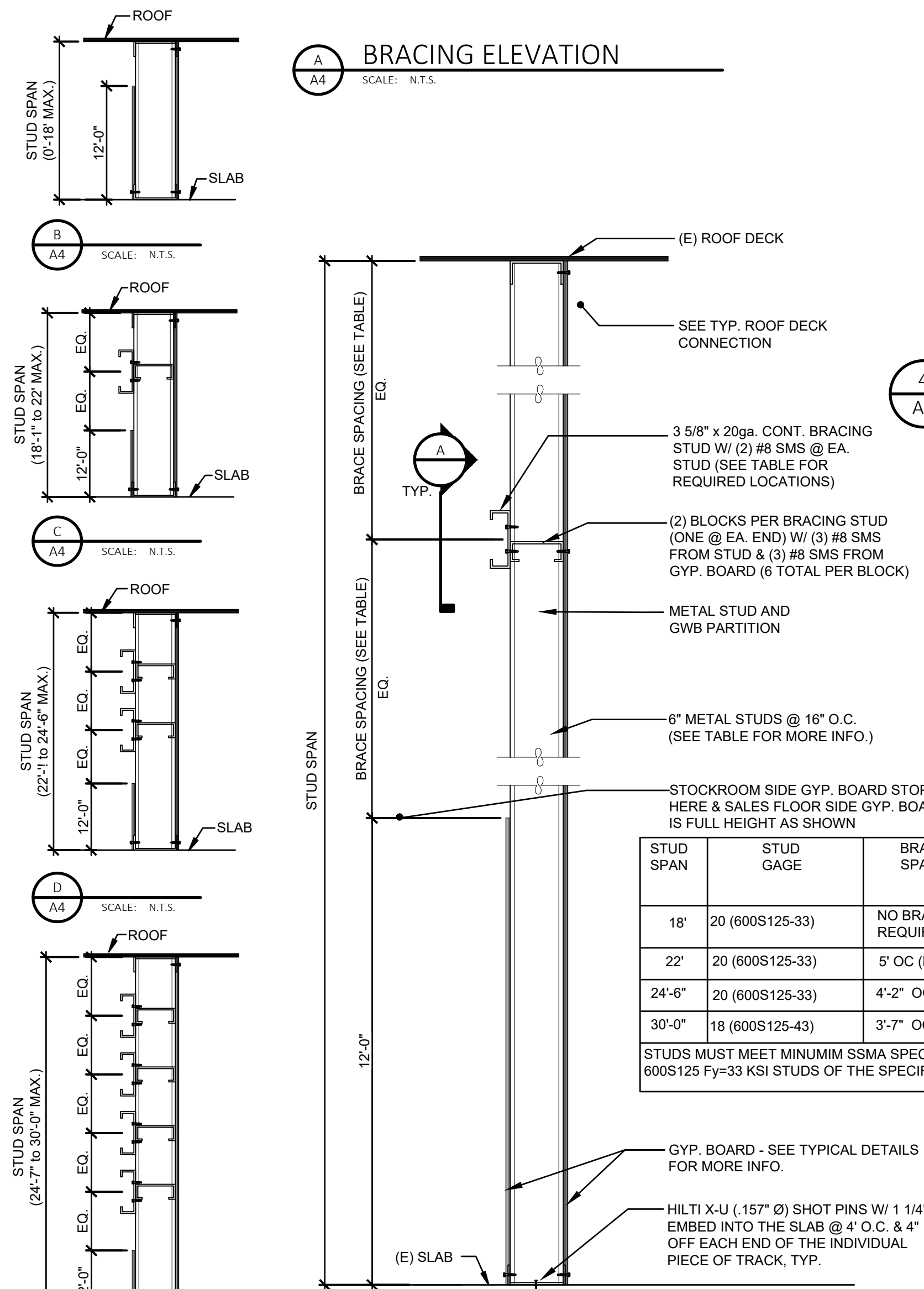
1 CEILING DETAIL @ TOILET/HALLWAY
SCALE: 1 1/2" = 1'-0"



2 DEFLECTION TRACK ROOF CONNECTION DETAIL
SCALE: 1/4" = 1'-0"



3 BRACING ELEVATION
SCALE: N.T.S.



4 WALL SECTION
SCALE: 1" = 1'-0"

SPACE NAME	FLOOR		BASE	WALLS		CEILING	NOTES
	MATERIAL	FINISH		MATERIAL	FINISH		
SALES	EXIST CONC	ENTRY CARPET TILE POLISHED CONC	4" VINYL	GWB	PT-2 FRP TO 4'-0" AFF	ACT	1, 3, 4, 5, 7, 11, 12, 14
PRE-SALES	EXIST CONC	SEALED CONC	-	GWB	-	-	3, 5, 6, 10, 15
OFFICE	EXIST CONC	POLISHED CONC	4" VINYL	GWB	PT-1	-	3, 5, 7, 8, 12, 14
TOILET 1	EXIST CONC	SHEET VINYL	6" SHEET VINYL	WR GWB	FRP	WR GWB PT-1	3, 5, 8, 9
TOILET 2	EXIST CONC	SHEET VINYL	6" SHEET VINYL	WR GWB	FRP	WR GWB PT-1	3, 5, 8, 9
HALLWAY	EXIST CONC	POLISHED CONC	4" VINYL	GWB	PTD WHITE (BY TC)	ACT	3, 4, 5, 7
EMPLOYEE AREA	EXIST CONC	-	-	FR PLYWOOD	PT-3	-	6, 9

NO.	TYPE	DOOR			DETAILS			FR	HDW	NOTES
		W	H	T	MATERIAL	HEAD	JAMB			
100	-	3'-0"	6'-8"	1 3/4"	SC WOOD	4/A4	4/A4	-	-	100C 1, 2, 3
200	-	PR 3'-0"	7'-0"	.063"	ALUM/ACRYLIC	5/A4	5/A4	-	-	200A 3, 5, 9, 11
300	-	3'-0"	6'-8"	1 3/4"	SC WOOD	4/A4	4/A4	-	-	300C 1, 2, 3, 8, 12
401	EXTG	3'-0"	7'-0"	1 3/4"	HM	EXIST	EXIST	EXIST	-	400B 2, 4, 10, 15
402	EXTG	3'-0"	7'-0"	1 3/4"	HM	EXIST	EXIST	EXIST	-	400B 2, 4, 10, 16
500	-	PR 3'-0"	7'-0"	1 3/4"	ALUM/GLASS	EXIST	EXIST	EXIST	-	500A 2, 4, 6, 7
600	-	3'-0"	7'-0"	1 3/4"	HM	F/A4.2	G/A4.2	H/A4.2	-	400B 2, 3, 4, 10
700	EXTG	8'-0"	8'-0"	-	EXIST	EXIST.	EXIST	EXIST	-	700

PAINT FINISHES/SPECS				
TAG	MANUF/COLOR	FINISH	COATS	BASE PRODUCT
PT-1	SHERWIN WILLIAMS WHITE W/8-1 PER GALLON	SEMI-GLOSS ENAMEL	2	SHERWIN WILLIAMS PRO 200 LATEX
PT-2	SHERWIN WILLIAMS "SORBET YELLOW" #2019-60	EGGSHELL	2	SHERWIN WILLIAMS PRODUCT 274
PT-3	SHERWIN WILLIAMS "FOREST GREEN" #2047-10	EGGSHELL	2	SHERWIN WILLIAMS PRODUCT 274
PT-4	SHERWIN WILLIAMS "TRUSTY TAN" #3V6087 LRV 37%	SATIN FINISH	2	*IF SALES FLOOR HAS OPEN CEILING, PAINT 12'-0" AFF AND ABOVE
PT-8	BENJAMIN MOORE "BM DT WHITE"	SEMI-GLOSS	2	TOUGH SHIELD ACRYLIC GLOSS - TY 43

- FINISH NOTES**
- CARPET TILE: MANUFACTURED BY INTERFACE FLOORING SYSTEMS, TENANT SUPPLIED/CONTRACTOR INSTALLED. INSTALL TILES QUARTER TURNED AND PER TENANT'S CRITERIA. ENTRY TILE: DECO RIB, STYLE #678609900. TENANT'S CONTRACTOR SHALL PREPARE FLOOR SURFACE AND COORDINATE CARPET INSTALLATION W/ CARPET INSTALLER.
 - NOT USED.
 - VINYL COVE BASE: 4" H TOPSET COVE VINYL - ARMSTRONG BLACK. VINYL BASE ON EXPOSED AREAS ONLY. VINYL BASE ONLY ON EXPOSED WALLS IN SALES AREA (NOT BEHIND GONDOLAS AND FREEZERS/COOLERS). VINYL COVE BASE TO BE INSTALLED IN PRE-SALES AT MOP SINK AND CABINET ONLY.
 - PROVIDE 2'-0" x 4'-0" CEILING TILE EQUAL TO ARMSTRONG "CORTEGA" MINABOARD #769, WHITE, IN A WHITE METAL GRID. (IN AREAS W/ SIGNIFICANT AIR PRESSURE DIFFERENTIALS PROVIDE RETENTION CLIPS TO RETAIN PANELS IN PLACE.) REFER TO SHEET A2 FOR HEIGHT.
 - FRP (FIBERGLASS REINFORCED PANEL) - GLASBOARD #85 - WHITE W/ PEBBLED EMBOSSED FINISH, BY CRANE COMPOSITES OR EQUAL. IN TOILET ROOMS FROM FLOOR TO 8'-0" AFF, SHALL BE WHITE IN COLOR. FRP TO 8'-0" AFF IN PRESALES BEHIND MOP SINK & UTILITY CABINET ONLY. FRP AT SALES/HALLWAY TO 4'-0" AFF (WHERE NOTED ON ELEV) SHALL BE ALMOND COLOR AND FINISHED WITH "H" CHANNEL TRIM CAP AND "H" CHANNEL PANEL CONNECTIONS.
 - EXISTING CONCRETE FLOOR TO REMAIN. PATCH & REPAIR, AS REQUIRED, TO PROVIDE A SMOOTH SURFACE. APPLY CLEAR ACRYLIC SEALER BY MASTERKURE, CC 3005B, OR DTS APPROVED SUBSTITUTE.
 - POLISH CONCRETE FLOOR PER MANUFACTURER SPECIFICATIONS BY TENANT VENDOR. COORDINATE WITH TENANT.
 - HOLLOW METAL DOORS AND FRAMES TO BE PRIMED AND PAINTED IN FIELD WITH 1 COAT PRIMER AND 2 COATS COLOR TO MATCH WALL SURFACE OF DOOR FACING.
 - SHEET VINYL: ARMSTRONG CONNECTION CORLON "PORCELAIN" #88724 OR EQUAL. SHEET VINYL BASE BY INTERGRAL, 3/8" RADIUS, 6" HIGH COVED BASE WITH COVE STICK AND EXTRUDED ALUMINUM CAP TRIM.
 - PAINT 6" W BAND ON FLOOR AROUND PERIMETER OF PRE-SALES, TWO COATS, PT-8. PAINT BAND PRIOR TO PAINTING ANY YELLOW "CLEAR FLOOR SPACE" AREAS.
 - NOT USED.
 - SALES AREA TO RECEIVE LEVEL 4 FINISH. PROVIDE FINISH TO 1'-0" BEHIND FREEZERS/COOLERS AND GONDOLAS. TO FF EVERYWHERE ELSE. CONTRACTOR SHALL ALLOW 72 HOUR CURE TIME.
 - NOT USED.
 - SLATWALL: 3/4" SLATWALL W/ WHITE MELAMINE FINISH. SEE MANUFACTURER'S DRAWINGS FOR INSTALLATION DETAILS. SLATWALL PROVIDED BY TENANT, INSTALLED BY TENANT CG.
 - WALK-IN FREEZER/COOLER FLOORS: MODEL: HAND-TRUCK FLOOR PANELS MODEL #HTFN (NSF) CONSTRUCTION: 3 1/2" HIGH DENSITY URETHANE W/ DAL TILE QUARRY TILE, SEALER & GROUT AT INTERIOR OVER 1/2" PLYWOOD W/ METAL AT EXTERIOR.

DOOR NOTES

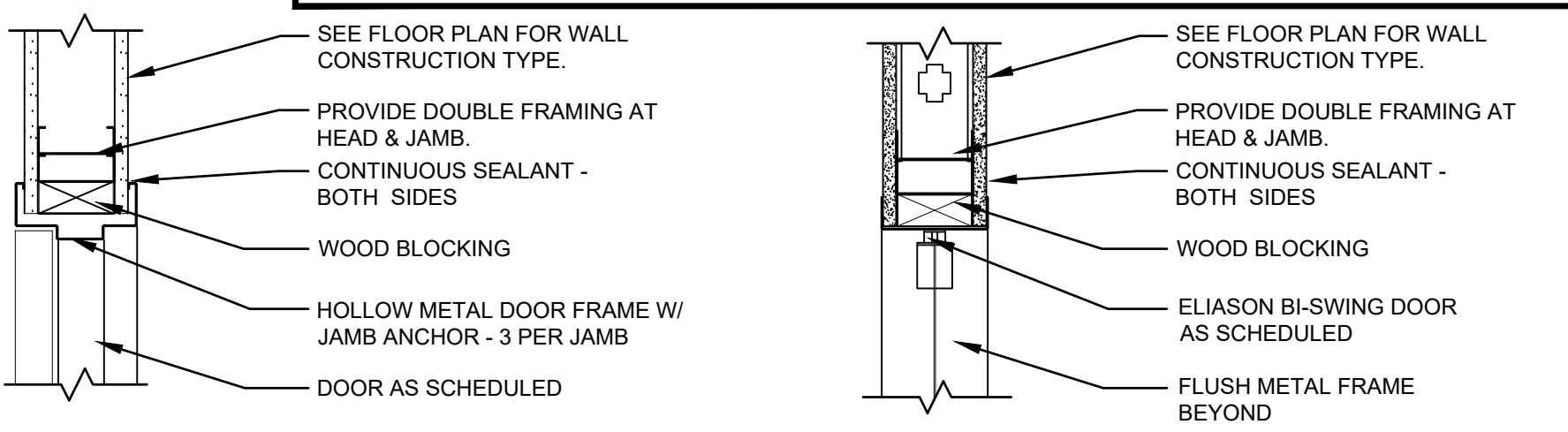
- ALL EXTERIOR DOORS, FRAMES, CASED OPENINGS, AND HARDWARE MATERIAL ARE EXISTING/BY THE LANDLORD.
- DOOR TO MEET ICC/ANSI, A117.1 DOOR OPENING PRESSURE GUIDELINES, MAX 5 LBS (INTERIOR DOORS) AND 10-15 LBS (EXTERIOR DOORS).
- PAINT DOORS AND FRAMES W/ WHITE SEMI-GLOSS ENAMEL AT ALL INTERIOR SURFACES. EXTERIOR DOORS SHALL MATCH EXISTING BUILDING COLOR AT ADJACENT EXTERIOR SURFACES.
- CONTRACTOR TO PROVIDE AND INSTALL DOOR SWEEP ON ALL EXTERIOR DOORS TO PREVENT WATER, WIND AND DEBRIS INFILTRATION.
- ELIASON DOOR: GC IS RESPONSIBLE FOR INSTALLING ELIASON DOOR AND HARDWARE. PREVENT METAL ON METAL CONTACT. ELIASON DOORS TO BE FACTORY FINISHED PER DOOR SCHEDULE.
- PROVIDE NYLON WASHER/GROMMETS AT THE DOOR HANDLES AND CRASH BARS TO PREVENT METAL ON METAL CONTACT.
- 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.
- INSTALL TENANT SUPPLIED SIGNAGE PER DETAIL C/A4.1.
- INSTALL TENANT SUPPLIED SIGNAGE THAT READS "EMPLOYEES ONLY."
- PROVIDE SIGNAGE THAT READS "EMERGENCY EXIT ONLY".
- NEW DOORS - SUPPLIED BY TENANT W/ PRE-INSTALLED BRUSH ALUM COVER PLATE ON SALES SIDE OF THE DOOR. EXISTING DOORS - INSTALL ALUM COVER PLATE (SUPPLIED BY TENANT) ON EXISTING DOORS TO REMAIN.
- MOUNT TENANT SUPPLIED COAT HOOK AT 48" AFF ON BACK SIDE OF DOOR.
- DOOR TO RECEIVE 24"x14" RETURN GRILLE.
- REINFORCE JAMBS WITH WOOD BLOCKING.
- TACTILE EXIT SIGNAGE SHOULD STATE "NOT AN EXIT" - SEE DETAIL D/A4.2 SIM.
- TACTILE EXIT SIGNAGE SHOULD STATE "NOT AN ACCESSIBLE EXIT" - SEE DETAIL D/A4.2 SIM.

HARDWARE NOTES

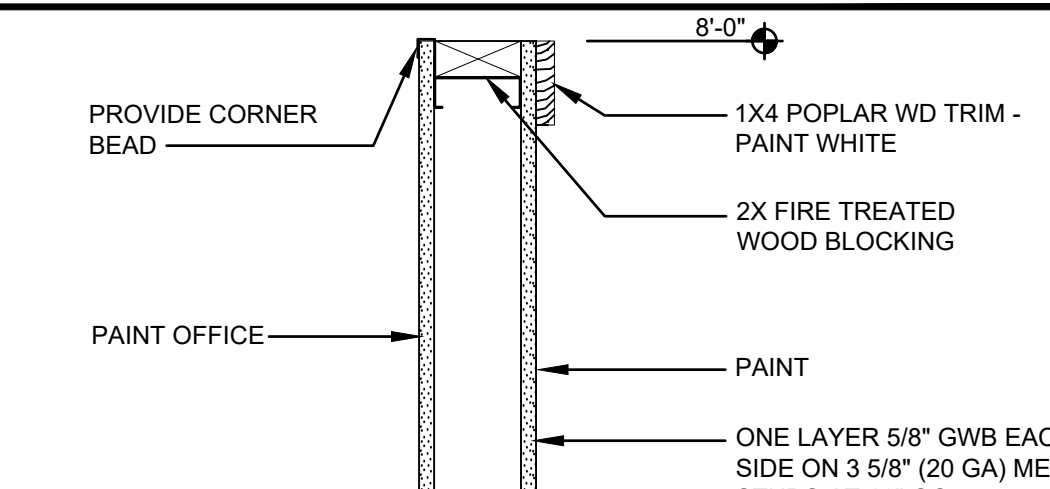
- THRESHOLDS AT EGRESS DOORS SHALL BE NO MORE THAN 1/2" (MAX) HEIGHT AFF.
- ALL DOOR HANDLES, PULLS, LATCHES, LOCKS AND OTHER OPERATING DEVICES SHALL BE INSTALLED 34" (MIN) TO 48" (MAX) AFF AND SHALL BE "SINGLE-HANDED" OPERABLE WITHOUT USE OF KEY OR SPECIAL KNOWLEDGE.
- WHERE EGRESS DOORS ARE USED IN 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.
- ALL EXTERIOR DOORS, FRAMES AND HARDWARE ARE TO BE EXISTING BY LANDLORD, PER TENANT HARDWARE SCHEDULE. PROVIDE AND INSTALL ANY MISSING HARDWARE AS REQUIRED.
- ALL DOOR HARDWARE SHALL COMPLY WITH CURRENT ACCESSIBILITY GUIDELINES (CURRENT EDITION OF ICC/ANSI, A117.1).

HARDWARE

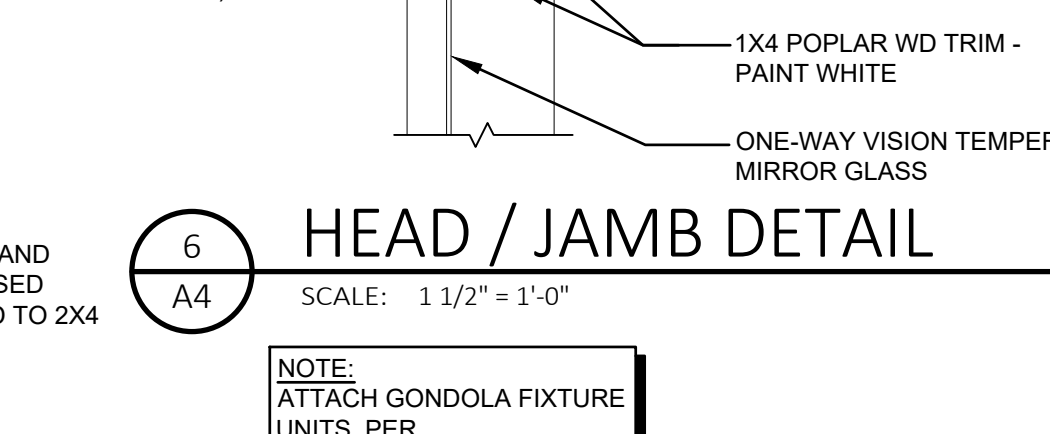
- HDW # 100C
1 1/2" PAIR HINGES: STANDARD WEIGHT, NON-REMOVABLE PINS
1 MECHANICAL PUSH BUTTON LOCKSET W/ LEVER HANDLE
1 CLOSER
1 PEEP HOLE @ 4'-3" AFF (TENANT SUPPLIED/TENANT GC INSTALL)
1 FLOOR STOP
- HDW # 200A (BY ELIASON DOOR, ELIASON EAST SWING DOOR SYSTEM, MODEL: LWP-3)
- HDW # 300C
1 1/2" PAIR HINGES: STANDARD WEIGHT
1 PRIVACY SET WITH LEVER HANDLE
1 CLOSER
FLOOR/WALL STOP
- HDW # 400B
1 1/2" PAIR HINGES: 4 1/2" HEAVY WEIGHT, NON-REMOVABLE PINS
1 NON-ALARMED, NON-KEYED PANIC BAR DEVICE
1 CLOSER
1 ALUM THRESHOLD (1/2" MAX HEIGHT)
1 SWEEP
1 WEATHER STRIP
1 RAIN DRIP
STAND ALONE ALARM-REFER TO B/A4.1 (TENANT SUPPLIED/TENANT GC INSTALL)
- HDW # 500A
HINGES PER STOREFRONT MANUFACTURER
1 ALUM THRESHOLD (1/2" MAX HEIGHT)
2 PUSH PLATES & BAR
2 PULL HANDLES
COMMERCIAL GRADE DEADLOCK W/ THUMB TURN ON SALES SIDE
2 CLOSERS W/ STOP ARM
KABA CYLINDER (TENANT SUPPLIED, TENANT GC INSTALL)
- CONTRACTOR SHALL VERIFY THAT EXISTING CLOSER DOES NOT HAVE HOLD-OPEN FEATURE. REPLACE WITH NEW CLOSER AS REQUIRED.
- HDW # 700
PROVIDE HASP AND LOCK
EXISTING HARDWARE TO REMAIN
DOOR TO BE INSPECTED PRIOR TO STORE OPENING



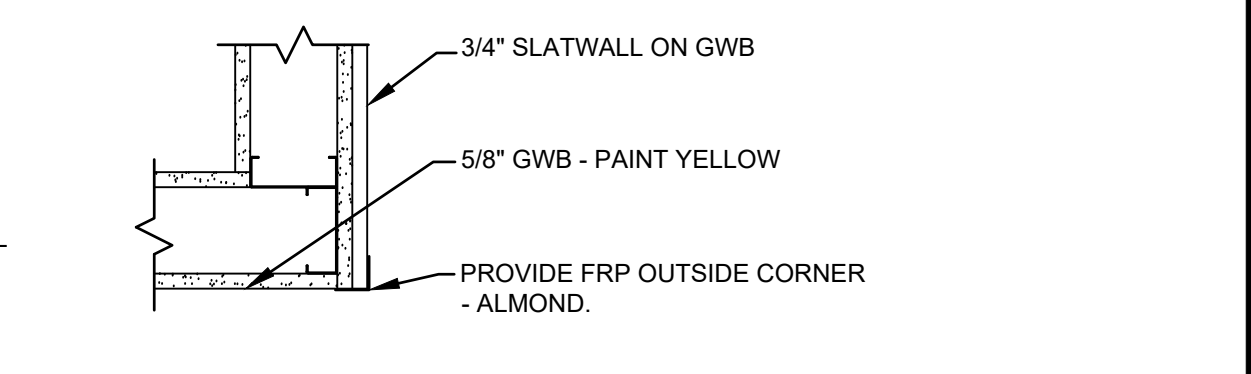
4 HEAD / JAMB DETAIL
SCALE: 1 1/2" = 1'-0"



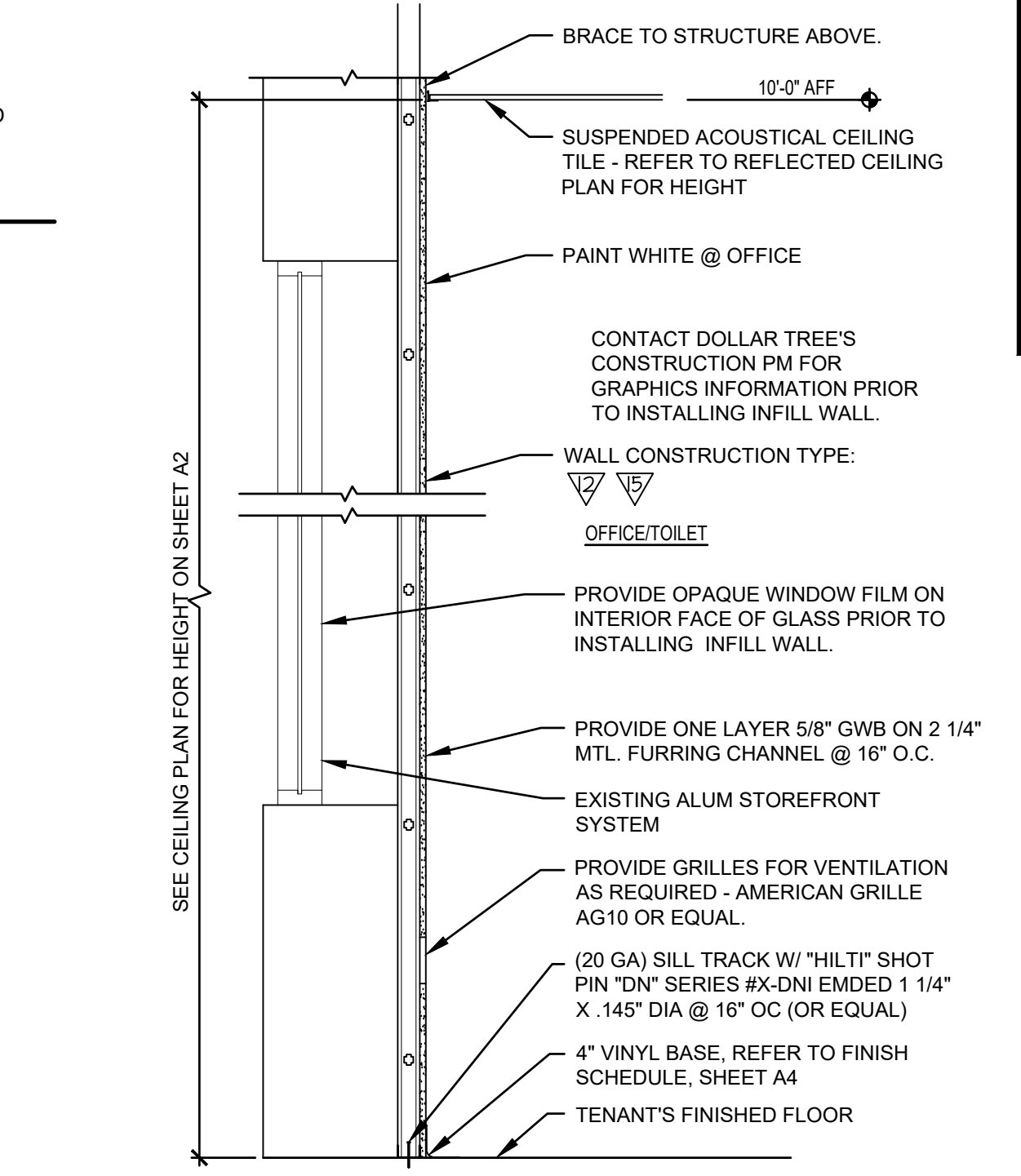
5 HEAD / JAMB DETAIL
SCALE: 1 1/2" = 1'-0"



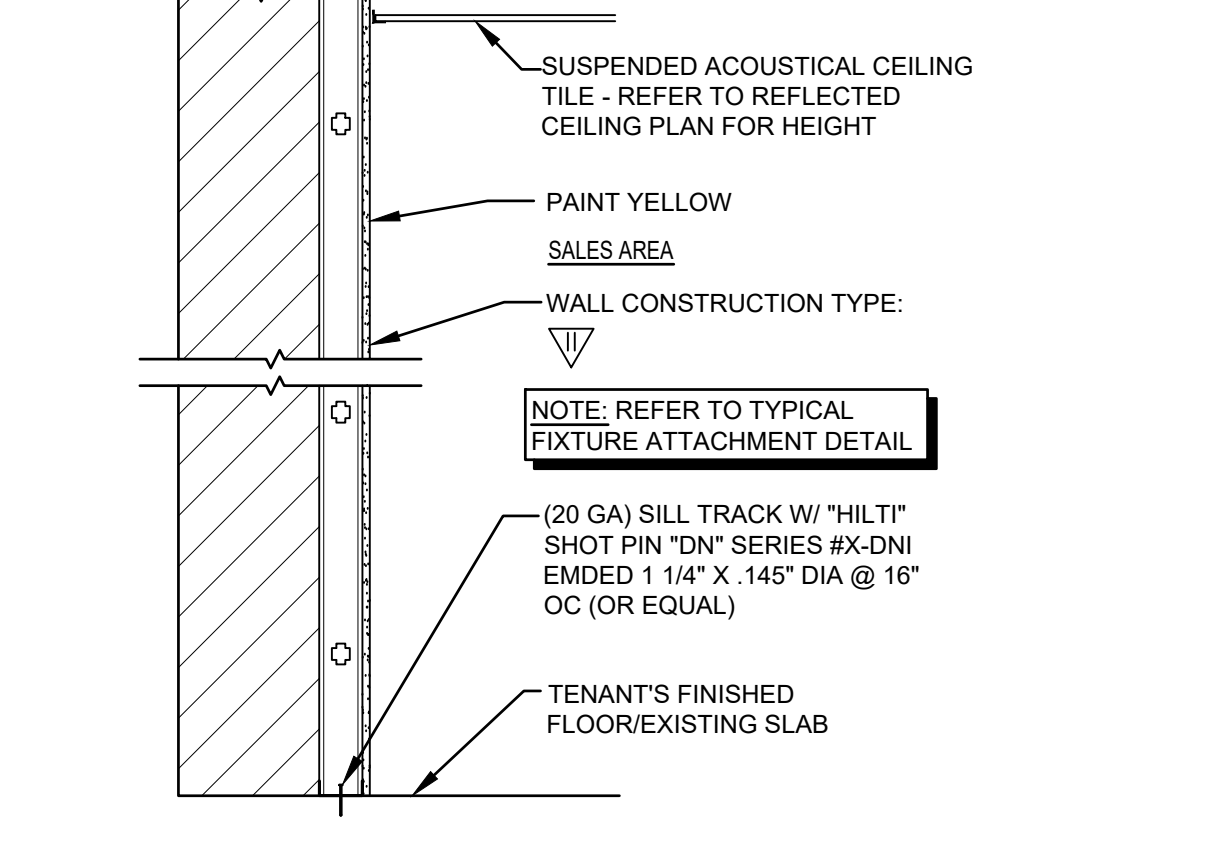
6 HEAD / JAMB DETAIL
SCALE: 1 1/2" = 1'-0"



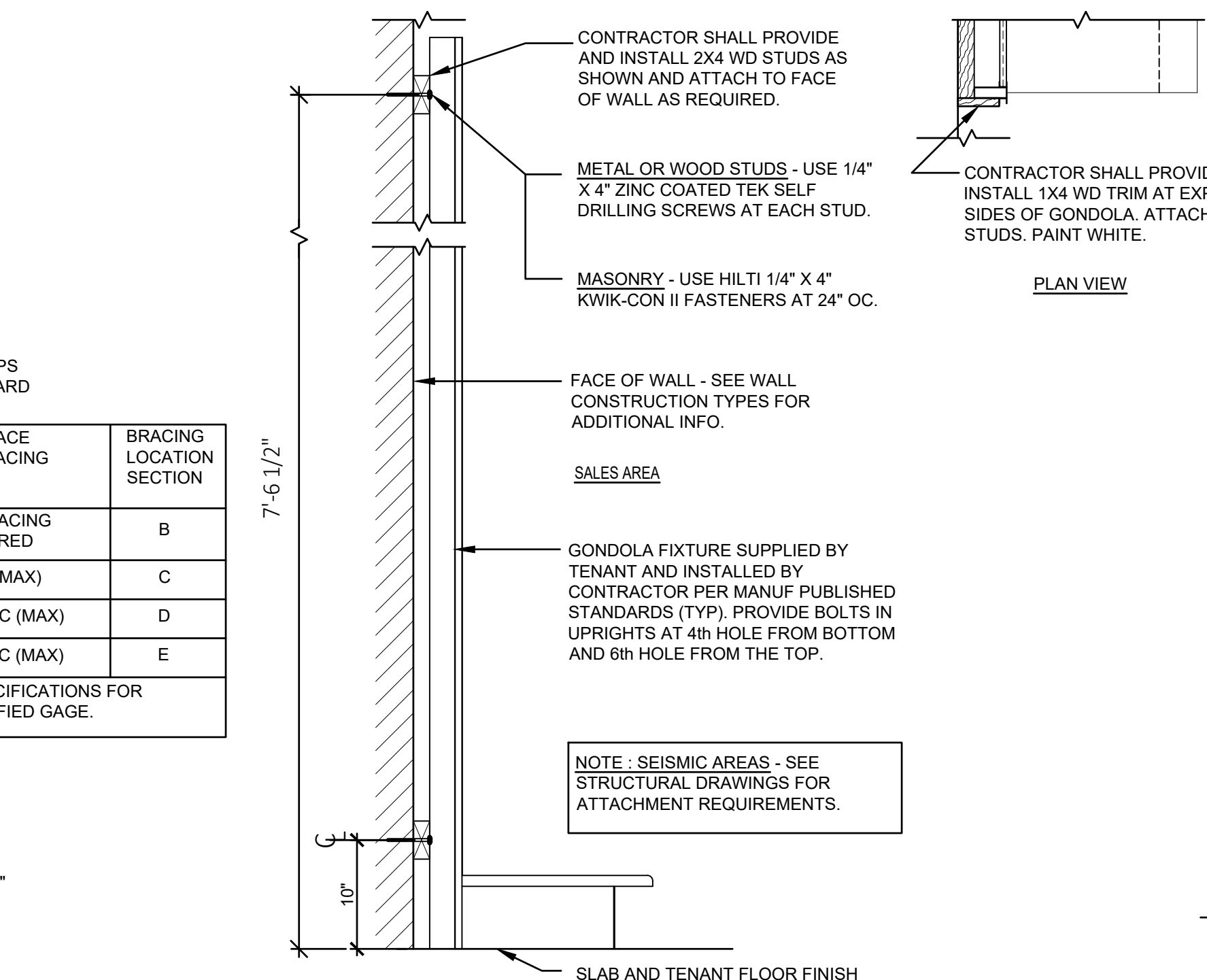
7 DETAIL
SCALE: 1 1/2" = 1'-0"



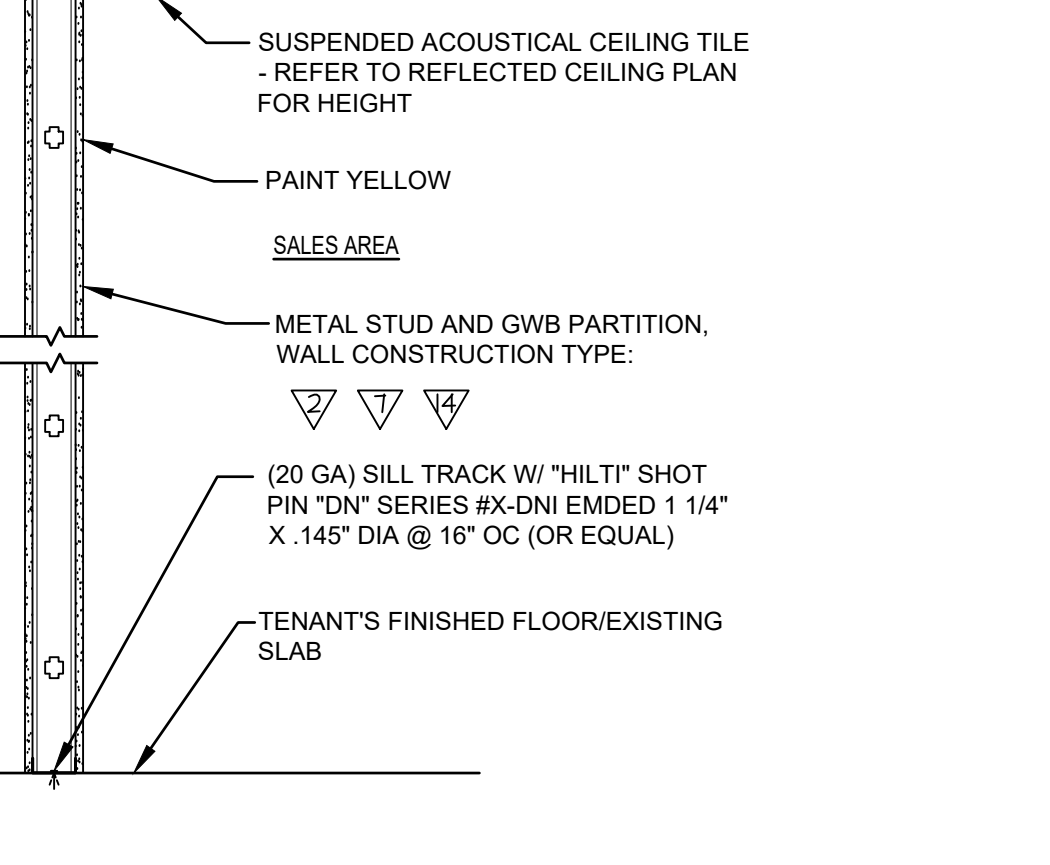
9 WALL SECTION - CONSTRUCTION TYPE 9
SCALE: 3/4" = 1'-0"



11 WALL SECTION - CONSTRUCTION TYPE 11
SCALE: 1" = 1'-0"



8 TYPICAL FIXTURE ATTACHMENT DETAIL
SCALE: 1" = 1'-0"



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

CASCO
12 Summit Drive, Suite 100, St. Louis, MO 63143 T: 314.821.1100

CLARIFICATION description

JLB by

08/25/2022 date

mark revisions

08/01/22 date

280227 project

XXX designed

XXX draw

XXX checked

CASCO DIVERSIFIED CORPORATION ARCHITECTURAL FIRM LICENSE #000329 EXPIRES 12/31/23

PROFESSIONAL OF RECORD

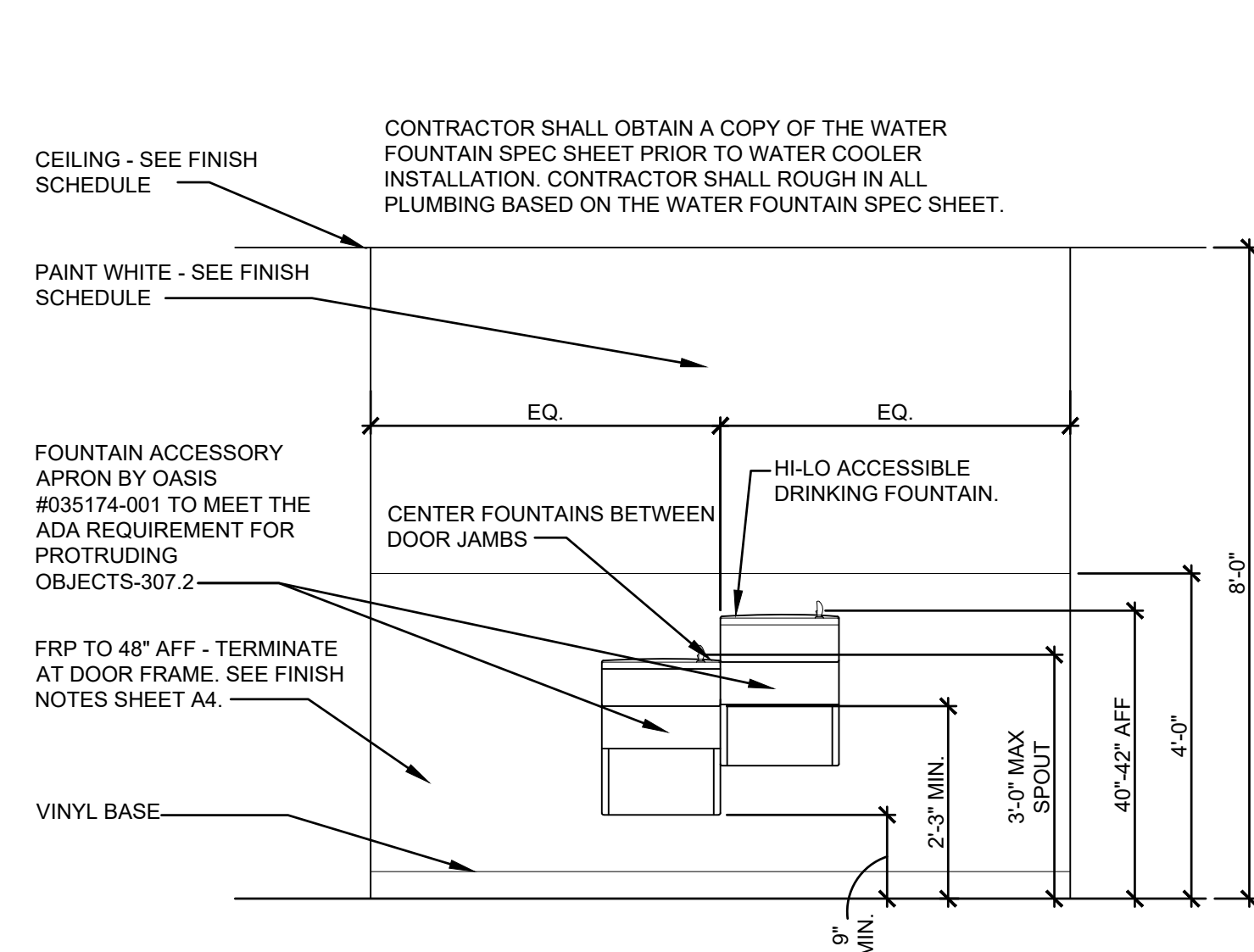
Carol M. Stevenson License No. 008611 Expiration Date: 12-31-22 PHONE: 314.821.1100

DOLLAR TREE
HOBBY LOBBY CENTER 2225 MISSOURI BLVD., JEFFERSON CITY, MO 65109

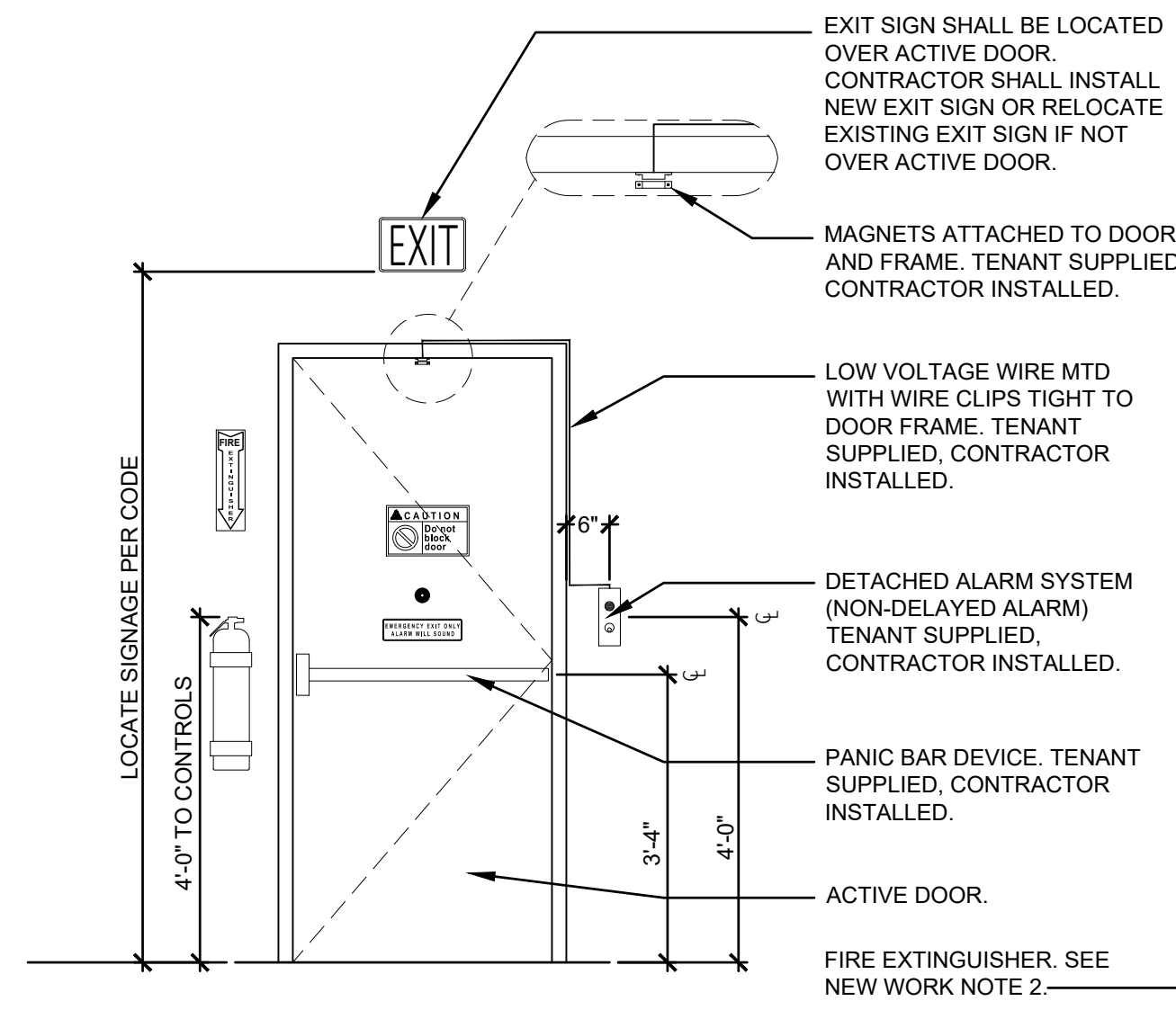
project drawing

DETAILS, SECTIONS & SCHEDULES

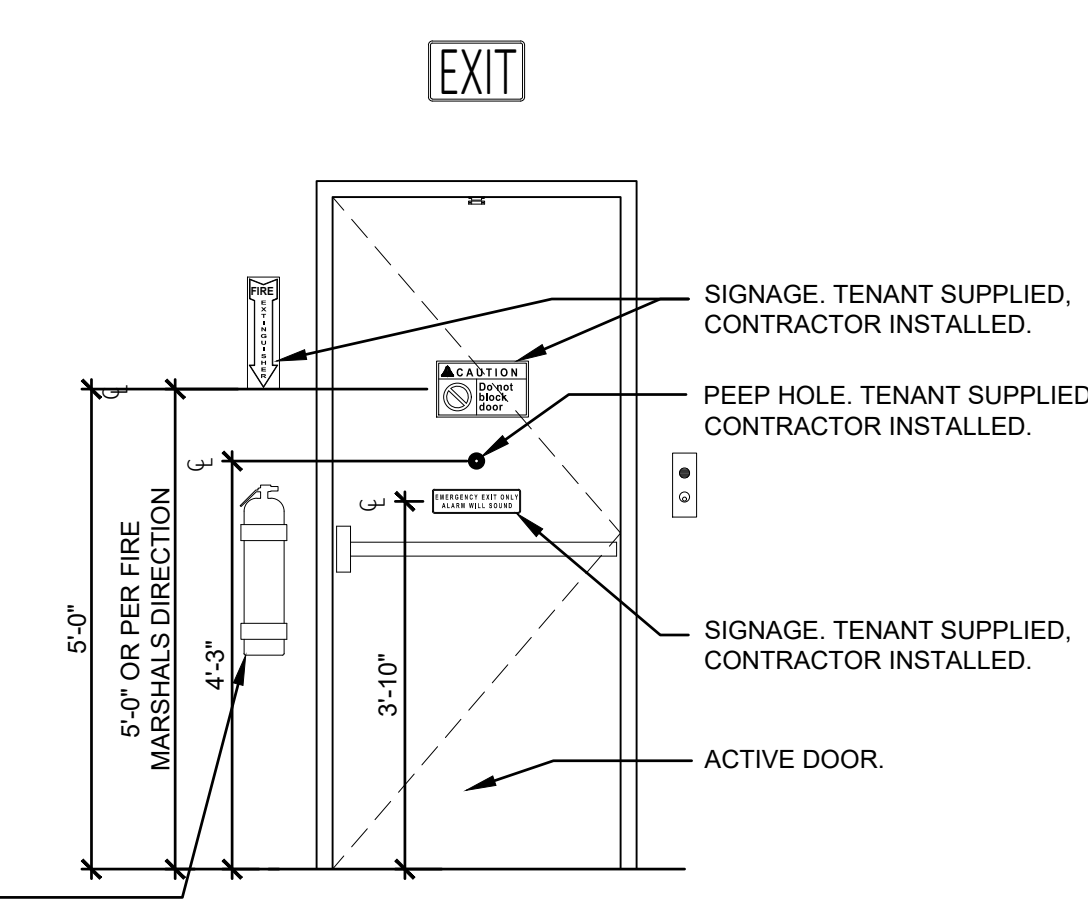
A4



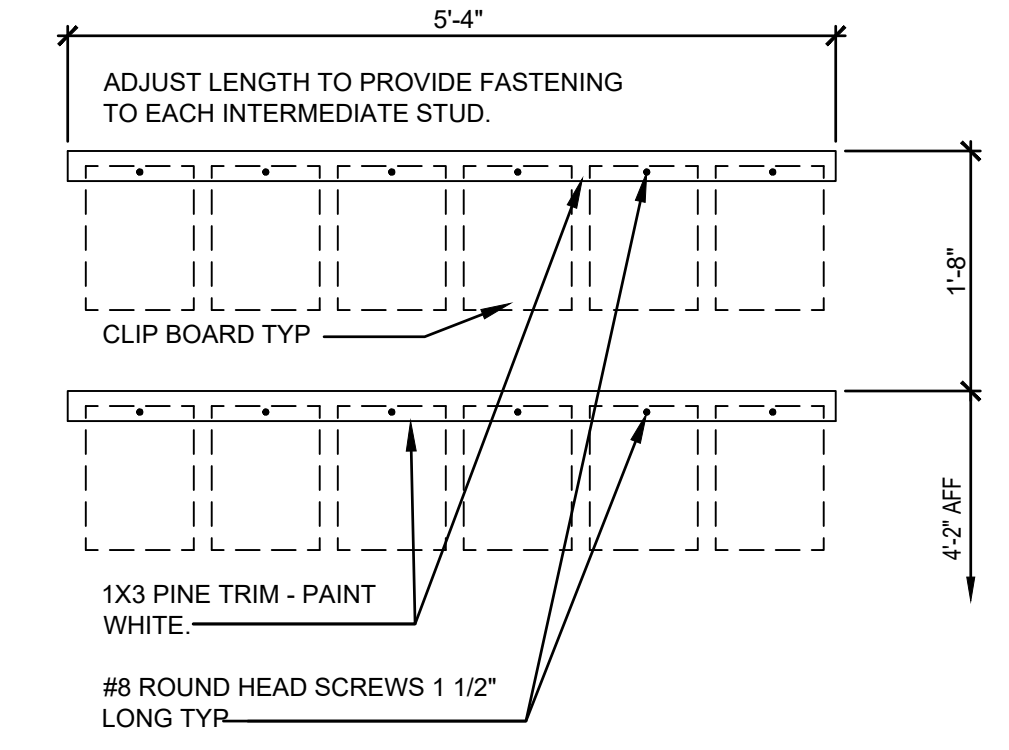
A WATER FOUNTAIN ELEVATION
A4.1 SCALE: 1/2" = 1'-0"



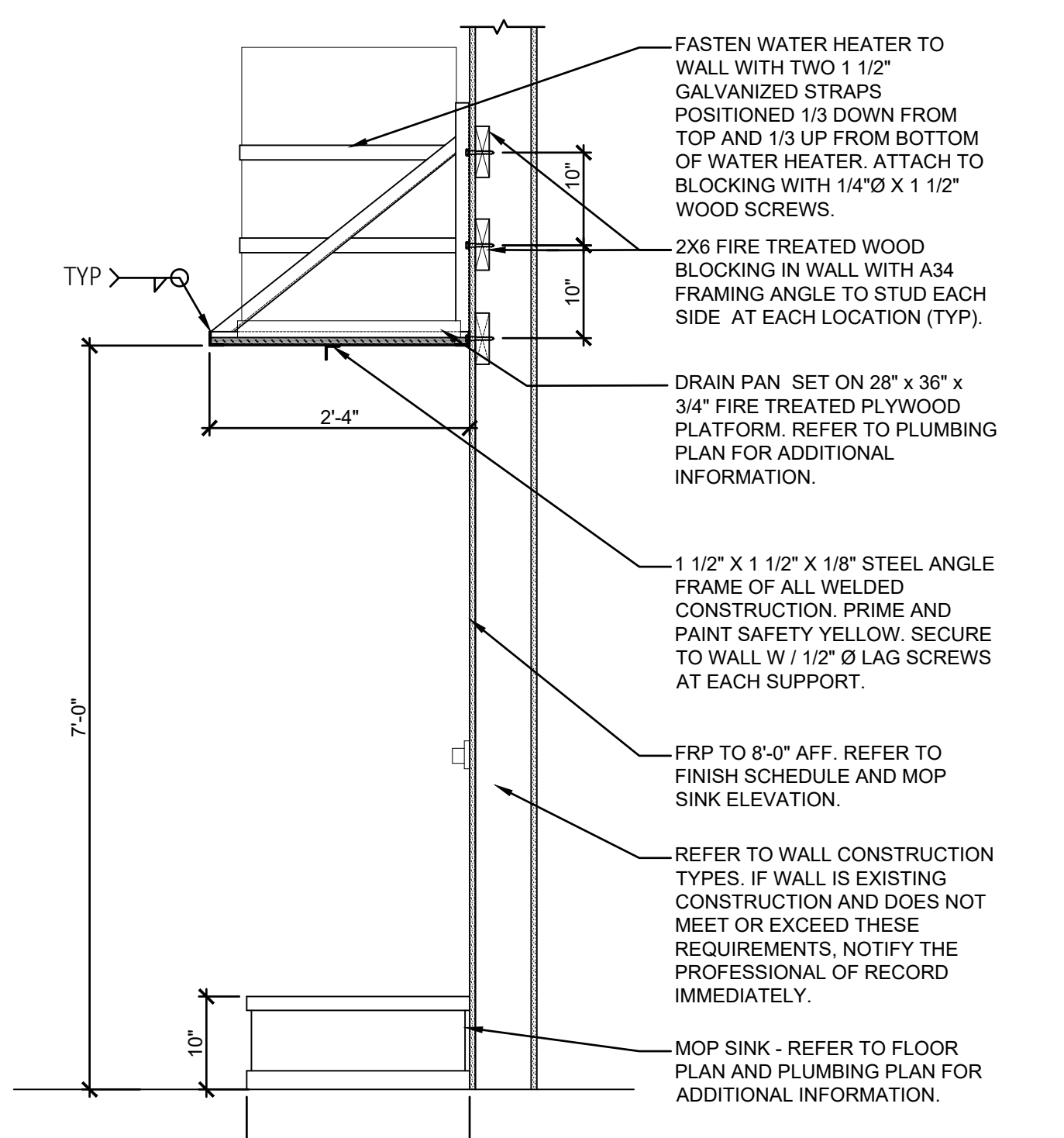
B TYPICAL REAR DOOR ELEVATION
A4.1 SCALE: 1/2" = 1'-0"



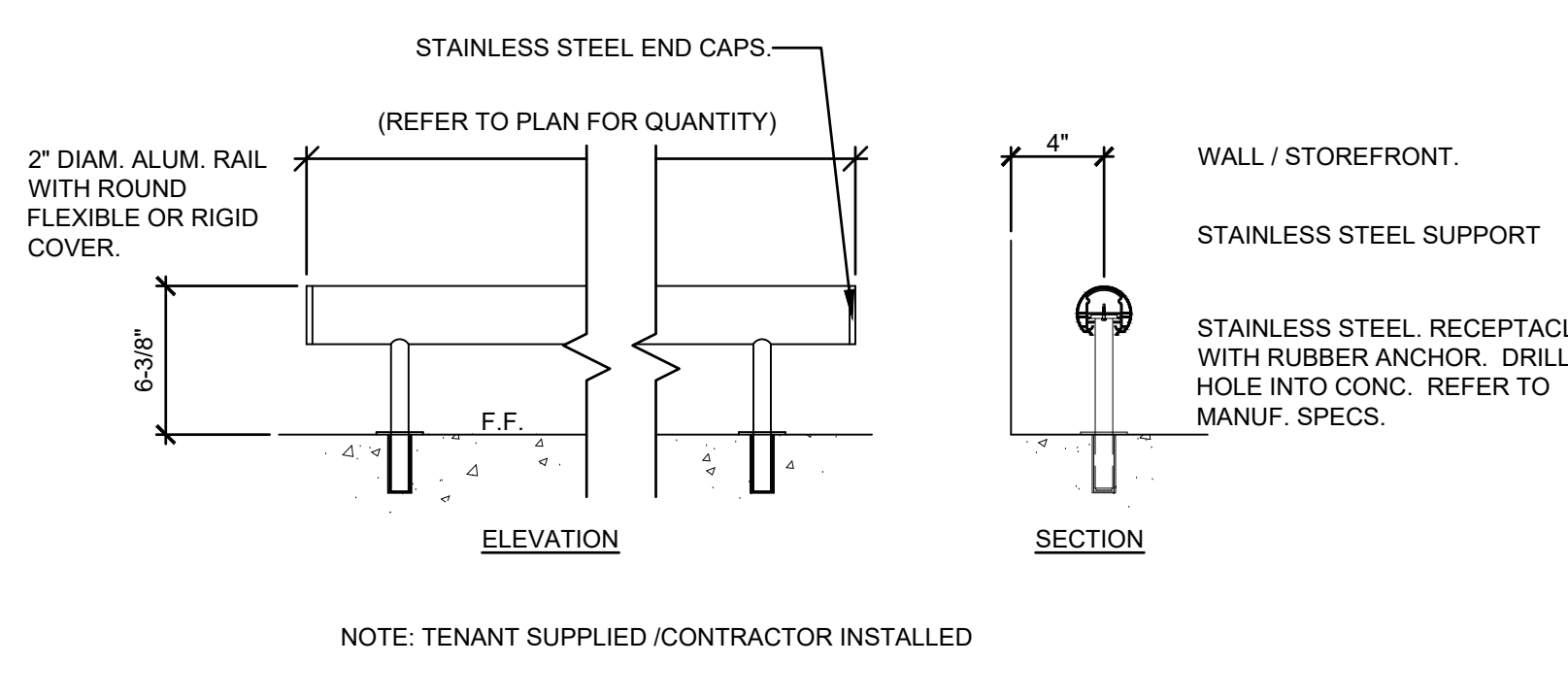
C ACCESSIBLE TOILET ROOM SIGNAGE
A4.1 SCALE: N.T.S.



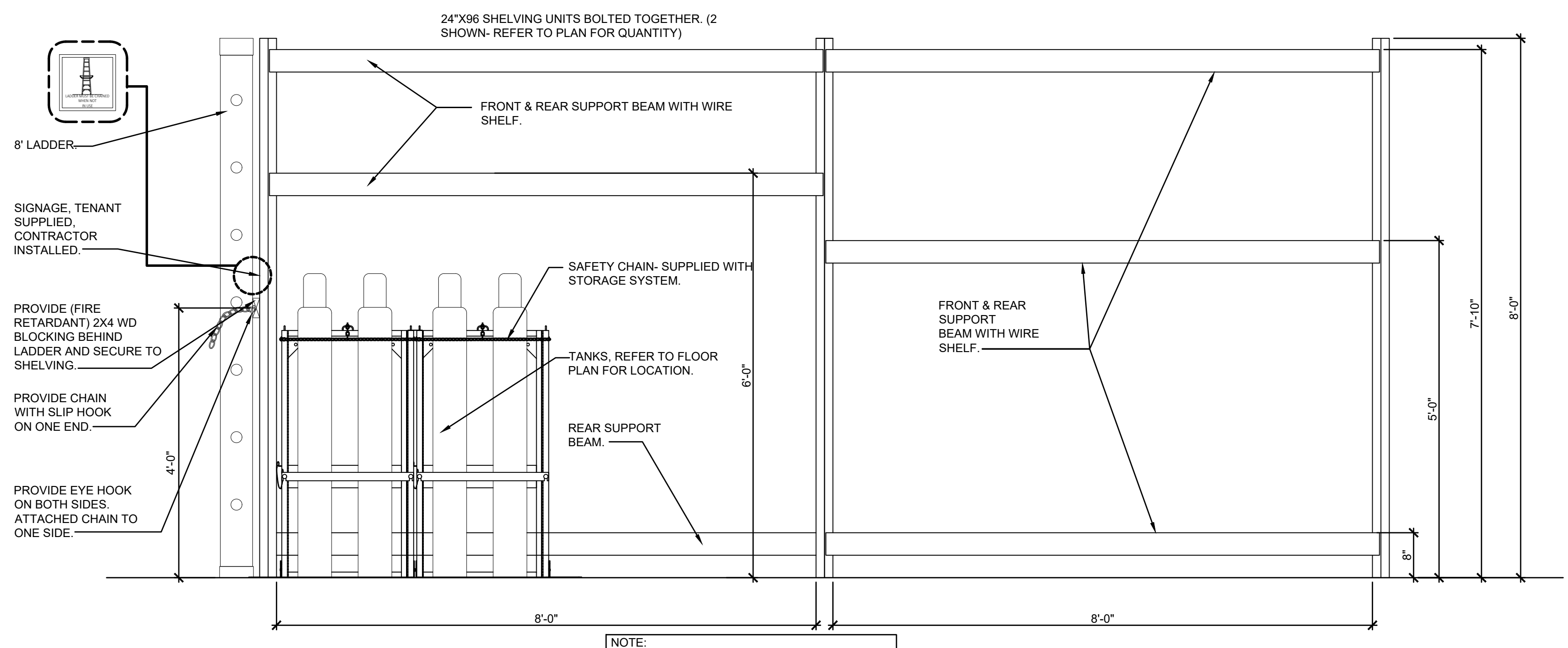
D CLIPBOARD RACK ELEVATION
A4.1 SCALE: 3/4" = 1'-0"



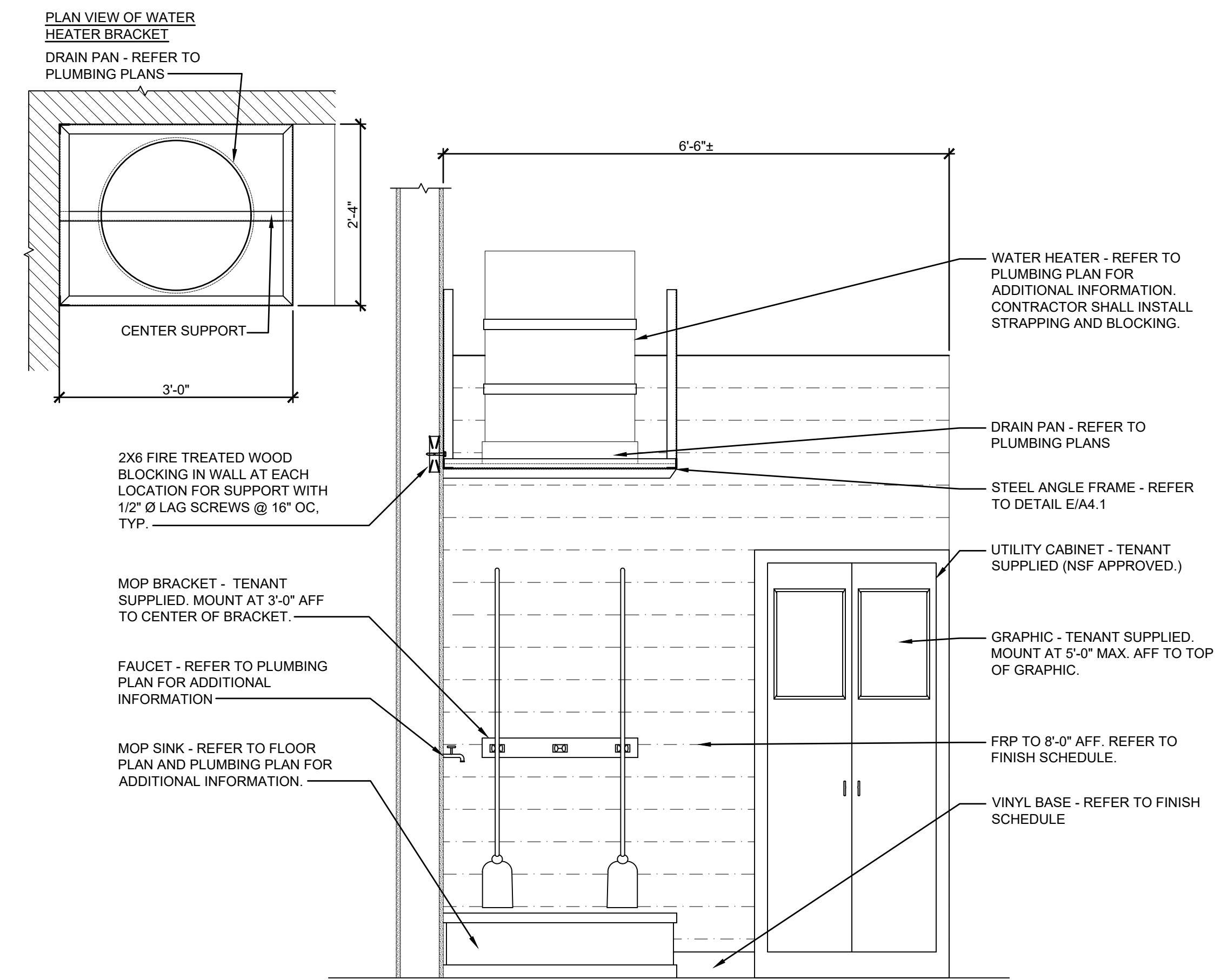
E WATER HEATER MOUNTING DETAIL
A4.1 SCALE: 3/4" = 1'-0"



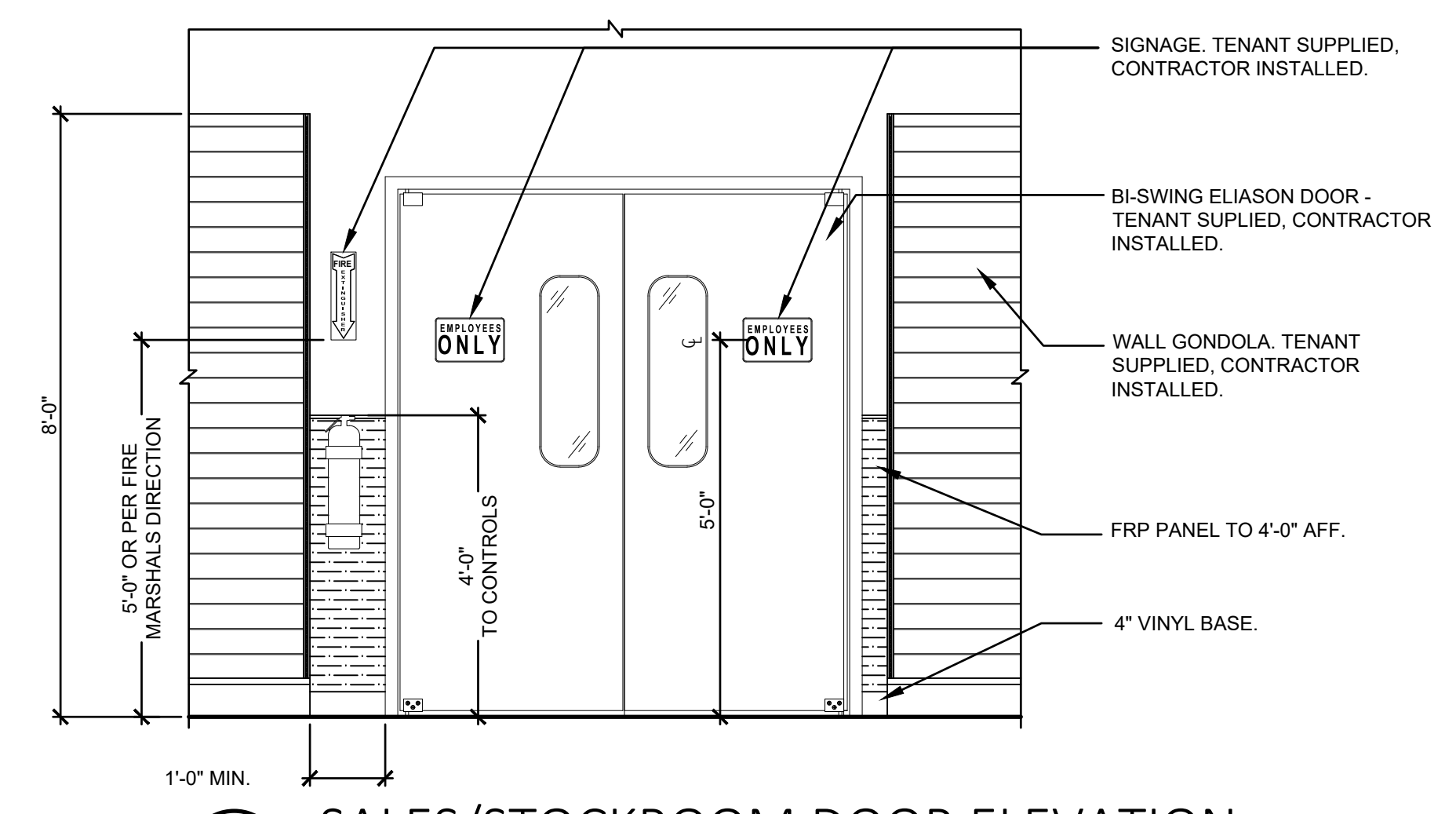
F SHOPPING CART BUMPER DETAIL
A4.1 SCALE: 1/8" = 1'-0"



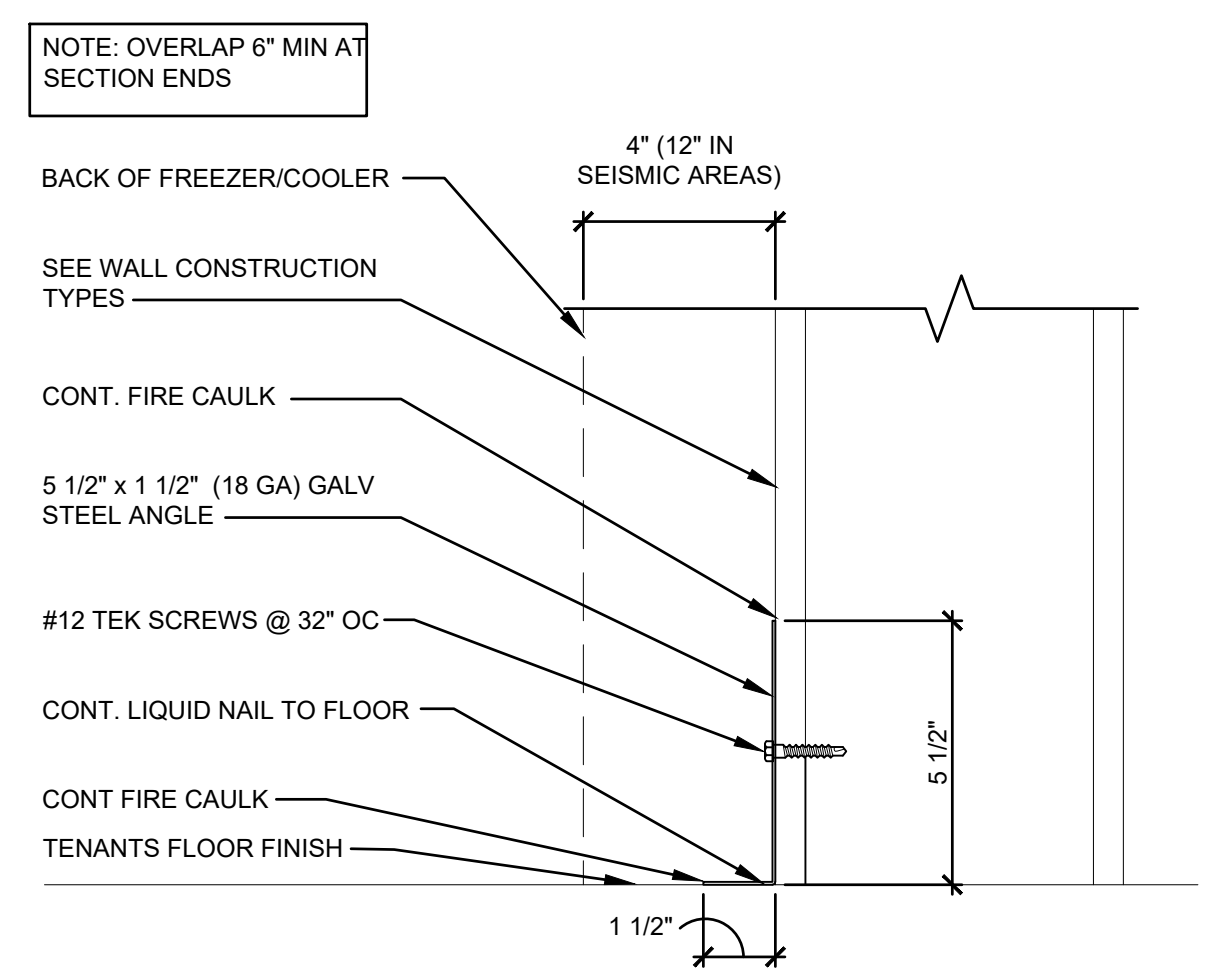
G STOCKROOM SHELVING AND HELIUM TANK BRACKET INSTALLATION
A4.1 SCALE: 3/4" = 1'-0"



H MOP SINK & UTILITY CABINET ELEVATION
A4.1 SCALE: 3/4" = 1'-0"



J SALES/STOCKROOM DOOR ELEVATION
A4.1 SCALE: 1/2" = 1'-0"



K RODENT ANGLE DETAIL
A4.1 SCALE: 3" = 1'-0"

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date	project	designed	drawn	checked	mark	date	revisions
08/01/22	220227	BKL	BKL	CJS			

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EXPIRES 12/31/23

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project **DOLLAR TREE**
HOBBY LOBBY CENTER
2225 MISSOURI BLVD., JEFFERSON CITY, MO 65109
drawing DETAILS & SECTIONS

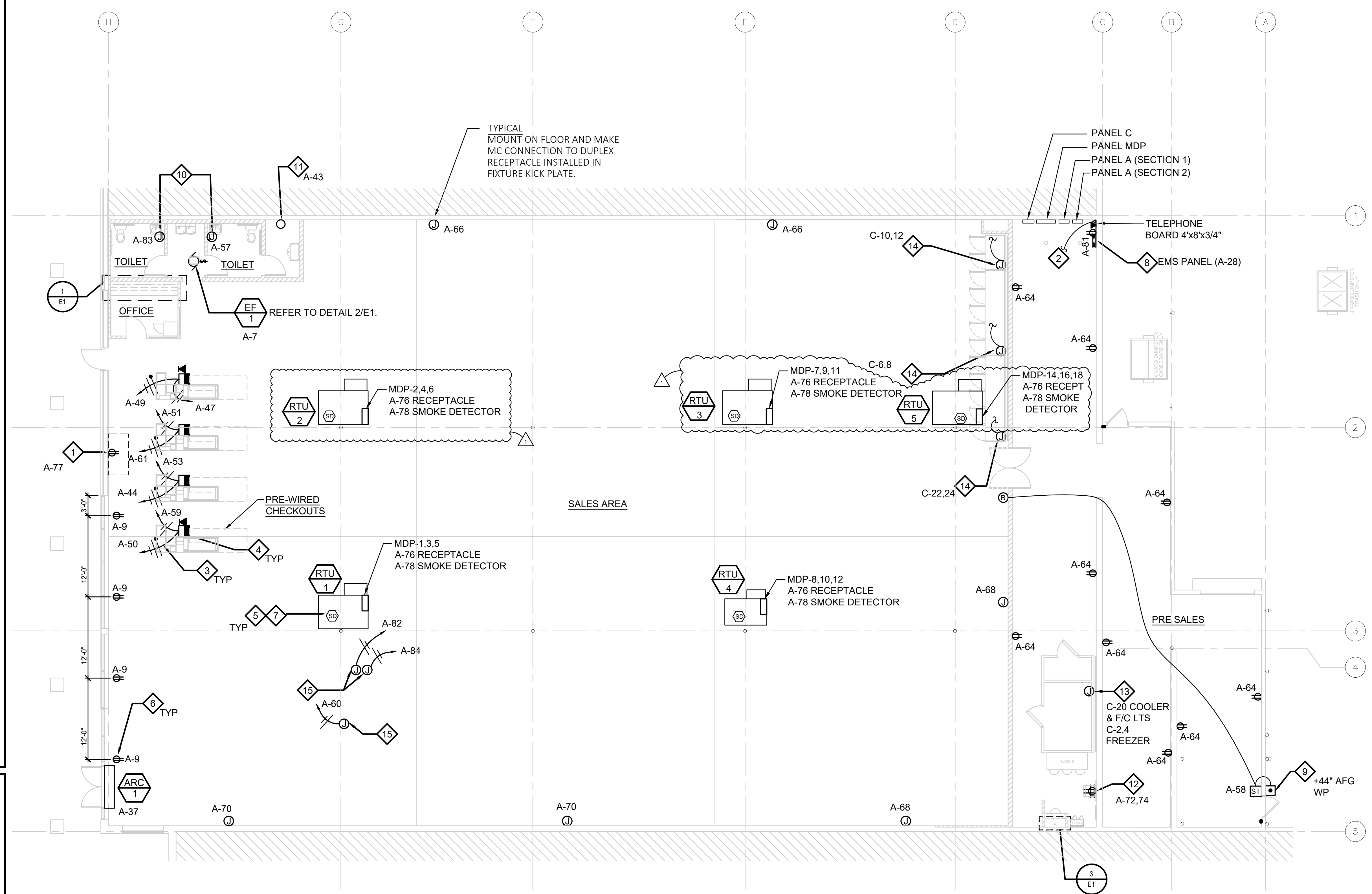
A4.1

POWER PLAN KEYED NOTES (NOT ALL USED)

- ICE MACHINE: CONTRACTOR TO COORDINATE OUTLET LOCATION WITH CORD AND PLUG.
- UTILITY CO REQUIREMENTS: CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH LANDLORD AND/OR LOCAL UTILITY CO REQUIREMENTS FOR BRINGING COMPLETE TELEPHONE SERVICE INTO TENANT SPACE.
- CASH REGISTER AND COMPUTER WIRING: DO NOT CONNECT "ISOLATED" GROUND WIRE TO RACEWAY OR BOX. CONDUIT AND BOX SHALL BE METAL AND METAL-TO-METAL CONNECTORS SHALL BE USED (NO FLEX CONDUIT). TO ESTABLISH GROUND PATH FOR BOX AND RACEWAY, DO NOT RUN ANY CIRCUITS WITH CASH REGISTER OR COMPUTER (IG) CIRCUITS. CASH REGISTER DATA SYSTEM CABLE SHALL BE FURNISHED AND INSTALLED BY OTHERS.
- TELEPOWER POLE FURNISHED WITH CHECKOUT: THREE-CHANNEL TELEPOWER POLE WITH DIVIDER FOR TELEPHONE/DATA, ISOLATED POWER, AND NORMAL POWER. INSTALL TELEPOWER POLE AS SHOWN AT CHECKOUT AREA, WHEN COUNTER IS SET. POWER POLE WILL BE FURNISHED WITH 1 ISOLATED GROUND TWIST LOCK RECEPTACLE (CONNECT ISOLATED GROUND CIRCUIT TO THIS RECEPTACLE) AND 1 DUPLEX RECEPTACLE (CONNECT (1) NORMAL POWER CIRCUIT TO THIS RECEPTACLE).
- ROOF TOP UNITS: UNITS ARE FURNISHED WITH FACTORY INSTALLED SERVICE DISCONNECT SWITCH & GFCI RECEPTACLE. CONTRACTOR SHALL MAKE FINAL CONNECTIONS TO SERVICE DISCONNECT SWITCH AND GFCI RECEPTACLE.
- SHOW WINDOW RECEPTACLES: PROVIDE SHOW WINDOW RECEPTACLES ABOVE WINDOW AND LOCATED PER NEC ARTICLE 210.62. WHERE NO BULKHEAD EXIST ABOVE WINDOW LOCATE ON CEILING WITHIN 18" OF WINDOW. DEVICE AND COVER PLATE SHALL BE WHITE.
- SMOKE DETECTOR: CONTRACTOR SHALL CONNECT POWER AND VERIFY PROPER OPERATIONS.
- ENERGY MANAGEMENT SYSTEM: CONTRACTOR SHALL REFER TO EMS SHEETS FOR INSTRUCTION AND RESPONSIBILITIES FOR INSTALLING TENANT SUPPLIED ENERGY MANAGEMENT SYSTEM PRIOR TO BIDDING AND INSTALLATION.
- SIGNAL SYSTEMS: REAR DOOR BELL AND PUSH-BUTTON: FURNISH AND INSTALL AN EDWARDS #55-6G5, 24V AC "ADAPT-A-BELL" ABOVE CEILING AND A #852 WEATHERPROOF PUSH-BUTTON IN FLUSH (NEW CONST.) SWITCH BOX AT TENANT SPACE BACK DOOR. CONNECT SO THAT BELL SOUNDS WHEN PUSH-BUTTON IS PRESSED.
- HAND DRYER: CONTRACTOR SHALL ROUGH-IN WITH WALL HANGER KIT.
- WATER HEATER: ON SHELF, 120V, 2000 W. SEE DWG MP-2 FOR LOCATION AND INFORMATION.
- QUAD OUTLET: MOUNTED +18" A.F.F. COORDINATE FINAL LOCATION WITH FIXTURE PLAN. PROVIDE DEDICATED CIRCUIT FOR EACH DUPLEX OUTLET.
- WALK-IN FREEZER/COOLER: G.C. SHALL PROVIDE NEW 4X4 JUNCTION BOX, SURFACE MOUNTED, @ 120" A.F.F. TO TOP OF BOX, CENTERED ON THE WALK-IN FREEZER/COOLER UNIT. INSTALL (4) #12 AND (1) #12 COMMON GROUND IN 3/4" CONDUIT FROM PANEL BOARD TO THE WALK-IN FREEZER/COOLER UNIT JUNCTION BOX. ALL THREE CIRCUITS WILL TERMINATE AT THIS JUNCTION BOX. PROVIDE 15' LONG WHIP FROM BOX FOR CONNECTION TO EQUIPMENT. THE FREEZER/COOLER CONTRACTOR WILL THEN BE RESPONSIBLE FOR THE REMAINING WORK CONNECTING TO THE UNIT. CONTRACTOR SHALL PROVIDE LOCAL DISCONNECT PER CODE.
- REACH-IN FREEZER/COOLER: INSTALL JUNCTION BOX @ 100" A.F.F. TO TOP OF BOX. PROVIDE 15' LONG WHIP FROM BOX FOR CONNECTION TO EQUIPMENT.
- SNACK ZONE J-BOX: JUNCTION BOX ABOVE CEILING FOR SNACK ZONE. VERIFY EXACT LOCATION WITH FINAL FIXTURE PLAN AND MAKE FINAL CONNECTIONS AS DIRECTED.

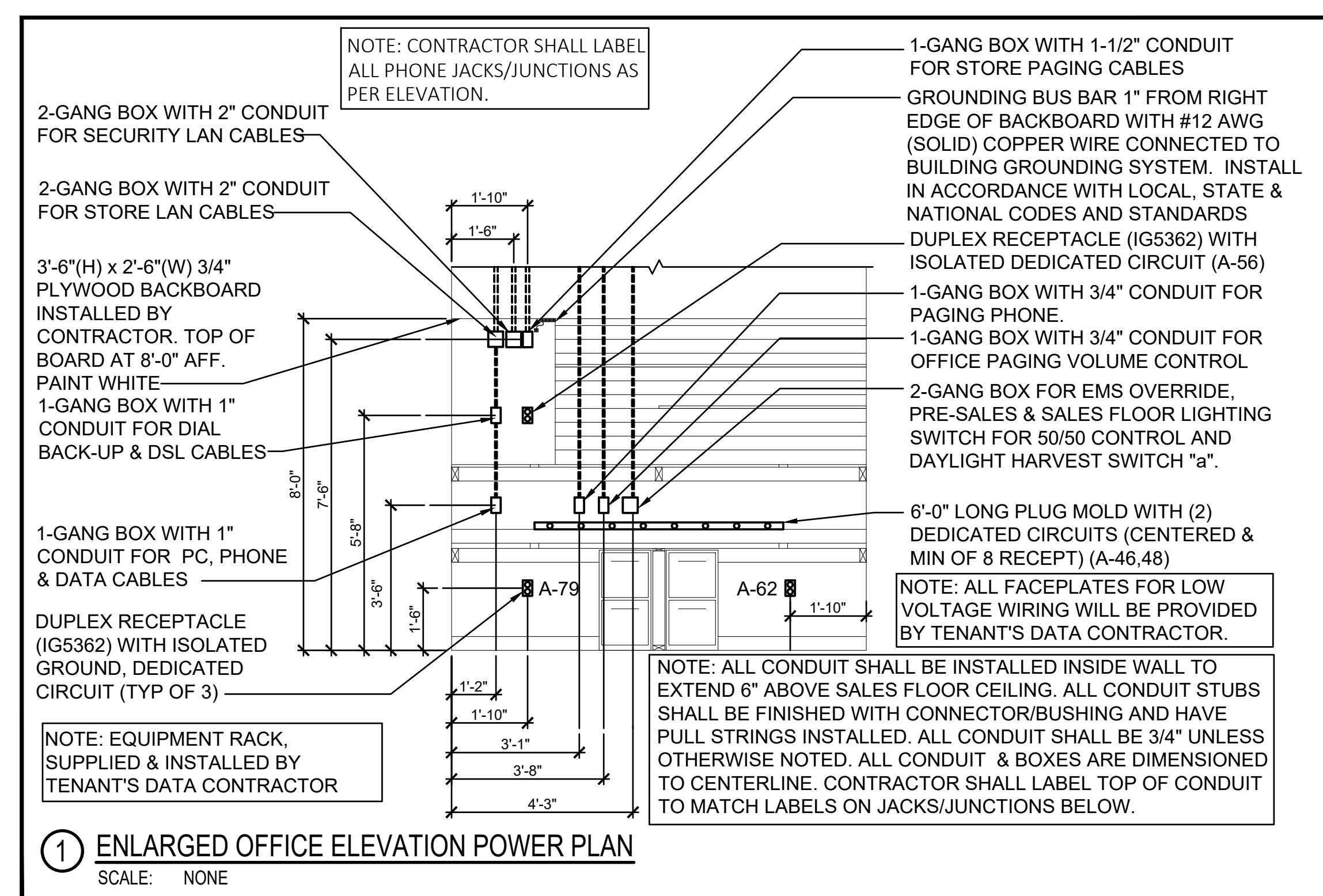
GENERAL ELECTRICAL NOTES

- BEFORE SUBMITTING THE BID PROPOSAL, THE CONTRACTOR SHALL VISIT THE JOB SITE AND FULLY ACQUAINT HIMSELF WITH THE JOB CONDITIONS AND VERIFY SERVICE CONNECTIONS, INCLUDING ALL NECESSARY PULL BOXES, SIZE AND NUMBER OF CONDUITS AND CONDUCTORS, SWITCH GEAR, METERING, CABLE CHARGES ETC. WHETHER SHOWN ON DRAWINGS OR NOT BUT REQUIRED BY SERVICE UTILITY CO. TO MAKE A COMPLETE AND OPERATING ELECTRICAL SERVICE WITHOUT ADDITIONAL COST TO THE TENANT. VERIFY SERVICES AND CHARGES WITH POWER AND TELEPHONE COMPANIES.
- CONTRACTOR SHALL VERIFY ALL REQUIREMENTS OF MECHANICAL EQUIPMENT WITH MECHANICAL DRAWINGS AND SPECIFICATIONS, AND SHALL FURNISH AND INSTALL ALL ITEMS REQUIRED BY THE CONTRACTOR FOR COMPLETE INSTALLATION.
- VERIFY LOCATION AND REQUIREMENTS OF MECHANICAL EQUIPMENT WITH CONTRACTOR, (DOOR HEATERS, UNIT HEATERS, ROOF TOP UNITS, TRANSFER FANS, ETC.).
- ELECTRICAL WORK AND MATERIALS SHALL COMPLY WITH LATEST "N.E.C." AND ALL LOCAL CODES AND ORDINANCES. IN CASES OF CONFLICT AMONG REQUIREMENTS, THE MOST RESTRICTIVE SHALL APPLY.
- ALL CONDUCTORS SHALL BE # 12 AWG COPPER, EXCEPT AS OTHERWISE NOTED OR AS REQUIRED FOR VOLTAGE DROP (SEE SPECS.). ALL CONDUIT SHALL BE 1/2" MINIMUM EXCEPT AS OTHERWISE NOTED OR AS REQUIRED FOR CONDUCTORS.
- TENANT'S ELECTRICAL EQUIPMENT SHALL BE RELOCATED AS REQUIRED TO MINIMIZE LENGTH OF CONDUIT/CONDUCTOR BETWEEN SERVICE DISCONNECT SWITCH AND PANEL "MDP". OBTAIN APPROVAL FROM TENANT'S ARCHITECTURAL DEPARTMENT OF PROPOSED LOCATION PRIOR TO INSTALLATION. COST CLAIMS FOR CONDUIT/CONDUCTOR IN EXCESS OF BASE BID WILL NOT BE CONSIDERED IF PANEL RELOCATION IS NOT PROPOSED TO MINIMIZE THESE COSTS PRIOR TO INSTALLATION.
- TELEPHONE: FURNISH AND INSTALL ALL NECESSARY CONDUIT, DEVICE BOXES AND PLATES.
 - NEW TELEPHONE SERVICE TO TENANT'S SPACE. NEW TELEPHONE EQUIPMENT BOARD. COORDINATE WITH LANDLORD AND TELEPHONE CO. AS REQUIRED FOR INSTALLING THIS SERVICE.
 - FURNISH AND INSTALL 3/4" CONDUIT FROM EACH TELEPHONE OUTLET 1'-0" INTO CEILING CAVITY, OR UP TO JOIST WHERE NO CEILING IS INSTALLED.
- FIRE ALARM SYSTEM:
 - IF THERE IS NO EXISTING FIRE ALARM SYSTEM AND THE NATIONAL, STATE, OR LOCAL CODES, OR LOCAL FIRE AUTHORITY HAVING JURISDICTION NOW REQUIRES A FIRE ALARM SYSTEM. FURNISH AND INSTALL DEVICES, COMPONENTS, ETC., AS DIRECTED BY ENFORCING AGENCY.
 - CONNECT ALARM CONTACT(S) OF SPRINKLER SYSTEM FLOW SWITCH AND SUPERVISED VALVE AND AIR DUCT DETECTORS TO FIRE ALARM SYSTEM AS REQUIRED.
 - IF REQUIRED, CONNECT FIRE ALARM DEVICES (AIR DUCT DETECTORS, ETC.) AND ANY OTHER ASSOCIATED EQUIPMENT TO DEDICATED 120V CIRCUIT.
 - PROVIDE LOCAL STATUS INDICATOR AND ALARM FOR ALARM DEVICES WHERE NOT CONNECTED TO FIRE ALARM SYSTEM.
 - VERIFY ALL REQUIREMENTS AND FURNISH AND INSTALL IN ACCORDANCE WITH NFPA, NATIONAL, STATE, LOCAL CODES, LOCAL FIRE AUTHORITY HAVING JURISDICTION AND LANDLORD REQUIREMENTS.
- WIRING DEVICES UNLESS OTHERWISE NOTED, MOUNT EACH OUTLET BOX SO THE BOTTOM IS LOCATED +18" ABOVE SYSTEM +44" RECEPTACLE +18". ADJUST TO COORDINATE WITH MASONRY IF REQUIRED. REFER TO ARCHITECTURAL DRAWINGS BEFORE STARTING WORK.

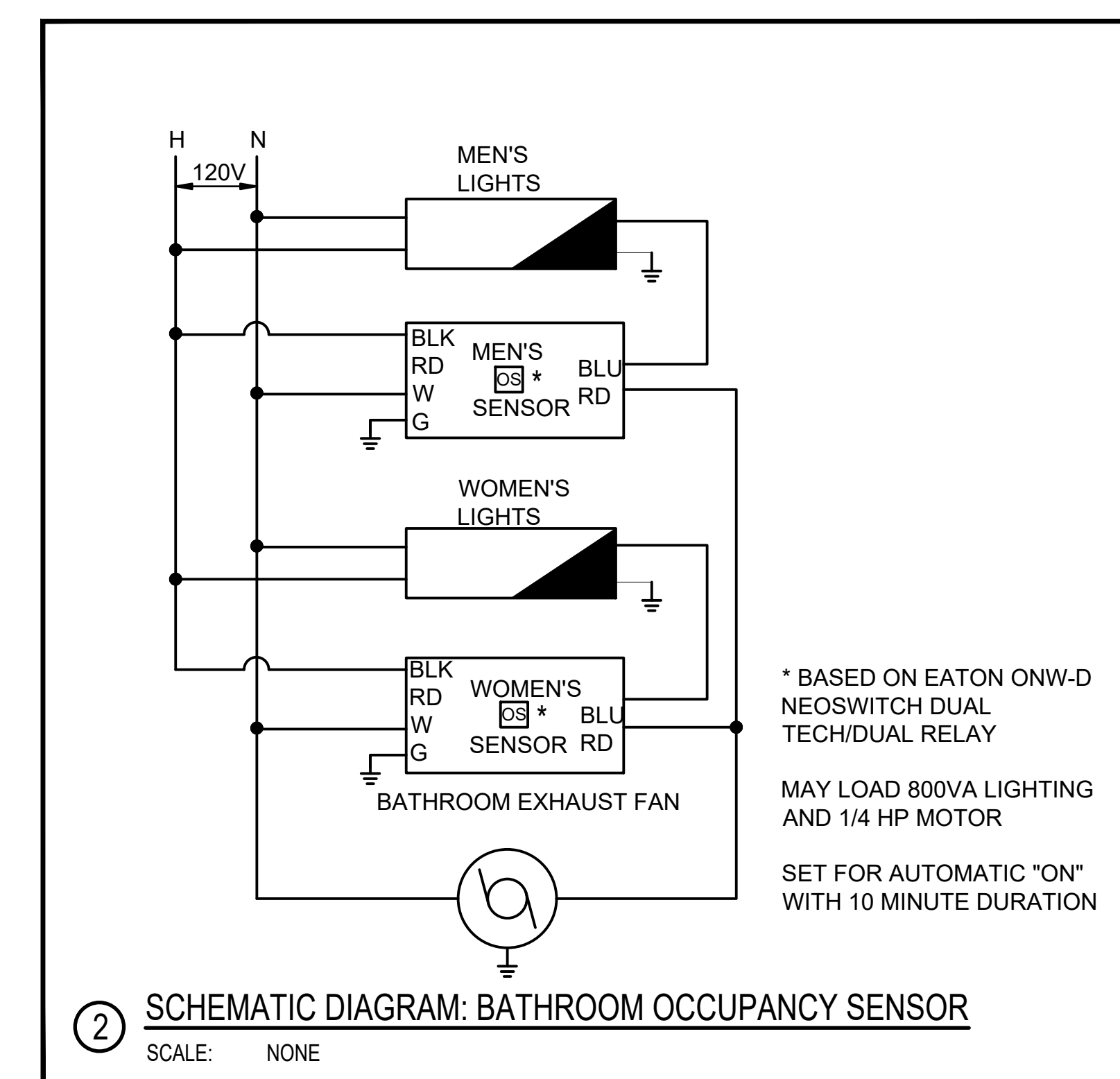


POWER PLAN

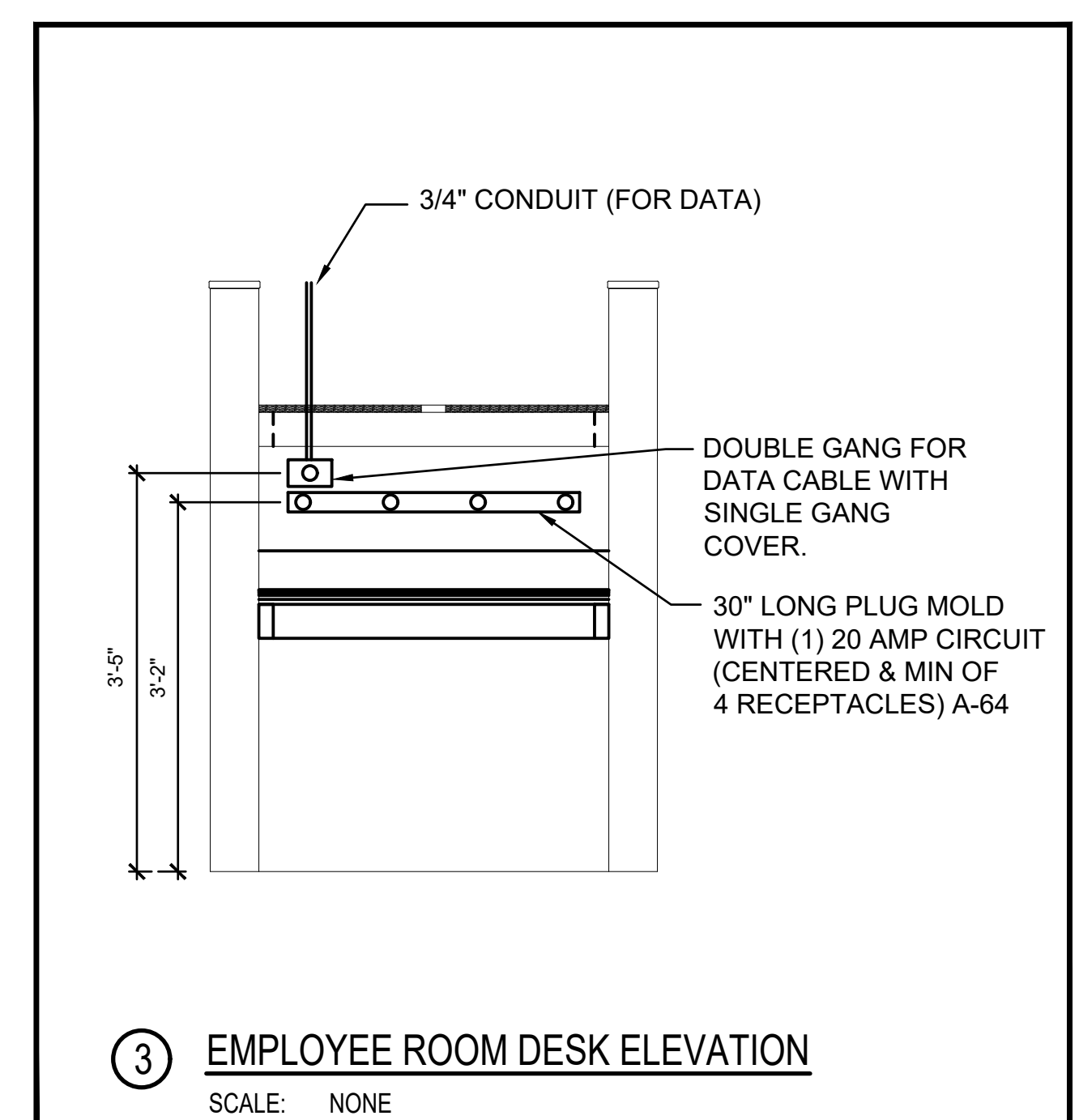
SCALE: 1/8"=1'-0"



1 ENLARGED OFFICE ELEVATION POWER PLAN
SCALE: NONE



2 SCHEMATIC DIAGRAM: BATHROOM OCCUPANCY SENSOR
SCALE: NONE



3 EMPLOYEE ROOM DESK ELEVATION
SCALE: NONE

ELECTRICAL SYMBOLS

(NOT ALL SYMBOLS ARE NECESSARILY USED ON DRAWINGS)

- CONDUIT**
- ABOVE CEILING, IN WALLS, EXPOSED OR CONCEALED
 - - - UNDER SLAB OR BELOW GRADE
 - ||| HOME RUN TO PANEL 'A' CIRCUITS 6,8,10. HASHERS = NO. OF WIRE LONG HASHERS = SYSTEM NEUTRAL
 - ⊥ ISOLATED GROUND CONDUCTOR
 - ⊥ SINGLE POLE SWITCH
- MISCELLANEOUS**
- ▶ VOICE OUTLET BOX: THE CONTRACTOR SHALL FURNISH AND INSTALL A 4" SQ. X 1 1/2" D. OUTLET BOX WITH SINGLE GANG PLASTER RING AND NO COVER PLATE. FLUSH MOUNT IN WALL +48" AFF TO CENTER, UNLESS OTHERWISE NOTED, AND STUB 1/2" EMT TO +12" ABOVE SUSPENDED CEILING OR JOIST SPACE IF NO CEILING EXISTS.
 - ☉ SMOKE DETECTOR, 120V PHOTOELECTRIC TYPE
 - ⚠ REVISION MARK
 - ⚡ POWER POLE SUPPLIED BY TENANT INSTALLED BY CONTRACTOR
- POWER AND CONTROL**
- ⚡ ELECTRICAL PANEL
 - ⚡ EMS PANEL
 - ⊖ MOTOR
 - ⊖ DISCONNECT SWITCH (NON-FUSED EXCEPT AS NOTED)
 - ⊖ HUBBELL IG5362 DUPLEX RECEPTACLE (ORANGE)
 - ⊖ DUPLEX RECEPTACLE 20 AMP, 125 VOLT (WHITE)
 - ⊖ QUAD RECEPTACLE (2) 20 AMP, 125 VOLT RECEPTACLES (WHITE)
 - ⊖ JUNCTION BOX
 - ⊖ SIGNAL TRANSFORMER, MOUNT 9'-0" A.F.F. IN STOCK ROOM.
 - ⊖ BELL: 4" DIAMETER SINGLE MAGNET VIBRATING, TYPE 24 VAC, 30 VA, EDWARDS # 556G5. MOUNT ABOVE CEILING.
 - ⊖ PUSHBUTTON SWITCH MOUNT 44" A.F.F. UNLESS OTHERWISE NOTED (SEE NOTE 9).
 - ⊖ WALL MOUNTED OCCUPANCY SENSOR. SEE DETAIL 2/E1 FOR CONTROL OF TOILET LIGHTING AND FAN.
 - ⊖ CEILING MOUNTED OCCUPANCY SENSOR AND POWER PACK, FOR LIGHTING CONTROL.
 - ⊖ PHOTO SENSOR CONTROL RELAY ON CEILING. ADJUST FOR 80 FC FOR DAYLIGHT HARVESTING. SENSOR FURNISHED WITH EMS SYSTEM.

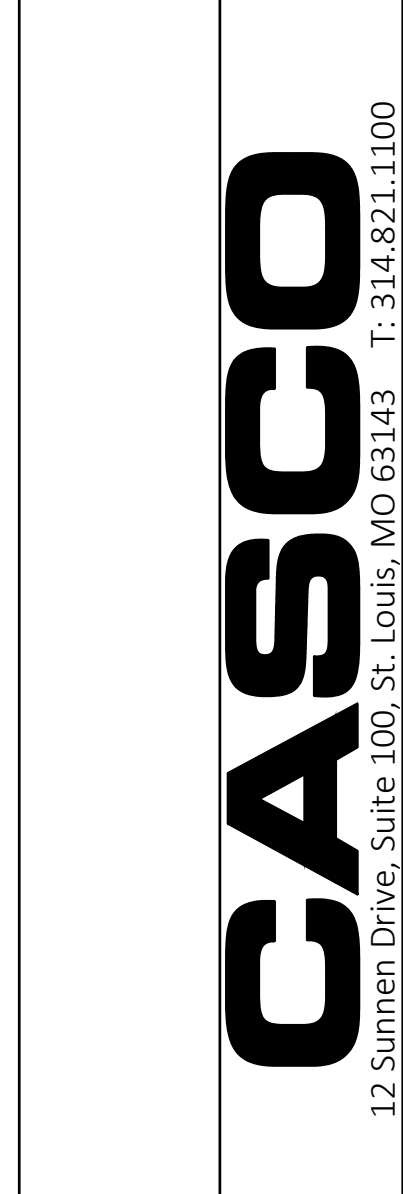
ABBREVIATIONS

- AFF ABOVE FINISHED FLOOR
- AFG ABOVE FINISHED GRADE
- EM EMERGENCY
- NL NIGHT LIGHT
- GFCI GROUND FAULT CIRCUIT INTERRUPTER

WIRE SIZE AND CONDUIT SIZE PER LENGTH OF RUN

DISTANCE	WIRE SIZE	CONDUIT SIZE
< 60'	#12	3/4"
60' - 95'	#10	1"
95' - 150'	#8	1 1/4"
150' - 230'	#6	1 1/2"

PER THE VOLTAGE DROP CALCULATIONS BELOW, THIS ALLOWS FOR ~3% VOLTAGE DROP ON 20A CIRCUITS WITH LOADS UP TO 15A.



CLARIFICATIONS

description	by
DAM	
08/11/22	date
08/01/22	mark
2020227	revisions
08/01/22	work
2020227	work
date	checked
project	drawn
designed	drawn
NSG	checked
NSG	checked

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ENGINEERING FIRM
LICENSE #000613
EXPIRES 12/31/23

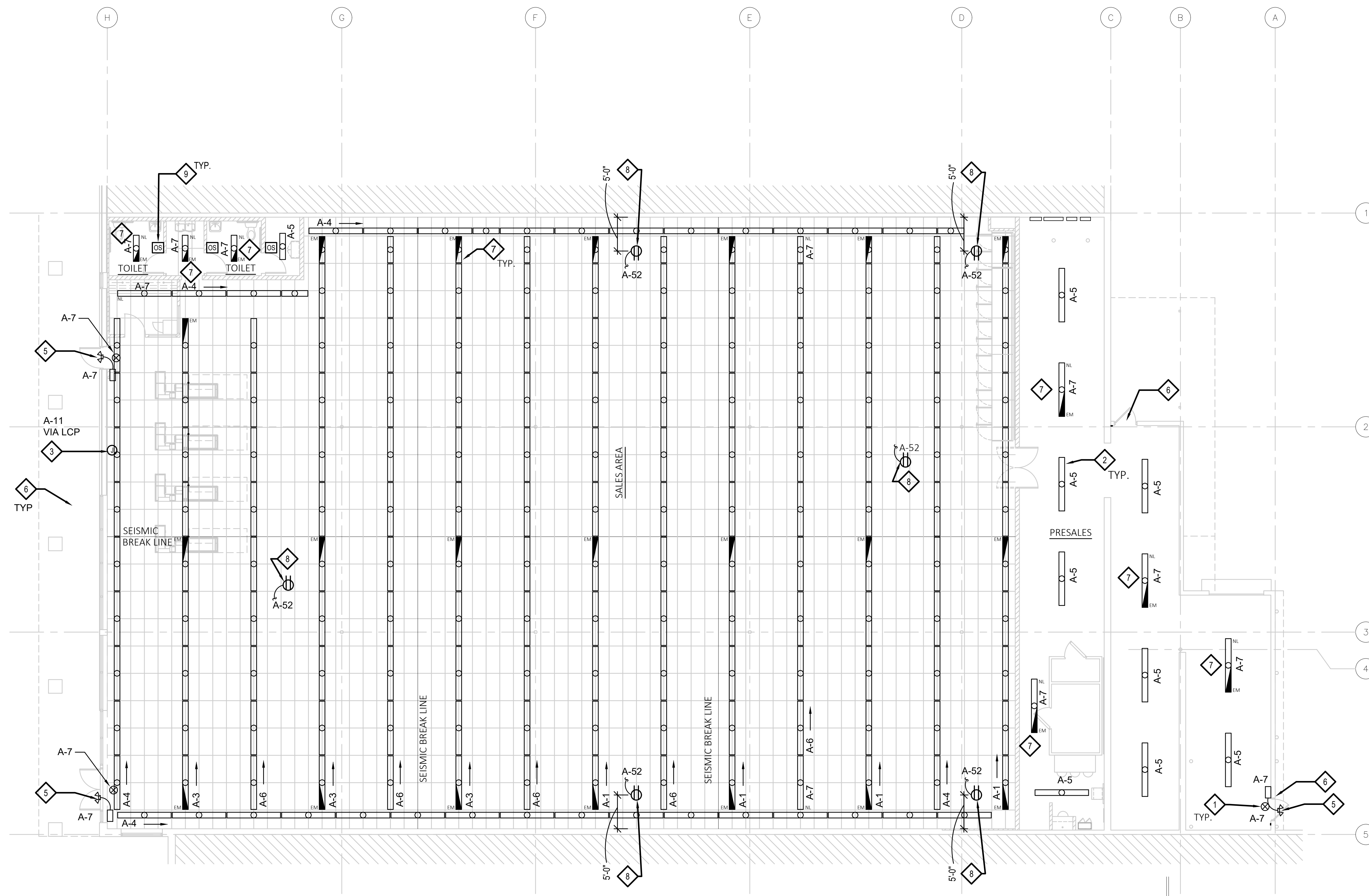
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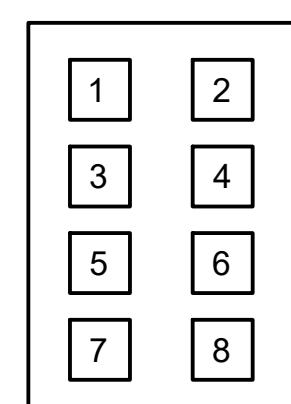
DOLLAR TREES

project
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ELECTRICAL POWER PLAN
drawing

E1



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



1. INTERIOR LIGHT TIMED OVERRIDE
2. EXTERIOR LIGHT TIMED OVERRIDE
3. PRE-SALES AREA ON/OFF
4. DAYLIGHT HARVEST ON/OFF
5. EMPLOYEE SALES ON/OFF
6. CUSTOMER SALES ON/OFF
7. SPACE
8. SPACE

8 BUTTON OVERRIDE SWITCH

1 MANAGER OFFICE EMS OVERRIDE SWITCH

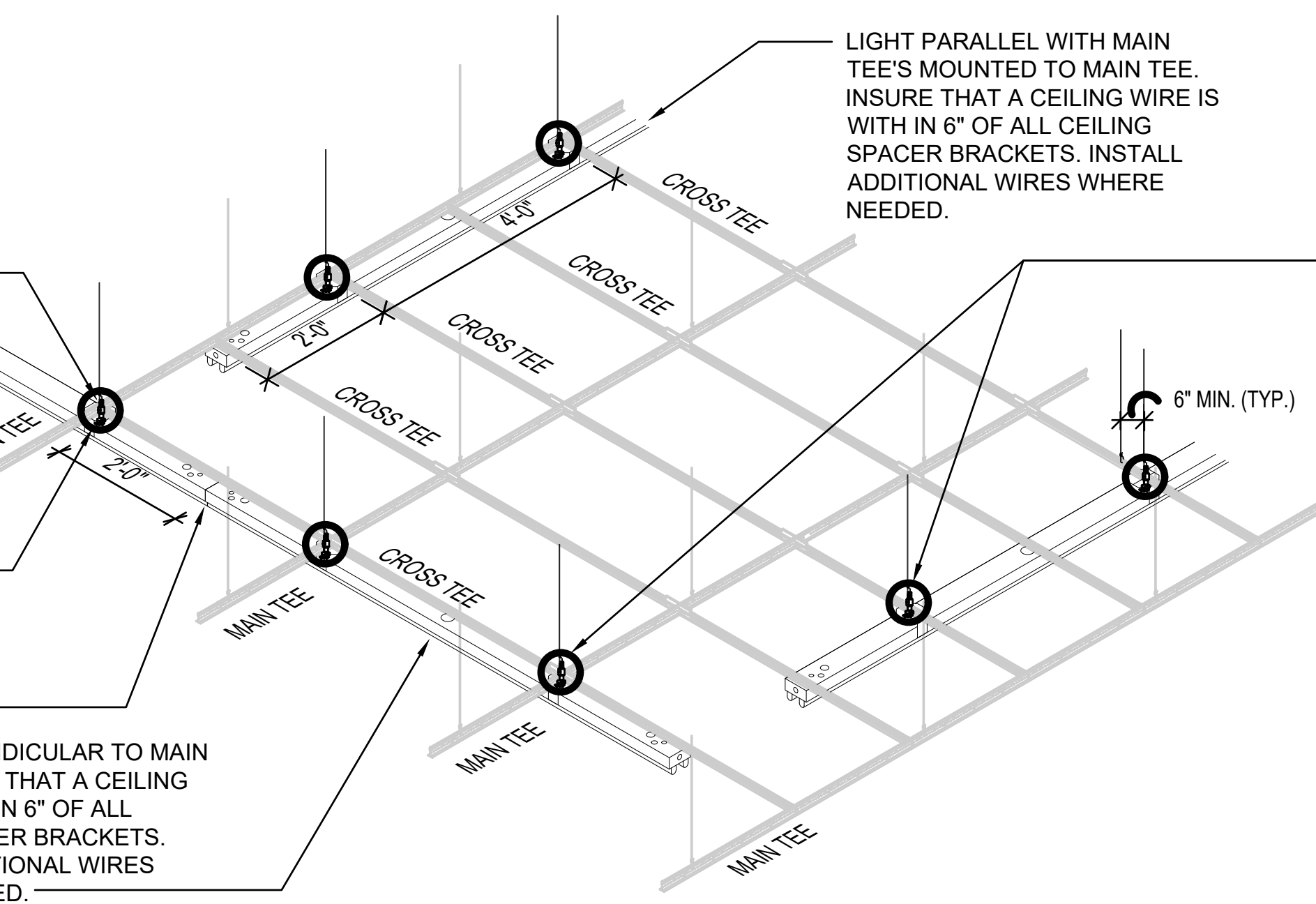
SCALE: NONE
SEE ENERGY MANAGEMENT SYSTEM FOR WIRING REQUIREMENTS

AT ALL CEILING SPACERS BRACKET SHALL HAVE A CEILING WIRE WITH IN 6" OF NEW BRACKET LOCATION. TYPICAL OF ALL. IF EXISTING CEILING WIRE IS WITH IN 6" THEN IT SHALL REMAIN.

CEILING SPACER BRACKET GRP-SSF-U. INSTALLED BY ELECTRICAL CONTRACTOR. MOUNT BRACKETS (2) PER FIXTURE.

CLIP LIGHTS TOGETHER WITH SCREW.

LIGHT PERPENDICULAR TO MAIN TEE'S. INSURE THAT A CEILING WIRE IS WITH IN 6" OF ALL CEILING SPACER BRACKETS. INSTALL ADDITIONAL WIRES WHERE NEEDED.



PROVIDE ERICO CADDY #1DS CLIPS, EVERY FOUR FEET, TIED TO REFLECTED CEILING T-BARS AND BOLTED TO THE MOUNTING BRACKET TO SECURELY FASTEN LIGHT FIXTURES WITH SEISMICALLY BRACED CEILING GRID AND TO STRUCTURE.

NOTE: ALL LIGHT FIXTURES AND POWER POLES SHALL HAVE GRID ATTACHMENT & ATTACHED SEISMIC SUPPORT WIRES AS PER APPLICABLE CODES AND REQUIREMENTS OF LOCAL AUTHORITY.

1 LIGHT FIXTURE CEILING SPACER AND HANGING WIRE INSTALLATION

SCALE: NONE
NOTE: PROVIDE LATERAL BRACING FOR EACH CONTINUOUS ROW AT A MINIMUM OF TWO LOCATIONS EVERY FIFTY FEET.

LUMINAIRE SCHEDULE						
FIX. SYM.	LIGHT DESCRIPTION	VOLTS	QT.-WATTS TYPE	LAMPS	MOUNTING	LTG. FIXT. SCHEDULE NOTES
⚡	EMERGENCY LIGHT	120/277	(2) ADJUSTABLE HEADS WITH (3) LEDR-16 MR LAMPS EACH. 3.5 VA TOTAL		WALL OR CEILING SURFACE	EMERGENCY LIGHT WITH BATTERY. MOUNT AT +10'-0" OR ON CEILING.
⚡	MOUNT REMOTE EMERGENCY LIGHTS OUTSIDE ABOVE EXIT DOORS W/ BATTERY UNIT INSIDE BLDG.	120/277	FURNISHED W/ FIXTURE TIME DELAY RELAY. 3 VA; 12 LED EACH HEAD.		EXTERIOR WALL	EXTERIOR EMERGENCY LIGHT WITH BATTERY MOUNT AT 10'-0".
⊗	EXIT LIGHT SINGLE OR DOUBLE FACE	120/277	LED LAMP ARRAY FURNISHED W/ FIXTURE. 3VA		CEILING MOUNT	L.E.D. SINGLE/DOUBLE FACE EXIT SIGN W/EMERG. BAT.
—	8'-0" STRIP LIGHT	120/277	2-18W LED	FURNISHED W/ FIXTURE	CEILING SURFACE	INTERIOR/ EXTERIOR STRIP. 4 WIRE HARNESS.
—	4'-0" STRIP LIGHT	120/277	1-18W LED	FURNISHED W/ FIXTURE	CEILING SURFACE	INTERIOR/ EXTERIOR STRIP. 4 WIRE HARNESS.
—	8'-0" STRIP LIGHT NIGHT LIGHT	120/277	2-18W LED	FURNISHED W/ FIXTURE	CEILING SURFACE	INTR./ EXTR. STRIP W/EMERG. WIRED TO UNSWITCHED CIRCUIT. 4 WIRE HARNESS.
—	8'-0" STRIP LIGHT WITH INTEGRAL BATTERY UNIT	120/277	2-18W LED	FURNISHED W/ FIXTURE	CEILING SURFACE	EMERGENCY LIGHT LUMEN LEVEL IS 1875. WIRE BATTERY INVERTER TO HOT WIRE. CONTROLLED BY EMS UNLESS NL.
—	4'-0" STRIP LIGHT WITH INTEGRAL BATTERY UNIT	120/277	1-18W LED	FURNISHED W/ FIXTURE	CEILING SURFACE	EMERGENCY LIGHT LUMEN LEVEL IS 1875. WIRE BATTERY INVERTER TO HOT WIRE. CONTROLLED BY EMS UNLESS NL.
—	4'-0" STRIP LIGHT NIGHT LIGHT	120/277	1-18W LED	FURNISHED W/ FIXTURE	CEILING SURFACE	INTR./ EXTR. STRIP W/EMERG. WIRED TO UNSWITCH CIRCUIT. 4 WIRE HARNESS.
○	DOWN LIGHT	120/277	LED	W/CLEAR REFLECTOR	RECESSED	U.L. LISTED FOR DAMP LOCATIONS
□	WALL PACK NIGHT SKY COMPLIANT	120/277	40W LED	FURNISHED W/ FIXTURE	WALL MOUNTED OVER DOOR	U.L. LISTED FOR WET LOCATION SWITCH. MOUNTED AT +10'-0"

LIGHTING FIXTURE GENERAL NOTES:

- A. DESIGNATED FIXTURE SHALL HAVE 48" LED T8 LAMPS WITH 4 WIRE HARNESS AND DISCONNECT.
- B. CUT INSULATION (WHEN BATT TYPE IS USED) OR PROVIDE SHIELD AROUND FIXTURE (WHEN BLOWN-IN TYPE IS USED) TO KEEP INSULATION A MINIMUM OF 3" AWAY FROM RECESSED FIXTURE.
- C. ATTACH FIXTURE TO T-BAR PER NEC 410-36 WHERE APPLICABLE. PROVIDE "CADDY" CLIP #CAD-IDS WHERE REQUIRED BY LOCAL AUTHORITY AND SEISMIC INSTALLATION REQUIREMENTS.
- D. FIXTURE PROVIDED WITH DUAL VOLTAGE 120/277V POWER SUPPLY.
- E. CONNECTED TO REMOTE BATTERY INVERTER FOR FULL LUMEN OUTPUT DURATION OF 90 MINUTE MINIMUM. EMERGENCY (EM) LIGHT SHALL BE CONNECTED AHEAD OF SWITCHES, CONTACTORS, ETC.
- F. NIGHT LIGHT (NL) FIXTURE SHALL REMAIN ON DURING NON-BUSINESS WORKING HOURS.
- G. WITH NO FINISHED CEILING, LIGHT FIXTURES IN THE SALES AREA SHALL BE SUSPENDED @ 12'-0" A.F.F. AND LIGHT FIXTURES IN THE PRESALES AREA SHALL BE SUSPENDED @ 10'-0" A.F.F.
- H. EXTERIOR FIXTURES SHALL BE SUITABLE FOR WET/DAMP LOCATION AND COLD WEATHER OPERATION.

GENERAL NOTES:

- A. LIGHTING CIRCUIT HOMERUNS SHALL BE RUN IN A COMMON CONDUIT TO THE EMS PANEL. PROVIDE APPROPRIATELY SIZED CONDUIT AND JUNCTION BOXES. PROVIDE DEDICATED NEUTRAL FOR EACH LIGHTING CIRCUIT. DEDICATED NEUTRAL SHALL BE INSTALLED FOR BRANCH WIRING WHERE DRIVER AND/OR BALLAST THD (TOTAL HARMONIC DISTORTION) EXCEEDS 10% OR WHERE UNKNOWN.

LIGHTING KEYED NOTES (NOT ALL USED)

1. EXIT SIGNS/EMERGENCY BATTERY PACKS: CONNECT TO THE LINE SIDE OF LOCAL SWITCHING AND CONTACTOR OR CONNECT TO DESIGNATED NIGHT LIGHT CIRCUIT. IN PRE-SALES INSTALL WALL MOUNTED TYPE ON WALL CENTERED 1'-0" ABOVE THE DOOR OPENING. IN SALES AREA, MOUNT ON CEILING 1'-0" FROM THE WALL.
2. PRE-SALES LIGHTING: CONTRACTOR SHALL SUSPEND LIGHTING IN THIS AREA FROM THE BOTTOM OF EXISTING STRUCTURE. SUSPEND LIGHTING AT 10'-0" CLEAR AFF. PROVIDE MISCELLANEOUS MATERIALS AS REQUIRED. FIXTURES SHALL BE SEISMICALLY RESTRAINED WHERE REQUIRED BY LOCAL CODE AUTHORITY.
3. SIGNS: PROVIDE ROUGH IN FOR TENANT STOREFRONT SIGN(S) AND AWING WHERE APPLICABLE. FINAL CONNECTIONS WILL BE FURNISHED AND INSTALLED BY TENANT'S SIGN CONTRACTOR. FURNISH AND INSTALL JUNCTION BOXES W/6" WHIP ON WALL ABOVE ACCESSIBLE CEILING. CONTRACTOR SHALL COORDINATE FINAL JUNCTION BOX LOCATION WITH SIGN VENDOR. JUNCTION BOXES NEED TO BE WITHIN 5 FEET OF SIGN FOR SIGN VENDOR TO MAKE FINAL ELECTRICAL CONNECTION.

IF STORE HAS ADDITIONAL SIDE OR REAR SIGNAGE THE CONTRACTOR SHALL COORDINATE WITH THE SIGN VENDOR FOR ANY ADDITIONAL EXTERIOR SIGNAGE AND THE ASSOCIATED ELECTRICAL REQUIREMENTS. AFTER THE ELECTRICAL DESIGN IS COMPLETE, IT MAY BE DETERMINED THAT CERTAIN SIGNS REQUIRE SIDE OR REAR SIGNAGE.

4. WALL PACKS: INSTALL WALL PACK FIXTURE ABOVE EXTERIOR DOORS AT ±10'-0", COORDINATE EXACT MOUNTING HEIGHT AND LOCATION FIXTURE SHALL BE NIGHT SKY COMPLIANT.
5. EMERGENCY FIXTURE: MOUNT EMERGENCY FIXTURE ABOVE DOOR APPROXIMATELY ±10'-0". COORDINATE WITH EXISTING CONDITIONS AWNINGS AND/OR SIGNAGE. LOCATE REMOTE BATTERY ABOVE CEILING.
6. EXISTING BUILDING LIGHTING: LIGHTING TO REMAIN CONTRACTOR SHALL VERIFY IF LIGHTING IS CONTROLLED FROM EXISTING PANELS BEING REMOVED OR FROM LANDLORD HOUSE PANEL. IF FROM PANEL BEING REMOVED, FURNISH AND INSTALL NEW CIRCUIT FROM PANEL INDICATED VIA LIGHTING CONTRACTOR TO EXISTING LIGHTING. UNIT BATTERY INVERTER: FIXTURE EQUIPPED WITH 90 MINUTE INTEGRAL BATTERY INVERTER. CONNECT TO UN-SWITCHED HOT UNLESS INDICATED AS NL.
7. CEILING OUTLET: DUPLEX OUTLET MOUNTED IN CEILING TILE.
8. OCCUPANCY SENSORS: INSTALL OCCUPANCY SENSOR ON WALL NEXT TO DOOR IN RESTROOM. SEE DETAIL 2/E1 FOR CONNECTION OF ROOM LIGHTING AND EXHAUST FAN.
9. EXISTING LIGHTING: CLEAN, REPAIR AND MODIFY FIXTURE INTERNAL WIRING AS NEEDED FOR LED RETROFIT LAMPS. EMERGENCY LIGHT FIXTURES SHALL BE CONNECTED TO REMOTE BATTERY INVERTER.

date	project	designed	drawn	checked	mark	revisions
08/01/22	220227	RSC	RSC	WJK		

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LICENSE #000613
EXPIRES 12/31/23

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DOLLAR TREES
HOBBY LOBBY CENTER
2225 MISSOURI BLVD., JEFFERSON CITY, MO 65109
ELECTRICAL LIGHTING PLAN

SECTION 16010 - GENERAL PROVISIONS

RELATED DOCUMENTS

- A. The General Conditions, Supplementary Conditions, and General Requirements apply to the Work specified in this Section.

DESCRIPTION:

- A. This Section defines the General Provisions which are common to all Sections of Division 16.
B. The information in the Specifications and the Plan Drawings are basic facts to follow in determining a reasonable and competitive price for the disciplines intended. The Drawings and Specifications do not necessarily indicate or describe each item necessary for the full performance and completion of the particular work the contractor may be bidding. These documents provide the general intent necessary to inform the contractor of the tenant's desire for the systems required for Electrical. Contractor shall visit the site prior to bidding to become familiar with the existing conditions under which the work shall be performed. Failure to inspect the site will not be considered justification for an adjustment in contract price or failure to perform the work under this contract.

C. Work Included:

- All electrical work herein specified and/or shown on drawings unless noted otherwise.
Work by the Utility Company for which there is a backcharge. All electrical back charges to be included under this Division 16 Contract.
Installation shall be complete from the location designated by the Electrical Utility Company as the point of service connection, to the final connection of motors, fixtures, devices, apparatus or pieces of equipment, unless modified by Drawings or these Specifications.
The Electrical Drawings and specifications shall be understood to cover complete operating systems.
The Drawings and Specifications are to be taken together. Work specified and not shown, or work shown and not specified shall be performed or furnished as though mentioned in both Drawings and Specifications.
Minor items and accessories reasonably inferred as necessary to complete such systems shall be included. All work & materials necessary for proper operation of any system, shall be provided by this Contractor.

D. Description of System:

- Complete power wiring to main disconnect switch, panels, motorized equipment, motors, lighting cabinets, and miscellaneous outlets.
General wiring for power, lighting, and miscellaneous systems.
Materials and equipment for electrical work.
Electric service and distribution.
Motor and equipment wiring, including starters, safety switches & control wiring.
General and emergency lighting and power systems.
Contactors for lighting and sign control systems.
Telephone back boxes and empty conduit.
Arrange for sources of temporary construction services. Such services shall be nominally 120/208 volt, 3 phase, 4 wire from which a complete system of temporary power and lighting shall be installed for all construction needs and as required by the occupational safety and health departments, (OSHA). Temporary services shall be removed upon completion of work.
Computer system empty conduit raceway.
Wiring of power connections to equipment furnished and installed by others.
Cutting, patching, excavation and back fill, and concrete work required to complete the work of this section. Back fill shall be compacted to 95% of standard compaction. All existing surfaces shall be patched or replaced to "Like New" conditions.
All other equipment, material, devices, accessories required and/or shown on the drawings.

E. Related work to be completed by others:

- Computer system wiring.
Television system wiring.
Alarm System

F. Definitions - As used within the Contract Document:

- "Circuitry" or "Wiring" shall mean any electric work.
"Package Unit" shall mean an item of equipment having one or more motors or other electric energy consuming elements integrally factory mounted on a single base, complete with all associated control devices and interconnecting wiring.

G. Permits:

- Obtain all permits and pay all fees required for the complete electrical system.

QUALITY ASSURANCE

- Qualifications:
Materials and equipment shall be new and shall conform to N.E.M.A. and Underwriters Laboratories (UL) standards in every case, where such standard has been established. All equipment of similar type shall be of the same manufacturer.

B. Requirements of Regulatory Agencies:

- All electrical work shall be in accordance with the National Electrical Code (N.E.C.), current edition, and any amendments to the National Electrical Code made by the local Code Officials. Coordinate exact code requirements and local amendments with AHJ prior to any installation.
Where applicable, all fixtures, equipment and materials shall be as approved or listed by the following agencies:
a. Factory Mutual Laboratories.
b. National Fire Protection Association.
c. Underwriters Laboratories, Inc. (UL)
d. National Electrical Manufacturers Association (NEMA)
e. Americans with Disabilities Act (ADA)

C. Allowable Tolerances:

- Review Architectural, Structural and Mechanical Drawings for all dimensions, locations, partitions and walls, structural details, and location of mechanical pipes and ducts so that the electrical installation shall be in coordination with that of the other trades.
Exact location and electrical requirements of equipment furnished by other trades and wired by this Contractor shall be obtained from the Drawings of the other trades.

APPROVAL DRAWINGS

- Prepare and submit for approval such additional electrical drawings, diagrams, and specifications as are required by:
a. Local Fire Prevention Bureau
b. Local Building Department - Electrical Inspection Section
c. Local Utility Companies

COORDINATION AND COOPERATION

- The 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 or that will 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.
All equipment furnished shall fit the space available, with connection, etc., in the required locations and with adequate space for operating and servicing. The drawings are generally diagrammatic and indicate the manner and method of the installation while the specifications and fixture list denote the type and quality of material and workmanship to be used. Where a conflict exists between the drawings and the specifications, the Contractor shall promptly notify the Architect whose decision shall be final. No allowance will be made subsequently in this connection on behalf of the Contractor after award of the contract.

GUARANTEE

- Provide one year guarantee for all fixtures, equipment, materials and workmanship, upon final acceptance by tenant. Any defective material or faulty workmanship shall be replaced without cost to tenant.

PROTECTION

- The contractor shall be responsible for protecting all, both, new and existing equipment and systems against harmful exposure, or accumulation of dust/moisture, flooding, corrosion, or other forms of damage. Clean and restore damaged finishes and equipment to place installation in a like-new condition.
Contractor shall determine operational condition of existing equipment to be used and maintained for this project prior to commencing work. Contractor shall adjust, repair or replace non functional equipment. All work shall maintain existing UL listing and labeling requirements. Contact and report all unforeseen conditions for appropriate directions.

INSTALLATION/APPLICATION/PERFORMANCE/ERECTION

- Application, Installation:
No measurements of a Drawing by scale shall be used as a dimension to work by. The drawings are not intended to show complete or accurate details of the building in every respect. Exact locations and relations are to be defined in the field and shall be satisfactory to the Architect/Engineer. This Contractor shall take all field measurements and shall be responsible therefore.
Compare Drawings and Specifications, checking all measurements and determine intent of Contract Documents. Discrepancies shall be brought to the Architect/Engineer's attention for interpretation prior to any installation.
The right is reserved to make any reasonable change in location of outlets and equipment prior to roughing-in without involving additional expenses. Any change from the Electrical Drawings as is necessary to make the work of this Contractor conform to the building as constructed and to fit the work of other trades shall be included in Contractor's Contract and installed without extra cost.
Perform all work in compliance with all applicable safety regulations including OSHA regulations.
Coordinate all work with other trades prior to any installation.
Provide code approved clearances around electrical equipment.
Coordinate staging of material with building management representative at time of bidding.

FIELD QUALITY CONTROL

- Testing:
After wires are in place and connected to devices and equipment, the system shall be tested for shorts and grounds. All hot wires, if shorted or grounded, shall be removed and replaced.
All meters, instruments, cable connections equipment, and apparatus necessary for making all tests, shall be furnished by this Contractor at his own expense.

ADJUST AND CLEAN

- Cleaning Equipment, Completed Work and Premises: After the completion of all installations, each system shall be thoroughly cleaned to remove all paint, oil and other foreign material. Contractor shall also clean all foreign paint, grease, oil, dirt, labels and stickers, etc., from all fixtures, equipment, etc. The Contractor shall remove all rubbish, debris, etc., accumulated from his operations from the premises.

APPROVALS

- Obtain all permits and approvals from the governing bodies which have jurisdiction over this project.

IDENTIFICATION AND TAGGING

- Identification of distribution switches or circuit breakers individually mounted or of panel boards shall be by means of engraved lamacoid nameplates permanently fastened on the front face of the housing, showing 1/4" high white lettering on a black background. Provide all panel boards with typewritten directory.

SLEEVES

- Provide sleeves in walls and floor slabs for the passage of all conduits, pipes and ducts installed. Sleeves shall be set in place in sufficient time, ahead of concrete work, so as not to delay that work.

CUTTING AND PATCHING

- Perform all cutting and patching required to complete the Work, except where specifically shown on the Architectural or Structural Drawings. Patching shall match existing and shall be coordinated with tenant's representative.

SECTION 16010 - BASIC MATERIALS AND METHODS

MATERIALS

- CONDUIT:
Electrical Metallic Tubing: EMT, "Thinwall" conduit shall in general be utilized where permitted by Code except where described herein. Minimum size conduit shall be 1/2", unless specifically noted otherwise.
Heavy-wall steel conduit and I.M.C. shall be either hot dipped galvanized or sherardized.
Flexible conduit shall be Greenfield type except, where exposed to oil, grease, or water-conduit shall be Seattleite.
Plastic conduit shall be PVC Schedule 40.
Conduit shall be as manufactured by Allied, Triangle or approved equal.
Provide expansion fittings for conduits crossing expansion joints.
Conduit Fittings:
a. Rigid: Threaded.
b. Thin-Wall: Compression Type.
c. Flexible: Connectors shall be compatible with flexible conduit used.
Provide bushing and lock nuts for all conduit entries to boxes.

- Type MC "Metal Clad" Copper Cable may be used for interior applications where permitted by the local authority in accordance with the latest NEC article 330 AND with the following provisions:
MC Cable shall be equipped with "green" insulated grounding conductor. Per NEC table 250.12
MC Cable shall be installed in a professional manner, concealed, dressed along structural members and supported as required at proper intervals.
MC Cable conductor shall be color coded (black, blue, red for 120/208V) (brown, orange, yellow for 277/280V) system.
MC Cable shall not be used for IG circuits.
MC Cable shall not be used for feeders.
MC Cable shall not enter panel boards or service equipment enclosures. Provide j-boxes, wireways, etc. for all branch extensions from point of home run.

- Wires and Cables:
Unless specifically noted otherwise, all wiring shall be installed in conduit.
All wire shall be type THW or THWN copper unless otherwise noted on plans.
Wire smaller than #8 shall be solid; #8 and larger, stranded.
Cable and wire shall be as manufactured by Triangle, General Cable, Southwire or Carol.

- Color Coding: Color coding shall be used throughout the entire electrical system. Provide industry standard color coding for the voltages involved. Control wiring shall be numbered for easy identification of terminal points. Number terminal blocks accordingly.
Disconnected Switches:
Switches shall meet NEMA enclosed switch standards KS1, current edition. Switches shall be quick-make, quick-break so that operation of the contacts shall not be capable, during normal operation of the switch, of being restrained by the operating handle after the opening or closing of the contacts has started.
All safety switches shall be heavy duty of voltage matching equipment served. NEMA 1 for indoor use and NEMA 3R for outdoor use. Switches shall be as manufactured by Eaton, General Electric, Square D, or Siemens.

- Fuses: Furnish and install all fuses. Fuses shall be Bussmann or as specified on the Drawings.
Provide fuses at all locations shown on the drawings or required for supplemental protection. Where amp rating of protective device is 600 amps or less, provide Bussmann low-peak current limiting fuses, class J for service switches, class RK1 on panels; RK5 (with dual element Fusetron up to 100 A; above 100 A dual element Low Peak), having an interrupting rating of 200,000 amps RMS, unless noted 601 amps, provide Bussmann "Limित्रon" fuses, Class "L", having an interrupting rating of 200,000 amps RMS unless noted otherwise. Provide similar type, "HI-Cap" fuses where shown.
Outlet, Pull and Junction Boxes: Outlet, pull and junction boxes shall be 12 gauge, or heavier, steel, with removable knockouts. Boxes shall be as manufactured by Appleton, Steel City or Raco. Size boxes as required for the intended duty, minimum size as required by the applicable National Electrical Code.

- Switches:
Wall switches shall be located as indicated on the Drawings, arranged singly or in gangs and at the height specified or indicated and shall have proper covers with finishes specified herein. Switches shall be as follows unless otherwise called for on Drawings or hereinafter specified.
Switches, 20 amperes, 120/277 volt specification grade, quiet rated: by Leviton, Eagle, HUBBELL, or Pass & Seymour. Switch shall be white.

- Receptacles:
Receptacle shall be located as shown on the Drawings and at the heights specified or indicated. Receptacle and power outlets shall be of the grounding type specification grade and as manufactured by HUBBELL, General Electric, Pass & Seymour, Eagle or Leviton. Receptacle shall be White.

- Switch and Receptacle Plates:
Plates in finished areas for switches and receptacles shall be white. Identify all dedicated circuits with a laser printed adhesive label indicating panel and circuit number.

- Contractor shall provide all elbows, connectors, etc., and install outlets complete.

- Lighting and Appliance Panel boards:
1. Panels shall be type indicated on the Drawings, with main lugs, main breakers, branch breakers, spares and spaces as scheduled. Panels shall comply with U.S. Federal Specification WP115a, Type 1, Class 1.
Bus structure shall be copper or aluminum.
All circuit breakers shall be bolt-on type.
The Contractor shall balance all circuits. All conductors shall be continuous without splicing from last outlet to their terminals in cabinet.
Contractor shall provide a directory of circuits for cabinet. Directory shall be typewritten designating room or equipment and circuit numbers, include any existing circuits which remain.
Where 2 or 3 pole breaker units are called for, they shall be on unit with common trip and not single pole units with handle ties. Capacity of main busses shall be as shown on the Drawings.
Panel boards shall be manufactured to match equipment supplied by tenant's vender.
Outside Delivery Door Bell: A Bell system shall be furnished and installed by the contractor including 24 Vac transformer and wire. Bell shall be Edwards Cat. #55-8G5. Push-button shall be Edwards Cat. #852 with stainless steel plate.

REPARATION/INSTALLATION/APPLICATION

- CONDUIT:
Installation - All conduit shall be sized in accordance with the applicable N.E.C.
Conduit to be run exposed in unfinished areas such as mechanical and electrical room used as electrical closets. All other conduit shall be concealed.
All conduit and wiring shall be concealed wherever possible. Where conduit and wire cannot be concealed, obtain direction from the Architect. No surface mounted conduit, wire mold or power poles will be acceptable, unless specifically indicated on the drawings.
All exposed conduits shall be run parallel to or at right angles to structural members. Carefully coordinate exact routing with the Architect's representative, in the field, prior to any installation.
All conduit shall be independently supported from the building structure. Conduit shall not be suspended from ventilating ducts, mechanical piping, suspended ceiling grids, or their hangers.
All conduit shall be mechanically and electrically continuous from outlet to outlet and box to box. Secure conduit fittings at all enclosures and junctions.
Types of Conduit:
Conduit, within building confines run in concrete slabs, within outside masonry walls, in earth fill, and exposed in wet areas shall be galvanized steel heavy wall or IMC. Couplings for conduit run in poured concrete shall be concrete tight.
Conduit run exposed or outdoors shall be galvanized steel heavy wall or IMC with watertight fittings and boxes.
Conduit run in dry areas within building confines shall be EMT, except where specifically noted otherwise or prohibited by local codes. Dry areas are inside partitions, ceiling cavities, above grade slabs, and areas not subject to damage.
Conduit with trade sizes over 1-1/2" and/or exposed in mechanical rooms shall be galvanized steel heavy wall or IMC.
Conduits run under floor slabs and in contact with earth may be PVC Schedule 40.

- Provide full size insulated (green) ground wire in all conduits. Where the drawings do not identify the size of the equipment ground wire, it shall be sized per NEC. Provide bare ground wire in all PVC conduit runs.

- Boxes, outlets and cabinets:
Install equipment and materials in a neat and workmanlike manner and align, level and adjust for satisfactory operation. Install equipment so that all parts are easily accessible for inspection, operation, maintenance and repair. Provide the design, fabrication, and erection of supplementary structural framing required for attachment of hangers or other devices supporting electrical equipment. Rigidly mount all boxes and provide with suitable screw fastened covers. Plug open knockouts or holes in boxes with suitable blanking devices.
Center all outlets with regard to paneling, furring, and trim. Symmetrically arrange outlets in the room. Satisfactorily correct outlets improperly located or installed. Repair or replace damaged finishes. Set outlets plumb and extend to the finished surface of the wall, ceiling or floor without projecting beyond same.

- Fire and Smoke Partition Penetrations:
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 QDFB. 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, Dow Corning "Fire Stop" or Pipe Shields, Inc., model WFB, DFB, or QDFB. For non-rated walls and partitions, use mineral or glass fiber insulation.

SECTION 16400 - SERVICE AND DISTRIBUTION

DESCRIPTION

- Work Included:
Current transformers cabinet.
Main switchboard.
A complete distribution system.
System grounding per local codes.
All work and charges required by the local utility company.
Dry type step down transformer.

- Services:
Incoming electrical service is as indicated on drawings.
Provide exterior main service entrance rated switch where required by local authority.
Provide concrete encased service feeders where installed in PVC schedule 40 conduit. Underground service feeders shall be a minimum of 36" below grade. Install warning tape above conduit route 12" below grade. Transition below grade to galvanized steel conduit with thread fillings where underground conduit is to be exposed above grade.

EQUIPMENT

- Main switchboard shall be service entrance rated and front accessible with removable screw - on cover plates. Grounding and metering shall comply with the local utility company and all local code requirements.

DISTRIBUTION PANEL BOARDS

- Panel board shall be enclosed in steel cabinet of rigidity and gauge of steel per UL Standard #50 for cabinets. All panel boards shall be provided with door locks, all keyed alike.
Bus structure shall be copper or aluminum.
Short circuit current rating shall be equal to or greater than the available short circuit at the panel board, and as called for on plans, but not less than 65,000 amperes symmetrical, where available fault can not be determined. Where allowed by authority having jurisdiction series rating may be applied.
Panel boards shall be as shown on the drawings with main lugs, main breakers, branch bolt-on breakers, spares and spaces as scheduled. Provide G.F.I. breakers as required. Panel boards to match equipment supplied by tenant's vender
Provide a typewritten panel directory for each panel, identifying the use of each circuit including any existing circuits which remain.

DRY TYPE TRANSFORMER

- Step down transformers shall be NEMA TP-1 energy efficient ventilated, as indicated on plans, typically 480V delta primary to 120/208v, 3Ø, 4 wire WYE secondary, 60 hertz, NEMA 1 enclosure.
Wiring Aluminum 220° c. insulation system, 150° rise.
Nominal 5% impedance
Taps (2) 2-1/2% above and below normal.
75 kVA rated unless otherwise noted.

CONNECTIONS

- All main feeder connections shall be made with solder-less connectors, bolted type. Smaller wire splices shall be made with pressure type connectors - Minnesota Mining "SKOTCHLOCKS" or Ideal "WINGNUTS"

INSTALLATION

- System Grounding
Shall be in strict accordance with the National Electrical Code, Local Governing Authorities and in accordance with the recommendations of the Utility Company. See details on drawings for additional grounding requirement.
All equipment grounding conductors and grounding electrodes shall be copper and comply with local and national code.
Electrical Service:
The Utility Company will furnish, install and connect all primary service conductors.
This contractor shall contact the Utility Company and Landlord to obtain all information necessary for the work, incorporate their instructions into the work, and obtain their approval of all work and material. Include all costs in base bid.

SECTION 16500 - LIGHTING SYSTEMS AND CONTROLS

DESCRIPTION

- Work Included:
Contractor to install lighting fixtures with lamps, hangers and controls as shown on Drawings and Lighting Fixture Schedules. Tenant will provide all lighting fixtures, lamps, spacers, fixture trim and accessories as required for a complete secure and working installation.
Requirements
All lamps shall be T-8 LED 4K retrofit 4' long type lamps, dual rated for 120v or 277v operation. All lamps shall be as indicated on the lighting fixture schedule.
All lamp ballasts drivers shall be electronic type integral to lamp fixture housing.
Provide all exit and emergency lighting as required by applicable code(s).
All lighting circuit shall have dedicated neutral.
Emergency lighting shall be individual unit equipment in accordance with NEC 702.12.G.
Contractor shall connect LED strip fixture 4-wire harness for operation of each lamp as individually controlled and as indicated on plans. Internal modification of emergency strip fixtures may be required.

SECTION 16700 - COMMUNICATIONS

DESCRIPTION

- Work Included: 1. Empty backboxes and conduit shall be furnished and installed by Contractor.

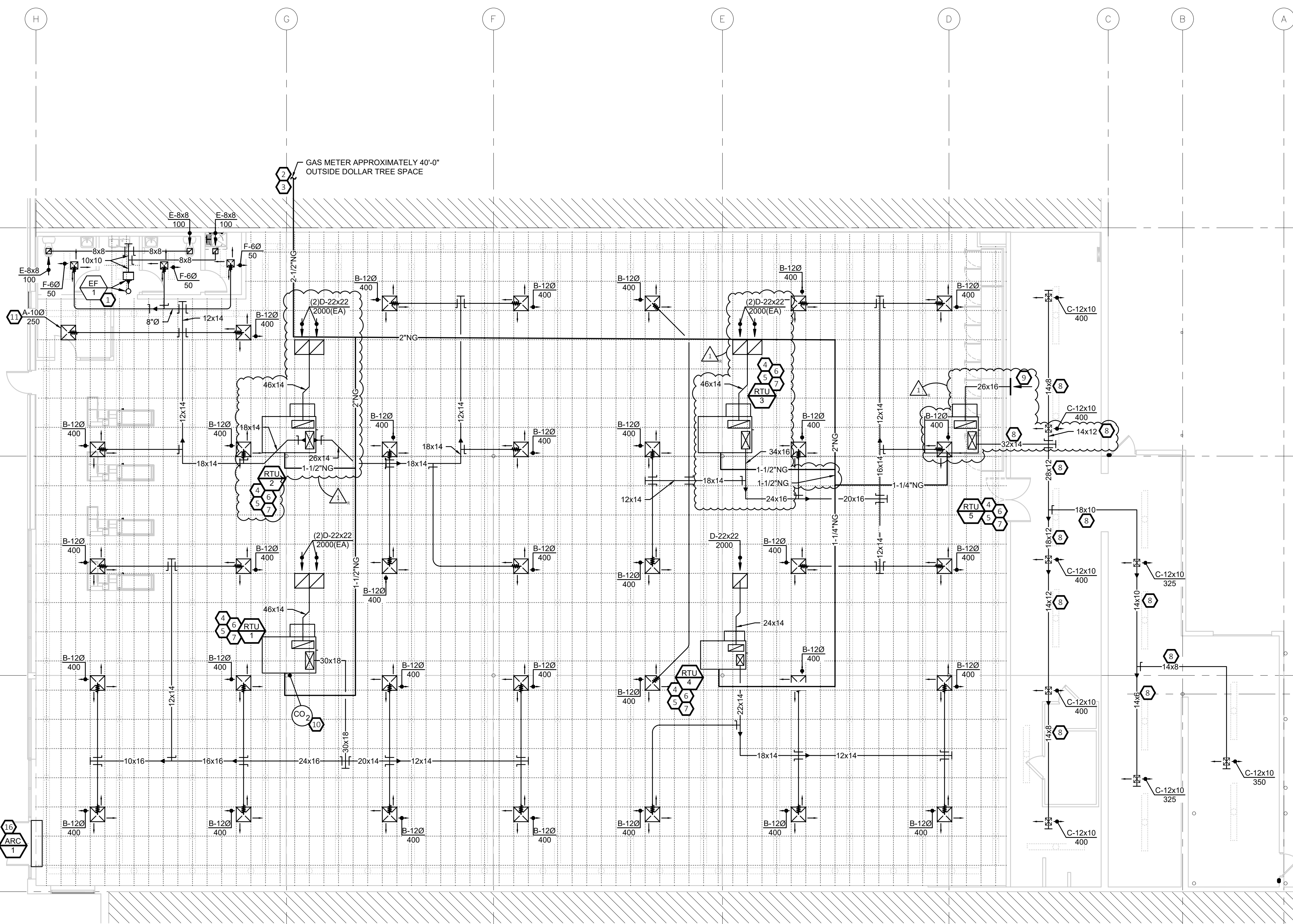
TELEPHONE SYSTEM/COMPUTER SYSTEM

- Telephone System Grounding Conductors: Furnish a #6 AWG, solid copper grounding conductor from telephone service equipment to electrical service grounding electrode system.
Telephone/Computer Conduit System: Furnish as indicated on the Drawings, including the following:
Telephone service conduits for underground service.
Other conduits as indicated on the Drawings. Furnish #14 AWG soft iron pull wire or heavy nylon cord in each conduit for pulling the telephone cable to each termination point.
Outlet boxes with a 3/4" conduit stubbed into accessible ceiling space with pullwire for cabling by others. Provide separate dedicated conduits for P.O.S. lines. (Do not share with other telephone or data lines.)
No electrical conduits or power wiring shall pass over the telecommunications closet and panels, except for telecommunications room light fixtures.
Provide plenum rated cable where required by local code and in plenum spaces. As alternate method contractor shall provide conduit system.

INSTALLATION

- Furnish and install conduit system as shown. Cabling and final connection to be by the tenant contractor. The system shall consist of telephone/data outlets in locations as indicated, branch conduits, and all accessories required by the telephone company for complete installation.

CASCO logo and project information including date (08/01/22), project (230227), designed (KSG), drawn (KSG), checked (WJK), and project location (DOLLAR TREES HOBBY LOBBY CENTER, 2225 MISSOURI BLVD., JEFFERSON CITY, MO 65109).



1 HVAC/PLUMBING PLAN
 SCALE: 1/8" = 1'-0"
 NORTH

ALTERNATIVE DUCTWORK NOTES:

- IN THE INTEREST OF COST SAVINGS, THE CONTRACTOR SHALL HAVE THE OPTION TO SUBSTITUTE EQUIVALENT ROUND DUCT FOR THE RECTANGULAR DUCT AS ILLUSTRATED AND SPECIFIED HEREIN ON THESE DOCUMENTS. REFER TO SPECIFICATIONS SHEET.
- EQUIVALENT ROUND DUCTWORK SHALL HAVE ESSENTIALLY THE SAME PRESSURE DROP PERFORMANCE AND VELOCITY CLASS AS THE RECTANGULAR DUCTWORK SPECIFIED HEREIN ON THESE DOCUMENTS.
- ALL ROUND DUCTWORK IN CONCEALED LOCATIONS AND IN THE STOCK ROOM SHALL BE EXTERNALLY INSULATED AS REQUIRED ON SPECIFICATIONS SHEET. DUCTWORK IN OPEN DECK AREAS (AREAS WITHOUT HUNG CEILING) IS NOT REQUIRED TO BE INSULATED.
- UNDER THIS ALTERNATE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FOLLOWING:
 - OBTAIN ALL NECESSARY PERMITS AND APPROVALS FROM ALL AUTHORITIES HAVING JURISDICTION. PAY ALL FEES THAT MAY BE REQUIRED TO IMPLEMENT THIS ALTERNATE. PROVIDE DETAILED DUCTWORK DRAWINGS AS REQUIRED TO OBTAIN APPROVALS FROM THESE BUILDING AUTHORITIES.
 - VERIFY THAT THE ROUND DUCTWORK WILL FIT AND FUNCTION PROPERLY IN THE SPACES PROVIDED WITHOUT BUILDING MODIFICATIONS. VERIFY THAT ADDITIONAL ELBOWS, FITTINGS, OR TRANSITIONS WILL NOT BE REQUIRED WHICH WILL ADD SUBSTANTIALLY TO THE PRESSURE DROP OF THE SYSTEMS.
 - IF THE AUTHORITIES HAVING JURISDICTION REQUIRE THAT THE ORIGINAL DUCTWORK DRAWINGS BE PREPARED BY TENANT'S ENGINEER BE REVISED TO ILLUSTRATE AND SPECIFY THE ROUND DUCT ALTERNATE. THE CONTRACTOR SHALL REIMBURSE TENANT'S ENGINEER FOR THE COST OF THE REVISIONS.
 - THE ROUND DUCT ALTERNATE SHALL NOT BE JUSTIFICATION FOR CONSTRUCTION DELAYS.

NOTE CONTRACTOR:
 DUCTWORK SHALL BE SIZED AND INSTALLED AS INDICATED ON CONTRACT DOCUMENTS. NO CHANGES SHALL BE MADE WITHOUT PRIOR WRITTEN APPROVAL FROM TENANT. FAILURE TO DO SO SHALL RESULT IN CONTRACTOR REMOVING INSTALLED SYSTEM AND REPLACING WITH NEW AS SHOWN AT NO ADDITIONAL COST TO TENANT. MINOR DUCT CHANGES DUE TO EXACT UNIT LOCATIONS OR ORIENTATION SHALL BE ACCEPTABLE.

NOTE:
 IDENTIFY ALL ROOFTOP EQUIPMENT SERVING THE TENANT'S SPACE WITH THE STORE NAME AND THE EQUIPMENT NUMBER ENGRAVED IN 3"x8" LAMINATED PLASTIC EQUIPMENT TAGS PERMANENTLY ATTACHED TO THE UNITS IN A VISIBLE LOCATION. DO NOT OBSTRUCT HOUSING PANELS, ETC. REQUIRED FOR MAINTENANCE OR REPAIR.

NOTE- HVAC CONTROLS:
 CONTRACTOR SHALL REFER TO THE EM SHEETS FOR INSTALLATION INSTRUCTIONS FOR THE VENDOR FURNISHED. CONTRACTOR SHALL INSTALL HVAC CONTROL SYSTEM AND TEMPERATURE AND CO2 SENSOR LOCATIONS PRIOR TO THE INSTALLATION OF ALL RELATED ITEMS.

NOTE- DUCTWORK:
 CONTRACTOR SHALL SITE VERIFY EXISTING HVAC UNIT LOCATIONS(S) & POTENTIAL DUCTWORK OBSTRUCTIONS (SPRINKLER LINES, STRUCTURAL BEAMS & JOIST, ETC.) PRIOR TO FABRICATING DUCTWORK. CONTRACTOR SHALL CONTACT THE D/F/D CONSTRUCTION PROJECT MANAGER IF CONFLICTS BETWEEN EXISTING CONSTRUCTION DOCUMENTS & EXISTING CONDITION EXIST FOR DIRECTION.

2012 INTERNATIONAL ENERGY CODE POST CONSTRUCTION REQUIREMENTS
 PER THE REQUIREMENTS OF THE 2012 INTERNATIONAL ENERGY CODE, THE GENERAL CONTRACTOR SHALL OBTAIN & PROVIDE THE FOLLOWING MECHANICAL RELATED ITEMS LISTED BELOW. CONTRACTOR SHALL PROVIDE A COPY TO THE TENANT AND WRITTEN CONFIRMATION TO THE PROFESSIONAL OF RECORD PROVING SAID INFORMATION HAS BEEN PROVIDED.

- HVAC RECORD DRAWINGS OF THE ACTUAL INSTALLATION, SYSTEM CAPACITIES, CALIBRATION INFORMATION AND PERFORMANCE DATA FOR EACH EQUIPMENT PROVIDED TO THE TENANT.
- HVAC O&M DOCUMENTS FOR ALL MECHANICAL EQUIPMENT AND SYSTEM PROVIDED TO THE TENANT BY THE MECHANICAL CONTRACTOR.
- WRITTEN HVAC BALANCING AND OPERATIONS REPORT PROVIDED TO THE TENANT.
- HVAC EQUIPMENT, ECONOMIZERS, AND CONTROL SYSTEMS SHALL BE TESTED TO ENSURE PROPER OPERATION.

FIRE PROTECTION STANDARDS

THE CONTRACTOR SHALL RETAIN AND PAY FOR A "PROFESSIONAL OF RECORD" FOR ALL FIRE PROTECTION WORK.

THE DRAWINGS AND ALL SPECIFICATIONS FOR ALL FIRE PROTECTION WORK ARE PERFORMANCE IN SCOPE AND INTENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DESIGN, LAYOUT, DETAILS, DRAWINGS, DOCUMENTS, MATERIALS, EQUIPMENT, LABOR, AND ALL CRITERIA TO MEET GOVERNING AUTHORITIES, CODES, REGULATIONS, AND UNDERWRITER'S REQUIREMENTS FOR ALL FIRE PROTECTION WORK.

CONTRACTOR SHALL VISIT THE SITE TO BECOME FAMILIAR WITH THE EXISTING CONDITIONS PRIOR TO SUBMITTING BID.

A COMPLETE SET OF ALL REQUIRED DOCUMENTS SHALL BE PREPARED AND SUBMITTED TO THE PROPER AUTHORITIES WITHIN THIRTY (30) DAYS OF CONTRACT AWARD. THE LANDLORD'S DESIGN CRITERIA SHALL BE CONSIDERED PART OF THESE STANDARDS.

ALL FIRE PROTECTION WORK SHALL BE SCHEDULED IN ADVANCE WITH THE LANDLORD'S FIELD REPRESENTATIVE. FIRE PROTECTION SYSTEM SHALL BE FULLY OPERATIONAL WHEN THE CONTRACTOR IS OFF THE SITE.

WHERE CEILING OR CEILING GRIDS ARE EXISTING TO REMAIN OR NEW CEILING ARE INSTALLED AND NEW LIGHTING CONFLICTS WITH THE LOCATION OF EXISTING SPRINKLER HEADS, THE NEW LIGHTING SHALL BE SHIFTED APPROXIMATELY 6" (OR AS REQUIRED TO MAINTAIN CLEARANCE TO SPRINKLER HEADS PER NFPA 13) TO ALLOW THE EXISTING SPRINKLER HEADS TO REMAIN.

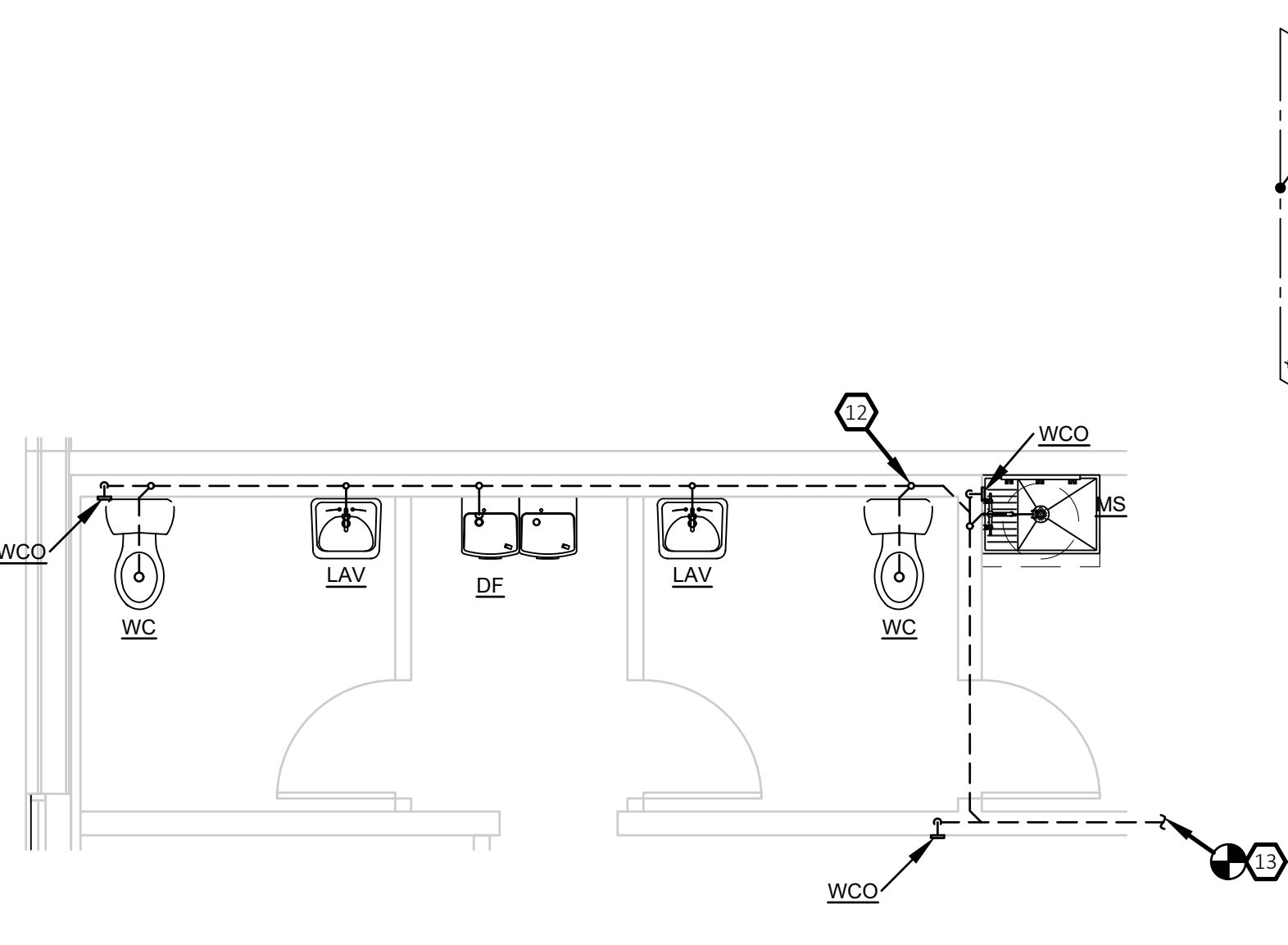
CONTRACTOR SHALL MODIFY EXISTING SPRINKLER PIPING AND HEADS AS REQUIRED FOR REDEMISED SPACE.

CONTRACTOR SHALL PROVIDE DRY PENDANT HEADS IN WALK-IN COOLER AND FREEZER SECTIONS PER NFPA 13 REQUIREMENTS.

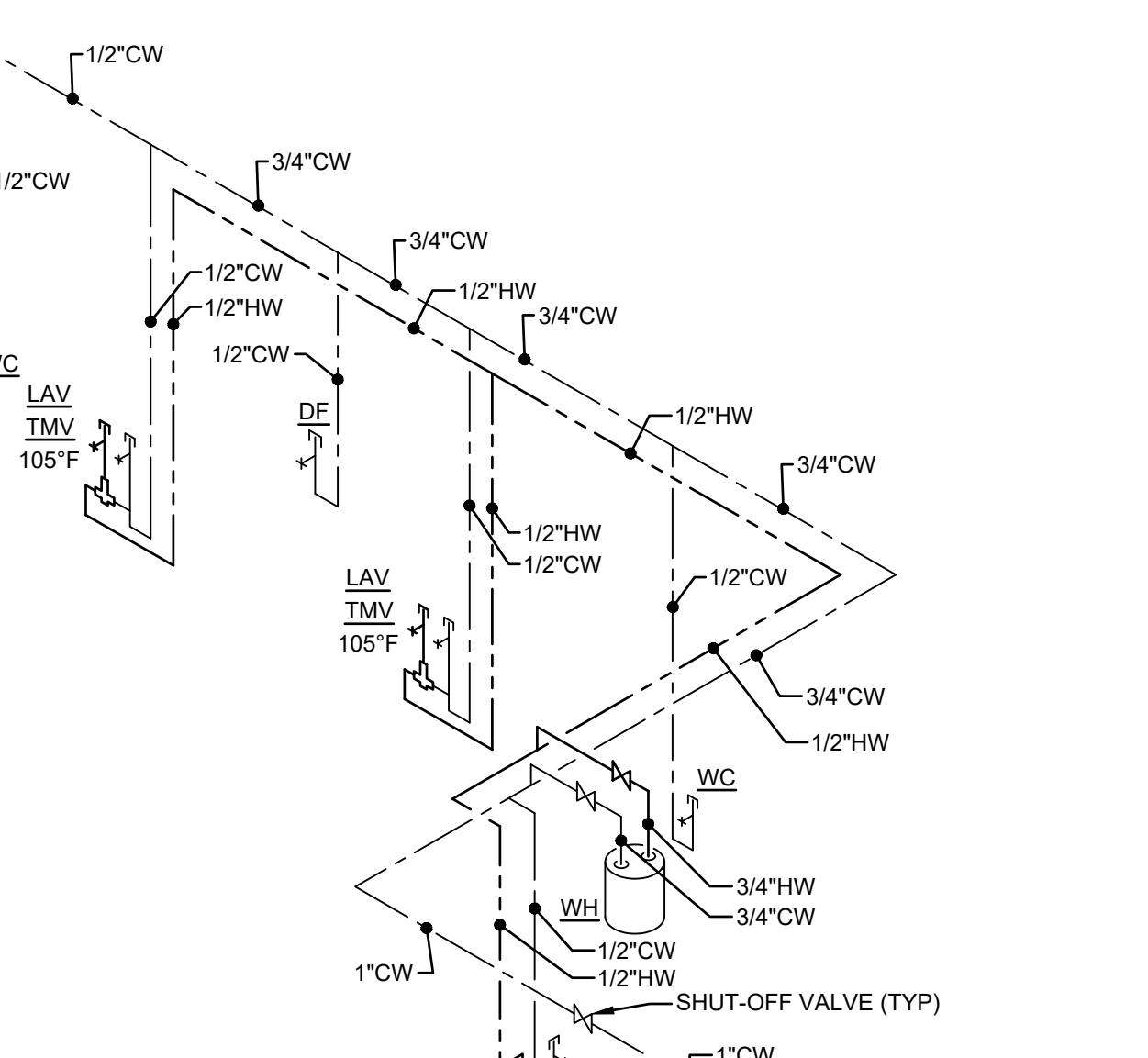
GENERAL NOTES

- WHEN REQUIRED, HVAC ROOF CURBS SLOPED TO MATCH ROOF PITCH SHALL BE PROVIDED BY CONTRACTOR AND ARE NOT PART OF THE NATIONAL ACCOUNT PROVISIONS. REFER TO KEYED NOTES ON THIS SHEET FOR ADDITIONAL INFORMATION.
- CONTRACTOR SHALL IDENTIFY ALL HVAC EQUIPMENT WITH STORE NAME AND UNIT NUMBER USING PERMANENT, WEATHER PROOF 2" HIGH DIE-CUT LETTERS.
- PROVIDE PROPER CONDENSATE TRAP AND TERMINATE AS REQUIRED BY LOCAL CODE.
- ANY PENETRATION THROUGH THE ROOF SHALL BE COORDINATED WITH THE LANDLORD'S FIELD REPRESENTATIVE AND SHALL BE DONE BY A LANDLORD APPROVED ROOFING CONTRACTOR IN ORDER TO MAINTAIN THE ROOFING WARRANTY. ALL VENTS SHALL EXTEND A MINIMUM OF 12 INCHES ABOVE ROOF AND SHALL BE A MINIMUM OF 10 FEET FROM ANY OUTSIDE AIR INTAKE.
- ALL DUCT SIZES SHOWN ARE CLEAR INSIDE AIR FLOW DIMENSIONS.
- DO NOT PROVIDE AIR EXTRACTORS OR SPLITTER FITTINGS WHICH PROTRUDE INTO RECTANGULAR TRUNK DUCTS (WHERE USED). PROVIDE ROUND SPIN-IN FITTINGS FOR ROUND BRANCH DUCTS.
- ROUND BRANCH DUCTS WHERE INDICATED ARE SAME SIZE AS ATTACHED DIFFUSER NECK SIZE.
- DO NOT SUSPEND ANY ITEMS FROM DECK OR SLAB ABOVE. ALL ITEMS SHALL BE SUSPENDED FROM TOP CHORD OF STRUCTURE, UNLESS OTHERWISE NOTED. PROVIDE MISCELLANEOUS STEEL AS REQUIRED.
- WHERE CEILING SPACE IS NOT SUFFICIENT TO PERMIT TOP CONNECTION TO CEILING DIFFUSER WITH PROPER BEND RADIUS FOR FLEXIBLE DUCT, CONTRACTOR SHALL FABRICATE AND/OR PROVIDE AN ADAPTER BOX FOR DIFFUSER TO PERMIT SIDE CONNECTION OF FLEXIBLE DUCT.
- CONTRACTOR SHALL COORDINATE AND SCHEDULE ALL WORK WITH LANDLORD'S FIELD REPRESENTATIVE.
- PROVIDE SUPPORT FOR PIPING ON ROOF PER LANDLORDS ROOFING CONTRACTORS RECOMMENDATIONS.
- WHERE AN OPEN CEILING PLAN IS UTILIZED FOR THE SALES AREA, AIR DEVICES SHALL BE INSTALLED AT 12'-0" A.F.F. OR COORDINATED WITH LIGHTING INSTALLATION HEIGHT. VERIFY ALL REQUIREMENTS WITH PROJECT MANAGER.

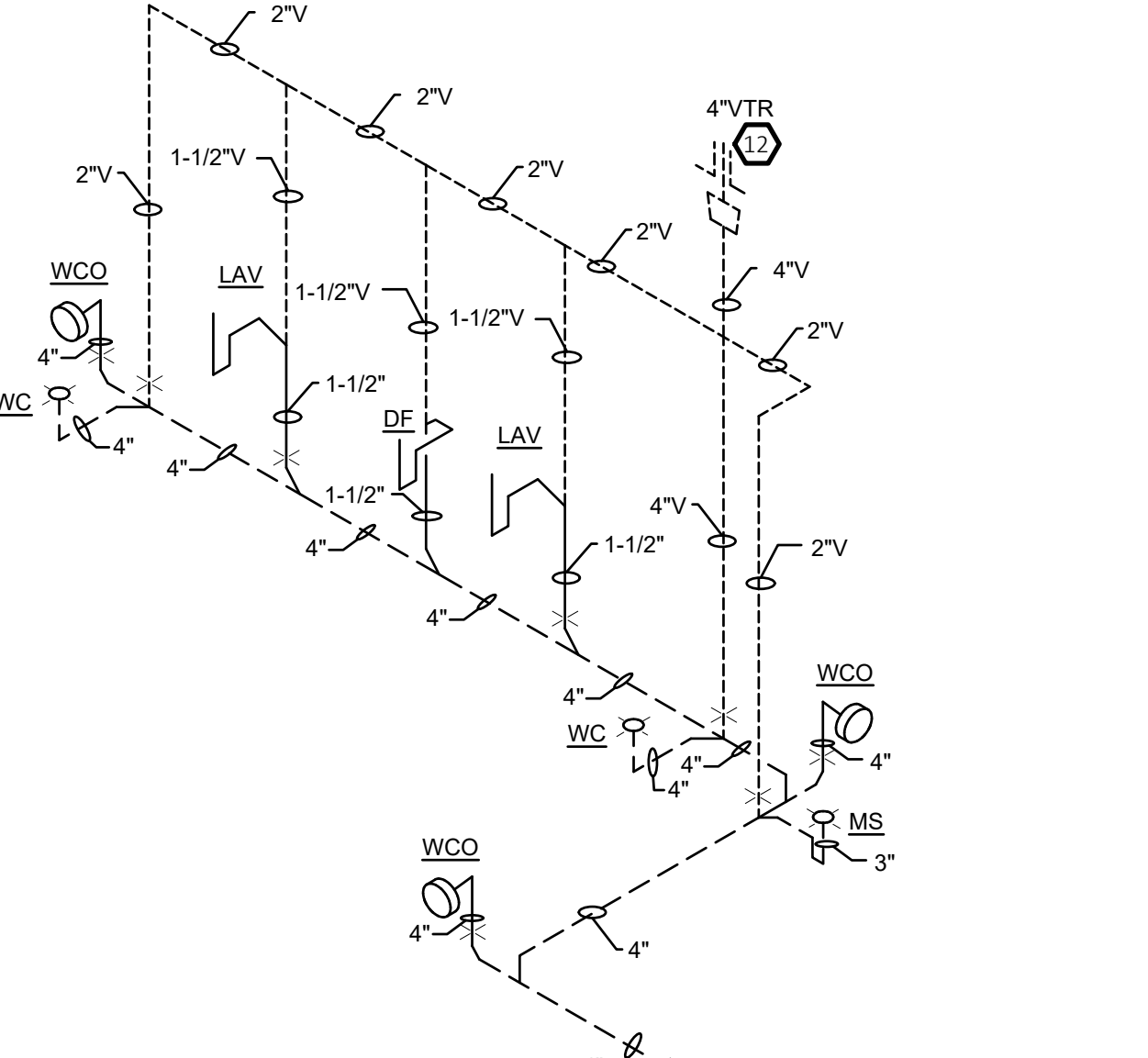
- KEYED NOTES**
- EXTEND MIN. 8" Ø EXHAUST DUCT UP THRU ROOF. TERMINATE WITH WEATHER CAP.
 - GAS METER BY UTILITY. CONTRACTOR SHALL VERIFY THAT NEW GAS METER IS REGULATED FOR 10" W.C. PRESSURE AND HAS A MINIMUM CAPACITY OF 900 CFH. ANY DISCREPANCIES IN THIS INFORMATION SHOULD BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE CONSTRUCTION MANAGER AND/OR PROJECT ENGINEER. GAS PIPING IS SIZED BASED ON 10" W.C. PRESSURE AND A 0.5" W.C. PRESSURE DROP OVER A DEVELOPED LENGTH OF 300 FEET PER THE INTERNATIONAL FUEL GAS CODE. IF NEW METER LOCATION IS DIFFERENT THAN EXISTING LOCATION CONTACT ENGINEER OF RECORD IMMEDIATELY. PRIOR TO INSTALL OF ANY PIPING. FAILURE TO DO SO MAY RESULT IN CONTRACTOR REPLACING PIPING AT NO ADDITIONAL COST TO TENANT.
 - CONTRACTOR SHALL EXTEND 2-1/2" GAS RISER ON THE OUTSIDE OF THE BUILDING TIGHT TO WALL. PROVIDE AN APPROVED GAS SHUT-OFF AT 48" ABOVE FINISHED GRADE.
 - CONTRACTOR TO EXTEND AND CONNECT NEW GAS PIPING TO HVAC UNITS AS INDICATED. SEE DETAIL ON SHEET MP2.
 - CONTRACTOR SHALL INSTALL NEW TENANT PROVIDED HVAC UNIT AND CONTRACTOR PROVIDED ROOF CURB AS INDICATED ON PLANS, SCHEDULE AND NOTES. PROVIDE NEW OPENING AND STRUCTURAL SUPPORT AS SHOWN ON STRUCTURAL DRAWINGS. PROVIDE FULL SIZE DUCT DROPS TO BOTTOM CHORD OF STRUCTURE.
 - PROVIDE FULL SIZE CONDENSATE TRAP/LINE. TERMINATE IN A CODE APPROVED LOCATION. SEE DETAIL ON SHEET MP2.
 - FURNISH AND INSTALL SMOKE DETECTOR (SYSTEM SENSOR #H4120) IN RETURN AIR DROP FROM UNIT. WIRE SMOKE DETECTOR TO BUILDING FIRE ALARM CONTROL PANEL OR FURNISH AND INSTALL A REMOTE AUDIBLE/VISUAL ALARM DEVICE WITH A REMOTE SWITCH (SYSTEM SENSOR #RTS2-A05) LOCATED IN AN APPROVED LOCATION. FIELD VERIFY EXACT REQUIREMENTS. CONTRACTOR SHALL TEST SYSTEM TO INSURE PROPER FUNCTION PRIOR TO TENANT OCCUPANCY SPACE.
 - CONTRACTOR SHALL LOCATE BOTTOM OF STOCK ROOM DUCTWORK AS HIGH AS POSSIBLE ABOVE STOCK ROOM FLOOR ABOVE LIGHTS. ANY DEVIATION TO THIS DIMENSION DUE TO INTERFERENCE WITH ANY BUILDING OBSTRUCTIONS SUCH AS STRUCTURE, OVERHEAD DOORS, ETC. SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO FABRICATING THE DUCTWORK.
 - COVER OPEN END OF RETURN DUCT WITH 1" MESH HARDWARE CLOTH IN A REMOVABLE METAL FRAME. SEE DETAIL SHEET MP2.
 - TENANTS CONTRACTOR SHALL INSTALL TENANT VENDOR PROVIDED CO2 SENSOR 7'-0" A.F.F. THIS SENSOR SHALL CONTROL RTU-1,-2,-3 AND -4. SEE EM SHEETS FOR MORE INFORMATION.
 - ADJUST DIFFUSER FOR FULL VERTICAL DISCHARGE INTO OFFICE BELOW.
 - PROVIDE NEW 4" VENT THRU ROOF. REUSE EXISTING VENT THRU ROOF WHERE FEASIBLE. SEAL ALL UNUSED VENTS THRU ROOF AIRWEATHER-TIGHT. COORDINATE ROOF PENETRATION REQUIREMENTS WITH LANDLORD'S ROOFING CONTRACTOR.
 - EXTEND NEW 4" SANITARY SEWER TO EXISTING MIN. 4" SANITARY. FIELD VERIFY EXACT LOCATION, SIZE, AND INVERT ELEVATION OF CONNECTION POINT PRIOR TO START OF ANY WORK. REPORT DIFFERENCES TO ENGINEER. FAILURE TO DO SO MAY RESULT IN CONTRACTOR REPLACING PIPING AT NO ADDITIONAL COST TO TENANT. (NOTE: NEW RESTROOMS ARE APPROXIMATELY 35'-0" AWAY FROM PREVIOUS RESTROOMS).
 - EXTEND 1" DOMESTIC WATER TO EXISTING MIN. 1" WATER SERVICE CONNECTION. PROVIDE SHUT-OFF, BACKFLOW PREVENTER, PRESSURE REGULATING VALVE, METER, AND REMOTE READER IF REQUIRED. INSULATE ENTIRE LINE WITHIN BUILDING. FIELD VERIFY EXACT LOCATION OF EXISTING DOMESTIC WATER SERVICE PRIOR TO INSTALLING ANY PIPING. REPORT DIFFERENCES TO ENGINEER. FAILURE TO DO SO MAY RESULT IN CONTRACTOR REPLACING PIPING AT NO ADDITIONAL COST TO TENANT.
 - CONTRACTOR SHALL OBTAIN A COPY OF ALL PLUMBING FIXTURE SPEC. SHEETS PRIOR TO INSTALLATION OF ANY PIPING. CONTRACTOR SHALL ROUGH IN PLUMBING BASED ON THE FIXTURE INSTALLATION INSTRUCTIONS.
 - CONTRACTOR SHALL INSTALL NEW AIR CURTAIN. REFER TO SCHEDULE AND DETAIL ON SHEET MP2 FOR MORE INFORMATION.



2 PARTIAL PLUMBING PLAN
 SCALE: 1/4" = 1'-0"



3 WATER ISOMETRIC
 SCALE: NOT TO SCALE



4 SANITARY ISOMETRIC
 SCALE: NOT TO SCALE

MECHANICAL/PLUMBING LEGEND

	NEW SUPPLY, RETURN, EXHAUST DUCTWORK SINGLE OR DOUBLE LINE		EQUIPMENT TAG
	DUCTWORK TRANSITION (NOTE: DIRECTION OF ARROW DOES NOT NECESSARILY INDICATE DIRECTION OF AIR FLOW)		AIR DEVICE TAG
	NEW SUPPLY, RETURN, EXHAUST ELBOW UP		SUPPLY AIR DIFFUSER
	NEW SUPPLY, RETURN, EXHAUST ELBOW DOWN		RETURN/EXHAUST AIR GRILLE
	NEW SUPPLY, RETURN, EXHAUST ELBOW WITH TURNING VANE		FIRE DAMPER
	FLEX DUCT		VOLUME DAMPER
	EXISTING SUPPLY, RETURN, EXHAUST DUCTWORK		NEW NATURAL GAS
	EXISTING		EXISTING NATURAL GAS
	VERIFY IN FIELD		AIR CONDITIONING CONDENSATE
	CONNECTION TO EXISTING SERVICE/DUCTWORK CARBON DIOXIDE (CO2) SENSOR		PLUMBING SANITARY (WASTE) BELOW SLAB
	APPROVED DUCT TYPE SMOKE DETECTOR		PLUMBING SANITARY (WASTE) ABOVE SLAB
	TEMPORARY THERMOSTAT (FOR LANDLORD START-UP AND PRE-EMS SYSTEM USE)		PLUMBING VENT
			DOMESTIC COLD WATER
			DOMESTIC HOT WATER AND TEMPERED WATER

CASCO
 12 Summit Drive, Suite 100, St. Louis, MO 63143
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CLARIFICATIONS

description	by	date	mark	revisions
		08/11/2022		
08/01/22	BAM			MRE
2020227	BAM			

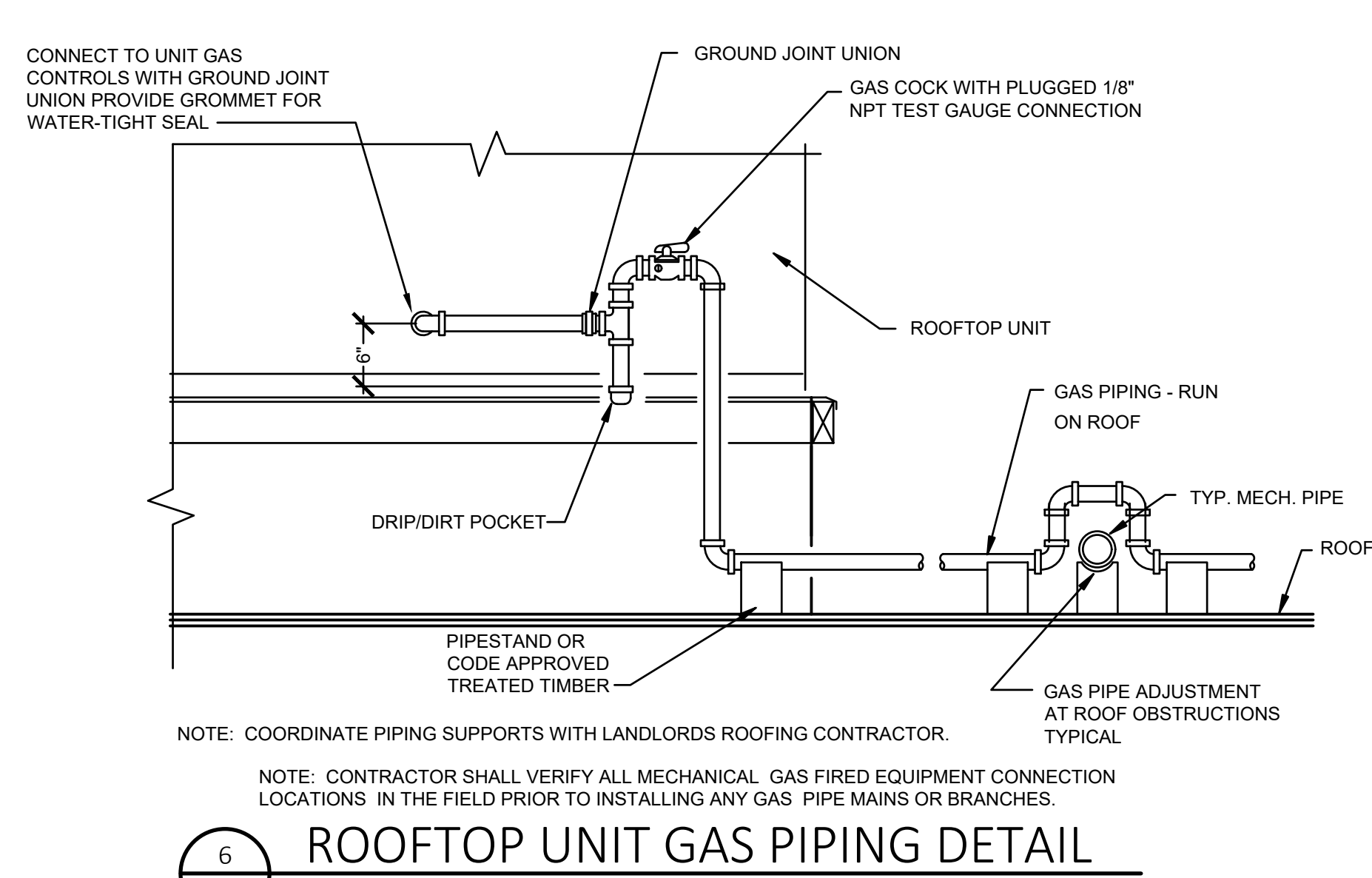
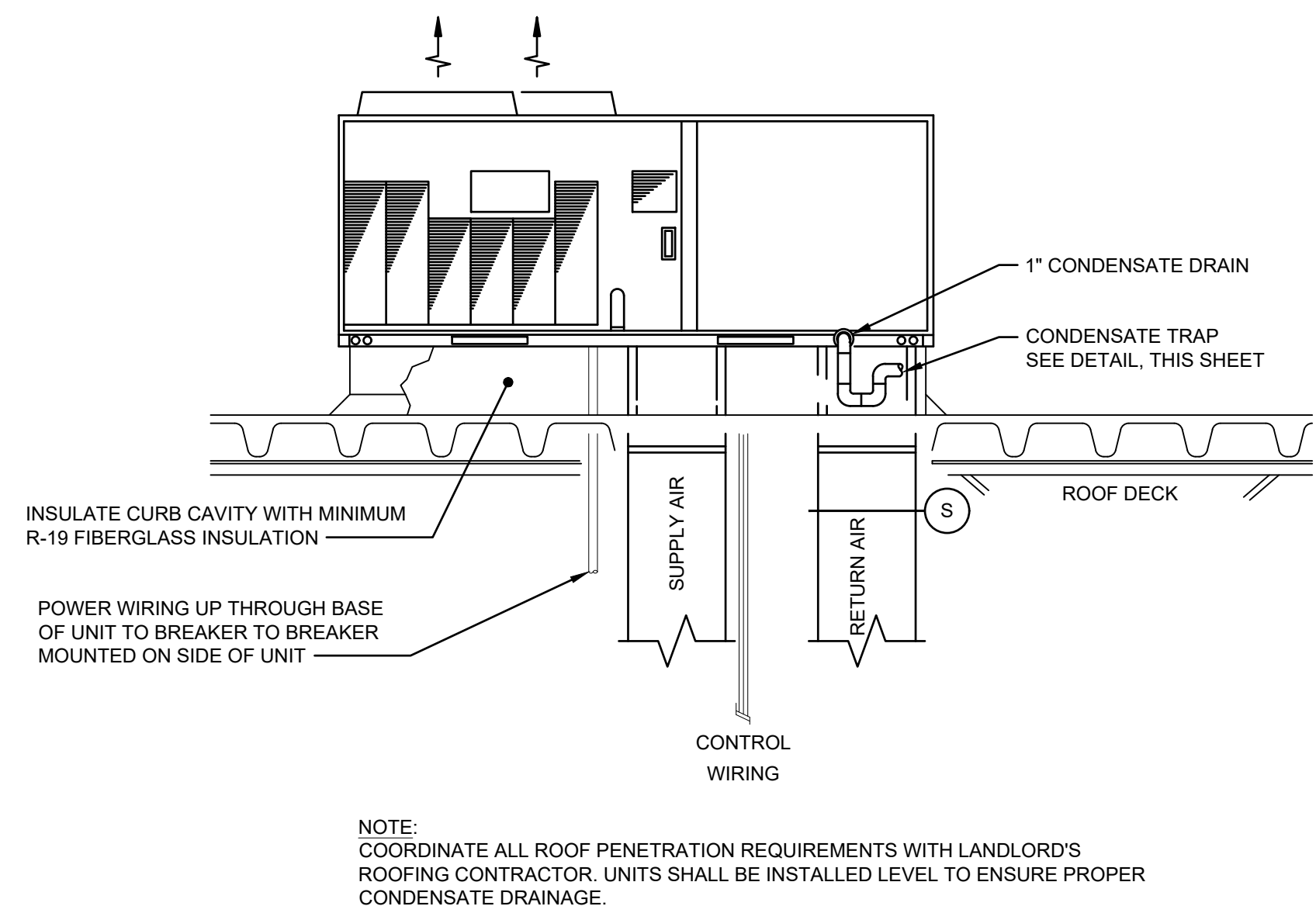
CASCO DIVERSIFIED CORPORATION
 ENGINEERING FIRM
 LICENSE #000613
 EXPIRES 12/31/23

MARGARET R. BOYER
 LICENSE NO. - FE-2020023077
 EXP. DATE: 12/31/22
 PHONE: 314.821.1100

DOLLAR TREE
 HOBBY LOBBY CENTER
 2225 MISSOURI BLVD., JEFFERSON CITY, MO 65109

FLOOR PLAN
 HVAC / PLUMBING

MP1

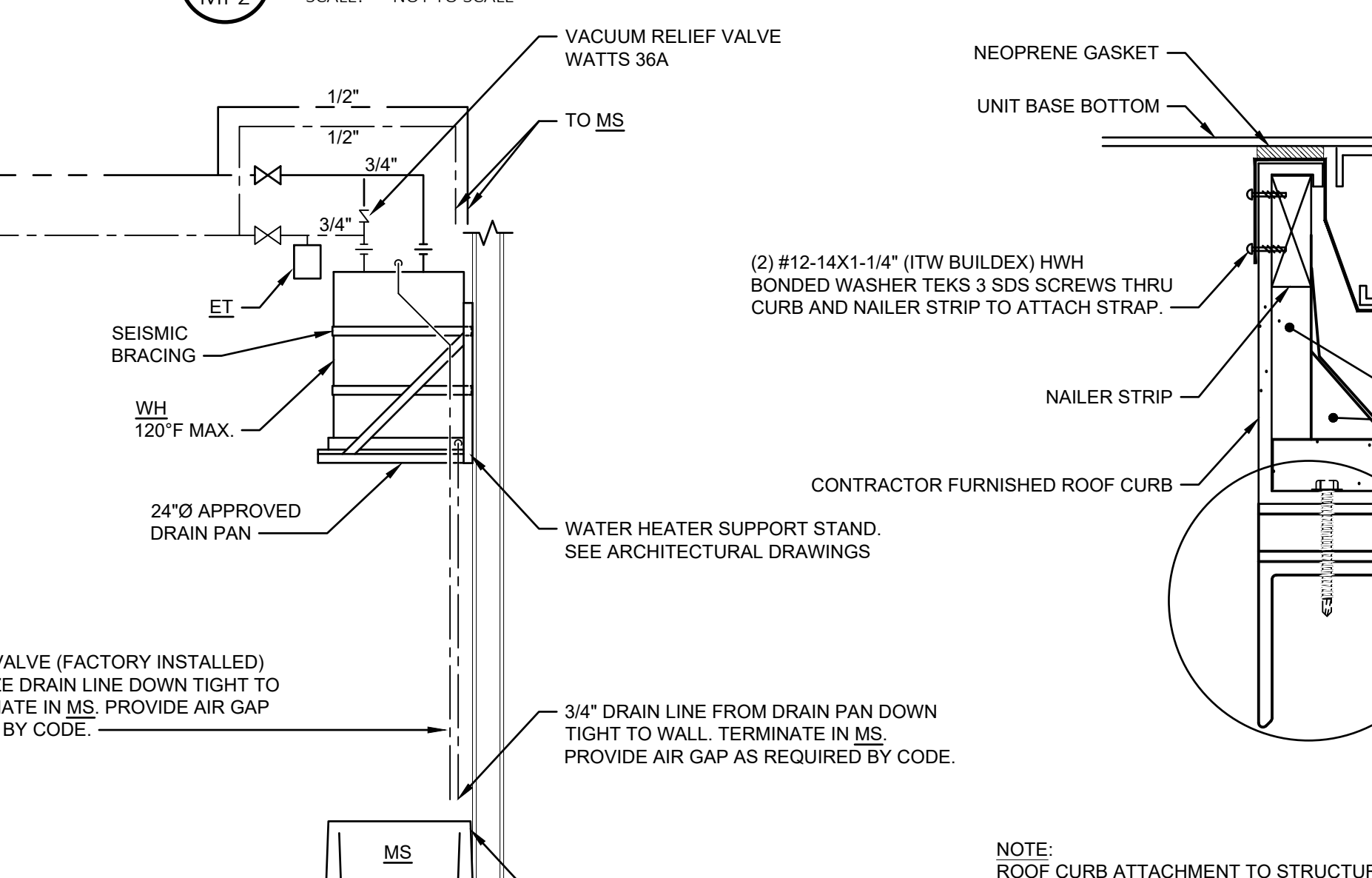
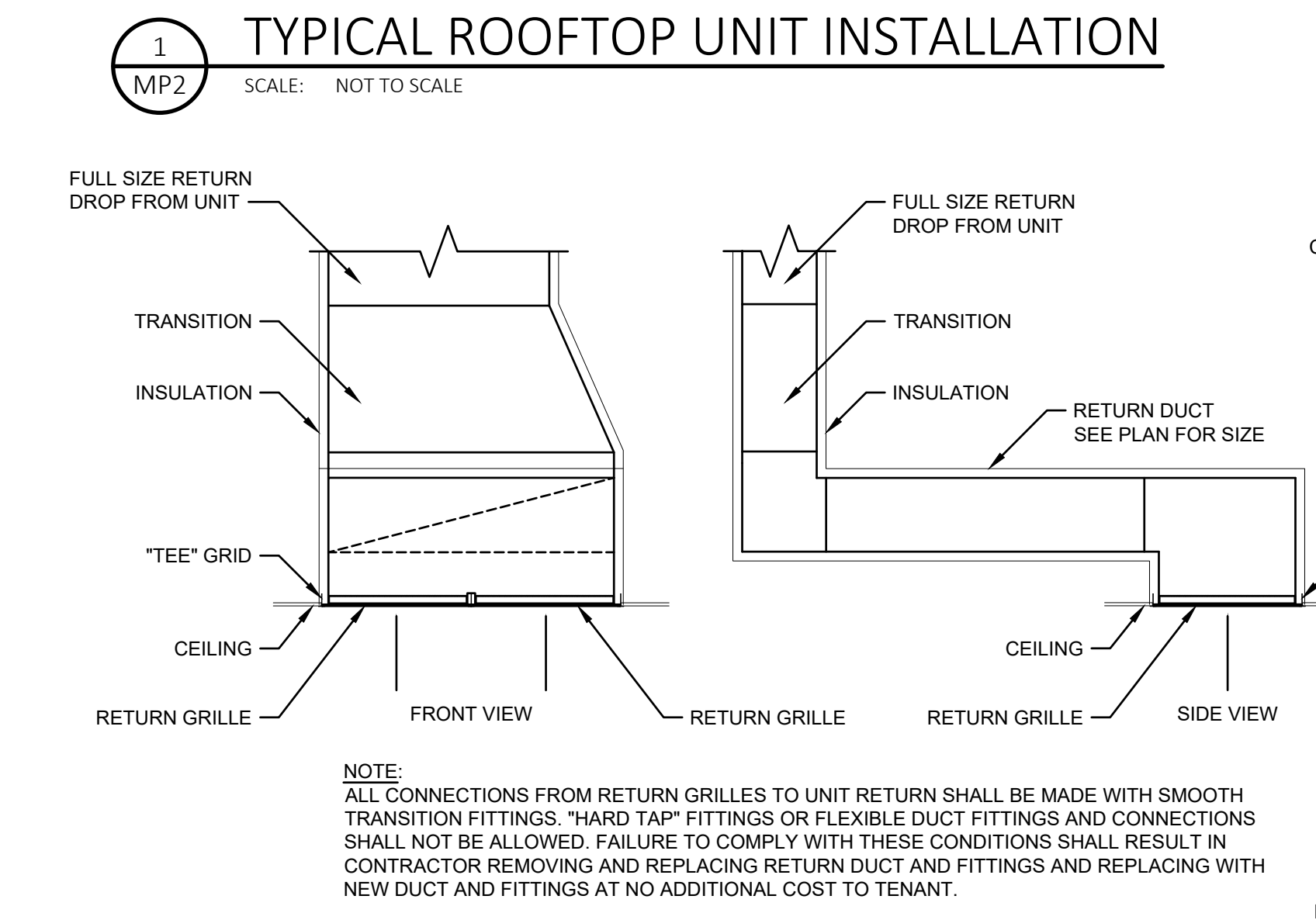


ROOFTOP UNIT SCHEDULE (gas heat/elec. cool)
OWNER PROVIDED, CONTRACTOR INSTALLED

MARK	MFR./MODEL	DISCHARGE	TONS	ESP	CFM	OUTSIDE AIR CFM (MIN.)	OUTSIDE AIR CFM (MAX.)	ENTERING CONDITIONS	GROSS COOLING CAPACITY (MBH)		(S)EER	FUEL TYPE	HEATING CAPACITY (MBH)		SSE %	ELECTRICAL DATA			MCA/ MOCP	APRX. UNIT WEIGHT (LBS.)	OPTIONS/ ACCESSORIES
									TOTAL	SENSIBLE			INPUT	OUTPUT		VOLTS	PHASE	FREQ.			
RTU-1	CARRIER 48FCCEM12A2M5	VERTICAL	10.0	1.00	4,000	410	970	80.1°F DB 65.7°F WB @ 96.1°F AMBIENT	125.8	96.2	11.0	NATURAL GAS	224	181	81	208	3	60	45.0/50	1,129	1, 3, 4, 5, 6, 7, 8, 9, 10, 11
RTU-2	CARRIER 48FCCEM12A2M5	VERTICAL	10.0	1.00	4,000	410	970	80.1°F DB 65.7°F WB @ 96.1°F AMBIENT	125.8	96.2	11.0	NATURAL GAS	224	181	81	208	3	60	45.0/50	1,129	1, 3, 4, 5, 6, 7, 8, 9, 10, 11
RTU-3	CARRIER 48FCCEM12A2M5	VERTICAL	10.0	1.00	4,000	410	970	80.1°F DB 65.7°F WB @ 96.1°F AMBIENT	125.8	96.2	11.0	NATURAL GAS	224	181	81	208	3	60	45.0/50	1,129	1, 3, 4, 5, 6, 7, 8, 9, 10, 11
RTU-4	CARRIER 48FCCEM12A2M5	VERTICAL	5.0	1.00	2,000	200	480	80.1°F DB 65.7°F WB @ 96.1°F AMBIENT	63.0	48.3	16.1	NATURAL GAS	110	88	80	208	3	60	31.0/45	774	2, 4, 5, 6, 7, 8, 9, 10, 11
RTU-5	CARRIER 48FCCEM08A2M5	VERTICAL	7.5	1.00	3,000	350	350	77.5°F DB 64.1°F WB @ 96.1°F AMBIENT	90.5	66.0	11.2	NATURAL GAS	180	148	82	208	3	60	39.0/50	1,035	1, 3, 4, 5, 6, 7, 8, 9, 10, 11

OPTIONS/ACCESSORIES:
 1) FACTORY INSTALLED MEDIUM STATIC BELT DRIVE.
 2) FACTORY INSTALLED HIGH STATIC BELT DRIVE.
 3) FACTORY INSTALLED INTELLISPEED VFD.
 4) FACTORY INSTALLED, FIELD WIRED DUAL ENTHALPHY ECONOMIZER W/ BAROMETRIC RELIEF AND HOODS.
 5) FACTORY INSTALLED LOUVERED HAL GUARDS.
 6) FACTORY INSTALLED, FIELD WIRED NON-FUSED DISCONNECT (REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION).
 7) FACTORY INSTALLED, FIELD WIRED NON-POWERED CONVENIENCE OUTLET (REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION).
 8) FACTORY FURNISHED, FIELD INSTALLED THRU THE BASE ELECTRICAL & THRU THE CURB GAS KIT.
 9) CONTRACTOR FURNISHED, FIELD INSTALLED SLOPED ROOF CURB.
 10) TENANT FURNISHED, FIELD INSTALLED/WIRED EMS PACKAGE.
 11) CONTRACTOR FURNISHED, THREE (3) SETS OF PLEATED FILTERS (REFER TO SHEET MP3 FOR ADDITIONAL INFORMATION).

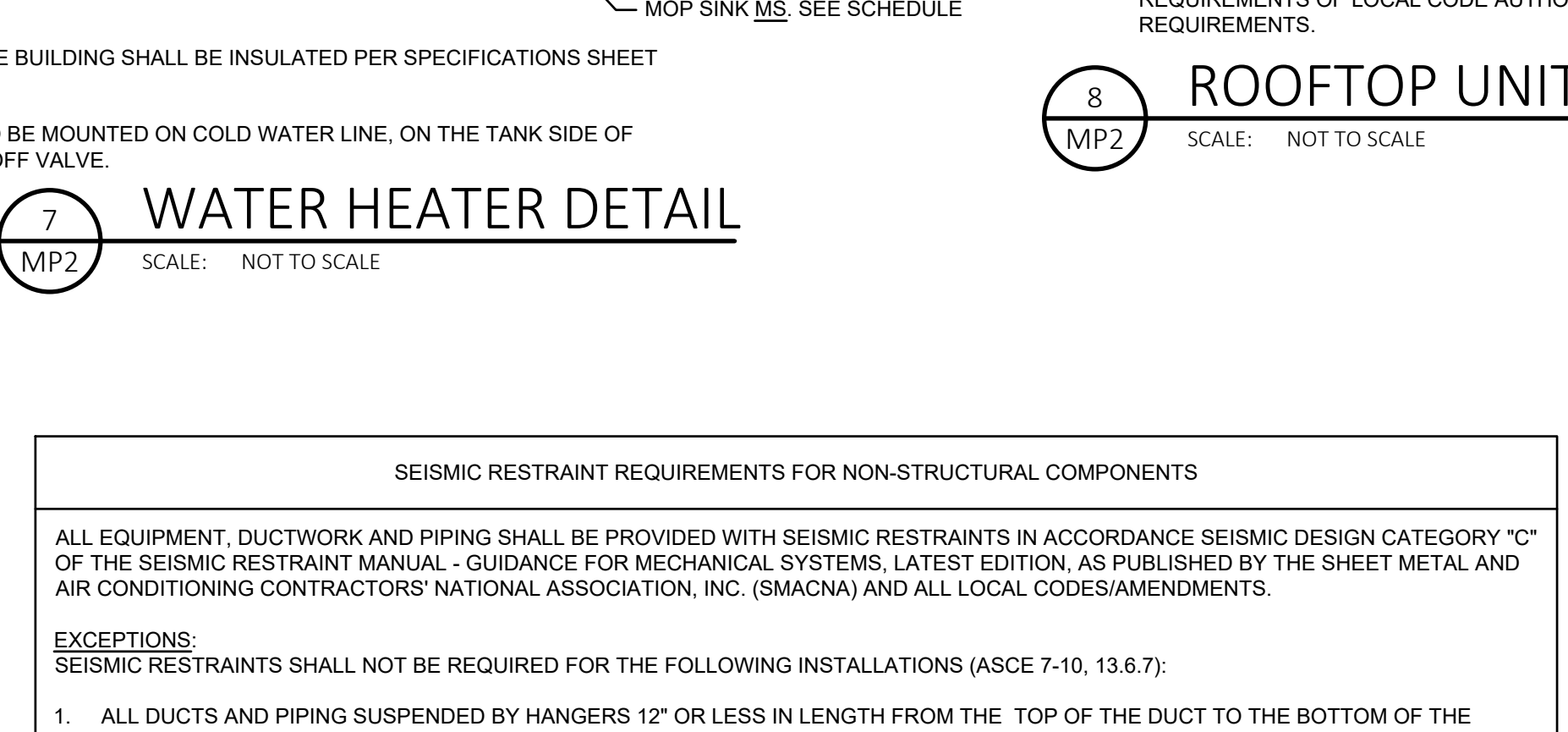
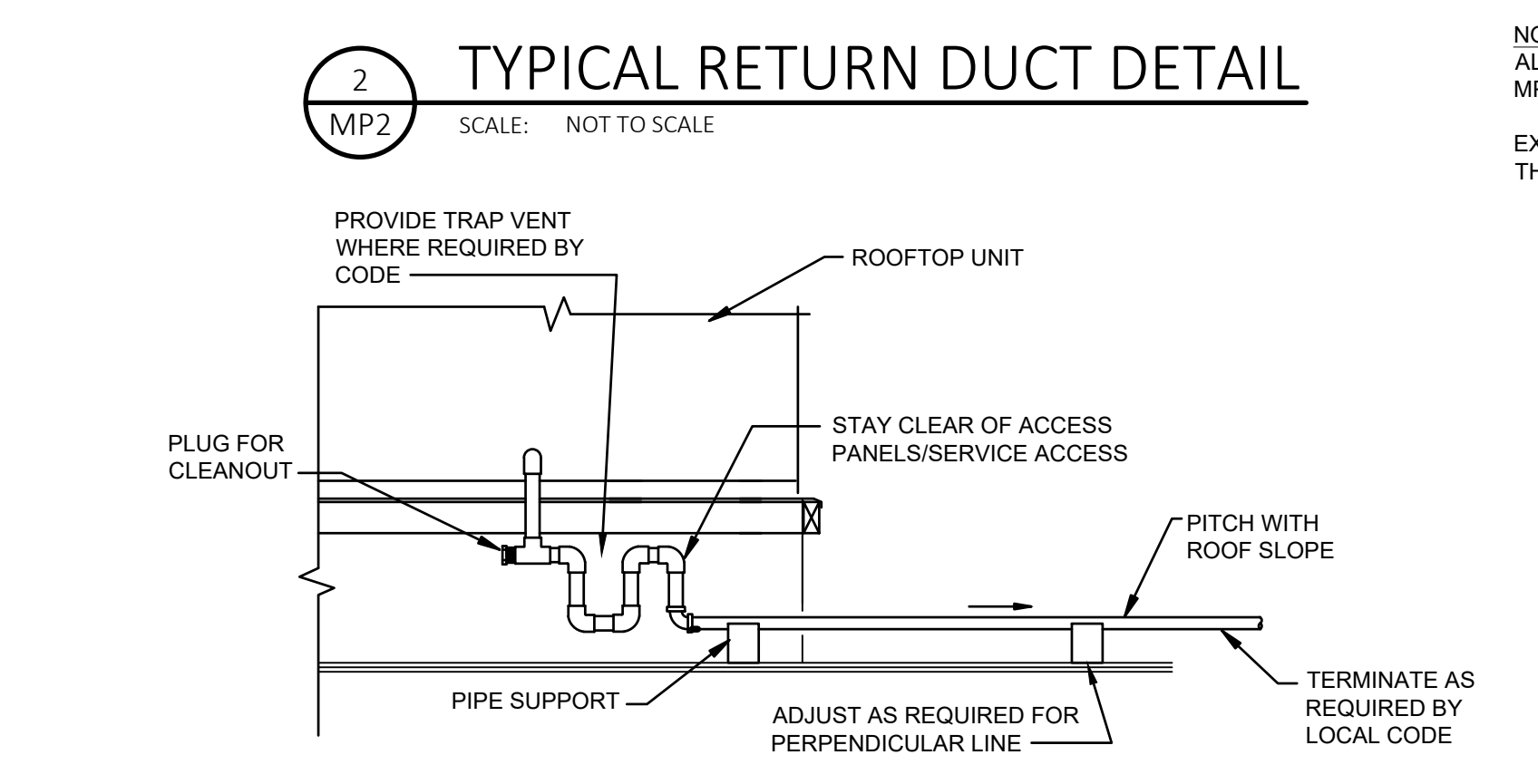
NOTE: CONTRACTOR SHALL BE RESPONSIBLE FOR ALL STARTUP AND WARRANTY WORK. VERIFY ELECTRICAL POWER PRIOR TO INSTALLING UNITS. FAILURE TO DO SO SHALL RESULT IN CONTRACTOR FURNISHING CORRECT UNITS OR POWER AT NO ADDITIONAL COST TO TENANT. OUTSIDE AIR QUANTITIES BASED ON THE 2012 INTERNATIONAL MECHANICAL CODE - MINIMUM VENTILATION RATES, BUILDINGS AND PEOPLE COMPONENTS FOR AN ENGINEERED VENTILATION SYSTEM EMPLOYING A CO2 MONITORING SYSTEM.



PLUMBING FIXTURE SCHEDULE
PROVIDED BY TENANT'S VENDOR FOR INSTALLATION BY CONTRACTOR

MARK	FIXTURE TYPE	MANUFACTURER & MODEL NO.	FIXTURE CONNECTIONS				REMARKS
			CW	HW	W	V	
BFP	BACKFLOW PREVENTER	WILKINS 975XLS2-AG (LEAD FREE)	---	---	---	---	REDUCED PRESSURE TYPE, INTEGRAL SHUT-OFF VALVES COMPLYING WITH ASSE 1013. PROVIDE WITH INLET WYE STRAINER AND AIR GAP FITTING
DF	B-I-LEVEL HANDICAP DRINKING FOUNTAIN	ELKAY MODEL NO. EMBFTLDD NON-REFRIGERATED	1/2"	---	1 1/2"	1 1/2"	FURNISH STANDARD CABINET FINISH FOUNTAIN, ADA APRON ACCESSORY, SUPPLY STOP & TUBE, DRAIN KIT AND WALL HANGER KIT
ET	EXPANSION TANK	WATTS MODEL PLT-5	3/4"	---	---	---	FDA APPROVED, POTABLE WATER EXPANSION TANK, 2.1 GALLON ACCEPTANCE
FCO	FLOOR CLEANOUT	ZURN MODEL #1454	---	---	---	---	SIZE PER PIPING LATERAL, 4" MAX.
LAV	HANDICAP WALL HUNG LAVATORY	ZURN MODEL NO. Z5344 WITH 1/2 GPM FLOW RESTRICTOR, GRID DRAIN, FAUCET HOLES ON 4" CENTERS	1/2"	1/2"	1 1/2"	1 1/2"	FURNISH LAVATORY, ZURN Z86500-XL LEAD FREE METERING FAUCET, GRID DRAIN, SUPPLY STOPS & TUBES, DRAIN, AND ADA PIPING PROTECTION
MS	FLOOR MTD. MOP SINK	ZURN MODEL Z1996-36	1/2"	1/2"	3"	2"	FURNISH SINK, ZURN MODEL NO. Z843M1 SERVICE SINK FAUCET WITH BUILT-IN VACUUM BREAKER, HOSE AND BRACKET, MOP HANGER, AND DRAIN KIT
TMV	MIXING VALVE	ZURN MODEL ZW3870XLT	3/8"	3/8"	---	---	3/8" TEMPERED OUTLET, MAX OUTLET TEMP. 105°F IN ACCORDANCE WITH ASSE 1070 AND NSF/ANSI 61-9, CSA CERTIFIED.
WC	HANDICAP WATER CLOSET	ZURN MODEL Z5560 17" H ELONGATED PRESSURE ASSIST 1.6 G.P.F.	1/2"	---	4"	2"	FURNISH ADA CLOSET & TANK, ADA OPEN FRONT SEAT, SELF SUSTAINING HINGE, FLOOR FLANGE, CLOSET BOLTS & CAPS, WAX RING, SUPPLY STOP & TUBE, FLUSH CONTROL MUST BE LOCATED ON THE WIDE/ACCESS SIDE OF THE WC (SIDE OPPOSITE THE WALL).
WCO	WALL CLEANOUT	ZURN MODEL #Z-1446	---	---	---	---	RAISED HEADPLUG POLISH S.S. COVER & VANDAL PROOF SCREW
WH TO GAL	ELECTRIC WATER HEATER	BRADFORD WHITE MODEL NO. RE11006 WITH OATEY 34079 DRAIN PAN AND ZURN V910 VACUUM RELIEF VALVE	3/4"	3/4"	---	---	FURNISH 10 GALLON SHORT WATER HEATER, 120V/10, 2,000 W ELEMENT WITH T & P RELIEF VALVE AND INTEGRAL HEAT TRAPS.

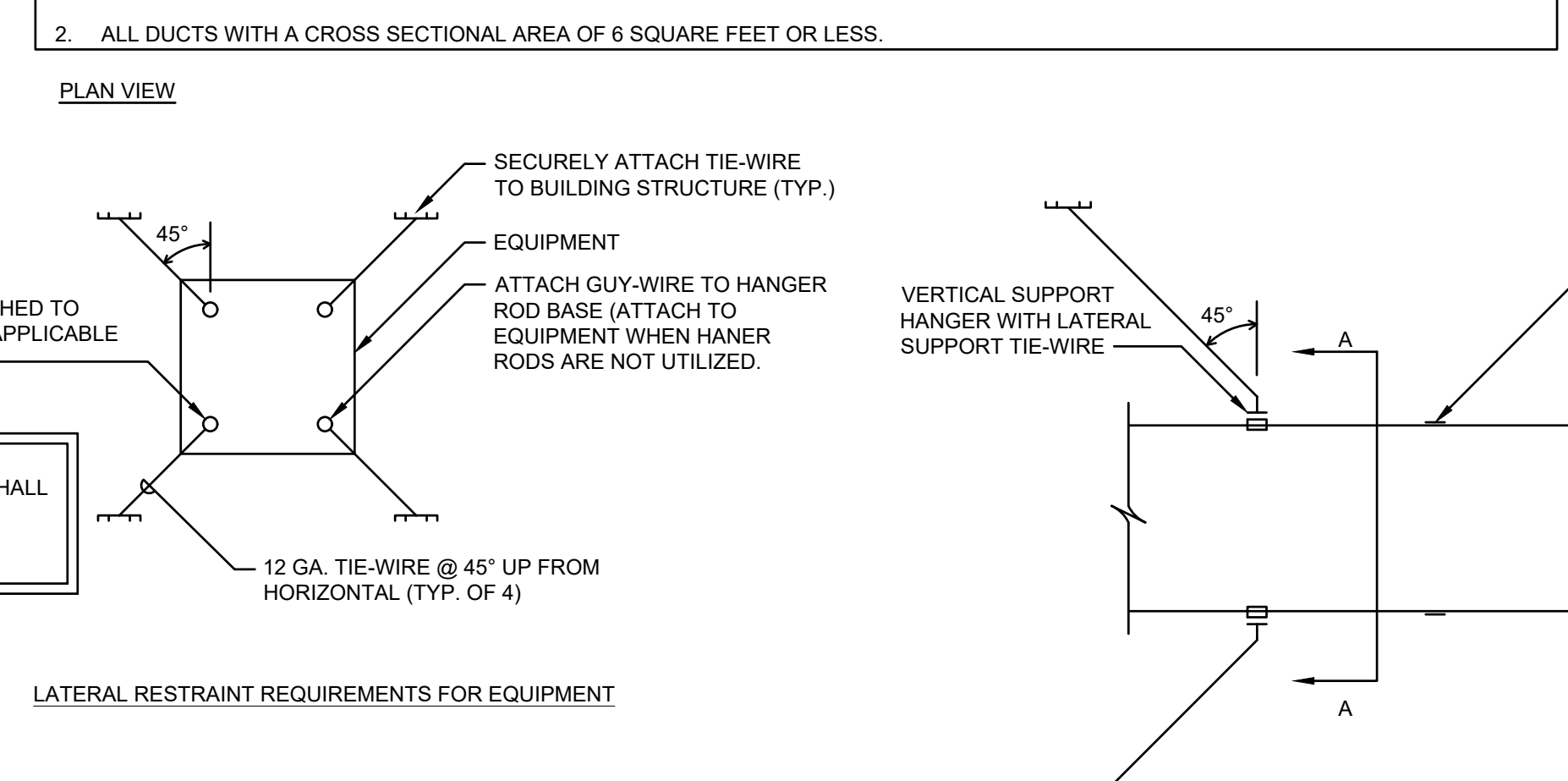
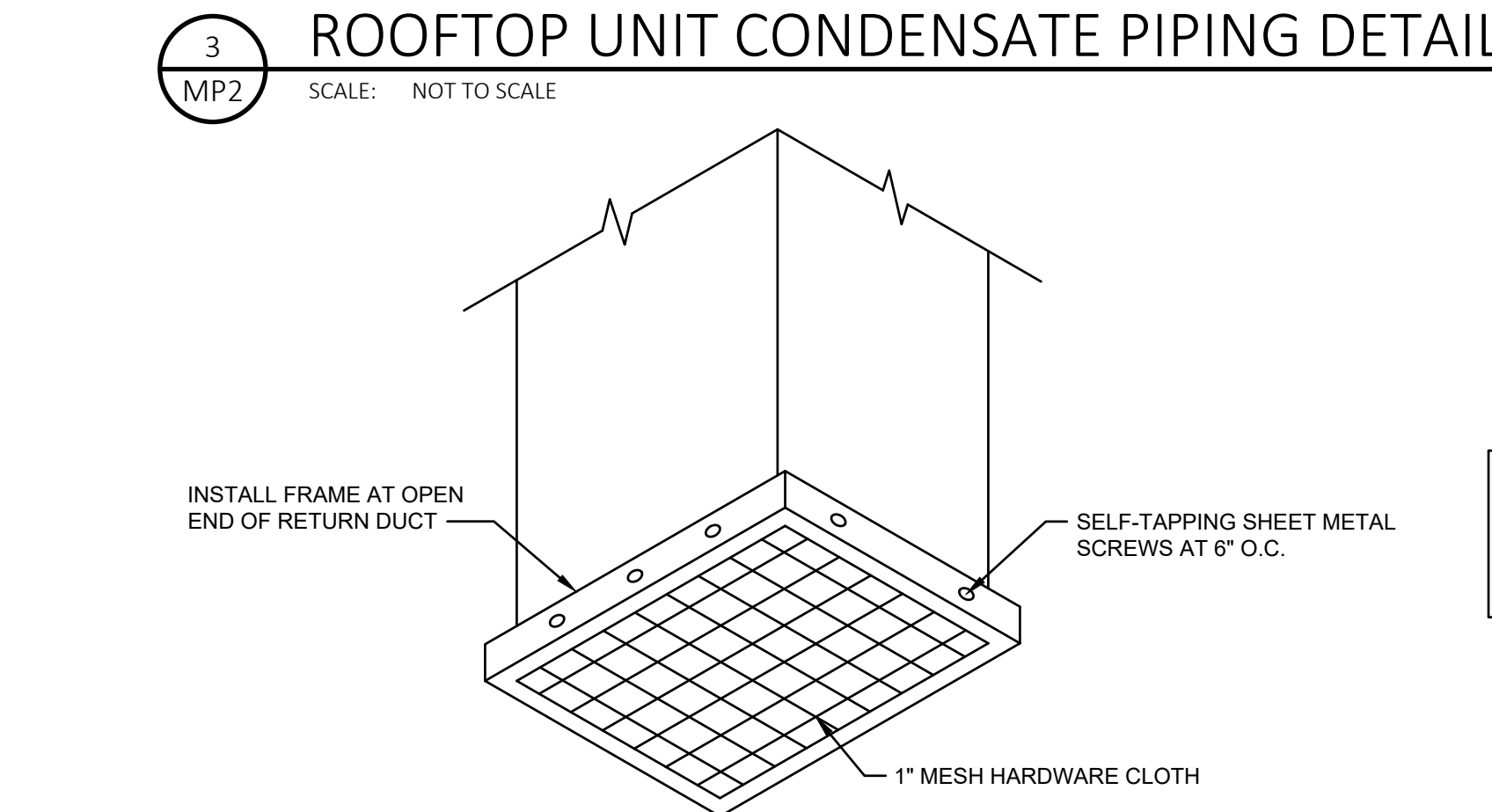
NOTE: INSTALL ALL PLUMBING FIXTURES TO BE FULLY ACCESSIBLE TO INDIVIDUALS WITH DISABILITIES IN ACCORDANCE WITH LATEST ISSUE OF THE AMERICANS WITH DISABILITIES ACT AND ALL CURRENT STATE AND LOCAL CODES. - PROVIDING ACCESSIBILITY AND USABILITY FOR PHYSICALLY HANDICAPPED PEOPLE AND/OR GOVERNING CODES. - 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 CONTRACTORS 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 LAV GUARDS AND CONFIGURED TO PROTECT AGAINST CONTACT PROVIDED WITH LAV KIT. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER LAVATORY.



AIR CURTAIN SCHEDULE
CONTRACTOR PROVIDED, CONTRACTOR INSTALLED

MARK	MFR./MODEL	OUTLET VELOCITY (FPM)	VELOCITY @ 120" BELOW (FPM)	CFM	HEATING CAPACITY		ELECTRICAL DATA		MCA/ MOCP	ACCESSORIES	
					KW	MBH	VOLTS	PHASE			
ARC-1	POWERED AIRE ETA-2-72E	1,845	733	2,802	-	-	120	1	60	16	1, 2, 3, 4, 5, 6, 7, 9

OPTIONS/ACCESSORIES:
 1. MEETS IECC 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 ON/OFF SWITCH
 5. SINGLE POINT POWER CONNECTION
 6. CLEANABLE FILTERS
 7. EC PROVIDE DISCONNECT SWITCH. DISCONNECT SWITCH AND WIRING TO BE CONCEALED
 8. MOUNT UNIT WITH CONCEALED FASTENERS. PROVIDE TRANSOM MOUNTING BRACKET AS REQUIRED.
 9. NOZZLE EXTENSION FOR RECESSED MOUNT (FIELD VERIFY EXTENSION LENGTH REQUIREMENTS)

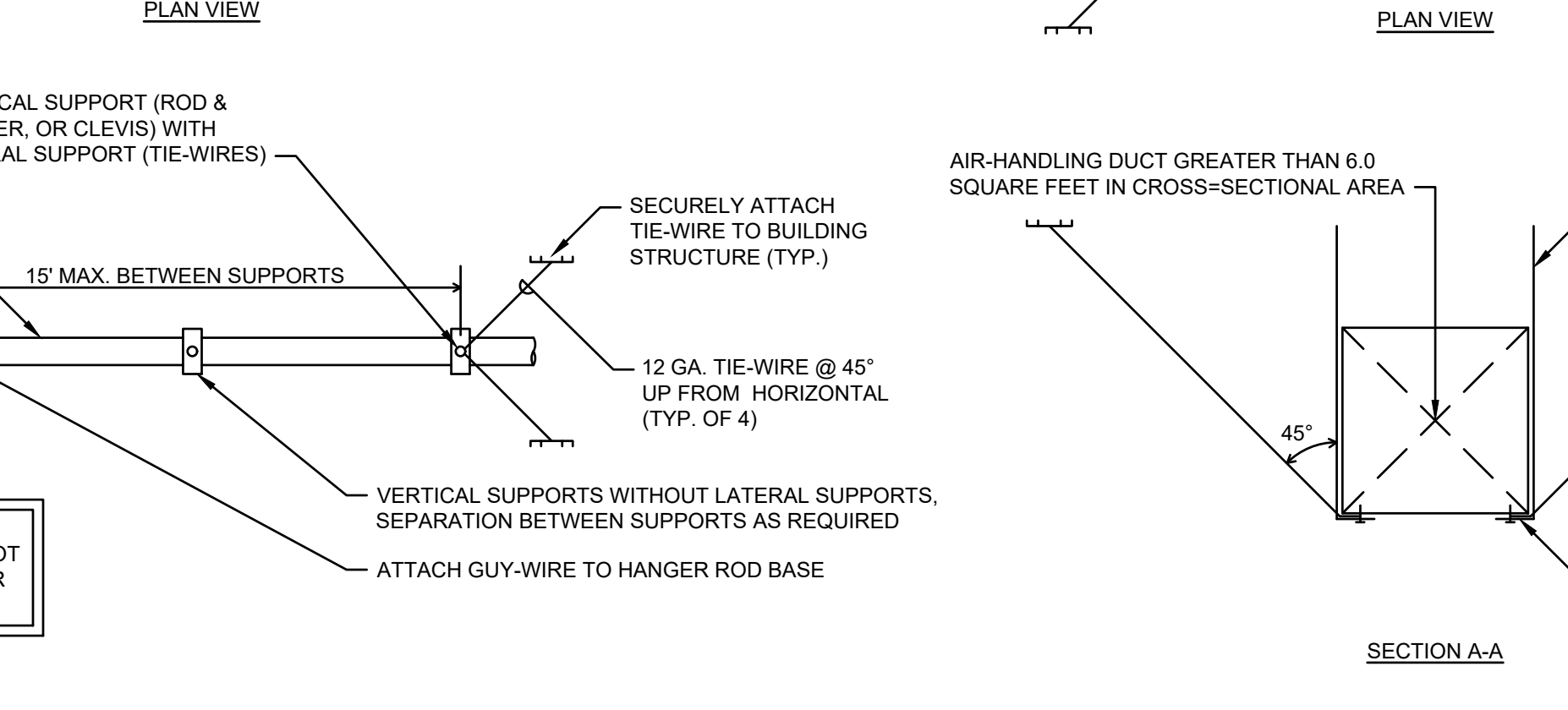
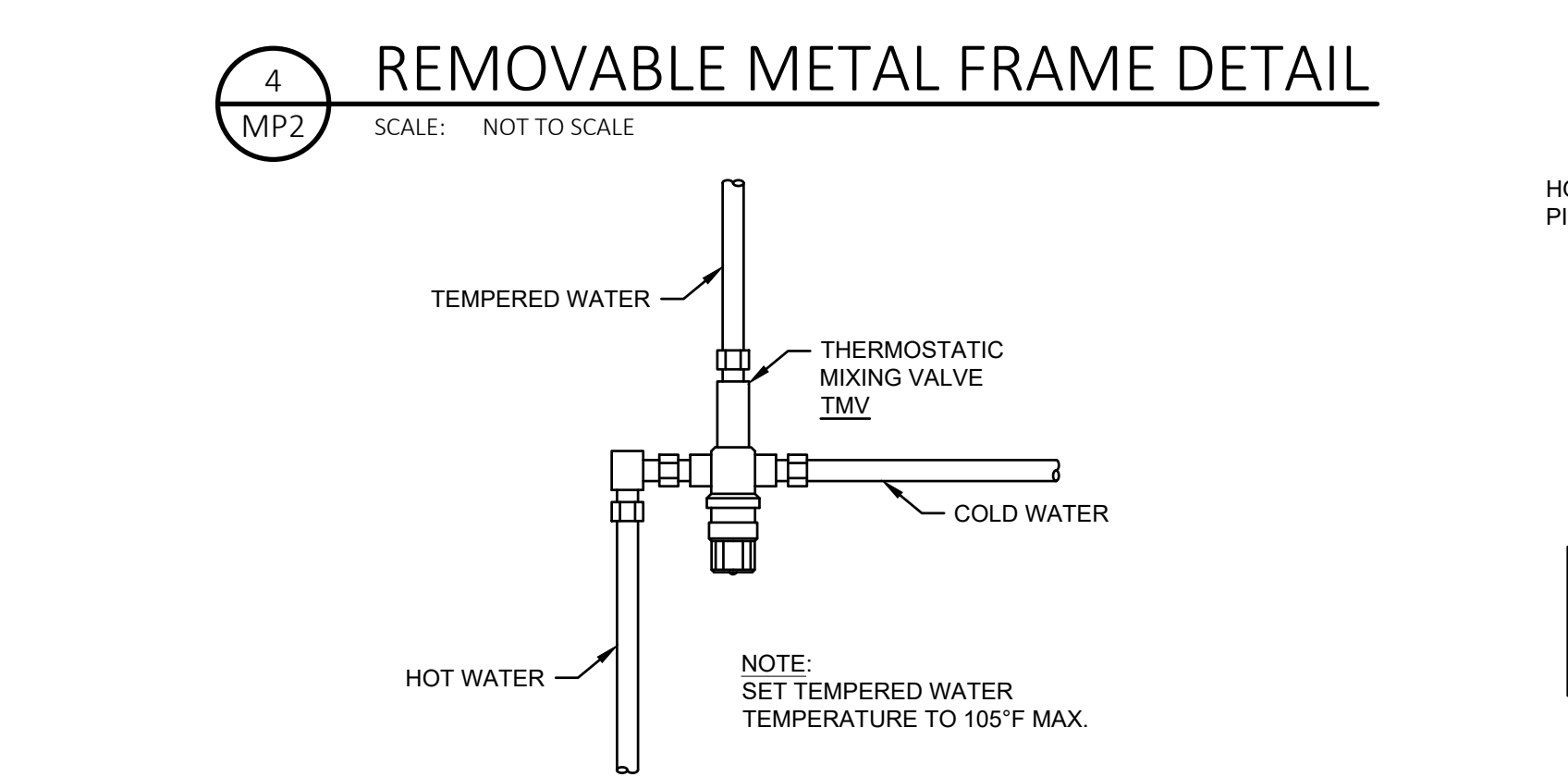


EXHAUST FAN SCHEDULE
CONTRACTOR PROVIDED, CONTRACTOR INSTALLED

MARK	MFR./MODEL	CFM	RPM	ESP IN WG.	MOTOR HP	ELECTRICAL DATA		ACCESSORIES	CONTROL	
						VOLTS	PHASE			
EF-1	YORK/PENN-BARRY C18HTDA	300	1,354	0.50	71 W	115	1	60	1, 2, 3, 4, 5, 6	MOTION SENSOR

ACCESSORIES:
 1) ALUMINUM ROOF WEATHER CAP WITH INSECT SCREEN
 2) BACKDRAFT DAMPER
 3) PLUG DISCONNECT
 4) SPEED CONTROLLER
 5) VIBRATION ISOLATION MOUNT KIT
 6) MOTION SENSOR

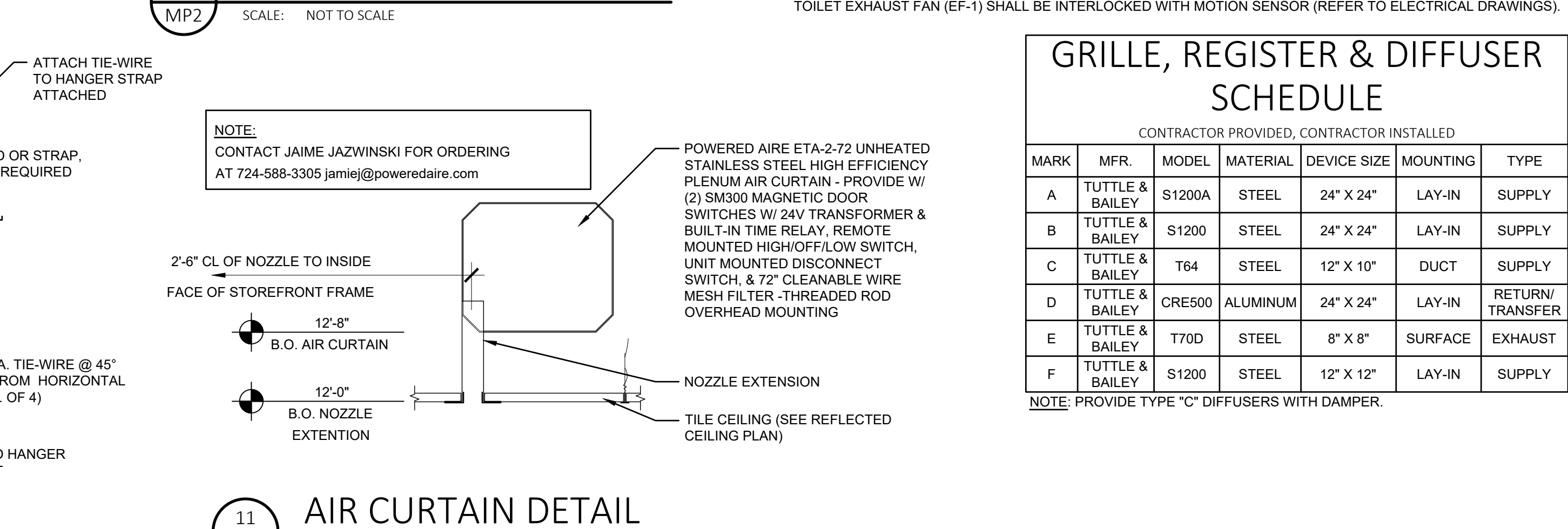
NOTE: TOILET EXHAUST FAN (EF-1) SHALL BE INTERLOCKED WITH MOTION SENSOR (REFER TO ELECTRICAL DRAWINGS).



GRILLE, REGISTER & DIFFUSER SCHEDULE
CONTRACTOR PROVIDED, CONTRACTOR INSTALLED

MARK	MFR.	MODEL	MATERIAL	DEVICE SIZE	MOUNTING	TYPE
B	TUTTLE & BAILEY	S1200	STEEL	24" X 24"	LAY-IN	SUPPLY
C	TUTTLE & BAILEY	T64	STEEL	12" X 10"	DUCT	SUPPLY
D	TUTTLE & BAILEY	CRE500	ALUMINUM	24" X 24"	LAY-IN	RETURN/ TRANSFER
E	TUTTLE & BAILEY	T700	STEEL	8" X 8"	SURFACE	EXHAUST
F	TUTTLE & BAILEY	S1200	STEEL	12" X 12"	LAY-IN	SUPPLY

NOTE: PROVIDE TYPE "C" DIFFUSERS WITH DAMPER.



date	project	designed	drawn	checked	description	by	date	mark	revisions
08/01/22	220227	BA/M	BA/M	MRE					

CASCO DIVERSIFIED CORPORATION
ENGINEERING FIRM
LICENSE #000613
EXPIRES 12/31/23

MARGARET R. BOYER
LICENSE NO. - FE-202023077
EXP. DATE: 12/31/22
PHONE: 616.821.1100

PROFESSIONAL OF RECORD

COMMISSIONING

WHERE AUTHORITY HAVING JURISDICTION REQUIRES MECHANICAL SYSTEMS & SERVICE WATER-HEATING SYSTEMS COMMISSIONING, CONTRACTOR SHALL COORDINATE THE HIRING OF A REGISTERED DESIGN PROFESSIONAL, OR APPROVED AGENCY FURTHER REFERRED TO AS "C&A", WITH TENANT/OWNER'S REPRESENTATIVE. ALL COMMISSIONING COORDINATION IS TO BE DONE PRIOR TO START OF CONSTRUCTION.

PRIOR TO FINAL MECHANICAL AND PLUMBING INSPECTIONS, THE C&A IS TO PROVIDE EVIDENCE OF MECHANICAL SYSTEMS COMMISSIONING AND COMPLETION IN ACCORDANCE TO THE APPLICABLE ENERGY CODE. CONTRACTOR SHALL MAKE ALL ARRANGEMENTS AND SCHEDULING OF ALL REQUIRED TESTING, BALANCING, ETC. WITH C&A AND TENANT/OWNER'S REPRESENTATIVE.

ALL REQUIRED COMMISSIONING DOCUMENTATION SHALL BE GIVEN TO THE OWNER, AND MADE AVAILABLE TO THE CODE OFFICIAL UPON REQUEST.

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 HEREBY 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. CONTRACTOR SHALL VERIFY AND COORDINATE SCOPE OF WORK WITH TENANT AND LANDLORD.

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. NO ADDITIONAL COMPENSATION SHALL BE PROVIDED FOR CONDITIONS FOUND DURING THE EXECUTION OF CONTRACTED WORK. THE CONTRACTOR SHALL COOPERATE WITH ALL OTHER TRADES SO THAT THE INSTALLATION OF ALL EQUIPMENT MAY BE PROPERLY COORDINATED. CONTRACTOR SHALL BRING TO THE ATTENTION OF THE CONSTRUCTION MANAGER ANY DISCREPANCIES BETWEEN FIELD CONDITIONS AND DESIGN DOCUMENTS.

D. ALL EQUIPMENT FURNISHED SHALL FIT THE SPACE AVAILABLE, WITH CONNECTIONS, ETC., IN THE REQUIRED LOCATIONS AND WITH ADEQUATE SPACE FOR OPERATING AND SERVICING. SHOULD A CONFLICT EXIST BETWEEN THE DRAWINGS AND THE SPECIFICATIONS, THE CONTRACTOR SHALL PROMPTLY NOTIFY THE CONSTRUCTION MANAGER WHOSE DECISION SHALL BE FINAL. NO ALLOWANCE WILL BE MADE, SUBSEQUENTLY, IN THIS CONNECTION ON BEHALF OF THE CONTRACTOR AFTER AWARD OF THE CONTRACT.

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. THE DRAWINGS SHALL NOT BE SCALED FOR EXACT MEASUREMENTS. REFER TO MANUFACTURER'S STANDARD INSTALLATION DRAWINGS FOR EQUIPMENT CONNECTIONS AND INSTALLATION REQUIREMENTS AS REQUIRED. FURNISH AND INSTALL DUCTWORK, CONNECTIONS, ACCESSORIES, OFFSETS AND MATERIALS NECESSARY TO FACILITATE THE SYSTEMS FUNCTIONING AS INDICATED BY THE DESIGN AND THE EQUIPMENT INDICATED. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND PAY ANY ASSOCIATED FEES.

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. ANY UNAUTHORIZED CHANGES SHALL BE REMOVED AT CONTRACTOR'S EXPENSE IF DEMAED NECESSARY BY ENGINEER OR TENANT'S REPRESENTATIVE. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY REQUIRED CHANGE TO RELATED WORK CAUSED BY THE SUBSTITUTION OF ANY ITEMS OF MATERIALS OR EQUIPMENT AT NO ADDITIONAL COST TO THE OWNER.

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.

HVAC UNITS (CONTINUED)

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.

1. 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 SPACE SETPOINT.

2. 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 COMPRESSORS SHALL CYCLE TO MAINTAIN SPACE SETPOINT. ECONOMIZER CYCLE SHALL OVER RIDE CO2 MONITORING SYSTEM.

3. 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 1 AIR DUCT (UL 181) 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.C. PRESSURE AND 0 TO 250 DEGREE TEMPERATURE. MAXIMUM LENGTH SHALL BE 5'-0". MINIMUM CENTER LINE BEND RADIUS SHALL BE 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 (FOT) "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". SUBDUVIDE 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 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 QDFB. 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 ANNUAL 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, DOW CORNING "FIRE STOP" OR PIPE SHIELDS, INC., MODEL WFB, DFB, OR QDFB. 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 CUTOUT 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 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 SCREW FITTINGS.
3. SCHEDULE 40 AND 80 PVC OR ABS PIPING WITH DWW PATENTED 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.
4. WHERE "PUMPED" SANITARY LINES (TYPICALLY AT SEWAGE GRINDER PUMP LOCATIONS) ARE INDICATED ON PLANS, CONTRACTOR IS TO PROVIDE PRESSURE-RATED PIPING, FITTINGS, ETC. MATERIALS AND INSTALLATION TO BE COMPLIANT WITH ALL APPLICABLE CODES.

B. HOT AND COLD WATER

- 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 SCREW FITTINGS.
3. SCHEDULE 40 AND 80 PVC OR ABS PIPING WITH DWW PATENTED 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.
4. WHERE "PUMPED" SANITARY LINES (TYPICALLY AT SEWAGE GRINDER PUMP LOCATIONS) ARE INDICATED ON PLANS, CONTRACTOR IS TO PROVIDE PRESSURE-RATED PIPING, FITTINGS, ETC. MATERIALS AND INSTALLATION TO BE COMPLIANT WITH ALL APPLICABLE CODES.
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.
6. INSTALL ACCESSIBLE HOT AND COLD WATER STOPS AT ALL FIXTURES.
7. INSTALL DIELECTRIC ISOLATORS WHERE INCOMPATIBLE PIPING MATERIALS COME IN CONTACT.

MATERIALS (CONTINUED)

a. TYPE "L" COPPER TUBING, HARD TEMPER, COLD DRAWN WITH WROUGHT COPPER LEAD FREE SWEAT FITTINGS. CONNECTIONS TO FIXTURES AND EQUIPMENT SHALL BE MADE WITH 85% REDUCED 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.

c. 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 DRAWN 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 FITTINGS OR SPRINGING. CHANGES IN DIRECTION OF ALL PIPING SHALL BE MADE WITH CORNERS. 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 SWING JOINTS, PIPE CLAMPS, ANCHORS AND EXPANSION JOINTS. FITTINGS SHALL BE SO SPACED THAT THEY WILL NOT INTERFERE WITH SLIDING OF PIPE ON SUPPORTS.
8. ALL OPENINGS IN THE ROOF SHALL BE FLASHED WATER TIGHT 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: 17 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.

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 "WILKINS", 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.

EXECUTION (CONTINUED)

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 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

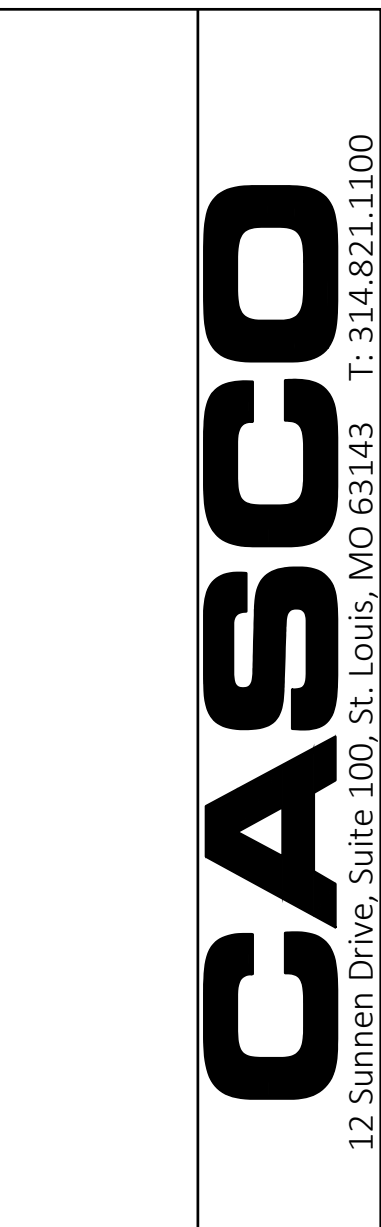
- 1. ALL DRAIN, WASTE, HOT AND COLD WATER, AND NATURAL GAS PIPING EXPOSED, ABOVE GRADE AND IN FURRED AREAS, SHALL BE SUPPORTED IN PLACE WITH SECURELY FASTENED SOLID PIPE HANGERS NOT OVER 8'-0" APART AND AT EACH CHANGE IN DIRECTION, (5'-0" ON CAST IRON PIPE).
2. PIPE HANGERS SHALL BE INSTALLED AROUND 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 RATING 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 WATER TIGHT.

G. 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 REPEATATED 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.



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Table with columns: date, project, designed, drawn, checked, mark, date, revisions, description, by

CASCO DIVERSIFIED CORPORATION ENGINEERING FIRM LICENSE #000613 EXPIRES 12/31/23

PROFESSIONAL OF RECORD

MARGARET R. BOYER LICENSE NO. - FE-2020030377 EXP. DATE: 12/31/22 PHONE: 314.601.1100

DOLLAR TREE HOBBY LOBBY CENTER 2225 MISSOURI BLVD., JEFFERSON CITY, MO 65109 SPECIFICATIONS HVAC / PLUMBING

project drawing

MP3

GENERAL NOTES:

DESIGN CRITERIA:

BUILDING CODE - 2015 INTERNATIONAL BUILDING CODE W/ LOCAL AMENDMENTS

- EXISTING ROOF DEAD LOAD
MINIMUM ROOF LIVE LOAD = 15 PSF
= 20 PSF
- SNOW LOADS:
 - GROUND SNOW LOAD, P_g = 20 PSF
 - FLAT ROOF SNOW LOAD, P_f = 14 PSF
 - FLAT ROOF SNOW LOAD, P_f (INCLUDES RAIN ON SNOW) = 19 PSF
 - MINIMUM FLAT ROOF SNOW LOAD, P_f = 20 PSF
 - SNOW EXPOSURE FACTOR, C_e = 1.0
 - SNOW LOAD IMPORTANCE FACTOR, I_s = 1.0
 - THERMAL FACTOR, C_t = 1.0
- WIND LOADS:
 - ULTIMATE DESIGN WIND SPEED, V_{ult} (3-SEC. GUST) = 115 MPH
 - NOMINAL DESIGN WIND SPEED, V_{nd} = 89 MPH
 - RISK CATEGORY = II
 - OVERALL EXPOSURE CATEGORY = C
 - BUILDING CATEGORY = ENCLOSED, SIMPLE DIAPHRAGM
- SEISMIC:
 - RISK CATEGORY = II
 - SEISMIC IMPORTANCE FACTOR, I_e = 1.0
 - MAPPED SPECTRAL RESPONSE COEFFICIENTS
 - S_{DS} = 0.197
 - S_{D1} = 0.104
 - SITE CLASS = D (ASSUMED)
 - DESIGN SPECTRAL RESPONSE COEFFICIENTS
 - S_{DS} = 0.211
 - S_{D1} = 0.166
 - SEISMIC DESIGN CATEGORY = C

CONCRETE:

- ALL CONCRETE SHALL BE NORMAL-WEIGHT (DENSITY=145 PCF) AND SHALL HAVE A 28-DAY COMPRESSIVE STRENGTH IN ACCORDANCE WITH THE FOLLOWING:

ALL FOUNDATIONS, INTERIOR SLAB	3000psi
EXTERIOR SLABS, CURBS, SIDEWALKS	4000psi
ALL OTHER CONCRETE (U.N.D.)	3000psi
- THE SLUMP OF ALL CONCRETE SHALL NOT EXCEED 4" UNLESS A HIGH RANGE WATER-REDUCING ADMIXTURE IS USED. THE SLUMP OF CONCRETE PRIOR TO ADDITION OF A HIGH-RANGE WATER-REDUCING ADMIXTURE SHALL NOT EXCEED 4". THE SLUMP OF CONCRETE CONTAINING A HIGH RANGE WATER-REDUCING ADMIXTURE SHALL NOT EXCEED 10".
- ALL EXTERIOR CONCRETE SHALL BE AIR-ENTRAINED WITH BETWEEN 4% AND 8% AIR CONTENT.
- THE COARSE AGGREGATE SIZE SHALL BE #57 OR LARGER.
- THE MINIMUM PORTLAND CEMENT CONTENT (ASTM C150 TYPE I OR II) OF ALL CONCRETE SHALL CONFORM TO THE FOLLOWING TABLE (FLY ASH NOT PERMITTED):

SPECIFIED COMPRESSIVE STRENGTH (psi)	NON AIR-ENTRAINED CONCRETE (lbs.)	AIR-ENTRAINED CONCRETE (lbs.)
3000	470	517
4000	564	611
- THE CONTRACTOR SHALL SUBMIT CONCRETE MIX DESIGNS FOR REVIEW A MINIMUM OF ONE WEEK PRIOR TO THE PLACEMENT OF ANY CONCRETE. THE CONCRETE MIX DESIGNS SHALL INCLUDE ALL STRENGTH DATA NECESSARY TO SHOW COMPLIANCE WITH THE PROJECT SPECIFICATIONS FOR EITHER THE TRIAL BATCH OR FIELD EXPERIENCE METHOD.
- CONCRETE REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60, UNLESS NOTED OTHERWISE.
- CONCRETE REINFORCING STEEL TO BE WELDED SHALL CONFORM TO ASTM A706.
- WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185.
- ALL REINFORCING SHALL BE DETAILED, FABRICATED, AND PLACED IN ACCORDANCE WITH THE LATEST EDITION OF THE AMERICAN CONCRETE INSTITUTE DETAILING MANUAL.
- ALL REINFORCING SHALL BE SUPPORTED IN FORMS, SPACED WITH NECESSARY ACCESSORIES AND SHALL BE SECURELY WIRED TOGETHER, IN ACCORDANCE WITH THE LATEST EDITION OF THE CRSI "MANUAL OF STANDARD PRACTICE".
- THE MINIMUM CONCRETE CLEAR COVER OVER REINFORCING STEEL, UNLESS NOTED OTHERWISE, SHALL BE:

UNFORMED SURFACE IN CONTACT WITH THE GROUND	3 IN.
FORMED SURFACES EXPOSED TO EARTH OR WEATHER:	
#5 BARS AND SMALLER	1 1/2 IN.
SLABS, WALLS, AND JOISTS:	
#1 BARS AND SMALLER	3/4 IN.
- ALL BASE PLATES, ANCHOR BOLTS, SUPPORT ANGLES, ETC., WHICH ARE BELOW GRADE SHALL BE COVERED WITH A MINIMUM OF 3" OF CONCRETE.
- ALL LAP SPLICES SHALL BE IN ACCORDANCE WITH THAT SHOWN ON THE DRAWINGS.

STRUCTURAL STEEL:

- STEEL SHALL CONFORM TO THE FOLLOWING GRADES:

WIDE FLANGE SHAPES	A992 (Fy = 50 ksi)
ALL CHANNELS, ANGLES, PLATES, ETC. (UNO)	A36
STRUCTURAL TUBE	A500 (Fy = 46 ksi)
STEEL PIPE	A53 (Fy = 35 ksi)
ANCHOR BOLTS	A307 or A36
BOLTS	A325
WELDING ELECTRODES	E70XX
- ALL STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE AISC CODE OF STANDARD PRACTICE (2005), EXCEPT AS MODIFIED IN THESE NOTES AND THE PROJECT SPECIFICATIONS.
- SPLICING OF STEEL MEMBERS, UNLESS SHOWN ON THE DRAWINGS, IS PROHIBITED WITHOUT WRITTEN APPROVAL OF THE ARCHITECT.

MISCELLANEOUS:

- NO CHANGE IN SIZE OR DIMENSION OF STRUCTURAL MEMBERS SHALL BE MADE WITHOUT THE WRITTEN APPROVAL OF THE PROFESSIONAL OF RECORD.
- STRUCTURAL DRAWINGS ARE INTENDED TO BE USED WITH ARCHITECTURAL AND MECHANICAL DRAWINGS. CONTRACTOR IS RESPONSIBLE FOR COORDINATING SUCH REQUIREMENTS INTO THEIR SHOP DRAWINGS AND WORK.
- NO OPENINGS SHALL BE MADE IN ANY STRUCTURAL MEMBER WITHOUT THE WRITTEN APPROVAL OF THE PROFESSIONAL OF RECORD.
- DO NOT SCALE THESE DRAWINGS, USE DIMENSIONS.
- THE CONTRACTOR SHALL INFORM THE PROFESSIONAL OF RECORD IN WRITING OF ANY DEVIATION FROM THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING JOB CONDITIONS, REVIEW ALL DRAWINGS AND VERIFY DIMENSIONS, ELEVATIONS, AND MEMBER SIZES PRIOR TO CONSTRUCTION OR MATERIAL PURCHASE. THE CONTRACTOR SHALL NOTIFY THE PROFESSIONAL OF RECORD IN WRITING OF ALL DISCREPANCIES AND EXCEPTIONS BEFORE PROCEEDING WITH THE WORK.
- ANY DETAIL TITLED AS A TYPICAL DETAIL IS APPLICABLE THROUGHOUT THE DESIGN DRAWINGS. THESE DETAILS ARE DEFINED AS GENERAL STANDARDS THAT ARE USUALLY NOT IDENTIFIED BY SPECIFIC REFERENCE WITHIN THE DRAWINGS. THESE DETAILS MAY BE MODIFIED OR SUPERSEDED BY SPECIFIC DETAILS THAT ARE REFERENCED WITHIN THE DRAWINGS.
- THE CONTRACTOR IS RESPONSIBLE FOR LIMITING THE AMOUNT OF CONSTRUCTION LOAD IMPOSED UPON THE STRUCTURAL FRAMING. CONSTRUCTION LOADS SHALL NOT EXCEED THE DESIGN CAPACITY OF THE FRAMING AT THE TIME THE LOADS ARE IMPOSED.

EXISTING CONSTRUCTION:

- WORK SHOWN IS NEW UNLESS INDICATED AS EXISTING.
- EXISTING CONSTRUCTION SHOWN IS BASED UPON ASSUMED EXISTING CONDITIONS AND CAN BE USED FOR BIDDING PURPOSES. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING JOB CONDITIONS, REVIEW ALL DRAWINGS AND VERIFY DIMENSIONS, ELEVATIONS, AND MEMBER SIZES PRIOR TO CONSTRUCTION OR MATERIAL PURCHASE. THE CONTRACTOR SHALL NOTIFY THE PROFESSIONAL OF RECORD IN WRITING OF ALL DISCREPANCIES AND EXCEPTIONS BEFORE PROCEEDING WITH THE WORK.
- THE REMOVAL, CUTTING, DRILLING, ETC. OF EXISTING CONSTRUCTION SHALL BE PERFORMED WITH GREAT CARE IN ORDER NOT TO JEOPARDIZE THE STRUCTURAL INTEGRITY OF THE BUILDING. IF STRUCTURAL MEMBERS OR MECHANICAL, ELECTRICAL, OR ARCHITECTURAL FEATURES NOT INDICATED FOR REMOVAL INTERFERE WITH THE NEW WORK, THE PROFESSIONAL OF RECORD SHALL BE IMMEDIATELY NOTIFIED AND PRIOR WRITTEN APPROVAL SHALL BE OBTAINED BEFORE REMOVAL OR MODIFICATION OF MEMBERS.
- THE CONTRACTOR SHALL RESTORE ALL EXISTING INCIDENTAL CONSTRUCTION REQUIRED TO BE REMOVED TO ACCOMMODATE THE ERECTION OF THE NEW JOIST CONSTRUCTION TO ITS ORIGINAL WORKING CONDITION.
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE MEANS & METHOD OF ALL DEMOLITION WORK & FOR PROVIDING ALL NECESSARY TEMPORARY SHORING, BRACING & PROTECTION AS NECESSARY FOR SAFETY, STABILITY & PROTECTION OF ALL BUILDING ELEMENTS & STRUCTURE DURING CONSTRUCTION & DEMOLITION.

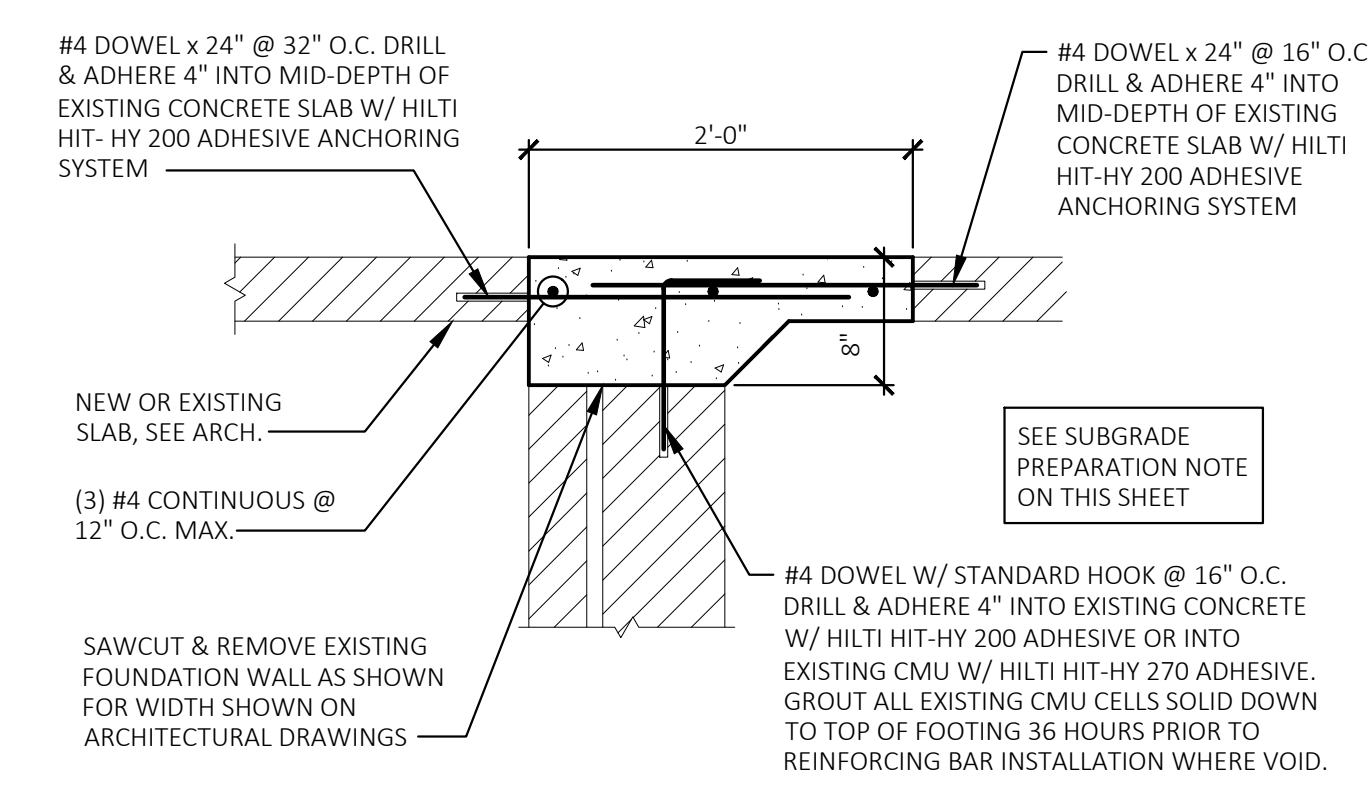
SUBGRADE PREPARATION NOTE

- ALL EXPOSED AND/OR DISTURBED GRANULAR BASE AREAS SHALL BE COMPACTED TO A MINIMUM OF 95% OF OPTIMUM DENSITY IN ACCORDANCE WITH ASTM D 1557 AT OPTIMUM MOISTURE CONTENT AND TO A MINIMUM DEPTH OF 8 INCHES. ALL SUBGRADE SOIL AREAS EXPOSED BY EXCAVATIONS AND GRADING SHALL BE COMPACTED TO A MINIMUM OF 95% OF OPTIMUM DENSITY IN ACCORDANCE WITH ASTM D 1557 AT OPTIMUM MOISTURE CONTENT AND TO A MINIMUM DEPTH OF 12 INCHES. FILL WHERE REQUIRED SHALL BE PLACED IN LIFTS NOT TO EXCEED 8 INCHES LOOSE MEASURE AND SHALL BE COMPACTED AS OUTLINED ABOVE. THE ON SITE TESTING COMPANY SHALL PROVIDE TESTING AND INSPECTION OF THE SOIL WORK PRIOR TO PLACING CONCRETE.

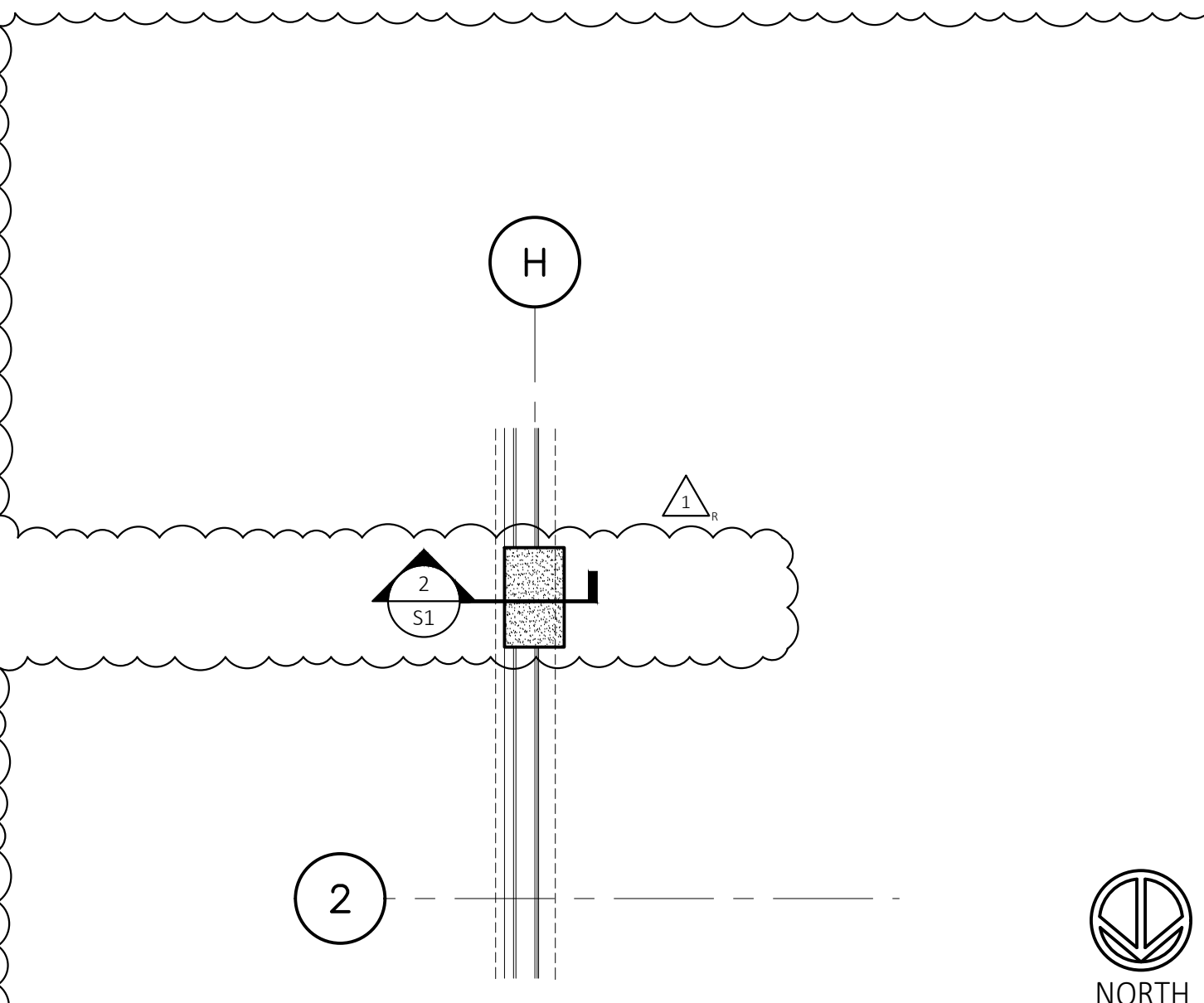
SPECIAL INSPECTIONS:

- THE OWNER WILL EMPLOY THE SERVICES OF ONE OR MORE SPECIAL INSPECTORS TO PROVIDE SPECIAL INSPECTIONS DURING CONSTRUCTION FOR THE REQUIRED SPECIAL INSPECTION ITEMS.
- THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE TO THE SATISFACTION OF THE BUILDING OFFICIAL, AND THE REGISTERED DESIGN PROFESSIONAL RESPONSIBLE FOR THE DESIGN OF THE STRUCTURE, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.
- DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR:
 - THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK ASSIGNED FOR CONFORMANCE WITH THE APPROVED DESIGN DRAWINGS AND SPECIFICATIONS. THE INSPECTOR MAY NOT ALTER, MODIFY, ENLARGE OR WAVE ANY OF THE REQUIREMENTS OF THE DOCUMENTS.
 - THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, THE PROFESSIONAL-OF-RECORD, AND THE CONTRACTOR. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. THEN, IF UNCORRECTED, SUBMIT A COMPLETE LIST OF ALL OUTSTANDING DISCREPANCIES ON A WEEKLY BASIS TO THE OWNER, THE BUILDING OFFICIAL, AND THE PROFESSIONAL-OF-RECORD, UNTIL ALL CORRECTIONS HAVE BEEN COMPLETED.
 - THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE BUILDING CODE.
- WHERE SPECIAL INSPECTION REQUIREMENTS DUPLICATE THE REQUIREMENTS OF OTHER SPECIFIED TESTING, DUPLICATE INSPECTIONS SHALL NOT BE REQUIRED.
- STRUCTURAL OBSERVATION (AS DEFINED IN CHAPTER 17 OF THE BUILDING CODE) IS NOT REQUIRED, UNLESS SPECIFICALLY REQUIRED BY THE BUILDING OFFICIAL.
- SPECIAL INSPECTIONS SHALL BE PROVIDED IN ACCORDANCE WITH THE FOLLOWING TABLE

SPECIAL INSPECTIONS SCHEDULE		
SPECIAL INSPECTION	FREQ.	REFERENCED STANDARD(S)
STEEL CONSTRUCTION:		
1. MATERIAL VERIFICATION OF STRUCTURAL STEEL:		
A. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.	---	AISC LRFD Sec. M2.5
B. MANUFACTURER'S CERTIFIED MILL TEST REPORTS REQUIRED	---	ASTM A-6 OR ASTM A-568
C. INSPECT THE FABRICATED STEEL AND ERECTED STEEL FRAME FOR BRACES, STIFFENERS, MEMBER LOCATIONS, JOINT DETAILS, AND OTHER DETAILING IN THE CONSTRUCTION DOCUMENTS.	---	APPROVED CONSTRUCTION DOCUMENTS
2. MATERIAL VERIFICATION OF WELD FILLER MATERIALS:		
A. IDENTIFICATION MARKINGS TO CONFORM TO AWS SPECIFICATION IN THE APPROVED CONSTRUCTION DOCUMENTS	---	AISC ASD Sec. A3.6; AISC LRFD Sec. A3.5
B. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED	---	
3. INSPECTION OF WELDING:		
SINGLE-PASS FILLET WELDS ≤ 5/16"	PERIODIC	AWS D1.1



SECTION
SCALE: 1" = 1'-0"



1
S1
SCALE: 3/16" = 1'-0"

CASCO
12 Summit Drive, Suite 100, St. Louis, MO 63143 T: 314.821.1100

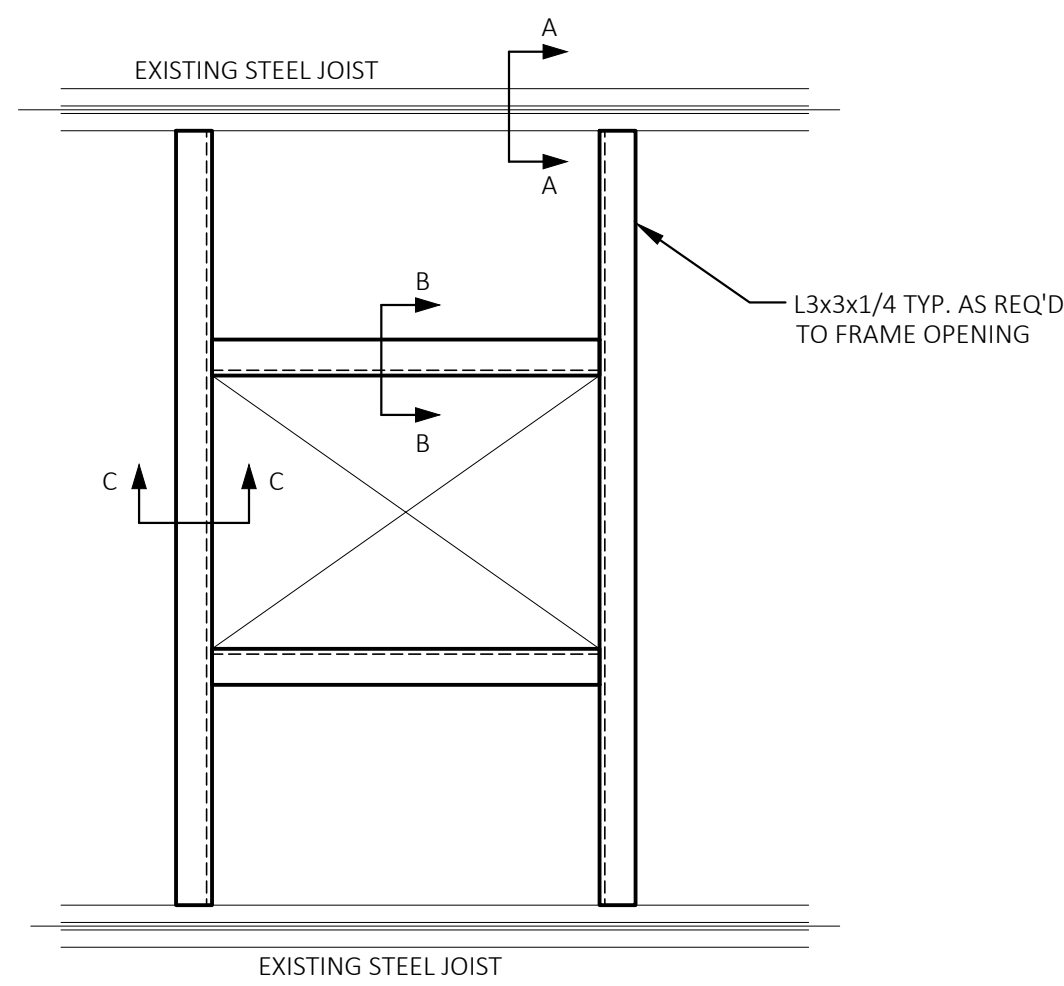
08/11/22
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MPS
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CASCO DIVERSIFIED CORPORATION
ENGINEERING FIRM
LICENSE #000613
EXPIRES 12/31/23

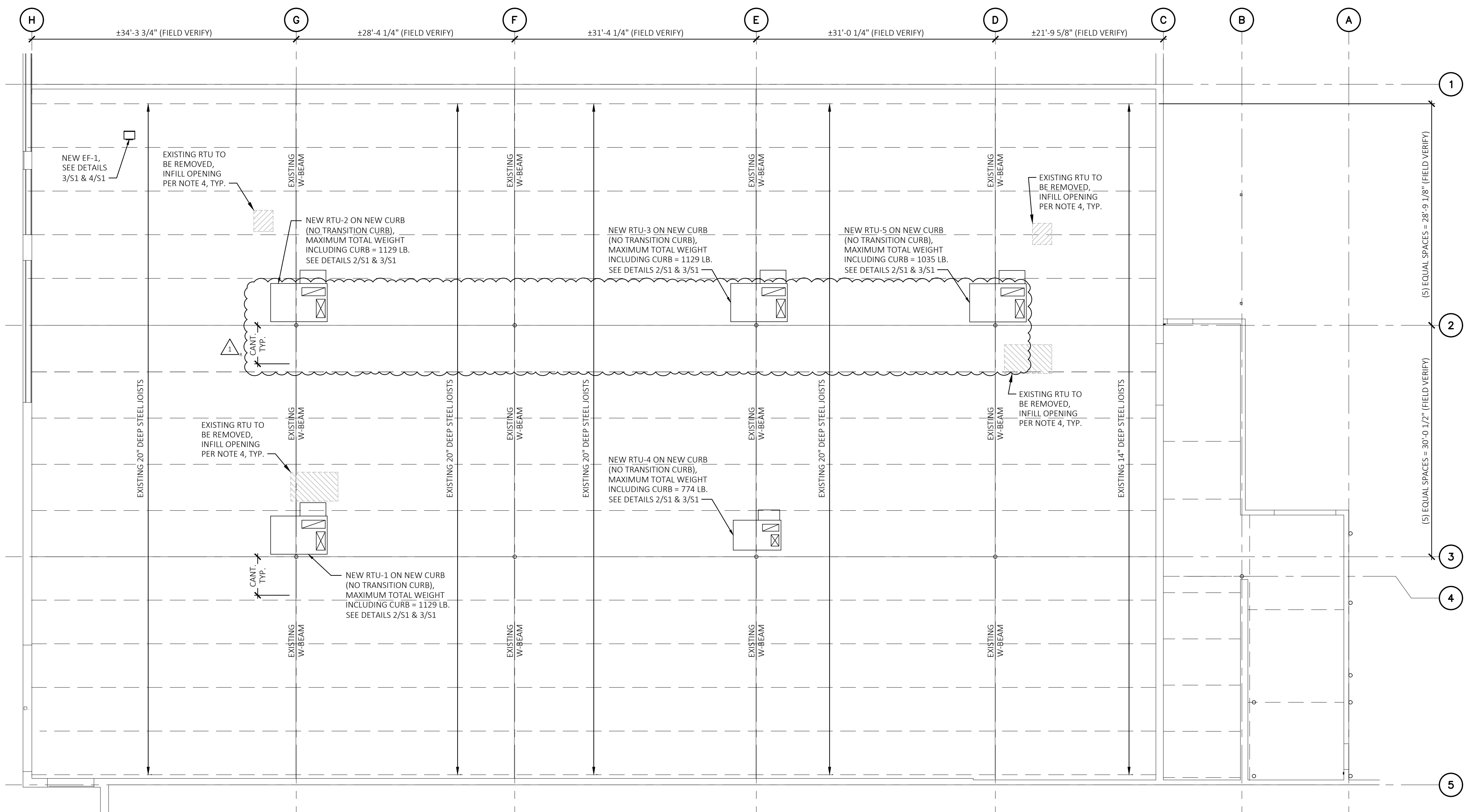
DOLLAR TREES
HOBBY LOBBY CENTER
2225 MISSOURI BLVD., JEFFERSON CITY, MO 65109
GENERAL NOTES, PARTIAL FOUNDATION PLAN AND DETAILS

S1



TYPICAL ROOF OPENING/
EXHAUST FAN SUPPORT

NOTE:
TYP. ROOF OPENING DETAIL SHOWN APPLIES TO ALL ROOF OPENINGS WHERE LEAST DIMENSION IS 13" OR LARGER. ROOF OPENINGS LESS THAN 13" SHALL BE REINFORCED WITH GAGE SHEET METAL IN ACCORDANCE WITH THE STEEL DECK INSTITUTE RECOMMENDATIONS.



PARTIAL EXISTING
ROOF FRAMING PLAN

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

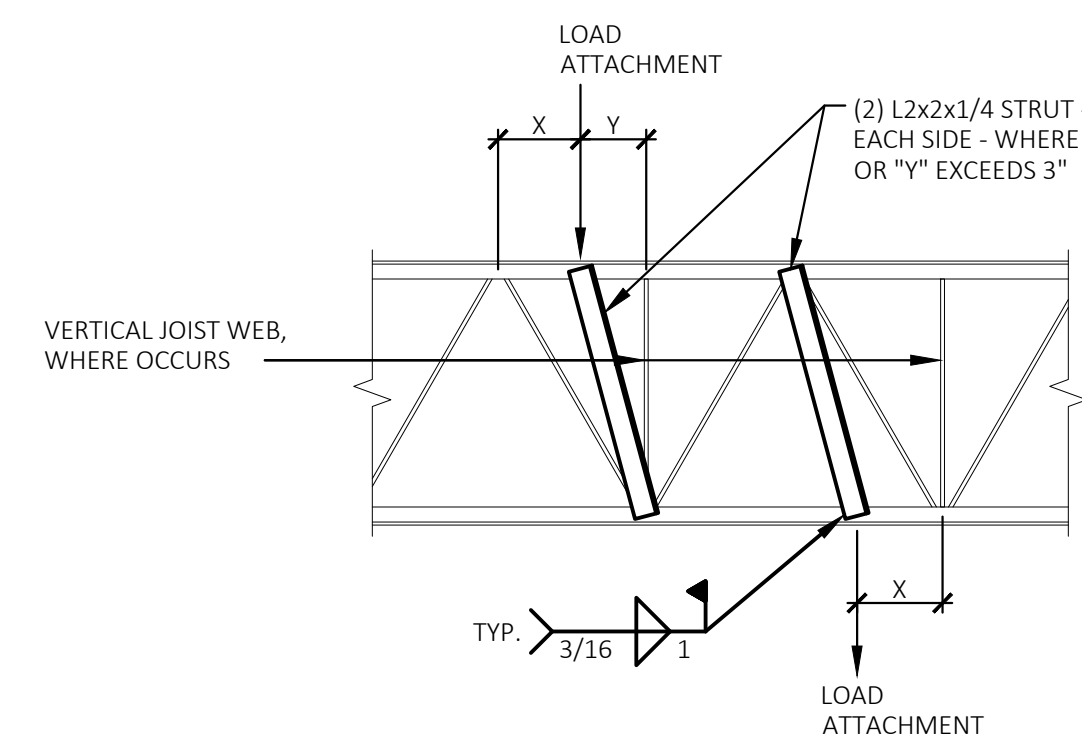


EXISTING ROOF FRAMING PLAN NOTES

1. PLACE NEW UNITS WHERE SHOWN ON PLAN.
2. THE GENERAL CONTRACTOR SHALL FIELD VERIFY THAT THE DEPTHS OF THE EXISTING JOISTS INDICATED TO SUPPORT NEW ROOF TOP UNITS MATCH THE DEPTHS OF THE RESPECTIVE JOISTS INDICATED ON PLAN AND SHALL REPORT ALL DISCREPANCIES TO THE ENGINEER OF RECORD PRIOR TO INSTALLING THE ROOF TOP UNITS.
3. ALL ROOF DECK PENETRATIONS WITH DIMENSIONS LESS THAN 13" SHALL BE REINFORCED WITH GAGE SHEET METAL IN ACCORDANCE WITH THE STEEL DECK INSTITUTE RECOMMENDATIONS.
4. INFILL EXISTING DUCT DROP OPENINGS AS REQUIRED WITH 1 1/2" x 22GA METAL DECK, NEW DECK TO MATCH EXISTING IN PROFILE. FASTEN NEW DECK TO EXISTING JOISTS WITH #10 TEK SCREWS @ 6" O.C. TYP. AROUND PERIMETER OF OPENING, LAP NEW DECK OVER EXISTING JOISTS 6" MIN.

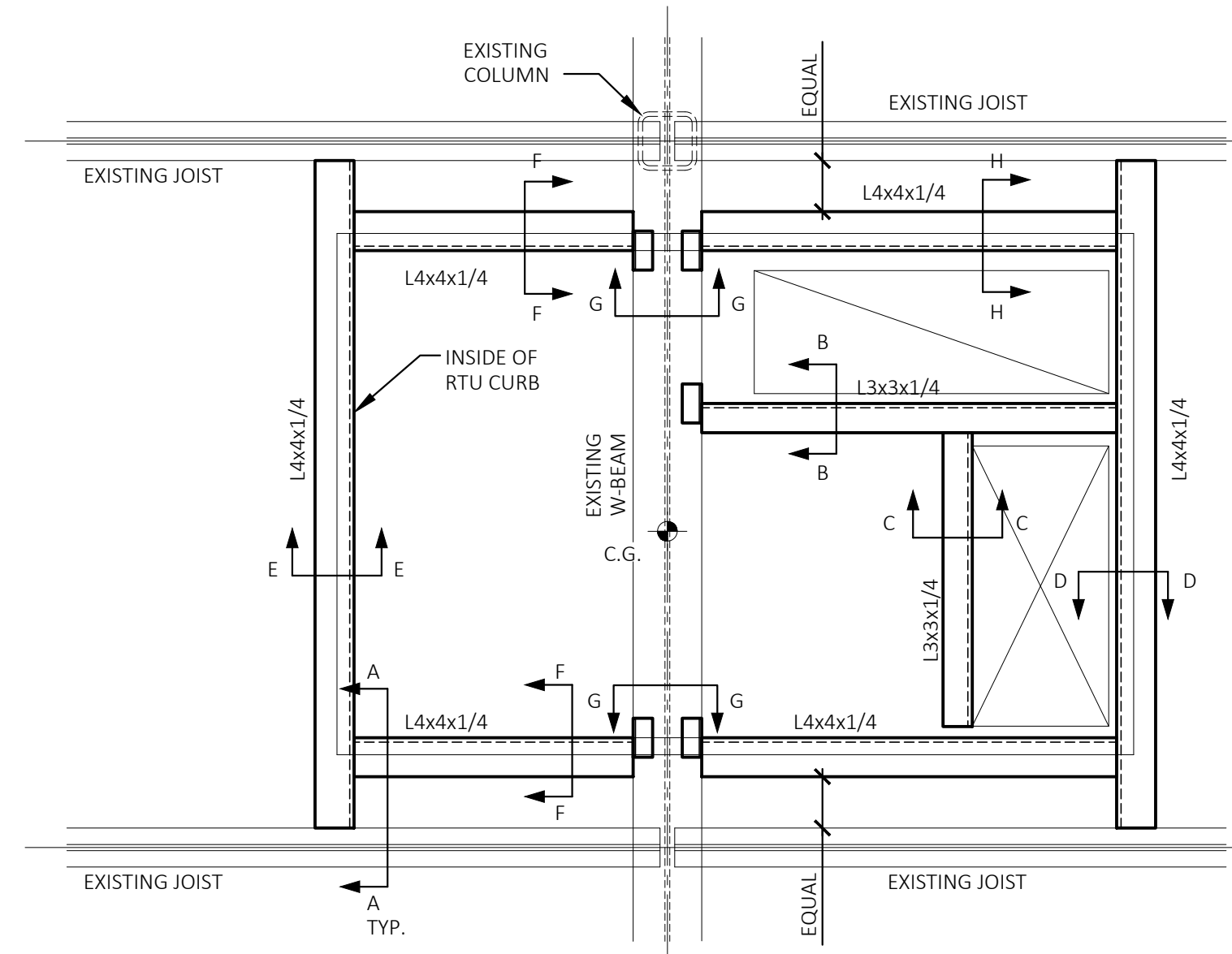
EXHAUST FAN SUPPORT DETAIL

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



JOIST LOAD STRUT DETAIL

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



TYPICAL RTU SUPPORT FRAME PLAN

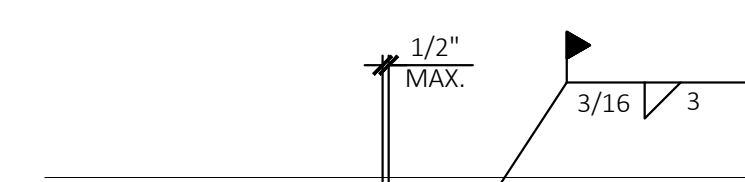
NOTES:

1. CUT AND REMOVE EXISTING ROOF DECK AFTER FRAME IS INSTALLED, IMMEDIATELY PRIOR TO INSTALLING EQUIPMENT. CUT OPENINGS FOR DUCT PENETRATIONS ONLY.
2. COORDINATE WITH THE MECHANICAL DRAWINGS AND MECHANICAL CONTRACTOR FOR ALL CURB AND DUCT OPENING DIMENSIONS FOR ROOF TOP UNITS.

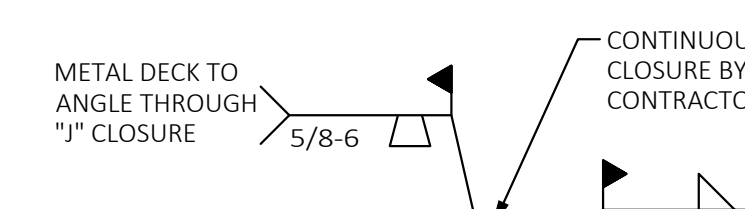
TYPICAL FRAMING FOR ROOF TOP UNITS

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

ATTACHMENT NOTE:
ANCHOR CURB WITH (3) 1/4" SELF DRILLING SCREWS ALONG SHORT DIMENSION OF UNIT AND (5) 1/4" SELF DRILLING SCREWS ALONG LONG DIMENSION OF UNIT. LOCATE SCREWS 6" FROM EACH END OF CURB AND AT EQUALLY SPACED INTERVALS IN BETWEEN, TYPICAL EACH SIDE OF CURB.



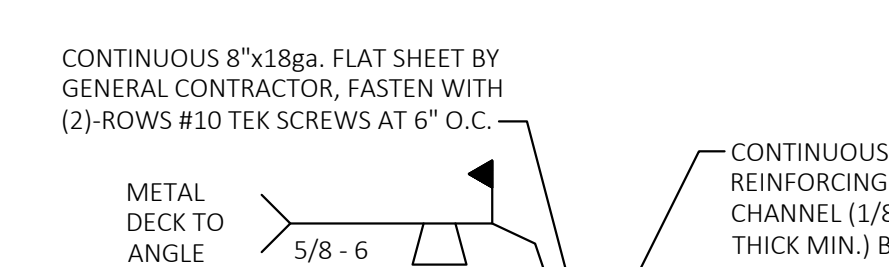
SECTION A-A



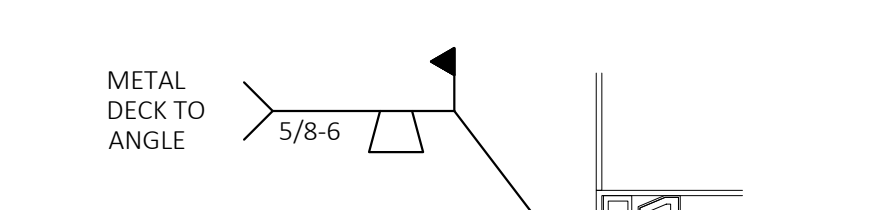
SECTION B-B



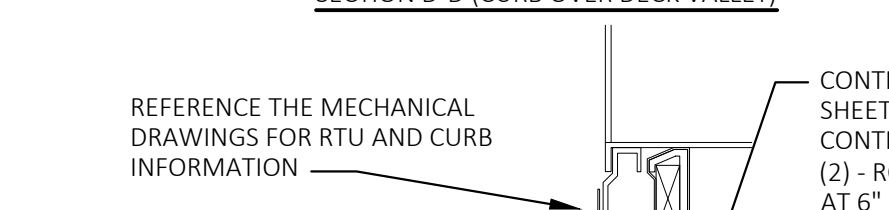
SECTION C-C (AT HIGH RIB CONDITION)



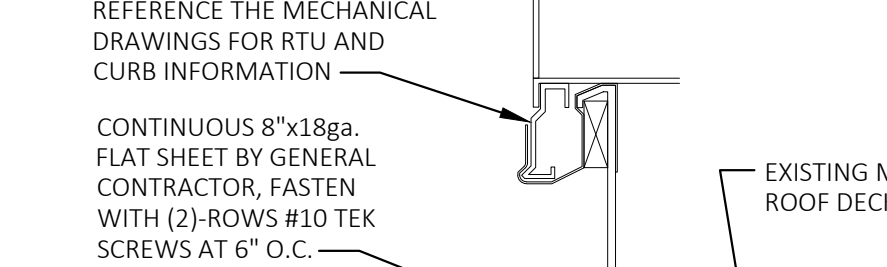
SECTION C-C (AT LOW RIB CONDITION)



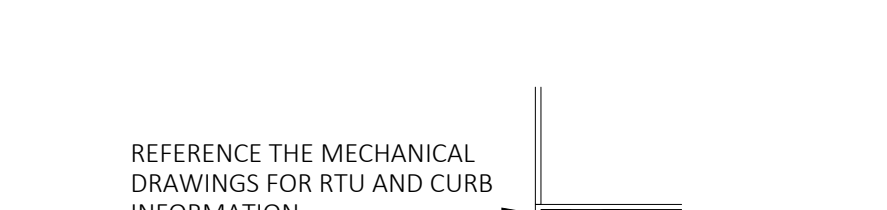
SECTION D-D (CURB FULLY SUPPORTED BY DECK RIB)



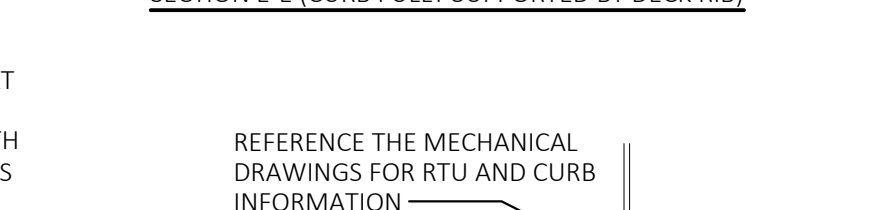
SECTION E-E (CURB FULLY SUPPORTED BY DECK RIB)



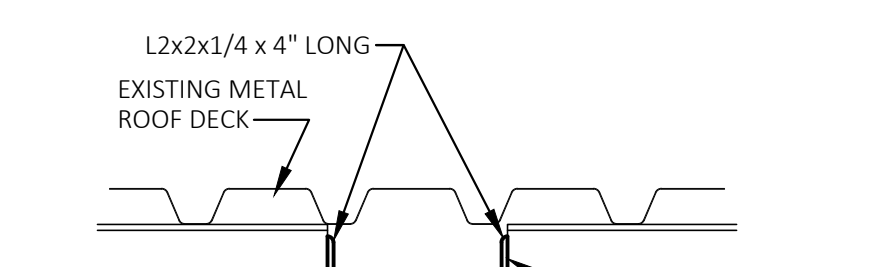
SECTION E-E (CURB OVER DECK VALLEY)



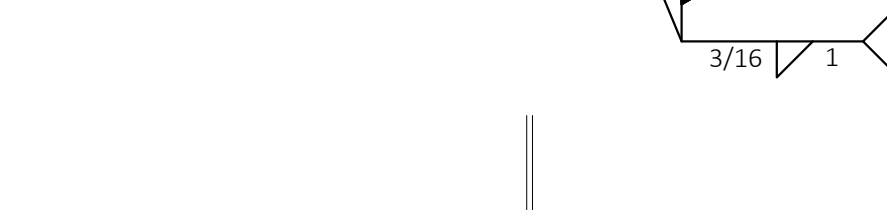
SECTION E-E (CURB FULLY SUPPORTED BY DECK RIB)



SECTION F-F



SECTION G-G



SECTION H-H

DATE	PROJECT	DESIGNED	DRAWN	CHECKED
08/11/22	220227	MPD	DIV	MPD

CASCO DIVERSIFIED CORPORATION
ENGINEERING FIRM
LICENSE #000613
EXPIRES 12/31/23

Mark A. Spallinger
License No. e-2576
Expiration Date: 12/31/23
PHONE: 314.821.1100

DOLLAR TREES
HOBBY LOBBY CENTER
2225 MISSOURI BLVD., JEFFERSON CITY, MO 65109
ROOF FRAMING PLAN AND DETAILS

RACK LEGEND

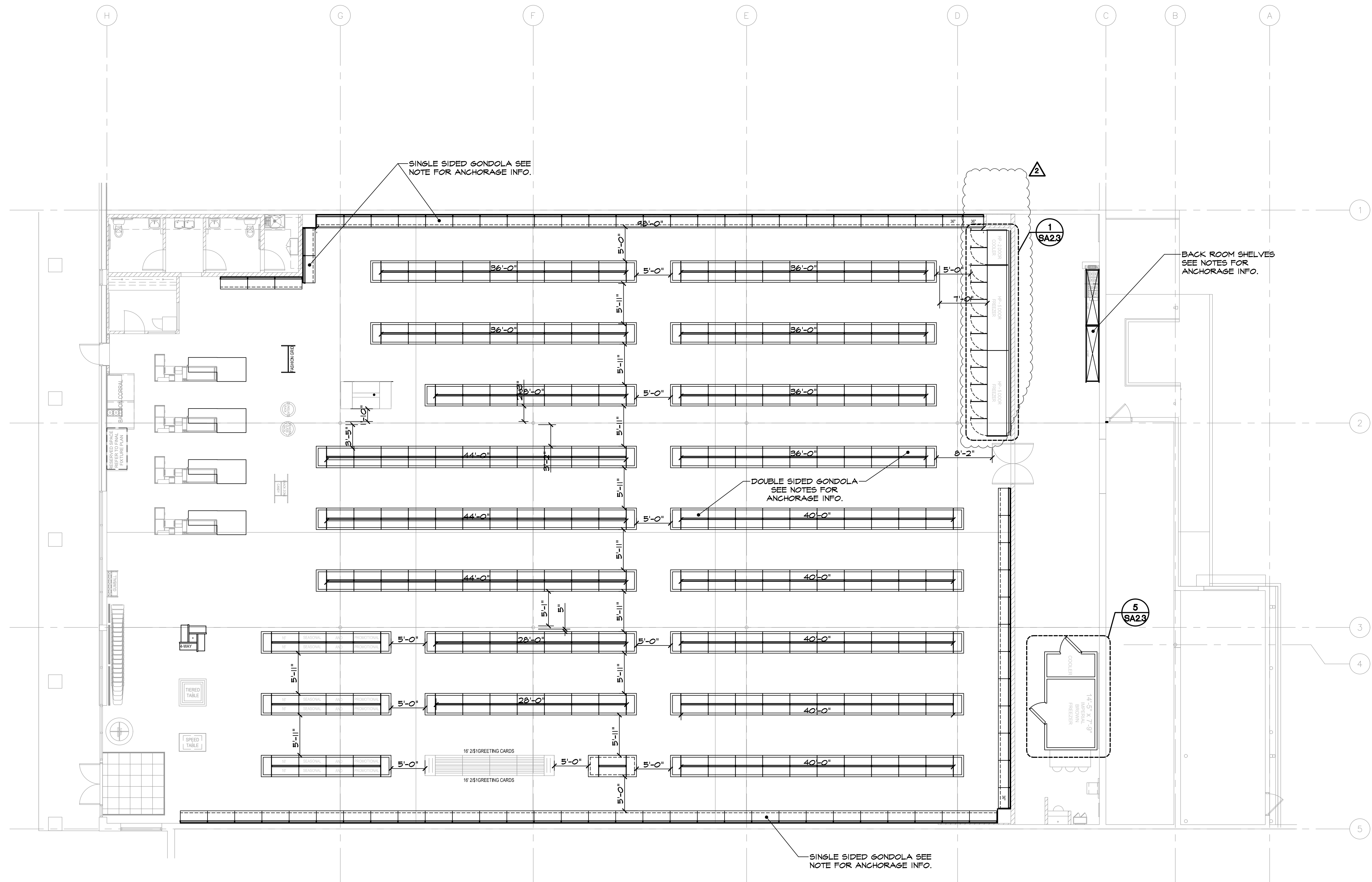
TYPE INDICATED	DESCRIPTION
	4' LONG x 6' TALL DOUBLE SIDED GONDOLA
	4' LONG x 7' TALL SINGLE SIDED WALL GONDOLA
	3' LONG x 7' TALL SINGLE SIDED WALL GONDOLA
	4' LONG x 8' TALL BACK ROOM STORAGE SHELVES

NOTE:
FIXTURE PLAN IS PROVIDED FOR REFERENCE TO ANCHOR REQUIREMENTS. SEE ARCHT. FIXTURE PLAN FOR ALL INFORMATION NOT SHOWN.

NOTE:
FOR ANCHORAGE DETAILS SEE: SA2.1 - DOLLAR TREE GONDOLAS SA2.2 - BACK ROOM SHELVES

NOTE:
SEE SA2.3 FOR FREEZER/COOLER ANCHORAGE REQUIREMENTS

SPECIAL INSPECTION NOTE:
- SPECIAL INSPECTION REQUIRED FOR EPOXY AND EXPANSION ANCHOR INSTALLATION (PER ICC REPORT)



PLAN REVISION	description
TT	by
08/24/2022	date
1	mark
	revisions

08/01/22	22402
BYA project	designed
	drawn
	checked

CASCO DIVERSIFIED CORPORATION ARCHITECTURAL FIRM LICENSE #003329 EXPIRES 12/31/23

CASCO DIVERSIFIED CORPORATION ENGINEERING FIRM LICENSE #000613 EXPIRES 12/31/23

PROFESSIONAL OF RECORD

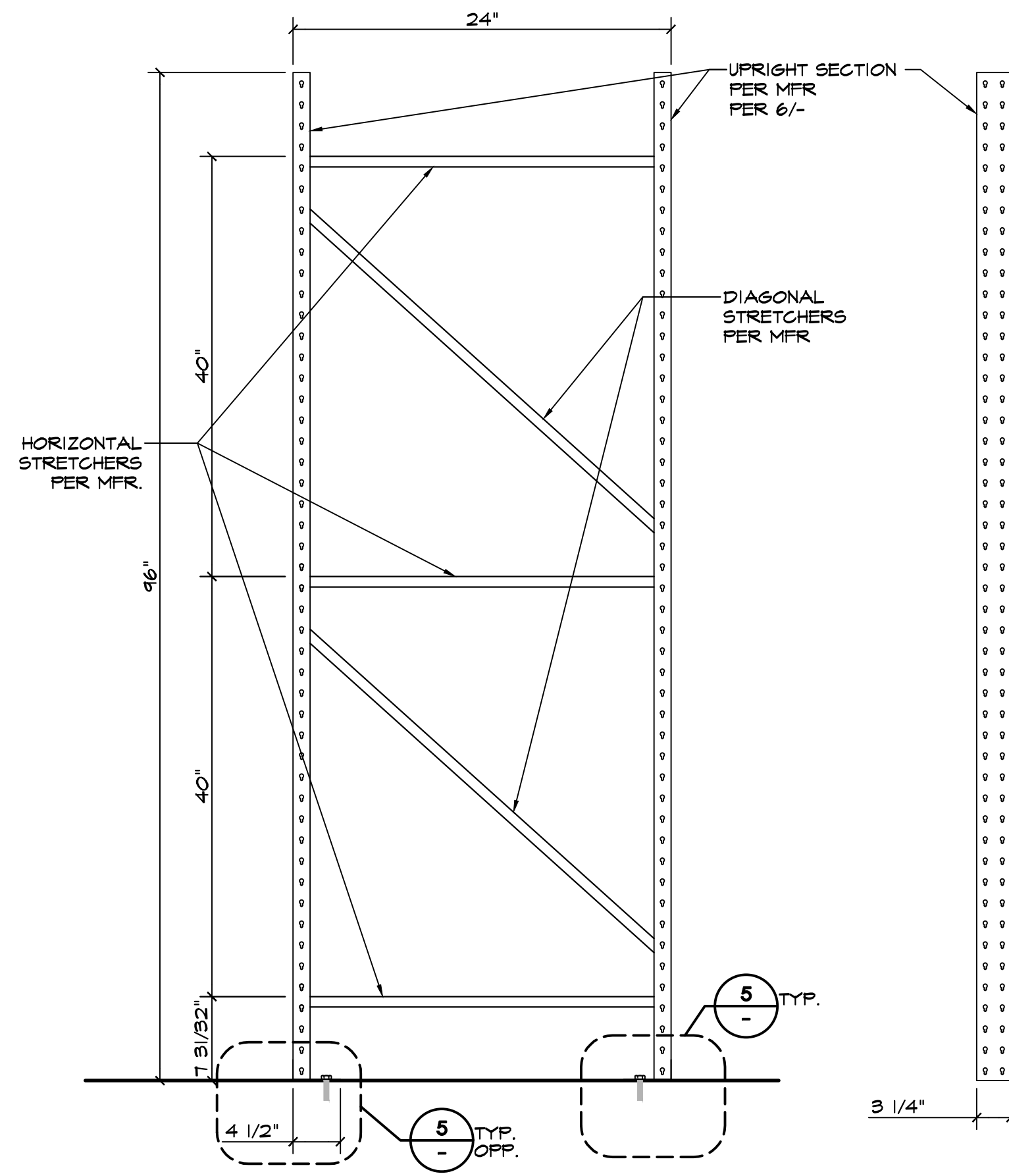
BRAD YOUNG & ASSOCIATES, INC.
STATE OF MISSOURI
BRAD YOUNG
LICENSE NUMBER
PE 005002178
PROFESSIONAL ENGINEER
BYA JOB # 22402

SIGNED AND STAMPED FOR GONDOLA LAYOUT REFERENCE SEE SEISMIC CALCULATIONS, DETAILS AND DETAILS

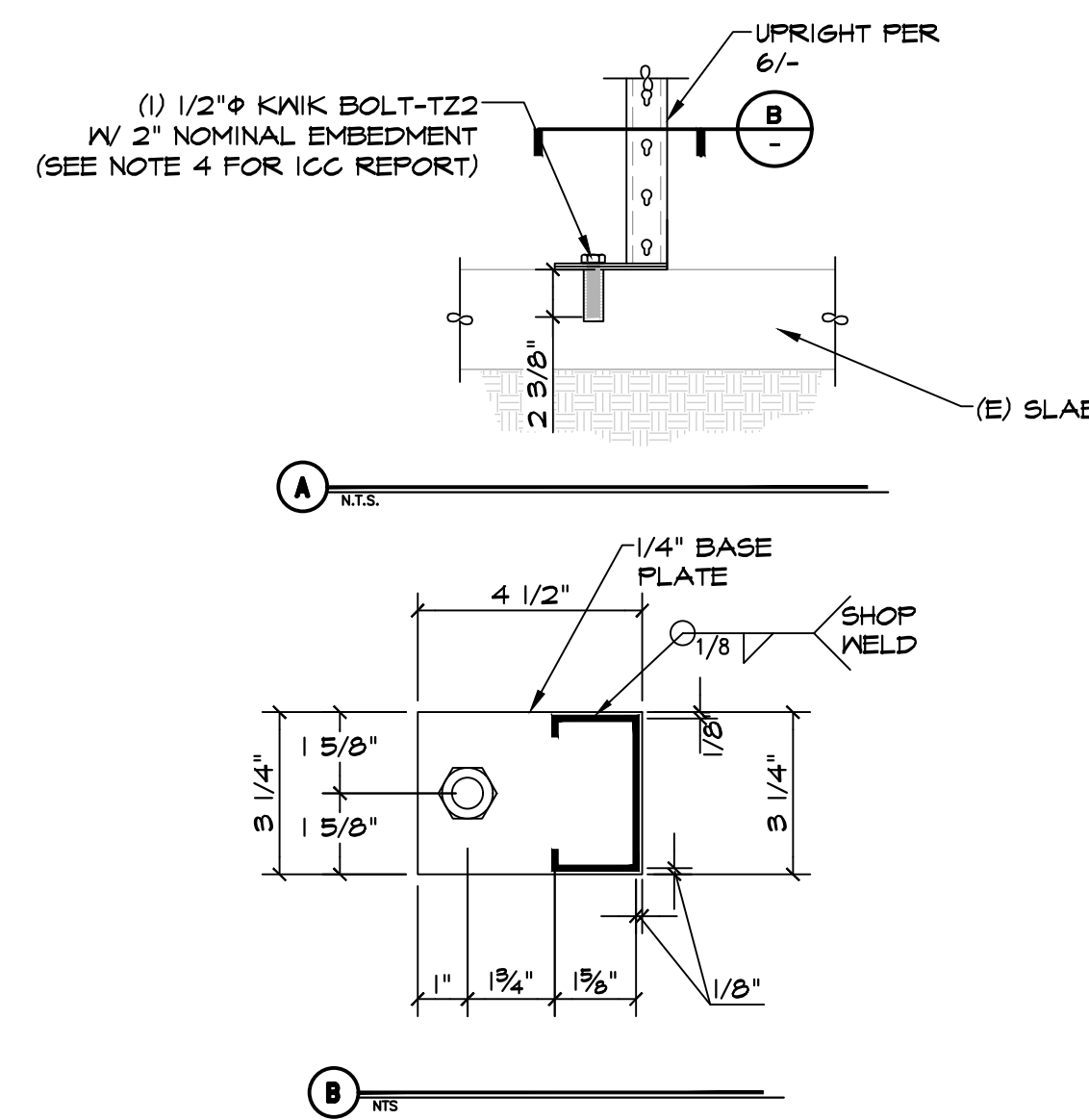
DOLLAR TREE
HOBBY LOBBY CENTER
2235 MISSOURI BLVD., JEFFERSON CITY, MO 65109
FIXTURE PLAN

project drawing

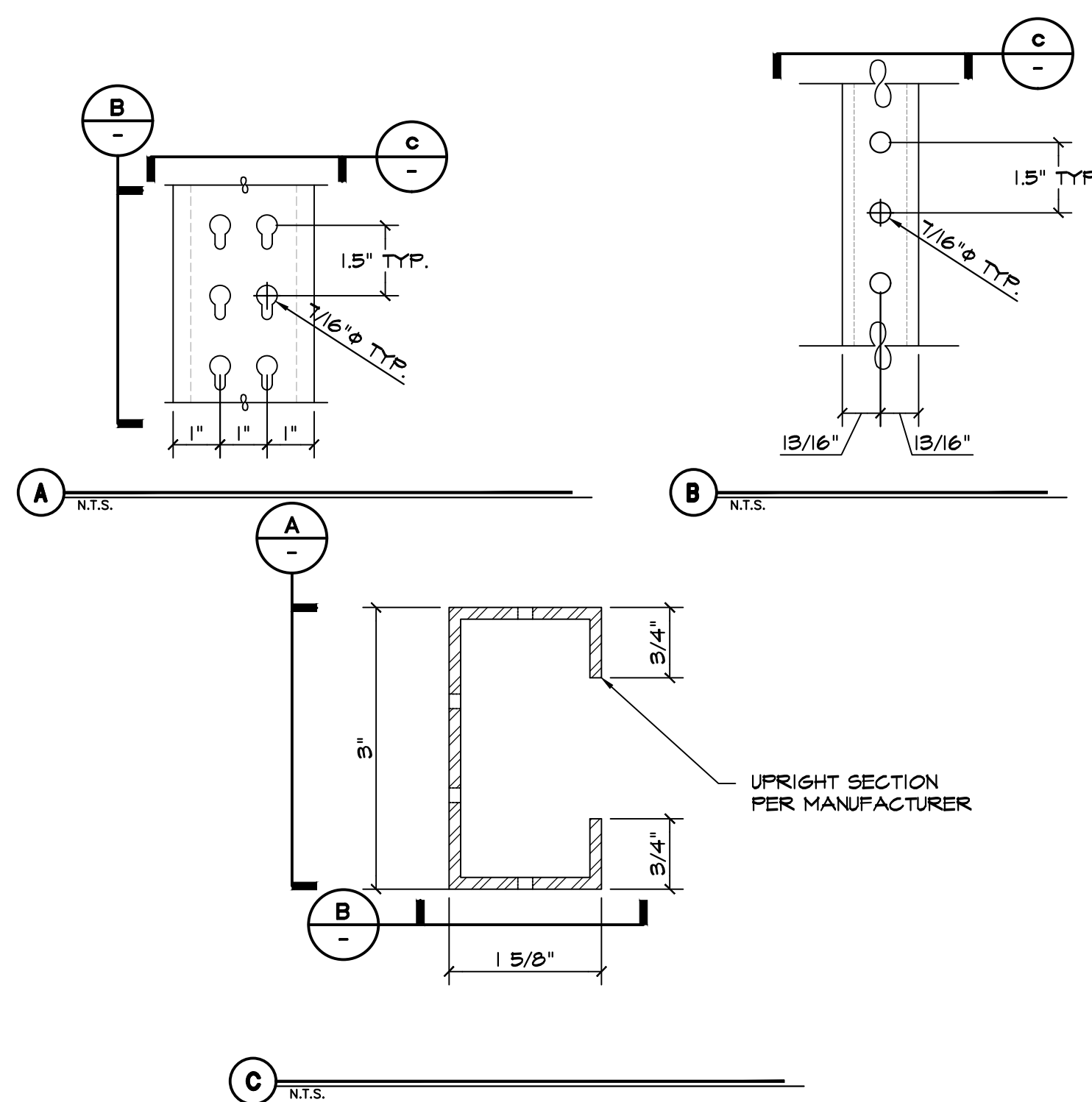
SA1.1



4 24' END FRAME
SCALE: 1" = 1'-0"



5 DETAIL
SCALE: N.T.S.

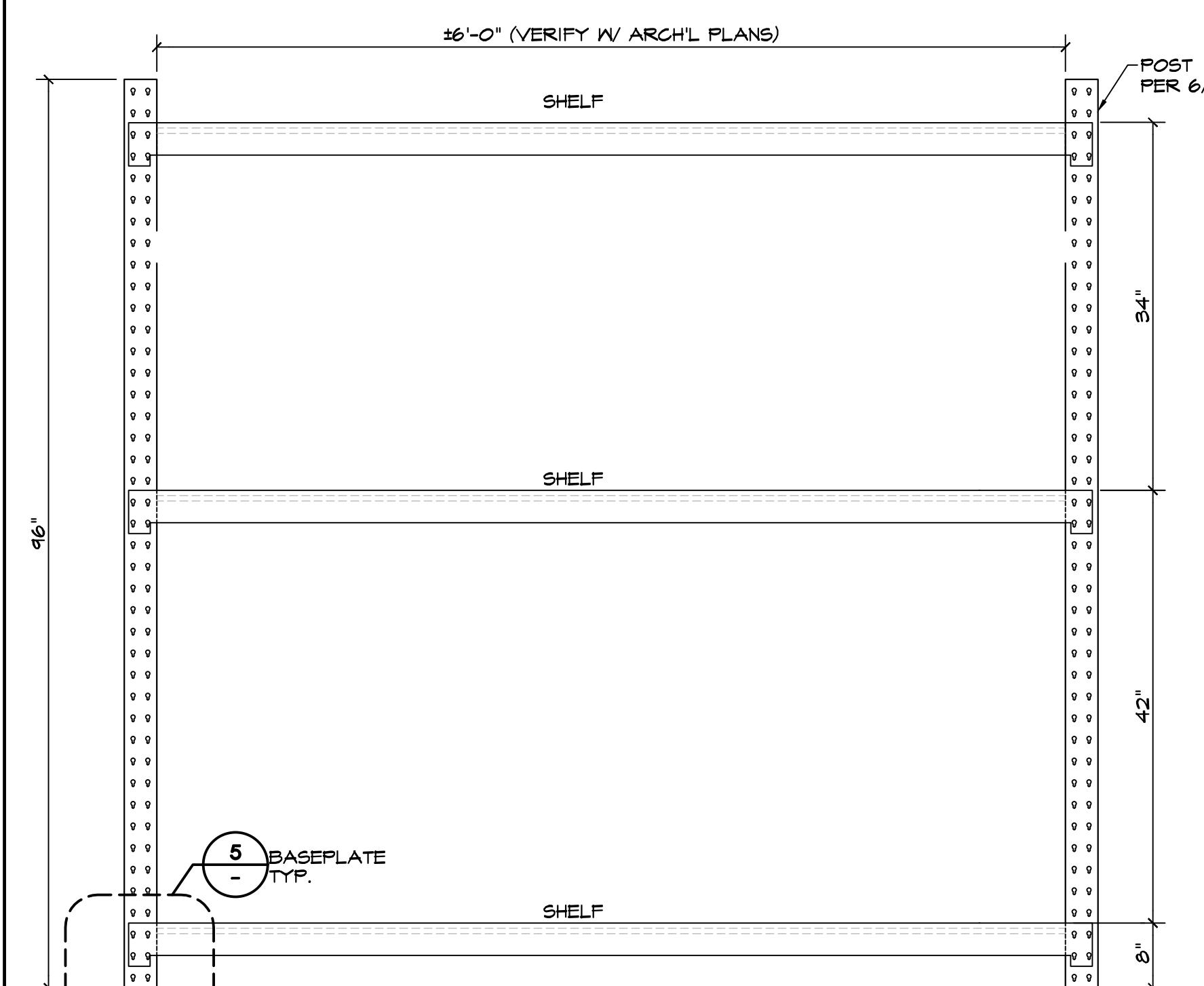


6 UPRIGHT SECTION
SCALE: N.T.S.

HORIZONTAL STRETCHER PER MANUFACTURER

HORIZONTAL STRETCHER PER MANUFACTURER

1 DETAIL - BACKROOM STORAGE RACKS
SCALE: N.T.S.



3 RACK ELEVATION (NO HELIUM TANK)
SCALE: N.T.S.

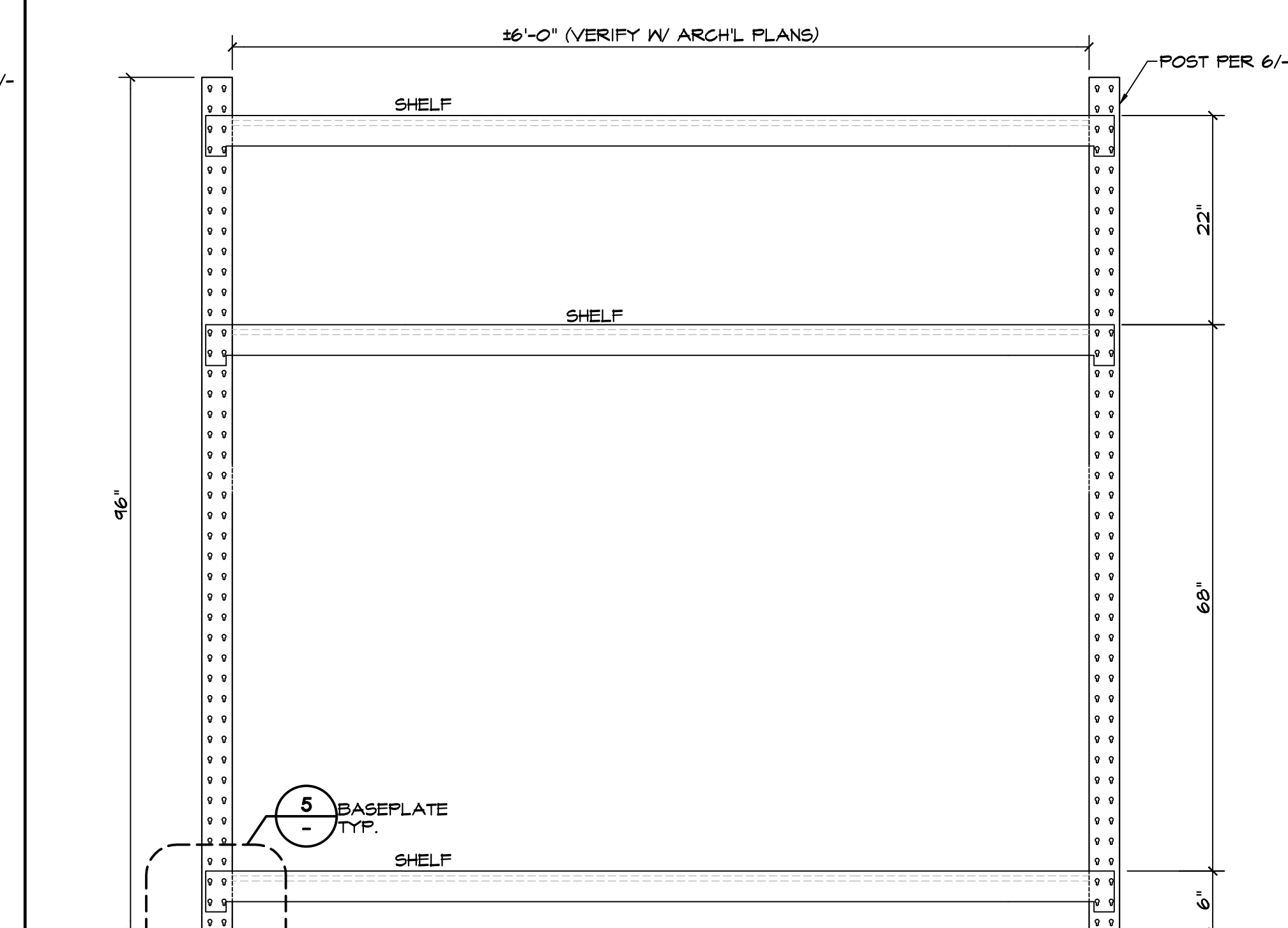
VERIFY WARCH'L PLANS

RACK FRAMING SEE 7/-

POST PER MANUFACTURER SEE 6/-

5 TYP.

2 RACK ELEVATION (HELIUM TANK)
SCALE: N.T.S.



- NOTES:
- DESIGN PER SECTION 2209.1 OF THE 2015 IBC
SITE CLASS D, $S_s = 0.197$, $R = 4.0$, $I_e = 1.5$
 - STORAGE CAPACITY: 24" SHELF MAX LOAD: 500 LBS.
 - ALL BOLTS A307 (UNLESS OTHERWISE NOTED).
 - ANCHOR HILTI KWIK BOLT T22 (ICC ESR-4266) OR APPROVED EQUAL.
 - SPECIAL INSPECTION IS REQUIRED FOR ANCHOR INSTALLATION.
 - CONCRETE 4" THICK x 2,500 PSI. CONTRACTOR TO VERIFY.
 - SOIL BEARING PRESSURE 500 PSF.
 - THE CLEAR SPACE BELOW SPRINKLERS SHALL BE A MINIMUM OF 18 INCHES BETWEEN THE TOP OF THE STORED MATERIAL AND THE SPRINKLER DEFLECTOR
 - ALL STEEL SHALL BE $f_y=50ksi$

SHELF LAYOUT SEE 2 & 3/-

2 WIDE RACK ELEVATION (HELIUM TANK)

3 WIDE RACK ELEVATION

mark	date	description

date	BYA project	designed	drawn	checked
08/01/22	22402			

CASCO DIVERSIFIED CORPORATION ARCHITECTURAL FIRM LICENSE #000329 EXPIRES 12/31/23

CASCO DIVERSIFIED CORPORATION ENGINEERING FIRM LICENSE #000613 EXPIRES 12/31/23

PROFESSIONAL OF RECORD

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TEL: 314.433.8800 FAX: 314.433.8801
WWW.BYANDASSOCIATES.COM

STATE OF MISSOURI
BRAD YOUNG
LICENSE NUMBER
PE 000002178
PROFESSIONAL ENGINEER
BYA JOB # 22402

project **DOLLAR TREE**
HOBBY LOBBY CENTER
2235 MISSOURI BLVD., JEFFERSON CITY, MO 65109

drawing **FIGURE DETAILS**

PROJECT INFORMATION	
PROJECT NAME:	DOLLAR TREE - JEFFERSON CITY, MO
LOCATION:	2235 MISSOURI BLVD. JEFFERSON CITY, MO 65109
FIRE PROTECTION:	100% SPRINKLERED
OCCUPANCY:	MERCANTILE (EXISTING)

- SCOPE OF WORK**
- THE FIRE ALARM SYSTEM WITHIN THE FUTURE DOLLAR TREE SHALL UTILIZE THE EXISTING FIRE ALARM EQUIPMENT AS NEEDED.
 - THE EXISTING FIRE ALARM CONTROL PANEL SHALL REPORT ALL ALARM, SUPERVISORY, AND TROUBLE SIGNAL OFF-SITE AS CURRENTLY CONFIGURED.
 - THE NEW SCOPE OF WORK ON THE EXISTING FIRE ALARM SYSTEM SHALL CONSIST OF THE FOLLOWING:
 - RELOCATING THE EXISTING FIRE ALARM CONTROL PANEL, AUXILIARY POWER SUPPLY, AND CELL COMMUNICATOR TO THE ADJACENT WALL.
 - RELOCATING EXISTING APPLIANCES AND DEVICES TO THE NEW CEILING GRID AND ASSOCIATED ROOMS.
 - POWER-LIMITED FIRE ALARM CABLING SHALL BE PROVIDED.

WIRING LEGEND	
CONDUCTOR TYPE:	CIRCUIT DESIGNATION:
D = 144 TP FPL SHIELDED	AN = ANNUNCIATOR CIRCUIT
E = 192 TP FPL	AV = AUDIBLE/VISUAL NOTIFICATION CIRCUIT
F = 142 TP FPL	L = INITIATION DATA CIRCUIT
G = AS REQ'D BY MANF.	PW = LOW VOLTAGE POWER CIRCUIT
H = 182 WET LOCATION	RC = RELAY CONTROL CIRCUIT
	RT = REMOTE TEST STATION CIRCUIT
	SU = SUPERVISORY ZONE CIRCUIT
	SY = MULTIPLE SYNC CONNECTION
	ZN = INITIATION ZONE CIRCUIT

CONDUCTOR TYPE
CIRCUIT DESIGNATION
CIRCUIT NUMBER

SHOULD MANUFACTURER OF FIRE ALARM EQUIPMENT REQUIRE A DIFFERENT TYPE OR SIZE OF CABLE THAN HEREIN SPECIFIED, THE LARGER OR MORE STRINGENT TYPE OF CABLE SHALL BE USED.

REMOTE SUPERVISING STATION FACILITY INFORMATION	
MONITORING COMPANY NAME:	ADT
ADDRESS:	4221 W JOHN CARPENTER FREEWAY IRVING, TX 75063
TELEPHONE NUMBER:	(316) 858-6684

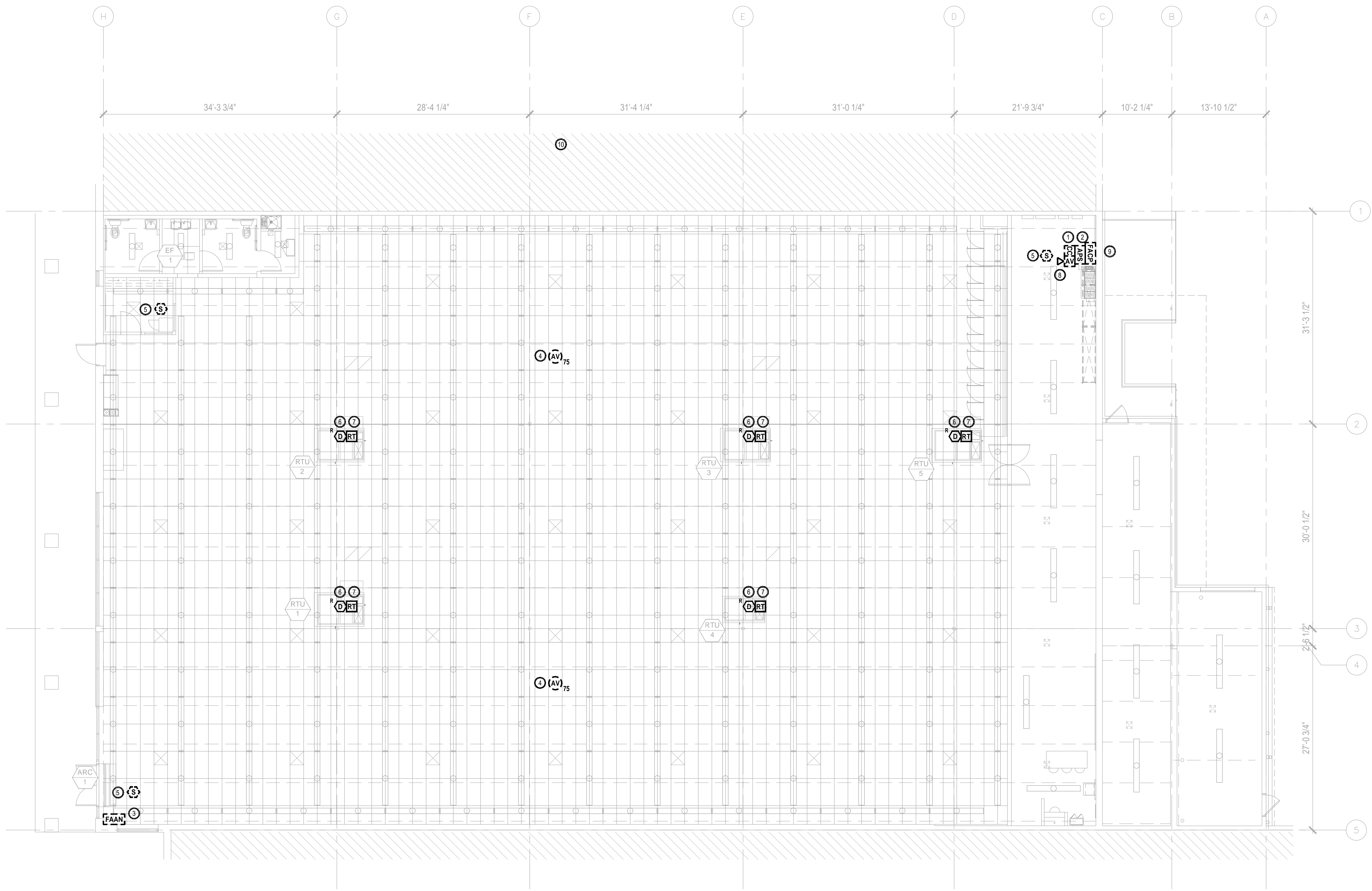
THE INSTALLING CONTRACTOR SHALL CONTACT ADT AT THE NUMBER ABOVE AT LEAST 28 DAYS PRIOR TO THE TCO DATE THE PANEL NEEDS DOWNLOADED. ASK FOR THE DOLLAR TREE SUPPORT TEAM SO AN ACCOUNT MANAGER CAN BE ASSIGNED. PROVIDE POINT ID INFORMATION AND VERIFY CORRECT SIGNALS ARE BEING RECEIVED PRIOR TO INSPECTIONS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

APPLICABLE CODES	
2015 INTERNATIONAL BUILDING CODE	
2015 INTERNATIONAL FIRE CODE	
2015 INTERNATIONAL MECHANICAL CODE	
2014 NATIONAL ELECTRICAL CODE	
2015 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 (ECR) FOR RESOLUTION.

- FIRE ALARM KEYED NOTES (DENOTED AS ①)**
- THE EXISTING DEDICATED FUNCTION WATERFLOW MONITORING FIRE ALARM CONTROL PANEL AND ASSOCIATED EQUIPMENT SHALL BE RELOCATED FROM THE ORIGINAL LOCATION INDICATED ON FAD1 TO THE NEW LOCATION INDICATED ON THIS SHEET. ALL NEW FIRE ALARM DEVICES AND APPLIANCES WITHIN THE DOLLAR TREE SPACE SHALL BE CONNECTED DIRECTLY TO THE EXISTING FIRE ALARM CONTROL PANEL.
 - COORDINATE CONNECTIONS TO DEDICATED 120 VAC POWER CIRCUITS WITH THE ELECTRICAL CONTRACTOR. PROVIDE SURGE SUPPRESSION FOR 120 VAC POWER CIRCUITS. THE DEDICATED CIRCUIT DISCONNECT SHALL BE RED IN COLOR, LABELED "FIRE ALARM CIRCUIT", AND HAVE A LOCKABLE TAB. ALL FIRE ALARM CIRCUIT BREAKERS SHALL BE CLEARLY MARKED AND MECHANICALLY SECURED TO PREVENT ANY UNAUTHORIZED TAMPERING. IDENTIFY THE LOCATION OF THE CIRCUIT DISCONNECT AT THE CONTROL EQUIPMENT. PROVIDE 24 HOUR BATTERY BACKUP.
 - THE EXISTING FIRE ALARM ANNUNCIATOR PANEL SHALL BE RELOCATED FROM THE LOCATION INDICATED ON FAD1 TO THE NEW LOCATION INDICATED ON THIS SHEET. PROVIDE NEW CABLING AND CONDUIT AS NEEDED TO EXTEND THE EXISTING CIRCUIT TO THE NEW LOCATION. ALL CABLE SPLICES SHALL BE ACHIEVED VIA TERMINAL STRIP WITH SCREW TERMINALS. COORDINATE EXACT MOUNTING LOCATION OF THE FIRE ALARM ANNUNCIATOR WITH THE ARCHITECTURAL DRAWINGS, GENERAL CONTRACTOR, OWNER'S REPRESENTATIVE, AND AHU PRIOR TO INSTALLATION.
 - REUSE THE EXISTING CEILING MOUNTED OCCUPANT NOTIFICATION APPLIANCE THAT WAS PREVIOUSLY REMOVED. MOUNT THE OCCUPANT NOTIFICATION APPLIANCES FLUSH WITH THE SUSPENDED CEILING, CENTERED IN CEILING TILE, ALIGNED WITH LIGHTING, AND OTHER ARCHITECTURAL FIXTURES AND WITH CLEAR LINE OF SITE IN ALL DIRECTIONS. PROVIDE NEW CABLING AND CONDUIT AS NEEDED TO EXTEND THE CIRCUIT. ALL CABLE SPLICES SHALL BE ACHIEVED VIA TERMINAL STRIP WITH SCREW TERMINALS. ENSURE APPLIANCE CIRCUIT IS OPERATIONAL AND SUPERVISED IN ACCORDANCE WITH NFPA 72.
 - THE EXISTING SMOKE DETECTOR SHALL BE RELOCATED FROM THE LOCATION INDICATED ON SHEET FAD1 TO THE LOCATION INDICATED ON THIS SHEET. MOUNT SMOKE DETECTOR ON THE BOTTOM OF THE BECK, NOT ON THE BOTTOM OF STRUCTURAL MEMBERS) OR ON THE SUSPENDED CEILING AND LOCATED MORE THAN THREE (3) FEET FROM ANY MECHANICAL DIFFUSERS, AS INDICATED IN NFPA 72. PROVIDE NEW CABLING AND CONDUIT AS NEEDED TO EXTEND THE CIRCUIT. ALL CABLE SPLICES SHALL BE ACHIEVED VIA TERMINAL STRIP WITH SCREW TERMINALS.
 - PROVIDE MONITORING OF THE FACTORY INSTALLED CONVENTIONAL DUCT SMOKE DETECTION ON THE RETURN SIDE OF ALL AIR HANDLING UNITS (AHU) WITH A DESIGN CAPACITY GREATER THAN 200 CFM. CONFIGURE THE DUCT SMOKE DETECTOR TO UTILIZE THE AUXILIARY ALARM CONTACTS OF THE DUCT SMOKE DETECTOR TO SHUTDOWN THE RTU THROUGH THE INDIVIDUAL RTU CONTROLLER. PROVIDE ANY REQUIRED INTERMEDIATE RELAYS FOR CONNECTIONS TO HVAC CONTROLS. PROVIDE CABLING AND WIRING CONNECTIONS TO HVAC CONTROLS AND DUCT DETECTOR POWER. FINAL TERMINATIONS TO HVAC CONTROLS AND DUCT DETECTOR POWER ARE BY MECHANICAL OR CONTROLS CONTRACTOR. COORDINATE ALL EQUIPMENT INSTALLATION, POWER, AND INTERFACE CONNECTIONS WITH THE ELECTRICAL, MECHANICAL, AND TEMPERATURE CONTROLS CONTRACTORS.
 - PROVIDE A REMOTE TEST STATION/ANNUNCIATOR FOR EACH DUCT SMOKE DETECTOR. PROVIDE ANY REQUIRED POWER CABLING CONNECTIONS TO DETECTORS AND REMOTE TEST STATION/ANNUNCIATOR. MOUNT THE REMOTE TEST STATION/ANNUNCIATOR ON THE SUSPENDED CEILING DIRECTLY BELOW THE RTU. COORDINATE EXACT MOUNTING LOCATIONS WITH THE GENERAL CONTRACTOR, OWNER, AND THE AHU PRIOR TO INSTALLATION.
 - REUSE THE EXISTING WALL MOUNTED OCCUPANT NOTIFICATION APPLIANCE THAT WAS PREVIOUSLY REMOVED. MOUNT THE OCCUPANT NOTIFICATION APPLIANCE ABOVE THE FACI, AVOIDING OTHER ARCHITECTURAL FIXTURES AND WITH CLEAR LINE OF SITE IN ALL DIRECTIONS. PROVIDE NEW CABLING AND CONDUIT AS NEEDED TO EXTEND THE CIRCUIT. ALL CABLE SPLICES SHALL BE ACHIEVED VIA TERMINAL STRIP WITH SCREW TERMINALS. ENSURE APPLIANCE CIRCUIT IS OPERATIONAL AND SUPERVISED IN ACCORDANCE WITH NFPA 72.
 - FIELD VERIFY EXISTING FIRE ALARM CONTROL PANEL (FACP) AND AUXILIARY POWER SUPPLY (APS) HAS SUFFICIENT STANDBY SECONDARY BATTERY CAPACITY TO ACCOMMODATE THE NEW FIRE ALARM EQUIPMENT. IF ADEQUATE SECONDARY BATTERY CAPACITY IS NOT PROVIDED, LARGER BATTERIES SHALL BE PROVIDED TO MEET THE SECONDARY BATTERY CAPACITY REQUIREMENTS IN NFPA 72. PROVIDE ALL CHARGING CABLES AND BATTERY CABINET AS NECESSARY. ENSURE THE NEW BATTERIES DO NOT EXCEED CHARGING CAPABILITIES OF EXISTING EQUIPMENT.
 - THE EXISTING FIRE SPRINKLER WATERFLOW SWITCHES AND TAMPER SWITCHES ARE LOCATED OUTSIDE THE DOLLAR TREE SPACE AND ARE ELECTRONICALLY SUPERVISED BY THE EXISTING FIRE ALARM SYSTEM. ALL EQUIPMENT ASSOCIATED WITH ELECTRONICALLY SUPERVISING THE FIRE SPRINKLER SYSTEM AND ASSOCIATED CABLING/CONDUIT SHALL REMAIN AS CURRENTLY CONFIGURED.

FIRE ALARM SYMBOL KEY	
	EXISTING DEDICATED FUNCTION WATERFLOW MONITORING FIRE ALARM CONTROL PANEL (DSC MAXIS P4000CT)
	EXISTING FIRE ALARM ANNUNCIATOR PANEL TO REMAIN
	EXISTING AUXILIARY POWER SUPPLY TO REMAIN
	EXISTING WALL MOUNTED AUDIBLE/VISUAL NOTIFICATION APPLIANCE TO REMAIN (XX = CANDELA)
	EXISTING SMOKE DETECTOR TO REMAIN
	DUCT-TYPE PHOTOELECTRIC SMOKE DETECTOR (CONVENTIONAL) (PROVIDED AND INSTALLED BY OTHERS AND POWERED BY RTU) (R = RETURN SIDE)
	REMOTE TEST STATION/ANNUNCIATOR (SYSTEM SENSOR RTS151K1EY)
	FIRE ALARM PLENUM RATED CONDUCTORS (RED IN COLOR)
	JUNCTION BOX
	END OF LINE RESISTOR



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

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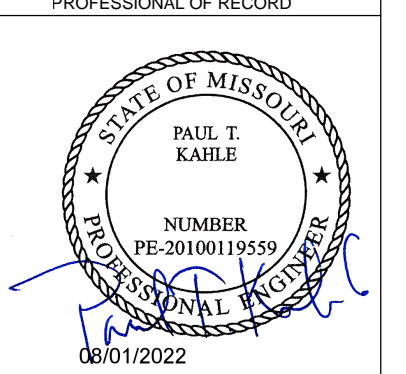
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date	project	designed	drawn	checked
08/01/22	2202227	KM	KM	ACD

description
by
date
mark
revisions

CASCO DIVERSIFIED CORPORATION ARCHITECTURAL FIRM LICENSE #000329 EXPIRES 12/31/23

CASCO DIVERSIFIED CORPORATION ENGINEERING FIRM LICENSE #000613 EXPIRES 12/31/23



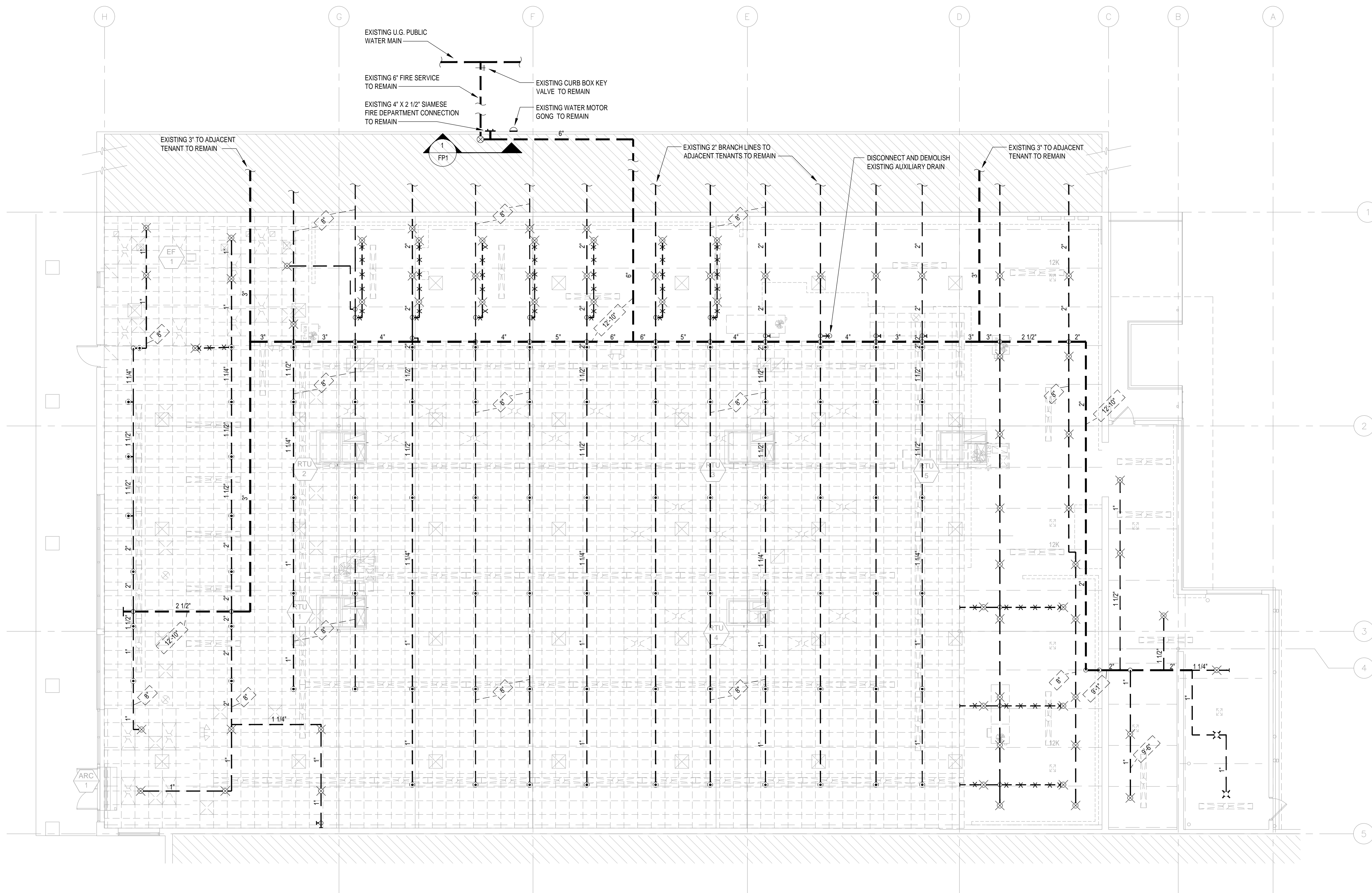
PHONE: 314-821-1100

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2045 WOODLAND HWY, SUITE 300
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DOLLAR TREE
HOBBY LOBBY CENTER
2235 MISSOURI BLVD., JEFFERSON CITY, MO 65109
drawing FIRE ALARM PLAN - NEW WORK

FA1

PART 1 GENERAL	1.08 SUBMITTALS	E. EACH REVISION TO THE SOFTWARE SHALL BE IDENTIFIED BY A UNIQUE VERSION NUMBER AND DATE.	3. DEVICES AND EQUIPMENT MUST BE INSTALLED BY PERSONNEL LEGALLY PERMITTED AND CURRENTLY LICENSED TO INSTALL THE DEVICES AND EQUIPMENT. THE COST OF INSTALLATION, WARRANTY OF INSTALLATION AND EQUIPMENT, COORDINATION OF THE INSTALLATION, AND SUPERVISION OF THE INSTALLATION ARE RESPONSIBILITIES OF THE CONTRACTOR.	O. PROVIDE A LABEL FOR EACH NOTIFICATION APPLIANCE INDICATING THE SPECIFIC CIRCUIT AND APPLIANCE NUMBER FOR THAT APPLIANCE. THE LABEL SHALL BE LOCATED ON THE BASE OF ALL APPLIANCES.
1.01 RELATED DOCUMENTS	A. THE ENGINEERING DRAWINGS HAVE BEEN PREPARED USING AUTOCAD THESE DOCUMENTS WILL BE MADE AVAILABLE EITHER IN ELECTRONIC OR HARD COPY FORM. UTILIZATION OF THESE DOCUMENTS FOR THE DEVELOPMENT OF SHOP DRAWINGS AND SUBMITTALS DOES NOT RELIEVE THE CONTRACTOR FROM ANY RESPONSIBILITIES REQUIRED HEREIN.	F. PRIOR TO FINAL PAYMENT FOR THE FIRE ALARM SYSTEM AND THE BEGINNING OF THE WARRANTY PERIOD, SUBMIT A CD ROM AND TWO (2) SETS (OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE) OF THE FOLLOWING COMPLETED PROJECT RECORD DOCUMENTS TO THE OWNER'S REPRESENTATIVE: 1. COPIES OF ALL TEST AND INSPECTION REPORTS AS REQUIRED BY THE AHJ AND NFPA 72. 2. THE RECORD OF COMPLETION FORM SHALL BE IN THE FORMAT AS OUTLINED IN NFPA 72. 3. THE INSPECTION AND TESTING FORM SHALL BE IN THE FORMAT AS OUTLINED IN NFPA 72.	C. ALL FIRE ALARM CONDUIT, JUNCTION BOXES, PULL BOXES, CABLE SPLICES AND TERMINAL CABINETS SHALL BE ACCESSIBLE. PAINTED RED OR CLEARLY MARKED FIRE ALARM. THE CONTRACTOR SHALL COMPLY WITH ANY LOCAL CODES OR AHJ REQUIREMENTS FOR CIRCUIT IDENTIFICATION. ANY ACCESS PANELS REQUIRED FOR THE ACCESSIBILITY TO THE JUNCTION BOXES, PULL BOXES, CABLE SPLICES AND TERMINAL CABINETS SHALL BE THE RESPONSIBILITY OF THE FIRE ALARM CONTRACTOR.	P. 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.
1.02 SUMMARY	B. IN THE SUBMITTALS, THE CONTRACTOR MUST CLEARLY IDENTIFY ALL AREAS AND SECTIONS OF THIS SPECIFICATION TO WHICH THEY TAKE EXCEPTION OR ARE NOT CAPABLE OF PROVIDING.	1. PERMITS AND LICENSES REQUIRED TO BE IN THE POSSESSION OF THE OWNER BY THE AHJ. 2. ACCURATE RECORD AS-BUILT DRAWINGS OF THE COMPLETE INSTALLATION TO INCLUDE, BUT NOT BE LIMITED TO, THE INFORMATION REQUIRED FOR THE SHOP DRAWINGS, RECORD DRAWINGS OF THE FLOOR PLANS SHALL BE AUTOCAD GENERATED. 3. ORIGINAL WARRANTY DOCUMENTS INCLUDING, BUT NOT LIMITED TO, THOSE OF THE FAEM WARRANTY DOCUMENTS SHALL REFERENCE AND BE BINDING TO THE WARRANTY PROVISIONS SPECIFIED IN THE WARRANTY PORTION OF THIS SPECIFICATION.	D. ALL WIRING CONDUCTORS AND CONDUITS SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER AT RIGHT ANGLES TO THE BUILDING WALLS, FLOORS AND CEILINGS, AND SUPPORTED FROM THE BUILDING STRUCTURE AT INTERVALS COMPLIANT WITH NEC REQUIREMENTS.	3.04 RESTORATION OF SITE A. WHERE SIDEWALKS, CURBS, AND LAWNS ARE EXCAVATED BY THE FIRE ALARM CONTRACTOR, THESE AREAS SHALL BE BACKFILLED AND REPLACED TO THE ORIGINAL CONDITION AND TO THE SATISFACTION OF THE OWNER, ARCHITECT AND AHJ.
A. PROVIDE ALL REQUIRED LABOR, WARRANTY LABOR, MATERIALS, EQUIPMENT, SYSTEM PROGRAMMING, TESTING, SUBMITTALS AND SERVICES NECESSARY FOR A COMPLETE AND OPERATIONAL FIRE ALARM SYSTEM AS HEREINAFTER DESCRIBED, AND AS SHOWN ON THE ENGINEERING DRAWINGS. B. WORK SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING: 1. CONNECTIONS TO EXISTING FACP 2. DATA CIRCUITS 3. INITIATION CIRCUITS 4. NOTIFICATION CIRCUITS 5. DETECTION DEVICES 6. AUDIBLE/VISUAL APPLIANCES 7. HVAC SHUTDOWN C. PROVIDE A MINIMUM OF ONE (1) HOUR TRAINING, FOR STAFF PERSONNEL, IN THE OPERATION AND USE OF THE SYSTEM. D. IT IS INTENDED THAT THE ENGINEERING DRAWINGS AND SPECIFICATIONS 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.	C. SUBMITTALS WILL BE DISAPPROVED UNLESS REQUIRED EQUIPMENT LITERATURE, CALCULATIONS, AND COMPLETE SHOP DRAWINGS ARE SUBMITTED TOGETHER AS ONE PACKAGE FOR REVIEW. D. THE ENGINEER SHALL REVIEW THE CONTRACTOR'S SUBMITTALS TO VERIFY CONFORMANCE TO THE PROJECT SPECIFICATIONS AND DESIGN CONCEPTS EXPRESSED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL ALLOW SUFFICIENT TIME TO PERMIT ADEQUATE REVIEW. REVIEW OF SUCH SUBMITTALS IS NOT CONDUCTED FOR THE PURPOSE OF DETERMINING THE ACCURACY AND COMPLETENESS OF DETAILS AND DIMENSIONS, OR SUBSTANTIATING INSTALLATION OR PERFORMANCE OF EQUIPMENT AND SYSTEMS DESIGNED BY THE CONTRACTOR. ALL OF WHICH REMAIN THE CONTRACTOR'S RESPONSIBILITY TO THE EXTENT REQUIRED BY THE CONTRACT DOCUMENTS. THE ENGINEER'S REVIEW SHALL NOT CONSTITUTE APPROVAL OF SAFETY PRECAUTIONS OF CONSTRUCTION, MEANS, METHODS, TECHNIQUES, SEQUENCES OF PROCEDURES, OR APPROVAL OF A SPECIFIC ASSEMBLY. E. PRIOR TO RELEASE OF EQUIPMENT FOR SHIPMENT OR INSTALLATION, SUBMIT TO THE ENGINEER THE FOLLOWING: 1. SHOP DRAWINGS, THE SPECIFIC QUANTITY TO BE SUBMITTED SHALL BE CONFIRMED WITH THE GENERAL CONTRACTOR AND OWNER. ELECTRONIC SUBMITTALS ARE ACCEPTABLE. SUBMITTAL MUST BE COMPREHENSIVE OF THE ENTIRE PROJECT, COMPLETE IN ALL DETAIL, AND INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING: a. FLOOR PLANS SHOWING EQUIPMENT PLACEMENT, POINT TO POINT WIRING, WIRING TYPES AND SIZES, CONDUIT TYPES AND SIZES, WIRING AND RACEWAY ROUTES, AND PROPOSED MOUNTING METHODS FOR CONDUIT AND BACKBOXES. FLOOR PLANS SHALL BE AUTOCAD GENERATED. b. SEQUENCE OF OPERATIONS IN MATRIX FORM TO INCLUDE A DETAILED DESCRIPTION OF THE OPERATION OF EACH SYSTEM FUNCTION FOR ALL POSSIBLE CONDITIONS. c. RISER DIAGRAM SHOWING TYPICAL WIRING CONNECTIONS FOR EACH TYPE OF DEVICE AND MODULE. d. SUPERVISORY AND ALARM CURRENT CALCULATIONS FOR PRIMARY POWER AND EMERGENCY BATTERY SIZING OF ALL CONTROL PANELS AND AUXILIARY POWER SUPPLIES. e. BATTERY CALCULATIONS SHALL LIST THE TYPE OF DEVICES AND MODULES, QUANTITIES, AMPERAGE DRAW FOR STANDBY AND ALARM CONDITIONS FOR EACH DEVICE, THE TOTAL AMPERAGE DRAW FOR EACH PANEL, AND EACH PANEL'S BATTERY AMPHOUR RATING. f. THE CALCULATED LOAD SHALL BE THE DESIGN LOAD, INCLUDING ALL REQUIRED SPARE CAPACITY. g. THE CALCULATED LOAD SHALL BE A MAXIMUM OF EIGHTY (80) PERCENT OF THE AMPHOUR LISTED BY THE MANUFACTURER. h. A COMPLETE LIST OF ALL PROPOSED DEVICES AND THEIR ASSOCIATED ZONES AND CIRCUIT NUMBER. i. VOLTAGE DROP CALCULATIONS FOR ALL NOTIFICATION APPLIANCE CIRCUITS. j. CALCULATIONS SHALL FOLLOW THE VOLTAGE DROP CALCULATION CRITERIA AS OUTLINED IN NFPA 72 AND ILL 894. k. CALCULATIONS SHALL USE THE WORST-CASE OPERATING VOLTAGE OF EACH CONTROL PANEL OR POWER SUPPLY AS A STARTING VOLTAGE. THE STARTING VOLTAGE SHALL BE 20.4 VDC (VARIABLE) UNLESS OTHERWISE SPECIFIED IN WRITTEN DOCUMENTATION IS PROVIDED CONFIRMING THAT THE SPECIFIC CONTROL PANEL OR POWER SUPPLY IS CAPABLE OF MAINTAINING A VOLTAGE HIGHER THAN 20.4 VDC. l. CALCULATIONS SHALL USE THE LOWEST OPERATING VOLTAGE OF THE NOTIFICATION APPLIANCES AND THE ASSOCIATED INCREASED CURRENT DRAW. THE LOWEST OPERATING VOLTAGE SHALL BE THE ILL STANDARD OPERATING VOLTAGE OF 16 VDC, UNLESS APPROVED OTHERWISE BY THE ENGINEER. m. MANUFACTURER'S LITERATURE ON ALL SYSTEM EQUIPMENT. THE SPECIFIC QUANTITY TO BE SUBMITTED SHALL BE CONFIRMED WITH THE GENERAL CONTRACTOR AND OWNER. ELECTRONIC SUBMITTALS ARE ACCEPTABLE. LITERATURE WHICH IS NOT CLEARLY IDENTIFIED WILL BE REJECTED. n. LITERATURE SHALL INCLUDE SPECIFICATION AND DESCRIPTION OF RECOMMENDING SUPPORTING METHODS, ENCLOSURES OR BOXES, AND WIRING CONNECTIONS. o. THE EXACT COMPONENTS TO BE UTILIZED ON THIS SPECIFIC PROJECT SHALL BE IDENTIFIED BY HIGHLIGHTING OR ARROWS, ON EACH DATA SHEET OF THE EQUIPMENT LITERATURE. p. QUALIFICATIONS AND AUTHORIZATION OF THE REPRESENTATIVE OF THE FAEM. q. THE ENGINEER SHALL REVIEW FOR ACCURACY ALL SUBMITTALS REQUIRED TO BE RECEIVED BY THE ENGINEER PRIOR TO EQUIPMENT RELEASE OR INSTALLATION. THE OWNER, OWNER'S REPRESENTATIVE, OR DESIGN FIRMS RETAINED BY THE OWNER SHALL NOT BE RESPONSIBLE FOR ANY ADDITIONAL COSTS RESULTING FROM REPLACEMENT OF EQUIPMENT OR MATERIALS NOT REVIEWED PRIOR TO INSTALLATION. r. AFTER SATISFACTORY REVIEW OF THE SUBMITTALS BY THE ENGINEER, THE CONTRACTOR SHALL SUBMIT ALL REQUIRED DRAWINGS, MANUFACTURER'S LITERATURE, CALCULATIONS AND ANY OTHER MATERIALS REQUIRED BY THE AHJ TO OBTAIN A PERMIT TO THE APPROPRIATE PARTY FOR REVIEW. s. FORWARD TO THE ENGINEER A COPY OF THE TRANSMITTAL OF THE PERMIT APPLICATION. t. FORWARD TO THE ENGINEER, IN WRITING, ANY COMMENTS FROM THE AHJ OR THE INSURANCE UNDERWRITER WITHIN FIVE (5) WORKING DAYS AFTER THE RECEIPT OF THEIR COMMENTS.	G. UPON COMPLETION OF CONSTRUCTION, SUBMIT TWO (2) SETS AND A CD ROM OF EQUIPMENT WARRANTIES AND TWO (2) SETS AND A CD ROM OF INSTALLATION, OPERATIONS AND MAINTENANCE INSTRUCTIONS TO THE OWNER'S REPRESENTATIVE. THIS MANUAL SHALL REFLECT THE INSTALLED INSTALLATION AND INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING INFORMATION: 1. A DETAILED WARRANTY DESCRIPTION OF THE SYSTEMS ARCHITECTURE, INPUTS, EVACUATION SIGNALING, AUXILIARY FUNCTIONS, ANNUNCIATION, SEQUENCE OF OPERATION, EXPANSION CAPABILITY, APPLICATION CONSIDERATIONS AND LIMITATIONS. 2. A DETAILED DESCRIPTION OF ROUTINE MAINTENANCE REQUIRED OR RECOMMENDED, OR AS WOULD BE PROVIDED UNDER A MAINTENANCE CONTRACT, INCLUDING A TESTING SCHEDULE AND DETAILED MAINTENANCE INSTRUCTIONS FOR EACH TYPE OF DEVICE INSTALLED. 3. DETAILED TROUBLESHOOTING INSTRUCTIONS FOR EACH POSSIBLE TROUBLE CONDITION. 4. AN EQUIPMENT LISTSCHEDULE DETAILING ALL EQUIPMENT AND QUANTITIES INSTALLED. THE MANUFACTURER'S PRODUCT MODEL IDENTIFICATION NUMBER SHALL BE SHOWN NEXT TO EACH PIECE OF EQUIPMENT ON THE LIST. 5. UPDATED MANUFACTURER'S DATA SHEETS AND INSTALLATION MANUALS/INSTRUCTIONS FOR ALL EQUIPMENT INSTALLED. 6. UPDATED LIST OF SPARE PARTS AND ACCESSORIES RECOMMENDED BY THE MANUFACTURER SHALL BE STOCKED FOR MAINTENANCE OF THE SYSTEM. 7. A DETAILED DESCRIPTION OF THE OPERATION OF THE SYSTEMS, INCLUDING OPERATOR RESPONSES, COPIES OF THE APPROVED SEQUENCE OF OPERATION SHALL BE PLACED IN, OR ADJACENT TO THE CONTROL PANEL. H. A COPY OF ALL SOFTWARE DOCUMENTATION REQUIRED BY THIS SECTION SHALL BE MAINTAINED ON-SITE BY THE CONTRACTOR IN A BINDER, ARRANGED IN CHRONOLOGICAL ORDER. THIS BINDER SHALL BE PROVIDED TO THE OWNER'S REPRESENTATIVE AT THE COMPLETION OF THE PROJECT.	E. ALL WIRING CONDUCTORS AND CONDUITS SHALL BE CONCEALED FROM PUBLIC VIEW AT ALL LOCATIONS BY ROUTING ON THE INSIDE OF JOISTS, ABOVE LAY-IN CEILINGS, OVER GIRDERS, WITHIN PARTITIONS OR IN ANY OTHER MANNER ACCEPTABLE TO THE OWNER'S REPRESENTATIVE. I. WIRING CONDUCTORS AND CONDUITS INSTALLED ABOVE LAY-IN CEILINGS SHALL BE SUPPORTED FROM THE BUILDING STRUCTURE AND SHALL NOT BE PERMITTED LESS THAN NINE (9) INCHES ABOVE OR BELOW REMOVABLE PANELS OR CEILING TILES. J. EXPOSED WIRING CONDUCTORS SHALL BE SUPPORTED FROM THE BUILDING STRUCTURE AT INTERVALS OF NO MORE THAN FIVE (5) FEET. K. ALL WIRING CONDUCTORS SHALL BE TAGGED AT ALL JUNCTION POINTS AND SHALL TEST FREE FROM GROUNDS OR CROSSES BETWEEN CONDUCTORS. L. NON-POWER LIMITED WIRING CONDUCTORS SHALL NOT BE INSTALLED IN CONDUITS WITH ELECTRIC LIGHT, POWER CLASS 1, OR NON-POWER LIMITED FIRE ALARM AND MEDIUM POWER NETWORK-POWERED BROADBAND COMMUNICATIONS CIRCUITS. M. FINAL CONNECTIONS BETWEEN EQUIPMENT AND THE WIRING SYSTEM SHALL BE MADE UNDER DIRECT SUPERVISION OF A REPRESENTATIVE OF THE FAEM. IF OTHER PERSONNEL ARE REQUIRED BY THE AHJ TO BE PRESENT DURING FINAL CONNECTIONS, THIS SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF PROVIDING A REPRESENTATIVE OF THE FAEM FOR DIRECT SUPERVISION. N. FIRE ALARM CABLEING SHALL NOT BE PAINTED. O. CONDUITS SHALL ENTER THE CONTROL PANEL ENCLOSURES ONLY IN THE APPROVED LOCATIONS, AS IDENTIFIED IN THE FAEM INSTALLATION INSTRUCTIONS. P. INSTALL ALL HANGERS, CLAMPS, CONDUIT, AND BACKBOXES FOR THE FIRE ALARM SYSTEM PRIOR TO THE APPLICATION OF FIREPROOFING ON STRUCTURAL MEMBERS. THE HANGERS, CLAMPS, CONDUIT, AND BACKBOXES FOR THE FIRE ALARM SYSTEM SHALL BE INSTALLED ON THE EDGE OF ANY BEAM REQUIRING FIREPROOFING. BACKBOXES SHALL BE FASTENED TO THE FLANGE OF THE BEAM UTILIZING BEAM CLAMPS AND SHALL NOT BE ATTACHED DIRECTLY TO THE BEAM. VERIFY THE LOCATIONS OF ALL FIREPROOFING PRIOR TO THE INSTALLATION OF ANY FIRE ALARM CONDUIT OR BACKBOXES. Q. ANY DAMAGE TO FIREPROOFING ON THE BUILDING STRUCTURE AS A RESULT OF THE FIRE ALARM SYSTEM INSTALLATION SHALL BE REPAIRED BY A QUALIFIED FIREPROOFING CONTRACTOR. ALL DAMAGE AND REPAIR OF FIREPROOFING SHALL BE REPORTED TO AND COORDINATED THROUGH THE GENERAL CONTRACTOR. THE FIRE ALARM CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FIREPROOFING REPAIRS AT NO ADDITIONAL COST TO THE OWNER.	3.05 PAINTING AND PATCHING A. ALL FIRE ALARM CONDUIT SHALL BE THOROUGHLY CLEANED, APPLICABLE CODES AND THE REQUIREMENTS OF THE AHJ. THE SYSTEM TESTS AND TEST DOCUMENTS, INCLUDING THOSE REQUIRED FOR AND BY THE APPROVED REMOTE MONITORING STATION, SHALL MEET THE REQUIREMENTS OF THE AHJ. B. PROVIDE ONE HUNDRED (100) PERCENT INITIAL ACCEPTANCE TESTING OF THE ENTIRE FIRE ALARM SYSTEM PRIOR TO THE REQUIRED AHJ ACCEPTANCE TESTING. BEFORE REQUESTING THE AHJ ACCEPTANCE TESTING, FURNISH A WRITTEN STATEMENT TO THE OWNER'S REPRESENTATIVE INDICATING THAT THE SYSTEM HAS BEEN INSTALLED IN ACCORDANCE WITH THE APPROVED DOCUMENTS AND TESTED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND THE APPLICABLE NFPA REQUIREMENTS. THE RECORD OF COMPLETION SHALL BE COMPLETED AND SUBMITTED AS PART OF THE WRITTEN STATEMENT. C. ALL TESTING, INSPECTION AND RETESTING REQUIRED FOR CERTIFICATION AND REQUIRED FOR ALL WARRANTY WORK OR REPLACEMENTS SHALL MEET THE REQUIREMENTS OF THE AHJ. THIS CERTIFICATION, INSPECTION OR TESTING SHALL BE COMPLETED AT NO ADDITIONAL COST TO THE OWNER. D. PROVIDE THE TESTING DATE IN WRITING TO THE OWNER A MINIMUM OF TWO (2) WEEKS BEFORE THE DATE. THE OWNER MAY ELECT TO HAVE A REPRESENTATIVE PRESENT FOR TESTING. E. THE FIRE ALARM SYSTEM WILL NOT BE ACCEPTABLE UNTIL FINAL TESTING AND RECEIPT OF THE TESTING CERTIFICATES HAVE BEEN OBTAINED. F. A PROPOSAL TO PERFORM ANNUAL TESTING AND/OR INSPECTION SERVICES SHALL BE SUBMITTED TO THE OWNER A MINIMUM OF THREE (3) WEEKS BEFORE THE DATE OF INITIAL ACCEPTANCE TESTING. THE PROPOSAL SHALL INCLUDE ALL TESTING AND/OR INSPECTION SERVICES REQUIRED BY THE AHJ FOR THE TWO (2) YEAR PERIOD BEGINNING AT FINAL ACCEPTANCE OF THE SYSTEM. THE OWNER HAS THE OPTION TO ACCEPT OR REJECT THE PROPOSAL. END OF SECTION
1.03 DEFINITIONS	A. DEFINITIONS REFERENCED IN THESE SPECIFICATIONS ARE AS FOLLOWS: 1. AHJ: AUTHORITY HAVING JURISDICTION 2. FACP: FIRE ALARM CONTROL PANEL 3. UL: UNDERWRITERS LABORATORIES, INC. 4. LED: LIGHT EMITTING DIODE 5. NICEET: NATIONAL INSTITUTE FOR CERTIFICATION IN ENGINEERING TECHNOLOGIES 6. NFPA: NATIONAL FIRE PROTECTION ASSOCIATION 7. FAEM: FIRE ALARM EQUIPMENT MANUFACTURER 8. NRTL: NATIONALLY RECOGNIZED TESTING LABORATORY	1.10 WARRANTY A. REPAIR ALL DEFECTIVE WORKMANSHIP OR REPLACE ALL DEFECTIVE MATERIALS FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF ACCEPTANCE BY THE OWNER'S REPRESENTATIVE. WORKMANSHIP OR EQUIPMENT FOUND TO BE DEFECTIVE DURING THAT PERIOD SHALL BE REPAIRED AT NO ADDITIONAL COST TO THE OWNER. B. THE WARRANTY OR ANY PART OF THE WARRANTY SHALL NOT BE MADE VOID BY ANY REQUIRED OPERATION OR INSPECTION OF THE SYSTEM AFTER ACCEPTANCE DURING THE WARRANTY PERIOD. THE OWNER MAY SELECT QUALIFIED FIRMS OTHER THAN WARRANTY TO PROVIDE REQUIRED TESTS AND INSPECTIONS. SYSTEM TESTING AND INSPECTIONS WILL BE CONDUCTED ONLY BY A DULY LICENSED COMPANY UNDER CONTRACT WITH THE OWNER TO PERFORM SCHEDULED TESTING AND INSPECTIONS AS REQUIRED BY THE AHJ. THE OWNER MAY ELECT TO HAVE A REPRESENTATIVE PRESENT AT THE SCHEDULED TESTING DURING THE WARRANTY PERIOD.	F. ALL NON-POWER LIMITED WIRING CONDUCTORS FOR THE FIRE ALARM SYSTEM ARE NOT REQUIRED TO BE INSTALLED IN CONDUIT IN THE FOLLOWING LOCATIONS: 1. MORE THAN SEVEN (7) FEET ABOVE THE FINISHED FLOOR. 2. ABOVE LAY-IN CEILINGS. 3. CONCEALED IN CEILINGS OR PARTITIONS NOT SUBJECT TO DAMAGE. H. EXPOSED WIRING CONDUCTORS AND CONDUITS SHALL BE CONCEALED FROM PUBLIC VIEW AT ALL LOCATIONS BY ROUTING ON THE INSIDE OF JOISTS, ABOVE LAY-IN CEILINGS, OVER GIRDERS, WITHIN PARTITIONS OR IN ANY OTHER MANNER ACCEPTABLE TO THE OWNER'S REPRESENTATIVE. I. WIRING CONDUCTORS AND CONDUITS INSTALLED ABOVE LAY-IN CEILINGS SHALL BE SUPPORTED FROM THE BUILDING STRUCTURE AND SHALL NOT BE PERMITTED LESS THAN NINE (9) INCHES ABOVE OR BELOW REMOVABLE PANELS OR CEILING TILES. J. EXPOSED WIRING CONDUCTORS SHALL BE SUPPORTED FROM THE BUILDING STRUCTURE AT INTERVALS OF NO MORE THAN FIVE (5) FEET. K. ALL WIRING CONDUCTORS SHALL BE TAGGED AT ALL JUNCTION POINTS AND SHALL TEST FREE FROM GROUNDS OR CROSSES BETWEEN CONDUCTORS. L. NON-POWER LIMITED WIRING CONDUCTORS SHALL NOT BE INSTALLED IN CONDUITS WITH ELECTRIC LIGHT, POWER CLASS 1, OR NON-POWER LIMITED FIRE ALARM AND MEDIUM POWER NETWORK-POWERED BROADBAND COMMUNICATIONS CIRCUITS. M. FINAL CONNECTIONS BETWEEN EQUIPMENT AND THE WIRING SYSTEM SHALL BE MADE UNDER DIRECT SUPERVISION OF A REPRESENTATIVE OF THE FAEM. IF OTHER PERSONNEL ARE REQUIRED BY THE AHJ TO BE PRESENT DURING FINAL CONNECTIONS, THIS SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF PROVIDING A REPRESENTATIVE OF THE FAEM FOR DIRECT SUPERVISION. N. FIRE ALARM CABLEING SHALL NOT BE PAINTED. O. CONDUITS SHALL ENTER THE CONTROL PANEL ENCLOSURES ONLY IN THE APPROVED LOCATIONS, AS IDENTIFIED IN THE FAEM INSTALLATION INSTRUCTIONS. P. INSTALL ALL HANGERS, CLAMPS, CONDUIT, AND BACKBOXES FOR THE FIRE ALARM SYSTEM PRIOR TO THE APPLICATION OF FIREPROOFING ON STRUCTURAL MEMBERS. THE HANGERS, CLAMPS, CONDUIT, AND BACKBOXES FOR THE FIRE ALARM SYSTEM SHALL BE INSTALLED ON THE EDGE OF ANY BEAM REQUIRING FIREPROOFING. BACKBOXES SHALL BE FASTENED TO THE FLANGE OF THE BEAM UTILIZING BEAM CLAMPS AND SHALL NOT BE ATTACHED DIRECTLY TO THE BEAM. VERIFY THE LOCATIONS OF ALL FIREPROOFING PRIOR TO THE INSTALLATION OF ANY FIRE ALARM CONDUIT OR BACKBOXES. Q. ANY DAMAGE TO FIREPROOFING ON THE BUILDING STRUCTURE AS A RESULT OF THE FIRE ALARM SYSTEM INSTALLATION SHALL BE REPAIRED BY A QUALIFIED FIREPROOFING CONTRACTOR. ALL DAMAGE AND REPAIR OF FIREPROOFING SHALL BE REPORTED TO AND COORDINATED THROUGH THE GENERAL CONTRACTOR. THE FIRE ALARM CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FIREPROOFING REPAIRS AT NO ADDITIONAL COST TO THE OWNER.	3.06 SYSTEM TESTS A. ALL TEST AND INSPECTIONS SPECIFIED IN THIS SECTION SHALL BE REPORTED IN WRITING AND SUBMITTED IN ACCORDANCE WITH THIS SPECIFICATION SECTION. B. THE SYSTEM SHALL MEET ALL THE REQUIREMENTS OF THE LISTED APPLICABLE CODES AND THE REQUIREMENTS OF THE AHJ. THE SYSTEM TESTS AND TEST DOCUMENTS, INCLUDING THOSE REQUIRED FOR AND BY THE APPROVED REMOTE MONITORING STATION, SHALL MEET THE REQUIREMENTS OF THE AHJ. C. PROVIDE ONE HUNDRED (100) PERCENT INITIAL ACCEPTANCE TESTING OF THE ENTIRE FIRE ALARM SYSTEM PRIOR TO THE REQUIRED AHJ ACCEPTANCE TESTING. BEFORE REQUESTING THE AHJ ACCEPTANCE TESTING, FURNISH A WRITTEN STATEMENT TO THE OWNER'S REPRESENTATIVE INDICATING THAT THE SYSTEM HAS BEEN INSTALLED IN ACCORDANCE WITH THE APPROVED DOCUMENTS AND TESTED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND THE APPLICABLE NFPA REQUIREMENTS. THE RECORD OF COMPLETION SHALL BE COMPLETED AND SUBMITTED AS PART OF THE WRITTEN STATEMENT. D. ALL TESTING, INSPECTION AND RETESTING REQUIRED FOR CERTIFICATION AND REQUIRED FOR ALL WARRANTY WORK OR REPLACEMENTS SHALL MEET THE REQUIREMENTS OF THE AHJ. THIS CERTIFICATION, INSPECTION OR TESTING SHALL BE COMPLETED AT NO ADDITIONAL COST TO THE OWNER. E. PROVIDE THE TESTING DATE IN WRITING TO THE OWNER A MINIMUM OF TWO (2) WEEKS BEFORE THE DATE. THE OWNER MAY ELECT TO HAVE A REPRESENTATIVE PRESENT FOR TESTING. F. THE FIRE ALARM SYSTEM WILL NOT BE ACCEPTABLE UNTIL FINAL TESTING AND RECEIPT OF THE TESTING CERTIFICATES HAVE BEEN OBTAINED. G. A PROPOSAL TO PERFORM ANNUAL TESTING AND/OR INSPECTION SERVICES SHALL BE SUBMITTED TO THE OWNER A MINIMUM OF THREE (3) WEEKS BEFORE THE DATE OF INITIAL ACCEPTANCE TESTING. THE PROPOSAL SHALL INCLUDE ALL TESTING AND/OR INSPECTION SERVICES REQUIRED BY THE AHJ FOR THE TWO (2) YEAR PERIOD BEGINNING AT FINAL ACCEPTANCE OF THE SYSTEM. THE OWNER HAS THE OPTION TO ACCEPT OR REJECT THE PROPOSAL. END OF SECTION
1.04 REFERENCES	A. ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE CODES AND REFERENCED DESIGN STANDARDS. B. IF THERE IS A CONFLICT BETWEEN THE APPLICABLE CODES, REFERENCED DESIGN STANDARDS, OR LOCAL AMENDMENTS AND THIS SPECIFICATION, IT IS THE CONTRACTOR'S RESPONSIBILITY TO IMMEDIATELY BRING THE CONFLICT TO THE ENGINEER FOR RESOLUTION.	PART 2 PRODUCTS 2.01 CONTROL PANELS A. THE FIRE ALARM CONTROL PANEL DSC MAXSYS P4020CF SERVICING THE DOLLAR TREE SPACE IS EXISTING TO REMAIN. 2.02 ADDRESSABLE MONITOR MODULES A. PROVIDE ADDRESSABLE MONITOR MODULES WHERE REQUIRED TO INTERFERE WITH CONTACT ALARM DEVICES, OR TO CONNECT A SUPERVISORY ZONE OF CONVENTIONAL INITIATING DEVICES (ANY NORMALLY OPEN DRY CONTACT DEVICE) TO AN INTELLIGENT SLC LOOP. B. PROVIDE ADDRESS-SETTING MEANS AND STORE AN INTERNAL IDENTIFICATION CODE WHICH THE CONTROL PANEL SHALL USE TO IDENTIFY THE TYPE OF DEVICE. FLASH STATUS/POWER LED UNDER NORMAL CONDITIONS, INDICATING THAT THE MONITOR MODULE IS OPERATIONAL AND IN REGULAR COMMUNICATION WITH THE CONTROL PANEL. C. PROVIDE AN AUTOMATIC TEST FEATURE TO PERMIT FUNCTIONAL TESTING OF THE DEVICE FROM THE MAIN CONTROL PANEL. INDICATE RESULTS OF THE TEST ON THE LCD DISPLAY AT THE CONTROL PANEL. D. MONITOR MODULES WITH MULTIPLE INPUT CONTACT CONNECTIONS ARE ACCEPTABLE IF EACH INPUT IS CAPABLE OF INDEPENDENT PROGRAMMING AND FUNCTIONAL OPERATION. E. COMPATIBLE WITH THE EXISTING FIRE ALARM CONTROL PANEL.	3.03 EQUIPMENT MOUNTING A. COMPLY WITH NFPA 72 FOR INSTALLATION OF FIRE ALARM EQUIPMENT. B. THE CONTROL PANELS SHALL BE SURFACE MOUNTED WITH NO OPERATIONAL PARTS WHICH MAY REQUIRE MAINTENANCE MOUNTED GREATER THAN SEVENTY-TWO (72) INCHES ABOVE THE FINISHED FLOOR. THE CONTROL PANEL ANNUNCIATOR SHALL BE MOUNTED SO THAT NO SWITCH, MANUALLY OPERATED DEVICE, DISPLAY OR LED IS GREATER THAN SIXTY (60) INCHES ABOVE THE FINISHED FLOOR. C. MOUNT THE STARLINK COMMUNICATOR ENCLOSURE ONTO A TRIPLE GANGBOX AT A LOCATION WITH ACCEPTABLE SIGNAL STRENGTH FROM THE WIRELESS NETWORK CONNECTION. THE CELLULAR COMMUNICATOR SHALL NOT BE INSTALLED ABOVE A SUSPENDED CEILING. D. THE DOCUMENTATION CABINET SHALL BE SURFACE MOUNTED AS INDICATED ON THE FLOOR PLANS. E. THE REMOTE ANNUNCIATOR SHALL BE FLUSH MOUNTED SO THAT NO SWITCH, MANUALLY OPERATED DEVICE, DISPLAY, OR LED IS GREATER THAN SIXTY (60) INCHES ABOVE THE FINISHED FLOOR. THE REMOTE ANNUNCIATOR SHALL BE LOCATED AT THE ENTRANCE DESIGNATED FOR RESPONDING PERSONNEL OR AS OTHERWISE ACCEPTABLE TO THE AHJ. F. THE AUXILIARY POWER SUPPLIES SHALL BE SURFACE MOUNTED WITH NO OPERATIONAL PARTS WHICH MAY REQUIRE MAINTENANCE MOUNTED GREATER THAN SEVENTY-TWO (72) INCHES ABOVE THE FINISHED FLOOR. THE CONTROL PANEL ANNUNCIATOR SHALL BE MOUNTED SO THAT NO SWITCH, MANUALLY OPERATED DEVICE, DISPLAY OR LED IS GREATER THAN SIXTY (60) INCHES ABOVE THE FINISHED FLOOR.	3.07 PAINTING AND PATCHING A. ALL FIRE ALARM CONDUIT SHALL BE THOROUGHLY CLEANED, APPLICABLE CODES AND THE REQUIREMENTS OF THE AHJ. THE SYSTEM TESTS AND TEST DOCUMENTS, INCLUDING THOSE REQUIRED FOR AND BY THE APPROVED REMOTE MONITORING STATION, SHALL MEET THE REQUIREMENTS OF THE AHJ. B. PROVIDE ONE HUNDRED (100) PERCENT INITIAL ACCEPTANCE TESTING OF THE ENTIRE FIRE ALARM SYSTEM PRIOR TO THE REQUIRED AHJ ACCEPTANCE TESTING. BEFORE REQUESTING THE AHJ ACCEPTANCE TESTING, FURNISH A WRITTEN STATEMENT TO THE OWNER'S REPRESENTATIVE INDICATING THAT THE SYSTEM HAS BEEN INSTALLED IN ACCORDANCE WITH THE APPROVED DOCUMENTS AND TESTED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND THE APPLICABLE NFPA REQUIREMENTS. THE RECORD OF COMPLETION SHALL BE COMPLETED AND SUBMITTED AS PART OF THE WRITTEN STATEMENT. C. ALL TESTING, INSPECTION AND RETESTING REQUIRED FOR CERTIFICATION AND REQUIRED FOR ALL WARRANTY WORK OR REPLACEMENTS SHALL MEET THE REQUIREMENTS OF THE AHJ. THIS CERTIFICATION, INSPECTION OR TESTING SHALL BE COMPLETED AT NO ADDITIONAL COST TO THE OWNER. D. PROVIDE THE TESTING DATE IN WRITING TO THE OWNER A MINIMUM OF TWO (2) WEEKS BEFORE THE DATE. THE OWNER MAY ELECT TO HAVE A REPRESENTATIVE PRESENT FOR TESTING. E. THE FIRE ALARM SYSTEM WILL NOT BE ACCEPTABLE UNTIL FINAL TESTING AND RECEIPT OF THE TESTING CERTIFICATES HAVE BEEN OBTAINED. F. A PROPOSAL TO PERFORM ANNUAL TESTING AND/OR INSPECTION SERVICES SHALL BE SUBMITTED TO THE OWNER A MINIMUM OF THREE (3) WEEKS BEFORE THE DATE OF INITIAL ACCEPTANCE TESTING. THE PROPOSAL SHALL INCLUDE ALL TESTING AND/OR INSPECTION SERVICES REQUIRED BY THE AHJ FOR THE TWO (2) YEAR PERIOD BEGINNING AT FINAL ACCEPTANCE OF THE SYSTEM. THE OWNER HAS THE OPTION TO ACCEPT OR REJECT THE PROPOSAL. END OF SECTION
1.05 SYSTEM DESCRIPTION	A. THE SYSTEM SHALL CONTINUE TO OPERATE AS A LOW VOLTAGE FIRE ALARM SYSTEM AND SUPERVISED FIRE ALARM SYSTEM AS HEREINAFTER SPECIFIED. THE EXISTING FIRE ALARM CONTROL PANEL AND DEVICES SHALL REMAIN AND BE REUSED AS CURRENTLY CONFIGURED. NEW INITIATING DEVICE CIRCUITS SHALL MEET THE MINIMUM REQUIREMENTS OF CLASS B. NEW NOTIFICATION APPLIANCE CIRCUITS SHALL MEET THE MINIMUM REQUIREMENTS OF CLASS B. NEW SIGNALING LINE CIRCUITS SHALL MEET THE MINIMUM REQUIREMENTS OF CLASS B. CIRCUITS FOR RELAY COOL OPERATOR SHALL BE 24 VOLT MAXIMUM WITH A SEPARATE OR INTEGRAL FIELD COLLAPSING DIODE. B. UPON LOSS OF BUILDING POWER, THE ENTIRE SYSTEM SHALL TRANSFER TO 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. C. SYSTEM OPERATION SHALL BE AS FOLLOWS: 1. ABNORMAL CIRCUIT CONDITIONS OR DEVICES AS REQUIRED FOR THE CLASS OF THE CIRCUIT, SHALL INITIATE A "TROUBLE" CONDITION AT THE CONTROL PANEL FOR THAT SPECIFIC CIRCUIT OR DEVICE. THE "TROUBLE" INDICATION SHALL DESCRIBE THE NATURE OF THE CONDITION ON THE AFFECTED CIRCUIT OR DEVICE. THE FIRE ALARM SYSTEM SHALL TRANSMIT A "TROUBLE" CONDITION OFF-SITE AS CURRENTLY CONFIGURED. 2. ACTIVATION OF ANY SUPERVISORY DEVICE AS INDICATED ON THE ENGINEERING DRAWINGS SHALL INITIATE A "SUPERVISORY" CONDITION AT THE CONTROL PANEL FOR THAT SPECIFIC DEVICE. THE "SUPERVISORY" INDICATION SHALL DESCRIBE THE NATURE OF THE CONDITION AND SPECIFIC ADDRESS AND ALPHANUMERIC DESCRIPTION OF THE DEVICE AFFECTED. THE FIRE ALARM SYSTEM SHALL TRANSMIT A "SUPERVISORY" CONDITION OFF-SITE AS CURRENTLY CONFIGURED. 3. ACTIVATION OF ANY ALARM DEVICE AS INDICATED ON THE ENGINEERING DRAWINGS SHALL INITIATE AN "ALARM" CONDITION AT THE CONTROL PANEL FOR THAT SPECIFIC DEVICE. THE "ALARM" INDICATION SHALL DESCRIBE THE NATURE OF THE CONDITION AND SPECIFIC ADDRESS AND ALPHANUMERIC DESCRIPTION OF THE DEVICE AFFECTED. THE FIRE ALARM SYSTEM SHALL TRANSMIT AN "ALARM" CONDITION OFF-SITE AS CURRENTLY CONFIGURED. 4. INITIATION OF AN "ALARM" CONDITION SHALL RESULT IN THE FOLLOWING FUNCTIONS TO BE PERFORMED BY THE SYSTEM: a. INITIATE AN ALARM INDICATION ON THE CONTROL PANEL BY TONE AND ILLUMINATE THE CORRESPONDING DEVICE SPECIFIC ALPHANUMERIC LED DESCRIPTION. MANUALLY ACTIVATING THE "ALARM SILENCE" SHALL SILENCE THE TONE AT THE PANEL. THE ALARM ALPHANUMERIC DISPLAY SHALL REMAIN "ON" AT THE CONTROL PANEL UNTIL THE CONDITION CAUSING THE ALARM HAS BEEN CLEARED AND RESET. AN ADDITIONAL ALARM REPORTED TO THE PANEL SUBSEQUENT TO ACTIVATING THE "ALARM SILENCE" SHALL REACTIVATE THE CONTROL PANEL TONE. b. ACTIVATE THE AUDIBLE AND VISUAL NOTIFICATION APPLIANCES THROUGHOUT THE SPACE. c. THE EXISTING FIRE ALARM CONTROL PANEL SHALL TRANSMIT AN ALARM SIGNAL OFF-SITE AS CURRENTLY CONFIGURED. 5. ACTIVATION OF ALARM NOTIFICATION APPLIANCES, FIRE SAFETY FUNCTIONS, AND ANNUNCIATION AT THE PROTECTED PREMISES SHALL OCCUR WITHIN TEN (10) SECONDS AFTER THE ACTIVATION OF AN INITIATING DEVICE.	2.03 RACEWAY A. THE FOLLOWING RACEWAY TYPES SHALL BE PERMITTED: 1. EMT CONDUIT (3/4 INCH MINIMUM). 2. RIGID CONDUIT (3/4 INCH MINIMUM). 3. NON-METALLIC CONDUIT FOR WET LOCATIONS (3/4 INCH MINIMUM). 4. SURFACE MOUNTED METALLIC RACEWAY WITH A MINIMUM SIZE EQUIVALENT TO THREE QUARTER (3/4) INCH NOMINAL CONDUIT. B. ALL RACEWAY TYPES SHALL BE NEW. INSTALLING USED RACEWAY IS UNACCEPTABLE. C. USING EXISTING RACEWAY IS UNACCEPTABLE WITHOUT PRIOR WRITTEN PERMISSION OF THE ENGINEER OR OWNER'S REPRESENTATIVE. D. BOXES, SUPPORTS, AND OTHER ACCESSORIES FOR THE RACEWAY INSTALLATION SHALL BE LISTED FOR THE INTENDED APPLICATION.	3.08 PAINTING AND PATCHING A. ALL FIRE ALARM CONDUIT SHALL BE THOROUGHLY CLEANED, APPLICABLE CODES AND THE REQUIREMENTS OF THE AHJ. THE SYSTEM TESTS AND TEST DOCUMENTS, INCLUDING THOSE REQUIRED FOR AND BY THE APPROVED REMOTE MONITORING STATION, SHALL MEET THE REQUIREMENTS OF THE AHJ. B. PROVIDE ONE HUNDRED (100) PERCENT INITIAL ACCEPTANCE TESTING OF THE ENTIRE FIRE ALARM SYSTEM PRIOR TO THE REQUIRED AHJ ACCEPTANCE TESTING. BEFORE REQUESTING THE AHJ ACCEPTANCE TESTING, FURNISH A WRITTEN STATEMENT TO THE OWNER'S REPRESENTATIVE INDICATING THAT THE SYSTEM HAS BEEN INSTALLED IN ACCORDANCE WITH THE APPROVED DOCUMENTS AND TESTED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND THE APPLICABLE NFPA REQUIREMENTS. THE RECORD OF COMPLETION SHALL BE COMPLETED AND SUBMITTED AS PART OF THE WRITTEN STATEMENT. C. ALL TESTING, INSPECTION AND RETESTING REQUIRED FOR CERTIFICATION AND REQUIRED FOR ALL WARRANTY WORK OR REPLACEMENTS SHALL MEET THE REQUIREMENTS OF THE AHJ. THIS CERTIFICATION, INSPECTION OR TESTING SHALL BE COMPLETED AT NO ADDITIONAL COST TO THE OWNER. D. PROVIDE THE TESTING DATE IN WRITING TO THE OWNER A MINIMUM OF TWO (2) WEEKS BEFORE THE DATE. THE OWNER MAY ELECT TO HAVE A REPRESENTATIVE PRESENT FOR TESTING. E. THE FIRE ALARM SYSTEM WILL NOT BE ACCEPTABLE UNTIL FINAL TESTING AND RECEIPT OF THE TESTING CERTIFICATES HAVE BEEN OBTAINED. F. A PROPOSAL TO PERFORM ANNUAL TESTING AND/OR INSPECTION SERVICES SHALL BE SUBMITTED TO THE OWNER A MINIMUM OF THREE (3) WEEKS BEFORE THE DATE OF INITIAL ACCEPTANCE TESTING. THE PROPOSAL SHALL INCLUDE ALL TESTING AND/OR INSPECTION SERVICES REQUIRED BY THE AHJ FOR THE TWO (2) YEAR PERIOD BEGINNING AT FINAL ACCEPTANCE OF THE SYSTEM. THE OWNER HAS THE OPTION TO ACCEPT OR REJECT THE PROPOSAL. END OF SECTION	3.09 PAINTING AND PATCHING A. ALL FIRE ALARM CONDUIT SHALL BE THOROUGHLY CLEANED, APPLICABLE CODES AND THE REQUIREMENTS OF THE AHJ. THE SYSTEM TESTS AND TEST DOCUMENTS, INCLUDING THOSE REQUIRED FOR AND BY THE APPROVED REMOTE MONITORING STATION, SHALL MEET THE REQUIREMENTS OF THE AHJ. B. PROVIDE ONE HUNDRED (100) PERCENT INITIAL ACCEPTANCE TESTING OF THE ENTIRE FIRE ALARM SYSTEM PRIOR TO THE REQUIRED AHJ ACCEPTANCE TESTING. BEFORE REQUESTING THE AHJ ACCEPTANCE TESTING, FURNISH A WRITTEN STATEMENT TO THE OWNER'S REPRESENTATIVE INDICATING THAT THE SYSTEM HAS BEEN INSTALLED IN ACCORDANCE WITH THE APPROVED DOCUMENTS AND TESTED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND THE APPLICABLE NFPA REQUIREMENTS. THE RECORD OF COMPLETION SHALL BE COMPLETED AND SUBMITTED AS PART OF THE WRITTEN STATEMENT. C. ALL TESTING, INSPECTION AND RETESTING REQUIRED FOR CERTIFICATION AND REQUIRED FOR ALL WARRANTY WORK OR REPLACEMENTS SHALL MEET THE REQUIREMENTS OF THE AHJ. THIS CERTIFICATION, INSPECTION OR TESTING SHALL BE COMPLETED AT NO ADDITIONAL COST TO THE OWNER. D. PROVIDE THE TESTING DATE IN WRITING TO THE OWNER A MINIMUM OF TWO (2) WEEKS BEFORE THE DATE. THE OWNER MAY ELECT TO HAVE A REPRESENTATIVE PRESENT FOR TESTING. E. THE FIRE ALARM SYSTEM WILL NOT BE ACCEPTABLE UNTIL FINAL TESTING AND RECEIPT OF THE TESTING CERTIFICATES HAVE BEEN OBTAINED. F. A PROPOSAL TO PERFORM ANNUAL TESTING AND/OR INSPECTION SERVICES SHALL BE SUBMITTED TO THE OWNER A MINIMUM OF THREE (3) WEEKS BEFORE THE DATE OF INITIAL ACCEPTANCE TESTING. THE PROPOSAL SHALL INCLUDE ALL TESTING AND/OR INSPECTION SERVICES REQUIRED BY THE AHJ FOR THE TWO (2) YEAR PERIOD BEGINNING AT FINAL ACCEPTANCE OF THE SYSTEM. THE OWNER HAS THE OPTION TO ACCEPT OR REJECT THE PROPOSAL. END OF SECTION
1.06 QUALITY ASSURANCE	A. ALL WORK SHALL MEET THE REQUIREMENTS OF THE OWNER, ARCHITECT, ENGINEER AND AUTHORITY HAVING JURISDICTION (AHJ). B. ALL EQUIPMENT AND COMPONENTS SHALL BE UL LISTED, FOR THE ACTUAL INTENDED USE, UNLESS HEREINAFTER SPECIFICALLY EXCLUDED FROM SUCH A LISTING. C. INSTALLATION AND SUPERVISION OF INSTALLATION SHALL BE IN STRICT COMPLIANCE WITH THE REQUIREMENTS OF THE REGULATIONS, LICENSES, AND PERMITS FOR FIRE ALARM SYSTEM INSTALLERS IN THIS JURISDICTION. D. INSTALLER MUST HAVE BEEN ACTIVELY ENGAGED IN THE BUSINESS OF SELLING, INSTALLING, AND SERVICING FIRE ALARM SYSTEMS FOR AT LEAST FIVE (5) YEARS. E. INSTALLER MUST BE AN AUTHORIZED REPRESENTATIVE OF THE FIRE ALARM EQUIPMENT MANUFACTURER (FAEM) AND HAVE TECHNICAL FACTORY TRAINING SPECIFICALLY FOR THE SYSTEM PROPOSED. F. THE FAEM SHALL HAVE A REPRESENTATIVE SUPERVISE THE FINAL CONNECTION OF DEVICES, WIRING, AND PROGRAMMING OF THE CONTROL PANELS. THE FAEM REPRESENTATIVE SHALL BE NATIONAL INSTITUTE FOR CERTIFICATION IN ENGINEERING TECHNOLOGIES (NICEET) CERTIFIED AS LEVEL 1 OR HIGHER FIRE ALARM PROTECTION/ FIRE ALARM SYSTEMS ENGINEERING TECHNICIAN.	3.01 COORDINATION WITH OTHER TRADES A. COORDINATE CLOSELY WITH ALL OTHER TRADES TO EXPEDITE CONSTRUCTION, ACCURATELY INTERFACE WITH RELATED SYSTEMS AND AVOID INTERFERENCES. 3.02 INSTALLATION/ APPLICATION A. FURNISH AND INSTALL ALL CONTROL WIRING, RACEWAY AND OUTLET BOXES FOR THE FIRE ALARM SYSTEM. B. FURNISH AND INSTALL ALL BACKBOXES, EQUIPMENT AND DEVICES FOR THE FIRE ALARM SYSTEM. 1. BACKBOXES SHALL BE OF THE EXACT TYPE RECOMMENDED BY THE FAEM AS SHOWN ON THE EQUIPMENT AND DEVICE SUBMITTALS. 2. BACKBOXES SHALL BE INSTALLED PER THE MANUFACTURER'S INSTALLATION RECOMMENDATIONS.	3.10 PAINTING AND PATCHING A. ALL FIRE ALARM CONDUIT SHALL BE THOROUGHLY CLEANED, APPLICABLE CODES AND THE REQUIREMENTS OF THE AHJ. THE SYSTEM TESTS AND TEST DOCUMENTS, INCLUDING THOSE REQUIRED FOR AND BY THE APPROVED REMOTE MONITORING STATION, SHALL MEET THE REQUIREMENTS OF THE AHJ. B. PROVIDE ONE HUNDRED (100) PERCENT INITIAL ACCEPTANCE TESTING OF THE ENTIRE FIRE ALARM SYSTEM PRIOR TO THE REQUIRED AHJ ACCEPTANCE TESTING. BEFORE REQUESTING THE AHJ ACCEPTANCE TESTING, FURNISH A WRITTEN STATEMENT TO THE OWNER'S REPRESENTATIVE INDICATING THAT THE SYSTEM HAS BEEN INSTALLED IN ACCORDANCE WITH THE APPROVED DOCUMENTS AND TESTED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND THE APPLICABLE NFPA REQUIREMENTS. THE RECORD OF COMPLETION SHALL BE COMPLETED AND SUBMITTED AS PART OF THE WRITTEN STATEMENT. C. ALL TESTING, INSPECTION AND RETESTING REQUIRED FOR CERTIFICATION AND REQUIRED FOR ALL WARRANTY WORK OR REPLACEMENTS SHALL MEET THE REQUIREMENTS OF THE AHJ. THIS CERTIFICATION, INSPECTION OR TESTING SHALL BE COMPLETED AT NO ADDITIONAL COST TO THE OWNER. D. PROVIDE THE TESTING DATE IN WRITING TO THE OWNER A MINIMUM OF TWO (2) WEEKS BEFORE THE DATE. THE OWNER MAY ELECT TO HAVE A REPRESENTATIVE PRESENT FOR TESTING. E. THE FIRE ALARM SYSTEM WILL NOT BE ACCEPTABLE UNTIL FINAL TESTING AND RECEIPT OF THE TESTING CERTIFICATES HAVE BEEN OBTAINED. F. A PROPOSAL TO PERFORM ANNUAL TESTING AND/OR INSPECTION SERVICES SHALL BE SUBMITTED TO THE OWNER A MINIMUM OF THREE (3) WEEKS BEFORE THE DATE OF INITIAL ACCEPTANCE TESTING. THE PROPOSAL SHALL INCLUDE ALL TESTING AND/OR INSPECTION SERVICES REQUIRED BY THE AHJ FOR THE TWO (2) YEAR PERIOD BEGINNING AT FINAL ACCEPTANCE OF THE SYSTEM. THE OWNER HAS THE OPTION TO ACCEPT OR REJECT THE PROPOSAL. END OF SECTION	3.11 PAINTING AND PATCHING A. ALL FIRE ALARM CONDUIT SHALL BE THOROUGHLY CLEANED, APPLICABLE CODES AND THE REQUIREMENTS OF THE AHJ. THE SYSTEM TESTS AND TEST DOCUMENTS, INCLUDING THOSE REQUIRED FOR AND BY THE APPROVED REMOTE MONITORING STATION, SHALL MEET THE REQUIREMENTS OF THE AHJ. B. PROVIDE ONE HUNDRED (100) PERCENT INITIAL ACCEPTANCE TESTING OF THE ENTIRE FIRE ALARM SYSTEM PRIOR TO THE REQUIRED AHJ ACCEPTANCE TESTING. BEFORE REQUESTING THE AHJ ACCEPTANCE TESTING, FURNISH A WRITTEN STATEMENT TO THE OWNER'S REPRESENTATIVE INDICATING THAT THE SYSTEM HAS BEEN INSTALLED IN ACCORDANCE WITH THE APPROVED DOCUMENTS AND TESTED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND THE APPLICABLE NFPA REQUIREMENTS. THE RECORD OF COMPLETION SHALL BE COMPLETED AND SUBMITTED AS PART OF THE WRITTEN STATEMENT. C. ALL TESTING, INSPECTION AND RETESTING REQUIRED FOR CERTIFICATION AND REQUIRED FOR ALL WARRANTY WORK OR REPLACEMENTS SHALL MEET THE REQUIREMENTS OF THE AHJ. THIS CERTIFICATION, INSPECTION OR TESTING SHALL BE COMPLETED AT NO ADDITIONAL COST TO THE OWNER. D. PROVIDE THE TESTING DATE IN WRITING TO THE OWNER A MINIMUM OF TWO (2) WEEKS BEFORE THE DATE. THE OWNER MAY ELECT TO HAVE A REPRESENTATIVE PRESENT FOR TESTING. E. THE FIRE ALARM SYSTEM WILL NOT BE ACCEPTABLE UNTIL FINAL TESTING AND RECEIPT OF THE TESTING CERTIFICATES HAVE BEEN OBTAINED. F. A PROPOSAL TO PERFORM ANNUAL TESTING AND/OR INSPECTION SERVICES SHALL BE SUBMITTED TO THE OWNER A MINIMUM OF THREE (3) WEEKS BEFORE THE DATE OF INITIAL ACCEPTANCE TESTING. THE PROPOSAL SHALL INCLUDE ALL TESTING AND/OR INSPECTION SERVICES REQUIRED BY THE AHJ FOR THE TWO (2) YEAR PERIOD BEGINNING AT FINAL ACCEPTANCE OF THE SYSTEM. THE OWNER HAS THE OPTION TO ACCEPT OR REJECT THE PROPOSAL. END OF SECTION
1.07 REGULATORY REQUIREMENTS	A. ALL WORK SHALL MEET THE REQUIREMENTS OF ALL APPLICABLE CODES AND REFERENCED DESIGN STANDARDS. B. NO APPROVALS OR INTERPRETATIONS OF THE DESIGN DOCUMENTS SHALL BE PURSUED EXCEPT THROUGH THE ENGINEER. C. ANY WORK PERFORMED PRIOR TO THE SATISFACTORY REVIEW OF THE SHOP DRAWINGS BY THE ENGINEER, APPROVAL BY THE AHJ, AND DETERMINED TO BE NONCOMPLIANT WITH THE CONTRACT DOCUMENTS OR APPLICABLE CODES BY THE OWNER OR AHJ WILL BE REPLACED AT THE CONTRACTOR'S EXPENSE. D. THE SYSTEM WILL NOT BE ACCEPTABLE UNTIL FINAL TESTING AND RECEIPT OF THE INSPECTION AND TESTING FORM HAS BEEN OBTAINED.	3.12 PAINTING AND PATCHING A. ALL FIRE ALARM CONDUIT SHALL BE THOROUGHLY CLEANED, APPLICABLE CODES AND THE REQUIREMENTS OF THE AHJ. THE SYSTEM TESTS AND TEST DOCUMENTS, INCLUDING THOSE REQUIRED FOR AND BY THE APPROVED REMOTE MONITORING STATION, SHALL MEET THE REQUIREMENTS OF THE AHJ. B. PROVIDE ONE HUNDRED (100) PERCENT INITIAL ACCEPTANCE TESTING OF THE ENTIRE FIRE ALARM SYSTEM PRIOR TO THE REQUIRED AHJ ACCEPTANCE TESTING. BEFORE REQUESTING THE AHJ ACCEPTANCE TESTING, FURNISH A WRITTEN STATEMENT TO THE OWNER'S REPRESENTATIVE INDICATING THAT THE SYSTEM HAS BEEN INSTALLED IN ACCORDANCE WITH THE APPROVED DOCUMENTS AND TESTED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND THE APPLICABLE NFPA REQUIREMENTS. THE RECORD OF COMPLETION SHALL BE COMPLETED AND SUBMITTED AS PART OF THE WRITTEN STATEMENT. C. ALL TESTING, INSPECTION AND RETESTING REQUIRED FOR CERTIFICATION AND REQUIRED FOR ALL WARRANTY WORK OR REPLACEMENTS SHALL MEET THE REQUIREMENTS OF THE AHJ. THIS CERTIFICATION, INSPECTION OR TESTING SHALL BE COMPLETED AT NO ADDITIONAL COST TO THE OWNER. D. PROVIDE THE TESTING DATE IN WRITING TO THE OWNER A MINIMUM OF TWO (2) WEEKS BEFORE THE DATE. THE OWNER MAY ELECT TO HAVE A REPRESENTATIVE PRESENT FOR TESTING. E. THE FIRE ALARM SYSTEM WILL NOT BE ACCEPTABLE UNTIL FINAL TESTING AND RECEIPT OF THE TESTING CERTIFICATES HAVE BEEN OBTAINED. F. A PROPOSAL TO PERFORM ANNUAL TESTING AND/OR INSPECTION SERVICES SHALL BE SUBMITTED TO THE OWNER A MINIMUM OF THREE (3) WEEKS BEFORE THE DATE OF INITIAL ACCEPTANCE TESTING. THE PROPOSAL SHALL INCLUDE ALL TESTING AND/OR INSPECTION SERVICES REQUIRED BY THE AHJ FOR THE TWO (2) YEAR PERIOD BEGINNING AT FINAL ACCEPTANCE OF THE SYSTEM. THE OWNER HAS THE OPTION TO ACCEPT OR REJECT THE PROPOSAL. END OF SECTION	3.13 PAINTING AND PATCHING A. ALL FIRE ALARM CONDUIT SHALL BE THOROUGHLY CLEANED, APPLICABLE CODES AND THE REQUIREMENTS OF THE AHJ. THE SYSTEM TESTS AND TEST DOCUMENTS, INCLUDING THOSE REQUIRED FOR AND BY THE APPROVED REMOTE MONITORING STATION, SHALL MEET THE REQUIREMENTS OF THE AHJ. B. PROVIDE ONE HUNDRED (100) PERCENT INITIAL ACCEPTANCE TESTING OF THE ENTIRE FIRE ALARM SYSTEM PRIOR TO THE REQUIRED AHJ ACCEPTANCE TESTING. BEFORE REQUESTING THE AHJ ACCEPTANCE TESTING, FURNISH A WRITTEN STATEMENT TO THE OWNER'S REPRESENTATIVE INDICATING THAT THE SYSTEM HAS BEEN INSTALLED IN ACCORDANCE WITH THE APPROVED DOCUMENTS AND TESTED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND THE APPLICABLE NFPA REQUIREMENTS. THE RECORD OF COMPLETION SHALL BE COMPLETED AND SUBMITTED AS PART OF THE WRITTEN STATEMENT. C. ALL TESTING, INSPECTION AND RETESTING REQUIRED FOR CERTIFICATION AND REQUIRED FOR ALL WARRANTY WORK OR REPLACEMENTS SHALL MEET THE REQUIREMENTS OF THE AHJ. THIS CERTIFICATION, INSPECTION OR TESTING SHALL BE COMPLETED AT NO ADDITIONAL COST TO THE OWNER. D. PROVIDE THE TESTING DATE IN WRITING TO THE OWNER A MINIMUM OF TWO (2) WEEKS BEFORE THE DATE. THE OWNER MAY ELECT TO HAVE A REPRESENTATIVE PRESENT FOR TESTING. E. THE FIRE ALARM SYSTEM WILL NOT BE ACCEPTABLE UNTIL FINAL TESTING AND RECEIPT OF THE TESTING CERTIFICATES HAVE BEEN OBTAINED. F. A PROPOSAL TO PERFORM ANNUAL TESTING AND/OR INSPECTION SERVICES SHALL BE SUBMITTED TO THE OWNER A MINIMUM OF THREE (3) WEEKS BEFORE THE DATE OF INITIAL ACCEPTANCE TESTING. THE PROPOSAL SHALL INCLUDE ALL TESTING AND/OR INSPECTION SERVICES REQUIRED BY THE AHJ FOR THE TWO (2) YEAR PERIOD BEGINNING AT FINAL ACCEPTANCE OF THE SYSTEM. THE OWNER HAS THE OPTION TO ACCEPT OR REJECT THE PROPOSAL. END OF SECTION	



SYMBOL KEY

	EXISTING PIPING TO BE REMAIN
	EXISTING PIPING TO BE REMOVED
	NEW PIPING
	1" ARM-OVER TO NEW SPRINKLER FROM EXISTING 1" OUTLET
	CONNECT TO EXISTING PIPE AND/OR FITTING
	EXISTING SPRINKLER AND ARM-OVER TO BE DEMOLISHED BACK TO OUTLET ON BRANCH LINE UNLESS SHOWN OTHERWISE
	EXISTING BRASS UPRIGHT OR D/S 5/8R
	EXISTING CHROME PENDENT ON 2-PIECE TELESCOPING ESCUTCHEON OR D/S 5/8R
	NEW BRASS UPRIGHT ON 1" SPRIG OR D/S 5/8R
	NEW CHROME PENDENT ON 2-PIECE TELESCOPING ESCUTCHEON OR D/S 5/8R
	NEW CHROME PENDENT ON 2-PIECE TELESCOPING ESCUTCHEON OR D/S 5/8R
	APPROXIMATE CENTER LINE ELEVATION OF EXISTING PIPE ABOVE FINISHED FLOOR OR BELOW METAL DECK
	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

- FIRE SPRINKLER DEMOLITION NOTES**
- FIRE SPRINKLER CONTRACTOR'S SCOPE OF WORK SHALL INCLUDE:
 - SHUT DOWN AND DRAINING OF EXISTING SYSTEM.
 - DEMOLITION OF EXISTING SPRINKLERS, PIPING, HANGERS, ETC. WHERE INDICATED ON THE PLANS.
 - 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.

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

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date	project	designed	drawn	checked	mark	date	revisions
08/01/22	2302277	WV	WV	WV			

08/01/22	2302277	WV	WV	WV			

CASCO DIVERSIFIED CORPORATION
 ARCHITECTURAL FIRM
 LICENSE #000329
 EXPIRES 12/31/23

CASCO DIVERSIFIED CORPORATION
 ENGINEERING FIRM
 LICENSE #000613
 EXPIRES 12/31/23

PROFESSIONAL ENGINEER OF RECORD

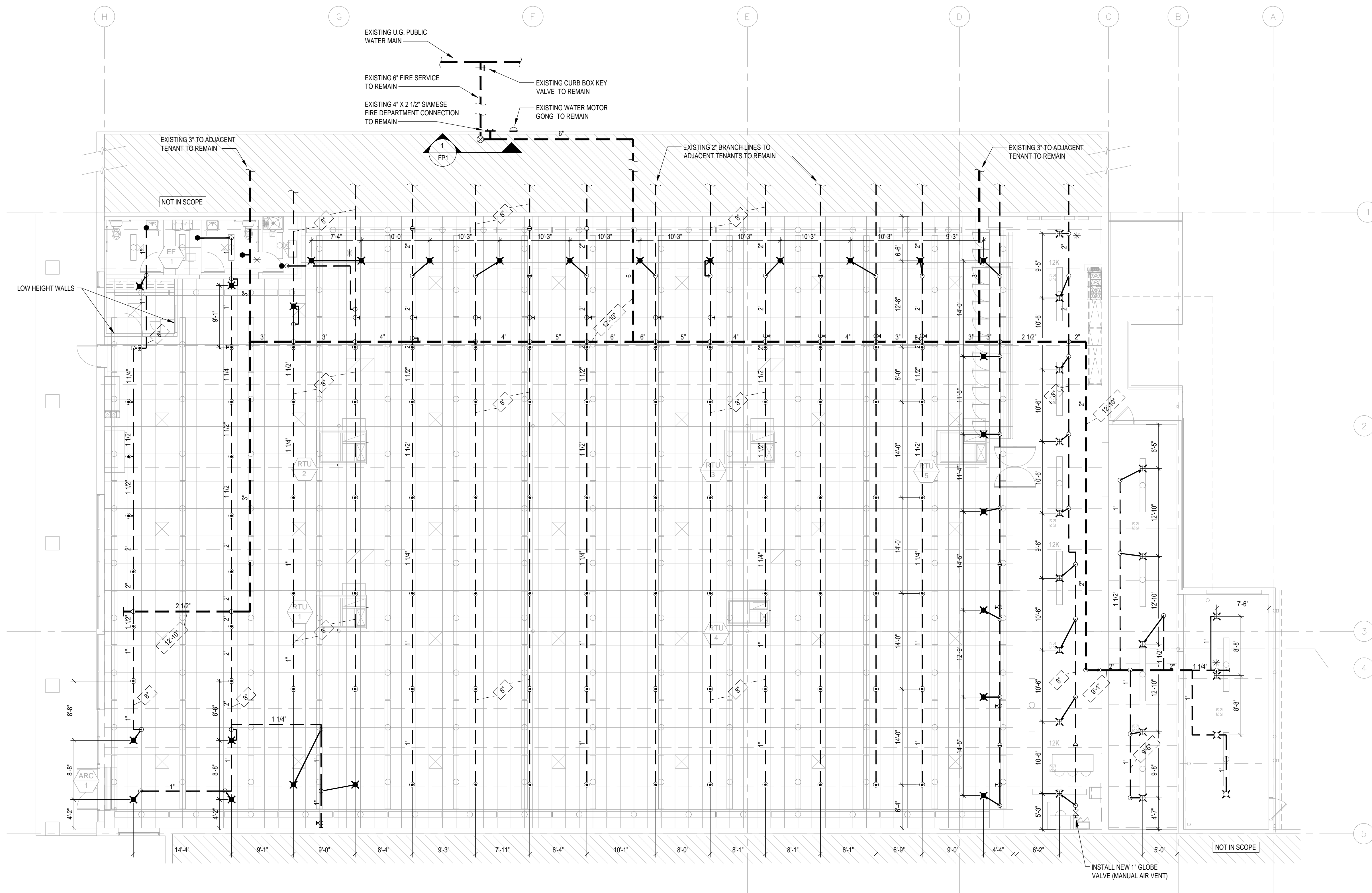
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DOLLAR TREE
 HOBBY LOBBY CENTER
 2235 MISSOURI BLVD., JEFFERSON CITY, MO 65109
 FIRE SPRINKLER PLAN - DEMOLITION WORK

project drawing

FPD1



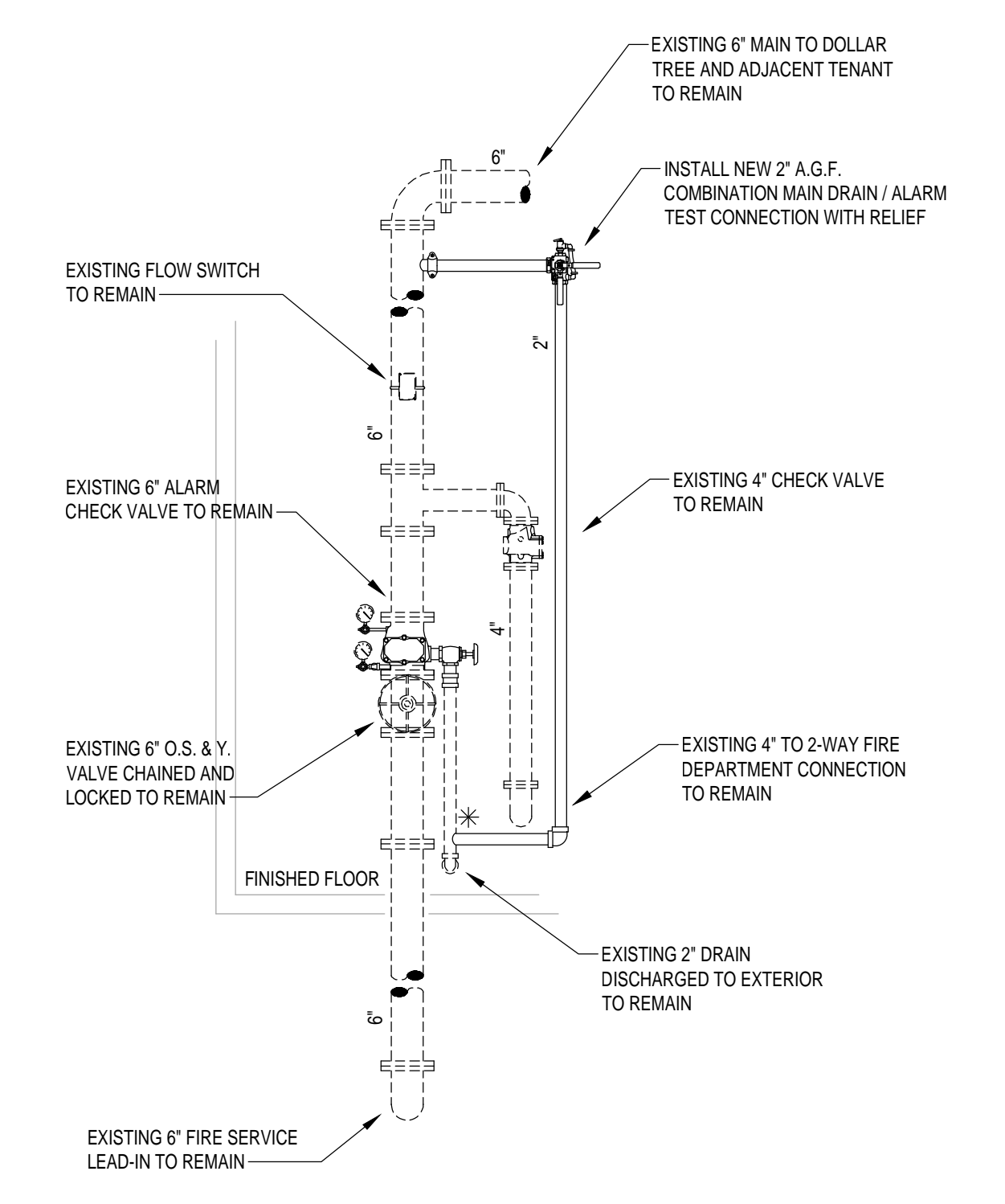
FIRE SPRINKLER PLAN - NEW WORK
 SCALE: 1/8" = 1'-0"
 FIN. FLOOR ELEV. = 100'-0"

SYMBOL KEY

- EXISTING PIPING TO REMAIN
- EXISTING PIPING TO BE REMOVED
- NEW PIPING
- 1" ARM-OVER TO NEW SPRINKLER FROM EXISTING 1" OUTLET
- CONNECT TO EXISTING PIPE AND/OR FITTING
- EXISTING SPRINKLER AND ARM-OVER TO BE DEMOLISHED BACK TO OUTLET ON BRANCH LINE UNLESS SHOWN OTHERWISE
- EXISTING BRASS UPRIGHT ORD/5.6/SR
- EXISTING CHROME PENDENT ON 2-PIECE TELESCOPING ESCUTCHEON ORD/5.6/SR
- NEW BRASS UPRIGHT ON 1" SPRIG ORD/5.6/SR
- NEW CHROME PENDENT ON 2-PIECE TELESCOPING ESCUTCHEON ORD/5.6/SR
- NEW CHROME PENDENT ON 2-PIECE TELESCOPING ESCUTCHEON ORD/5.6/SR
- APPROXIMATE CENTER LINE ELEVATION OF EXISTING PIPE ABOVE FINISHED FLOOR OR BELOW METAL DECK
- 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



ELEVATION AT EXISTING BUILDING FIRE SPRINKLER RISER
 NOT TO SCALE

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date	project	designed	drawn	checked	mark	revisions
08/01/22	2302277	MV	MV	MAR		

CASCO DIVERSIFIED CORPORATION
 ARCHITECTURAL FIRM
 LICENSE #000329
 EXPIRES 12/31/23

CASCO DIVERSIFIED CORPORATION
 ENGINEERING FIRM
 LICENSE #000613
 EXPIRES 12/31/23

PROFESSIONAL SEAL OF RECORD

STATE OF MISSOURI
 WILLIAM B. SMITH, P.E.
 LICENSE NO. PE-200818715
 EXPIRES 08/31/2022

ENGINEER OF RECORD:
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 CORPORATE CERTIFICATE OF AUTHORITY
 NO. 000019

DOLLAR TREE

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 FIRE SPRINKLER PLAN - NEW WORK AND RISER DETAIL

project drawing

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 DOLLAR TREE AS HEREINAFTER DESCRIBED AND AS SHOWN ON THE ENGINEERING DRAWINGS.
 - B. WORK SHALL BEGIN AT EXISTING OVERHEAD SYSTEM AND SHALL INCLUDE THE FOLLOWING:
 - 1. REMODELED WET PIPE FIRE SPRINKLER SYSTEM FOR PROPOSED DOLLAR TREE.
 - 2. COORDINATION OF WORK AND SCHEDULES WITH OTHER TRADES.
 - C. INTERIOR WORK - PROVIDE THE FOLLOWING:
 - 1. OVERHEAD PIPE, FITTINGS, HANGERS AND SPRINKLERS.
 - 2. AUXILIARY DRAINS.
 - D. IT IS ANTICIPATED 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 - 2018 EDITION
 - 2. INTERNATIONAL FIRE CODE-2018 EDITION
 - 3. NFPA 13, SPRINKLER SYSTEMS - 2019 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. SPRINKLER SPACING SHALL BE AS SHOWN ON THE ENGINEERING DRAWINGS.
 - E. EXISTING FIRE DEPARTMENT CONNECTION TO REMAIN.
 - F. 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.
 - G. EXAMINE THE JOB CONDITIONS AND VERIFY ALL MEASUREMENTS, DISTANCES, ELEVATIONS, CLEARANCES, PIPE SIZES, ETC.
 - H. 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, BASE CALCULATIONS ON WATER SUPPLY COORDINATES PROVIDED HEREIN.
 - 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.
- 1.06 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 ARRANGINGS 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.

2.00 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 CCIS CONSTRUCTION DOCUMENTS 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.

2.09 SUBMITTALS

- A. THE ENGINEERING DRAWINGS HAVE BEEN PREPARED USING AUTOCAD. THE ENGINEERING DRAWINGS ARE 100% CAD. 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.
 - 3. CCI WILL REVIEW THIS SUBMITTAL FOR CONSISTENCY WITH CCIS CONSTRUCTION DOCUMENTS.
 - 4. AFTER THE SATISFACTORY REVIEW BY CCI, PROVIDE SUBMITTALS TO THE AUTHORITY HAVING JURISDICTION AND THE INSURANCE UNDERWRITER FOR APPROVAL.
 - 5. 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.

2.10 AS-BUILT DRAWINGS

- A. PROVIDE AS-BUILT DRAWINGS IN ACCORDANCE WITH REQUIREMENTS OF THE GENERAL CONDITIONS OF THE CONTRACT AND NFPA 13.

2.11 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.

2.12 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.
- C. ALL WET PIPE SYSTEM RISERS, FEED AND CROSS MAINS SHALL HAVE HYDRAULIC CHARACTERISTICS EQUAL TO OR GREATER THAN SCHEDULE 40 PIPE.

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, PLAIN 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 TRAPEZE 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, STOOKHAM OR APPROVED EQUAL.

2.05 SPRINKLERS

- A. TYPES:
 - 1. CHROME PENDENT - GLASS BULB STANDARD & QUICK RESPONSE PENDENT SPRINKLER WITH POLISHED CHROME 2-PIECE TELESCOPING ESCUTCHEON.
 - 2. BRASS UPRIGHT - GLASS BULB STANDARD RESPONSE UPRIGHT SPRINKLER.
- B. ACCEPTABLE MANUFACTURERS: GLOBE, RELIABLE, TYCO, VICTAULIC AND VIKING.
- C. ONLY SPRINKLERS MANUFACTURED AFTER JANUARY 1, 2021 WILL BE ACCEPTED FOR USE.
- D. ONLY SPRINKLERS MANUFACTURED UTILIZING BELLEVILLE SPRING SEALS WILL BE ACCEPTABLE FOR USE.
- E. PROVIDE AT THE EXISTING BUILDING RISER ONE (1) SIX (6) HEAD SPARE SPRINKLER CABINET STOCKED WITH SPRINKLERS AND ESCUTCHEON ASSEMBLIES PROPORTIONATE TO THOSE PROVIDED IN THE BUILDING AND ALL NECESSARY SPRINKLER WRENCHES.

2.06 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 EXISTING 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 ADJACENT TO EXISTING RISER. A MOCK-UP OF PLACARD SHALL BE INCLUDED WITH EQUIPMENT LITERATURE.
- D. PROVIDE AT EXISTING BUILDING RISER A PLAN INDICATING 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.

PART 3 - EXECUTION

3.01 COORDINATION WITH OTHER TRADES

- A. COORDINATE CLOSELY WITH ALL OTHER TRADES TO EXPEDITE CONSTRUCTION AND AVOID INTERFERENCE.

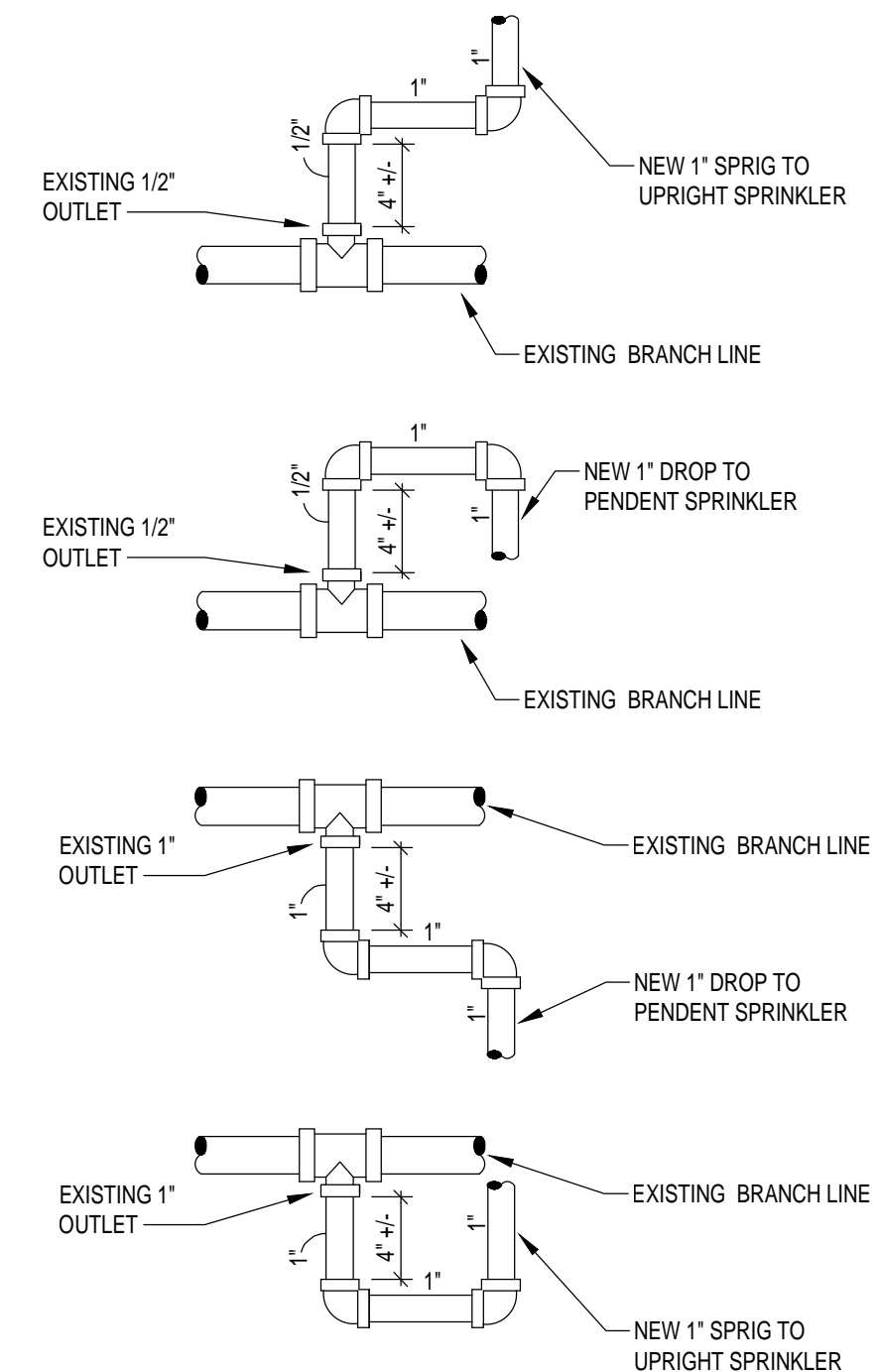
3.02 PAINTING AND PATCHING

- 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.

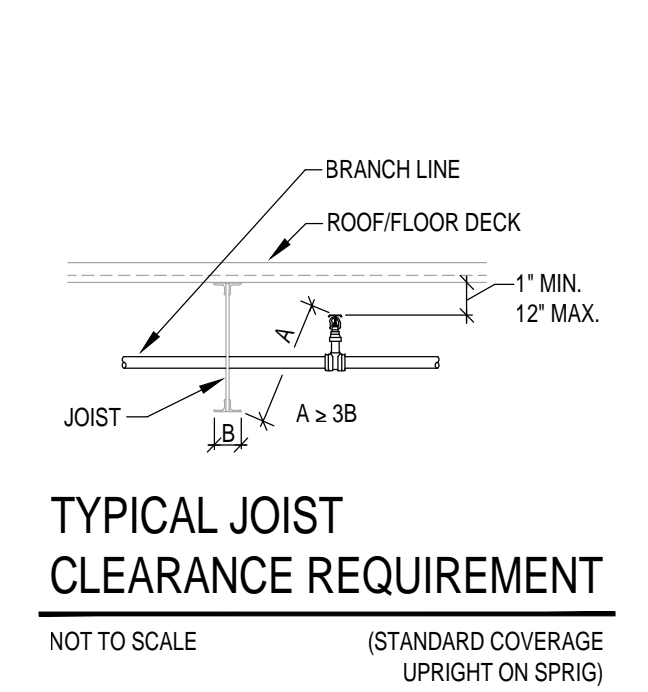
3.03 SYSTEM TESTS

- 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



TYPICAL BRANCH LINE OUTLET DETAIL
NOT TO SCALE



TYPICAL JOIST CLEARANCE REQUIREMENT
NOT TO SCALE (STANDARD COVERAGE UPRIGHT OR SPRIG)

HANGER NOTES

- 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

- DURING CONSTRUCTION, FIRE SPRINKLER CONTRACTOR SHALL KEEP FIRE SPRINKLER SYSTEM OUT OF CONSTRUCTION AREA FULLY CHARGED AND OPERATIONAL DURING BUSINESS HOURS.
- COORDINATE REQUIRED SHUT-DOWN OF THE EXISTING SYSTEM WITH THE OWNER, INSURANCE UNDERWRITER, AND FIRE DEPARTMENT.
- PROVIDE TEMPORARY PIPING, VALVES, AND FITTINGS AS REQUIRED TO MAINTAIN SERVICE TO FIRE SPRINKLER SYSTEM DURING CONSTRUCTION.
- COORDINATE CONSTRUCTION PHASES WITH OWNER AND GENERAL CONTRACTOR.

HYDRAULIC CALCULATIONS

HYDRAULIC CALCULATIONS ARE NOT REQUIRED PER CONVERSATION WITH FIRE CAPTAIN TURNER ON JULY 26, 2022 WITH THE REMOVAL OF TWENTY-FOUR (24) OR LESS SPRINKLERS TO THE SYSTEM

GENERAL NOTES

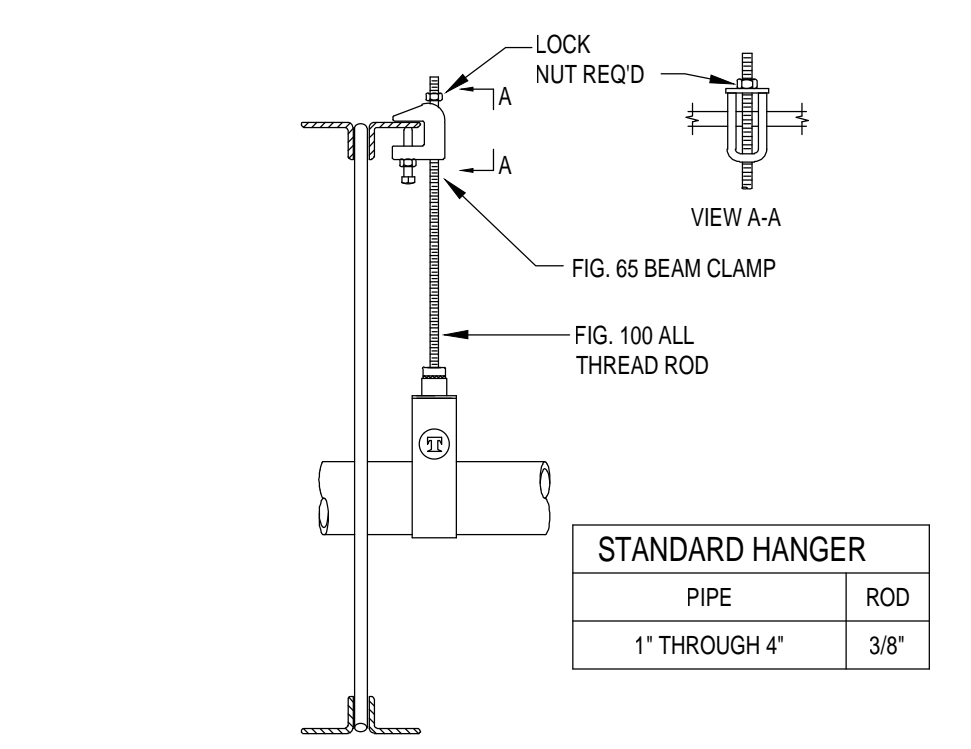
- PROVIDE ALL NECESSARY OFFSETS, RAISES OR DROPS IN PIPING AND AUXILIARY DRAINS REQUIRED BY BUILDING CONDITIONS WHETHER OR NOT SHOWN ON THE DRAWINGS.
- EXAMINE THE JOB CONDITIONS AND VERIFY ALL MEASUREMENTS, DISTANCES, ELEVATIONS, CLEARANCES, PIPE SIZES, ETC.
- ARCHITECTURAL, STRUCTURAL, MECHANICAL AND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

MAXIMUM HANGER SPACING

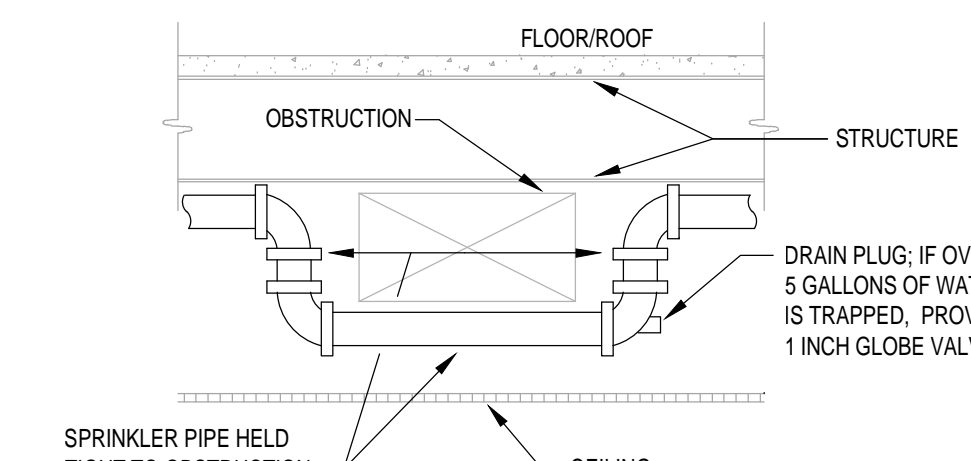
1" - 1 1/4" BLACK STEEL PIPE - 12 FT MAXIMUM HANGER SPACING
1 1/2" - 3" BLACK STEEL PIPE - 15 FT MAXIMUM HANGER SPACING

SPRINKLER NOTES

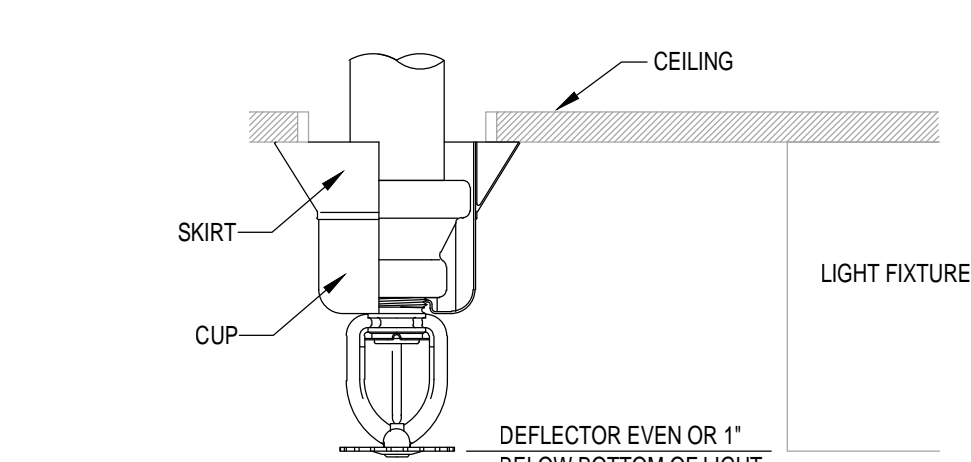
- ALL SPRINKLERS ARE 5.6 K-FACTOR.
- SPRINKLER SPACING IN LIGHT HAZARD AREAS - MAXIMUM 225 SQ FT PER SPRINKLER AND MAXIMUM 15 FT BETWEEN SPRINKLERS.
- SPRINKLER SPACING IN ORDINARY HAZARD AREAS - MAXIMUM 130 SQ FT PER SPRINKLER AND MAXIMUM 15 FT BETWEEN SPRINKLERS.



TOP BEAM CLAMP, ROD AND RING
NOT TO SCALE



TYPICAL OFFSET AT OBSTRUCTION
NOT TO SCALE



2 PIECE TELESCOPING ESCUTCHEON DETAIL
NOT TO SCALE

2043 WOODLAND HWY., SUITE 300
ST. LOUIS, MO 63143
314.991.2683
www.cascofire.com

CASCO

12 Summit Drive, Suite 100, St. Louis, MO 63143 T: 314.821.1100

date	project	designed	drawn	checked	mark	revisions
08/01/22	230227	IMV	IMV	IMV		

08/01/22	230227	IMV	IMV	IMV		
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CASCO DIVERSIFIED CORPORATION ARCHITECTURAL FIRM LICENSE #000329 EXPIRES 12/31/23

CASCO DIVERSIFIED CORPORATION ENGINEERING FIRM LICENSE #000613 EXPIRES 12/31/23

PROFESSIONAL OF RECORD

STATE OF MISSOURI
WILLIAM B. SMITH
NUMBER PE-200897735
08-01-2022

PHONE: 314-821-1100

ENGINEER OF RECORD:
WILLIAM B. SMITH, PE
LICENSE NO. PE 200897735
COCK CONSULTANTS, INC.
2043 WOODLAND HWY. SUITE 300
ST. LOUIS, MO 63143-2027
PHONE: 314-991-2683
CORPORATE CERTIFICATE OF AUTHORITY NO. 000019

DOLLAR TREE

HOBBY LOBBY CENTER
2235 MISSOURI BLVD., JEFFERSON CITY, MO 65109
FIRE SPRINKLER NOTES, DETAILS, AND SPECIFICATIONS

project drawing

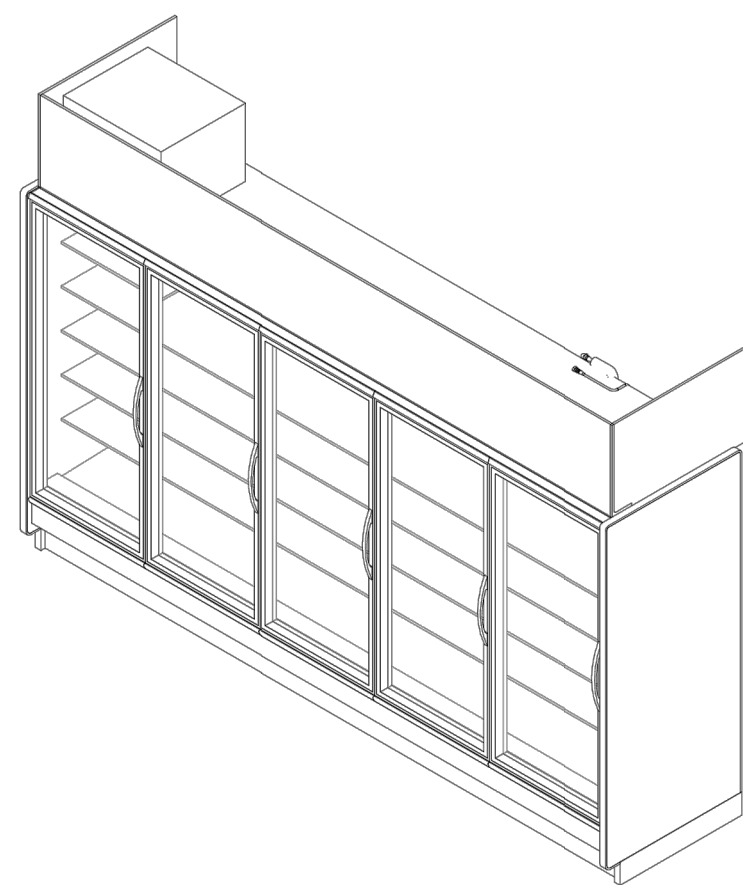
FP2

REACH-IN FREEZER/COOLER UNIT

JNRBHS

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 R448A condensing unit configuration.
 - 2, 3, 4 & 5 door lengths available in 208V R404A/R48A condensing unit configuration.



SHIPPING WEIGHT

Case	Weight
JNRBHS	---



COMPONENT

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

JNRBHS



REACH-IN FREEZER/COOLER SHEET 1 OF 8

JNRBHS (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 Velocity (FPM)
2-5 Door	Beverage	6-8	35
2-5 Door	Dairy	6-8	30
2-5 Door	Deli	6-8	29

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 Time (F)
2-5 Door	2	0	46	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.



COMPONENT

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

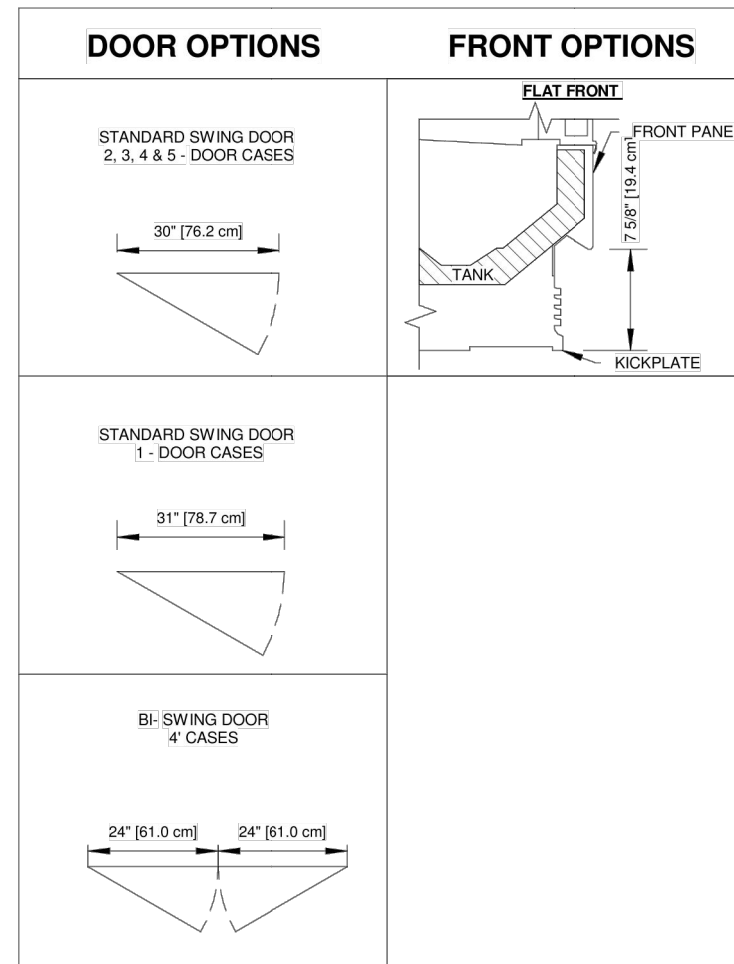
JNRBHS (R404A)



REACH-IN FREEZER/COOLER SHEET 2 OF 8

JNRBHS

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



COMPONENT

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

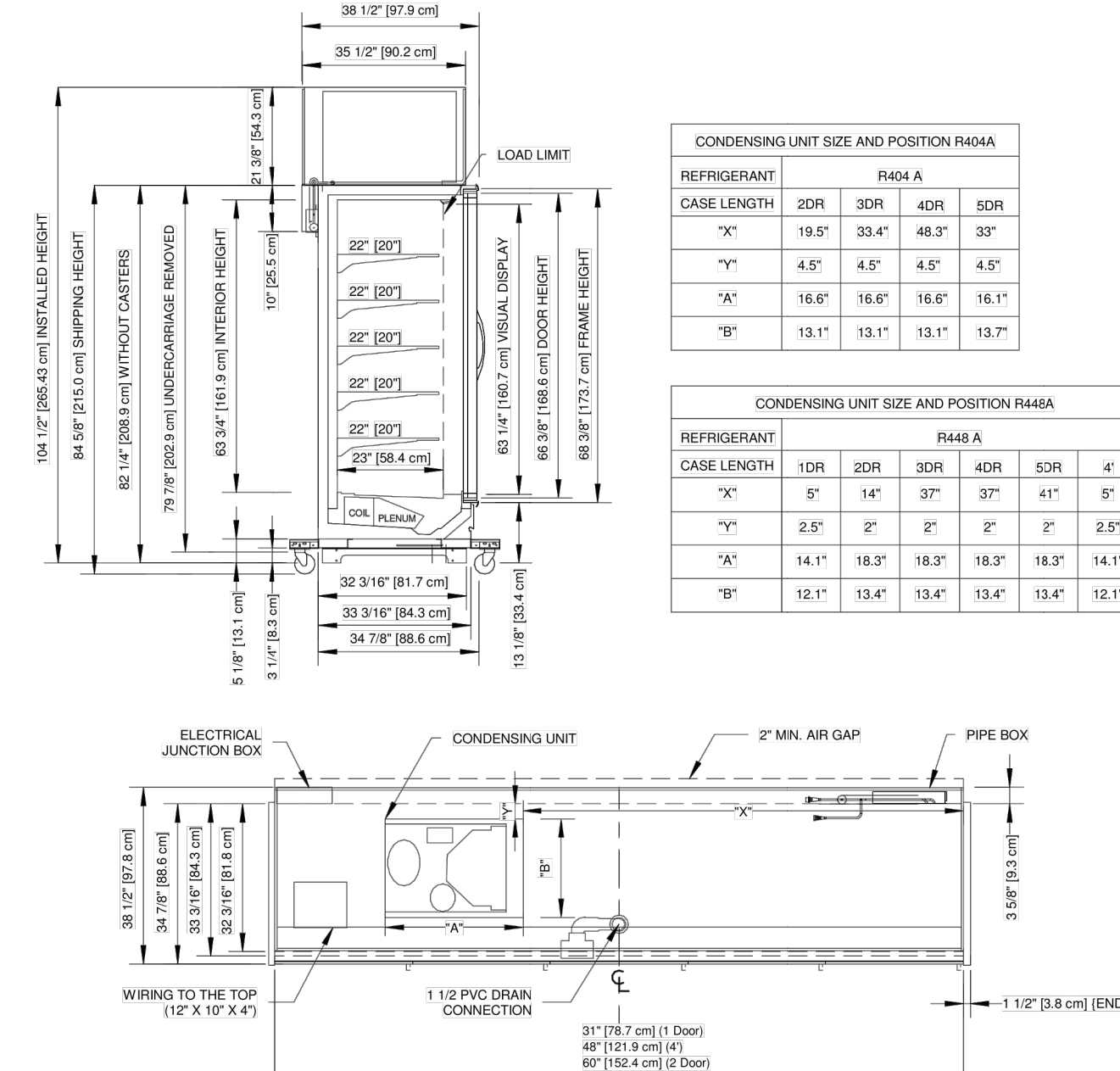
JNRBHS



REACH-IN FREEZER/COOLER SHEET 3 OF 8

JNRBHS

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.



COMPONENT

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

JNRBHS

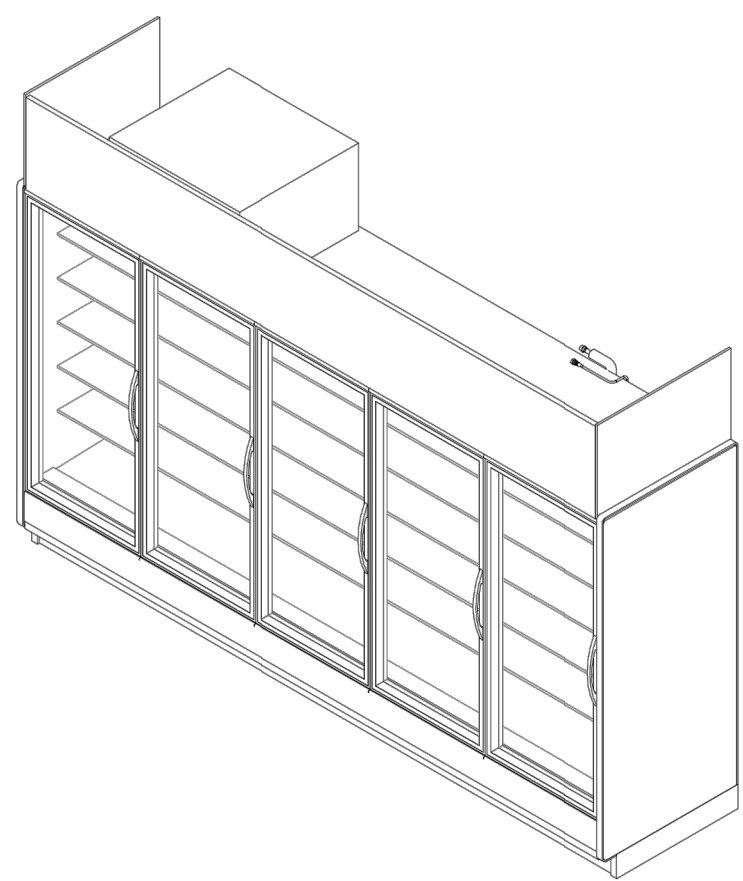


REACH-IN FREEZER/COOLER SHEET 4 OF 8

JNRZHS

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 / R48A Condensing Unit Configuration



SHIPPING WEIGHT

Case	Weight
JNRZHS	---



COMPONENT

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

JNRZHS



REACH-IN FREEZER/COOLER SHEET 5 OF 8

JNRZHS (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	29.8	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 Velocity (FPM)
2 Door	3-5	6	-9
3 Door	3-5	6	-9
4 Door	3-5	6	-9
5 Door	3-5	6	-9

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	2.8
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	56.0	R404A	6.2

DEFROST CONTROLS (R404A)

Defrosts Per Day	Run Off Time (Min)	Fail-Safe (Min)	Termination Temp (°F)
1	0	46	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.



COMPONENT

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

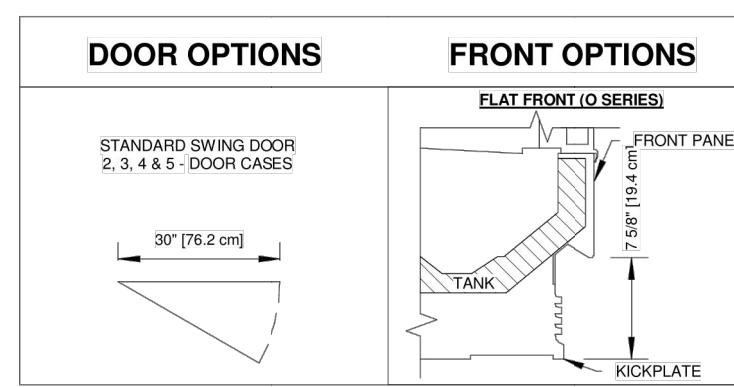
JNRZHS (R404A)



REACH-IN FREEZER/COOLER SHEET 6 OF 8

JNRZHS

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



COMPONENT

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

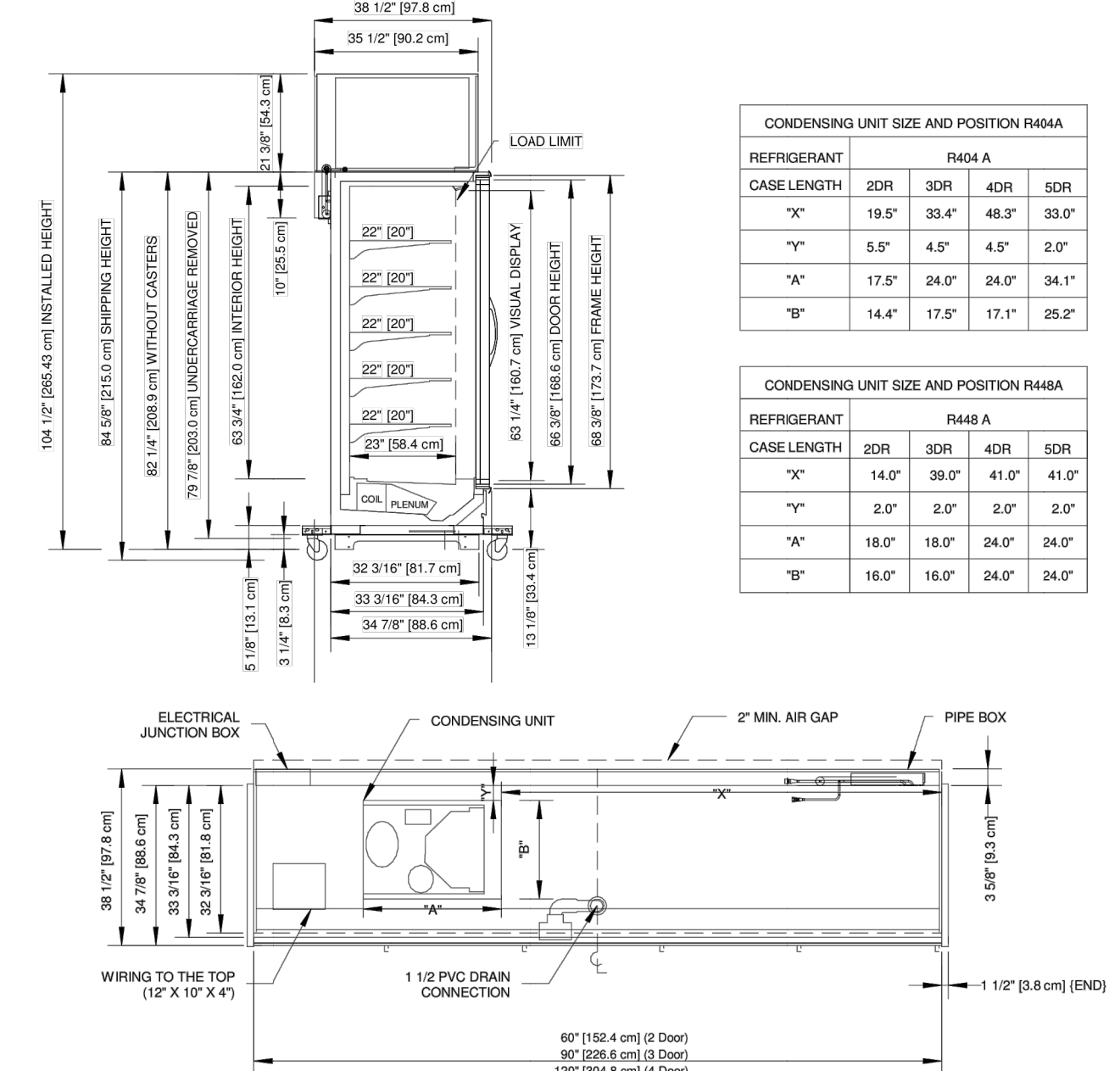
JNRZHS



REACH-IN FREEZER/COOLER SHEET 7 OF 8

JNRZHS

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.



COMPONENT

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

JNRZHS



REACH-IN FREEZER/COOLER SHEET 8 OF 8

CASCO
12 Summit Drive, Suite 100, St. Louis, MO 63143
T: 314.821.1100

OWNER REVISION description
JLB by
06/24/2022 date
mark revisions

06/01/22 date
220227 project
designed
drawn
checked

PROFESSIONAL OF RECORD

FOR INFORMATION ONLY
NO SIGNATURE REQUIRED
PHONE: 314.821.1100

DOLLAR TREE
HOBBY LOBBY CENTER
2225 MISSOURI BLVD., JEFFERSON CITY, MO 65109
DETAILS AND SPECIFICATIONS

project drawing

DS1

FOR REFERENCE ONLY

PT0062LBNEMSA - SUBMITTAL

CLIMATE CONTROL

Project Name	Item #	1000	
Client ID	Submitter Co.	60466	
Submitter Fax	Submitter City	St. Louis, MO	
Quantity #	Order Free Cooler	Tag	New Cooler Unit

For Record For Approval By: _____ Date: _____

General Product Information

Product Family	PTV	Voltage (V/VA/PHV)	208/230/120
Application	Home	Refrigerant Type	60466
Temperature Range	Low Temp	Unit Cooler Model Type	USCC
Definer Type	Electric	Compressor Model	ZF09K42

Technical Information

Ambient Temp (°F)		Room Temp (°F)		Capacity (BTU/hr)	Unit Cooler CFM	Altitude	AIRSE Value
58	72	72	72	7,430	800	0	2.10

Minimum Unit Clearance: 18.0" (Top), 18.0" (Bottom), 18.0" (Side)

Plug Support?	Missing NEMA Receptacle Number	Approx. Net Weight (lbs)
NO	N/A	278

Page 1 of 8

PT0062LBNEMSA - SUBMITTAL

CLIMATE CONTROL

Project Name	Item #	1000	
Client ID	Submitter Co.	60466	
Submitter Fax	Submitter City	St. Louis, MO	
Quantity #	Order Free Cooler	Tag	New Cooler Unit

Standard Features

AESTHETICS

- STYLIC ALUMINUM FINISH

ENVIRONMENTALLY FRIENDLY

- PRE-CHARGED WITH R410A REFRIGERANT TO MEET CARB & LEI CLIMATE ALLIANCE REQUIREMENTS

ENERGY EFFICIENCY

- PI & PII UNITS USE SINGLE SPEED EC MOTORS (EVAPORATORS)
- PI & PII UNITS USE 2 SPEED EC MOTORS (EVAPORATORS)
- PI & PII UNITS USE SINGLE SPEED EC MOTORS (CONDENSERS) (PT0062L UNITS)
- PI & PII UNITS USE A MICROCHANNEL CONDENSER FOR HIGHER EFFICIENCY & CORROSION PROTECTION

PERFORMANCE

- SEAL FOR HOLES (DIMS) TEMPERATURE
- SEAL FOR HOLES (DIMS) TEMPERATURE
- LOW TEMP ELECTRIC DEPOSIT

RELIABLE & DURABLE

- LIQUID LINE FILTER DRIER (MEDIUM AND LARGE CABINET ONLY)
- 360° HOUSING WARRANTY

EASE OF INSTALLATION

- PRE-CHARGED WITH REFRIGERANT
- NO REFRIGERANT PIPING REQUIRED
- QUICK-CONNECT CONDENSATE PAN (MEDIUM UNITS ONLY)
- ALL UNITS SET A RESPONSIBLE TOP PANEL WITH LATCHES
- ALL P1 & SELECT P2 UNITS COME WITH A POWER CORD

CONTROLS

MINI-PROCESSOR CONTROL

Minimum Unit Clearances

Page 2 of 8

Specification

LED Vapor Tight Light

Item No. LD-TL-8004
LD-TL-8004
LD-TL-8050
LD-TL-8060

NOTES

- This specification for our regular product specifications.
- The right of final interpretation of this specification to Guangzhou LEDIA Lighting Technology Co., Ltd.

Close View Outlook

Dimensions

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Version 1.1 Issuing Date: 2015.08.31(year/month/day) Page 1 of 9

PT0046MANAMSA - SUBMITTAL

CLIMATE CONTROL

Project Name	Item #	300	
Client ID	Submitter Co.	60466	
Submitter Fax	Submitter City	St. Louis, MO	
Quantity #	Order Free Cooler	Tag	New Cooler Unit

For Record For Approval By: _____ Date: _____

General Product Information

Product Family	PTV	Voltage (V/VA/PHV)	115/208
Application	Home	Refrigerant Type	60466
Temperature Range	Medium Temp	Unit Cooler Model Type	USCC
Definer Type	AF	Compressor Model	80T4C12

Technical Information

Ambient Temp (°F)		Room Temp (°F)		Capacity (BTU/hr)	Unit Cooler CFM	Altitude	AIRSE Value
58	72	72	72	4,200	300	0	2.11

Minimum Unit Clearance: 12.0" (Top), 12.0" (Bottom), 12.0" (Side)

Plug Support?	Missing NEMA Receptacle Number	Approx. Net Weight (lbs)
YES	2-04F	158

Page 5 of 8

PT0046MANAMSA - SUBMITTAL

CLIMATE CONTROL

Project Name	Item #	300	
Client ID	Submitter Co.	60466	
Submitter Fax	Submitter City	St. Louis, MO	
Quantity #	Order Free Cooler	Tag	New Cooler Unit

Standard Features

AESTHETICS

- STYLIC ALUMINUM FINISH

ENVIRONMENTALLY FRIENDLY

- PRE-CHARGED WITH R410A REFRIGERANT TO MEET CARB & LEI CLIMATE ALLIANCE REQUIREMENTS

ENERGY EFFICIENCY

- PI UNITS USE SINGLE SPEED EC MOTORS (EVAPORATORS)
- PI & PII UNITS USE SINGLE SPEED EC MOTORS (EVAPORATORS)
- PI & PII UNITS USE SINGLE SPEED EC MOTORS (CONDENSERS) (PT0046 UNITS)
- PI & PII UNITS USE A MICROCHANNEL CONDENSER FOR HIGHER EFFICIENCY & CORROSION PROTECTION

PERFORMANCE

- SEAL FOR HOLES (DIMS) TEMPERATURE
- SEAL FOR HOLES (DIMS) TEMPERATURE
- LOW TEMP ELECTRIC DEPOSIT

RELIABLE & DURABLE

- LIQUID LINE FILTER DRIER (MEDIUM AND LARGE CABINET ONLY)
- 360° HOUSING WARRANTY

EASE OF INSTALLATION

- PRE-CHARGED WITH REFRIGERANT
- NO REFRIGERANT PIPING REQUIRED
- QUICK-CONNECT CONDENSATE PAN (MEDIUM UNITS ONLY)
- ALL UNITS SET A RESPONSIBLE TOP PANEL WITH LATCHES
- ALL P1 & SELECT P2 UNITS COME WITH A POWER CORD

CONTROLS

MINI-PROCESSOR CONTROL

Minimum Unit Clearances

Page 6 of 8

Specification

PRODUCT DESCRIPTION

- LED Vapor Tight or LED Tight Vapor Light
- Even light distribution, no glare
- Waterproof, skidproof and corrosionproof, can be applied to tough industrial environment that is corrosive, dirty, damp or oily
- Perfect to apply in supermarkets, warehouses, parking lots, bus stops, power plants, steel plants, petrochem plants, ship yards, railway, etc.

FEATURES

- 120° wide beam angle
- High efficiency
- Frosted cover: 150lm/W
- Clear cover: 150lm/W
- 140°
- High lumen maintenance: 80%
- 85K, 800 hours
- Aluminum main part, good for heat dissipate
- Perfect installation: suspended or surface mounted

COMPONENTS

- LED SMD3535S/M85
- 4000K Aluminum heat sink, housing and side caps
- Polycarbonate cover (Frosted/Clear)
- Housing made of polycarbonate cover: US 94 V2
- Internal isolated driver

DIMMING

- 1-10V dimming (optional)

Spec	LD-TL-8004/8050/8060	LD-TL-8004/8050/8060	LD-TL-8004/8050/8060	LD-TL-8004/8050/8060	LD-TL-8004/8050/8060
General performance	Lumen Output (lm)	2400/2760	3000/3420	3600/4080	4200/4740
Color Temperature (CT)	5000K/5700	5000K/5700	5000K/5700	5000K/5700	5000K/5700
Lumen Maintenance (LM70)	>80%	>80%	>80%	>80%	>80%
Color Rendering Index (CRI)	>90	>90	>90	>90	>90
Beam Angle	120°	120°	120°	120°	120°
Power Consumption	24W	30W	40W	50W	60W
Power Factor	>0.9	>0.9	>0.9	>0.9	>0.9
Input Voltage (V)	120/277V/100-240V AC	120/277V/100-240V AC	120/277V/100-240V AC	120/277V/100-240V AC	120/277V/100-240V AC
Product Dimension (mm)	600x66x120mm (23.6x2.6x4.7in)	600x66x120mm (23.6x2.6x4.7in)	600x66x120mm (23.6x2.6x4.7in)	600x66x120mm (23.6x2.6x4.7in)	600x66x120mm (23.6x2.6x4.7in)
Net Weight (PCS)	1.2	1.2	1.1	1.1	1.1
Package Dimension (mm)	712x427x207	712x427x207	712x427x207	712x427x207	712x427x207
Qty/Case	50/Case	50/Case	50/Case	50/Case	50/Case
Gross Weight/Case	8	8	8	8	8
Material	Aluminum + Polycarbonate	Aluminum + Polycarbonate	Aluminum + Polycarbonate	Aluminum + Polycarbonate	Aluminum + Polycarbonate
Operating Temperature	-20°C to 40°C	-20°C to 40°C	-20°C to 40°C	-20°C to 40°C	-20°C to 40°C
Humidity	35% - 95% RH, non-condensing	35% - 95% RH, non-condensing	35% - 95% RH, non-condensing	35% - 95% RH, non-condensing	35% - 95% RH, non-condensing
Installation	Suspended/20 surface mounted	Suspended/20 surface mounted	Suspended/20 surface mounted	Suspended/20 surface mounted	Suspended/20 surface mounted

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GENERAL NOTES:

- THE PROPOSED FREEZER/COOLER UNIT SIZE IS INDICATED ON FLOOR PLAN.
- ALL WALK-IN & MERCHANDISING UNITS ARE SELF CONTAINED AND DO NOT REQUIRE A FLOOR DRAIN.
- INSTALLATION OF THESE NSF, ETL & UL LISTED UNITS SHALL COMPLY WITH ALL STATE AND LOCAL CODES PER APPROVED PLANS.
- ALL PANELS ARE LISTED UNDER LARR #25184

CASCO
12 Summit Drive, Suite 100, St. Louis, MO 63143
Tel: 314.821.1100

description
by
date
mark
revisions

08/01/22
220227
date
project
designed
drawn
checked

PROFESSIONAL OF RECORD

FOR INFORMATION ONLY
NO SIGNATURE REQUIRED
PHONE: 314.821.1100

project
drawing

DOLLAR TREE
HOBBY LOBBY CENTER
2225 MISSOURI BLVD., JEFFERSON CITY, MO 65109
WALK-IN UNITS DETAILS AND SPECIFICATIONS

DS3

FOR REFERENCE ONLY

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 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.
 - iii. Mount the EMS Panel adjacent to the electrical panels.
 - iv. 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.
 - v. Call CRS at 888.211.6789 to verify Network Connectivity **before proceeding with the EMS installation.**
 - n. 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)
 - o. When applicable, mount the Auxiliary I/O Panel adjacent to the EMS Panel and ensure both panels are connected to the same Earth Ground.
 - p. When applicable, ensure the Auxiliary I/O panel is connected in series with the other BACnet devices on the BACnet communications trunk.
 - q. 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
 - r. When applicable, mount and terminate the CO2 Sensor as per the location specified by the DT drawings and this documentation package.
 - s. Mount and terminate the Override Button assembly as per the location specified by the DT drawings and this documentation package.
 - t. 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
 - u. 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.
 - v. 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
 - w. When applicable, Daylight Zone = First two (2) rows of lights along the store-front windows.
 - x. 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.
 - aa. 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
 - iii. Confirm wiring is completed as per this documentation package before applying power. Improper wiring will cause damage to equipment.
 - cc. 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)
 - dd. Permanently mount and terminate the Electrical Meter in close proximity to the main utility power feed.
 - ee. Permanently mount the 3 Current Sensors, one each, around the 3 phases of the main utility feed.
 - ff. Terminate the 3 Current Sensors to the Energy Meter, correctly maintaining Electrical Phase and Meter Input relationships.
 - gg. 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 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.

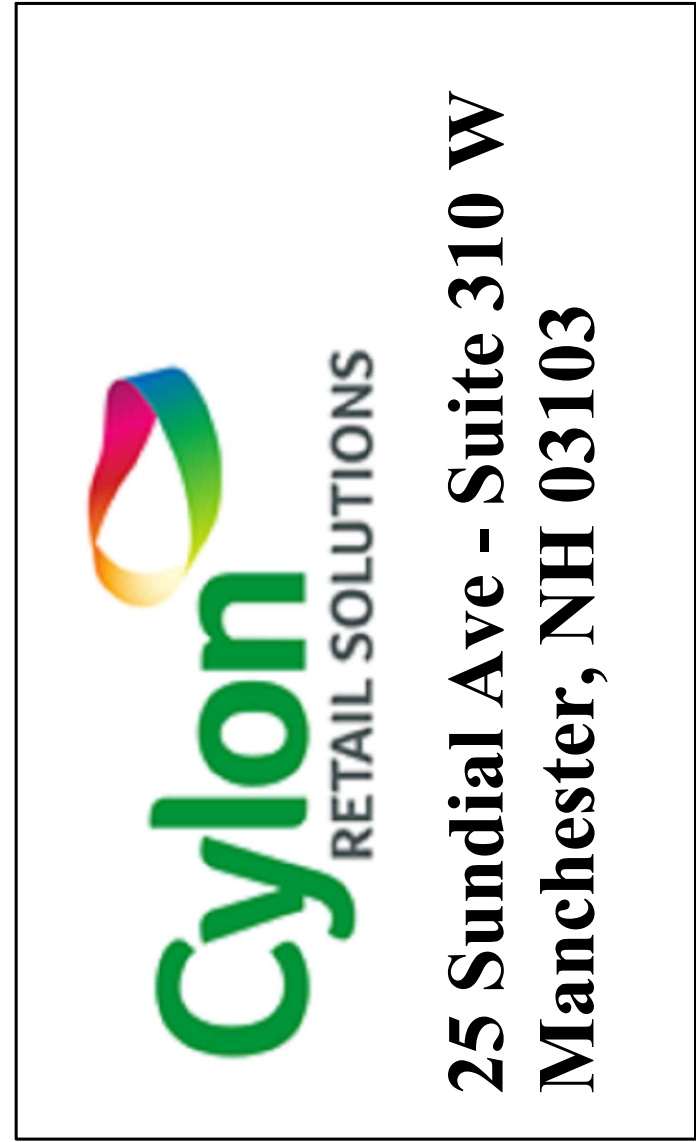
III. MECHANICAL RESPONSIBILITIES:

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 = 68.0 °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



DOLLAR TREE
DRAWING NOTES
(FOR REFERENCE ONLY)

REVISION: 1	DATE: 06/05/20	ECN#: 2390
LOOSE DT OPTION		

REVISION:	DATE:	ECN#:
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REVISION:	DATE:	ECN#:
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REVISION:	DATE:	ECN#:
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DRAWN: WPC	ENGINEER: CGP
PART #: 94-402	OPTION: P

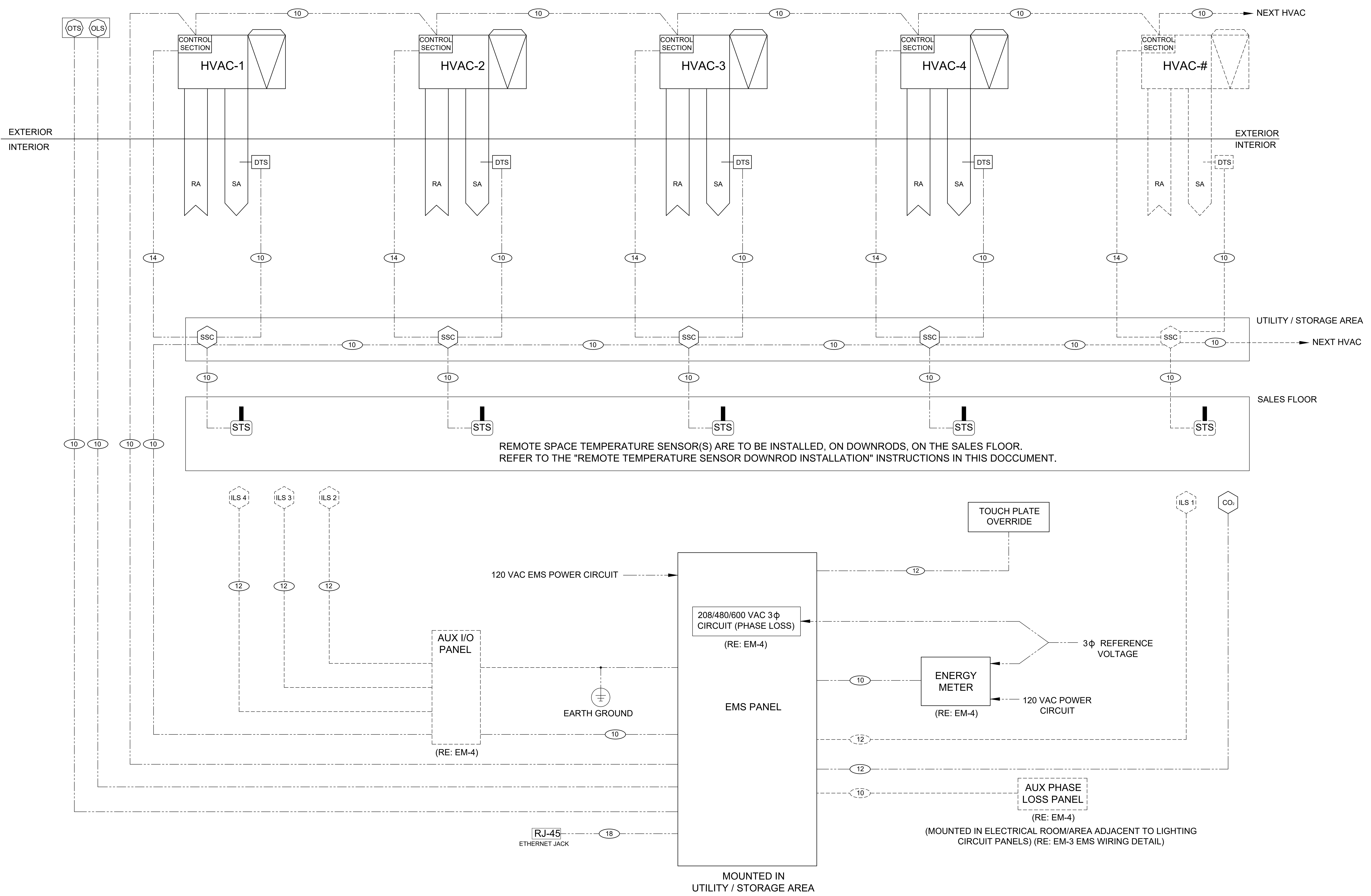
ENERGY
MANAGEMENT
PLAN

EM-1 of 4

DOLLAR TREE LINE DIAGRAM (FOR REFERENCE ONLY NOT TO SCALE)

REVISION: 1	DATE: 06/05/20	ECN#: 2390
LOOSE DT OPTION	---	---
REVISION: ---	DATE: ---	ECN#: ---
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REVISION: ---	DATE: ---	ECN#: ---
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DRAWN: WPC	CHECKED: CGP	
PART #: 94-402	OPTION: P	

ENERGY MANAGEMENT PLAN



ENERGY MANAGEMENT SYSTEM SINGLE LINE DIAGRAM
SCALE: None

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

DOLLAR TREE FIELD WIRING

(FOR REFERENCE ONLY NOT TO SCALE)

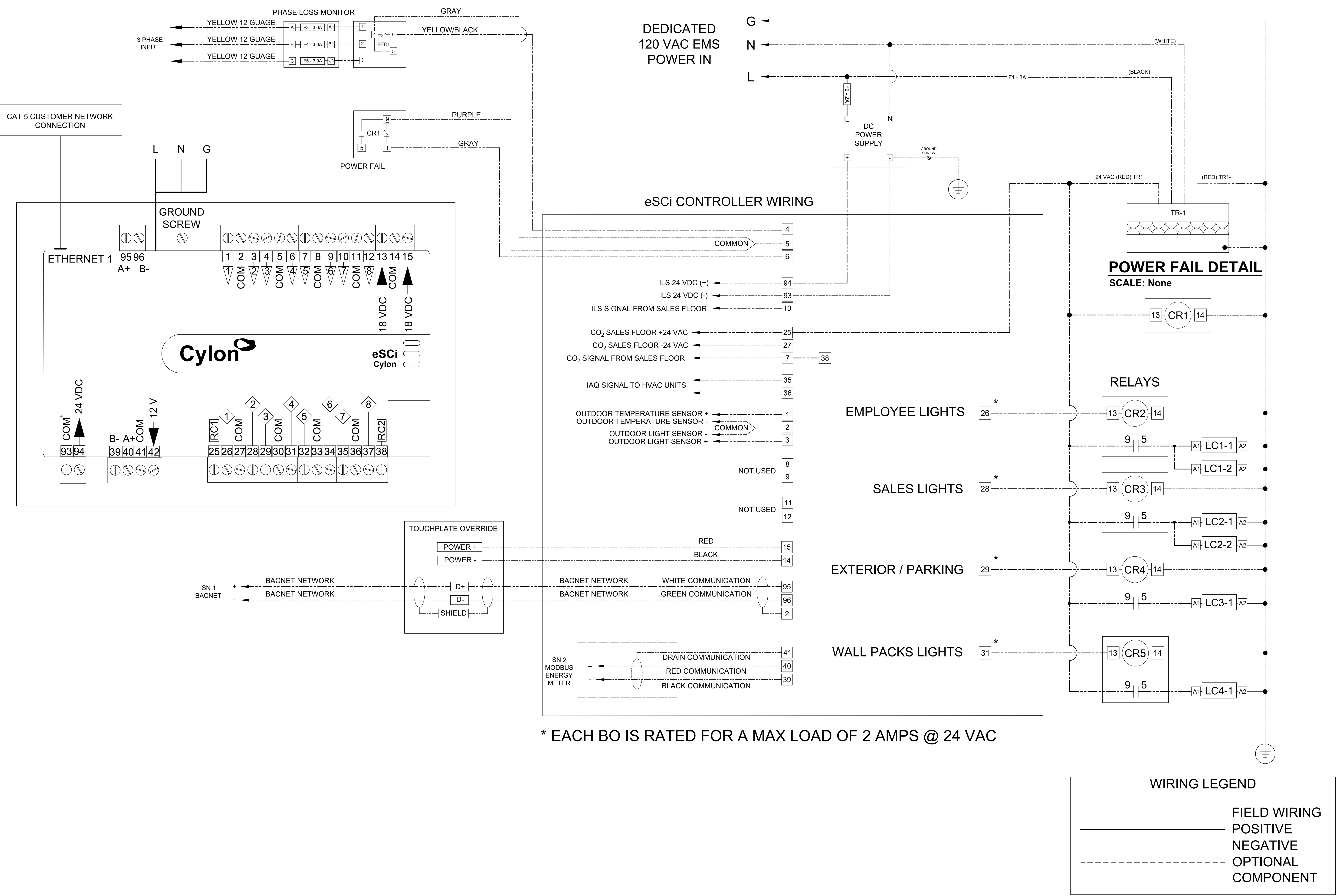
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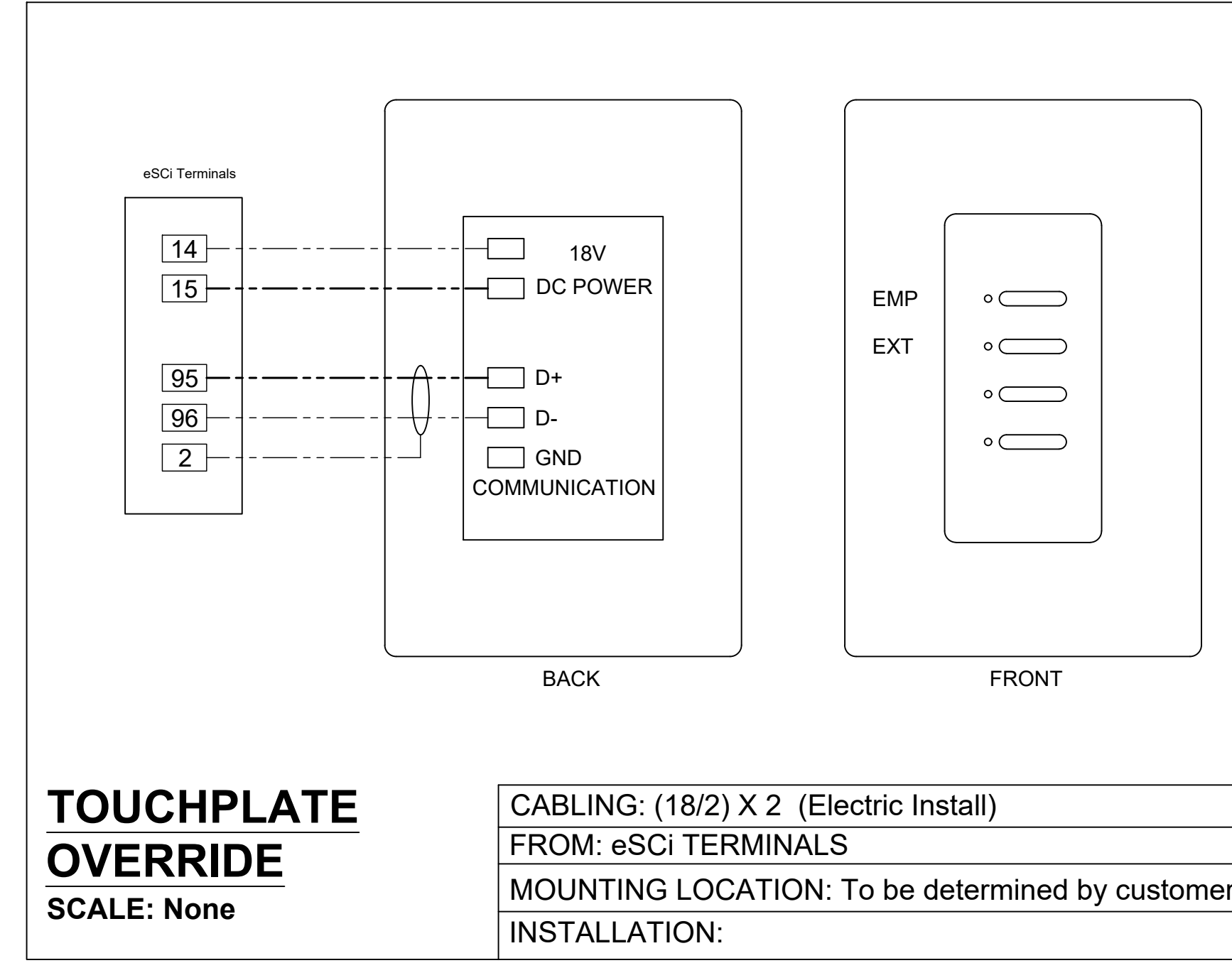
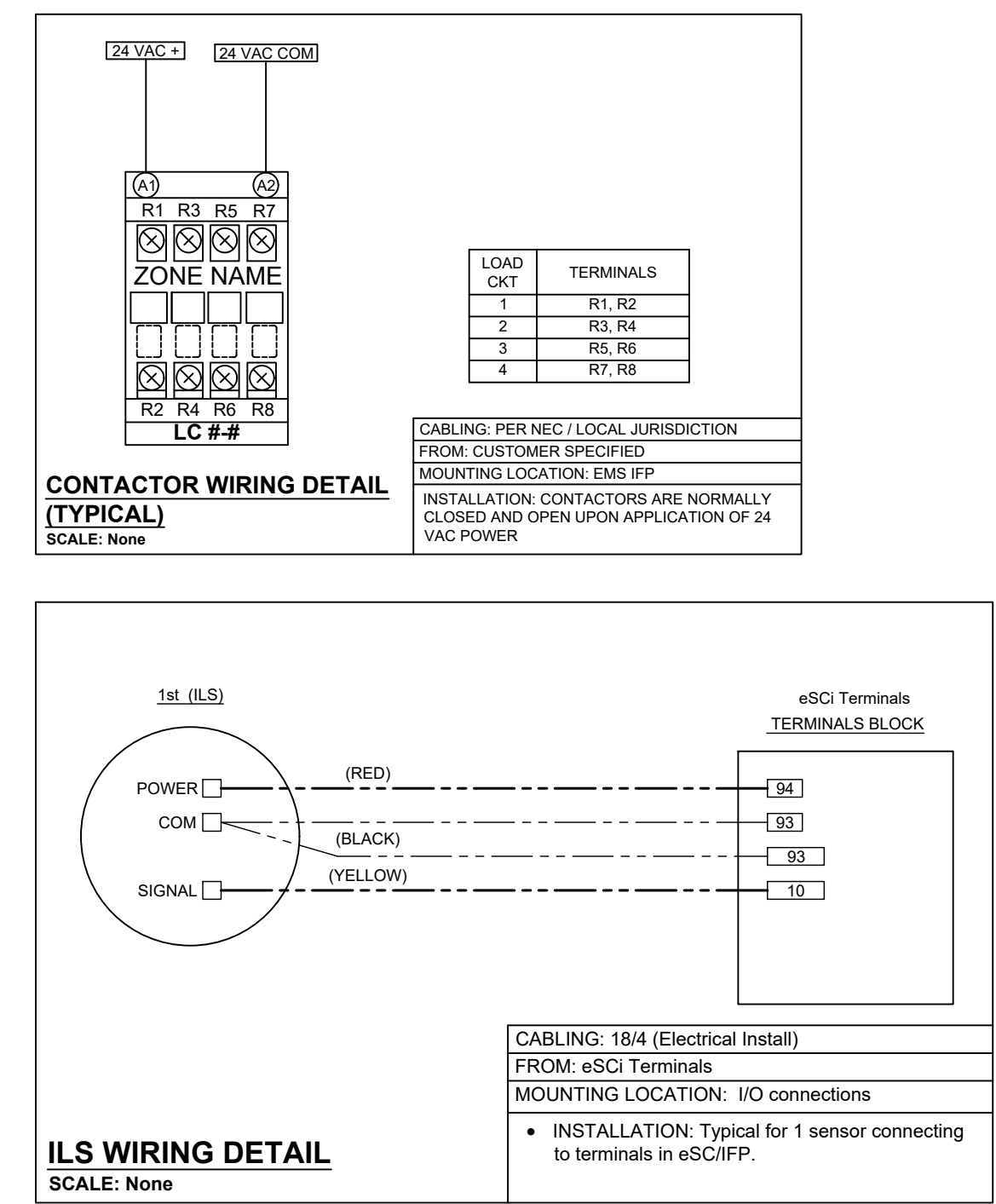
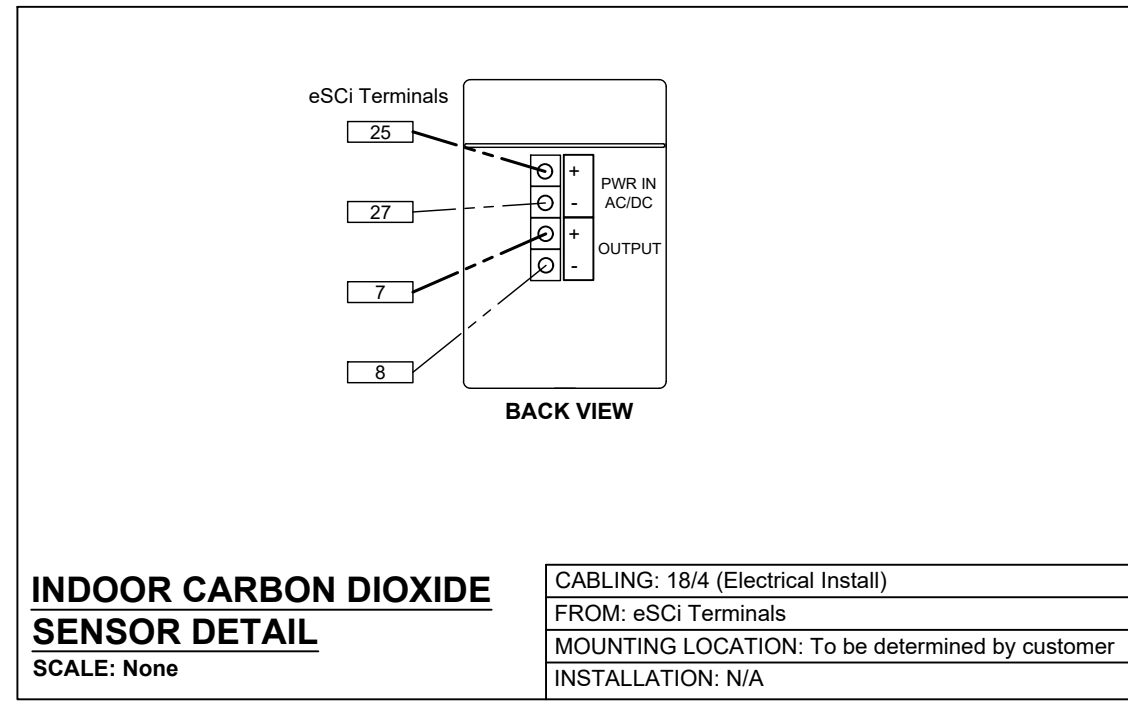
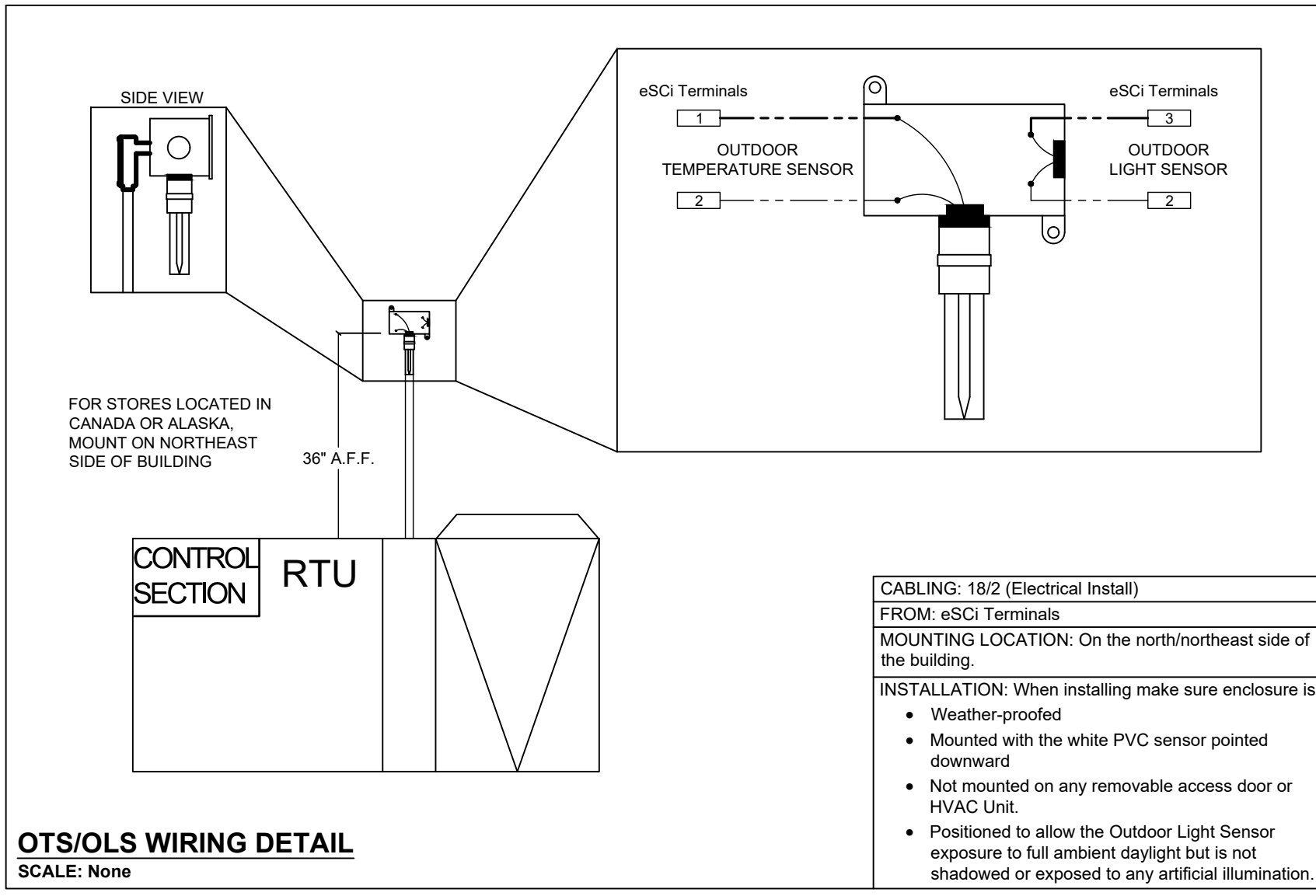
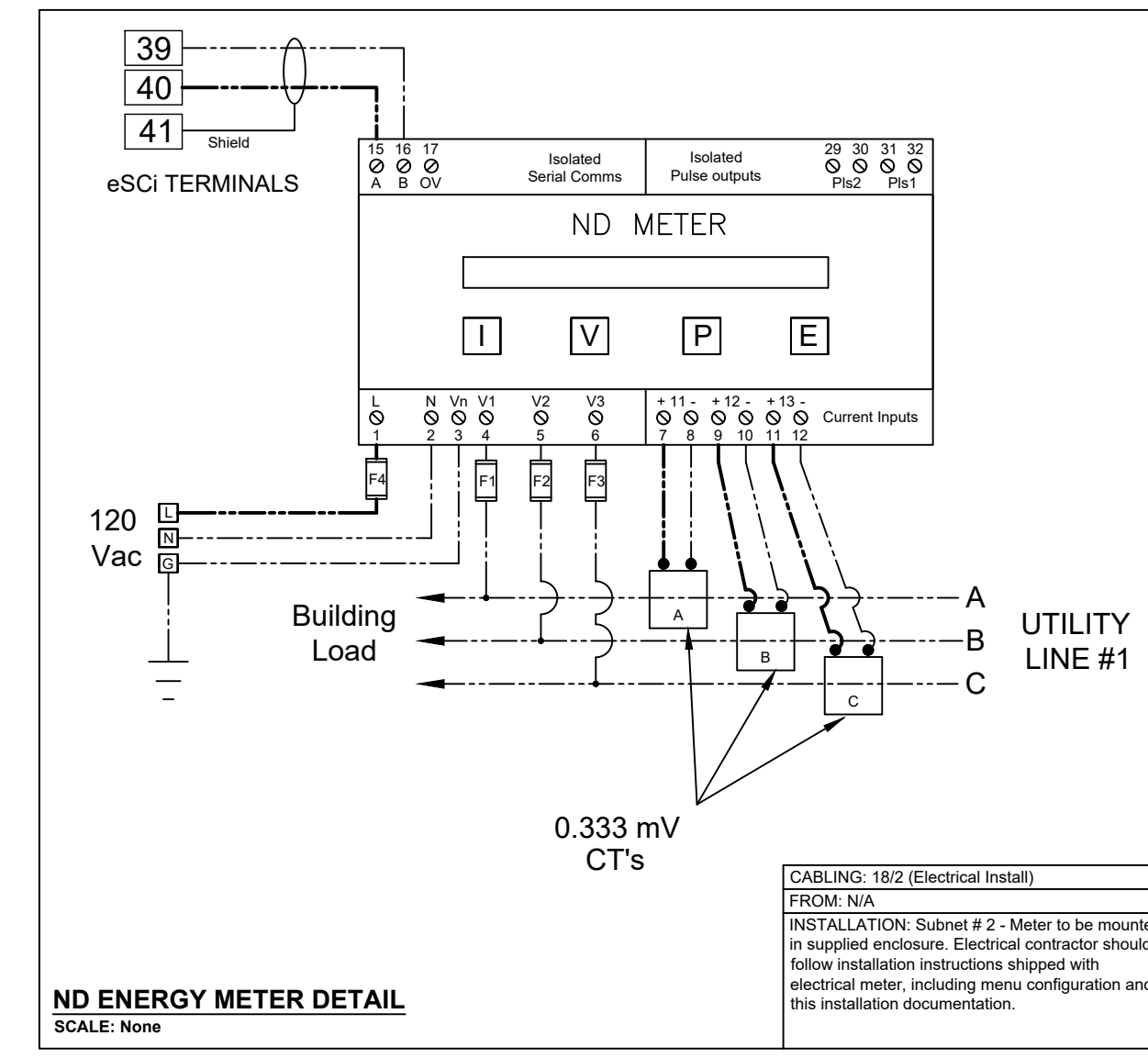
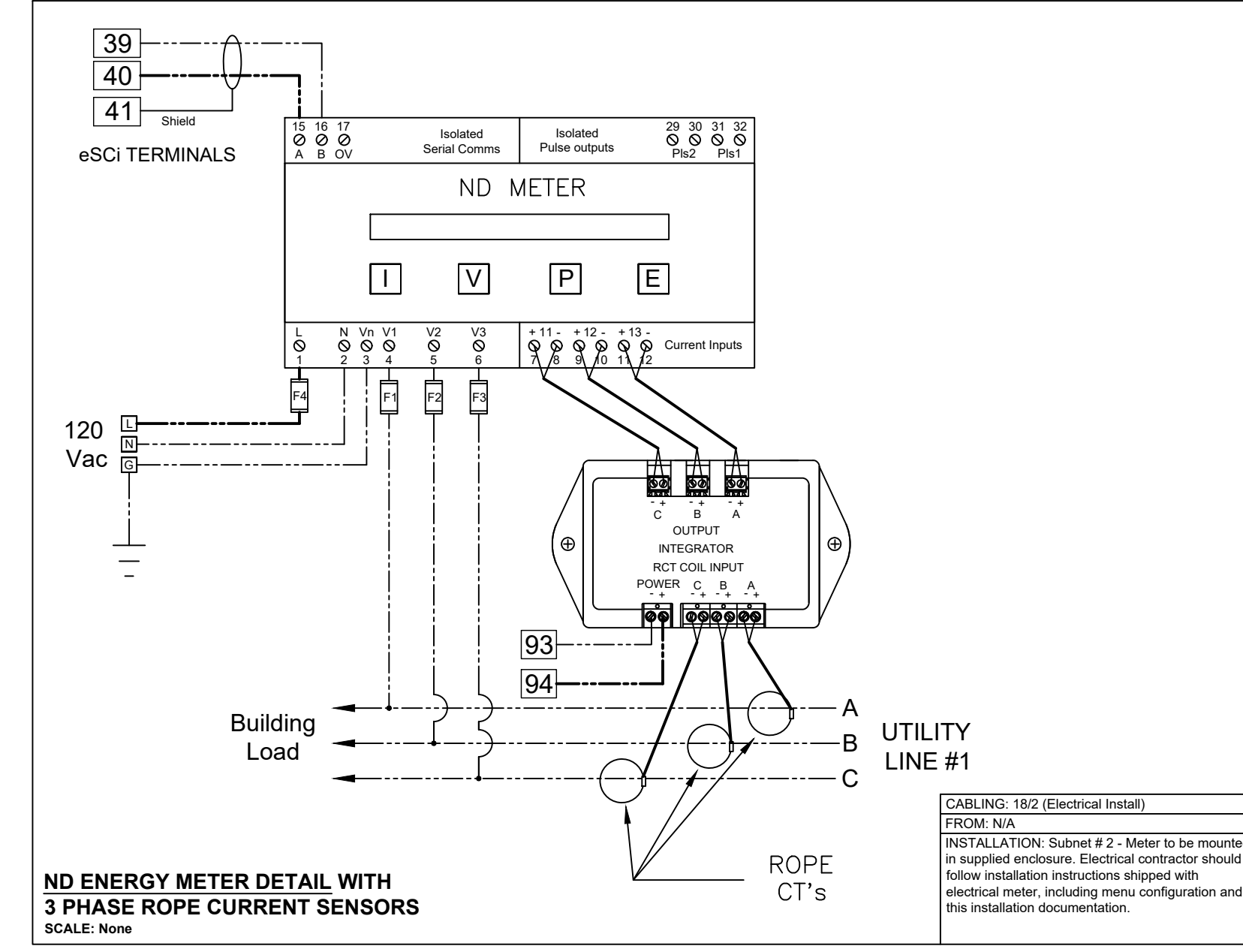
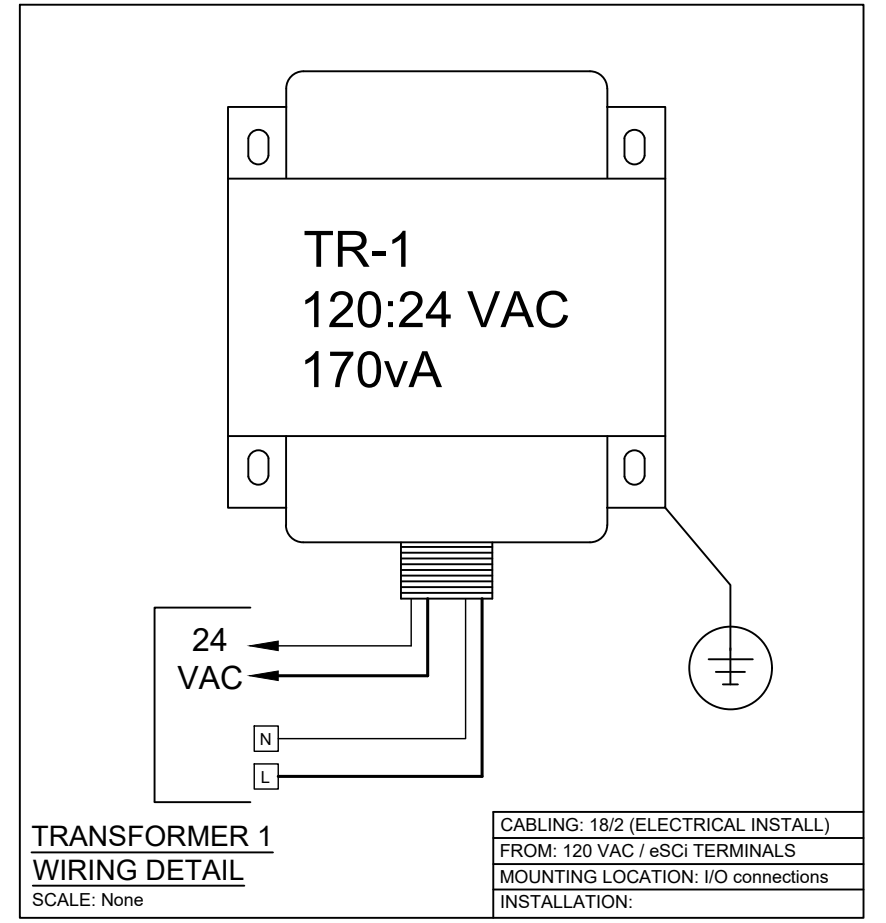
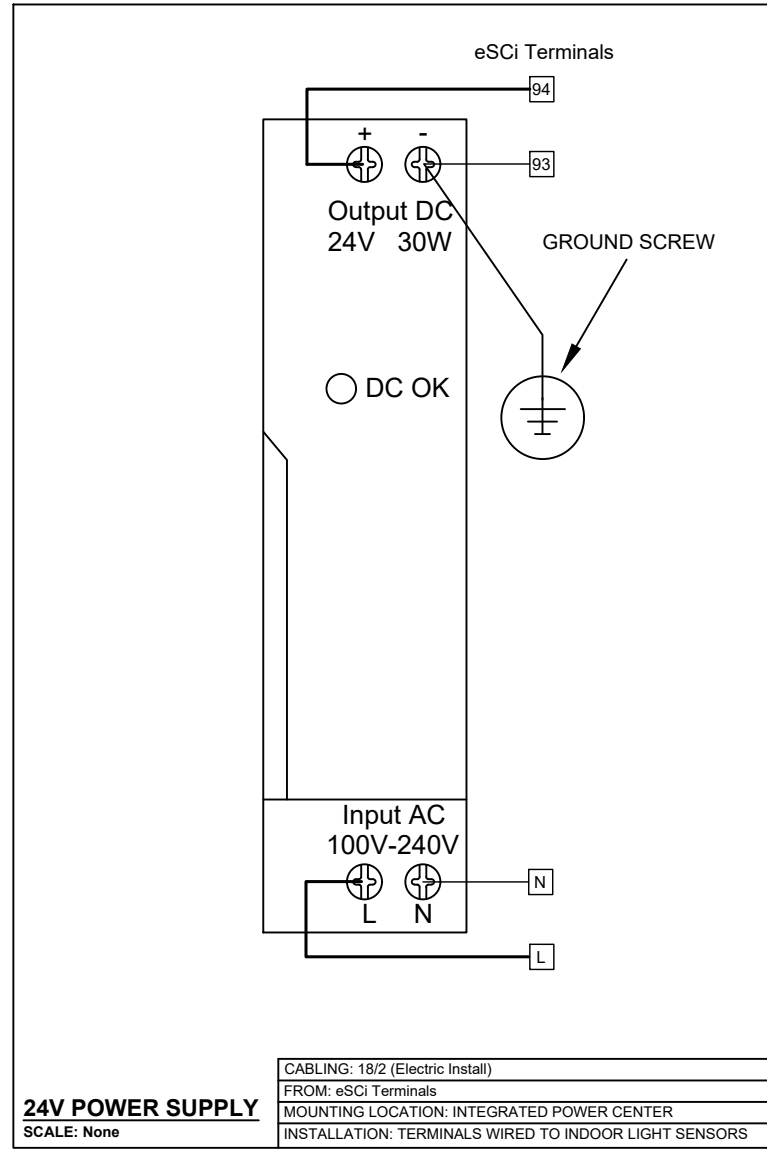
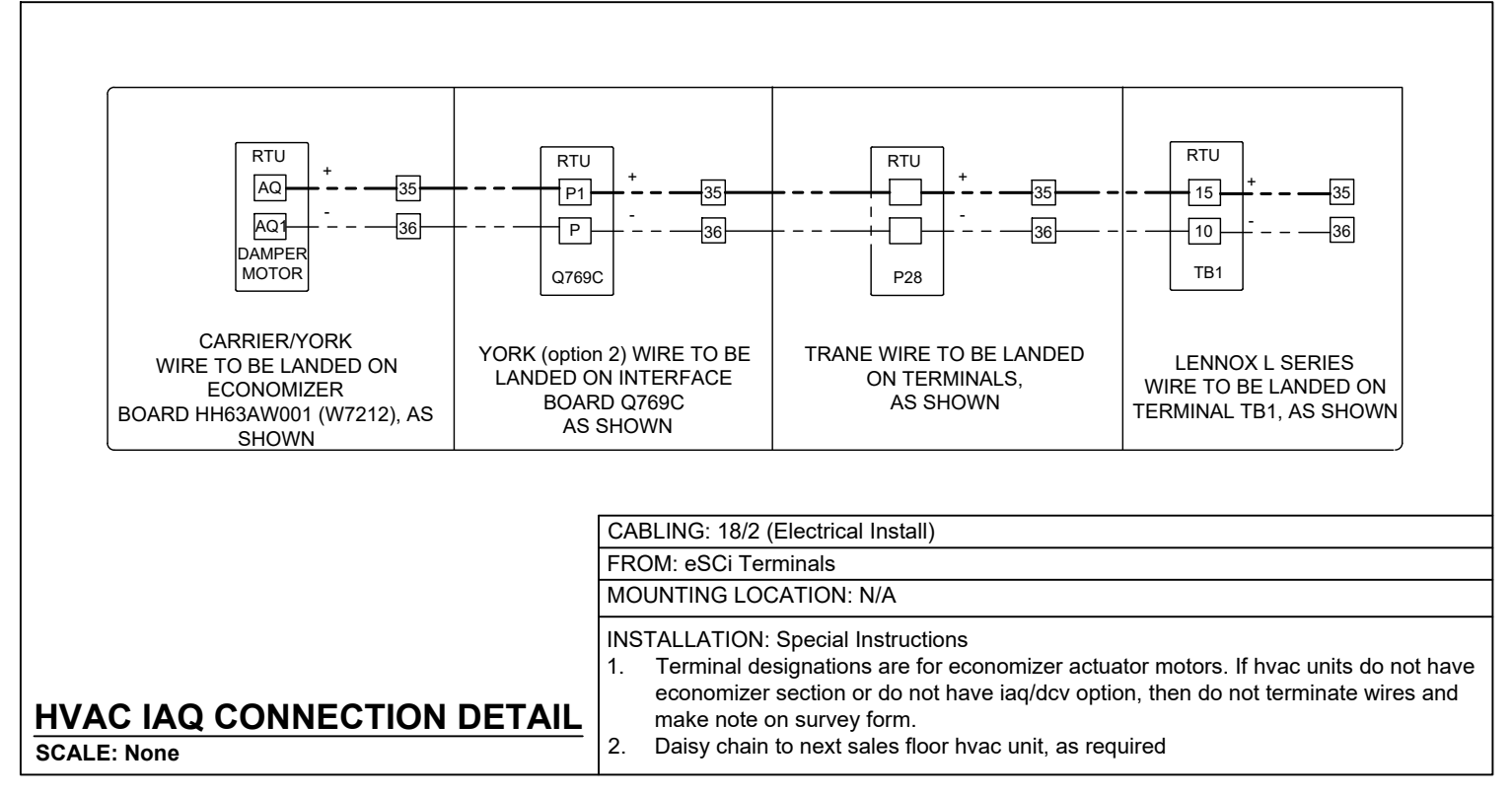
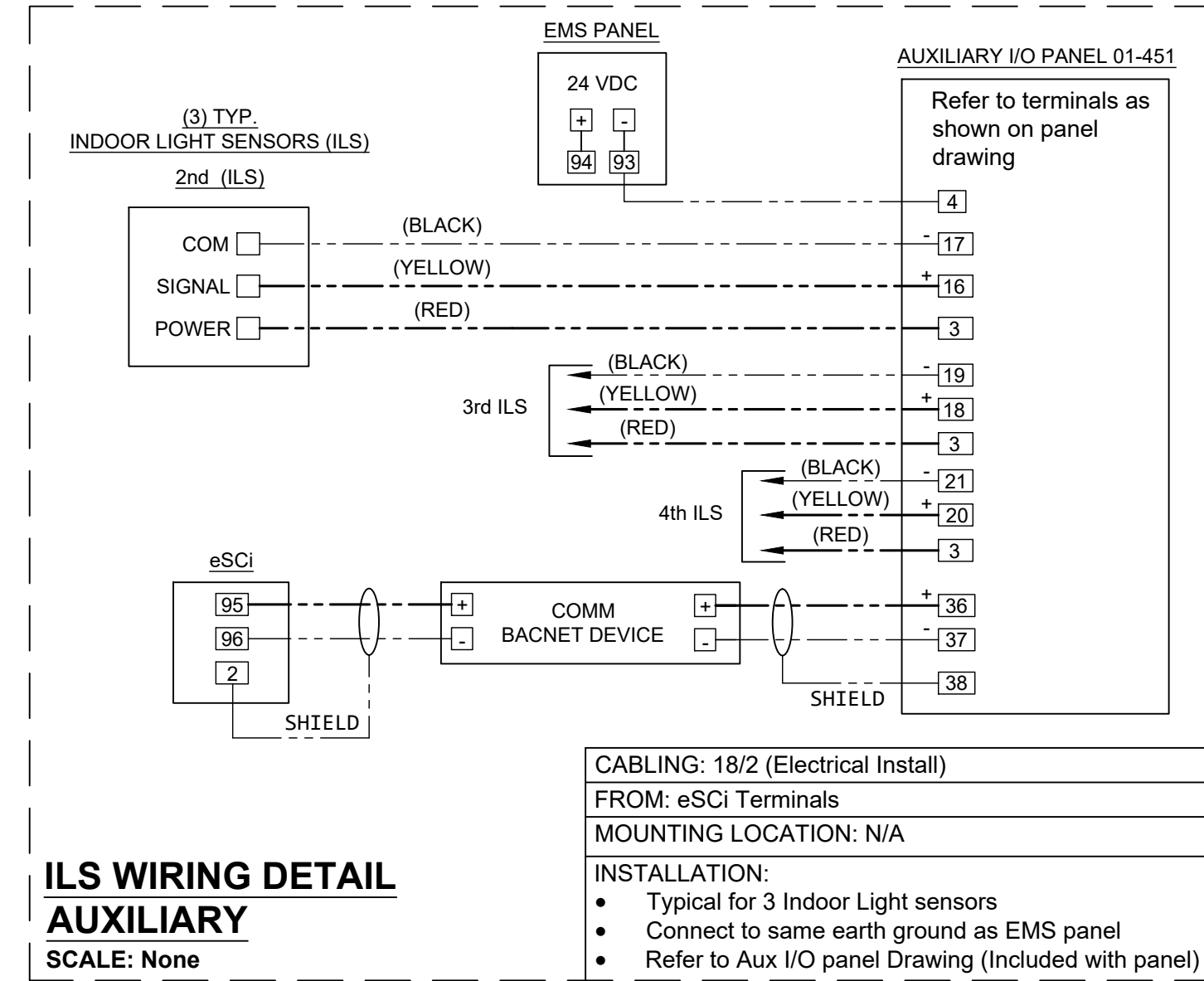
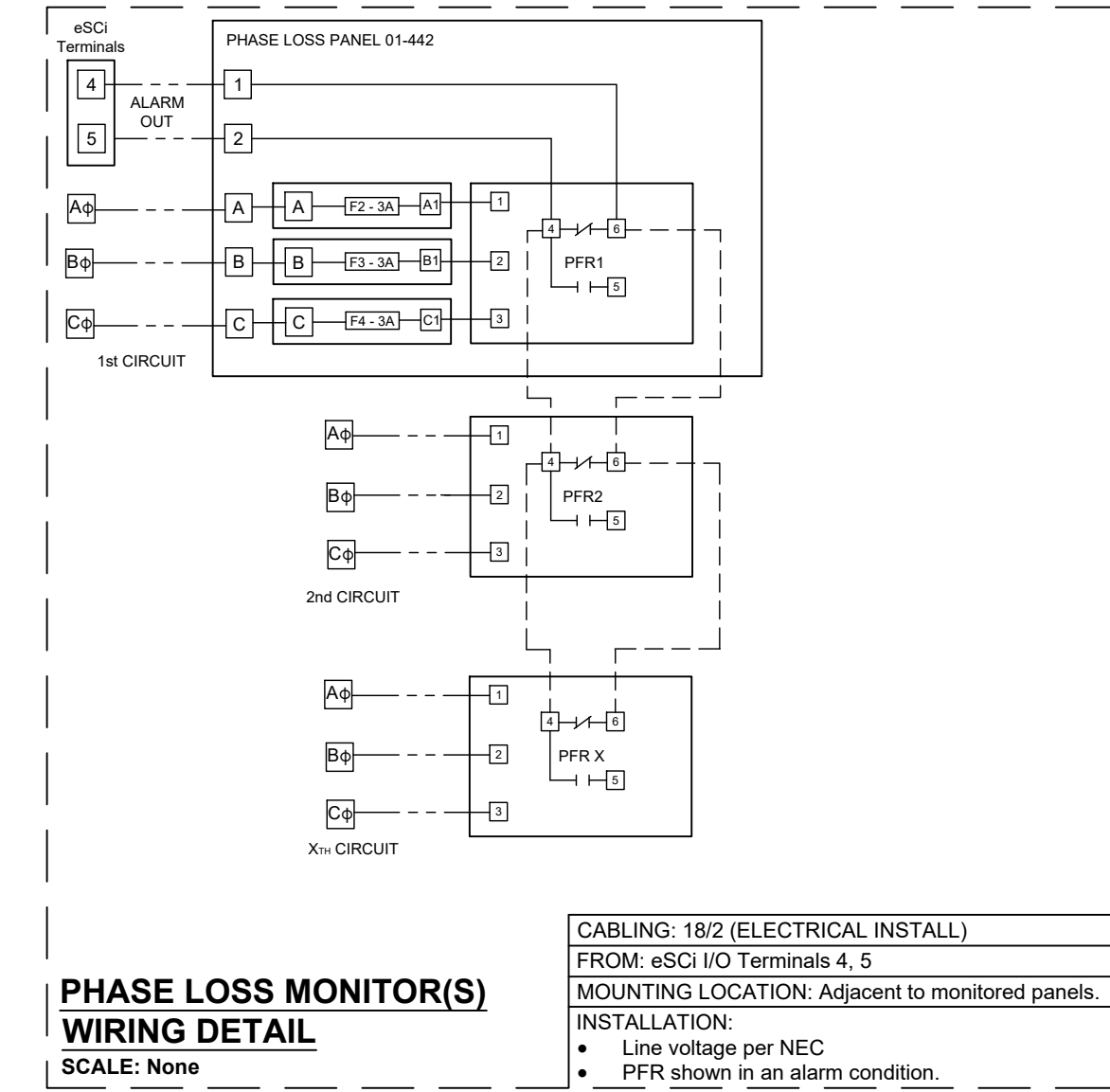
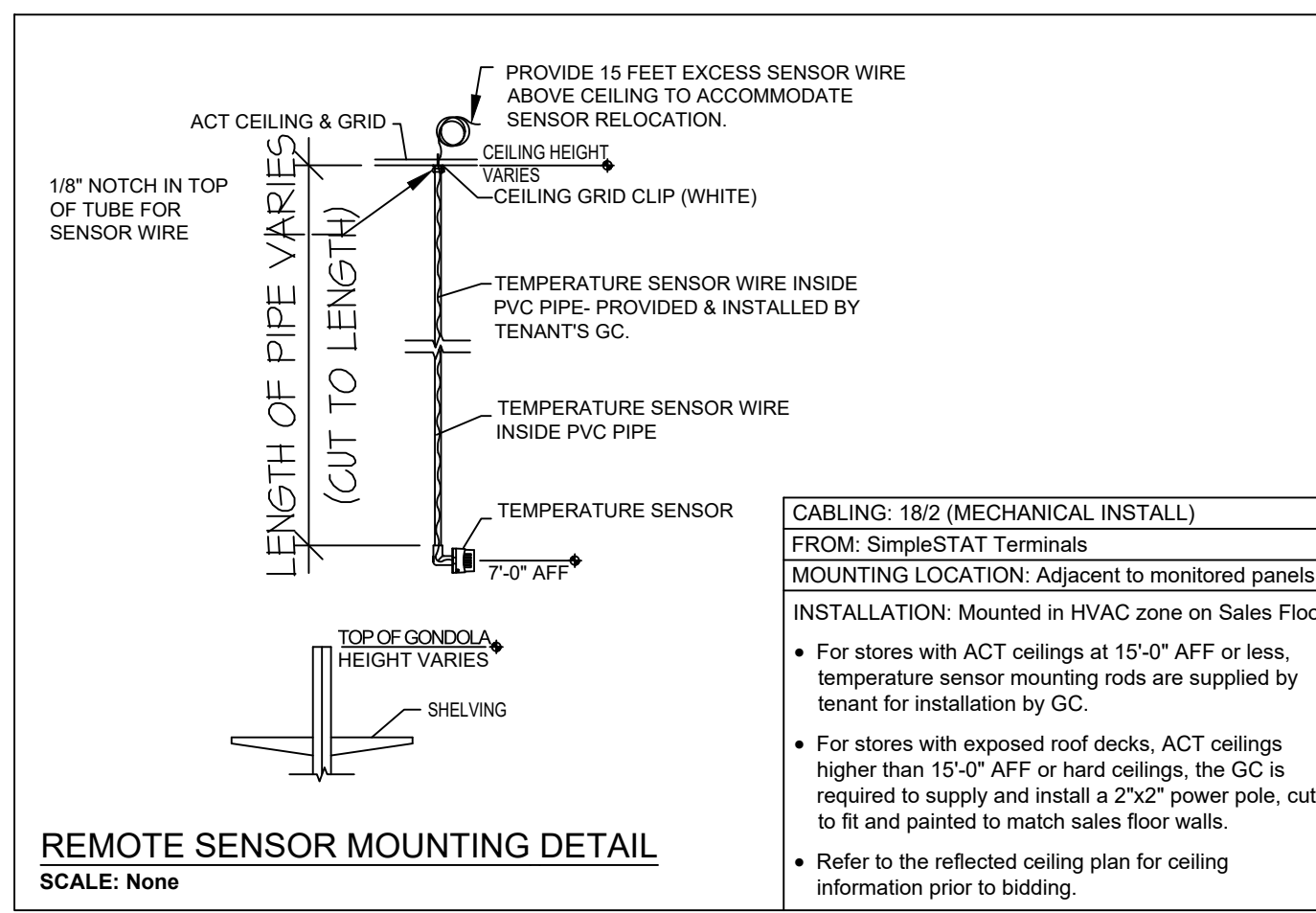
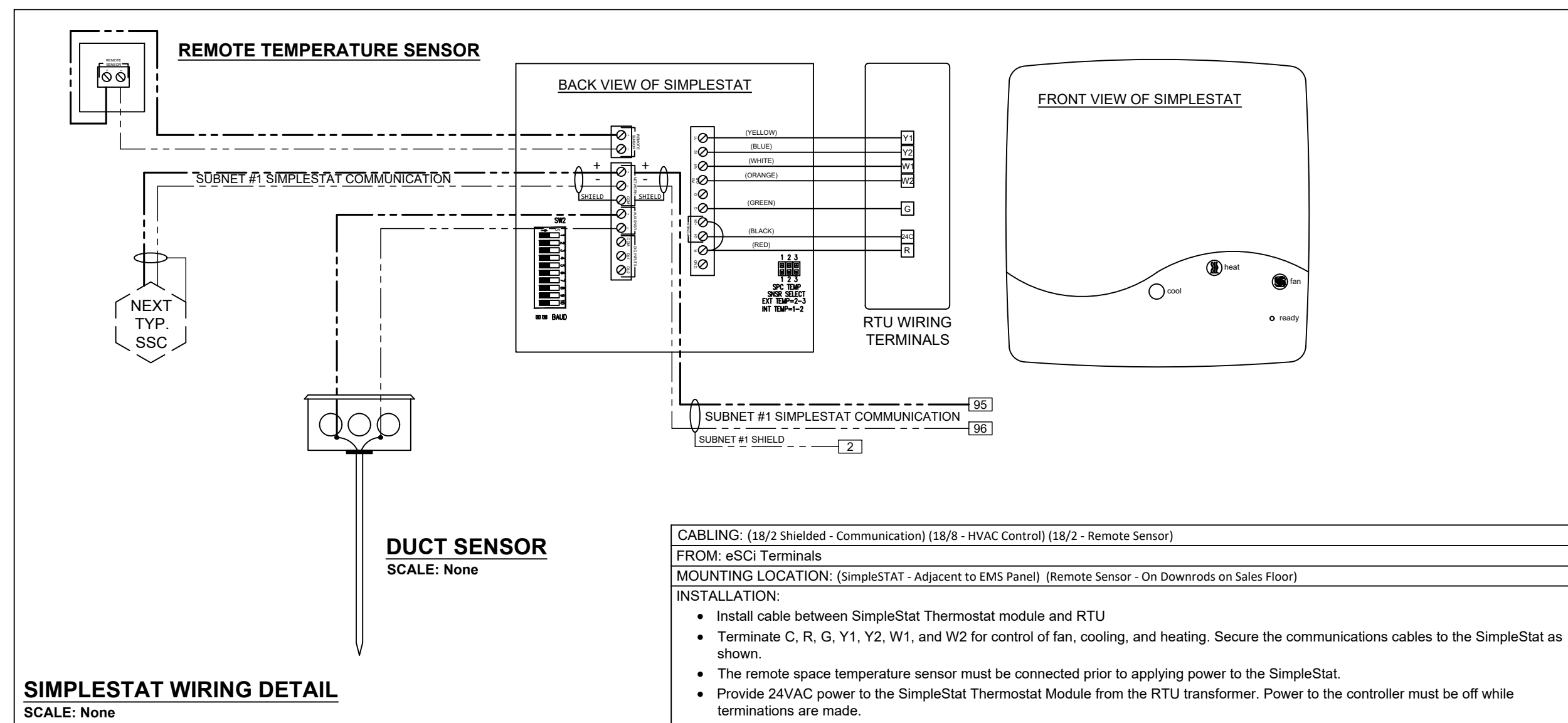
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		OPTION: P



* EACH BO IS RATED FOR A MAX LOAD OF 2 AMPS @ 24 VAC



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

DOLLAR TREE EQUIPMENT DETAILS
(FOR REFERENCE ONLY NOT TO SCALE)

REVISION: 1	DATE: 06/05/20	ECN#: 2390
LOOSE DT OPTION		
REVISION: ---	DATE: ---	ECN#: ---
REVISION: ---	DATE: ---	ECN#: ---
REVISION: ---	DATE: ---	ECN#: ---
DRAWN: WPC	CHECKED: CGP	PART #: 94-402
	OPTION: P	

ENERGY MANAGEMENT PLAN
EM-4 of 4