



6602 W GRAND PKWY N
KATY, TEXAS, 77433

CW23-0448



COSTCO
WHOLESALE
CORPORATION

730 LAKE DRIVE
ISSAQUAH, WA 98027
T: 425.313.8100
www.costco.com

CAD #:
047148000012
TLR REGISTRATION:
TABS2026000422

WARE MALCOMB

ARCHITECTURE
INTERIORS
BRANDINGS

CIVIL ENGINEERING
MEP / STRUCTURAL ENGINEERING
BUILDINGS MEASUREMENT

900 S BROADWAY, SUITE #320
DENVER, CO, 80209
P 720.488.2626

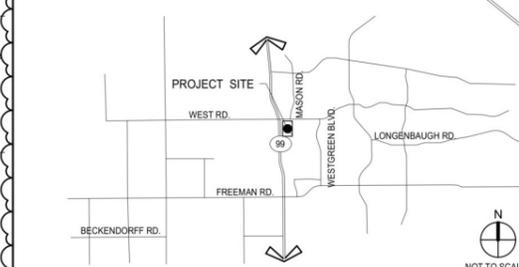
PROJECT DIRECTORY

Table with 2 columns: Role (OWNER, ARCHITECT, STRUCTURAL ENGINEER, MECHANICAL ENGINEER, ELECTRICAL ENGINEER, FIRE SPRINKLER ENGINEER, REFRIGERATION, ENERGY MANAGEMENT) and Contact Information (Name, Address, Phone, Email).

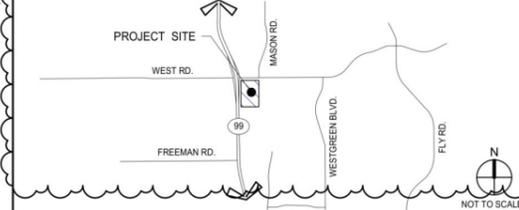
DRAWING INDEX

Table with 3 columns: Category (COVER SHEET, GENERAL, ARCHITECTURAL SITE DEVELOPMENT, ARCHITECTURAL, REFRIGERATION, FIRE ALARM, MECHANICAL, PLUMBING, ELECTRICAL) and Drawing Details (Drawing ID, Title, Sheet Count).

REGIONAL MAP



VICINITY MAP



PROJECT DESCRIPTION

THE PROJECT IS A 100,106 SF ONE STORY MERCANTILE OCCUPANCY BUILDING WITH FULLY AUTOMATIC FIRE PROTECTION SPRINKLER SYSTEM AND FIRE ALARM SYSTEM.

SCOPE OF WORK

BUILDING: THE WORK INCLUDES, BUT IS NOT LIMITED TO, BUILDING SHELL, CANOPIES, INTERIOR TENANT IMPROVEMENTS, AND FINISHES. ITEMS FURNISHED BY THE OWNER AND INSTALLED BY THE CONTRACTOR AND ITEMS FURNISHED AND INSTALLED BY THE OWNER WITH FINAL CONNECTIONS BY THE CONTRACTORS.

ARCHITECTURAL ABBREVIATIONS

Table of architectural abbreviations with columns for symbol, description, and notes.

ARCHITECTURAL SYMBOLS

Table of architectural symbols with columns for category (DETAIL, WALL SECTION, BUILDING SECTION, EXTERIOR ELEVATION, INTERIOR ELEVATION), symbol, and description.

LEGAL DESCRIPTION

PROJECT GENERAL NOTES

1. THESE GENERAL NOTES APPLY TO THE ENTIRE PROJECT AND APPLY TO ALL TRADES. 2. DRAWINGS HAVE BEEN PREPARED ON AN ORIGINAL SHEET SIZE OF 30X42 INCHES. 3. CONSULT DRAWINGS OTHER THAN ARCHITECTURAL DRAWINGS FOR ADDITIONAL GENERAL NOTES, ABBREVIATIONS AND SYMBOLS. 4. CONDITIONS AND DIMENSIONS SHOWN ON SITE PLANS ARE FROM A SURVEY PREPARED BY OTHERS OR FROM AVAILABLE RECORDS. THE ARCHITECT BEARS NO RESPONSIBILITY FOR THE ACCURACY OF INFORMATION SHOWN. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING INFORMATION SHOWN PRIOR TO STARTING THE WORK.

F. CHRISTOPHER ROYSTER, ARCHITECT



Table with 2 columns: DATE and DESCRIPTION. Includes dates 08/04/23, 08/04/23, and 11/25/23.

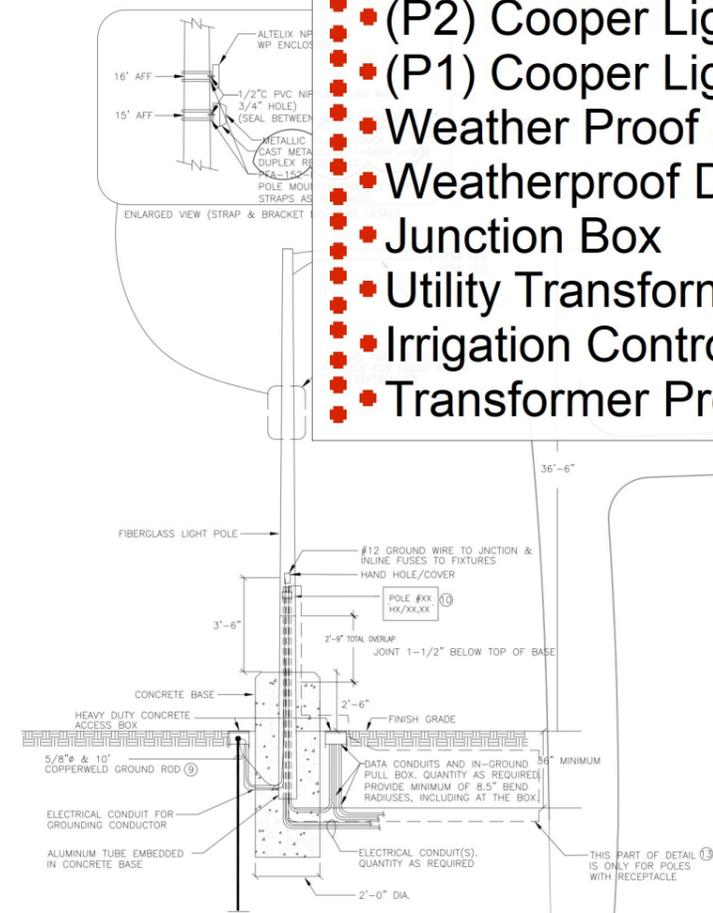
DAL24-0088-01
PM: J. CHILDERS
DRAWN BY: JC

TITLE SHEET

TS101

- (P) Cooper Lighting 31.0 EA
- (P3) Cooper Lighting 2.0 EA
- (P2) Cooper Lighting 3.0 EA
- (P1) Cooper Lighting 4.0 EA
- Weather Proof Junction Box 32.0 EA
- Weatherproof Duplex Receptacle 5.0 EA
- Junction Box 3.0 EA
- Utility Transformer 1.0 EA
- Irrigation Controller 1.0 EA
- Transformer Provided by Power CO. E... 1.0 EA

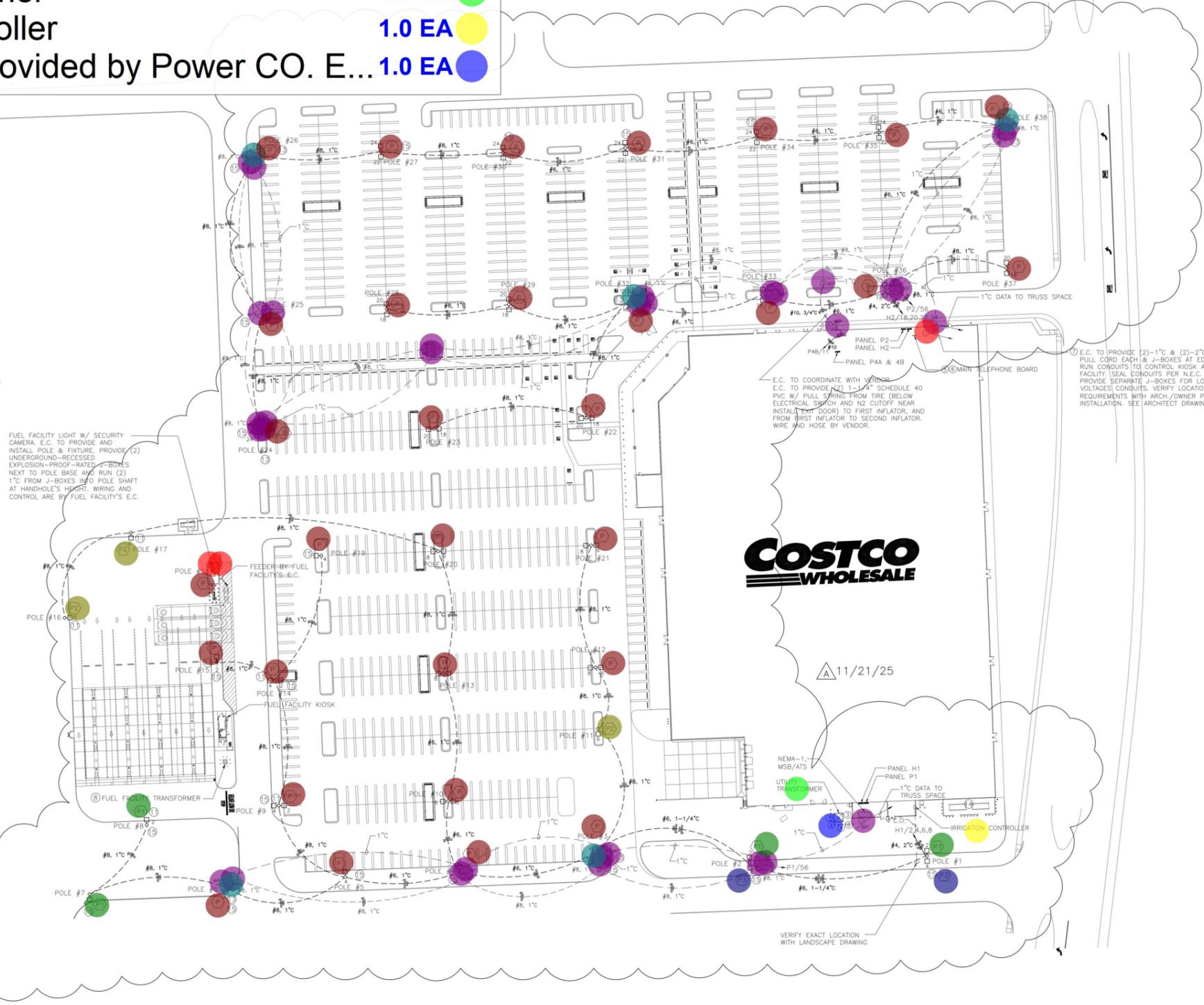
NO.	DESCRIPTION	QUANTITY	REMARKS
1	36" 6" ABOVE FINISHED GRADE. (ROUND TAPERED POLE) VALUON COSTCO-100-10-36" 6" POLE)	32	NUMBER OF HEADS SHALL BE PER PLAN. SEE DETAIL SHEET SE-1.
2	FUTURE SHALL BE POWDER PAINTED. ELECTRO-STATIC APPLICATION POLE SHALL HAVE A MIN EPA-10 FOR 100 MPH WIND.	32	



POLE DETAIL
SCALE: NTS

PLAN NOTES:

- 1 SECONDARY SERVICE LATERAL BY BUILDING E.C. VERIFY EXACT ROUTING PRIOR TO BID. SEE ONE LINE DIAGRAM. COORDINATE WITH THE POWER COMPANY FOR ALL REQUIREMENTS FOR CONNECTION OF THE TRANSFORMER. SEE NOTE 2.
- 2 TRANSFORMER IS PROVIDED BY POWER CO. E.C. SHALL COORDINATE WITH POWER COMPANY FOR ALL INSTALLATION OF TRANSFORMER & ITS CONNECTION. PROVIDE GUARD POSTS, TRANSFORMER PAD, ETC. AS REQUIRED. MEET ALL POWER COMPANY REQUIREMENTS, INCLUDE ALL CHARGES IN BID.
- 3 UTILITY METERING. INSTALL ALL METERING EQUIPMENT SUPPLY BY POWER CO. AS REQUIRED.
- 4 PRIMARY CONDUITS AND TRENCHING ARE PROVIDED BY THE E.C. VERIFY EXACT LOCATION AND REQUIREMENT WITH THE UTILITY COMPANY PRIOR TO BID. OBTAIN ALL CHARGES PRIOR TO BID, INCLUDE IN BID. SEE CIVIL DRAWINGS FOR EXACT LOCATION. PROVIDE 6" BED OF CLEAN SAND FOR PRIMARY CONDUIT. COVER WITH 12" OF CLEAN SAND. COVER WITH CABLE WARNING TAPE AND BACKFILL. PROVIDE HEAVY DUTY TRAFFIC RATED COVERPLATE FOR PULL BOX.
- 5 BUILDING E.C. PROVIDE AND INSTALL TELEPHONE TERMINAL BOARD AS DIRECTED BY THE TELEPHONE COMPANY. ALLOW (1) - 4" X 8" X 3/4" EXTERIOR PLYWOOD BOARD WITH (2) COATS VARNISH FOR BIDDING THREE (3) 4" SCHEDULE 40 ENTRANCE CONDUITS AT A DEPTH OF 36" MIN. FROM THE TELEPHONE BOARD TO THE TELEPHONE COMPANY TERMINATION POINT. A PULL WIRE MUST BE PLACED IN ALL TELEPHONE CONDUITS FOR PROOFING AND PULLING PURPOSES. ALSO PLACE A STAKE AT THE END OF ALL TELEPHONE ENTRANCE CONDUITS. VERIFY EXACT LOCATION AND REQUIREMENTS PRIOR TO BID. SEE SHEET "E-4" FOR THE TELEPHONE BOARD LOCATION. PROVIDE A #6 COPPER GROUND WIRE FROM TELEPHONE BOARD TO BUILDING GROUNDING SYSTEM.
- 6 E.C. SHALL COORDINATE WITH POWER & TELEPHONE COMPANIES TO BRING THE POWER & TELEPHONE SERVICES TO THE BUILDING. BUILDING E.C. EXTEND (3) 4" C. FROM J-BOX TO BUILDING.
- 7 E.C. TO PROVIDE J-BOX(ES) FOR FUEL FACILITY CONDUITS AS REQUIRED FOR EVERY 250' OR AFTER (2) 90 DEGREE BENDS. SEAL ALL CONDUITS PER CODE. SEE ARCHITECTURAL & CIVIL DRAWINGS FOR ROUTING.
- 8 TYPICAL FUEL FACILITY TRANSFORMER LOCATION. E.C. SHALL VERIFY REQUIREMENTS AND LOCATION WITH ARCHITECT. E.C. SHALL COORDINATE WITH POWER COMPANY FOR ALL INSTALLATION OF TRANSFORMER & ITS CONNECTION. PROVIDE GUARD POST, TRANSFORMER TRENCHING, PRIMARY CONDUIT, ETC. AS REQUIRED. MEET ALL POWER COMPANY REQUIREMENTS, INCLUDE ALL CHARGES IN BID.
- 9 E.C. TO PROVIDE COPPERWELD 5/8" X 10' LONG GROUND ROD AT THE LIGHT POLE TYP. BOND GROUND WIRES TO GROUND ROD.
- 10 POLE MANUFACTURER TO PROVIDE POLE ID ON THE HANDHOLE COVER. LABEL POLE NUMBER AND CIRCUIT NUMBER PER PLAN. EXAMPLE: POLE #1, H1/2, 4, 2" X 4" LABEL. 1/4" HIGH ENGRAVED LETTERS. COVER SHALL BE SECURED WITH TAMPER-PROOF SCREWS. E.C. TO VERIFY CIRCUIT NUMBERS PER PLAN AND ENSURE THE CORRECT INSTALLATION OF LABEL / COVER FOR EACH POLE.
- 11 E.C. TO SEAL UNDERGROUND CONDUITS WITHIN 10' OF ENTERING GROUND ON BOTH ENDS. SEAL POLE AND ASSOCIATED J-BOX. PROVIDE EXPLOSION-PROOF-RATED J-BOX AND OTHER ELECTRICAL DEVICES NEAR FUELING FACILITY. REFER TO NEC ARTICLE 514.
- 12 BUILDING E.C. TO MAKE ALL FINAL CONNECTIONS FOR ALL NITROGEN DISPENSER.
- 13 E.C. TO PROVIDE 1" DATA AND 1" FOR POWER FOR CAMERAS ON POLES. COORDINATE W/ POLE MANUFACTURER TO PROVIDE 3/4" HOLE @ 15" A.F.G. AND 3/4" HOLE AT 16" A.F.G. E.C. IS RESPONSIBLE TO PROVIDE AND INSTALL ALL ACCESSORIES PER DETAIL AND MAKE ALL FINAL CONNECTIONS TO POLE RECEPTACLE. VERIFY EXACT LOCATION WITH OWNER PRIOR TO ROUGH-IN.
- 14 G.C. TO PROVIDE SERVICE PLATFORM FOR GENERATORS.
- 15 PROVIDE SEPARATE CIRCUIT/CONTROL FOR SHARED DRIVEWAY SEE LIGHTING CONTROL SCHEDULE PANEL H1 & H2 ON SHEET "E-1".



SITE ELECTRICAL PLAN
SCALE: 1" = 50'-0"

BID SET



Hardy Widjaja Digitally signed by Hardy Widjaja Date: 2025.11.19 16:13:29 -0800

DATE	DESCRIPTION	PROJECT STATUS	BID
08/04/25	ISSUED FOR CA		
09/03/25	PERMIT		
11/21/25	BID SET		

T.E. INC.
REGISTERED ENGINEERING FIRM
850 N. RIVERSIDE DRIVE
SUITE #200
BENTON, WA 98007
PHONE: 425-773-3763
FAX: 425-970-3760

NEW WAREHOUSE (NORTH KATY)
GRAND PKWY & WEST RD
CYPRESS, TX 77433



TEI #: 24-858
PM: MAA
CHECKED BY: HW/JGM
ISSUED: 09/03/25

SITE ELECTRICAL PLAN, DETAIL, LIGHTING FIXTURE SCHEDULES, AND NOTES

SE-1

11/19/2025 10:10:46 AM C:\Users\masa\Documents\952_MEP_CENTRAL_2023_masa\G2\G2.rvt



Hardy Widjaja
Digitally signed by Hardy Widjaja
Date: 2025.11.19 15:33:48 -08'00'

DATE	DESCRIPTION	PROJECT STATUS: BID
08/03/25	ISSUED FOR CA	
09/03/25	PERMIT	
11/21/25	BID SET	

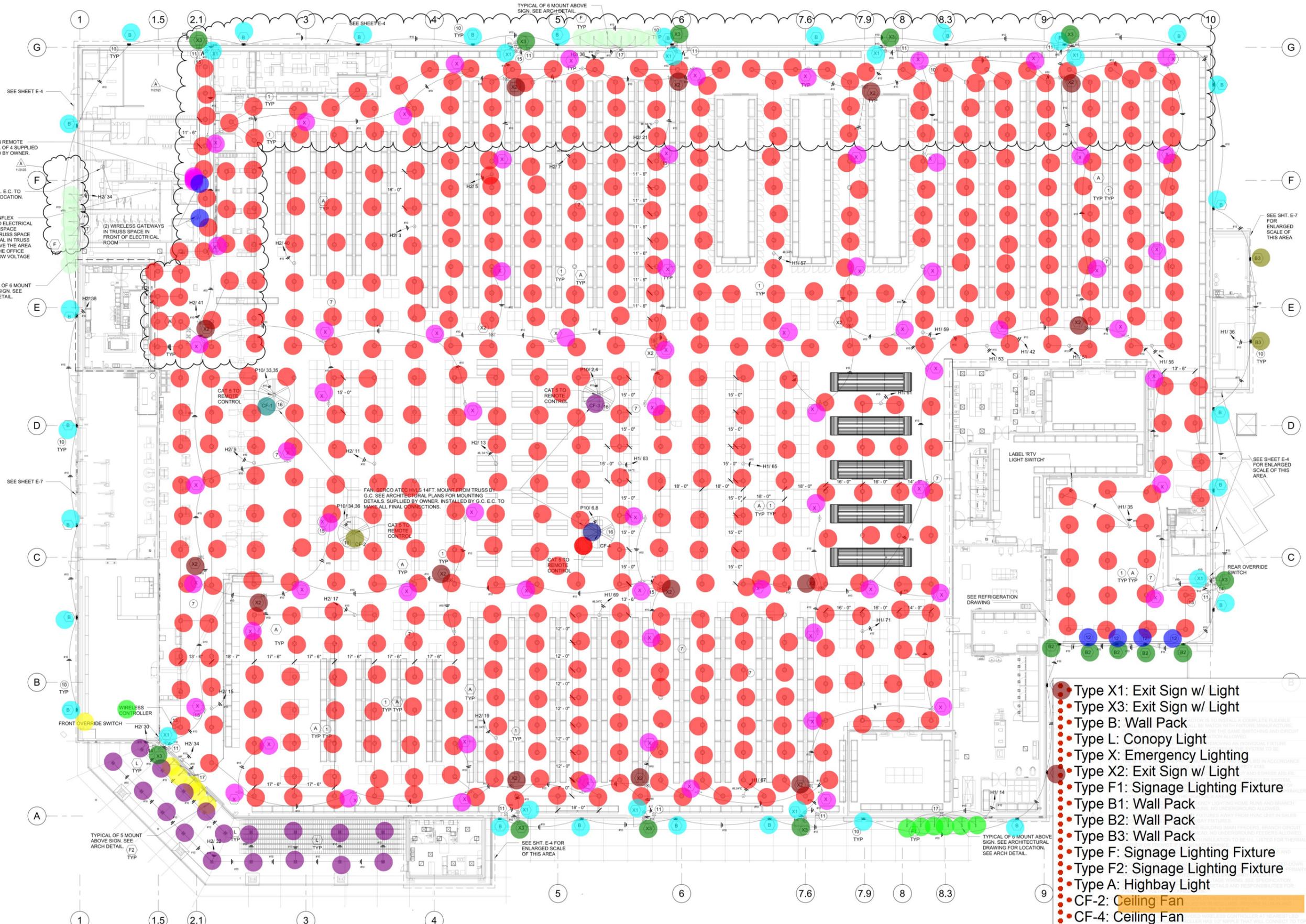
T.E., INC.
TEXAS REGISTERED ENGINEERING FIRM
FIRM # 002887
SUITE # 200
BENTON, WA 98007
PHONE: 425-970-3753
FAX: 425-970-3756

NEW WAREHOUSE (NORTH KATY)
10000 WY & WEST RD
DALLAS, TX 75243

COSTCO WHOLESALE

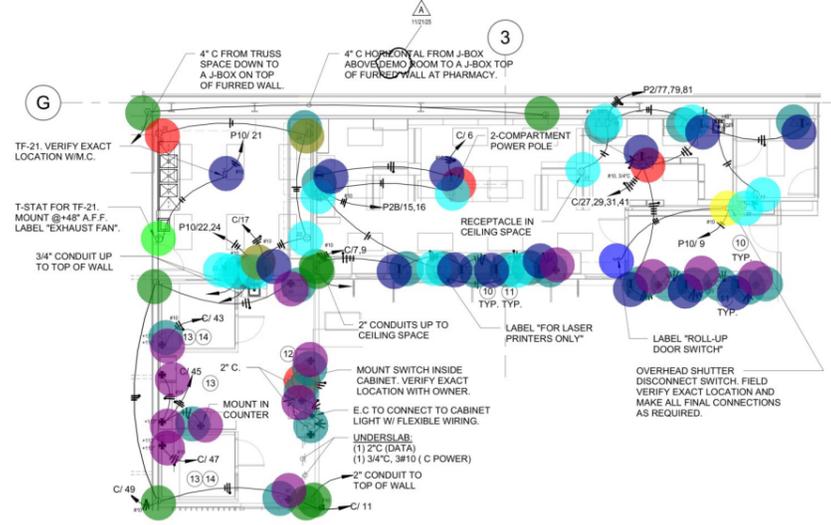
TEI #: 24-858
PM: MAA
CHECKED BY: HWT
ISSUED: 09/03/25
LIGHTING PLAN
E-3

BID SET

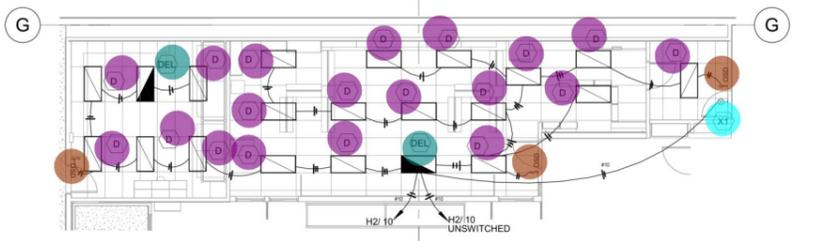


LIGHTING PLAN
SCALE: 1/16" = 1'-0"

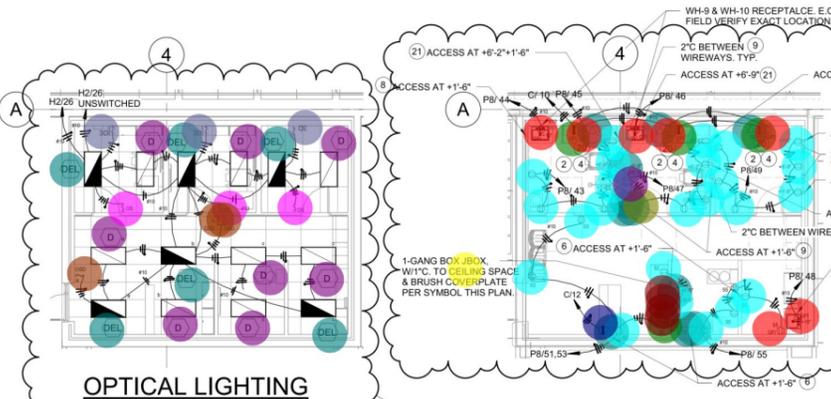
Type X1: Exit Sign w/ Light	10.0 EA
Type X3: Exit Sign w/ Light	10.0 EA
Type B: Wall Pack	27.0 EA
Type L: Conopy Light	18.0 EA
Type X: Emergency Lighting	70.0 EA
Type X2: Exit Sign w/ Light	14.0 EA
Type F1: Signage Lighting Fixture	6.0 EA
Type B1: Wall Pack	2.0 EA
Type B2: Wall Pack	5.0 EA
Type B3: Wall Pack	2.0 EA
Type F: Signage Lighting Fixture	12.0 EA
Type F2: Signage Lighting Fixture	5.0 EA
Type A: Highbay Light	557.0 EA
CF-2: Ceiling Fan	1.0 EA
CF-4: Ceiling Fan	1.0 EA
CF-3: Ceiling Fan	1.0 EA
CF-1: Ceiling Fan	1.0 EA
CAT 5	4.0 EA
Wireless Controller	1.0 EA
Front Override Switch	1.0 EA
Wireless Gateways (Junction Box)	2.0 EA
Single Pole Fan Remote Controller (S & Installed ...)	4.0 EA
Type H: Flood Light	4.0 EA



PHARMACY, DEMO ROOM & HEARING AID CENTER POWER
 SCALE: 1/8" = 1'-0"

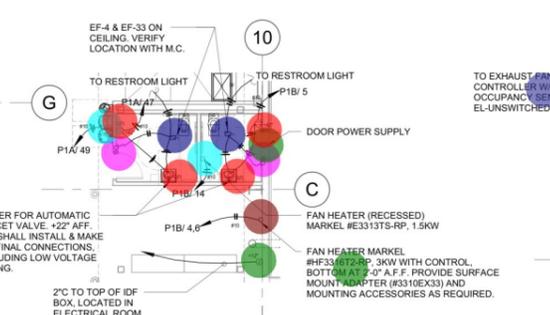


PHARMACY & DEMO ROOM LIGHTING
 SCALE: 1/8" = 1'-0"

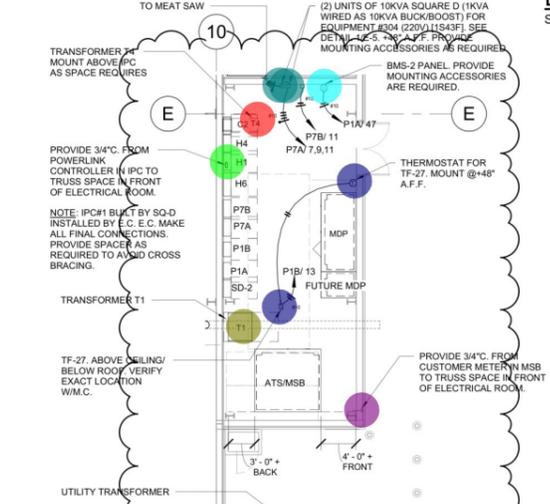


OPTICAL LIGHTING
 SCALE: 1/8" = 1'-0"

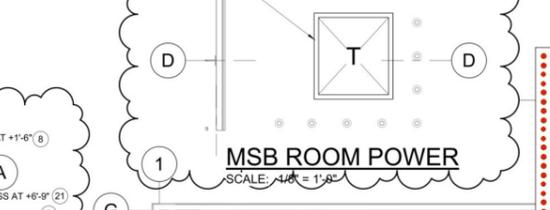
OPTICAL EXAM POWER
 SCALE: 1/8" = 1'-0"



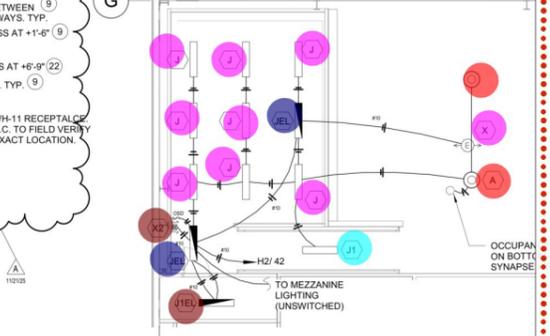
EMPLOYEE R.R. POWER
 SCALE: 1/8" = 1'-0"



EMPLOYEE R.R. LIGHTING
 SCALE: 1/8" = 1'-0"

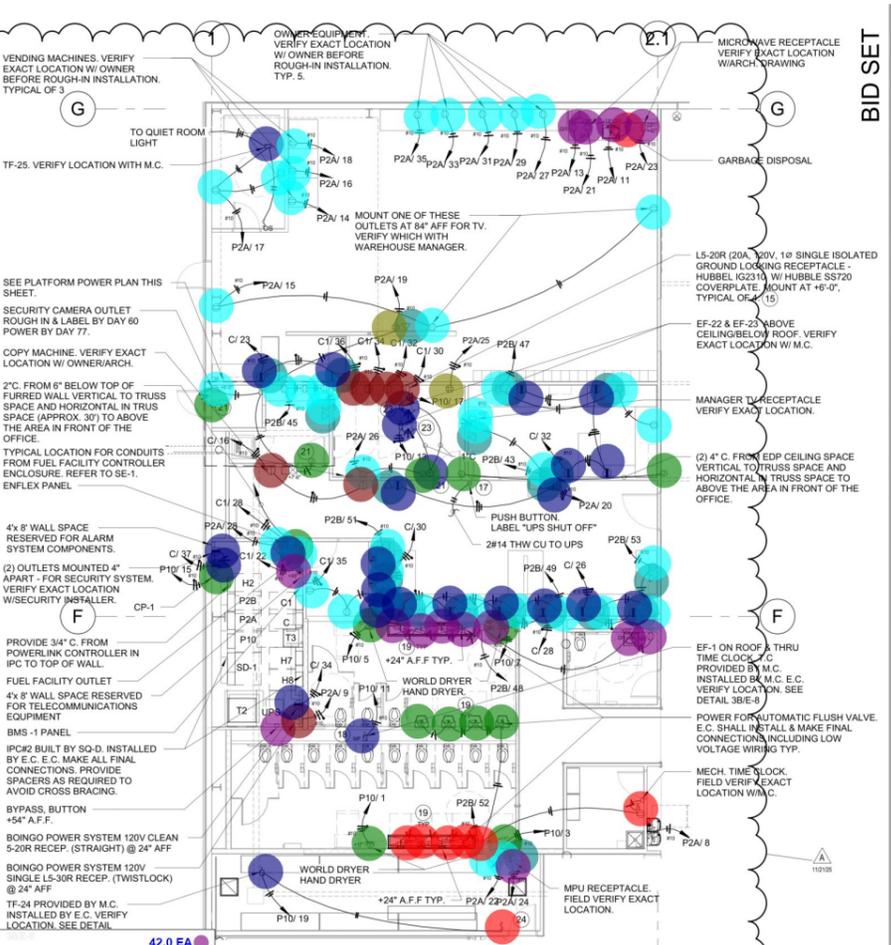


MSB ROOM POWER
 SCALE: 1/8" = 1'-0"

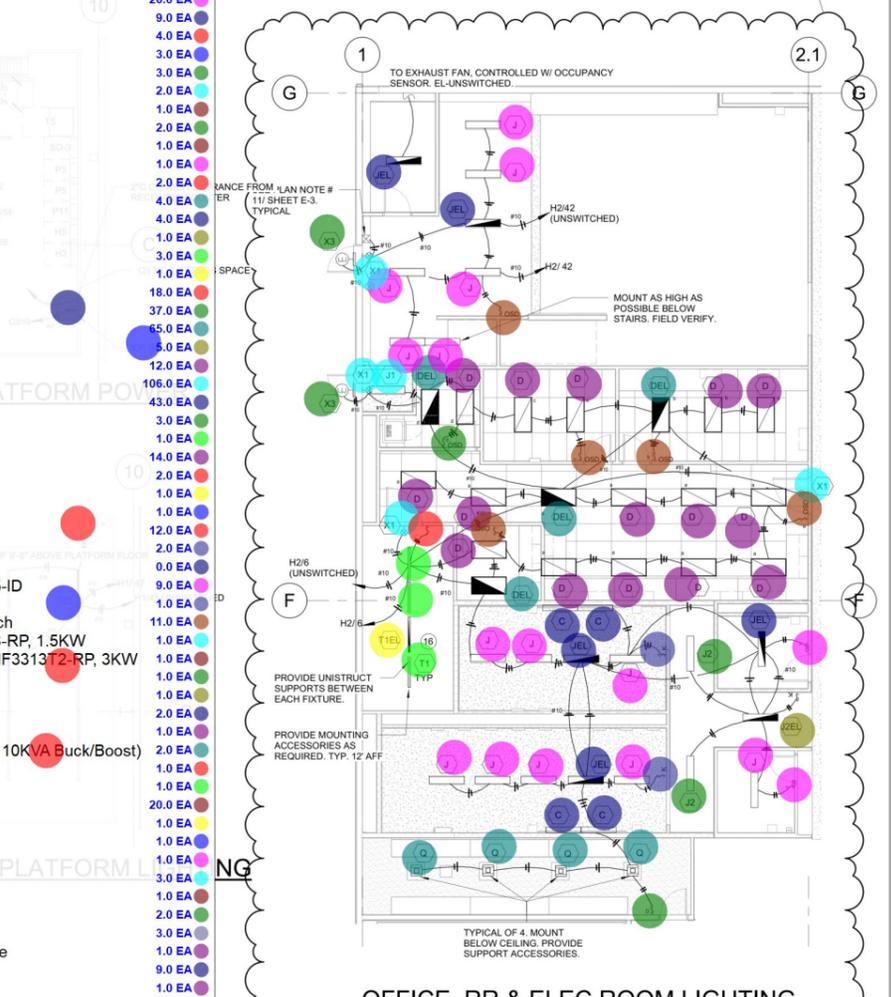


MSB ROOM LIGHTING
 SCALE: 1/8" = 1'-0"

- Type D: 2X4 Troffer
- Type DEL: 2X4 Troffer
- Type X1: Exit Sign w/ Light
- Type J: Ceiling Light
- Type JEL: Ceiling Light
- Type T: Indoor Lighting
- Type X3: Exit Sign w/ Light
- Type J1: Ceiling Light
- Type J1EL: Ceiling Light
- Type J2: Ceiling Light
- Type X2: Exit Sign w/ Light
- Type X: Emergency Lighting
- Type A: Highbay Light
- Type Q: Conopy Light
- Type C: Bathroom Mirror Light
- Type J2EL: Ceiling Light
- Type T1: Indoor Lighting
- Type T1EL: Indoor Lighting
- GFI Duplex Receptacle
- Junction Box
- Data Outlet
- QuadPlex Receptacle
- GFI QuadPlex Receptacle
- Duplex Receptacle
- Isolated Ground Duplex Receptacle
- GFI Isolated Ground Duplex Receptacle
- T-Stat
- Isolated Ground Quadplex Receptacle
- 2-Compartment Power Pole
- Over-Head Shutter Disconnect Switch
- Roll Up Door Switch
- Single Pole Switch
- Single Pole Switch w/ Key
- Disconnect Switch
- Occupancy Sensor Switch Leviton ODS15-ID
- Occupancy Sensor EL-UnSwitch
- 0-10V Occupancy Sensor & Dimmer Switch
- Fan Heater (Recessed) Markel #E3313TS-RP, 1.5KW
- Fan Heater Maelkel (Recessed) Markel #HF3313T2-RP, 3KW
- Surface Mounted adapter (#3310EX33)
- Transformer T1
- Thermostat
- Customer Meter
- Units of 10KVA Square D (1KVA Wired as 10KVA Buck/Boost)
- Transformer T4
- Power Link Controller
- Single Plug in Receptacle
- I Gang Box JBox
- IDF Box
- 33'-8" Long White Plug Mold
- 3'-4" Long White Plug Mold
- 7'-2" Long White Plug Mold
- Dimmer Switch
- 3 Way Dimmer Switch
- Weather Proof GFCI QuadPlex Receptacle
- Fused Disconnect
- Bypass Button



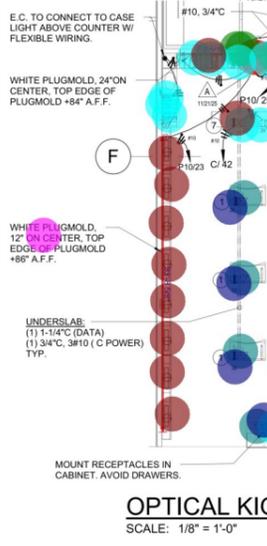
OFFICE, RR & ELEC. ROOM POWER
 SCALE: 1/8" = 1'-0"



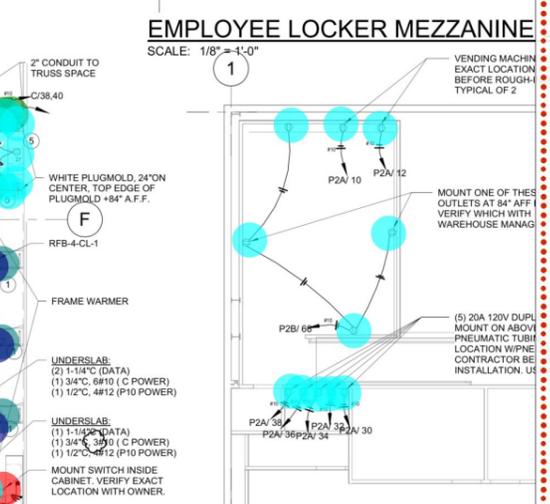
OFFICE, RR & ELEC. ROOM LIGHTING
 SCALE: 1/8" = 1'-0"

PLAN NOTES - E4

- 1 FLOOR BOX & ASSOCIATED ACCESSORIES (MAKE: LEGRAND, MODEL: RFB-4-C-1, CILT-24R, FPBTKC, FP-CTR, & PKER-30) FOR RECEPTACLE AND DATA OUTLET. VERIFY EXACT LOCATION WITH OWNER PRIOR TO ROUGH-IN INSTALLATION.
- 2 E.C. TO MAKE ALL FINAL ELECTRICAL CONNECTIONS (INCLUDING LOW-VOLTAGE) FOR ALL OWNER SUPPLIED EQUIPMENT.
- 3 PLUGMOLD & LIGHTING IN KIOSK ARE SUPPLIED BY OWNER. INSTALLED BY ELECTRICAL CONTRACTOR.
- 4 ALL OUTLETS, LIGHT SWITCHES, ELECTRICAL DEVICES IN EXAM ROOMS SHALL BE HOSPITAL GRADE, NO M.C. (FLEX) WIRING ALLOWED. VERIFY EXACT LOCATION WITH OWNER PRIOR TO ROUGH-IN INSTALLATION.
- 5 E.C. TO MAKE ALL FINAL ELECTRICAL CONNECTIONS (INCLUDING LOW-VOLTAGE) FOR ALL OWNER SUPPLIED EQUIPMENT.
- 6 PROVIDE PLUGMOLD, WITH RECEPTACLE EVERY 12" ON CENTER. MOUNT PLUGMOLD ABOVE COUNTER.
- 7 WHITE 2-GANG BRUSH COVERPLATE, WITH LOW VOLTAGE 2-GANG MOUNTING PLATE WITH ACCESS PENETRATION (2-1/2" SNAP IN BUSHING) TO HOFFMANN 3"x3" WIREWAY FOR OWNER INSTALLED DATA CABLING AT HEIGHTS SHOWN ON POWER PLAN. PROVIDE AN ADDITIONAL 2-1/2" SNAP IN BUSHING TO HOFFMANN 3"x3" WIREWAY AT 8'-0" (IN CEILING SPACE, NO COVERPLATE NEEDED). TYPICAL FOR ALL DATA CHASES. PROVIDE ALL ACCESSORIES AS REQUIRED. BUSHING, COVERPLATE, MOUNTING PLATE & HOFFMANN 3"x3" WIREWAY TO BE PURCHASED/SUPPLIED FROM GRAYBAR ELECTRIC (206-292-4848). SEE DETAIL 15E-8 AND ARCHITECTURAL OPTICAL PLANS. PROVIDE PULL STRING IN CHASES.
- 8 MOUNT CLEAN POWER RECEPTACLE IN LOWER CABINetry ON THE INNER SIDE WALL OF CABINET TO MAKE SURE CABINET DRAWER CAN CLOSE PROPERLY WITH CORD PLUGGED INTO THE RECEPTACLE. COORDINATE EXACT LOCATION WITH REGIONAL OPTICAL MANAGER.
- 9 SAME AS NOTE #8, EXCEPT USE HOFFMANN 4"x4" WIREWAY AT THIS LOCATION IN EACH OPTICAL EXAM.
- 10 WHITE 2-GANG BRUSH COVERPLATE, WITH LOW VOLTAGE 2-GANG MOUNTING PLATE WITH ACCESS PENETRATION (2-1/2" SNAP IN BUSHING) TO HOFFMANN 4"x4" WIREWAY FOR OWNER INSTALLED DATA CABLING AT HEIGHTS SHOWN ON POWER PLAN. PROVIDE 2" HORIZONTAL CONDUIT BETWEEN THE (2) 4"x4" WIREWAYS IN EACH EXAM ROOM. 1 FT HOFFMANN 4"x4" WIREWAYS TO BE PURCHASED/SUPPLIED FROM GRAYBAR ELECTRIC (206-292-4848). SEE DETAIL 15E-8 AND ARCHITECTURAL OPTICAL PLANS. PROVIDE PULL STRING IN CHASES.
- 11 MOUNT RECEPTABLES, DATA/TELEPHONE OUTLETS, J-BOXES ETC. INSIDE COUNTER ROUTE CONDUITS TO WALL FOR VERTICAL RUNS. PROVIDE 3/4" FROM EACH INDIVIDUAL DATA/TELEPHONE OUTLET TO SIDE WALL J-BOX. COORDINATE WITH DATA INSTALLER FOR EXACT REQUIREMENT.
- 12 MOUNT RECEPTABLES, DATA/TELEPHONE OUTLETS, J-BOXES ETC. CONCEALED IN WALL RUN HORIZONTAL CONDUITS CONCEALED IN WALL TO SIDE WALL FOR VERTICAL RUNS CONCEALED IN WALL UP TO CEILING. PROVIDE 3/4" FROM EACH INDIVIDUAL DATA/TELEPHONE OUTLET TO SIDE WALL J-BOX. COORDINATE WITH DATA INSTALLER FOR EXACT REQUIREMENT.
- 13 MOUNT RECEPTABLES, DATA/TELEPHONE OUTLETS, J-BOXES ETC. CONCEALED IN WALL RUN HORIZONTAL CONDUITS CONCEALED IN WALL TO SIDE WALL FOR VERTICAL RUNS CONCEALED IN WALL UP TO CEILING. PROVIDE 3/4" FROM EACH INDIVIDUAL DATA/TELEPHONE OUTLET TO SIDE WALL J-BOX. COORDINATE WITH DATA INSTALLER FOR EXACT REQUIREMENT.
- 14 NO CONDUIT ATTACHED TO OR TOUCHING BOOTH.
- 15 E.C. PROVIDE RED COVERPLATE AND ORANGE GFI RECEPTABLES FOR ALL PANEL C1 RECEPTABLES. PROVIDE LABEL 'UPS PROTECTED OUTLET, I.S. EQUIPMENT ONLY' AT TOP OF COVERPLATE AND 'C1' (CIRCUIT #) AT BOTTOM.
- 16 LIGHTING IN ELECTRICAL ROOM SHALL BE CONNECTED TO UNSWITCHED TEL BREAKER POLE.
- 17 UPS SHUTDOWN PUSH-BUTTON (S/D) KRHRH13, W/ INTERMATIC WP1010MMD COVER, PROVIDE RED LAMACOID LABEL 'UPS SHUTOFF'. LOCATE BUTTON 6" FROM HINGE OF DOOR, OUTSIDE OF ROOM, 6' ABOVE FLOOR.
- 18 EF-1 ON ROOF & THRU TIME CLOCK, T.C. PROVIDED BY M.C. E.C. INSTALLED. VERIFY LOCATION. SEE DETAIL 38E-8.
- 19 POWER FOR AUTOMATIC FLUSH VALVE, E.C. SHALL INSTALL & MAKE FINAL CONNECTIONS, INCLUDING LOW VOLTAGE WIRING TYP.
- 20 E.C. TO LABEL 'CLEAN POWER' AT TOP OF COVERPLATE AND 'C' (CIRCUIT #) AT BOTTOM.
- 21 SAME AS NOTE #6, EXCEPT USE HOFFMANN 5' 3"x3" WIREWAY AT THIS LOCATION, E.C. FIELD CUT.
- 22 SAME AS NOTE #6, EXCEPT USE HOFFMANN 4' 3"x3" WIREWAY AT THIS LOCATION, ACCESS ON BOTH SIDES OF WALL. WIREMOLD (2) 437-C7 ATTACHMENT RINGS.
- 23 E.C. SUPPLY AND INSTALL 6"x6"x4" NEMA-1 ENCLOSURE ABOVE CEILING NEAR EF FOR AIR BALANCE KIT (KIT SUPPLIED BY M.C.). MOUNT KIT AND SUPPLY POWER. LOW VOLTAGE WIRING BY M.C.
- 24 E.C. TO PROVIDE & INSTALL MARK TIMER IN SINGLE GANG BOX TO CONTROL TRANSFER FAN. MANUFACTURER: INTERMATIC MODEL # FF 12HC.



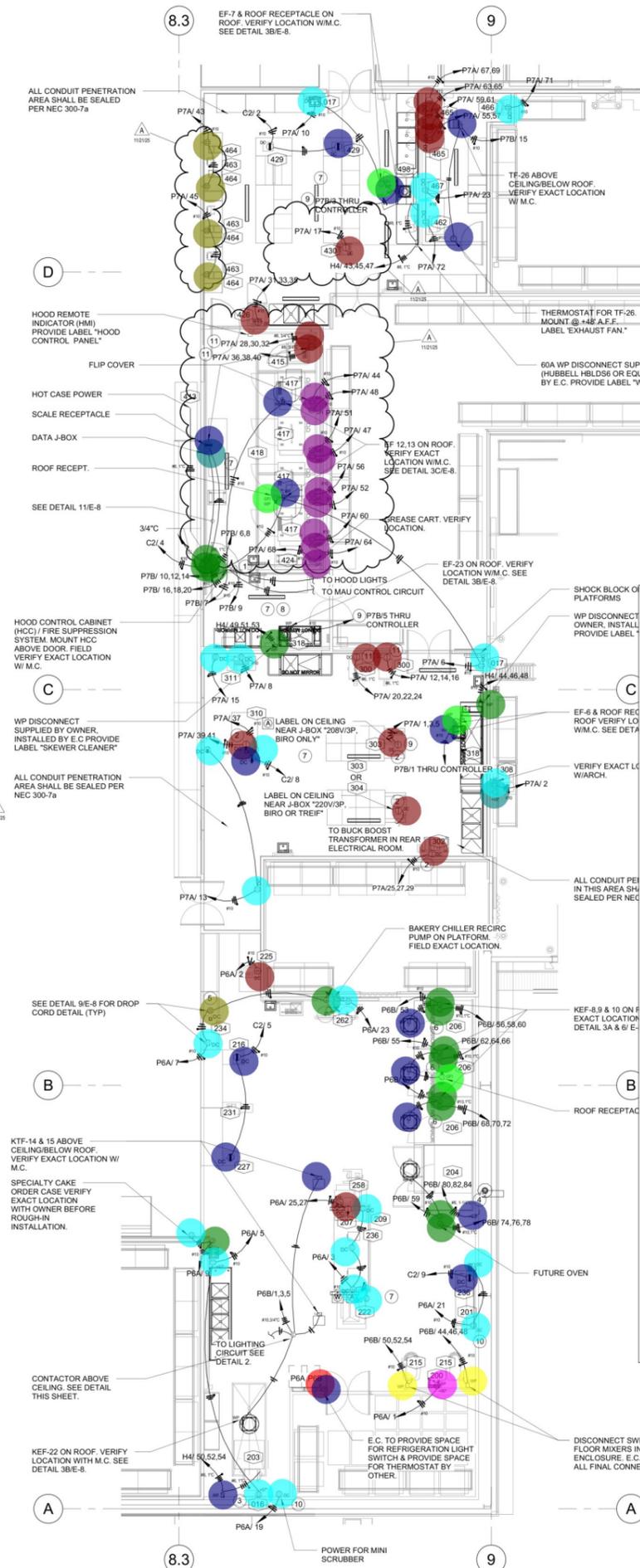
OPTICAL KIOSK POWER
 SCALE: 1/8" = 1'-0"



EMPLOYEE LOCKER MEZZANINE POWER
 SCALE: 1/8" = 1'-0"

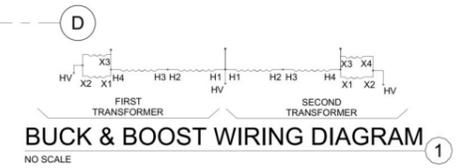
BAKERY, SUSHI, MEAT, ROTISSERIE, & DELI DEPARTMENT EQUIPMENT LIST				
(ALL OUTLETS, J-BOXES, DISCONNECT, ETC., IN MEAT, ROTISSERIE, CHICKEN PREP, BAKERY, & DELI DEPARTMENTS SHALL BE WATERTIGHT TYPE, DROP CORD RECEPTABLES MOUNTING HEIGHT IS 6'-6" UNLESS OTHERWISE SPECIFIED.)				
NUMBER	DESCRIPTION	MCO/P	LOADS	REMARKS
016	WEST COAST INSECT LIGHT	20A/1P	115V/1P	WALL MOUNTED DUPLEX OUTLET 57" A.F.F.
017	ECOLAB FORMULA FOAM CLEANING SYSTEM	15A/1P	120V/1P, 5A	DROP CORD DUPLEX RECEPT 6'-6" A.F.F.
200	BAXTER WATER METER	20A/1P	115V/1P, 10A	GFI RECEPT, +90" A.F.F. MOUNT BETWEEN PLUMBING PIPING
201	BAXTER SPICE RACK & MIX TABLE	20A/1P	115V/1P	DROP CORD DUPLEX OUTLET 47" A.F.F.
203	LVO RACK WASHER	50A/3P	480V/3P, 35.6A	60A/3P DISCONNECT SWITCH WITH 50AF, 480V/3P/4W +48" A.F.F. SEE NOTE 3
204	HOBART PW3S-SEFAA PROOFBOX	45A/3P	208V/3P, 35.5 FLA	60A/3P DISCONNECT SWITCH WITH 45AF +84" A.F.F.
206	HOBART/BAXTER RACK OVEN	15A/3P	208V/3P, 4.4A & 120V/1P, 20A	DIRECT WIRE TO OVEN
207	COMTEC PIE STAMP MACHINE	20A/2P	208V/1P, 10A	NEMA 6-20R, DROP CORD SINGLE OUTLET 6'-6" A.F.F.
209	FOOD PROCESSOR	20A/1P	120V/1P, 10A	DROP CORD DUPLEX RECEPT 6'-6" A.F.F.
215	HOBART MIXER - 140 QT	30A/3P	208V/3P, 9HP, 14.4A	DIRECT WIRING
216	BAKERY SCALES	20A/1P	115V/1P	DROP CORD SINGLE ISOLATED GROUND OUTLET 6'-6" A.F.F. DEDICATED CIRCUIT & GROUND
222	MUFFIN DEPOSITOR	20A/1P	120V/1P	DROP CORD DUPLEX RECEPT 6'-6" A.F.F.
225	200T MIXER	20A/1P	120V/1P, 11.5A	DROP CORD DUPLEX RECEPT 6'-6" A.F.F.
227	LABEL PRINTER	20A/1P	115V/1P	DROP CORD SINGLE ISOLATED GROUND OUTLET 6'-6" A.F.F. DEDICATED CIRCUIT & GROUND
231	JELLY QUICK GLAZE SPRAYER	20A/1P	115V/1P, 13A	NEMA L5-20R, DROP CORD SINGLE OUTLET +78" A.F.F.
234	CAKE SLICER	20A/1P	115V/1P	DROP CORD GROUND OUTLET, 6'-6" A.F.F.
236	DIGITAL SCALE	20A/1P	115V/1P	DROP CORD GROUND OUTLET, 6'-6" A.F.F.
258	MOULDER	20A/2P	208V/1P, 8A	NEMA 6-20R, DROP CORD SINGLE OUTLET 6'-6" A.F.F.
262	FAN WITH BASE	20A/1P	115V/1P, 2.5A	DROP CORD DUPLEX RECEPT 6'-6" A.F.F. SEE NOTE 2. HBL2A25SW CONNCTOR (RECEPTACLE), PLUG SUPPLIED BY OWNER, E.C. INSTALLED.
300	BIRO MIXER/GRINDER	60A/3P	208V/3P, 7.5HP	DROP CORD WATERPROOF SINGLE OUTLET 6'-6" A.F.F. RECEPTACLE & PLUG SUPPLIED BY OWNER, E.C. INSTALLED.
302	ROSS MEAT TENDERIZER	20A/3P	208V/3P, 3HP, 16.5A	DROP CORD WATERPROOF SINGLE OUTLET 6'-6" A.F.F. SEE NOTE 2. HBL2A25SW CONNCTOR (RECEPTACLE), PLUG SUPPLIED BY OWNER, E.C. INSTALLED.
303	BIRO MEAT SAW	20A/3P	208-230V/3P, 2HP, 10.5 FLA	DROP CORD WATERPROOF SINGLE OUTLET 6'-6" A.F.F.
304	TREIF MEAT SAW	20A/3P	220V/3P, 3KW	DROP CORD WATERPROOF SINGLE OUTLET 6'-6" A.F.F. RECEPTACLE & PLUG SUPPLIED BY OWNER, E.C. INSTALLED.
308	FAT TESTER	20A/1P	115V/1P, 15A	WALL MOUNTED SINGLE ISOLATED GROUND OUTLET 4'-0" A.F.F. DEDICATED CIRCUIT & GROUND.
310	WRAP STATION - PRINTER LABELER	20A/2P	208V/1P, 2.7KVA (HOBART)	WATER PROOF WHITE DROP CORDS (1) 20A/3P DEDICATED CIRCUIT & GROUND. SEE NOTE 2. WITH HBL 26W74 PLUG (1'-0" AFF) HBL 27W74 CONNCTOR (RECEPTACLE) (1) 20A/1P DUPLEX & (1) 20A/1P ISOLATED GROUND DUPLEX (1'-0" AFF)
311	METTLER TOLEDO HAND WRAP	20A/1P	115V/1P, 1000W	DROP CORD DUPLEX RECEPT 6'-6" A.F.F.
318	POWER SOAK SYSTEM	15A/3P	460V/3P, 11.6A	NEMA-4X MANUAL STARTER, MOUNT AT 48" A.F.F. DO NOT MOUNT ON SINK STAINLESS STEEL BACKSPASH
413	HARDT, MERCHANDISER HOT CASE (ZONE 8)	50A/2P	208V/1P, 7700W	DIRECT WIRING
415	ELOMA COMBI OVEN STACKED 6-116-11	35A/3P	208V/3P, 9.3KW	50A/3P WALL MOUNTED OUTLETS +36" +60" A.F.F. PROVIDE CORD AND PLUG
417	INFERNO OVEN	20A/1P	120V/1P, 7.5A 6A	WALL MOUNTED DUPLEX OUTLET +36" +60" A.F.F. BOTTOM OVEN
418	CHICKEN ROTISSERIES OVEN HOOD	20A/1P	15A FUSED	15A FUSED
424	GREASE CART (PUMP & HEATER)	20A/1P	120V/1P 9.2A	20A RECEPTACLE
426	BLAST CHILLER	20A/3P	208V/3P, 10.5A	WATERPROOF DROP CORDS. PROVIDE CORD & NEMA L15-20R @ 6'-6" AFF
429	TOLEDO DELI SCALE & PRINTER	20A/1P	115V/1P	DROP CORD SINGLE ISOLATED GROUND OUTLET, 6'-6" A.F.F. DEDICATED CIRCUIT & GROUND. (FOR ROTISSERIE UNIT: CONNECT TO HOT CASE RECEPTACLE)
430	FP250 FOOD PROCESSOR	20A/1P	120V/1P, 8A	NEMA 6-20R, DROP CORD SINGLE OUTLET 6'-6" A.F.F.
462	SUSHI MACHI MACHINE/RICE BALL MAKER	20A/1P	120V, 220W	DROP CORD DUPLEX RECEPT 6'-6" A.F.F.
463	SUSHI CUTTER	20A/1P	120V/1P, 140W	RECESSED WALL MOUNTED QUAD RECEPT, +3'-6" A.F.F.
464	SUSHI ROLLER MAKING MACHINE	20A/1P	120V/1P, 80W	RECESSED WALL MOUNTED QUAD RECEPT, +3'-6" A.F.F.
465	US SUSHI RICE COOKER	20A/1P	208V, 450W	WALL RECEPTACLE, NEMA 6-20
466	US SUSHI RICE MIXER	20A/1P	120V, 400W	DROP CORD DUPLEX RECEPT 6'-6" A.F.F.
467	US SUSHI RICE WASHER	20A/1P	120V, 1000W	DROP CORD DUPLEX RECEPT 6'-6" A.F.F.
498	WASHWARE LINE	40A/3P	480V/3P, 30.1A	NEMA-4X MANUAL STARTER, MOUNT AT 48" A.F.F.

PLAN NOTES - E5	
1	E.C. TO MAKE ALL CONNECTIONS TO THE FIRE SUPPRESSION SYSTEM FOR OVENS. PROVIDE POWER, CONDUITS, RELAY & WIRES AS REQUIRED FOR A COMPLETE LOW VOLTAGE WIRING. COORDINATE WITH FIRE SUPPRESSION SYSTEM & FIRE ALARM SYSTEM CONTRACTOR. SEE FIRE ALARM SPECIFICATION.
2	E.C. TO PROVIDE SINGLE RECEPTACLE, PLUG-IN WITH WATERTIGHT DEVICES EQUAL TO HUBBEL PN AND SLEEVE WATERTIGHT DEVICES FOR DROP CORD. DO NOT USE WATERPROOF BOX FOR RECEPTACLE.
3	E.C. TO HARDWARE FEEDER FOR RACK WASHER FROM DISCONNECT UP TO CEILING AND DROPPED TO RACK WASHER. PROVIDE CONDUIT SUPPORT PER CODE. ALL MINIMUM OF 3" CLEARANCE IN FRONT OF DISCONNECT SWITCH. E.C. TO MAKE FINAL CONNECTIONS TO RACK WASHER'S STEAM EXHAUST FAN.
4	E.C. TO MAKE FINAL CONNECTION TO PROOFER LIGHT. MOUNT THE PROOFER DISCONNECT ON WALL AS SHOWN.
5	E.C. TO PROVIDE BACK TO BACK DUPLEX RECEPTACLE EQUAL TO WOODHEAD 3000 SERIES.
6	E.C. TO PROVIDE EXTERNAL RELAY IN NEMA-1 ENCLOSURE TO CONTROL EXHAUST FAN. MAKE CONNECTIONS AS REQUIRED. SEE DETAIL 9E-8 AND DETAIL 27HS SHEET.
7	E.C. TO VERIFY EXACT LOCATION WITH COSTCO PM FOR MEAT, BAKERY, ROTISSERIE AND DELI DROP CORDS TYP.
8	ALL ELECTRICAL EQUIPMENT IN DSH PREP ROOM SHALL BE NEMA-4X.
9	E.C. MAKE ALL FINAL CONNECTIONS FOR POWER SOAK SINK EXHAUST FAN. SEE DETAIL 3 THIS SHEET. PROVIDE JOHNSON CONTROLS CSD-CFJ1-1 CURRENT DEVICE AND SQ-D CLASS 9070 TF5023 STEP-DOWN TRANSFORMER IN NEMA-1 ENCLOSURE. PRIMARY DISCONNECT, PRIMARY AND SECONDARY FUSING (PBA FOLDER, 0.4A PRIMARY FUSES, 0.7A SECONDARY FUSES) AND ALL LOW VOLTAGE WIRING. E.C. MAKE FINAL LOW VOLTAGE CONNECTIONS. MOUNT ENCLOSURE IN RECEIVING ELECTRICAL ROOM NEAR PANELS.
10	NO SURFACE MOUNTED CONDUIT IN FRESH LINE. REFRIGERATION TO COORDINATE WITH E.C. TO MOUNT CONDUIT EXTERIOR WALL OF FRESH LINE FACING EXTERIOR WALL OF BUILDING PRIOR TO INSTALLING WALL.
11	E.C. TO PROVIDE SHOCK BLOCK AND MOUNT ON PLATFORM AS SHOWN. SEE DETAIL 4 ON THIS SHEET. E.C. MAKE ALL FINAL CONNECTIONS AND PROVIDE ACCESSORIES AS REQUIRED.



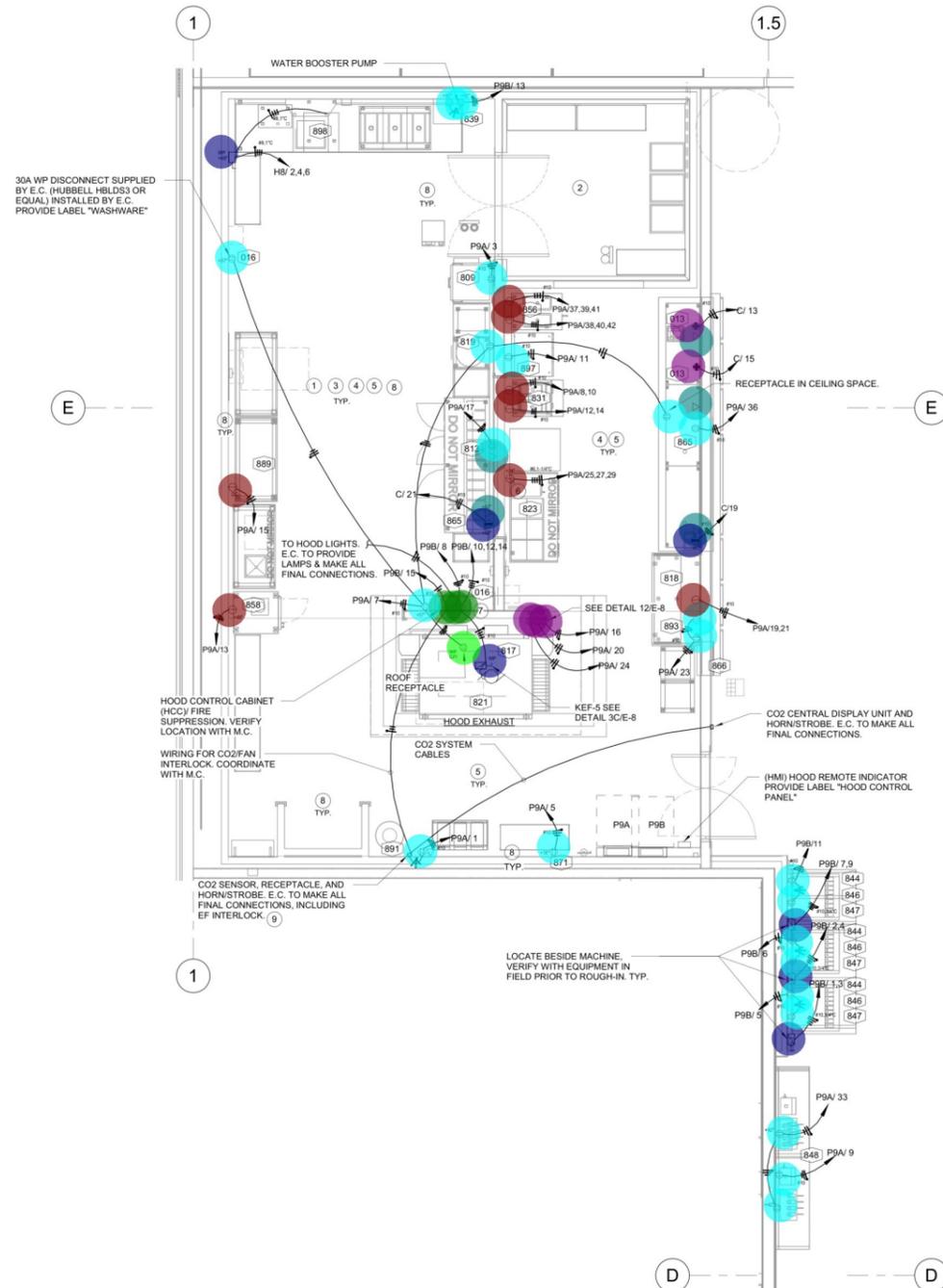
- Duplex Receptacle
- GFI QuadPlex Receptacle
- Weather Proof Duplex Receptacle
- Weather Proof Fused Disconnect
- Single Pole Switch
- Thermostat
- Disconnect Switch
- Combined Starter/Disconnect Switch
- Isolated Ground Duplex Receptacle
- Weather Proof Disconnect Switch
- Junction Box
- Fused Disconnect
- QuadPlex Receptacle
- Single Plug in Receptacle
- Weather Proof GFCI QuadPlex Receptacle
- Data Outlet
- Weather Proof GFI Duplex Receptacle

- 23.0 EA
- 9.0 EA
- 1.0 EA
- 8.0 EA
- 1.0 EA
- 2.0 EA
- 0.0 EA
- 2.0 EA
- 6.0 EA
- 2.0 EA
- 13.0 EA
- 3.0 EA
- 5.0 EA
- 16.0 EA
- 0.0 EA
- 2.0 EA
- 4.0 EA



CONNECTIONS AND THEIR INSTALLATIONS STARTING FROM THE BREAKERS, REFRIGERATION BY OWNER TYP.
 E.C. SHALL PROVIDE MATCHING RECEPTACLE ON DROP CORD FOR WALK IN BAKERY, MEAT, DELI & ROTISSERIE DEPARTMENT TO MATCH EQUIPMENT PLUG.
 E.C. MAKES ALL FINAL CONNECTIONS FOR ALL EQUIPMENT (MOTOR, FAN, STARTERS, ETC.) PROVIDE FLIP LIDS FOR ALL OUTLETS IN FRESH LINE AND FOOD SERVICE. LEVITON WMV-WY, WM1D-SGY AND WP2G OR EQUAL.


 Digitally signed by Hardy Widjaja
 Date: 2025.11.19 15:34:40 -08'00'
 PROJECT STATUS: BID
 IS ISSUED FOR CA PERMIT
 5 BID SET
 TEXAS REGISTERED ENGINEERING FIRM F-002897
 133408 LICENSE
 1101 NORTH KATY AVENUE SUITE 4200 BENTON, WA 98007 PHONE: 425-970-3753 FAX: 425-970-3756
 GRAND PRAIRY & WEST RD CYPRESS, TX 77425
 TEI #: 24-858
 PM: MAA
 CHECKED BY: HW/JGM
 ISSUED: 09/03/25
 FRESHLINE POWER PLAN & EQUIPMENT LIST, DETAILS, AND NOTES
E-5



FOOD SERVICE EQUIPMENT LIST (E-6)										
NUMBER	DESCRIPTION	VOLTS	PHASE	AMPS	KW	HP	CONNECTION	MOUNTING HTS	MFG & MODEL	
013	CASH REGISTER PACKAGE	120	1	5.0 EACH			NEMA 5-20R	+19"	IBM	
016	INSECT LIGHT	120	1	2			NEMA 5-20R	+57"	ECOLAB-STEALTH MAXIMA	
009	DOUGH PRESS	120	1		0.9		NEMA 5-20R	+42"	DOUGH PRO - DP1300	
013	PIZZA PREP. COUNTER	120	1	10.25			NEMA 5-20R	+42"	KARAIK - KRP-963	
017	HOOD PACKAGE	120	1	1 LIGHT			J BOX		CAPTIVEAIRE 6624ND-2-PSP-B	
018	PIZZA DISPLAY	120/208	1	14.3			NEMA L14-20R	+19"	HATCO	
019	PIZZA SAUCER	120	1	2.5			NEMA 5-20R	+14"	RSD-1RTM(1)-CW-CE	
021	OVEN (TRIPLE STACKED)	(3) 120	1	10 EACH			NEMA 5-20R	+42"	WOLFE XLT 3855-TS	
023	HOT DOG COOKER	208	3	39.7			SEE FS PLAN NOTE	+24"	H&K DALLAS	
031	SMOOTHY MACHINE	208/208	1	16.0/13.0			NEMA 6-20R	+14"	TAYLOR/342D	
039	BOOSTER PUMP	120	1	10			NEMA 5-20R	+90"	MCCANN	
044	CARBONATORS	120	1	7			NEMA 5-20R	+14"	MCCANN	
046	SODA / ICE MACHINE	120	1	3.0			NEMA 5-20R	+14"	LANCER	
047	ICE MACHINE	208	1	12			FUSED DISCONNECT	+122"	MANITOWOC	
048	CONDIMENT COUNTER	120	1	6.9			NEMA 5-20R	+12"	UNIVERSAL STAINLESS	
056	YOGURT MACHINE	208/208	3/3	21.0/18.0			NEMA15-30R/15-20R	+14", +18"	TAYLOR/3716	
058	REACH IN FREEZER	120	1	11.3			NEMA 5-20R	+48"	TRAUlsen G12011	
065	REMOTE PRINTING PACKAGE	120	1	2.0			NEMA 5-20R	+54"		
066	CHURRO DISPLAY	120	1		14.0 EA		NEMA 5-20R	+19"	WISCO	
071	PIZZA WARMER	120	1	12			NEMA 5-15R	+18"	LOCKWOOD/FWS-2127-4	
089	TABLETOP WARMER	120	1	12.5			NEMA 5-20R	+18"	APW	
091	CO2 DETECTOR	120	1	0.03			NEMA 5-15R	+18"	ANAOX	
093	PIZZA BOX WARMER	120	1	2.4			NEMA 5-15R	+18"	HARDT	
097	SANDWICH UNIT REFRIGERATOR	115	1	2.46			NEMA 5-15R	+14"	CONTINENTAL	
098	WASHWARE LINE	480	3	23.7			30A DISCONNECT	+48"	HOBART	

- Duplex Receptacle
- Fused Disconnect
- GFI QuadPlex Receptacle
- Single Plug in Receptacle
- Weather Proof GFI Duplex Receptacle
- Weather Proof Fused Disconnect
- Juntion Box
- Disconnect Switch
- Isolated Ground Quadplex Receptacle
- Data Outlet
- Isolated Ground Duplex Receptacle

- 23.0 EA
- 3.0 EA
- 3.0 EA
- 8.0 EA
- 1.0 EA
- 1.0 EA
- 3.0 EA
- 1.0 EA
- 2.0 EA
- 5.0 EA
- 2.0 EA

FOOD SERVICE POWER
SCALE: 1/4" = 1'-0"

DATE	DESCRIPTION	PROJECT STATUS: BID
08/04/25	ISSUED FOR G.A.	
09/03/25	PERMIT	
A 11/21/25	BID SET	

T.E., INC.
TEXAS REGISTERED ENGINEERING FIRM
FIRM # 002887
133408
LICENSED PROFESSIONAL ENGINEER
F-002887

133408
FIRM # 002887
133408
LICENSED PROFESSIONAL ENGINEER
F-002887

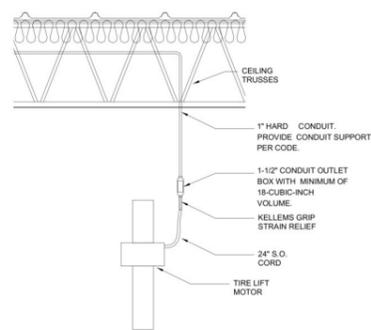
NEW WAREHOUSE (NORTH KATY)
GRAND PKWAY & WEST RD
CYPRESS, TX 77423



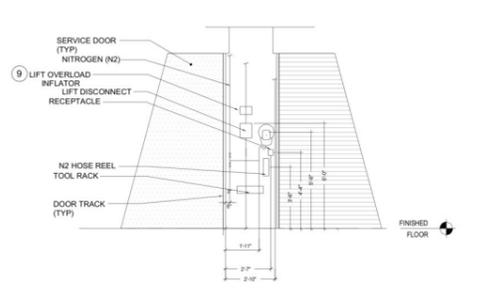
TEI #: 24-858
PM: MAA
CHECKED BY: HW/JGM
ISSUED: 09/03/25

FOOD SERVICE - POWER PLAN, EQUIPMENT LIST, DETAIL AND NOTES

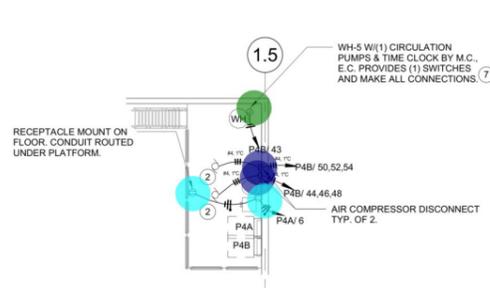
#	PLAN NOTES - E7
1	MOUNT ALL ELECTRICAL DEVICES IN THE TIRE INSTALLATION AT +18" A.F.F ALL CONDUITS SHALL BE RIGID GALVANIZED STEEL & SEALED PER CODE.
2	E.C. TO WIRE ALTERNATING SWITCH BETWEEN COMPRESSORS PROVIDED BY COSTCO.
3	E.C. TO VERIFY IN FIELD LOCATION TIRE SALES COUNTER BEFORE ROUGH-IN AND INSTALLATION OF ALL ELECTRICAL DEVICES PROVIDE COMMUNICATION, DATA, POWER ETC THROUGH POWERPOLE.
4	E.C. TO PROVIDE AND INSTALL CORD & PLUG FOR EURO CHANGER MACHINE. VERIFY IN FIELD.
5	E.C. TO PROVIDE 24" S.O. CORD FOR CONNECTION TO LIFT MOTOR. SEE DETAIL 2/ THIS SHEET. THE REST OF THE FEEDER SHALL BE HARD CONDUIT TO DISCONNECT SWITCH ON WALL. PROVIDE LABEL AT DISCONNECT SWITCH 'LIFT #...'
6	E.C. MAKE ALL FINAL CONNECTION TO CIRC PUMP, WATER HEATER, AND CONTROLLER. COORDINATE WITH M.C.
7	E.C. SHALL PROVIDE DISCONNECT SWITCH, BRING POWER TO FAN AND MAKE ALL FINAL CONNECTIONS. REMOTE CONTROL PROVIDED BY OWNER AND INSTALLED BY E.C. PROVIDE 10V CAT 5 WIRING WITH RJ45 CONNECTORS. COORDINATE EXACT REQUIREMENT WITH SUPPLIER PRIOR TO INSTALLATION.
8	E.C. TO INSTALL 23A OVERLOAD ON TRUCK LIFT. FIELD VERIFY SIZE OF EQUIPMENT BEFORE INSTALLING OVERLOAD.
9	E.C. TO COORDINATE WITH REFRIGERATION & MECHANICAL CONTRACTOR TO MAKE ALL FINAL CONNECTIONS TO FAN CONTROL PANEL.
10	E.C. POWER RECEPTACLE THROUGH 500KVA SQUARE D (500VA WIRED AS 6.9KVA BUCK/BOOST) FOR EQUIPMENT TIRE CHANGER RECEPTACLE (220V) (500V 488). SEE DETAIL 3 ON THIS SHEET. +18" A.F.F. PROVIDE MOUNTING ACCESSORIES AS REQUIRED. PROVIDE LAMACOID LABEL 'TIRE CHANGER RECEPTACLE'.
11	



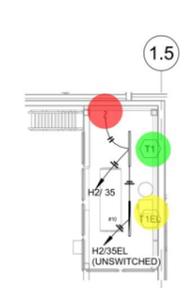
TRUCK LIFT FEEDER DETAIL
SCALE: NONE



TIRE SERVICE DOOR EQUIPMENT
SCALE: NONE

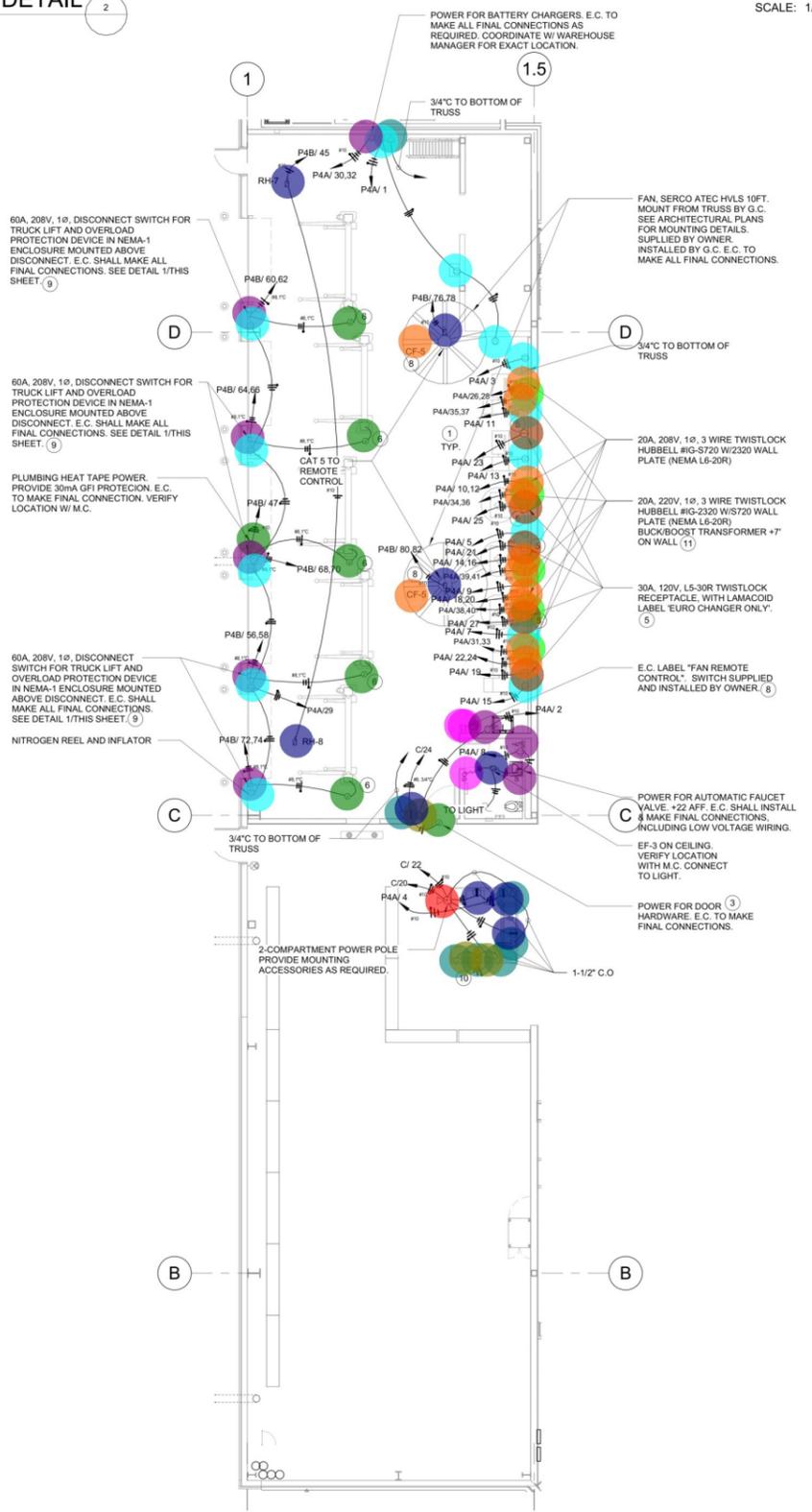


TIRE CENTER PLATFORM POWER
SCALE: 1/8" = 1'-0"

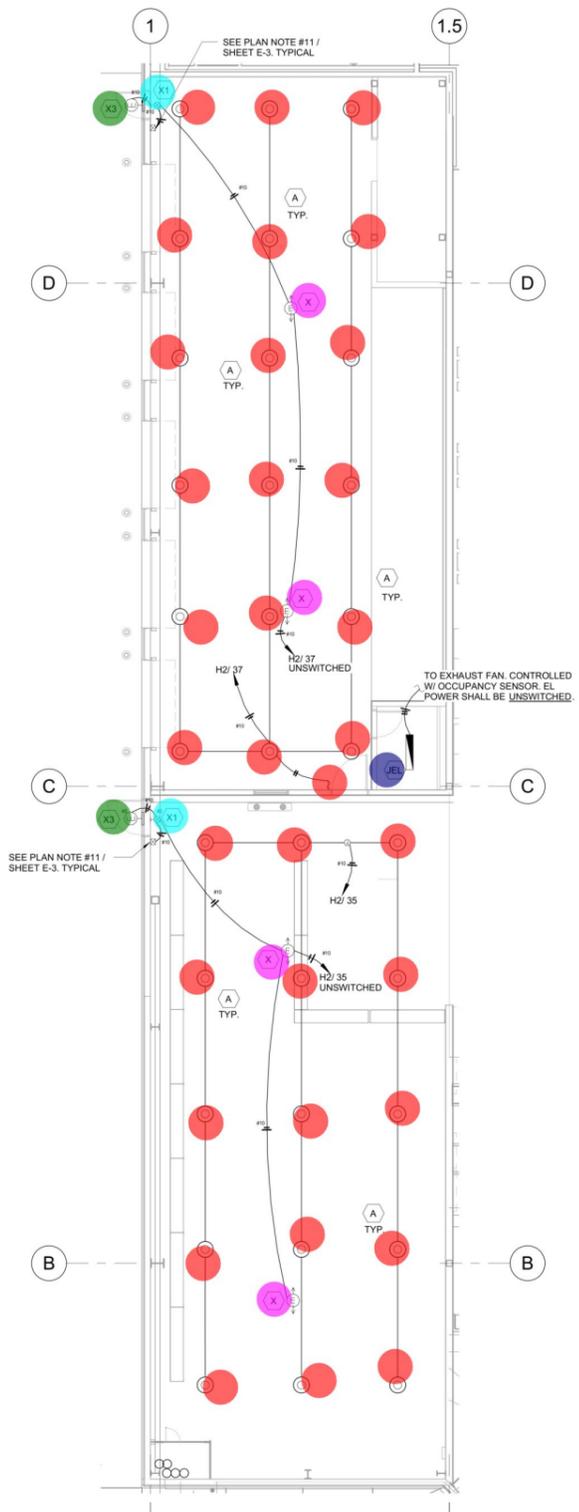


TIRE SALES PLATFORM LIGHTING
SCALE: 1/8" = 1'-0"

- GFI QuadPlex Receptacle 8.0 EA
- Fused Disconnect 11.0 EA
- Weather Proof Junction Box 2.0 EA
- Thermostat 1.0 EA
- Weather Proof Fused Disc... 1.0 EA
- Duplex Receptacle 17.0 EA
- Juntion Box 9.0 EA
- Fire Pump Controller 1.0 EA
- Irrigation Controller 1.0 EA
- QuadPlex Receptacle 3.0 EA
- Data Outlet 7.0 EA
- Isolated Ground Duplex Re... 4.0 EA
- 2- Compartment Power Pole 1.0 EA
- Single Plug in Receptacle 0.0 EA
- 20A, 208V, Single Phase ... 10.0 EA
- 30A, 120V, L5-30R Twistlo... 5.0 EA
- S720 Wall Plate (NEMA L6... 5.0 EA
- Single Pole Fan Remote C... 2.0 EA
- Occupancy Sensor Switch ... 2.0 EA
- CF-5: Ceiling Fan 2.0 EA
- 60A, 208V, Single Phase D... 5.0 EA
- Type T1: Indoor Lighting 1.0 EA
- Type T1EL: Indoor Lighting 1.0 EA
- Type T: Indoor Lighting 5.0 EA
- Type TEL: Indoor Lighting 1.0 EA
- Type X1: Exit Sign w/ Light 3.0 EA
- Type X3: Exit Sign w/ Light 3.0 EA
- Type A: Highbay Light 33.0 EA
- Type X: Emergency Lighting 4.0 EA
- Type JEL: Ceiling Light 1.0 EA
- Single Pole Switch 2.0 EA



TIRE CENTER - POWER
SCALE: 1/8" = 1'-0"



TIRE CENTER - LIGHTING
SCALE: 1/8" = 1'-0"



Digitally signed by Hardy Widjaja
Date: 2025.11.19 15:35:39 -08'00'

PROJECT STATUS: BID	
DATE	DESCRIPTION
08/04/25	ISSUED FOR CA
09/03/25	PERMIT
11/21/25	BID SET



T.E., INC.
TEXAS REGISTERED ENGINEERING FIRM
FIRM # 002887
13348
LICENS
F-002887

NEW WAREHOUSE (NORTH KATY)
GRAND PKWY & WEST RD
CYPRESS, TX 77423





TEI #: 24-858
PM: MAA
CHECKED BY: HW/JGM
ISSUED: 09/03/25

TIRE CENTER, MECHANICAL ROOM POWER & LIGHTING PLANS, DETAILS AND NOTES

E-7

BRANCH PANEL: P3		SUPPLY FROM: SD-3				VOLTS: 208/120 Wye				A.I.C. RATING: 22K MIN.			
		PHASES: 3				MAINS TYPE: MLO				MAINS RATING: 400 A			
		MOUNTING: IPC-3				MOUNTING: SURFACE				MOUNTING: SURFACE			
		MISC				MISC				MISC			
#	CIRCUIT USE	P	A	B	C	P	A	B	C	P	A	B	C
1	DOOR HEATERS FREEZER #1 NW	1	1.4	1.21									
2	DOOR HEATERS FREEZER #1 SW	1	1.4	1.21									
3	DOOR HEATERS FREEZER #1 SE	1	1.4	1.21									
4	DOOR HEATERS FREEZER #1 NE	1	1.4	1.21									
5	DOOR HEATERS FREEZER #2 NW	1	1.4	1.21									
6	DOOR HEATERS FREEZER #2 SW	1	1.4	1.21									
7	DOOR HEATERS FREEZER #2 SE	1	1.4	1.21									
8	DOOR HEATERS FREEZER #2 NE	1	1.4	1.21									
9	DOOR HEATERS FREEZER #3 NW	1	1.4	1.21									
10	DOOR HEATERS FREEZER #3 SW	1	1.4	1.21									
11	DOOR HEATERS FREEZER #3 SE	1	1.4	1.21									
12	DOOR HEATERS FREEZER #3 NE	1	1.4	1.21									
13	DOOR HEATERS FREEZER #4 NW	1	1.4	1.21									
14	DOOR HEATERS FREEZER #4 SW	1	1.4	1.21									
15	DOOR HEATERS FREEZER #4 SE	1	1.4	1.21									
16	DOOR HEATERS FREEZER #4 NE	1	1.4	1.21									
17	DOOR HEATERS FREEZER #5 NW	1	1.4	1.21									
18	DOOR HEATERS FREEZER #5 SW	1	1.4	1.21									
19	DOOR HEATERS FREEZER #5 SE	1	1.4	1.21									
20	DOOR HEATERS FREEZER #5 NE	1	1.4	1.21									
21	DOOR HEATERS FREEZER #6 NW	1	1.4	1.21									
22	DOOR HEATERS FREEZER #6 SW	1	1.4	1.21									
23	DOOR HEATERS FREEZER #6 SE	1	1.4	1.21									
24	DOOR HEATERS FREEZER #6 NE	1	1.4	1.21									
25	DOOR HEATERS FREEZER #7 NW	1	1.4	1.21									
26	DOOR HEATERS FREEZER #7 SW	1	1.4	1.21									
27	DOOR HEATERS FREEZER #7 SE	1	1.4	1.21									
28	DOOR HEATERS FREEZER #7 NE	1	1.4	1.21									
29	DOOR HEATERS FREEZER #8 NW	1	1.4	1.21									
30	DOOR HEATERS FREEZER #8 SW	1	1.4	1.21									
31	DOOR HEATERS FREEZER #8 SE	1	1.4	1.21									
32	DOOR HEATERS FREEZER #8 NE	1	1.4	1.21									
33	DOOR HEATERS FREEZER #9 NW	1	1.4	1.21									
34	DOOR HEATERS FREEZER #9 SW	1	1.4	1.21									
35	DOOR HEATERS FREEZER #9 SE	1	1.4	1.21									
36	DOOR HEATERS FREEZER #9 NE	1	1.4	1.21									
37	DOOR HEATERS FREEZER #10 NW	1	1.4	1.21									
38	DOOR HEATERS FREEZER #10 SW	1	1.4	1.21									
39	DOOR HEATERS FREEZER #10 SE	1	1.4	1.21									
40	DOOR HEATERS FREEZER #10 NE	1	1.4	1.21									
41	DOOR HEATER COOLER NW	1	0.55	0									
42	DOOR HEATER COOLER SW	1	0.55	0									
43	DOOR HEATER COOLER SE	1	0.55	0									
44	DOOR HEATER COOLER NE	1	0.55	0									
45	DOOR HEATER COOLER SW	1	0.55	0									
46	DOOR HEATER COOLER SE	1	0.55	0									
47	DOOR HEATER COOLER NE	1	0.55	0									
48	DOOR HEATER COOLER NW	1	0.55	0									
49	DOOR HEATER COOLER SW	1	0.55	0									
50	DOOR HEATER COOLER SE	1	0.55	0									
51	DOOR HEATER COOLER NE	1	0.55	0									
52	DOOR HEATER COOLER NW	1	0.55	0									
53	DOOR HEATER COOLER SW	1	0.55	0									
54	DOOR HEATER COOLER SE	1	0.55	0									
55	DOOR HEATER COOLER NE	1	0.55	0									
56	DOOR HEATER COOLER NW	1	0.55	0									
57	DOOR HEATER COOLER SW	1	0.55	0									
58	DOOR HEATER COOLER SE	1	0.55	0									
59	DOOR HEATER COOLER NE	1	0.55	0									
60	DOOR HEATER COOLER NW	1	0.55	0									
61	DOOR HEATER COOLER SW	1	0.55	0									
62	DOOR HEATER COOLER SE	1	0.55	0									
63	DOOR HEATER COOLER NE	1	0.55	0									
64	DOOR HEATER COOLER NW	1	0.55	0									
65	DOOR HEATER COOLER SW	1	0.55	0									
66	DOOR HEATER COOLER SE	1	0.55	0									
67	DOOR HEATER COOLER NE	1	0.55	0									
68	DOOR HEATER COOLER NW	1	0.55	0									
69	DOOR HEATER COOLER SW	1	0.55	0									
70	DOOR HEATER COOLER SE	1	0.55	0									
71	DOOR HEATER COOLER NE	1	0.55	0									
72	DOOR HEATER COOLER NW	1	0.55	0									
73	DOOR HEATER COOLER SW	1	0.55	0									
74	DOOR HEATER COOLER SE	1	0.55	0									
75	DOOR HEATER COOLER NE	1	0.55	0									
76	DOOR HEATER COOLER NW	1	0.55	0									
77	DOOR HEATER COOLER SW	1	0.55	0									
78	DOOR HEATER COOLER SE	1	0.55	0									
79	DOOR HEATER COOLER NE	1	0.55	0									
80	DOOR HEATER COOLER NW	1	0.55	0									
81	DOOR HEATER COOLER SW	1	0.55	0									
82	DOOR HEATER COOLER SE	1	0.55	0									
83	DOOR HEATER COOLER NE	1	0.55	0									
84	DOOR HEATER COOLER NW	1	0.55	0									
85	DOOR HEATER COOLER SW	1	0.55	0									
86	DOOR HEATER COOLER SE	1	0.55	0									
87	DOOR HEATER COOLER NE	1	0.55	0									
88	DOOR HEATER COOLER NW	1	0.55	0									
89	DOOR HEATER COOLER SW	1	0.55	0									
90	DOOR HEATER COOLER SE	1	0.55	0									
91	DOOR HEATER COOLER NE	1	0.55	0									
92	DOOR HEATER COOLER NW	1	0.55	0									
93	DOOR HEATER COOLER SW	1	0.55	0									
94	DOOR HEATER COOLER SE	1	0.55	0									
95	DOOR HEATER COOLER NE	1	0.55	0									
96	DOOR HEATER COOLER NW	1	0.55	0									
97	DOOR HEATER COOLER SW	1	0.55	0									
98	DOOR HEATER COOLER SE	1	0.55	0									
99	DOOR HEATER COOLER NE	1	0.55	0									
100	DOOR HEATER COOLER NW	1	0.55	0									
101	DOOR HEATER COOLER SW	1	0.55	0									
102	DOOR HEATER COOLER SE	1	0.55	0									
103	DOOR HEATER COOLER NE	1	0.55	0									
104	DOOR HEATER COOLER NW	1	0.55	0									
105	DOOR HEATER COOLER SW	1	0.55	0									
106	DOOR HEATER COOLER SE	1	0.55	0									
107	DOOR HEATER COOLER NE	1	0.55	0									
108	DOOR HEATER COOLER NW	1	0.55	0									
109	DOOR HEATER COOLER SW	1	0.55	0									
110	DOOR HEATER COOLER SE	1	0.55	0									
111	DOOR HEATER COOLER NE	1	0.55	0									
112	DOOR HEATER COOLER NW	1	0.55	0									
113	DOOR HEATER COOLER SW	1	0.55	0									
114	DOOR HEATER COOLER SE	1	0.55	0									
115	DOOR HEATER COOLER NE	1	0.55	0									
116	DOOR HEATER COOLER NW	1	0.55	0									
117	DOOR HEATER COOLER SW	1	0.55	0									
118	DOOR HEATER COOLER SE	1	0.55	0									
119	DOOR HEATER COOLER NE	1	0.55	0									
120	DOOR HEATER COOLER NW	1	0.55	0									
121	DOOR HEATER COOLER SW	1	0.55	0									
122	DOOR HEATER COOLER SE	1	0.55	0									
123	DOOR HEATER COOLER NE	1	0.55	0									
124	DOOR HEATER COOLER NW	1	0.55	0									
125	DOOR HEATER COOLER SW	1	0.55	0									
126	DOOR HEATER COOLER SE	1	0.55	0									
127	DOOR HEATER COOLER NE	1	0.55	0									
128	DOOR HEATER COOLER NW	1	0.55	0									
129	DOOR HEATER COOLER SW	1	0.55	0									
130	DOOR HEATER COOLER SE	1	0.55	0									
131	DOOR HEATER COOLER NE	1	0.55	0									
132	DOOR HEATER COOLER NW	1	0.55	0									
133	DOOR HEATER COOLER SW	1	0.55	0									
134	DOOR HEATER COOLER SE	1	0.55	0									
135	DOOR HEATER COOLER NE	1	0.55	0									
136	DOOR HEATER COOLER NW	1	0.55	0									
137	DOOR HEATER COOLER SW	1	0.55	0									
138	DOOR HEATER COOLER SE	1	0.55	0									
139	DOOR HEATER COOLER NE	1	0.55	0									
140	DOOR HEATER COOLER NW	1	0.55	0									
141	DOOR HEATER COOLER SW	1	0.55	0									
142	DOOR HEATER COOLER SE	1	0.55	0									
143	DOOR HEATER COOLER NE	1	0.55	0									
144	DOOR HEATER COOLER NW	1	0.55	0									
145	DOOR HEATER COOLER SW	1	0.55	0									

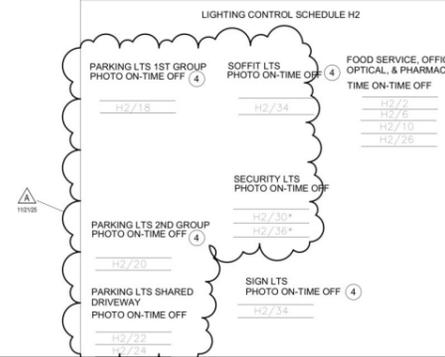
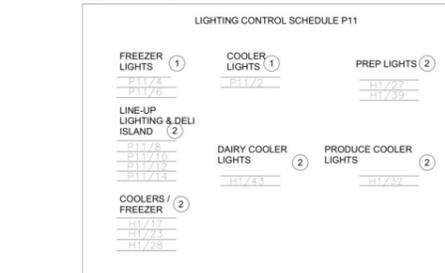
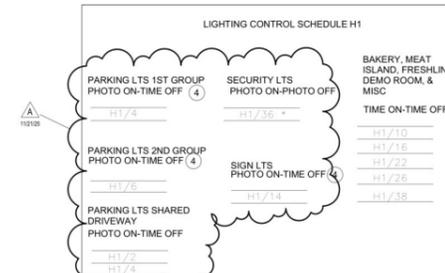
BRANCH PANEL: P10		VOLTS: 208/120 Wye				A.I.C. RATING: 22K MIN.					
SUPPLY FROM: SD-1		PHASES: 3				MAINS TYPE: MLO					
MOUNTING: IPC		WIRES: 4				MAINS RATING: 225 A					
MISC		PANEL TYPE: SQ-D NQOD CU BUS									
#	CIRCUIT USE	W	P	A	B	C	P	BKR	CIRCUIT USE	#	
1	DYSON AIR DRYER WOMEN W	1	1.44	0.65	1.44	0.65	2	20A	CF-3	2	
3	DYSON AIR DRYER WOMEN E	1	1.44	0.65	1.44	0.65	2	20A	CF-3	4	
5	DYSON AIR DRYER MEN W	1	1.44	0.65	1.44	0.65	2	20A	CF-4	6	
7	DYSON AIR DRYER MEN E	1	1.44	0.65	1.44	0.65	2	20A	CF-4	8	
8	PHARMACY OVERHEAD SHUTTER	1	1.18	3.06	1.18	3.06	2	30A	CU-1	10	
11	EF-1	1	1.18	3.06	1.18	3.06	2	30A	CU-2	12	
13	TF-22	1	1.18	3.06	1.18	3.06	2	30A	CU-2	14	
15	CF-1	1	0.2	0.06	0.2	0.06	1	SPACE	CF-1	16	
17	TF-23	1	1.18	3.06	1.18	3.06	2	30A	CU-3	18	
19	TF-24	1	0	3.06	0	3.06	2	30A	CU-3	20	
21	TF-21	1	0	0.54	0	0.54	1	SPACE	CF-2	22	
23	PLUG/HOLD - OPTICAL	1	1.2	0	1.2	0	1	SPARE	DEMO ROOM RECEPTACLE	24	
25	OPTICAL KIOSK E	1	1.2	0	1.2	0	1	SPARE	DEMO ROOM RECEPTACLE	26	
27	OPTICAL KIOSK W	1	1.2	0	1.2	0	1	SPARE	DEMO ROOM RECEPTACLE	28	
29	FRAME WARMER	1	1.5	3.12	1.5	3.12	2	30A	FLOWER CASE POWER	30	
31	FRAME WARMER	1	1.5	3.12	1.5	3.12	2	30A	FLOWER CASE POWER	32	
33	CF-1	2	0.65	0.65	0.65	0.65	2	20A	CF-2	34	
35	SPARE	1	0	0	0	0	1	SPARE	CF-2	36	
37	SPARE	1	0	0	0	0	1	SPARE	CF-2	38	
39	SPARE	1	0	0	0	0	1	SPARE	CF-2	40	
41	SPARE	1	0	0	0	0	1	SPARE	CF-2	42	
TOTAL LOAD:		17.3 kVA				12.5 kVA		18.6 kVA			
TOTAL AMPS:		150 A				104 A		161 A			

BRANCH PANEL: C1		VOLTS: 240/120				A.I.C. RATING: 10K MCB					
SUPPLY FROM: CU/PS		PHASES: 1				MAINS TYPE: MLO					
MOUNTING: IPC		WIRES: 3				MAINS RATING: 100 A					
RECEPTACLE		PANEL TYPE: SQ-D NQOD CU BUS									
1	CASH REGISTER 1	1	0.3	0.3	0.3	0.3	1	SPARE	CASH REGISTER 2	2	
3	CASH REGISTER 3	1	0.3	0.3	0.3	0.3	1	SPARE	CASH REGISTER 4	4	
5	CASH REGISTER 5	1	0.3	0.3	0.3	0.3	1	SPARE	CASH REGISTER 6	6	
7	CASH REGISTER 7	1	0.3	0.3	0.3	0.3	1	SPARE	CASH REGISTER 8	8	
9	CASH REGISTER 9	1	0.3	0.3	0.3	0.3	1	SPARE	CASH REGISTER 10	10	
11	CASH REGISTER 11	1	0.3	0.3	0.3	0.3	1	SPARE	CASH REGISTER 12	12	
13	SPACE	1	0	0	0	0	1	SPARE	SPACE	14	
15	SPACE	1	0	0	0	0	1	SPARE	SPACE	16	
17	SPACE	1	0	0	0	0	1	SPARE	SPACE	18	
19	SPACE	1	0	0	0	0	1	SPARE	SPACE	20	
21	SELF CHECK OUT REGISTER NW	1	0.3	0.36	0.3	0.36	1	SPARE	TELEPHONE OUTLET	22	
23	SELF CHECK OUT REGISTER NC	1	0.3	0.36	0.3	0.36	1	SPARE	SELF CHECK OUT REGISTER SW	24	
25	SELF CHECK OUT REGISTER NE	1	0.3	0.36	0.3	0.36	1	SPARE	SELF CHECK OUT REGISTER SE	26	
27	SELF CHECK OUT REGISTER SE	1	0.3	0.36	0.3	0.36	1	SPARE	ENFLEX PANEL	28	
29	MIMO MACHINE RECEPTACLE 1*	1	0.18	0.4	0.18	0.4	1	SPARE	EDP RECEPTACLE E	30	
31	MIMO MACHINE RECEPTACLE 2*	1	0.18	0.4	0.18	0.4	1	SPARE	EDP RECEPTACLE EC	32	
33	MEMBERSHIP IDF*	1	0.36	0.4	0.36	0.4	1	SPARE	EDP RECEPTACLE C	34	
35	BBIS* PANEL*	1	0.36	0.4	0.36	0.4	1	SPARE	EDP RECEPTACLE WC	36	
37	RAFTER IDF*	1	0.36	0.4	0.36	0.4	1	SPARE	SPACE	38	
39	SPACE	1	0	0	0	0	1	SPARE	SPACE	40	
41	SPACE	1	0	0	0	0	1	SPARE	SPACE	42	
TOTAL LOAD:		5.4 kVA				5.4 kVA		5.4 kVA			
TOTAL AMPS:		45 A				45 A		45 A			

BRANCH PANEL: P11		VOLTS: 208/120 Wye				A.I.C. RATING: 22K MIN.					
SUPPLY FROM: SD-3		PHASES: 3				MAINS TYPE: MLO					
MOUNTING: IPC-3		WIRES: 4				MAINS RATING: 100 A					
MISC		PANEL TYPE: SQ-D NQOD-PL CU BUS									
1	SPARE	1	0	1.08	0	1.08	1	SPARE	MULLION LIGHTS COOLER*	2	
3	SPARE	1	0	1.08	0	1.08	1	SPARE	MULLION LIGHTS FREEZER #1*	4	
5	SPARE	1	0	0.56	0	0.56	1	SPARE	MULLION LIGHTS FREEZER #2*	6	
7	SPARE	1	0	0.56	0	0.56	1	SPARE	LINE-UP LIGHTING*	8	
9	SPARE	1	0	0.56	0	0.56	1	SPARE	LINE-UP LIGHTING*	10	
11	SPARE	1	0	0.8	0	0.8	1	SPARE	BELL ISLAND LIGHTS*	12	
13	SPARE	1	0	0.8	0	0.8	1	SPARE	BELL ISLAND LIGHTS*	14	
15	SPARE	1	0	0	0	0	1	SPARE	SPACE	16	
17	SPARE	1	0	0	0	0	1	SPARE	SPACE	18	
19	SPARE	1	0	0	0	0	1	SPARE	SPACE	20	
21	SPARE	1	0	0	0	0	1	SPARE	SPACE	22	
23	SPARE	1	0	0	0	0	1	SPARE	SPACE	24	
25	SPARE	1	0	0	0	0	1	SPARE	SPACE	26	
27	SPARE	1	0	0	0	0	1	SPARE	SPACE	28	
29	SPARE	1	0	0	0	0	1	SPARE	SPACE	30	
31	SPARE	1	0	0	0	0	1	SPARE	SPACE	32	
33	SPARE	1	0	0	0	0	1	SPARE	SPACE	34	
35	SPARE	1	0	0	0	0	1	SPARE	SPACE	36	
37	SPARE	1	0	0	0	0	1	SPARE	SPACE	38	
39	SPARE	1	0	0	0	0	1	SPARE	SPACE	40	
41	SPARE	1	0	0	0	0	1	SPARE	SPACE	42	
TOTAL LOAD:		2.4 kVA				1.6 kVA		1.2 kVA			
TOTAL AMPS:		21 A				14 A		10 A			

BRANCH PANEL: C2		VOLTS: 208/120 Wye				A.I.C. RATING: 10K MIN.					
SUPPLY FROM: T4		PHASES: 3				MAINS TYPE: 30 A MCB					
MOUNTING: IPC		WIRES: 4				MAINS RATING: 60 A					
RECEPTACLE		PANEL TYPE: SQ-D NQOD CU BUS									
1	RTV RECEPTACLE	1	0.72	0.36	0.72	0.36	1	SPARE	MULLION LIGHTS COOLER*	2	
3	RECEIVING COUNTER	1	0.18	0.18	0.18	0.18	1	SPARE	DISPOSER PRINTER*	4	
5	LABEL SYSTEM*	1	0.36	0.18	0.36	0.18	1	SPARE	DISPOSER PRINTER*	6	
7	KVM (M/M/IS)	1	0.36	0.18	0.36	0.18	1	SPARE	FOIOSCALE & PRINTER*	8	
9	BAKERY SCALES RECEPTACLE	1	0.18	0.18	0.18	0.18	1	SPARE	FOIOSCALE & PRINTER*	10	
11	SPACE	1	0.1	0.1	0.1	0.1	1	SPARE	FOIOSCALE & PRINTER*	12	
13	SPACE	1	0.1	0.1	0.1	0.1	1	SPARE	FOIOSCALE & PRINTER*	14	
15	SPACE	1	0.1	0.1	0.1	0.1	1	SPARE	FOIOSCALE & PRINTER*	16	
17	SPACE	1	0.1	0.1	0.1	0.1	1	SPARE	FOIOSCALE & PRINTER*	18	
19	SPACE	1	0.1	0.1	0.1	0.1	1	SPARE	FOIOSCALE & PRINTER*	20	
TOTAL LOAD:		1.7 kVA				2.2 kVA		0.5 kVA			
TOTAL AMPS:		16 A				20 A		4 A			

BRANCH PANEL: C		VOLTS: 208/120 Wye				A.I.C. RATING: 10kA					
SUPPLY FROM: T3		PHASES: 3				MAINS TYPE: 150A MCB					
MOUNTING: IPC		WIRES: 4				MAINS RATING: 225 A					
RECEPTACLE		PANEL TYPE: SQ-D NQOD CU BUS									
1	MEMBERSHIP COUNTER W	1	0.36	0.36	0.36	0.36	1	SPARE	MEMBERSHIP COUNTER C	2	
3	MEMBERSHIP COUNTER E	1	0.36	0.36	0.36	0.36	1	SPARE	MEMBERSHIP COUNTER B	4	
5	MEMBERSHIP COUNTER W	1	0.36	0.36	0.36	0.36	1	SPARE	MEMBERSHIP COUNTER S	6	
7	PHARMACY COUNTER RECEPT W	1	1.04	1	0.54	0.54	1	SPARE	PHARMACY RECEPTACLE PRC	8	
9	PHARMACY COUNTER RECEPT E	1	1.04	1	0.54	0.54	1	SPARE	MIMO MACHINE RECEPTACLE 1	10	
11	HEARING AID RECEPTACLE	1	0.36	0.1	1.08	0.1	1	SPARE	OPTICAL RECEPTACLE	12	
13	FOOD SERVICE CASH REGISTER N	1	0.36	1	0.36	0.96	1	SPARE	OPTICAL RECEPTACLE	14	
15	FOOD SERVICE CASH REGISTER S	1	0.36	1	0.36	0.96	1	SPARE	MIMO MACHINE RECEPTACLE 2	16	
17	DEMO ROOM RECEPT	1	0.18	0.18	0.18	0.18	1	SPARE	COPY MACHINE RECEPTACLE	18	
19	FOOD SERVICE PRINTER RECEPT	1	0.18	0.18	0.18	0.18	1	SPARE	MANAGER POS/UM RECEPTACLE	20	
21	FOOD SERVICE SCALE RECEPT	1	0.18	0.18	0.18	0.18	1	SPARE	TIRE CENTER SALES RECEPTACLE	22	
23	LOCKER ROOM RECEPTACLE	1	0.18	0.18	0.18	0.18	1	SPARE	TIRE CENTER INSTALL RECEPTACLE	24	
25	ATM MACHINE & CARD READER*	1	0.36	0.36	0.36	0.36	1	SPARE	OFFICE RECEPTACLE E	26	
27	PHARMACY CAB RECEPTACLE E	1	0.36	0.36	0.54	0.72	1	SPARE	OFFICE RECEPTACLE C	28	
29	PHARMACY CAB RECEPTACLE W	1	0.36	0.36	0.54	0.72	1	SPARE	OFFICE RECEPTACLE W	30	
31	PHARMACY RECEPTACLE	1	0.54	0.72	0.54	0.72	1	SPARE	MANAGER OFFICE RECEPTACLE	32	
33	SUBFEED UPS & PANEL C1	2	4.9	0.18	4.9	0.18	1	SPARE	BOINGO SYSTEM RECEPT	34	
35	DOOR ALARM*	1	0.36	0.54	0.36	0.54	1	SPARE	BOINGO REPIATER RECEPT	36	
37	FIRE ALARM PANEL**	1	0.36	0.54	0.36	0.54	1	SPARE	OPTICAL RECEPTACLE B W	38	
41	PHARMACY CAB RECEPTACLE W	1	0.36	0.1	1.08	0.1	1	SPARE	OPTICAL RECEPTACLE IS E	40	
43	HEARING AID BOOTH RECEPTACLE	1	0.36	0.1	1.08	0.1	1	SPARE	OPTICAL RECEPTACLE KIOSK	42	
45	HEARING AID BOOTH RECEPTACLE	1	0.36	0.1	1.08	0.1	1	SPARE	OPTICAL RECEPTACLE KIOSK	44	
47	HEARING AID BOOTH RECEPTACLE	1	0.36	0.1	1.08	0.1	1	SPARE	OPTICAL RECEPTACLE KIOSK	46	
49	HEARING AID COUNTER RECEPT	1	0.72	0	0	0	1	SPARE	SPACE	50	
51	SPARE	1	0	0	0	0	1	SPARE	SPACE	52	
53	SPARE	1	0	0	0	0	1	SPARE	SPACE	54	
TOTAL LOAD:		8.5 kVA				12.1 kVA		10.7 kVA			
TOTAL AMPS:		71 A				103 A		92 A			



- P10 Panel: 225A, 3P, 4 Wires, 208/120 V Wye (SQ-D NQOD CU BU... 1.0 EA
- P11 Panel: 100A, 3P, 4 Wires, 208/120 V Wye (SQ-D NQOD CU BU... 1.0 EA
- C Panel: 225A, 3P, 4 Wires, 208/120 V Wye (SQ-D NQOD CU BUS) ... 1.0 EA
- C1 Panel: 100A, 3P, 4 Wires, 208/120 V Wye (SQ-D NQOD CU BUS... 1.0 EA
- C2 Panel: 60A, 3P, 4 Wires, 208/120 V Wye (SQ-D NQOD CU BUS) ... 1.0 EA
- 20A, 1P, 120V branch circuit breaker 108.0 EA
- 20A, 2P, 208V branch circuit breaker 4.0 EA
- 30A, 2P, 208V branch circuit breaker 1.0 EA
- 25A, 1P, 120V branch circuit breaker 1.0 EA
- 40A, 2P, 208V branch circuit breaker 3.0 EA
- --A, 1P, 120V branch circuit breaker 43.0 EA
- 20A, 1P, 120V Power Link branch circuit breaker 7.0 EA
- 20A, 1P, 120V branch Red Circuit Breaker 1.0 EA
- 150A Main Circuit Breaker 1.0 EA
- 100A Main Circuit Breaker 1.0 EA
- 30A Main Circuit Breaker 1.0 EA
- 20A, 1P, 120V GFI branch circuit breaker 7.0 EA
- 30A, 3P, 208V branch circuit breaker 2.0 EA
- 15A, 1P, 120V branch circuit breaker 10.0 EA

PANEL SCHEDULE NOTES:
 PROVIDE BREAKER HANDLE TIES AS REQUIRED TO COMPLY WITH NEC, ARTICLE 210.4. HANDLE TIES TO BE INSTALLED FOR BREAKERS ON CIRCUITS SHARING ONE NEUTRAL CONDUCTOR.
 * PROVIDE LOCK ON DEVICE
 ** PROVIDE

***EDP CONDUIT INSTALLATION NOTES**

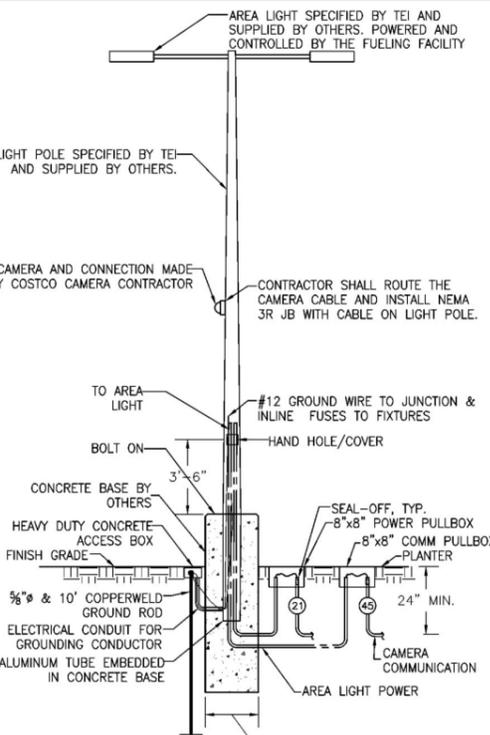
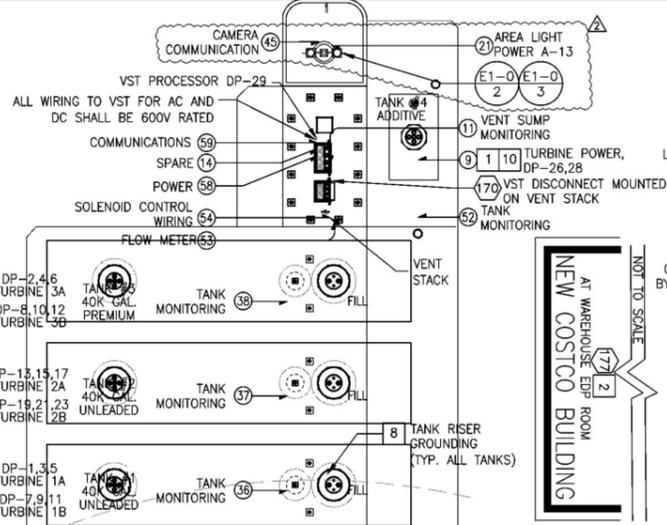
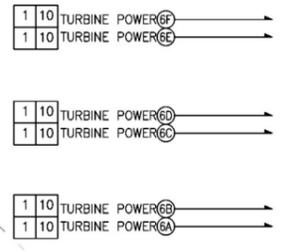
INSTALL CONDUITS AS FOLLOWS:

- (1) 2" C (PVC), (1) 25 PAIR 'OUTDOOR RATED' PHONE WIRE, (1) #12 GND. FOR TELEPHONE SERVICE FROM CONTROLLER ENCLOSURE TO WAREHOUSE EDP (CONTINUOUS). FILL BY OWNER I.S. DEPT.
- (1) 2" C (PVC), 25# PULL CORD FROM CONTROLLER ENCLOSURE TO WAREHOUSE EDP (CONTINUOUS) FILL BY OWNER I.S. DEPT.
- (1) 1" C (PVC), SPARE WITH PULL CORD TO WAREHOUSE EDP (CONTINUOUS)
- (1) 1" C (PVC), (1) 12 STRAND, 5MM K JACKET, OUTDOOR RATED FIBER OPTIC CABLE TO WAREHOUSE EDP (CONTINUOUS) FILL BY OWNER I.S. DEPT.
- (1) 1" C (PVC) FROM EDP TO WAREHOUSE ELECTRICAL ROOM #1 (UNDER NEW WAREHOUSE G.C. SCOPE, FILL BY OWNER I.S. DEPT.)

(ALL CONDUIT AND PULL CORD BY G.C., CONDUIT FILL AS NOTED.)

(NEW WAREHOUSE AND FUEL FACILITY - CONDUITS TO WITHIN 5 FEET OF CONTROLLER ENCLOSURE, PROVIDE PULL BOXES FOR CONDUITS AS REQUIRED FOR EVERY 250 FEET OR AFTER (2) 90 DEGREE BENDS

(ALL CONDUITS TO BE ROUTED UNDER THE FREEZE LINE)



2 Tank Pad Area Light
SCALE: NONE

GENERAL NOTES

- SEE MATERIALS LIST (T2-2) FOR DESCRIPTION ON EQUIPMENT USED IN THIS CONSTRUCTION.
- ROUTING SHOWN ARE SCHEMATIC, FINAL LOCATIONS SHALL BE SHOWN ON AS-BUILT DRAWINGS.
- ALL EQUIPMENT SHALL BE INSTALLED AS PER MANUFACTURER'S OR OWNERS GUIDELINES, WHICHEVER IS MORE STRINGENT.
- FUNCTIONS OF THE CONTINUOUS MONITORING:
-MONITORING OF ALL ANNULAR SPACES.
-MONITORING OF ALL PRODUCT PIPING AND FILL SUMPS.
-PROVIDE .1 GPH PRESSURE LINE LEAK DETECTION (PLLD) OF PRODUCT LINES.
-PROVIDE CONTINUOUS TANK LEVEL MONITORING.
-MONITORING OF ALL DISPENSER SUMPS.
THE CONTINUOUS MONITORING DEVICE SHALL PROVIDE POSITIVE SHUTDOWN OF TURBINES AND DISPENSERS AUTOMATICALLY IN THE EVENT OF A LIQUID RELEASE AND MANUALLY THROUGH THE ESO SWITCH LOCATED ON THE CONTROLLER ENCLOSURE AND REMOTE ESO SWITCH AS INDICATED ON SITE PLAN.
- ALL WIRES ENTERING CONTROL PANELS, MAIN PANELS, AND SUB PANELS SHALL BE MARKED WITH PHASE TAPE CODING AS FOLLOWS:
"A" PHASE = BLACK
"B" PHASE = RED
"C" PHASE = BLUE
- ALL CONDUCTORS SHALL BE CONTINUOUS (WITH NO SPLICES) STRANDED COPPER WITH 75°C THWN INSULATION, OIL AND GAS RESISTANT.
- A SEAL OFF MUST BE INSTALLED PRIOR TO ENTERING AND LEAVING A CLASSIFIED AREA. CONDUITS FIRST EMERGENCE FROM BELOW GRADE MUST BE CONNECTED TO A SEAL-OFF.
- ALL CONDUITS SHALL HAVE INSULATED GROUNDING BUSHINGS INSTALLED AND TIED TOGETHER W/ #6 BARE COPPER WIRE. BOND ALL INSULATED GROUNDING BUSHINGS AND GUTTER BOX BACK TO POWER CENTER GROUND. DO NOT PENETRATE INTRINSICALLY SAFE BARRIERS.
- ALL INSTALLATIONS SHALL BE PER N.E.C., ARTICLE 514.
- ALL EQUIPMENT SHALL BE U.L. APPROVED.
- ALL EQUIPMENT REQUIRING ADA HEIGHTS ARE TO BE TAKEN FROM A LEVEL FLAT SURFACE. VERIFY IN FIELD.

KEY NOTES

- INSTALL SIX (6) 1" CONDUITS FOR SUBMERSIBLE FUEL PUMP POWER AS FOLLOWS: TWO (2) CONDUIT AT TURBINE SUMP #1 (UNLEADED), TWO (2) AT TURBINE SUMP #2 (UNLEADED), AND TWO (2) AT TURBINE SUMP #3 (PREMIUM). INSTALL ONE (1) 3/4" CONDUIT FOR SUBMERSIBLE ADDITIVE PUMP POWER AS FOLLOWS: ONE (1) CONDUIT AT TURBINE SUMP #4 (GAS ADDITIVE). ALL TURBINE POWER TO BE ROBOROY PVC COATED RIGID METALLIC CONDUIT (NO EXCEPTIONS). ALL SEAL-OFFS AND ELECTRICAL BOXES TO BE SET 6" MIN. ABOVE SUMP PENETRATIONS.
- DVR SHALL BE INSTALLED IN THE EDP ROOM, FIELD VERIFY LOCATION WITH CONSTRUCTION PM OR MG2 PM.
- REMOTE ALARMS ON PEDESTAL ENCLOSURE SHALL BE AUDIBLE AND VISUAL VEEDER-ROOT TMS 450 PLUS IS MOUNTED ON THE INTERIOR. VERIFY LOCATIONS WITH CONSTRUCTION PM OR MG2 PM.
- VERIFY P.O.C., EQUIPMENT AND FEES WITH UTILITY COMPANY AND OWNER BEFORE INSTALLATIONS OF NEW ELECTRICAL SERVICE.
- MOUNT E.S.O. ON SUPPORT BRACE SEE ARCHITECTURAL DRAWING FOR DETAIL.
- MOUNT E.S.O. ON CONTROLLER ENCLOSURE EXTERIOR LOCATE PER ARCHITECTURAL DRAWING.
- VERIFY TRANSFORMER LOCATION, ELEVATION AND APPURTENANT WITH UTILITY COMPANY.
- ALL TANK FILL AND VAPOR RETURN RISERS SHALL BE GROUNDED TO PREVENT STATIC DISCHARGE. REFER TO DETAILS D AND E ON SHEET E5.
- JUNCTION BOXES FOR FUTURE ELECTRICAL EQUIPMENT AT EXIT SIDE COLUMNS SHALL BE EXPLOSION PROOF WITH SEAL-OFF, SET J-BOXES 2'-0" ABOVE ISLAND FORMS FACING TOWARDS THE CONTROLLER ENCLOSURE. HOMERUN CONDUIT #69 FROM CENTER ISLAND AND LOOP 3/4" RIGID METAL CONDUIT, ABOVE GRADE TO ADJACENT COLUMNS.
- ALL ELECTRICAL JUNCTION BOXES IN TANK SUMPS AND UNDER DISPENSER CONTAINMENT SUMPS SHALL BE EXPLOSION PROOF WITH SEAL-OFF ENTERING AND LEAVING. SEAL-OFFS TO BE A MINIMUM OF 6" ABOVE THE HIGHEST PENETRATION FOR TESTING PURPOSES. ALL CONDUIT RUN ENTERING OR LEAVING A TANK SUMP SHALL BE ROBOROY PVC COATED RIGID METAL CONDUIT NO EXCEPTIONS.
- ALL NONMETALLIC CONDUITS (UNDERGROUND APPLICATION AND NON-HAZARDOUS AREAS ONLY) SHALL HAVE THE LAST 2' OF ANY HORIZONTAL UNDERGROUND RUN TO THE POINT OF EMERGENCE TO THE ABOVE GROUND RACEWAY TO BE ROBOROY PVC COATED RIGID METALLIC CONDUIT (NO EXCEPTIONS). THE RIGID NONMETALLIC CONDUIT INCLUDING RIGID NONMETALLIC CONDUIT FITTINGS ARE REQUIRED TO BE LOCATED NOT LESS THAN 2' BELOW GRADE. PULL BOX LOCATION ARE PREFERRED IN PLANTERS.
- NOT USED.
- INSTALL 17"x30"x24" PLASTIC IN-GROUND PULLBOX BY G.C. FOR CAMERA FEEDS.
- ROUTE ALL CONDUITS AT COLUMNS SO THAT THEY ARE ON THE SAME SIDE AS THE ACCESS PANEL.
- COSTCO CAMERA CONTRACTOR TO INSTALL CAMERA AT TANK PAD AREA LIGHT. COSTCO CAMERA CONTRACTOR TO CONNECT CAMERA TO IDF RACK. CAMERA SHALL BE SOLELY DIRECTED TO THE TANK FILLS.
- CONTRACTOR TO INSTALL FILLS QUEUING SYSTEM. SEE SHEET E4-1 FOR ADDITION INFORMATION.
- PROVIDE NEW CONDUITS AND WIRING TO 150kW GENERATOR FROM THE CONTROLLER ENCLOSURE.
- PROVIDE NEW AUTOMATIC TRANSFER SWITCH.

GILBARCO DISPENSER WIRE COLOR REFERENCE

- BLACK #12: HOT TO A-2 (CD MODULE) & VARISTOR
 - GREEN #12: TO A-10 (GROUND)
 - WHITE #12: NEUTRAL TO A-13 (CD MODULE) & VARISTOR
 - VARIES #12: TO (UNLEADED #1-RED); (UNLEADED #2-RED/WHITE)
 - BLUE #12: TO (PREMIUM)
 - YELLOW #12: TO (DIESEL)
 - YELLOW #14: SPARE
 - PURPLE #14 SPARE
 - PINK #14: SPARE
 - BROWN #14: SPARE
 - #14: TO B-9 (CRIND TWO WIRE OUT (-)) CAT 5e CABLES PER E2-2
 - #14: TO B-19 (CRIND TWO WIRE IN (+)) CAT 5e CABLES PER E2-2
 - #14: TO A-9 (PUMP TWO WIRE OUT (-)) CAT 5e CABLES PER E2-2
 - #14: TO A-19 (PUMP TWO WIRE IN (+)) CAT 5e CABLES PER E2-2
- NOTE: ALL WIRE TO BE THWN, OIL AND GAS RESISTANT NO EXCEPTIONS

DISPENSER WIRING NOTE:
EXIT ROW OF DISPENSERS SHALL BE WIRED FOR TANK#1 AND TANK #3.
MIDDLE ROW OF DISPENSERS SHALL BE WIRED FOR TANK#2 AND TANK #3.
ENTRANCE ROW OF DISPENSERS SHALL BE WIRED FOR TANK#1, TANK#2 AND TANK #3.

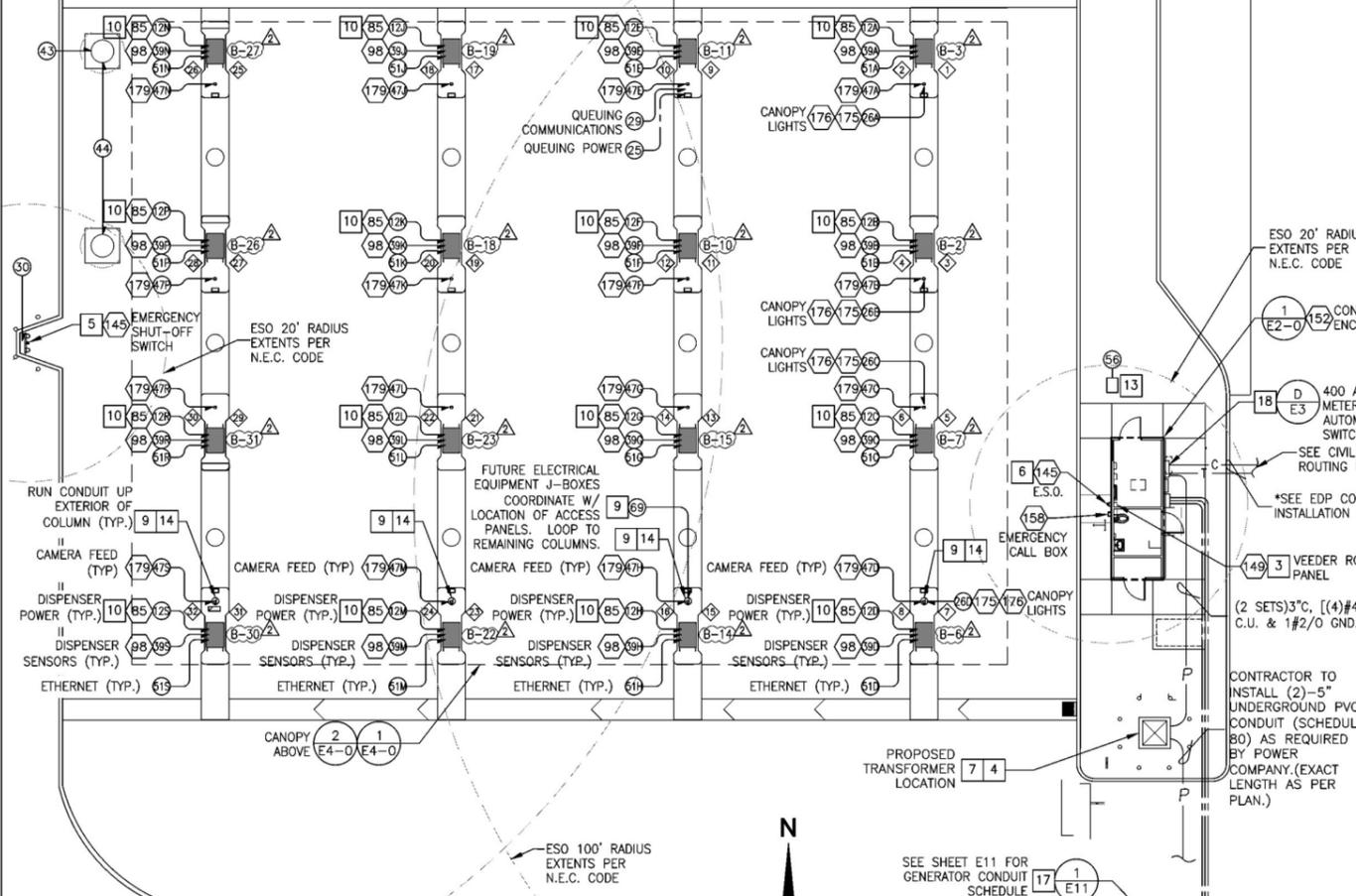
SERVICE DATA

SERVICE VOLTAGE: 3 PH 120/208V, 4W LOAD DATA:
CONNECTED 96.5 KVA, ESTIMATED DEMAND 98.3 KVA SERVICE
CONDUCTORS 4#4/0 THWN & 1#2/0 GND.(PARALLEL)

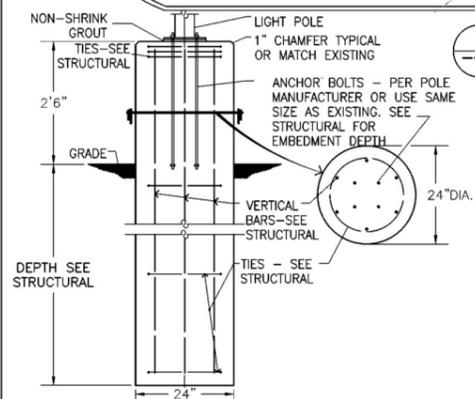
METERING: PER UTILITY
TYPE: UNDERGROUND
BILLING INFORMATION: COSTCO WHOLESALE 730 LAKE DRIVE ISSAQUAH, WA 98027 ATTN: Deanna Hughes

CAUTION:
POTENTIAL UTILITY CONFLICT. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING AND NEW UTILITIES PRIOR TO CONSTRUCTION. SEE UTILITY CONFLICT NOTE THE EXISTING WATER, STORM, AND SANITARY SEWER SERVICE SHOWN IS APPROXIMATE, BASED ON FIELD SURVEYS AND "AS-BUILT" RECORDS. THE GENERAL CONTRACTOR SHALL "POTHOLE" THE EXISTING UTILITIES TO VERIFY THE DIAMETER AND LOCATION (INCL. ELEVATIONS) PRIOR TO CONSTRUCTION. ANY DISCREPANCIES IN THE LOCATION OF THE EXISTING PIPE OR INCOMPATIBILITY OF THE DESIGN SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE OWNERS REPRESENTATIVE, AND BARGHAUSEN CONSULTING ENGINEERS (425-251-6222).

UTILITY CONFLICT NOTE:
CAUTION:
THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, DIMENSION, AND DEPTH OF ALL EXISTING UTILITIES WHETHER SHOWN ON THESE PLANS OR NOT BY POT HOLING THE UTILITIES AND SURVEYING THE HORIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION. THIS SHALL INCLUDE CALLING UTILITY LOCATE @ 1 (800) 782-5348 AND THEN POT HOLING ALL OF THE EXISTING UTILITIES AT LOCATIONS OF NEW UTILITY CROSSINGS TO PHYSICALLY VERIFY WHETHER OR NOT CONFLICTS EXIST. LOCATIONS OF SAID UTILITIES AS SHOWN ON THESE PLANS ARE BASED UPON THE UNVERIFIED PUBLIC INFORMATION AND ARE SUBJECT TO VARIATION. IF CONFLICTS SHOULD OCCUR, THE CONTRACTOR SHALL CONSULT BARGHAUSEN CONSULTING ENGINEERS, INC. TO RESOLVE ALL PROBLEMS PRIOR TO PROCEEDING WITH CONSTRUCTION.



1 Electrical Site Plan
SCALE: 1" = 10'-0"



3 BOLTED BASE LIGHT POLE FOUNDATION
SCALE: NONE

ELECTRICAL SITE PLAN AND NOTES
SWC W. ROAD + MASON RD.
CYPRESS, TX
COSTCO FUEL FACILITY (LOC. TBD)

Costco GASOLINE
COSTCO WHOLESALE
730 LAKE DRIVE
ISSAQUAH, WA 98027

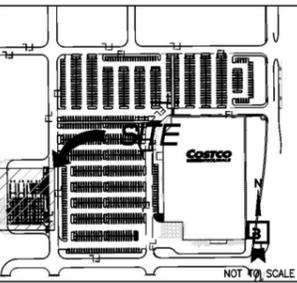
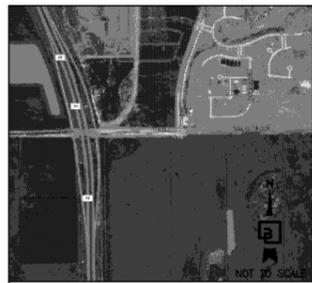
For: **Master Release**
DATE: 05/01/2025 CORE



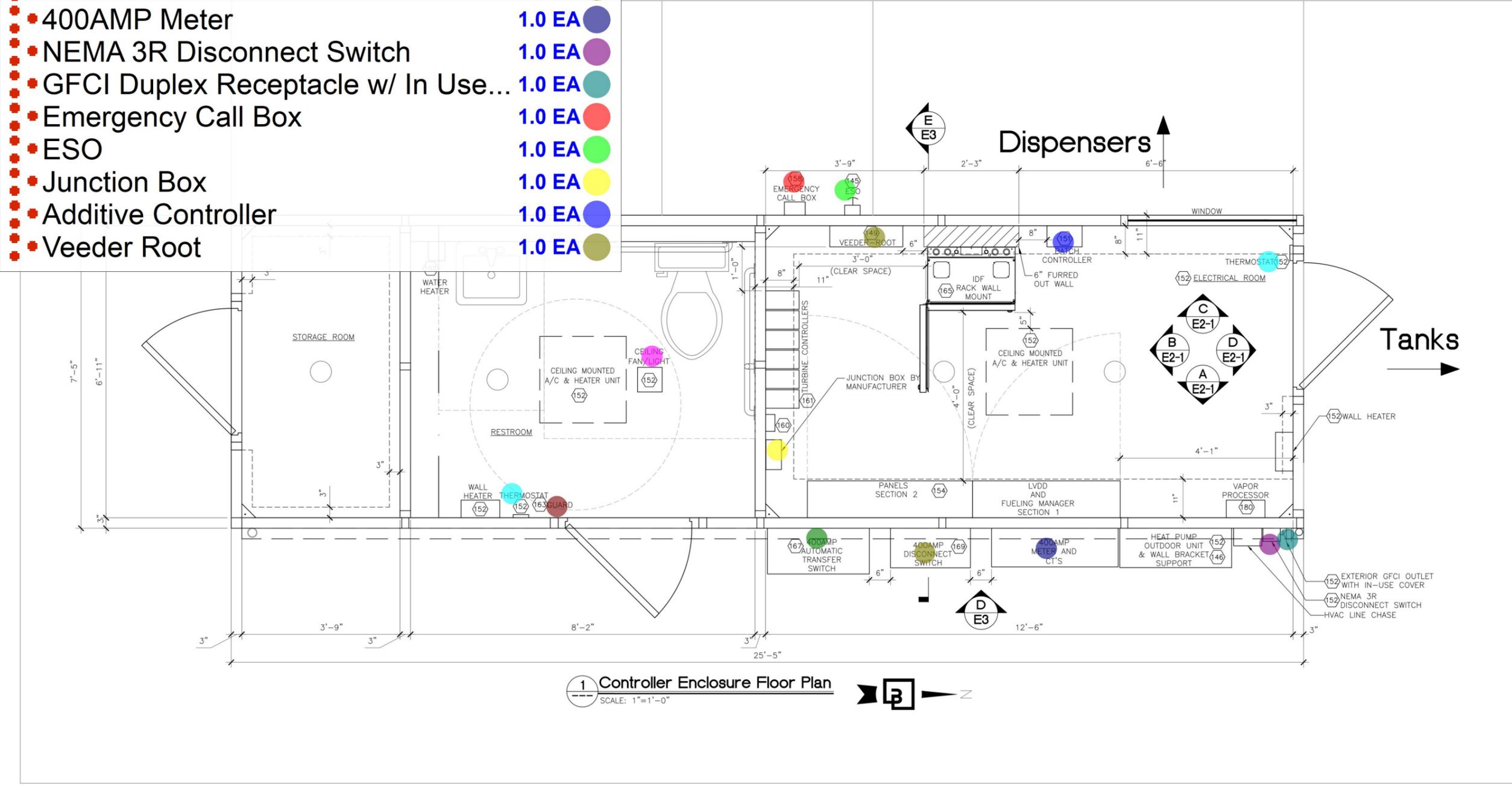
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Barghausen Consulting Engineers, LLC.
18215 72nd Avenue South
Kent, WA 98032
425.251.6222
barghausen.com

Job Number: 23909
Sheet: E1-0
Date/Time: 11/7/2025 1:41 PM Scale: 1"=10'



- Ceiling Fan w/ Light 1.0 EA ●
- Thermostat 2.0 EA ●
- Guard 1.0 EA ●
- 400AMP Automatic Transfer Switch 1.0 EA ●
- 400 AMP Disconnect Switch 1.0 EA ●
- 400AMP Meter 1.0 EA ●
- NEMA 3R Disconnect Switch 1.0 EA ●
- GFCI Duplex Receptacle w/ In Use... 1.0 EA ●
- Emergency Call Box 1.0 EA ●
- ESO 1.0 EA ●
- Junction Box 1.0 EA ●
- Additive Controller 1.0 EA ●
- Veeder Root 1.0 EA ●



1 Controller Enclosure Floor Plan
SCALE: 1"=1'-0"



Revision
No. Date By Des. Appr.
2/11/25/AMT OV HFC BID SET
Title
CONTROLLER ENCLOSURE FLOOR PLAN
SWC W. ROAD + MASON RD.
CYPRESS, TX
COSTCO FUEL FACILITY (LOC. TBD)

Costco GASOLINE
COSTCO WHOLESALE
730 LAKE DRIVE
ISSAQUAH, WA 98027

For:
MASTER RELEASE DATE: 05/01/2025 CORE



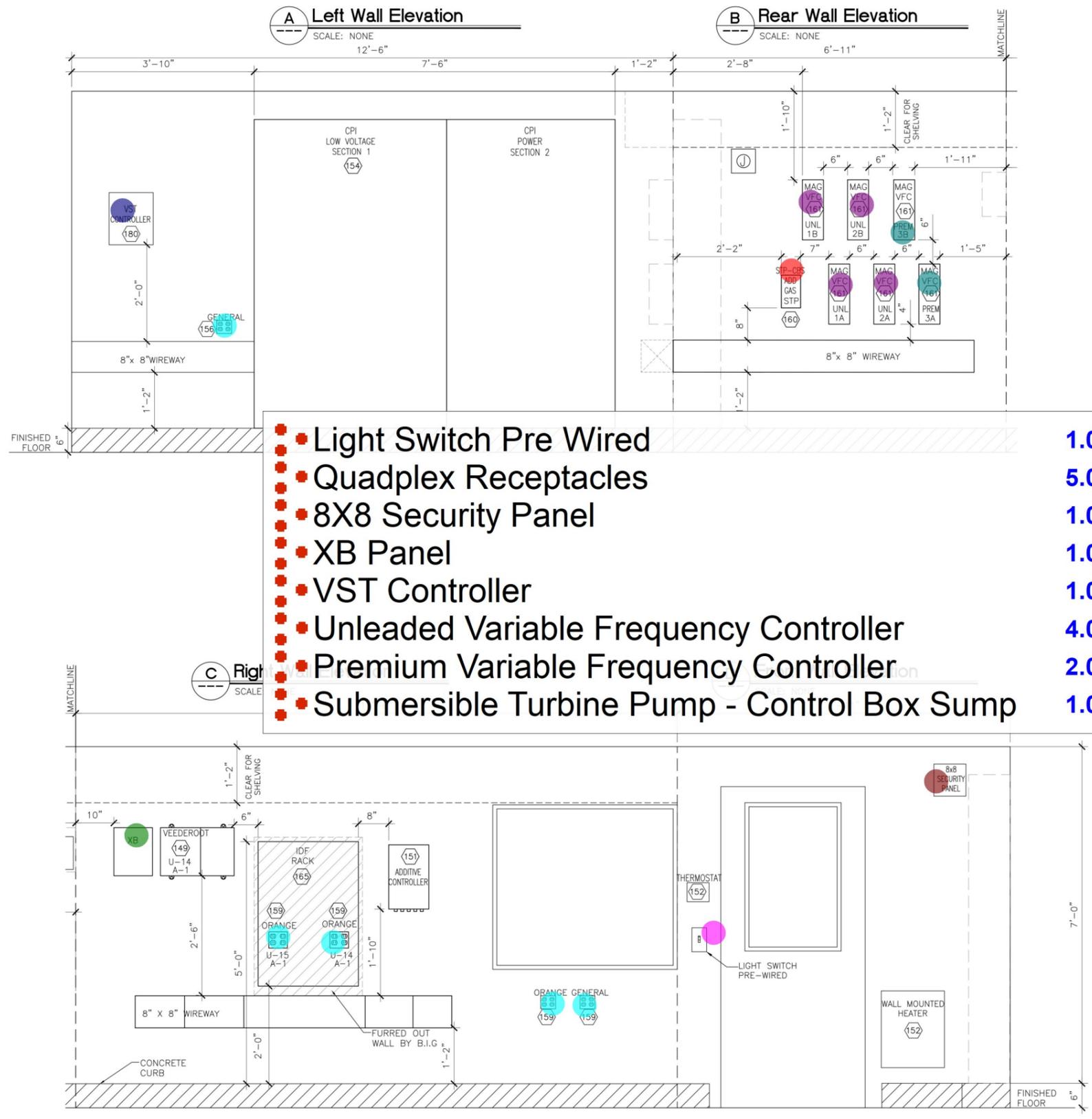
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Checked:	OV	HFC	BID SET	
Approved:	HFC	BID SET		
Date:	08/11/25			

Barghausen Consulting Engineers, LLC.
18215 72nd Avenue South
Kent, WA 98032
425.251.6222 barghausen.com



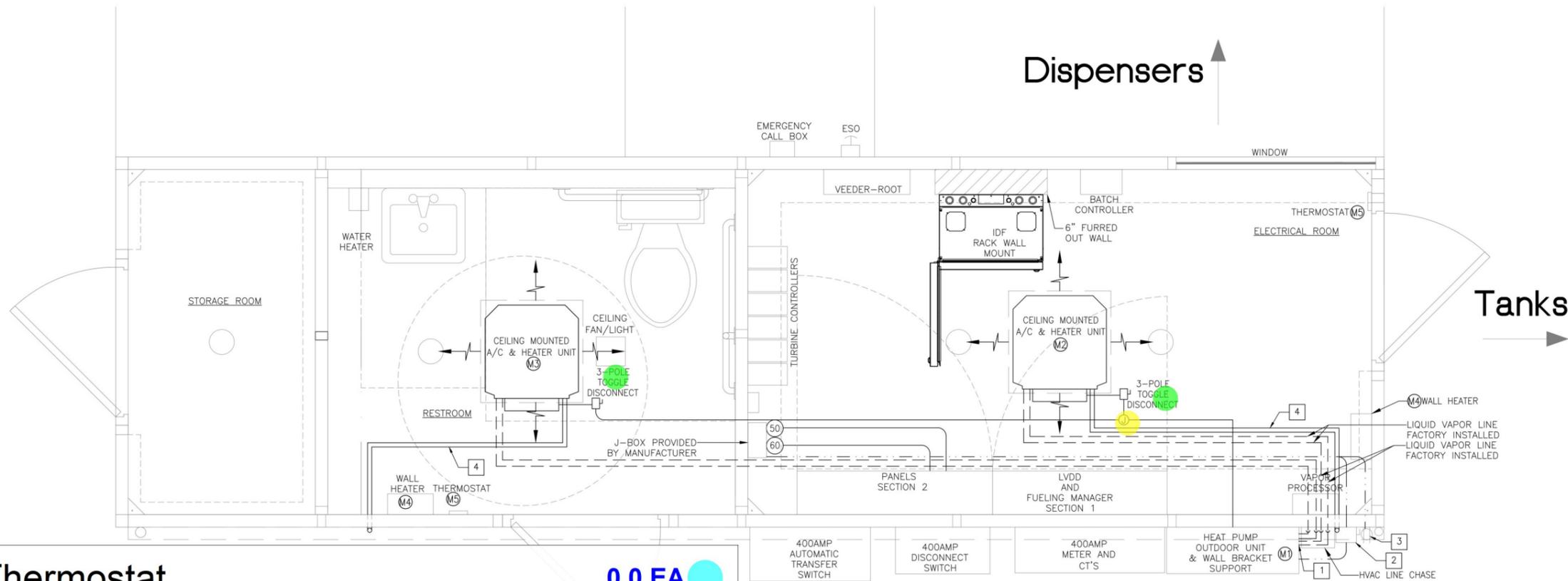
Job Number
23909
Sheet
E2-0

File: P:\23000\23909\mechanical\works\23909-E2-0-SAGE-CPI.dwg Date/Time: 10/29/2025 10:30 AM Scale: 1:1



- Light Switch Pre Wired 1.0 EA
- Quadplex Receptacles 5.0 EA
- 8X8 Security Panel 1.0 EA
- XB Panel 1.0 EA
- VST Controller 1.0 EA
- Unleaded Variable Frequency Controller 4.0 EA
- Premium Variable Frequency Controller 2.0 EA
- Submersible Turbine Pump - Control Box Sump 1.0 EA

Job Number 23909	Sheet E2-1	Barghausen Consulting Engineers, LLC. 18215 72nd Avenue South Kent, WA 98032 425.251.6222 barghausen.com	For: MASTER RELEASE DATE: 05/01/2025 CORE	Title: CONTROLLER ENCLOSURE INTERIOR ELEVATIONS SWC W. ROAD + MASON RD. CYPRESS, TX COSTCO FUEL FACILITY (LOC. TBD)
Scale: Horizontal N/A, Vertical N/A Designed: []/ []/ [] Drawn: []/ []/ [] Checked: []/ []/ [] Approved: []/ []/ [] Date: 08/11/25 File Path: P:\23000\23909\mechanical\works\23909-E2-1-SAGE-CPL.DWG Date/Time: 11/7/2025 8:26 AM Scale: 1"=0' E20W Xref: -----				



■ Thermostat
■ 3 Pole Toggle Disconnect Switch
■ Junction Box

0.0 EA ●
 2.0 EA ●
 1.0 EA ●

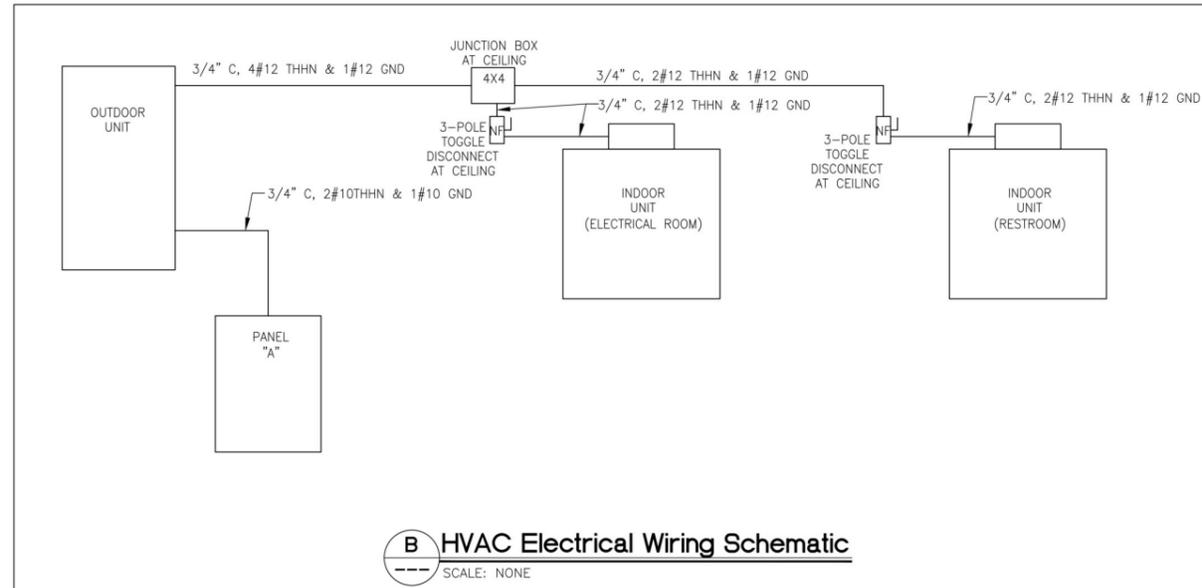
1 HVAC Unit Floor Plan Layout
SCALE: NONE

KEY NOTES

- 1 PROVIDE TAMPER RESISTANT FITTING ON THE VAPOR AND LIQUID LINES.
- 2 30 AMP NEMA 3R DISCONNECT SWITCH.
- 3 EXTERIOR GFI OUTLET IN WEATHERPROOF BOX.
- 4 PVC DRAIN LINE. SIZE PER INSTALLATION REQUIREMENT SLOPE DRAIN PER INSTALLATION REQUIREMENTS.

- NOTES:**
1. REFER TO MANUFACTURER INSTALLATION GUIDE FOR CONDENSATION LINE LOCATION AND INSTALLATION.
 2. REFER TO AIR CONDITIONING MANUFACTURER CUT SHEETS FOR LIQUID AND VAPOR LINE ROUTING.
 3. ALL FACTORY INSTALLED INSULATION IS TO REMAIN AND NOT TO BE REMOVED.
 4. REFER TO SHEET T2-2 NUMBER 152 FOR THE EQUIPMENT THAT THE ENCLOSURE MANUFACTURER PROVIDES.
 5. THE ENCLOSURE MANUFACTURER HAS INSTALLED THE REQUIRED LINES AND CONDUITS. CONTRACTOR IS RESPONSIBLE FOR ALL FINAL CONNECTIONS.
 6. REFER TO SHEET E2-2 FOR ELECTRICAL CONDUIT FILL.

ITEM	DESCRIPTION	MANUFACTURER	MODEL NO.	BTU/h		SEER/COP RATING	ELECTRICAL	
				COOL	HEAT		VOLTS	MOCP
M1	EXTERIOR HEAT PUMP	LG	KUMXA301A	28,400	30,000	24.6/4.28	208	30A
M2	EQUIP. RM. INTERIOR CASSETTE	LG	KNUDB181A	18,000	20,800	-	-	-
M3	RESTROOM INTERIOR CASSETTE	LG	KNUDB091A	9,000	10,400	-	-	-
M4	WALL HEATER	BERKO	VFK404F/SURFACE MOUNTED BOX - VFCSM	-	10,326	-	208	14.4A
M5	WALL MOUNTED THERMOSTAT	LG	PREMTA201	-	-	-	-	-



B HVAC Electrical Wiring Schematic
SCALE: NONE

Title: **HVAC UNIT FLOOR PLAN LAYOUT**
 SWC W. ROAD + MASON RD.
 CYPRESS, TX
 COSTCO FUEL FACILITY (LOC. TBD)

Costco GASOLINE
 COSTCO WHOLESALE
 730 LAKE DRIVE
 ISSAQUAH, WA 98027

For: **MASTER RELEASE**
 DATE: 05/01/2025 CORE



Scale: Horizontal N/A, Vertical N/A
 Designed: [blank], Drawn: [blank], Checked: [blank], Approved: [blank], Date: 08/11/25

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 Kent, WA 98032
 425.251.6222 barghausen.com

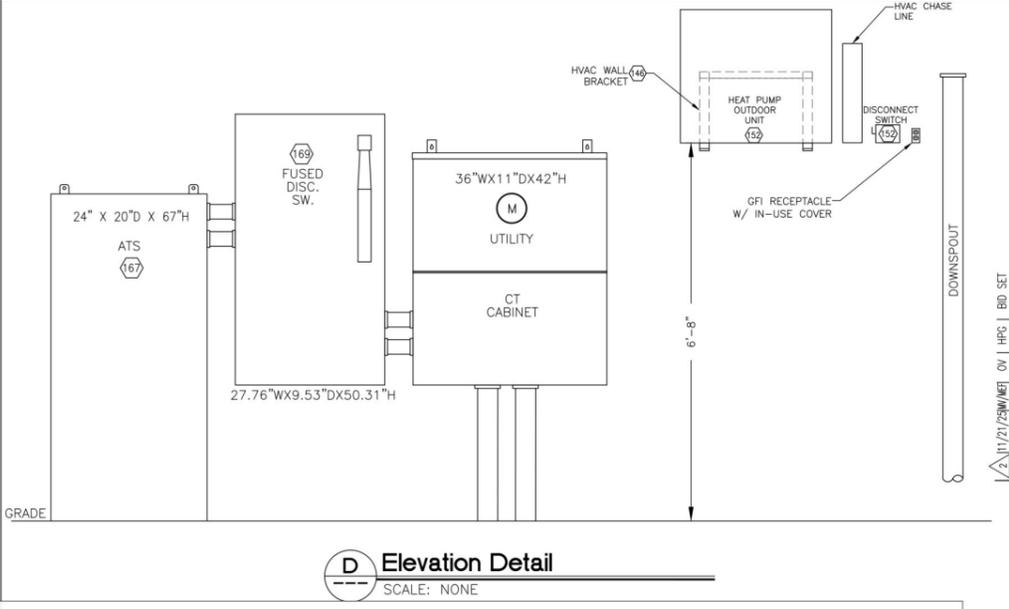
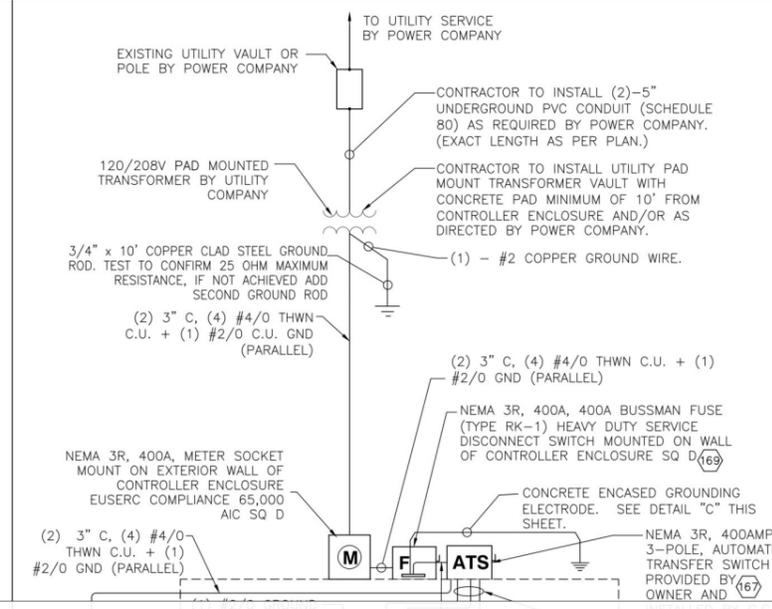


Job Number: **23909**
 Sheet: **E2-3**

PANELBOARD 'DP'									
MAIN: 208/120VOLT, 3-PH, 4-WIRE & GND		FEED TYPE: BOTTOM		MAIN BREAKER: LUGS		MOUNTING: WITHIN CABINET		BUS: 400 AMP	
BUS: 1 SEC. DOUBLE LUGS		ENCL.: NEMA 1		MIN A.I.C. RATING: 10K					
LOAD VA	LOAD DESCRIPTION	OUTLETS	CB / P	PHASE	OUTLETS	CB / P	LOAD DESCRIPTION	LOAD VA	
M	R	L	M	R	L	M			
7095	PANEL "A"	1	1	A	2	30/3			
9006		43	45	B	46	30/3			
10341		46	48	C	48	30/3			
2400	UNLEADED #1A	1	1	A	2	30/3	1 PREMIUM #3A	2400	
2400		3	3	B	4	30/3		2400	
2400		5	5	C	6	30/3		2400	
2400	UNLEADED #1B	1	1	A	2	30/3	1 PREMIUM #3B	2400	
2400		7	7	B	8	30/3		2400	
2400		9	9	C	10	30/3		2400	
2400	UNLEADED #2A	1	1	A	2	30/3	1 SPARE	2400	
2400		13	13	B	14	30/3			
2400		15	15	C	16	30/3			
2400	UNLEADED #2B	1	1	A	2	30/3	1 SPARE	2400	
2400		17	17	B	18	30/3			
2400		19	19	C	20	30/3			
2400		21	21	A	22	30/3			
2400		23	23	B	24	30/2			
2400	SPARE	25	25	A	26	30/2	1 GAS ADDITIVE #4	960	
2400	SPACE	27	27	B	28	30/2		960	
1800	VST VAPOR PROCESSOR	1	1	A	2	30/3	1 TVSS/SPO	10	
2400	SPACE	31	31	B	32	30/3		10	
2400	SPACE	33	33	C	34	30/3		10	
2400	SPACE	35	35	A	36	20/2			
7200	SUB-FEED FOR PANEL "B"	37	37	B	38	20/1			
6000		39	39	A	40	20/1	GENERATOR BLOCK HEATER	1800	
6000		41	41	C	42	20/1	GENERATOR BATTERY CHARGER	1200	
PHASE TOTAL CONNECTED VA:		A	B	C	PANEL TOTAL				
CONTINUOUS LOAD @125%:		(0)	0	0	0.0 KVA				
KITCHEN EQUIP. @ 100%:		(0)	0	0	0.0 KVA				
LARGEST MOTOR @125%:		(7200)	3000	3000	9.0 KVA				
HVAC @ 100%:		(0)	0	0	0.0 KVA				
GEN. RECEPT. DEMAND:		(0)	0	0	0.0 KVA				
REMAINING @100%:		27255	30666	31351	89.3 KVA				
PANEL TOTAL W/ DEMAND:		30255	33666	34351	98.3 KVA				
FULL LOAD AMPS:		252	280	286	272.8 AMPS				

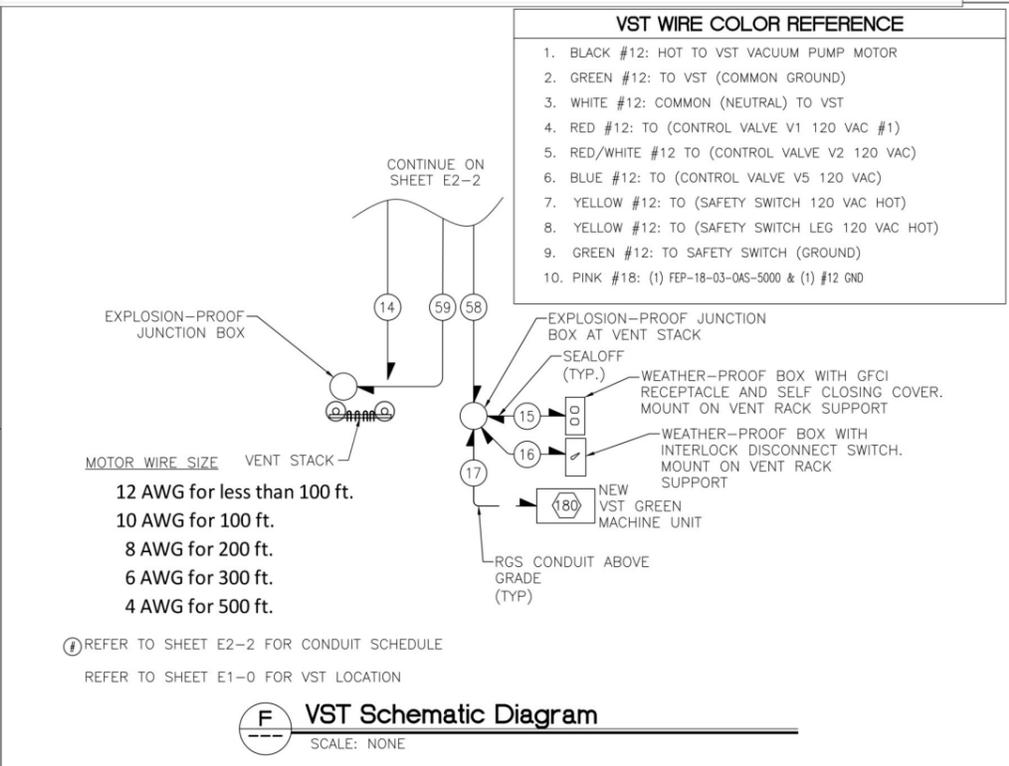
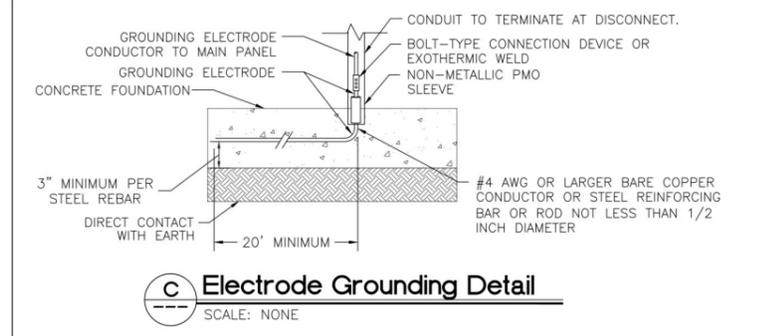
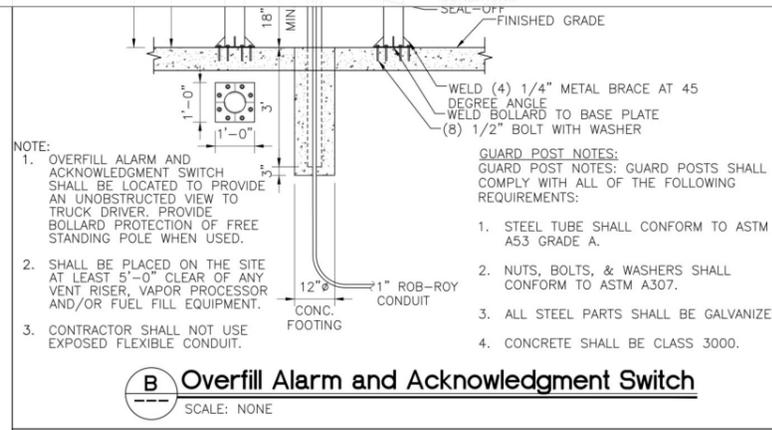
PANELBOARD 'A'									
MAIN: 208/120VOLT, 3-PH, 4-WIRE & GND		FEED TYPE: BOTTOM		MAIN BREAKER: LUGS		MOUNTING: WITHIN CABINET		BUS: 225A	
BUS: 1 SEC. SINGLE LUGS		ENCL.: NEMA 1		MIN A.I.C. RATING: 10K					
LOAD VA	LOAD DESCRIPTION	OUTLETS	CB / P	PHASE	OUTLETS	CB / P	LOAD DESCRIPTION	LOAD VA	
M	R	L	M	R	L	M			
2840	UPS SYSTEM	4	1	A	2	30/3			
1536	CANOPY LIGHTS	16	3	B	4	30/3			
1536	CANOPY LIGHTS	16	5	C	6	30/3			
1350	RESTROOM WATER HEATER (INSTA HOT)	1	7	A	8	30/3			
2496	SPARE	9	9	B	10	30/3			
500	QUELUNG POWER BOX	11	11	C	12	30/3			
720	TANK PAD AREA LIGHT	1	13	A	14	30/3	2 GENERAL RECEPTACLES	720	
864	CANOPY SECURITY LIGHTS	12	15	B	16	30/3	2 CONTROLLER ENCLOSURE LIGHTS	720	
864	CANOPY SECURITY LIGHTS	12	17	C	18	30/3	CPI LIGHTING CONTROL POWER	240	
1500	SPARE	19	19	A	20	30/3	WALL HEATER	1500	
1500	RESTROOM CEILING FAN/HEATER/LIGHT	1	21	B	22	30/3	SPARE	1500	
500	SPACE	23	23	C	24	30/2			
500	SPACE	25	25	A	26	30/2			
500	SPACE	27	27	B	28	30/2	QUELUNG DISPLAY POWER	500	
500	SPACE	29	29	C	30	30/2			
720	SPACE	31	31	A	32	30/2			
720	SPACE	33	33	B	34	30/2			
720	SPACE	35	35	C	36	30/2			
720	SPACE	37	37	A	38	20/1	GENERAL RECEPTACLES	720	
1500	RESTROOM WALL HEATER	1	39	B	40	20/1	SPACE		
1500	RESTROOM WALL HEATER	1	41	C	42	20/1	SPACE		
PHASE TOTAL CONNECTED VA:		A	B	C	PANEL TOTAL				
CONTINUOUS LOAD @125%:		(720)	875	3000	4575				
KITCHEN EQUIP. @ 100%:		(0)	0	0	0.0 KVA				
LARGEST MOTOR @125%:		(0)	0	0	0.0 KVA				
HVAC @ 100%:		(10842)	2950	5496	2496				
GEN. RECEPT. DEMAND:		(3360)	3360	0	3.4 KVA				
REMAINING @100%:		10	510	2970	3.5 KVA				
PANEL TOTAL W/ DEMAND:		7095	9906	10341	27.3 KVA				
FULL LOAD AMPS:		59	83	86	76.0 AMPS				

PANELBOARD 'B'									
MAIN: 208/120VOLT, 3-PH, 4-WIRE & GND		FEED TYPE: BOTTOM		MAIN BREAKER: LUGS		MOUNTING: WITHIN CABINET		BUS: 100 AMP	
BUS: 1 SEC. SINGLE LUGS		ENCL.: NEMA 1		MIN A.I.C. RATING: 10K					
LOAD VA	LOAD DESCRIPTION	OUTLETS	CB / P	PHASE	OUTLETS	CB / P	LOAD DESCRIPTION	LOAD VA	
M	R	L	M	R	L	M			
960	SWITCHED NEUTRAL MODULE	1	1	A	2	30/3	DISPENSER #2 (FUEL POSITION 3/4)	960	
960	SWITCHED NEUTRAL MODULE	3	3	B	4	30/3	SWITCH NEUTRAL MODULE		
960	SWITCHED NEUTRAL MODULE	5	5	C	6	30/3	DISPENSER #4 (FUEL POSITION 7/8)	960	
960	DISPENSER #3 (FUEL POSITION 5/6)	7	7	A	8	30/3	SWITCH NEUTRAL MODULE		
960	SWITCHED NEUTRAL MODULE	9	9	B	10	30/3	DISPENSER #6 (FUEL POSITION 11/12)	960	
960	DISPENSER #5 (FUEL POSITION 9/10)	11	11	C	12	30/3	SWITCH NEUTRAL MODULE		
960	SWITCHED NEUTRAL MODULE	13	13	A	14	30/3	DISPENSER #8 (FUEL POSITION 15/16)	960	
960	DISPENSER #7 (FUEL POSITION 13/14)	15	15	B	16	30/3	SWITCH NEUTRAL MODULE		
960	SWITCHED NEUTRAL MODULE	17	17	C	18	30/3	DISPENSER #10 (FUEL POSITION 19/20)	960	
960	DISPENSER #9 (FUEL POSITION 17/18)	19	19	A	20	30/3	SWITCH NEUTRAL MODULE		
960	SWITCHED NEUTRAL MODULE	21	21	B	22	30/3	DISPENSER #12 (FUEL POSITION 23/24)	960	
960	DISPENSER #11 (FUEL POSITION 21/22)	23	23	C	24	30/3	SWITCH NEUTRAL MODULE		
960	SWITCHED NEUTRAL MODULE	25	25	A	26	30/3	DISPENSER #14 (FUEL POSITION 27/28)	960	
960	DISPENSER #13 (FUEL POSITION 25/26)	27	27	B	28	30/3	SWITCH NEUTRAL MODULE		
960	SWITCHED NEUTRAL MODULE	29	29	C	30	30/3	DISPENSER #16 (FUEL POSITION 31/32)	960	
960	DISPENSER #15 (FUEL POSITION 29/30)	31	31	A	32	30/3	SWITCH NEUTRAL MODULE		
960	SPACE	33	33	B	34	30/3	SPARE		
960	SPACE	35	35	C	36	30/3	SPARE		
960	SPACE	37	37	A	38	30/3	SPARE		
960	SPACE	39	39	B	40	30/3	SPARE		
960	SPACE	41	41	C	42	30/3	SPARE		
PHASE TOTAL CONNECTED VA:		A	B	C	PANEL TOTAL				
CONTINUOUS LOAD @125%:		(15360)	7200	6000	19.2 KVA				
KITCHEN EQUIP. @ 100%:		(0)	0	0	0.0 KVA				
LARGEST MOTOR @125%:		(0)	0	0	0.0 KVA				
HVAC @ 100%:		(0)	0	0	0.0 KVA				
GEN. RECEPT. DEMAND:		(0)	0	0	0.0 KVA				
REMAINING @100%:		0	0	0	0.0 KVA				
PANEL TOTAL W/ DEMAND:		7200	6000	6000	19.2 KVA				
FULL LOAD AMPS:		60	50	50	53.3 AMPS				



- DP Panel: 400A, 3P, 4 Wires, 208/120 V Wye, AIC Rating: 10K
- 225A, 3P, Branch Circuit Breaker
- 30A, 3P, Branch Circuit Breaker
- 20A, 1P, Branch Circuit Breaker
- 30A, 1P, Branch Circuit Breaker
- 30A, 2P, Branch Circuit Breaker
- 15A, 2P, Branch Circuit Breaker
- 20A, 2P, Branch Circuit Breaker
- 100A, 3P, Branch Circuit Breaker
- A Panel: 225A, 3P, 4 Wires, 208/120 V Wye, AIC Rating: 10K
- B Panel: 100A, 3P, 4 Wires, 208/120 V Wye, AIC Rating: 10K
- Switch Non-Fused

- 1.0 EA
- 1.0 EA
- 11.0 EA
- 47.0 EA
- 1.0 EA
- 5.0 EA
- 1.0 EA
- 4.0 EA
- 1.0 EA
- 1.0 EA
- 1.0 EA
- 16.0 EA



U. TERMINALS ARE PROVIDED TO ALLOW THIS CIRCUIT TO BE WIRED THROUGH AN EXTERNAL UNINTERRUPTIBLE POWER SUPPLY.

SW-1. CIRCUIT IS WIRED THROUGH STAGE #1 OF THE MANUAL SWITCHES.

SW-2. CIRCUIT IS WIRED THROUGH STAGE #2 OF THE MANUAL SWITCHES.

LCL. LONG CONTINUOUS LOAD.

TRIP. SNOW MELTING EQUIPMENT REQUIRES THE USE OF 30-ma GROUND FAULT PROTECTION PER NEC CODE AND EQUIPMENT MANUFACTURER INSTALLATION SPECIFICATIONS. USE SQUARE D Q0120EP BREAKERS OR EQUAL. THESE BREAKERS ARE TO BE PROVIDED BY THE INSTALLING CONTRACTOR.

Revision: 2, 11/21/25/AMT, OV, HPG, BID SET, No. Date By Oct. Apr.

PANEL SCHEDULES AND SINGLE LINE DIAGRAM

Costco GASOLINE

SWC W. ROAD + MASON RD.
CYPRESS, TX
COSTCO FUEL FACILITY (LOC. TBD)

MASTER RELEASE DATE: 05/01/2025 CORE

For: **Costco GASOLINE**

COSTCO WHOLESALE
730 LAKE DRIVE
ISSAQUAH, WA 98027

Scale: Horizontal N/A, Vertical N/A

Designed: SC/MJS, Drawn: SC/MJS, Checked: JG, Approved: HPG, Date: 09/11/25

Barghausen Consulting Engineers, LLC.
18215 72nd Avenue South
Kent, WA 98032
425.251.6222
barghausen.com

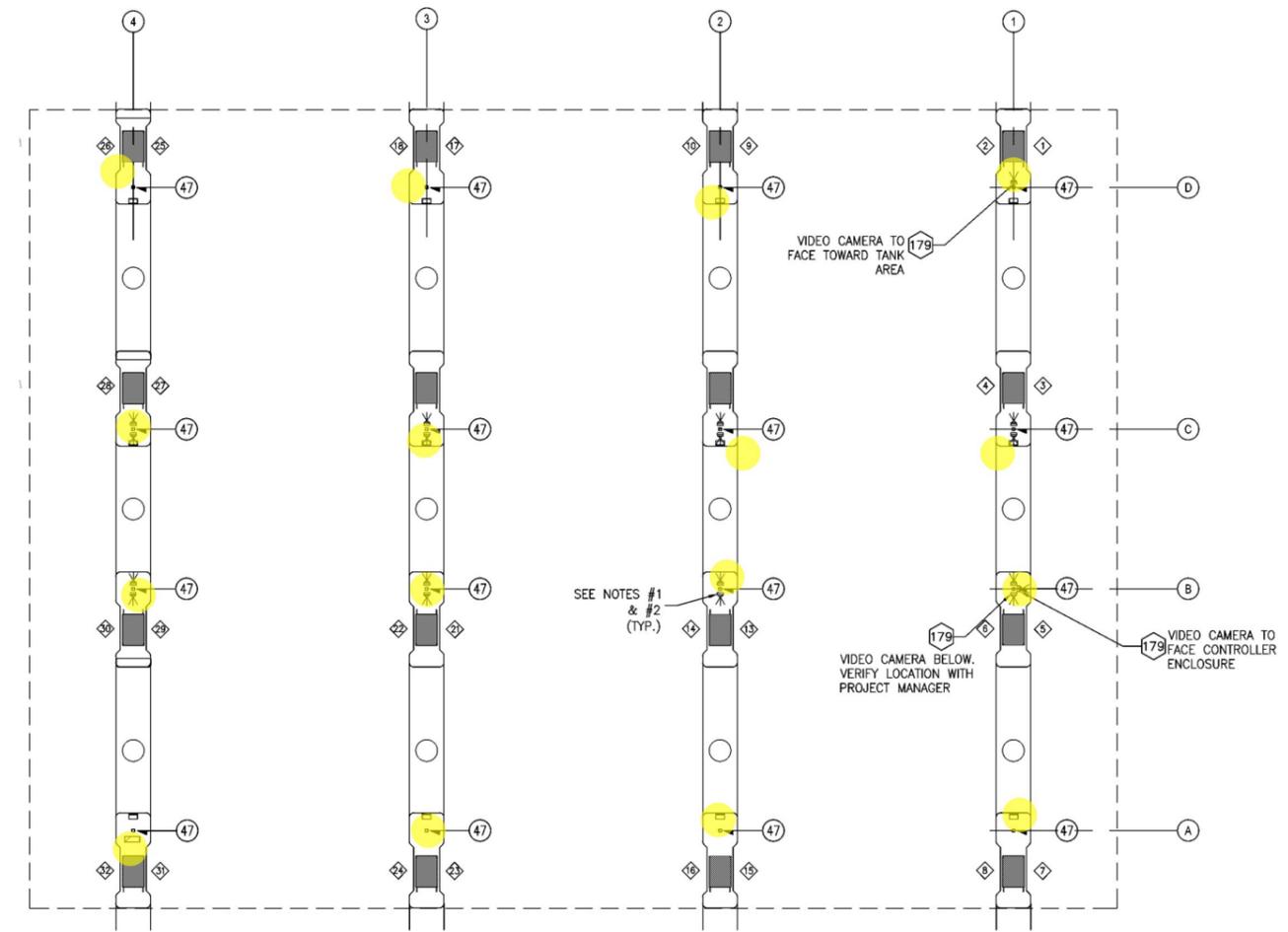
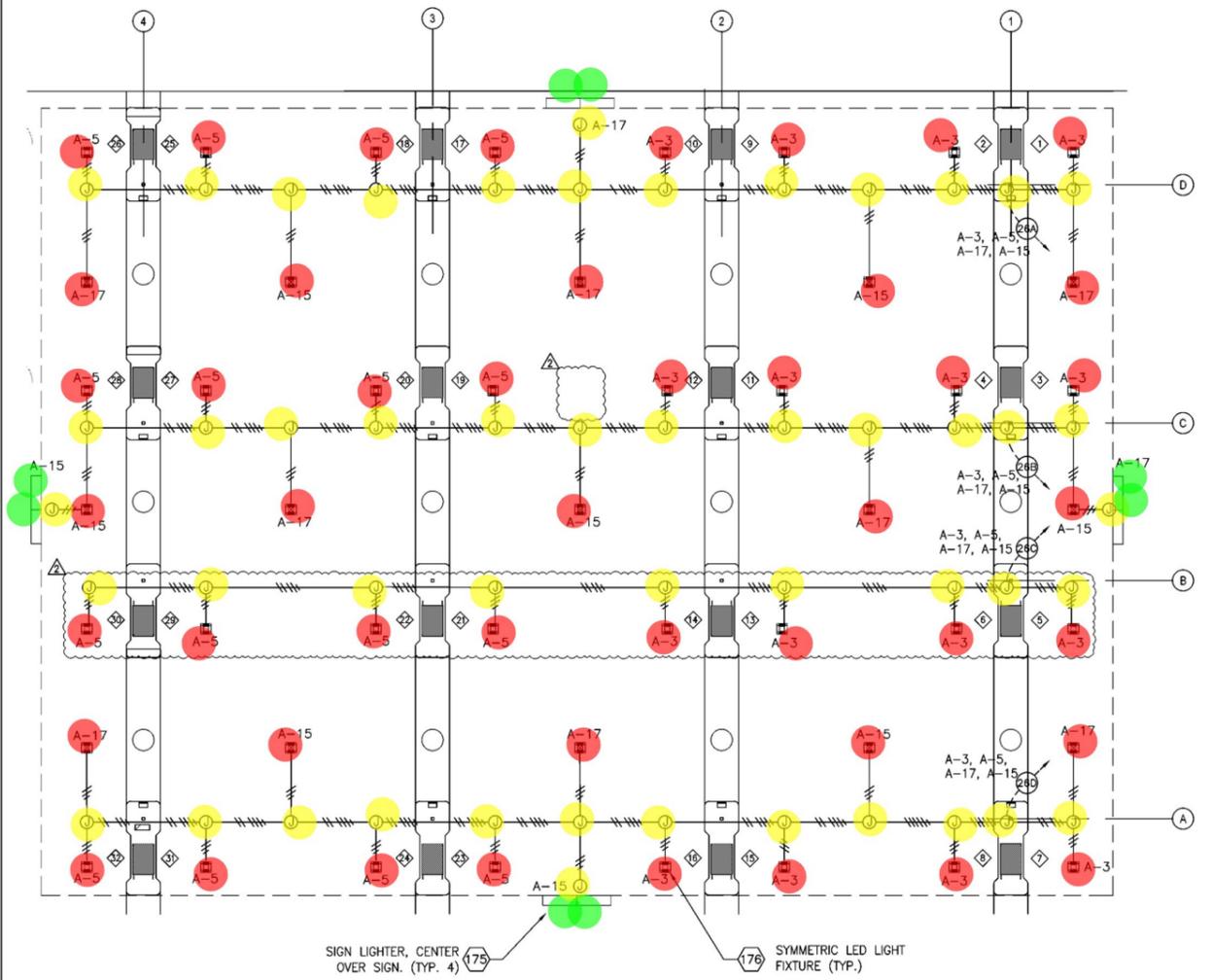
Job Number: 23909, Sheet: E3-0

FILE: P:\23000A\23909\mechanical\panels\23909-E3-0 (Panel Schedules and Single Line Diagram).dwg Date/Time: 11/7/2025 10:25 AM Scale: 1:1

NOTE: ALL TRANSITIONS FROM UNDERGROUND PVC CONDUITS TO THE CANOPY COLUMN SHALL BE PLASTI-BOND ROBOYR PVC COATED RIGID METALLIC CONDUIT (NO EXCEPTIONS).
VERTICAL AND HORIZONTAL RUNS ABOVE SEAL-OFFS AND WITHOUT THE CANOPY WRAP SHALL BE RIGID RMC CONDUIT TO A HEIGHT OF 10 FEET. RIGID EMT WITH COMPRESSION FITTINGS CAN BE USED ABOVE THE 10 FOOT LEVEL. CONDUIT AND CABLE INSTALLATION ON CANOPY TO MEET ELECTRICAL CODE REQUIREMENTS FOR WET LOCATIONS.
WIRING PENETRATIONS TO THE CANOPY COLUMN IS NOT PERMITTED.

NOTE: HOME RUN LOCATIONS SHOWN ARE TYPICAL. CONTRACTOR RESPONSIBLE FOR SITE SPECIFIC LOCATIONS.
NOTE: CAMERA LAYOUT SHOWN IS TYPICAL. CONTRACTOR RESPONSIBLE FOR ACTUAL CAMERA LAYOUT TO MEET SITE SPECIFIC OWNER COVERAGE REQUIREMENTS AS NOTED.

CAMERA INSTALLATION NOTES:
1.) G.C. TO TERMINATE CAMERA CONDUIT RUNS AT CAMERA LOCATIONS WITH NEMA 3R 6" ROUND J-BOXES MOUNTED FLUSH WITH THE COLUMN WRAPS FOR CAMERA MOUNTING. G.C. TO RUN CONDUIT AND CAT5e TO IDF RACK. FINAL CONNECTIONS BY OWNER'S CAMERA CONTRACTOR.
2.) CAMERA VIDEO FEEDS BY OWNER'S G.C. CONTRACTOR MUST BE CONTINUOUS FROM CAMERA LOCATIONS TO IDF RACK TERMINATION BOX AT CONTROLLER ENCLOSURE. NEMA 3R ENCLOSURE IS USED FOR A PASS THROUGH POINT ONLY. NO SPLICING OF CAMERA FEEDS ARE PERMITTED. CAT 5e CABLES MUST BE RATED FOR OIL AND WET LOCATIONS. TERMINATIONS BY OWNER'S CAMERA CONTRACTOR.
3.) CAMERA CAT 5e VIDEO FEED CABLES (WINDY CITY #FEP-CAT5-COS) FROM THE CAMERAS SHALL BE RUN TO THE NEMA 3R ENCLOSURE. CONDUIT AND CABLES BY G.C.. TERMINATIONS BY OWNER'S CAMERA CONTRACTOR



NOTE: ALL TRANSITIONS FROM UNDERGROUND PVC CONDUITS TO THE CANOPY COLUMNS SHALL BE PLASTI-BOND ROBOYR PVC COATED RIGID METALLIC CONDUIT (NO EXCEPTIONS).
VERTICAL AND HORIZONTAL RUNS ABOVE SEAL-OFFS AND WITHOUT THE CANOPY WRAP SHALL BE RIGID RMC CONDUIT TO A HEIGHT OF 10 FEET. RIGID EMT WITH COMPRESSION FITTINGS CAN BE USED ABOVE THE 10 FOOT LEVEL. CONDUIT AND CABLE INSTALLATION ON CANOPY TO MEET ELECTRICAL CODE REQUIREMENTS FOR WET LOCATIONS.
WIRING PENETRATIONS TO THE CANOPY COLUMN IS NOT PERMITTED.

NOTE: NIGHT TIME SECURITY CONSIDERATIONS WHEN FACILITY IS NOT OPEN CIRCUIT A-15, A-17 SHALL PROVIDE THE SECURITY LIGHTING. THE FASCIA LIGHTING SHALL BE WIRED TO THE SAME CIRCUIT.

NOTE: HOME RUN LOCATIONS SHOWN ARE TYPICAL. CONTRACTOR RESPONSIBLE FOR SITE SPECIFIC LOCATIONS.

NOTE: ALL CANOPY LIGHTING CONDUITS SHALL BE ROUTE BELOW THE CANOPY DECK AND HIDDEN WITHIN THE CANOPY SUPPORTS. PENETRATIONS OF THE CANOPY DECK IS NOT PERMITTED.

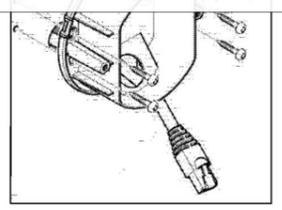
1 Canopy
SCALE: 1/8" = 1'-0"

LIGHTING LAYOUT SHOWN IS FOR STANDARD CANOPY APPLICATION. FOR ACTUAL CANOPY DIMENSIONS AND LIGHTING LAYOUT FOR THIS PROJECT SEE SHEET AG-3. SCHEMATIC CIRCUITS AND WIRING SHOWN HERE ARE ACCURATE.

NOTE: INDICATES ITEMS FOUND ON MATERIAL LIST SHEET T2-2.

SYMBOL	QTY	ARRANGEMENT	LUMENS	LLF	DESCRIPTION	INPUT WATTS
	47	SINGLE	13636	1.000	MODEL NO. CPY250-B-DM-F-B-UL-WH	96
	8	DOUBLE	2600	1.000	MODEL NO. LFL-4-DO-UL-WH-57K	24

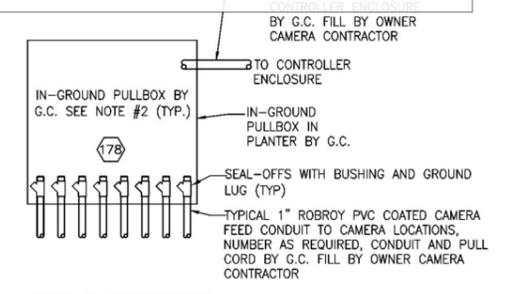
- LED SYMMETRIC AMBIENT CANOPY LIGHT FIXTURE 47.0 EA
- Junction Box 49.0 EA
- LINEAR LED CANOPY FASCIA LIGHT WEATHERPROOF UNITS 8.0 EA
- COLOR VIDEO MONITORING CAMERA 19.0 EA



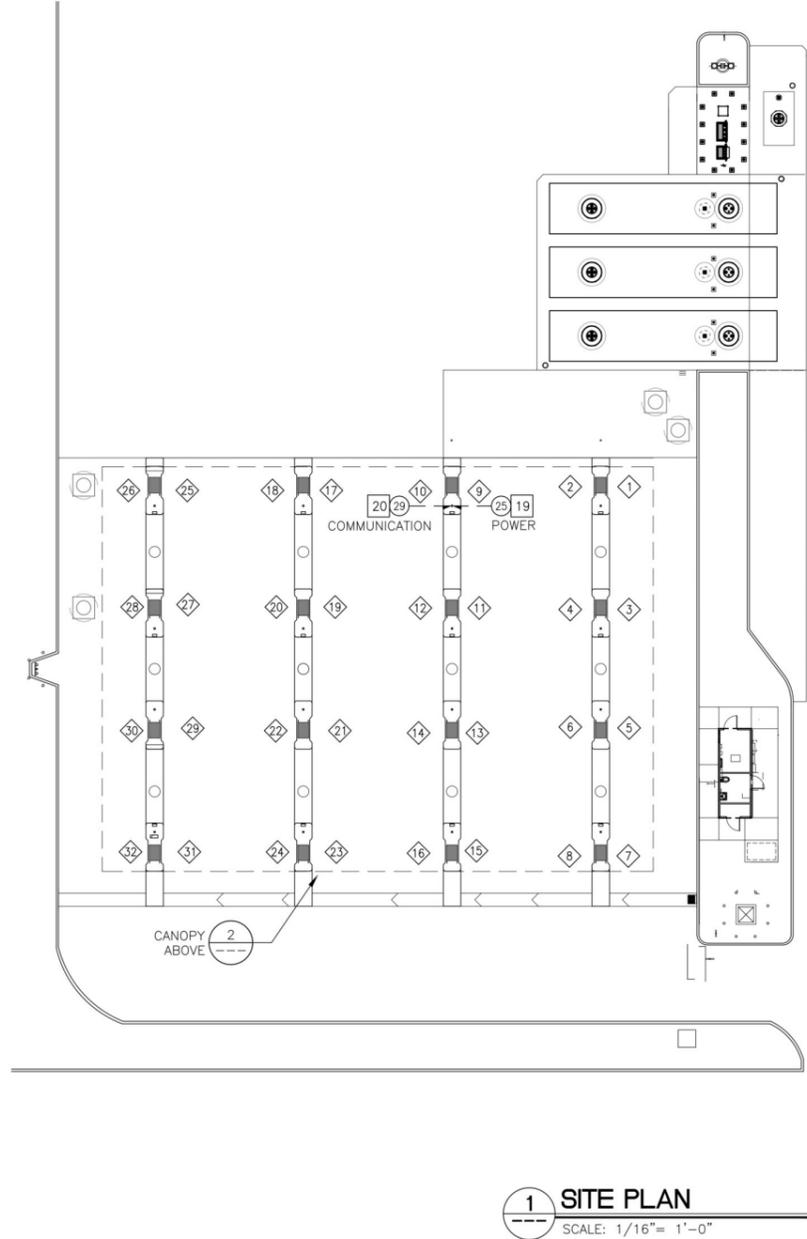
TYPICAL CAMERA INSTALLATION
SCALE: NONE
FOR ACTUAL CANOPY DIMENSIONS AND CAMERA LAYOUT FOR THIS PROJECT SEE SHEET AG-7.

- CAMERA LIST
- CAMERA #1 - POINTS TO FUEL POSITIONS 1 AND 2
 - CAMERA #2 - POINTS TO FUEL POSITIONS 3 AND 4
 - CAMERA #3 - POINTS TO FUEL POSITIONS 5 AND 6
 - CAMERA #4 - POINTS TO FUEL POSITIONS 7 AND 8
 - CAMERA #5 - POINTS TO FUEL POSITIONS 9 AND 10
 - CAMERA #6 - POINTS TO FUEL POSITIONS 11 AND 12
 - CAMERA #7 - POINTS TO FUEL POSITIONS 13 AND 14
 - CAMERA #8 - POINTS TO FUEL POSITIONS 15 AND 16
 - CAMERA #9 - POINTS TO FUEL POSITIONS 17 AND 18
 - CAMERA #10 - POINTS TO FUEL POSITIONS 19 AND 20
 - CAMERA #11 - POINTS TO FUEL POSITIONS 21 AND 22
 - CAMERA #12 - POINTS TO FUEL POSITIONS 23 AND 24
 - CAMERA #13 - POINTS TO FUEL POSITIONS 25 AND 26
 - CAMERA #14 - POINTS TO FUEL POSITIONS 27 AND 28
 - CAMERA #15 - POINTS TO FUEL POSITIONS 29 AND 30
 - CAMERA #16 - POINTS TO FUEL POSITIONS 31 AND 32
 - CAMERA #17 - POINTS TO CONTROLLER ENCLOSURE
 - CAMERA #18 - POINTS TO TANK PAD
 - CAMERA #19 - POINTS TO TANK FILLS

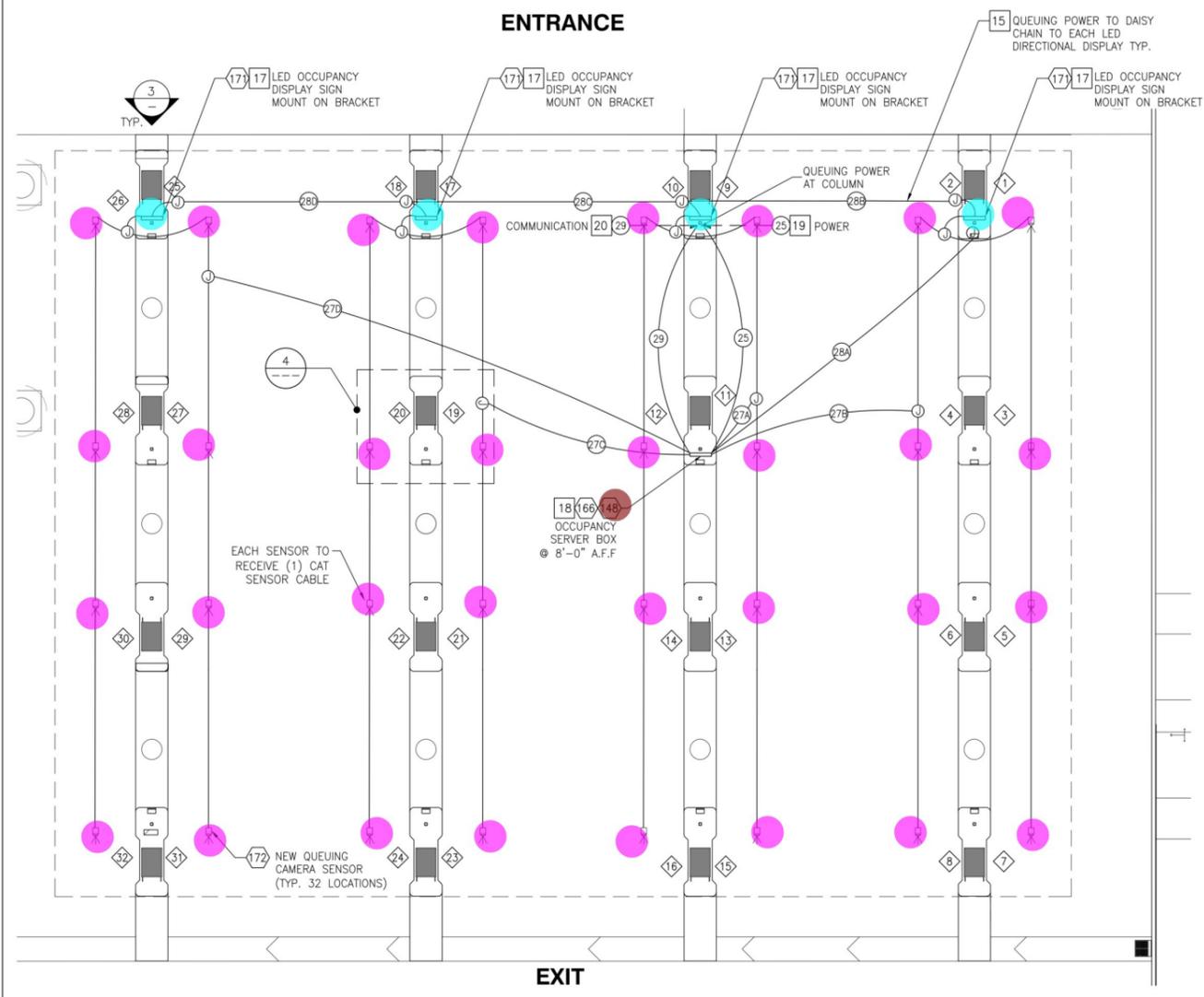
NOTE: INDICATES ITEMS FOUND ON MATERIAL LIST SHEET T2-2.



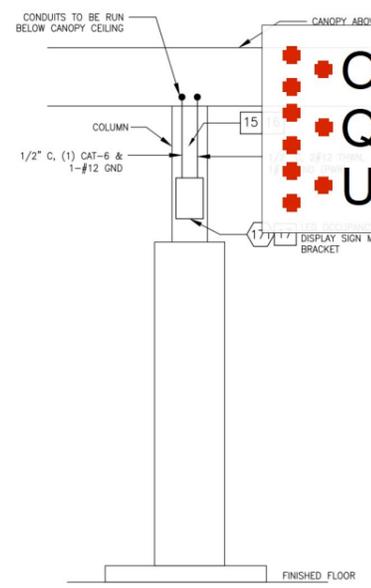
TYPICAL IN-GROUND PULLBOX
SCALE: NONE
CAMERA LAYOUT SHOWN IS FOR A STANDARD CANOPY APPLICATION. FOR ACTUAL CANOPY DIMENSIONS AND CAMERA LAYOUT FOR THIS PROJECT SEE SHEET AG-3.



1 SITE PLAN
SCALE: 1/16" = 1'-0"

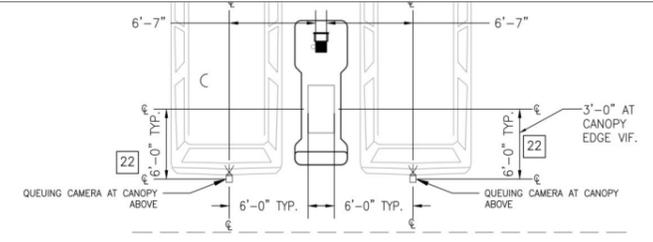


2 GREEN LIGHT/RED LIGHT SENSOR CANOPY PLAN
SCALE: 1/16" = 1'-0"



3 QUEUING SIGN BOX ELEVATION
SCALE: NONE

- OCCUPANCY QUEUING CAMERA SENSOR
- QUEUING POSITION LED DISPLAY
- ULTRASONIC QUEUING SYSTEM SERVER



4 SENSOR LOCATION PLAN
SCALE: NONE

- LEGEND**
- 32.0 EA
 - 4.0 EA
 - 1.0 EA

- ⬠ INDICATES FUEL POSITION NUMBERING
- ⓧ INDICATES MATERIAL REQUIRED REFER TO SHEET T2-2
- Ⓜ INDICATES CONDUIT REQUIRED ALPHA INDICATES CONDUIT IN THE SERIES

KEY NOTES

- NOTE:
1. ALL CONDUIT ROUTING IS SHOWN DIAGRAMMATICALLY. CONTRACTOR SHALL FIELD ROUTE CONDUITS.
- 15 CONDUIT POWER AT COLUMN FACE. DAISY CHAIN PWR CONDUIT BELOW CANOPY DECK TO EACH GREEN LIGHT/RED LIGHT DIRECTIONAL SIGN.
 - 16 CONDUIT COMMUNICATION AT COLUMN FACE FOR OCCUPANCY SENSOR SEE 3/E4-1
 - 17 NEW DIRECTIONAL SIGN BOX TO BE MOUNTED 10' A.F.F. (CIRCUIT NUMBER A-28)
 - 18 24x24x12 WEATHER PROOF BOX AT COLUMN TO HOUSE NEW RED/GREEN LIGHT OCCUPANCY SERVER. .5 AMP, 50 WATT, 110V SYSTEM. UTILIZE CIRCUIT #11 ON PANEL A. PROVIDE PAD LOCK ON.
 - 19 CONTRACTOR TO FIELD VERIFY AND UTILIZE THE CONDUIT AT CANOPY COLUMN FOR QUEUING POWER. SEE PANEL SCHEDULE ON E3.
 - 20 CONDUIT LOCATION SHOWN PER E1-0. CONTRACTOR TO FIELD VERIFY. UTILIZE THE CONDUIT AT CANOPY COLUMN FOR QUEUING COMMUNICATION.
 - 21 GENERIC CAT-6 CONDUIT CAN BE USED ABOVE FILS SERVER AT COLUMN. BELOW THE SERVER AND UNDERGROUND TO CONTROLLER ENCLOSURE SHALL BE PER PLANS
 - 22 AVOID ANY DRAINAGE OR OTHER OBSTRUCTIONS AND THAT THE CAMERA DOES NOT EXTEND BEYOND THE CANOPY.

NOTE:
CONTRACTOR IS TO UTILIZE EXISTING SPARE CONDUITS AT COLUMN. PULL NEW POWER WIRING AND COMMUNICATION CABLING FROM CONTROLLER TO COLUMN. SEE CONDUIT SCHEDULE ON E2-2 FOR CONDUIT FILL. CIRCUITS A-11 AND A-28 ARE TO BE UTILIZED ON PANEL A FOR QUEUING DISPLAY SYSTEM. SEE SHEET E3.

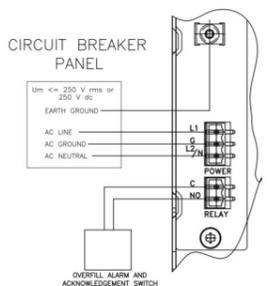
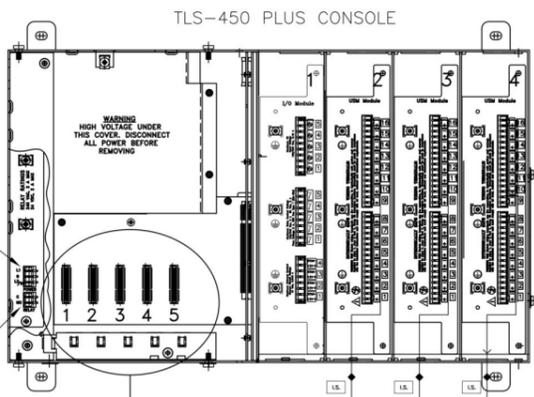
CONTRACTOR TO VERIFY EXACT COLUMNS FOR LOCATIONS OF EXTRA SPARE CONDUIT IN FIELD.

Revision No. Date By Des. Appr.	2 11/21/25/AMT OV HPG BID SET	<p>GREEN LIGHT/RED LIGHT SENSOR LOCATION PLAN</p> <p>SWC W. ROAD + MASON RD. CYPRESS, TX</p> <p>COSTCO FUEL FACILITY (LOC. TBD)</p>
<p>MASTER RELEASE DATE: 05/01/2025 CORE</p>		<p>Costco GASOLINE</p> <p>COSTCO WHOLESALE 730 LAKE DRIVE ISSAQUAH, WA 98027</p>
<p>Scale: Horizontal N/A, Vertical N/A</p> <p>Designed: SC/MS/CS, Drawn: SC/MS/CS, Checked: DL, Approved: HPG, Date: 09/11/25</p>		<p>Professional Engineer</p> <p>HAL P. GRUBB 133604 PROFESSIONAL ENGINEERING</p>
<p>Job Number: 23909</p> <p>Sheet: E4-1</p>		<p>For: Barghausen Consulting Engineers, LLC.</p> <p>18215 72nd Avenue South Kent, WA 98032 425.251.6222 barghausen.com</p>

DESCRIPTION

THIS DRAWING DESCRIBES THE INTRINSICALLY SAFE EQUIPMENT AND ASSOCIATED APPARATUS THAT TOGETHER FORM AN INTRINSICALLY SAFE SYSTEM.

TLS-450 PLUS CONSOLES ARE IDENTIFIED BY FORM NUMBERS 8600. A TLS-450 PLUS CONSOLE CANNOT BE CONNECTED IN PARALLEL WITH ANOTHER TLS-450 PLUS OR ANY OTHER ASSOCIATED APPARATUS. TLS-450 PLUS CONSOLES AND OPTIONAL EXPANSION BOXES MUST BE INSTALLED IN INDOOR NON-HAZARDOUS AREAS.



COMM MODULES	PERMISSIBLE SLOT(S)
SITEFAX MODEM MODULE	1, 2 OR 3
USB/WIRELESS MODULE	5 ONLY
ETHERNET INTERFACE MODULE	4 ONLY
SINGLE SERIAL PORT MODULE	1, 2 OR 3
DUAL SERIAL PORT MODULE	1, 2 OR 3
ELECTRONIC DISPENSER INTERFACE MODULE (EDIM)	1, 2 OR 3
CURRENT LOOP DISPENSER INTERFACE MODULE (CDIM)	1, 2 OR 4

NOTE: Limited single port capability in slot 3.

Veeder Root Console

CLASS I, DIVISION 1, GROUP D
CLASS I, ZONE 0, GROUP IIA
HAZARDOUS LOCATION
INTRINSICALLY SAFE (I.S.) APPARATUS

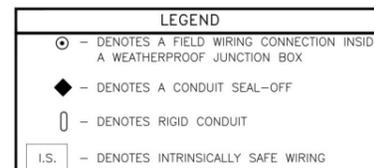
I.S. TERMINAL (CONSOLE)

I.S.

I.S.

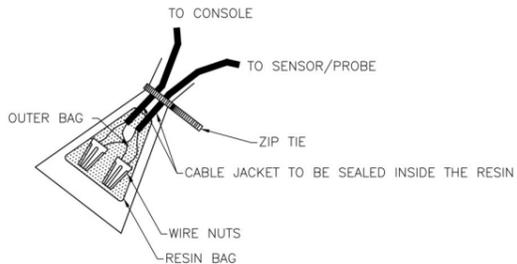
MAGNETOSTRICTIVE PROBES - 84639X-XXX, 85639X-XXX
MAG SUMP SENSOR - 857080-XXX
ISD FLOWMETER - 331847-XXX, 332374-XXX
ISD PRESSURE SENSOR - 861190-XXX
DPLLD - 8590XX-XXX

DISCRIMINATING DISPENSER PAN - 794380-322
DISCRIMINATING CONTAINMENT SUMP - 794380-352
INTERSTITIAL - 7943XX-40X
SUMP - 7943XX-20X
HYDROSTATIC - 7943XX-30X
POSITION SENSITIVE - 7943XX-323
POSITION SENSITIVE STEEL TANK - 7943XX-333
STEEL TANK - 7943XX-4X0
OIL/WATER SEPARATOR SENSOR - 7946XX-XXX



A Not Used
SCALE: NONE

INSTRUCTIONS:
NOTE: WHEN TEMPERATURE IS BELOW 50°F (10°C), KEEP RESIN IN A WARM PLACE PRIOR TO MIXING (e.g., IN AN INSIDE POCKET NEXT TO BODY).
1. REMOVE GUARD BAG, USING CAUTION NOT TO DAMAGE INNER BAG.
2. GRIP BOTH EDGES OF BAG AT THE CENTER BARRIER, WHILE YOU FLEX AND WRINKLE THE BAG ACROSS THE BARRIER, THIS WILL WEAKEN THE BARRIER.
3. SQUEEZE THE CLEAR SIDE OF THE RESIN, FORCING THE RESIN THROUGH THE CENTER BARRIER.
4. MIX THOROUGHLY TO A UNIFORM COLOR BY SQUEEZING CONTENTS BACK AND FORTH 25-30 TIMES.
5. SQUEEZE RESIN TO ONE END OF BAG, AND CUT-OFF OTHER END.
6. SLOWLY INSERT CONNECTION INTO SEALING PACK UNTIL IT FITS SNUGLY AGAINST THE OPPOSITE END.
7. TWIST OPEN END OF BAG AND USE TIE WRAP TO CLOSE IT OFF, OR WRAP OPEN END OF BAG WITH VINYL ELECTRICAL TAPE AND POSITION THE TAPED END UP UNTIL THE RESIN JELLS.



B Veeder Root Splicing Detail
SCALE: NONE

INTRINSICALLY-SAFE AREA

BAY 1	BAY 2	BAY 3	BAY 4	BAY 1	BAY 2	BAY 3	BAY 4
5 SPARE	5 SPARE	16 PREM FILL	16 DISPENSER 13/14	15 SPARE	15	15	15
4 ADDITIVE HOOK IN	4 SPARE	15 PREM ANNULAR	15 DISPENSER 11/12	14 SPARE	14	14	14
3 PREM HOOK IN	3 SPARE	14 REG. UNL #2 STP	14 DISPENSER 9/10	13 SPARE	13	13	13
2 UNL #2 HOOK IN	2 SPARE	13 REG. UNL #2 FILL	13 DISPENSER 7/8	12 SPARE	12	12	12
1 UNL #1 HOOK IN	1 SPARE	12 REG. UNL #2 ANNULAR	12 DISPENSER 5/6	11 SPARE	11	11	11
		11 REG. UNL #1 STP	11 DISPENSER 3/4	10 SPARE	10	10	10
5 PREM A HOOK OUT	5 SPARE	10 REG. UNL #1 FILL	10 DISPENSER 1/2	9 DISPENSER 31/32	9	9	9
4 UNL #2B HOOK OUT	4 SPARE	9 REG. UNL #1 ANNULAR	9 EXPANSION SUMP #2	8 DISPENSER 29/30	8	8	8
3 UNL #2A HOOK OUT	3 VST OVERFILL	8 DPLLD GAS ADDITIVE	8 EXPANSION SUMP #1	7 DISPENSER 27/28	7	7	7
2 UNL #1B HOOK OUT	2 ADDITIVE HOOK OUT	7 DPLLD PREM.	7 PREMIUM MANIFOLD SUMP	6 DISPENSER 25/26	6	6	6
1 UNL #1A HOOK OUT	1 PREM B HOOK OUT	6 DPLLD REG. UNL #2	6 UNLEADED MANIFOLD SUMP	5 DISPENSER 23/24	5	5	5
		5 DPLLD REG. UNL #1	5 ADDITIVE TRANSITION SUMP	4 DISPENSER 21/22	4	4	4
4 NOT USED	4 NOT USED	4 ATG-ADDITIVE	4 VENT SUMP	3 DISPENSER 19/20	3	3	3
3 NOT USED	3 NOT USED	3 ATG-PREM.	3 ADDITIVE STP	2 DISPENSER 17/18	2	2	2
2 NOT USED	2 NOT USED	2 ATG-REG. UNL #2	2 ADDITIVE ANNULAR	1 DISPENSER 15/16	1	1	1
1 NOT USED	1 NOT USED	1 ATG-REG. UNL #1	1 PREM STP				
MODULE TYPE: I/O	MODULE TYPE: I/O	MODULE TYPE: USM	MODULE TYPE: USM	MODULE TYPE: USM	MODULE TYPE:	MODULE TYPE:	MODULE TYPE:

NOTE: VEEDER-ROOT CONSOLE SHIPPED TO SITE PRE-PROGRAMMED BY OWNERS START-UP TECH.

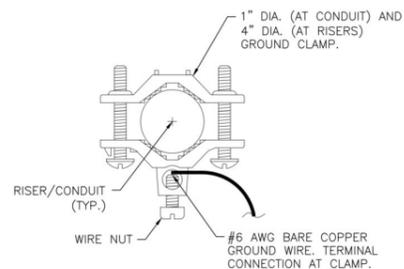
Module Configuration

XB Expansion Console

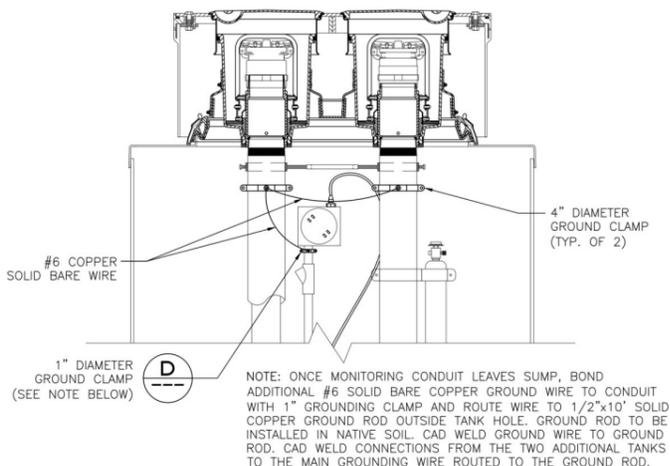
G Veeder Root Console Module Configuration
SCALE: NONE

C Not Used
SCALE: NONE

D Ground Clamp Detail
SCALE: NONE



E Static Grounding Detail
SCALE: NONE



F Not Used
SCALE: NONE

VEEDER ROOT CONSOLE AND DETAILS
SWC W. ROAD + MASON RD.
CYPRESS, TX
COSTCO FUEL FACILITY (LOC. TBD)

COSTCO GASOLINE
COSTCO WHOLESALE
730 LAKE DRIVE
ISSAQUAH, WA 98027

MASTER RELEASE
DATE: 05/01/2025 CORE



Scale: Horizontal N/A, Vertical N/A
Designed: SC/AGS
Drawn: SC/AGS
Checked: DL
Approved: HPG
Date: 08/11/25

Barghausen Consulting Engineers, LLC.
18215 72nd Avenue South
Kent, WA 98032
425.251.6222
barghausen.com



Job Number: 23909
Sheet: E5-0