

ELECTRICAL ABBREVIATIONS LIST

Table with 4 columns: Abbreviation, Description, Abbreviation, Description. Includes entries like 1P (1 POLE), AC (ARMOR CLAD CABLING), INT (INTERIOR), etc.

ELECTRICAL SYMBOL NOTES

Table with 2 columns: Symbol, Description. Includes symbols for special connections, panelboards, conduit, and home runs.

GENERAL ELECTRICAL NOTES

- 1. COORDINATE LOCATIONS OF DEVICES WITH OWNER.
2. CONTRACTOR SHALL INCREASE CONDUCTOR AND CORRESPONDING CONDUIT SIZE FOR VOLTAGE DROP...



Table for REVISIONS with columns: NO., DATE, DRAWN, CHKD, DESIGN, APPD.



APPROVAL table with columns: DRAWN, JPD, 03/20/2023; DESIGN, DMW, 03/20/2023; CHECKED, PMG, 03/20/2023; APPROVED, PMG, 03/20/2023.

HISTORIC DOWNTOWN KENNEWICK PARTNERSHIP
FLAG PLAZA ELECTRICAL UPGRADE
30 N. BENTON STREET KENNEWICK, WA 98536

GENERAL NOTES

DRAWING LIST

Table with 2 columns: NO., DESCRIPTION. Lists E001 GENERAL NOTES, E002 NOTES, E101 SITE PLAN, E102 ENLARGED PLAN AND DETAIL, E901 DIAGRAMS.

DWG. NO. E001
SCALE: NOT TO SCALE
ISSUE DATE: 03/20/2023
JOB No. 9064

I:\PROJECTS\9000\9064\_HDKP\_Flag Plaza Electrical Upgrade\DWG\906400E001.dwg - Mar 20, 2023, 1:08 pm - Jacob P Dolan

**GENERAL ELECTRICAL**

**CODES, STANDARDS AND FEES**

ALL LABOR AND MATERIALS SHALL COMPLY WITH LATEST RULES AND REGULATIONS OF THE FOLLOWING STANDARDS AND CODES:

- WAC 296-46B
- WAC 51-50
- WASHINGTON STATE ENERGY CODE
- NATIONAL ELECTRICAL CODE
- APPLICABLE NFPA, OSHA, IFC AND IBC PUBLICATIONS
- APPLICABLE ANSI, UL, NECA AND NEMA STANDARDS
- REQUIREMENTS OF WASHINGTON STATE DEPARTMENT OF HEALTH REQUIREMENTS OF LOCAL UTILITY

CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS AND FEES REQUIRED BY ANY GOVERNMENT AGENCY HAVING JURISDICTION OVER THE WORK AND SHALL ARRANGE ALL INSPECTIONS REQUIRED BY THESE AGENCIES.

**INSTALLATION AND COORDINATION**

ALL WORK SHALL BE DONE IN A NEAT AND WORKMANLIKE MANNER. ALL LABOR, MATERIAL, TOOLS, PERMITS, ETC. REQUIRED FOR A COMPLETE INSTALLATION, SHALL BE FURNISHED BY THIS CONTRACTOR. COORDINATE WORK UNDER THIS DIVISION WITH ALL OTHER WORK UNDER CONTRACT, INCLUDING WORK PROVIDED BY THE OWNER'S FORCES.

THERE SHALL BE NO ADDITIONAL COST FOR CUTTING, PATCHING, WIRING, FINISHING, OR ANY OTHER WORK REQUIRED FOR RELOCATION OF WORK INSTALLED DUE TO INTERFERENCES BETWEEN WORK OF THE VARIOUS TRADES.

BY THE ACT OF SUBMITTING A BID THE CONTRACTOR SHALL BE DEEMED TO HAVE EXAMINED THE SITE AND ALL STRUCTURAL, ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS AND TO HAVE ACCEPTED EXISTING CONDITIONS AND INCLUDED ALLOWANCES FOR THEM IN THE BID. ANY CONTRADICTIONS, DISCREPANCIES OR DESIGN WORK WHICH DOES NOT MEET CODE OR WILL NOT FUNCTION AS INTENDED SHALL BE REPORTED TO THE ENGINEER IN WRITING PRIOR TO THE BID. IF CONTRACTOR DOES NOT REPORT ANY DISCREPANCIES THEN CONTRACTOR WILL BE HELD RESPONSIBLE FOR COMPLETE ELECTRICAL SYSTEM AND MAKE ANY REQUIRED CHANGES AT NO ADDITIONAL COST.

THE GENERAL ARRANGEMENT OF OUTLETS AND OTHER EQUIPMENT AS SHOWN ON THE PLANS IS DIAGRAMMATIC AND APPROXIMATELY CORRECT AS TO LOCATIONS. WHERE MINOR CHANGES ARE REQUIRED BECAUSE OF STRUCTURAL CONDITIONS OR FOR THE CONVENIENCE OF THE OWNER, SUCH CHANGES SHALL BE MADE AT THE CONTRACTORS EXPENSE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACCURATE LOCATION OF ALL LIGHTING FIXTURES, OUTLETS, ETC. WITH RESPECT TO EQUIPMENT, DOORS, PARTITIONS, CABINETS, ETC

**DRAWINGS**

THE PLANS ARE INTENDED TO ONLY SHOW GENERAL LOCATIONS AND OPERATION. SPECIFIC LAYOUT AND ELECTRICAL CONNECTIONS SHALL BE DETERMINED BY THE CONTRACTOR TO CONFORM WITH INTENT OF CONTRACT DOCUMENTS. ANY PROPOSED DEPARTURES FROM THESE PLANS AND SPECIFICATIONS SHALL BE REQUESTED IN WRITING FROM THE OWNER'S REPRESENTATIVE. THE REQUEST SHALL BE MADE AS SOON AS PRACTICABLE AND WITHIN 30 DAYS AFTER CONTRACT AWARD, STATING THE REASONS FOR THE PROPOSED DEPARTURES.

**LABELING**

PROVIDE PHENOLIC NAMEPLATES IDENTIFYING TRANSFORMERS, PANELBOARDS, MOTOR CONTROLLERS, CONTROL STATIONS, SAFETY SWITCHES AND ALL ENCLOSURES THAT ARE PART OF THE ELECTRICAL SYSTEM. NAMEPLATES SHALL BE CONSTRUCTED OF 1/16-INCH THICK PLASTIC LAMINATED MATERIAL. NORMAL POWER: BLACK LETTERS ON WHITE FIELD. EMERGENCY POWER: WHITE LETTERS ON RED FIELD. ENGRAVE THROUGH COLORED SURFACE MATERIAL TO CONTRASTING COLORED SUBLAYER. INDICATE IDENTIFIER, AMPACITY, VOLTAGE, PHASE, NO. OF PHASE & NEUTRAL WIRES, MAXIMUM SHORT CIRCUIT CURRENT RATING, AND SERVING POWER SOURCE.

PROVIDE TYPED CURRENT/UPDATED PANELBOARD DIRECTORIES & LOAD SCHEDULES LOCATED IN SELF-ADHESIVE CARD HOLDER ATTACHED TO INSIDE PANEL, SQUARE D 8003115901 OR APPROVED EQUAL.

PROVIDE TYPED RECEPTACLE LABELS BY ELECTRONIC LABEL MAKER WITH BLACK-ON-CLEAR ACID FREE TAPE, BROTHER PT-H110 AND TZEAF131 RESPECTIVELY OR APPROVED EQUAL. INDICATE POWER SOURCE PANEL NAME & CIRCUIT NUMBER(S).

**HOUSEKEEPING**

THE CONTRACTOR SHALL CONTINUALLY REMOVE DEBRIS, CUTTINGS, CRATES, ETC. CREATED BY HIS WORK. SUCH SHALL BE DONE AT SUFFICIENT FREQUENCY TO ELIMINATE HAZARDS TO THE PUBLIC, OTHER WORKMEN AND OWNER'S EMPLOYEES. CONTRACTOR WILL REMOVE DEMOLISHED AND ABANDONED MATERIAL. IF DIRECTED BY OWNER, DESIGNATED MATERIALS WILL BE REMOVED TO A LOCATION IDENTIFIED BY THE OWNER.

**FIELD TESTS AND INSPECTIONS**

AFTER ELECTRICAL SYSTEM IS COMPLETE AND ALL SYSTEMS HAVE BEEN APPROPRIATELY CHECKED, CALIBRATED AND ADJUSTED, THEN CONTRACTOR SHALL INFORM THE OWNER FOR FINAL INSPECTION AND OPERATIONAL CHECK OUT. A WRITTEN REPORT OF CONDITIONS, REQUIRED CHANGES, ETC. WILL FOLLOW THE INSPECTION AND CONTRACTOR WILL MAKE CHANGES AS NECESSARY.

THE CONTRACTOR SHALL SHOW BY DEMONSTRATION IN SERVICE THAT ALL CIRCUITS, FIXTURES AND EQUIPMENT ARE IN GOOD OPERATING CONDITION.

TESTS SHALL BE SUCH THAT EACH PIECE OF CONTROL EQUIPMENT WILL FUNCTION NOT LESS THAN FIVE TIMES.

ALL DEFECTIVE MATERIAL AND WORKMANSHIP DISCLOSED AS THE RESULT OF THE TESTS GIVEN HEREIN SHALL BE CORRECTED AT NO COST TO THE OWNER.

**OPERATION AND MAINTENANCE MANUAL**

PROVIDE OPERATION AND MAINTENANCE MANUALS FOR TRAINING OF OWNER'S REPRESENTATIVE IN OPERATION AND MAINTENANCE OF SYSTEMS AND RELATED EQUIPMENT. PREPARE A SEPARATE CHAPTER FOR INSTRUCTION OF EACH CLASS OF EQUIPMENT OR SYSTEM. CONTRACTOR SHALL FURNISH (1) FULL SIZE COPY OF AS BUILTS.

**GUARANTEE**

ALL WORK AND EQUIPMENT SHALL BE FREE OF DEFECTS FOR A PERIOD OF ONE YEAR FROM DATE OF ACCEPTANCE. ANY DEFECTS ARISING WITHIN THE 1-YEAR GUARANTEE PERIOD SHALL BE REPLACED OR REPAIRED BY THE CONTRACTOR AT NO COST TO THE OWNER.

**BASIC MATERIALS AND METHODS**

**PANELBOARDS**

MANUFACTURER, STYLE, ETC. AS INDICATED ON PLANS. COMPLETE WITH TYPEWRITTEN DIRECTORY & LOAD SCHEDULE, CIRCUIT BREAKERS (MULTIPLE-POLE INTERNAL TRIP), DEAD FRONT, LOCKING DOORS, UL LISTING, ETC.

**RACEWAY, FITTINGS, BOXES, AND SUPPORTS**

**GENERAL**

THIS SECTION SPECIFIES ALL RACEWAYS, CONDUITS, BOXES, FITTINGS, AND SUPPORTS FOR THIS INSTALLATION. THE LISTING OF PARTICULAR EQUIPMENT AND MATERIALS SHALL NOT BE CONSTRUED AS BEING ALL THE MATERIAL AND EQUIPMENT REQUIRED TO COMPLETE THE WORK. MATERIALS NOT SPECIFICALLY CALLED OUT, BUT REQUIRED FOR A COMPLETE INSTALLATION, SHALL BE SUPPLIED BY THE CONTRACTOR.

**CONDUIT**

ELECTRICAL METALLIC TUBING (EMT) SHALL BE THE SAME INSIDE DIAMETER AS RIGID STEEL CONDUIT, MINIMUM SIZE 3/4 INCH. ALL CONDUIT SHALL BE GALVANIZED AND EACH LENGTH SHALL BE UL LABELED. COUPLINGS AND CONNECTORS SHALL BE GLAND COMPRESSION TYPE PRESSURE CAST OR SET SCREW COUPLING: APPLETON OR EQUAL. PROVIDE PRE-INSULATED BUSHINGS.

**RACEWAY, FITTINGS, BOXES, AND SUPPORTS (CONT)**

FLEXIBLE METALLIC TUBING SHALL BE FORMED FROM SPIRAL WOUND GALVANIZED STEEL STRIP WITH SUCCESSIVE CONVOLUTIONS SECURELY INTERLOCKED AND EACH LENGTH MARKED WITH THE UL LABEL. MINIMUM SIZE SHALL BE 3/4 INCH. CONNECTIONS TO BOXES AND EMT SHALL BE MADE WITH STANDARD COUPLINGS APPROVED FOR THE APPLICATION: OZ GEDNEY OR EQUAL.

**BOXES**

OUTLET, JUNCTION AND DEVICE BOXES INSTALLED CONCEALED INDOORS SHALL BE STANDARD 14-GAUGE GALVANIZED PRESSED STEEL. ALL UNUSED KNOCKOUTS SHALL BE LEFT SEALED. MINIMUM BOX SIZE SHALL BE 4 INCHES SQUARE. BOXES INSTALLED WHERE FINAL FINISH IS TO BE PLASTER OR DRYWALL SHALL HAVE A PLASTER RING. COVERS TO BE INSTALLED ON ALL BOXES.

BOXES SHALL ACCOMMODATE THE DEVICES TO BE INSTALLED AND SHALL BE SIZED AS REQUIRED BY APPLICABLE CODES FOR NUMBER AND SIZE OF CONDUITS AND CONDUCTORS ENTERING AND LEAVING.

PULL BOXES AND JUNCTION BOXES SHALL BE INSTALLED FOR PULLING CABLE WHERE REQUIRED BY THE DRAWINGS OR TO MEET REQUIREMENTS OF THE NEC. PULL BOXES USED FOR MULTIPLE CONDUIT RUNS SHALL NOT COMBINE CIRCUITS FED FROM DIFFERENT MCCS, SWITCHBOARDS, PANELBOARDS OR SWITCHGEAR.

FLUSH-FLOOR OUTLET BOXES SHALL BE PRESSED STEEL, 2-GANG AND FULLY ADJUSTABLE. BOXES SHALL BE SET PLUMB AND INSTALLED SUCH THAT COVER PLATE SEATS NEATLY AND FLUSH INTO FINISH FLOOR APPLICATION. BOXES TO BE EQUAL TO WIREMOLD RESOURCE RFB SERIES, NO. RFB2 WITH ALL NECESSARY AUXILIARIES.

**INSTALLATION**

INTERIOR CONDUITS TO BE EMT OR FLEXIBLE METALLIC CONDUIT AS ALLOWED BY THE NEC. EXTERIOR UNDERGROUND CONDUITS TO BE RIGID PVC OR PVC-COATED RIGID METALLIC CONDUIT.

RACEWAYS SHALL BE RUN CONCEALED IN OFFICE AND FINISHED AREAS. WHERE CONDITIONS DICTATE, SURFACE RACEWAY SHALL BE EMT RUN PARALLEL TO CEILING, AND VERTICAL RUNS SHALL BE PERPENDICULAR TO THE FLOOR. SUPPORT AS REQUIRED. COMPRESSION TYPE FITTINGS SHALL BE USED WITH EMT.

ALL REQUIRED PULL, JUNCTION, AND/OR SPLICE BOXES SHALL BE FURNISHED AND INSTALLED WHETHER INDICATED OR NOT.

SEAL ALL BUILDING PENETRATIONS WITH SILICONE SEALANT. WHERE CONDUITS PENETRATE A FIRE RATED WALL, FLOOR OR CEILING, THE OPENING AROUND THE CONDUIT SHALL BE SEALED WITH CAULK CP 25 OR PUTTY 303 AS MANUFACTURED BY 3M, OR EQUAL. THE INSTALLATION SHALL CONFORM TO A UL LISTED DETAIL, PER MANUFACTURER'S INSTRUCTION.

**WIRE, CABLE, AND CONNECTORS**

**CONDUCTORS**

CONDUCTORS AND CABLES SHALL BE IDENTIFIED ON THE OVERALL JACKET AS TO THE MANUFACTURER'S NAME, CONDUCTOR SIZE, NUMBER OF CONDUCTORS, TYPE OF INSULATION, TYPE OF JACKET, AND VOLTAGE RATING. INFORMATION SHALL BE PRINTED EVERY THREE FEET.

FOR SIZES NO. 12 THROUGH NO. 4 CONDUCTOR INSULATION SHALL BE COLORED THE ENTIRE LENGTH; ENDS OF THE CONDUCTORS MARKED WITH COLORED TAPE IS NOT ACCEPTABLE. FOR SIZES ABOVE NO. 4 CONDUCTOR ENDS MAY BE MARKED WITH COLORED TAPE. TYPE-MC CABLE MAY BE USED WHERE PERMITTED BY CODE.

ALL 600-VOLT SINGLE CONDUCTORS, NO. 4 AND SMALLER, SHALL BE COPPER TYPE THHN/THWN, DUAL RATED, CLASS B STRANDING, PVC INSULATION WITH NYLON JACKET RATED AT 75 DEGREES C IN WET LOCATIONS, 90 DEGREES C IN DRY LOCATIONS UNLESS NOTED OTHERWISE. CONDUCTOR SIZES NO. 10 OR NO. 12 MAY BE SOLID OR STRANDED.

GROUND WIRES SHALL BE BARE OR INSULATED COPPER CONDUCTOR CLASS B STRANDING.

MINIMUM SIZE OF ALL 600 VOLT POWER WIRING TO BE NO. 12 UNLESS OTHERWISE NOTED. CONTROL WIRING FOR HVAC UNITS SHALL BE BY THE MECHANICAL CONTRACTOR.

UNLESS NOTED OTHERWISE, EQUIPMENT WITH CIRCUIT AND PANEL IDENTIFICATION ARE 3 NO.12-3/4" CONDUIT.

METAL CLAD CABLE MAY BE USED AS ALLOWED BY THE NEC.

**INSTALLATION**

ALL POWER CONDUCTORS SHALL BE INSTALLED CONTINUOUS WITH NO SPLICES. PULL BOXES SHALL BE USED TO KEEP PULLING TENSION WITHIN ALLOWABLE LIMITS SPECIFIED BY MANUFACTURERS. USE WIRE-PULLING COMPOUND FOR INSTALLING CONDUCTORS IN CONDUIT TO LIMIT THE TENSION. PRIOR TO INSTALLING CONDUCTORS, ALL RACEWAYS SHALL BE COMPLETE AND PROTECTED FROM WEATHER. CONDUIT RUNS SHALL BE CLEANED AND SWABBED. DAMAGED CONDUCTOR INSULATION IS REQUIRED TO BE REPLACED.

AT LEAST 6 INCHES OF SLACK CONDUCTOR SHALL BE LEFT AT EACH OUTLET OR JUNCTION BOX AND 9 INCHES OF CONDUCTOR AT EACH UNCONNECTED OUTLET. TAPE FREE ENDS OF UNUSED CONDUCTORS AND COIL NEATLY IN OUTLET BOX.

**WIRING DEVICES**

**PRODUCTS**

WIRING DEVICES SHALL BE UL LABELED FOR THE CURRENT, VOLTAGE, AND FREQUENCY SPECIFIED AND SHALL CONTAIN PROVISIONS FOR BACK WIRING AND SIDE WIRING WITH CAPTIVE BINDING SCREWS.

NON-BACKED UP DEVICES SHALL BE WHITE.

ALL DEVICES SHALL BE MOUNTED IN BOXES OF SHEET STEEL CONSTRUCTION, APPLETON TYPE OB/5B OR APPROVED EQUAL.

SNAP OR ARROWLINK CONNECT STYLE RECEPTACLES ARE ACCEPTABLE.

**RECEPTACLES AND PLUGS**

ALL RECEPTACLES SHALL BE GROUNDING TYPE, NEMA 5-20R, AND HEAVY DUTY INDUSTRIAL TYPE UNLESS NOTED OTHERWISE.

- STANDARD RECEPTACLES EQUAL TO EATON AH5362 SERIES.
- TAMPER RESISTANT RECEPTACLES EQUAL TO EATON AHTR5362 SERIES.
- GROUND FAULT RECEPTACLES SHALL BE SELF TEST TYPE AND TAMPER RESISTANT, EQUAL TO EATON TRSGF20 SERIES.
- WEATHER RESISTANT GROUND FAULT RECEPTACLES SHALL BE SELF TEST TYPE AND TAMPER RESISTANT, EQUAL TO EATON TWRSFG20 SERIES.

**WIRING DEVICES (CONT)**

**DEVICE PLATES**

DEVICE PLATES SHALL BE AS FOLLOWS:

- FINISHED AREA WITH CONCEALED CONSTRUCTION - THERMOPLASTIC NYLON COLOR MATCHING WIRING DEVICE.
- EXPOSED BOXES CONNECTED TO EMT RACEWAY OR STAMPED STEEL DEVICE BOXES - COVERS TO BE GALVANIZED, STAMPED STEEL, 1/2-INCH RAISED RACO 800 SERIES.
- EXPOSED DEVICE BOXES CONNECTED TO RIGID STEEL CONDUIT - GALVANIZED MALLEABLE IRON.
- OUTDOORS OR BELOW GRADE - CAST ALUMINUM.
- FLOOR MOUNTED DEVICES - WIREMOLD RESOURCE RFB SERIES, NO. S39CCTCAL FLANGELESS COVER ASSEMBLY WITH ALL NECESSARY AUXILIARIES.

PROVIDE EXTRA-DUTY DIE-CAST IN-USE WEATHERPROOF LOCKABLE COVERS FOR EXTERIOR RECEPTACLES, 4-INCH DEPTH MINIMUM, EQUAL TO INTERMATIC WP1250MVXD (SINGLE-GANG) AND WP1250MXD (DOUBLE-GANG).

**INSTALLATION**


UNLESS OTHERWISE INDICATED, WALL-MOUNTED RECEPTACLES AND SWITCHES SHALL BE INSTALLED IN SHEET METAL BOXES AND BE FLUSH MOUNTED.

PROVIDE GFCI, WEATHER RATED, AND/OR TAMPER RESISTANT OUTLETS WHERE REQUIRED BY LOCALLY ADOPTED ELECTRICAL CODES.

**GROUNDING**

**INSTALLATION**

ALL POWER CIRCUITS SHALL HAVE A COPPER GROUND CONDUCTOR ROUTED WITH CURRENT CARRYING CONDUCTORS AND CONDUITS MAY BE USED FOR REDUNDANT GROUNDING PATH. ALL BOXES, CABINETS, AND EQUIPMENT SHALL BE BONDED TO THE GROUND CONDUCTOR. ALL METAL RACEWAYS SHALL BE BONDED TO PROVIDE A CONTINUOUS GROUND PATH BACK TO GROUND BUS. CONDUITS SHALL BE BONDED USING APPROVED GROUNDING BUSHING.

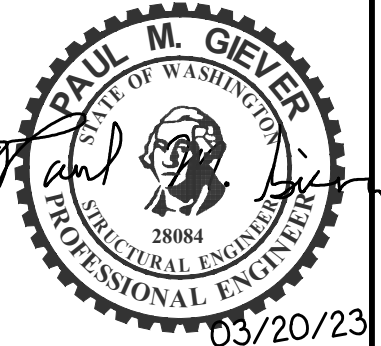


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NO.	DATE	DRAWN	CHKD	DESIGN	APPD	REVISIONS



03/20/23

APPROVAL		
DRAWN	JPD	03/20/2023
DESIGN	DMW	03/20/2023
CHECKED	PMG	03/20/2023
APPROVED	PMG	03/20/2023

HISTORIC DOWNTOWN KENNEWICK PARTNERSHIP

## FLAG PLAZA ELECTRICAL UPGRADE

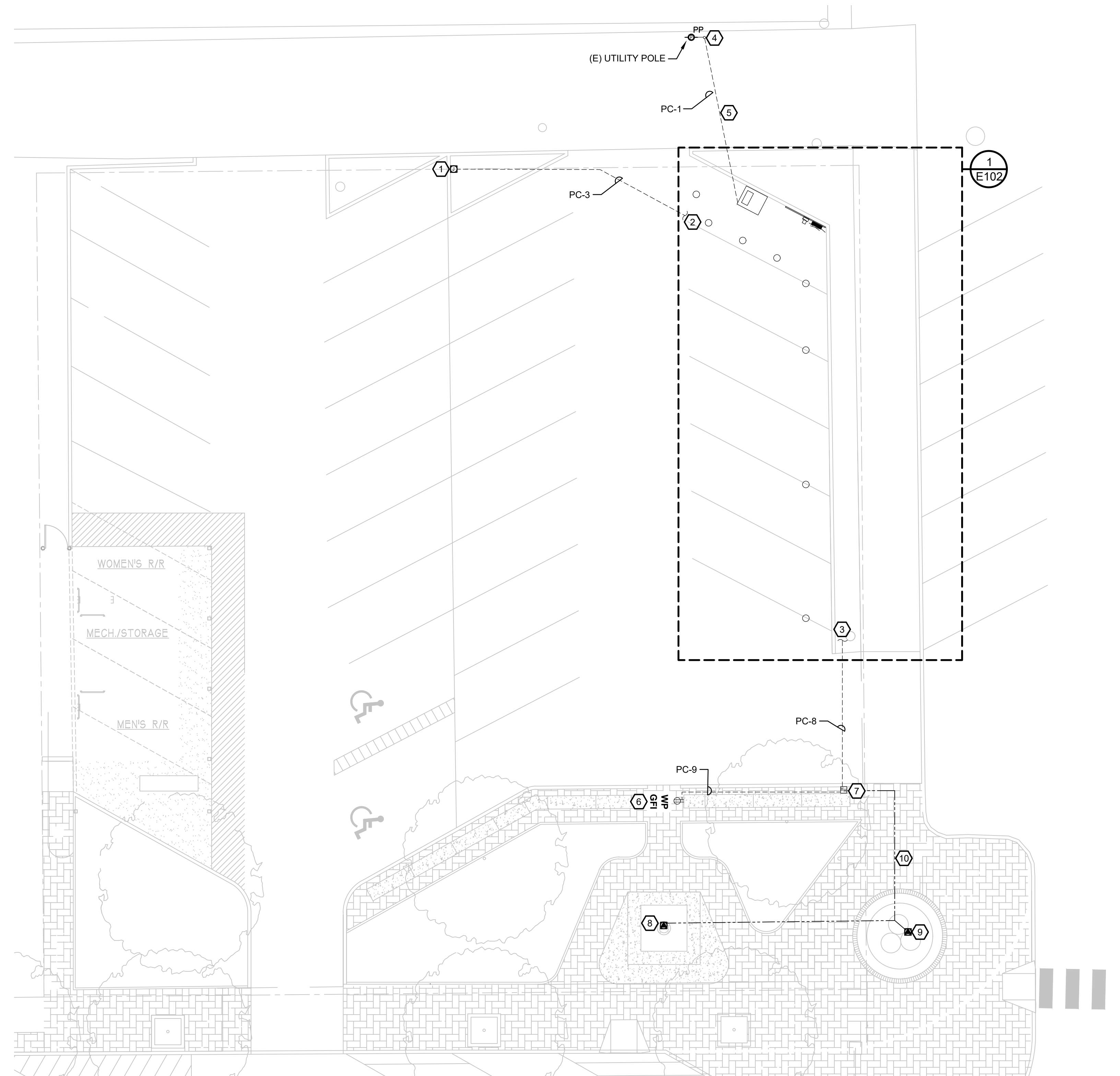
30 N. BENTON STREET, KENNEWICK, WA 99336

# GENERAL NOTES

DWG. NO.	<b>E002</b>		
SCALE:	NOT TO SCALE		
ISSUE DATE:	03/20/2023		
JOB No.	<b>9064</b>		
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**1** **SITE PLAN**  
1/8" = 1'-0"  
NORTH

**ELECTRICAL SYMBOLS LEGEND**

SYMBOL	DESCRIPTION
	DUPLEX RECEPT.
	UTILITY SERVICE POLE
	POWER PEDESTAL (SEE NOTE)
	JUNCTION BOX
	PULL BOX
	HANDHOLE
	EXISTING ELECTRICAL FIXTURE (SEE KEYNOTE)
	PANELBOARD
	UTILITY METER BASE
	UTILITY TRANSFORMER - PAD MOUNT

**GENERAL NOTES**

- SEE E001 FOR GENERAL NOTES.
- ROUTING OF BURIED FEEDERS IS DIAGRAMMATIC ONLY; COORDINATE ACTUAL ROUTING WITH FIELD CONDITIONS AND OBSTACLES.
- NO ATTEMPT HAS BEEN MADE TO INDICATE EXISTING BURIED UTILITIES AND OBSTACLES.
- PRIOR TO BEGINNING WORK, PROVIDE LOCATION SERVICES TO IDENTIFY EXISTING BURIED UTILITIES INCLUDING BUT NOT LIMITED TO WATER, POWER, TELECOMMUNICATION, AND SEWER.
- ALL ACCESSIBLE ELECTRICAL DEVICES AND EQUIPMENT SHALL BE LOCKABLE AND VANDAL-RESISTANT.

**KEYNOTES**

- PROVIDE TWO FOURPLEX RECEPTACLES IN BELOW GRADE JUNCTION BOX FOR THE STAGE. GFCI RATED.
- PANEL A CIRCUIT 29 IN PC-3 CONTINUES ON 1/E102.
- PANEL A CIRCUIT 27 IN PC-8 CONTINUES ON 1/E102.
- NEW SERVICE DROP FROM EXISTING OVERHEAD SERVICE TO NEW UNDERGROUND PRIMARY SERVICE CONDUIT PV-1. COORDINATE WITH UTILITY FOR STUB UP LOCATION.
- PROPOSED ROUTING OF UTILITY PRIMARY CONDUIT.
- INSTALL WEATHER RESISTANT GFI OUTLET IN LOCKABLE ENCLOSURE TO UNDERSIDE OF CONCRETE BENCH
- DEMO EXISTING POWER PEDESTAL AND REPLACE WITH HANDHOLE HH-5. HANDHOLE SHALL CONNECT THE EXISTING FOUNTAIN PUMP AND FLAG LIGHT CONDUITS TO NEW CONDUIT FROM PANEL A.
- REPLACE FLAG POLE LUMINAIRE WITH LED OF EQUIVALENT FLAG LUMENS AND DISTRIBUTION. REFEED FROM PANEL A CIRCUIT #4.
- REFEED THE EXISTING FOUNTAIN PUMP MOTOR FROM PANEL A CIRCUIT #2.
- EXISTING UNDERGROUND CONDUIT SHOWN ON DRAWING IS DIAGRAMMATIC AND DOES NOT REFLECT ACTUAL ROUTE. SEE GENERAL NOTE #3 & #4 ABOVE.

**POWER UTILITY SERVICE MATRIX OF RESPONSIBILITY**

DESCRIPTION	CF	CI	UF	UI
EXCAVATION - PRIMARY CONDUIT	X			
EXCAVATION - SECONDARY CONDUIT	X			
EXCAVATION - VAULT	X			
UTILITY TRANSFORMER VAULT	X	X		
PRIMARY CONDUIT(S)	X	X		
PRIMARY CONDUCTORS			X	X
SECONDARY / SERVICE CONDUIT(S)	X	X		
SECONDARY / SERVICE CONDUCTOR(S)	X	X		
REMOTE METER BASE(S)		X	X	
METER(S)			X	X
CT ENCLOSURE	X	X		
CT'S < 800A OR LESS			X	X
CT'S > 800A	X	X		
TERMINATIONS - CT'S				X
TERMINATIONS - UTILITY TRANSFORMER PRIMARY LUGS				X
TERMINATIONS - UTILITY TRANSFORMER SECONDARY LUGS				X
TERMINATIONS - SECONDARY / SERVICE EQUIPMENT		X		

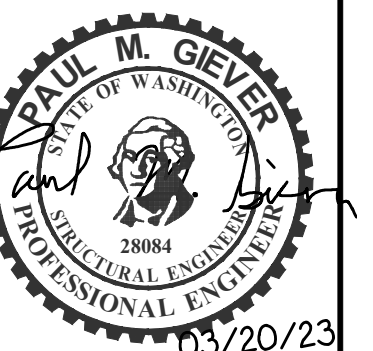
**ABBREVIATIONS**

CF	CONTRACTOR FURNISHED	CI	CONTRACTOR INSTALLED
UF	UTILITY FURNISHED	UI	UTILITY INSTALLED

**GENERAL NOTES**

- BENTON PUBLIC UTILITY DISTRICT IS AND FROM HERE ON REFERRED TO AS ELECTRICAL UTILITY. POINT OF CONTACT IS: SHANNA EVERSON (509) 585-5367 EVERSONS@BENTONPUD.COM
- MINIMUM ELECTRICAL SERVICE UNDERGROUND TRENCH WIDTH SHALL BE EITHER 18 INCHES WHEN ONLY ELECTRICAL UTILITY IS PRESENT OR SHARING WITH INTERNET AND/OR TELEPHONE UTILITIES OR 60 INCHES WHEN SHARING WITH GAS, SEWER, AND/OR WATER UTILITIES.
- MINIMUM ELECTRICAL SERVICE UNDERGROUND TRENCH DEPTH SHALL BE EITHER 48 INCHES WHERE VOLTAGE IS GREATER THAN 600 VOLTS OR 42 INCHES WHERE VOLTAGE IS LESS THAN 600 VOLTS.
- DIG OUT APPROPRIATE SIZED HOLE TO ACCOMMODATE UTILITY VAULT(S); MINIMUM OF 1 FOOT LARGER ON ALL HORIZONTAL DIRECTIONS THAN VAULT(S) BEING INSTALLED.
- CONTRACTOR SHALL COORDINATE SECONDARY WIRE TERMINATIONS (TYPES & QUANTITIES) WITH UTILITY.
- CONTRACTOR SHALL ENSURE ALL MATERIALS PROVIDED ARE FROM APPROVED UTILITY ELECTRICAL EQUIPMENT LIST.

NO.	DATE	REVISIONS	CHKD	DESIGN	APPD



APPROVAL

DRAWN	JPD	03/20/2023
DESIGN	DMW	03/20/2023
CHECKED	PMG	03/20/2023
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HISTORIC DOWNTOWN KENNEWICK PARTNERSHIP  
**FLAG PLAZA ELECTRICAL UPGRADE**  
30 N. BENTON STREET KENNEWICK, WA 99336  
**SITE PLAN**

DWG. NO. **E101**

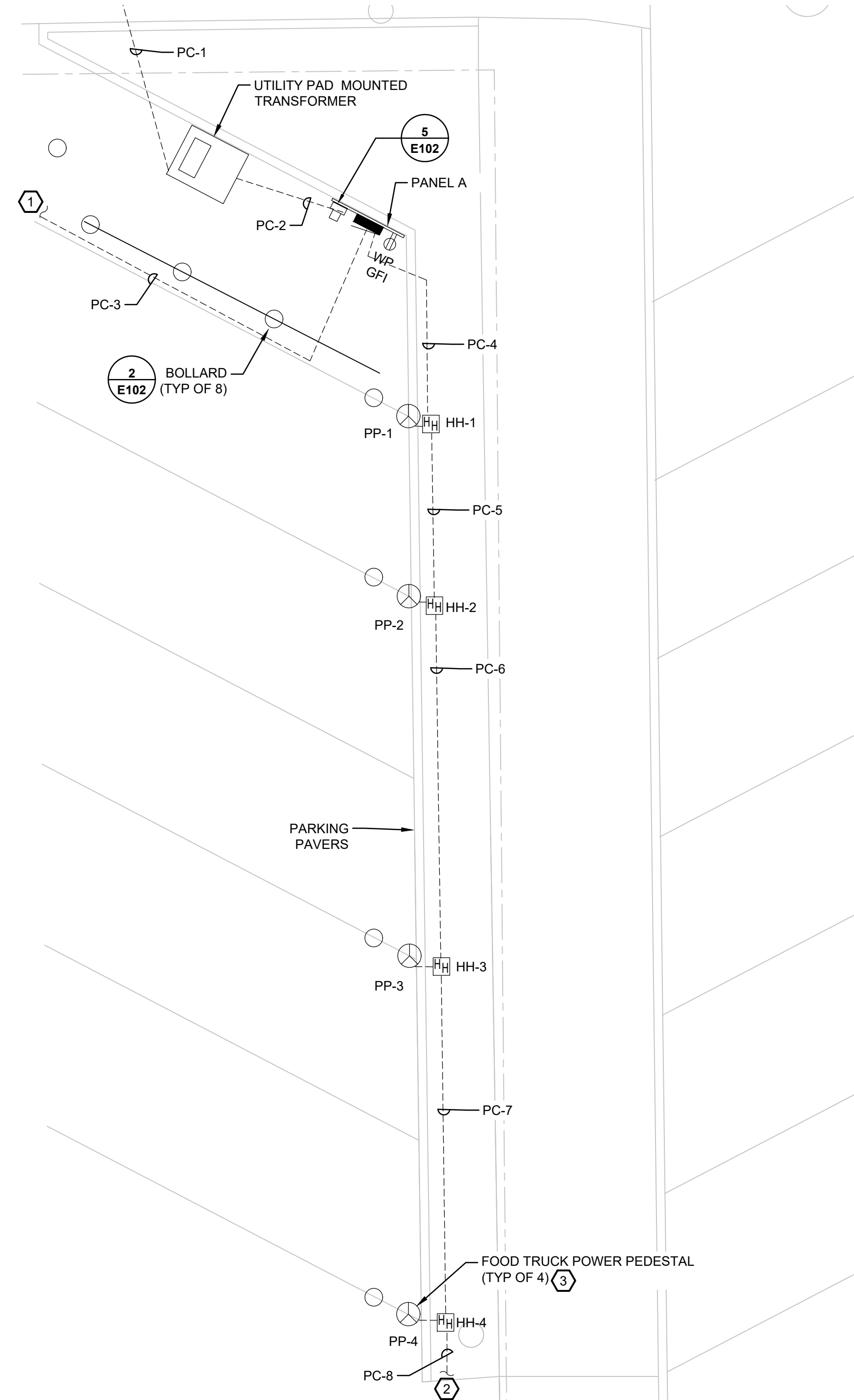
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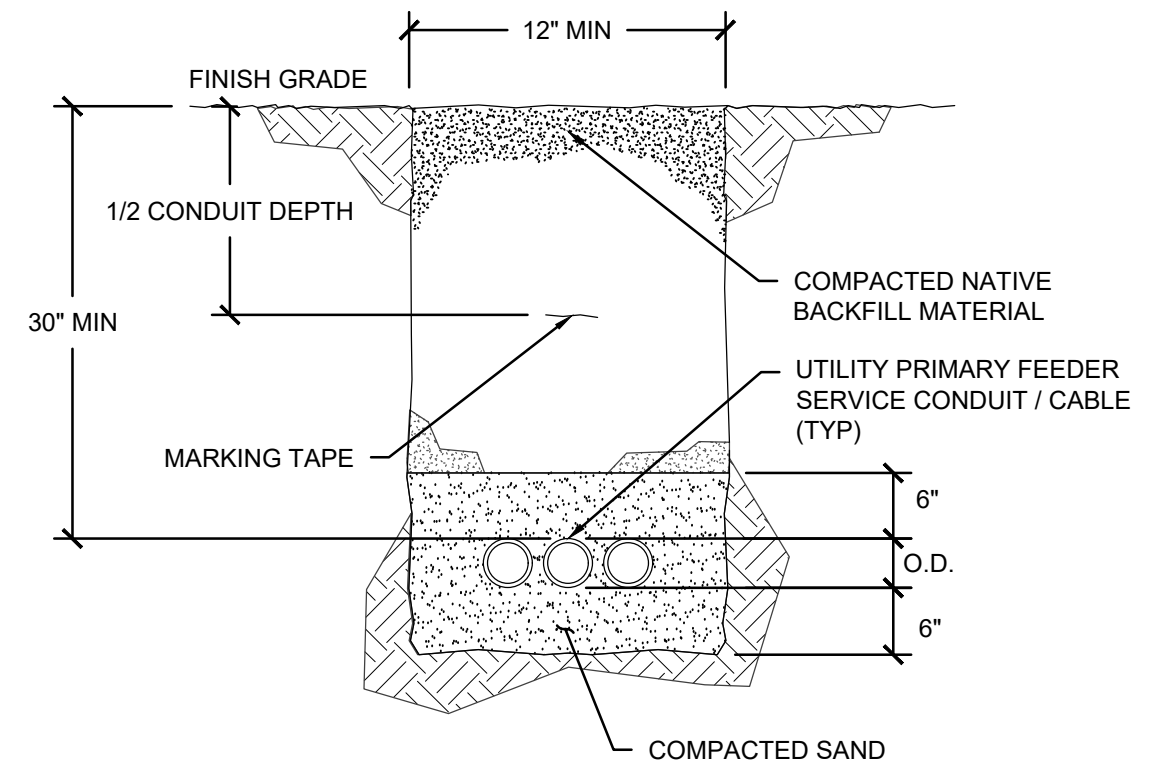
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CALL 811  
2 BUSINESS DAYS  
BEFORE YOU DIG

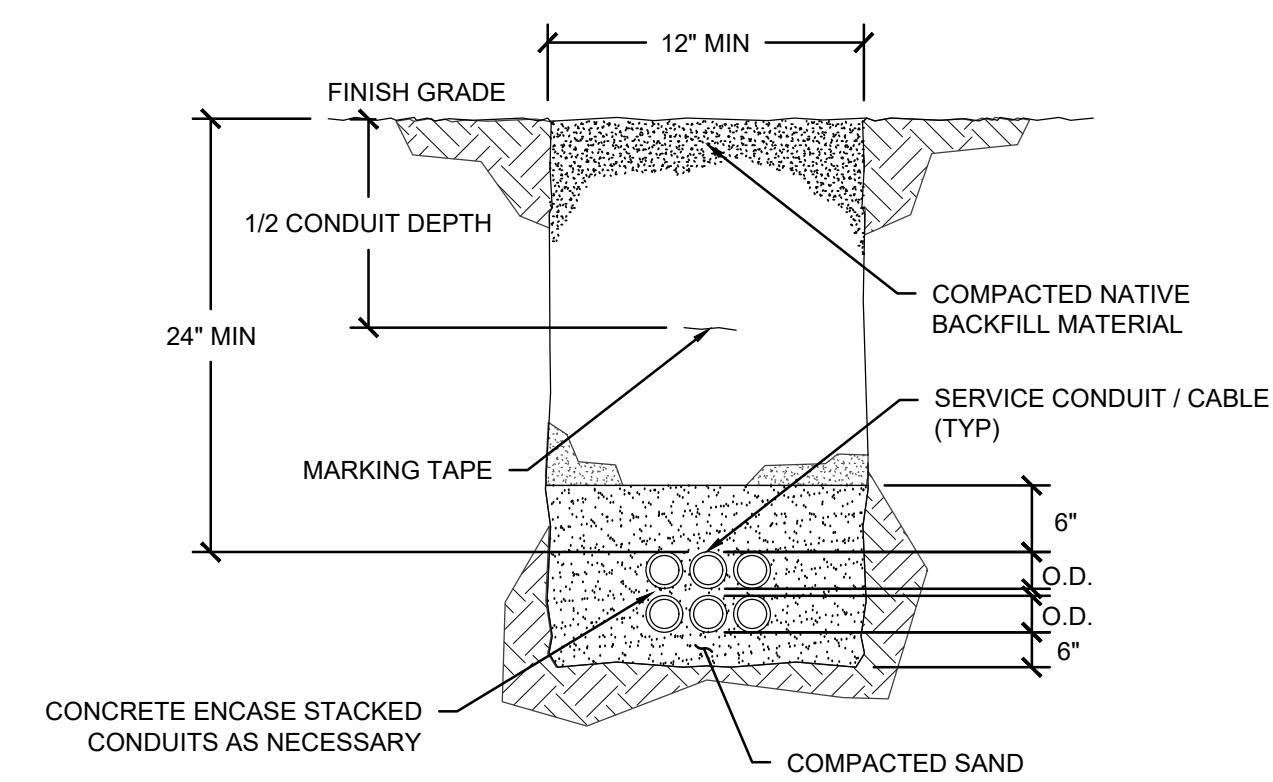
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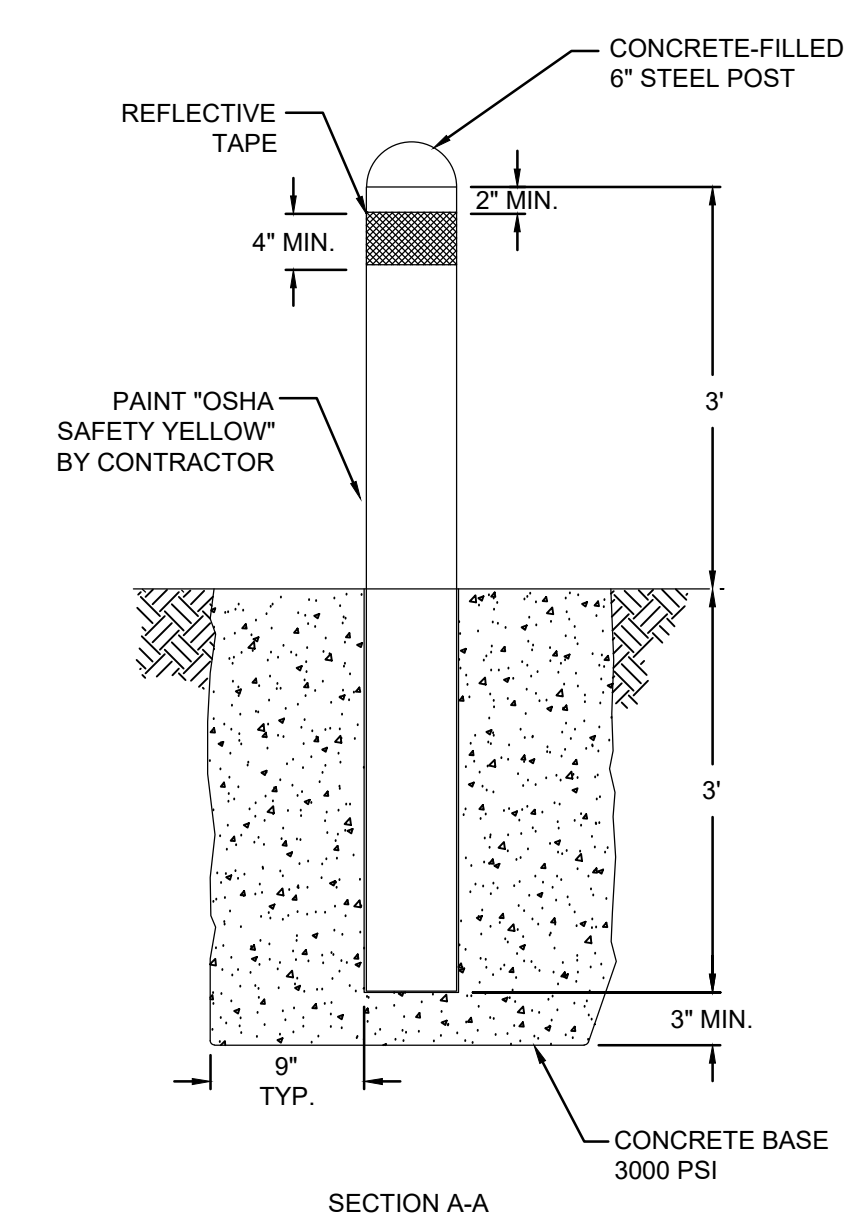
**1 SITE PLAN**  
3/16" = 1'-0"  
NORTH



**4 UTILITY PRIMARY FEEDER CONDUIT TRENCH DETAIL (MEDIUM VOLTAGE)**  
NTS



**3 LOW VOLTAGE MULTIPLE CONDUIT TRENCH DETAIL**  
NTS



**2 BOLLARD DETAIL**  
NTS

SITE CONDUIT SCHEDULE						
ID	QTY	SIZE (IN)	FROM	TO	CONTENTS	NOTES
PC-1	2	4	UTILITY OVERHEAD SERVICE	PAD MOUNT UTILITY TRANSFORMER	BY UTILITY	
PC-2	2	2	PAD MOUNT UTILITY TRANSFORMER	METER BASE	400A4	
PC-3	2	1/2	PANEL A	STAGE JUNCTION BOX	20A2G, SPARE	
PC-4	7.4	1/2, 1-1/4	PANEL A	HH-1	3 [20A2G], 4 [30A2G, 50A3G]	1
PC-5	6.3	1/2, 1-1/4	HH-1	HH-2	3 [20A2G], 3 [30A2G, 50A3G]	1
PC-6	5.2	1/2, 1-1/4	HH-2	HH-3	3 [20A2G], 2 [30A2G, 50A3G]	1
PC-7	4.1	1/2, 1-1/4	HH-3	HH-4	3 [20A2G], 1 [30A2G, 50A3G]	1
PC-8	3	1/2	HH-4	HH-5	3 [20A2G]	
PC-9	1	1/2	HH-5	BENCH RECEPTACLE	20A2G	1

**ABBREVIATIONS:**  
PC = POWER CONDUIT

**GENERAL NOTES:**

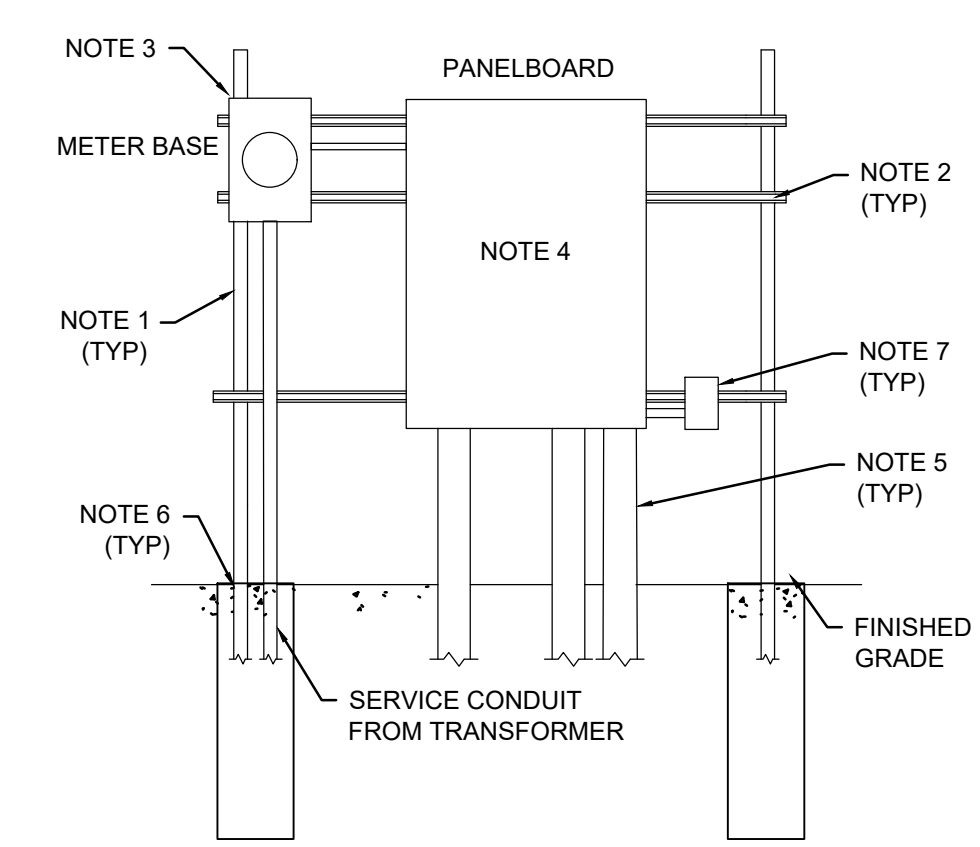
A. SEE FEEDER SCHEDULE ON E901 FOR CONDUIT AND CONDUCTOR SIZE, TYPE, AND QUANTITY.

B. CUT THROUGH EXISTING ASPHALT FOR TRENCH. SEE TRENCH DETAILS 3 & 4 ON THIS SHEET FOR MORE INFORMATION.

C. EACH POWER PEDESTAL SHALL BE FED FROM THE NEAREST HANDHOLE. A 1/2" CONDUIT CONTAINING 30A2G SHALL FEED THE NEMA L14-30R RECEPTACLE AND A 1-1/4" CONDUIT CONTAINING 50A3G SHALL FEED THE NEMA 14-50S RECEPTACLE.

**SPECIFIC NOTES:**

1. REMOVE AND REINSTALL EXISTING PAVERS AS REQUIRED TO INSTALL ELECTRICAL CONDUITS TO POWER PEDESTALS.



**NOTES:**

- VERTICAL POSTS SHALL BE 3-1/4" DOUBLE STRUT. POSTS TO BE PLUMB AND STRAIGHT.
- HORIZONTAL RAILS SHALL BE 1-5/8" CHANNEL FRAME RACKING. SECURE POSTS TO FRONT OF RAILS WITH 2" GALVANIZED CHANNEL CONDUIT CLAMPS.
- PRE-WIRED METER BASE FURNISHED BY UTILITY AND INSTALLED BY CONTRACTOR.
- PANELBOARD A, NEMA 3R.
- CONDUIT RISER. SEE ONE-LINE RISER DIAGRAM AND FEEDER SCHEDULE FOR SIZE AND QUANTITY; SECURE CONDUIT TO RAILS PER NEC WITH CONDUIT CLAMPS OF SAME SIZE PER RAIL MANUFACTURERS REQUIREMENTS.
- CONCRETE EQUIPMENT RACK POST BASE. 12" DIAMETER, 30" DEEP. 4000 PSI.
- WEATHER RESISTANT GFI OUTLET IN LOCKABLE ENCLOSURE.
- LEAVE ROOM AND PROVIDE PROVISION FOR FUTURE 200 A PANEL.

**5 PANEL RACK DETAIL**  
NTS

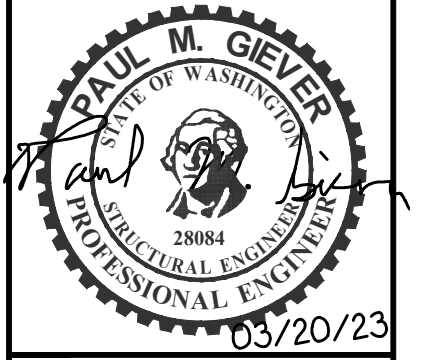
**GENERAL NOTES**

- SEE E001 FOR GENERAL NOTES.
- SEE E101 FOR GENERAL SITE NOTES AND LEGEND.
- ROUTING OF BURIED FEEDERS IS DIAGRAMMATIC ONLY; COORDINATE ACTUAL ROUTING WITH FIELD CONDITIONS AND OBSTACLES.
- NO ATTEMPT HAS BEEN MADE TO INDICATE EXISTING BURIED UTILITIES AND OBSTACLES.
- PRIOR TO BEGINNING WORK, PROVIDE LOCATION SERVICES TO IDENTIFY EXISTING BURIED UTILITIES INCLUDING BUT NOT LIMITED TO WATER, POWER, TELECOMMUNICATION, AND SEWER.

**KEYNOTES**

- PANEL A CIRCUIT 29 IN PC-3 CONTINUES ON 1/E101.
- PANEL A CIRCUITS 2, 4, & 27 IN PC-8 CONTINUES ON 1/E101.
- EACH FOOD TRUCK POWER PEDESTAL SHALL BE INSTALLED WITH ONE NEMA 14-50R AND ONE NEMA L14-30R RECEPTACLE IN THE SIEMENS TL137US TALON TEMPORARY POWER OUTLET PANEL (OR APPROVED EQUAL) AND WITH POST AND CONCRETE FOUNDATION AS RECOMMENDED BY MANUFACTURER. SEE PANEL SCHEDULE ON E901 FOR THE CIRCUITING FOR THE CORRESPONDING RECEPTACLES. SEE SITE CONDUIT SCHEDULE ON THIS SHEET FOR CONDUIT INFORMATION.

NO.	REVISIONS	DATE	DRWN	CHKD	DESIGN	APPD



**APPROVAL**

DESIGN	JPD	03/20/2023
DMW	03/20/2023	
PMG	03/20/2023	
PMG	03/20/2023	

HISTORIC DOWNTOWN KENNEWICK PARTNERSHIP  
**FLAG PLAZA ELECTRICAL UPGRADE**  
30 N. BENTON STREET KENNEWICK, WA 99336  
**ENLARGED PLAN AND DETAIL**

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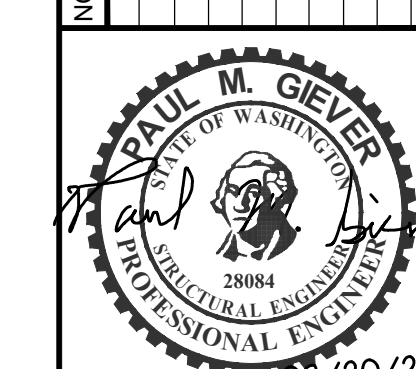
**GENERAL NOTES**

- SEE E001 FOR GENERAL NOTES AND LEGEND.
- OVERCURRENT DEVICES OF ENTIRE DISTRIBUTION SYSTEM SHALL MEET STATED FAULT CURRENT VALUES WITH FULLY RATED EQUIPMENT.
- CONDUCTOR LENGTHS INDICATED ON THE ONE-LINE DIAGRAM ARE FOR FAULT CURRENT CALCULATIONS ONLY. ACTUAL LENGTHS SHALL BE DETERMINED BY FIELD CONDITIONS AND ACTUAL ROUTES OF FEEDERS.

**KEYNOTES (#)**

- SHORT CIRCUIT CALCULATIONS BASED ON UTILITY PROVIDED WORST CASE AVAILABLE FAULT CURRENT.

NO.	DATE	BY	REVISIONS



03/20/23 APPROVAL

APPROVED	DRAWN	DATE
JPD	JPD	03/20/2023
DESIGN	DMW	03/20/2023
CHECKED	PMG	03/20/2023
APPROVED	PMG	03/20/2023

HISTORIC DOWNTOWN KENNEWICK PARTNERSHIP  
**FLAG PLAZA ELECTRICAL UPGRADE**  
30 N. BENTON STREET KENNEWICK, WA 99336

DIAGRAMS

DWG. NO. **E901**

SCALE: NOT TO SCALE  
ISSUE DATE: 03/20/2023

JOB No. **9064** REV. 0

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**FEEDER SCHEDULE**

KEY	NOMINAL FEEDER AMPACITY	CONDUIT & CONNECTORS
20A2G	20	1/2" C - 2#12, 1#12G
30A2G	30	1/2" C - 2#10, 1#10G
40A4G	40	1" C - 4#8, 1#10G
50A3G	50	1-1/4" C - 3#6, 1#10G
310A4	310	2" C - 4#350

AL 100A 4 G FEEDER DESIGNATION

GROUND CONDUCTORS:  
 ( ) - NO GROUND  
 (G) - GROUND  
 (BJ) - BONDING JUMPER

SYSTEM DESCRIPTION:  
 (2) - 1Ø, 2W  
 (3) - 1Ø, 3W OR 3Ø, 3W  
 (4) - 3Ø, 4W

CONDUCTOR AMPACITY:  
 (SEE FEEDER SCHEDULE)

CONDUCTOR TYPE:  
 ( ) - COPPER  
 (AL) - ALUMINUM

**GENERAL NOTES:**

A. ALL CONDUCTOR AMPACITIES ARE BASED ON TABLE 310(b)(16) OF THE NEC FOR COPPER AND ALUMINUM CONDUCTOR TYPE THW/THWN.

B. FEEDER SIZES SHOWN ON THE RISER DIAGRAM INDICATE FEEDER AMPACITIES AND DO NOT NECESSARILY CORRESPOND TO CIRCUIT BREAKER AMPACITIES. CERTAIN FEEDERS MAY BE SIZED FOR THE DERATION FACTORS REQUIRED BY CODE AND/OR ARE OVERSIZED FOR VOLTAGE DROP.

C. WHERE MULTIPLE CONDUITS AND CONDUCTORS ARE INDICATED FOR A SINGLE FEEDER, EACH CONDUIT SHALL CONTAIN 1 PARALLEL PHASE, NEUTRAL, AND GROUND CONDUCTORS INDICATED.

D. CONDUIT ABOVE GRADE INDOORS SHALL BE EMT. CONDUIT ABOVE GRADE OUTDOORS SHALL BE GALVANIZED IMC OR RMC. CONDUIT BELOW GRADE SHALL BE PVC WITH GALVANIZED RMC ELBOWS. CONDUIT SIZE INDICATED IS MINIMUM SIZE REGARDLESS OF CONDUIT TYPE.

E. CONDUITS SIZED LARGER THAN INDICATED SHALL BE PERMITTED FOR RUNS WITH UP TO (4) 90° ELBOWS, OR FOR PULLING LONGER RUNS.

**PANELBOARD: A**

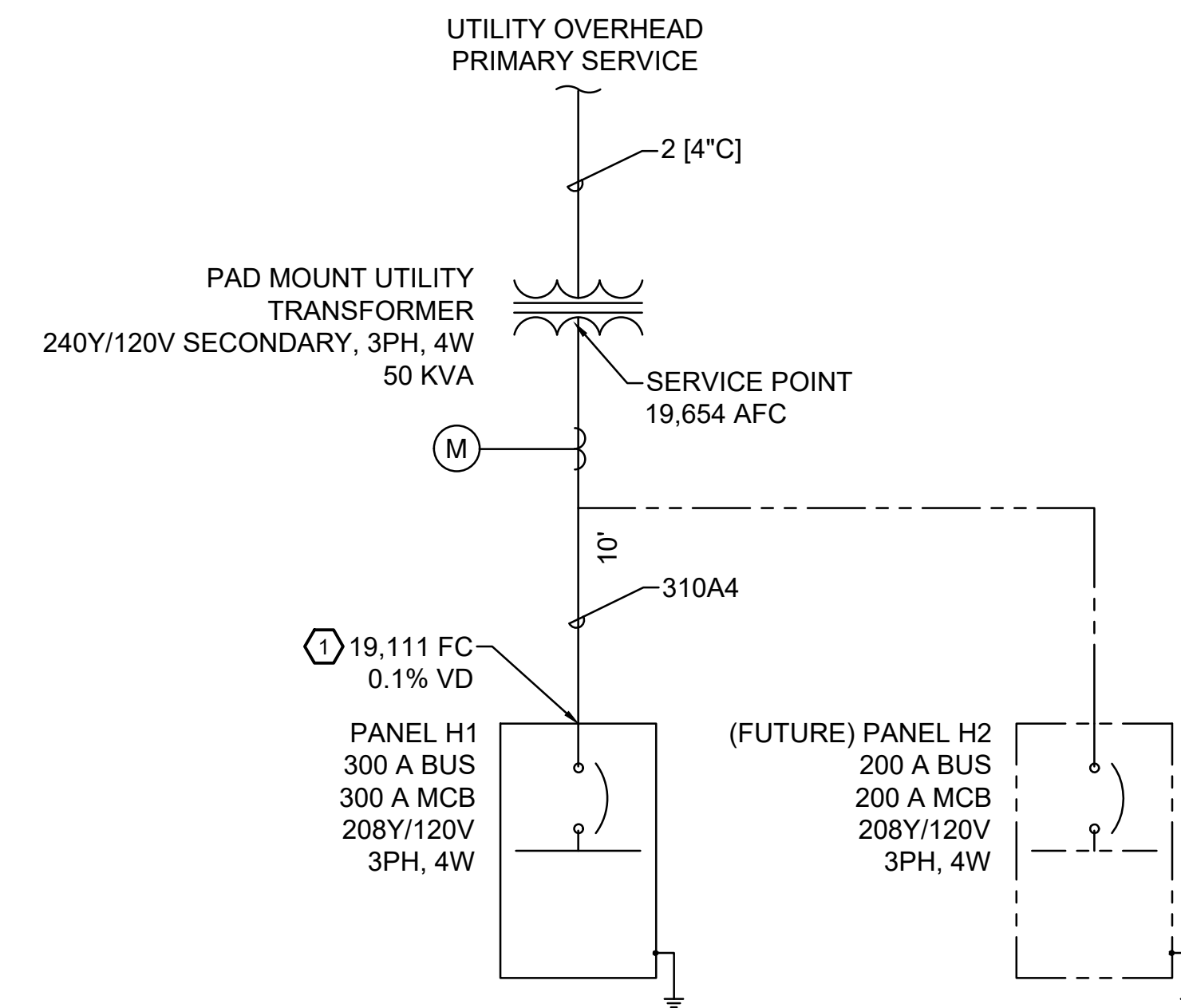
LOCATION: RACK   VOLT, PH, W: 240/120VAC, 1PH, 3W   SSC RATING: 22 kAIC  
 SUPPLY: UTILITY   MAIN TYPE: MCB  
 MOUNTING: SURFACE/RACK   MAIN RATING: 300A  
 ENCLOSURE: NEMA 4   MCB RATING: 300A  
 PNL GFFP:  
 EQUIPMENT NOTES:  
 SERVICE RATED WITH LOCKABLE DOOR.

CKT	CKT	DESCRIPTION	TRIP [A]	P	PHASE A [kVA]	PHASE B [kVA]	P	TRIP [A]	DESCRIPTION	CKT	NOTES
1		FOOD TRUCK PEDESTAL #1A	50	2	4.8 0.3	4.8 0.0	1	20	FOUNTAIN MOTOR	2	1
3									LTG FLAG	4	2,3
5		FOOD TRUCK PEDESTAL #2A	50	2	4.8 0.0	4.8 0.0	1	20	SPARE	6	
7									SPARE	8	
9		FOOD TRUCK PEDESTAL #3A	50	2	4.8 0.0	4.8 0.0	1	20	SPARE	10	
11									SPARE	12	
13		FOOD TRUCK PEDESTAL #4A	50	2	4.8 0.0	4.8 0.0	1	20	SPARE	14	
15									SPARE	16	
17		FOOD TRUCK PEDESTAL #1B	30	1	2.9 0.0		1	20	SPARE	18	
19		FOOD TRUCK PEDESTAL #1B	30	1		2.9 0.0	1	20	SPARE	20	
21		FOOD TRUCK PEDESTAL #1B	30	1	2.9 0.0		1	20	SPARE	22	
23		FOOD TRUCK PEDESTAL #1B	30			2.9 0.0			SPARE	24	
25		RCPT. PANEL A	20	1	0.2 0.0				EMPTY	26	
27		RCPT. S. BENCH GFI WP	20	1		0.2 0.0			EMPTY	28	
29		RCPT. STAGE	20	1	1.4 0.0				EMPTY	30	
TOTAL KVA PER PHASE:					26.9	25.2					
TOTAL AMPS PER PHASE:					112.2	104.9					

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS	
LITES	0.0 KVA	125%	0.0 KVA	TOTAL CONN. LOAD:	51.7 KVA
RCPT	10.0 KVA	100%	10.0 KVA	TOTAL EST. DEMAND:	50.1 KVA
RCPT AFTER 10KVA	3.3 KVA	50%	1.7 KVA	TOTAL CONN.:	215.5 AMPS
HVAC	0.0 KVA	100%	0.0 KVA	TOTAL EST. DEMAND:	208.6 AMPS
MTR	0.0 KVA	100%	0.0 KVA		
LARGEST MTR	0.0 KVA	125%	0.0 KVA		
KTGH	38.4 KVA	100%	38.4 KVA		
HEAT	0.0 KVA	100%	0.0 KVA		
OTHER	0.0 KVA	100%	0.0 KVA		

**SCHEDULE NOTES:**

- FOUNTAIN PUMP SHALL BE CONTROLLED BY ELECTRIC TIME SWITCH IN SERIES WITH CIRCUIT. INTERMATIC ET1100 OR APPROVED EQUAL.
- FLAG-POLE LUMINAIRE SHALL BE CONTROLLED BY PHOTOCELL IN SERIES WITH CIRCUIT, TORK 2129A OR APPROVED EQUAL.
- ASSUMED LOAD OF 10 W/ FOR REPLACEMENT LED BULB. EC SHALL UPDATE PANEL SCHEDULE WITH LOAD OF SELECTED REPLACEMENT BULB FOR RECORD DOCUMENTS.



**1 ONE-LINE DIAGRAM**