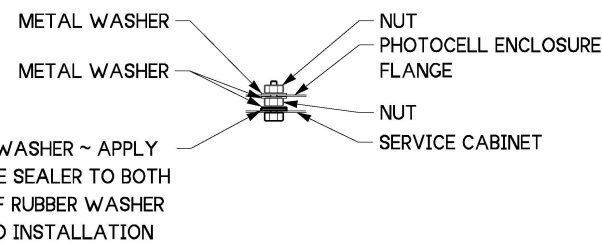


SERVICE CABINET DETAIL



PHOTOCELL ENCLOSURE MOUNTING DETAIL

NOTES (CONTINUED)

- 11. Key Items 23, 24, and 25 shall be connected to the cabinet main bonding jumper assembly by appropriately sized wire.
- 12. See Contract for Breaker and Contactor Schedule.
- 13. Buss bars shall be sized to accommodate up to #4 AWG wires.
- 14. The meter base portion of this service was designed to meet metering portion of EUSERC Drawing 309 requirements.
- 15. Metering arrangements vary with different serving Utilities. The Utility may require meter base mounting in the enclosure, on the side, or on the back of the enclosure. The Utility may require the dimension between the door and the front of the safety socket box to be less than 11" (in) shown on the Left Side - Safety Socket Box Mounting Detail. The Contractor shall verify the serving Utility's requirements prior to fabrication and installation of the service equipment.
- 16. Verify the meter setback position with the Utility and adjust the meter socket backplate to the required position. For cabinets with separate metering, remove the meter socket or install shunts in the meter socket.
- 17. The requirements for a disconnect switch ahead of the meter varies with the different serving Utilities. Verify with the serving Utility that a disconnect switch is required before installing the disconnect switch.

WARNING
Arc Flash and Shock Hazard
Appropriate PPE Required

ARC FLASH PROTECTION		SHOCK PROTECTION	
Arc Flash Boundary (in)	00 in	Shock Hazard When Cover Removed	000 VAC
Incident Energy at 18 Inches (cal/cm ²)	0.00	Limited Approach	00 in
Assessment Date:	00-00-0000	Restricted Approach	00 in
By:		Glove Class	00
WSDOT Approval Inspector:		Date:	

ARC FLASH AND SHOCK HAZARD LABEL DETAIL (FIELD INSTALLED)

9

KEY NOTES

- ① METER SOCKET/BASE PANEL PER UTILITY REQUIREMENTS ~ UTILITY MAY REQUIRE METER TO BE INSTALLED ON THE OUTSIDE OF THE CABINET INSTEAD OF INSIDE THE UTILITY SECTION OF THE CABINET
- ② UTILITY SECTION DOOR ~ HINGED FRONT FACING DOOR WITH 4" x 4" (IN) MINIMUM SAFETY GLASS WINDOW
- ③ CUSTOMER SECTION DOOR WITH BEST CX 6-PIN LOCK CORE
- ④ PHOTOCELL ENCLOSURE ~ SEE PHOTOCELL MOUNTING DETAIL ~ ENCLOSURE SHALL BE FABRICATED FROM EITHER:
A. 5/8" (IN) EXPANDED STEEL MESH WITH WELDED SEAMS AND MOUNTING FLANGES ~ HOT-DIP GALVANIZED AFTER FABRICATION ~ OR ~
B. TYPE 5052 - H32 ALUMINUM WITH 5/8" x 5/8" (IN) OPENINGS EQUIVALENT TO 5/8" (IN) EXPANDED STEEL MESH
- ⑤ PHOTOCELL CONTROL ~ SEE STANDARD SPECIFICATION SECTION 9-29.11(2)
- ⑥ SCREENED VENTS ~ TWO REQUIRED, ONE EACH SIDE ~ LOUVERED PLATES
- ⑦ 6" x 6" (IN) MIN. UTILITY WIREWAY ~ BACK LEFT CORNER OF CUSTOMER SECTION ~ SHALL REQUIRE TOOLS TO OPEN ~ LABEL WITH "UTILITY WIREWAY"
- ⑧ HINGED DEAD FRONT WITH 1/4 TURN FASTENERS OR SLIDE LATCHES ~ DEAD FRONT PANEL BOLTS SHALL NOT EXTEND INTO VERTICAL LIMITS OF THE BREAKER ARRAY(S)
- ⑨ ARC FLASH AND SHOCK HAZARD LABEL (FIELD INSTALLED) ~ SEE DETAIL
- ⑩ CABINET BUSSWORK RATING LABEL
- ⑪ METAL WIRING DIAGRAM HOLDER

NOTES

- 1. See Standard Specification Section 9-29.24 (Service Cabinets).
- 2. Cabinet shall be rated NEMA 3R and shall include two rain-tight vents.
- 3. Dimensions shown are minimum and shall be adjusted to accommodate the various sizes of equipment installed. A 1% tolerance is allowed for all dimensions.
- 4. Doors shall be pad-lockable and gasketed. Customer section doors shall include Best CX 6-pin Construction core locks. Each door shall use either a continuous piano hinge, three two-piece hinges, or two (small doors) or three (large door) heavy-duty lift-off type hinges.
- 5. Hinges with pins shall have stainless steel or brass pins - see Standard Plan J-10.20 door hinge details. When using two-piece hinge type on galvanized enclosure, remove hinge pin prior to welding hinge to cabinet and prior to hot-dip galvanizing. After galvanizing, replace pin with brass pin and solder in place.
- 6. Equipment identified by Key Numbers 14, 16, 17, 18, 19, 20, 21, 22, 23, and 28 shall have an appropriately engraved phenolic name plate attached with screws or rivets. The name plate for Key Number 21 (Test Switch only) shall read as follows:
"PHOTOCELL BYPASS TEST ON" and "PHOTOCELL TEST OFF - AUTOMATIC" ~ See Service Cabinet Detail.
- 7. All busswork shall be ASTM B187 copper and shall have a minimum rating of 250 amps. All breakers shall bolt on to the busswork. Jumping of breakers shall not be allowed. Busswork shall accommodate all future equipment as shown in the Breaker Schedule.
- 8. All nuts, bolts, and washers used for mounting the photocell enclosure shall be stainless steel.
- 9. The photocell unit shall be centered in the photocell enclosure to permit 360 degree rotation of the photocell without removal of the photocell unit or the photocell enclosure.
- 10. All internal wire runs shall be identified with "TO - FROM" coded tags labeled with the code letters and/or numbers shown on the Schedules. Approved PVC or polyolefin wire marking sleeves shall be used.



Sep 29, 2023

**SERVICE CABINET TYPE E
(0 - 200 AMP TYPE
480 VOLT SINGLE PHASE)
STANDARD PLAN J-10.22-03**

SHEET 1 OF 2 SHEETS

APPROVED FOR PUBLICATION

Mark A. Plaines

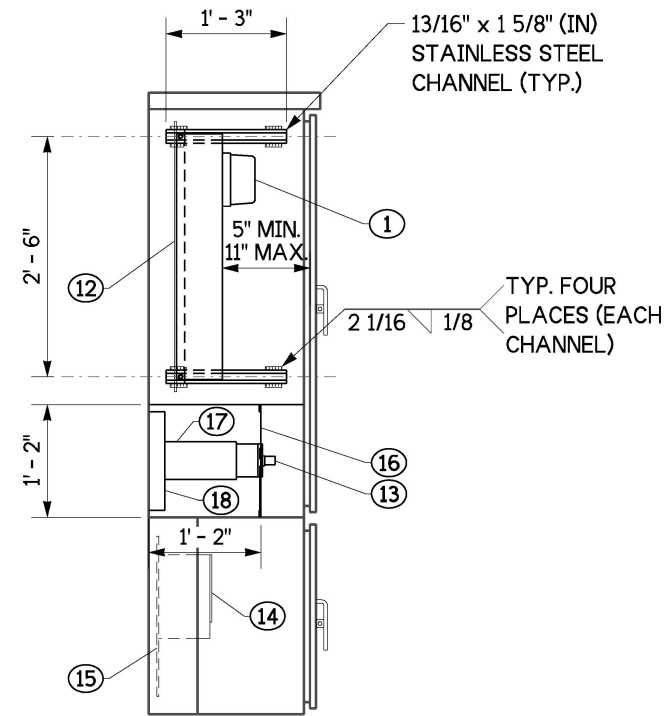
Oct 4, 2023



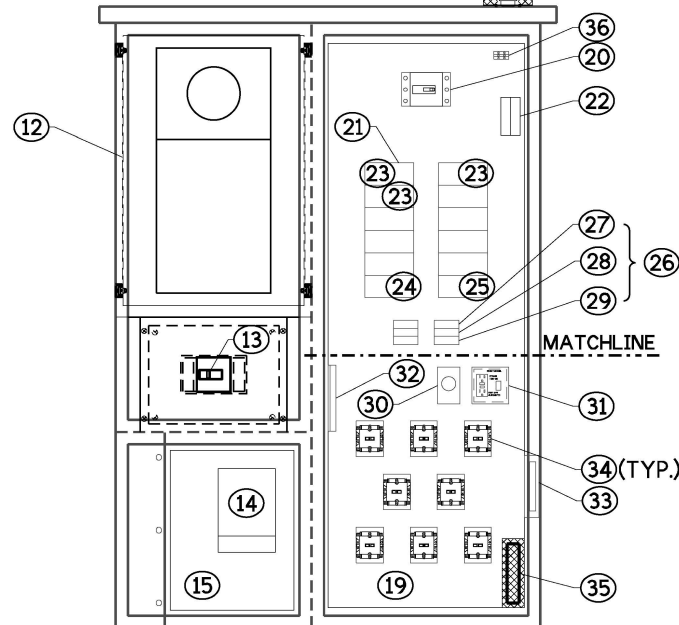
STATE DESIGN ENGINEER

KEY NOTES (CONTINUED)

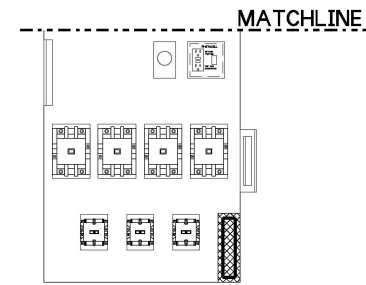
- ⑫ ALUMINUM BACKPLATE FOR METER SOCKET/BASE
- ⑬ MOLDED CASE UTILITY DISCONNECT SWITCH (SEE NOTE 17)
- ⑭ 3 KVA 480/120V INTERNAL TRANSFORMER
- ⑮ ALUMINUM BACKPLATE FOR INTERNAL TRANSFORMER
- ⑯ DEAD FRONT PANEL FOR DISCONNECT SWITCH (SEE NOTE 17)
- ⑰ STANDOFF BRACKET FOR DISCONNECT SWITCH (SEE NOTE 17)
- ⑱ REMOVABLE EQUIPMENT MOUNTING PANEL FOR DISCONNECT SWITCH (SEE NOTE 17)
- ⑲ 24" WIDE x 69" TALL (IN) ALUMINUM BACKPLATE FOR CUSTOMER SECTION EQUIPMENT
- ⑳ MAIN BREAKER ~ DPST ~ SIZE PER BREAKER SCHEDULE
- ㉑ 24-CIRCUIT 480V PANEL BOARD ~ MINIMUM SIZE WITH SEPARATE MAIN BREAKER
- ㉒ 20 KVA TYPE 1 OR TYPE 2 SURGE PROTECTION DEVICE ~ DIN RAIL MOUNT WITH PLUG-IN MODULE(S)
- ㉓ DPST BRANCH BREAKER ~ SEE BREAKER SCHEDULE
- ㉔ SPARE BRANCH BREAKER ~ 20 AMP DPST ~ OMIT IF BREAKER ARRAY IS FULL (SEE BREAKER SCHEDULE)
- ㉕ INTERNAL TRANSFORMER BRANCH BREAKER ~ 15 AMP DPST ~ LABEL WITH "XFMR"
- ㉖ 6-CIRCUIT 120V PANEL BOARD ~ MINIMUM SIZE WITH BACK FED 1P-35A MAIN BREAKER
- ㉗ PHOTOCELL BREAKER ~ SPST 15 AMP
- ㉘ RECEPTACLE BREAKER ~ SPST 20 AMP
- ㉙ HEATER BREAKER ~ SPST 15 AMP
- ㉚ SINGLE GANG BOX WITH THERMOSTAT CONTROL ~ 40° F CLOSURE - 3 DIFFERENTIAL
- ㉛ 2 GANG BOX WITH:
 - A. RECEPTACLE (GROUNDED) ~ 125 VOLT 20 AMP GFCI
 - B. TEST SWITCH ~ 120/277 VOLT 15 AMP SPDT SNAP ACTION - POSITIVE CLOSED - "T" RATED
 BOX MAY USE AN INDUSTRIAL RAISED (IR) COVER PLATE, OR MAY BE COVERED BY DEAD FRONT PANEL (WITH MINIMAL CUTOUTS) ~ GANG BOX SHALL BE WIRED TO THE CABINET BONDING JUMPER (KEY NOTE 33).
- ㉜ ISOLATED NEUTRAL BUSS ~ 14 LUG COPPER (SEE NOTE 13)
- ㉝ CABINET MAIN BONDING JUMPER ASSEMBLY ~ BUSS SHALL BE 14 LUG TINNED COPPER (SEE NOTE 13) ~ SEE CABINET MAIN BONDING JUMPER ASSEMBLY DETAIL
- ㉞ CONTACTOR (BEHIND DEAD FRONT) ~ SEE BREAKER SCHEDULE
- ㉟ STRIP HEATER (100 WATT NOMINAL) WITH EXPANDED STEEL MESH ENCLOSURE FOR TOUCH PROTECTION
- ㊱ THREE POSITION DIN RAIL MOUNTED TERMINAL BLOCK ~ TERMINAL BLOCK SECTIONS SHALL BE BLACK, WHITE, AND RED AS SHOWN IN CABINET WIRING DIAGRAM



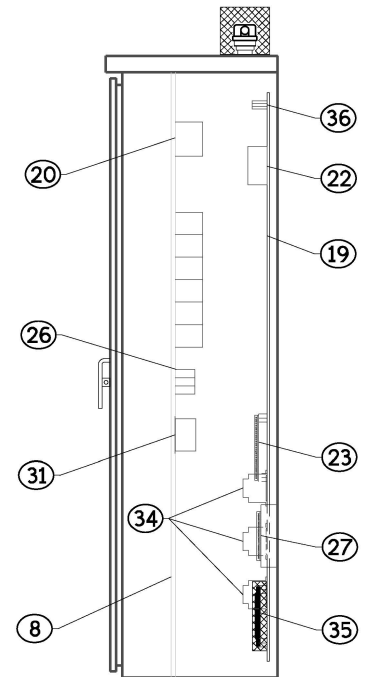
LEFT END VIEW
UTILITY AND TRANSFORMER SECTIONS
(SUPPORT FRAMES FOR EQUIPMENT NOT SHOWN)



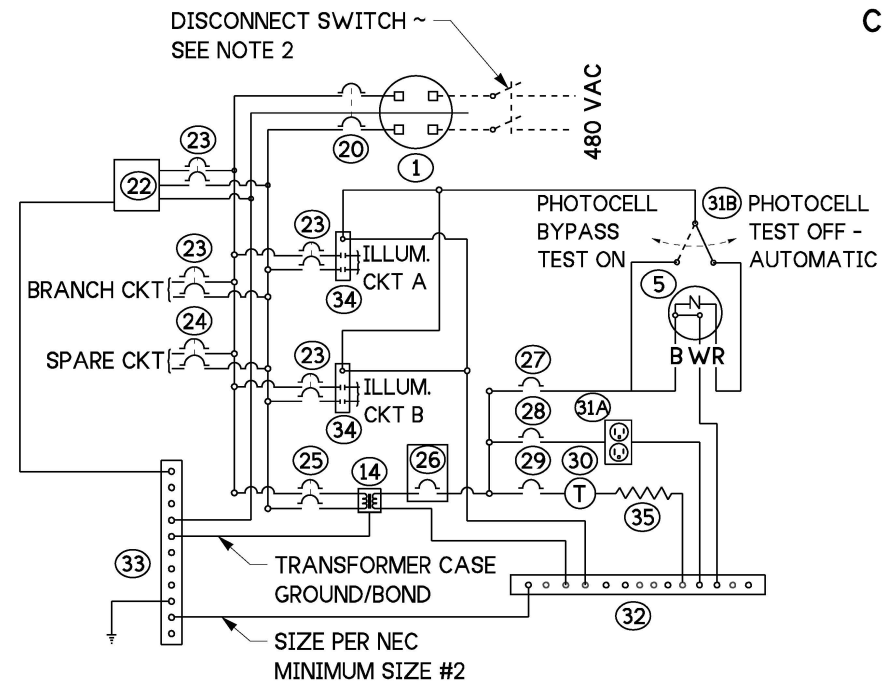
FRONT
(SHOWN WITH DEAD FRONT REMOVED)



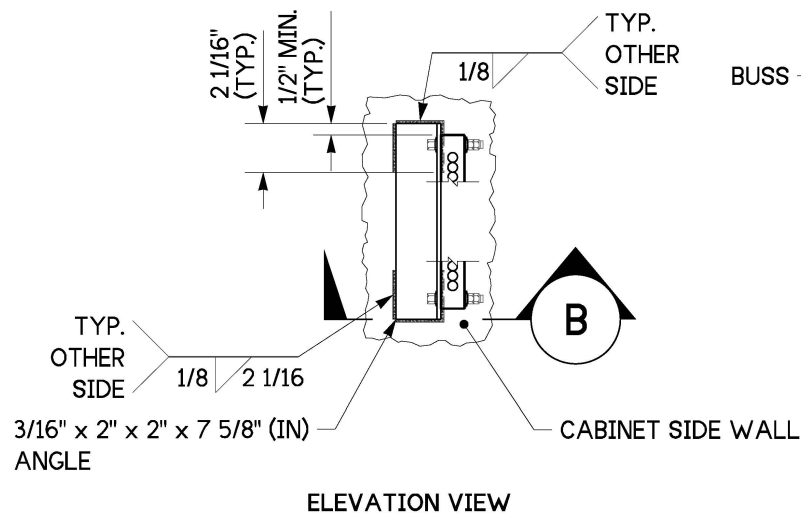
ALTERNATE CONTACTOR ARRANGEMENT WITH 100A CONTACTORS INCLUDED (4 MAX.)



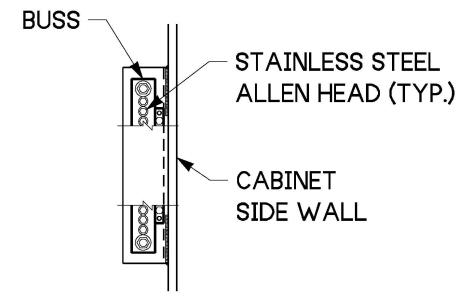
RIGHT END VIEW
CUSTOMER SECTION
(SUPPORT FRAMES FOR EQUIPMENT NOT SHOWN)



WIRING DIAGRAM



ELEVATION VIEW



SECTION B

CABINET MAIN BONDING JUMPER ASSEMBLY DETAIL



Sep 29, 2023

**SERVICE CABINET TYPE E
(0 - 200 AMP TYPE
480 VOLT SINGLE PHASE)
STANDARD PLAN J-10.22-03**

SHEET 2 OF 2 SHEETS

APPROVED FOR PUBLICATION

Mark A. Raines

Oct 4, 2023

STATE DESIGN ENGINEER

