

- A: 2" PVC WEATHERHEAD
- INSTALL 12-24" BELOW THE POWERLINES BEING CONNECTED TO.
 - PROVIDE ENOUGH CONDUCTOR LENGTH FOR DRIP LOOP.
- B: 2-HOLE STRAP, MINERALLAC 290 OR APPROVED EQUIVALENT
- INSTALL TOP STAP 3-5" BELOW WEATHERHEAD.
 - DO NOT STRAP WITHIN 5" OF COUPLINGS/BELL ENDS.
 - STRAP EVERY 4 FEET MAXIMUM.
 - MOUNT EACH STRAP WITH TWO 1/4" - 10 x 3" 18-8 STAINLESS STEEL LAG SCREWS FASTENAL #74507 OR APPROVED EQUIVALENT.
 - DO NOT OVERTIGHTEN STRAPS. SECURE CONDUIT BUT LEAVE STRAPS LOOSE ENOUGH TO ALLOW FOR EXPANSION/CONTRACTION UP TO 5/8" PER 10'.
- C: 2" SCHEDULE 80 PVC RISER CONDUIT
- INSTALL #3/0 AWG BLACK, #3/0 AWG RED, AND #3/0 AWG WHITE.
 - COPPER CONDUCTORS, XHHW-2 SUNLIGHT RESISTANT INSULATION.
- D: 2" HUB, SQUARE D B200
- E: SERVICE DISCONNECT, SQUARE D Q2200RBE
- POSITION ON SIDE OF POLE MOST PROTECTED FROM VEHICULAR DAMAGE.
 - MAIN BREAKER HANDLE MUST BE 5.5-6.5' ABOVE GRADE.
 - MOUNT WITH TWO 1/4"-10 x 3" 18-8 STAINLESS STEEL LAG SCREW FASTENAL #74507 OR APPROVED EQUIVALENT AND TWO 1/4" x 1.5" 18-8 STAINLESS STEEL FENDER WASHER FASTENAL #0172787 OR APPROVED EQUIVALENT.
 - INSTALL MAIN CIRCUIT BREAKER:
 - SQUARE D QDL22200 (FOR 25 KA INTERRUPT RATING).
 - 200 AMP, 2-POLE.
 - 25 KA INTERRUPT RATING MINIMUM.
 - INSTALL SERVICE BARRIER PKSB1Q2 OVER LINE SIDE LUGS.
 - TERMINATE GROUNDING ELECTRODE CONDUCTOR TO NEUTRAL TERMINAL BLOCK.
 - TERMINATE LOAD-SIDE EQUIPMENT GROUNDING CONDUCTOR TO NEUTRAL TERMINAL BLOCK.
 - BOND NEUTRAL TERMINAL BLOCK TO ENCLOSURE.
- F: 2" SCHEDULE 80 PVC CONDUIT
- INSTALL #3/0 AWG BLACK, #3/0 AWG RED, #3/0 AWG WHITE, AND #6 AWG GREEN.
 - COPPER CONDUCTORS, XHHW-2 INSULATION.
- G: 0.5" SCHEDULE 80 PVC CONDUIT
- INSTALL #6 AWG SOLID COPPER GROUNDING ELECTRODE CONDUCTOR.
- H: 2-HOLE STRAP, MINERALLAC 250 OR APPROVED EQUIVALENT
- I: TWO 5/8" DIAMETER x 10-FOOT-LONG GROUND RODS
- INSTALL ENTIRELY BELOW GRADE (AT LEAST 4").
 - GROUND RODS MUST BE SPACED AT LEAST 6 FEET APART.
 - SECOND GROUND ROD MAY BE OMITTED IF RESISTANCE TO GROUND MEASURES LESS THAN 25 OHMS WITH ONE GROUND ROD.
- J: POLYMER-CONCRETE PULLBOX TIER 22 13" x 24" x 12", OUAZITE PG1324BA12 OR APPROVED EQUIVALENT
- INSTALL 3 FEET AWAY FROM UTILITY POLE WHERE PRACTICABLE.
 - WHERE NEEDED, INSTALL 3 FEET AWAY FROM CABINET BASE WHERE PRACTICABLE.
- K: POLYMER-CONCRETE CABINET BASE 24" x 36" x 18", OUAZITE PB24361117500
- SET CABINET BASE 4-6" ABOVE GRADE.
- L: GROUND MOUNTED DUAL METER CABINET, POVOLNY POV04S040831STP
- REMOVE BOTH NEUTRAL BOND SCREWS FROM BOTH PANELBOARDS.
 - REMOVE NEUTRAL BOND STRAPS FROM BOTH METER ENCLOSURES.
 - MOUNT WITH FOUR 1/2" - 13 x 1-3/4" BRASS HEX CAP SCREW FASTENAL #75040 OR APPROVED EQUIVALENT AND FOUR 1/2" x 2" 18-8 STAINLESS STEEL FENDER WASHERS FASTENAL #71221 OR APPROVED EQUIVALENT. LIBERALLY APPLY MARINE GRADE ANTI-SEIZE LOCTITE 8023 OR APPROVED EQUIVALENT TO ALL BOLT THREADS.
- M: LABEL OF ADDRESS/ASSET ID/AVAILABLE FAULT CURRENT
- CONTACT TRAFFIC OPERATIONS @ 651.266.9780 FOR ADDRESS/ASSET INFO.
 - CALCULATE & LABEL AVAILABLE L-L AND L-N FAULT CURRENT. REPLACE SERVICE DISCONNECT MAIN BREAKER IF AVAILABLE FAULT CURRENT EXCEEDS MAIN BREAKER INTERRUPT RATING.
 - LABEL MUST BE WEATHER RESISTANT AND SUNLIGHT RESISTANT.

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota

B. Hawkins
Benjamin J. Hawkins

Date 01/09/2023 Lic. No. 49104

A: GROUND-MOUNTED TRANSFORMER OR UTILITY VAULTS

• FOR UTILITY VAULTS:

- COORDINATE WITH UTILITY PROVIDER TO CORE DRILL INTO VAULT AND WATERPROOF AS REQUIRED BY UTILITY PROVIDER.
- COORDINATE WITH UTILITY PROVIDER TO DETERMINE LENGTH OF CONDUCTORS NECESSARY WITHIN VAULT.
- SUPPLY UTILITY PROVIDER WITH FUSED, STAINLESS STEEL UTILITY DISCONNECT SWITCH SQUARE D H364SS.
 - LOAD WITH THREE (ONE IS A SPARE) 200 AMP, DUAL ELEMENT, TIME DELAY, CURRENT LIMITING, 200 KA INTERRUPT RATING FUSES BUSSMAN FUSETRON FRS-R-200.
- COORDINATE WITH UTILITY PROVIDER TO ENSURE THERE IS ADEQUATE SPACE IN THE VAULT FOR THE UTILITY DISCONNECT SWITCH.

B: 2" PVC CONDUIT

- INSTALL #3/0 AWG BLACK, #3/0 AWG RED, AND #3/0 AWG WHITE.
- COPPER CONDUCTORS, XHHW-2 INSULATION.

C: POLYMER-CONCRETE PULLBOX TIER 22 13" x 24" x 12", QUAZITE PG1324BA12 OR APPROVED EQUIVALENT

- INSTALL 3 FEET AWAY FROM CABINET BASE WHERE PRACTICABLE.
- WHERE NEEDED, INSTALL 3 FEET AWAY FROM TRANSFORMER OR VAULT WHERE PRACTICABLE.

D: TWO 5/8" DIAMETER x 10-FOOT-LONG GROUND RODS

- INSTALL ENTIRELY BELOW GRADE (AT LEAST 4").
- GROUND RODS MUST BE SPACED AT LEAST 6 FEET APART.
- SECOND GROUND ROD MAY BE OMITTED IF RESISTANCE TO GROUND MEASURES LESS THAN 25 OHMS WITH ONE GROUND ROD.

E: POLYMER-CONCRETE CABINET BASE 24" x 36" x 18", QUAZITE PB24361117500

- SET CABINET BASE 4-6" ABOVE GRADE.

F: SERVICE DISCONNECT, SQUARE D Q2200RBE

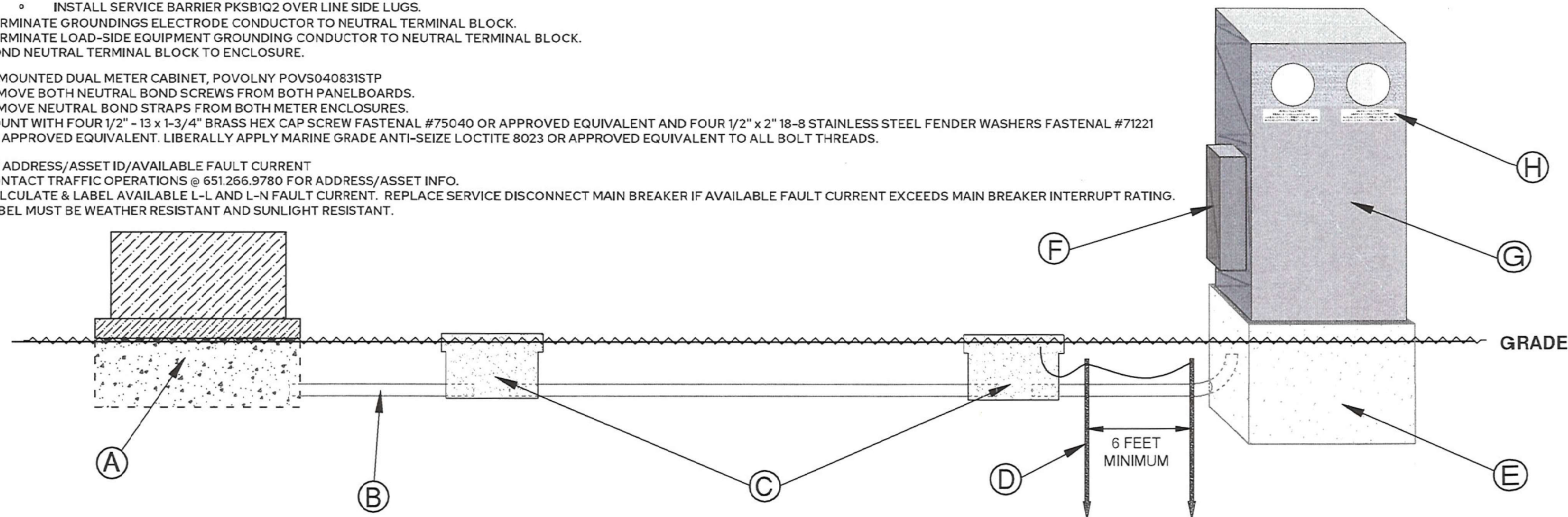
- MOUNT ON SIDE OF DUAL-METER CABINET WITH CONDUIT ENTRY INTO SERVICE WIREWAY.
- MOUNT 12" MINIMUM ABOVE CABINET BASE.
- INSTALL 2.5" CHASE NIPPLE INTO DUAL METER CABINET WITH PLASTIC BUSHING.
- MOUNT WITH THREE 18-8 STAINLESS STEEL 1/4"-20 x 3/4" HEX-SLOTTED WASHER HEAD MACHINE SCREW FASTENAL #0173149 OR APPROVED EQUIVALENT, THREE 18-8 STAINLESS 1/4"-20 NYLON LOCK NUT FASTENAL #70860 OR APPROVED EQUIVALENT, AND THREE 18-8 STAINLESS STEEL FLAT WASHER FASTENAL #71013 OR APPROVED EQUIVALENT.
- INSTALL MAIN CIRCUIT BREAKER:
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G: GROUND MOUNTED DUAL METER CABINET, POVOLNY POV5040831STP

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- LABEL MUST BE WEATHER RESISTANT AND SUNLIGHT RESISTANT.



I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota

B. Hawkins

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Date 01/09/2023 Lic. No. 49104



APPROVED

1-9-23

Nick Opter
CITY ENGINEER

CITY OF ST. PAUL
DEPARTMENT OF PUBLIC WORKS
DUAL METER CABINET FED FROM GROUND-MOUNTED TRANSFORMER
OR UTILITY VAULT

Date of
Revision
DEC
2022

Standard Plate No.
5011A
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