

# CURRENT TRANSFORMER ENCLOSURES

Current transformers (CTs) are for transformer-rated watt-hour metering. They are used when a member's electrical needs are more than 400 amps of three-phase or single-phase service. CTs are also required on 480-volt services of either phase-to-ground or phase-to-phase. Most CTs are mounted atop PEC utility poles adjacent to transformers. If a member needs or prefers the CTs away from the pole, a special housing enclosure is necessary to ensure safety and efficiency. This sheet highlights the specifications for those enclosures.

## NECESSARY MATERIALS – ENCLOSURES:

- Enclosure must meet Underwriters Laboratories Standard Type 3R.
- Body and cover of the enclosure must be made of at least 14-gauge galvanized steel. the bottom must be at least 16-gauge galvanized steel.
- The enclosure must have a dripshield top and seam-free sides, front and back.
- Provisions for padlocking the enclosure must be provided.
- The enclosure must have a ground lug on the body.
- No plywood backboards will be accepted.
- The enclosure must be coated inside and out in either ANSI 61 gray powder finish over phosphated surfaces or in galvanized sheet metal.

## NECESSARY MATERIALS – UNISTRUT:

- Two pieces of 12-gauge Unistrut, 13/16" H x 1-5/8" W x 20" L.

## INSTALLATION RESPONSIBILITIES:

Acquiring and installing the CT enclosure and unistrut described above is the responsibility of the member or the member's qualified electrician. The member is also responsible for replacing or repairing the CT enclosure if it becomes damaged or deteriorated. The Member or the electrician is responsible for properly grounding the CT enclosure.

PEC will supply, install and maintain the CTs, meter socket and associated meter wiring.

If available space does not allow, the meter can be moved up to 20 feet from the enclosure. The member or the member's electrician is responsible for the acquisition and installation of 1-inch conduit, unistrut, pipe straps and conduit fittings connecting the enclosure to the meter socket.

## INSTALLATION SPECIFICATIONS (SEE ILLUSTRATION ON PAGE 2):

The center of the meter enclosure shall be located 55 inches from the finished grade and use appropriate fasteners to make sure it stays attached under normal conditions.

The installation of the meter and CT enclosure shall be such that 6 inches of clearance between all enclosures is maintained.

## APPROVED MODELS OF CT ENCLOSURES:

- Durham
  - Catalog number: TC-3A  
Dimensions: 33" W x 32" H x 10" D
- Electrical & Construction Products, Inc.
  - Catalog number: PEC303012 CT CAN  
Dimensions: 30" W x 31" H x 12" D
  - Catalog number: PEC363614 CT CAN  
Dimensions: 36" W x 36" H x 14" D
  - Catalog number: PEC424214 CT CAN  
Dimensions: 42" W x 43" H x 14" D
  - Catalog number: PEC484814 CT CAN  
Dimensions: 48" W x 49" H x 14" D
- Hoffman
  - Catalog number: A242411CT  
Dimensions: 24" W x 24" H x 11" D
  - Catalog number: A303012CTCJ  
Dimensions: 30" W x 31" H x 12" D
  - Catalog number: A363614CTCJ  
Dimensions: 36" W x 36" H x 14" D
  - Catalog number: A424214CTCJ  
Dimensions: 42" W x 42" H x 14" D
  - Catalog number: A484814CTCJ  
Dimensions: 48" W x 48" H x 14" D
- EPI-Electrical Enclosures & Engineering Type 3R with accessory panel
  - Catalog number: PEC-303012N3R-CT  
Dimensions: 30" W x 30" H x 12" D
  - Catalog number: PEC-363614N3R-CT  
Dimensions: 36" W x 36" H x 14" D
  - Catalog number: PEC-424214N3R-CT  
Dimensions: 42" W x 42" H x 14" D
  - Catalog number: PEC-484814N3R-CT  
Dimensions: 48" W x 48" H x 14" D

REFER TO EXAMPLES ON FOLLOWING PAGES

REV	A	DATE	07/13/2021	REVISION	ISSUE FOR CONSTRUCTION	BY	RWC	CHK	SSS	APR	MMG
-----	---	------	------------	----------	------------------------	----	-----	-----	-----	-----	-----



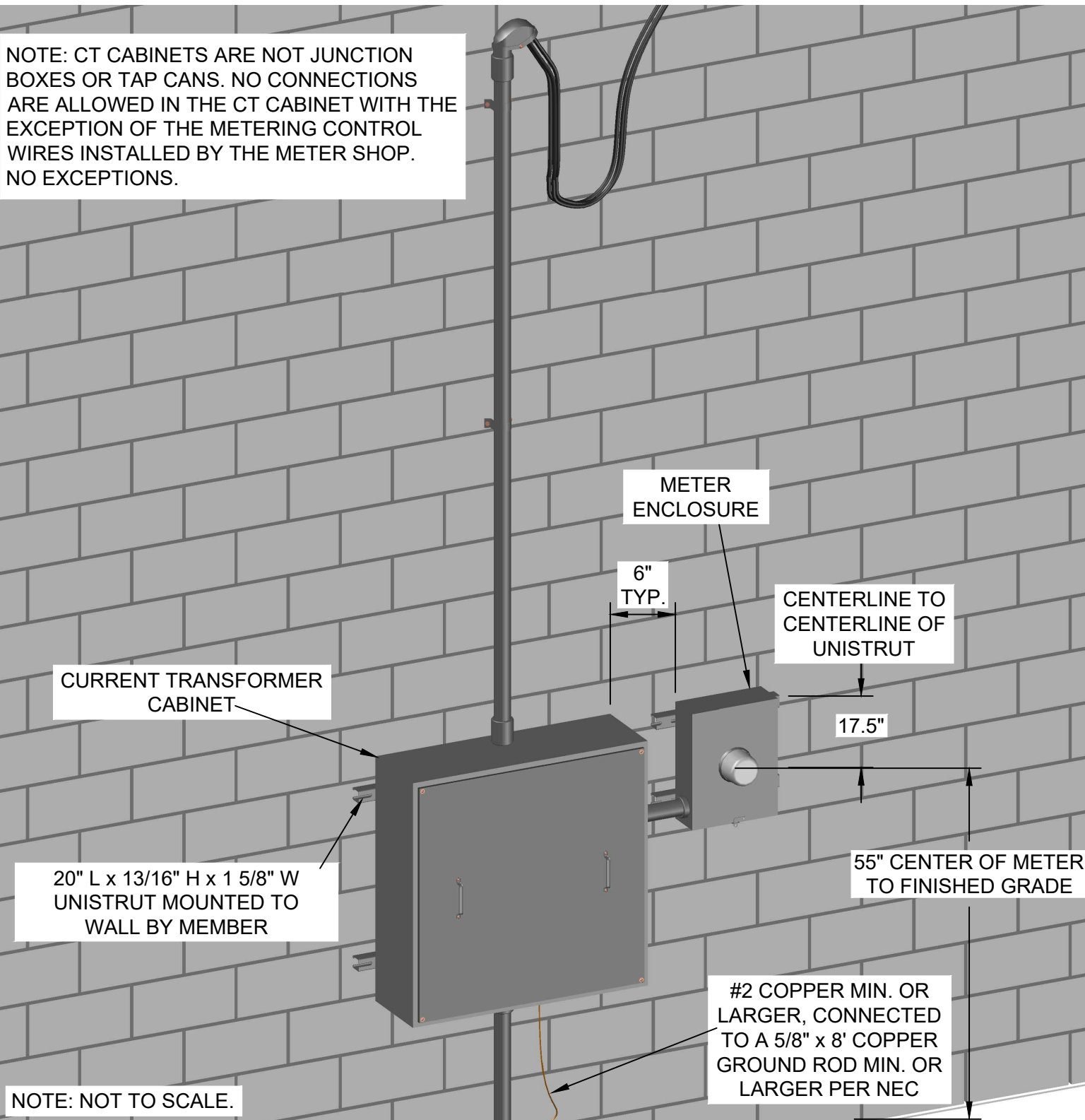
PEDERNALES ELECTRIC  
COOPERATIVE, INC.

## CURRENT TRANSFORMER METERING SPECIFICATIONS

drawn:	approved:	date:	PAGE 1 OF 11
RWC	MMG	07/13/2021	

# WALL MOUNTED

NOTE: CT CABINETS ARE NOT JUNCTION BOXES OR TAP CANS. NO CONNECTIONS ARE ALLOWED IN THE CT CABINET WITH THE EXCEPTION OF THE METERING CONTROL WIRES INSTALLED BY THE METER SHOP. NO EXCEPTIONS.



CURRENT TRANSFORMER CABINET

METER ENCLOSURE

6" TYP.

CENTERLINE TO CENTERLINE OF UNISTRUT

17.5"

20" L x 13/16" H x 1 5/8" W UNISTRUT MOUNTED TO WALL BY MEMBER

55" CENTER OF METER TO FINISHED GRADE

#2 COPPER MIN. OR LARGER, CONNECTED TO A 5/8" x 8' COPPER GROUND ROD MIN. OR LARGER PER NEC

NOTE: NOT TO SCALE.

REV	A	DATE	07/13/2021	REVISION	ISSUE FOR CONSTRUCTION	BY	RWC	CHK	SSS	APR	MMG
-----	---	------	------------	----------	------------------------	----	-----	-----	-----	-----	-----

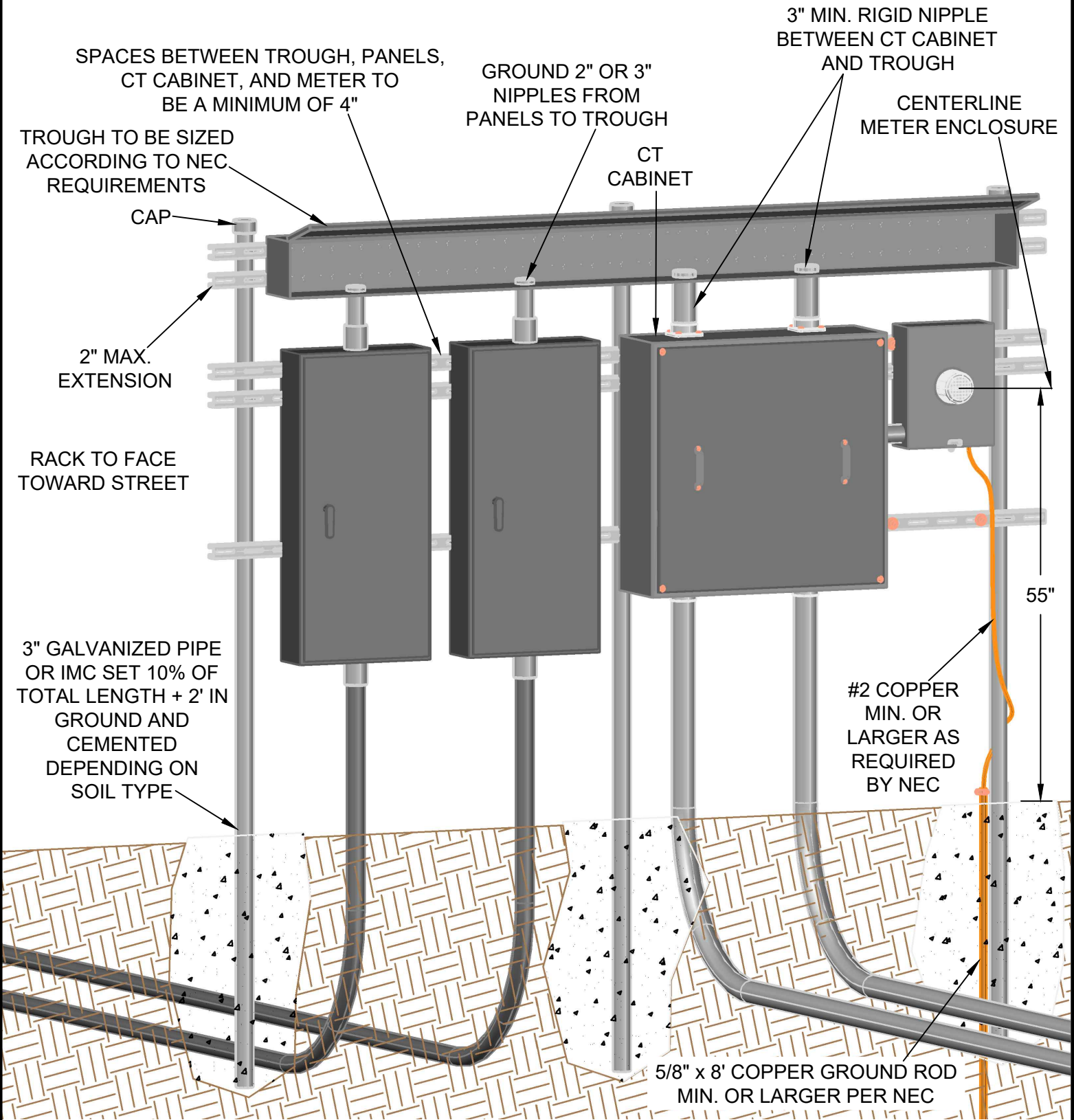


PEDERNALES ELECTRIC COOPERATIVE, INC.

## CURRENT TRANSFORMER METERING SPECIFICATIONS

drawn:	approved:	date:	PAGE 2 OF 11
RWC	MMG	07/13/2021	

# SINGLE-METER RACK MOUNT



REV | A | DATE | 07/13/2021 | REVISION | ISSUE FOR CONSTRUCTION

BY | RWC | CHK | SSS | APR | MMG



PEDERNALES ELECTRIC  
COOPERATIVE, INC.

CURRENT TRANSFORMER  
METERING SPECIFICATIONS

drawn:

approved:

date:

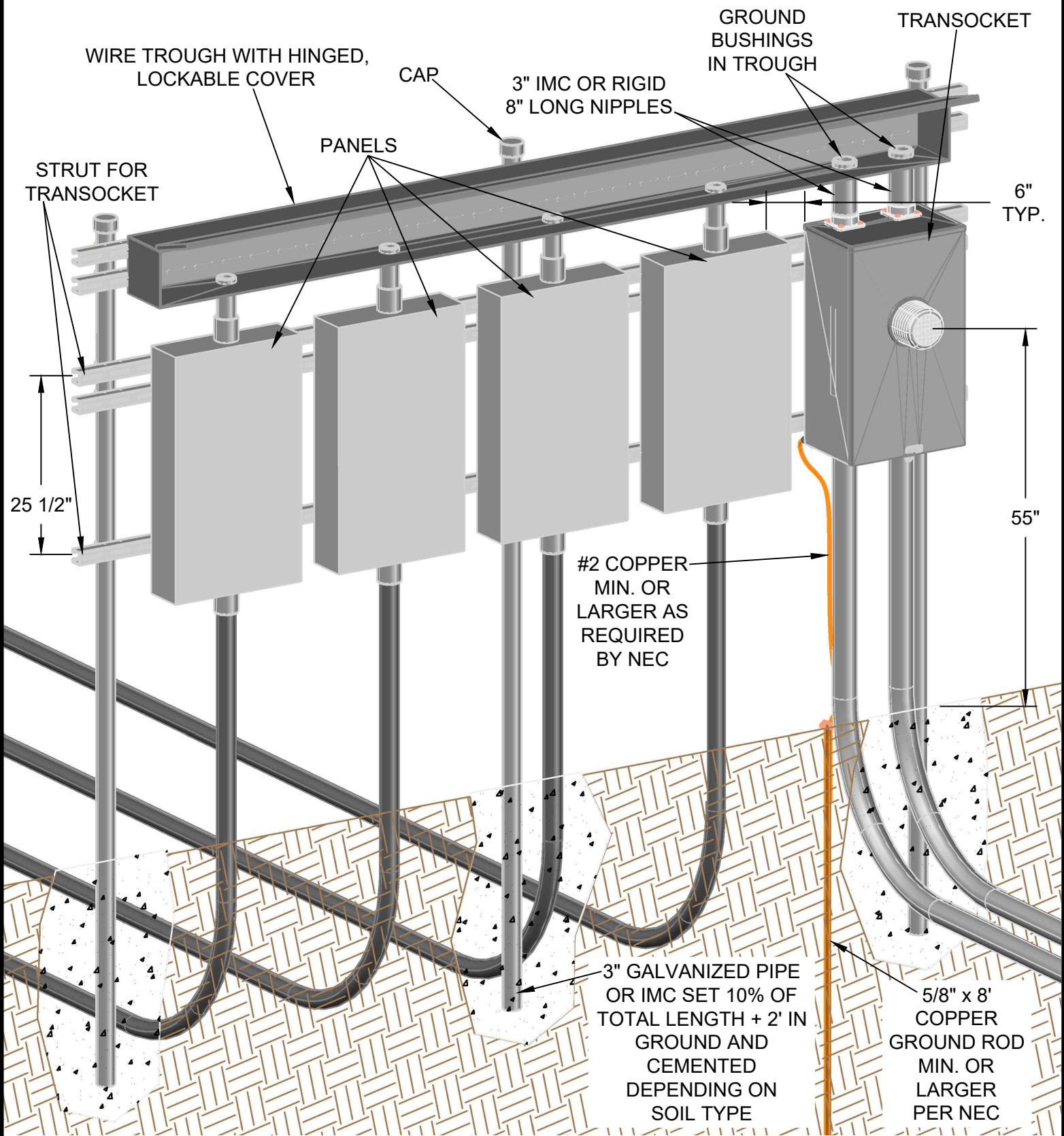
RWC

MMG

07/13/2021

PAGE 3 OF 11

# RACK MOUNT MULTIPLE PANELS WITH METER



REV A DATE 07/13/2021 REVISION ISSUE FOR CONSTRUCTION

BY RWC CHK SSS APR MMG



PEDERNALES ELECTRIC  
COOPERATIVE, INC.

CURRENT TRANSFORMER  
METERING SPECIFICATIONS

drawn:

approved:

date:

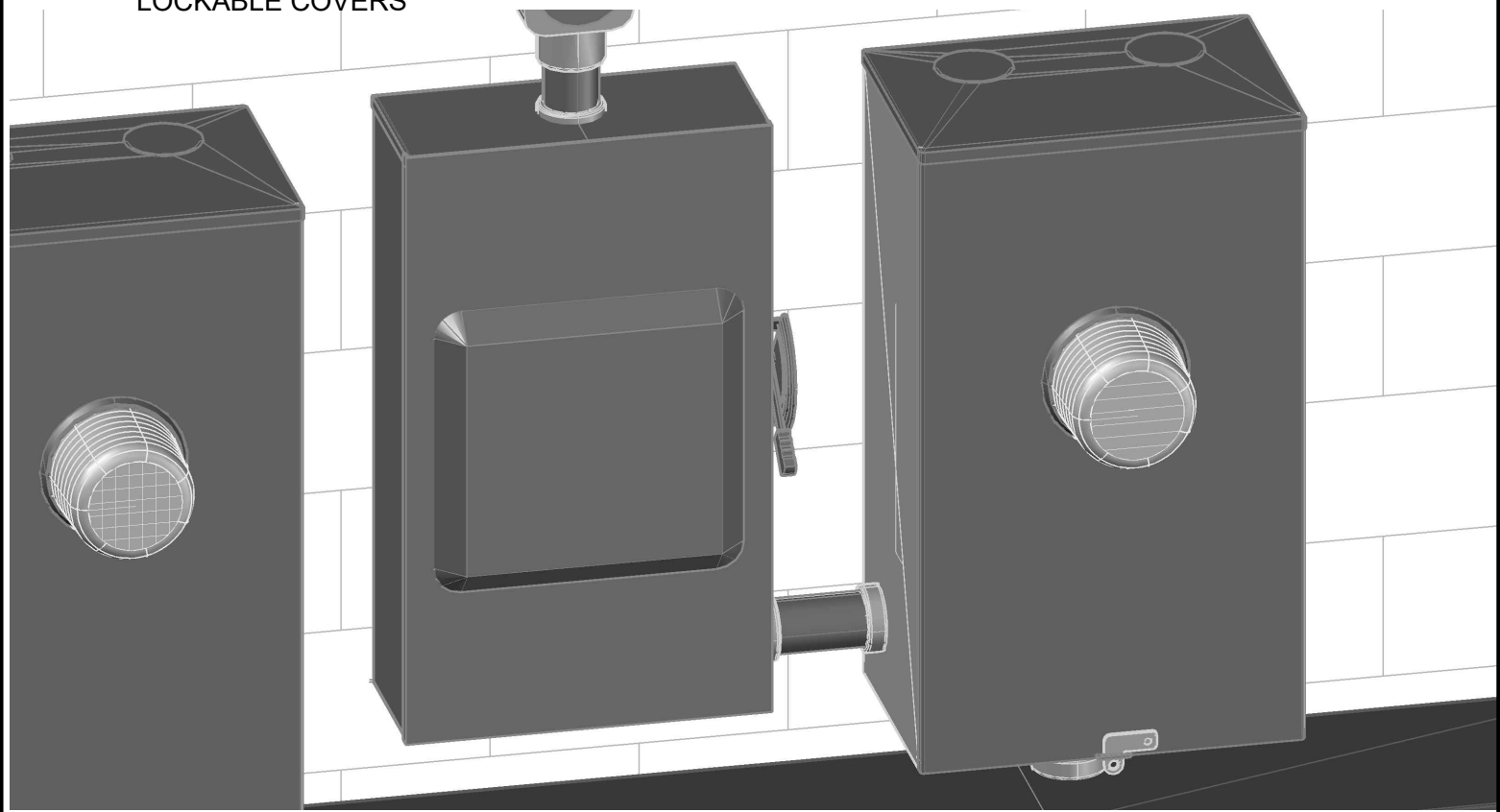
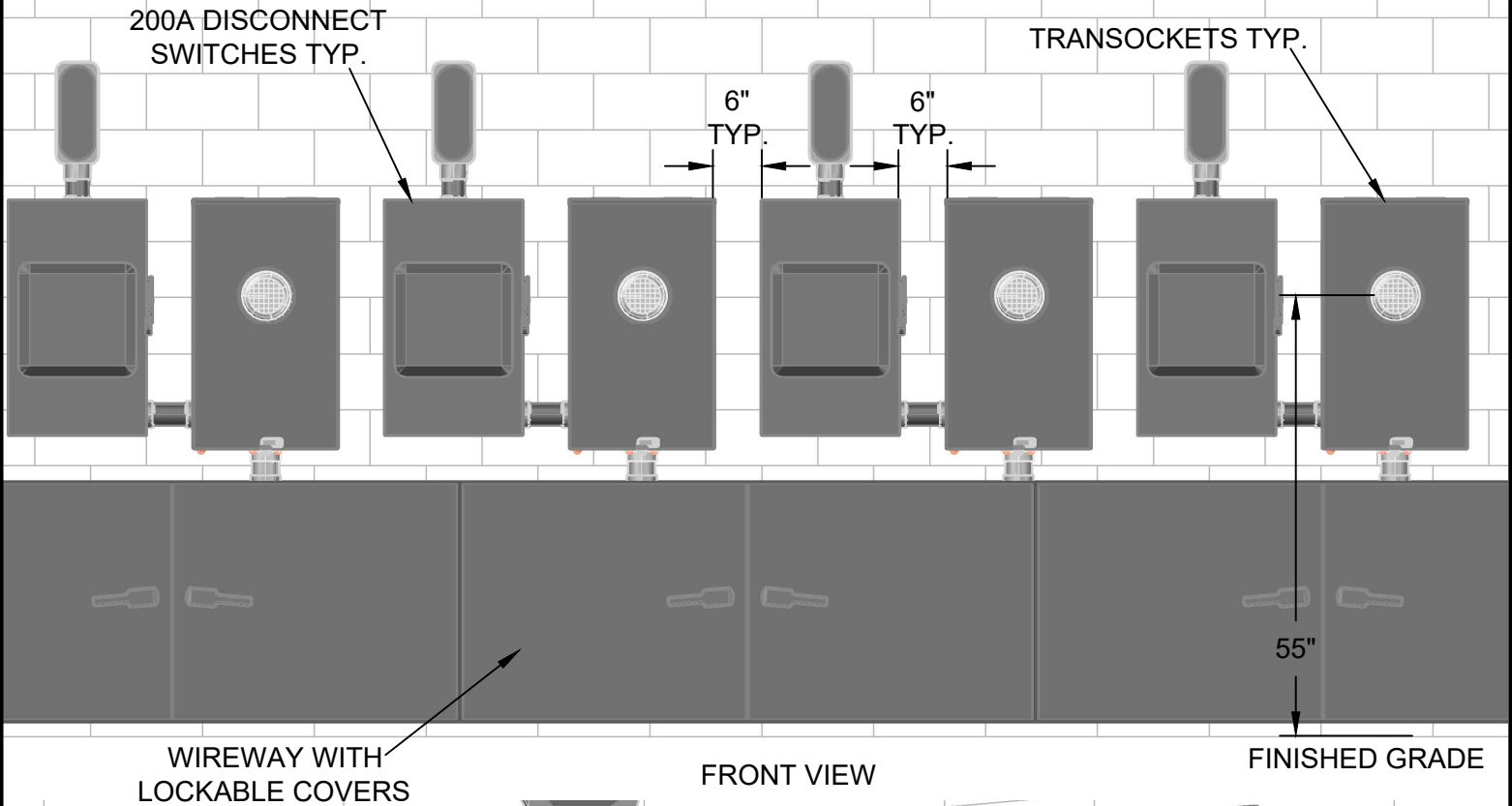
RWC

MMG

07/13/2021

PAGE 4 OF 11

# WALL-MOUNT MULTI-CLIENT



REV | A | DATE | 07/13/2021 | REVISION | ISSUE FOR CONSTRUCTION | BY | RWC | CHK | SSS | APR | MMG

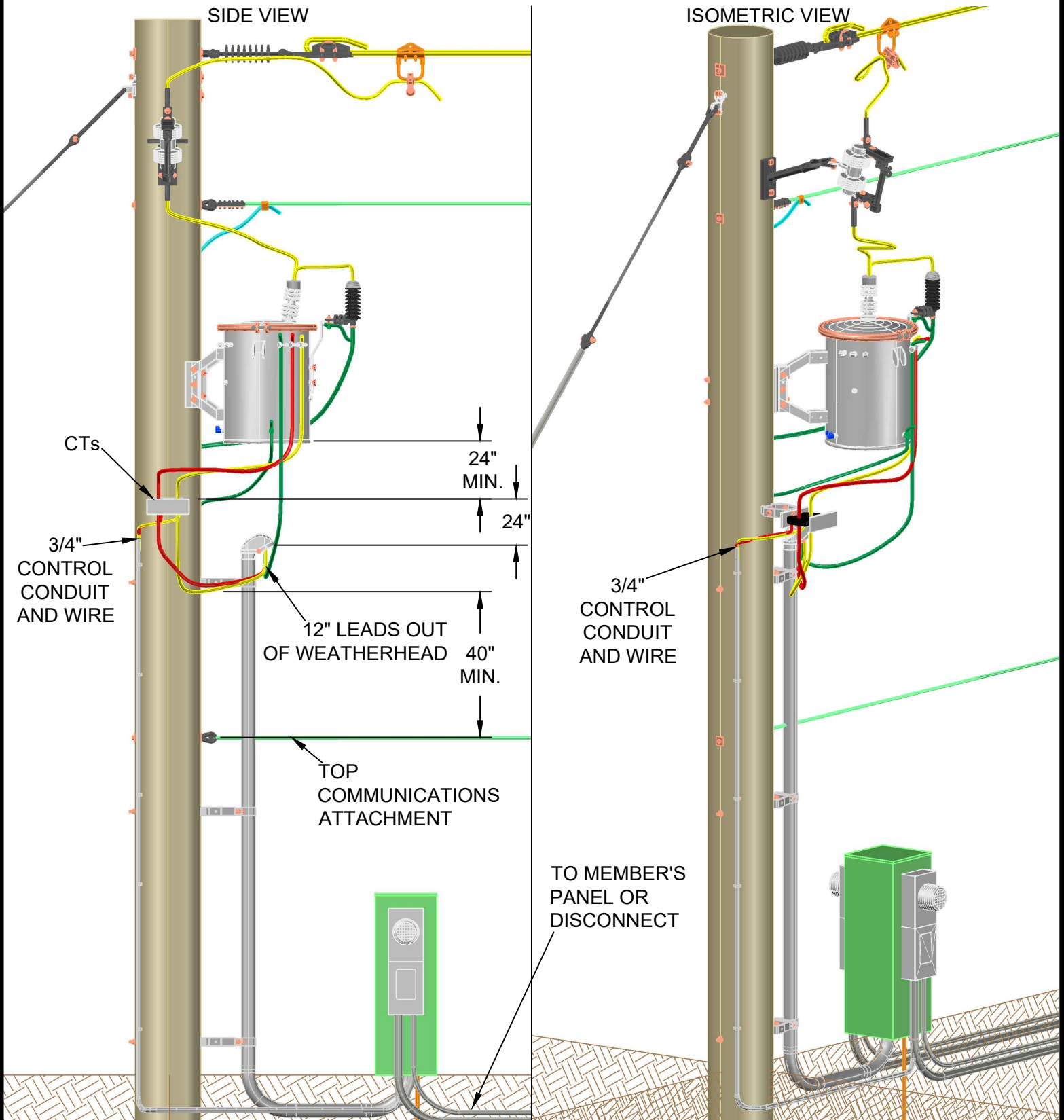


PEDERNALES ELECTRIC  
COOPERATIVE, INC.

CURRENT TRANSFORMER  
METERING SPECIFICATIONS

drawn: RWC	approved: MMG	date: 07/13/2021	PAGE 5 OF 11

# SINGLE-PHASE CT METERING



REV A DATE 07/13/2021 REVISION ISSUE FOR CONSTRUCTION

BY RWC CHK SSS APR MMG

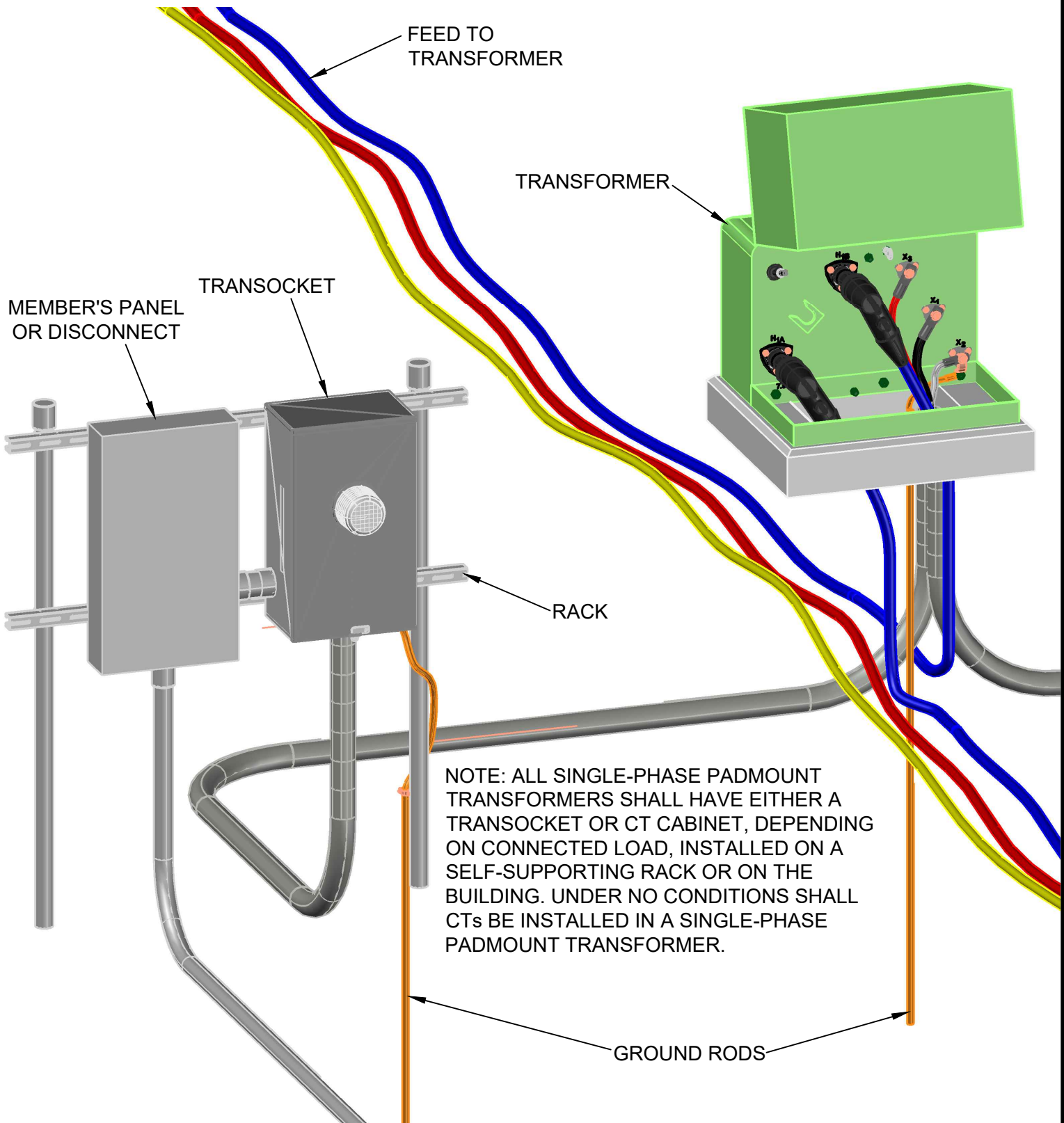


PEDERNALES ELECTRIC  
COOPERATIVE, INC.

## CURRENT TRANSFORMER METERING SPECIFICATIONS

drawn: RWC	approved: MMG	date: 07/13/2021	PAGE 6 OF 11

# PADMOUNT SINGLE-PHASE TRANSFORMER WITH RACK-MOUNTED CT/PT CABINET AND TRANSOCKET



REV A DATE 07/13/2021 REVISION ISSUE FOR CONSTRUCTION

BY RWC CHK SSS APR MMG



PEDERNALES ELECTRIC  
COOPERATIVE, INC.

## CURRENT TRANSFORMER METERING SPECIFICATIONS

drawn:

approved:

date:

RWC

MMG

07/13/2021

PAGE 7 OF 11

# MULTIPLE MODULAR METERING ITEM LIST AND NOTES

ITEMS ON PG. 9	DESCRIPTION	FURNISHED & INSTALLED BY PEC	FURNISHED & INSTALLED BY MEMBER
A	METER	X	
B	UNDERGROUND SERVICE LATERAL (IN MEMBER-PROVIDED CONDUIT) OR OVERHEAD DROP (INSIDE CABINET)		X
C	METERING CABLE (NOT PICTURED; IN MEMBER-PROVIDED CONDUIT)	X	
D	INSTRUMENT TRANSFORMERS (NOT PICTURED; INSIDE CABINET)	X	
E	APPROVED GROUP-METERING EQUIPMENT		X
F	1" RIGID GALVANIZED STEEL CONDUIT (METERING CONDUIT)		X
G	METERING TRANSFORMER CABINET (NOT PICTURED; IF REQUIRED)		X
H	RIGID CONDUIT (EITHER OH OR UG DEPENDING ON SERVICE)		X
I	CONDUIT EXPANSION JOINT (FOR UG SERVICE)		X
J	SLEEVE IF CONDUIT PASSES THROUGH CONCRETE OR ASPHALT (NOT PICTURED)		X
K	TERMINATION AREA		X
L	SERVICE DISCONNECT		X
M	5/8" x 8' COPPER GROUND ROD OR LARGER PER NEC		X
N	WIRE AND WIREWAY BETWEEN TRANSFORMER AND METER (NOT PICTURED; INSIDE CABINET)		X

**NOTES:**

1. Service disconnect switches shall be located adjacent to the meter or grouped in an integrated, factory-manufactured section of the multiple-metering equipment.
2. Meters shall be arranged in a logical left-to-right and top-to-bottom numbering sequence.
3. The member shall provide PEC Planning and Engineering with a diagram of the meter socket assembly with each unit clearly identified, and a floor plan of the facility with each unit clearly identified.
4. The normal sequence shall be **meter-switch-fuse** for six or fewer meters. With special approval from PEC Engineering, and only on factory-bussed equipment, a service disconnect may be installed ahead of the metering for installations with two or more meters. This sequence will then be **switch-fuse-meter-switch-fuse**.
5. For units larger than 200 amps per meter position, consult PEC.
6. A PEC-approved termination cabinet will not be required for overhead service to these types of modular metering installations.
7. Metering banks must be placed on an exterior wall or installed such that PEC crews can access metering bank.
8. A single-phase transformer cannot accommodate more than four runs of 500 MCM cable. Contact PEC Engineering to determine how many modular meters can be served.

REV | A | DATE | 07/13/2021 | REVISION | ISSUE FOR CONSTRUCTION | BY | RWC | CHK | SSS | APR | MMG



PEDERNALES ELECTRIC  
COOPERATIVE, INC.

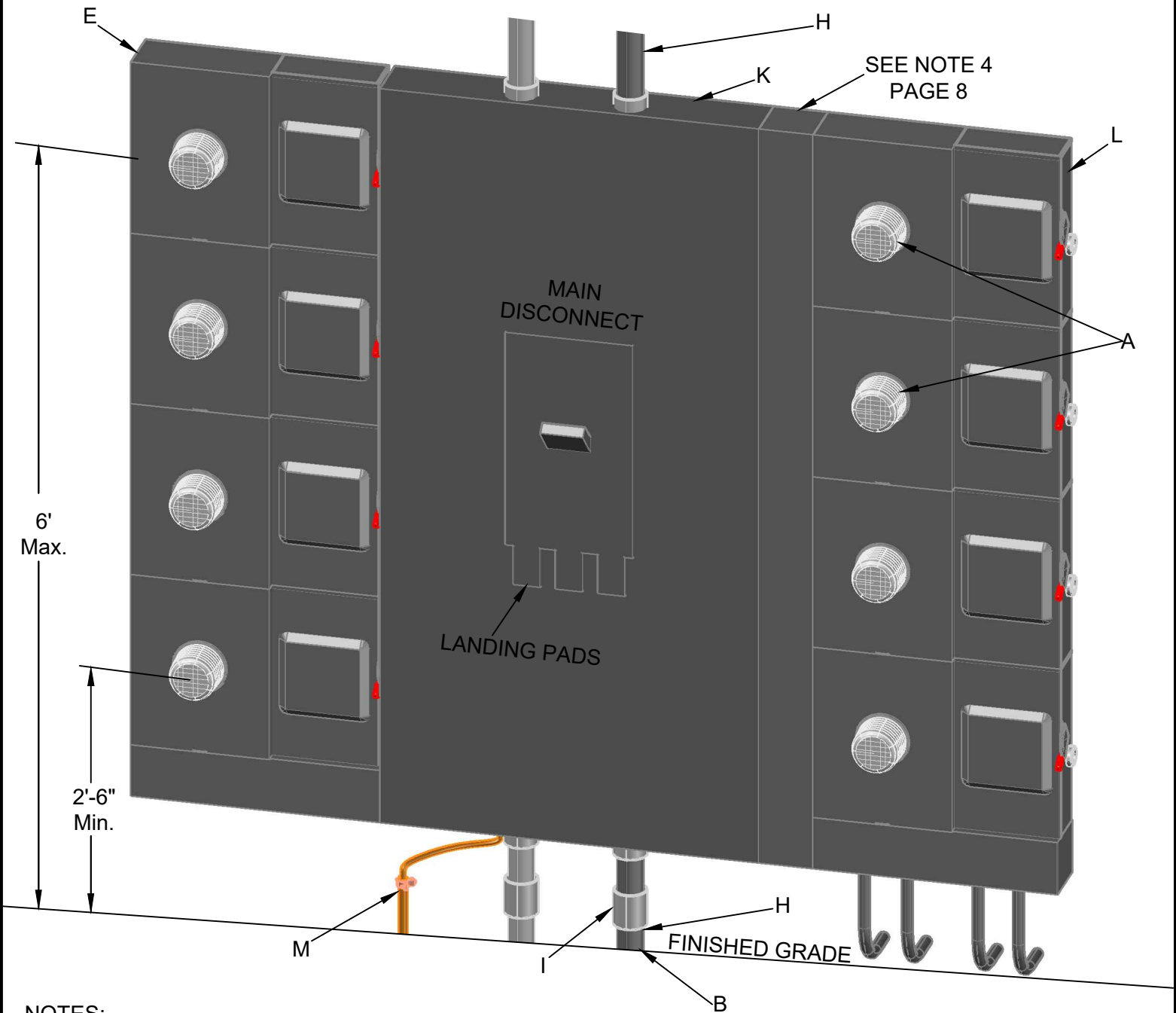
CURRENT TRANSFORMER  
METERING SPECIFICATIONS

drawn:	approved:	date:
RWC	MMG	07/13/2021



# BUSSED MODULAR METERING PANEL MAIN BREAKER (MORE THAN 6 DISCONNECTS)

REFER TO ITEM LIST ON PAGE 8



**NOTES:**

1. Main breaker disconnects must be equipped with separate landing pads with set-screw or lay-in lugs for the termination of PEC service conductors.
2. Optional spacer section is required if meter glass is less than 6" from the side of the disconnect cabinet.

REV	A	DATE	07/13/2021	REVISION	ISSUE FOR CONSTRUCTION	BY	RWC	CHK	SSS	APR	MMG
-----	---	------	------------	----------	------------------------	----	-----	-----	-----	-----	-----



PEDERNALES ELECTRIC  
COOPERATIVE, INC.

CURRENT TRANSFORMER  
METERING SPECIFICATIONS

drawn:	approved:	date:	PAGE 9 OF 11
RWC	MMG	07/13/2021	

# MULTIPLE METER POSITIONS (2 OR MORE), UP TO 200 AMPS, 250 VOLTS MAXIMUM

ITEMS ON PG. 11	DESCRIPTION	FURNISHED & INSTALLED BY PEC	FURNISHED & INSTALLED BY MEMBER
A	METER	X	
B	UNDERGROUND SERVICE LATERAL (IN MEMBER-PROVIDED CONDUIT) OR OVERHEAD DROP (NOT PICTURED, INSIDE CABINET)		X
C	MULTIPLE METERING EQUIPMENT		X
D	TERMINATION AREA		X
E	RIGID CONDUIT		X
F	CONDUIT EXPANSION JOINT		X
G	CONCRETE SLEEVE		X
H	5/8" x 8' COPPER GROUND ROD OR LARGER PER NEC		X

**NOTES:**

1. Service disconnect switches shall be located adjacent to the meter or grouped in an integrated, factory-manufactured section of the multiple-metering equipment.
2. Meters shall be arranged in a logical left-to-right and top-to-bottom numbering sequence.
3. The member shall provide PEC Planning and Engineering with a diagram of the meter socket assembly with each unit clearly identified, and a floor plan of the facility with each unit clearly identified.
4. The normal sequence shall be **meter-switch-fuse** for six or fewer meters. With special approval from PEC Engineering and only on factory-bussed equipment, a service disconnect may be installed ahead of the metering for installations with two or more meters. This sequence will then be **switch-fuse-meter-switch-fuse**.
5. For units larger than 200 amps per meter position, consult PEC.
6. PEC will only terminate on PEC-approved equipment and will not terminate on member's breakers.

REV | A | DATE | 07/13/2021 | REVISION | ISSUE FOR CONSTRUCTION | BY | RWC | CHK | SSS | APR | MMG



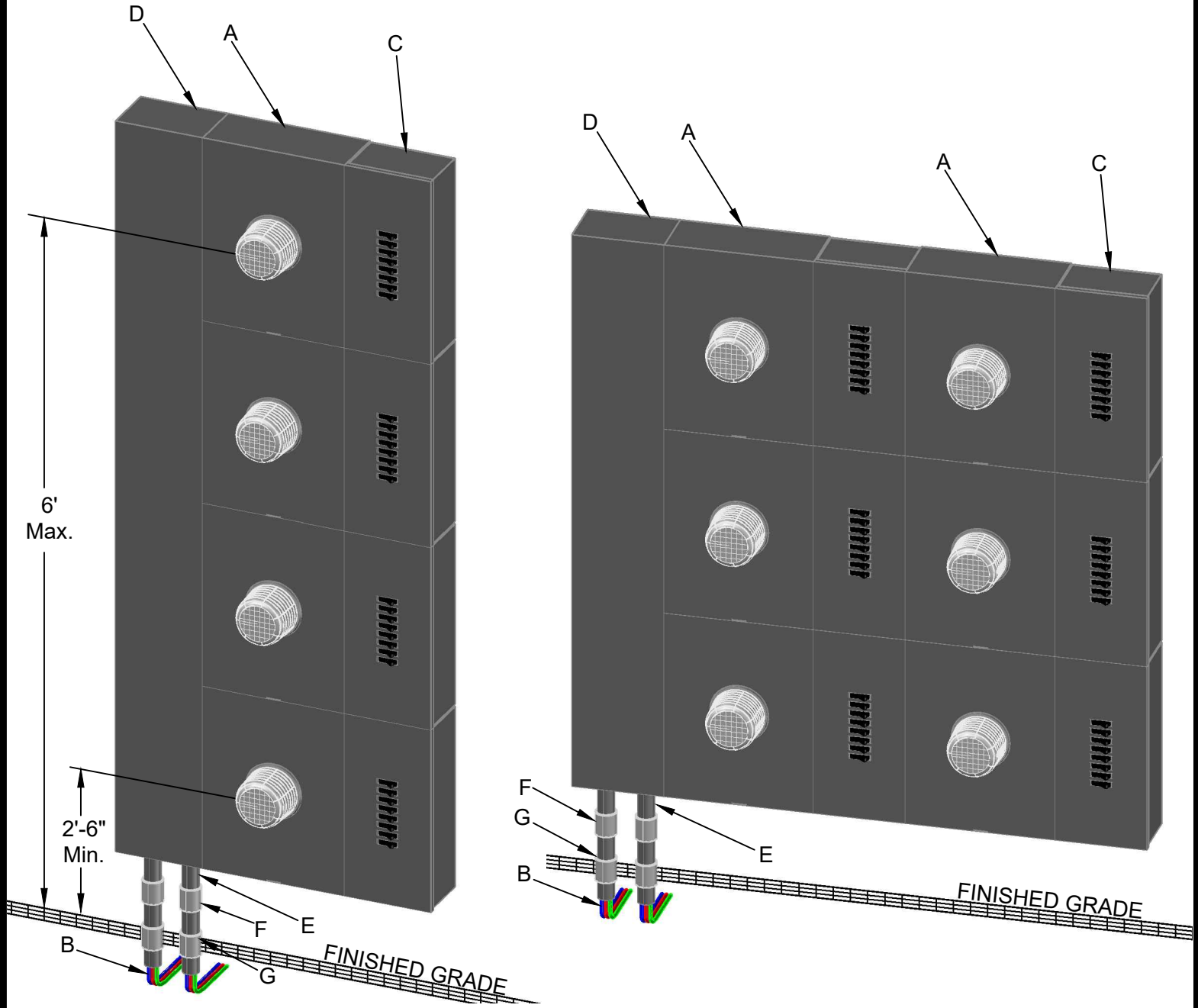
PEDERNALES ELECTRIC  
COOPERATIVE, INC.

CURRENT TRANSFORMER  
METERING SPECIFICATIONS

drawn:	approved:	date:	
RWC	MMG	07/13/2021	PAGE 10 OF 11

# MULTIPLE METER POSITIONS (2 OR MORE), UP TO 200 AMPS, 250 VOLTS MAXIMUM

REFER TO ITEM LIST ON PAGE 10



REV | A | DATE | 07/13/2021 | REVISION | ISSUE FOR CONSTRUCTION | BY | RWC | CHK | SSS | APR | MMG



PEDERNALES ELECTRIC  
COOPERATIVE, INC.

## CURRENT TRANSFORMER METERING SPECIFICATIONS

drawn: RWC	approved: MMG	date: 07/13/2021	PAGE 11 OF 11