



Electric Service Standards

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VI. METERING EQUIPMENT

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VI. METERING EQUIPMENT

A. Equipment Furnished and Installed by FPL

FPL provides and installs, at its expense, adequate metering instruments to measure the electric service used by the Customer. Usually, only one watt-hour meter per Customer is needed. However, FPL will furnish whatever metering, in its opinion, is required.

Self-contained socket-based meters will be furnished and installed by FPL when the service current is (100, 200 or 320 amps) and the service voltage is 120- 480 Volts. Self-contained K-Base (Bolt-in) meters will be furnished and installed by FPL for service current up to 600 amps maximum.

Instrument transformers are provided and installed by FPL when the voltage or current exceeds the rating of FPL's standard self-contained meter. Generally, current transformers will be used if the service exceeds 480 amps continuous or 600 amps maximum (320 amps for 480V, 2 wire service). Close coordination between the Customer and FPL is required to ensure these instrument transformers are installed at the most appropriate time. **Current transformer design and improper selection can result in inaccurate metering.**

B. Equipment Furnished, Installed, and Owned by the Customer

All meter sockets (meter enclosures) are to be provided and installed by the Customer and shall be listed on FPL's approved meter enclosure list.

For commercial, self-contained metering, FPL requires meter sockets with lever by-pass capability to eliminate service interruptions on meter changes.

All Instrument Transformer (IT) rated metering equipment enclosures are to be provided and installed by the Customer. These include IT rated meter sockets, wall mounted and weatherhead IT cabinets, and miscellaneous junction boxes/utility cabinets (**Fig. VI-2 thru VI-7**). Refer to FPL Specification 6.3.4 Customer Owned Instrument Transformer Cabinets, Equipment Enclosure & Junction Boxes. For padmounted primary metering, the customer has two options. FPL will provide the metering cabinet and charge the customer the cost of the cabinet, or the customer will provide a padmounted metering cabinet found in FPL's approved meter enclosure list. For primary metering in vaults, FPL will provide, install, and maintain the primary metering cabinet.

In some cases, the Customer might prefer prefabricated, combination socket and disconnect assemblies for multiple occupancy buildings (e.g. apartment or condominium buildings, shopping centers, etc.) as shown in **Fig. IV-12b**, or pedestal mounted equipment for mobile home parks as shown in **Fig. IV-13b**. Such equipment for all three phase and nonresidential installations shall contain lever by-pass, jaw tension/release socket blocks. It shall be the Customer's responsibility to obtain authorization from FPL to use this equipment for a particular installation before committing to its use. FPL maintains an approved list of equipment. Information and specifications on any such special meter equipment not on FPL's approved list shall be submitted to FPL for approval before installation. Refer to FPL Specification 6.3.1 Customer Owned Meter Enclosures for Self-Contained Watt-hour Meters and the Approved Metering Equipment Enclosure List found in **Section VII** in this publication.

On all self-contained, metered installations where the service voltage is 480V to ground (320 amperes or less, 2 wire), a non-automatic disconnect device shall be provided and installed by the Customer on the line side of each individual meter. For meter centers, there shall be one disconnect device on the line side of each meter. The disconnect device shall be lockable or sealable by FPL and adjacent to each meter. The Customer-owned non-automatic (no over current protection) disconnect device ampacity must meet all NEC Guidelines. A lever bypass equipped meter enclosure is required and shall be selected from the Approved Meter Equipment Enclosure List.

Meter socket enclosures and CT cabinets shall not be used as raceways for other conductors. Splices of any type are not allowed inside meter enclosures. The conductor must be continuous. Lugs designed



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for multiple conductors are only allowed on the line side of the meter if the conductors must be paralleled from the FPL source (i.e. - the ampacity of a single conductor is insufficient to serve the load) and the lugs are listed for such use. These lugs shall not be used to provide a source for a second meter enclosure (i.e. - two meter enclosures served from a single service) or to directly connect any customer equipment (i.e. customer generation system or surge protectors). Lugs designed for multiple conductors are allowed on the load side of the meter provided the meter can is UL approved to accept parallel lugs, the total load of the conductors does not exceed the rating of the meter or the service, the lugs have an anti-rotation ridge and are UL listed for such use.

C. Metering Configurations & Approved Equipment

FPL specifies the metering configuration (See [Fig. VI-1](#)) for each service to be metered. FPL also requires that previously approved enclosures be used for each installation. The Customer is responsible for using the correct and approved enclosures. Failure to do so may result in delay of service and additional expense. The list of approved enclosures (current at the time of this publication) is provided in [Section VII](#). If necessary, the most current list of approved enclosures can be obtained from your local FPL representative or online at <http://www.FPL.com/builder>, using the Electric Service Standards link.

D. Location of Metering Equipment

The metering equipment's location will be designated by an FPL representative. The Customer will provide the meter location free of cost to FPL.

1. Sequence in Service Entrance

Where permitted by Code authorities, the metering equipment will usually precede all service equipment. Customer owned step-down transformers shall be installed on the load side of the meter. On the City of Miami Downtown Network Grid only, the service equipment should precede the meter.

2. Located Outdoors

Except where meter rooms are used, all metering installations shall be outdoors, on a vertical wall or other substantial support where the view from the ground is unobstructed. They should be readily accessible to FPL at all times so they may be read, inspected, removed or tested with a minimum of disruption of service to the Customer. The preferable height of the centerline of the meter is five feet, six inches above ground. The maximum distance shall be six feet and the minimum five feet, except meter pedestals for mobile homes may have a minimum height of 36".

The meter location should not be affected by a kitchen discharge fan or other vents, or the drain from a roof gutter or air conditioner, and should be free from vibration. Sockets shall be securely attached to the building wall, pedestal, metal rack, or other permanent structure, and aligned so that the meter is both level and plumb ([Fig. IV-7](#)). Attachment to temporary structures (except for temporary service) or structures subject to early deterioration is prohibited.

When the equipment is exposed to vehicular traffic, FPL may require that the metering equipment be protected by concrete filled 4" steel pipes firmly installed in the ground, similar to those shown in [Fig. V-1](#).

3. Located Indoors

When meters are located in a meter room, the room should have adequate lighting and contain only meters and associated equipment, and should remain unlocked so meters are readily accessible. In unusual cases where an unlocked meter room would impose a severe hardship on



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the Customer, arrangements can be made to furnish keys to FPL so the meters will always be accessible to meter readers. The meter room may then be locked, provided this does not violate any local code or rule. The meter room must not be used for storage. The centerline of the meters should be five feet, six inches above the floor, but when necessary because of grouping may be a maximum of 72" and a minimum of 22".

4. Flood Elevation Standards

If local ordinances require meters to be located at or above base flood elevation, the Customer is responsible for providing and maintaining a means of ready access to the meter (for maintenance and reading by FPL personnel). See [Fig. VI-9](#), page 16 of this section for details. Any additional costs incurred by FPL for providing special service to meet the Customer's flood insurance requirements shall be paid by the Customer.

E. Identification of Meters

If a building requires more than one meter, or if the meter is not directly within the boundaries of the premise served, FPL cannot render service until the meter socket or cabinet and the service equipment have been properly marked to show plainly the location served and the character of the service ([Fig. VI-8](#)). Multiple meter sockets shall be "rung out" by the electrical contractor and marked with the appropriate unit numbers before FPL will tap the service and set meters. This marking requirement includes IT rated meter sockets. These markings by the Customer should be plain and permanent, giving the street number to the door of the premise served or the symbol appearing on the entrance door when this door does not carry a street number. The name of the Customer will not suffice for identification. The meter sockets in multi-unit buildings shall be clearly and durably marked. Mark the exterior of all meter enclosures, the main line switch (when installed adjacent to the meter enclosure), and the inside of the meter enclosure (whenever feasible to do so).

F. Relocation or Upgrade of Metering Equipment

Whenever it is necessary to relocate or upgrade an existing metering installation, the new installation shall be made by the Customer in accordance with these standards.

A definite schedule for the switch-over to the new meter shall be arranged in advance by the Customer so FPL can accommodate the request upon completion of the Customer's electrical work. The new service entrance shall be inspected and approved by local authorities before service can be restored. No energized service entrance shall be left un-metered, and all meters shall be re-identified as to what units they serve. Refer also to [section III.I](#).

G. Load Profile Metering Requirements

Load Profile Meters may be required when the Customer's load exceeds 500 KWD. Solid State Data Recorders (SSDR) are no longer installed for new services. Load Profile Meters in the form of Recorders-Under-Glass (RUG) or SMART meters are the correct equipment to be installed for all new services. Metering equipment enclosures and associated cabinets are provided and installed by the Customer, typically located near the point of metering at the Customer's service entrance ([Fig. VI-7](#)). Load Profile metering only requires an SJB cabinet if two or more meters are involved in the installation.

The Customer may be required to provide two (2) 3/4" PVC or metallic conduits from the FPL telephone jack cabinet to the point of access to the telephone system. Contact FPL for details.

Both RUG and SMART meters provide one channel of Load Profile recording as well as collect data from up to (2) additional pulse-initiating meters. Two or more meters on a Load Profile installation are combined on one account. In addition to basic Load Profile functions, SMART meters provide Power Quality Monitoring and wireless communication capabilities. SMART Meters may require additional cabinets or junction boxes installed to facilitate the antennas required for wireless communications.



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H. Installation of FPL’s Metering Equipment in Customer’s Switch Cabinets

Installation of CTs in customer’s switch cabinets is discouraged and will only be approved if no other location for the CTs is practical. If FPL’s equipment is installed in the Customer’s switch cabinet:

1. The installation must be approved by FPL prior to the purchase of the customer’s equipment.
2. For IT rated metering, the customer shall sign a Hold Harmless Agreement absolving FPL of damage to the switch cabinet during installation or damage caused by failure of the CTs.
3. The CT compartment of the customer’s switch cabinet must comply with FPL’s Specification for Customer Owned Instrument Transformer Cabinets, Equipment Enclosures and Junction Boxes Spec. # 6.3.4 (available upon request on an “as needed” basis).
4. The meter enclosure/meter socket must be on FPL’s Approved Metering Equipment Enclosure List found in Section VII.
5. For both self-contained and IT rated metering, the line-side of the conductors in the switch cabinet must be routed through secured or sealable troughs, conduits, or in such a way to prevent unauthorized taps to be made before the meter.
6. FPL will always provide and install the CTs used in metering the customer.
7. Only FPL approved metering CTs will be used in metering applications.
8. All other rules associated to a proper meter installation (e.g. - meter rings, enclosure covers and meter seals) must be observed.
9. All meter enclosures, cabinets and panels housing FPL equipment must have provisions for sealing.
10. All self-contained meter sockets must be lever bypass type sockets.



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I. Illustrations

- FIG. VI-1:** Metering Configurations - Descriptions and Notes
- FIG. VI-2:** CT Metering Configuration 6 - CTs in Padmounted Transformer or Vault
- FIG. VI-2a:** Unistrut Mounting for IT Rated Meter Cans
- FIG. VI-3:** CT Metering Configuration 7, 8, 9 - CT Cabinet Mounted on Wall
- FIG. VI-4:** CT Cabinet and IT Rated Meter Socket - Installation and Bonding
- FIG. VI-5:** CT Metering Configuration 10 - CTs in Weatherhead Cabinet
- FIG. VI-6:** CT Metering Configuration 11 - CTs in Padmounted Primary Metering Cabinet
- FIG. VI-6a:** CT Metering Configuration 11 – Padmounted Primary Metering, Renewable Generation
- FIG. VI-7:** CT Metering Configuration 12 – Load Profile Metering
- FIG. VI-8:** Identification of Multiple Meter Sockets
- FIG. VI-9:** Meter Enclosure Installations in Flood Zones
- FIG. VI-10:** Typical Bus Stub Terminations in Transformer Vaults



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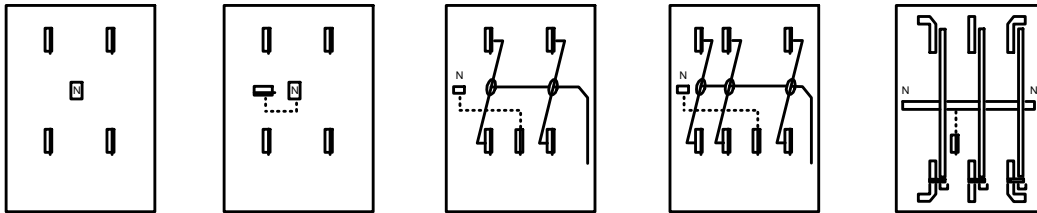
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**FIGURE VI-1
Metering Configurations - Descriptions and Notes**

Self Contained Meter Enclosures



Configuration 1 Configuration 2 Configuration 3,3a,3b Configuration 4 Configuration 5

GENERAL NOTES ON SELF CONTAINED METER SOCKET BLOCK CONFIGURATIONS:

- Configuration 1** - Primarily residential applications. Limited to 320 amp demand. (see Note 1 and Note 2)
- Configuration 2** - Modification of Configuration 1 by adding a 5th terminal in the 9 o'clock position. To be used with network meters. Limited to 320 amp demand. (see Note 1 and Note 2).
- Configuration 3** - For one phase service requiring bypass device. Limited to 320 amp demand. (See Note 2).
- Configuration 3a** - Modification of Configuration 3 (5th terminal for network meters). Limited to 320 amp demand. (see Note 2)
- Configuration 3b** - Modification of Configuration 3a plus Neutral can be isolated for 3PH, 3-wire applications
- Configuration 4** - For three phase service. Limited to 320 amp demand. (See Note 2)
- Configuration 5** - For one or three phase service. Limited to 600 amp demand. (See Note 3)

- Note 1 - May be used for very small commercial applications, such as billboards, parking lot lights, small pumps and/or pump controllers. Limited to 60 amps for these uses. Consult FPL prior to purchase for commercial uses.
- Note 2 - All three phase and all commercial installations shall have a meter socket with the approved bypass jaw tension/release device (excluding Configuration 5 applications and very small commercial applications referred to in Note 1).
- Note 3 - Maximum wire size is 1-800 MCM or 2-500 MCM per phase. For use on the **LOAD** side, a ridged triple lug is available (Landis & Gyr part #68752-1) that will allow for 3-250 MCM per phase, on the **LOAD** side. For single phase applications leave the center phase unwired.
- Note 4 - In Residential applications where FPL service conductors are paralleled, the customer shall provide and install lugs designed for multiple conductors on the line side of the meter socket.

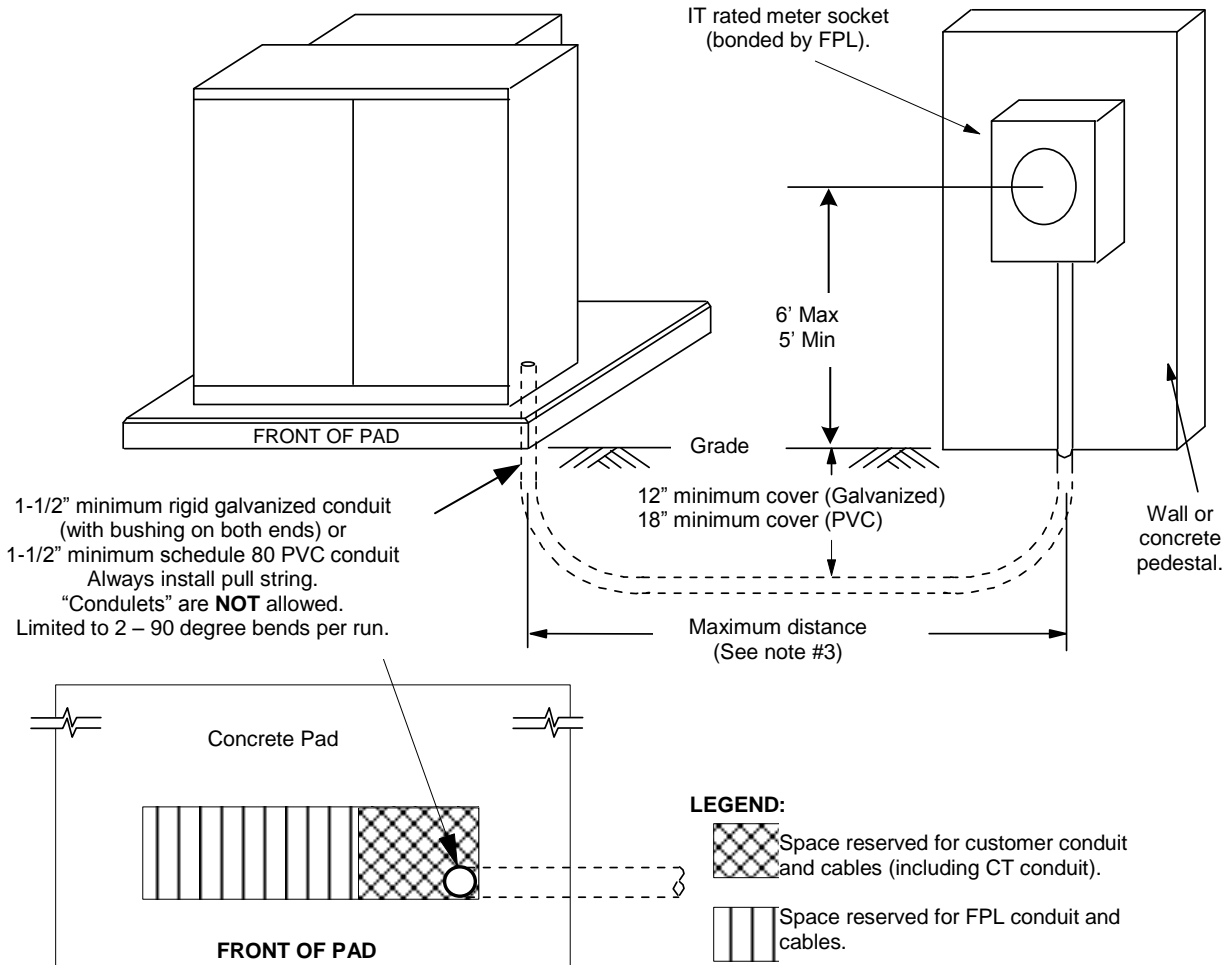
Instrument Transformer Rated Metering

- Configuration 6** - CTs installed within a padmounted transformer or vault with an IT rated meter socket mounted on a pedestal or wall.
- Configuration 7,8** - CTs installed within a wall or pedestal mounted cabinet with an IT rated meter socket. Cabinet size is determined by number and size of conduits and conductors.
- Configuration 9** - CTs mounted within a custom designed and constructed wall mounted cabinet with an IT rated meter socket. This configuration is for conduit and wire combinations that exceed the capacity of the cabinets listed for configuration 8. Refer to FPL Specification 6.3.4 Customer Owned Instrument Transformer Cabinets, Equipment Enclosure & Junction Boxes.
Consult with an FPL representative before designing this configuration.
- Configuration 10** - CTs mounted within a weather-head cabinet with an IT rated meter socket. This configuration is allowed only when configurations 1-9 are not possible. **Consult with an FPL representative before designing this configuration.**
- Configuration 11** - Padmounted Primary Metering with IT rated meter socket.
Consult with an FPL representative before designing this configuration.
- Configuration 12** - Load Profile metering (RUG & SMART Meters).
Consult with an FPL representative before designing this configuration.

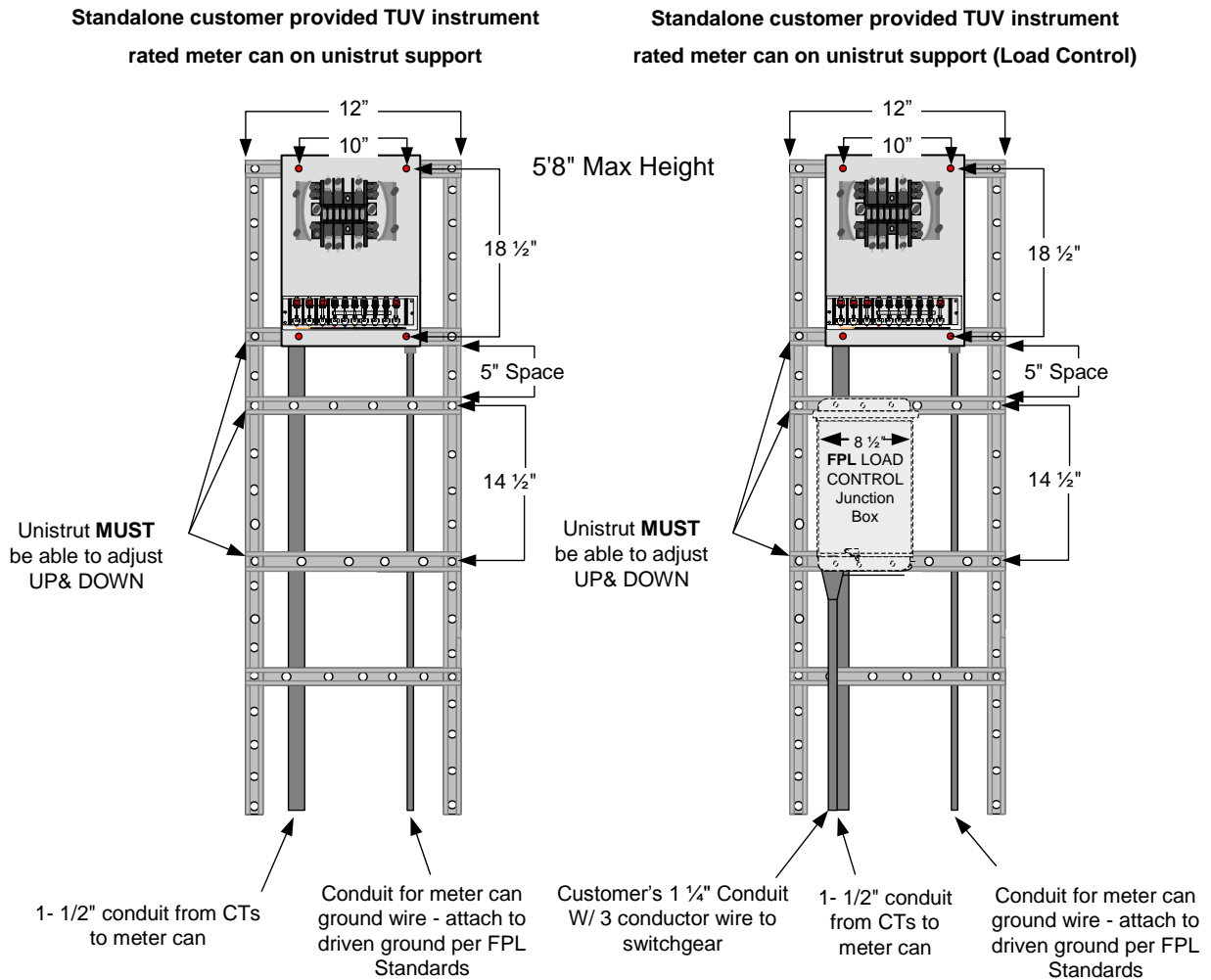
**FIGURE VI-2
CT Metering Configuration 6 - CTs in Padmounted Transformer or Vault**

1. IT rated meter socket provided and installed by customer: ____ 1 ph or ____ 3 ph (check one)
2. Current transformers (CTs) provided and installed in padmounted transformer by FPL.
3. 1-1/2" minimum rigid galvanized or Schedule 80 PVC conduit with pull string installed between meter socket and padmounted transformer provided and installed by customer. Condulets are NOT allowed, and limited to 2 – 90 degree bends per run. **For maximum distance between transformer and meter socket, see table below.**
4. Restricted to one customer per padmounted transformer. Exceptions **must** be approved by FPL.
5. CT ratio determined by FPL.

CT Ratio	Max Amps	Max Distance (feet)	Max Cable Length (feet)
✓ Ratio			
300:5	600	10	20
600:5	1200	40	50
1200:5	2400	40	50
2000:5	3000	40	50



**FIGURE VI-2a
Unistrut mounting for Instrument Rated TUV meter cans (CT metering)**



- 1) Meter cans face away from the TX.
- 2) Bury unistrut in ground minimum 3 feet in compacted earth, or 2 feet if encased in concrete
- 3) When applicable, FPL provides and installs the Load Control Junction Box (LCJB)
- 4) Unistrut Requirements:

- A. Unistrut - Per ASTM Spec. A-123 or A-153, 1-5/8 x 1-5/8", 12 ga., 9/16" dia. Holes spaced 1- 7/8" apart
- B. To connect the Unistrut Framing use:
 3/8 x 1-1/4" electrogalvanized bolts, per ASTM A164
 Nut w/ spring for 3/8 dia. bolt, electrogalvanized, per ASTM A164
 Flat Washer - 1" dia. for 3/8" bolt, electrogalvanized, per ASTM A164
 Lock Washer - for 3/8" dia. bolt, hot-dipped galvanized, per ASTM A153
- C. To attach cabinets and boxes use:
 1/4" x 20 electrogalvanized bolts, per ASTM A164
 Nut w/ spring for 1/4" dia. bolt, electrogalvanized, per ASTM A164



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FIGURE VI-3
CT Metering Configuration 7, 8, 9 - CT Cabinet Mounted on Wall

1. IT rated meter socket provided and installed by customer: _____ 1 ph or _____ 3 ph (check one)
2. Wall mounted current transformer (CT) cabinet provided and installed by customer.
3. 1-1/2" minimum rigid galvanized conduit (with bushings), or 1-1/2" minimum Schedule 80 PVC conduit with pull string installed between meter socket and current transformer cabinet provided and installed by customer. Maximum of 2-90 degree bends, no condulets allowed. **Maximum allowed distance from socket to cabinet is 40 feet.**
4. Window CTs provided by FPL and installed in the CT cabinet by the customer before pulling wire. Ensure the CTs are installed in the correct orientation (indicator dot toward the source).
5. Customer's conductor(s) must run continuous through the current transformer cabinet.
6. Size and number of conductors entering **shall** equal the size and number of conductors exiting.
7. Conduits / Cables must enter / exit opposing corners "AA" to "AA" or "BB" to "BB") as indicated below, within 10" of the cabinet's corner, and **must** be approved by FPL before installation.
8. Configuration 9 is for conduit / wire combinations exceeding the limits of Configuration 8. The cabinet will be custom designed and built by the customer to FPL specifications. **Contact FPL before specifying this configuration.**
9. For general installation and bonding details, refer to [Figure VI-4](#) "CT Cabinet and IT rated Meter Socket Installation and Bonding".

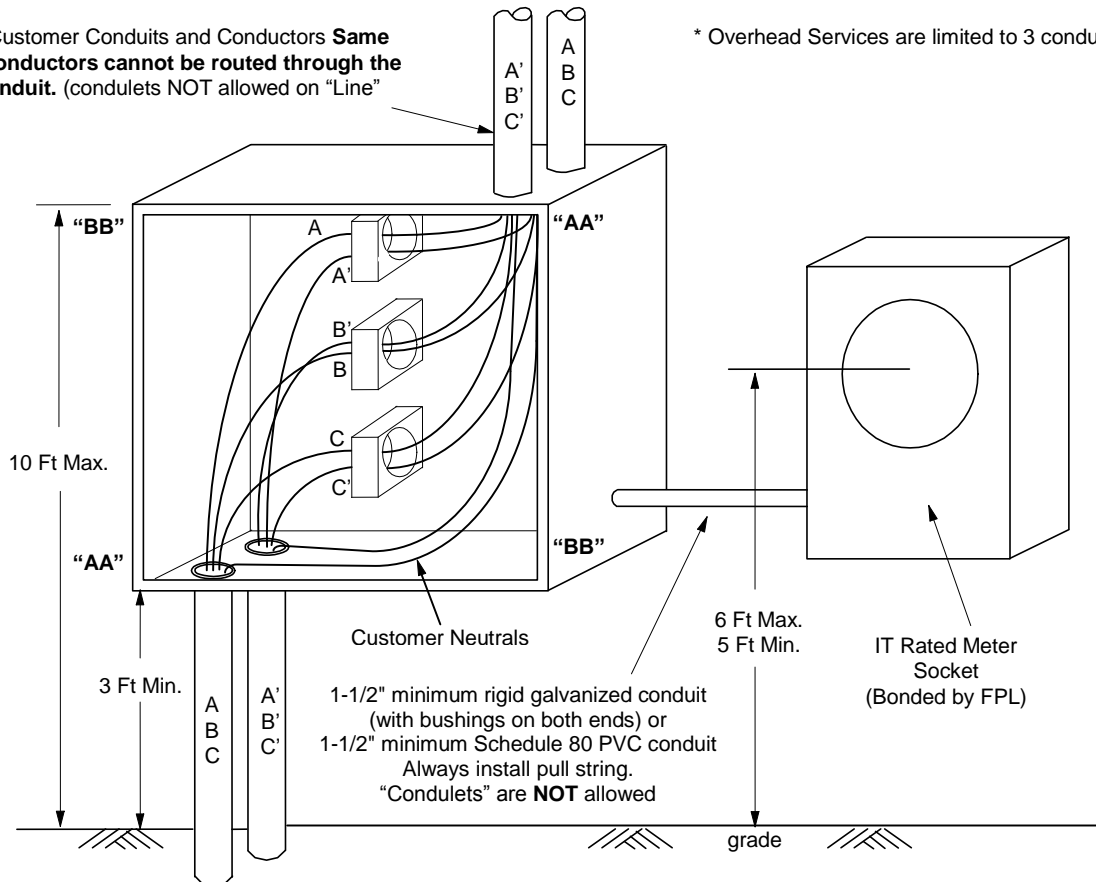
MAXIMUM CONDUCTOR SIZE AND NUMBER			
Conf	Wires per phase	Size Copper MCM	Size Alum MCM
7	2	600	400
8	4	600	400
9	Custom Designed		

MAXIMUM CONDUIT SIZE AND NUMBER			
Conf	Conduit Size	# Conduits Entering	# Conduits Exiting
7	4"	2	2
8	4"	4	4
9	Per Customer Requirements		

✓	CT Ratio	MAX AMPS
	Ratio	
	300:5	600
	600:5	1200
	1200:5	2400
	2000:5	3000
	4000:5	6000

Typical Customer Conduits and Conductors **Same Phase conductors cannot be routed through the same conduit.** (condulets NOT allowed on "Line" side)

* Overhead Services are limited to 3 conduits



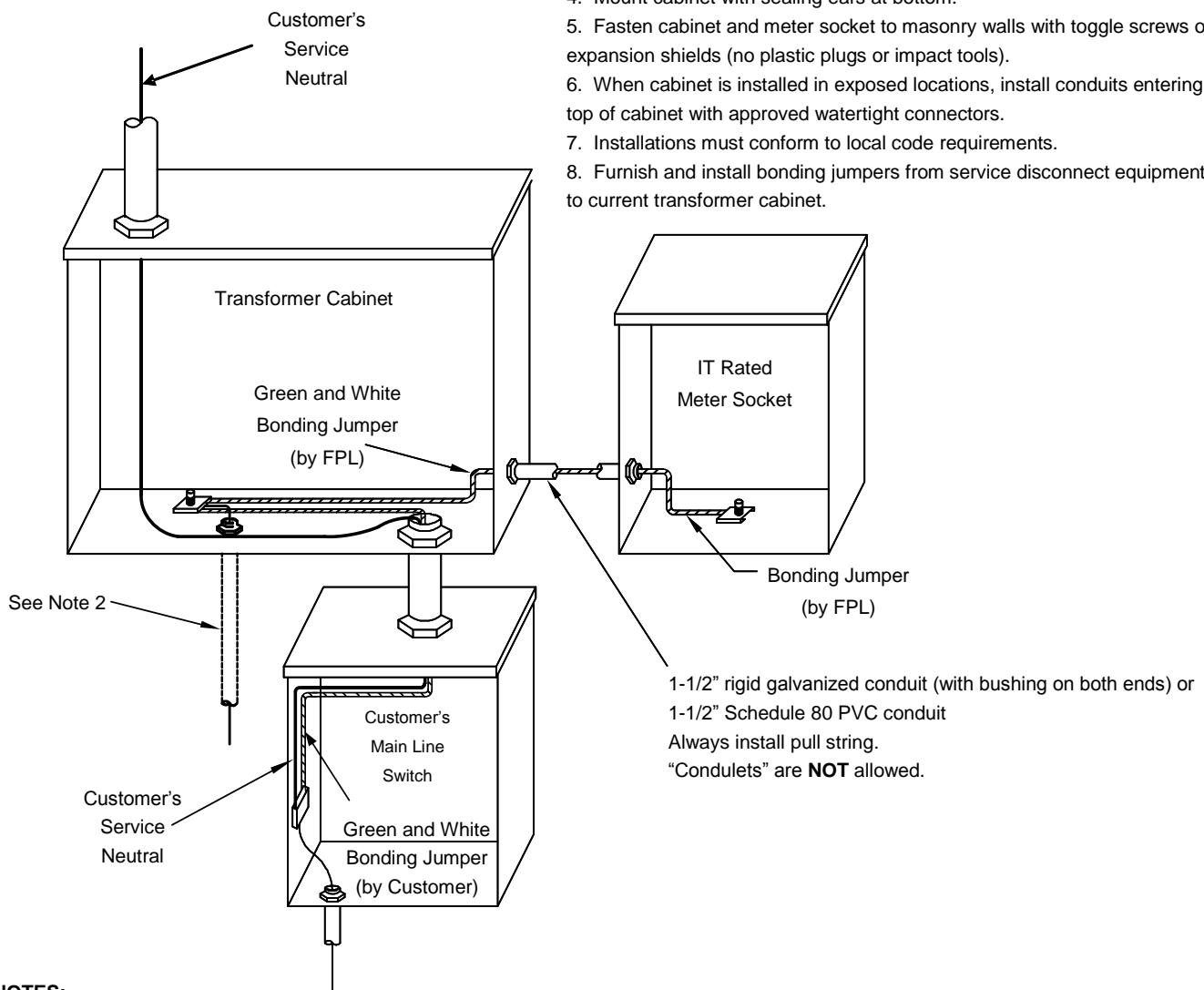
**FIGURE VI-4
CT Cabinet and IT Rated Meter Socket - Installation and Bonding**

FPL Will:

1. Furnish and install the IT rated meter socket bonding wire.
2. Furnish and install the instrument transformers, the wiring from the transformer secondary to the meter, and set the meter.

The Customer Will:

1. Furnish and install the service entrance conduit, conductors, and equipment, including grounds.
2. Furnish and install the IT rated meter socket, current transformer cabinet (when required), and equipment enclosures (when required).
3. Furnish and install any conduit necessary to connect the cabinets and sockets including a pull string.
4. Mount cabinet with sealing ears at bottom.
5. Fasten cabinet and meter socket to masonry walls with toggle screws or expansion shields (no plastic plugs or impact tools).
6. When cabinet is installed in exposed locations, install conduits entering top of cabinet with approved watertight connectors.
7. Installations must conform to local code requirements.
8. Furnish and install bonding jumpers from service disconnect equipment to current transformer cabinet.



NOTES:

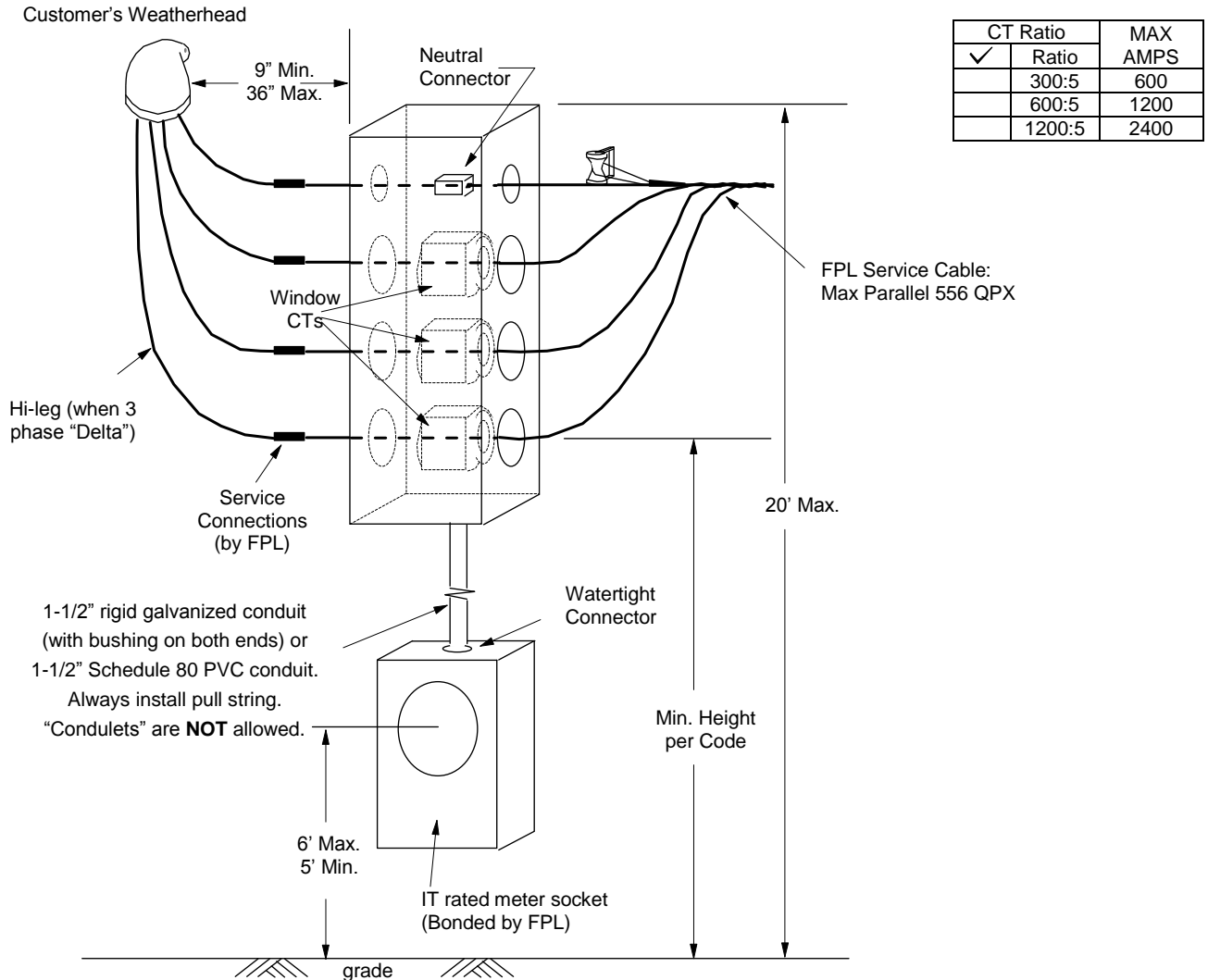
1. All IT rated meter sockets and current transformer cabinets to be bonded with #12C bonding jumper (green with white stripe) by FPL. Customer's service disconnect equipment to be bonded to current transformer cabinet with #12C bonding jumper (green with white stripe) by the customer.
2. If the IT rated meter socket or transformer cabinet is mounted on a utility pole, then it is to be grounded per FPL distribution standards.
3. Customer's conductor(s) must be continuous through the transformer cabinet.



FIGURE VI-5
CT Metering Configuration 10 - CTs in Weatherhead Cabinet

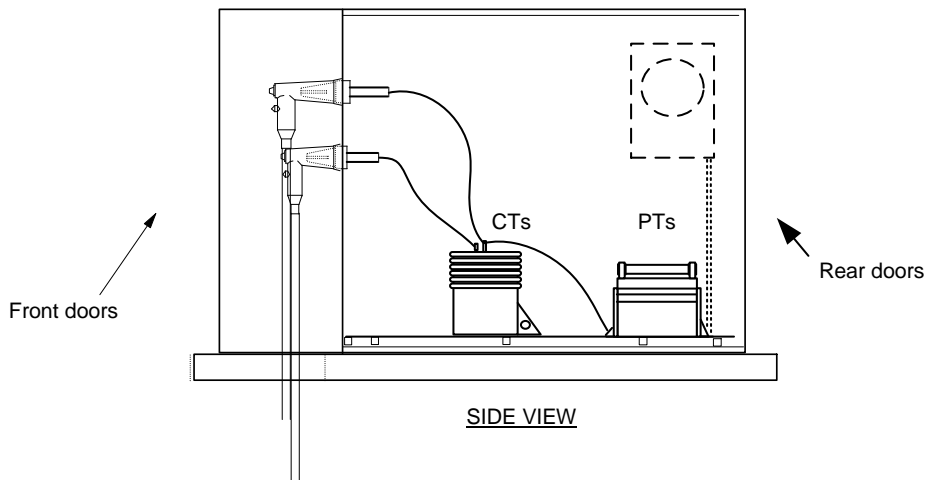
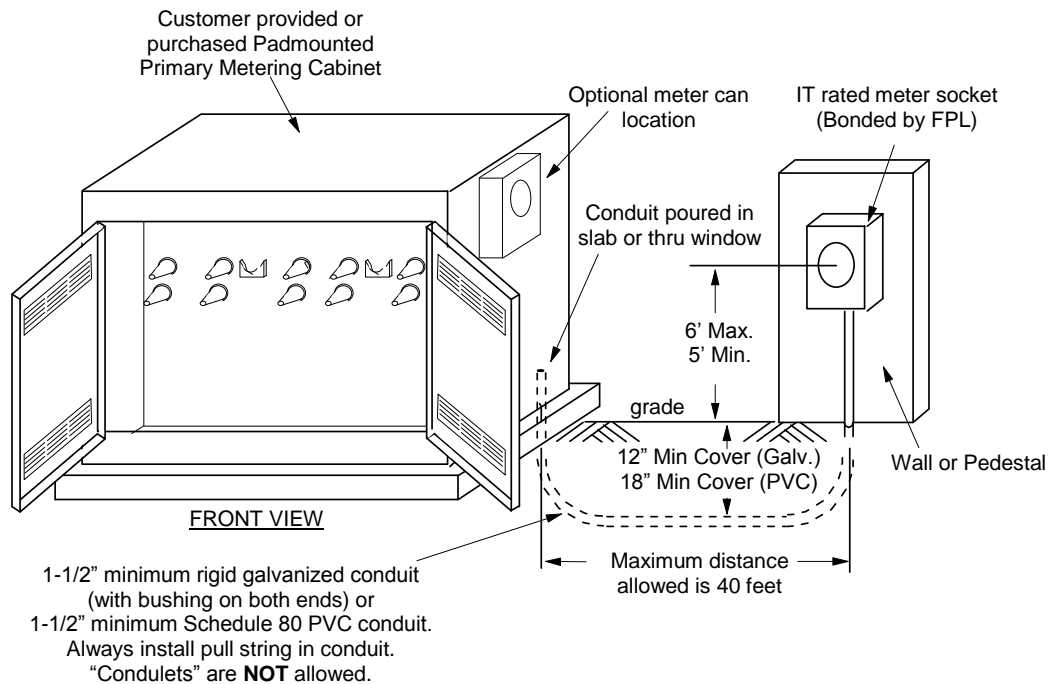
USED FOR MAINTENANCE ONLY (Not intended for new installations)

1. IT rated meter socket provided and installed by customer: _____ 1 ph or _____ 3 ph (check one).
2. Weatherhead transformer cabinet provided and installed by customer.
3. 1-1/2" minimum rigid galvanized conduit (with bushings) or 1-1/2" minimum Schedule 80 PVC, with pull string installed between meter socket and current transformer cabinet provide and installed by customer. **Maximum allowed distance between socket and cabinet is 40 feet.**
4. Customer to provide and install watertight "Myers type" conduit connector when conduit enters top of IT rated meter socket.
5. Window CTs provided and installed in transformer cabinet by FPL after cabinet is mounted by customer.
6. FPL service cable will pass through CTs unless otherwise approved by FPL.
7. This configuration allowed **ONLY** when no other configuration is possible, or practical, and must be approved by FPL. **Contact FPL before specifying this configuration.**
8. For general installation and bonding details, refer to [Figure VI-4](#) "CT Cabinet and IT rated Meter Socket Installation and Bonding".



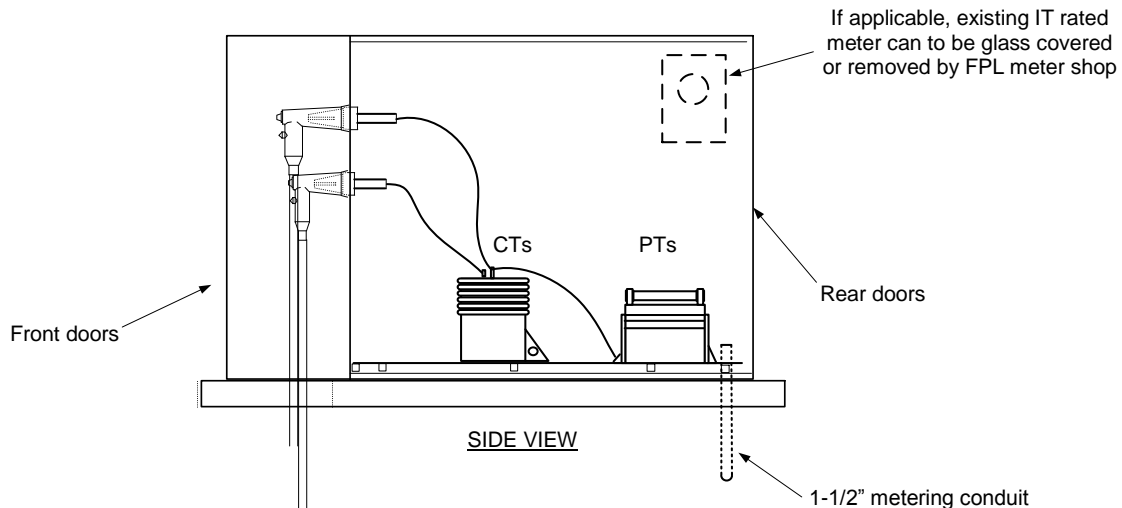
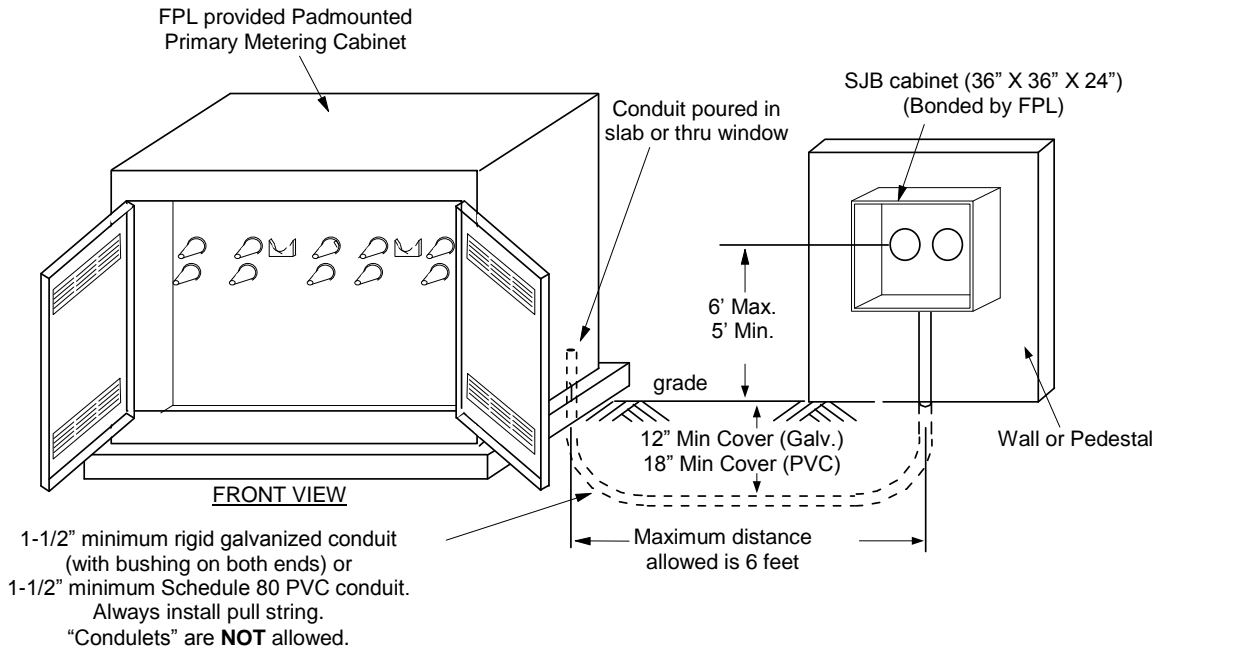
**FIGURE VI-6
CT Metering Configuration 11 - CTs in Padmounted Primary Metering Cabinet**

1. IT rated meter socket provided and installed by customer: _____ 1 ph or _____ 3 ph (check one).
2. Padmounted primary metering cabinet and concrete pad provided or purchased and installed by customer.
3. Provide 8 feet of clearance to front and rear cabinet doors, and 3 feet of clearance to cabinet sides.
4. 1-1/2" minimum rigid galvanized conduit (with bushings) or 1-1/2" minimum Schedule 80 PVC, with pull string installed between meter socket and current transformer cabinet provide and installed by customer. Maximum of 2-90 degree bends allowed.
Maximum allowed distance between socket and cabinet is 40 feet.
5. Primary (4 KV, 13 KV, 23KV) current and voltage transformers provided and installed by FPL.
6. This configuration's application is limited and requires close coordination. **Consult with an FPL representative before designing this configuration.**



**FIGURE VI-6a
CT Metering Configuration 11 – Renewable Generation ONLY**

1. SJB cabinet provided by FPL, installed by customer. Fasten cabinet to masonry walls with toggle screws or expansion shields (no plastic anchors or impact tools).
2. Padmounted primary metering cabinet and concrete pad provided or purchased and installed by customer.
3. Provide 8 feet of clearance to front and rear cabinet doors, and 3 feet of clearance to cabinet sides.
4. 1-1/2" minimum rigid galvanized conduit (with bushings) or 1-1/2" minimum Schedule 80 PVC, with pull string installed between meter socket and current transformer cabinet provide and installed by customer. Maximum of 2-90 degree bends allowed.
Maximum allowed distance between socket and cabinet is 6 feet.
5. Primary (4 KV, 13 KV, 23KV) current and voltage transformers provided and installed by FPL.
6. This configuration's application is limited and requires close coordination. **Consult with an FPL representative before designing this configuration.**





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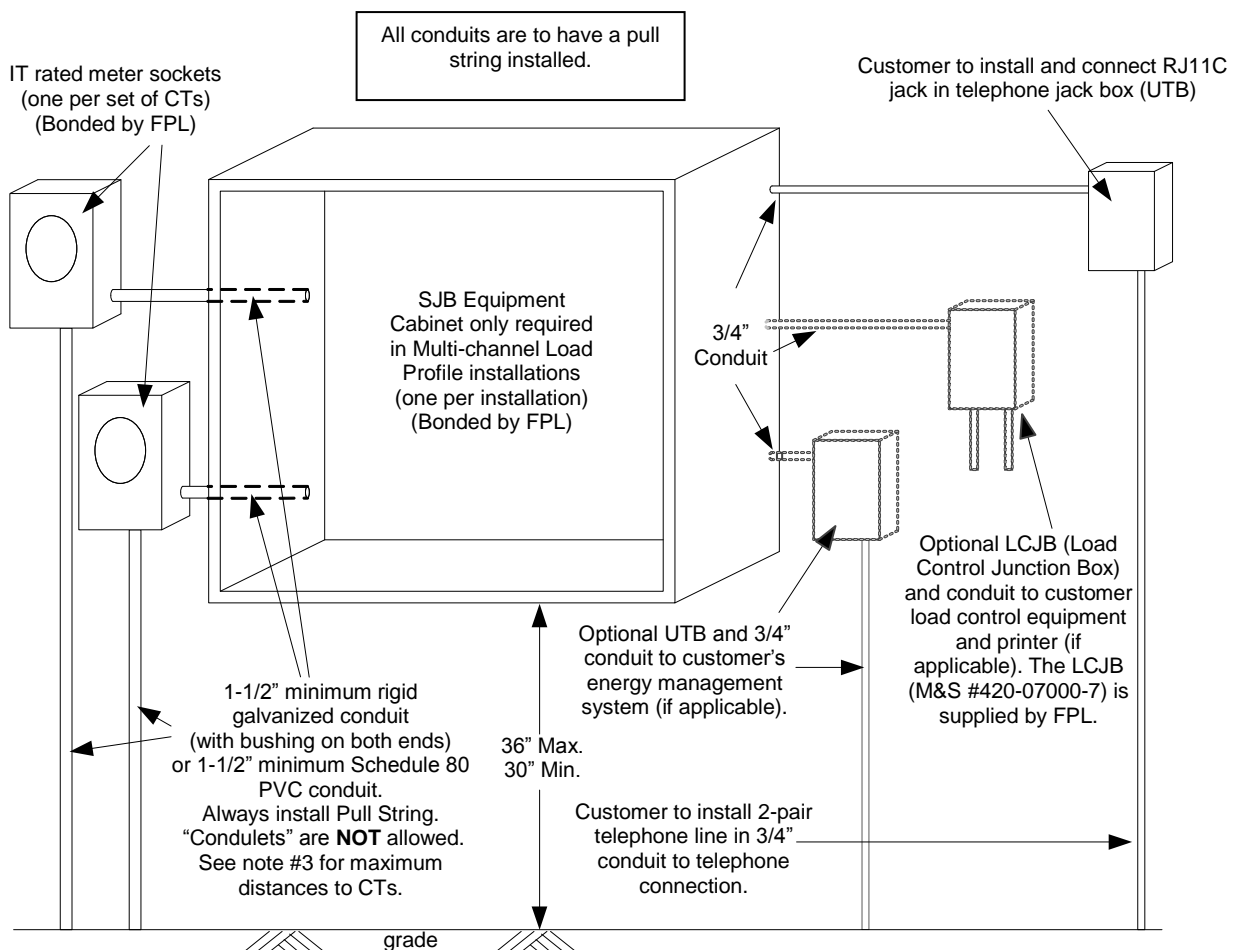
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FIGURE VI-7 CT Metering Configuration 12 – Load Profile Metering

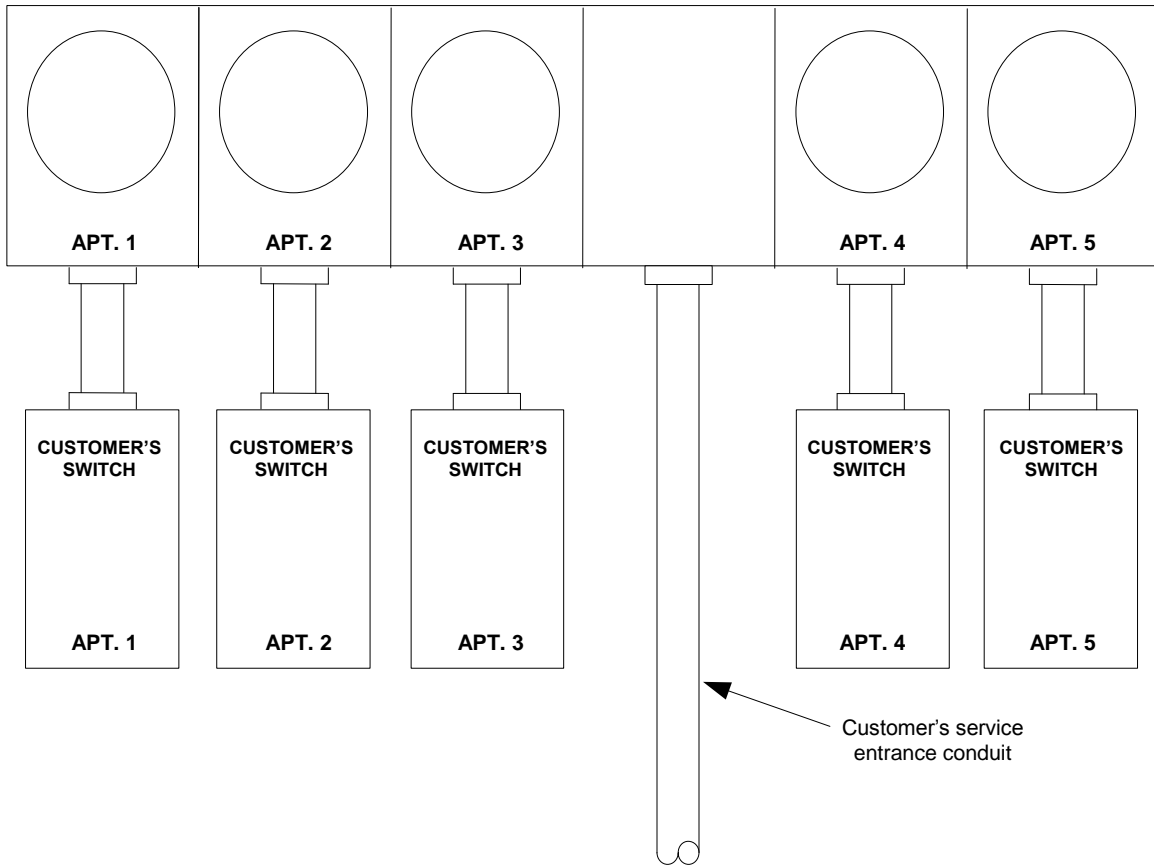
1. IT rated meter socket provided and installed by customer: _____ 1 ph or _____ 3 ph (check one).
2. Customer to provide metering equipment cabinet with 1-1/2" minimum rigid galvanized conduit (with bushings) or 1-1/2" minimum Schedule 80 PVC, with pull string installed, and utility cans for interface with phone line and energy management system (if required).
3. Maximum distance to CTs: 10 feet for 300:5 CTs (Max. Cable length 20 feet) or 40 feet for 600:5 and larger CTs (Max. cable length 50 feet).
4. **Consult with an FPL representative before designing this configuration. Multi-metered circuits may require equipment other than shown.**

Number of meters	Equipment Cabinet		Old FPL designation
	Size	H x W x D	
2 – 6	Medium	28 x 30 x 14	SJB – 28
7 – 9	Large	36 x 36 x 14	SJB – C





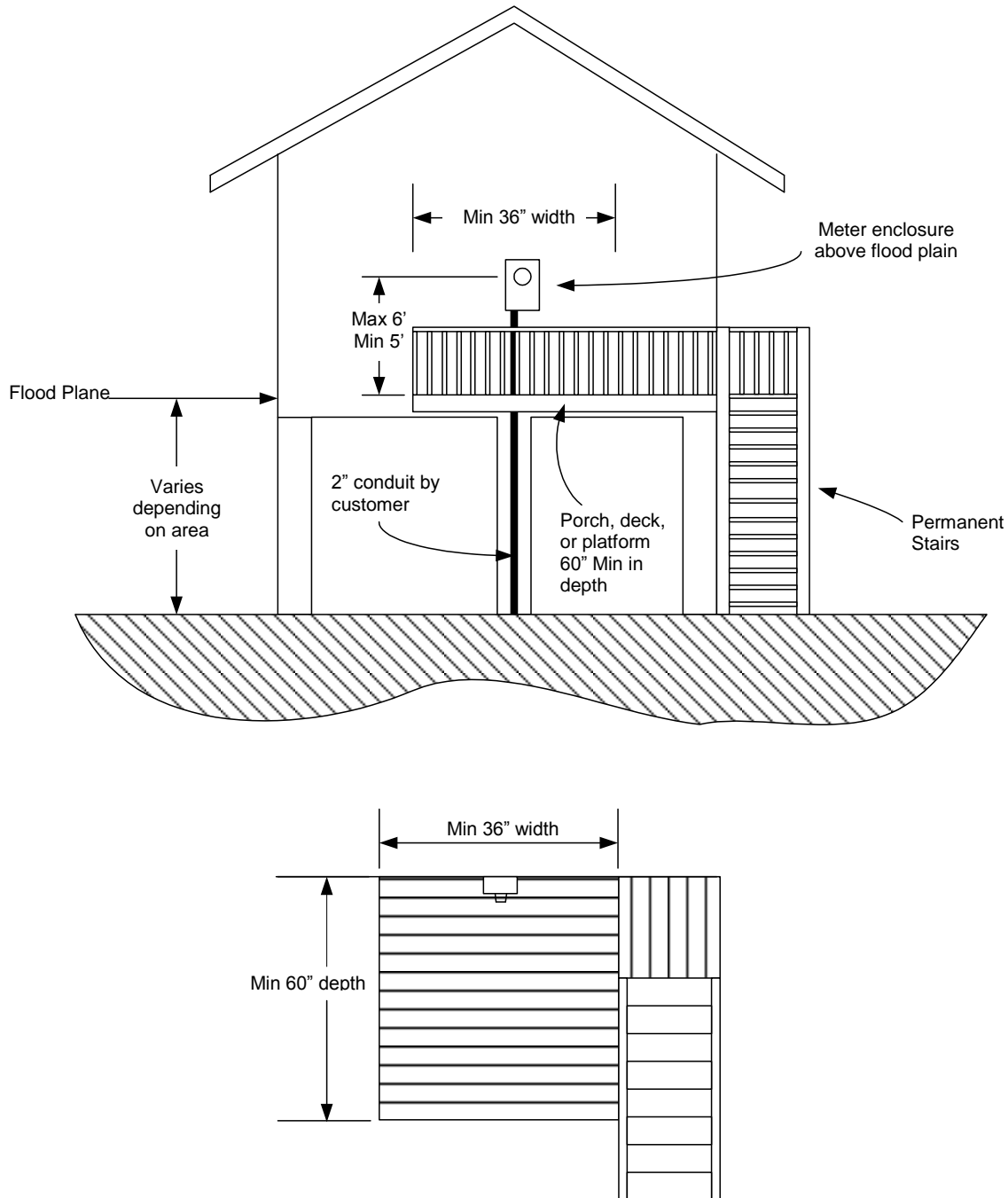
**FIGURE VI-8
Identification of Multiple Meter Sockets**



Customer to mark meter socket and switch covers with paint or other permanent durable marker to identify premises served. Markings should also be put inside meter socket (to prevent confusion if covers are interchanged before service is connected). If living units have different house numbers, these should be shown in place of apartment numbers. IT rated meter sockets (not illustrated) should be marked similarly.

The Electrical Contractor shall provide FPL a meter layout drawing.

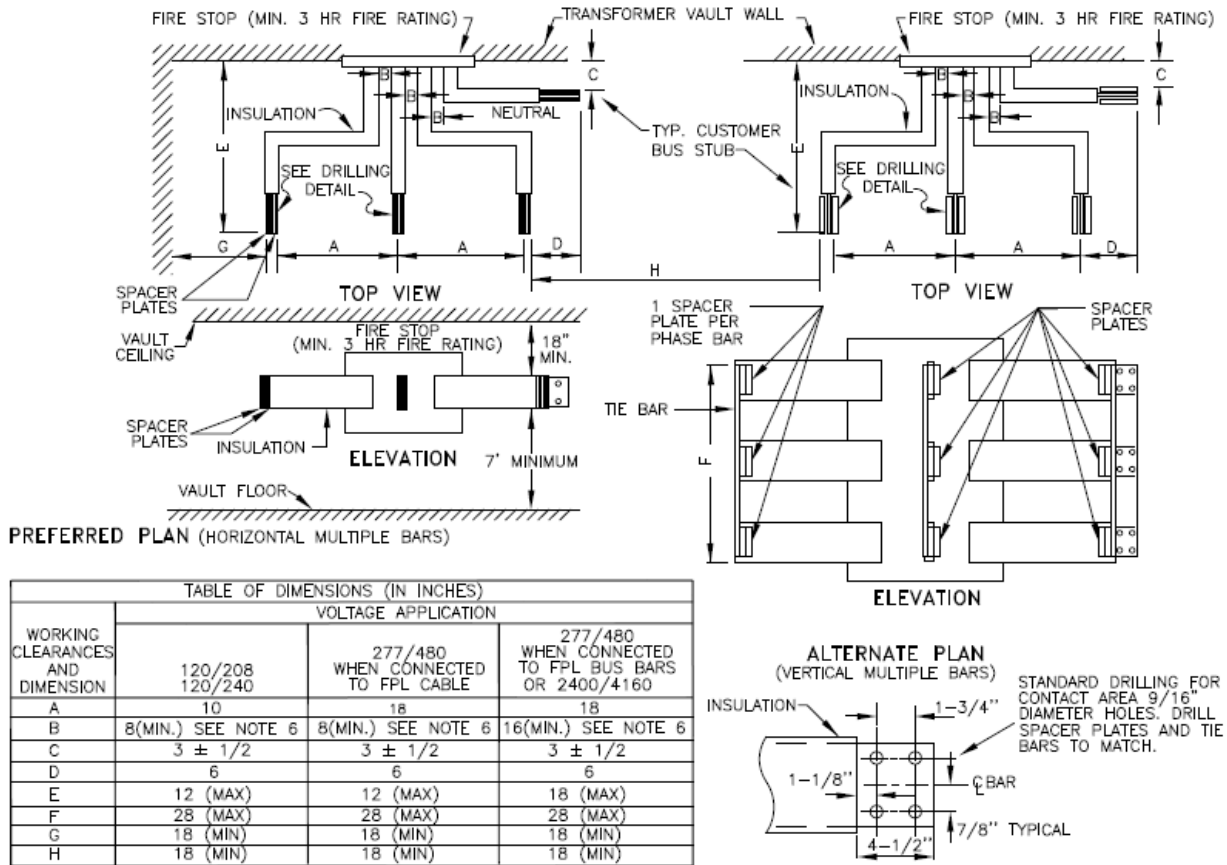
**FIGURE VI-9
Meter Enclosure Installations in Flood Zones**



Note:

When elevation of the meter enclosure is required by the authority having jurisdiction, the permanent installation of deck/platform and stairs shall be installed and provided by customer prior to energizing the facility.

**FIGURE VI-10
Typical Bus Stub Terminations in Transformer Vaults**



SPECIFICATIONS

1. BARS MAY BE EITHER COPPER OR ALUMINUM.
2. ALL BARS MUST BE 1/4" IN THICKNESS IN THE CONTACT AREA. IN THE HORIZONTAL MULTIPLE-BAR ARRANGEMENT, BARS MUST BE SPACED 1/4" IN THE CONTACT AREA.
3. ALL BARS MUST BE DRILLED WITH 9/16" DIAMETER HOLES IN ACCORDANCE WITH DRILLING DETAIL.
4. HORIZONTAL MULTIPLE-BAR BUS TERMINATIONS MUST INCLUDE 1/4" THICK SPACER PLATES BETWEEN THE BARS IN THE CONTACT AREAS. SPACER PLATES MUST BE DRILLED TO MATCH THE CONDUCTOR BARS. SPACER PLATES SHOULD BE 4-1/2" LONG AND THE SAME AS THE CONDUCTOR BARS.
5. VERTICAL MULTIPLE-BAR BUS TERMINATIONS MUST INCLUDE ONE 1/4" THICK TIE BAR FOR EACH PHASE AND THE NEUTRAL, AND SPACER PLATES WHERE INDICATED IN THE ABOVE DRAWING. TIE BARS MUST HAVE THE SAME AMPACITY AS THE PHASE CONDUCTOR BARS.
6. WHERE THE CLEARANCE BETWEEN PHASES IS LESS THAN DIMENSION "B" IN THE TABLE. THE BARS MUST BE SUITABLY INSULATED FOR OPERATING VOLTAGE FROM FIRE STOP TO THE POINT WHERE THE PHASE CONDUCTORS ARE SEPARATED BY AT LEAST "B" INCHES.
7. PHASES MUST ENTER VAULT UNSCRAMBLED WHERE LOW IMPEDANCE BUS IS USED.
8. WHEN USED OUTDOORS THESE BUS TERMINATIONS MUST BE PROTECTED IN A RAIN-TIGHT ENCLOSURE OF GP0-3 OR OTHER SUITABLE PERMANENT, INSULATING MATERIAL.
9. WHEN MORE THAN ONE BUS ENTERS VAULT, SPACING BETWEEN CLOSEST BARS OF ADJACENT BUSES TO BE ACCORDING TO TABLE DIMENSION "H". (BASED ON NOTE 10).
10. CABLE CONNECTIONS TO BUS STUB AND TRANSFORMER SECONDARY SPADES ARE TO BE COVERED WITH SECONDARY BARRIER (SEE UN-23).
11. IN NEW INSTALLATIONS A MINIMUM CLEARANCE OF 5' MUST BE MAINTAINED BETWEEN THE CUSTOMER COLLECTOR BUS AND THE TRANSFORMER SECONDARY SPADES.
12. ON NEW INSTALLATIONS A MINIMUM CLEARANCE OF 36" MUST BE MAINTAINED BETWEEN BUSS STUBS OF DIFFERENT VOLTAGES.

