MARQUETTE BOARD OF LIGHT AND POWER

CITY OF MARQUETTE 2200 WRIGHT ST. MARQUETTE, MI 49855

Service Connection Policy

Appendix F





Meter Dept 906 228-0303 Engr. Dept: 906 228-0323 General Bus. 906 228-0300

FAX 906-228-0329 Web Site: <u>www.mblp.org</u>

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Section A

Service Connection Policy

The Marquette Board of Light & Power (MBLP) has updated its customer information handout for electrical service installations. Attached are information sheets for typical electrical service installations and equipment for new construction and service upgrading.

For all construction, any overhead or underground electrical service and metering locations are to be approved by the MBLP. Connection points, approved meter sockets, transformers and all related equipment must be mounted in a location that will provide clear year round access. Some locations may be unacceptable because access is restricted by fencing, shrubbery, pets, seasonal snow pack, rights-of-way or clearances as per the National Electrical Code. (N.E.C.) See attached approved equipment, socket grounding and location information (Section B). Any questions about the location of meter devices or equipment must be directed to the MBLP Meter Department **BEFORE INSTALLATION.**

It is the customer's responsibility to:

Obtain an electrical permit from and have the services inspected and approved by the Marquette
County Electrical Inspector. Office Number (906) 225-8180.
Have services & equipment installed that meet all requirements of the Marquette Board of Light
and Power.

Provide all required information and any required deposits to the Billing Office at 228-0313.

After receiving the required installation connection request from the Billing Department, plus notice from the electrical inspector that the service is in compliance with all codes and regulations, the meter will be installed and the service scheduled for connection. "It is not the intent of this utility to interpret code compliance or design specifications." Any questions should be directed to the proper inspecting authority or professional consultant contractor.

Any questions regarding the service connection policy can be directed to the MBLP Meter Department at (906) 228-0303, or the Distribution Department at (906) 228-0300.



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General Requirements

All customers installing underground services to be fed from the MBLP poles are to request a site inspection to evaluate the feasibility of doing so. The authorization form must be filled out by an authorized MBLP employee with the proper departmental authorizations initialed. It is the policy of the MBLP, that all underground services shall be installed in conduit from its source up to the metering socket. **Direct buried services will not be connected**. The MBLP may also require the installations of stand-off brackets on the pole to enable safe climbing of the pole when required. The meter cannot be placed on MBLP poles without written exception.

The customer is responsible for:

Approved Meter Socket, Wire, conduit, wireways, straps, weatherheads and associated		
equipment up to the connection point. Installing the first 10 feet of conduit over wire emerging		
from the ground.		
The MBLP will assist with the installation of furnished material up to the point of connection. All		

Underground Services

Supply and Installation of all underground service wire, conduit, cable, grounding equipment and approved sockets, is the responsibility of the customer. All underground services must be installed as per current N.E.C. requirements and MBLP requirements (See Section B), and installed to within a distance of 12" of the MBLP underground supply equipment, with adequate conductor to enable routing and connection to MBLP equipment.

material MUST be on site at the time of connection.

Overhead Services

All Overhead services must be installed as per current N.E.C. requirements. All clearances must be maintained as per code requirements and MBLP requirements (See Section C).

The customer is responsible for:

All materials and installation up to and including approved socket, cable or conduit and
weatherhead.
Providing a solid point of attachment for overhead service drop at mast or on a structure.



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Multiple Position Meter Sockets

Multiple Position Meter Sockets must be labeled with the proper billing addresses served by the meter prior to connection. See attached information (Section C - Page 8) for additional requirements.

Meter Service Socket Size Requirements

All single phase and three phase electrical services up to 400 amps shall have self-contained sockets. All services over 400 amps shall be transformer rated. For Transformer rated meter packages (See Section B), contact MBLP Meter Department prior to installation.

Primary Installations

Residential underground primary wiring is to be provided and installed by MBLP. Coordination with the Engineering Department prior to beginning work is required. Engineering can be reached at (906) 228-0323. Primary underground conduit for commercial facilities is to be provided and installed by the customer as per MBLP requirements.



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SECTION B

Approved Meter Socket Requirements and Notes

- 1. A list of approved suppliers and catalog numbers for use on the MBLP system can be found in this section. You may use the other suppliers and catalog numbers as long as they are equivalent to the approved sockets for the service to be metered. The MBLP requires that all Meter Sockets be grounded with an approved manufacturer installed ground connector in the Meter Socket.
- 2. The customer must supply and install all Hubs and Hub closure plates as needed.
- 3. Manual by-pass requirements for residential single phase meter sockets:

100 Amp and 200 Amp – Must have a "Horn" by-pass 400 Amp – Must have a "Lever" by-pass

- 4. All commercial self-contained sockets require a "Lever" by-pass
- 5. Meter Sockets that require Lugs Check with the manufacturer for proper lug kit.
- 6. 5th Jaw in meter sockets for a 120/208 network service must be mounted in the 9 o'clock position.
- 7. The MBLP will no longer offer three phase delta connected service.
 - a. Existing three phase delta customers may continue to receive service at present voltage and service size. Any changes to the nature of the service, either increased load and/or other alterations may require reconnection as a three phase WYE. Three phase WYE service will be available as of 120/208 or 277/480 volt in overhead or pad-mounted configurations.

Required Typical Meter Locations

- 1. Meter must be mounted on structure or pole adjacent to cleared driveway or cleared walkway.
- 2. Meter locations shown are subject to existing utility feed, right-of-ways, terrain, foliage, and clearances as per the National Electrical Code.

For approval prior to installation contact Marquette Board of Light and Power Meter Department at (906) 228-0303 or 228-0302.

All reasonable care has been taken to ensure the accuracy of the catalog numbers in this section. We cannot guarantee that they are free of errors due to changes made by the



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manufacturers. It is the responsibility of the installer to verify that the proper equipment installation is in accordance with the manufacturer's instructions and is also in compliance with all local, state and national codes



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MBLP Requirements for Residential Single and Multiple Meter Customers

Installation of the owner furnished meter socket and electrical service must meet all applicable national, state, and local building and electrical codes.
All new and remodeled electrical services must pass an inspection by the Marquette County Resource Management Authority or State of Michigan, where applicable
Individual 200 amps or less meter sockets serving single phase or network
Residential customers must have "horn-by-pass" type lugs.
Multiple tenant meter sockets serving individual 200 amp or less single phase or network units must have "horn by pass" lugs for each unit served.
Individual or multiple meter sockets serving 200 to 400 amp single phase services must have manual bypass levers.
Single phase services over 400 amps shall be transformer rated, using a MBLP furnished meter socket and approved Current Transformer cabinet, or other transformer rated device or enclosure pre-approved by MBLP.
All multiple meter services must have a permanently installed sign or label identifying the unit served by each meter.
Each meter socket must have a "ring less- style" cover.
The top of the meter device must be no higher than 72 inches from grade. Bottom of metering device must not be lower than 24 from grade.

Marquette Board of Light & Power Reviewed: 04/15/2020



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MBLP Approved Meter Sockets (100-200 Ampere Residential)

*100 AMPERE, RESIDENTIAL OVERHEAD SINGLE PHASE SOCKET				
Milbank #U7487-RL-KK				
Durham	Durham #UHT-RS101B			
Cutler Hammer	#UHT-RS101BF			
*200 AMPERE, RESIDENTIAL OVERHEAD SINGLE PHASE SOCKET				
Milbank	#U1773-XL-TG-KK			
Durham	#UHT-RS202B			
Siemens	UAHTRS202BFLCH			
Cutler Hammer	1007665CH			
*200 AMPERE, RESIDEN	*200 AMPERE, RESIDENTAL UNDERGROUND SINGLE PHASE SOCKET			
Milbank	#U1980-0-KK			
Durham	#UHT-RS223A Siemens			
Siemens	Siemens #SUAS877-PPZA			
Cutler Hammer #UHT-RS233ACH				

* Or MBLP approve equivalent

Manual by-pass requirements for residential single phase meter sockets.

100 Amp and 200 Amp – Must have a "Horn" by-pass 200 to 400 Amp – Must have a "Lever" by-pass

RESIDENTIAL SERVICES ABOVE 400 AMP TRANSFORMER RATED

(Please contact Meter Department (906) 228-0303)

For transformer rated meter packages, the MBLP will supply transformer rated sockets, test jacks, metering wire, current and potential transformers.

The contractor must install the socket and conduit from the source to the meter and install and supply an MBLP approved C.T. Cabinet. *C.T. to Socket (Not to exceed 50 feet.)* The contractor must contact the Meter Department with service size and connected load information. **Meter socket location must be approved before the socket can be installed.**



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MBLP Requirements for Commercial Single and Multiple Meter Customers

Installation of the owner furnished meter socket and electrical service must meet all applicable national, state, and local building and electrical codes.
All new and remodeled electrical services must pass an inspection by the Marquette County Resource Management Authority or State of Michigan, where applicable.
Individual 200 amp or less meter sockets serving single phase, three phase, or network commercial customers must have "horn-by-pass" type lugs.
Multiple tenant meter sockets serving individual 200 amp or less single phase, or network units must have "horn by pass" lugs for each unit served.
Individual or multiple meter sockets serving 200 to 400 amp single phase or three phase services must have manual bypass levers.
Single phase and three phase services over 400 amps shall be transformer rated, using a MBLP furnished meter socket and approved Current Transformer cabinet, or other transformer rated device or enclosure pre-approved by MBLP.
All multiple meter services must have a permanently installed sign or label identifying the unit served by each meter.
Each meter socket must have a "ring less- style" cover.
The top of the meter device must be no higher than 72 inches from grade. Bottom of metering device must not be lower than 24" from grade.

Marquette Board of Light & Power Reviewed: 04/15/2020



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MBLP Approved Meter Sockets (200 Ampere Commercial)

*200 AMPERE, COMMERICAL OVERHEAD SINGLE PHASE SOCKET			
Milbank #U1773-XL-TG-KK			
Durham	#UHT-RS202B		
Siemens UAHTRS202BFLCH			
Cutler Hammer	1007665CH		
*200 AMPERE, COMMERICAL UNDERGROUND SINGLE PHASE SOCKET			
Milbank	#U1980-0-KK		
Durham	#UHT-RS223A		
Siemens	#SUAS877-PPZA		
Cutler Hammer	#UHT-RS233ACH		

* Or MBLP approve equivalent

Manual by-pass requirements for commercial single phase meter sockets. 100 Amp and 200 Amp – Must have a "Horn" by-pass 200 to 400 Amp – Must have a "Lever" by-pass

RESIDENTIAL SERVICES ABOVE 400 AMP TRANSFORMER RATED

(Please contact Meter Department (906) 228-0303)

For transformer rated meter packages, the MBLP will supply transformer rated sockets, test jacks, metering wire, current and potential transformers.

The contractor must install the socket and conduit from the source to the meter and install and supply an MBLP approved C.T. Cabinet. *C.T. to Socket (Not to exceed 50 feet.)* The contractor must contact the Meter Department with service size and connected load information. **Meter socket location must be approved before the socket can be installed.**

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MBLP Approved Meter Sockets (Residential/Commercial - 120/208 & Three Phase)

* RESIDENTAIL AND COMMERICAL NETWORK (SINGLE PHASE) "120/208 VOLT SERVICES" 100 & 200 Ampere			
Cutler Hammer	UTH 5213 BCH		
Landis & Gyr	40405-015F TYPE		
HQ5U Milbank U9551 RL			
Milbank U4801-XL-5T9 W/ BY-PASSLE			
CONSULT MANUFACTURE FOR "HORN" BYPASS AND 9 O'CLOCK FIFTH JAW POSITION			
* COMMERICAL THREE PHASE "120/208 OR 277/480 VOLT SERVICES" 200 to 400 Ampere			
Cutler Hammer	UTH 5310 TCH (Plus Lug Kit)		
Landis & Gyr	47705-01FL TYPE HQ5DT (Plus Lug Kit)		
Milbank	Ul079-R-5T9 (Plus Lug Kit)		
Milbank	U0107-O-WI pedestal w/ by-pass		

*or MBLP approved Equivalent.

All 100 to 400 Ampere Three Phase Commercial Meter Sockets must have by-pass lever.

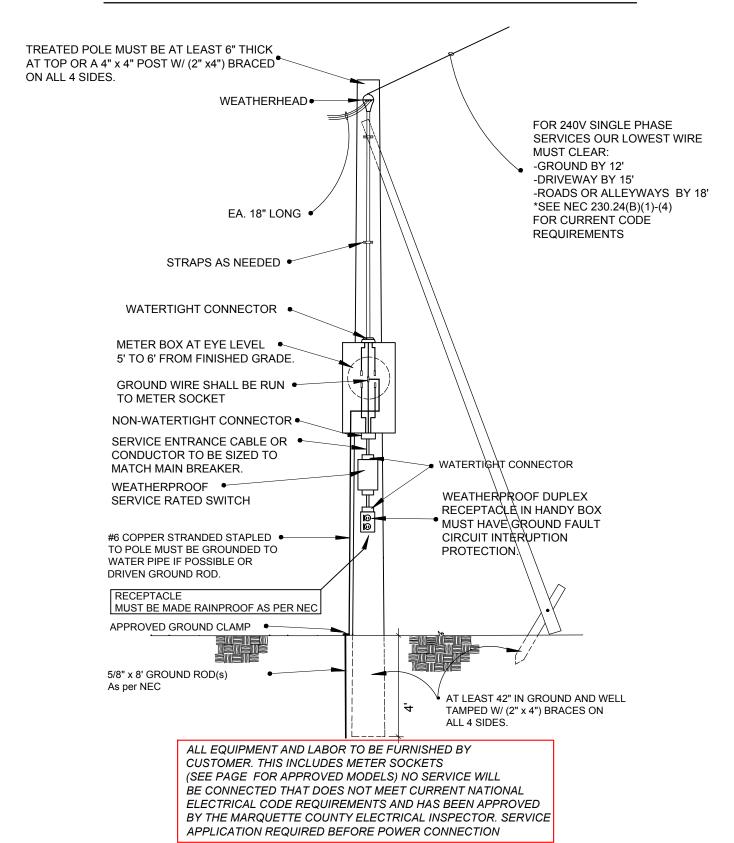
Commercial Three Phase Services above 400 Amp Transformer Rated

(Please contact Meter Department (906) 228-0303)

For transformer rated meter packages, the MBLP will supply transformer rated sockets, test jacks, metering wire, current and potential transformers.

The contractor must install the socket and conduit from the source to the meter and install and supply an MBLP approved C.T. Cabinet. *C.T. to Socket (Not to exceed 50 feet.)* The contractor must contact the Meter Department with service size and connected load information. **Meter socket location must be approved before the socket can be installed.**

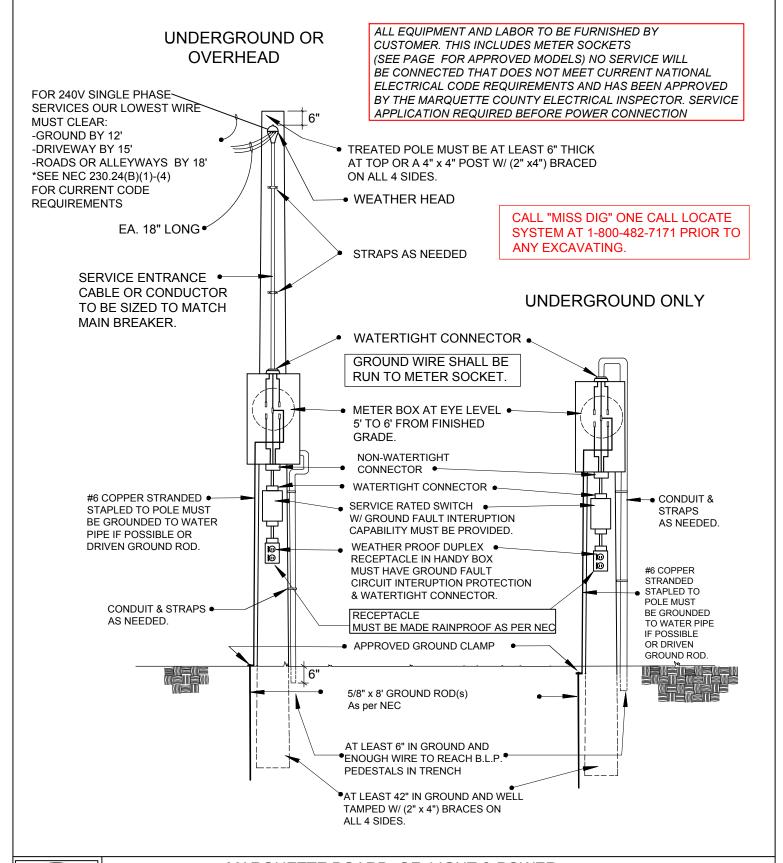
TEMPORARY OVERHEAD SERVICE 120/240 VOLTS





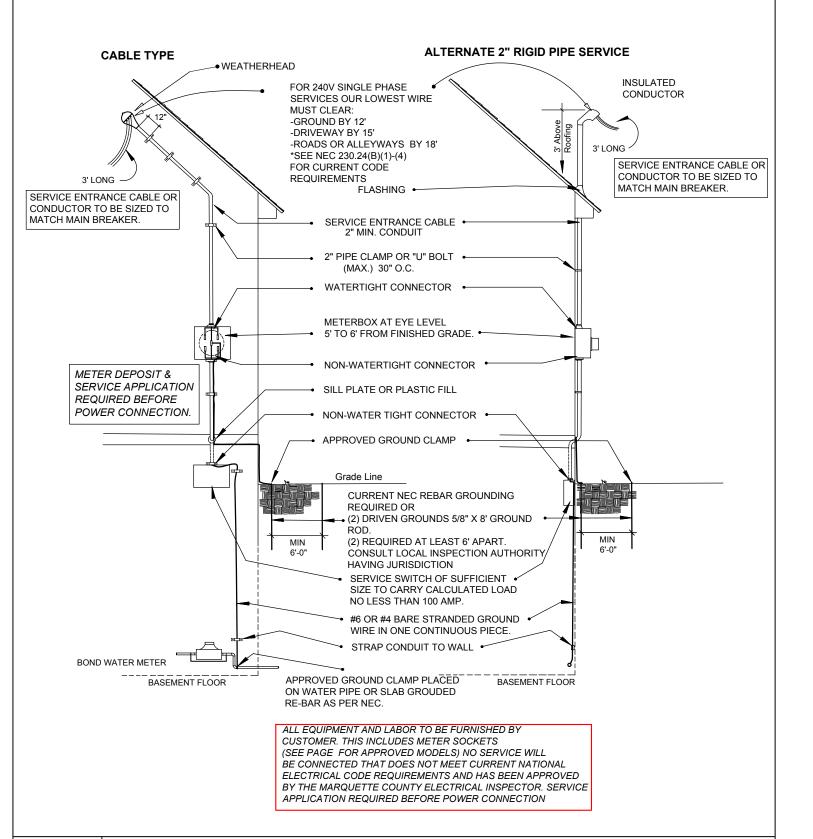
Last Revision Date:

TEMPORARY SERVICE 120/240 VOLTS





SINGLE FAMILY RESIDENTIAL SERVICE





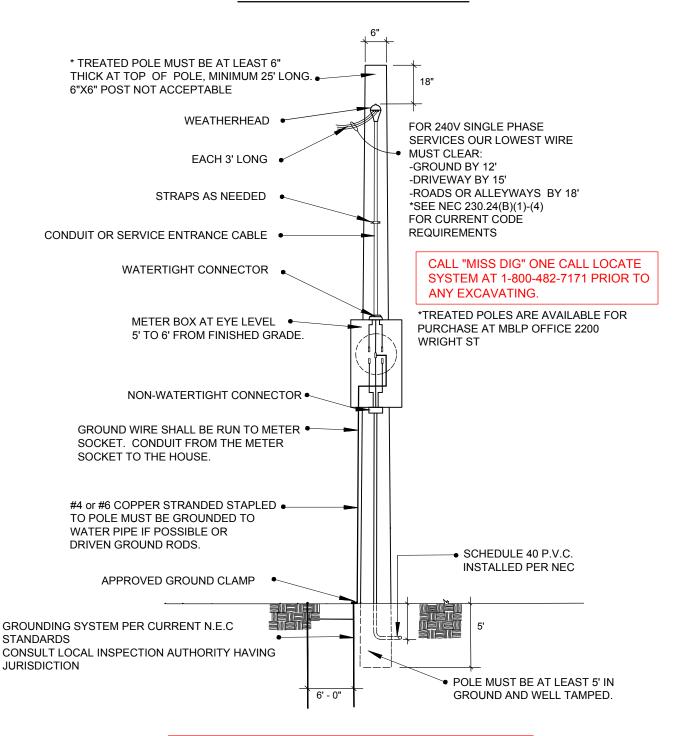
MOBILE HOME SERVICE 120/240 VOLTS MINIMUM REQUIREMENTS FOR MOBILE HOME SERVICE * TREATED POLE MUST BE AT LEAST 6" THICK AT TOP OF POLE. MINIMUM 25' LONG. • 18" 6"X6" POST NOT ACCEPTABLE FOR 240V SINGLE PHASE WEATHERHEAD SERVICES OUR LOWEST WIRE MUST CLEAR: EACH 3' LONG -GROUND BY 12' -DRIVEWAY BY 15' -ROADS OR ALLEYWAYS BY 18' STRAPS AS NEEDED *SEE NEC 230.24(B)(1)-(4) FOR CURRENT CODE REQUIREMENTS SERVICE ENTRANCE CABLE OR • CONDUCTOR TO BE SIZED TO MATCH MAIN BREAKER. WATERTIGHT CONNECTOR • METER BOX AT EYE LEVEL . *TREATED POLES ARE AVAILABLE 5' TO 6' FROM FINISHED GRADE. FOR PURCHASE AT MBLP OFFICE 2200 WRIGHT ST NON-WATERTIGHT CONNECTOR • GROUND WIRE SHALL BE RUN TO METER SOCKET. NOTE: MOBILE HOME DISCONNECT MUST BE #4 or #6 COPPER STRANDED STAPLED . TO POLE MUST BE GROUNDED TO USED. CALL 225-8180 FOR WATER PIPE IF POSSIBLE OR COUNTY ELECTRICAL DRIVEN GROUND RODS. INSPECTOR. APPROVED GROUND CLAMP GROUNDING SYSTEM PER CURRENT N.E.C STANDARDS POLE MUST BE AT LEAST 5' IN 6' - 0" GROUND AND WELL TAMPED.

ALL EQUIPMENT AND LABOR TO BE FURNISHED BY CUSTOMER. THIS INCLUDES METER SOCKETS (SEE PAGE FOR APPROVED MODELS) NO SERVICE WILL BE CONNECTED THAT DOES NOT MEET CURRENT NATIONAL ELECTRICAL CODE REQUIREMENTS AND HAS BEEN APPROVED BY THE MARQUETTE COUNTY ELECTRICAL INSPECTOR. SERVICE APPLICATION REQUIRED BEFORE POWER CONNECTION



OVERHEAD TO UNDERGROUND RESIDENCE 120/240 VOLTS

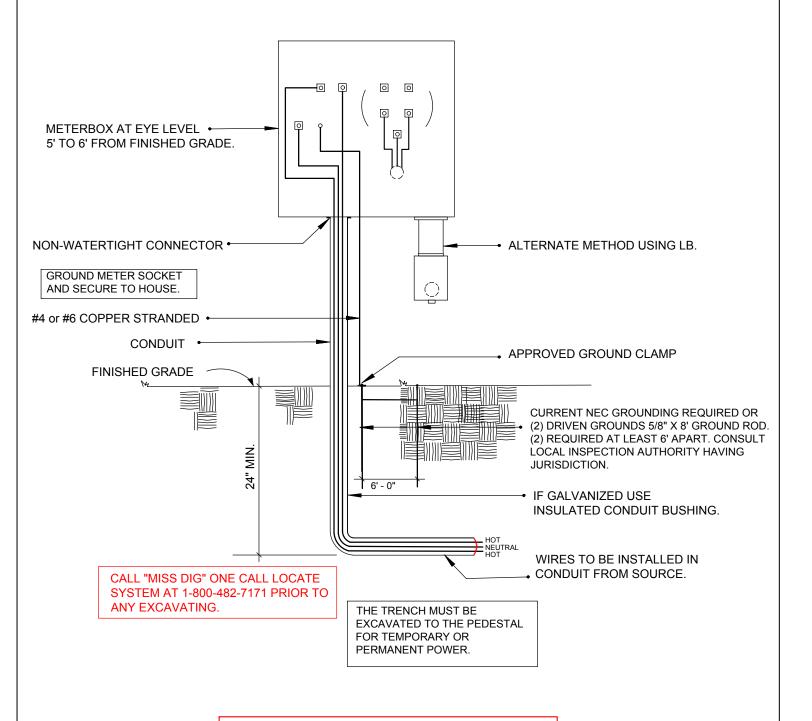
CUSTOMER OWNED POLE ONLY



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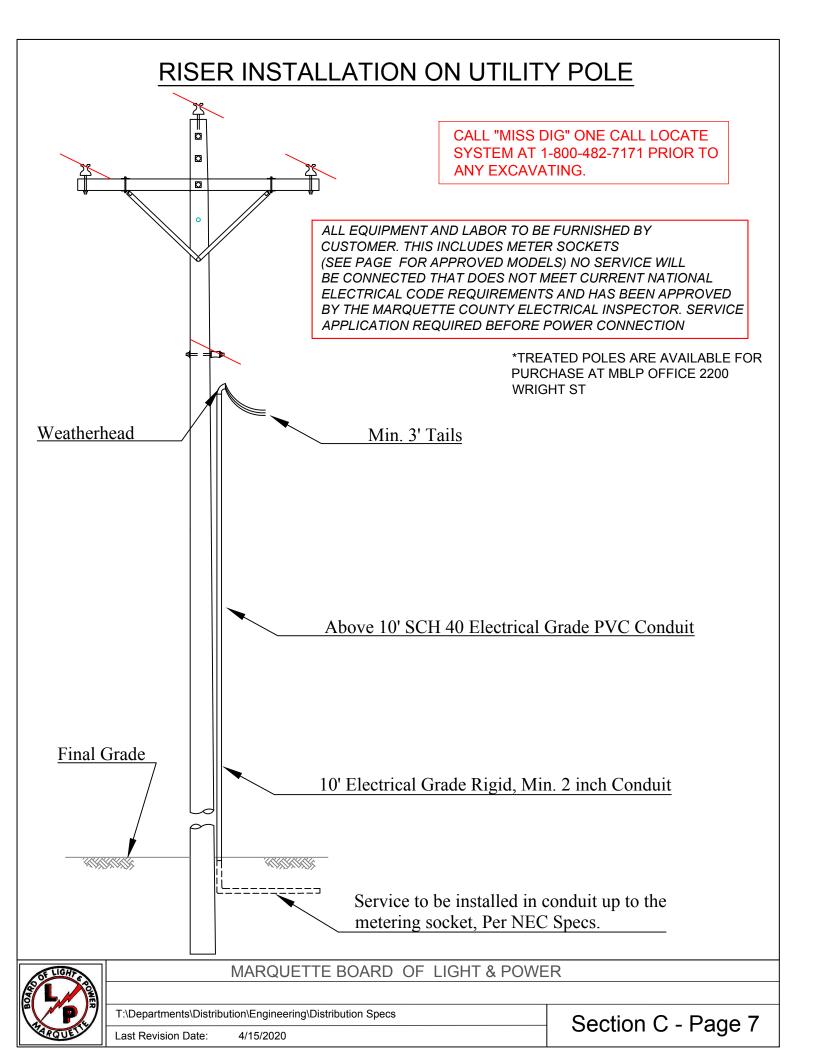


UNDERGROUND SERVICE 120/240 VOLTS



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MULTIPLE METER SOCKET LAYOUTS

It is the Marquette Board of Light & Power's policy that the following requirements be met for multiple meter socket installations and labeling. When using vertical stacked multiple meter panels, the top of the highest meter shall be installed no greater than seventy-two (72) inches from the floor or final grade for indoor or outdoor locations and shall be limited to a maximum four (4) meter stack. Multiple horizontal meter panels shall be installed at a height of sixty (60) inches from the floor indoors or final grade outdoors. These requirements are to be followed prior to installing meters and connecting electrical service. Multiple sockets require permanent labeling call MBLP Meter Department Supervisor for details prior to energizing. Service connection may be denied if the requirements are not followed. Any and all questions regarding this information may be directed to MBLP Meter Department Supervisor at (906) 228-0303 or (906) 228-0302.

TWO POSITION - HORIZONTAL

LOWEST NUMBER OR LETTER ALWAYS ON THE LEFT. (example 101, 102, etc.)



OR



OR



TWO POSITION - VERTICAL

LOWEST NUMBER OR FIRST ALPHABET LETTER ALWAYS IN THE TOP SOCKET.







TWO POSITION - HORIZONTAL & ONE SOCKET (HOUSE METER) HOUSE METER SHOULD ALWAYS BE THE LAST SOCKET IN ORDER.













TWO POSITION - VERTICAL & ONE SOCKET (HOUSE METER)

HOUSE METER SHOULD ALWAYS BE THE LAST SOCKET IN ORDER.









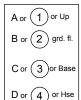




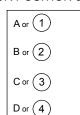
FOUR POSITION HORIZONTAL

Α	В	C	D
ór	ōr	ŏř	ōr
(1)	(2)	(3)	(4)
	\bigcirc	\bigcirc	\bigcirc
or	or	or Base	or
up	grd. fl.	Base	House

FOUR POSITION - VERTICLE



FOUR POSITION & 1 SINGLE SOCKET





If adding one socket for House Meter it should be in this

EXAMPLE: Multiple Sockets

(4) or D (8) or H (12) or L (16) or P (20) or T

**All residential socket assemblies with more than 4 sockets will require adjacent individual approved service disconnect devices with permenant label.

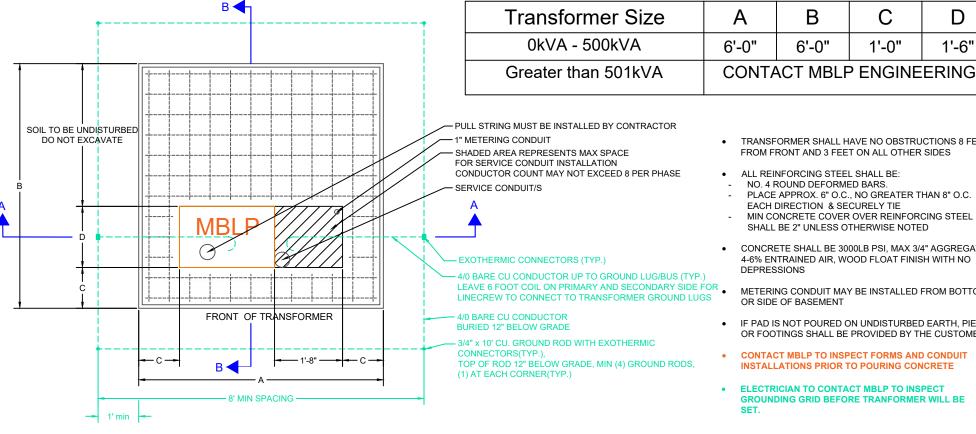
MARQUETTE BOARD OF LIGHT & POWER



T:\Departments\Distribution\Engineering\Distribution Specs

Last Revision Date: 4/15/2020

MBLP POLYPHASE TRANSFORMER PAD & GROUNDING SPECIFICATION

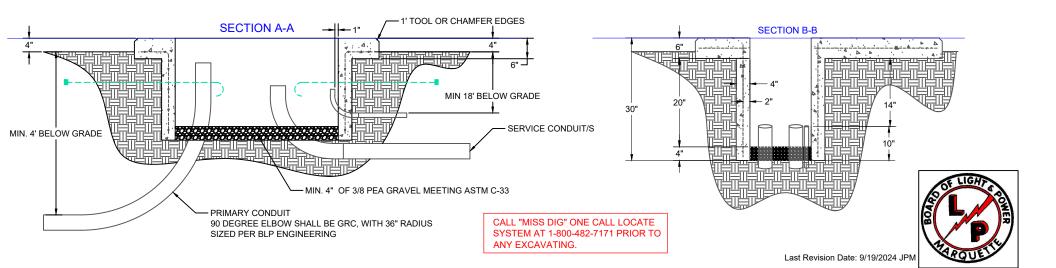


TRANSFORMER SHALL HAVE NO OBSTRUCTIONS 8 FEET

D

1'-6"

- SHALL BE 2" UNLESS OTHERWISE NOTED
- CONCRETE SHALL BE 3000LB PSI, MAX 3/4" AGGREGATE. 4-6% ENTRAINED AIR, WOOD FLOAT FINISH WITH NO
- METERING CONDUIT MAY BE INSTALLED FROM BOTTOM
- IF PAD IS NOT POURED ON UNDISTURBED EARTH, PIERS OR FOOTINGS SHALL BE PROVIDED BY THE CUSTOMER
- CONTACT MBLP TO INSPECT FORMS AND CONDUIT
- **ELECTRICIAN TO CONTACT MBLP TO INSPECT GROUNDING GRID BEFORE TRANFORMER WILL BE**



SINGLE PHASE PADMOUNT TRANSFORMER DETAIL

CALL "MISS DIG" ONE CALL LOCATE SYSTEM AT 1-800-482-7171 PRIOR TO ANY EXCAVATING.

