

Rules and Regulations

For

Electric Service

Owensboro Municipal Utilities

ISSUED: March 1, 1966

REVISION: June 1, 2019

TABLE OF CONTENTS

INTRODUCTION	4
DEFINITIONS.....	5
RULES AND REGULATIONS.....	8
SECTION I - GENERAL	8
1. APPLICATION FOR SERVICE.....	8
2. CREDIT.....	9
3. REFUND OF SECURITY DEPOSIT AND INTEREST PAYMENT.....	9
4. BILLING PERIODS.....	9
5. NONPAYMENT OF BILLS	9
6. MEASURING CUSTOMER SERVICE	9
7. DISCONNECTION OF SERVICE	10
8. RECONNECTION CHARGE.....	11
9. RESALE OF SERVICE	11
10. INTERRUPTION AND LIABILITY	11
11. CUSTOMER'S RESPONSIBILITY	12
12. DANGEROUS CONDITIONS	12
13. CONNECTIONS.....	12
14. OMU FEE SCHEDULE.....	12
SECTION II - ELECTRIC UTILITY SERVICE	13
1. AVAILABILITY AND CHARACTERISTICS OF ELECTRIC SERVICE	13
2. SERVICE ENTRANCES	14
3. OVERHEAD SERVICE WIRES	15
4. EXTENSION OF OVERHEAD PRIMARY FACILITIES.....	15
5. UNDERGROUND DISTRIBUTION.....	16
6. REVENUE TEST TO DETERMINE CUSTOMER CONTRIBUTION	17
7. TEMPORARY SERVICE	17
8. SECURITY LIGHTS	18
9. GROUNDING.....	18
10. METERING	19
11. METER TESTING AND ADJUSTMENT	21
12. SERVICE TO ELECTRIC MOTORS / MOTOR STARTING.....	22
13. OMU POLE ATTACHMENTS	23
14. MOVING OMU EQUIPMENT	23
15. RIGHTS-OF-WAY / EASEMENTS.....	23
16. EMERGENCY SERVICE.....	24
17. ELECTRICAL INSPECTIONS	24
18. USE OF SERVICE BY THE CUSTOMER	24
19. UNAUTHORIZED USE OF SERVICE.....	25
20. INTERCONNECTION POLICY	25
MISCELLANEOUS.....	26
1. NOTICE TO CONTRACTORS	26
2. OMU LOAD SHEET	28
FIGURES.....	29
1. Service Attachment to Customer's Building	29
2. Locations for Attachments.....	30
3. Entrance for Underground Service	31

4.	Meter Setting for Temporary Service – Overhead.....	32
5.	Meter Setting for Temporary Service –Underground.....	33
6.	Permanent Underground Service.....	34
7.	Through Roof Installation (Riser Detail).....	35
8.	Group Metering Less Than Six.....	36
9.	Group Metering More Than Six	37
10.	Temp Service, Billboard, etc., 120V, 1Ø, 2-Wire	38
11.	100 to 225 Amps, 120/240V, 1Ø, 3-Wire	39
12.	250 to 400 Amps, 120/240V, 1Ø, 3-Wire	40
13.	100 to 400 Amps, 120/208V, 1Ø, 3-Wire	41
14.	100 to 400 Amps, 120/240V 3Ø, 4-Wire	42
15.	100 to 400 Amps, 208V, 3Ø, 4-Wire	43
16.	Over 400 Amps, 120/240V, 1Ø, 3-Wire	44
17.	Over 400 Amps, 208V, 3Ø, 4-Wire	45
18.	All, 480V, 3Ø, 4-Wire.....	46
19.	Over 400 Amp, 120/240V, 3Ø, 4-Wire.....	47
20.	All, 240/480V, 3Ø, 4-Wire.....	48
21.	Pulse Meter Generators	49
22.	Vertical Clearance over Roofs and Projections	50
23.	Service Drop Terminating on Mast	51
24.	Clearance over Pools & Diving Platforms.....	52
25.	Drip Loop and Point of Attachment	53
26.	Horizontal Service Conductor Clearance from Buildings and Antenna	54
27.	Clearance of Service Conductors over Decks and Balconies	55
28.	Secondary Conductor Pad-Transformer Connections (Customer-Owned).....	56
29.	Motor Startup Policy Tables.....	57

INTRODUCTION

This booklet contains the rules and regulations governing electric service provided by Owensboro Municipal Utilities.

These rules and regulations apply to all customers, prospective customers, their employees, and agents, and to any contractors, electricians, architects, and others performing work on, near, or related to OMU facilities.

These rules, regulations, and requirements are designed to promote safe operation and provide adequate service to all customers.

The requirements contained herein are the minimum requirements. In addition to compliance with these rules, all electrical installations must comply with the National Electrical Code (NEC), the National Board of Fire Underwriters, the National Electrical Safety Code (NESC), and applicable laws, regulations, and ordinances of the City of Owensboro, Commonwealth of Kentucky, or other regulating authority.

These rules are not all-inclusive; in the event conditions arise that are not fully covered herein, the customer shall contact OMU to determine the applicable requirements.

These electric service requirements do not list the terms and conditions necessary to qualify a customer for a given rate. The general terms and conditions of the rates are contained in the Electric Rate Ordinance and may be obtained at the OMU office or online at www.omu.org.

These rules and regulations may be revised, amended, or supplemented by the City Utility Commission, and such changes, when effective, shall have the same force as the original rules and regulations.

The failure by OMU to enforce any of the provisions of these rules and regulations shall not be deemed a waiver of its subsequent right to do so.

DEFINITIONS

The following words and terms when used in these rules shall have the meanings indicated below:

OMU Owensboro Municipal Utilities

APPARENT POWER

Power proportional to the mathematical product of the volts and amperes of a circuit. This product generally is divided by 1,000 and designated in kilovolt-amperes (kVA). It is comprised of both real and reactive power.

CUSTOMER(S)

Any person or entity applying, contracting for, or receiving electric service at a specific location.

ELECTRIC DISTRIBUTION SYSTEM

OMU's wires, poles, transformers, and other equipment and facilities necessary to distribute electric energy in OMU's service area.

ELECTRIC LINE EXTENSION

Any addition to the electric distribution system to provide service.

ELECTRIC MAXIMUM DEMAND

The load supplied during the 15 minute period of maximum use during the month as determined by a demand meter, or as otherwise specified in the applicable Rate Schedule. The maximum demand will be determined by an OMU installed meter.

METER SETTING

The equipment, devices, fittings and appurtenances necessary for the purpose of measuring the quantity of the customer's use of electric services.

POINT OF ATTACHMENT (POA)

The location on any customer-owned property designated for the attachment of OMU facilities.

POINT OF DELIVERY

The point of connection of OMU's electric facilities to the customer's facilities, unless otherwise specified in the service application or agreement.

POWER (ELECTRIC)

The time rate of generating, transferring, or using electric energy, usually expressed in kilowatt-hours (kWh).

POWER FACTOR

The ratio of real power (kW) to apparent power (kVA) for any given load and time. Generally, it is expressed as a percentage.

RATE ORDINANCE

The Electric Rate Ordinance adopted by the City of Owensboro.

REACTIVE POWER

The portion of "Apparent Power" that does no work. It is commercially measured in kilovars. Reactive power must be supplied to most types of magnetic equipment, such as motors. It is supplied by generators or by electrostatic equipment, such as capacitors.

REAL POWER

The energy or work-producing part of "Apparent Power." It is the rate of supply of energy, measured commercially in kilowatts. The product of real power and length of time is energy, measured by watt-hour meters and expressed in kilowatt-hours.

SERVICE

The availability of electricity by OMU to the customer whether or not such electricity is actually used.

SERVICE ENTRANCE

That portion of the customer's wiring, and other equipment necessary to provide a point of connection with OMU's facilities.

SERVICE WIRES

OMU's wires and other equipment for delivery of service from OMU's electric distribution system to the point of attachment to the Customer's facilities.

TEMPORARY SERVICE

Any service not intended to supply permanent power and not to exceed one year's time in service from the date service is provided, unless otherwise approved by OMU.

VOLTAGE FLICKER

A repetitive voltage fluctuation that causes irritation to people noticing the effects on equipment such as televisions and lights.

VOLTAGE SAG

An instantaneous and noticeable change in the RMS voltage level, usually caused by changing system loads or a temporary fault condition on nearby or adjacent distribution or transmission lines.

RULES AND REGULATIONS

SECTION I - GENERAL

These Rules and Regulations apply to the electric service supplied by OMU and supplement the Rate Ordinance. Customers desiring further information may contact the business office of OMU in person, by letter, or by telephone inquiry.

**CUSTOMER SERVICE CENTER
2070 Tamarack Road
Owensboro, Kentucky
Telephone: (270) 926-3200**

1. APPLICATION FOR SERVICE

When a customer signs for service OMU will ask for the following information:

- a. Your name
- b. Location of the premises to be served
- c. Size and general characteristics of the proposed load
 - i. Residential
 - ii. Commercial/Industrial
 - Electric Load Sheet (see Miscellaneous section)
 - One-line diagram, development plan, etc. as may be required by OMU Engineering department
- d. Any special requirements of the load
 - i. Temporary or permanent
 - ii. Single or multiphase
- e. Previous address, if any, of the party where OMU service was rendered
- f. Proper identification and Social Security Number
- g. Phone #
- h. Spouse or other contact information

OMU will normally connect/transfer service within one working day's notice after the application is approved. The customer will be charged the applicable connection fee. If service is connected after 4:00 P.M., on a holiday, or during non-operating

hours, the applicable after-hours connection fee will apply. A copy of the fee schedule may be obtained at the OMU office or online at www.omu.org.

2. CREDIT

Please refer to the OMU Deposit Policy. A copy of the OMU Deposit Policy can be obtained at the OMU office.

3. REFUND OF SECURITY DEPOSIT AND INTEREST PAYMENT

Please refer to the OMU Deposit Policy. A copy of the OMU Deposit Policy can be obtained at the OMU office.

4. BILLING PERIODS

- a) Service bills will be rendered at regular intervals for all customers
- b) OMU makes every effort to read each meter every 28 to 32 days. When OMU is unable to read the meter after reasonable effort, the customer may be billed for an estimated consumption based upon the best information available.
- c) When closing an account where no billing demand is involved, bills may be rendered on the basis of estimated consumption. In the case of disconnects, no bill shall be rendered for less than the minimum charge set out in the rate.

5. NONPAYMENT OF BILLS

If a bill is not paid by a customer within fourteen (14) working days after the mailing date shown on the original bill the customer shall be considered delinquent in payment. Late charges established by the Rate Ordinance will apply and OMU may discontinue service after providing reasonable notice to the customer.

6. MEASURING CUSTOMER SERVICE

For all Customers connected after March 1, 1966, the use of service at each point of delivery shall be metered separately. Whenever, for any reason, OMU furnishes two or more meter installations for a single customer, each point of metering shall be considered a separate service, separated by a structural fire wall, and be separately billed.

7. DISCONNECTION OF SERVICE

a) Disconnection on customer's request.

When a customer or contractor working on the customer's behalf requests a service disconnection for the purpose of upgrade, repair, or maintenance, customer or contractor should contact OMU's Delivery Engineering Department. Disconnections for other purposes, such as tree removal, may be scheduled with OMU's Delivery Control Center. All disconnect requests should be made at least one business day and twenty-four (24) hours prior to request for disconnect.

Any disconnection for upgrades or repairs, whether by customer or OMU, may require additional upgrades to bring the service up to the latest codes and regulations. OMU may, at its discretion, require customer to raise the point-of-attachment as part of upgrades if proper clearances cannot be maintained per the NESC. Request for disconnect by customer or contractor for the purpose of upgrades, repair, or maintenance may be subject to inspection by the local electrical inspector. In these instances, OMU may withhold reconnection of service until clearance from the electrical inspector is received by OMU.

Any disconnected service that is not reconnected within a twelve-month period from the date of disconnect will be subject to inspection by an electrical inspector prior to OMU reconnecting, regardless of the nature of any work or upgrades being made.

Customers with 3-phase demand service will need to have a representative present on site at time of disconnection.

b) Disconnection by OMU.

Service may be refused or disconnected by OMU for any of the reasons listed below:

- 1) Without notice in the event of a condition determined by OMU to be hazardous.
- 2) Without notice in the event of customer use of equipment in such a manner as to adversely affect OMU's equipment or OMU's service to others.
- 3) Without notice in the event of tampering with the equipment furnished and owned by OMU.
- 4) Without notice in the event of unauthorized use of service.

- 5) For violation of or noncompliance with OMU's Rules and Regulations for Electric Service.
- 6) For failure of the customer to permit OMU reasonable access to its equipment.
- 7) For nonpayment of the account, after OMU has made a reasonable attempt to effect collection and has given the customer prior written notice to make payment or have the service disconnected.
- 8) For the customer to fail or refuse to provide a requested deposit.
- 9) For the customer to fail to furnish or to withdraw such permits or rights of way as shall have been specified by OMU for rendering service.

Unless otherwise stated above, after service is initiated, the customer shall be allowed a reasonable time to meet any deficiency, before service is disconnected.

8. RECONNECTION CHARGE

When service is disconnected for nonpayment of a bill or any violation of these service regulations, OMU may require the customer to pay all costs of disconnection and reconnection, as well as a deposit, but not less than the applicable reconnection fee, before service is reestablished. When a customer requests reconnection of a vacant service at the same location within twelve months of disconnection of such service, the charge for reconnection shall be the applicable connection fee plus the applicable minimum charge under the Rate Ordinance for each month of the period involved or the actual reconnection charges, whichever is the greater amount. If service is connected after 4:00 P.M., on a holiday, or during non-operating hours, the applicable after-hours connection fee will apply. A copy of OMU's fee schedule may be obtained at the OMU office or online at www.omu.org.

9. RESALE OF SERVICE

Electric service will only be offered to the ultimate consumer and shall not be re-metered, resold or shared with others nor extended outside the premises for service to other customers or premises.

10. INTERRUPTION AND LIABILITY

OMU will use reasonable diligence to supply steady and continuous service, but does not guarantee its service against irregularities and interruption. OMU shall not be liable to the customer for breach of contract in the event of loss, injury, or damage to persons or property resulting from interruptions in service, excessive or

inadequate voltage, single-phasing, or otherwise unsatisfactory service, whether or not caused by negligence.

When service is suspended or interrupted for the purpose of making necessary repairs or changes in facilities, such suspension may be made without notice, but, where practicable, customers will be notified in advance. OMU shall not be liable to the customer for any damages occasioned by such suspension of services.

11. CUSTOMER'S RESPONSIBILITY

The customer is expected to take reasonable care of OMU equipment located on customer's property. The customer will be responsible for all damage to or loss of OMU's property located upon customer's premises unless occasioned by causes beyond customer's control, and shall not permit anyone who is not an employee of OMU to remove or tamper with the equipment.

12. DANGEROUS CONDITIONS

The customer is requested to call or notify OMU immediately when any of OMU's equipment appears to be in an unsafe or dangerous condition. This applies to equipment inside or outside the customer's premises and particularly to broken or fallen wires. The customer is requested, if possible, to post someone in the vicinity of the dangerous location to warn individuals (particularly children) who may pass until OMU personnel arrive. However, in all cases, customer should stay clear of all potentially hazardous equipment or downed lines while awaiting OMU response.

13. CONNECTIONS

All connections, permanent or temporary, between OMU's lines and the customer's wiring shall only be made or removed by authorized OMU representatives.

14. OMU FEE SCHEDULE

A copy of OMU's fee schedule may be obtained at the OMU office or online at www.omu.org.

SECTION II - ELECTRIC UTILITY SERVICE

1. AVAILABILITY AND CHARACTERISTICS OF ELECTRIC SERVICE

The electric service supplied by OMU is alternating current sixty (60) hertz. Standard voltage classes offered to the customers under OMU rate schedules are as follows:

120 volts, two-wire, single-phase

120/240 volts, three-wire, single-phase.

120/208 volts, four-wire, three-phase.

120/240 volts, four-wire, three-phase.

277/480 volts, four-wire, three-phase.

Higher voltage service can be made available for approved loads upon application to OMU.

When overhead service is requested, OMU will only supply service using transformers rated no greater than 100kVA. Overhead transformer banks may not be placed in parallel to provide greater capacity. Any service requiring capacity exceeding this limit must be served by a pad-mount transformer.

120V, two-wire, single-phase service will only be available for temporary services or other non-habitable applications such as billboards or signs. Standard residential services shall not be allowed this option.

Three-phase service will only be supplied to a customer: by one of the following classes: 120/208V, 120/240V and 277/480V.

All power and energy supplied to a building, structure or facility at any one location should be taken through one point of delivery. Any exception shall require prior approval by OMU.

The customer shall notify OMU of any proposed new connections so that OMU may recommend proper location of service entrance and metering equipment. The customer shall also notify OMU before making any major changes or increases in connected load or equipment to enable OMU to provide adequate service. Any new service or expanded service other than single-family residential requires an OMU load sheet to be completed by an appropriate and knowledgeable authority.

It is the responsibility of the customer to secure information from OMU regarding the type of service available at a particular location prior to the wiring of their electrical system. Service availability to any customer depends upon the location, character, and size of the customer's load.

2. SERVICE ENTRANCES

a) Type and Number of Service Entrances.

OMU will install only one set of service wires for the class of service supplied. Service entrances for residences shall have a capacity of at least 100 amperes at 120/240 volts, three-wire, single-phase. The installed cost of any second service at the Residential rate, approved by OMU Engineering, at the same premise shall be borne by the customer.

b) Service Entrance Location.

Before any service entrance is installed in any building, the customer, builder, or an authorized representative shall obtain approval from OMU as to the location where the service entrance shall be made.

c) Overhead Service Entrances.

Any entrance conduits, weatherheads, or points of attachment shall be supplied and installed by the customer or contractor. No other wires shall be placed in these conduits. The customer shall extend customer's wiring a minimum of three (3) feet from the outer end of the entrance and the neutral wire shall be identified (see Figure 7).

d) Underground Service in Overhead Areas.

OMU will connect its electric facilities to underground services from its overhead distribution system. The customer shall extend the service entrance wires underground from customer's building to OMU facilities (a designated OMU pedestal or transformer) for connection. New services will not be subject to any additional installation costs associated with setting a pedestal at the base of an existing pole; however, any requested extension of facilities to meet a customer's desired location for connection could be subject to additional charges. In addition, existing overhead services to be converted to underground are subject to a fee as listed in the OMU Fee Schedule. A copy of the fee schedule may be obtained at the OMU office or online at www.omu.org.

When an underground service is installed by the customer to serve commercial and industrial loads, the underground service wire installation requires the approval of OMU and any electrical inspector with jurisdiction. The customer

shall bear the costs of installing, maintaining, repairing, replacing, and removing the underground installation.

No customer-owned facilities, including a meter socket, shall be installed on an OMU-owned pole.

3. OVERHEAD SERVICE WIRES

OMU will install and maintain without cost to the customer on the Residential Rate one span (approximately 150' or less) of service wires for each customer. If line extensions of the service beyond one span are necessary, they shall be installed and owned by OMU with the customer or contractor bearing any additional costs. As listed in Section II.2b, the location of service entrance must be approved by OMU. The calculated distance from the customer service point will be based upon the most direct and safe route from OMU facilities. Should the customer request an alternate service point location incurring additional costs to OMU, the customers shall be responsible for all additional costs in excess of basic service construction. All cost associated with the Commercial Rate, General Service Secondary Rates, and General Service Primary Rate will be calculated under the revenue test requirements as identified in Section II.6.

OMU, in extending its service wires, will not attach or permit them to be attached to trees, special supports or to buildings other than the building to be entered. A substantial support shall be installed on low buildings to bring the service attachment up to the required height above ground, as specified within the NESC.

The customer's building must provide a support of sufficient strength for the Point-of-Attachment (POA) to the building. The support must meet the approval of OMU. Any additional equipment, such as a support, riser, guying, or other form of construction, required on a customer's premises for the purpose of properly supporting OMU's service wires or to maintain standard clearance shall be provided and maintained by the customer.

OMU accepts no liability for damage to Customer's POA associated with OMU facilities. Damage may occur in instances where tree limbs, debris, or other instances out of OMU's control make contact with OMU service wires. OMU does not provide vegetation management around service lines.

4. EXTENSION OF OVERHEAD PRIMARY FACILITIES

a) Residential

OMU will provide single-phase primary electric line extensions along public Rights-of-Way, or within dedicated public utility easements, at its expense to render service to residential customers for any permanent and continuing use within its service area. OMU will only render single-phase 120/240 volt service under the Residential rate for any service less than 400 amps. Any service

greater than 400 amps may be eligible for three-phase service at the request of the customer and approval by OMU.

b) Commercial and Industrial

OMU will provide primary electric line extensions along public Rights-of-Way, or within dedicated public utility easements, to render service to commercial or industrial customers for any permanent and continuing use within its service area. OMU will render single or multiphase service to a commercial or industrial customer.

See Section II.6 for information regarding customer contribution towards construction.

5. UNDERGROUND DISTRIBUTION

The following set of conditions must be met for OMU to construct and install underground electric distribution facilities which include, but are not limited to transformers, underground conduit and conductors, street lighting, pedestals, and connectors adequate for the rendering of underground electric service:

1. Developer shall grant a Right-of-Way and/or easement, without cost, satisfactory to OMU for the installation, operation, and maintenance of its underground distribution facilities.
2. Developer or successors in title shall maintain, clear of hindrances, a proper working space around OMU owned pad-mount transformers equal to 10' frontal (as indicated by the transformer enclosure's door) clearance and 3' clearance elsewhere for purposes of maintenance and best effort sustained reliability of service.
3. Regarding service lines: Developer or successors in title shall provide, own and maintain the service lines from OMU's facilities to the residence(s). OMU personnel will make up any points of attachment to OMU facilities.
4. All final grades and property corners are established.

Upon OMU's prior approval and subject to inspection by OMU, the developer may be permitted to install conduit, pedestals, or other facilities; however, all material will be provided by OMU.

a) Residential

OMU will only render single-phase 120/240 volt service under the Residential rate for any service 400 amps or less. Any service greater than 400 amps may

be eligible for three-phase service at the request of the customer and approval by OMU.

b) Commercial and Industrial

OMU will render single or multiphase service to a commercial or industrial customer.

See Section II.6 for information regarding customer contribution towards construction.

6. REVENUE TEST TO DETERMINE CUSTOMER CONTRIBUTION

New customers, or those adding load to existing facilities, permanent in nature with year round use, may result in sufficient revenue over the first three years of operation to justify providing service without a customer contribution of any type. Such services must be eligible for either the Commercial Rate, General Service Secondary Rate, or General Service Primary Rate. Contribution requirements shall be ascertained by a standard revenue test calculated with the estimated increased revenue to be reasonably expected over the first three years of operation, as determined by OMU personnel, versus OMU's estimated cost of construction to provide service. Only proposed new load shall be included in any revenue test; existing load does not qualify. The cost of transformers, not to include accessory equipment, shall not be included in the cost of construction estimate. All additional costs that are not supported by the revenue test will be contributed by the benefiting customers. This contribution discount represents a one-time assessment and shall not be revisited at a later date for customer reimbursement of construction costs due to providing more than the initially estimated revenue nor shall OMU seek reimbursement for construction costs given revenue less than originally anticipated.

In addition, OMU's rate study has determined the City Rate incapable of providing sufficient cost recovery revenue to OMU. Therefore, any customer to receive the City Rate will bear 100% of the costs associated with installation and maintenance of facilities identified as service to the customer.

When the expected revenue from a request for service is too speculative and will require extension of OMU's facilities, OMU will make such extension only upon receipt of an appropriate deposit covering the cost of making such an extension, unless otherwise negotiated with and approved by OMU.

7. TEMPORARY SERVICE

OMU defines temporary service as any service not intended to supply power permanently and not expected to exceed one year's time in service from the date service is provided, unless otherwise approved by OMU. OMU will not install a pad mount transformer or pedestal for the sole purpose of providing temporary underground service. OMU will not provide overhead service through the use of

transformers rated greater than 100kVA. When temporary electric service is needed, application for service must be made as described in Section I.1 and the applicant shall remit the current Temporary Service Fee for the type of service required. OMU will furnish temporary service provided it has sufficient capacity and facilities available at the proposed location. In accordance with Section II.3, OMU defines insufficient facilities as anything in excess of one span (approximately 150' or less) of service wires for each customer. If line extensions of the service beyond one span are necessary, they shall be installed and owned by OMU with the customer or contractor bearing all costs.

Provision of temporary service may include any or all of the following: distribution line extension, service run, metering, necessary transformation, switching equipment, labor and vehicles for installation and removal of equipment.

In addition to a connect fee, the applicant for temporary service **other than single-phase residential** shall pay the following:

- a) labor and vehicle expenses associated with the installation and removal of all equipment;
- b) a depreciation charge equal to twenty-five (25%) percent of the initial value of all salvable material and equipment with the exclusion of transformation and metering equipment; and
- c) a charge equal to twenty-five (25%) of the final billable total for administrative expense.

The customer using temporary service is requested to give prompt notice to OMU when such service is to be discontinued. Such notice should be given at least twenty-four (24) hours prior to the time when discontinuance of service is required. Temporary installations shall meet the same electrical and inspection requirements as permanent installations.

8. SECURITY LIGHTS

Refer to the OMU Rate Ordinance for details concerning security lights. A Security Light Agreement is required by OMU.

9. GROUNDING

The grounding of electric installations shall meet the specifications of the National Electric Code and all other applicable codes.

10. METERING

OMU will install and maintain, at its own expense, the meter necessary to measure the electricity used by the customer. OMU will supply, install and maintain one watt-hour meter, and appropriate demand meters when required, for each service supplied.

a) Meter Location

The customer shall provide and maintain safe and convenient access to the meter or equipment and shall permit entry thereto by employees of OMU at all reasonable times for the purpose of inspecting, reading, testing, repairing, replacing, or removing the meter or equipment used in connection with the service. The meter shall be attached to an exterior surface of the customer's premises at a point satisfactory to OMU and shall not be barricaded from view or entry by any barrier, temporary or otherwise, requiring the use of a key or other means of permitted access. Meters are not to be installed on OMU poles.

OMU may refuse to install a meter, if in its judgment the customer's installation is hazardous or of such character that satisfactory service cannot be given. In case of refusal, OMU shall inform the customer of the reason for refusal to render service and what changes are necessary for an acceptable installation.

Any necessary change in wiring must be made by the customer before OMU will move a meter to a new location. No one other than OMU's authorized representative will be allowed to move a meter from one location to another.

b) Meter Installation

Meter mounting equipment such as meter sockets, meter enclosures, meter panels, meter connection cabinets, or metering transformer cabinets, of any approved type, shall be provided, installed and maintained by the customer.

OMU will supply to the customer metering current and potential transformers where applicable, which the customer shall install at customer's own expense.

i) Watt-hour Meter Sockets and Meter Panels (less than 320 Amps and less than 480V)

Normally, socket-type metering will be used where the load side capacity of the wiring is 320 amperes or less and when service voltage is less than 480V. In such cases, permanent services shall not be installed with less than a 100 amperes capacity rated meter socket. Additionally, all meter sockets rated greater than or equal to 200 amperes shall be fitted with a lever operated bypass switch providing safety during load break situations as well as allowing for continuance of service during maintenance. Only

meter sockets, which are labeled as approved by Underwriters Laboratories, Inc. and of the correct type and capacity will be approved by OMU. A sealing ring, when required, shall be furnished with the socket.

Meter sockets may be mounted either directly on the building or panel board whichever best fits the requirement of the installation. They shall be mounted in a plumb and level position and the top of the socket shall not be more than six feet nor less than five feet above permanent ground or floor level, with a minimum overhead clearance of twenty-four (24) inches. A minimum clearance of 3 1/4 inches on all sides is required. A horizontal clearance of thirty-six (36) inches in front of meters extending from the floor to at least seven feet above the floor shall be provided and maintained to permit access to the meter.

ii)

Socket Connected Type Meters (over 320 Amps and/or greater than or equal to 480V Services)

Normally, when the load side capacity of the wiring exceeds 320 maximum capacity amperes, or service voltage is greater than or equal to 480V, a socket connected meter with current transformers and/or potential transformers will be used to properly meter these services.

Therefore, information should be obtained from OMU before starting any wiring.

Metering transformers can be generally mounted in enclosures approved for the purpose, but generally are mounted on the side of buildings at the point of service connection. On large installations where the customer installs metal clad switchgear on a bus structure, it is permissible to mount the metering transformers in the switchgear or bus structure provided there is a suitable mounting space as approved by OMU.

On all installations involving metering transformers, it is essential that the customer receive OMU approval for specifications relative to space requirements, installation details, and other information pertinent to the installation.

iii) Grouped Meters

- a) When two or more meters are installed in the same building and fed from the same service entrance, they must be grouped in a manner approved by OMU to facilitate reading and servicing.
- b) Each individual meter setting shall be plainly and permanently marked on the meter panel or individual switch. Such marking

shall be in full view when the meter is in place and shall designate the installation, room or apartment for which the meter is installed.

- c) Each meter must be provided with its own disconnect switch or breaker. In multiple occupancy buildings where there are several floors and several customers on each floor above the second floor, making it impractical to locate the meters in one location, they may, with OMU's approval, be grouped in an accessible space on each floor. Where such an installation is made, the feeder switch for the unlettered circuit to the meters on each floor must be grouped with the service entrance equipment.
- d) The details of large commercial and industrial installations requiring extensive metering equipment shall be agreed to between the customer and OMU.
- e) Multiple meter socket troughs are approved providing they are labeled by Underwriters Laboratories, Inc., and meet the requirements of Paragraph 8b above.

c) Meter Pulse Data

Upon request, OMU can provide meter pulse data to a customer for load monitoring purposes. Should a customer request OMU to provide meter pulse information, the customer shall be responsible for 100% of the costs associated with upgrades of OMU facilities including metering to provide such information. Contact OMU for meter pulse information.

11. METER TESTING AND ADJUSTMENT

OMU will routinely test its meters for plus or minus 2% accuracy of registration if testing of various meter types indicates such a test is appropriate.

OMU will also make a meter test when requested by the customer for a charge equal to the current meter test fee. (A copy of the fee schedule may be obtained at the OMU office or online at www.omu.org)

- a) If any customer-requested meter test indicates meter registration is fast or slow by 2% or more, the current meter test fee is waived, otherwise the customer shall pay the current meter test fee.
- b) If any customer-requested meter test indicates the registration of the meter to be fast by 2 percent or more, the meter test fee will be waived and OMU will make a refund to the customer.

- c) If any customer-requested meter test indicates the registration of the meter to be slow by 2 percent or more, the customer shall pay the billing difference as determined by OMU.
- d) Any billing adjustment will be made as provided in the Rate Ordinance.

12. SERVICE TO ELECTRIC MOTORS / MOTOR STARTING

OMU shall make service available to electric motors under the following conditions:

1. Electric service shall be at 60 cycle frequency and at nominal secondary voltages of 120, 240, or 480 volts depending on the customer's power requirements.
2. OMU shall not be obligated to install or provide any protective equipment for customer's lines, equipment or facilities. OMU may provide, as it deems necessary, such protective equipment for protection of its own operations and property. Any protective equipment installed by customer on customer property shall, in the judgment of OMU, be capable of satisfactory coordination with any equipment installed by OMU on OMU property.
3. In instances where a customer requires three-phase service, the customer shall endeavor to take and use power and energy in such a manner that the current will be reasonably balanced on all three phases. In the event any check indicates the current on the most heavily loaded phase exceeds the current on either of the other two phases by more than 20%, the customer, upon request and at customer's expense, shall make the necessary changes to correct the unbalanced condition. If said unbalance is not corrected within 60 days, OMU may elect to meter the load on individual phases and compute the billing demand as being equal to three (3) times the maximum kilowatt load on any phase. For all purposes hereunder, the load on any phase shall be measured by a wattmeter connected with its current coil in that phase wire and the potential coil connected between that phase wire and the neutral voltage point.
4. Customer shall use power in such a manner as to not cause, in the sole opinion of OMU, unreasonable disturbances to OMU's power supply system. These disturbances shall include, but are not limited to: voltage sag, voltage flicker, and/or harmonic distortions. Upon notification of such disturbances, customer, at its expense, shall provide suitable corrections which reasonably limit any such disturbances.
5. Customer shall refrain from starting or running any motor, compressor, or other equipment that would cause voltage sag of more than 2.5% from nominal primary voltage. Customer shall also refrain from starting multiple motors simultaneously or equipment containing multiple motors when process allows.

Customer shall provide, at its expense, any motor starting assistance devices (i.e. soft starts, wye-delta starter) approved by OMU Engineering and required to achieve voltage sag criteria.

6. Voltage sag on the secondary side of the transformer may be at any level that the customer finds tolerable as long as the customer is the sole customer on the serving transformer and condition 5 of this set of criteria is not violated.
7. Customers requiring multiple starts from motors in a twenty-four (24) hour period shall not exceed the limits set forth by IEEE Standard 141-(latest revision) for “Borderline of Irritation” of voltage flicker vs. time (Figure 29). If customer’s process is found to still cause objectionable disturbances to OMU’s power supply system, customer, at its expense, shall provide suitable corrections which reasonably limit any such disturbance.
8. Motors of fifteen horsepower (15 h.p.) or greater must be reviewed and approved by OMU Engineering before it is supplied power by OMU. Reference tables are provided in Figure 29 to assist customer.

13. OMU POLE ATTACHMENTS

In the interest of preserving and maintaining installed system poles for distribution of electricity, illumination of streets, and support of traffic and pedestrian signals; the only pole attachments allowed on an OMU pole will be limited to those utilities that have made application and received authorization through an executed Pole Attachment Agreement with OMU.

14. MOVING OMU EQUIPMENT

Whenever it is necessary for OMU to make changes in its equipment or facilities to permit work to be done by contractors or others, or for the convenience of the customer, the cost of the work shall be billed to and paid by the contractor, customer, or other entity necessitating the work. A written request shall be submitted to OMU for the changes. Only authorized OMU employees may remove, cut, raise, or handle any wires or facilities belonging to OMU.

15. RIGHTS-OF-WAY / EASEMENTS

The customer shall provide, without cost, a Right-of-Way or easement for the equipment or facilities of OMU, over, across, under, and upon the property owned or controlled by the customer, that may be necessary and incidental to the supplying of service to such customer and shall permit access thereto by the employees of OMU at all reasonable hours. The easement shall be in writing and shall prohibit any obstruction within the easement.

The customer shall provide and maintain safe and convenient access to the meter or equipment and shall permit entry thereto by employees of OMU at all reasonable times for the purpose of inspecting, reading, testing, repairing, replacing or removing the meter or equipment used in connection with the service.

16. EMERGENCY SERVICE

Occasionally OMU may make emergency and/or temporary repairs to customer's equipment to allow the customer to continue operations, with the understanding that permanent repairs must be made by the customer as soon as possible. If such repairs are not made within the period permitted by OMU, OMU reserves the right to disconnect services until permanent repairs have been made. The customer will be billed for this service.

17. ELECTRICAL INSPECTIONS

Normally OMU inspects only the service entrance and meter location, but OMU reserves the privilege, for protection of its facilities and safeguarding its service to others, to inspect the customer's installation at any time and to refuse service whenever such installation, in its opinion, fails to meet minimum safety and operating standards. No inspection by OMU or failure to object to the customer's installation shall render the company liable for injury or damage resulting from any defective installation of customer facilities. When any applicable code or regulation requires a permit for, or an inspection of, a new installation, OMU will not make service connections until such permit is obtained and the installation passes the required inspection.

18. USE OF SERVICE BY THE CUSTOMER

All wires, facilities, and equipment of the customer shall be selected, maintained, and operated in accordance with applicable local, state and federal codes or laws, OMU Electric Rules and Regulations, the National Electric Safety Code, and in accordance with minimum standards of the local inspecting authority and/or National Electrical Code. The customer shall not employ or utilize equipment, appliances, or devices having characteristics which may cause interference with or adversely affect OMU's service to other customers.

The cost of correcting conditions that cause interference shall be paid by the customer. When conditions are not corrected, OMU shall have the right to discontinue service until the necessary corrections are made.

When multiphase service is supplied, the customer shall control the use thereof so that the load at the point of delivery will be maintained in reasonable electrical balance between the phases. Attachments, wires, signs, switches, arresters, conduit, meters, etc. may not be placed on OMU poles or other OMU property without written permission of OMU.

19. UNAUTHORIZED USE OF SERVICE

When multiphase service is supplied, the customer shall control the use thereof so that the load at the point of delivery will be maintained in reasonable electrical balance between the phases. Attachments, wires, signs, switches, arresters, conduit, meters, etc. may not be placed on OMU poles or other OMU property without written permission of OMU.

20. INTERCONNECTION POLICY

The OMU DG System Policy addresses customer-owned generation beyond the customer's metering point. The Policy limits the amount of generation that can be installed. A copy of the DG System Policy may be obtained at the OMU office or online at www.omu.org.

MISCELLANEOUS

1. NOTICE TO CONTRACTORS

REQUIRED WORKING CLEARANCES FROM OMU LINES & FACILITIES

OMU is very concerned about persons coming into contact with its lines and wants to avoid these contacts. OMU expects contractors and other persons who perform any work in the vicinity of OMU facilities to be aware of the dangers and the minimum clearances that are required by OMU for any work in the vicinity of its wires. Your cooperation is necessary in order to eliminate these life-threatening contacts.

BEFORE YOU DIG (BUD 811)

All contractors and individuals are required by KRS 367.4901-.4917 to have all underground utilities located prior to commencing any excavation. Contractors or individuals that are within three (3) feet of marked underground utilities shall expose the utility's facilities by means of hand digging prior to utilizing any power or motorized equipment.

MINIMUM CLEARANCES

OMU requires a minimum clearance of 20 feet in any direction from its energized high voltage lines. High voltage refers to any wires operating at 600 volts or higher. Any reduction in this clearance requirement would still need to meet all applicable OSHA standards and be granted OMU approval.

OMU requires a minimum clearance of 4 feet in any direction from its energized low voltage wires. Low voltage refers to any wires operating at 600 volts or less.

No person, crane, scaffold, or other object shall be placed in a position by the Contractor's personnel that will not allow for these clearances.

If there are any questions as to whether or not wires are high or low voltage, the Contractor shall contact OMU for clarification.

These clearances do not excuse Contractors from complying with applicable codes or regulations that require clearances that exceed those stated above. Contractor assumes responsibility for its and its employees' safety and shall indemnify and hold OMU harmless from any liability for injury to persons or damage to property resulting from Contractor's contact with OMU lines or facilities.

If the above clearance cannot be met in performing the work, then OMU shall be notified and a solution worked out prior to commencing work.

Requests for information regarding clearances from OMU lines can be obtained by calling (270) 926-3200, extension 4241.

OWENSBORO MUNICIPAL UTILITIES

2. OMU LOAD SHEET

ELECTRIC SERVICE INFORMATION (LOAD SHEET)

(This form must be submitted prior to any OMU engineering or construction)

CUSTOMER NAME _____		PROJECT STATUS _____	DATE _____
ADDRESS _____		NEW _____	BUILDING AREA (SQ. FT.) _____
PHONE # _____		ADDITION _____	EXISTING _____
TYPE OF OPERATION _____		NEW _____	
REQUESTED SERVICE DATE _____		APARTMENT COMPLEXES (LIST # OF APTS)	
		1 BR _____ 2 BR _____ 3 BR _____ 4 BR _____	
PERSON FILLING OUT FORM			
NAME _____		ELECTRICAL CONTRACTOR _____	
ADDRESS _____		COMPANY _____	
CITY, STATE, & ZIP _____		ADDRESS _____	
PHONE # _____		CITY, STATE, & ZIP _____	
		PHONE # _____	

ELECTRICAL ENTRANCE INFORMATION			
MAIN BREAKER SIZE _____ AMP		EXISTING SERVICE IS:	
REQUESTED SERVICE VOLTAGE _____		<input type="checkbox"/> OVERHEAD <input type="checkbox"/> UNDERGROUND	
<input type="checkbox"/> 120V	<input type="checkbox"/> 120/208V	<input type="checkbox"/> 1Ø	
<input type="checkbox"/> 120/240V	<input type="checkbox"/> 277/480V	<input type="checkbox"/> 3Ø	
<input type="checkbox"/> OTHER _____		NEW SERVICE IS:	
		<input type="checkbox"/> OVERHEAD <input type="checkbox"/> UNDERGROUND	
		ENTRANCE CONDUCTORS	
		CONDUCTOR SIZE _____ <input type="checkbox"/> AL	
		CONDUCTORS PER PHASE _____	
		CONDUIT SIZE _____ <input type="checkbox"/> CU	
		NUMBER OF CONDUITS _____	

TOTAL CONNECTED LOAD INFORMATION	
	1Ø KW 3Ø KW
EXISTING LOAD (BEFORE THIS PROJECT)	_____
NEW LOAD BEING ADDED (THIS PROJECT)	_____
ANTICIPATED FUTURE LOAD	_____
TOTAL ELECTRICAL LOAD	_____

ELECTRICAL LOAD ANALYSIS	
1Ø KW	3Ø KW
LIGHTING _____	ELECTRIC HEAT _____
RECEPTACLES _____	AIR CONDITIONING _____
OTHER _____	WATER HEATER _____
MISCELLANEOUS EQUIPMENT	
DESCRIPTION: _____	
1Ø KW _____ 3Ø KW _____	

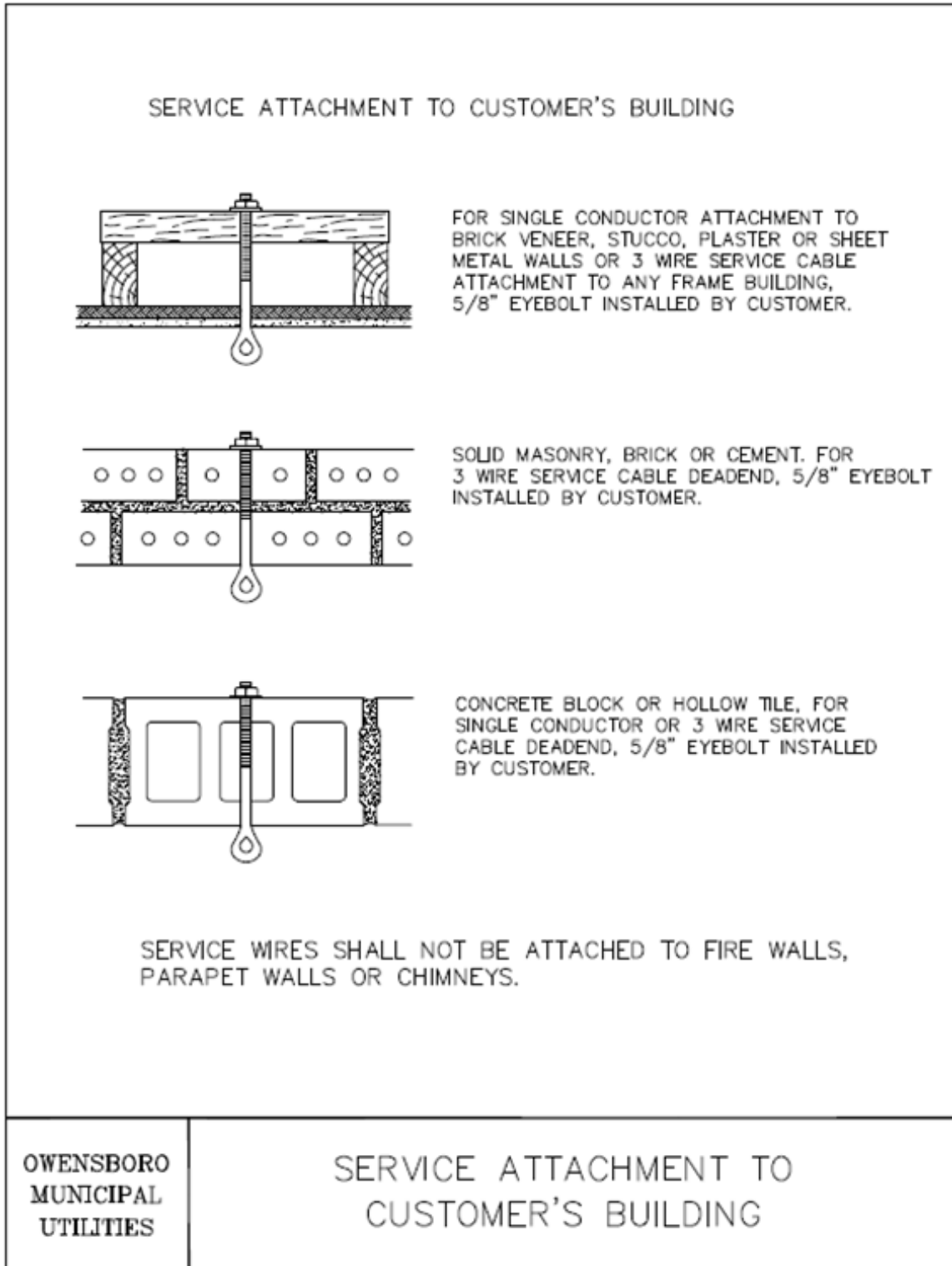
TOTALS: _____	

NOTE: FOR PAD TRANSFORMER SECONDARY 3FASE CONNECTIONS SEE OWENSBORO MUNICIPAL UTILITIES "REGULATIONS AND RATES FOR ELECTRICAL SERVICE" (RED BOOK)	SEND THIS FORM TO:
LARGE LOADS REQUIRING A 300KVA (OR LARGER) TRANSFORMER REQUIRE THE SUBMISSION OF A COMPLETE SET OF ELECTRICAL DRAWINGS AND A "ONE LINE" DIAGRAM OF ALL CONNECTED LOADS	OWENSBORO MUNICIPAL UTILITIES
	E&O ENGINEERING DEPARTMENT
	PO BOX 806
	OWENSBORO KY 42302

AREA BELOW IS FOR OMU USE ONLY			
CT SIZE _____ :S	PT SIZE _____ :120	DATE RECEIVED _____	
METER TYPE _____	<input type="checkbox"/> EXISTING	ACTIVITY # (IF REQUIRED) _____	
	<input type="checkbox"/> NEW/C/D	PRESENT MAXIMUM DEMAND _____ KW	
METER STOCK # _____	NO. OF METERS _____	ADDITIONAL OR NEW DEMAND _____ KW	
CT LOCATION _____	METER LOCATION _____	TOTAL CUSTOMER DEMAND _____ KW	
SERVICE SIZE _____	SERVICE VOLTAGE _____	OTHER CUSTOMERS _____ KW	
EXISTING TX SZ _____	NEW TX SIZE _____	TOTAL DEMAND _____ KW	
TRANSFORMER # _____	OMU BREAKER # _____		
FORM DISTRIBUTION:		Voltage	
ORIGINAL, ENGINEERING FILE		<input type="checkbox"/> Existing	
1 COPY - WITH ACTIVITY		<input type="checkbox"/> New	
2 COPIES - OPERATIONS		<input type="checkbox"/> Upsize	
RECOMMENDED BY: _____		<input type="checkbox"/> Pole tx	
APPROVED BY: _____		<input type="checkbox"/> Pad tx	

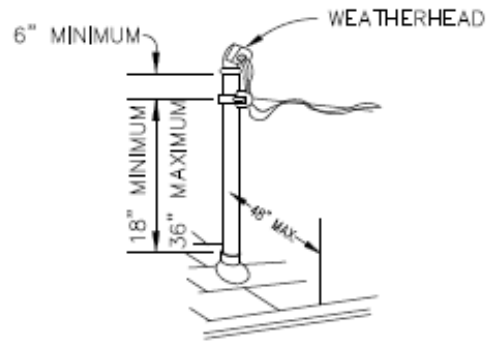
FIGURES

1. Service Attachment to Customer's Building



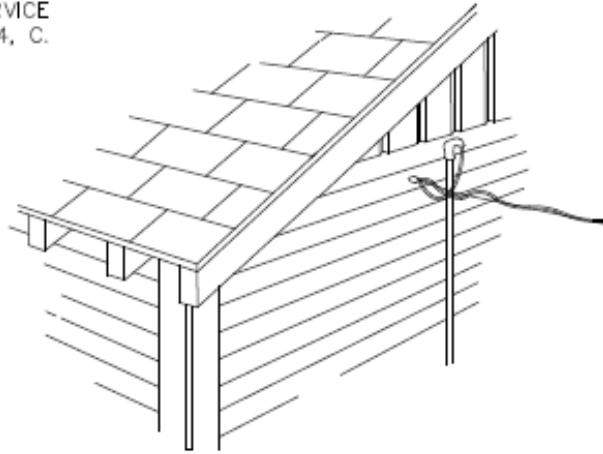
2. Locations for Attachments

WHERE NECESSARY TO OBTAIN PROPER GROUND CLEARANCE ON LOW BUILDINGS, A RISER SHALL BE INSTALLED BY CUSTOMER. IT MAY BE ONE OF MANY MANUFACTURED FOR THIS PURPOSE OR IT MAY BE FABRICATED BY THE CUSTOMER.



SERVICE HEADS SHALL BE LOCATED ABOVE THE POINT OF ATTACHMENT OF THE SERVICE DROP CONDUCTORS. MINIMUM OF 12" & MAXIMUM OF 24" SPACING BETWEEN THE SERVICE ATTACHMENTS, NEC 230-54, C.

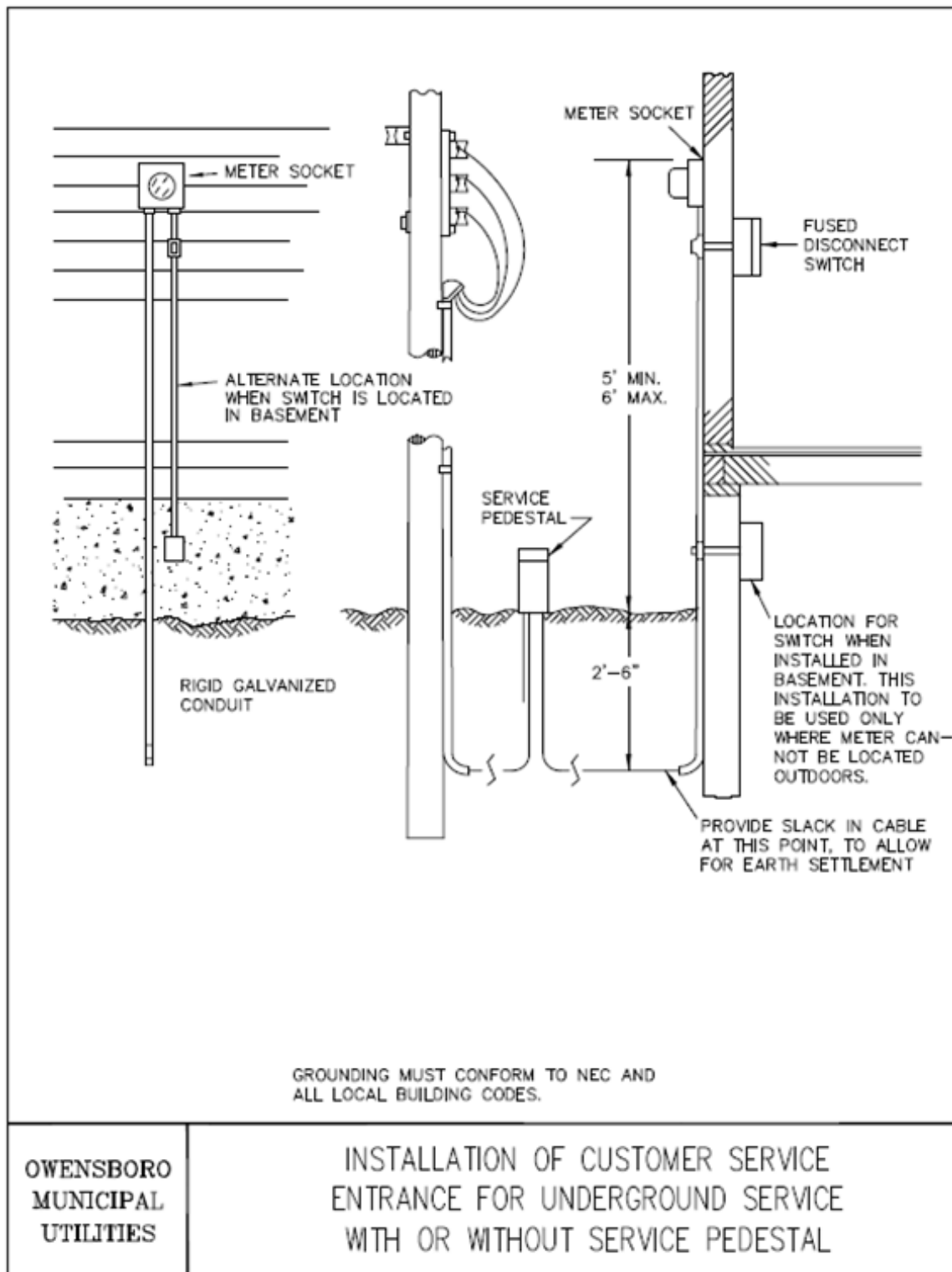
SERVICE CONDUCTORS CLEAR EAVE SPOUTING BY AT LEAST 8".



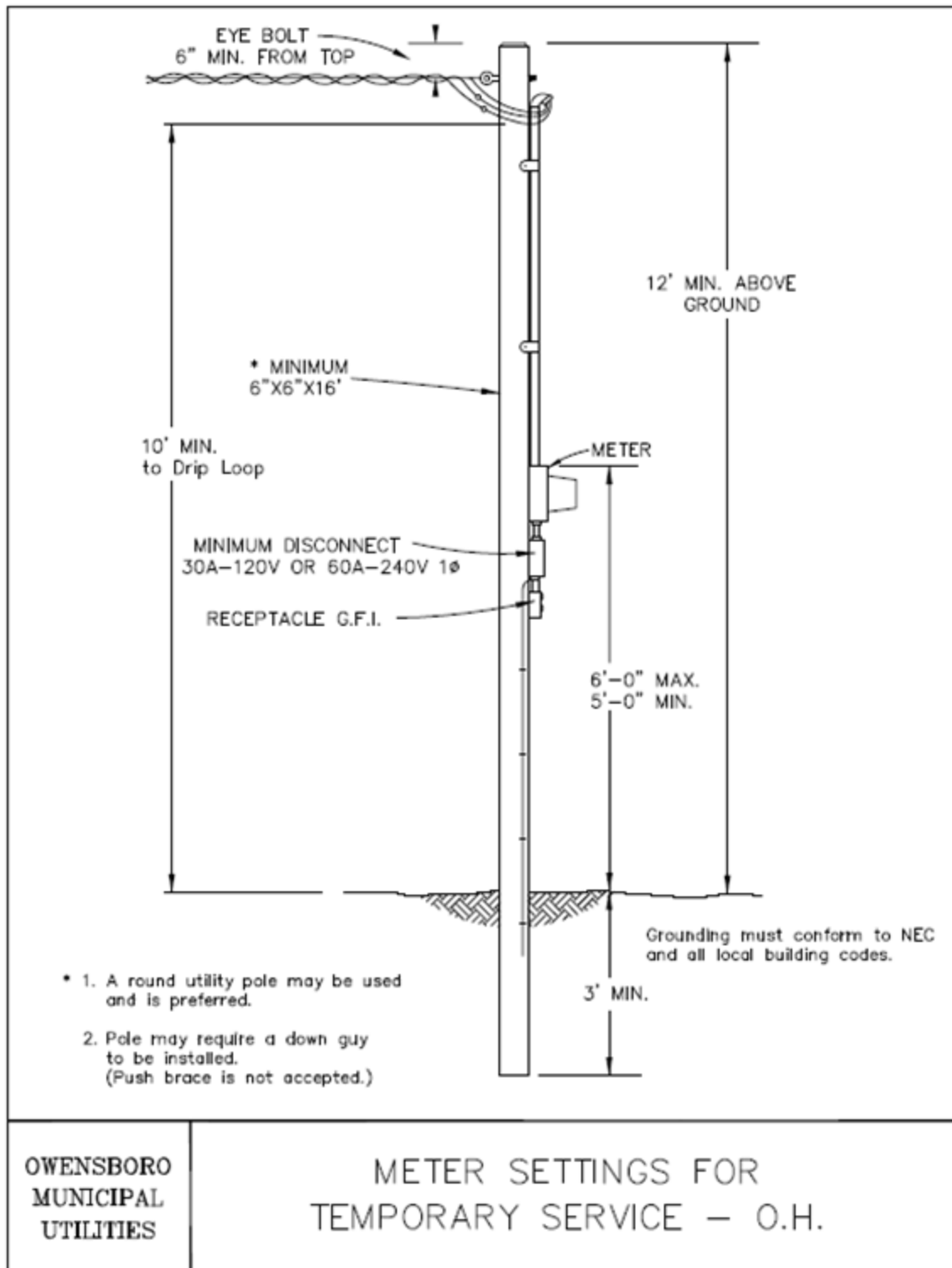
OWENSBORO
MUNICIPAL
UTILITIES

SUGGESTED LOCATIONS FOR
SERVICE ATTACHMENTS ON
CUSTOMER'S BUILDING

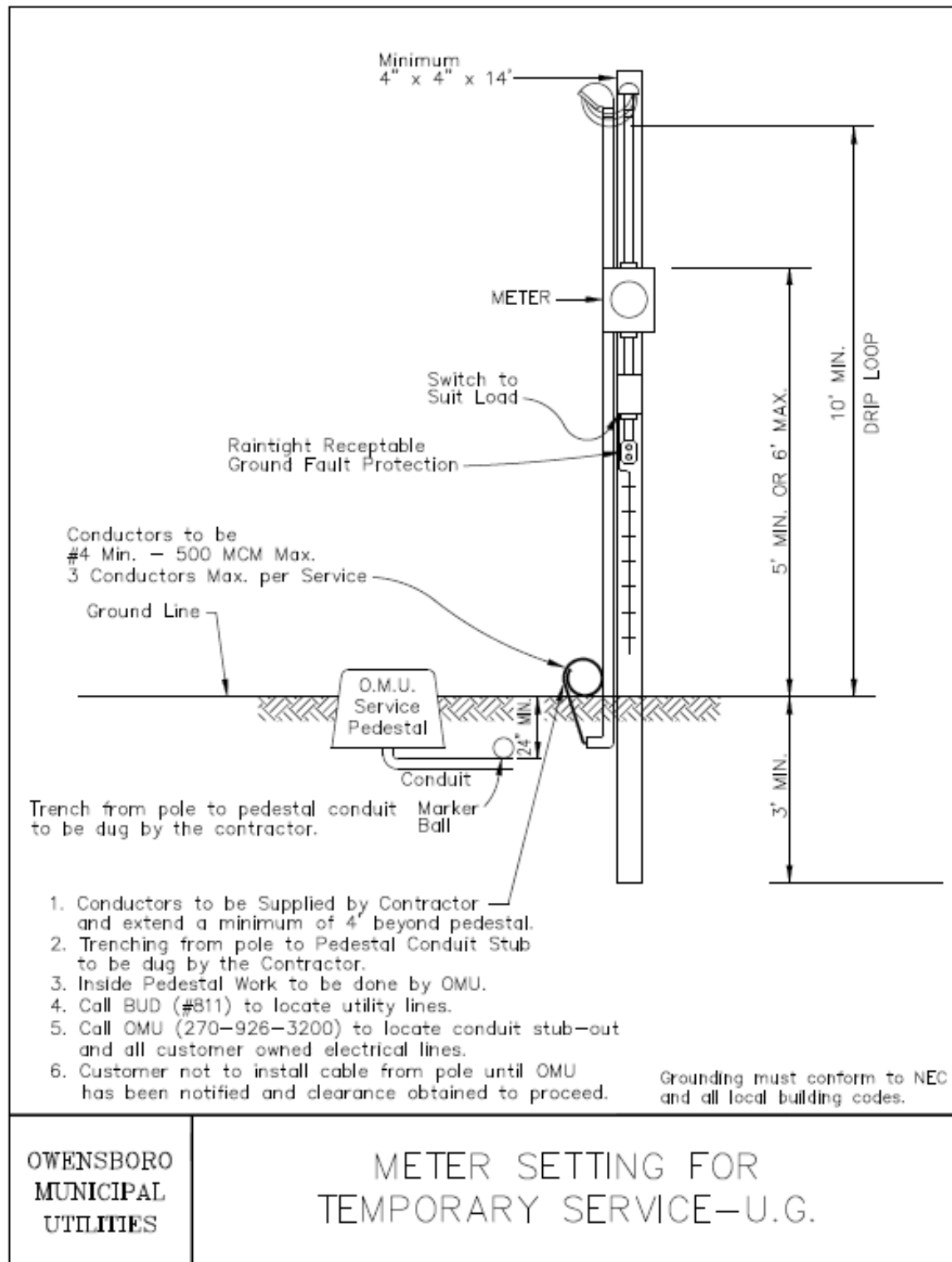
3. Entrance for Underground Service



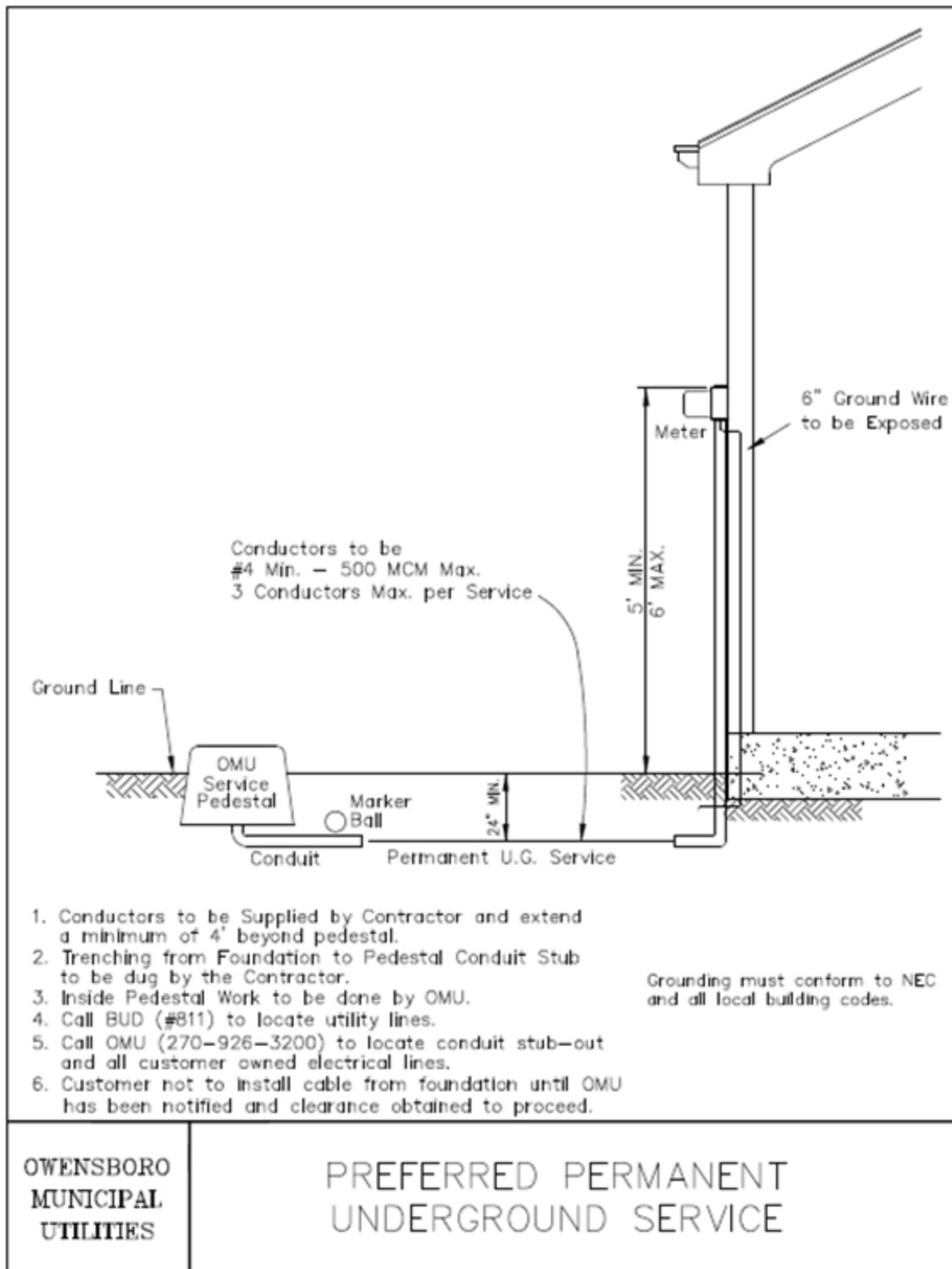
4. Meter Setting for Temporary Service – Overhead



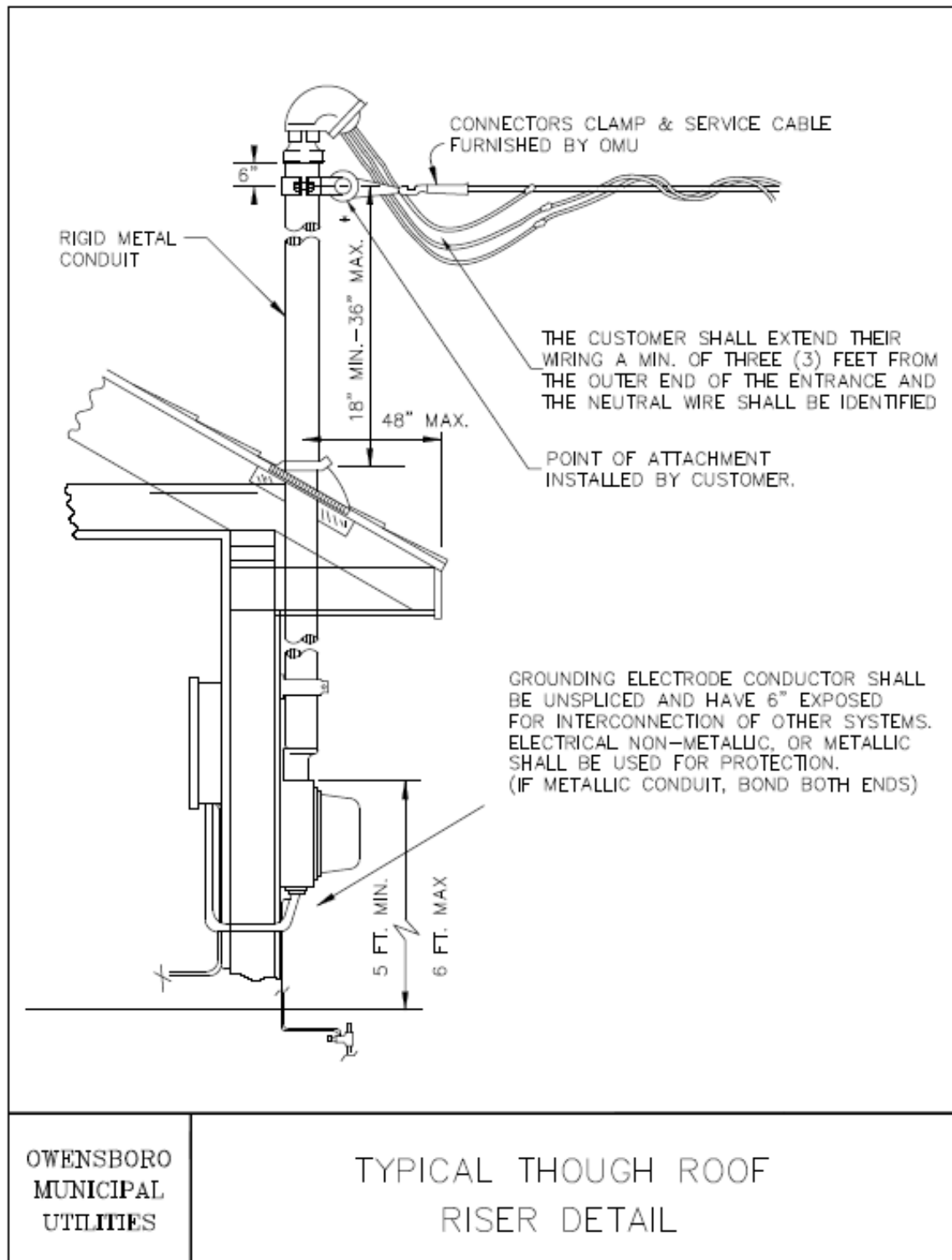
5. Meter Setting for Temporary Service –Underground



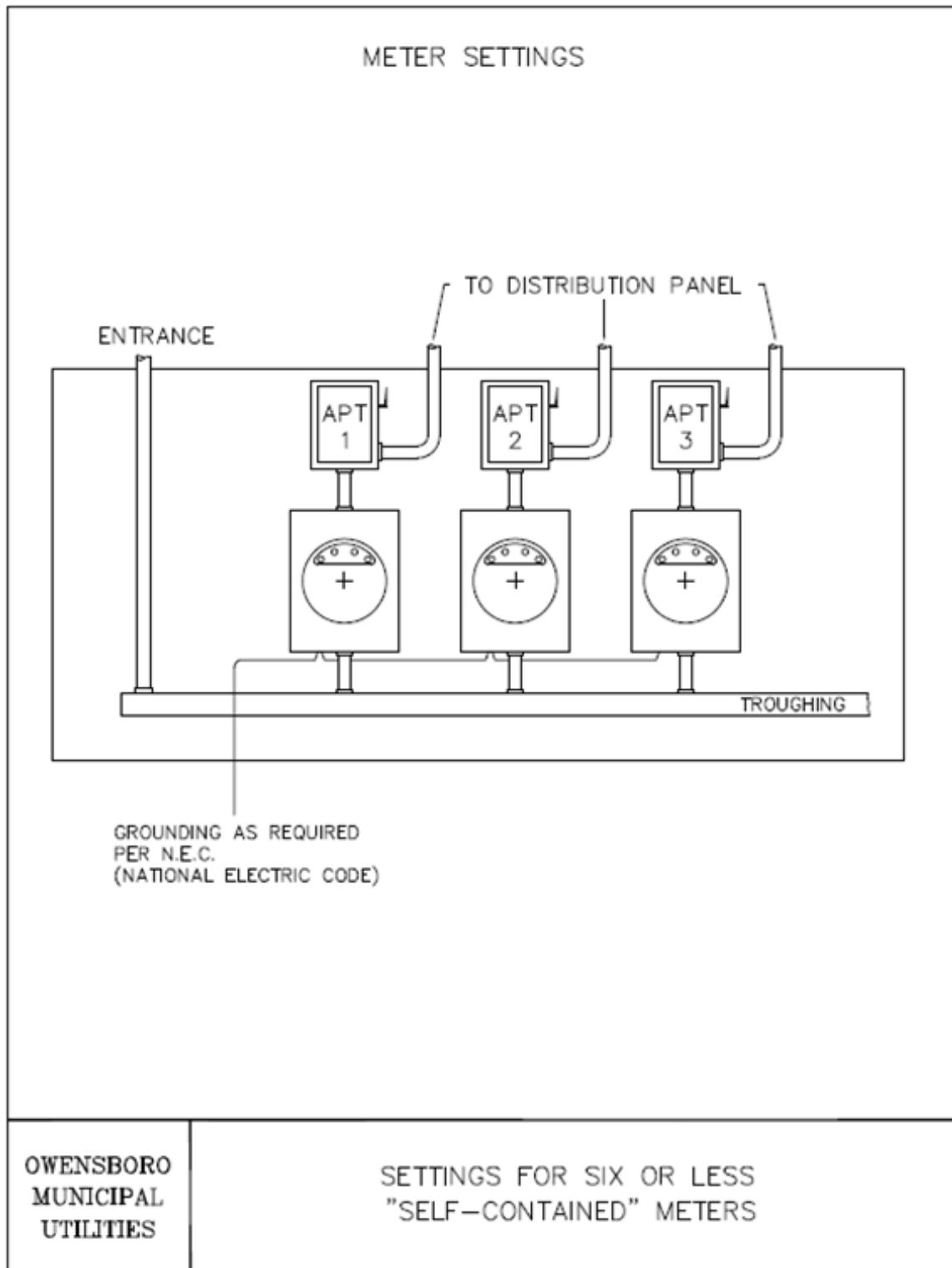
6. Permanent Underground Service



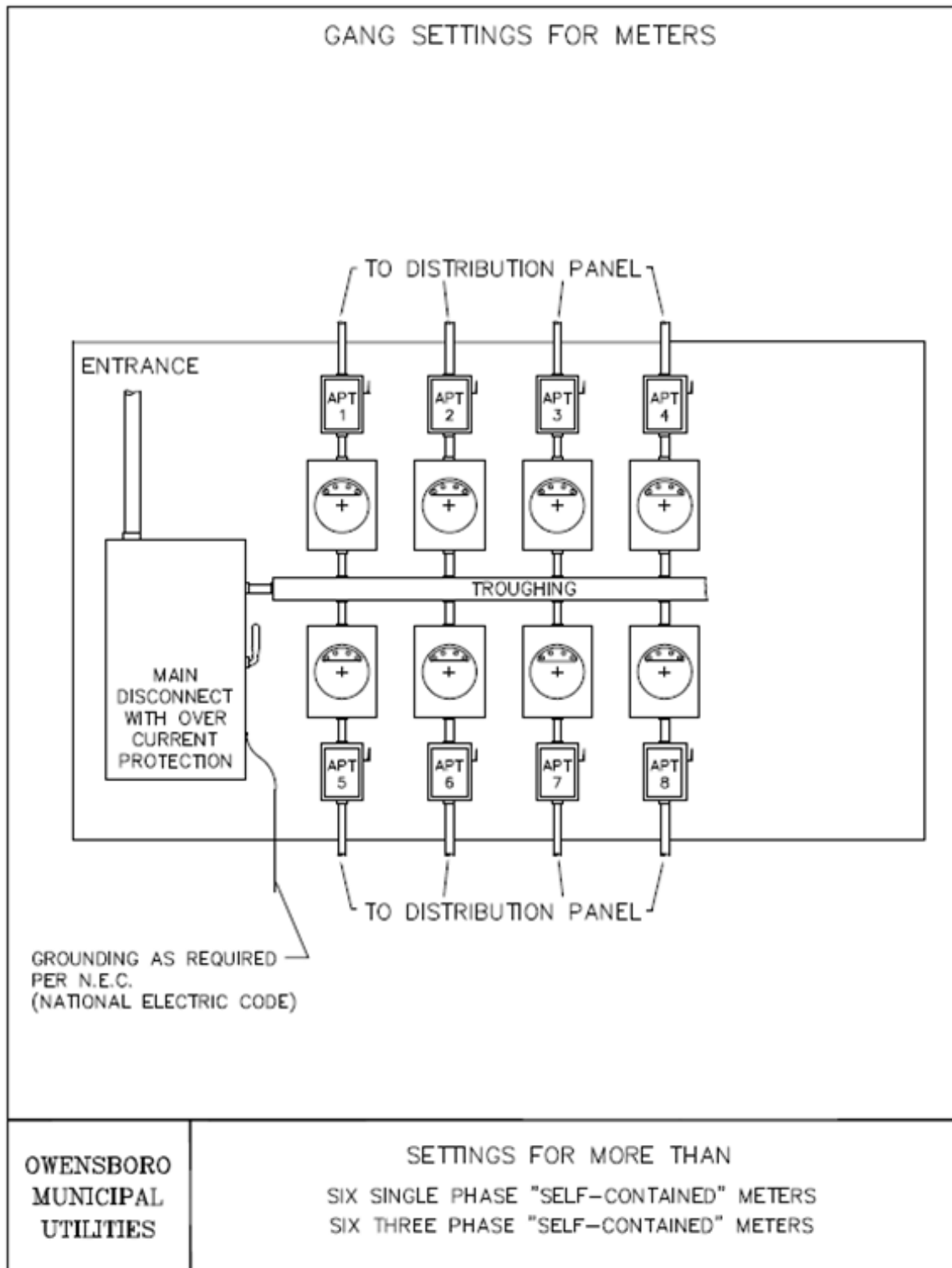
7. Through Roof Installation (Riser Detail)



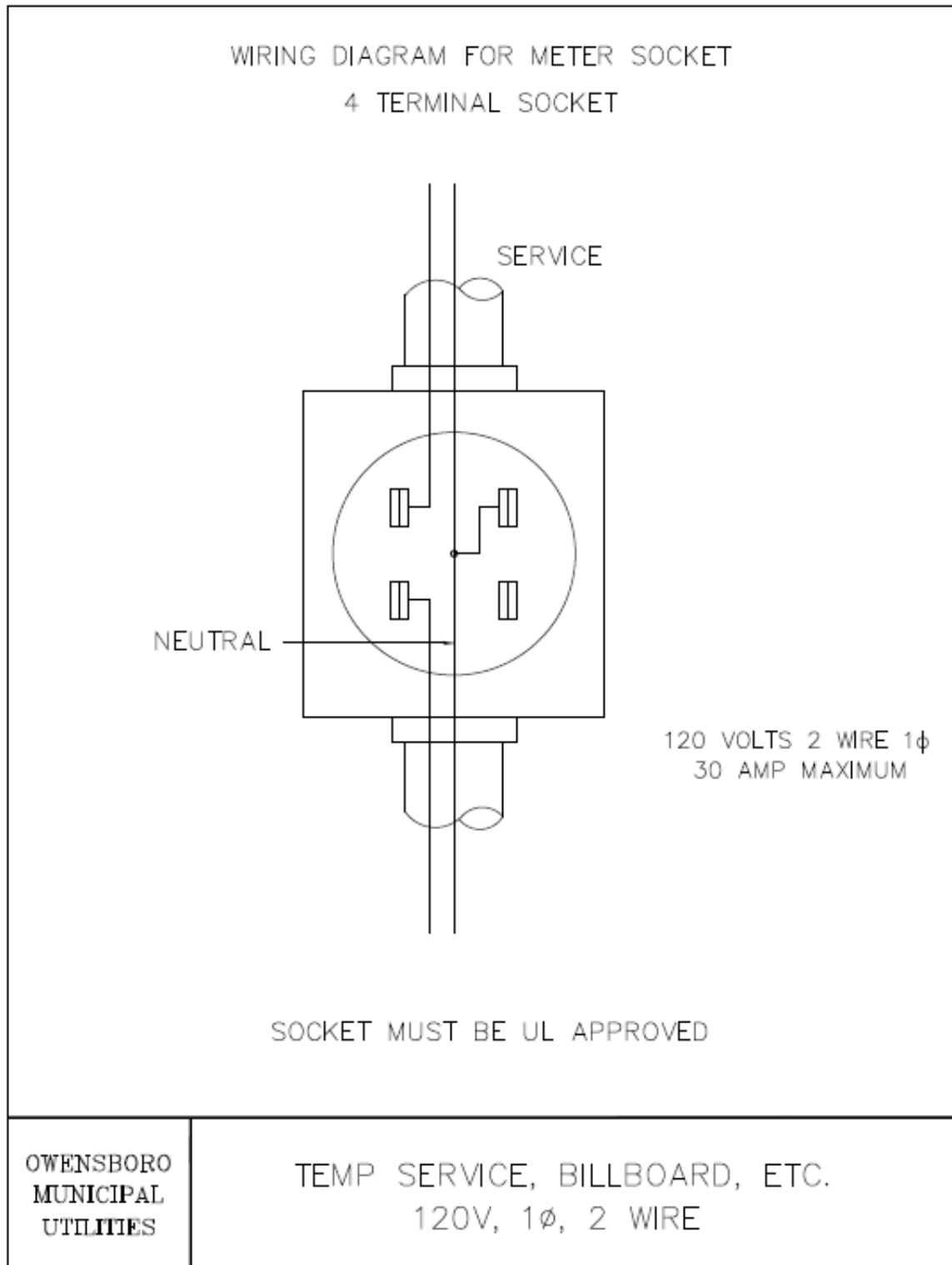
8. Group Metering Less Than Six



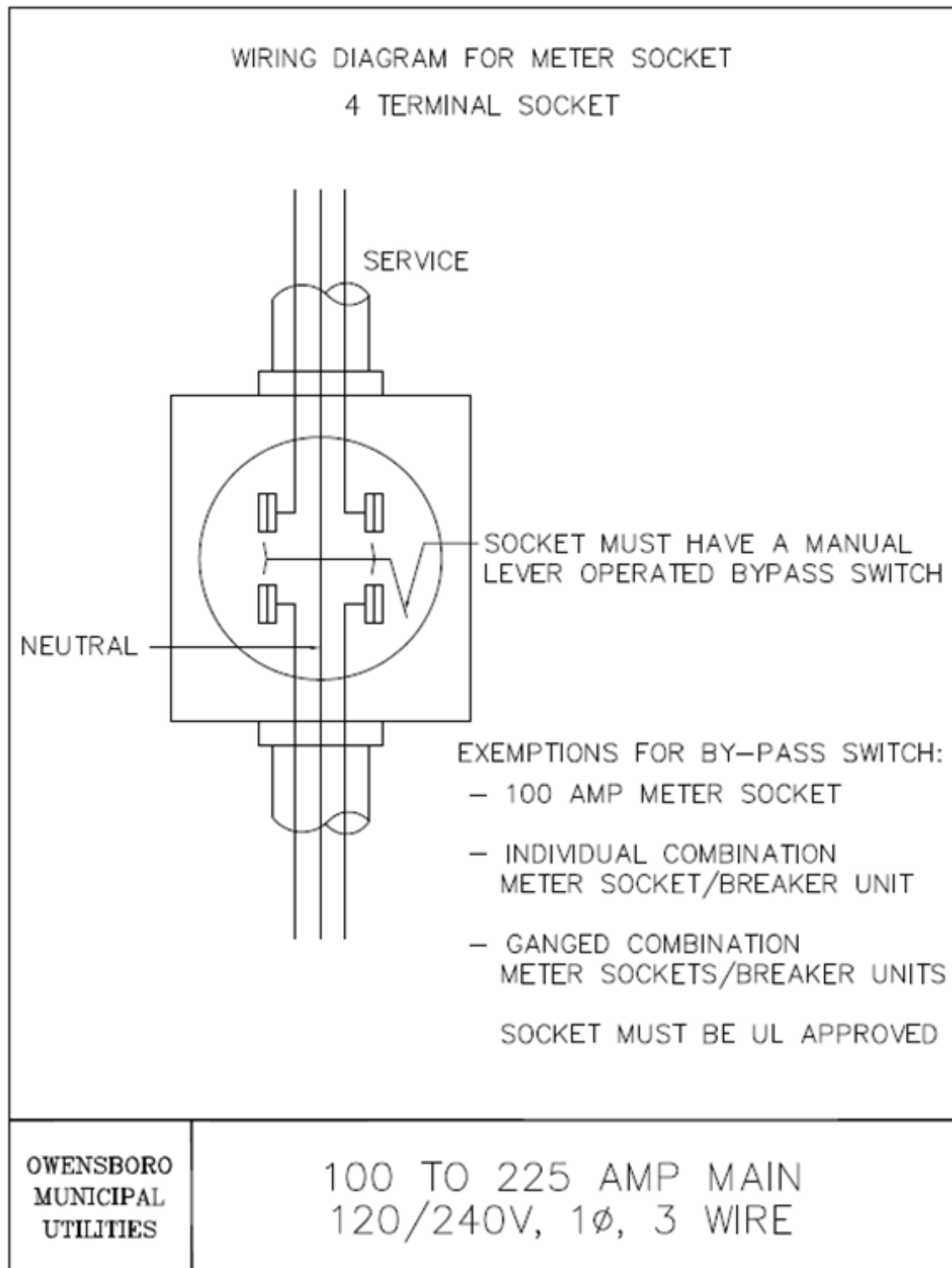
9. Group Metering More Than Six



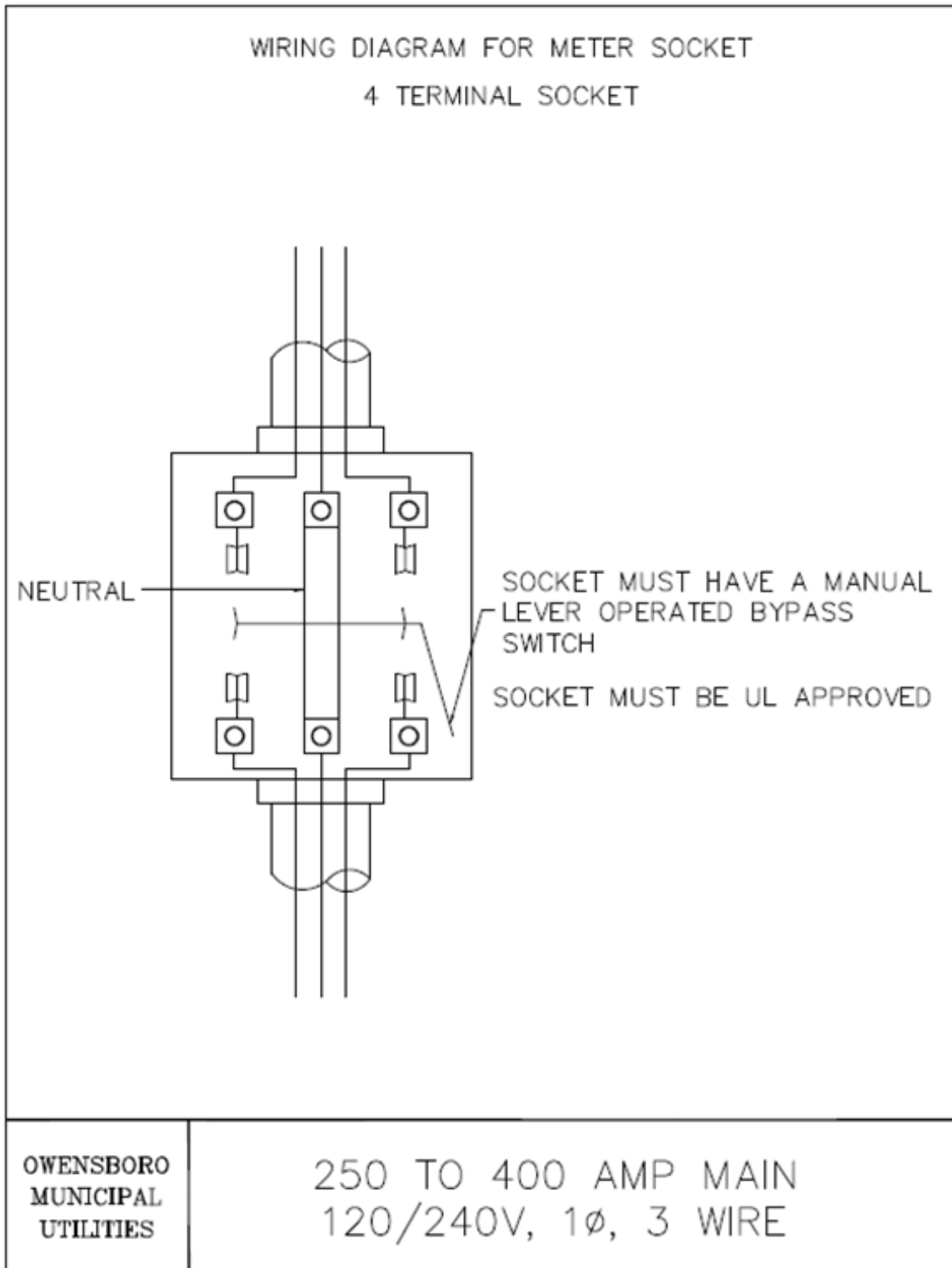
10. Temp Service, Billboard, etc., 120V, 1Ø, 2-Wire



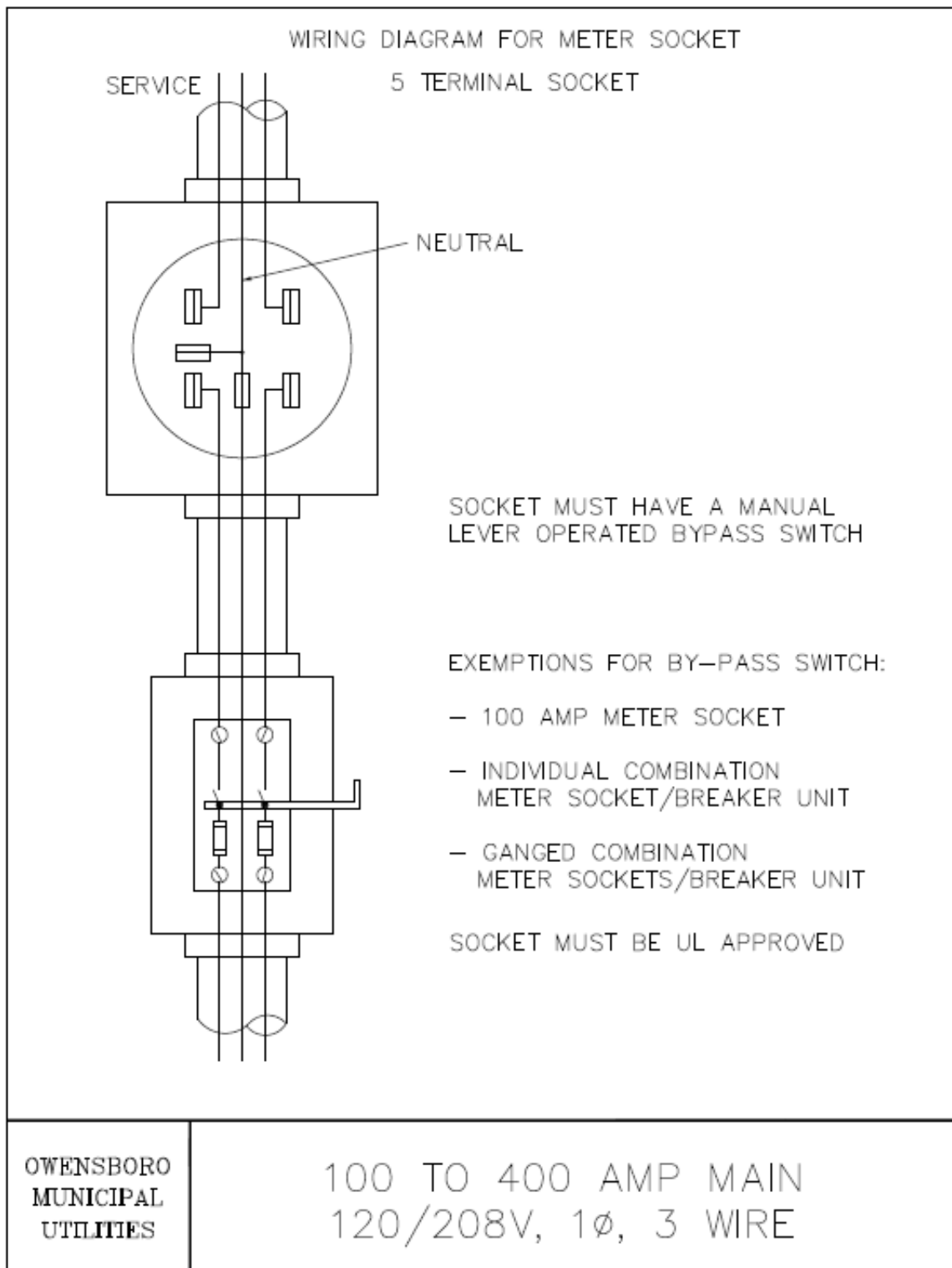
11. 100 to 225 Amps, 120/240V, 1Ø, 3-Wire



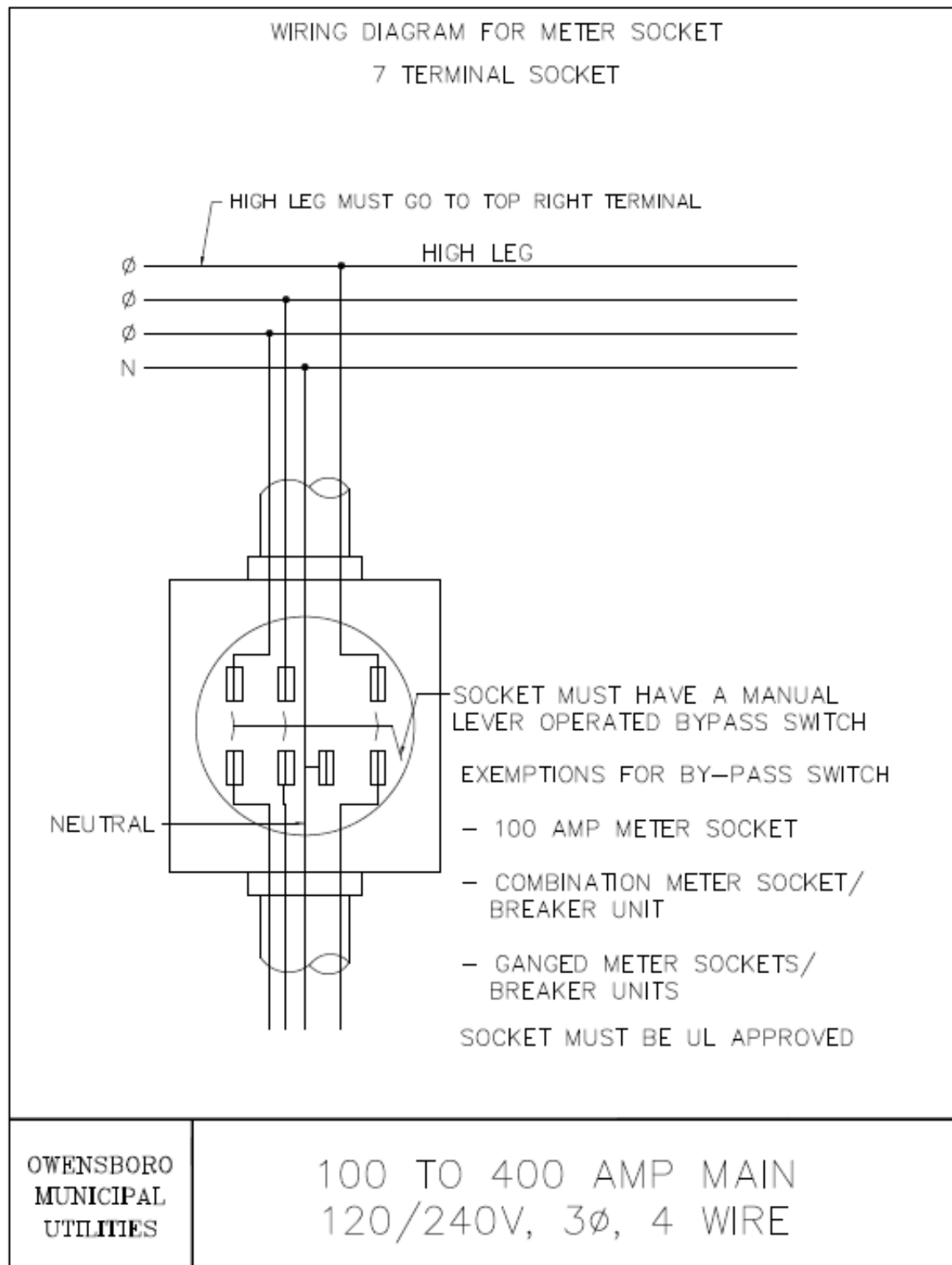
12. 250 to 400 Amps, 120/240V, 1Ø, 3-Wire



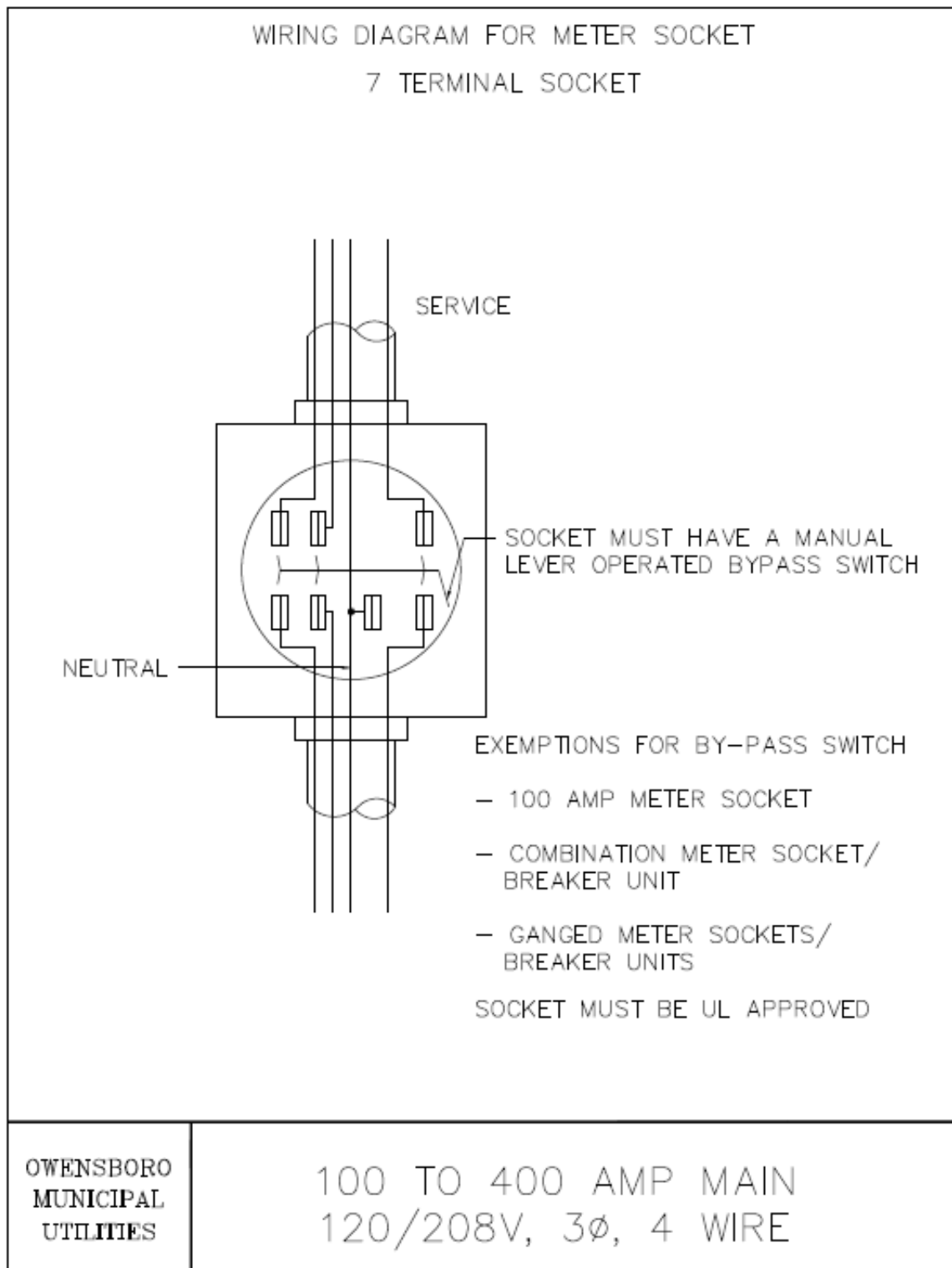
13. 100 to 400 Amps, 120/208V, 1Ø, 3-Wire



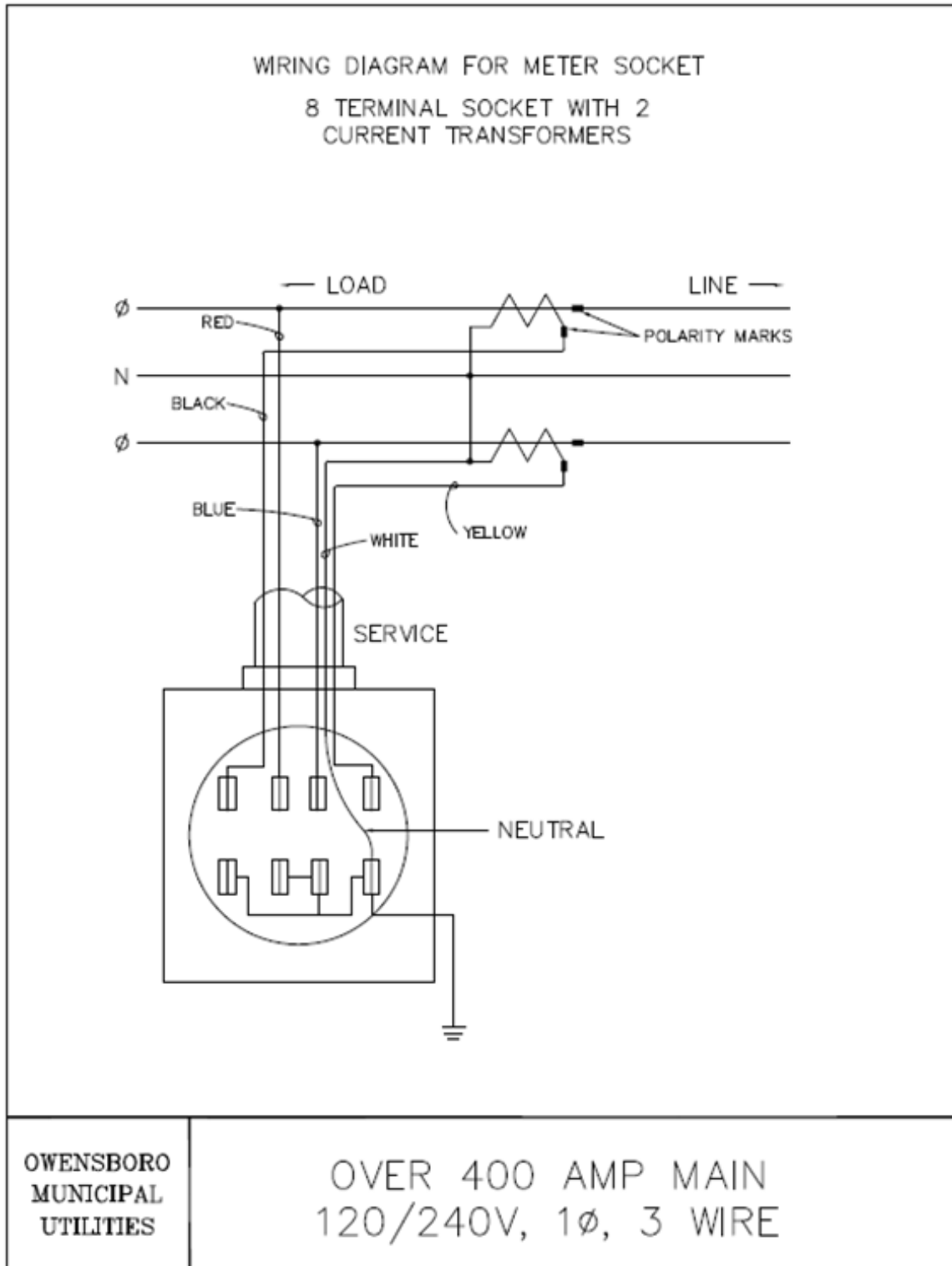
14. 100 to 400 Amps, 120/240V 3Ø, 4-Wire



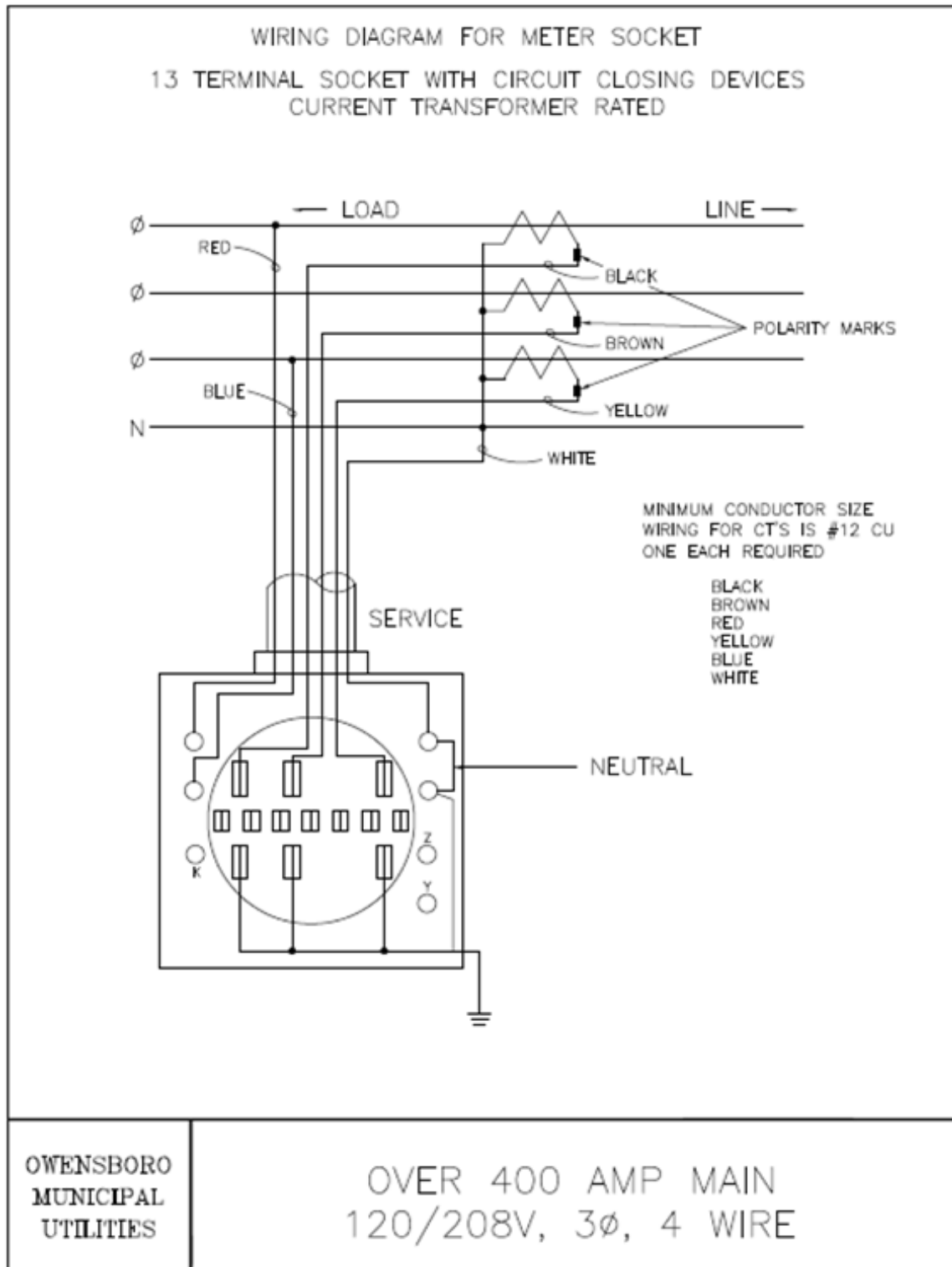
15. 100 to 400 Amps, 208V, 3Ø, 4-Wire



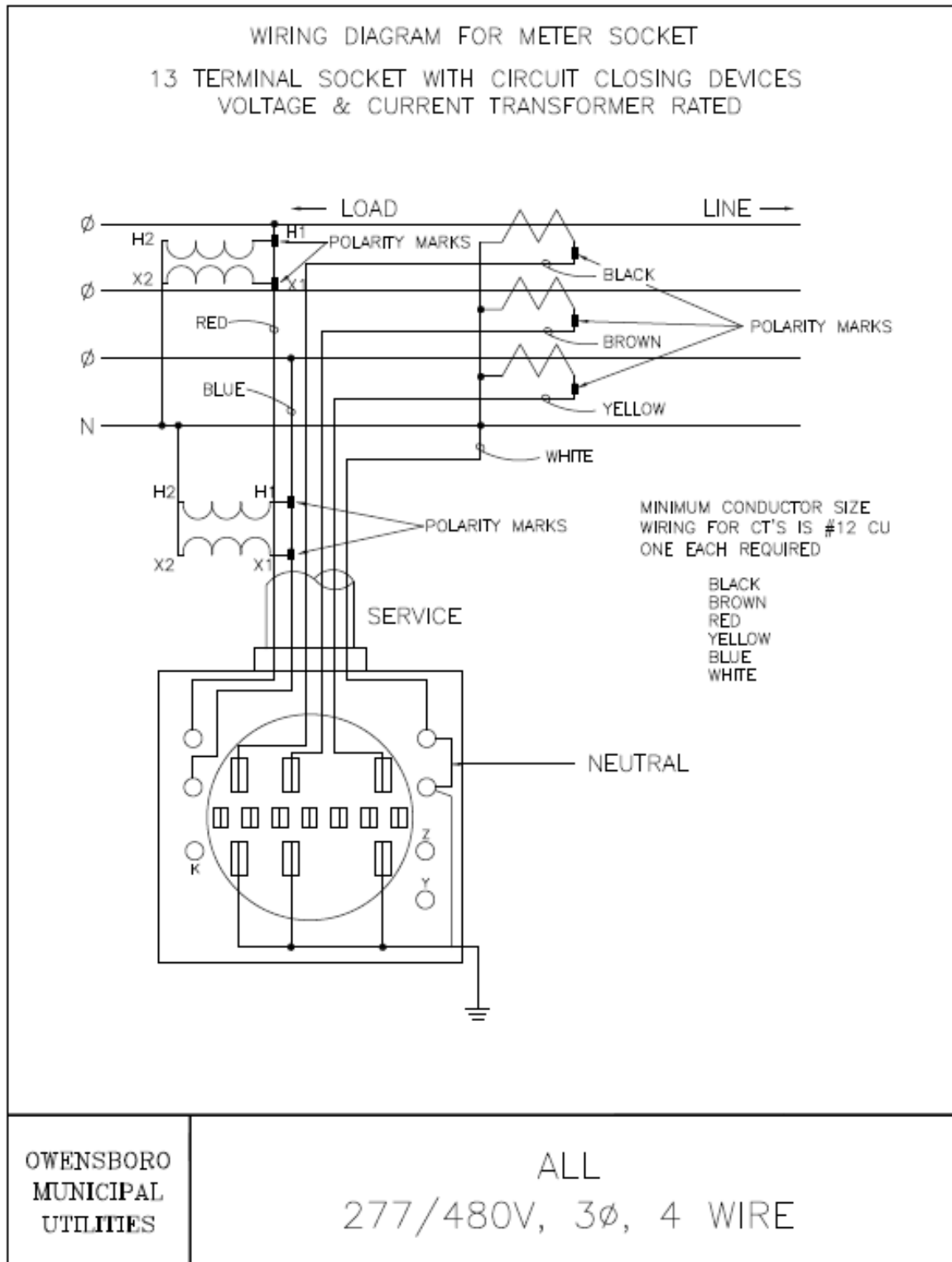
16. Over 400 Amps, 120/240V, 1Ø, 3-Wire



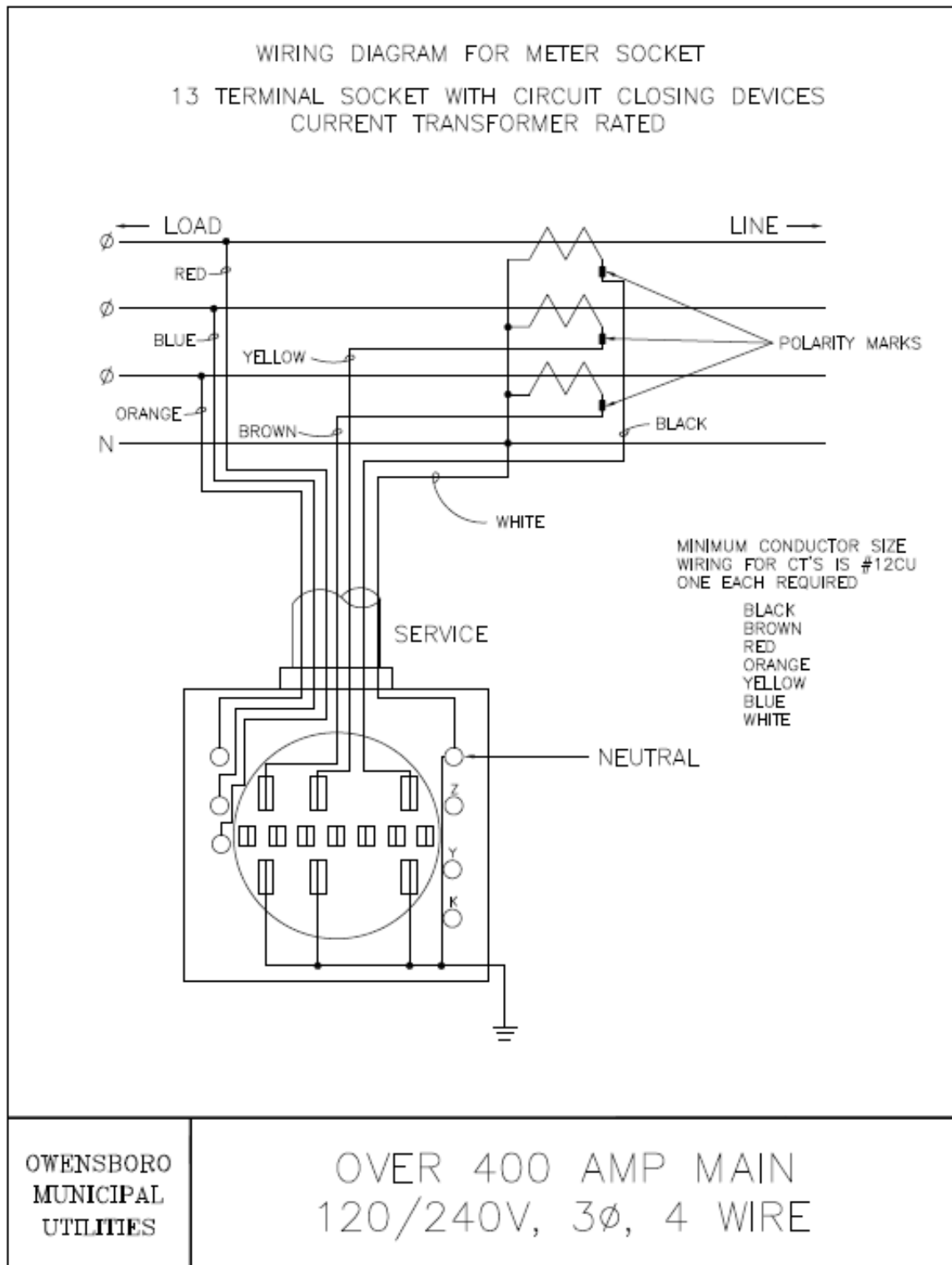
17. Over 400 Amps, 208V, 3Ø, 4-Wire



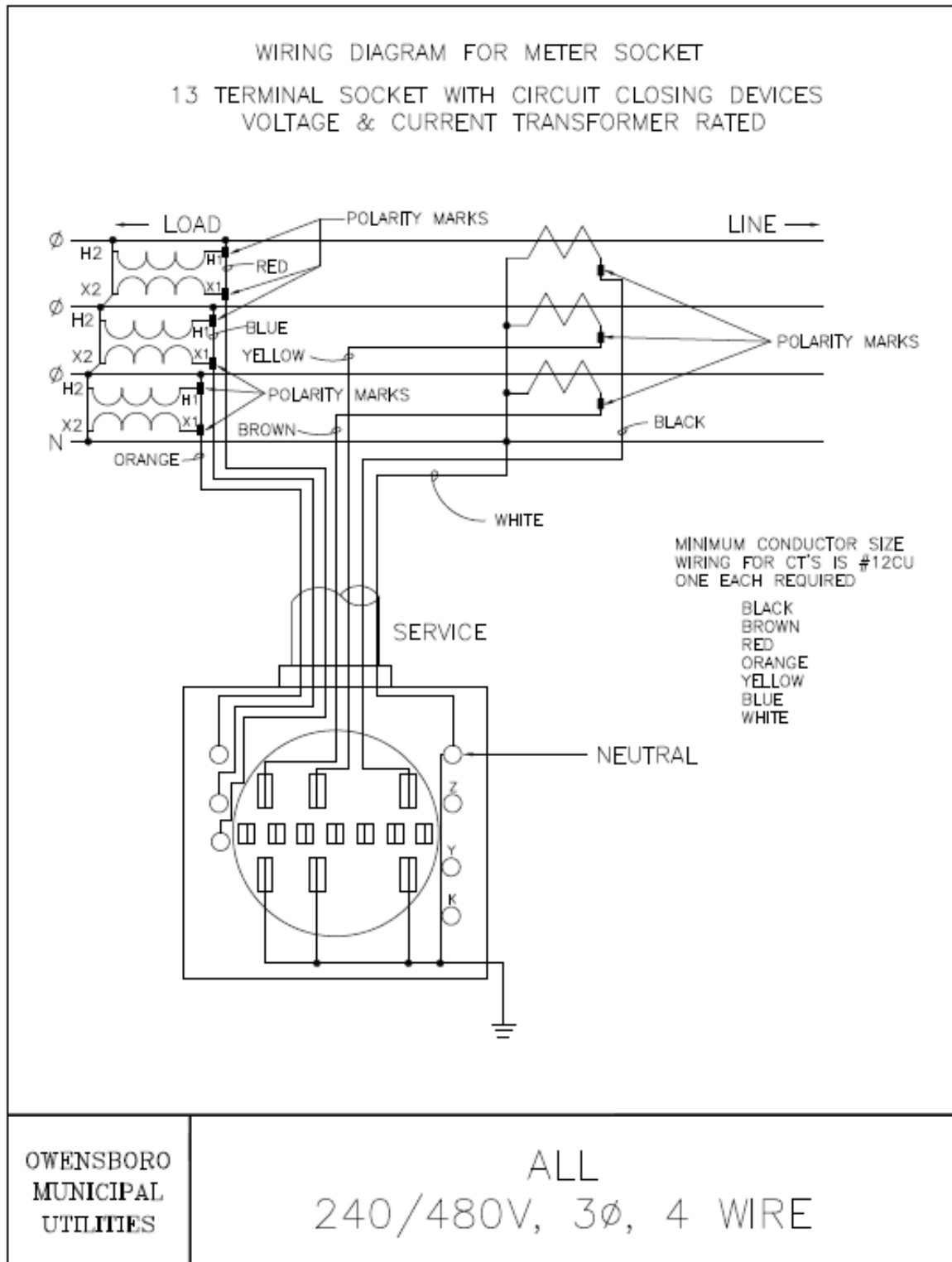
18. All, 480V, 3Ø, 4-Wire



19. Over 400 Amp, 120/240V, 3Ø, 4-Wire



20. All, 240/480V, 3Ø, 4-Wire

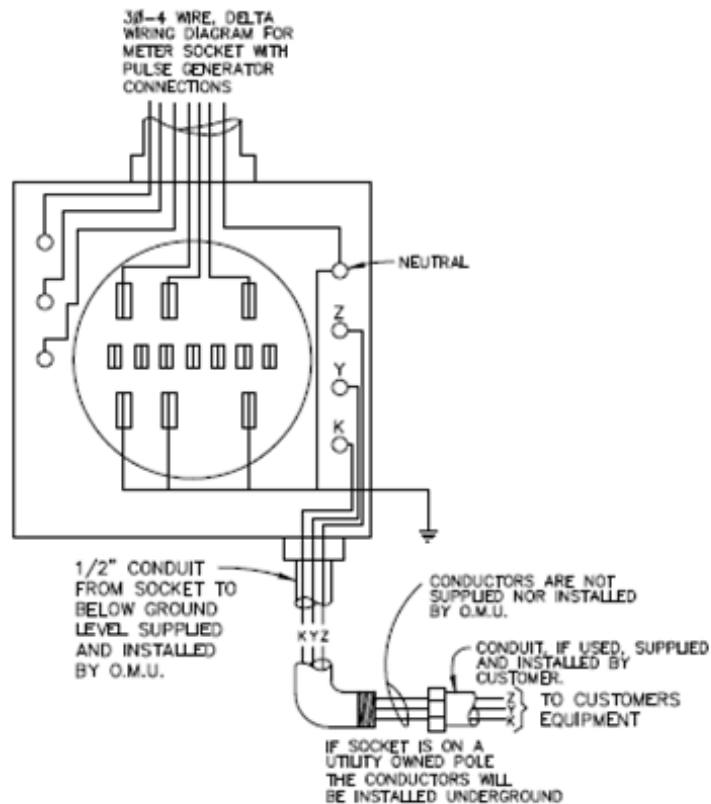


21. Pulse Meter Generators

REQUIREMENTS CONCERNING PULSE GENERATORS

WHERE PULSE GENERATORS ARE REQUIRED BY A CUSTOMER SERVED BY O.M.U. , THE FOLLOWING RULES SHALL APPLY.

1. THE CUSTOMER SHALL PROVIDE THE GENERATOR AT NO COST TO O.M.U.
2. THE CUSTOMER SHALL PROVIDE & INSTALL ALL CONDUCTORS NECESSARY IN ORDER TO TRANSMIT THE PULSES FROM THE METER BASE TO HIS EQUIPMENT AT NO COST TO O.M.U.
3. WHERE THE METER AND SOCKET IS ATTACHED TO A UTILITY OWNED POLE THE CUSTOMER'S CONDUCTORS SHALL BE RUN UNDERGROUND WITH NO OVERHEAD ATTACHMENTS TO UTILITY OWNED POLES.
4. THE GENERATOR WILL BE INSTALLED ON A DEMAND METER THAT IS OWNED AND MAINTAINED BY O.M.U.
5. THE TYPE AND MANUFACTURER OF THE GENERATOR SHALL BE APPROVED BY O.M.U.
6. SHOULD A GENERATOR FAIL OR BECOME DAMAGED FOR ANY REASON IT WILL BE THE CUSTOMER'S RESPONSABILITY TO PROVIDE A REPLACEMENT. IT IS SUGGESTED THAT THE CUSTOMER HAVE AT LEAST ONE SPARE IN STOCK AT ALL TIMES.



OWENSBORO
MUNICIPAL
UTILITIES

PULSE METER GENERATOR

22. Vertical Clearance over Roofs and Projections

National Electric Code Current Revision
National Electric Safety Code Current Revision

Attached to Building	Readily Accessible	Any Voltage	(A)	Triplex	10'	NESC, Rule 234 C,3 D,1
				Quad	10'	NESC, Rule 234 C,3 D,1
				Open Wire	10'	NESC, Rule 234 C,3 D,1
	Not Accessible	120/208(B) 120/240		Triplex	3'	NESC, Rule 234 C,3 D,1
				Quad	3'	NESC, Rule 234 C,3 D,1
				Open Wire	3'	NESC, Rule 234 C,3 D,1
		277/480(C)		Quad	10'	NESC, Rule 234 C,3 D,1
				Open Wire	10'	NESC, Rule 234 C,3 D,1
Not Attached to Building	Readily Accessible	Any Voltage	(D)	Triplex	11.0'	NESC, Table 234-1
				Open Wire	11.5'	NESC, Table 234-1
	Not Accessible	Any Voltage	(E)	Triplex	3.5'	NESC, Table 234-1
				Open Wire	10.5'	NESC, Table 234-1

Notes:

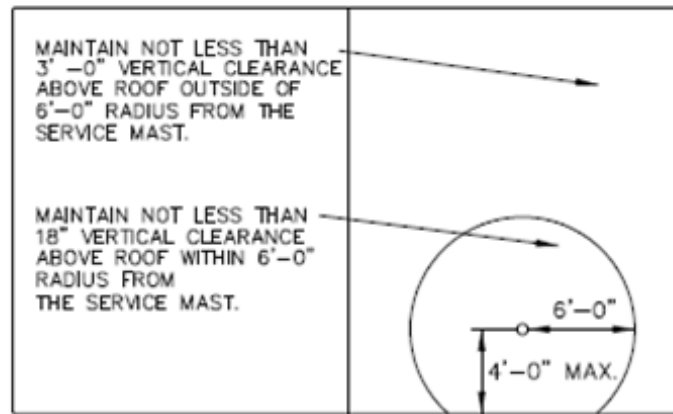
Windows that are not designed to open makes the roof not accessible. NESC Rule 234 C,3 D,2
Clearances are the same for flat or sloped roofs.

(D) For added safety of the public, O.M.U. does not allow conductors over trailers.

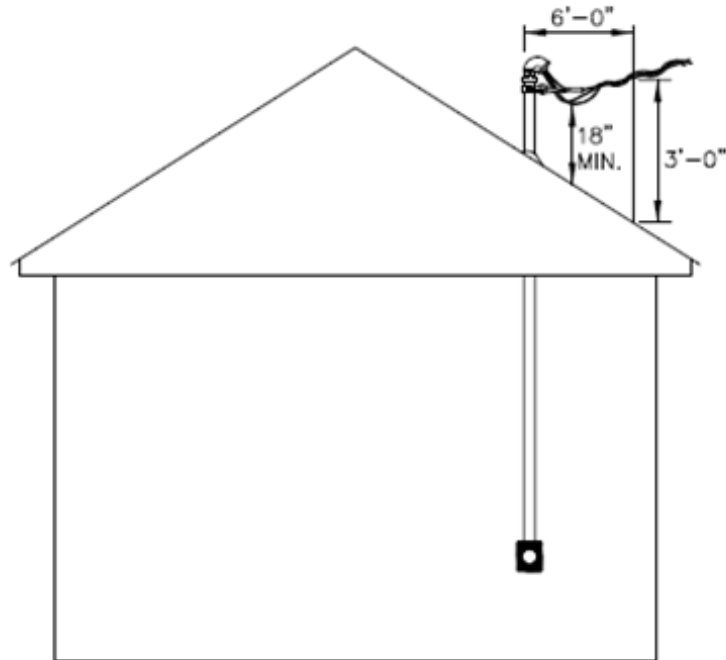
OWENSBORO
MUNICIPAL
UTILITIES

VERTICAL SERVICE CONDUCTOR
CLEARANCE OVER ROOFS
AND PROJECTIONS

23. Service Drop Terminating on Mast



PLAN VIEW



ELEVATION VIEW

REFER TO NESC FIG. 234-2

OWENSBORO
MUNICIPAL
UTILITIES

CLEARANCES OF SERVICE
DROP TERMINATING ON
SUPPORT MAST

24. Clearance over Pools & Diving Platforms

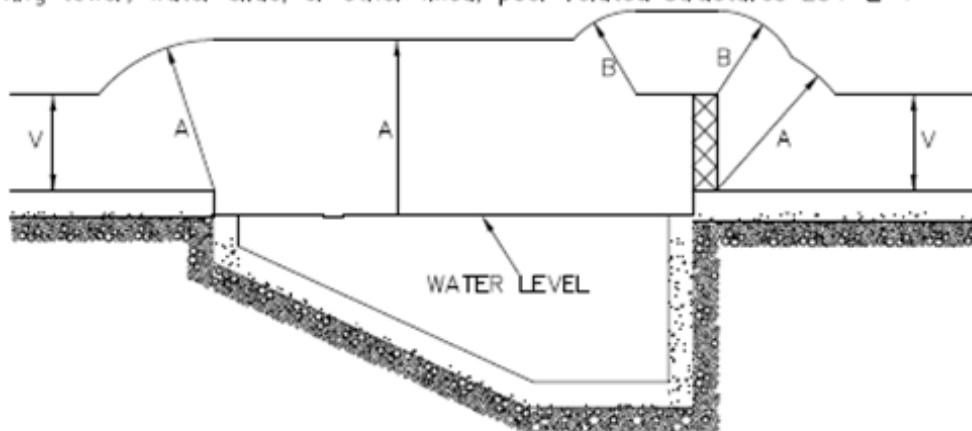
National Electric Safety Code Current Revision

Table 234-3

	Pilot wire Messengers Guys Neutrals	Duplex Triplex Quad	Open wire (Secondary)	Open wire (Primary)
*A. Clearance in any direction from the water level, edge of pool, base of diving platform, or anchored raft. Table 234-3	22.0'	22.5'	23.0'	25.0'
B. Clearance in any direction to the diving platform or tower. Table 234-3	14.0'	14.5'	15.0'	17.0'
V. Vertical clearance over adjacent land subject to pedestrians or restricted traffic only. Table 232-1	9.5'	12.0'	12.5'	14.5'

*For added safety of the public, OMU does not allow conductors over water.

Clearance reverts back to standard clearances over adjacent land when service drop is 10' or more horizontally from water edge, diving platform, diving tower, water slide, or other fixed, pool-related structures 234-E-1






OWENSBORO
MUNICIPAL
UTILITIES

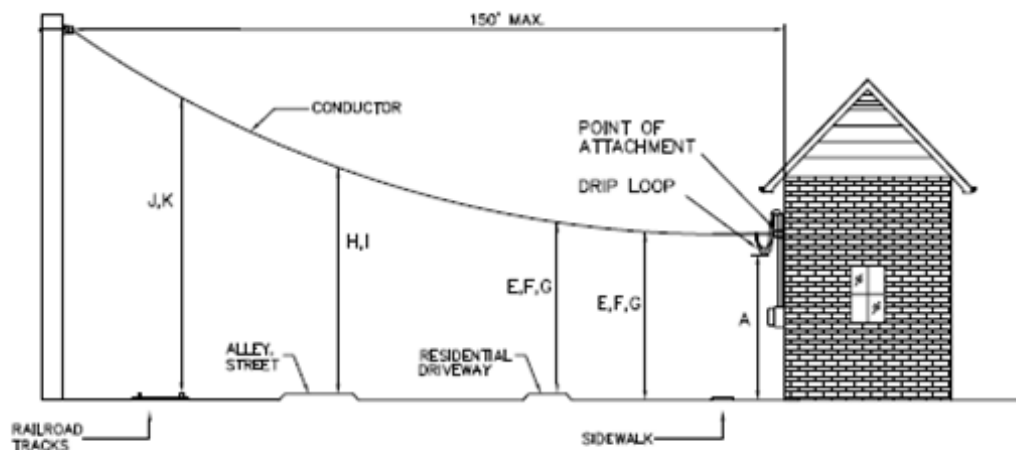
VERTICAL SERVICE CONDUCTOR
CLEARANCE OVER POOLS
AND PROJECTIONS

25. Drip Loop and Point of Attachment

National Electric Code Current Revision
National Electric Safety Code Current Revision

		Drip Loop	Point of Attachment	
Triplex	120/240	10' (A)	12'	NEC Rule 230-24B
	120/208	10' (A)	12'	
Quad	120/240	10' (A)	12'	
	120/208	10' (A)	12'	
	277/480	12' (A)	14'	
Open Wire	120/240	12' (A)	14'	
	120/208	12' (A)	14'	
	277/480	12' (A)	14'	

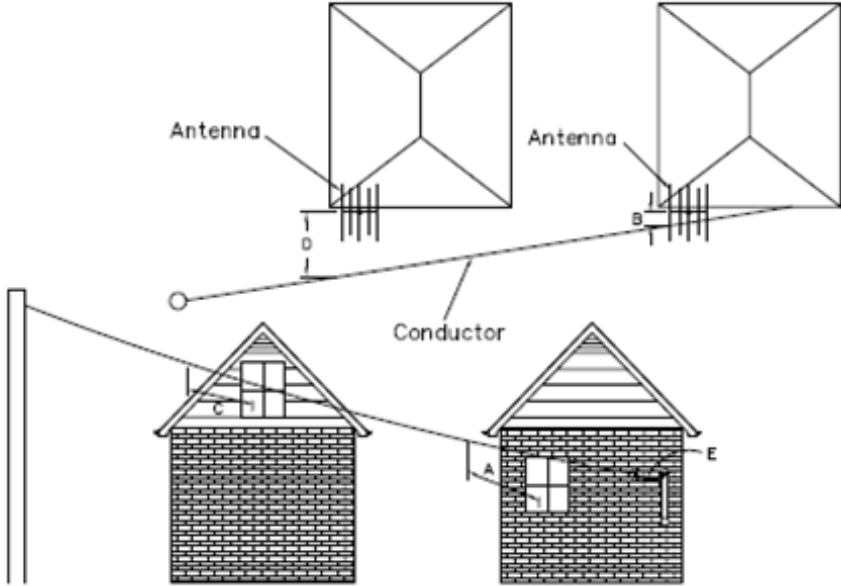
Residential Driveways, Sidewalks, Ground		Triplex (E)	12' NESC, Table 232-1
		Quad (F)	12.5' NESC, Table 232-1
		Open Wire (G)	12.5' NESC, Table 232-1
Public Drives Alleys, Streets		Triplex (H)	16' NESC, Table 232-1
		Open Wire (I)	16.5' NESC, Table 232-1
Railroad Tracks		Triplex (J)	24' NESC, Table 232-1
		Open Wire (K)	24.5' NESC, Table 232-1



OWENSBORO
MUNICIPAL
UTILITIES

VERTICAL CLEARANCE OF SECONDARY &
SERVICE CONDUCTORS, DRIP LOOP AND
POINT OF ATTACHMENT

26. Horizontal Service Conductor Clearance from Buildings and Antenna

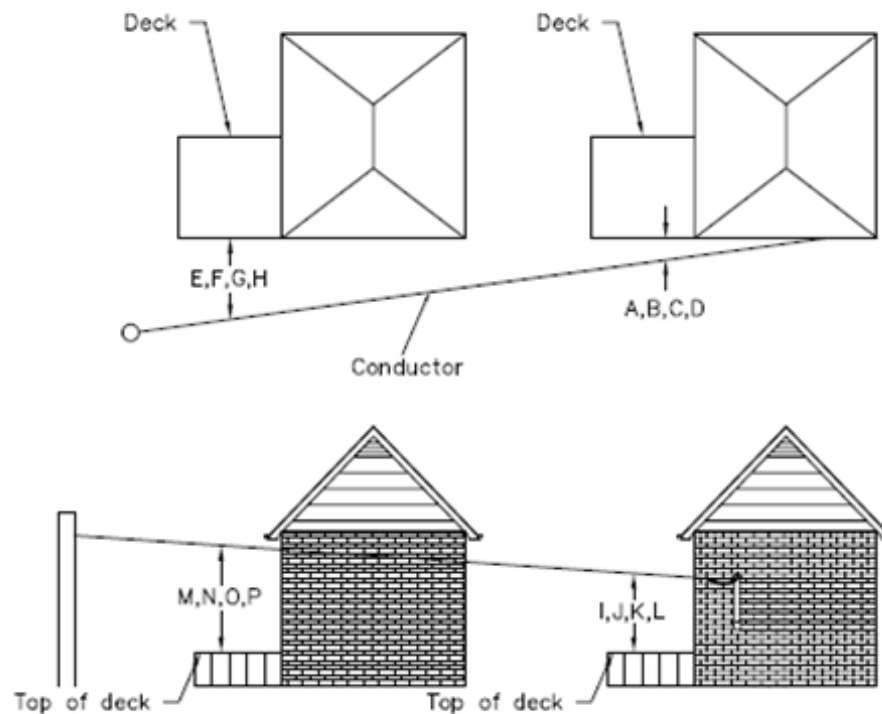
<p>National Electric Code Current Revision National Electric Safety Code Current Revision</p>	
Attached to Building	<p>Windows (A) — Triplex — 3.0' NESC, Rule 234 C,3 D,2</p> <p>Doors — Open Wire — 3.0' NESC, Rule 234 C,3 D,2</p> <p>Antenna (B) — Triplex — 3.5'</p> <p>— Open Wire — 5.5'</p>
Not Attached to Building	<p>Windows (C) — Triplex — 5.0' NESC, Table 234-1</p> <p>Doors — Open Wire — 5.5' NESC, Table 234-1</p> <p>Antenna (D) — Triplex — 3.5' NESC, Table 234-1</p> <p>— Open Wire — 5.5' NESC, Table 234-1</p>
<p>Window clearance does not apply if service is above the level of the window or if the window is not designed to open. NESC, Rule 234 C,3 D,2</p> <p>(E) Service heads shall be located above the point of attachment of the service drop conductors. Minimum of 12" and maximum of 24" spacing between the service attachments. NEC 230-54, C</p>	
	
OWENSBORO MUNICIPAL UTILITIES	HORIZONTAL SERVICE CONDUCTOR CLEARANCE FROM BUILDINGS AND ANTENNA

27. Clearance of Service Conductors over Decks and Balconies

National Electric Safety Code Current Revision Rule 234 C3, D1 and Table 234-1.

	Duplex Triplex Quad	Open Wire
Horizontal clearance - Attached to building - not accessible	3' (A)	3.5' (B)
Horizontal clearance - Attached to building - readily accessible	5' (C)	5.5' (D)
Horizontal clearance - Not attached to building - not accessible	3' (E)	3.5' (F)
Horizontal clearance - Not attached to building - readily accessible	5' (G)	5.5' (H)
Vertical clearance - Attached to building - not accessible	3' (I)	11.5' (J)
Vertical clearance - Attached to building - readily accessible	10' (K)	11.5' (L)
Vertical clearance - Not attached to building - not accessible	3.5' (M)	10.5' (N)
Vertical clearance - Not attached to building - readily accessible	11' (O)	11.5' (P)

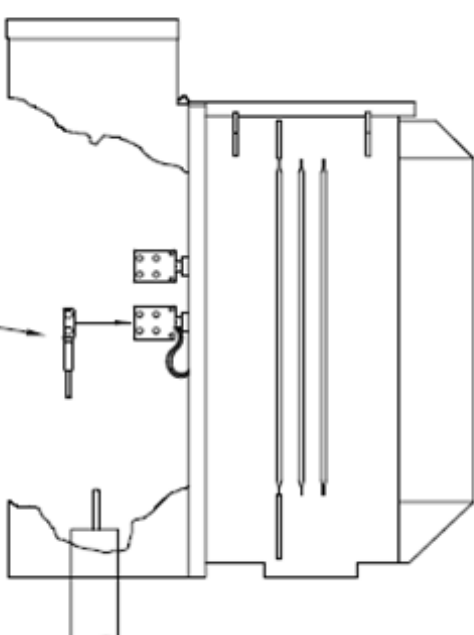
Vertical clearance is from the highest point over balconies, deck or railing.
Horizontal clearance is from the nearest point of conductor to installation.
Horizontal clearance, that is not accessible to be the clearances permitted for walls and projections.



OWENSBORO
MUNICIPAL
UTILITIES

CLEARANCE OF SERVICE
CONDUCTORS OVER
DECKS & BALCONIES

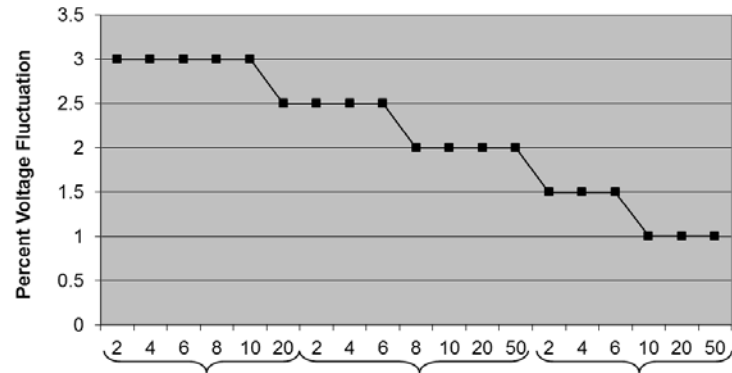
28. Secondary Conductor Pad-Transformer Connections (Customer-Owned)

CUSTOMER OWNED REQUIRED MATERIALS			EXPLODED VIEW OF TERMINATION (NTS)
ITEM	QTY	MATERIAL DESCRIPTION:	
A	2	BOLT STAINLESS STEEL 1/2"-13 X 2"	
B	4	WASHER STAINLESS STEEL 1/2" FLAT	
C	1	END TERMINALS TO BE 2-HOLE COMPRESSION TYPE SPADE CONNECTORS	
D	4	9/16" HOLES ARE NEMA SPACED AT 1 3/4"	
E	2	WASHER STAINLESS STEEL 1/2" DISC SPRING	
F	2	NUT STAINLESS STEEL 1/2"	
<p>END TERMINALS, STAINLESS STEEL NUTS, BOLTS, & BELL WASHERS, & SECONDARY CONDUCTOR (SUPPLIED BY CUSTOMER)</p>  <p>NOTE:</p> <ol style="list-style-type: none"> 1. OMU PERSONNEL WILL TORQUE (25 lbs) NUTS & BOLTS. 2. NUTS, BOLTS, & WASHERS MUST BE STAINLESS STEEL. 3. USE TWO HOLE COMPRESSION TYPE END TERMINALS ONLY. 4. ONE TERMINATION CONSISTS OF: (A) 1 2-HOLE END TERMINAL, (B) 2 STAINLESS STEEL NUTS, (C) 2 BOLTS, & (D) 2 DISC WASHERS, & (E) 4 FLAT WASHERS (SEE EXPLODED VIEW ABOVE). 			
OWENSBORO MUNICIPAL UTILITIES		SECONDARY CONDUCTOR PAD CONNECTIONS (CUSTOMER OWNED)	

29. Motor Startup Policy Tables

Simplified “Borderline of Irritation” Limits

Maximum Sag vs. Frequency of Occurance



OMU Motor Approval Tables

Single Phase Motor - NEMA Standard Design "L"

		NEMA Code Letter										
		A	B	C	D	E	F	G	H	J	K	L
Motor HP	1											
	1.5											
	2.5											
	3											
	4											
	7.5											
	10											
	15											
	20											
	25											
	30											
	40											
	50											
	60											
	75											

Three Phase Motor - NEMA Standard Design "L"

		NEMA Code Letter										
		A	B	C	D	E	F	G	H	J	K	L
Motor HP	1											
	1.5											
	2.5											
	3											
	4											
	7.5											
	10											
	15											
	20											
	25											
	30											
	40											
	50											
	60											
	75											