Lawrenceburg Utility Systems
Local Requirements of the Electric Department

I. GENERAL INFORMATION

A. All meter locations and services must be spotted by the Staking Department of LUS.

B. For all new structures, two electrical inspections must be made by the State Electrical Inspector. The first of these inspections is a "rough-in" inspection which consists of the following requirements:

1. All circuit conductors and outlet boxes must be installed.
2. All joints must be made.
3. All grounding connections must be in compliance with the National Electrical Code.

C. All meter entrances must be three-wire or more to the meter base. No two-wire meters are permitted. All single –family dwellings must use a UL-listed meter base.

D. All meter poles must be adequately and properly supported with guy wire(s) and anchor(s). All meter pole installations must also include a disconnection means in compliance with the National Electrical Code. *Exception: Meter pole does not need an anchor if within 25' of the transformer pole.*

E. An approved corrosion inhibitor must be adequately applied to all copper and aluminum connections in the meter base and service equipment.

F. All single-phase and three-phase motor loads must conform to the LUS Motor Load Service Policy (available on request from LUS).

G. The following conductors are considered to be the minimum residential allowable sizes for residences:
For 200-amp services – copper: #2/0 with #1 neutral Aluminum: #4/0 with
#2/0 neutral
For 100-amp services – copper: #3 with #4 neutral
Aluminum: #1 with #2 neutral

H. A fifty foot right-of-way clearance is required for line extensions. All rights-of-way will be required to have a signed, notarized, and recorded easement.

I. For three-phase systems utilizing a "wild leg", this "wild leg" must be installed under the right-hand lug of the meter base and in the center lug of the main disconnect panel. This conductor must be marked red.

J. For 120/208 volt wye services, an additional grounding lug must be installed in the meter base by the electrical contractor. This lug will be supplied by LUS.

K. Meters will be allowed under awnings, porches, or carports. However, the meter shall remain accessible at all times. If, at any time, the meter becomes enclosed, power will be disconnected and not reconnected until the customer, at his or her expense, relocates the service to an accessible location. Customers wishing to place their service under a covered location will be required to sign a letter stating that they understand these conditions.

L. LUS will allow more than one(1) single main disconnect in a residence when all of the following conditions are met:

1. All mains must be at one(1) location – side by side. The load must exceed 225 amps before parallel mains are accepted – parallel mains to be 200 amp.
2. When more than 400 amps are required, the customer will supply the services back to the transformer.

M. All 400 amp and larger meter bases are to be obtained from the Lawrenceburg Electric Department, because they must match the meter we will use.

N. The grounded conductor shall not be less that 2 AWG sizes smaller than the ungrounded conductors on all single phase and Delta services and 277/480 volt Y. On 120/208 Y services the grounded conductor shall be the same size as ungrounded conductor.

O. All meter sockets must be mounted between 5 and 6 feet above final grade. If physical space available requires that meter bases be installed in a vertical arrangement, the highest meter shall be not more than 6 feet above final grade to the center of the glass cover, and the lowest meter shall not be less than 3 feet above final grade to the center of the glass cover. Customers shall get approval for final meter base mounting height from LUS engineering prior to mounting.

P. Any variation must be approved in writing by an LUS engineering representative.

II. OVERHEAD SERVICES

A. Rigid non-metallic conduit (schedule 80 only) or Intermediate Rigid Metal conduit must be used for service entrances except for risers that extend above the roof. In the case where the riser extends above the roof, Rigid Metal Conduit must be used. E.M.T. (thinwall) conduit shall be permitted for service entrances which do not extend above the roof.

B. When a riser extends above the roof, the conduit must be at least 24 inches above the roof; and if 36 inches is required above the roof, then a guy wire and anchor is required. This anchor must be securely fastened to the inside of the framework in line with the proposed service drop.

C. When a conduit riser extends above the roof, no conduit coupling shall be used above the meter base unless the distance from the meter base to the weatherhead exceeds ten feet. In this case, three conduit straps must be arranged as follows: one just above the meter base, one just below the coupling, and one just above the coupling. (Note: Only non -corrosive straps may be used. These straps may be either one-hole or two-hole straps.) The upper ten feet shall be in one piece with the coupling closer to the meter base. In all cases, the service entrance conduit must be securely attached with a minimum of two straps. (The meter base must not take the strain of holding the service entrance.) If single-hole straps are used, the anchor bolts should be placed so as to hold the entrance against the strain of the service wires if there exists a mast above the roof. If there is no mast above the roof and single-hole straps are used, then the anchor bolts should be positioned on opposing sides of the conduit.

D. In the case where there is no overhang of the roof and the conduit must extend above the roof line, or if the roof decking will not support the conduit mast, then a U-bolt strap must be installed around the conduit near the roof in order to provide the required strength.

E. In cases where the riser does not extend above the roof, the electrical contractor must install a means of attachment six inches below the weatherhead for the service wires. This point of attachment must be tied to the inside framework of the building in a location so as to prevent the service wires from touching cornices and gables.

F. For both residences and commercial buildings with more than one meter, the conduit risers must be no more than eighteen inches apart. The weatherheads should be on approximately the same level unless otherwise specified by LUS.

G. Vertical Clearance Requirements for Service-Drop Conductors (limited to no more than 300 volts to ground):

1. Residences must have a minimum of twelve feet from final grade.
2. All commercial buildings must have a minimum of fifteen feet from final grade. Exception: eighteen feet for those areas subject to truck traffic and other land traversed by machinery.

H. For service entrances of greater than 400 amps that extend through a roof or overhang, there must be an additional conduit that extends through the roof. This conduit is to be used for C.T. metering purposes and must be installed by the electrical contractor. The conduit size and specifications are to be determined by
LUS.

I. The neutral wire must remain unbroken in the meter base. It should be placed under the lug in the meter base and run continuously into the main disconnect panel. This wire should be painted or marked *white*.

J. All overhead service entrance to mobile homes will be mounted on meter poles. The height of the pole to be determined by LUS Engineering Dept.

III. UNDERGROUND SERVICES

A. All underground services must be installed in conduit. The following sizes apply:

entrance size	from meter base to 4' from foundation wall	remainder of ditch
200 amp single phase	3" schedule 80 PVC	3" schedule 40 conduit
225 amp single phase	3" schedule 80 PVC	3" schedule 40 conduit
400 amp single phase	3" schedule 80 PVC	3" schedule 40 conduit
200 amp three phase	4" schedule 80 PVC	4" schedule 40 conduit
225 amp three phase	4" schedule 80 PVC	4" schedule 40 conduit
400 amp three phase	4" schedule 80 PVC	4" schedule 40 conduit

Unless specified otherwise, all PVC conduit used in underground services must be UL – approved Schedule 40 gray conduit. Intermediate Rigid Metal Conduit of the same diameter may be substituted for PVC conduit.

B. The conduit and meter base along with all wiring must be installed before LUS will run the underground service conductors. The neutral conductor must extend 18 inches beyond the neutral lug in the meter base without being broken at the lug. The insulation on the neutral conductor must be painted or marked *white*.

C. The customer's entrance wires must not exit the left-hand side of the meter base unless first approved by the Staking Department of LUS.

D. The customer or electrical contractor is to supply all necessary conduit, fittings, glue, rope, etc. The customer must, before final inspection, assemble the conduit (containing at least a ½ inch nylon pull rope) in an open ditch, to be inspected by the Staking Department of LUS before backfilling. All connections must have correct fittings for adaptions. Only 24 inch radius factory ell sweeps schedule 80 are permitted for 90 degree turns. (Note: No short 90 degree elbows are permitted.)

E. The electrical contractor or customer must first consult with the Staking Department of LUS before digging any ditch for the underground service. Also, after the ditch is dug, the Staking Department of LUS must be notified again for inspection of that ditch before covering.

F. The ditch for the underground service must be a minimum of 30 inches deep for secondary lines and 48 inches deep for primary lines. The ditch is to be dug and backfilled by the customer or electrical contractor.

G. For service entrances greater than 400 amps, the electrical contractor or customer will be responsible for supplying and running their services to the metering point as determined by the Staking Department of LUS.

H. Slip joints are required below the meter base on all underground services.

I. LUS prefers underground services to only have 2 sweeps, one at the pole and one at the meter. However, exceptions may be approved by the Engineering department. Sweeps may not be arranged in a back-to-back configuration. In the event that the service will not pull through the conduit, it is the electrical contractor's responsibility to take corrective action.