



Building Division

255 E. Wilson Avenue
Lombard, IL 60148
630-620-5750 Fax: 630-629-2374

Electric Service Upgrade Permits

Inspection Requirements:

A final electrical inspection is required upon completion.

To request an inspection go to:

<https://esuite.villageoflombard.org/eSuite.Permits/WelcomePage.aspx>

or contact the Building Division at 630-620-5750.

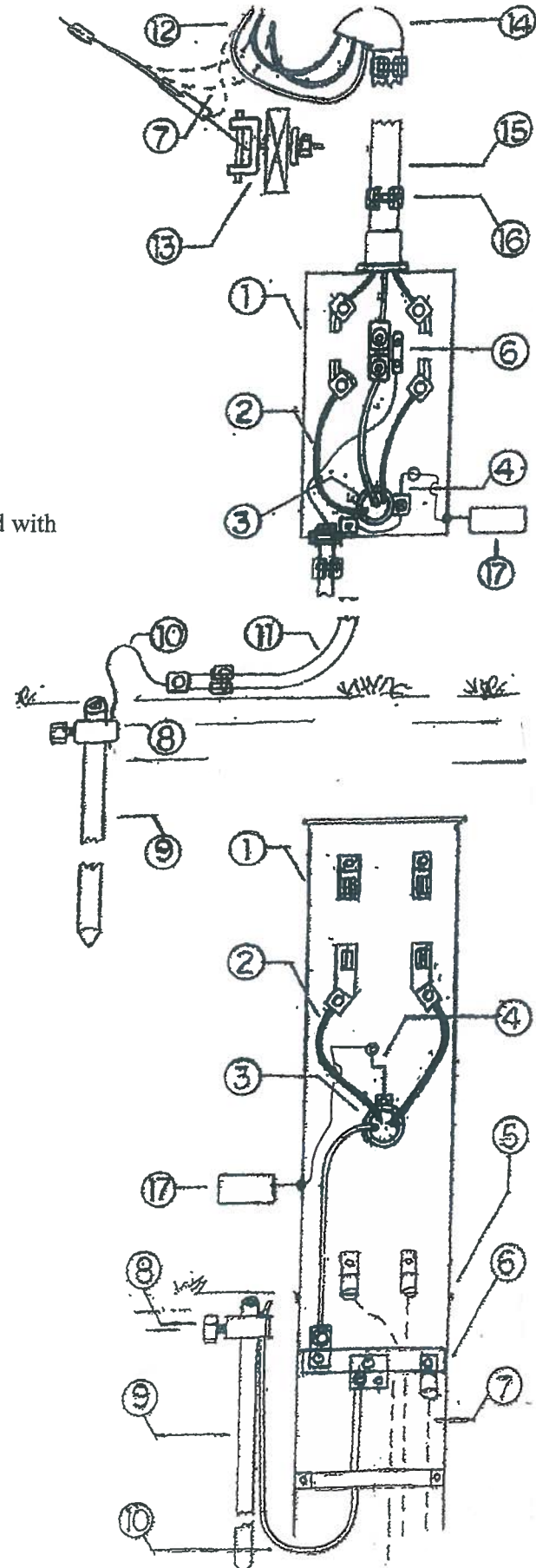
Panel requirements on back

Overhead (OHD) and Underground (UG) Electrical Service Connections

1. UL/CECHA labeled meter fitting.
2. Feeder conductors to Main Circuit Breaker inside; if more than 5 feet from entry to MCB then a Main at meter or other NEC compliant option required.
3. Properly sized conduit nipple, secured with 2 locknuts at each end, capped with insulated grounding bushings with lugs and duct seal inside nipple.
4. Bonding conductor sized per Table 250.66 NEC (Same size as grounding electrode conductor).
5. Grade level mark (enclosure must extend 18" below grade).
6. "N" (neutral) bus bonded to enclosure.
7. Com Ed Service Drop (OHD) or Service Lateral (UG).
8. "Acorn" or other NRTL listed ground rod clamp suitable for Direct Burial (DB).
9. NRTL listed 5/8" x 8' copper ground rod installed in undisturbed earth. Required if "ufur" (concrete encase electrode) ground isn't utilized.
10. Grounding Electrode Conductor to rod.
11. RMC or IMC for Grounding Electrode Conductor (GEC) to rod, bonded to GEC at both ends.
12. Drip Loops (lowest point of drip loops and drop 10 feet above grade or platform minimum).
13. Point of Attachment (POA), fork bolt, eye plate or other approved approved fitting (10 feet above grade, minimum).
14. Service Head (mounted above POA).
15. RMC or IMC riser with threaded weather proof hub.
16. Listed conduit clamps within 3 feet of meter and 1 foot of service head and between as required per NEC.
17. Intersystem Bonding Termination (ffiT) per 250.94 NEC. (Ground lugs on meter for exterior cable/satellite use.)

Notes:

- Mogul or other NRTL listed "LB" required for services.
- Service Revisions shall be "live" from old Com Ed lines in a safe and approved method, and old equipment removed.
- A minimum separation between electric and gas service meters of 36 inches is required.
- Consult utility, Village and NEC for other requirements before construction including larger services.
- All electrodes present at each building or structure shall be bonded together to form the Grounding Electrode System NEC 2011 Sec. 250.52(A)(1)-(A)(7) especially Concrete Encased Electrode (A)(3)[Ufer].



Electrical Service Main Panel Connections

Conductor Sizes

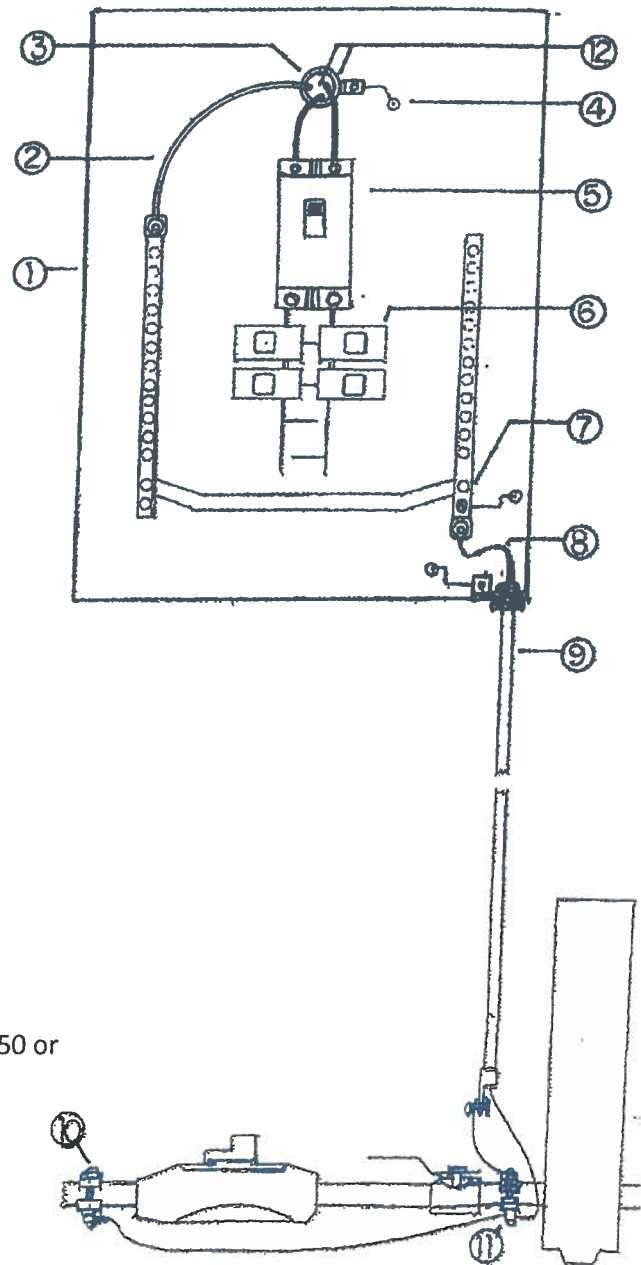
Service Size	Entrance Conductors	Grounding/Bonding
100A	AWG4CU	AWG8CU
200A	AWG2/0CU	AWG4CU
300A	MCM250	AWG2CU
400A	Parallel 2/0CU	AWG2CU
	MCM 400CU	AWG 1/0CU
Larger than 400A	Consult NEC and Building Division	

Panel and Grounding Connections

1. UL listed panel board.
2. Entrance conductors; Maximum Entry into building 5 feet.
3. Conduit nipple and grounding bushing.
4. Bonding conductor.
5. Main Circuit Breaker.
6. Branch breakers.
7. Neutral bus bonded to enclosure except where main disconnect is remote (outside).
8. Grounding Electrode Conductor (GEC).
9. GEC conduit, bonded at both ends.
10. Listed GEC to pipe clamps, used as listed.
11. Water pipe ground to be connected within 5' of entry to building, and water meter jumped.
12. Caulk around any conduit penetrations, and duct seal inside entry conduit.

Notes:

- Panel only changes shall meet all above requirements.
- Services with remote main disconnects require specific grounding/bonding installations different from above; see Section 250.24(C) NEC2011.
- Multiwire Branch Circuits (MWBC) requires simultaneous disconnection of all ungrounded conductors at the source breaker and grouped by wire ties or similar means. 2011 NEC Sec. 210.4 (A)-(D)
- Other NEC Articles and Sections may apply, especially Art 230 and Art 250.
- Panel legend to be filled out completely and accurately



If you have any questions please contact the Building Division at 630-620-5750 or Email buildingdivision@villageoflombard.org.