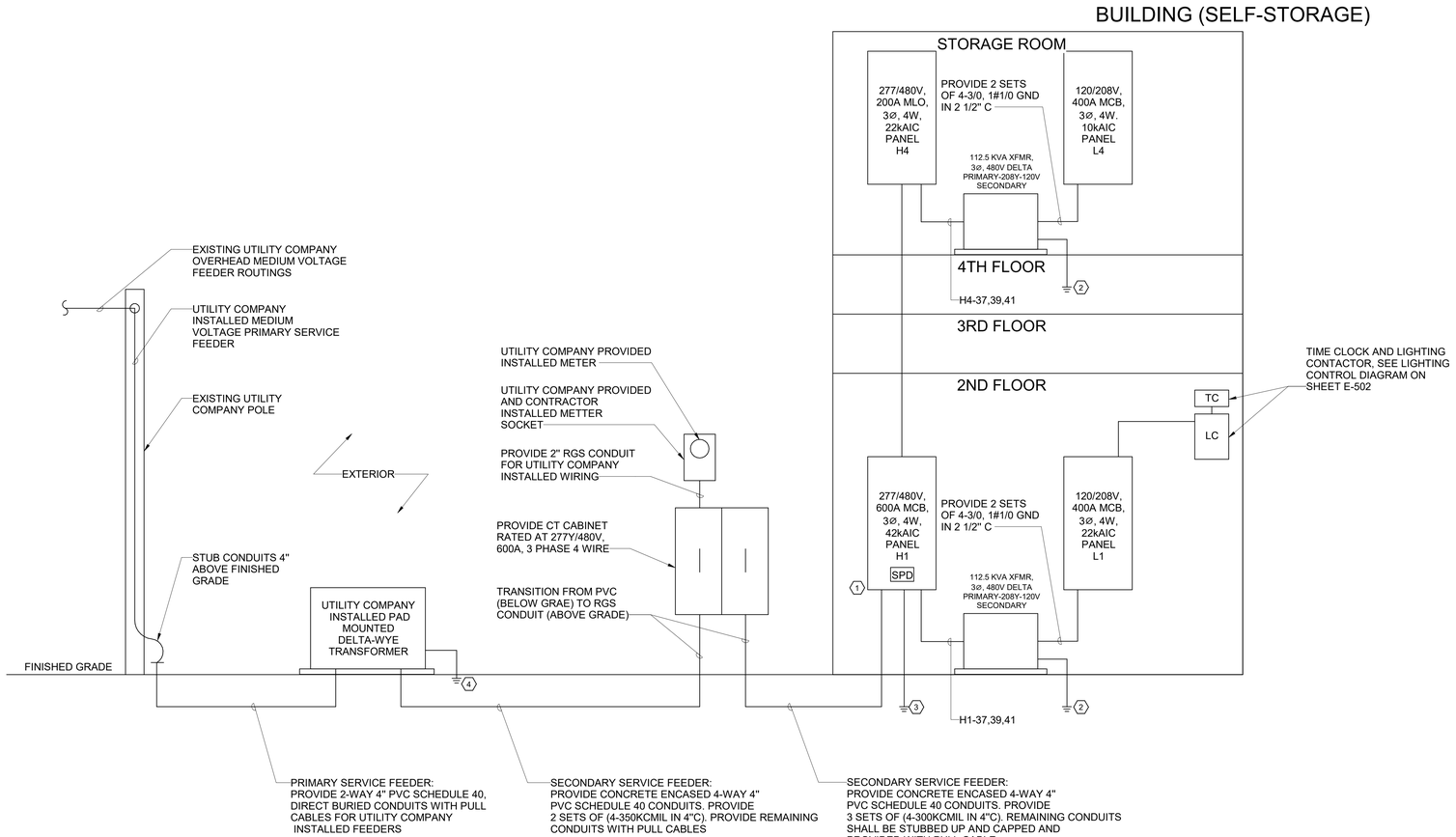


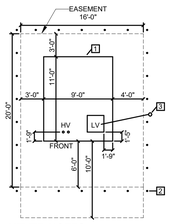
1 POWER DISTRIBUTION RISER DIAGRAM
NOT TO SCALE

GENERAL ELECTRICAL NOTES:

1. ALL ELECTRICAL PANELBOARDS, DISCONNECT SWITCHES, ENCLOSED BREAKERS, BOXES, ETC. SHALL BE PROVIDED WITH PERMANENT LABELS INDICATING THEIR RESPECTIVE POWER SOURCE, CIRCUIT NUMBER AND THE EQUIPMENT THEY SERVE.
2. ALL CONDUCTORS SHALL BE COPPER.
3. FINAL PRIMARY AND SECONDARY CONNECTIONS TO BUILDING INTERIOR TRANSFORMER SHALL BE FLEXIBLE METAL CONDUIT.
4. FINAL EQUIPMENT FAUL CURRENT RATING SHALL BE BASED ON FAULT CURRENT INFORMATION RECEIVED FROM UTILITY COMPANY.

KEYED NOTES

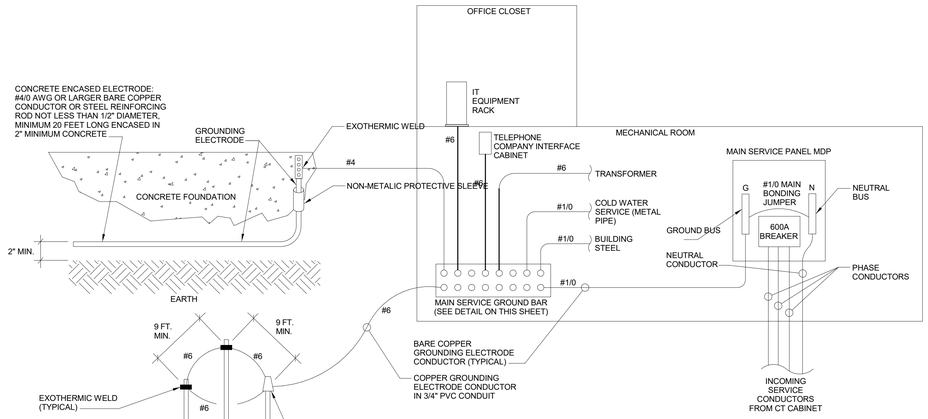
1	PROVIDE INTEGRALLY MOUNTED, UL 1449, TYPE 1 SURGE PROTECTION DEVICE (SPD). SPD SHALL HAVE A MINIMUM SURGE RATING OF 240 KA
2	SEE BUILDING INTERIOR TRANSFORMER GROUNDING DETAIL THIS DRAWING.
3	SEE ELECTRICAL SERVICE GROUNDING DETAIL THIS DRAWING.
4	TRANSFORMER GROUNDING PER UTILITY COMPANY STANDARDS.

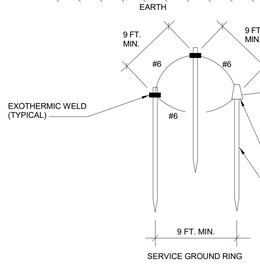


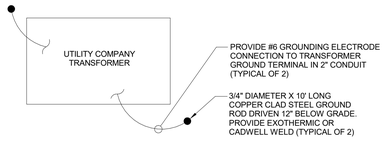
KEYED NOTES

1. Transformer concrete pad per power company's standards.
2. Removable protective barrier per power company's standards, 4" G.I. conduit filled with concrete quantity of bollards per power company.
3. (1) - 1 1/2" G.I. conduit to meter location. Coordinate with power company.

2 Transformer Pad Detail
NOT TO SCALE







GENERAL GROUNDING NOTES:

1. ALL GROUNDING ELECTRODES THAT ARE PRESENT AT THE BUILDING SHALL BE BONDED TOGETHER TO FORM THE GROUNDING ELECTRODE SYSTEM. GROUND PER NATIONAL ELECTRICAL CODE (NEC) SECTION 250 PART H.
2. GROUNDING ELECTRODE CONDUCTORS SHALL NOT BE LESS THAN REQUIRED BY NEC TABLE 250.66.
3. TEST GROUND SYSTEM RESISTANCE AND VERIFY LESS THAN 5 OHMS. SEE GROUND TEST WELL DETAIL ON THIS SHEET.
4. ALL GROUNDING AND BONDING CONDUCTORS SHALL BE COPPER.
5. THE CONCRETE ENCASED ELECTRODE INDICATED IS AN OPTIONAL INSTALLATION INSTEAD OF (3) GROUND RODS SHOWN. COORDINATE WITH LOCAL JURISDICTION FOR PREFERENCE.

3 ELECTRICAL SERVICE GROUNDING DETAIL
NOT TO SCALE

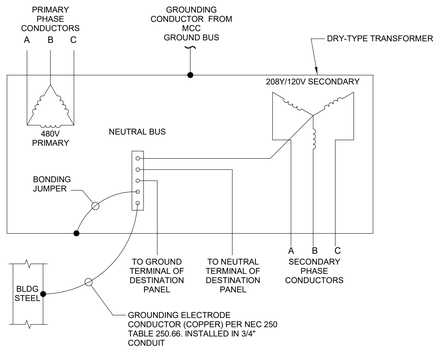


Table 250.66 Grounding Electrode Conductor for Alternating- Current Systems

Size of Largest Ungrounded Service-Entrance Conductor or Equivalent Area for Parallel Conductors[a] (AWG/kcmil)		Size of Grounding Electrode Conductor (AWG/kcmil)	
Copper	Aluminum or Copper-Clad Aluminum	Copper	Aluminum or Copper-Clad Aluminum[b]
2 or smaller	1/0 or smaller	8	6
1 or 1/0	2/0 or 3/0	6	4
2/0 or 3/0	4/0 or 250	4	2
Over 3/0 through 350	Over 250 through 500	2	1/0
Over 350 through 600	Over 500 through 900	1/0	3/0
Over 600 through 1100	Over 900 through 1750	2/0	4/0
Over 1100	Over 1750	3/0	250

Notes:
1. If multiple sets of service-entrance conductors connect directly to a service drop, set of overhead service conductors, set of underground service conductors, or service lateral, the equivalent size of the largest service-entrance conductor shall be determined by the largest sum of the areas of the corresponding conductors of each set.
2. Where there are no service-entrance conductors, the grounding electrode conductor size shall be determined by the equivalent size of the largest service-entrance conductor required for the load to be served.
[a]This table also applies to the derived conductors of separately derived ac systems.
[b]See installation restrictions in 250.64(A).

4 BUILDING INTERIOR XFMR GROUNDING DETAIL
NOT TO SCALE

WARNING: it is a violation of the NYS Education Law Article 145 for any person to alter this document in anyway, unless they are acting under the direction of a Professional Engineer

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REVISIONS

No.	Date	Description

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DIAMOND POINT DEVELOPMENT
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DUTCHESS COUNTY

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