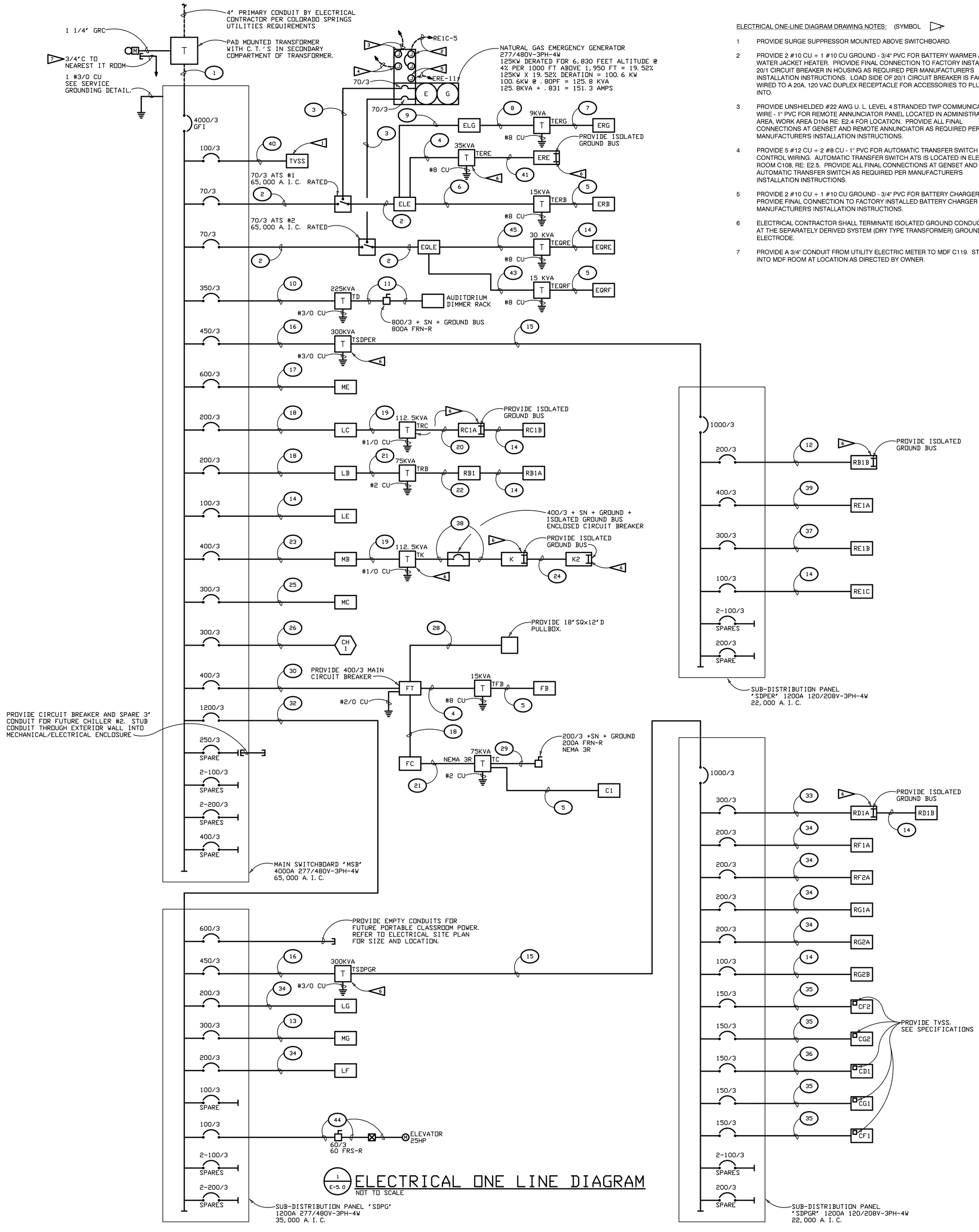


1 E-5.0 **ELECTRICAL ONE LINE DIAGRAM**
NOT TO SCALE

ELECTRICAL ONE-LINE DIAGRAM DRAWING NOTES: (SYMBOL ▷)

1 PROVIDE SURGE SUPPRESSOR MOUNTED ABOVE SWITCHBOARD.

2 PROVIDE 2 #10 CU + 1 #10 CU GROUND - 3/4" PVC FOR BATTERY WARMER AND WATER JACKET HEATER. PROVIDE FINAL CONNECTION TO FACTORY INSTALLED 20/1 CIRCUIT BREAKER IN HOUSING AS REQUIRED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. LOAD SIDE OF 20/1 CIRCUIT BREAKER IS FACTORY WIRED TO A 20A, 120 VAC DUPLEX RECEPTACLE FOR ACCESSORIES TO PLUG INTO.

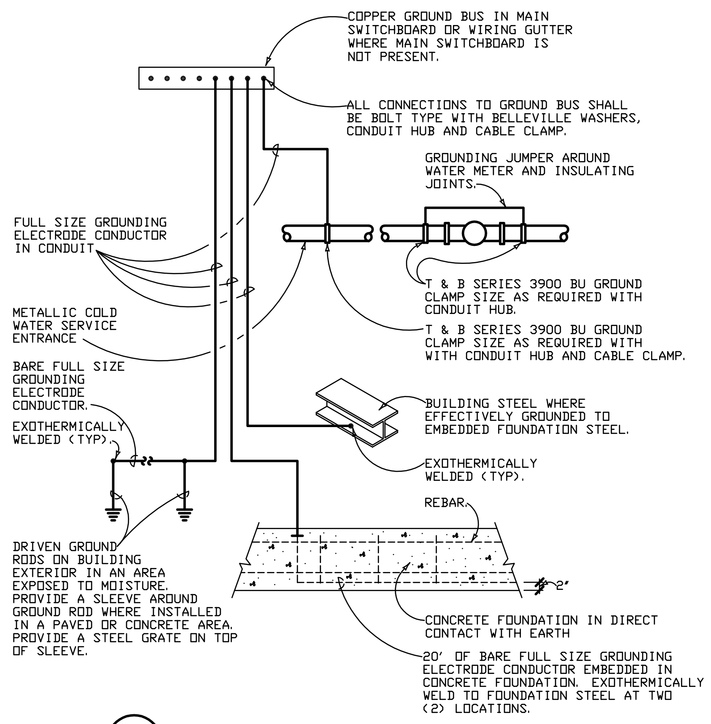
3 PROVIDE UNSHIELDED #22 AWG U. L. LEVEL 4 STRANDED TWP COMMUNICATION WIRE - 1" PVC FOR REMOTE ANNUNCIATOR PANEL LOCATED IN ADMINISTRATION AREA. WORK AREA D104 RE: E2.4 FOR LOCATION. PROVIDE ALL FINAL CONNECTIONS AT GENSET AND REMOTE ANNUNCIATOR AS REQUIRED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.

4 PROVIDE 5 #12 CU + 2 #8 CU - 1" PVC FOR AUTOMATIC TRANSFER SWITCH CONTROL WIRING. AUTOMATIC TRANSFER SWITCH ATS IS LOCATED IN ELECTRIC ROOM C108, RE: E2.5. PROVIDE ALL FINAL CONNECTIONS AT GENSET AND AUTOMATIC TRANSFER SWITCH AS REQUIRED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.

5 PROVIDE 2 #10 CU + 1 #10 CU GROUND - 3/4" PVC FOR BATTERY CHARGER. PROVIDE FINAL CONNECTION TO FACTORY INSTALLED BATTERY CHARGER PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.

6 ELECTRICAL CONTRACTOR SHALL TERMINATE ISOLATED GROUND CONDUCTOR AT THE SEPARATELY DERIVED SYSTEM (DRY TYPE TRANSFORMER) GROUNDING ELECTRODE.

7 PROVIDE A 3/4" CONDUIT FROM UTILITY ELECTRIC METER TO MDF C119. STUB INTO MDF ROOM AT LOCATION AS DIRECTED BY OWNER.



2 E-5.0 **SERVICE GROUNDING DETAIL**
NOT TO SCALE

NOTES:

1 WHEN AVAILABLE, CONTRACTOR SHALL PROVIDE ALL GROUNDING MEANS INDICATED. CONTRACTOR SHALL REFER TO ELECTRICAL ONE LINE DIAGRAM FOR GROUNDING ELECTRODE CONDUCTOR SIZE. CONTRACTOR SHALL REFER TO ELECTRICAL SPECIFICATIONS FOR SPECIFICS OF GROUNDING SYSTEM INSTALLATION AND MATERIALS.

2 THE GROUNDING ELECTRODE CONDUCTOR SHALL BE RUN CONTINUOUS FROM THE SWITCHBOARD GROUND BUS AND TERMINATED AS DIRECTED BY LOCAL INSPECTION AUTHORITY. THE GROUNDING ELECTRODE CONDUCTOR SHALL BE FROM THE GROUND SOURCE DESIGNATED BY THE INSPECTION AUTHORITY. EACH GROUNDING ELECTRODE CONDUCTOR SHALL BE IDENTIFIED AS TO ITS SOURCE OR DESTINATION IN THE GROUNDING SYSTEM.

FEEDER SCHEDULE GENERAL NOTES:

1 ELECTRICAL CONTRACTOR MAY SUBSTITUTE DIFFERENT CONDUIT TYPES THAN THOSE INDICATED ON FEEDER SCHEDULE DEPENDING ON CONDUIT ROUTING AND IN ACCORDANCE WITH SPECIFICATIONS. CONDUIT SUBSTITUTIONS SHALL BE BASED UPON CONDUIT FILL TABLES FROM THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (NEC) AS ENFORCED BY THE AUTHORITY HAVING JURISDICTION. ALL CONDUCTORS ARE TYPE THWN COPPER UNLESS OTHERWISE NOTED.

2 REFER TO SPECIFICATION SECTION 16130, RACEWAYS AND BOXES, PARAGRAPH 2.02 RACEWAY APPLICATION, FOR TYPES OF RACEWAYS TO BE USED FOR THE SPECIFIC APPLICATION OR LOCATION INDICATED.

FEEDER SCHEDULE:

1. (11) PARALLEL RUNS OF: 4 #500 MCM - 3" PVC
2. 4 #4 + 1 #8 GROUND - 1-1/4" EMT
3. 4 #4 + 1 #8 GROUND - 1-1/4" PVC
4. 3 #10 + 1 #10 GROUND - 1/2" EMT
5. 4 #8 + 1 #10 GROUND - 3/4" EMT
6. 3 #6 + 1 #8 GROUND - 3/4" PVC
7. 4 #10 + 1 #10 GROUND - 1/2" EMT
8. 3 #12 + 1 #12 GROUND - 1/2" EMT
9. 4 #1 + 1 #8 GROUND - 1-1/2" PVC
10. 3 #500 MCM + 1 #3 GROUND - 3" EMT
11. (3) PARALLEL RUNS OF: 4 #300 MCM + 1 #1/0 GROUND - 2-1/2" EMT
12. 4 #4/0 + 1 #4 GROUND + 1 #8 ISOLATED GROUND - 2-1/2" PVC
13. 4 #350 MCM + 1 #4 GROUND - 3" EMT
14. 4 #3 + 1 #8 GROUND - 1-1/4" EMT
15. (3) PARALLEL RUNS OF: 4 #400 MCM + 1 #2/0 GROUND - 3" EMT
16. (2) PARALLEL RUNS OF: 3 #4/0 + 1 #2 GROUND - 2" EMT
17. (2) PARALLEL RUNS OF: 4 #350 MCM + 1 #1 GROUND - 3" EMT
18. 4 #250 MCM + 1 # 4 GROUND - 3" PVC
19. 3 #2/0 + 1 #6 GROUND - 2" EMT
20. (2) PARALLEL RUNS OF: 4 #3/0 + 1 #3 GROUND + 1 #8 ISOLATED GROUND - 2-1/2" EMT
21. 3 #2 + 1 #6 GROUND - 1-1/4" EMT
22. 4 #250 MCM + 1 #4 GROUND - 2-1/2" EMT
23. (2) PARALLEL RUNS OF: 4 #4/0 + 1 #2 GROUND - 2-1/2" PVC
24. 4 #3 + 1 #8 GROUND + 1 #8 ISOLATED GROUND - 1-1/4" EMT
25. 4 #500 MCM + 1 #2 GROUND - 3-1/2" PVC
26. 3 #400 MCM + 1 #3 GROUND - 3" PVC
27. 3 #8 + 1 #10 GROUND + 1 #10 ISOLATED GROUND - 3/4" EMT
28. PROVIDE AN EMPTY 1" PVC FROM PANEL FT TO PULL BOX AS SHOWN. REFER TO SITE PLAN FOR LOCATION.
29. 4 #4/0 + 1 #4 GROUND - 2-1/2" PVC
30. (2) PARALLEL RUNS OF: 4 #250 MCM + 1 #1 GROUND - 3" PVC
31. NOT USED
32. (4) PARALLEL RUNS OF: 4 #500 MCM + 1 #4/0 GROUND - 3-1/2" PVC
33. 4 #400 MCM + 1 #3 GROUND + 1 #6 ISOLATED GROUND - 3" PVC
34. 4 #3/0 + 1 #6 GROUND - 2" EMT
35. 3 #1/0 + 2 #1/0 NEUTRALS + 1 #6 GROUND - 2" EMT
36. 3 #3/0 + 2 #3/0 NEUTRALS + 1 #6 GROUND - 2-1/2" PVC
37. 4 #500 MCM + 1 #3 GROUND - 3-1/2" PVC
38. (2) PARALLEL RUNS OF: 4 #4/0 + 1 #2 GROUND + 1 #8 ISOLATED GROUND - 2-1/2" PVC
39. (2) PARALLEL RUNS OF: 4 #3/0 + 1 #3 GROUND - 2" EMT
40. 4 #1 + 1 #1 GROUND - 1-1/2" EMT
41. 4 #8 + 1 #10 GROUND + 1 #10 ISOLATED GROUND - 3/4" EMT
42. 4 #8 + 1 #10 GROUND - 3/4" PVC
43. 3 #6 + 1 #8 GROUND - 3/4" PVC
44. 3 #6 + 1 #6 GROUND - 1" PVC
45. 3 #8 + 1 #10 GROUND - 3/4" EMT

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Falcon High School #3

New School Address
Falcon, Colorado 80831

RECORD DOCUMENTS

These Record Documents have been prepared based on information (marked-up prints, drawings and other data) provided to the Architect by the Contractor. The Architect has not verified the accuracy and/or completeness of this information and shall not be responsible for the errors or omissions which may be incorporated herein as a result.

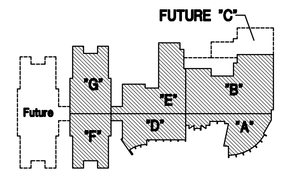
FALCON SCHOOL DISTRICT 49
A Special Place for Everyone

Falcon School District 49
10850 E. Woodmen Road
Falcon, Colorado 80831

Record Documents

Drawn:
Checked: CBW, RLM, GDC
Issued: April 16, 2007
Revised: December 30, 2008

Area Key Plan



TRUE NORTH
PLAN NORTH

ELECTRICAL ONE LINE DIAGRAM
Not To Scale

E-5.0

New Falcon High School Project No. 05-023
The LKA Partners Incorporated