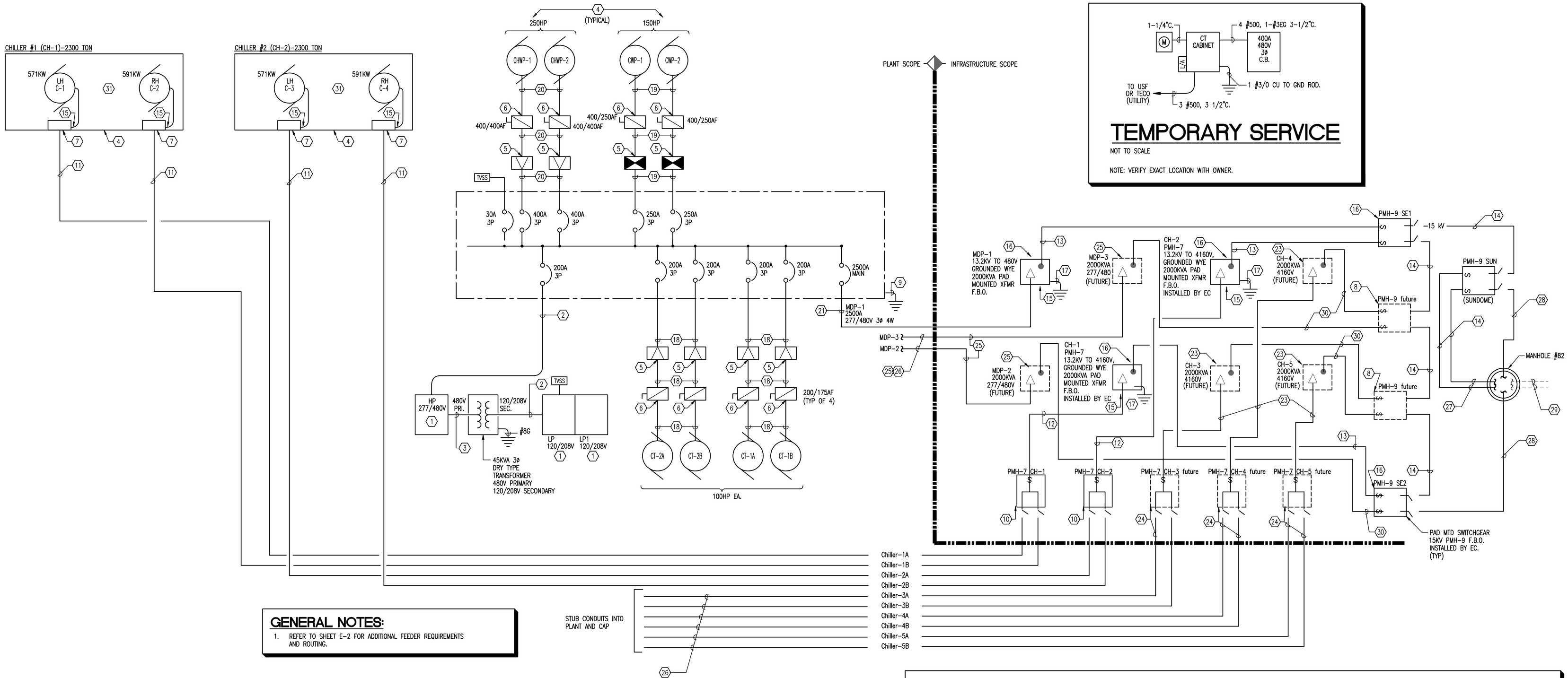

GENERAL NOTES:

1. REFER TO SHEET E-2 FOR ADDITIONAL FEEDER REQUIREMENTS AND ROUTING.

POWER RISER DIAGRAM

NOT TO SCALE

TEMPORARY SERVICE

NOT TO SCALE

NOTE: VERIFY EXACT LOCATION WITH OWNER.

ELECTRICAL NOTES:

1. SEE PANEL SCHEDULE (SHEET E-7) FOR REQUIREMENTS.
2. PROVIDE 4#2/0, 1#6G IN 2" CONDUIT.
3. PROVIDE 3#4, 1#8G IN 1 1/4" CONDUIT.
4. REFER TO FLOOR PLAN FOR 115V CONTROL WIRING AND CONDUITS BY EC COORDINATE WITH DIV. 15.
5. VARIABLE FREQUENCY DRIVE OR STARTER PROVIDED BY OWNER, INSTALLED BY EC.
6. FUSED DISCONNECTS SHALL BE NEMA 4X STAINLESS STEEL, PROVIDED AND INSTALLED BY EC.
7. CHILLER STARTER/ DISCONNECTS (F.B.O.), INSTALLED BY EC.
8. EC SHALL PROVIDE VAULT STYLE BASES FOR ALL SWITCHES AND ALLOW SLACK CONDUCTORS FOR FUTURE SWITCH TERMINATIONS. PROVIDE SS COVERS OVER BASES DESIGNATED FOR FUTURE SWITCHES. REFER TO SHEET E-2 FOR SPECIFICATIONS.
9. 1-3/0 COPPER GROUNDING ELECTRODE CONDUCTOR TO BUILDING STEEL, METALLIC COLD WATER PIPE, BUILDING FOOTING AND 3-20' X 3/4" COPPER CLAD GROUND RODS SPACED 10' APART.
10. PAD MOUNTED CHILLER SWITCHGEAR SHALL BE FURNISHED BY OWNER INSTALLED BY EC. SWITCHES SHALL BE PMH-7 CONFIGURATION. (4160V, 400 AMP WITH 2-200 AMP POSITIONS FOR CHILLER A&B)
11. 3-#3/0 SINGLE CONDUCTOR, 5KV SHIELDED CABLE, EPR, 133% INSULATED, CU WIRE WITH 1/3 CONCENTRIC NEUTRAL, LLDPE JACKET IN 1-6" SCH 40 PVC CONDUIT.
12. 2 SETS OF 3-#3/0 SINGLE CONDUCTOR 5KV SHIELDED CABLE, EPR, 133% INSULATED, CU WIRE WITH 1/3 CONCENTRIC NEUTRAL, LLDPE JACKET IN 6" SCH 40, PVC CONDUIT.
13. 3-#1 SINGLE CONDUCTOR 15KV SHIELDED CABLE, EPR, 133% INSULATION, CU WIRE WITH 1/3 CONCENTRIC NEUTRAL, LLDPE JACKET IN 6" SCH. 40, PVC CONDUIT.
14. 3-#500 SINGLE CONDUCTORS 15 KV SHIELDED CABLE, EPR, 133% INSULATION, CU WIRE WITH 1/3 CONCENTRIC NEUTRAL, LLDPE JACKET IN 6" SCH 40, PVC CONDUIT.
15. PROVIDE 5KV TERMINATIONS AND STARTER LUGS. (PROVIDE RAY CHEM, 3M, OR APPROVED EQUAL PRE-FORMED STRESS CONES.) GROUND 5KV CABLE SHIELD AT BOTH ENDS OF EACH CABLE SECTION.
16. PROVIDE 15KV TERMINATIONS AS REQUIRED. (PROVIDE RAY CHEM, 3M, OR APPROVED EQUAL PRE-FORMED STRESS CONES.) GROUND 15KV CABLE SHIELD AT BOTH OF EACH CABLE SECTION.
17. GROUND ALL PRIMARY DEVICES WITH TWO 3/4" DIAMETER X 30' LONG COPPER CLAD STEEL GROUND ROD. ADDITIONAL ROD MAY BE REQUIRED TO ACHIEVE GND RESISTANCE OF LESS THAN 10 OHMS. EC SHALL PROVIDE UNIT PRICES FOR ADDITIONAL RODS COMPLETE WITH #2 WIRE AND CONNECTION DEVICES TOP OF GROUND ROD SHALL BE MIN. 6" BELOW FINISHED GRADE. CONNECT DEVICE TO GROUND ROD WITH #2 COPPER STRANDED WIRE USING U.L. LISTED CONNECTION DEVICE AND CONNECT TO COUNTER POISE, CIRCLING PAD. BOND ENTIRE SWITCHGEAR YARD TOGETHER, AND TO BLDG STEEL AND MAIN SERVICE GROUND.
18. PROVIDE 3-#3/0, 1-#6EG IN 2"C.
19. PROVIDE 3-#250KCMIL, 1-#4EG IN 2 1/2"C.
20. PROVIDE 3-#500KCMIL, 1-#3EG.
21. SEVEN SETS OF 4-#500KCMIL 1-#3/0 GND IN 4"C SCH 40PVC.
22. PROVIDE TVSS.
23. FUTURE CHILLER TRANSFORMER. PROVIDE BASE/ PAD AND PROVIDE EMPTY CONDUIT TO PAD MTD CHILLER SWITCHGEAR LOCATION AS SHOWN. 2-6" SCH 40 PVC CONDUITS W/PULL WIRE. CAP AND LABEL AT EACH END.
24. FUTURE CHILLER SWITCHGEAR. PROVIDE BASE/ PAD AND PROVIDE EMPTY CONDUIT TO CHILLER STARTER LOCATIONS INSIDE BUILDING. 2-6" SCH 40 PVC CONDUITS W/PULL WIRE. 1 CONDUIT TO EACH STARTER (A&B). CAP AND LABEL AT EACH END PLUS 1-6" SPARE.
25. FUTURE MDP TRANSFORMER. GC SHALL PROVIDE PAD AND EC SHALL PROVIDE EMPTY CONDUIT TO MDP LOCATIONS INSIDE BUILDING. 7-4" SCH 40 PVC CONDUITS W/PULL WIRE. CAP AND LABEL AT EACH END.
26. COORDINATE CONDUIT ROUTING WITH DIV. 15 CHILLED WATER PIPING.
27. COORDINATE WITH USF UTILITIES FOR TERMINATION OF CONDUCTORS AT SUNDOME.
28. 3-1000 KCMIL SINGLE CONDUCTORS 15 KV SHIELDED CABLE, EPR, 133% INSULATION, AL WIRE WITH 1/3 CONCENTRIC NEUTRAL, LLDPE JACKET IN 6" SCH 40, PVC CONDUIT. SPLICE TO EXISTING 1000 KCMIL, AL, SINGLE CONDUCTORS. IN MH 82.
29. EXISTING 1000 KCMIL, SINGLE CONDUCTORS, AL. PROVIDED BY SE QUADRANT INFRASTRUCTURE PROJECT.
30. PROVIDE 6" EMPTY CONDUIT WITH PULL WIRE FOR FUTURE. LABEL AND CAP.
31. PROVIDE POWER LOGIC METERING TO EACH CHILLER MOTOR CONTROLLER. FIELD INSTALLED BY AUTHORIZED TECHNICIAN. POWER METERS SHALL BE ALLEN BRADLEY 3000 POWER MONITORS WITH XYZ TECHNOLOGY TO COMMUNICATE TO ENERGY MANAGEMENT SYSTEM.

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SEAL

RICHARD L. HOCUTT, P.E
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Signature Date

DRAWING REVISIONS

REVISION	COMMENTS:

UNIVERSITY OF SOUTH FLORIDA
SOUTH EAST CHILLER PLANT
BR-590 COMPONENT #6

12225 USF MAPLE DRIVE
TAMPA, FLORIDA 33620

DRAWING TITLE : POWER RISER DIAGRAM

Drawing Progress: 100% CONSTRUCTION DOCUMENTS

FILE NAME:	081106_E-6-7.DWG
DATE:	03-31-2009
PLOT SIZE:	NOT TO SCALE
CADDED BY:	SRN
DESIGNED BY:	SCC
CHECKED BY:	TSH

PROJECT NO.
081106

SHEET NO.
E-6
6 of 7

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