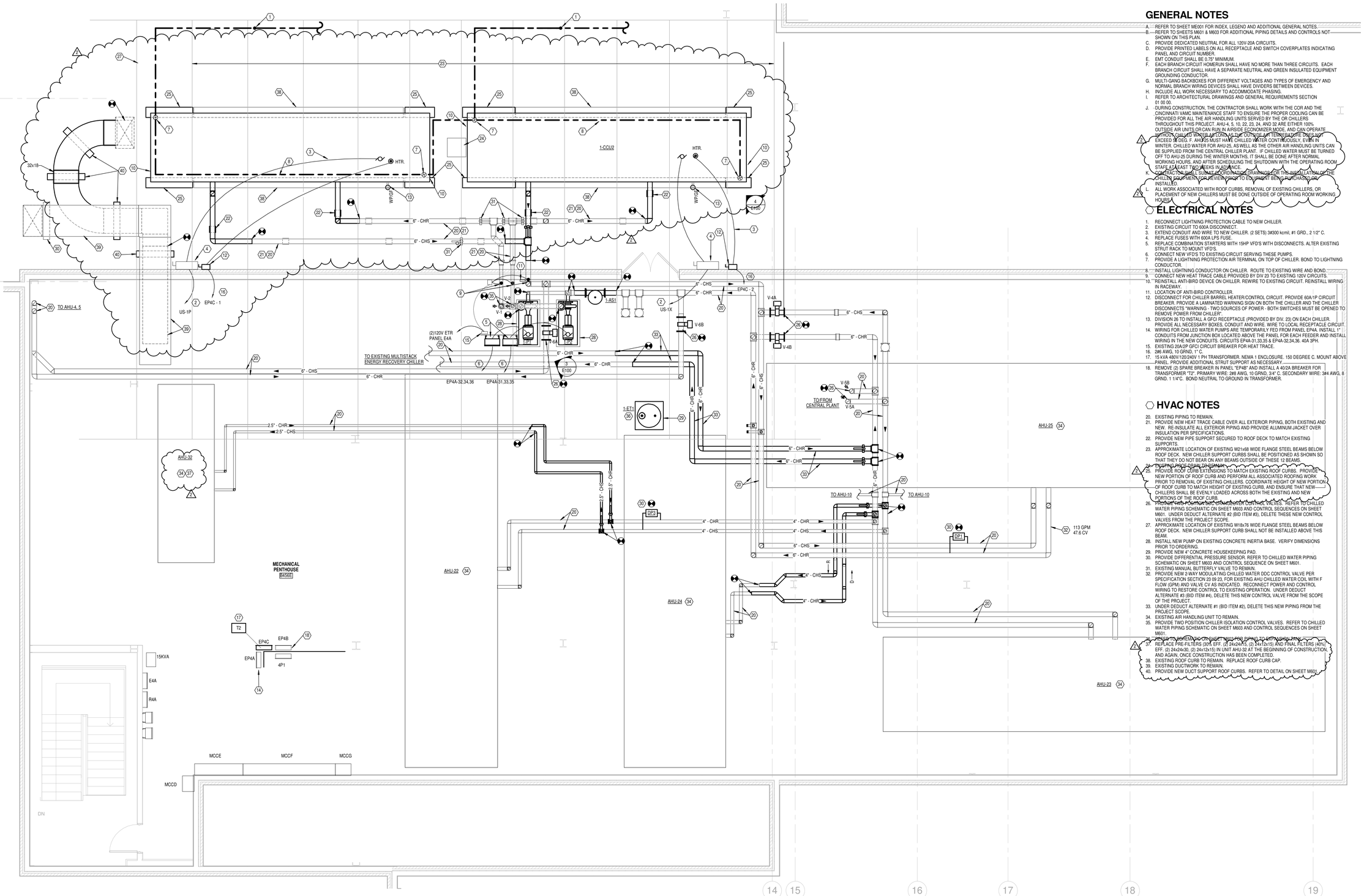

GENERAL NOTES

A. REFER TO SHEET ME001 FOR INDEX, LEGEND AND ADDITIONAL GENERAL NOTES.
B. REFER TO SHEETS M601 & M603 FOR ADDITIONAL PIPING DETAILS AND CONTROLS NOT SHOWN ON THIS PLAN.
C. PROVIDE DEDICATED NEUTRAL FOR ALL 120V-20A CIRCUITS.
D. PROVIDE PRINTED LABELS ON ALL RECEPTACLE AND SWITCH COVERPLATES INDICATING PANEL AND CIRCUIT NUMBER.
E. EMT CONDUIT SHALL BE 0.75" MINIMUM.
F. EACH BRANCH CIRCUIT HOMERUN SHALL HAVE NO MORE THAN THREE CIRCUITS. EACH BRANCH CIRCUIT SHALL HAVE A SEPARATE NEUTRAL AND GREEN INSULATED EQUIPMENT GROUNDING CONDUCTOR.
G. MULTI-GANG BACKBOXES FOR DIFFERENT VOLTAGES AND TYPES OF EMERGENCY AND NORMAL BRANCH WIRING DEVICES SHALL HAVE DIVIDERS BETWEEN DEVICES.
H. INCLUDE ALL WORK NECESSARY TO ACCOMMODATE PHASING.
I. REFER TO ARCHITECTURAL DRAWINGS AND GENERAL REQUIREMENTS SECTION 01 00 00.
J. DURING CONSTRUCTION, THE CONTRACTOR SHALL WORK WITH THE COR AND THE CINCINNATI VAMC MAINTENANCE STAFF TO ENSURE THE PROPER COOLING CAN BE PROVIDED FOR ALL THE AIR HANDLING UNITS SERVED BY THE OR CHILLERS THROUGHOUT THIS PROJECT. AHU-4, 5, 10, 22, 23, 24, AND 32 ARE EITHER 100% OUTSIDE AIR UNITS OR CAN RUN IN AIRSIDE ECONOMIZER MODE, AND CAN OPERATE WITHOUT CHILLED WATER AS LONG AS THE OUTSIDE AIR TEMPERATURE DOES NOT EXCEED 55 DEG. F. AHU-25 MUST HAVE CHILLED WATER CONTINUOUSLY, EVEN IN WINTER. CHILLED WATER FOR AHU-25, AS WELL AS THE OTHER AIR HANDLING UNITS CAN BE SUPPLIED FROM THE CENTRAL CHILLER PLANT. IF CHILLED WATER MUST BE TURNED OFF TO AHU-25 DURING THE WINTER MONTHS, IT SHALL BE DONE AFTER NORMAL WORKING HOURS, AND AFTER SCHEDULING THE SHUTDOWN WITH THE OPERATING ROOM STAFF AT LEAST TWO WEEKS IN ADVANCE.
K. CONTRACTOR SHALL SUBMIT COORDINATION DRAWINGS FOR THE INSTALLATION OF THE CHILLER EQUIPMENT FOR REVIEW PRIOR TO EQUIPMENT BEING PURCHASED OR INSTALLED.
L. ALL WORK ASSOCIATED WITH ROOF CURBS, REMOVAL OF EXISTING CHILLERS, OR PLACEMENT OF NEW CHILLERS MUST BE DONE OUTSIDE OF OPERATING ROOM WORKING HOURS.

ELECTRICAL NOTES

1. RECONNECT LIGHTNING PROTECTION CABLE TO NEW CHILLER.
2. EXISTING CIRCUIT TO 600A DISCONNECT.
3. EXTEND CONDUIT AND WIRE TO NEW CHILLER. (2 SETS) 3#300 kcmil, #1 GRD., 2 1/2" C.
4. REPLACE FUSES WITH 600A LPS FUSE.
5. REPLACE COMBINATION STARTERS WITH 15HP VFD'S WITH DISCONNECTS. ALTER EXISTING STRUT RACK TO MOUNT VFD'S.
6. CONNECT NEW VFD'S TO EXISTING CIRCUIT SERVING THESE PUMPS.
7. PROVIDE A LIGHTNING PROTECTION AIR TERMINAL ON TOP OF CHILLER. BOND TO LIGHTNING CONDUCTOR.
8. INSTALL LIGHTNING CONDUCTOR ON CHILLER. ROUTE TO EXISTING WIRE AND BOND.
9. CONNECT NEW HEAT TRACE CABLE PROVIDED BY DIV 23 TO EXISTING 120V CIRCUITS.
10. REINSTALL ANTI-BIRD DEVICE ON CHILLER. REWIRE TO EXISTING CIRCUIT. REINSTALL WIRING IN RACEWAY.
11. LOCATION OF ANTI-BIRD CONTROLLER.
12. DISCONNECT FOR CHILLER BARREL HEATER/CONTROL CIRCUIT. PROVIDE 60A/1P CIRCUIT BREAKER. PROVIDE A LAMINATED WARNING SIGN ON BOTH THE CHILLER AND THE CHILLER DISCONNECTS "WARNING - TWO SOURCES OF POWER - BOTH SWITCHES MUST BE OPENED TO REMOVE POWER FROM CHILLER".
13. DIVISION 26 TO INSTALL A GFCI RECEPTACLE (PROVIDED BY DIV. 23) ON EACH CHILLER. PROVIDE ALL NECESSARY BOXES, CONDUIT AND WIRE. WIRE TO LOCAL RECEPTACLE CIRCUIT.
14. WIRING FOR CHILLED WATER PUMPS ARE TEMPORARILY FED FROM PANEL EP4A. INSTALL 1" CONDUITS FROM JUNCTION BOX LOCATED ABOVE THE PANEL FOR EACH FEEDER AND INSTALL WIRING IN THE NEW CONDUITS. CIRCUITS EP4A-31,33,35 & EP4A-32,34,36. 40A 3PH.
15. EXISTING 20A/2P GFCI CIRCUIT BREAKER FOR HEAT TRACE.
16. 2#6 AWG, 10 GRND, 1" C.
17. 15 kVA 480V/120/240V 1 PH TRANSFORMER. NEMA 1 ENCLOSURE. 150 DEGREE C. MOUNT ABOVE PANEL. PROVIDE ADDITIONAL STRUT SUPPORT AS NECESSARY.
18. REMOVE (2) SPARE BREAKER IN PANEL "EP4B" AND INSTALL A 40/2A BREAKER FOR TRANSFORMER "T2". PRIMARY WIRE: 2#6 AWG, 10 GRND, 3/4" C. SECONDARY WIRE: 3#4 AWG, 8 GRND, 1 1/4"C. BOND NEUTRAL TO GROUND IN TRANSFORMER.

HVAC NOTES

20. EXISTING PIPING TO REMAIN.
21. PROVIDE NEW HEAT TRACE CABLE OVER ALL EXTERIOR PIPING, BOTH EXISTING AND NEW. RE-INSULATE ALL EXTERIOR PIPING AND PROVIDE ALUMINUM JACKET OVER INSULATION PER SPECIFICATIONS.
22. PROVIDE NEW PIPE SUPPORT SECURED TO ROOF DECK TO MATCH EXISTING SUPPORTS.
23. APPROXIMATE LOCATION OF EXISTING W21x68 WIDE FLANGE STEEL BEAMS BELOW ROOF DECK. NEW CHILLER SUPPORT CURBS SHALL BE POSITIONED AS SHOWN SO THAT THEY DO NOT BEAR ON ANY BEAMS OUTSIDE OF THESE 12 BEAMS.
24. PIPING UNDER EXISTING CHILLER.
25. PROVIDE ROOF CURB EXTENSIONS TO MATCH EXISTING ROOF CURBS. PROVIDE NEW PORTION OF ROOF CURB AND PERFORM ALL ASSOCIATED ROOFING WORK PRIOR TO REMOVAL OF EXISTING CHILLERS. COORDINATE HEIGHT OF NEW PORTION OF ROOF CURB TO MATCH HEIGHT OF EXISTING CURB, AND ENSURE THAT NEW CHILLERS SHALL BE EVENLY LOADED ACROSS BOTH THE EXISTING AND NEW PORTIONS OF THE ROOF CURB.
26. PROVIDE ANTI-ROTATION CHECKS ON CONTROL VALVES. REFER TO CHILLED WATER PIPING SCHEMATIC ON SHEET M603 AND CONTROL SEQUENCES ON SHEET M601. UNDER DEDUCT ALTERNATE #2 (BID ITEM #3), DELETE THESE NEW CONTROL VALVES FROM THE PROJECT SCOPE.
27. APPROXIMATE LOCATION OF EXISTING W18x76 WIDE FLANGE STEEL BEAMS BELOW ROOF DECK. NEW CHILLER SUPPORT CURB SHALL NOT BE INSTALLED ABOVE THIS BEAM.
28. INSTALL NEW PUMP ON EXISTING CONCRETE INERTIA BASE. VERIFY DIMENSIONS PRIOR TO ORDERING.
29. PROVIDE NEW 4" CONCRETE HOUSEKEEPING PAD.
30. PROVIDE DIFFERENTIAL PRESSURE SENSOR. REFER TO CHILLED WATER PIPING SCHEMATIC ON SHEET M603 AND CONTROL SEQUENCE ON SHEET M601.
31. EXISTING MANUAL BUTTERFLY VALVE TO REMAIN.
32. PROVIDE NEW 2-WAY MODULATING CHILLED WATER DDC CONTROL VALVE PER SPECIFICATION SECTION 23 09 23. FOR EXISTING AHU CHILLED WATER COIL WITH F FLOW (GPM) AND VALVE CV AS INDICATED. RECONNECT POWER AND CONTROL WIRING TO RESTORE CONTROL TO EXISTING OPERATION. UNDER DEDUCT ALTERNATE #3 (BID ITEM #4), DELETE THIS NEW CONTROL VALVE FROM THE SCOPE OF THE PROJECT.
33. UNDER DEDUCT ALTERNATE #1 (BID ITEM #2), DELETE THIS NEW PIPING FROM THE PROJECT SCOPE.
34. EXISTING AIR HANDLING UNIT TO REMAIN.
35. PROVIDE TWO POSITION CHILLER ISOLATION CONTROL VALVES. REFER TO CHILLED WATER PIPING SCHEMATIC ON SHEET M603 AND CONTROL SEQUENCES ON SHEET M601.
36. PROVIDE EXPANSION TANK.
37. REPLACE PRE-FILTERS (30% EFF. (2 24x24x5, (2) 24x12x15) AND FINAL FILTERS (40%) EFF. (2) 24x24x30, (2) 24x12x15) IN UNIT AHU-32 AT THE BEGINNING OF CONSTRUCTION, AND AGAIN, ONCE CONSTRUCTION HAS BEEN COMPLETED.
38. EXISTING ROOF CURB TO REMAIN. REPLACE ROOF CURB CAP.
39. EXISTING DUCTWORK TO REMAIN.
40. PROVIDE NEW DUCT SUPPORT ROOF CURBS. REFER TO DETAIL ON SHEET M601.

1 FOURTH FLOOR-NEW WORK

SCALE: 1/4" = 1'-0"

NORTH

Revision		Date
1	ADDENDUM 1	5/24/2017
2	ADDENDUM 2	6/6/2017

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Drawing Title: FOURTH FLOOR-NEW WORK
Approved: Project Director

Project Title: Replace Operating Room Chillers
Location: Cincinnati, Ohio
Date: 5/1/2017 | Checked: MSG/BGA | Drawn: JB/JAC

Project No.
VA Project No. 539-18-203
LPA Project No. 62131.00
Building Number: 1
Drawing Number: ME104
Dwg. of

Office of Construction and Facilities Management
Department of Veterans Affairs