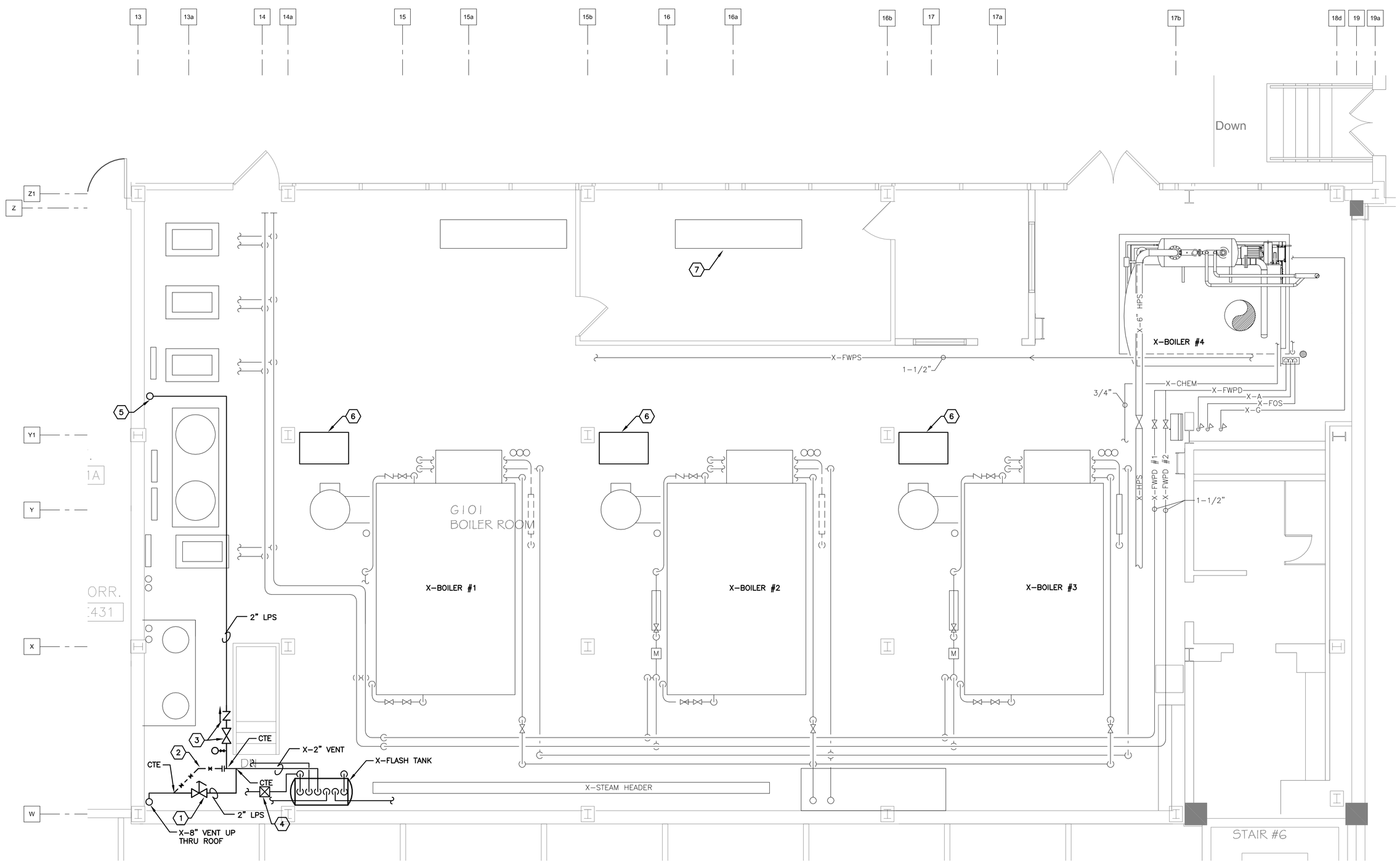

BOILER ROOM MECHANICAL PLAN 1

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

0' 2' 4' 8' 16'

CODED NOTES:

1. SAFETY RELIEF VALVE WITH DRIP PAN ELBOW
2. CUTOUT AND CAP SECTION OF VENT FROM FLASH TANK. SEE DETAIL.
3. PROVIDE PRESSURE GAUGE ISOLATION VALVE, AND CHECK VALVE.
4. PROVIDE A 2" F&T TRAP ASSEMBLY CUT INTO EXISTING CONDENSATE PIPE BETWEEN FLASH TANK AND CONDENSATE PUMP.
5. NEW 2" LPS FROM BOILER ROOM FLASH TANK UP TO PLATFORM LEVEL. REFER TO DRAWING 2-H3 FOR CONTINUATION.
6. REMOVE EXISTING BOILER CONTROLLER CABINET AND REPLACE WITH NEW BOILER CONTROLS, SEE BOILER CONTROLS NOTE.
7. LOCATION OF EXISTING MASTER CONTROLLER TO BE UPGRADED, SEE BOILER CONTROLS NOTE.

GENERAL NOTES:

A. A MAXIMUM OF ONLY ONE BOILER (OF 4 TOTAL) SHALL BE SHUTDOWN AT A TIME DURING CONSTRUCTION. THE THREE REMAINING BOILERS SHALL BE CAPABLE OF OPERATING DURING THE PERIOD OF A SINGLE BOILER SHUTDOWN. NO EXCEPTIONS. INDIVIDUAL BOILER SHUTDOWNS SHALL BE ILLUSTRATED AND HIGHLIGHTED ON PROJECT CONSTRUCTION SCHEDULE. COORDINATE SCHEDULING WITH VA COTR AND BOILER PLANT MANAGER.

BOILER CONTROLS NOTES:

A. PROVIDE A PLC BOILER CONTROL SYSTEM FOR EACH EXISTING 25000#/HR BOILER(3 TOTAL) INCLUDING THE FOLLOWING:

B. RE-USE/REWORK INDIVIDUAL BOILER CONTROL CABINETS

C. REPLACE EXISTING YOKOGAWA CONTROLLERS, WITH NEW;
   1. BOILER MASTER CONTROLLER
   2. OXYGEN TRIM CONTROLLER
   3. DRUM LEVEL CONTROLLER

D. ANNUNCIATOR PLC WHICH DISPLAYS BOILER RUN STATUS AND FAILURE ALARMS.

E. INDICATOR PLC WHICH DISPLAYS STEAM FLOW, DRUM LEVEL, STACK TEMPERATURE, STACK OXYGEN LEVEL IN PERCENTAGE.

F. EACH OF THE INDIVIDUAL BOILER CONTROLS IN THE EXISTING CABINETS WILL UTILIZE ONE EXISTING 10" HIMI FOR THE ANNUNCIATOR PLC AND ONE EXISTING 8" HIMI FOR THE INDICATOR PLC, AND A NEW 12" HIMI TOUCH SCREEN SHALL BE PROVIDE AND WIRE TO BE UTILIZED AS THE MAIN HUMAN INTERFACE BOILER CONTROL. ALL OF THE BOILER CONTROLLERS WOULD BE WIRED TO THE NEW PLC MASTER CONTROLLERS LOCATED IN THE BOILER CONTROL ROOM.

F. THE NEW PLANT MASTER CONTROLLER SHALL BE LOCATED IN THE CONTROL ROOM. REMOVE AND REPLACE 7 EXISTING YOKOGAWA CONTROLLERS WITH NEW PLC CONTROLLERS. UTILIZE THE EXISTING ANNUNCIATOR AND THE 15" HIMI FOR PLANT WIDE ALARMS. ALL OF THE INDIVIDUAL BOILER CONTROLLERS WOULD BE WIRED TO ONE NEW COMPACTLOGIX MODEL PLC MASTER CONTROLLER LOCATED IN THE BOILER CONTROL ROOM. TWO NEW 12" HIMI TOUCH SCREEN SHALL BE PROVIDED AND WIRED TO BE UTILIZED AS THE MAIN HUMAN INTERFACE.

G. PROVIDE ADAPTOR PANELS AND BLANK OFF PANELS TO FILL-IN CABINET OPENINGS.

H. PROVIDE ALL REQUIRED PROGRAMMING, SET-UP AND TESTING, TO PROVIDE A FULLY FUNCTIONAL CONTROLS SYSTEM.

I. TIE-INTO THE EXISTING ANDOVER CONTROLS SYSTEM. ANDOVER CONTROL SYSTEM SHALL READ ONLY THE FOLLOWING POINTS:
   1. MAIN HEADER STEAM PRESSURE (PRESSURE IN PSI)
   2. BOILER ONLINE (ON/OFF)
   3. PERCENT FIRE (PERCENT%)
   4. ALARMS FOR EACH BOILER

G. MASTER CONTROLLER LOCATED IN BOILER CONTROL ROOM

GENERAL PIPING NOTE:

A. FOR ADDITIONAL INFORMATION SEE PIPING DETAILS ON SHEETS 2-H12 & 2-H-13

FULLY SPRINKLERED

FINAL CD SUBMISSION - FOR CONSTRUCTION	06-18-12
Revisions:	**Date**

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ARCHITECT:

Drawing Title: **BOILER ROOM MECHANICAL PLAN**

Approved: Project Director

Project Title: **STEAM CONDENSATE HEAT RECOVERY SYSTEM**

Location: **VAMC - WADE PARK**

Date: 06-18-12 | Checked: **DAD** | Drawn: **LDH**

Project Number: 541-12-105

Building Number: 1

Drawing Number: **2-H2**

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