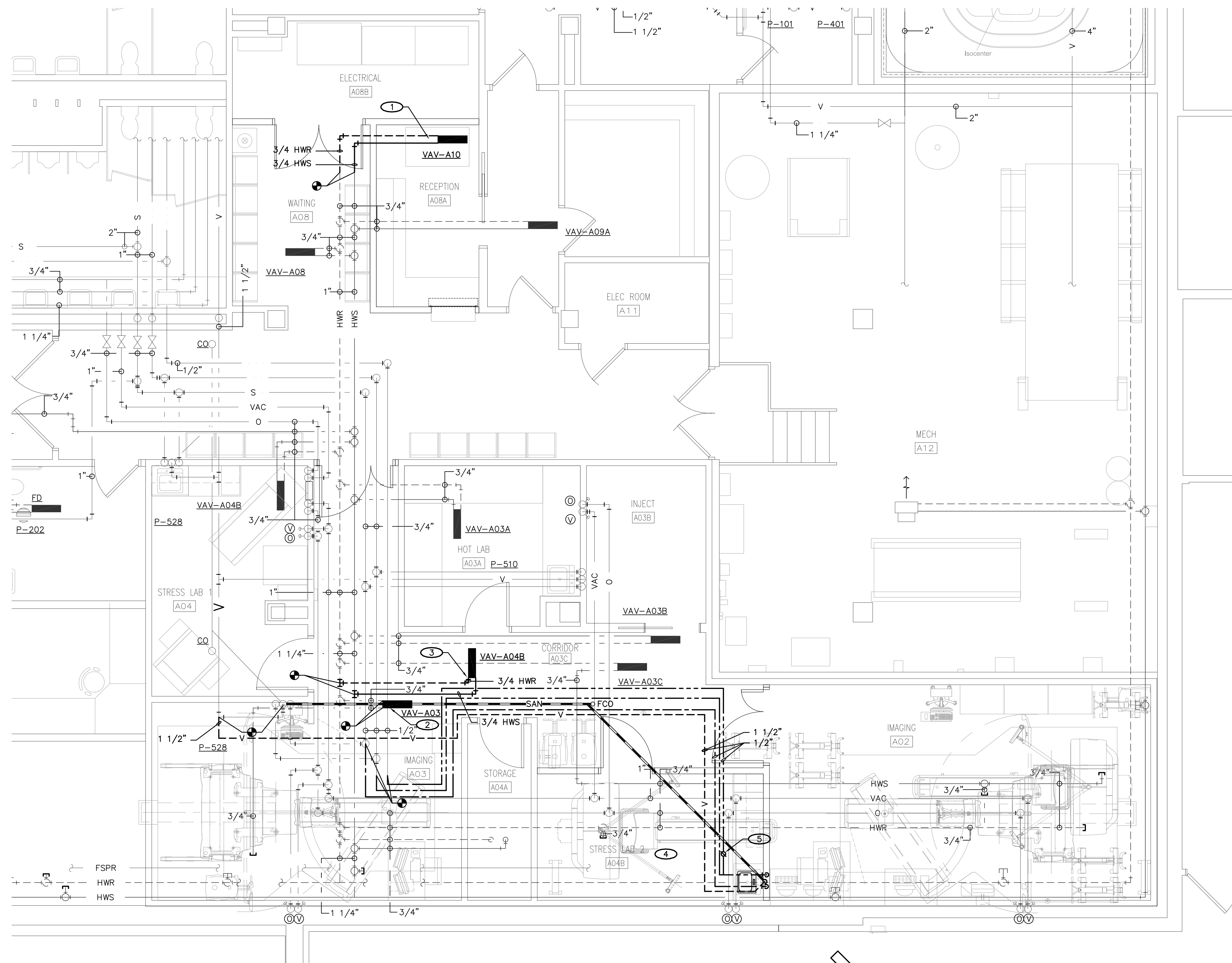
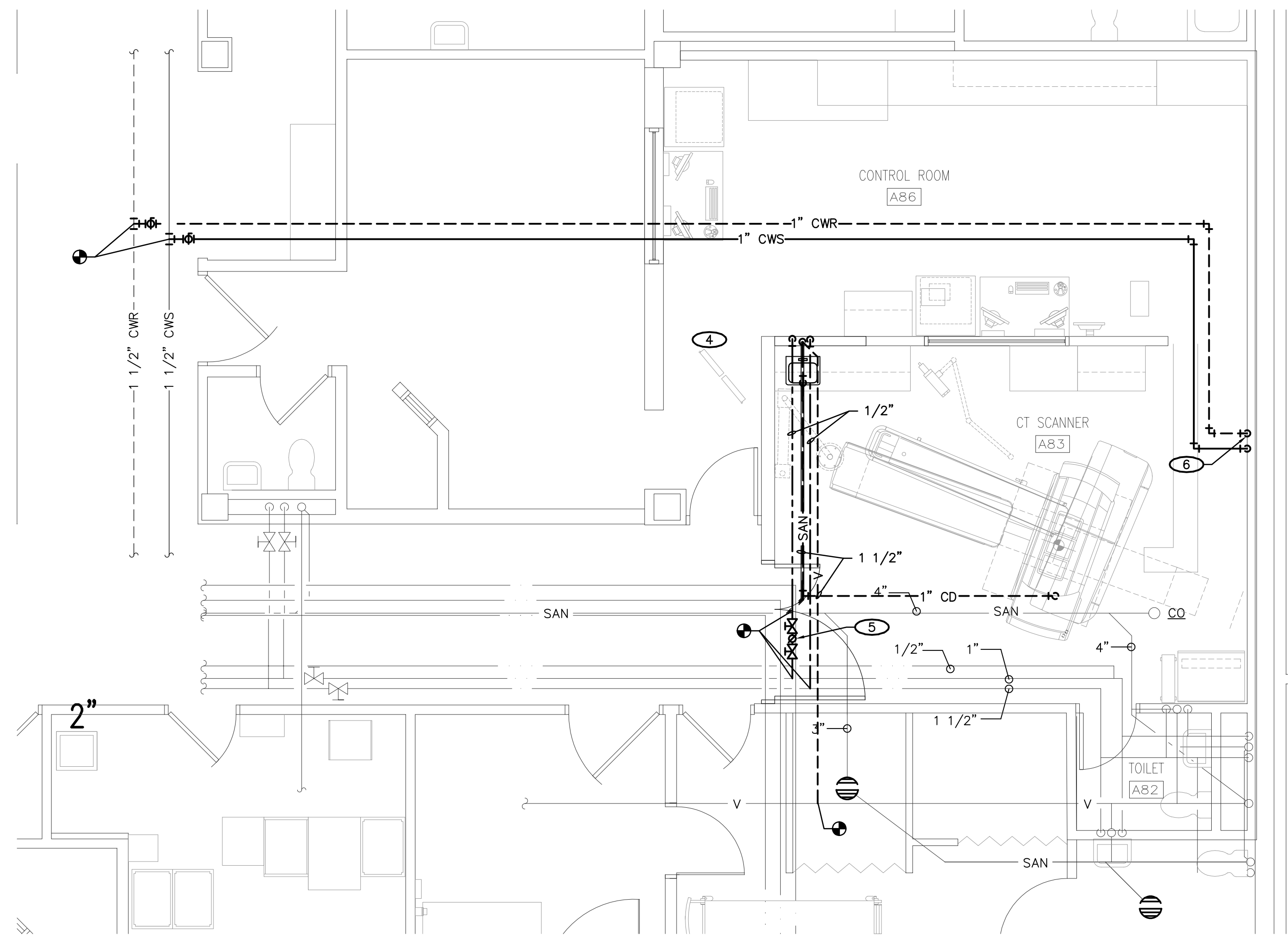


MECHANICAL KEYNOTES: (O)

- (1) PROVIDE NEW 3/4" HWS AND HWR PIPING BETWEEN EXISTING PIPING AND RELOCATED VAV BOX. RE-INSTALL EXISTING HYDRONIC CONTROL VALVE. PROVIDE NEW PIPE HANGERS AND PIPING SYSTEM APPURTENANCES AS REQUIRED. SEE DETAIL 1/M-701.
- (2) RECONNECT EXISTING 3/4" HWS AND HWR PIPING TO NEW VAV BOX. PROVIDE ADDITIONAL PIPING AND FITTINGS AS REQUIRED TO FACILITATE CONNECTION OF EXISTING PIPING TO NEW VAV BOX. SEE DETAIL 1/M-701.
- (3) PROVIDE NEW 3/4" HWS AND HWR PIPING BETWEEN EXISTING PIPING HEADERS AND RELOCATED VAV BOX. PROVIDE NEW HYDRONIC CONTROL VALVE. PROVIDE NEW PIPE HANGERS AND PIPING SYSTEM APPURTENANCES AS REQUIRED. SEE DETAIL 1/M-701.
- (4) SEE SHEET M701 FOR PLUMBING FIXTURE SPECIFICATION.
- (5) PROVIDE MANUAL BALANCING VALVE. BALANCE TO 0.5 GPM.
- (6) SEE DETAIL 2/M-701 FOR PIPING TERMINATION DETAIL.



2F NUCLEAR MEDICINE AREA MECHANICAL PIPING PLAN  
SCALE: 1/4" = 1'-0"



8C CT SCANNER AREA MECHANICAL PIPING PLAN  
SCALE: 1/4" = 1'-0"

|                                                |            |
|------------------------------------------------|------------|
| BID DOCUMENTS                                  | 10/10/2018 |
| CONSTRUCTION DOCUMENTS 100% SUBMITTAL - UPDATE | 9/28/2018  |
| CONSTRUCTION DOCUMENTS 100% SUBMITTAL          | 9/7/2018   |
| DESIGN DEVELOPMENT 90% SUBMITTAL               | 8/3/2018   |
| SCHEMATIC DESIGN 36% SUBMITTAL 2               | 7/5/2018   |
| SCHEMATIC DESIGN 35% SUBMITTAL                 | 6/6/2018   |
| Revisions:                                     | Date:      |

CONSULTANT

Mechanical / Electrical Engineering:  
Farris Engineering  
12700 W Dodge Road  
Omaha, NE 68154  
(402) 330-5900  
Robert Hotovy

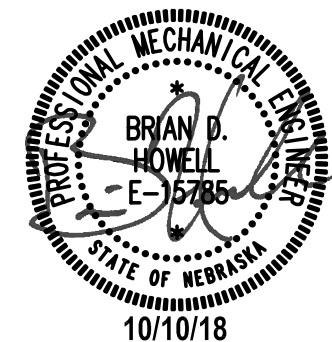
Structural Engineering:  
Shaffer & Stevens, P.C.  
9910 N 48th Street  
Omaha, NE 68152  
(402) 455-7698  
Donn Shaffer

ARCHITECT/ENGINEER OF RECORD

A/E:  
CLH Architects  
3705 N 200th St  
Elkhorn, NE 68022  
(402) 291-6941  
Tim Werner



STAMP



Office of  
Construction  
and Facilities  
Management



U.S. Department  
of Veterans Affairs

Drawing Title

Mechanical Piping Plan

Approved: Project Director

Phase

BID DOCUMENTS

FULLY SPRINKLERED

Project Title

Second CT Scanner  
Site Prep Design

Location

Sioux Falls, SD

Issue Date

October 10, 2018

Checked

BDH

Drawn

AMM

Project Number

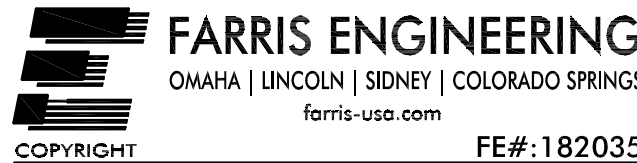
438-18-103

Building Number

5

Drawing Number

MP101







CONNECT EACH NEW TERMINAL UNIT OR NEW TERMINAL UNIT CONTROLLER WITH EXISTING JOHNSON CONTROL SYSTEM AND PROVIDE EACH NEW TERMINAL UNIT WITH AN AIR FLOW RATE SENSOR AND AN AIR FLOW DAMPER TO CONTROL THE FLOW RATE OF AIR AS DETERMINED BY THE DDC CONTROLLER. THE SUPPLY AIR VAV TERMINAL UNIT WILL REQUIRE A CONTROL VALVE FOR THE REHEAT COIL AND A DISCHARGE AIR TEMPERATURE SENSOR FOR MONITORING PURPOSES. ADDITIONALLY PROVIDE A ROOM TEMPERATURE SENSOR. THE SUPPLY AIR VAV TERMINAL UNIT SHALL BE SET TO THE AIR FLOW RATES SHOWN ON THE PLANS.

ROOM TEMPERATURE CONTROL SHALL BE ACCOMPLISHED BY THE DDC CONTROLLER MONITORING THE SPACE TEMPERATURE THROUGH THE ROOM TEMPERATURE SENSOR. AS THE SPACE TEMPERATURE DROPS THE DDC CONTROLLER SHALL OPEN THE HOT WATER REHEAT CONTROL VALVE SERVING THE VAV TERMINAL UNIT REHEAT COIL. UPON SATISFYING THE ROOM TEMPERATURE SETPOINT, THE DDC CONTROLLER SHALL CLOSE THE HOT WATER CONTROL VALVE WITH THE VAV TERMINAL UNIT DELIVERING A CONSTANT VOLUME OF 55 DEG F SUPPLY AIR TO THE SPACE. THE SPACE TEMPERATURES SHALL BE MAINTAINED BETWEEN 70 AND 75 DEG F (ADJUSTABLE) ON A CONTINUOUS BASIS (24/7).

| BUILDING NO.<br>5          | HARDWARE |  |        |  |  |         |  |        |  |  | SOFTWARE |  |        |  |  |                      |  |  |  |  |
|----------------------------|----------|--|--------|--|--|---------|--|--------|--|--|----------|--|--------|--|--|----------------------|--|--|--|--|
|                            | OUTPUT   |  |        |  |  | INPUT   |  |        |  |  | ALARMS   |  |        |  |  | APPLICATION PROGRAMS |  |  |  |  |
|                            | DIGITAL  |  | ANALOG |  |  | DIGITAL |  | ANALOG |  |  | DIGITAL  |  | ANALOG |  |  |                      |  |  |  |  |
|                            |          |  |        |  |  |         |  |        |  |  |          |  |        |  |  |                      |  |  |  |  |
| SYSTEM(S)                  |          |  |        |  |  |         |  |        |  |  |          |  |        |  |  |                      |  |  |  |  |
| VAV UNITS                  |          |  |        |  |  |         |  |        |  |  |          |  |        |  |  |                      |  |  |  |  |
| OCCUPANCY TIME             |          |  |        |  |  |         |  |        |  |  |          |  |        |  |  |                      |  |  |  |  |
| GENERAL DISPLAY            |          |  |        |  |  |         |  |        |  |  |          |  |        |  |  |                      |  |  |  |  |
| POINT DESCRIPTION          |          |  |        |  |  |         |  |        |  |  |          |  |        |  |  |                      |  |  |  |  |
| GENERAL VAV TERMINAL UNITS |          |  |        |  |  |         |  |        |  |  |          |  |        |  |  |                      |  |  |  |  |

|                                                                                |  |                                                                                                                                                                         |  |                                                                                                                                                         |  |                                                                                                  |  |                                                             |  |                                                         |  |                                           |  |                                                                        |  |                                                 |                                 |  |
|--------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------|--|---------------------------------------------------------|--|-------------------------------------------|--|------------------------------------------------------------------------|--|-------------------------------------------------|---------------------------------|--|
|                                                                                |  | <b>CONSULTANT</b>                                                                                                                                                       |  | <b>ARCHITECT/ENGINEER OF RECORD</b>                                                                                                                     |  | <b>STAMP</b>                                                                                     |  | <div>Office of Construction and Facilities Management</div> |  | <div>Drawing Title</div> <div>Mechanical Controls</div> |  | <div>Phase</div> <div>BID DOCUMENTS</div> |  | <div>Project Title</div> <div>Second CT Scanner Site Prep Design</div> |  | <div>Project Number</div> <div>438-18-103</div> |                                 |  |
|                                                                                |  |                                                                                                                                                                         |  |                                                                                                                                                         |  | <div></div> |  |                                                             |  |                                                         |  |                                           |  |                                                                        |  | <div>Building Number</div> <div>5</div>         |                                 |  |
| <div>BID DOCUMENTS</div> <div>10/10/2018</div>                                 |  | <div><u>Mechanical / Electrical Engineering:</u><br/>Farris Engineering<br/>12700 W Dodge Road<br/>Omaha, NE 68154<br/>(402) 330-5900<br/>Robert Hotovy<br/>Date:</div> |  | <div><u>Structural Engineering:</u><br/>Shaffer &amp; Stevens, P.C.<br/>3705 N 200th St<br/>Elkhorn, NE 68022<br/>(402) 455-7698<br/>Donn Shaffer</div> |  |                                                                                                  |  |                                                             |  |                                                         |  |                                           |  | <div>Location</div> <div>Sioux Falls, SD</div>                         |  | <div>Drawing Number</div> <div>M-301</div>      |                                 |  |
| <div>CONSTRUCTION DOCUMENTS 100% SUBMITTAL – UPDATE</div> <div>9/28/2018</div> |  |                                                                                                                                                                         |  |                                                                                                                                                         |  |                                                                                                  |  |                                                             |  |                                                         |  |                                           |  |                                                                        |  |                                                 |                                 |  |
| <div>CONSTRUCTION DOCUMENTS 100% SUBMITTAL</div> <div>9/7/2018</div>           |  |                                                                                                                                                                         |  |                                                                                                                                                         |  |                                                                                                  |  |                                                             |  |                                                         |  |                                           |  |                                                                        |  |                                                 |                                 |  |
| <div>DESIGN DEVELOPMENT 90% SUBMITTAL</div> <div>8/3/2018</div>                |  |                                                                                                                                                                         |  |                                                                                                                                                         |  |                                                                                                  |  |                                                             |  |                                                         |  |                                           |  |                                                                        |  |                                                 |                                 |  |
| <div>SCHEMATIC DESIGN 36% SUBMITTAL 2</div> <div>7/5/2018</div>                |  |                                                                                                                                                                         |  |                                                                                                                                                         |  |                                                                                                  |  |                                                             |  |                                                         |  |                                           |  |                                                                        |  |                                                 |                                 |  |
| <div>SCHEMATIC DESIGN 35% SUBMITTAL</div> <div>6/6/2018</div>                  |  |                                                                                                                                                                         |  |                                                                                                                                                         |  |                                                                                                  |  |                                                             |  |                                                         |  |                                           |  |                                                                        |  |                                                 |                                 |  |
| <div>Revisions:</div> <div>Date:</div>                                         |  |                                                                                                                                                                         |  |                                                                                                                                                         |  |                                                                                                  |  |                                                             |  | <div>Approved: Project Director</div>                   |  | <div>FULLY SPRINKLERED</div>              |  | <div>Issue Date</div> <div>October 10, 2018</div>                      |  | <div>Checked</div> <div>BDH</div>               | <div>Drawn</div> <div>AMM</div> |  |
|                                                                                |  |                                                                                                                                                                         |  |                                                                                                                                                         |  |                                                                                                  |  |                                                             |  |                                                         |  |                                           |  |                                                                        |  |                                                 |                                 |  |