



## **Sea-Tac International Airport**

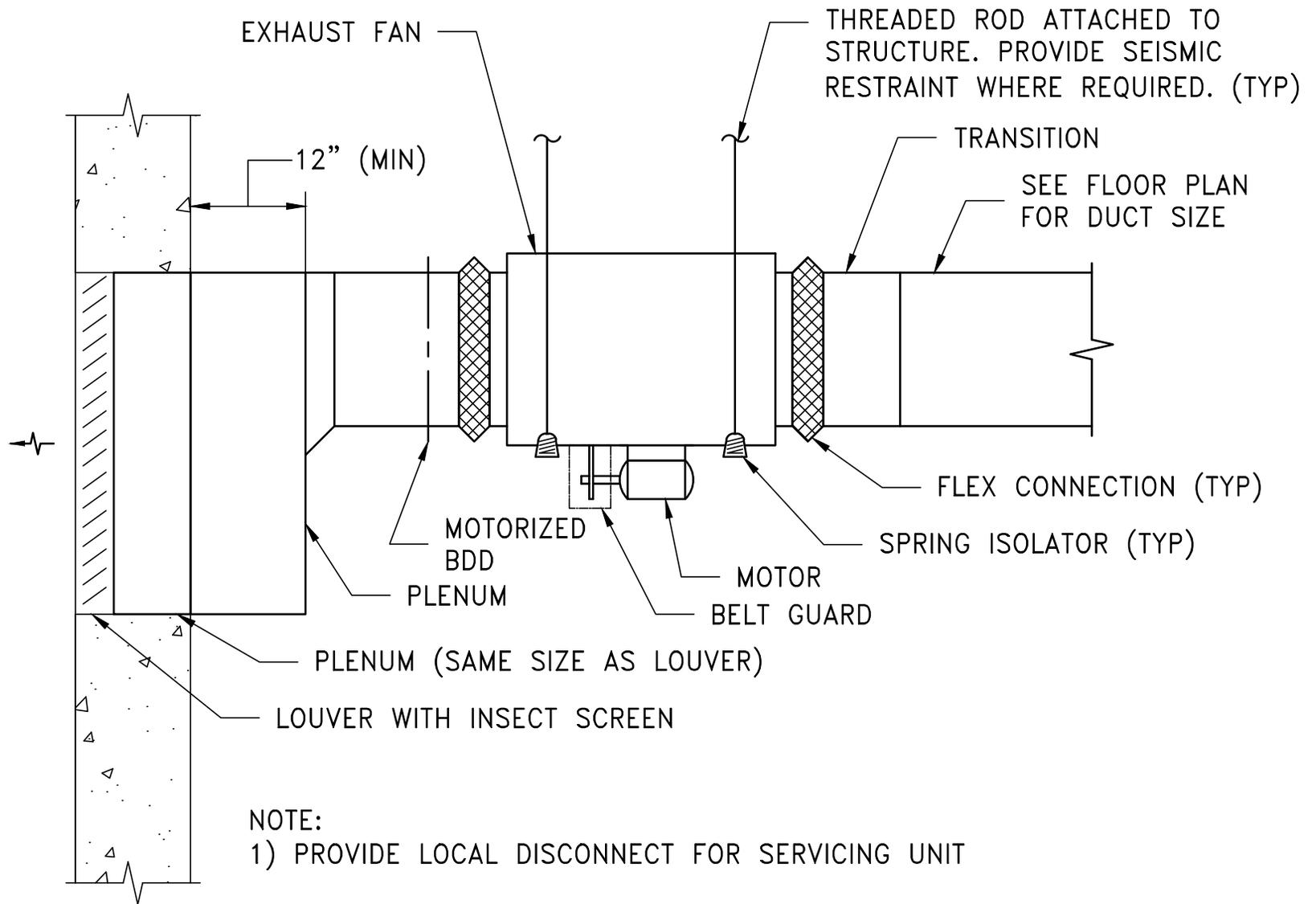
Facilities and Infrastructure System  
Mechanical System Standards

### **APPENDIX E**

Mechanical Diagrams and Details

*Revised January 1, 2023*

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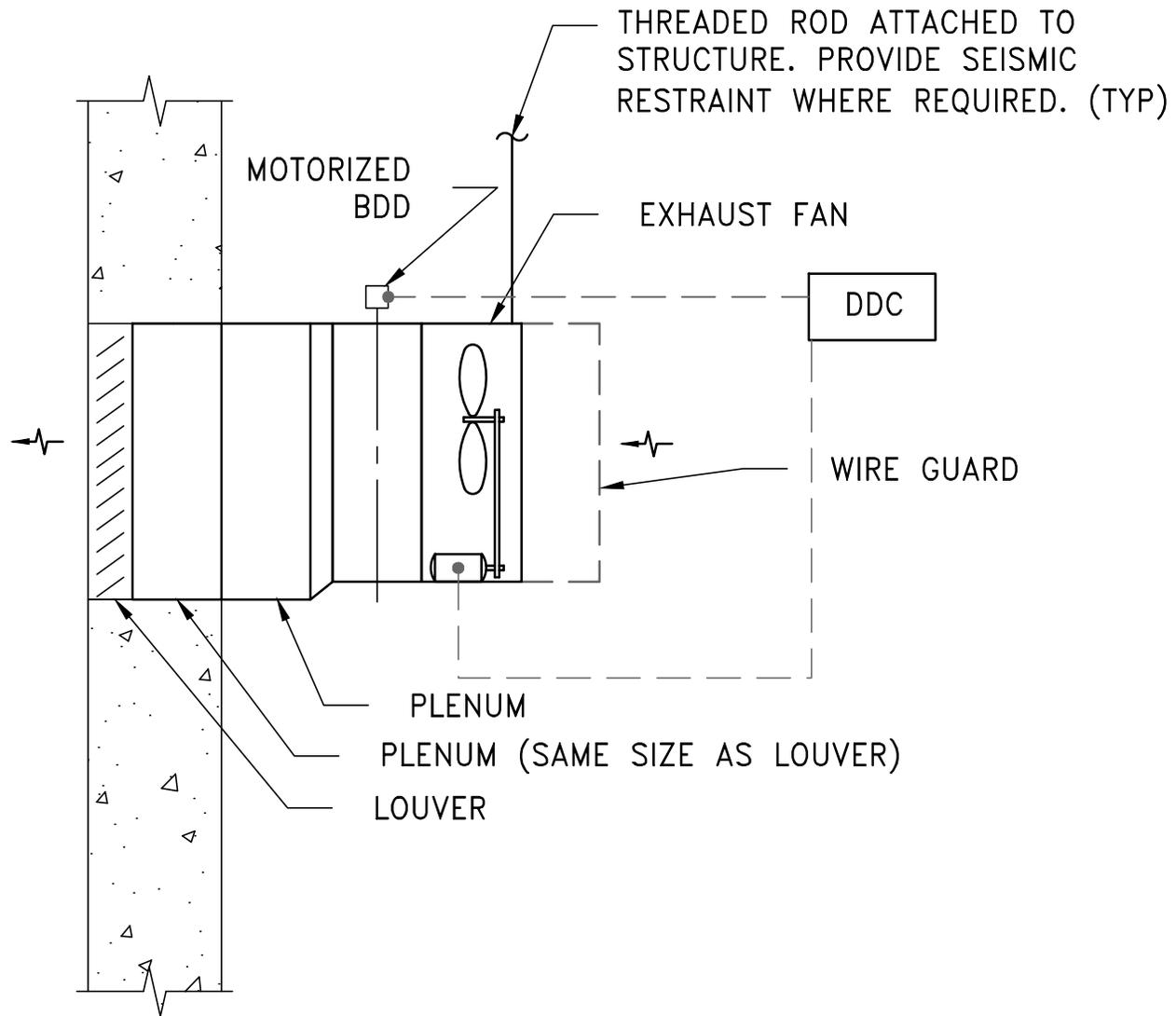


# DETAIL

IN-LINE FAN  
(EXHAUST FAN SHOWN)  
SCALE: NONE

1  
SD-207

DWG. TITLE: IN-LINE FAN DETAIL		
DATE: NOV, 2022	___: ___	DIAG. NO.
LAST REVISION: 3	___: ___	SD-207

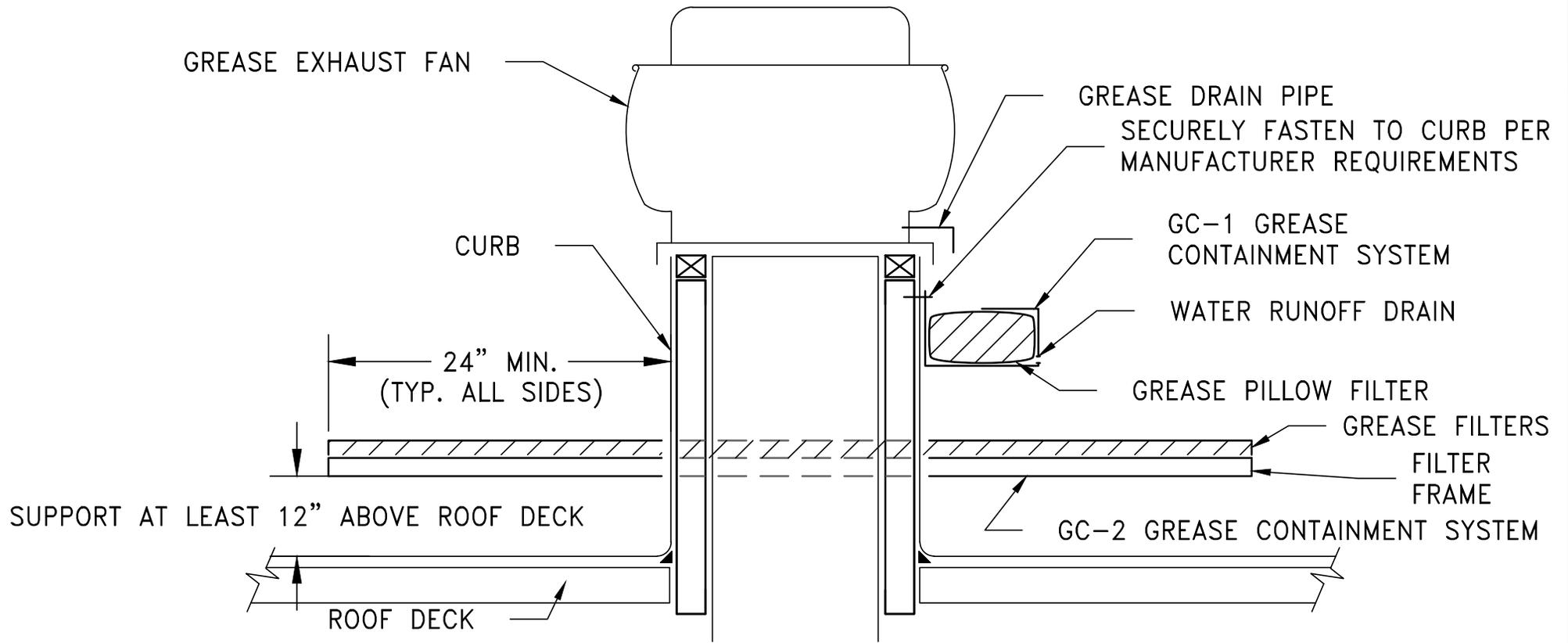


# DETAIL

PROPELLER WALL FAN  
 (EXHAUST FAN SHOWN)  
 SCALE: NONE

1  
 SD-208

DWG. TITLE:		
PROPELLER WALL FAN DETAIL		
DATE: NOV, 2022	___: ___	DIAG. NO.
LAST REVISION: 3	___: ___	SD-208



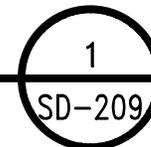
**NOTE:**

1. COORDINATE LOCATION AND ORIENTATION OF GREASE DRAIN AND GREASE CONTAINMENT GC-1 TO PROVIDE MAXIMUM FEASIBLE MAINTENANCE ACCESS.

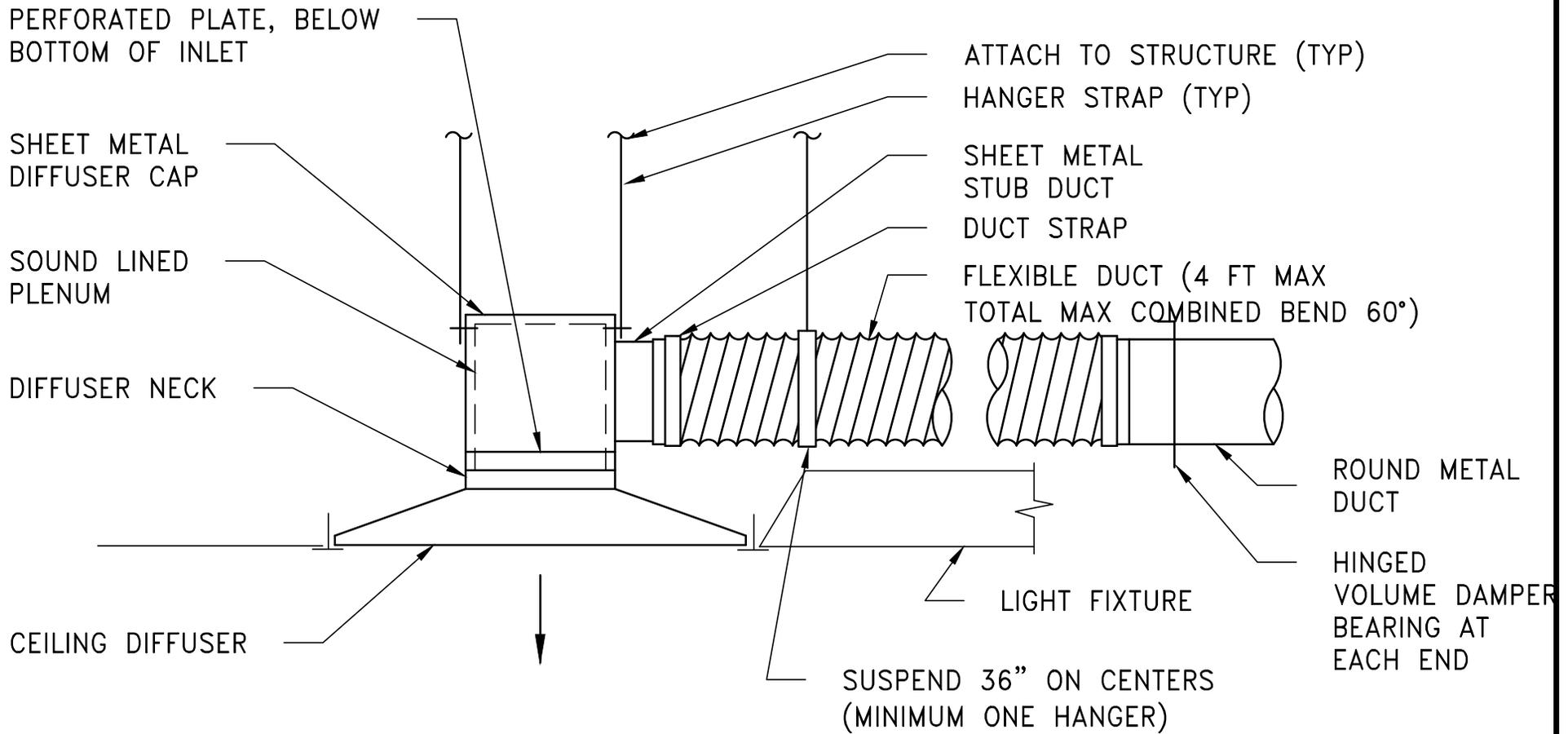
**DETAIL**

ROOFTOP GREASE CONTAINMENT SYSTEM

SCALE: NONE

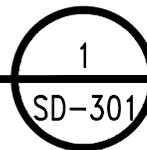


DWG. TITLE:		
ROOFTOP GREASE CONTAINMENT		
DATE: NOV, 2018	___: ___	DIAG. NO.
LAST REVISION: 0	___: ___	SD-209

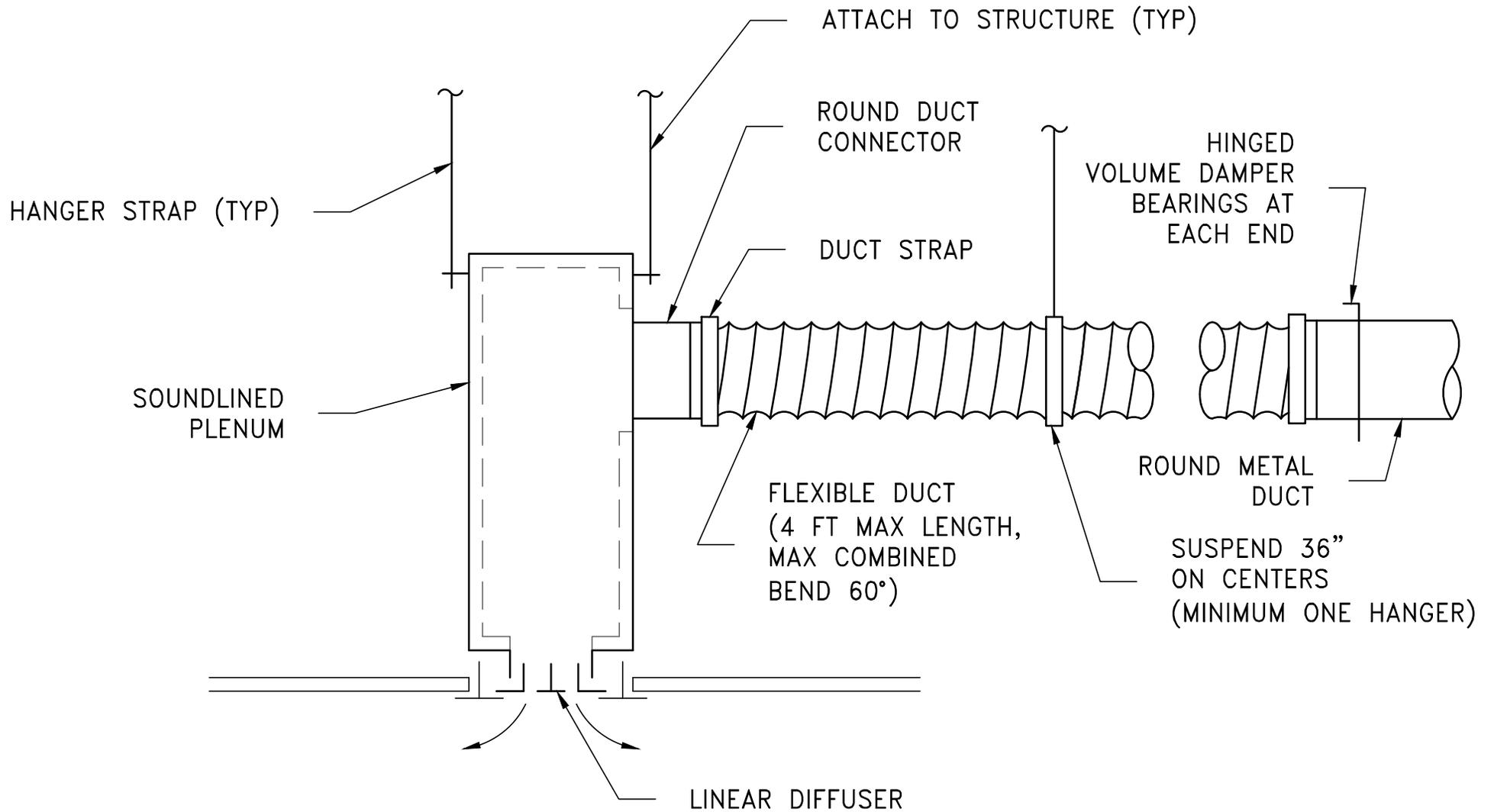


# DETAIL

CEILING DIFFUSER  
SCALE: NONE



DWG. TITLE:		
CEILING DIFFUSER DETAIL		
DATE: NOV, 2022	___: ___	DIAG. NO.
LAST REVISION: 3	___: ___	SD-301

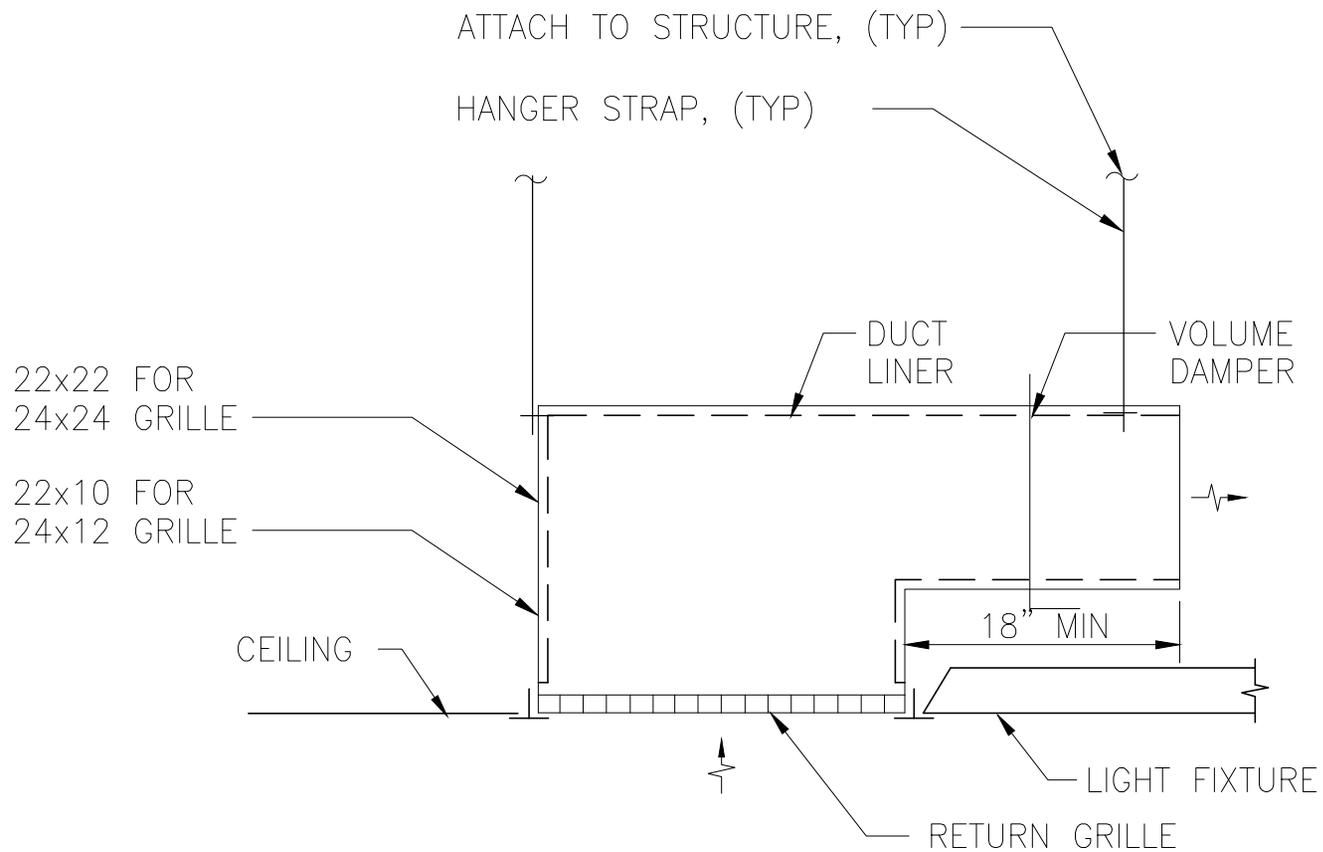


**DETAIL**

LINEAR DIFFUSER  
SCALE: NONE

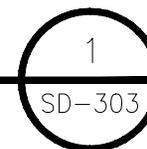
1  
SD-302

DWG. TITLE:		
LINEAR DIFFUSER DETAIL		
DATE:	SEP, 2018	—: —
LAST REVISION:	2	—: —
DIAG. NO.		SD-302

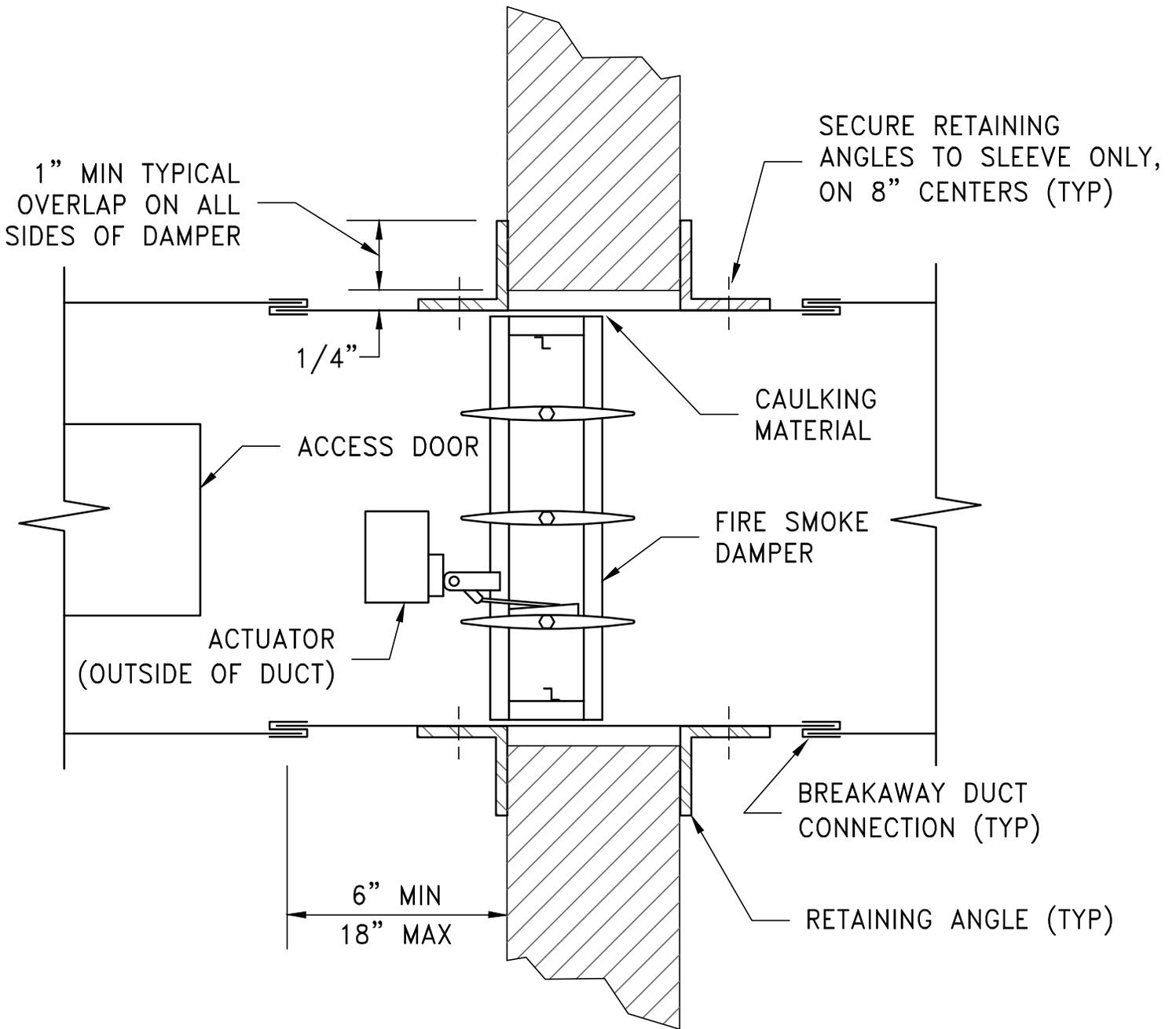


# DETAIL

RETURN AIR GRILLE PLENUM  
 RETURN APPLICATION SHOWN  
 SCALE: NONE



DWG. TITLE:		
RETURN AIR GRILLE DETAIL		
DATE: Dec, 2001	___: __	DIAG. NO.
LAST REVISION: 0	___: __	SD-303



# DETAIL

FIRE SMOKE DAMPER  
SCALE: NONE

1  
SD-304

DWG. TITLE:

FIRE/SMOKE DAMPER DETAIL

DATE: SEP, 2018

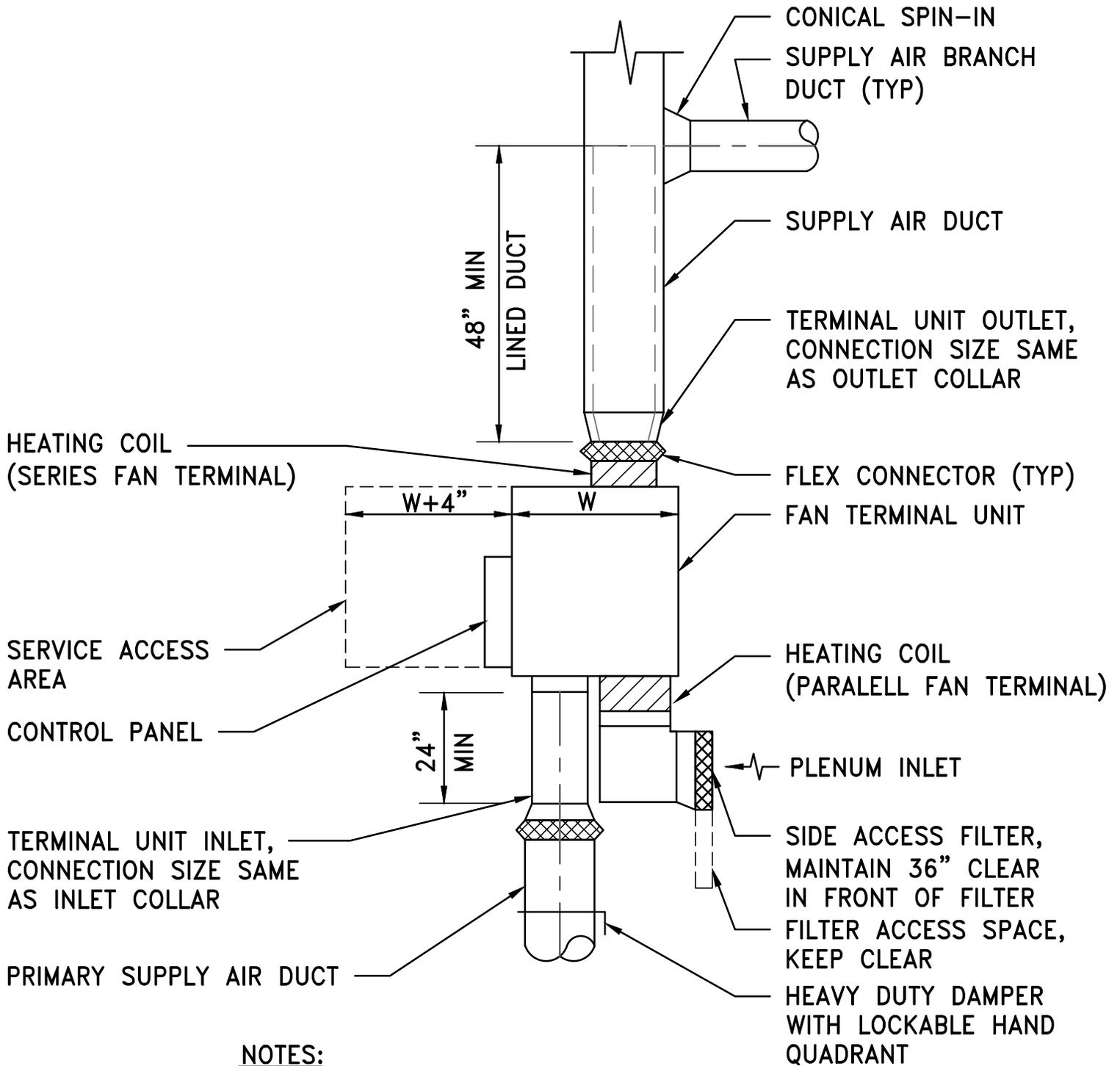
\_\_\_: \_\_\_

DIAG. NO.

LAST REVISION: 2

\_\_\_: \_\_\_

SD-304



**NOTES:**

- DDC CONTROLS BY SIEMENS BUILDING TECHNOLOGIES, INC.

**DETAIL**

TYPICAL FAN TERMINAL UNIT  
SCALE: NONE

1  
SD-305

DWG. TITLE:

FAN TERMINAL UNIT DETAIL

DATE: SEP, 2018

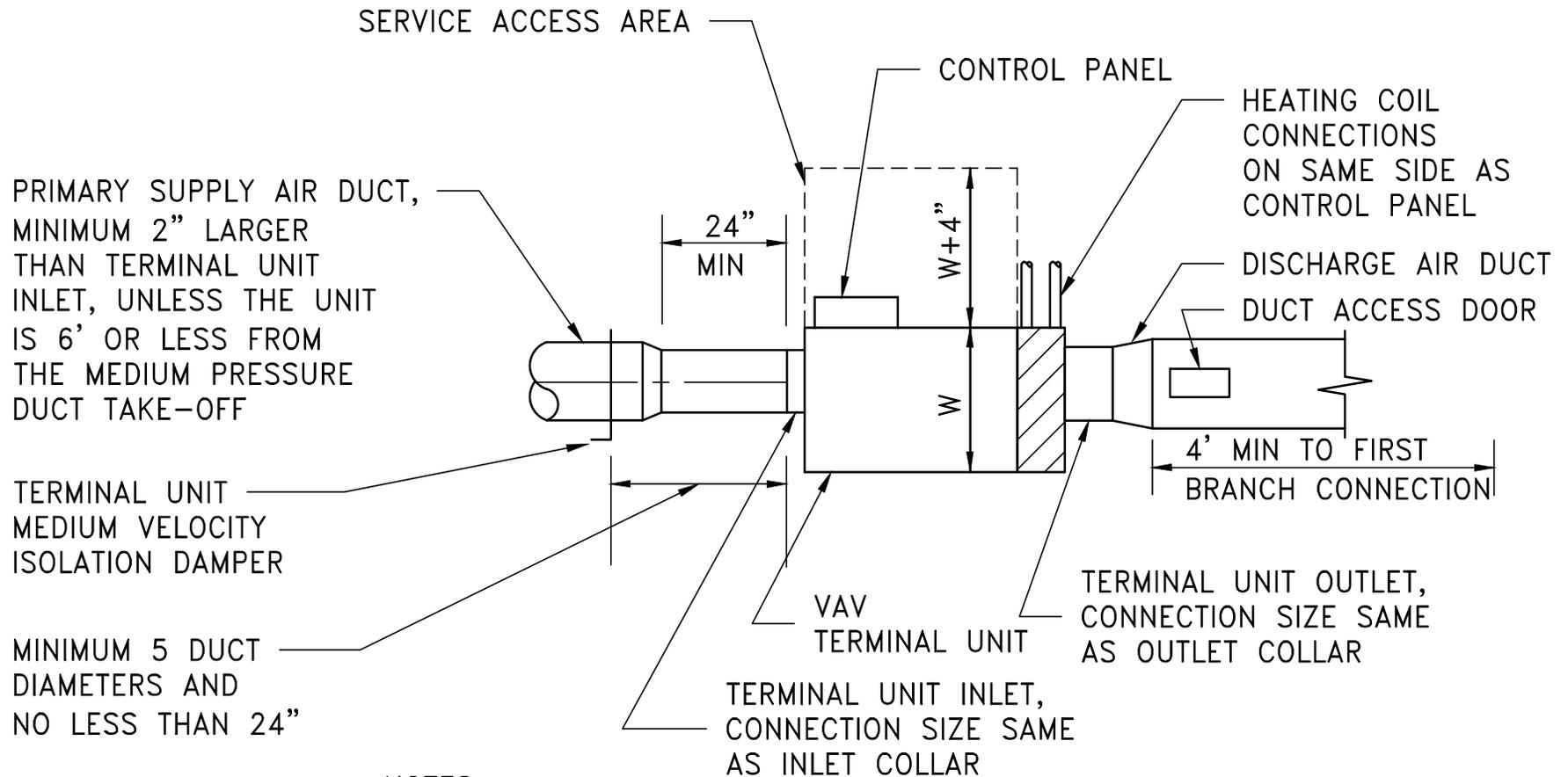
\_\_\_: \_\_\_

DIAG. NO.

LAST REVISION: 2

\_\_\_: \_\_\_

SD-305

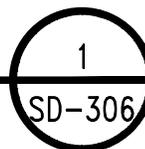


**NOTES:**

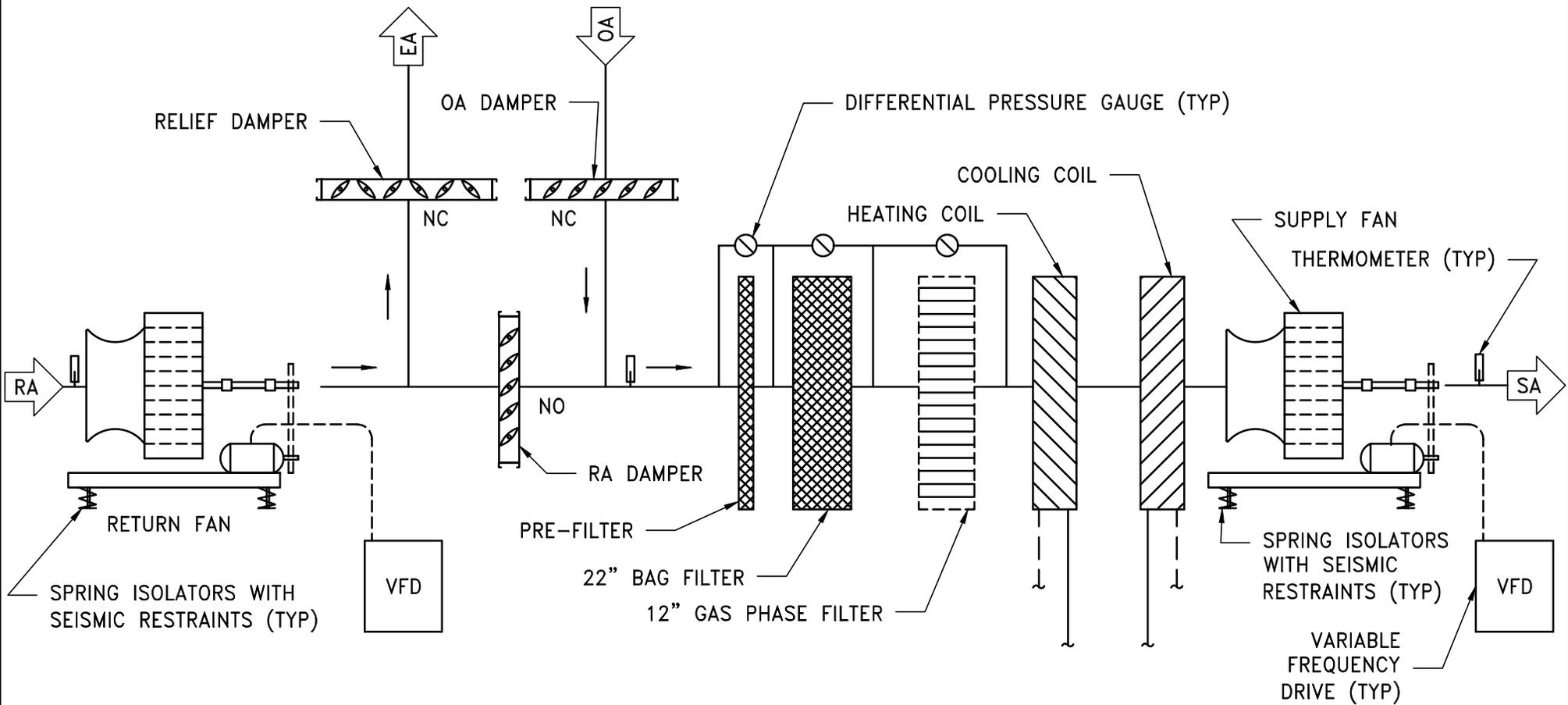
1. DDC CONTROL BY SIEMENS BUILDING TECHNOLOGIES, INC.
2. MAINTAIN 36" CLEAR SPACE UNDER VAV BOX FOR MAINTENANCE.

**DETAIL**

VAV TERMINAL UNIT DETAIL  
SCALE: NONE



DWG. TITLE:		
TYPICAL VAV TERMINAL UNIT		
DATE: NOV, 2022	___: ___	DIAG. NO.
LAST REVISION: 2	___: ___	SD-306

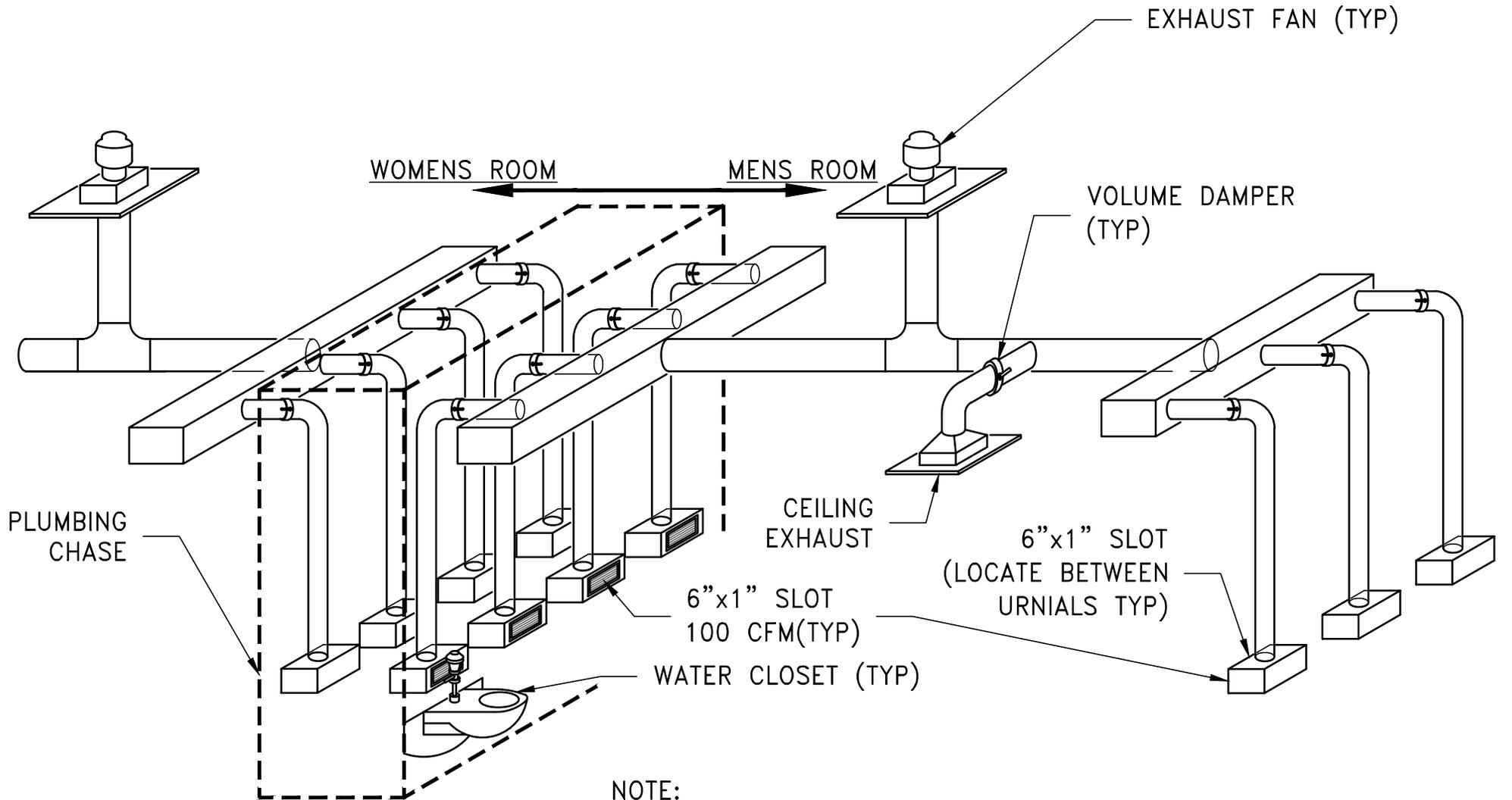


# DETAIL

TYPICAL AHU CONFIGURATION  
 DRAW-THROUGH FAN SYSTEM SHOWN  
 SCALE: NONE

1  
 SD-308

DWG. TITLE:		
AHU CONFIGURATION DIAGRAM		
DATE: NOV, 2022	___: ___	DIAG. NO.
LAST REVISION: 3	___: ___	SD-308

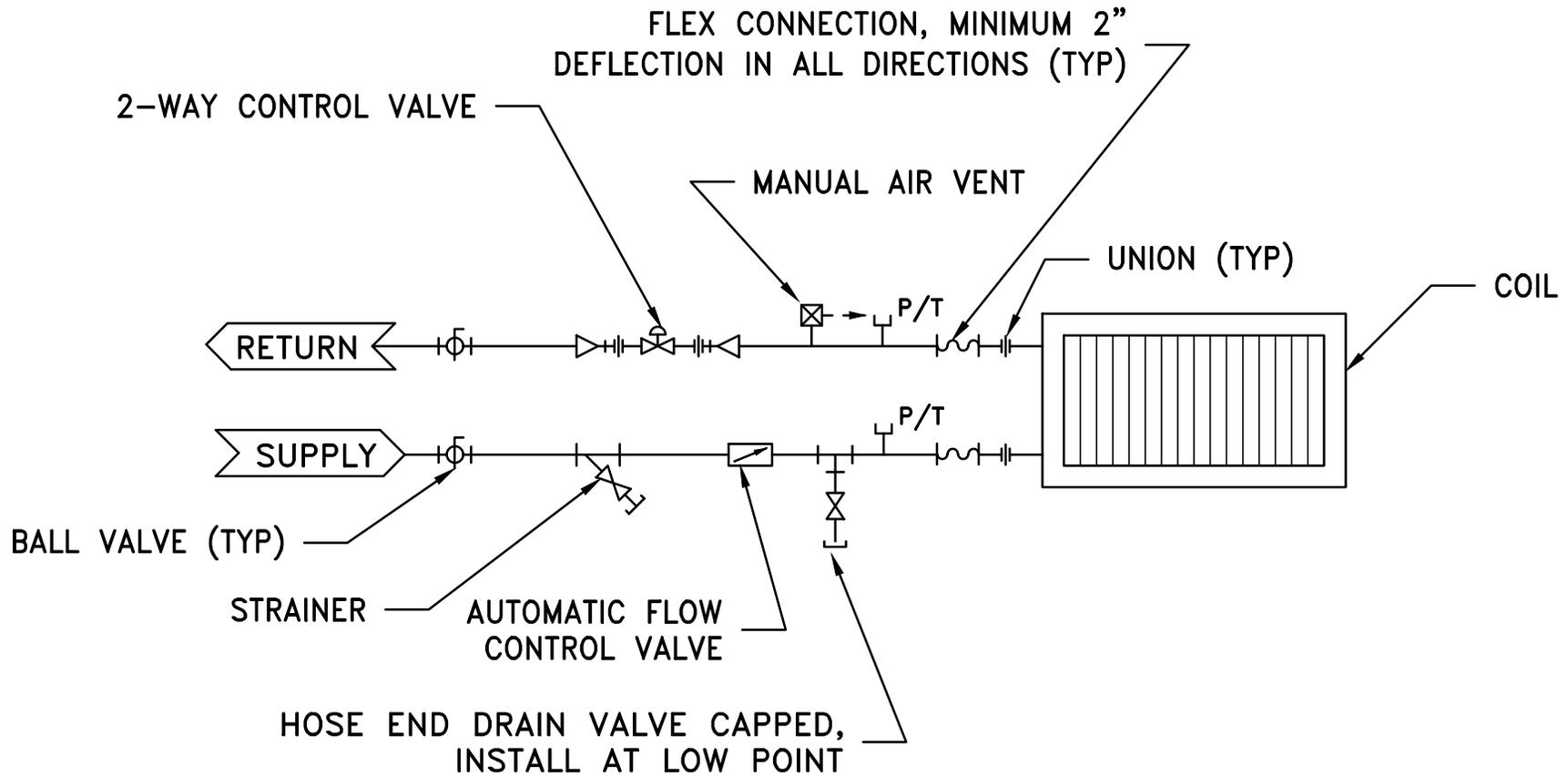


NOTE:  
 RESTROOMS SHALL HAVE 20 AIR  
 CHANGES PER HOUR EXHAUST RATE.

**DETAIL**  
 RESTROOM EXHAUST LAYOUT  
 SCALE: NONE

1  
 SD-309

DWG. TITLE: <b>RESTROOM EXHAUST LAYOUT</b>		
DATE: <b>SEPT 2018</b>	___: ___	DIAG. NO.
LAST REVISION: <b>1</b>	___: ___	<b>SD-309</b>



HOSE END DRAIN VALVE CAPPED,  
INSTALL AT LOW POINT

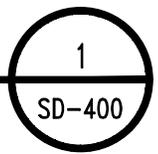
**NOTES:**

- 1. COORDINATE CONTROL VALVE INSTALLATION WITH SIEMENS.

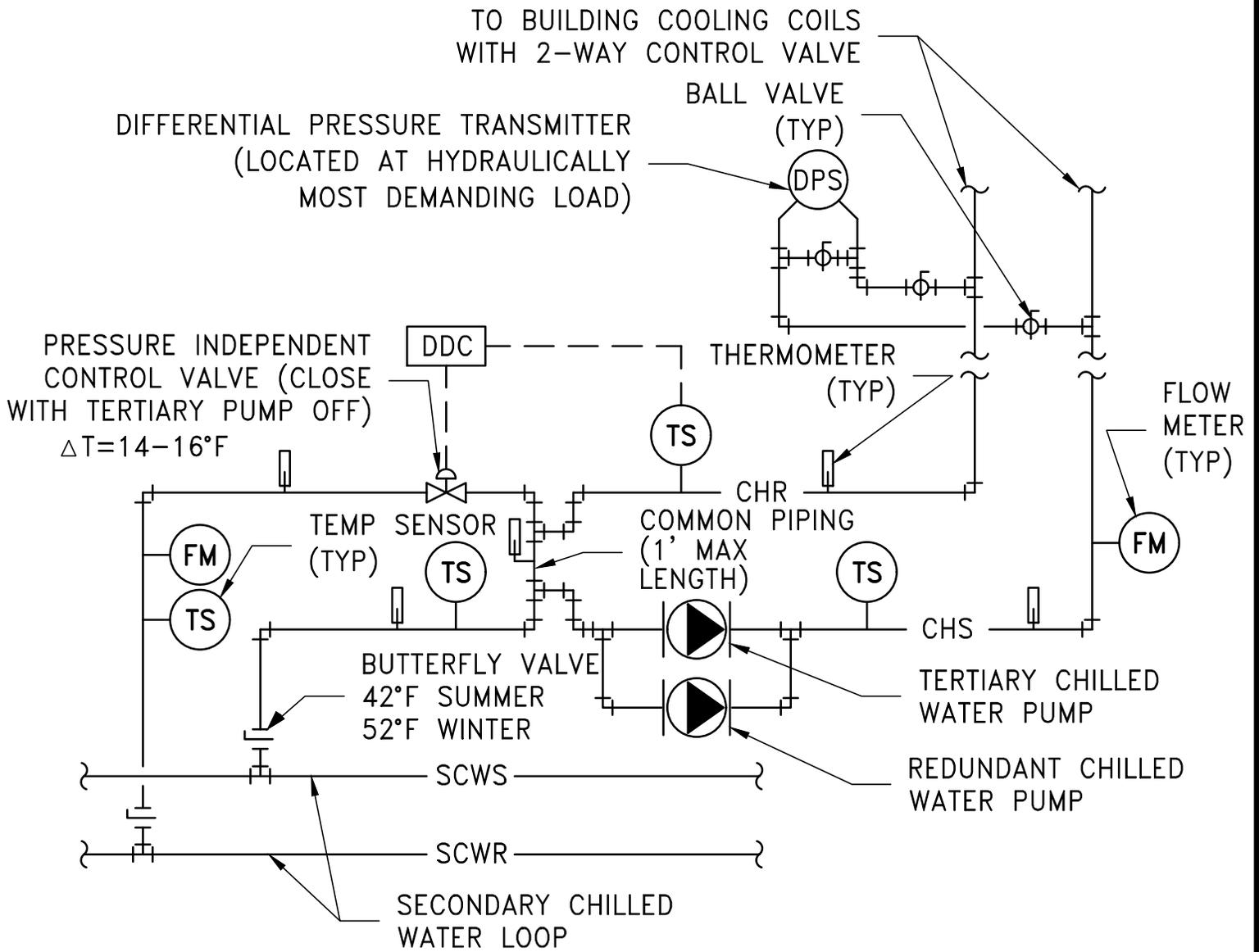
INDIVIDUAL COIL PIPE SIZE	
COIL GPM	PIPE SIZE
0.5 - 3.5	3/4"
4.0 - 8.0	1"
8.5 - 12.0	1-1/4"

**DETAIL**

TERMINAL UNITS, VAV  
HEATING COILS  
SCALE: NONE

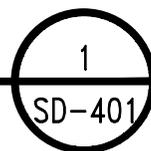


DWG. TITLE:		
TYPICAL VAV COIL CONNECTION		
DATE: NOV, 2022	___: ___	DIAG. NO.
LAST REVISION: 1	___: ___	SD-400



# DETAIL

CHILLED WATER CONNECTION  
SCALE: NONE



DWG. TITLE:

CHILLED WATER CONN. DIAGRAM

DATE: NOV, 2022

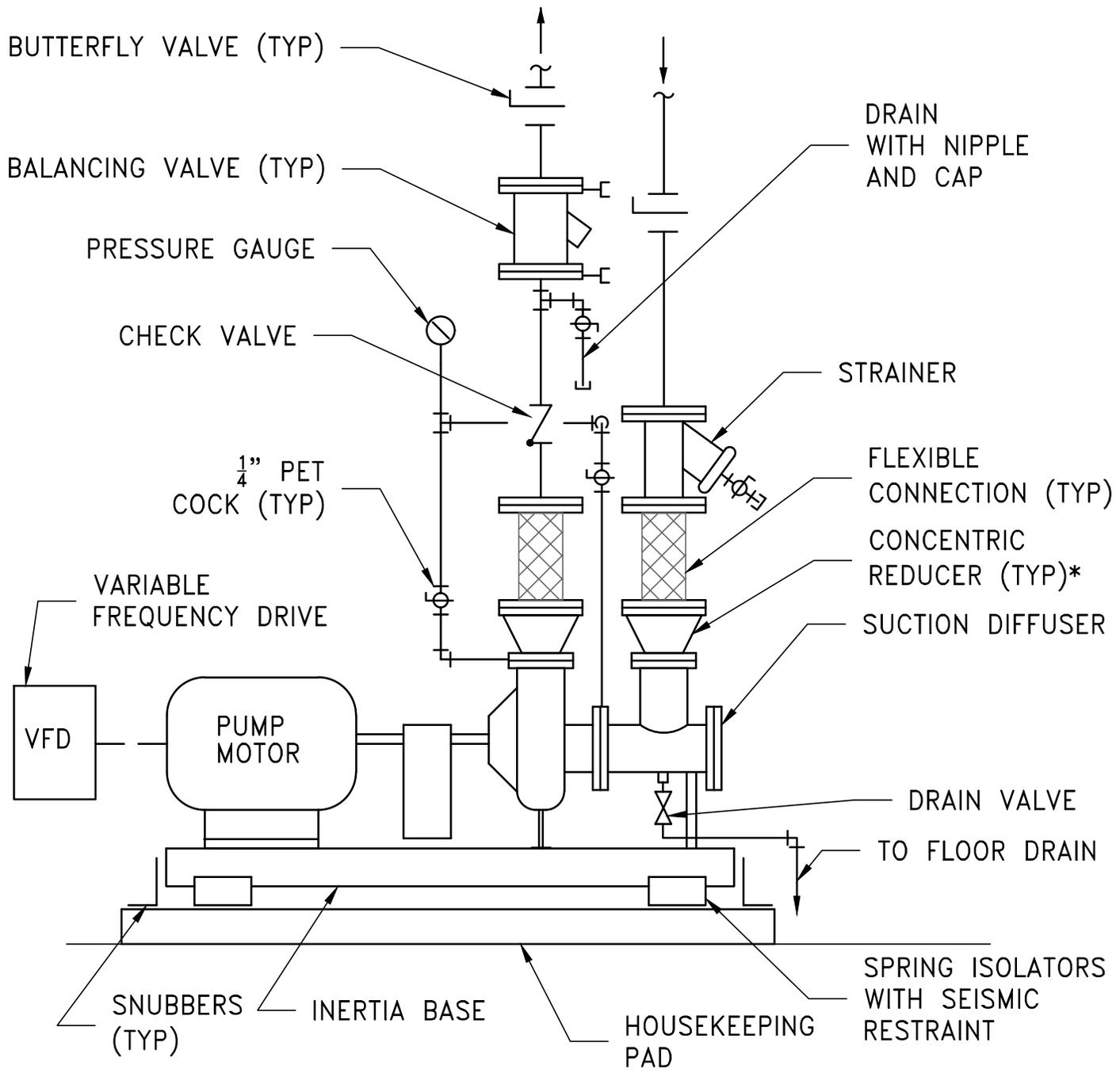
\_\_\_: \_\_\_

DIAG. NO.

LAST REVISION: 3

\_\_\_: \_\_\_

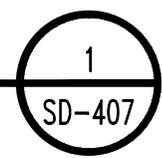
SD-401



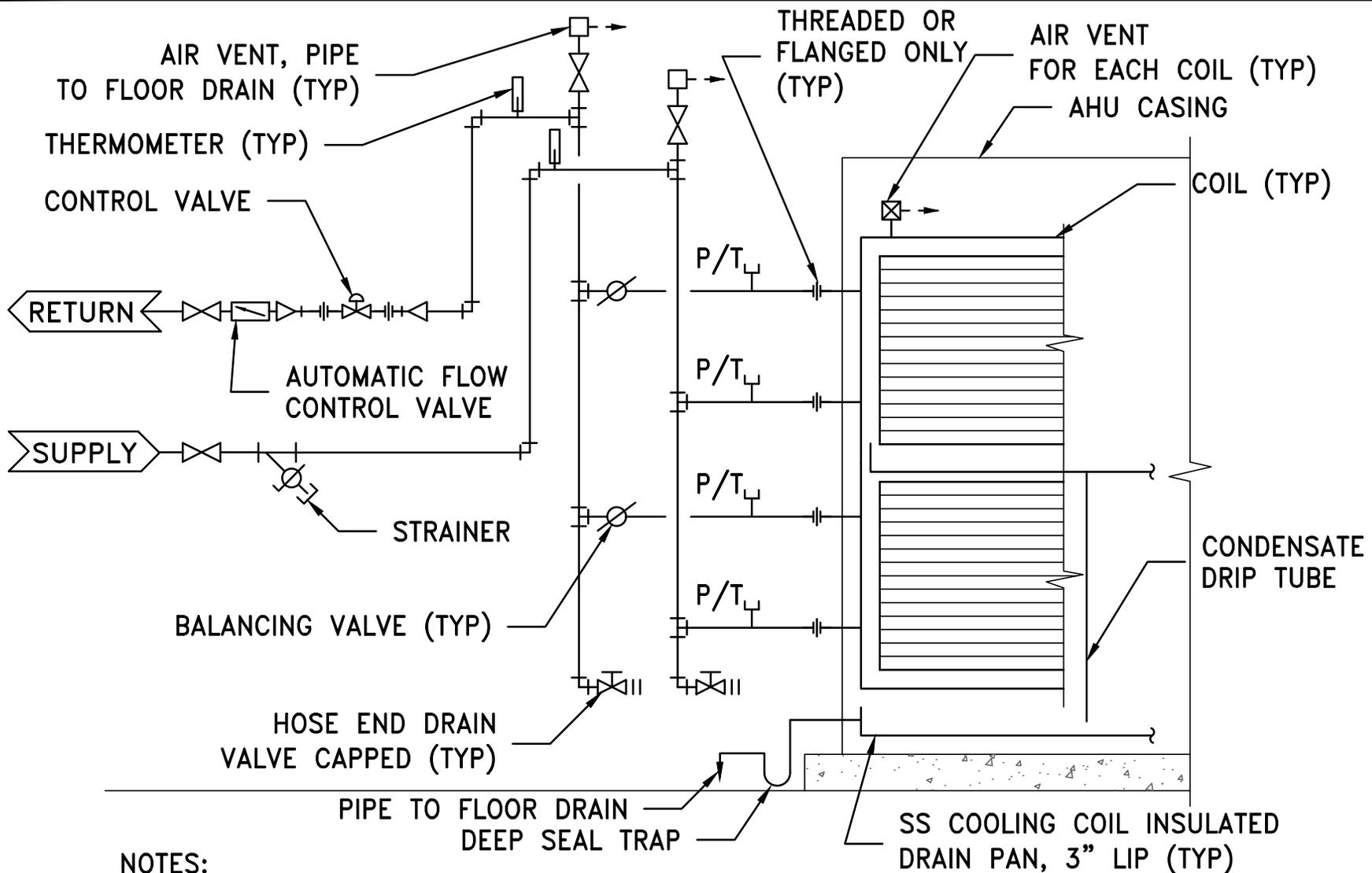
\*USE ECCENTRIC REDUCER AND FULL RADIUS ELBOW IF NO SUCTION DIFFUSER.

# DETAIL

TYPICAL HVAC PUMP  
HEATING AND CHILLED WATER  
SCALE: NONE



DWG. TITLE:		
TYPICAL HVAC PUMP DETAIL		
DATE: SEP 2018	___: ___	DIAG. NO.
LAST REVISION: 2	___: ___	SD-407

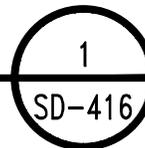


**NOTES:**

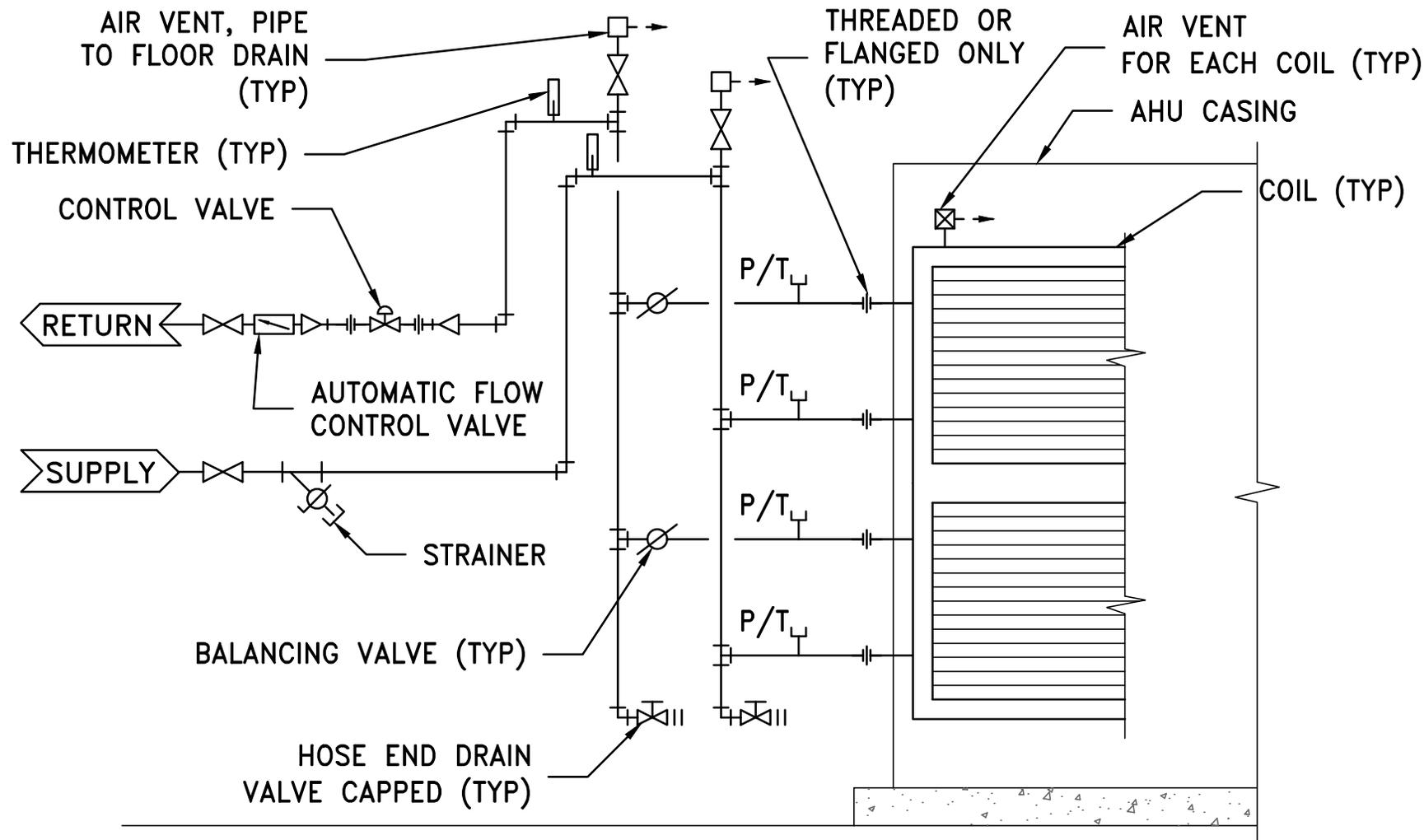
1. PROVIDE ACCESSIBLE PLUGGED MANUAL AIR VENT FOR EACH COIL.
2. COORDINATE QUANTITY AND ARRANGEMENT OF COILS W/UNIT MANUFACTURER.
3. COORDINATE CONTROL VALVE PIPING REQUIREMENTS W/ CONTROLS CONTRACTOR.
4. MAINTAIN COIL PULL SPACE ACCESS REQUIREMENTS.
5. CONTROL VALVES SHALL BE LOCATED AT ACCESSIBLE LOCATION, 3' TO 6' ABOVE FINISHED FLOOR.
6. COOLING COILS SHALL BE LOCATED DOWNSTREAM OF HEATING COILS.

**DETAIL**

TYPICAL AHU COOLING COIL PIPING  
SCALE: NONE



DWG. TITLE:		
AHU COOLING COIL PIPING		
DATE: SEP, 2018	___: ___	DIAG. NO.
LAST REVISION: 1	___: ___	SD-416

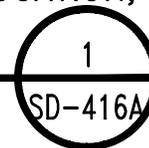


**NOTES:**

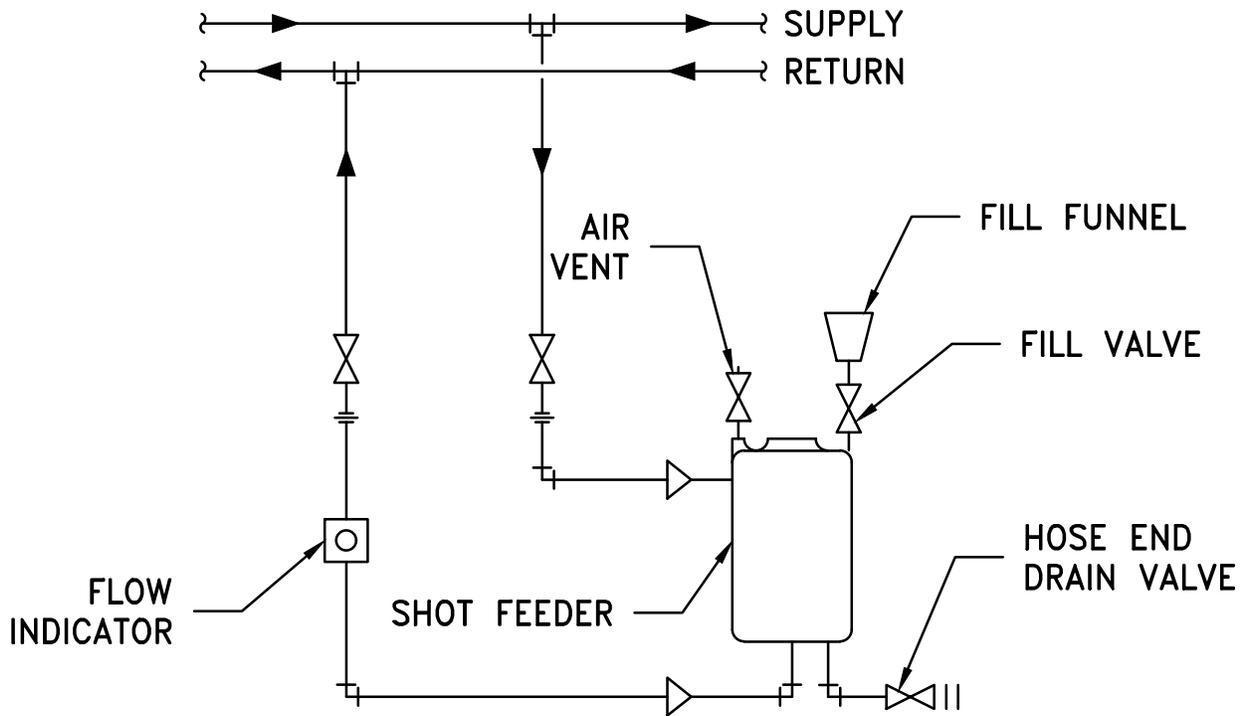
1. PROVIDE ACCESSIBLE PLUGGED MANUAL AIR VENT FOR EACH COIL.
2. COORDINATE QUANTITY AND ARRANGEMENT OF COILS WITH UNIT MANUFACTURER.
3. COORDINATE CONTROL VALVE PIPING REQUIREMENTS WITH CONTROLS CONTRACTOR.
4. MAINTAIN COIL PULL SPACE ACCESS REQUIREMENTS.
5. CONTROL VALVES SHALL BE LOCATED AT ACCESSIBLE LOCATION, 3FT-6FT ABOVE FINISHED FLOOR.

**DETAIL**

TYPICAL AHU HEATING COIL PIPING  
SCALE: NONE



DWG. TITLE:		
AHU HEATING COIL PIPING		
DATE: SEP, 2018	___: ___	DIAG. NO.
LAST REVISION: 1	___: ___	SD-416A



**NOTES:**

1. FEEDER TO BE CONNECTED ACROSS AND ADJACENT TO PUMPING SYSTEM.

**DETAIL**

CHEMICAL FEEDER PIPING  
SCALE: NONE



DWG. TITLE:

**CHEMICAL FEEDER PIPING**

DATE: **SEP, 2018**

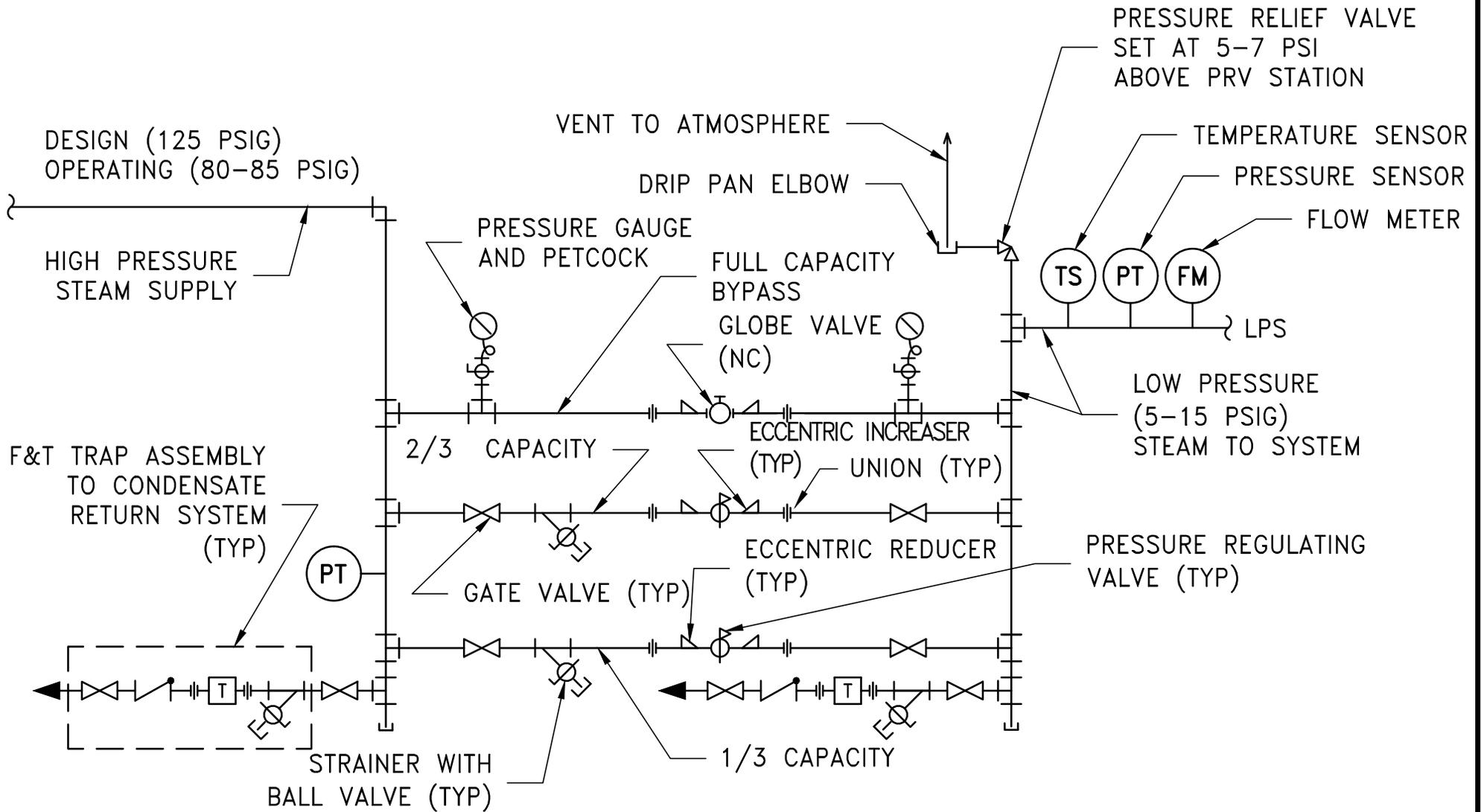
\_\_\_: \_\_\_

DIAG. NO.

LAST REVISION: **1**

\_\_\_: \_\_\_

**SD-417**



# DETAIL

STEAM PRESSURE REDUCING STATION  
SCALE: NONE

1  
SD-501

DWG. TITLE:

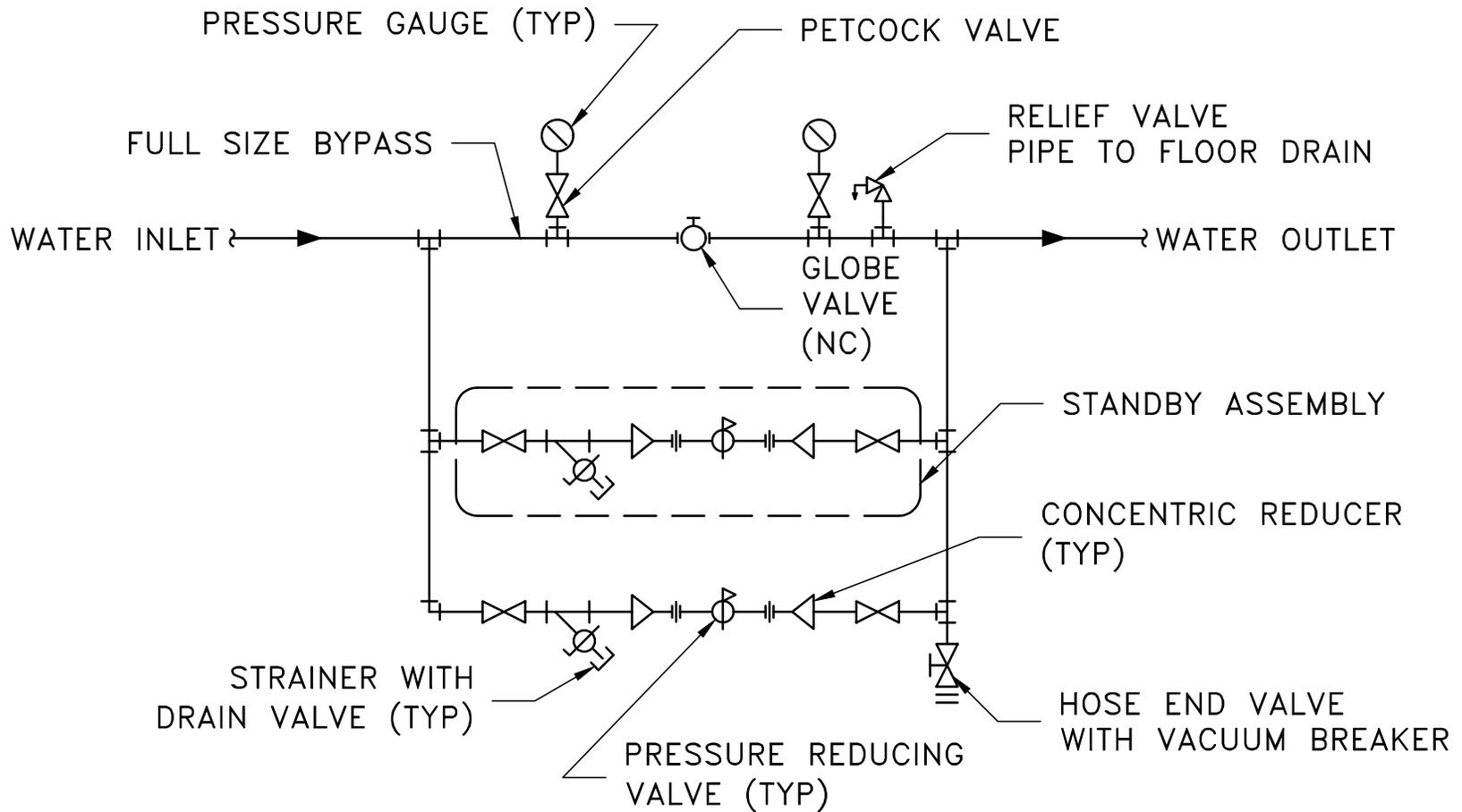
STEAM REDUCING STATION

DATE: SEP, 2018

LAST REVISION: 2

DIAG. NO.

SD-501

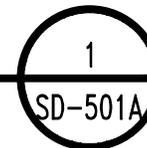


NOTES:

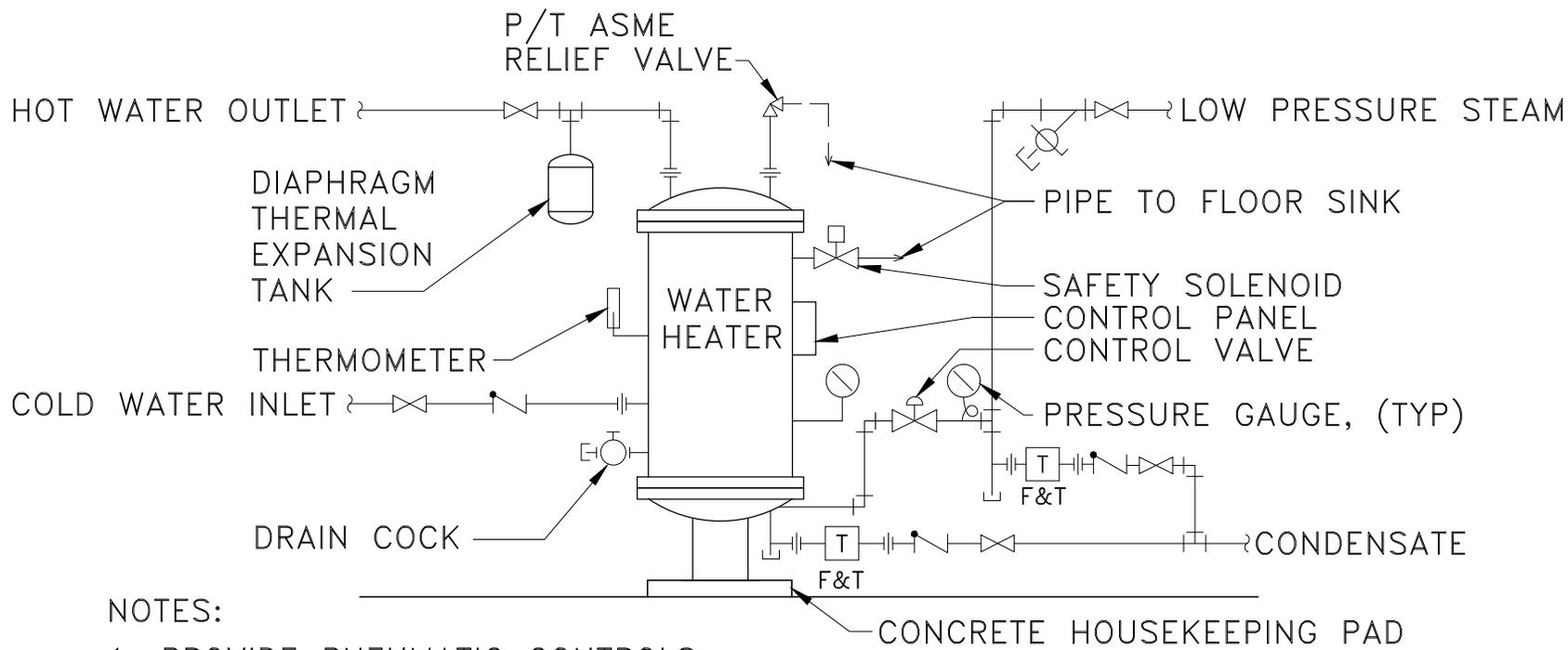
1. USE STAGED AND/OR PILOT OPERATED VALVES FOR HIGH FLOWS.

**DETAIL**

PRESSURE REDUCING STATION  
 WATER-ONE STAGE  
 SCALE: NONE



DWG. TITLE:		
PRESSURE REDUCING STATION		
DATE: SEP, 2018	___: ___	DIAG. NO.
LAST REVISION: 2	___: ___	SD-501A

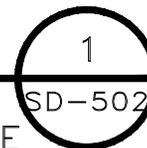


NOTES:

1. PROVIDE PNEUMATIC CONTROLS.
2. PROVIDE SEISMIC SUPPORT.

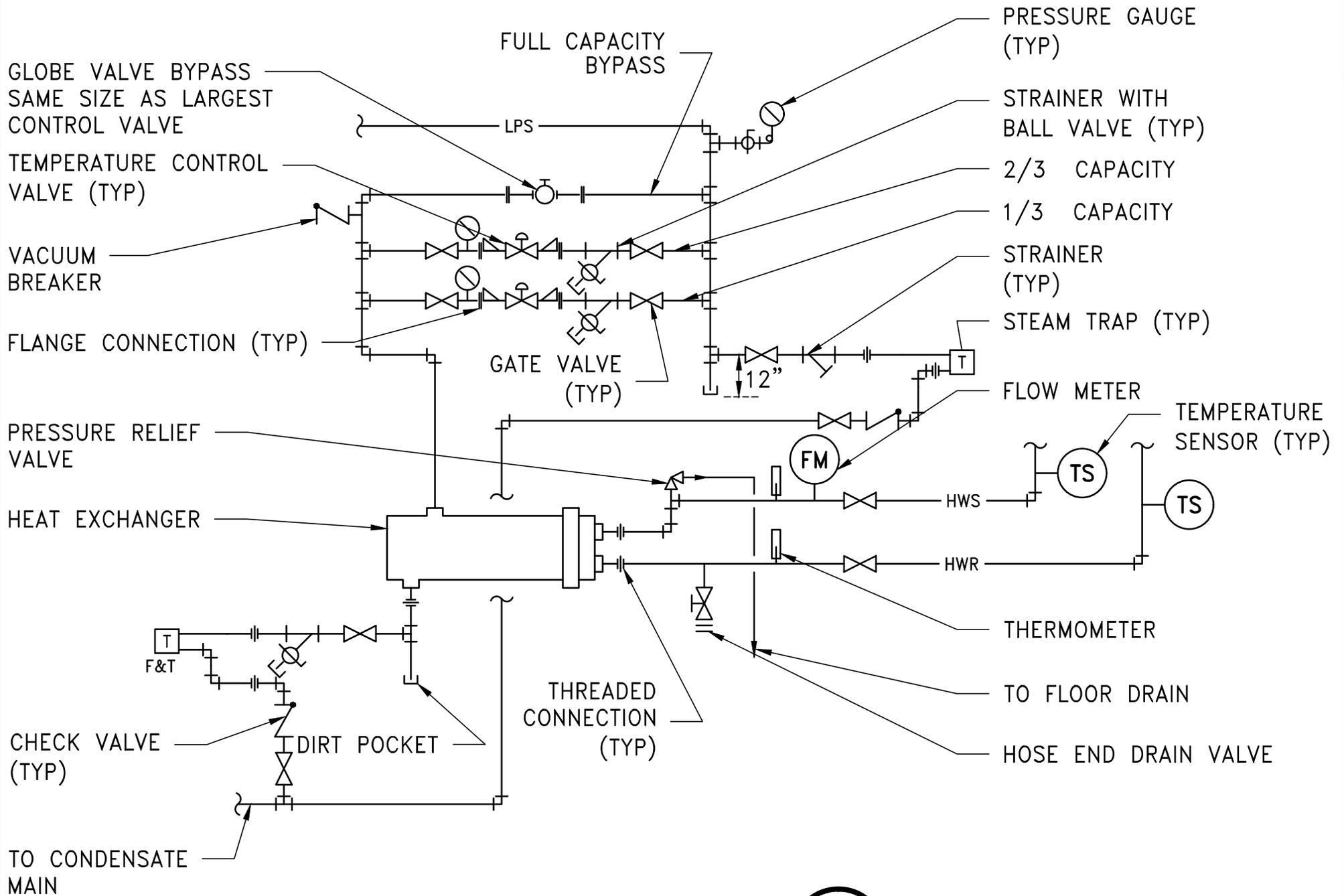
# DETAIL

TYPICAL SEMI INSTANTANEOUS  
DOMESTIC WATER HEATER DOUBLE  
WALL, STEAM TO HOT WATER  
SCALE: NONE



DWG. TITLE:  
**DOMESTIC WATER HEATER**

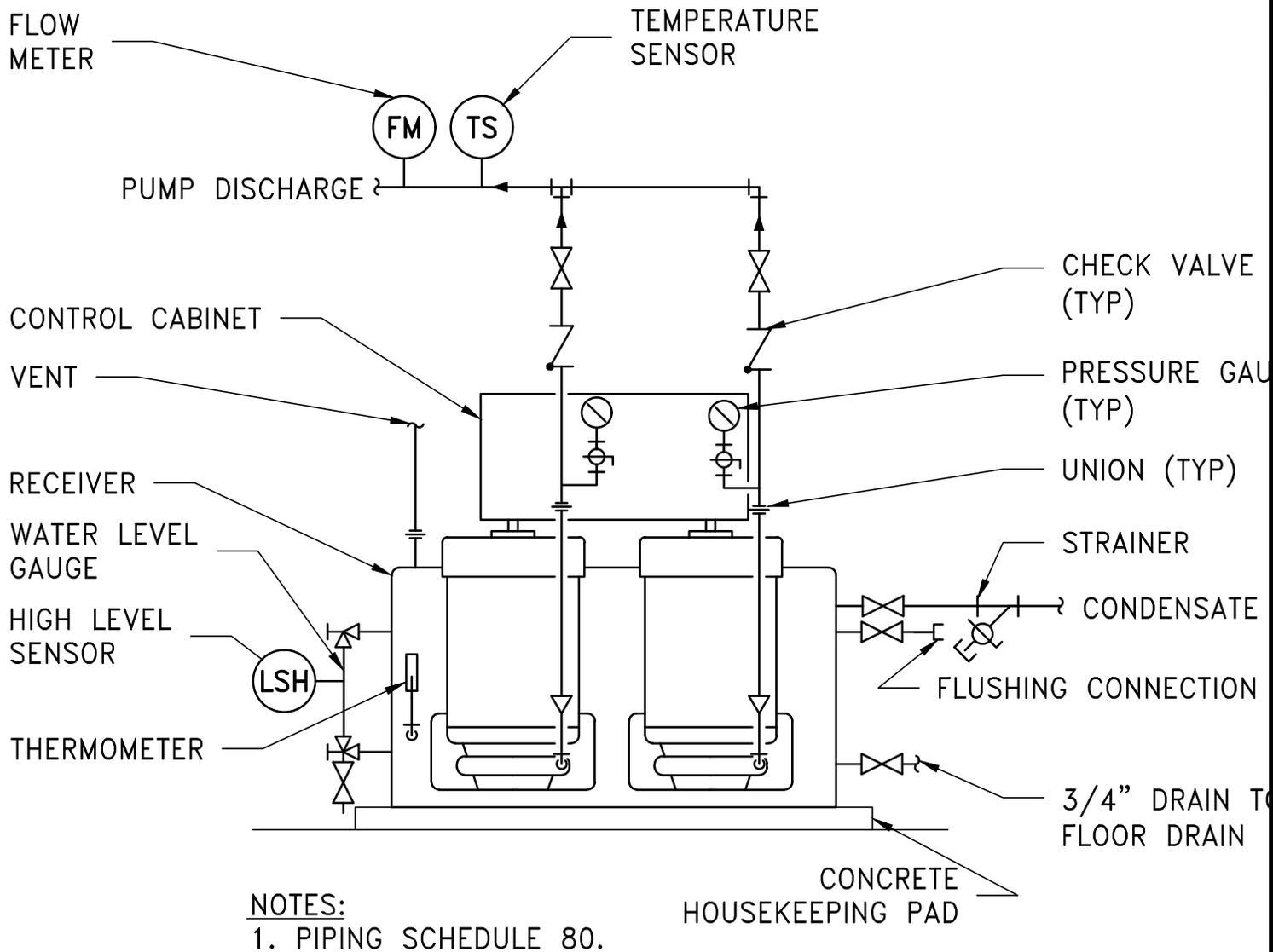
DATE: Dec, 2001	___: __	DIAG. NO.
LAST REVISION: 0	___: __	<b>SD-502</b>



**DETAIL**  
 HEAT EXCHANGER SYSTEM DIAGRAM  
 SCALE: NONE

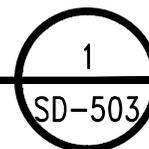
1  
 SD-502A

DWG. TITLE: <b>HEAT EXCHANGER</b>		
DATE: SEP, 2018	___: ___	DIAG. NO.
LAST REVISION: 2	___: ___	<b>SD-502A</b>



# DETAIL

DUPLEX CONDENSATE PUMP  
 SCALE: NONE



DWG. TITLE:

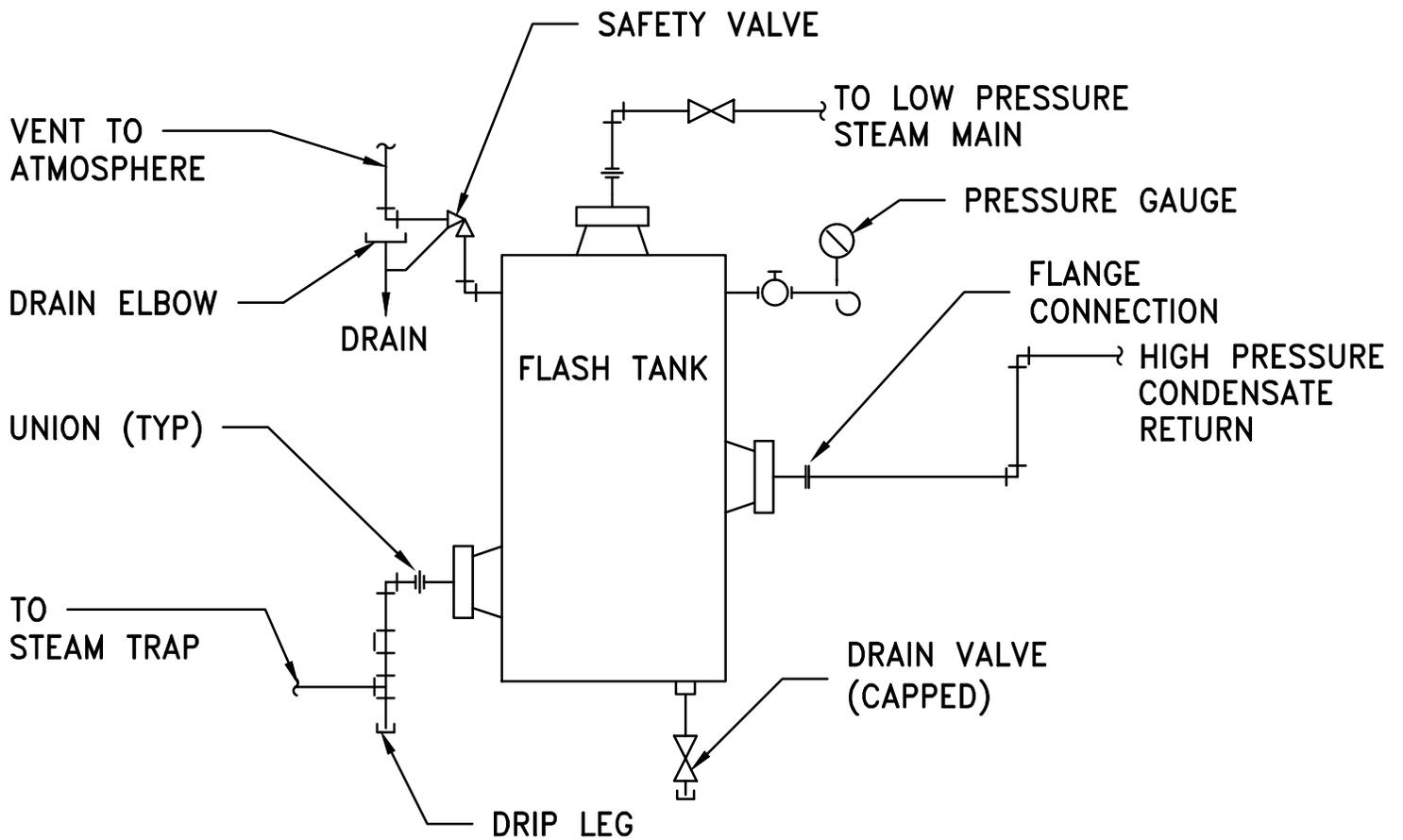
DUPLEX CONDENSATE PUMP

DATE: SEP, 2018

DIAG. NO.

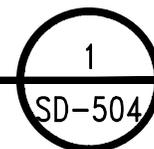
LAST REVISION: 2

SD-503



# DETAIL

STEAM FLASH TANK  
SCALE: NONE



DWG. TITLE:

FLASH TANK DIAGRAM

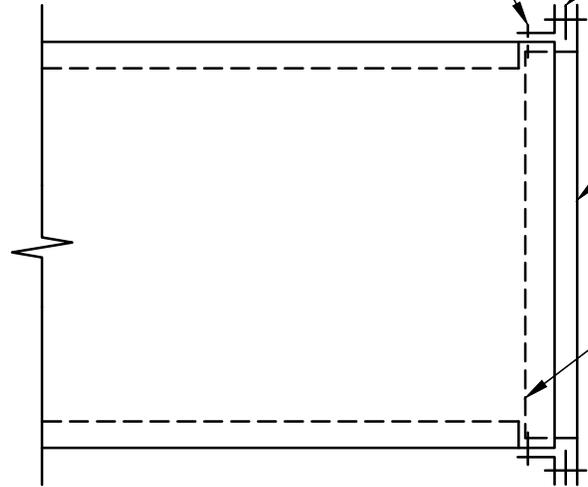
DATE: SEP, 2018

LAST REVISION: 2

DIAG. NO.

SD-504

1x1 CONTINUOUS GALVANIZED  
SHEET METAL ANGLE AROUND DUCT;  
SECURE TO DUCT AND SEAL CLASS A



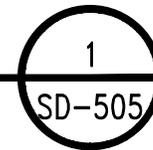
1/8"x3/4" WIDE NEOPRENE  
GASKET SECURED TO FLANGE  
(GLUE OR SELF-ADHESIVE)

REMOVABLE GALVANIZED SHEET METAL END  
CAP WITH ROUNDED AND SMOOTH EDGES;  
CROSS-BREAK CAP AND SECURE  
TO ANGLE AT 6" OC

1" DUCT LINING SHOWN, PROVIDE LINED  
CAP ON LINED DUCT ONLY, INSULATE CAP  
AND FLANGE ON INSULATED DUCT

## DETAIL

DUCT CAP  
SCALE: NONE



DWG. TITLE:

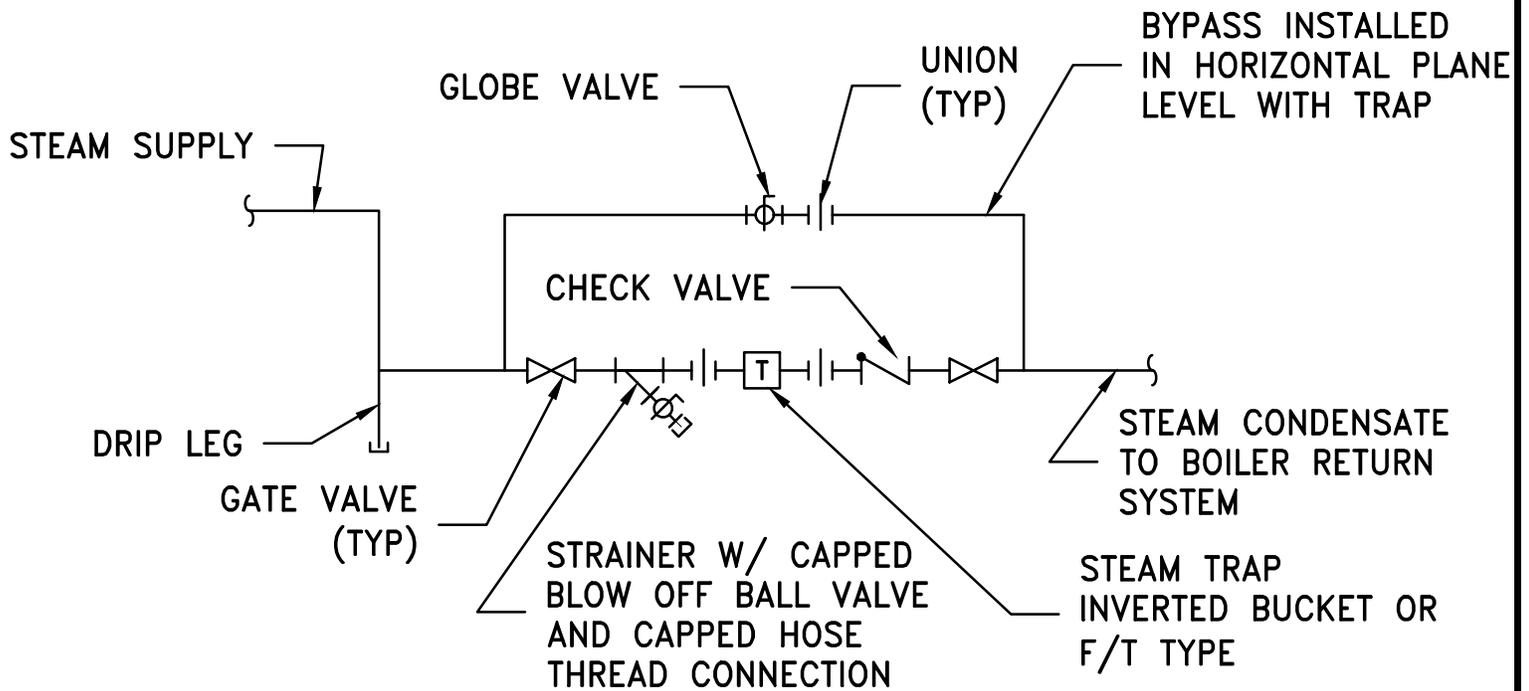
DUCT CAP DETAIL

DATE: SEP, 2018

LAST REVISION: 1

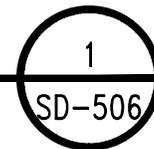
DIAG. NO.

SD-505



# DETAIL

STEAM TRAP DIAGRAM  
SCALE: NONE



DWG. TITLE:

STEAM TRAP PIPING DIAGRAM

DATE: SEP, 2018

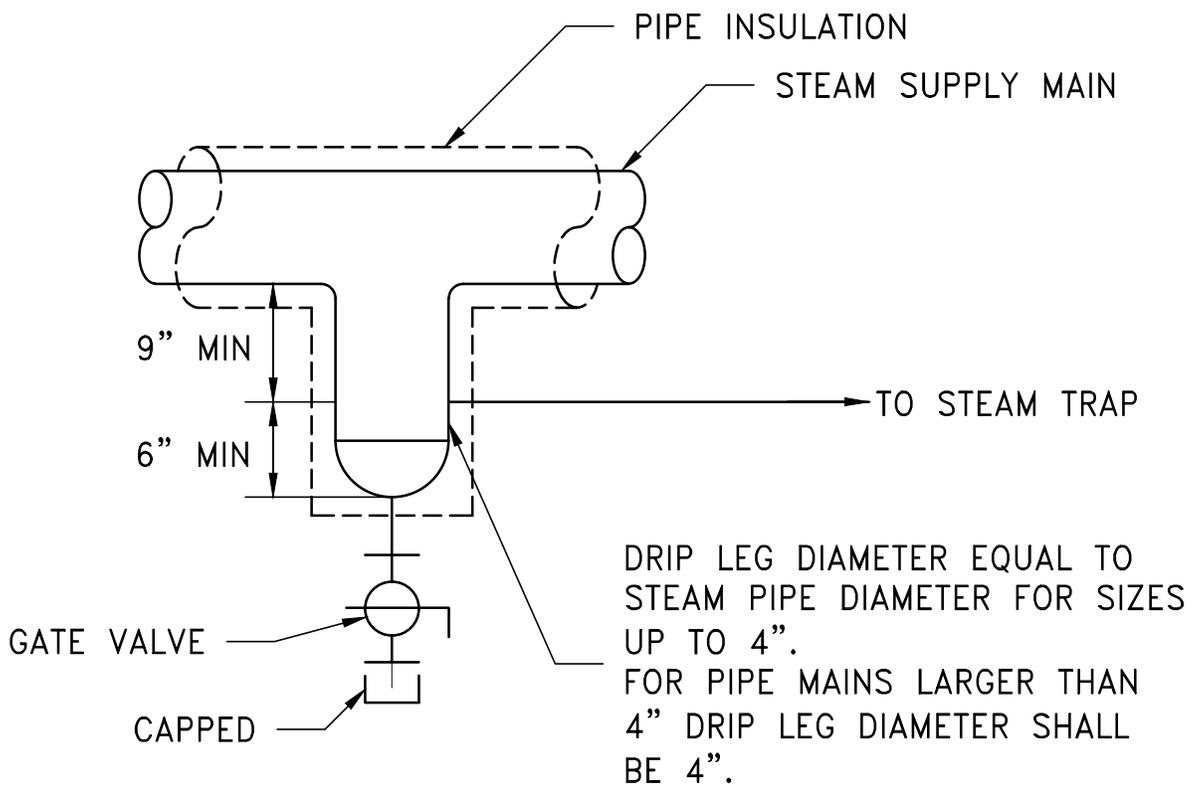
\_\_\_:

DIAG. NO.

LAST REVISION: 2

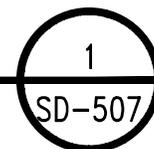
\_\_\_:

SD-506



# DETAIL

STEAM TRAP DRIP LEG DETAIL  
SCALE: NONE



DWG. TITLE:

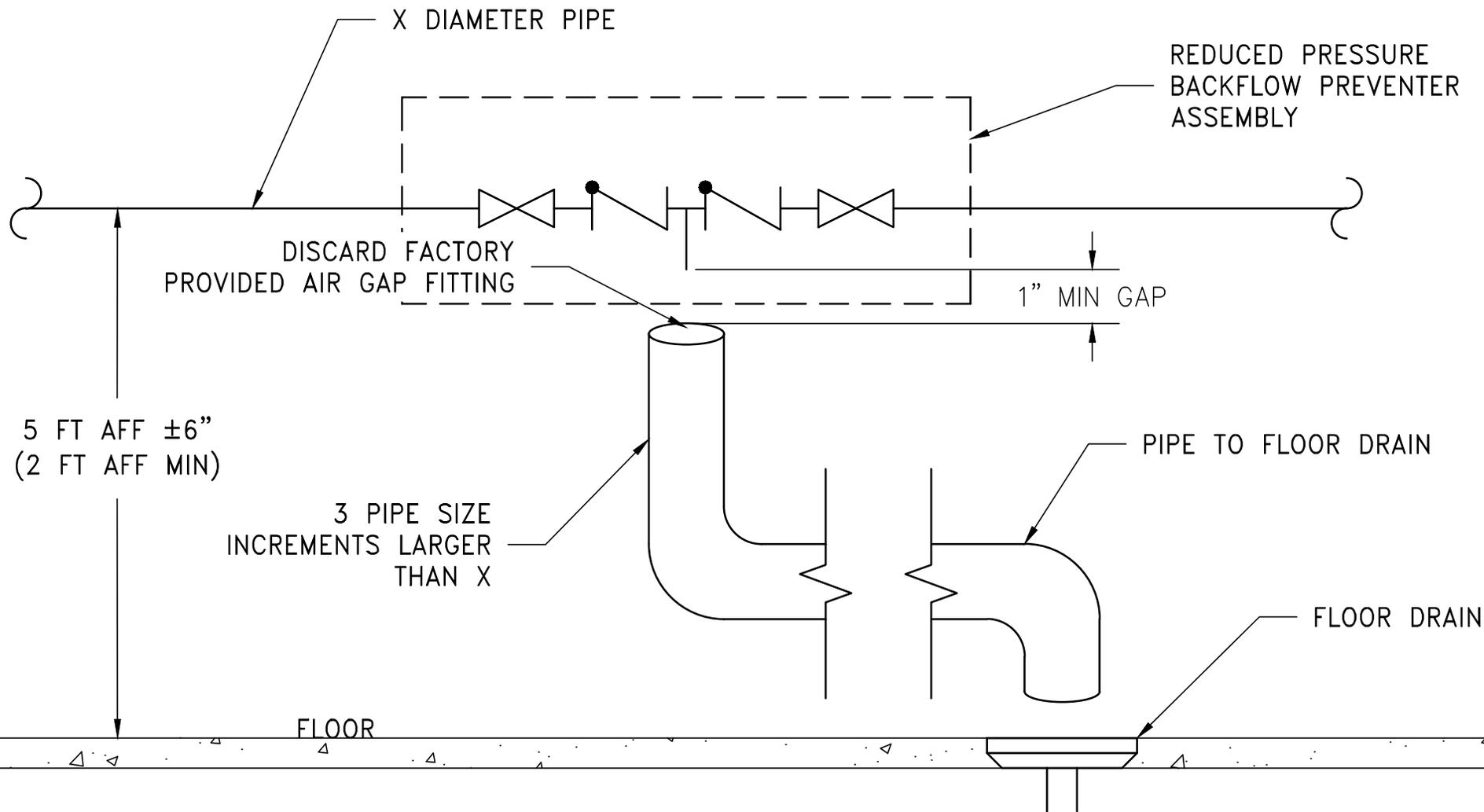
DRIP LEG DIAGRAM

DATE: SEP, 2018

LAST REVISION: 2

DIAG. NO.

SD-507



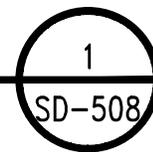
5 FT AFF ±6"  
(2 FT AFF MIN)

3 PIPE SIZE  
INCREMENTS LARGER  
THAN X

FLOOR

# DETAIL

TYPICAL REDUCED PRESSURE BACKFLOW PREVENTER  
SCALE: NONE



DWG. TITLE:

RPBP DIAGRAM

DATE: NOV, 2022

LAST REVISION: 1

DIAG. NO.

SD-508