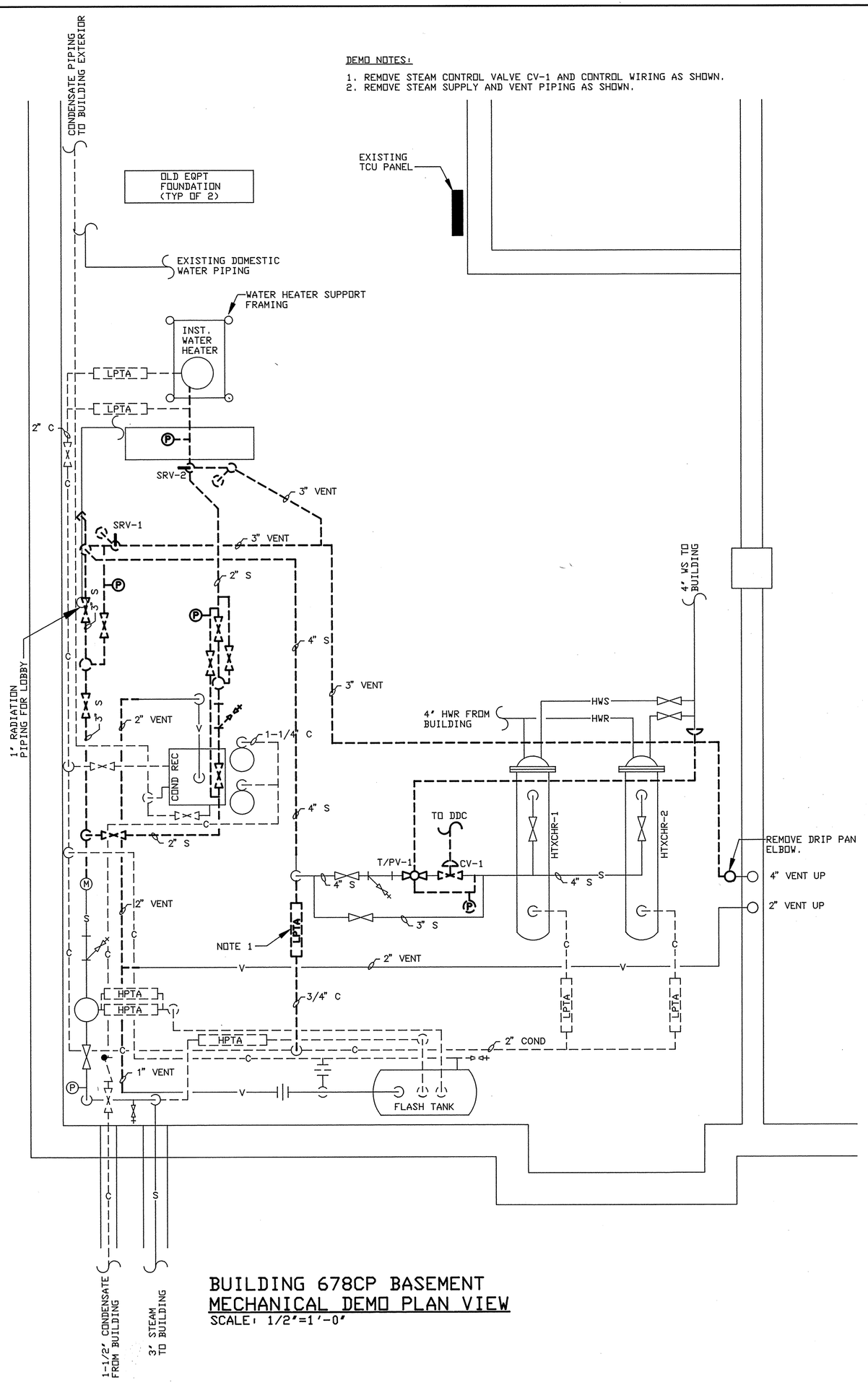
REVISION				
SYM	ZONE	DESCRIPTION	DATE	APPROVED

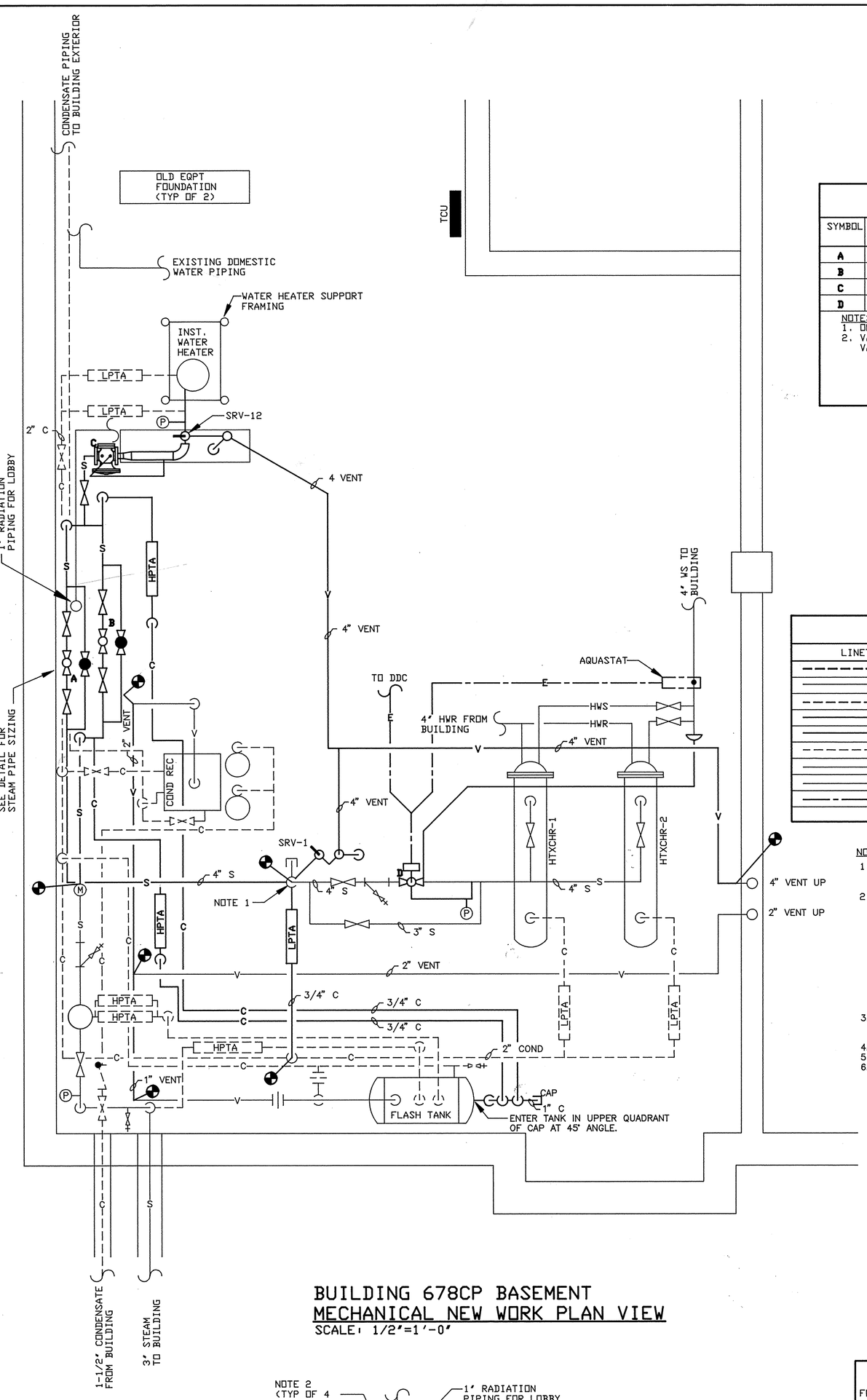
DEMO NOTES:

1. REMOVE STEAM CONTROL VALVE CV-1 AND CONTROL WIRING AS SHOWN.
2. REMOVE STEAM SUPPLY AND VENT PIPING AS SHOWN.



BUILDING 678CP BASEMENT MECHANICAL DEMO PLAN VIEW

SCALE: 1/2"=1'-0"



BUILDING 678CP BASEMENT MECHANICAL NEW WORK PLAN VIEW

SCALE: 1/2"=1'-0"

VALVE SCHEDULE

SYMBOL	MANUFCT	MODEL	VALVE TYPE	PILOT TYPE	SIZE	PRESSURE (PSI)G INLET	PRESSURE (PSI)G REDUCED	MAXIMUM RGD FLOW	SEAT	END CONNECTION
A	SPENCE	STEAM PRESSURE REGULATOR	E	D	1-1/4"	150	75	3,500 LBS/HR	NORMAL	ANSI 250# FLANGED
B	SPENCE	STEAM PRESSURE REGULATOR	E	D	1-1/2"	75	20	2,000 LBS/HR	FULL	ANSI 125# FLANGED
C	SPENCE	STEAM PRESSURE REGULATOR	E	D	1-1/2"	75	15	1,500 LBS/HR	FULL,50%PARA	ANSI 125# FLANGED
D	SPENCE	TEMPERATURE REGULATOR	E-5	T124	2"	20	10	2,000 LBS/HR	NORMAL	ANSI 125# FLANGED

NOTES:
1. OPERATING TERMPERATURE IS 450°F.
2. VALVE D SHALL BE A PILOT OPERATED PRESSURE/TEMPERATURE CONTROL WALVE WITH SOLENOID.
   VALVE D SHALL HAVE CONDENSATION CHAMBER, 10 FEET OF BRASS FLEXIBLE TUBING, AND STYLE No. 700 BRONZE THERMOSTAT BULB. VALVE SHALL BE NORMALLY OPEN.
   VALVE D SHALL HAVE ELECTRIC OVERRIDE REGULATOR. SOLENOID SHALL BE 24VAC, NORMALLY OPEN.
   SOLENOID VALVE SHALL BE PART OF THE MAIN VALVE ASSEMBLY.

SAFETY RELIEF VALVE SCHEDULE

SYMBOL	MANUFACTURER	SET PRESSURE	ORIFICE SIZE	INLETxOUTLET INCHES	ASSOCIATED PRV SYMBOL	PRV DATA (P IN PSI) P-IN	P-OUT	SIZE	FULL FLOW
SRV-1	SPENCE	25	L	2-1/2-250#x4FPT	B	150	20	1-1/2	5,575 LBS/HR
SRV-2	SPENCE	20	M	3-250#x4FPT	C	150	15	1-1/2	5,575 LBS/HR

NOTES:
1. VALVE SHALL BE FLANGED AND CONSTRUCTED OF CAST IRON.
2. VALVE SHALL MEET RQMTS OF A.S.M.E. SECTION VIII.
3. PROVIDE DRIP PAN ELBOWS (MODEL DPE) WITH EACH VALVE.

LEGEND

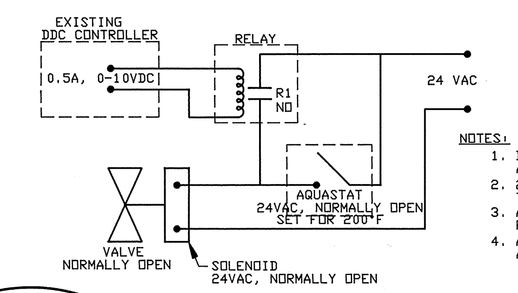
LINETYPE	DESCRIPTION
	DEMOLITION
	EXISTING TO REMAIN
C	NEW CONDENSATE
S	NEW STEAM
V	NEW VENT/RELIEF
C	EXISTING CONDENSATE
S	EXISTING STEAM
V	EXISTING VENT/RELIEF
E	CONTROL WIRING

SYMBOL TABLE

SYMBOL	DESCRIPTION
	GATE VALVE
	CHECK VALVE
	UNION
	STRAINER WITH BLOWDOWN VALVE
	GLOBE VALVE
M	STEAM METER
C	PIPE TURNING DOWN
	SAFETY RELIEF VALVE WITH DRIP PAN ELBOW

SYMBOL	DESCRIPTION
LPTA	LOW PRESSURE TRAP ASSEMBLY
HPTA	HIGH PRESSURE TRAP ASSEMBLY
P	PRESSURE GAUGE
SRV-#	SAFETY RELIEF VALVE
	CONNECT NEW PIPING TO EXISTING

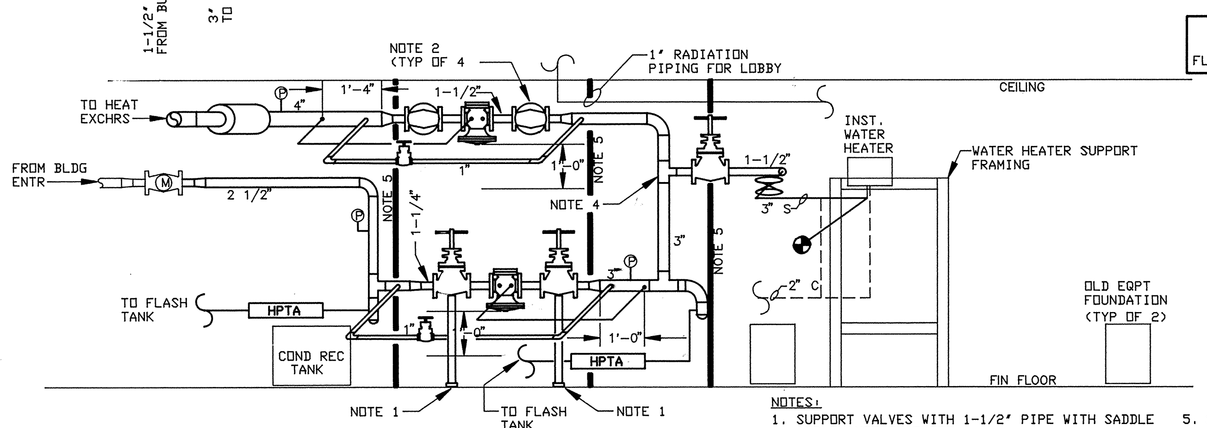
NOTES:
1. EXTEND 4" DRIP LEG 24" DOWN. RELOCATE EXISTING LOW PRESSURE TRAP ASSEMBLY TO LOWEST POINT IN DIRT LEG. LOCATE SAFETY PRESSURE RELIEF VALVE IN DIRT LEG.
2. REVISE DDC SEQUENCE OF OPERATIONS SO THAT SPENCE TEMPERATURE REGULATOR VALVE CONTROLS STEAM FLOW. REVISE SEQUENCE SO THAT 0-10VDC SIGNAL FROM BASEMENT MECHANICAL ROOM TCU, WHEN WATER TEMPERATURE IS SATISFIED, SHALL CLOSE NORMALLY OPEN RELAY WHICH SHALL ENERGIZE CLOSED NORMALLY OPEN SOLENOID CONTROLLED SPENCE TEMPERATURE REGULATOR VALVE. VALVE CONTROL SHALL BE TWO POSITION, OPEN OR CLOSED.
   NORMALLY OPEN AQUASTAT LOCATED IN HEATING WATER SUPPLY PIPE SHALL ACT AS HIGH LIMIT CONTROL AND SHALL, WHEN ACTIVATED, CLOSE SPENCE TEMPERATURE REGULATOR VALVE. REMAINDER OF HYDRONIC WATER TEMPERATURE CONTROLS SHALL REMAIN THE SAME.
   DDC SHALL OPEN CONTROL VALVE WHEN WATER TEMPERATURE DROPS 8°F FROM SETPOINT. AQUASTAT SHALL BE SET FOR 200°F.
3. BEFORE ANY WORK STARTS, THE CONTRACTOR SHALL ENSURE THAT ALL PIPING AND EQUIPMENT ARE DRAINED AND COOLED DOWN TO ENSURE PERSONNEL SAFETY. THIS WORK SHALL BE COORDINATED WITH THE BASE BOQ FACILITY DIRECTOR AND BASE MAINTENANCE PERSONNEL.
4. ALL WELDING SHALL BE DONE IN ACCORDANCE WITH ASME SECTION 1 AND B31.1 REQUIRMENTS.
5. ALL PIPING WHICH HAS HAD INSULATION REMOVED UNDER THIS PROJECT SHALL BE REINSULATED.
6. DDC SYSTEM IS A DELTA ENERGY MANAGEMENT CONTROL SYSTEM INSTALLED IN 1996 BY THE R.P. O'CONNELL INC. COMPANY.



NOTES:
1. DDC CONTROLLER IS EXISTING, PROVIDE ALL OTHER NEW COMPONENTS.
2. 24VAC IS AVAILABLE FROM EXISTING TRNSFRM NEAR DDC PANEL.
3. ALL WIRING SHALL BE RUN IN CONDUIT, REUSE EXISTING WHERE AVAILABLE.
4. ALL WORK SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE N.E.C.

4 M-1 STEAM VALVE ELECTRICAL CONTROL SCHEMATIC

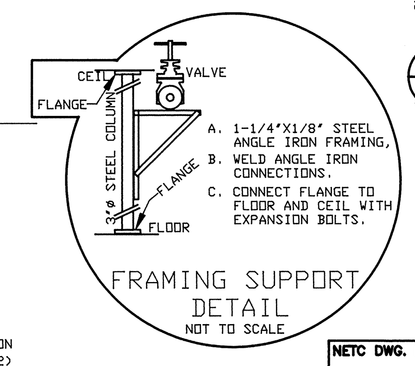
SCALE: NOT TO SCALE



NOTES:
1. SUPPORT VALVES WITH 1-1/2" PIPE WITH SADDLE AND FLANGE ON FLOOR.
2. SUPPORT VALVES OFF BACK WALL WITH ANGLE IRON, SEE DETAIL.
3. PITCH ALL STEAM PIPING TOWARDS ASSOCIATED DRIP TRAP ASSEMBLY.
4. INSTALL BRANCH LINE AT HEIGHT TO ALLOW FOR SPACE FOR FOR SRV-1 VENT LINE. MAINTAIN CONSTANT PIPE ELEVATION.
5. SEE FRAMING SUPPORT DETAIL.

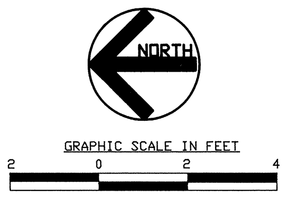
3 M-1 STEAM PIPING PRESSURE REDUCING STATION ELEVATION

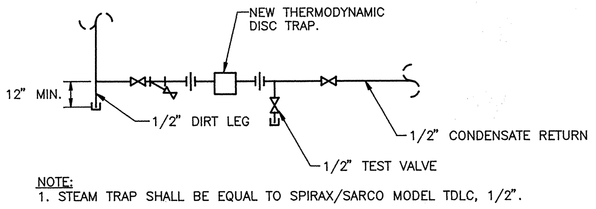
SCALE: 1/2"=1'-0"



FRAMING SUPPORT DETAIL

NOT TO SCALE

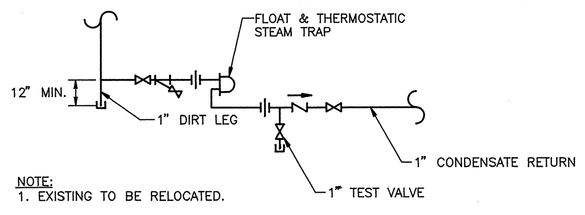




NOTE:
1. STEAM TRAP SHALL BE EQUAL TO SPIRAX/SARCO MODEL TDLC, 1/2".

1 M-1 HIGH PRESSURE STEAM TRAP DETAIL

NOT TO SCALE



NOTE:
1. EXISTING TO BE RELOCATED.

2 M-1 LOW PRESSURE PRESSURE STEAM TRAP DETAIL

NOT TO SCALE

NETC DWG. NO. 32246-317	DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND NAVAL EDUCATION AND TRAINING CENTER NEWPORT, RHODE ISLAND	
DSGN. D. SULLIVAN DR. D. SULLIVAN DRAWN D. Sullivan PE 1/30/98 CHK. D. Sullivan PE 2/2/98 APPROVED DATE	REPAIR STEAM HEATING PIPE IN BUILDING 678CP BASEMENT MECHANICAL ROOM	
SATISFACTORY TO DATE 2/2/98	SIZE F / CODE IDENT NO. 80091	NAVFAC DRAWING NO. 2196317
	SCALE: 1/2"=1'-0"	CONSTR. CONTR. NO. N62472-98-M-6917
	SPEC. 04-98-6917	SHEET 1 OF 1