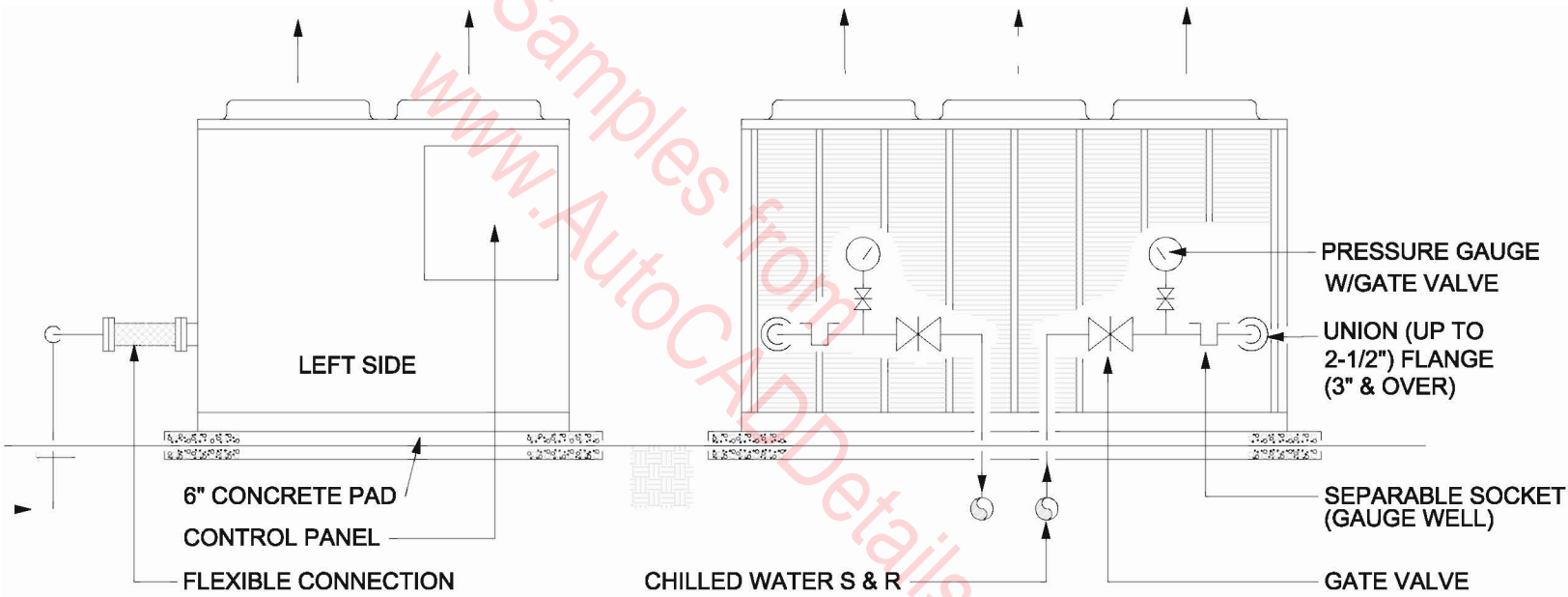
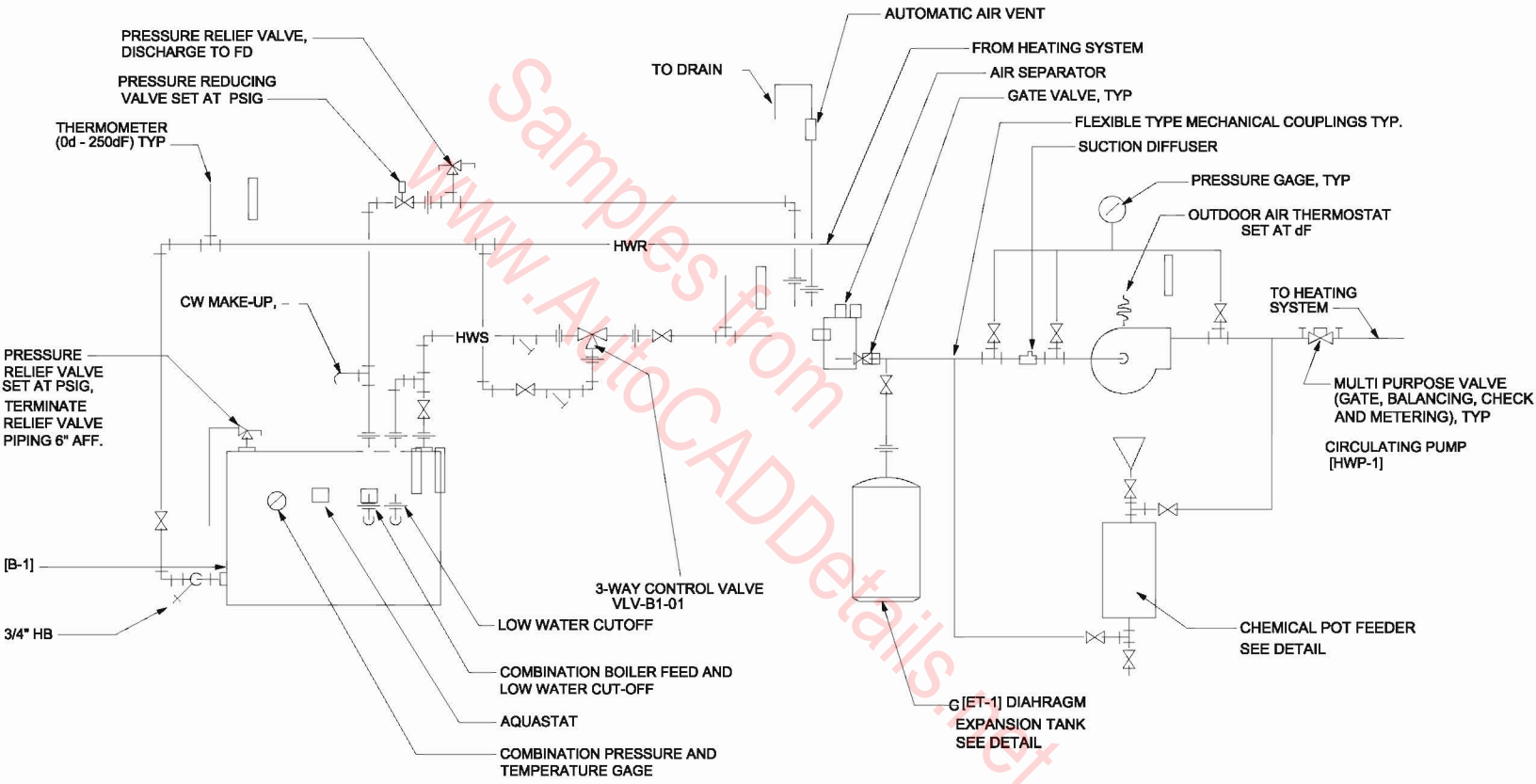
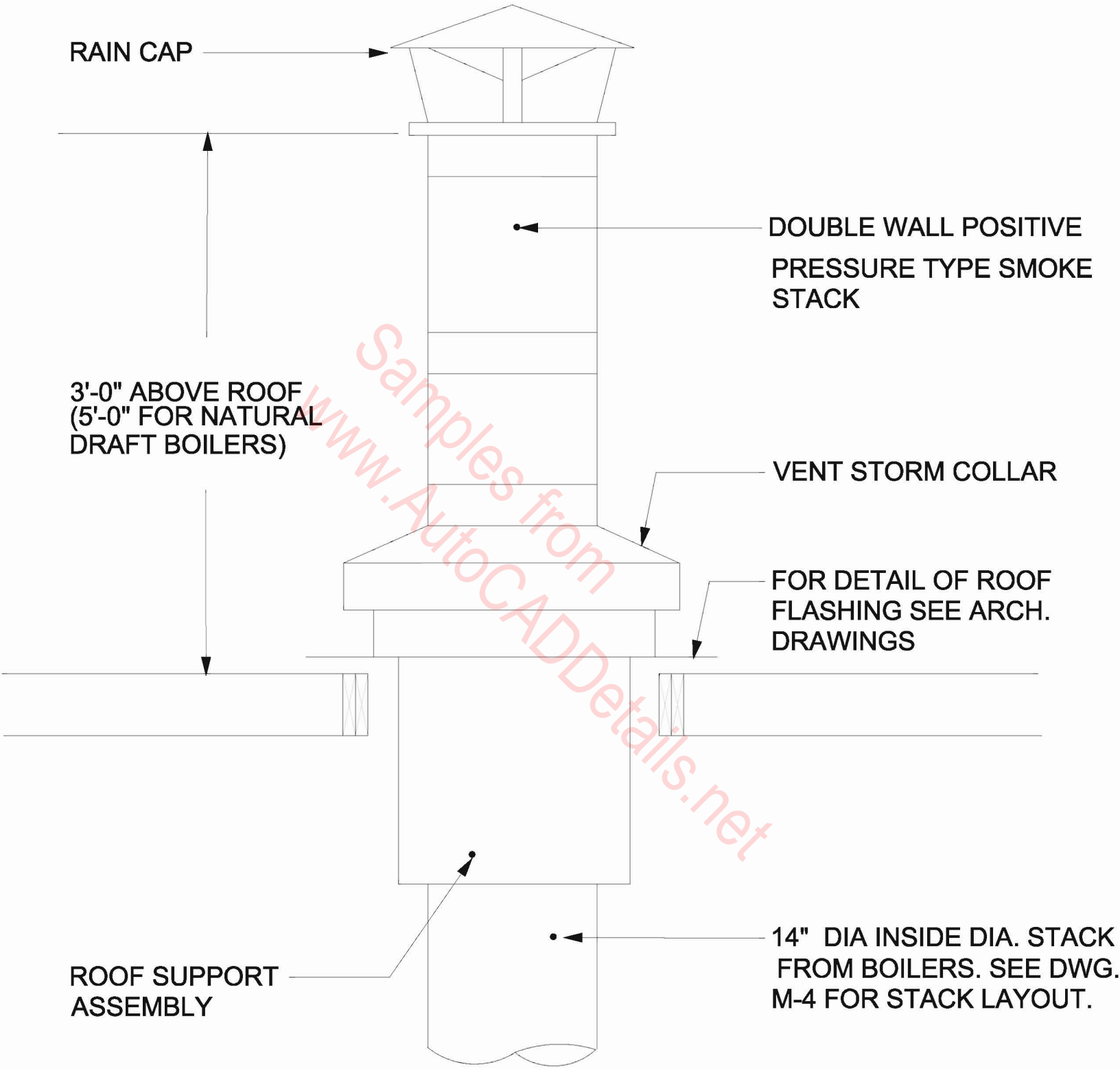



# AIR-COOLED CHILLER PIPING CONNECTION DETAIL



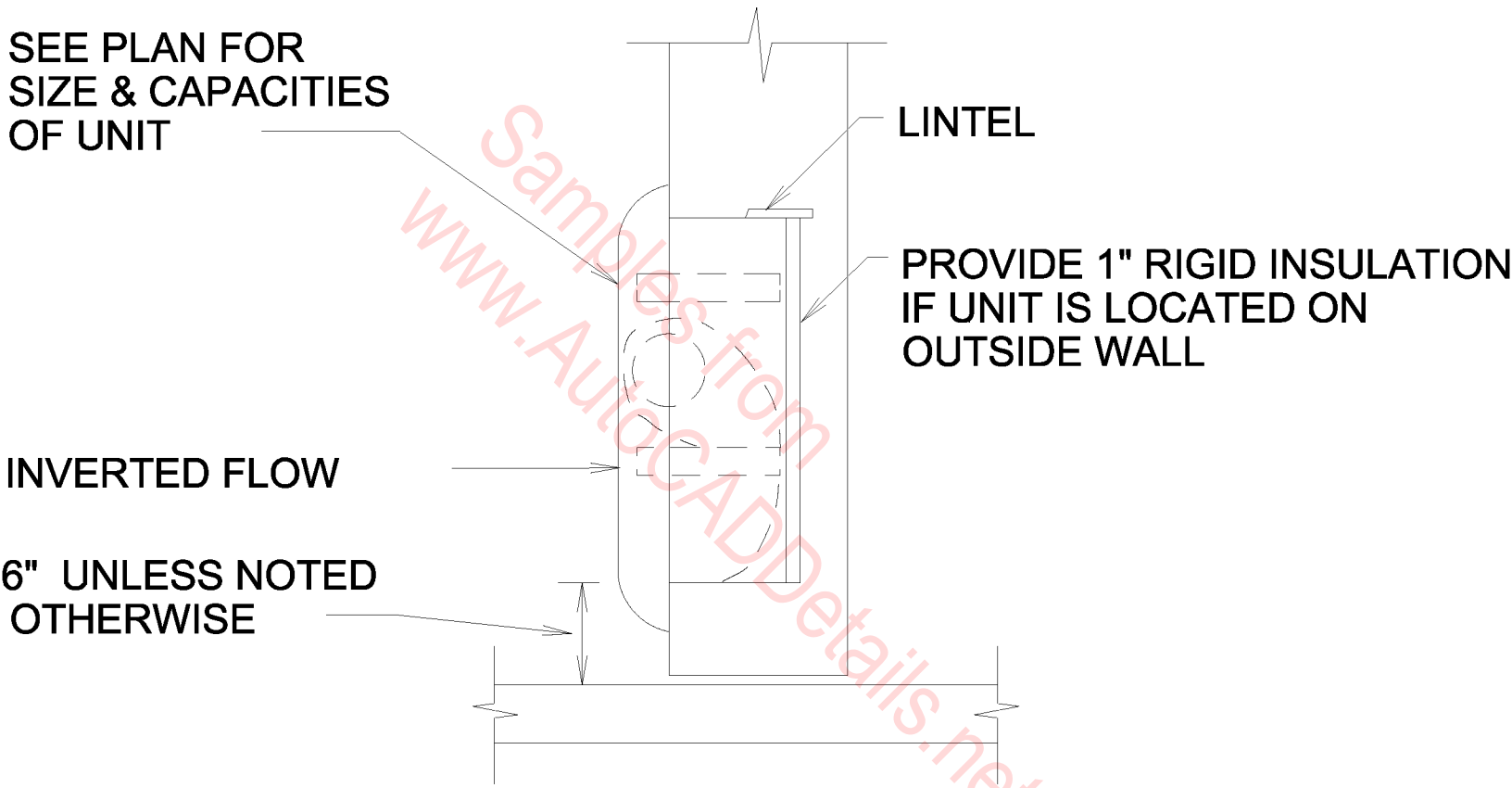



## BOILER PIPING SCHEMATIC



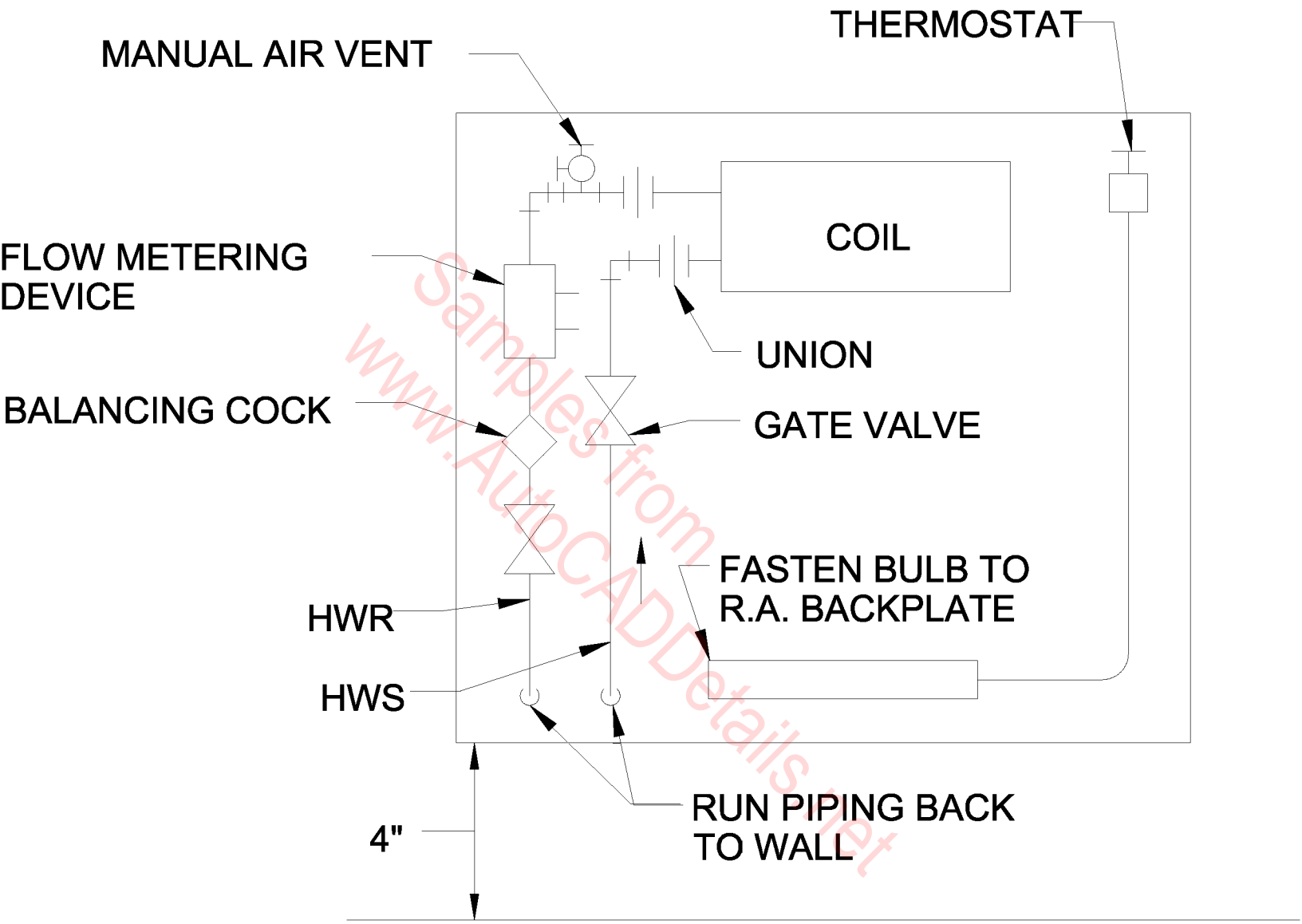



# BOILER STACK DETAIL



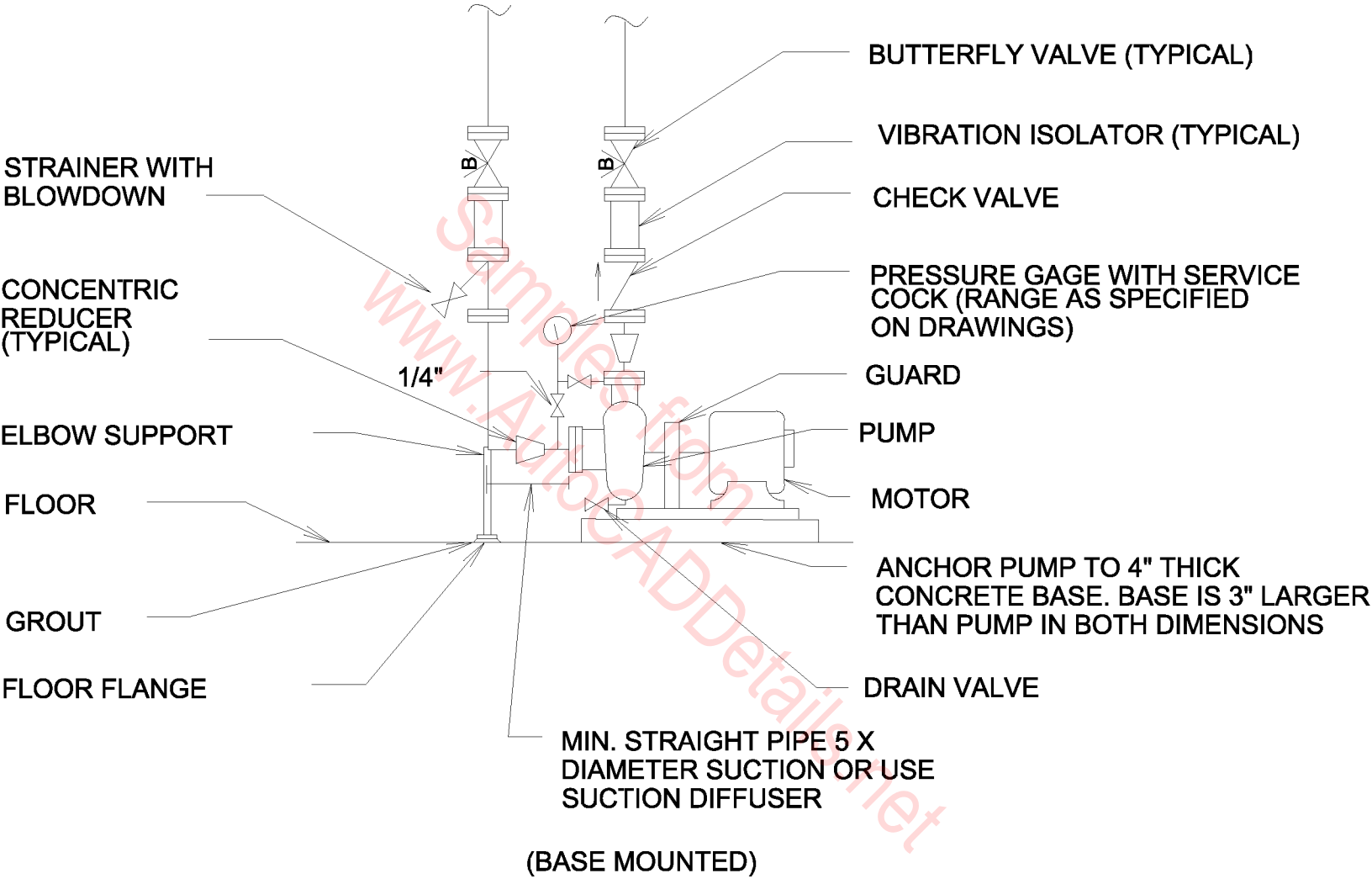



# CABINET HEATER DETAIL



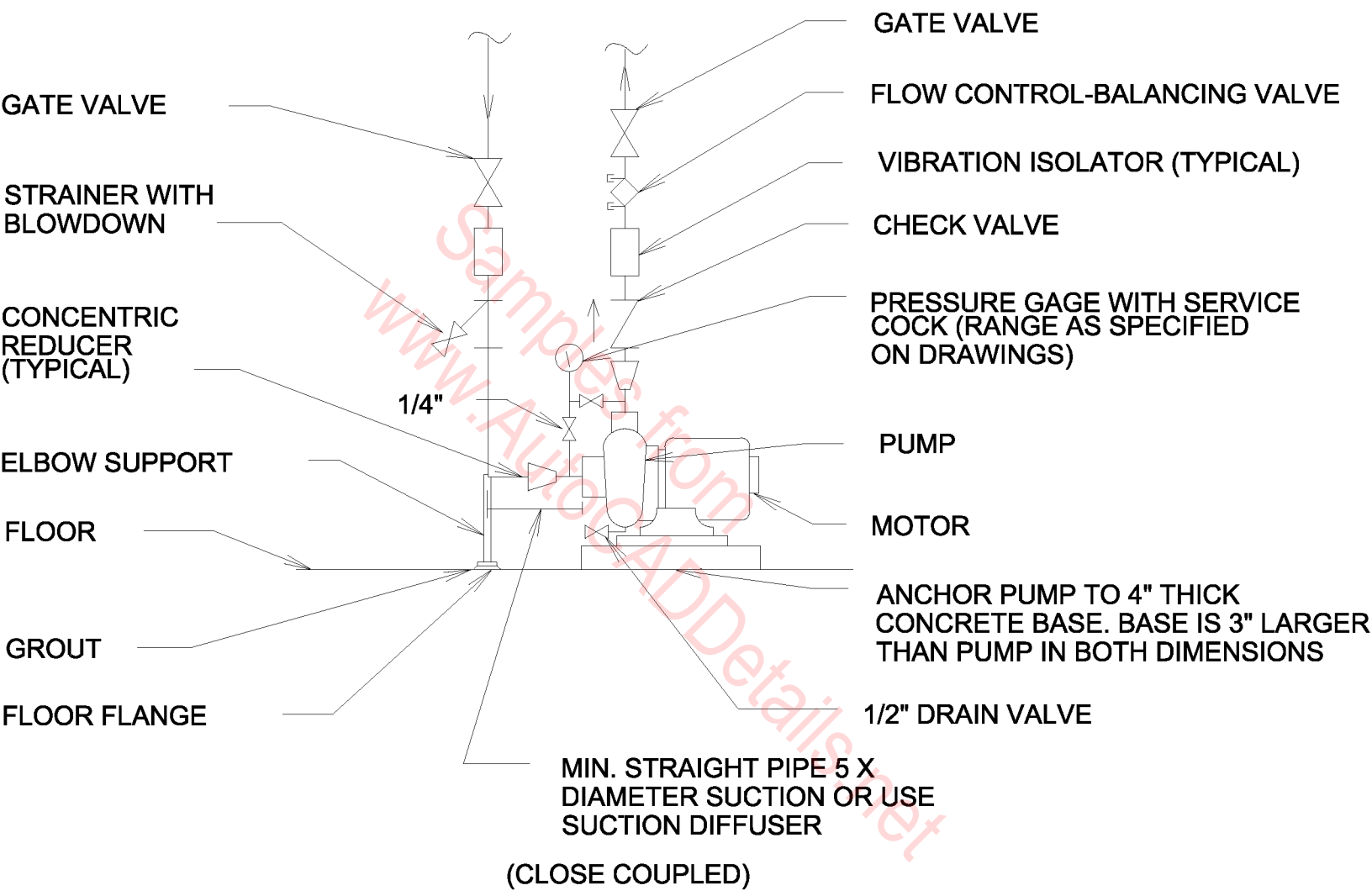



# CABINET HEATER PIPING DETAIL



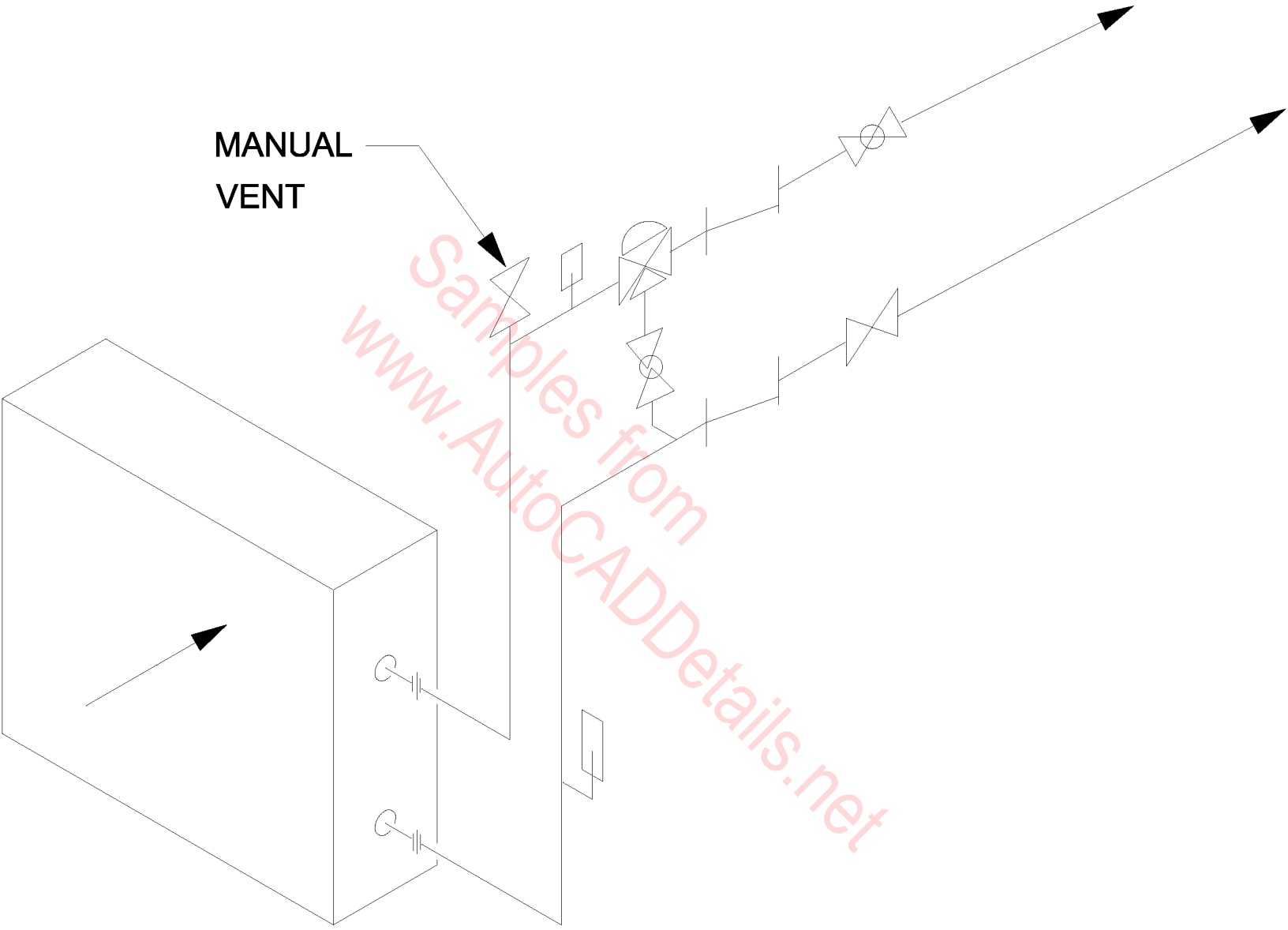



# CENTRIFUGAL PUMP



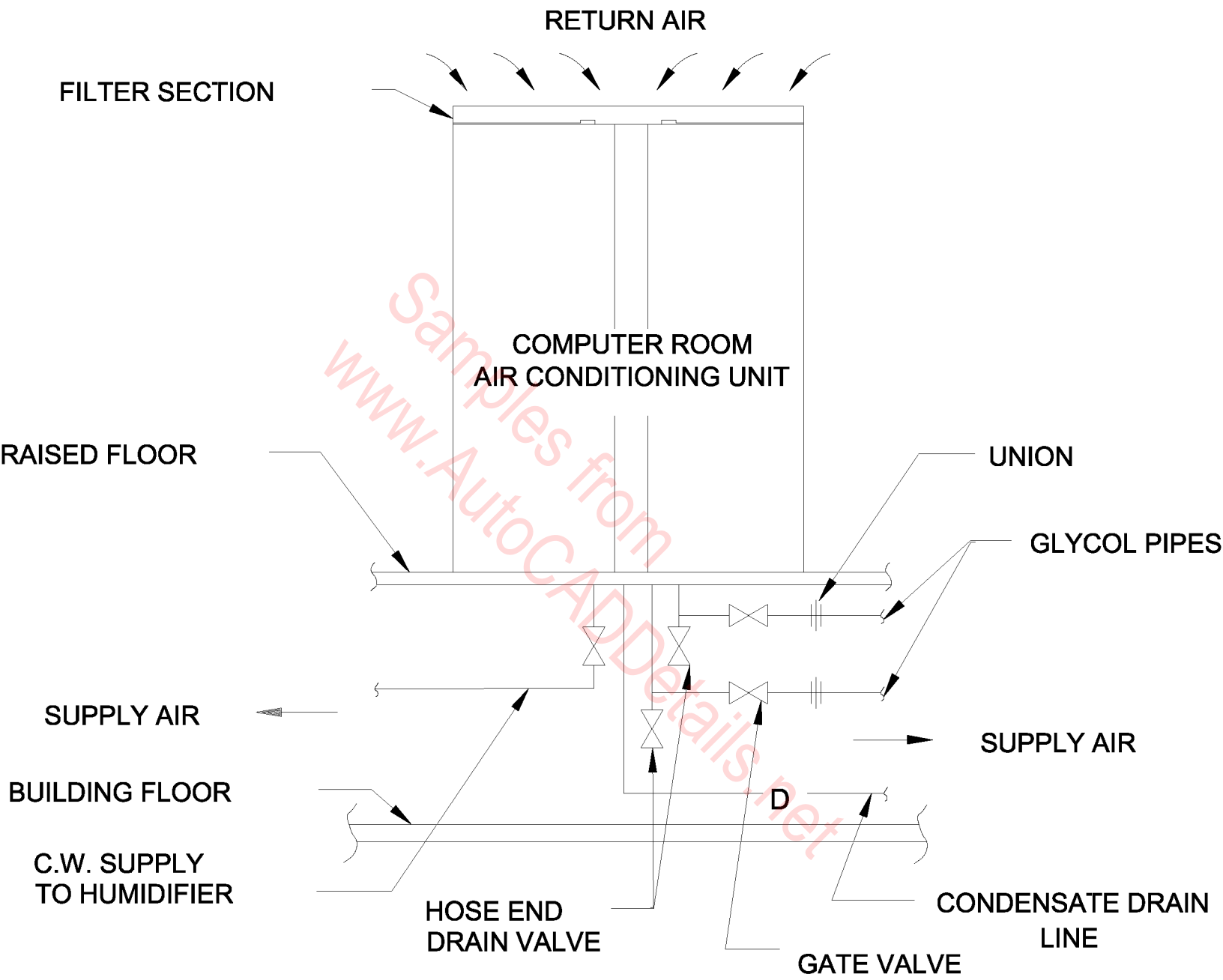



# CENTRIFUGAL PUMP



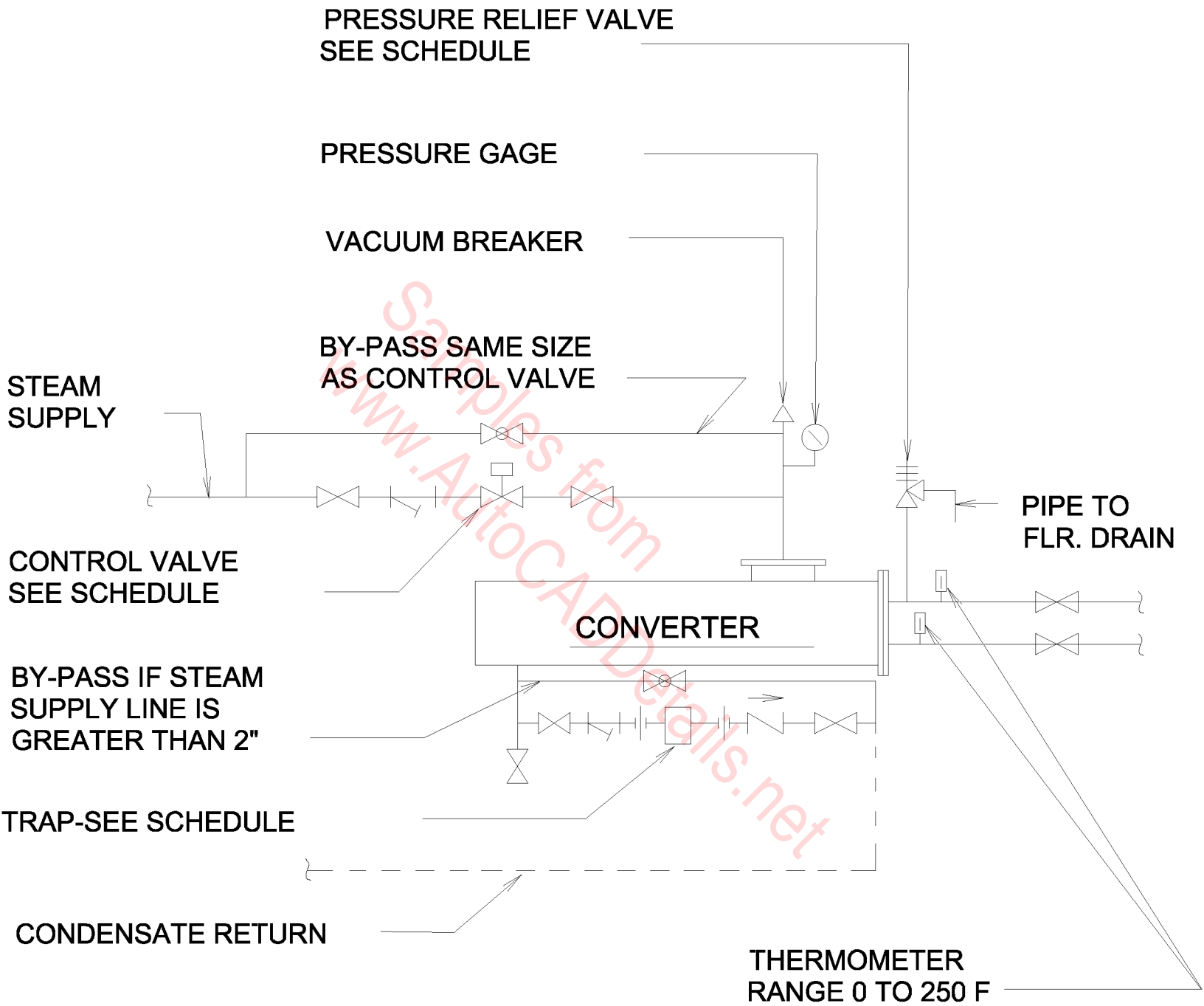



# CHILLED WATER COIL



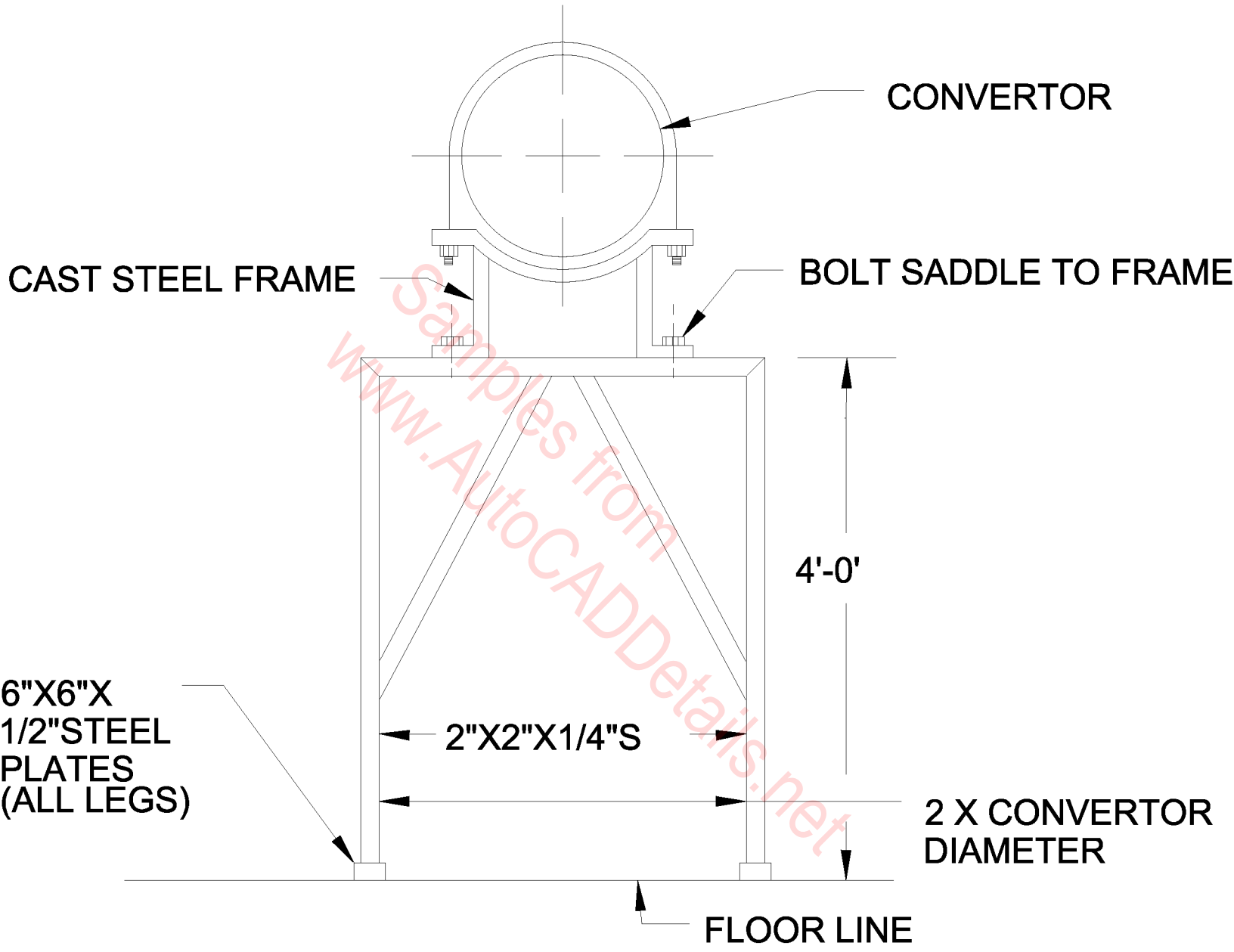



# COMPUTER ROOM AIR CONDITIONING UNIT DETAIL



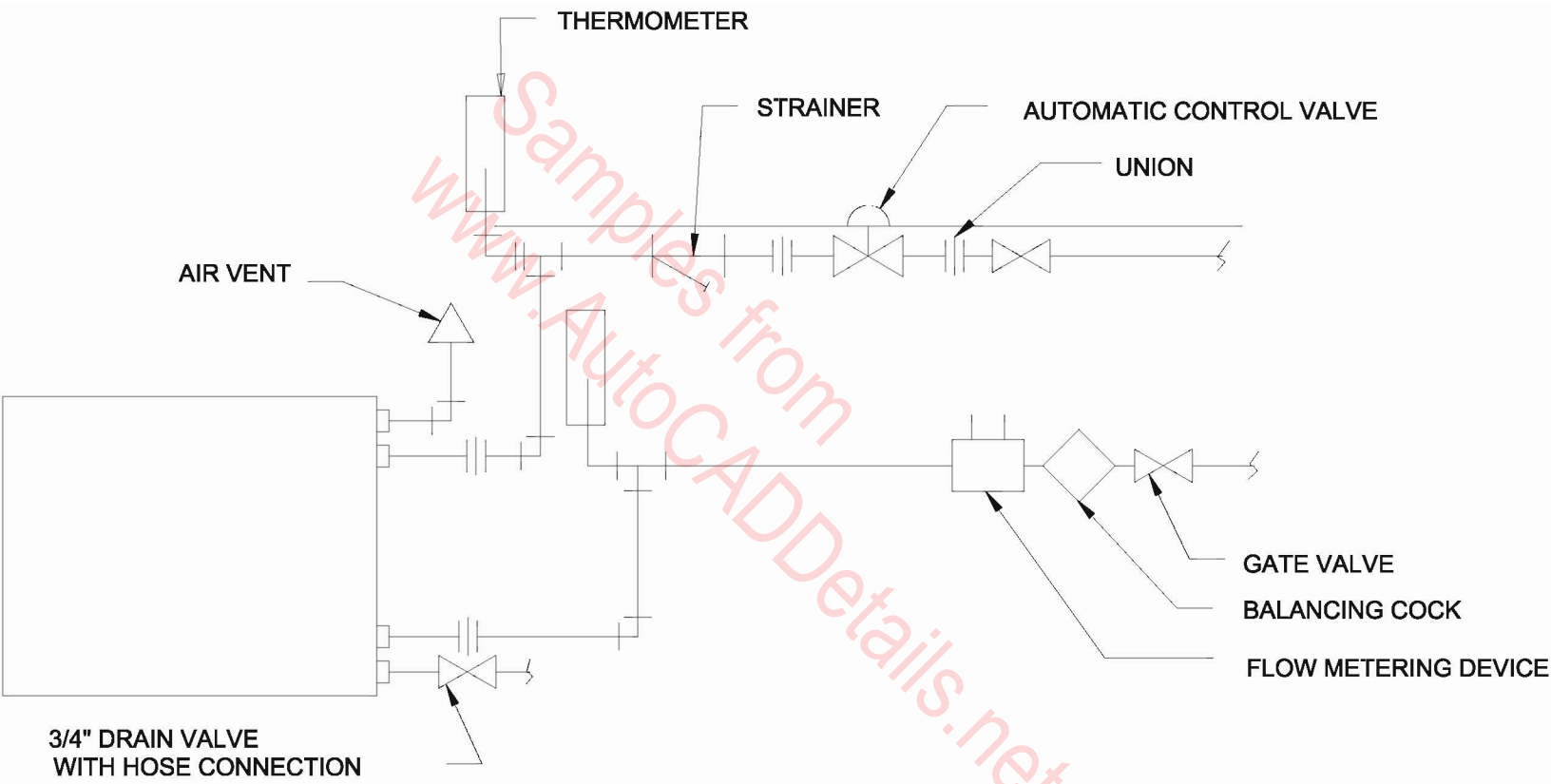



# CONVERTER PIPING DETAIL



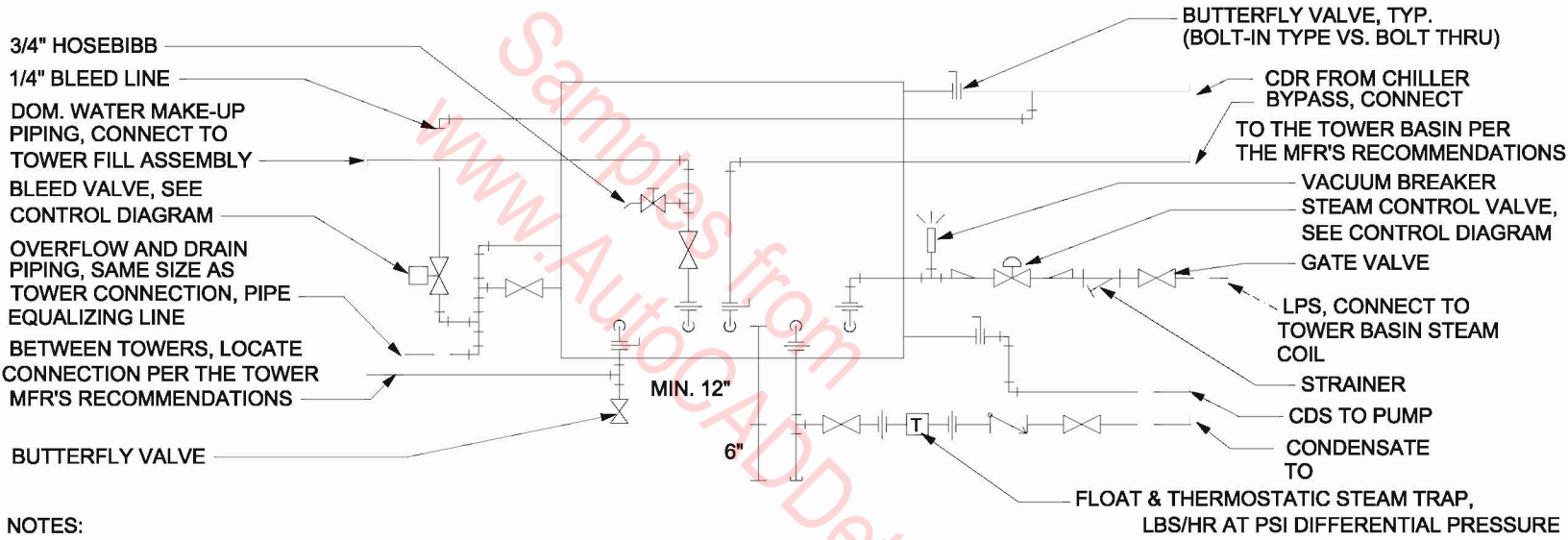



# CONVERTOR SUPPORT DETAIL





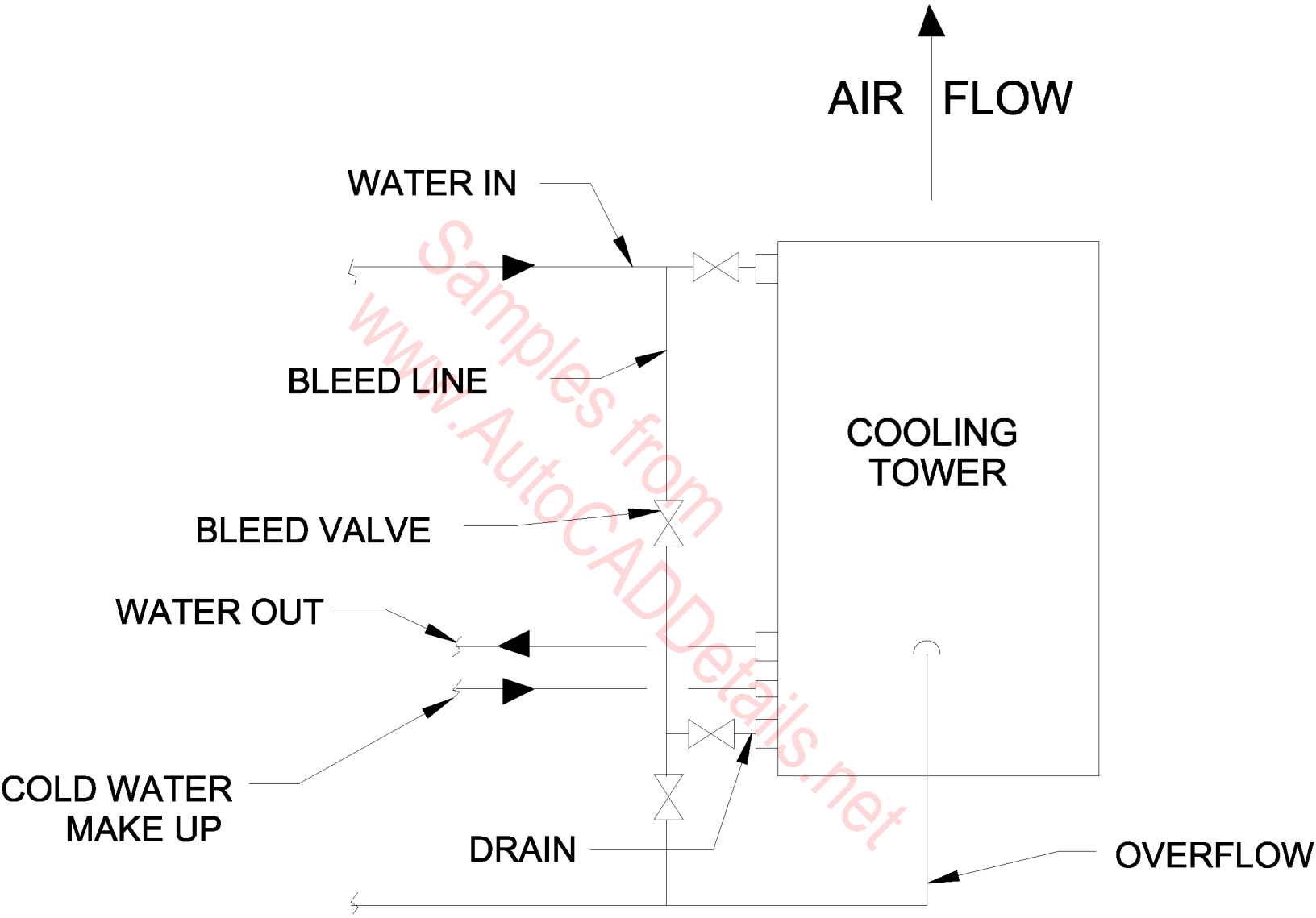

# COOLING COIL PIPING DETAIL




NOTES:

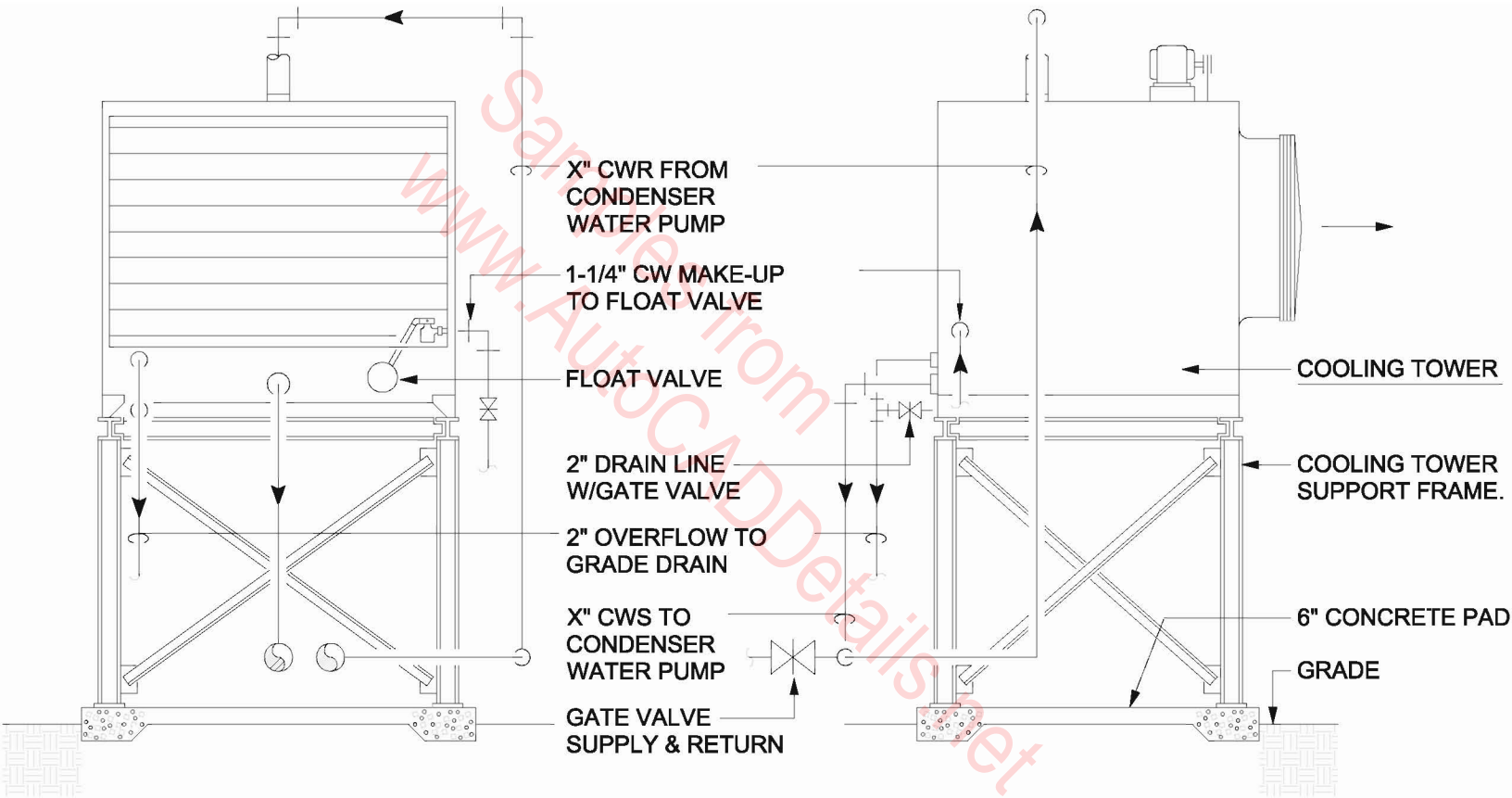
1. PROVIDE THERMOSTATICALLY-CONTROLLED ELECTRIC SELF-LIMITING HEAT TRACING TAPE UNDERNEATH THE INSULATION ON ALL NEW PIPING LOCATED OUTDOORS EXCLUDING THE STEAM, CONDENSATE, AND DRAIN PIPING SERVING THE TOWER. LOCATE THE THERMOSTAT AS SHOWN ON THE PLANS WITH A SUN SHIELD AND SET IT TO ENERGIZE THE HEAT TAPE AT AN OUTDOOR TEMPERATURE BELOW 45 DEG. F.
2. PROVIDE PIPE SUPPORTS PER DETAIL ON SHEET. SPACE SUPPORTS IN ACCORDANCE WITH SECTION 15501 OF THE SPECIFICATIONS.
3. INSTALL PIPING TO PERMIT COMPLETE MAINTENANCE ACCESS TO THE TOWER.

## COOLING TOWER PIPING



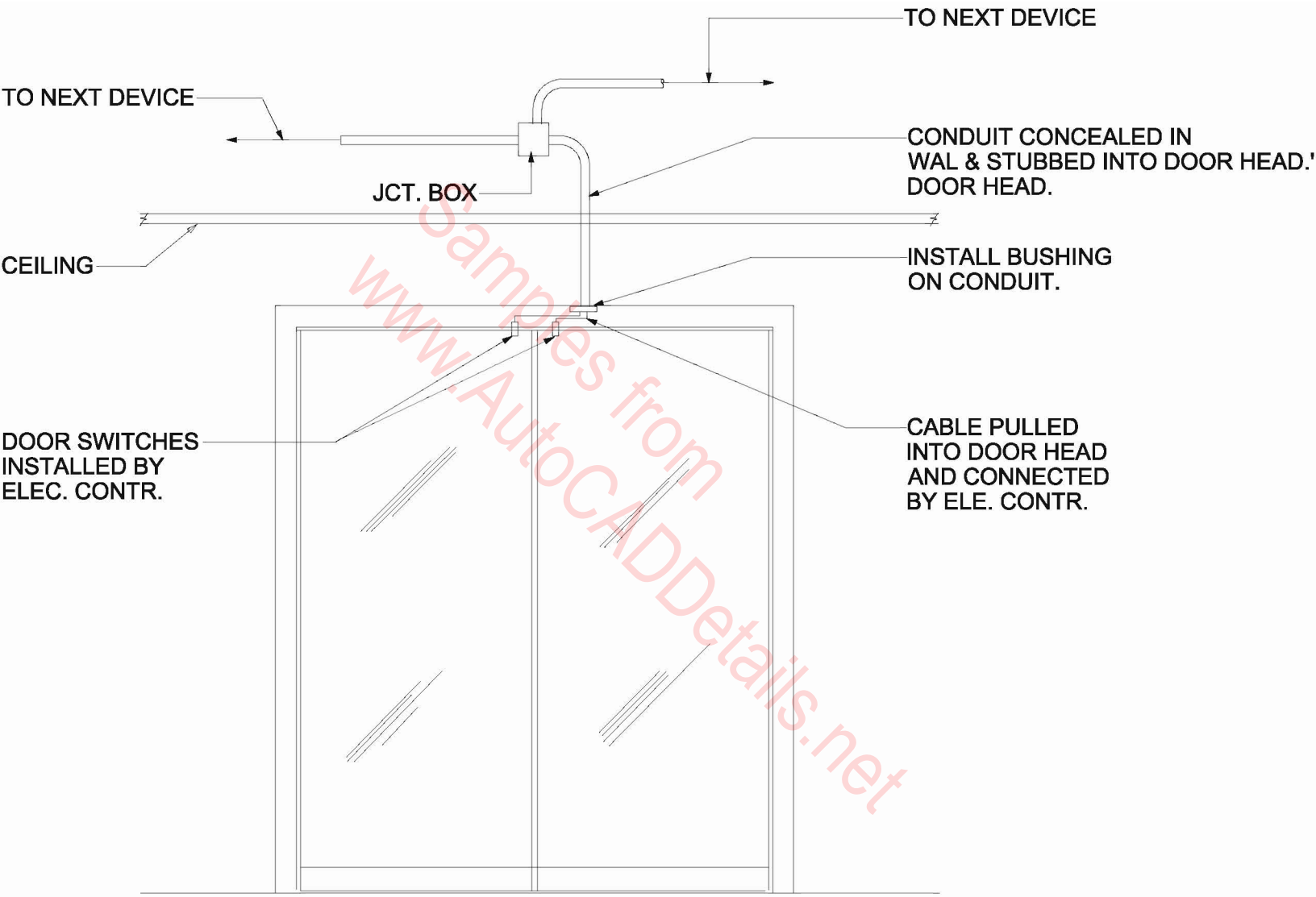



# COOLING TOWER DETAIL






# CROSS-FLOW COOLING TOWER DETAIL

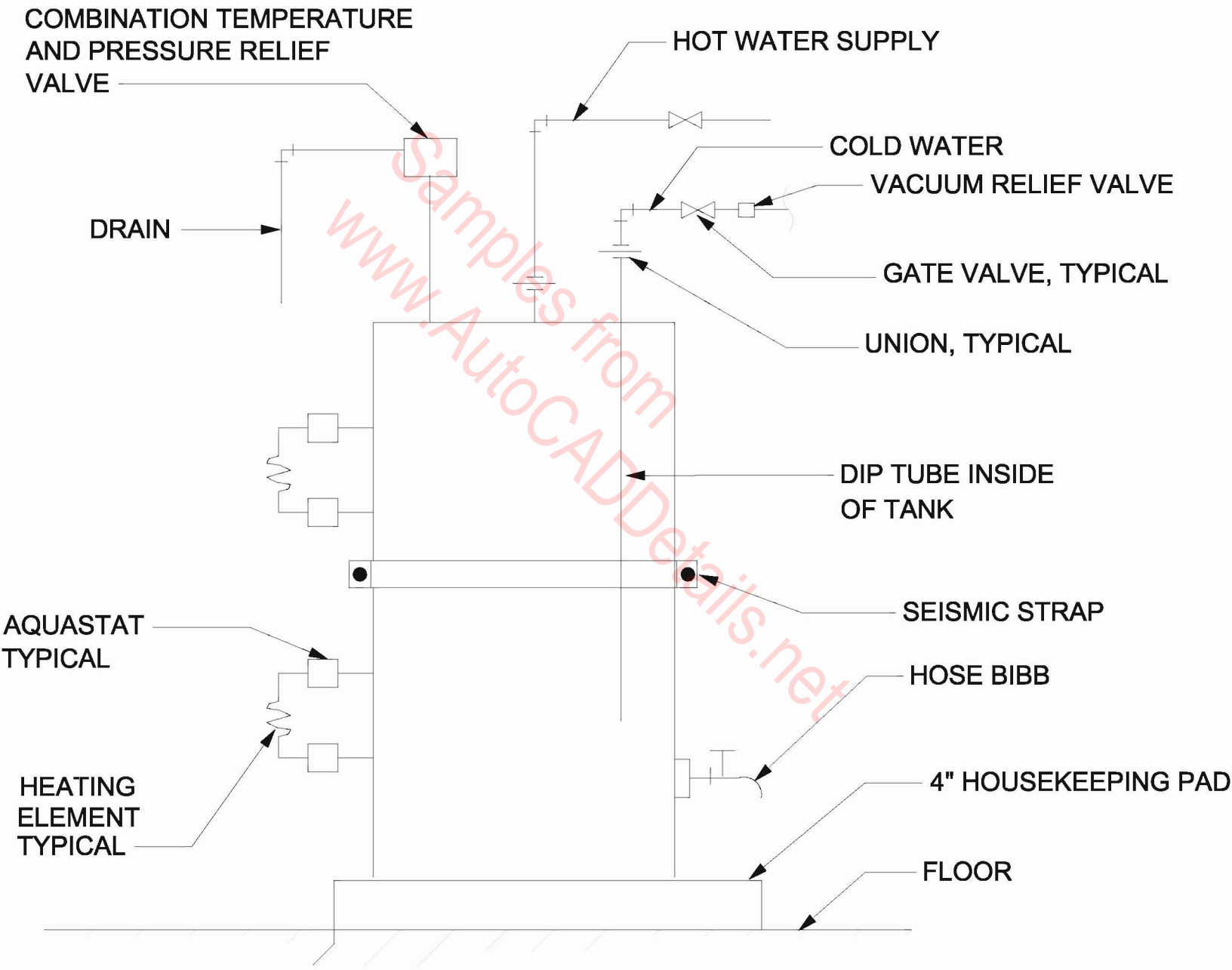





# DETAIL-DOOR SWITCH INSTALLATION

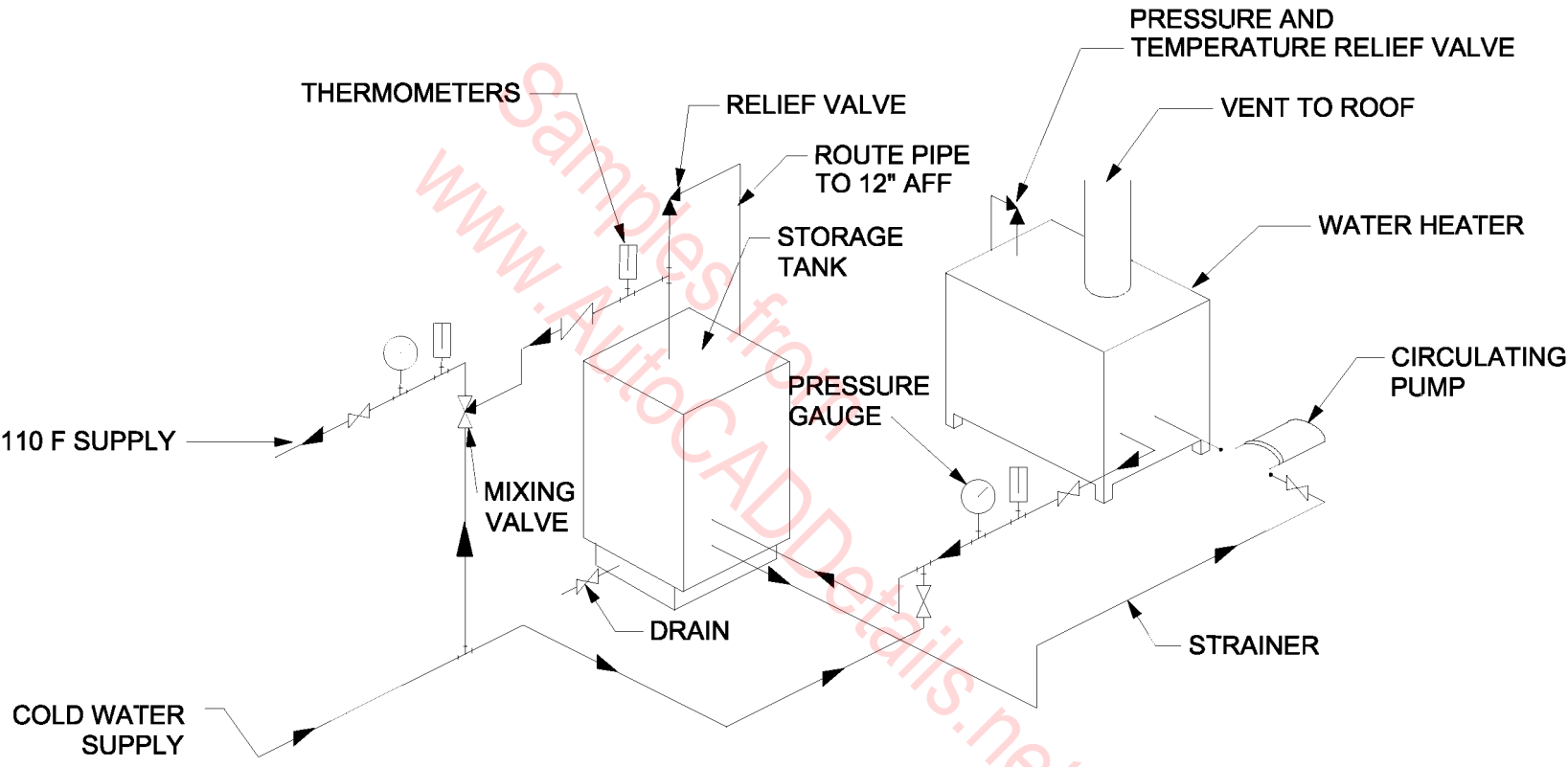
NOTE TO DESIGNER:

N.S.P.C. 10.16.7 REQUIRES: WHERE A HOT WATER STORAGE TANK OR INDIRECT WATER HEATER IS LOCATED AT AN ELEVATION ABOVE THE FIXTURE OUTLETS IN THE SYSTEM A VACUUM RELIEF VALVE SHALL BE INSTALLED ON THE STORAGE TANK.



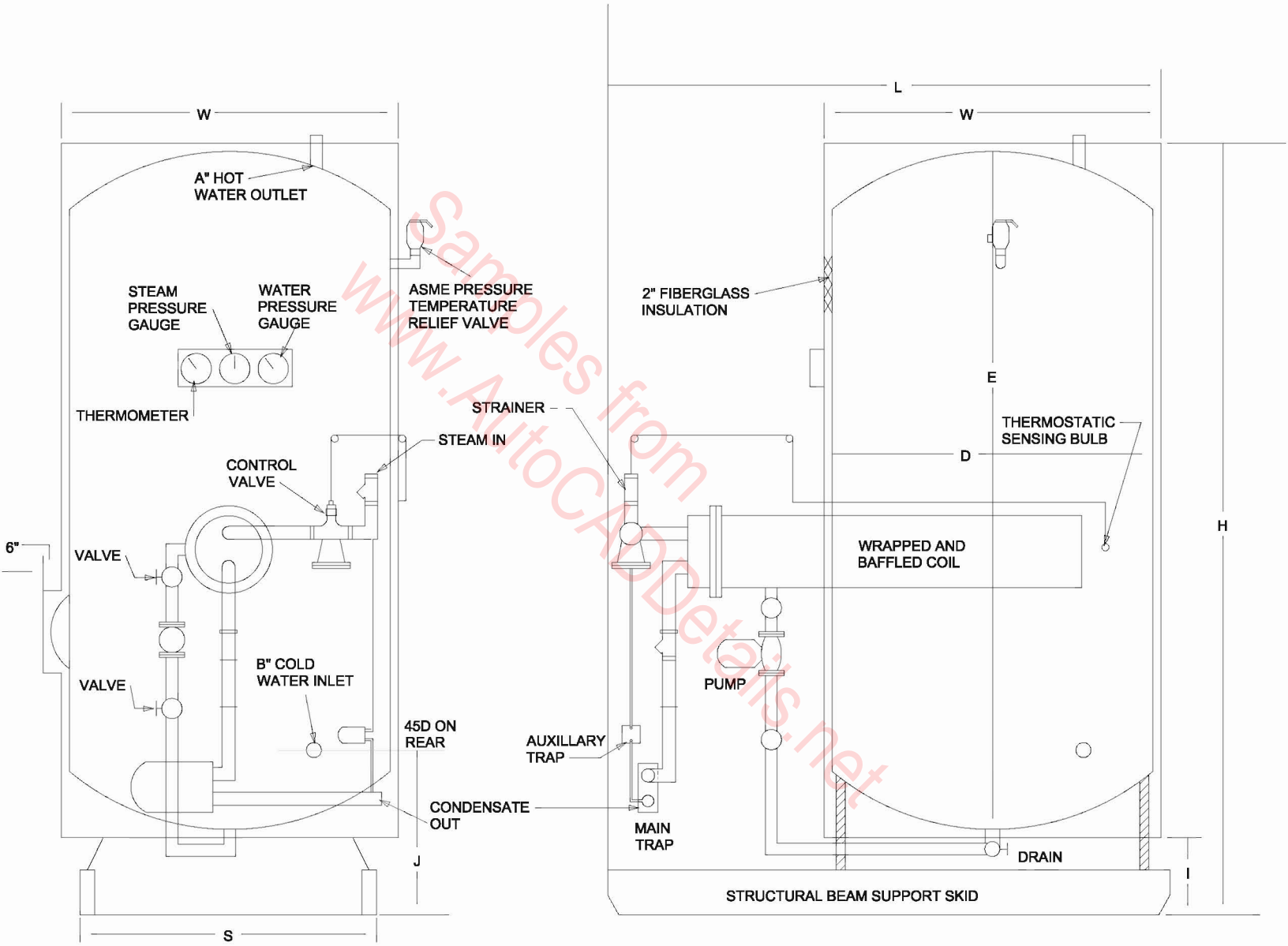



# DOMESTIC ELECTRIC WATER HEATER



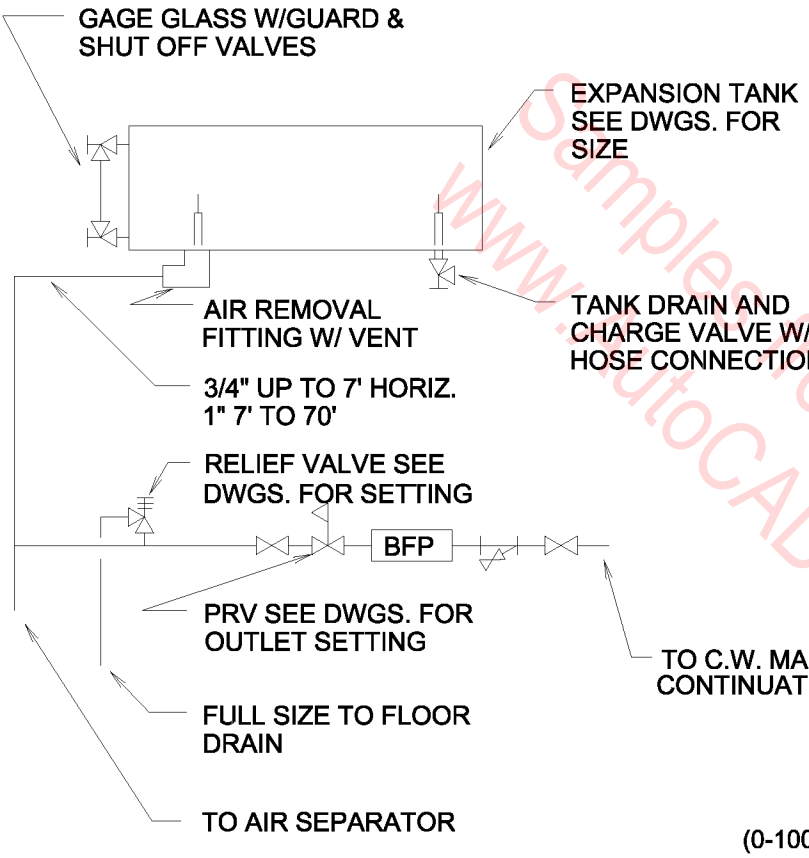


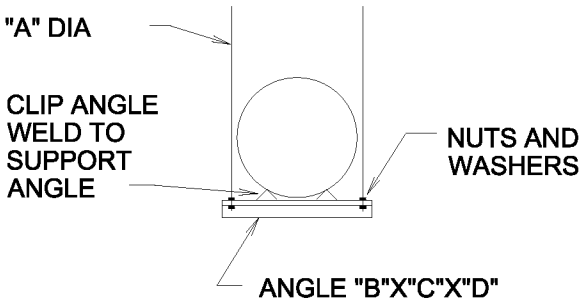

# DOMESTIC HOT WATER SCHEMATIC DETAIL






# DOMESTIC HOT WATER TANK AND TANK HEATER WITH STEAM INPUT

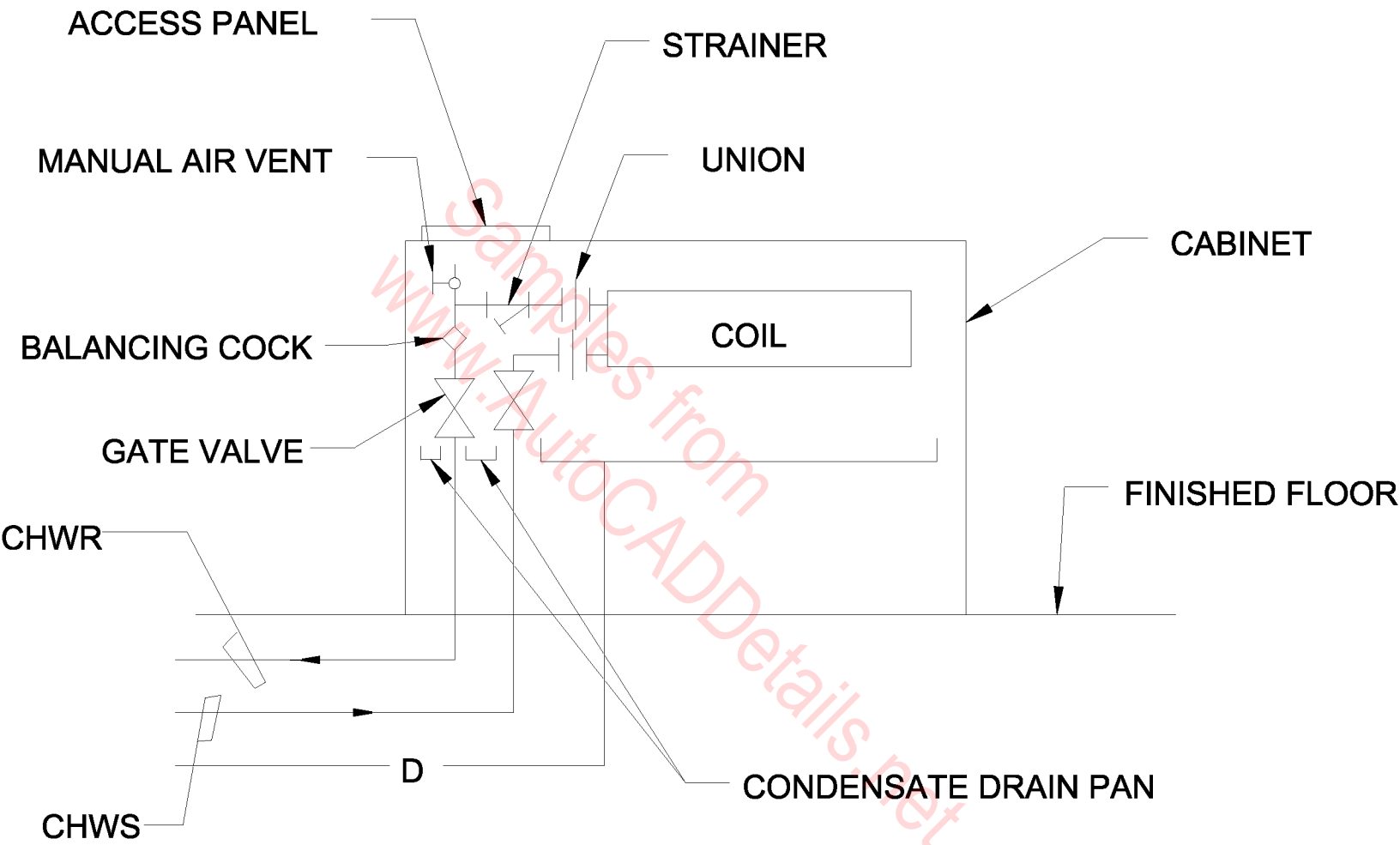



| GAL | A | B | C | D |
|---|---|---|---|---|
| 0-50 | 1/2" | 2" | 2" | 1/4" |
| 0-100 | 5/8" | 3" | 3" | 1/4" |

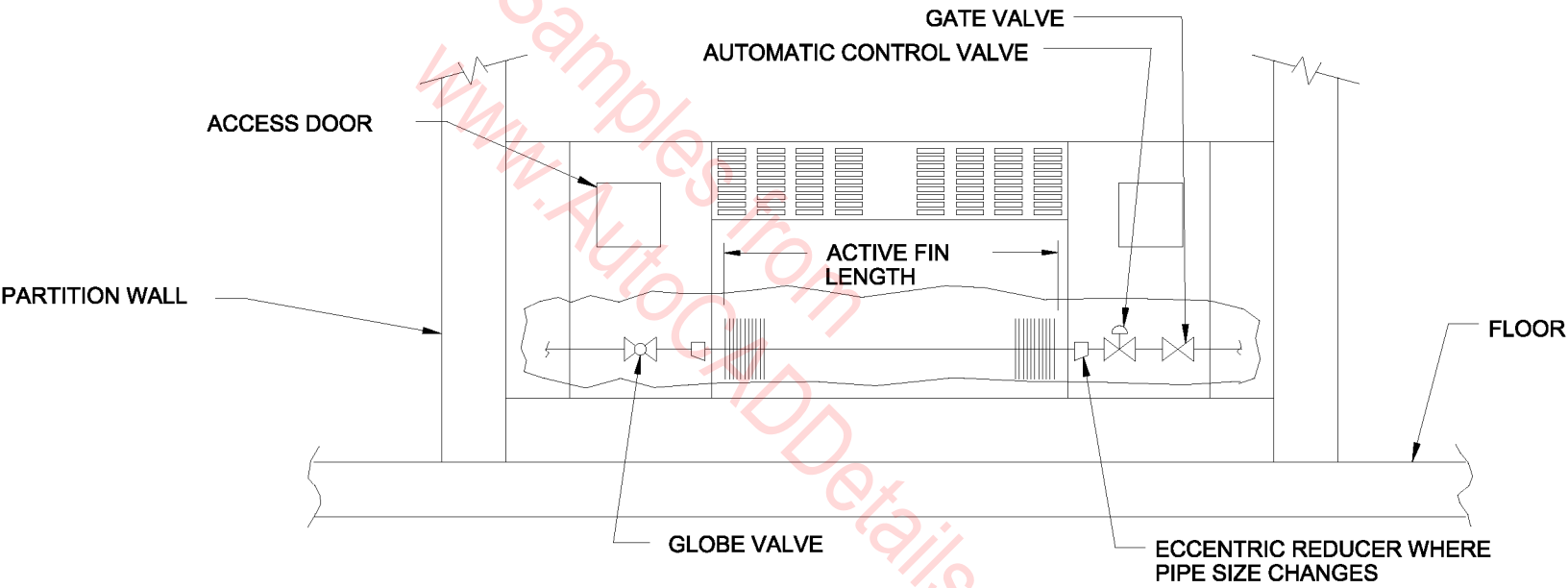
(0-100 GALLONS)

# EXPANSION TANK

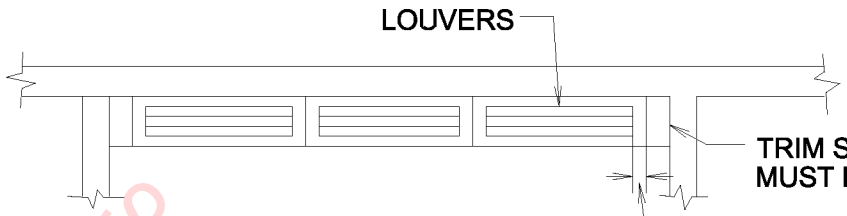





# FAN COIL UNIT PIPING DETAIL




# FIN TUBE RADIATION DETAIL



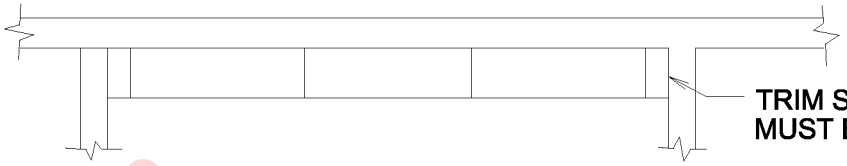

TOP VIEW


NOTE:
SYMMETRY SHALL ALSO
BE MAINTAINED WHERE ENCLOSURE
IS NOT INSTALLED BETWEEN
WALLS.

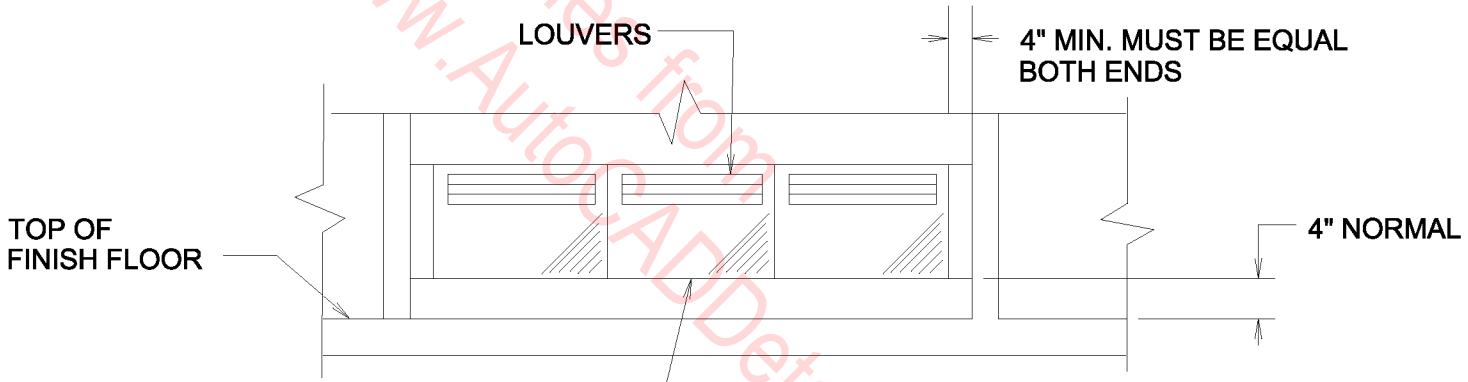
ELEVATION

(TOP DISCHARGE)

# FINTUBE ENCLOSURE DETAIL




TOP VIEW

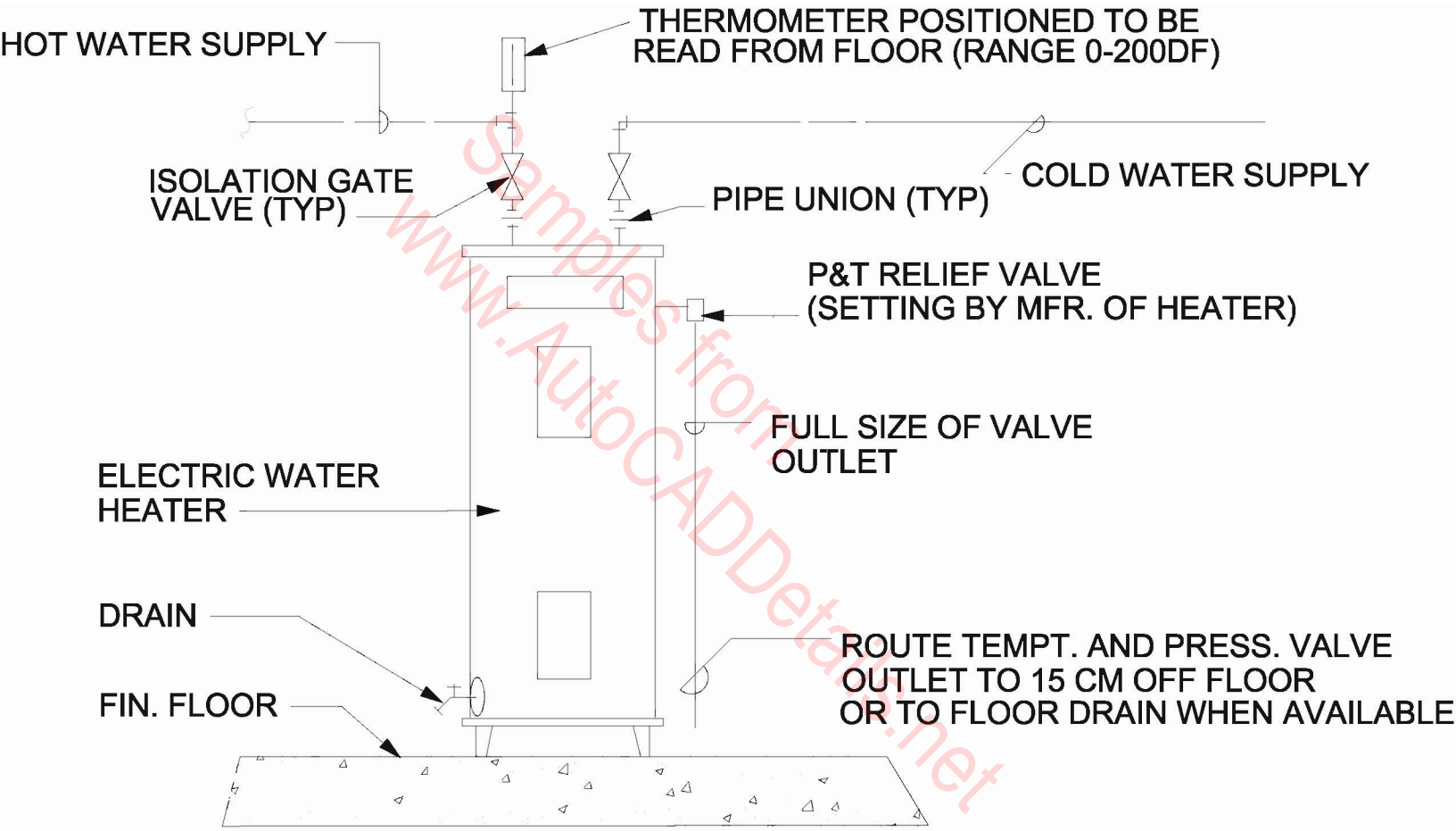



NOTE:
SYMMETRY SHALL ALSO
BE MAINTAINED WHERE ENCLOSURE
IS NOT INSTALLED BETWEEN
WALLS.

ELEVATION

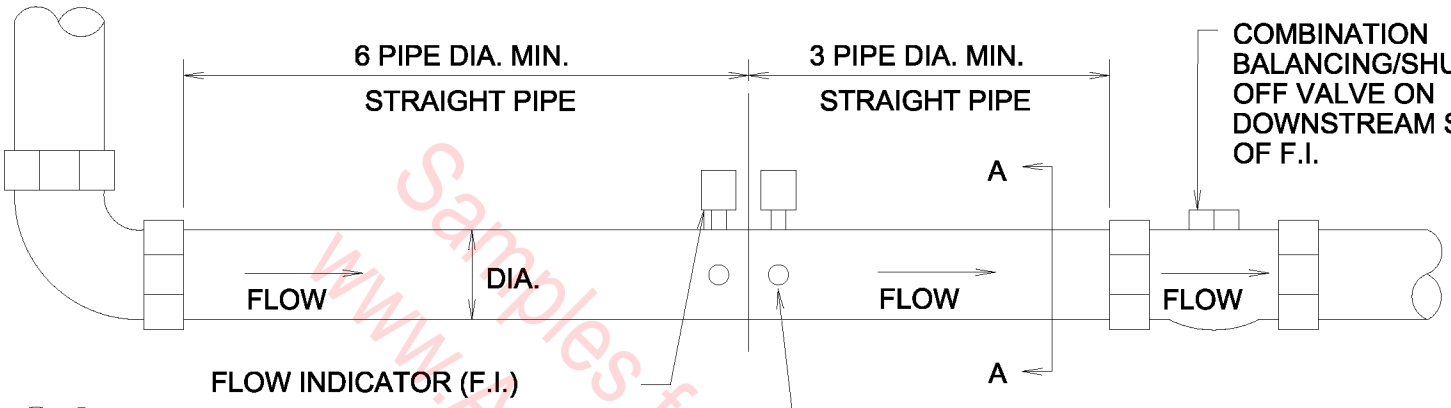
(FRONT DISCHARGE)

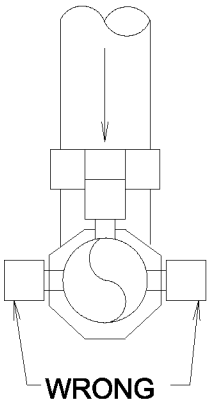
# FINTUBE ENCLOSURE DETAIL






# FLOOR MOUNTED ELECTRIC WATER HEATER DETAIL




## SECTION A-A

SHOWING RELATIONSHIP OF FLOW INDICATOR TO UPSTREAM ELBOW

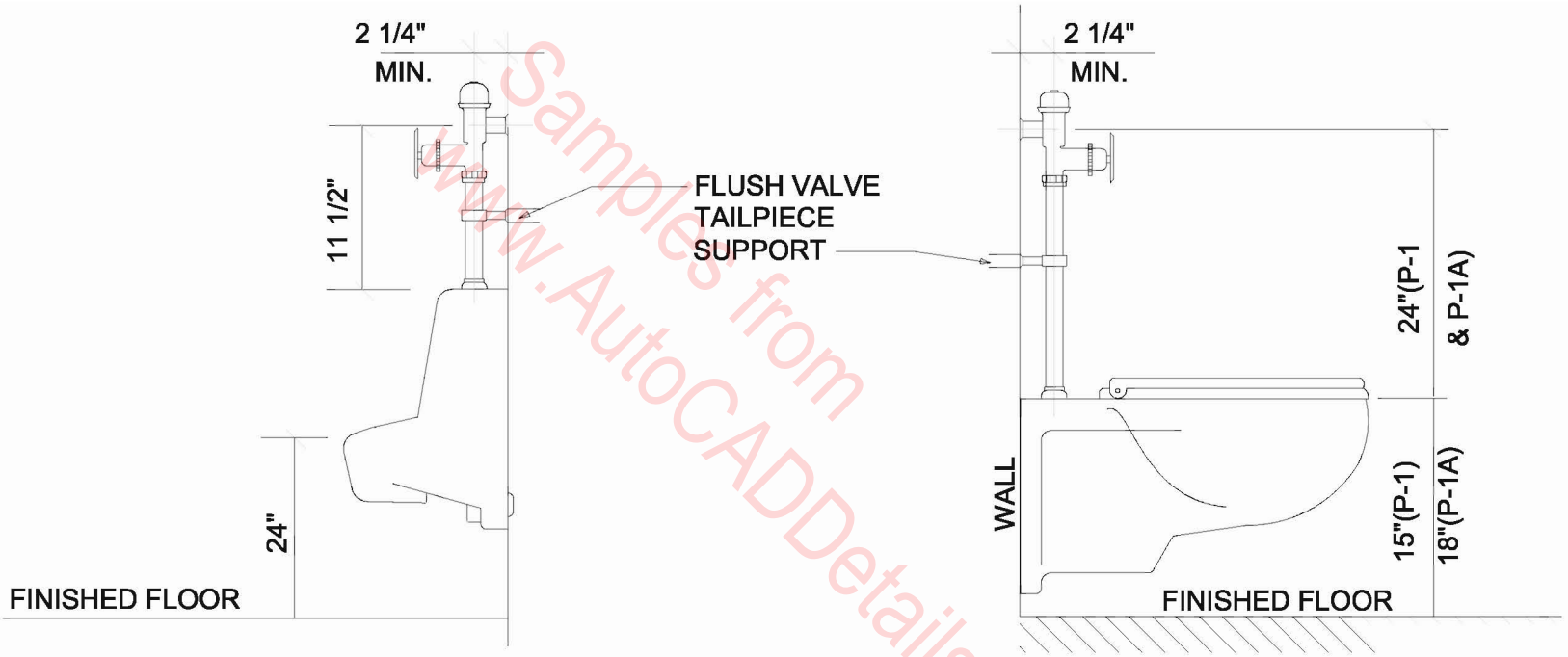
NOTES:

1. ONLY STRAIGHT PIPE IS TO BE WITHIN MINIMUM UPSTREAM & DOWNSTREAM DIMENSIONS, NO FITTINGS OR VALVES ARE ALLOWED.

2. F.I. & VALVES SHALL BE ORIENTED FOR EASY ACCESS. IF TOP OF PIPE IS CLOSE TO STRUCTURE OR OBSTRUCTIONS, ARRANGE PIPING TO LOCATE VALVE OPERATOR & F.I. CONNECTIONS ON SIDE OF PIPE. NO VALVE SHALL BE INSTALLED WITH THE OPERATOR BELOW THE HORIZONTAL.

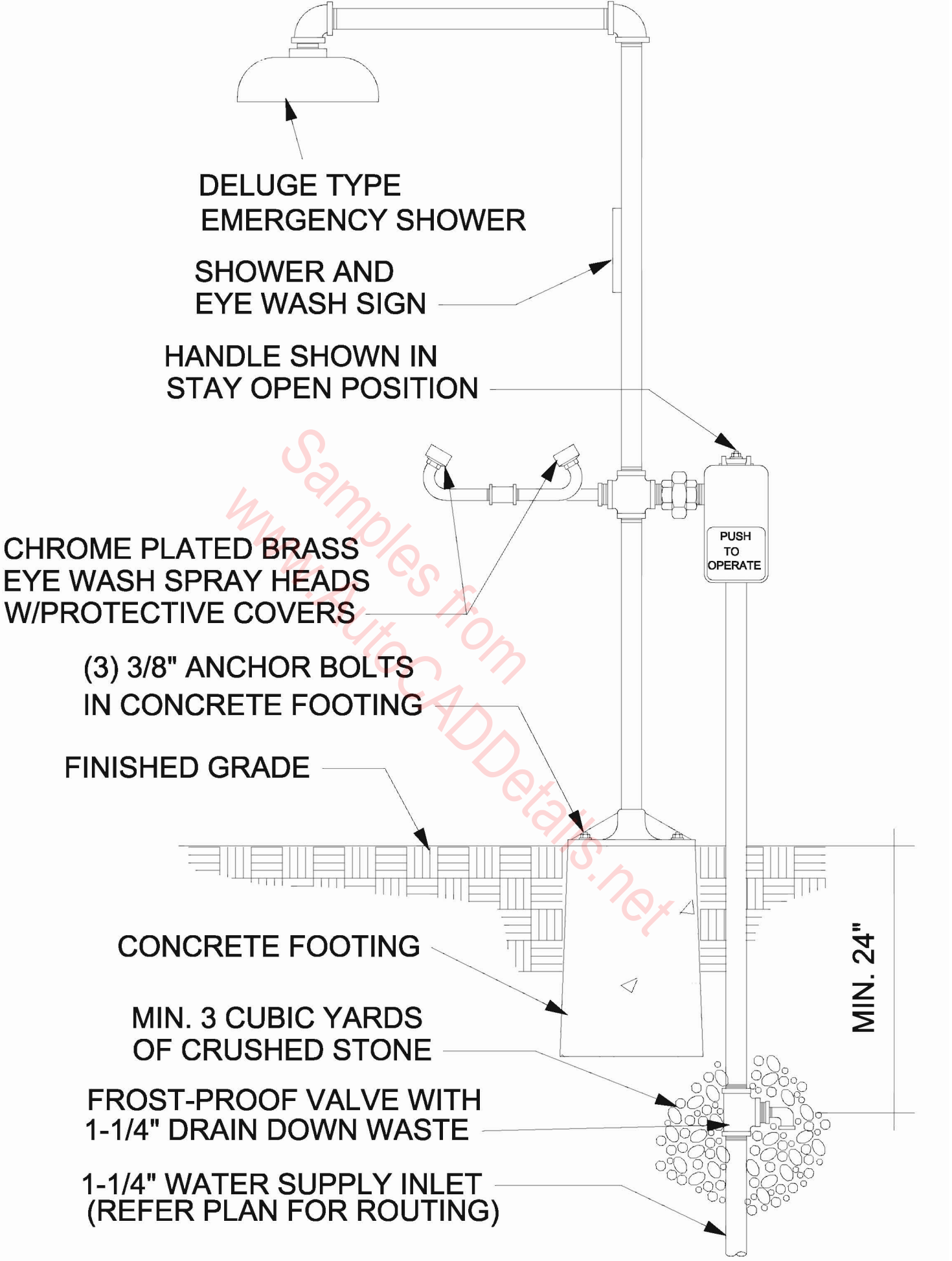


# FLOW INDICATOR (F.I.) DETAIL



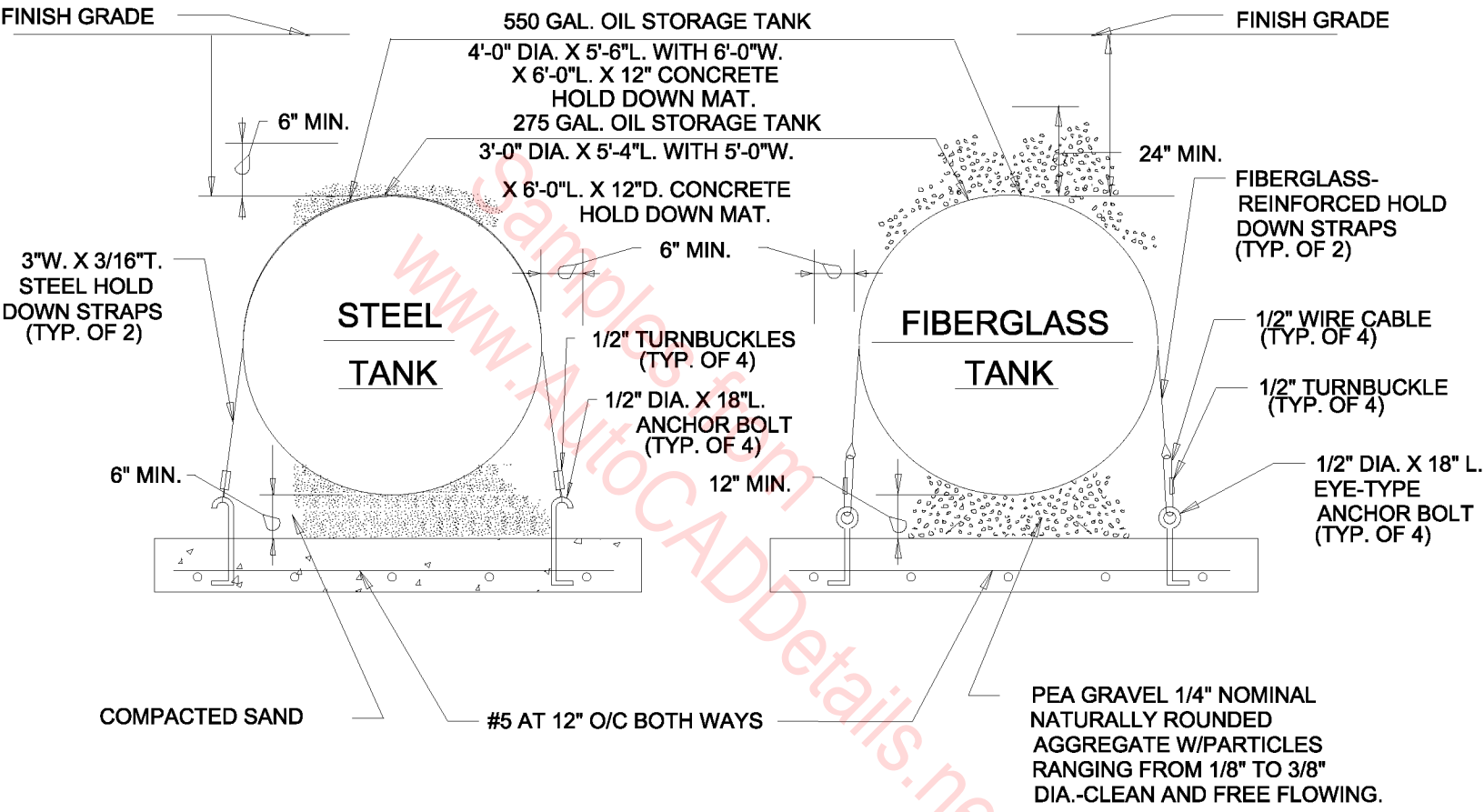



# FLUSH VALVE SUPPORT DETAIL



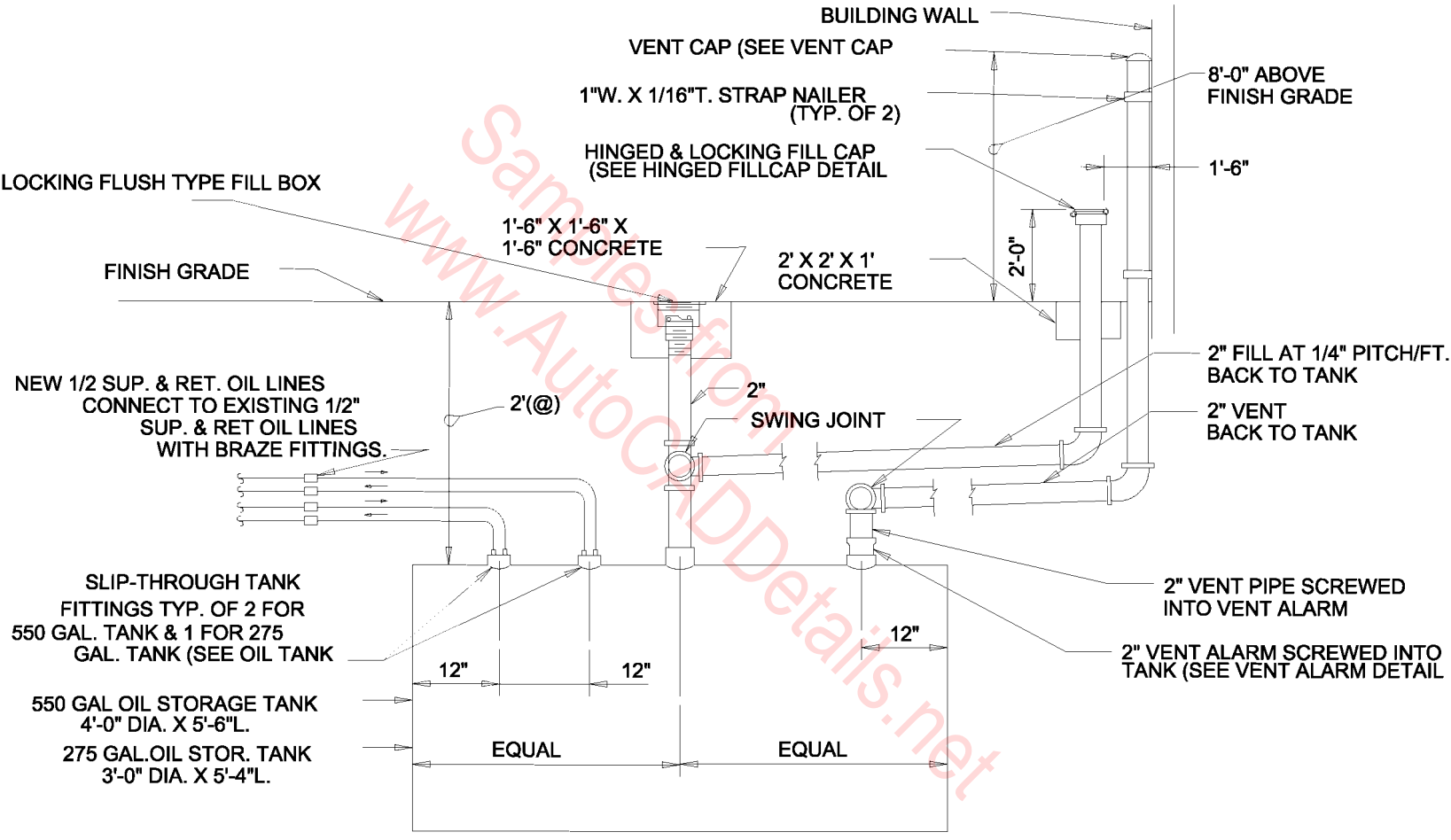



# FROST-PROOF COMBINATION DRENCH SHOWER/EYE WASH UNIT

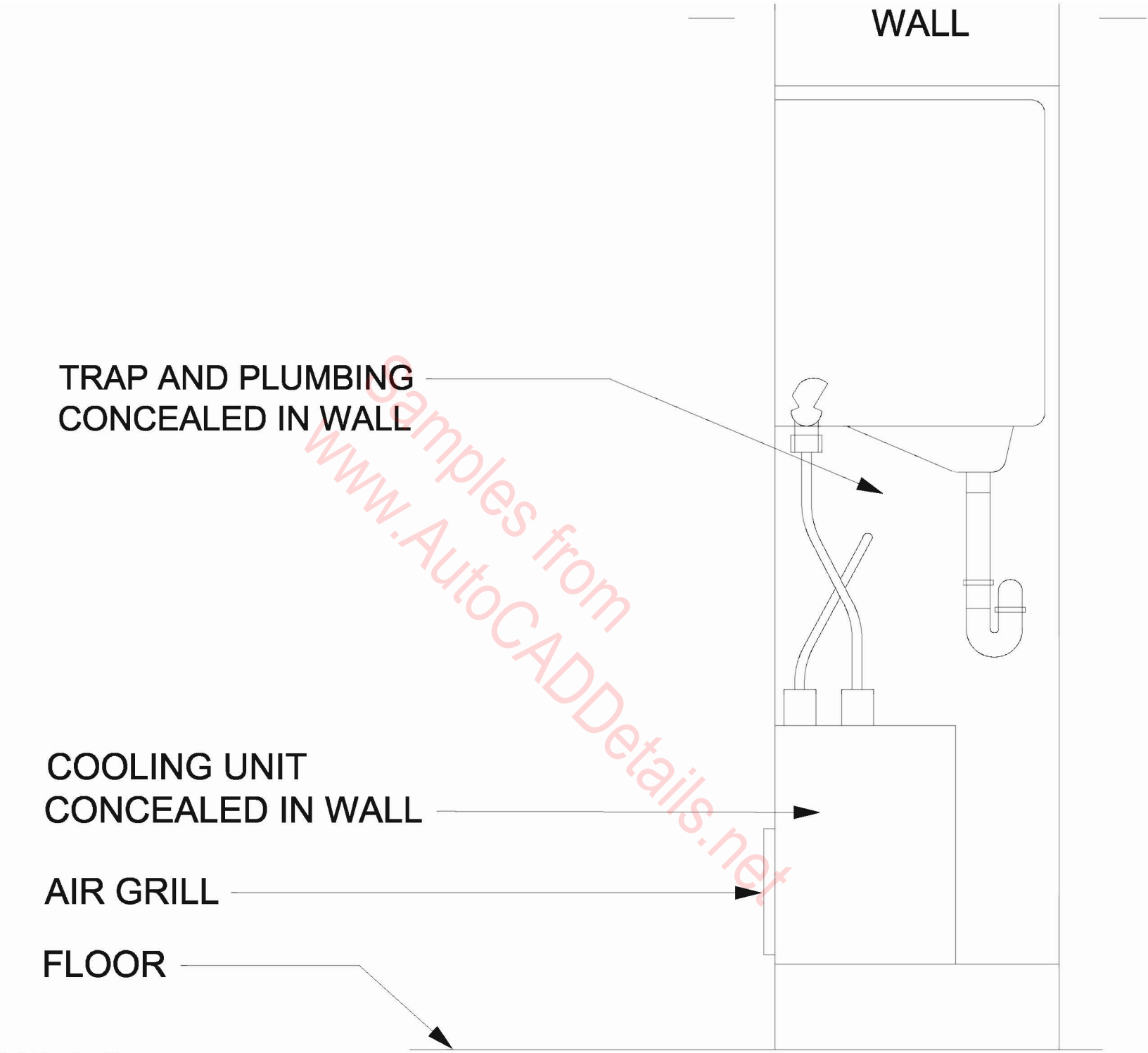



# FUEL OIL TANK ANTI-FLOTATION PAD & ANCHORAGE DETAILS

(TYPICAL FOR 275 & 550 GAL. STORAGE TANKS
WHERE EXISTING CONCRETE PADS ARE FOUND.)




# FUEL STORAGE TANK DETAIL

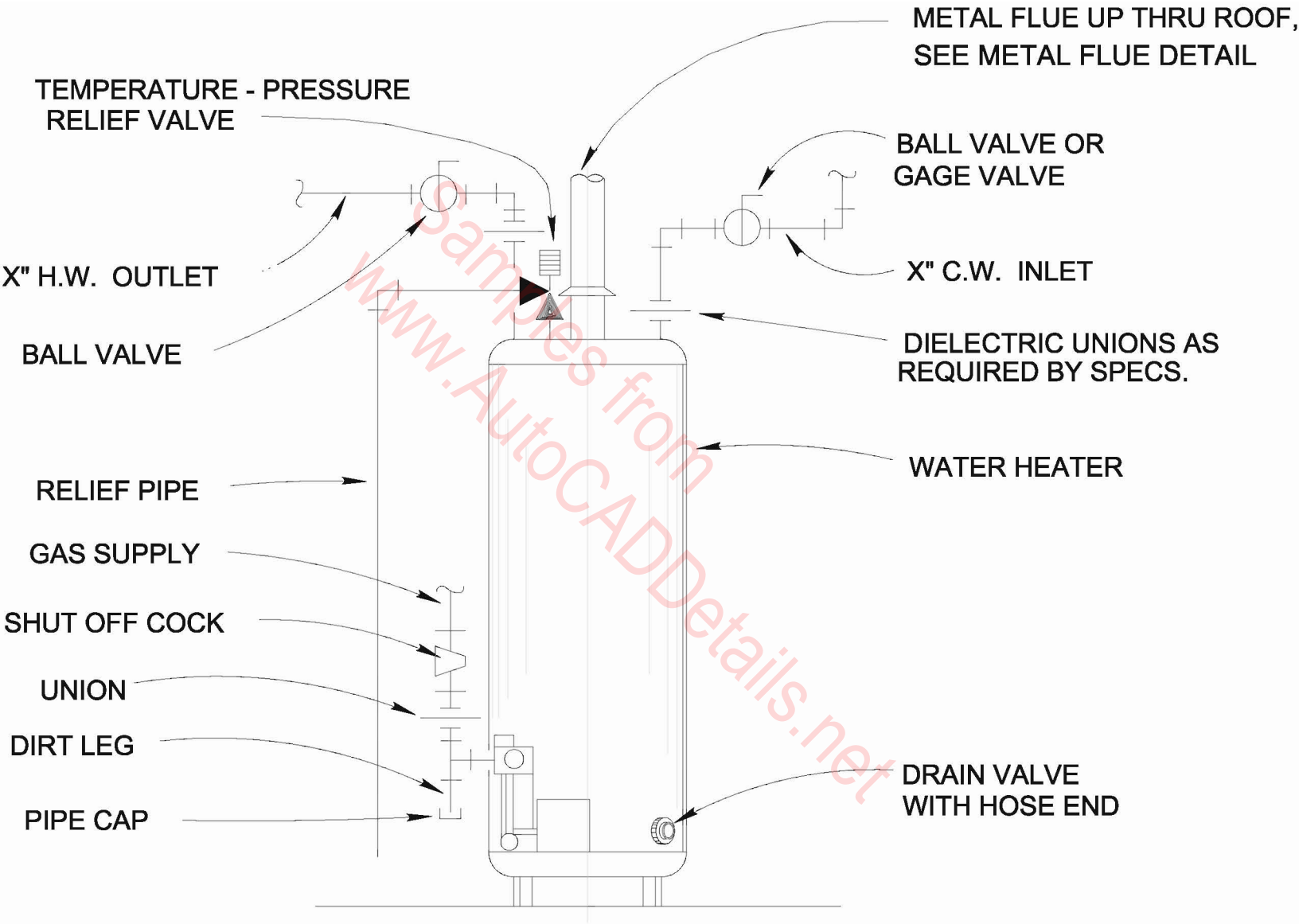





NOTES:

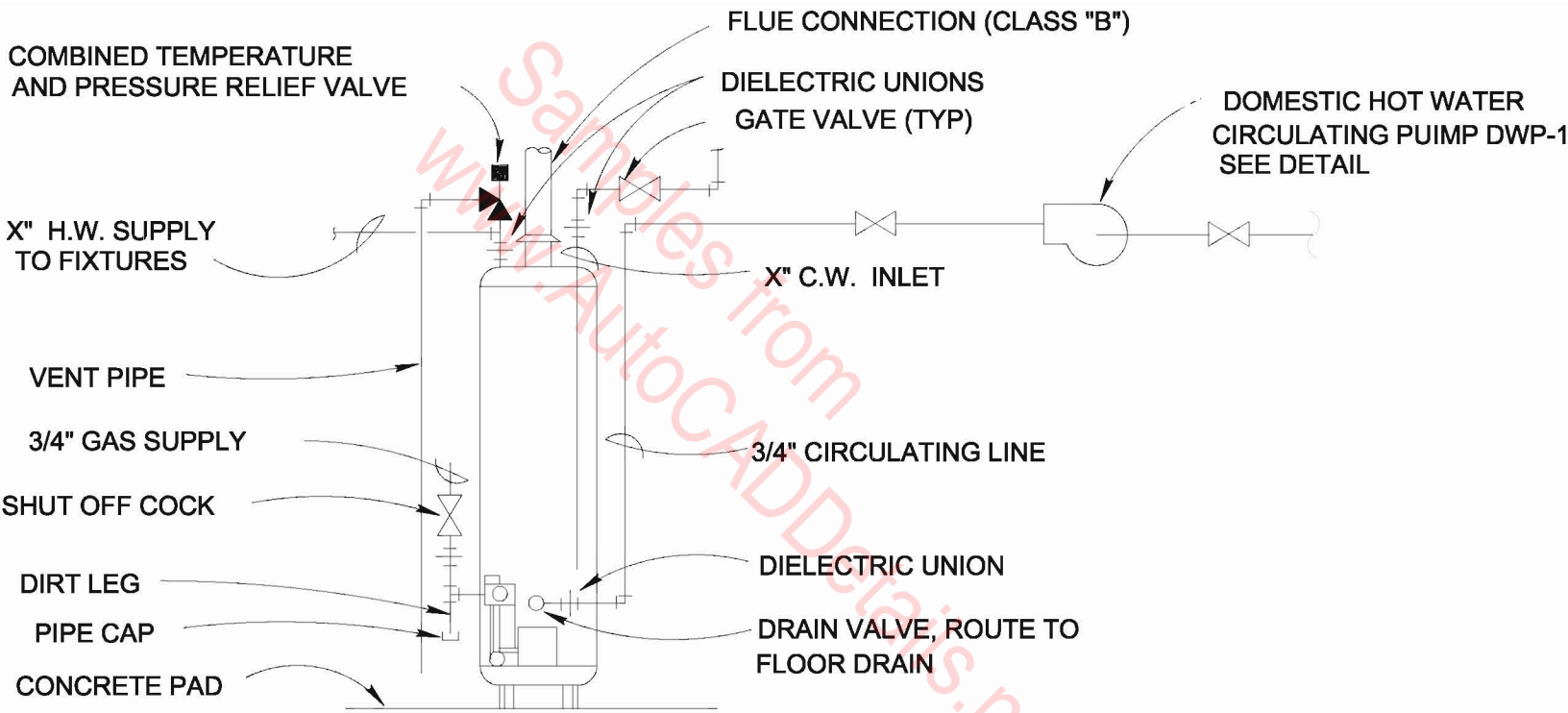
1. INSTALL ACCORDING TO MANUFACTURER'S INSTRUCTIONS.

# FULLY RECESSED DRINKING WATER COOLER

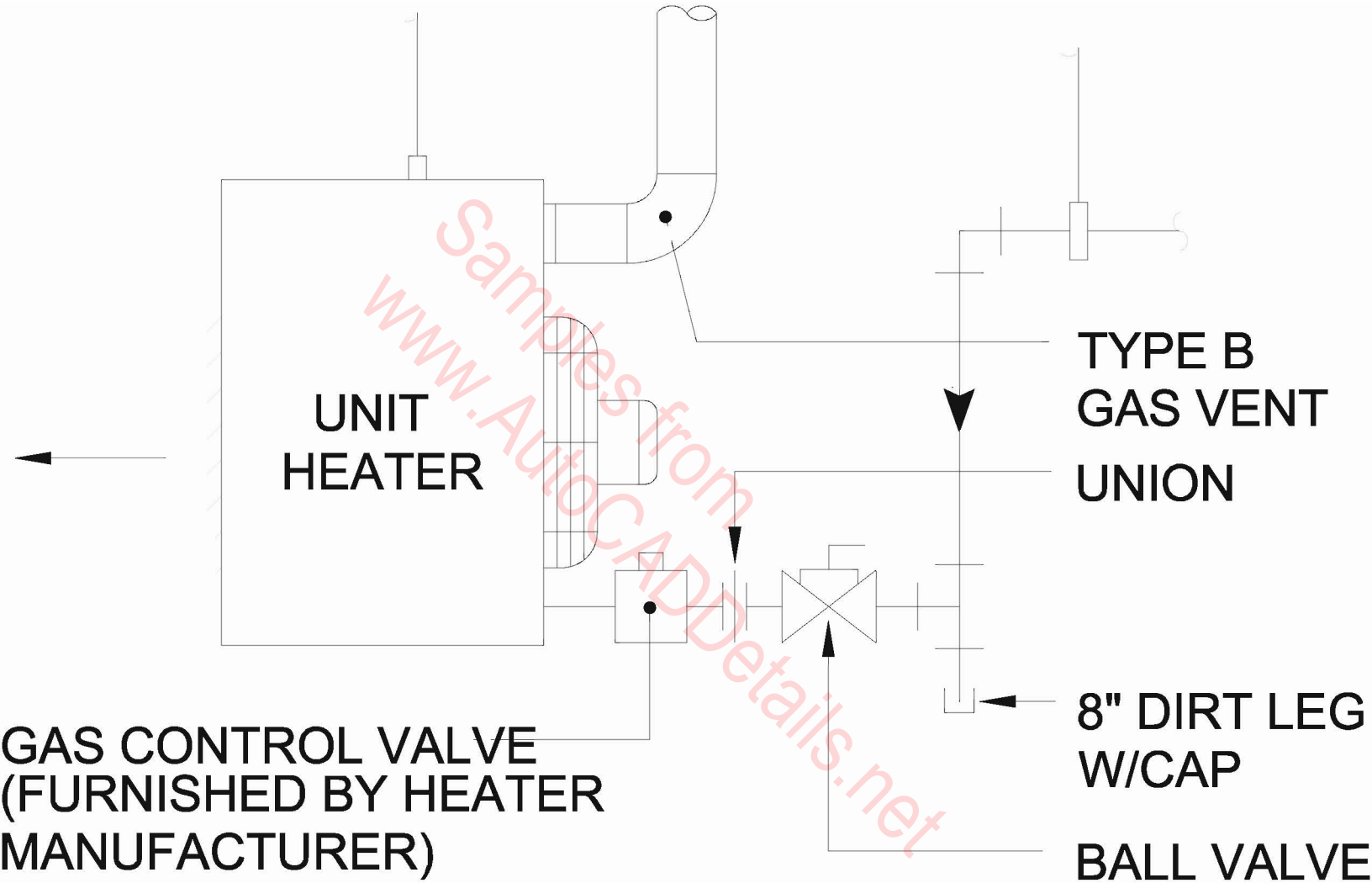





# GAS FIRED HOT WATER HEATER CONNECTIONS

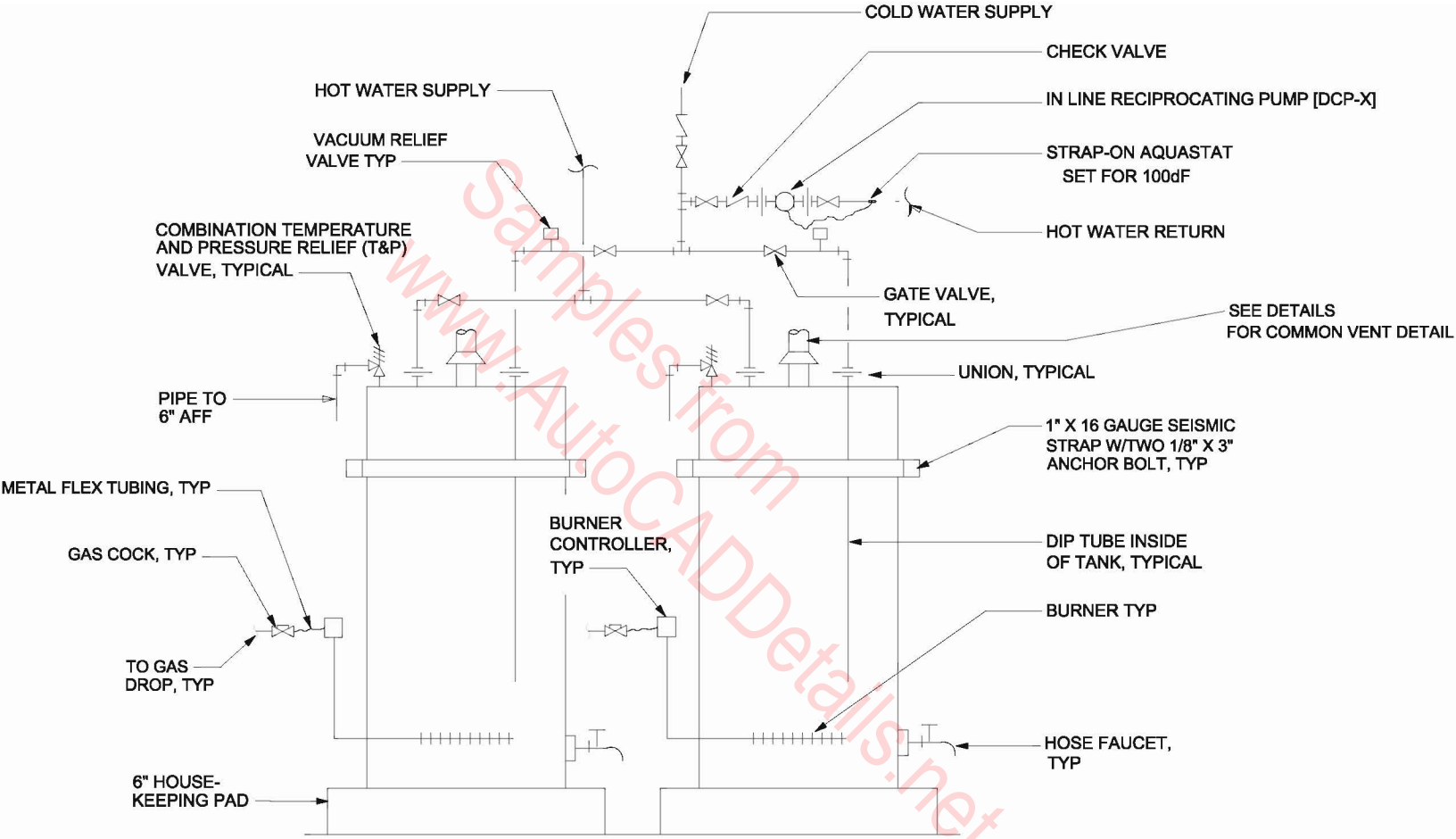



# GAS FIRED HOT WATER HEATER CONNECTIONS WITH RECIRCULATING LOOP





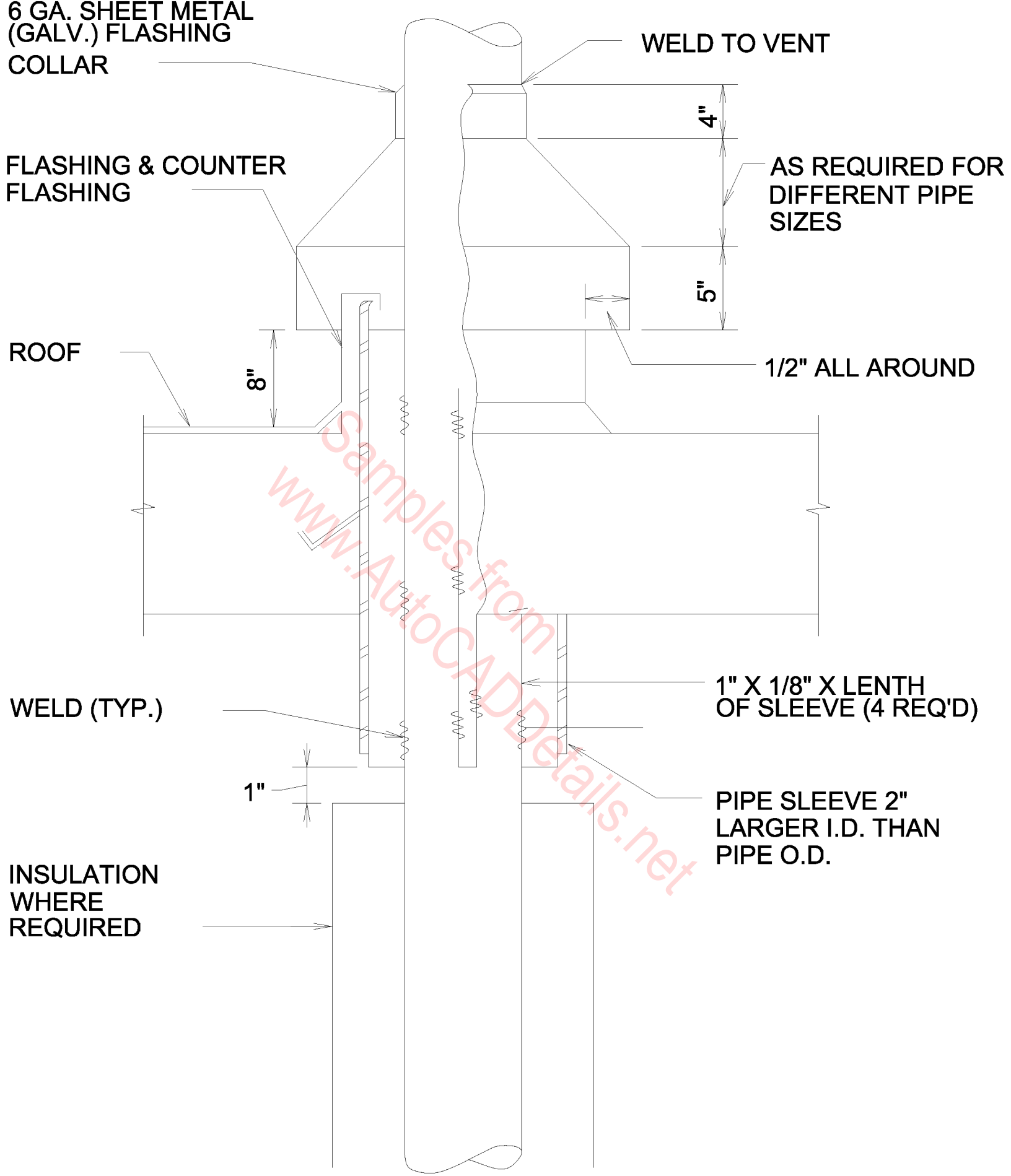

# GAS FIRED
# UNIT HEATER DETAIL





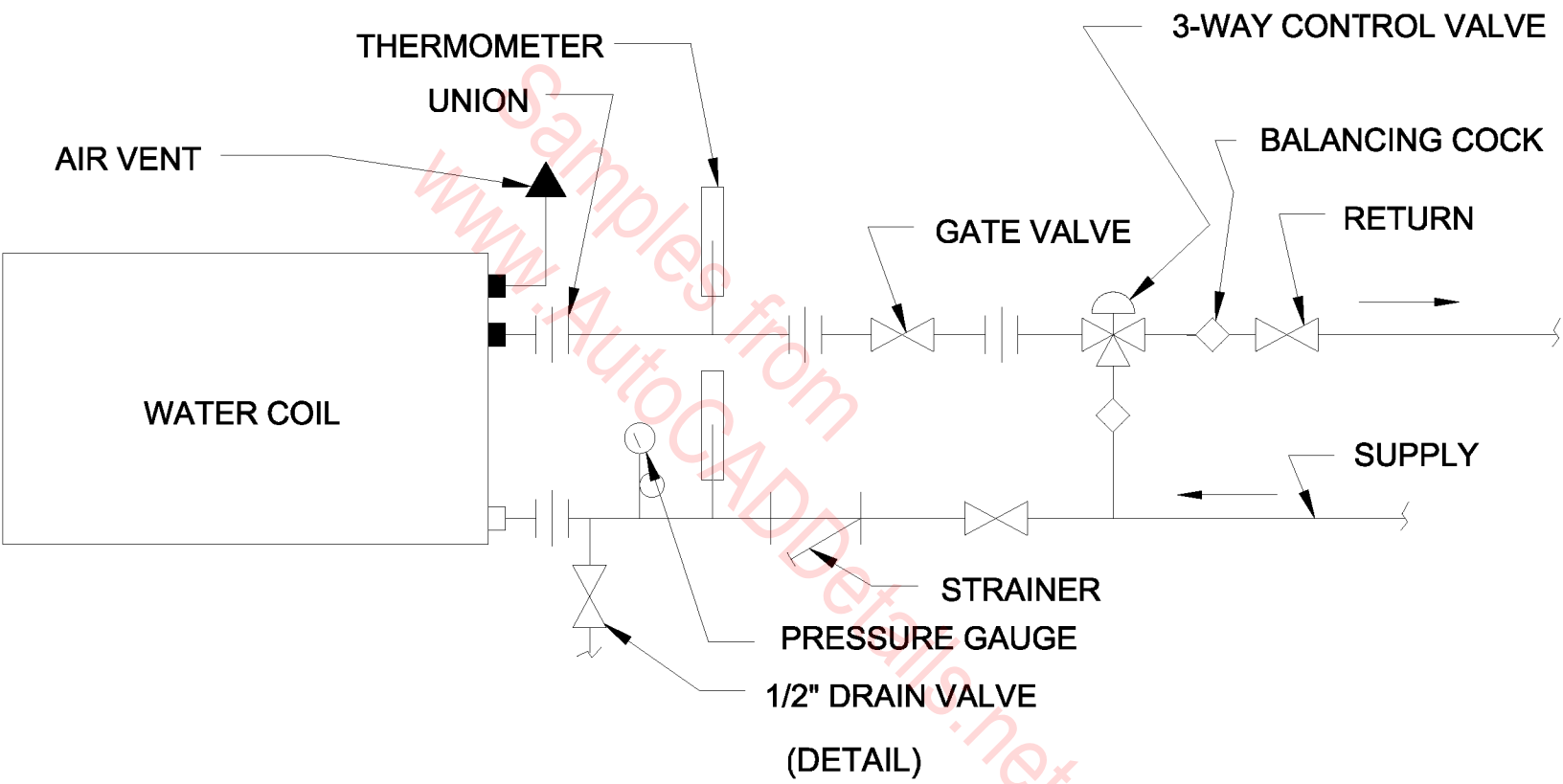

# GAS FIRED WATER HEATER

NOTE TO DESIGNER: N.S.P.C. 10.16.7 REQUIRES: WHERE A HOT WATER STORAGE TANK OR INDIRECT WATER HEATER IS LOCATED AT AN ELEVATION ABOVE THE FIXTURE OUTLETS IN THE SYSTEM A VACUUM RELIEF VALVE SHALL BE INSTALLED ON THE STORAGE TANK.



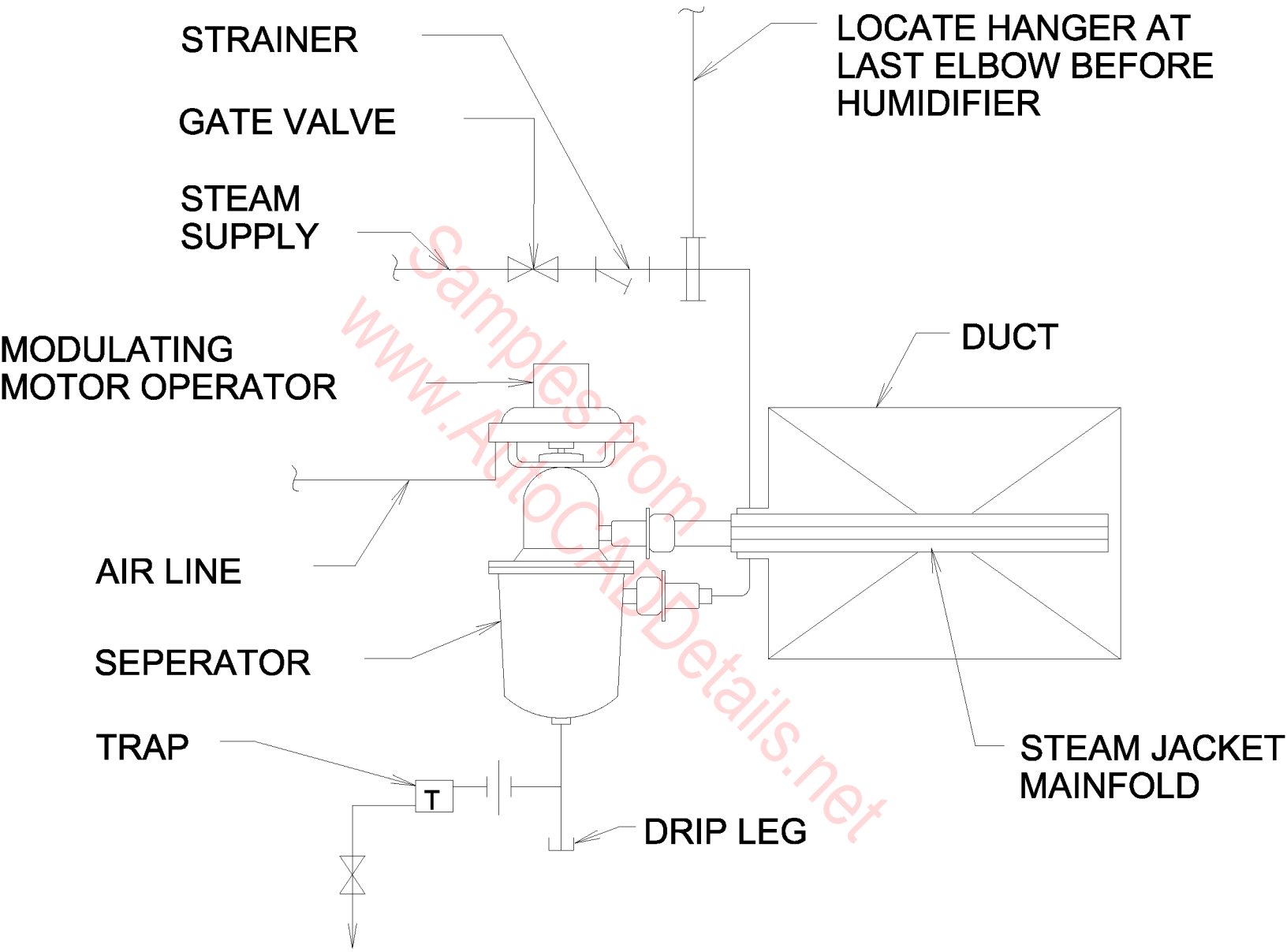



# HOT VENT DETAIL



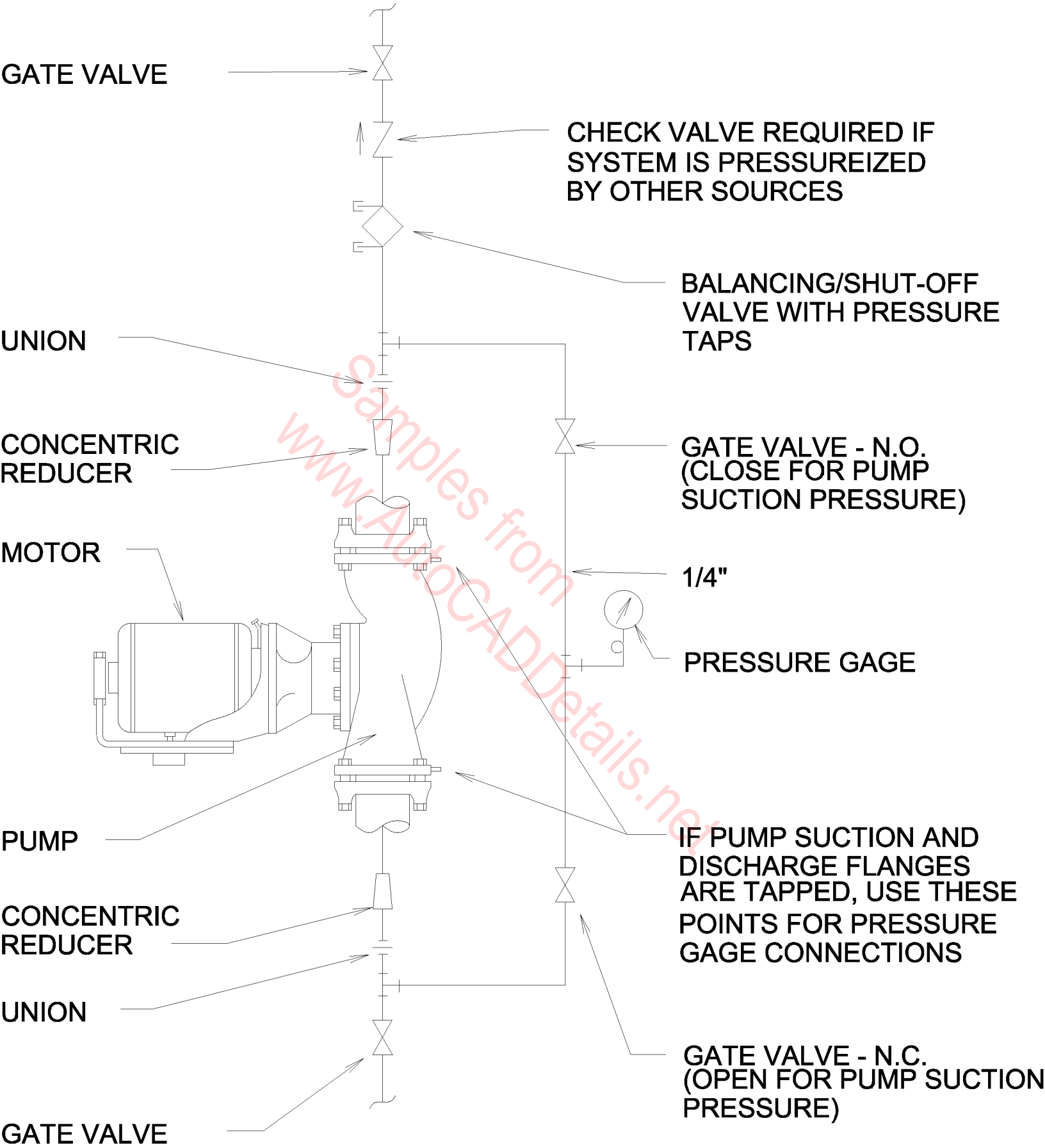



# HOT WATER COIL CONNECTION



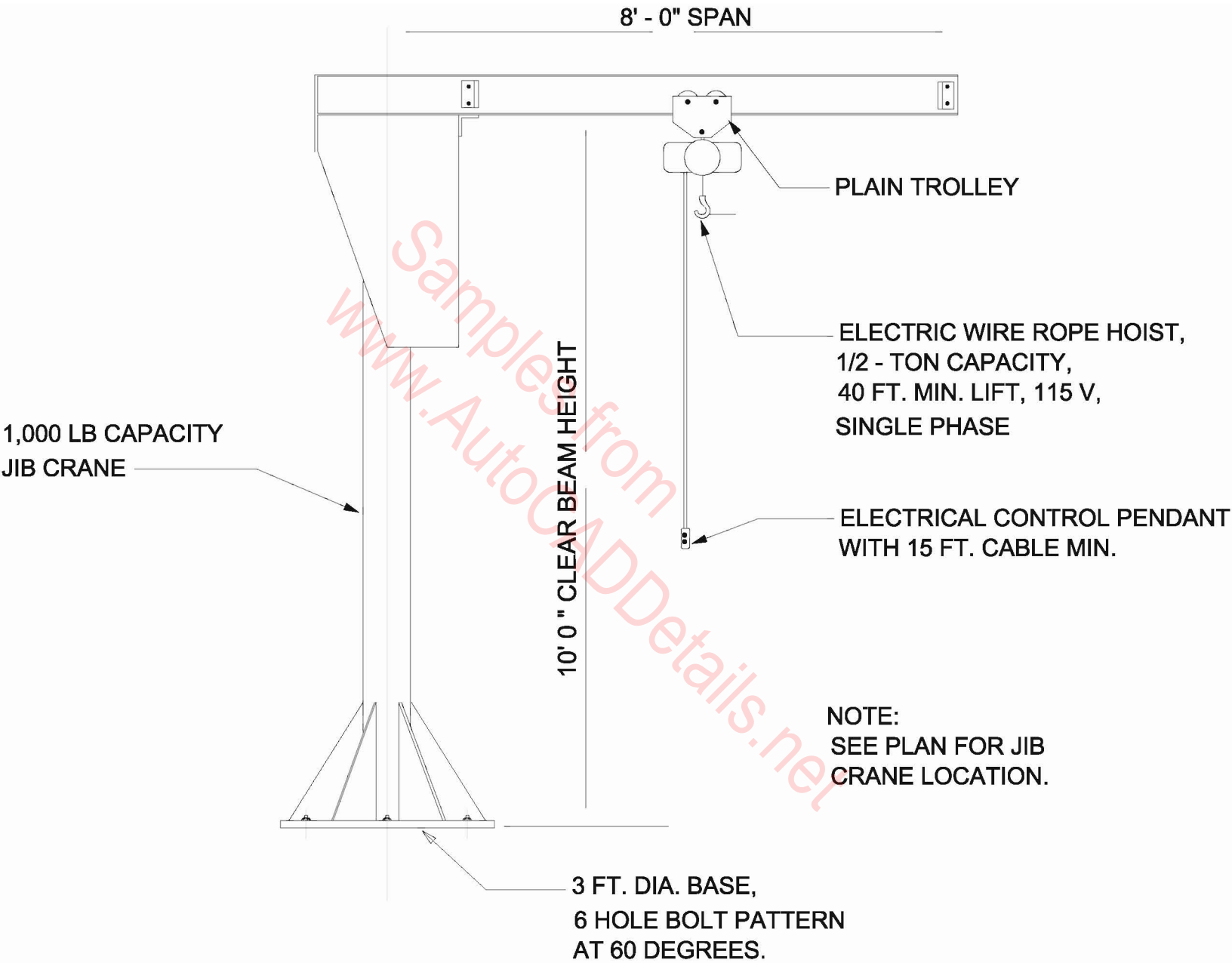

(STEAM)

# HUMIDIFIER PIPING DETAIL



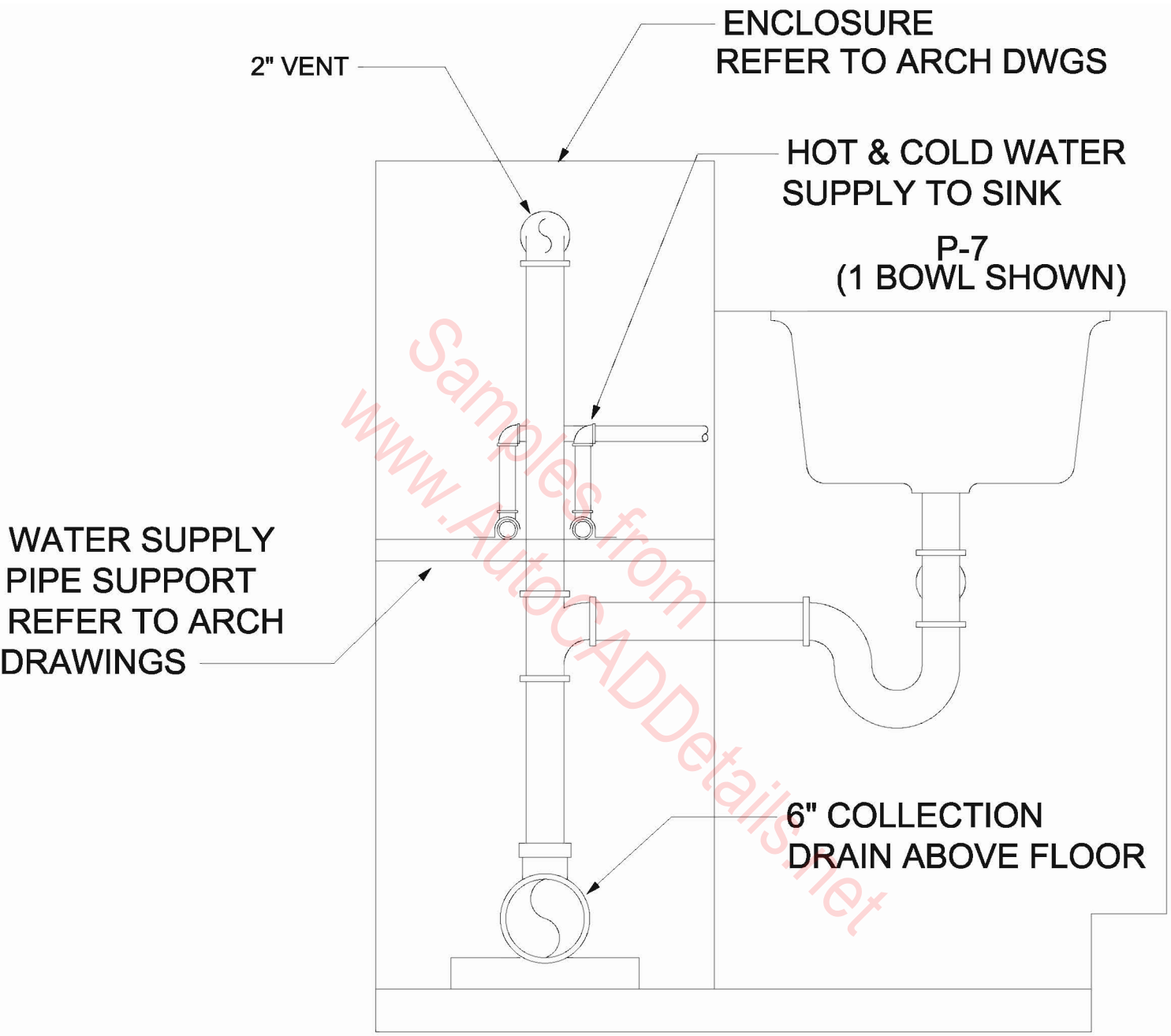



# INLINE CENTRIFUGAL PUMP





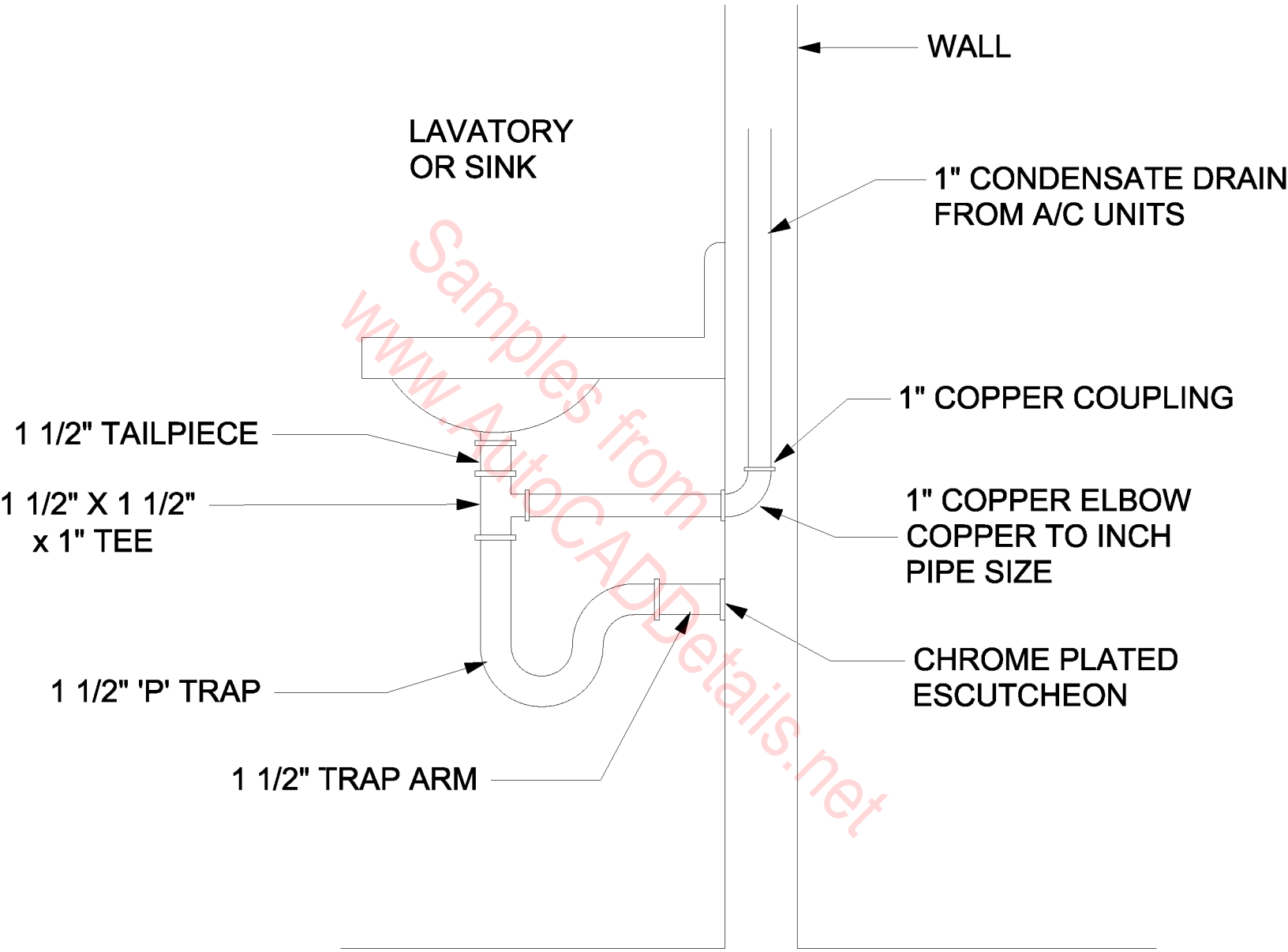

JIB CRANE DETAIL





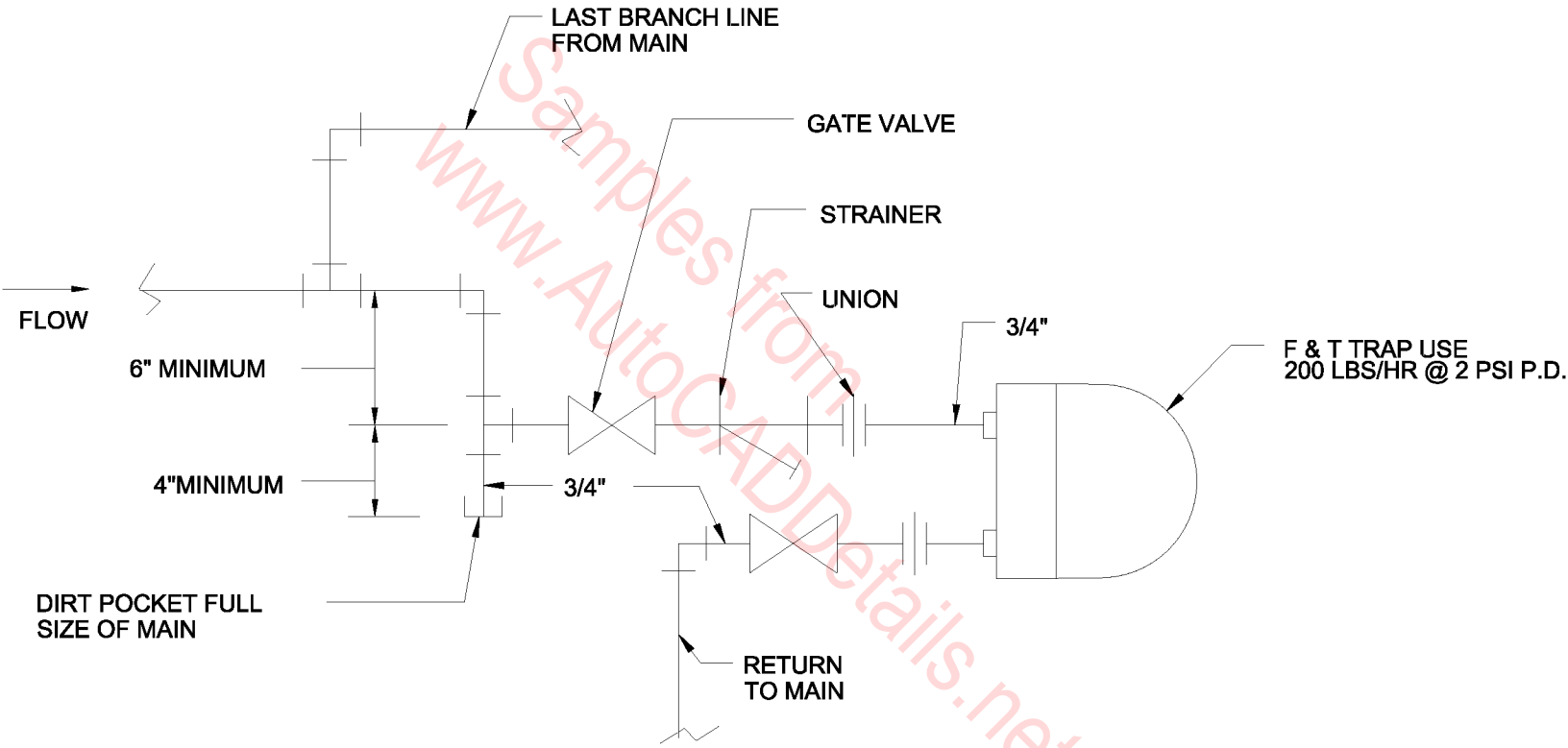

DOUBLE BOWL TYPE

# LAUNDRY SINK DRAIN CONNECTION DETAIL



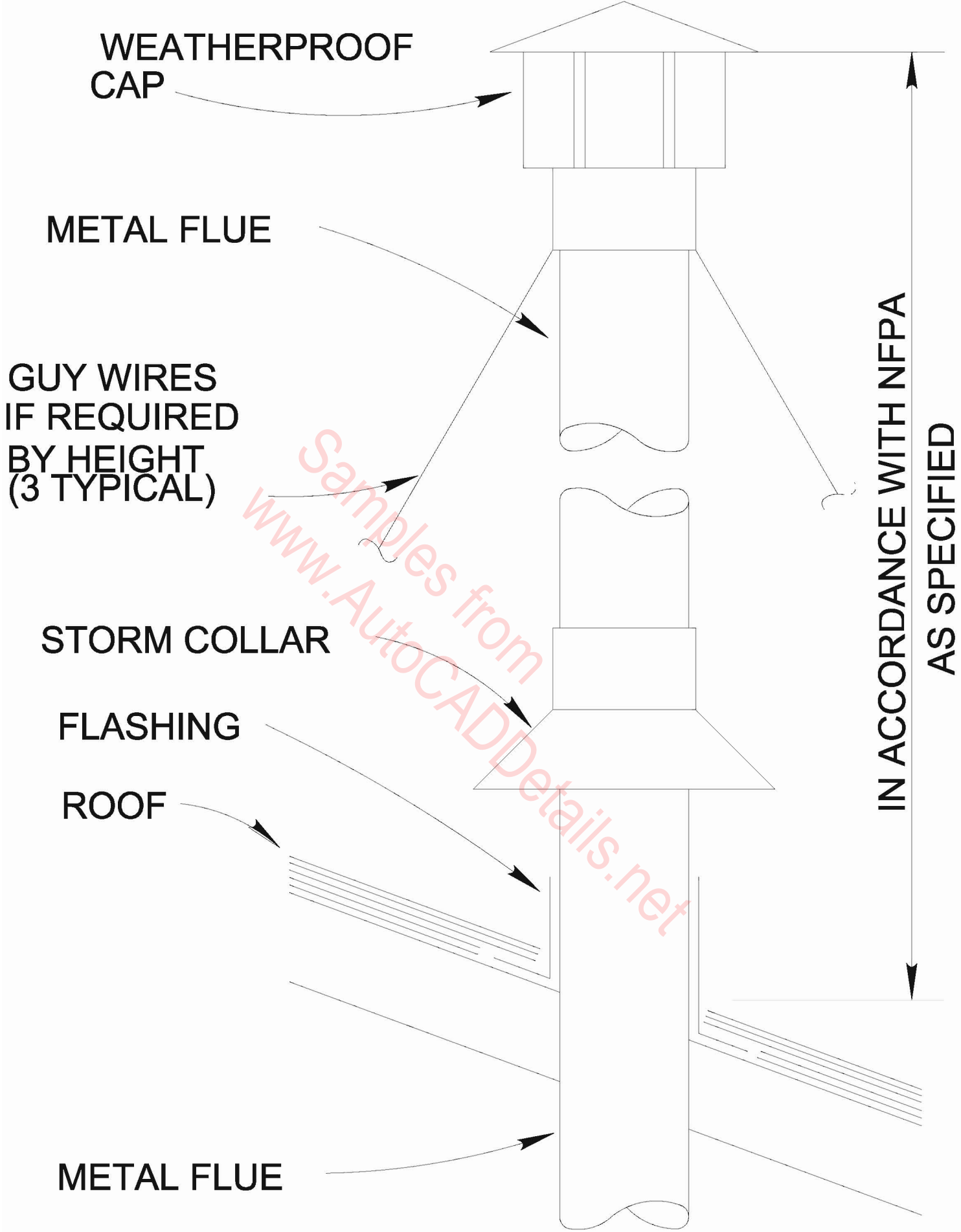



# LAVATORY TAILPIECE DETAIL



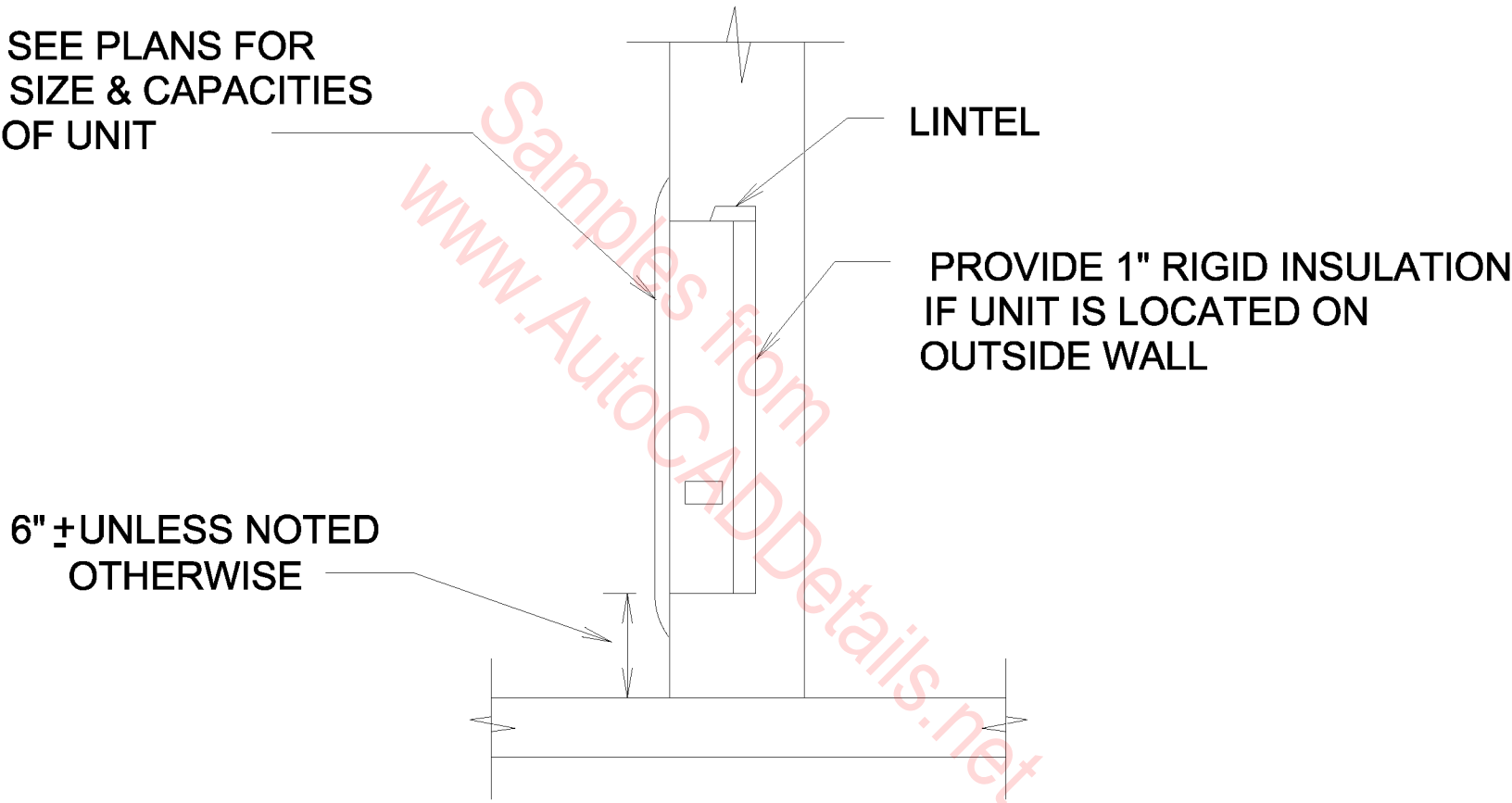



# LOW PRESSURE DRIP DETAIL



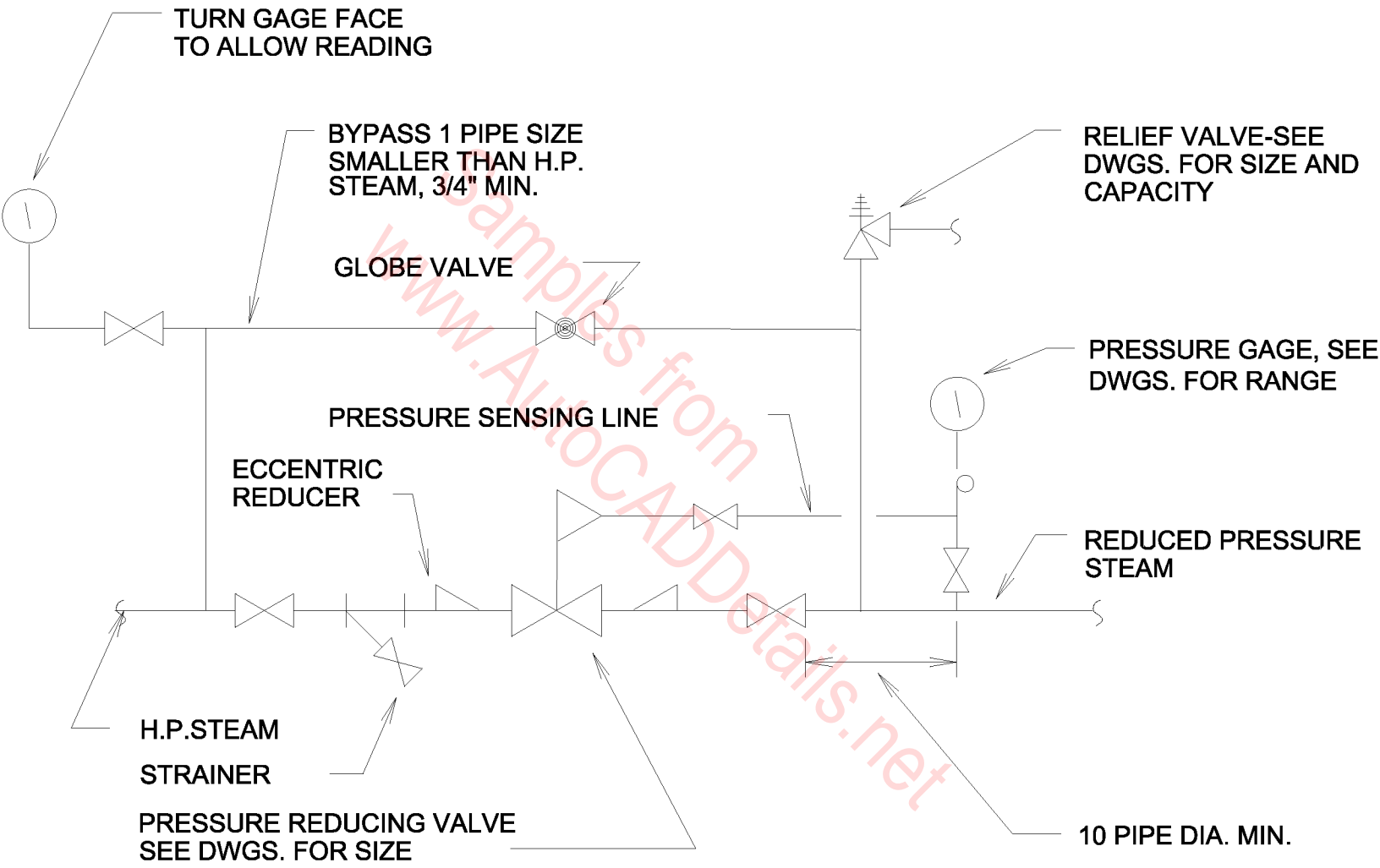



# METAL FLUE STACK DETAIL



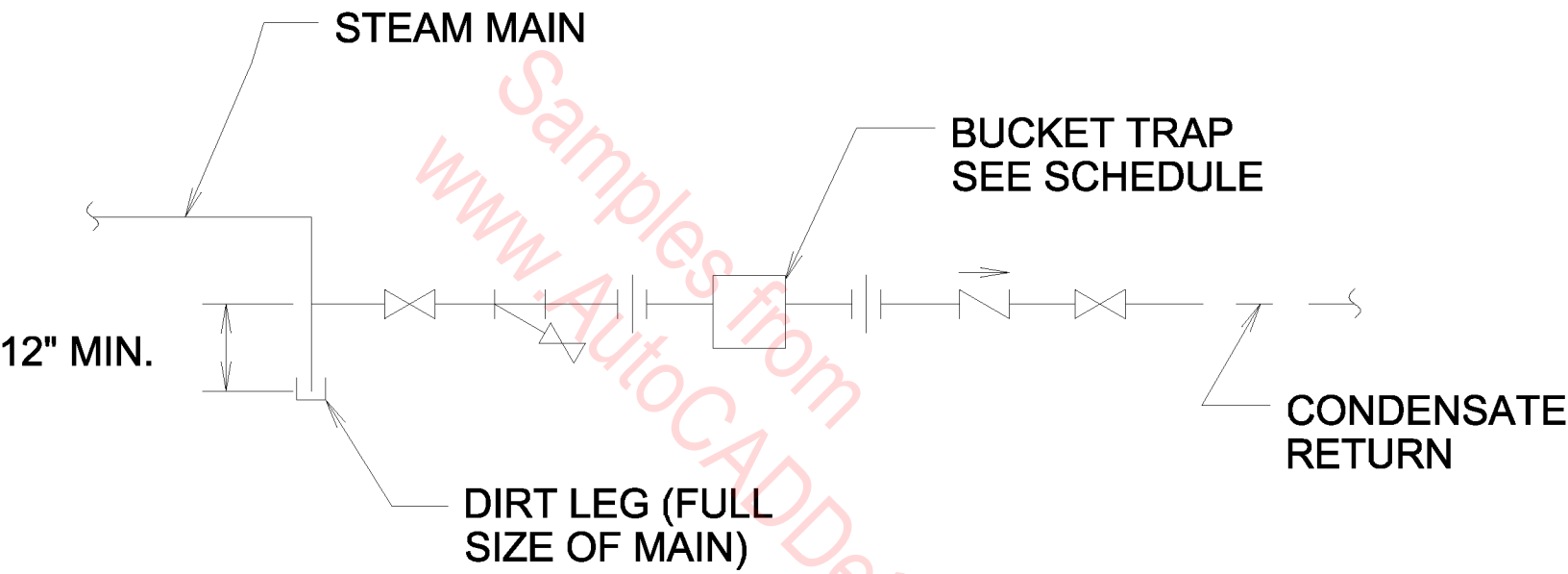



# RECESSED CONVERTOR DETAIL





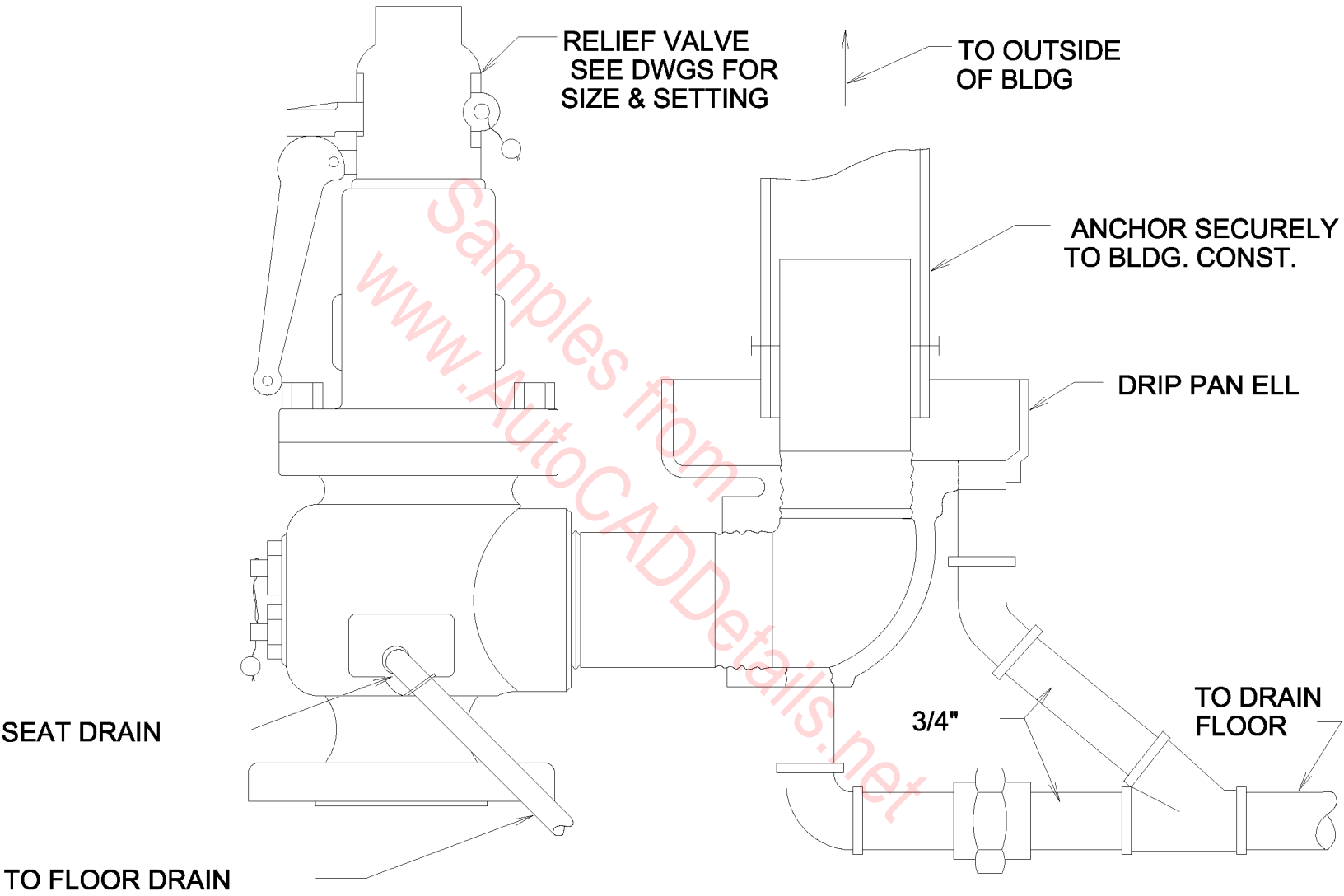

# SINGLE STEAM PRV STATION





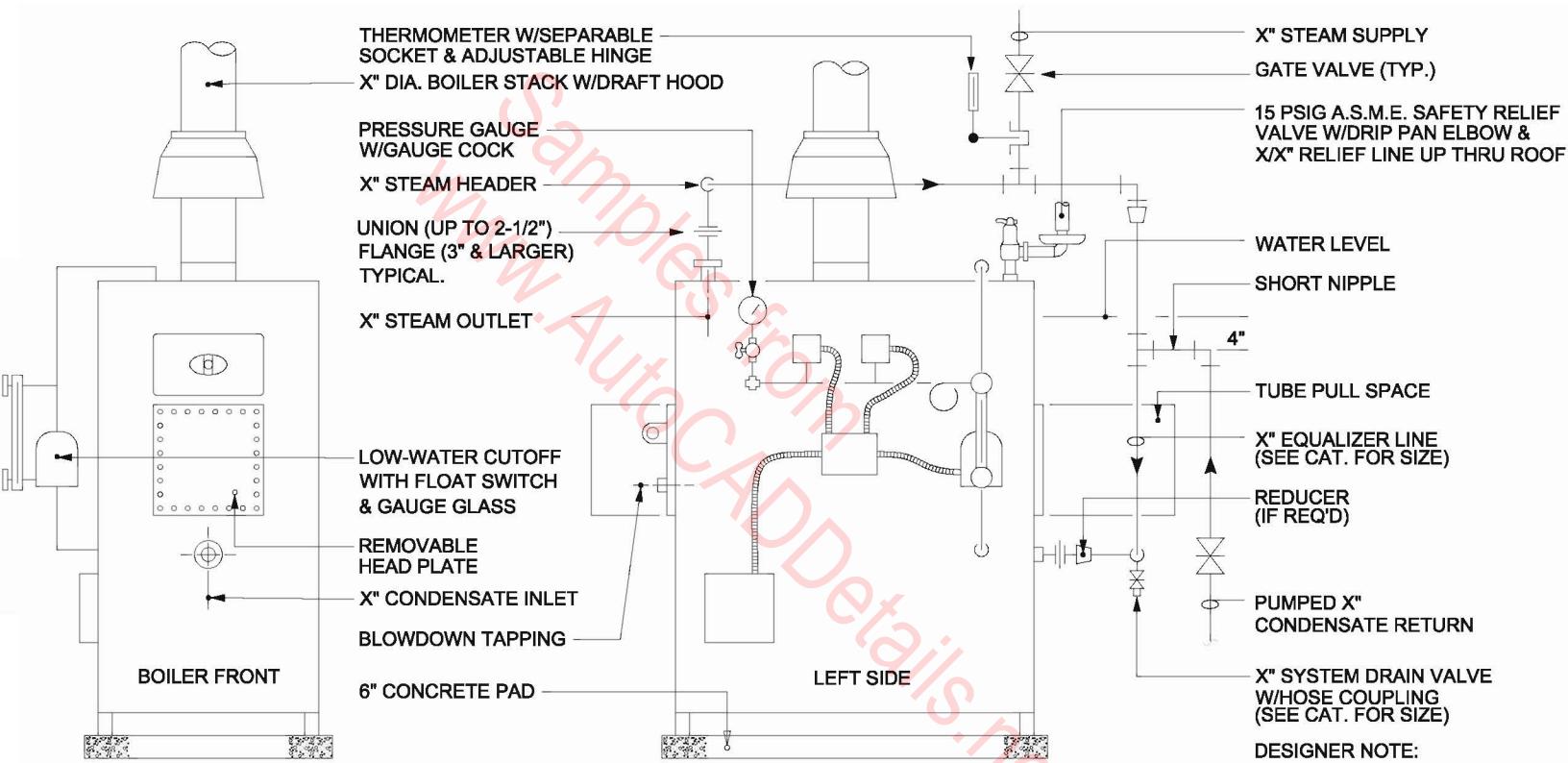

(MEDIUM PRESSURE)

# STEAM MAIN DRIP DETAIL






# STEAM RELIEF VALVE DRIP PAN ELL

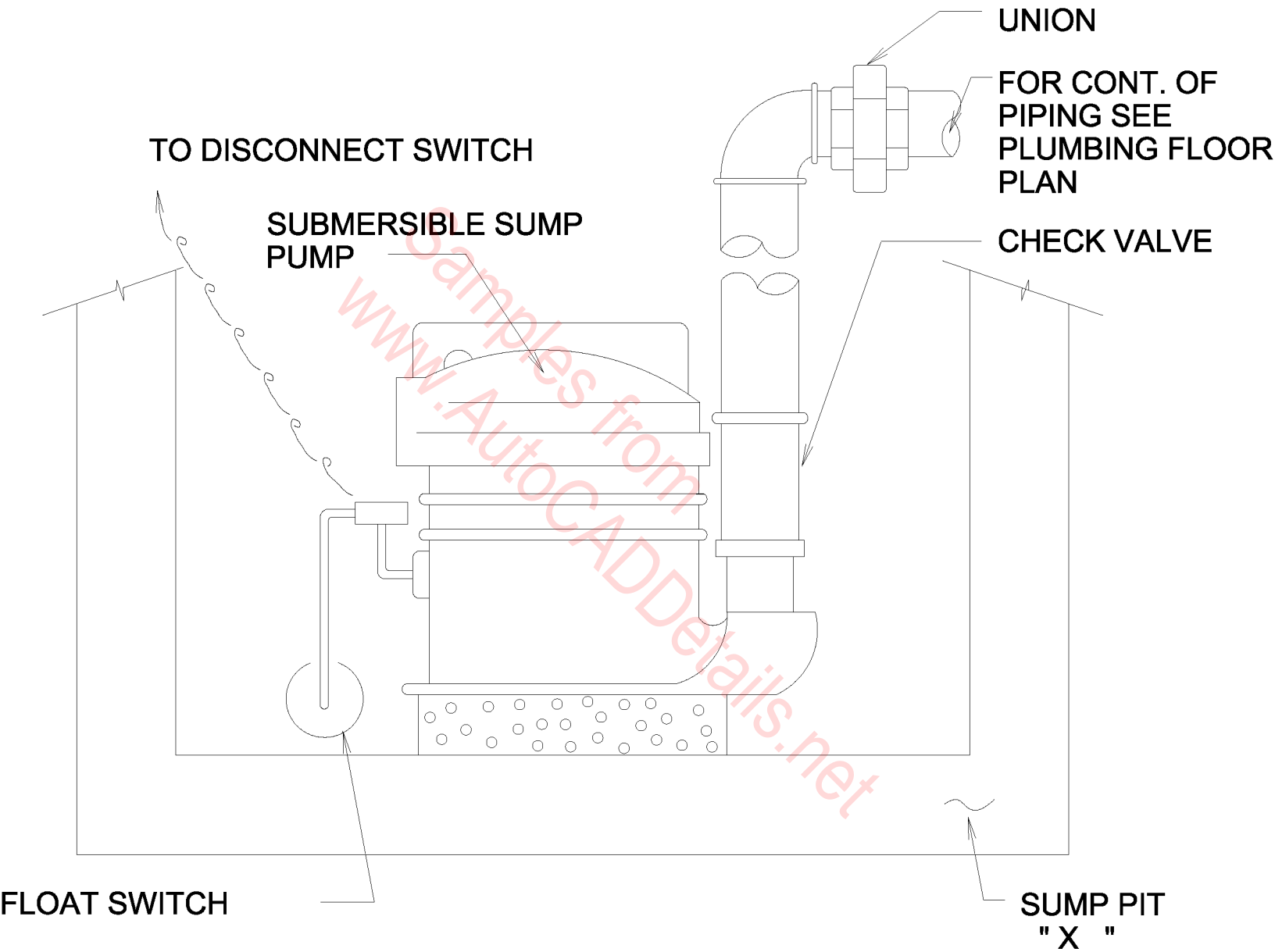



DESIGNER NOTE:
HAND HOLE OPENING FOR GROSS OUTPUT OF 1,600,000 BTUH & LARGER

# STEAM WATER-TUBE ATMOSPHERIC BOILER DETAIL

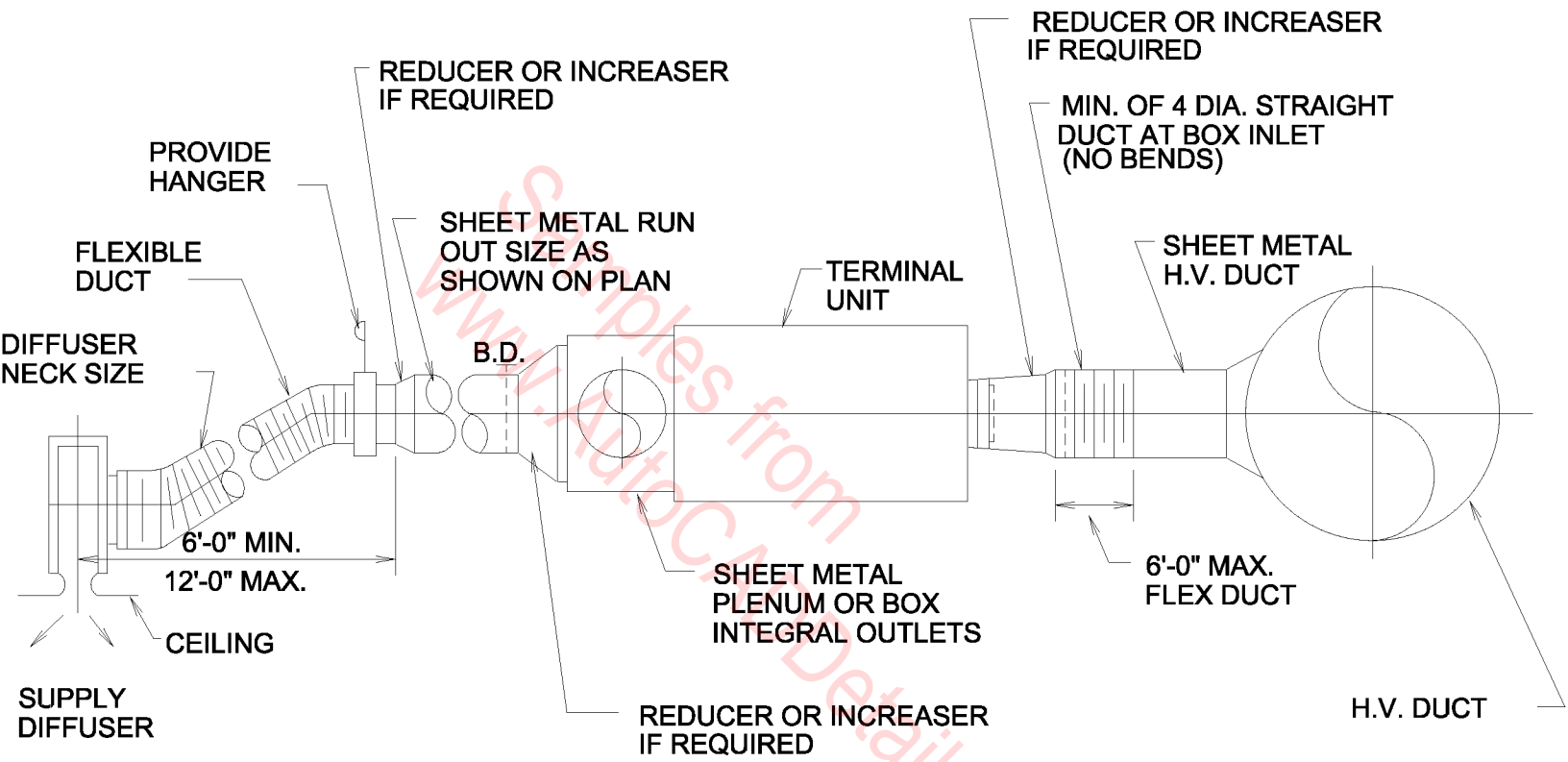
DESIGNER NOTE:
MAX. BOILER WORKING PRESSURE - 15 PSIG

DESIGNER NOTE:
VERIFY CLEARANCES FOR TUBE PULL SPACE EITHER END



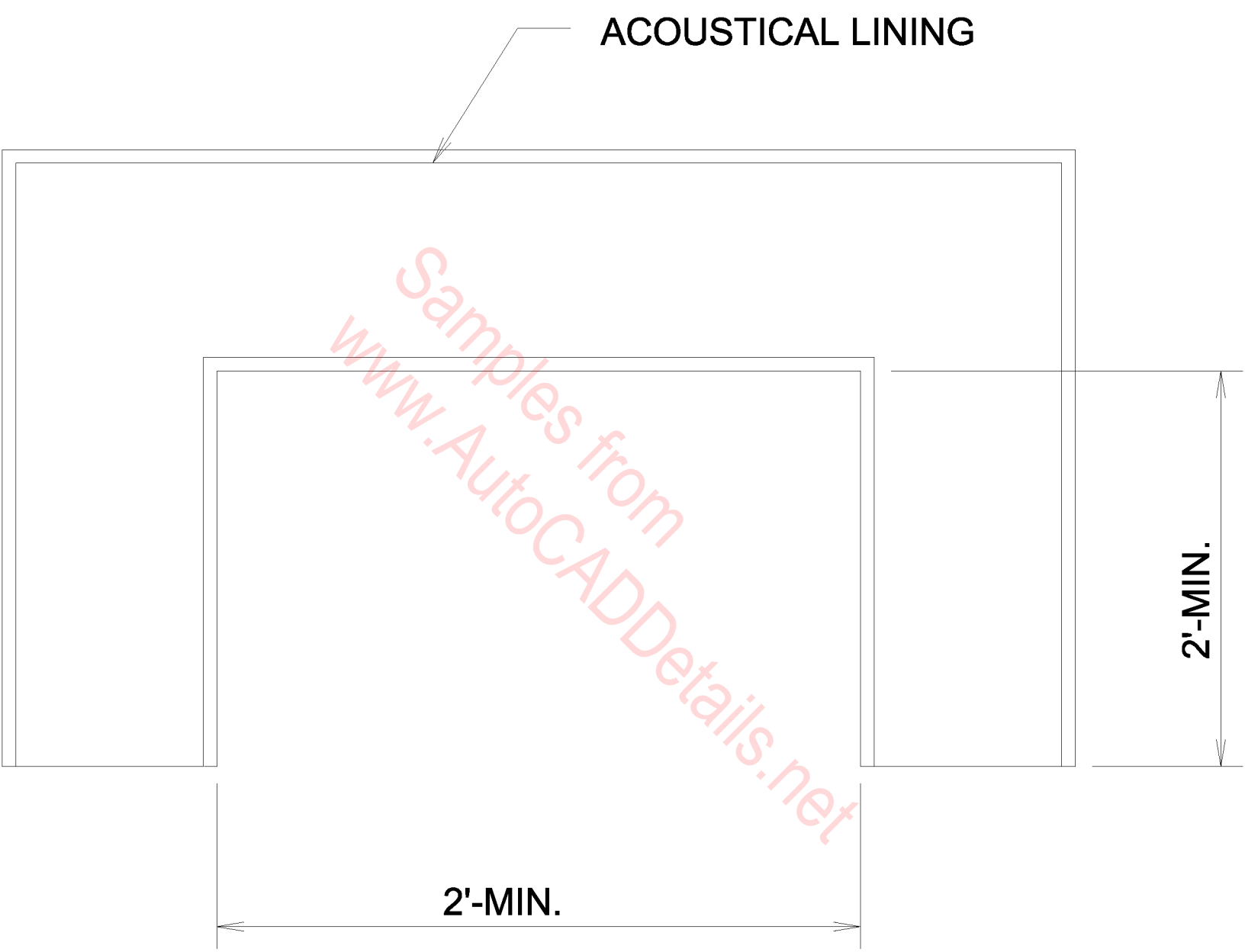



# SUMP PUMP DETAIL



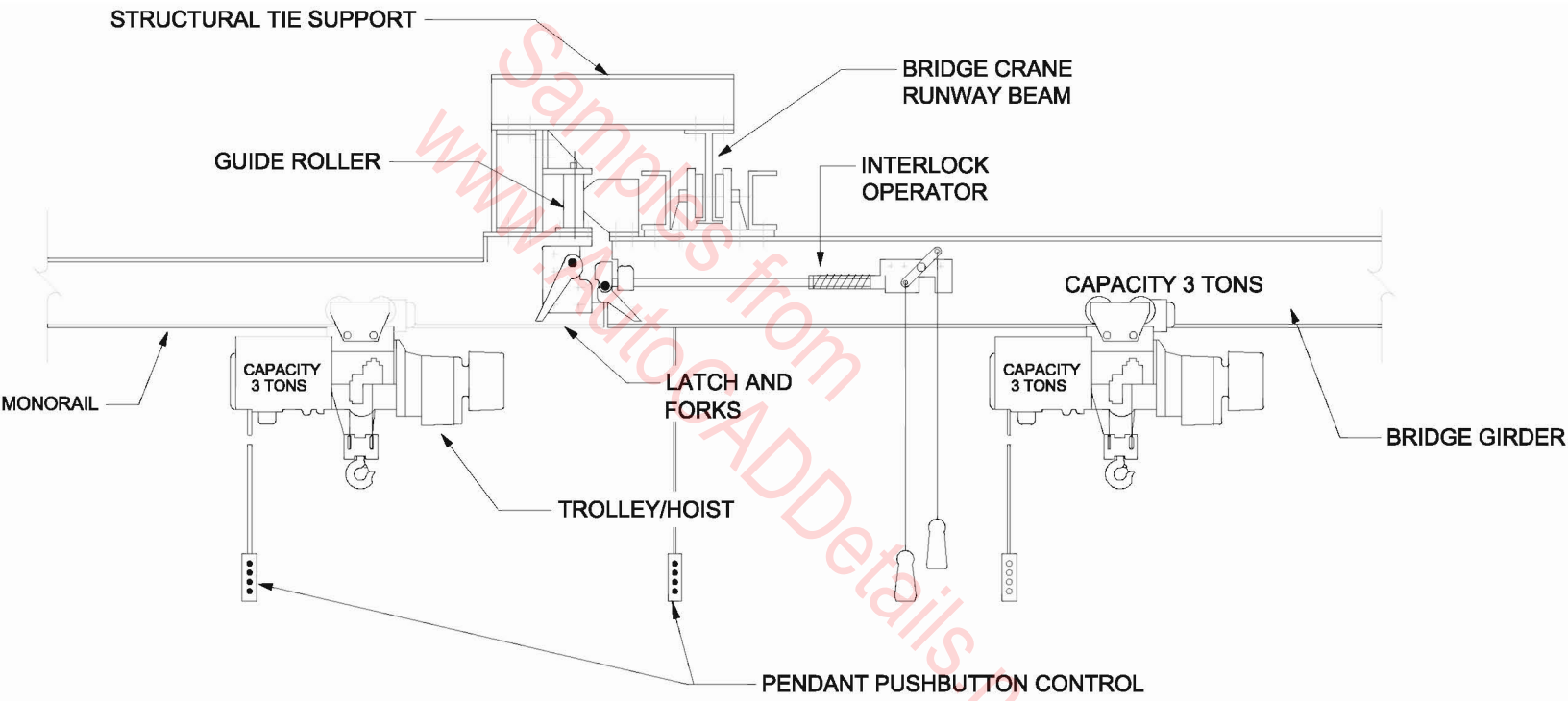

APPLICABLE FOR DIFFUSERS SERVED
BY ROUND DUCTS ONLY

# TERMINAL UNIT DUCT TAKE-OFF

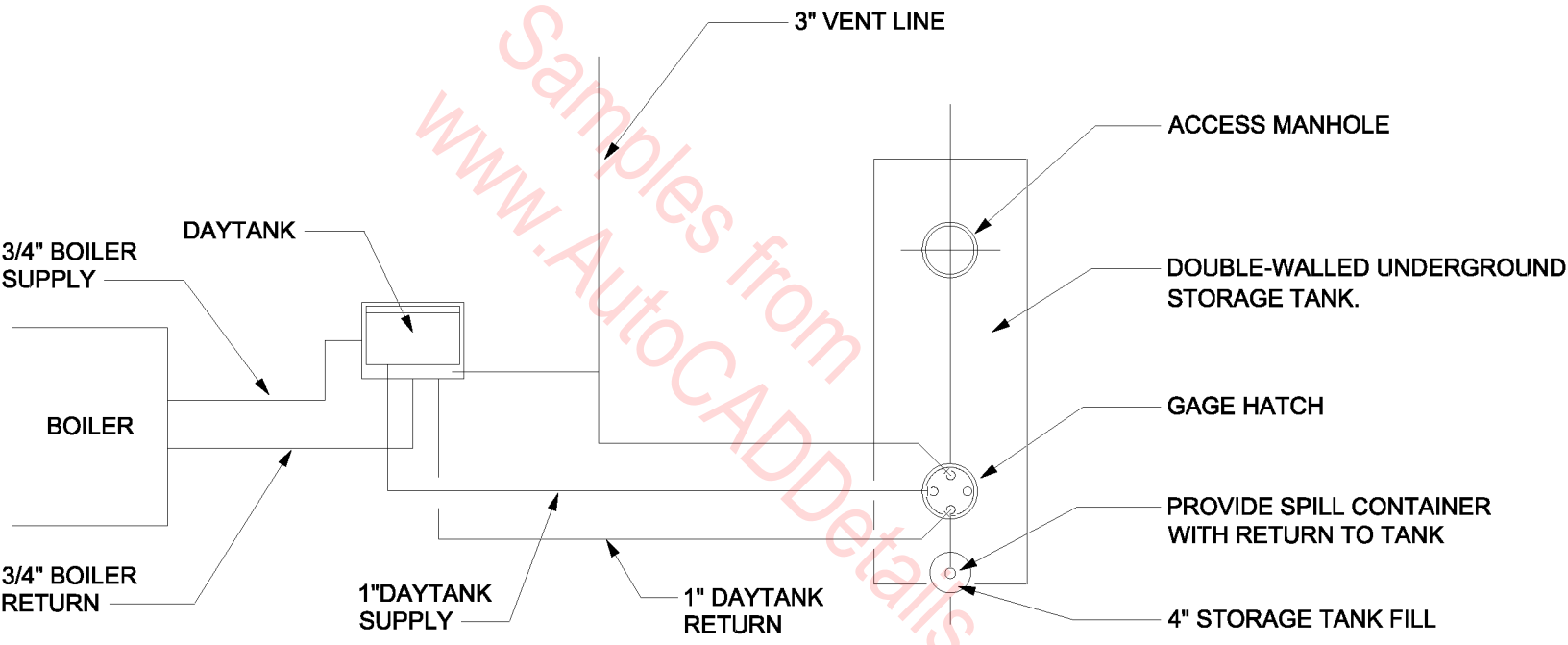





# TRANSFER DUCT DETAIL

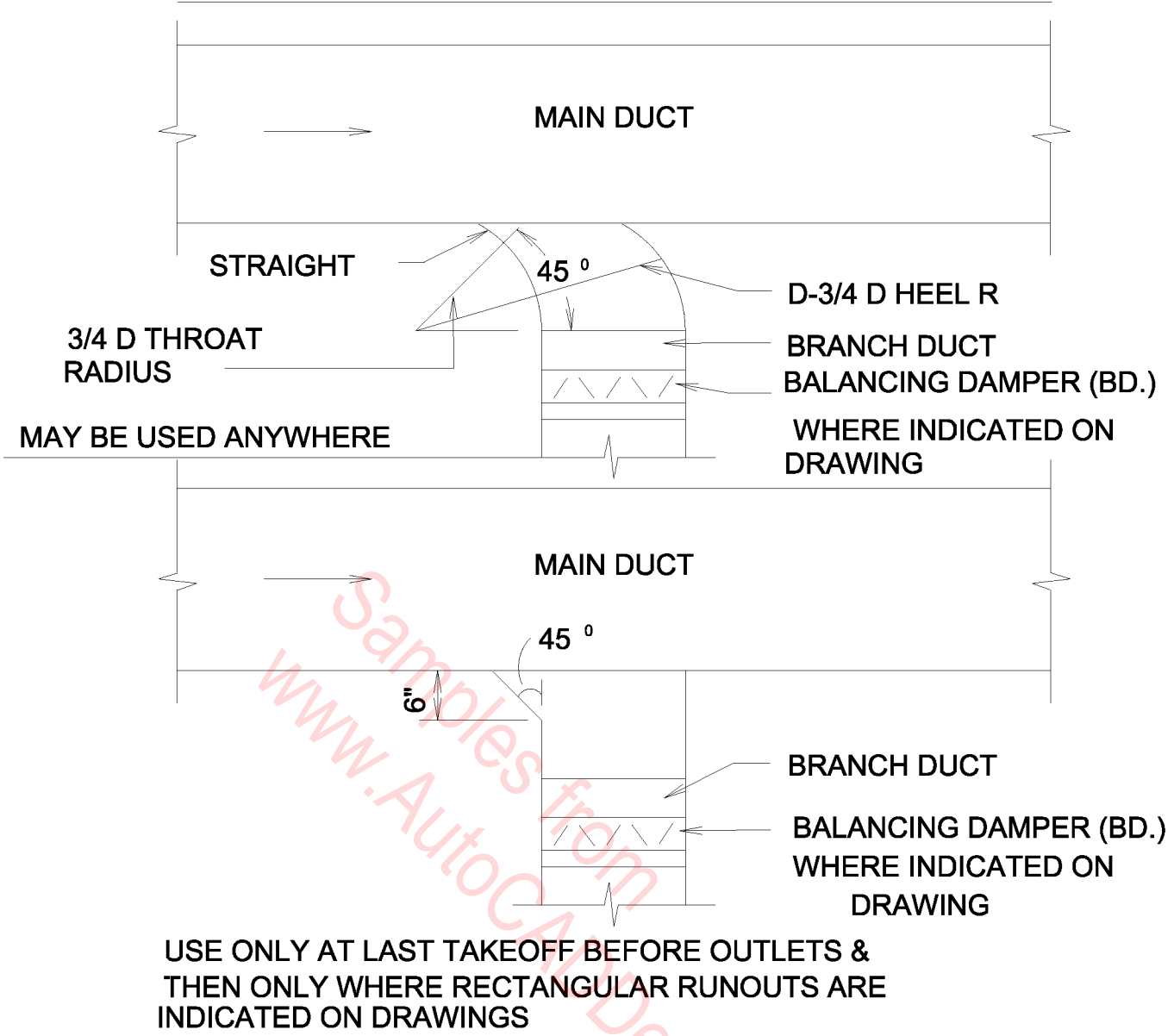



# TRANSFER/INTERLOCK MECHANISM





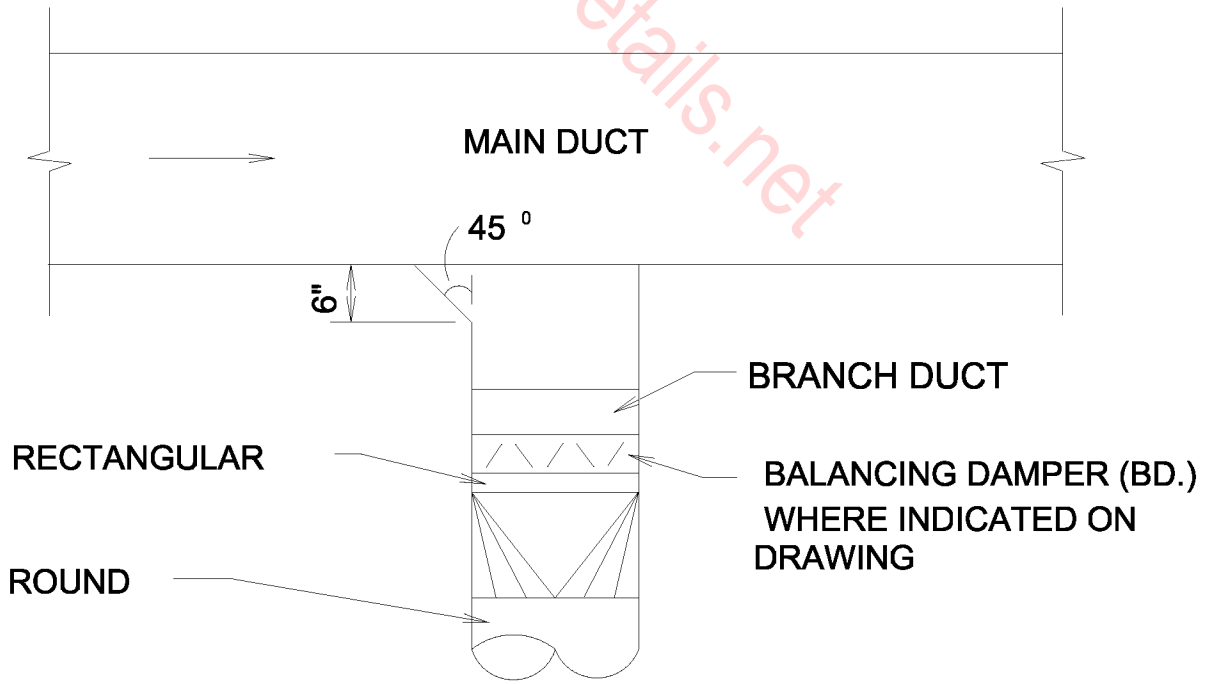

TYP. BOILER FUEL OIL FLOW SCHEMATIC





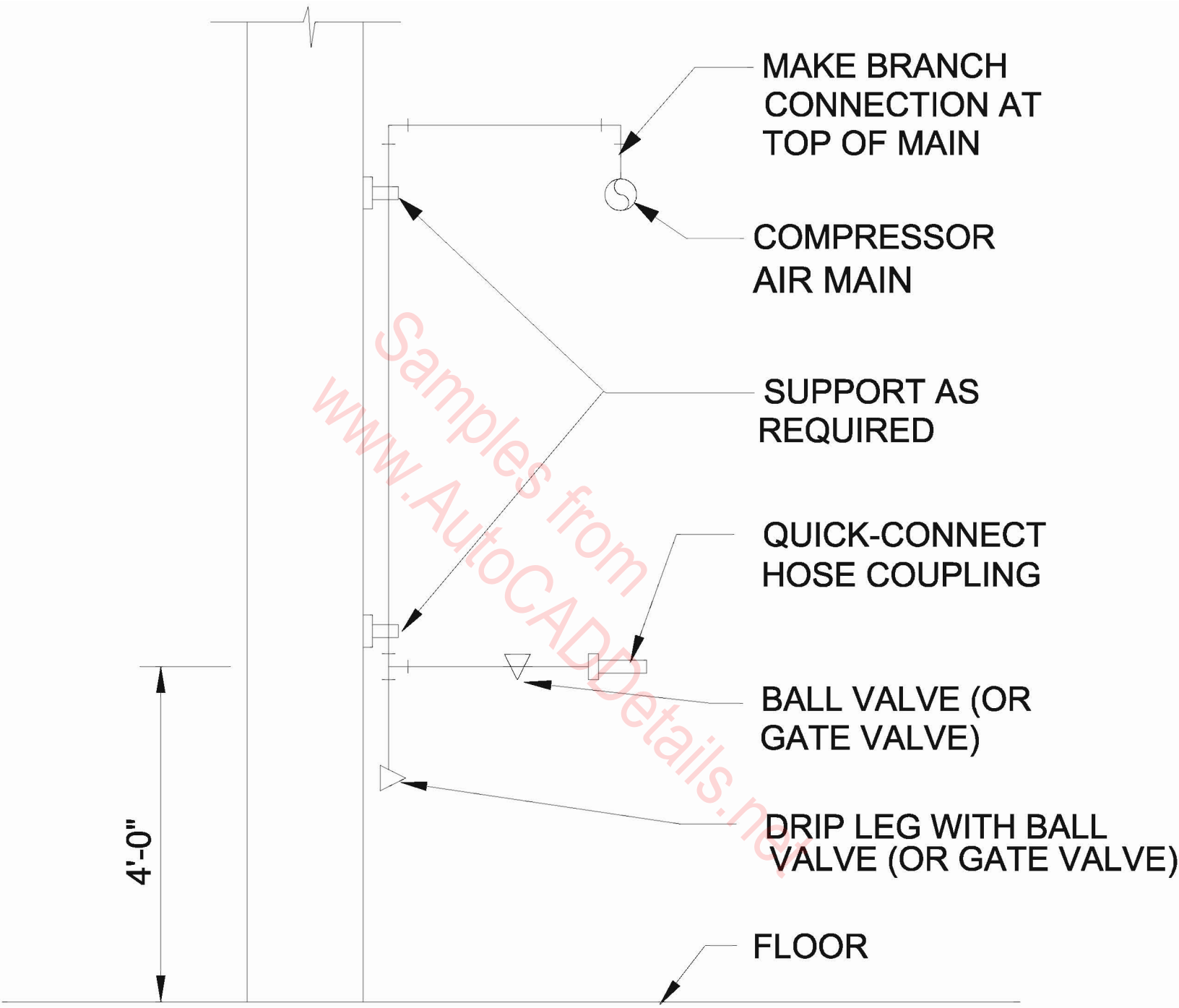


USE ONLY AT LAST TAKEOFF BEFORE OUTLETS &
THEN ONLY WHERE RECTANGULAR RUNOUTS ARE
INDICATED ON DRAWINGS



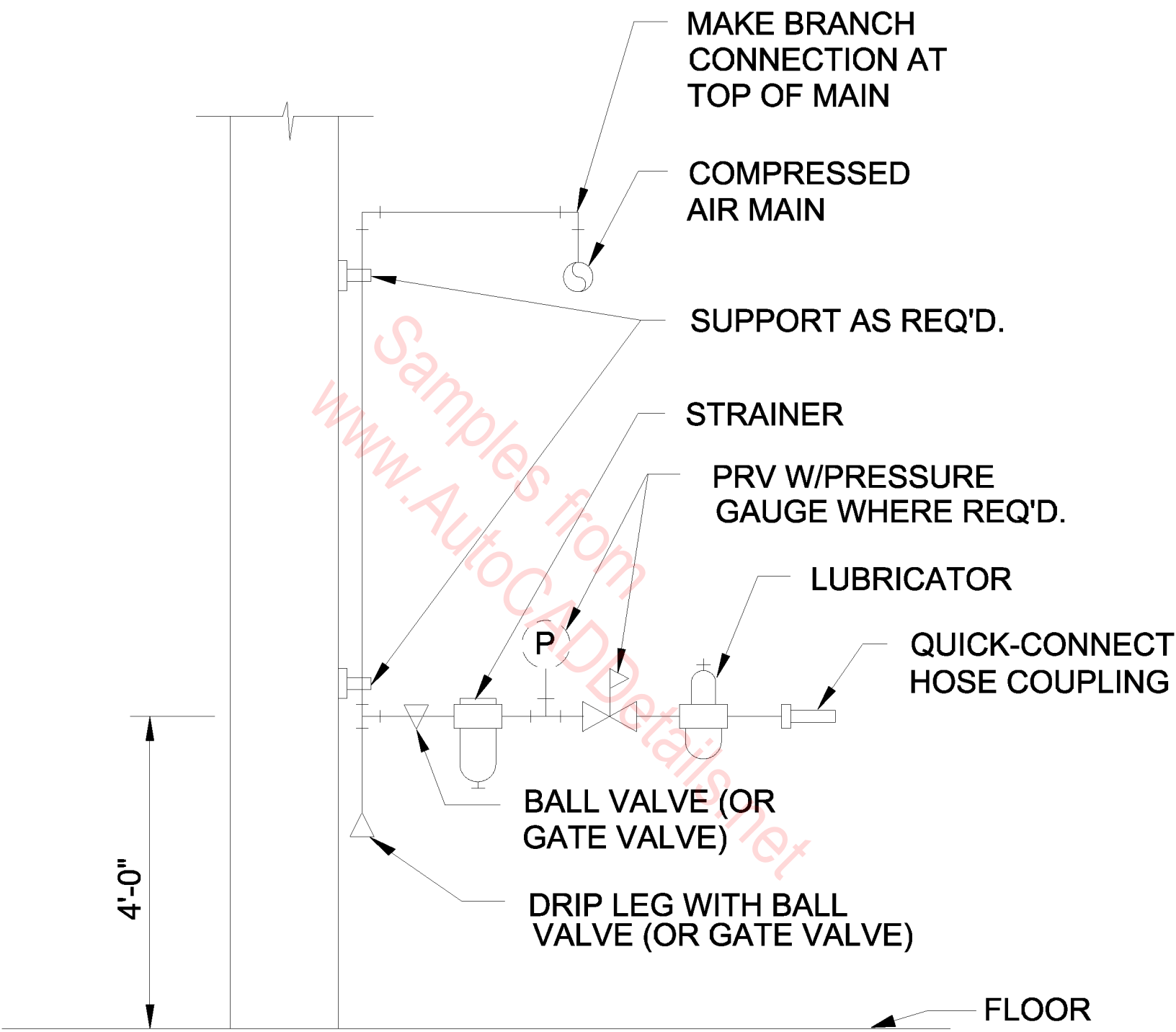

USE ONLY AT LAST TAKEOFF BEFORE OUTLETS &
THEN ONLY WHERE ROUND RUNOUTS ARE
INDICATED ON DRAWINGS

# TYPICAL BRANCH CONNECTION



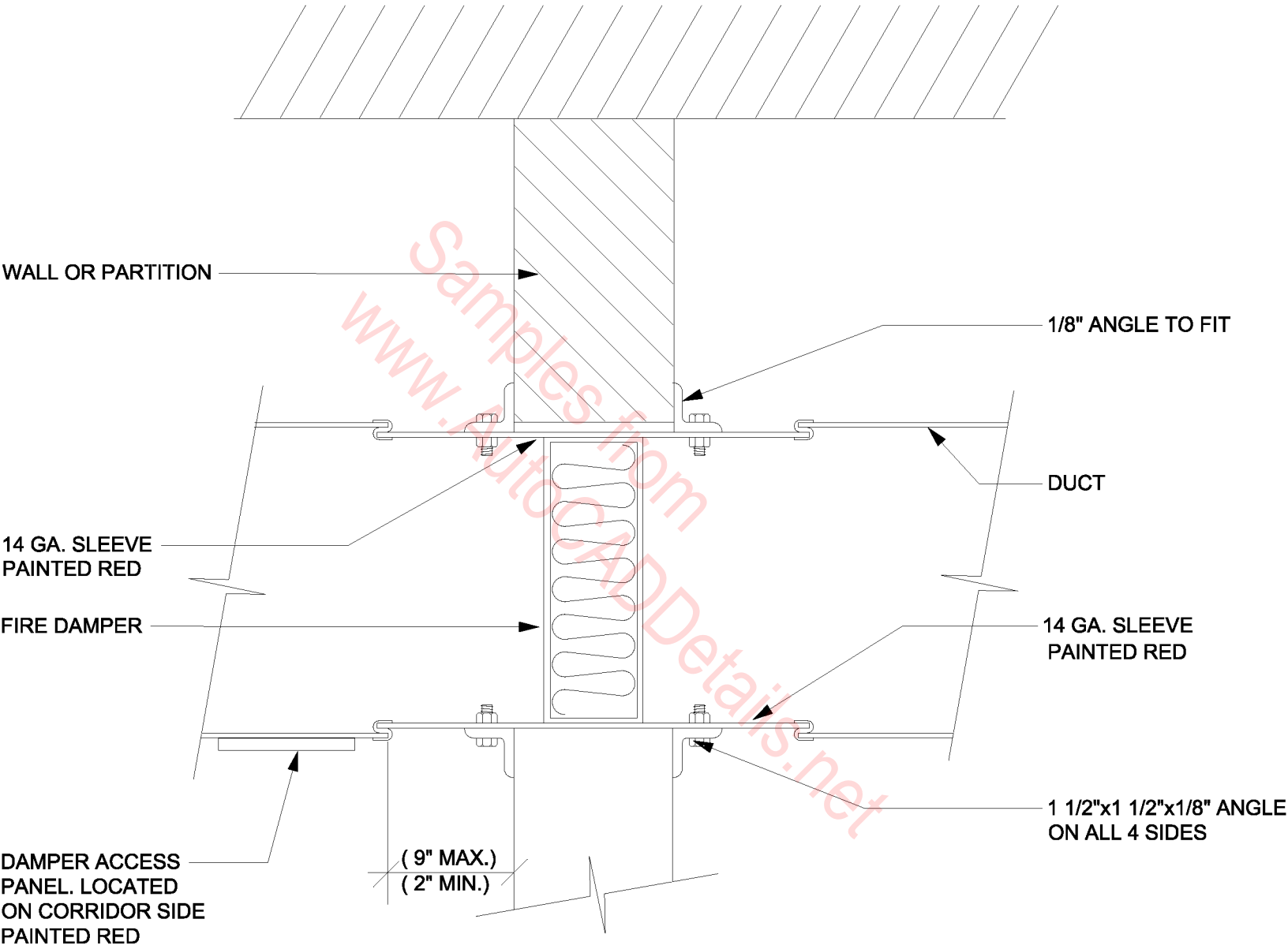



# TYPICAL COMPRESSED AIR DROP



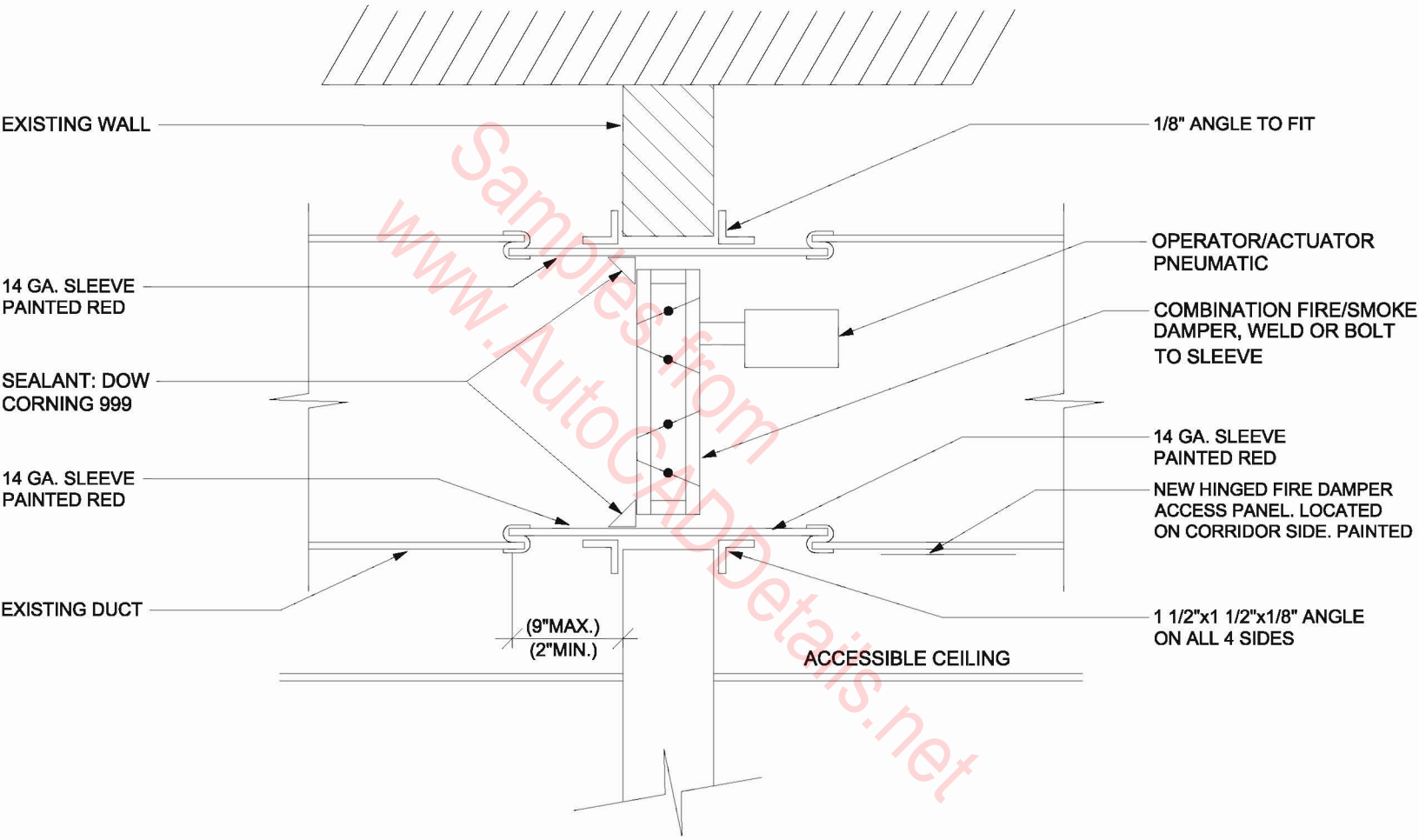



# TYP COMP AIR TOOL STATION



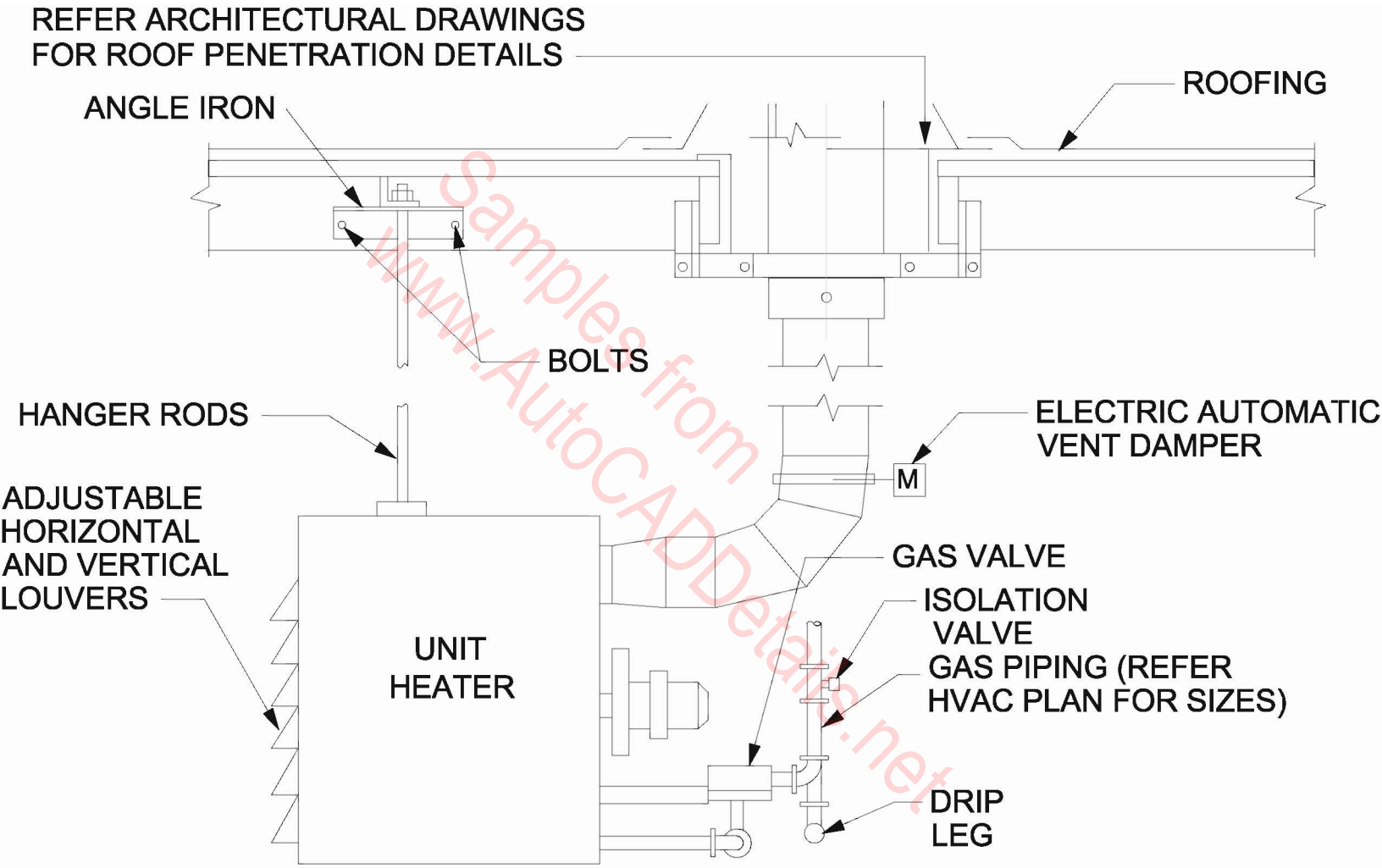



# TYPICAL FIRE DAMPER



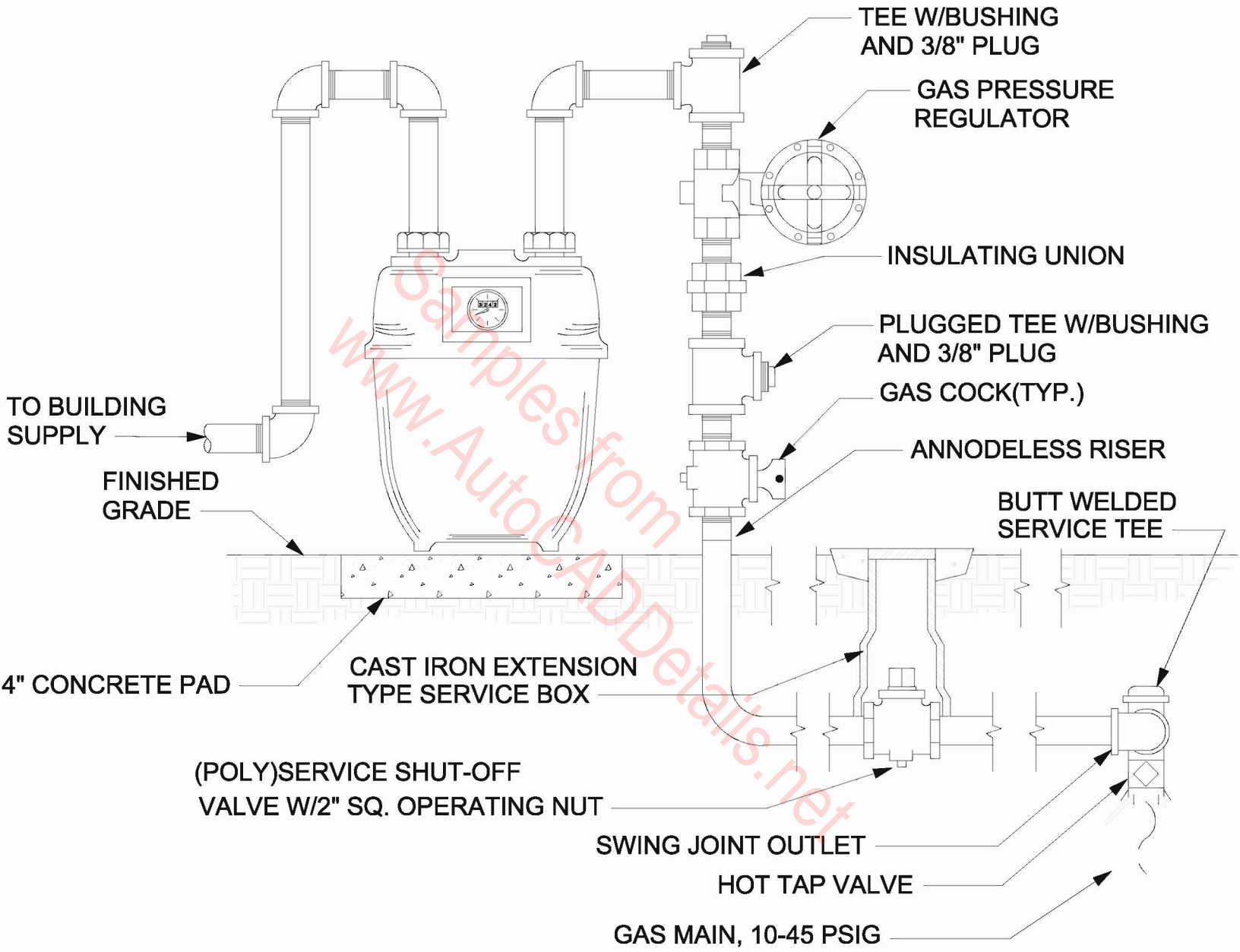



# TYPICAL FIRE/SMOKE DAMPER





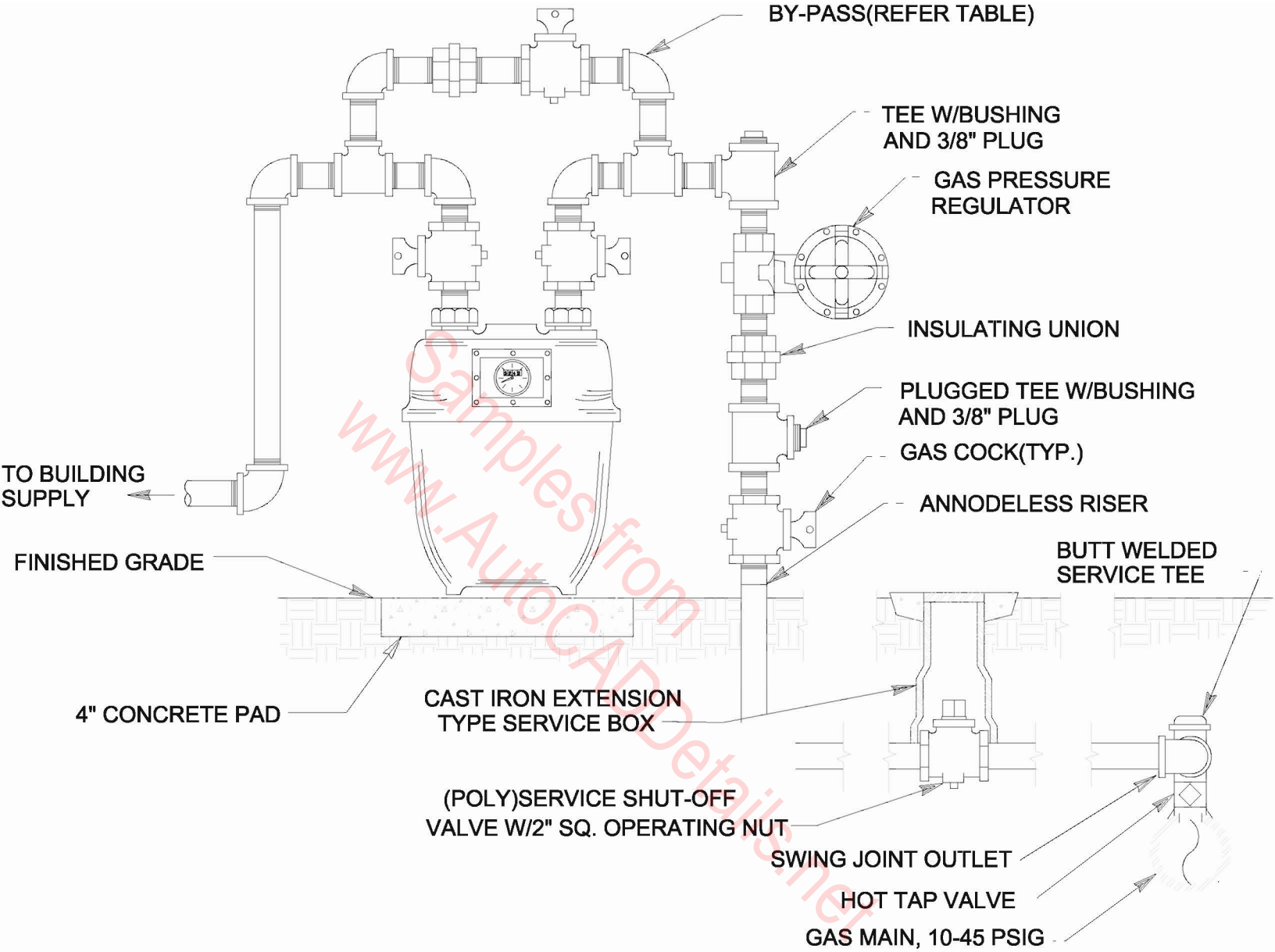

# TYPICAL GAS FIRED UNIT HEATER DETAIL






NOTE: LINE SIZES AS CALLED FOR ON SITE PLAN

# TYPICAL GAS SERVICE CONNECTION DETAIL

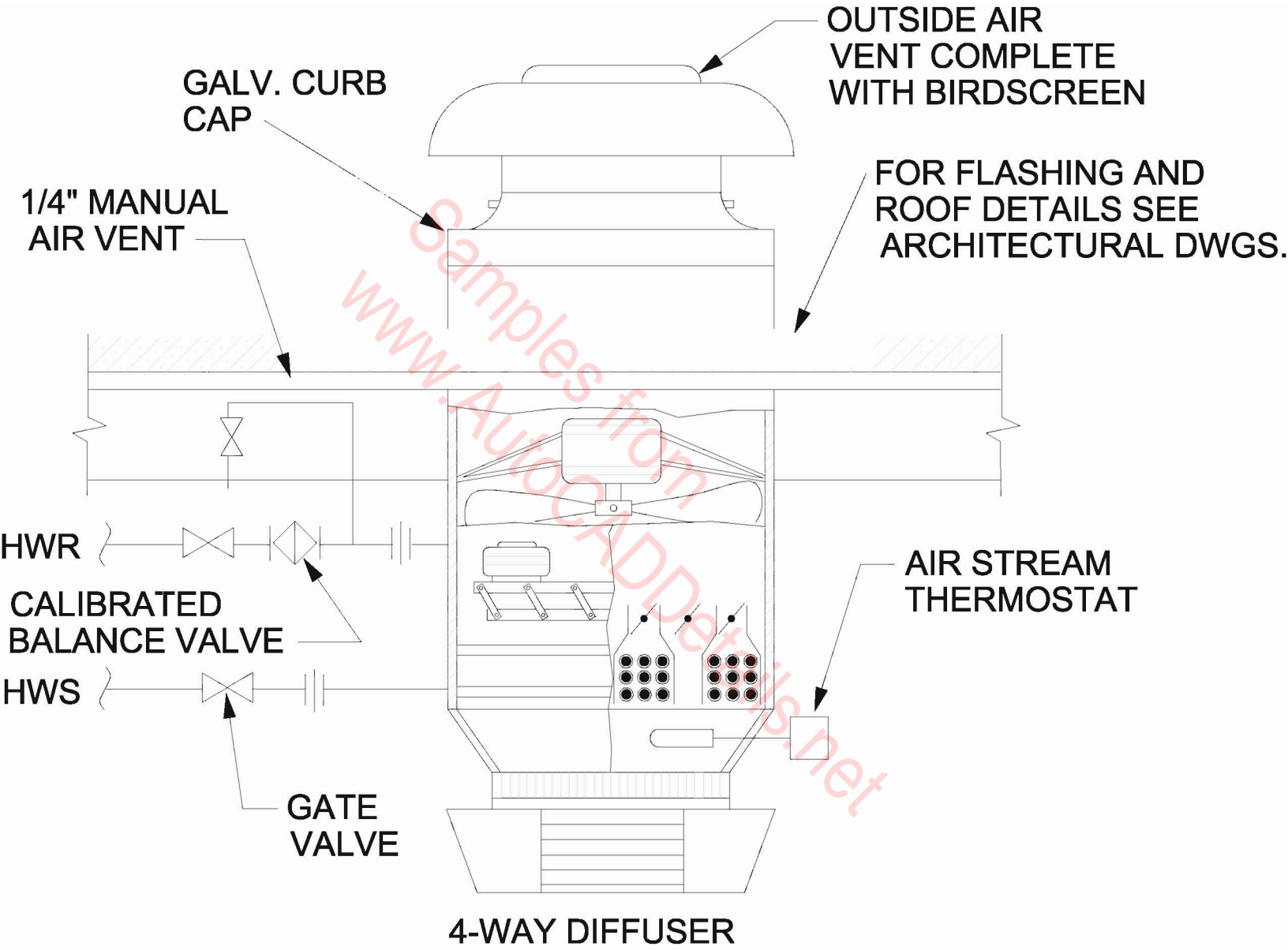





| GAS METER DATA BY BUILDING | | | |
|---|---|---|---|
| BLDG. | BY-PASS LINE SIZE | STD. CU. FT./HR. | REG. CAP. (CFH) |
| DORMITORY BUILDINGS | 3" | 3,900 | 4,485 |
| ADMINISTRATION BUILDING | 3" | 5,495 | 6,295 |

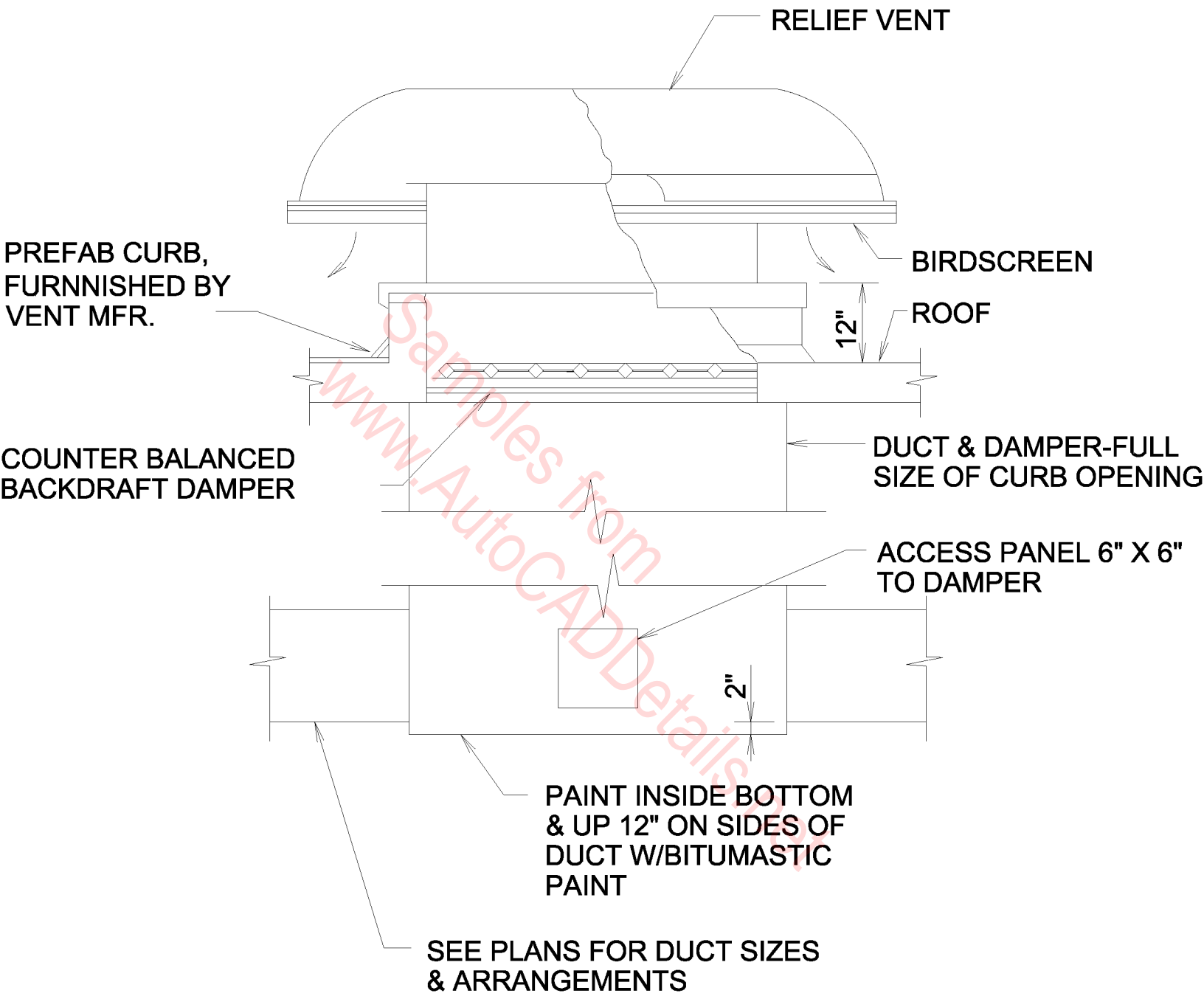
NOTE: LINE SIZES AS CALLED FOR ON SITE PLAN

# TYPICAL GAS SERVICE (W/BY-PASS) DETAIL



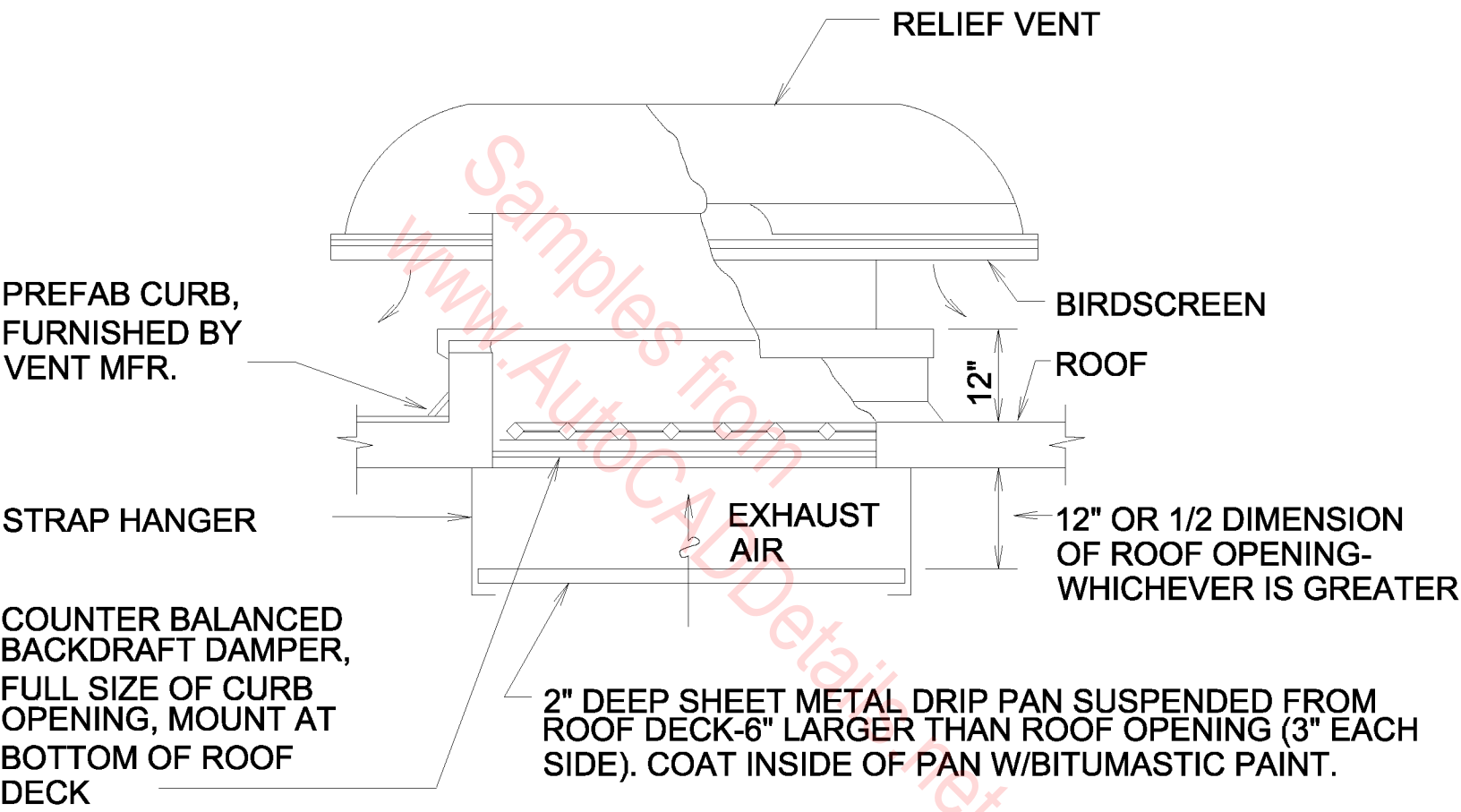



# TYPICAL MAKE-UP AIR UNIT DETAIL



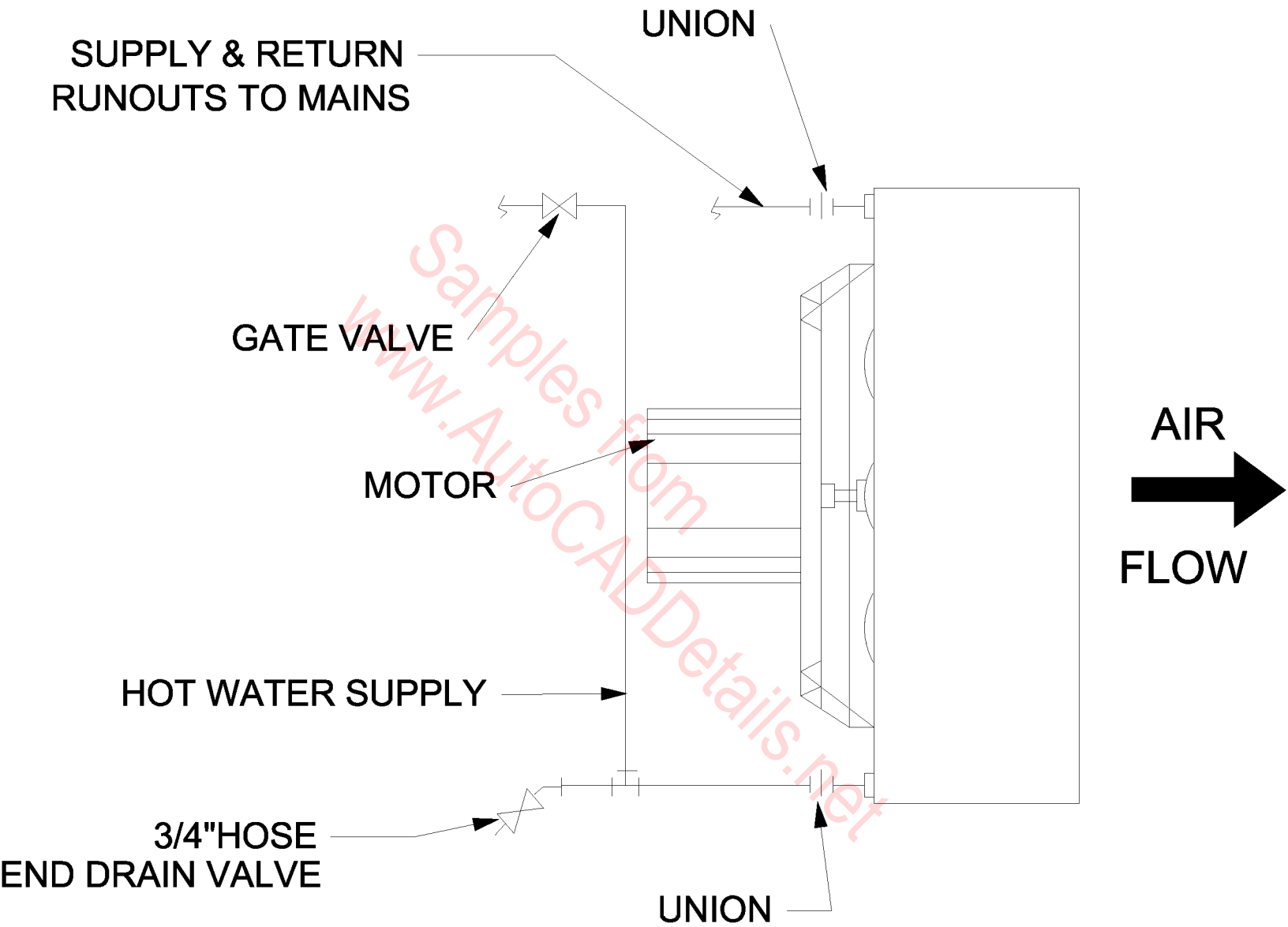

(WITH DUCT WORK)

# TYPICAL RELIEF VENT DETAIL



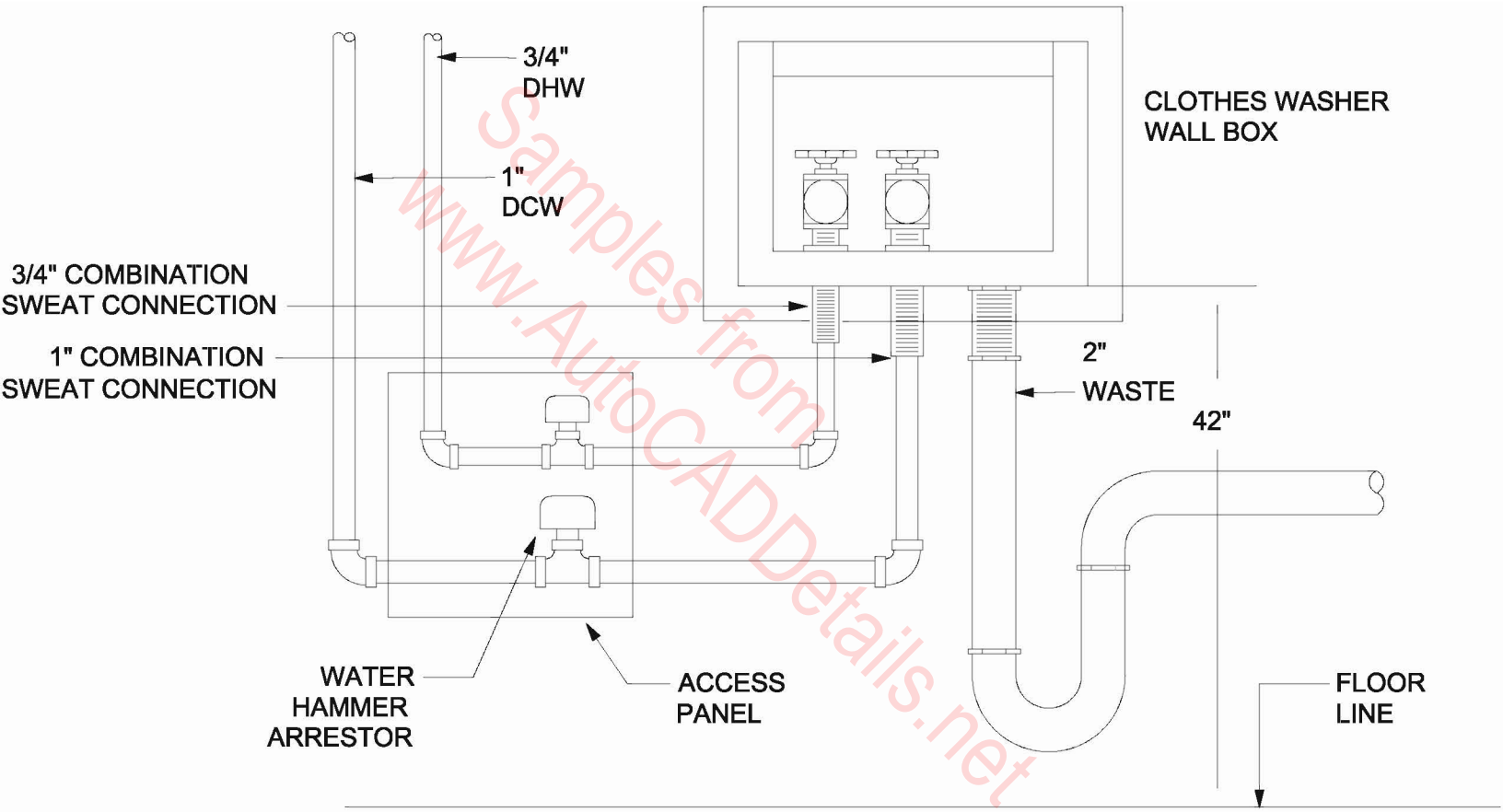



# TYPICAL RELIEF VENT DETAIL



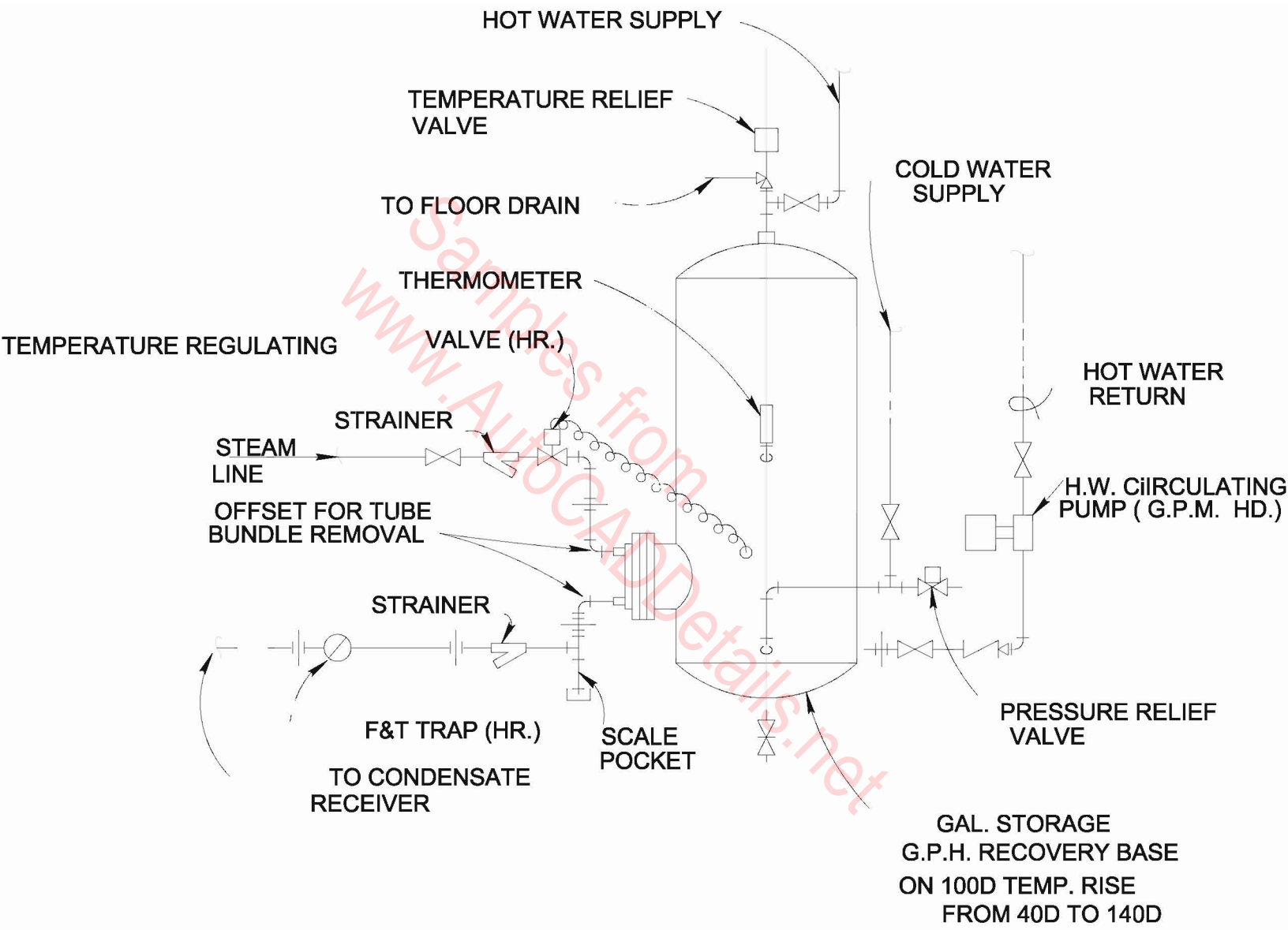



# UNIT HEATER WITH PIPING

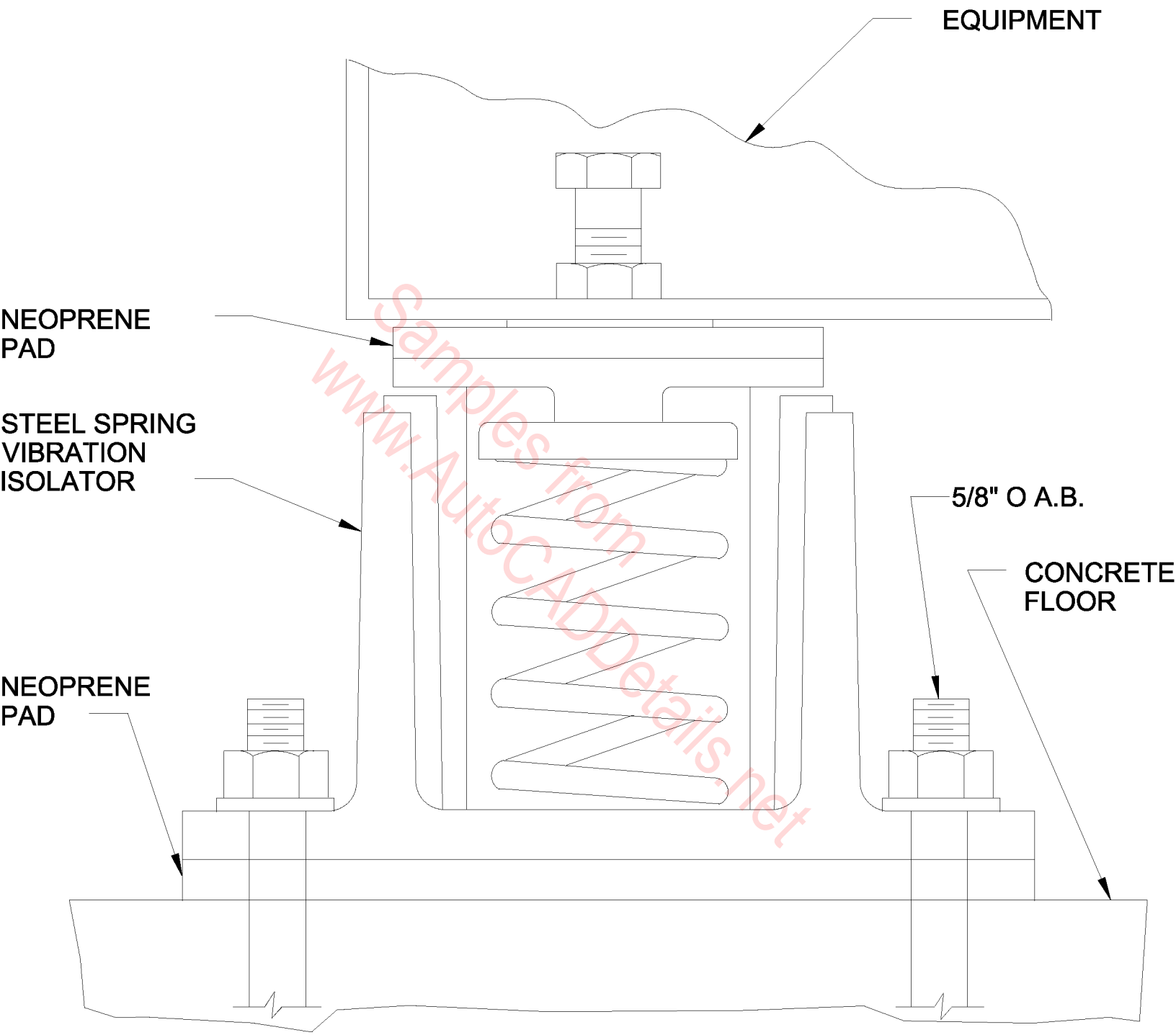





# UTILITY WALL BOX FOR CLOTHES WASHER

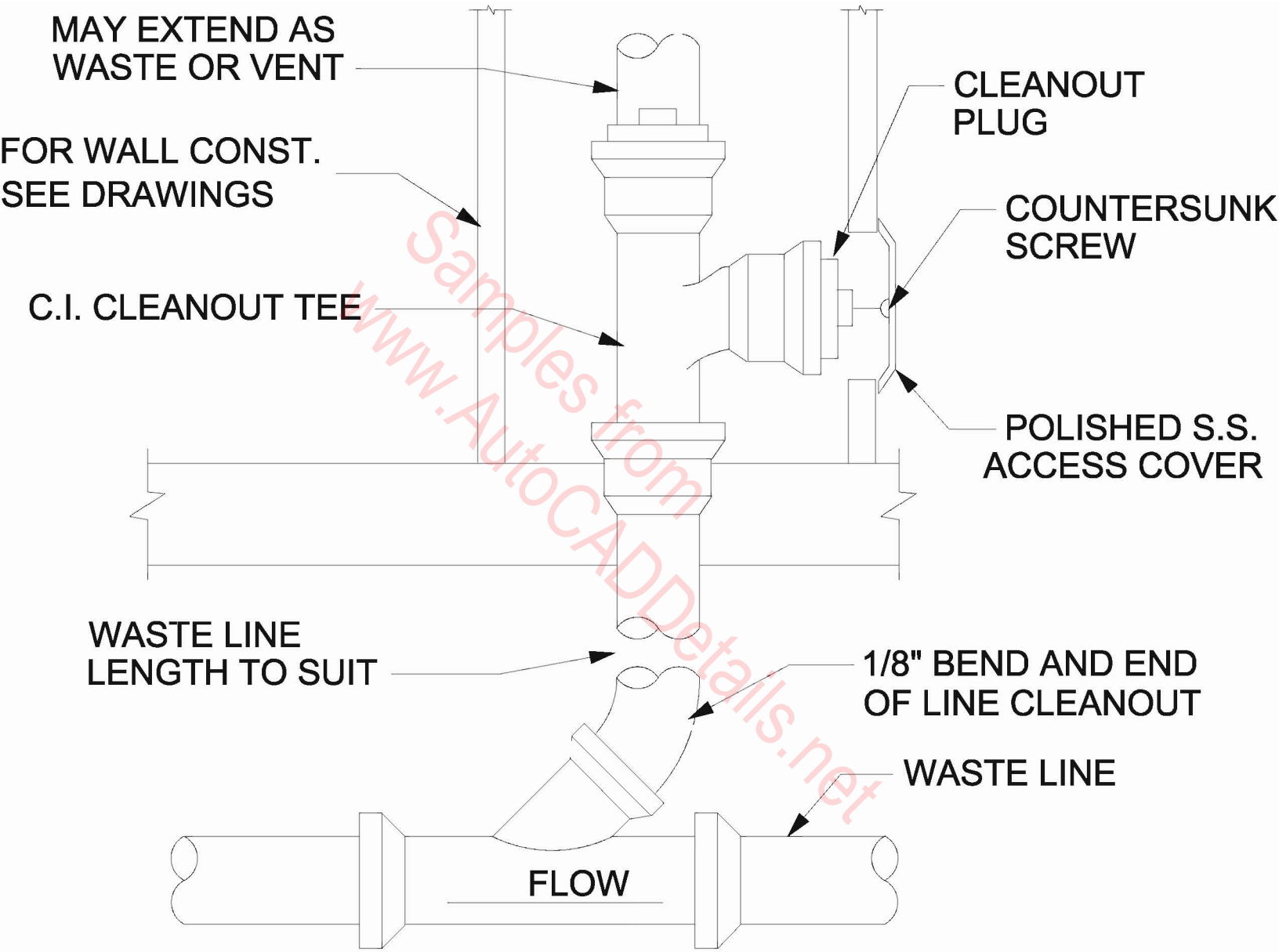



# VERTICAL HOT WATER GENERATOR CONNECTIONS



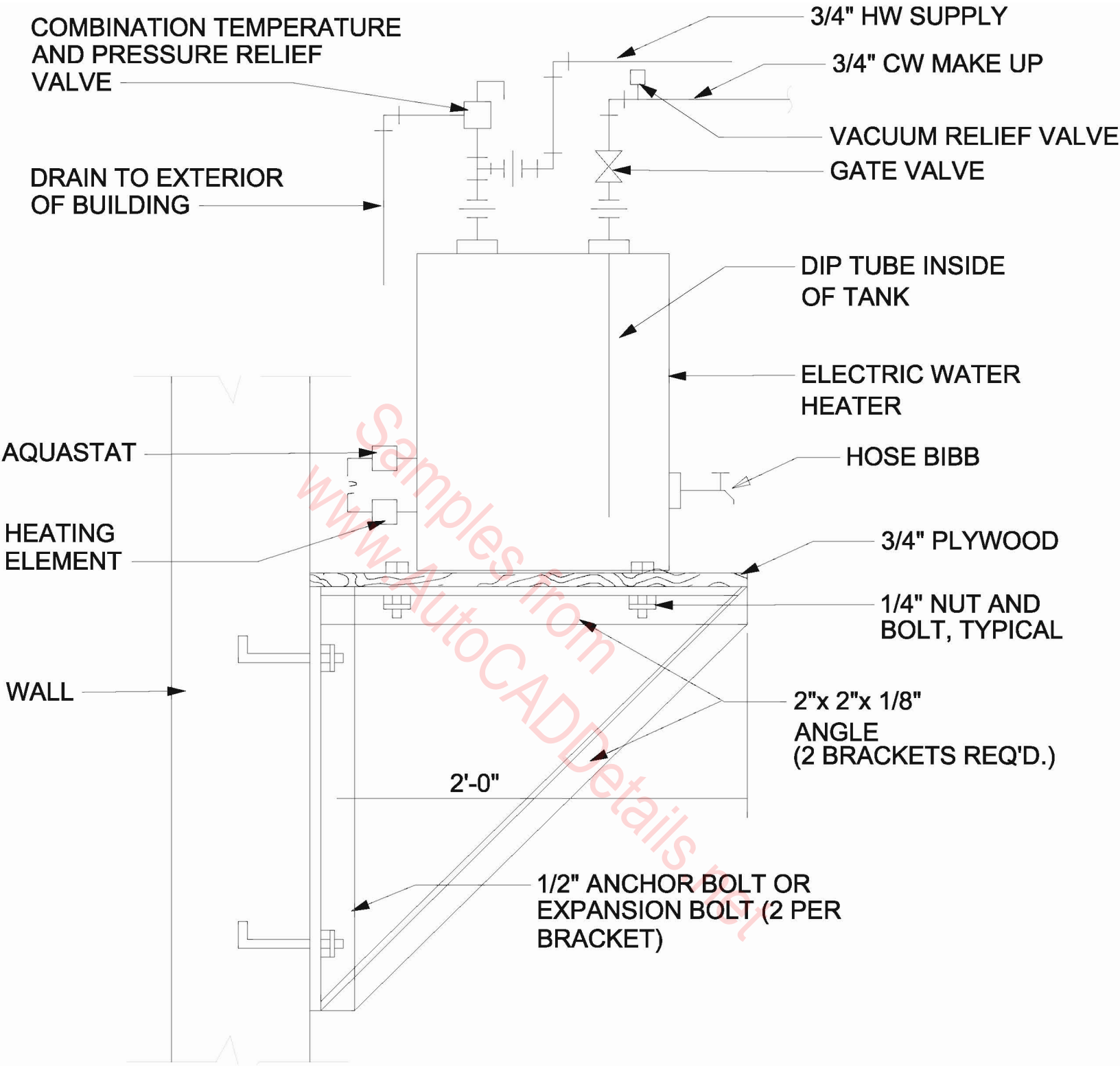



# VIBRATION ISOLATOR DETAIL





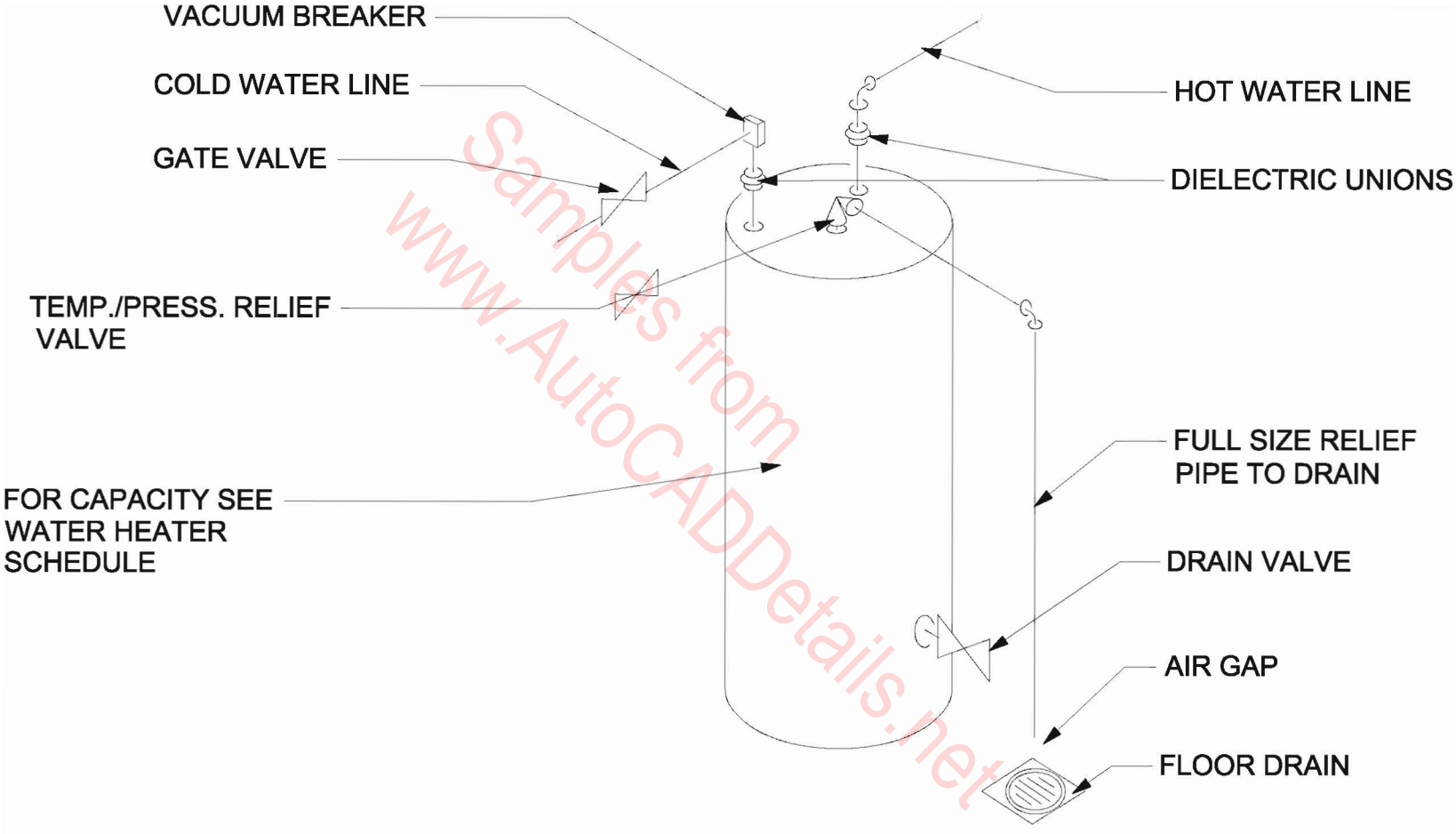

# WALL CLEANOUT-FINISHED ROOMS






NOTE TO DESIGNER: N.S.P.C. 10.16.7 REQUIRES: WHERE A HOT WATER STORAGE TANK OR INDIRECT WATER HEATER IS LOCATED AT AN ELEVATION ABOVE THE FIXTURE OUTLETS IN THE SYSTEM A VACUUM RELIEF VALVE SHALL BE INSTALLED ON THE STORAGE TANK.

# WALL MOUNTED ELECTRIC WATER HEATER DETAIL






# WATER HEATER DETAIL