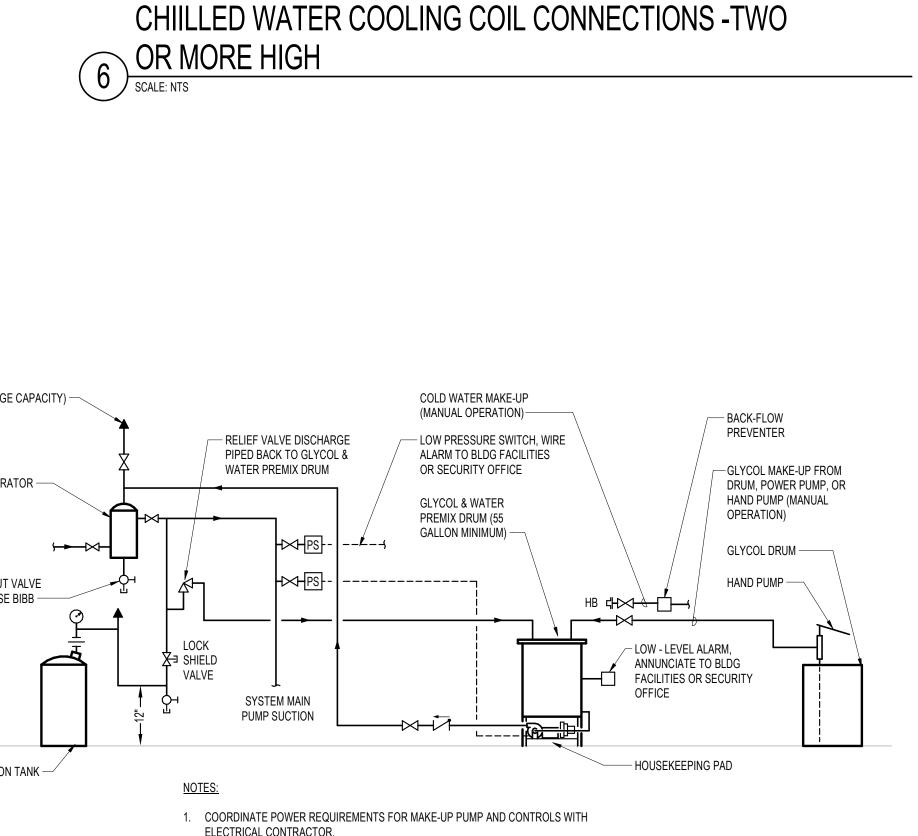
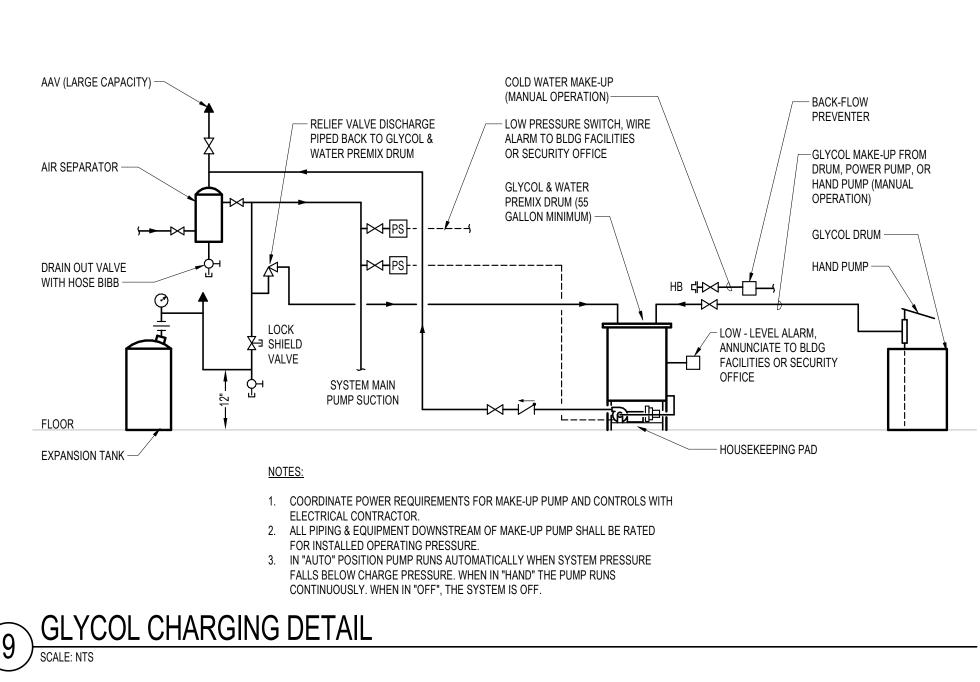


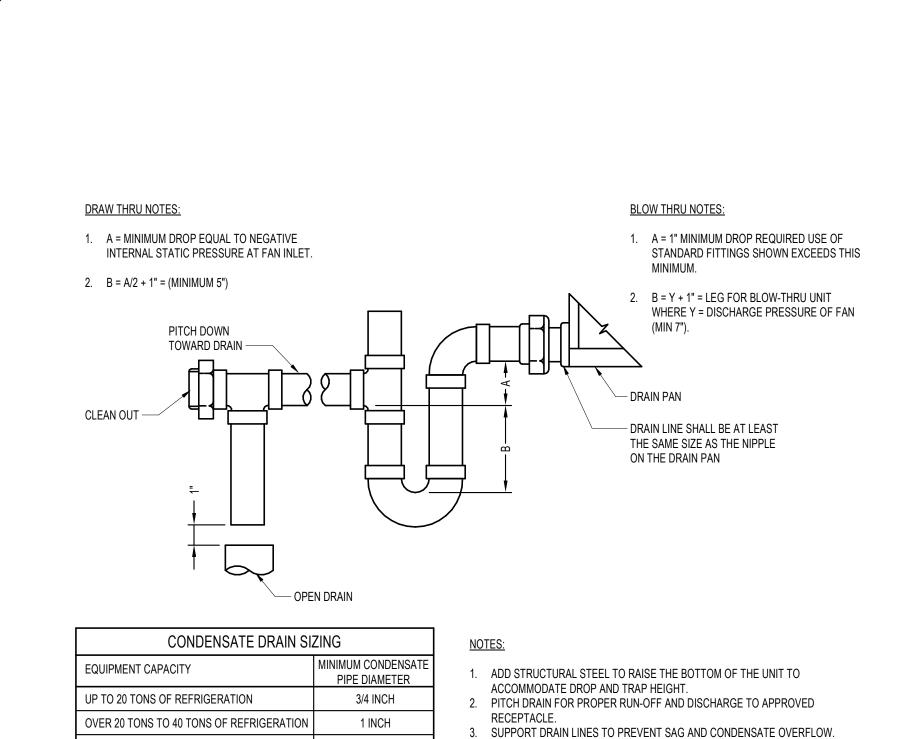
3/4" HOSE END DRAIN VALVE WITH HOSE

HOT WATER UNIT HEATER PIPING

SCALE: NTS





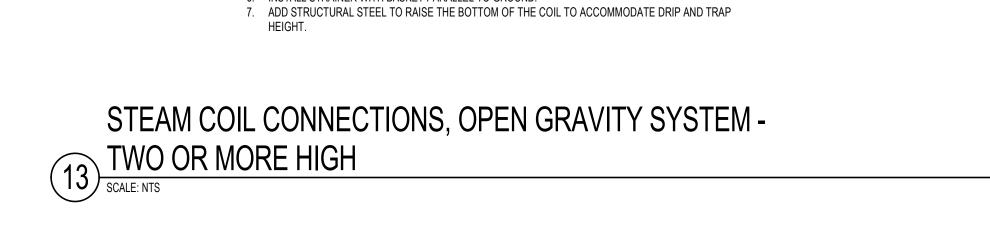


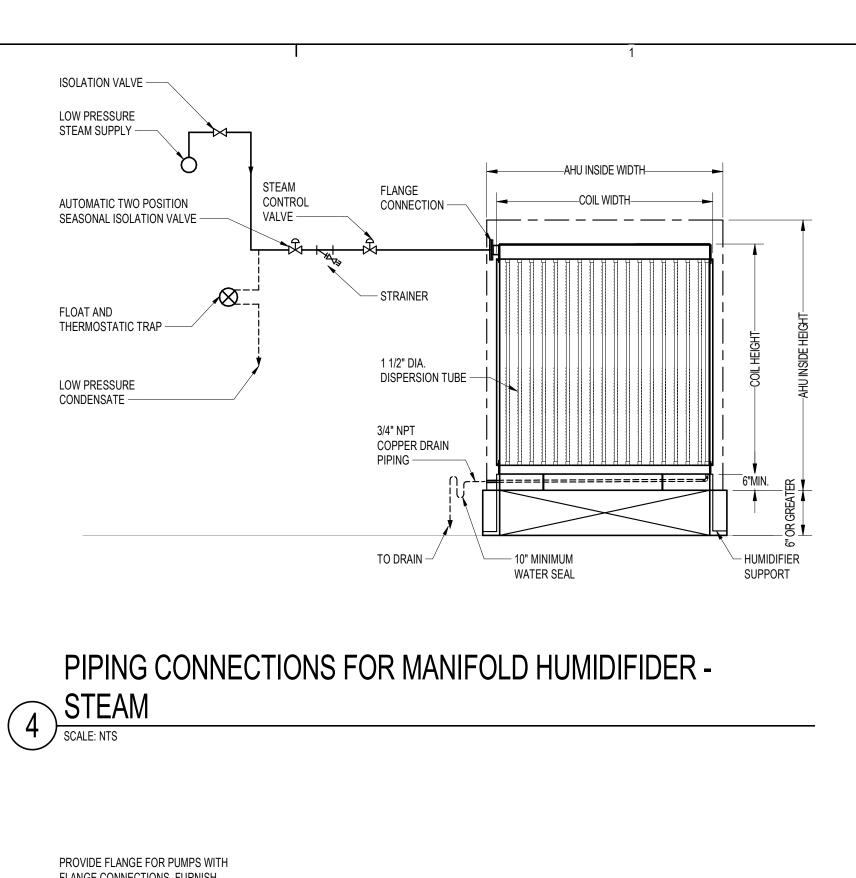
4. MANUALLY PRIME FILL TRAP BEFORE START-UP TO FORM INITIAL DRAIN

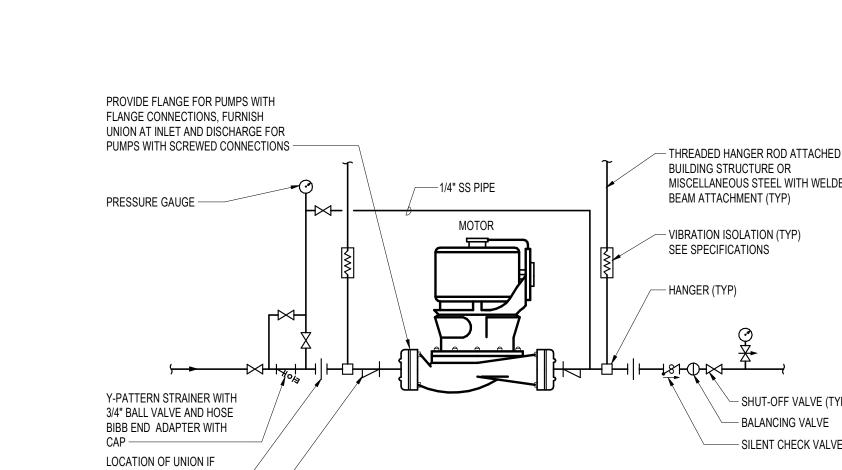
	OVER 90 TONS TO 125 TONS OF REFRIGERATION	1 1/2 INCH	-
	OVER 125TONS TO 250 TONS OF REFRIGERATION	I 2 INCH	
AIR HANDLING UNIT DRAIN TRAP			
(12) SCALE: NTS			
	OO/LEE. NTO		

1 1/4 INCH

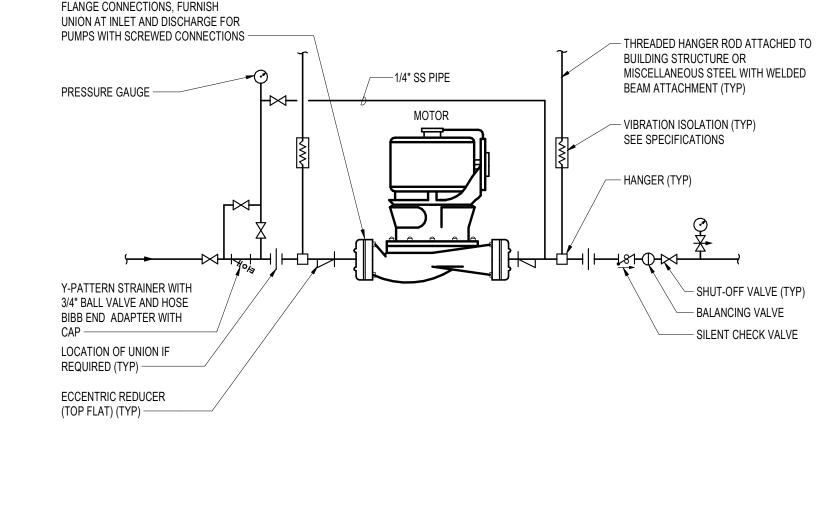
OVER 40 TONS TO 90 TONS OF REFRIGERATION

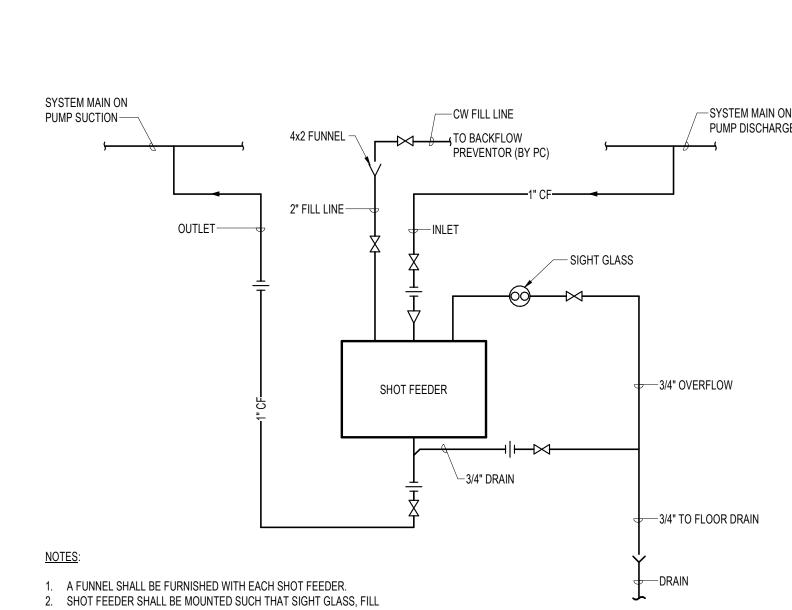


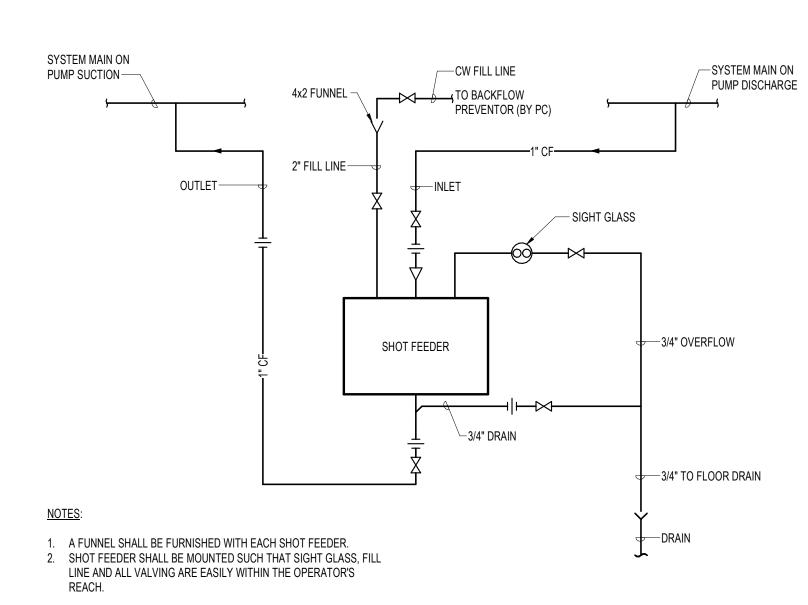


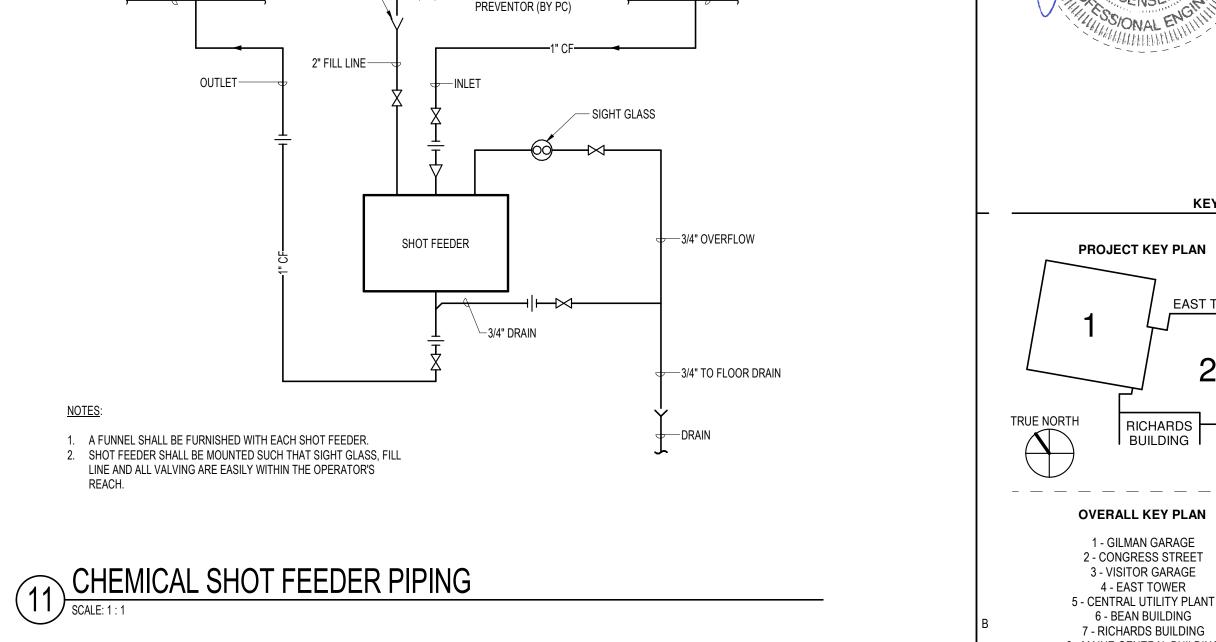


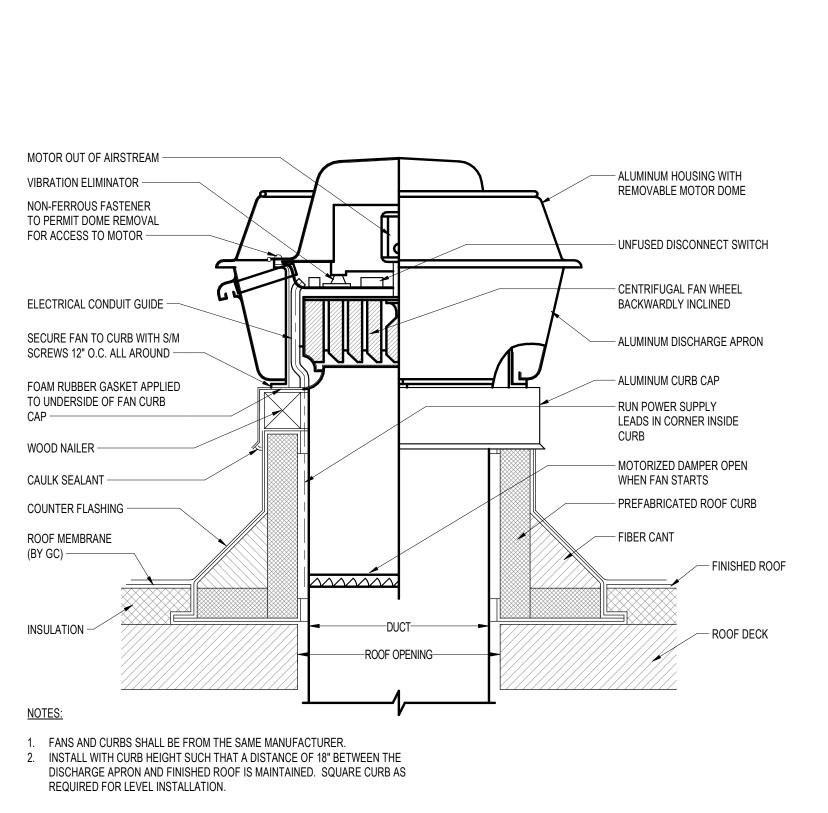
VERTICAL IN-LINE PUMP SUSPENDED INSTALLATION SCALE: NTS

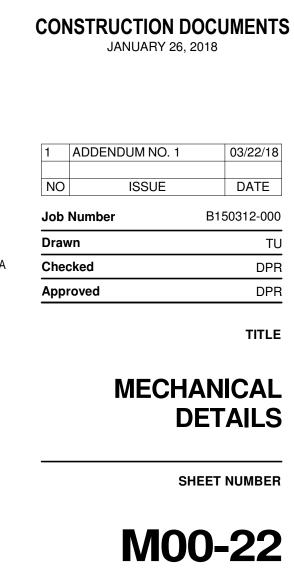












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ELEVATOR CONSULTANT

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COST ESTIMATOR

PROJECT TITLE

Addition

KEY PLANS

EAST TOWER

RICHARDS -

BUILDING

4 - EAST TOWER

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East Tower 6 & 7

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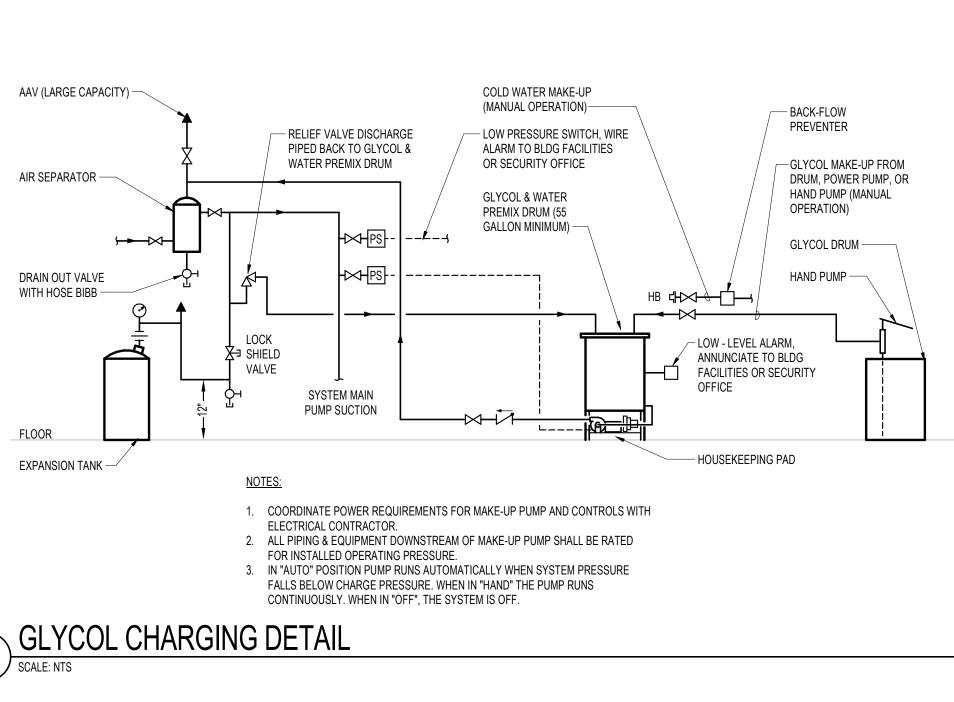
f 617.478.0321

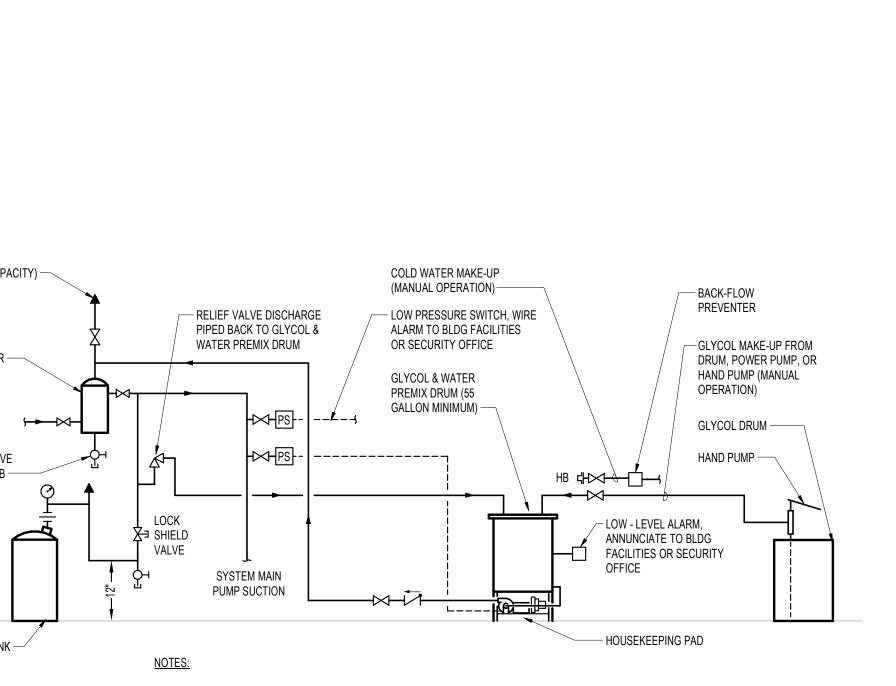
CLIENT

─ NIPPLE AND CAP F&T TRAP (TYP) - NIPPLE AND CAP I. ARRANGE PIPING TO PERMIT COIL REMOVAL BY ONLY REMOVING UNIONS AT COILS. 2. UNIONS (OR FLANGED BODY) INDICATED TO PERMIT REMOVAL OF CONTROL VALVES. 3. PIPING FROM COIL OUTLET TO F&T TRAP TO BE THE SAME SIZE AS COIL OUTLET. DO NOT BUSH UNTIL 4. FOR PIPE SIZE "A" SEE PLANS. 5. INSTALL VACUUM BREAKER AS PER COIL MANUFACTURER'S RECOMMENDATIONS. 6. INSTALL STRAINER WITH BASKET PARALLEL TO GROUND. ROOF EXHAUST FAN (UPBLAST)
SCALE: NTS

9 GLYCOL CHARGING DETAIL
SCALE: NTS

AIRFLOW





← FLOAT AND

PIPE SIZES (IN.)

UNION —

BLOW-DOWN VALVE -

3/4" DRAIN VALVE WITH

PROVIDE THIS PIPING ARRANGEMENT WHERE IS SHOWN ON THE DRAWINGS, AND FOR THE SPECIFIED 75

ASSEMBLIES, PROVIDE PIPE AND TRAP SIZES AS PER

2 LOW PRESSURE STEAM DRIP ASSEMBLY
SCALE: NTS

LOCATE PIPE UNIONS AND ARRANGE PIPING TO FACILITATE COIL REMOVAL.

4. PROVIDE SIMILAR PIPING FOR 3 OR MORE COILS HIGH. 5. PROVIDE DIELECTRIC FITTINGS BETWEEN DISSIMILAR METALS.

UNIONS (OR FLANGED BODY) REQUIRED TO PERMIT REMOVAL OF CONTROL VALVES.

PROVIDE SIMILAR PIPING ARRANGEMENTS ON EACH SIDE FOR TWO-SECTION WIDE COIL ASSEMBLY.

THE MANUFACTURER'S RECOMMENDATIONS OR AS

FT. STEAM SUPPLY DRIP REQUIREMENT.

2. 'B' DIMENSION FOR EQUIPMENT AND PRV DRIP

3. FOR DRIP ASSEMBLY AT EVERY 75 FT. OF STEAM

SUPPLY, THE 'B' DIMENSION SHALL BE 3/4".

GATE VALVE —

LPS

1" & 1-1/4"

1-1/2" & 2"

2-1/2" & 3"

4" & 5"

6" & 8"

10" & 12"

14" & 16"

—SAME SIZE AS "A"

BALANCING VALVE

- PRESSURE GAUGE WITH

NEEDLE VALVE COCK (TYP)

(TYP) —RUNOUTS SHALL BE SAME SIZE

AS COIL CONNECTIONS (TYP)

DRAIN VALVES AT LOW POINTS OF ALI COIL HEADERS, INCLUDING DRAIN

HEADERS, SAME AS COIL OUTLET

SIZES BUT NOT LESS THAN 3/8"

CONTROL VALVE -

THERMOSTATIC TRAP

1" & 1-1/4"

1-1/2" & 2"

2-1/2" & 3"

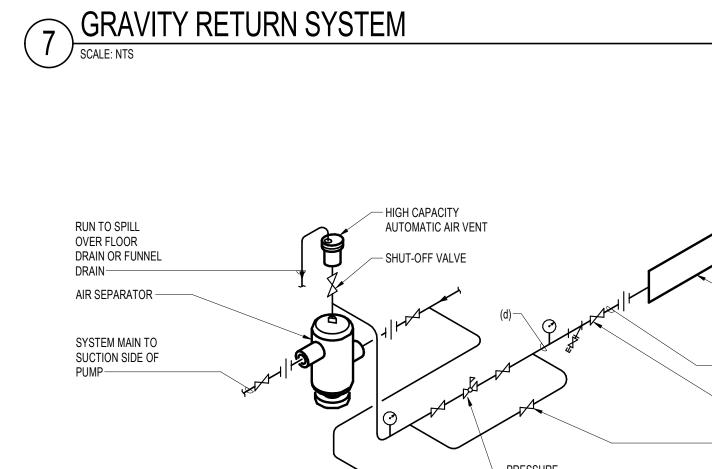
4" & 5"

LPR →

CHWR 'A'

- THERMOMETER

- SHUT-OFF VALVE (TYP)



DUPLEX CONDENSATE PUMP PIPING FOR OPEN

REFRIGERANT DRYER -

ROOF

STOP VALVE (TYP)

EXPANSION VALVE OR CAPILLARY (AS PER

MANUFACTURER'S RECOMMENDATIONS)

1. CONTRACTOR SHALL SIZE PIPING AS PER MANUFACTURER'S RECOMMENDATIONS FOR ACTUAL INSTALLED

LENGTH AND ELEVATION DIFFERENCE BETWEEN CONDENSER AND EVAPORATOR. PROVIDE EXTRA OIL AS

EVAPORATOR

SECTION

CONDENSATE

DISCHARGE-

SAME SIZE AS PUMP

PRESSURE GAUGE -

NEEDLE VALVE COCK —

INSTALL CHECK VALVE AS

DISCHARGE-

PUMP

TYPICAL REFRIGERANT PIPING

SCALE: NTS

---- SIGHT GLASS

- PIPE SIZES AND

MANUFACTURER'S

RECOMMENDATIONS

FULL SIZE OF

RECEIVER INLET

MUST BE ABOVE

┌1" RUN TO SPILL

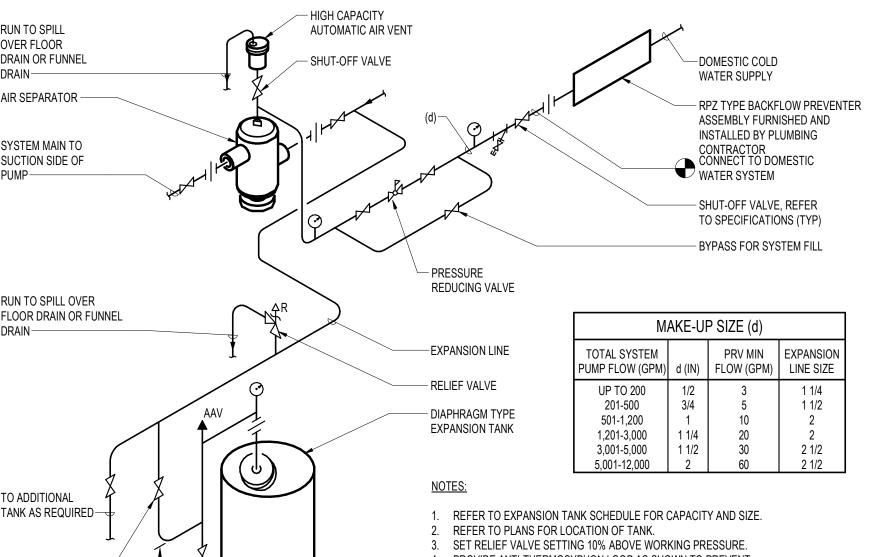
OVER FLOOR DRAIN

—FULL SIZE VENT TO

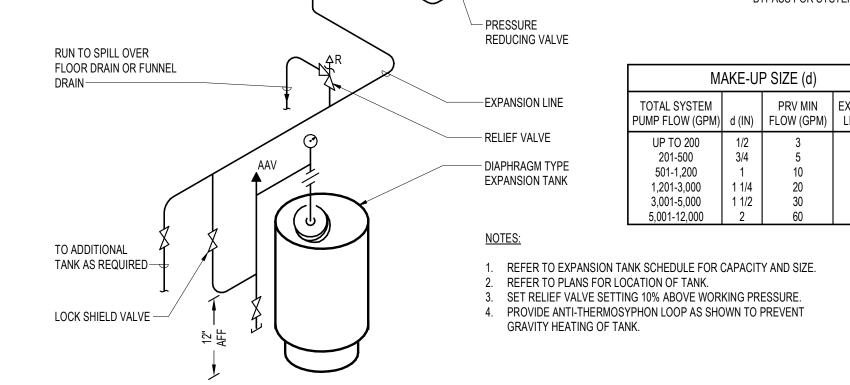
-CONDENSATE RETURN MAIN

CONDENSATE RECEIVER

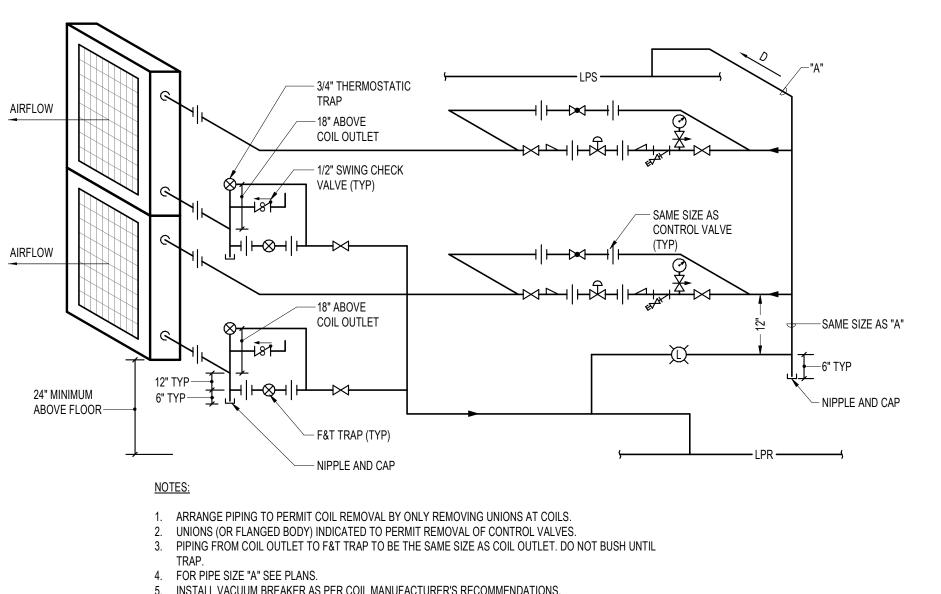
APPURTENANCES PER



— 4" CONCRETE PAD



VERTICAL DIAPHRAGM TYPE EXPANSION TANK SCALE: NTS



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