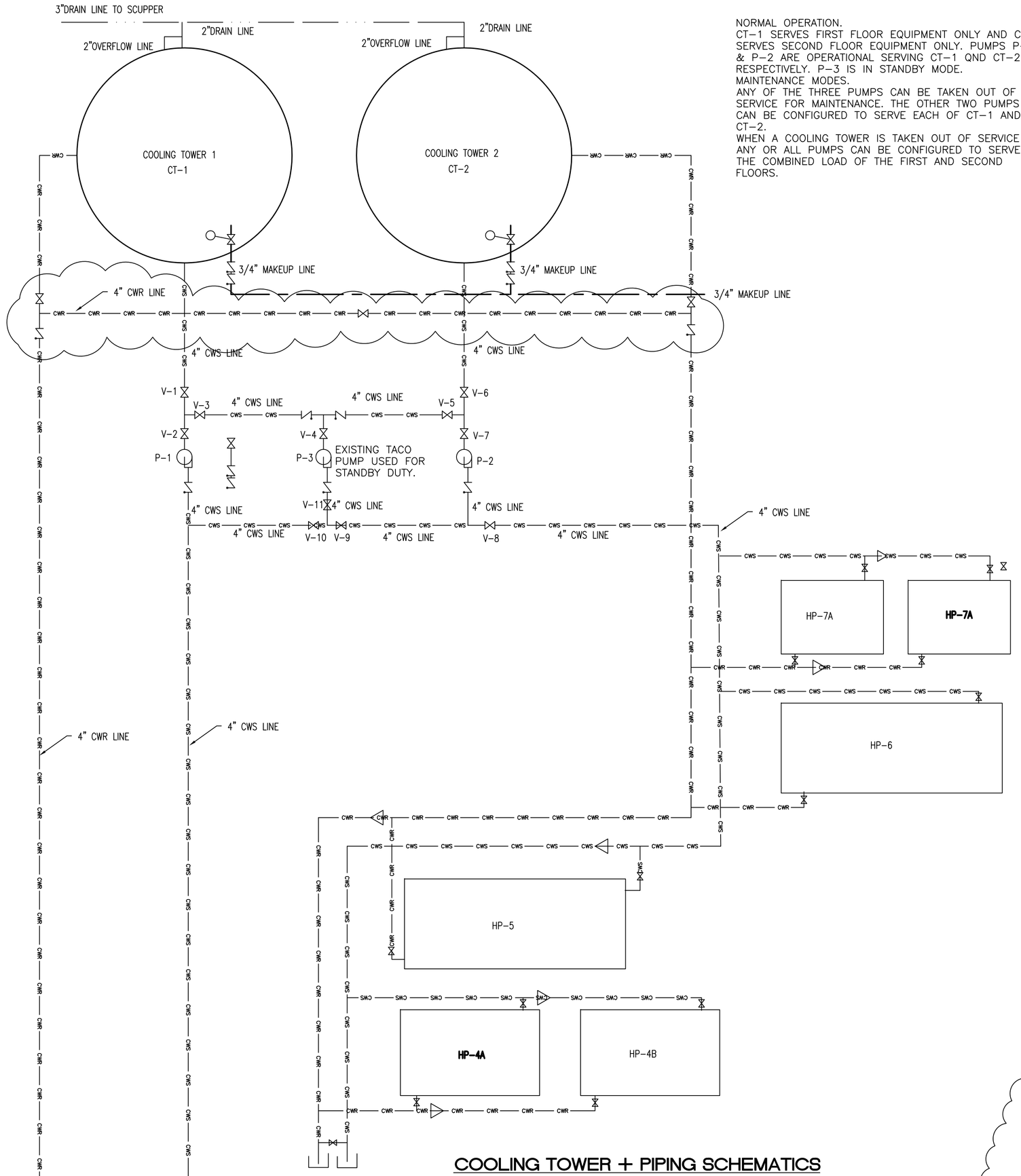
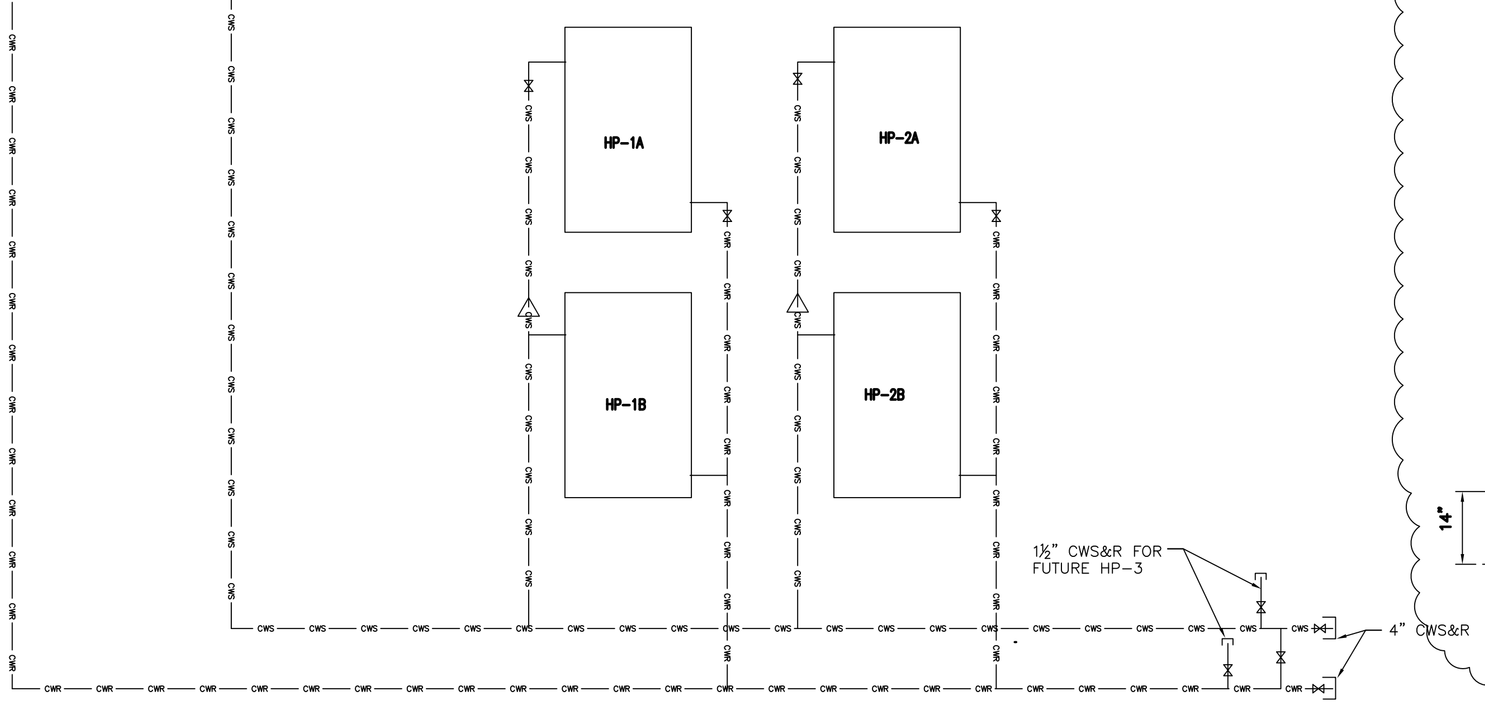


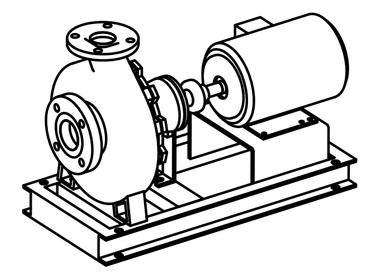
NORMAL OPERATION.
CT-1 SERVES FIRST FLOOR EQUIPMENT ONLY AND CT-2 SERVES SECOND FLOOR EQUIPMENT ONLY. PUMPS P-1 & P-2 ARE OPERATIONAL SERVING CT-1 QND CT-2 RESPECTIVELY. P-3 IS IN STANDBY MODE.
MAINTENANCE MODES.
ANY OF THE THREE PUMPS CAN BE TAKEN OUT OF SERVICE FOR MAINTENANCE. THE OTHER TWO PUMPS CAN BE CONFIGURED TO SERVE EACH OF CT-1 AND CT-2.
WHEN A COOLING TOWER IS TAKEN OUT OF SERVICE ANY OR ALL PUMPS CAN BE CONFIGURED TO SERVE THE COMBINED LOAD OF THE FIRST AND SECOND FLOORS.

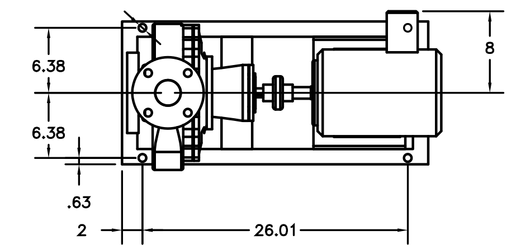
COOLING TOWER + PIPING SCHEMATICS



PUMP DETAILS

NOTES:
-Coupling Guard (Not Shown) is supplied
-Tolerance of ±0.125[3mm] should be used.
-Pump dimensions shown in inches [mm].
-For exact installation data please write factory for certified dimensions.

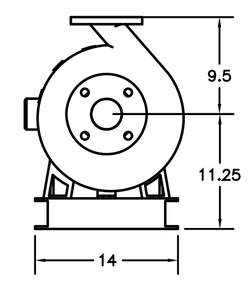


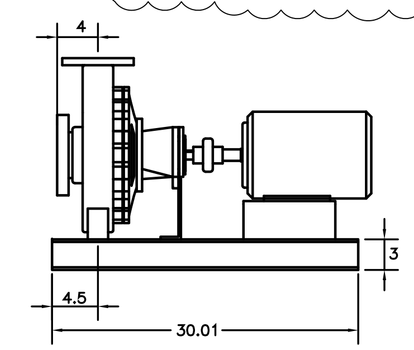


ARMSTRONG
SERIES 4030

PART SELECTED	DESCRIPTION
4X2x-10 1750	PUMP AND FLANGE SIZE
10 inch Impel	IMPELLER SIZE
Bearing	BEARING FRAME SIZE
Shaft & Sleeve	SHAFT SUPPORT SIZE
182-TC-4P-B3	MOTOR FRAME SIZE
182-TEFC-1-1-1-1-1-1	MOTOR TYPE AND ENCLOSURE
1.5 HP, 1800	HORSEPOWER
4.4A 3ph	MOTOR AMPS

NOTES:
1. CONNECT PUMP BASE TO SUPPORT STAND RAILS WITH (3) ⅝"X1" BOLTS (1 EA CORNERr.
2. WELD STAND ROUND SUPPORTS TO SUPPORT SATND RAILS.
3. CONNECT PUMP AND MOTOR TO BASEPLATE WITH ⅝"x1" BOLTS. PROVIDE NUTS AND LOCK WASHERS AT END OF BOLT.





COOLING TOWER SCHEDULE

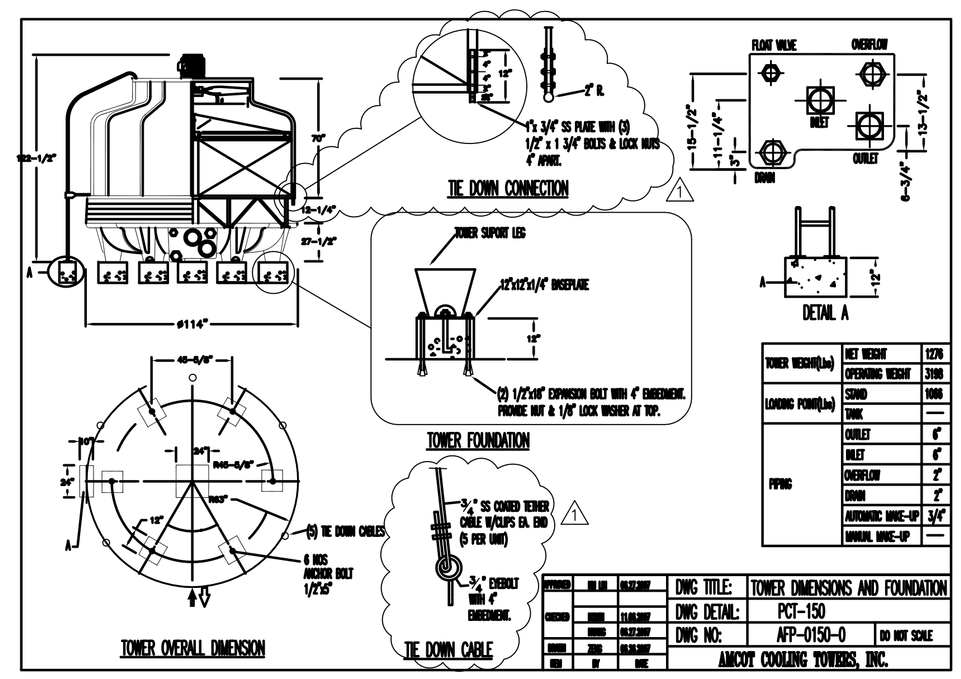
DESIGNATION	CT-1	CT-2
QUANTITY	1	1
LOCATION	ROOFTOP	ROOFTOP
OPERATING WEIGHT, LBS.	3198 LBS	3198 LBS
MANUFACTURER	PROTEC	PROTEC
MODEL NO.	PCT-100	PCT-100
GENERAL DATA		
TYPE	COUNTERFLOW	COUNTERFLOW
AMBIENT AIR TEMPERATURE (°F W.B.)	91°/79°	91°/79°
WATER FLOW (G.P.M.)	312 (G.P.M.)	312 (G.P.M.)
WATER TEMPERATURE (°F) IN/OUT	95°/85°	95°/85°
MOTOR		
HORSEPOWER EACH	3 HP	3 HP
ELECTRICAL SERVICE AVAILABLE	208V/3ø	208V/3ø
STARTER FURNISHED BY	CONTRACTOR	CONTRACTOR
WATER INLET & OUTLET	6"/6"	
OVERFLOW & DRAIN	2"/2"	2"/2"
AUX MAKE-UP	3/4"	3/4"
MINIMUM FAN SPEED (R.P.M.)	860	860
ACCESSORIES		
ACCESS LADDER AND HANDRAIL	YES	YES
WATER BASIN	FIBERGLASS	FIBERGLASS
CASING AND HARDWARE	FIBERGLASS	FIBERGLASS
FLOW BALANCING VALVES	YES	YES
VIBRATION ISOLATORS		
TYPE	FLS-1-800	FLS-1-800
MIN. STATIC DEFLECTION, INCHES	1.31	1.31

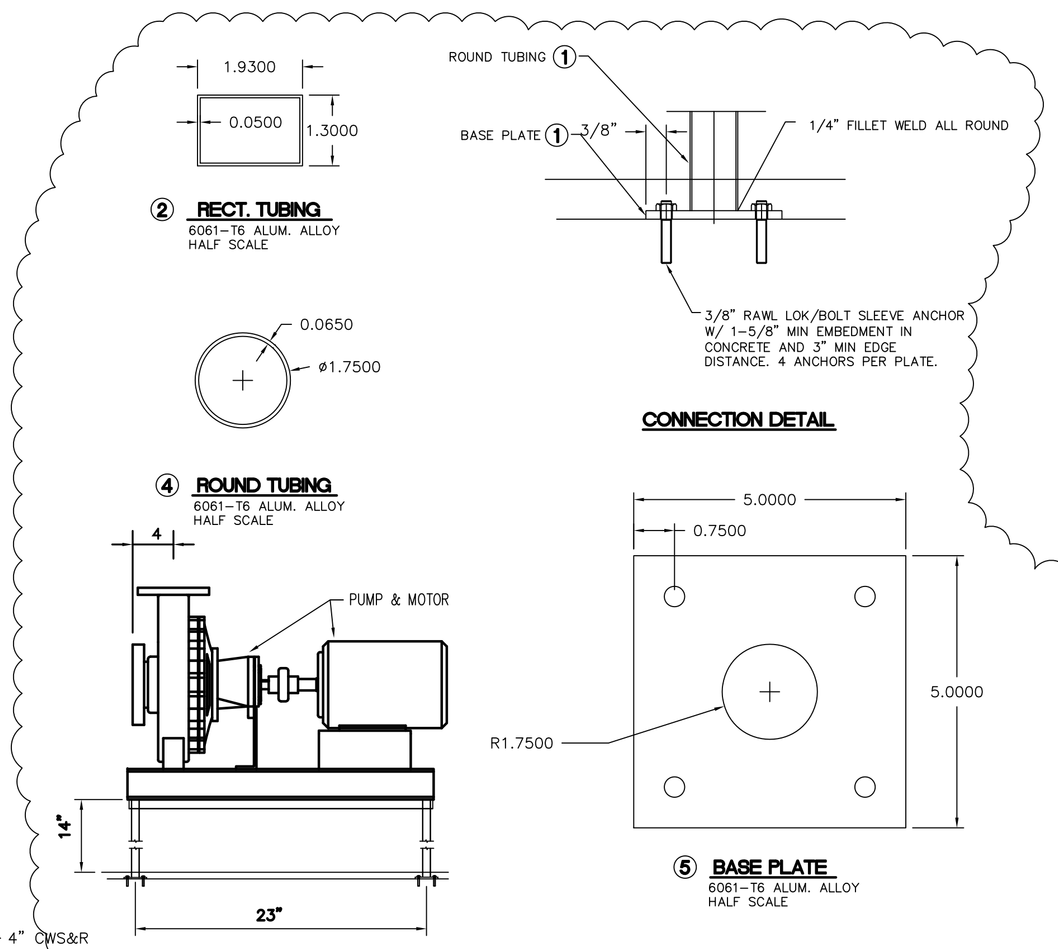
LEGEND

- BACK FLOW PREVENTER
- FLOAT VALVE
- THERMOMETER
- PRESSURE GAUGE
- CHECK VALVE
- PUMP
- GATE VALVE
- PIPE REDUCER
- CONDENSER WATER SUPPLY PIPE
- CONDENSER WATER RETURN PIPE
- DRAIN PIPE
- COLD WATER PIPE
- PIPE CAP

PUMP SCHEDULE

PUMP NO.	SERVICE	G.P.M.	HEAD PRESS.	R.P.M.	H.P.	VOLTS	PHASE	CYCLE	MANUFACTURER	MODEL NO.	REMARK
P-1	CONDENSER WATER	310	75 FT	1740	10	208	3	60	ARMSTRONG	4030-3X2.5X10	SERVING CT-1
P-2	CONDENSER WATER	310	75 FT	1740	10	208	3	60	ARMSTRONG	4030-3X2.5X10	SERVING CT-2
P-3	CONDENSER WATER	410	90 FT	1800	10	208	3	60	TACO	F1-1381	STAND-BY





PUMP/MOTOR MOUNTING DETAIL

NOTE:
ANCHOR UNIT AND BASE TO WITHSTAND F.B.C. HURRICANE WIND FORCE REQUIREMENTS.

NOTE:
1. AN ANCHOR BOLT WITH A MINIMUM OF 500 POUNDS PULL-OUT RESISTANCE SHALL SECURE THE TOWER THROUGH EACH SUPPORT TO THE CONCRETE SLAB ON WHICH THE SUPPORT RESTS.
2. CONTRACTOR SHALL SECURE ALL ROOF TOP EQUIPMENT AS PER HVHZ/FEMA – MIN. 146 MPH REQUIREMENTS
3. HVAC CONTRACTOR SHALL SECURE ALL NEW EQUIPMENT AS PER FBC 1522 AND MANUFACTURERS REQUIREMENTS. CONTRACTOR TO PROVIDE SHOP DRAWINGS OF TIE-DOWN PRIOR TO INSTALLATION.

SEE DETAIL THIS SHEET.

L. HUGH ANGLIN
LICENSE
No. 0063844
STATE OF FLORIDA
PROFESSIONAL ENGINEER

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Project Title: Office Facility

Address: 18301 N. MIAMI AVENUE

This Sheet:

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REVISIONS

1 BLDG DEPT COMS 06-08

DESCRIPTION

Project No.: 06-12

Date: 08-04-08

Drawn By: LHA

Approved By: L.H.A.

SEAL: L. HUGH ANGLIN P.E. #63488

SHEET NO.: AC-6

6 OF 6

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