



RF SIGNIFR

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PROFESSIONAL
SEAL



7-74-71

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CONSTRUCTION
DOCUMENTS

REVISIONS

RFY
PI AN

SHFF1
POOL MECHANICAL
ROOM PLAN &
SECTION

AQ5.0

RF SIGN: C.MR
DRAWN: C.MR
REVISED: J.M
CN 7904-A

PIPE SCHEDULE	
ID	DESCRIPTION
P1	8" FROM POOL FILTERS TO POOL INLETS
P2	8" FROM POOL MAIN DRAINS TO PP1
P3	8" FROM POOL SWIMMERS TO PP1
P4	8" FROM POOL MAIN DRAINS TO PP2
P5	8" FROM PP1 TO POOL FILTERS
P6	4" FROM P5 TO BACKWASH CATCH BASIN
P7	8" FROM PP2 TO FEATURE MANFOLD
P8	2.5" FROM FEATURE MANFOLD TO WATERBUG NO. 4
P9	1" FROM FEATURE MANFOLD TO WATERBUG NO. 2
P10	3" FROM FEATURE MANFOLD TO BUBBLERS
P11	2" FROM FEATURE MANFOLD TO CASCADES
P12	8" FROM POOL FILTERS TO BACKWASH CATCH BASIN
PI3	1.5" FILL LINE

- ### GENERAL POOL MECHANICAL ROOM NOTES
- POOL PUMPS AND STRAINERS SHALL BE INSTALLED ON HOUSEKEEPING FLOORS UNLESS NOTED OTHERWISE.
 - EQUIPMENT ROOM FLOOR SHALL SLOPE 1/8" TO 1/2" PER FOOT TO FLOOR DRAINS. REFER TO PLUMBING.
 - PROVIDE HOSE BIBBS FOR HOUSE CLEANING PURPOSES. REFER BUILDING MECHANICAL DRAWINGS.
 - THE INSIDE SURFACES OF THE BACKWASH CATCH BASIN SHALL BE WATERPROOFED. REFER TO SPECIFICATION.
 - VENTILATION OF POOL MECHANICAL ROOM AND CHEMICAL STORAGE AREAS PER LOCAL, STATE AND INTERNATIONAL MECHANICAL CODE MINIMUM. REFER TO MECHANICAL.
 - THE FOLLOWING INFORMATION SHALL BE LAMINATED AND POSTED IN THE POOL MECHANICAL ROOM: BACKWASH PROCEDURE, POOL FILLING & DRAINING, VALVE REFERENCE CHART, POOL MECHANICAL ROOM PLAN, POOL PIPING SCHEMATICS & POOL SYSTEMS SCHEMATICS.
 - REFER TO MECHANICAL FOR HVAC SYSTEMS DESIGN.
- ### PIPING
- MINIMUM 7' CLEARANCE BENEATH ALL OVERHEAD PIPING.
 - PROVIDE AND SUPPORT OVERHEAD AND VERTICAL PIPING PER SPECIFICATION REQUIREMENTS.
 - LABEL AND IDENTIFY ALL PIPING IN COMPLIANCE WITH THE SPECIFICATIONS.
 - ALL FLOW METERS SHALL BE SIZED TO MATCH THE PIPE ON WHICH IT IS INSTALLED. PROVIDE PRESSURE GAUGES ON INFLUENT AND EFFLUENT SIDE OF EACH FILTRATION SYSTEM AND A FULL LINE SIZE FLOW METER ON FILTER RETURN.
 - THE BACKWASH PIPING SHALL TERMINATE NO CLOSER THAN 8" ABOVE THE FLOOR RIM OF THE BACKWASH CATCH BASIN OR TWICE THE PIPE DIAMETER, WHICHEVER IS GREATER.
 - HYDROS STATICALLY TEST ALL PIPING AT 50 PSI FOR TWO HOURS AND MAINTAIN A PRESSURE OF 20 PSI IN ALL PIPING THROUGHOUT CONSTRUCTION. SECURE ALL FIXTURES TO MEET ALL REQUIREMENTS BEFORE HYDROS STATIC TEST.
 - REFER TO DETAILS 1-8 ON DRAWING AG5.2 FOR INSTALLATION OF PIPE SUPPORTS.
- ### CHEMICAL TREATMENT
- CHEMICAL FEED REQUIREMENTS - REFER TO THE POOL SYSTEMS SCHEMATICS ON AG5.0
 - INTERLOCK POOL RECIRCULATION PUMPS WITH ITS CORRESPONDING WATER CHEMISTRY CONTROLLER AND CHEMICAL FEED PUMPS.
 - PROVIDE SIGNAGE ON CHEMICAL ROOM DOORS IN COMPLIANCE WITH THE STATE FIRE CODE. REFER: 7A06.1
 - SECURE CHEMICAL METERING PUMP FEED LINES TO WALL AND/OR OVERHEAD WITH CLIPS OR DEVICES THAT DO NOT DRAMP. DO NOT DRAMP ALLOW HOLES AND LEAKS IN TUBING RUNS. PROVIDE CHECK VALVE AND SHUT OFF VALVE BEFORE LINES ENTER POOL RETURN PIPING.
 - WATER CHEMISTRY CONTROLLERS SHALL CONTROL THE SANITIZING SYSTEM AND PH CONTROL SYSTEM. SHUT THEM DOWN UPON STARTUP OF THE POOL STREAM FLOW.
 - THE CHEMICAL CONTROL SYSTEM BYPASS LINE SHALL SAMPLE WATER AFTER THE FILTERS.
 - VERIFY REMOTE ACCESS CAPABILITY TO ALL CHEMICAL CONTROLLERS. REFER TO ELECTRICAL.
 - INSTALL SANITIZER INJECTION POINT DOWNSTREAM OF FILTER INJECTION POINTS. SANITIZER RETURN POINTS TO CHEMICAL INJECTION POINTS SHALL BE LOCATED DOWNSTREAM OF ALL OTHER EQUIPMENT SYSTEMS IN THE POOL MECHANICAL ROOM. MINIMUM HEAD LOSS: 10' (3.045 M). REFER: 7A06.1
- ### ELECTRICAL
- GFI'S PROVIDED AT OUTLETS. REFER TO ELECTRICAL.
 - POOL EQUIPMENT ROOM AND CHEMICAL STORAGE AREAS SHALL BE PROVIDED WITH ADDITIONAL LIGHTING SUFFICIENT TO ILLUMINATE ALL EQUIPMENT AND SUPPLIES. REFER TO ELECTRICAL.
 - CONDUIT SHALL BE INSTALLED ABOVE OR BELOW GRADE.

FILTER SCHEDULE											
POOL	MANUFACTURER	FILTER MODEL	QTY	FILTRATION TYPE	MAXIMUM FILTRATION RATE (GPM/SQ. FT.)	REQUIRED FILTRATION AREA (SQ. FT.)	DESIGN FILTRATION RATE (GPM/SQ. FT.)	DESIGN FILTRATION AREA (SQ. FT.)	FILTER BACKWASH RATE (GPM/SQ. FT.)	BACKWASH FLOW RATE PER FILTER (GPM)	
POOL 1	NEPTUNE SENSOR	SHFFG 42-48	2	1RS	13.0	31.0	12.1	34.2	16	386	

NOTE:
1. THE SELECTION METHOD SHALL BE MANUAL.
2. ALL FILTER SUPPORTS SHALL BE MANUALLY RATED FOR THE SEISMIC ZONE IN WHICH IT IS INSTALLED IN ACCORDANCE WITH LOCAL AND/OR STATE REQUIREMENTS.
3. FILTER MANUFACTURER SHALL CERTIFY FILTER MEDIA.
4. VALVES SHALL BE PROVIDED TO BACKWASH EACH FILTER VESSEL INDEPENDENTLY.
5. FILTER TANK ASSEMBLIES SHALL BEAR THE NATIONAL SANITATION FOUNDATION SEAL OF APPROVAL FOR A MAXIMUM FLOW RATE 20 GPM PER SQUARE FOOT OF FILTER MEDIA.
6. THE BACKWASH THROTTLING VALVE HANDLE SHALL BE REMOVED AND TURNED OVER TO THE OWNER ONCE THE BACKWASH FLOW RATES HAVE BEEN TESTED, ADJUSTED AND BALANCED.
7. PROVIDE 1" DIAMETER, SCHEDULE 40 PIPE FROM THE AUTOMATIC AIR VENT ON EACH OF THE FILTER VESSEL TO THE NEAREST FLOOR DRAIN OR BACKWASH CATCH BASIN. THE VENT PIPE SHALL BE SLOPED TO THE DRAIN.
8. VESSEL SHALL BE BACKWASHED AT NO LESS THAN 15.0 GPM/SF.

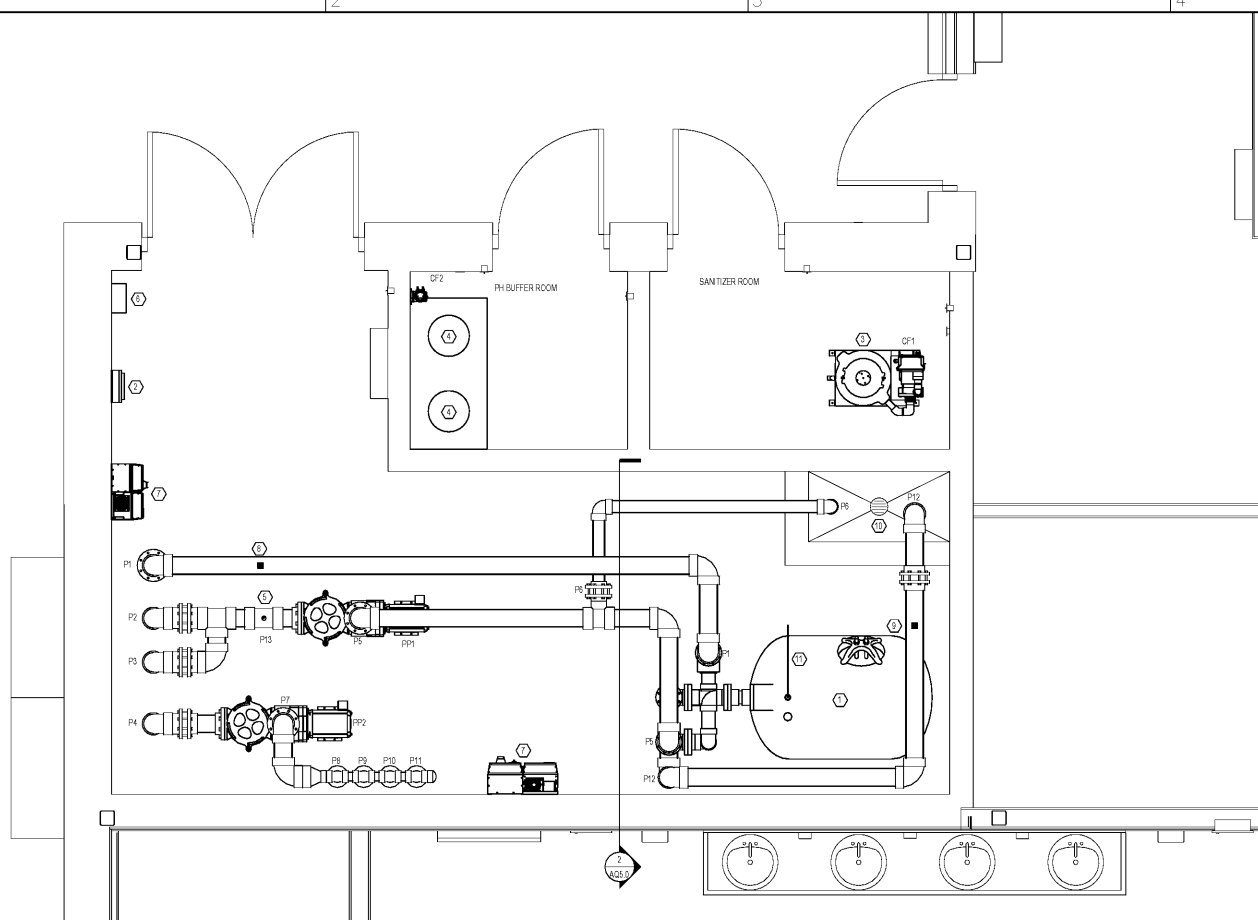
CHEMICAL FEED SCHEDULE							
ID	DESCRIPTION	MANUFACTURER	MODEL	TUBE #	HP	FLOW	NOTES
CF1	CHLORINATION BOOSTER PUMP REFER: 10A06.1	ACCUTAB	3070	NA	1	64.8 LBS/DAY	1.2.3
CF2	ACID FEED PUMP REFER: 3A06.1	STENNER	45M3	3	FRAC	22 GAL/DAY	1.2.3

NOTE:
1. THE MANUFACTURER INDICATED IS BASIS OF DESIGN.
2. PROVIDE WITH 120 VOLT, SINGLE PHASE, ADJUSTABLE FEED.
3. INTERLOCK WITH POOL RECIRCULATION PUMP.

PUMP SCHEDULE									
ID	DESCRIPTION	MANUFACTURER	MODEL	SIZE	GPM	TDH	HP	NOTES	
PP1	POOL RECIRCULATION PUMP REFER: 1A06.1	PENTAIR	ED1000	6.4	415	72	10	1.2.3.4.5	
PP2	FEATURE PUMP REFER: 1A06.1	PENTAIR	E2500	6.4	220	54	5	1.2.3.4	

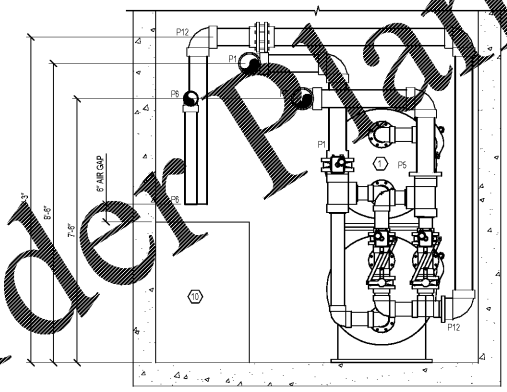
NOTE:
1. THE MANUFACTURER INDICATED IS BASIS OF DESIGN.
2. PROVIDE INFLUENT AND EFFLUENT GAUGES FOR EACH PUMP. PRESSURE GAUGES HAVE A RANGE OF 0-60 PSI. COMPOUND GAUGES HAVE A RANGE OF 0-30 HG (0-60 PSI).
3. PROVIDE WITH 208 VOLT, 3 PHASE, 60 HZ, 1750 RPM MOTOR.
4. PROVIDE WITH CHECK VALVE.
5. PROVIDE VARIABLE FREQUENCY DRIVE.

EQUIPMENT SCHEDULE		
ID	ITEM	MANUFACTURER
FS	FILTER SYSTEM	NEPTUNE SENSOR MODEL SHFFG 42-48, QTY OF 2
CC	CHEMICAL CONTROLLER REFER: 3A06.1	BECSYS CONTROL TECHNOLOGY BECSYS 3
CS	CHLORINATION SYSTEM REFER: 10A06.1	ACCUTAB MODEL 3070
AS	ACID SYSTEM REFER: 3A06.1	STENNER MODEL 45M3
DF	DIRECT FILL REFER: 12A06.1	NA
WL	WATER LEVEL CONTROLLER REFER: 14A06.1	AQUATIC CONTROL TECHNOLOGY MODEL ECL-913
VFD	VARIABLE FREQUENCY DRIVE AND BYPASS PANEL	NA
FM	FLOW METER SENSOR REFER: 8A06.1	GF SIGNET MODEL 2581 MAGMETER
IFM	IMPACT FLOW METER REFER: 9A06.1	BLUE-WHITE MODEL SERIES F-300
BCB	4' DIA X 8' X 6' DEEP BACKWASH CATCH BASIN	NA
WD	WARD PIPE TO DRAIN	NA



1 POOL MECHANICAL ROOM PLAN
AG5.0
1/2" = 1'-0"

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2 POOL MECHANICAL ROOM SECTION
AG5.0
1/2" = 1'-0"