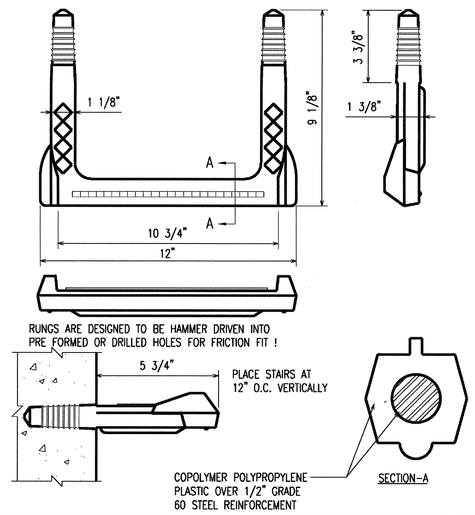


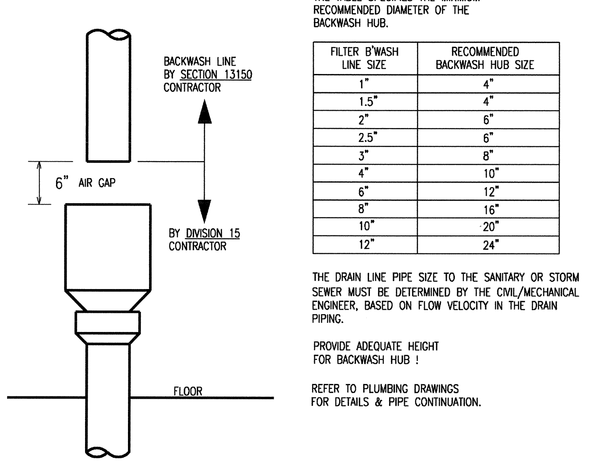
SUBMERGED SERVICE ACCESS RUNG DETAIL — PL4.00-12

PROVIDED BY GENERAL CONTRACTOR

SCALE: NONE

THIS SPACE NOT USED — PL4.00-13

SCALE: NONE



THE TABLE SPECIFIES THE MINIMUM RECOMMENDED DIAMETER OF THE BACKWASH HUB.

FILTER B'WASH LINE SIZE	RECOMMENDED BACKWASH HUB SIZE
1"	4"
1.5"	4"
2"	6"
2.5"	6"
3"	8"
4"	10"
6"	12"
8"	16"
10"	20"
12"	24"

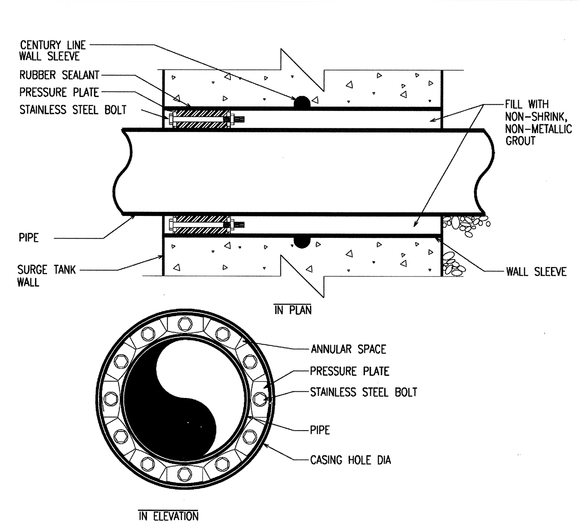
THE DRAIN LINE PIPE SIZE TO THE SANITARY OR STORM SEWER MUST BE DETERMINED BY THE CIVIL/MECHANICAL ENGINEER, BASED ON FLOW VELOCITY IN THE DRAIN PIPING.

PROVIDE ADEQUATE HEIGHT FOR BACKWASH HUB !

REFER TO PLUMBING DRAWINGS FOR DETAILS & PIPE CONTINUATION.

BACKWASH AIR GAP DETAIL — PL4.00-14

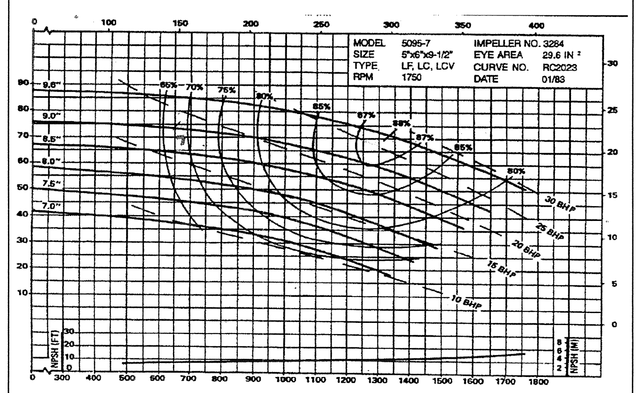
SCALE: NONE



WALL SLEEVE / LINK SEAL DETAIL — PL4.00-15

PROVIDED & INSTALLED BY 13150 CONTRACTOR.

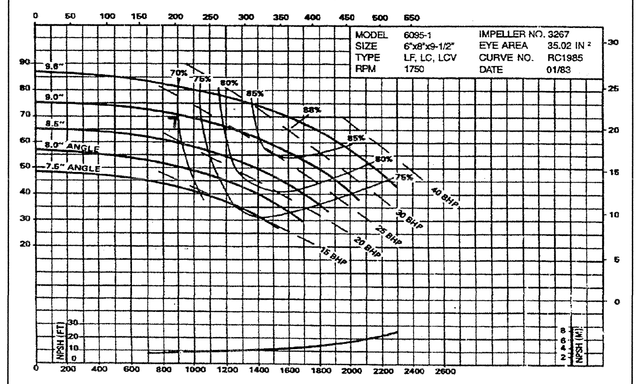
SCALE: NONE



COMPETITION POOL FILTRATION PUMP 670 @ 70 T.D.H.

COMPETITION POOL FILTRATION PUMP CURVE — PL4.00-8

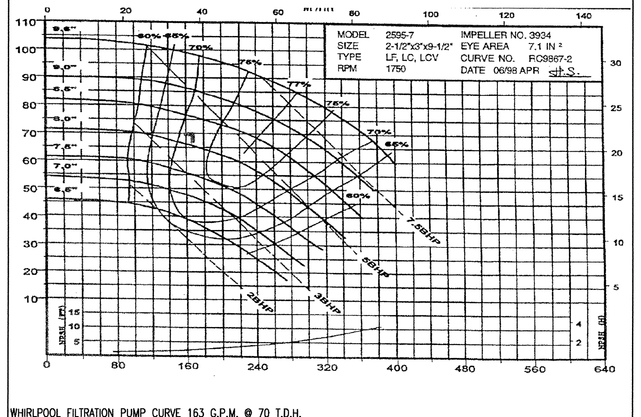
SCALE: NONE



LEISURE POOL FILTRATION PUMP 870 G.P.M. @ 70 T.D.H.

LEISURE POOL FILTRATION PUMP CURVE — PL4.00-9

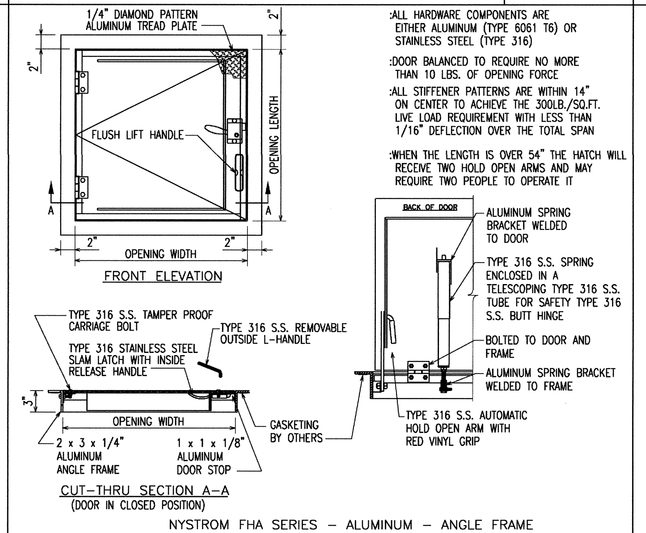
SCALE: NONE



WHIRLPOOL FILTRATION PUMP CURVE 163 G.P.M. @ 70 T.D.H.

WHIRLPOOL FILTRATION PUMP CURVE — PL4.00-10

SCALE: NONE



ACCESS HATCH DETAIL — PL4.00-11

PROVIDED BY GENERAL CONTRACTOR

SCALE: NONE

LEISURE POOL DATA

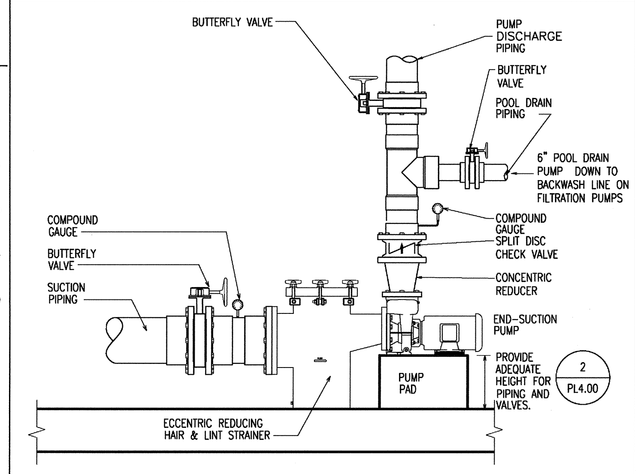
POOL PERIMETER	528 LINEAR FEET
BATHER LOAD:	154 PEOPLE
SURFACE AREA:	3,859 SQ. FT.
VOLUME:	88,902 GALLONS
TURNOVER:	
0-3'-0":	60 MINUTES
PLUNGE AREA:	60 MINUTES
3'-0" TO 3'-6":	120 MINUTES
CIRCULATION FLOW:	
60 MINUTES:	317 GALLONS/MINUTE
120 MINUTES:	553 GALLONS/MINUTE
FILTRATION RATE:	12.2 GPM/SF FILTER AREA
SURGE VOLUME:	6,147 GALLONS

Gutter Perimeter = equals 340 L.F.

KEY EQUIPMENT		QTY	DESCRIPTION
6 & 9 PL4.00	1 FILTRATION PUMP	1	PACO PUMP, MODEL LC-6095-1, 25 HP, 6" X 8" X 9.5", 208-230/460 VOLT, 3 PHASE, 1750 RPM, 870 GPM, @ 70' TDH, TEFC MOTOR, END SUCTION, CLOSE COUPLED, BRONZE FITTED, EPOXY COATED VOLUTE AND IMPELLER.
6 PL4.00	2 WATER FEATURE PUMP	1	PACO PUMP, MODEL LC-6095-1, 20 HP, 6" X 8" X 9.5", 208-230/460 VOLT, 3 PHASE, 1750 RPM, 700 GPM, @ 55' TDH, TEFC MOTOR, END SUCTION, CLOSE COUPLED, BRONZE FITTED, EPOXY COATED VOLUTE AND IMPELLER.
7 PL4.00	3 CURRENT/VORTEX	1	PACO PUMP, MODEL LC-6095-1, 25 HP, 6" X 8" X 9.5", 208-230/460 VOLT, 3 PHASE, 1750 RPM, 1500 GPM, @ 45' TDH, TEFC MOTOR, END SUCTION, CLOSE COUPLED, BRONZE FITTED, EPOXY COATED VOLUTE AND IMPELLER.
7 PL4.00	4 BODY SLIDE PUMP	1	PACO PUMP, MODEL LC-6095-1, 20 HP, 6" X 8" X 9.5", 208-230/460 VOLT, 3 PHASE, 1750 RPM, 1000 GPM, @ 45' TDH, TEFC MOTOR, END SUCTION, CLOSE COUPLED, BRONZE FITTED, EPOXY COATED VOLUTE AND IMPELLER.
6 PL4.00	5 FILTRATION STRAINER	1	NEPTUNE BENSON INC., 10 X 8 ECCENTRIC REDUCING STRAINER, FIBERGLASS BODY, ACRYLIC LID, STAINLESS STEEL STRAINER BASKET, PROVIDE WITH EXTRA STRAINER BASKET.
6 PL4.00	6 WATER FEATURE STRAINER	1	NEPTUNE BENSON INC., 8 X 6 ECCENTRIC REDUCING STRAINER, FIBERGLASS BODY, ACRYLIC LID, STAINLESS STEEL STRAINER BASKET, PROVIDE WITH EXTRA STRAINER BASKET.
	7 FILTER	1	NEPTUNE BENSON, SHFTG, TWO (2) 4896 FIBERGLASS FILTER TANKS, 71.4 SQFT OF TOTAL FILTER AREA PROVIDE, 12.2 G.P.M. PER SF OF FILTER AREA, PROVIDE WITH THREE WAY VALVE ASSEMBLY, BACKWASH ONE FILTER AT A TIME @ 15GPM/SQFT.
	8 HEAT EXCHANGER	1	PROVIDED BY THE MECHANICAL CONTRACTOR
14 PL4.10	9 CHEMICAL CONTROLLER	1	CHEMTROL MODEL PC5000, CONTINOUS MONITORING AND CONTROL , pH RANGE = 0.0 TO 14, ORP RANGE = 1 – 1000 mV AND PPM READING. PROVIDE WITH BYPASS LINE, FLOW SWITCH, INLINE FILTER, AND FLOW METER.
	10 CHLORINE FEEDER	2	ROLA-CHEM PERISTALTIC PUMP MODEL RC103SC, .30 TO 32 GALLONS PER DAY OUTPUT, 120V, WALL MOUNTED, PROVIDE WITH EXTRA PUMP TUBE.
16 PL4.10	11 CHLORINE STORAGE		55 GALLON DRUMS PROVIDED BY THE OWNERS CHEMICAL SUPPLIER.
	12 ACID FEEDER:	1	ROLA-CHEM PERISTALTIC PUMP MODEL RC103SC, .30 TO 32 GALLONS PER DAY OUTPUT, 120V, WALL MOUNTED, PROVIDE WITH EXTRA PUMP TUBE.
18 PL4.10	13 ACID STORAGE		15 GALLON DRUMS PROVIDED BY THE OWNERS CHEMICAL SUPPLIER.
1 PL4.11	14 AUTOFILL CONTROL	1	CLA-VAL CO., #124-01A-KC, 1 1/2" CLA-VALVE, PROVIDE WITH CF1 FLOAT CONTROLLER AND REQUIRED FLOAT ROD LENGTH, FLOAT ROD TO BE OF PVC ROD STOCK ONLY. PROVIDE WITH FACTORY APPLIED FUSION BONDED EPOXY COATING TO VALVE BODY AND COVER.
3 PL4.11	15 ULTRA VIOLET UNIT	1	ATG-WILLAND, ECOFLO, MODEL ECF-220-8, 480V, 3 PHASE, 5kW, MAXIMUM FLOW OF 900 GPM, PROVIDE WITH CONTROL UNIT AND STAINLESS STEEL CONCENTRIC REDUCERS.
19 PL4.10	16 FLOWMETER	2	DIETERICH STANDARD, GCR 25 8" HG-CB-MC4 SCH80. EAGLE EYE, EFW C2 GPM1500. STAINLESS STEEL ANNUBAR, SADDLE MOUNTED. WALL MOUNT FLOW METER DISPLAY. FILTRATION SCALE RANGE 0–1500 60 MINUTE RETURN SCALE RANGE 0–500

LEISURE POOL EQUIPMENT LIST — PL4.00-5

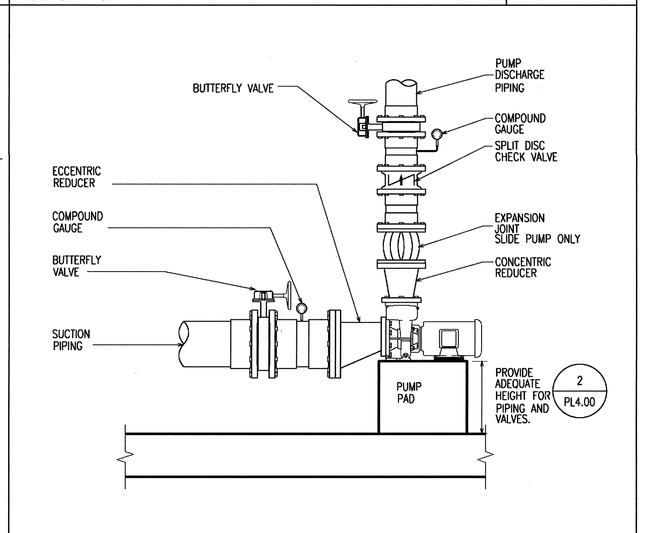
SCALE: NONE



PUMP INSTALLATION DETAIL — PL4.00-6

COMPETITION FILTRATION, LEISURE FILTRATION, WATER FEATURE, WHIRLPOOL FILTRATION, AND HYDROTHERAPY PUMP

SCALE: NONE



SLIDE, AND CURRENT CHANNEL/VORTEX PUMP INSTALLATION DETAIL — PL4.00-7

SCALE: NONE

COMPETITION POOL DATA

POOL PERIMETER	234 LINEAR FEET
BATHER LOAD:	112 PEOPLE
SURFACE AREA:	3,153 SQ. FT.
VOLUME:	198,745 GALLONS
TURNOVER:	296 MINUTES
CIRCULATION FLOW:	670 GALLONS/MINUTE
FILTRATION RATE:	12.1 GPM/SF FILTER AREA
SURGE VOLUME:	3,306 GALLONS

KEY EQUIPMENT		QTY	DESCRIPTION
6 & 8 PL4.00	C1 FILTRATION PUMP	1	PACO PUMP, MODEL LC-5095-7, 20 HP, 5" X 6" X 9.5", 208-230/460 VOLT, 3 PHASE, 1750 RPM, 670 GPM, @ 70' TDH, TEFC MOTOR, END SUCTION, CLOSE COUPLED, BRONZE FITTED, EPOXY COATED VOLUTE AND IMPELLER.
6 PL4.00	C2 FILTRATION STRAINER	1	NEPTUNE BENSON INC., 8 X 5 ECCENTRIC REDUCING STRAINER, FIBERGLASS BODY, ACRYLIC LID, STAINLESS STEEL STRAINER BASKET, PROVIDE WITH EXTRA STRAINER BASKET.
	C3 FILTER	1	NEPTUNE BENSON, SHFTG, TWO (2) 4872 FIBERGLASS FILTER TANKS, 55.4 SQFT OF TOTAL FILTER AREA PROVIDE , 12.1 G.P.M. PER SF OF FILTER AREA, PROVIDE WITH THREE WAY VALVE ASSEMBLY, BACKWASH ONE FILTER AT A TIME @ 15GPM/SQFT.
	C4 HEAT EXCHANGER	1	PROVIDED BY THE MECHANICAL CONTRACTOR
14 PL4.10	C5 CHEMCIAL CONTROLLER	1	CHEMTROL MODEL PC5000, CONTINOUS MONITORING AND CONTROL , pH RANGE = 0.0 TO 14, ORP RANGE = 1 – 1000 mV AND PPM READING. PROVIDE WITH BYPASS LINE, FLOW SWITCH, INLINE FILTER, AND FLOW METER.
	C6 CHLORINE FEEDER	2	ROLA-CHEM PERISTALTIC PUMP MODEL RC103SC, .30 TO 32 GALLONS PER DAY OUTPUT, 120V, WALL MOUNTED, PROVIDE WITH EXTRA PUMP TUBE.
16 PL4.10	C7 CHLORINE STORAGE		55 GALLON DRUMS PROVIDED BY THE OWNERS CHEMICAL SUPPLIER.
	C8 ACID FEEDER	1	ROLA-CHEM PERISTALTIC PUMP MODEL RC103SC, .30 TO 32 GALLONS PER DAY OUTPUT, 120V, WALL MOUNTED, PROVIDE WITH EXTRA PUMP TUBE.
18 PL4.10	C9 ACID STORAGE		15 GALLON DRUMS PROVIDED BY THE OWNERS CHEMICAL SUPPLIER.
1 PL4.11	C10 AUTOFILL	1	CLA-VAL CO., #100-01A-KC, 1-1/2" PILOT VALVE, PROVIDE WITH CF1 FLOAT CONTROLLER AND REQUIRED FLOAT ROD LENGTH, FLOAT ROD TO BE OF PVC ROD STOCK ONLY. PROVIDE WITH FACTORY APPLIED FUSION BONDED EPOXY COATING TO VALVE BODY AND COVER.
3 PL4.11	C12 ULTRA VIOLET UNIT	1	ATG-WILLAND, ECOFLO, MODEL ECF-220-6, 480V, 3 PHASE, 5kW, MAXIMUM FLOW OF 750 GPM, PROVIDE WITH CONTROL UNIT AND STAINLESS STEEL CONCENTRIC REDUCERS.
19 PL4.10	C11 FLOWMETER	1	DIETRICH STANDARD, GCR 25 8" HG-CB-MC24 SCH 80. WALL MOUNTED EAGLE EYE FLOWMETER READOUT. MAIN: _ SCALE RANGE 0 TO 1000 GPM

6" Flowmeter – RPI GSO

COMPETITION POOL EQUIPMENT LIST — PL4.00-3

SCALE: NONE

WHIRLPOOL DATA

POOL PERIMETER	61 LINEAR FEET
BATHER LOAD:	14 PEOPLE
SURFACE AREA:	147 SQ. FT.
VOLUME:	1,638 GALLONS
TURNOVER:	10 MINUTES
CIRCULATION FLOW:	163 GALLONS/MINUTE
FILTRATION RATE:	11.5 GPM/SF FILTER AREA

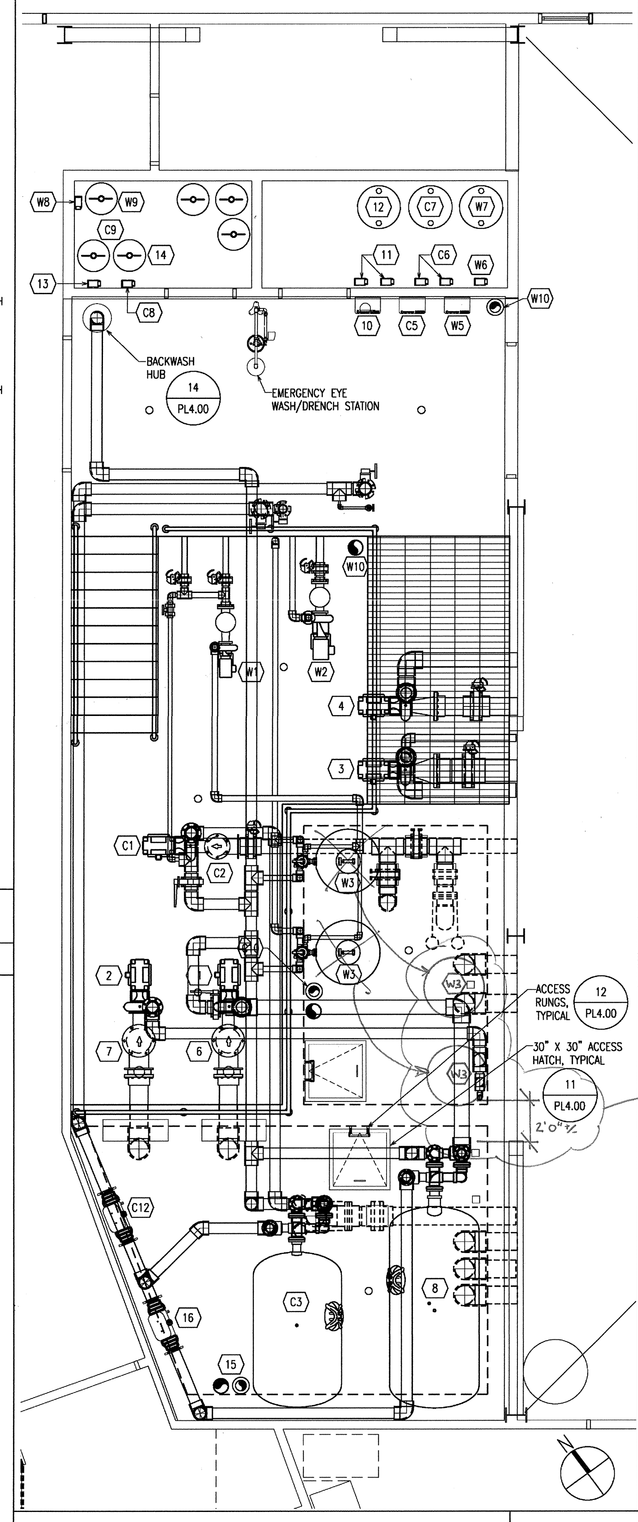
KEY EQUIPMENT		QTY	DESCRIPTION
6 & 10 PL4.00	W1 FILTRATION PUMP	1	PACO PUMP, MODEL LC-2595-7, 5 HP, 2.5" X 3" X 9.5", 208-230/460 VOLT, 3 PHASE, 1750 RPM, 163 GPM, @ 70' TDH, TEFC MOTOR, END SUCTION, CLOSE COUPLED, BRONZE FITTED, EPOXY COATED VOLUTE AND IMPELLER.
6 PL4.00	W2 HYDRO THERAPY PUMP	1	PACO PUMP, MODEL LC-3095-7, 7.5 HP, 3" X 4" X 9.5", 208-230/460 VOLT, 3 PHASE, 1750 RPM, 200 GPM, @ 70' TDH, TEFC MOTOR, END SUCTION, CLOSE COUPLED, BRONZE FITTED, EPOXY COATED VOLUTE AND IMPELLER.
	W3 FILTER	1	PENTAIR POOL PRODUCTS, TWO (2) TR140 SHFFG, FIBERGLASS FILTER TANK, 14.12 SF OF FILTER AREA PROVIDED, 11.5 G.P.M. PER SF OF FILTER AREA, PROVIDE WITH MULTI-PORT VALVES, BACKWASH ONE FILTER AT A TIME.
	W4 HEAT EXCHANGER	1	PROVIDED BY THE MECHANICAL CONTRACTOR
14 PL4.10	W5 CHEMICAL CONTROLLER	1	CHEMTROL MODEL PC5000, CONTINOUS MONITORING AND CONTROL , pH RANGE = 0.0 TO 14, ORP RANGE = 1 – 1000 mV AND PPM READING. PROVIDE WITH BYPASS LINE, FLOW SWITCH, INLINE FILTER, AND FLOW METER.
16 PL4.10	W6 CHLORINE FEEDER	1	ROLA-CHEM PERISTALTIC PUMP MODEL RC103SC, .30 TO 32 GALLONS PER DAY OUTPUT, 120V, WALL MOUNTED, PROVIDE WITH EXTRA PUMP TUBE.
	W7 CHLORINE STORAGE		55 GALLON DRUMS PROVIDED BY THE OWNERS CHEMICAL SUPPLIER
	W8 ACID FEEDER	1	ROLA-CHEM PERISTALTIC PUMP MODEL RC103SC, .30 TO 32 GALLONS PER DAY OUTPUT, 120V, WALL MOUNTED, PROVIDE WITH EXTRA PUMP TUBE.
17 PL4.10	W9 ACID STORAGE		15 GALLON DRUMS PROVIDED BY THE OWNERS CHEMICAL SUPPLIER
2 PL4.11	W10 AUTOFILL CONTROL	1	AQUATIC CONTROL TECHNOLOGY, MODEL ELC-800, 120V, PROVIDE CONTROL AND SENSOR UNITS. FURTHER PROVIDE 1" SLOW CLOSING SOLENOID VALVE, BRASS BODY, BUNA "N" SEALS AND DISCS,
19 PL4.10	W12 FLOWMETER	1	DIETERICH STANDARD, GCR 25 3" HG-CB-MC4 SCH 80. EAGLE EYE, EFW C2. STAINLESS STEEL ANNUBAR, SADDLE MOUNTED. WALL MOUNT FLOW METER DISPLAY. FILTRATION SCALE RANGE 0–500GPM

WHIRLPOOL EQUIPMENT LIST — PL4.00-4

SCALE: NONE

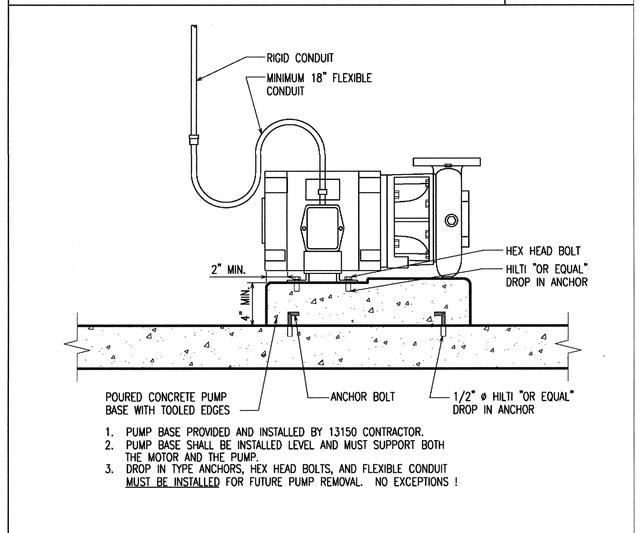
SECTION #13150 CONTRACTOR SHALL:

1. VERIFY EQUIPMENT PAD HEIGHT REQUIREMENTS FROM MANUFACTURER AND PROVIDE SHOP DRAWINGS TO POOL ENGINEER
2. VERIFY ALL OPENINGS, PENETRATIONS, AND ELEVATIONS AND PROVIDE SHOP DRAWINGS TO POOL ENGINEER
3. COORDINATE ALL PIPING AND EMBEDMENTS WITH AFFECTED TRADES
4. REFER TO STRUCTURAL DRAWINGS FOR FUTURE CORED OPENINGS.
5. REFER TO ARCHITECTURAL PLANS FOR ACTUAL ROOM DIMENSIONS AND FINISHED FLOOR ELEVATIONS
6. REFER TO PL2.00–3 FOR REINFORCEMENT AT PIPE PENETRATIONS
7. SUPPORT PIPES PER PL4.10–1,2,3,4,5,6, & 7.
8. ALL CONNECTIONS & HANGERS IN SURGE TANK TO BE STAINLESS STEEL



MECHANICAL ROOM LAYOUT — PL4.00-1

SCALE: 1/4" = 1'-0"



1. PUMP BASE PROVIDED AND INSTALLED BY 13150 CONTRACTOR.
2. PUMP BASE SHALL BE INSTALLED LEVEL AND MUST SUPPORT BOTH THE MOTOR AND THE PUMP.
3. DROP IN TYPE ANCHORS, HEX HEAD BOLTS, AND FLEXIBLE CONDUIT MUST BE INSTALLED FOR FUTURE PUMP REMOVAL. NO EXCEPTIONS !

PUMP PAD INSTALLATION DETAIL — PL4.00-2

SCALE: NONE

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JOB #23022

CITY OF Federal Way

Federal Way Community Center

33190
9th Avenue South

AS-BUILTS

Drawn By: JVH
Checked By: JG
Date: 4 / 25 / 2005

Revision / Date:
PERMIT ISSUE 2/7/05
O.A. ISSUE 3/18/05
BID ISSUE 4/25/05

Sheet Title:
MECHANICAL ROOM LAYOUT & DETAILS

PL4.00

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