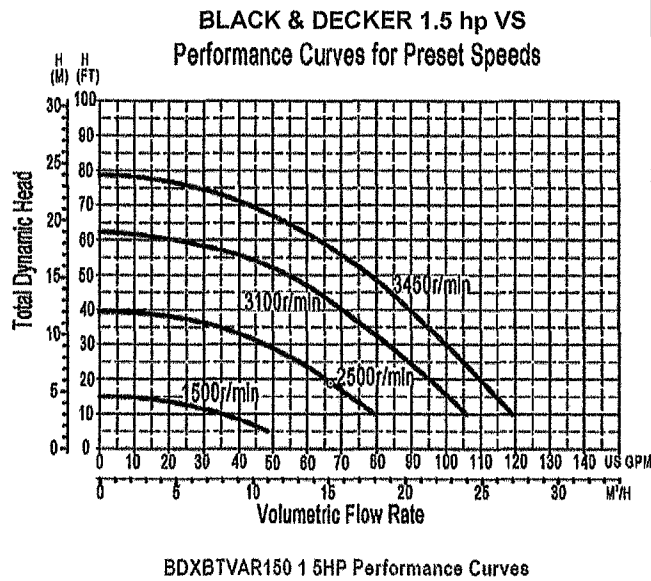
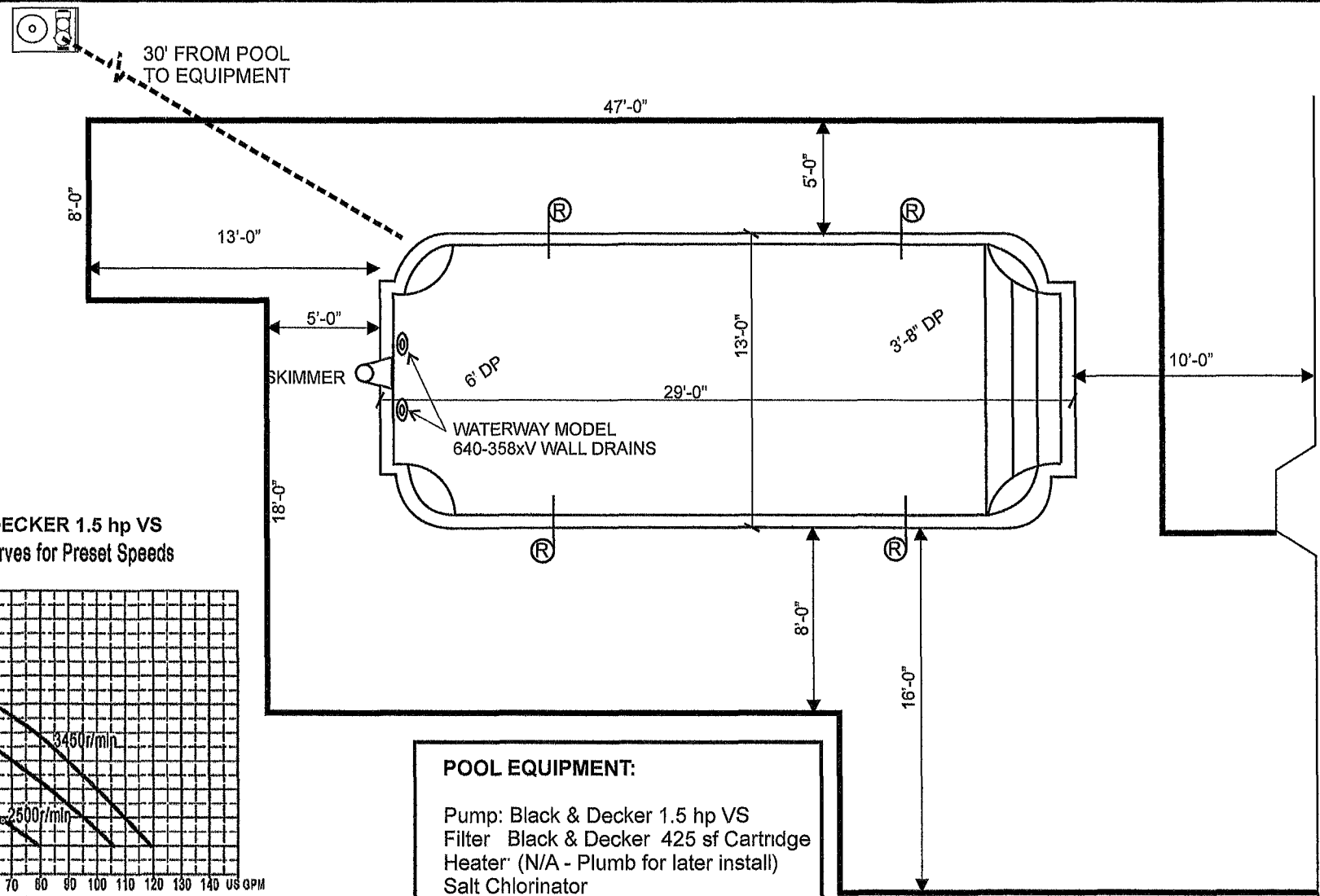




POOL EQUIPMENT:

Pump: Black & Decker 1.5 hp VS
Filter: Black & Decker 425 sf Cartridge
Heater: (N/A - Plumb for later install)
Salt Chlorinator

2" Return lines
2" Suction lines
2.5" Branch lines to main drains.

TDH CALCULATIONS

POOL VOLUME CALCULATION

AREA, SQ. FT 336
AVG. D, FT 3.75
VOLUME, GAL 9,425

DESIGN FLOW RATE

TURNOVER TIME, HRS 2.33
FLOW RATE, gpm 67.4

EFFECTIVE PIPE LENGTHS AND HEAD LOSSES

	LENGTH, FT	HEAD LOSS AT DESIGN FLOW, ft
2" DIA RETURN LINE	133	11
2" DIA SUCTION LINE TO DRAIN	42	3
FILTER		1
INLINE CHLORINATOR		1
VALVES		2
TOTAL TDH, ft		18

NOTE: MAX FLOW IN BRANCH (DIRECT LINES TO DRAINS) WILL NOT EXCEED 6 fps WITH ONE SIDE BLOCKED
MAX FLOW IN TRUNK LINE WILL NOT EXCEED 8 fps
MAX FLOW IN RETURN LINE WILL NOT EXCEED 8 fps.

FRICTION LOSS TABLE

FRICITION LOSSES TABULATED ARE FT. OF WATER / FT OF PVC PIPE

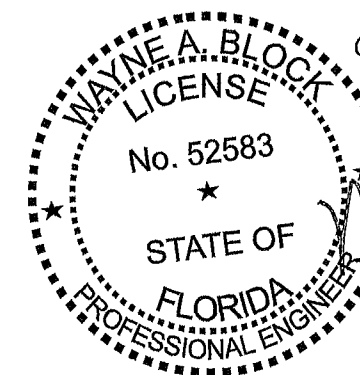
	1.5" PVC		2" PVC		2.5" PVC		3" PVC		4" PVC	
flow rate, gpm	Velocity, fps	friction loss ft/ft	Velocity, fps	friction loss ft/ft	Velocity, fps	friction loss ft/ft	Velocity, fps	friction loss ft/ft	Velocity, fps	friction loss ft/ft
35	6.3	0.098	3.6	0.024	2.3	0.008	1.6	0.003	0.9	0.001
40	7.3	0.126	4.1	0.031	2.6	0.01	1.8	0.004	1.0	0.001
45	8.2	0.157	4.6	0.039	2.9	0.013	2.0	0.005	1.1	0.001
50	9.1	0.19	5.1	0.047	3.3	0.016	2.3	0.007	1.3	0.002
55	10.0	0.22	5.6	0.056	3.6	0.019	2.5	0.008	1.4	0.002
60	10.9	0.27	6.1	0.066	3.9	0.022	2.7	0.009	1.5	0.002
70	12.7	0.35	7.1	0.087	4.6	0.03	3.2	0.012	1.8	0.003
80	14.5	0.45	8.2	0.11	5.2	0.038	3.6	0.016	2.0	0.004
90	16.3	0.56	9.2	0.14	5.9	0.047	4.1	0.019	2.3	0.005
100	18.1	0.69	10.2	0.17	6.5	0.057	4.5	0.024	2.6	0.006
110	19.9	0.82	11.2	0.19	7.2	0.068	5.0	0.029	2.8	0.007
120	21.8	0.96	12.2	0.22	7.8	0.081	5.4	0.035	3.1	0.008
130	23.6	1.13	13.3	0.26	8.5	0.095	5.9	0.045	3.3	0.009
150	27.2	1.33	15.3	0.31	9.8	0.11	6.8	0.057	3.8	0.011
170	30.8	1.63	17.3	0.37	11.1	0.128	7.7	0.072	4.3	0.014

BUILDER:

OWNER:

CHRISTOPHER SCHULDT
245 SW PLANTATION TER
LAKE CITY, FL 32025

Lildon Engineering Company, Inc.
548 S. HWY 27, Suite B
Minneola, Florida 34715
(352) 394-2590
Cert. Auth. # 2898



Oct. 10, 2025
Wayne A. Block, PE#52583