

D+ EXISTING FILTER AREA DEMO KEY NOTES

1. Existing 8" – Pool main drain ~ See D1 Sheet for pipe removal limits and further information
2. Existing 8" – Pool main drain routed up into wet pit
3. Demo/remove existing main drain float operated device and all related items
4. Existing 4" – Pool end of season drain piping routed to deep wet pit
5. Evaluate pool main drain end of season isolation valve replace if necessary
6. Existing 8" – Pool gutter return abandoned ~ See D1 Sheet for pipe removal limits and further information
7. Existing 8" – Pool gutter return discharged into drain pit
8. Existing 4" – Pool gutter end of season drain discharge into drain pit
9. Existing 4" – Wading pool main drain abandoned ~ See D1 Sheet for pipe removal limits and further information
- a. Existing 4" – Wading pool main drain discharged into wet pit
10. Existing 4" – Wading pool end of season drain discharge into drain pit
11. Approximate location/route of drain pit piping to sewer ~ Field verify
12. Existing 3" – Domestic water supply to filter building
13. Demo/remove partial of exiting 3" water service line routed over to wet pit
14. Protect/remain existing domestic water supply end of season drain line
15. Existing 4" – DE filter pit drain abandoned
16. Demo/remove existing pool filter mechanical equipment identified unless other wise noted or needed for complete system
17. Existing 6" – Pool return piping abandoned
18. Approximate location of existing pump pit area floor drain evaluate condition replace if necessary
19. Evaluate existing floor drain piping remove any trash debris within pipe to allow proper drainage of pump pit
20. Location of existing building electrical panel
21. Protect/remain existing deep pit submersible sump pump with related piping
22. Protect/remain existing pump pit submersible sump pump with related piping
23. Existing pump pit ladder system
24. Protect/remain existing wood planks
25. Demo/remove 3'-0" wide section of existing guard rail
26. Protect/remain existing guard rails
27. Demo/remove DE vacuum filtration system to include fiberglass holding tank
28. Demo/remove chemical controller and related items
29. Existing filter building
30. Existing filter building doors

N+ FILTER AREA IMPROVEMENT KEY NOTES

1. 10" Pool main drain re-routed to surge pit ~ See PM1 Sheet for DIP to PVC transition connection and piping notes
2. 12" Pool gutter return re-routed to surge pit ~ See PM1 Sheet for DIP to PVC transition connection and piping notes
3. Hydrophilic water stop at all pipes penetrating surge pit ~ See Detail E-SP-F4
4. For extra reinforcing at all pipe penetrating surge pit ~ See Detail H-SP-F4
5. Concrete pipe support ~ See Detail A-SP-F4
6. 12" Surge pit float valve
7. Existing 8" – Pool main drain capped within pit
8. Existing 8" – Pool gutter return capped within pit
9. Existing 4" Wading pool main capped within pit
10. Existing 4" – Pool gutter end of season drain capped within pit
11. Existing 4" – Wading pool end of season drain capped within pit
12. Existing 8" – Drain pit piping to sewer ~ Field verify
13. Isolation Butterfly Valve ~ Lever or handwheel operated valve equipment (Pumps, float valve,)
14. Provide S.S. extension stem for submerged valves
~ Support with S.S. guide as req'd ~ Anchor with S.S. expansion anchors
~ Gear operator shall NOT be submerged in water
15. Throttling Butterfly Valve ~ Handwheel operated at supply lines (water features, pool recirc, filter backwash)
a. PVC ball valves
16. Recirc pump low water cut-off switch ~ Set float at 2'-0" above floor
17. Surge pit mechanical auto fill device ~ Set float at 2'-6" above floor
18. 1" Mechanical auto fill discharge piping routed over/ up through suspended slab to surge pit funnel ~ Provide 3" air gap above funnel
19. 1" Surge pit mechanical auto fill supply piping routed down through funnel to auto fill device
20. 4" Surge pit floor drain sloped at min of 1% down and discharged into existing deep pit
21. 8" Pool recirc pump suction
22. Provide cored hole within existing wall
23. Provide pipe link seal fitting around pump suction piping
24. Inline basket strainer on concrete base ~ Provide 1/2" manual air bleed valve in lid
25. Reducing flexible connector – Eccentric with flat side up on pump suction (horizontal). Concentric on pump discharge (vertical). Provide spacer flanges as req'd
26. Pump connection ~ See Detail C-SP-F4
27. Pool recirc pump on concrete base ~ See Detail B-SP-4
28. 6" Pump discharge/filter effluent piping
29. Pipe saddle fitting
30. Air release valve ~ See Detail G-SP-F4
31. Pipe supports ~ See Details D,E,J-SP-F4
32. Mag meter flow meter with remote
33. Filter pressure gauges mounted to filter face piping with S.S. hardware
34. Filter pipe supports saddle type
35. 6" Filter backwash discharge piping with 6" air gap above backwash pit wall
36. Provide 45° angle at end of pipe
37. 6" Backwash pit drain piping ~ See Detail L-SP-F4
38. (2) 6'-0" Steel vertical sand filters ~ See filter data chart below
39. Air release valve top of filters with bypass drain line ~ See Detail G-SP-F4
40. 6" Filter effluent piping
41. Connection TO Chemical controller ~ See Detail C,D-SP-F5
42. Connection TO Calcium hypochlorite feed system ~ See Detail B,D-SP-F5
43. Connection FROM Calcium hypochlorite ~ See Detail B,D-SP-F5
44. Connection FROM Muriatic Acid feed system ~ See Detail A,D-SP-F5
45. Chemical feed piping routed up and along filter area ceiling, drop down to each chemical device ~ See Details E & J-SP-F4, M-SP-F4 for support of chemical piping
46. 6" Pool return piping ~ See PM1 sheet for PVC to DIP transition connection
47. Provide drain valve at bottom of pipes at low points. Provide tapped of appropriate fittings to allow release of all water at low points
48. Existing 3" – Domestic water supply to filter building
49. 3" Pool manual fill supply piping re routed up and along ceiling, suspended down to funnel with 3" air gap above funnel
50. Chemical controller sample return line suspended down from ceiling to funnel with 3" air gap above funnel
51. 1 1/4" Water heater supply piping routed along ceiling, suspended down connected to water heater

- a. Filter building water heater
52. 1" Emergency eyewash station supply with mixing valve routed along exterior wall to eyewash station
53. Emergency eyewash station
54. 12"x8" Funnel stand pipe cast into slab ~ Set top of funnel 3'-0" above surge pit suspended slab
55. Pool controller and sensor box ~ See Detail C-PS-F5
~ Provided by Owner (N.I.C)
~ Installed by Contractor
56. Calcium Hypochlorite chemical feed system – See Detail B-SP-F5
57. Muriatic Acid chemical storage drums ~ See Detail A-SP-F5
58. Muriatic Acid feeder ~ See Detail A-SP-F5
59. Aluminum pump pit stairs with platform and handrails
60. 3'-0" Wide opening to pump pit access with S.S safety chain
61. Existing guard rails to remain in place
62. D.E. filter pit drain capped within pit
63. Existing pump suction piping capped within pit
64. Existing pool return piping capped within pit
65. Chain link fence with privacy slats ~ See Sheet SP-PM6
a. 4'-0" Wide gate opening ~ See Sheet SP-PM6
66. Filter roof support columns ~ Refer to Architectural Sheets for further information
67. Manhole steps with ladder up @ 16" O.C.
68. Valley line no joint. Floors uniformly sloped down to surge pit floor drain, backwash blockout sump
69. 24" X 3'-0" Blockout/sump in backwash pit ~ See Detail L-SP-F4
70. Backwash pit type B concrete fill ~ See Detail L-SP-F4
71. 24" Wide x 2" Deep blockout/overflow top of backwash pit wall
72. Surge pit floor walls reinforcing ~ See Sheet SP-F3 and Detail I-SP-F4
73. Filter area side walk ~ Refer to Civil sheets
74. 42" x 42" Surge pit access hatch
75. Hinged side
76. PVC water stop at base of pit walls
77. Roughened surface with full 1/4" amplitude in accordance with ACI – 318-11.7.9
78. 6" to 12" Type B concrete at base of pit walls
79. Pool deck area ~ Refer to Civil Sheets

FILTER DATA												
Pool	Volume (gallons)	Recirc Rate (GPM)	Filter Size (dia.)	Quantity or Cells	Filter Area Each (s.f.)	Filter Area Total (s.f.)	Filter Loading Rate (gpm/s.f.)	Average Turnover (hours)	Backwash Rate at 15gpm/s.f. (gpm)	Backwash Time (minutes)	Backwash Volume Each (gal.)	Backwash Volume Total (gal.)
Main	185,620	600	6,000	2	28.26	56.52	10.62	5.16	424	5	2,120	4,239

PUMP DATA										
Location	Pump Description	Flow (gpm)	TDH (ft.)	Shut-off Head (max.) (ft.)	Efficiency +/- %	HP	RPM	VFD		
Pool	Recirc	600	65	28	79	82	15	1,800	No	
Pool	Open Body Water Slide	1,000	35	15	60	74	15	1,200	Yes	
Pool	Water Features	233	45	19	94	n/a	5	3,600	Yes	

MAXIMUM PIPE SUPPORT SPACING (feet) **			
Pipe Size	Sch 80 PVC	Ductile Iron	Copper (L&K)
1/2"	4.5	—	5.0
3/4"	4.5	—	5.0
1"	5.0	—	6.0
1 1/4"	5.0	—	7.0
1 1/2"	5.5	—	8.0
2"	6.0	—	8.0
2 1/2"	6.0	—	9.0
3"	7.0	—	10.0
4"	7.5	*	12.0
5"	—	—	13.0
6"	9.0	*	14.0
8"	9.5	*	16.0
10"	10.0	*	18.0
12"	11.5	*	19.0
14"	—	*	—
16"	—	*	—

* Maximum support spacing of 20 Ft. Provide a minimum of 1 hanger as close as practical to the joint behind the bell, and at changes of direction and branch connections.

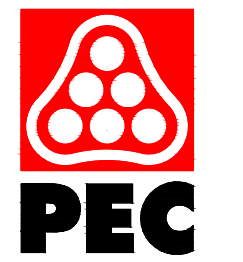
** Unless shown or noted otherwise

PIPING NOTES	
1.	Pipe type shall be Sch 80 PVC unless noted otherwise
2.	Refer to Pool Mechanical Sheets for pipe types beyond the building
3.	Pipe sizes are identified in inches on the drawings
4.	Pipe connection hardware shall be S.S. within Pool Mechanical Room
5.	Contractor shall provide and install uniflanges/unions as req'd
6.	Sch 80 PVC fittings may be solvent weld or flanged at Contractor's option
7.	All piping and fittings at equipment (filters, pumps, valves, etc.) shall be flanged ~ PVC flanges at fittings shall be male type as shown
8.	Refer to Maximum Pipe Support Spacing Schedule for frequency and spacing of pipe supports ~ At minimum, Contractor shall support piping as indicated on schedule which may require more supports than indicated on drawings
9.	All hardware shall be S.S.
10.	Provide air release valve at all high loops in piping
11.	Provide drain valve at all low points in piping
12.	All piping through concrete structures shall be cast-in-place ~ No pipe sleeves or coring allowed

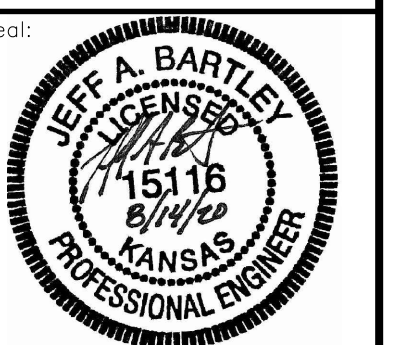


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WICHITA, KANSAS
Pool Improvements
HARVEST PARK



Jeff Bartley-ENGINEER
LICENSE #15116

Date: 08-14-20 Job #: 18-512

Drawn: CJB Checked: JAB

Issue: CONSTRUCTION DOCUMENTS

FILTER AREA IMPROVEMENT DATA AND KEY NOTES

SP-F0