

EXISTING FILTER AREA DEMO KEY NOTES

1. 10" Pool main drain return – Protect/remain exposed piping within surge pit
2. Protect/remain – 6" Pool gutter return
3. Demo/remove – Main drain float valve and related hardware
- a. Field verify – Location of valve stem operator wheel. Evaluate/reuse existing cored hole for new operator stem if possible. If existing hole is not reusable, fill-in existing hole with non shrink grout after valve stem removal
4. Demo/remove – 6" Recirc pump suction
5. Demo/remove – Recirc pump inline basket strainer and related valves
6. Demo/remove – Recirc pump on concrete base
7. Demo/remove – Recirc pump vertical discharge piping to filter
8. Demo/remove – Pool filter mechanical equipment identified unless otherwise noted or needed for complete operation of pool system
9. Cut/remove – Partial of 6" pool return supply floor stub up. Allow enough length of piping to remain for reconnection for new filter system
- a. 6" Pool return piping. See sheet SP-PM1 for continuation
10. Protect/remain – 6" Features pump suction piping and related valve for reconnection
11. Demo/remove – Features pump and inline basket strainer
12. Cut/remove – Partial of 6" features supply return. Allow enough length of piping to remain for reconnection for new pump if possible
13. Demo/remove – Pump pit stairs
14. 6" Features supply return. See SP-PM1 sheet for continuation
15. Protect/remain filter backwash floor sink
16. 8" Below grade filter backwash piping routed over to backwash pit
17. 8" Below grade sanitary sewer piping
18. Approximate location and connection of 4" drain line from backwash pit to existing sanitary sewer. Field verify
19. Protect/remain – Existing drinking fountains
20. Protect/remain – 3" Below grade drinking fountain drain line, discharged into pump pit sump pump area
21. Protect/remain – 6" Vent piping connection from backwash pit.
22. Protect/remain – 2" Vent piping connection from backwash pit
23. Demo/removed – Existing pump pit sump pump to include related valves and piping
24. Demo/removed – Existing surge pit sump pump to include related valves and piping
25. Demo/removed – Existing manhole sump pump to include related valves and piping
26. Protect – Existing filter area manhole
27. Demo/remove – Surge pit cover grating to include corroded access hatch frame and related hardware
28. Demo/remove – Acid feeder and related piping
29. Demo/remove – Chlorine feeder and related piping
30. Demo/remove – Wall mounted emergency eyewash station
31. Approximate location of exposed plumbing piping on wall
32. Approximate location of domestic water header drain piping and hose bibb connection discharge into pump pit sump basin
33. Approximate location of surge pit manual fill discharge with air gap above floor
34. Approximate location domestic water supply to drink fountains
35. Approximate location of electrical pump control panels on wall
36. Protect/remain – Existing pump pit covered grating to include guardrails and related grating supports
37. Existing surge and pump pit walls and floors
38. Existing building bathroom areas and related equipment
39. Existing exterior backwash pit structure
40. Existing building walls

FILTER AREA IMPROVEMENT KEY NOTES

1. 10" New pool gutter return – See Sheet SP-PM1 for pipe route and connection
2. 10" Existing main drain return – See Sheet SP-PM1 for pipe route and connection
3. Isolation butterfly valve
4. 8" Main drain float valve
5. Provide S.S. operator extension stem with nut at top of extension for submerged valves.
~ Support extension guide as req'd. Anchor with S.S. expansion anchors
~ Provide T handle valve key to be used
~ Gear operator shall **NOT** be submerged in water
6. Provide cored hole for operator stem if existing hole cannot be reused.
7. Surge pit low water cut-off switch with baffle ~ Set float at 24" above recirc pump suction
8. 16"x16"x16" CMU block step mortared in place
9. 8" New recirc pump suction piping
10. 6" Existing features pump suction piping
11. Throttling Butterfly Valve ~ Wheel operated valve at supply lines (water features, pool recirc, backwash)
12. New surge pit sump pump with related valves and discharge piping
13. New pump pit sump pump with related valves and discharge piping
14. Check valve
15. Pipe saddle
16. ¾" End of season drain piping route over to sump area
17. New recirc pump on concrete base – See Detail B-SP-F4
a. 6" Pool recirc pump discharge/filter influent piping
18. Magmeter flowmeter – Rotate display for easy reading
~ Provide signage by magmeter ~ Recirc rate = ____GPM ~ Backwash rate = ____GPM
19. Pipe support – See Details D,E,H-SP-F4
20. 6" filter face piping with valve linkage system
21. Filter pressure gauges mounted to filter face piping with S.S. hardware
22. 6'-0" ø Steel vertical dual cell filter
~ Furnished by Owner (N.I.C) (Filter, face piping, valves, gauges, media, etc)
~ Installed by Contractor
23. Air release valve with bypass drain line – See Detail I-SP-F4
24. 6" Filter backwash piping. Set discharge of piping 3" above floor sink
25. 6" Filter effluent piping
26. Connection TO Pool Chemical Controller – See Details C,D-SP-F5
a. Connection TO Calcium Hypochlorite feed system – See Details B,D-SP-F5
b. Connection FROM Chemical controller routed over to pool fill funnel – See Detail C-SP-F5
27. Connection FROM Acid Feeder System – See Details A,D-SP-F5
28. Connection FROM Calcium Hypochlorite feed system – See Details B,D-SP-F5
29. Floor mount pipe support, saddle type
30. Flanged connection to existing piping
31. 6" Pool return piping – See PM1 sheet for continuation
32. Inline basket strainer on concrete base ~ Provide ½" manual air bleed valve in lid
33. Reducing flexible connector – Eccentric with flat side up on pump suction (horizontal). Concentric on pump discharge (vertical). Provide spacer flanges as req'd
34. Pump connection – See Detail C-SP-F4
35. Features pump on concrete base ~ See Detail B-SP-F4
a. 3" Features pump suction/discharge
36. 6" Existing water features pump discharge/return piping – See PM1 sheet for continuation

37. Pool chemical controller and sensor box – See Detail C-SP-F5
~ Furnished by Owner (N.I.C)
~ Installed by Contractor
38. Calcium Hypochlorite chemical feed system – See Detail B-SP-F5
39. Muriatic Acid chemical storage drums and feeder system – See Detail A-SP-F5
40. Outline of ventilation suction piping down low – Refer to MEP Sheet for further information
41. 4" CMU block walls alcove area for chemical storage match existing exterior wall height
42. Emergency eyewash station
43. Water supply to emergency eyewash station– Refer to MEP Sheet
44. Water heater – Refer to MEP Sheets for further information
45. Provide cored hole into slab for funnel stand pipe. Fill annular space around stand pipe with non shrink grout
46. 8"x 6" Funnel stand pipe cored drilled into slab – Set top of funnel 16" above pump pit curb wall
47. 2" Pool manual fill with 3" air gap above funnel
48. 1" Wet pit mechanical auto fill supply piping tapped from 3" manual fill
49. Mechanical auto fill device with float ~ Set float at 30" above recirc pump suction
50. 1" Mechanical auto fill discharge piping with 6" air gap above pit wall
51. Ball valve
52. Eccentric reducer on pump suction with flat side on top/Concentric reducer on pump discharge
53. Provide 1½" thick FRP grating covering over surge pit access
54. Provide S.S. hinges to include S.S. hardware per mfr.
55. Guardrail with safety chain – See Detail G-SP-F4
56. Floor socket pump hoist anchor
57. Manhole steps @ 16" O.C.
58. New manhole sump pump with related valves and discharge piping
59. Drain valve at low point
60. Pipe sleeve penetration – See Detail J-SP-F4

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 15 gpm*s.f. (gpm)	Backwash Time (minutes)	Backwash Volume Each (gal.)	Backwash Volume Total (gal.)
Main	144,660	600	6.00	2	28.26	56.52	10.62	4.02	424	5	2,120	4,239

PUMP DATA								
Location	Pump Description	Flow (gpm)	TDH (ft.)	Shut-off Head (max.) (ft.)	Efficiency +/- 5%	HP	RPM	VFD
Pool	Recirc	600	60	26	83	80	15	1,800
Pool	Water Features	100	34	15	--	--	5	2,500

MAXIMUM PIPE SUPPORT SPACING (Feet) **			
Pipe Size	Sch 80 PVC	Ductile Iron	Copper (L&K)
½"	4.5	—	5.0
¾"	4.5	—	5.0
1"	5.0	—	6.0
1¼"	5.0	—	7.0
1½"	5.5	—	8.0
2"	6.0	—	8.0
2½"	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"	—	*	—

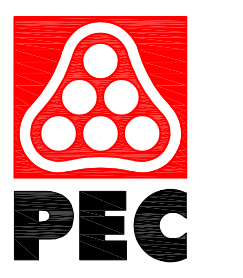
* Maximum support spacing of 20 Ft. Provide a minimum of 1 hanger as close as practical to the joint behind the bell, and at changes of direction and branch connections.
** Unless shown or noted otherwise

PIPING NOTES

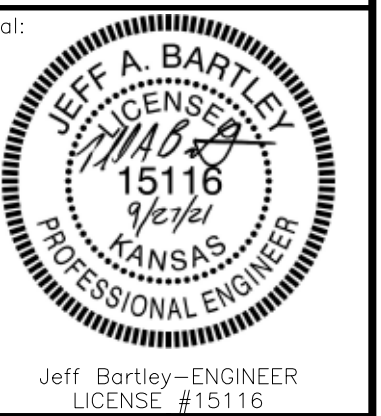
1. Pipe type shall be Sch 80 PVC unless noted otherwise
2. Pipe type shall be CPVC for all piping downstream of pool heaters
3. Refer to Pool Mechanical Sheets for pipe types beyond the building
4. Pipe sizes are identified in inches on the drawings
5. Pipe connection hardware shall be S.S. within Pool Mechanical Room
6. Contractor shall provide and install uniflanges/unions as req'd
7. Sch 80 PVC fittings may be solvent weld or flanged at Contractor's option
8. All piping and fittings at equipment (filters, pumps, valves, etc.) shall be flanged
~ PVC flanges at fittings shall be male type as shown
9. 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
10. All pipe supports shall be 316 S.S. or FRP
11. All hardware shall be S.S.
12. Provide air release valve at all high loops in piping
13. All piping shall slope to drain by gravity
14. Provide drain valve at all low points in piping
15. Provide drain valve at normally closed solenoid valve or check valve, or provide true unions, to allow for winter drainage
16. All piping through concrete structures shall be cast-in-place
~ No pipe sleeves or coring allowed
17. Provide compound pressure gauge on all pump suction
18. Provide pressure gauge on all pump discharges



11205 W. 79th St.
Lenexa, KS 66214
t. 913.438.4338
www.WeDesignPools.com
Kansas STATE CERTIFICATE OF AUTHORITY #E-990



WICHITA, KANSAS
Pool Improvements
COLLEGE HILL PARK



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Issue: CONSTRUCTION DOCUMENTS

FILTER AREA IMPROVEMENT KEY NOTES AND DATA

SP-F0