Department of Health

Center for Drinking Water Quality

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**AQUATIC VENUE HYDRAULIC ANALYSIS SUMMARY**

**SUBSTANTIAL ALTERATION TO EXISTING AQUATIC VENUE**

*Instructions: This summary sheet must be filled out and then signed and stamped on the second page by a Professional Engineer with an active Rhode Island license. Application packages submitted with forms that lack appropriate signatures will be considered incomplete and returned to the applicant.*

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Project name |  | | | | | | | | | | | | | |
| Venue type, shape, dimensions, area, volume, minimum turnover time | Type | □ Swimming □ Therapy □ Wading □ Other: | | | | | | | | | | | | |
| Shape (e.g. rectangular) | | |  | | | | Perimeter (ft) | | | | | |  |
| Length (ft) | | |  | | | | Width (ft) | | | | | |  |
| Minimum depth (ft) | | |  | | | | Maximum depth (ft) | | | | | |  |
| Surface area (square ft) | | |  | | | | Volume (gallons) | | | | | |  |
| Minimum permissible turnover time per regulation (in hours) | | | | | | | |  | | | | | |
| Shell type | □ Gunite □ Poured □ Other: | | | | | | | | | | | | | |
| Total dynamic head of recirculation system | Minimum theoretical total dynamic head (feet) | | | *Assumes all circulation valves fully open, clean skimmer and pump baskets, clean filter, eye-ball fittings removed from return inlets* | | | | | | | | | |  |
| Maximum theoretical total dynamic head (feet) | | | *Assumes circulation valves set in normal operating position, clean skimmer and pump baskets, dirty filter, eye-ball fittings in place* | | | | | | | | | |  |
| Equipment | Pumps | | Number of recirculation pumps (excluding chemical feed pumps) | | | | | | | |  | | | |
| Pump 1 type | | | | □ Single speed □ Variable speed | | | | | | | |
| Pump 2 type | | | | □ Single speed □ Variable speed | | | | | | | |
| Pump 3 type | | | | □ Single speed □ Variable speed | | | | | | | |
| Rated capacity Pump 1 (gpm vs. ft head) | | | | | | |  | | | | |
| Rated capacity Pump 2 (gpm vs. ft head) | | | | | | |  | | | | |
| Rated capacity Pump 3 (gpm vs. ft head) | | | | | | |  | | | | |
| Max. flow rate of Pump 1 operating at minimum theoretical TDH and maximum RPM (gpm) | | | | | | | | |  | | |
| Max. flow rate of Pump 2 operating at minimum theoretical TDH and maximum RPM (gpm) | | | | | | | | |  | | |
| Max. flow rate of Pump 3 operating at minimum theoretical TDH and maximum RPM (gpm) | | | | | | | | |  | | |
| Filters | | Number of filters | | | | | | | |  | | | |
| Type of filter | | | □ Granular media □ Precoat □ Cartridge | | | | | | | | |
| Area per filter (square ft) | | | | | | | |  | | | |
| Total filter area (square ft) | | | | | | | |  | | | |
| Manufacturer’s maximum permissible flow rate per square foot (gpm) | | | | | | | |  | | | |
| Maximum permissible flow rate per square foot per regulation (gpm) | | | | | | | |  | | | |
| Maximum permissible flow rate for operation based on a) filter area and b) the stricter of manufacturer’s or regulatory flow rate restrictions (gpm) | | | | | | | |  | | | |
| Skimmers | | Number of skimmers | | | | | | | |  | | | |
| Manufacturer’s permissible flow range per skimmer (gpm) | | | | | | | |  | | | |
| Flow per skimmer with pool operating at 100 percent of maximum flow rate through skimmer system (gpm) | | | | | | | |  | | | |
| Manufacturer’s maximum flow rating per equalizer suction cover | | | | | | | |  | | | |
| Floor drains (suction) | | Number of floor and/or wall drains (N) | | | | | | | |  | | | |
| Manufacturer’s maximum flow rating per drain cover (gpm) | | | | | | | |  | | | |
| Maximum flow per floor drain, with 100 percent maximum theoretical system flow directed through N-1 floor drains (gpm) | | | | | | | |  | | | |
| Minimum distance between floor drains (ft, measured from center to center) | | | | | | | |  | | | |
| Inlets | | Number of inlets | | | | | | | |  | | | |
| Piping | | Maximum pipe velocity, suction side (ft/sec) | | | | | | | | | |  | |
| Maximum pipe velocity, pressure side (ft/sec) | | | | | | | | | |  | |
| Water supply and wastewater disposal | Source of water for pool | | | |  | | | | | | | | | |
| Source of water for consumption | | | |  | | | | | | | | | |
| Pool water discharges to: | | | |  | | | | | | | | | |
| Deck drains discharge to: | | | |  | | | | | | | | | |
| Filter backwash discharges to: | | | |  | | | | | | | | | |
| Toilet and showers discharge to: | | | |  | | | | | | | | | |

*Professional Engineer to complete, sign, and stamp the following:*

STAMP

Signature:

Date: / /

License No.:   
Expiration Date: / /