



State of Louisiana
Louisiana Department of Health
Office of Public Health

March 21, 2017

Brian Mistich, P.E.
Engineer
554 Old Spanish Trail,
Slidell, LA 70458

RE: Wax Museum Condominiums Class C Swimming Pool
New Orleans, LA

Dear Mr. Mistich,

Plans and specifications for the above named project have been reviewed. The plans are DISAPPROVED pending resolution of the following items which appear to be in conflict with applicable provisions of the State Sanitary Code, or upon which further information is needed.

1. Plans page PL-2.2 does not have an engineer's seal, signature, or date. Please provide this page with an engineers seal, signature, and date in the response.
2. Please provide the surface area and volume of hot tubs and number of living units utilizing them. LAC.51:XXIV.103.A.Swimming Pool (Pools) .b, "Residential Pool- a residential pool shall be defined as any constructed pool, permanent or non-portable, that is intended for noncommercial use as a swimming pool by not more than five owner families and their guests and that is over 24 inches in depth, has a surface area exceeding 250 square feet and/or a volume over 3,750 gallons. (Residential pools are excluded from the provisions of these regulations.)"
3. Please clarify if the munsell scale rating of the pools finish will be at least 6.5 or greater. LAC.51:XXIV.301.B. In part, "The floor of all pools shall be white, light colored, or light colored patterns in order to facilitate the identification of any objects within the pool." Model Aquatic Health Code 2nd edition, 4.5.11.1.1, "The finish shall be at least 6.5 on the Munsell color value scale."
4. Plans Page G-1.1 Note 4 indicates that the pool walls will be vertical and plumb. Drawings and details on plans page PL-2.1, indicate differently. If the pools walls are to be sloped from plumb please provide a typical detail which demonstrates that they will not be sloped greater than 11 degrees from plumb for a minimum of 2 feet 3 inches. LAC.51:XXIV.305.A, "Walls in Class B and Class C pools shall not be greater than 11° from plumb for a minimum depth of 2 feet 9 inches from the waterline in deep areas, or

for a minimum depth of 2 feet 3 inches in the shallow areas. Below these depths, the wall may be radiused to join the floor. Class A pools, where racing lanes terminate, shall have plumb walls. (A maximum 1° from plumb construction tolerance shall be allowed.)”

5. Please provide justification for not having the pool coping flush with the deck. This creates the potential for a obstruction hazard. Model Aquatic Health Code 2nd edition, sections 4.8.1.5.1.1.2, “PERIMETER DECK areas shall be flush with POOL walls/copings except where special conditions exist, such as elevated beam or parapet, raised transfer walls, or as permitted by other sections of this CODE.”
6. The pool does not have a deck on the sundeck side. There is a height difference of approximately 47 inches between the pools coping and the sun deck. Please provide a means to prevent bathers from falling from the pool coping to the sun deck.
7. Please clarify if the deck will be sloped away from the pool to drainage or that the deck will allow for water to pass through to the floor drains underneath. Please reference LAC.51:XXIV.323.G, H, O, and P for more information.
8. Plans page PL-2.1 detail C shows that the smaller set of steps are un-uniform and exceeds the maximum 12 inches at least once in its rise. The bottom riser is greater than 2 inches difference from the rise of the other steps. Please adjust design to conform with code. LAC.51:XXIV.327.A.2, “Risers at the centerline of the treads shall have a maximum uniform height of 12 inches, with the bottom riser height allowed to vary plus or minus 2 inches from the uniform riser height.”
9. Plans page PL-2.1 detail A shows a drain valve assembly with a note that it will not be used for suction. This drain line is closed to the pump suction by a single valve. This arrangement allows for the possibility of the drain assembly valve to be left open and for the drain assembly to act as a main drain. Per VGBA all single main drains must be equipped at a minimum with an additional safety feature as listed below. VGBA-2011, In part, “The effective date of this incorporation is September 6, 2011, so that drain covers manufactured, distributed, or entered into commerce in the United States must conform to ANSI/APSP-16 2011 as of that date. See 16 CFR 1450.3) Section 1404(c)(1)(A)(ii) of the VGB Act requires that each public pool and spa in the United States with a single main drain, other than an unblockable drain, be equipped, at a minimum, with one or more of the following:
 1. Safety vacuum release system;
 2. Suction-limiting vent system;
 3. Gravity drainage system;
 4. Automatic pump shut-off system;
 5. Drain disablement; and/or
 6. Any other system determined by the Commission to be equally effective as, or better than, the enumerated systems at preventing or eliminating the risk of injury or death associated with pool drainage systems.”

10. The equalizer line covers and the main drain cover provided are not VGBA APSP-16 2011 listed. The certificate of conformance shown is for cover model #SPC-3VP with wall flow rate of 251 gpm. The cut sheets provided were for cover model # SPC-3V/ SPC-3MV with wall flow rates of 180 gpm. Please provide information that the covers chosen are VGBA APSP-16 2011 compliant. Also please provide additional information of the main drain sump to clarify that it is VGBA APSP-16 2011 compliant. Model Aquatic Health Code 2nd edition, 4.7.1.6.1, "Submerged suction outlets, including sumps and covers, shall be listed and labeled to the requirements of ANSI/APSP-16 2011."
11. Please provide at least one dedicated main drain in the lowest part of the pool as required by LAC and MAHC. LAC.51:XXIV.509.C.1, "All pools shall be provided with main drain suction outlet(s) in the lowest point of the pool floor. The spacing of the main drain(s) for suction outlet(s) shall not be greater than 20 feet on centers nor more than 15 feet from each side wall." AND Model Aquatic Health Code 2nd edition, sections 4.7.1.6.2.1 and 4.7.1.6.2.1.1, "A minimum of two hydraulically balanced filtration system outlets are required in the bottom." ; "One of the outlets may be located on the bottom of a side/end wall at the deepest level."
12. The two return inlets for the pool both serve more than 15 ft of pool parameter each. Please provide additional inlets to comply with code. LAC.51:XXIV.511.B.3, "In smaller pools when the distance across the shallow end is as great as 15 feet, multiple inlets at the shallow end shall be provided. These inlets must serve not more than 15 linear feet each. In spoon-shaped rectangular pools where outlets are located more than 5 feet from the end walls, inlets must be placed at both ends of the pool."
13. Please provide calculations that the velocity through the drain valve assembly cover will not exceed 6 fps and that the cover will have an effective opening at least 4 times suction pipe area. LAC.51:XXIV.503.A and 509.C.1. 503.A, "The water velocity in the pool piping shall not exceed 10 feet per second for discharge piping, (except for copper pipe where the velocity should not exceed 8 feet per second), and 6 feet per second for suction piping, unless summary calculations are provided to show that the greater flow is possible with the pump and piping provided. Pool piping shall be sized to permit the rated flows for filtering and cleaning without exceeding the maximum head of the pump." 509.C.1, "The main drain outlet grating shall have an area of openings four times the area of the discharge pipe to prevent objectionable suction effects."
14. Plan page PL-2.1 detail 1 shows that the pool depth markers are spaced greater than every 25 feet. Please adjust according to code. LAC.51:XXIV.701.A.6, "Depth markers shall be installed at intermediate increments of water depth not to exceed 2 feet, nor spaced at distances greater than 25 foot intervals."
15. Plans do not show that underwater lighting is used. Please confirm that the illumination values will meet the minimum foot candles as listed. Model Aquatic Health Code 2nd edition, section 4.6.1.3, "POOL water surface and DECK light levels shall meet the following minimum maintained light levels:

1. Indoor Water Surface: 30 horizontal footcandles (323 lux)
2. Outdoor Water Surface: 10 horizontal footcandles (108 lux)
3. Deck: 10 horizontal footcandles (108 lux).”

Sincerely,



Brandon Comeaux, E.I.
Region 1 Engineer Intern
OPH – District I