



February 15, 2016

Mr. Travis J. Heathman  
RCI  
894 Robert Blvd.  
Slidell, LA 70458

RE: Springs at River Chase  
Swimming Pool Layout Plan & Notes, Sheet PL-1.0, Detail 04 Typical Grounding /  
Bonding, Construction Addendum

Mr. Heathman,

In reference to the above captioned project the following information is presented to clarify additional pool construction parameters.

Stratum Engineering, LLC Geotechnical Engineering Report specifying soil makeup at the proposed pool location indicates groundwater was detected between 3 feet and 11 feet. Water was detected at the boring location of the pool at a depth of 7 feet (7') below the natural grade. The ground beneath the proposed pool location shall be dewatered to a level of 14 feet (14') below the top of the pool coping. Dewatering shall be completed by drilling a minimum of 6 holes around the pool site. Soil shall be removed down to three and one half feet (3.5') below the bottom of the pool and three feet (3') below the bottom of pool decking. Three feet (3') of low plasticity structural fill and 6" of gravel or crushed limestone shall be placed below the pool; the sides of the pool shall also have three feet (3') of low plasticity structural fill extending around the sides of the pool. Three feet (3') of low plasticity structural fill shall be placed three feet (3') below the bottom of the pool decking extending five feet (5') beyond the outer edges of the pool decking. All low plasticity structural fill shall be compacted to 95% proctor.

The referenced pool shall be constructed utilizing a steel grid matrix of Number 4 (#4) bar size steel rebar, grade 60 conforming to ASTM A615, (rebar with protrusions to provide a mechanical bond) spaced 10" on centers to insure the structural integrity of the pool shell. Steel rebar must be held in place (tied) to prevent movement & vibration.

There shall be a minimum clearance between parallel running reinforcement bars of two and one half inches (2-1/2").

The concrete shell of the pool shall be a spray shotcrete type, either wet-mix or dry-mix. (Dry-mix type is commonly referred to by the trademark name of *Gunitite*.) The thickness of the pool sides and bottom shall be a minimum of six inches (6"). Surrounding deck, (a minimum of four feet (4') from the pool edge) shall be four inches (4") thick reinforced concrete.

Compressive strength for pool shell shall meet ASTM C109 / ASTM C39 :

	Shotcrete Fine	Shotcrete MS Fine	Shotcrete MS Coarse	Shotcrete MS Fine w/polypropylene fiber	Shotcrete MS Coarse w/Steel Fibers
1 day	1500 psi (10.3 MPa)	1750 psi (12.1 MPa)	1750 psi (12.1 MPa)	1750 psi (12.1 MPa)	2500 psi (17.2 MPa)
7 days	3050 psi (21.0 MPa)	3500 psi (24.1 MPa)	3500 psi (24.1 MPa)	3500 psi (24.1 MPa)	4000 psi (27.6 MPa)
28 days	5075 psi (35.0 MPa)	5500 psi (37.9 MPa)	5500 psi (37.9 MPa)	5500 psi (37.9 MPa)	7000 psi (48.3 MPa)

Overlap of steel bars, especially around corners, side to bottom, side to deck, and linear extensions shall be a minimum of 18" overlap and secured in such a manner to prevent movement.

Pool facets such as inlets, outlets, drains, lighting fixtures and additional appurtenances shall be supported by diagonal grids (#4 rebar) superimposed on the 10" grid matrix. Diagonal grids shall be secured in such a manner as to prevent movement.

Care shall be taken so that reinforcement bars shall be free from mud, oil or other nonmetallic coatings that decrease the concrete/rebar bond.

Should you have any questions or if further information is required, please feel free to contact Dammon Engineering, Inc.

Respectfully,

Brian A. Mistich, P.E.

