The new swimming pool will be raised 30", RBB will be 30" above pool

New Pool Design:

Type Of Construction

Mechanical, Plumbing Requirements

1) An atmospheric or pressure backflow prevention device will be placed on the water supply to the pool.
2) An anti-siphon fitting will be installed in accordance with the backflow prevention device and code requirements.
3) A minimum of 36 inches is required between filter and heater for future installation of solar.
4) All metal within 5 feet horizontally and 12 feet vertically of water will be galvanized or stainless steel.
5) Install automatic safety cover vault system and 52' of 30" high raised bond beam.
6) Install approximately 120' of 2' gas line from meter to new equipment pad.

Electrical Requirements

1) All metal within 5 feet horizontally and 12 feet vertically of water will be GFCI protected.
2) All equipment providing power to pool equipment will be GFCI protected.
3) An equipotential bonding of a minimum 8AWG will be installed.
4) A new 220V, GFI circuit will be run from the existing meter to the new equipment pad where it will be connected to the new pool spa heater.

NOTE:

Approximately 80 Cubic Yards Of Dirt Will Be Removed In The Excavation Of The Pool. Approximately 8 Yards Of Rock Will Be Used For A 6" Gravel Bed In The Pool, If Required By The Engineer. All Spoils From Excavation Will Be Hauled, Dumping/Recycling Site TBD At Start Of Job.

Water Features:

Type Of Construction:

1) Form and excavate for a new in-ground pool that is 10' x 31' with a raised bond beam and an automatic safety cover vault.
2) Install steel reinforced concrete formed wall with raised bond beam.
3) Install skimmer suction line, 2½" main drain suction line, 2½" main drain line, 2¼" return line, 1½" overflow line, 2¼" discharge line.
4) Apply gunite material to form new pool/spa/cover vault shell and 52' of 30" high raised bond beam.
5) Install a armored gate at top of pool bond beam and raised beam.
6) Install a gated access door into the water with a latch and pull handle.
7) Install equipment as follows: Pentair Variable Speed Filter Pump, Pentair Pool/Spa Heater, Pentair Salt Chlorine Generator, Pentair Residential Automatic Safety Cover System. Pentair Solar Cleaning Line, 1½" skimmer suction line, 2" return line, 1½" discharge line, 2½" main drain suction line.
8) Install equipment pad, 300# flanged, fabricated 8" thick, 12x12x12" with hardware mounted outward. Will be self closing and self latching (E)Gate to open (E)Concrete (E)Concrete

Approximately 80 Cubic Yards Of Dirt Will Be Removed In The Excavation Of The Pool. Location TBD During Project.
Pool 31' LONG x 15' WIDE AND 4' x 6' DEEP

LENGTH X WIDTH X AVERAGE DEPTH X 7.48 = GALLONS

(L) 31' x (W) 15' = 465 x (A.D.) 5 = 2,325 x 7.48 = 17,391 GALLONS

8 HOURS = 480 MINUTES

17,391 GALLONS / 480 MINUTES = 36 GALLONS PER MINUTE

• 36 GALLONS PER MINUTE THROUGH A 2 ½” SCH40 PVC SUCTION LINE WILL TRAVEL AT 2.4 FEET PER SECOND WITH A MAXIMUM 100’ OF HEAD. BOTH THE MAIN DRAIN AND SKIMMER SUCTION LINES ARE 2 ½” SCH40 PVC

• 36 GALLONS PER MINUTE THROUGH A 2” PVC PIPE WILL TRAVEL AT 3.4 FEET PER SECOND WITH A MAX 100’ HEAD. THE POOL RETURN LINE WILL BE 2” SCH 40 PVC.
At least one minimum 8 AWG bare solid copper conductor shall be provided. A copper conductor grid shall be provided and shall comply with (e)(1) through (e)(4).

A COPPER CONDUCTOR GRID, A COPPER CONDUCTOR GRID SHALL BE PROVIDED AND SHALL COMPLY WITH (E)(1) THROUGH (E)(4).

CONDUCTIVE MATERIALS.

The space required for a concrete slab should be a minimum of 8 AWG or with rigid metal conduit of brass or other identified corrosion resistant metal. Connections to bonded parts shall be made with copper wire or brass hardware.

Any pool or spa shall have a drain that will allow all pumps to be set or programmed to run during only the off-peak electric tariff period and be time-switch or building control mechanism shall be installed as part of the pool water circulation control system that will allow all pumps to be shut off at any time.

The required conductor shall be 450 mm to 600 mm (18 in to 24 in) from the inside walls of the pool.

The required conductor shall be secured within or under the perimeter surface serving to 150 mm (6 in) to allow the subgrade to be within the perimeter surface serving to 150 mm (6 in) to allow the subgrade.