LIVERMORE
CALIFORNIA

Residential Swimming Pool Removal Requirements

When an in-ground residential swimming pool is being considered for removal, there are *two* basic approaches:

The *first* approach is to remove the swimming pool to prepare the site for some future building construction activity (room addition, detached building, etc). This approach requires that a **California licensed geotechnical engineer or civil engineer** prepare a site-specific report for removal and backfilling of the swimming pool. This report would include how to remove the existing pool shell and the procedures and materials for the backfilling operation.

The *second* approach is to remove the swimming pool to prepare the site for future landscaping improvement projects. This approach does not require the services of a California licensed geotechnical engineer or civil engineer. However, the backfilled site ***will not* be** suitable for future building construction activity based on the fact that the previous pool location was not "backfilled" per a geotechnical engineer or civil engineers report (to verify backfill materials, soil type, percentage of compaction, etc.). In order to "build over" this area in the future, the previous backfilled area may need to be removed and an engineered report prepared per the first approach described above. Please see page two for recommendations on removal and backfilling of the residential swimming pool location in order to have a relatively stable site for future landscaping projects.

The permit issued for removal of an in-ground residential swimming pool will clearly state the approach for backfilling of this swimming pool location. This information will be available in order to review future permit requests for construction activity in the previous swimming pool location.

Swimming Pool Removal Submittal Requirements:

1. Provide two site plans drawn to scale indicating the location and shape of the existing swimming pool in relationship to all existing buildings and property lines.

2. On the above requested site plan, clearly indicate the proposed approach for removal of this residential swimming pool. In addition to removal of the swimming pool, the electrical and gas piping (if applicable) will also need to be safely terminated. Please indicate the locations of all equipment and meters and methods of termination for the electrical and gas piping.

3. Provide two copies of a site-specific backfill procedure (if applicable) prepared by a California licensed geotechnical engineer or civil engineer with their original stamp and signature.

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Removal and Backfilling of Residential Swimming Pools for future landscape improvements

The upper pool sidewalls must be removed to accommodate any future landscape improvement projects (trenching for water lines, gas piping, electrical conduit, etc.). The pool backfill soil should be compacted in order to support future landscape projects. Note: Uncompacted pool backfill material can settle which may create a depression in the yard that could change storm water flow, cause water ponding, etc.

Recommendations:

1. Remove upper pool sidewall to at least 2-feet below the ground surface.

2. Break a 36''x36'' section at the bottom deep end of the pool **AND** a 36''x36'' section at the shallow end of the pool. Note: Breaking the pool bottom permits infiltration of irrigation and rainwater into the ground.

3. Line the broken pool bottom with a nonwoven geotextile filter fabric and wrap the fabric up the pool walls at least 1-foot. The nonwoven geotextile fabric should be at least a 6-ounce per square foot weight, such as Mirafi 160N, Amoco 4551, Contech 6-60NW, TNS R060, or other equivalent manufacturer's product. The fabric prevents water from washing the soil backfill through the broken pool bottom, which may cause future ground settlement.

4. Place and compact backfill soil in the pool.

    4.1 Backfill material should be soil that does not contain rock and hard construction rubble (such as bricks, concrete, or masonry) that are larger than 4-inches in size. The backfill soil should not contain any trash, organic material, wood, plastic, metal, hazardous substances, or other deleterious material. Backfill soil should match as reasonable as possible the existing soil in the yard. This may be difficult. A highly expansive clay soil should not be used as backfill soil since this material will swell in the winter and shrink in the summer. This type of expansive clay soil can be identified by molding the moist soil in your hand. If the soil can be molded into shapes, it is most likely highly expansive.

    4.2 Backfill soil should be placed in maximum 1-foot thick lifts and compacted (densified). Loose dumping of backfill soil is not recommended. Water may need to be added to the backfill soil. Backfill soil that is too dry or too wet cannot be properly compacted.

5. The upper foot of pool backfill soil can consist of topsoil if the area will be landscaped.