



CODE TOPICS

2020 FBC 7th ED, SECTION 454.2, RESIDENTIAL POOLS

EXCAVATION NEAR STRUCTURES

TOPIC BACKGROUND

Recall the code and Building Department used to refer to “angle of repose” in saying the excavation had to be 1 ft off the 45° line from the foundation. Compliance was accepted if the inside of the pool wall was equal distance from the structure as the water depth. That “angle of repose” is no longer in the code.

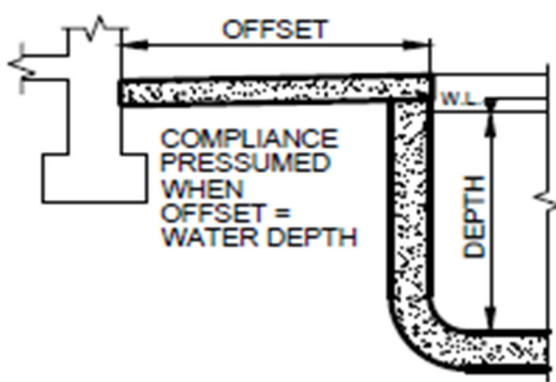
WHAT THE CODE SAYS

2020 FBC 7th Ed Section 1804.1 Excavation near foundations.

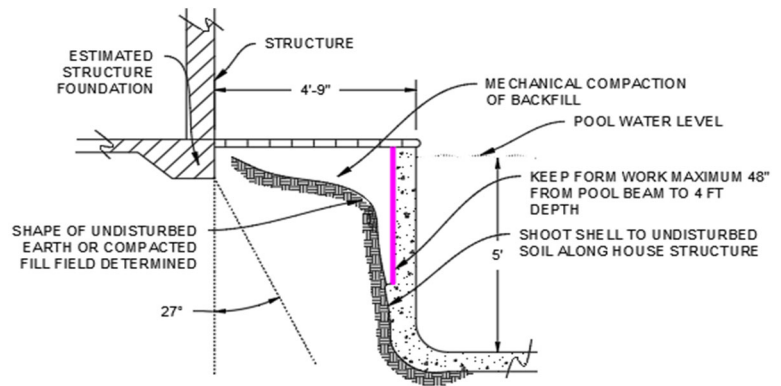
Excavation for any purpose shall not reduce lateral support from any foundation or adjacent foundation without first underpinning or protecting the foundation against detrimental lateral or vertical movement, or both.

REQUIRED AT PLAN REVIEW

Typically compliance is still accepted when the offset from the structure is equal to the water depth. When the offset is less, an Excavation Mitigation is needed. Typically, a detail showing concrete will be shot beyond the typical forms of the pool at the lower depths, allowing for effective mechanical compaction in the upper levels between the structure and the pool. A shoring specification may be required when too close to structure.



COMPLIANT CONDITION



EXAMPLE MITIGATION

REQUIRED DURING INSPECTION

Regardless of the above conditions, if the contractor encounters conditions where there is threatened loss of soil support at the foundation, work should cease, the contractor must take measures to protect the foundation from loss of soil and contact the engineer for mitigation instructions.

If the inspectors find conditions where there is loss of support at the foundation, they should fail the inspection, and contact the contractor.

Disclaimer: This is offered as a summary and guidance on code requirements. This does not authorize a code violation.

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