

Joseph D. Hiller Engineering, LLC

Structural Engineering

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Thursday, August 31, 2023

Subject Property: XXXXXX

Re: Structural Engineering Assessment – XXXXXXX

To whom it may concern:

On August 24, 2023, a structural inspection was conducted at the request of Pegasus Engineering and the City of New Smyrna Beach. The subject property was constructed in 1959 and is a one-story concrete block and stucco structure on a concrete slab-on-grade foundation. The house has a hip roof with asphalt shingles. The house consists of a 1124 square foot main living area with a 340sq ft finished carport. There is a 340sq ft screened back porch.

The purpose of the inspection was to determine if the structure and foundation are suitable for lifting, using Standard ASCE 24-14 and the Engineering Principles and Practices for Retrofitting Flood-Prone Residential Structures.

Observations made during inspection include a large crack in the main slab, located in the front living room of the home. There is an addition at the rear of the house that is showing signs of movement, and cracking can be observed in the exterior wall of this room. It appears there are no footers under this addition nor are there footers under the back patio slab. I believe the Volusia County Appraisers Office records show permitting for this as “miscellaneous” in 1994. There are no footers under the carport slab, only pilings. Hairline cracks are also visible in the block at the front corner of the house.

The soil at the subject property is fill material, poorly-graded S(S) according to ASCE Soil Classification and (SP) in the Unified Soil Classification System (ASTM D2487-17). No lab testing was utilized. Visual classification of soils (ASTM D 2488) was used to determine classification based on the analysis of color, odor, moisture, and maximum particle size of the entire sample. The estimated percentage of fines was determined to be less than 5%.

All comments made are based on conditions seen at the time of this visual observation. We do not accept any responsibility for unknown or unknowable conditions within the existing site or structures.



Joseph Hiller, P.E.

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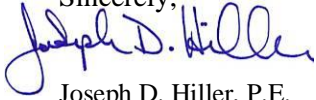
Email:

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During the inspection, structural deficiencies were observed and the foundation of the home appears to be in poor condition. After inspecting the subject property, it is my professional opinion that this house should not be lifted.

Please let me know if you have any questions or concerns regarding this report.

Sincerely,



Joseph D. Hiller, P.E.
Florida PE Lic# 74583



Photos



The foundation slab, where visible, is severely cracked at wall-floor joint.



