Richard Pacheco, dba Allied Foundation Specialists

1321 Velma Deer Park, Texas 77536 (281) 479-5247 • Fax (281) 479-0123

www.crackedslab.com	Driven Concrete Piers

<u>Prop</u>	osal: / /
Date: _	9/17/03 Work #:
Name:	MR. MRI. TURNER Home #
Addres	s: 1720 Southfack City: Alvin State: TX. Zip:
We he	reby submit specifications and estimates for Foundation Corrections, providing the following:
1.	Inspect and raise to grade or to highest point any area where needed and reinforce exterior beam of home for additional strength.
2.	Install driven concrete piers to point of refusal.
3.	The Company will stabilize and secure the foundation at a feasible level. Number of piers: (26) Two first SIX AND (3) THISS SUFFICE PADS
4.	Company is Bonded and Insured, all work is guaranteed.
5.	All foundation constructed as a floating slab with beams or a beam shall be issued a Lifetime Service Agreement, Unconditional with a Transferrable Warranty upon completion of work.
6.	Premises will be cleaned of all debris.
7.	Company is not responsible for pre-existing plumbing problems.
8.	Observations: To REMONTAR GRICK CRACKS To REFINISH CONCRETE GREAKOUTS
sum o	reby propose to furnish labor and materials-complete in accordance with the above specifications, for the f: The True hand all a free (\$3900 %) With payment to be as follows. Balance due on completion: (\$3900 %). PRICE Includes Sugnissed Free
	rized Signature: (SASON FAICH)
	ACCEPTANCE OF PROPOSAL
The ab	ove prices, specifications and conditions are satisfactory and are hereby accepted. You are authorized to do rk.
Date: .	Signature:



317 27th St. San Leon, TX 77539 (281) 339-5565

REPORT OF FOUNDATION INSPECTION, EVALUATION, AND REPAIR 1720 South Park Drive, Alvin Texas October 15, 2003

The subject property is a one-story, wood-framed house with exterior walls of wood siding. It stands atop a monolithic, conventionally reinforced concrete mat foundation, an outline of which is shown on the attached Foundation Plan.

The property had experienced structural distresses in the forms of a sloping floors, cracks in the interior drywall, and misaligned door and window frames. An investigation into the source of the distresses revealed a common origin in the foundation. The shifts of the foundation were caused in turn by problems within the soil beneath the foundation.

The property was built on a site where the soil contains a large proportion of high-plasticity clay. That clay is sensitive to changes in moisture, i.e. it shrinks and hardens when dry, and swells and softens when wet. When such a clay is shut off from air and sunlight, such as occurs when a house is built over it, the soil reacts by changing its moisture content. The resulting movement will stress a foundation mat.

Conclusions

- 1) The property appears to have been stressed by the movement of soil beneath the foundation. Movement was most severe along the perimeters, where stresses induced by the shrink/swell cycles caused the foundation to sag as much as two inches. Perimeter sags are very common among older houses.
- 2) There is no indication of permanent structural damage that would be caused by foundation movement.
- 3) It was not practical in this case to control the shrink/swell action of the soil by means of irrigation tubes or soaker hoses. Any attempt to further moisten the perimeter soils would further saturate the subfoundation soil. The excess moisture may initially provide some relief in the foundation perimeter sags via clay swelling. In time though, the moisture would weaken the clay in those areas to the extent that they would shift even more readily than at present. Overall, the situation would worsen.

1720 South Park Drive, Alvin, Texas

- 4) The stabilization and leveling of the foundation was best accomplished with piers. A total of 26 pressed piers and 3 pads were installed along the perimeters of the house at the locations shown on the Foundation Plan [a pad is simply a pier that does not require a rammed base]. Piers could not be placed precisely at the three exterior corners at the left side of the house because of the presence of buried blocks or slabs of concrete, but could be placed sufficiently close to those corners to allow the foundation to be lifted and leveled.
- 5) Following the installation of the piers, the floor was level, cracks in the drywall were closed, and the door and window frames were aligned. Maximum lift was approximately two inches, as previously explained. Lift heights are noted on the Foundation Plan.

Note: The foundation of this house has been leveled and stabilized. It is still possible that latent defects, e.g. corroded reinforcing steel in the foundation mat, areas of thin or weak concrete, trash buried beneath the slab, etc., should any such defect exist, could thwart its continued stability. The homeowner is therefore advised to remain cognizant that repairs such as this do carry irreducible risks.

Richard F. Kulan, P.E.

Attachment: Foundation Plan

Richard F. Keelan, P.E. Texas Reg. No. 80633

