WHAT TO DO IF DEFICIENCIES ARE ENCOUNTERED?

Reference to the second part of the above noted Texas Section of ASCE "Guidelines for Evaluation and Repair of Residential Foundation" is offered. Again, this document can be down loaded from the Texas Section of ASCE website at www.texasce.org.

Typically, foundation repair procedures can be expected to be costly, complex, only partially adequate, and quite painful for the homeowner, regardless of who pays. As previously stated, the insurance industry is currently in crisis because it often becomes involved in foundation repair.

Unfortunately, the whole business of foundation repair can be very difficult to deal with. Few people have thorough overall knowledge of the foundation repair alternatives and perspectives. Most foundation repair contractors must rely on applicable engineering expertise to ensure the proper application of repair. A relative few number of engineers have sufficient training or experience in foundation repair and remediation. Often, lack of training leads to solutions of excessive cost.

Any foundation can be repaired. However, the cost of that repair can often compare to the cost of total replacement!

This is a primary reason home insurance costs have skyrocketed. Water damaged homes often become involved in foundation repair costs. Often these cost compare with replacement costs of the home. The insurance company is accustomed to replacing a home after a fire. After all, the incidence of fire is rare. But every other home has a plumbing leak at some point in time. One can imagine the impact on insurance costs when every other home must be replaced!

This discussion isn't speculation, it's what has happened in the past year or so.

Approaching a Solution

The noted Texas Section ASCE document provides an approach to the solution of foundation deficiencies. It provides a protocol towards rational foundation remediation and the standards where that remediation should be applied. Most of this knowledge is quite new. Only in recent years has the

problems surrounding slab on grade type residential structures been identified. This document should be beneficial in providing a rational approach to the circumstances.

The document advises levels of investigation to a foundation defect or repair situation. The following depicts the level of investigation, that is typically performed by a qualified forensic engineer, or by someone who is qualified and experienced in foundation repair design.

Level "A" Investigation - This investigation is the minimal examination. It consists of interviews of the owner and a walk through where the factors affecting the foundation and structure are initially identified. This report can often advise the recommendations for further study.

Level "B" Investigation - This study consists foundation elevation studies and appropriate sketches in addition to the information gathered by the Level "A" study.

Level "C" Investigation- This investigation includes necessary soils sampling and testing, plumbing tests, and footings surveys. The report's information should be sufficient to provide enough information by which remediation repair can be initiated.

The ASCE document provides parameters and criteria to allow a rational evaluation regarding the need for a repair. In other words, how level should a floor be before it's considered suitable for use? Is the repair viable or absolutely necessary? Is the defect a matter of structural safety? These are all questions that must be identified. Past experience indicates that the lack of a rational criteria for acceptability has been the source of needless expense and litigation. This document provides a viable perspective and will serve as an industry standard that will, in all probability be utilized in future litigation awards.

Remedies of structural and foundation deficiencies require specialized knowledge, skill, and experience if the work is to be done effectively at a cost that is as reasonable as possible. The repair work can involve underpinning, slab mudjacking, break out/replacement, moisture barriers, regrading of drainage, and any number of solutions. The bottom line is that each circumstance is bound to be unique, so no set solution, other than past experience, knowledge, and training in foundation repair and protection can be stated. It all must begin with one of the above noted investigation procedures.