

### 1.02.08 Wedges used as primary support

The house support beams should fully rest on the piers. Wedges can kick out and crush. House support girders are supposed to be "full bearing" on the support piers.

### 1.02.09 Un-bonded pier/s

Piers that are not bonded can move, crack, and in some cases, fall. Bonding is accomplished with wire and stucco or mortar joints when the pier is installed. Bonded piers are for long term performance of a foundation.

### 1.03.01 Support concern

Each component within a house structure is supported by another component. There are standard guidelines that building contractors follow. The report will reflect any concerns the inspector has in regard to supports. Supports can range from foundation to structural wood components. If a concern is noted, a licensed building contractor should evaluate the issue. If the concern is in regard to failure, an engineer may be needed to evaluate the failure and cause.

### 1.03.02 Support not resting on heel

The heel of a rafter or stringer is the short side of an angled cut board. If the rafter or stringer is resting on the toe (long end) the board is in danger of cracking down the center of the board. Additional support will be needed under the heel. A building contractor can perform the repairs.

### 1.04.01 Stoop settlement

A stoop typically sets on its own foundation. Several reasons can cause stoop settlement. The soils may not have been compacted properly or rainwater may be running under the foundation, causing the stoop to settle. Repairing a stoop may include pressure grouting, jacking, or complete rebuilding of the stoop.

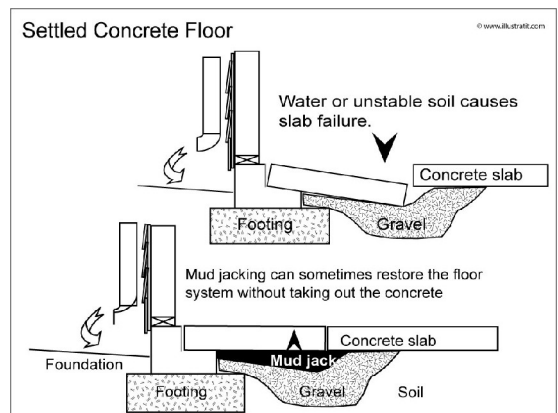
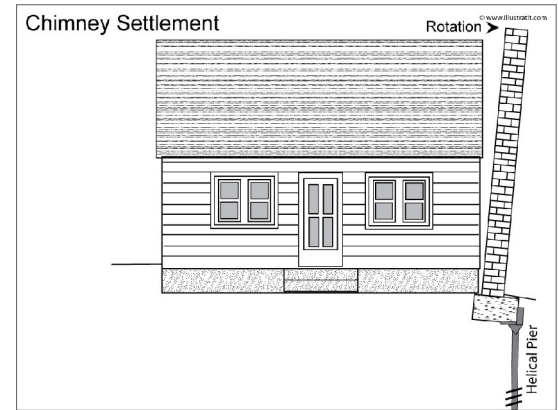
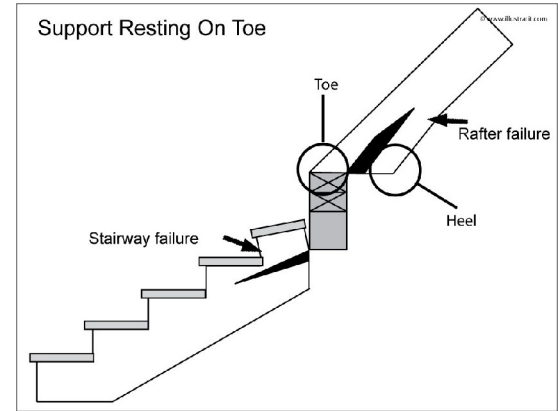
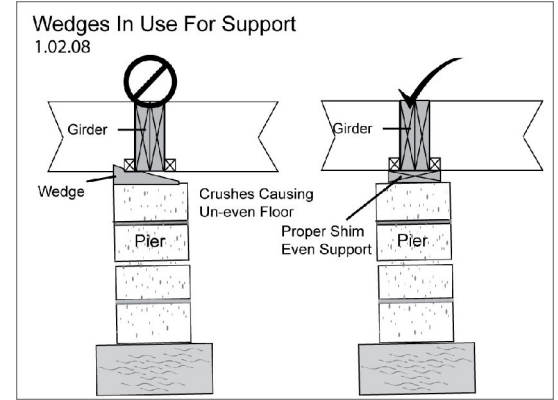
### 1.04.02 Chimney settlement

Chimney settlement is caused by soil compaction, expansion, or erosion. Some settlement is common; however, if the chimney has moved more than two-inches, a serious problem may exist. The inspector will record any chimney movement; however, only an engineer can determine extent of seriousness.

If a chimney has significant settling, a jacking system can re-level a chimney.

### 1.04.03 Concrete floor settlement

A concrete floor can be re-leveled; however, the cause of the settlement needs to be determined before re-leveling the floor. An engineer should be consulted. Some concrete pumping companies perform concrete floor repairs. Due to floor coverings, the severity of settlement in a concrete floor is sometimes difficult to determine. Some settled slabs are quite obvious. A severely settled floor will show signs of unevenness (or instability) when walked on. Some concrete slabs will have very slight evidence of settlement. If the inspector cannot determine whether the slab has positively settled, there are options to consider. The first option is to monitor the area in question; however, consider the time frame in the closing of the house. Another option is to call in an engineer. This may seem excessive, but money spent now may save you much money later. Even if the engineer finds nothing to be occurring in the concrete slab, the buyer has the assurance of a stable floor and documentation (in the event of a future sale of the house).



#### 1.04.04 Root encroachment

Heavy roots can break a foundation and push up concrete flatwork. Contact a landscape contractor to sever a root encroaching on a foundation. If the foundation is damaged, it may need to be rebuilt by a masonry contractor. Flatwork like walkways, driveways and patios will most likely need removed and re-poured.

#### 1.04.05 & 1.04.06 Foundation settlement

A settled foundation can be a one-time incident or it could be an on-going problem. The home inspection cannot determine if on-going settlement is occurring. Settlement can be caused by numerous reasons such as: tree roots, water next to foundation, ground water, or unstable soils. **In either case, an engineer needs to be consulted.** If significant settlement is evident, the foundation can usually be secured with a foundation jacking system.

#### 1.04.07 Concrete pushing on foundation

A component (like a front stoop or driveway) pushing against a foundation can cause the foundation to crack. **An engineer should be consulted when this occurs.**

#### 1.04.08 Soft mortar

Moisture and age affects mortar joints between brick. Soft mortar is usually associated with "turn of the 20<sup>th</sup> century" or older homes. A masonry contractor can repair faulty piers and masonry that has soft mortar joints.

#### 1.05.01 & 1.05.02 Wall settlement cracks

A masonry veneer wall can sometimes slightly settle - causing a "stair step" type crack. Most small cracks can be repaired by a masonry contractor. However, a cracked wall can indicate additional on-going problems. Horizontal cracks or uneven cracks indicate foundation problems. If the cracks in the walls are numerous and or large, we recommend you contact an engineer for an evaluation.

#### 1.05.03 Basement wall cracked

Cracked basement walls indicate high pressures behind the wall. The pressure could be caused by water or heavy loads being asserted on the wall. Cracks in the basement wall can appear in several forms. Stair step cracks, vertical cracks, or horizontal cracks. All cracks noted on the report should be taken serious. Determining if the basement wall is stable is beyond the scope of a home inspection. Usually, if water build up is the cause efflorescence (a white powdery substance) will show up on the wall. Locate the foundation drains and make sure the drains are free flowing. In either case, we recommend to **consult an engineer to determine proper evaluation and repair.**

