

DRAIN TILE TEST STANDARDS

PURPOSE

The purpose of a drain tile test is to determine whether drain tile replacement is warranted and if so, how much drain tile needs replacing. These are the minimum standards for a drain tile test. A foundation repair contractor or foundation consultant can exceed these standards but never do less than the listed minimum standards.

CONDITIONS THAT MAY WARRANT A DRAIN TILE TEST

- Leakage/seepage on floor
- Wet/damp wall blocks near floor
- Staining/efflorescence on wall blocks near floor
- Iron ochre, tree roots, or mineral/calcium deposits in sump crock or at palmer valve.
- Wetness around floor cracks.
- Not all conditions shall warrant a drain tile test

LOCATION, SIZE AND NUMBER OF TEST HOLES

- The foundation repair contractor or foundation consultant should open a minimum of 3 holes to test interior tiles
- Each interior hole should be at least 12” x 12”
- The ideal location of interior test holes should be:
 - In or near corners
 - At sites where home owner noted leakage
 - Directly under windows (location of bleeders)
- The exterior drain tile test depth is recommended to be within 1-foot above the exterior drain tile. This test is also referred as an outside “spud test”.
- An outside drain tile test is warranted if blockage of outside drain tile is suspected to be clogged due to signs of leakage.
- Test four feet from bleeder if location is known.
- At least two test spud sites are recommended per wall(s) in question.

TEST PROCEDURES

- Homeowner should remove personal property at all test site locations
- Open hole in floor, expose inside of drain tile
- Inspect drain tile to determine degree of obstruction if any
- Introduce water into hole to determine if it drains
- Insert running hose into drain tile in both directions if possible to point of blockage
- Clean out bleeders, if found
- Insert running hose in bleeders to determine disbursement to exterior tile
- Check functionality of palmer valve or sump crock
- Drill at least (1) hole in block, where floor is opened up at a wet area in question, on inside to check if wall is holding water.

EVALUATION OF NEED FOR REPAIR

Based upon test results foundation repair contractor or foundation consultant should consider:

- Degree of blockage (less than 30% marginal, more than 50% serious)
- Amount of water sitting in tile
- Condition of drain tile itself
- Actual water flow through inside tile
- Seasonal conditions
- Ground water levels at time
- Special situations (ochre, roots, mineral deposits)
- History and pattern of leakage from homeowner, if available
- Water leakage out of blocks
- Spacing and placement of cement drain tile
- Material around drain tile

Note: If a dry season prevails and/or there is at least 2 to 4 inches of clear gravel under the floor, the use of an air compressor is recommended to be used with water to get water to flow from test hole to test hole.

Due to the severity of the leak, an optional spud test may be recommended to test the outside tile.

REPORT TO HOMEOWNER:

- Drain tile evaluation requires rendering an opinion and reasonable minds may differ
- Foundation repair contractor or foundation consultant shall report areas of blockage and specify what sections of drain tile need repair in writing with a diagram
- Foundation repair contractor or foundation consultant shall not misrepresent condition of drain tile for purposes of persuading homeowners to purchase repairs
- Foundation repair contractor or foundation consultant may give homeowner option of replacing more drain tile than is necessary after explaining present conditions

REPAIR OF HOLE

- Remove debris, damaged tile and old stone
- Replace drain tile in hole with 3" interior diameter perforated corrugated polyethylene drain tile (or Wisconsin Uniform Dwelling Code compliant)
- Install approved drainage board on side of hole
- Encase new tile with ¾" diameter filtering stone
- Close hole with new cement unless homeowner elects to leave open for further inspection
- In the event homeowner elects to leave hole open, foundation repair contractor or foundation consultant shall warn homeowner of risk of injury and possible flooding

PROHIBITED PRACTICES

- A foundation repair contractor or foundation consultant shall not create blockage in drain tile to cause test to fail

- A foundation repair contractor or foundation consultant shall not inform homeowner that open drain tile need replacement because they were placed too tight together or aren't perfectly sloped
- A foundation repair contractor or foundation consultant shall not make any material misrepresentations