



TEX-140-E

Measuring Depth of Compacted Base and Treated Materials



Why

Measuring the depth of compacted base and treated materials after setting the final grade with grade stakes (blue tops).



When

Specifications require Tex-140-E for layer thickness to meet the specified section(s) on plans.



How

Equipment

- One percent phenolphthalein,
- Drill with auger bit, grubbing hoe, and other acceptable hand tools,
- Folding scale, tape measure, with 1/8 in. divisions.
- Six-penny nail, blade, or knife, not to exceed 1/8 in. in thickness and approximately 3 in. in length,
- Straight edge.

Procedure

- Drill or dig a hole approximately 6-8 in. below the layer being measured and wide enough to fit a hand in.
- Make a vertical groove in the side of the hole.
- Locate interface visually.
 - Treated pavement layers, use the 1% phenolphthalein solution to identify the interface. Apply it bottom up; the interface appears where it turns pink.
- When the interface is clearly defined, push a nail or blade horizontally into the interface 1 in.
- Measure from the top of nail to the bottom of the straightedge or surveyor's stake place across top of hole, measure to the nearest 1/8 in. and record.
- Move the nail to another location on the interface measure and record. Repeat until a total of three measurements are reported.



Action

1. Report the average of three measurements to the nearest 0.01 in. as the thickness of the pavement layer.