

City of Shakopee Specification for Soil Modification in Tree Planting/Landscaped Areas

Purpose/Overview

Boulevards and medians on city managed property with planned tree plantings/landscaping are to receive the soil modifications below. This soil modification is the incorporation of compost to a depth of 18 inches into the subsoil (below top soil). The purpose is to reduce soil compaction and increases soil organic matter for better plant growth.

Location of required soil modifications

Within boulevards and medians on city managed property with planned tree plantings/landscaping - soil modifications shall be completed the entire length of noted boulevards/medians with the exception of where utility conflicts exist. All soil modifications shall maintain a two foot clearance from any hard surface or structural soil. In boulevards/medians which are wider than 12 feet, soil modification is required to be a minimum of 8 feet wide.

Sequencing

Soil modifications shall occur after site disturbance is complete, all traffic and equipment or material storage on treated areas is prohibited with the exception of foot and tracked machine traffic for the purposes of topsoil placement, planting, and mulching. Before soil modification begins, the City of Shakopee Engineering Department must be contacted @ 952-233-9371 to approve compost testing results and schedule site inspections.

Remove foreign materials

Remove all foreign materials resulting from construction operations, including oil drippings, stone, gravel, and other construction materials from the existing soil surface.

Application of Compost

Spread mature, stable compost (see definition of compost) to a 6 inch depth in boulevards and 4 inch depth in medians (or other landscaped areas) over compacted subsoil.

Subsoiling

Subsoiling should be performed when soil is neither wet nor dry. If a shovel cannot be forced into the soil, it is too dry. If the surface is sticky or muddy, it is too wet. Use a backhoe with a tined bucket or similar equipment to break up the compacted soil and incorporate the compost. Work away from excavated soils so that treated soil is not trafficked by the equipment. The subsoiling is not intended to homogenize the compost and soil, but rather loosen the soil to an 18-inch depth and create veins of compost down to that depth as well. To ensure that subsoiling reached the appropriate depth, a push tube soil sampler shall be used to verify compost is present at 18 inch depth.

Replacement of topsoil

After subsoiling is complete, stockpiled topsoil or additional topsoil if none is available from the site, shall be returned to the site to a 6 inch minimum depth (see definition of topsoil). All final grades shall meet elevations per approved grading plan.

Submittals/Definitions

Compost

All compost to be used on site shall be tested and results approved by City of Shakopee Engineering Department prior to placement. Compost test results shall comply with MnDOT's "STANDARD SPECIFICATION FOR CONSTRUCTION" 2016 Edition, Compost Specification 3890 for "Grade 2 Compost" (spec. Table 3890-2).

Topsoil

All topsoil (whether salvaged on site or brought in as import) to be used on site shall be tested and results approved by City of Shakopee Engineering Department prior to placement. Topsoil test results shall comply with MnDOT's "STANDARD SPECIFICATION FOR CONSTRUCTION" 2016 Edition, Specification 3877-2 for "Loam Topsoil Borrow" (spec. Table 3877-2).