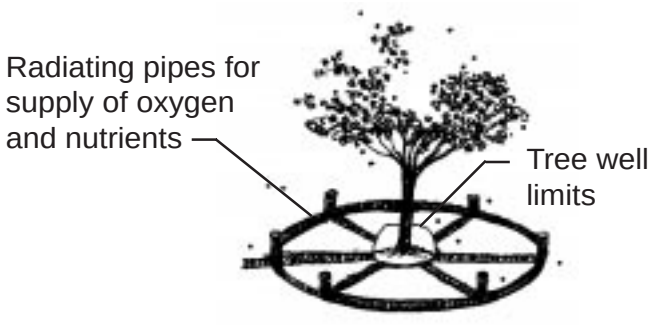
PRIMARY USE: Preserve trees during site development activities.
ADDITIONAL USES:

CONSTRUCTION TECHNIQUES FOR BUILDING AROUND TREES

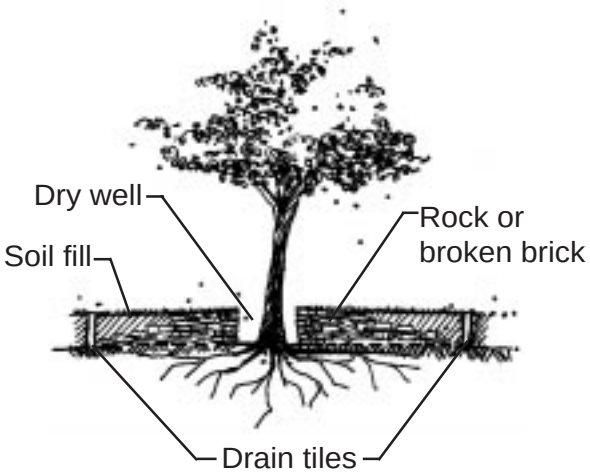
What is it? Tree preservation techniques for use during construction projects intented to assist the designer and developer with preserving trees and integrating land development activities with existing trees.

Purpose

To help save valuable trees on a landscape that is to be developed is the major purpose of this BMP.



Location of Radiating Pipes when Filling Around Existing Trees Perspective View



"vertical tiles" that supply oxygen to the root system

Tree Well Section View

Limitations

Never remove more than one-third of a tree's root system. When you remove roots, remove a proportional part of the tree's limb structure so the remaining roots will be able to support the remaining biomass without being stressed. When a tree becomes stressed, disease and pest damage is likely. When cutting soil around a tree it is likely that you will lower the water table and deny the tree soil moisture. It will probably be necessary to install a drip or microspray irrigation system to supply moisture to the damaged root system. Drip irrigate the tree each week there is no rainfall.

Materials

Perforated pipes, broken but clean brick pieces (no mortar on the brick), washed gravel, solid pipe for air vents, drip tubing, drip irrigation emitters or microspray heads.

Installation

When raising the soil level around a tree the root system must be allowed to still get moisture and nutrients. A tree well will keep soil away from the tree trunk. Radiate perforated pipes at the existing grade level from the tree well to beyond the dripline of the tree about one-third of the tree radius, and cover the pipes with broken brick or washed gravel. Place filter fabric on top of the porous material and pipes to prevent fill soil from clogging the open pore spaces and suffocate the tree. Then, fill with top soil to the proposed fill level.

Source: Home Landscapes, Planting, Design and Management; E.C. Martin, Jr., and Pete Melby; Timber Press.