

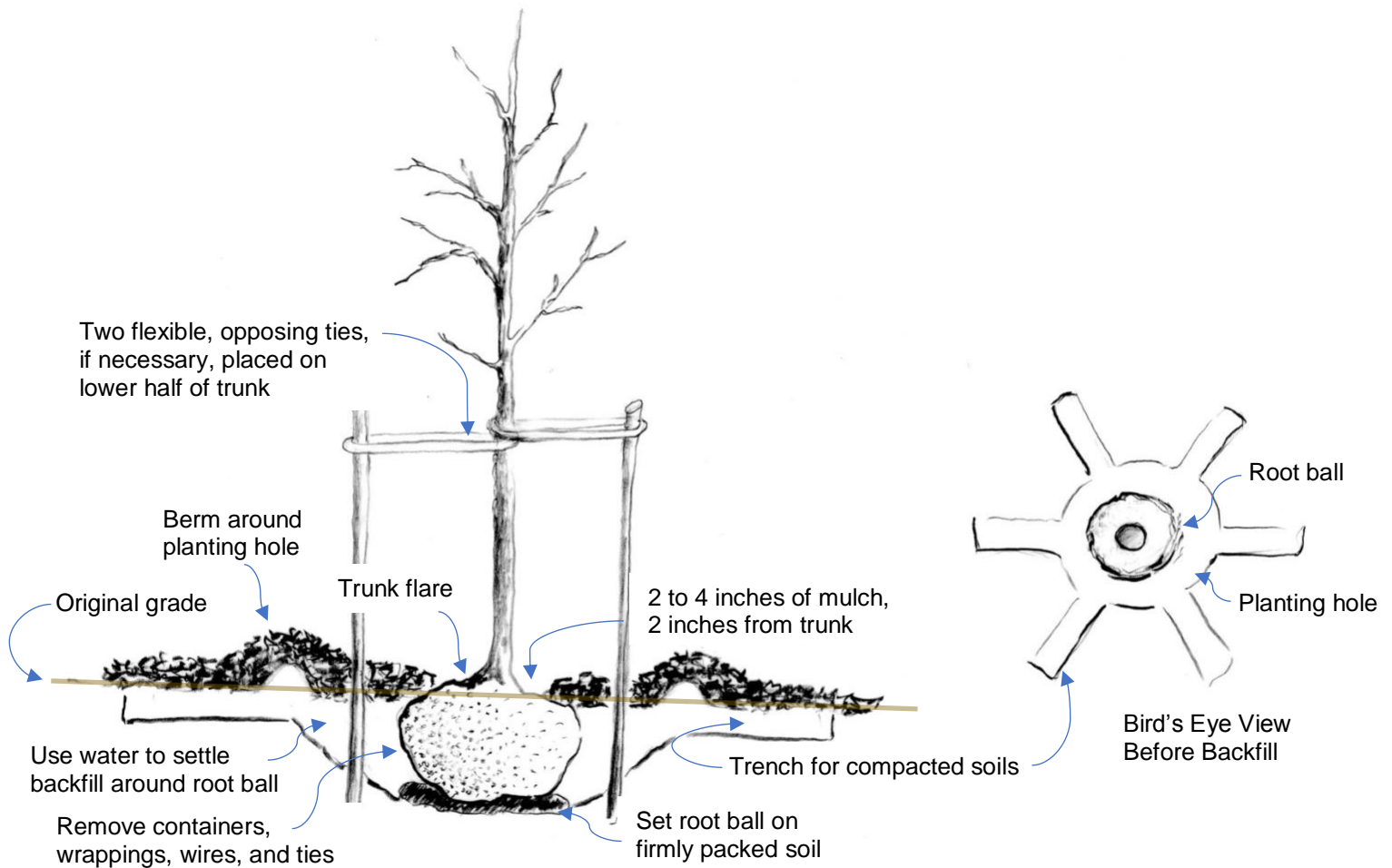
## How to Plant a New Tree

### Santa Fe Municipal Tree Advisory Board

A new tree is a lifetime investment. How well your tree, and investment, will grow depends on the type of tree and location you select for planting, the care you provide when the tree is planted, and follow-up care the tree receives after planting.

**Nine Steps for Planting a New Tree.** If the tree you are planting is balled in burlap (b&b), it is important to understand that its root system has been reduced by up to 95% of its original size. As a result of the trauma caused by the digging process, these trees commonly exhibit what is known as transplant shock. Containerized trees may also experience transplant shock, particularly if they have circling roots that must be cut. Proper site preparation before and during planting coupled with good follow-up care reduces the amount of transplant shock and allows the tree to more quickly establish in its new location. Follow these steps carefully to get your tree off to a good start and help it recover from transplant stress.

1. **Dig a shallow, broad planting hole.** Make the hole wide, so that there is at least 12-18 inches of space around all sides of the ball. With soil that is not too compacted, using a spade or spading fork to loosen the soil beyond the planting hole can also help roots spread into the surrounding soil more quickly. Check the rate at which water drains from the planting hole before you plant the tree. A drainage rate of 1 -3 inches per hour is good for most trees.  
In heavily compacted soils or those containing caliche, you may need to dig four to six radial trenches 4-6 inches wide and 12-15 inches deep, extending 6 feet beyond the planting hole to give new roots a better start. Fill these trenches with a blend of half native soil and half compost.
2. **Identify the trunk flare.** The trunk flare is where the roots spread at the base of the tree. This point should be partially visible after the tree has been planted (see diagram). If the trunk flare is not partially visible in the container or on top of the b&b root ball, you may have to remove some soil from the top of the root ball. Find the trunk flare so you can determine how deep the hole needs to be for proper planting.
3. **Prepare containerized trees for planting.** Inspect the root ball for circling roots and cut them off with a clean, sharp knife or pruning shears. Expose the trunk flare by cutting roots covering it, if necessary.
4. **Dig the hole only as deep as the rootball, making sure the trunk flare is partially visible above ground once the tree is planted.** Before placing the tree in the hole, check to see that the hole has been dug to the proper depth. If the hole is too deep, add some soil and tamp it down to form a solid base for the root ball. To avoid damage when setting the tree in the hole, always lift the tree by the root ball.
5. **Straighten the tree in the hole.** Before you begin backfilling, have someone view the tree from several directions to confirm that the tree is straight.
6. **Backfill the hole.** Break up the backfill soil so that there are no large clods. If you wish to amend the soil, mix good compost at a rate of no more than 25% to the backfill soil. Do NOT mix any fast-release chemical fertilizers in the backfill. Fill the hole about one-third full and gently but firmly pack the soil around the base of the root ball. Remove all twine from around the tree and the root ball. If the root ball is wrapped with wire or in a wire basket, cut the wire away from as much of the root ball as possible, being careful not to let the soil fall apart. Remove the burlap from around the root ball if you can do so without the root ball becoming too loose. Finish adding backfill up to the top of the root ball, then water thoroughly to settle the soil and remove air pockets. If necessary, add more backfill to just cover the root ball after the soil is settled. Add a shallow berm the same diameter as the planting hole. Do not compact the backfill soil by stomping on it; use the water to settle it.



7. **Stake the tree only if necessary.** New trees usually root out better if they are not staked at planting. If staking is necessary on windy sites to keep the tree from leaning in the hole or blowing over, use two stakes in conjunction with a wide, flexible tie material on the lower half of the tree to hold the tree upright, provide flexibility, and minimize injury to the trunk (see diagram). Remove support staking and ties after the first year of growth.
8. **Mulch the base of the tree.** Mulch with organic matter applied from the base of the tree to several feet beyond the drip line. Mulch acts as a blanket to hold moisture, to moderate soil temperature extremes, and to reduce competition from grass and weeds. Good choices are leaf litter, shredded bark, tree trimmings, or composted wood chips. A 2- to 4-inch layer is ideal. More than 4 inches may cause a problem by reducing oxygen availability and retaining too much moisture. When placing mulch, be sure that the trunk of the tree is not covered. A mulch-free area 1 to 2 inches wide at the base of the tree is sufficient to avoid moist bark conditions and prevent decay.
9. **Provide follow-up care.** Keep the soil moist but not constantly saturated. Water trees at least once a week in cooler weather and at least every 3 to 4 days during hot weather, barring soil-saturating rains. When the soil is dry 2 to 3 inches below the surface of the mulch next to the root ball, it's time to water. After trees go dormant in the first season, water every two to three weeks through November and December. Through the first winter, water at least once a month unless the soil is frozen or heavy snows keep the soil moist. Increase watering frequency in the spring as trees come out of dormancy. At planting prune off only diseased, damaged or dead branches; leave all of the healthy canopy the first year. Pruning to shape the tree can begin the second year.