rethink/ TREES

Cut Energy Use with Shade Trees

Lower Energy Bills

Shade trees that shelter homes and other structures are a great way to reduce energy use and utility costs. Plant shade trees on the east and west sides of your home to reduce cooling needs in the summer and heating needs in the winter.

Select tree species and planting locations carefully, considering the tree's rate of growth and size at maturity. Faster growing species will provide shade more quickly, but may have shorter life spans. Avoid planting trees that will grow large near utility lines; plant 20 to 40 feet away.

Other Benefits

Trees and other leafy plants pull water from the soil and release the vapor through their leaves; this evapotranspiration cools the immediate surrounding air temperatures. Want to keep your deck, porch or patio area pleasant in the summer? Plant plenty of trees and leafy landscaping all around them.

For more information: Leah.Haynie@austintexas.gov

Benefits

Trees strategically planted to shade buildings and outdoor areas can:

- Help to keep them cool
- Reduce energy use for AC
- Create oxygen, capture CO_2, and filter air pollutants.
- Reduce runoff and improve water quality.
- Offer wildlife habitat in the city
- Protect buildings, decks, etc. from sun damage and deterioration
- Produce buffers that reduce noise
- Enhance the beauty and value

Did you know?

In the summer time, trees and other leafy vegetation can reduce air temperatures by 2 ˚F to 9°F. They can keep surface temperatures 20 ˚F to 45˚F cooler than unshaded areas.

Did you know?

Shaded AC units work more efficiently and use up to 10% less electricity.

Selecting A New Tree

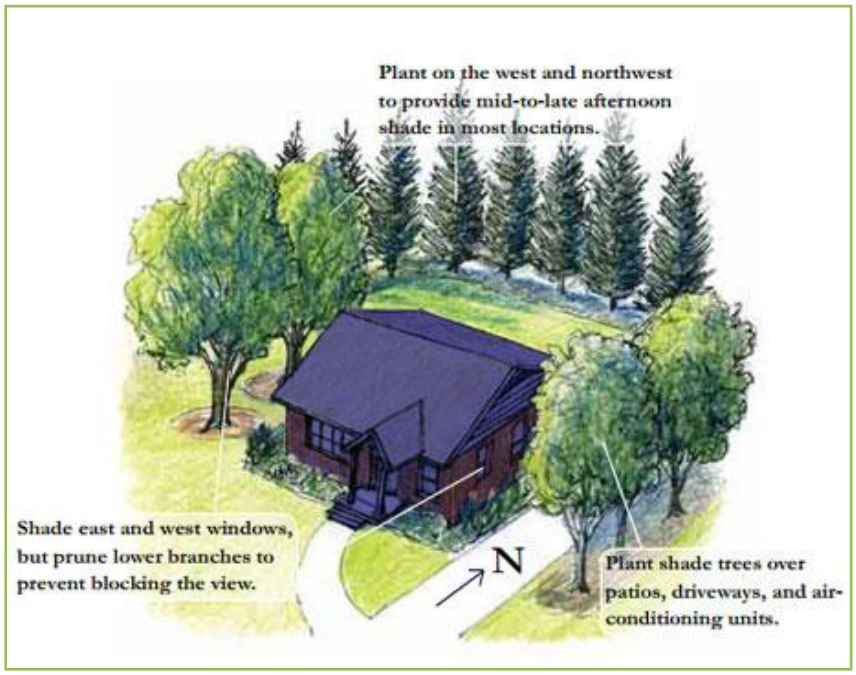
Choose a native, drought-tolerant tree species that is suited to our climate now, and that can thrive in the hotter climate and increased drought expected to come in the decades ahead.

New trees need to be carefully watered for the first two years while they are becoming established -- even drought-tolerant species. For information on watering and caring for trees during drought conditions, see the *Tree Care During Drought* pamphlet from the City of Austin's Grow Green Program: www.austintexas.gov/department/grow-green-resources.

All trees benefit greatly from annual applications of compost, a generous layer of mulch over their entire root area, and supplemental watering during drought conditions

Large Shade Trees: This category of tree reaches heights between 35 and 100 feet tall. Shade trees are beneficial over buildings, paved areas, and along roadways and walkways, to the amount of solar energy that's absorbed and radiated by impervious materials like concrete.

Small or Understory Trees: While they offer less shade, small leafy trees do help and they cool the air through the natural process of evapotranspiration. They also can provide food and shelter for birds and other wildlife. Choose them for areas near utility lines.



Resources

City of Austin	www.growgreen.org www.austintexas.gov/trees
Tree Folks	www.treefolks.org
Environmental Protection Agency	www.epa.gov/heatisld/mitigation/trees.htm