

Trees



DESCRIPTION

The urban landscape can be understood as an ecosystem, with each part relating to and affecting the whole. The urban ecosystem functions as a location for recreation and escape from the stresses of everyday life. Even in cities our health and welfare can benefit from exposure to natural settings. Within the urban ecosystem, trees mitigate harmful environmental issues, such as air and water pollution. By shading and sheltering buildings, trees reduce cooling and heating costs and simultaneously reduce greenhouse gas emissions.



Bioretention tree planting at F&M College



A tree lined street in the City of Lancaster

Some things to consider about the site for a tree

- Are there overhead power lines and underground utilities?
- How much room is there for the tree to grow? This is especially important for trees near sidewalks.
- Is the area wet or is it dry?
- Is the location level or sloped?

BENEFITS

- Trees intercept and hold rainwater, reducing runoff volume and delaying peak flows. Tree leaves, branches, and bark temporarily store rainwater, which eventually drips off to the ground or evaporates into the atmosphere. The exposed soil directly surrounding the tree, or root zone, has a higher infiltration rate than compacted soil. These processes help prevent excessive runoff and flooding. For every five percent of increased canopy cover, storm water drainage is reduced by two percent.
- Trees reduce air temperature. It's cooler in the shade of a tree.
- Large trees help keep buildings cooler during summer months. Strategically placed trees can reduce energy costs by up to 25-40%!
- Trees capture and reduce the levels of many air pollutants.
- Trees have an impact on our psychological and physical health. They help create an environment where people want to get outside and play. More trees equal more active and happy people.
- Trees reduce noise pollution by absorbing sounds



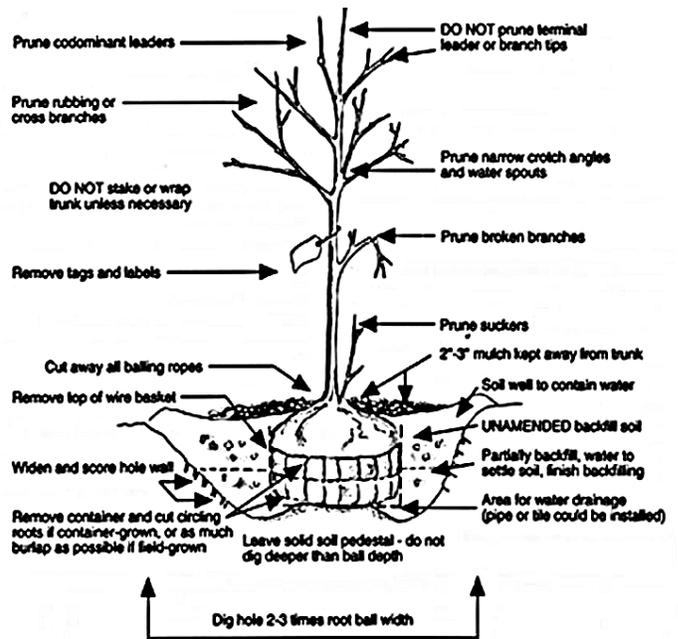
Serviceberry is a wonderful understory tree with an edible fruit

KEY DESIGN FEATURES

- Trees are used for various design purposes, such as creating a sense of place, security, and comfort. Tree plantings can be formal and uniform or informal and diverse.
- Space is often limited in urban areas. Look up, look down, look all around! The planting space above and below the ground should be large enough for the selected trees to reach their mature height, branch spread, trunk diameter, and root extension without interfering with surrounding objects and the activities of people.
 - Understory trees such as dogwood, redbud, and serviceberry can reach 20' in height and 15' in width.
 - Large shade trees such as maple, oak, and zelkova can reach up to 40-80' in height and up to 30-40' in width.
- An adequate amount of fertile soil is crucial for tree growth. The roots need to obtain sufficient amounts of water, oxygen, and nutrients from the soil for the tree to grow.
- Some trees need full sun, others will tolerate partial shade. Investigate the sun and shade patterns of the site.

Caring for your new tree

- Trees should be watered regularly during the first year after planting, especially during warm months. A new tree should receive 20 gallons of water a week rain or shine. Use a very slow flow from a hose or a tree watering bag.
- Selective pruning after the first few years is necessary. Remove branches that are crossing and could rub together. Remove dead wood. Remove suckers that grow at the base of the tree.
- Leaves should be cleaned up in the fall.



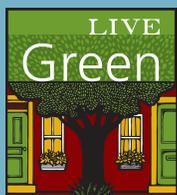
For more information on cost and availability contact:

Street trees are trees located along sidewalks in the public right of way. Free advice on planting and caring for street trees is available from the City of Lancaster's Arborist, Jim Bower, jbower@cityoflanasterpa.com, 291-4841

For resources and ideas about planting trees around your home (private property) please contact Fritz Schroeder with LIVE Green, fritz@livegreenlanaster.org, 392-7891 ext. 207, or a landscape contractor.



Musser Park under full leaf



For more information about the Green Infrastructure program please contact:

Fritz Schroeder
Fritz@livegreenlanaster.org
 (717) 392-7891 ext. 207



the city of **Lancaster**
a city authentic