



Plants, Plants, and More Plants: The Good, the Bad, and the Ugly

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Types of plants

- Woody – maintains above-ground woody parts, can be vines, trees, or shrubs
- Deciduous – leafless part of the year
- Evergreen – leaves all year
- Semievergreen – holds leaves most of the year, generally into winter
- Herbaceous – fleshy, soft tissue, dies to the ground in the winter
- Annual – 1 year life cycle
- Biennial – 2 years to complete life cycle
- Perennial – plant grows from year to year
- Hardy – with stands cold temperatures
- Tender – harmed by low temperatures



Native Plants

- Natives are plants that evolved in place over geologic time and are distributed across the landscape largely in response to climatic episodes and adaptation to site conditions related to land formation (indigenous). Natives are generally defined as plants that occurred in North America before European settlement. To be more precise, natives are natural elements of a regional landscape. While some species are native to North America, they may be exotic to East Tennessee.

(Southeast Exotic Pest Plant Council)

Exotic Plants

- Exotics are plants that are directly or indirectly, deliberately or accidentally introduced by human action (non native). While many exotics are harmless, others pose serious threats to biodiversity. Exotics that escape and naturalize change the floral composition of native plant communities. Exotics that invade native plant communities spread, out-compete, and displace natives. Other exotics are vectors for disease and exotic insects. Future introductions can be prevented by using native species.

Naturalized Plants

- **Naturalized plants refer to those plants that are not indigenous to an area but were introduced and have become widely established in natural areas. Such plants are considered invasive, since they frequently damage natural areas by altering ecosystem processes, in part, through the displacement of, or hybridization with, native plants.**

(Oregon State University)



Benefits of natives

- Adapted to regional conditions and may require less maintenance and are cost-effective.
- Hardy, withstand extreme winter cold, do not suffer from die back.
- Environmentally friendly, require fewer pesticides and fertilizers because of natural adaptations.
- Promote biodiversity and stewardship.
- Provide food and shelter for native wildlife.
- Restore regional landscapes.
- Prevent future exotic introductions.

What is a garden

- A melding of different plants, including trees, shrubs, and herbaceous species
- A garden lacks grandeur and grace without the architecture and framework provided by stately trees
- Shrubs are indispensable for screening, massing, form, and texture
- Herbaceous perennials add unique charm and flavor to any garden

Meaning of Gardening, thoughts from Dr. Allan Armitage

- Therapeutic – because of the feeling that all is well with the world when our hands are in Mother Earth. When a seed is sown, a cutting rooted, or a seedling planted, we have accomplished something important.



- Creative – Because artistry is an inescapable part of gardening



- Exciting – seeing new life emerge from the soil each spring, your garden change over time, the beauty of the colors of fall as the garden prepares to rest each season





What should a well-designed landscape offer the homeowner?

- Meets the needs and desires of your family
- Creates and defines your outdoor living space
- Enhances the overall environment
- Increases the value of your home

A well designed landscape can increase the value of your home by 15%!



Call Bob
CRYE-LESKE
888-2482

8884

What is landscape design?

Landscape Design is the conscious arrangement of outdoor space for human enjoyment and satisfaction.

Landscape design is both art and science



Art

The Eight Basic Principles

Balance

Rhythm

Unity

Repetition

Transition

Simplicity

Proportion

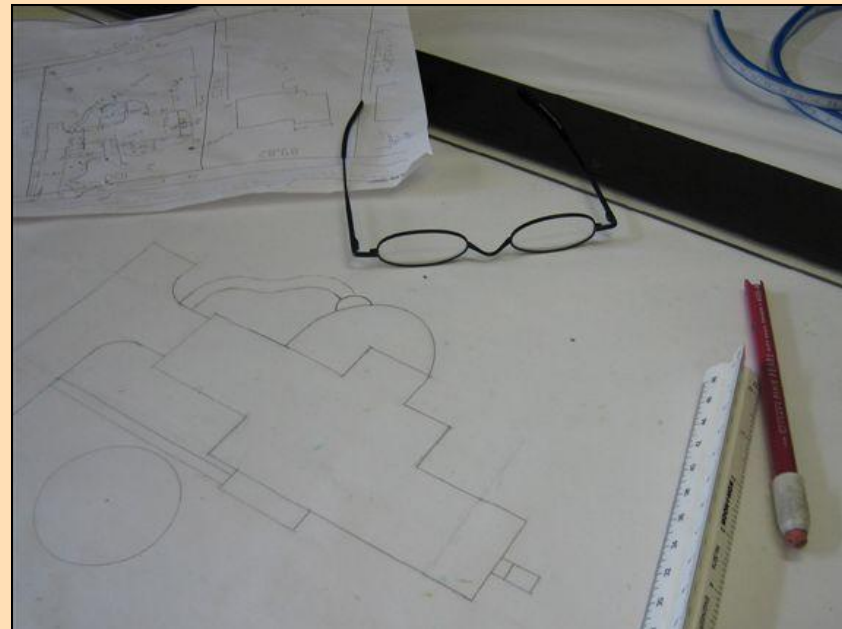
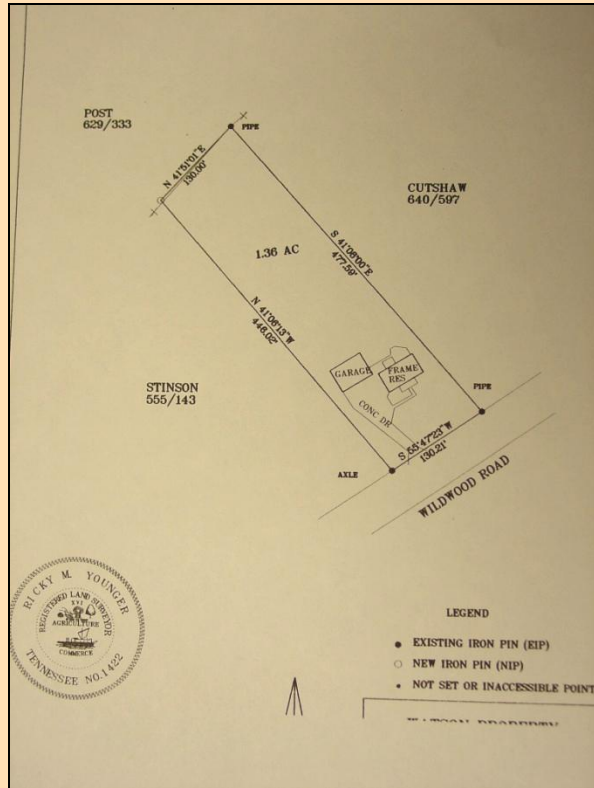
Focalization

Science

- **Soil Science**
- **Botany**
- **Plant Physiology**
- **Entomology**
- **Plant Pathology**

Where to start

Inventory what you have



Decide what you want
Evaluate your options:

- DIY
- Hire a designer
- Hire a professional

Inventory

What do you have to work with



Drainage features



Above ground & below ground utilities

Existing plants



Infrastructure

Brainstorm

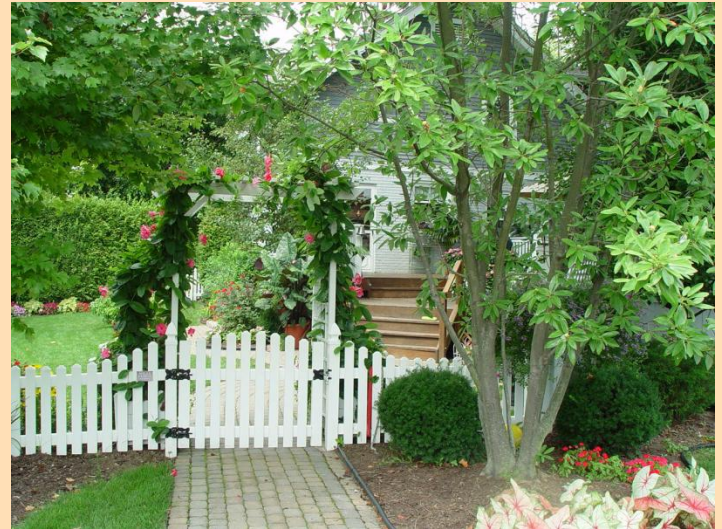
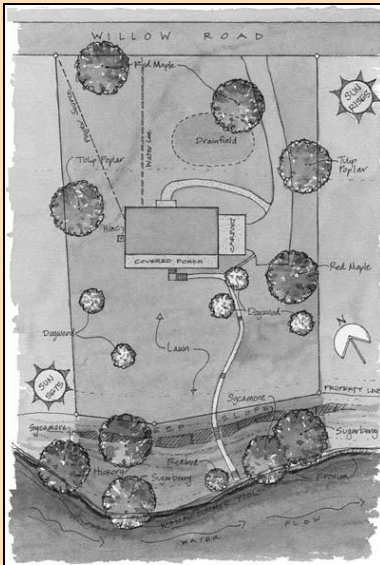
- Think big, don't rule anything out
- Have fun!



Prioritize

Can and should be
subjective

Think diversity



Finalize



- **Use tools to visualize**
- **No landscape creation is ever “finalized”**

Make it happen

- All at once or in stages
- Install bones – hardscapes, water features, patios
- Don't forget sleeves
- Big stuff first: Trees-large shrubs-herbaceous plants-flowers-mulches and groundcovers

Hiring a professional

- Decide how a professional can help you
- How long have they been in business
- Insurance – liability, workers comp
- Professional organizations, certifications, licenses
- Prior clients, visit job in progress
- Discuss any guarantees
- Get everything in writing
- Agree on a payment schedule

Professional Certifications



Landscape Industry Certified Manager (formerly known as CLP)

Landscape Industry Certified Technician - Exterior (formerly known as CLT-E)

Landscape Industry Certified Interior Technician (formerly known as CLT-I)

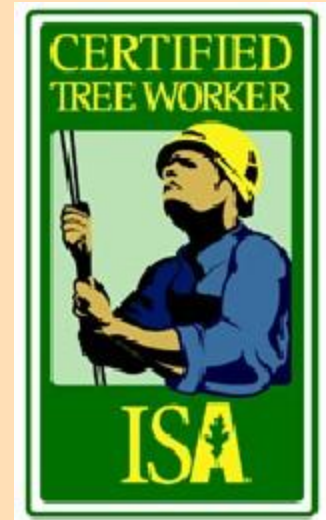
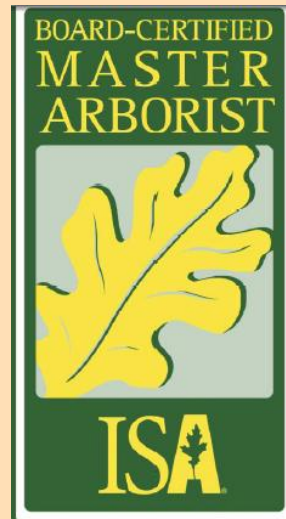
Landscape Industry Certified Horticultural Technician (formerly known as COLP)

Landscape Industry Certified Lawn Care Manager (formerly known as CTP)

Landscape Industry Certified Lawn Care Technician (formerly known as CTP-CSL)

Tree care professionals

- Certified Arborist
- Board Certified Master Arborist
- Certified Tree Worker
- Registered Consulting Arborist



TREES WHERE WE LIVE



3.8 billion trees in urban areas (2,500 or greater)

74.4 billion trees in metropolitan areas (80% of US population)

Tree cultivation originated before writing

- Practiced by the Samarian culture in 5,000 BC
- Following the Samaritans, Egyptians developed the earliest foundations of tree care

History of Arboricultural Practices

- 5,800 BC – Earliest written record of trees
- 4,000 BC - Earliest know use of street trees
- 3,500 BC – Earliest known transportation of trees
- 1,500 BC – Earliest know planned introduction of trees from afar
- 1,200 BC – Earliest know use of rootballs and earliest record of tree planting for shade
- 650 BC – Earliest concept of an arboretum

Arboricultural Practices continued

- 600 BC – Earliest known tree protection laws
- 300 BC – Earliest authentic botanical garden
- 175 BC – Earliest known book on tree care
- 100 AD – Earliest known interior tree planting
- 1750 – Miller warned against severe tree topping
- 1759 – Greenwood first used ropes for climbing

Select quality trees from the nursery



Poor quality



Good quality

vs.

Poor quality

- Codominant stems
- Major branches/ trunks touching
- V-shaped crotch angles (not as strong as U shaped crotch angles).
- Included bark

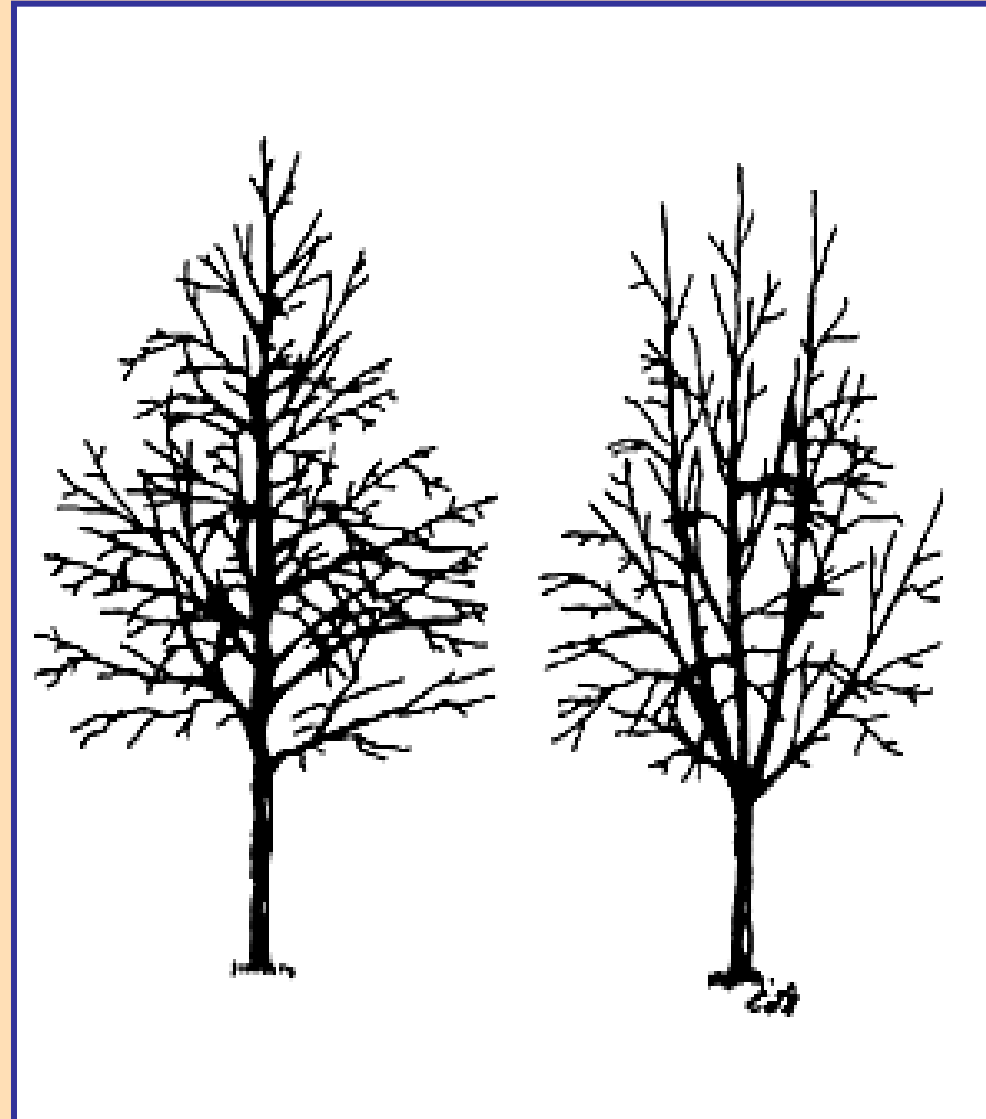


Branch Arrangement

- Major branches and trunks should not touch.
- Branches are less than $\frac{2}{3}$ diameter of trunk.
- Permanent branches on large trees should be spaced 18 inches apart.
- Main branches on smaller trees should be 6 inches apart.

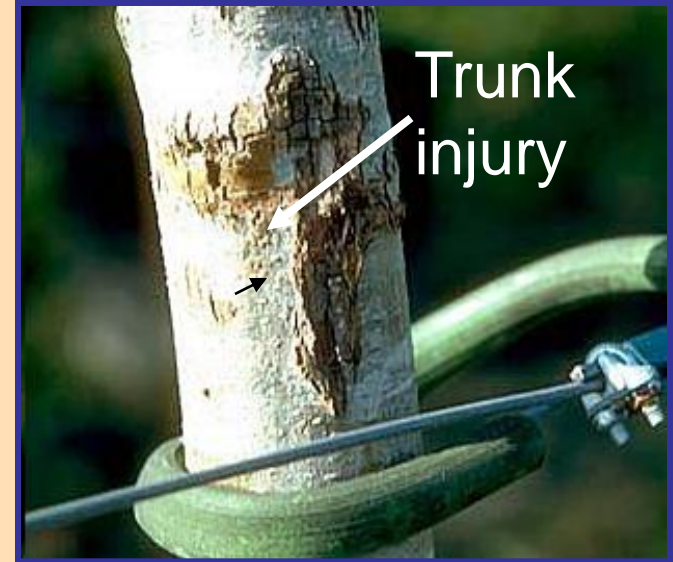
Good quality

Poor quality



Other factors influencing tree quality

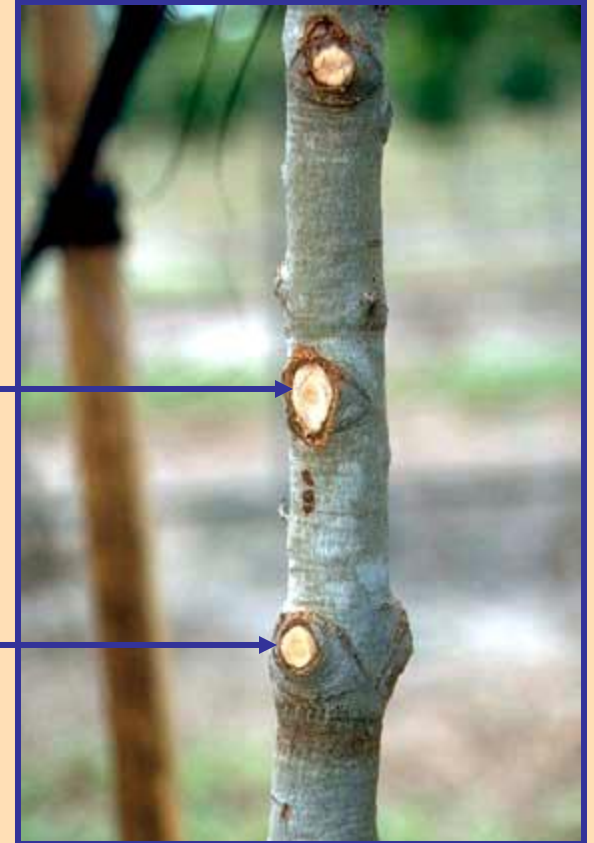
- Canopy uniformity and fullness.
- Quality of old pruning cuts.
- Insect and disease infestation.
- Trunk injury or broken branches.
- Tree wrap (may be covering up wounds).
- Foliage color and size.
- Dieback in canopy.
- Presence of stakes.



Quality of old pruning cuts



Flush cut



Good cut



Callus forming only around sides of flush cut. Branch collar no longer present.

Improper planting

Burlap not removed



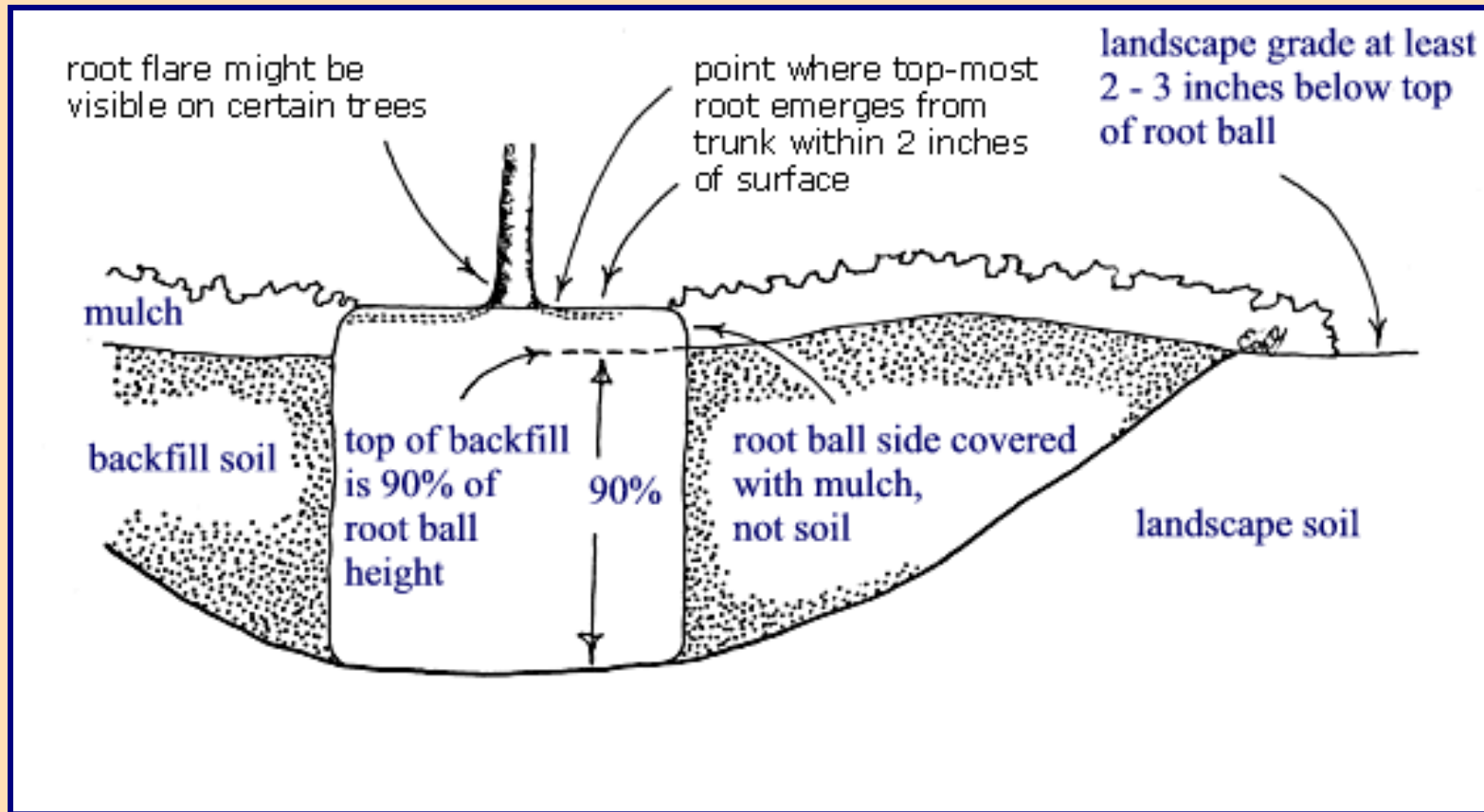
Inadequate planting hole







Shallow is better than deep



- Dig the planting hole as wide as possible
- The depth of the hole should be less than the height of the root ball

Plant correctly



Tight roots will not grow out properly

Loosen roots before planting



Outline of planting

- Look up for wires/lights
- Dig shallow/wide hole
- Find the top-most root
- **Place tree in hole**
- Position top root 1-2" above landscape soil
- Straighten tree
- Remove synthetic materials
- Add backfill soil and firm the root ball
- Add mulch to cover root ball sides
- Stake if needed



Tree ready for mulch









Wendy's

PICK UP WINDOW
IT'S HOT 4 ALARM
SPICY CHICKEN
SANDWICH

KOMATSU

STOP





Rain Gardens or Bioretention Garden



Rain Gardens: Examples



Questions?

Thank You, have fun, let us know if we can help you

