UNDER THE CANOPY
CREATING PERSONAL GREENSPACE

A GUIDE TO
SELECTING, PLANTING AND
CAREING FOR TREES IN ILLINOIS
How to Select a Tree

A high-quality tree has:
- a root ball with a diameter equal to or exceeding a ratio of 12" for each inch of diameter at the base of the trunk (caliper).
- a single leader or central trunk or well-spaced, multi-stemmed trunk that does not show signs of crowding or stem squeeze.
- a trunk free of mechanical wounds and wounds from incorrect pruning.
- a strong form with well-spaced, firmly attached branches along the upper two-thirds of the trunk.
- leaves with good color and no obvious insect or disease damage.

A low-quality tree has:
- crushed or circling roots in a small root ball or small container.
- a trunk with wounds from mechanical impacts or incorrect pruning.
- a weak form in which multiple stems squeeze against each other or branches squeeze against the trunk.
- undersized or discolored leaves.

TIP: Smaller trees establish more quickly and grow faster because fewer roots are lost in transplanting.

Up-and-coming Selections
The following trees have been identified by the Under The Canopy Editing Team as soon-to-be-popular trees with desirable features for urban settings:

- **Skinny Latte** Kentucky Coffee Tree
  Gymnocladus dioicus 'Morton' Skinny Latte™

- **Mercury** Magnolia
  Magnolia 'NMX1' Mercury™

- **Pink Cascade** Cherry
  Prunus 'NCPH1' Pink Cascade™

- **Wisconsin Red** Musclewood
  Carpinus caroliniana 'My Select Strain' Wisconsin Red™

- **Tupelo Tower** Blackgum
  Nyssa sylvatica 'WFH1' Tupelo Tower™

- **Ivory Spear** and **Raspberry Spear** Crabapple
  Malus 'JFS KW214MX' Ivory Spear™ and
  Malus 'JFS KW213MX' Raspberry Spear™

- **Northern Tribute** River Birch
  Betula nigra 'Dickinson' Northern Tribute™

- **Northern Spotlight** Korean Maple
  Acer pseudosieboldianum 'Kordak' Northern Spotlight™

- **Royal Splendor** Norway Spruce
  Picea abies 'Noel' Royal Splendor™

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Planning Your Landscape

What a difference trees make in our communities! Stately and beautiful sentinels, they clean our air and provide shade respite for our homes and outdoor family activities while inviting songbirds into our yards and gardens. Working together, we can maximize the benefits trees provide to you and your community. This guide will assist you in planning your landscape, planting new trees and providing our leafy friends with proper care and maintenance. Please recycle this brochure by sharing it with a friend.

In Your Planning, Consider:

**Season:** For best results, plant trees from mid-March through May or from mid-September through November. Spring-dug trees can be planted from June to early September, but require a more attentive watering program. Attentive watering also helps conifers transplant well in mid-summer, but only after new growth is complete.

**Site:** Soil conditions dictate how well or poorly your tree will grow. Compacted clay—common in newer subdivisions—can limit proper drainage. Sandy soils or those on a slope may drain more quickly and require a more drought-tolerant species. Low areas that are often wet may require a tree tolerant to flooding or wet soil conditions. In addition, consider the amount of sunlight needed and tolerance to extremely hot or cold temperatures.

**Space:** Give your tree sufficient room to grow, both above the ground for canopy and below the ground for its root system. Consider proximity to buildings, driveways, sidewalks, pools, patios, and overhead, underground, and ground-level utilities.

**Selection:** Once you have determined your purpose, planting site and space requirements, use the tree species selection guide for urban trees recommended by local arborists. By carefully selecting the right tree for your location, you can avoid the need for fertilization, which is a major source of water pollution.

### Right Tree/Right Place Checklist

#### Soil
- Most new subdivisions soils have been disturbed and are poorly drained.
  - Well drained/Dry
  - Poorly drained/Wet
  - Sandy
  - Loam
  - Shallow soil depth
  - Clay

#### Space
- Consider the mature height and spread of the tree.
  - Open space
  - Adjacent building
  - Important views
  - Other landscaping/trees
  - Overhead and underground utilities
  - Road signs or streetlights

#### Sunlight
- Most trees require partial to full sun.
  - Full sun
  - Full shade
  - Partial sunlight

#### Characteristics
- Unique attributes of trees can be attractive in all seasons.
  - Flowering
  - Fruit
  - Bark texture and color
  - Fall leaf color
  - Unique shape

#### Types of Trees
- Only evergreen trees hold foliage throughout winter.
  - Deciduous
  - Evergreen

#### Special Situations
- You may have additional site considerations.
  - Salt burn from street and sidewalk de-icers
  - Root space restrictions
  - Disturbed soils from construction
  - Future landscape or hardscape development

### Proper Tree Spacing

**Above-ground space for canopy**
- Small trees = 20 feet minimum
- Medium trees = 30 feet minimum
- Large trees = 40 feet minimum

**Below-ground space for roots**
- Minimum 2-foot soil depth
- Small trees = 100 to 200 square feet
- Medium trees = 150 to 300 square feet
- Large trees = 200 to 400 square feet

### Always Avoid:
- Blocking traffic signs, fire hydrants, views of oncoming traffic, pedestrian crosswalks and desirable night lighting. City ordinances may require planting permits and dictate corner planting setbacks.
- Planting too close to sidewalks, foundations or other pavement areas.
- Planting trees or shrubs around underground utilities.
- Planting trees in root areas of young trees.
- Planting trees too close together. Allow room for mature spread of each adjacent tree.
- Blocking desirable views from within a home or frequented area of the yard.
- Shading gardens.
- Encroaching on neighbor’s gardens or yard space without consultation.
- Planting too many of the same species.
- Planting evergreen trees on parkways.

### Planting Near Utility Lines

- Plant only utility-friendly trees (mature height of 20 feet or less within 15 feet of utility lines; no closer than 8 feet to power poles, and 5 feet from center of utility easement when access to utility is limited.

Some narrow-shaped trees may be able to survive closer than 30 feet to utility lines, without creating a conflict, but in no case should trees expected to grow as tall or taller than utility lines be planted closer than a distance equal to one-half their mature spread.

Suggested tree setbacks from power lines are for typical overhead residential distribution lines and do not apply to high-voltage transmission rights-of-way.
1. Call JULIE before you dig! Illinois law requires calling for underground utility locations at least two working days before digging. The number is 800-892-0123 and the service is free. Residents within the city limits of Chicago must call DIGGGER at 312-744-7000.

2. Dig a hole that is at least 2 times wider than the root ball (3 times wider in compacted soil). For depth of hole, you will need to vertically measure a firm root ball. If it is not solid and moist, water root ball and let sit overnight. Next, measure from bottom of root ball to root flare (the point where the top-most root in the root ball originates from the trunk). You may need to scrape off excess soil to expose the root flare. The depth of the hole should be equal to or slightly less than this distance. The bottom of the root ball should sit on undisturbed soil. The top-most structural root should be 1 - 3 inches below the soil surface when measured at 4 inches from trunk. It is better to plant trees up to 3 inches shallow rather than too deep, especially in poorly-draining clay soils.

3. Carefully roll or lift tree into planting hole. Small container trees can be carefully removed from container and placed into hole. Circling roots, if present, should be straightened or trimmed. Balled and burlap trees should be left intact. Broken or damaged roots frequently result in the loss of newly-planted trees, so always lift trees by the root mass and never by the trunk. If tree is too heavy to lift, dig a ramp into planting hole and slowly roll it in.

4. Straighten and secure tree. Look at tree from two different angles, carefully adjusting tree so trunk is true vertical. Check both angles of view a second time, then secure tree by compacting soil with foot pressure around bottom third of root ball.

5. Cut away all burlap and twine above the bottom third of the root ball. If wire basket exists, cut top one or two rings of wire off and remove from hole. Never leave burlap, twine or wire material in hole, as these will create air gaps.

6. Break up soil into small pebble-sized particles. Fill remainder of hole, lightly tamping every 4 to 6 inches. Amend backfill with 25% compost if soil has high clay content. Do not over compact the backfill, as soil needs to remain loose enough for good root development.

7. Settle backfill by thoroughly watering tree immediately after planting to settle soil. Be attentive, as the first watering is the time a tree may lean to one side, especially if root ball was loose or sandy. If that happens, tenderly pull tree back to straight position. Add more soil if settling occurs.

8. Stake tree only when necessary. Staking is not recommended except in situations where the tree will not be able to stand on its own, such as in sandy soils or windy locations. If staking is used, make sure ties around tree are rubber cords/tubing or flat straps to avoid girdling as the tree grows. Wire and garden hose combinations are not good. Do not stake so tightly as to restrict trunk movement. All staking should be removed after one year so tree can naturally strengthen with wind movement.

9. Create a 2-inch to 3-inch thick mulch bed so the root ball has good air exchange and water access. Mulch an area around the base of the tree equal to 3 feet per inch of trunk diameter (2" tree = 6 foot diameter mulch area). If space is restricted, mulch as large an area as possible to limit turf and weed competition and retain moisture. Properly mulched trees can grow up to three times as fast as trees that have turf, flowers or weeds within the recommended mulch area. Don’t overdo the amount of mulch; too much can suffocate a tree.

10. Inspect and water your new tree. It is important to keep the root ball moist but not saturated with light, frequent watering for the first two years of establishment.
Care and Pruning

Year Round Care

Spring
- Tree planting is good March through May.
- Replenish mulch to a depth of no more than 2 to 3 inches.

Summer
- Prune spring flowering trees and shrubs.
- New trees may need small amounts of water (1 gallon per trunk inch) every 3 to 5 days during July and August.
- Established trees need a thorough watering twice a month during dry periods.
- Do not overwater! Excessive turf irrigation or tree watering can cause foliar diseases and drown trees.
- Inspect trees regularly for insect, disease or mechanical damage.
- Conifers can be transplanted after new growth is complete.

Fall
- Tree planting is good September through November.
- Select tree species that are adaptable to fall season planting.
- Water trees beyond leaf drop, if soil becomes dry, until freezing temperatures arrive.

Winter
- Inspect trees for branch and structural problems.
- Most trees can be pruned, except for spring blooming trees.
- Water evergreens when winter temperatures warm to above freezing.
- Develop landscape designs and tree locations.

How Much To Water

The amount of water given to newly-planted trees should be carefully measured by slowly applying 1 gallon of water for each diameter inch of trunk every 4 to 5 days when there has been less than half an inch of rain during that week. Hot, dry periods, sandy soils or Southern climates may require watering as often as every 3 days to keep soil sufficiently moist. Containerized trees grown in bark mix readily dry out and may require frequent light waterings throughout the week during summer months. Otherwise, do not water trees daily or drown young trees with long soakings or turf irrigation.

Proper Tree Pruning

- Limit pruning to dead or broken limbs for the first three years since foliage helps regenerate the root system.
- Wound dressing is not necessary.
- All pruning should be done at bud or branch junctions.
- Never prune any tree close to electrical lines.
- Always maintain the upper two-thirds of the tree in branches and foliage whenever possible.
- Never remove more than 25% of the tree’s foliage in one season.
- Never top a tree, leave a stub or remove the branch collar by a flush cut.
- Always disinfect pruning tools with rubbing alcohol, Lysol® or Listerine® between trees (or between cuts on infected trees) to prevent the spread of disease.

TIP
For professional tree care advice, find a Certified Arborist at illinoisarborist.org.

Three-Step Approach for a Proper Pruning Cut

1. **Undercut 12-24” up from the branch collar.** This stops the bark from tearing.

2. **Make the second cut from the top all the way through the branch, directly above or just outside cut #1.**

3. **The final cut should be just beyond the branch collar. Support the stub so it does not tear the bark.**
These trees are just a start. There is an abundance of tree species, many native to Illinois, suitable for planting in urban and rural landscapes. See your local nursery or tree specialist for guidance.