



# DEMYSTIFYING THE ART OF TREE SELECTION

Putting the right tree in the right place

# Tree Species

The number of tree species might total 25 percent of all living plant species...

- Did you know that there is an estimate of 100,000 tree species worldwide?!  
That's pretty overwhelming...
- Only a fraction of those grow here...and even fewer are right for what you want/need.

# Narrowing the Field

- Determining what conditions exist-think about your area with different filters
- Deciding the qualities you are looking for in a tree
- Giving you the ability to search for a large tree with yellow fall color that will take morning sun and tolerate poorly-drained soils...

# What does right tree mean?

Right tree, right place is a mantra you may have heard before. It's used by landscape, nursery, urban forestry professionals to help get the message out.

The right tree is the tree that is best suited for the area it's being planted in and the expectations of the entity planting it.

# Qualities of a right tree?

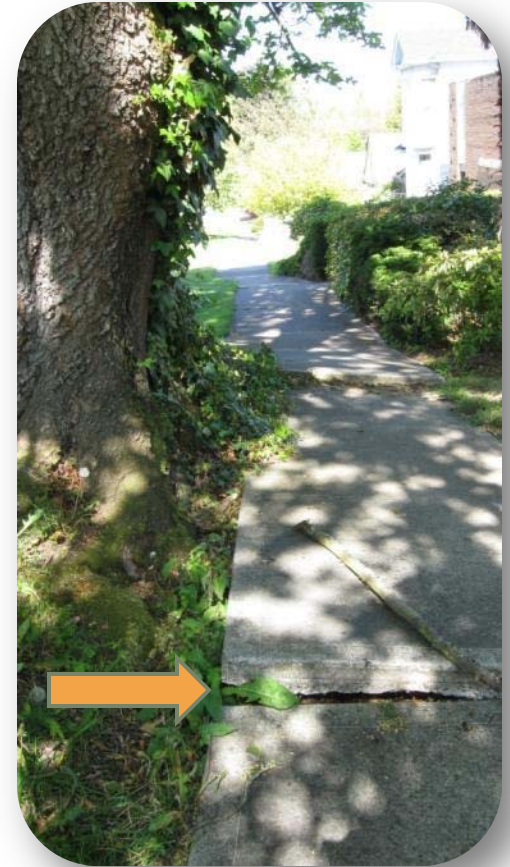
- ❑ Interferes with overhead utility lines
- ❑ Obstructs sight at corners and intersections





# Qualities of a right tree?

- ❑ Causes damage to house
- ❑ Damages sidewalk
- ❑ Gets bigger than the space it's in



# Where is the right place?

The right place. What is that exactly? A place where the right tree can grow to its destined size and have minimal or no negative impacts on urban infrastructure.

# Qualities of a right place?

- ❑ Right next to a building foundation
- ❑ Compacted soil
- ❑ Paved
- ❑ In front of a Stop sign
- ❑ Low overhead utility lines





# Factors to consider: tree

## Why are you planting?

- ❑ Shade-energy savings
- ❑ Beauty
- ❑ Buffer/Screen
- ❑ Seasonal interest
- ❑ Frame view



## Tree characteristics

- ❑ Size
- ❑ Habit/Form
- ❑ Culture
- ❑ Growth Rate
- ❑ Foliage
- ❑ Bark
- ❑ Flowers
- ❑ Fruit
- ❑ Liabilities



# Tree Characteristics

## Size at maturity



Small  
15-25' Tall



Medium  
25-40' Tall



Large  
40-70' Tall



Extra Large  
70'+ Tall

# Tree Characteristics

- Size at purchase time
- Cost-varies greatly and depends on species approx. \$20-\$200



1 gallon



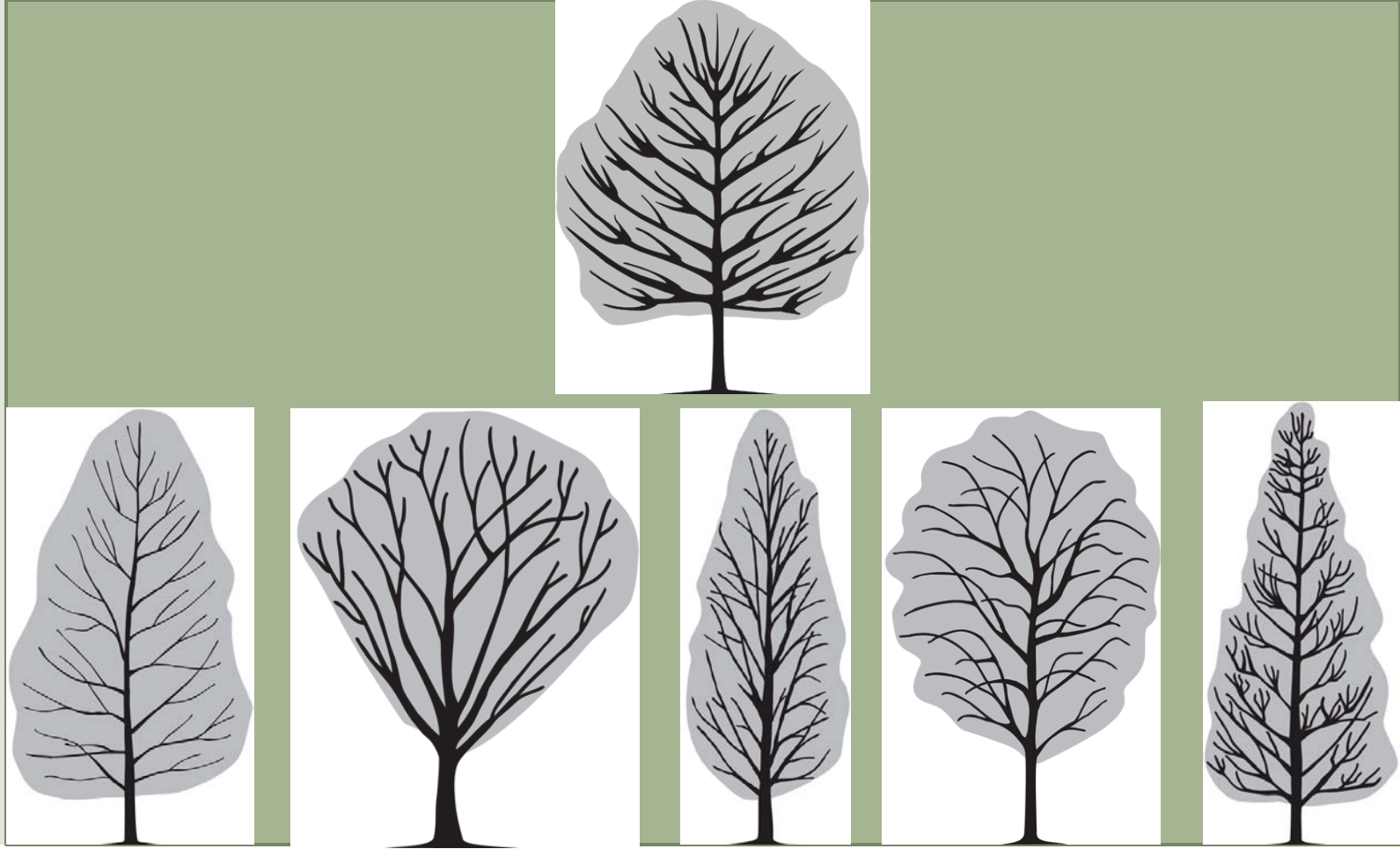
5 gallon



10 gallon



15 gallon



## Tree Characteristics

**Form:** single stem, multi-stem, columnar, pyramidal, round, vase

**Habit:** suckers, low branching, weeping, upright, responds well to pruning, or not...

# Tree Characteristics

- Light: Full sun, part sun/shade, shade-tolerant



- Soil: rocky, sandy, well-drained, fertile



- Water: moist, regular, drought tolerant





# Tree Characteristics

- Rate of growth refers to the vertical increase in growth unless specified differently. Rate, as is true for size, is influenced by numerous variables such as soil, drainage, water, fertility, light, exposure, ad infinitum.

Slow =  
Less Than 12" per year

Medium/Moderate =  
13-24" per year

Fast =  
25" per year or greater



## Tree Characteristics

**Foliage: texture, color, seasonal change, size, evergreen v. deciduous**

**Above from left: Monkey Puzzle Tree, Ginkgo, Red Oak**





## Tree Characteristics

**Bark: smooth, rough, exfoliating, color**

**Above from left: Ponderosa Pine, Tasmanian Snow Gum, Pacific Madrone and Jacquemonti Birch**





## Tree Characteristics

**Flower:** when (winter, spring, summer or fall), color, how long

Above from left: Catalpa, Eastern Redbud and Golden Raintree



## Tree Characteristics

Fruit: size, color, wildlife benefit, edible, needs to produce fruit (edible)

NOTE: Fruit trees (apple, plum, etc.) are not permitted in the rights-of-way

Above from left: Strawberry Tree, Doug Fir, Walnut





## Tree Characteristics

**Liabilities:** aggressive and/or very shallow root system, short life span, brittle wood, disease/insect susceptibility

# Factors to consider: site

## Air

- ❑ Air space
- ❑ Sun exposure
- ❑ Signs/stoplights
- ❑ Streetlights
- ❑ Proximity of buildings
- ❑ Overhead lines

## Soil

- ❑ Soil/rooting space
- ❑ Soil type
- ❑ Proximity of underground utilities
- ❑ Pavement-sidewalks, road, alley

# LOOK



**Look up** (buildings, utility wires, other trees)

**Look down** (soil, underground utilities, pavement)

**Look around** (buildings, other trees, safety, shade/sun)



# Underground Utilities

Our standard is minimum of 5' from underground utility lines (gas, electric, water, sewer, phone/cable).

If water/sewer lines are old and have not been replaced or lined in last 20 years or so, it is highly recommended to do so prior to planting or to seek another tree planting location.





## Site Considerations

What's wrong with this picture?



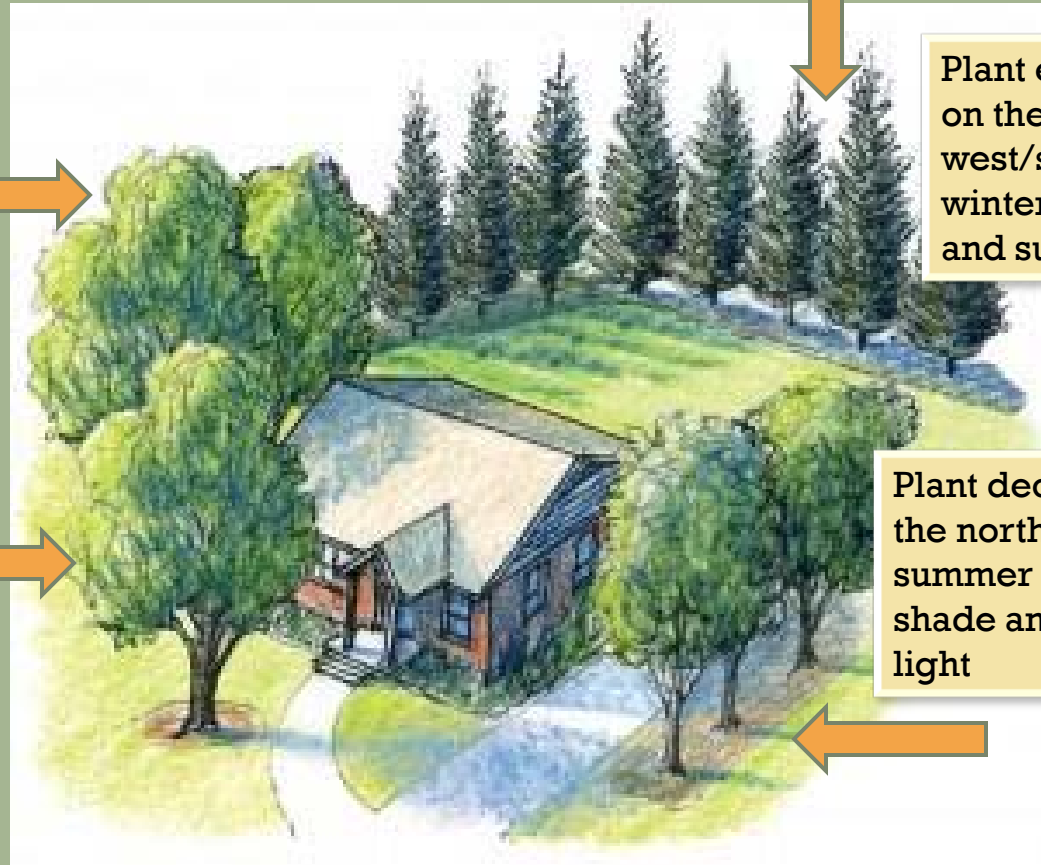


## Site Considerations

**Soil/rooting space: Is there any? How much?**

Plant deciduous on the south side for summer shade and winter sun

Plant deciduous on the east side for summer morning shade



Plant evergreens on the west/southwest for winter windbreak and summer shade

Plant deciduous on the north side for summer afternoon shade and winter light

## Site Considerations

Shade/energy savings



## Site Considerations

**Infrastructure:** streetlights, intersections, utilities, buildings, pavement, etc.

# Questions to ask yourself

- For what reason(s) am I planting a tree?
  - ▣ Summer shade, seasonal interest, screening, wildlife, etc.
- Where do I want to plant a tree? Is there enough room there for a S/M/L/XL tree?
- What kind of soil do I have there?
  - ▣ Poorly-drained, well-drained, fertile



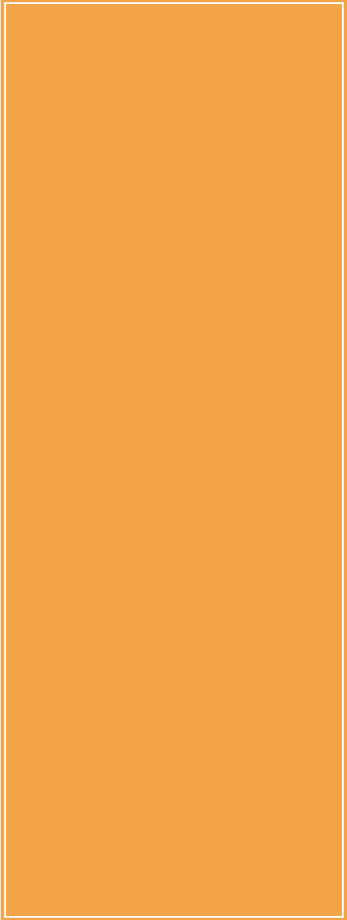
# Questions to ask yourself

- What kind of light is there?
  - ▣ Full sun, part shade (morning or afternoon?), shade
- Are there utilities or other infrastructure I should plan around?
  - ▣ Streetlights, buildings, utilities, other trees, etc.





# Now What?

- 
- Now that you have an idea of what kind of tree you want, where do you look/ask to narrow down the possibilities even more?
    - ▣ Local nurseries (not home improvement centers)
    - ▣ Local Arborists
    - ▣ The library/internet
    - ▣ Our Recommended Street Tree List

# Resources

[www.cityoftacoma.org/righttree](http://www.cityoftacoma.org/righttree)

- Tacoma's Recommended Street Tree List
- Standards for tree placement from infrastructure

[www.cityoftacoma.org/treepermit](http://www.cityoftacoma.org/treepermit)

- Permit applications and frequently asked questions/answers for tree permits

[www.mytpu.org/tacomapower/safety](http://www.mytpu.org/tacomapower/safety)

- Street Tree list for planting under power lines (same as list above)

[www.callbeforeyoudig.org](http://www.callbeforeyoudig.org)

- Utility locate service

• [www.treesaregood.com](http://www.treesaregood.com)

- Find Certified Arborists



**QUESTIONS & FEEDBACK?**

[trees@cityoftacoma.org](mailto:trees@cityoftacoma.org)