



HERITAGE TREE PROGRAM

# Town of Canandaigua

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Established 1791

## HERITAGE TREE PROGRAM

Est. 2023

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### TREE TEAM

This guide was prepared for the Town of Canandaigua by the members of the Town of Canandaigua Volunteer Tree Team with the help and support of Town staff.

#### Town of Canandaigua Volunteer Tree Team

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*Trees are poems that the earth writes upon the sky – Khalil Gibran*

### INTRODUCTION AND PURPOSE

#### PURPOSE

The Town of Canandaigua Tree Team is pleased to present a Heritage Tree Program. The Heritage Tree Program is a way to both honor those trees that have played a role in our past and raise public awareness of the wide range of ecological and economic benefits of healthy tree populations - providing shade, improving air quality, retaining and filtering storm water, controlling erosion, providing aesthetical appeal and increasing property values. By doing so, we can better preserve and maintain all of our trees and pass this responsibility along to future stewards of our local environment.

The purpose of the program is to identify and celebrate exceptional trees for their historical, botanical, and cultural or landmark value to our community. The program encourages the preservation of large, valuable trees and to increase public awareness about trees. Additionally, this program aims to encourage proper maintenance, care of, and protection of Heritage Trees.

Heritage trees can be found in virtually every community. In Canandaigua, they are an integral part of our natural and cultural landscapes and are often among the oldest living things in the Town. As individuals, species and populations, our local trees help make up the rich woodland environment of the unique Finger Lakes Region. As such, trees deserving heritage recognition need to be made known to local residents and visitors.

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#### CHARACTERISTICS OF HERITAGE TREES

Those specimens designated as Heritage trees will be identified as having a mix of key characters: relative species size and shape or form, rarity, aesthetic value, notable health and longevity, and high ecological importance to habitat, wildlife and people. Also, some trees may represent a unique specimen to our area, or an endangered species or population. Located in public spaces, greater visibility and accessibility is also important.

Heritage tree designation can also be given to trees that are landmarks of cultural, social, or historical significance. Older trees in particular, often have strong associations with historic persons, places and events in our community. Many have already succumbed to natural threats of storms, disease, and old age. Others have disappeared due to neglect and development.

### GUIDE FOR SELECTING A HERITAGE TREE

Prepared by Tree Team member and Arborist, Dan Marion

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#### KEYWORDS:

- **DBH** – Diameter at breast height. The diameter of a tree trunk measured at 4.5 feet above the ground.
- **Trunk Taper** - The change in trunk diameter starting at the base of the tree extending the height of the trunk to the canopy.
- **Dripline** - The outer most canopy branches or canopy spread.
- **Increment Borer** - A hand-driven, hollow core auger bit that removes a wood core from the tree. The core can be used to determine the annual growth rings. Core size ranges from 5/32" to 1/2".
- **Annual Ring (growth increment)** - The increment of wood added during a single growth period or during one growing season in the stem of a woody plant..

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**CRITERIA:**

**Unique Specimen Tree** - Trees with special aesthetic value such as shape and form. A rare species of tree for our area or in general.

**Landmark Tree** - Trees designated as such by the town because of its exceptional value to the residents of the town.

**Historical Trees** - Trees associated with a historical event, person or group.

**Special Cultural Interest** - Trees associated with religious belief system, rite of passage or that have also played an important part in mythology

**Endangered Tree Species**

**Ecologically Important Tree** - Tree that has significant importance to a habitat, wildlife and people.

**Size and Age** - There is a lot to consider when utilizing tree size and age in the selection of a heritage tree. The size of a tree (DBH, height and canopy spread) can vary greatly depending on tree species, growing conditions and location. For example, willows and cottonwood trees can reach great heights, canopy spread, and DBH girth in a relatively short period of time. They are both pioneering tree species that establish quickly and grow rapidly to outcompete other tree species for space, light and resources. In contrast, the Eastern White Cedars on the cliffs of the Niagara Escarpment can reach an age of 700 years or more and grow to heights of only 10 feet with a meager canopy spread. The growing conditions on the escarpment can be harsh with poor soil fertility and weather extremes that greatly impact size. A tree grown in an open field with little or no competition for resources will be taller, have a wider canopy spread, a larger DBH and a wider trunk taper than if the same tree is grown in the woods. In general, a woodland soil is more impoverished than a grassland soil. Trees grown in the woods are under much more competition for space, light and other resources than open field grown trees. Although these woodland trees can obtain great heights reaching for sunlight, they tend to have very narrow trunk tapers, a smaller DBH, and a small canopy spread when compared to its open field grown twin.

There is no direct relationship between size and age. Woodland trees, trees deprived of resources, and trees growing in harsh climates form thin growth increments and can be small, but actually can be very old. Also, not all growing seasons are the same. A short growing season or one with severe drought can greatly affect the thickness of the growth increment.

As mentioned above, with all conditions being equal, some species can deposit very thick growth increments or annual rings. The most accurate way to determine the age of a tree is to perform an increment borer core sampling on the trunk of a tree and then count the annual rings in the core. This

can be a very invasive technique. Historical documents, photos and verbal documentation can also be used to aid in determining the age of a candidate tree. If no direct evidence of age can be obtained an estimate of age can be used.

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#### ESTIMATING TREE AGE

The International Society of Arboriculture (ISA) has developed a formula based on the DBH and a species growth factor (see below for instructions). This method is considered to be a very rough calculation of age and does not take into consideration many variables affecting size and age such as water availability, climate, soil conditions, root stress, competition for light, overall plant vigor, and differences of growth rates of species within the same genera. Here is a [link to a webpage that illustrates this method](#).

ISA FORMULA: *Diameter X Growth Factor\* = Approximate Tree Age.*

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#### \*GROWTH FACTORS BY TREE SPECIES

- Red Maple Species - 4.5 Growth Factor
- Silver Maple Species - 3.0 Growth Factor
- Sugar Maple Species - 5.0 Growth Factor
- River Birch Species - 3.5 Growth Factor
- White Birch Species - 5.0 Growth Factor
- Shagbark Hickory Species - 7.5 Growth Factor
- Green Ash Species - 4.0 Growth Factor
- Black Walnut Species - 4.5 Growth Factor
- Black Cherry Species - 5.0 Growth Factor
- Red Oak Species - 4.0 Growth Factor
- White Oak Species - 5.0 Growth Factor
- Pin Oak Species - 3.0 Growth Factor
- Basswood Species - 3.0 Growth Factor
- American Elm Species - 4.0 Growth Factor
- Ironwood Species - 7.0 Growth Factor
- Cottonwood Species - 2.0 Growth Factor
- Redbud Species - 7.0 Growth Factor
- Dogwood Species - 7.0 Growth Factor
- Aspen Species - 2.0 Growth Factor