# Arboretum Tour of the Grove Street Cemetery

This brochure describes the 40 numbered plants on the arboretum tour. Their locations are keyed by number to the map. While the plants are numbered along a suggested route, please enjoy the thousands of plants in the Grove Street Cemetery in any way you wish.

Reminder: please do not remove live material from any plant. You may collect plant material which has fallen to the ground. Also note it may take 15 minutes to walk back to the gate from the furthest side of the cemetery, so be aware of the closing time.



Arboretum Tour: 1.3 miles Scale Approximately: 1"= 160'

The Grove Street Cemetery has been graced with the beauty of trees since 1798 when James Hillhouse began planting rows of Lombardy poplar trees along the avenues of family burial plots. By the 1840's, inspired by the 'rural' cemetery movement, which promoted the aesthetics of nature, a greater variety of trees replaced the declining poplars. Tree names were given to the avenues and some new plantings corresponded to these names.

Periodic beautification projects by both cemetery staff and individual families over many decades have introduced a wide variety of trees and shrubs throughout the 18 acres. An allée of ginkgo trees was established on Myrtle Path in 2003 and a replanting of flowering trees and shrubs in the front border along Hawthorne Path is ongoing.

This guide to 40 selected plant specimens is the first systematic effort to document the wide diversity of plant materials within the cemetery and distinguish it as an arboretum. The selection of plants was based on several criteria: the overall quality of the plant; specimens that are common to our area and some more rare species; the diversity of the collection; and the proximity of the plants along the arboretum tour route.

Grove Street Cemetery 227 Grove Street, New Haven, Connecticut 06511 grovestreetcemetery.org = facebook.com/grovestreetcemetery

The Grove Street Cemetery Arboretum Tour was created by Master Gardeners Karyl K. Evans, BS Horticulture, and Marilyn Elsworth as a University of Connecticut Extension Master Gardener Program—Community Outreach Project. Plants were selected and descriptions were researched and written by Karyl K. Evans and Marilyn Elsworth with contributions from Channing Harris, PLA, ASLA; plant scientist Jean D. Kreizinger, Ph.D.; Tom Zetterstrom, Elm Watch; and Dr. Mark Brand, Professor of Horticulture and Plant Breeding, University of Connecticut. Original plant illustrations drawn by Katy Rosenthal from live samples. This edition of the tour was produced courtesy of the Friends of the Grove Street Cemetry. Brochure design by Karin Krochmal. Cover photograph by Karyl K. Evans.

#### Flowering Dogwood Cornus florida

Understory tree identified by rounded buds blooming to reveal four showy white bracts and a small, greenishyellow true flower at the center followed by red berry clusters. Dark green oval-shaped leaves turn red-purple in fall. (Reclassified as *Benthamidia florida*.)

#### English Hawthorn Crataegus laevigata

Deciduous tree with low, zig-zag, ascending branches. Small single flowers have a white star-shape pattern in the center and bloom in mid-May. Fruits called "haws" are scarlet in color. Small dark green leaves are up to 2.5" long with 3–5 rounded lobes and serrated margins.

#### Saucer Magnolia Magnolia × soulangiana

Deciduous specimen tree has low, wide-spreading branches. Dark green, elliptical pointed leaves are 3" to 6" long and half as wide. Pubescent buds bloom in early spring. Showy flowers are large and tea cup-shaped in shades of white and pink with a 5" to 10" diameter.



3

#### Common Horsechestnut Aesculus hippocastanum

Majestic, deciduous tree is taller than broad. Palmately compound, dark green leaves have 5 to 7 leaflets. Showy 5" to 12" long, upright panicles of fringed white flowers have a yellow to red blotch near the base of each petal. Trunk bark plates with age to reveal orange-brown bark.

#### White Pine Pinus strobus

Fast growing evergreen tree, up to 150' in height. Pyramid shape when young with open lateral branching with age. Long, thin, soft blue-green needles in bundles of 5. New shoots are called "candles". Long, slightly curved, pointed brown cones hang from branches.

# Littleleaf Linden *Tilia cordata*

6

Pyramidal-shaped tree is densely branched. Small heart-shaped dark green leaves with light green undersides. The pale yellow, fragrant flowers

in drooping clusters are attached midway to the persistent leaf-like pale green floral bracts growing from petiole base.

# American Linden Tilia americana

This stately tree has serrated heart-shaped dark green 4" to 8" long leaves with uneven bases and silvery-green undersides. Pale yellow, fragrant flowers in drooping clusters are attached midway to persistent leaf-like pale green floral bracts growing from petiole base.

# Weeping Higan Cherry Prunus subhirtella 'Pendula'

This form of cherry tree is a graft of the graceful cascading variety of Higan Cherry at about 6' onto a straight trunk. A stunning display of pink blossoms borne in umbels of 2 to 5 flowers bloom in early spring. Shiny reddish-brown peeling bark has long horizontal lenticels.



# Japanese Zelkova Zelkova serrata

Vase-shaped deciduous tree with short trunk and dense, upright branching. Leaves are dark green, ellipticalshaped with sharply toothed margins. Fall foliage color varies from yellow to purple. Bark exfoliate to reveal orange colored inner bark with age.



# Red Maple Acer rubrum

Fast growing, deciduous tree with medium green opposite leaves, 2" to 4" long with 3 or 5-lobes. Seasonal red color features include: red buds, dense clusters of tiny red flowers, red leaf petioles, red fruits of two-winged samaras, and red leaf fall foliage.

# Baldcypress Taxodium distinchum

Deciduous conifer tree with horizontal branching, is conical in shape becoming irregular with age. Flat spirally arranged needles emerge green turning orange brown in fall. Small globe-shaped green to brown cones are ½" to 1" in diameter. Bark is red-brown and fibrous.



# Eastern Redbud Cercis canadensis

Small tree with rose-purple buds that open to pea-like flowers lining branches and trunk. Broad heart-shaped leaves, 3" to 5" wide emerge tinged with red, turning dark green. Fruits are in the form of 2" to 3" flattened legume pods that persist through the winter.

#### Hinoki Falsecypress Chamaecyparis obtusa

Loosely conical-shaped evergreen shrub with spreading branches and slightly drooping branchlets. Dark green foliage in dense fanshaped whorls with white X-like lines on underside. Small orange brown cones have only 8 scales. Left

side reverting to the straight species growth form.

# Japanese Stewartia Stewartia pseudocamellia

Small to medium pyramidal specimen tree. Deep green summer foliage turns shades of red, yellow, and purple in the fall. Camellia-like white flowers with orange anthers bloom in the summer. Striking exfoliating bark in camouflage patterns of green, gray, and orange.

# **Black Walnut** Juglans nigra

Walnut trees have alternate pinnately compound dark green serrated leaves, 1' to 2' long with up to 23 elongated leaflets—each up to 5" long. Leaves emit strong odor when crushed. This tree produces a chemical toxic to the plants around it. Nuts are edible.

#### **Princeton American Elm** Ulmus americana 'Princeton'

Multi-trunked tree with a vaseshape. Leaves are doubly-serrated and uneven at base. The elm tree is rarely planted today due to Dutch Elm Disease which virtually eliminated this tree. Resistant cultivars are being planted to bring this tree back into the landscape.

13

#### Goldenraintree Koelreuteria paniculata

Pinnately compound leaves 6" to 15" long with 7 to 15 leaflets per leaf emerge dark red and mature to rich green. Showy bright yellow flowers in panicles bloom in the summer. Papery seed capsules 1.5" to 2" long, resembling small lanterns, contain a small black seed.

# Sycamore Platanus occidentalis

Distinctive bark is gray brown at base of the trunk, exfoliating to expose cream to white inner layers on upper trunk and branches. Medium green 3 to 5-lobed leaves with pubescent under-sides grow 6" to 10" long. Single 1" round, hanging brown fruit persists through winter.

# Sawara Falsecypress Chamaecyparis pisifera

Dense evergreen tree with feathery sprays of dark green foliage with white lines on underside. Flattened branchlets are arranged in a horizontal pattern. Pea-sized brown cones cluster on branches and have 6 to 8 scales. Shredding bark is red brown in color.

# Pin Oak Quercus palustris

Branching pattern of drooping lower branches, horizontal middle branches and ascending upper branches. Leaves have 5 to 7 sharply pointed lobes with terminal bristles and deep "U" shaped sinuses. Pale yellow catkins mature to acorns <sup>3</sup>/<sub>4</sub>" in diameter with thin saucer like caps.







19



# White Oak Quercus alba

Large deciduous tree with bluegreen leaves 4" to 8" long with 5 to 9 rounded lobes which distinguishes it from the Red Oak. Solitary or paired acorns up to 1" long with bowl-shaped bumpy scaled caps. Light ash gray flaky bark. The Connecticut Charter Oak was a White Oak.

#### Sourwood Oxydendron arboretum

Fine-toothed oblong leaves to 8" long turning crimson red in the fall. Leaves have a sour taste which gives this tree its common name. Small, fragrant, white flowers on drooping elongated panicles to 8" long, bloom in mid-July and become upright capsules of seeds that persist.

# Tuliptree Liriodendron tulipifera

Large deciduous tree named for the 2"-4" upright tulip-shaped flowers that are yellow with an orange band at the base of each of 6 petals that develop near the top of the tree. The 4-lobed tulipshaped bright green leaves turn golden yellow in the fall.

# Blue Atlas Cedar Cedrus atlantica 'Glauca'

Evergreen needled conifer with unique horizontal branching structure is loosely pyramidal becoming more flattopped with age. Silvery blue 1" slightly curved needles are spirally-arranged on short spurs. Persistent cylindrical 3" cones are held upright along branches.



# Northern Red Oak **Quercus** rubra

Majestic tree with upright spreading branches. Leaves are dark green with 7 to 11 pointed lobes which differentiates it from the White Oak. Yellow-green catkins appear in May. Solitary or paired acorns are 1" long with flat saucershaped caps. Russet-red to tan fall color.

# Dawn Redwood Metasequoia glyptostroboides

Deciduous conifer tree with horizontal branching. Soft fern-like feathery flat leaves arranged like the teeth of a comb. Foliage emerges light green, matures to deep green and turns red-bronze in the fall. Reddish brown bark is shredded and often deeply fissured.

# **Norway Spruce** Picea abies

Large evergreen tree with horizontal upturned branches and pendulous branchlets. Needles are green, stiff, and pointed to 1" long. Four-sided spirally arranged needles attach at their bases to tiny pegs along reddish brown twigs. Mature cones are narrow and up to 6" long.

**Colorado Blue Spruce** Picea pungens var. glauca

This spruce is identified by the bluegreen color of the stiff four-sided needles which spread around each stem. This slow growing pyramidal-shaped evergreen tree has stiff horizontal branches all the way to the ground. Fruits are cones up to 5" long and 1" wide and cylindrical in shape.







#### Canadian Hemlock Tsuga canadensis

Medium-sized dense evergreen tree with graceful horizontal branches. Short flattened needles in two opposite rows are dark green with 2 whitish lines on the underside. Small seed-bearing cones up to <sup>3</sup>/<sub>4</sub>" long are tan-brown. This tree is threatened by the hemlock woolly adelgid scale insect.

# Hybrid Yew Taxus × media

Evergreen shrub to small tree with slow growth rate and flaky brown bark. Needle-like leaves are dark green above and lighter green beneath with horizontal arrangement. Female plants produce berry-like fruit with a single seed surrounded by fleshy red aril. All parts of the plant are poisonous.

#### American Sweetgum Liquidambar styraciflua

The common name refers to aromatic resin that exudes from wounds to the tree. Glossy deep-green star-shaped leaves change to orange and red in the fall. Fruits are 1.5" spiny balls that change from green to brown. The hard pointed fruit may persist through the winter.

#### Weeping Katsuratree Cercidiphyllum japonicum 'Pendulum'

This pendulous form of the species has gracefully weeping branches. Blue-green leaves are small, heart-shaped, with a hint of red in the stems, turning yellow to apricot in the fall with a sweet brown sugar smell. Fruits are small banana-shaped pods.

# 32

31



Large shrub or small tree with 2" to 5" long dark green leaves with a rounded leaf base. Showy, fragrant, creamy-white upright panicle of flowers up to 12" long and 10" wide bloom early to mid-June. Young bark is reddish-brown, turning gray with age.

# Sugar Maple Acer saccharum

Large, majestic, deciduous shade tree. Opposite green leaves are 5-lobed coarsely serrated with 2 smaller basal lobes. Leaves turn bright yellow to orange to red in the fall. Fruits are two-winged samaras that form a horseshoe shape. Tree sap is tapped to make maple syrup.

# **Common Witchhazel** Hamamelis virginiana

Shrub or small tree, with small fragrant spider-like bright yellow flowers along branches, is the last to bloom in the fall. The ovalshaped leaves with wavy margins are often uneven at base. Fruits are greenish seed capsules that become woody and brown with 4 sharp curved points.



36

# Star Magnolia Magnolia stellata

A deciduous tree or large shrub with upright branching. Leaves are narrow elliptic up to 4" long and half as wide. Flower buds are densely pubescent. Showy early spring star-shaped, fragrant blooms are white to pink-tinged, up to 4" across with 12 to 18 strap-like tepals.







# Southern Magnolia Magnolia grandiflora

Broadleaf tree with low dense branching and dark green leathery leaves to 10" long with brown pubescence on the underside. Woolly pubescent buds bloom in late spring. Large white fragrant flowers up to 12" in diameter. Cone-like fruiting clusters to 5" long will contain red-coated seeds. 37

38

39

40

# Paper Birch Betula papyrifera

Bark becomes chalky white and peels in strips to expose orange inner bark which differentiates it from the European White Birch. Flowers are 1" to 4" long catkins that develop in twos or threes. Leaves are ovate up to 4" long, coarsely serrated that turn bright yellow in the fall.

# Ginkgo Ginkgo biloba

Large, deciduous tree with laterally spreading branches that are spaced apart forming an open structure. Distinctive fan-shaped 2" to 3" long leaves grow on spurs in clusters. Variously notched, bright green leaves with diverging veins from the base turn bright yellow in fall.

#### Thornless Honey Locust Gleditsia triacanthos var. inermis

Pinnate and bipinnate compound leaves up to 8" long with many leaflets. Leaves are often the last to appear in the spring. Fruits are 7" to 18" long twisted flattened pods about 1" wide which hold seeds and a sweet, gummy substance giving the honey locust its name.