PARK TREES OF TOMORROW

PLANNING FOR THE FUTURE TREE CANOPY OF:

JEFFERSON SQUARE





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INTRODUCTION

WHY DO WE NEED THIS PLAN?

Trees are often the defining feature of our city parks. Parks are where most Philadelphia residents get to experience being among trees and experience the many physical and mental health benefits they provide. Our park trees are part of what make our city livable and lovable.

Many of the trees in our parks are mature and aging, making it important to plan now for the next generation of trees. Without a thoughtful plan for the future of our park trees there is a risk that a park may lose many trees at once, affecting how the park feels and functions for decades.

This plan is a guide for Park Friends groups to help them make decisions about what trees to plant and where. It provides a long term vision for the park with recommendations on how to achieve that vision slowly and sustainably. This plan also includes best practices for caring for newly planted trees, along with resources to help volunteer organizations achieve this vision.



THE PLANNING PROCESS

Fairmount Park Conservancy and Philadelphia Parks & Recreation led a consultant team and met with members of the Park Friends group and representatives from the local Registered Community Organization, elected officials, and federal agencies to develop a plan that both responds to the needs of the community and reflects best practices in arboriculture and urban forestry.


S 4TH ST
S 3RD ST
WASHINGTON AVE
JEFFERSON SQ.
FEDERAL ST
South 3rd Street
East Moyamensing Avenue
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PLANNING CONSIDERATIONS

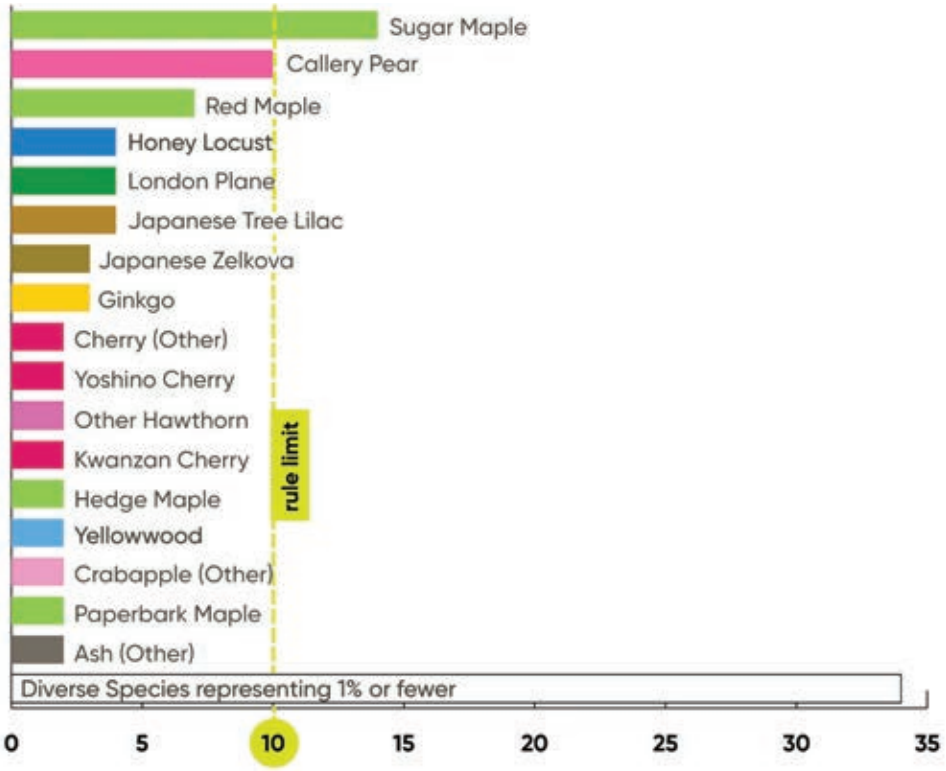
SPECIES DIVERSITY IS IMPORTANT

Species diversity is critical for the resilience of the community of trees in the city that we call the urban forest. Diseases like Dutch elm disease killed so many of the large elm trees that used to line so many American streets. The emerald ash borer beetle is now threatening to kill every ash tree on the east coast. We do not know what the next major threat will be to our urban forest. More diversity means we have a better chance of keeping most of the trees even if a disease or insect threatens a specific family or species of trees.

Trees, and all living things can be divided by family, genus, and species. As an example, cherry trees are in the family rosaceae (that also includes apple trees and roses), the genus Prunus (which includes all cherry types, peaches, and plums), and species (which is a specific tree like chokecherry or Prunus virginiana) The best practice for measuring diversity is for a forest to have:

- Less than **30% of a single family**
- Less than **20% of a single Genus**
- Less than **10% of a single species**

TREE SPECIES DIVERSITY IN THE SURROUNDING NEIGHBORHOOD



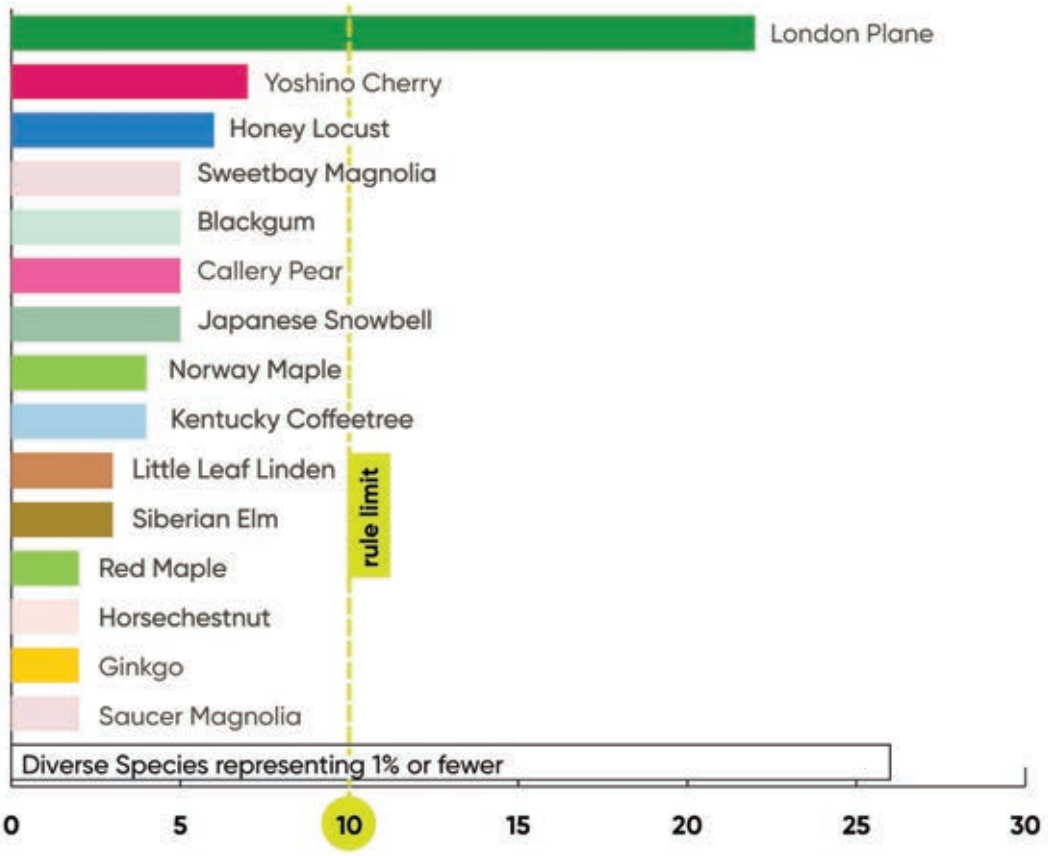
% of total trees

As we plan for the future of the trees in Jefferson Square we want to consider the trees in the park and the surrounding forest as part of the urban forest plant community. The plan to the left and chart above shows the composition of the trees within a 2 block area around the park.

We can see that sugar maples make up more than 10% and so we should be cautious about planting more trees of this species and of this genus (Acer). We also should be aware that the family rosaceae (including cherries, hawthorns, and callery pear) makes up almost 30% of all trees.


WASHINGTON AVE.
S. 4TH ST
S. 3RD ST.
FEDERAL ST.
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TREE SPECIES DIVERSITY WITHIN THE PARK



% of total trees

The species diversity of the trees in the park is a little different than the surrounding context and we need to consider both as we plan for the planting of new trees. London plane trees make up more than 10% and so we should not plant many more of this species and should be careful of planting too many of the same genus (Platanus) that include native sycamore trees.

There are other things to consider as we evaluate the types of trees in the park. This includes:

- Noting trees that are vulnerable to known diseases or pests
- Calling out trees that are invasive species

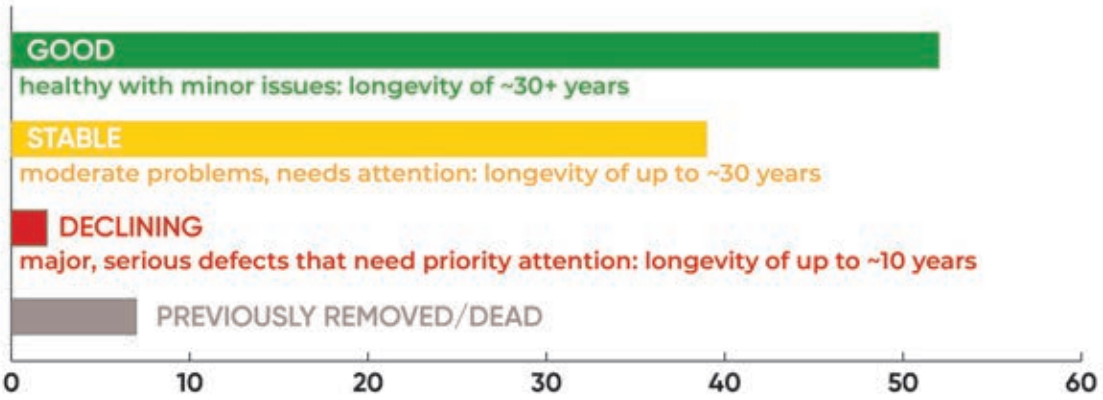
The following are the key diseases or pests that could affect the existing trees in the park and should inform planting of new trees:

- **Emerald Ash Borer** - This will likely kill every ash tree in the park very soon. New trees should be planted to replace all ash trees in the short term.
- **Bacterial Leaf Scorch** - This only affects oak trees in the red oak group. Pin oaks and red oaks in the park are vulnerable. New planting of trees that are vulnerable should be spread apart from each other and other existing trees in this vulnerable group.
- **Sycamore Anthracnose** - This affects London plane trees, and native sycamores. This is not fatal but can cause leaves to crinkle and drop in the spring and late summer.
- **Dutch Elm Disease** - This affects all elms and is fatal. Plant cultivars (cultivated variants) that have been bred for resistance.


WASHINGTON AVE.
S. 4TH ST
S. 3RD ST.
FEDERAL ST.
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PARK TREE CONDITION ASSESSMENT

All of the trees in the park were evaluated by an arborist in the fall of 2025 to determine their health. The assessment is based on conditions that can be observed from the ground including structural defects that can include cavities and large wounds. This also includes growth patterns that may cause issues in the future such as bark inclusion cracks. The arborist also looked for evidence of decay in the form of fungal fruiting bodies like mushrooms or evidence of pests like bore holes from insects. All of these observations went into determining a health designation of "good", "stable", or "declining". These designations help us plan for the future by telling us which trees are more likely to be removed in the near future and which trees can be expected to survive for many years to come. The planting plans for this park include recommendations for specific trees to replace trees that are in declining health in the short term to maintain a consistent canopy and minimize major impacts from the loss of trees.



% of total trees

WHAT HAPPENS IF WE DO NOTHING?



We can never know for certain how many trees will survive or die over the next 30 years, but we can make an educated projection based on the current assessment. We can assume that the park will lose all of the trees in "declining" condition and many of the trees in "stable" condition in a 30 year time span. If we do not plan for new canopy the park could look like the image on the left with large open areas that have no shade.


WASHINGTON AVE.
S. 4TH ST
NEW CONSTRUCTION
PICNIC AND PASSIVE USE
INFORMAL ACTIVE RECREATION
POP-UP EVENTS
EVENTS AND PERFORMANCES
S. 3RD ST.
PICNIC AND PASSIVE USE
FEDERAL ST.
N

PARK USE AND CHARACTER

Park Features

Jefferson Square is a passive park that includes paths, lawn, trees and places to sit. Open spaces under trees allow for flexible use. Key features of the park include:

- A central circle with rich plantings that create a quiet garden setting.
- Decorative pillars that highlight the entrances.
- Areas of open lawn under tall canopy trees that make space for gathering and informal recreation.

Park Use

Participants in the Friends group meetings called out some ways that the park is used that should be considered as part of the planning for new trees:

- The center circle hosts events and seasonal community pop ups.
- There are areas that are used for picnics that should have shade but maintain open areas underneath for use and visibility.
- The lawn panels along 3rd St. are often used for events like theater in the park or birthday parties.
- The lawn panels along 4th St. host more active recreation including Bocce.

Canopy Character

There are some patterns in the tree planting that contribute to the existing character of the park that should be considered as well. These include:

- Large canopy trees along the perimeter including many London Plane Trees
- Flowering trees near most of the entrances
- Shorter flowering plants in the central circle

A project to expand the sidewalk and planting along Washington Ave. was underway at the time of the development of this plan.



CENTRAL CIRCLE



FORMAL ENTRANCES



THEATER IN THE PARK



BOCCE ON THE LAWN


WASHINGTON AVE.
S. 4TH ST
S. 3RD ST.
FEDERAL ST.
N

A VISION FOR THE FUTURE

SHADED ACTIVE AREAS

Tall trees that can tolerate compaction and provide shade for active zones.

NATIVE FOREST GARDEN

A diverse mix of canopy and understory trees replicate the layers of a native Pennsylvania forest.

EVENT GARDEN

A mix of canopy and flowering trees that frame an open space for events and performances.

PASSIVE CANOPY

Trees with tall canopy that leave space for gathering in the shade.

FLOWERING CORE & AXES

Flowering trees welcome visitors to the park and create a garden-like setting at the center.

This plan lays out a 30-year vision to guide tree planting in the park. This plan creates planting zones that support the function and character of the park. Each zone has its own list of plants to be planted in that zone. The planting zones and lists build on the existing park character and mix of species, however, the vision plan does not include any existing trees. Preparing the plan in this way provides the Friends group with a planting strategy that can respond to any unexpected event. If a large storm or new pest affects a tree that is currently healthy and strong, then the Friends will have a guide for how to respond with new planting.

All of the tree species recommendations in this plan are native to this region and are approved species by Philadelphia Parks and Recreation. Species selection also prioritized climate resilience, favoring trees expected to thrive under future climate conditions in the region. The species are also readily available at local nurseries and can be requested as part of the “Love Your Park” planting program through Fairmount Park Conservancy.

KEY PLANS SHOW THE PLANTING ZONES

PASSIVE CANOPY



Mix tree species to avoid too many of one kind. Alternate species so there is not a line of the same species in a row. For visual interest, alternate species with red and yellow fall color.

CHOOSE FROM THESE TREE SPECIES TO PLANT IN THE PLANTING ZONE SHOWN IN THE KEY PLAN



Tuliptree



Chestnut Oak



Shumard Oak



American Basswood



American Elm
(disease resistant cultivars)

NATIVE FOREST GARDEN



As the existing canopy trees die over time, fill in with a mix of canopy and flowering trees. Place dogwoods on the edge of the shade.



Paw Paw



Flowering Dogwood



Sweetgum



Sweetbay Magnolia



Chokecherry



Sassafras



Sourwood

KEY PLANS SHOW THE PLANTING ZONES

FLOWERING CORE & AXES



Plant flowering trees in pairs on opposite sides of the path of the same species for aesthetic effect. Alternate Serviceberries and smoke trees in the center.

CHOOSE FROM THESE TREE SPECIES TO PLANT IN THE PLANTING ZONE SHOWN IN THE KEY PLAN



Eastern Redbud



Allegheny Serviceberry



Flowering Dogwood



Carolina Silverbell



American Smoke Tree



Green Hawthorn

SHADED ACTIVE AREAS



Mix tree species to avoid too many of one kind.



Sycamore



Blackgum



Willow Oak



Sugarberry



American Elm
(disease resistant cultivars)

EVENT GARDEN



Plant new trees at the edges of the space to leave the majority of the area open. Plant shorter trees as a backdrop to areas where performances happen.



Blackgum



Red Maple



Yellowwood



Kentucky
Coffeetree



Bald Cypress



American
Hophornbeam



Yellow Buckeye

PHASE 1 PLANTING PLAN



IMPLEMENTATION

PHASE 1: 1-5 YEARS

The planting strategy for the first 5 years should be to:

1. Fill in gaps where shade is needed.
2. Plant new trees near trees that are in "declining" condition to minimize gaps in the future.
3. Add trees that will make the most impact toward the 30-year vision.

Other things to consider as you plan for the first round of planting are:

- Group each year's new trees together so they're easier to water and care for while they establish.
- The schedule is only a suggestion and you can take your time to plant trees at a pace that aligns with the capacity to provide establishment care.

Symbol	Latin Name	Common Name	#
AL	*Amelanchier laevis*	**Allegheny Serviceberry**	4
CC	*Cercis canadensis*	**Eastern Redbud**	6
CK	*Cladrastis kentukea*	**Yellowwood**	1
CF	*Cornus florida*	**Flowering Dogwood**	1
Cob	*Cotinus obovatus*	**American Smoke Tree**	3
CrV	*Crataegus viridis*	**Green Hawthorn**	4
HC	*Halesia carolina*	**Carolina Silverbell**	4
LT	*Liriodendron tulipifera*	**Tuliptree**	1
PO	*Platanus occidentalis*	**Sycamore**	1
QPh	*Quercus phellos*	**Willow Oak**	2
QSh	*Quercus shumardii*	**Shumard Oak**	1

Phase 1 Total **= 28**

Average number of trees to plant per year for the first 5 years **= 5 to 6 / year***



Existing trees classified as "good" or "stable" in the condition assessment



Trees classified as "declining" in the condition assessment

PHASE 2 PLANTING PLAN



PHASE 2: 5-10 YEARS

The planting strategy for this phase should be to:

1. Plant new trees near trees that appear to be nearing the end of their life. Many of these are noted as being in “stable” condition in the condition assessment.
2. Plant trees that will advance toward the 30 year vision.

The Phase 2 planting plan and schedule are provided as a guide to help the Friends group decide on new tree planting over the next 10 years. Friends groups should adjust planting as needed to respond to unexpected events that can affect trees like storms or new pests or diseases.

Symbol	Latin Name	Common Name	#
AR	*Acer rubrum*	**Red Maple**	1
CL	*Celtis laevigata*	**Sugarberry**	2
GD	*Gymnocladus dioicus*	**Kentucky Coffeetree**	2
HC	*Halesia carolina*	**Carolina Silverbell**	1
LT	*Liriodendron tulipifera*	**Tuliptree**	1
NS	*Nyssa sylvatica*	**Blackgum**	2
OV	*Ostrya virginiana*	**American Hophornbeam**	1
OA	*Oxydendrum arboreum*	**Sourwood**	1
QPh	*Quercus phellos*	**Willow Oak**	1
QMo	*Quercus montana*	**Chestnut Oak**	1
QSh	*Quercus shumardii*	**Shumard Oak**	1
SA	*Sassafras albidum*	**Sassafras**	2
UA	*Ulmus americana*	**Americana Elm**	1

Phase 2 Total **= 17**

Average number of trees to plant per year for the following 5-10 years **= 3 to 4 / year***

Existing trees classified as “good” in the condition assessment

Trees classified as “stable” in the condition assessment

Locations of trees from Phase 1 planting.

TREE PLANTING GUIDE

For an easy guide for planting trees please use the Yard Tree Planting and Care Guide provided by TreePhilly. You can view and download a version of this guide at this link:

tinyurl.com/
TreePhillyGuide

Note: If trees are not being planted through a Love Your Park event, a Park Activity Permit from Philadelphia Parks & Recreation is required prior to planting.



TREE PLACEMENT CONSIDERATIONS

The phasing plans provide general guidance on where to plant which trees, however there are some additional things to consider when you are picking the exact spot for your tree.

- **Distance from paving:** try to keep all trees at least 10 feet from edges of paving. Smaller flowering trees might be able to get closer but tree species that get large can lift the pavement with their roots over time.
- **Overhead wires, lighting, or structures:** The phasing plans should avoid these conflicts but always double check that the area overhead is clear and does not block park lights.
- **Visibility and safety:** The phasing plans consider this but make sure that the tree location does not block any critical sight lines.



ESTABLISHMENT CARE

New trees need special attention for the first 3 years after planting to improve their chance of surviving to maturity. Once a tree is established it needs very little maintenance. Below are some of the key things you need to know about caring for your newly planted tree.



Protecting young trees

There are multiple ways of protecting young trees. If you are receiving trees from a program like Love Your Park or TreePhilly, ask the program manager about what methods they will be using to protect the trees. If you have had experiences with young trees being damaged in the past, tell the program manager and ask if there is additional protection they can provide such as fencing around the tree.



Watering

Watering is the most important aspect of establishment care and one of the most difficult to do. Trees need 15-20 gallons of water every week during the growing season (spring through fall).

Trees need “deep watering” which means watering slowly so that the water penetrates the soil and does not run off. There are multiple methods for this that use some water-holding device that can be filled with a hose and releases water over time like a Gator Bag. This can also be done with a simple 5 gallon bucket with small holes drilled in the bottom. If you are using a 5 gallon bucket you need to fill it 3 times a week at a minimum. This is most important during a drought and when the temperatures are very high.

Not all parks have a water supply. Philadelphia Parks & Recreation may be able to help provide support for watering. Talk to your contact at the Stewardship Office at Philadelphia Parks & Recreation. If you do not know who your contact is or if you don’t have a contact person then reach out to the Stewardship Office at (215) 683-3679 or PPRstewardship@phila.gov.

EXISTING TREES 2026



EXISTING TREE SPECIES

SYMBOL	LATIN NAME	COMMON NAME	NATIVE	# in park
AP	*Acer platanoides*	Norway Maple		4
AR	*Acer rubrum*	Red Maple	X	2
AS	*Acer saccharinum*	Silver Maple	X	1
AF	*Acer x freemani*	Armstrong Maple	X	1
AH	*Aesculus hippocastanum*	Horsechestnut		2
CaC	*Carpinus caroliniana*	American Hornbeam	X	1
CJ	*Cercidiphyllum japonicum*	Katsura Tree		1
CC	*Cercis canadensis*	Eastern Redbud	X	1
CK	*Cladrastis kentukea*	Yellowwood	X	1
GB	*Ginkgo biloba*	Ginko		2
GT	*Gleditsia triacanthos*	Honey Locust	X	6
GD	*Gymnocladus dioicus*	Kentucky Coffeetree	X	4
IO	*Ilex opaca*	American Holly	X	1
LI	*Lagerstroemia indica*	Crape Myrtle		1
LS	*Lagerstroemia species*	Crape Myrtle		1
MA	*Magnolia acuminata*	Cucumber Tree	X	1
MS	*Magnolia soulangiana*	Saucer Magnolia		2
MV	*Magnolia virginiana*	Sweetbay Magnolia	X	5
NS	*Nyssa sylvatica*	Blackgum	X	5
PO	*Platanus occidentalis*	American Sycamore	X	1
PA	*Platanus x acerifolia*	London Planetree		24
PY	*Prunus x yedoensis*	Yoshino Cherry		7
PSu	*Prunus subhirtella*	Autumn Flowering Cherry		1
PI	*Prunus x incam*	Okame Cherry		1
PC	*Pyrus calleryana*	Callery Pear		5
QA	*Quercus alba*	White Oak	X	1
QB	*Quercus bicolor*	Swamp White Oak	X	2
QP	*Quercus palustris*	Pin Oak	X	1
QR	*Quercus rubra*	Northern Red Oak	X	1
SJ	*Styrax japonicus*	Japanese Snowbell		5
SR	*Syringa reticulata*	Japanese Tree Lilac		1
SV	*Syringa vulgaris*	Common Lilac		1
TC	*Tilia cordata*	Little Leaf Linden		1
TT	*Tilia tomentosa*	Silver Linden		3
UA	*Ulmus americana*	American Elm	X	2
UP	*Ulmus pumila*	Siberian Elm		3
ZS	*Zelkova serrata*	Japanese Zelkova		1

Legend



Existing trees classified as "good" in the condition assessment



Trees classified as "stable" in the condition assessment



Trees classified as "declining" in the condition assessment


PHILLY
TREE COALITION
FAIRMOUNT PARK
CONSERVANCY
hinge
collective
SAVAYREE
FIND YOUR PATH
PHILADELPHIA
PARKS &
RECREATION