

City of Norfolk CBPA Guidance Document

Site Plan Projects- Multi-Family, Commercial, Retail, Industrial: Structures and any impervious surface, shall be located to minimize encroachment into the 100' CBPA buffer. If a natural buffer with groundcover, trees, and shrubs exists onsite, then no encroachment will be allowed within the seaward 50' buffer. For sites with existing impervious area within the seaward 50' CBPA buffer, encroachment will be only allowed to match square footage of existing impervious area, but no closer than 30 feet from the jurisdictional wetland. Full mitigation is still required for existing trees and shrubs being removed within the 100' CBPA buffer per Norfolk CBPA tree mitigation standards. Buffer restoration equal to the square footage of the proposed 100' buffer encroachment will be required. A landscape plan shall be submitted as part of the approved site plan and a CBPA tree permit must be obtained prior to land disturbance. Planting should be shown seaward of proposed encroachment if feasible. If required mitigation cannot be located onsite due to existing site conditions payment shall be made into a CBPA restoration fund.

Tree Mitigation Guidelines

Tree mitigation is based upon the following guidelines established by Bureau of Environmental Services. Mitigation is based upon tree size class, tree species, and tree location. The construction impact zone (CIZ) is a 10-foot-wide area adjacent to any structures footprint. Large canopy tree species (LCT) are those that reach at least 60 feet in height at maturity. Small canopy species (SCT) are those that reach less than 35 feet in height at maturity.

Site Plan Development

Mitigation for trees located within footprint or construction impact zone (10 feet from foundation).

Size Class (DBH inches)	Mitigation – Large Canopy Trees
0 – 12	2 – 1.5” caliper tree
13-24	4 – 1.5” caliper trees
25-35	6 – 1.5” caliper trees

CBPA Violations (Trees Removed without Permit)

Tree mitigation will double the requirements shown in the charts above.

Significant Specimen Trees

DBH of 36” or greater is a considered a large specimen tree and mitigation is influenced by tree condition and tree risk assessment performed by an ISA Certified Arborist. $(\text{Diameter}/3 + (\text{canopy spread}/43,560 \times 200 \text{ trees/acre}) = \#$ of replacement large canopy trees.

Dead or Dying Trees

The tree replacement is 1:1, based upon written evaluation by an ISA Certified Arborist.

*DBH – Diameter at Breast Height (measured at 4.5 feet above the ground)

Substitution Guidelines

1 LCT = 2 SCT = 10 large growing shrubs (6 – 8 ft. height and/or width @ maturity)

1/2 of mitigation planting shall be trees

Monetary Substitution: 1 LCT = \$310.00; 1 SCT = 250.00; 1 Shrub = \$45.00

MITIGATION SPEC SHEET



Large Canopy Tree means a large-growing tree. WILL MATURE TO APPROX. 60+ FEET IN HEIGHT

MINIMUM PLANTING SIZES:

*1.5 INCHES IN DIAMETER &/or 8-10 FEET IN HEIGHT,

*MULTI-STEMMED AND EVERGREENS - 8-10 FEET IN HEIGHT; IGNORE DIAMETER-- acceptable shade trees are oak, pine, black gum, southern magnolia, eastern red cedar and similar sized trees;



Small Canopy Tree means a tree that can grow under or smaller than a shade tree. WILL MATURE TO APPROX. 20+ FEET IN HEIGHT

MINIMUM PLANTING SIZES:

*1.5 INCHES IN DIAMETER &/or 8-10 FEET IN HEIGHT,

*MULTI-STEMMED AND EVERGREENS - 8-10 FEET IN HEIGHT; IGNORE DIAMETER

—Acceptable small or under-story trees are serviceberry, yaupon holly, redbud, and similar sized trees.



LARGE-GROWING SHRUBS means shrubs that are woody/hardy, and permanent additions to the landscape (such as a tree). WILL MATURE TO APPROX. 8-10 FEET IN HEIGHT &/OR WIDTH

IF SUBSTITUTION OPTION IS GIVEN: PLANTING SUBSTITUTION:

1 large canopy tree = 2 small canopy tree; 1 large canopy tree = 10 large-growing shrubs

Planting must occur onsite within 100 foot CBPA buffer. Payment can substitute for required plantings due to space restrictions.

MONETARY SUBSTITUTION: 1 shade tree = \$310; 1 small tree = \$250; 1 shrub = \$45

**IMPORTANT: CHECK SUN/SHADE REQUIREMENTS AND SALT TOLERANCE
PLANT TREES/SHRUBS ALLOWING PROPER GROWTH BOTH IN HEIGHT AND WIDTH
PLANT ACCORDING TO PLANTING GUIDES PROVIDED BY NURSERY
KEEP ID TAG(S) ON PLANT(S) &/OR KEEP CONTAINER(S) FOR INSPECTION**

100 Foot CBPA (RPA & IDA) Buffer Encroachment Guidelines

Any impervious surface encroachment into the 100 foot CBPA buffer for site plan projects will require 1 planting unit for every 400 square feet or fraction thereof.

One Planting Unit

- One (1) large canopy tree @ 1.5" – 2" caliper or large evergreen tree @ 6' height
- Two (2) small canopy trees @ 1.0" – 1.5" caliper
- Three (3) small shrubs

Example:

An 800 square-foot addition encroaching into 50 foot CBPA buffer.

Divide by 400 square feet (20'x20' unit) to get:

<u>Units</u>	x	<u>plant/unit</u>	<u>Number of plants</u>
2 units	x	1 large canopy tree	2 large canopy trees
		2 small canopy trees	4 small canopy trees
		3 small shrubs	<u>6 small shrubs</u>
			12 plants

Salt-Tolerant Native Plants for Waterfront Landscapes

Deciduous Large Canopy Trees

Hackberry (*Celtis occidentalis*)

Sugarberry (*Celtis laevigata*)

Sweet gum (*Liquidambar styraciflua*) – cultivar without seed pods e.g. ‘Rotundiloba’

Black Cherry (*Prunus serotina*)

Bald Cypress (*Taxodium distichum*)

White oak (*Quercus alba*)

Swamp white oak (*Quercus bicolor*)

Willow oak (*Quercus phellos*) – cultivar with narrower canopy e.g. ‘Hightower’

Water oak (*Quercus nigra*)

Pin oak (*Quercus palustris*)

Persimmon (*Diospyros virginiana*) – edible fruit

Black tupelo (*Nyssa sylvatica*) – cultivar with narrower canopy e.g. ‘Forum’

Evergreen Large Canopy Trees

Eastern red cedar (*Juniperus virginiana*)

Loblolly pine (*Pinus taeda*)

American holly (*Ilex opaca*)

Live oak (*Quercus virginiana*) – cultivar with narrower canopy e.g. ‘Highrise’

Southern magnolia (*Magnolia grandiflora*)

Small Canopy Trees

Yaupon holly (*Ilex vomitoria*) – tree & weeping varieties available

Little Gem Magnolia (*Magnolia grandiflora* ‘Little Gem’)

Sweetbay magnolia (*Magnolia virginiana*)

Common serviceberry (*Amelanchier arborea*)

Eastern serviceberry (*Amelanchier canadensis*)

Salt-Tolerant Native Plants for Waterfront Landscapes

Shrubs

Red chokeberry (*Aronia arbutifolia*)
Sweet pepperbush (*Clethra alnifolia*)
Inkberry holly (*Ilex glabra*)
Yaupon holly (*Ilex vomitoria*) – dwarf cultivars available e.g. ‘Nana’ & ‘Stokes Dwarf’
Wax myrtle (*Morella cerifera*)
Southern bayberry (*Morella caroliniensis*)
Northern bayberry (*Morella pensylvanica*)
Beach plum (*Prunus maritima*) – edible fruit
Smooth sumac (*Rhus glabra*)
Elderberry (*Sambucus nigra* ssp. *canadensis*) – edible fruit
Highbush blueberry (*Vaccinium corymbosum*) – edible fruit
Arrowwood (*Viburnum dentatum*)
Salt bush (*Baccharis halmifolia*)
Marsh elder (*Iva frutescens*)

Grasses

Switch grass (*Panicum virgatum*)
Salt-meadow hay (*Spartina patens*)

Perennials

Hibiscus (*Hibiscus moscheutos*)
Marsh mallow (*Kosteletzkya virginica*)
Asters (*Aster* spp.)
Blanket flower (*Gaillardia* spp.)
Goldenrods (*Solidago* spp.)
Coneflower (*Echinacea* spp.)
Orange coneflower (*Rudbeckia fulgida*)
Black-eyed Susan (*Rudbeckia hirta*)
Blazing star (*Liatris squarrosa*)

Tidal Marsh (regular salt water flooding)

Salt marsh cordgrass (*Spartina alterniflora*)
Salt-meadow hay (*Spartina patens*)