

## City of Norfolk CBPA Guidance Document

Site Plan Projects- Multi-Family, Commercial, Retail, and 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 or mean high water on revetments. For water dependent uses which include marine industrial and marina applications, the setback will be determined on an individual basis. 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 a minimum of one planting unit or one planting unit per every 400 square feet of impervious encroachment within 100' CBPA buffer will also 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.

## Water Quality Impact Assessment (WQIA) for CBPA Site Plan Projects

**Land Disturbance:**

Area of site \_\_\_\_\_ft.<sup>2</sup>

Area of land disturbance \_\_\_\_\_ ft.<sup>2</sup>

**CBPA Mitigation**

# trees removed within 100' CBPA buffer \_\_\_\_\_      1" - 12" \_\_\_\_\_      13" - 24" \_\_\_\_\_      25" - 35"

# shrubs removed within 100' CBPA buffer \_\_\_\_\_

Total woody vegetation disturbance within 100' CBPA buffer \_\_\_\_\_ ft.<sup>2</sup>

**CBPA Buffer Encroachment:**

Provide existing and proposed impervious (decks and patios are considered impervious) in chart. The 100' CBPA buffer encroachment will be the total, including the encroachment into the 50' CBPA buffer. Refer to CBPA guidance document for mitigation and encroachment planting requirements and species selection.

	Existing Impervious	Proposed Impervious
50' CBPA Buffer		
100' CBPA Buffer		

**Mitigation & Encroachment plantings required:**

Vegetation to be planted: Large Canopy Trees \_\_\_\_\_  
 Small Canopy Trees \_\_\_\_\_  
 Shrubs \_\_\_\_\_

Show species and numbers of proposed vegetation to be planted on the survey or landscape plan.

**Erosion and Sediment Control:**

Erosion and Sediment Control Plan & Stormwater Plan approved.  
 Yes  No

Responsible Land Disturber has been identified  
 Yes  No

## 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. (Diameter/3 = # 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**

X  
+

## 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 100 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>
			<b>12 plants</b>

## 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 halimifolia*)  
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*)