

## New Single-Family Checklist

(updated February 22, 2021)

### Zoning Requirements:

Noted below are the most commonly cited zoning requirements applicable to new single-family development. Not all zoning requirements are noted here. Additional requirements may be found in the Norfolk *Zoning Ordinance*. All section references are to the *Zoning Ordinance*.

- Note the following zoning information applicable to the site (where there are multiple districts on the site, include district boundaries):
  - Base zoning district(s)
  - Overlay zoning district(s)
  - Character district
  - AICUZ/noise zone information
  
- Include drainage note per Section 2.4.19.D(3): "I certify this plan meets all requirements of Section 2.4.19.D(3) of the Norfolk Zoning Ordinance and is providing adequate drainage to either the adjacent public right-of-way, an adjacent public body of water, or an approved BMP in accordance with an approved Common Plan of Development."
  
- Note the lot dimensions required of the applicable zoning district(s):
  - Lot area
  - Lot width (measured at the front setback line)
  - Setbacks from **all** property lines (required and proposed)
  - Impervious coverage percentage (required and proposed)
  - Front setbacks of adjacent properties (where a pattern is not evident, note the setbacks of all properties on the block face)
  
- Note the proposed driveway width and depth. Maximum driveway widths found in Section 5.1.7.B(1). Parking spaces shall be at least 8'x18' (per Table 5.1.7(A)). Garages may count towards **one** required parking space (per Section 5.1.6.D).
  
- Note the location of the proposed foundation planting strip. Per Section 5.2.6.A, a minimum 3' planting strip is required along the foundation of all building façades fronting a public right-of-way.
  
- Note the location of the proposed front yard tree(s). Per Section 5.2.6.A, one small, medium, or large tree (min. 2.5" caliper at planting) is required in the front or corner

side yard for each 25' of lot frontage. Where overhead utility lines are present, only small trees should be specified. Preservation of existing large trees located elsewhere may be considered to meet this requirement.

- If in a coastal resilience overlay district (CRO), note that all landscape materials will be native and salt tolerant.
  
- Include exterior lighting note per Section 5.8: "Measured at ground level at the property lines shall be no more than 0.5 foot candles. The height of exterior light fixtures mounted on poles shall not exceed 16 feet in height."
  
- Note the following form standard information applicable to the structure per Section 5.9, Form Standards:
  - Width of any garage door(s) facing the right-of-way
  - Location and dimensions of covered entryway
  - Ground story finished floor elevation and highest pre-existing grade adjacent to the primary entrance
  
- Indicate locations of all existing and proposed accessory structures, including fences, and closest distance to all adjacent property lines. Clearly note which accessory structures are to be removed.
  
- Indicate locations and methods chosen to meet requirements of Section 5.12, Resilience Quotient:
  - Ground story finished floor elevation and highest pre-existing grade adjacent to the primary entrance
  - Method for capturing 200 gallons of rainwater (include location and characteristics of all proposed interventions). Include note: "Roof drainage shall be intercepted and detained on site within a system providing no less than 200 gallons of total storage capacity."
  - Location of proposed generator switch. Include note: "The electrical systems of this dwelling shall be designed with pre-installed wiring and connections including a 'portable generator transfer switch' to allow use of a generator during electricity outages."

## Right-of-Way Requirements:

Contractors will always need the following for permitting:

- An address signed off by the Department of Transit ([David.Vachet@norfolk.gov](mailto:David.Vachet@norfolk.gov)).
- A ROW permit (for all Excavations and Installations in the right of way including utilities, connections, sidewalk, curb, and gutter). Register, apply, pay for, and print permits at PermitCity (<https://citizen.norfolk.permitcity.com/>).
- A Closure permit (You can't cut the street or sidewalk without closing a sidewalk, lane, or street). Register, apply, pay for, and print permits at PermitCity (<https://citizen.norfolk.permitcity.com/>).
- A Driveway Entrance permit (Must install a new apron entrance or keep the existing (if acceptable); apron add-ons are not acceptable). Register, apply, pay for, and print permits at PermitCity (<https://citizen.norfolk.permitcity.com/>).
- A bond covering 100% of the cost of all right of way work installation and restoration including all storm water work (on public and private property) is required. On site storm water bond is needed because it ties into the City's storm water system and we need to make sure it is installed and installed properly. Please send the bond estimate to [Cregg.Fortin@norfolk.gov](mailto:Cregg.Fortin@norfolk.gov) for review. The bond form can be found at <https://www.norfolk.gov/3608/Bonding>.
- All installations must be in accordance with City Design Standards (<https://www.norfolk.gov/DocumentCenter/View/10359/PDF-Format-?bidId=>) and the ROW Excavation and Restoration Manual (<https://www.norfolk.gov/DocumentCenter/View/779>).

## Grading and Drainage Requirements for Single Family Dwellings:

Development of new, single-family dwellings (SFD) within the City of Norfolk geographic boundary typically result in increased impervious area (dwelling, driveway, etc), which results in increased site runoff (rate and volume). Site development should not obstruct or negatively impact drainage on adjacent properties. The *Stormwater Grading and Drainage Requirements for Single-Family Dwellings* has been developed to reduce the probability of property damage associated with increased flooding from new development.

A site grading plan must be submitted for review prior to land disturbance when the Developer/Builder intends to substantially affect the direction, rate or volume of surface runoff from the site, including revised grades of a SFD site from existing conditions. In accordance with Section 42-20.2 and/or 42-20.3 of the City Code of Ordinances and Section 2.3.2 of the *Norfolk Design and Construction Manual* adopted by Ordinance in Section 41.2, the Developer/Builder is required to obtain a Fill Permit. If the Developer/Builder obtains an approved site plan from the Department of Planning that incorporates, at a minimum, the items outlined in the *Stormwater Grading and Drainage Requirements for Single-Family Dwellings*, the Fill Permit may be waived by the Director of Public Works.

- Topographic Survey, prepared and certified as complete and accurate by a Professional Engineer (PE) or Certified Land Surveyor (PLS).
  - Drawn to scale.
  - All existing site features, including any areas to be filled or regraded (topographic contours and/or spot elevations).
  - Adjacent property elevations.
  
- Site Plan.
  - Location, elevation, extent and type of proposed grading (topographic contours and/or spot elevations). Obstructing or increasing drainage to adjacent properties is prohibited.
  - Site must demonstrate how new site grades will tie-in to existing grade on adjacent property(-ies).
  - Location of any natural or man-made drainage system(s) which could be affected by grading modifications.
  - Provide detailed excavation spoil disposal plan. Disposal may include removal from the site or reuse on-site for regrading purposes.
  - Provide flow arrows to indicate site runoff.
    - Runoff (including rain barrel overflow) must be directed to City right-of-way, an approved City-maintained drainage system, natural waterway or directly to waters of the United States.

- Builder/Developer is encouraged to utilize low-impact design and maintain drainage on-site (e.g. Infiltration, Bioretention), so long as appropriate means are in place to ensure proper infiltration of runoff.
  
- Developer/Builder must install gutters and downspouts to collect and convey roof runoff to City right-of-way. If gutters and downspout leaders are permitted to be omitted from the SFD site, the plan must reflect splash areas associated with the sheet flow from the SFD.
  - Roof drainage plan must adequately ensure estimated quantity of roof runoff to a specific area on-site is adequately addressed (e.g. infiltration trenches, swales, and/or retaining walls).
  - There must be a defined justification to allow the exemption.
  
- All improvements and tie-ins to the City right-of-way are subject to inspection by the Department of Public Works, Environmental Storm Water Management, Department of Transit, Right of Way and Department of City Planning.
  
- Inspections must be completed on the grading aspect of the site prior to issuance of an occupancy permit.
  - Provide an As-Built, prepared and certified as complete and accurate by a Professional Engineer (PE) or Certified Land Surveyor (PLS).
    - Drawn to scale.
    - All newly constructed site features, including any areas filled or regraded (topographic contours and/or spot elevations), location of any related stormwater control features.
    - Adjacent property elevations.
  - Final occupancy permits will not be issued until the as-builts are reviewed by the Planning Department or Public Works staff to verify site conditions match the approved site plan.

## City of Norfolk CBPA Guidance Document for Single Family Homes

This guidance applies to both Resource Protection Areas (RPA) and Intensely Developed Areas (IDA) within the Chesapeake Bay Area overlay district. All trees/shrubs within the 100' CBPA buffer are protected under state law and city code. A permit is required for removal.

### **To determine if your property is in the CBPA**

<https://air.norfolk.gov/#/> Go to legend on the top right of the map, select the zoning option and turn on CBPA. Red (IDA) or green (RPA) checker pattern are the CBPA boundaries. Can also be determined by selecting the planning tab center of screen within blue stripe and scrolling to CBPA reference.

### **Single-Family Detached Development:**

Structures shall be located at the front yard setback to minimize encroachment into the 100' CBPA Buffer and to preserve existing trees and shrubs. For sites with existing impervious area within the seaward 50' buffer, encroachment will only be allowed to match square footage of existing impervious area, but no closer than 25 feet from the jurisdictional wetland. Any impervious surface encroachment into the 100' CBPA buffer will require buffer restoration equal to one planting unit per 400 square feet of impervious surface. Full mitigation is still required for existing trees and shrubs being removed within the 100' CBPA buffer per Norfolk CBPA tree mitigation standards. A landscape plan, or planting plan on a survey and a water quality impact assessment (WQIA) are required to be submitted and a CBPA tree permit shall be issued for mitigation prior to approval. Planting should be shown seaward of the proposed encroachment to the greatest extent possible.

On zoning lots located in the RPA that have not been previously developed or have been created after the adoption of this Ordinance, all structures and impervious surfaces must be located outside of the CBPA buffer. On zoning lots located in the RPA that have been previously developed or were created prior to March 1<sup>st</sup>, 2018, redevelopment is limited to the same size and distance as what previously existed on site but no closer than 25 feet from the jurisdictional wetland.

Please contact Environmental Services at (757) 664-4368 with any further questions

## CBPA New Single-Family Checklist

### The following is required on survey:

- CBPA note: “THIS PROPERTY IS LOCATED IN THE CHESAPEAKE BAY PRESERVATION AREA (C.B.P.A.) AND IS SUBJECT TO CERTAIN DEVELOPMENT REQUIREMENTS AND LIMITATIONS. NO TREE OR SHRUB REMOVAL CAN TAKE PLACE ON THIS PROPERTY WITHOUT PRIOR AUTHORIZATION. PLEASE CONTACT THE BUREAU OF ENVIRONMENTAL SERVICES AT 757-664-4368 FOR FURTHER INFORMATION.”
- Identify trees greater than or equal to 4 inches in diameter in 100-foot buffer and show trees that are proposed to be removed.
- Label “CBPA Wetland” line. Contact Environmental Services for wetland delineation; 757-664-4369.
- Label CBPA Buffer Lines
  - IDA Zoning
    - Label “50’ CBPA Buffer” line
    - Label “100’ CBPA Buffer” line
  - RPA Zoning
    - Label “50’ RPA Buffer” line
    - Label “100’ RPA Buffer” line
- Provide required CBPA Mitigation and/or Buffer Restoration on survey or landscape plan according to CBPA Guidance Document (attached).
- Provide Water Quality Impact Assessment Form (WQIA)
- Site stormwater drainage must be directed to the City right-of-way or body of water, if present. No drainage from this development may be directed to adjacent private property.
- Provide stake-out of proposed development, including driveways and deck additions.

## Water Quality Impact Assessment (WQIA) for CBPA Single Family Construction

### 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:

Agreement in Lieu of an Erosion and Sediment Control Plan Provided

Yes  No

Responsible Land Disturber has been identified

Yes  No



## Tree Mitigation Guidelines

### Tree Mitigation for Single Trees ( $\leq 5$ ) Removed During Development (Chesapeake Bay Preservation Area Overlay District-RPA and IDA)

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.

#### New Single Family

Mitigation for trees located within building footprint:

Size Class (DBH* inches)	Mitigation – Large Canopy Trees
0 – 12	1 – 1.5” caliper tree
13-24	2 – 1.5” caliper trees
25-35	3 – 1.5” caliper trees

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

Size Class (DBH inches)	Mitigation
0 – 12	2 – 1.5” caliper trees (1 LCT + 1 SCT)
13-24	4 – 1.5” caliper trees (2 LCT + 2 SCT)
25-35	6 – 1.5” caliper trees (3 LCT + 3 SCT)

#### 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**

## 100 Foot CBPA (RPA & IDA) Buffer Encroachment Guidelines

Any impervious surface encroachment into the 100 foot CBPA buffer for new single family homes, additions, or accessory structures will require buffer restoration equal to one planting unit per 400 square feet.

### 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

## 50 Foot CBPA (RPA & IDA) Buffer Encroachment Restoration Guidelines

For every 400 square-foot encroachment provide one planting unit.

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

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## 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*)