

ARTICLE 13 - BUFFERYARD STANDARDS

13.1 Purpose

Bufferyard standards are designed to provide visual and functional separation between land uses of differing intensity and to:

- (1)** Reduce potential nuisances, such as glare, dirt, noise, unsightly views and other adverse impacts;
- (2)** Safeguard property values and preserve the character and integrity of the community; and
- (3)** Protect the health, safety and welfare of the public.

13.2 Applicability

These regulations shall apply to all land development activities within the Town with the exception of the following:

- (1)** The construction, reconstruction, expansion or modification of a detached single-family dwelling on an individual lot.
- (2)** The construction, reconstruction, expansion or modification of no more than three (3) attached dwelling units.

13.3 Determination of Bufferyard Requirement

(1) Procedure

A bufferyard may be required between any proposed land use and each adjacent property. The type of bufferyard required shall be determined as follows.

(A) Land Use Class (LUC) – Appendix 1

Identify the land use class (LUC) in Appendix 1 (A, B, C, D, or E) for the proposed project and all adjacent properties, excluding properties across a public right-of-way.

(B) Bufferyard Type (I, II, III, IV)

Determine the Bufferyard type (I, II, III or IV) required by Table 13-1.

Table 13-1. Determining Bufferyard Type.

Use Class of Proposed Use	Use Class of Adjacent Property				
	A	B	C	D	E
A	None	I	II	III	IV
B	I	None	I	II	III
C	II	I	None	I	II
D	III	II	I	None	I
E	IV	III	II	I	None

(C) Bufferyard Standards

Determine the standards for each required Bufferyard:

1. Type I Bufferyard. A type I bufferyard is a low-density screen designed to partially block visual contact and create spatial separation between adjacent uses. The requirements of this bufferyard are identified in Table 13-2.

Table 13-2. Type I Bufferyard Width and Planting.

Minimum Bufferyard Width	Minimum Planting Required per 100 Linear Feet
8 feet	2 trees 8 primary evergreen plants 10 supplemental evergreen shrubs

2. Type II Bufferyard. A type II bufferyard is a low-medium density screen designed to block visual contact and create spatial separation between adjacent uses. The requirements shall be used to satisfy this bufferyard are identified in Table 13-3.

Table 13-3. Type II Bufferyard Width and Planting.

Minimum Bufferyard Width	Minimum Planting Required per 100 Linear Feet
15 feet	2 trees 10 primary evergreen plants 14 supplemental evergreen shrubs

3. Type III Bufferyard. A type III bufferyard is a medium density screen designed to eliminate visual contact and create spatial separation between adjacent uses. The requirements shall be used to satisfy this bufferyard are identified in Table 13-4.

Table 13-4. Type III Bufferyard width and planting.

Minimum Bufferyard Width	Minimum Planting Required per 100 Linear Feet
20 feet	2 trees 13 primary evergreen plant. 16 supplemental evergreen shrubs

4. *Type IV Bufferyard.* A type IV bufferyard is a high density screen designed to eliminate visual contact and create spatial separation between adjacent uses. The requirements shall be used to satisfy this bufferyard are identified in Table 13-5.

Table 13-5. Type IV Bufferyard width and planting.

Minimum Bufferyard Width	Minimum Planting Required per 100 Linear Feet
30 feet	3 tree. 16 primary evergreen plant. 18 supplemental evergreen shrubs

(2) Additional Requirements

(A) Fractional Calculations

Fractional planting requirement calculations shall be rounded to the next higher whole number.

(B) Existing Plant Material

Existing plant material within the required bufferyard may be included in the computation of the required plantings with approval of the Zoning Administrator.

(C) Fence or Wall Option

An opaque fence or wall may be used in lieu of not more than fifty percent (50%) of the required evergreen bufferyard plantings with the approval of the Zoning Administrator and provided that the following conditions are met, where applicable:

1. *Fence Height for Land Use Classes A-D.* The minimum required fence height shall be six (6) feet above ground level when the proposed project is classified in land use classes A-D.
2. *Fence Height for Land Use Class E.* The minimum required fence height shall be eight (8) feet above ground level when the proposed project is classified as a Class E land use.

3. *Vegetation Planted on Exterior Sides.* Where a fence or wall is used as part of the required screening, all required vegetation shall be planted on the exterior side of the fence or wall, except that all required vegetation shall be planted on the same side of a fence or wall as a Class A land use.

(D) Earthen Berms

Earthen berms six (6) feet high or greater, or earthen berms with combined evergreen shrub plantings reaching a minimum height of six (6) feet, may be used in lieu of not more than fifty percent (50%) of the evergreen bufferyard plantings provided that the following conditions are met.

1. *Live Vegetation.* The entire berm shall be planted and covered with live vegetation.
2. *Evergreen Shrubs.* On berms less than six (6) feet in height evergreen shrubs, if used, shall be a minimum of one (1) foot in height at installation and shall be placed no greater than eighteen (18) inches edge to edge.
3. *Shape.* Berms shall be naturally shaped, shall have a minimum crown width of two (2) feet, and shall have side slopes stabilized to applicable sedimentation and erosion control standards.
4. *Setback.* Berms shall be located no closer than five (5) feet from any adjacent property line.

(3) Conflicting Bufferyard Requirement

If any conflict exists between the bufferyard requirements as identified in this Article and any use standards or zoning district regulations contained in other sections of this Ordinance, the more restrictive requirements shall apply.

13.4 Bufferyard Location and Design

(1) Location of Bufferyards

(A) General

Bufferyards shall be located on the outer perimeter of a lot or parcel, extending to the lot or parcel boundary line, with the following exceptions:

1. *On Adjacent Property.* All or part of the bufferyard may be located on adjacent property within a permanent easement dedicated for such purpose with approval of the Planning Board.
2. *Portion of Site Proposed for Development.* If only a portion of a site is proposed for development, the required bufferyard may be

located at the limit of construction perimeter with approval of the Planning Board.

3. *Topographic Irregularities.* Where topographic irregularities require a different location to meet the intent of this Article, the location of the bufferyard may be varied with approval of the Planning Board.
4. *Slope Ratios.* Required bufferyard plantings shall not be installed on cut or fill slopes with slope ratios greater than two to one (2:1).

(B) Cut Slope

Where bufferyards include any part of a cut slope greater than ten (10) feet in height, grading for such cut slope shall not encroach closer than ten (10) feet to the property line.

(C) Rights-of-way and Streets

Bufferyards shall not be located on any portion of an existing, dedicated, or proposed right-of-way, or a private street.

(D) Bufferyard Plantings Within Easements

The following regulations shall apply where utility, access, or other easements that may affect required plantings are located within bufferyards:

1. Where required plantings are located in easements, the property owner shall be responsible for replacement of such required vegetation if maintenance activities or other utility requirements cause their removal.
2. No required tree or primary evergreen plant shall be planted in a wet retention pond, drainage maintenance easement, or any utility maintenance easement.
3. Required shrubs may be planted within easements provided that they are limited to the outer three (3) feet of the easement.

(2) Design Requirement

(A) Plant Materials

All planting materials for use in required Bufferyards shall be selected for hardiness zone 7B in accordance with the most recently published "Drought-Tolerant Plants for North Carolina Landscapes" (publication # AG 508-3) by the NC Cooperative Extension Service. In addition, evergreen plants and shrubs listed in the NC Cooperative Extension Service publication "Evergreen Plants Suitable for Use as Screens" are encouraged.

(B) Size of Plant Material

1. Only trees which have mature heights exceeding twenty-five (25) feet may be used for required bufferyard plantings.
2. All trees used for bufferyard screening must be a minimum of eight (8) feet in height at installation and shall be at least two (2) inches in diameter as measured six (6) inches above ground level.
3. All primary evergreen plants shall be a minimum of six (6) feet in height at time of installation unless combined with an approved earthen berm, and shall be not less than ten (10) feet in height at maturity.
4. All supplemental evergreen shrubs shall be a minimum of eighteen (18) inches in height at installation, and shall attain a minimum height of thirty-six (36) inches three (3) years after installation.

(C) Spacing of Plant Material

1. All trees shall be installed with tree trunks spaced a minimum distance of thirty (30) feet apart and a maximum distance of sixty (60) feet apart.
2. All primary evergreen plants shall be distributed evenly along the length of the bufferyard and shall be staggered where quantities permit. Primary evergreen plants shall be installed with tree trunks spaced a minimum of seven (7) feet apart and a maximum of fifteen (15) feet from other primary evergreen plants and from any required deciduous tree.
3. All supplemental evergreen shrubs shall be distributed evenly along the length of the bufferyard and shall be staggered where quantities permit.

(D) Maintenance

Any fence, earthen berm, or plant material used for bufferyard screening shall be maintained in sound condition by the bufferyard provider. Proper maintenance of plant material includes regular mulching, watering, and pruning as well as the replacement of any required bufferyard plantings which are damaged and/or dying.

13.5 Multiple Use of Bufferyards

(1) To Satisfy Other Requirement

Areas set aside as required bufferyards may also be used to satisfy the following:

Town of Navassa Zoning Ordinance

- (A) Minimum setback requirements;
- (B) Minimum open space requirements; and
- (C) Monumental tree preservation requirements.

(2) For Other Purpose

Required bufferyards may also be used for the following additional purposes:

(A) Stormwater

Bufferyards may contain stormwater retention or detention areas, provided:

1. The required bufferyard plantings shall be provided and the design and landscaping of the bufferyard do not interfere with the proper functioning of the drainage system; and
2. The designed water depth shall not harm the viability of the plantings.

(B) Passive Recreation

Bufferyards may be used for passive recreation, such as pedestrian, bicycle, or equestrian trails, subject to the following limitations:

1. No plant material shall be eliminated;
2. The total width of the bufferyard shall be maintained; and
3. All other requirements of this Ordinance shall be met.

(C) Utilities

Bufferyards may be used for the installation of underground utilities, provided the location and use of the utility lines do not interfere with the required bufferyard plantings.

(3) Reduction for Driveway to Rear Parking Areas

A side or rear bufferyard may be reduced to five (5) feet if the Planning Board determines that such reduction is necessary, due to lot size, shape, or topographic features, to allow a driveway which accesses off-street parking to the rear of the property.

(4) Prohibited Uses

A required bufferyard shall not be used for any principal building or use, accessory building or use, parking or loading area, storage area, or other principal or accessory uses except as specifically permitted in this Article.