

WATER-RELATED FEATURES OF SANDY POINT NEW URBAN WATERFRONT COMMUNITY

Permitted by federal (USACE) and state (CAMA) Major Development Permit

CHANNEL DETAIL: Open water excavation in Albemarle Sound completed between November 1, 2008, and February 14, 2009, the portion of the year when such excavation is permitted

Channel 1 – Primary West Harbor Navigation Channel:

- Dimensions: 1,551 feet x 70 feet (108,570 SF)
- Depth: -8 feet below Normal Water Level
- Distance to -5 feet of natural water: 696 feet
- Area of shallow-water impacts from dredging: 696 feet x 70 feet = 48,720 SF (1.2 acres)
- Groin dimensions: (2) at 100 feet x 2 feet; total footprint: 400 SF (0.01 acre)
- Total shallow-water (out to -5 feet) disturbance (dredge and groins): 1.13 acre
- Pier: 235 feet x 6 feet with a 12-foot x 12-foot platform at end (slatted wood decking, pervious); Area = 1,554 SF of partial shading
- Maximum material to be dredged: 21,253 Cubic Yards

Channel 2 – Secondary West Harbor Channel:

- Dimensions: 466 feet x 60 feet (27,960 SF)
- Depth: -5 feet below Normal Water Level
- Distance to -5 feet of natural water: 466 feet
- Area of shallow-water impacts from dredging: 466 feet x 60 feet = 27,960 SF (0.64 acre)
- Groin dimensions: (2) at 100 feet x 2 feet; total footprint: 400 SF (0.01 acre)
- Total shallow-water (out to -5 feet) disturbance (dredge and groins): 0.65 acre
- Pier: 100 feet x 6 feet with a 12-foot x 12-foot platform at end (slatted wood decking, pervious); Area = 744 SF of partial shading
- Maximum material to be dredged: 2,626 Cubic Yards

Channel 3B – Primary East Harbor Navigation Channel:

- Dimensions: 1,655 feet x 70 feet (115,850 SF)
- Depth: -8 ft below Normal Water Level
- Distance to -5 feet of natural water: 826 feet
- Area of shallow-water impacts from dredging: 826 feet x 70 feet = 57,820 SF (1.33 acres)
- Groin dimensions: (1) at 195 feet x 2 feet, (1) at 235 feet x 2 feet; total footprint: 860 SF (0.02 acre)
- Total shallow-water (out to -5 feet) disturbance (dredge and groins): 1.35 acres
- Pier: 235 feet x 6 feet with a 12-foot x 12-foot platform at end (slatted wood decking, pervious); Area = 1,554 SF of partial shading
- Max Material to be dredged: 17,163 Cubic Yards

HARBOR DETAIL:**West Side Harbor:**

- Area: 41.00 acres
- Total Slips: 411
 - Marina Slips: 268
 - Residential Slips: 143 (1 per harbor-front lot; up to 35 feet long)
 - 143 unenclosed roofed structures (porches) are permitted to extend out over the harbor (1 per harbor-front lot) that can be a maximum of 20 feet long x 35 feet wide
- Existing Bulkhead at Historic Home to remain: 500 linear feet
- Harbor Piers:
 - Pier 1: 222 feet x 10 feet
 - Pier 2: 223 feet x 10 feet
 - Pier 3: 224 feet x 10 feet
 - Pier 4: 205 feet x 10 feet
 - Pier 5: 195 feet x 10 feet
 - Pier 6: 196 feet x 10 feet
 - Pier 7: 196 feet x 10 feet
 - Pier 8: 499 feet x 10 feet
 - Pier 9: 196 feet x 10 feet
 - Pier 10: 197 feet x 10 feet
 - Pier 11: 175 feet x 10 feet
 - Public Pier within Harbor for Transient Mooring (100 feet x 15 feet)
 - Public Pier within Harbor for fueling / pump-out (180 feet x 15 feet)
- Residential Piers: 143 total up to 35 feet long x 6 feet (the length of the slip)
- Finger Piers: 130 total (86 at 35 feet x 4 feet and 44 at 40 feet x 4 feet)
- Mooring Pilings: 2,112 (includes piles in west harbor and for residential slips)

East Side Harbor:

- Area: 10.10 acres
- Total Slips: 110
- Marina Slips: 110
- Residential Slips: 0
- Harbor Piers:
 - Pier 1: 303 feet x 10 feet
 - Pier 2: 267 feet x 10 feet
 - Pier 3: 267 feet x 10 feet
 - Pier 4: 276 feet x 10 feet
- Residential Piers: 0
- Finger Piers: 57 total (35 feet x 4 feet)
- Mooring Pilings: 519

BREAKWATER, RIPRAP AND BULKHEADS:

- Breakwater (east side): 1,334 linear feet (105 feet sections with 5 feet overlapping gaps); -3 feet of water; 1 foot above Normal Water Level (for purpose of establishing quiescent zone to meet SAV mitigation requirements; ~225 linear feet from shoreline; pile-supported with ½ inch gaps every 6 inches of sheeting or 1 inch gap per foot)
- Riprap (west side): 2,998 linear feet x 8 feet
- Bulkhead: Within West Side Harbor: 12,515 Linear Feet

IMPERVIOUS COVERAGE LIMITS Within 75-foot Area of Environmental Concern
(Includes Sound front and Harbors):

- Entire Project: No greater than 37%
- 143 West Side, Harbor-front Residential Lots: No greater than 60%

BRIDGES:

- Wetland Crossing Bridges (WCB): 5 bridges over freshwater Section 404 wetlands; pile-supported and raised a minimum of 3 feet over wetland substrate elevation
WCB 1: 506 linear feet x 24 feet (on West Side of Sandy Point)
WCB 2: 85 linear feet x 24 feet (on East Side of Sandy Point)
WCB 3: 192 linear feet x 24 feet (on East Side of Sandy Point)
WCB 4: 100 linear feet x 24 feet (on East Side of Sandy Point)
WCB 5: 52 linear feet x 24 feet (on East Side of Sandy Point)
- West Side Harbor Bridge (WSB): 130 linear feet x 42 feet (over man-made public trust near the Channel 2 entrance; -5 feet water depth)

STORMWATER MANAGEMENT:

- The Stormwater Management System will capture and treat runoff from all impervious surface within the 75-foot AEC
- On the West Side (High Density Design), Secondary Treatment via bio-retention/infiltration parks and wet basins will provide additional treatment ranging from 4 inches to 7 inches of runoff. In the most dense areas (i.e. esplanade downtown), 4 inches of runoff can be collected and treated, and in the more sparse areas on the west side (i.e., near Lake 1), 7 inches of runoff can be collected.
- On the East Side (low Density Design), typical low-density development and stormwater treatment scenario with less than 30% coverage at build-out; collection and treatment will involve at least 70% pervious areas with designated vegetated buffers and swales.

SITE COVERAGE (Approximate Calculations):

- **Subject Area:** 949 acres (the property and NC Route 32 right-of-way)
- **Green Space:** 382.2 acres – 40.38% (243 acres of Section 404 freshwater wetlands and designated open areas, including pocket parks, bio-retention areas and riparian buffers)
- **Lakes and Harbors:** 72.27 acres – 7.6 %
- **Roads:** 72.39 acres – 7.6 % (maximum of 72.39 acres cover)
- **General Development (high and low density as depicted on site plan):** 365.7 acres – 38.5% (maximum of 219.42 acres cover)
- **Future Development Areas (low density):** 55.44 acres – 5.8% (maximum of 16.6 acres cover)
- **Total Cover Based on Above Numbers:** 308 acres (32.5%)