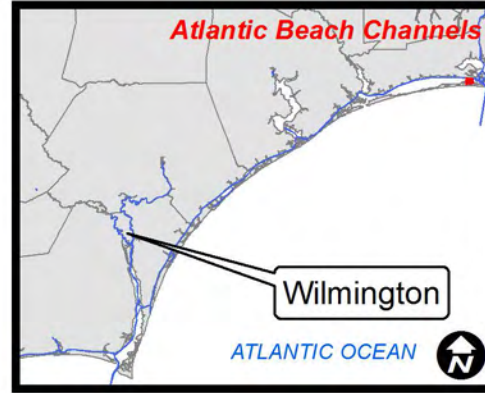
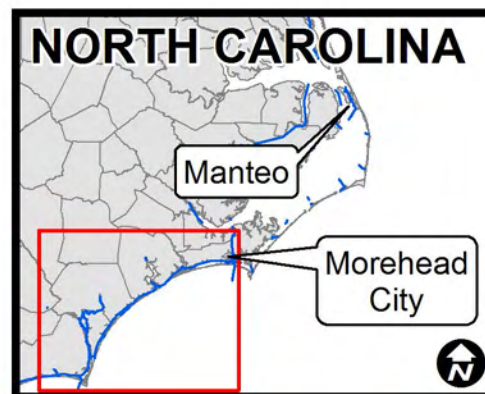


**US Army Corps  
of Engineers  
Wilmington District**



SURVEY DATE: 18 AUGUST 2016	SURVEYED BY: JBG, CRP
MAP DATE: 23 AUGUST 2016	MAPPED: KDPDFSGD
MAP SCALE: 1:2,000	
IMAGERY DATE: 14 JULY 2016	
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MAP FILE NAME: SH_16_CWY_20160818.MXD	

WAYPOINTS				
Project	Survey Date	SPF_X	SPF_Y	DMS_X
Atlantic Beach - Causeway - Waypoint 01	2016-08-18	2685117	357739	76° 43' 12.220" W
Atlantic Beach - Causeway - Waypoint 02	2016-08-18	2682946	358091	76° 43' 38.122" W
Atlantic Beach - Causeway - Waypoint 03	2016-08-18	2681336	358656	76° 43' 57.245" W
Atlantic Beach - Causeway - Waypoint 04	2016-08-18	2681102	358510	76° 44' 0.080" W
Atlantic Beach - Causeway - Waypoint 05	2016-08-18	2680290	357814	76° 44' 10.004" W
Atlantic Beach - Causeway - Waypoint 06	2016-08-18	2680272	356714	76° 44' 10.522" W

**NOTES:**

- ELEVATIONS ARE IN FEET AND REFER TO NOAA'S REPORTED MEAN LOWER LOW WATER (MLLW) RELATIVE TO THE 1983-2001 TIDAL EPOCH.
- PROJECT SURVEYED WITH DISTRICT SURVEY VESSEL "BEAUFORT" USING RTK GPS HORIZONTAL POSITIONING EQUIPMENT AND 200 KHZ SOUNDING EQUIPMENT.
- HORIZONTAL DATUM NAD 1983. VERTICAL DATUM M.L.L.W.
- TIDE GAGE LOCATED AT: DUKE MARINE LAB. USE OF TIDE VALUES FOR THIS GAGE ARE RESTRICTED TO QUALITY ASSURANCE PURPOSES FOR VERIFICATION OF RTK TIDES. THE WILMINGTON DISTRICT WILL ONLY USE STAFF GAGE TIDAL VALUES FOR FINAL MAPPING AND QUANTITY CALCULATIONS IF RTK GPS IS UNAVAILABLE AT THE TIME OF SURVEY.
- THIS PROJECT WAS DESIGNED BY THE WILMINGTON DISTRICT OF THE U.S. ARMY CORPS OF ENGINEERS. THE INITIALS AND SIGNATURES AND REGISTRATION DESIGNATIONS OF INDIVIDUALS APPEAR ON THESE PROJECT DOCUMENTS WITHIN THE SCOPE OF THEIR EMPLOYMENT AS REQUIRED BY ER1110-1-8152.
- THE INFORMATION DEPICTED ON THIS SURVEY MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME. THESE CONDITIONS ARE SUBJECT TO RAPID CHANGE DUE TO SHOALING EVENTS. A PRUDENT MARINER SHOULD NOT RELY EXCLUSIVELY ON THE INFORMATION PROVIDED HERE. REQUIRED BY 33 CFR 209.325.
- NAVIGATION AIDS LOCATED WITH DISTRICT SURVEY VESSEL. ACCURACY +/- 3 METERS.
- FOR THE MOST UP TO DATE INFORMATION PLEASE CHECK OUR WEBSITE AT: WWW.SAW.USACE.ARMY.MIL

LEGEND			
<b>Depth In Feet</b>	<b>Aids to Navigation</b>	Green Light	Waypoints
4 and Shallower	Can	Red Light	Waypoint Lines
6 - 4	Nun	Green Daybeacon	Navigation Channel
7 - 6	Green Lighted Buoy	Red Daybeacon	
8 - 7	Red Lighted Buoy	Danger Sign	
10 - 8	Junction Marker	Mileboard	
12 - 10		Tide Gage	
14 - 12			
15 - 14			
15 and Deeper			



**HYDROGRAPHIC SURVEY**  
U.S. ARMY ENGINEER DISTRICT  
CORPS OF ENGINEERS  
WILMINGTON, NORTH CAROLINA

**Atlantic Beach Channels  
Causeway Channel**

ATLANTIC BEACH, NORTH CAROLINA