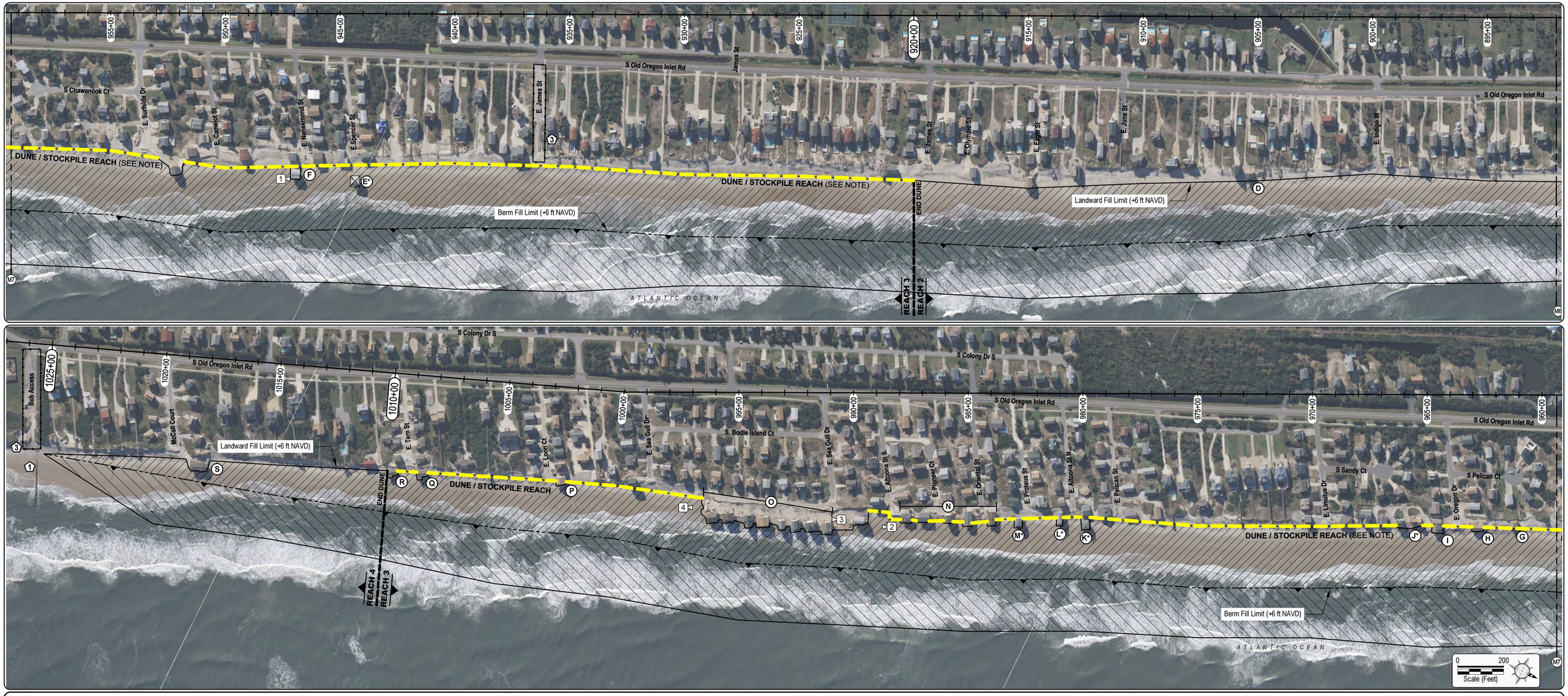
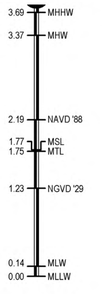


NOTE THE LANDWARD LIMIT OF FILL IS INDICATED BASED ON APPROXIMATE LOCATION OF ESCARPMENTS IN NOVEMBER 2010. THE LANDWARD LIMIT OF FILL WILL BE THE +6 FT NAVD CONTOUR AT THE TIME OF CONSTRUCTION EXCEPT REACH 3 WHERE IT WILL BE THE +12 FT NAVD CONTOUR IN SOME AREAS.

THE FINAL CONFIGURATION AND LIMITS OF DUNE CONSTRUCTION IN REACH 3 WILL BE DETERMINED BASED ON CONDITIONS AT THE TIME OF CONSTRUCTION AND THE AGGREGATE TOTAL FILL VOLUME THAT CAN BE ACCOMPLISHED WITHIN THE AVAILABLE BUDGET FOR THE PROJECT.



TIDE STAFF
Duck, NC - Research Pier
PID: FW0688 **STA ID:** 8651370
Elevation (feet)

MHW = +1.18 ft NAVD
MLW = -2.05 ft NAVD

The NAVD 88 and the NGVD 29 elevations related to MLLW were computed from Bench Mark, 865 1370 B TIDAL, at the station.

Displayed tidal datums are Mean Higher High Water(MHHW), Mean High Water (MHW), Mean Tide Level(MTL), Mean Sea Level (MSL), Mean Low Water(MLW), and Mean Lower Low Water(MLLW) referenced on 1983-2001 Epoch.

Source: National Geodetic Survey

KEYNOTES - STOCKPILE FOR FILL VOLUMES UNDER HOUSES

- (A) 150 cy — J, N, O CONTAIN MORE THAN ONE STRUCTURE
- (B) 100 cy — * VOLUME IS INCLUDED IN PROFILE SECTION (SEE SHEET 11).
- (C) 100 cy
- (D) 25 cy
- (E*) **HOUSE REMOVED** - FILL NORMAL TEMPLATE
- (F) 340 cy
- (G) 80 cy
- (H) 210 cy
- (I) 365 cy
- (J) 250 cy
- (K) 270 cy
- (L) 260 cy
- (M) 330 cy
- (N) see profile
- (O) see profile
- (P) 105 cy
- (Q) 280 cy
- (R) 270 cy
- (S) 600 cy

Work Around Existing Houses

No fill shall be placed directly under houses or landward of houses within the fill limits. In the event some houses do not exist at time of construction, the Contractor shall fill to designed berm height subject to Engineer's direction. No sand shall be placed on any exposed sandbags.

Work Around Beach Access Structures

Public beach accesses and potential staging areas are shown on the Drawings. After completing the nourishment work, the Contractor is responsible for restoring the beach accesses, staging area(s), and any other disturbed infrastructure to original or better-than-original condition.

~STA 947+00 (Looking North). House "E" has since been removed.

~STA 989+00 (Looking South)

~STA 991+00 (Looking South)

~STA 997+00 (Looking North)

PROTECTIVE DUNE AND STOCKPILE CONSTRUCTION

The Contractor will be required to construct a protective dune and/or stockpile sand above the normal fill berm elevation along all or a portion of Reach 3 (stations 920+00 to 1010+00). The maximum elevation of the protective dune will be +12 feet above NAVD. The maximum crest width of the protective dune will be 15 feet. The typical seaward slope of the protective dune will be ~1 on 5, and the maximum will be ~1 on 3. The protective dune will tie into the existing profile but in no circumstance encroach on existing vegetation. When existing buildings occur in the beach fill area, the Owner may require the Contractor to stockpile sand seaward of the structures to practicable elevations greater than +6 feet above NAVD so as to provide material for future redistribution by the Owner. The average dune section volume will be ~5 cubic yards per foot. Volumes of fill utilized in the dune and/or stockpiles in Reach 3 will be pay volumes without penalty subject to the Contractor by before and after dredging surveys.

TOLERANCES

A tolerance of five-tenths (0.5) of one foot is provided for the berm elevations indicated on the Drawings. These tolerances are not applicable for payment. The Contractor will be responsible for final grading of material above the mean tide elevation. The Contractor may, at his discretion, place beach fill initially at higher berm elevations to facilitate handling and control of volumes. However, final berm elevations shall be as indicated on the Drawings.

Note: Project beach is subject to high wave energy during certain periods of the year. The Engineer may modify the design berm elevation for any portion of the project if it results in greater efficiency of project execution. The Contractor is to complete the fill berm at elevations shown on the Plans unless otherwise instructed by the Engineer.

THE LANDWARD EDGE OF THE PROPOSED FILL DEPICTED ON THE DRAWINGS AND PROFILES IS BASED ON A CONDITION SURVEY OF NOVEMBER 2010.

AERIAL PHOTO:
DATE: 08 NOVEMBER 2010
SOURCE: INDEPENDENT MAPPING CONSULTANTS, INC. CHARLOTTE, NC

LEGEND

STAGING AREA

BERM FILL - DRY BEACH FILL SLOPE TO TOE

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Coastal Science & Engineering
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CLIENT:
TOWN OF NAGS HEAD
5401 SOUTH CROATAN HWY
NAGS HEAD NC 27959

PROJECT:
TOWN OF NAGS HEAD
BEACH NOURISHMENT PROJECT

DRAWING TITLE:
NOURISHMENT FILL PLAN
STA 892+00 TO 1026+00
REACH 2,3 & 4

Preliminary Drawing Not For Construction

SCALE:	AS SHOWN
DATE:	Jan 2011
DRAWN BY:	JJH
APPROVED BY:	TWK/HLK
PROJECT #:	2203-CD

SHEET NO: 07
OF: 21