N.C. Dept. of Transportation February 3, 2004 Currituck and Knotts Island Ferry Basins MACTEC Project No.6468-03-0470

### Roadway Embankment Fill

Sand

#### Alluvium

Sand and Clay

### Coastal Plain Undivided

- Upper Sand
- Silt
- Lower Sand

## 3.1.5 Roadway Embankment Fill: Sand

Roadway Embankment Fill: Sand occurs as the surface unit at the EB-2 boring location. The unit is 3.0 feet thick and is characterized as medium dense, moist, silty, fine to coarse sand (A-2-4) with roots and trace gravel. The elevation of the base of the Roadway Embankment Fill: Sand material unit is 4.9 feet MSL. This unit was only encountered in boring EB-2.

# 3.1.6 Alluvium: Sand and Clay

The Alluvium: Sand and Clay material unit consists of very loose to loose, saturated, clayey, silty, fine to coarse sand (A-2-4/A-3) with trace organic debris and very soft, saturated, sandy, silty, clay (A-7-6) with trace organics. The Alluvium: Sand and Clay unit is 8.0 to 9.0 feet thick. The elevation of the base of the unit ranges from -9.2 to -10.4 feet MSL. This unit was not encountered in boring EB-2, where Coastal Plain Undivided sediments directly underlay Roadway Embankment Fill.

### 3.1.7 Coastal Plain Undivided: Upper Sand

The Coastal Plain Undivided: Upper Sand material unit consists of medium dense to dense, wet to saturated, silty, fine to coarse sand (A-3/A-1-b) with trace to little gravel. The Coastal Plain Undivided: Upper Sand unit is 20 feet thick, except at EB-2 where its thickness is unknown. The elevation of the base of the unit, where encountered, ranges from -29.2 to -30.4 feet MSL.

### 3.1.8 Coastal Plain Undivided: Silt

The Coastal Plain Undivided: Silt material unit consists of very stiff to hard, wet, fine sandy silt (A-4). The Coastal Plain Undivided: Silt unit is 11 feet thick, except at EB-2 where this unit was not encountered due to boring termination. The elevation of the base of the unit, where encountered, ranges from -40.2 to -41.4 feet MSL.

### 3.1.9 Coastal Plain Undivided: Lower Sand

The Coastal Plain Undivided: Lower Sand material unit consists of medium dense to dense, wet, silty, fine to coarse sand (A-2-4) with trace shell fragments. The Coastal Plain Undivided: Lower Sand unit's thickness and the elevation of the base of the unit is unknown. Borings B-4 and B-5 were terminated in this unit.

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#### I.0 GROUNDWATER

24-Hour groundwater levels were recorded in borings EB-1, BH-2, and BH-3. The 24-hour groundwater elevations are 0.4, 0.7, and 0.6 feet MSL, respectively. A 24-hour groundwater level was not determined at borings BH-1 and EB-2 due to boring cave-in, and at boring BH-4 which was backfilled immediately after drilling completion. Surface water was present at all other boring locations.

Groundwater elevations are generally consistent across the site, and are similar to surface water elevations recorded for Currituck Sound at the time of our investigation. In general, natural ground at the site is mostly saturated.