

4.0 RESULTS

4.1 Stormwater Management Area #1

This stormwater management area appears to have been a borrow area to obtain fill for either the roadway or nearby commercial developments and/or associated parking lots. A newly constructed parking lot adjacent to this area was placed on a bed of fill to raise the lot level to the elevation of the roadway and entrance drive. This may be some of the fill removed from the stormwater management area.

The surface and upper subsoil of this area has been excavated or otherwise extensively disturbed. The sands of formerly deep subsoil have been exposed at the modern ground surface throughout the area, and water ponds across the area. Wetland vegetation is present over portions of Stormwater Management Area #1. This stormwater management area was not subsurface tested due to the previous stripping of the area.

4.2 Stormwater Management Area #2

This stormwater management area was tested for the possible presence of archaeological resources (Photograph 2). The soils are typical of upland coastal plain sediments, with variations in the degree of internal drainage of the soil profile. Soil drainage is directly dependent on the landscape position, with the poorly drained soils in depressions or near a drainage ditch which borders the area (Photograph 3). The ditch was dug in an attempt to drain the depressions within the area and increase the ease of cultivation as well as agricultural yields.

The profile of STP N315 E90, excavated within the southeast corner of this stormwater management area, is comprised of a brown sandy loam plowzone (Ap horizon) underlain by a light brownish gray sandy loam subsoil (Bw horizon) (Figure 3; Appendix A). The profile of STP N345 E45, excavated within the west-central edge of the area near the ditch, is comprised of a thick, ca. 48.0 cm (18.9 in) black surface sandy loam plowzone (Ap horizon) overlying a light gray loamy sand subsoil (C horizon) (Figure 3; Appendix A). The surface is highly organic from the accumulation of decomposed plant material, and the subsoil is undeveloped and gleyed. These parameters indicate that this portion of the stormwater management area has been poorly drained, as saturation impedes soil development and results in the accumulation of organics.

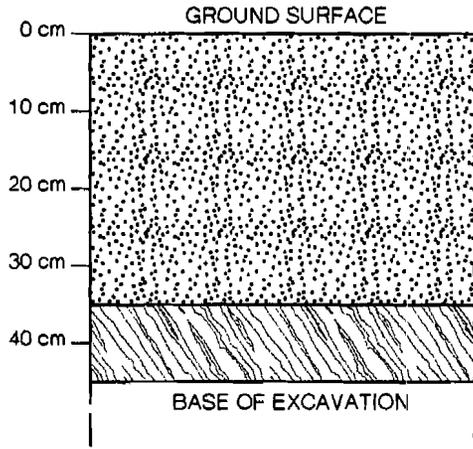


Photograph 2. Stormwater Management Area #2, facing southwest.



Photograph 3. Drainage ditch adjacent to Stormwater Management Area #2, facing south.

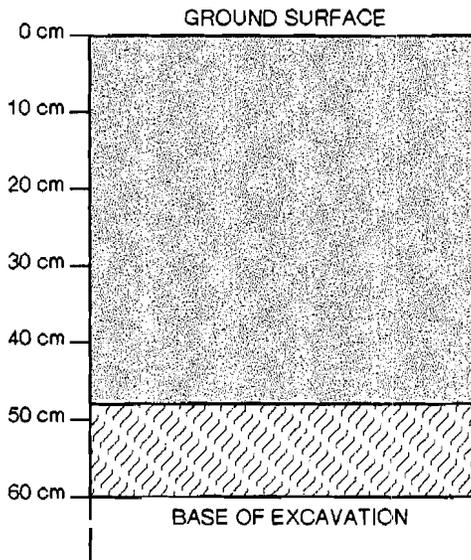
SOIL PROFILE SHOVEL TEST PIT N315 E90



Ap 10YR 4/3 Brown sandy loam.

Bw 10YR 6/2 Light brownish gray sandy loam.

SOIL PROFILE SHOVEL TEST PIT N345 E45



Ap 10YR 2/1 Black sandy loam.

C 10YR 7/1 Light gray loamy sand.

DELAWARE DEPARTMENT OF TRANSPORTATION

S.R. 54 IMPROVEMENTS
SOUND CHURCH ROAD TO KEENWICK ROAD
BALTIMORE HUNDRED
SUSSEX COUNTY

SOIL PROFILES
STPs N315 E90 & N345 E45

FIGURE - 3

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Several of the STP profiles located near the drainage ditch included additional surface horizons not encountered under natural conditions. These sandy layers are the materials dredged during the construction and maintenance of the ditch and graded over the adjacent ground. Despite the excavation of 35 STPs, no archaeological remains of any type were identified.