

PHYSIOGRAPHIC SETTING

The New Churchman's Road project area lies in the north-central portion of New Castle County astride the Fall Line, the boundary between the Appalachian Piedmont and the Atlantic Coastal Plain physiographic provinces. In Delaware, this line approximates the east/west corridor of Route 2 (Kirkwood Highway) between Newark and Wilmington. The Piedmont topography is characterized by rolling hills, poorly-drained uplands, and elevations ranging between 100 and 400 feet above sea level. The Atlantic Coastal Plain to the southeast of the Fall Line consists of a gently undulating plain frequently interrupted by broad floodplain valleys, meandering streams, and large areas of salt marsh. Elevations range between sea level and 125 feet above sea level.

The New Churchman's Road project area itself consists of low, rolling hills separated by relatively broad valleys which are largely undeveloped. Vegetational patterns consist predominantly of cultivated and fallow agricultural fields, wooded fringe areas, and small residential and commercial sites.

The change in topography at the Fall Line denotes a change in soil, hydrology, and lithology. The underlying parent material of the Piedmont soils consists of very old micaceous metamorphic and igneous rocks which slope southeastward and form a crystalline basement for the sediments of the Coastal Plain. The soils which form in situ from these parent materials are stable, well-developed, mature soils which contain strongly defined horizons. Pedogenic development of these soils proceeds rapidly because of moderately high rainfall and favorable temperature and relief (Matthews and Lavoie 1970). Coastal Plain sediments consist largely of unconsolidated clays, silts, sands, and gravels which are derived from weathering of the Piedmont parent materials. These predominately alluvial sediments are comparatively young from a geological perspective. Soil horizons are generally well defined due to the low level of geological erosion and alteration

which occurs in most of the geographical province. New Churchman's Road lies in an area where silty Coastal Plain sediments lie atop gravelly material which originated on the terraces of the Piedmont Plateau (Matthews and Lavoie 1970). For this reason, Holocene landscapes are not deeply buried and archaeological sites are relatively shallow.

A few miles to the west of the project area, outcrops of high quality cryptocrystalline silicate rocks can be found. Brown jasper and chert are found on the southwestern slopes of Iron Hill near Newark, Delaware, and on the slopes of Red and Gray Hills of Cecil County, Maryland (Custer and Galasso 1981). Quartz and quartzite resources are also locally available in cobble form in gravel and stream beds throughout this portion of New Castle County. These resources represent important sources of raw materials for stone tool production by pre-historic populations.

CULTURE HISTORY

Regional Prehistory*

The prehistoric archaeological record of northern Delaware can be divided into four large blocks of time: The Paleo-Indian Period (ca 12,000 B.C. - 6500 B.C.), The Archaic Period (6500 B.C. - 3000 B.C.), the Woodland I Period (3000 B.C. - A.D. 1000), and the Woodland II Period (A.D. 1000 - A.D. 1650). A fifth time period, the Contact Period, may also be considered and spans from A.D. 1650 to A.D. 1750, the approximate date of the final Indian habitation of northern Delaware in anything resembling their pre-European Contact form. Each of these periods is described below.

Paleo-Indian Period (12,000 B.C. - 6500 B.C.) - The Paleo-Indian Period encompasses the time period of the final retreat of Pleistocene glacial conditions

*This summary of the regional prehistory is abstracted from Custer (1980, 1981, 1983).