STATE OF CONNECTICUT
GEOLOGICAL AND NATURAL HISTORY SURVEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION

QUADRANGLE REPORT NO. 31
Plate 1

Open Report

SURFICIAL GEOLOGIC MAP OF THE ESSEX QUADRANGLE, CONNECTICUT

By Richard Foster Flint, 1970, 1971 and 1972

EXPLANATION

Postglacial

af — Artificial fill

s — Swamp sediments
Silt, sand, and clay mixed with organic matter in poorly drained areas, both fresh-water and tidal.

ws — Wind-blown sand
Narrow, thin patches of sand adjacent to beaches.

bs — Beach sand and gravel
Includes some wind-blown sand.

al — Alluvium
Sand, silt, and gravel occurring as thin covers on some valley floors. Locally includes colluvium and bodies of clay.

Glacial

ow — Outwash sediments
Sand and gravel, mainly with cut-and-fill stratification, grading up-valley into ice-contact stratified drift.

ic — Ice-contact stratified drift
Sand, gravel, silt, and clay, in many places poorly sorted, with abrupt changes in grain size, and deformed. Deposited in streams and local ephemeral lakes in close relation to melting glacier ice. Many bodies grade into outwash sediments.

em — End moraine
Ridges and mounds of till and stratified drift, elongate NE-SW. Concentrations of boulders locally conspicuous.

t — Till
Compact, nonsorted sediment deposited by glacier ice. Includes small bodies of stratified sediment.

Bedrock
Individual exposures in dark color; light color denotes areas with complex patterns of bare rock and rock thinly covered with residuum, small patches of till, and scattered slide-rock.

Geologic contact
Dashed where located only approximately.

Channel cut in bedrock or drift by meltwater stream. Arrow indicates direction of flow of meltwater stream.

+Gr — Erratic boulder 10 feet or more in greatest diameter.
Letters denote lithology:
Gr: granitic rock. Gn: gneissic rock
No letter: not identified.

Glacial striations and/or grooves.

Pit (operating) in sand and gravel or till. Hachures denote pit faces.

Pit (abandoned) in sand and gravel or till. Hachures denote pit faces.

p — Artificial pond not shown on topographic base map.

Base map by U.S. Geological Survey
Control by USGS, USC&GS, and Connecticut Geodetic Survey
Topography by planetable surveys 1939. Revised 1958
Revisions from aerial photographs taken 1970
Hydrography compiled from USC&GS charts 214 and 215 (1957)
Polyconic projection. North American datum
10,000-foot grid based on Connecticut coordinate system

UTM GRID AND 1970 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:24 000

CONTOUR INTERVAL 10 FEET
DATUM IS MEAN SEA LEVEL
DEPTH CURVES AND SOUNDINGS IN FEET—DATUM IS MEAN LOW WATER
SHORELINE SHOWN REPRESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER
THE MEAN RANGE OF TIDE IS APPROXIMATELY 4.5 FEET IN LONG ISLAND SOUND AND 2.9 FEET IN THE CONNECTICUT RIVER

CONNECTICUT
QUADRANGLE LOCATION

Williams & Heintz Map Corporation, Washington, D.C. 20027