FIGURE 2: ENGINEERING GEOI

GEOLOGY

SUMMARY OF CHARACTERISTICS OF LITHOLOGIC UNITS SHOWN ON MAP Suitability as Suitability for borrow for subgrades Suitability for highway surfaces concrete aggregate road foundations Frost susceptibility Topography Present everywhere at 1.5' - 3.0'. Intense.

Extends to unknown depth. Subject to collapse and flowage upon Smooth, gently undulating surfaces. Subsurface: poor.
Surface: fair. EXPLANATION Unsuitable. Poor within 2' of surface. Poor. Fair at greater depths. At depths of 1.5' - 3.0' in swales. Mild. Elsewhere generally lacking, but present locally at depths of 5.0!. Less than 10% silt; 50 - Long, broad, smooth ridges and swales. Sandy till. Good if crushed and Talus-like till; 35 - 80% Rough; small, steep hillocks and angular rocks with sand matrix.

Rough; small, steep hillocks and ridges. Mild or unsusceptible. Rubble till. Fair to good; locally poor. Gravel: locally fair, generally too coarse. Unsuitable. Till: poor. Present locally at depths of 5.0' Gravel: unsusceptible.

and generally lacking.

Gravel: unsusceptible.

Till: mild to intense. ROAD SYMBOLS NON-GLACIAL DEPOSITS overlying sandy till. Gravel: locally fair, generally too coarse. Eskers and kames: fair. Fair to good. Till: unsuitable. At depths of 1.5' - 3.0' in swales. Till: mild. Gravel: unsusceptible. present locally at depths of 5.0' Ridges 20' to 100' high; swales, swamps, and kettle holes at lower elevation.

Generally good; locally poor. Talus End-and lateral-moraine complex. Excellent. Unsusceptible. Swamp deposits Absent or very deep. Long sinuous ridges and conical or irregular hillocks 5' to 100' Kame-esker Complex. Washed sand and gravel. "L" line Generally good. Some deposits contain much Fair if washed. oversize. Silty and sandy alluvium Well-rounded gravel with Flat surfaces or broad, trough- Good. like channels. Generally good. Some deposits contain much Fair to good. Gravel alluvium Unsusceptible. Absent or very deep. Flat, plateau-like surface with 10' to 100' high sharp escarpments and kettle holes. Pitted outwash. GLACIAL DEPOSITS Generally present at 1.5' - 3.0'.

Extends to unknown depth. Subject to collapse and flowage upon Unsuitable to poor. Broad, marshy channels separated by low, flat-topped or rolling hills. Channeled outwash. Fine sand. Channeled outwash Good if crushed or Good if crushed. Mild to unsusceptible. Predominantly pebble-cob-ble gravel. Lenses of terraces of small streams. Good, but water table varies from 5' to 1'. Proposed "P" line varies from 5' to 1'.
Occasional flooding losand and sandy gravel. Generally unsuitable; good materials available locally in sand Pitted outwash Generally poor; good material available locally in sand and gravel bars. Mostly silt and sand;
local lenses of gravel.

Bars, channels, and floodplains of large rivers.

Poor: occasional flooding.

Extends to unknown depth. Subject to collapse and flowage upon and gravel bars. Outwash gravel Unsuitable. Unsuitable. Unsuitable. Generally present at 1.5' - 3.0'.

Extends to unknown depth. Subject to collapse and flowage upon Peat, muck, and silt. Flat or very gently sloping sur- Very poor. Good if crushed, but not present adjacent to alignment. Kame-Esker complex Good if crushed. Mild to unsusceptible. Absent or very deep. Loose, unsorted, angular Aprons and cones at bases of Good source of riprap. Not present adjacent to steep bedrock slopes. rock debris. Good if crushed, but difficult to obtain. Difficult to excavate. End and lateral moraine complex Good if crushed. Good riprap.
Not present adjacent to Lacking or very deep. Altered lava flows, quartzite and argillite. Channeled-till complex Geologic contact Rubble till Location of specimens shown in figure 3 Sandy till Silty till Geology by Reuben Kachadoorian, Base on U. S. Geological Survey Healy A-1, Healy A-2, and Mt. D. M. Hopkins and D. R. Nichols Hayes A-6 Photo Compilation HEALY A-I, AND HEALY A-2, QUADRANGLES, ALASKA