Table H.--Engineering Index Properties

(Absence of an entry indicates that the data were not estimated.)

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
Br:												
Brookston-------	0-11	Silty clay loam--	CL	A-6, A-7	0	0	90-100	90-100	85-100	75-95	35-50	10-30
	11-58	Clay loam, silty clay loam, loam.	CL	A-4, A-6	0	0	95-100	90-98	85-95	80-85	30-50	10-25
	58-70	Loam, fine sandy loam.	CL-ML, CL	A-4, A-6	0-1	0-3	90-100	85-95	78-90	55-70	15-40	5-20
CrA:												
Crosby----------	0-11	Silt loam--------	CL, CL-ML, ML	A-4, A-6	0	0	98-100	90-98	85-95	65-85	20-30	NP-15
	11-27	Clay loam, silty clay loam.	CL	A-6, A-7	0	0-3	95-100	90-100	85-95	55-80	35-50	10-30
	27-32	Loam, clay loam--	CL, CL-ML	A-4, A-6	0	0-3	95-100	90-100	85-95	55-70	30-40	5-25
	32-60	Loam, fine sandy loam.	CL, CL-ML, ML	A-4, A-6	0	0-3	90-100	85-98	75-90	45-70	15-30	NP-15
FnA:												
Fox----------	0-10	Loam----------	CL, ML	A-4	0	0	100	100	85-100	55-70	20-30	5-10
	10-36	Clay loam, ------	SC, CL, GC	A-2, A-6, A-7	0	0-5	85-100	75-98	60-90	40-60	20-50	5-25
	36-60	Sand and gravel, sand, coarse sand.	SP-SM, GP, SM, GP-GM, SP	A-1, A-2, A-3	0	0-10	30-70	20-55	10-40	2-10	0-0	NP.
FnB2:												
Fox----------	0-8	Loam----------	CL, ML, SC, SM	A-4	0	0	100	100	85-100	55-70	20-30	5-10
	8-10	Silty clay loam, silt loam, clay loam.	CL	A-6, A-7	0	0	95-100	90-100	80-95	55-90	20-50	5-25
	10-36	Clay loam, ------	CL, GC, SC	A-2-6, A-2-7, A-6, A-7	0	0-5	85-100	75-98	60-90	40-60	20-50	5-25
	36-60	Sand and gravel, sand, coarse sand.	SP, GP, GP-GM, SP-SM	A-1, A-3	0	0-10	30-70	20-55	10-40	2-10	0-0	NP.
FxC3:												
Fox----------	0-7	Clay loam--------	CL	A-6	0	0-5	95-100	90-100	80-95	55-75	25-40	10-20
	7-28	Clay loam, ------	SC, CL, GC	A-2-6, A-6, A-7	0	0-5	85-100	75-98	60-90	40-60	20-50	10-25
	28-60	Sand and gravel, sand, coarse sand.	GP-GM, GP, SP, SP-SM	A-1, A-2, A-3	0	0-10	30-70	20-55	10-40	2-10	0-0	NP.
Ge:												
Genesee---------	0-7	Silt loam--------	CL, CL-ML	A-4	0	0	98-100	97-100	90-100	55-90	20-35	5-10
	7-38	Silt loam, loam--	CL, CL-ML	A-4	0	0	98-100	97-100	90-100	55-90	20-35	5-10
	38-60	Stratified sandy loam to silt loam to loam.	CL-ML, CL	A-4	0	0	98-100	97-100	90-100	30-90	20-35	5-10
HeF:												
Hennepin--------	0-4	Loam----------	CL, ML, CL-ML	A-4, A-6	0	0-5	95-100	90-100	85-97	55-70	15-40	NP-15
	4-11	Loam----------	CL-ML, CL	A-4, A-6	0	0-5	95-100	90-100	85-95	55-70	20-40	5-25
	11-60	Loam, fine sandy loam.	CL, CL-ML, ML	A-4, A-6, A-7	0-1	0-5	90-100	85-98	75-90	45-70	15-30	NP-15
Ho:												
Houghton--------	0-60	Muck----------	PT	A-8	0	0	100	100	---	---	0-0	---
MmA:												
Miami----------	0-13	Silt loam--------	ML, CL, CL-ML	A-4	0	0	95-100	90-100	85-95	55-70	15-30	3-10
	13-38	Clay loam, silty clay loam.	CL	A-6, A-7	0	0-3	95-100	90-100	85-95	55-80	30-50	10-30
	38-60	Loam, fine sandy loam.	CL, CL-ML, ML	A-4, A-6	0-1	0-3	90-100	85-98	75-90	45-70	25-35	NP-15
MmB2:												
Miami----------	0-7	Silt loam--------	CL, CL-ML, ML	A-4	0	0	95-100	90-100	85-95	55-70	15-30	3-10
	7-30	Clay loam, silty clay loam, sandy clay loam.	CL	A-6, A-7	0	0	95-100	90-100	85-95	55-80	30-50	10-30
	30-60	Loam, fine sandy loam.	CL-ML, CL, ML	A-4, A-6	0-1	0-3	90-100	85-98	75-90	45-70	15-30	NP-20
MmC2:												
Miami----------	0-7	Silt loam--------	CL, CL-ML, ML	A-4	0	0	95-100	90-100	85-95	55-70	15-30	3-10
	7-30	Clay loam, silty clay loam.	CL	A-6, A-7	0	0-3	95-100	90-100	85-95	55-80	30-50	15-30
	30-60	Loam, fine sandy loam.	CL-ML, CL, ML	A-4, A-6	0-1	0-3	90-100	85-100	75-90	45-70	15-30	NP-15
MmD2:												

Miami----------	0-7	Silt loam--------	CL, CL-ML, ML	A-4	0	0	95-100	90-100	85-95	55-70	15-30	3-10
	7-30	Clay loam, silty clay loam.	CL, SC	A-6, A-7	0	0-3	95-100	90-100	85-95	55-80	30-50	15-30
	30-60	Loam, fine sandy loam.	CL	A-4, A-6	0-1	0-3	90-100	85-100	75-90	45-70	15-30	NP-30
MoC3:												
Miami----------	0-7	Clay loam--------	CL	A-6	0	0	95-100	90-100	85-95	60-85	30-40	15-20
	7-19	Clay loam, silty clay loam.	CL	A-6, A-7	0	0	95-100	90-100	85-95	55-80	30-50	15-30
	19-60	Loam, fine sandy loam.	CL	A-4, A-6	0-1	0-3	90-100	85-100	75-90	45-70	15-30	NP-15
MoD3:												
Miami----------	0-7	Clay loam--------	CL	A-6	0	0	95-100	90-100	85-95	60-85	30-40	15-20
	7-19	Clay loam, silty clay loam.	CL	A-6, A-7	0	0	95-100	90-100	85-95	55-80	30-50	15-30
	19-60	Loam, fine sandy loam.	CL	A-4, A-6	0-1	0-3	90-100	85-100	75-90	45-70	15-30	NP-15
MxA:												
Milton variant--	0-11	Silt loam--------	CL, ML, CL-ML	A-4	0	0-5	95-100	90-100	85-95	80-90	20-30	4-10
	11-26	Silty clay loam, clay loam, silt loam.	CL	A-6, A-7	0	0-10	85-95	80-95	75-95	65-90	30-45	10-20
	26-41	Clay, clay loam, flaggy clay loam, flaggy clay.	CL, CH	A-7	0	5-20	75-95	70-95	65-95	55-90	40-55	20-30
	41-45	Unweathered bedrock.			0	---	0	---	---	---	0-0	---
NnA:												
Nineveh---------	0-12	Loam----------	CL	A-4, A-6	0	0	90-100	75-98	75-95	50-75	20-40	5-15
	12-20	Clay loam--------	CL	A-4, A-6, A-7	0	0	85-100	75-100	75-100	65-80	20-50	5-30
	20-30	Gravelly clay loam, clay loam, sandy clay loam, gravelly sandy clay loam.	CL, SC	A-4, A-6, A-7	0	0-5	75-95	70-90	55-85	40-60	20-50	5-30
	30-32	Clay loam, sandy clay loam, gravelly sandy clay loam, gravelly clay loam.	SC, CL, GC	A-2-4, A-2-6, A-2-7	0	0-5	30-70	20-55	10-40	2-10	20-50	5-15
	32-60	Stratified sand to very gravelly coarse sand.	GP, GP-GM	A-1	0	---	0	---	---	---	0-0	NP.
OcA:												
Ockley----------	0-10	Silt loam--------	CL, CL-ML, ML	A-4, A-6	0	0	95-100	85-100	70-100	50-90	23-40	3-15
	10-15	Silt loam--------	CL-ML, CL, ML	A-4, A-6	0	0	95-100	85-100	70-100	50-90	23-40	3-15
	15-18	Silt loam, silty clay loam.	CL, CL-ML	A-4, A-6, A-7-6	0	0-1	90-100	85-100	70-100	50-95	20-50	5-35
	18-37	Clay loam, sandy clay loam, loam.	SC-SM, SC, CL-ML, CL	A-2, A-4, A-6, A-7-6	0	0-1	90-100	85-100	70-100	30-95	20-50	5-35
	37-49	Gravelly sandy clay loam, gravelly sandy loam, clay loam.	CL, ML, SC, SM	A-4, A-7-6, A-6, A-2	0	0-2	70-85	40-85	25-75	15-60	10-50	NP-35
	49-80	Stratified very gravelly coarse sand to gravelly loamy coarse sand.	GP, GW-GM, SW-SM, SW	A-1-a	0-2	0-10	35-85	20-55	10-30	2-10	0-0	NP.
OcB2:												
Ockley----------	0-11	Silt loam--------	CL, CL-ML	A-4	0	0	98-100	90-98	80-100	55-90	20-30	4-15
	11-28	Silty clay loam, clay loam, silt loam.	CL, CL-ML	A-4, A-6	0	0	98-100	75-90	70-90	55-90	20-50	5-30
	28-56	Gravelly clay loam, clay loam, loam, gravelly sandy clay loam.	SC-SM, CL, CL-ML, SC	A-2-4, A-2-6, A-4, A-6	0	0-2	60-90	55-85	40-70	25-55	20-50	5-30
	56-70	Stratified sand to gravelly coarse sand.	SP, GP, GP-GM, SP-SM	A-1	0	0-5	30-70	20-55	10-40	2-10	0-0	NP.
Or:												
Orthents--------	---	---	---	---	---	---	---	---	---	---	---	---
Pa:												
Palms----------	0-29	Muck----------	PT		0	---	100	100	---	---	0-0	---
	29-60	Clay loam, silty clay loam.	CL	A-4, A-6, A-7	0	0	95-100	90-100	80-95	55-90	30-50	10-30
Pn:												
Patton----------	0-12	Silty clay loam--	CL, CH	A-6	0	0	100	100	100	95-100	40-55	10-35
	12-38	Silty clay loam--	CH, CL	A-7	0	0	100	100	100	95-100	40-55	15-35
	38-60	Stratified silt loam to silty clay loam.	CL, CL-ML, ML	A-4, A-6	0	0	100	100	100	95-100	25-50	NP-25

Ps:												
Patton----------	0-13	Silty clay loam--	CH, CL	A-6, A-7	0	0	100	100	100	95-100	30-50	10-30
	13-37	Silty clay loam--	CL, CH	A-6, A-7	0	0	100	100	100	95-100	40-55	15-30
	37-52	Stratified silty clay loam to silt loam.	CL	A-6, A-7	0	0	100	100	100	95-100	15-35	NP-25
	52-56	Unweathered bedrock.			0	---	0	---	---	---	0-0	---
Pt:												
Pits----------	---	---	---	---	---	---	---	---	---	---	---	---
Ra:												
Randolph variant	0-12	Silt loam--------	CL-ML, CL	A-4, A-6	0	0	98-100	90-100	75-95	55-90	20-30	5-15
	12-38	Clay loam, silty clay loam, gravelly clay loam.	CL	A-6, A-7	0	0	80-100	75-98	70-95	65-90	30-50	10-30
	38-41	Silty clay, silty clay loam, gravelly silty clay loam.	CL, CH	A-4, A-6, A-7	0	0-10	55-85	50-75	50-75	45-70	35-55	15-25
	41-44	Weathered bedrock.			0	---	0	---	---	---	0-0	---
	44-48	Unweathered bedrock.			0	---	0	---	---	---	0-0	---
Ro:												
Ross----------	0-28	Loam----------	ML, CL, CL-ML	A-4, A-6	0	0	98-100	97-100	90-100	55-100	20-35	NP-15
	28-60	Loam, silt loam, silty clay loam, loam, silt loam, silty clay loam, stratified clay loam, clay loam.	CL, CL-ML, ML	A-4, A-6	0	0	98-100	95-100	90-100	40-100	20-40	3-20
Sh:												
Shoals----------	0-11	Silt loam--------	CL-ML, CL	A-4, A-6	0	0	98-100	96-100	95-100	75-100	20-35	5-15
	11-39	Silt loam, loam, clay loam, sandy loam.	CL, CL-ML	A-4, A-6	0	0	100	100	90-100	25-100	20-40	5-15
	39-60	Stratified silt loam to sandy loam to coarse sand.	CL, CL-ML, ML	A-4	0	0-3	90-100	85-100	40-100	0-100	15-30	4-10
St:												
Sleeth----------	0-11	Loam----------	CL, CL-ML, ML	A-4, A-6	0	0	98-100	97-100	90-100	55-100	30-35	5-15
	11-20	Clay loam, silty clay loam, sandy clay loam.	CL	A-6	0	0	85-95	85-95	80-90	65-75	20-50	5-20
	20-47	Gravelly clay loam, sandy clay loam, gravelly sandy clay loam, gravelly loam.	CL	A-6	0	0-3	65-95	60-85	55-70	50-70	20-50	5-20
	47-60	Stratified coarse sand to gravelly sand.	GP, GP-GM, SP, SP-SM	A-1	0	1-5	30-70	20-55	10-40	2-10	0-0	NP.
Sx:												
Sloan----------	0-13	Silty clay loam--	CL	A-6, A-7	0	0	100	100	95-100	80-100	30-50	10-25
	13-40	Loam, silty clay loam, clay loam, sandy clay loam.	SC, CL	A-6, A-7	0	0	98-100	97-100	90-100	55-80	30-50	10-25
	40-60	Coarse sand, gravelly sand, gravelly loamy sand.	SM, SP, SP-SM	A-1, A-2, A-3	0	0	100	100	90-100	25-100	0-0	NP.
W:												
Water----------	---	---	---	---	---	---	---	---	---	---	---	---
We:												
Westland--------	0-16	Silty clay loam--	CL	A-6, A-7	0	0	98-100	95-100	90-95	70-90	30-50	11-25
	16-42	Clay loam, loam, silty clay loam, gravelly sandy clay loam.	CL, SC	A-4, A-6, A-7	0	0	85-100	75-90	55-85	50-65	25-50	8-25
	42-46	Gravelly sandy clay loam, sandy loam, gravelly sandy loam, gravelly clay loam.	SM, CL, ML, SC	A-4, A-6	0	0-3	70-95	70-95	50-70	40-70	10-35	NP-15
	46-60	Stratified coarse sand to gravelly sand.	GP-GM, SP, SP-SM, GP	A-1	0	0-5	30-70	20-55	10-40	2-10	0-0	NP.
Wh:												
Whitaker--------	0-13	Loam----------	CL, CL-ML, ML	A-4, A-6	0	0	100	95-100	80-100	60-90	15-35	2-15
	13-38	Clay loam, silty clay loam, sandy clay loam.	CL, CL-ML	A-4, A-6	0	0	100	95-100	90-100	70-80	20-50	5-15

	38-60	Very fine sand, fine sand, silt loam, silty clay loam.	CL-ML, ML, SC-SM, SM	A-4	0	0	98-100	98-100	60-85	40-70	15-25	NP-7