TABLE 11.--ENGINEERING INDEX PROPERTIES

[The symbol < means less than; > means more than. Absence of an entry indicates that data were not estimated]

Soil name and map symbol	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Frag- ments > 3 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas- ticity index
	In				Pct					Pct	
AcB---------- Acuna	0-72	Silty clay--------	CL	A-6, A-7-6	0	85-100	75-100	75-100	70-95	30-47	15-28
AmD---------- Amistad	0-6	Flaggy clay loam	GC, SC, GP-GC, SP-SC	A-2-6	30-60	25-65	20-50	15-50	12-35	30-40	11-20
	6-17	Cemented---------	---	---	---	---	---	---	---	---	---
	17-80	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
AsE, ATE*-------- Amistad	0-6	Very flaggy loam	GC, SC, GP-GC, SP-SC	A-2-6	30-60	25-65	20-50	15-50	12-35	30-40	11-20
	6-17	Cemented---------	---	---	---	---	---	---	---	---	---
	17-80	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
CoB---------- Coahuila	0-9	Clay loam--------	CL	A-6	0	100	98-100	95-100	80-95	25-40	11-20
	9-62	Silty clay loam, silty clay, clay.	CL	A-6, A-7-6	0	98-100	90-100	90-100	85-95	30-45	15-25
De*---------- Dev	0-60	Very gravelly clay loam.	GC, GP-GC, SC, SP-SC	A-2-4, A-2-6, A-7, A-6	0-10	10-78	5-65	5-50	5-42	28-47	9-24
ERF*, ERG*:											
Ector----------	0-8	Stony loam--------	GC, SC, CL	A-2, A-4, A-6, A-7	5-50	45-80	40-75	35-70	20-60	25-49	8-25
	8-60	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
Rock outcrop.											
FzG*:											
Felipe----------	0-5	Very gravelly clay.	GC, CH, CL, SC	A-2-6, A-7-6, A-6	5-20	25-75	20-70	15-65	15-60	35-52	15-28
	5-18	Clay loam, silty clay, clay.	CL, CH	A-7-6	0-3	95-100	85-100	80-100	75-95	44-62	22-36
	18-72	Shaly clay--------	CL, CH	A-7-6	0-3	90-100	85-100	80-96	70-95	45-62	25-36
Zorra----------	0-8	Stony loam--------	GC, GP-GC, SC, CL	A-2-4, A-2-6, A-4, A-6	8-45	12-65	10-60	10-60	8-55	25-35	8-15
	8-13	Cemented---------	---	---	---	---	---	---	---	---	---
	13-60	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
HdB---------- Hodgins	0-8	Silt loam--------	CL	A-6, A-7-6	0	95-100	95-100	90-100	70-95	28-45	11-28
	8-62	Clay loam, silty clay loam, silty clay.	CL	A-6, A-7-6	0	95-100	85-100	75-100	65-95	34-50	15-30
Ho---------- Hodgins	0-7	Silty clay loam	CL	A-6, A-7-6	0	95-100	95-100	90-100	70-95	28-45	11-28
	7-60	Clay loam, silty clay loam, silty clay.	CL	A-6, A-7-6	0	95-100	85-100	75-100	65-95	34-50	15-30
JmD*:											
Jimenez---------	0-10	Very gravelly loam.	GC, GM-GC	A-1, A-2-4, A-2-6	5-20	30-58	15-40	15-35	15-30	22-35	5-15
	10-17	Cemented---------	---	---	---	---	---	---	---	---	---
	17-60	Variable---------	---	---	---	---	---	---	---	---	---

See footnote at end of table.

TABLE 11.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Frag- ments > 3 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas- ticity index
	In				Pct					Pct	
JmD*:											
Quemado---------	0-5	Very gravelly loam.	GM, GC, GM-GC	A-1, A-2	2-25	30-50	20-50	15-35	15-30	<25	NP-10
	5-13	Very gravelly sandy loam, very gravelly loam, very gravelly sandy clay loam.	GM, GC, GM-GC	A-1, A-2	2-25	30-50	20-50	15-35	15-30	18-28	2-10
	13-18	Cemented---------	---	---	---	---	---	---	---	---	---
	18-60	Variable---------	---	---	---	---	---	---	---	---	---
KTC*:											
Kavett----------	0-13	Stony clay-------	CH	A-7-6	2-10	90-100	80-100	75-100	70-96	51-66	25-40
	13-14	Cemented---------	---	---	---	---	---	---	---	---	---
	14-23	Variable---------	---	---	---	---	---	---	---	---	---
	23-60	Indurated, unweathered bedrock.	---	---	---	---	---	---	---	---	---
Tarrant---------	0-10	Very stony silty clay.	CH, GC, SC, GM	A-7-6, A-7-5	33-77	55-100	51-100	48-99	36-95	51-75	25-44
	10-60	Indurated, unweathered bedrock.	---	---	---	---	---	---	---	---	---
LaB---------- Lagloria	0-42	Loam----------	CL-ML, ML, CL	A-4	0	100	100	85-100	51-95	<30	NP-9
	42-72	Stratified silty clay loam to very fine sandy loam.	CL-ML, ML, CL	A-4	0	100	100	85-100	51-95	<30	NP-9
LnD, LnE--------- Langtry	0-8	Cobbly silt loam	GC, CL	A-4, A-6	25-50	40-70	40-60	40-60	36-60	25-35	8-15
	8-60	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
LRE*:											
Langtry---------	0-8	Very cobbly loam	GC, GW-GC, GP-GC	A-2-4, A-2-6	50-65	20-40	10-40	10-40	10-35	25-35	8-15
	8-60	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
Rock outcrop.											
LRG*:											
Langtry---------	0-12	Cobbly clay loam.	GC, GW-GC, GP-GC	A-2-4, A-2-6	50-65	20-40	10-40	10-40	10-35	25-35	8-15
	12-60	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
Rock outcrop.											
Ls---------- Laredo	0-13	Silty clay loam	CL	A-6, A-7-6, A-4	0	100	100	90-100	85-100	28-44	9-22
	13-60	Silty clay loam, silt loam.	CL	A-6, A-7-6, A-4	0	100	95-100	90-100	70-95	28-45	9-26
Lv---------- Laredo Variant	0-12	Silty clay loam	CL	A-6	0	95-100	95-100	95-100	90-100	33-40	15-20
	12-60	Clay, silty clay loam.	CL	A-6	0	95-100	95-100	95-100	90-100	30-39	14-22
LZD*:											
Lozier----------	0-8	Very gravelly loam.	GC, GM-GC, CL	A-2, A-4, A-6	10-40	30-60	25-55	20-50	15-45	25-48	8-26
	8-60	Unweathered bedrock.	---	---	---	---	---	---	---	---	---

See footnote at end of table.

TABLE 11.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments > 3 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct					Pct	
LZD*:											
Shumla	0-12	Loam	CL, SC, CL-ML, SM-SC	A-4, A-6	0-2	85-95	72-95	60-90	40-70	20-35	5-15
	12-17	Indurated	---	---	---	---	---	---	---	---	---
	17-36	Variable	---	---	---	---	---	---	---	---	---
	36-60	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
MaD Mariscal	0-7	Very channery silt loam.	GC	A-2-4, A-2-6	10-50	30-60	25-55	20-50	15-35	25-35	8-15
	7-60	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
MLG*:											
Mariscal	0-7	Very flaggy loam	GC	A-2-4, A-2-6	10-50	30-60	25-55	20-50	15-35	25-35	8-15
	7-60	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
Lozier	0-6	Very cobbly loam	GC, SC, CL	A-2, A-4, A-6	25-60	40-80	30-75	25-70	20-60	25-48	8-26
	6-60	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
OmD Olmos	0-18	Very gravelly loam.	GC, GM-GC, SC, SM-SC	A-2-4, A-2-6	0-30	35-75	25-55	25-55	20-35	25-35	7-15
	18-24	Indurated	---	---	---	---	---	---	---	---	---
	24-60	Variable	---	---	---	---	---	---	---	---	---
Pn Pintas	0-23	Clay	CL, CH	A-7-6	0	100	98-100	95-100	80-100	41-55	20-30
	23-60	Silty clay loam, clay loam, clay.	CL	A-6, A-7-6	0	100	98-100	95-100	70-95	30-45	15-25
Pt*. Pits											
Ra Reynosa	0-16	Silty clay loam	CL, CL-ML	A-6, A-4, A-7-6	0	100	100	95-100	80-100	25-45	7-25
	16-64	Silty clay loam, silty clay.	CL	A-6, A-4, A-7-6	0	95-100	95-100	95-100	80-100	28-44	9-23
Rd Rio Diablo	0-60	Silty clay, clay	CL, CH	A-6, A-7-6	0-3	85-100	80-100	73-100	70-97	35-55	20-36
Rg Rio Grande	0-9	Silt loam	CL, CL-ML, ML	A-4, A-6	0	100	100	95-100	70-95	20-31	4-12
	9-64	Stratified silt loam to loamy very fine sand.	CL, CL-ML	A-4, A-6	0	100	100	95-100	70-100	20-35	4-12
Ro* Rio Grande	0-8	Very fine sandy loam.	CL, CL-ML, ML	A-4, A-6	0	100	100	95-100	70-95	20-31	4-12
	8-64	Stratified silt loam to loamy very fine sand.	CL, CL-ML	A-4, A-6	0	100	100	95-100	70-100	20-35	4-12
Rv*. Riverwash											

See footnote at end of table.

TABLE 11.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments > 3 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct					Pct	
SsC*:											
Sanderson-------	0-8	Very gravelly loam.	GC, GM-GC, SC, SM-SC	A-2, A-4, A-6, A-1-b	0-25	30-80	20-70	15-65	13-50	22-40	5-20
	8-60	Very gravelly loam, very gravelly clay loam, very gravelly sandy loam.	GC, GM-GC, SC, SM-SC	A-2, A-4, A-6, A-1-b	0-25	30-80	20-70	15-65	13-50	22-40	5-20
Shumla----------	0-14	Loam----------	CL, SC, CL-ML, SM-SC	A-4, A-6	0-2	85-95	72-95	60-90	40-70	20-35	5-15
	14-17	Indurated--------	---	---	---	---	---	---	---	---	---
	17-36	Variable---------	---	---	---	---	---	---	---	---	---
	36-60	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
SuC---------- Shumla	0-11	Loam----------	CL, SC, CL-ML, SM-SC	A-4, A-6	0-2	85-95	72-95	60-90	40-70	20-35	5-15
	11-17	Indurated--------	---	---	---	---	---	---	---	---	---
	17-36	Variable---------	---	---	---	---	---	---	---	---	---
	36-60	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
TAD*---------- Tarrant	0-14	Very stony clay	CH, GC, SC, GM	A-7-6, A-7-5	33-77	55-100	51-100	48-99	36-95	51-75	25-44
	14-60	Indurated, unweathered bedrock.	---	---	---	---	---	---	---	---	---
ToA---------- Tobosa	0-51	Clay----------	CH	A-7-6	0-3	95-100	95-100	85-100	75-98	51-72	30-45
	51-62	Clay, silty clay	CH, CL	A-7-6	0-3	95-100	95-100	85-100	70-95	45-65	25-40
VaB---------- Valverde	0-48	Silty clay loam	CL	A-6, A-7-6	0-3	90-100	80-100	75-100	70-95	28-43	11-23
	48-68	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
ZaC*:											
Zapata----------	0-8	Clay loam--------	SC, CL	A-4, A-6	0-8	85-95	85-95	55-90	40-65	27-40	9-21
	8-60	Cemented---------	---	---	---	---	---	---	---	---	---
Vinegarroon-----	0-17	Gravelly loam----	CL, CL-ML	A-4, A-6	0-5	70-90	60-80	60-80	51-80	25-40	4-18
	17-24	Indurated--------	---	---	---	---	---	---	---	---	---
	24-60	Cemented---------	---	---	---	---	---	---	---	---	---
ZoD*:											
Zorra----------	0-8	Stony loam-------	GC, GP-GC, SC, CL	A-2-4, A-2-6, A-4, A-6	8-45	12-65	10-60	10-60	8-55	25-35	8-15
	8-12	Cemented---------	---	---	---	---	---	---	---	---	---
	12-60	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
Rock outcrop.											
ZoE*:											
Zorra----------	0-10	Very stony loam	GC, GP-GC, SC, CL	A-2-4, A-2-6, A-4, A-6	8-45	12-65	10-60	10-60	8-55	25-35	8-15
	10-12	Cemented---------	---	---	---	---	---	---	---	---	---
	12-60	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
Rock outcrop.											

See footnote at end of table.

TABLE 11.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification		Frag- ments > 3 inches	Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO		4	10	40	200		
	In				Pct					Pct	
ZRE*:											
Zorra----------	0-5	Stony clay loam	GC, GP-GC, SC, CL	A-2-4, A-2-6, A-4, A-6	8-45	12-65	10-60	10-60	8-55	25-35	8-15
	5-12	Cemented---------	---	---	---	---	---	---	---	---	---
	12-60	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
Rock outcrop.											

* See description of the map unit for composition and behavior characteristics of the map unit.