

PROB (CONTD)

1738

(NOTE: NO SOIL IS DISREGARDED FOR STRENGTH ANALYSIS)

DRILLING REPORT

COUNTY-	HARRIS	STRUCTURE-	SH99 @ FRY RD. OVERPASS
HIGHWAY NO.-	SH99	HOLE NO.-	1
CONTROL-	3510-05-001	STATION-	1361+75.30
PROJECT NO.-		OFFSET-	31.9' RT
DATE-	11/10/88	CODED BY-	JPG
GRD. ELEV.-	106.6	GRD. WATER ELEV.-	94.6
DISTRICT-	12		

D E F P T T . H	PEN 1ST 6IN	PEN 2ND 6IN	S A M N P O L . E	TAT LAT- ULT PSI	WET DEN PCF	MOI %	LL %	PI %	DESCRIPTION OF MATERIAL AND REMARKS
0									CLAY, SILTY, DK. GRAY, W/ORGANICS-ROOTS
1			1	0-	26	126	10	33	
2									
3									
4									
5	9	8							CLAY, SILTY, BRN, TN, W/CALCS. NODS, FIRM
6			3				12		
7									
8									
9									
10	4	4							CLAY, TAN, BROWN, STIFF
11			4						
12			5	0-	15	132	20	63	
13									
14									
15	7	8							
16			6				26	65	CLAY, BROWN, W/CALCS. NODS.
17			7	0-	31	126	27		
18			8	0-	35	131	24		CLAY, TAN, W/CALC. LAYER
19									
20	19	56							
21									SAND, WATERBEARING, DRILLED OUT
22									
23									
24									
25	8	9							
26									
27									
28									
29									
30	50/3.00	50/2.50							
31									
32									
33									
34									
35	17	18							

36						
37						
38						
39						
40	17	21				
41						
42						
43						
44						
45	16	16				
46			9		28	
47			10	0-	51 135	19 58
48						
49						
50	15	18				
51			11		61	
52			12		17	
53						
54						
55	50	39				
56			13		19	
57			14		16	
58						
59						
60	45/6.00	55/4.00				
61						
62						
63						
64						
65	50	47				
66						
67						
68						
69						
70	44	40				
71						
72						
73						
74						
75	15	22				

CLAY, BROWN, W/CALCS. NODS, STIFF

CLAY, BROWN, W/CALCS. NODS, STIFF

SAND, VERY SILTY, LT. BRN, W/CALCS. NODS

SAND, WATERBEARING, DRILLED OUT

DRILLER- AL FARREL

LOGGER- MIKE BAHM
TITLE-

PROB (CONTD)

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(NOTE: NO SOIL IS DISREGARDED FOR STRENGTH ANALYSIS)

SOIL STRENGTH ANALYSIS RESULTS

HOLE NUMBER 1

STRAT NUM.	ELEVATION -FEET-		STRAT THICK NESS FEET	CEN- TROID DEPTH FEET	UNIF. SOIL CLASS	PEN TEST BLOWS/ FOOT	TEST CONST	SOIL WET			VARIANCE TAT	
	FROM	TO						COHES LBS/ SQFT	DENS LBS/ CUFT	INT. FRIC ANG.	----- PEAK	AVG
1	107	102	5.0	2.5	CL			1886	126	0.0		
2	102	97	5.0	7.5	CL	17.0	60					
3	97	92	5.0	12.5	CH	8.0	50	1080	132	0.0		
4	92	89	3.0	16.5	CH	15.0	50	2261	126	0.0		
5	89	87	2.0	19.0	CH			2520	131	0.0		
6	87	77	10.0	25.0	OTHE	46.0	80					
7	77	65	12.0	36.0	OTHE	97.1	80					
8	65	57	8.0	46.0	CH	32.0	50	3686	135	0.0		
9	57	52	5.0	52.5	CH	33.0	50					
10	52	47	5.0	57.5	OTHE	89.0	80					
11	47	32	15.0	67.5	OTHE	100.3	80					

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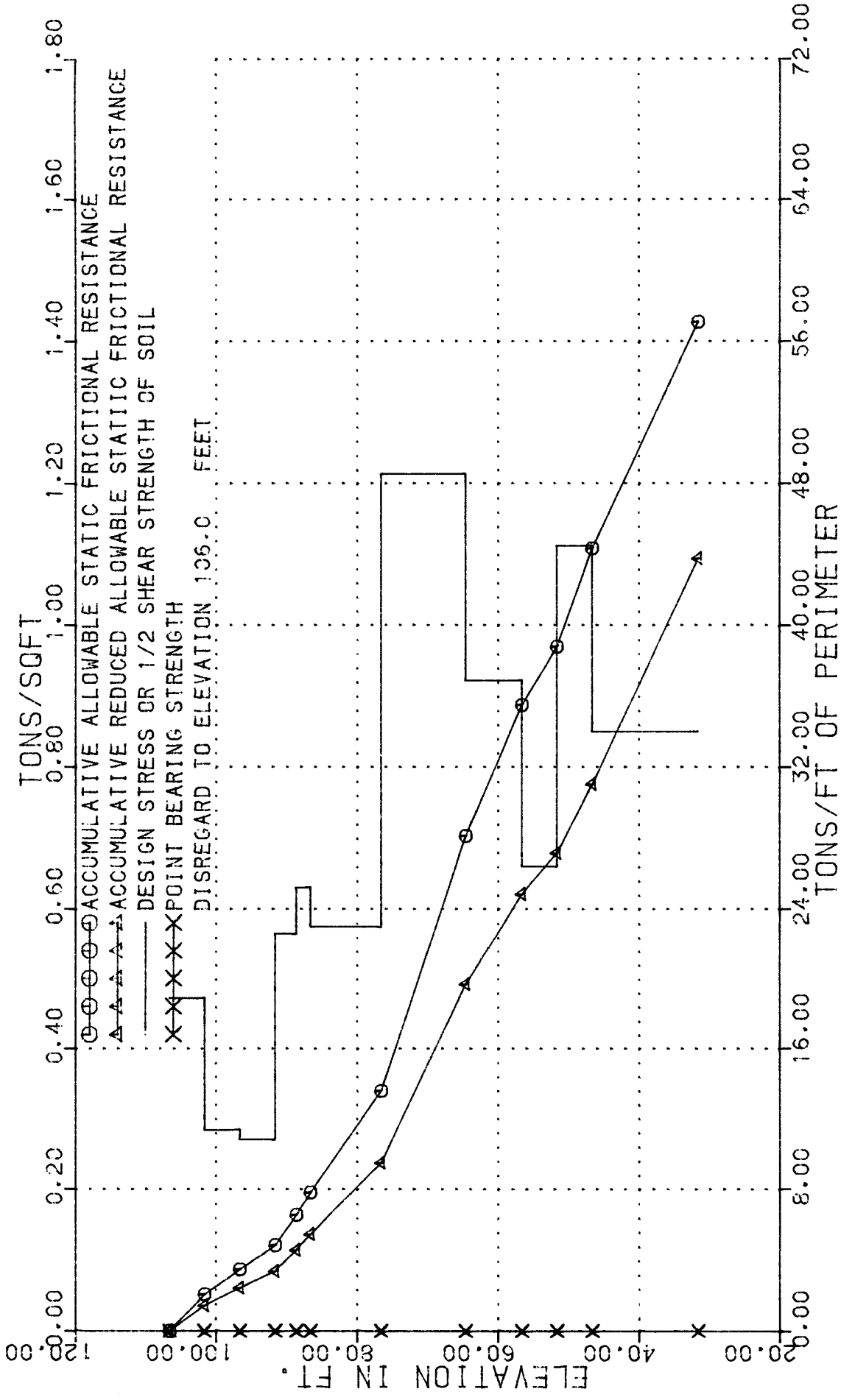
(NOTE: NO SOIL IS DISREGARDED FOR STRENGTH ANALYSIS)

SOIL STRENGTH ANALYSIS RESULTS
 DISREGARD TO ELEVATION IS 106.0 FEET

HOLE NUMBER 1

STRATA NUMBER	ELEVATION -FEET-		DESIGN STRESS OF SOIL TONS/SQFT PER STRAT	ALLOWABLE STATIC FRICTIONAL RESISTANCE (DS) TONS PER FT OF PERIMETER PER ACCUM-		REDUCED ALLOWABLE STATIC FRICTIONAL RESISTANCE ----- PER ACCUM-			BEAR FACTOR NC	POINT BEARING STRENGTH SNC TONS/SQFT	TAT TO PEN RAT
	FROM	TO		PER STRATUM	ULATIVE	SR	STRATUM	ULATIVE			
1	106.6	101.6	0.47	2.36	2.08	0.7	1.65	1.45	3.62	0.00	0.0
2	101.6	96.6	0.28	1.42	3.49	0.7	0.99	2.44	3.62	0.00	0.0
3	96.6	91.6	0.27	1.35	4.84	0.7	0.94	3.39	2.57	0.00	1.7
4	91.6	88.6	0.57	1.70	6.54	0.7	1.19	4.58	2.57	0.00	1.9
5	88.6	86.6	0.63	1.26	7.80	0.7	0.88	5.46	2.57	0.00	0.0
6	86.6	76.6	0.57	5.75	13.55	0.7	4.02	9.48	4.29	0.00	0.0
7	76.6	64.6	1.21	14.56	28.11	0.7	10.19	19.67	4.29	0.00	0.0
8	64.6	56.6	0.92	7.37	35.48	0.7	5.16	24.84	2.57	0.00	1.4
9	56.6	51.6	0.66	3.30	38.78	0.7	2.31	27.15	2.57	0.00	0.0
10	51.6	46.6	1.11	5.56	44.34	0.7	3.89	31.04	4.29	0.00	0.0
11	46.6	31.6	0.85	12.75	57.09	1.0	12.75	43.79	4.29	0.00	0.0

FOUNDING MATERIAL PROPERTIES



COUNTY	HARRIS	STRUCTURE SH99 & FRY RD. OVERPASS	THD DIST	12	
HIGHWAY NO	SH99	HOLE NO	1	DATE	11/10/86
CONTROL	3510-05-001	STATION	1361+75.30	BY	JPG
IPE		LOCATION	31.9' RT.		

DRILLING LOG

COUNTY HARRIS
 HIGHWAY NO SH99
 CONTROL 3510-05-001
 IPE

STRUCTURE SH99 & FRY RD. OVERPASS
 HOLE NO 1
 STATION 1361+75.30
 LOCATION 31.9' RT

THD DIST 12
 DATE 11/10/86
 GRD. ELEV. 106.6
 GRD. WATER ELEV. 94.6

ELEV FT.	LOG	THD PEN. TEST NO. OF BLOWS		DESCRIPTION OF MATERIAL	METHOD OF CORING
		1ST 6"	2ND 6"		
106.5 0	[Diagonal Hatching]			CLAY, SILTY, DK. GR. W/ORG. ROOTS	0
101.5		9 (6.0")	8 (6.0")	CLAY, SILTY, BRN. TN. W/CALCS. NODS.	
96.5 10	[Diagonal Hatching]	4 (6.0")	4 (6.0")	CLAY, TN. BRN. STIFF	10
91.5		7 (6.0")	8 (6.0")	CLAY, BRN. W/CALCS. NODS	
88.6	[Diagonal Hatching]	19 (6.0")	56 (6.0")	CLAY, TN. W/CALC. LAYER	20
86.5 20				SAND, WB. DRILLED OUT	
	[Dotted Pattern]	8 (6.0")	9 (6.0")		
76.5 30		50 (3.0")	50 (2.5")	SAND, WB. DRILLED OUT	30
		17 (6.0")	18 (6.0")		
	[Dotted Pattern]	17 (6.0")	21 (6.0")		40
64.5		16 (6.0")	15 (6.0")	CLAY, BRN. W/CALCS. NODS. STIFF	
56.5 50		15 (6.0")	18 (6.0")	CLAY, BRN. W/CALCS. NODS. STIFF	50
51.5	[Dotted Pattern]	50 (6.0")	39 (6.0")	SAND, VERY SILTY, LT. BRN. W/CALCS. NODS	
46.5 60		45 (6.0")	55 (4.0")	SAND, WB. DRILLED OUT	60
		50 (6.0")	47 (6.0")		
70	[Dotted Pattern]	44 (6.0")	40 (6.0")		70
		15 (6.0")	22 (6.0")		
*REMARKS: GWE MEAS AT END OF DRLG					

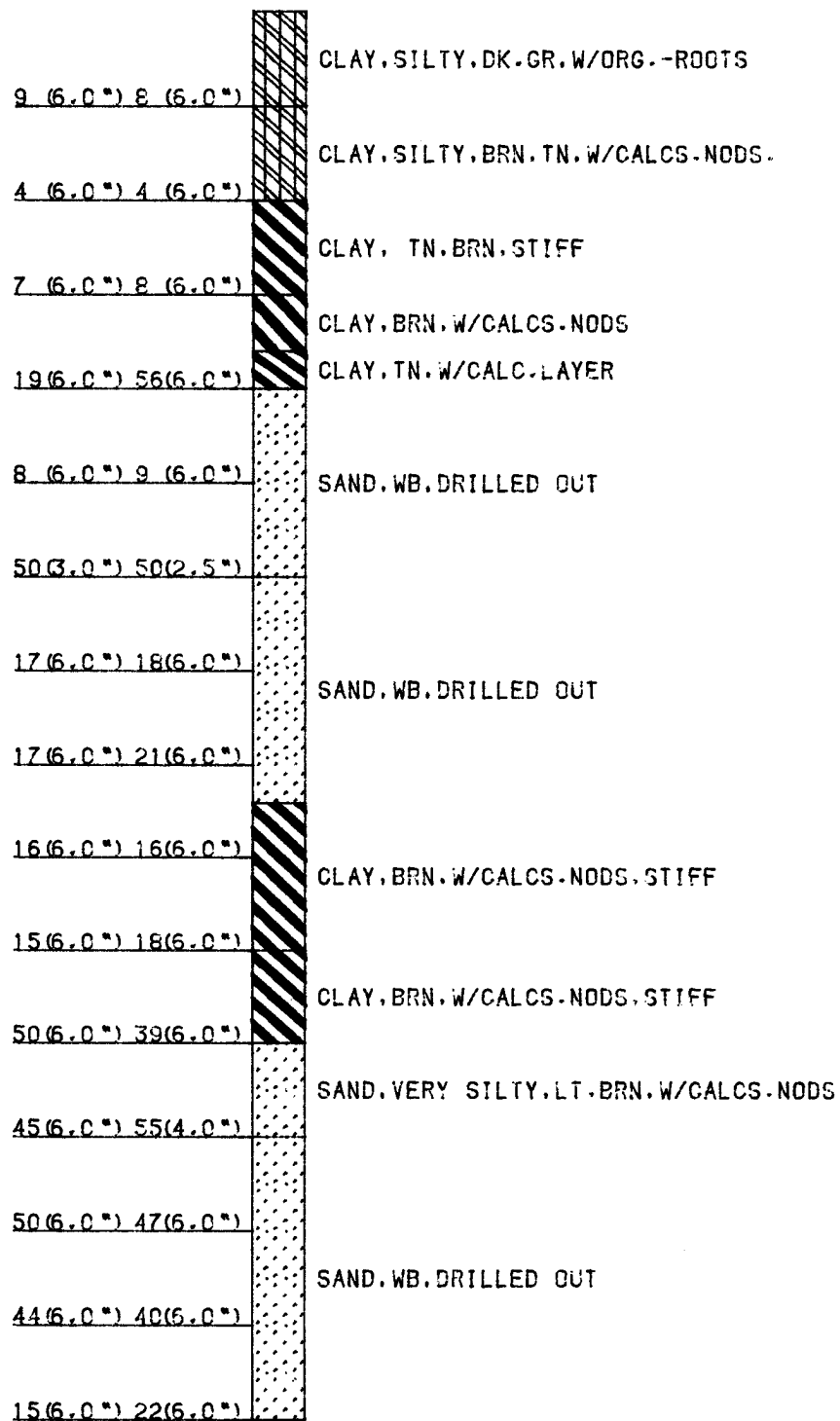
DRILLER AL FARREL

LOGGER MIKE BAHM

TITLE

TEST HOLE NO. 1

GROUND ELEV. 105.6



36			12		27		CLAY, BROWN, W/SOME CALCS., STIFF
37			13				
38			14	0-	128 26	63	CLAY, BRN, W/SOME CALCS. & CLAY-STONE
39			15		133 23		
40	16	18					
41			16			26	CLAY, BROWN, STIFF
42			16				
43			17	0-	50 128 24		
44			18			21	
45	14	18					
46			19			26	
47			20	0-	49 134 21	51	
48			21	0-	48 135 19		
49			22	0-	52 137 18		
50	20	28					
51			23			17	50 CLAY, W/SAND POCKETS, BRN, W/SM CALCS
52			24	0-	35 139 15		
53			25	0-	30 139 14		SAND, W/SOME CLAY, BROWN, DENSE
54			26	0-	37 140 14		
55	50/4.50	50/5.00					
56							SAND, DRILLED OUT
57							
58							
59							
60	37	42					
61							
62							
63							
64							
65	50/4.00	50/3.50					
66							
67							
68							
69							
70	50/1.50	50/1.00					
71							
72							
73							
74							
75	50/1.00	50/0.50					

DRILLER- AL FARREL

LOGGER- MIKE BAHM
TITLE-

BFAST

PROB (CONTD)

1738

(NOTE: NO SOIL IS DISREGARDED FOR STRENGTH ANALYSIS)

SOIL STRENGTH ANALYSIS RESULTS

HOLE NUMBER 2

STRAT NUM.	ELEVATION -FEET-		STRAT THICK NESS FEET	CEN- TROID DEPTH FEET	UNIF. SOIL CLASS	PEN TEST BLOWS/ FOOT	SOIL WET COHES TEST CONST	WET DENS LBS/ CUFT	INT. FRIC ANG.	VARIANCE TAT -----			
	FROM	TO								PEAK	AVG	RATIO	
1	106	104	2.0	1.0	OTHE								
2	104	101	3.0	3.5	CL								
3	101	96	5.0	7.5	CL	24.0	60	2988	140	0.0			
4	96	90	6.0	13.0	CH	34.5	50	1991	123	0.0			
5	90	86	4.0	18.0	OTHE								
6	86	71	15.0	27.5	OTHE	22.3	80						
7	71	68	3.0	36.5	CH	27.0	50						
8	68	66	2.0	39.0	CH			3643	128	0.0			
9	66	56	10.0	45.0	CH	33.0	50	3595	133	0.0	1.2	0.6	4.6
10	56	54	2.0	51.0	CH	48.0	50						
11	54	51	3.0	53.5	OTHE			2460	139	0.0	2.1	1.4	3.7
12	51	41	10.0	60.0	OTHE	102.7	80						
13	41	31	10.0	70.0	OTHE	320.0	80						

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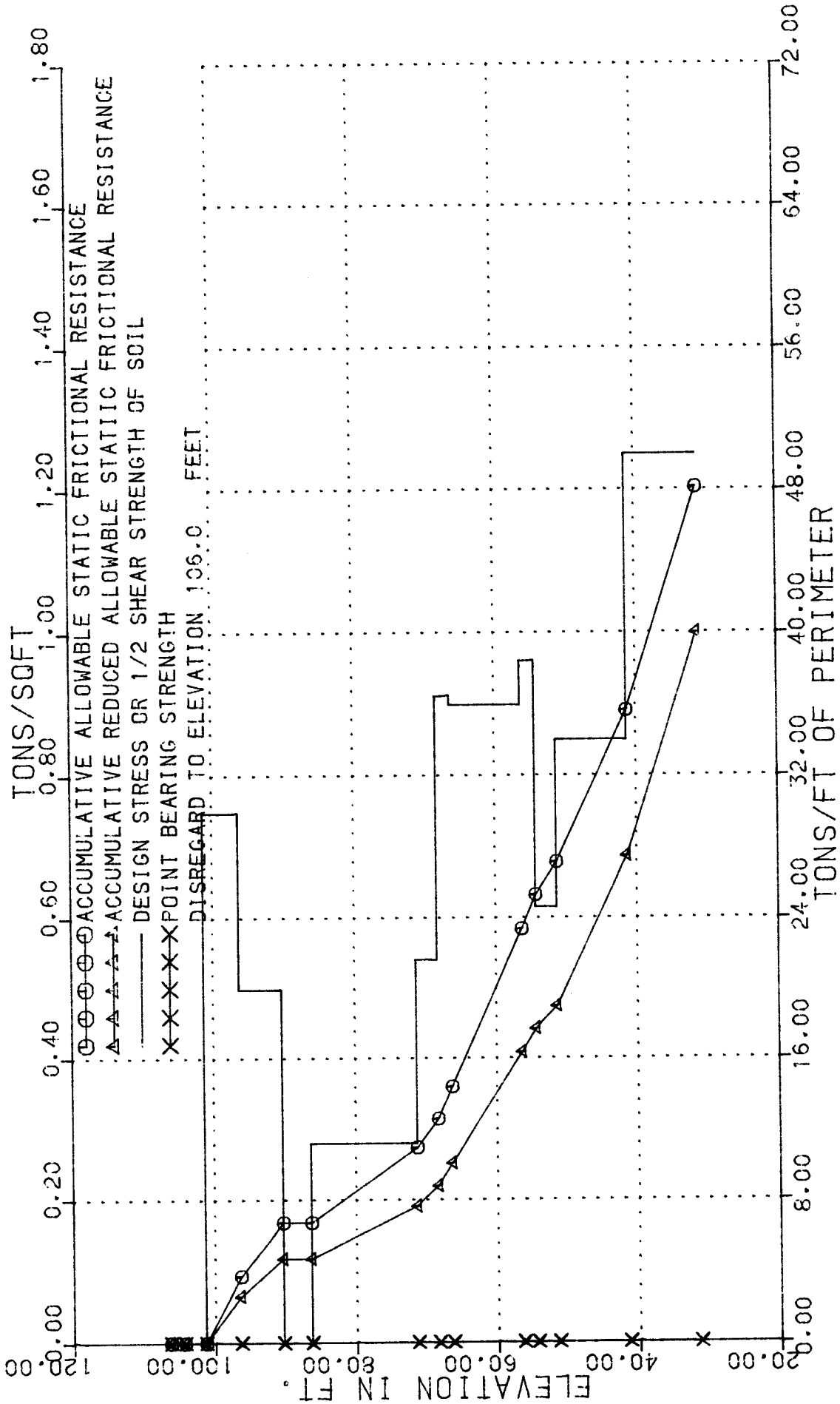
(NOTE: NO SOIL IS DISREGARDED FOR STRENGTH ANALYSIS)

SOIL STRENGTH ANALYSIS RESULTS
DISREGARD TO ELEVATION IS 106.0 FEET

HOLE NUMBER 2

STRATA NUMBER	ELEVATION -FEET-		DESIGN STRESS OF SOIL TONS/SQFT PER STRAT	ALLOWABLE STATIC FRICTIONAL RESISTANCE (DS) TONS PER FT OF PERIMETER PER ACCUM-		REDUCED ALLOWABLE STATIC FRICTIONAL RESISTANCE ----- PER ACCUM-			BEAR FACTOR NC	POINT BEARING STRENGTH SNC TONS/SQFT	TAT TO PEN RAT
	FROM	TO		STRATUM	ULATIVE	SR	STRATUM	ULATIVE			
1	106.3	104.3	0.00	0.00	0.00	0.7	0.00	0.00	4.29	0.00	0.0
2	104.3	101.3	0.00	0.00	0.00	0.7	0.00	0.00	3.62	0.00	0.0
3	101.3	96.3	0.75	3.73	3.73	0.7	2.61	2.61	3.62	0.00	1.9
4	96.3	90.3	0.50	2.99	6.72	0.7	2.09	4.70	2.57	0.00	0.7
5	90.3	86.3	0.00	0.00	6.72	0.7	0.00	4.70	4.29	0.00	0.0
6	86.3	71.3	0.28	4.19	10.91	0.7	2.93	7.64	4.29	0.00	0.0
7	71.3	68.3	0.54	1.62	12.53	0.7	1.13	8.77	2.57	0.00	0.0
8	68.3	66.3	0.91	1.82	14.35	0.7	1.28	10.05	2.57	0.00	0.0
9	66.3	56.3	0.90	8.99	23.34	0.7	6.29	16.34	2.57	0.00	1.4
10	56.3	54.3	0.96	1.92	25.26	0.7	1.34	17.68	2.57	0.00	0.0
11	54.3	51.3	0.62	1.85	27.10	0.7	1.29	18.97	4.29	0.00	0.0
12	51.3	41.3	0.85	8.50	35.60	1.0	8.50	27.47	4.29	0.00	0.0
13	41.3	31.3	1.25	12.50	48.10	1.0	12.50	39.97	4.29	0.00	0.0

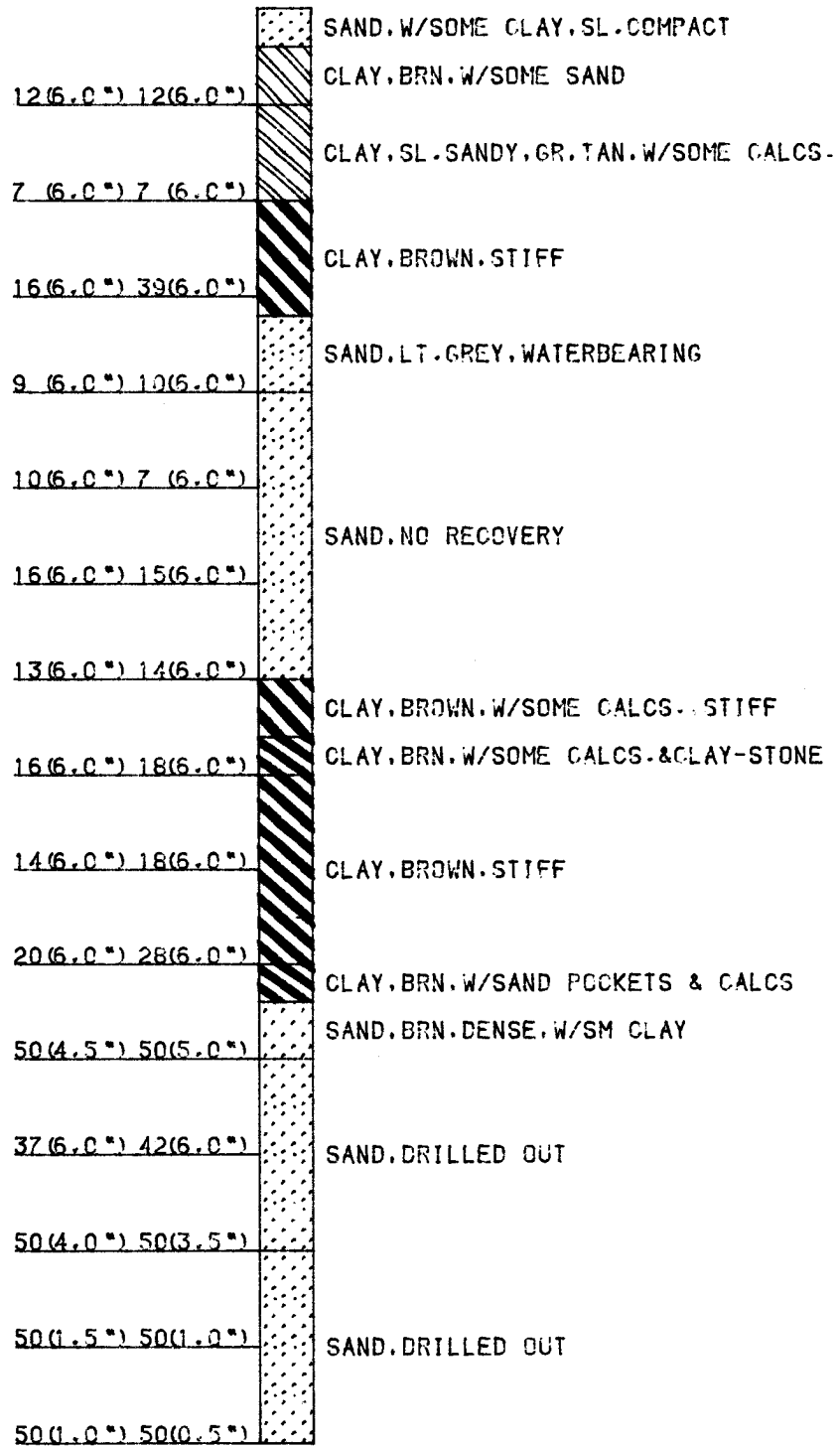
FOUNDING MATERIAL PROPERTIES



COUNTY	HARRIS	STRUCTURE SH99 @ FRY RD. OVERPASS	THD DIST	12
HIGHWAY NO	SH99	HOLE NO	DATE	11/10/86
CONTROL	3510-05-001	STATION	BY	JPG
TYPE		LOCATION		

TEST HOLE NO. 2

GROUND ELEV. 106.3



DRILLING LOG

COUNTY HARRIS
 HIGHWAY NO SH99
 CONTROL 3510-05-001
 IPE

STRUCTURE SH99 & FRY RD. OVERPASS
 HOLE NO 2
 STATION 1359+85.10
 LOCATION 32.0' RT

THD DIST 12
 DATE 11/10/86
 GRD. ELEV. 106.3
 GRD-WATER ELEV. 106.3

ELEV FT.	LOG	THD PEN. TEST NO. OF BLOWS		DESCRIPTION OF MATERIAL	METHOD OF CORING
		1ST 6"	2ND 6"		
106.3				SAND, W/SOME CLAY, SL. COMPACT	0
104.3				CLAY, BRN. W/SOME SAND	
101.3		12 (6.0")	12 (6.0")	CLAY, SL. SANDY, GR. TAN. W/SOME CALCS.	
96.3		7 (6.0")	7 (6.0")	CLAY, BROWN, STIFF	10
90.3		16 (6.0")	39 (6.0")		
86.3		9 (6.0")	13 (6.0")	SAND, LT. GREY, WATERBEARING	20
		10 (6.0")	7 (6.0")	SAND, NO RECOVERY	
30		16 (6.0")	15 (6.0")		30
71.3		13 (6.0")	14 (6.0")	CLAY, BROWN, W/SOME CALCS., STIFF	
68.3		16 (6.0")	18 (6.0")	CLAY, BRN. W/SOME CALCS. & CLAY-STONE	40
66.3		14 (6.0")	18 (6.0")	CLAY, BROWN, STIFF	
56.3		20 (6.0")	28 (6.0")	CLAY, BRN. W/SAND POCKETS & CALCS	50
54.3				SAND, BRN. DENSE, W/SM CLAY	
51.3		50 (4.5")	50 (5.0")	SAND, DRILLED OUT	
60		37 (6.0")	42 (6.0")		60
41.3		50 (4.0")	50 (3.5")	SAND, DRILLED OUT	
70		50 (1.5")	50 (1.0")		70
		50 (1.0")	50 (0.5")		

*REMARKS: NO GWE MEASURED

DRILLER AL FARREL

LOGGER MIKE BAHM

TITLE