



37			8	0- 24	125	33	63	CLAY, BROWN, STIFF W/SM. CALCS.
38								
39								
40	7	9						
41								
42			9		132	22	51	CLAY, BROWN, DARK GRAY W/SM. CALCS.
43								
44								
45	7	7						
46								SAND, SILTY, BROWN, LOOSE, W. B.
47			10			23		-SOME CALCS.
48			11			24		
49								
50	16	15						
51								SAND, SLIGHTLY COMPACT, DRILLER: W. B.
52								
53								
54								
55	21	28						
56								SAND, SLIGHTLY COMPACT, DRILLER: W. B.
57								
58								
59								
60	12	12						
61								SAND, SLIGHTLY COMPACT
62								SAND, DRILL-OUT
63								
64								
65	17	15						
66								SAND, SLIGHTLY COMPACT, DRILL-OUT
67								
68								
69								
70	17	16						
71								SAND, LT. BRN, SLIGHTLY COMPACT, W. B.
72								
73								SAND, DENSE
74								
75	50/3.00	50/3.00						

DRILLER- MIKE BAHM

LOGGER- AL FARRELL  
TITLE-

PROB (CONTD)

2068 (NOTE: NO SOIL IS DISREGARDED FOR STRENGTH ANALYSIS)

## SOIL STRENGTH ANALYSIS RESULTS

HOLE NUMBER 1

STRAT NUM.	ELEVATION -FEET-		STRAT THICK NESS FEET	CEN- TKOID 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	RATIO
1	81	75	6.0	3.0	OTHE	10.0	80						
2	75	70	5.0	8.5	CH	11.0	50	1199	128	0.0			
3	70	69	1.0	11.5	SC			432	0	0.0			
4	69	60	9.0	16.5	CH	12.0	50	1123	128	0.0			
5	60	48	12.0	27.0	CH	11.5	50	1573	124	0.0			
6	48	36	12.0	39.0	CH	15.0	50	1721	125	0.0			
7	36	33	3.0	46.5	OTHE	14.0	80						
8	33	23	10.0	53.0	OTHE	40.0	80						
9	23	8	15.0	65.5	UTHE	29.7	80						
10	8	5	3.0	74.5	OTHE	200.0	80						

PROB (CONTD)

2068

(NOTE: NO SOIL IS DISREGARDED FOR STRENGTH ANALYSIS)

SOIL STRENGTH ANALYSIS RESULTS  
 DISREGARD TO ELEVATION IS 81.2 FEET

HOLE NUMBER	1	ALLOWABLE STATIC FRICTIONAL RESISTANCE (DS)				REDUCED ALLOWABLE STATIC FRICTIONAL RESISTANCE			POINT BEARING		TAT TO PER
		DESIGN STRESS OF SOIL TONS/SQFT PER STRAT	TONS PER FT OF PERIMETER PER STRATUM	PER	ACCUM- ULATIVE	PER STRATUM	ACCUM- ULATIVE	SR	BEAR FACTOR NC	STRENGTH SNC TONS/SQFT	
STRATA NUMBER	ELEVATION -FEET- FROM TO										
1	81.2 75.2	0.13	0.75	0.63	0.7	0.52	0.44	4.29	0.00	0.0	
2	75.2 70.2	0.30	1.50	2.12	0.7	1.05	1.49	2.57	0.00	1.4	
3	70.2 69.2	0.11	0.11	2.23	0.7	0.08	1.56	4.29	0.00	0.0	
4	69.2 60.2	0.28	2.53	4.76	0.7	1.77	3.33	2.57	0.00	1.7	
5	60.2 48.2	0.39	4.72	9.48	0.7	3.30	6.64	2.57	0.00	1.7	
6	48.2 36.2	0.43	5.16	14.64	0.7	3.61	10.25	2.57	0.00	1.4	
7	36.2 33.2	0.17	0.52	15.17	0.7	0.37	10.62	4.29	0.00	0.0	
8	33.2 23.2	0.50	5.00	20.17	0.7	3.50	14.12	4.29	0.00	0.0	
9	23.2 8.2	0.37	5.56	25.73	0.7	3.89	18.01	4.29	0.00	0.0	
10	8.2 5.2	1.12	3.37	29.10	1.0	3.37	21.38	4.29	0.00	0.0	

# DRILLING LOG

COUNTY FORT BEND  
 HIGHWAY NO SH 99  
 CONTROL 3512-04-005  
 TYPE

STRUCTURE BRIDGE \* OWENS ROAD  
 HOLE NO 1  
 STATION 905+35.8  
 LOCATION 14.0' LT

THD DIST 12  
 DATE 12/21/82  
 GRD. ELEV. 81.2  
 GRD. WATER ELEV. 81.2

ELEV FT.	LOG	THD PEN. TEST NO. OF BLOWS		DESCRIPTION OF MATERIAL	METHOD OF CORING
		1ST 6"	2ND 6"		
81.2	0			SAND, SILTY, BROWN, LOOSE	0
		5 (6.0")	5 (6.0")		
75.2				CLAY, BROWN, STIFF W/CALCS.	
		6 (6.0")	5 (6.0")		10
70.2				SILT, CLAYEY, BROWN	
69.2		5 (6.0")	5 (6.0")	CLAY, BROWN, STIFF W/CALCS. + FER.	
		6 (6.0")	8 (6.0")		20
60.2		6 (6.0")	6 (6.0")	CLAY, BROWN, STIFF W/SM. CALCS.	
		6 (6.0")	5 (6.0")		30
48.2		7 (6.0")	7 (6.0")	CLAY, BRN. DARK GR. STIFF W/CALCS.	
		7 (6.0")	9 (6.0")		40
36.2		7 (6.0")	7 (6.0")	SAND, SILTY, BROWN, LOOSE, W. B.	
35.2		16 (6.0")	15 (6.0")	SAND, DRILL-OUT, SLIGHTLY COMPACT, W. B.	50
		21 (6.0")	28 (6.0")		
23.2		12 (6.0")	12 (6.0")	SAND, DRILL-OUT, SLIGHTLY COMPACT	60
		17 (6.0")	15 (6.0")		
70		17 (6.0")	15 (6.0")		70
8.2		50 (3.0")	50 (3.0")	SAND, DENSE	

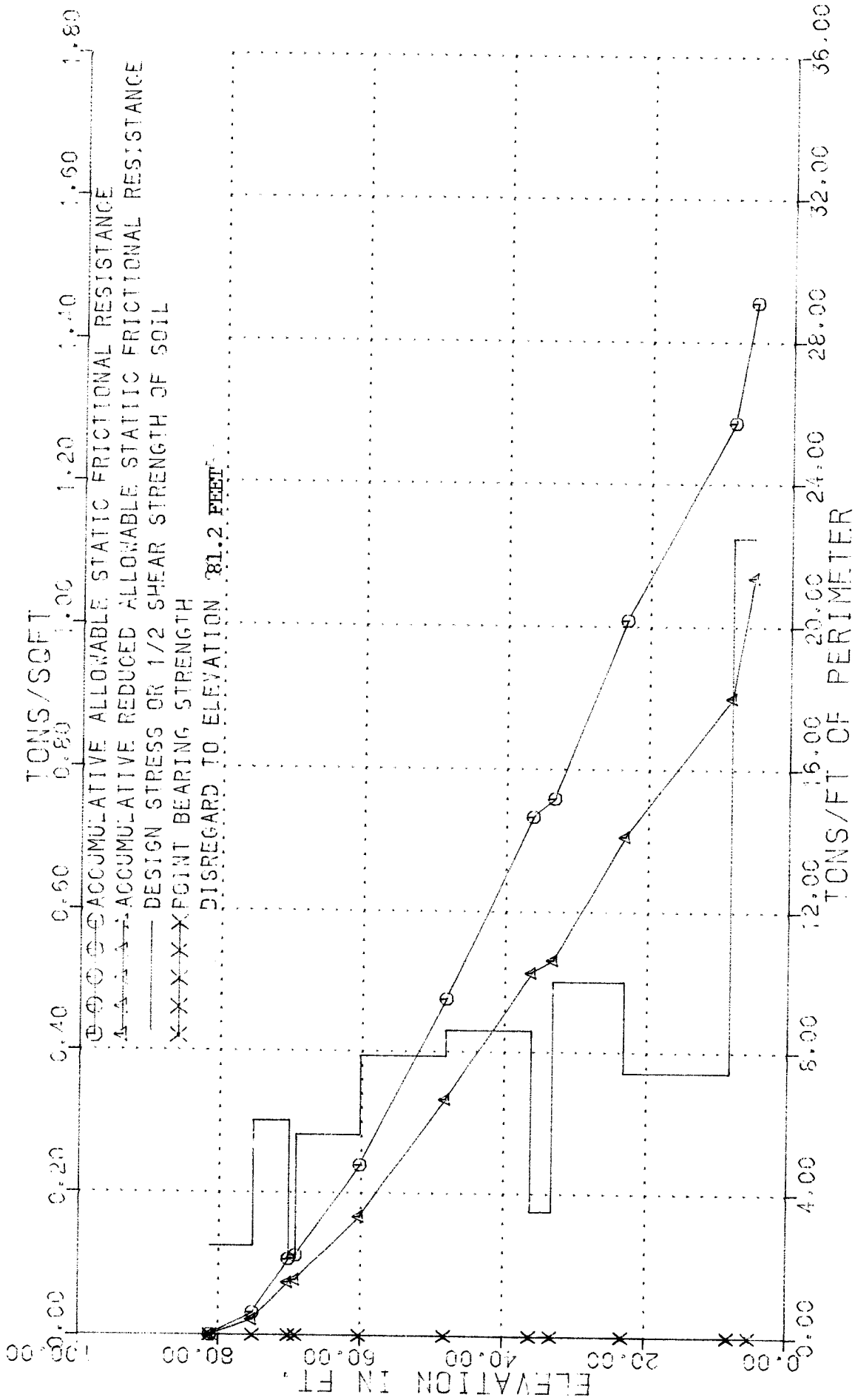
\*REMARKS: NO GWE RECORDED (hole collapsed)

DRILLER MIKE BAHM

LOGGER AL FARRELL

TITLE

# FOUNDING MATERIAL PROPERTIES

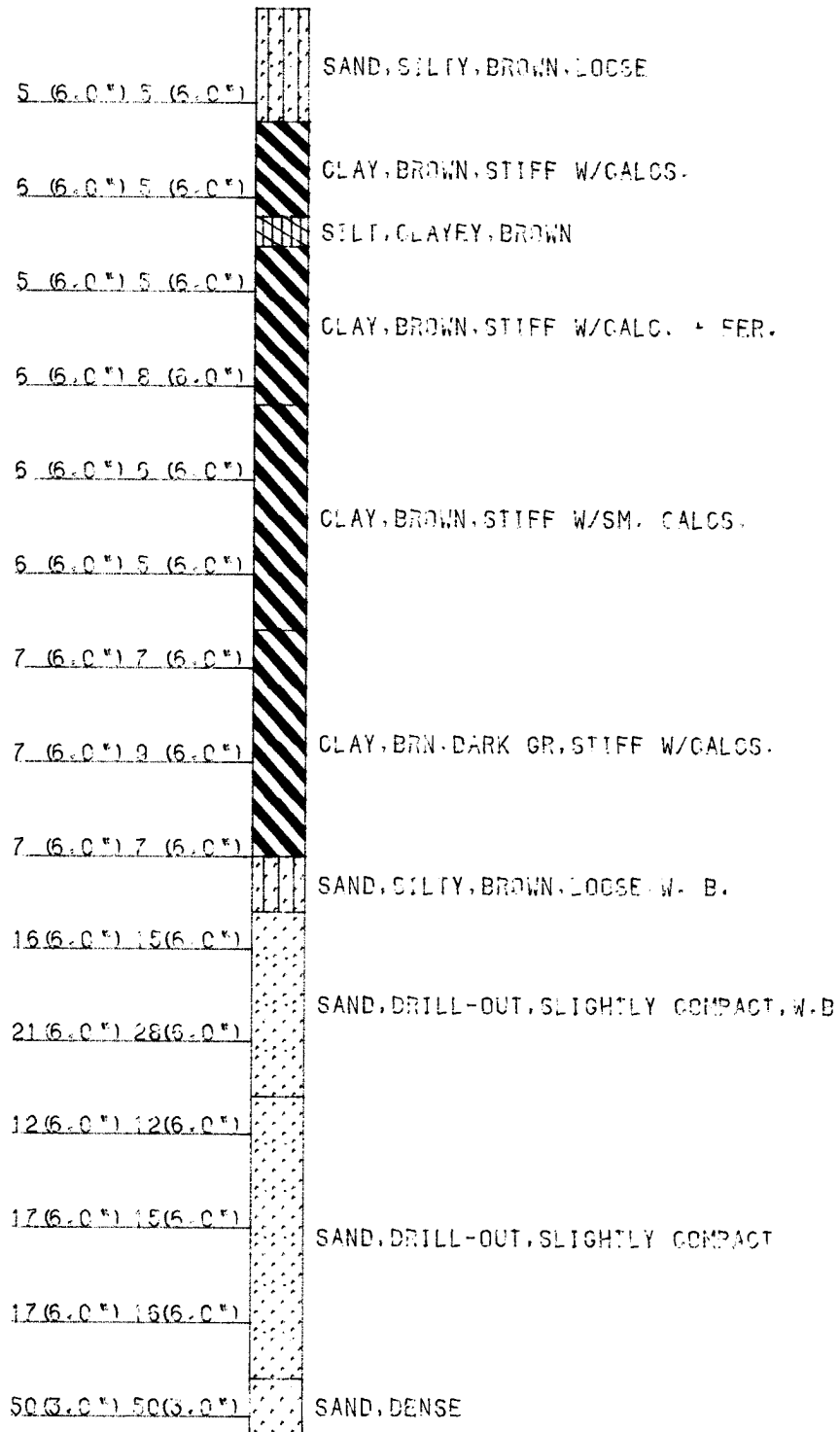


○ ○ ○ ○ ○ ALLOWABLE STATIC FRICTIONAL RESISTANCE  
 △ △ △ △ △ ALLOWABLE STATIC FRICTIONAL RESISTANCE  
 ——— DESIGN STRESS OR 1/2 SHEAR STRENGTH OF SOIL  
 × × × × × POINT BEARING STRENGTH

COUNTY	FORT BEND	THD DIST	12
HIGHWAY NO	SH 99	DATE	12/21/80
CONTROL	3510-04-005	BY	SJH
IPE			
STRUCTURE	BRIDGE & GUENS ROAD		
HOLE NO			
STATION	905-35.8		
LOCATION	14.0' LC		

TEST HOLE NO. 1

GROUND ELEV. 81.2



PROB (CONTD)

2068 (NOTE: NO SOIL IS DISREGARDED FOR STRENGTH ANALYSIS)

DRILLING REPORT

COUNTY-	FORT BEND	STRUCTURE-	BRIDGE @ OWENS ROAD
HIGHWAY NO.-	SH 99	HOLE NO.-	2
CONTROL-	3510-04-005	STATION-	905+89.1
PROJECT NO.-		OFFSET-	46.7' LT
DATE-	12/21/89	CODED BY-	SJH
GRD. ELEV.-	81.8	GRD. WATER ELEV.-	81.8 - No GWE recorded (hole collapsed)
DISTRICT-	12		

D E F P T T . H	PEN 1ST 6IN	PEN 2ND 6IN	S		TAT LAT- ULT PSI	WET DEN PCF	MOI %	LL %	PI %	DESCRIPTION OF MATERIAL AND REMARKS
			M P L	N G .						
1			1			130	18	39		CLAY, SILTY, BROWN
2										
3										
4										
5	3	4								
6										CLAY, BROWN, STIFF W/CALCS.
7			2		0-	16	126	29	87	
8										
9										
10	6	6								
11			3				25			CLAY, BROWN
12										
13										
14										
15	3	4								
16										SILT, CLAYEY, BROWN
17			4				24			
18										
19										
20	5	6								
21			5		0-	18	129	25	45	CLAY, BROWN, STIFF W/SM. CALCS. + FER.
22			6		0-	14	121	35		
23										
24										
25	6	6								
26										CLAY, BROWN, STIFF W/SM. CALCS.
27			7		0-	19	125	30	85	
28										
29										
30	7	6								
31			8		0-	18	123	31	89	CLAY, BROWN, STIFF W/SM. CALCS.
32			9		0-	29	122	33		
33										
34										
35	6	7								
36										CLAY, BROWN, STIFF W/SM. CALCS.

37			10	0- 19	125	30	82	
38								
39								
40	7	7						
41								CLAY, DK. GR, BRN, VERY STIFF W/CALCS.
42			11	0- 28	124	30	88	
43								
44								
45	7	9						
46								CLAY, BROWN, GRAY, STIFF W/CALCS.
47			12	0- 27	131	23	50	
48								SAND, LOOSE
49								
50	9	10						
51								SAND, LT. BRN, GR, LOOSE W/CALCS.
52			13		128	27		
53			14			26		SAND, LIGHT BROWN, LOOSE
54			15			13		SAND, BRN, GR, LOOSE, DRILLER NOTE: W. B.
55	5	7						
56								SAND, DRILLER NOTE: DRILL-OUT, W. B.
57								
58								SAND, SLIGHTLY COMPACT, DRILLER: W. B.
59								
60	17	23						
61								SAND, LT. GR, SLIGHTLY COMPACT, W. B.
62								
63								
64								
65	15	17						
66								SAND, SLIGHTLY COMPACT, DRILL-OUT
67								
68								
69								
70	18	24						
71								SAND, SLIGHTLY COMPACT, LT. GR, W. B.
72								
73								SAND, DENSE, W. B.
74								
75	50/5.00	50/3.00						

DRILLER- MIKE BAHM

LOGGER- AL FARRELL

TITLE-

BFAST

PROB (CONTD)

2068 (NOTE: NO SOIL IS DISREGARDED FOR STRENGTH ANALYSIS)

SOIL STRENGTH ANALYSIS RESULTS

HOLE NUMBER 2

STRAT NUM.	ELEVATION -FEET-		STRAT THICK NESS FEET	CEN- TKOID DEPTH FEET	UNIF. SOIL CLASS	PEN TEST BLOWS/ FOOT	TEST CONST	SOIL WET		INT. FRIC ANG.	VARIANCE TAT			
	FROM	TO						LBS/ SQFT	LBS/ CUFT		----- PEAK	AVG	RATIO	
1	82	76	6.0	3.0	CL	7.0	60							
2	76	67	9.0	10.5	CH	12.0	50	1138	126	0.0				
3	67	61	6.0	18.0	SC	9.0	70							
4	61	57	4.0	23.0	CH			1174	125	0.0				
5	57	46	11.0	30.5	CH	12.7	50	1558	123	0.0	3.5	2.4	3.3	
6	46	34	12.0	42.0	CH	15.0	50	1769	127	0.0	2.7	1.8	3.5	
7	34	24	10.0	53.0	OTHE	15.5	80							
8	24	9	15.0	65.5	OTHE	38.0	80							
9	9	6	3.0	74.5	OTHE	150.0	80							

PROB (CGNTD)

2068

(NOTE: NO SOIL IS DISREGARDED FOR STRENGTH ANALYSIS)

SOIL STRENGTH ANALYSIS RESULTS  
 DISREGARD TO ELEVATION IS 81.8 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		PER STRATUM	ULATIVE	SR	STRATUM	ULATIVE			
1	81.8	75.8	0.12	0.70	0.58	0.7	0.49	0.41	3.62	0.00	0.0
2	75.8	66.8	0.28	2.56	3.14	0.7	1.79	2.20	2.57	0.00	1.2
3	66.8	60.8	0.13	0.77	3.91	0.7	0.54	2.74	4.29	0.00	0.0
4	60.8	56.8	0.29	1.17	5.09	0.7	0.82	3.56	2.57	0.00	0.0
5	56.8	45.8	0.39	4.28	9.37	0.7	3.00	6.56	2.57	0.00	1.5
6	45.8	33.8	0.44	5.31	14.68	0.7	3.72	10.28	2.57	0.00	1.5
7	33.8	23.8	0.19	1.94	16.62	0.7	1.36	11.63	4.29	0.00	0.0
8	23.8	8.8	0.47	7.12	23.74	0.7	4.99	16.62	4.29	0.00	0.0
9	8.8	5.8	0.85	2.55	26.29	1.0	2.55	19.17	4.29	0.00	0.0

# DRILLING LOG

COUNTY FOR: BEND  
 HIGHWAY NO SH 99  
 CONTROL 3510-04-005  
 IPE

STRUCTURE BRIDGE @ OWENS ROAD  
 HOLE NO 2  
 STATION 905+69.1  
 LOCATION 46.7' LT

THD DIST 12  
 DATE 12/21/89  
 GRD. ELEV. 61.8  
 GRD. WATER ELEV. 61.8

ELEV FT.	LOG	THD PEN. TEST NO. OF BLOWS		DESCRIPTION OF MATERIAL	METHOD OF CORING
		1ST 5'	2ND 5'		
81.8	0			CLAY, SILTY, BROWN	0
		3 (6.0')	4 (6.0')		
75.8				CLAY, BROWN, STIFF W/CALCS.	
	10	6 (6.0')	6 (6.0')		10
65.8		3 (6.0')	4 (6.0')	SILT, CLAYEY, BROWN	
	20	5 (6.0')	6 (6.0')		20
60.8				CLAY, BROWN, STIFF W/CALCS. + FER.	
56.8		6 (6.0')	6 (6.0')	CLAY, BROWN, STIFF W/CALCS.	
	30	7 (6.0')	6 (6.0')		30
		6 (6.0')	7 (6.0')		
45.8				CLAY, DARK GR. BRN, STIFF W/CALCS.	
	40	7 (6.0')	7 (6.0')		40
		7 (6.0')	9 (6.0')		
33.8				SAND, LT. BRN, GR, LOOSE, J. B. W/CALCS.	
	50	9 (6.0')	10 (6.0')		50
		5 (6.0')	7 (6.0')		
23.8				SAND, LT. GR, SLIGHTLY COMPACT, W. B.	
	60	17 (6.0')	23 (6.0')		60
		15 (6.0')	17 (6.0')		
	70	18 (6.0')	24 (6.0')		70
8.8				SAND, DENSE, J. B.	
		50 (6.0')	50 (3.0')		

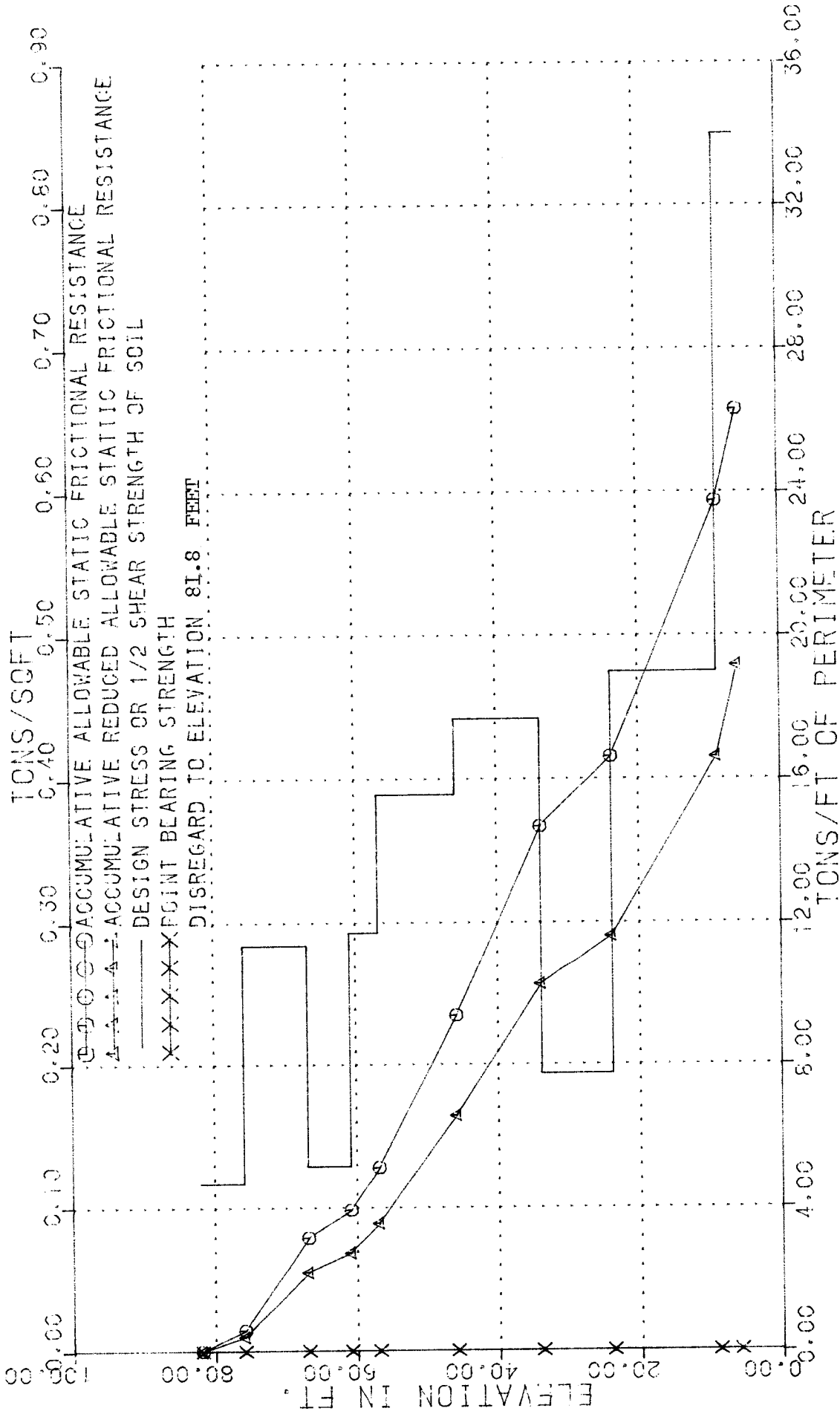
\*REMARKS: NO GWE RECORDED (hole collapsed)

DRILLER MIKE BAHM

LOGGER AL FARRELL

TITLE

# FOUNDING MATERIAL PROPERTIES



COUNTY	5001 BEND	THD DIST	12
HIGHWAY NO	SH 99	DATE	12/21/69
CONTROL	3510-04-005	BY	SJH
IPE			
STRUCTURE	BRIDGE @ OWENS ROAD		
HOLD NO	2		
STATION	905+69.1		
LOCATION	46.7' LT		

TEST HOLE NO. 2

GROUND ELEV. 81.8

