A0007050

DISPOSITION FORM

For use of this form, see AR 340-15; the proponent agency is TAGO.

REFERENCE OR OFFICE SYMBOL	SUBJECT
LMNED-FS	Lake Pontchartrain, La. & Vicinity Hurricane Protection Project HLP - Orleans Ave Outfall Canal

TO: C/Des Br
C/Des Svcs Br

FROM: C/F&M Br

DATE: 25 Nov 86

CMT 1: Mr. Vojkovich/gl/1034
FV JR

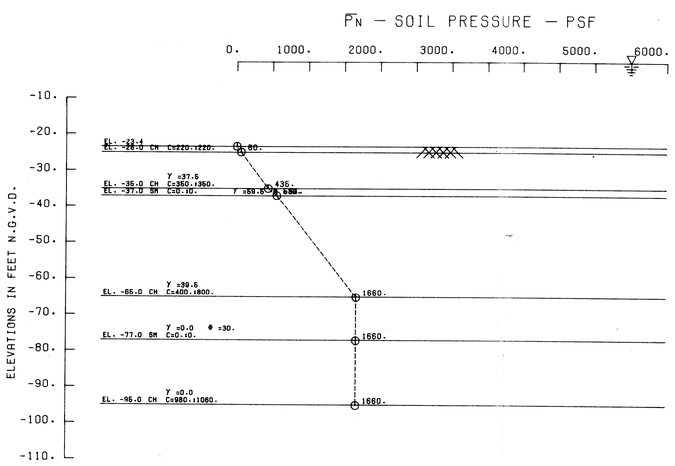
Furnished are pile capacity and subgrade modulus curves for 12-inch and 14-inch prestressed concrete piles for the 17th St Outfall Canal butterfly control valves.

1 Encl

RODNEY P. PICCIOLA
Chief, Foundations & Material Branch

JUDLIN	MARSALONE	CINDY	DD	DE	DG	DL	DR	DW					SUSPENSE	RELEASE	FILE	DESTROY

Rec'd 12/1/86



S-CASE

CH.CL- Φ=23°

ML Φ=30°

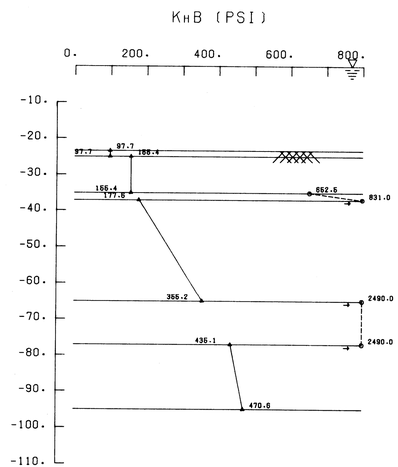
SM.SP- Φ=30°,33°

TYPICAL SOIL PROFILE

SOIL STRATIFICATION IS BASED ON GEOLOGIC PROFILE

SHEAR STRENGTH AND WET DENSITIES SEE PLATE

D	PILE SPACING IN DIRECTION OF LOADING
1.00	8B
0.85	7B
0.70	6B
0.55	5B
0.40	4B
0.25	3B
C	LOADING CONDITION
1.00	INITIAL LOADING
0.30	CYCLIC LOADING



NOTES: $K_H = \alpha K_1/B = (0.2222\,q_u/B)(C)(D)$ COHESIVE

α = 0.4 = Factor of material properties of soil and pile

k_1 = Modulus of subgrade reaction for test plate (pci)

B_1 = Width or diameter of test plate (in)

$K_1 = k_1 B_1 = 80\,q_u$ (psf) = $0.5556\,q_u$ (psi)

q_u = 2·c = Unconfined compressive strength (psf)

C = Reduction for cyclic loading-not applicable

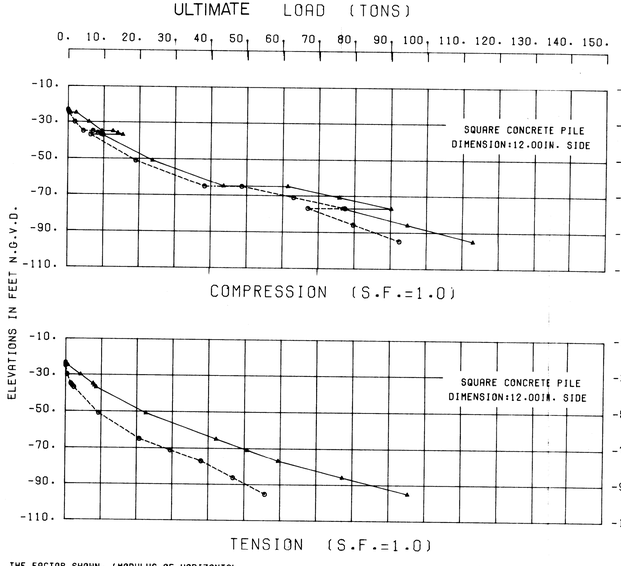
D = Group effect reduction factor

B = Width of pile measured at right angles to the direction of displacement (in)

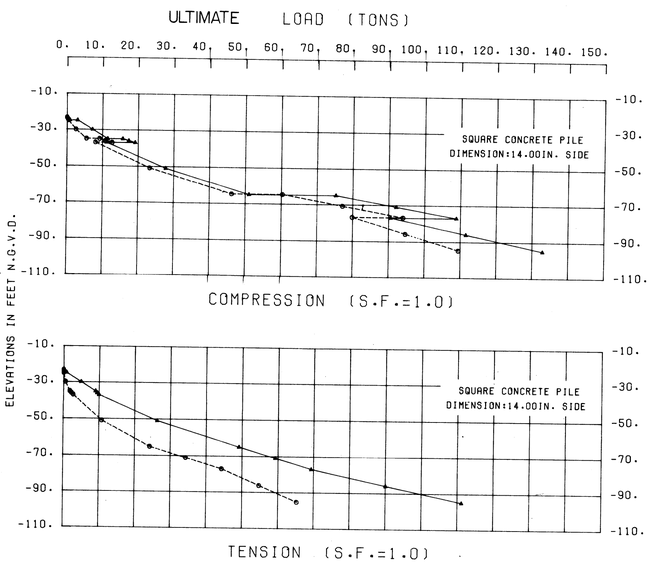
$K_H = (nh)(Z/B)(C)(D)$ COHESIONLESS

nh = Coefficient of horizontal subgrade reaction (pci)

Z = Depth below equivalent ground surface (in)



THE FACTOR SHOWN, (MODULUS OF HORIZONTAL SUBGRADE K_H, TIMES THE PILE WIDTH IN INCHES (B), MEASURED AT RIGHT ANGLES TO THE DIRECTION OF DISPLACEMENT) MUST BE MODIFIED BY A REDUCTION FACTOR FOR THE EFFECT OF GROUP ACTION (D) AND A REDUCTION FACTOR FOR CYCLIC LOADING (C) EX: $K_h = \frac{0.2222\,q_u\,(C)(D)}{(B)}$



LOAD VS. TIP ELEVATION

----- S-CASE

——— Q-CASE

NOTE: ALLOWABLE CAPACITIES SHOULD BE DETERMINED INCORPORATING F.S.=2.0 WITH PILE TEST OR F.S.=3.0 WITHOUT PILE TEST.

17TH ST OUTFALL CANAL GDM
VALVE STRUCTURE
12" AND 14" SQUARE PRESTRESSED CONCRETE PILES

PILE CAPACITY CURVES

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
NEW ORLEANS
NOVEMBER 1986

Encl 1