A0000083

April 25, 1989

Engineering Division
Projects Engineering Section

Mr. Barney T. Martin, Jr.
Modjeski and Masters
Consulting Engineers
1055 St. Charles Avenue
New Orleans, Louisiana 70130

Dear Mr. Martin:

Reference your April 10, 1989 letter concerning the 17th Street Canal Parallel Flood Protection Phase 1B - Hammond Highway to Southern Railway OLB Project No. 2043-0207.

We have reviewed your revised landside slope stability analysis furnished in the above referenced letter. The following comments are offered for your consideration:

a. The soil shear strength design line for Sta. 554+00 to Sta. 635+00 should be 500 psf from El 0.0 to El. -2.0 NGVD (Eustis Soils Report dated 2 Nov 81).

b. A landside stability analysis for Reach 1 and 2 showing wedges and calculations at El -20.5 NGVD should be submitted.

c. A landside stability analysis for Reach 3 showing wedges and calculations at El -10.5 and El -20.5 NGVD should be submitted. Calculations should also be furnished for an active wedge location of X = 110 and a passive wedge location of X = 140.5 at El -32.0 NGVD.

d. The landside stability analysis for Reach 3 is controlled by the ground surface elevations at Sta. 604+00, a vacant lot with no fence. The lower ground elevations of the vacant lot in comparison to the adjoining backyards of residences is easily seen. Six inches of fill from the levee toe to a distance of 30 ft from the levee toe will allow a more economical levee section, comparable to the section previously submitted (Oct 88).

e. The RB calculations for Reaches 4, 5 and 8 canalside stability, should be based on a piezometric headline of El -2.4 NGVD in the sand.

f. The I-Wall stability calculations should have submerged weights for the floodside soil profiles for the high water design case.

g. The canalside stability analysis for Reaches 5, 6, 7 and 8 are labelled "Rapid Draw-Down Case". The label is a misnomer since the piezometric headline in the sand is independent of the canal water elevation as demonstrated by the test section findings (Eustis Engr. Report, dated 12 Jan 84).

Please refer to my letter of January 31, 1984 commenting on our review of the Eustis Engineering Report. It was noted in the referenced letter that the hydrostatic head in the sand under the levee is at El -2.4 NGVD and that the hydrostatic head should be considered in future stability analysis. A copy of the referenced letter is attached.

Should you have any questions concerning the above comments, please contact Mr. Vann Stutts at (504) 862-2614.

Sincerely,

Frederic M. Chatry
Chief, Engineering Division

Enclosure

STUTTS
CELMN-ED-SP

BARTON
CELMN-ED-SP

HARRINGTON
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PICCIOLA JR
CELMN-ED-F

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