

Account 7114

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July 29, 1986

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Mr. Frederick M. Chatry
 Dept. of the Army
 N. O. District,
 Corps of Engrs.
 Post Office Box 60267
 New Orleans, Louisiana 70160-0267

Re: 17th Street Canal - OLB Project
 Response to your Comments
 Dated Sept. 30, 1985
 "A Study of High Level Flood
 Protection"

Dear Mr. Chatry:

You will find listed below and attached herewith responses to comments made in your letter of September 30, 1985 regarding the referenced report. We have listed our responses to your comments in the same order and using the same designation as used in your letter.

Item a. - We have changed the first paragraph on page one of our report to read as per your suggestion. We have attached a copy of this revised page for your review.

Item b(1) - The design grades used in the report are indeed net grades and do not take into account the effects of settlement. Since the existing levees are being degraded in all reaches of the canal except that portion between the interstate bridges and Pump Station No. 6, there is no reason to calculate the effects of settlement caused by new fill in these areas. The amount of predicted settlement in the reach between the interstate bridges and Pump Station No. 6 receiving fill has been provided to your office in an earlier soils report. Since the flood protection proposed in our report is for interim protection, the amount of additional height required for settlement will be provided at the time the walls are encased by the U. S. Army Corps of Engineers. The cost of this additional concrete is included in the new Section VIII of our report entitled Items Required for Permanent Flood Protection.

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Mr. Frederick M. Chatry,
New Orleans, Louisiana

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Item b(2) - Page 6, paragraph b, of the report has been changed to read as per your directions. We have attached a copy of this revised sheet for your review.

Item c(1) - As we have stated in our report, the flood protection that is proposed to be provided parallel to the canal is interim in nature. The sheet piling will be coated with coal tar epoxy. This will provide adequate protection until which time the Corps makes the facility permanent with the addition of a concrete encasement.

Item c(2) - We have performed an additional slope stability analysis on the levee between the lake and the Hammond Highway bridge and found that a concrete tee wall will not be required. We are attaching the soils report on this section of the canal for your review.

Item c(3) - We are submitting the cross sections and the computer printout of the analysis of alternative 2 for your review. I must point out that this is the second submission of this information.

where?
Subsequent to your review of the report, the LA.DOTD has announced its intention of replacing the three interstate bridges. For this reason we are not submitting any detailed analysis of flood proofing the existing interstate bridges. We have met with the LA.DOTD and have developed a conceptual configuration of the new bridges that is agreeable to both the Sewerage and Water Board and the LA.DOTD. A sketch of that proposed bridge is attached for your information and hydraulic studies.

The Orleans Levee Board has decided to make every effort to develop a scheme to tie down and seal the Veterans Highway bridge in lieu of using flood gates. For this reason we are attaching herewith our conceptual analysis and cost estimate of sealing the Veterans Highway bridge. Please note that this scheme is not the same as the one proposed in our earlier report. Recent review comments made by your office on similar projects now under design are requiring that 3" of reinforcing cover be provided on the bottom of the roadway deck slab. Since the present slab does not have three inches of cover, it will be necessary to remove, thicken, and replace the deck. While the deck is off, we are proposing that the superstructure steel be temporarily removed and new pile bents be driven to replace the existing ones. The new bents would have sufficient pile embedment to handle the uplift. The superstructure would then be tied to the new substructure.

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New Orleans, Louisiana

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The Orleans Levee Board has decided to have the contractor presently working at Pump Station No. 6 provide a flood gate on the east side of the canal exactly like the one being provided on the west side of the canal. Since your office has already reviewed this flood gate for adequacy of design, we have not provided a detailed analysis for your review.

Items d(1), d(2), d(3) - Since LA.DOTD is preparing the design for the Hammond Highway Bridge, we have suggested that the Orleans Levee Board provide the state with your comments and have them respond. For this reason we are not addressing any of your comments pertaining to the Hammond Highway bridge in this letter.

Item e - We are attaching herewith a copy of a cost estimate that we have prepared for providing high level protection which includes the cost for the Jefferson side of the canal.

We are also attaching herewith a copy of a new section of our report entitled "Items Required for Permanent Flood Protection". In this section of the report we have addressed the requirements for making interim flood protection permanent and closure in front of the Pump Station No. 6.

As requested by your personnel in a meeting held on June 19, 1986, we are sending herewith a plot of the water surface profile for the improved canal. This surface profile was arrived at using the following conditions along the canal:

- a) The canal cross section resulting from the use of levee configuration alternate 2.
- b) The Hammond Highway bridge in place, in its existing configuration, with the canal dredged beneath it. This of course assumes that LA.DOTD will seal the bridge to your satisfaction and tie it to the existing substructure.
- c) A new bridge at the West Esplanade location. The configuration of this bridge is the same as that proposed for the interstate bridges and has been approved by LA.DOTD in concept. Though this bridge is still in the planning stages, we feel it in the best interest of the project to include it and the resulting hydraulic effects.
- d) The Veterans Highway bridge, in its present geometric configuration, sealed, and tied down using an anchoring system comprised of new pile bents replacing the existing. This will allow dredging to take place beneath the bridge thereby improving the hydraulics

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of the canal. This improved configuration has been modeled into our hydraulics program to generate a final water surface profile.

- e) New interstate bridges. As has already been mentioned, LA.DOTD intends to replace these bridges for structural and hydraulic reasons. The configurations of the bridges used in the hydraulic run have been reviewed by both LA.DOTD and the Sewerage and Water Board and accepted.

Due to a change over in our computer system we do not have HEC 2 operational at this time. For this reason, we have used an alternate standard step-backwater program entitled E431 written by the U. S. Geological Survey in 1976. We have found excellent correlation between this program and HEC 2 for problems of this nature.

A revised copy of the referenced report has been submitted to our client, the Orleans Levee Board, for their review. As soon as that review is complete, we will submit a complete copy of the report.

We trust that this letter and attachments address all the comments you have made to date. If we can be of any further assistance in this matter, please call.

Very truly yours,

MODJESKI AND MASTERS - Engineers


BARNEY J. MARTIN, JR.

BTMjr:bw Attachment
cc: Mr. Ed Bailey
Mr. John Holtgreve