A0004767

Mr. Dicharry/gze/4

IN REPLY REFER TO
LMNED-MP

1 July 1976

Mr. Harold C. Mauney
Vice President
Southern Railway System
1205 St. Louis Street
New Orleans, Louisiana 70152

Dear Mr. Mauney:

I am responding to your 28 June 1976 letter concerning the Citrus Lakefront Levee--IHNC to Paris Road project, which is a feature of the Lake Pontchartrain Hurricane Protection project.

The ramp on the western edge of Lincoln Beach included in our plans and shown on plate 11 is a replacement of an existing ramp in that area. It was built by the Orleans Levee District and was used for access to Lincoln Beach for their oversized maintenance vehicles when the beach and park were in operation. We coordinated with the levee district about this during our design studies and they opined that a similar ramp should be provided for future use, if required.

Our plans only include a grade crossing over the levee. Any extension of this crossing over your double main tracks would be the responsibility of the levee district.

I hope I have cleared up your questions about the ramp at Lincoln Beach. We will be contacting Mr. Kelso in the near future about resolving some of the problems that still exist concerning the relationship of our levee to your tracks in the Lincoln Beach area and the swing gate across your tracks.

Sincerely yours,

FREDERIC M. CHATRY
Chief, Engineering Division

BARTON
LMNED-MP
HARRINGT
LMNED-M
CHATRY
LMNED

(See page 2 for copy furnished.)

LMNED-MP 1 July 1976
Mr. Harold C. Mauney

CF:
Mr. John P. McNamara, Chief Engineer
Board of Levee Commissioners
Orleans Levee District
200 Wildlife and Fisheries Building
418 Royal Street
New Orleans, Louisiana 70130

Southern Railway System
Office of Vice President
New Orleans, La. 70152

HAROLD C. MAUNEY
VICE PRESIDENT

P. O. BOX 52110
1206 ST. LOUIS STREET

June 28, 1976

File: 745-3

Mr. Frederic M. Chatry
Chief, Engineering Division
Department of the Army
New Orleans District, Corps of Engineers
P. O. Box 60267
New Orleans, Louisiana 70160

RE: NEW ORLEANS, LOUISIANA - Proposed reconstruction of Citrus Lakefront Levee - Paris Road to IHNC.

Your file - LMNED-MP

Dear Mr. Chatry:

Mr. R. A. Kelso has forwarded to me, as information, a copy of your June 9 letter responding to his of May 11. I am pleased to hear that your GDM plans normally require some modifications prior to construction, because it certainly appears we have some incompatible areas to still resolve before the Citrus Lakefront Levee plans obtain our approval.

I'll be interested to see how the swing gate at Jordan Road will be designed to function on superelevated curved track.

It appears to me, that unless you change the proposed levee slopes toward the track in the Lincoln Beach area, the levee will have to shift towards Hayne Boulevard as pointed out in Mr. Kelso's May 11 letter.

I note with interest your response to Mr. Kelso's inquiry as to need or purpose for the ramp shown on Plate 11 down the levee slope and terminating in the lateral ditch between the railroad and levee. Your letter advises that the ramp is needed to provide access to the Lincoln Beach area for oversized maintenance vehicles that cannot pass through the existing underpass. Apparently you are contemplating a grade crossing across our double main tracks. I would appreciate your advising the reasons that such vehicles are needed and how oversize maintenance vehicles presently reach the Lincoln Beach area. I am not receptive to allowing a grade crossing across our main tracks.

As you know, the levee reconstruction we are dealing with is with the Board of Levee Commissioners, Orleans Levee District. Are the oversize maintenance vehicles required by the Levee District on the Lincoln Beach area?

Your prompt consideration and advise concerning the ramp will be appreciated.

Sincerely yours,

Harold C. Mauney
Vice President

HCM:rp

IN REPLY REFER TO
LMNED-MP

9 June 1976

Mr. R. A. Kelso, Chief Engineer
Design and Construction
Southern Railway System
99 Spring Street, S.W.
Atlanta, Georgia 30303

Dear Mr. Kelso:

I appreciate your concern, expressed in your 11 May 1976 letter, about our present plans for the construction of the Citrus Lakefront levee.

We will study the situation at Lincoln Beach and provide more efficient transitions between the levee and floodwall at both ends of Lincoln Beach. Also, the need for a shift of the floodwall towards Hayne Boulevard will be investigated. Both points will be addressed during preparation of plans and specifications for the project reach.

Please be assured that the plans as shown in our general design memorandum (GDM) are not construction drawings. Some modifications are normally made to the GDM drawings prior to construction. In all cases we will not violate your right-of-way.

The ramp at the western edge of Lincoln Beach is needed to provide access to the Lincoln Beach area for oversized maintenance vehicles that cannot pass through the existing underpass at B/L station 296+00.

As per your request, attached as inclosures 1 through 4 are copies of plates 11, 12, 13 and 15 (2 copies), respectively.

As was stated in my previous letter, the proposed timbering and 3-inch track raising cost is considered advanced maintenance. Any cost sharing of this expense is a matter to be resolved between your agency and the Orleans Levee District. Mr McNamara shares this same opinion and is aware of the future sill raising problems.

Mr. Dicharry/pbs/430

LMNED-MP 9 June 1976
Mr. R. A. Kelso

The swing gate at Jourdan Road cannot be shifted 50 to 100 feet eastward because T-type floodwalls would have to be constructed to tie into the gate. This type of floodwall costs approximately $1,000/foot. Therefore, the project cost would increase from $100,000 to $200,000.

We will investigate the possibility of adapting our design of the swing gate to provide for more adjustment in the extender plate. Details of this adaptation have not been determined now. Please be assured that coordination with your agency and the Orleans Levee District on this matter will occur during preparation of plans and specifications.

The problem of superelevation, the possibility of raising only one set of tracks at a time, and the 3-inch initial raising problem will be resolved during the development of this adaptation.

We are anticipating resolving these problems with you at the earliest possible date.

Sincerely yours,

BARTON
LMNED-MP

HARRINGTON
LMNED-M

BRUPBACHER
LMNED-D

CHATRY
LMNED

4 Incl
As stated

FREDERIC M. CHATRY
Chief, Engineering Division

CF: w/o incl
Mr. John P. McNamara, Chief Engineer
Board of Levee Commissioners
Orleans Levee District
200 Wildlife and Fisheries Building
418 Royal Street
New Orleans, Louisiana 70130

Southern Railway System

Assistant Vice President - M W & S
Atlanta, Georgia 30303

R. A. KELSO
CHIEF ENGINEER,
DESIGN AND CONSTRUCTION

99 SPRING STREET, S.W.
TEL: (404) 688-0800

May 11, 1976 pts/1

In reply, please refer to file:

178-26-PTS

NEW ORLEANS, LA. - Proposed reconstruction of Citrus Lakefront Levee, IHNC to Paris Road.

Mr. Frederic M. Chatry
Chief, Engineering Division
New Orleans District
Corps of Engineers
P. O. Box 60267
New Orleans, Louisiana 70160

Dear Mr. Chatry: (LMNED-MP)

I acknowledge receipt of your April 29 letter transmitting plan and profile Plate Nos. 11 thru 13 of the Lincoln Beach area and outlining the Corps position in regard to my recommended 3" track raise prior to construction of swing gate sill near Jordan Road.

After reviewing the Lincoln Beach Plate Nos. 11, 12, and 13, Phil Sarris phoned your Mr. Joe Dicharry to advise that when the levee cross-sections were plotted on the original cross-sections from base line Stations 288 + 50 to 296 + 50 and from 298 + 00 to 304 + 70 it was found the track side levee slope intersected the existing railroad embankment slope at an elevation which would not permit a common drainage ditch or catch basins at the elevations proposed. The situation is particularly critical in the vicinity of Station 289 where ramp from Levee down to lateral track ditch is proposed and at Station 314 + 31 near end of I-wall. I do not understand the need or purpose for ramp down the levee towards the railroad. The three plates also show the line of construction easement as being 1 ft. from the south rail of the NB main track. This easement would fall between the rail and end of crosstie which, of course, cannot be permitted. The construction easement line should be at approximately railroad side of the common ditch line. I see no conflict with the proposed construction of a gate across the road leading to Lincoln Beach through the grade separation under our tracks.

I understand that the General Design Memoranda for the captioned project has been submitted and cannot now be revised. Changes required, can only be made in the plans and specifications. This being the case, I suggest you plot cross-sections of what is proposed throughout the Lincoln Beach area to determine how far the proposed levee needs to be shifted away from the railroad embankment to establish a suitable ditch and place the catch basins shown in the plans. It appears that the proposed I-wall levee needs to be shifted 7'± away from the railroad to allow for ditch and catch basins. What is proposed does not seem workable.

I have not had an opportunity to check the levee drainage details shown on Plate 33 and the data shown on the typical levee design sections of Plate 14 furnished with your April 29 letter, but I do not anticipate any significant problem since your letter states your design is based on the criteria we agreed to at the March 25 meeting. I note, however, Plate 14 refers to Plate 15 for design sections for reaches from Stations 73 + 40 to 74 + 60, 155 + 33 to 155+ 63, and 235+ 90 to 237 + 00. I do not have print of Plate 15 and would appreciate your furnishing me with 2 prints and one additional print of Plates 11, 12 and 13.

I don't know how Orleans Levee District Chief Engineer, Mr. John McNamara feels, but I do not share your interpretation that raising our double track 3" prior to construction of the proposed swing gate at Jordan Road is considered advance maintenance. The only reason we need crossties installed is to reduce need for future track raises which are required when timbering track with our tie renewal machine.

If the cost of furnishing the replacement crossties is the basic reason that you consider the proposed track raise as advance maintenance, I will recommend to Management we absorb the cost of furnishing the required crossties. If my proposed 3" track raise is not accomplished prior to swing gate installation, I believe the Levee District is being saddled with expensive future raising of the gate sill to meet each new raise in track surface. How do you propose the gate sill, which has steel seal plates anchored in the concrete sill, be adjusted for 1½" raise each 4 or 5 years? You advise that the proposed gate location cannot be relocated slightly eastward in

order to avoid being constructed over the existing superelevated spirals for each track, but to compensate for the superelevation, the gate sill will be 1" above top of the low rail on each track. As expressed in my March 5 letter, we do not allow any obstruction within the track structure to extend above top of rails; therefore, one rail of each track cannot be recessed below surface of gate sill. The simple solution is to shift the swing gate location about 50' to 100' eastward over tangent track.

Another point to consider in gate adjustment is that we don't normally timber and surface double track at the same time. Each track is worked on a need basis and one track could conceivably be worked from one to 4 years later than the other track. This is another reason the tracks should be provided the 3" raise prior to gate installation.

If you have any questions or would like to discuss any feature of the above-mentioned conflicts, please feel free to call Phil Sarris at 404/688-0800, Extension 2562.

Yours very truly,

P. A. Kelso

Chief Engineer,
Design and Construction

cc: Mr. John P. McNamara
Chief Engineer
The Board of Levee Commissioners of the
Orleans Levee District
200 Wildlife and Fisheries Building
418 Royal Street
New Orleans, Louisiana 70130

IN REPLY REFER TO
LMNED-MP

29 April 1976

Mr. R. A. Kelso
Chief Engineer, Design & Construction
Southern Railway System
99 Spring Street, S. W.
Atlanta, Georgia 30303

Dear Mr. Kelso:

Reference is made to your 5 March 1976 letter and to a meeting held in this office on 25 March 1976 attended by members of our respective staffs and Mr. McNamara of the Orleans Levee District concerning certain aspects of our Citrus Lakefront Levee, IHNC to Paris Road, general design memorandum (GDM).

We have changed the design of the swing gate which crosses your tracks near the IHNC to include an adjustable extender plate, thereby providing a means by which the gate can be adjusted for future track raising. It is understood that this track raising occurs during maintenance of the ballast and ties. The extender plate will provide for a total of 9 inches of adjustment to the existing elevation of the highest track. Details of the extender plate are shown on inclosures 1 and 2. The gate sill will have to be raised coincident with the gate adjustment. This entire adjustment procedure will be the responsibility of the Orleans Levee District.

The proposed timbering and 3-inch track raising prior to gate construction with proper track runoff in both directions, thus alleviating the need for any vertical adjustment to the gate for about 10 years, cannot be included as a project expense. This is considered advance maintenance and it is not our policy to include advance maintenance into the first cost of the project. Therefore, for our GDM submission we are including the 9-inch extender plate to the gate for the entire adjustment required by the 30-year track maintenance mentioned in your letter. If, prior to our awarding of a construction contract for this project, your agency and the Orleans Levee District reach an agreement about the cost sharing for the 3-inch track raising, we will adjust our gate design by raising

LMNED-MP
Mr. R. A. Kelso

29 April 1976

the gate sill 3 inches and only including a 6-inch extender plate on the gate.

Subsequent to the referenced meeting, Messrs. Sarris and Radford of your agency discovered that there is a strong possibility that the gate is located within a horizontal curve at this location. Therefore, your tracks are superelevated. We cannot relocate the gate, as was suggested by Mr. Sarris, because it would delay our design studies and would be costly. This means that one rail of each set of tracks will be recessed approximately 1 inch below the gate sill. Mr. Sarris suggested that we locate the centerline of the gate exactly and then Mr. Sarris would measure the horizontal curve and determine if, indeed, the tracks need to be superelevated at this exact location. We will locate the centerline of the gate by marking your tracks with paint at our earliest convenience.

Our design will include asphalting on a 1V on 4H slope on each side of the sill to prevent dragging equipment from snagging on the edge of the sill.

The drainage of the area between the levee and the railroad between station 28+31 and 64+00 will be handled by catch basins at 600-foot intervals as designed for the remaining reaches of this project. The only difference is that a collector pipe will be installed between the levee and railroad embankment to convey this flow to a pipe drilled under the railroad at station 64+00 discharging into the lake. Details of this drainage system are shown on inclosure 3.

As was agreed to at the 25 March meeting, we will use 30-inch-wide catch basins at some locations to insure that the distance from the edge of the catch basin to the centerline of the south tracks is more than 15 feet for the entire project reach. Inclosure 4 depicts typical levee design sections that will be used.

Inclosures 5, 6, and 7 are plan profile plates of our designs in the vicinity of Lincoln Beach which were requested by Mr. Sarris.

We are confident the plan of action outlined in this letter will satisfy your criteria.

Sincerely yours,

BARTON
LMNED-MP
LMNED-M
BECNEL
LMNED-H
BRUPBACHE
LMNED-D
for CHATRY
LMNED

All incl. are copies of final DM plates see below

7 Incl
As stated

FREDERIC M. CHATRY
Chief, Engineering Division

(see page 3 for copy furnished)

Incl 1 - Plate # 25
" 2 - " # 29
" 3 - " # 33
" 4 - " # 14
" 5 - " # 11
" 6 - " # 12

LMNED-MP 29 April 1976
Mr. R. A. Kelso

Copy furnished: wo incl
Mr. John McNamara, Chief Engineer
Orleans Levee District
200 Wildlife and Fisheries Building
418 Royal Street
New Orleans, LA 70130

TELEPHONE OR VERBAL CONVERSATION RECORD

For use of this form, see AR 340-15; the proponent agency is The Adjutant General's Office.

DATE: 12 Apr 76

SUBJECT OF CONVERSATION: Citrus Lakefront Levee

INCOMING CALL

PERSON CALLING	ADDRESS	PHONE NUMBER AND EXTENSION

PERSON CALLED	OFFICE	PHONE NUMBER AND EXTENSION

OUTGOING CALL

PERSON CALLING	OFFICE	PHONE NUMBER AND EXTENSION
Joe Dicharry	Proj. Eng. Section	430

PERSON CALLED	ADDRESS	PHONE NUMBER AND EXTENSION
Mr. John McNamara	Orleans Levee District	523-5042

SUMMARY OF CONVERSATION

I informed Mr. McNamara ~~that~~ we had decided that the requested track raising ~~by~~ of the Southern Railroad's tracks near the gate ~~to a~~ location will not be a project's cost. We will show ~~build~~ the gate to the elevation of the existing tracks ~~also~~ for the EDM submission. If the OLD and Sou. Railway agree on the track raising before finalization of the P&S for this project, ~~be~~ we will incorporate the necessary changes in our designs.

Mr. ~~M~~ McNamara agreed with this.

Joe Dicharry
12 Apr 76

DA FORM 1 APR 66 751 REPLACES EDITION OF 1 FEB 58 WHICH WILL BE USED.

★ GPO: 1968 O — 343-778, 84

MEMO TO FILES

I called Mr. McNamara of OLD today and requested that we ~~meetr~~ meet with him for a more extensive meeting than 30 minutes before the Thurs. meeting with the Sou. ~~Raild~~ Railroad We agreed that we would go down to his office on Tues, March 23, at 11:00 a.m.

22 Mar 76

PROJECT	Page — of	COMPUTED BY	DATE
SUBJECT		CHECKED BY	DATE

MEMO TO FILES

I called Phil Sarris today and set up a meeting with him on Thursday March 25 at 9:00 a.m. in our office. He said he would be here and he would invite Mr. Fred Radford his local field man to the meeting. I told him that we would invite the OLD to the meeting also.

I called Mr. McNamara of OLD today and invited him to the above meeting. He agreed to come. I asked him to meet before that and discuss the problems. He said he would come at 8:30 a.m. on the same day and we could discuss at that time.

18 March 76

Southern Railway System

Assistant Vice President - M W & S
Atlanta, Georgia 30303

R. A. KELSO
CHIEF ENGINEER,
DESIGN AND CONSTRUCTION

99 SPRING STREET, S.W.
TEL: (404) 688-0800

March 5, 1976 pts/wjk

In reply, please refer to file:

178-26-PTS

NEW ORLEANS, LOUISIANA - Proposed reconstruction of Citrus Lakefront Levee, IHNC to Paris Road.

Mr. Frederic M. Chatry
Chief, Engineering Division
New Orleans District,
Corps of Engineers
P. O. Box 60267
New Orleans, Louisiana 70160

Dear Mr. Chatry: (LMNED-MP)

Reference to your January 30 letter responding to my January 16 comments relative to proposed closure gate near Jourdan Road and my objection to the omission of catch basins for approximately 3,600 feet in the vicinity of New Orleans Lakefront Airport.

I had previously advised that we normally raise track 1½" to 2" each time it is timbered and surfaced and suggested that your gate design incorporate an adjustable method for raising the gate. You recommended revising the proposed sill design by raising the sill elevation 2". As I understand your recommendation, the sill, rather than being flush with top of rail would be 2" above top of rail. Because of serious safety hazards, we do not allow any obstruction between or outside the rails to extend above the top of rail. Your drawing, stamped "Advance Copy", showing details of the proposed closure gate indicates that a screw jack type mechanism could be mounted on a pedestal to provide a means of raising the gate to adjust for future track raises. The top hinge will require a longer vertical pin to allow for future grade adjustments to match future track top of rail elevation.

A closure gate across the main tracks of a railroad is a matter that cannot be treated lightly. We must be realistic in our approach and work towards a solution that does not unduly restrict future track maintenance and at the same time not burden the Orleans Levee Board with relatively heavy cost to adjust the gate elevation, sill, and seals each time track is raised through timbering and surfacing operations. I have endeavored to reach an amenable solution to this matter and I offer the following proposal for your consideration and comments:

(1) The rail in both tracks is 100# and when relaid in a future rail program will be 132#, raising top of rail by approximately 1½" from proposed top of sill and affecting gate closure unless hinge mechanism is adjustable.

(2) 132# rail be laid on both tracks at gate location prior to commencement of gate construction.

(3) To reduce need for any vertical adjustment to the proposed gate for about 10 years, both tracks be timbered and raised 3" at project expense prior to gate construction with proper track runoff in both directions, thus alleviating need for at least two timbering and surfacing cycles to raise track through the gate location.

(4) The gate hinges and/or screw jack arrangement be designed to allow for an additional 6" of vertical gate adjustment which should extend need for any major gate adjustment for another 20 years. It appears the angle with seal attached to the bottom of the gate would be designed in a manner to adjust the sill once the gate was closed. Another consideration is to design the sill with a center groove or connections for future attachment of plate or angle to raise the sill surface to that of the top of rail in future years.

(5) We will issue instructions that track raising be held to an absolute minimum at the proposed closure gate location for future timbering and surfacing operations, further extending need for gate adjustment.

(6) If your sill design is flush with top of rail it will be necessary to add asphalt on a 4:1 slope on each side of sill, for entire length of sill, to prevent dragging equipment from snagging on the blunt edge of the sill and reduce possibility of trainmen from tripping on the exposed sill.

You have advised that in your opinion no catch basins are required between Station 28+31 to 64+00 based on a 25-year intensity rainfall producing 6" of rainfall in 4 hours and 1.3 feet of water in ditch at Station 28+31. What theory calculates and what our experience has produced with similar situations are not compatible. Narrow ditches are easily blocked with pulpwood, debris, grasses, and weeds. The proposed ditch in question has no slope and depends on a head to move the water. Water that does not drain will pocket until it either evaporates or percolates in the ground, undermining the stability of our roadbed and producing stagnant water ideal for breeding mosquitoes. We are spending enormous amounts of money to install catch basins in several of our yards which have tracks on 13' centers and where train speed is usually under 10 MPH, yet on our main line where we already have catch basins spaced 400'± apart, you are requesting that I agree to eliminate the existing catch basins and have a 3,569' continuous ditch, basically because it will take five positive closures to drain the ditch to Hayne Boulevard and because it is too expensive to drain the area towards the airport. I am trying to cooperate with you in every way possible, but when drainage is involved, provisions must be made to dispose of the water as quickly as practical without adding maintenance problems.

I note you did not agree with my recommendation to reducing width of some catch basins from 4 feet to 30 inches at locations where there is insufficient ditch width to accommodate a 4' wide catch basin without recessing it into the proposed toe of the new Levee. I am again furnishing you with copy of cross-sections I plotted for Stations 123 and 156 which show catch basins to be

30" wide. Maintaining a 12' subgrade shoulder, and a 2:1 slope to ditch line, how do you intend to place a 4' wide catch basin since you have advised it cannot be recessed in the levee toe?

Again, I wish to emphasize, that we are always willing and prepared to meet with or discuss the foregoing matters on the phone with your people.

If I can assist you further at this time, please advise.

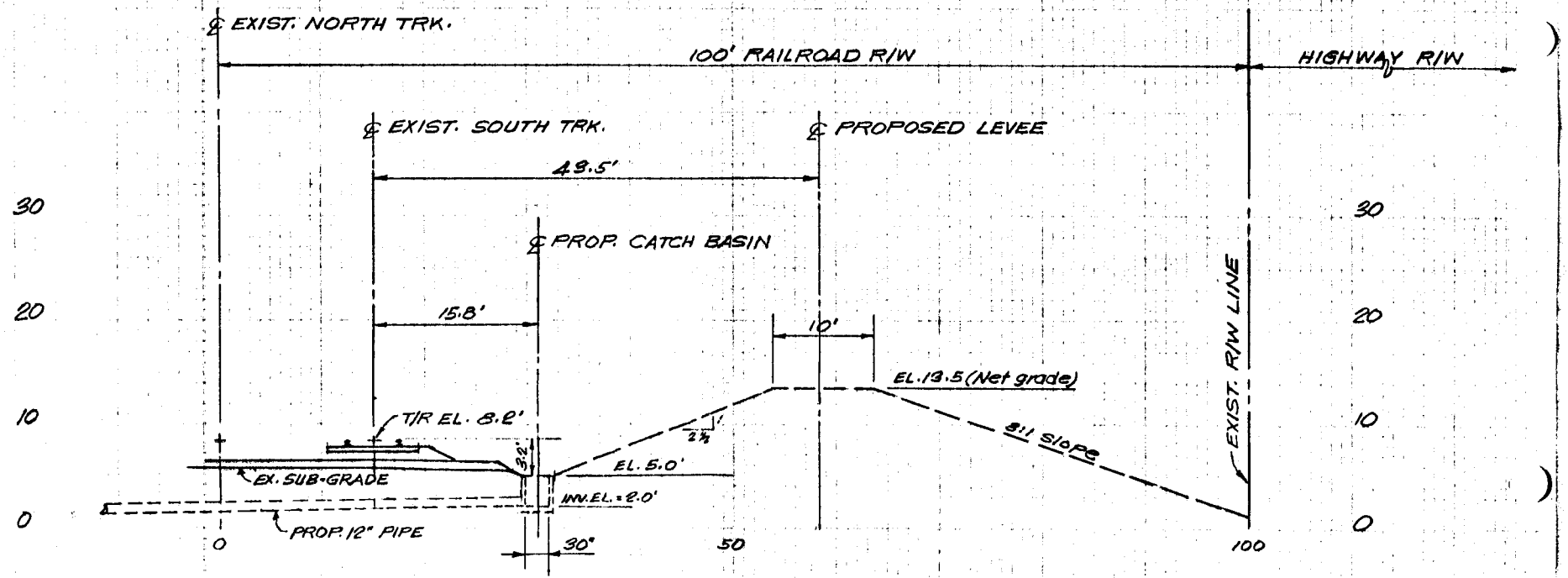
Yours very truly,

R. A. Kelso

Chief Engineer,
Design and Construction

Cy: Mr. John P. McNamara, Chief Engineer
Board of Levee Commissioners of the
Orleans Levee District
200 Wildlife and Fisheries Building
418 Royal Street
New Orleans, Louisiana 70130

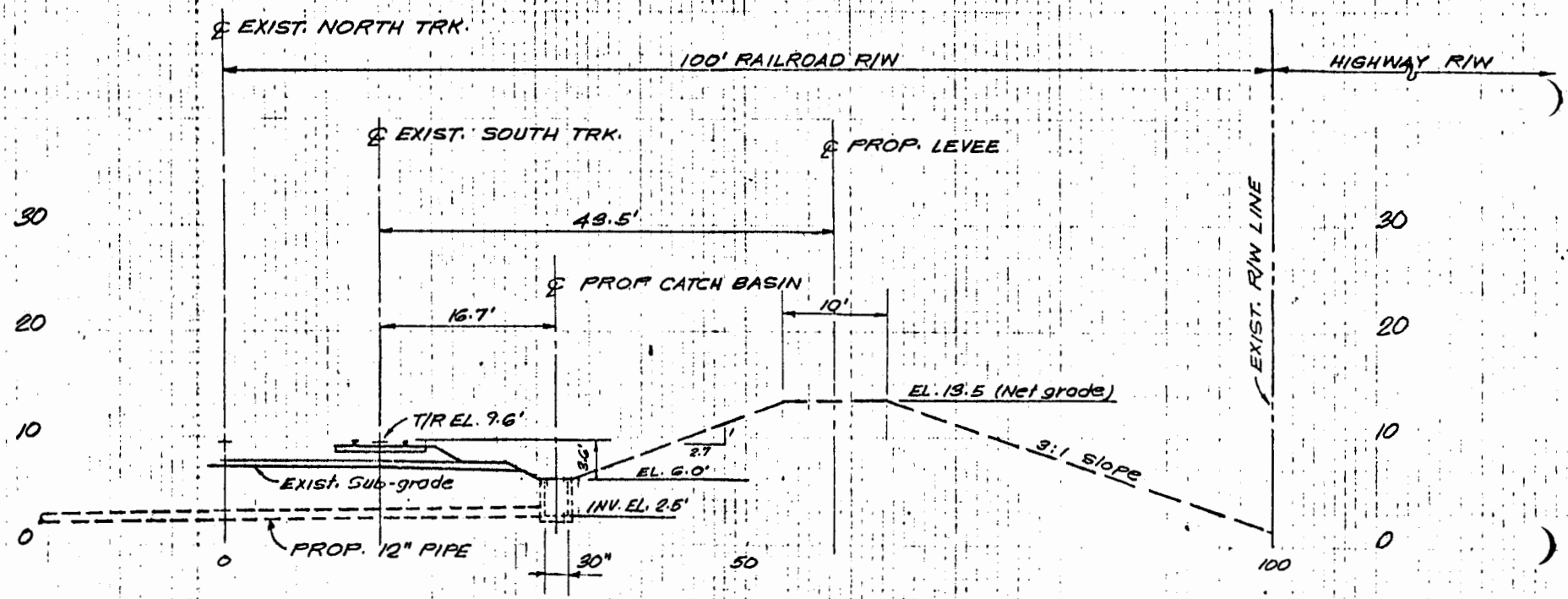
CITRUS LAKEFRONT LEVEE



STA. 123+00

JAN. 15, 1976 mpu

CITRUS LAKEFRONT LEVEE



STA. 156+00

JAN. 15, 1976 mpw

MEMO TO FILES

SUBJECT: Meeting with Southern Railway and Orleans Levee District concerning Citrus Lakefront GDM

PLACE: New Orleans District

TIME: 9:00 a.m.

DATE: 25 March 1976

ATTENDEES: Phil Sarris, Southern Railway
Fred Radford, Southern Railway
John McNamara, Orleans Levee District
Ernest Barton, New Orleans District
Robert Guizerix, New Orleans District
Stan Shelton, New Orleans District
Joe Dicharry, New Orleans District

MINUTES: This meeting was called to discuss proposals for the designs of the Citrus Lakefront levee with specific reference to the Southern Railroad embankment. The proposals were offered by Mr. Sarris in a letter to us dated 5 March 1976.

The first point discussed was the drainage of the area between the new levee and the railroad embankment in the vicinity of the lakefront airport. We had designed a 3,500'± long ditch draining to one culvert at station 63+00, and thence under the railroad embankment and into the lake. The railroad objected because of the long length and the fact that because of debris the ditch could become clogged and the water would not drain. We attempted by previous letters and in this meeting, to convince the railroad that the amount of water is negligible, but to no avail. Therefore, we agreed to design a collector ~~pipe~~ pipe on the lakeside of the railroad and install 12" CMP through the embankment at 600' intervals to drain this

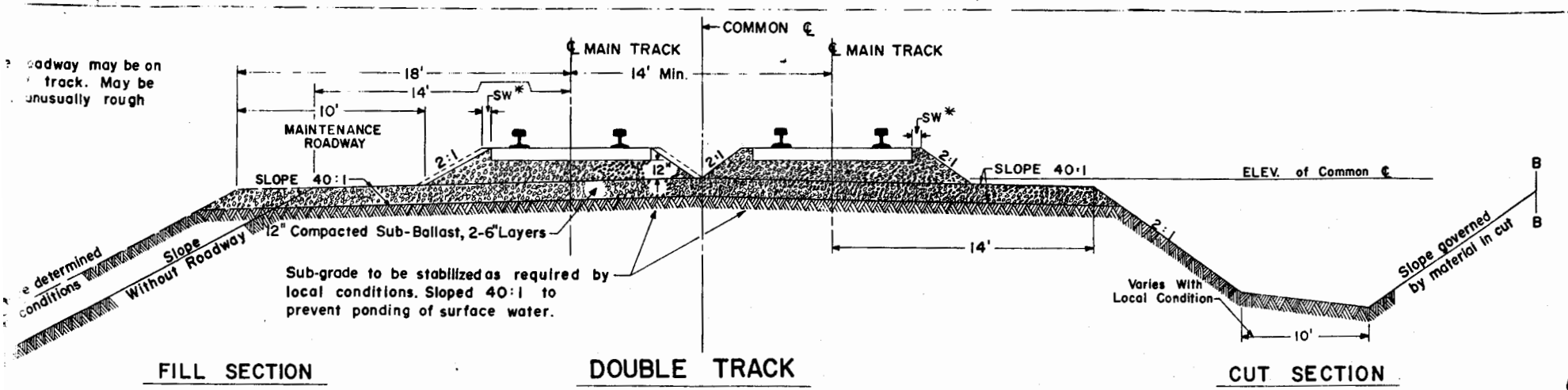
area. The collector pipe would traverse parallel to the embankment and discharge into the lake on the eastern edge of the airport. We had stated previously that this alternative was more expensive.

The next point discussed was the proposal to use 30-inch wide catch basins at certain locations where 4-foot wide catch basins would not provide the requested (by the railroad) 15 feet from ℄ of south track to edge of catch basin. At a previous meeting, Mr. Sarris had verbally agreed to allowing us to use 12' instead of the 15'. Subsequently, he has, by letters, reversed his agreement. We argued that we needed the 4' width for maintenance purposes, but we were willing to use 30-inch catch basins in the areas where we could not meet the 15' requirement.

The final problem discussed was the redesign of the gate across the railroad to provide for future track raising. After an extensive discussion we agreed to add an extender plate to the bottom of the gate for a 6" adjustment in the gate when the rails are raised in the future. We would raise the sill now 3" for rail raising in the next 10 years. The levee district and the railroad will coordinate any cost sharing involved. The question of whether or not the cost for this track raising will be a project cost was not finally decided. We also agreed to add asphalt to the ends of the sill as requested by the railroad.

Joe Dicharry

JOE DICHARRY



FILL SECTION

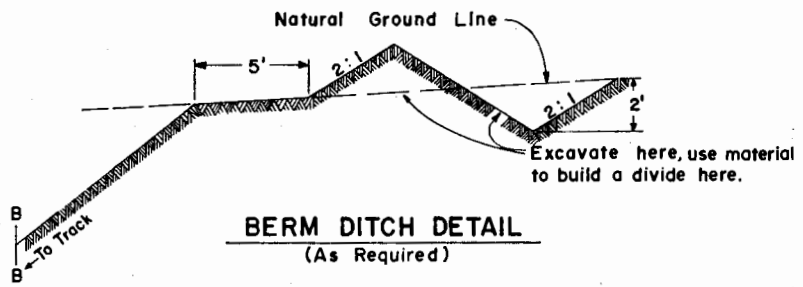
DOUBLE TRACK

CUT SECTION

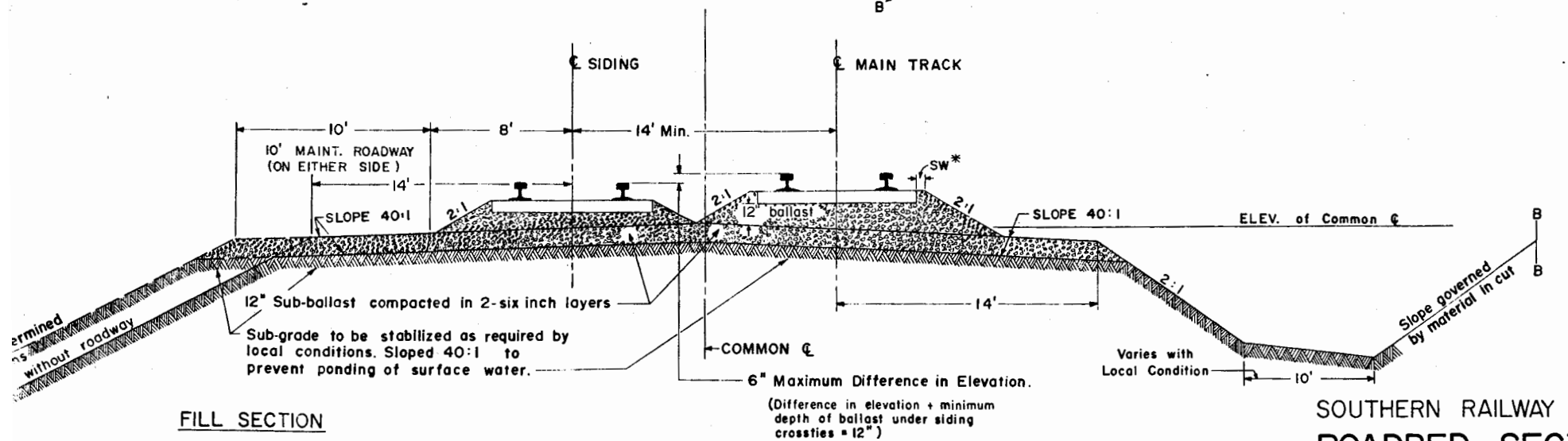
SHOULDER WIDTH (SW*)

WIDTH FROM END OF TIE TO EDGE OF SLOPE

Jointed Rail	Welded Rail
0"	6"
6"	12"
0"	6"



BERM DITCH DETAIL
(As Required)



FILL SECTION

CUT SECTION

SINGLE MAIN TRACK AND SIDING

1) Sub-grade may be stabilized with lime, lime-fly ash, cement or stone.
2) Tamping of ballast must not disturb compacted sub-ballast.

SOUTHERN RAILWAY SYSTE

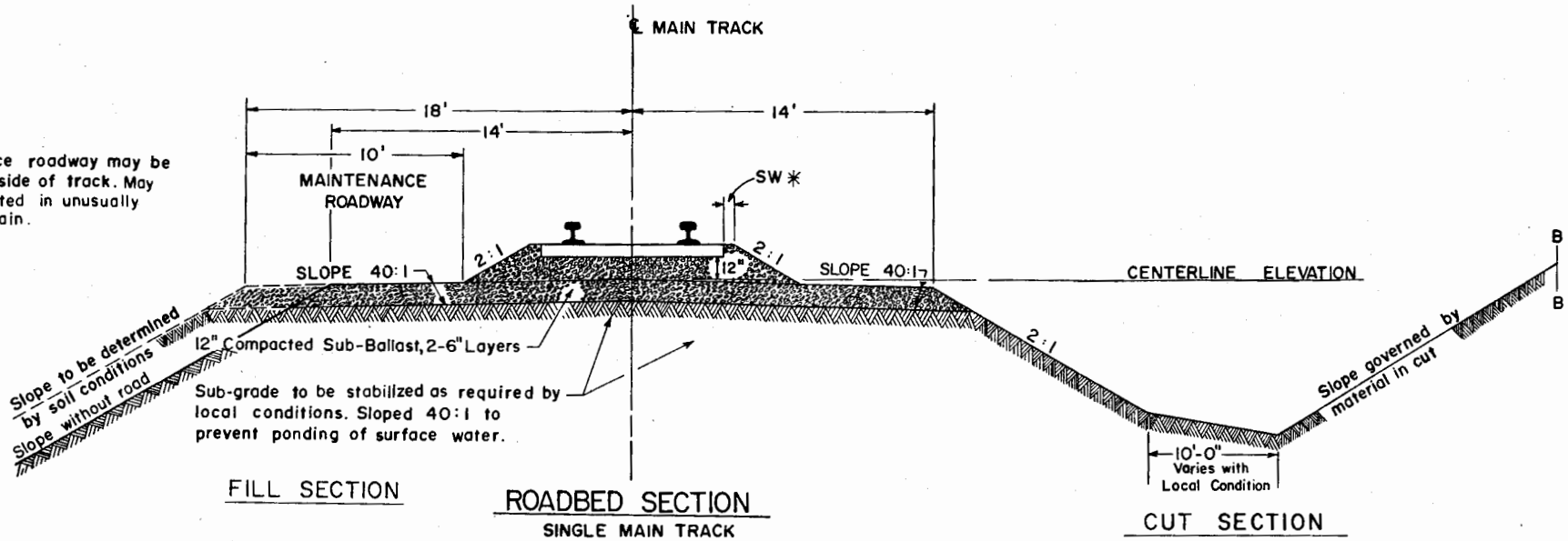
ROADBED SECTION

HEAVY TONNAGE MAIN TRAC

FEBRUARY 1, 1975

NOTE :

Maintenance roadway may be on either side of track. May be eliminated in unusually rough terrain.



FILL SECTION

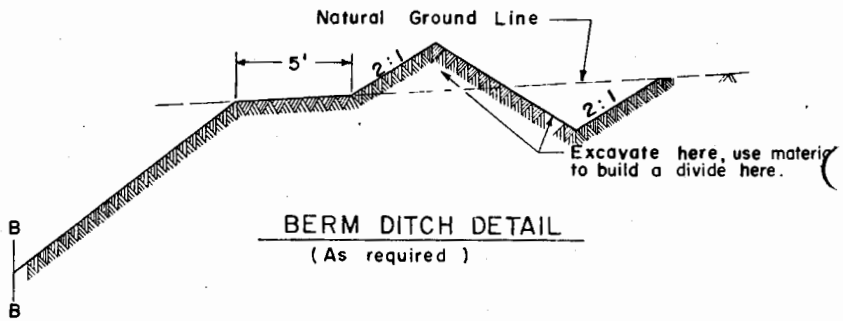
ROADBED SECTION
SINGLE MAIN TRACK

CUT SECTION

SHOULDER WIDTH (SW*)

BALLAST WIDTH FROM END OF TIE TO EDGE OF SLOPE

	JOINTED RAIL	WELDED RAIL
SW (Inside of Curves)	0"	6"
SW (Outside of Curves)	6"	12"
SW (Tangent both Sides)	0"	6"



BERM DITCH DETAIL
(As required)

1. Sub-grade maybe stabilized with lime, lime-fly ash, cement or stone.
2. Tamping of ballost must not disturb compacted sub-ballast.
3. Top of sub-grade is to be crowned.

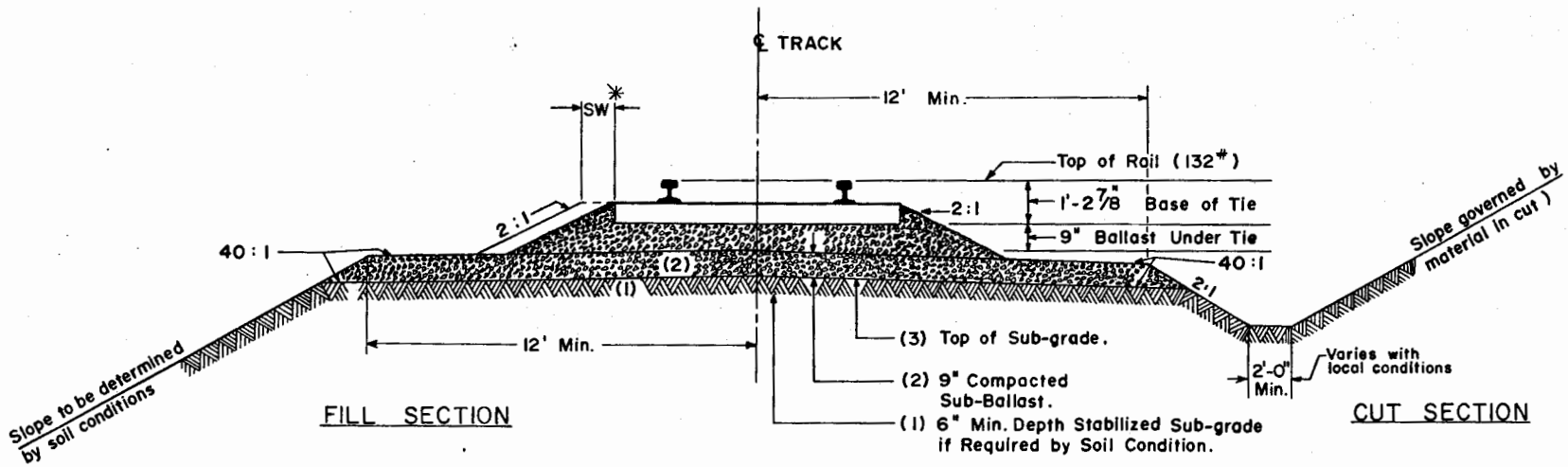
SOUTHERN RAILWAY SYSTEM

ROADBED SECTION

FOR SINGLE MAIN TRACK

FEBRUARY 1, 1975

ROADBED SECTION
FOR HEAVY TONNAGE TRACKS



SHOULDER WIDTH (SW*)
BALLAST WIDTH FROM END OF TIE TO EDGE OF SLOPE

	JOINTED RAIL	WELDED RAIL
SW (Inside of Curves)	0"	6"
SW (Outside of Curves)	6"	12"
SW (Tangent, both Sides)	0"	6"

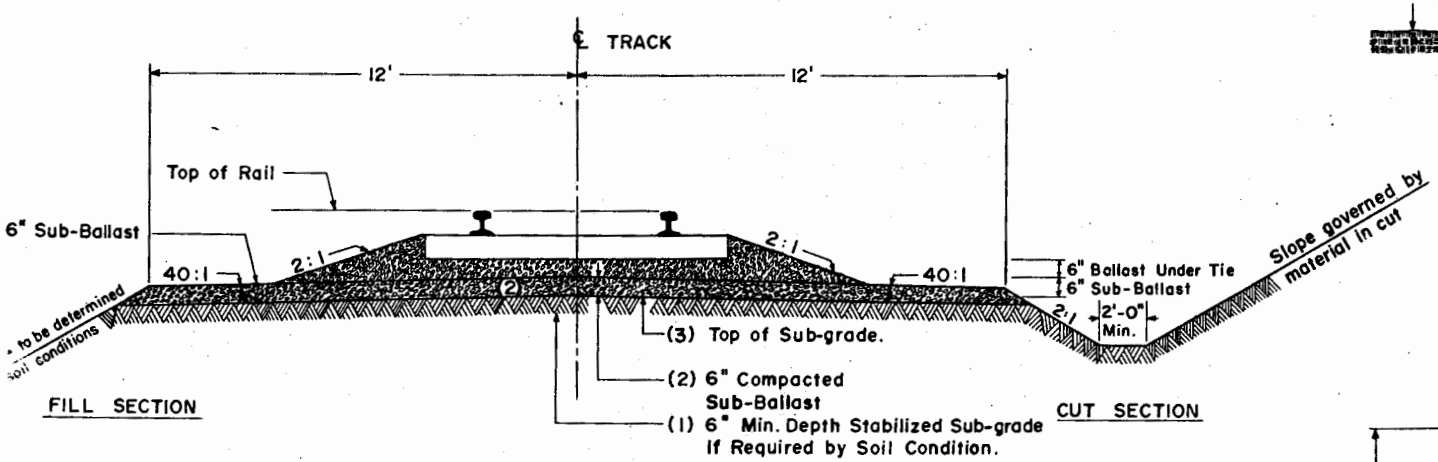
1. Sub-grade maybe stabilized with lime, lime-fly ash, cement or stone.
2. Tamping of ballast must not disturb compacted sub-ballast.
3. Top of sub-grade is to be crowned.

SOUTHERN RAILWAY SYSTEM

ROADBED SECTION

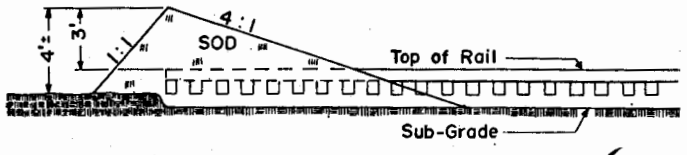
FOR HEAVY TONNAGE TRACKS
OTHER THAN MAIN TRACKS

FEBRUARY 1, 1975

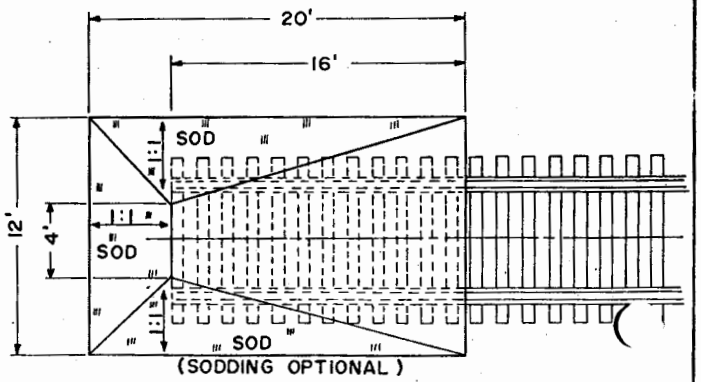


ROADBED SECTION
INDUSTRIAL TRACKS

(1) Sub-grade may be stabilized with lime, lime-fly ash, cement or stone.
(2) Tamping of ballast must not disturb compacted sub-ballast.
(3) Top of sub-grade is to be crowned.



ELEVATION VIEW



PLAN VIEW
EARTH MOUND CAR STOP
FOR STUB END TRACKS

SOUTHERN RAILWAY SYSTEM

ROADBED SECTION
FOR INDUSTRIAL TRACKS

FEBRUARY 1, 1975

IN REPLY REFER TO
LMNED-MP

30 January 1976

Mr. R. A. Kelso
Chief Engineer, Design and Construction
Southern Railway System
99 Spring Street, S.W.
Atlanta, Georgia 30303

Dear Mr. Kelso:

Reference is made to your 16 January 1976 letter concerning the Citrus Lakefront Levee, IHNC to Paris Road, portion of the Lake Pontchartrain, Louisiana, and Vicinity hurricane protection project.

The horizontal clearance for the closure gate near Jourdan Road will be changed to provide 10 feet of clearance on both sides of the track. This is a change of only 1 foot on the southern side of the gate.

Regarding the same gate we will revise our designs by raising the sill on the gate 2 inches to provide for future track raising. The revision is the least costly and will not significantly change the structural design of the gate. Any change in the hinge design will significantly delay the submission of our design memorandum for this reach of the project.

It is our contention that the proposed 3,500-foot± continuous ditch between the railroad embankment and new levee behind the New Orleans Lakefront Airport will not become a canal under heavy rainfall and cause damage to your roadbed. The ditch is designed for a 25-year intensity rainfall which represents approximately 6 inches of rainfall within a 4-hour duration. The depth of flow in the ditch will vary from 0.5 feet at the catch basin (station 64+00) to 1.3 feet at station 28+31. These depths will occur at the peak of the runoff period and will not be sustained for a long period of time. The depths will be lower for most of the runoff period. It is estimated that this area will be totally drained within a 6-hour period after the runoff begins. The average velocity in the ditch will be approximately 0.5 feet per second. In view of the low velocity and small amount of water, the 3,500-foot± ditch is adequate.

LMNED-MP
Mr. R. A. Kelso

30 January 1976

The hydrologic criteria used is standard for this type of drainage problem. It was used for the Paris Road to South Point GDM. From this we determined that the ditch and one culvert plan was the most feasible. If culverts were piped through the new levee and tied into the drainage system under Hayne Boulevard, some type of positive closure on these culverts would have to be installed for use during hurricanes. This alternative is costly and adds to the already numerous requirements of the Orleans Levee District to close all of the gates on the entire Lake Pontchartrain, Louisiana and Vicinity project prior to a hurricane. The other alternative of drainage towards the airport would require an extensive new subsurface drainage system to tie into the existing system. This was believed to be too costly.

The catch basins were designed to be 4 feet wide, clear opening, for maintenance purposes. A basin narrower than 4 feet would not provide sufficient room for a normal size person to stand in the catch basin and clean out the basin and/or the culvert. The maintenance of the catch basins is already restricted because of the depth of the catch basins (3 feet to 3.5 feet). This depth was set by your criteria of providing at least 5.0 feet of vertical clearance below the bottom of your rail to the top of the culvert. Therefore, the 4-foot by 4-foot clear opening is necessary.

It should be pointed out that the horizontal clearances we provide agree with the initial criteria set by your agency, except for the reach between station 109+00 and station 144+00. In that reach we are complying with the verbal agreement made with Mr. Phil Sarris at the 14 July 1975 meeting held in this office.

I hope the information presented herein is sufficient for your purposes and I believe this letter should preclude the need for a meeting.

As we are expediting the completion of this GDM, your prompt reply will be greatly appreciated.

Sincerely yours,

FREDERIC M. CHATRY
Chief, Engineering Division

BARTON
LMNED-MP
SEALE
LMNED-M
BECNEL
LMNED-H
BRUPBACHER
LMNED-DA
CHATRY
LMNED

CF:
Mr. John P. McNamara, Chief Engineer
Board of Levee Commissioners of the
Orleans Levee District
200 Wildlife and Fisheries Building
418 Royal Street
New Orleans, LA 70130

Citrus Lakefront

Behind Lakefront Airport

Depth of flow at Sta. 28+31 - 1.35 ft

Depth of flow at Sta. 63+00 - 0.5 ft

25 yr intensity rainfall

1.7 in/hr for 3.6 hrs durations

$1.7 \times 3.6 = 6.12$ in of rainfall

$6.12\text{in} \times \overbrace{2.59\ \text{Ac}}^{\text{runoff area}} = 15.85\ \text{Ac-in}$

$$\frac{15.85\ \text{Ac-in}}{12\ \text{in/ft}} \times 43{,}560\ \frac{\text{cu.ft.}}{\text{Ac ft}} = 57{,}534\ \text{cu.ft.}$$

For 0.5 ft of head above catch basin, 12 in. culvert will be flowing at a rate of 3.05 cfs.

$$\frac{57{,}534\ \text{cu.ft}}{3.05\ \text{cfs}} \Big/ 3600\ \text{sec/hr} = 5.23\ \text{hr to drain ditch}$$

NWD
1/20/76

Southern Railway System

Assistant Vice President - M W & S
Atlanta, Georgia 30303

R. A. KELSO
CHIEF ENGINEER,
DESIGN AND CONSTRUCTION

99 SPRING STREET, S.W.
TEL: (404) 688-0800

January 16, 1976 pts/1

178-26

NEW ORLEANS, LA. - Citrus Lakefront Levee - IHNC to Paris Road.

Mr. Fredrick M. Chatry
Chief, Engineering Division
New Orleans District, Corps of Engineers
P. O. Box 60267
New Orleans, Louisiana 70106

Dear Mr. Chatry: (LMNED-MP)

Thank you for your letter of November 21, 1975 responding to my September 2, 1975 letter and for your explanation of why a closure gate is required across our double track in the vicinity of Jourdan Road in connection with construction of the Citrus Lakefront Levee but not at the crossing east of Downman Road.

You advise that design is proceeding on the Jourdan Road gate location based on the swing type gate plan furnished with your July 21, 1975 letter. During the July 14 meeting held in the Corps' office in New Orleans, Phil Sarris explained that Southern's horizontal clearance standard to fixed obstructions such as piers of overhead bridge structures is 18'-0" measured from centerline of near track at double track locations. At single main track locations minimum horizontal clearances permitted are 13'-3" on one side of track and 18'-0" on the other side of track which will permit operation off track equipment. You point out that in view of the existing railway bridge crossings at IHNC and at South Point having approximately 8.0' horizontal clearances, the 9.0' horizontal clearances proposed to the hinge and locking pedestals of your swing gate should be sufficient.

Unfortunately we are saddled with a few restrictive clearances such as the bridge structures at IHNC and South Point which do indeed restrict the width of wide shipments out of New Orleans. Possibly these structures will be replaced in the future with a type structure providing wider horizontal clearances leaving

the closure gate location as the most restrictive horizontal clearance. I don't think this would be good planning on our part. Even horizontal clearances permitted on industrial tracks must be at least 10'-0" to obstructions other than car door height loading docks. I will recommend to Management, however, that in this particular unique situation Southern waive its minimum main line horizontal clearance restriction and permit the closure gate to be constructed with 10'-0" horizontal clearances as is being constructed at Caernovan, La., M.P. 12 Louisiana Southern Rwy. and proposed for the "Lower Protection Levee" across the N.O.T. Co. Rwy.

When main tracks are timbered and surfaced approximately every 3 to 6 years, depending on annual tonnage of rail traffic handled over a particular track segment, the track is raised 1½" to 2". This fact should be considered in your closure gate design, because the existing design for the gate sill and hinge pedestal will have fixed dimensions referenced for the existing top of rails. When the track is raised by future track cycle surfaces, the gate will not close unless adjustments can be made in the hinge design to raise the gate to fit the then existing top of rail. I think we need to discuss and attempt to resolve this matter in our next meeting.

I appreciate your furnishing me with cross section data for Stations 30 + 00, 50 + 00, 123 + 00, 156 + 00, 214 + 00, 251 + 00, 308 + 00 and 326 + 00 as requested in my September 2, 1975 letter.

You point out that the proposed levee from Station 28 + 31 to Station 64 + 00 is behind the N. O. Lakefront Airport and therefore drainage between the railroad and the proposed levee must be handled by a continuous ditch to an outlet drainage to Lake Pontchartrain to be located under our track at Station 64 + 00. I am very disappointed you are considering a 3500'± continuous ditch between the railroad and levee without catch basins to drain off the surface runoff. Your proposed ditch invert elevation at Station 50 + 00 is 5.37 and at Station 30 + 00 the proposed ditch invert is El. 5.97' a 0.60 ft. difference in 2000 ft. or 0.03 percent grade. The drainage ditch will turn to a canal under heavy

rainfall with subsequent damage to our roadbed. It will only take about 5 catch basin installations to properly drain this area. If it is impossible to drain towards the N.O. Lakefront Airport, then the drainage should be piped under the proposed levee towards Hayne Blvd.

I have plotted the cross section data furnished me and herewith attached one print each showing the proposed cross sections for Stations 30, 50, 123, 156, and 251. I have referenced the centerline of levee from centerline of track rather than from the south rail. I see no reason the catch basin at Stations 123 should not be positioned 1½ feet further away from the track than you suggest. As a matter of fact why do the catch basins need to be 4 feet wide? It appears 30" x 4 ft. long catch basins would suffice since ditch width between toe of proposed levee and railway embankment is very limited due to the rather large differential in elevation between proposed top of levee (13.5) and existing top of rail (approximately 9.0±).

I am glad you are agreeable to utilizing the 600 ft. catch basin spacing as is being used in the South Point to Paris Road Lakefront Levee construction. It is my intention to approve the typical levee cross sections you have furnished provided we work out a suitable arrangement for placement of all the catch basins.

Our policy when abandoning existing pipes or culverts under our tracks is to fill them with concrete or grout to prevent the tracks from settling when the culvert finally collapses.

I would appreciate your consideration of my above comments. If Bob Guizerix or other on your staff wish to discuss any details further, please feel free to call Phil Sarris at 404/688-0800, Extension 2562 and/or arrange a meeting either in New Orleans or Atlanta.

With best wishes, I remain

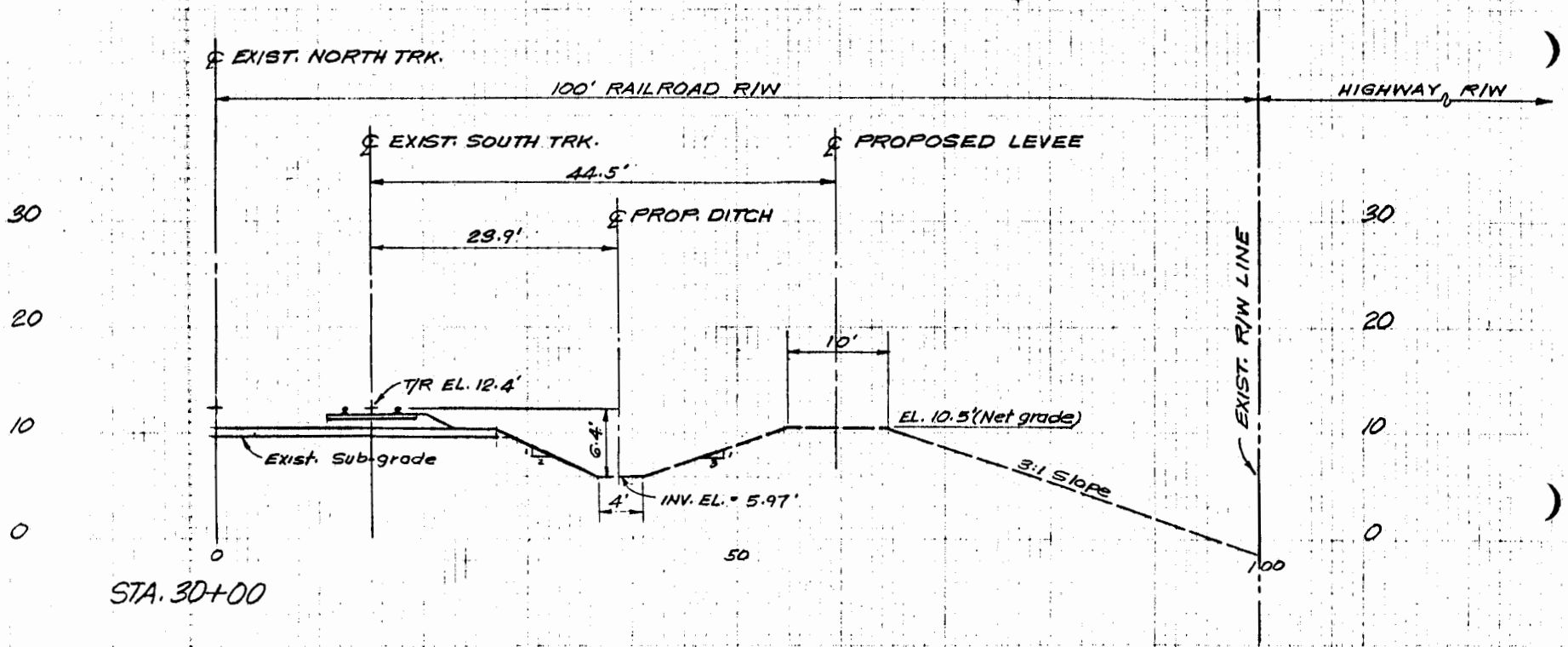
Yours very truly,

R. A. Kelso

Chief Engineer,
Design and Construction

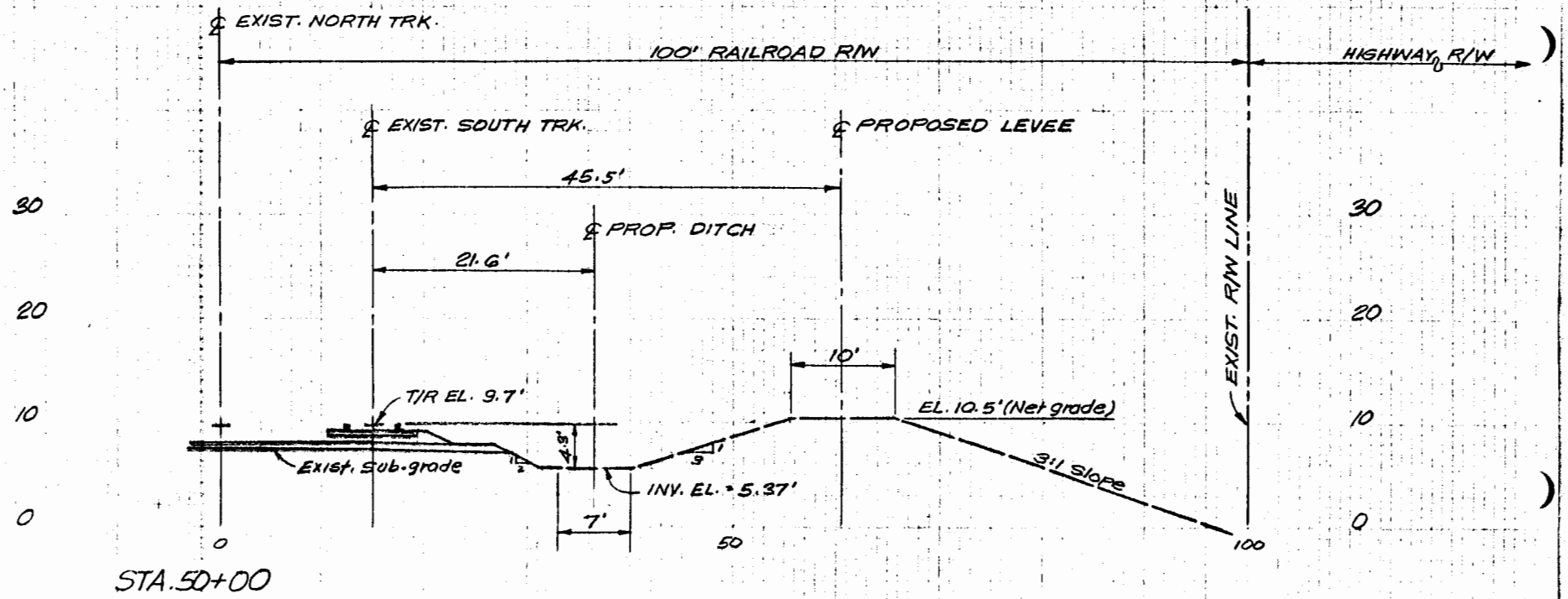
Cy. - Mr. John P. McNamara, Chief Engineer
Board of Levee Commissioners of the
Orleans Levee District
200 Wildlife and Fisheries Building
418 Royal Street
New Orleans, Louisiana 70130

CITRUS LAKEFRONT LEVEE



JAN. 15, 1976 mpc

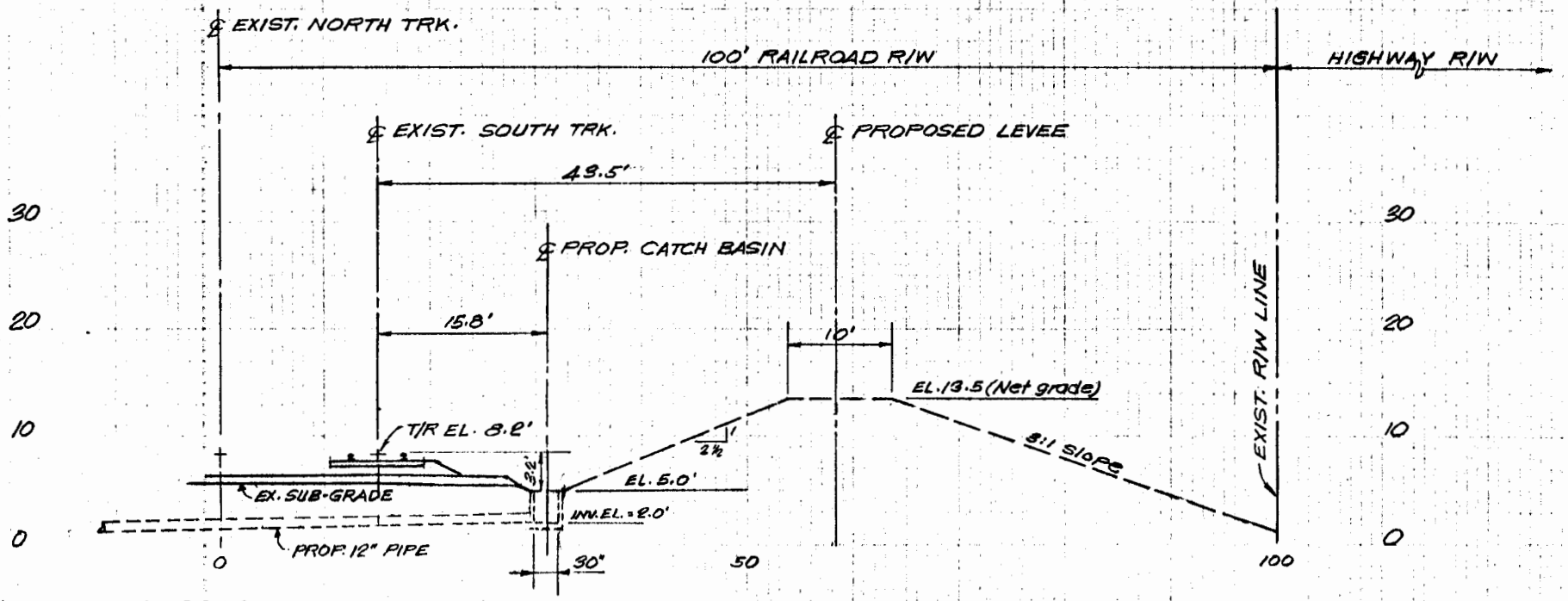
CITRUS LAKEFRONT LEVEE



STA. 50+00

JAN. 15, 1976 mps

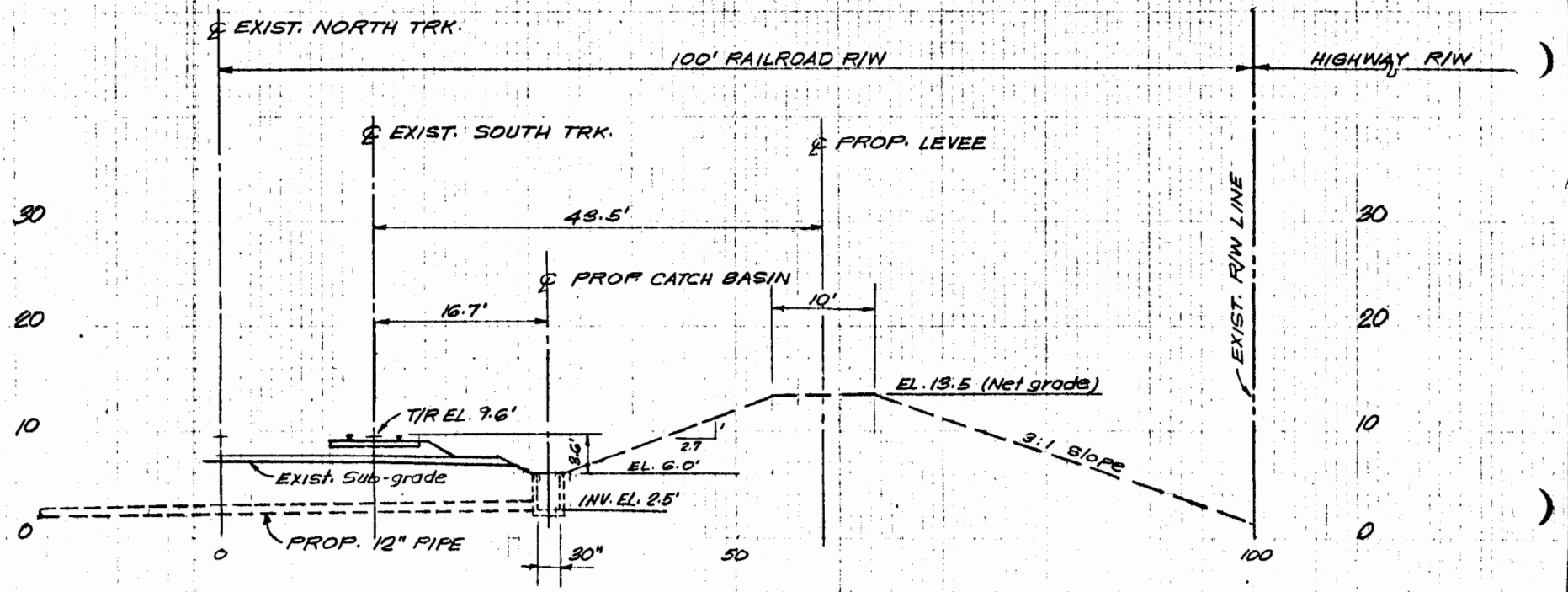
CITRUS LAKEFRONT LEVEE



STA. 123+00

JAN. 15, 1976 mpe

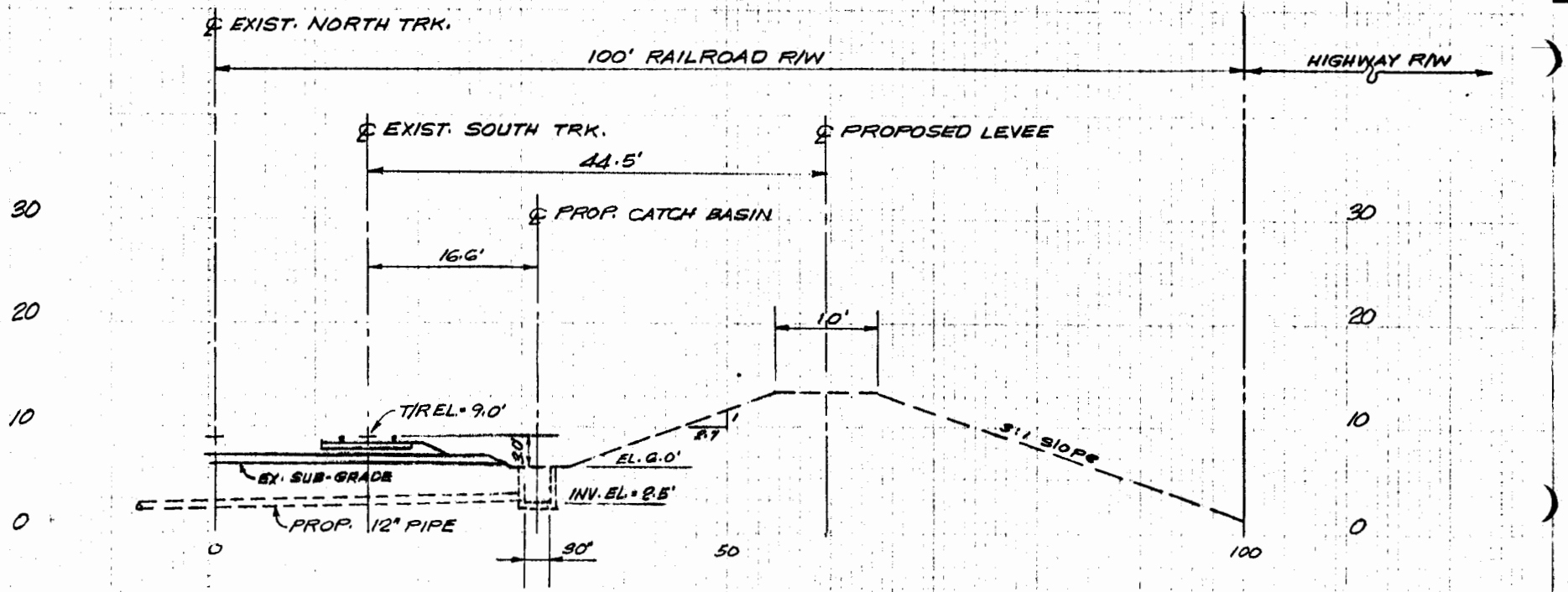
CITRUS LAKEFRONT LEVEE



STA. 156+00

JAN. 15, 1976 MPW

CITRUS LAKEFRONT LEVEE



STA. 251+00

JAN. 15, 1976 mps

IN REPLY REFER TO
LMNED-MP

21 November 1975

Mr. R. A. Kelso
Southern Railway System
99 Spring Street, S.W.
Atlanta, Georgia 30303

Dear Mr. Kelso:

This is in reply to your letter of 2 September 1975 concerning the Citrus Lakefront levee of the Lake Pontchartrain, Louisiana, and Vicinity hurricane protection project.

A closure gate across your tracks in the vicinity of Jourdan Road is required because the railroad embankment in that area is below the required grade of the hurricane protective works. The required grade in the vicinity of Jourdan Road is 13.5 feet above mean sea level (m.s.l.) whereas the rail elevation at the crossing is 9.99 feet m.s.l. A closure gate is not required at the crossing east of Downman Road. The required grade and rail elevation there are 10.5 feet m.s.l. and 12.9 feet m.s.l., respectively. We are proceeding with our designs for the closure gate in the vicinity of Jourdan Road in accordance with the gate drawing forwarded to you with my letter of 21 July 1975.

The typical levee cross-sections you requested are attached as inclosures 1, 2, and 3. The levee from station 28+31 to station 64+00 is behind the New Orleans Lakefront Airport; therefore, the drainage of the levee and railroad embankments between these stations cannot be treated in the same manner as that for the remainder of the reach. Drainage of the embankments between those stations will be accommodated by a continuous ditch as indicated on inclosure 1 with an outlet to Lake Pontchartrain at approximate station 64+00 similar to those designed for the remainder of the reach. As illustrated on inclosure 2, the catch basins between stations 109+00 and 144+00, where the elevation of the south rail is below 9.0 feet m.s.l., have not been recessed into the toe of the levee as was briefly considered. Rather, the top of the catch basin has been

LMNED-MP
Mr. R. A. Kelso

21 November 1975

lowered to elevation 5.0 feet m.s.l. with the centerline of the catch basin 12 feet from the south rail. The levee cross-sections provided as inclosures 1, 2, and 3 are in accordance with the criteria discussed in our 14 July 1975 meeting and in my 21 July 1975 letter.

We have reevaluated the matter of the spacing of the catch basins and are prepared to utilize a 600-foot spacing contingent upon the approval by the Southern Railroad of the inclosed typical levee cross sections. The existing catch basins will be removed and the drain pipes plugged and sealed. We currently expect to advertise this levee for construction in March 1977.

I hope this has answered your questions concerning the Citrus Lakefront levee. If I may be of further assistance, please contact me.

Sincerely yours,

EEB
BARTON
LMNED-MP

SEALE
LMNED-M

BECNEL
LMNED-D

SOMMER
LMNED-D

CHATRY
LMNED

3 Incl
As stated

FREDERIC M. CHATRY
Chief, Engineering Division

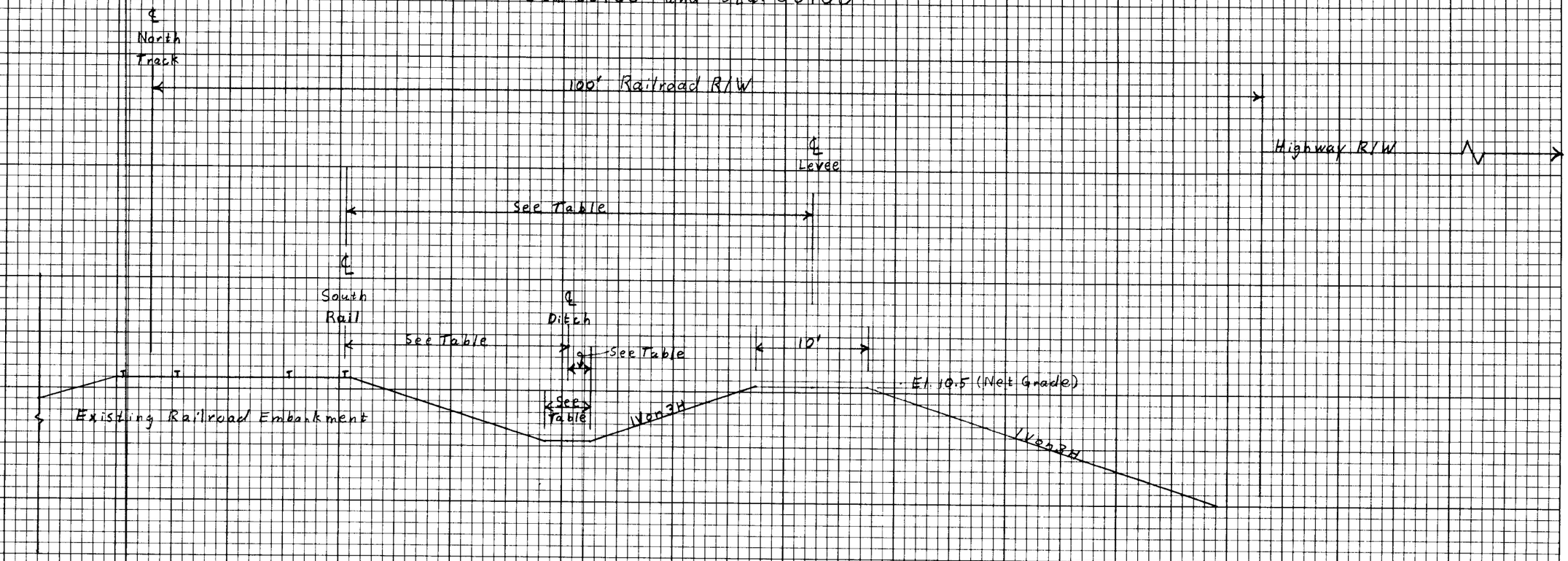
CF: wo incl
Mr. John P. McNamara, Chief Engineer
Board of Levee Commissioners of the
Orleans Levee District
200 Wildlife and Fisheries Building
418 Royal Street
New Orleans, Louisiana 70130

CITRUS LAKEFRONT LEVEE

22 Oct 75

Typical Sections

Sta. 30+00 and Sta. 50+00



Station	South Rail Elevation (ft. msl)	South Rail to Ditch ℄	Bottom of Rail to Top of Culvert	Toe of Levee to Ditch ℄	Ditch Width	South Rail to Levee ℄	Ditch Elevation (ft. msl)
30+00	12.4	21.5 ft.	Not Applicable	2 ft.	4 ft.	42 ft.	5.97
50+00	9.7	18.5 ft.	Not Applicable	3.5 ft	7 ft.	43 ft.	5.37

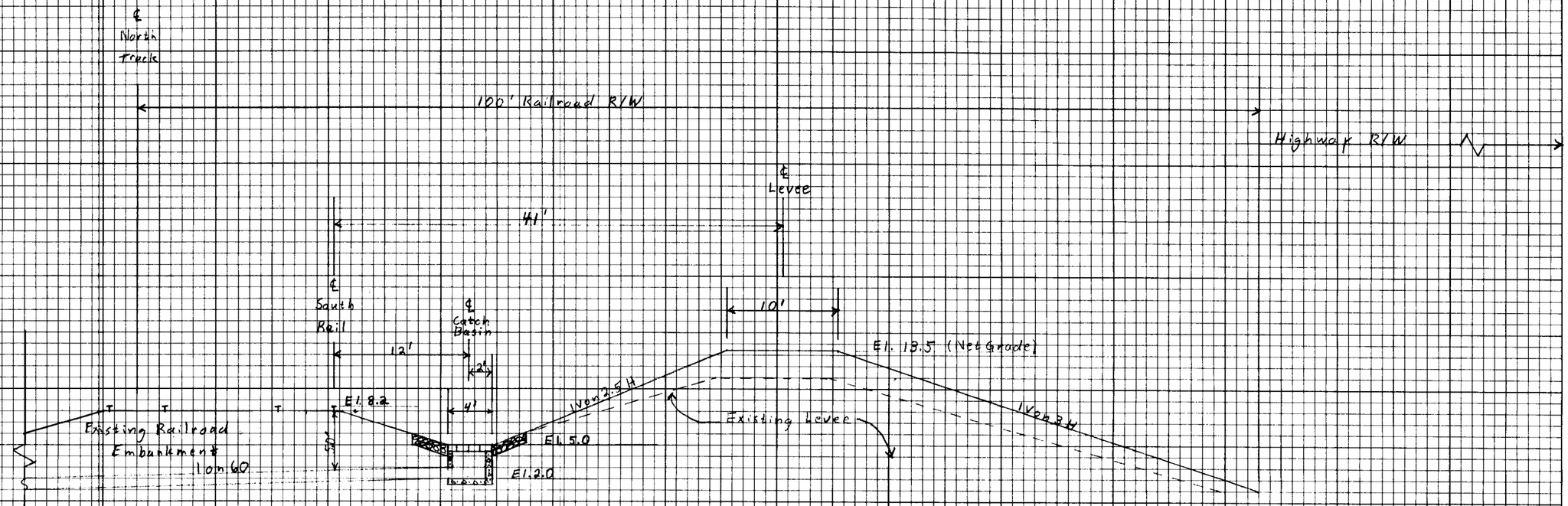
Encl 1

CITRUS LAKEFRONT LEVEE

220+275

Typical Section

Sta. 123+00



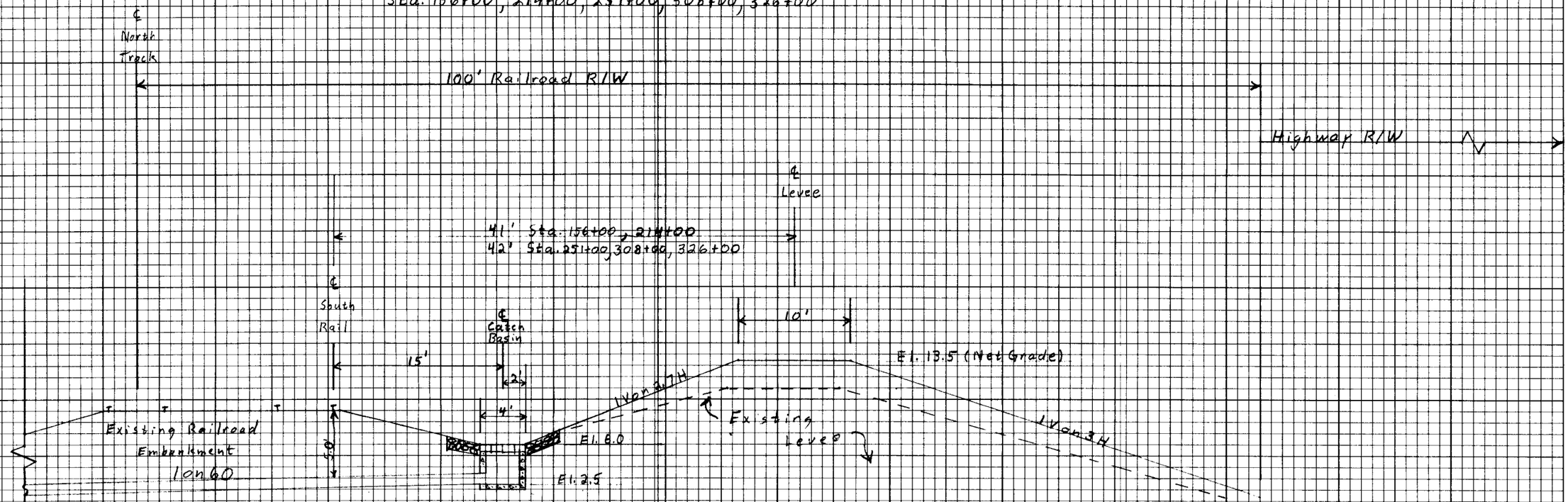
Encl 2

CITRUS LAKEFRONT LEVEE

220ct75

Typical Sections

Sta. 156+00, 214+00, 251+00, 308+00, 326+00



Station	156+00	214+00	251+00	308+00	326+00
South Rail Elevation (Ft. msl)	9.6	9.4	9.0	9.4	8.9

Incl 3

TELEPHONE OR VERBAL CONVERSATION RECORD

For use of this form, see AR 340-15; the proponent agency is The Adjutant General's Office.

DATE: 14 November 1975

SUBJECT OF CONVERSATION
Lake Pontchartrain
Citrus Lakefront Levee GDM 2 Suppl-5A

INCOMING CALL

PERSON CALLING	ADDRESS	PHONE NUMBER AND EXTENSION

PERSON CALLED	OFFICE	PHONE NUMBER AND EXTENSION

OUTGOING CALL

PERSON CALLING	OFFICE	PHONE NUMBER AND EXTENSION
Stan Shelton	NOD	X430

PERSON CALLED	ADDRESS	PHONE NUMBER AND EXTENSION
Larry Bodet	OLD	523-5042

SUMMARY OF CONVERSATION

I asked how OLD would feel about the catch basin spacing being decreased to 600-feet from 900-feet to appease the Southern Railroad. The additional cost would be about $22,500. ~~This~~
He said that OLD had no objection to decreasing the spacing to 600-feet with the cost being a project cost.
He also said that he couldn't say what the OLD position would be should the additional cost be determined to be a total local interest cost.
I told him that we planned to reorient the ramp just west of Lincoln Beach from SW to NE to SE to NW so that the parking lot could be used to maneuver to & from Hayne Blvd. and that we planned to tie the ramp into the protected side of the RR embankment. Crossing the tracks and ramping on the flood side of the RR embankment would be a local interest item to be done later & would not be in this GDM. I told him that we planned to go ahead with this plan unless OLD objected. He said it sounded OK to OLD for now.

DA FORM 1 APR 66 751 REPLACES EDITION OF 1 FEB 58 WHICH WILL BE USED.

★ GPO: 1968 O — 343-778, 84

Southern Railway System

Assistant Vice President - M W & S

Atlanta, Georgia 30303

R. A. KELSO
CHIEF ENGINEER, DESIGN AND CONSTRUCTION

99 SPRING STREET, S. W.
TELEPHONE
(404) 688-0800

September 2, 1975 pts/wjk

178-26

NEW ORLEANS, LOUISIANA - Citrus Lakefront Levee - IHNC to Paris Road.

Mr. Frederic M. Chatry
Acting Chief, Engineering Division
New Orleans District, Corps of Engineers
P. O. Box 60267
New Orleans, Louisiana 70160

Dear Mr. Chatry: (LMNED-MP)

Reference is made to July 14 informal meeting held in Corps of Engineers office, requested by my office, and attended by Southern's P. T. Sarris and F. H. Radford and several members of your staff. Your July 21 letter, addressed to Mr. Sarris, outlines the items which were reviewed at the July 14 meeting and in general appears to be along the lines discussed.

I had no knowledge, until the July 14 meeting, that a swing gate was proposed to be installed across our double track in the vicinity of Jourdan Road (between Inner Harbor Navigation Canal and Paris Road).

Would you please advise me the reason or reasons why a closure gate is required across our main tracks in order for my further consideration and handling.

For my further review, I would appreciate your furnishing me typical cross sections showing the proposed catch basin installations in the vicinity of project stations 30+00, 50+00, 125+00, 158+00, 210+00, 250+00, 312+00, and 325+00. The cross sections should indicate (1) top of rail elevation, (2) distance

from track to center catch basin, (3) 12" discharge pipe from catch basin to Lake Pontchartrain with minimum vertical distance from top of pipe to base of rail, and (4) toe of lakeside levee referenced to center of proposed catch basins. I realize that the above listed stations may be 300 to 400 feet away from possible point of catch basin locations; therefore, please provide me with the cross section at the nearest proposed catch basin location to each respective station listed above.

Insofar as the 900 ft. vs. the 600 ft. catch basin spacing is concerned, you advised that the criteria used to determine that 900 ft. catch basin spacing was adequate is identical to the method used in determining the 600 ft. catch basin spacing being used for the Paris Road to South Point reach. My reasoning for insisting that no greater than 600 ft. catch basin spacing be designed for the Citrus Lakefront Levee is that the catch basins located between the track and the existing levee are presently spaced approximately 400 feet apart. Since the South Point to Paris Road catch basins have been approved at 600 ft. spacing, I am agreeable to the same spacing for the Paris Road to IHNC, but not to your 900 ft. suggested spacing.

Have you given consideration at this time as to disposition of the existing catch basins?

After reviewing the cross sections requested herein, it may be mutually beneficial that we meet again to finally resolve any differences we may still have.

In closing your letter, you advise that preparation of general design memorandum is being expedited. Can you provide me with approximate date the Citrus Lakefront Levee will be advertised for construction?

Yours very truly,

R. A. Kelso

Chief Engineer,
Design and Construction

Cy: Mr. J. P. McNamara, Chief Engineer
Board of Levee Commissioners of the
Orleans Levee District
200 Wild Life and Fisheries Building
418 Royal Street
New Orleans, Louisiana 70130

DISPOSITION FORM

For use of this form, see AR 340-15; the proponent agency is The Adjutant General's Office.

REFERENCE OR OFFICE SYMBOL	SUBJECT
LMNED-MP	Lake Pontchartrain, La. & Vicinity--Citrus Lakefront Levee

TO C/Design Br FROM C/Design Memo Br DATE 8 Oct 75 CMT 1

Mr. Shelton/dma/430

Inclosed is one copy each of a letter from the Southern Railway dated 2 Sep 75 (incl 1) and a plot of tentative catch basin locations for subject levee (incl 2). In paragraph four of their letter, the Southern Railway has requested typical cross sections at certain locations to indicate certain information which is self-explanatory. Please provide these sections by COB 14 Oct 75. The sections should be developed for the catch basin location nearest the specified station. Should the location not be indicated on the plot of surveyed cross sections, use the nearest surveyed cross section to develop the typical.

SEALE

2 Incl
as

LMNED-DL (8 Oct 75)

TO C/Design Memo Br FROM C/Design Br DATE 15 Oct 75 CMT 2

Mr. Steinwinder/lc/314

Inclosed are two sets of cross section prints as requested.

WILLIAM E. SOMMER
Chief, Design Branch

1 Incl (dupe) (hand carried)
wd 2 incl
Added 1 incl
as

Southern Railway System
Assistant Vice President - M W & S
Atlanta, Georgia 30303

R. A. KELSO
CHIEF ENGINEER, DESIGN AND CONSTRUCTION

99 SPRING STREET, S. W.
TELEPHONE
(404) 688-0800

September 2, 1975 pts/wjk

178-26

NEW ORLEANS, LOUISIANA - Citrus Lakefront Levee - IHNC to Paris Road.

Mr. Frederic M. Chatry
Acting Chief, Engineering Division
New Orleans District, Corps of Engineers
P. O. Box 60267
New Orleans, Louisiana 70160

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For my further review, I would appreciate your furnishing me typical cross sections showing the proposed catch basin installations in the vicinity of project stations 30+00, 50+00, 125+00, 158+00, 210+00, 250+00, 312+00, and 325+00. The cross sections should indicate (1) top of rail elevation, (2) distance

Incl 1

from track to center catch basin, (3) 12" discharge pipe from catch basin to Lake Pontchartrain with minimum vertical distance from top of pipe to base of rail, and (4) toe of lakeside levee referenced to center of proposed catch basins. I realize that the above listed stations may be 300 to 400 feet away from possible point of catch basin locations; therefore, please provide me with the cross section at the nearest proposed catch basin location to each respective station listed above.

Insofar as the 900 ft. vs. the 600 ft. catch basin spacing is concerned, you advised that the criteria used to determine that 900 ft. catch basin spacing was adequate is identical to the method used in determining the 600 ft. catch basin spacing being used for the Paris Road to South Point reach. My reasoning for insisting that no greater than 600 ft. catch basin spacing be designed for the Citrus Lakefront Levee is that the catch basins located between the track and the existing levee are presently spaced approximately 400 feet apart. Since the South Point to Paris Road catch basins have been approved at 600 ft. spacing, I am agreeable to the same spacing for the Paris Road to IHNC, but not to your 900 ft. suggested spacing.

Have you given consideration at this time as to disposition of the existing catch basins?

After reviewing the cross sections requested herein, it may be mutually beneficial that we meet again to finally resolve any differences we may still have.

In closing your letter, you advise that preparation of general design memorandum is being expedited. Can you provide me with approximate date the Citrus Lakefront Levee will be advertised for construction?

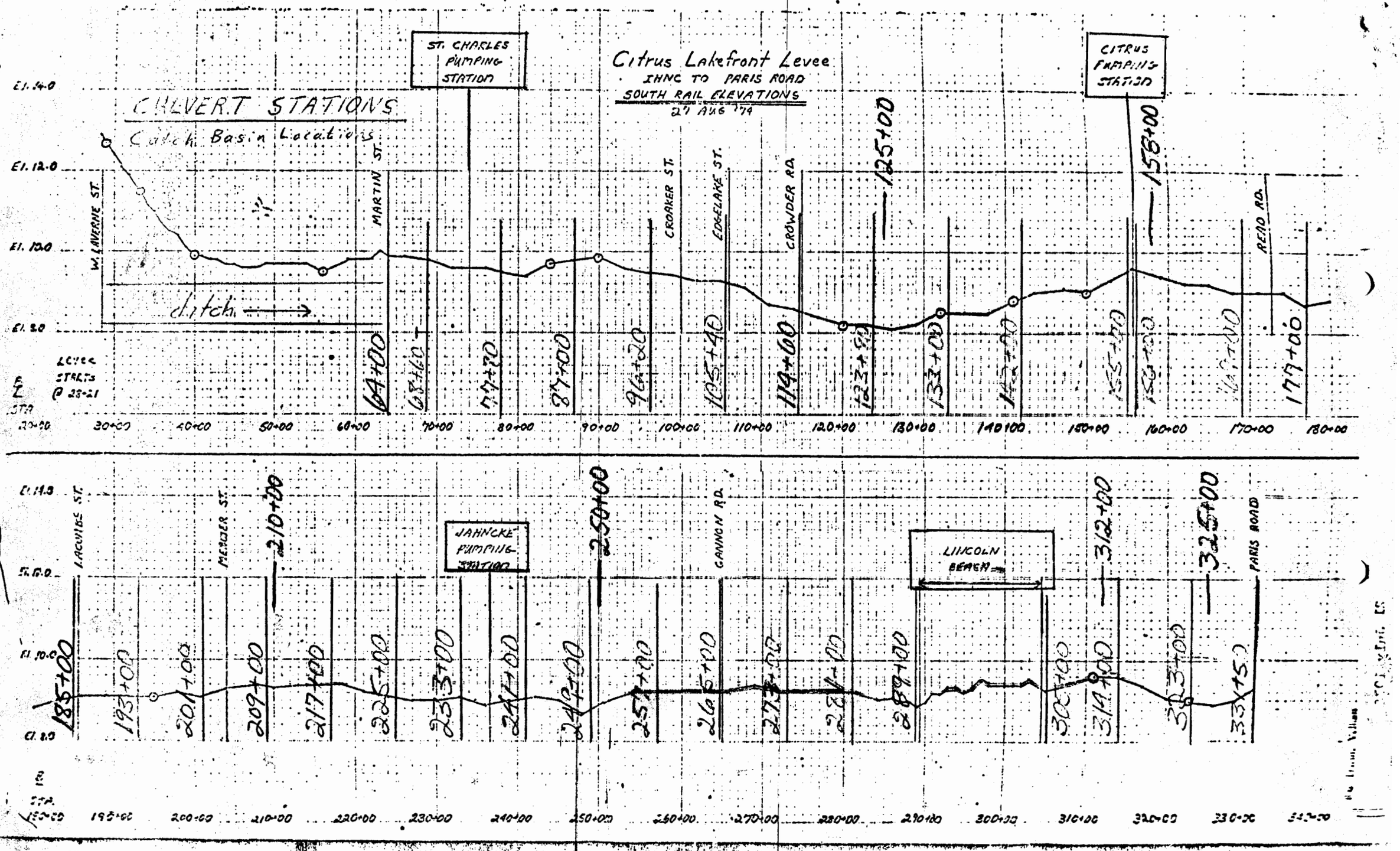
Yours very truly,

R. A. Kelso

Chief Engineer,
Design and Construction

Cy: Mr. J. P. McNamara, Chief Engineer
Board of Levee Commissioners of the
Orleans Levee District
200 Wild Life and Fisheries Building
418 Royal Street
New Orleans, Louisiana 70130

Citrus Lakefront Levee
IHNC TO PARIS ROAD
SOUTH RAIL ELEVATIONS
27 AUG '79



IN REPLY REFER TO
LMNED-MP

21 July 1975

Mr. P. T. Sarris
Southern Railway System
125 Spring Street, S.W.
Atlanta, GA 30303

Dear Mr. Sarris:

Reference is made to the meeting held in this office on 14 July 1975 attended by yourself and Mr. Fred Radford of your company and Messrs. Joe Dicharry, Stan Shelton, Joe Joachim, Bob Guizerix, and Van Steinweinder of this office. The subject of the meeting was the Citrus Lakefront levee, Inner Harbor Navigation Canal (IHNC) to Paris Road, portion of the Lake Pontchartrain, Louisiana, and Vicinity hurricane protection project.

The first topic of conversation was the proposed swing gate to be installed across your tracks in the vicinity of Jourdan Road. The question of horizontal clearance on both sides of the tracks was discussed. Inclosure 1 (in duplicate) is an advance copy of the design drawing for this gate with the pertinent distances marked in blue. At the meeting, you had informed my staff that for mainline tracks the railroad criteria called for 18 feet horizontal clearance on each side of the tracks for maintenance purposes. It should be noted that the horizontal clearance provided at your bridge crossing the IHNC is approximately 8.0 feet and the same holds true for the bridges east of South Point. This information was obtained from Mr. Radford on 16 July 1975 by telephone conversation. Therefore, we believe that the spacing shown on inclosure 1 seems to be adequate.

A copy of the profile of the elevation of the south rail along the subject reach is inclosure 2 as per your request at the meeting.

The problem of attempting to fit our levee between your tracks and the newly-widened Hayne Boulevard was also discussed. Your office

had previously furnished this office with certain criteria pertaining to the relationship of our levee to your embankment. This criteria is as follows:

a. The vertical distance from the bottom of the south rail to the top of the drainage culvert under the tracks shall not be less than 5.5 feet.

b. The elevation of the top of the catch basins between the levee and the railroad embankment shall be no higher than 6.0 feet m.s.l.

c. The distance from the south rail to the centerline of the ditch between the levee and the railroad embankment shall be no closer than 15.0 feet.

d. The spacing of the catch basins shall be no farther apart than 600 feet.

At the meeting you were informed that we have been able to meet the b and c criteria. Previously, you have been informed that our design studies indicate that the spacing between catch basins should be 900 feet. The vertical distance of 5.5 feet below bottom of south rail has been hard to meet. We are limited on the landside of our levee to the Hayne Boulevard right-of-way. Using a 1V on 2.8H landside slope, 10-foot crown width, 1V on 3H lakeside slope and an elevation of 6.0 feet m.s.l. for the top of the catch basin the vertical distance has worked out to be less than 5.0 feet. My staff informed you that we could lower the invert elevation of the catch basin 1 foot. Therefore, you agreed to change the required distance from 5.5 feet to 5.0 feet.

Furthermore, as can be seen on inclosure 2 and as discussed at the meeting, the elevation of the south rail is below 9.0 feet m.s.l. for approximately 3,500 feet from approximate station 109+00 to 144+00. Within this reach the top of the catch basin is less than 3 feet below the south rail. Along the rest of this project reach, this distance is 3 feet or greater. During the discussion on this matter, it was suggested that an alternative would be to lower the top of the catch basins to elevation 5.0 feet m.s.l. and inset the catch basins into the toe of the levee. The 15-foot horizontal distance from south rail to centerline of catch basin would remain constant for the entire project reach. But, it was agreed that his may cause soils stability problems and it was not discussed further.

To alleviate this problem, you agreed to allow us to aline the centerline of our catch basins and ditch 12 feet from the south rail instead of 15 feet. This would place the top of the catch basins in this reach at elevation 5.0 feet m.s.l., instead of 6.0 and provide at least 3 feet vertical distance below the south rail.

Mr. Dicharry/pbs/430

LMNED-MP
Mr. P. T. Sarris

21 July 1975

The spacing of the catch basins was briefly discussed. You opined that the spacing should be less than 900 feet. It should be noted that the criteria used to determine the 900-foot spacing is identical to the method used to determine the 800-foot spacing on the Paris Road to South Point reach. However, if you wish, you may furnish this office with the criteria upon which you based your statement.

We are expediting the preparation of the general design memorandum for this reach. Therefore, your prompt reply with your comments will be greatly appreciated.

I look forward to hearing from you in the near future.

Sincerely yours,

EEB
BARTON
LMNED-MP

SEALE
LMNED-M

SOMMER
LMNED-D

CHATRY
LMNED

2 Incl
1. Railroad Gate Dwg. (dupe)
2. South Rail Profile

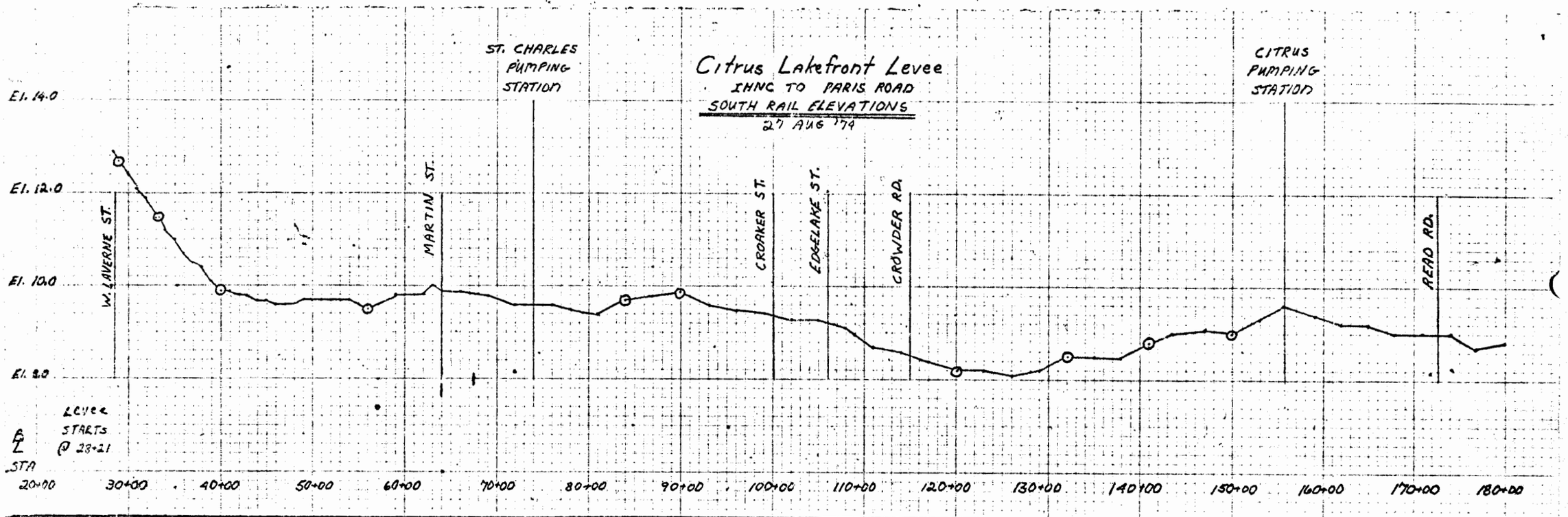
[redacted]

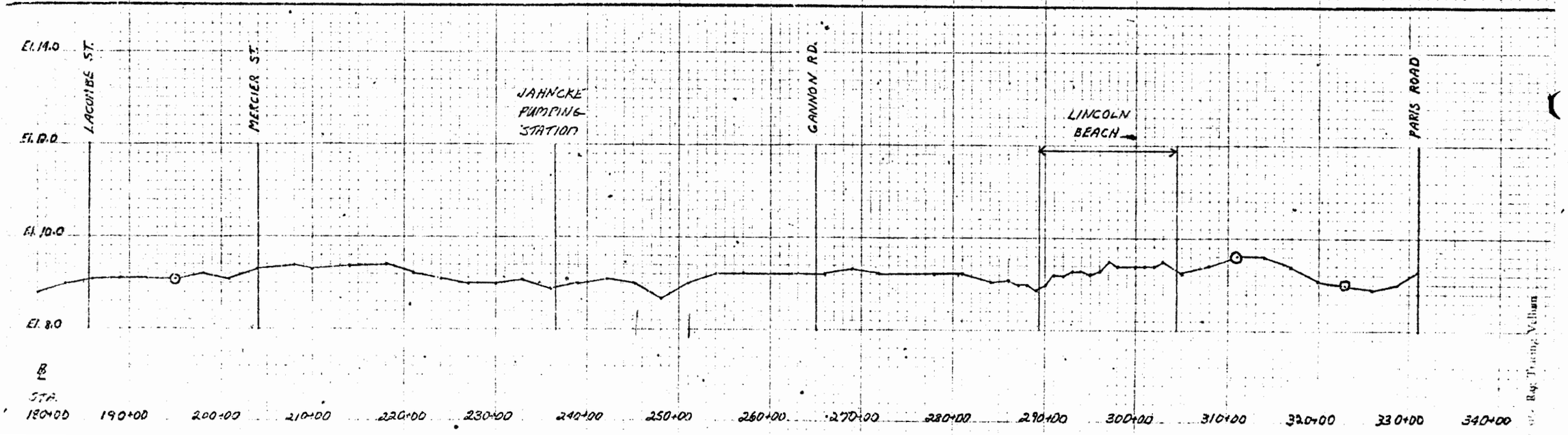
CF: w/o incl
Mr. John P. McNamara, Chief Engineer
Board of Levee Commissioners of the
Orleans Levee District
200 Wild Life and Fisheries Bldg.
418 Royal Street
New Orleans, LA 70130

LMNED-DD

Encl 2 to our 21 Jul 75 letter to Sarrs of Southern Railway

Citrus Lakefront Levee
IHNC TO PARIS ROAD
SOUTH RAIL ELEVATIONS
27 AUG '74





PROJECT	Page __	COMPUTED BY	DATE
SUBJECT		CHECKED BY	DATE

MFR Projects Engr Sec. Shelton 11 Sep 74
IHNC - Paris Rd.

Today in an informal meeting with Messrs. Lee, Guizerix and Richter, the former agreed to undertake the design of new levee sections and embankment drainage structures, utilizing the railroad criteria of ditch elevation 3' below south rail elevation, ditch centerline 17.5' from centerline south track and cover of 5'-6" for the drain pipes under the tracks (base of rail to top of pipe.) On this day I gave my levee section sketches and rail profiles along with copies of ~~prelim~~ correspondence from the railroad which outlined the railroad criteria to Mr. Lee.

Stanley C. Stelly

Mr. Guizerix agreed to try to obtain a reply ~~fr [illegible]~~ from OLD to ~~in~~ the 7Nov73 request for utility info and to obtain info on the drainage on the lakeside of the RR along the lakefront Airport for use in the drainage of the embankments in that area.

Stanley C. Stelly

see also IHNC- Paris Rd Canal

LMV FORM 1 AUG 68 107a COMPUTATION SHEET

6/12/74

Mr. Barton

WBS

NWB
6/12/74

IN REPLY REFER TO
LMNED-DL

12 June 1974

Mr. John P. McNamara, Chief Engineer
Board of Levee Commissioners
Orleans Levee District
200 Wildlife and Fisheries Building
418 Royal Street
New Orleans, Louisiana 70130

Dear Mr. McNamara:

Reference is made to the meeting held in our office on 14 May 1974, with the following in attendance:

Mr. E. Medina	Orleans Levee District
Mr. P. T. Sarris	Southern Railway Company
Mr. F. Redford	Southern Railway Company
Mr. W. Seale	U. S. Army, Corps of Engineers
Mr. E. Barton	U. S. Army, Corps of Engineers
Mr. R. Richter	U. S. Army, Corps of Engineers
Mr. R. Guizerix	U. S. Army, Corps of Engineers
Mr. R. Lee	U. S. Army, Corps of Engineers

As agreed upon at the meeting, we are inclosing one sepia each of Paris Road to South Point design memorandum, plate 53, file no. H-2-25975, and right-of-way map 2 of 2, file no. H-8-26115.

Sincerely yours,

2 Incl
As stated

JEROME C. BAEHR
Chief, Engineering Division

Copy furnished: w o incl
Mr. P. T. Sarris
Southern Railway Company
99 Spring Street, S.W.
Atlanta, Georgia 30303
C/Real Estate Division
C/Design Memo Branch

Minutes of Meeting
14 May 1974

Subject: Citrus Lakefront Levee - IHNC to Paris Road

Attending:

W. Seale	NOD
E. Barton	NOD
R. Richter	NOD
R. Guzzini	NOD
R. Lee	NOD
Mr. Medina	OLD
P. Sarris	So. RR.
F. Redford	So. RR

Notes: Mr Sarris opened by requesting the most recent copies of the following drawings:

File No. H-8-26115 Sheet 2
H-2-25975 Sheet 53

Copies of these drawings should be furnished to So. RR and the OLD.

Mr. Sarris also presented his companies position that the present levee alignment conflicts with the criteria of the So. RR insofar as the intercepting drainage ditch will disturb

his ballast for the track support and that the centerline of the ditch and catch basins should be moved southerly to be 17.5' from the south track ℄.

Mr. Sarris also did not concur with the catch basin spacing. This spacing however was determined by hyd. criteria and was properly designed.

NOD has agreed that the levee should be realined ~~as~~ or altered to comply with RR criteria. This will be difficult due to fixed ROW to the south. If the levee can be shifted, the design of the catch basin spacing will also be affected. NOD will take the above into consideration and advise OLD of findings.

Rick Richter

IN REPLY REFER TO
LMNED-MP

27 March 1974

Mr. John P. McNamara, Chief Engineer
Board of Levee Commissioners of the
Orleans Levee District
200 Wildlife and Fisheries Building
418 Royal Street
New Orleans, Louisiana 70130

Dear Mr. McNamara:

Reference is made to letter dated 29 June 1973 and drawing dated 19 June 1973 from Mr. Anthony Cole, Chief of our Real Estate Division, with respect to design levee sections and proposed right-of-way limits for the reach of levee from the vicinity of IHNC to Paris Road, (station 28+21 to station 331+00) Orleans Parish, Louisiana. Reference is also made to your reply dated 7 September 1973 forwarding comments from Mr. Harold Mauney, Vice President of Southern Railway System.

In reviewing the comments of Mr. Mauney, it is noted that he desires that the same relationship between the railroad embankment and proposed hurricane protection levee be applied from the vicinity of IHNC to Paris Road as was applied from Paris Road to South Point. This cannot be done. The distance between the railroad embankment and Hayne Boulevard establishes the relationship between the railroad embankment and the proposed hurricane protection levee, and also establishes, as explained in a subsequent paragraph, spacing and elevation of the catch basins for the drainage pipes. Hayne Boulevard terminates at Paris Road; accordingly, this restriction does not exist for the levee from Paris Road to South Point and is the reason for the greater distance between the centerline of the hurricane protection levee and south rail of the railroad.

We have revised the design sections furnished with our letter of 29 June 1973, taking into consideration Mr. Mauney's comments to the maximum extent possible. Two copies of the revised drawing dated March 1974 are attached as inclosure 1.

LMNED-MP 27 March 1974
Mr. John P. McNamara, Chief Engineer

The paragraphs referenced in subsequent paragraphs of this letter are to Mr. Mauney's letter of 4 September 1973.

With reference to paragraph 3, Mr. Mauney desires that the distance between the south rail and the toe of the railroad embankment and bottom of drainage ditch be a minimum of 14.5 feet. He bases this request on what he believes to be the corresponding distance used on the Paris Road to South Point levee. A review of the construction drawings for the Paris Road to South Point levee reveals that this distance is 12.5 feet, not 14.5 feet. You will note that the above corresponding distance on the revised drawing is 6.0 feet, which is the maximum distance possible based on current design criteria and available area for levee construction.

With reference to paragraph 4, Mr. Mauney desires that the catch basins be spaced 600 feet apart with the gratings at elevation 6.0 feet m.s.l., the same as was used for the Paris Road to South Point levee. You will note that we have lowered the elevation of the grating to elevation 6.0 feet m.s.l. between levee stations 28+21 and 64+00; however, between levee stations 64+00 and 331+00 the elevation of the grating has been set at 7.0 feet m.s.l.--the lowest possible based on the limited area for levee construction. With respect to the spacing, the distance of 900 feet is retained. The same criteria were used in establishing the 900-foot spacing for the catch basins for this reach of levee as ~~was~~ were used for the Paris Road to South Point reach of levee. Basically, the structures were sized and spaced to convey the flows from a 25-year frequency flood without overtopping the railroad embankment. The distance between the south rail and the levee centerline is considerably less for the reach of levee from station 28+21 to 331+00 than for the reach of levee from Paris Road to South Point. Accordingly, the spacing, using the same design criteria as stated above, is greater.

The catch basins may be spaced at 600-foot intervals provided that the additional cost be provided by local interest, and that the additional cost shall not be creditable to the local interest share of the project cost. This additional cost is estimated to be approximately $20,000.

With reference to paragraph 5, the right-of-way line has been established 12 feet from the south rail as desired by Mr. Mauney. However, access over the area between the right-of-way line and the mean low water line of Lake Pontchartrain will be required to construct the levee, drainage system, and wave wash protection on the lake side of the railroad embankment. Contract work on and/or adjacent to the railroad will be in accordance with a special provision in the specifications similar to that used in the Paris Road to South Point levee specifications.

LMNED-MP 27 March 1974
Mr. John P. McNamara, Chief Engineer

With reference to paragraph 6, you will note that the levee between station 28+21 and station 64+00 has been moved away from the railroad embankment as desired by Mr. Mauney. Because of the lower levee elevation, the elevation of the catch basins has been set at 6.0 feet m.s.l. As stated in a previous paragraph, this is not possible for the remainder of the levee (station 64+00 to 331+00). The drain from the catch basin will go under the track as shown on the revised drawing. A spacing of 900 feet will be used and is based on the reasons stated in a previous paragraph.

With reference to paragraph 7, specifically to Mr. Mauney's request for drawings showing the relationship between the railroad embankment and floodwall in the vicinity of Lincoln Beach, plates 8, 9, and 10 are attached as inclosures 2, 3, and 4, respectively. A typical section of the floodwall in this area is shown on plate 12 and is attached as inclosure 5.

The above referenced plan and profile sheets for the Lincoln Beach area are based on a plan which will provide the least costly plan of protection to the existing local interests facilities. A request was made by Mathes, Bergman and Associates, Inc., by letter dated 6 January 1974 to modify our plan in the Lincoln Beach area. Our position on this matter was stated in our letter dated 12 February 1974 to you; however, we have not received a reply.

With reference to paragraph 9, the plan for the railroad track guard mat has been revised, based on the comments of Mr. Mauney.

Kindly furnish this office with your comments and/or your concurrence with the revised plan as presented herein. Your comments to our letter of 12 February 1974 would also be appreciated.

Sincerely yours,

5 Incl (dupe)
As stated

JEROME C. BAEHR
Chief, Engineering Division

SEALE
LMNED-M
SOMMER
LMNED-D
CANNON
LMNED-F
BAEHR
LMNED

The Board of Levee Commissioners

OF THE

Orleans Levee District

200 WILDLIFE AND FISHERIES BUILDING
418 ROYAL STREET

New Orleans, La.
70130

PROTECTING YOU AND YOUR FAMILY

September 7, 1973

Mr. Jerome C. Baehr
Chief, Engineering Division
Department of the Army
New Orleans District
Corps of Engineers
P. O. Box 60267
New Orleans, Louisiana 70160

Dear Mr. Baehr:

We were furnished preliminary details of the proposed enlargement and strengthening of the Citrus Lakefront Levee-IHNC to Paris Road.

These preliminary plans were submitted to the Alabama Great Southern Railroad for their review and comments.

Enclosed is a copy of a letter from Harold Mauney dated September 4, 1973 outlining their comments after reviewing the plans.

Yours truly,

JOHN P. MCNAMARA
CHIEF ENGINEER

JPMCN:sm

Encl.

cc: Hon. Guy F. LeMieux, Pres.

Southern Railway System
Office of Vice President
New Orleans, La. 70152

HAROLD C. MAUNEY
VICE PRESIDENT

P. O. BOX 52110
1205 ST. LOUIS STREET

September 4, 1973

745-3

Mr. John P. McNamara, Chief Engineer
The Board of Levee Commissioners
of the Orleans Levee District
418 Royal Street
New Orleans, Louisiana 70130

Proposed Levee Work between Downman Road and Little Woods (Paris Road)

Dear Mr. McNamara:

With further reference to your letter of July 31, 1973 requesting that we review the plan and profile Base Line Station 28+31 to 331+50:

The prints submitted with your letter of August 21 include the same drawings transmitted July 31 (with some details added) and some additional drawings, but do not repeat the data on catch basins. This response is directed at the latest submission with catch basin data as given in previous submission only and is limited to engineering and operating aspects of the proposed project.

The design sections for enlargement of existing levee between Stations 64 and 331+50 show the lakeside edge of the bottom of ditch between levee and tracks as being about 4.5' from "south rail" or about 7' from centerline of nearest track. Plans submitted for the new levee from Paris Road to South Point were based on such dimensions being 14.5' and the same should apply here also.

The design sections referred to show the area between levee and drain to be drained by catch basins spaced 900' apart, with gratings at Elev. 8.0. The comparable spacing and elevation of plans for the Paris Road to South Point levee are 600' and 6.0, and we are not willing to accept any increase in either.

We do not understand why the Board needs a definite levee R/W line because none was indicated in the 1965 agreement. In any case, however, if Levee R/W line must be specified it should be at 12' from south rail, or 14.5' from centerline of track, as was written into the draft agreement prepared for the levee from Paris Road to South Point.

The design section for the new levee of lesser height between Stations 28+21 and 64, this being outside the limits of the 1965 agreement, would completely ruin the ballast section and roadbed section under our nearest track.

To be acceptable the levee should be moved away from track far enough to provide the same 14.5' dimension mentioned above. Catch basins with gratings at not higher than Elev. 6 (except near Downman Road Underpass grating may be set 4' below top of tie) should also be provided, spaced not farther than 600' apart. Our records do not permit us to say whether drains from the catch basins should go under tracks or under levee. This should be worked out and details sent to us for review. The above comments on R/W line apply to this stretch also.

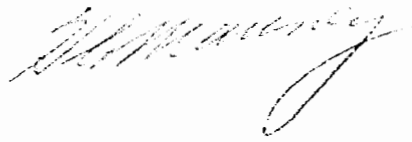
We note the absence of any cross section or other detail showing the relationship between our track and the proposed floodwall opposite Lincoln Beach. We expect no particular difficulty in this respect, but in due course we will want to review the planned location of the wall and the method proposed to drain the area between wall and track.

The plan showing Railroad Track Guard Mat should be revised to (1) show tie plate under each rail, with timber cut to clear, (2) add a note here reading "Adaze or saw timber to clear" and (3) add a Note No. 4 reading "Actual timber dimensions may be rough size or dressed size, except the 8" nominal dimension must be not less than 7-7/8" actual size." The heaviest rail to be protected is 132#, and measures about 8" from top of rail to top of tie. The 7-7/8" minimum timber thickness will suffice, however, for the purpose intended.

We have no objection to details being developed along the lines indicated by plans you submitted, except as noted above. Further, the plan of Railroad Track Guard Mat, with the indicated minor revisions, has our approval for incorporation in plans for work between Paris Road and South Point.

We shall be glad to review your further developed plans as they become available.

Very truly yours,



HCM:lm

ROUTING AND TRANSMITTAL SLIP

			ACTION
1	TO *(Name, office symbol or location)* Ron;	INITIALS	CIRCULATE
		DATE	COORDINATION
2		INITIALS	FILE
		DATE	INFORMATION
3		INITIALS	NOTE AND RETURN
		DATE	PER CONVERSATION
4		INITIALS	SEE ME
		DATE	SIGNATURE

REMARKS

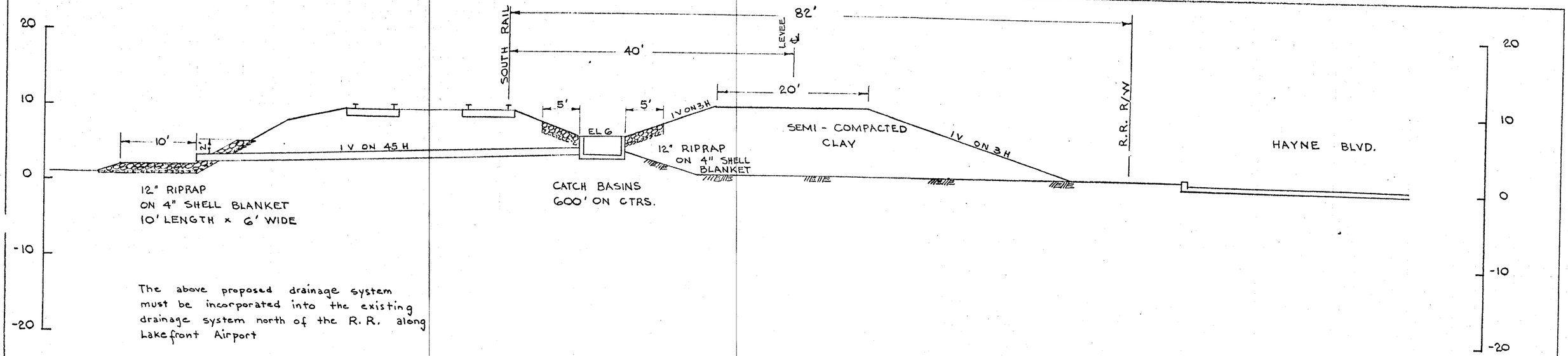
The attached sections are furnished for your use. Both sections satisfy minimum stability requirements. However, I prefer the 15' crown with 10:1 side slopes.

Ricky
9 JAN 74

Do NOT use this form as a RECORD of approvals, concurrences, disapprovals, clearances, and similar actions.

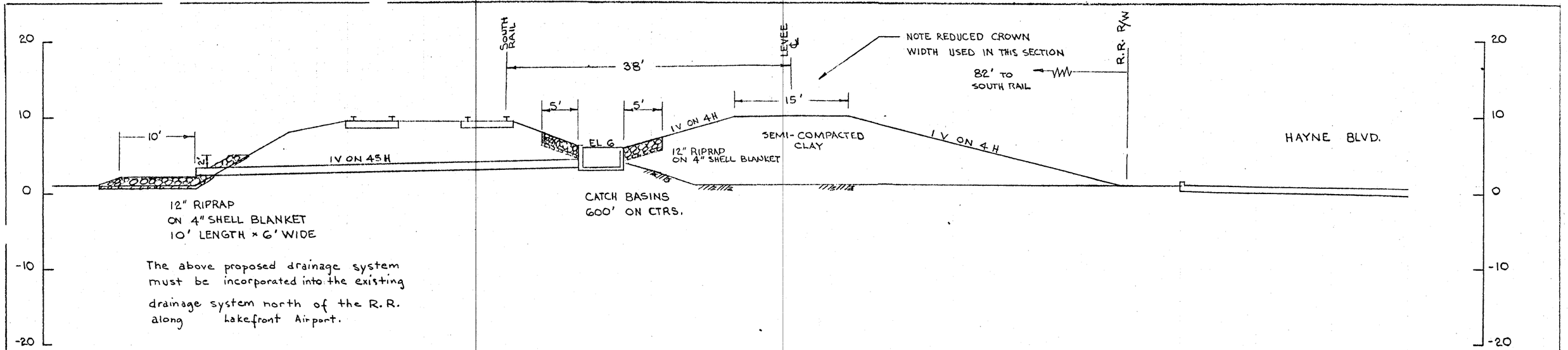
FROM *(Name, office symbol or location)*	DATE
	PHONE

OPTIONAL FORM 41 5041-101
AUGUST 1967
GSA FPMR (41CFR) 100-11.206
GPO c43—16—81418-1 419-015



The above proposed drainage system must be incorporated into the existing drainage system north of the R. R. along Lakefront Airport

TYPICAL SECTION
WITH
20 ft CROWN AND 1V ON 3H SLOPES
STATIONS 28+21 to 64+00
LMNED - FS JAN '74



The above proposed drainage system must be incorporated into the existing drainage system north of the R.R. along Lakefront Airport.

TYPICAL SECTION
15 ft. CROWN W/ AND 1V ON 4H SLOPES
STATIONS 28+21 to 64+00
LMNED-FS JAN 74

LMNED-FS (6 Dec 73)
SUBJECT: Review of the Southern Railway System Comments Pertaining to the Levee Design Sections for the IHNC to Paris Road GDM

TO: C/Design Branch FROM: C/Design Branch DATE 2 Jan 74 CMT 2
Mr. Steinbeck/mhg/885-7102

1. In order to comply with the requirements of the Southern Railway System it was necessary to change the levee design between Stations 28+21 to 64+00 to that shown on attached inclosure 1.

2. The railroad's requirements between stations 64+00 and 331+50 cannot be met without a complete redesign.if 14.5 ft. from the south rail to the bottom of the ditch between the levee and railroad embankment and requiring catch basins at el. 6.0 are required. The redesign of this section of the levee will be necessary if the above requirements are followed since the levee would encroach on Hayne Blvd.

3. Please advise whether the present design sections between stations 64+00 to 331+50 are acceptable or not as a new design may be required as stated in para. 2 above.

Rusty Wardy
for KRUM J. CANNON
Chief, Foundations & Materials Branch

4 Incls.
w/d

Add. 1 Incl.
as

LMNED-FS (6 Dec 73)
SUBJECT: Review of the Southern Railway System Comments Pertaining to the Levee Design Sections for the IHNC to Paris Road GDM

TO: C/Design Branch FROM: C/Design Branch DATE 2 Jan 74 CMT 2
Mr. Steinbeck/mhg/885-7102

1. In order to comply with the requirements of the Southern Railway System it was necessary to change the levee design between Stations 28+21 to 64+00 to that shown on attached inclosure 1.

2. The railroad's requirements between stations 64+00 and 331+50 cannot be met without a complete redesign if 14.5 ft. from the south rail to the bottom of the ditch between the levee and railroad embankment and requiring catch basins at el. 6.0 are required. The redesign of this section of the levee will be necessary if the above requirements are followed since the levee would encroach on Hayne Blvd.

. Please advise whether the present design sections between stations 64+00 to 331+50 are acceptable or not as a new design may be required as stated in para. 2 above.

KRUM J. CANNON
Chief, Foundations & Materials Branch

4 Incls.
w/d

Add. 1 Incl.
as

DISPOSITION FORM

For use of this form, see AR 340-15; the proponent agency is The Adjutant General's Office.

REFERENCE OR OFFICE SYMBOL	SUBJECT
LMVED-DL	Review of the Southern Railway System Comments Pertaining to the Levee Design Sections for the IHNC to Paris Road GDM

THRU ~~C/Design Memo Branch~~ FROM C/Design Branch DATE 6 Dec 73 CMT 1

Mr. Steinwinder/cb/314

TO C/F&M Branch

1. Reference is made to the letter from Mr. H. Mauney, Southern Railway System, inclosure 2.

2. The railroad was previously furnished inclosure 4 for their review, and their comments are based on that design.

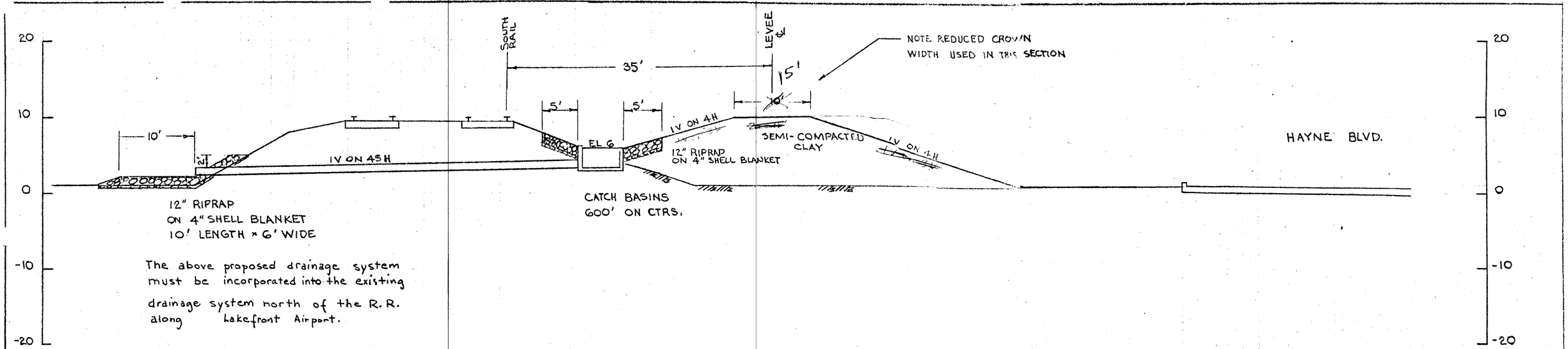
3. Please furnish the Levees Section your comments on the railroad's request, and any recommended design sections.

4. It is suggested that the same design section as was used from station 64+00 to station 331+50 be used from station 28+21 to station 64+00 since the landside right-of-way width is constant for the limits of the job. It is recommended that the drainage between station 28+21 to station 64+00 be accomplished in the same manner as that designed for the reach from station 64+00 to station 331+50.

William E. Sommer.

WILLIAM E. SOMMER
Chief, Design Branch

4 Incl
1. Ltr from Orleans Levee Board dtd 7 Sep 73
2. Ltr from railroad dtd 4 Sep 73
3. Hydraulics data
4. Design furnished to railroad



The above proposed drainage system must be incorporated into the existing drainage system north of the R.R. along Lakefront Airport.

TYPICAL SECTION
STATIONS 28+21 to 64+00
LMNED-FS JAN 74

Review of the Southern Railway System Comments Pertaining to the Levee Design Sections for the IHNC to Paris Road GDM

LMNED-DL
THRU C/Design Memo Branch

C/Design Branch

6 Dec 73
Mr. Steinwinder/cb/314

TO C/F&M Branch

1. Reference is made to the letter from Mr. H. Mauney, Southern Railway System, inclosure 2.

2. The railroad was previously furnished inclosure 4 for their review, and their comments are based on that design.

3. Please furnish the Levees Section your comments on the railroad's request, and recommended design sections.

4. It is suggested that the same design section as was used from station 64+00 to station 331+50 be used from station 28+21 to station 64+00 since the landside right-of-way width is constant for the limits of the job. It is recommended that the drainage between station 28+21 to station 64+00 be accomplished in the same manner as that designed for the reach from station 64+00 to station 331+50.

4 Incl
1. Ltr from Orleans Levee Board dtd 7 Sep 73
2. Ltr from railroad dtd 4 Sep 73
3. Hydraulics data
4. Design furnished to railroad

WILLIAM E. SOMMER
Chief, Design Branch

IHNC - PARIS RD. LEVEE JOB

Van Sternwinder

Following are my observations of the comments made in a letter from R.R. Co., which is dated 7 Sep '73.

(1.) I believe the R.R. Co. is basing their comments in paragraphs 3, 4, 5, and 6 against the designs used for the Paris Rd. - South Point Job, without considering the details effecting the design of the IHNC - Paris Rd. Job. It seems the R.R. Co. is not taking into consideration the fact that abundant R/W was no problem for the South Point Job, but is a big problem for the IHNC Job since our R/W widths are firmly fixed. Because we had more R/W on the South Point Job, our levee alignment was farther removed from the existing R.R. tracks and thus more surface area existed to drain between R.R. - Levee embankments, thereby requiring a closer spacing of drainage catch basins.
(See back pages for hydraulic data back-up)

(2) Paragraph 4 of the letter from R.R. states that the elev. of catch basins should be changed from El. 8.0 M.S.L. to El. 6.0 M.S.L. (the same Elev. as we had on the So. Pt. Job). If we make that change on the IHNC Job

without moving the levee more landward, all the catch basins will nearly be located under the R.R. cross ties. This problem might be alleviated by steepening the levee side slope (floodside), but we already have them designed for a 1 on 3 slope now.

(3) It is suggested that we use another term in place of "R/W line" on our dwgs. and specs, perhaps "Work Area Boundary", etc. This would resolve the problem in paragraph 5 of the letter. Perhaps the Real Estate Div. could advise us here.

(4) The R.R. comments in paragraph 6, of their letter, that a new levee design must be used from Sta. 28+21 to Sta. 64+00. I don't believe this will give us a problem because we have more R/W width to play with here. This entire reach is all located across from the Lakefront Airport, and connects with the end of the existing levee. F & M should provide us with another analysis for this reach. Also, the drainage must now be worked out for this reach as we had no drainage provisions ~~yes~~ here previously.

(Note) which way to drain — towards the floodside or towards the landside?

The Board of Levee Commissioners
OF THE
Orleans Levee District
200 WILDLIFE AND FISHERIES BUILDING
418 ROYAL STREET
New Orleans, La.
70130

September 7, 1973

Mr. Jerome C. Baehr
Chief, Engineering Division
Department of the Army
New Orleans District
Corps of Engineers
P. O. Box 60267
New Orleans, Louisiana 70160

Dear Mr. Baehr:

We were furnished preliminary details of the proposed enlargement and strengthening of the Citrus Lakefront Levee-IHNC to Paris Road.

These preliminary plans were submitted to the Alabama Great Southern Railroad for their review and comments.

Enclosed is a copy of a letter from Harold Mauney dated September 4, 1973 outlining their comments after reviewing the plans.

Yours truly,

JOHN P. MCNAMARA
CHIEF ENGINEER

JPMCN:sm

Encl.

cc: Hon. Guy F. LeMieux, Pres.

Incl. 1

Office of Vice President
New Orleans, La. 70152

HAROLD C. MAUNEY
VICE PRESIDENT

P. O. BOX 52110
1205 ST. LOUIS STREET

September 4, 1973

745-3

Mr. John P. McNamara, Chief Engineer
The Board of Levee Commissioners
of the Orleans Levee District
418 Royal Street
New Orleans, Louisiana 70130

Proposed Levee Work between Downman Road and Little Woods (Paris Road)

Dear Mr. McNamara:

1 With further reference to your letter of July 31, 1973 requesting that we review the plan and profile Base Line Station 28+31 to 331+50:

2 The prints submitted with your letter of August 21 include the same drawings transmitted July 31 (with some details added) and some additional drawings, but do not repeat the data on catch basins. This response is directed at the latest submission with catch basin data as given in previous submission only and is limited to engineering and operating aspects of the proposed project.

3 The design sections for enlargement of existing levee between Stations 64 and 331+50 show the lakeside edge of the bottom of ditch between levee and tracks as being about 4.5' from "south rail" or about 7' from centerline of nearest track. Plans submitted for the new levee from Paris Road to South Point were based on such dimensions being 14.5' and the same should apply here also. → dist. from ℄ trk. to levee R/W.

4 The design sections referred to show the area between levee and drain to be drained by catch basins spaced 900' apart, with gratings at Elev. 8.0. The comparable spacing and elevation of plans for the Paris Road to South Point levee are 600' and 6.0, and we are not willing to accept any increase in either. dist. between catch basins → El. of drainage ditch & catch basins

We do not understand why the Board needs a definite levee R/W line because none was indicated in the 1965 agreement. In any case, however, if Levee R/W
5 line must be specified it should be at 12' from south rail, or 14.5' from centerline of track, as was written into the draft agreement prepared for the levee from Paris Road to South Point. ← dist. from S. rail to R/W line for levee

6 The design section for the new levee of lesser height between Stations 28+21 and 64, this being outside the limits of the 1965 agreement, would completely ruin the ballast section and roadbed section under our nearest track.

Encl. 2

To be acceptable the levee should be moved away from track far enough to provide the same 14.5' dimension mentioned above. Catch basins with gratings at not higher than Elev. 6 (except near Downman Road Underpass grating may be set 4' below top of tie) should also be provided, spaced not farther than 600' apart. Our records do not permit us to say whether drains from the catch basins should go under tracks or under levee. This should be worked out and details sent to us for review. The above comments on R/W line apply to this stretch also. Between Sta. 28+21 & Sta. 64+00, levee must be re-designed to meet the same criteria for R/W, & drainage as the rest of levee on this job.

7 We note the absence of any cross section or other detail showing the relationship between our track and the proposed floodwall opposite Lincoln Beach. We expect no particular difficulty in this respect, but in due course we will want to review the planned location of the wall and the method proposed to drain the area between wall and track. (structures)

8 The plan showing Railroad Track Guard Mat should be revised to (1) show tie plate under each rail, with timber cut to clear, (2) add a note here reading "Adze or saw timber to clear" and (3) add a Note No. 4 reading "Actual timber dimensions may be rough size or dressed size, except the 8" nominal dimension must be not less than 7-7/8" actual size." The heaviest rail to be ~~protected is 152#~~, and measures about 8" from top of rail to top of tie. The 7-7/8" minimum timber thickness will suffice, however, for the purpose intended.

COMPLETED

revise our dwg. to conform

9 We have no objection to details being developed along the lines indicated by plans you submitted, except as noted above. Further, the plan of Railroad Track Guard Mat, with the indicated minor revisions, has our approval for incorporation in plans for work between Paris Road and South Point.

10 We shall be glad to review your further developed plans as they become available.

Very truly yours,

HCM:lm

SUBJECT: Orleans Parish Lakefront Levee, IHNC to South Point; GDM 2, Sup. 5A; Rainfall Runoff Data Request

Back up data — from Hydraulics, showing "spacing requirements" between catch basins — to drain the area between R.R. & Levee embankments.

LMNED-HP

TO: Ch, F & M Br. FROM: Ch, Hyd Br. DATE: 28 May 1970 CMT 2

Mr. Dicharry/esk/422

1. Reference is made to par. 1.a. of CMT 1. Preliminary studies have indicated that adequate drainage will be provided if the catch basins are spaced as follows:

REACH	SPACING-FT.	
IHNC to Paris Road, Levee on Land Side	900	← This Job
Paris Road to South Point, Levee on Lake Side	400	
Paris Road to South Point, Levee on Land Side	600	← adjacent Job

2. For the catch basins discussed immediately above, stone with a maximum diameter of 6 inches should be placed for a distance of 5 feet on each side of the inlet.

Note: Stone should be placed on plastic filter cloth. RH 10 June 70

Final

LMNED-HP 28 May 1970

SUBJECT: Orleans Parish Lakefront Levee, IHNC to South Point; GDM 2, Sup.5A; Rainfall Runoff Data Request - Continuation of CMT 2

3. In accordance with the recent conversations between Mr. Cannon of your Branch, the runoff per linear foot of section to the collector ditch shown on the bottom section of Inc 1 will not be furnished. Our studies, however, have shown that this ditch will provide adequate drainage. These studies also indicate that a grass cover will provide sufficient protection against scour and the riprap shown on this section will not be required.

2 Inc
as

P. A. BECNEL, JR.
Chief, Hydraulics Branch

Para. 3 above applicable to surface drainage ditch shown on inclosure 5A.
RH 10 June 70

Incl 8

LMNED-DL Review of the Southern Railway Comments Pertaining to the Levee Design Sections for the IHNC to Paris Road GDM.

ch, Design Memo Br ch, Design Br 4 Dec 1973
Steinwinder/314

1. Reference the letter from Mr. Harold Mauney, Southern Railway System, dated 4 Sep 1973.

2. It is believed that the railroad is basing their comments in paragraphs 3, 4, 5, and 6, against the designs that were used for the Paris Road to South Point levee job instead of considering the details which are affecting the design for the IHNC to Paris Road levee

enlargement.

3. The railroad is not considering the fact that R/W was no problem for the Paris Road to South Point Job, whereas it is a big problem for the IHNC to Paris Road Job because the R/W widths are permanently fixed between the railroad embankment and Hayne Boulevard. Due to the availability of R/W for the Paris Road to South Point Job, the levee alinement is located farther away from the existing railroad tracks than is possible for the IHNC to Paris Road Job. Therefore the increased surface area between railroad

and levee embankments require a closer spacing of drainage catch basins for the Paris Road to South Point Job as compared with those needed for the IHNC to Paris Road Job. See the hydraulic back-up data, inclosure 3.

4. In paragraph 4, the railroad states that the elevation of the catch basins should be changed from elevation 8.0, M.S.L., to elevation 6.0, M.S.L. (Same elevation that was used on the Paris Road to South Point Job). This problem could be resolved with one of the following alternatives:

(1) Steepen the levee side slopes.

However, the levee is currently designed for a 1 on 3 side slope. Steeper levee slopes provide less protection and increase the difficulty for maintenance equipment to travel and work along the levee.

(2) Decrease the width of levee crown to 10 feet wide. The less the levee crown width then the less the degree of protection the levee will provide. When overtopping of the levee occurs during storm conditions, there is less crown existing on the protected side for the breaking waves to erode, and therefore the levee will fail sooner than

523-5042

The Board of Levee Commissioners
OF THE
Orleans Levee District
200 WILDLIFE AND FISHERIES BUILDING
418 ROYAL STREET
New Orleans, La.
70130

GUY F. LEMIEUX, PRESIDENT
CLAUDE W. DUKE, PRES. PRO-TEM
DANIEL P. KELLY, JR.
JOHN D. LAMBERT, JR.
MOON LANDRIEU
BERNEL R. SANDERS
JAMES C. SCALISE

PROTECTING YOU AND YOUR FAMILY

RICHARD J. McGINITY
GENERAL COUNSEL
JOHN P. McNAMARA
CHIEF ENGINEER
GEORGE J. LABRECHE
EXECUTIVE ADMINISTRATOR

September 7, 1973

Mr. Jerome C. Baehr
Chief, Engineering Division
Department of the Army
New Orleans District
Corps of Engineers
P. O. Box 60267
New Orleans, Louisiana 70160

Dear Mr. Baehr:

We were furnished preliminary details of the proposed enlargement and strengthening of the Citrus Lakefront Levee-IHNC to Paris Road.

These preliminary plans were submitted to the Alabama Great Southern Railroad for their review and comments.

Enclosed is a copy of a letter from Harold Mauney dated September 4, 1973 outlining their comments after reviewing the plans.

Yours truly,

JOHN P. MCNAMARA
CHIEF ENGINEER

JPMCN:sm

Encl.

cc: Hon. Guy F. LeMieux, Pres.

Incl. 1

Louisiana Railways System
Office of Vice President
New Orleans, La. 70152

HAROLD C. MAUNEY
VICE PRESIDENT

P. O. BOX 52110
1205 ST. LOUIS STREET

September 4, 1973

745-3

Mr. John P. McNamara, Chief Engineer
The Board of Levee Commissioners
of the Orleans Levee District
418 Royal Street
New Orleans, Louisiana 70130

Proposed Levee Work between Downman Road and Little Woods (Paris Road)

Dear Mr. McNamara:

1 With further reference to your letter of July 31, 1973 requesting that we review the plan and profile Base Line Station 28+31 to 331+50:

2 The prints submitted with your letter of August 21 include the same drawings transmitted July 31 (with some details added) and some additional drawings, but do not repeat the data on catch basins. This response is directed at the latest submission with catch basin data as given in previous submission only and is limited to engineering and operating aspects of the proposed project.

3 The design sections for enlargement of existing levee between Stations 64 and 331+50 show the lakeside edge of the bottom of ditch between levee and tracks as being about 4.5' from "south rail" or about 7' from centerline of nearest track. Plans submitted for the new levee from Paris Road to South Point were based on such dimensions being 14.5' and the same should apply here also. → dist. from ℄ trk. to levee R/W.

4 The design sections referred to show the area between levee and drain to be drained by catch basins spaced 900' apart, with gratings at Elev. 8.0. The comparable spacing and elevation of plans for the Paris Road to South Point levee are 600' and 6.0, and we are not willing to accept any increase in either. ← dist. between catch basins ← El. of drainage ditch & catch basins

We do not understand why the Board needs a definite levee R/W line because none was indicated in the 1965 agreement. In any case, however, if Levee R/W
5 line must be specified it should be at 12' from south rail, or 14.5' from centerline of track, as was written into the draft agreement prepared for the levee from Paris Road to South Point. ← dist. from S. rail to R/W line for levee

6 The design section for the new levee of lesser height between Stations 28+21 and 64, this being outside the limits of the 1965 agreement, would completely ruin the ballast section and roadbed section under our nearest track.

Incl. 2

To be acceptable the levee should be moved away from track far enough to provide the same 14.5' dimension mentioned above. Catch basins with gratings at not higher than Elev. 6 (except near Downman Road Underpass grating may be set 4' below top of tie) should also be provided, spaced not farther than 600' apart. Our records do not permit us to say whether drains from the catch basins should go under tracks or under levee. This should be worked out and details sent to us for review. The above comments on R/W line apply to this stretch also. Between Sta. 28+21 & Sta. 64+00, levee must be re-designed to meet the same criteria for R/W, & drainage as the rest of levee on this job.

We note the absence of any cross section or other detail showing the relationship between our track and the proposed floodwall opposite Lincoln Beach. We expect no particular difficulty in this respect, but in due course we will want to review the planned location of the wall and the method proposed to drain the area between wall and track. (structures)

The plan showing Railroad Track Guard Mat should be revised to (1) show tie plate under each rail, with timber cut to clear, (2) add a note here reading "Adze or saw timber to clear" and (3) add a Note No. 4 reading "Actual timber dimensions may be rough size or dressed size, except the 8" nominal dimension must be not less than 7-7/8" actual size." The heaviest rail to be protected is 152#, and measures about 8" from top of rail to top of tie. The 7-7/8" minimum timber thickness will suffice, however, for the purpose intended.

COMPLETED

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SUBJECT: Orleans Parish Lakefront Levee, IHNC to South Point; GDM 2, Sup. 5A; Rainfall Runoff Data Request

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LMNED-HP

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Note: Stone should be placed on plastic filter cloth. RH 10 June 70

~~Incl 8~~
Incl 3

LMNED-HP 28 May 1970

SUBJECT: Orleans Parish Lakefront Levee, IHNC to South Point; GDM 2, Sup.5A; Rainfall Runoff Data Request - Continuation of CMT 2

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2 Inc
as

P. A. BECNEL, JR.
Chief, Hydraulics Branch

Para. 3 above applicable to surface drainage ditch shown on inclosure 5A.
RH 10 June 70

Incl 8

The Board of Levee Commissioners

OF THE

Orleans Levee District

200 WILDLIFE AND FISHERIES BUILDING
418 ROYAL STREET

New Orleans, La.
70130

September 7, 1973

Mr. Jerome C. Baehr
Chief, Engineering Division
Department of the Army
New Orleans District
Corps of Engineers
P. O. Box 60267
New Orleans, Louisiana 70160

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Yours truly,

John P. McNamara

JOHN P. MCNAMARA
CHIEF ENGINEER

JPMCN:sm

Encl.

cc: Hon. Guy F. LeMieux, Pres.

Southern Railway System
Office of Vice President
New Orleans, La. 70152

HAROLD C. MAUNEY
VICE PRESIDENT

P. O. BOX 52110
1205 ST. LOUIS STREET

September 4, 1973

745-3

Mr. John P. McNamara, Chief Engineer
The Board of Levee Commissioners
of the Orleans Levee District
418 Royal Street
New Orleans, Louisiana 70130

Proposed Levee Work between Downman Road and Little Woods (Paris Road)

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We do not understand why the Board needs a definite levee R/W line because none was indicated in the 1965 agreement. In any case, however, if Levee R/W line must be specified it should be at 12' from south rail, or 14.5' from centerline of track, as was written into the draft agreement prepared for the levee from Paris Road to South Point.

The design section for the new levee of lesser height between Stations 28+21 and 64, this being outside the limits of the 1965 agreement, would completely ruin the ballast section and roadbed section under our nearest track.

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We shall be glad to review your further developed plans as they become available.

Very truly yours,

H. C. McNamara

HCM:lm

The Board of Levee Commissioners

OF THE

Orleans Levee District

200 WILDLIFE AND FISHERIES BUILDING
418 ROYAL STREET

New Orleans, La.
70130

July 2, 1973

Mr. Harold C. Mauney
Vice President
Southern Railway System
P.O. Box 52110
1205 St. Louis Street
New Orleans, La. 70152

Dear Mr. Mauney:

I acknowledge receipt of your letter of June 29, 1973 relative to your conversation with Mr. Steinwinder of the Corps of Engineers concerning the proposed improvements to our levee between the IHNC and Little Woods.

Other than general discussions with the Corps of Engineers we have nothing in the way of drawings on this work. We have some preliminary drawings of the proposed work between the IHNC and the east end of the Airport and in the vicinity of Lincoln Beach.

By copy of this letter I am asking the Corps of Engineers to furnish you with copies of any drawings they may have which will indicate the extent of this work.

Yours truly,

JOHN P. MCNAMARA
CHIEF ENGINEER

JPMCN:lel

xc: Hon. Guy F. LeMieux, President
Mr. Steinwinder, Corps of Engineers

IN REPLY REFER TO
LMNED-PP

19 October 1971

Mr. J. A. Rust
Chief Engineer for Design & Construction
Southern Railway System
99 Spring Street
Atlanta, Georgia 30303

Dear Mr. Rust:

We are currently engaged in preparation of our design memorandums for the levee reach landward of your railroad embankment from the Inner Harbor Navigation Canal to South Point, Louisiana. This reach comprises a vital segment of the Lake Pontchartrain hurricane protection project.

Portions of our design studies include methods of relocating the various subsurface pipelines which now cross your railroad embankment, and will in the future cross our proposed levee. In conjunction with our studies, we require pertinent information relative to your standards for such crossings and, accordingly, request that you furnish us the following criteria:

a. The minimum allowable distance below the top of railroad embankment to the top of pipe for a subsurface gas and/or fluid pipeline crossing.

b. The minimum allowable distance above top of rail to bottom of pipe for an aerial gas and/or fluid pipeline crossing.

c. Any other standard criteria for pipeline, utility, or drainage culvert crossings which might be germane to this project.

Another phase of our design involves the placement of a riprap blanket on the lakeside of the railroad embankment for wave-wash protection (see inclosure 1). In this phase we are currently studying various methods of placing the riprap cover. One such method which appears quite feasible would be to place the cover by rail. The riprap would be placed on a shell bed and we estimate that approximately 31,300 tons

LMNED-PP 19 October 1971

Mr. J. A. Rust

of shell and 253,300 tons of riprap would be required to complete this job. In this regard we would appreciate your comments concerning the efficacy of placement by rail. This proposal is of course very preliminary and would depend on economic consideration of other methods of placement and your approval of same if feasible.

I wish to express my sincere appreciation for the cooperation you have advanced us in the past and thank you in advance for your expeditious response to this letter.

Sincerely yours,

NWB
SEALE

for NWB
MASK

1 Incl
Drawing

JEROME C. BAEHR
Chief, Engineering Division

Copy furnished: w/incl
Mr. John P. McNamara, Chief Engineer
Orleans Levee District
418 Royal Street
New Orleans, La. 70130

Lt. Richter/kn/430

IN REPLY REFER TO
LMNED-PP

3 December 1971

Mr. J. A. Rust
Chief Engineer for Design & Construction
Southern Railway System
99 Spring Street
Atlanta, Georgia 30303

Dear Mr. Rust:

On 19 October 1971, I wrote you a letter concerning a levee feature of our Lake Pontchartrain hurricane protection project. This reach of levee is landward of your railroad embankment and extends from the Inner Harbor Navigation Canal to South Point, Louisiana.

In the above cited letter, I had requested that you furnish me information relative to subsurface and aerial track crossings. I had additionally asked for your views on the efficacy of placing a shell and riprap blanket on the lakeside of your embankment by rail.

I am inclosing a copy of my letter to you for your easy referral and I wish to express my hopes that you respond to my requests as soon as possible. This levee reach is a vital segment of our protection plan and we are making every effort to complete our designs.

Your cooperation in this matter is appreciated.

Sincerely yours,

SEALE

MASK

for BAEHR

1 Incl
Cy ltr 19 Oct 71 w/incl

JEROME C. BAEHR
Chief, Engineering Division

Southern Railway System
Office of Chief Engineer
Atlanta, Georgia 30303

J. A. RUST,
SENIOR ASSISTANT CHIEF ENGINEER

TELEPHONE
(404) 688-0600

December 7, 1971

178-26

Proposed Levee Along Lake Pontchartrain.

Mr. Jerome C. Baehr
Chief, Engineering Division
U. S. Engineers
P. O. Box 60267
New Orleans, Louisiana 70160

Dear Mr. Baehr: (LMNED-PP)

This is in response to your letter of December 3 in regard to the above project.

Your previous letter of October 19 was misplaced. We greatly regret your having to trace for the information you need and any inconvenience caused by the delay in our supplying it.

The minimum allowable distance from base of rail to the top of carrier pipe (or casing) for pipeline crossing under tracks is 5'-6". As additional information we attach a copy of A.R.E.A. specifications for pipeline crossings. We follow these specifications in general, but there is sometimes need for us to differ in some respects. As soon as available, plans should be sent to us for review and approval.

The minimum overhead clearance for pipeline crossings over tracks is 23'-0" above top of rail. All plans will be subject to our approval, including details of supports.

We cannot agree to the use of our main tracks for unloading and placing riprap. Such an operation would be adverse to interests of all concerned. We will be glad to work out with the Corps, or with its Contractor, the installation of spur tracks at appropriate points along the lakefront and delivery of cars to these tracks.

If we can be of further service, please advise.

Yours very truly,

J. A. Rust

Chief Engineer,
Design and Construction

DVM:wjk

Cy: Mr. Jerome C. Baehr
Chief, Engineering Division
U. S. Engineers
P. O. Box 60267
New Orleans, Louisiana 70160

This connects with my letter of December 7 to you giving you pipeline specification requirements, etc.

The cover over the 12" drain lines proposed by Mr. McNamara is less than specified in our December 7 letter, but in view of the pipelines being jacked through the fill and being subject to inside visual inspection we are willing to accept the lesser cover.

The attachment to your October 19 letter showed the lakeside riprap dimensioned the same as on the recent submission from Mr. McNamara. We missed the significance of the dimensions on your inclosure because we were concerned with the specific questions you asked, and also because it was not readily apparent that dimensions were tied to northbound track.

I assume Mr. McNamara will confer with you on this matter and we will be glad to join in discussion with either or both of you if we can be of any assistance.

J. A. Rust

J. A. Rust