

MINUTES OF A SPECIAL MEETING OF THE BOARD OF DIRECTORS  
OF THE PUEBLO CONSERVANCY DISTRICT.

June 7, 1956

A Special Meeting of the Board of Directors of the Pueblo Conservancy District was held at the office of the District, 113 East Fifth Street, Pueblo, Colorado, at 9:30 A.M. on June 7, 1956.

Directors Present: John M. Holmes, W. T. Mathis and Simon F. Elliot, District Engineer. Frank Pryor, who was absent from the Meeting was contacted prior to the meeting and report of Holmes and Elliot which is attached hereto was read to him and his approval of report was obtained. Approval was also obtained for writing of letter to the State Highway Department.

The following Vouchers were read and approved:

12684	Bertha Stephens	19.60
12685	Charles M. Rose	100.00
12686	Elbert D. Greene	89.23
12687	Director of Internal Revenue	8.40
12688	Continental Air Lines	105.38
12689	S. F. Elliot and V. R. Blackburn	125.00
12690	Southern Colorado Power Co.	2.46
12691	Pueblo Gas & Fuel Co.	3.42
12692	John M. Holmes	10.00
12693	W. T. Mathis	10.00
12694	Simon F. Elliot	10.00
12695	Frank Pryor	10.00

Mr. Holmes next read the report of the meeting with the Army Engineers, which report is signed by Mr. Holmes and Mr. Elliot. Report was accepted and attached and made a part of the minutes of this meeting.

Holmes was then authorized to write a letter to the State Highway Department authorizing the following points. That a meeting was held with the Army Engineers, who did give advise and suggestions but refused to be a party in the middle of any controversy between the State Highway Department and the Conservancy District.

Accordingly the Conservancy District Board authorized Holmes to grant permission to the Highway Department to construct a bridge across the Arkansas River West of Sants Fe Avenue subject to the restrictions as outlined in letter attached hereto and made a part hereof.

There being no further business, the meeting adjourned.

Read and Approved:

*J. M. Holmes*  
*W. T. Mathis*  
*Frank Pryor*

\_\_\_\_\_  
Secretary

Complying with the directive of the Board of Directors of the Pueblo Conservancy District, J. M. Holmes, President of the District and S.F.Elliott, engineer for the District, went to Albuquerque, New Mexico, on Monday June 4th, 1956. A meeting was arranged with Col. Robert E. Cron, Mr. Redman and Mr. Mitchell of the U. S. Army Corp of Engineers for the morning of Tuesday, June 5th. The drawings of the proposed State Highway bridge across the Arkansas River just west of the Santa Fe Avenue were presented to the engineers. A roundtable discussion on the subject lasted about two hours. We, the undersigned, submit the following report as the essence of that meeting:

1. Levees were not designed and built under government plans and supervision. Engineers would not desire to be put in the middle of an argument between the District and the Highway Department. They were, however, willing to give advice and express their opinions.
2. Repeated inspection by them lead them to believe the levees were well compacted, considering the material in them, and that the levees and slabs were in very good condition under their present circumstances.
3. That a single span bridge would be preferable to any other.
4. If a pier were placed in the center of the river it should go to rock bottom for its foundation; should be of solid reinforced concrete construction with sharp point both up and down stream; should be of minimum cross section which would hold the load of the bridge; should be parallel to the banks and flow of stream. If pier did not go to rock for foundation, in time of high water, scouring might take place which would cause the pier to fail and drop structure

in river with disastrous results. An example of such failure was recalled even though pier did rest on rock foundation.

5. No pier, piling, or column should be permitted in the levees.

A. These levees are made of river run material, rock, gravel, sand and dirt. Perfect impervious compaction with such material is very difficult to obtain.

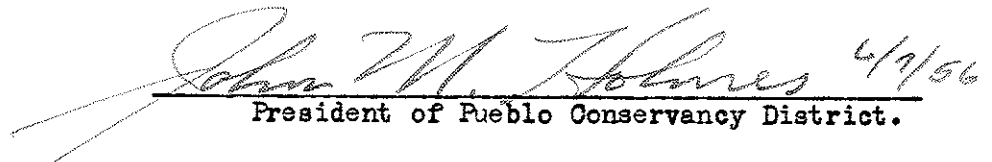
B. The concrete slabs on the face of the levee are reinforced with steel of such size and construction that they would not stand much pressure without a solid supporting back. The slabs are held in place by a tongue and groove method which lends very little support from one slab to another in case of any slight bank failure in back of a slab. The slabs are not tied together with reinforcing steel. The slabs are well anchored at the bottom. It is felt that the levees are strong and sound unless disturbed.

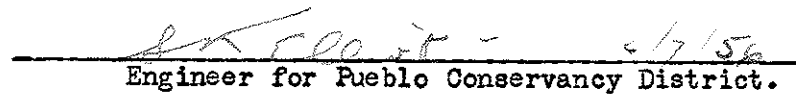
6. The opinion was expressed that it would be impossible to drill a clean hole in the levee due to the material of which it was made. If a rock were encountered at the side in the drilling of a hole and the rock came out in the drilling it would leave a void; if in the drilling the rock through pressure were forced to one side it would cause a fracture in the compaction. Regardless of that condition if a series of holes were drilled of a size and a series of piling of larger diameter were driven down in the levee it would undoubtedly cause a fracture in the compaction of the levee. These fractures or fissures in the levee could, in time of high water, cause seepage which could rapidly cause failure of the levee. If holes of same diameter as piling were drilled it would be impossible to drill a clean hole without sloughing and result in voids around piling which voids could cause seepage and failure of levee.

The constant vibration of the bridge could easily disturb the compaction of the levee, cause seepage and result in slab and bank failure. An example of such failure was related, Templeton Gap.

7. It was their opinion that the estimated extra cost of the bridge (\$240,000.00) by placing their piling clear of the levees was excessive.
8. The District could not justify the risk they were taking in possible levee failure and possible flood damage if such construction were permitted.
9. If a like request were made of them to put such construction in a levee which was under their jurisdiction such request would certainly be denied.

The above report respectfully submitted by:

 John M. Flores 4/7/56  
President of Pueblo Conservancy District.

 E. J. Scott 4/7/56  
Engineer for Pueblo Conservancy District.

June 9, 1956.

Colorado Department of Highways,  
4201 E. Arkansas Avenue,  
Denver 22, Colorado.

--Atten. Mr. Charles E. Shumate,  
Administrative Engineer--

My dear Charles:

Reference is made to personal conversation I had with you during May; also in reply to your letter of May 23rd, 1956.

A special meeting of the Board of Directors of the Pueblo Conservancy District was called to review your letter of May 23rd and the tentative bridge plans for a Highway bridge across the Arkansas River approximately 370 feet west of the present Santa Fe Avenue bridge. At that meeting it was directed that G. F. Elliot, the District's engineer and the writer should go to Albuquerque, New Mexico, to have a meeting with the U. S. Government Army Engineers on this subject.

G. F. Elliot and I had a meeting with the engineers on Tuesday morning, June 5th. We were very courteously received. However we were very definitely given to understand that while they were willing to give us opinions and advice, they had no intention whatsoever of being placed in the middle of a controversy between the Pueblo Conservancy District and the Colorado State Highway Department. The reasons and advice which they gave us were based on examples of experiences.

Mr. Elliot and I returned to Pueblo and filed a written report with the directors of the Pueblo Conservancy District at a special meeting held June 7th. At that meeting I was directed to write a letter to you regarding our findings.

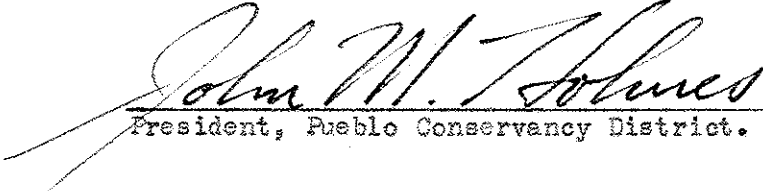
It was the concensus of opinion of all of us that a single span bridge across the Arkansas river, with the abutments clear of the levees, would be preferable to anything else; but as I had outlined to them such a bridge, due to its cost, you did not feel was practical. Therefore a bridge of other construction would be permitted across the Pueblo Conservancy property with the following restrictions:

1. One only pier may be placed approximately in the center of the river:
  - A. Pier shall be of solid reinforced concrete construction with footing on bedrock.

- B. Pier should be of minimum cross section required to hold weight and load of bridge, and shall have sharp points both up and down stream
  - C. Pier should be so placed that it is parallel to the levees and flow of the river.
2. No piers, pilings, columns or abutments shall be driven or placed in either levee of the river.
  3. The bridge shall have a water clearance equal to or greater than the present Santa Fe Avenue bridge.
  4. Bridge shall be so constructed that the surface drainage of the bridge will not spill on back of levees and cause erosion.
  5. Adequate drainage shall be provided for the runoff water from Santa Fe Avenue hill to enter the El Dorado Spillway without backing up on the south levee.
  6. In order to protect the best interests and welfare of the Pueblo Conservancy District the construction shall be subject to supervision of the Pueblo Conservancy District engineer.
  7. Any other bridge across the Arkansas River where the river and its levees are under the Pueblo Conservancy District's jurisdiction will be subject to similar provisions.

It was the feeling of all concerned that under no conditions could the Pueblo Conservancy District justify the risks it would be taking in permitting the type of construction that you suggest which could very easily cause levee failure and flooding which could result in serious financial loss and loss of human life.

Respectfully yours,

  
President, Pueblo Conservancy District.