

The meeting was called to order by the chairman, Mr. Bodine, with all members present. The minutes of the last meeting were read and stood approved. The treasurer's report was given and all correspondence read. The following bills were read and ordered paid:

Kootenai Rural Electric	\$ 7.00
Bankers Life & Casualty Co.	29.62
Ben Cooper	465.85
James C. Kennedy	569.33
Byron L. Peery	552.29
Fred J. Richmond	451.68
Ben Holmen	470.69
Larry Easterly	382.10
Wraymon Rollis	87.49
Ben Cooper	46.50
Bank of Idaho	88.80
Bankers Life & Cas. Co.	116.39
Post Falls Hardware	15.71
Banner Auto Parts	129.72
Post Falls Auto Parts	453.66
Jones Radiator Shop	209.00
Modern Machinery Co.	58.75
Inland Asphalt Co.	82.38
Knudtsen Chevrolet	2.64
Texaco, Inc.	51.70
American Machinery Co.	84.70
Dale's Equipment Co.	34.41
Montague Truck Parts	25.00
Forest Towing & Salvage	15.48
Fossum's Paint & Flooring	16.60
Atlas Tie Co.	54.00
Brack Motor Supply	105.28
Enco Petroleum Products	651.76
Don Kamps' Service	4.20
Interstate Typewriter	1.90
Post Falls Municipal Water	2.75
General Telephone of NW	21.53
Washington Water Power Co.	11.64
Les Schwab Tire Center	365.54
L. W. Vail Co.	8,602.50

A motion was made by Don Satchwell, seconded by Clarence Dahlberg that the road project between the two bridges south of the river be abandoned for the present. The motion carried with Bill Cranston abstaining.

It was reported by Mr. Schneidmiller that the tax levy now due shall be made after more information is received from Mr. Peterson. The motion was made, seconded and carried to levy 10 mills general road levy, 1.2 mills bridge fund and 3 mills matching funds.

Ben Cooper reported on general road work, the completion of oiling, etc. Problems with the Allis-Chalm. tractor were discussed, and the suggestion made by Mr. Booth that the Board investigate the possibility of making a change since we have experienced many problems with this equipment.

Guests present at the meeting were Bob Shulkin, Clarence Block and Byron Peery. Mr. Shulkin and Mr. Block informed the Board that they were present to represent the residence of their area south of the Green Ferry Bridge. Each stated that it was their feeling that the bridge should be located at Post Falls. However, each was against placing a road on what has been referred to as the "wagon route" or alignment A on the maps prepared by Bovay Engineers, but preferred alignment B. Mr. Block stated that he would prefer to drive through Coeur d'Alene, if Green Ferry bridge were closed, rather than have the road placed on alignment A. Mr. Shulkin was of the same opinion.

There being no further business, the meeting was adjourned.

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Attest Manuel Aguilar Approved Gary Brehme

DEFENDANT'S EXHIBIT

For Identification

D (2)

ADMITTED IN EVIDENCE

Date

10/10/67

September 11, 1967  
Reporter

PLEASANT VIEW HIGHWAY DISTRICT - DISTRICT #4

The purpose of this special meeting was to study the bridge inspection report prepared by Bovay Engineers, attached hereto and made a part of these minutes.

After studying the report attached hereto recommending that the Green Ferry Bridge be closed, the following motion was made:

The motion was made by Don Satchwell, seconded by Bill Cranston that the Green Ferry Bridge be closed immediately. The motion carried unanimously.

There being no further business, the meeting was adjourned.

Attest

Maurice Schindler

Approved

Goy Boelma

# BOVAY ENGINEERS, INC.

SPOKANE - HOUSTON - BATON ROUGE

H. E. BOVAY, JR.  
CHARLES A. LAWLER  
RICHARD B. ROBERTSON  
WILLIAM N. PAULEY  
GUY FURGIUELE  
L. S. CURTIS  
MORRIS BACKER  
ROBERT O. GRIMES

WEST 933 THIRD AVENUE  
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## ASSOCIATES

M. J. GREEN  
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C. RAY THOMAS  
CHARLES E. BROWN  
J. G. DICKSON  
LOUIS H. GADY  
RALPH E. LANDERHOLM  
GENE MCKAY  
OTIS O. MILLER  
HERBERT R. PETTY  
A. B. WILLIAMSON  
STEPHEN A. BRYAN  
DONALD G. DONEGAN  
WILLIAM J. SANDERS

September 11, 1967

Mr. Roy Bodine  
Post Falls Highway District  
Post Falls, Idaho

Re: Green Ferry Bridge Inspection

Dear Mr. Bodine:

In accord with your directive to us to inspect and evaluate the Green Ferry Bridge structure, we herewith present you with our findings and recommendations.

On September 5, 1967, engineers of our office made an on-site inspection of the above water structure of the Green Ferry Bridge. A boat furnished by the Highway District provided access to the under side of the bridge and also provided a platform from which to check the condition of the piling at the water line.

The bridge was driven over slowly in an automobile to check for deflection of bridge planking and for relative movement of the stringers, caps, piles and the general substructure. One could notice significant movement of the planking and it was evident that higher speeds of even a 3500 pound automobile would cause severe and damaging vibration of the bridge structure itself.

The guard rails on either side of the bridge are in extremely poor condition. In places they are broken or worse and would not support the weight of even a person, should he lean heavily against it.

The bridge planking consists of 3" x 4" lumber, untreated. These 3 x 4's are spiked to the stringers but generally have worked loose to the point that they do not as a practical matter provide any structural continuity to the bridge.

An inspection of the bridge stringers showed some signs of deterioration, not so much from decay but by splitting, warping and checking. In many cases, nails joining the overlapping ends of the stringers were pulled loose, undoubtedly caused by the vibration of moving traffic.

The pile caps supporting the stringers also showed signs of deterioration similar to that of the stringers. These 12" x 12", untreated timbers, however, are probably in better condition structurally than any other single bridge component.

From within the boat provided by the Highway District, an inspection was made of the supporting piling. These piles consist of untreated poles of 10 to 14 inches in diameter and ranging in length from 8 feet (plus or minus) to 50 feet. They are in clusters of three and crossbraced laterally with substantial timbers.

Almost every pile shows severe deterioration in the vicinity of the present water line (the level of the river is now stabilized at its mean high). The amount of deterioration of the piles inspected ranged from 10 to 95 percent. Nails were driven into the piles to ascertain the soundness of the wood. In many cases, the 20 penny nails could be easily forced in up to the head without the familiar resistance offered by healthy wood fiber. In the case of the typical 12" diameter pile, this would indicate that at least 7" of its total diameter was incapable of supporting any load. This leaves a 5" core upon which the stability of the bridge is dependent. It must be pointed out that many of these piles were in even worse condition.

In the sixth row of pile clusters from the south end of the bridge, a 3-inch notch was sawed into the pile on the east side, the cut about 5 feet above the water line contained no healthy wood. Samples of this wood were collected and kept.

In the 13th row of pile clusters from the south abutment, all three pilings could be pushed back and forth a distance of 1 to 2 feet, indicating severe decay or perhaps failure at a point underwater.

On the basis of these findings, another inspection was made by a professional diver on September 11. An underwater inspection using SCUBA diving gear revealed that the excessive deflection of these piles was caused by the deep penetration of rot which reduced the cross section of the pile to such an extent that very little lateral strength remained. The diver's report indicated that the condition of the piles down to depths of 30+ feet was generally fair. While some superficial decay was found it was not nearly so bad as that found at the water line.

Near the center of the bridge at the south end of the steel truss, the diver found at depths of 30+ feet large deposits of debris lodged on the upstream piles by the river's natural, but presently slow, current. This debris consists of dead heads, logs, timber, etc. and has accumulated into a conglomeration some 10 to 15 feet high while resting on the river's bottom.

It must be pointed out that this accumulation of debris being forced against the bridge piling by the current constitutes a lateral thrust, particularly during periods of fast flow, putting a strain on the pile cluster and therefore, amounting to a hazard to the entire structure's stability.

Conclusions and Recommendations

In our opinion, major structural components of the Green Ferry Bridge are in such a deteriorated condition that the bridge is unsafe for vehicular traffic.

We would recommend that in the interest of public safety, the Green Ferry Bridge be closed to further traffic.

Our estimate of the cost to repair the structure in order that it may carry safely a 5-ton load is in the vicinity of \$45,000.

This estimate includes necessary replacement of all piling, repair and replacement of deteriorated stringers and caps, new decking as required and guard rails. Also included as a cost item is the clearing of lodged debris from the upstream side of the bridge.

We trust that our inspection of the Green Ferry Bridge and our findings as contained in this letter will be of assistance to your Board of Commissioners in their deliberations.

Sincerely,

BOVAY ENGINEERS, INC.

*J. Byron Barber*  
J. Byron Barber, P.E.  
Associate

JBB:sh



Since the merger of Pleasant View Highway District and District #4, the business of the two districts has been handled jointly by the six members of the two boards. On September 14, 1967, Mr. Bodine, Mr. Schneidmiller and Mr. Cranston received appointments to serve on the newly formed Post Falls Highway Board. These appointments were made by Gov. Don Samuelson.

The purpose of this meeting was to ~~re~~organize the board of the Post Falls Highway District. Mr. Bodine was elected chairman, Mr. Schneidmiller; secretary-treasurer; Mr. Cranston, board member.

There being no further business, the meeting was adjourned.

Attest

Manuel Schneidmiller

Approved

Gay Bodine