

Report accepted as
accurate
C. C. Reynolds
Chairman

Vincennes County Offices
Clyde Jan 23rd 1882

Report on Bridges & Ferries

Cromwell Bridge. Another section has been taken across the Bridge and the deflections, both vertical and horizontal were found to be the same as previously, showing that no change has taken place in the girders since. The planking is commencing to give way and on two occasions waggons have gone right through. Several new planks were put in at these places, and I have ordered a supply some of which will be used at once in replacing those which appear to be too far gone, while the balance will be kept for other emergencies as they arise.

On the 5th of January Mr. O'Connor of the P. & N. Department in Indiana, arrived here and we then proceeded to inspect the bridge together. Mr. O'Connor expressed himself as being satisfied that the bridge could be repaired and strengthened, but the matter is still under consideration and no definite conclusion has as

yet been arrived at.

Hawea Bridge. In good order.
The wings have not yet been
constructed.

O'Connell Bridge. In good order.
The pump and framing has
been fitted and is ready for
use at any time. At present
the moorings are quite dry.

Spotts Creek Bridge. The necessary
repairs and ~~extra~~ additions have
been completed and the bridge is
now in fair order. New planking
will however soon be required.
The present planking is fast
wearing out and moreover the
manner in which it is laid
is not by any means the best.

Macandrew Bridge. In fair order,
no further repairs have been
required.

Nevis and Devils Creek Bridges are
in fair order.

Zander Creek Bridge in good order

Lowburn Ferry. In good order.
No repairs have been necessary.

Albertown Ferry (Lower) In good order

Albertown Ferry (Upper) Nothing further has been done in regard to the repairs to this punt, with the exception that the timber has been ordered. As before reported Mr. Holmes is now to undertake the repairs himself.

Luggate Ferry. Work has progressed favorably at this place. Both head and tail ropes are fixed in position and the small boat has been running on the latter for some time past, so that foot passengers have been able to cross. The punt itself is now being put together. Everything will be in working order by the time the harvest is over. I would recommend that this site be surveyed and reserved as it is likely to be used for its present purpose for a long time to come.

J. D. Macgregor,
County Engineer

Cromwell Bridge (Supplementary)
Since writing above, a report from Mr. O'Connor has been received with which I may say I do not altogether agree; that is to say I do not agree

with the supposition that the cause of the bridge failure is due to the crushing of the ends of the lattice bars, for I am convinced that more of the strain is taken by the bolts at intersection of lattice bars than is allowed for; indeed in Mr. O'Connor's calculations all the strain is supposed to be concentrated at the foot of the lattices. I therefore cannot see that the remedy proposed viz, to put in extra bolts at head and foot of lattices will have the required effect, and for my own part I do not believe that the cause of failure is to be looked for in the lattices at all, but in the chords, which are very defective in construction.

With regard to the other method touched upon, viz that supporting the structure on a truss composed of plate iron box girders, we had some conversation during the inspection, and in this manner the bridge can no doubt be made available for some years to come, but there is this to be said in regard to any plan which has for its basis the utilizing of the present main span. The bridge has now been erected some fifteen or

sixteen years, it has already exceeded the ~~life~~ average life of wooden bridges. Such timber as can be ~~examined~~ inspected appears on the face of it to be sound, but in other parts where planks are laid close together, and there is no means of inspection, who can say what its state may be. And it is in such places as these, in the chords, that I fear the weakness exists. In any case it is impossible that the timber will last much longer, and the life of the bridge is dependent on that, what ever means are now taken to support it.

My recommendation is this - Provide a temporary means of communication with Cromwell at once, by means of a road from the bridge, on the east side of the river, to Perriman's. This need not be looked upon as expenditure in any way connected with the bridge, for it is a road which must be made at so very distant date to suit the requirements of traffic.

Traffic can still be carried on over the bridge as at present until it shows signs

of decided failure, when it can be taken down and replaced by a new structure.

Traffic to Cromwell, Queenstown &c. would have to go round by way of Perricans which would of course be inconvenient, but the time for which it would be diverted would not be of very long duration.

My remarks regarding renewal of the bridge refer only to the main span, the others will be good for some time to come.

L. Macgregor
County Engineer

Report on Cromwell
bridge, stand over
to further Commission
of the bridge
of the bridge

advised or amended
24/11/81

Vincent County Offices
Clyde Nov. 21st 1881

Report on Bridges and Ferries

Crownwell Bridge. So far as can be seen no change has taken place since date of my last report. A section has been taken across the bridge by which it appears that at the lowest point there is a deflection of 21 inches on one side and 18 inches on the other side. This deflection is vertical. The horizontal deflection of the upper part of the girders is about 6 1/2 inches the lower part of the girders being straight. Another survey will be made before the next meeting of the Council when the results will be compared and reported.

Hawea Bridge In good order. I have arranged with Mr Smith of Hawea Lake to supply material and put up wings for £12, but have had to cut down the lengths of them to 40 yards on one side and 30 yards on the other, which will I think be sufficiently long.

O'Connell Bridge In good order.
The pump and piping ordered
has arrived and I have given
the necessary instructions for
fitting it with frame &c.

Spotts Creek Bridge. The planking
of this bridge has broken twice
lately and it will be necessary
to make more extensive repairs
than I contemplated at first.

Some of the material is on the
ground but more will be necessary.
I propose to put longitudinal
pieces on the cross cills to support
the ends of the planks, which in
this bridge are laid longitudinally.
The ends butting on beams
only six inches broad.

For these additions a sum
of £25 will be necessary, but
as £5 was voted some little
time ago the ~~£10~~ vote asked
for now will be £20.

Macandrew Bridge. In fair order.
The rail is now much stiffer
than it has been for some
time.

Hevis Bridge. In good order.
Some of the bolts require
to be tightened. The men
now working on the road
will attend to this. By

A. A. P. 100
11-

Next summer it will be necessary to re-tar this bridge.

Proposed Fraser River Bridge.

This is a work that should now be going on with. During the past few weeks the river has been in a continual state of flood and vehicles, including at one time the coach, have been obliged to use the private bridge belonging to Mr. Fraser. I recommend that it be proceeded with, funds permitting.

Consideration deferred to next meeting
Committee

Looten Ferry. In good order. The boats have been repaired and strengthened inside in preparation for the ensuing heavy traffic.

Albertown Ferry (Lower). In good order.

Albertown Ferry (Upper).

Mr. Campbell McLean having agreed to contribute the sum of £22.10/- towards repairs I prepared specifications and called for tenders. Only one tender was received the amount being £122, a ridiculously high sum, and it therefore has not been accepted. Nothing further

A sum not exceeding £1000 to be expended for bundles at Looten Ferry & Albertown Lower ferry

has yet been done in the matter, but Mr Holmes now proposes to leave the repairs until after shearing and he will then undertake them himself, the Council to pay the voted amount (£22.10/-) and Messrs Campbell and Mr. Dean the balance, whatever that may be. I would therefore recommend that this course be adopted.

Devils Creek Bridge. On examining this bridge last month I found that one of the main beams had a bad split in it. I therefore had it strongly spliced and it is now perfectly safe. In other respects the bridge was in good order.

J. Macgregor
County Engineer