

PAPERS RELATING TO THE

Nos. 1 and 3.

These works, as shown on cross sections attached, are designed to consist of stone facing set at upper end, where it starts from the rocks, and crosses road line on a foundation excavated to low water mark, built up vertical at back (close against timber facing where it exists), and battering 3" in foot on face to a top width of 5 feet. Where the shingle on site of wall is already under low water mark I purposed allowing the stones to take their natural slope until they reached that level, and then building face to batter as before described. The top level of wall is shown 3 feet over cap of present facing.

No. 4.

This consists of raising the roadway from Breakwater to Werata street, a height of 3 feet over its present level, and is indicated on cross sections above mentioned. The roadway is about 100 feet in width.

No. 5.

The work proposed between Tainui and Boundary streets consists of additional piles, about seven to the chain, between those lately driven, and scrubbing face of bank. I have not yet prepared a plan for it, as it will not be necessary to undertake it immediately.

No. 2.

This work, as shown on plan, is purposed to consist of three rows of piles, the first row having twenty-two piles to the chain, and each of the others seven to the chain. I have shown the covering, &c., complete, but it will not be necessary to cover it at present, only the sheet caps and bearers being required for strength. The inner rows of piles in this case would be required for staying, even if not requisite for other reasons, as the outer row will be an average of 40 feet from river bank.

Having been directed by the Premier (Mr. Fox) on his arrival to put the works of greatest emergency in hand at once, I have been necessarily a good deal engaged in getting together the requisite labour and materials. I hope you will take the fact into consideration in judging of the data forwarded, which I am aware presents the appearance of having been hurriedly prepared.

The excavation for walls, about 20 feet of the wall itself, and the tramway from quarry have been done towards protection at upper end, and five piles have been driven between Boundary and Johnston streets. I purpose having another steam engine at work there on Monday. Mr. Johnston returned from Reef-ton this evening, so that I will now be relieved of the absolute supervision of the men. The works undertaken so far have been at upper end on behalf of the native trust as arranged with Mr. McKay by telegram to-day, and at lower end on behalf of the Borough Council, in accordance with a resolution of theirs dated 13th instant, empowering me to act for them.

I have, &c.,

CHAS. Y. O'CONNOR,
District Engineer.

John Blackett, Esq., Assistant Engineer-in-Chief.

Enclosure in No. 3.

From Mr. BROWNE to MR. O'CONNOR.

SIR,—

Survey Office, Greymouth, 15th February, 1872.

If according to your request I have the honor to forward the following description of the flood at Greymouth for the information of the Chief Engineer.

On Thursday the 9th inst. the river showed us unusual signs of flooding till about 10 a.m., it being then high water, when the lower part of the town was under water, as is usual after heavy rains. During the day, however, the water rose rapidly till about 5 p.m., when the river showed unmistakable signs of overflow. At the top of Mawhera Quay, in front of the Ferry Hotel, the water commenced to ripple on the roadway. Rising gradually it soon cut out for itself a new channel along Mount street. Sufficient water got through in a short time to the Tidal Creek at the back of the Post Office to carry away a number of small cottages on its banks, which came with such force against the Tramway bridge, that the abutments gave way, and the whole mass of *debris* was carried off into Hospital street, at its junction with Tainui street. At this point, a large bonded store which stood on the bank of the Tidal Creek, was nearly carried away later in the evening, when the water rushed down Tainui street like a mountain torrent, making it unsafe for even the large cargo boats which were employed to convey whole families from the lower part of the town to safer quarters. About 1 a.m. on Friday the water had reached its greatest height, and great fears were entertained that the whole of the front street would get swept away as the water was rushing over the breast works.

From 5 to 7 a.m. on Friday the greatest damage was done to the lower part of Richmond Quay, where house after house could be seen smashing up and floating away until about seventy houses, large and small, were destroyed. Many of these were carried along Arney street and deposited wholly on and near the Camp Reserve. It was not till late on the afternoon of Friday, that the waters subsided sufficient to allow people to get about.

I have, &c.,

J. R. BROWNE,
District Surveyor.

C. Y. O'Connor, Esq., District Engineer, Hokitika.