possibility of reclaiming so large an area as twenty-seven acres. It is highly probable that the cost of executing this would be so great, and the demand for its use so remote, that it would prove anything but a paying speculation. I am also of opinion that the direction of this work is not sufficiently in line with the prevailing seas.

The advantages of the authorised scheme are that the work can be made use of as it progresses, the anticipated tidal scour keeping the inner face free from sand. A serviceable depth of water can be sooner reached and at less cost than at Stony Point, with a sandy bottom clear of rocks. It is also in closer proximity to the town. Its disadvantages are that there is not sufficient sea-room or depth of water in which to manipulate vessels of the "Manapouri" class during heavy weather. From its proximity to the river any deposit therefrom must sooner affect the area enclosed than if placed at a greater distance. A vessel anchoring under its shelter near the extremity would find herself riding in not more than 18ft. of water, with a rapidly-shallowing beach astern; consequently such vessels as the "Manapouri" could only warp alongside in fine weather.

In order to accommodate the largest vessels in any weather, I consider the most suitable site would be to start at or near Stony Point more or less upon the line shown as Mr. Rees's scheme, thence running out nearly parallel with the present work; or else starting about 1,000ft. eastward of the river, and running in the same direction. Both schemes would reach 32ft. of water, and enclose a large area of deep water, including the positions usually occupied by the Union Company's steamers when at anchor. There would be ample room for vessels approaching shelter in any weather. The cost of either scheme upon such lines would be not less than £300,000, but could be made little use of until about £200,000 had been spent, as out to the 4-fathom line the bottom is covered by rocks, which would require a considerable time and heavy expenditure to remove.

I am therefore of opinion that, if a depth of 32ft. low-water spring tides is necessary at a probable expenditure of £300,000 to accommodate the largest vessels, either of these latter schemes is to be preferred.

But if on the other hand a smaller class of vessel is to be provided for, drawing from 12ft. to 17ft., at an expenditure of £175,000 only, the authorised scheme is the best suited, especially when it is considered that the pier can be brought into use as the work progresses. I am of opinion that this will never afford a suitable harbour for large vessels unless carried out to a length of 3,500ft., into 32ft. of water, the cost of which would be £310,000; and even then it will not provide nearly so large an area of deep water as would be the case by either of the schemes coloured red and lake on sketch-plan.

2. "The Amount that will require to be expended before the Works will be of Service to Shipping."

The steamship "Australia," which is a regular trader to the port, draws 11ft., consequently would require at least 15ft. alongside the pier. In order to obtain this, the work must be extended another 1,000ft., where there is 13¼ft. to sand and 17ft. to rock. It is possible that the tidal scour will increase the depth, so that at that distance 15ft. would be available. The Engineer estimates that the cost of the work up to this point will be £101,000. The following table will illustrate the conditions at various points as the scheme is carried out:—

Length from Root. Ft.	Estimated Cost. £	Depth at Low-water Spring-tide. To Rock. Ft.	To Sand. Ft.
211	51,700	—	—
700	76,000	12½	9½
1,160	101,000	17	13¼
1,530	126,000	20	15½
1,900	151,000	22	18½
2,175	176,000	24½	21½

The cost quoted is for expenditure on works only. The amount of the loan set apart for works being £175,000, as £25,000 was reserved on account of a sinking fund. The amount set apart for the work has also been reduced by the sum of £14,941 6s. 8d., which has been charged to loan, as provided in the Amendment Act, 1884, leaving available £160,058 13s. 4d. The amount to be expended before the work will be of service depends entirely upon the class of vessel to be accommodated. I can therefore only refer to the above table for the information.

3. "The Amount that it will cost to complete the Works."

The authorised scheme was designed to reach a point 2,050ft. from the Bush Beacon, or 2,150ft. from the commencement of the concrete pier, as 100ft. was first built upon which to erect the block-setting crane. The estimated cost was as follows:—

Railway, block-yard, buildings, and surveys	£16,000	
Plant	16,200	
Freight, expenses, and erection of plant	3,000	
Wharf and viaduct	7,500	
		£42,700
Groin on west beach, 400ft.		4,000
Railway bridge		5,000
Breakwater pier, 2,050ft. long		123,300
Total estimated cost		£175,000

I see no reason to doubt that the works provided for can be completed within this sum. So far, the preliminary works have cost £1,714 less than the sum allowed in the estimate. It is probable that additional works may be required in course of time, such as wharves, moorings, &c.