

	Estimate No. 1, 8 feet Canal.				Estimate No. 2, 4 feet Canal.				
	No. Cubic Yards.	Rate \$ d.	£ s. d.	£ s. d.	No. Cubic Yards.	Rate \$ d.	£ s. d.	£ s. d.	
From the head of Mille Roche to Cornwall Bay, a distance of 5 miles and 22 chains, we entirely abandon the river, it is therefore proposed to construct a permanent waste weir across the stream and raise the water 13 feet perpendicularly, the situation being very suitable for that purpose, by this means we gain a depth of 4 feet water in Brownell's Bay, and save the expence of deepening the natural bed all the way down except a little at Moulinette, and by raising the water 13 feet at Mille Roche, we also avoid the expence of 13 feet in the depth of excavation, the whole distance to Cornwall; besides it will guard the canal against fluctuations in the river and conduct all the surplus water down the natural channel which being at command will be eminently useful for hydraulic purposes. In the first 2 miles, the cutting seems considerably above our level.—The nature of the excavation in the first mile is loam and clay mixed, with loose stones; the second mile is chiefly clay. Thence the cutting is favorable, except about 20 chains near the termination where the line crosses a high stony ridge. Three embankments will be necessary in the above distance. A little under water excavation will be required in the Bay for a distance of 2 chains, averaging 3 feet cutting across a bar directly opposite the entrance of the canal. Four locks will be required, Nos. 8, 9, 10 & 11, in the 8 feet & Nos. 9, 10, 11 & 12 in the 4 feet canal, the lifts being each 7 feet 6 inches. Seven road & 2 tow path bridges, will also be required.									
Excavation	951382	10 3	41622	19 3	358168	0	13431	6 0	
Do. in Cornwall Bay	141	5	362	10 0	3414	10	1422	13 4	
Embanking	34144	10	1422	13 4	666	6	166	14 0	
Puddling	7166	0	179	4 0					
Locks Nos. 8, 9, 10 & 11 in estimate No. 1			11200	0 0			6124	0 0	
Locks Nos. 9, 10, 11 & 12 in estimate No. 2			1000	0 0			1000	0 0	
Waste Weir			1180	0 0			490	0 0	
Seven road bridges							99	0 0	
Two tow path do.							70	0 0	
Grubbing			80	0 0			200	0 0	82003
Fencing			200	0 0					13 4
Total,			176378	8 5					92834

It will be seen by reference to the preceding Estimates that we have calculated the expence of constructing canals upon two different scales.

The first or largest to cost £176,378 8 5, and the other £92,834 13 4. Thus it appears that a safe and permanent line of navigation down the River St. Lawrence to Cornwall for vessels capable of navigating the lakes may be effected at an expence absolutely trifling when compared with the many advantages to be derived from an improvement of this nature.

The above sums are considered sufficient to complete the work, yet we are aware that in an undertaking like this, unforeseen obstacles often present themselves in the progress of the work, and being generally of a contingent nature, it is impossible to ascertain or calculate them actually by the most minute surveys.

A question will naturally arise that will admit of some discussion, as to which of the above scales it would be most expedient to adopt, but upon due reflection upon the comparative advantages and the local situation of the country, we feel decidedly in favor of the largest, being designed both for steam-boat navigation and schooner navigation. One inducement for giving a preference to this scale, as one of primary importance, is the advantages that would accrue to the trade of the Western Districts from the practicability of passing through the canal with such vessels as are suitable to the navigation of the upper lakes. By making it of corresponding dimensions with the Welland Canal, already so far advanced toward completion, it would, in connexion with that work, not only facilitate and expedite transportation, but save a vast expence and inconvenience in breaking bulk and transferring cargoes from one kind of vessel to another, subjecting goods to injury already too frequently experienced by the existing mode of transportation.

We must express our regret, however, that having not been authorized to extend our survey beyond the boundary line of this Province, we are not enabled to give a full and satisfactory statement of the practicability and probable expence for effecting a safe navigation throughout, without which, the principal object of our enterprise will be but in part attained.

We feel sanguine, nevertheless, that upon proper representation, Lower Canada will come forward with alacrity to unite with us in support of an improvement enhancing their own commercial interests equally with ours. Of this they are no doubt sensible, and will therefore be more ready to co-operate in an undertaking which, without their aid and concurrence, can never be fully accomplished. The Cedar Rapid and Cascades, although serious obstructions in the present navigation, offer (as we are informed) great facilities for improvement.

Then by making the necessary alterations in the Lachine Canal we should open a direct and uninterrupted navigation from one extremity of the Provinces to the other, and might cheerfully anticipate the time, as not far distant, when vessels of burden would be enabled to pass and repass from Quebec to the most western settlements of this Province.

In taking a nearer view of the objects of this contemplated improvement in the navigation we would beg leave to suggest the great propriety of making a canal for steamboat navigation, for by steamboats we anticipate the greater part of our trade will eventually be carried on. Safety and expedition, in the transit of goods being two essential requisites in commercial economy.

Steamboats will therefore always have a decided advantage—besides after passing through the canal at the several rapids, they will seek their way up the channel of the river without any interruption, requiring neither towing path nor any other extra expence to assist them on their passage up. Whereas sloops and schooners depending entirely on canvas must in case of contrary winds or calm weather be unavoidably detained or depend upon towing.

In this case a towing path and bridges would require to be constructed upon the banks, the whole course of the river. A channel would also have to be cut through shoals in many places of great length, and after all an insurmountable difficulty would present itself upon their arrival at Kingston, and cause delays provided they are destined for the Upper settlements.

The same objection as it respects the formation of a towing path, bridges and cutting a channel along the shore is also applicable to boats though in a less degree.