## APPENDIX.

(No. 1.)

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## To the President and Directors of the Welland Canal Company, the Subscriber respectfully Reports,

That on Sections No. 1, 2, 3, 4, 5, 6, which include the Deep Cut, there has been excavated 692,699 cubic yards, and there remains to be done 796,021 cubic yards, which, at the Contract price, will amount to £60,878 15.

One half of Section No. 1 (66..71 chains in length) is finished, and the other half is cut within 5 feet of bottom. The remainder of these Sections (1 mile 55 chains) is excavated to the average depth of 18 feet, and another year will be required for its completion. Nothing unfavorable has occurred during the progress of the work.

On Sections No. 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, extending down to the first Lock, 233,812 cubic yards have been excavated, 67,365 cubic yards have been embanked, and a Culvert of 307 perches of masonry, constructed. The Contract prices for 174,679 cubic yards of excavation, and 26,500 cubic yards of embankment yet remaining to be done, will be £5,532.

Of this part, 2 miles 75 chains are bottomed. On the remainder (1 mile 18 chains, the grubbing is chiefly done, and but a small part of the ground is unbroken.

The distance from the first Lock down to St. Catharines includes 14 Sections. On these 252,329 cubic yards have been excavated, and 28,327 cubic yards embanked. To finish them, 135,710 cubic yards of excavation, and 104,745 cubic yards of embankment will be required with the sum of £7,286 17.

Only 58 chains of this part are finished. Of the remainder, 1 mile and 49 chains are unbroken; and about  $\frac{1}{8}$  of the work on 2 miles and 5 chains is done, with all the grubbing, except half a mile.

On this part, 32 Locks are located. Of 4 Locks, \( \frac{2}{3} \) of the work is done; and of the remaining 28 Locks, \( \frac{2}{3} \) of the timber is delivered.

To render the Locks more permanent, it has been deemed proper to have hollow quoin posts, braces, lining in the chambers, an increase of iron about the paddle gates and culverts, an extension of the mitre sills, a greater depth for the upper gates, and one additional foot to the height of the Lock walls. These extras on all the Locks, with the increased dimensions of those below St. Catharines, added to the Contract prices, will amount to £5,991 2 11.

Between St. Catharines and Lake Ontario, there has been done 151,864 cubic yards of excavation, and 107,015 cubic yards of embankment. There remains 20,124 cubic yards to be excavated, and 24,200 cubic yards to be embanked, which will require £5,300, including the expense of the harbor, the extension of the piers, and the excavation between them into 12 feet water.

On this part, three Locks are located, which will probably be completed in a month. The distance of 4 miles and 61 chains are nearly finished, and 25 chains are yet to be embanked, but it is intended to finish the whole this Season, with the exception of the harbor.

DAVID THOMAS,

ST. CATHARINS, 11 Nov. 1, 1826.

Principal Engineer.