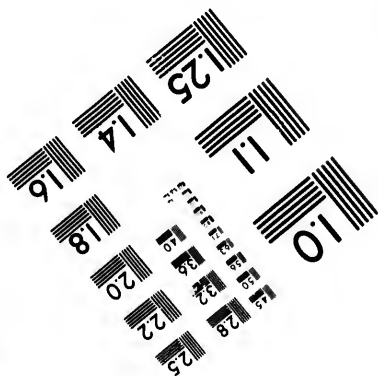
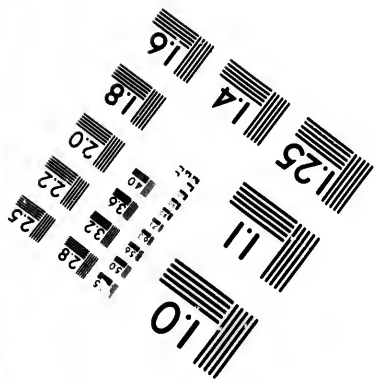
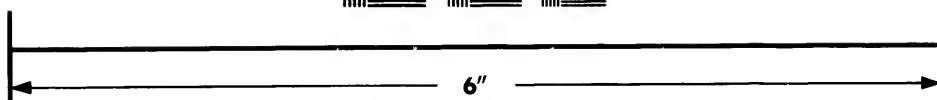
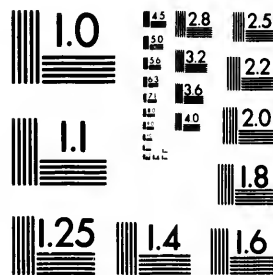


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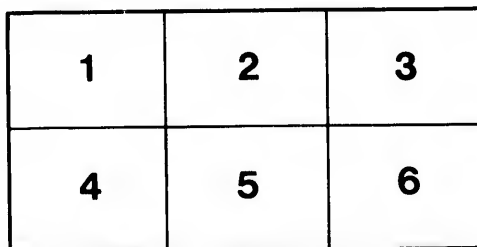
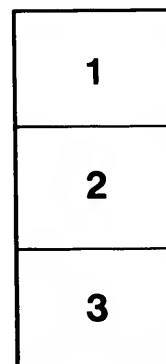
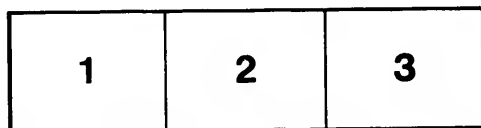
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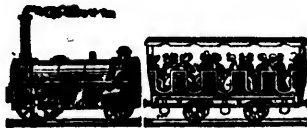
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**Engineer's Report,**  
AND  
**Statistical Information,**  
RELATIVE TO THE  
**PROPOSED RAILWAY**  
FROM  
**PORT HOPE to PETERBORO.**



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**PORT HOPE, C. W.**  
PRINTED BY WILLIAM FURBY.  
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# REPORT

## ON THE

### PETERBORO' & PORT HOPE RAILWAY.

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To the President and Board of Directors of the  
PETERBORO AND PORT HOPE RAILWAY.

GENTLEMEN:

In compliance with the order of the Committee of management, dated the 19th day of May last, no time was lost in proceeding to the ground, the first step, was a *thorough examination* of the face of the country between Port Hope and Peterborough, in nearly a direct course, the distance as measured on the best Maps of the Districts of Newcastle and Colborne, from the Harbour of Port Hope, to the centre of the Town Plot of Peterborough, appears to be 30 miles, and the heights between those extreme points, according to Levels of the Trent and Otonabee Rivers, by previous Government Surveys, about 430 feet.

It would thus appear, that an ascending grade or rise of  $13\frac{1}{2}$  feet per mile, would be adequate to overcome the elevation, having 30 miles for a base line.

But on a more minute investigation of the Country, it was found that a summit ridge intervened on the South of Rice Lake, only  $9\frac{1}{2}$  miles north of the Harbour of Port Hope. The height of the lowest part of this summit was ascertained by leveling, to be 445 feet above Lake Ontario, therefore, to subdivide 445 feet into  $9\frac{1}{2}$  miles, a continued rise of 47 feet per mile would be required, but even this uniform grade cannot be obtained because nearly the height of the summit ridge must be surmounted on the first six miles north from Lake Ontario, this secondary summit is situated at the old Beaver Dam, at the Widow's Inn, where a succession of descending and ascending grades, are required to overcome the main ridge, which would present inadmissible grades, and great expense to overcome the intervening ridges.

The great attention of the Reporter, was naturally directed to examine the comparative heights of the respective passes on the *summit ridge*, taking a range of 4 or 5 miles on either side of a direct course between Port Hope and Peterboro; accordingly a line of Levels, and distances was carried as laid down on the general plan, No. 1, and marked with red dotted lines, which shews that the lowest pass is that marked A., being 445 feet above Ontario; on trial either on east or west of this summit, the ground rises in a regular and uniform proportion, upon the east of the south pass at  $3\frac{1}{2}$  miles the rise above Ontario is 507 feet, and six miles on the west, the lowest summit is 640 feet above Ontario, such being the data presented by correct Leveling. The course of Smith's Creek, naturally presented the line required, but on examination it was found to be deficient in some essential points, first, it was crooked, so that the usual curves could not be maintained without crossing and recrossing its Banks by expensive Bridging, &c. 2nd, the banks in most cases were so precipitous that it was objectionable (independent of curves,) because of side cutting, and danger from slides; and farther, after entering into the valley of Smith's Creek, it was found impracticable to leave it until the line reached the level ground north of Dunbar's Mill, and lastly, the difficulty of access to, or egress from, this line, when established.

Not being satisfied with either of the foregoing lines it became necessary to examine if a line on the west of Port Hope Harbour, could not be found, that presented a more favourable surface.

*Accordingly, after various re-examinations, the line as laid down with red lines on the Plan, No. 1, unites the requirements of moderate length very easy inclinations, freedom from expensive Works, either in cutting, embankment, or Bridging, and with nearly a level surface throughout its whole extent, so much so (as the section will show) that it would be difficult to find so few obstructions in any plain country, intersected only by ordinary watercourses.* It will be observed that the line after passing Rice Lake summit, must of necessity proceed through a hill and dale country, all the main ridges of the country passing the line of Railway at right angles, but even in this division the direct course is only deflected in three points, viz: from northern extremity of Black's Swamp, eastward to Centre House; 2nd round Clay's or Horne's Hill, and from Palmer's Corner to the Town of Peterboro, in a more direct course, than by the present Road. All the curves are of large radius, none being less than 880 yards, the larger curves are laid down at 7920 feet radius.

The maximum Gradients upon the line are one foot of rise in 90 feet in length, but even where these inclinations occur, which are seldom, they are short. The aggregate rise and fall is 1092 feet—rise 754—fall 338 feet.

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The total distance from Port Hope Harbour, to the centre of the Town of Peterboro, as measured through the Rough Woods, (but laid down on the Section) is 35 miles. The distance measured by the plan is 34 miles 60 chains, from Port Hope Harbour to the centre of Peterboro. It will be observed by the President and Board that the estimates submitted, in detail, embrace for each distinct mile, all the items of Earth work, Drainage, Bridging, Culverts, Fencing and every thing requisite to complete the Road, also, an abstract estimate of the whole, shewing the heads of expenditure, and their proportion to the Total Expense, as here recapitulated, viz :

1st, Earth Work, Bridging, Fencing and Land,	£11,799	12	9
2nd, Superstructure, Timber, Iron and laying do.,	34,380	0	0
3rd, Locomotive Engines, Cars, Stations, Depots,			
Tools and fixtures, required for the first 6 years,	6,490	0	0
4th, Ten per cent. for contingencies,	5,266	19	6

Total Cost to put the Road in working order, £57,936 12 3  
 all the work has been estimated on a liberal scale, and the prices correspond with work actually being performed in the province at the present time.

In consequence of the small amount of Earth work required, the whole line may be put in operation by 24 months.

On the whole, extent of the Line, there has not been found a Single cubic yard of rock excavation, or of *hard pan*, which is *more objectionable*, and not one single cubic yard of solid stone masonry, or brick work will be required on the entire extent of the Line, except at the *Depots and Stations*.

All of which is respectfully Submitted.

FRANCIS HALL, C. E.

Port Hope, 28th August, 1847.

**STATISTICAL INFORMATION**  
RELATIVE TO THE  
**PROPOSED RAILWAY,**  
**From Port Hope to Peterboro.**

~~CONFIDENTIAL~~

The President and Directors of the Peterboro and Port Hope Railway, beg to lay before the Stockholders and the Public, information which has been elicited by the survey of the proposed line, relative to the situation, products, and business of that part of the country between the Towns this Railway is intended to connect.

It is now evident from careful investigation, that the proposed line of Railway, will not only be especially beneficial to the Landowner, Farmer, Merchant, Storekeeper, Tradesman, Mechanic and the travelling community, but that all who do or may hold Shares in the Capital Stock of the Company will find their investment productive of a large return.

The State of the Stock Book may show to those at a distance from this locality the confidence the people of Peterboro and Port Hope have in the undertaking; about £20,000 has been taken up principally by them, being about one third the estimated cost of the line.

The Route as surveyed, and which commends itself to the Board of Directors is the product of careful examination and diligent perseverance in the Engineer, who has studiously observed and attended to the instructions he received "to find the nearest and best line consistent with expense."

It passes through a highly fertile, well cultivated and thickly populated country, in the neighbourhood of valuable Grist and Saw Mills, and Mill Sites, and of Villages which with its aid must rapidly grow into importance.

After taking a course 3½ miles westward from the harbour of Port Hope, it is carried northward through the Township of Hope, till it attains the 8th Concession line, thence eastward to the village of Bewdly at the head of Rice Lake where has lately been erected a Steam Saw Mill capable of cutting 12,000 feet of lumber daily, 2 taverns, several dwelling houses, blacksmith's shop &c. there is also a wharf & store-houses at which the Steamer Forester touches. Timber of every description and in every character may be brought up Rice Lake to this point by rafts at a small cost and by the proposed railway the great difficulty and expense of transporting it to Lake Ontario will be removed.

FROM BEWDLEY, it is proposed (to avoid the high hills north of Black's Swamp,) to carry the Railway through a part of the Township of Monaghan, and again to join the Peterboro' Road at the commencement of a village called Centreville.

The high road from Millbrook in Cavan, to the Peterboro and Port Hope road leads to this place, from which it is distant only four miles, this must eventually become an excellent business situation and probably a Station. The produce of the Township of Cavan, Emily Ops, Manvers and South Monaghan, could be collected here, and when the Railway is completed would find transport by it to Port Hope, both on account of the great saving of time and expense.

THE PRODUCE of these Townships that would in all probability find transport by the Railway at this time, were it completed is as follows, upon which a cost of £12,541 19s. 2d. is incurred by the present means of carriage.

**TABLE OF INTERMEDIATE TRAFFIC**  
**That would now find transport by Railway**  
**at the present Tariff of freight.**

Township of	Wheat at 4d per bush	Other Grain at 4d a bus	Pork at 1s 3 per barrel	Grass Seed at 4d a bus	Butter at 15s per ton.	
CAVAN	65,000	10,000	700	200	20	
EMILY	20,000	6,000	300	50	7	
OPS	7,000	2,000	80		7	
MANVERS	5,000	2,000	50		2	
S. MONAGHAN	12,000	4,000	200	60	5	
					41	£30 15 0
				310		5 3 4
			1330			63 2 6
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8,000 Barrels of flour from 3 flouring Mills at 7½d per bl - - - - - 250 0 0  
 5 Passengers daily, each way, 310 days per year, at 3s 9d each, - - - - - 581 5 0  
 75,000 feet of lumber daily from 16 Saw Mills, being the amount they are capable of cutting, at 10s per thousand, 250 days per year, - - - - - 9375 0 0

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£12,541 19 2

THE MARMORA IRON WORKS, are situated in the Township of Marmora about 7 miles from the eastern end of Rice Lake.

We understand that these works are about to be put into full operation by parties who have ample means and ability to carry them on. The Iron is of the first quality and most abundant. In this neighborhood is also found Red Ochre, excellent Lithographic Stone and Marble.

From Centreville the line takes the course of the Peterboro' road and may be made upon it for six miles, until it reaches Palmer's Inn, which is also a good situation for the collection of traffic for the Railway. This place according to the present travelled road is 7 miles distant from Peterboro', but a considerable saving of distance, will be effected by the line passing about N. E. to Peterboro.

PETERBORO', the County Town of the Colborne District, containing a population of about 3000 inhabitants, possesses natural advantages, equal perhaps, to any locality in Canada, and needs only the cheap and ready means of transport which a Railway will afford, to make it rise in importance both in size and wealth.

Its situation is beautiful, and is most advantageous for business, being built on the River Otonabee, and has never failed to call forth the admiration of its visitors,—but that which most astonishes the traveller is its almost boundless water power: a fall of 160 feet is found between Buckhorn Lake, and the Bridge of Peterboro. The Mill privileges found within a short distance can scarcely be estimated. The regular quantity of water passing per minute, is equal to 86,400 Cubic feet, or, 691,200 Gallons. This is nearly the minimum quantity for this River at Peterboro, throughout the year.

Two excellent Flouring Mills, each furnished with four run of stones, are now in operation, which are found to be quite inadequate for the Manufactory of Flour, two more are about to be erected by Z. Burnham, and E. Perry, Esquires: and within a short distance of the Town there are several others.

Saw Mills to the number of 13 send their Lumber to this Town, these mills are capable of cutting 60,000 feet of lumber in 24 hours, but some of them for want of a good market are comparatively idle; 20s, per 1000 feet has lately been paid for carriage of Lumber to Lake Ontario, a distance of 30 miles, which almost prohibits its transportation.

The supply of timber for Saw Mills can scarcely be calculated, as it can be easily Rafted from a distance of upwards of 100 miles, by means of the chain of Lakes lying to the northward.

STONE suitable for building purposes is also abundant, one kind found in this neighbourhood, is capable of bearing a high polish.

By Railway the frontier Towns could be supplied with this material at a much lower price than is now paid, viz: £1 17s 6d. per Toise. Lime also, at 5d, per bushel, can be obtained here, whereas 10d per bushel is commonly paid at the Front,

There are 3 Foundries, in this Town capable of making the heaviest mill castings, There are 2 Cloth Factories, one intended for 28 Looms; machine and Axe Factories; a Mill for sawing Lath; a Turning and Furniture Factory &c.

There is nothing remarkable in the existance of such establishments in a North American Town; but when we know the disadvantages under which the Inhabitants of Peterboro labour, paying for freight upon their imports, 30s, per ton from Lake Ontario, we see in this beginning of machinery and business, and in the enterprise which they have awakened to, together with the advantages of the beautiful River Otonabee, the assurance of a good maintenance of the Railway.

The exports and imports of this Town have been carefully collected and it is believed are faithfully detailed, together with the present charges for freight &c.

**TABLE of the Exports and Imports of the Town of Peterboro, together with the present Tariff of Freight, &c., on**

110,000 Bushels of	Wheat	at 5d	-	-	£2291	13	4
1,050 do.	Peas,	5d	-	-	21	17	6
680 do.	Grass Seed	at 5d	-	-	14	3	4
21,000 Barrels of	Flour	at 1s 6d	-	-	1575	0	0
3000 do.	Salt	at 2s 6d	-	-	375	0	0
600 do.	Plaster	at 2s 6d	-	-	75	0	0
100 do.	Ashes	at 5s	-	-	25	0	0
50 do.	Pork	at 2s	-	-	5	0	0
540 do.	Meal	at 1s 6d	-	-	40	10	0
1,024 Tons	Merchandise	at 30s	-	-	1536	0	0
36 do.	Butter	at 20s	-	-	36	0	0
37 do.	Leather, Beer, Fur &c.	at 20s	-	-	37	0	0
20 Passengers daily,	310 days in the year, at				2325	0	0
7s 6d each,							
Carriage of Mail,					400	0	0
					£8757	4	2
80000 feet of Lumber daily, from 14 Mills, 19					15000	0	0
£ Saws, 250 days in the year, at 20s per M.							
					£23757	4	2

Thus we see that a sum amounting to £8757 4s 2d, is now paid annually if we add to this £15,000, for the Lumber the mills now in operation *can* cut, and which would be certainly exported, had their owners the means of doing so at a reasonable rate, the present amount of business would cost £23757 4s 2d. This alone would be sufficient to satisfy the Directors to prosecute the undertaking of the Railway, but if they are to be guided by the result of Railways in the United States, the saving of time and expense has generally at once tripled the number of passengers, and greatly increased business and industry. Several individuals are now prepared to put up additional Mills as soon as the Railway is commenced.

NEW TRAFFIC such as Stone, Spars, Squared Timber, Staves, Cordwood, Bark, Lime, Shingles, Turned Ware, &c., would find a ready market, and the Journey which now occupies from 8 to 10 hours could be performed in two.

Another encouragement must not be passed over. It appears that the course of the proposed Railway for several miles west of Port Hope, is that which must be taken by the Kingston and Wolfe Island Railway whenever it is made, and of the speedy commencement of this desirable undertaking, there seems now but little doubt with the encouraging attention the British Government are giving to the making of a great trunk Railway through the British North American Provinces.

The President and Directors consider themselves justified in anticipating a trade in the items specified to the amount of £24199 8s 10½d at a reduction of ¼ the present charges. To this may safely be added £5,000, at least for new traffic, which without any allowance for increase of business amounts to £29,199 8s 10½d. Yet they have every reason to expect that there will be an immense and immediate increase to every present branch of business.

The proposed Railway will afford an uninterrupted trade at all seasons of the year, and enable the Merchants and Storekeepers of Peterboro' to keep their stock replenished and have a continual variety of Goods.

The Railway united with the boundless water power of the Otonabee, for Mills, and the great variety and quantity of timber in the Colborne District must suggest to the minds of thinking, calculating men, the great advantages held out for ship building at Port Hope.

As a natural Harbour it is acknowledged by the most respectable and talented Captains, navigating Lake Ontario, not to have its equal between Toronto and Kingston. Its capabilities as a harbour of re-

fuge have been highly commended to the British and Colonial Governments, and *it may be added*, its desirable advantages for the construction of building Docks.

It is proposed to allow interest upon all instalments on Stock, from the date of Payment, as in all those cases where this has been done in England, the works have advanced to completion, at least one or two years beyond those lines that have not done so, and from the quick return of a large percentage, after the road is completed, the pre-payment of Interest is reduced to almost nothing to the shareholders, besides the inducement that is held out to money holders, possessing moderate means, of immediate investment, and return for the same.

The profitableness of such an investment must be most apparent to a discerning public, by comparing the Engineer's estimates of the cost of the proposed Railway, with the confidently anticipated return. Contractors are already proposing to complete and furnish it at these estimates.

DAVID SMART,  
*President.*

Port Hope, September 6, 1847.

