

(No. 111.)



1883.

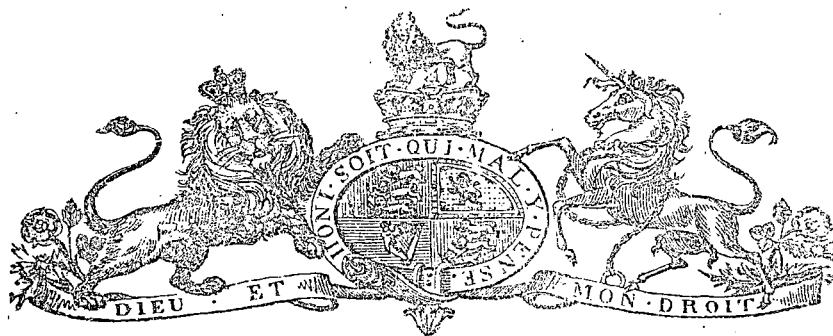
T A S M A N I A.

LEGISLATIVE COUNCIL.

**THIRD RAIL, LAUNCESTON AND WESTERN
RAILWAY :**

MEMORANDUM IN CONNECTION WITH ESTIMATED COST.

Laid upon the Table by Mr. Moore, and ordered by the Council to be printed,
October 9, 1883.



THIRD RAIL, LAUNCESTON AND WESTERN RAILWAY.

*Launceston and Western Railway,
Manager's Office, Launceston, 18th September, 1883.*

SIR,

ADVERTING to my Report, dated April 23rd last, upon the question of altering the Deloraine Station Yard so as to be adapted for the reception of the narrow gauge rolling-stock of the Mersey extension, and also your verbal remarks upon the general question of gauge, I have the honor to supplement the remarks made in such Report as to the necessity of laying down a third rail throughout the whole length of the Launceston and Western Railway, so as to be enabled to fully develop the traffic of the new extension from all sources. As the narrow gauge has been now virtually decided upon as the standard gauge of Tasmania, uniformity becomes a necessity.

As I have previously pointed out to you, I believe this end can be most economically obtained by laying of the third rail, and gradually getting rid of or altering the broad gauge rolling-stock as it is found judicious so to do.

I have the honor to be,
Sir,

Your obedient Servant,

R. W. LORD, *Manager.*

*The Hon. N. J. BROWN, M.H.A.,
Minister of Lands and Works.*

MEMORANDUM.

THE estimated cost of laying the Third Rail along the Launceston and Western Railway, from Evandale Junction to Deloraine, 33½ miles, is £19,000.

It is proposed, in order to connect the Mersey extension with Launceston by a uniform gauge, and thus to avoid a break of gauge and transhipment of traffic at the Deloraine station,* to lay a third rail down from the Evandale Junction to Deloraine, a distance of 33½ miles, thus making a continuous 3ft. 6in. gauge from Launceston to the commencement of the Mersey extension. A 60-lbs. steel rail is provided for of the same section as that laid down for the Main Line traffic between Launceston and Evandale, 11½ miles. This rail is the same height as the Launceston and Western 72-lbs. rail, and has been found to answer for the Main Line narrow gauge traffic since it was laid down to replace the original 40-lbs. light rail, which, as a third rail, did not satisfactorily stand the wear and tear of the traffic.

When this third rail is laid, all traffic originating upon the Mersey extension can be worked to any point upon the Launceston and Western existing system, or *vice versa*, without transhipment, thus avoiding what would be, in cost of reloading, &c., a heavy expense at Deloraine, not to mention the fact that many low classes of traffic, which could be developed by a uniform gauge, could not be fostered at all if saddled with the expense of twice handling; for instance, such classes as—

| | |
|-----------|-------------------------|
| Lime. | Cement. |
| Bark. | Tin ore. |
| Firewood. | Iron ore. |
| Fencing. | Artificial manures, &c. |
| Stone. | |

There is no doubt that in the early development of the traffic of the Mersey extension very large quantities of the above-named classes of goods will be carried if economical transit can be secured; and this could not be with the expense of transhipment.

* See Diagram.

The district through which the line will pass is only sparsely settled and very little cleared, and the most important inducement to settlement will be the being able, while clearing, to find a ready market for the timber taken from the land as firewood and for other purposes.

In addition to these advantages, and even before all other considerations, rolling stock of the Mersey extension, when necessary, can be run into Launceston for repairs from time to time in the workshops. A great saving would, as a matter of course, be effected in this respect, as if there was a break of gauge special vehicles would have to be constructed to convey the engines and other stock from Deloraine to Launceston when requiring repairs.

Arrangements can be made with the Main Line Railway Company for the Government to take over their third rail between Launceston and Evandale, and they will be then asked to pay a slightly increased toll for being relieved of the expense of supplying rails, fastenings, &c. to repair this portion of the line.

A table is submitted showing the quantity of rails and fastenings required, and the cost of altering the bridges, &c. to carry the third rail.

When dwelling upon the great importance that is placed upon uniformity of gauge in the Railway world, it may not be out of place for me to make a few remarks upon what has taken place in this respect in Europe and America, in both of which Continents many extensive alterations have been carried out to harmonise the gauge and make a uniform one.

In England, the "battle of the gauges," as it was termed, for many years waged very freely. The originator of, and great authority upon, the broad gauge system, was Mr. Brunel, the celebrated engineer, who constructed the Great Western Railway upon a 7ft. gauge. This was the only line in England constructed upon that gauge: all the other undertakings were 4ft. 8½in., which is now the established, or, as it is called, the standard gauge in Europe and America.

In America, after some years of experience with mixed gauges, such as 4ft. 8½in., 5ft. 3in., and even 7ft., they have in many instances, at enormous expense, reduced those gauges broader than 4ft. 8½in. to that gauge, to secure a uniformity, so much importance being attached to this matter. A notable instance of this may be quoted in the case of the Grand Trunk of Canada, which was originally a 5ft. 3in. gauge (similar to the Launceston and Western Railway), and which some five or six years ago was reduced to 4ft. 8½in. to harmonise with the United States Railways, and thus interchange traffic with the far Western States of America, the most prolific granary of the world.

In converting or reducing the gauge of the Launceston and Western Railway very little would be sacrificed, and when the third rail is completed on the whole length from Launceston to Deloraine the 5ft. 3in. gauge will gradually be abolished, and the narrow, or 3ft. 6in., gauge retained; this would be effected by working off that portion of the broad gauge rolling-stock which could not be made suitable for the 3ft. 6in. gauge.

The rails, fastenings, sleepers, bridges, and other works of the permanent way would be utilised; the station buildings, goods sheds, &c. along the line also.

The whole of the carriages and break-vans, horse-boxes, &c. would be placed upon new under-frames and wheels, and used upon the 3ft. 6in. gauge. The goods waggons could not be so converted, but as the woodwork was worn out, the ironwork, including the wheels and axles, could be packed up and sold, either to the Colonies of Victoria or South Australia, where the 5ft. 3in. gauge is worked.

The locomotives could not be altered; but during the working of the mixed gauges they would be used, and might eventually find a purchaser in the shape of some contractor for the construction or extension of lines in Victoria.

By the utilisation of the bulk of the rolling-stock as thus illustrated, and in the meantime the construction of narrow gauge stock from time to time to replace that which was altered or worn out, little, if any, sacrifice would be made, and the much to be desired uniformity of gauge would be obtained at a minimum of cost.

In addition to the items already mentioned, great advantage would accrue by having the large quantity of ballast now on the Launceston and Western Railway, which, for a 3ft. 6in. gauge, would suffice for very many years to come, and thus obviate the necessity for any outlay in this direction, and forming a large element of saving.

If this plan was not adopted, and the 5ft. 3in. gauge maintained, as at present, upon the Launceston and Western Railway between Launceston and Deloraine, it would be necessary, in order to cope with the rapidly increasing traffic, to purchase new rolling-stock to the value of something like £8000, and this would, as a matter of course, prolong the existence of the two gauges and the consequent expense and complications.

No doubt the simplest plan to obtain immediate uniformity of gauge would be to at once order narrow gauge rolling-stock to work the Launceston and Western traffic, and then, when such rolling-stock was received, move in both the existing rails of the line to a 3ft. 6in. gauge,—a work of a few days only if energetically carried out; but this would be much more costly.

| | |
|--|---------|
| | £ |
| In the first place, the rolling-stock that would be required is estimated at | 32,500 |
| Cost of moving rails | 5720 |
| | £38,220 |

It is true the present broad gauge rolling-stock could be sold, but, as an illustration of the enormous sacrifice that would be made by such a course, I may instance the experience of New Zealand in their adoption of a similar course some years ago, when, for the sake of uniformity, they reduced the 5ft. 3in. gauge between Christchurch and Port Lyttleton to 3ft. 6in. gauge. The Government of South Australia purchased the whole of the New Zealand rolling-stock, which was valued at £74,000, for £11,000. Supposing, therefore, we sold the Launceston and Western Railway existing rolling-stock, which is valued at £35,000, similarly we should only receive £5000.

Possibly we might make a better sale than this, and I am informed by the officers of the Department that most likely £12,300 might be realised, but even this would be an enormous sacrifice, and it has therefore been my duty to propose the alternative plan suggested.

R. W. LORD, *Manager L. & W. Railway.*

September 18th, 1883.

ESTIMATE of probable Cost of laying Third Rail from Evandale Junction to Deloraine.

| <i>Particulars.</i> | <i>Tons.</i> | <i>Rate.</i> | <i>Amount.</i> | | |
|--|--------------|--------------|----------------|----|----|
| | | £ | £ | s. | d. |
| 60-lbs. steel rails - - - - - | 1700 | 7 | 11,900 | 0 | 0 |
| Fastenings, &c. - - - - - | 250 | 13 | 3250 | 0 | 0 |
| Points, Crossings, Bridge, Timber, &c. - - - - - | .. | .. | 2250 | 0 | 0 |
| Labour - - - - - | .. | .. | 1600 | 0 | 0 |
| | | | 19,000 | 0 | 0 |

LEONARD DOWLING, *Inspecting Surveyor.*

Lands and Works Office, Hobart, 8th May, 1883.

DELORAINÉ STATION, AND MIXED-GAUGE ON LAUNCESTON AND WESTERN RAILWAY.

SIR,

I HAVE the honor to acknowledge the receipt of correspondence addressed to you by the General Manager of the Launceston and Western Railway, dated April 23rd last, in reference to proposed alteration at Deloraine station for the accommodation of the Mersey Line, and also of correspondence dated May 7th last, in reference to the general question of present and future gauge of the Launceston and Western Railway, together with various estimates relating to the same, and beg now to submit the following recommendations:—

1. That the Deloraine station yard should be altered to serve for mixed gauge traffic (as though such mixed gauge were to be permanent), and additional transloading sidings and platforms provided by the time the Mersey Line is completed.
2. That provision should be made during the next Session of Parliament for the cost of converting the Launceston and Western Railway to a mixed gauge line throughout; that all new stock to be hereafter purchased should be for the narrow gauge, and that the broad gauge traffic should gradually cease as its stock became worn out. Any sudden conversion of gauge would be very objectionable.

It is of course well known that all Railway experience condemns a mixed gauge system; but what cannot be justified on, say English Lines with their enormous traffic, may be very advisable on a short line with comparatively limited traffic, and as a tentative measure.

I am not prepared with estimates of cost of altering Deloraine station yard until a plan has been prepared, but estimate the total cost of the conversion of the Launceston and Western Railway between Evandale Junction and Deloraine, to a mixed gauge line, with alterations in station yards at Launceston and elsewhere, at from £19,000 to £20,000; viz.—

| | £ |
|---|---------|
| 1650 tons steel rails (60-lbs.) at £8 | 13,200 |
| 40 tons spikes, at £10 | 400 |
| 60 tons fish-plates, at £15 | 900 |
| 15 tons fish-bolts, at £20 | 300 |
| 62,000 lineal yards laying way, at 6 <i>d.</i> | 1550 |
| Additional work in open bridges | 250 |
| Sleepers, say 10 per cent. (65,000), at 3 <i>s.</i> | 975 |
| Add for Station Yards, say | 1500 |
| | £19,075 |

The above estimate is exclusive of any calculation for dealing with the third rail between Evandale and Launceston, which now belongs to the Main Line Company.

In order to provide for proper interchange of traffic hereafter between the Main Line to Hobart and the narrow gauge of the Western Line, a short connecting line across the "fork" of the junction at Evandale will probably be required.

I have, &c.

JAMES FINCHAM, *Engineer-in-Chief.*

The Hon. N. J. BROWN, M.H.A.,
Minister of Lands and Works.

Launceston and Western Railway,
Manager's Office, Launceston, 7th May, 1883.

SIR,

I HAVE the honor to acknowledge the receipt of your telegram of Saturday evening, instructing me—

1. To supply certain information in regard to probable cost of laying a third rail down from Evandale to Deloraine.
2. The probable cost of unloading and loading all description of goods at Deloraine if the L. and W. Railway existing broad gauge and the Mersey Extension narrow gauge are worked separately.
3. The probable cost of reducing the existing L. and W. Railway broad gauge to the 3ft. 6in. gauge upon the completion of the Mersey Extension.

In reply I have the honor to submit statements showing the estimated cost of each plan.

I have, &c.

R. W. LORD, *Manager.*

The Hon. N. J. BROWN, Minister of Lands and Works.

No. 1.

Launceston and Western Railway.

| | £ |
|---|-------|
| Estimate of unloading and loading at Deloraine, per annum | 1250 |
| Estimated cost of third rail as per statement, £22,650, interest at 5 per cent. per annum | 1132 |
| Probable saving through laying third rail | * 118 |

R. W. LORD.

* To this must be added increased Toll payable by the Main Line Company, say £200.