

Appendix T gives the table of the Gradients and Curves. The undulations of the country have necessitated for $10\frac{1}{4}$ miles, the maximum Gradient of 52.8 feet per mile: $43\frac{1}{3}$ miles being either level or under 22 feet per mile. The smallest Radius of Curves is 2,865 feet, and the prevailing Radius is 11,460 feet.

I found the Rails and Sleepers good, and the Permanent Way generally in accordance with the specification, with the exception of some deficiencies, for which deduction was made.

The Drainage generally is of efficient character and extent, but some of the smaller Culverts of brick have shown signs of failure.

The Bridges and Viaducts are very heavy, and comprise almost all the large works of the entire Line from Toronto to Stratford. Appendix U, will show that many of them are of great size, and most have been constructed at great cost, with an excellence of workmanship far beyond the requirements of the contract. Among these the Humber Valley Viaduct, with 9 openings of 60 feet span; the Eramosa Viaduct, with 8 openings of 60 feet span; the Grand River Bridge, with 2 spans of 96 feet, and 3 of 60 feet; and the river Nith Bridge, with 4 spans of 60 feet, deserve peculiar commendation; and I have rarely seen a work of finer design or execution than the Credit Viaduct, of an extreme height of 121 feet, with 8 spans of 96 feet.

The wrought-iron girders and tubes are of very good construction, and the small deflections I noted corresponded with those on the other Sections.

One Road Bridge at Brampton, and another at the Huron Road, I should have considered sufficiently large structures to make it a question, whether foundations for a second line might not, under the Contract, have been asked for.

In some cases the Stations did not come up to the requirements of the Specification, for which a deduction has been made; but on the whole a considerable increase has been found necessary, which has been allowed for in the accounts.

Some extra Watering Places beyond the reasonable intendment of the Contract, have been erected and charged for, often at places away from Stations, and where a more copious supply could be obtained.

Appendix V gives a statement of Rolling Stock, showing that, in money value, the amount specified for the whole Line has been supplied to this Section, for which excess credit is of course taken in the Accounts.

Upon the settlement of Accounts I report at length in Appendix W. I need here only state that in the principle upon which the apportionment has been made between the payments for the finished and unfinished lengths, I entirely agree; that in the adjustment of the accounts I may, to a comparatively small amount, differ in some of the items; but that the general result may be taken as a fair settlement on account, open to a readjustment of the Station Account in the Extension of the Line.

I consider that this Line is a Work of which both Eng'neers and Contractors may justly be proud.

PERMANENT WAY.

The description of Permanent Way specified and executed on your Railway was, I understand, settled after a consideration of the forms and details found to be most successful on the Lines of the Northern States.