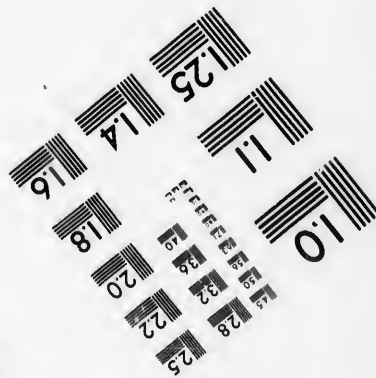
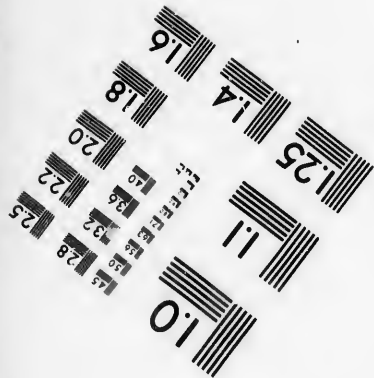
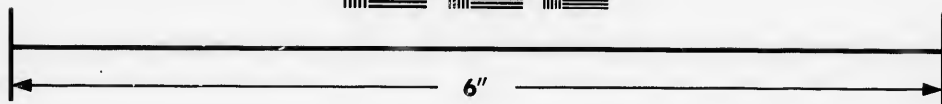
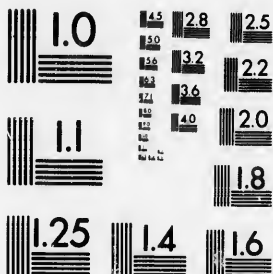


**IMAGE EVALUATION
TEST TARGET (MT-3)**



**Photographic
Sciences
Corporation**

23 WEST MAIN STREET
WEBSTER, N.Y. 14580
(716) 872-4503

14 28
16 32
18 36
20 40
22 44
24 48
26 52
28 56
30 60
32 64
34 68
36 72
38 76
40 80
42 84
44 88
46 92
48 96
50 100

**CIHM/ICMH
Microfiche
Series.**

**CIHM/ICMH
Collection de
microfiches.**



Canadian Institute for Historical Microreproductions / Institut canadien de microreproductions historiques

11
10
5

© 1987

Technical and Bibliographic Notes/Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for filming. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of filming, are checked below.

L'institut a microfilmé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de filmage sont indiqués ci-dessous.

- Coloured covers/
Couverture de couleur
- Covers damaged/
Couverture endommagée
- Covers restored and/or laminated/
Couverture restaurée et/ou pelliculée
- Cover title missing/
Le titre de couverture manque
- Coloured maps/
Cartes géographiques en couleur
- Coloured ink (i.e. other than blue or black)/
Encre de couleur (i.e. autre que bleue ou noire)
- Coloured plates and/or illustrations/
Planches et/ou illustrations en couleur
- Bound with other material/
Relié avec d'autres documents
- Tight binding may cause shadows or distortion along interior margin/
La reliure serrée peut causer de l'ombre ou de la distorsion le long de la marge intérieure
- Blank leaves added during restoration may appear within the text. Whenever possible, these have been omitted from filming/
Il se peut que certaines pages blanches ajoutées lors d'une restauration apparaissent dans le texte, mais, lorsque cela était possible, ces pages n'ont pas été filmées.
- Additional comments:/
Commentaires supplémentaires:

- Coloured pages/
Pages de couleur
- Pages damaged/
Pages endommagées
- Pages restored and/or laminated/
Pages restaurées et/ou pelliculées
- Pages discoloured, stained or foxed/
Pages décolorées, tachetées ou piquées
- Pages detached/
Pages détachées
- Showthrough/
Transparence
- Quality of print varies/
Qualité inégale de l'impression
- Includes supplementary material/
Comprend du matériel supplémentaire
- Only edition available/
Seule édition disponible
- Pages wholly or partially obscured by errata slips, tissues, etc., have been refilmed to ensure the best possible image/
Les pages totalement ou partiellement obscurcies par un feuillet d'errata, une pelure, etc., ont été filmées à nouveau de façon à obtenir la meilleure image possible.

This item is filmed at the reduction ratio checked below/
Ce document est filmé au taux de réduction indiqué ci-dessous.

10X	14X	18X	22X	26X	30X
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
12X	16X	20X	24X	28X	32X

The copy filmed here has been reproduced thanks to the generosity of:

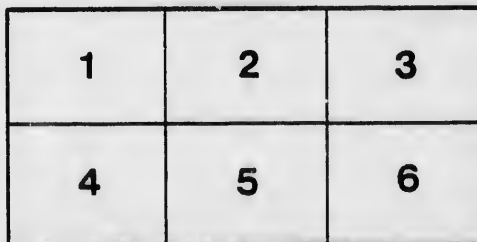
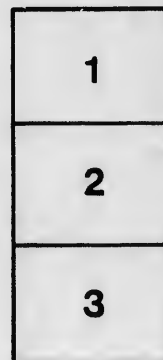
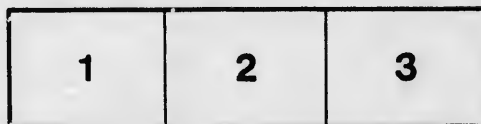
Manuscript Division
Public Archives of Canada

The images appearing here are the best quality possible considering the condition and legibility of the original copy and in keeping with the filming contract specifications.

Original copies in printed paper covers are filmed beginning with the front cover and ending on the last page with a printed or illustrated impression, or the back cover when appropriate. All other original copies are filmed beginning on the first page with a printed or illustrated impression, and ending on the last page with a printed or illustrated impression.

The last recorded frame on each microfiche shall contain the symbol \rightarrow (meaning "CONTINUED"), or the symbol ∇ (meaning "END"), whichever applies.

Maps, plates, charts, etc., may be filmed at different reduction ratios. Those too large to be entirely included in one exposure are filmed beginning in the upper left hand corner, left to right and top to bottom, as many frames as required. The following diagrams illustrate the method:



L'exemplaire filmé fut reproduit grâce à la générosité de:

Division des manuscrits
Archives publiques du Canada

Les images suivantes ont été reproduites avec le plus grand soin, compte tenu de la condition et de la netteté de l'exemplaire filmé, et en conformité avec les conditions du contrat de filmage.

Les exemplaires originaux dont la couverture en papier est imprimée sont filmés en commençant par le premier plat et en terminant soit par la dernière page qui comporte une empreinte d'impression ou d'illustration, soit par le second plat, selon le cas. Tous les autres exemplaires originaux sont filmés en commençant par la première page qui comporte une empreinte d'impression ou d'illustration et en terminant par la dernière page qui comporte une telle empreinte.

Un des symboles suivants apparaîtra sur la dernière image de chaque microfiche, selon le cas: le symbole \rightarrow signifie "A SUIVRE", le symbole ∇ signifie "FIN".

Les cartes, planches, tableaux, etc., peuvent être filmés à des taux de réduction différents. Lorsque le document est trop grand pour être reproduit en un seul cliché, il est filmé à partir de l'angle supérieur gauche, de gauche à droite, et de haut en bas, en prenant le nombre d'images nécessaire. Les diagrammes suivants illustrent la méthode.

NOVA-SCOTIA RAILWAY.

SPECIFICATION

Of the several WORKS to be done in Grading, Bridging, Draining, and providing Ballast for that portion of the "NOVA-SCOTIA RAILWAY" included between points near Piers' Mill and Cochrane's Building Yard, and marked A and B on Ground Plan and Section, Sheets No. 1 and 2, herein referred to.



The red line on the Ground Plan, Sheet 1, shows the centre line of the Railway, as staked out on the ground. Embankments are coloured yellow on the Section, and Cuttings red. The red line on the Section describes the top of the Embankments, and the bottom of the Cuttings, previous to laying on the ballast. The black undulating line describes the present natural surface of the ground along the centre of the line of Railway.

The figures on the section indicating the depths of cutting, are marked in blue, those indicating the heights of Embankment in red, and show the distances from the surface at the top of each stake to the red line or formation level of the Railway; and the top of all the Embankments, and the bottom of all the Cuttings, shall accurately coincide and range with the formation level, after the Embankments are fully consolidated. The formation level of both Cuttings and Embankments shall be as shown on the Cross Sections, Sheet 2, namely—6 inches higher at the centre than at the sides.

The quantities in each Excavation and Embankment are marked upon the Longitudinal Section, Sheet 2, and every care has been taken to ensure their accuracy. Contractors must however examine the ground previous to tendering for the work, and satisfy themselves on this point, as well as of the accuracy of the lengths, depths, and quantities, marked upon the several Sheets, and of the nature of all the Cuttings, for when a tender has been accepted, no claim for extra work will be allowed for any real or supposed inaccuracy, as the Contractor shall be bound to construct the Railway so that the gradients at the formation level shall be agreeable to the gradients marked on the Section, Sheet 2, with the breadth and side slopes hereinafter specified, and accurately coincide in direction with the curves and straight portions drawn and marked in red on the Ground Plan, Sheet No. 1.

The Cuttings shall be 22 feet broad at formation level, with side slopes of 1 horizontal to 1 perpendicular, and the breadth of Embankments 18 feet at the same level, with side slopes of 1 and 1-2 horizontal to 1 perpendicular, except the slopes of Embankment No. 1, composed entirely of loose rock, which shall have a slope on the sea side of 1 and 1-2 horizontal to 1 perpendicular, and on the shoreside of 1 horizontal to 1 perpendicular; and especial care must be observed in forming the slopes of this Embankment to these inclinations. The parts of this Embankment upon which this Bridge is to be erected, shall be carefully formed of large stones up to low water level, and the openings shall then be filled in with smaller stones, so as to bring the whole mass upon which the bridge is to stand to a uniform surface previous to laying the foundation stones.

34 15

Embankments are to be formed from the material taken out of the excavations on the line so far as they go, and the deficiency shall be made up by loose rock, procured and deposited at the Contractor's risk and expense; but no material taken out of any excavation on the line of Road, except it be rock, shall form part of the slopes of No. 1, Embankment.

The Contractor, when required by the Engineer, shall cut, on the high side of slopes of Cuttings and Embankments, a side ditch of the form and dimensions shewn on the Cross Sections, Sheet 2, inclining towards the level courses, and drains, so as to convey the water into the same, and thereby prevent its washing away the slopes or injuring the roadway.

At the points where diversions of water courses shall be made, the ancient beds thereof are to be stopped at the upper end, as the Engineer shall direct.

Whenever in cutting through a brook or drain, the level of the Railway, or of the small ditches on the sides of the Railway, shall be lower than such brook or drain, then, in order that the water may not flow upon the Railway, or by the sides thereof, a level shall be brought up to the lower side of the line or track, of such a depth, that the water may flow freely by means of a drain under the Railway; or the said brook shall be diverted in its course, in either case, as the Engineer shall direct.

The Contractor shall be bound to chop down and clear away all Trees standing or lying on the ground set off for the Railway.

All Timber used in bridging shall be of well seasoned Pine, free from defect of every kind, and the planking shall be of Hemlock, 3 inches thick, well spiked down to the Beams with six inch spikes.

The foundation stones in all Mason work shall project 6 inches on each side of the wall, and no stone shall have an area less than 9 superficial feet, nor be less than 6 inches in depth. If considered necessary to lay a frame work of timber under the foundation stones, the Contractor shall do so in the manner to be directed by the Engineer.

The Walls or Abutments and Wing Walls, shall be of the dimensions shown in the Drawings, Sheet 3, and shall be built of Rubble Masonary, laid in Hydraulic lime. This work shall consist of dressed stones, placed on their natural bed; no stone to have less than three superficial feet, and to be laid so as to break bond, and each course tied together by headers three feet six inches by two feet, and not more than six feet apart.

After the profile of the natural surface has been reduced to the gradients and inclinations hereinbefore specified and as marked upon the Longitudinal and Cross Section the Contractor must then provide and spread the permanent road with ballast to the breadth of 14 feet and depth of 1 foot; the ballast to consist of clean gravel or stone, broken so that each piece shall pass each way through a ring 2 inches in diameter.

There is included in this Contract a deviation of the Windsor Road, as shown on Plan and Section.

In making this Road alteration, the Contractor shall take care that neither it nor the Railway operations shall impede or in any way interfere with the Road traffic, as for all such damage or interference he shall be held responsible.

The new Roadway is to be excavated and embanked, so as to be 22 feet 6 inches wide at formation level, with side slopes of 1 horizontal to 1 perpendicular, and brought to the grades shown on the section,—it is to be rounded off, so as to admit of proper drainage, and covered for the breadth of 18 feet and depth of 9 inches, with clean gravel.

The Contractor must provide all materials and workmanship, of the best description, at his own expense, necessary for carrying on and completing the work.

The whole work herein specified shall be completed on or before the Fifteenth day of December, 1854, under a penalty of Ten Pounds per day afterwards,—to be retained by the Commissioners from the prices agreed upon.

Pay Bills shall be made up and payments made monthly, or fortnightly, in the discretion of the Commissioners, according to the Schedule of Prices hereto attached, for work completed, on Certificates being granted by the Chief Engineer; less ten per cent. to remain in the Commissioners' hands until the Chief Engineer has certified that the Contracts are completed in a workmanlike manner, and to his entire satisfaction.

Should the Works not be carried on at such a rate, as, in the Engineer's opinion, to insure their completion, within the specified time, the Commissioners reserve to themselves power, on three days notice given, at any time, to take the whole or any portions of the work into their own hands, and complete the same at the Contractor's expense.

The Commissioners reserve to themselves the right of making alterations at any time, either in the location, curvatures, gradients, or nature of the works contracted for, and of requiring extra operations of any kind whatever, either in the making, draining, or finishing of the works contracted for; but such alterations, or any additional labour, shall in no way affect contracts entered into farther than that the same shall be paid for as extras, at like rates as other work contracted for; and they reserve a like right to withdraw any portion of the work contracted for, and prevent its being performed, and thereupon to make a corresponding deduction in payment.

The whole of the foregoing to be executed in a good workmanlike manner, and to the satisfaction of the Chief Engineer for the time being.

Should any dispute arise as to the true meaning and intent of this specification, the same shall be referred to the Chief Engineer for the time being, whose decision shall be binding on both parties.

The Drawings referred to in this Specification are:

1st.—Ground Plan	- - - - -	Sheet 1
2nd.—Longitudinal section, Cross sections and section of Road alteration, marked	- - - - -	} Sheet 2
3rd.—Detailed drawings, marked	- - - - -	Sheet 3

Signed by "J. R. FORMAN," marked "approved by the Governor in Council," and deposited in the Railway Office.

JOSEPH HOWE, Chairman.

Nova-Scotia Railway Office, }
September 8, 1854. }

