

1923

KENYA

60811

15 DEC 23

1709

19TH NOVEMBER 1923

SECRET

MINUTES

The Coy. Road Officer's Report  
is recommended;

(i) is the shortest route to

Kenya (i) is the best

(ii) from the main road

to the main road

to the main road

to the main road

public to the main  
road - including land

General  
of the

reference to Aruco  
p. 10 (IV) of

(...)

(...)

(...)

(...)

(...)

(...)

(...)

(...)

(...)

(...)

(...)

(...)

(...)

(...)

(...)

(...)

(...)

(...)

(...)

(...)

(...)

(...)

(...)

KENYA.

No. 1709.



GOVERNMENT HOUSE,

NAIROBI,

KENYA.

6081 19th November, 1923.

15 DEC 2 1923

MR. G. G. G. G.

I have the honour to transmit for Your Grace's consideration, a copy of the Report and Estimates prepared by the Chief Engineer, Comptroller and Survey of Railways, as the result of a survey conducted to obtain a three alternative route for the proposed railway line in the Transvaal.

The Report and Estimates have been retained by the Chief Engineer of the Transvaal Railway for the use of the Engineer on the proposed route.

I attach an extract from Mr. ... regarding the enclosure and have to state that Robert Coryndon endorsed the former's recommendation that Route "A" should be adopted.

I have the honour to be,  
My Lord Duke,

Your Grace's most devoted and  
most obedient servant,

GOVERNOR'S DEPUTY.

HIS GRACE

THE DUKE OF DEVONSHIRE, K.G., P.C., G.C.M.G., G.C.V.O.,  
SECRETARY OF STATE FOR THE COLONIES,

UGANDA RAILWAY

TRANS NEOLA RAILWAY SURVEY

Route (A)

~~Plateau - Junction with~~

18 sheets, numbered

1 section

Route (B)

~~Riders - Junction with~~

27 sheets, numbered

P.1 - P.15

P.15 x

P.16 - P.20

P.20 x

P.21 - P.25

1 section.

Route (C)

Plateau - Junction with Route (B)

20 sheets, numbered P.1 - P.20

1 section

1 Box containing

3 Roll sections - Soy - Kitale Route  
Eldoret " "  
Plataan " "

Reels :-

Plane Table sheets, Soy-Kitale Route  
Eldoret " "  
Plataan " "

Level and Traverse Field Books.  
Parcel, Earthwork and Bridge quantities.



INDIA RAILWAY

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INDIA RAILWAY

ESTIMATES

|                                   | Page |
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| Summary                           | 1    |
| General Summary                   | 1    |
| Scope of Project                  | 1    |
| Year of 1923                      | 3    |
| Location of Country               | 4    |
| Existing Routes                   | 5    |
| Proposed Routes                   | 7    |
| Construction                      | 9    |
| Cost                              | 11   |
| Estimated Cost                    | 12   |
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| Summary                           |      |
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**INDIA RAILWAY**

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**INDIA RAILWAY**

**ESTIMATES**

|                              | Page |
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| Summary                      | 1    |
| General Summary              | 1    |
| Statement of Project         | 1    |
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| Location of Country          | 4    |
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| Proposed Routes              | 7    |
| Construction                 | 9    |
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| 15                           | 15   |
| <b>ESTIMATES</b>             |      |
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The Nzoia River, entering the Nzoia District from the north, flows in a wide deep valley, the level of the river is approximately 250 - 300 feet below the level of the plateau.

The channels carrying the drainage off the plateau until they come within the valley of the Nzoia River, when they rejoin the main river.

The country of the Nzoia River the country, extending southwards to Kitale consists of great wide easy valleys.

Working on the north side of the Nzoia River, a point opposite Mile 116 on the basin of the Nzoia River, and running down valley parallel to the river and lying just to the north of Eldoret, runs a low rocky escarpment which presents a steep face to the south. It forms the upper limits of the right side of the Nzoia River valley. The escarpment extends out in the Plateau, 18 miles down stream from the point of commencement.

VI. ALTERNATIVE ROUTES.

Railway development in the Nzoia Districts may be based upon the recommendations of one of two policies; they are

(a) That the railway required is a direct railway to Kitale, the centre of the Trans Nyala District, by the shortest route economically feasible from the Nairobi-Kisumu railway.

That the railway required is a direct route, suitable for a passenger railway, and should have adequate facilities within a wide area, including a large number of farms.

The Government has considered the possibility of constructing a non-operative railway (the Nairobi-Kisumu railway) which lies in the vicinity of Kitale, followed by a railway from the latter to Kitale. It intruded a third factor, claiming recognition as an object of its latent or potential, economic importance.

To investigate in how far these claims can be reconciled with the development, led to the preparation of the following projects: they are:-

(A) A railway commencing at Nairobi, Kenya Railway and crossing the Nairobi-Kisumu Railway at Kitale. The length of the route is estimated at 100 miles. This route is shown in the attached map.

(B) A railway commencing at Nairobi, Kenya Railway and crossing the Nairobi-Kisumu Railway at Kitale. The length of the route is estimated at 100 miles. This route is shown in the attached map.

at Platana ... on the ... passing no ... Serg ...

... this route is 78.47 miles, the ...

VII. DESCRIPTION OF ROUTE

A. A Railway from Sea Head Station on the  
Uasin Gishu Railway to Kitale.

The alignment of this route is projected on a ruling gradient of 1.0%. It is designed as the shortest connecting link between the Uasin Gishu Railway and Kitale.

As traffic passing on this route from Kitale and the Trans Nzoia Districts, via Nairobi and the Coast would pass through Eldoret, the position of Eldoret as an obligatory point on the railway is secured.

The alignment on the Uasin Gishu Railway, the alignment passes over the country to the crossing of the Soroti River. This crossing is a controlled crossing, but as down stream from the crossing, the river falls rapidly in a deep ravine. From Mile 10 to Mile 22, the alignment is developed up and down the valleys of tributaries of the Nzoia River until, at Mile 22, the descent to the Nzoia River Valley is commenced, the river being crossed at Mile 27. North of the alignment finds support on the gentle side slopes of the wide flat ridge lying to the west of the Itobbas River, which the township of Kitale is situated on. The elevation of about 6,374 feet above Mean

VII. DESCRIPTION OF ROUTE

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A. A Railway from Soy Head Station on the Uasin Gishu Railway to Kitale.

The alignment of this route is projected on a ruling gradient of 1.6% and is designed as the shortest connecting line between the Uasin Gishu Railway and Kitale.

As traffic passing on this route from Kitale and the Trans Nzoia Districts, Nyeri, Nairobi and the Coast would pass through Eldoret, the position of Eldoret as an obligatory point on the railway is secured.

The alignment on the Uasin Gishu Railway, the alignment passes over the crossing of the Soroti River. This crossing is a controlled crossing, as down stream from the crossing, the river falls rapidly in a deep ravine. From Mile 10 to Mile 22, the alignment is developed up and down the valleys of tributaries of the Nzoia River until, at Mile 22, the ascent to the Nzoia River Valley is commenced, the river being crossed at Mile 27. North of the alignment finds support on the gentle side slopes of the wide flat ridge lying to the west of the Ittebbus River, which the township of Kitale is situated on an elevation of about 6,274 feet above Mean

and timber would be  
to the railway and the East Coast  
transport and sale in the Plateau and  
Districts.

of the east and  
river. The alignment  
from forming the  
ridge north of the  
Nzoia River

length should be effected by the  
route of the  
from Mile 100 to  
Nzoia River



**TRANS NZOIA RAILWAY**  
**PLAN OF**

TERMINATION OF

PLATE

It is considered that the provision made  
 for the Magistrates  
 will undertake the labour  
 supervision

A detailed Estimate has been prepared from  
 the Preliminary Plans and Sections of Route (A),  
 and this Estimate is accompanied by this  
 document. The Estimate is based upon current rates

of material and labour. The estimated cost per mile  
 of this rate per  
 mile is (B) and (C).  
 The cost of the  
 railways and the  
 only  
 being a part of the alternative

only of the Preliminary Plans and  
 it is evident where improvements can  
 be made in the length and quantity of work.  
 The facilities of such improvements, together with  
 the savings effected in structural design and construction  
 and practice will probably reduce the cost of the  
 railway to about £23,000 per mile, while if old  
 Permanent Way material, first from the Uganda Railway  
 is used the cost could be further reduced to the  
 region of £23,000 per mile.

4/1/46  
 11/5/46  
 11/5/46  
 11/5/46

To a great an estimate of the  
expenses, the standards the traffic, and the  
through between the various points must be considered.

The two primary routes, and the three alternate  
routes are the terminal, Atlantic Station and Plateau  
Station on the main (Main) Railway.

The distances between these stations on the  
Main Railway are as follows:

|                                      |       |
|--------------------------------------|-------|
| Atlantic Station to Plateau Station  | 64.40 |
| Atlantic Station to Terminal Station | 73.56 |
| Plateau Station to Terminal Station  | 82.72 |

It is assumed that the cost of operating the  
the line on the new railway and on the Main Railway  
will be the same, and that the cost will be calculated  
on the basis of the cost of the Main Railway of the 19/60  
and the cost of the new railway, and the 7/50 of  
the cost of the Main Railway.

The gain of mind to be  
expected, based on fact and scientific methods, is  
to be based on the annual receipts, working  
expenses for each year 10 years after completion.

II. FINANCIAL PROSPECTS

The attached financial statement, which is set out in detail above in comparative form, shows that no scheme will be productive of profit even after a period of 10 years.

III. SELECTION OF ROUTE.

As the above investigation into the prospects of the three alternative proposals for the provision of railways to serve the Frank Heath and part of the Farnham District, shows that the construction and operation of such a line will be attended with considerable financial loss, it must be proved that the only reasons justifying the construction of a railway lies in providing a means for marketing the produce from the Frank Heath Estate as a protective measure against the failure of the British Settlement Scheme, the possibility of which was first mentioned as early as 1926 by the Government's Committee appointed to make an Economic Survey of the District in connection with the London and Southampton Railway.

...the possible failure of the British Settlement Scheme, District, and the construction of a railway to serve the Frank Heath Estate as a protective measure against the failure of the British Settlement Scheme, the possibility of which was first mentioned as early as 1926 by the Government's Committee appointed to make an Economic Survey of the District in connection with the London and Southampton Railway.

...a railway of the

lightest character consistent with the requirements of a light agricultural railway to be operated with the rolling stock from the parent line.

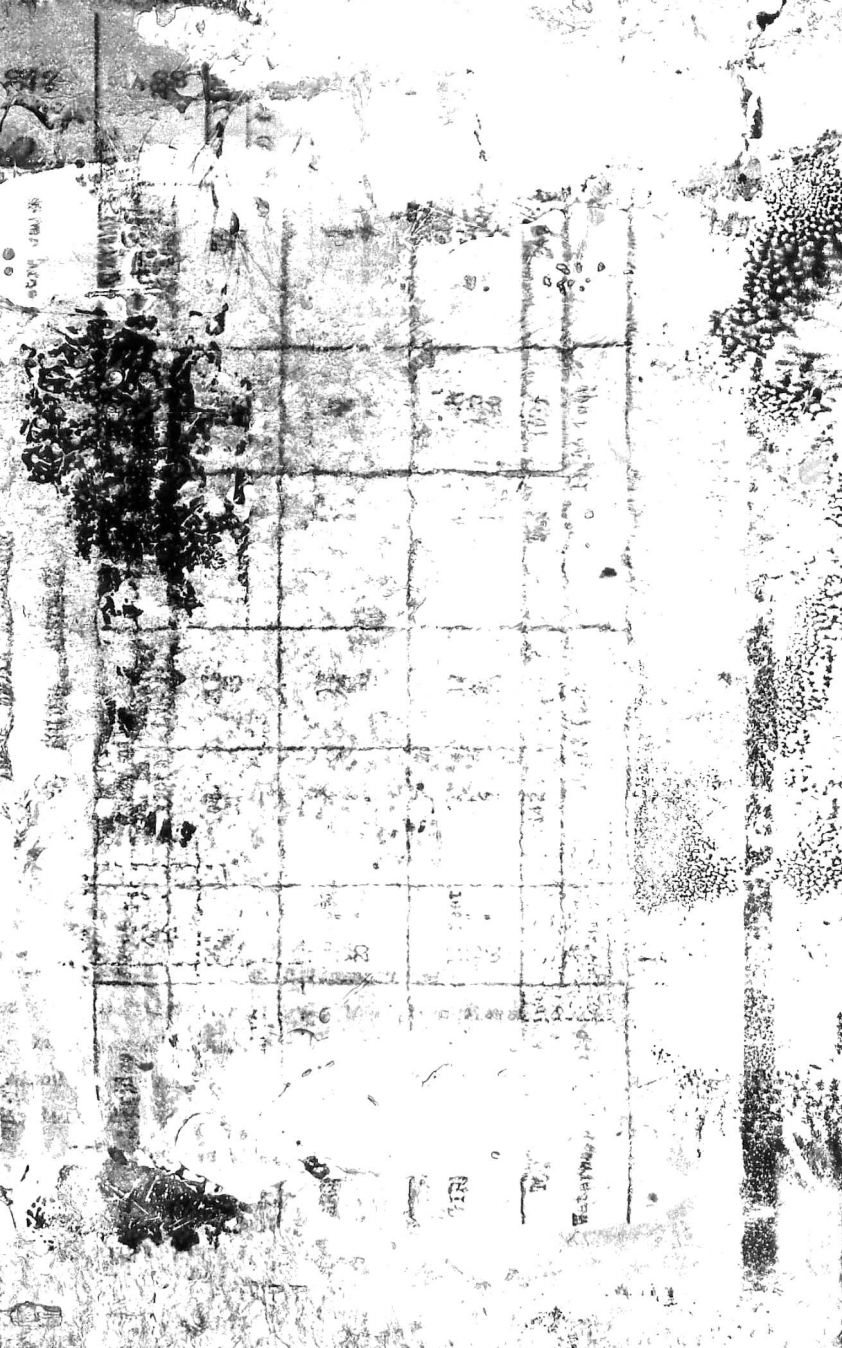
If moderate development in the Trans... Districts... anticipated... and... be extended... construction... construction... following... wider... the district than...  
As, however, moderate... to the... development of the Trans... Plateau... and as the construction... operation of... will be attended with... the... of... in excess of the minimum amount necessary to provide only the barest... facilities necessary to protect the existing development is not justified. For these reasons the selection of Route (A) is recommended.

*[Signature]*  
Chief Engineer  
CONSTRUCTION & SERVICE OF RAILWAYS

GRADIENT ABSTRACT OF ALTERNATIVE ROUTES

| Spartan Route     |                            | Aldoret - Kitale Route |                            | Plateau - Kitale Route |                            |
|-------------------|----------------------------|------------------------|----------------------------|------------------------|----------------------------|
| Length in miles   | Percentage of total length | Length in miles        | Percentage of total length | Length in miles        | Percentage of total length |
| 13.93             | 31.55                      | --                     | --                         | --                     | --                         |
| 3.26              | 7.65                       | --                     | --                         | --                     | --                         |
| 7.01              | 16.09                      | 28                     | 33.65                      | 45                     | 35.71                      |
| 5.30              | 12.55                      | 32                     | 16.30                      | 49                     | 19.92                      |
| 1.96              | 4.55                       | 3                      | 2.47                       | 9                      | 2.50                       |
| 1.74              | 4.16                       | 5                      | 1.33                       | 4                      | 1.31                       |
| 1.03              | 2.45                       | 4                      | 1.67                       | 3                      | 1.39                       |
| .73               | 1.73                       | --                     | --                         | 0                      | 3.38                       |
| 8.10              | 18.53                      | 24                     | 7.95                       | 29                     | 8.15                       |
| 13.70             | 100.00                     | 101                    | 63.27                      | 140                    | 72.47                      |
| 50% compensated   |                            | 1.00% compensated      |                            | 1.00% compensated      |                            |
| 2.39 miles (down) |                            | 5.87 miles (down)      |                            | 5.87 miles (down)      |                            |
| 70% (up)          |                            | .78% (down)            |                            | .78% (down)            |                            |
| 0.19 miles        |                            | 0.76 miles             |                            | 0.76 miles             |                            |

Continuous descent  
 by



OPERATES.

FILE # 1 2 3 4

NOV 22 1951

TRANS-MEXICAN RAILWAY

GENERAL ACCOUNT OF COST OF RAILWAY

HEAD OF ACCOUNT  
and Sub-Head.

Quantity  
Unit  
Cost  
Total

|                     |      |     |       |      |
|---------------------|------|-----|-------|------|
| (a) Survey Expenses | 1000 | 100 | 74500 | 1000 |
| (b) Plans           | 1000 | 100 |       |      |
| (c) Establishment   | 1000 | 100 |       |      |

II. LAND 6100 100

III. FOUNDATION 66000 2500

|                     |       |      |  |  |
|---------------------|-------|------|--|--|
| (a) Excavation      | 60000 | 1000 |  |  |
| (b) Foundations     | 1000  | 100  |  |  |
| (c) Retaining       | 1000  | 100  |  |  |
| (d) Road diversions | 1000  | 100  |  |  |

IV. BRIDGES 60000 1000

|                     |       |      |  |  |
|---------------------|-------|------|--|--|
| (a) Steel Bridges   | 20000 | 1000 |  |  |
| (b) Masonry Bridges | 10000 | 1000 |  |  |
| (c) Viaducts        | 10000 | 1000 |  |  |

V. TUNNELS 10000 1000

|                     |       |      |  |  |
|---------------------|-------|------|--|--|
| (a) Tunneling       | 10000 | 1000 |  |  |
| (b) Bored Piers     | 10000 | 1000 |  |  |
| (c) Hydraulic Piers | 10000 | 1000 |  |  |
| (d) Hill Piers      | 10000 | 1000 |  |  |
| (e) Local Crossings | 10000 | 1000 |  |  |

VI. TELEGRAPH 10000 1000

VII. MAIN WAY 50000 2000

|                        |       |      |  |  |
|------------------------|-------|------|--|--|
| (a) Main Line          | 30000 | 2000 |  |  |
| (b) Sidings            | 10000 | 2000 |  |  |
| (c) Points & Crossings | 10000 | 2000 |  |  |

ROYAL ROAD TO KISumu

(ROUTE 4)

CENTRAL ASPECT OF ROAD

| Head of Agency and Sub-head | Area | Per Acre | Per Mile |
|-----------------------------|------|----------|----------|
|-----------------------------|------|----------|----------|

Project Forward

|                 |      |      |  |
|-----------------|------|------|--|
| (a) District    | 1000 | 1000 |  |
| (b) V. District | 1000 | 1000 |  |
| (c) District    | 1000 | 1000 |  |
| (d) District    | 1000 | 1000 |  |

|     |     |     |     |
|-----|-----|-----|-----|
| ... | ... | ... | ... |
| ... | ... | ... | ... |
| ... | ... | ... | ... |

|     |     |     |     |
|-----|-----|-----|-----|
| ... | ... | ... | ... |
|-----|-----|-----|-----|

|     |     |     |     |
|-----|-----|-----|-----|
| ... | ... | ... | ... |
| ... | ... | ... | ... |
| ... | ... | ... | ... |

TOTAL

*W. W. ...*

220,915  
240,810

**TRAFFIC EXHAUSTION**

**BRIDGE ROAD TO RIVER**

MAY 1950  
MAY 1950

**ILLINOIS**

| Sub-Head | Quantity | Rate<br>Per cu. | Unit | Amount<br>Per cu. |
|----------|----------|-----------------|------|-------------------|
|----------|----------|-----------------|------|-------------------|

**A) EARTHWORK**

|               |         |         |         |            |
|---------------|---------|---------|---------|------------|
| Earth         | 1807685 | 22. 00  | cu. yd. | 399691. 00 |
| Soft Rock     | 128510  | 65. 00  | "       | 83531. 50  |
| Hard Rock     | 102857  | 120. 00 | "       | 123428. 40 |
| Trained earth | 280000  | 60. 00  | "       | 168000. 00 |

**B) DRAINAGE**

Side Drains.

|           |        |         |   |            |
|-----------|--------|---------|---|------------|
| Earth     | 332480 | 40. 00  | " | 132992. 00 |
| Soft Rock | 19200  | 70. 00  | " | 13440. 00  |
| Hard Rock | 19200  | 120. 00 | " | 23040. 00  |

Water Drains.

|           |         |         |   |            |
|-----------|---------|---------|---|------------|
| Earth     | 1063500 | 40. 00  | " | 425400. 00 |
| Soft Rock | 192000  | 70. 00  | " | 134400. 00 |
| Hard Rock | 192000  | 120. 00 | " | 230400. 00 |

**C) MAINTENANCE & CONSTRUCTION**

Allow 10% on cost of Earthworks. 22334. 00

**D) CLEARING**

Nil

**E) ROAD DIVERSIONS**

|       |        |        |   |           |
|-------|--------|--------|---|-----------|
| Earth | 128000 | 28. 00 | " | 35840. 00 |
|-------|--------|--------|---|-----------|

**TOTAL** Per. 688425. 00

UGANDA RAILWAY

FRANK-NZOLA EXTENSION

MAJOR BRIDGES

BOY ROAD TO KITALE

(A) MAJOR BRIDGES.

40' SPAN AND OVER.

ABSTRACT OF COST

| <u>Sta.</u> | <u>Mileage.</u> | <u>Name.</u>        | <u>Span.</u>       | <u>Cost.</u><br><u>Sh. 00.</u> |
|-------------|-----------------|---------------------|--------------------|--------------------------------|
| 27          | 5. 46           | BERGOIT RIVER.      | 1 - 40'            | 12500. 00                      |
| 59          | 20. 25          | LITTLE NZOLA RIVER. | 1 - 60'<br>2 - 40' | 7500. 00                       |
| 31          | 27. 11          | NZOLA RIVER.        | 1 - 60'<br>2 - 40' | 8500. 00                       |
|             |                 | <u>TOTAL</u>        |                    | <u>28500. 00</u>               |

TRANE-MEDIA EXTENSION

NO. 22 AN KIVALE

Metre Gauge  
Lowest Price Bids

BRIDGE NO. 22

MAJOR BRIDGES 40' SPAN AND OVER

| DESCRIPTION                 | Quantity | Unit   | Rate   | Amount    |
|-----------------------------|----------|--------|--------|-----------|
| Excavation earth            | 38.00    | cu yds | 12.50  | 475.00    |
| Concrete for foundations    | 4200     | cu yds | 13.50  | 56700.00  |
| Masonry                     | 3000     | sq ft  | 14.00  | 42000.00  |
| Extra to masonry for height | 7800     | sq ft  | 1.00   | 7800.00   |
| Concrete for abutments      | 2000     | cu yds | 13.50  | 27000.00  |
| Str. work for abutments     | 5400     | sq ft  | 40.50  | 218700.00 |
| Order slabs                 | 16       | sq ft  | 3.50   | 56.00     |
| Steel work complete         | 11.50    | sq ft  | 620.00 | 7130.00   |
| Channel iron for railing    |          |        |        | 162.00    |
| Bridge sleepers             | 30       | nos    | 17.00  | 510.00    |
| Sleeper ballast             | 20       | cu yds | 7.00   | 140.00    |
| Ballast                     | 0        |        |        | 80.00     |
| Earthwork in approaches     | 28.30    | cu yds | 18.00  | 509.40    |
| Temporary works             |          |        |        | 1000.00   |
| Filling                     |          |        |        |           |
| Works established           |          |        |        |           |

Contingencies 20%

Establishment for 3 bridges.

**TOTAL**

20990.00

20990.00

13.3

1940

1941

| Item |       |  |         |
|------|-------|--|---------|
| 1.   |       |  |         |
| 2.   |       |  |         |
| 3.   |       |  |         |
| 4.   |       |  |         |
| 5.   |       |  |         |
| 6.   |       |  |         |
| 7.   |       |  |         |
| 8.   |       |  |         |
| 9.   |       |  |         |
| 10.  | 45.04 |  | 45.04   |
| 11.  | L.S.  |  | L.S.    |
| 12.  | 25    |  | 25      |
| 13.  | 300   |  | 300     |
| 14.  | L.S.  |  | 100     |
|      |       |  | L.S.    |
|      |       |  | 2000.00 |

|              |        |
|--------------|--------|
| 75000.00     | 220.00 |
| 3000.00      | 370.00 |
| 52. 75000.00 | 00     |

UGANDA RAILWAY  
TRANS-KIOIA EXTENSION

Metro Gauge  
Length 45.10 Miles

BOX ROAD TO KITALE

(B) MINOR BRIDGES UNDER 40' SPAN.

ABSTRACT OF COSTS.

| Serial No. | Kilometre. | Name.               | Span.              | Cost.<br>Sh. cs.      |
|------------|------------|---------------------|--------------------|-----------------------|
| 11         | 0. 00      | -                   | 1 - 6° Sur. Arch.  | 9582. 00              |
| 25         | 8. 94      | -                   | 1 - 6° " "         | 9582. 00              |
| 33         | 13. 26     | YLIIP SPRUIT. 1-20' | " "                | 7582. 00              |
| 46         | 16. 42     | -                   | 1 - 12° Girders    | 16540. 00             |
| 47         | 17. 60     | -                   | 1 - 12° Sur. Arch. | 31545. 00             |
| 50         | 18. 91     | -                   | 1 - 12° Sur. Arch. | 31545. 00             |
|            |            |                     | <u>TOTAL</u>       | <u>Sh. 174066. 00</u> |

(B) MINOR BRIDGES UNDER 40' SPAN

| DESCRIPTION | Name                               | Serial No. | IS.             |
|-------------|------------------------------------|------------|-----------------|
| OF          | Mileage                            |            | 4.00            |
| WORK        | Height:- Bed of river to formation |            | 12 Feet.        |
|             | Foundations                        |            | 2 feet on each  |
|             | Span.                              |            | 1-4' max. Arch. |

|                           | Sh. os. | Unit.     | Quantity | Pr. ex. |
|---------------------------|---------|-----------|----------|---------|
| Excavation earth          | 38.00   | % Cub.ft  | 1800     | 39.00   |
| Soft Rock                 | 58.00   |           |          |         |
| Concrete in founds        | 5.00    | Cub.ft.   | 176      | 1800.00 |
| Masonry                   | 2.50    | "         | 1592     | 3948.00 |
| Arch concrete             | 5.70    | Lin.ft.   | 22       | 123.00  |
|                           | 8.10    | "         |          |         |
|                           | 15.50   | "         |          |         |
| Concrete in Arch          | 3.50    |           | 484      | 1594.00 |
| Dry stone pitching.       | 48.00   | % Cub.ft. | 3000     | 1440.00 |
| Pitching hand set.        | 1.33    | Sup.ft.   | 240      | 318.00  |
| Gravel dips               |         |           |          |         |
| Steelwork complete        |         |           |          |         |
| Channel iron ballast      |         |           |          |         |
| Wall                      |         |           |          |         |
| Bridge sleepers.          |         |           |          |         |
| Sleeper bolts.            |         |           |          |         |
| Plates.                   |         |           |          |         |
| Fastenings to approaches. |         |           |          |         |
| Temporary Works.          | 1.25    |           |          |         |
| Piling.                   |         |           |          | 302.00  |
| Establishment.            |         |           |          |         |

Contingencies 5%

TOTAL 952.00

**IV. BRIDGEWORK**

**(B) MINOR BRIDGES UNDER 40' SPAN (Continued).**

Mile 8. 04                      Mile 12. 16                      Mile 16. 42  
 10 feet                      12 feet                      20 feet  
 2 feet on rock.                      2 feet on rock.                      2 feet on rock.  
 1 - 4' Cur. Arch.                      1 - 20' Cur. Arch.                      1 - 12' Cur. Arch.

| es.              | Quantity.       | Price.   | Quantity.        | Price.    | Quantity.        | Price.   |
|------------------|-----------------|----------|------------------|-----------|------------------|----------|
| 1.               | 2000            | 35. 00   |                  |           | 3000             | 114. 00  |
| 2.               |                 |          | 8000             | 440. 00   |                  |          |
| 3.               | 750             | 1980. 00 | 4092             | 10230. 00 | 3008             | 7500. 00 |
| 4.               | 3000            | 3080. 00 | 10928            | 27320. 00 | 2478             | 6100. 00 |
| 5.               | 325             | 325. 00  |                  |           |                  |          |
| 6.               |                 |          | 94               | 1457. 00  |                  |          |
| 7.               | 1000            | 1000. 00 | 8100             | 28501. 00 |                  |          |
| 8.               | 500             | 500. 00  | 2500             | 9850. 00  | 500              |          |
| 9.               | 100             | 315. 00  |                  |           |                  |          |
| 10.              |                 |          |                  |           | 10               |          |
| 11.              |                 |          |                  |           | 20               |          |
| 12.              |                 |          |                  |           | 10               |          |
| 13.              |                 |          |                  |           | 10               |          |
| 14.              |                 |          |                  |           | 10               |          |
| 15.              |                 |          |                  |           | 10               |          |
| 16.              |                 |          |                  |           | 10               |          |
| 17.              |                 |          |                  |           | 10               |          |
| 18.              |                 |          |                  |           | 10               |          |
| 19.              |                 |          |                  |           | 10               |          |
| 20.              |                 |          |                  |           | 10               |          |
| 21.              |                 |          |                  |           | 10               |          |
| 22.              |                 |          |                  |           | 10               |          |
| 23.              |                 |          |                  |           | 10               |          |
| 24.              |                 |          |                  |           | 10               |          |
| 25.              |                 |          |                  |           | 10               |          |
| 26.              |                 |          |                  |           | 10               |          |
| 27.              |                 |          |                  |           | 10               |          |
| 28.              |                 |          |                  |           | 10               |          |
| 29.              |                 |          |                  |           | 10               |          |
| 30.              |                 |          |                  |           | 10               |          |
| 31.              |                 |          |                  |           | 10               |          |
| 32.              |                 |          |                  |           | 10               |          |
| 33.              |                 |          |                  |           | 10               |          |
| 34.              |                 |          |                  |           | 10               |          |
| 35.              |                 |          |                  |           | 10               |          |
| 36.              |                 |          |                  |           | 10               |          |
| 37.              |                 |          |                  |           | 10               |          |
| 38.              |                 |          |                  |           | 10               |          |
| 39.              |                 |          |                  |           | 10               |          |
| 40.              |                 |          |                  |           | 10               |          |
| 41.              |                 |          |                  |           | 10               |          |
| 42.              |                 |          |                  |           | 10               |          |
| 43.              |                 |          |                  |           | 10               |          |
| 44.              |                 |          |                  |           | 10               |          |
| 45.              |                 |          |                  |           | 10               |          |
| 46.              |                 |          |                  |           | 10               |          |
| 47.              |                 |          |                  |           | 10               |          |
| 48.              |                 |          |                  |           | 10               |          |
| 49.              |                 |          |                  |           | 10               |          |
| 50.              |                 |          |                  |           | 10               |          |
| 51.              |                 |          |                  |           | 10               |          |
| 52.              |                 |          |                  |           | 10               |          |
| 53.              |                 |          |                  |           | 10               |          |
| 54.              |                 |          |                  |           | 10               |          |
| 55.              |                 |          |                  |           | 10               |          |
| 56.              |                 |          |                  |           | 10               |          |
| 57.              |                 |          |                  |           | 10               |          |
| 58.              |                 |          |                  |           | 10               |          |
| 59.              |                 |          |                  |           | 10               |          |
| 60.              |                 |          |                  |           | 10               |          |
| 61.              |                 |          |                  |           | 10               |          |
| 62.              |                 |          |                  |           | 10               |          |
| 63.              |                 |          |                  |           | 10               |          |
| 64.              |                 |          |                  |           | 10               |          |
| 65.              |                 |          |                  |           | 10               |          |
| 66.              |                 |          |                  |           | 10               |          |
| 67.              |                 |          |                  |           | 10               |          |
| 68.              |                 |          |                  |           | 10               |          |
| 69.              |                 |          |                  |           | 10               |          |
| 70.              |                 |          |                  |           | 10               |          |
| 71.              |                 |          |                  |           | 10               |          |
| 72.              |                 |          |                  |           | 10               |          |
| 73.              |                 |          |                  |           | 10               |          |
| 74.              |                 |          |                  |           | 10               |          |
| 75.              |                 |          |                  |           | 10               |          |
| 76.              |                 |          |                  |           | 10               |          |
| 77.              |                 |          |                  |           | 10               |          |
| 78.              |                 |          |                  |           | 10               |          |
| 79.              |                 |          |                  |           | 10               |          |
| 80.              |                 |          |                  |           | 10               |          |
| 81.              |                 |          |                  |           | 10               |          |
| 82.              |                 |          |                  |           | 10               |          |
| 83.              |                 |          |                  |           | 10               |          |
| 84.              |                 |          |                  |           | 10               |          |
| 85.              |                 |          |                  |           | 10               |          |
| 86.              |                 |          |                  |           | 10               |          |
| 87.              |                 |          |                  |           | 10               |          |
| 88.              |                 |          |                  |           | 10               |          |
| 89.              |                 |          |                  |           | 10               |          |
| 90.              |                 |          |                  |           | 10               |          |
| 91.              |                 |          |                  |           | 10               |          |
| 92.              |                 |          |                  |           | 10               |          |
| 93.              |                 |          |                  |           | 10               |          |
| 94.              |                 |          |                  |           | 10               |          |
| 95.              |                 |          |                  |           | 10               |          |
| 96.              |                 |          |                  |           | 10               |          |
| 97.              |                 |          |                  |           | 10               |          |
| 98.              |                 |          |                  |           | 10               |          |
| 99.              |                 |          |                  |           | 10               |          |
| 100.             |                 |          |                  |           | 10               |          |
| <b>TOTAL</b>     | <b>9126. 00</b> |          | <b>71588. 00</b> |           | <b>15763. 00</b> |          |
| Contingencies 5% | 456. 00         |          | 3584. 00         |           | 787. 00          |          |
| <b>TOTAL</b>     | <b>9582. 00</b> |          | <b>75272. 00</b> |           | <b>16550. 00</b> |          |



# UGANDA RAILWAY

## TRAM-ROAD EXTENSION

(continued)

162

Miles from  
Landing at ...

EST. ...

...

... SCAN.

| Serial No. |       | Span               | Cost. Sh. cs. |
|------------|-------|--------------------|---------------|
| 1.         | . 07  | 1 - 24" Armo Pipe. | 900. 00       |
| 2.         | . 15  | " " "              | 875. 00       |
| 3.         | . 68  | " " "              | 875. 00       |
| 4.         | . 78  | 3 - 36"            | 3187. 00      |
| 5.         | . 03  | 1 - 36"            | 1802. 00      |
| 6.         | 1. 68 | 1 - 24"            | 900. 00       |
| 7.         | 2. 00 | 2 - 36"            | 2668. 00      |
| 8.         | 2. 5  | 1 - 36"            | 1802. 00      |
| 9.         |       | 2 - 36"            | 2934. 00      |
| 10.        |       | 2 - 24"            | 1583. 00      |
| 11.        |       | 1 - 36"            | 1736. 00      |
| 12.        |       | 1 - 24"            | 875. 00       |
| 13.        |       | " " "              | 875. 00       |
| 14.        | 5. 42 | " " "              | 900. 00       |
| 15.        | 5. 87 | " " "              | 875. 00       |
| 16.        | 6. 89 | 2 - 24"            | 1453. 00      |
| 17.        | 7. 15 | 1 - 36"            | 2386. 00      |
| 18.        | 7. 15 | " " "              | 2386. 00      |
| 19.        | 7. 41 | " " "              | 1802. 00      |
| 20.        | 7. 44 | " " "              | 1802. 00      |
| 21.        | 8. 25 | " " "              | 1824. 00      |
| 22.        | 8. 30 | 1 - 24"            | 953. 00       |
| 23.        | 9. 23 | 1 - 36"            | 1800. 00      |
| 24.        | 9. 69 | 1 - 24"            | 900. 00       |

... ..

...

| Serial No.           | Mileage | Open              | Cost. Sh. es. |
|----------------------|---------|-------------------|---------------|
| Brought Forward..... |         |                   | 37073. 00     |
| 28.                  | 10. 30  | 1 - 24" Armo Pipe | 900. 00       |
| 29.                  | 10. 59  | " " "             | 875. 00       |
| 30.                  | 10. 92  | " " "             | 900. 00       |
| 31.                  | 11. 23  | " " "             | 900. 00       |
| 32.                  | 11. 01  | " " "             | 875. 00       |
| 33.                  | 12. 34  | " " "             | 1032. 00      |
| 34.                  | 12. 73  | " " "             | 953. 00       |
| 35.                  | 13. 00  | " " "             | 900. 00       |
| 37.                  | 13. 14  | " " "             | 900. 00       |
| 38.                  | 13. 53  | " " "             | 880. 00       |
| 39.                  | 14. 30  | " " "             | 900. 00       |
| 40.                  | 14. 72  | " " "             | 953. 00       |
| 41.                  | 15. 15  | " " "             | 953. 00       |
| 42.                  | 15. 45  | " " "             | 875. 00       |
| 43.                  | 15. 91  | " " "             | 1086. 00      |
| 44.                  | 16. 70  | " " "             | 953. 00       |
| 45.                  | 17. 10  | " " "             | 900. 00       |
| 46.                  | 16. 24  | " " "             | 883. 00       |
| 49.                  | 18. 72  | " " "             | 953. 00       |
| 51.                  | 19. 10  | " " "             | 853. 00       |
| 52.                  | 19. 77  | (Station Site)    | 1006. 00      |
| 53.                  | 20. 00  | (Station Site)    | 953. 00       |
| 55.                  | 20. 57  | 1 - 36"           | 1824. 00      |
| 56.                  | 20. 69  | 2 - 24"           | 1883. 00      |
| 57.                  | 20. 80  | 1                 | 953. 00       |
| 58.                  | 21. 11  | "                 | 1824. 00      |
| 59.                  | 21. 42  | "                 | 900. 00       |
| 60.                  | 21. 43  | 1                 | 900. 00       |
| Carried Forward...   |         |                   | 45710. 00     |

(4) CULVERTS UNDER 10' SPAN (Continued)

| Serial No. | Quantity | Span, ft. | Description | Unit Cost | Total Cost |
|------------|----------|-----------|-------------|-----------|------------|
| 61.        | 22. 10   | 1 - 24"   | Archie Pipe | 100.00    | 2200.00    |
| 62.        | 22. 34   | "         | "           | 100.00    | 2200.00    |
| 63.        | 22. 60   | "         | "           | 100.00    | 2200.00    |
| 64.        | 22. 80   | "         | "           | 100.00    | 2200.00    |
| 65.        | 22. 90   | "         | "           | 100.00    | 2200.00    |
| 66.        | 23. 50   | "         | "           | 100.00    | 2350.00    |
| 67.        | 24. 30   | "         | "           | 100.00    | 2430.00    |
| 68.        | 24. 00   | "         | "           | 100.00    | 2400.00    |
| 69.        | 24. 12   | "         | "           | 100.00    | 2412.00    |
| 70.        | 24. 58   | "         | "           | 100.00    | 2458.00    |
| 71.        | 24. 80   | "         | "           | 100.00    | 2480.00    |
| 72.        | 24. 82   | "         | "           | 100.00    | 2482.00    |
| 73.        | 24. 88   | "         | "           | 100.00    | 2488.00    |
| 74.        | 25. 34   | "         | "           | 100.00    | 2534.00    |
| 75.        | 25. 78   | "         | "           | 100.00    | 2578.00    |
| 76.        | 26. 00   | "         | "           | 100.00    | 2600.00    |
| 77.        | 26. 88   | "         | "           | 100.00    | 2688.00    |
| 78.        | 26. 92   | "         | "           | 100.00    | 2692.00    |
| 79.        | 30. 78   | "         | "           | 100.00    | 3078.00    |
| 80.        | 27. 50   | 1 - 36"   | "           | 100.00    | 2750.00    |
| 81.        | 27. 74   | 1 - 24"   | "           | 100.00    | 2774.00    |
| 82.        | 28. 10   | "         | "           | 100.00    | 2810.00    |
| 83.        | 28. 34   | "         | "           | 100.00    | 2834.00    |
| 84.        | 28. 72   | "         | "           | 100.00    | 2872.00    |
| 85.        | 29. 20   | "         | "           | 100.00    | 2920.00    |
| 86.        | 29. 78   | "         | "           | 100.00    | 2978.00    |
| 87.        | 30. 12   | "         | "           | 100.00    | 3012.00    |

Brought Forward

95947.00

NO 1007

|      |  |  |  |          |
|------|--|--|--|----------|
| 92.  |  |  |  | 1100. 00 |
| 93.  |  |  |  | 975. 00  |
| 94.  |  |  |  | 1000. 00 |
| 95.  |  |  |  | 1075. 00 |
| 96.  |  |  |  | 1000. 00 |
| 97.  |  |  |  | 1075. 00 |
| 98.  |  |  |  | 1000. 00 |
| 99.  |  |  |  | 1075. 00 |
| 100. |  |  |  | 1000. 00 |
| 101. |  |  |  | 1075. 00 |
| 102. |  |  |  | 1000. 00 |
| 103. |  |  |  | 1075. 00 |
| 104. |  |  |  | 1000. 00 |
| 105. |  |  |  | 1075. 00 |
| 106. |  |  |  | 1000. 00 |
| 107. |  |  |  | 1075. 00 |
| 108. |  |  |  | 1000. 00 |
| 109. |  |  |  | 1075. 00 |
| 110. |  |  |  | 1000. 00 |
| 111. |  |  |  | 1075. 00 |
| 112. |  |  |  | 1000. 00 |
| 113. |  |  |  | 1075. 00 |
| 114. |  |  |  | 1000. 00 |
| 115. |  |  |  | 1075. 00 |

Carried Forward... 122986. 00

|                  | Span            | Cost<br>Sh. cs.    |
|------------------|-----------------|--------------------|
| Brought Forward. |                 | 123086. 00         |
| 126              | 24" Arched Pipe | 875. 00            |
| 127              | " "             | 1632. 00           |
| 128              | 24" " "         | 145. 00            |
| 129              | " "             | 1506. 00           |
| 130              | 24" " "         | 900. 00            |
| 131              | " "             | 875. 00            |
| 132              | " "             | 1632. 00           |
| 133              | " "             | 875. 00            |
| 134              | " "             | 900. 00            |
| 135              | " "             | 900. 00            |
| 136              | " "             | 953. 00            |
| 137              | " "             | 990. 00            |
| Contingencies 5% |                 | 5957. 00           |
|                  |                 | 5953. 00           |
| <b>TOTAL</b>     |                 | <b>Sh. 148030.</b> |

|     | Span             | Cost<br>Sh. cs. |
|-----|------------------|-----------------|
|     | Brought Forward. | 123386. 00      |
| 126 | 24" Arcco Pipe   | 875. 00         |
| 127 | " "              | 1032. 00        |
| 128 | 24" " "          | 148. 00         |
| 129 | " "              | 1608. 00        |
| 130 | 24" " "          | 900. 00         |
| 131 | " "              | 875. 00         |
| 132 | " "              | 1032. 00        |
| 133 | " "              | 875. 00         |
| 134 | " "              | 900. 00         |
| 135 | " "              | 900. 00         |
| 136 | " "              | 953. 00         |
| 137 | " "              | 980. 00         |
|     | Contingencies 5% | 5967. 00        |
|     |                  | 5963. 00        |
|     | <b>TOTAL</b>     | Sh. 142050.     |

142050  
Sh.

**UGANDA RAILWAY**

166 A

**TRANS-NIOLA EXTENSION**

**ROY. ROAD TO NIOLA**

Lands in U.G. 1122.

**V. FENCING LEVEL CROSSINGS GRADE POSTS ETC.**

FOR details see Appendix 10

| Sub-Head.                   | Quantity. | Rate     | Unit. | Amount.              |
|-----------------------------|-----------|----------|-------|----------------------|
|                             |           | Sh. P.   |       | Sh. P.               |
| (A) <u>FENCING</u>          | 2 Miles.  | 2000. 00 | Mile. | 4000. 00             |
| (B) <u>BOUNDARY POSTS.</u>  | 704 "     | 2. 00    | Each. | 1408. 00             |
| (C) <u>GRADIENT POSTS.</u>  | 101 "     | 20. 00   | Each. | 2020. 00             |
| (D) <u>MILE POSTS.</u>      | 44        | 21. 00   | "     | 924. 00              |
| (E) <u>LEVEL CROSSINGS.</u> |           |          |       |                      |
| 2nd. Class.                 | 11        | 233. 00  | "     | 2567. 00             |
| 3rd. Class.                 | 20        | 136. 00  | "     | 2720. 00             |
| <b>TOTAL</b>                |           |          |       | <b>Sh. 13668. 00</b> |

TRANS-NEOJA REVISION

167

SIX ROAD TO KYTAKI

MINIST. OF WORKS  
KAMPALA

V.L. DIMBORO

FOR ESTIMATE FOR SUPPLYING

| Item.                            | Quantity. | Unit.  | Rate.  | Amount.    |
|----------------------------------|-----------|--------|--------|------------|
| 3 wires on cedar poles complete. |           |        |        |            |
| Materials.                       | 93.7      | 1922.4 | 181.5  | 169,110.80 |
| Labour                           | "         | 222.00 | 961.00 | 213,322.00 |
| Tools.                           | "         | 6.7    | 328.00 | 2,190.00   |
| Instruments.                     |           |        |        |            |
| Intermediate station No. 1       |           | 308.00 | 318.00 | 98,640.00  |
| Terminal Station No. 2           |           | 308.00 | 318.00 | 98,640.00  |

**TOTAL** Sh. 79615.80

VIII. STATIONS & SERVICES

(A) STATIONS & OFFICES

| LATHINGS.<br>HAT-<br>IVE<br>Sh. | EURO-<br>FRAN.<br>Sh. | GOODS<br>SIZES.<br>Sh. | NAME<br>NO. DS.<br>Sh. | PALIS-<br>-ADES.<br>Sh. | PLATFORM<br>PANS.<br>Sh. | LAMP<br>GOODS.<br>Sh. | DRINKING<br>HYDRANT<br>Sh. | SIGNAL<br>POSTS<br>Sh. | MESSAGE<br>POSTS<br>Sh. | WATER<br>POSTS<br>Sh. | SEW-<br>AGE<br>POSTS<br>Sh. | ENGINE-<br>-ATORS.<br>Sh. | RAIL<br>BUNGALOWS<br>Sh. | OFFICES.<br>Sh. | POST PER<br>STATION.<br>Sh. |           |
|---------------------------------|-----------------------|------------------------|------------------------|-------------------------|--------------------------|-----------------------|----------------------------|------------------------|-------------------------|-----------------------|-----------------------------|---------------------------|--------------------------|-----------------|-----------------------------|-----------|
|                                 |                       |                        |                        |                         |                          |                       |                            |                        |                         |                       |                             |                           |                          |                 |                             | TOTAL     |
| 300                             | 300                   | 4000                   | 80                     | -                       | -                        | -                     | -                          | -                      | -                       | -                     | -                           | -                         | -                        | -               | -                           | 12000. 00 |
| 300                             | 300                   | 4000                   | 80                     | -                       | -                        | -                     | -                          | -                      | -                       | -                     | -                           | -                         | -                        | -               | -                           | 12000. 00 |
| 300                             | 300                   | 4000                   | 80                     | -                       | -                        | -                     | -                          | -                      | -                       | -                     | -                           | -                         | -                        | -               | -                           | 12000. 00 |
| 300                             | 300                   | 4000                   | 80                     | -                       | -                        | -                     | -                          | -                      | -                       | -                     | -                           | -                         | -                        | -               | -                           | 12000. 00 |
|                                 |                       |                        |                        |                         |                          |                       |                            |                        |                         |                       |                             |                           | 2000                     | 2000            |                             | 12000. 00 |
|                                 |                       |                        |                        |                         |                          |                       |                            |                        |                         |                       |                             |                           |                          | TOTAL.          | SH. 51100. 00               |           |

COPIES OF THIS REPORT ARE TO BE FORWARDED TO THE DIRECTOR GENERAL OF THE RAILWAYS OF INDIA AND TO THE SECRETARY OF THE RAILWAYS OF THE UNITED KINGDOM.

VIII. STATIONS & BUILDINGS

(A) STATIONS & OFFICES

| LATHINGS.<br>NAT-<br>IVE<br>Sh. | BUNG-<br>ALOWS.<br>FRAM.<br>Sh. | GOODS NAME<br>SINGS. BOARDS.<br>Sh. | SH.<br>Sh. | PALIS-<br>ADES.<br>Sh. | PLATFORM<br>PASS.<br>Sh. | LAMP'S<br>GOODS.<br>Sh. | DRINKING<br>HYDRANTS<br>Sh. | STAIRS<br>KARAVANS.<br>Sh. | APPROACH<br>PADS.<br>Sh. | WATER<br>TOWERS.<br>Sh. | 300<br>Sh. | INCINER-<br>ATORS.<br>Sh. | RAIL<br>BUNGALOWS.<br>Sh. | OFFICES.<br>Sh. | POST OFF.<br>STATION.<br>Sh. |
|---------------------------------|---------------------------------|-------------------------------------|------------|------------------------|--------------------------|-------------------------|-----------------------------|----------------------------|--------------------------|-------------------------|------------|---------------------------|---------------------------|-----------------|------------------------------|
| 800                             | 300                             | 4000                                | 80         | -                      | -                        | -                       | -                           | -                          | -                        | -                       | -          | -                         | -                         | -               | 12000. 00                    |
| 800                             | 300                             | 4000                                | 80         | -                      | -                        | -                       | -                           | -                          | -                        | -                       | -          | -                         | -                         | -               | 12000. 00                    |
| 800                             | 300                             | 4000                                | 80         | -                      | -                        | -                       | -                           | -                          | -                        | -                       | -          | -                         | -                         | -               | 12000. 00                    |
| 800                             | 300                             | 4000                                | 80         | -                      | -                        | -                       | -                           | -                          | -                        | -                       | -          | -                         | -                         | -               | 12000. 00                    |
|                                 |                                 |                                     |            |                        |                          |                         |                             |                            |                          |                         |            | 2000                      | 2000                      |                 | 17000. 00                    |
|                                 |                                 |                                     |            |                        |                          |                         |                             |                            |                          |                         |            |                           |                           | TOTAL.          | SH. 57120. 00                |



UGANDA RAILWAY

TRANS-KIOLA EXTENSION

171

RAILROAD TO KINALE

III. STATIONS & BUILDINGS.

1st STATION KINALE.

| Name of Station.      | Quarters. | Grade | No. | Amount<br>Sh. - Cts. |
|-----------------------|-----------|-------|-----|----------------------|
| <u>Traffic</u>        |           |       |     |                      |
| Station Master        | European  |       | 1   | 2400. 00             |
| Asst. "               | African   |       | 1   | 2400. 00             |
| Station Kinale        | "         |       | 4   | 2800. 00             |
| <u>General</u>        |           |       |     |                      |
| Lettings for staff    |           |       | 1   | 200. 00              |
| Maintenance @ Sh. 500 | European  |       | 1   | 500. 00              |
| " " " 200             | African   |       | 1   | 200. 00              |
| <u>TOTAL</u>          |           |       | 5   | <u>11000. 00</u>     |

RDY ROAD TO KITALE.

VIII. STATIONS & BUILDINGS.

(C) STAFF QUARTERS.

| <u>Name of Station.</u> | <u>Quarters.</u>                | <u>Grade.</u> | <u>No.</u>   | <u>Amount.<br/>Sh. 48.</u> |
|-------------------------|---------------------------------|---------------|--------------|----------------------------|
| <u>RDY'S BRIDGE</u>     | <u>Traffic</u>                  |               |              |                            |
|                         | Station Master                  | European      | 1            | 8000. 00                   |
|                         | Asst: " "                       | African       | 1            | 2400. 00                   |
|                         | Station Menials                 | "             | 4            | 2800. 00                   |
|                         | <u>Loop.</u>                    |               |              |                            |
|                         | Menials for fuel<br>and water   | "             | 8            | 6000. 00                   |
|                         | <u>Engineering</u>              |               |              |                            |
|                         | Sub. Permanent Way<br>inspector | "             | 1            | 2400. 00                   |
|                         | Trolley boys.                   | "             | 3            | 2000. 00                   |
|                         | <u>General</u>                  |               |              |                            |
|                         | Latrines for Staff              | "             |              | 500. 00                    |
|                         | Furniture @ Sh 600 European     |               | 1            | 600. 00                    |
|                         | " " " 200. African              |               | 4            | 800. 00                    |
|                         |                                 |               |              | <hr/>                      |
|                         |                                 |               | <u>TOTAL</u> | <u>23700. 00</u>           |
|                         |                                 |               |              | <hr/>                      |







UGANDA RAILWAY

TRAK-BEOLA EXTENSION

BY ROAD TO

H. H.

TRA. BEOLA

(S) 1912

|                                        |      | Rate<br>Sh. 00. | Unit. | Amount<br>Sh. 00. |
|----------------------------------------|------|-----------------|-------|-------------------|
| <u>CONSTRUCTION</u>                    |      |                 |       |                   |
| Materials                              | 11   | 200. 00         | 100   | 20000. 00         |
| Tools                                  | 121  |                 |       |                   |
| Expenditures                           | 122  |                 |       |                   |
| General Tools                          | 123  |                 |       |                   |
| <u>CONSTRUCTION</u>                    |      |                 |       |                   |
| Maintaining Tools                      |      | 100. 00         |       |                   |
| Bridge erecting<br>plant               |      | 100. 00         |       |                   |
| General Tools                          |      | 100. 00         |       |                   |
|                                        |      | 100. 00         |       |                   |
| 1000 debited to<br>Engineering         | 1000 |                 |       |                   |
| 1000 for<br>Deposals                   | 100  | 1000. 00        |       | 1000. 00          |
| <u>STATIONS &amp; OFFICE FURNITURE</u> |      |                 |       |                   |
| Stations                               | 4    | 1000. 00        | Sta.  | 4000. 00          |
| <u>TOTAL</u>                           |      |                 |       | Sh. 31440. 00     |

FLORIDA RAILWAY  
TRANS-MEDIA EXHIBITION

REVENUE REPORT  
MONTH OF  
1957

1957  
1957

| DATE | AMOUNT | DESCRIPTION | OFFICE REPRESENTATIVE | TOTAL |
|------|--------|-------------|-----------------------|-------|
|      | 3000   |             |                       | 3000  |
|      | 1500   |             |                       | 1500  |
|      | 1500   |             |                       | 1500  |
|      | 300    | 1000        |                       | 1300  |
|      | 300    |             |                       | 300   |
|      | 300    |             |                       | 300   |
|      | 100    |             |                       | 100   |
|      | 1000   | 1000        |                       | 2000  |
|      | 300    |             |                       | 300   |
|      | 100    |             |                       | 100   |
|      | 300    |             |                       | 300   |
|      | 700    | 1800        | 2500                  | 3000  |

TOTAL Sh. 242860 6557

V. FERRIER

MEMORANDUM

A. ... of one Mile Wood Posts and six Wire Fences.

| Description                                                                                         | No.          | Rate Sh.     | Amount Sh. & P. |
|-----------------------------------------------------------------------------------------------------|--------------|--------------|-----------------|
| Cedar Straining ...                                                                                 | 8            | 5/- each.    | 40. 00          |
| do. Intermediate posts                                                                              | 8            | 4/- "        | 32. 00          |
| Wood " " "                                                                                          | 337          | 1/- "        | 337. 00         |
| do Braces                                                                                           | 18           | 3/- "        | 54. 00          |
| S.I. Wire 492 lbs per mile<br># 6 tone                                                              | 1.82         | £.22:10. Ten | 40. 00          |
| Staples 368 posts S.I. staples. lbs.                                                                | 38           | 7/- 15       | 266. 00         |
| S.I. Nye & Hook bolts 1/2 x 18"<br>@ 2 lbs. each                                                    | 200          | 45/- per 100 | 90. 00          |
| Receipts per mile                                                                                   |              |              | 339. 00         |
| Freights on Uganda Railway:-<br>Posts 20 = 1 ton say<br>18 tons x 240 miles @<br>-/35s per ton mile |              |              | 1185. 00        |
| Freight, Insurance & Loading<br>on imported material                                                | L.S.         |              | 140. 00         |
| Freight on Imported material:-<br>2 tons x 240 miles @ -/33s<br>per ton mile                        |              |              | 252. 92         |
| Freight on Construction train:-<br>21 tons @ -/50s for 35 miles ..                                  |              |              | 367. 50         |
|                                                                                                     |              |              | <hr/>           |
|                                                                                                     | <b>TOTAL</b> | Sh.          | <b>3844. 42</b> |

RECORDS OFFICE, LONDON

V. FENCE

DETAILS OF COST

| Description                               | No. | Unit     | Amount        |
|-------------------------------------------|-----|----------|---------------|
| <b>GENERAL POSTS</b>                      |     |          |               |
| wooden posts<br>4" x 4"                   | 16  | per mile | 20.00         |
| <b>RAILS</b>                              |     |          |               |
| cost of one mile post<br>erected complete |     | per mile | 20.00         |
| <b>RAIL POSTS</b>                         |     |          |               |
| <b>2nd. Class</b>                         |     |          |               |
| Notice boards                             | 2   |          | 50.00         |
| Guard rails                               |     |          | 114.00        |
| G.I. Blocks with bolts                    | 14  |          | 26.40         |
| Bending rails, boring<br>and erecting     |     |          | 40.00         |
|                                           |     |          | <u>230.40</u> |
| <b>3rd. Class</b>                         |     |          |               |
| Notice Boards                             | 2   |          | 50.00         |
| Guard rails                               |     |          | 57.00         |
| G.I. Blocks with bolts                    | 4   |          | 12.00         |
| Bending rails boring<br>and erecting      |     |          | 52.00         |
|                                           |     |          | <u>171.00</u> |



| Description                                                                                                   | Quantity | Rate    | Unit     | Amount          |
|---------------------------------------------------------------------------------------------------------------|----------|---------|----------|-----------------|
| <b>Brought Forward.....</b>                                                                                   |          |         |          | <b>784. 01</b>  |
| 1. 36 x 1/2 inch steel wire<br>available for insulators<br>F.O.B. London 3.0 to 10<br>Miles.....              | 36       |         | 50 each. | 1800            |
| 2. 6.1. Stay rods with tight<br>nuts & anchor plates and<br>thimbles complete. F.O.B.<br>London.....          | 3        | 4. 00   | £        | 12. 00          |
| 3. Wiring & lines including<br>jointing & hanging<br>complete.....                                            | 1        | 220. 00 | mile     | 220. 00         |
| 4. Railway freight for<br>under poles 100 ft by the<br>ton for 20 miles @ 10/100<br>per ton mile.....         |          |         |          | 200. 00         |
| 5. Railway freight for<br>ordn as above @ 10/100 per ton<br>mile.....                                         |          |         |          | 2. 00           |
| 6. 1/10th of cost of poles as<br>above below 100 ft.....                                                      |          |         |          | 10. 00          |
| 7. 1/40th cost of poles as above<br>insurance and delivery<br>charges as before @ 100 ft<br>per ton mile..... |          |         |          | 25. 00          |
| 8. 1/40th cost of poles as above<br>insurance and delivery<br>charges as before @ 100 ft<br>per ton mile..... |          |         |          | 25. 00          |
| 9. Freight for<br>construction<br>@ 100 per ton<br>20 miles.....                                              |          |         |          | 200. 00         |
| 10. 1/2 inch x 1/2 inch<br>nuts.....                                                                          |          |         |          | 10. 00          |
| 11. 1/2 inch x 1/2 inch<br>washers.....                                                                       |          |         |          | 10. 00          |
| 12. 1/2 inch x 1/2 inch<br>nuts.....                                                                          |          |         |          | 10. 00          |
| 13. 1/2 inch x 1/2 inch<br>washers.....                                                                       |          |         |          | 10. 00          |
| 14. 1/2 inch x 1/2 inch<br>nuts.....                                                                          |          |         |          | 10. 00          |
| 15. 1/2 inch x 1/2 inch<br>washers.....                                                                       |          |         |          | 10. 00          |
| 16. 1/2 inch x 1/2 inch<br>nuts.....                                                                          |          |         |          | 10. 00          |
| 17. 1/2 inch x 1/2 inch<br>washers.....                                                                       |          |         |          | 10. 00          |
| 18. 1/2 inch x 1/2 inch<br>nuts.....                                                                          |          |         |          | 10. 00          |
| 19. 1/2 inch x 1/2 inch<br>washers.....                                                                       |          |         |          | 10. 00          |
| 20. 1/2 inch x 1/2 inch<br>nuts.....                                                                          |          |         |          | 10. 00          |
| 21. 1/2 inch x 1/2 inch<br>washers.....                                                                       |          |         |          | 10. 00          |
| 22. 1/2 inch x 1/2 inch<br>nuts.....                                                                          |          |         |          | 10. 00          |
| 23. 1/2 inch x 1/2 inch<br>washers.....                                                                       |          |         |          | 10. 00          |
| 24. 1/2 inch x 1/2 inch<br>nuts.....                                                                          |          |         |          | 10. 00          |
| 25. 1/2 inch x 1/2 inch<br>washers.....                                                                       |          |         |          | 10. 00          |
| 26. 1/2 inch x 1/2 inch<br>nuts.....                                                                          |          |         |          | 10. 00          |
| 27. 1/2 inch x 1/2 inch<br>washers.....                                                                       |          |         |          | 10. 00          |
| 28. 1/2 inch x 1/2 inch<br>nuts.....                                                                          |          |         |          | 10. 00          |
| 29. 1/2 inch x 1/2 inch<br>washers.....                                                                       |          |         |          | 10. 00          |
| 30. 1/2 inch x 1/2 inch<br>nuts.....                                                                          |          |         |          | 10. 00          |
| 31. 1/2 inch x 1/2 inch<br>washers.....                                                                       |          |         |          | 10. 00          |
| 32. 1/2 inch x 1/2 inch<br>nuts.....                                                                          |          |         |          | 10. 00          |
| 33. 1/2 inch x 1/2 inch<br>washers.....                                                                       |          |         |          | 10. 00          |
| 34. 1/2 inch x 1/2 inch<br>nuts.....                                                                          |          |         |          | 10. 00          |
| 35. 1/2 inch x 1/2 inch<br>washers.....                                                                       |          |         |          | 10. 00          |
| 36. 1/2 inch x 1/2 inch<br>nuts.....                                                                          |          |         |          | 10. 00          |
| 37. 1/2 inch x 1/2 inch<br>washers.....                                                                       |          |         |          | 10. 00          |
| 38. 1/2 inch x 1/2 inch<br>nuts.....                                                                          |          |         |          | 10. 00          |
| 39. 1/2 inch x 1/2 inch<br>washers.....                                                                       |          |         |          | 10. 00          |
| 40. 1/2 inch x 1/2 inch<br>nuts.....                                                                          |          |         |          | 10. 00          |
| 41. 1/2 inch x 1/2 inch<br>washers.....                                                                       |          |         |          | 10. 00          |
| 42. 1/2 inch x 1/2 inch<br>nuts.....                                                                          |          |         |          | 10. 00          |
| 43. 1/2 inch x 1/2 inch<br>washers.....                                                                       |          |         |          | 10. 00          |
| 44. 1/2 inch x 1/2 inch<br>nuts.....                                                                          |          |         |          | 10. 00          |
| 45. 1/2 inch x 1/2 inch<br>washers.....                                                                       |          |         |          | 10. 00          |
| 46. 1/2 inch x 1/2 inch<br>nuts.....                                                                          |          |         |          | 10. 00          |
| 47. 1/2 inch x 1/2 inch<br>washers.....                                                                       |          |         |          | 10. 00          |
| 48. 1/2 inch x 1/2 inch<br>nuts.....                                                                          |          |         |          | 10. 00          |
| 49. 1/2 inch x 1/2 inch<br>washers.....                                                                       |          |         |          | 10. 00          |
| 50. 1/2 inch x 1/2 inch<br>nuts.....                                                                          |          |         |          | 10. 00          |
| 51. 1/2 inch x 1/2 inch<br>washers.....                                                                       |          |         |          | 10. 00          |
| 52. 1/2 inch x 1/2 inch<br>nuts.....                                                                          |          |         |          | 10. 00          |
| 53. 1/2 inch x 1/2 inch<br>washers.....                                                                       |          |         |          | 10. 00          |
| 54. 1/2 inch x 1/2 inch<br>nuts.....                                                                          |          |         |          | 10. 00          |
| 55. 1/2 inch x 1/2 inch<br>washers.....                                                                       |          |         |          | 10. 00          |
| 56. 1/2 inch x 1/2 inch<br>nuts.....                                                                          |          |         |          | 10. 00          |
| 57. 1/2 inch x 1/2 inch<br>washers.....                                                                       |          |         |          | 10. 00          |
| 58. 1/2 inch x 1/2 inch<br>nuts.....                                                                          |          |         |          | 10. 00          |
| 59. 1/2 inch x 1/2 inch<br>washers.....                                                                       |          |         |          | 10. 00          |
| 60. 1/2 inch x 1/2 inch<br>nuts.....                                                                          |          |         |          | 10. 00          |
| 61. 1/2 inch x 1/2 inch<br>washers.....                                                                       |          |         |          | 10. 00          |
| 62. 1/2 inch x 1/2 inch<br>nuts.....                                                                          |          |         |          | 10. 00          |
| 63. 1/2 inch x 1/2 inch<br>washers.....                                                                       |          |         |          | 10. 00          |
| 64. 1/2 inch x 1/2 inch<br>nuts.....                                                                          |          |         |          | 10. 00          |
| 65. 1/2 inch x 1/2 inch<br>washers.....                                                                       |          |         |          | 10. 00          |
| 66. 1/2 inch x 1/2 inch<br>nuts.....                                                                          |          |         |          | 10. 00          |
| 67. 1/2 inch x 1/2 inch<br>washers.....                                                                       |          |         |          | 10. 00          |
| 68. 1/2 inch x 1/2 inch<br>nuts.....                                                                          |          |         |          | 10. 00          |
| 69. 1/2 inch x 1/2 inch<br>washers.....                                                                       |          |         |          | 10. 00          |
| 70. 1/2 inch x 1/2 inch<br>nuts.....                                                                          |          |         |          | 10. 00          |
| 71. 1/2 inch x 1/2 inch<br>washers.....                                                                       |          |         |          | 10. 00          |
| 72. 1/2 inch x 1/2 inch<br>nuts.....                                                                          |          |         |          | 10. 00          |
| 73. 1/2 inch x 1/2 inch<br>washers.....                                                                       |          |         |          | 10. 00          |
| 74. 1/2 inch x 1/2 inch<br>nuts.....                                                                          |          |         |          | 10. 00          |
| 75. 1/2 inch x 1/2 inch<br>washers.....                                                                       |          |         |          | 10. 00          |
| 76. 1/2 inch x 1/2 inch<br>nuts.....                                                                          |          |         |          | 10. 00          |
| 77. 1/2 inch x 1/2 inch<br>washers.....                                                                       |          |         |          | 10. 00          |
| 78. 1/2 inch x 1/2 inch<br>nuts.....                                                                          |          |         |          | 10. 00          |
| 79. 1/2 inch x 1/2 inch<br>washers.....                                                                       |          |         |          | 10. 00          |
| 80. 1/2 inch x 1/2 inch<br>nuts.....                                                                          |          |         |          | 10. 00          |
| 81. 1/2 inch x 1/2 inch<br>washers.....                                                                       |          |         |          | 10. 00          |
| 82. 1/2 inch x 1/2 inch<br>nuts.....                                                                          |          |         |          | 10. 00          |
| 83. 1/2 inch x 1/2 inch<br>washers.....                                                                       |          |         |          | 10. 00          |
| 84. 1/2 inch x 1/2 inch<br>nuts.....                                                                          |          |         |          | 10. 00          |
| 85. 1/2 inch x 1/2 inch<br>washers.....                                                                       |          |         |          | 10. 00          |
| 86. 1/2 inch x 1/2 inch<br>nuts.....                                                                          |          |         |          | 10. 00          |
| 87. 1/2 inch x 1/2 inch<br>washers.....                                                                       |          |         |          | 10. 00          |
| 88. 1/2 inch x 1/2 inch<br>nuts.....                                                                          |          |         |          | 10. 00          |
| 89. 1/2 inch x 1/2 inch<br>washers.....                                                                       |          |         |          | 10. 00          |
| 90. 1/2 inch x 1/2 inch<br>nuts.....                                                                          |          |         |          | 10. 00          |
| 91. 1/2 inch x 1/2 inch<br>washers.....                                                                       |          |         |          | 10. 00          |
| 92. 1/2 inch x 1/2 inch<br>nuts.....                                                                          |          |         |          | 10. 00          |
| 93. 1/2 inch x 1/2 inch<br>washers.....                                                                       |          |         |          | 10. 00          |
| 94. 1/2 inch x 1/2 inch<br>nuts.....                                                                          |          |         |          | 10. 00          |
| 95. 1/2 inch x 1/2 inch<br>washers.....                                                                       |          |         |          | 10. 00          |
| 96. 1/2 inch x 1/2 inch<br>nuts.....                                                                          |          |         |          | 10. 00          |
| 97. 1/2 inch x 1/2 inch<br>washers.....                                                                       |          |         |          | 10. 00          |
| 98. 1/2 inch x 1/2 inch<br>nuts.....                                                                          |          |         |          | 10. 00          |
| 99. 1/2 inch x 1/2 inch<br>washers.....                                                                       |          |         |          | 10. 00          |
| 100. 1/2 inch x 1/2 inch<br>nuts.....                                                                         |          |         |          | 10. 00          |
| <b>TOTAL required for 100 miles.....</b>                                                                      |          |         |          | <b>1000. 00</b> |
| <b>Cost per mile £L. 10. 00</b>                                                                               |          |         |          |                 |
| <b>TOTAL COST Materials £L. 1000. 00</b>                                                                      |          |         |          |                 |

APPENDIX

VII. BRIDGE & FURNACE WORK

(a) Summary of quantities and weight of materials  
for the bridge & furnace work

| Item               | Unit | Quantity | Weight<br>tons | Rate  | Amount<br>\$  | Total<br>Amount<br>\$ |
|--------------------|------|----------|----------------|-------|---------------|-----------------------|
| 10 lb. rails       | 100  | 100      | 70.00          | 8.00  | 560.00        |                       |
| 10' long           |      |          |                |       |               |                       |
| 1/2" plates        | 100  | 100      | 2.30           | 8.00  | 18.40         |                       |
| 4.65 lbs per sq ft |      |          |                |       |               |                       |
| 1/2" x 6"          | 1000 | 1000     | 874            | 29.10 | 25431.90      |                       |
| 1/2" x 8"          | 2112 | 2112     | 71.85          | 10.00 | 718.50        |                       |
| 1/2" x 10"         | 4224 | 4224     | 1437.00        | 11.10 | 15956.40      |                       |
| <b>TOTAL</b>       |      |          | <b>254.00</b>  |       | <b>254.00</b> | <b>32061.00</b>       |
|                    |      |          | 154.00         | 1.15  | 177.10        |                       |
|                    |      |          | 154.00         | 1.10  | 169.40        |                       |
|                    |      |          | 154.00         | 10.00 | 1540.00       |                       |
|                    |      |          | 154.00         | 2.00  | 308.00        |                       |
|                    |      |          |                |       |               | <b>16974.75</b>       |

|                      |   |         |                 |
|----------------------|---|---------|-----------------|
| File                 | 1 | \$ 100. | 2000.00         |
| Contingencies 1 1/2% |   |         | 4915.75         |
| 5% on laying         |   |         | 728.24          |
|                      |   |         | 106.00          |
| <b>TOTAL</b>         |   |         | <b>20754.79</b> |

| Item             | Quantity    | Rate    | Amount         |
|------------------|-------------|---------|----------------|
| Cost of Ballast  | 100 cu. yd. | \$ 9.00 | 900.00         |
| Excavation       | 40000       | 5.00    | 2000.00        |
| Gravel           | 40000       | 1.50    | 600.00         |
| Gravel in time   | 40000       | 4.00    | 1600.00        |
|                  |             |         | <b>7800.00</b> |
| Contingencies 5% |             |         | 390.00         |
| <b>TOTAL</b>     |             |         | <b>8190.00</b> |



361

RAILROAD DISTRICT NO. 1  
KANSAS DIVISION

| No. | Station | Quantity | Description |
|-----|---------|----------|-------------|
| 15  | ...     | ...      | ...         |
| 16  | ...     | ...      | ...         |
| 17  | ...     | ...      | ...         |
| 18  | ...     | ...      | ...         |
| 19  | ...     | ...      | ...         |
| 20  | ...     | ...      | ...         |
| 21  | ...     | ...      | ...         |
| 22  | ...     | ...      | ...         |
| 23  | ...     | ...      | ...         |
| 24  | ...     | ...      | ...         |
| 25  | ...     | ...      | ...         |
| 26  | ...     | ...      | ...         |
| 27  | ...     | ...      | ...         |
| 28  | ...     | ...      | ...         |
| 29  | ...     | ...      | ...         |
| 30  | ...     | ...      | ...         |
| 31  | ...     | ...      | ...         |
| 32  | ...     | ...      | ...         |
| 33  | ...     | ...      | ...         |
| 34  | ...     | ...      | ...         |
| 35  | ...     | ...      | ...         |
| 36  | ...     | ...      | ...         |
| 37  | ...     | ...      | ...         |
| 38  | ...     | ...      | ...         |
| 39  | ...     | ...      | ...         |
| 40  | ...     | ...      | ...         |

# UGANDA RAILWAY

## UNZOA EXTENSION

### TABLE OF ALTERNATE

#### ALTERNATE ROUTE

SCALE 4 MILES TO  
SCALE 200 FT TO

Vertical Curves  
 1. Length of curve  
 2. Rate of change of grade  
 3. Rate of change of vertical curve  
 4. Rate of change of vertical curve  
 5. Rate of change of vertical curve  
 6. Rate of change of vertical curve  
 7. Rate of change of vertical curve  
 8. Rate of change of vertical curve  
 9. Rate of change of vertical curve  
 10. Rate of change of vertical curve

COMMERCIAL  
ELDER

DATUM 6000 FT ABOVE SEA LEVEL

| MILEAGE OF "A" LINE | MILEAGE OF "B" LINE | MILEAGE OF "C" LINE | RULING | GRADE | 1.5% COMPENSATED | ON "A" ROUTE | "B" | "C" |
|---------------------|---------------------|---------------------|--------|-------|------------------|--------------|-----|-----|
| 0                   | 0                   | 0                   | ---    | 1.5%  | 1.5%             | ---          | --- | --- |
| 10                  | 10                  | 10                  | ---    | 1.00% | 1.00%            | ---          | --- | --- |
| 20                  | 20                  | 20                  | ---    | ---   | ---              | ---          | --- | --- |
| 30                  | 30                  | 30                  | ---    | ---   | ---              | ---          | --- | --- |
| 40                  | 40                  | 40                  | ---    | ---   | ---              | ---          | --- | --- |

A B C ROUTE  
NO GRADE IN CON

# ANDA RAILWAY.

## S - NZOIA EXTENSION.

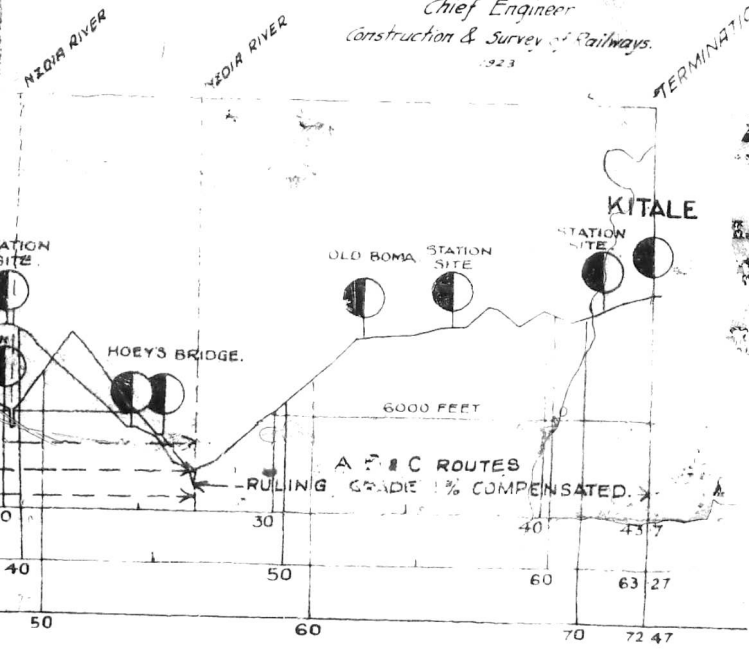
### PLAN DIACRAM OF ALTERNATIVE ROUTES.

HORIZONTAL SCALE 4 MILES TO AN INCH.

VERTICAL SCALE 200 FT. TO AN INCH.

*W. H. Babson*  
Chief Engineer  
Construction & Survey of Railways.  
1923

TERMINATION OF ROUTES "A", "B", & "C"





STATION SITE.

183

September, 1923

ROUTE  
Anno 1872  
8982

HEARNS FARM

permit to

you are now, and of a station site  
with enclosure, from the [unclear] of  
[unclear] the branch of [unclear] of

ROUTE

- Mr. Calver
- Mr.
- Sir G. Davis.
- Sir G. Grindle.
- Sir H. Hoad.
- Sir J. M. Johnston Smith.
- Mr. Ormsby Gore.
- Duke of Devonshire.

your observations on the report  
 contain Consulting  
 and also the views of the Chief  
 Engineers, Detailed Surveys, etc  
 as available in this Office  
 required

See page 10

No. 1703 1/3/23

2. I am to draw attention to  
 the reference on page 10 of the

and to

price of the  
affected if a  
an article were substituted.

and, etc.

(Signed) H. J. READ



183

IN COMMUNICATIONS  
ADDRESSED TO THE  
AGENTS FOR THE COLONIES  
OF THIS LETTER BEING QUOTED  
REFERENCE. I. 233/32.  
NAME, "CROWN, LONDON"  
PHONE, 7780 VICTORIA

A. MILLBANK  
WESTMINSTER,  
LONDON, S.W. 1.

January 2nd, 1924.

C. A. Best Esq.,  
Colonial Office,

... my ... telephone  
... kindly  
... the ...  
... referred to in ...  
... of the 27th December.

Yours faithfully,

Am J S.O.  
2. 6. 24  
(unavailable)