M.R.O. 1—77 (58)—8-6-37.

(1) Number of pages 10

(2) Date of repair 3/4/40

(3) Initials of the Referencer

# MADRAS RECORD OFFICE.

## Government of Madras.

Financial DEPARTMENT.

| G.O. No. 1155 | Press Mis. |
|---|---|
| 95-96. | |
| Dated 14-8- | 18 93. |

95-96 6/7

**Not to be folded or roughly handled**

*Proceedings of the Madras Government, Financial Department,*
*14th August* 1873.

No. 95. Read the following Proceedings of the Board of Revenue, dated 6th August 1873, No. 1504 :—

Read the following letter from Lieutenant-Colonel J. F. FISCHER, R.E., District Engineer, Godavery, to Colonel G. W. WALKER, R.E., Secretary to Government, Public Works Department, dated Dowlaishweram, 4th July 1873, No. 1046 :—

I HAVE the honour to bring to your notice that the Government in their Order, No. 1645, dated 9th December 1872, Financial Department, communicated with G.O., Public Works Department, No. 77, dated 10th January 1873, authorized the Local Fund Board of the Cocanada Circle to incur such outlay as they may think necessary to maintain the trunk road from Rajahmundry to Tuni in such a state as will satisfy the requirements of the district traffic in anticipation of the estimate (Rupees 3,50,000) which is before them being sanctioned. I observe from paragraph 15 of the Proceedings of the Board of Revenue, No. 379, dated 14th March 1873, embodied in G.O., Financial Department, No. 568, dated 7th May 1873, that Rupees 30,000, provided for this road by the President of the Local Fund Boards in his budget of the Cocanada Circle for 1873-74, Item No. 14, have been unsanctioned, and that Government have in paragraph 5 of the above Government Order approved of the Board's Proceedings in this matter.

2. As this road is in rapid progress, and the execution of this important work is very necessary and approved of by the Local Fund Board, I request you will be good enough to urge the Board of Revenue to reallot the sum of Rupees 30,000, provided for this road by the President of the Local Fund Boards, in the current official year.

---

REFERRED to the Financial Department.

OOTACAMUND, 16*th July* 1873. (Signed) G. W. WALKER, Colonel, R.E., Secretary to Government, P.W.D.

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REFERRED to the Board of Revenue.

OOTACAMUND, 16*th July* 1873. (Signed) W. HUDLESTON, Chief Secretary.

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THE District Engineer is mistaken in his interpretation of the Board's Proceedings and Government Order. The allotment he refers to is sanctioned though the estimate is not.

(True Copies and Extract.)

(Signed) J. GROSE,
*Secretary.*

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No. 96. ORDER THEREON, 14th August 1873, No. 1155.

Communicated to the Public Works Department.

(True Extract.)

*Chief Secretary.*

To the Public Works Department.
,, Board of Revenue.
Exd. J. Wright.

Govt. of India Works.

FINANCIAL.

To

The PUBLIC WORKS DEPARTMENT,
&c. &c. &c.

Dated August, 14th.
Read

G.O. No. 1645 August 1872, p. 1153.

AUGUST.
Nos. 95-96.

Cocanada Circle.—Proceedings, Board of Revenue, intimating that the allotment for the Trunk Road from Rajahmundry to Tuni is sanctioned, communicated to the Public Works Department.

No 1046

District Engineer's Office
Dowlaiswaram 4th July 1873
Despatched

From

Lieut.t Col.l J. Tuite R.E.
District Engineer Godavery

To,

Colonel G.W. Walker R.E.
Secretary to Government
P.W.D.
Madras

Sir,

I have the honor to bring to your notice that the Government in their order No 1645 dated 9th December 1872 Financial Department, Communicated with G.O. P.W.D. No 77 dated 10th January 1873 authorized the Local Fund Board of the Cocanada Circle to incur such outlay as they may think necessary to maintain the Trunk Road from Rajahmundry to Tuni in such a state as will satisfy the requirements of the District traffic in anticipation of the Estimate (Rs: 3,50,000), which is before them, being sanctioned. I observe from para 15 of the Proceedings of the Board of Revenue No 379 dated 14th March 1873, embodied in G.O. P.W.D. No 568 dated 7th May 1873, that Rs: 30,000 provided for the Road by the Previous [illegible]

Boards in his Budget of the Cocanada Circle for 1873/74, Item No 14, have been sanctioned; and that Government have, in para 5 of the above G.O. approved of the Boards proceedings in this matter.

2 As this Road is in rapid progress and the execution of this important work is very necessary, and approved of by the Local Fund Board, I request you will be good enough to urge the Board of Revenue, to reallot the sum of Rs: 30,000 provided for this Road by the President Local Fund Boards, in the Current Official year.

I have the honor to be
Sir.
Your most obdt. Servant

Wm. Tuckner Lieut. Col. R.E.
District Engineer Godavery

No. 1,504.

PROCEEDINGS OF THE BOARD OF REVENUE, dated 6th August 1873.

Read the following letter from Lieutenant-Colonel J. F. FISCHER, R.E., District Engineer, Godavery, to Colonel G. W. WALKER, R.E., Secretary to Government, Public Works Department, dated Dowlaishweram, 4th July 1873, No. 1,046:—

I HAVE the honour to bring to your notice that the Government, in their Order, No. 1,645, dated 9th December 1872, Financial Department, communicated with G. O., Public Works Department, No. 77, dated 10th January 1873, authorized the Local Fund Board of the Cocanada Circle to incur such outlay as they may think necessary to maintain the trunk road from Rajahmundry to Tuni in such a state as will satisfy the requirements of the district traffic in anticipation of the estimate (Rupees 3,50,000) which is before them being sanctioned. I observe from paragraph 15 of the Proceedings of the Board of Revenue, No. 379, dated 14th March 1873, embodied in G. O., Financial Department, No. 568, dated 7th May 1873, that Rupees 30,000, provided for this road by the President of the Local Fund Boards in his budget of the Cocanada Circle for 1873-74, Item No. 14, have been unsanctioned, and that Government have in paragraph 5 of the above Government Order approved of the Board's Proceedings in this matter.

2. As this road is in rapid progress, and the execution of this important work is very necessary and approved of by the Local Fund Board, I request you will be good enough to urge the Board of Revenue to reallot the sum of Rupees 30,000, provided for this road by the President of the Local Fund Boards, in the current official year.

---

REFERRED to the Financial Department.

OOTACAMUND, 16*th July* 1873. (Signed) G. W. WALKER, Colonel, R.E., Secretary to Government, P.W.D.

---

REFERRED to the Board of Revenue.

OOTACAMUND, 16*th July* 1873. (Signed) W. HUDLESTON, Chief Secretary.

---

THE District Engineer is mistaken in his interpretation of the Board's Proceedings and Government Order. The allotment he refers to is sanctioned though the estimate is not.

(True Copies and Extract.)

Secretary.

To the Chief Secretary to Government, Financial Department.
Copy to the President of the Local Fund Boards, Godavery District.
,, to the District Engineer, Godavery District.
,, to the Acting Controller of Public Works Accounts.

Exd. A. S. Rodgers.

Financial Dept.

# 1873.

## Board of Revenue,

## MADRAS.

PROCEEDINGS, 6TH AUGUST 1873, No. 1,504.

Dispd 8 Aug 1873

*Encl.*

No 1436

*Received* 11 August 1873

AUGUST.

No. 1,504.

*Trunk Road*—from Rajahmundry to Tuni, Godavery District.—Government informed, wi reference to District Engineer's letter regar ing provision for maintenance of — for 1873-7 that this officer is wrong in supposing th budget allotment for the purpose has be unsanctioned.

11/8/73

With order

Govt. of {1873} Madras.

Financial

To
The Public Works Dept.
&c &c

Dated Augt. 14th
Recd. Read.

G. O. 14th Augt., 1873, No 1155

Nos. 95-96.

Cocanada Circle - Proc: Board of Revenue intimating that the allotment for the Trunk Road from Rajahmundry to Luni is sanctioned, although the estimate is not communicated to the Public Works Dept.

Daniel H. Brandreth Esqr
Secretary to the Board of

Wald 11 Sept/72

Rec'd
11 94

Plan

G. S. R 521/72

In Financial G. O. No 1155 of 14-8-73

Encl 1/2
No 96

# PLAN
## SECTION and ELEVATION
*of a Bridge with 17 arches*
*Proposed to be built on the*
TRUNK ROAD No. 6 NEAR YERRAVERAM
*over the River yellaru*

*Cross Section of the river Yelleru Where it Crosses Trunk Road Yerraveram*

*Flood level*

*ordinary Fresh*

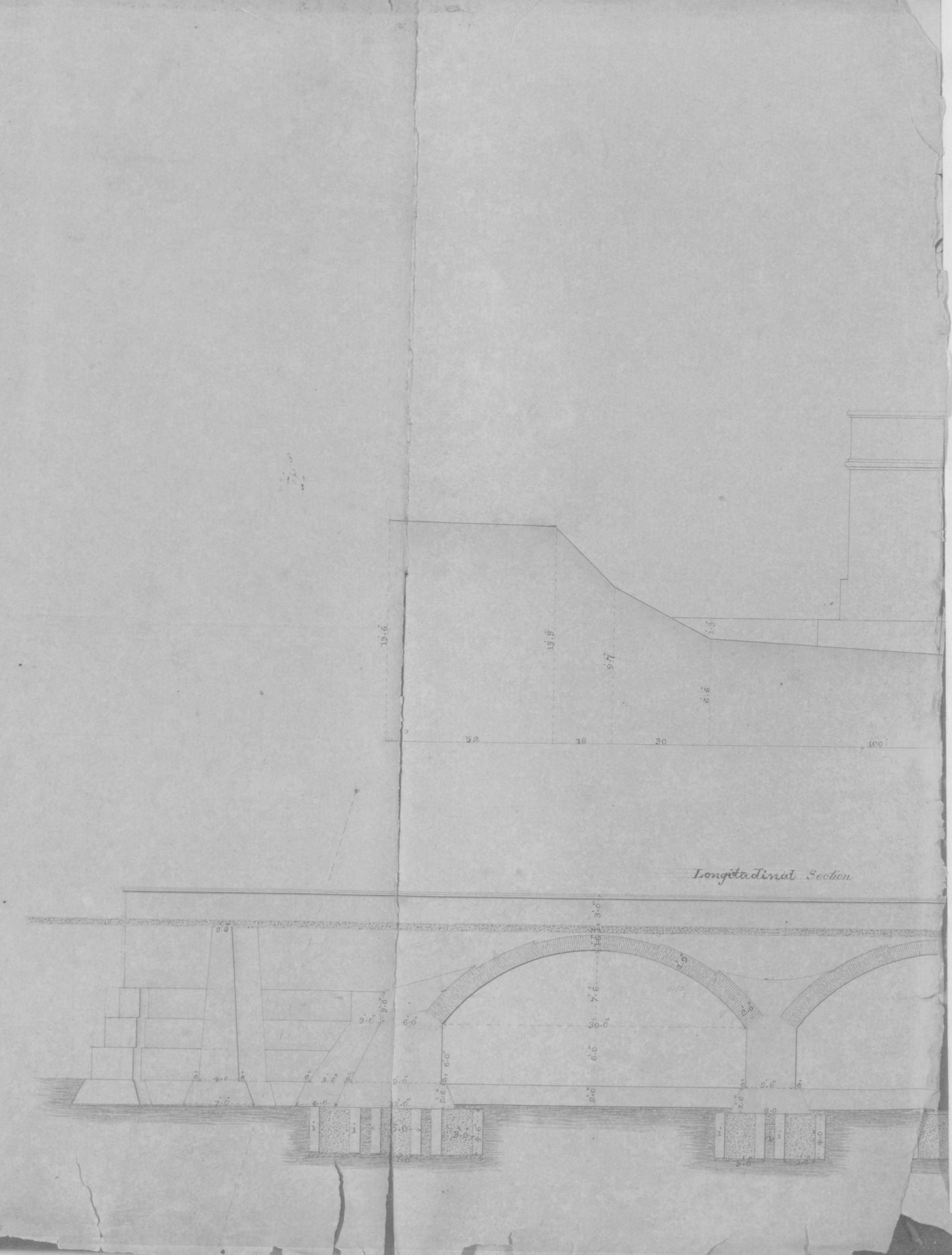
*Horizontal Scale 25 Feet to an Inch*

*Feet* 0 5 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

*Vertical Scale 5 Feet to an Inch*

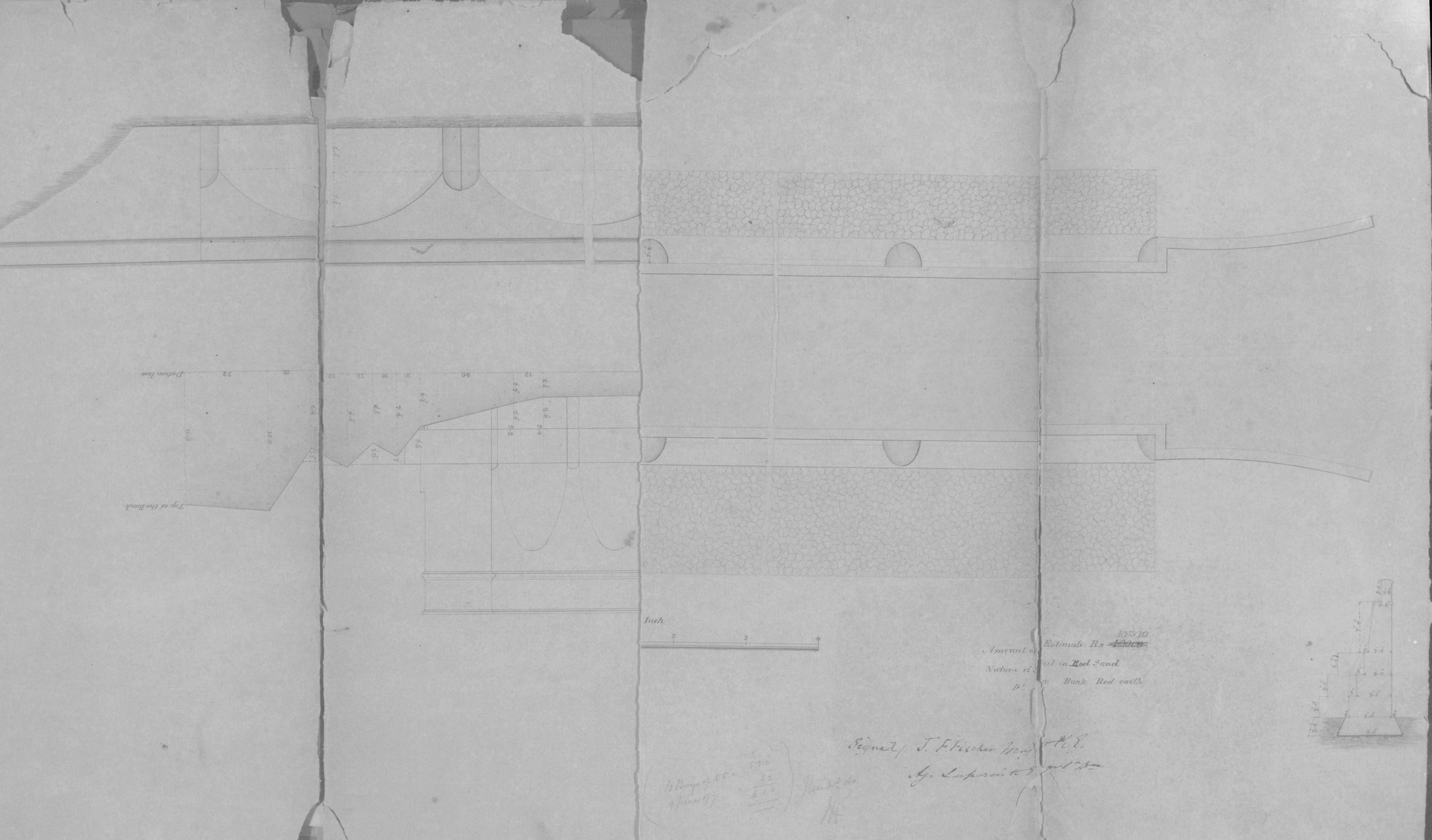
30 9 8 7 6 5 4 3 2 1 0 10 20

*Longitudinal Section*


52
18
30
100
Longitudinal Section




Ass.t Eng.rs Office
Samul Cotta
5 August 1869




Amount of Estimate Rs 133510

Nature of soil in Red Sand

Do Bank Red earth

Signed J. F. Fischer Supt. H. C.

Ag. Superintg

PW 2457/70

Detailed Estimate of the probable expense fo[r] [Road No VI from] Rajahmundry to Tot[apalli] in the District of Godavery.

| Name of Villages. | Nature of soil. | Point whence the measurement commences. Miles. | Furlongs. | Yards. | Measurement in Length. | Breadth | Height or Depth. | Earth work | Metalling | Contents. Gravelling | Turfing. | Revetment. | Removing rocks | Hill Cutting. | Clearing Sand. | Clearing Jungle. | Bridges &c. Already built | New work Proposed. | Remarks. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Red Earth and Sand | 1 | 1 | 55 | " | " | " | " | " | " | " | " | " | " | " | " | " | " | Starting point to Gate at Rajahmundry. The remaining portion belongs to the municipality and requires nothing and is in good Order. |
| | | 1 | 1 | 55 | 3245 | 9 | ½ | " | 1081⅔ | " | " | " | " | " | " | " | " | " | Metalling road to a breadth of 8 yards; it is already metalled to a breadth of 6 yards |
| | | " | " | " | " | 9 | ½ | " | " | 1081⅔ | " | " | " | " | " | " | " | " | Gravelling new portion. |
| | | " | " | " | " | 6 | ½ | " | " | 1622½ | " | " | " | " | " | " | " | " | do. old portion. |
| | | 3 | " | " | 3116⅔ | 6 | ½ | 3116⅔ | " | " | " | " | " | " | " | " | " | " | Levelling road, making side slopes. |
| | | " | " | " | " | 9 | ½ | " | " | 4155⅝ | " | " | " | " | " | " | " | " | Gravelling. |
| | | 4 | 6 | 36⅔ | 146⅔ | 9 | ½ | " | 4155⅝ | " | " | " | " | " | " | " | " | " | Metalling stone. |
| | | " | " | " | " | 9 | ½ | " | 48⅔ | " | " | " | " | " | " | " | " | " | do do. |
| | | " | " | " | " | 9 | ½ | " | " | 195⅝ | " | " | " | " | " | " | " | " | Gravelling. |
| | | " | " | 183⅓ | 1246⅔ | 6 | ½ | 1246⅔ | " | " | " | " | " | " | " | " | " | " | Levelling road and digging side drains. |
| | | " | " | " | " | 9 | ½ | " | " | 1662⅔ | " | " | " | " | " | " | " | " | Gravelling. |
| | | " | " | " | " | 9 | ½ | " | 1662⅔ | " | " | " | " | " | " | " | " | " | Metalling. |
| | | 5 | 4 | 110 | 770 | 9 | ½ | " | 256⅔ | " | " | " | " | " | " | " | " | " | do. |
| | | " | " | " | " | 9 | ½ | " | " | 256⅔ | " | " | " | " | " | " | " | " | Gravelling. |
| | | " | " | " | " | 9 | ½ | " | " | 385 | " | " | " | " | " | " | " | " | do. |
| | | 6 | " | " | 1760 | 6 | ½ | " | " | " | " | " | " | " | " | " | " | " | Levelling & digging side drains. |
| | | " | " | " | " | 6 | ½ | 1760 | " | 2346⅔ | " | " | " | " | " | " | " | " | Gravelling. |
| | | " | " | " | " | 9 | ½ | " | " | " | " | " | " | " | " | " | " | " | Metalling. |
| Red Earth and Sand | | " | " | " | " | 9 | ½ | " | 2346⅔ | " | " | " | " | " | " | " | " | " | Side slopes. |
| | | 1 | " | " | 899 | 6 | ½ | 899 | " | " | " | " | " | " | " | " | " | " | Gravelling. |
| | | " | " | " | " | 9 | ½ | " | " | 1198⅔ | " | " | " | " | " | " | " | " | Metalling. |
| | | " | 4 | 19 | 183 | 9 | ½ | " | 1198⅔ | " | " | " | " | " | " | " | " | " | Cutting to a gradient. |
| | | " | " | " | 440 | 9 | ½ | 2928 | " | " | " | " | " | " | " | " | " | " | Gravelling. |
| | | " | " | " | " | 9 | ½ | " | " | 586⅔ | " | " | " | " | " | " | " | " | Metalling. |
| | | " | 6 | 19 | 421 | 9 | ½ | " | 586⅔ | " | " | " | " | " | " | " | " | " | do. |
| | | | | | | 9 | ½ | | 140⅔ | | | | | | | | | | |
| | | | | | | | | | | 13491⅓ | | | | | | | | | |

Detailed Estimate of the probable expense fo… Road No VI from Polyakmundry to Tod… in the District of Godawery.

| Name of Villages. | Nature of soil. | Point whence the measurement commences. Miles. | Furlongs | Yards. | Measurement in Length. | Breadth | Height or Depth. | Earth work | Metalling | Contents. Gravelling | Turfing. | Revetment. | Removing rocks | Hill Cutting. | Clearing Sand. | Clearing Jungle. | Bridges &ca. Already built | New work Proposed. | Remarks. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Brought forward | | | | | | | 9,950⅔ | 114⅔ | 13,491⅓ | " | " | " | " | " | " | " | " | |
| | | 7 | 6 | 19 | 421 | 8 | ⅙ | " | " | 140⅔ | " | " | " | " | " | " | " | " | Gravelling. |
| | | " | " | " | " | 6 | ½ | " | " | 210½ | " | " | " | " | " | " | " | " | Do. |
| | | 8 | " | " | 139 | 6 | ⅙ | 139 | " | " | " | " | " | " | " | " | " | " | Clearing side drains |
| | | " | " | " | " | 8 | ⅙ | " | " | 185⅓ | " | " | " | " | " | " | " | " | Gravelling. |
| | | " | " | " | " | 8 | ⅙ | " | 185⅓ | " | " | " | " | " | " | " | " | " | Metalling. |
| | | " | " | 139 | 1621 | 6 | ½ | 810½ | " | " | " | " | " | " | " | " | " | " | Side slopes. |
| | | " | " | " | " | 8 | ⅙ | " | " | 540⅓ | " | " | " | " | " | " | " | " | Gravelling. |
| | | " | " | " | " | 8 | ⅙ | " | 540⅓ | " | " | " | " | " | " | " | " | " | Metalling. |
| | | " | " | " | " | 6 | ⅓ | " | " | 810½ | " | " | " | " | " | " | " | " | Gravelling. |
| | | 9 | " | " | 838 | 8 | ⅙ | " | " | 799⅓ | " | " | " | " | " | " | " | " | Do. |
| | | " | " | " | " | 8 | ⅙ | " | 799⅓ | " | " | " | " | " | " | " | " | " | Metalling. |
| | | " | 1 | 18 | 1522 | 6 | ⅙ | 1522 | " | " | " | " | " | " | " | " | " | " | Levelling road & digging side drains |
| | | " | " | " | " | 8 | ⅙ | " | " | 2029⅓ | " | " | " | " | " | " | " | " | Gravelling. |
| | Black Cotton | " | " | " | " | 8 | ⅙ | " | 2029⅓ | " | " | " | " | " | " | " | " | " | Metalling. |
| | | 10 | " | " | " | " | " | " | " | " | " | " | " | " | " | " | " | " | Slab drain 6'x2' |
| | | " | " | " | 1760 | 6 | ⅙ | 1760 | " | " | " | " | " | " | " | " | " | " | Levelling road |
| | | " | " | " | " | 8 | ⅙ | " | " | 2346⅔ | " | " | " | " | " | " | " | " | Gravelling. |
| | | " | " | " | " | 8 | ⅙ | " | 2346⅔ | " | " | " | " | " | " | " | " | " | Metalling. |
| | | 11 | " | " | 1760 | 6 | ⅙ | 1760 | " | " | " | " | " | " | " | " | " | " | Levelling side slopes. |
| | | " | " | " | " | 8 | ⅙ | " | " | 2346⅔ | " | " | " | " | " | " | " | " | Gravelling. |
| | | " | " | " | " | 8 | ⅙ | " | 2346⅔ | " | " | " | " | " | " | " | " | " | Metalling. |
| | Black Cotton | 12 | " | " | 1685 | 6 | ⅙ | 1685 | " | " | " | " | " | " | " | " | " | " | Filling in side slopes |
| | | " | " | " | " | 8 | ⅙ | " | " | 2246⅔ | " | " | " | " | " | " | " | " | Gravelling. |
| | | " | " | " | " | 8 | ⅙ | " | 2246⅔ | " | " | " | " | " | " | " | " | " | Metalling. |
| | | 12 | 7 | 145 | 182 | 2 | ⅙ | " | " | 60⅔ | " | " | " | " | " | " | " | " | Gravelling. |
| | | " | " | " | " | 6 | ⅓ | " | " | 91 | " | " | " | " | " | " | " | " | Do. |
| | | " | " | " | " | 2 | ⅙ | " | 60⅔ | " | " | " | " | " | " | " | " | " | Metalling. |
| | | 13 | " | 107 | 7813 | 6 | ⅙ | 7813 | " | " | " | " | " | " | " | " | " | " | Levelling, digging side drains and filling in slopes. |
| | | " | " | " | 6 | 8 | ⅙ | " | " | 10417⅓ | " | " | " | " | " | " | " | " | Gravelling. |
| | | | | | | | | 25,439⅚ | 21,312⅔ | 34,995⅚ | " | " | " | " | " | " | " | " | |

Detailed Estimate of the probable expense fo[r] [Road] No VI from Ayikwandy to Tobi [illegible] in the District of Godwery.

| Name of Villages. | Nature of soil. | Point whence measurement commences. Miles. | Furlongs | Yards. | Measurement in Length. | Breadth | Height or Depth. | Earth work | Metalling | CONTENTS. Gravelling | Turfing. | Revetment. | Removing rocks | Hill Cutting. | Clearing Sand. | Clearing Jungle. | Bridges &ca. Already built | New work Proposed. | Remarks. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Brought forward | | | | | | | 25,439 5/6 | 21,312 | 31,995 5/6 | | | | | | | | | Metalling. |
| | | 13 | | 07 | 1,813 | 8 | 1/6 | | 10,41[illegible] | | | | | | | | | | Slab drain 1½ x 1'. |
| | Red Earth | 17 | 4 | | | | | | | | | | | | | | | 2 | Levelling & clearing side drains. |
| | | | | | 3,190 | 6 | 1/6 | 3,190 | | | | | | | | | | | Gravelling |
| | | | | | | 8 | 1/6 | | | 1,253 1/3 | | | | | | | | | Metalling. |
| | | | | | | 8 | 1/6 | | 4,253 1/3 | | | | | | | | | | Cutting |
| | | 19 | 2 | 110 | 110 | 8 | 1/2, | 440 | | | | | | | | | | | Gravelling |
| | | | | | | 8 | 1/6 | | | 146 2/3 | | | | | | | | | Metalling. |
| | | | | | | 8 | 1/6 | | 146 2/3 | | | | | | | | | | Levelling road & side slopes |
| | | | 3 | | 6,398 | 6 | 1/1 | 6,398 | | | | | | | | | | | Gravelling |
| | | | | | | 8 | 1/6 | | | 8,530 2/3 | | | | | | | | | Metalling. |
| | | | | | | 8 | 1/6 | | 8,530 2/3 | | | | | | | | | | Slab drain 1½ x 1'. |
| | Cotton soil | 23 | | | | | | | | | | | | | | | | 3 | Side slopes |
| | | | | | 587 | 3 | 1/6 | 293 1/2 | | | | | | | | | | | Gravelling |
| | | | | | | 2 | 1/6 | | | 195 2/3 | | | | | | | | | Metalling. |
| | | | | | | 2 | 1/6 | | 195 2/3 | | | | | | | | | | Gravelling old road. |
| | | | | | | 6 | 1/6 | | | 56 1/2 | | | | | | | | | Slab drain 1½ x 1'. |
| | | 2 | 15 | | | | | | | | | | | | | | | 4 | |
| | | | | | 340 | 2 | 1/6 | 116 | | | | | | | | | | | Digging side drains |
| | | | | | | 2 | 1/6 | | | 116 | | | | | | | | | Gravelling new portion |
| | | | | | | 2 | 1/6 | | 116 | | | | | | | | | | Metalling do do |
| | | | | | | 6 | 1/2 | | | 174 | | | | | | | | | Gravelling old portion. |
| | | | | | | | | | | | | | | | | | | | Levelling and side slopes |
| | | 4 | 3 | | 294 | 6 | 1/6 | 294 | | | | | | | | | | | Gravelling |
| | | | | | | 8 | 1/6 | | | 392 | | | | | | | | | Metalling. |
| | | | | | | 8 | 1/6 | | 392 | | | | | | | | | | Culvert of 6'-span. |
| | | 5 | 147 | | | | | | | | | | | | | | | 5 | |
| | | | | | 477 | 6 | 1/6 | 477 | | | | | | | | | | | Levelling and side slopes |
| | | | | | | 8 | 1/6 | | | 636 | | | | | | | | | Gravelling |
| | | | | | | 8 | 1/6 | | 636 | | | | | | | | | | Metalling |
| | | 7 | 194 | | | | | | | | | | | | | | | 6 | Slab drain 1½ x 1'. |
| | | | | | 770 | 6 | 1/6 | 770 | | | | | | | | | | | Levelling & side slopes |
| | | | | | | 8 | 1/6 | | | 1,026 2/3 | | | | | | | | | Gravelling |
| | | | | | | 8 | 1/6 | | 1,026 2/3 | | | | | | | | | | Metalling. |
| | | 24 | 3 | 74 | | | | | | | | | | | | | | 7 | Slab drain 1½ x 1'. |
| | | | | | | | | 37,418 1/3 | 47,026 2/3 | 51,033 5/6 | | | | | | | | | |

Detailed Estimate of the probable expense fo[r] Road No VI from Pyakurnday to Tot[a] in the District of Godavery.

| Name of Villages. | Nature of soil. | Point whence measurement commences | | | Measurement in | | | | | Contents. | | | | | | | Bridges &ca. | | Remarks. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Miles. | Furlgs. | Yards. | Length. | Breadth | Height or Depth. | Earth work. | Metalling | Gravelling | Turfing. | Revetment. | Removing rocks | Hill Cutting. | Clearing Sand. | Clearing Jungle. | Already built | New work Proposed. | |
| | | | | | Brought forward | | | 37,518⅔ | 4703 | 51033⅓ | | | | | | | | | |
| | | 24 | 3 | 704 | 6 | ⅙ | 704 | | | | | | | | | | | | Clearing side drains |
| | | " | " | " | 8 | ⅙ | " | | | 938⅔ | | | | | | | | | Gravelling |
| | | " | " | " | 8 | ⅙ | " | | 938⅔ | | | | | | | | | | Metalling |
| | | " | 6 | " | " | " | " | | | | | | | | | | | | |
| | | " | " | 1313 | 6 | ⅙ | 1313 | | | | | | | | | | 8 | | Slab drain 1½×1. |
| | | " | " | " | 8 | ⅙ | " | | | 1750⅔ | | | | | | | | | Clearing side drains & Gravelling |
| | | " | " | " | 8 | ⅙ | " | | 1750⅔ | | | | | | | | | | Gravelling |
| | | 25 | 4 | " | " | " | " | | | | | | | | | | | | Metalling |
| | | " | " | 513 | 6 | ⅙ | 513 | | | | | | | | | | 4 | | Slab drain 2×2. |
| | | " | " | " | 8 | ⅙ | " | | | | | | | | | | | | Clearing side drains & slopes |
| | | " | " | " | 8 | ⅙ | " | | | 684 | | | | | | | | | Gravelling |
| | | " | " | " | 8 | ⅙ | " | | 684 | | | | | | | | | | Metalling. |
| | | " | 1 | 1907 | 6 | ⅙ | 1907 | | | | | | | | | | 10 | | Slab drain 1½×1. |
| | | " | " | " | 8 | ⅙ | " | | | 2542⅔ | | | | | | | | | Side drains & slopes. |
| | | " | " | " | 8 | ⅙ | " | | | | | | | | | | | | Gravelling |
| | | 26 | 7 | " | " | " | " | | 2542⅔ | | | | | | | | | | Metalling. |
| Red Earth. | | " | " | 1036 | 6 | ⅙ | 1036 | | | | | | | | | | 11 | | Slab drain 2×2. |
| | | " | " | " | 8 | ⅙ | " | | | 1381⅓ | | | | | | | | | Deepening side drains and filling slopes |
| | | " | " | " | 8 | ⅙ | " | | 1381⅓ | | | | | | | | | | Gravelling |
| Black Cotton | | 27 | 4 | 247 | 6 | 1/13 | 123⅔ | | | | | | | | | | | | Metalling. |
| | | " | " | " | 12 | ⅛ | " | | | 82⅔ | | | | | | | | | Digging side drains & making slopes |
| | | " | " | " | 2 | ⅛ | " | | 82⅔ | | | | | | | | | | Gravelling |
| | | " | " | " | 6 | 1/13 | " | | | 123⅔ | | | | | | | | | Metalling. |
| | | " | 5 | 615 | 6 | ⅙ | 615 | | | | | | | | | | 12 | | Gravelling old road |
| | | " | " | " | 2 | ⅙ | " | | | 205 | | | | | | | | | Slab drain 2×2 |
| | | " | " | " | 2 | ⅙ | " | | 205 | | | | | | | | | | Filling side slopes, deepening drains |
| | | " | " | " | 6 | 1/12 | " | | | 307½ | | | | | | | | | Gravelling |
| | | 28 | " | 29 | " | " | " | | | | | | | | | | 13 | | Metalling. |
| | | | | | | | | 43629⅔ | 5461⅔ | 59049⅔ | | | | | | | | | Gravelling made road |

Detailed Estimate of the probable expense fo[r] Road No VI from Pyakumday to Tobi [illegible] in the District of Godavery.

| Name of Villages. | Nature of soil. | Point whence measurement commences: Miles. | Furlongs. | Measurement in: Length. | Breadth. | Height or Depth. | Earth work. | Metalling. | Contents: Gravelling. | Turfing. | Revetment. | Removing rocks. | Hill Cutting. | Clearing Sand. | Clearing Jungle. | Bridges &ca.: Already built. | New work Proposed. | Remarks. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Brought forward | | | 43629 2/3 | 5486 1/3 | 59,049 1/2 | | | | | | | | | |
| | | 28 | 0 | 510 | 6 | 1/6 | 510 | " | " | " | " | " | " | " | " | " | " | Side drains & slopes |
| | | " | " | " | 8 | 1/6 | " | 170 | " | " | " | " | " | " | " | " | " | Metalling |
| | | " | " | " | 8 | 1/6 | " | " | 170 | " | " | " | " | " | " | " | " | Gravelling. |
| | | " | " | " | 6 | 1/12 | " | " | 255 | " | " | " | " | " | " | " | " | Gravelling old portion. |
| | Red earth. | " | 2 | 1008 | 6 | 1/6 | 1008 | " | " | " | " | " | " | " | " | " | " | Side drains & slopes |
| | | " | " | " | 8 | 1/6 | " | 1344 | " | " | " | " | " | " | " | " | " | Metalling |
| | | " | " | " | 8 | 1/6 | " | " | 1344 | " | " | " | " | " | " | " | " | Gravelling. |
| | | " | " | " | " | " | " | " | " | " | " | " | " | " | " | " | 14 | Slab drain 1½'x1'. |
| | | " | 1 | 660 | 6 | 1/6 | 660 | " | " | " | " | " | " | " | " | " | " | Side drains & slopes. |
| | | " | " | " | 8 | 1/6 | " | 880 | " | " | " | " | " | " | " | " | " | Metalling |
| | | " | " | " | 8 | 1/6 | " | " | 880 | " | " | " | " | " | " | " | " | Gravelling. |
| | | 29 | 2 | " | " | " | " | " | " | " | " | " | " | " | " | 15 | " | A bridge of 15 arches 30' each |
| | | " | " | 440 | 6 | 1/6 | 440 | " | " | " | " | " | " | " | " | " | " | Side drains & slopes, Levelling road |
| | | " | " | " | 8 | 1/6 | " | 586 2/3 | " | " | " | " | " | " | " | " | " | Metalling |
| | | " | " | " | 8 | 1/6 | " | " | 586 2/3 | " | " | " | " | " | " | " | " | Gravelling. |
| | Red Earth. | " | 4 | " | " | " | " | " | " | " | " | " | " | " | " | 16 | " | Slab drain 2'x2'. |
| | | " | " | 55 | 6 | 1/6 | 55 | " | " | " | " | " | " | " | " | " | " | Levelling road |
| | | " | " | " | 8 | 1/6 | " | 73 1/3 | " | " | " | " | " | " | " | " | " | Metalling |
| | | " | " | " | 8 | 1/6 | " | " | 73 1/3 | " | " | " | " | " | " | " | " | Gravelling. |
| | | " | " | 62 | " | " | " | " | " | " | " | " | " | " | " | 17 | " | Size feet Road Tunnel. |
| | | " | " | 477 | 6 | 1/6 | 477 | " | " | " | " | " | " | " | " | " | " | Levelling road & digging side drains |
| | | " | " | " | 8 | 1/6 | " | 636 | " | " | " | " | " | " | " | " | " | Metalling |
| | | " | " | " | 8 | 1/6 | " | " | 636 | " | " | " | " | " | " | " | " | Gravelling. |
| | | " | 6 | 79 | " | " | " | " | " | " | " | " | " | " | " | 18 | " | Slab drain 2'x2' [illegible] |
| | | " | " | 761 | 6 | 1/6 | 761 | " | " | " | " | " | " | " | " | " | " | Levelling road, deepening side drains 4' |
| | | " | " | " | 8 | 1/6 | " | " | 1014 2/3 | " | " | " | " | " | " | " | " | Gravelling |
| | | " | " | " | 8 | 1/6 | " | 1014 2/3 | " | " | " | " | " | " | " | " | " | Metalling. |
| | | 30 | 1 | 200 | " | " | " | " | " | " | " | " | " | " | " | 19 | " | Size feet Road Tunnel |
| | | | | | | | 47,840 2/3 | 5430 | 64,009 1/6 | | | | | | | | | |

Detailed Estimate of the probable expense fo[r] road No VI from Ekkamdy to Tob[a] in the District of Godavery.

| Name of Villages. | Nature of soil. | Point whence measurement commences | | Measurement in | | | | | CONTENTS. | | | | | | | Bridges &ca. | | Remarks. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Miles. | Furlongs | Yards. | Length. | Breadth. | Height or Depth. | Earth work | Metalling | Gravelling | Turfing. | Revetment. | Removing rocks | Hill Cutting. | Clearing Sand. | Clearing Jungle. | Already built | New work Proposed. | |
| | | | | | Brought forward | | | 47,540 2/3 | 59,310 | 64,009 1/6 | | | | | | | | |
| | | 30 | 1 | 200 | 340 | 6 | 1/6 | 340 | | | | | | | | | | Levelling road, filling in side slopes |
| | | " | " | " | " | 8 | 1/6 | " | 453 1/3 | " | | | | | | | | Metalling |
| | | " | " | " | " | 8 | 1/6 | " | " | 453 1/3 | | | | | | | | Gravelling |
| | | " | 3 | 00 | " | " | " | " | " | " | | | | | | | 20 | Mak drain 1/2 x 1' |
| | | " | " | " | 357 | 6 | 1/6 | 357 | " | " | | | | | | | | Levelling road, filling in side slopes |
| | | " | " | " | " | 8 | 1/6 | " | 476 | " | | | | | | | | Metalling |
| | | " | " | " | " | 8 | 1/6 | " | " | 476 | | | | | | | | Gravelling |
| | | " | 5 | 1/4 | 367 | 6 | 1/6 | 367 | " | " | | | | | | | | Levelling road 1/4 |
| | | " | " | " | " | 2 | 1/6 | " | 122 1/2 | " | | | | | | | | Metalling |
| | | " | " | " | " | 2 | 1/6 | " | " | 122 1/2 | | | | | | | | Gravelling |
| | | " | 6 | 1/4 | " | " | " | " | " | 183 1/2 | | | | | | | | Gravelling old portion |
| Black Cotton | | " | " | " | 1414 | 6 | 1/6 | 1414 | " | " | | | | | | | 21 | Mak drain 1 1/2 x 1' |
| | | " | " | " | " | 8 | 1/6 | " | 1885 1/3 | " | | | | | | | | Levelling road 1/2 |
| | | " | " | " | " | 8 | 1/6 | " | " | 1885 1/3 | | | | | | | | Metalling |
| | | 31 | 5 | 30 | " | " | " | " | " | " | | | | | | | | Gravelling |
| | | " | " | " | 1036 | 6 | 1/6 | 1036 | " | " | | | | | | | 32 | Mak drain 1 1/2 x 1' |
| | | " | " | " | " | 2 | 1/6 | " | 345 1/3 | " | | | | | | | | Levelling Road 1/8 |
| | | " | " | " | " | 8 | 1/6 | " | " | 345 1/3 | | | | | | | | Metalling |
| | | " | " | " | " | 6 | 1/6 | " | " | 518 | | | | | | | | Gravelling |
| Red Earth | | 32 | 1 | 194 | 1027 | 6 | 1/6 | 1027 | " | " | | | | | | | | Gravelling old portion |
| | | " | " | " | " | 8 | 1/6 | " | 1369 1/3 | " | | | | | | | | Levelling road 1/4 |
| | | " | " | " | " | 8 | 1/6 | " | " | 1369 1/3 | | | | | | | | Metalling |
| | | " | 6 | 121 | 1091 | 6 | 1/6 | 1091 | " | " | | | | | | | | Gravelling |
| | | " | " | " | " | 8 | 1/6 | " | 363 2/3 | " | | | | | | | | Levelling road 1/4 |
| | | " | " | " | " | 8 | 1/6 | " | " | 363 2/3 | | | | | | | | Metalling |
| | | " | " | " | " | 6 | 1/2 | " | " | 545 1/2 | | | | | | | | Gravelling |
| | | | | | 53,172 2/3 | | | 64,331 1/3 | | 70,271 1/3 | | | | | | | | |

Detailed Estimate of the probable expense fo[illegible] road No VI from Pychmundy to Tobertee in the District of Godwery.

| Name of Villages. | Nature of soil. | Point whence measurement commences: Miles. | Furlongs. | Yards. | Measurement in: Length. | Breadth | Height or Depth. | Contents: Earth work | Metalling | Gravelling | Turfing. | Revetment. | Removing rocks | Hill Cutting. | Clearing Sand. | Clearing Jungle. | Bridges &c.: Already built | New work Proposed. | Remarks. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Brought forward | | | 53172 5/6 | 6433 1/3 | 6271 1/2 | " | " | " | " | " | " | " | " | |
| | | 33 | 3 | 12 | 1659 | 6 | 1/6 | 1659 | " | " | " | " | " | " | " | " | " | " | Levelling &c. |
| | | " | " | " | " | 8 | 1/6 | " | 2212 | " | " | " | " | " | " | " | " | " | Metalling |
| | | " | " | " | " | 8 | 1/6 | " | " | 2212 | " | " | " | " | " | " | " | " | Gravelling. |
| | | 34 | 3 | 1 | " | " | " | " | " | " | " | " | " | " | " | " | " | 22 | Nos 2 runs 22. |
| | | " | " | " | 880. | 6 | 1/6 | 880 | " | " | " | " | " | " | " | " | " | " | Levelling road &c |
| | | " | " | " | " | 8 | 1/6 | " | 1173 1/3 | " | " | " | " | " | " | " | " | " | Metalling |
| | | " | " | " | " | 8 | 1/6 | " | " | 1173 1/3 | " | " | " | " | " | " | " | " | Gravelling. |
| | | " | 7 | 11 | 147 | 6 | 1/6 | 147 | " | " | " | " | " | " | " | " | " | " | Levelling road &c |
| | | " | " | " | " | 8 | 1/6 | " | 49 | " | " | " | " | " | " | " | " | " | Metalling |
| | | " | " | " | " | 8 | 1/6 | " | " | 49 | " | " | " | " | " | " | " | " | Gravelling. |
| | | " | " | " | " | 6 | 1/2 | " | " | 73 1/2 | " | " | " | " | " | " | " | " | on old portion. |
| | | " | " | 188 | 540 | 6 | 1/6 | 540 | " | " | " | " | " | " | " | " | " | " | Levelling road &c |
| | | " | " | " | " | 8 | 1/6 | " | 720 | " | " | " | " | " | " | " | " | " | Metalling |
| | | " | " | " | " | 8 | 1/6 | " | " | 720 | " | " | " | " | " | " | " | " | Gravelling. |
| | | 35 | 2 | 30 | 458 | 6 | 1/6 | 458 | " | " | " | " | " | " | " | " | " | " | Levelling road &c |
| | | " | " | " | " | 8 | 1/6 | " | 152 2/3 | " | " | " | " | " | " | " | " | " | Metalling |
| | | " | " | " | " | 8 | 1/6 | " | " | 152 2/3 | " | " | " | " | " | " | " | " | Gravelling. |
| | | " | " | " | " | 6 | 1/2 | " | " | 229 | " | " | " | " | " | " | " | " | Gravelling old portion. |
| | | " | 4 | 56 | " | " | " | " | " | " | " | " | " | " | " | " | " | 24 | Nos 2 runs 1½ × 1. |
| | | " | " | " | 4062 | 6 | 1/6 | 4062 | " | " | " | " | " | " | " | " | " | " | Levelling road &c |
| | | " | " | " | " | 8 | 1/6 | " | 5416 | " | " | " | " | " | " | " | " | " | Metalling |
| | | " | " | " | " | 8 | 1/6 | " | " | 5416 | " | " | " | " | " | " | " | " | Gravelling |
| Red earth | 37 | 6 | 158 | 366 | 6 | 1/6 | 366 | " | " | " | " | " | " | " | " | " | " | " | Levelling road &c |
| | " | " | " | " | 8 | 1/6 | " | 488 | " | " | " | " | " | " | " | " | " | " | Metalling |
| | " | " | " | " | 8 | 1/6 | " | " | 488 | " | " | " | " | " | " | " | " | " | Gravelling. |
| | 38 | " | 84 | 202 | 6 | 1/6 | 202 | " | " | " | " | " | " | " | " | " | " | " | Levelling road &c |
| | " | " | " | " | 8 | 1/6 | " | 269 1/3 | " | " | " | " | " | " | " | " | " | " | Metalling |
| | " | " | " | " | 8 | 1/6 | " | " | " | 269 1/3 | " | " | " | " | " | " | " | " | Gravelling. |
| | | | | | | | | 61486 5/6 | 7488 2/3 | 8165 1/3 | | | | | | | | | |

Detailed Estimate of the probable expense fo[illegible] road No VI from Ayakhandy to Tobacco Godavery. in the District of

| Name of Villages. | Nature of soil. | Point whence measurement commences. Miles. | Furlongs. | Yards. | Measurement in Length. | Breadth | Height or Depth. | Earth work | Metalling | CONTENTS. Gravelling | Turfing. | Revetment. | Removing rocks | Hill Cutting. | Clearing Sand. | Clearing Jungle. | Bridges &ca. Already built | New work Proposed. | Remarks. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Length forward | | | 61486 5/6 | 74811 2/3 | 81054 1/3 | " | " | " | " | " | " | " | " | |
| | | 38 | 1 | 66 | 586 | 6 | 1/6 | 586 | " | " | " | " | " | " | " | " | " | " | Levelling road Yds. |
| | | " | " | " | " | 8 | 1/6 | " | 781 1/3 | " | " | " | " | " | " | " | " | " | Metalling |
| | | " | " | " | " | " | " | " | " | 781 1/3 | " | " | " | " | " | " | " | " | Gravelling. |
| | | " | 3 | 32 | 1088 | 6 | 1/6 | 1088 | " | " | " | " | " | " | " | " | " | " | Levelling road Yds. |
| | | " | " | " | " | 8 | 1/6 | " | 362 2/3 | " | " | " | " | " | " | " | " | " | Metalling |
| | | " | " | " | " | 8 | 1/6 | " | " | 362 2/3 | " | " | " | " | " | " | " | " | Gravelling. |
| | | " | " | " | " | 6 | 1/12 | " | " | 544 | " | " | " | " | " | " | " | " | Gravelling old portion. |
| | | 39 | " | 800 | " | " | " | " | " | " | " | " | " | " | " | " | " | 28 | Side drain 2'x2'. |
| | | " | " | " | 200 | 6 | 1/3 | 800 | " | " | " | " | " | " | " | " | " | " | Widening road |
| | | " | " | " | " | 8 | 1/6 | " | 66 2/3 | " | " | " | " | " | " | " | " | " | Metalling |
| | | " | " | " | " | 2 | 1/6 | " | " | 66 2/3 | " | " | " | " | " | " | " | " | Gravelling |
| | | " | " | " | " | 6 | 1/12 | " | " | 100 | " | " | " | " | " | " | " | " | Gravelling old portion. |
| | | " | 1 | 180 | " | " | " | " | " | " | " | " | " | " | " | " | " | 26 | Drain 2'x2'. |
| | | " | " | " | 1360 | 6 | 1/6 | 1360 | " | " | " | " | " | " | " | " | " | " | Levelling Yds. |
| | | " | " | " | " | 2 | 1/6 | " | 453 1/3 | " | " | " | " | " | " | " | " | " | Metalling |
| | | " | " | " | " | 2 | 1/6 | " | " | 453 1/3 | " | " | " | " | " | " | " | " | Gravelling |
| | | " | " | " | " | 6 | 1/12 | " | " | 680 | " | " | " | " | " | " | " | " | do old portion. |
| Cotton. | | 40 | " | " | 1874 | 6 | 1/6 | 1874 | " | " | " | " | " | " | " | " | " | " | Levelling road, deepening side drains Yds. |
| | | " | " | " | " | 2 | 1/6 | " | 624 2/3 | " | " | " | " | " | " | " | " | " | Metalling |
| | | " | " | " | " | 2 | 1/6 | " | " | 624 2/3 | " | " | " | " | " | " | " | " | Gravelling. |
| | | " | " | " | " | 6 | 1/12 | " | " | 937 | " | " | " | " | " | " | " | " | do old portion. |
| | | 41 | " | 114 | 3406 | 6 | 1/6 | 3406 | " | " | " | " | " | " | " | " | " | " | deepening side drains Yds. |
| | | " | " | " | " | 8 | 1/6 | " | 1541 1/3 | " | " | " | " | " | " | " | " | " | Metalling |
| | | " | " | " | " | " | " | " | " | 1541 1/3 | " | " | " | " | " | " | " | " | Gravelling. |
| | | 43 | " | " | 50 | 3 | 1 | 150 | " | " | " | " | " | " | " | " | " | " | Widening road Yds. |
| | | " | " | " | 730 | 6 | 1/6 | 730 | " | " | " | " | " | " | " | " | " | " | Levelling Yds. |
| | | " | " | " | 780 | 8 | 1/6 | " | 1040 | " | " | " | " | " | " | " | " | " | Metalling. |
| | | | | | | | | 71480 5/6 | 82682 2/3 | 90145 1/3 | | | | | | | | |

Detailed Estimate of the probable expense fo[r] [re]pairs and renewal of [Ro]ad No VI from Pyakhumday to Tok[ ] in the District of Godavery.

| Name of Villages. | Nature of soil. | Point whence measurement commences | Point to which measurement commences | Measurement in | | | | | | CONTENTS. | | | | | | | Bridges &c. | | Remarks. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Miles. | Furlongs. | Furlongs. | Length. | Breadth | Height or Depth. | Earth work | Metalling | Gravelling | Turfing. | Revetment. | Removing rocks | Hill Cutting. | Clearing Sand. | Clearing Jungle | Already built | New work Proposed. | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | 1480 5/6 | 826 2/3 | 90145/6 | | | | | | | | | |
| | | | | | 780 | 8 | 1/6 | | | 1040 | | | | | | | | | Gravelling. |
| | | | 3 | 120 | | | | | | | | | | | | | | 2 | Metalling 2 Yds |
| | | | | | 495 | 12 | 1/6 | 990 | | | | | | | | | | | Rising road 8 Yds. |
| | | | | | | 8 | 1/6 | | 660 | | | | | | | | | | Metalling |
| | | | | | | 8 | 1/6 | | | 660 | | | | | | | | | Gravelling. |
| | | | 5 | 275 | 790 | 6 | 1 | 4738 | | | | | | | | | | | Rising road |
| | | | | | | 6 | 1/3 | 1596 | | | | | | | | | | | Do Do. |
| | | | | | | 2 | 1/6 | | 266 | | | | | | | | | | Metalling |
| | | | | | | 2 | 1/6 | | | 266. | | | | | | | | | Gravelling. |
| | | | | | | 6 | 1/12 | | | 399 | | | | | | | | | Do. |
| | | | 1 | 93 | 1737 | 6 | 1/6 | 1737 | | | | | | | | | | | Levelling road 8 Yds |
| | | | | | | 8 | 1/6 | | 2316 | | | | | | | | | | Metalling |
| Cotton. | | | | | | 8 | 1/6 | | | 2316 | | | | | | | | | Gravelling. |
| | | | 1 | 10 | 290 | 6 | 1/12 | 145 | | | | | | | | | | | Levelling road 8 Yds |
| | | | | | | 2 | 1/6 | | 96 2/3 | | | | | | | | | | Metalling |
| | | | | | | 2 | 1/6 | | | 96 2/3 | | | | | | | | | Gravelling. |
| | | | | | | 6 | 1/12 | | | 145 | | | | | | | | | Gravelling. |
| Sand | | | 2 | 140 | | | | | | | | | | | | | | 28 | Stick Grass 1½ Yds |
| | | | | | 550 | 6 | 1/12 | 275 | | | | | | | | | | | Levelling Road 8 Yds |
| | | | | | | 2 | 1/6 | | 183 1/3 | | | | | | | | | | Metalling |
| | | | | | | 2 | 1/6 | | | 183 1/3 | | | | | | | | | Gravelling. |
| | | | | | | 6 | 1/12 | | | 275. | | | | | | | | | Do. |
| | | | 5 | 30 | 440 | 6 | 1/6 | 440 | | | | | | | | | | | Levelling road 8 Yds |
| | | | | | | 8 | 1/6 | | 586 2/3 | | | | | | | | | | Metalling. |
| | | | | | | 8 | 1/6 | | | 586 2/3 | | | | | | | | | Gravelling. |
| | | | 1 | 30 | 166 | 6 | 1/6 | 166 | | | | | | | | | | | Levelling road 8 Yds |
| | | | | | | 8 | 1/6 | | 221 1/3 | | | | | | | | | | Metalling |
| | | | | | | 8 | 1/6 | | | 221 1/3 | | | | | | | | | Gravelling. |
| | | | | | | | | 81,617 5/6 | 8,011 2/3 | 96,334 1/3 | | | | | | | | | |

Detailed Estimate of the probable expense fo[illegible] Road No VI from Kl Pajakmidy to Tob[illegible] in the District of Godavery.

| Name of Villages. | Nature of soil. | Point whence the measurement commences. Miles. | Furlongs | Yards. | Measurement in Length. | Breadth | Height or Depth. | Earth work. | Metalling | CONTENTS. Gravelling | Turfing. | Revetment. | Removing rocks | Hill Cutting. | Clearing Sand. | Clearing Jungle | Bridges &ca. Already built | New work Proposed. | Remarks. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Brought forward | | | 81,617 5/6 | 87,011 2/3 | 96,334 1/3 | | | | | | | | | |
| | | 45 | 1/ | 196 | " | " | " | " | " | " | " | " | " | " | " | " | " | 24 | Six feet Road Tanks C. |
| | | " | " | " | 280 | 6 | 1/6 | 280 | " | " | " | " | " | " | " | " | " | " | Excavating &c. |
| | | " | " | " | " | 8 | 1/6 | " | 37 1/3 | " | " | " | " | " | " | " | " | " | Metalling |
| | | " | " | " | " | 8 | 1/6 | " | " | 37 1/3 | " | " | " | " | " | " | " | " | Gravelling |
| | | 46 | 1 | 36 | " | " | " | " | " | " | " | " | " | " | " | " | " | 30 | Slab drain 1½ × 1 ft |
| | | " | " | " | 880 | 6 | 1/6 | 880. | " | " | " | " | " | " | " | " | " | " | Excavating road 3rd |
| | | " | " | " | " | 8 | 1/6 | " | 11 1/3 | " | " | " | " | " | " | " | " | " | Metalling |
| | | " | " | " | " | 8 | 1/6 | " | " | 11 1/3 | " | " | " | " | " | " | " | " | Gravelling |
| | | " | 5 | 36 | " | " | " | " | " | " | " | " | " | " | " | " | " | 34 | Slab drain 1½ × 1 ft |
| | | " | " | " | 2968 | 6 | 1/6 | 2968 | " | " | " | " | " | " | " | " | " | " | Excavating road 3rd |
| | | " | " | " | " | 8 | 1/6 | " | 39 5 1/3 | " | " | " | " | " | " | " | " | " | Metalling |
| | | " | " | " | " | 8 | 1/6 | " | " | 39 5 1/3 | " | " | " | " | " | " | " | " | Gravelling |
| | | 48 | 2 | 144 | " | " | " | " | " | " | " | " | " | " | " | " | " | 34 | Slab drain 2 × 2 ft |
| | | " | " | " | 148 | 6 | 1/6 | 148 | " | " | " | " | " | " | " | " | " | " | Excavating road 3rd |
| | | " | " | " | " | 8 | 1/6 | " | 19 7/3 | " | " | " | " | " | " | " | " | " | Metalling |
| | | " | " | " | " | 8 | 1/6 | " | " | 19 7/3 | " | " | " | " | " | " | " | " | Gravelling |
| | | " | 3 | 72 | 1,761 | 6 | 1/2 | 5,283 | " | " | " | " | " | " | " | " | " | " | Widening road |
| | | " | " | " | " | 2 | 1/6 | " | 587 | " | " | " | " | " | " | " | " | " | Metalling |
| | | " | " | " | " | 2 | 1/6 | " | " | 587. | " | " | " | " | " | " | " | " | Gravelling |
| | | " | " | " | " | 6 | 1/2 | " | " | 880 1/2 | " | " | " | " | " | " | " | " | do. |
| | | 49 | 3 | 73 | 880 | 6 | 1/4 | 1,320 | " | " | " | " | " | " | " | " | " | " | Widening road |
| | | " | " | " | " | 8 | 1/6 | " | 11 3 1/3 | " | " | " | " | " | " | " | " | " | Metalling |
| | | " | " | " | " | 8 | 1/6 | " | " | 11 3 1/3 | " | " | " | " | " | " | " | " | Gravelling |
| | | 49 | 1/ | 73 | " | " | " | " | " | " | " | " | " | " | " | " | " | 33 | Slab drain 2 × 2 ft |
| | | " | " | " | 117 | 6 | 1/6 | 117 | " | " | " | " | " | " | " | " | " | " | Excavating road 3rd |
| | | " | " | " | " | 8 | 1/6 | " | 196 | " | " | " | " | " | " | " | " | " | Metalling |
| | | " | " | " | " | 8 | 1/6 | " | " | 196 | " | " | " | " | " | " | " | " | Gravelling |
| | | | | | | | | 92643 5/6 | 94669 1/3 | 84832 1/3 | | | | | | | | |

Detailed Estimate of the probable expense fo[r] [Road] No VI from Rajahmundry to Tot[apalli]
Godavery.
in the District of

| Name of Villages. | Nature of soil. | Point whence the measurement commences. Miles. | Furlongs | Yards. | Measurement in Length. | Breadth | Height or Depth. | Earth work | Metalling | CONTENTS. Gravelling | Turfing. | Revetment. | Removing rocks | Hill Cutting. | Clearing Sand. | clearing Jungle. | Bridges &c. Bloody bars | New work Proposed. | Remarks. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Brought forward | | | 92643 5/6 | 94669 1/3 | 104872 2/3 | | | | | | | | | |
| | Red Soil | 50 | | | 2600 | 6 | 1/6 | 2600 | " | " | | | | | | | | | Deepening side drains 1/2 |
| | | " | | | " | 8 | 1/6 | " | 3466 2/3 | " | | | | | | | | | Metalling |
| | | " | | | " | 8 | 1/6 | " | " | 3466 2/3 | | | | | | | | | Gravelling |
| | | 51 | 3 | 00 | " | " | " | " | " | " | | | | | | | | 3/1 | Side drain 272. |
| | | " | " | | 2700 | 6 | 1/6 | 2700 | " | " | | | | | | | | | Levelling road 1/2 |
| | | " | | | " | 8 | 1/6 | " | 3610 2/3 | " | | | | | | | | | Metalling |
| | | " | | | " | 8 | 1/6 | " | " | 3610 2/3 | | | | | | | | | Gravelling |
| | Rock & Gravel | " | | | 566 | 8 | 1 1/2 | " | " | " | | | 6792 | | | | | | Cutting to a gradient of 1 in 30 |
| | | 53 | " | 88 | 1514 | 8 | 1/12 | " | 1009 1/3 | " | | | | | | | | | Metalling |
| | | " | | | " | 8 | 1/12 | " | " | 1009 1/3 | | | | | | | | | Gravelling |
| | Sand, | 53 | 1 | 62 | 2138 | 6 | 1/6 | 2138 | " | " | | | | | | | | | Levelling road 1/2 |
| | | " | | | " | 8 | 1/6 | " | 2850 2/3 | " | | | | | | | | | Metalling |
| | | " | | | " | 8 | 1/6 | " | " | 2850 2/3 | | | | | | | | | Gravelling |
| | | 55 | 1 | | " | " | " | " | " | " | | | | | | | | 35 | Sinking for Culvert |
| | | " | | | 730 | 6 | 1/6 | 730 | " | " | | | | | | | | | Levelling road 1/2 |
| | | " | | | " | 8 | 1/6 | " | 973 1/3 | " | | | | | | | | | Metalling |
| | | " | | | " | 8 | 1/6 | " | " | 973 1/3 | | | | | | | | | Gravelling |
| | Rock & Gravel | " | 4 | 70 | 981 | 8 | 1/12 | " | 654 | " | | | | | | | | | Metalling |
| | | " | | | " | 8 | 1/12 | " | " | 654 | | | | | | | | | Gravelling |
| | Rock | 56 | " | 171 | 467 | 8 | 1 | " | " | " | | | 3736 | | | | | | Cutting to a gradient of 1 in 3 |
| | Clay and gravel | " | 2 | 198 | 1366 | 8 | 1/12 | " | 910 2/3 | " | | | | | | | | | Metalling |
| | | " | | | " | 8 | 1/12 | " | " | 910 2/3 | | | | | | | | | Gravelling |
| | Rock. | 57 | 1 | 24 | 266 | 8 | 1 1/3 | " | " | " | | | 3546 2/3 | | | | | | Cutting to a gradient of 1 in 30 in rock |
| | Gravel and stone | " | 2 | 70 | 500 | 8 | 1/3 | " | " | 5333 1/3 | | | | | | | | | Filling do do |
| | | " | 4 | 130 | 3150 | 8 | 1/2 | " | 2100 | " | | | | | | | | | Metalling |
| | | " | | | " | 8 | 1/12 | " | " | 2100 | | | | | | | | | Gravelling |
| | | | | | | | | 100819 5/6 | 110244 1/3 | 135781 1/6 | | | 11074 2/3 | | | | | | |

Detailed Estimate of the probable expense fo[r] Road No VI from Kl Ayakmudy to Tod[ur] in the District of Godavery.

| Name of Villages. | Nature of soil. | Point whence the measurement commences. Miles. | Furlongs | Yards. | Measurement in Length. | Breadth. | Height or Depth. | Earth work. | Metalling. | Contents. Gravelling | Turfing. | Revetment. | Removing rocks | Hill Cutting. | Clearing Sand. | Clearing Jungle. | Bridges &c. Already built | New work Proposed. | Remarks. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Brought forward | | | 100819 5/6 | 110244 2/3 | 130781/2 | " | " | 140162/3 | " | " | " | " | " | |
| | Red Earth. | 59 | " | 200 | " | " | " | " | " | " | " | " | " | " | " | " | " | 36 | Six ft Road Formed |
| | " | " | " | " | 5068 | 2 | 1/6 | " | 1689 1/3 | " | " | " | " | " | " | " | " | " | Metalled |
| | " | " | " | " | " | 2 | 1/6 | " | " | 1689 1/3 | " | " | " | " | " | " | " | " | Gravelled |
| | " | " | " | " | " | 6 | 1/12 | " | " | 2534 | " | " | " | " | " | " | " | " | do Trade portion. |
| | | 62 | 1 | 208 | Total distance | | | 100819 5/6 | 111934 | 130,004 1/2 | " | " | 140162/3 | " | " | " | " | " | |

Detailed Estimate of the probable expense fo[illegible] Road No VI from Kalyakmidy to Tobi[illegible] in the District of Godavery.

| Name of Villages. | Nature of soil. | Point whence the measurement commences. | | Measurement in | | | | | CONTENTS. | | | | | | | Bridges &c.a. | | Remarks. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Miles. | Furlongs | Yards. | Length. | Breadth | Height or Depth. | Earth work | Metalling | Gravelling | Turfing. | Revetment. | Removing rocks | Hill Cutting. | Clearing Sand. | Clearing Jungle. | Already built | New work Proposed. | |

Abstract Estimate ... Road No 6 from Rajahmundry to Toonee fit for rapid wheel traffic.

| Quantity or Number | Description of work. | Rate | Per | Amount | Total |
|---|---|---|---|---|---|
| 100,819 5/6 | Cyc Earthwork | a 1 6 | Cyc | 9,451 13 9 | |
| 111,934 | Do Metalling | 1 3 | Do | 132,921 10 " | |
| 130,004 1/2 | Do Gravelling | a 15 | Do | 13,487 9 3 6. | |
| 14,074 2/3 | Do Removing rocks | a 8 | Do. | 7,037 5 4 | |
| | | | | 27,129 " " | |
| | Contingencies | 10 | Cent | 27,129 15 5 | |
| | | | | | 298420 " " |
| | Extra Supervision for masonry works | | | | 46180 " " |
| | Compensation for land occupied by the Road | | | | 5400 " " |
| | | | Total Rupees | | 350000 " " |

Superintending Engineer's Office
1st Division
Dowlaishweram
20th June 1870

W. H. Fischer Major R.E.
Ag. Supdg. Engr. 1st Div.

M.R.O. 1—77,006—8-6-37.

(1) Number of pages 8

(2) Date of repair 3/4/40

(3) Initials of the Referencer

# MADRAS RECORD OFFICE.

## Government of Madras.

Financial DEPARTMENT.

| G.O. No. 1157 | Press / Mis. |
|---|---|
| 97-98 | |
| Dated 14-8- | 1873. |

617

**Not to be folded or roughly handled**

1872 Sept

Ltr Letter from the
President & Trustees Gas Company
to the Secretary to the
Board of Revenue

Dated 4 Sept 72

Rec'd

No 94

Report

in Fasc Eq. No 1155 of 14 -

PW 2457/70

Sm. S. R. No 521/72

Fasc/22
No 1986

1872 11th

Inclosing Letter from the
President & Fellows Gonville
& Caius College
To the Secretary to the
Board of Revenue

Dated 14 Sept/72
Recd
No 94

Report

Inland Rev. No 1155 1/14

PW 2457/70

In. S. R. No 52 1/72

Finl/72
No 1986

Report to accompany Surveys, Sections
and Estimates for Trunk Road No 6 from
Pyrahmunday to Toowoo being a distance of
6 Miles 2 furlongs nearly.

1st Mile. Starting from the Tollgate, which is also
the boundary of the Municipality the road
runs over hard red soil but sandy in
parts - the steepest gradient being 1 in 48.
is bridged throughout and requires only
shaping and being brought to the proper
dimensions.

1/4 Mile. It ans continuous gradient of 1 in 68 and
requires nothing being done to it.

1/2 Mile. The road is bridged wherever required,
requires proper sectioning and being brought
to the gradients shewnin the Surveys, the
steepest being 1 in 42 -

1/4 Mile. The road in this ascends and passes
along the face of a hill the gradients
varying on this from 1 in 25 to 1 in 46. No
Cross drainage requires to be provided for.

3/4 Mile. The steepest inclination on this is 1 in
42 No cross drainage has to be provided for -
and the road is yet in good red soil and
requires to be brought to the proper section only.

Same

6th Mile. Same as above, the nullah below the tank at the village of Diwan-chervoo is already bridged. The greatest incline here is only 1 in 56.

7th Mile. The steepest incline is 1 in 48 No Cross drainage works required.

8th Mile The incline here is 1 in 41 per half a mile or thereabouts but no cross drainage has to be provided for.

9th Mile. An incline of 1 in 49 occurs in this mile and at the end of it the road enters on black cotton soil. it is bridged where required.

10 Mile. In this are inclines of 1 in 32 and 1 in 41 for short distances, the soil is black cotton and the road requires to be properly sectioned and brought to the inclines shewn, a small drain 2 x 2 requires to be built.

11th Mile. It is in black cotton soil throughout is bridged but requires shaping the steepest incline is 1 in 43.

12th Mile. Continues in black cotton soil & is bridged throughout but requires to be properly sectioned: the greatest incline is 1 in 181.

13th Mile. In black cotton still and bridged, the steepest incline is 1 in 226.

14th Mile. This black cotton soil, and bridged the steepest incline is 1 in 95.

15th Mile. As before the steepest incline 1 in 394.

16th Mile. As before, the greatest incline 1 in 204.

17th Mile The road now passes into red soil but continues very level the gradients being 1 in 752 and 1 in 618. one small tunnel is required to be built in this mile.

18th Mile. In red soil and very level. one small drain 1½ x 1 required.

19th Mile. Has one incline of 1 in 243 is bridged throughout and requires to be properly sectioned in good hard soil.

20th Mile. In similar soil as above but the gradients vary a good deal and a small Cutting 1 Yard deep for about 100 feet in length has to be made to reduce the inclines as much as possible. it is bridged throughout.

21st Mile. It bridged throughout, passes for half its length thro wet cultivation but on good soil. the greatest incline is 1 in 120.

22nd Mile. Here is one incline of 1 in 69 all the others are moderate and the road is on good soil and bridged throughout.

23rd Mile. The road now passes into a small patch of black cotton soil and this is the last mile which is bridged throughout. the inclines are all moderate and on good soil.

24th Mile. In good soil inclines all moderate but for masonry works have to be built to pass the local drainage.

25th Mile. As before in good soil with moderate inclines but requiring masonry works.

26th Mile. Requires to be provided with masonry works, runs throughout on good soil and has one incline of 1 in 89 for a distance of only 308 feet all the others are moderate.

27th Mile. In black cotton soil all thro' but the gradients are moderate and only one small drain required.

28th Mile. There is one incline of 1 in 72 in this mile which is also on black cotton soil. a bridge has been provided and one small drain remains to be built.

29th Mile. The road is now again in red soil and the gradients are all moderate, two small drains are required.

30th Mile. The road is on good red soil for one half this distance and on black cotton soil for the other. The gradients are all moderate. Two small drains are required and the Gallairoo River has to be crossed by a bridge of 17 arches 30 feet span for which a separate report and Specification are sent with design and Estimate.

31st Mile. Is in black cotton soil all thro requires three small drains to be built for the local drainage. the steepest greadient is 1 in 76.

32nd Mile. Entirely thro red soil and provided with bridges throughout except at one point where a small drain is required. the gradients are very moderate.

33rd Mile. In similar soil, no bridging required and the steepest gradient only 1 in 194.

34th Mile. In the same kind of soil, bridged and the gradients all moderate steepest being 1 in 142.

35th Mile. Thro red soil, a small drain required but provided with the necessary bridges otherwise, Gradients

gradients moderate the heaviest incline
being 1 in 109.

36th Mile - In good soil appears to require
one small drain only 1½×1 - there is
in this a gradient of 1 in 41 and
a level afterwards which looks out
of the way.

37th Mile - In similar soil from the level
the road rises rapidly by gradients
of 1 in 89 and 1 in 52 and is then
pretty level tile.

38th Mile. In this mile it again has reverse
gradients of 1 in 109 and 1 in 136 on
good red soil throughout.

39th Mile - In similar soil, two small
drains required steepest gradient
1 in 75.

40th Mile. Soil black cotton, gradients all
very moderate and bridged throughout;

41st Mile. In black cotton soil, bridged for
cross drainages. Side drains
required. gradients very moderate.

42nd Mile - Bridged throughout on black
cotton soil, gradients rather heavier
being as much as 1 in 110.

43rd Mile - In similar soil and a gradient
of 1 in 49 for a short distance
occurs

occurs in this mile in which also the road
requires widening.

44th Mile. The same kind of soil but bridged -
gradients all very moderate.

45th Mile. Partly in black cotton soil and partly
in sandy soil - bridged - and gradients all
very moderate.

46th Mile. Soil sandy and a gradient of 1 in 33 occurs
in this mile for a short distance to bridging
is complete only minor drains required.

47th Mile. Requires only two small drains gradients
all moderate.

48th Mile. In black cotton soil, bridged and the gradients
all very moderate.

49th Mile. In similar soil. bridged and gradients
steeper there being one of 1 in 48.

50th Mile. In red soil, bridged and all the gradients
very moderate.

51st Mile. Remarks the same as on the preceding one.

52nd Mile. In rocky and gravelly soil, for a short
distance there is an incline of 1 in 33.

53rd Mile. In the same kind of hard soil and bridged -
gradients of 1 in 34 to 1 in 192 occur on
this distance with one level bit.

54th Mile. Sandy soil. to reduce the gradients to
moderate ones of 1 in 30 a heavy cutting has
to be made.

55

55th Mile. In similar soil bridged throughout and gradients all very moderate.

56th Mile. Partly in rocky and then in clay and gravelly soil gradients vary a good deal the steepest being 1 in 35.

57th Mile. Partly in rocky soil in which a cutting has to be made to reduce the gradients to 1 in 30 thence the road runs thro gravelly and stoney soil and the gradients are all moderate.

58th Mile. Cutting and filling in required in this mile to bring all gradients to 1 in 30 the other gradients vary considerably and in short distances only.

59th to 61st Miles. All in good soil. one bridge of 12 feet span required and the gradients never exceed 1 in 30.

62nd Mile. Just beyond this this section of the road ends.

As so much of this line of road has been partly made and bridged the gradients are shewn not to actual formation level but what the road should be brought to as nearly as possible. except at Rajahmundry the travellers' 4 Bungalows on this part of the line as far as I have seen are in a ruinous state.

There are large towns and Villages on this Road and the Country in general is well Cultivated particularly so for a District in which the means of communications, except in the Delta have been so utterly and entirely neglected. Local fund roads running into the interior and on to the Coast cross this Trunk line at various points are in process of construction and will bring traffic on to it otherwise it is difficult to comprehend the advisability of pressing on this project which has to compete with a line of steamers touching at every port on the Coast.

Supdg Engrs Office 4th Dn
Dowlaishweram
20th June 1870

Lieut. & Brevet Major R.E.
Offg Supdg Engineer 4th Dn

1872 Dec 4

Inclosing from the
President & 7 Gov Directors
To the Secretary of the
Board of Revenue

Dated 14 Sept 72
Rec'd
No 94
Plan

In. G. Rec 5217/72

Finl/72
No 1986.

Trunk Road No 6 over Streams
Nos 2. 3. 4. 6. 7. 8. 10. 14. 20. 21. 22
24. 28. 30 & 31 on Survey Plans

Estimate
Cost Rs 110
Soiled Earth

Plan of Drains to be built
on Trunk Road No 6
Nos 1. 9. 11. 12. 16. 18. 23
32. 33. & 36 on Survey Plans
Estimate Cost Rs 140-0-0
Soiled Earth

Nos 25. 26. 27

Transverse Section Nos 11. 15.

Note In carrying out the works for the many small drains it would be desirable to reduce the width of the roadway between parapets for drains and Culvert bridges of less than 20 ft in length to 15, ft 2 inches allowing each other in dark distances would not be inconvenient greatly

Signed J. Harrison Lieut R.E.
Asst. to Engr in Chief

Signed J. F. Fisher Major R.E.
Actg Engr & Surveyor

Signed J. F. Fisher Major R.E.
Actg Engr & Surveyor

Specification for Constructing Trunk Road No. 6 from Rajahmundry to Tuni.

The road is to be carried along the existing or surveyed line from Rajahmundry to Tuni. The existing formation level is to be raised wherever necessary and made perfectly level. Side drains to be dug where required and the existing ones improved. The road will be metalled and gravelled to a breadth of 24 ft. the metalling to be laterite granite dimension of metal when broken up not to exceed 2½ inches and to be neatly packed to the crown concentrically with two layers of gravel each layer 3" thick to be well rammed, the gravel used to have a slight quantity of clay in it to make it adhere. where the soil is gravel it is to be well picked up to a depth of 3 inches. a layer of broken stone 3 inches thick in the middle and 5 inches at the sides laid on and then 3 inches of gravel spread on top and well watered and rammed.

The road where completed to have an inclination of 3" inches from centre to margins.

The steepest gradients on road to be one in 30 and this only in a few places and for short distances. All streams to be bridged palmira sluices to be removed and slab drains built.

---

Specification for a Bridge of 17 arches of 30 ft span each over the River Yeleru near Yerravaram — No 15.

Foundations & piers & abutments } To consist of wells (4½) four and a half feet deep and (5') five feet diameter sunk (7') seven feet below the bed of river supporting a masonry plat form (8½) two & a half feet in depth. The wells to be built of brick in chunam and filled in with Concrete. To be (1') one foot apart spaces between to be filled in with Concrete to a depth of (1') one foot. The plat form to be rough stone in chunam resting on wells on under.

under piers and abutments and on a clay bed under the wings and the connecting walls.

Arches and retaining walls } To be of rubble in chunam - the former (2') two feet thick, the latter (2½') two and a half feet deep - (3') three feet wide at (4') four feet at bottom.

Superstructure To be built of brick in chunam and plastered with 3 Coats of chunam.

Piers. With the exception of the sixth from each abutment which will be (3') seven feet thick to be of a uniform thickness of (5') five feet and (6') six feet high to springing.

Abutments. To be (6'-6") six feet and six inches thick at springing and (9') nine feet at bottom supported by a buttress (3') three feet thick at top and (3'-6") three feet and six inches at bottom and uniform width (6') six feet.

Wing walls. To be (30') thirty feet long built to a height of (3') three ft. from bottom (6') six feet thick and diminished in thickness (1') one foot for the two successive heights of (3') three ft at (9') nine ft to be (3'-6") three feet and six inches thick to be built up from here with a batter on back to a breadth of (2'-6") two feet and six inches at string Course - To have buttresses on their inner extremities to height of (9') nine feet (4') four feet thick carried up in similar steps of (1') one foot at every (3') three feet - To be connected by a segmental retaining wall Concave side towards abutments (4') four feet thick at bottom (2') two feet at top or string Course with batter on both sides.

Arches. To be (1'-6") one foot and six inches thick at Crown and increasing by steps of (4½") four inches at equal intervals towards the haunches to a thickness of (2'-3") two feet and three inches - the span to be (30') thirty feet versed sine (7'-6") seven feet and six inches giving a total height to soffit from floor of (13') thirteen feet (6") six inches or (7'-6") seven feet and six inches above high flood, extrados to be coated with

(3") three inches Concrete before spandrils are filled in with brick rubbish.

Spandrels. To be built up to the height of (3'-6") three feet and six inches of solid brick in chunam (2'-6") two feet and six inches wide at top and (3') three feet at bottom.

Parapets. To be (1'-6") one foot and six inches thick and (3') three feet high - No cornice on the inside.

Road way. To be (21') twenty one feet wide between parapets (27'-8") twenty-seven feet and eight inches between wings over abutments splayed out to a breadth of (33'-9") thirty-three feet and nine inches at their extremeties.

Earth re-vetments round wings and approaches } The former to be thrown up with a slope 1 to 1 and pitched with stone - the latter to be carried back with a gradient of not more than 1 in a 100 side slopes 1½ to 1 to be turfed.

Weeping holes. To be left over every third pier

Materials to be used } Chunam - to Consist of 1 of lime to 2 of sharp river sand well tempered.

Brick - to be made of best earth procurable in the vicinity of the work to be well burnt and laid in English bonds.

Concrete - to Consist of 1 of lime to 2 of chunam, sharp river sand and to 12 of broken stone or brick.

Stone - Good large sized stone not less (9") nine inches deep (1' × 1'-6") one foot × one foot and six inches laid on its quarry bed and built in Courses of not less than inches.

The whole to be done in a substantial and workman like manner -

---

Specification for the Culvert to be built over streams numbered 5, 13, 17, 19, 29, 35 and 36.

Foundations in red earth & sand } To Consist of a bed of Roughstone in chunam one foot thick resting on a layer of Concrete of the thickness well rammed in (3") three inches layers.

To consist of 1 of lime, 2 of sand to 12 of broken stone.

Superstructure. Brick in chunam - plastered with 2 coats of chunam.

Abutment piers. To be (2) two feet wide at base and (1'-9") one foot nine inches at springing and (1'-6") one foot and six inches high.

Arch. Span (6') six feet rise (1'-6") one foot and six inches thickness at crown (1') one foot at springing (1'-3") one foot and three inches.

Wing walls To be (5') five feet long (4') four feet high (1'-6") one foot and six inches at base (1'-3") one foot and three inches top with steps of (3") three inches in centre slightly canted.

Parapets. (1'-6") one foot and six inches high (1') one foot thick.

Road way. (21') twenty-one feet between parapets.

English bond throughout.

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Specification for the slab drain to be built over streams numbered 1, 9, 11, 12, 16, 18, 23, 25, 26, 27, 32, 33 and 34.

Foundations in red earth To consist of a layer of concrete (1') one foot thick well rammed in layers of (3") three inches under piers, returned by apron supporting a bed of brick in chunam of the same thickness and projecting beyond (6") six inches all round.

Piers. To be brick in chunam (2') two feet high (1'-6") one foot and six inches thick (23') twenty-three feet long and (2') two feet apart.

Slab stones To be (4') four feet long and (1') one foot thick.

Wings To be at right angles to piers (3'-6") three feet and six inches long (1'-6") one foot and six inches thick and (3') three feet high.

Parapets. (12') twelve feet long (1') one foot thick (1'-9") one foot and nine inches high with steps on inside (6") six inches by (9") nine inches.

Nine inches thickness of metalling.

Plastering Walls two Coats to floor from inside side and parapets.

Road way. To be (21') twenty-one feet between parapets.

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Specification for the slab drain to be built over streams numbered 2, 3, 4, 6, 7, 8, 10, 14, 20, 21, 22, 24, 28, 30, and 31.

Foundations in sandy soil To consist of a layer of brick in chunam (1') one foot thick resting on a layer of Concrete of the same thickness.

Superstructure. Brick in chunam.

Piers To be (23') twenty-three feet long (1') one foot high (1'-3") one foot and three inches thick.

Wing walls. (3'-6") three feet and six inches long (1'-6") one foot and six inches thick (2') two feet high.

Parapets. (11') eleven feet long (1') one foot thick (1'-9") one foot and nine inches high.

Plastering Floor. piers inside wing walls and parapets plastered with 2 coats chunam.

Road way. To be (21') twenty-one feet between parapets.

Superintending Engineer's office
1st Division
Dowlaishweram
20th June 1870

Asst to Executive Engr
Ag Superintending Engr

1872 Dept

Inabilities from the
President Godavari Pt
Local Funds Boards
to the Secretary to the
Board of Revenue

Dated 14 Sept 1872

Rec'd

No 94

Specifications

PW 2457/70

Sh. F. R. N 521/72

in Fuel G.O. No. 4537 of 14-6-73.

Fuel/72
No 966

1872 Apl

Extract from the
President & 7 Hon Gentlemen
To the Secretary to the
Board of Revenue

Dated 14 Sept/72

Read
No 94

Plan

In G R No 521/72

in Fuel G.O. No. 1153 & 1148-72

12 Aug 1873 N1155

12 August 1873-95-98

Fuel/72
No 1986.

Tunnel to be built on Trunk Road No 6. over Streams No 5. 13. 17. 19. 29. 35 & 36 Amsterdam Survey.

Estimate for Culverts Rs 200 Each

Note. Rubble Masonry in Cement & Sand

Section of wing wall

A B

Signed J. Paterson Asst to Engr in Chief
Madras Public Works Department
Examined & Recommended for Approval
Chief Engr & Secy to Govt

Assistt Engrs Office
Samulcottah
5th August 65

Scale 10 feet