3749

Govt. of 18[illegible] Madras.

PUBLIC WORKS.

Dated

Rcvd. Encl.

G.O., 23 April 189[illegible], No. 566 R
567 R

Hindupur Railway
Extension
=
The drawings pertaining
to the — enclosed to
be forwarded to the
Govt of India.

Hindupur Railway
Extension
=
drawings pertaining
to the — forwarded
to the Govt of India
with remarks as
to the Estimates &c.
connected with the
line.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Railway.

Read again the following paper :—

G.O., dated 24th January 1890, No. 136 R., Public Works.

Read again the following paper :—

G.O., dated 14th December 1889, No. 1397 R., Public Works.

Read the following papers :—

From Major C. H. P. CHRISTIE, R.E., Examiner of Public Works Accounts, to the Joint Secretary to Government, Public Works Department (Railway Branch), dated Madras, 15th October 1889, No. 2 R.

I have the honor to invite your special attention to the fact that as yet no estimate has been sanctioned for the Hindupur Extension Survey, expenditure on which was begun in 1884 and at the end of July 1889 had reached 40,922.

2. The audit of the accounts of this survey was taken over by me in January 1888 and objection to the want of a sanctioned estimate has regularly been made to you in the provincial objectionable items statement since April 1889.

3. As outlay was recorded in July and presumably is still being incurred, I beg, at the instance of the Accountant-General, Public Works Department, to point out the necessity of an estimate being sanctioned at an early date. If, however, the work and attendant expenditure have attained completion, a completion report should be submitted for the formal sanction of the Government of India to the expenditure incurred without sanctioned estimate.

Note by the Consulting Engineer for Railways.

The expenditure to which the Examiner's letter refers was incurred under the orders of Mr. Lambert while Engineer-in-Chief of the Bellary-Kistna State Railway.

2. As far as can be traced no estimate was ever sanctioned for the survey of the Hindupur Extension, although allotments of funds were made from time to time, and budget provision was regularly made.

3. It is not possible, after the lapse of years, either to submit a detailed estimate or a completion report. It is therefore suggested that, in order to regularize the expenditure, the Government of India be asked to record a *pro formâ* sanction to the expenditure recorded up to date, viz. :—

	RS.
Preliminary expenses	35,740
Land	5,182
Total ...	40,922

(Signed) C. J. SMITH, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Railway Branch.

MADRAS,
7th December 1889.

To the Examiner, Public Works Accounts.

Order—dated 14th December 1889, No. 1397 R., Public Works.

Ordered to be forwarded to the Government of India for favor of disposal.

(True Extract.)

(Signed) C. J. SMITH, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Railway Branch.

Endorsement—dated 14th December 1889, No. 1398 R., Public Works.

Forwarded.

(Signed) C. J. SMITH, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Railway Branch.

Read also the following paper:—

From Major M. C. BRACKENBURY, R.E., Under Secretary to the Government of India, Public Works Department (Railway Construction), to the Joint Secretary to the Government of Madras, Public Works Department (Railway Branch), dated Calcutta, 6th January 1890, No. 6 R.C.

I am directed to acknowledge the receipt of your endorsement No. 1398 R., dated 14th December 1889, and, in reply, to communicate the sanction of the Government of India to the expenditure of Rs. 40,922 incurred up to date on the survey of the Hindupur Extension of the Bellary-Kistna State Railway.

2. I am, however, to request that the Government of India may be furnished with the information that has been obtained in return for this Rs. 40,922 so that, should the Mysore Durbar desire to extend their line from Bangalore to Hindupur, the Government of India will be in a position to know how matters stand in connection with the project from Hindupur to Dharmavaram.

Order—dated 24th January 1890, No. 136 R., Public Works.

Communicated to the Examiner, Public Works Accounts, in continuation of Proceedings, Nos. 1397-98 R., dated 14th December 1889.

2. The Consulting Engineer for Railways will furnish the information asked for by the Government of India in para. 2 of its letter read above.

(True Extract.)

(Signed) C. J. SMITH, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Railway Branch.

To the Consulting Engineer for Railways.
" Examiner, Public Works Accounts.

Read also the following paper:—

From the Consulting Engineer for Railways, dated Madras, 17th April 1890, No. 265.

From the Agent, South Indian Railway, to the Consulting Engineer for Railways, dated Trichinopoly, 9th April 1890, No. 485.

Referring to your letter, No. 212, dated the 18th February 1890, I beg to forward, herewith, the undermentioned drawings which were with this Company's Chief Engineer pertaining to the Hindupur Extension, &c.—

Working plans—Sheet No. 4, miles 63½ to 75.
Do. Do. " 5 " 75 to 88.
Do. Do. " 6 " 88 to 111.
Working sections—Sheet No. 4, miles 63½ to 88½.
Do. Do. " 5, " 88½ to 111.
Trial line—Plan and section in one sheet.
Land plans—Miles 62 to 111 in 18 sheets, in original.
Do. Miles 62 to 111 in 13 sheets, tracings.
Barometrical sections—One sheet Guntakal to Hindupur, one sheet Tadpatri to Hindupur.
Tank surveys—Plan of the Kotuar tank.
Bridge designs—One 40-feet span at mile 91, one sheet.
Do. Five 20-feet do. 97, do.
Do. Three 40-feet do. 106, do.
Do. Five 40-feet do. 109, do.

Cross sections—Eighteen sheets.
Taluk maps—Mysore Government Topographical maps, 16 sheets.
Atlas sheets with Hindupur Extension line laid down—One sheet.

2. I am not sending any of the estimates correspondence, &c., as these records refer to the whole line from Guntakal to Hindupur, and it is not possible to separate the Dharmavaram-Guntakal section from the Dharmavaram-Hindupur length.

3. Will you be so good as to acknowledg receipt?

Submitted to Government with reference to their No. 136 R., dated 24th January 1890.

2. In letter No. 6 R.C.,* dated 6th January 1890, the Government of India, in conveying sanction to an expenditure of Rs 40,922 incurred up to date on the survey of the Hindupur Extension of the Bellary-Kistna State Railway, requested to be furnished with the information that has been obtained in return for this amount so that should the Mysore Durbar desire to extend their line from Bangalore to Hindupur, the Government of India will be in a position to know how matters stand in connection with the project from Hindupur to Dharmavaram.

* Embodied in Proceedings of Government, Nos. 1397-98 R., dated 14th Dec. 1889.

3. With reference thereto, the accompanying drawings were obtained from the Agent, South Indian Railway, which, it is hoped, will meet the requirements of the Government of India.

4. Mr. Betts has not sent the estimate and correspondence, &c., as he states these records refer to the whole line from Guntakal to Hindupur, and that it is not possible to separate the Dharmavaram-Guntakal section from the Dharmavaram-Hindupur length.

ORDER—dated 23rd April 1890, No. 566 R., Public Works.

Ordered to be forwarded to the Government of India with reference to para. 2 of its letter, No. 6 R.C., dated 6th January 1890.

(Here enter No. 567 R., dated 23rd April 1890).

(True Extract.)

(Signed) SIDNEY SMITH, Major, R.E.,
Under Secy. to Govt., P.W.D.,
Railway Branch.

To the Consulting Engineer for Railways.
" Examiner, Public Works Accounts.
" " Guaranteed Railway Accounts.
" Financial Department.

ENDORSEMENT—dated 23rd April 1890, No. 567 R., Public Works.

Forwarded.

(By order)

Major, R.E.,
Under-Secy. to Govt., P.W.D.,
Railway Branch.

Exd. A. Aubert.
Spare Copies

RAILWAY.

Govt. of {1890} Madras.

PUBLIC WORKS.

Dated April, 23rd.

Read. *Encl.*

G.O., 23rd Apr. 1890, Nos. 566 R., 567 R.

APRIL.

Hindupur Railway Extension

The drawings pertaining to the —, forwarded to the Government of India with remarks as to the estimates, &c., connected with the line.

N.B.—In any future communication on this subject, the number and date of this letter should be quoted; and the communication should be addressed to the Examiner, Public Works Accounts, Madras, and not to any officer by name.

[C. No. 1041/1.]

From

MAJOR C. H. P. CHRISTIE, R.E.,

EXAMINER OF P. W. ACCOUNTS, MADRAS,

To

The Joint Secretary to Government,

Public Works Department,

Railway Branch.

No. 2.R.

Madras, 15th October 1889.

Sir,

I have the honor to invite your special attention to the fact that as yet no estimate has been sanctioned for the Hindupur Extension Survey, expenditure on which was begun in 1884 and at the end of July 1889 had reached 40,922.

2. The audit of the accounts of this survey was taken over by me in January 1888 and objection to the want of a sanctioned estimate has regularly been made to you in the provincial objectionable items statement since April 1889.

3. As outlay was recorded in July and presumably is still being incurred, I beg at the instance of the Accountant General P.W. Department, to point out the necessity of an estimate being sanctioned at an early date. If however the work and attendant expenditure have attained completion, a completion report should be submitted for the formal sanction of the Government of India to the expenditure incurred without sanctioned estimate.

I have the honor to be,

Sir,

Your Most Obedient Servant.

Chas Sinclair 15/10

Asstt. Examiner,

Examiner P.W. Accounts Madras.

5,000—30-7-89.

P.W.Mis 9750

From

The Examiner P.W.Accounts,

Madras.

To

The Joint Secretary to Govt.

P.W.Department,

Railway Branch.

No. 2.R.

Rec'd 17-10-89.

Dated 15th October 1889.

Recd.

await further reference
from C. C.J.S.
15.10.9

Hindupur Extension Survey.

Points out want of sanctioned esti-

mate for------

B No 1397 R dy 14th Dec 1889.

C.J.S.
9.12.9
Secs
8 Dec

Ordered to be for-

warded to the Government

of India for favour of

disposal.

H.R. No. 1398 R dy 14th Dec 1889.

Forwarded.

C.J.S.
7.12.9

R.

Dated
14/12/89

To
The Exr. Pr. Accts. 14/12

Rec'd 17/12
Ans 19/12/9
R 9/12/89

PUBLIC WORKS SECRETARIAT.

RAILWAY BRANCH.

Station Madras date 7th Dec 1889.

B No 1397-98 R dy 14th Dec 1889.

NOTE.

Letter from the Examiner
Public Works Accounts, Madras,
No. 2 R dated 15th October 1889.

The expenditure to which
the Examiner's letter refers was
incurred under the orders of Lt.
Lambert, while Engineer-in-
Chief of the Bellary Kistna
State Railway.

As far as can be traced
no estimate was ever sanctioned
for the survey of the Hindupur
Extension, although allotments
of funds were made from time
to time, and Budget provision
was regularly made.

It is not possible after
the lapse of years, either to
omit a detailed estimate

mile

hou[illegible]mpletion report. It is then
mi[illegible]e suggested that in order
to [illegible]regularize the expenditure
Government of India be
asked to record a pro forma
sanction to the expenditure
recorded up to date, namely:-

Preliminary Expenses Rs 35,740
Land ——————— 5,182

Total Rs. 40,922

C. L. Smith, Colonel R.E.
Jt. Secy. to Govt. P.W.D. Ry. Branch

All communications should be addressed to the Secretary.

No. 6 R. C.

GOVERNMENT OF INDIA.

PUBLIC WORKS DEPARTMENT.

RAILWAY Construction.

To

The Joint Secretary to the Government of
Madras (Railway Branch),
Public Works Department.

Calcutta, the 6th January 1890.

Sir,

I am directed to acknowledge the receipt of your endorsement No. 1398 R. dated 14th December 1889, and in reply to communicate the sanction of the Government of India to the expenditure Rs 40,922/- incurred upto date on the survey the Hindupur extension of the Bellary State Railway.

2. I am however to request that this Government of India may be furnished with the information that has been obtained

...ven for this Rs 40,922/- so that, should the ...ore Darbar desire to extend their line from ...galore to Hindupur, the Government of ... will be in a position to know how matters ... in connection with the project from Hindupur to Dharmaveram.

Recd 14-1-90

I have the honour to be,

Sir,

Your most obedient servant,

Major, R.E.,

Under-Secretary.

Documents accompanying. Dates.

-Nil-

No. 1397-8R 4/14-12-89
" 447-50R - 23-4-89
" 410R - 12-4-89
" 167-8R - 15-2-89
" 891R - 29-10-88
" 281R - 6-4-88
" 164R - 25-2-88
" 916R - 1-12-87
" 840R - 12-11-87
" 954R - 20-12-86
" 486R - 2-5-85
" 161R/A - 19-2-86
" 439R - 31-5-86

No. 136 R

PUBLIC WORKS DEPARTMENT
RAILWAY BRANCH.

PROCEEDINGS OF THE MADRAS GOVERNMENT

UNDER date the 24th Jan... again

READ the foll...

Progs: of the Madras Govt: P.W. Department } No. No. 1397-8R, of 14th Dece...

Read also the following:-

Letter from the Govt of India P.W. Deptt.- } No. No. 6 R.C., dated 6 Jany 18...

Communicated to the Examiner Public Works Accounts in continuation of Progs: No. 1397-8-R dated 14th December 1889.

Secs 16 Jan
C.S. 17.1.90

2. The Consulting Engineer for Railways who furnished the information asked for by the Government of India in para 2 of its letter read above...

To
The Consulting Engineer for Rys
Ex. P.W. Accounts.

C.S. 15.1.90

No 485

South Indian Railway,
AGENT'S OFFICE,

TRICHINOPOLY, 9th April 1890.

From

The AGENT,
SOUTH INDIAN RAILWAY,

To

The CONSULTING ENGINEER FOR RAILWAYS,
MADRAS.

Sir,

Referring to your letter No 212 dated the 18th February 1890 I beg to forward herewith the undermentioned drawings which were with this Company's Chief Engineer's pertaining to the Hindupur Extension &c

Working plans	Sheet No 4	Miles 62½	to	75
	5	" 75	"	88
	6	" 88	"	111
Working Sections	Sheet No 4	Miles 62½	to	88
	" 5	" 88½	"	111
Trial line	Plan and Section in one sheet			
Land Plans	Miles 62 to 111 in 18 sheets in original			
Do	Miles 62 to 111 in 13 sheets tracings			
Barometrical Sections	one sheet Guntakal to Hindupur, one sheet Gadpatri to			
Bench Marks	Plan of the Katuar Dam			
Bridge designs	1-40' Span @ mile 91 one			
	5-20' " " 97			
	3-40' " " 106			
	5-40' " " 109			
Cross Sections	18 sheets			

I am not sending any of the
[illegible]ats, Correspondence, &c, as these records
[illegible] to the whole line from Guntakal to
Hindupur and it is not possible to separate
the Dharmavaram Guntakal Section
from the Dharmavaram Hindupur length
Will you be so good as to acknow-
-ledge receipt &c

P.W. Encl
3749/90

I am
Sir
Your most Obed[t] Servant
Williams Betts
Agent.

2/9 Enclosures in
21 Parcels

To

Submit by D.O. with
Endorsement.
SE
1614

From

THE AGENT,

South Indian Railway,

Trichinopoly.

To

THE CONSULTING ENGINEER FOR

RAILWAYS,

Madras.

Dated 18
Received 18
No.
ENCLOSURE.

Letter from the Agent, South Indian Rail
No. 485, dated 9th April 1890 with enclosures.

No. 265

SUBMITTED _____ to _____ Government.

* Taken by Rappin
on the 29/4/90 -

with reference to their No. 136 R, dated
24th January 1890.

See letter No. 6 R.C., dated
1st January 1890 the Government
of India in conveying sanction to
an expenditure of Rs 40,922/ incurred
up to date on the Survey of the
Hindupur Extension of the Bellary
Kistna State Railway requested
to be furnished with the information
that has been obtained in r
for this amount so that sh
the Mysore Durbar desire to e
their line from Bangalore to
dupur the Government of In

* Enclosed in Proceedings of Govt's No. 1397-98 R
dated 14th December 1889.

No. 136 R
24.1.90

[illegible] be in a position to know
[illegible] matters stand in connection
with the project from Kindupur
to Dharmavaram.

With reference thereto the
accompanying drawings were
obtained from the Agent, South
Indian Railway which it is hoped
will meet the requirements of the
Government of India.

Mr. Betts has not sent
the estimates and correspondence
&c., as he states these records refer
to the whole line from Guntakal
to Kindupur, and that it is not
possible to separate the Dhar-
mavaram Guntakal section
from the Dharmavaram Kindu-
pur length.

Sidney Smith
Major R.E.

[illegible]: Cons: Engr: for Railways.

P.W.C. cl.2 3749.

Form No. 3.

From

THE CONSULTING ENGINEER
FOR RAILWAYS,
MADRAS,

No. 265

Dated 17th April 1890
Received

No. of Enclosures. (34 Enclosures in 21 Parcels

Subject.

Submitting letter from the Agent, South Indian Railway regarding drawings pertaining to the Shimsha Extension &c.

PUBLIC WORKS DEPARTMENT, MADRAS.

Reminder. No. 2. R

To the Examiner,
P. W. Accounts, Madras,

Joint Secy to Govt P.W.D.
Railway Branch.

Madras, 9 Decr 1889.

Invites attention to the letter in the margin and requests the favour of an early reply thereto.

If a reply has been already sent reference thereto should be given in returning this paper to the Secretariat's Office.

for C. Swetenham
15/12
Examiner, P. W. Accounts,
Madras.

P.W.C. dt 3749.

Form No. 3.

From

THE CONSULTING ENGINEER
FOR RAILWAYS,
MADRAS,

MC

Please put up papers.

16/9-9

MC

Annexture papers you sent
in Nov 1880 not traced in
telegram for letter from
K.G. Accountant per
Estimate for Budget to
Extension -

Oct 9-9

Extension be.

...RKS DEPARTMENT, MADRAS.

Reminder. No. 2. R
1

...Accounts, Madras,
...Secy to Govt P.W.D.
Railway Branch.

...adras, 9 Decr 1889.

...vites attention to the letter
...in the margin and requests the
...of an early reply thereto.
If a reply has been already
reference thereto should be given
...f, returning this paper to the
...miner's Office.

...o Sweetenham
...ett
...Examiner, P. W. Accounts,
Madras.

5-3/31

...ment with the papers.
...Please put up the
...system in the
...Assistant Examiner
...to be required papers
...in Railway Branch.

DHC

Sir

We have made a careful search and direct from the telegram you regret You were dealing with the subject and it is probable that it might be among your papers. please look up.

H. H.

18/9/19.

5208 C

I do not find

the telegram you refer

to in the original G.O. here-

with. The Hindapur

file is, I believe, with

D of S.

HL.

12/10

P.W.C. cl. No. 3749.

From

THE CONSULTING ENGINEER

FOR RAILWAYS,

MADRAS,

B. No. 138-39. R. dt. 24. Jany 39.

K.

I have drawn the above figure from telegram dated 6.1. here-from K and I understand that it will be well to make the difference plain upon the

14/10.9

Ord.
12/39

Secretary to Govt
11 Feby
Ord.

B. No. 138-39 R. of 24. Jany 92.

A. G.
Lieut.

Please inform the above [illegible]
and return.

[illegible]

Petitioner

[illegible]

This is the petitioner
referred from R. Office Lucknow
for enquiry - it does not
appear that any decree
was passed -

R. Mis
23/1

P. W. C. No. 3749.

From

THE CONSULTING ENGINEER

FOR RAILWAYS,

MADRAS,

954-5R

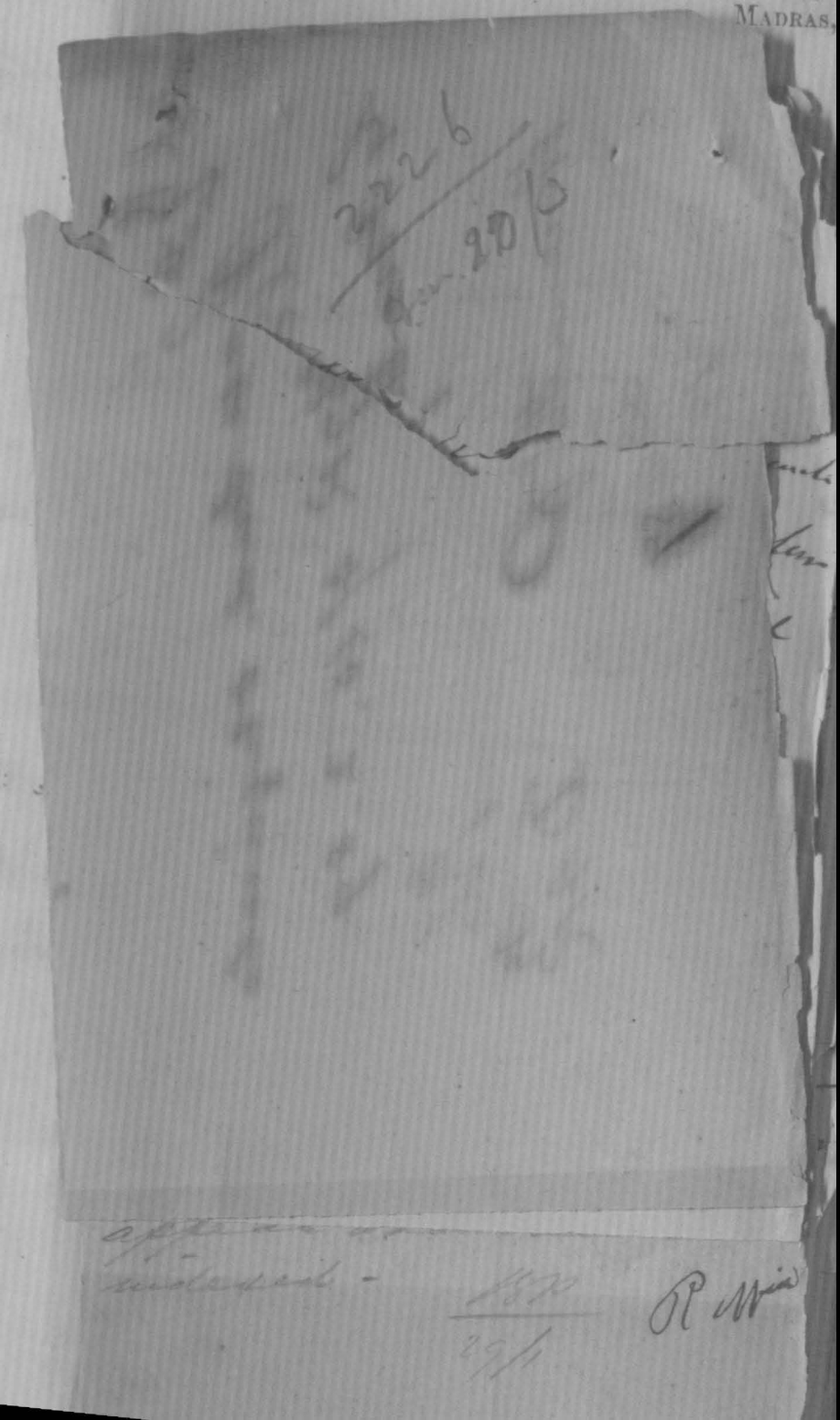
21.10.9

Invites at
in the ma
of an early
If a reply
reference the
of, returning
miner's Offic

for —

Dy. Examiner,

× No. 9750 R. 17-10-89



P.W.C cl.º 3749.

From

THE CONSULTING ENGINEER

FOR RAILWAYS,

MADRAS,

Rv 6

Cor

with C.P.

which was read from

the Rev. on 24-3-90.

(Subject - Reg: expenditure

charged off to Famine Relief

incurred on the Hindupur

extension)

R

31/3

PUBLIC WORKS DEPARTMENT, MADRAS.

Reminder. No. 2. R

From the Examiner,

P. W. Accounts, Madras,

To the Joint Secy. to Govt. P.W.D.

Railway Branch

Dated Madras, 9 Dec 1889.

Invites attention to the letter noted in the margin and requests the favor of an early reply thereto.

If a reply has been already sent, reference thereto should be given overleaf, returning this paper to the Examiner's Office.

Chas C Swetenham

Dy. Examiner, P. W. Accounts,

Madras.

No. 2. R dated 15.10.89.

SUBJECT.

Hindupur Extension

Survey — Points out

want of sanctioned Estimate

for —

× Cor. 9750 R. 17-10-89

Reply.

_____ dated _____ 188

362
for 151-80

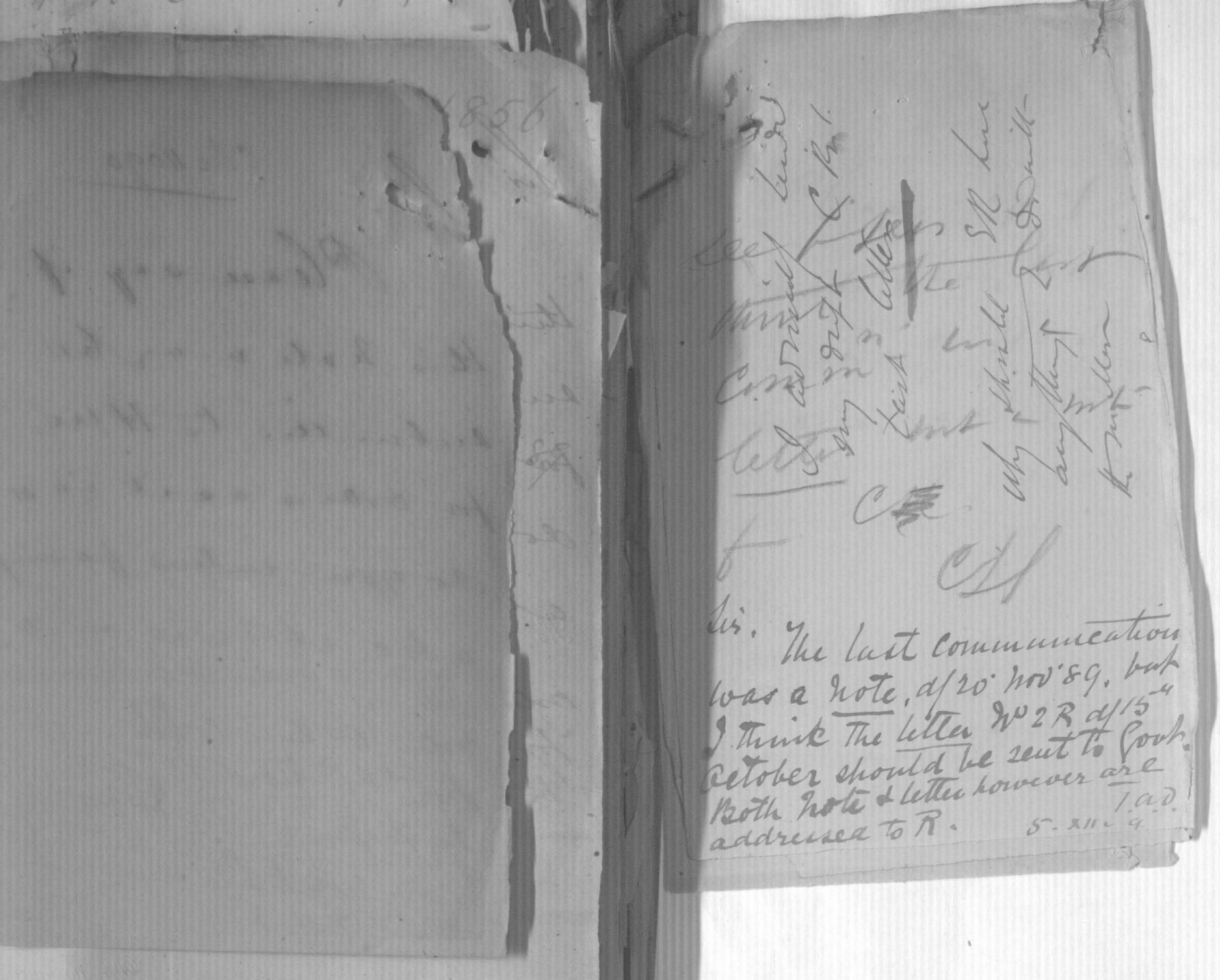
Cls 4090

1397R

Please say if this note may be submitted to H.M. for orders as it is or do you intend passing also at once on it.

Mr L. Ld.
for J. L. Indn
to Astmc. 7/12

AS
7.12.5.



Sir. The last communication was a Note, d/20 Nov 89. but I think the letter No 2 R d/15th October should be sent to Cook. Both Note & letter however are addressed to R. J. a.d. 5. XII. 9

ply.

/-

Dick

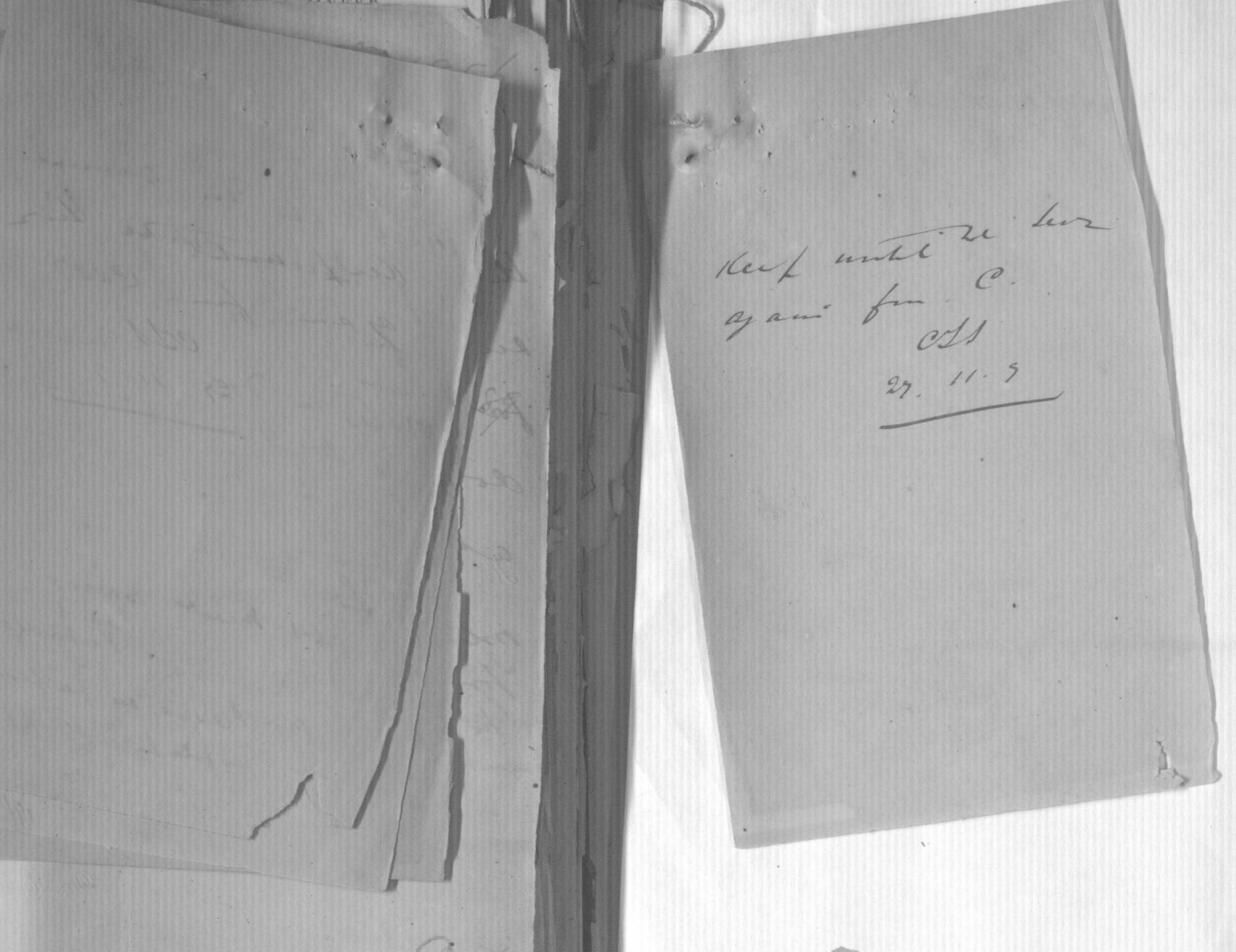
(1) See the Examin
of Betty Sister M.
for 1854 & 1857. -

(2) See the Det of Examinat
of Mr Bates of same last
a. Henderson & Cuni

Sir

(1) Messrs Barrow
Grant
& Partridge

(2) Please see papers marked
in file herewith Bl.
19/10



[C. No. 8.]

GOVT. OF MADRAS. } 1889. { P. DF

EXAMINER, P. W. ACCOUNTS.

Madras, 26 November 1889 [illegible]

OFFICE NOTE No. 1653.

To

R.

With reference to the orders of Government Nos.4936 C. and 5003 C. dated 30th.October and Ist.November I889 on the provincial objectionable items statement (48 Railways) for - July and August I889,I beg to invite attention to my letter No.2 R.dated I5th.October I889 and to request early orders thereon.

2. With reference to my conversation with you,I find that there is no information available in this office to show that the Director General of Railways had anything to do with the matter. The Local Government appear to have dealt with it throughout.

[illegible]

KEEP-WITH Genl. No.

dated 188 . x Cno. 9750 Sub-L-S on 17-10-89

2,000 - 9-10-88.

No. 5665

PUBLIC WORKS DEPARTMENT.

RAILWAY BRANCH.

PROCEEDINGS OF THE MADRAS GOVERNMENT

UNDER date the 23-4-

again

READ the fo

Progs: of the Madras Govt: & Pr. Depts:— } H.E. No. 136 R dy 24 Jany 1890

Read also the following:-

Endorsement from the Consulting Engineer for Rys. } H.E. No. 266 dy 17 April 1890.

Ordered to be forwarded to the Govt. of India with reference to para 2 of the letter No. 6 R.C., dated 6th January 1890.

Sec
Asst.

H.E. No 567 R dy 23rd April 1890.

Forwarded.

Read

21.4.90 W for

To
The Consg Engr for Rys.
" Ex. P. Works
" do. to Ry. auth.
" Financial Dept.

Read: 21. 11. 89.

Form No. 3.

3749

Govt. of (18[illegible]) Madras.

PUBLIC WORKS.

Dated 21/5/90

Read. Encl.

G.O., 23rd April 189[illegible], Nos 566 R
567 R

90/4 Hindupur Railway
W/2 Extension
=
Plan & Estimate pertaining
to the — and send
herewith forwarded to the
Govt of India.

Hindupur Railway
Extension
=
Drawings pertaining
to the — forwarded
to the Govt of India
with reference to
the Estimates &c
connected with the

3/Encl

(FORM No. 2.)

GOVERNMENT OF INDIA.

P. W. DEPARTMENT.

RAILWAY BRANCH.

EXAMINER, GUARANTEED RAILWAY ACCOUNTS' OFFICE,

No. 4967 G. Madras, 12th November 1889.

From F. Morris Esqr.

THE EXAMINER, GUARANTEED RAILWAY ACCOUNTS,
MADRAS,

To

The Joint Secretary to Government,
Public Works Department,
Railway Branch,
Madras.

SIR,

In communicating instructions issued for the transfer of the accounts and records of the Hindupur Extension Survey from the charge of the Examiner, Public Works Accounts, Madras, to the Chief Auditor, South Indian Railway, the Accountant General, Public Works Department, has requested me to refer to the Government of Madras for instructions as to what proportion of the Survey outlay should be brought into the Capital account of the Villupuram Guntakal Ry., as representing the cost of the Survey of the Guntakal Dharmavaram section of the extension.

The estimate recorded in Madras G.O. No. 954R P.W. dated 20th December 1886 gives the length of the entire extension - Guntakal Junction to Hindupur - as 111 miles and of the section Guntakal Junction to Dharmavaram

(which

(which constitutes the portion of the extension merged
in the Villupuram Guntakal line) as 63 miles while the
accounts of the extension for July 1889 (the latest booked
by the Examiner Public Works Accounts, Madras,)
shew the outlay incurred on survey operations to end of
that month to have amounted to Rs 35,740-0-1. Work
-ing on a mileage basis this would give Rs 322 per
mile or a total of Rs 20,284 as the share to be debited to
the Villupuram Guntakal Railway.

* 35,740 × 63 ÷ 111 = Rs 20,284
or Rs 322 per mile.

In addition, however, to the Survey outlay
of Rs 35,740-0-1 there has been an expenditure of Rs 5,181-13-11
to end of July 1889 on land taken up for the extension
the apportionment of which, either as on a mileage basis
as above or with reference to the districts in which
the land was actually acquired, remains to be decided.

I shall feel obliged by receiving early orders
on these points.

I have the honor to be,
Sir,
your most obedient servant,

J. Monro

Examiner, Railway Accounts,
Madras.

10 12/7

I think the
basis would be
fairest & will
await your
orders
J.M.

G.O. 954. 5 Ld/20.12.86

From The Examiner,
Guaranteed Railway Accounts,
Madras,

To The Jt. Secy. to Govt.,
P.W.D. Ry. Branch,
Madras.

No. 496 V.G.

Dated 12th November 1889.

No. of Enclosures

Recd 13.11.89

Subject.

Referring for instructions as to what proportion of the survey outlay should be brought into the capital account of the V.G. Ry. as representing the cost of the survey of the Gunta-kal Dharmavaram Section of the Hyderpur Extension.

Form No. 10. MADRAS.

No. 5391 Cd/18 M

No.

Reply No

Remainder.

Probably the whole of the land taken up will be worth of Dharmavaram & ∴ the whole of the outlay should go to the V.G. Ry.

Subject.

Yes.

H.Co. 16.11.89

Hon'ble 4-5 Stokes C.S.I.
approval -
Nov 1889
MADRAS, 188 .

To
The C. R.

Sir,

In reply to your No. 496. V.G. dated 12 Nov. I am directed to inform you that the Govt. consider that the proportion of outlay on the Hindupur Extension Survey that should be brought into the capital account of the V.G. Ry. as representing the cost of the Survey of the G.D Section should be based upon a mileage basis. The charge for land may be treated for the present on the same basis. Further instructions will be issued on this point when the position of the land taken up is ascertained

D 20/11

D. 12. 16/11

No. 954-5R dy 20-12-86

No. 539/C dy 18th Nov. 1889

No. 954-5R dy 20-12-86

No. 539 dy 18 Nov 1889

NOTES.

REFERENCE TO MADRAS P. W. D. CODE,
EDITION OF 1886.

PARAS. 308 AND 1301, *et seq.*

1. Immediately after the completion of a work (other than an annual repair) estimated to cost over Rs. 500, the executive engineer will prepare a completion report in this form as regards all the constructive features of the work (para. 308).

2. The names of the engineers and subordinates by whom the work was supervised should be entered, with a distinct expression of opinion as to the manner in which the work has been carried out by the responsible officer (para. 1301).

3. Before completing the report in respect of expenditure any materials remaining at site of the work, and any arrears due to or from contractors, laborers, &c., will be promptly disposed of as laid down in code, para. 1,801, note 1.

4. After the accounts are finally closed and all adjustments made the report will be completed and submitted to the examiner, giving in all cases a comparison, and explanation of differences, between actual and estimated quantities, and, when the accounts have been kept by sub-heads, between actual and estimated rates and costs of work (para. 1301).

5. The entries in the completion report must accord with the closing entries in the register of works and the last work voucher (para. 1301).

6. In the case of Jail works where convict labor is given free of cost, the cost of items of work should be compared with the reduced estimated cost arrived at by deducting the estimated value of convict labor (para. 1301, note 4).

7. When work has been executed for any civil or military department, a completion certificate in form no. M 57, signed by the civil or military authority concerned will be attached to the completion report and submitted with it to the examiner (para. 1304). The completion report should not be submitted until the completion certificate has been obtained.

8. The certificate at foot of the report will in every case be signed by some officer, of not lower rank than overseer, who has personally inspected the work after its completion, and when the officer who thus inspects the work is not the executive engineer, the latter will personally countersign the certificate (para. 1301, note 2).

9. The "date of completion" to be noted on the completion report will be the date on which the work was actually finished (see note 1), and not the date on which final payment was made (para. 1301, note 3).

10. All completion reports, whether in this form or in form no. M 58, should be numbered consecutively in a single series.

11. After verification the examiner will transmit the report to the superintending engineer concerned, who, after any necessary action, will record the report in his own office, if the work cost not more than one lack of rupees; but, if above that amount he will transmit it to the chief engineer concerned (paras. 1302-3).

P.W.D., FORM. No. M 56.

A.

DIVISION Nundipur Extension Railway Surveys

No. _____

Completion Report for Original Works and Repairs (other than Annual Repairs) costing over Rs. 500 each.

Name of work Nundipur Extension Railway Survey

Register No. and date of sanction. _____

Date of Commencement _____

Date of Completion _____

Date of last Inspection:—

By Executive Engineer _____

By Sub-Divisional or other certifying officer. _____

Last Work Voucher submitted.—No. _____

for the month of _____ 18 .

Documents accompanying—

* Here note "completion certificate" granted by the civil or military authority concerned, report, specification, drawing and detail of quantities when necessary.

B. Transmitted to the Superintending Engineer, _____ Circle, duly verified, as this Office No. _____, dated _____ 18 .

Examiner of P. W. Accounts,
Madras.

C. Transmitted to _____ for record, as this Office No. _____, dated _____ 18 ,

Superintending Engineer
_____ *Circle.*

D.

Fund 48 Railways — Main head

Departmental head — Sub-head

Service head — Arm of Service

E.

Names of Engineers and subordinates by whom the work was supervised, giving the dates of their several incumbencies, *i.e.*, the dates of taking and making over charge in connection therewith.

Names.	Period of Incumbency.	
	From	To

F.

Explanations of differences.

N.B.—Inner sheets in form No. M 56 should be inserted when necessary.

G.

Sub-heads and Items of Estimate.	As Estimated.			As Executed.			Difference (Excesses in red ink).			Reference to Pars. explaining differences in part F.
	Quantity.	Rate.	Amount	Quantity.	Rate.	Amount.	Quantity.	Rate.	Amount	
1	2	3	4	5	6	7	8	9	10	11
		Rs.	Rs.		Rs.	Rs. A. P.		Rs.	Rs.	
Preliminary Expenses	.	.	.	.	.	35740	.	.	35740	
Lands	.	.	.	.	.	5182	.	.	5182	
Carried over ..	.	.	.	.	.	40922	.	.	40922	

N.B.—Annas and pies should not be entered in columns 4 and 10.

G.

Sub-heads and Items of Estimate.	As Estimated.			As Executed.			Difference (Excesses in red ink).			Reference to paras. explaining differences in part F.
	Quantity.	Rate.	Amount	Quantity.	Rate.	Amount.	Quantity.	Rate.	Amount	
1	2	3	4	5	6	7	8	9	10	11
		Rs.	Rs.		Rs.	Rs. A. P.		Rs.	Rs.	
Brought forward ..						40922				
Total ..		Rs. —			Rs. 40922			Rs. 40922		
Percentage of excess (if any).										

H.

CERTIFICATE.

I CERTIFY that on the I personally inspected the work referred to in this completion report, and that with the exceptions, above noted and explained, this work had then been fully executed to the extent of the estimate in a substantial and satisfactory manner as regards materials and workmanship, and that, excluding trifling deviations and those explained in part F, it corresponds in all respects with the sanctioned plan and estimate.

STATION _____

Dated _____ 18 ..

Signature and Rank of officer, who inspected the work.

COUNTERSIGNED and forwarded to the Examiner of Public Works Accounts, Madras, for verification.

TATION _____

ated _____ 18 .

Executive Engineer,

_____ *Division.*

00—9-3-89.

G. a. R.

Let us know dist &
th / last time
R. / ... copy

Hemitte Complete Report
duly as proposed for
Hudspur Subdivision Survey

Papers.
CZ1
2.12.E
Sir Hemitte.
KL
2/12

observation.

K.L.
27/11

D. A. R.

Let me know date on
which [illegible] be
[illegible]

Submitted for order
with reference to Co's remark
in Column 11 of the Statement
of Objectionable Items. The
provision of Rs 3000 only for Land
made in the Final Issue of the
Budget Estimate for 1889-90 for
Stridanur Extension.

Mr Lambert
Survey to
Come Salutions
He assumes [illegible]

[illegible]

K.L.
27/11

D. A. R.

Let me know date on
which Mr Lambert joined
Mundaring Mundaring and

Sir

Herewith papers
Re provision for Land in Mr
Lamberts original Estimate
viz Mr Crossleys recent
Estimate is £2 55 0 0
Re original Labors Sub-
mitting Estimate for 88/89 and
in view to Special Grant

As Col Sec's letter
has been
I am not
if Cl. Engineer
9/8
Re Mr

2-9-9

D. a. R.

Let us know dirt on
this Mr Lawlor joined
Madras Mercantile and
[illegible] Co Bank

Madras Pric

Please reply
to E Rs queries in the
accompanying slips -

VL
10/5

S
A
both with
VL
10/5

Sir The original papers
are herewith sent up.
D
2-9-5

D. A. R.

Let us know date on
which Mr Lambert joined
Madras. Mondays: and
post of the P.S. handing
control of B. K. and C. h
Lines to the Sitting Judge.
from the Madras Govt

C.S.

Sir

Mr Lambert reported his
arrival at Bombay on afternoon
31st Octr 82 at Madras on
forenoon 12th November 1882 -
Papers marked in file herewith -

Please see G.O. 1473 R of 17th
Decr: 1883 re transfer of control
of B. K + C. h Lines to D. G. R
also marked in file.

K.L.
27/11

REFERENCE TO MADRAS P. W. D. CODE,
EDITION OF 1886.

PARAS. 1966 TO 1969.

P. W. D. FORM.
No. M 112.

CENTRAL OFFICE OF ACCOUNTS.

CIRCLE —

FUND 48 Railways

B 30-7-89

Provincial Statement of Objectionable Items in the Accounts of Executive Engineers for the month of April 1889.

1000—1-3-89.

Provincial Statement of Objectionable Items in the accounts of Executive Engineers for the month of April 1889.

requiring the orders of Government.

Item No.	Particulars of each Item.	Under what clause of the Code the Item ought to be entered	Month in the Accounts of which Objectionable Expenditure appeared.	Comparison with Estimate.			Comparison with Appropriation of the Year.			Expenditure during the Month.	Opinion of the Superintending Engineer, with final Remarks by the Examiner.	Orders by Government.
				Amount of Estimate.	Expenditure up to Date.	Excess over Estimate.	Amount of Appropriation.	Expenditure of the Year.	Excess over Appropriation.			
1	2		3	4	5	6	7	8	9	10	11	12
1	Nundapur Extension Survey - Preliminary Expenses Land			-	35740	35740				Nil	The want of an Estimate for the Railway Survey is brought to notice of Government.	
				-	4176	4176				Nil		
	Total				39916	39916						

No. ———

Forwarded for orders, to the Secretary to Government, ~~Public Works Department~~ Railway Branch, Madras.

Major R.E.

Examiner of P. W. Accounts,
Madras.

MADRAS,
Dated 29th July 1889.

M.G. 29/7

R 29/7

REFERENCE TO MADRAS P. W. D. CODE,
EDITION OF 1886.

PARAS. 1966 TO 1969.

P. W. D. FORM
No. M 112

CENTRAL OFFICE OF ACCOUNTS.

~~CIRCLE~~

FUND 48 Railways

Provincial Statement of Objectionable Items in the Accounts of Executive Engineers for the month of May 1889.

Returned herewith Cert C 15-0 with Cr. 7020 dt. 31-7-89

1000—1-3-89.

Provincial Statement of Objectionable Items in the accounts of requiring the Executive Engineers for the month of May 1889.

orders of Government.

Item No.	Particulars of each Item.	Month in the Accounts of which Objectionable Expenditure first appeared.	Comparison with Estimate.			Comparison with Appropriation of the Year.			Expenditure during the Month.	Opinion of the Superintending Engineer, with final Remarks by the Examiner.	Orders by Government.
			Amount of Estimate.	Expenditure up to Date.	Excess over Estimate.	Amount of Appropriation.	Expenditure of the Year.	Excess over Appropriation.			
1	2	3	4	5	6	7	8	9	10	11	12
	Want of Estimate										
1	Avidapur Extension Survey									The want of an Estimate for this Railway Survey is brought to notice of Government	
	Preliminary Expenses	—	—	35740	35740	—	—	—	Nil		
	Land	—	—	4210	4210	—	—	—	34		

No. ———

Forwarded for orders to the Secretary to Government, ~~Public Works Department~~, Railway Branch Madras.

Major R. E.

Examiner of P. W. Accounts,
Madras.

MADRAS,
Dated 17th August 1889.

Rs 17/8
C.E. 13/8

REFERENCE TO MADRAS P. W. D. CODE,
EDITION OF 1886.

PARAS. 1966 TO 1969.

P. W. D. FORM.
No. M 112.

CENTRAL OFFICE OF ACCOUNTS.

CIRCLE _____

FUND 48 Railways

Provincial Statement of Objectionable Items in the Accounts of Executive Engineers for the month of May **1889.**

Ltr 7720 dated 31-7-89

1000—1-3-89.

Provincial Statement of Objectionable Items in the accounts of Executive Engineers for the month of May 1889 requiring the orders of Government.

Item No.	Particulars of each Item.	Month in the Accounts of which Objectionable Expenditure first appeared.	Comparison with Estimate.			Comparison with Appropriation of the Year.			Expenditure during the Month.	Opinion of the Superintending Engineer, with final Remarks by the Examiner.	Orders by Government.
			Amount of Estimate.	Expenditure up to Date.	Excess over Estimate.	Amount of Appropriation.	Expenditure of the Year.	Excess over Appropriation.			
1	2	3	4	5	6	7	8	9	10	11	12
	Want of Estimate										
1	Kundapur Extension Survey									The want of an Estimate for this Railway Survey is brought to notice of Government	
	Preliminary Expenses		-	35760	35760	-	-	-	Nil		
	Land		-	4210	4210	-	-	-	34		

No. ——

Forwarded for orders to the Secretary to Government, ~~Public Works Department,~~ Railway Branch Madras.

Major R. E.

Examiner of P. W. Accounts,
Madras.

MADRAS,
Dated 17th August 1889.

Rs 17/8
13/8

REFERENCE TO MADRAS P. W. D. CODE,
EDITION OF 1886.

PARAS. 1966 TO 1969.

P. W. D. FORM.
No. M 112.

CENTRAL OFFICE OF ACCOUNTS.

~~CIRCLE~~ —

FUND 48 Railways

Provincial Statement of Objectionable Items in the Accounts of Executive Engineers for the month of June **188**9.

1000—1-3-89.

Provincial Statement of Objectionable Items in the accounts of requiring the

Item No.	Particulars of each Item.	Month in the Accounts of which Objectionable Expenditure first appeared.	Comparison with Estimate.			Comparison with Appropriation of the Year.			Expenditure during the Month.
			Amount of Estimate.	Expenditure up to Date.	Excess over Estimate.	Amount of Appropriation.	Expenditure of the Year.	Excess over Appropriation.	
1	2	3	4	5	6	7	8	9	10
	Want of Estimate								
	Kindapur Extension Survey.								
1	Preliminary Expenses		35740	35740	-	-	-		Nil
	Land		4210	4210	-	-	-		Nil

Reference to Madras P. W. D. Code, Edition of 1886.

Paras. 1966 to 1969.

1000—1-3-89.

P. W. D. Form. No. M 112.

CENTRAL OFFICE OF ACCOUNTS.

Circle Dubbe

Fund 48 Railways

Provincial Statement of Objectionable Items in the Accounts of Executive Engineers for the month of June **1889.**

Provincial Statement of Objectionable Items in the accounts of

requiring the Executive Engineers for the month of June 1889.

orders of Government.

Item No.	Particulars of each Item.	Month in the Accounts of which Objectionable Expenditure first appeared.	Comparison with Estimate.			Comparison with Appropriation of the Year.			Expenditure during the Month.	Opinion of the Superintending Engineer, with final Remarks by the Examiner.	Orders by Government.
			Amount of Estimate.	Expenditure up to Date.	Excess over Estimate.	Amount of Appropriation.	Expenditure of the Year.	Excess over Appropriation.			
1	2	3	4	5	6	7	8	9	10	11	12
	Want of Estimate									(1) The want of an Estimate for this Railway Survey is again brought to notice of Government	
	Kistnapur Extension Survey.										
1	Preliminary Expenses	"	"	35740	35740	-	-	-	Nil		
	Land	"	-	4210	4210	-	-	-	Nil		

No. ———

Forwarded for orders to the Secretary to Government, ~~Public Works Department,~~ ~~Madras.~~ Railway Branch Madras.

Major R.E.
Examiner of P. W. Accounts,
Madras.

MADRAS,
Dated 29th August 1889.

C.G. 29/8

H 29/8

Executive Engineers for the month of June 188 9.
orders of Government.

Opinion of the Superintending Engineer, with final Remarks by the Examiner.	Orders by Government.
11	12
In the want of any Estimate for this Railway Survey is again brought to notice of Government.	

No. ———

Forwarded for orders to the Secretary to Government, ~~Public Works Department,~~ ~~Madras.~~ Railway Branch Madras.

Major R. E.

Examiner of P. W. Accounts,
Madras.

MADRAS,
Dated 29 August 1889.

29/8

29/8

REFERENCE TO MADRAS P. W. D. CODE,
EDITION OF 1886.

PARAS. 1966 TO 1969.

P. W. D. FORM
No. M 112.

CENTRAL OFFICE OF ACCOUNTS.

CIRCLE

FUND 48 Railways

Provincial Statement of Objectionable Items in the Accounts of Executive Engineers for the month of July 1889.

Recd: 25-10-89 with Dept

No. 4936 C dt 30-October 1889

1000—1-3-89.

Provincial Statement of Objectionable Items in the accounts of Executive Engineers for the month of July 1889.

requiring the orders of Government.

Item No.	Particulars of each Item.	Month in the Accounts of which Objectionable Expenditure occurred.	Comparison with Estimate.			Comparison with Appropriation of the Year.			Expenditure during the Month.	Opinion of the Superintending Engineer, with final Remarks by the Examiner.	Orders by Government.
			Amount of Estimate.	Expenditure up to Date.	Excess over Estimate.	Amount of Appropriation.	Expenditure of the Year.	Excess over Appropriation.			
1	2	3	4	5	6	7	8	9	10	11	12
	Want of Estimate									The want of an Estimate for this Railway Survey is again brought to notice of Government. Expenditure on this Survey has been carried on for the past 5 years and no Estimate has yet been sanctioned by the matter has already been reported to Government in preceding Provincial Objectionable Items Statement and early orders are solicited.	G.O. No 1236 dt 30-10-1889 Have already drawn the matter with the and I enclose the letter & the Director General Railways with the Administration Report & Resolution on, undertaken in carried. C. Jennings Secy.
1	Nizdapur Extension Survey Preliminary expenses	-	-	35740	35740	-	-	-	Nil		
	Land	-	-	5182	5182	-	-	-	972		

No. ———

Forwarded for orders to the Secretary to Government, ~~Public Works~~ Railway Branch Department, Madras.

Chas Sweetenham 27/9
Asst Examiner
for Examiner of P. W. Accounts, Madras.

MADRAS,
Dated 27th Septr 1889.

M.G. 26/9
R 27/9

2/1/10

REFERENCE TO MADRAS P. W. D. CODE,
EDITION OF 1886.

PARAS. 1966 TO 1969.

No 4936 cd/30-10-89

No. M 112.

CENTRAL OFFICE OF ACCOUNTS.

CIRCLE _____

FUND 48 Railways.

Provincial Statement of Objectionable Items in the Accounts of Executive Engineers for the month of August **188 9.**

Recd: 29. 10. 89 in Duplt.

No 5003 Cash/1st. November 1889

Voucher: 10000. Remitted

in Ltr 25/10/89

1000—1-3-89.

Provincial Statement of Objectionable Items in the accounts of Executive Engineers for the month of August 1889 requiring the orders of Government.

Item No.	Particulars of each Item.	Month in the Accounts of which Objectionable Expenditure first appeared.	Comparison with Estimate.			Comparison with Appropriation of the Year.			Expenditure during the Month.	Opinion of the ~~Superintending Engineer~~, ~~with final~~ Remarks by the Examiner.	Orders by Government.
			Amount of Estimate.	Expenditure up to Date.	Excess over Estimate.	Amount of Appropriation.	Expenditure of the Year.	Excess over Appropriation.			
1	2	3	4	5	6	7	8	9	10	11	12
	No Estimate										
1	Sindapur Extension Survey.									Invites attention to the office letter No 2R of the 15th instant and enquires whether a Completion Report has been submitted for the formal sanction of the Government of India.	C No 5003 C dated 30th 1889 C is preferred to R's personal explanation and to his note No. 4936 C dated 30th October 1889 on C. I. State.
	Preliminary Expenses	-	-	35 7/40 ✓	35 7/40 ✓						
	Land	-	-	5782 ✓	5782 ✓						
		2old		40922 ✓	40922 ✓				Nil		

No. ———

Forwarded for orders to the Secretary to Government, ~~Public Works Department~~, ~~Madras.~~ Railway Branch.

Chas C Swetenham
26/10
Asstt: Examiner
for Examiner of P. W. Accounts,
Madras.

MADRAS,
Dated 25th October 1889.

Dr 25/10

Dr 25/10

REFERENCE TO MADRAS P. W. D. CODE,
EDITION OF 1886.

PARAS. 1966 TO 1969.

P. W. D. FORM.
No. M 112.

CENTRAL OFFICE OF ACCOUNTS.

CIRCLE ~~CIRCLE~~ Vayk

FUND 48 Railways

Rs 30-2-59 a Day

Provincial Statement of Objectionable Items in the Accounts of Executive Engineers for the month of April **188**9.

1000—1-3-89.

D/3/17

C.S.I. 3.11.9

R

Provincial Statement of Objectionable Items in the accounts of Executive Engineers for the month of April 1889 requiring the orders of Government.

Item No.	Particulars of each Item.	Further Letter No. and date to which Objectionable Item is relegated.	Month in the Accounts of which Objectionable Expenditure first appeared.	Comparison with Estimate.			Comparison with Appropriation of the Year.			Expenditure during the Month.	Opinion of the Superintending Engineer, with final Remarks by the Examiner.	Orders by Government.
				Amount of Estimate.	Expenditure up to Date.	Excess over Estimate.	Amount of Appropriation.	Expenditure of the Year.	Excess over Appropriation.			
1	2		3	4	5	6	7	8	9	10	11	12
1	Bindapur Extension Survey. Preliminary Expenses Debited			-	35710	35710				Nil	The want of an Estimate for the Railway Survey is brought to notice of Government	
	Cal			-	4176	4176				Nil		
					39916	39916						

No. ———

Forwarded for orders to the Secretary to Government, ~~Public Works Department~~ Railway Branch, Madras.

C Stuart Major R.E.
Examiner of P. W. Accounts,
Madras.

MADRAS,
Dated 29th July 1889.

Cal 29/7

JD 29/7

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Railway.

Read the following papers :—

From the Engineer-in-Chief, Madras State Railway Surveys, to the Joint Secretary to Government, Public Works Department, Railway Branch, dated Bangalore, 9th December 1886, No. 1548.

I have the honor, herewith, to submit the revised estimate of the Hindupur extension called for in your No. 777 R., dated 18th October, together with a revised Financial forecast giving the information called for in paragraph 2 of Government of India's No. 387 R.C., of 18th May 1886.

2. The revised estimate compares with the original as follows :—

Preliminary Expenses and Land.—As per original estimate.

Earthwork.—Average rate 7 rupees per 1,000 cubic feet as found from work already done, instead of Rs. 9.

Bridgework.—As per revised estimate submitted by the Engineer-in-Chief, Bellary-Kistna State Railway, with his No. 2127, dated 14th May 1886. This figure seems to have been arrived at by allowing for a rate of exchange of 1*s.* 6*d.* per rupee on English material, instead of 1*s.* 8*d.*, which seems to have been the rate taken in the original estimate. The alterations in the designs of the bridges, proposed by Mr. Molesworth, will not, I think, make much difference in the estimate. It would take a long time to thoroughly go into this question, and it is doubtful if any reliable result could be obtained in the present stage of the project. The mileage rate for bridgework is Rs. 4,300 more than what I have estimated for the Kadiri extension and Rs. 2,400 more than my estimate for the Villupuram-Pakal Railway. The Pennér bridge contributes only Rs. 5,882 (not Rs. 11,520 per mile as stated in Mr. Molesworth's note) to the total mileage rate. On general considerations, therefore, the revised figure for bridgework seems ample.

Level Crossings.—I have put down at Mr. Molesworth's figure. The omission of platelayer's quarters (not usually provided) from the original estimate would effect a still greater reduction than proposed by Mr. Molesworth.

Fencing and Electric Telegraph.—As before.

Ballasting.—As before.

Permanent-way.—I have estimated for a 40-lb. rail with cast-iron pot sleepers (steel sleepers were estimated for in the original estimate), and I have added $1\frac{1}{2}$ miles of way for the proposed doubling of line at Guntakal and the sidings in the proposed additional station at 56th mile. Exchange is allowed for at 1*s.* 6*d.* on English material.

Stations.—I have added Rs. 22,000 for the proposed additional station at 56th mile, Rs. 3,000 for raising the formation at two stations, and Rs. 16,300 for points and crossings (under station machinery) which in the original estimate were included under permanent-way, but are excluded from that head in the revised estimate.

Plant, Rolling-stock and Establishment.—I have put down the figures adopted or proposed by Mr. Molesworth, viz. :—

	Rs.	
Plant	1,000	per mile.
Do.	2,000	,,
Rolling-stock	5,760	,,
Establishment	2,500	,,

3. The Financial forecast is, I think, sufficiently explained by the notes at the foot of each table, to which I would direct your attention. I have therein shown the amount of loss by exchange at 1*s.* 6*d.* per rupee. Besides revising the figures in tables I and II of the forecast submitted with Engineer-in-Chief, Bellary-Kistna State Railway's No. 2127, to suit the results of the present revised estimate, I have ventured to alter those of tables III and IV, which are evidently misleading, as by them the line is anticipated to pay 4 per cent. on the capital expenditure. I have estimated 2 per cent., but this I put forward without any confidence and merely for the purpose of filling up tables III and IV, which I am called on to do, though I have no data available to enable me to estimate the traffic.

From the Engineer-in-Chief, Madras State Railway Surveys, to the Joint Secretary to Government, Public Works Department, Railway Branch, dated Bangalore, 9th December 1886, No. 1549.

In continuation of my No. 1548, of this date, I beg to submit (for what it is worth) an estimate of my own of the cost *per mile* of the Hindupur extension, by which you will see that I find it will cost Rs. 3,575 more per mile than by the estimate revised according to Mr. Molesworth's note. The differences are as under:—

	Plus.	Minus.
Preliminary expenses	715	...
Land	...	264
Fencing	300	...
Ballasting	...	1,221
Stations and offices	...	300
Workshops and store	630	...
Plant	...	1,025
Rolling-stock	2,240	...
Establishment	2,500	...
Total ...	6,385	2,810
Net Increase ...	3,575	...

2. The explanation of these differences is as follows:—I have taken—

Preliminary Expenses.—At the figure found by experience on these surveys, which includes direction.

Land.—At a figure arrived at from the working land quantities of a portion of the Kadiri extension, and rates given me for the Anantapur district by the Collector.

Fencing.—I have put down at Rs. 2,000 each for 15 stations, and deducted the same from the head "stations and offices."

Ballasting.—I have put down at a figure arrived at by work already done on the Hindupur extension with a margin for the material becoming scarce as the work progresses.

Stations and Offices.—I have deducted the amount put down under fencing—see above.

Plant.—Mr. Molesworth's figure for engineering plant adopted. The figures for the other sub-heads are from the South Indian Railway experience.

Rolling-stock.—The same figure as for my estimates of Kadiri and Villupuram-Pakal lines.

Establishment.—The same figure as I have estimated for Kadiri extension, which agrees pretty closely with Engineer-in-Chief, Bellary-Kistna State Railway's figure as given in his revised estimates (*vide* his No. 2127). Mr. Molesworth's figure is very low, being only about 3·3 per cent. of the estimate, and it is, above all, in establishment that it is advisable to have a good margin.

HINDUPUR EXTENSION.

FORECAST or estimate of Financial prospects to accompany estimate revised in accordance with Government of India, No. 387 R.C., dated 18th May 1886.

Table I.

Summary of estimated Direct charges to Capital Account.

Year.	Works, including tools and plant.	Establishment.	Total.
1	2	3	4
	RS.	RS.	RS.
First	34,14,243	1,38,750	35,52,993
Second	34,14,243	1,38,750	35,52,993
Total ..	68,28,486	2,77,500	71,05,986

Note.—If the works are vigorously carried on, it is considered that two years, from date of commencement, will be sufficient to complete the line.

Table II.

Summary of Indirect charges to Capital (excluding interest).

Year.	Capitalization of abatement of Land revenue.	Loss by exchange.	Leave and pension allowances.	Total.
1	2	[3	4	5
	RS.	RS.	RS.	RS.
First	55,500	..	19,425	74,925
Second	..	..	19,425	19,425
Total ..	55,500	..	38,850	94,350

Note (2).—Capitalization of abatement of Land revenue has been put down at the same figure as the compensation for land.

Note (3).—Loss by exchange has been included under direct expenditure. It is approximately as under, exchange being taken at 1*s.* 6*d.* per rupee—

	RS.
On bridge iron-work	1,50,000
,, permanent-way work	4,00,000
,, plant and rolling-stock	2,43,000
Total ..	7,93,000

Note (4).—Leave and pension allowances are 14 per cent. on establishment.

Table III.

Estimate of length of line open to traffic and Revenue Receipts and Charges to end of 5th year after completion.

Year.	Length of line open at end of year.	Revenue Receipts and Charges.		
		Gross receipts.	Charges, both Direct and Indirect.	Net receipts.
				RS.
First	..	..	..	..
Second	111	..	..	..
Third	111	..	..	..
Fourth	111	..	..	35,530
Fifth	111	..	..	71,060
Sixth	111	..	..	1,06,590
Seventh	111	..	..	1,42,120

Note.—The net receipts have been assumed at 2 per cent. on the capital expenditure for the 5th year after opening, and at nothing for the first year after opening, and for the intermediate years in arithmetical progression. As this table seems to be only required to give the net receipts for the calculations of table IV, the columns "gross receipts" and "charges" have not been filled in.

Table IV.

Estimate of Net Financial results, five years, after probable date of completion of the railway.

Year.	Direct Capital outlay during year.	Direct Capital outlay to end of year.	Simple interest on Capital outlay.	Net Receipts.	Simple interest in excess of Net Receipts.	Net Receipts in excess of simple interest.
	RS.	RS.	RS.	RS.	RS.	RS.
First	35,52,993	35,52,993	71,060	..	71,060	..
Second	35,52,993	71,05,986	2,13,180	..	2,13,180	..
Third	..	71,05,986	2,84,240	..	2,84,240	..
Fourth	..	71,05,986	2,84,240	35,530	2,48,710	..
Fifth	..	71,05,986	2,84,240	71,060	2,13,180	..
Sixth	..	71,05,986	2,84,240	1,06,590	1,77,650	..
Seventh	..	71,05,986	2,84,240	1,42,120	1,42,120	..
Total ..	..	..	17,05,440	3,55,300	13,50,140	..

Note.—Simple interest is taken at 4 per cent. on the mean of the total expenditure at beginning and end of year.

(Signed) H. T. GEOGHEGAN,
Engineer-in-Chief, Madras State Railway Surveys.

HINDUPUR EXTENSION (111 MILES).

ESTIMATE revised in accordance with Government of India, No. 387 R.C., dated 18th May 1886, and Note by Consulting Engineer for State Railways, dated 12th idem (enclosure to above).

	Main and Minor heads.	Minor head.	Main head.	Per mile, Minor head.	Per mile, Main head.	Remarks.
		RS.	RS.	RS.	RS.	
I	Preliminary expenses	..	31,630	..	285	*Bridgework.*
II	Land	..	55,500	..	500	About Rs. 6,00,000 is for iron-work, at an average rate of about Rs. 250 per ton landed in Madras, allowing for loss by exchange. Allowance must be made for rise or fall in this rate.
III	Construction of line	..	27,20,619	..	24,510	
	1. Earthwork	8,15,283	..	7,346	..	
	2. Bridgework	17,45,961	..	15,729	..	
	3. Tunnels	..	..	..	..	
	4. Level-crossings	48,125	..	433	..	
	5. Fencing	..	..	..	..	
	6. Electric telegraph	1,11,250	..	1,002	..	
IV	Ballast and permanent-way ..	..	25,45,987	..	22,937	*Permanent-way.*
	1. Ballast	3,25,987	..	2,937	..	About Rs. 16,00,000 is for iron-work, calculated at a rate (exclusive of contingencies) of Rs. 13,205 per mile of rails, sleepers (pot), and fastenings landed in Madras, allowing for loss in exchange at 1*s.* 6*d.* per rupee. Allowance must be made for rise or fall in this rate.
	2. Permanent-way	22,20,000	..	20,000	..	
V	Stations and buildings	..	5,02,300	..	4,525	
	1. Stations and offices ..	2,46,000	..	2,216	..	
	2. Workshops and store buildings.	..	..	..	..	
	3. Staff quarters	1,59,000	..	1,432	..	
	4. Station machinery	97,300	..	877	..	
VI	Plant	..	3,33,000	..	3,000	
VII	Steam ferries	..	..	..	..	
VIII	Rolling-stock	..	6,39,450	..	5,760	*Plant and Rolling-stock.*
IX	Establishment	..	2,77,500	..	2,500	The whole amounts under these heads may be considered as affected by exchange.
	Total ..	..	71,05,986	..	64,017	

(Signed) H. T. GEOGHEGAN,
Engineer-in-Chief, Madras State Railway Surveys.

HINDUPUR EXTENSION.

ESTIMATE by Engineer-in-Chief, Madras State Railway Surveys, of cost per mile of line.

	(Minor head.) RS.	(Main head.) RS.
I. Preliminary expenses	...	1,000
II. Land	...	236
III. Construction of line	...	24,808
1. Earthwork	7,346	...
2. Bridgework	15,729	...
3. Tunnels	...	...
4. Level-crossings	433	...
5. Fencing (at stations)	300	...
6. Electric telegraph	1,000	...

Estimate by Engineer-in-Chief, Madras State Railway Surveys, &c.—*cont.*

	(Minor head.) RS.	(Main head.) RS.
IV. Ballast and permanent-way	...	21,716
1. Ballasting	1,716	...
2. Permanent-way	20,000	...
V. Stations and buildings	...	4,855
1. Stations and offices	1,916	...
2. Workshop and store buildings	630	...
3. Staff quarters	1,432	...
4. Station machinery	877	...
VI. Plant	...	1,977
1. Engineering	1,000	...
2. Locomotive }	768	...
3. Carriage and wagon }		
4. Station and office furniture	209	...
VIII. Rolling-stock	...	8,000
IX. Establishment	...	5,000
Total ...		67,592

BANGALORE,
9th December 1886.

(Signed) H. T. GEOGHEGAN,
Engineer-in-Chief, Madras State Railway Surveys.

Note on estimate for line on metre gauge from Guntakal to Hindupur.

This line will leave the Madras Railway at Guntakal junction, 275 miles from Madras, and run through Anantapur, Dharmavaram and Penukonda to Hindupur, the total length being 111 miles. At Dharmavaram, 63 miles, it will join the line from Tirupati, for which estimates have already been submitted.

2. The chief features in the line are the location between Guntakal and the Pennér bridge, 23 miles, where the ruling gradient of 1 in 100 is freely used, and the ghât from Penukonda to the Hindupur plateau which has $5\frac{1}{2}$ miles of 1 in 100 in three sections with intervening short lengths of level.

3. The estimate first submitted by Mr. Lambert, and dealt with in Proceedings of Government, dated 19th February 1886, No. $\frac{161 \text{ R.}}{\text{A}}$, gives a mileage rate of Rs. 66,969. In Proceedings of Government, dated 28th May 1886, No. 434 R., is embodied a revised abstract estimate, amounting to Rs. 69,082 per mile, the increase over the original estimate being due to calculations based on an exchange rate of 1*s.* 6*d.*, instead of 1*s.* 8*d.*

4. In Proceedings of Government, dated 31st May 1886, No. 439 R., is embodied a letter from the Government of India with a note by their Consulting Engineer for State Railways recommending certain alterations by which the mileage rate would, it is stated, be reduced to Rs. 59,000. The reductions occur under the heads earthwork, level-crossings, plant, rolling-stock and establishment. The total of Rs. 59,000 is, however, based on the original estimate, and if allowance be made for the reduced rate of exchange, this amount will be raised to Rs. 61,113, the difference between this and Rs. 69,082 being made up thus :—

	RS.
Reduction in earthwork	4,229
Level-crossings	1,000
Rolling-stock	2,240
Establishment and plant	500
Total ...	7,969

5. Mr. Geoghegan now submits two estimates—

No. 1.—An estimate, amounting to Rs. 71,05,986, giving a mileage rate of Rs. 64,017, based as far as possible on the recommendations made by Mr. Molesworth.

No. 2.—An estimate, amounting to Rs. 75,02,693, giving a mileage rate of Rs. 67,592, including under certain heads some additional provision which appears from actual results to be necessary.

6. The following statement compares the estimated cost of this line with those of the Villupuram-Pakal and Tirupati-Dharmavaram sections, and with the actual expenditure on the South Indian Railway, after being opened to traffic for two years :—

—	HINDUPUR EXTENSION No. 1. 111 MILES, MR. LAMBERT'S ESTIMATE REVISED.		HINDUPUR EXTENSION No. 2. 111 MILES, MR. GEOGHEGAN'S ESTIMATE.		VILLUPURAM-PAKAL STATE RAILWAY, 134½.	
	Total.	Per mile.	Total.	Per mile.	Total.	Per mile.
1	2	3	4	5	6	7
	RS.	RS.	RS.	RS.	RS.	RS.
I. Preliminary expenses ..	31,630	285	1,11,000	1,000	1,34,500	1,000
II. Land	55,500	500	26,196	236	3,20,513	2,383
III. Construction of line—						
1. Earthwork	8,15,283	7,346	8,15,283	7,346	6,53,431	4,858
2. Bridgework	..	..	..	..	..	..
(*a*) Small bridges ..	17,45,961	15,729	17,45,961	15,729	17,84,256	13,266
(*b*) Large do. ..						
3. Tunnels	..	..	..	..	..	..
4. Level-crossings ..	48,125	433	48,125	433	94,150	700
5. Fencing	..	..	33,300	300	94,150	700
6. Electric telegraph ..	1,11,250	1,002	1,11,000	1,000	50,000	372
IV. Ballast and permanent-way—						
1. Ballasting	3,25,987	2,937	1,90,476	1,716	2,31,739	1,723
2. Permanent-way ..	22,20,000	20,000	22,20,000	20,000	25,07,947	18,646
V. Stations and buildings ..	5,02,300	4,525	5,38,905	4,855	7,45,966	5,546
VI. Plant	3,33,000	3,000	2,19,447	1,977	2,12,107	1,577
VIII. Rolling-stock	6,39,450	5,760	8,88,000	8,000	10,76,000	8,000
IX. Maintenance	..	..	..	..	..	..
X. Establishment	2,77,500	2,500	5,55,000	5,000	6,72,500	5,000
XI. Contingencies	..	..	..	..	..	..
Total ..	71,05,986	64,017	75,02,693	67,592	85,77,259	63,771

—	TIRUPATI-DHARMAVARAM RAILWAY, 166.		SOUTH INDIAN RAILWAY, NORTHERN EXTENSION, 218.		SOUTH INDIAN BAILWAY, SOUTHERN EXTENSION, 215.	
	Total.	Per mile.	Total.	Per mile.	Total.	Per mile.
	8	9	10	11	12	13
	RS.	RS.	RS.	RS.	RS.	RS.
I. Preliminary expenses ..	1,89,406	1,142	1,09,814	504	2,63,637	1,249
II. Land	83,000	500	..	..	..	..
III. Construction of line—						
1. Earthwork	17,02,592	10,257	6,41,556	2,943	6,41,731	2,985
2. Bridgework	..	..	..	..	..	..
(*a*) Small bridges ..	18,95,021	11,416	31,61,745	14,504	12,89,756	5,999
(*b*) Large do. ..						
3. Tunnels	..	..	..	..	..	..
4. Level-crossings ..	1,16,200	700	1,78,183	817	1,16,455	541
5. Fencing	1,16,200	700	1,50,221	689	1,39,783	650
6. Electric telegraph ..	50,000	301	..	..	..	..
IV. Ballast and permanent-way—						
1. Ballasting	2,84,856	1,716	2,06,792	949	1,74,711	813
2. Permanent-way ..	31,51,012	18,982	33,09,755	15,182	35,85,501	16,676
V. Stations and buildings ..	7,81,677	4,709	10,76,123	4,936	8,66,141	4,029
VI. Plant	2,61,782	1,577	4,80,308	2,203	2,84,492	1,323
VIII. Rolling-stock	13,28,000	8,000	17,95,436	8,236	19,88,750	9,250
IX. Maintenance	..	..	4,52,198	2,075	2,95,947	1,377
X. Establishment	8,30,000	5,000	21,55,020	9,885	14,03,229	6,527
XI. Contingencies	..	..	1,21,696	558	90,696	422
Total ..	1,07,89,746	65,000	1,38,38,847	63,481	1,11,45,829	51,841

Note.—In the figures for the South Indian Railway, English outlay is converted at 1*s.* 11*d.* per rupee; in other estimates the rate is 1*s.* 6*d.*

7. The following remarks are offered on the diffe
referred to as Nos. 1 and 2 above :—

I. *Preliminary expenses.*—The provision in No
No. 2 has been arrived at by actual
estimates made by Mr. Geoghegan.

II. *Land.*—The amount allowed in No. 2 is
Anantapur district, but it appears small

III. *Construction of line.*—The rate for earthwo
to Rs. 7 per 1,000 cubic feet, giving a d

The provision for bridgework exceeds that in any
is compared. This is due in some measure to the Pe
Rs. 5,882 per mile.

The provision for level-crossings has been reduc
proposed by Mr. Molesworth. The amount is now so
other lines.

In No. 1 no provision is made for fencing. In N
for fencing at stations is allowed.

The provision for electric telegraph is high comp
estimates.

IV. *Ballast and Permanent-way.*—In No. 1 est
mile is allowed. This is very high and
stone ballast throughout. In No. 2 t
Rs. 1,716.

The cost of permanent-way is based on an exch
the excess over the other lines, for which estimates have
due to the longer lead. A 40-lb. steel rail on cast-iro
looking to present prices of iron, it is a question wheth
to be more economical.

V. *Stations and buildings.*—The amounts ente

VI. *Plant.*—In No. 2 estimate the provision i
for other lines.

VIII. *Rolling-stock.*—The allowance of Rs. 5,7
Molesworth appears to be insufficient
expenditure on other lines; and in No. 2
to Rs. 8,000, which at present prices of

IX. *Maintenance.*—No provision appears to be
after being opened to traffic.

X. *Establishment.*—The provision in No. 1 est
that in No. 2 is the same as is allowed
submitted, and considerably below actual

8. It will thus be seen that the adoption of Mr
reduce the revised estimate submitted by Mr. Lambert,
but that Mr. Geoghegan, acting on information gained
recommends that the latter sum be increased to Rs. 67,
I concur.

MADRAS,
1st December 1886.

(Signed) C. J
Consul
SMITH, Colonel, R.E.,
ing Engineer for Railways.

rent items, the estimates being

. 1 is too small; that entered in
xperience in the surveys and

based on rates given for the

k has been reduced from Rs. 9
ecrease of Rs. 2,098 per mile.

of the estimates with which it
mér bridge which accounts for

ed by Rs. 1,000 per mile as
mewhat below that allowed for

o. 2 a sum of Rs. 300 per mile

ared with that made in other

mate the sum of Rs. 2,937 per
provides presumably for broken
he mileage rate is reduced to

nge rate of 1*s.* 6*d.* per rupee,
recently been submitted, being
n pot sleepers is adopted, but
er a 50-lb. rail would not prove

ed appear to be reasonable.

reduced to about the average

0 per mile proposed by Mr.
when compared with actual
estimate it has been increased
iron will probably be ample.

made for maintaining the line

ate appears to be insufficient;
the other estimates recently
for the South Indian Railway.

Molesworth's proposals would
rom Rs. 69,082 to Rs. 64,017,
in preparing other estimates,
592. In that recommendation

ORDER—dated 20th December

Ordered that the following

(Here enter

To the Engineer-in-Chief, Madra
„ Examiner, State Railway
„ Consulting Engineer for R

Exd. J. Henricus.
Spare Copies

R 1886, No. 954 R., PUBLIC WORKS.

1886, No. 954 R., Public Works.

letter be forwarded to the Government of India :—

No. 955 R., dated 20th December 1886.)

(True Extract.)

(Signed) C. J. SMITH, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Railway Branch.

State Railway Surveys.
ccounts.
ilways.

RAILWAY.

Govt. of {1886} Madras.

PUBLIC WORKS.

Dated December, 20th.

Recd. *Encl.*

G.O., 20th Dec. 1886, No. 954 R.

DECEMBER.

Hindupur Railway Extension

A revised estimate for the —, ordered to be forwarded to the Government of India.

12TH NOVEMBER 1887, No. 840 R., PUBLIC WORKS.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Railway.

Read the following paper:—

From the Consulting Engineer for Railways, dated Madras, 11th November 1887, No. 315.

ABSTRACT of the six months' estimate of the Madras State Railway Surveys for the official year 1887-88.

Description of surveys.	Actuals to end of 1885-86.	Actuals, 1886-87.	Budget estimate, 1887-88.	Six months' estimate, 1887-88.	Budget estimate, 1888-89.	Remarks.
Imperial.	RS.	RS.	RS.	RS.		
Kadiri Extension Survey.	1,36,964	26,476	17,150	17,150	* *Nil*	* The surveys will be completed in 1887-88.
Pakal-Villupuram „	90,193	51,295	14,850	14,850	Do.	
Hindupur Extension „	34,523	500	1,000	1,000	Do.	
Total, Imperial ...	2,61,680	78,271	33,000	33,000	...	

MADRAS,
11th November 1887.

(Signed) K. A. JOPP, Colonel, R.E.,
for Consulting Engineer for Railways.

Submitted for transmission to the Government of India with reference to paragraph 1 of their circular No. XXXIII, Public Works, dated 5th October 1880.

2. It is requested that the sanction of that Government may be solicited to a further allotment of Rs. 15,000 for compensation for land to be paid on account of the Hindupur extension. The Collector of Anantapur estimates the amount of unpaid claims for lands at Rs. 11,500, but it is not improbable that other claims may arise to increase the amount.

ORDER—dated 12th November 1887, No. 839 R., Public Works.

Ordered that the six months' estimates for 1887-88 and budget estimates for 1888-89 of State Railways in this Presidency be forwarded to the Government of India with reference to paragraph 1 of their circular No. XXXIII, Public Works, dated 5th October 1880.

(Here enter No. 840 R., dated 12th November 1887.)

(True Extract.)

(Signed) C. J. SMITH, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Railway Branch.

To the Consulting Engineer for Railways.
„ Officer in charge, Madras State Railway Surveys.
„ Examiner, State Railway Accounts.
„ Financial Department.

ENDORSEMENT—dated 12th November 1887, No. 840 R., Public Works.

Forwarded.

(Signed) C. J. SMITH, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Railway Branch.

Exd. A. Aubert.
Spare Copies

RAILWAY.

Govt. of {1887} Madras.

PUBLIC WORKS.

Dated November, 12th.

Read. *Encl.*

G.O., 12th Nov. 1887, No. 840 R.

NOVEMBER.

State Railways in Madras

Six months' estimates for 1887-88 *and budget estimates for* 1888-89.—The—, forwarded to the Government of India.

PUBLIC WORKS SECRETARIAT OOTACAMUND

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Railway.

Read the following paper:—

From R. G. MACDONALD, Esq., Officiating Under Secretary to the Government of India, Public Works Department (Account—Railway), to the Joint Secretary to the Government of Madras, Public Works Department, Railway Branch, dated Fort William, 25th November 1887, No. 806 A.R.

I am directed to acknowledge receipt of the six months' estimates for 1887-88 of Imperial State Railway Surveys in Madras forwarded with your endorsement, No. 840 R., of 12th November, and, with reference to paragraph 2 of letter, No. 315, of 11th November, from the Consulting Engineer for Railways, received therewith, I am to communicate the sanction of the Government of India to an additional grant of Rs. 15,000 for compensation for land to be paid on account of the Hindupur extension.

2. With this addition, the grant for outlay on this survey during the current official year will stand at Rs. 16,000.

ORDER—dated 1st December 1887, No. 916 R., Public Works.

Communicated to the Consulting Engineer for Railways with reference to proceedings, No. 839 R., dated 12th November 1887.

(True Extract.)

(Signed) C. J. SMITH, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Railway Branch.

To the Consulting Engineer for Railways.
„ Officer in charge, Madras State Railway Surveys.
„ Examiner, State Railway Accounts.
„ Financial Department.

Exd. E. Fernandez.
Spare Copies

RAILWAY.

Govt. of {1887} Madras.

PUBLIC WORKS.

Dated December, 1st.

Read. *Encl.*

G.O., 1st Dec. 1887, No. 916 R.

DECEMBER.

Hindupur Extension

Letter from the Government of India sanctioning an additional grant of Rs. 15,000 for compensation for land to be paid on account of the —, communicated to the Consulting Engineer for Railways.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Railway.

Read again the following papers:—

G.O., 9th February 1888, Nos. 104, 105 R., Public Works.

G.O., dated 25th January 1888, Nos. 60-61 R., Public Works.

From Colonel A. FILGATE, R.E., Deputy Secretary to the Government of India, Public Works Department (Account—Railway), to the Secretary to the Government of Madras, Public Works Department, dated Calcutta, 9th January 1888, No. 15 A.R.

In the note accompanying the revised and budget estimates of the Imperial Railway Surveys in Madras, which were received with your endorsement No. 973 of 28th ultimo, it is stated that the operations in connection with these surveys are expected to cease *at the end* of March 1888. With reference thereto, I am directed to point out that, if work is carried on during March, the establishment charges for that month will fall to be paid in April, and the necessary provision for this purpose must be made in the budget estimate for 1888-89. I am accordingly to request that the estimates may be reconsidered, and amended copies sent forward if necessary.

2. As regards the additional grant of Rs. 15,000 for the Hindupur extension allotted in Public Works Department No. 806 A.R., of 25th November last, I am to inquire whether the amount is likely to be disbursed during the current official year.

No. 211 C., Public Works.

Referred to the Consulting Engineer for Railways, who will submit, if necessary, the estimates called for by the Government of India in paragraph 1 of their letter read above.

2. Attention is invited to paragraph 2 of the same letter.

MADRAS,
17th January 1888.

(Signed) K. A. JOPP, Colonel, R.E.,
Under Secy. to Govt., P.W.D.,
Railway Branch.

From the Consulting Engineer for Railways, dated Madras, 25th January 1888, No. 24.

Note by the Consulting Engineer for Railways.

With reference to Government of India No. 15 A.R., dated 9th January 1888, the expression in Consulting Engineer's note printed with G.O., No. 972 R., dated 28th December 1887, that "it is expected that work will be brought to a close by the end of March 1888" was intended to mean that all expenditure would be paid within the current official year, and that therefore no provision of funds was necessary for the ensuing official year. The estimates need no correction on account of the above statement.

2. Since the despatch, however, of the estimates, the Government of India has allotted a sum of Rs. 20,000 for preliminary expenses likely to be incurred by the South Indian Railway on the Villupuram-Pakal and Tirupati-Dharmavaram lines, for which the former estimates provided, and it is proposed to transfer the establishment

on 1st February to the South Indian Railway for employment on these lines and to close outlay against the budget provision for State Railway Surveys.

3. Amended revised estimates for the three surveys—Kadiri Extension, Pakal-Villupuram, Hindupur Extension—are therefore now submitted.

4. With regard to the additional grant of Rs. 15,000 for the Hindupur extension the Collector of Anantapur reports that the probable disbursements to owners of land during the current year will not exceed Rs. 5,000 although the outstanding claims are estimated at from Rs. 12,500 to Rs. 15,000. Rupees 5,000 have therefore been provided for the expenditure on land in 1887-88 and Rs. 10,000 entered as the requirements in 1888-89.

MADRAS,
25th January 1888.

(Signed) K. A. JOPP, Colonel, R.E.,
for Consulting Engineer for Railways.

Telegram from the Joint Secretary to the Government of Madras, Public Works Department, Railway Branch, to the Secretary to the Government of India, Public Works Department, Calcutta, dated Madras, 25th January 1888.

Your 15 A.R., 9th instant. No provision necessary for Imperial Railway Surveys in budget estimate for 1888-89, India having allotted 20,000 for preliminary investigations, for which our revised estimate provided—see paragraph 4, our letter 5 R, 9th instant. Following revised figures are now submitted for 1887-88 :—Villupuram-Pakal 4,820, Kadiri Extension 7,620. For Hindupur Extension expenditure 1887-88, now estimated, 6,000, therefore 10,000 must be provided for 1888-89. Revised estimates follow by post to-day.

Telegram from the Secretary to the Government of India, Public Works Department, to the Joint Secretary to the Government of Madras, Public Works Department, Railway Branch, dated Calcutta, 26th January 1888.

Your Consulting Engineer's telegram 25th reporting amounts revised estimates surveys. Villupuram-Pakal and Kadiri Extension estimates now given appear insufficient. Examiner reports expenditure to end December Rs. 5,478 and 8,140, respectively. Examiner's estimate, Hindupur survey, end February, 1,672 only. Your estimate apparently excessive. Please explain early by post.

No. 366, Public Works.

Referred to the Consulting Engineer for Railways for report.

MADRAS,
27th January 1888.

(Signed) C. J. SMITH, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Railway Branch.

Submitted to Government, with reference to No. 211 C. (herewith returned), dated 17th January 1888.

Order—dated 25th January 1888, No. 60 R., Public Works.

Ordered to be forwarded to the Government of India with reference to their letter No. 15 A.R., dated 9th January 1888.

(Here enter No. 61 R., dated 25th January 1888.)

(True Extract.)

(Signed) C. J. SMITH, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Railway Branch.

Endorsement—dated 25th January 1888, No. 61 R., Public Works.

Forwarded.

(Signed) C. J. SMITH, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Railway Branch.

G.O., dated 25th January 1888, No. $\frac{62 \text{ R.}}{\text{A}}$ Public Works.

Read—Telegram from the Secretary to the Government of India, Public Works Department, to the Joint Secretary to the Government of Madras, Public Works Department, Railway Branch, dated Calcutta, 10th January 1888.

Rupees 20,000 allotted for preliminary investigations, Pakal-Villupuram and Tirupati-Dharmavaram Surveys, current year. Please report the amount assigned to each.

Order—dated 25th January 1888, No. $\frac{62 \text{ R.}}{\text{A}}$ Public Works.

Ordered that the following telegram be despatched to the Government of India :—

"Your telegram 10th. Proposed allotment Villupuram-Pakal Rs. 15,000, Tirupati-Dharmavaram 5,000."

(True Extract.)

(Signed) C. J. SMITH, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Railway Branch.

G.O., dated 31st January 1888, No. 80 R., Public Works.

Read—the following letter from Colonel A. HILGATE, R.E., Deputy Secretary to the Government of India, Public Works Department (Account—Railway), to the Secretary to the Government of Madras, Public Works Department, dated Calcutta, 26th January 1888, No. 54 A.R.

Adverting to Public Works Department telegram of the 10th instant, repeated in the margin, I am directed to inquire whether the additional grant of Rs. 20,000 therein allotted for outlay during the current official year on the Pakal-Villupuram and Tirupati-Dharmavaram Railway Surveys is now needed.

Rs. 20,000 allotted for preliminary investigations, Pakal-Villupuram and Tirupati-Dharmayaram Surveys, current year. Please report the amount assigned to each.

2. The amount so allotted was intended to provide for an officer of the South Indian Railway marching over the projected lines and other preliminary investigations proposed to be undertaken by the South Indian Railway with a view to early construction in the event of sanction being accorded to the construction of these lines by the company. But from the note on the revised estimates for these surveys submitted under your No. 973 R. of the 28th December 1887, and from your No. 5 R. of the 9th January 1888, due provision for the expenditure on this account has apparently been made in the revised estimates of these surveys from the grants previously allotted, and the additional grant of Rs. 20,000 referred to above does not now appear to be necessary.

3. An early reply is requested.

Order—dated 31st January 1888, No. 80 R., Public Works.

Ordered that the following telegram be despatched to the Government of India:—

"Your No. 54 A.R. Please see our No. 61 R., 25th instant, and accompanying estimates which were reduced consequent of grant of Rs. 20,000 supposed to be outside Provincial Survey grant. The Rs. 20,000 to be expended by South Indian Railway most necessary."

(True Extract.)

(Signed) C. J. SMITH, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Railway Branch.

Read also the following papers:—

From the Consulting Engineer for Railways, dated Madras, 9th February 1888, No. 40.

Telegram from the Secretary to the Government of India, Public Works Department, to the Joint Secretary to the Government of Madras, Public Works Department, Railway Branch, dated Calcutta, 1st February 1888.

Your 61 R., 25th January. Expenditure on further preliminary investigations to be undertaken by officers, South Indian Railway, must be charged to Government account of surveys and included in revised and budget estimates of surveys. Such expenditure cannot be charged Capital Account, South Indian, until the construction of the railway is made over to company. Please submit amended estimates surveys including outlay likely to be incurred by South Indian, and wire amounts.

Telegram from the Joint Secretary to the Government of Madras, Public Works Department, Railway Branch, to the Secretary to the Government of India, Public Works Department, Calcutta, dated Madras, 9th February 1888.

Your telegram 1st. Including outlay by South Indian, revised estimates as follows:—1887-88, Kadiri 11,774, Villupuram-Pakal 16,178, Hindupur 6,000, and for 1888-89, to meet outlay during March, Kadiri 1,700, Villupuram-Pakal 5,100; to meet outstanding claims for land, Hindupur 10,000. Probable monthly expenditure for charges in April and succeeding months on Kadiri, and Villupuram-Pakal 3,500 each.

Submitted to Government for transmission to the Government of India, in continuation of the telegram despatched to them this day.

Order—dated 9th February 1888, No. 104 R., Public Works.

Ordered that the revised estimates Madras State Railway Surveys, for 1887-88 and 1888-89 be forwarded to the Government of India, with reference to their telegram, dated 1st February 1888.

(Here enter No. 105 R., dated 9th February 1888.)

(True Extract.)

(Signed) C. J. SMITH, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Railway Branch.

Endorsement—dated 9th February 1888, No. 105 R., Public Works.

Forwarded.

(Signed) C. J. SMITH, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Railway Branch.

G.O., dated 20th February 1888, No. 135 R., Public Works.

Read—the following letter from Colonel A. FILGATE, R.E., Deputy Secretary to the Government of India, Public Works Department (Account—Railway), to the Secretary to the Government of Madras, Public Works Department, dated Calcutta, 14th February 1888, No. 106 A.R.:—

With reference to your telegram of 9th February reporting the figures for the revised and budget estimates of the Imperial Railway Surveys in Madras, I am directed to state that there are some doubts as to what the demand for next year amounts to.

2. The figures adopted by the Government of India, for the present, are—

	Rs.
Kadiri Extension	5,200
Pakal-Villupuram	8,600
Hindupur Extension	10,000
Total ...	23,800

and I am to inquire if this amount is sufficient, and, if not, how much more will be needed.

Order—dated 20th February 1888, No. 135 R., Public Works.

Ordered that the following telegram be despatched to the Government of India:—

"Your 106 A.R. Figures adopted by India for next year represent estimated expenditure during April and May; to these must be added further monthly expenditure estimated at Rs. 3,500 for each line for four months. Figures recommended therefore are Kadiri 19,200, Pakal-Villupuram 22,600, Hindupur 10,000."

(Signed) C. J. SMITH, Col., R.E.,
Joint Secy. to Govt., P.W.D.,
Railway Branch.

Read also the following papers:—

From Colonel A. FILGATE, R.E., Deputy Secretary to the Government of India, Public Works Department (Account—Railway), to the Secretary to the Government of Madras, Public Works Department, dated Calcutta, 18th February 1888, No. 118 A.R.

I am directed to acknowledge the receipt of the amended budget estimates of the Imperial Railway Surveys in Madras, forwarded with your docket, No. 105, dated 9th instant, and, in continuation of Public Works Department No. 106 A.R., of the 14th instant, to communicate the following remarks.

2. It is observed that these estimates provide for the following outlay next year:—

	Rs.
Kadiri Extension	1,700
Pakal-Villupuram	5,100
Hindupur Extension	10,000

The amounts entered against the Kadiri Extension and Pakal-Villupuram Surveys represent, it is concluded, liabilities of March 1888, which will fall in April next as intimated in your (Consulting Engineer's) telegram, dated 9th instant.

3. But in that telegram it was further stated that "the probable monthly expenditure for charges in April and succeeding months on the Kadiri and Pakal-Villupuram Surveys will amount to Rs. 3,500 each." The present estimates do not, however, include any provision "for charges to be incurred in April and succeeding months," and I am therefore to request an explanation of that portion of the telegram of the 9th instant above quoted, and also a clear statement of the expenditure to be provided for next year.

4. A very early reply is requested.

No. 805-A. C.

Referred to the Consulting Engineer for Railways for very early report.

(Signed) C. J. SMITH, Col., R.E.,
Joint Secy. to Govt., P.W.D.,
Railway Branch.

CHEPÂK,
25th February 1888.

From the Consulting Engineer for Railways, dated Madras, 25th February 1888, No. 57.

Note by the Consulting Engineer for Railways.

In continuation of this Government telegram, dated 20th February, and with reference to Government of India letter No. 118 A.R., dated 18th idem, communicated with G.O., No. 805-A. C., dated 25th February 1888, revised budget estimates for 1888-89 of Kadiri Extension Survey, Pakal-Villupuram Survey, Hindupur Survey are herewith forwarded, in which the figures recommended for sanction work up to those given in the telegram above referred to.

2. Provision has been made for preliminary expenditure, lock-spitting, &c., on the first two surveys during the first five months of next year, by which date it is presumed the arrangements for the construction of the lines by the South Indian Railway will have been concluded.

(Signed) K. A. JOPP, Col., R.E.,
for Consulting Engineer for Railways.

Submitted to Government for transmission to the Government of India, with reference to their letter, No. 118 A.R. (herewith returned), dated 18th February 1888, referred in G.O., No. 805-A. C., dated 25th idem.

ORDER—dated 25th February 1888, No. 163 R., Public Works.

Ordered to be forwarded to the Government of India, with reference to their letter, No. 118 A.R., dated 18th February 1888.

(Here enter No. 164 R. dated 25th February 1888.)

(True Extract.)

(Signed) C. J. SMITH, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Railway Branch.

To the Consulting Engineer for Railways.
" Examiner, Guaranteed Railway Accounts.
" " State Railway Accounts.

ENDORSEMENT—dated 25th February 1888, No. 164 R., Public Works.

Forwarded.

(Signed) C. J. SMITH, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Railway Branch.

Exd. J. Moses.
Spare Copies

RAILWAY.

Govt. of {1888} Madras.

PUBLIC WORKS.

Dated February, 25th.

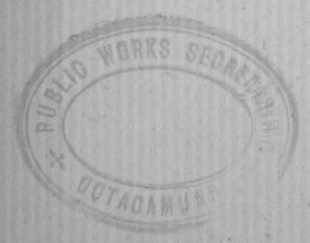
Recd. *Encl.*

G.O., 25th Feb. 1888, No. 164 R.

FEBRUARY.

Imperial Railways

Forwarding revised budget estimates, 1888-89, of the — in Madras.



CAPITAL BUDGET ESTIMATE

OF THE

HINDUPUR EXTENSION SURVEY

FOR THE YEAR

1888-89.

MADRAS (IMPERIAL) STATE RAILWAY SURVEYS.

HINDUPUR EXTENSION.

ABSTRACT BUDGET ESTIMATE (CAPITAL) for the year 1888-89.

Items.	Main and sub-heads of accounts.	Budget grant, 1887-88.	Expenditure.					Sanctioned estimate.
			Revised estimate, 1887-88.	Estimate during 1888-89.	Incurred during 1886-87.	Total.	Future years.	
	Construction Account.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
I	Preliminary expenses—							
	Survey expenses	1,000	..	..	16,761	16,761	..	..
	Plant		..	..	130	130	..	..
	Establishment as per schedule A.		1,000	..	18,132	19,132	..	..
	Total, Preliminary expenses ..	1,000	1,000	..	35,023	36,023	..	..
II	Land	..	5,000	10,000	..	15,000	..	..
III	Construction of line—							
	Earthwork	..	..	..	..	..	..	..
	Bridge-work	..	..	..	..	..	..	..
	Tunnels	..	..	..	..	..	..	..
	Level-crossings	..	..	..	..	..	..	..
	Fencing	..	..	..	..	..	..	..
	Electric telegraph	..	..	..	..	..	..	..
	Total, Construction of line ..	..	..	..	..	..	..	..
IV	Ballast and permanent-way—							
	Ballasting	..	..	..	..	..	..	..
	Permanent-way	..	..	..	..	..	..	..
	Total, Ballast and permanent-way.	..	..	..	..	..	..	..
V	Stations and buildings—							
	Stations and offices	..	..	..	..	..	..	..
	Workshops and store buildings.	..	..	..	..	..	..	..
	Staff quarters	..	..	..	..	..	..	..
	Station machinery	..	..	..	..	..	..	..
	Total, Stations and buildings ..	..	..	..	..	..	..	..
	Total, Construction account ..	1,000	6,000	10,000	35,023	51,023	..	..
VI	Plant—							
	Engineering	..	..	..	..	..	..	..
	Locomotive	..	..	..	..	..	..	..
	Carriage and wagon	..	..	..	..	..	..	..
	Station and office furniture ..	..	..	..	..	..	..	..
	Total, Plant ..	..	..	..	..	..	..	..
VII	Steam ferries	..	..	..	..	..	..	..
VIII	Rolling-stock—							
	Locomotive	..	..	..	..	..	..	..
	Carriage and wagon	..	..	..	..	..	..	..
	Total, Rolling-stock ..	..	..	..	..	..	..	..
IX	Establishment	..	..	..	..	..	..	..
	Total, Final heads ..	1,000	6,000	10,000	35,023	51,023	..	..
	Suspense account as per schedule B.	..	..	..	..	..	..	..
	Total ..	1,000	6,000	10,000	35,023	51,023	..	..
	Deduct debit to the Indian books by credits to expenditure in England for value of English stores received and other items charged off in England	..	..	..	..	..	..	..
	Net Indian outlay ..	1,000	6,000	10,000	35,023	51,023	..	..

MADRAS.
25th February 1888.

(Signed) K. A. JOPP, Col., R.E.,
for Consulting Engineer for Railways.

SCHEDULE A.

CAPITAL.

BUDGET ESTIMATE of ESTABLISHMENT of the HINDUPUR EXTENSION SURVEY for the year 1888-89.

NUMBER.		Details.	Monthly salary of office.	ESTIMATE, 1887-88.					ESTIMATE, 1888-89.					Remarks.
						Distribution of Charges.					Distribution of Charges.			
1887-88.	1888-89.			Per mensem.	Per annum.	Capital.	Revenue.	Total.	Per mensem.	Per annum.	Capital.	Revenue.	Total.	
		Direction.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	
..	..	*Vide* detail in budget of Pakal-Villapuram Survey, schedule A.	..	..	..	1,000	..	1,000	..	..	..	..	..	* Lump sum share of direction charges.
		Total ..	..	..	..	1,000	..	1,000	..	..	..	..	..	

ABSTRACT of ESTABLISHMENT CHARGES shown in Schedule A for 1888-89.

Sub-heads of establishment.	Salaries.	Travelling allowances.	Contingencies.	Total.	DISTRIBUTION.			
					Capital.		Revenue.	
					1887-88.	1888-89.	1887-88.	1888-89.
	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
Direction	905	54	41	1,000	1,000	..	..	..
Engineering	..	..	..	..	..	..	..	..
Locomotive	..	..	..	..	..	..	..	..
Traffic	..	..	..	..	..	..	..	..
Stores	..	..	..	..	..	..	..	..
Audit and Accounts	..	..	..	..	..	..	..	..
Medical and Sanitation	..	..	..	..	..	..	..	..
Total ..	905	54	41	1,000	1,000	..	..	..

SCHEDULE B.

DETAIL of SUMS provided for under SUSPENSE ACCOUNT for 1888-89.

Suspense heads.	Actual balance at end of 1886-87.	PROBABLE TRANSACTIONS OF 1887-88.			Probable balance at end of 1887-88.	PROBABLE TRANSACTIONS OF 1888-89.			Probable balance at end of 1888-89.
		Debits.	Credits.	Net debits or credits.		Debits.	Credits.	Net debits or credits.	
	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
Purchases	..	..	..	..	..	..	..	..	..
Sales	..	..	..	..	..	..	..	..	..
London stores	..	..	..	..	..	..	..	..	..
Do. invoices	..	..	..	..	..	..	..	..	..
Manufacture	..	..	..	..	..	..	..	..	..
Stores	..	..	..	..	..	..	..	..	..
Workshop manufacture	..	..	..	..	..	..	..	..	..
Miscellaneous advances	..	500	500	..	..	..	..	..	..
Total ..	..	500	500	..	..	..	..	..	..

Proceedings of the Madras Govt:
P. W. Department.
Read the following

No. 224 A.—R.

GOVERNMENT OF INDIA.

PUBLIC WORKS DEPARTMENT.

ACCOUNT.

Railway.

Calcutta, the 16th March, 1888.

IMPERIAL RAILWAY SURVEYS IN MADRAS.

Revised Estimate for 1887-88, with Budget Estimate for 1888-89.

Read again—

Public Works Department Resolution No. 304 A.—R., dated 18th March 1887.

Read also—

Letter No. 973 R., dated 28th December 1887, from the Government of Madras.

Public Works Department letter No. 15 A.—R., dated 9th January 1888, to the Government of Madras.

Public Works Department letter No. 54 A.—R., dated 26th January 1888, to the Government of Madras.

Telegram, dated 25th January 1888, from the Government of Madras.

Ditto 26th ditto, to ditto ditto.

Letter No. 61 R., dated 25th January 1888, from ditto ditto.

Telegram, dated 1st February 1888, to ditto ditto.

Ditto 31st January 1888, from ditto ditto.

Ditto 7th February 1888, to ditto ditto.

Ditto 9th ditto, from ditto ditto.

Public Works Department letter No. 106 A.—R., dated 14th February 1888, to the Government of Madras.

Letter No. 105 R., dated 9th February 1888, from the Government of Madras.

Public Works Department letter No. 118 A.—R., dated 18th February 1888, to the Government of Madras.

Telegram, dated 20th February 1888, from the Government of Madras.

Letter No. 164 R., dated 25th February 1888, ditto ditto.

REVISED ESTIMATE, 1887-88.

RESOLUTION.—In Budget orders the following grants were assigned for outlay on Imperial Railway Surveys in Madras during 1887-88 :—

	Rs.
Pakal-Villupuram	5,200
Kadiri Extension	6,800
Hindupur „	1,000
Total .	13,000

The grants were increased during the year to Rs. 68,000, by the allotment of Rs. 15,000 to the Hindupur Extension Survey and of Rs. 40,000 to the Pakal-Villupuram and Kadiri Extension Surveys.

2. The Revised Estimates were at first submitted for the following amounts :—

	Rs.
Pakal-Villupuram	14,672
Kadiri Extension	17,000
Hindupur „	16,000
Total .	47,672

but after references to the Madras Government these figures were modified, and the amounts finally recommended are—

	Rs.
Pakal-Villupuram	16,178
Kadiri Extension	11,774
Hindupur „	6,000
Total .	33,952

The Revised Estimates are accepted by the Government of India, in round figures, for the following amounts:—

	Rs.
Pakal-Villupuram	16,000
Kadiri Extension	12,000
Hindupur „	6,000
Total .	34,000

BUDGET ESTIMATE, 1888-89.

3. No provision was at first made in the Budget Estimates for outlay on these surveys during 1888-89, as it was understood by the Government of Madras that the further preliminary investigations in connection with the Pakal-Villupuram and Kadiri Extension Surveys were to be undertaken by officers of the South Indian Railway, and that any expenditure so incurred would be charged to the Capital account of that line. It was, however, pointed out to the Madras Government that such expenditure cannot be charged to the South Indian Railway until the construction of the lines has been made over to the Company, and amended estimates were called for. The requirements of the year are now placed at—

	Rs.
Pakal-Villupuram	22,600
Kadiri Extension	19,200
Total .	41,800

and in submitting amended Revised Estimates for 1887-88 the Government of Madras reported that Rs. 10,000 would be needed for payments for land for the Hindupur Extension during 1888-89 owing to short disbursements this year. The Budget Estimates are accordingly accepted by the Government of India, in round figures, for the following amounts:—

	Rs.
Pakal-Villupuram	23,000
Kadiri Extension	19,000
Hindupur „	10,000
Total .	52,000

4. The final issue of these estimates should be prepared and submitted so as to reach the Government of India not later than the 1st May 1888.

ORDER.—Ordered, that a copy of the above be forwarded to the Government of Madras, Public Works Department, for information and guidance, with the request that 35* printed copies of the final issue of the estimates, as now passed, may be submitted in the usual course.

* 20 copies to Simla, and the remainder to Calcutta.

R. C. B. PEMBERTON, *Colonel, R.E.,*

Secretary to the Govt. of India.

Government of India Central Printing Office.—No. 1048 P. W. D.—18-3-88.—90.

Order thereon

No. 281 R. dated 6th April 1888.

Communicated to the Consulting Engineer for Railways with reference to Proceedings:

No. 972 R. dated 28th December 1887
— 163 R. — 25th February 1888

2. Special attention is invited to paragraph 4 of the Resolution.—

(True Extract.)

Colonel, R.E.
Under Secy. to Govt. P. W. D.
Ry. Br.

To.
The Consg. Engr. for Rys.
— Examiner Guard. Ry. Affs.
— do — P. W. Accounts.

19TH APRIL 1888, No. 308 R., PUBLIC WORKS.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Railway.

Read the following paper:—

From the Consulting Engineer for Railways, dated Madras, 16th April 1888, No. 115 A.

Final issue of the Revised Estimates, 1887-88, and Budget Estimate, 1888-89, of the Imperial Railway Surveys, Madras.

Submitted to Government for transmission to the Government of India, with reference to paragraph 4 of their resolution, No. 224 A.R., dated 16th March 1888, embodied in the proceedings of Government, No. 281 R., dated 6th April 1888.

ORDER—dated 19th April 1888, No. 308 R., Public Works.

Ordered to be forwarded to the Government of India, with reference to their resolution, No. 224 A.R., dated 16th March 1888.

(Here enter No. 309 R., dated 19th April 1888.)

(True Extract.)

(Signed) C. J. SMITH, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Railway Branch.

To the Consulting Engineer for Railways.
" Examiner, Public Works Accounts.
" " Guaranteed Railway Accounts.

Exd. J. Moses.
Spare Copies.

RAILWAY.

Govt. of {1888} Madras.

PUBLIC WORKS.

Dated April, 19th.

Recd. *Encl.*

G.O., 19th Apr. 1888, No. 308 R.

APRIL.

Imperial Railway Surveys, Madras

Ordered that the final issue of the revised estimates, 1887-88, and budget estimate, 1888-89, of the — be forwarded to the Government of India.

FINAL ISSUE.

CAPITAL BUDGET ESTIMATE

OF THE

HINDUPUR EXTENSION SURVEY

FOR THE YEAR

1888-89.

MADRAS (IMPERIAL) STATE RAILWAY SURVEYS.

HINDUPUR EXTENSION.

ABSTRACT BUDGET ESTIMATE (CAPITAL) for the year 1888-89.

Items.	Main and sub-heads of accounts.	Budget grant, 1887-88.	Expenditure.					Sanctioned estimate.
			Revised estimate, 1887-88.	Estimate during 1888-89.	Incurred during 1886-87.	Total.	Future years.	
	Construction Account.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
I	Preliminary expenses—							
	Survey expenses	1,000	..	..	16,761	16,761	..	..
	Plant		..	..	130	130	..	..
	Establishment as per schedule A.		1,000	..	18,132	19,132	..	..
	Total, Preliminary expenses ..	1,000	1,000	..	35,023	36,023	..	..
II	Land	..	5,000	10,000	..	15,000	..	..
III	Construction of line—							
	Earthwork	..	..	..	..	..	..	..
	Bridge-work	..	..	..	..	..	..	..
	Tunnels	..	..	..	..	..	..	..
	Level-crossings	..	..	..	..	..	..	..
	Fencing	..	..	..	..	..	..	..
	Electric telegraph	..	..	..	..	..	..	..
	Total, Construction of line ..	..	..	..	..	..	..	..
IV	Ballast and permanent-way—							
	Ballasting	..	..	..	..	..	..	..
	Permanent-way	..	..	..	..	..	..	..
	Total, Ballast and permanent-way.	..	..	..	..	..	..	..
V	Stations and buildings—							
	Stations and offices	..	..	..	..	..	..	..
	Workshops and store buildings.	..	..	..	..	..	..	..
	Staff quarters	..	..	..	..	..	..	..
	Station machinery	..	..	..	..	..	..	..
	Total, Stations and buildings ..	..	..	..	..	..	..	..
	Total, Construction account ..	1,000	6,000	10,000	35,023	51,023	..	..
VI	Plant—							
	Engineering	..	..	..	..	..	..	..
	Locomotive	..	..	..	..	..	..	..
	Carriage and wagon	..	..	..	..	..	..	..
	Station and office furniture ..	..	..	..	..	..	..	..
	Total, Plant ..	..	..	..	..	..	..	..
VII	Steam ferries	..	..	..	..	..	..	..
VIII	Rolling-stock—							
	Locomotive	..	..	..	..	..	..	..
	Carriage and wagon	..	..	..	..	..	..	..
	Total, Rolling-stock ..	..	..	..	..	..	..	..
IX	Establishment	..	..	..	..	..	..	..
	Total, Final heads ..	1,000	6,000	10,000	35,023	51,023	..	..
	Suspense account as per schedule B.	..	..	..	..	..	..	..
	Total ..	1,000	6,000	10,000	35,023	51,023	..	..
	Deduct debit to the Indian books by credits to expenditure in England for value of English stores received and other items charged off in England	..	..	..	..	..	..	..
	Net Indian outlay ..	1,000	6,000	10,000	35,023	51,023	..	..

MADRAS.
16th April 1888.

(Signed) K. A. JOPP, Col., R.E.,
for Consulting Engineer for Railways.

SCHEDULE A.

CAPITAL.

BUDGET ESTIMATE of ESTABLISHMENT of the HINDUPUR EXTENSION SURVEY for the year 1888-89.

NUMBER. 1887-88.	NUMBER. 1888-89.	Details.	Monthly salary of Office.	ESTIMATE, 1887-88. Per mensem.	Per annum.	Distribution of Charges. Capital.	Revenue.	Total.	ESTIMATE, 1888-89. Per mensem.	Per annum.	Distribution of Charges. Capital.	Revenue.	Total.	Remarks.
		Direction.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	
..	..	*Vide* detail in budget of Pakal-Villapuram Survey, schedule A.	..	..	..	1,000	..	1,000	..	..	..	..	..	* Lump sum share of direction charges.
		Total ..	..	..	..	1,000	..	1,000	..	..	..	..	..	

ABSTRACT of ESTABLISHMENT CHARGES shown in Schedule A for 1888-89.

Sub-heads of establishment.	Salaries.	Travelling allowances.	Contingencies.	Total.	DISTRIBUTION. Capital. 1887-88.	Capital. 1888-89.	Revenue. 1887-88.	Revenue. 1888-89.
	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
Direction	905	54	41	1,000	1,000	..	..	..
Engineering	..	..	..	..	..	..	..	..
Locomotive	..	..	..	..	..	..	..	..
Traffic	..	..	..	..	..	..	..	..
Stores	..	..	..	..	..	..	..	..
Audit and Accounts	..	..	..	..	..	..	..	..
Medical and Sanitation ..	..	..	..	..	..	..	..	..
Total ..	905	54	41	1,000	1,000	..	..	..

SCHEDULE B.

DETAIL of SUMS provided for under SUSPENSE ACCOUNT for 1888-89.

Suspense heads.	Actual balance at end of 1886-87.	PROBABLE TRANSACTIONS OF 1887-88. Debits.	Credits.	Net debits or credits.	Probable balance at end of 1887-88.	PROBABLE TRANSACTIONS OF 1888-89. Debits.	Credits.	Net debits or credits.	Probable balance at end of 1888-89.
	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
Purchases	..	..	..	..	..	..	..	..	..
Sales	..	..	..	..	..	..	..	..	..
London stores	..	..	..	..	..	..	..	..	..
Do. invoices	..	..	..	..	..	..	..	..	..
Manufacture	..	..	..	..	..	..	..	..	..
Stores	..	..	..	..	..	..	..	..	..
Workshop manufacture ..	..	..	..	..	..	..	..	..	..
Miscellaneous advances ..	..	..	..	..	..	..	..	..	..
	..	500	500	..	..	..	..	..	..
Total ..	..	500	500	..	..	..	..	..	..

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Railway.

Read the following paper :—

From the Consulting Engineer for Railways, dated Madras, 29th October 1888, No. 354.

STATEMENT showing the actuals of 1887-88, the budget and modified grants of 1888-89 and the outlay as known in 1888-89 on account of the Railway Surveys entered in the statement with budget estimate for 1889-90.

State Railways.

Heads of account.	Actual outlay in 1887-88.	Budget grant and estimate, 1888-89.	Modified grant and estimate as they now stand.	Outlay incurred to end of August 1888.	Approximate outlay in September, October and November 1888.	Probable outlay for the first eight months in 1888-89.	Balance of modified grant for the latter four months.	Budget estimate, 1889-90.
1	2	3	4	5	6	7	8	9
IMPERIAL.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
Kadiri extension survey	6,847	19,000	19,000	..	..	..	19,000	..
Hindupur extension survey ..	1,190	10,000	10,000	..	..	..	10,000	8,000
Pakal-Villupuram survey ..	7,414	23,000	23,000	..	* 12,267	12,267	10,733	..
PROVINCIAL.								
Registering statistics of road traffic..	8	..	..	..	..	..	..	..

* Amount debited by the South Indian Railway and will be adjusted in the accounts for October 1888.

MADRAS,
19th October 1888.

(Signed) C. H. P. CHRISTIE, Major, R.E.,
Examiner, Public Works Accounts.

Submitted to Government for transmission to the Government of India with reference to Circular No. XXXIII, dated 5th October 1880, embodied in the Proceedings of Government, No. 2479 W., dated 28th October 1880.

ORDER—dated 29th October 1888, No. 891 R., Public Works.

Ordered that the six months' estimates of the capital outlay in 1888-89 on Imperial and Provincial State Railways in this Presidency be forwarded to the Government of India with reference to their Circular No. XXXIII, dated 5th October 1880.

(Here enter No. 892 R., dated 29th October 1888.)

(True Extract.)

(Signed) C. J. SMITH, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Railway Branch.

To the Consulting Engineer for Railways.
„ Examiner, Guaranteed Railway Accounts.
„ Examiner, Public Works Accounts.
„ Financial Department.

Exd. J. Henricus.

Spare Copies

RAILWAY.

Govt. of {1888} Madras.

PUBLIC WORKS.

Dated October, 29th.

Recd. *Encl.*

G.O., 29th Oct. 1888, No. 891 R.

OCTOBER.

Six Months' Estimates

The — of capital outlay in 1888-89 on Imperial and Provincial State Railways in the Madras Presidency, ordered to be forwarded to the Government of India.

15TH FEBRUARY 1889, No. 167 R., PUBLIC WORKS.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Railway.

Read the following paper :—

From the Consulting Engineer for Railways, dated Madras, 13th February 1889, No. 76.

Revised estimate, 1888-89, and budget estimate, 1889-90, for the Hindupur extension survey.

Submitted to Government for transmission to the Government of India.

ORDER—dated 15th February 1889, No. 167 R., Public Works.

Ordered to be forwarded to the Government of India, in continuation of Public Works Department telegram, dated 12th February 1889.

(Here enter No. 168 R., dated 15th February 1889.)

(True Extract.)

(Signed) C. J. SMITH, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Railway Branch.

To the Consulting Engineer for Railways.
„ Examiner, Public Works Accounts.
„ Financial Department.

ENDORSEMENT—dated 15th February 1889, No. 168 R., Public Works.

Forwarded.

(Signed) C. J. SMITH, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Railway Branch.

Exd. A. D. Xavier.
Spare Copies

RAILWAY.

Govt. of {1889} Madras.

PUBLIC WORKS.

Dated February, 15th.

Read. *Encl.*

G.O., 15th Feb. 1889, Nos. 167 R., 168 R.

FEBRUARY.

Hindupur Extension Survey

Forwarding revised estimate for 1888-89 and budget estimate for 1889-90 for the —.

CAPITAL BUDGET ESTIMATE

OF THE

HINDUPUR EXTENSION SURVEY

FOR THE YEAR

1889-90.

MADRAS (IMPERIAL) STATE RAILWAY SURVEYS.

HINDUPUR EXTENSION.

ABSTRACT BUDGET ESTIMATE (CAPITAL) for the year 1889-90.

Items.	Main and sub heads of accounts.	Budget grant, 1888-89.	Expenditure.					Sanctioned estimate.
			Revised estimate, 1888-89.	Estimate during 1889-90.	Incurred during 1887-88.	Total.	Future years.	
	Construction Account.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
I	Preliminary expenses—							
	Survey expenses	..	..	..	..	..	..	..
	Plant	..	..	..	..	..	..	..
	Establishment as per schedule A.	..	..	..	..	..	..	..
	Total, Preliminary expenses ..	..	..	..	..	..	..	..
II	Land	10,000	5,650	3,000	1,190	9,840	..	..
III	Construction of line—							
	Earthwork	..	..	..	..	..	..	..
	Bridge-work	..	..	..	..	..	..	..
	Tunnels	..	..	..	..	..	..	..
	Level-crossings	..	..	..	..	..	..	..
	Fencing	..	..	..	..	..	..	..
	Electric telegraph	..	..	..	..	..	..	..
	Total, Construction of line ..	..	..	..	..	..	..	..
IV	Ballast and permanent-way—							
	Ballasting	..	..	..	..	..	..	..
	Permanent-way	..	..	..	..	..	..	..
	Total, Ballast and permanent-way.	..	..	..	..	..	..	..
V	Stations and buildings—							
	Stations and offices	..	..	..	..	..	..	..
	Workshops and store buildings.	..	..	..	..	..	..	..
	Staff quarters	..	..	..	..	..	..	..
	Station machinery	..	..	..	..	..	..	..
	Total, Stations and buildings ..	..	..	..	..	..	..	..
	Total, Construction account ..	10,000	5,650	3,000	1,190	9,840	..	..
VI	Plant—							
	Engineering	..	..	..	..	..	..	..
	Locomotive	..	..	..	..	..	..	..
	Carriage and wagon	..	..	..	..	..	..	..
	Station and office furniture ..	..	..	..	..	..	..	..
	Total, Plant ..	..	..	..	..	..	..	..
VII	Steam ferries	..	..	..	..	..	..	..
VIII	Rolling-stock—							
	Locomotive	..	..	..	..	..	..	..
	Carriage and wagon	..	..	..	..	..	..	..
	Total, Rolling-stock ..	..	..	..	..	..	..	..
IX	Establishment	..	..	..	..	..	..	..
	Total, Final heads ..	10,000	5,650	3,000	1,190	9,840	..	..
	Suspense account as per schedule B.	..	..	..	..	..	..	..
	Total ..	10,000	5,650	3,000	1,190	9,840	..	..
	Deduct debit to the Indian books by credits to expenditure in England for value of English stores received and other items charged off in England	..	..	..	..	..	..	..
	Net Indian outlay ..	10,000	5,650	3,000	1,190	9,840	..	..

MADRAS,
13th February 1889.

(Signed) K. A. JOPP, Col., R.E.,
for Consulting Engineer for Railways.

No. $\frac{23}{\text{B. O.}}$ A.—R.

GOVERNMENT OF INDIA.

PUBLIC WORKS DEPARTMENT.

ACCOUNT.

Railway.

Calcutta, the 30th March 1889.

HINDUPUR EXTENSION SURVEY.

Revised Estimate for 1888-89, with Budget Estimate for 1889-90.

Read again—

Public Works Department Resolution No. 224 A.—R., dated 16th March 1888.

Read also—

Letter No. 168 R dated 15th February 1889, from the Government of Madras.

REVISED ESTIMATE, 1888-89.

RESOLUTION.—In Budget orders a grant of Rs. 10,000 was assigned to meet payments for land in connection with the Hindupur Extension Survey during 1888-89.

2. The Revised Estimate is submitted for Rs. 5,650, and is accepted by the Government of India for a round sum of Rs. 5,600.

BUDGET ESTIMATE, 1889-90

3. The Budget Estimate is submitted for Rs. 3,000, and is accepted for this amount.

4. The final issue of these estimates should be prepared and submitted so as to reach the Government of India not later than the 1st May 1889.

ORDER.—Ordered, that a copy of the above be forwarded to the Government of Madras, Public Works Department, for information and guidance, with the request that 35* printed copies of the final issue of the estimates, as now passed, may be submitted in the usual course.

* 10 copies to Simla and the remainder to Calcutta.

R. C. B. PEMBERTON, *Colonel, R.E.,*

Secretary to the Govt. of India.

Government of India Central Printing Office No. 1384 P. W. D.—26-3-89—100.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Railway.

Read the following paper:—

From the Consulting Engineer for Railways, dated Madras, 23rd April 1889, No. 209 B.

Final issue of the revised estimate for 1888-89, with budget estimate for 1889-90 for Hindupur extension survey.

Submitted to Government for transmission to the Government of India with reference to their Resolution No. 23-B.O. A.R., dated 30th March 1889, embodied in the Proceedings of Government, No. 410 R., dated 12th April 1889.

ORDER—dated 23rd April 1889, No. 449 R., Public Works.

Ordered to be forwarded to the Government of India with reference to their Resolution No. 23-B.O. A.R., dated 30th March 1889.

(Here enter No. 450 R., dated 23rd April 1889.)

(True Extract.)

(Signed) C. J. SMITH, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Railway Branch.

To the Consulting Engineer for Railways.
„ Examiner, Public Works Accounts.
„ Financial Department.

ENDORSEMENT—dated 23rd April 1889, No. 450 R., Public Works.

Forwarded.

(Signed) C. J. SMITH, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Railway Branch.

Exd. J. Henricus.
Spare Copies

RAILWAY.

Govt. of {1889} Madras.

PUBLIC WORKS.

Dated April, 23rd.

Read. *Encl.*

G.O., 23rd April 1889, Nos. 449, 450 R.

APRIL.

Hindupur Extension Survey

Forwarding final issue of the revised estimate for 1888-89 with budget estimate for 1889-90 for the —.

FINAL ISSUE.

CAPITAL BUDGET ESTIMATE

OF THE

HINDUPUR EXTENSION SURVEY

FOR THE YEAR

1889-90.

MADRAS (IMPERIAL) STATE RAILWAY SURVEYS.

HINDUPUR EXTENSION.

ABSTRACT BUDGET ESTIMATE (CAPITAL) for the year 1889-90.

Items.	Main and sub heads of accounts.	Budget grant, 1888-89.	EXPENDITURE. Revised estimate, 1888-89.	Estimate during 1889-90.	Incurred during 1887-88.	Total.	Future years.	Sanctioned estimate.
	Construction Account.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
I	Preliminary expenses—							
	Survey expenses	..	..	..	..	..	..	..
	Plant	..	..	..	..	..	..	..
	Establishment as per schedule A.	..	..	..	..	..	..	..
	Total, Preliminary expenses ..	..	..	..	..	..	..	..
II	Land	10,000	5,600	3,000	1,190	9,790	..	..
III	Construction of line—							
	Earth-work	..	..	..	..	..	..	..
	Bridge-work	..	..	..	..	..	..	..
	Tunnels	..	..	..	..	..	..	..
	Level-crossings	..	..	..	..	..	..	..
	Fencing	..	..	..	..	..	..	..
	Electric telegraph	..	..	..	..	..	..	..
	Total, Construction of line ..	..	..	..	..	..	..	..
IV	Ballast and permanent-way—							
	Ballasting	..	..	..	..	..	..	..
	Permanent-way	..	..	..	..	..	..	..
	Total, Ballast and permanent-way.	..	..	..	..	..	..	..
V	Stations and buildings—							
	Stations and offices	..	..	..	..	..	..	..
	Workshops and store buildings.	..	..	..	..	..	..	..
	Staff quarters	..	..	..	..	..	..	..
	Station machinery	..	..	..	..	..	..	..
	Total, Stations and buildings ..	..	..	..	..	..	..	..
	Total, Construction account ..	10,000	5,600	3,000	1,190	9,790	..	..
VI	Plant—							
	Engineering	..	..	..	..	..	..	..
	Locomotive	..	..	..	..	..	..	..
	Carriage and wagon	..	..	..	..	..	..	..
	Station and office furniture ..	..	..	..	..	..	..	..
	Total, Plant ..	..	..	..	..	..	..	..
VII	Steam ferries	..	..	..	..	..	..	..
VIII	Rolling-stock—							
	Locomotive	..	..	..	..	..	..	..
	Carriage and wagon	..	..	..	..	..	..	..
	Total, Rolling-stock ..	..	..	..	..	..	..	..
IX	Establishment	..	..	..	..	..	..	..
	Total, Final heads ..	10,000	5,600	3,000	1,190	9,790	..	..
	Suspense account as per schedule B.	..	..	..	..	..	..	..
	Total ..	10,000	5,600	3,000	1,190	9,790	..	..
	Deduct debit to the Indian books by credits to expenditure in England for value of English stores received and other items charged off in England	..	..	..	..	..	..	..
	Net Indian outlay ..	10,000	5,600	3,000	1,190	9,790	..	..

MADRAS,
17th April 1889.

(Signed) C. J. SMITH, Colonel, R.E.,
Consulting Engineer for Railways.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Railway

Read the following paper :—

From Major F. FIREBRACE, R.E., Under Secretary to the Government of India, Public Works Department (Railway—Construction), to the Secretary to the Government of Madras, Public Works Department, dated Simla, 18th May 1886, No. 387 R.C.

I am directed to acknowledge the receipt of your letter, No. 162 R., of the 19th February 1886, submitting the project for the Hindupur extension, and, in reply, to forward, herewith, copy of a note, dated the 12th May 1886, by the Consulting Engineer to the Government of India for State Railways reviewing the project.

2. The Government of India will be glad to receive a revised abstract estimate of the cost of the line prepared on the basis of Mr. Molesworth's recommendations, showing also the exchange transactions and indirect charges asked for in Public Works Department telegram of the 8th April 1886.

Enclosure.

Copy of note by the Consulting Engineer for State Railways, dated 12th May 1886.

The estimate of the Hindupur extension, as now submitted by Mr. Lambert, per mile of railway stands as follows :—

	Rate per mile.	
	Penair division, 48 miles.	Penukonda division, 63 miles.
	Rs.	Rs.
Preliminary expenses	285	285
Land	500	500
Earthwork	6,496	11,308
Minor bridges	5,859	6,733
Large do.	17,030	2,556
Level-crossings	1,422	1,433
Ballast	2,938	2,936
Permanent-way	17,405	18,532
Stations and buildings	1,377	2,676
Staff quarters	864	1,732
Station machinery	492	826
Telegraph	1,000	1,004
Rolling-stock	5,760	5,760
Total	61,928	56,281

	Rs.
Or as an average of both divisions (111 miles in length)	58,669 per mile.
To this must be added—	
Establishment	2,500
Plant	1,000
	2,000
Total	64,169

But, of this, the Penair bridge contributes an average of Rs. 11,520 per mile, and if this were eliminated, the average cost would be Rs. 52,649 per mile. The principal rates upon which the estimates have been based are—

	Rs.
Earthwork	9 per 1,000 c. feet
Masonry	40 „ 100 „
Arching	15 „ „ „
Stone pitching	12 „ „ „
Stone protection	8 „ „ „
Concrete	25 „ „ „
Ballast	4 „ „ „
Well curbs	500 to 700 each.
Iron work in girders	280 to 330 per ton.
Teak timber	6 per c. feet.
Well sinking	10 to 15 per 100 feet.

The rate for earthwork appears to me to be excessive, as also the rates for well-sinking, and for an unfenced line and thinly populated district, the item of level-crossings (Rs. 1,432 per mile) seems to be very high, and probably may be reduced by Rs. 1,000 per mile. I have already considered the alignment when inspecting the line in person in March 1885, when I satisfied myself that the line had been laid out with great skill and care. The distance of the stations apart in two cases is about 13 miles, viz., between Kadupet and Yollapollia and Kandahar and Damavaram. I think it would be preferable to divide the distance more equally in the first case by shifting the station from the 7th to the 9th mile. In the other case, I think, it would be desirable to interpolate a station about the 56th mile, at Ebingacherla, involving an increase of probably about Rs. 22,000. Where the line leaves the Guntakal station it should be doubled from the entrance points of the station, to the point of junction with the Bezváda line, so as to avoid a junction at a considerable distance outside the station.

The formation level of the Golbapallam station should be raised about 18 inches so as to keep the line out of cutting.

At the Penair bridge I should prefer spurs with protected ends running out at right angles from the main bund, rather than a continuous bund pitched with stone. The ends of the spurs should run out with a flat slope of, say, 1 in 10, with a broad deposit of loose stone at the foot of the slope. At Kundahoor station the formation might with advantage be raised about 2 feet 6 inches to keep out of cutting. It would, in my opinion, be preferable to dispense with the wings of the abutments at the Penair bridge, substituting for them pier abutments surrounded by loose stone; the slope of the embankment, being of stone, might then be reduced from 3 to 1 to 12 to 1 close to the bridge at the Muddor bridge. I should prefer pier abutments surrounded by loose stone to the abutments with wings shown in the drawings.

In several cases the piers of bridges, that are supported by wells, are not protected with loose stone, and I think it probable that, in some cases at least, protection will be necessary.

Taking into consideration the high rate of earthwork and the estimated cost of the level-crossings, I think that the estimate would bear reduction by about Rs. 5,000 per mile, reducing the average cost of the 111 miles to Rs. 59,000 per mile, or, excluding the cost of the Penair bridge, to Rs. 47,600 per mile.

Order—dated 31st May 1886, No. 439 R., Public Works.

Communicated, in continuation of proceedings, No. 315 R., dated 10th April 1886, to the Engineer-in-Chief, Bellary-Kistna State Railway, who is requested to furnish, as early as practicable, the information called for *in paragraph 2 by the Government of India.*

(True Extract.)

(Signed) W. H. COAKER, Major, R.E.,
Ag. Joint Secy. to Govt., P.W.D.,
Railway Branch.

To the Consulting Engineer for Railways.
„ Engineer-in-Chief, Madras State Railway Surveys.
„ „ Bellary-Kistna State Railway.
„ Examiner of State Railway Accounts.

Exd. E. Fernandez.
Spare Copies

RAILWAY.

Govt. of {1886} Madras.

PUBLIC WORKS.

Dated May, 31*st*.

Recd. *Encl.*

G.O., 31st May 1886, No. 439 R.

MAY.

Hindupur Extension

Letter from the Government of India forwarding copy of a note by Mr. Molesworth on the project for the — and asking for a revised abstract estimate of cost of the line prepared on the basis of Mr. Molesworth's recommendations, communicated to the Engineer-in-Chief, Bellary-Kistna State Railway.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Railway.

Read again the following paper :—

G.O., dated 11th September 1886, No. 705 R., Public Works.

Read—the following letter from Colonel W. S. TREVOR, R.E., Secretary to the Government of India, Public Works Department (Railway—Construction), to the Secretary to the Government of Madras, Public Works Department, dated Simla, 2nd September 1886, No. 704 R.C. :—

In continuation of previous correspondence ending with Public Works Department No. 627 R.C., of the 4th August 1886, I am directed to forward, herewith, for information, copy of Railway despatch, No. 65, of the 29th July 1886, from Her Majesty's Secretary of State for India, and to say that the Government of India awaits receipt of the revised estimate for the Hindupur extension prepared in accordance with the instructions contained in Public Works Department No. 387 R.C., of the 18th May 1886, in order to reply to the despatch.

ENCLOSURE.

Despatch from the Right Honorable the EARL of KIMBERLEY, Her Majesty's Secretary of State for India, to His Excellency the Right Honorable the Governor-General of India in Council, dated India Office, London, 29th July 1886, No. 65, Railway.

I have received your Excellency's Railway letter, No. 81, of the 4th June 1886, forwarding estimates of the cost of the Hindupur extension of the Bellary-Kistna Railway.

Estimates of cost of the Hindupur extension of the Bellary-Kistna Railway.

2. The line starts from the Guntakal Junction on the Madras Railway, and proceeds southwards to Hindupur, a distance of about 111 miles, and is estimated to cost Rs. 58,79,571, or Rs. 52,969 per mile. From this outlay, however, are omitted charges for establishment, rolling stock, plant, and workshops, which would bring the rate up to about Rs. 64,000 ; but the estimate is, in the opinion of your Consulting Engineer for State Railways, susceptible of reduction under certain heads, bringing the mileage rate down to about Rs. 59,000, or a total estimated cost of Rs. 65,49,000, exchange being calculated at two shillings per rupee on the English expenditure.

3. As the indirect charges have been omitted, your Government have called upon the Government of Madras to furnish those charges, together with a revised abstract of the general estimate, taking cognizance of Mr. Molesworth's recommendations, and introducing exchange at 1*s*. 6*d*. under the proper heads of the estimate.

4. Although this will alter the mileage rate very considerably, you express your belief that there is sufficient evidence in the papers to give me a clear insight into the probable cost of the railway, and to enable me to give a general sanction to it ; observing "that the work of construction can then be put in hand as soon as funds become available under the arrangements contemplated in your Financial letter, No. 264, of 22nd September 1885, or any modification of them which may hereafter be in due course adopted."

5. Under those arrangements, however, it is not probable that money will be available until the date mentioned in your letter above referred to, viz., 1888-89, and, considering it desirable as a rule that complete estimates should be furnished before the sanction of the Secretary of State in Council is given to a work, I propose to defer that sanction in this case until the estimates now in course of preparation are received.

Order—dated 11th September 1886, No. 705 R., Public Works.

Communicated to the Engineer-in-Chief, Bellary-Kistna State Railway, who is requested to submit, *as early as possible*, the revised abstract estimate of the cost of the Hindupur extension called for in proceedings, No. 439 R., dated 31st May 1886.

(Signed) C. J. SMITH, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Railway Branch.

Read also the following papers:—

From the Engineer-in-Chief, Bellary-Kistna State Railway, dated 14th Sept. 1886, No. 4417.
" " " " " 9th Oct. " " 4849.

From A. B. SAMPSON, Esq., Under Secretary to the Government of India, Public Works Department (Railway—Construction), to the Secretary to the Government of Madras, Public Works Department, dated Simla, 11th October 1886, No. 801 R.C.

With reference to previous correspondence on the subject of the revised estimate for the Hindupur extension ending with Public Works Department No. 704 R.C., of the 2nd September 1886, I am directed to say that the Government of India will be glad if, with the permission of the Government of Madras, the revised estimate is prepared under the orders of Mr. Geoghegan, the Engineer-in-Chief, Madras Railway Surveys, as the Engineer-in-Chief of the Bellary-Kistna Railway is now fully employed in looking after the construction of that line.

ORDER—dated 18th October 1886, No. 777 R., Public Works.

Communicated to the Engineer-in-Chief, Madras State Railway Surveys, who is accordingly requested to furnish the revised estimate of the Hindupur extension prepared on the basis of Mr. Molesworth's recommendations embodied in Public Works Department letter, No. 387 R.C., dated 18th May 1886.

G.O., No. 439 R., dated 31st May 1886.

(True Extract.)

(Signed) C. J. SMITH, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Railway Branch.

To the Engineer-in-Chief, Madras State Railway Surveys.
" Consulting Engineer for Railways.
" Examiner, State Railway Accounts.
" Engineer-in-Chief, Bellary-Kistna State Railway.

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RAILWAY.

Govt. of {1886} Madras.

PUBLIC WORKS.

Dated October, 18*th*.

Recd. *Encl.*

G.O., 18th Oct. 1886, No. 777 R.

OCTOBER.

Hindupur Extension

Letter from the Government of India requesting the revised estimate for the — to be prepared under the orders of the Engineer-in-Chief, Madras State Railway Surveys, instead of the Engineer-in-Chief, Bellary-Kistna State Railway, communicated to the Engineer-in-Chief, Madras State Railway Surveys.

28th May 1886, No. 434 R., Public Works.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Railway.

Read the following paper:—

From the Engineer-in-Chief, Bellary-Kistna and Cuddapah-Nellore State Railways, to the Joint Secretary to Government, Public Works Department, Railway Branch, dated Bellary, 14th May 1886, No. 2127.

With reference to Government of India telegram, dated 8th April 1886, and correspondence ending with this office No. 2027, of 7th instant, I have the honor to submit, herewith, revised general abstract for the Hindupur extension railway, accompanied by a statement of the indirect charges and probable net charges for interest in connection with the project.

Enclosures.

Hindupur Extension.

Revised General Abstract Estimate.

Main heads.	Minor heads.	Average per mile.	Pennair division, 48 miles.	Penukonda division, 63 miles.	Total 111.
		Rs.	Rs.	Rs.	Rs.
I. Preliminary expenses.	Survey expenses	285	13,678	17,952	31,630
	Plant				
	Establishment				
	Total ..	285	13,678	17,952	31,630
II. Land	Land	500	24,000	31,500	55,500
III. Construction of line.	Earthwork	9,444	3,35,813	7,12,408	10,48,221
	Bridgework	15,729	11,49,004	5,96,957	17,45,961
	Tunnels	*Nil.*	*Nil.*	*Nil.*	*Nil.*
	Level crossings	1,433	68,240	90,885	1,59,125
	Fencing	*Nil.*	*Nil.*	*Nil.*	*Nil.*
	Electric telegraph	1,002	48,000	63,250	1,11,250
	Total ..	27,608	16,01,057	14,63,500	30,64,557
IV. Ballast and permanent-way.	Ballast	2,937	1,41,039	1,84,948	3,25,987
	Permanent-way	19,600	9,09,860	12,65,751	21,75,611
	Total ..	22,537	10,50,899	14,50,699	25,01,598
V. Stations and buildings.	Stations and offices	2,114	66,105	1,68,594	2,34,699
	Workshop and store buildings ..	*Nil.*	*Nil.*	*Nil.*	*Nil.*
	Staff quarters	1,357	41,472	1,09,136	1,50,608
	Station machinery	681	23,606	52,050	75,656
	Total ..	4,152	1,31,183	3,29,780	4,60,963
VI. Plant	Engineering	..	..	..	..
	Locomotive	..	..	..	..
	Carriage and wagon	2,900	..	..	3,21,900
	Station and office furniture	..	..	..	..
	Total ..	2,900	..	..	3,21,900
VII. Steam ferries ..	Steam ferries	*Nil.*	..	..	*Nil.*
VIII. Rolling stock ..	Locomotive stock	..	..	..	..
	Carriage and wagon	5,760	..	..	6,39,450
	Total ..	5,760	..	..	6,39,450
IX. Establishment ..	Establishment	5,340	..	..	5,92,740
	Grand Total ..	69,082	28,20,817	32,93,431	76,68,338

(Signed) R. SIVEWRIGHT,
for Engineer-in-Chief, Bellary-Kistna and Cuddapah-Nellore State Railways.

Forecast or estimate of financial prospects to accompany detailed estimates of the Hindupur extension railway.

No. I.

Summary of the estimated charges to Capital Account.

Year.	Works including tools and plant.	Establishment.	Total.
1	2	3	4
	RS.	RS.	RS.
First	35,54,614	2,96,370	38,50,984
Second	35,20,984	2,96,370	38,50,984
Total ...	70,75,598	5,92,740	76,68,338

Note.—If the works are vigorously carried on, it is considered that two years from date of commencement will be sufficient to complete the line.

No. II.

Summary of the estimated indirect charges to Capital (excluding direct).

Year.	Capitalization of abatement of land revenue.	Loss by exchange.	Leave and pension allowances.	Total.
1	2	3	4	5
	RS.	RS.	RS.	RS.
First	55,500	...	42,340	97,840
Second	...	...	42,340	42,340
	(*a*)	(*b*)	(*c*)	
Total ..	55,500	...	84,680	1,40,180

(*a*) Capitalization of abatement of land revenue has been put down at the same figure as the compensation for land.
(*b*) No provision necessary, as under recent orders exchange on all payments made in England for stores for State Railways after 1st April 1886 will be brought into the Indian accounts as direct expenditure.
(*c*) The figures in column 4 are calculated at $14\frac{2}{7}$ per cent. (one-seventh) on the corresponding figures in column 3 of table No. 1.

No. III.

Estimate of length of line open to traffic and Revenue receipts and charges to the end of the fifth year after completion.

Year.	Length of line open to traffic at end of year.	Revenue Receipts and Charges.		
		Gross receipts.	Charges, both direct and indirect.	Net receipts.
		RS.	RS.	RS.
First	...	...	...	...
Second	...	...	...	...
Third	111	2,88,600	2,30,880	57,720
Fourth	111	3,46,320	2,59,740	86,580
Fifth	111	4,32,900	3,03,030	1,29,870
Sixth	111	5,62,770	3,37,662	2,25,108
Seventh	111	7,87,878	3,93,939	3,93,939

No. IV.

Estimate of net financial results five years after the probable date of completion of the railway.

Year.	Direct Capital outlay during the year.	Direct Capital outlay to end of the year.	Simple interest on Capital outlay.	Net receipts.	Simple interest in excess of net receipts.	Net receipts in excess of simple interest.
	RS.	RS.	RS.	RS.	RS.	RS.
First	38,50,984	38,50,984	77,000	..	77,000	..
Second	38,17,354	76,68,338	2,30,000	..	2,30,000	..
Third	..	76,68,338	3,06,000	57,720	2,48,280	..
Fourth	..	76,68,338	3,06,000	86,580	2,19,420	..
Fifth	..	76,68,338	3,06,000	1,29,870	1,76,130	..
Sixth	..	76,68,338	3,06,000	2,25,108	80,892	..
Seventh	..	76,68,338	3,06,000	3,93,939	..	87,939
Total ..	76,68,338	4,98,61,012	18,37,000	8,93,217	10,31,722	87,939

BELLARY,
14th May 1886.

(Signed) R. SIVEWRIGHT,
for Engineer-in-Chief, Bellary-Kistna and Cuddapah-Nellore State Railways.

ORDER—dated 28th May 1886, No. 434 R., Public Works.

Ordered to be forwarded to the Government of India, with reference to their telegram dated 8th April 1886.

(Here enter No. 435 R., dated 28th May 1886.)

(True Extract.)

(Signed) W. H. COAKER, Major, R.E.,
Ag. Joint Secy. to Govt., P.W.D.,
Railway Branch.

To the Consulting Engineer for Railways.
,, Engineer-in-Chief, Madras State Railway Surveys.
,, ,, Bellary-Kistna State Railway.
,, Examiner, State Railway Accounts.

Exd. E. Fernandez.
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RAILWAY.

Govt. of {1886} Madras.

PUBLIC WORKS.

Dated May, 28th.

Recd. *Encl.*

G.O., 28th May 1886, No. 434 R.

MAY.

Hindupur Extension

Ordered that the revised general abstract for the —, with the statement of indirect charges and probable net charges for interest, be forwarded to the Government of India.

19TH FEBRUARY 1886, No. $\frac{161 \text{ R.}}{\text{A}}$, PUBLIC WORKS.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Railway.

Read the following papers: —

Office note from the Secretary to Government, Revenue Department, dated 17th Feb. 1886, No. 11.

ENCLOSURE.

STATEMENT showing cultivable waste (in taluk detail) available for occupation in the Anantapur district.

Taluks.	Total population as per census of 1881.	Agricultural population as per census of 1881.	Total Area.	Total cultivable Government Area.		
				Dry.	Wet.	Total.
1	2	3	4	5	6	7
	NO.	NO.	ACS.	ACS.	ACS.	ACS.
1. Gooty	110,597	42,277	646,400	359,775	10,783	370,558
2. Tádpatri	98,964	39,722	378,240	191,812	6,871	198,683
3. Anantapur	91,816	40,739	555,520	312,973	18,604	331,577
4. Dharmavaram	97,106	43,504	762,880	540,996	15,576	556,572
5. Penukonda	73,023	35,051	419,200	201,708	16,715	218,423
6. Hindupur	73,270	35,084	272,000	193,532	19,818	213,350
7. Madaksíra	55,113	26,642	231,680	221,728	17,437	239,165
Total ..	599,889	263,019	* 3,265,920	2,022,524	105,804	2,128,328

Taluks.	Occupied area (Government) Fasli 1294 (1884-85).	Cultivated Area (1st Crop) Fasli 1294 (1884-85).			Cultivable waste available for occupation (*i.e.*, columns 7 and 8).
		Dry.	Wet.	Total.	
	8	9	10	11	12
	ACS.	ACS.	ACS.	ACS.	ACS.
1. Gooty	199,660	156,253	3,873	160,126	170,898
2. Tádpatri	155,885	136,053	5,086	141,139	42,798
3. Anantapur	145,191	113,904	5,670	119,574	186,386
4. Dharmavaram	163,213	121,528	5,206	126,734	393,359
5. Penukonda	83,169	48,115	7,627	55,742	135,254
6. Hindupur	65,302	31,447	12,364	43,811	148,048
7. Madaksíra	64,107	25,977	6,185	32,162	175,058
Total ..	876,527	633,277	46,011	679,288	1,251,801

* This is equal to 5,103 square miles, the area of the district given in the statement of divisional charges.

(Signed) J. F. PRICE,
Acting Secretary to Government.

From H. LAMBERT, Esq., Engineer-in-Chief, Bellary-Kistna State Railway, to the Consulting Engineer for Railways, dated Bellary, 24th October 1885, No. 4430.

I have the honor to advise despatch of a parcel, containing the working project for the Hindupur extension of this line, for submission to the Government of India.

2. It starts as a tangent to the curve on which the Guntakal junction is approached by the line from the Kistna, after it crosses the Madras Railway by an overbridge. It is proposed to carry an independent line of rails for the extension, paralled to that

approach, to such point as may be found most convenient for the working of the switch, in connection with the general arrangements of the station. The project for the Guntakal junction being already sanctioned by the Secretary of State, is finally disposed of, so that no further reference is needed here.

3. One of the chief features of the line, and one of the most troublesome, was to secure the most advantageous course between Guntakal and the site selected for the Pennér bridge. Several routes were reconnoitred in the hope that work would be saved by detours, but eventually the Chintalampalli gorge was found to give the best passage through the hills, and the line has been set out so as to avoid expensive works. The summit level occurs at 5 miles from Guntakal, and the fall thence to the Pennér bridge formation, which begins at 23 miles, is 595 feet. Of this, 8 miles are on the ruling gradient of 1 in 100, but broken up into several lengths, so that the incline will not be severe. There is no curve of less radius than 600 feet.

4. For the Pennér bridge, it is proposed to adopt fifteen clear spans of 100 feet, composed of triangulated girders, carrying the road on the bottom boom, and resting on stone piers, founded at low-water level. Below this point, rock is available at a depth of 40 feet, and two wells of 12½ feet external diameter per pier will be sunk thereto on wrought-iron curbs. The abutments will be similar to the piers, and each wing will be on four 10-feet wells, sunk to the rock also. All the wells in each group will be filled with concrete, and connected by diminishing arches founded at low-water level.

5. The Pennér river is for the greater part of the year a sandy waste, and the water stands about 6 feet below the bed. During ordinary flood seasons, it rises about 4 feet above the bed for a short time, as shown by the blue color on plan. At recurring intervals of several years, when an abnormal rainfall occurs in the Mysore territory, a great volume of water suddenly pours down into the plains, rolling along the bed at a high velocity, over-flowing the low and ill-defined banks, and carrying all before it. These periodical floods occur so unexpectedly and pass away so rapidly, that no reliable observation of them appears to have been heretofore possible. The Madras Railway crosses the river some 30 miles lower down, and the Company's works suffered by one of these exceptional floods several years ago; but none have occurred since, and, as regards this project, there has been no opportunity of observing anything of the kind.

6. From all the inquiries that could be made, it appears that in the year 1851 the highest flood occurred at bridge site of which there is any recollection among the people of the village of Pamidi, about a mile distant. On that occasion, the water is stated to have extended to the blue dotted line on the northern bank, but it is said that nobody has ever seen the southern bank submerged below the chain of rocky hills abutting on the river. On the up-stream side thereof, an extension area is over-flowed and the effect of these hills is to deflect the current across to the northern bank, just above the bridge site, thus producing the flooded area shown by the dotted blue line above referred to. The scour caused by the escape of this flood water has lowered the surface of the land at some distance back from the ordinary bank of the stream to the level of the river bed, and the more the current cuts back above the southern hills, the more such diagonal tendency will increase. To counteract this and to confine the river to a channel sufficient for its requirements, a massive embankment is designed extending from the northern abutment, to the rocky spur up-stream, situated at a distance of 6,000 feet. This training work is provided on the river face with a very flat and well turfed slope, and the down stream half, adjoining the abutment, which will encounter the brunt of the current, will be protected with a pile of stone filling, which will immediately sink into the scour trench, and prevent its advance beyond a desired point. The main current during high floods will then take the direction indicated by the double-shafted arrow. The up-stream half adjoining the rocks, and on comparatively high ground, has been already constructed as a famine work with material available close by. It will not, however, be possible to pursue this arrangement for the down-stream half, as no excavation can be permitted there, besides which, the material is unsuitable. This

part of the work must be done by ballast train on a tramway, which will also be needed to convey building material to the bridge.

7. In order to dispose of the drainage on the northern shore, which would be intercepted by the railway embankment and the training work, a nullah diversion has been designed, as shown by a red line, crossing the railway near the Hindu temple by a 60-feet girder bridge with a rock foundation. This diversion has also been executed as a famine work.

8. The Pennér rises about 14 feet during the highest floods. The sand scours before it, but not to the same extent as in the rivers of Upper India, as it is of a coarser description. A filling of loose stone is proposed around each pier and abutment to counteract any scour that may occur. The total cost of crossing this river was assumed in the reconnaissance report at about six lakhs, which was sufficiently correct. The working estimate is Rs. 6,52,954. There seems nothing further to add regarding this bridge, which is the only one of consequence, except to observe that the Consulting Engineer to the Government of India has recorded his opinion that the site has been well chosen.

9. The line on to Anantapur, which occurs at mile 42, is in easy country, requiring ordinary works only. There is a civil station here and a town of some importance, but there are no special features calling for remark.

10. Nothing worthy of note occurs up to Dharmavaram, mile 63. It is proposed to effect a junction here with the projected line to Madanapalle and Tirupati. The rise from the Pennér to Dharmavaram, 38 miles, is 201 feet, but onwards, the ascent becomes more rapid. Up to Penukonda, mile 88, there are no works worth mentioning. Every advantage has been taken of the ground to avoid expense, and the line is very favorable. Bridge foundations are generally good, and where the contrary is the case, single wells on iron curbs, without abutments, have been adopted as the cheapest arrangement. The rise from Dharmavaram to Penukonda, 25 miles, is 569 feet.

11. Penukonda is a town of some importance and is a subordinate civil station. Here the ghât begins by which the Hindupur plateau is approached. It was noted in the reconnaissance report that no definite opinion could then be given about it as, owing to the haste with which the report was called for, there was not time to investigate the matter properly. The ground is very difficult, but a good line has eventually been secured to the west of the Penukonda hills, and the ruling gradient of 1 in 100 has been preserved without expensive works and with curves not less than 636 feet radius. There are about 5½ miles of 1 in 100 in three sections, with intervening levels, so that the incline of 6 miles will be easily worked.

12 From the top of the ghât on to the Hindupur terminus, the country is undulating, but presents no difficulty. The summit level of the line, 2,088 feet above sea, occurs at mile 100. At mile 108—10 the line runs for a couple of miles through a large tank in approaching Hindupur, but keeps about a mile from the deepest part. The slopes throughout will have to be pitched to resist the action of waves. The ground between the tank and the Pennér river is bad, and the tank bund is unreliable, so that there was no alternative as regards this expense.

13. The line, as reconnoitred and roughly estimated under the original orders, was assumed at 119 miles, but in the working survey it has been found possible to reduce it to 111 miles, and the Consulting Engineer, after inspecting the alignment finally decided on, has recorded his opinion that it cannot be improved. There are 12 stations between Guntakal and Hindupur, averaging 8 miles apart.

14. It may be desirable here to make a few comparisons between the reconnaissance and the working project, for which purpose the sections marked by the leading points noted in the former will be followed. Thus, from Guntakal to Anantapur, the average bank and cutting was assumed at 5 feet for 64 per cent., 10 feet for 25 per cent., and 20 feet for 11 per cent. The actual average is 5¼ throughout. Minor bridges and culverts were assumed at 40 lineal feet of waterway per mile; actual 34 feet. For major bridges exclusive of the Pennér, which remains the same, the total waterway was assumed at 1,350 lineal feet; actual 2,900.

15. From Anantapur to Dharmavaram, the average bank and cutting was taken at 5 feet for 80 per cent. and 10 feet for 20 per cent.; actual average throughout 4¾. Minor bridges per mile in lineal feet of waterway 40, actual 27; total lineal waterway of major bridges 1,900 feet, actual 480.

16. From Dharmavaram to Penukonda, the average bank and cutting was assumed as 10 feet for 27 per cent., 5 feet for 64 per cent., and 20 feet for 9 per cent.; actual average throughout 5½ feet. Minor bridges in lineal feet of waterway per mile 30 feet, actual 34; total lineal waterway in major bridges 350 feet, actual *nil*.

17. As mentioned in paragraph 11, no opinion could be given on the Penukonda ghât during the reconnaissance on account of undue haste, but 5 feet bank and cutting was assumed for two-thirds of the distance between Penukonda and Hindupur. The actual average for the whole distance is 9¼ feet, assumed average lineal feet of waterway in minor bridges per mile 30 feet, actual 25; assumed total lineal feet in major bridges 300 feet, actual 740.

18. Villages being far apart, and population and cattle scarce, fencing has been omitted except at stations and level crossings, the cost of which has been charged under those heads. This adds Rs. 2,000 to the total cost of each station, which would appear cheaper by that amount if the line were fenced. This should be borne in mind, as it is not a usual charge to the main head of stations.

19. Watering arrangements have been provided at foot of the Pennér and Penukonda inclines, where the tenders must necessarily be filled; also of course at the Hindupur terminus and Dharmavaram junction. It has been further considered essential to have a supply of water at Anantapur. At all other stations, no water has been provided, with a view to reducing the cost of the line, though, as few wells in this part of the country can be relied on to yield more than a small quantity at a time, it is probable that one will by and by have to be sunk at every station. So, again, in the case of station accommodation, half types have been adopted at minor stations, where the stationmaster will probably have to be his own signaller, and where the traffic will be small. The half can afterwards be increased to full types, without interfering with what has been already done, in cases where circumstances require it. For the more important stations, full types have been provided for as shown in the tabular return of stations annexed.

20. The estimated cost under all heads of construction is as follows:—

Main and sub heads of account.	Average per mile.	Pennér.	Penukonda.	Total.
		RS.	RS.	RS.
Preliminary expenses	285	13,678	17,952	31,630
Land	500	24,000	31,500	55,500
Earthwork	9,444	3,35,813	7,12,408	10,48,221
Bridge-work	15,172	10,98,704	5,85,257	16,83,961
Tunnels	...	...	...	...
Level-crossings	1,433	68,240	90,885	1,59,125
Fencings	...	...	...	...
Electric telegraph	1,002	48,000	63,250	1,11,250
Ballast	2,937	1,41,039	1,84,948	3,25,987
Permanent-way	18,044	8,35,430	11,67,504	20,02,934
Stations and offices	2,114	66,105	1,68,594	2,34,699
Station machinery	681	23,606	52,050	75,656
Staff quarters	1,357	41,472	1,09,136	1,50,608
Workshops and store buildings	...	...	...	...
Total, construction account ...	52,969	26,96,087	31,83,484	58,79,571

21. The reconnaissance estimate was prepared for the whole line, but it was afterwards decided to sanction the construction of the part north of Guntakal only, and the assumed cost thereof was therefore separated from the total as nearly as could be done. Hence, the portion south of Guntakal acquired the name of the "Hindupur Extension" in order to distinguish it from the rest. The balance remaining for its construction account under this arrangement thus becomes Rs. 54,92,984, or Rs. 49,486 per mile. The actual working estimate amounts to Rs. 52,969 per mile, or Rs. 3,483 more than the forecast, which shows that the latter was a fair approximation to the truth, considering the way it was hurried, and the nature of the country dealt with.

22. When the Mysore Railway system has been extended to Hindupur, a very considerable traffic may be expected, and assuming this to be accomplished simultaneously with the works now under discussion, an estimate for the general main-head of rolling stock is added, amounting to Rs. 5,760 per mile. This will probably suffice, but in the absence of any traffic statistics, it is merely suggested as likely to meet the requirements of the case. Until communication is effected with Bangalore, the traffic in such a poor country is not likely to require much rolling stock.

23. So, again, of the other two general main-heads, viz., plant and establishment, there is so much uncertainty regarding the time which will be expended in the construction of the line, that no reliable detailed estimate of them can at present be prepared. Judging from the depreciation and waste now going on north of Guntakal, owing to the unavoidable stoppage of the works, it is in fact doubtful what reliance can be placed on estimates of any description. It is understood that the Mahratta Railway Company are about to take over the Bellary Branch of the Madras Railway, and also the Mysore lines. The Hindupur extension would then naturally come within their system, and if they should be disposed to incorporate it therein, it would become possible to see the way to its completion more clearly at an estimated rate in time and money. In the reconnaissance report, the aggregate of the three general main heads of plant, rolling stock, and establishment, was taken at Rs. 14,000 per mile throughout, and this, under ordinary circumstances, will be sufficient, thus bringing the total mileage rate to Rs. 66,969.

24. The general characteristics of the country traversed by the line have been already described in the forecast of the scheme, so that it is unnecessary to enter into the subject again. It will always be liable to famine, and there has been a narrow escape from one this year. During the scarcity which prevailed, about one-third of the earthwork was executed in the most convenient places, as a relief undertaking, in anticipation of sanction to the complete scheme by the Secretary of State.

Endorsement on the above.

No. 194 A.

Transferred to the Joint Secretary to Government, Public Works Department, Railway Branch.

19th February 1886.

ORDER—dated 19th February 1886, No. 161 R./A, Public Works.

Ordered that the following letter be addressed to the Government of India:—

(Here enter No. 162 R., dated 19th February 1886.)

(True Extract.)

(Signed) C. J. SMITH, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Railway Branch.

To the Consulting Engineer for Railways.
" Engineer-in-Chief, Madras State Railway Surveys.
" " " Bellary-Kistna State Railway.
" Examiner, State Railway Accounts.

Exd. E. Fernandez.

Spare Copies

RAILWAY.

Govt. of {1886} Madras.

PUBLIC WORKS.

Datea February, 19*th*.

Recd. *Encl.*

G.O., 19th Feb. 1886, No. 161 R. A

FEBRUARY.

Railway Line from Guntakal Junction, on the Madras Railway, to Hindupur

Ordered that the Government of India be addressed on the subject of the extension of the —.

FINAL ISSUE.

MADRAS STATE RAILWAYS.

CAPITAL BUDGET ESTIMATE

OF THE

HINDUPUR EXTENSION SURVEY

FOR THE YEAR

1885-86.

HINDUPUR EXTENSION SURVEY.

Abstract Budget Estimate (Capital) for the Year 1885-86.

Main and minor heads of account.	Budget grant, 1884-85.	Expenditure.					Sanctioned estimate.
		Revised estimate, 1884-85.	Estimate during 1885-86.	Incurred to end of 1883-84.	Total	Future years.	
Construction Accounts.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
I.—Preliminary expenses—							
Survey expenses	..	10,736	..	..	10,736	..	..
Plant	..	872	..	..	872	..	..
Establishment	..	20,392	..	..	20,392	..	..
Total, Preliminary expenses ..	..	32,000	..	..	32,000	..	..
II.—Land	..	..	..	..	..	..	..
III.—Construction of line—							
Earthwork	..	..	..	..	..	..	..
Bridgework	..	..	..	..	..	..	..
Tunnels	..	..	..	..	..	..	..
Level crossings, huts, &c. ..	..	..	..	..	..	..	..
Fencing	..	..	..	..	..	..	..
Electric telegraph ..	..	..	..	..	..	..	..
Total, Construction of line ..	..	..	..	..	..	..	..
IV.—Ballast and permanent-way—							
Ballasting	..	..	..	..	..	..	..
Permanent-way	..	..	..	..	..	..	..
Total, Ballasting and permanent-way	..	..	..	..	..	..	..
V.—Stations and buildings—							
Stations and offices ..	..	..	..	..	..	..	..
Workshops, store buildings, &c.	..	..	..	..	..	..	..
Staff quarters	..	..	..	..	..	..	..
Station machinery ..	..	..	..	..	..	..	..
Total, Stations and buildings ..	..	..	..	..	..	..	..
Total, Construction Accounts ..	..	32,000	..	..	32,000	..	..
VI.—Plant—							
Engineering	..	..	..	..	..	..	..
Locomotive	..	..	..	..	..	..	..
Carriage and wagon ..	..	..	..	..	..	..	..
Station and office furniture.	..	..	..	..	..	..	..
Total, Plant ..	..	..	..	..	..	..	..
VII.—Steam ferries	..	..	..	..	..	..	..
VIII.—Rolling stock—							
Locomotive	..	..	..	..	..	..	..
Carriage and wagon ..	..	..	..	..	..	..	..
Total, Rolling stock ..	..	..	..	..	..	..	..
IX.—Establishment as per Schedule A	..	..	..	..	..	..	..
Total, Final heads ..	..	32,000	..	..	32,000	..	..
Suspense account as per Schedule B	..	..	..	..	..	..	..
Grand Total ..	..	32,000	..	..	32,000	..	..
Deduct receipts on capital account	..	..	..	..	..	..	..
Balance	..	32,000	..	..	32,000	..	..
Deduct on account of expenditure in England for charges incurred in England	..	..	..	..	..	..	..
Net Indian expenditure ..	..	32,000	..	..	32,000	..	..

Bellary,
15th April 1885.

(Signed) H LAMBERT,
Engineer-in-Chief.

ESTIMATE of Establishment of the Hindupur Extension Survey for the Year 1884-85.

Designation.	Rate of salary.	Amount of salary.	Total.	Remarks.
	Rs.	Rs.	Rs.	
DIRECTION.				
Engineer-in-Chief and office establishment.	...	...	2,200	
Travelling allowance and contingencies ...	...	...	300	
Total, Direction ...	...	...	2,500	
ENGINEERING DEPARTMENT.				
Engineer's' Establishment.				
1 Executive Engineer from 17th May to 11th July 1884	770	1,435		
Sick leave pay three months	385	1,155	2,590	W. Walnutt.
1 Executive Engineer, 4th grade, July to September 1884	550	1,650		
1 Assistant Engineer, 1st grade, October to December 1884	450	1,350		
1 Executive Engineer, 4th grade, January to March 1885	600	1,800	4,800	Baboo Shio Dyal
1 Assistant Engineer, temporary, 15th September 1884 to 31st March 1885 ...	350	...	2,287	H. B. Young.
1 Assistant Engineer, temporary, 11th October 1884 to 31st March 1885 ...	450	...	2,555	A. Goodwin.
Total, Engineers' Establishment ...	...	...	12,232	
Office Establishment.				
1 Clerk from 6th June 1884 to 31st March 1885	30	295		
1 Draftsman from 22nd August 1884 to 31st March 1885	60	440		
3 Chuprassies from June 1884 to 31st March 1885	7	210		
1 Chowkidar from August 1884 to 31st March 1885	7	70		
Total, Office Establishment ...	...	...	1,015	
Travelling allowance	...	...	4,000	
Contingencies	...	...	150	
Total, Engineering Department ...	...	...	17,397	
MEDICAL AND SANITATION.				
1 Hospital Assistant from July 1884 to March 1885	55	495	...	
Total, Medical and Sanitation ...	...	...	495	
Grand Total ...	...	...	20,392	

RECEIPTS. HINDUPUR EXTENSION SURVEY. CHARGES.

ESTIMATED Account of Receipts and Charges of the State Railway Capital for the Years 1884-85 and 1885-86.

Accounts.	Revised Estimate, 1884-85. Amount.	Revised Estimate, 1884-85. Total.	Estimate, 1885-86.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
To Balance—			
Cash in departmental treasuries	..	..	..
To Civil Department—			
II. Remittances from Civil to Public Works Department—			
Cheques of Public Works Department officers	..		..
III. Items adjustable by Civil Department—			
Service Fund and subscriptions ..	..		..
Subscriptions to General Pension Family Fund	..		..
Gain by exchange	..		..
Transfers—Miscellaneous ..	..		..
IV. Items adjustable by Public Works Department—			
Payment for land for Railway purposes	..		..
Supplies from Forest Department.	..		..
Transfers—Miscellaneous ..	..		..
To Central adjusting account	..		..
,, Guaranteed Railways	..		..
,, Telegraph Department	..		..
,, Transfers of the Public Works Department—			
Divisional	32,061 0 0		..
Buildings and Roads	25 0 0		..
Irrigation	..		..
State Railways. { Capital	..		..
State Railways. { Revenue	..	32,086 0 0	..
To London account—			..
Stores	..		..
Miscellaneous	..		..
To Suspense account not affecting the Budget grant—			..
Deposits	..		..
Grand Total ..	..	32,086 0 0	..

Accounts.	Revised Estimate, 1884-85. Amount.	Revised Estimate, 1884-85. Total.	Estimate, 1885-86.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
By Civil Department—			
I. Remittances to Civil from Public Works Department—			
Payments into treasuries by officers of the Public Works Department.	..		..
III. Items adjustable by Civil Department—			
Supplies to Forest Department ..	..		..
Transfers—Miscellaneous ..	..		
IV. Items adjustable by Public Works Department—			
Contributions in aid of Public Works	..		..
Transfers—Miscellaneous ...	..		..
By Central adjusting account	..		..
,, Guaranteed Railways	..		..
,, Telegraph Department	..		..
,, Transfers of the Public Works Department—			
Divisional	86 0 0		..
Buildings and Roads	..		..
Irrigation	..		..
State Railways. { Capital	..		..
State Railways. { Revenue	..	86 0 0	..
By Suspense accounts not affecting the Budget grant—			..
Deposits	..		..
By expenditure against Imperial Budget grant—			..
52. Productive Public Works	..		..
42. Ordinary	32,000 0 0	32,000 0 0	..
33. Protective Works	..		..
Total, Charges ..	..	32,086 0 0	..
By Balance—			..
Cash in departmental treasuries	..	..	..
Grand Total ..	..	32,086 0 0	..

BELLARY,
15th April 1885.

(Signed) A. GRANT,
Deputy Examiner of Accounts,
in charge of Madras State Railway Accounts.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Railway.

Read the following paper :—

Final issue of the Capital budget estimate of the Hindupur Extension Survey for the year 1885-86.

ORDER—dated 2nd May 1885, No. 485 R., Public Works.

Ordered to be forwarded to the Government of India, with reference to their resolution, No. 266 R.A., dated 18th March 1885.

(Here enter No. 486 R., dated 2nd May 1885.)

(True Extract.)

(Signed) C. J. SMITH, Lieut.-Col., R.E.,
Joint Secy. to Govt., P.W.D.,
Railway Branch.

To the Financial Department.
" Consulting Engineer for Railways.
" Engineer-in-Chief, Madras State Railway Surveys.
" Examiner, State Railway Accounts.

ENDORSEMENT—dated 2nd May 1885, No. 486 R., Public Works.

Forwarded accordingly.

(Signed) C. J. SMITH, Lieut.-Col., R.E.,
Joint Secy. to Govt., P.W.D.,
Railway Branch.

Exd. E. Fernandez.
Spare Copies

RAILWAY.

Govt. of {1885} Madras.

PUBLIC WORKS.

Dated May, 2nd.

Recd. *Encl.*

G.O., 2nd May 1885, No. 486 R.

MAY.

Hindupur Extension Survey

Forwarding final issue of the Capital budget estimate of the — for 1885-86.

6. No provision is made for the Hindupur Extension Survey, as it is reported that this survey will be completed in 1884-85.

7. The final issue of these estimates should be prepared for the amounts passed and submitted to the Government of India, not later than the 1st May next.

ORDER.—Ordered, that a copy be forwarded to the Government of Madras, Public Works Department, for information, with the request that 35 printed copies* of the final issue of these estimates, as now passed, may be submitted in the usual course.

* 10 copies to Simla and the remainder to Calcutta

W. S. TREVOR, Colonel., R. E.,

Secy. to the Govt. of India.

No. 266 R. A.

GOVERNMENT OF INDIA.

PUBLIC WORKS DEPARTMENT.

RAILWAY ACOUNT.

Fort William, March 18, 1885.

Capital Revised Estimate for 1884-85 and Budget Estimate for 1885-86 of *Imperial Railway Surveys in Madras.*

Read again—

Public Works Department Resolution No. 17 R. A. of 12th March 1885.

Read also—

Telegrams, dated 10th and 16th February 1885, from the Government of Madras.

REVISED ESTIMATE, 1884-85.

RESOLUTION.—The Revised Estimates for 1884-85 are submitted for the following amounts :—

	Rs.
Tinnevelly-Quilon Survey	—6,372
Kadiri Extension Survey	54,400
Hindupur Extension Survey	31,630
Damalchera-Villupuram Survey	20,700

2. The credit of Rs. 6,372 against the Tinnevelly-Quilon Survey represents the share of the expenditure incurred on this survey during 1883-84 payable by the Travancore State.

3. With regard to the Damalchera-Villupuram Survey, a sum of Rs. 7,751 must be added to the amount reported to provide for the refund to the Madras Government of the outlay incurred by it from Provincial funds on this survey during 1883-84. This is not strictly in accordance with the request of the Madras Government to the effect that this refund should be arranged for in the official year 1885-86. But as that Government has already been informed, it is desirable that the refund should be made in the current official year. The adjustment should be carried out accordingly.

4. Judging from latest reports to hand, the Government of India considers that the outlay on the Kadiri Extension Survey will probably not exceed Rs. 50,000. With these remarks, the Revised Estimate is accepted by the Government of India, in round figures, for the following amounts :—

	Rs.
Tinnevelly-Quilon Survey	—6,000
Kadiri Extension Survey	50,000
Hindupur Extension Survey	32,000
Damalchera-Villupuram Survey	28,000

BUDGET ESTIMATE, 1885-86.

5. The Budget Estimates provide for the following outlay :—

	Rs.
Kadiri Extension Survey	66,800
Damalchera-Villupuram	50,700

and is accepted, in round figures, for—

	Rs.
Kadiri Extension Survey	67,000
Damalchera-Villupuram	50,000

GOVERNMENT OF INDIA.

PUBLIC WORKS DEPARTMENT.

RAILWAY ACCOUNT.

To

No. 266 R. A.

Dated March 18, 1885.

Received

IMPERIAL RAILWAY SURVEYS IN MADRAS.

Orders on the Capital Revised Estimates for 1884-85 and Budget Estimates for 1885-86.

No. 272, P. W. D. Press—19-3-85—105.

PUBLIC WORKS DEPARTMENT.

CAPITAL REVISED BUDGET ESTIMATE

OF THE

HINDUPUR EXTENSION

FOR THE YEAR

1884-85.

HINDUPUR EXTENSION SURVEY.

Abstract Budget Estimate (Capital) for the Year 1885-86.

Main and minor heads of account.	Budget grant, 1884-85.	Expenditure.					Sanctioned estimate.
		Revised estimate, 1884-85.	Estimate during 1885-86.	Incurred to end of 1883-84.	Total.	Future years.	
Construction Accounts.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
I.—Preliminary expenses—							
Survey expenses	..	10,366	..	..	..	..	..
Plant	..	872	..	..	..	..	..
Establishment	..	20,392	..	..	..	..	..
Total, Preliminary expenses ..	..	31,630	..	..	..	..	..
II.—Land	..	..	..	..	..	..	..
III.—Construction of line—							
Earthwork	..	..	..	..	..	..	..
Bridgework	..	..	..	..	..	..	..
Tunnels	..	..	..	..	..	..	..
Level-crosings, huts, &c. ..	..	..	..	..	..	..	..
Fencing	..	..	..	..	..	..	..
Electric telegraph ..	..	..	..	..	..	..	..
Total, Construction of line ..	..	..	..	..	..	..	..
IV.—Ballast and permanent-way—							
Ballasting	..	..	..	..	..	..	..
Permanent-way	..	..	..	..	..	..	..
Total, Ballasting and permanent-way	..	..	..	..	..	..	..
V.—Stations and buildings—							
Stations and offices ..	..	..	..	..	..	..	..
Workshops, store buildings, &c.	..	..	..	..	..	..	..
Staff quarters	..	..	..	..	..	..	..
Station machinery ..	..	..	..	..	..	..	..
Total, Stations and buildings.	..	..	..	..	..	..	..
Total, Construction accounts.	..	..	..	..	..	..	..
VI.—Plant—							
Engineering	..	..	..	..	..	..	..
Locomotive	..	..	..	..	..	..	..
Carriage and wagon ..	..	..	..	..	..	..	..
Station and office furniture..	..	..	..	..	..	..	..
Total, Plant ..	..	..	..	..	..	..	..
VII.—Steam ferries	..	..	..	..	..	..	..
VIII.—Rolling stock—							
Locomotive	..	..	..	..	..	..	..
Carriage and wagon ..	..	..	..	..	..	..	..
Total, Rolling stock ..	..	..	..	..	..	..	..
IX.—Establishment as per schedule A	..	..	..	..	..	..	..
Total, Final Heads ..	..	31,630	..	..	..	..	..
Suspense account as per schedule B	..	..	..	..	..	..	..
Grand Total ..	..	31,630	..	..	..	..	..
Deduct receipts on Capital Account	..	..	..	..	..	..	..
Balance	..	31,630	..	..	..	..	..
Deduct on account of expenditure in England for charges incurred in England ..	..	..	..	..	..	..	..
Net Indian expenditure ..	..	31,630	..	..	..	..	..

Bellary,
24th February 1885.

(Signed) H. LAMBERT,
Engineer-in-Chief.

ESTIMATE of the Hindupur Extension Survey for the Year 1884-85.

	Designation.	Rate of salary.	Amount of salary.	Total.	Remarks.
		RS.	RS.	RS.	
	DIRECTION.				
	Engineer-in-Chief and office establishment.	...	...	2,200	
	Travelling allowance and contingencies ...	...	...	300	
	Total, Direction ...	...	...	2,500	
	ENGINEERING DEPARTMENT.				
	Engineer's Establishment.				
1	Executive Engineer from 17th May to 11th July 1884	770	1,435		
	Sick leave pay three months	385	1,155		
				2,590	W. Walnutt.
1	Executive Engineer, 4th grade, July to September 1884	550	1,650		
1	Assistant Engineer, 1st grade, October to December 1884	450	1,350		
1	Executive Engineer, 4th grade, January to March 1885	600	1,800		
				4,800	Baboo Shio Dyal
1	Assistant Engineer, temporary, 15th September 1884 to 31st March 1885 ..	350	...	2,287	H. B. Young.
1	Assistant Engineer, temporary, 11th October 1884 to 31st March 1885	450	...	2,555	A. Goodwin.
	Total, Engineer's Establishment ...	...	...	12,232	
	Office Establishment.				
1	Clerk from 6th June 1884 to 31st March 1885	30	295		
1	Draftsman from 22nd August 1884 to 31st March 1885	60	440		
3	Chupprasies from June 1884 to 31st March 1885	7	210		
1	Chowkidar from August 1884 to 31st March 1885	7	70		
	Total, Office Establishment ..	...	...	1,015	
	Travelling allowance	...	...	4,000	
	Contingencies	...	...	150	
	Total, Engineering Department ...	...	...	17,397	
	MEDICAL AND SANITATION.				
1	Hospital Assistant from July 1884 to March 1885	55	495	...	
	Total, Medical and Sanitation ...	...	...	495	

GOVERNMENT O MADRAS.

PUBLIC WORKS D EPARTMENT.

Railway

Read the following papers :—

Telegram from the Secretary to the Governm nt of India, Public Works Department, Calcutta, to the Secretary to Governm ent, Public Works Department, Madras, dated 23rd February 1885.

Your telegram, sixth instant. Wire prob ble outlay, Hindupur extension survey, current and ensuing official years, very urgent

---

Telegram from the Engineer-in-Chief, Bella y-Kistna State Railway, to the Joint Secretary to Government, Public W rks Department, Railway Branch, dated Bellary, 24th February 1885.

Hindupur survey estimate, current year ready for despatch, amount 31,630; next year *nil.*

From H. LAMBERT, Esq., Engineer-in-Chie Bellary-Kistna State Railway, to the Joint Secretary to Government, Pub ic Works Department, Railway Branch, dated Bellary, 24th February 1885, No. 729.

With reference to his No. 1464 C., of 28th August 1884, has the honor to submit the estimate for the Hindupur extensi n survey, amounting to Rs. 31,630, and to solicit the sanction of Madras Government hereto.

2. The survey will be completed by the nd of March 1885.

ORDER—dated 27th February 1885, No. 222 ., Public Works.

Ordered that the following telegram be fo rwarded to the Government of India :—

"Your telegram, 23rd. Hindupur extensio revised estimate current year Rs. 31,360, ensuing year *nil.*"

2. The revised detailed budget estimate orwarded by the Engineer-in-Chief with letter embodied above will be submitted to th Government of India for sanction.

(Here enter No. 223 R., date 27th February 1885.)

(True Extr ct.)

(Signed) C. J. SMITH, Lieut.-Col., R.E.,
Joint Secy. to Govt., P.W.D.,
Railway Branch.

To the Consulting Engineer for Railways.
„ Examiner, Public Works Accounts.
„ „ State Railway Accounts.

Exd. E. Fernandez.
Spare Copies

RAILWAY.

Govt. of {1885} Madras.

PUBLIC WORKS.

Dated February, 27*th*.

Recd. *Encl.*

G.O., 27th Feb. 1885, No. 222 R.

FEBRUARY.

Hindupur Extension

Revised estimate of expenditure on — for 1884-85, ordered to be forwarded to the Government of India.

4th February 1885, No. 131 R., Public Works.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Railway.

Read the following paper :—

Proceedings of the Government of India, Public Works Department (Railway Construction), dated Fort William, 22nd January 1885, No. 79 R.C.

Read again—

Public Works Department notification, No. 287, of the 28th November 1884.

Read—

Letter No. 81, of the 28th December 1884, from the Engineer-in-Chief, Bellary-Kistna State Railway, to the Director-General of Railways, reporting the state of progress in the survey work of the line, and inquiring whether, as the survey work on the Hindupur extension is on the eve of completion, it may be finished under his direction, or whether it should be included in the new survey circle.

Read—

Endorsement from the Director-General of Railways, No. 066 C., of the 7th January 1885, forwarding above in original for orders as to whether the section from Guntakal to Hindupur should remain under Mr. Lambert, or be transferred to Mr. Bull.

Read—

Telegram from the Government of Madras, Public Works Department, dated 14th January 1885, recommending that the Engineer-in-Chief, Bellary-Kistna State Railway, be allowed to finish the survey and final location of the Hindupur extension.

Order—

The survey work on the Hindupur extension should be completed by Mr. Lambert, the Engineer-in-Chief, Bellary-Kistna State Railway; but, should scarcity in the districts traversed necessitate the early commencement of construction work on this line, it will have to be transferred to another officer, as Mr. Lambert is already fully engaged on the works of the Bellary-Kistna line and extension towards Singareni.

(Signed) W. S. TREVOR, Colonel, R.E.,
Secretary.

To the Secretary to the Government of Madras, Public Works Department.
„ Director-General of Railways.

Order—dated 4th February 1885, No. 131 R., Public Works.

Communicated to the Engineer-in-Chief, Bellary-Kistna State Railway, for information with reference to Proceedings, No. 43 R., dated 14th January 1885.

(True Extract.)

(Signed) C. J. SMITH, Lieut.-Col., R.E.,
Joint Secy. to Govt., P.W.D.,
Railway Branch.

To the Consulting Engineer for Railways.
„ Engineer-in-Chief, Bellary-Kistna State Railway.
„ „ Madras State Railway Survey.
„ Examiner, Public Works Accounts.
„ „ State Railway Accounts.

Exd. A. Grubert.

Spare Copies.

RAILWAY.

Govt. of {1885} Madras.

PUBLIC WORKS.

Dated February, 4th.

Recd. *Encl.*

G.O., 4th Feb. 1885, No. 131 R.

FEBRUARY.

Hindupur Extension

Orders of the Government of India in regard to the completion of the survey of the — by Mr. Lambert, communicated to the officers concerned.