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MADRAS RECORD OFFICE.

Government of Madras.

Public works **DEPARTMENT.**

G.O. No. 2735	Press ~~Mis.~~
390-397	
Dated 16th Sept. 1865.	

Not to be folded or roughly handled

No. 390. Read the following letter from Lieutenant-Colonel G. W. WALKER, R. E., Superintending Engineer, 7th Division, to Colonel C. A. ORR, R. E., Secretary to Government, Department Public Works, dated Coonoor, 2nd September 1865, No. 112 :—

SIR,

1. I have the honor to submit herewith an abstract estimate of the cost of opening the New Coonoor Ghát as an unmetalled cart road, prepared from measurements taken along the actual trace opened by Captain Law. It is accompanied by a copy of Captain Edgcome's survey, on which are laid down the exact sites of each bridge and large drain. These, with one exception, are of so insignificant a nature that separate plans and estimates of them have not been prepared; the nature of the ground indeed is such as to preclude exact measurements as to height of abutments, &c. The width of water-way to be given has alone been ascertainable. The exception is a timber span of 56 feet, plan of which cannot be spared as it is under construction.

2. The amount of estimate is Rupees 1,60,000, or Rupees 10,000 more than that of my guess-estimate in letter printed with G. O. No. 2,969 of 14th October 1863. Of its quantities and rates I have to say generally, that, in my opinion, the former are under-estimated and the latter over-rated; but that on the whole a very good approximation has been made to the probable cost. And this impression is founded on many actual inspections that I am in the habit of making all along the line. Major Farewell records that he anticipated a higher total of estimate, especially as it includes the entire cost of tracing, surveying, and cutting to bridle path, with all Captain Law's salary for a period of six months. And I cannot but attribute my guess-estimate being so little exceeded on the whole, to Captain Law's eminent qualification for the work, and to the indefatigable diligence with which he devotes himself to it, all day long and every day. It will be a perpetual memorial of his skill and energy.

3. Already 3½ miles of the New Ghát from the top, are practicable by carts, and so used by planters. By 1st November 4½ miles to the first crossing of the old Ghát will be similarly opened, including the large bridge; and more might have been done but for the shortness of funds. Throughout the entire length of sixteen miles most of the earthwork is done; and near the bottom bridge-work, blasting, and revetting have been commenced. Of the entire amount of estimate, Rupees 49,330-8-6 were spent up to 1st May 1865, and Rupees 12,000, sanctioned this year, will be expended next month, leaving Rupees 98,669-7-6 to be provided for future operations. Of this sum I recommend an immediate transfer of Rupees 28,669-7-6 from the Lawrence Asylum allotment of 1865-66; and provision of the balance of Rupees 70,000 in 1866-67. The Lawrence Asylum works can spare the money, and are not more strictly of a Military nature than is this important communication.

*Proceedings of the Madras Government, Public Works Department,
16th September 1865.*

4. I take this opportunity of recommending that, on the withdrawal of the three Companies of Sappers from the Tambercherry Ghát previous to the monsoon of 1866, some 30 or 40 picked Privates and Non-Commissioned Officers, under intelligent Native Officers, be detailed for work at Coonoor, and retained as long as their services can be made good use of. A small detachment can be made very comfortable here, if ample time be given to prepare for their accommodation; and it is of great consequence to be sure of a nucleus of skilled laborers, and superintendents of labor, so as to be independent of the fluctuation of the ordinary labor market. These are very peculiar here, and apt to cause embarrassment at times. For instance, Burghur or hill country labor quits and returns to the works according to the demands of the local cultivation; and one death gives a holiday to all the survivors. The "Canarese" or Mysore laborers quit in a body in April and May; and the Wudders from the Coimbatore and Palghat side are inexplicably capricious in their movements. It is a great advantage, therefore, to have a small body of men always at hand on whom one can depend to carry on the most necessary and arduous work. I must not omit to state that Captain Law carries on nearly all his work by contract or piece work, and that his rates contrast most advantageously with those paid by private parties. No one can say at Coonoor, that Government raises the rates on private proprietors.

5. Six copies of the Ghát survey appear to have been supplied to Captain Law from the Civil Engineering College. I shall be glad of six more if they can be spared, for use as wanted.

No. 391. ORDER THEREON, 16th September 1865, No. 2,735.

CIVIL WORKS, No. 44.

1. The importance of forming a good cart road up the Coonoor Ghát, with convenient gradients, was recognized by the Government in Proceedings dated 14th October 1863, No. 2,969, since which time grants of money were at different periods sanctioned for opening up a practicable bridle-path. The Superintending Engineer of the 7th Division now submits an estimate amounting to Rupees 1,60,000 for opening Captain Law's new trace for the Ghát as an unmetalled cart road. He states that of the total length of 16 miles, 3½ miles from the top of the Ghát are already practicable by carts, and are so used by the planters, and that by the 1st of November next an additional length of 4½ miles will be opened. The earthwork almost throughout the entire length of the Ghát is reported to have been completed. The expenditure up to the end of the year 1864-65 was Rupees 49,331, and the grant of Rupees 12,000 made in the current official year will, it is expected, be fully spent next month. Colonel Walker recommends that an allotment of Rupees 28,669 be made for the continuance of operations in 1865-66, by the transfer of that amount from the grant for the Lawrence Asylum works.

2. The Government sanction the estimate of Rupees 1,60,000; but they are unable to entertain the Superintending Engineer's recommendation for the diversion of money from the assignment for a Military work, as the instructions of the Government of India imperatively prohibit such transfers. As, however, the new Coonoor Ghát is a work of great importance, the Superintending Engineer is authorized to proceed with it in anticipation of funds being provided later in the year.

*Proceedings of the Madras Government, Public Works Department,
16th September 1865.*

3. Paragraph 4 of Colonel Walker's letter will be referred to the Military Department for favorable consideration.

4. Paragraph 5 will be communicated to the Principal of the Civil Engineering College for compliance, if practicable.

(True Extract.)

(Signed) J. H. M. SHAW STEWART, Major, R. E.,
Under Secretary to Government.

To the Superintending Engineer, 7th Division.

.. Military Department.

.. Principal of the Civil Engineering College.

.. Controller of Public Works Accounts.

Accountant General

Exd. S. T. Augustin.

1.112

Supt. Engrs Office 7th Div
Coonoor 1st September 1885

From
Lieut^{nt} Colonel G. W. Walker R.E.
Superintending Engineer 7th Div

To
Colonel C. A. Oke R.E.
Secretary to Government D.W.
Madras

Sir, I have the honor to submit herewith an Abstract Estimate of the cost of opening the Coonoor Ghat by an unmetalled Cart Road prepared from measurements taken along the actual trace opened by Captain Law. It is accompanied by a copy of Captain Edgemoor's survey on which are laid down the exact sites of each Bridge and Sarge Drain. These with one exception are of so insignificant a nature that separate plans and Estimates of them have not been prepared, the nature of the ground indeed is such as to preclude exact measurements as to height of abutments &c. - the width of waterway to be given has alone been ascertainable. The exception is a timber span of 56 feet ~~span~~, plan of which cannot be given as it is under construction.

The amount of Estimate is Rupees 16,000 or Rupees 10,000 more than that of my guess Estimate in letter printed with G. O. No 2969 of 14th October 1883. Of its quantities and rates I have to say generally, that in my opinion the former are under estimated and the latter

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Supg. Engrs Office, 7th Div
Coonoor 5th September 1865

From
Lieut Colonel G. W. Walker R.E.
Superintending Engineer, 7th Div

To: Colonel C. A. O'Connell R.E.
Secretary to Government of Madras

Sir, I have the honor to submit herewith an Abstract Estimate of the cost of opening the Coonoor Ghat as an Unmanned Cart Road prepared from measurements taken along the actual trace opened by Captain Saw. It is accompanied by a copy of Captain Edgemoor's survey on which are laid down the exact sites of each Bridge and Sarge Drain. There with one exception are of so insignificant a nature that separate plans and Estimates of them have not been prepared, the nature of the ground indeed is such as to preclude exact measurements as to height of abutments &c. The width of waterway to be given has alone been ascertainable, the exception is a timber span of 56 feet ~~span~~, plan of which cannot be specified as it is under construction.

The amount of Estimate is Rupees 16,000 or Rupees 10,000 more than that of my guess Estimate in letter printed with G. O. No 2969 of 14th October 1863. Of its quantities and rates I have to say generally, that in my opinion the former are under estimated and the latter

over rated, but that on the whole a very good approximation has been made to the probable cost. And this impression is founded on many actual inspections that I am in the habit of making all along the line. Major Herwell records that he anticipated a higher total of estimate, especially as it includes the entire cost of tracing, surveying, and cutting to bridle path with all Captain Law's salary for a period of 6 months. And I cannot but attribute my guess estimate being so little exceeded on the whole, to Captain Law's eminent qualification for the work, and to the indefatigable diligence with which he devoted himself to it all day long and every day. It will be a perpetual memorial of his skill and energy.

3. Already $3\frac{1}{4}$ miles of the New Ghaut from the top, are practicable by carts, and so used by Planters. By 1st November $5\frac{1}{2}$ miles to the 1st Crossing of the old Ghaut will be similarly opened, including the large Bridge, and more might have been done but for the shortness of funds. Throughout the entire length of 16 miles most of the earth work is done; and near the bottom Bridge work, Plastering, and Retaining, have been commenced. Of the entire amount of Estimate, Rs 49,330.8.6. were spent up to 1st May 1865, and Rs 12,000 sanctioned this year will be expended next month, leaving Rs 98,669.7.6. to be provided for future operations. Of this sum I recommend an immediate transfer of Rs 28,669.7.6.

from the Lawrence Asylum Allotment of 1865/66, and provision of the balance of Rs 40,000 in 1866/67. The Lawrence Asylum works can spare the money, and are not more strictly of a Military nature than is this important Communication.

4. I take this opportunity of recommending that on the withdrawal of the Companies of Sappers from the Chambercherry Ghaut previous to the Monsoon of 1866, some 30 or 40 picked privates and Non Commissioned Officers, under intelligent Native Officers, be detailed for work at Coonoor, and retained as long as their services can be made good use of. A small detachment can be made very comfortable here, if ample time be given to prepare for their accommodation; and it is of great consequence to be sure of a nucleus of skilled labourers, and Superintendents of labour, so as to be independent of the fluctuation of the ordinary labour market. There are very peculiar here, and apt to cause embarrassment at times. For instance, Burghur or Hill Country labour quits and returns to the works according to the demands of the local Cultivation; and one death gives a holiday to all the survivors. The "Canarese" or Mysore labourers quit in a body in April and May. And the Waddars from the Coimbatore

and Balghat side are inexplicably capricious in their movements. It is a great advantage therefore to have a small body of men always at hand on whom one can depend to carry on the most necessary and arduous work. I must not omit to state that Captain Law carries on nearly all his work by Contractor piece work, and that his rates contrast most advantageously with those paid by private parties. No one can say at Comoor that Government raises the rates on private proprietors.

Six Copies of the Ghaut Survey appear to have been supplied to Captain Law from the Civil Engineering College. I shall be glad of six more if they can be spared, for use as wanted.

Shine the house to be
Sir
Yours most Obedt Servant

W. Walker Esq. Civil Engineer &c.
Supg. Engineer

Abstract of Estimate for Constructing a Road from the Comoor Bridge to the foot of the Comoor Ghaut. Length 16 Miles.

Quantity	Description of Work	Rate	Amount each part.	Amount of
138856	Cub yards 1 st class Earth Work	2	26035 8	
58233 1/3	Do 2 nd class Do	3 6	12738 9	
38337 1/2	Do 3 rd class Do	1 6	10782 7	
14219 2/3	Do 1 st class Do	5 6	4888	
11775 1/2	Cub yds raising embankments	4 6	3311 12	
17817 1/2	Cub yds Blasting and Removing Rocks	2 4	40089 4	
18827 1/2	Cub yds Broastment including rough Stone abutments & Wing Walls of Bridges	15	17651	
1	Timber Bridge 56 feet span (timber labour and carriage)	3795	3795	
4	Timber Bridges 20 ft span Do Do	700	2800	
14	Do 12 ft Do Do	360	5040	
42	Stone Covered Drains	160	6720	
8	Do Do	125	1000	
16	Do Do	100	1600	
124	Common Drains (rough stone)	25	3100	
16	Miles Check Channel above roadway	100	1600	
16	Miles brotling the Road	300	4800	
				145951 8
	Compensation for Land & Tools and sundries at 10 Percent			14048 8
	Total of Estimate			160000
	Deduct Amount spent in 1864/65		49330 8 6	
	Do Authorized for expenditure in 1865/66		12000	61330 8 6
	Balance requiring sanction			98669 7 6

The only Bridge of importance on the line is a timber double trussed bridge, spanning 56 feet to be built at the site marked in the plan as "St. Anne's Bridge"; including this Bridge the

Estimate provides for the Construction of 19 timber bridges
of various spans, 66 rough stone drains from three to eight
feet span four or five feet in height, and 124 rough
stone drains $2\frac{1}{2} \times 2\frac{1}{2}$ —

Supr Eng's office y^o Sur
Concor 2 September/65

Alfred L. Smith
Supr Engineer y^o Sur

In a letter No 11 of 3rd
September 1890
from
the Supr. Engineer
to
the Hon. Secy of Land
Affs

approved

Abstracted copy of
16,000 for county
a road from the
Canadian Bridge
to the foot of the
Cascades

From 16th Sept. 1890

Recd - 14th Oct/65 No. 262 - 263
9th Aug/65 - 17th - 177

No. 1865 Dept
No. of Conts for September
from No. 2019

The Supy. Engr
To the

The Secy to Govt
D. M.
Madras

No. 112
Dated 2nd Sept 1865
Recd 4 "

Encls. 2

Forwards an Abstract
Estimate of 16,000 for
Constructing a
road from the Coonoor
Bridge to the foot of
the Coonoor Ghats

No. 390

c. 8th Sept/65 On. 12th

No. 2735 - 16th Sept/65

Public Works Dept

No. 2735

Proceedings of the Madras Government

Under date the 16th September 1865

Read the following.

From the Supy Engineer of the
Public Works

Forwards an Abstract
Estimate of 16,000 for construct- (There enter 2nd Sept 1865 No. 112)
ing a road from the Coonoor Bridge
to the foot of the Coonoor Ghats.

We are in for the work but
I have great doubts whether
we have acted wisely in
sanctioning it

M

W.D.

The importance of forming
a good Cart road up the Coonoor
ghat with convenient gradients
was recognized by the Government
in Pro. of 14 Oct/63, No. 2969,
since which time grants of money
were at different periods sanctioned
for opening up a practicable mule-
path. The Supy Engineer of the
Public Works now submits an
estimate amounting to Rs. 16,000
for opening Capt. Law's new trace
for the ghat as an unmetalled
Cart Road. He states that of the
total length of 16 miles, $8\frac{1}{4}$
miles from the top of the ghat

are already practicable by Carts.
It are as used by the Planters, &
that by the 1st of Novr next an
additional length of 1/2 Drives will
be opened. The earth-work almost
throughout the entire length of the
ghat is reported to have been
completed. The expenditure up
to the end of the year 1864/5 was
Rs 49,331, & the grant of Rs 12,000
made in the current fiscal year
will it is expected be fully spent
next month. Col. Walker recom-
mends that an allotment of Rs 28,569
be made for the continuance of
operations in 1865/6, by the transfer
of that amount from the grant
for the Lawrence Bazaar works.

The Govt sanctioned the
estimate of Rs 16,000; but they
are unable to entertain the Engineer's
recommendation for the diversion
of money from the appropriation
for a military work, as the in-
structions of the Govt of India ^{imperatively} pro-
hibit such transfers. ~~being~~ ^{being} ~~inconvenient~~ ^{inconvenient}.
As, however, the new Coonoor ghat

is a work of great importance,
the Govt is authorized to proceed
with it in anticipation of funds
being provided later in the year.

Para 4 of Col. Walker's
letter will be referred to the
Military Dept for favorable
consideration.

Para 5 will be com-
municated to the Pl of the C.E.
College for compliance if practicable.

C. B.

7th The Lt Col & Dr *W. H. Murray* Secy. 18th September -
7th Military Dept
3rd Pl of the C.E. College
1st Controller
1st Asst General.

100/93

707/1865 Depu
Pres. of Govt for
Sept

No 2735
Pres. of the Magistrate
Df 16 Sept/85

The estimate amount-
ing to Rupees 16,000 for
opening the new Conoor
Ghāt Coimbatore District
as an unmetalled Cart
road - sanctioned -

100/93

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