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TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

Rakta works DEPARTMENT

G.O. No.	1410 W	Press.
B.P. No.		Mis.
Dated	16-6-1980	197.

1502

Not to be folded or roughly handled

1410

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

16th June 1880, No. 1,410 W.

Buildings and Roads.
Civil Works.

Read the following paper:—

No. 24. From Captain A. AWDRY, R.E., Superintendent of Works, Buckingham Canal, to the Chief Engineer, Public Works Department, dated Thetipet, 28th May 1880, No. 688.

I HAVE the honor to forward for sanction an estimate, amounting to Rs. 4,500, of the probable cost of the survey of the canal.

2. Fortunately the districts of Chingleput and Nellore, in which the canal is situated, have been surveyed by the Revenue Survey Department, so that the principal distances are recorded on the surveys, and what is necessary now is to correct the 16-inch to a mile survey up to date and to fill in the details, so as to render it more of a topographical work than a mere record of demarcation of boundaries. There are many gaps in the continuity of the 16-inch survey, as Zemindari and other lands not belonging to Government are not plotted to so large a scale; these gaps will have to be filled in.

3. On the basis of the 16-inch to a mile village surveys I propose to fill in everything necessary for the survey, including the existing line of the canal and its boundaries, the beds of rivers which cross it and their margins for about three miles west of the canal, and on the east to the sea if it is not more than one mile from the canal; also the ground wherever the present line does not appear to be the best and deviations are proposed. This simple surveying can be done by good Revenue Survey or other men, but they need not have a knowledge of levelling.

4. It is also very necessary to run a line of levels from De Havilland's bench mark at Fort St. George, both north and south, along the canal, and to take cross sections at every furlong of the open canal, and a reading at each tide gauge. I should propose for these sections to be guided by Circular No. 1 (Revised) of 29th September 1876, from the Chief Engineer for Irrigation, adapted as shown in the copy sent herewith. The portions of canal which it is proposed to abandon will be shown, but at the same time sections along the proposed lines of deviation with cross sections at every half furlong will be taken. I should propose in deviations to make the cross sections 200 feet long on each side of the proposed centre line; in the opened canal the cross sections will extend to 50 feet beyond the toe of the outer slopes of the banks.

5. The horizontal scale for the longitudinal section might be the same as the survey, viz., 330 feet to 1 inch, and for the cross sections 20 feet to an inch, the vertical scale for both longitudinal and cross sections being 20 feet to an inch. To facilitate plotting the sections it will be advisable to use section paper of inches and twentieths.

6. The portion of canal which requires to be surveyed and levelled is from Merkanum, in the South Arcot District, to the junction with the Commamur Canal, in the Kistna District, and the length is about 260 miles. For deviations and river surveys about 100 more miles must be added, making 360 miles in all. The longitudinal section of 260 miles must be levelled twice, the one to check the accuracy of the other, but there will be only one set of cross sections.

7. In regard to survey, the strip of land not being wide two miles a day for twenty days in a month may be expected. The work may therefore be done by three men in three months. They would first survey the river beds and places where deviations are proposed, so that the estimates for these may be pushed on.

8. The 620 miles of levelling and check levelling without cross sections should take not more than about 240 days; the 100 miles of cross sections at 2 in a furlong and 260 miles with a cross section in each furlong (the latter mostly soundings) can be done at about two and-a-half miles a day, or in 150 days; we shall therefore require the levelling parties for 390 days, or allowing for Sundays (and windy days which will check work) four men for four months.

9. I should propose to employ a Head Surveyor to check the work in addition to the above. He will be required for two months after the field work is over to assist the Draughtsman in plotting the work.

10. Each of the ordinary Surveyors will require four lascars, and each of the Levellers six lascars; of these two in each case will be men of rather superior intelligence and paid Rs. 7.

11. A Draughtsman will be required for about twelve months.

12. In calculating the rate of pay it must be recollected that the men will have to keep up a boat each, and that will cost Rs. 20 a-month; I therefore include that amount in the rate of pay which I propose.

13. I have the honor to request sanction to the estimate of Rs. 4,500 and an appropriation of funds for carrying out these surveys.

No. 43.

ORDER THEREON, 16th June 1880, No. 1,410 W.

THE estimate, amounting to Rs. 4,260, for establishment required for executing the surveys of the Buckingham Canal is sanctioned for the period of six months, after which fresh application should be submitted if the services of the Draughtsman be still required.

2. The amount now sanctioned will be met from the provision made in the Provincial Budget for 1880-81 for Temporary Establishment.

3. This sanction has been registered as Provincial No. 17 W. of 1880-81.

(True Extract.)

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

To the Superintendent of Works, Buckingham Canal.
" Examiner of Public Works Accounts.

Exd. A. F. Goodall.
Spare Copies

BUILDINGS AND ROADS.
CIVIL WORKS.

Gobt. of (1880) Madras.
PUBLIC WORKS.

To
THE SUPERINTENDENT OF WORKS,
BUCKINGHAM CANAL,
&c., &c., &c.

Dated June, 16th.

Issued

Recd.

Encl.

G. O., 16th June 1880, No. 1,410 W.

JUNE.
Nos. 42-43.

Buckingham Canal.—Estimate of Rs. 4,260
for the survey of the —, sanctioned.

27/1910
14/10/10

For when

In submitting the
annexed Estimate for
the Survey of the Buckingham
Canal I may observe
that the principles on
which it is to be carried
out have been fully
discussed between myself
and the Supdt. of works.

A series of papers on
this subject are now being
put in type and will
be early circulated for
the information of his Grace
of the Members of Govt.

Nearly all the deviation
from the present line
of canal have been
decided, and the mode
of dealing with the
cross drainages indicated.

Sir 7-6-80. Ptd 14-6-80.
4-6-80 16-6

Some of the more
important debouches
of the river require special
study, and these will
be discussed from time to
time with the object of
enabling him time to
time, but it is very
essential that the
work of surveying as now
defined should pro-
ceed with the least
practicable delay.

The leveling needed
to check the bench
marks throughout the
work are specially re-
quired as in this de-
pends entirely the
amount of chances to
be carried out, and
just as those will
seem to be some dis-
crepancy in regard
to the determination
of the mean sea level
& the bench marks

4/10/10
Littorio worked
in north of the
Kundalaroo river

Att

7/6/80

No. 688

OFFICE OF THE SUPERINTENDENT OF WORKS,

Buckingham Canal.

Camp, Thettipet. 28th May 1880.

Despatched 28th June 1880

From

The Superintendent of Works,

Buckingham Canal,

To

The Chief Engineer.

P. W. Department.

SIR,

Enclosure 3.

I have the honor to forward for sanction an estimate amounting to Rupees 4,500 of the probable cost of the Survey of the Canal.

2. Fortunately the Districts of Chingleput and Nellore in which the Canal is situated have been surveyed by the Revenue Survey Department so that the principal distances are recorded on the Surveys and what is necessary now is to correct the 16 Inch to a mile survey up to date and to fill in the details so as to render it more

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a mere record of demarcation of
boundaries. There are many gaps
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gaps will have to be filled in.

3. On the basis of the 16 Inch
to a mile village Surveys I propose
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the Survey including the existing
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boundaries, the Beds of Rivers
which cross it and their margins
for ~~about~~ about 3 miles West of the
Canal and on the East to the
sea if it is not more than 1 mile
from the Canal, also the ground
wherever the present line does not
appear to be the best and
deviations

8/11/76
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men but they need not have
a knowledge of levelling.

4. It is also very necessary
to run a line of Levels from
De Havilland's Bench mark at
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and South along the Canal
and to take cross sections at
every furlong of the open Canal,
and a reading at each Tide
gauge. I should propose for
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Circular No. 1 (Revised) of 29th
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Engineer for Irrigation, adopted
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which it is proposed to abandon will be shown but at the same time sections along the proposed lines of deviation with cross sections at every half furlong will be taken. I should propose in deviations to make the cross sections 200 feet long on each side of the proposed centre line: in open canal the cross sections will extend to 50^{ft} beyond the toe of the outer slopes of the Banks.

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8. The 620 miles of levelling and check levelling without cross sections should take not more than about 240 days; the 100 miles of Cross sections at two in a furlong and 260 miles with a cross section in each furlong (the latter mostly sounding) can be done at about $2\frac{1}{2}$ miles a day or in 150 days; we shall therefore require the Levelling parties for 390 days or allowing for Sundays and windy days which will check work) 4 men for 4 months.

9.

9. I should propose to ^{Q/V}employ a Head Surveyor to check the work in addition to the above. He will be required for 2 months after the field work is over to assist the Draftsman in plotting the work.

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12. In calculating the rate of pay it must be recollected that the men will have to keep up a boat each and that will cost Rupees 20 a month, I therefore include that amount in the rate of pay which I propose.

13. I have the honor to request sanction to the estimate of Rupees 4,500- and an appropriation of funds for carrying out these surveys.

I have the honor to be

Sir,

Your Most Obedient Servant.

A. Aodry Captain. R.E.
Superintendent of Works.
Buckingham Canal.

From

The Superintendent of Works,

2 JUN 80

Buckingham Canal,

To

N^o 3559

The

Chief Engineer,
P. W. Department

Dated 28th May 1880.

Despatches 2^d June 1880.
No. 648

ENCLOSURE 3. 1/10/80.

Estimate for the survey
of the Buckingham
Canal for Rs 4500-00
Submits for sanction
and appropriation
of funds the—

1410. W. P. Dept

Proceeding of the Madras Government

Under date the 16th June 80

Read the following:—

From the Supt of Works

Buckingham Canal

(48th No. 508 of 28 May 1880)

The estimate amounting
to Rs 4260 for establishment
required for executing the
survey of the Buckingham
Canal is sanctioned for
the period of six months,
after which fresh applica-
tion should be submitted
if the services of the Drafts-
man be still required.
The amount now
sanctioned will be met
from the provision made
in the Provincial Budget.

14/6

7-5-80
4-6-80

for 1880-81 for Temporary *House to the*
Establishment.

3. This sanction has
been registered as Provincial

No 17 W of 1880-81.

S
46

~~Plt~~

7/6/80

Sanct Section to
18/8
16/6

with 2 columns
Supt of Works Refund
Lr P. W. A with order
Despatch
28-6-80

Cir 7.6.80. Plt 14.6.80.
O. 4.6.80 O. 16-1

Plt

16/6
W

3559
Govt. of Madras.

PUBLIC WORKS.

To

Dated

Issued

Recd.

Encl.

G. O. 18th June 1880, No. 141015-

Nos. 42-43

Burnt Buckingham
Canal.

Estimate of Rs 4260
for the survey of
the ~~Canal~~ — Sanctioned

27
13