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# MADRAS RECORD OFFICE

Government of Madras

*Public works* DEPARTMENT

G.O. No. 2380

B.P. No.

413, 414

Press

Mis.

Dated 29.9.1873

195

Not to be folded or roughly handled

*Proceedings of the Madras Government, Public Works Department,  
29th September 1873.*

Read the following papers :—

No. 413. From R. E. NORFOR, Esq., Officiating District Engineer, South Arcot, to Lieutenant-Colonel J. MULLINS, R.E., Chief Engineer for Irrigation, dated Cuddalore, 5th July 1873, No. 60.

I HAVE the honour to acknowledge the receipt of your No. 373 of the 19th instant, returning for further information and particulars, in detail, the plans and papers connected with the Ahtoor Anicut Project.

1 Sketch Plan.

2. About thirteen years ago I was in charge of the Trichalore Range and have some recollection of the ruined Ahtoor Anicut, which I casually visited on one or two occasions, and from what I remember the cause of the failure of this work is due to its having been constructed obliquely across the river instead of at right angles to the stream as, in fact, it is shown in the survey.

3. I am strongly inclined to think that a properly constructed anicut at or very near the old site, using the same old channel on right bank with slight improvements and suitable masonry works, will answer all purposes; but of course I cannot give this as a definite opinion till I have been able to obtain some levels of the old line and cross sections of the country on either bank, which has not been done, and which is necessary to decide the best line to be selected.

4. The anicut as designed is, I think, an unnecessarily expensive work, and the embankment between the anicut and head-sludge adds materially and unnecessarily to the cost of the project.

5. I would have the head-sludge leading away from the anicut wings, and I certainly disapprove of the set of sluices in the centre of the anicut, a set on each flank is all that is required.

6. I beg to submit, for your opinion, a cross section of the kind of anicut I would propose to build here as very much cheaper, and it has this advantage over the first design that the brick and chumam work is considerably less, and it is a known fact that suitable clay for brick-making is not readily procured near the anicut site; the apron in rear of the anicut forming a trough will break the destructive force of the water escaping from off the crest of the anicut, and with a depth of 3 feet water in the trough the floor or apron will be very considerably protected. In all anicuts in this district these rear aprons cost more to keep in repair than they ought to; I therefore have thought of giving this plan a trial and trust it will meet with your approval.

7. I would now be obliged if you will inform me whether I may sanction from the funds allotted for Minor New Works the cost of trial levels, borings and pits along the line of channels, cross section of channels and surplus odays and the country on either bank not given in original plans and drawings.

1 Surveyor and Draughtsman... 50  
4 Lascars, at Rs. 6 ... 24

74x3=222

8. The whole of the plans as far as I can see will require revision, and a Draughtsman will be required as well as a Surveyor, or the two in one for about three months.

*Proceedings of the Madras Government, Public Works Department,  
29th September 1873.*

No. 585 D.

No. 413A.

*Note by the Chief Engineer for Irrigation.*

SHOULD the District Engineer, South Arcot, be able to superintend the revision of the project for an anicut across the north branch of the Guddi-lum near Ahtoor, the small establishment asked for by him for this purpose may be sanctioned for a period of three months.

2. With regard to the observations contained in Mr. Norfor's letter, it may be remarked that in all probability the failure of the old anicut, which it is proposed to replace, was due either to the absence of proper wing-walls or to weakness of section, rather than to obliquity of direction.

3. Mr. Norfor's revised cross section for a dam is open to several objections. Water-cushions are, under certain circumstances, a useful means of breaking the force of a fall, but they must be placed sufficiently low to obviate a second fall, which latter in his cross section would require another water-cushion. With a fall of only 5 feet a well-constructed stone masonry apron of a width about five times the depth of the fall, and an outer rough-stone apron of about the same width, will suffice. The two rows of wells for the body-wall instead of the three of the original section are an improvement. The apron above the dam should be increased to 12 feet in width, and should be carried 4 or 5 yards along the face of the upper-wings, the outer edge being a straight line from end to end. The stone masonry apron may be laid on 3 feet of concrete, or, as shown in the original section, on concrete and brickwork.

4. The head sluice wing should join that of the anicut, and the former may be placed as near the latter as circumstances will allow. If there is to be only one channel taken off from the anicut, one set of under-sluices close to the wing will be enough. Under-sluices at the opposite end of the weir would only be a source of expense.

CAMP CANOOR,  
4th September 1873.

(Signed) J. MULLINS, Lieut.-Colonel, R.E.,  
*Chief Engineer for Irrigation.*

No. 414.

ORDER THEREON, 29th September 1873, No. 2,380.

ESTABLISHMENT, No. 45.

|                                |     |     |     |
|--------------------------------|-----|-----|-----|
| 1 Surveyor and Draughtsman ... | ... | ... | Rs. |
| 4 Lascars, at Rupees 6 ...     | ... | ... | 24  |
|                                |     |     | 74  |

Establishment should be entertained from such date as the District Engineer may be

His Excellency the Governor in Council sanctions the employment of the establishment marginally noted for the investigation of the Ahtoor Anicut Project for a period of three months, the cost being debited to the grant for Temporary Establishments. This establishment should be entertained from such date as the District Engineer may be

*Proceedings of the Madras Government, Public Works Department,  
29th September 1873.*

able, without interference with his current duties, to find time for supervising the revision of the project.

(True Extract.)

Colonel, R.E.,  
*Secretary to Government.*

To the District Engineer, South Arcot.  
,, Officiating Controller of Public Works Accounts.  
,, Chief Engineer for Irrigation.

Exd. E. C. Shunk or.  
Spare Copies.

Note by the Chief Engineer for Irrigation

Enclosures - 2  
N. 585 D. with  
enclosure.

Should the District Engineer South Street be able to superintend the revision of the project for an aricut across the North Branch of the Gualdichew near Aptow, the small establishment asked for by him for this purpose may be sanctioned for a period of 3 months.

2. With regard to the observations contained in Mr. Storfer's letter, it may be remarked that in all probability the failure of the old aricut, which it is proposed to replace, was due either to the absence of proper wing walls or to weakness of section, rather than to obliquity of direction.

3. Mr. Storfer's revised cross section for a dam is open to several objections. Water cushions are

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a useful means of breaking  
the force of a fall, but they  
must be placed sufficiently  
low to obviate a second fall,  
which latter in his exposure  
them would require another  
water cushion. With a fall  
of only 5 feet a well construc-  
ted stone masonry apron of  
<sup>a width</sup> about 5 times the depth of  
the fall, and an ~~outer~~ rough  
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to end. The stone masonry  
apron

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original section on concrete &  
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to be only one channel taken  
off from the ancient, one set  
of undersluices close to the wing  
will be enough. Undersluices  
at the opposite end of the  
wing would only be a source  
of expense.

Camp Caroor      Whundunlin      Lt Col M. D.  
14 September 1873      Chief Eng for Irrigation

To The Secretary to Govt. M. D.

No 2580 B. d.  
Pro the Madras Govt.

Read the Morning  
from Prof. Sargent's Mss (H. E. 24555 & 24563)

His Excellency  
the Governor in Coun-  
cil sanctions the  
employment of the  
establishment origi-  
nally noted, for  
the investigation  
of the Atom an-  
cient project, for a  
period of three  
months, the cost  
being debited to  
the grant for Tem-  
porary Establish-  
ments. This establish-  
ment

|                    |       |
|--------------------|-------|
| 1 Surveyor J       | Rs.   |
| Draughtsman        | 50    |
| 4 Lac cars at Rob. | 24    |
|                    | <hr/> |
|                    | 74.   |

10/19/11

P.O. #873 Michigan Ave.  
St. Louis Mo  
Dec 9<sup>th</sup> 1894  
The Chief Engineer  
Occupation  
of the Secretary &  
Government  
P.P.S.

(Paid 4<sup>th</sup>)  
Rec'd 8<sup>th</sup> 4<sup>th</sup> bundles  
Dec 9<sup>th</sup> } 1893  
No. 80872  
Enclosure - 2

Edmund better than  
the District Engineer  
South. Should regarding  
the Cotton and sulphur  
of becoming to the country  
of the former establishment  
for 3 months for the  
wages of a day  
No. 2380-29 Sept 1873.

1913

Wm. F. & C. Co. 10-11-1893

ment should be en-  
tertained from such  
date as the Dis-  
trict Engineer may  
be able, without in-  
terference with his  
current duties, to  
find time for su-  
pervising the revi-  
sion of the Report.

Wm. 4/9/73  
Wm.

To The Dist Engr South West  
- - Controller of W. & A. Co.  
- - Chf Engr for Migration  
and the Plan

N<sup>o</sup> 413-14

S. C. de la Cruz

*No 4959*  
Govt. of 1873 Madras.  
PUBLIC WORKS.

*The District Commr  
South Arcot.*

Date.

Recd.

Encl. /

*G. O. 29 Sept. No. 2380.*

*Nov. 4/1874*

*Alwar Arcot Project.*

*Re-establishment for  
the investigation of the  
Project, sanctioned  
for three months.*