

(1) Number of pages \_\_\_\_\_

(2) Date of repair \_\_\_\_\_

(3) Initials of the Referencer \_\_\_\_\_

# MADRAS RECORD OFFICE.

Government of Madras.

*Public Works* DEPARTMENT.

|               |     |               |
|---------------|-----|---------------|
| G.O. No. 1216 | (W) | Press<br>Mis. |
| Dated 7-4-    |     | 1877.         |

Not to be folded or roughly handled

*Proceedings of the Madras Government, Public Works Department,  
9th April 1877. No. 1,216.*

No. 222. Read the following letter from Lieutenant-Colonel R. B. KENNEDY,  
District Engineer, Malabar, to the Acting Joint Secretary to Government,  
Buildings and Roads Branch, dated Camp at Luckadie, 24th March 1877,  
No. 256 :—

WITH reference to G.O., No. 939, dated 10th April 1876, I have the honor to  
forward, for sanction and provision of  
funds, an estimate\* and specification for  
repairing and maintaining the Cruz Milagre Dam at Cochin during 1877-78.

2. The estimate provides, besides labor and materials for repairing the dam  
itself, for the pay of the petty establishment.

3. Should the estimate meet with your approval, I beg that funds may be  
allotted as early as possible, to enable the work being completed and settled before the  
setting in of the monsoon.

No. 223. ORDER THEREON, 9th April 1877, No. 1,216.

CIVIL WORKS, No. 20.

THE estimate of Rupees 485 for  
repairing and maintaining the Cruz  
Milagre Dam at Cochin during 1877-78 is  
sanctioned.

2. The Government are of opinion that, as the maintenance of the Cruz Milagre  
Dam is essential for the safety of the port of Cochin, the present and all future  
expenditure should be defrayed from Port Funds. These papers will therefore be  
communicated to the Marine Department, in order that the required provision of funds  
may be made.

3. This sanction has been registered as Special No. 10—W of 1877-78.

Fund.—PORT FUNDS.

Class.—MISCELLANEOUS PUBLIC IMPROVEMENT.

Main-head.—Repairs.

Head.—(7), Harbours, &c.

Name of Work.—Repairing and maintaining the Cruz Milagre Dam during 1877-78.

Amount.—Rupees 485.

To be carried out by the Public Works Department.

(True Extract.)

Colonel, R.E.,  
Secretary to Government, P.W.D.

To the District Engineer, Malabar.  
" Examiner of Public Works Accounts.  
" Marine Department.

Exd. E. C. Shunker.  
Spare Copies

(a) Heads of Service

Fund. Port Funds

Class. Mis. Public Improvements

Main-head. Repairs

Sub-head. (7) Harbours &c.

Section.

Name of Work. Repairing & maintaining the  
Cruz Milage dam during 1877-78

Amount. 485

To be carried out by the Public Works Department.

Print in the margin of G.O. No 1216 of 9/4/77-

Note

An addition has been made to the draft in accordance with the remarks of Government. In G.O. No 1745 of the 12<sup>th</sup> July last, the Financial Department were requested to consider the question of defraying expenses incurred on this work from Port Funds. But no action was taken in that department upon that order.

W.H.  
6.4.77



123-124

Brought Forward

|               |          |                                                        |                     |
|---------------|----------|--------------------------------------------------------|---------------------|
| 90 3 4        | 202 1/2  | Leveling top of quay No 1 with clay                    |                     |
| 261 3 3/4     | 137 1/4  | do do return 5 1/2 = do                                |                     |
| 96 3 3/4      | 216      | do do quay No 2 - do                                   |                     |
| 45 3 3/4      | 101 1/4  | do do return No 2 - do                                 |                     |
| 200 2 1/2 3/4 | 375      | do do down on the end of new channel                   |                     |
| 227 2 1/2 3/4 | 414 1/4  | do do out of do                                        |                     |
| 50 15 5       | 3750     | do do near the main quay                               | 4 1/2 Cys 48 2 1/2  |
|               | 5196 1/2 | Total top of 192 1/2 Cys clay work                     | 4                   |
| 120 15        | 1800     | Total top of 66 1/2 Cys small stone for re-            | 2 1/2 do 133 12     |
|               |          | pairing surplus channel                                | -5-                 |
| 104 17        | 1768     | Grate house                                            |                     |
| 58 19         | 1102     | do do Bangalore                                        |                     |
| 28 9 5        | 252      | do do Boat Room                                        |                     |
| 18 7          | 126      | do do Watchman's shed                                  |                     |
| 8 8           | 64       | do do Pig room                                         |                     |
|               | 3312     | Total of Grate house                                   | 1 4 1/2 Sec 41 6 5  |
| 3             |          | Watchman for 3 months during the summer 6 1/2 " summer | 54 1/2 "            |
| 1             |          | do do 12 months                                        | 3 1/2 " do 36 1/2 " |
|               |          | Superintendent                                         | 20 153              |
|               |          | Landries                                               | 5 1/2 "             |
|               |          | Contingencies                                          | 20 1/2 "            |
|               |          | Total Estimate Expenses                                | 485 1/2 "           |

Cochin  
5 March 1877  
Lucknow  
24 March 1877

W. H. Keeney A.C.E.

W. H. Keeney  
Assistant Engineer S.M.

Roads and Buildings

From  
The Dist. Engineer  
Malabar.

Dated 26<sup>th</sup> March 1877.

Cruz Milagre Dam.

Estimate for Repairs and  
Maintenance to the Cruz  
Milagre Dam at Cochim.  
in 1877-78.

Estimate Rs 485-

6.09.88 April 7. 1878

73

Specification

to accompany the Estimate Rs 485  
for Repairing & Maintaining the Cruz  
Milagre Dam for 1877/78.

Graveling Graveling is provided, as the crest of  
Dam is much used by people in crossing.  
The gravel should be laterite, brought  
from the Kattanak quarries (12 miles distant)  
in boats, taken to the side of Dam, handed  
up in baskets, laid on the top of Dam 3" thick,  
watered & well rammed.

urfing & clay - The present turf & clay slopes have been  
much eroded - by the action of salt, & the  
want of fresh water, during the late hot  
weather the clay is got in the back water  
within a radius of a mile, brought in boats  
to Dam, handed up, laid on slopes where  
wanted, patted into shape, then the turf which  
is obtained from the nearest islands by  
cutting the grass plots into squares with  
a Mamatie (about one foot each) is brought  
in boats to Dam, handed up, laid on  
clay slope, the squares fitting into each  
other, watered & well rammed.

Small stone pitching last monsoon it was found that when  
there is a sudden rise of water, the clay &  
turf, formerly laid was insufficiently  
strong to bear even an horse's wash - it was  
therefore necessary to lay small stones on  
the turf - this makes it very strong as the  
grass grows through the small stone & binds  
them together - this has been done in some  
places

P.W.D.  
28 MAR 77  
No 3200

The Assistant Engineer  
Cochin Range

Malabar

Dated 19<sup>th</sup> March 1877

Repairs & Maintenance to C. M. Dam  
Sub Divisional Officer Cochin.  
Forwards specification  
to accompany estimate No 485

4.09: April/77 S.D. 222

No 256

138  
Malabar District Engineer's  
Office Camp Luchadie 27 March 77

From, The District Engineer  
Malabar

To, The Chief Engineer  
Roads and Buildings  
Madras

Roads & Buildings

Sir,  
With reference to G.O. No 939 dated  
10<sup>th</sup> April 1876, I have the honor to forward for sanc-  
tion and provision of funds, an estimate and  
specification for repairing and maintaining  
the Cruz Molage Dam at Cochin during 1877-78.  
The estimate provides, besides labor  
and materials for repairing the dam itself, for  
the pay of the petty establishment.  
Should the estimate meet with  
your approval, I beg that funds may be al-  
located as early as possible to enable the work  
being completed and settled before the setting  
in of the monsoon.

I have the honor to be,  
Sir,  
Your most obedt servant  
Rt. W. Kennedy Esq.  
District Engineer, Malabar

7/6

GO No 1315- 16-5-74  
 " 1714- 25-6-74  
 No. 191- 7- "  
 GO No 2437- 25-8- "  
 " 835 24-3-75  
 " 3450- 6-12-75  
 " 939- 10-4-76

*Roads & Buildings*

F.W.D.

28 MAR 77

*From 2249*

*The District Engineer*

*Malabar*

No 256

*Date 25th March 1877*

*No. of Enclosures 2. A*

*Cruz Milagre Dam*

*Towards an Estimate of Rs 485 for Early Sanction.*

*By G. A. P. 1877 No. 222*

*See 4-4-77*

*Public Works Department*

*No 1716*

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Under date the 9 April 77  
 Read the following:—

*From*

*The District Engineer  
 Malabar*

*(No. 256 of 24 March 1877)*

*The estimate of Rs 485 for repairing and maintaining the Cruz Milagre dam at Cochin during 1877-78 is sanctioned.*

*Funds are appropriated from the Provincial Reserves of 1877-78.*

*31.3.77*

*2nd Lt. The Hon. R. S. D. S.*

*Let 12/75 be increased for "expenses" incurred for the survey and plan of the dam. The Rs 485 is sanctioned. The Rs 485 is sanctioned for the dam. The Rs 485 is sanctioned for the dam.*

*The Government are of opinion that as the maintenance of the Cruz Milagre Dam is essential for the safety of the port of Cochin the present and all future expenditure*

*Propd 31.4.77*

Expenditure should be  
defrayed from Port  
Funds - These papers  
will therefore be com-  
municated to the Marine  
Department in order that  
the required provision of  
funds may be made.

This sanction  
has been re-  
quired as Special  
No 10 W. of 1877-78

10/4

Govt. of India  
PUBLIC WORKS.

To The D. B. Malabar

Dated

Recd.

Encl.

G. O. 9<sup>th</sup> April 1877, No. 1216

No. 222-223

Cruz Milagro Dam,  
Malabar. The  
estimate of Rs. 1000 for  
repairing & maintaining  
during 1877-78 the —  
sanctioned, funds being  
provided in the Marine Dept.

Supd. Secy.