

- (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.	1502	Press
B.P. No.		Mis. -
Dated	31 - 5 - 195	6875

Not to be folded or roughly handled

*Proceedings of the Madras Government, Public Works Department,
31st May 1875.*

No. 578. Read the following Proceedings of the Madras Government in the Military Department, dated 7th May 1875, No. 2,176:—

Read the following papers:—

Memorandum from Brigadier-General A. HOWLETT, c.B., Quartermaster-General, to Colonel A. C. SILVER, Secretary to Government, Military Department, dated Fort St. George, 1st May 1875, No. 2,853.

FORWARDED to Government, with the approval of His Excellency the Commander-in-Chief in continuation of this office letter, No. 454-7,332, dated 23rd October 1874, on which orders, No. 234, dated 26th January 1875, Public Works Department, were passed.

2. It is requested that, if approved by Government, the papers may be transferred to the Public Works Department for disposal.

From Captain H. M. VIBART, R.E., District Engineer, Bangalore, to Brigadier-General A. HOWLETT, c.B., Quartermaster-General, Madras, dated Bangalore, 26th April 1875, No. 130.

I HAVE the honor to forward a plan showing the remedies now proposed for preserving the ravines at the Rifle Butts from continued erosion.

The Chief Engineer did not approve of the masonry falls proposed, and directed me to send in other proposals.

1st.—With reference to Ravines I and K.

The water which passes down these ravines comes chiefly from the side-drains of the road. It is proposed to build a tunnel at L, the lowest point, pass the drainage under the roads and so into a small tank shown on the plan.

2nd.—With reference to Ravine A.

Instead of the masonry fall in the ravine, it is proposed to run a catch-channel as shown in plan A B C with a moderate fall, which will catch and dispose of most of the water now running into these ravines, and carry it to C, when it will be discharged into a ravine far removed from the butts.

3rd.—With reference to Ravine D.

It is proposed to run a channel on each side of the ravine, so as to intercept all the water. This channel will be supplied with a number of masonry falls of small dimensions by means of which the slope of channels will be reduced so as to obviate erosion, and the water which actually enters the ravines will be reduced to a minimum.

Two large holes, G and H, will be filled up, as the Assistant Adjutant-General for Musketry has informed me that he wishes to establish firing stations exactly at these points.

The total amount of the estimate is Rupees 1,460. The plan and estimate have been approved of by the Officer Commanding the Division.

APPROVED.

(True Extract.)
(Signed)

A. C. SILVER, Colonel,
Secretary to Government, M.D.

No. 579.

ORDER THEREON, 31st May 1875, No. 1,502.

MILITARY WORKS, No. 17-A.

THE Government observe that their Order of the 26th January 1875, No. 234, did not direct the District Engineer to

Proceedings of the Madras Government, Public Works Department,
31st May 1875.

bring forward new proposals for the work in question, but to frame an estimate for carrying out those contained in the memorandum by the Under Secretary to Government which was printed with their Proceedings of the same date. The catch-drain at the head of nullah A, on the plan now furnished by Major Vibart, and the tunnel at L, being in accordance with that memorandum, are approved, but the other arrangements therein alluded to should be estimated for, such as the sloping and partial filling up of the nullahs D, I, and K, and the provision of rough stone falls in the beds of ravines, &c.

2. The catch-drain and stone falls proposed by the District Engineer would no doubt assist in preventing the ravines from extending themselves, but to complete their protection it is necessary that their sides should be sloped and conserved and their beds protected.

(True Extract.)

Major, R.E.,
Offg. Joint Secretary to Government.

To the Military Department.
" District Engineer, Bangalore.
" Controller of Public Works Accounts.

Approximate Estimate of the
probable cost of cutting out channel and
building a Tunnel ~~Ycar~~ in the Rifle
Range at Bangalore. Vide G.O. No 234 dated 26th
January 1875

Quantity Description of work Rate Per Month Estab

Cutting
2137²⁰/₂₇ Cys of cutting out earth
work for channel 46 cys 601
Total 601

Over falls 2 1/2 feet
252 Cfs of Excavation 2 cfs 3
155 " Stone in chunam 3 " 29
17 Sqr of Stone flooring 9 " Sqr 2
72 " Pointing with chunam 18 " 1

Total for one 35
Total for nine over falls 315

Over falls 18
198 Cfs Excavation 1 1/2 cfs 2
121 " Stone in chunam 3 " 23
17 Sqr of stone flooring 9 " Sqr 2
72 " Pointing with chunam 18 " 1

Total 28

Carried over 944

Quantity Description of work Rate Per Amount Total

Brought over 944

Tunnel

1322	6 ft of Excavation	" " 1 ft	7
379	Stone in chunam	" 3 " "	71
19	N ^o of covering stones $6 \times 1\frac{1}{4} \times \frac{1}{2}$	1 " " 6	19
2	Stone over parapets $9\frac{1}{2} \times 1\frac{1}{4} \times 2$	" " "	4
98	Sq ^{rs} of stone flooring	9 " " sq ^{rs}	9
61	6 ft of Levelling Course of concrete under stone floor	" 33 ft	12
1.82	Sq ^{rs} of Pointing with chunam	18 " sq ^{rs}	3
2.52	" of Graveling	1 " " "	3

Total 128

Levelling the ground from the above Tunnel to Tank

Filling the holes G.H.

50

162	6 ft of Excavation	" " 1 ft	1
650	Rough stone revetment	" 16 "	61
8850	Earthwork for filling the two holes	" " 3 "	138

Total 200

1322

138

Total Estimate Rupees 1460

Sub

District Engineer's Office
Bangalore
23rd April 1876

Major J. H. V. Bant Captain R. E.
District Engineer Bangalore

P. W. D.

Proceedings of the Madras Government,
Under date, 1st May 1875.

Read the following:—

Pro. of the Military Dept. No. 2176 of 4th May 1875
by No. 1502 of 31st May 1875—

The Government observe
that their order of the
28th January 1875 No. 234
did not direct the District
Engineers to bring forward
new proposals for the work
in question, but to frame
an estimate for carrying
out those contained in the
Memorandum by the
Under Secretary to Govt.
which was permitted with
their proceedings of
the same date.

The.

No. 2262/75

209/10 3388

The Catch drain at the head of Mullah A, on the plan now furnished by Major Tibart and the Tunnel at L, being in accordance with the plans, are approved, but the other arrangements therein alluded to should be retained for, such as the sloping and partial filling up of the Mullahs D, I and K, and the provision of rough stone falls in the beds of the ravines &c.

The Catch drain and stone falls proposed by the District Engineer would no doubt assist in preventing the ravines from extending themselves but to complete their protection, it is necessary that

that their sides, should be sloped and covered and their beds protected

Am. C. S.

21/5/75

15 To H. B. Dept.
2. D. E. Bangalore
5. Cont. W. & C.

12-6-75

1000
1000
1000

1000
1000

1000
1000

1000
1000

1000-579

1000
1000

1000
1000