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- (3) Initials of the Referencer _____

MADRAS RECORD OFFICE

Government of Madras

Public Works DEPARTMENT

G.O. No.	415	Press
B.P. No.		Mis.
123 6125		
Dated	6 3	18/3

Not to be folded or roughly handled

*Proceedings of the Madras Government, Public Works Department,
6th March 1873.*

Read the following papers:—

No. 123. From the District Engineer, Bangalore, to the Chief Engineer, Public Works Department, dated Bangalore, 20th January 1873, No. 907.

I HAVE the honour to forward for sanction an estimate of Rupees 4,580, with plan and specification, for constructing a side road-drain for conveying into the main sewer the drainage of European Infantry Barracks, prepared on the requisition of the Military Authorities.

2. The work has received the approval of the Officer Commanding the Division and His Excellency the Commander-in-Chief.

3. The Officer Commanding the Division considers the work to be urgently required, and has reported accordingly to His Excellency the Commander-in-Chief.

REFERRED to the Inspecting Engineer for Buildings for any remarks he may have to make.

To be returned for early disposal.

FORT ST. GEORGE,
24th January 1873.

(Signed) G. W. WALKER, Colonel, R.E.,
Secretary to Government.

No. 124. From the Inspecting Engineer for Civil and Military Buildings, to the Chief Engineer, Public Works Department, dated Chepauk, 21st February 1873, No. 163.

1 Estimate.
1 Specification.
1 Plan.

1 Letter from District Engineer, No. 907, 20th January 1873.

IN returning the estimate of Rupees 4,580, with plan and specification, for improving the drainage of the Infantry Barracks at Bangalore, I have the honour to state that I have not found it necessary to make any alterations in them.

No. 125. ORDER THEREON, 6th March 1873, No. 715.

MILITARY WORKS, No. 6.

HIS Excellency the Governor in Council sanctions the estimate of Rupees 4,580 for the construction of a side road-drain for conveying into the main sewer the drainage of the European Infantry Barracks at Bangalore, and directs that the work be proceeded with in anticipation of a specific provision of funds. Captain Vibart will report what amount can be spent this year.

(True Extract.)

Colonel, R.E.,
Secretary to Government.

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

Exd. S. T. Austin.

Estimate of the probable cost of constructing
the side road drain from the N. W. Corner of the Married
Quarters and catch drain in front of New School room
European Infantry Barracks to the Main Sewer near
the Ulsoor Lake

Measurement No. C B D	Particulars of work	Rate Per	Amount	Total
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Drain from A to B

635 Pft of Stone slab
drain 2 feet at top $1\frac{1}{2}$
feet at bottom and

1 foot deep $\times 4$ Pft 793 12

Drain from B to C

350 Pft of Slab Stone drain

3 ft at top $2\frac{1}{2}$ ft at bottom

and $1\frac{1}{4}$ feet deep $\times 6$ Pft 481 4

Drain from C to D

260 Pft of Slab Stone drain

$3\frac{1}{2}$ ft at top $3\frac{1}{2}$ ft at bot

tom and $1\frac{1}{2}$ ft deep $\times 8$ Pft 392

Carried over 1665

Measurement
N: L B D Content
Particulars of work Rate Per Amount Total

Brought over 1665

Over fall to Road Culvert

(at E on Section)

Excavation

1 6 8 2 1/2 120 - D: for side walls

and steps

1 4 8 1 1/2 48 - D: - D: -

Total 168 cft of Excavation for

foundation

168 - D: Foundation stone

in chunam

Superstructure

2 6 1 3/4 4 1/4 70 1/2 Side walls of overfall

2 4 1 3/4 4 1/4 46 3/4 - D: - D: -

Total 116 7/8 cft of Superstructure

stone in chunam

4 (5 2 3) 4 No of Stone slabs for

steps

4 5 3/4 3 4 - D: - D: - face

1 4 4 16 Sqr of Stone flooring

2 10 5 10 Sqr of Pointing

Carried over 1722 15 8

Measurement
N: L B D Content
Particulars of work Rate Per Amount Total

Brought over 1722 15 8

Drain from E to C

Excavation

2 4 2 2 1 1/2 2532 Side walls of drain

Total 2532 cft of Excavation

2532 - D: Foundation stone

in chunam 2 6 cft 395 10

Superstructure

2 4 2 1 3/8 4 4642 Side walls of Drain

Total 4642 cft of Superstructure

stone in chunam 2 9 cft 797 13 6

1 4 2 3 1266 Sqr of Stone flooring for

Drain 15 Sqr 189 14 4

1 4 2 4 2 2 1 cft of V shaped drain at

centre

2 4 2 5 4 2 2 0 Sqr of Pointing to side wall of

Drain

Over fall into Main

Sewer at C

Excavation

12 8 10 960 - D: for overfall

6 13 14 1092 Entrance to main sewer

Total 2052 cft of Excavation

Carried over 3324 2 3

Measurement N: L B D	Particulars of work	Rate	Per	Amount	Total
Brought over 332423					
<u>Foundation</u>					
1 12 8 2½ 240	Ds. for steps and side walls				
1 6 8 1½ 72	Ds. Entrance of the				
	Main Sewer				
Total	312 Cft. of foundation stone				
	in chunam			26 Cft. 4812.	
<u>Superstructure</u>					
2 10½ 1¾ 4 147	Side walls of overfall				
2 12 1¾ 4 132	Ds. above Ds.				
2 6 1¾ 3½ 73½	Side walls to entrance				
	of the Main Sewer				
1 7 1½ 8 84	Parapets Ds.				
Total	436½ Cft. of Superstructure Stone				
	in chunam			29 Cft. 45.4	
8 (5 2 3) 8	Ns. of Stone slabs for steps	14	8	10	
8 (5 ¾ 3) 8	Ds. Ds. face to Ds.	76	8	312	
8 5 40	Sqrs. of Stone flooring to en-				
	trance of the Main Sewer	15	8	6	
10 (7 ¾ 4) 10	Ns. of covering stone over				
	the entrance of the				
	Main Sewer	106	8	69	
Carried over 347437					

Measurement N: L B D	Particulars of work	Rate	Per	Amount	Total
Brought over 347437					
<u>Pointing</u>					
2 10½ 5 105	Side walls to overfall				
2 12 5 120	Ds. above Ds.				
2 6 3½ 42	Side walls of entrance				
	of the Main Sewer				
1 4½ 9 40½	Parapets over Ds.				
Total	307½ Sqrs. of Pointing	18	sqn.	499	
1 (4 3 1½) 1	Dismantling side				
	walls of the Main				
	Sewer for waterway			1	
	Drain in front of				
	New School E. of B.				
440 3 1¾ 2310	Cft. of Excavation for Drain	15	½ cft.	6	
460	1 ft. of Drain 2½ ft. at top				
	2 ft. at bottom and 1½ ft. depth	14	1 ft.	575	
400 63 25200	Sqrs. of cleaning and level-				
	ling the ground on each				
	side of the drain	24	sqrs.	318	
					409257
Lundries					207105
Total Rupees					4300
Carried over 4300					

Specification to accompany
Plan and Estimate for constructing the
side Road Drain from the N.W. corner
of the Married Quarters and catch Drain
in front of new school room European
Infantry Barracks to the Main sewer
near the Ulster Bank.

Amount of Estimate Pupies 4580

The present side road drain from
the northwest corner of the Married
Quarters to the culvert just below the
old Guard Room on the south side of
Dickenson's road, receives and carries off
the drainage of the European Infantry
Barracks, its fall is irregular, and is
choked up in many places, it is to be
re-made with slab stone as shewn on
plan with a fall of 1 in 120 (see General
cross section, and N.B. on Plan).

The Road culvert is to be
rebuilt

rebuilt as follows

The Foundation will consist of a levelling Foundation course of stone 6 in thickness, the stone to be set close, and the joints properly flushed with mortar, over this a layer of concrete average thickness $7\frac{1}{2}$ inches. It will be mixed on the levelling course of stone thus $1\frac{1}{2}$ of sand, 1 of quick lime to $2\frac{1}{2}$ of granite jelly.

It will be laid and well rammed to receive the stone & drain flooring.

The flooring will be laid in form of a V drain 6 in depth.

The side walls will be built with stone in chunam 4 in height and $1\frac{1}{2}$ in thickness. The joints to the side forming the culvert will be raked out and pointed with Portland cement.

The covering stones will be 7 in length, and 6 in thickness the edges dressed square and to be set close, the joints

Parapet
Walls

Coping

Remaking
Road

Flooring

Side walls

Covering
Stones

joints not exceeding $\frac{1}{4}$

The parapet walls will be 7 in length $2\frac{3}{4}$ in height above the covering stones or $1\frac{1}{4}$ above the level of the road and $1\frac{1}{2}$ in thickness. At all exposed parts the joints are to be raked out and pointed with good lime putty.

The coping to the parapet wall is to be formed with one stone $7\frac{1}{2} \times 2 \times \frac{1}{4}$ the top surface to be smooth and the edges dressed square.

The road will be remade 1st 6 of clay over the covering stones, 2nd $4\frac{1}{2}$ of granite stone jelly 3rd $1\frac{1}{2}$ of clean laterite gravel; the whole to be well watered and rammed until quite hard. For details see cross section on Plan.

The overfall at E will be built with stone in chunam the steps will be formed with slab stones for details (see plan and Longitudinal section).

The

The present drain from the above mentioned culvert has a very irregular fall and direction, it delivers its water into the Ulsoor Lake, to prevent this it is to be remade with stone side walls, and slab stone flooring with a small V drain down its centre from the culvert to the cleaning shaft of the Main sewer on the Ulsoor Lake Road. for details (see Plan and cross section).

The abovementioned drain will discharge itself into the Main sewer by an over fall at G. The sidewalls will be built with stone in chunam. The steps will be formed with slab stone, and the inlet between the over fall and the shaft to Main sewer will be covered with slab stone. The south wall to the shaft will be cut out 4 in length and 3 in height. The top will be remade with lintel stone.

The

The flooring to the inlet and bottom of opening in the Main sewer will be floored with slab stone having a fall of 6. For details (see detail plan section and Index Plan).

A slab stone drain will be built on the south and east sides of the new School Rooms, to prevent the school Rooms from being flooded during the heavy rains (The school rooms stand on low ground and have very little basement). This drain will be built parallel to the Building about 56 feet clear of the building. It will deliver itself at the west end into the present drain from the Married Quarters and at the north end into the side road drain to Dickentons Road. The sides and flooring will consist of slab stones set in chunam, and pointed with Portland cement.

It will have four crossings formed with slab stones one opposite each main door of school room and one for Bandy crossing at the South East corner of the school room. For details (see plan)

All materials used and work done to be of the best description and subject to the approval of the District Engineer of Bangalore who shall have the entire power of ordering the removal of any work with which he is dissatisfied.

Henry M. Beal Captain R. E.

Distt. Engrs Office

Bangalore

7th December 1872

District Engineer

Bangalore

District Eng^r Office
Bangalore 20 January 1873

No 907

From

The District Engineer
Bangalore

To

The Chief Engineer
P. Works Department
Madras

Sir

I have the honor to forward for sanction an estimate of Rs 4,580 with Plan and Specification for constructing a side road drain for conveying into the main sewer the drainage of European Infantry Barracks prepared on the requisition of the Military Authorities.

The work has received the approval of the Officer Commanding the Division and is recommended by the Commanding Chief-

From
The District Engineer
Bangalore
To the Chief Engineer
P. Works Dept
Madras

Dated 20 January 1873
Recd

Estimate for
constructing the Side
road drain from the
N.W. corner of the Messed
2nd & 3rd canteen drain in
front of new school from
European Infantry Bks to the
main sewer near the
Moor tank.
Amounting to
Rs 4,580—

1382-91193
P. W. 4287/73

1382-91193

10. 6. 1873
The Officer commanding
-ing the Division considers the
work to be urgently required
and has reported accordingly
to H. E. the Command-in-Chief-

I have the honor to be
Sir

Your Most Obedt Servt

Herbert Vivian - Captain R.E.
District Engrs Bangalore

Ct.

G. W. Dept
No 715

Proceedings of the Madras Government
Under date the February 1873
Read the following

From the District Engineer
Bangalore. (Fore enter No 907/20 Aug 1873)

From the Inspecting Engineer
Civil & Military Buildings (Fore enter No 163/21 Feb 1873)

N. C. the Governor in
Council sanctions the estimate
of Rs 4500 for the con.

struction of a side road
drain for conveying into the

drain under the drainage of
the European Infantry Barrick

that the works be proceeded
with in anticipation of a

specific provision of funds.
Capt Vichart will report
what amount can be spent
this year.

W. H.

Shape the draft. but I
think the Inspecting
Engineers report very
meagre - I should have
liked to have known
whether this was
cheapest method
of doing what was
required.

26. L. E. Bangalore. Defpts of persons
the drainage & other particulars
Capt Vichart will report
what amount can be spent
this year.

The D. Engineer
Bangalore.

P. M. 1873 4th March
From Bangalore 10/4/28.

To The D. Engineer
Bangalore.

Received 20 Jan 1873
Recd 22/1/73

Amounting for sanction
of Rs 2000000.

our estimate of Rs 4500

with the plan specified.

for construction

a drain for conveying

the drainage of E. P. Bk.

into the main sewer.

Referred to the

Inspecting Engineer

for Buildings for any

remains to be made

leave to make it.

to be returned for early

decision.

W. H. 1873

24/1/73

1873

P. M. 1190/73.
1/2/73
Bangalore 1/2/73

1873
1/2/73
Bangalore 1/2/73

U. N. 4/20/73

Chell 190



Gobt. of 1873 Madras.

PUBLIC WORKS.

The District Engineer
Bangalore

* Plan with G.O. No. 1630.

Dated

Recd.

Encl. 4

G. O. No. 715.

No. 123 @ 125

European Infantry Barracks at Bangalore.

Estimate Rs. 4580 for the
Construction of a side
road drain for conveying
into the main sewer
the drainage of the E. I.
Barracks at Bangalore,
sanctioned with remark.

N 123: 25.