(1) பக்கங்களின் எண்ணிக்கை 32

(2) புதுக்கித் திருப்பிய நாள் 5/10

(3) ஆதாரங்குறிப்பவர் சுருக்கொப்பம்

தமிழ்நாடு ஆவணக் காப்பகம்.

தமிழ்நாடு அரசு

19

துறை

அரசாணை எண். 2763-64 அச்சகம்
மு. கோப்புத் தாள் எண். பலவகை

நாள் : 2 — 10 — 1889 198 .

மடிக்கவோ கண்டபடி கையாளவோ கூடாது

ஆவண. கா-1—18,000—15-6-87.

2763-4

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Military Works.

READ—the following paper:—

From Brigadier-General M. PROTHEROE, C.B., C.S.I., Quartermaster-General, to the Secretary to Government, Military Department, dated Ootacamund, 9th September 1889, No. 2546 B.

With reference to O.G., No. 6019, dated 2nd instant, I am desired to state that proposals for the utilization of the reserve of Rs. 617 will be submitted later on in the current official year after it has been ascertained from districts whether money is required to supplement the grants already sanctioned in Proceedings of Government,* No. 5797, dated 26th ultimo, or for allotment to any additional sanitary work.

* Proceedings of Government (Public Works Department), No. 2155 W., dated 10th August 1889.

2. I am also to forward a list showing the order in which it is proposed that funds should be allotted to the remaining works required to complete the sanitary improvements to lines of native troops in this command.

ENCLOSURE.

STATEMENT showing the order in which it is proposed to allot funds for the following works connected with proposals for the better sanitation of lines of Native troops of the Madras Army.

Order of urgency.	District.	Station.	Lines.	Works.	Approximate cost.	Remarks.
					Rs.	
I	Secunderabad.	Secunderabad.	All lines ..	Completion of sub-soil drainage.	1,000	Public Works Department, Government of India.
II				Latrine accommodation (public) Bowenpilly, Begumpet and Tarbund lines, one latrine each.	1,800	
III				Masonry or concrete surface drains to all lines.	50,000	
I	Belgaum ..	Bellary ..	North and South Infantry lines.	Latrines (2), one in each set of lines, at Rs. 800 each.	1,600	
II	Do. ..	Mangalore ..	Madras Infantry lines.	Additional latrine accommodation.	600	
III	Southern ..	Trichinopoly.	Madras Infantry (Pioneer) lines.	Removal of a chucklers' parcherry reported as very insanitary.	2,000	
IV	Madras ..	Sámalkót ..	Madras Infantry lines (Detachment).	Enlargement of latrine or construction of a new one.	300	
V	Do. ..	Pallávaram ..	Do. ..	Two latrines on reoccupation of lines by a Madras Infantry half battalion.	1,600	
VI	Do. ..	Ráyapuram ..	Madras Infantry lines.	Improvements to drainage ..	415	
VII	Southern ..	Trichinopoly.	Madras Infantry (17th) lines.	Masonry surface drainage of lines.	8,000	

Statement showing the order in which it is proposed to allot funds, &c.—*cont.*

Order of urgency.	District.	Station.	Lines.	Works.	Approximate cost.	Remarks.
					Rs.	
VIII	Belgaum ..	Bellary ..	North and South Infantry lines.	Masonry or concrete drains at Rs. 10,000 for each set of lines.	20,000	
IX	Do. ..	Belgaum ..	Right and left flank lines.	Masonry surface drains ..	23,000	
X	Do. ..	Mangalore ..	Madras Infantry lines.	Do. do. ..	11,710	Negatived by Government of India (see Proceedings of Government, No. 1226, dated 21st February 1888).
XI	Madras ..	Saint Thomas' Mount.	Madras Infantry lines (Detachment).	Straightening, &c., of drains.	250	
XII	Do. ..	Sámalkót ..	Do. ..	Improvements to walls ..	100	
XIII	Belgaum ..	Mangalore ..	Madras Infantry lines.	Do. to 2 wells ..	300	

OOTACAMUND,
9th September 1889.

(Signed) M. PROTHEROE, Brigdr.-Genl.,
Quartermaster-General.

No. 6480, Military.

Transferred to the Public Works Department, with reference to Proceedings of Government (Military), No. 6019, dated 2nd September 1889.

FORT ST. GEORGE,
23rd September 1889.

(Signed) H. R. SHELLEY, Colonel,
for Secretary to Government.

ORDER—dated 2nd October 1889, No. 2763 W., Public Works.

Communicated to Superintending Engineers concerned for information.

2. The preparation of plans and estimates for items 12, 13 and 15 to 24 of the schedule circulated with G.O., No. 2604 W., dated 20th September 1889, should be undertaken in the order given in the statement annexed to the letter from the Quartermaster-General above recorded.

3. Ordered that a copy of these Proceedings be forwarded to the Government of India, Military Department, for the information of the administrations concerned with reference to items 9 to 11 and 14 of the schedule forwarded with letter No. 2605 W., dated 20th September 1889.

(Here enter No. 2764 W., dated 2nd October 1889.)

(True Extract.)

(Signed) R. R. E. DRAKE-BROCKMAN, Lt.-Col., R.E.,
Ag. Joint Secy. to Govt., P.W.D.

To the Superintending Engineer, I Circle.
" " " III "
" " " IV "
" " " V "
" " " VI "
" Military Department.

ENDORSEMENT— dated 2nd October 1889, No. 2764 W., Public Works.

Forwarded.

(By Order.)

Lieut.-Colonel, R.E.,
Ag. Joint Secy. to Govt., P.W.D.

Exd. J. Moses.
Spare Copies

2763-4

2

BUILDINGS AND ROADS.
MILITARY WORKS.

Govt. of {1889} Madras.

PUBLIC WORKS.

Dated October, 2nd.

Read. *Encl.*

G.O., 2nd Oct. 1889, Nos. 2763, : 2764 W.

OCTOBER.

Sanitary Works

Forwarding copy of Proceedings on letter from the Quartermaster-General stating that proposals for the utilization of the reserve will be made later in the year, and forwarding a list of — showing the order in which it is proposed to allot funds.

FINAL ISSUE. 2763-4

IMPERIAL.
MILITARY WORKS.

MADRAS.

PUBLIC WORKS DEPARTMENT.

IMPERIAL BUDGET-ESTIMATE

OF

MILITARY WORKS

OF THE

GOVERNMENT OF MADRAS

FOR THE YEAR

1889-90.

CHEPÂK,
1st May 1889.

(Signed) R. R. E. DRAKE-BROCKMAN, Lt.-Col., R.E.,
Ag. Joint Secy. to Govt., P.W.D.

3

2763-4

IMPERIAL.
MILITARY WORKS.

MADRAS.

CONTENTS.

	PAGE
Abstract of the Budget-Estimate of Revenue	2
Ditto ditto of Expenditure	3
Details of the Budget-Estimate of Expenditure—	
Part I.—Detail of Estimate for Original Works, Class A	4 & 5
Ditto ditto Class B	6 & 7
Appendix to above—	
Appendix B.—List of Class C Works	8 to 17

IMPERIAL.
MILITARY WORKS.

MADRAS.

REVENUE.

ABSTRACT OF THE BUDGET-ESTIMATE OF REVENUE OF THE PUBLIC WORKS DEPARTMENT FROM MILITARY WORKS IN MADRAS FROM 1st APRIL 1889 TO 31st MARCH 1890.

——	Actuals, 1887-88.	Budget-Estimate, 1888-89.	Revised Estimate, 1888-89.	Budget-Estimate, 1889-90.
	Rs.	Rs.	Rs.	Rs.
In Public Works Department	26,973	27,800	27,000	27,000
In Civil and Military Departments	...	...	...	...
Total ...	26,973	27,800	27,000	27,000

CHARGES.

ABSTRACT OF THE BUDGET-ESTIMATE OF EXPENDITURE OF THE PUBLIC WORKS DEPARTMENT OF MILITARY WORKS IN MADRAS FROM 1st APRIL 1889 TO 31st MARCH 1890.

——	Reference to Detailed Estimate.	Actuals, 1887-88.	Budget-Estimate, 1888-89.	Revised Estimate, 1888-89.	Budget-Estimate, 1889-90.
		Rs.	Rs.	Rs.	Rs.
Original Works { In progress / Not commenced }	...	1,30,574	2,08,550	2,06,600	1,04,842 / 1,48,408
Repairs ... ... { Ordinary / Special }	...	2,93,110	3,00,000	3,03,900	2,95,650
Establishment	...	98,303	1,08,755	1,09,200	1,27,600
Tools and Plant	...	6,323	6,995	7,000	8,200
Suspense Account	...	...	...	...	...
Total ...	...	5,28,310	6,24,300	6,26,700	6,84,700

2763-4

IMPERIAL.
MILITARY WORKS.

MADRAS.

ABSTRACT OF THE CHARGES TO BE INCURRED BY THE PUBLIC WORKS DEPARTMENT FROM IMPERIAL FUNDS AND CONTRIBUTIONS IN BOTH INDIA AND ENGLAND.

——	Actuals, 1887-88.	Budget-Estimate, 1888-89.	Revised Estimate, 1888-89.	Budget-Estimate, 1889-90.								
				Original Works.			Repairs.	Establishment.	Tools and Plant.	Suspense Account.	Barrack Department.	Total.
				In progress.	Not commenced.	Total.						
Provision from Imperial Funds.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
In India ...	5,28,310	6,24,300	6,26,700	1,04,842	1,48,408	2,53,250	2,95,650	1,27,600	8,200	...	...	6,84,700
In England.	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	5,28,310	6,24,300	6,26,700	1,04,842	1,48,408	2,53,250	2,95,650	1,27,600	8,200	...	...	6,84,700
Provision from Contributions.												
In India ...	3,726	...	...	...	...	...	...	...	...	...	...	...
Grand Total...	5,32,036	6,24,300	6,26,700	1,04,842	1,48,408	2,53,250	2,95,650	1,27,600	8,200	...	...	6,84,700

STATEMENT SHOWING THE WORKS ON WHICH OUTLAY IN ENGLAND ABOVE PROVIDED FOR IS TO BE INCURRED.

——	Actuals, 1887-88.	Budget-Estimate, 1888-89.	Revised Estimate, 1888-89.	Budget-Estimate, 1889-90.					
				Original Works.			Tools and Plant.	Suspense Account.	Total.
				In progress.	Not commenced.	Total.			
Nil.									

IMPERIAL.
MILITARY WORKS.

PART

DETAIL OF THE BUDGET-ESTIMATE FOR

CLASS A

Head of Classification.	Executive Division.	Locality.	Item No.	Projects and Works.	Amount of Estimate.
					Rs.
				IMPERIAL ORDINARY.	
				Military.	
				Original Works.	
1. *Accommodation for troops*— Buildings for European troops in the plains. Permanent.	West Coast.	Malapuram ...	1	Barracks for a detachment of British Infantry to accommodate 50 additional men.	1,91,412
	Chingleput.	Poonamallee ...	2	New barracks	1,66,885
	Nilgiri ...	Wellington ...	3	Quarters for three Apothecaries ...	16,000
	Presidency.	Fort St. George	4	Converting the old Adjutant-General's office into barracks for single men.	25,097
Buildings for Native troops.	Do.	Bangalore ...	5	Additions to public buildings, Madras Infantry Regiment, for a Pioneer Regiment.	30,346
2. *Ordnance works* ...	Bellary ...	Bellary ...	6	New workshops for the Arsenal ...	45,500
				Total ...	...

[4]

2763-4

MADRAS.

I.

ORIGINAL WORKS FOR THE YEAR 1889-90.

WORKS.

Outlay.		Grant, 1889-90.			Item No.	Remarks and References.
Actual to end of 1887-88.	Probable during 1888-89.	Works in progress.	Works not commenced.	Total.		
Rs.	Rs.	Rs.	Rs.	Rs.		
1,39,673	20,234	20,000	...		1	G.O., No. 3737 W., dated 27th November 1888. Item No. 2, class A works, budget of 1888-89.
6,607	20,000	30,000	...		2	G.O., No. 465 W., dated 19th February 1879. Revised estimate is awaited. Item No. 2, class B works, budget of 1888-89.
...	14,500	1,500	...		3	G.O., No. 2448 W., dated 13th August 1888. Item No. 1, class B works, budget of 1888-89.
15,586	3,820	5,400	...	56,900	4	G.O., No. 3000 W., dated 9th November 1887.
21,903	3,210	5,000	...	5,000	5	G.O., No. 3237 W., dated 12th October 1888. Item No. 3, class A works, budget of 1888-89.
6,889	22,650	15,992	...	15,992	6	G.O., No. 2527 W., dated 17th August 1888. Item No. 5, class B works, budget of 1888-89.
...	...	77,892	...	77,892		

[5]

IMPERIAL.
MILITARY WORKS.

PART

DETAIL OF THE BUDGET-ESTIMATE FOR

CLASS B

Head of Classification.	Executive Division.	Locality.	Item No.	Projects and Works.	Amount of Estimate.
					Rs.
				IMPERIAL ORDINARY.	
				MILITARY.	
				Original Works.	
1. *Accommodation for troops*— Buildings for European troops in the plains. Permanent.	Presidency.	B. Fort St. George.	1	Converting the block of buildings containing the main guard, No. 6, Captains' quarters, &c., into barracks for single men.	5,785
	...	...	2	Institutes of British Regiments and Batteries in the Presidency.	...
Buildings for Native troops.	Presidency.	Bangalore ...	3	Public buildings for a regiment of Native Cavalry.	30,990
	...	...	4	Improving the sanitation of the lines of Native troops	...
	North Arcot.	Vellore ...	5	Providing accommodation in the Fort for two companies, Native Infantry.	...
2. *Ordnance works* ...	Bellary ...	Bellary ...	6	Five double quarters for the Staff Sergeants attached to the Ordnance Department.	35,350
	Do. ...	Do. ...	7	Timber-shed, Bellary Arsenal ...	...
	Presidency.	Madras ...	8	Shed for the camp equipage ...	6,935
	Do. ...	Do. ...	9	Workshops, Gun Carriage Factory.	...
			10	Reserve with the Government for incomplete ordnance works.	...
			11	Minor works under Ordnance ...	...
4. *Staff and Miscellaneous.*	Nilgiri ...	Ootacamund...	12	Water-supply, Lawrence Asylum...	12,350
8. *Fortifications* ...	Presidency.	Madras ...	13	Alterations to the Rifle Ranges at Veyasarpaudy.	6,076
			14	Reserve with the Government for incomplete major works.	...
			15	Reserve with the Government for incomplete minor works.	...
			16	New minor works	...
				Total ...	...
				Grand Total ...	...

2763-4

MADRAS.

I—*cont.*

ORIGINAL WORKS FOR THE YEAR 1889-90.

WORKS.

Outlay.		Grant, 1889-90.			Item No.	Remarks and References.
Actual to end of 1887-88.	Probable during 1888-89.	Works in progress.	Works not commenced.	Total.		
Rs.	Rs.	Rs.	Rs.	Rs.		
...	...	...	5,785		1	G.O., No. 2612 W., dated 24th August 1888.
...	...	...	20,000	25,785	2	Estimates are awaited.
...	...	...	20,000		3	G.O., No. 1302 W., dated 25th May 1886. Item No. 41, class C works, budget of 1888-89.
...	...	...	16,699		4	Estimates are awaited.
...	...	...	3,490	40,189	5	Do.
...	...	...	15,000		6	G.O., No. 1650 W., dated 18th June 1887.
...	...	...	2,590		7	Estimate is awaited.
...	...	...	6,935		8	G.O., No. 2558 W., dated 27th September 1887. Item No. 47, class C works, budget of 1888-89.
...	...	...	19,483		9	Estimate is awaited.
...	...	3,050	...		10	
...	...	...	5,000	52,058	11	
...	...	...	12,350	12,350	12	G.O., No. 2139 W., dated 14th July 1888.
...	...	...	6,076	6,076	13	G.O., No. 3150 W., dated 8th October 1888.
...	...	13,900	...	13,900	14	
...	...	10,000	...	10,000	15	
...	...	...	15,000	15,000	16	
...	...	26,950	1,48,408	1,75,358		
...	...	1,04,842	1,48,408	2,53,250		

IMPERIAL.
MILITARY WORKS.

PART

DETAIL OF THE BUDGET-ESTIMATE FOR

CLASS B

Head of Classification.	Executive Division.	Locality.	Item No.	Projects and Works.	Amount of Estimate.
					Rs.
				IMPERIAL ORDINARY.	
				Military.	
				Original Works.	
1. *Accommodation for troops*—					
Buildings for European troops in the plains. Permanent.	Presidency.	B. Fort St. George.	1	Converting the block of buildings containing the main guard, No. 6, Captains' quarters, &c., into barracks for single men.	5,785
	...	...	2	Institutes of British Regiments and Batteries in the Presidency.	...
Buildings for Native troops.	Presidency.	Bangalore ...	3	Public buildings for a regiment of Native Cavalry.	30,990
	...	...	4	Improving the sanitation of the lines of Native troops	...
	North Arcot.	Vellore ...	5	Providing accommodation in the Fort for two companies, Native Infantry.	...
2. *Ordnance works* ...	Bellary ...	Bellary ...	6	Five double quarters for the Staff Sergeants attached to the Ordnance Department.	35,350
	Do. ...	Do. ...	7	Timber-shed, Bellary Arsenal ...	...
	Presidency.	Madras ...	8	Shed for the camp equipage ...	6,935
	Do. ...	Do. ...	9	Workshops, Gun Carriage Factory.	...
			10	Reserve with the Government for incomplete ordnance works.	...
			11	Minor works under Ordnance ...	...
4. *Staff and Miscellaneous.*	Nilgiri ...	Ootacamund...	12	Water-supply, Lawrence Asylum...	12,350
8. *Fortifications* ...	Presidency.	Madras ...	13	Alterations to the Rifle Ranges at Veyasarpandy.	6,076
			14	Reserve with the Government for incomplete major works.	...
			15	Reserve with the Government for incomplete minor works.	...
			16	New minor works	...
				Total ...	...
				Grand Total ...	...

2763-4

MADRAS.

I—*cont.*

ORIGINAL WORKS FOR THE YEAR 1889-90.

WORKS.

Outlay.		Grant, 1889-90.			Item No.	Remarks and References.
Actual to end of 1887-88.	Probable during 1888-89.	Works in progress.	Works not commenced.	Total.		
Rs.	Rs.	Rs.	Rs.	Rs.		
...	...	...	5,785		1	G.O., No. 2612 W., dated 24th August 1888.
...	...	...	20,000	25,785	2	Estimates are awaited.
...	...	...	20,000		3	G.O., No. 1302 W., dated 25th May 1886. Item No. 41, class C works, budget of 1888-89.
...	...	...	16,699		4	Estimates are awaited.
...	...	...	3,490	40,189	5	Do.
...	...	...	15,000		6	G.O., No. 1650 W., dated 18th June 1887.
...	...	...	2,590		7	Estimate is awaited.
...	...	...	6,935		8	G.O., No. 2558 W., dated 27th September 1887. Item No. 47, class C works, budget of 1888-89.
...	...	...	19,483		9	Estimate is awaited.
...	...	3,050	...		10	
...	...	...	5,000	52,058	11	
...	...	...	12,350	12,350	12	G.O., No. 2139 W., dated 14th July 1888.
...	...	...	6,076	6,076	13	G.O., No. 3150 W., dated 8th October 1888.
...	...	13,900	...	13,900	14	
...	...	10,000	...	10,000	15	
...	...	...	15,000	15,000	16	
...	...	26,950	1,48,408	1,75,358		
...	...	1,04,842	1,48,408	2,53,250		

2763-4

APPENDIX

LIST OF WORKS (OR CLASS C WORKS) OMITTED FROM THE BUDGET-ESTIMATE OF 1889-90, BUT ON WHICH EXPENDITURE MAY BE INCURRED DURING THE YEAR BY RE-APPROPRIATION FROM CLASS B WORKS.

Head of Classification.	Executive Division.	Locality.	Item No.	Projects and Works.	Amount of Estimate.	Outlay. Actual to end of 1887-88.	Outlay. Probable during 1888-89.	Amount applied for 1889-90. Works in progress.	Amount applied for 1889-90. Works not commenced.	Amount applied for 1889-90. Total.	Item No.	Remarks and References.
				IMPERIAL ORDINARY.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.		
				MILITARY.								
				Original Works.								
1. *Accommodation for troops*— Buildings for European troops in the plains. Permanent.	Bellary ...	Bellary ...	1	Swimming-bath, British Infantry.	7,644	...	...	...	7,644		1	G.O., No. 2434 W., dated 19th October 1885. Item No. 3, class C works, budget of 1888-89.
	Do. ...	Do. ...	2	Alterations and additions to the military prison.	...	...	...	...	3,980		2	Estimate is awaited. Item No. 2, class C works, budget of 1888-89.
	Do. ...	Do. ...	3	Guard-room for the station hospital.	4,290	...	...	...	4,290		3	G.O., No. 1384 W., dated 17th May 1888.
	Do. ...	Do. ...	4	Infectious disease ward, cook-house and station hospital.	6,140	...	...	...	6,140		4	G.O., No. 320 W., dated 7th February 1884. Item No. 1, class C works, budget of 1888-89.
	Do. ...	Do. ...	5	Purveyor's quarters for the station hospital.	3,046	...	...	...	3,046		5	G.O., No. 771 W., dated 7th March 1888.
	Do. ...	Do. ...	6	Reroofing verandah of marriage range, European Infantry Barracks.	13,307	...	...	...	13,307		6	G.O., No. 3420 W., dated 15th December 1887.
	Nilgiri ...	Wellington ...	7	Quartermaster's stores and office for British Infantry Regiment.	...	...	...	...	25,000		7	Estimate is awaited.
	Do. ...	Do. ...	8	A ward to accommodate 35 men, station hospital.	...	...	...	...	20,000		8	Do.
	Do. ...	Do. ...	9	Gymnasium, 2nd Royal Fusiliers.	...	...	...	...	10,000		9	Estimate is awaited. Item No. 8, class C works, budget of 1888-89.
	Do. ...	Do. ...	10	Quarters for three hospital purveyors.	4,750	...	...	...	4,750		10	G.O., No. 615 W., dated 21st February 1888. Item No. 49, class C works, budget of 1888-89.
	Do. ...	Do. ...	11	Constructing hut barracks for 500 men.	...	...	...	...	10,000		11	Estimate is awaited.
	Do. ...	Ootacamund...	12	Quarters for a Sub-Conductor attached to the Army headquarters.	...	...	...	...	7,500		12	Do.
	Do. ...	Do. ...	13	Converting the Sapper hospital building on Stonehouse Hill into quarters for two Sergeant Instructors, N.V. Rifles.	3,600	...	...	...	3,600		13	G.O., No. 1068 W., dated 9th April 1888.
	West Coast.	Calicut ...	14	A new barrack with subsidiary buildings for 30 men.	...	...	...	...	20,000		14	Estimate is awaited. Item No. 9, class C works, budget of 1888-89.
	Presidency...	Bangalore ...	15	One block of two quarters for two Sergeants, "Queen's Own" Sappers and Miners.	...	...	...	...	3,000		15	Estimate is awaited.
	Do. ...	Do. ...	16	Quarters for Schoolmaster and Schoolmistress, Royal Artillery.	10,240	...	...	...	10,240		16	G.O., No. 2384 W., dated 20th September 1886. Item No. 28, class C works, budget of 1888-89.

8

IMPERIAL.
MILITARY WORKS.

APPENDIX

LIST OF WORKS (OR CLASS C WORKS) OMITTED FROM THE BUDGET-ESTIMATE OF 1889-90, BUT ON CLASS B

Head of Classification.	Executive Division.	Locality.	Item No.	Projects and Works.	Amount of Estimate.
					Rs.
				Brought forward ...	
				IMPERIAL ORDINARY—*cont.*	
				MILITARY—*cont.*	
				Original Works—cont.	
1. *Accommodation for troops*—Buildings for European troops in the plains. Permanent.	Presidency.	Bangalore ...	17	New orderly room or conversion of Quartermaster's stores into orderly room and stores, 12th Lancers.	...
	Do. ...	Do. ...	18	Battery office for Royal Horse Artillery.	5,680
	Do. ...	Do. ...	19	Buildings for Wheeler's shop, Royal Artillery.	...
	Do. ...	Do. ...	20	Quarters for the Senior Apothecary, North Station Hospital.	5,300
	Do. ...	Do. ...	21	Quarters for the Assistant Apothecary, North Station Hospital.	4,773
	Do. ...	Madras ...	22	New military hospital on the site of the old fishing village near the Presidency College.	...
	Do. ...	Fort St. George.	23	Wash-houses to be built outside the barracks in lieu of the north and south wash-houses inside.	...
	Do. ...	Do. ...	24	Garrison bazaars to be done away with and new cook-houses to be built on the site.	...
	Do. ...	Do. ...	25	Repairs to floors of B, C, D blocks, family quarters.	...
	Do. ...	Do. ...	26	Construction of coach houses and stables for the use of officers.	...
	Chingleput.	Poonamallee...	27	Warrant officers' quarters ...	...
	Do. ...	Do. ...	28	Two Staff Sergeants' quarters, 1st class.	...
	Do. ...	Do. ...	29	Coffee-shop	...
	Do. ...	Pallávaram ...	30	One mortuary room for each of the three hospitals, Nos. 1 to 3.	...
	Do. ...	St. Thomas' Mount.	31	A wheeler and collar-maker's shop for the west barracks.	5,660

2763-4

MADRAS.

B—*cont.*

WHICH EXPENDITURE MAY BE INCURRED DURING THE YEAR BY RE-APPROPRIATION FROM WORKS—*cont.*

Outlay.		Amount applied for 1889-90.			Item No.	Remarks and References.
Actual to end of 1887-88.	Probable during 1888-89.	Works in progress.	Works not commenced.	Total.		
Rs.	Rs.	Rs.	Rs.	Rs.		
...	...	...	6,500		17	Estimate is awaited. Item No. 29, class C works, budget of 1888-89.
...	...	...	5,680		18	G.O., No. 2906 W., dated 17th September 1888. Item No. 30, class C works, budget of 1888-89.
...	...	...	3,100		19	Estimate is awaited. Item No. 31, class C works, budget of 1888-89.
...	...	...	5,300		20	G.O., No. 3385 W., dated 27th November 1883. Item No. 34, class C works, budget of 1888-89.
...	...	...	4,773		21	G.O., No. 938/2 W., dated 5th April 1884. Item No. 35, class C works, budget of 1888-89.
...	...	...	25,000		22	Estimate is awaited.
...	...	...	2,500		23	Do.
...	...	...	4,500		24	Do.
...	...	...	10,070		25	Estimate is awaited. Item No. 25, class C works, budget of 1888-89.
...	...	...	15,770		26	Estimate is awaited. Item No. 26, class C works, budget of 1888-89.
...	...	...	3,500		27	Estimate is awaited. Item No. 11, class C works, budget of 1888-89.
...	...	...	6,000		28	Estimate is awaited. Item No. 12, class C works, budget of 1888-89.
...	...	...	9,000		29	Estimate is awaited. Item No. 13, class C works, budget of 1888-89.
...	...	...	3,000		30	Estimate is awaited. Item No. 14, class C works, budget of 1888-89.
...	...	...	5,660		31	G.O., No. 2717 W., dated 3rd November 1884. Item No. 15, class C works, budget of 1888-89.

IMPERIAL.
MILITARY WORKS.

LIST OF WORKS (OR CLASS C WORKS) OMITTED FROM THE BUDGET-ESTIMATE OF 1889-90, BUT O

APPENDI

CLASS

Head of Classification.	Executive Division.	Locality.	Item No.	Projects and Works.	Amount of Estimate.
					Rs.
				Brought forward ...	
				IMPERIAL ORDINARY—*cont.*	
				Military—*cont.*	
1. *Accommodation for troops*—				*Original Works*—cont.	
Buildings for European troops in the plains. Permanent.	Chingleput.	St. Thomas' Mount.	32	Sergeants' Mess for east barracks...	5,450
	Do. ...	Do. ...	33	Quarters for three Medical Subordinates attached to the station hospital.	...
	Do. ...	Do. ...	34	Quarters for head-quarter staff, Royal Artillery.	...
	Do. ...	Do. ...	35	Battery office for P/1st Royal Artillery, east barracks.	3,700
	Do. ...	Do. ...	36	Raising the roof of harness-room, Troop lines.	4,200
Buildings for Native troops.	Vizagapatam	Vizianagrum.	37	Regimental store for Native Infantry, including storage for camp equipage.	3,480
	Bellary ...	Bellary ...	38	Places-of-arms for a regiment of Madras Infantry.	10,070
	Do. ...	Do. ...	39	School-house for Native Infantry Regiment.	3,030
	Do. ...	Do. ...	40	New saddle-rooms for the Madras Cavalry Regiment.	30,000
	Nilgiri ...	Wellington ..	41	Quarters for 32 men, Army hospital, Native corps.	...
	West Coast.	Quilon ...	42	Armourers' shop	2,489
	Do. ...	Cannanore ...	43	Quarters for eleven men of the Army hospital, Native corps.	...
	Chingleput.	Pallávaram ...	44	Magazine for Madras Infantry Regiment.	4,900
	Do. ...	Do. ...	45	Armourers' shop for Madras Infantry Regiment.	2,880
2. *Ordnance works.*	Do. ...	St. Thomas' Mount.	46	Wooden shed at the proof range ...	2,820
	Presidency.	Madras ...	47	Constructing a coal store ..	...
	Do. ...	Do. ...	48	Providing sun-shades to doors and windows in the Ordnance lines.	4,160

2763-4

MADRAS.

B—*cont.*

WHICH EXPENDITURE MAY BE INCURRED DURING THE YEAR BY RE-APPROPRIATION FROM WORKS—*cont.*

Outlay.		Amount applied for 1889-90.			Item No.	Remarks and References.
Actual to end of 1887-88.	Probable during 1888-89.	Works in progress.	Works not commenced.	Total.		
Rs.	Rs.	Rs.	Rs.	Rs.		
...	...	...	5,450		32	G.O., No. 1118 W., dated 14th April 1888. Item No. 16, class C works, budget of 1888-89.
...	...	...	8,000		33	Estimate is awaited. Item No. 17, class C works, budget of 1888-89.
...	...	...	12,000		34	Estimate is awaited. Item No. 18, class C works, budget of 1888-89.
...	...	...	3,700		35	G.O., No. 1552 W., dated 28th May 1888. Item No. 20, class C works, budget of 1888-89.
...	...	...	4,200		36	G.O., No. 3137 W., dated 17th December 1881. Item No. 21, class C works, budget of 1888-89.
...	...	...	3,480		37	G.O., No. 2628 W., dated 27th October 1884. Item No. 36, class C works, budget of 1888-89.
...	...	...	10,070		38	G.O, No. 92 W., dated 15th January 1889.
...	...	...	3,030		39	G.O., No. 149 W., dated 17th January 1884. Item No. 37, class C works, budget of 1888-89.
...	...	...	10,000		40	G.O., No. 92 W., dated 15th January 1889.
...	...	...	12,380		41	Estimate is awaited.
...	...	...	2,489		42	G.O., No. 3772 W., dated 29th November 1888.
...	...	...	3,670		43	Estimate is awaited.
...	...	...	4,900		44	G.O., No. 334 W., dated 8th February 1886. Item No. 39, class C works, budget of 1888-89.
...	...	...	2,880		45	G.O., No. 3149 W., dated 22nd December 1884. Item No. 40, class C works, budget of 1888-89.
...	...	...	2,820		46	G.O., No. 3077 W., dated 13th December 1884. Item No. 48, class C works, budget of 1888-89.
...	...	...	10,000		47	Estimate is awaited.
...	...	...	4,160		48	G.O., No. 2248 W., dated 22nd August 1887. Item No. 46, class C works, budget of 1888-89.

IMPERIAL
MILITARY WORKS.

APPENDIX

LIST OF WORKS (OR CLASS C WORKS) OMITTED FROM THE BUDGET-ESTIMATE OF 1889-90, BUT ON CLASS B

Head of Classification.	Executive Division.	Locality.	Item No.	Projects and Works.	Amount of Estimate.
					Rs.
				Brought forward ...	
				IMPERIAL ORDINARY—*cont.*	
				MILITARY—*cont.*	
				Original Works—cont.	
3. *Commissariat buildings.*	Nilgiri ...	Wellington ...	49	Quarters for a Milling Engineer, Commissariat Department.	...
	West Coast.	Calicut ...	50	A bakery	...
	Do. ...	Malapuram ...	51	Cattle-shed for the Commissariat Department.	...
	Do. ...	Do. ...	52	Sheds for 12 bullocks and 10 mules.	2,824
	Do. ...	Calicut ...	53	Sheds for transport animals ...	8,255
	Chingleput.	Guindy ...	54	Quarters for the station butcher attached to the slaughter-house.	3,600
	Do. ...	Saidápet ...	55	Constructing a new road from the Mount Road direct to the slaughter-house.	3,468
	Presidency.	Madras ...	56	Workshops and sheds for carts and cattle, Transport Department.	...
	Do. ...	Do. ...	57	Mule-shed at Transport lines, Pudupet.	...
	Do. ...	Do. ...	58	Quarters for two Staff Sergeants at Pudupet.	...
	Do. ...	Do. ...	59	Quarters for a Conductor, Commissariat Department.	...
	Do. ...	Do. ...	60	Constructing a wheat godown at Teynampet.	...
	Do. ...	Bangalore ...	61	Quarters for a Conductor, Transport Department.	5,800
	Do. ...	Do. ...	62	Quarters for an Ambulance Sergeant near Cattle lines, Transport Department.	...
4. *Staff and Miscellaneous.*	Nilgiri ...	Ootacamund...	63	Water-supply, Lawrence Asylum.	12,350
	Do. ...	Do. ...	64	Constructing a latrine for the boys at the Lawrence Asylum.	3,000
7. *General Cantonment works.*	Bellary ...	Guntakal ...	65	New rest-house and site for the rest-camp.	...

2763-4

MADRAS.

B—*cont.*

WHICH EXPENDITURE MAY BE INCURRED DURING THE YEAR BY RE-APPROPRIATION FROM WORKS—*cont.*

Outlay.		Amount applied for 1889-90.			Item No.	Remarks and References.
Actual to end of 1887-88.	Probable during 1888-89.	Works in progress.	Works not commenced.	Total.		
Rs.	Rs.	Rs.	Rs.	Rs.		
...	...	...	7,500		49	Estimate is awaited.
...	...	...	6,860		50	Do.
...	...	...	4,000		51	Estimate is awaited. Item No. 50, class C works, budget of 1888-89.
...	...	...	2,000		52	G.O., No. 1245 W., dated 27th April 1888.
...	1,310	...	6,945		53	G.Os., No. 3302 W., dated 17th October 1888, and No. 675 W., dated 8th March 1889.
...	...	...	3,600		54	G.O., No. 1259 W., dated 30th April 1888. Item No. 52, class C works, budget of 1888-89.
...	...	...	3,468		55	G.O., No. 534 W., dated 16th February 1888.
...	...	...	20,000		56	Estimate is awaited. Item No. 55, class C works, budget of 1888-89.
...	...	...	11,210		57	Estimate is awaited.
...	...	...	3,500		58	Do.
...	...	...	4,000		59	Estimate is awaited. Item No. 56, class C works, budget of 1888-89.
...	...	...	5,950		60	Estimate is awaited. Item No. 57, class C works, budget of 1888-89.
...	...	...	5,800		61	G.O., No. 992 W., dated 16th April 1886. Item No. 53, class C works, budget of 1888-89.
...	...	...	3,000		62	Estimate is awaited. Item No. 54, class C works, budget of 1888-89.
...	...	...	12,350		63	G.O., No. 2139 W., dated 14th July 1888. Item No. 62, class C works, budget of 1888-89.
...	...	...	3,000		64	G.O., No. 2139 W., dated 14th July 1888.
...	...	...	6,699		65	Estimate is awaited.

IMPERIAL.
MILITARY WORKS.

MADRAS.

APPENDIX

LIST OF WORKS (OR CLASS C WORKS) OMITTED FROM THE BUDGET-ESTIMATE OF 1889-90, BUT ON CLASS B

Head of Classification.	Executive Division.	Locality.	Item No.	Projects and Works.	Amount of Estimate.
				Brought forward ...	Rs.
				IMPERIAL ORDINARY—*cont.*	
				MILITARY—*cont.*	
				Original Works—cont.	
	Presidency.	Bangalore ...	66	Drainage of Royal Horse Artillery grass-cutters' lines at Ulsoor and preventing the fouling of the adjacent nullah.	2,846
7. *General Cantonment works.*	Presidency.	Bangalore ...	67	Drainage, British Infantry Barracks.	8,112
	Do. ...	Fort St. George	68	Remodelling the drainage ...	...
	Do. ...	Madras ...	69	Flushing drains of Native Infantry lines at Ráyapuram.	4,300
	Chingleput.	St. Thomas' Mount.	70	General improvements to the drains of the cantonment.	...
8. *Fortifications* ...	West Coast.	Malapuram ...	71	Constructing a fortified post ...	8,248
	North Arcot.	Vellore Fort...	72	Constructing draw-bridge ...	6,450
	Presidency.	Fort St. George	73	Demolition of Wallajah ravelin and two lunettes.	...
	Do. ...	Do. ...	74	Constructing a draw-bridge at the north gate.	4,487
	Do. ...	Do. ...	75	Demolition of out-houses, clearance of ditch and completion of walls.	...

2763-4

B—*cont.*

WHICH EXPENDITURE MAY BE INCURRED DURING THE YEAR BY RE-APPROPRIATION FROM WORKS—*cont.*

Outlay.		Amount applied for 1889-90.			Item No.	Remarks and References.
Actual to end of 1887-88.	Probable during 1888-89.	Works in progress.	Works not commenced.	Total.		
Rs.	Rs.	Rs.	Rs.	Rs.		
...	...	...	2,846		66	G.O., No. 1261 W., dated 1st May 1888. Item No. 32, class C works, budget of 1888-89.
...	...	...	8,112		67	G.O., No. 2615 W., dated 24th August 1888. Item No. 33, class C works, budget of 1888-89.
...	...	...	10,000		68	Estimate is awaited. Item No. 23, class C works, budget of 1888-89.
...	...	...	4,300		69	G.O., No. 1397 W., dated 4th June 1884. Item No. 42, class C works, budget of 1888-89.
...	...	...	10,000		70	Estimate is awaited. Item No. 19, class C works, budget of 1888-89.
...	...	...	8,248		71	G.O., No. 3114 W., dated 18th November 1887. Item No. 58, class C works, budget of 1888-89.
...	...	...	5,000		72	G.O., No. 528 W., dated 7th March 1885. Revised estimate is awaited. Item No. 12, class B works, budget of 1888-89.
...	...	...	7,426		73	Estimate is awaited. Item No. 59, class C works, budget of 1888-89.
...	...	...	4,487		74	G.O., No. 2447 W., dated 13th August 1888. Item No. 60, class C works, budget of 1888-89.
...	...	...	10,000		75	Estimate is awaited. Item No. 61, class C works, budget of 1888-89.

12

2763-4

1st May 1889, No. 1159 W., Public Works.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

General.
Account.

Read—the following papers :—

Extract from the Proceedings of the Government of India, Military Department (No. 683-M.W., under date Fort William, the 29th March 1889).

Madras.

Orders on the Military Works Revised Estimate for 1888-89 *and Budget Estimate for* 1889-90.

Read—

Military Department Resolution No. 2143-M.W., dated the 6th November 1888.
Proceedings of the Government of Madras, Nos. 3945 and 3946 W., Public Works, dated 18th December 1888.

Resolution—

The revised and budget estimates of revenue for the current and ensuing years, respectively, are passed for the sums entered in the following table :—

XXXI—Revenue.

	Actuals, 1887-88.	Budget estimate, 1888-89.	Revised estimate, 1888-89.	Budget estimate, 1889-90.
	Rs.	Rs.	Rs.	Rs.
In the Public Works Department	26,973	27,800	27,000	27,000

44—Expenditure.

2. The revised estimate of expenditure for the current year is passed for Rs. 6,26,700, the amount of the existing grant.

3. The budget estimate for 1889-90 is framed for Rs. 6,84,700, of which Rs. 6,00,000 represents the provisional grant sanctioned in Military Department Resolution No. 2143-M.W. of the 6th November last, and the balance, the amount allotted by the Director-General of Ordnance for ordnance works in the Madras Presidency. Subject to the remarks in the following paragraphs, the budget estimate is passed as submitted.

4. Provision to the extent of Rs. 20,000 should be made for improving the sanitation of the lines of Native troops.

5. The proposed allotments of Rs. 30,000 and Rs. 20,000 for the "new barracks at Poonamallee" and the "barracks for British Infantry at Malapuram," respectively, are inadequate, and should, if possible, be increased by postponing less important works. The complete estimates for both these projects should be submitted for the final approval of the Government of India.

6. Pending the sanction to estimates for the three class B works noted below and the receipt of further information regarding them, the allotments proposed are passed provisionally :—

	Rs.
Item 4. New saddle rooms for the Madras Cavalry Regiment at Bellary	10,000
Item 5. Accommodation in the Vellore fort for two companies of Native Infantry	3,490
Item 12. New rest-house and site for the rest-camp, Guntakal ...	6,699

13

7. It is noticed that a reserve of Rs. 16,950 has been provided for incomplete major works. The Government of India are of opinion that it would be better to allot the whole to specific works, *e.g.*, the new barracks at Poonamallee, the provision for which, as already remarked, is insufficient to admit of satisfactory progress being made.

8. The details of the estimate of expenditure passed by the Government of India are shown in the following table :—

—	Actuals, 1887-88.	Budget estimate, 1888-89.	Revised estimate, 1888-89.	Budget estimate, 1889-90.
	Rs.	Rs.	Rs.	Rs.
Original works { In progress	1,30,574	2,08,550	2,15,100	1,12,800
Repairs ... ... { Not commenced	2,93,110	3,00,000	2,93,400	1,36,100
Total, Works and Repairs ...	4,23,684	5,08,550	5,08,500	3,00,000
Establishment	98,303	1,08,755	1,08,700	5,48,900
Tools and plant	6,323	6,995	7,000	1,27,600
Add net modification made subsequent to the preparation of the revised estimate (to be distributed over departmental heads in final issue).	...	...	2,500	8,200
Total ...	5,28,310	6,24,300	6,26,700	...
				6,84,700

9. In the abstract on page 2 of the preliminary issue, the expenditure of 1887-88 has been incorrectly quoted. The figures shown in the foregoing table should be adopted for the purposes of the final issue of the budget estimate.

10. The authority herein given to incur expenditure within the limits of the grants passed is subject to the condition of a strict adherence to the rules in force regarding financial regularity.

Order—

Ordered that the foregoing be communicated to the Government of Madras, Public Works Department, for information and guidance, with the request that 45 printed copies of the budget estimate, as now passed, may be submitted so as to reach the Government of India not later than the 1st May 1889.

Ordered also that a copy be forwarded to the Accountant-General, Public Works Department, for information.

(Signed) E. COLLEN, Colonel,
Secretary to the Govt. of India.

From Brigdr.-Genl. M. PROTHEROE, C.B., C.S.I., Quartermaster-General, to the Secretary to Government, Public Works Department, dated Ootacamund, 17th April 1889, No. 1474 A.

Referring to your letter No. 53 D. of 13th instant, I am desired to state, for the information of Government, that the Commander-in-Chief, while anxious to meet the wishes of the Government of India in the matter of providing funds for the works marginally noted by transfer or by postponing less important works, very much regrets his inability to recommend the adoption of either of these courses to any large extent, in respect to the works for which funds have been allotted in the preliminary issue of the Madras Military Works budget for the current year.

(1) Improving the sanitation of the lines of Native troops.
(2) New barracks at Poonamallee.
(3) Barracks for British Infantry at Malapuram.

2. With due regard, however, to the importance of providing funds as far as possible for the first of the works mentioned (viz., that of improving the sanitation

of the lines of Native troops), it being understood that the required grant (Rs. 20,000) for this purpose for the current year can only be met by the adoption of one or other of the courses above referred to, unless any portion of it could be otherwise provided for, the Commander-in-Chief is prepared to surrender this year the grants for the works noted in the margin; but, as the total amount allotted for these works would fall short of the sum required by Rs. 3,301, His Excellency trusts the Government will be pleased to sanction the difference being met from some other available source—as in his opinion there is no other work which can conveniently be postponed,—and in doing so would beg to draw attention to the fact that the sum of Rs. 20,000 will probably be required for improving the sanitation of Native lines at stations outside the civil limits of the Madras Presidency (viz., Secunderabad, Belgaum, &c.), as well as at those situated within such limits, and for this reason he thinks that the difference of Rs. 3,301 above mentioned should more properly be met from funds placed at the disposal of local administrations at Secunderabad, Belgaum, &c., than from the Madras Public Works budget.

	Rs.
New saddle rooms for the Madras Cavalry Regiment at Bellary ...	10,000
New rest-house and site for the rest-camp at Guntakal	6,699
Total ...	16,699

3. While fully concurring in the opinion of the Government of India that, in order to admit of satisfactory progress being made on the two other works above mentioned in para. 1, a more adequate allotment of funds than that provided for in the preliminary issue of the budget should be made, the Commander-in-Chief much regrets that he is not in a position to suggest any source whence the said allotment could be enhanced other than that mentioned in para. 7 of Government of India Resolution received with your letter under reply.

4. An estimate, amounting to Rs. 3,825, for providing accommodation in the Vellore fort for two companies of Native Infantry, was submitted to Government in the Military Department with this office letter No. 1378 A. of 5th instant, which contained the information apparently required by the Government of India in para. 6 of their Resolution above quoted.

From the Quartermaster-General, dated 18th April 1889, No. 1487 A.

Order—dated 1st May 1889, No. 1159 W., Public Works.

Ordered that the final issue of the Imperial Military Works budget for 1889-90 prepared for Rs. 6,84,700, being the amount adopted by the Government of India in their Resolution read at the head of these Proceedings, be printed and circulated for the information and guidance of the officers of the department, and 45 copies, as shown in the margin, forwarded to the Government of India.

To Simla	20
„ Calcutta	25
Total ...	45

2. The revised estimate of charges for 1888-89, as shown in the preliminary issue of the budget, amounted to Rs. 6,24,228, but the modifications of grants subsequently sanctioned increased the amount to Rs. 6,26,735. The Government of India having passed the estimate for Rs. 6,26,700, that sum has been adopted in the final issue, and the necessary reductions have been made in the departmental heads.

3. The expenditure of 1887-88 shown in the abstract on page 2 of the preliminary issue represents the total expenditure in India inclusive of contributions as recorded in the Finance Accounts for that year, the distribution of the outlay from Imperial funds and contributions being separately shown in the abstract on page 3.

As the Government of India direct in para. 9 of their Resolution that their figures should be adopted for the purposes of the final issue of the budget, the necessary modifications have been made in the abstract on page 2.

4. In para. 4 of their Resolution the Government of India have decided that provision to the extent of Rs. 20,000 should be made for improving the sanitation of the lines of Native troops. A sum of Rs. 16,699 has accordingly been provided for the purpose by withdrawing the allotments made in the preliminary issue for the marginally-noted works. As the Quartermaster-General reports that the sum of Rs. 20,000 will probably be required for improving the sanitation of Native lines at stations outside the civil limits of the Madras Presidency, viz., Secunderabad, Belgaum, &c., as well as at those situated within such limits, and that the difference (Rs. 3,301) should more properly be met from funds placed at the disposal of the local Administrations concerned than from the Madras Public Works budget, the Government of India will be requested, on receipt of the necessary particulars from the Quartermaster-General, to direct the Administrations concerned to make the necessary provision from the grants at their disposal.

	Rs.
New saddle rooms for the Madras Cavalry Regiment at Bellary ...	10,000
New rest-house and site for the rest-camp at Guntakal	6,699
Total ...	16,699

5. His Excellency the Commander-in-Chief while fully concurring in the opinion of the Government of India that the allotments proposed for the barracks at Poonamallee and Malapuram are inadequate and should, if possible, be increased by postponing less important works, regrets his inability to recommend this course in respect to the works for which funds have been allotted in the preliminary issue of the budget to a larger extent than that proposed in para. 4 of these Proceedings. The proposal made by the Government of India in para. 7 of their Resolution cannot in existing circumstances be adopted, as the sum of Rs. 16,950 referred to therein is required for incomplete major works of the previous year, which cannot be postponed without serious loss to Government. The question of increasing the grant for the barracks at Poonamallee will, however, be kept in view if any balance is available after distributing the amounts required for incomplete major works. Revised estimates for the barracks at Malapuram and Poonamallee have been called for and, when received, will be submitted for the approval of the Government of India.

6. With advertence to para. 6 of the Government of India Resolution, it is observed that the allotments provided in the preliminary issue of the budget for saddle rooms for the Madras Cavalry Regiment at Bellary and a rest-house and site for a rest-camp at Guntakal having been withdrawn in the final issue, no further action is at present necessary with reference to them. An estimate of Rs. 3,825 for providing accommodation in the Vellore fort for two companies of Native Infantry has been received and the further information regarding it required by the Government of India will be submitted in due course.

7. The grants provided in the preliminary budget for Apothecaries' quarters at Wellington and for repairs have been reduced, and the necessary provision of funds for the water-supply to the Lawrence Asylum at Ootacamund has been made with reference to para. 1 of G.O., No. 266 W., dated 1st February 1889.

8. Detailed proposals for utilising the grants provided for "Institutes of British Regiments and Batteries in the Presidency" and for improving the sanitation of the lines of Native troops should be submitted as early as practicable.

9. Superintending Engineers concerned will submit, with the least possible delay, plans and estimates for the unsanctioned works for which funds have been provided in the budget.

10. The grants for repairs and incomplete major and minor works will, as usual, be held at the disposal of Government and distributed on receipt of detailed proposals from Superintending Engineers with reference to para. 1322 of the Public Works Code.

11. The amounts provided for Minor New Works, Ordinary and Ordnance, will be placed at the disposal of the officers commanding divisions and districts and the Inspector-General of Ordnance, respectively, to whom Superintending Engineers will apply for funds required under those heads.

(Here enter No. 1160 W., dated 1st May 1889.)

(True Extract.)

(Signed) R. R. E. DRAKE-BROCKMAN, Lt.-Col., R.E.,
Ag. Joint Secy. to Govt., P.W.D.

To Superintending Engineers.
To the Examiner, Public Works Accounts.
" Military Department.
" Financial "
" Director-General of Ordnance.

Exd. J. Henricus.
Spare Copies

2763-4

15

GENERAL.
ACCOUNT.

Govt. of {1889} Madras.

PUBLIC WORKS.

Dated May, 1st.

Read.

Encl.

G.O., 1st May 1889, No. 1159 W.

MAY.

Imperial Military Works Budget for 1889-90

Orders circulating the final issue of the —.

2763-4

10TH AUGUST 1889, No. 2155 W., PUBLIC WORKS.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Military Works.
Account.

READ—the following paper:—

From Brigadier-General M. PROTHEROE, C.B., C.S.I., Quartermaster-General, to the Secretary to Government, Military Department, dated Ootacamund, 25th July 1889, No. 2079 B.

With reference to G.O., Military Department, No. 3699, dated 6th ultimo, I have been desired, by His Excellency the Commander-in-Chief, to submit the accompanying statement showing the proposed allotment of Rs. 20,000 included in the Military Works budget estimate for the current year to be expended in the sanitation of Native lines in this command.

2. Items 1, 2 and 3 are necessary for the completion of the Pioneer lines at Bangalore. The money noted against item No. 1 has already been expended from the grant from the Military budget for the construction of barracks and married sepoys' huts, and will have to be refunded to enable the Officer Commanding, 1st Pioneers, to finish these buildings. Item No. 4 is to cover part of the cost of deepening Miller's tank at Bangalore, whereby the water-supply of the Madras Infantry battalions occupying the east and west hutting lines in that station will be greatly improved (see my letter No. 543 (Barrack), dated 13th ultimo, to your address). Item 5 is for the improvement of the water-supply at Bellary, and, with items 6, 7 and 8, has been recommended for execution by the local Sanitary Committee, which has been assembled to report on the lines at each station.

3. In regard to the orders contained in para. 4 of G.O., dated 1st May 1889, No. 1159 W., Public Works, the Commander-in-Chief recommends that the whole of the difference between the total allotment of Rs. 20,000 and the sum of Rs. 16,699 provided in the Madras Public Works budget be expended in the subsoil drainage of the Secunderabad Native lines, a work which has been strongly recommended by the Sanitary Committee assembled at that station. This amount may not be sufficient for the completion of the work, but it will go a long way towards it, and any drainage left undone for want of funds at the end of the current official year can be completed next year from the grant for 1890-91.

4. The estimated expenditure on the above items being approximate only, a small reserve of Rs. 617-9-8 has been entered, which, it is suggested, may be applied, if necessary, towards the completion of any of the above works; should it not be required for this purpose, it can be allotted later on in the year to an additional sanitary work.

5. In the remark column of the final issue of the Imperial Military Works estimate for 1889-90, part I, class B works, item No. 4, "Improving the sanitation of the lines of Native troops, Rs. 16,699," it is noted that estimates are awaited; in order, therefore, to save time, copies of the proposed allotment will be forwarded to General Officers Commanding Districts, with a request that they will cause the necessary estimates to be submitted without delay.

18

ENCLOSURE.

STATEMENT showing the proposed allotment of Rs. 20,000 included in the Military Works Budget Estimate for 1889-90 to be expended in the sanitation of Native Lines in the Madras Command.

District.	Station.	Lines.	Item.	Recommendations.	Approximate cost.
					Rs. a. p.
Bangalore ..	Bangalore ..	1st Pioneer lines ..	1	Provision of wells and drains in 1st Pioneer lines (already provided to this extent out of money which should have been expended in the erection of huts, and which is now required to complete the lines) .. (*Vide* Quartermaster-General's letter, No. 2011 B., dated 22nd July 1889, to the Secretary to Government, Military Department.)	2,687 6 4
			2	Approximate estimate of completion of drainage, Pioneer lines ..	6,450 0 0
			3	Provision of public latrines, Pioneer lines	945 0 0
Belgaum ..	Bellary ..	East and West hutting lines. North and South lines ..	4	Improvements to water-supply ..	2,000 0 0
Secunderabad.	Secunderabad ..	Begumpett, Chilkalgudium, Tarbund, Maredipilly and Bowenpilly lines.	5	Sinking a new well	1,000 0 0
			6	Subsoil drainage of lines (total approximate estimate, Rs. 4,116) ..	3,300 0 0
Bangalore ..	Bangalore ..	East Hutting lines ..	7	New standard plan latrines ..	2,000 0 0
Southern ..	Trichinopoly ..	New lines	8	Do. do.	1,000 0 0
				Reserve .. .. Total ..	19,382 6 4
				.. .. ..	617 9 8
				Grand Total ..	20,000 0 0

OOTACAMUND,
25th July 1889.

(Signed) M. PROTHEROE, Brigdr.-Genl.,
Quartermaster-General.

No. 4998, Military.

Transferred to the Public Works Department with reference to O.G., No. 1159 W., dated 1st May 1889.

OOTACAMUND,
26th July 1889.

(Signed) A. KENNEY-HERBERT, Brigdr.-Genl.,
Secretary to Government.

ORDER—dated 10th August 1889, No. 2155 W., Public Works.

With his letter above recorded, the Quartermaster-General submits a statement showing the distribution of the grant provided in the current year's Military Works budget for improving the sanitation of the lines of Native troops under the Madras Command. The distribution proposed is approved and the following allotments are accordingly sanctioned:—

		Rs.
(1)	Provision of wells and drains in 1st Pioneer lines, Bangalore ...	2,687
(2)	Completing the drainage of the Pioneer lines, Bangalore ...	6,450
(3)	Provision of public latrines, Pioneer lines, Bangalore	945
(4)	Improvements to water-supply, East and West Hutting lines, Bangalore	2,000
(5)	Sinking a new well, North and South lines, Bellary	1,000
(6)	New standard plan latrines, East Hutting lines, Bangalore ...	2,000
(7)	Do. do. New lines, Trichinopoly	1,000
	Total ...	16,082

2763-4

2. As the above allotments amount to only Rs. 16,082 against the budget grant of Rs. 16,699, the difference Rs. 617 will be held in reserve with the Government to supplement the above grants, if necessary, or for allotment later in the year to any additional sanitary work.

3. As regards item No. (1), it is observed that the amount has already been expended from the grant provided in the Military budget for the construction of barracks and married sepoys' huts, and will have to be refunded to enable the Officer Commanding, 1st Pioneers, to finish those buildings. The Superintending Engineer, V Circle, will expedite the submission of an estimate for item (2). The approximate cost of the other items being within the Superintending Engineer's power of sanction, early steps should be taken to obtain the approval of the Military authorities to estimates for the works, which should be completed as early as practicable.

4. The Quartermaster-General will be requested to expedite the submission of detailed proposals for utilising the grant provided for the "Institutes of British Regiments and Batteries in the Presidency."

5. With reference to para. 4 of G.O., No. 1159 W., dated 1st May 1889, the Government of India will be requested to instruct the Resident at Hyderabad to make the necessary provision for the subsoil drainage of the lines at Secunderabad.

(Here enter No. 2156 W., dated 10th August 1889.)

(True Extract.)

(Signed) R. R. E. DRAKE-BROCKMAN, Lt.-Col., R.E.,
Ag. Joint Secy. to Govt., P.W.D.

To the Superintending Engineer, III Circle.
" " " V "
" " " VI "
" Examiner, Public Works Accounts.
" Military Department.

Exd. P. L. Pereira.
8spare Copies

MILITARY WORKS.
ACCOUNT.

Govt. of {1889} Madras.

PUBLIC WORKS.

Dated August, 10th.

Read. *Encl.*

G.O., 10th Aug. 1889, No. 2155 W.

AUGUST.

Sanitation of the Lines of the Native Troops, Madras

Orders approving of the distribution of the grant for improving the — and sanctioning an allotment of funds.

2763-4

Accompaniment to Proceedings, No. 2604 W., dated 20th September 1889.

SCHEDULE of sanitary works proposed to be carried out in the Madras Command with a view to the better sanitation of the lines now occupied in India by the Native troops of the Madras Army (accompaniment to letter No. 2266-B., of 12th August 1889, from Quartermaster-General, Madras Army, to the Secretary to Government, Madras, Military Department).

District.	Station.	Lines.	Item.	Recommendations.	Approximate cost.	Remarks.
					Rs. A. P.	
Bangalore..	Bangalore.	1st Pioneer lines.	1	Provision of wells and drains in 1st Pioneer lines (already paid for).	2,687 6 4	
Do. ..	Do. ..	Do. ..	2	Approximate estimate of completion of drainage, Pioneer lines.	5,450 0 0	These items are provided for from the allotment of Rs. 20,000 made by the Government of India for the year 1889-90.
Do. ..	Do. ..	Do. ..	3	Public latrines ..	945 0 0	
Do. ..	Do. ..	East and West hutting lines.	4	Improvement water-supply.	2,000 0 0	
Belgaum ..	Bellary ..	Madras Infantry lines.	5	Sinking a new well ..	1,000 0 0	
Secunderabad.	Secunderabad.	Native troops lines.	6	Sub-soil drainage of lines..	5,300 0 0	
Bangalore..	Bangalore.	East hutting lines.	7	New standard plan latrines.	2,900 0 0	
Southern ..	Trichinopoly	Native lines ..	8	Standard plan latrines ..	1,000 0 0	
Secunderabad.	Secunderabad.	All lines ..	9	Completion of sub-soil drainage (item No. 6) esy.	1,000 0 0	Approximate estimate is Rs. 4,116.
Do. ..	Do. ..	Do. ..	10	Masonry or concrete surface drains to all lines.	50,000 0 0	
Do. ..	Do. ..	Do. ..	11	Latrine accommodation (public) Bowringbad, Ganapet and Tarbund lines, one latrine each.	1,800 0 0	
Belgaum ..	Bellary ..	North and South Infantry lines.	12	Masonry or concrete drains, at Rs. 10,500 for each set of lines.	20,000 0 0	
Do. ..	Do. ..	Do. ..	13	Latrines (two), one in each set of lines, at Rs. 800 each.	1,600 0 0	
Do. ..	Belgaum ..	Right and Left flank lines.	14	Masonry surface drains ..	23,000 0 0	
Do. ..	Mangalore.	Madras Infantry lines.	15	Masonry surface drains ..	11,710 0 0	Negatived by Government of India—see P.G., No. 1726, dated 21st February 1888.
Do. ..	Do. ..	Do. ..	16	Additional latrine accommodation.	600 0 0	
Do. ..	Do. ..	Do. ..	17	Improvement to two wells.	800 0 0	
Southern ..	Trichinopoly.	Madras Infantry (Pioneer) lines.	18	Removal of a chuckler's pucherry reported as very insanitary.	2,000 0 0	
Do. ..	Do. ..	Madras Infantry (17th) lines.	19	Masonry surface drainage of lines.	8,000 0 0	
Madras ..	St. Thomas' Mount.	Madras Infantry lines (detachment).	20	Straightening, &c., of drains.	250 0 0	
Do. ..	Sámalkót ..	Do. ..	21	Improvements to wells ..	100 0 0	
Do. ..	Do. ..	Do. ..	22	Enlargement of latrine or construction of a new one.	300 0 0	
Do. ..	Pal'k'aram.	Do. ..	23	Two latrines on re-occupation of lines by a Madras Infantry half battalion.	1,600 0 0	
Do. ..	Báyapuram.	Madras Infantry lines.	24	Improvements to drainage.	415 0 0	
				Total ..	1,42,057 6 4	

18

2763-4

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Military Works.
Account.

READ—the following paper:—

G.O., dated 2nd September 1889, No. 6019, Military.

From the Quartermaster-General, to the Secretary to Government, Military Department, dated Ootacamund, 12th August 1889, No. 2266-B. (Native Lines—Hutting).

Adverting to para. 4 of my letter,* No. 2881-B., dated 31st August 1888, on the subject of a revision of the present system of hutting in the Madras Presidency, I have been desired by the Commander-in-Chief to state, for the information of Government, that the proceedings of the committees assembled to report on the measures necessary to put each set of lines in a proper sanitary state, have been received and considered, and I am now to submit a schedule of the works proposed to be gradually carried out with this object in view, and of their approximate cost amounting to Rs. 1,42,057-6-4.

* Printed in Proceedings of Government, Military Department, dated 19th November 1888, No. 7724.

2. With reference to para. 4 of O.G., dated 1st May 1889, No. 1159 W., Public Works, forwarded with your No. 3699, dated 6th ultimo, it will be observed that provision for the first eight items, specified in this schedule, has been made in the current year's Public Works budget, and on this subject a separate communication† has been made to you. His Excellency trusts that it may be found possible, in future years, to allot money for the gradual execution of the remaining works, all of which, it is considered, are most necessary in the interests of sanitation of the lines of Native troops.

† No. 2079-B., dated 25th July 1889.

3. Items 10, 12, 14, 15 and 19 are for the provision of masonry or concrete surface drains in certain lines for the speedy removal of sulliage and storm-water, and the preservation of the sites of huts and barracks from damp and fouling by their absorption into the ground. In Military Department letter, dated 30th January 1888, No. 186 M.W., forwarded to this office with Madras Government, Military Department, No. 1226, dated 21st *February 1888, the Government of India decided that, without special and urgent reasons, it could not entertain a proposal to construct masonry drains in the lines of Native troops. I am, however, to submit that the construction of these surface drains, which have been strongly recommended by the sanitary committees above alluded to, has also been urged by the Army Sanitary Commission (see extract from reports annexed). Without such drains it is manifestly impossible to keep house-sites free from damp during the heavy rainy season of many parts of the south of India, or from foulness owing to the absorption of waste water, &c. Sir Charles Arbuthnot hopes, therefore, that the Government of India will be pleased to consider that sufficiently special and urgent reasons have been advanced to warrant the inclusion of these drains in the schedule.

G.O., No. 433 W., dated 7th February 1888.

reasons, entertain a proposal to construct masonry drains in the lines of Native troops, that Government will now be requested to approve the expenditure proposed on these items in consideration of the opinions expressed by the sanitary committees recently assembled, the Army Sanitary Commission, and His Excellency the Commander-in-Chief.

6. The receipt of the information called for in para. 4 of the Proceedings of Government, Military Department, will be awaited.

7. The Superintending Engineers concerned will lose no time in the preparation and submission of plans and estimates for items 12, 13 and 15 to 24 of the schedule.

(Here enter No. 2605 W., dated 20th September 1889.)

(True Extract.)

(Signed) R. R. E. DRAKE-BROCKMAN, Lt.-Col., R.E.,
Ag. Joint Secy. to Govt., P.W.D.

To Superintending Engineers.
" the Examiner, Public Works Accounts.
" the Military Department.

LETTER—to the Secretary to the Government of India, Military Department, dated Fort St. George, 20th September 1889, No. 2605 W.

In forwarding the accompanying schedule of sanitary works proposed to be carried out in the lines of Native troops under the Madras Command, and copy of Proceedings of this Government, No. 2604 W., dated 20th September 1889, I am directed to request that the allotments referred to in paras. 3 and 4 of the Proceedings may be sanctioned and that the expenditure proposed on the items referred to in para. 5 may be approved.

(Signed) R. R. E. DRAKE-BROCKMAN, Lt.-Col., R.E.,
Ag. Joint Secy. to Govt., P.W.D.

Exd. P. L. Pereira.
Spare Copies

2763-4

21

ENCLOSURES.

EXTRACTS from reports of the Army Sanitary Commission on the subject of surface drainage, Native Infantry lines.

* * * * *

8. It is satisfactory to learn from the station reports that, with occasional exceptions, great pains are bestowed by the authorities on the sanitary condition of the lines. Generally the conservancy arrangements appear to be good, the surface is kept clean, the surface drains in good order. But at many stations great improvements in the construction of surface drains appear to be required.

P.G., No. 3635, dated 9th November 1874.

10. The want of a simple, inexpensive and efficient surface drainage is complained of at not a few stations.

* * * * *

15. There are many other matters bearing on the sanitary condition of Native troops which are suggested by the facts in the report; but the cardinal improvements, besides improved accommodation, are drainage and better water-supply.

REMARKS of the Secretary of State for India on above.

* * * * *

2. Much of the sickness from which the Native troops suffer is attributed in these reports to the damp sub-soil in the lines, and although I observe, with satisfaction, that, as a rule, great pains are said to be bestowed by the authorities on the sanitary condition of the Native lines, it is evident that, in many cases, sufficient attention is not paid to this point. * *

* * * * *

17. These defects, it will be seen, are of precisely the same nature as those to which attention has frequently been called by the Commission on other papers; they include the influence of low, damp, or wet locality of lines, want of drainage for drying the sub-soil, the surface drainage such as it is, directly leading to sub-soil impurity by sewage in filtration; bad arrangement of lines; badly constructed, damp huts, made of bad material; defects in water-supply, and defective conservancy arrangements.

P.G., No. 5950, dated 20th November 1876.

3. * * It is impossible to peruse these statistical data without seeing how large an influence local disease causes, productive of malaria and dampness, together with climatic agencies, such as rainfall and variable temperature, exert on the efficiency of the Native Army in Madras and its outlying stations, and it is not surprising to find how large a space of the sanitary notes on particular stations is devoted to them.

P.G., No. 5445, dated 28th September 1877.

4. The drainage defects are due to three causes:—

First.—The position of lines in localities which scarcely admit of efficient drainage on account of lowness of ground, water-logged sub-soil consequent on this topographical defect and damp rising in the floors and walls of the men's huts.

Second.—Want of sub-soil drainage where the ground might be drained, leading to similar results.

Third.—Defective attempts at surface drainage by cuttings in the ground, by which not only surface water but the sewage of huts is conveyed directly into the sub-soil, thus increasing the evils which surface work of this kind is intended to remedy.

12. There are facts sufficient in the preceding abstracts to show that there is a large amount of drainage work required at most of the stations.

Not much has been gained in the way of experience in this matter and the principles long since laid down by the Army Sanitary Commission on the subject may still be taken as a guide. These may be summarised as follow:—

(1) Station drainage for removal of rainfall must be effected over the surface.

(2) Mere surface cuts, except on steep inclines only, afford a more certain means of water logging the sub-soil.

(3) Efficient surface drainage requires that the rainfall and all other liquids received by the drains, shall be kept out of the sub-soil, and passed to the out-fall as rapidly as possible.

2763-4

(4) Box-drains or V-shaped drains for such purposes, although greatly superior to mere cuts, are useful only so far as they are impervious and easily cleansed; and broad, shallow, impervious saucer-sectioned drains are the best for meeting the conditions of drainage described in the present report.

Order—dated 2nd September 1889, No. 6019, Military.

The approximate estimates of the cost of carrying out the improvements considered necessary for securing the better sanitation of Native lines in this Presidency are approved.

2. The necessary funds for estimates Nos. 1 to 5, 7 and 8, have already been provided, and the Supreme Government has been addressed in regard to the allotment of funds for estimate No. 6.

G.O., No. 1159-1160 W., dated 1st May 1889.
" " 2155-2156 W., " 10th Aug. "

3. With reference to para. 4 of Proceedings No. 683 M.W., dated 29th March 1889, the Government of India will be requested by the Public Works Department to make a liberal grant for expenditure on sanitary improvements to Native lines during 1890-91, and in view of the opinions expressed by the sanitary committees recently assembled, the Army Sanitary Commission and His Excellency Sir Charles Arbuthnot, approval will, with reference to Government of India No. 186 M.W., dated 30th January 1888, be sought for the proposed expenditure on the masonry and concrete surface drains recommended for certain Native lines.

G.O., No. 1159 W., dated 1st May 1889.

4. Adverting to para. 2 of G.O., No. 2155 W., dated 10th August 1889, His Excellency the Commander-in-Chief will be asked how it is proposed to utilise the available balance of Rs. 617, and in what order His Excellency wishes funds allotted to estimates 9 to 24 entered in the schedule.

P.G., No. 5797, dated 26th August 1889.

(True Extract.)

(Signed) A. KENNEY-HERBERT, Brigdr.-Genl.,
Secretary to Government.

ORDER—dated 20th September 1889, No. 2604 W., Public Works.

With his letter read in the Proceedings of Government, Military Department, above recorded, the Quartermaster-General submits a schedule of sanitary works proposed to be carried out in the lines of Native troops under the Madras Command, the approximate cost of which is estimated at Rs. 1,42,057.

2. In G.O., No. 2155 W., dated 10th August 1889, funds have been provided for items 1 to 5, 7 and 8 of the schedule, and the Government of India has been addressed in regard to provision of funds for item No. 6.

3. As the works indicated by items 9 to 11 and 14 appertain to stations outside the civil limits of the Madras Presidency, viz., Secunderabad and Belgaum, the Government of India will be requested to grant special allotments to the local Administrations concerned to admit of the works being carried out.

4. The rest of the items enumerated in the schedule, aggregating Rs. 46,875, are connected with the sanitation of Native lines situated within the Madras Presidency and a special allotment of funds for the same is necessary. The Government of India will therefore be requested to make a liberal grant for expenditure on these works during 1890-91.

5. Items 10, 12, 14, 15 and 19 of the schedule provide for masonry or concrete surface drains for certain Native lines, but the Government of India having remarked, in para. 2 of its letter No. 186 M.W., dated 30th January 1888, printed with G.O., No. 433 W., dated 7th February 1888, that it could not, without special and urgent

20

reasons, entertain a proposal to construct masonry drains in the lines of Native troops, that Government will now be requested to approve the expenditure proposed on these items in consideration of the opinions expressed by the sanitary committees recently assembled, the Army Sanitary Commission, and His Excellency the Commander-in-Chief.

6. The receipt of the information called for in para. 4 of the Proceedings of Government, Military Department, will be awaited.

7. The Superintending Engineers concerned will lose no time in the preparation and submission of plans and estimates for items 12, 13 and 15 to 24 of the schedule.

(Here enter No. 2605 W., dated 20th September 1889.)

(True Extract.)

(Signed) R. R. E. DRAKE-BROCKMAN, Lt.-Col., R.E.,
Ag. Joint Secy. to Govt., P.W.D.

To Superintending Engineers.
„ the Examiner, Public Works Accounts.
„ the Military Department.

LETTER—to the Secretary to the Government of India, Military Department, dated Fort St. George, 20th September 1889, No. 2605 W.

In forwarding the accompanying schedule of sanitary works proposed to be carried out in the lines of Native troops under the Madras Command, and copy of Proceedings of this Government, No. 2604 W., dated 20th September 1889, I am directed to request that the allotments referred to in paras. 3 and 4 of the Proceedings may be sanctioned and that the expenditure proposed on the items referred to in para. 5 may be approved.

(Signed) R. R. E. DRAKE-BROCKMAN, Lt.-Col., R.E.,
Ag. Joint Secy. to Govt., P.W.D.

Exd. P. L. Pereira.
Spare Copies

2763-4

21

MILITARY WORKS.
ACCOUNT.

Govt. of {1889} Madras.

PUBLIC WORKS.

8763.64

Dated September, 20th.

Recd.

Encl.

G.O., 20th Sept. 1889, Nos. 2604, 2605 W.

SEPTEMBER.

Sanitary Works

Forwarding a schedule of — proposed to be carried out in the lines of Native troops under the Madras Command and requesting sanction and approval to certain allotments and proposed expenditure.

Form No. 7 B.

HEADING Native Lines. Sanitary.

It is requested that the heading, number, and date of this communication may be quoted in any subsequent correspondence on this subject.

27634

QUARTER MASTER GENERAL'S OFFICE,
Ootacamund,
9th September 1889.

No. 2546. B.

From

BRIGADIER-GENERAL M. PROTHEROE, C.B., C.S.I.,
QUARTER MASTER GENERAL,

To

THE SECRETARY TO GOVERNMENT,
MILITARY DEPARTMENT.

SIR,

With reference to G. O. No 609 dated 2nd Instant, I am desired to state, that proposals for the utilization of the reserve of Rs 617-0-0 will be submitted later on in the current Official year, after it has been ascertained from districts whether money is required to supplement the grants already sanctioned in P. G. No 2797 dated 20th Ultimo or for allotment to any additional Sanitary work.

Rs (Mad) No 2155 dtd 3/10 Aug 1889

2. I am also to forward a list showing the order in which it is proposed that funds should be allotted to the remaining works required

23

required to complete the Sanitary improvements
to Lines of Native Troops in this Command.

I have the honor to be
Sir
your Obedient Servant
M. R. Thom Brigr. Genl.
Quarter Master Genl.
Jo

15 Spare copies of the A. G. on this letter are required

Statement showing the order of urgency in which it is proposed to allot funds for the following works connected with proposals for the better Sanitation of Lines of Native Troops of the Madras Army.

2763-4

Order of urgency	District.	Station.	Lines.	Work.	Approximate Cost R. a. p.	Remarks.
1	2	3	4	5	6	7
I.	Secunderabad	Secunderabad	All Lines	Completion of subsoil drainage	1000 - -	Public Works Department Government of India.
II.				Latrine accommodation (Public) Borough fully Regumpted and Jarbund Lines one latrine each	1800 - -	
III.				Masonry or Concrete surface drains to all Lines	64000 - -	
I.	Belgaum	Bellary	North and South Infy. Lines	Latrines (2) one in each set of Lines at Rs 800 each	1600 - -	
II.	___ do. ___	Mangalore	Madras Infy. Lines	Additional Latrine accommodation	600 - -	
III.	Southern	Trichinopoly	M. I. (Pioneer) Lines	Removal of a Chuckler's cherry reported as very insanitary	2000 - -	
IV.	Madras	Vanalkot	M. I. Lines (Detachment)	Enlargement of Latrine and construction of a new one	800 - -	
V.	___ do. ___	Pallavaram	___ do. ___	Two Latrines on reoccupation of lines by a Madras Infantry half Battalion	1600 - -	
I	___ do. ___	Royapuram	Madras Infy. Lines	Improvements drainage	415 - -	
II	Southern	Trichinopoly	M. I. (17th) Lines	Masonry drainage of Lines	8000 - -	
III	Belgaum	Bellary	North and South Infy. Lines	Masonry drains at Rs 15,000 for each station	45000 - -	
IV	___ do. ___	Belgaum	Right & Left Flank Lines	Masonry surface drains	23,000 - -	
V	___ do. ___	Mangalore	Madras Infy. Lines	___ do. ___ do. ___ do.	11,710 - -	Negatived by Government of India D.O. No 226 Dated 11th February 1889
VI	Madras	Saint Thomas' Mount	M. I. Lines (Detachment)	Straightening &c of drains	260 - -	
VII	___ do. ___	Vanalkot	___ do. ___	Improvements to Wells	100 - -	
VIII	Belgaum	Mangalore	Madras Infy. Lines	Improvements to 2 Wells	300 - -	

22

Adjutant General's Office
Examined, 9th September 1889

3

W. Pitcairn Brig
Quarter Master G

2763-4

24 25

P.C. 2. 9. 1889 no 6019 R
" 26. 8. 1889 no 5797 R
" 21. 2. 1889 no 1226
" 6. 6. 1889 no 3699

P.W.C. No 8965

Military (1889) Department.

No. 6584

From

THE QUARTER MASTER GENERAL,

To

THE SECRETARY TO GOVERNMENT,

MILITARY DEPARTMENT.

No. 2546 B

Dated 9th September 1889.
Received

No 6480

3P

Transferred to the Public Works Department with reference to G.O. (Mily) no 6019 dated 2nd Sept 1889.

H.S. Thullier Colonel
for Secretary to Govt.
Mily Dept.

Fort St George
23rd Sept 1889

SECRETARY TO GOVERNMENT
23 SEP 89
P.W.D. DEPARTMENT, MADRAS.

R 24.9.89

E1

ENCLOSURES. 1

States that proposals for the utilization of the reserve of Rs 617 in connection with sanitation will be submitted later on in the current official year & forwards a list showing the order in which certain funds to be allotted to the remaining works required to be completed the Sanitary Improvement Scheme of N. Coorg in the command

No. 2763 W

2763-4 B&P Electricity

PUBLIC WORKS DEPARTMENT.

A/

PROCEEDINGS OF THE MADRAS GOVERNMENT.

dated the 2nd Oct 1889

READ the following

From the Quarter Master General. No. 2546 B dy 9th September 1889.

Endorsement thereon in the Military Department No. 6480 dy 23rd September 1889.

Communicated to Superintending Engineers concerned for information.

2. The preparation of plans and Estimates for items 12, 13, and 15 to 24, of the Schedule circulated with G.O. No. 2604 W dated 20th September 1889 should be undertaken in the order given in the Statement annexed to the letter from the Quarter Master General above recorded.

3. Ordered that a copy of these Proceedings be forwarded to the Government

D 26

Government of India,
Military Department,
for the information of the
administrations concerned
with reference to items 9,
to 11, and 14, of the Schedule
forwarded with letter No.
2605 W dated 20th September
1889.

H.E. No. 2705 W dy

Forwarded

2.10.89

2.10.89

16/10

To
Supdg Engineers
I, III, IV, V and VII Circle
Hon Military Department.

16/10

9763-4

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27

P.C. 2. 9. 1889 no 6019 R
" 26. 8. 1889 no 5797 R
" 21. 2. 1889 no 1226
" 6. 6. 1889 no 3699 "

P.W.C. No 8965

Military (1889) Department.

No. 6584

From

THE QUARTER MASTER GENERAL,

To

THE SECRETARY TO GOVERNMENT,

MILITARY DEPARTMENT.

No. 2546 B

Dated 9th September 1889.
Received

No 6480

3P

I have forwarded to the Public Works Department with reference to P.W.D. (Mily) no 6019 dated 2nd Sept 1889.

H R Thullier Colonel
for Secretary to Govt
Mily Dept.

Fort St George
23rd Sept 1889

RG 24. 9. 8

SECRETARY TO GOVERNMENT
24 SEP 89
P.W. DEPARTMENT, MADRAS.

E 1

ENCLOSURES. /

Statement of proposals for the utilization of the reserve of Rs. 617 in connection with Sanitation will be entertained later on in the current official year & forwards a list showing the order in which certain funds to be allotted to the remaining works required to be completed the Sanitary Improvements & Drains of N. Droog in this command

From [illegible]

R

No. 2763 4

2763 4 B & M Public

PUBLIC WORKS DEPARTMENT.

A/

PROCEEDINGS OF THE MADRAS GOVERNMENT.

under date the 2nd Oct 1889

READ the following

From the Quarter Master General. No. 2546 B dy 9th September 1889.

Endorsement thereon in the Military department No. 6480 dy 23rd September 1889.

B/0

Communicated to Superintending Engineers concerned for information.

2. The preparation of plans and Estimates for items 12, 13, and 15 to 24, of the Schedule circulated with G.O. No. 2604 W dated 20th September 1889 should be undertaken in the order given in the Statement annexed to the letter from the Quarter Master General above recorded.

3. Ordered that a copy of these Proceedings be forwarded to the Government

D 24

2763-4

24 25

P.C. 2. 9. 1889 no 6019 R
" 26. 8. 1889 no 5797 R
" 21. 2. 1889 no 1226
" 6. 6. 1889 no 3699

P.W.C. No 8965

Military (1889) Department.

No. 6584

From

THE QUARTER MASTER GENERAL,

To

THE SECRETARY TO GOVERNMENT,

MILITARY DEPARTMENT.

No. 2546 B

Dated 9th September 1889.
Received

No 6480

3P

I have forwarded to the Public Works Department with reference to P.W.C. (Mily) no 6019 dated 2nd Sept 1889.

H R Thullier Colonel
for Secretary to Govt.
Mily Dept.

Fort St George
23rd Sept 1889

ENCLOSURES. 1

States that proposals for the utilization of the reserve of Rs 617 in connection with sanitation will be submitted later on in the current official year & forwards a list showing the order in which certain funds to be allotted to the remaining works required to complete the Sanitary Improvements & lines of N. troops in this command

R24.9.89

SECRETARY TO GOVERNMENT
24 SEP 89
P.W.D. DEPARTMENT, MADRAS.

E1

R

From

No. 2763 4 B & R Miscl

PUBLIC WORKS DEPARTMENT.

A/

PROCEEDINGS OF THE MADRAS GOVERNMENT.

under date the 2nd October 1889

READ the following

From the Quarter Master General. No. 2546 B dy 9th September 1889.

Endorsement thereon in the Military Department No. 6480 dy 23rd September 1889.

B 4 P

Communicated to Superintending Engineers concerned for information.

2. The preparation of plans and Estimates for items 12, 13, and 15 to 24, of the Schedule circulated with G.O. No. 2604 W dated 20th September 1889 should be undertaken in the order given in the Statement annexed to the letter from the Quarter Master General above recorded.

3. Ordered that a copy of these Proceedings be forwarded to the Government

D 26

2763-4

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Government of India,
Military Department,
for the information of the
administrations concerned
with reference to items 9,
to 11, and 14, of the Schedules
forwarded with letter No.
2605 W dated 20th September
1884.

H.E. No. 2763 W dy 2-10-84

Forwarded

To
Supdg Engineers
I, II, III, IV, V and VI Circles
The Military Department.

P 16/10

W. Treg

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2.10.84

P 16/10

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Govt. of 18 / Madras.

PUBLIC WORKS.

Dated 4/5

Read. Encl.

G.O., 2d Oct 1884 No. 2763 to 2764

12/6 Sanitary Works

Orders on letter from the Q.M.G. stating that proposals for the utilization of the reserve will be made later on the Govt. forwarding a list of - showing the order in which it is proposed to allot funds.

Sanitary Works

Forwarding copy of Pro. on letter from the Q.M.G. stating that proposals for the utilization of the reserve will be made later on the Govt. forwarding a list of - showing the order in which it is proposed to allot funds.

(26)

4/10 2/- 4/10-