(1) பக்கங்களின் எண்ணிக்கை 160

(2) புதுக்கித் திருப்பிய நாள் 1/88

(3) ஆதாரங்குறிப்பவர் சுருக்கொப்பம்

தமிழ்நாடு ஆவணக் காப்பகம்.

தமிழ்நாடு அரசு

P.W துறை

அரசாணை எண். —
மு. கோப்புத் தாள் எண். 3884/W

அச்சகம்
பலவகை

நாள் : 10.12.1888 ~~198~~

...க்கவோ கண்டபடி கையாளவோ கூடாது

...ன, கா-1—18,000—15-6-87.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

General.
Establishment.

READ—the following paper:—

From R. B. BUCKLEY, Esq., Under-Secretary to the Government of India, Public Works Department (General), to the Secretary to the Government of Madras, Public Works Department, dated Calcutta, 29th November 1888, No. 3942 G.

In reply to your letter No. 3267 W., dated the 13th October 1888, stating that e Rushikulya and Periyár divisions, for purposes of calculation of the scale of the ngineer establishment, should be classed among the permanent divisions, I am ected to state that the Government of India accepts this opinion and is pleased to action the following as the Cadre for the Public Works Department in Madras:—

Superior posts	8
Secretariat	3
Divisional Engineers, including Rushikulya and Periyár projects ...	29
Assistant Engineers, including two on training	31
Special for Tank projects	3
Absentees	11
Total ...	85

ORDER—dated 10th December 1888, No. 3884 W., Public Works.

Recorded.

(True Extract.)

Captain, R.E.,
Under-Secy. to Govt., P.W.D.

The Chief Engineer for Irrigation.
Examiner, Public Works Accounts.

J. Henricus.
Copies

GENERAL.
ESTABLISHMENT.

Govt. of {1888} Madras.

PUBLIC WORKS.

Dated December, 10th.

Recd. *Encl.*

G.O., 10th Dec. 1888, No. 3884 W.

DECEMBER.

Engineer Establishment

Letter from the Government of India sanctioning revised scale of —, recorded.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

General.
Establishment.

Read—the following papers:—

Office note from Major C. H. P. CHRISTIE, R.E., Examiner, Public Works Accounts, to the Secretary to Government, Public Works Department, dated Madras, 2nd August 1887, No. 410.

Your office note No. 2461 C., dated 23rd July 1887.

It is doubtful whether the promotions proposed *vice* Mr. Chisholm can be made. In Government of India resolution, No. 1475 G., of 20th December 1884 (for which see page 2 of G.O., No. 297 W., of 7th February 1885), it was ruled that the division of the staff between the classes of Executive and Assistant Engineers is to be made on the *actual* and not on any sanctioned number on each scale; and in accordance with the letter and resolutions of the Government of India, recorded in the above quoted Government order, the numbers in the Executive and Assistant classes were fixed at 41 and 40 respectively, the total *actual* number of the two classes combined being at that time 81.

2. The rule above quoted *apparently* required that, whenever a casualty occurred in either of these classes, reducing the actual number in the two classes combined, the division of the total between the two should be revised, any actual excesses in the Executive class, resulting from such revision, being treated as supernumerary, to be absorbed before further promotions could be made, unless in the meanwhile rectified by recruitment increasing the total number; but this was never done, and practically the scale of 41 Executives and 40 Assistants was taken as a fixed scale, resulting from the division of a fixed total scale of 81.

3. The question now is whether the old total scale 81 is to be taken as fixed, or whether the strict rule is to be observed.

4. If the old scale is to be considered as having been a fixed scale, it is necessary to remember that it was fixed (?) on the understanding that the Consulting Architect would be provided out of that scale, and now that the Consulting Architect is to be provided from another list, the old total scale must apparently be reduced by one, bringing it down to 80, which would allow 40 Executives and 40 Assistants. In that case there is no room for the proposed promotions, which assume a scale of 41 Executives.

5. On the other hand, if the rule referred to above is to be observed—and it will be necessary to obtain the sanction of the Government of India if it is to be set aside—the actual total number at present is only 78, allowing for only 39 Executives, and, on this basis, there is already an excess of 2 Executives. But this excess will, failing other casualties, be rectified on the arrival of the 3 Assistant Engineers expected from England. These will bring the total number up to 81 again, and allow of the promotions now proposed.

Office note from Colonel J. O. HASTED, R.E., Secretary to Government, Public Works Department, to the Examiner, Public Works Accounts, dated Ootacamund, 30th August 1887, No. 491 D.

With reference to your office note No. 410, dated 2nd August 1887, please see the enclosed copies of G.Os., No. 873 W., dated 22nd March 1887, and No. 1127 W., dated 25th April 1887.

2. The Government of India having, so late as in April last, accepted 81 as the sanctioned scale of Executive and Assistant Engineers for Madras, please say whether the proposed promotions may be made.

Office note from Major C. H. P. CHRISTIE, R.E., Examiner, Public Works Accounts, to the Secretary to Government, Public Works Department, dated Madras, 7th September 1887, No. 513.

I do not think there is anything in Government of India letter, No. 694 G, of 11th April 1887, which can be held to override the ruling quoted in my first note. It does not seem that there was any question of promotions in the correspondence ending with the letter of the 4th April last, and the mere reference to a sanctioned scale, in a matter quite unconnected with promotions, cannot, I think, be accepted as authority for regulating promotions in accordance with such a scale. Moreover, the Government of India does not even say that the sanctioned scale is 81; it mentions 81 as the number considered sufficient.

2. I must also point out that even if the sanctioned scale had been definitely fixed, in April last, at 81 for purposes of promotion, it would now be reduced to 80, in consequence of Mr. Brassington (Consulting Architect) being definitely retained on the Government of India list.

3. Government of India letter, No. 141 G., dated 27th January 1885, printed with G.O., No. 297 W., dated 7th February 1885, shows clearly, I think, that the intention then was that promotions should, *on every occasion*, be regulated by the *actual* number of Executive and Assistant Engineers; and that, consequently, when the actual number is reduced by any casualty, the relative proportions of the two classes must be revised, with the result in some cases of cancelling some temporary or sub. *pro tem.* promotion. The orders of 1884 and 1885 have not, as far as I am aware, been modified, and there is apparently nothing for it but to act upon them, or to address the Government of India with a view to their modification.

Order—dated 21st September 1887, No. 2493 W., Public Works.

Ordered that the Government of India be addressed.

(Here enter No. 2494 W., dated 21st September 1887.)

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.,
Secretary to Govt., P.W.D.

To the Examiner, Public Works Accounts.

From Colonel J. O. HASTED, R.E., Secretary to the Government of Madras, Public Works Department, to the Secretary to the Government of India, Public Works Department, dated Ootacamund, 21st September 1887, No. 2494 W.

I am directed to request the favor of information as to the nature and scope of the instruction in paragraph 2 of Government of India resolution, No. 1475 G., dated 20th December 1884, relative to the Engineer establishment of the Public Works Department.

2. In that paragraph, it was stated that, for the purposes of Government of India resolution, No. 1442 G., dated 13th December 1884, "the division of the whole staff of Executive and Assistant Engineers between those two classes is to be made on the actual and not on any sanctioned number on each list." That instruction was taken as the basis on which the new scale then to be adopted was to be worked out,

and accordingly (*vide* your letter, No. 141 G., dated 27th January 1885) the following was taken as the fixed scale for Madras:—

Executive Engineers.		*Assistant Engineers.*	
1st grade	11	1st grade	32
2nd „	11	2nd „	8
3rd „	13		
4th „	6		
Total ...	41	Total ...	40

and since that date promotions have been made up to that scale on the occurrence of each casualty.

3. The Examiner, Public Works Accounts, however, has now, for the first time, raised the question whether the procedure adopted here is correct, and he expresses the opinion that "Government of India letter, No. 141 G., dated 27th January 1885, shows clearly that the intention then was that promotions should, on *every occasion*, be regulated by the *actual* number of Executive and Assistant Engineers; and that consequently, when the actual number is reduced by any casualty, the relative proportions of the two classes must be revised, with the result in some cases of cancelling some temporary or sub. *pro tem.* promotions."

4. It seems needless to point out to the Government of India the inconvenience which would result from the adoption of a fluctuating scale, such as that indicated by the Examiner, involving the anomaly that casualties among senior officers will in some cases cause reversions in rank among the juniors, instead of giving them expected promotion; and I am to inquire whether the numbers given in your letter, No. 141 G., dated 27th January, may not be regarded as a fixed scale for promotion, so long as 81 Executives and Assistants constitute the permanent Engineer establishment of the Madras Public Works Department. I am to add that this figure 81 was accepted as the establishment for Madras so recently as April last (*vide* your letter, No. 694 G., dated 11th April 1887).

5. The question has also arisen whether Mr. Brassington, whose name has been retained on the "Local Administration list" for promotion, should count against the 41 Executive Engineers allowed for Madras, or whether there should be 41 Executives exclusive of that officer. I am to state that, as an Executive Engineer has been posted to the Periyár project now being started, and that as several officers have been diverted from ordinary divisional work for charge of Tank Restoration operations, it will be difficult to provide for all requirements; and I am to request that 81 Executive and Assistant Engineers may continue for the present to be the sanctioned scale for Madras, exclusive of Mr. Brassington. The total number of Engineers for all India will not thereby be increased.

(Signed) J. O. HASTED, Colonel, R.E.,
Secretary to Govt., P.W.D.

Exd. J. Moses.
Spare Copies

GENERAL.
ESTABLISHMENT.

Govt. of [1887] Madras.

PUBLIC WORKS.

ated September, 21st.

eed. *Encl.*

G.O., 21st Sept. 1887, Nos. 2493, 2494 W.

SEPTEMBER.

Engineer Establishment

The Government of India addressed with regard to the nature and scope of paragraph 2 of their resolution, No. 1475 G., dated 20th December 1884, relative to the — of the Public Works Department.

4

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

General.
Establishment.

READ—the following letter from G. H. W. WALKER, Esq., Under Secretary to the Government of India, Public Works Department (General), to the Secretary to the Government of Madras, Public Works Department, dated Simla, 5th October 1887, No. 1955 G.:—

In reply to your letter, No. 2494 W., dated the 21st September 1887, making certain inquiries as to the way in which the scale for the promotion of Executive and Assistant Engineers, as laid down in Public Works Department Nos. 1442 G. and 1475 G. of December 1884, is to be worked, I am directed to state that the intention of these orders was that the scale should be readjusted on the occurrence of each *event* (*i.e.*, casualty or addition), an excess in any particular grade, which may then appear, being absorbed on the first opportunity, or a promotion being made in any grade which may appear to be under strength. Reversion of permanent men in the first case cannot of course be made.

2. With regard to sub. *pro tempore* promotions, I am directed to refer you to Public Works Department resolution, No. 490 G., dated 7th April 1885, which lays down the procedure to be observed.

3. With regard to Mr. Brassington, I am to state that he is wholly outside the Madras scale of establishment and is not to be counted in the actual number on which the scale is framed, nor against the scale so framed.

4. As regards the sanctioned strength of Executive and Assistant Engineers, I am directed to refer you to Public Works Department letter, No. 1721 G., dated 2nd September 1887, calling for certain information with the view of revising the strength.

ORDER—dated 20th October 1887, No. 2808 W., Public Works.

Communicated to the Examiner, Public Works Accounts, with reference to the proceedings of Government marginally noted.

No. 2493 W., dated 21st September 1877.
„ 933 W., „ 20th April 1885.

2. Such re-adjustments of the scale of Executive and Assistant Engineers as may be necessary, under the ruling of the Government of India above recorded, will have effect from the date of its receipt, viz., the 12th October 1887. The Examiner, Public Works Accounts, will submit a statement showing how the scale will now stand, and the consequent reversions, if any, which must be notified.

3. Letter from the Government of India, No. 1721 G., dated 2nd September 1887, was replied to by this department letter, No. 2611 W.,* dated 4th October 1887.

* G.O., No. 2610 W., dated 4th October 1887.

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.,
Secretary to Govt., P.W.D.

To the Examiner, Public Works Accounts.

Exd. E. Fernandez.
Spare Copies

GENERAL.
ESTABLISHMENT.

Govt. of {1887} Madras.

PUBLIC WORKS.

Dated October, 20th.

Recd. *Encl.*

G.O., 20th Oct. 1887, No. 2808 W.

OCTOBER.

Scale of Executive and Assistant Engineers

Instructions of the Government of India with regard to the fixing of the —, for purposes of promotion, communicated to the Examiner, Public Works Accounts.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

General.
Establishment.

READ—the following paper:—

Proceedings of the Government of India, Public Works Department (General), dated Simla, 7th April 1885, No. 490 G.

Mode of making promotions among Executive and Assistant Engineers in place of officers absent on deputation.

Resolution—

As some uncertainty exists regarding the manner in which promotions should be made among Executive and Assistant Engineers in place of officers absent on deputation, the Governor-General in Council directs the issue of the following instructions:—

(1) The total strength of Executive and Assistant Engineers, to be divided into classes and grades, will include those on deputation, and those who have been promoted sub. *pro tem.* to Superintending Engineer.

(2) After all permanent promotions have then been made, promotions sub. *pro tem.* may be made, under section 4 of the Pay and Acting Allowance Code, in place of officers who have been promoted sub. *pro tem.* to Superintending Engineer or who are absent on deputation.

Order—

Ordered that this resolution be communicated to the Local Governments, Administrations and officers noted in the margin, and to the Military Department of the Government of India.

The Governments of Madras, Bombay, Bengal, the North-Western Provinces and Oudh, and the Punjab, in the Public Works Department.
The Accountant-General, Public Works Department.
The Inspector-General of Military Works.
The Director-General of Railways.

ORDER—dated 20th April 1885, No. 933 W., Public Works.

Communicated to the Examiner, Public Works Accounts.

(True Extract.)

(Signed) J. SHAW-STEWART, Colonel, R.E.,
Secretary to Govt., P.W.D.

To the Examiner, Public Works Accounts.

Exd. E. Fernandez.
Spare Copies

GENERAL.
ESTABLISHMENT.

Govt. of {1885} Madras.

PUBLIC WORKS.

Dated April, 20th.

Read. *Encl.*

G.O., 20th April 1885, No. 933 W.

APRIL.

Promotions among Executive and Assistant Engineers

Instructions of the Government of India as to mode of making — in place of officers absent on deputation.

PROVINCIAL SERVICES. **MADRAS.**
PUBLIC WORKS BUDGET-ESTIMATE.
GOVERNMENT OF MADRAS.

b

PART III.

DETAIL OF THE BUDGET-ESTIMATE FOR ESTABLISHMENT UNDER PROVINCIAL SERVICES IN THE MADRAS PRESIDENCY FOR 1887-88.

Number. 1886-87.	Number. 1887-88.	Particulars.	Salary of Office.	Estimate for 1887-88. Per Mensem.	Per Annum.	Total.	Estimate for 1886-87.	Remarks.
		EXECUTIVE BRANCH.	Rs.	Rs.	Rs.	Rs.	Rs.	
		Engineer Establishment.						
		Chief Engineers.						
1	1	Chief Engineer, 1st Class, and Secretary to Government, Public Works Department.	2,500	2,500				
1	1	Chief Engineer, 2nd Class, and Joint Secretary to Government, Irrigation Branch.	2,000	2,000				
		Military pay and allowances	...	445				
2	2	Total, Chief Engineers ...	...	4,945	59,340	...	59,832	
		Superintending Engineers.						
2	2	Superintending Engineers, 1st Class.	1,600	3,200				
2	2	Superintending Engineers, 2nd Class.	1,350	2,700				
2	2	Superintending Engineers, 3rd Class.	1,100	2,200				
		Military pay and allowances	...	1,209				
6	6	Total, Superintending Engineers.	...	9,309	1,11,708	...	1,23,672	
		Executive Engineers.						
11	11	Executive Engineers, 1st Grade.	950	10,450				
11	11	Executive Engineers, 2nd Grade.	800	8,800				
13	13	Executive Engineers, 3rd Grade.	700	9,100				
6	6	Executive Engineers, 4th Grade.	600	3,600				
		Military pay and allowances.	...	2,518				
41	41	Total, Executive Engineers.	...	34,468	4,13,616	...	4,51,380	
		Carried over ...	...	...	...	...	...	

GOVERNMENT OF MADRAS.

PART III—continued.

DETAIL OF THE BUDGET-ESTIMATE FOR ESTABLISHMENT, &c.—continued.

Number. 1886-87.	Number. 1887-88.	Particulars.	Salary of Office.	Estimate for 1887-88. Per Mensem.	Per Annum.	Total.	Estimate for 1886-87.	Remarks.
			Rs.	Rs.	Rs.	Rs.	Rs.	
		Brought forward ...	...	...	...	...	...	
		EXECUTIVE BRANCH —*cont.*						
		Assistant Engineers.						
32	32	Assistant Engineers, 1st Grade.	500	16,000				
8	8	Assistant Engineers, 2nd and 3rd Grades.	250 & 350	2,700				
		Military pay and allowances.	...	190				
40	40	Total, Assistant Engineers.	...	18,890	2,26,680	...	2,25,600	
91	91	Total, Engineer Establishment.	...	...	8,11,344	...	8,60,484	
		Deduct— On account of absentees ... Rs. 80,000	...	...	(a)80,000	...	50,000	(a) Increased by Rs. 3
		Net Total, Engineer Establishment.	...	...	...	7,31,344	8,10,484	
		Upper Subordinate Establishment.						
		Sub-Engineers.						
9	9	Sub-Engineers, 1st Grade...	400	3,600				
9	9	Do. 2nd „ ...	300	2,700				
17	17	Do. 3rd „ ...	250	4,250				
		Military pay and allowances including additional pay sanctioned for Messrs. Ottmann and Baker.	...	535				
35	35	Total, Sub-Engineers ...	...	11,085	1,33,020	...	1,32,780	
		Supervisors.						
22	22	Supervisors, 1st Grade ...	200	4,400				
36	36	Do. 2nd „ ...	150	5,400				
		Military pay and allowances.	...	90				
58	58	Total, Supervisors ...	...	9,890	1,18,680	...	1,20,600	
		Overseers.						
35	39	Overseers, 1st Grade ...	100	3,900				
28	28	Do. 2nd „ ...	80	2,240				
29	25	Do. 3rd „ ...	60	1,500				
		Military pay and allowances.	...	650				
92	92	Total, Overseers ...	...	8,290	99,480	..	96,960	
		Carried over ...	...	...	...	...	...	

GOVERNMENT OF MADRAS.

PART III—continued.

DETAIL OF THE BUDGET-ESTIMATE FOR ESTABLISHMENT, &c.—continued.

Number. 1886-87.	Number. 1887-88.	Particulars.	Salary of Office.	Estimate for 1887-88. Per Mensem.	Per Annum.	Total.	Estimate for 1886-87.	Remarks.
			Rs.	Rs.	Rs.	Rs.	Rs.	
		Brought forward ...	...	...	...	...	...	
		EXECUTIVE BRANCH —*cont.*						
		Upper Subordinate Establishment—*cont.*						
		Apprentices.						
2	3	Apprentice Overseers, 1st Grade.	51	153				
		Additional remuneration for two Apprentice Instructors.	50	100				
		Total, Apprentices ...	...	253	3,036	...	2,424	
		Sub-divisional allowance for 20 Upper Subordinates.	30	600	7,200	...	7,200	
187	188	Total, Upper Subordinate Establishment.	...	...	...	3,61,416	3,59,964 — 2,400	
							3,57,564	
		Lower Subordinate Establishment.						
12	13	Sub-Overseers, 1st Grade...	50	650				
9	9	Do. 2nd „ ...	35	315				
8	8	Do. 3rd „ ...	25	200				
29	30	Total, Lower Subordinate Establishment.	...	1,165	13,980	13,980	13,380	
		Petty Establishment.						
		Store Establishment.						
1	1	Storekeeper	100	100				
1	1	Do.	50	50				
4	4	Storekeepers	30	120				
9	9	Do.	25	225				
6	7	Do.	20	140				
6	4	Do.	15	60				
1	1	Store Writer	25	25				
7	7	Store Watchers	7	49				
35	34	Total, Store Establishment.	...	769	9,228	...	9,348	

GOVERNMENT OF MADRAS.

PART III—continued.

DETAIL OF THE BUDGET-ESTIMATE FOR ESTABLISHMENT, &c.—continued.

Number. 1886-87.	Number. 1887-88.	Particulars.	Salary of Office.	Estimate for 1887-88. Per Mensem.	Per Annum.	Total.	Estimate for 1886-87.	Remarks.
		EXECUTIVE BRANCH —*cont.*	Rs.	Rs.	Rs.	Rs.	Rs.	
		Workshop Establishment, (Presidency and Dowlaishweram).						
...	1	Foreman, Mechanics ...	130	130				
...	1	Do. Carpenter ...	45	45				
...	1	Fitter	45	45				
...	1	Foundry	40	40				
...	1	Smith	40	40				
1	1	Engraver	30	30				
1	1	Gate-keeper	10	10				
2	2	Attenders	10	20				
2	2	Boys	4	8				
6	11	Total, Workshop Petty Establishment.	...	368	4,416	...	816	
		Medical Establishment.						
1	...	Hospital Assistant ...	60	...				
2	2	Do. Assistants ...	55	110				
1	...	Do. Assistant ...	40	..				
2	2	Do. Assistants ...	35	70				
2	4	Do. do. ...	25	100				
		Charge allowance 2 at 25, 2 at 15 and 2 at 10.	...	100				
6	6	Hospital servants 1 at 7, 2 at 6, 2 at 5 and 1 at 4.	...	33				
14	14	Total, Medical Establishment.	...	413	4,956	...	5,496	
		Telegraph Establishment.						
1	1	Signaller	30	30				
2	2	Signallers	25	50				
4	4	Do.	20	80				
8	8	Do.	15	120				
12	12	Telegraph peons	6	72				
27	27	Total, Telegraph Establishment.	...	352	4,224	...	4,224	

GOVERNMENT OF MADRAS.

PART III—continued.

DETAIL OF THE BUDGET-ESTIMATE FOR ESTABLISHMENT, &c.—continued.

Number. 1886-87.	Number. 1887-88.	Particulars.	Salary of Office.	Estimate for 1887-88. Per Mensem.	Per Annum.	Total.	Estimate for 1886-87.	Remarks.
		EXECUTIVE BRANCH —*cont.*	Rs.	Rs.	Rs.	Rs.	Rs.	
		Lascars, Sweepers, &c.						
500	500	Lascars	6	3,000				
5	5	Sweepers	2 at 5 & 3 at 4	22				
1	...	Keeper of the Chepâk Park.	35	...				
506	505	Total, Lascars, &c...	...	3,022	36,264	...	36,684	
		Irrigation Conservancy Establishment.						
		Godâvari Delta System.						
1	1	Anicut Superintendent ...	150	150				
1	1	Do. Maistry	18	18				
1	1	Do. do.	15	15				
1	1	Do. do.	12	12				
3	3	Clerks	15	45				
1	1	Shroff	10	10				
3	3	Delta Superintendents ...	80	240				
2	2	Do. do. ...	70	140				
1	1	Do. Superintendent ...	60	60				
9	9	Do. Superintendents ...	55	495				
12	12	Do. do. ...	40	480				
5	5	Superintendents	8	40				
1	1	Peon	6	6				
3	3	Peons	5	15				
39	39	Lascars	6	234				
75	75	Do.	5	375				
158	158	Total, Water Regulation Establishment, Godâvari Delta System.	...	2,335				
		Navigation Establishment.						
1	1	Boat Superintendent ...	75	75				
2	2	Lock Superintendents ...	15	30				
16	18	Do. do. ...	12	216				
20	20	Do. do. ...	10	200				
1	1	Do. Superintendent ...	9	9				
11	11	Do. Superintendents ...	8	88				
137	143	Do. do. ...	6	858				
77	79	Do. do. ...	5	395				
265	275	Total, Navigation Establishment, Godâvari Delta System.	...	1,871	...	...	...	

GOVERNMENT OF MADRAS.

PART III—continued.

DETAIL OF THE BUDGET-ESTIMATE FOR ESTABLISHMENT, &c.—continued.

Number. 1886-87.	Number. 1887-88.	Particulars.	Salary of Office.	Estimate for 1887-88. Per Mensem.	Per Annum.	Total.	Estimate for 1886-87.	Remarks.
		EXECUTIVE BRANCH —*cont.*	Rs.	Rs.	Rs.	Rs.	Rs.	
		Irrigation Conservancy Establishmet—*cont.*						
		Kistna Delta System.						
		Water Regulation Establishment.						
1	1	Anicut Superintendent ...	120	120				
1	1	Assistant do. ...	40	40				
1	1	Clerk, 5th Class, 1st Grade.	15—20	17½				
1	1	Irrigation Clerk, 5th Class, 1st Grade.	15—20	17½				
1	1	Do. do. 2nd Grade.	10—15	12½				
3	3	Delta Superintendents ...	70	210				
5	5	Do. ...	55	275				
6	6	Do. ...	40	240				
18	18	Lascars	8	144				
30	30	Do.	7	126				
27	27	Do.	6	180				
112	112	Do.	5	135				
		Total, Water Regulation Establishment, Kistna District.	...	1517½				
		Navigation Establishment.						
3	3	Lock Superintendents ...	15	15				
8	8	Do. ...	12	96				
12	12	Do. ...	10	120				
15	15	Do. ...	8	120				
17	17	Do. ...	7	119				
24	24	Do. ...	6	144				
27	27	Do. ...	5	135				
2	2	Traffic Clerks	12	24				
1	1	Boat Clerk, 5th Class, 1st Grade.	15—20	17½				
109	109	Total, Navigation Establishment, Kistna Delta System.	...	820½				
		Pennér Anicut System.						
		Water Regulation Establishment.						
1	1	Delta Superintendent ...	70	70				
1	1	Anicut do. ...	60	60				
1	1	Clerk	15	15				
		Carried over ...						

GOVERNMENT OF MADRAS.

PART III—continued.

DETAIL OF THE BUDGET-ESTIMATE FOR ESTABLISHMENT, &c.—continued.

Number. 1886-87.	Number. 1887-88.	Particulars.	Salary of Office.	Estimate for 1887-88. Per Mensem.	Per Annum.	Total.	Estimate for 1886-87.	Remarks.
		Brought forward ...	Rs. ...	Rs. ...	Rs. ...	Rs. ...	Rs. ...	
		EXECUTIVE BRANCH —*cont.*						
		Irrigation Conservancy Establishment—*cont.*						
		Pennér Anicut System—cont.						
		Water Regulation Establishment—cont.						
1	1	Clerk	10	10				
1	1	Lascar	7	7				
17	17	Lascars	6	102				
4	4	Do.	5	20				
26	26	Total, Water Regulation Establishment, Pennér Anicut System.	...	284				
		Cauvery Delta System.						
...	1	Superintendent	75	75				
1	1	Do.	50	50				
1	1	Do.	30	30				
1	1	Do.	25	25				
...	1	Assistant Superintendent...	25	25				
3	3	Superintendents	20	60				
9	9	Do.	15	135				
1	...	Superintendent	12	...				
3	4	Superintendents	10	40				
1	1	Superintendent	8	8				
...	3	Lascars	8	24				
8	17	Do.	7	119				
31	39	Do.	6	234				
83	89	Do.	5	445				
...	1	Sweeper	5	5				
31	31	Lascars	4	124				
173	202	Total, Water Regulation Establishment, Cauvery Delta System.	...	1,399				
		Navigation Establishment.						
1	1	Lascar	7	7				
1	1	Do.	5	5				
2	2	Total, Navigation Establishment, Cauvery Delta System.	...	12				

GOVERNMENT OF MADRAS.

PART III—continued.

DETAIL OF THE BUDGET-ESTIMATE FOR ESTABLISHMENT, &c.—continued.

Number. 1886-87.	Number. 1887-88.	Particulars.	Salary of Office.	Estimate for 1887-88. Per Mensem.	Per Annum.	Total.	Estimate for 1886-87.	Remarks.
			Rs.	Rs.	Rs.	Rs.	Rs.	
		EXECUTIVE BRANCH —*cont.*						
		Irrigation Conservancy Establishment —*cont.*						
		Srivaikuntham Anicut System.						
		Water Regulation Establishment.						
2	2	Superintendents	30	60				
1	1	Superintendent	12	12				
21	21	Lascars	5	105				
24	24	Total, Water Regulation Establishment, Srivaikuntham Anicut System.	...	177				
		Chembrambakam Tank.						
		Water Regulation Establishment.						
1	1	Superintendent	12	12				
1	1	Do.	10½	10½				
2	2	Lascars	6	12				
5	5	Do.	5	25				
9	9	Total, Water Regulation Establishment, Chembrambakam Tank.	...	59½				
		Madras Water-supply and Irrigation Project.						
1	1	Superintendent	25	25				
1	1	Do.	15	15				
4	4	Lascars	7	28				
2	2	Do.	6	12				
4	4	Do.	5	20				
12	12	Total, Madras Water-supply and Irrigation Project.	...	100				
		Pálár Anicut System.						
		Water Regulation Establishment, Chinglepat District.						
1	1	Maistry	20	20				
2	2	Lascars	6	12				
12	12	Do.	4	48				
		Carried over ...	...	80				

GOVERNMENT OF MADRAS.

PART III—continued.

DETAIL OF THE BUDGET-ESTIMATE FOR ESTABLISHMENT, &c.—continued.

Number. 1886-87.	Number. 1887-88.	Particulars.	Salary of Office.	Estimate for 1887-88. Per Mensem.	Per Annum.	Total.	Estimate for 1886-87.	Remarks.
			Rs.	Rs.	Rs.	Rs.	Rs.	
		Brought forward ...	...	80	...	...	...	
		EXECUTIVE BRANCH —*cont.*						
		Irrigation Conservancy Establishment—*cont.*						
		North Arcot District.						
1	1	Superintendent	25	25				
1	1	Do.	15	15				
3	3	Superintendents	12	36				
20	20	Do.	5	100				
			...	176				
40	40	Total, Water Regulation Establishment, Pálár Anicut System.	...	256				
		Pelandorai Anicut System.						
		Water Regulation Establishment.						
1	1	Superintendent	30	30				
1	1	Lascar	8	8				
2	2	Lascars	6	12				
7	7	Do.	5	35				
11	11	Total, Water Regulation Establishment, Pelandorai Anicut System.	...	85				
		Irrigation and Navigation Works for which neither Capital nor Revenue Accounts are kept.						
		Water Regulation Establishment, Ganjam District.						
3	4	Lascars	7	28				
...	1	Lascar	6	6				
14	10	Lascars	4	40				
1	1	Lascar	3½	3½				
18	16	Total, Water Regulation Establishment, Ganjam District.	...	77½				

GOVERNMENT OF MADRAS.

PART III—continued.

DETAIL OF THE BUDGET-ESTIMATE FOR ESTABLISHMENT, &c.—continued.

Number. 1886-87.	Number. 1887-88.	Particulars.	Salary of Office.	Estimate for 1887-88. Per Mensem.	Per Annum.	Total.	Estimate for 1886-87.	Remarks.
			Rs.	Rs.	Rs.	Rs.	Rs.	
		EXECUTIVE BRANCH —*cont.*						
		Irrigation and Navigation Works for which neither Capital nor Revenue Accounts are kept—*cont.*						
		Water Regulation Establishment—cont.						
		North Arcot District.						
1	1	Superintendent	27	27				
2	2	Superintendents	20	40				
1	1	Superintendent	12	12				
1	1	Do.	10	10				
5	5	Lascars	6	30				
15	15	Do.	5	75				
25	25	Total, Water Regulation Establishment, North Arcot District.	...	194				
		Coimbatore District.						
1	1	Superintendent	5	5				
4	4	Lascars	2½	10				
5	5	Total, Water Regulation Establishment, Coimbatore District.	...	15				
		Malabar District.						
1	1	Watchman	4	4				
1	1	Do.	3	3				
		Additional amount sanctioned.	...	11½				
2	2	Total, Water Regulation Establishment, Malabar District.	...	18½				
		Tanjore District.						
1	1	Superintendent	50	50				
2	2	Lascars	6	12				
6	6	Do.	5	30				
9	9	Total, Water Regulation Establishment, Tanjore District.	...	92				

GOVERNMENT OF MADRAS.

PART III—continued.

DETAIL OF THE BUDGET-ESTIMATE FOR ESTABLISHMENT, &c.—continued.

Number. 1886-87.	Number. 1887-88.	Particulars.	Salary of Office.	Estimate for 1887-88. Per Mensem.	Per Annum.	Total.	Estimate for 1886-87.	Remarks.
			Rs.	Rs.	Rs.	Rs.	Rs.	
		EXECUTIVE BRANCH —*cont.*						
		Irrigation and Navigation Works for which neither Capital nor Revenue Accounts are kept—*cont.*						
		Water Regulation Establishment—cont.						
		Vizagapatam District.						
3	3	Superintendents	12	36				
13	13	Lascars	5	65				
16	16	Total, Water Regulation Establishment, Vizagapatam District.	...	101				
		Godávari District.						
1	1	Lascar	9	9				
1	1	Do.	7	7				
2	2	Total, Water Regulation Establishment, Godávari District.	...	16				
		Chingleput District.						
1	1	Superintendent	10½	10½				
1	1	Lascar	6	6				
1	1	Do.	5	5				
3	3	Total, Water Regulation Establishment, Chingleput District.	...	21½				
		South Arcot District.						
1	1	Superintendent	40	40				
2	2	Superintendents	35	70				
1	1	Superintendent	25	25				
2	2	Superintendents	20	40				
10	10	Lascars	8	80				
9	9	Do.	6	54				
32	32	Do.	5	160				
57	57	Total, Water Regulation Establishment, South Arcot District.	...	469				

GOVERNMENT OF MADRAS.

PART III—continued.

DETAIL OF THE BUDGET-ESTIMATE FOR ESTABLISHMENT, &c.—continued.

Number. 1886-87.	Number. 1887-88.	Particulars.	Salary of Office.	Estimate for 1887-88. Per Mensem.	Per Annum.	Total.	Estimate for 1886-87.	Remarks.
			Rs.	Rs.	Rs.	Rs.	Rs.	
		EXECUTIVE BRANCH —*cont.*						
		Irrigation and Navigation Works for which neither Capital nor Revenue Accounts are kept—*cont.*						
		Water Regulation Establishment—cont.						
		Trichinopoly District.						
1	1	Superintendent	15	15				
1	1	Do.	12	12				
2	2	Superintendents	10	20				
1	1	Lascar	6	6				
5	5	Lascars	5	25				
18	18	Do.	4	72				
4	4	Do.	3	12				
32	32	Total, Water Regulation Establishment, Trichinopoly District.	...			162		
		Madura District.						
4	4	Lascars	4			16		
4	4	Total, Water Regulation Establishment, Madura District.	...			16		
		Tinnevelly District.						
1	1	Superintendent	45			45		
2	2	Superintendents	35			70		
4	4	Do.	30			120		
8	8	Lascars	8			64		
24	24	Do.	6			144		
25	25	Do.	5			125		
64	64	Total, Water Regulation Establishment, Tinnevelly District.	...			568		
		Navigation Establishment.						
		South Arcot District.						
1	1	Superintendent	15			15		
1	1	Do.	10			10		
		Carried over ...	...			...		

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GOVERNMENT OF MADRAS.

PART III—continued.

DETAIL OF THE BUDGET-ESTIMATE FOR ESTABLISHMENT, &c.—continued.

Number. 1886-87.	Number. 1887-88.	Particulars.	Salary of Office.	Estimate for 1887-88. Per Mensem.	Per Annum.	Total.	Estimate for 1886-87.	Remarks.
		Brought forward ...	Rs. ...	Rs. ...	Rs. ...	Rs. ...	Rs. ...	
		EXECUTIVE BRANCH —*cont.*						
		Navigation Establishment—*cont.*						
		South Arcot District—cont.						
1	1	Lascar	8	8				
7	7	Lascars	5	35				
10	10	Total, Navigation Establishment, South Arcot District.	...	68				
		Agricultural Works, River Conservancy Establishment.						
		Godávari District.						
2	2	Superintendents	15	30				
8	8	Lascars	6	48				
10	10	Total, River Conservancy Establishment, Godávari District.	...	78				
		South Arcot District.						
1	1	Sluice-keeper	8	8				
3	3	Lascars	8	24				
6	6	Do.	5	30				
10	10	Total, River Conservancy Establishment, South Arcot District.	...	62				
		Trichinopoly District.						
2	2	Lascars	7	14				
20	20	Do.	4	80				
4	4	Do.	3	12				
10	10	Do.	2½	25				
36	36	Total, River Conservancy Establishment, Trichinopoly District.	...	131				

GOVERNMENT OF MADRAS.

PART III—continued.

DETAIL OF THE BUDGET-ESTIMATE FOR ESTABLISHMENT, &c.—continued.

Number. 1886-87.	Number. 1887-88.	Particulars.	Salary of Office.	Estimate for 1887-88. Per Mensem.	Per Annum.	Total.	Estimate for 1886-87.	Remarks.
			Rs.	Rs.	Rs.	Rs.	Rs.	
		EXECUTIVE BRANCH —*cont.*						
		Agricultural Works, River Conservancy Establishment—*cont.*						
		Tinnevelly District.						
1	1	Lascar	7	7				
4	4	Lascars	2	8				
5	5	Total, River Conservancy Establishment, Tinnevelly District.	...	15				
		Conservancy Establishment, Kurnool Canal.						
3	3	Irrigation Superintendents.	65,55&45	165				
4	4	Anicut do.	1 at 25 1 at 20 2 at 15	75				
10	10	Head Lascars	8	80				
15	15	Do.	7	105				
17	17	Lascars	6	102				
13	13	Do.	5	65				
3	3	Lascars for three Irrigation Superintendents.	6	18				
65	65	Total, Irrigation, Kurnool Canal.	...	610				
		Navigation Establishment.						
7	7	Lock Superintendents ...	12	84				
15	15	Do. ...	10	150				
20	20	Do. ...	8	160				
42	42	Total, Navigation Establishment, Kurnool Canal.	...	394				
107	107	Total, Irrigation and Navigation Establishment, Kurnool Canal.	...	1,004				
		Conservancy Establishment.						
		Sangam Project.						
1	...	Anicut Superintendent ...	60—80	...				
...	1	Do. do. ...	60	60				
...	1	Delta do. ...	60	60				
1	1	Channel do. ...	40	40				
		Carried over ...	...	...	...	...	...	

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GOVERNMENT OF MADRAS.

PART III—continued.

DETAIL OF THE BUDGET-ESTIMATE FOR ESTABLISHMENT, &c.—continued.

Number. 1886-87.	Number. 1887-88.	Particulars.	Salary of Office.	Estimate for 1887-88. Per Mensem.	Per Annum.	Total.	Estimate for 1886-87.	Remarks.
		Brought forward ...	Rs. ...	Rs. ...	Rs. ...	Rs. ...	Rs. ...	
		EXECUTIVE BRANCH —*cont.*						
		Conservancy Establishment—*cont.*						
		Sangam Project—cont.						
1	...	Channel Superintendent ...	30	...				
...	1	Do. do. ...	25	25				
1	...	Tank do. ...	40—60	...				
1	...	Clerk	15	...				
...	2	Clerks, 5th Class, 1st Grade.	15—20	35				
...	2	Do. 5th „ 2nd „	10—15	25				
...	1	Tank Superintendent ...	15	15				
4	2	Lascars	8	16				
4	5	Do.	7	35				
16	20	Do.	6	120				
29	36	Total, Conservancy Establishment, Sangam Project.	...	431				
		Grand Total, Conservancy Establishment.	...	12,456	1,49,472	...	1,44,612	
		Total, Petty Establishment.	...	...	2,08,560	2,08,560	2,01,180	
		Office Establishment.						
		For Chief Engineer and Secretary to Government, Public Works Department.						
1	1	Chief Assistant	600	600				
1	1	Second do.	300	300				
2	2	Clerks, 1st Class, 3rd Grade.	200—250	450				
1	1	Clerk, 2nd „ 1st „	160—200	180				
1	1	Do. 2nd „ 2nd „	120—160	140				
1	1	Do. 2nd „ 3rd „	100—120	110				
4	4	Clerks, 3rd „ 2nd „	60—80	280				
5	5	Do. 3rd „ 3rd „	50—60	275				
3	3	Do. 4th „ 1st „	40—50	135				
3	3	Do. 4th „ 2nd „	30—40	105				
3	3	Do. 4th „ 3rd „	20—30	75				
1	1	Draftsman, Special ...	200—250	225				
1	1	Do. 1st Class ...	50—70	60				
3	3	Attenders	15,13&10	38				
1	1	Muchi	14	14				
1	1	Do.	12	12				
		Carried over ...	...	...	...	...	...	

GOVERNMENT OF MADRAS.

PART III—continued.

DETAIL OF THE BUDGET-ESTIMATE FOR ESTABLISHMENT, &c.—continued.

Number. 1886-87.	Number. 1887-88.	Particulars.	Salary of Office.	Estimate for 1887-88. Per Mensem.	Per Annum.	Total.	Estimate for 1886-87.	Remarks.
		Brought forward ...	Rs. ...	Rs. ...	Rs. ...	Rs. ...	Rs. ...	
		EXECUTIVE BRANCH —*cont.*						
		Office Establishment —*cont.*						
		For Chief Engineer and Secretary to Government, Public Works Department—cont.						
1	1	Press Messenger						
1	1	Duffadar	10	10				
1	1	Head Peon	12	12				
5	5	Peons, 1st Class ...	10	10				
2	2	Do. 2nd „	7	14				
42	42	Total, Public Works Secretariat Office Establishment.	...	3,085	37,020	...	37,020	
		For Chief Engineer and Joint Secretary to Government, Irrigation Branch.						
2	2	Clerks, 1st Class, 3rd Grade.	200—250	450				
1	1	Clerk, 2nd „ 3rd „ ...	100—120	110				
2	2	Clerks, 3rd „ 1st „ ...	80—100	180				
2	2	Do. 3rd „ 2nd „ ...	60— 80	140				
1	1	Clerk, 3rd „ 3rd „ ...	50— 60	55				
3	3	Clerks, 4th „ 1st „ ...	40— 50	135				
3	3	Do. 4th „ 2nd „ ...	30— 40	105				
1	1	Clerk, 4th „ 3rd „ ...	20— 30	25				
1	1	Draftsman, 1st Class ...	50— 70	60				
2	2	Draftsmen, 2nd „ ...	35— 50	85				
2	2	Do. 3rd „ ...	20— 30	50				
1	1	Reference Picker		15	15			
1	1	Do. do.		12	12			
1	1	Muchi		12	12			
1	1	Duffadar		10	10			
1	1	Head Peon		8	8			
2	2	Messenger		8	8			
3	3	Messengers		7	14			
3	3	Lascars		7	21			
31	31	Total, Office Establishment for Chief Engineer for Irrigation.	...	1,495	17,940	...	17,940	

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GOVERNMENT OF MADRAS.

PART III—continued.

DETAIL OF THE BUDGET-ESTIMATE FOR ESTABLISHMENT, &c.—continued.

Number. 1886-87.	Number. 1887-88.	Particulars.	Salary of Office.	Estimate for 1887-88. Per Mensem.	Per Annum.	Total.	Estimate for 1886-87.	Remarks.
			Rs.	Rs.	Rs.	Rs.	Rs.	
		EXECUTIVE BRANCH —*cont.*						
		Office Establishment —*cont.*						
		For Six Superintending Engineers' Offices.						
1	1	Clerk, 2nd Class, 1st Grade.	160—200	180				
1	1	Do. 2nd „ 3rd „	100—120	110				
1	1	Do. 3rd „ 3rd „	50— 60	55				
1	1	Do. 4th „ 1st „	40— 50	45				
1	1	Do. 4th „ 2nd „	30— 40	35				
2	2	Clerks, 4th „ 3rd „	20— 30	50				
1	1	Draftsman, Special ...	80—100	90				
1	1	Do. 1st Class ...	50— 70	60				
1	1	Do. 2nd „ ...	35— 50	42½				
1	1	Messenger	8	8				
3	3	Messengers	6	18				
14	14	Total for each office ...	...	693½				
6	6		...	6				
84	84	Total for six offices ...	...	4,161	49,932	...	49,932	
		For Presidency Division.						
1	1	Clerk, 3rd Class, 2nd Grade.	60—80	70				
1	1	Do. 4th „ 1st „	40—50	45				
2	2	Clerks, 4th „ 2nd „	30—40	70				
3	3	Do. 4th „ 3rd „	20—30	75				
2	2	Do. 5th „ 1st „	15—20	35				
1	1	Cashier (Clerk, 3rd Class, 2nd Grade).	60—80	70				
1	1	Draftsman, 1st Class ...	50—70	60				
1	1	Do. 2nd „ ...	35—50	42½				
3	3	Draftsmen, 3rd „ ...	20—30	75				
1	1	Messenger	7	7				
1	1	Do.	6	6				
17	17	Total, Office Establishment, Presidency Division.	...	555½	6,666	...	6,666	
		For Godávari Eastern Division.						
1	1	Clerk, 3rd Class, 2nd Grade.	60—80	70				
2	2	Clerks, 4th „ 1st „	40—50	90				
1	1	Clerk, 4th „ 2nd „	30—40	35				
		Carried over ...	...	...	...	...	...	

GOVERNMENT OF MADRAS.

PART III—continued.

DETAIL OF THE BUDGET-ESTIMATE FOR ESTABLISHMENT, &c.—continued.

Number. 1886-87.	Number. 1887-88.	Particulars.	Salary of Office.	Estimate for 1887-88. Per Mensem.	Per Annum.	Total.	Estimate for 1886-87.	Remarks.
			Rs.	Rs.	Rs.	Rs.	Rs.	
		Brought forward ...	...	...	...	...	...	
		EXECUTIVE BRANCH —*cont.*						
		Office Establishment —*cont.*						
		For Godávari Eastern Division—cont.						
1	1	Cashier (Clerk, 4th Class, 2nd Grade).	30—40	35				
3	3	Clerks, 4th Class, 3rd Grade	20—30	75				
1	1	Draftsman, 1st Class ...	50—70	60				
1	1	Do. 3rd „ ...	20—30	25				
1	1	Messenger	7	7				
1	1	Do.	6	6				
12	12	Total, Office Establishment, Godávari Eastern Division.	...	403	4,836	...	4,836	
		For Kistna Eastern Division.						
1	1	Clerk, 3rd Class, 2nd Grade.	60—80	70				
1	1	Do. 4th „ 1st „	40—50	45				
1	1	Do. 4th „ 2nd „	30—40	35				
3	3	Clerks, 4th „ 3rd „	20—30	75				
1	1	Cashier (Clerk, 4th Class, 3rd Grade).	20—30	25				
1	1	Draftsman, 1st Class ...	50—70	60				
1	1	Do. 3rd „ ...	20—30	25				
1	1	Messenger	7	7				
1	1	Do.	6	6				
11	11	Total, Office Establishment, Kistna Eastern Division.	...	348	4,176	...	4,176	
		For Eight First-class Divisions. (*a*)						
1	1	Clerk, 3rd Class, 2nd Grade.	60—80	70				
1	1	Do. 4th „ 1st „	40—50	45				
1	1	Do. 4th „ 2nd „	30—40	35				
2	2	Clerks, 4th „ 3rd „	20—30	50				
1	1	Draftsman, 1st Class ...	50—70	60				
1	1	Do. 3rd „ ...	20—30	25				
1	1	Messenger	7	7				
1	1	Do.	6	6				
9	9	Total for each office ...	...	298	...	...	...	
8	8			8				
72	72	Total for eight offices ...	...	2,384	28,608	...	28,608	

(*a*) 1. Godávari Western division.
2. Kistna Western division.
3. South Arcot division.
4. Buckingham Canal division.
5. Tanjore division.
6. Tinnevelly division.
7. Coimbatore division.
8. West Coast division.

GOVERNMENT OF MADRAS.

PART III—continued.

DETAIL OF THE BUDGET-ESTIMATE FOR ESTABLISHMENT, &c.—continued.

Number. 1886-87.	Number. 1887-88.	Particulars.	Salary of Office.	Estimate for 1887-88. Per Mensem.	Per Annum.	Total.	Estimate for 1886-87.	Remarks.
			Rs.	Rs.	Rs.	Rs. ...	Rs. ...	
		EXECUTIVE BRANCH —*cont.*						
		Office Establishment —*cont.*						
		For Kurnool Division.						
1	1	Clerk, 3rd Class, 2nd Grade.	60—80	70				
1	1	Do. 3rd „ 3rd „	50—60	55				
1	1	Do. 4th „ 1st „	40—50	45				
2	2	Clerks, 4th „ 2nd „	30—40	70				
2	2	Do. 4th „ 3rd „	20—30	50				
1	1	Draftsman, 1st Class ...	50—70	60				
1	1	Do. 2nd „ ...	35—50	42½				
1	1	Do. 3rd „ ...	20—30	25				
2	2	Messengers	7	14				
1	1	Messenger	6	6				
13	13	Total, Office Establishment, Kurnool Division.	...	437½	5,250	...	5,250	
		For Eight Second-class Divisions. (*b*)						
1	1	Clerk, 3rd Class, 2nd Grade.	60—80	70				
1	1	Do. 4th „ 2nd „	30—40	35				
2	2	Clerks, 4th „ 3rd „	20—30	50				
1	1	Draftsman, 1st Class ...	50—70	60				
1	1	Do. 3rd „ ...	20—30	25				
1	1	Messenger	7	7				
1	1	Do.	6	6				
8	8	Total for each office ...	...	253	...	...	...	
7	8			8				
56	64	Total for eight offices ...	..	2,024	...	...	...	
		Add—						
1	1	Cashier (Clerk, 4th Class, 1st Grade) for Sangam Project.	40—50	45				
1	1	Clerk, 4th Class, 3rd Grade, for North Arcot division.	20—30	25				
		Difference of pay between a 2nd Class Draftsman and 3rd Class for Sangam division.	...	17½				
58	66	Total for eight offices ...	...	2,111½	25,338	...	22,302	

(*a*) 1. Nellore division.
2. Cuddapah do.
3. North Arcot do.
4. Chingleput do.
5. Trichinopoly do.
6. Negapatam do.
7. Sangam Project division.
8. Madura division.

GOVERNMENT OF MADRAS.

PART III—continued.

DETAIL OF THE BUDGET-ESTIMATE FOR ESTABLISHMENT, &c.—continued.

Number. 1886-87.	Number. 1887-88.	Particulars.	Salary of Office.	Estimate for 1887-88. Per Mensem.	Per Annum.	Total.	Estimate for 1886-87.	Remarks.
			Rs. ...	Rs. ...	Rs. ...	Rs. ...	Rs. ...	
		EXECUTIVE BRANCH —*cont.*						
		Office Establishment —*cont.*						
		For Nilgiri Division.						
1	1	Clerk, 3rd Class, 1st Grade.	80—100	90				
1	1	Do. 3rd „ 2nd „	60— 80	70				
1	1	Do. 3rd „ 3rd „	50— 60	55				
2	2	Clerks, 4th „ 1st „	40— 50	90				
1	1	Draftsman (Special) ...	100—120	110				
1	1	Do.	70— 80	75				
1	1	Messenger	10	10				
1	1	Do.	9	9				
9	9	Total, Office Establishment, Nilgiri Division.	...	509	6,108	...	6,108	
		For Three Third-class Divisions. (a)						(a) 1. Ganjam. 2. Vizagapatam. 3. Bellary.
1	1	Clerk, 3rd Class, 3rd Grade.	50—60	55				
1	1	Do. 4th „ 2nd „	30—40	35				
2	2	Clerks, 4th „ 3rd „	20—30	50				
1	1	Draftsman, 2nd Class ...	35—50	42½				
1	1	Do. 3rd „ ...	20—30	25				
1	1	Messenger	7	7				
1	1	Do.	6	6				
8	8	Total for each office ...	...	220½				
4	3		...	3				
32	24	Total for three offices ...	...	661½				
		Add—						
1	1	Clerk, 4th Class, 3rd Grade, for Bellary division.	20—30	25				
33	25	Total for three offices ...	...	686½	8,238	...	10,884	

GOVERNMENT OF MADRAS.

PART III—continued.

DETAIL OF THE BUDGET-ESTIMATE FOR ESTABLISHMENT, &c.—continued.

Number. 1886-87.	Number. 1887-88.	Particulars.	Salary of Office.	Estimate for 1887-88. Per Mensem.	Per Annum.	Total.	Estimate for 1886-87.	Remarks.
			Rs.	Rs.	Rs.	Rs.	Rs.	
		EXECUTIVE BRANCH —*cont.*						
		Office Establishment —*cont.*						
		Office Establishment of the Consulting Architect to Government.						
1	1	Clerk, 1st Class, 3rd Grade.	200—250	225				
1	1	Do. 4th „ 1st „	40— 50	45				
1	2	Clerks, 4th „ 3rd „	20— 30	50				
2	1	Clerk, 5th „ 1st „	15— 20	17½				
1	1	Draftsman, 1st Class ...	50— 70	60				
1	1	Do. 2nd „ ...	35— 50	42½				
1	1	Draftsmen, 3rd „ ...	20— 30	50				
2	2	Messenger	7	7				
1	1	Messengers	6	6				
2	2							
11	11	Total, Office Establishment for Consulting Architect to Government.	...	503	6,036	...	6,036	
		For Public Works Stores.						
1	1	Storekeeper	300	300				
1	1	Store Clerk, 3rd Class, 2nd Grade.	60—80	70				
1	1	Do. 4th Class, 2nd Grade.	30—40	35				
1	1	Do. 4th „ 3rd „	20—30	25				
1	1	Messenger	8	8				
2	2	Messengers	7	14				
2	2	Do.	6½	13				
9	9	Total, Office Establishment, Public Works Stores.	...	465	5,580	...	5,580	

GOVERNMENT OF MADRAS.

PART III—continued.

DETAIL OF THE BUDGET-ESTIMATE FOR ESTABLISHMENT, &c.—continued.

Number. 1886-87.	Number. 1887-88.	Particulars.	Salary of Office.	Estimate for 1887-88. Per Mensem.	Per Annum.	Total.	Estimate for 1886-87.	Remarks.
		EXECUTIVE BRANCH —*cont.*	Rs.	Rs.	Rs.	Rs.	Rs.	
		Office Establishment —*cont.*						
		For Public Works Workshops, Presidency.						
1	1	Clerk, 3rd Class, 2nd Grade.	60—80	70				
1	1	Do. 3rd „ 3rd „	50—60	55				
1	1	Do. 4th „ 1st „	40—50	45				
4	4	Clerks, 5th „ 1st „	20—30	25				
1	1	Clerk, 5th „ 2nd „	10—15	70				
1	1	Draftsman, 1st Class ...	50—70	12½				
1	1	Do. 2nd „ ...	35—50	60				
4	4	Messengers	7	42½				
15	15	Total, Office Establishment, Presidency Workshops.	...	408	4,896	...	4,896	
		For Public Works Workshops, Dowlaishweram.						
...	1	Clerk, 3rd Class, 3rd Grade.	50—60	55				
...	1	Do. 4th „ 2nd „	30—40	35				
...	3	Clerks, 4th „ 3rd „	20—30	75				
...	1	Clerk, 5th „ 1st „	15—20	17½				
...	1	Duffadar	9	9				
...	5	Gate Peons	6	30				
...	1	Office Peon	6	6				
...	4	Store Peons	6	24				
...	17	Total, Office Establishment, Public Works Workshops, Dowlaishweram.	...	251½	3,018	...	...	
		Office (Toll) Establishment, Buckingham Canal.						
1	1	Wharf Superintendent ...	50	50				
2	2	Clerks, 5th Class, 1st Grade.	15—20	35				
2	2	Toll-keepers	15	30				
1	1	Wharf Clerks	17½	35				
1	1	Clerk, 4th Class, 3rd Grade.	20—30	25				
1	1	Assistant Toll-keeper ...	10—15	12½				
4	4	Shroff	8	8				
12	12	Lascars	7	28				
		Do.	6	72				
26	26	Total, Office (Toll) Establishment, Buckingham Canal.	...	295½	3,546	...	3,546	

GOVERNMENT OF MADRAS.

PART III—continued.

DETAIL OF THE BUDGET-ESTIMATE FOR ESTABLISHMENT, &c.—continued.

Number. 1886-87.	Number. 1887-88.	Particulars.	Salary of Office.	Estimate for 1887-88. Per Mensem.	Per Annum.	Total.	Estimate for 1886-87.	Remarks.
		EXECUTIVE BRANCH —*cont.*	Rs.	Rs.	Rs.	Rs.	Rs.	
		Office Establishment —*cont.*						
		For Project Divisions.						
16	...		...	...	...	...	6,492	
		For Sixty-four Sub-divisional Offices.						
1	1	Clerk, 4th Class, 3rd Grade.	20—30	25				
1	1	Messenger	6	6				
2	2	Total for each office ...	...	31				
64	64		...	64				
128	128	Total for sixty-four Sub-divisional offices.	...	1,984				
		For Two Sub-divisional Offices in Nilgiri Division.						
1	1	Clerk, 4th Class, 2nd Grade.	30—40	35				
1	1	Messenger	9	9				
2	2	Total for each office ...	...	44				
4	4	Total for two offices ...	...	88				
132	132	Total for Sub-divisional offices.	...	2,072	24,864	...	24,864	
		For Seventy-five Detached Officers.						
1	1	Clerk, 4th Class, 3rd Grade.	20—30	25				
1	1	Total for each Detached Officer.	...	25				
75	75		...	75				
75	75	Total for seventy-five Detached Officers.	...	1,875	22,500	...	22,500	
		For Ninety-two Overseers.						
1	1	Clerk, 5th Class, 1st Grade.	15—20	17½				
1	1	Total for each Overseer ...	...	17½				
92	92		...	92				
92	92	Total for ninty-two Overseers.	...	1,610	19,320	...	19,320	

GOVERNMENT OF MADRAS.

PART III—continued.

DETAIL OF THE BUDGET-ESTIMATE FOR ESTABLISHMENT, &c.—continued.

Number. 1886-87.	Number. 1887-88.	Particulars.	Salary of Office.	Estimate for 1887-88. Per Mensem.	Per Annum.	Total.	Estimate for 1886-87.	Remarks.
		EXECUTIVE BRANCH —*cont.*	Rs.	Rs.	Rs.	Rs.	Rs.	
		Office Establishment —*cont.*						
		Abstract of Office Establishment.						
42	42	Public Works Department Secretariat.	...	...	37,020	...	37,020	
31	31	Office of Chief Engineer for Irrigation.	...	...	17,940	...	17,940	
84	84	Six Superintending Engineers' offices.	...	...	49,932	...	49,932	
17	17	Presidency Division office.	...	...	6,666	...	6,666	
12	12	Godávari Eastern Division.	...	...	4,836	...	4,836	
11	11	Kistna Eastern Division ...	...	...	4,176	...	4,176	
85	85	Nine First-class Divisions including Kurnool.	...	...	33,858	...	3,3858	
58	66	Eight Second-class Divisions	...	...	25,338	...	22,302	
9	9	Nilgiri Division	...	...	6,108	...	6,108	
33	25	Three Third-class Divisions	...	...	8,238	...	10,884	
11	11	Consulting Architect to Government.	...	...	6,036	...	6,036	
9	9	Public Works Stores ...	...	...	5,580	...	5,580	
15	32	Public Works Workshops, Presidency and Dowlaishweram.	...	...	7,914	...	4,896	
26	26	Toll Establishment, Buckingham Canal.	...	...	3,546	...	3,546	
16	...	Project Divisions ...	...	...	...	...	6,492	
132	132	Sub-divisional offices ...	...	...	24,864	...	24,864	
75	75	Detached officers	...	...	22,500	...	22,500	
92	92	Overseers	...	...	19,320	...	19,320	
758	759		...	...	2,83,872	2,83,872	2,86,956	
		Temporary Establishment.	...	...	82,542	82,542	3,00,000	
		Local Allowances.						
		Upper Godávari allowances.	...	30	360	...	...	
		Wynaad allowances ...	...	...	4,000	...	...	
		Potinghy Ghât allowances.	...	...	7,200	...	...	
		Presidency house-rent ...	...	...	4,800	...	...	
		Do. allowance ...	...	...	9,000	...	...	
		Total, Local Allowances ...	...	...	25,360	25,360	31,740	
		Total Salaries ...	...	...	17,13,526	...	20,01,304	
		Travelling allowances ...	...	...	...	†1,81,796	2,40,000	† Reduced by Rs. 58,204, being the share of travelling allowances on account of temporary establishment for which no provision is made.

GOVERNMENT OF MADRAS.

PART III—continued.

DETAIL OF THE BUDGET-ESTIMATE FOR ESTABLISHMENT, &c.—continued.

Number. 1886-87.	Number. 1887-88.	Particulars.	Salary of Office.	Estimate for 1887-88. Per Mensem.	Per Annum.	Total.	Estimate for 1886-87.	Remarks.
		EXECUTIVE BRANCH —*cont.*	Rs.	Rs.	Rs.	Rs.	Rs.	
		Contingencies inclusive of Postage.						
		Public Works Department Secretariat office ... Rs. 500						
		Office of Chief Engineer for Irrigation. 150						
		6 Superintending Engineers' offices at Rs. 100. 600						
		27 Divisional offices ... 2,700						
		2 Workshops. 100						
		—— 3,400						
		4,050	...	4,050	48,600	48,600	48,600	
		Total ...	...	...	...	19,37,470	22,89,904	
		ACCOUNTS BRANCH.						
...	1	Examiner, 1st Class ...	1,600	1,600				
1	...	Do. 2nd „ ...	1,350	...				
1	2	Dy. Examiners, 1st Grade.	600 & 550	1,150				
1	...	Dy. Examiner, 2nd „	500	..				
...	1	Assistant Examiner ...	400	400				
3	4	Total, Examiners ...	...	3,150	37,800	...	28,800	
		Accountants.						
2	2	Accountants, 1st Grade ...	350—450	800				
3	3	Do. 2nd „ ...	250—340	885				
8	9	Do. 3rd „ ...	160—240	1,800				
18	17	Do. 4th „ ...	80—150	1,955				
30	27	Do. 5th „ ...	40— 75	1,552½				
61	58	Total, Accountants ...	...	6,992½	83,910	...	84,960	
		Office Establishment.						
1	1	Clerk, 2nd Class, 2nd Grade	120—160	140				
1	1	Do. 3rd „ 1st „	80—100	90				
4	4	Clerks, 3rd „ 2nd „	60— 80	280				
7	7	Do. 3rd „ 3rd „	50— 60	385				
6	6	Do. 4th „ 1st „	40— 50	270				
10	10	Do. 4th „ 2nd „	30— 40	350				
18	18	Do. 4th „ 3rd „	20— 30	450				
16	16	Do. 5th „ 1st „	15— 20	280				
2	...	Do. 5th „ 2nd „	10— 15	...				
65	63	Total, Clerks ...	...	2,245	...	...	...	

GOVERNMENT OF MADRAS.

PART III—continued.

DETAIL OF THE BUDGET-ESTIMATE FOR ESTABLISHMENT, &c.—continued.

Number. 1886-87.	Number. 1887-88.	Particulars.	Salary of Office.	Estimate for 1887-88. Per Mensem.	Per Annum.	Total.	Estimate for 1886-87.	Remarks.
		ACCOUNTS BRANCH —*cont.*	Rs.	Rs.	Rs.	Rs.	Rs.	
		Menial Servants.						
...	1	Attender	12	12				
...	1	Do.	10	10				
1	1	Muchi	12	12				
1	1	Do.	10	10				
1	1	Do.	8	8				
1	1	Attender	5	5				
1	1	Head Messenger	10	10				
1	1	Do.	8	8				
4	4	Messengers	7	28				
6	6	Do.	6	36				
2	2	Rollers	5	10				
18	20	Total, Menial Servants ...	...	149	...	...	...	
83	83	Total, Office Establishment.	...	2,394	28,728	...	28,764	
		Local and Charge Allowances.						
		Presidency house-rent ...	...	400				
		Do. allowance ...	...	1,000				
		Charge allowance for 20 Accountants, 5th Grade.	20	400				
		Total, Local and Charge Allowances.	...	1,800	21,600	...	25,200	
		Total Salaries	...	...	...	1,72,038	1,68,724	
		Travelling allowances ...	...	...	...	3,000	3,600	
		Contingencies	...	...	...	3,000	4,800	
		Grand Total ...	...	...	...	1,78,038	1,77,124	
		Deduct—						
		Contributions as follows: Coorg 1 Accountant, 3rd Grade.	200					
			200	2,400	...	...	...	
		Contribution on account of audit for Coorg.	...	3,500	...	...	...	
			...	5,900	...	—5,900	7,872	
			...	...	...	1,72,138	1,69,252	

GOVERNMENT OF MADRAS.

PART III—continued.

DETAIL OF THE BUDGET-ESTIMATE FOR ESTABLISHMENT, &c.—continued.

Number. 1886-87.	Number. 1887-88.	Particulars.	Salary of Office.	Estimate for 1887-88. Per Mensem.	Per Annum.	Total.	Estimate for 1886-87.	Remarks.
		ACCOUNTS BRANCH —*cont.*	Rs.	Rs.	Rs.	Rs.	Rs.	
		Abstract.						
		Executive Branch	...	...	19,37,470	...	22,89,904	
		Accounts do.	...	...	1,72,138	...	1,69,252	
		Grand Total, Public Works Department Establishment.	...	...	21,09,608	...	24,59,156	

GOVERNMENT OF MADRAS.

PART III—concluded.

ABSTRACT OF THE FOREGOING PROVISION FOR ESTABLISHMENT.

Number. 1886-87.	Number. 1887-88.	Particulars.	Salary of Office.	Estimate for 1887-88. Per Mensem.	Per Annum.	Total.	Estimate for 1886-87.	Remarks.
			Rs.	Rs.	Rs.	Rs.	Rs.	
		Total, Public Works Establishment.	...	...	21,09,608	21,09,608	24,99,156	
		Deduct Contributions.						
		Wards Works	...	...	60,000			
		Imperial Military	...	...	1,03,000			
		Imperial Civil Works ...	...	...	6,200			
		Incorporated Local Funds ...	...	...	47,487			
		Excluded Local Funds ...	...	...	...			
		35. Famine Relief and Insurance.						
		Construction of Protective Irrigation Works.	...	...	46,000			
		42. Irrigation Major Works (Working Expenses).	...	...	3,67,720			
		48. Capital Expenditure on Public Works (not charged against Revenue) Irrigation.	...	...	1,93,585			
		43. Provincial Irrigation, Minor Works and Navigation.	...	...	6,35,616			
						14,59,608	16,35,424	
		Balance debitable to Provincial.	...	...	...	6,50,000	8,23,732	

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APPENDIX B.

Statement showing the total estimated Cost of Establishment of Public Works Department for 1887-88.

—	Salaries.	Travelling allowances.	Contingencies.	Total.
	Rs.	Rs.	Rs.	Rs.
(1) Direction	3,00,324	(a) 21,523	15,000	3,36,847
(2) Accounts	1,59,686	3,000	3,000	1,65,686
(3) Construction	14,13,202	1,60,273	33,600	16,07,075
Total ...	18,73,212	1,84,796	51,600	21,09,608

(a) Actuals for 1886-87.

Madras,
10th March 1887.

(Signed) C. H. P. CHRISTIE, Major, R.E.,
Examiner, Public Works Accounts, Madras.

APPENDIX C.

—	Works grant.	Revenue.		25 per cent. on Works grant.	10 per cent. on Direct Revenue Irrigation.	6 per cent. on Indirect Revenue Irrigation.	5 per cent. on Direct Revenue, Buildings and Roads.	Special contribution for scrutiny of Local Fund estimates.	Cost of Establishment actually employed.	Total contributions.	Estimated cost of Establishment for 1887-88.
		Direct.	Indirect.								
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Imperial, Military	4,42,600	25,000	...	1,01,750	...	...	1,250	...	...	1,03,000	...
*Do. Civil Works	27,000	...	...	6,200	..	...	...	...	...	6,200	...
35. Imperial Irrigation, Famine Relief and Insurance. Construction of Protective Irrigation Works	3,05,000	...	...	46,000	...	...	...	...	...	46,000	...
42. Imperial Irrigation. Major Works (Working Expenses).	5,47,262	1,62,000	36,12,000	1,23,800	16,200	2,16,720	...	...	11,000	3,67,720	...
48. Imperial Irrigation. Capital Expenditure on Public Works (not charged against Revenue)	8,88,291	...	...	1,93,585	...	...	...	...	...	1,93,585	...
Provincial, Civil Works ...	10,07,000	93,000	...	2,31,610	...	...	4,650	...	...	2,36,260	...
43. Provincial Irrigation, Minor Works and Navigation ...	19,82,174	82,275	29,08,000	4,09,809	8,227	1,74,480	...	...	43,100	6,35,616	...
Incorporated Local	1,54,528	6,000	...	32,187	...	...	300	15,000	...	47,487	...
Excluded Local	...	...	...	...	...	...	...	...	...	...	...
Court of Wards	2,61,000	...	...	60,000	...	...	...	...	...	60,000	...
Total ...	56,14,855	...	...	...	...	...	...	..	...	16,95,868	21,09,608

DISTRIBUTION RETURN

OF THE

EXECUTIVE ESTABLISHMENT, P.W.D.,

25TH APRIL 1887.

STATEMENT SHOWING ESTABLISHMENT SANCTIONED AND EXISTING.

Circles.	Divisions.	Sanctioned.			Existing 25th April 1887.			Remarks.
		Executive Engineers.	Assistant Engineers.	Upper Subordinates.	Executive Engineers.	Assistant Engineers.	Upper Subordinates.	
I.	Ganjam	2	3	9	1	3	6	
	Vizagapatam	1	1	6	1	1	3	
	Godávari, East	1	2	8	1	2	8	
	Do. West ..	1	2	4	1	1	6	
	Do. Central ..	1	2	5	..	2	2	
		6	10	32	4	9	25	
II.	Kistna, East	2	3	9	*2	3	7	*1 Superintending Engineer temporary.
	Do. West	1	2	5	..	3	4	
	Nellore	1	3	9	..	3	12	
	Buckingham Canal ..	1	1	8	1	1	7	
		5	9	32	3	9	30	
III.	Bellary	1	..	6	†2	..	6	†1 do.
	Cuddapah	1	1	4	1	..	4	
	Kurnool	2	1	11	..	2	11	
		4	2	21	3	2	21	
IV.	Nilgiris	1	..	4	1	..	3	
	Coimbatore	2	2	12	2	1	11	
	West Coast	1	1	8	1	1	8	
		4	3	24	4	2	22	
V.	North Arcot	1	2	7	‡2	1	7	‡1 do. Substantive *pro tem.*
	South Arcot	1	1	8	2	1	11	
	Chingleput	2	1	7	1	1	9	
	Presidency and Bangalore.	1	1	7	1	1	8	
	Do. Workshops ..	1	..	2	1	..	1	
		6	5	31	7	4	36	
VI.	Trichinopoly	1	..	6	..	..	6	
	Tanjore	1	2	9	1	1	9	
	Negapatam	1	1	7	..	2	5	
	Madura	2	1	12	1	2	15	
	Ramnad	..	..	..	1	..	2	
	Tinnevelly	1	1	6	1	..	7	
		6	5	40	4	5	44	
	Secretariat	2	..	..	2	..	..	
	Consulting Architect ..	1	..	2	1	..	2	
	Supernumeraries ..	7	6	3	13	7	5	
	Total ..	41	40	185	41	38	185	

SECRETARIAT.

Colonel J. O. Hasted, R.E.,	E.W., and W.
Captain W. L. C. Baddeley, R.E.,	D.E.W., and D.W.
Colonel H. R. Mead, R.E.,	E.I., and I.
J. P. Davidson,	Assistant E.I., and D.I.

CONSULTING ARCHITECT DIVISION.

(1. 0. 3.)

J. W. Brassington, A.M.I.C.E.,	Executive Engineer.	Consulting Architect, Offg.
J. H. Stephens,	Assistant do.	Honorary.
Sergeant C. Smith, R.E.,	Supervisor.	

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I CIRCLE.

G. T. Walch,	Superintending Engineer, Temporary.	

Ganjam Division.

* (2. 3. 9.)

J. Hannan,	Executive Engineer.	
H. E. Evans,	Do. do.	Substantive *pro tem.*
J. H. Medlicott,	Do. do.	Temporary.
G. F. Handcock,	Assistant do.	
S. Venkataramanayya Pantulu, B.C.E.,	Sub-Engineer.	
Serjeant E. Huson,	Overseer.	
C. Ramanna Pantulu,	Do.	
C. H. Marrow,	Do.	
P. Donohoe,	Do.	
S. Ramayya,	Do.	On privilege leave till 7th July 1887.

Vizagapatam Division.

(1. 1. 6.)

Lieut.-Col. A. T. Fraser, R.E.,	Executive Engineer.	
W. Knowles,	Assistant do.	
T. T. Russell,	Overseer.	
Serjeant T. Turner,	Do.	
Do. W. Lewis,	Do.	

Godávari Eastern Division.

(1. 2. 8.)

J. E. Paul,	Executive Engineer.	
J. F. Somers-Eve,	Assistant Engineer.	
S. B. Murray,	Do. do.	
J. D. Legge,	Sub-Engineer.	
Sub-Conductor E. W. Bennett,	Supervisor.	Dowlaishweram Workshops.
Serjeant J. H. Ulyett,	Overseer.	
C. W. Traish,	Supervisor.	
Serjeant J. Alford,	Overseer.	

* The figures in brackets indicate the sanctioned scale of Executive Engineers, Assistant Engineers, and Upper Subordinates for each Division.

B. Kannayya Lal,	Overseer.	
P. Narasimha Rau,	Do.	
S. Mutya Pillai,	Do.	

Godávari Western Division.

(1. 2. 5.)

W. C. DeMorgan,	Executive Engineer.	
J. S. Wilson,	Assistant do.	
R. Vaidyanatha Aiyar, B.C.E.,	Sub-Engineer.	
G. Venkatarau Pantulu,	Do.	
J. Kelly,	Supervisor.	
Serjeant J. E. Patton,	Do.	
S. Trutwein,	Do.	
D. Venkataratnam Pillai,	Do.	

Godávari Central Division.

(1. 2. 4.)

W. C. Lewis,	Assistant Engineer.	In charge.
R. A. Srinivasa Aiyangar,	Do. do.	Probationary.
Serjeant S. Hearne,	Overseer.	
T. N. Rajaram Rau,	Do.	

II CIRCLE.

G. D. Wybrow,	Superintending Engineer.	Temporary.

Kistna Eastern Division.

(2. 3. 9.)

C. H. B. Burlton,	Executive Engineer.	
H. A. Moss,	Assistant do.	
C. H. D. Marjoribanks,	Do. do.	
W. A. Mathews, A.C.E., B.C.E.,	Sub-Engineer.	
T. Subrahmanya Aiyar, B.A., B.C.E.,	Supervisor.	
Serjeant F. Humbly, R.E.,	Do.	
T. Ramanujam Pillai,	Do.	
Serjeant T. G. Blake,	Overseer.	
Mir Sadr-ud-din Sahib, A.C.E.,	Do.	
V. Gangayya,	Do.	

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Kistna Western Division.

(1. 2. 6.)

S. D. Pears,	Executive Engineer.	Temporary.
C. W. Wood,	Assistant Engineer.	
A. C. Pereira,	Do. do.	
A. Narayanaswami Mudaliyar,	Supervisor.	On sick leave till 10th July 1887.
A. Nilakanta Sastri, B.C.E.,	Do.	
J. F. Fonseca,	Do.	
S. Vijayaraghavulu Das Nayudu,	Do.	

Nellore Division.

(1. 3. 9.)

A. A. G. Malet,	Executive Engineer.	Temporary.
J. J. Whiteley,	Do. do.	do.
S. Subrahmanya Aiyar,	Assistant do.	
Conductor J. Lalor,	Sub-Engineer.	
Serjeant E. Cope,	Supervisor.	
T. D. Enright,	Do.	
R. A. Salisbury,	Do.	
Serjeant J. Cherry,	Do.	
J. R. Hendrick,	Do.	On privilege leave till 12th May 1887.
J. A. Sydenham,	Overseer.	
P. Whitbread,	Do.	
Serjeant A. Donaghue,	Do.	
A. Venkatarangarau Nayudu,	Do.	
T. Sabhapati Mudaliyar,	Do.	
C. Singaravelu Mudaliyar,	Do.	

Buckingham Canal Division.

(1. 1. 8.)

C. Vincent,	Executive Engineer.	
F. J. Wilson,	Do. do.	Temporary.
Conductor J. A. Power,	Sub-Engineer.	
H. M. Bond,	Do.	
R. Enright,	Supervisor.	
A. Murugesa Mudaliyar,	Do.	Under suspension.
C. H. R. Morton,	Do.	
D. Venkataswami Nayudu,	Overseer.	
P. Narayanaswami Nayudu,	Do.	

III CIRCLE.

C. J. Peters,	Superintending Engineer.	Temporary.

Bellary Division.

(1. 0. 6.)

A. H. Garrett,	Executive Engineer.	
Captain W. Jackson,	Assistant do.	Supernumerary.
Sub-Conductor R. W. Ward,	Sub-Engineer.	
T. Muniswami Mudaliyar,	Overseer.	
H. S. Lazarus,	Do.	
Private J. Ruck,	Do.	
Serjeant W. Rule,	Do.	

Cuddapah Division.

(1. 1. 4.)

J. C. Johnston,	Executive Engineer.	
Serjeant S. Ainley,	Supervisor.	
N. Kumarasawmi Achari,	Overseer.	
C. W. Chinnappa Pillai,	Do.	
N. Appadurai Mudaliyar,	Do.	

Kurnool Division.

(2. 1. 11.)

G. P. Carless,	Executive Engineer.	Temporary.
S. Gopala Krishna Aiyar, B.C.E.,	Do. do.	Do.
S. W. Ottmann,	Assistant do.	Honorary.
Sub-Conductor H. Frankland,	Sub-Engineer.	
Conductor J. Nicholson,	Do.	
E. A. French, A.C.E.,	Supervisor.	
S. Panchapakesa Aiyar,	Overseer.	
J. Lawrence,	Do.	
Serjeant L. Donaghue,	Do.	
E. Krishna Aiyar,	Do.	
A. W. J. Tims,	Do.	
M. Muttuvira Pillai,	Do.	
T. A. Monisse,	Do.	

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IV CIRCLE.

Colonel J. Beatty, R.E.,	Superintending Engineer.	

Nilgiri Division.

(1. 0. 4.)

W. B. deWinton,	Executive Engineer.	
Sub-Conductor R. A. Bragg,	Sub-Engineer.	
Sub-Conductor A. C. Lord,	Supervisor	
Serjeant H. Webb,	Do.	

Coimbatore Division.

(2. 2. 12.)

Captain O. V. Boddy, R.E.,	Executive Engineer.	On privilege leave till 2nd June 1887.
S. Subharaya Chariyar,	Do. do.	
A. T. Mackenzie,	Do. do.	Temporary.
Sub-Conductor J. Cormac,	Sub-Engineer.	
J. Mahony,	Sub-Engineer.	
R. Kalyanarama Aiyar, A.C.E.,	Supervisor.	
S. C. Saldanha, B.C.E.,	Do.	
Sub-Conductor T. B. Smith,	Do.	
N. Nadhamuni Mudaliyar,	Do.	
S. Raghava Aiyangar,	Do.	
Serjeant R. T. Healy,	Overseer.	
C. Masilamani Mudaliyar,	Do.	
L. A. Rangaswami Aiyar,	Do.	
C. Murugesa Mudaliyar,	Do.	

West Coast Division.

(1. 1. 8.)

H. S. Taylor,	Executive Engineer.	
P. R. Allen,	Assistant do.	
Conductor R. P. Lennon,	Sub-Engineer.	
Serjeant D. Mackintosh, R.E.,	Supervisor.	
Sub-Conductor H. Hollingsworth,	Do.	
A. E. C. Vaz,	Overseer.	
J. Timothy,	Do.	
J. Pereira,	Do.	
S. B. DeRebello,	Do.	
E. S. Noronho,	Do.	

V CIRCLE.

Colonel W. H. Burton, R.E.,	Superintending Engineer.	Substantive *pro tem.*
Colonel H. M. Vibart, R.E.,	Do. do.	Going on furlough.

North Arcot Division.

(1. 2. 7.)

Colonel H. Smalley, R.E.,	Executive Engineer.	
F. W. Ashpitel,	Assistant do.	
Lieutenant W. C. S. West,	Do. do.	Supernumerary.
V. Kuppuswami Aiyangar,	Supervisor.	
V. R. Kuppuswami Mudaliyar,	Overseer.	
Serjeant H. Slaney,	Do.	
J. Willis,	Do.	
S. T. Raghava Aiyangar,	Do.	
V. Subrahmanya Sastri,	Do.	

South Arcot Division.

(1. 1. 8.)

J. Larminie,	Executive Engineer.	Going on furlough.
J. W. Martin,	Do. do.	
C. A. Smith,	Do. do.	Temporary.
H. C. Berlie,	Sub-Engineer.	
Sub-Conductor F. Heinig,	Do.	
J. E. Lafrenais,	Do.	
J. C. Dennehy,	Supervisor.	
W. Masilamani Mudaliyar,	Overseer.	
G. M. Subharayulu Nayudu,	Do.	
V. Krishnaswami Mudaliyar,	Do.	
P. Ramanarayan Pondai,	Do.	
V. Govindarajulu Mudaliyar,	Do.	
Gunner T. Murphy,	Do.	
S. Panchanatha Aiyar,	Do.	

Chingleput Division.

(2. 1. 7.)

Captain L. Langley, R.E.,	Executive Engineer.	
A. M. Hayes,	Do. do.	Temporary. On privilege leave.
C. Muhammad Qasim Sahib,	Assistant do.	Honorary.
J. B. Sanderson,	Sub-Engineer.	

C. Velayudham Mudaliyar,	Supervisor.	
Sub-Conductor J. Kelly,	Do.	
K. Duraiswami Pillai,	Do.	
C. R. Chinnaswami Aiyangar, B.C E.,	Do	Substantive *pro tem.*
P. Panchapakesa Aiyar,	Overseer.	
M. R. Bresnahan,	Do.	
N. Murugesa Mudaliyar,	Do.	

Presidency and Bangalore Division.

(1. 1. 7.)

Colonel R. Thompson, R.E.,	Executive Engineer.	
Captain W. D. Lindley,	Assistant do.	
Lieutenant S. C. Plummer,	Do. do.	Supernumerary.
Conductor A. Milne,	Sub-Engineer.	Apprentice Instructor.
Serjeant A. Temple,	Supervisor.	Do.
Serjeant R. W. MacAlister, R.E.,	Do.	
Serjeant T. Green, R.E ,	Do.	
Abdul Latif Sahib,	Do.	
A. Kuppuswami Mudaliyar,	Overseer.	On privilege leave.
C. Shanmukham Mudaliyar,	Do.	
Corporal W. L. Emery,	Apprentice Overseer.	
Lance-Corporal B. Reynolds,	Do.	
„ „ P. King,	Do.	

Workshops.

(1. 0. 2.)

A. Joyce,	Executive Engineer.	
S. Francis,	Sub-Engineer.	

VI CIRCLE.

Lt.-Colonel J. Pennycuick, R.E.,	Superintending Engineer.	

Trichinopoly Division.

(1. 0. 6.)

Lt. & Dy. Asst. Commy. D. Falvey,	Executive Engineer.	Officiating.
C. S. Srinivasa Aiyar,	Overseer.	
K. C. Visvanatha Aiyar,	Do.	
J. B. Rodrigues,	Do.	

P. Moses,	Overseer.	
S. Sambasiva Aiyar,	Do.	

Tanjore Division.

(1. 2. 9.)

C. M. Smith,	Executive Engineer.	
A. M. Foord,	Do. do.	Temporary.
T. Subrahmanya Pillai,	Assistant do.	Honorary.
S. Krishnamachariyar, B.C.E.,	Sub-Engineer.	
V. Kodandapani Mudaliyar,	Supervisor.	
E. Dady,	Do.	
N. Rajagopala Aiyangar, B.C.E.,	Do.	
P. Ratnaswami Mudaliyar,	Do.	
K. Visvanatha Aiyar,	Overseer.	
M. Muniswami Mudaliyar,	Do.	
N. Ramaswami Pillai,	Do.	

Negapatam Division.

(1. 1. 7.)

G. E. Manson,	Executive Engineer.	Temporary.
J. Inglis,	Assistant do.	
Conductor C. J. Littlewood,	Sub-Engineer.	Substantive *pro tem.*
T. Vaidyalingum Pillai,	Supervisor.	
A. D. Joseph Pillai,	Do.	
D. Muttirulappa Pillai,	Overseer.	
J. C. Campbell,	Do.	

Madura Division.

(2. 1. 12.)

J. Grimes,	Executive Engineer.	
H. E. Clerk,	Do. do.	Temporary.
R. Gopala Aiyar, B.C.E.,	Assistant do.	Probationary.
C. Chinnatambi Pillai, A.C.E.,	Sub-Engineer.	
P. Mahony,	Do.	
J. M. Taylor,	Supervisor.	
Abdul-Karim Khan Sahib,	Do.	
V. Nityananda Mudaliyar, B.A., B.C.E.,	Supervisor.	
C. Vettivelu Pillai,	Do.	

C. Subrahmanya Aiyar,	Overseer.	
V. Subharaya Pillai,	Do.	
S. K. Ramachandra Sastri,	Do.	
T. Gnanasambandam Pillai,	Do.	
P. M. Arumukham Pillai,	Do.	
R. Srinivasachariyar,	Do.	
H. LaFontaine,	Do.	
P. Krishnamachari,	Do.	
J. W. Walsh,	Do.	

Tinnevelly Division.

(1. 1. 6.)

A. S. Russell,	Executive Engineer.	
W. V. Baker,	Assistant do.	Honorary.
T. T. Raghavachariyar, B.C.E.,	Sub-Engineer.	
T. Fitzgerald,	Supervisor.	
S. K. Govinda Rau,	Do.	
M. Arumanayakam Pillai,	Do.	Temporary.
Serjeant C. Coghlan,	Overseer.	
A. Srinivasa Sastri,	Do.	

Ramnad Division.

C. A. B. Target,	Executive Engineer.	
P. Muruggesam Pillai,	Supervisor.	
S. K. Ramachandra Sastri,	Overseer.	

LIST OF SECONDED OFFICERS.

Name.	Rank.	Cause of Absence.	Date of Return.
Mr. J. W. Rundall ...	Superintending Engineer.	On 2 years' furlough.	28th July 1887.
Lt.-Col. C. Bowen, R.E. ...	Do. ...	On other duty ...	.....
Major A. C. Smith R.E. ...	Executive Engineer.	On 1 year 1 mt. 14 ds. furlough.	March 1888.
Major D. McNeil Campbell.	Do. ...	On 1 year 2 ms. 17 ds. furlough.	May 1888.
Lt.-Col. S. C. Clarke, R.E.	Do. ...	On 15 months' furlough	1st December 1887.
Major R. R. E. Drake-Brockman, R.E.	Do. ...	On 1 year & 275 days' furlough.	21st March 1888.
W. Hughes.	Do. ...	On 5 months' furlough.	8th July 1887.
Mr. J. M. Bell	Do. ...	On 1 year 10 ms. 9 ds. furlough.	17th June 1887.
Captain C. Kensington ...	Do. ...	On 1 year & 321 days' furlough.	3rd June 1887.
Captain A. F. Dorward ...	Do. ...	On field service ...	.....
Mr. C. H. T. Norfor ...	Do. ...	On 2 years' furlough.	30th November 1887.
Mr. J. D. Grant	Do. ...	Do. ...	.....
Captain C. C. Rawson ...	Do. ...	On 2 years' furlough.	4th May 1888.
Captain A. W. Smart, R.E.	Do. ...	On 1 year & 138 days' furlough.	9th December 1887.
Mr. J. Traill	Do. ...	On 6 ms. special leave.	18th July 1887.
Mr. C. J. Ussher	Do. Sub. *pro tem.*	On 1¾ years' furlough.	9th October 1887.
Mr. B. H. Young	Assistant Engineer.	On 15 months' furlough	1st July 1887.
Mr. W. Jopp	Do. ...	Do. do.	1st July 1887.
Mr. A. B. Todd	Do. ...	On 2 years' furlough.	24th August 1887.
Mr. H. H. O'Connell ...	Do. ...	On 1½ year's furlough.	October 1888.
Mr. G. B. Lambert ...	Do. ...	On 20 months' furlough	28th November 1887.
N. Ratnasabhapati Pillai ...	Do. ...	On 1 year's furlough.	28th December 1887.
J. W. H. Ellis	Sub-Engineer ...	On other duty ...	.....
Mr. E. Haldwell	Do. ...	Do.	.....
E. Taylor	Supervisor ...	Do.	.....
U. N. Joyce	Do. ...	Do.	.....
Muhamad Jafar Husain Sahib.	Overseer ...	Do.	.....

PUBLIC WORKS DEPARTMENT.

General.
Establishment.

LETTER—from

COLONEL J. O. HASTED, R.E.,
Secretary to the Government of Madras,
Public Works Department,

To THE SECRETARY TO THE GOVERNMENT OF INDIA,
PUBLIC WORKS DEPARTMENT.

SIR,

With reference to my telegram of the 22nd February 1887, I am now directed to reply to your letter, Nos. 283—293 G., dated 5th idem.

2. The following statements are submitted for the information of the Government of India :—

(*a*) Estimate in budget form of the cost of the establishment of the Madras Public Works Department working up to a total of Rs. 21,09,608.

(*b*) Statement dividing the above total cost under the three heads Direction, Accounts and Construction.

(*c*) Statement showing the grant for Works and Repairs under the several service heads, the Buildings and Roads, and Irrigation revenue, and the normal cost of establishment obtained by charging—

5 per cent. on Buildings and Roads revenue.
10 per cent. on Direct Irrigation revenue.
6 per cent. on Indirect Irrigation revenue.
23 per cent. on Works and Repairs.

(*d*) Statement showing in detail the Public Works Circles and Divisions of this Presidency and the distribution therein of the Executive establishment of the Department.

3. In paragraphs 4 and 6 of your letter under reply, no mention is made of contribution to Establishment on account of Indirect revenue, and this is no doubt because your letter is a circular addressed to all Local Governments and Administrations; but this Government do not suppose that, so far as this Presidency is concerned, it is intended to exclude this important item. That the circumstances of this Presidency with respect to the system of collecting Irrigation revenue are widely different from those of other Provinces has already been prominently brought to the notice of, and has been admitted by, the Government of India; and in Colonel Trevor's letter, No. 191 A.G., dated 20th February 1882, a charge of 6 per cent. on the gross Indirect revenue due on Productive Irrigation and Navigation Works was allowed as a grant-in-aid from Imperial funds towards the cost of Provincial establishment. It was then admitted that this concession was made to afford substantial relief to Provincial revenues, and to place Madras in as favorable a position as other Provinces. The direct Irrigation revenue realised by the Public Works Department in this Presidency is so trifling in amount, that a contribution of 10 per cent. thereon, without any contribution on account of indirect revenue, would be scarcely worth taking credit for. In working

out the cost of establishment as required by paragraph 6 of your letter under reply, credit has therefore been taken for 6 per cent. on indirect Irrigation revenue.

4. It will be seen from statement (C) that the cost of establishment thus worked out amounts to Rs. 16,95,868, whereas the estimated cost of the existing establishment amounts to Rs. 21,09,608.* The difference is Rs. 4,13,740, and, under paragraph 6 of your letter, an explanation of this excess is required. In your paragraph 7 it is remarked that in framing their estimates of establishments now asked for, Local Governments should not be in any way influenced by considerations of present strength. That this Government have not been influenced by such considerations will be apparent from a comparison between the budget estimate for establishment for the year 1886-87 and that for 1887-88. While the former amounted to Rs. 24,59,156, the latter amounts to Rs. 21,09,608, and the large reduction made at the end of the year 1886-87 will show that this Government have loyally responded to the requirements of the Government of India in the matter of effecting economy in establishment. It is needless to remark that so large a reduction could not have been made without considerable inconvenience and dislocation of working arrangements, and His Excellency the Governor in Council is satisfied that further reduction is impossible. The estimate of establishment now submitted, Rs. 21,09,608, is approximate to the amount, Rs. 20,64,000, sanctioned by the Government of India in your office letter, No. 1250 G., dated 23rd September 1881, as the normal cost of establishment for Madras. The peculiar circumstances and great size of this Presidency, the scattered nature of its works, and its needs with respect to Public Works establishment have already been exhaustively explained to the Government of India in the correspondence ending with your letter, No. 638 G., dated 26th May 1884, and it seems needless now to recapitulate arguments which have already been practically accepted by the Government of India. It will be sufficient apparently to solicit the attention of that Government to Colonel Sankey's memorandum printed as appendix E to this office letter, No. 2696 W., dated 16th October 1882, in which the impossibility of regulating the cost of establishment by a hard-and-fast system of percentages on Revenue and Expenditure, or of applying such percentage charges as a test of economical and efficient management, was clearly demonstrated. The note submitted to the Government of India by Colonel Brownlow after inquiry on the spot into the needs of this Presidency with respect to Public Works establishment, will further prove that the cost of the Public Works establishment considered necessary in Madras is not unreasonable.

5. The budget grants under all heads for Works and Repairs in 1886-87 amounted to Rs. 63,77,732, while those for 1887-88 aggregate Rs. 56,14,855. While therefore the Works grant for 1887-88 is less than that for 1886-87 by Rs. 7,62,877, the estimated cost of Establishment for the present year is less than that for 1886-87 by Rs. 3,49,548. The estimate for Establishment has therefore been reduced in a much greater ratio than the estimate for Works.

I have the honor to be,
Sir,
Your most obedient servant,

(Signed) J. O. HASTED, Colonel, R.E.,
Secretary to Govt., P.W.D.

Ootacamund,
26th April 1887.

* This sum includes a lump sum provision of Rs. 82,542 for temporary establishment, from which the pay of subordinate Office and Account establishments employed in Court of Wards' estates, &c., will be met.

Exd. P. L. Pereira.
Spare Copies

GENERAL.
ESTABLISHMENT.

Govt. of {1887} Madras.

PUBLIC WORKS.

Dated April, 26th.

Recd. *Encl.*

G.O., 26th April 1887, No. 1147 W.

APRIL.

Madras Public Works Establishment

Revised estimates of the —, submitted to the Government of India.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

General.
Establishment.

READ—the following letter from Colonel R. C. B. PEMBERTON, R.E., Secretary to the Government of India, Public Works Department (General), to the Secretary to the Government of Madras, Public Works Department, dated Simla, 2nd September 1887, No. 1721 G. :—

I am directed to acknowledge receipt of your No. 1147 W., dated 26th April 1887, with which you submit the estimate of establishment considered to be necessary under present conditions as to Work and Grants, for the Madras Public Works Department, together with the statement comparing this estimated cost with the cost brought out by charging Works and Revenue with the established percentage charge, as called for in this office No. 283 G., dated 5th February 1887.

2. It is observed that the total estimate of establishment amounts to Rs. 21,09,608 which is Rs. 4,13,740 in excess of the cost brought out by charging the establishment percentage on Works and Revenue. In regard to this excess it is stated in paragraph 3 of your letter under reply that the Madras Government is not influenced by considerations of present strength in maintaining so large an establishment, that this is shown by the fact of the estimate being 3½ lakhs less than that of the year 1886-87, and that His Excellency the Governor is satisfied that no further reductions can be made; that the estimate is approximately the same as that sanctioned in 1881 as the normal cost of establishment in Madras, and that the necessity for this establishment has been repeatedly insisted on in the voluminous correspondence referred to by you, and practically admitted by the Government of India.

3. In regard to this explanation I am to observe that the reduction in this estimate as compared with that of the previous year is almost entirely in temporary establishment, for which a grant of Rs. 3,00,000 was provided in the year 1886-87; and that this temporary establishment was entertained principally for works for which special grants had been provided up to the end of that year, that is to say for the tanks and for drawing up new projects. Such reductions, I am to remark, are necessary in times of restricted outlay, and in no way indicate one way or the other whether the permanent establishment is moderate or not. In regard to the comparison drawn with the establishment sanctioned in 1881, I am to observe that the correspondence referred to, so far as this Government is concerned, had regard almost entirely to the question of the scale of Engineering establishment; and the Government of India is fully prepared under this head to admit that, so far as circumstances remain as represented in that correspondence, establishment of this class should not be reduced. As, however, the estimate submitted is so largely in excess of that which, according to the usual standard, is considered sufficient, it has been found necessary to examine carefully the present circumstances of the Engineering establishment and to analyse the estimate under other heads in order to suggest for the consideration of the Madras Government the direction in which reductions may possibly be made.

4. In regard to the Engineering establishment it is observed that the original number, 81 Executive and Assistant Engineers, is still maintained; but by comparing in detail the present divisions with those of 1881 it is observed that, while three

new divisions, the Godávari central, the Nílgiris, and Presidency Workshop have been formed, six, as shown in the margin, have dropped out. If the number of Engineers provided for the new divisions and those dropped out be allowed for, there should have been a net reduction of eight officers. The projects included under each of the A to D Project divisions are enumerated in Madras letter No. 1697 W., dated 9th July 1881, and it should be explained whether or no provision is still included for those or similar projects under other divisions, and if so, how far there is any likelihood of funds being provided for these projects in the next five years.

Salem division.	B Project division.
A Project division.	C " "
Sangam project.	D " "

5. Under upper sub-establishment it is observed that the original number of 185 is maintained, whereas allowing for the difference between new and old divisions as in the preceding paragraph, the numbers should have been reduced by ten men. I am to request that this matter may be similarly explained. Further I am to point out that the staff of upper subordinates is on a much larger scale than that allowed in any other province, the average for each division being seven in Madras against two in the North-West Provinces and five in Bombay. In some divisions, it would seem, there can be no question that the number is very large: thus there are two with 12 upper subordinates, one with 11, three with 9, four with 8, and so on. On the other hand the number of lower subordinates is very small as compared with provinces of the Bengal Presidency. The attention of the Madras Government is invited to this matter, and it is requested that the necessity for this large staff of upper subordinates may be explained, and that it may be stated why the less expensive agency of lower subordinates should not to some extent be substituted as in Upper India. Such a substitution could be made by degrees without any sudden reduction. In drawing attention to this matter I am to observe that this question does not appear to have been raised in the previous correspondence; it was observed by the Madras Government in its No. 2277 W., dated 1st October 1880, paragraph 40, that "the number (of upper subordinates) which has been strictly decided on the known requirements of the several divisions calls for no remark"; and the number so recommended appears to have been accepted without further question: some further inquiry therefore, I am to say, seems at the present time necessary.

6. Strictly speaking the Government of India has no concern with the other classes of establishment included in the estimate (except the Accounts staff which is noted on below) unless their salaries exceed Rs. 250. But under present circumstances it is considered desirable to draw attention to an apparent excess in certain classes. An analysis of the office establishment comparing the present scale with that of 1881 and that previous to 1881, which is given in the appended statement, seems to show that there has been a general increase in this branch of establishment of late years, and also that the office establishment attached to divisions and sub-divisions is now on a very large scale in numbers and in cost. It is to the latter point that the Government of India would draw special attention. In addition to the large establishment provided for the several divisional offices it is observed that sub-divisional and detached offices have each their own establishment, and that even overseers are provided with clerks. Amongst the divisional offices that of the Presidency, the Godávari and Kistna, the Consulting Architect's, the Kurnool, and the several Workshops divisions all attract attention by their large office establishments. I am to suggest that the question of reducing these establishments might be taken up by the Madras Government, and that the necessity of detached offices and overseers' clerks outside the divisional and sub-divisional office establishments might be considered.

7. I am also to draw attention to the following remarks regarding the staff of accountants of the Madras Presidency and the clerical establishment of the Examiner's office. The number of accountants (58), including two temporary men for test audit work, sanctioned in Public Works Department letter No. 867 G, of 4th May 1887, was based on the requirements of 29 divisions including Coorg; as it appears that the number of divisions including Coorg has now been reduced to 27,

a proportionate reduction in the staff should apparently be made and a revised scale submitted for sanction. In regard to the clerical establishment of the Examiner's office, I am to say that both number and cost appear excessive as compared with provinces; moreover it is known that, under the special arrangements for 5th-grade accountants, the Madras Government has a larger number of accountants than allowed by rule, although at the same cost, and the extra men so obtained are almost wholly employed in the Examiner's office. Thus, instead of some 14 accountants, the Examiner's office has 27 or 28, which with the clerks bring up the strength of the establishment to the very high figure of at least 90 men. It is understood that one reason for collecting this very large establishment has been to reduce the accounts work in every possible way in the divisional offices and to throw it upon the Examiner; but it is observed that this has not tended to reduce the establishments in the divisional offices which, as pointed out in the preceding paragraph, are very large. I am to point out that, in the opinion of the Government of India, the establishment in the Examiner's office is susceptible of considerable reduction without practically impairing the efficiency of the office.

8. I am to request that an early reply may be given in regard to the questions raised in paragraphs 4 and 5 of this letter; and that the possibility of reduction in accordance with the suggestions of paragraphs 5 and 6 may be taken into serious consideration by the Madras Government, the result being in due course reported for information.

ENCLOSURE.

Table B.

—	Prior to 1881.				Scale of 1881.				Present Scale.			
	No. of units.	No. of men.	Total cost.	Average per man.	No. of units.	No. of men.	Total cost.	Average per man.	No. of units.	No. of men.	Total cost.	Average per man.
Chief Engineers' offices ..	1	32	2,433	76	1	32	2,433	76	1	42	3,085	73
Joint Secretary's office ..	1	27	1,180	44	1	27	1,180	44	1	31	1,495	48
Superintending Engineers' offices.	3	33	1,240	38	6	72	2,631	37	6	84	4,161	50
Presidency Division office ..	1	8	273	34	1	16	485	30	1	17	555	32
Godávari and Kistna office ..	1	16	546	34	1	20	646	32	1	23	751	33
Consulting Architect's office.	1	6	270	45	1	6	270	45	1	11	503	46
Public Works Store's office.	1	9	305	34	1	9	305	34	1	9	465	52
First-class divisional offices.	6	48	1,638	34	7	63	2,086	33	8	72	2,384	33
Second-class divisional offices.	8	64	2,024	32	9	72	2,277	32	8	66	2,111	32
Third-class divisional offices.	2	16	441	28	5	40	1,102	28	3	25	686	27
Sub-divisional office ..	40	80	1,240	15	50	100	1,550	15	66	132	2,072	16
Detached Officers' offices ..	40	40	700	18	88	88	2,200	25	75	75	1,875	25
Overseers' offices	..	..	..	..	92	92	1,610	17	92	92	1,610	17
Examiner's office clerks ..	1	30	1,202	40	1	36	1,522	42	1	63	2,245	35
Presidency Workshop office.	..	..	..	..	..	..	..	..	1	15	408	27
Kurnool division	..	..	..	..	..	..	..	..	1	13	437	33
Nílgiri	..	..	..	..	..	..	..	..	1	9	509	56
Dowlaishweram Workshop office.	..	..	..	..	..	..	..	..	1	17	251	15

ORDER—dated 4th October 1887, No. 2610 W., Public Works.

The Government of India will be addressed in reply to paragraphs 4 to 6 of the foregoing letter.

2. Meanwhile Superintending Engineers will report on the following points:—

(1) Whether it would be practicable to substitute a certain proportion of lower for upper subordinates, and if so, to what extent the substitution should be carried out in each division of the several circles.

(2) Whether any reductions are feasible in existing sub-divisional establishments.

(3) Whether it is necessary to provide detached officers and overseers with clerks. If it is considered necessary, the reasons for such conclusion should be stated.

3. The question as regards possible reductions in division office establishments has already been fully considered,—*vide* Proceedings, No. 988 W., dated 15th April 1886, and No. 751 W., dated 11th March 1887. Superintending Engineers will, however, continue to give the matter their careful attention, and will bring to the notice of the Government such reductions as may from time to time appear feasible.

4. The Chief Engineer for Irrigation will report on the subject of the latter part of paragraph 4.

5. Paragraph 7 of the letter from the Government of India will be referred to the Examiner, Public Works Accounts, for careful consideration and report.

(Here enter No. 2611 W., dated 4th October 1887).

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.,
Secretary to Govt., P.W.D.

To Superintending Engineers.
To the Consulting Architect to Government.
" Chief Engineer for Irrigation.
" Examiner, Public Works Accounts.

LETTER—to the Secretary to the Government of India, Public Works Department, dated Ootacamund, 4th October 1887, No. 2611 W.

I am directed to acknowledge the receipt of your letter, No. 1721 G., dated 2nd September 1887, relative to the estimate of establishment considered necessary for the Madras Public Works Department.

2. In reply to the observations in paragraph 4, I am directed to state that appendix A to this office letter, No. 1697 W., dated 9th July 1881, included thirty divisions, while appendix D to my No. 1147 W., dated 26th April 1887, shows twenty-seven divisions as now existing. The present number is therefore three less than that of 1881, but this reduction is more apparent than real as regards executive staff. Owing to the reduced grant for establishment allotted for 1887-88, it was found necessary at the close of 1886-87 to double up several divisions for purposes of office and accounts work, but with respect to construction some of the amalgamated divisions virtually remain two separate divisions. Thus, the Ganjam division includes the Rushikulya project, which is under a separate Executive Engineer, as well as the works on one large zemindari estate and several smaller ones, lately taken over from the Court of Wards; the Kistna Eastern division requires an additional Executive Engineer and an Assistant for charge of the important works in the recently closed Gudiváda division, and the Periyár division has just been opened. It may be said, therefore, that there are still thirty executive charges, while in addition there are four parties of the Tank Restoration Scheme, each of which requires an Executive or Assistant Engineer, and also the head office of the Scheme, to the charge of which an Executive Engineer has been posted in lieu of the Superintendent of Works formerly allowed. It will thus be seen that the requirements of the department, with respect to executive staff, have increased rather than decreased since 1881.

3. It may be argued that tank restoration being outside the ordinary work of the divisions, should be provided for by the appointment of temporary officers, but it is intimately connected with the work in the divisions. It is advisable to employ on it officers who are experienced in tank irrigation, and, as each river basin taken up by a Tank Restoration Survey party is taken out of the hands of the divisional officer and thus virtually reduces the extent of his charge, it allows of the employment of some of the general staff of the department on this work. The work moreover must take so many years to complete that it cannot be considered temporary.

4. With reference to the latter part of paragraph 4 of your letter, I am to state that a further report will be made regarding the projects formerly included in the late A to D Project divisions, but meanwhile I am to invite attention to this office letter, No. 1878 W., dated 26th July 1886, giving a brief retrospect of the work done by those divisions up to the time of their closure, and intimating what had been, and what was intended to be, done with respect to the several projects.

5. The point raised in the first sentence of your paragraph 5, relative to the upper subordinate establishment, appears to be sufficiently answered in my paragraph2 above. If the number of executive divisions be taken as thirty instead of twenty-seven, the average number of subordinates in each division would be reduced to six. That the average is higher in Madras than in Bombay and the North-West Provinces can only be explained by once again recurring to the different conditions of this Presidency; the large area covered by executive charges, the scattered nature of the works, and consequent difficulty of supervision. The two divisions shown in appendix D to my letter of 26th April last, as having twelve subordinates each, are Coimbatore and Madura. The former is of very large area, and includes the old Salem division and the Barur project. The Madura division has a large staff at present because in it are going on the construction of the Vaigai bridge and the Cumbum-Gúdalúr road, two large Local Fund works, which have been handed over to the Public Works Department for execution. Each of these two divisions moreover has a party of the Tank Restoration Scheme working in it. Similarly, the Kurnool division, with eleven subordinates, includes the Kurnool canal and the old Kurnool division, as also a party of the Tank Restoration Scheme. It seems needless to go into further explanation, but the other divisions with nine and eight subordinates are all heavy divisions, covering large areas.

6. The question of substituting lower for upper subordinates will receive careful consideration, and will be reported on hereafter.

7. With regard to divisional office establishments, I am to state that the question of effecting economies therein has not been lost sight of by this Government. The matter was carefully gone into in the summer of 1886, in connection with letter from the Finance Committee, No. 1, dated 22nd March 1886. Again, at the close of the year 1886-87, when reduction became imperative owing to the reduced grant for establishment for 1887-88, careful inquiries were made as to the scale of office and inferior establishments necessary for divisions and sub-divisions. Beyond discharging all temporary establishments however, it was not found practicable to effect material economy. Indeed the general complaint was that the divisional offices were as a rule undermanned, and this Government are still receiving applications from various divisions for assistance in the shape of temporary hands. The heavy work entailed on divisional and sub-divisional office establishments is mainly due to the great mass of accounts which must be rendered monthly in obedience to rules laid down by the Government of India. The possibility of reducing clerical and accounts work has received the earnest attention of the Chief Engineer and of this Government, since the beginning of 1884, and numerous suggestions on the subject have been received from officers of the department. With regard to clerical work, several reforms have been effected by the introduction of printed forms, &c., but as regards accounts, the result of nearly every inquiry has been to show that the number of forms, vouchers, &c., cannot be reduced without lessening that amount of control over expenditure which is prescribed by standing orders of the Government of India. The monthly accounts of the majority of the divisions systematically reach the Examiner's office long after due date, and the constant excuse which Executive Engineers make is that their office establishments are too weak to cope satisfactorily with the work. That this subject has received earnest attention will be seen from this office letter, No. 2247 W., dated 12th September 1884, in reply to which the Government of India stated that steps should be taken to increase establishments to admit of punctuality being attained. This has been done in some cases, while in others extension of time for the submission of accounts has been allowed, but the Examiner still reports monthly that a large

number of the accounts are late. In connection with this subject, I am to forward for perusal copies of the proceedings marginally noted, and to state that the question continues to receive consideration. At the present time this Government are inquiring into a scheme submitted by a Superintending Engineer involving important changes in the system of compiling the monthly accounts, but though no great results are likely to be effected, so far as at present can be seen, some of the points which promise to reduce office work will probably before long form the subject of correspondence with the Government of India.

No. 721 W., dated 23rd March 1885.
„ 1560 W., „ 21st June 1886.

8. With regard to the necessity of allowing clerks for detached officers and overseers, I am to say that a further report will be made, but that without clerical aid it will be impossible for subordinates, most of whom have considerable distances to travel, to devote sufficient time to their field duties.

9. The subject of paragraph 7 of your letter will be referred to the Examiner, Public Works Accounts, for careful consideration, and the result will be reported in due course.

(Signed) J. O. HASTED, Colonel, R.E.,
Secretary to Govt., P.W.D.

Exd. J. Moses.
Spare Copies

33

GENERAL.
ESTABLISHMENT.

Govt. of {1887} Madras.

PUBLIC WORKS.

Dated October, 4th.

Recd. Encl.

G.O., 4th Oct. 1887, Nos. 2610, 2611 W.

OCTOBER.

Madras Public Works Department

Submitting explanation relative to establishment charges in connection with the —.

34

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

General
Establishment

~~Buildings and Roads.~~
~~Civil Works.~~

READ again—

From G. H. W. WALKER, Esq., Officiating Under Secretary to the Government of India, Public Works Department (General), to the Secretary to the Government of Madras, Public Works Department, dated Fort William, 29th January 1883, No. 147 G.

In reply to your letter, No. 2696 W., dated 16th October 1882, comparing the percentage of establishment charges to works in various provinces, in order to show that the cost of the Engineer establishment in Madras is not so high as is supposed in comparison with the work done and with the charges in other provinces, I am directed to state that the Government of India does not attach much importance to comparisons between provinces which are apt to be fallacious in consequence of the different circumstances of each, and am to refer you to paragraphs 9 and 10 of the letter quoted in the margin which deals with this question.

Finance Department, No. 491. (Accounts and Finance), dated 24th January 1882.

2. I am to add, however, that the Government of India is always ready to consider all proposals on their individual merits, and in the present case it is hoped that the grant recently sanctioned for irrigation purposes in Public Works Department letter, No. 40 I., dated 26th January 1883, will meet all the requirements of the Madras Government.

Note by the Acting Chief Engineer for Irrigation, dated 15th February 1883, No. 36.

As regards the method of showing land and irrigation revenue in the Imperial accounts, it is understood from Colonel Brownlow that the Financial Department of the Government of India have overruled the Accountant-General, and will not permit any change in the system of exhibiting the accounts of Productive Public Works. I think, myself, that it is a matter of small consequence, if the accounts are intelligible, and accept the Government of India's decision.

2. As to the percentages to be charged for establishment, it is proposed to let the subject rest until the result of Colonel Brownlow's visit is known. His note will deal with this subject fully.

3. The Government of India's letter may lie over till receipt of orders on Colonel Brownlow's note, or be communicated to Chief Engineer, Public Works Department, and Chief Engineer for Irrigation, who can note on it when these orders are received; the letter deals with two subjects, one in each branch.

From Colonel W. S. TREVOR, R.E., Secretary to the Government of India, Public Works Department (General), to the Secretary to the Government of Madras, Public Works Department, dated Simla, 16th July 1883, No. 983 G.

In continuation of this office letter, No. 147 G., dated 29th January 1883, I am directed to communicate the following observations regarding the Engineer establishment of the Public Works Department in Madras.

2. It is understood from a note written by Colonel Brownlow when in Madras that the proposals of the Madras Government, in respect of Engineer establishment may be summarised as follows:—

I. That the permanent establishment of Engineers shall be maintained at its full sanctioned strength.

II. That the allowance for absentees shall be increased from 10 to 20 per cent.

III. That the same percentage shall be allowed on Irrigation Revenue for Public Works establishment in Madras as actually prevails in Upper India, a fair deduction being made for cost of duties performed in Upper India, but not required in Madras.

IV. That a small allowance shall be made on Revenue derived from Imperial Irrigation Works, for which neither Capital nor Revenue Accounts are kept, in order to cover cost of general engineering supervision and control of these works, on which upwards of 73 lakhs of rupees of revenue depend.

V. That the balance of establishment charges shall be uniformly distributed over works outlay under all heads.

VI. That the establishment required for the six tank divisions asked for by the Chief Engineer of Irrigation shall be sanctioned as permanent.

3. In respect of No. I of the above requests, I am to observe that including the three officers (Messrs. Lewis, Todd and Joyce) recently transferred from the Government of India to the Madras list, the Madras establishment has been raised up to its sanctioned strength of eighty-three, and that there are no officers now on special leave. Endeavours will be made to transfer another officer on the permanent list to fill the additional post referred to in paragraph 4.

4. In respect of No. II, I am to observe that the figures advanced, in support of the request that the allowance for absentees shall be doubled, refer to only two years, 1881 and 1882, and it is possible that these may have been exceptionally unhealthy, or unfortunate for the Engineer establishment, therefore, before the Government of India can consent to so large an increase in the provision under this head, statistics, extending over a series of at least ten years, should be submitted in proof of the abnormal unhealthiness of Madras and of the necessity of sanctioning such a marked increase in the present allowance for absentees. In the meanwhile, however, I am to say that measures will be taken to increase the allowance for absentees, by calculating it at 10 per cent. on the whole number of 85 sanctioned posts instead of on the 76 posts only of Executive and Assistant Engineers. This will increase the total sanctioned scale of Executive and Assistant Engineers from 83 to 84 or by one post only, which will be transferred, if possible, from some other list.

5. In regard to No. III, I am to observe that analysis of the latest figures furnished by the Government of the North-Western Provinces and Oudh shows that 13·5 per cent. on direct Irrigation Revenue is a sufficient allowance to cover *all* establishment charges incurred in connection with canal revenue, including those in the Civil department; further, that calculations, made in communication with the Inspector-General of Irrigation, show that 5 per cent. on the same revenue is a fair allowance to cover the cost of duties of detailed measurement and assessment performed in Upper India but not required in Madras; 8·5 per cent. on revenue should, therefore, on the analogy of expenditure in Upper India, be a sufficient allowance to cover all charges connected with canal revenue in Madras, including those in the Civil department. From a consideration of the figures shown further on, the Government of India is, however, willing to allow the present percentage of 6 on Irrigation Revenue collected in the Civil department to stand unaltered, and this percentage may be charged by the Public Works Department on both the revenue derived from outlay incurred by the British Government and on that derived from the old works for which Capital

and Revenue Accounts are kept, the Public Works establishment having as much work in connection with the one as with the other. This percentage cannot be allowed on the share of enhanced Land Revenue due to irrigation.

The combined Public Works and Civil charges will then stand at 13·2 per cent. on the revenue, and, having regard to the very large amount of additional work which is covered by almost exactly the same percentage in Upper India, the Supreme Government cannot but consider it a high allowance for Madras. The charge made in the Civil department (7·2 per cent. on collections) appears especially high, and I am to ask how it has been arrived at, and if it cannot be reduced. In the North-Western Provinces the cost of collecting the canal revenue in great detail amounted during 1881-82 to only 3·06 per cent. of the gross collections.

6. I am to express regret that the Government of India finds itself at present unable to comply with proposals IV and V for the following reasons, but any explanations or further arguments which the Government of Madras may have to advance in support of them will meet with the fullest and most careful consideration.

7. The total estimated cost of the Madras Public Works establishment, for the year 1883-84 amounts to Rs. 21,87,356 as shown on page 31 of the Madras Budget Estimate for Provincial Services. From this must be deducted the sum specially provided for establishment for surveys from the Protective Works grant or Rs. 1,12,000 as shown on page 17 of the Madras Budget Estimate for Irrigation and Navigation, Agricultural and Protective Works, and also, the sum of Rs. 65,600 specially provided as the cost of the establishment required for the Tank Maintenance Division, (see page 31 of the Madras Budget Estimate for Provincial Services for 1883-84). It is believed that the Tank Division this year will be chiefly if not solely employed in estimating and laying down the plan of future operations. The sum of these two deductions is Rs. 1,77,600, and the balance of the charges for establishment which can properly be attributed to the supervision of works and repairs as well as the distribution of water will consequently amount to Rs. 20,09,756.

8. The outlay on works and repairs to be supervised by the Public Works establishment in Madras in 1883-84 is estimated as follows:—

	Rs.
Imperial.	
Military Works	4,81,787
Civil Buildings, Roads and Services	2,10,450
Irrigation.	
Productive Public Works, Capital Account	11,81,693
Do. do. Revenue Account	6,30,620
Famine Relief Protective Works	64,100
Irrigation and Navigation and Agricultural Works	16,20,560
Total Imperial ...	41,89,110
Provincial.	Rs.
Civil Buildings, Roads and Services	11,07,421
Irrigation and Navigation	2,70,764
Total Provincial ...	13,78,185
Local.	
Incorporated	43,220
Excluded	31,150
Total Local ...	74,370
Grand Total ...	56,41,665

It may be here noted that the figures quoted above include the cost of land, &c., on which no percentage is allowed to be charged to Imperial Funds for establishment, (Public Works Department Code, Chapter XV, Section iv, paragraph 131), as well as the outlay, if any, on works and repairs to be executed by the special establishment referred to in paragraph 7 of this letter. The inclusion of these items is, however, unavoidable as the Government of India is not in possession of the information necessary to eliminate them. These items, however, cannot affect the calculations to any serious extent.

9. Without making any allowance for the credits authorized by the Government of India for supervising revenue operations, the normal charges for establishment for the year 1883-84, *i.e.*, Rs. 20,09,756 would amount to a little over 35·6 per cent. on the outlay on works and repairs, *i.e.*, Rs. 56,41,665.

10. Going back to the year 1872-73 (the first year after the introduction of the provincialization scheme and for which complete information is available in the Accountant-General's office) it is found that the following Public Works outlay on works and repairs was incurred in Madras by an establishment costing Rs. 20,03,500 :—

	Rs.
Imperial.	
Military Works	5,27,190
Other Services	51,100
Irrigation—	
Productive Public Works	26,850
Ordinary Irrigation and Navigation	21,12,960
Total Imperial ...	27,18,160
Provincial.	
Other Services	8,87,790
Local.	
Incorporated and Excluded	32,85,560
Grand Total ...	68,91,510

The percentage of establishment charges in this case was only 29 per cent. on the outlay on works and repairs, and it may be here observed that the year 1872-73 is more favorable to the position assumed by the Government of Madras than the years immediately following, during which the percentages were as follows :—

1873-74	26·0
1874-75	27·1
1875-76	27·0
1876-77	23·6

Government of India, Public Works Department Circular No. XX of 29th September 1881.

Government of India, Public Works Department letter, No. 101 A.G., dated 20th February 1882.

11. Under the orders cited in the margin in accordance with which the preliminary budget estimates of the Madras Presidency for the year 1883-84, have been prepared, the Imperial Government authorized the calculation of establishment charges on account of revenue realizations on the following percentage :—

5 per cent. on revenue realized from ordinary Public Works.
10 per cent. on all direct receipts from Irrigation Works, and
6 per cent. indirect revenue due to Productive Public Works realized in the Civil department and credited to the Public Works Department.

12. By the above orders, the Government of Madras was entitled to the following credits based on the estimated figures of the revenue for the year 1883-84 :—

	Rs.
5 per cent. on the revenue (Rs. 2,30,000) from ordinary Public Works	11,500
10 per cent. on the direct receipts (Rs. 3,06,650) from Irrigation Works	30,655
6 per cent. on the indirect revenue (Rs. 35,48,500) due to Productive Public Works	2,12,910
Total ...	2,55,065

If this amount is deducted from the normal cost (Rs. 20,09,756) of the Madras Public Works establishment for the year 1883-84, the balance (Rs. 17,54,691 will represent the amount to be borne by works and repairs which is a little over 31·1 per cent. on the outlay on works and repairs in that year.

13. In accordance with the decision arrived at in paragraph 5 of this letter, an additional credit of Rs. 1,64,490 being 6 per cent. on (Rs. 27,41,500) the revenue due to the old irrigation works has been authorized, which reduces the charge for establishment against the outlay on works and repairs in 1883-84 to Rs. 15,90,201. The percentage which this amount bears to the outlay (Rs. 56,41,665) on works and repairs in 1883-84 is, therefore, only a little over 28·1 per cent.

14. The Government of India is not in a position to say what the precise revenue for irrigation projects classed as Productive Public Works amounted to in 1872-73, but it is believed that no new works have come into operation in the interim, nor has there been any very large extension of existing works. Accordingly if the amount now credited on account of supervision of revenue had been similarly credited in that year, the establishment charges to be borne by works and repairs would have been reduced from Rs. 20,03,500 to Rs. 15,83,945 or a little below 23 per cent. on the outlay on works and repairs in that year.

15. The increased cost of the charges for establishment in Madras as compared with the outlay on works and repairs between the years 1872-73 and 1883-84, *i.e.*, from 23 to 28·1 per cent. is due to the action of the Government of Madras in having placed the greater portion of the outlay on Local Fund works under a separate Local Fund establishment, and to its having reduced the outlay on Provincial works and repairs to a figure considerably below the amount placed at its disposal for these purposes under the provincialization scheme of 1870. If this latter outlay has been, for reasons which may doubtless be good and sufficient, reduced to such an extent as to render the cost of Public Works establishment higher in proportion to the expenditure than previous experience has shown that it need be, the responsibility for this increase clearly rests with the Government of Madras and not with the Government of India.

16. In Public Works Department Resolution No. 3334 of the 14th December 1870, the following amounts were contributed from Imperial to Provincial funds with a view of meeting outlay on Provincial works and repairs now classed under the head "Civil Buildings, Roads and Services" which had heretofore been treated as Imperial :—

	Rs.
Roads and Miscellaneous Public Improvements	12,38,800
Civil Buildings	5,85,060
Total ...	18,23,860

17. The allotment made from Provincial funds under the above heads for the year 1883-84 amount to Rs. 11,07,421 only or Rs. 7,16,439 less than the Imperial contribution for the purpose, *vide* preceding paragraph. If this sum had been made available for outlay on works and repairs in 1883-84, the total grant under those sub-heads in Madras would be increased from Rs. 56,41,665 to Rs. 63,58,104 ; and supposing that the establishment provided in the budget estimates of Madras for 1883-84 could deal with this additional outlay (apparently this might well be done considering that an establishment costing about the same amount expended Rs. 68,91,510 in

1872-73), the percentage of the establishment charges to works and repairs would be reduced to nearly 25 per cent.

18. The Local Fund outlay in Madras not supervised by the Public Works Department in 1883-84 is estimated at Rs. 41,50,000. If this outlay was still supervised by the Public Works Department establishment as it used to be, it cannot be denied that the percentage of the establishment charges to the outlay on works and repairs would be still further reduced, probably to 20 or at the outside 21 per cent. The permanent reduction of Public Works establishment consequent on removal of this outlay from its charge ought therefore to have been such as to maintain the proportion between cost of establishment and expenditure which originally existed.

19. That the percentage for establishment which falls on Provincial funds is higher than 23 per cent. on the outlay on works and repairs is due entirely as shown above to the action of the Government of Madras, and the Government of India can see no grounds on which additional Imperial funds should be assigned to Madras in order to reduce the abnormally high percentage.

20. Under the above circumstances, the Government of India considers that the percentage for establishment charges now allowed on Imperial works and repairs is ample, and cannot be increased.

21. The proposal to give the Madras Public Works establishment a small allowance of 3 per cent. on the revenue derived from the Irrigation projects for which neither Capital nor Revenue Accounts are kept, would amount to assigning an additional contribution from Imperial to the Madras Provincial Revenues. The result of any such procedure would be to reduce the percentage of establishment to outlay on works, repairs, &c., and this percentage as shown above would not have been too high had the Madras Government not altered the procedure which was in force when the Provincial scheme was introduced.

The duty of looking after these Irrigation works has been a portion of the duty of the Madras Public Works Department establishment since that department was formed, and it is clear that until the Madras Government altered its procedure in connection with Public Works, no allowance of the nature asked for was needed. Moreover, the Government of India has recently promised to give increased allotments for this class of works for the next few years, which allotments are to provide for the special establishment employed in connection therewith. The additional outlay on these works will, it is hoped, lead to increased Land Revenue and a reduction of remissions, and the provincial revenues will, it is hoped, derive considerable benefit from this source. Under these circumstances the Government of India cannot see its way to grant the Madras Government any further concessions in addition to those now allowed.

22. With regard to proposal VI the Government of India would not object to applying to the Secretary of State, or otherwise providing for a permanent addition of three Executive and six Assistant Engineers for the supervision of expenditure on improvement and development of the Irrigation tanks in the Madras Presidency. This establishment is based on the assumption that subsequent to the expiry of the present Provincial contract, provision will be made for an annual expenditure of 4½ lakhs on tanks. The precise mode of providing for this expenditure, will have to be arranged when the terms, upon which the present Provincial contract is renewed, come under consideration.

Office note from the Examiner, Public Works Accounts, dated 9th August 1883, No. 477.

READ—also the following papers:—

Office note from the Examiner, Public Works Accounts, dated 10th August 1883, No. 487.

Office note from the Examiner, Public Works Accounts, dated 21st August 1883, No. 529.

From W. WILSON, Esq., Director of Revenue Settlement and Agriculture, to the Secretary to Government, Public Works Department, dated Madras, 31st August 1883, No. 42.

I have the honor to return the statement received with your endorsement, No. 1743 D., dated 13th current, duly verified and countersigned.

The figures for 1882-83 have been altered to accord with the accounts submitted to Government from this office.

From the same Officer, dated Madras, 4th September 1883, No. 44.

I have the honor, in reference to your letter, No. 1646 C., dated 1st current, to forward a statement showing the revenue derived in 1872-73 from the irrigation projects classed as Productive Public Works.

2. The letters referred to in paragraph 2 of your letter were answered in this office Nos. 41-A. and 42, dated 24th and 31st ultimo, respectively.

ENCLOSURE.

STATEMENT showing the Revenue derived from Irrigation Projects classed as Productive Public Works in 1872-73.

Name of Work.	Area Irrigated. First Crop.	Area Irrigated. Second Crop.	Revenue due to Irrigation.	Deduct portion due to old sources of Irrigation.	Increase of Revenue due to the outlay incurred.	Indirect Receipts.	Total.	Remarks.
			Rs.	Rs.	Rs.	Rs.	Rs.	
Godávari ..	433,606	..	14,98,623	1,23,365	13,75,258	1,48,172	15,23,430	*Vide*, G.O., dated 31st January 1882, No. 72 I.
Kistna	228,532	..	6,24,682	81,898	5,42,784	1,03,442	6,46,226	*Vide*, G.O., dated 24th April 1882, No. 847 I.
Cauvery ..	872,988	64,886	27,74,579	23,41,769	4,32,810	1,13,455	5,46,265	*Vide*, G.O., dated 21st July 1883, No. 574 I.
Pennér	50,604	182	1,20,986	67,135	53,351	14,986	68,337	*Vide*, G.O., dated 6th July 1882, No. 517 I.
Srivaikuntham ..	12,626	3,957	88,393	1,03,793	**15,395**	162	**15,233**	*Vide*, G.O., dated 2nd December 1882, No. 977 I.
Total ..	..	..	51,07,268	27,17,960	23,89,308	3,80,217	27,69,525	

N.B.—The figures in large type indicate loss.

ORDER—dated 30th November 1883, No. 3422 W., Public Works.

Ordered that the following letter be addressed to the Government of India:—

(Here enter No. 3423 W., dated 30th November 1883.)

(True Extract.)

(Signed) J. SHAW-STEWART, Colonel, R.E.,
Secretary to Govt., P.W.D.

To the Chief Engineer for Irrigation, } with copy of letter.
" Financial Department, }

Exd. A. Aubert.
Spare Copies

General Establishment

~~BUILDINGS AND ROADS.~~
~~CIVIL WORKS.~~

Govt. of {1883} Madras.

PUBLIC WORKS.

Dated November, 30th.

Read. *Encl.*

G.O., 30th Nov. 1883, No. 3422 W.

NOVEMBER.

Engineer Establishment

Ordering that the observations of the Government of India regarding the — of the Public Works Department in Madras, be replied to.

38

APPENDIX A.

STATEMENT showing year by year, from 1882, the number of officers of the Engineer Establishment absent from duty, on leave, deputation, transfer, casualty, &c., for the last ten years.

No.	Names	Rank.	Nature and cause of leave, absence, &c.	Period of actual absence from duty. From	To	Period of leave granted, &c. Y. M. D.	Remarks.
			Absentees during the Year 1882.				
	Colonel J. Mullins, R.E.	Chief Engineer, 2nd Class	Furlough, p.a.	1st April 1882.	30th Oct. 1883.	1 6 0	
	Colonel W. Chrystie, R.E.	Superintending Engineer, 2nd Class.	Special leave	9th Jan. 1880.	8th Jan. ,,	3 0 0	Retired in England, 8th January 1883.
	Lieutenant-Colonel H. Smalley, R.E.	Executive Engineer, 1st Grade	Do.	2nd Dec. 1879.	5th Dec. 1882.	3 0 0	
	Major C. Bowen, R.E.	Do.	Furlough	1st May 1881.	4th April 1883.	1 11 4	
	Major S. C. Clarke, R.E.	Do.	Special leave	5th April ,,	20th Mar. ,,	2 0 0	
	Mr. J. Hannah	Do.	Furlough	6th Oct. ,,	12th Dec. 1882.	2 0 0	
	Colonel J. N. Hunter, R.E.	Do.	Special leave	12th Nov. 1879.	23rd Mar. 1883.	3 0 0	Retired in England, 23rd March 1883.
	Lieut.-Colonel P. Montgomerie, R.E.	Superintending Engineer, 3rd Class	Furlough	31st Mar. 1881.	19th Feb. ,,	2 0 0	
	Major J. L. L. Morant, R.E.	Executive Engineer, 1st Grade	Furlough, p.a., and extension, m.c.	21st Sept. 1880.	24th Oct. ,,	3 0 0	Extension, m.c., one year and one month.
	Captain A. R. F. Dorward, R.E.	Do. 3rd do.	Furlough, p.a.	4th Dec. ,,	14th Aug. 1882.	2 0 0	Quitted Chatham Depôt and reverted to Furlough, 17th April 1882.
	Lieut.-Colonel H. M. Vibart, R.E.	Do. 1st do.	Do. and extension, m.c.	14th April 1881.	,,	2 6 0	Extension, m.c., six months.
	Major R. Morris, R.E.	Do. 3rd do.	Furlough, p.a.	8th ,, 1879.	31st Mar. 1883.	2 0 0	Joined Chatham Depôt, 1st July 1881, and reverted to Imperial duty, 1st April 1883.
	Mr. J. Grimes	Do. 4th do.	Furlough	24th May 1881.	10th May ,,	2 0 5	
	Mr. C. J. Peters	Do. 3rd do.	Do.	30th Oct. 1880.	17th Oct 1882.	2 0 0	Joined Chatham Depôt, 1st May 1883.
	Captain O. V. Boddy, R.E.	Do. 4th do.	Furlough, p.a.	16th April 1882.	,,	2 0 0	
	Lieutenant R. E. Hamilton, R.E.	Do. 4th do. (sub. *pro tem.*)	Furlough, m.c.	13th Aug. 1881.	16th April 1882.	1 0 0	
	Mr. deWinton, W. B.	Assistant Engineer, 1st Grade	Do.	24th May 1882.	,,	2 0 0	
	Captain C. H. M. Kensington, R.E.	Executive Engineer, 3rd do.	Foreign Department	14th Feb. ,,	,,		Services placed at the disposal of Foreign Department.
	N. Ruthnasabapathy Pillay	Do. 1st do.	Sick leave in India	29th Nov. ,,	10th Jan. 1883.	0 1 13	
	Captain L. Langley, R.E.	Do. 4th do.	Furlough, p.a.	25th Jan. ,,	,,	2 0 0	Furlough in and out of India. Joined Chatham Depôt, 1st March 1883.
	Mr. E. B. Hanson	Assistant Engineer, 1st do.	Furlough, m.c., extension, m.c.	12th ,, ,,	25th July 1883.	1 6 0	Resigned his appointment, 25th July 1883.
	Mr. R. H. Dorman	Do. 2nd do.	Special leave on urgent p.a.	1st April ,,	1st Oct. 1882.	0 6 0	Resigned his appointment, 1st October 1882.
	Mr. W. Hughes	Executive Engineer, 3rd do.	Furlough in India, m.c.	28th July ,,	28th Sept. ,,	0 2 0	
	Mr. K. F. Nordmann	Do. 2nd do.	Special duty	1st Sept. 1881.	1st May ,,		On special duty, Vizagapatam-Raipur Railway Survey.
	Major W. H. Cooker, R.E.	Do. 2nd do.	Military examination leave, &c.	12th April 1882.	10th Oct ,,		Privilege leave from 12th April 1882 to 11th July 1882. Special leave by Secretary of State, 12th July 1882 to 4th August 1882.

Statement showing year by year, from 1882, the number of officers of the Engineer Establishment absent from duty, &c.—*(Continued)*.

No.	Names.	Rank.	Nature and cause of leave, absence, &c.	Period of actual absence from duty. From	To	Period of leave granted, &c. Y.	M.	D.	Remarks.
			Absentees during the Year 1882—cont.						
	Major R. R. E. Drake-Brockman, R.E.	Executive Engineer, 2nd Grade ..	Military examination leave ..	15th April 1882.	11th June 1882.	..			Military examination leave, 5th August 1882 to 10th October 1882.
			Do. do. ..	23rd Sept. ,,	25th Oct. ,,	..			Military examination leave, 9th February 1883 to 3rd March 1883.
	Lieutenant-Colonel H. R. Mead, R.E.	Superintending Engineer, 2nd Class.	Special duty	14th Feb. ,,	15th Mar. ,,	..			On Special duty at Travancore.
	Mr. E. H. Pringle	Executive Engiener, 3rd Grade ..	Deceased	30th May ,,	..	..			Deceased, 30th May 1882.
	Captain A. Awdry, R.E. ,, ..	Do. 2nd do. ..	Civil Department	5th Nov. 1881.	..	..			Services placed at the disposal of Civil Department.
			Absentees during the Year 1881.						
	Major C. Bowen, R.E.	Executive Engineer, 1st Grade ..	Furlough	1st May 1881.	4th April 1883.	1	11	4	
	Colonel J. O. Hasted, R.E. ..	Chief Engineer, 2nd Class (temporary rank).	Furlough, p.a.	8th April 1879.	2nd ,, 1881.	2	0	0	
	Colonel W. Chrystie, R.E. ..	Superintending Engineer, 2nd Class	Special leave	9th Jan. 1880.	8th Jan. 1883.	3	0	0	
	Colonel W. H. Burton, R.E. ..	Executive Engineer, 1st Grade ..	Do.	1st ,, 1879.	31st July 1881.	2	0	0	Retired in England, 8th January 1883.
	Major S. C. Clarke, R.E.	Do. 1st do.	Do.	5th April 1881.	20th Mar. 1883.	2	0	0	
	Colonel J. N. Hunter, R.E. ..	Do. 1st do. ..	Military duty	1st Nov. 1879.	4th April 1881.	..			
	Lieutenant-Colonel P. Montgomerie, R.E.	Do. 1st do. ..	Special leave	12th ,, ,,	23rd Mar. 1883.	3	0	0	Retired in England, 23rd March 1883.
	Major J. L. L. Morant, R.E. ..	Superintending Engineer, 3rd Grade.	Furlough	31st Mar. 1881.	19th Feb. ,,	2	0	0	
			Furlough, p.a.	21st Sept. 1880.	..	2	0	0	
			Extension, m.c.	..	..	1	1	0	
	Lieutenant-Colonel, C. J. Smith, R.E.	Executive Engineer, 1st Grade ..	Furlough, p.a.	24th April 1880.	26th Oct. 1881.	1	6	0	
	Lieutenant-Colonel H. Smalley, R.E.	Do. 1st do. ..	Special leave	2nd Dec. 1879.	5th Dec. 1882.	3	0	0	
	Major A. T. Fraser, R.E.	Do. 2nd do. ..	Furlough, p.a.	9th Sept. ,,	21st Mar. 1881.	1	9	0	
	Lieutenant-Colonel H. M. Vibart, R.E.	Do. 1st do.	Furlough, p.a.	14th April 1881.	..	2	0	0	
			Extension, m.c.	..	..	0	6	0	
	Major R. R. E. Drake-Brockman, R.E.	Do. 2nd Grade ..	Furlough, p.a.	23rd May 1880.	31st July 1881.	2	0	0	
	Mr. J. Hannan	Do. 2nd do. ..	Furlough	5th Oct. 1881.	12th Dec. 1882.	2	0	0	
	Major R. F. Morris, R.E. ..	Do. 3rd do. ..	Furlough, p.a.	8th April 1879.	31st Mar. 1883.	2	0	0	
	Mr. A. S. Russell	Do. 4th do. .. (temporary rank).	Special famine leave and extension, m.c.	4th Feb. 1880.	29th Oct. 1881.	1	9	0	
	Captain A. R. F. Dorward, R.E. ..	Executive Engineer, 4th Grade ..	Furlough, p.a.	4th Dec. ,,	10th Aug. 1882.	2	0	0	Joined Chatham Depôt, 29th June 1881.
	Mr. C. Vincent	Do. (temporary rank) ..	Special famine leave	29th Oct. ,,	28th April 1881.	0	6	0	
	Mr. J. Grimes	Executive Engineer, 4th Grade ..	Furlough	24th May 1881.	10th May 1883.	2	0	0	
	Mr. C. J. Peters	Do. 4th do. ..	Do.	30th Oct. 1880.	17th Oct. 1882.	2	0	0	
	Lieutenant R. E. Hamilton, R.E. ..	Do. 4th do. (sub. *pro tem.*)	Furlough, m.c.	13th Aug. 1881.	15th April ,,	1	0	0	
	Captain A. Awdry, R.E.	Executive Engineer, 2nd Grade ..	Furlough, p.a.	14th April 1881.	31st Oct. 1881.	2	0	0	Services placed at the disposal of Civil Department, and appointed as Private Secretary to His Excellency the Governor of Madras, 5th Nov. 1881.
	Captain and Deputy Commissary W. Jackson.	Assistant Engineer, 1st do. ..	Furlough, m.c.	5th Mar. 1879.	3rd Jan. ,,	2	0	0	
	Captain O. V. Boddy, R.E. ..	Executive Engineer, 4th do. ..	Military duty	14th Jan. ,,	27th ,, ,,	..			Joined Public Works Department from field duty, 27th Jan. 1881.
	Captain C. C. Rawson, R.E. ..	Do. 3rd do. ..	Do.	23rd ,, ,,	23rd ,, ,,	..			
	Mr. K. F. Nordmann	Do. 2nd do. ..	Special duty	1st Sept. 1881.	1st May 1882.	..			On special duty, Vizagapatam-Raipur Railway Survey.
			Absentees during the Year 1880.						
	Colonel J. O. Hasted, R.E. ..	Chief Engineer, 2nd Class ..	Furlough, p.a.	8th April 1879.	2nd April 1881.	2	0	0	
	Colonel W. Chrystie, R.E. ..	Superintending Engineer, 2nd Class.	Special leave	9th Jan. 1880.	8th Jan. 1883.	3	0	0	
	Colonel W. H. Burton, R.E. ..	Executive Engineer, 1st Class ..	Do.	1st Jan. 1879.	31st July 1881.	2	0	0	
	Colonel J. N. Hunter, R.E. ..	Do. 1st do. ..	Do.	12th Nov. 1879.	23rd Mar. 1883.	3	0	0	
	Mr. J. E. Paul	Assistant Engineer, 1st do. ..	Special famine leave	26th April 1880.	30th Oct. 1880.	0	6	0	
	Major J. L. L. Morant, R.E. ..	Executive Engineer, 1st do. ..	Furlough, p.a.	21st Sept. ,,	16th ,, 1883.	2	0	0	
	Lieutenant-Colonel H. Smalley, R.E.	Do. 1st do. ..	Special leave	2nd Dec. 1879.	5th Dec. 1882.	2	0	0	
	Lieutenant-Colonel C. J. Smith, R.E.	Do. 1st do. ..	Furlough, p.a.	24th April 1880.	26th Oct. 1881.	1	6	0	
	Major A. T. Fraser, R.E.	Do. 1st do. ..	Do.	9th Sept. 1879.	21st Mar. ,,	1	9	0	
	Major R. R. E. Drake-Brockman, R.E.	Do. 2nd Grade ..	Furlough in India	23rd May 1880.	31st July ,,	2	0	0	
	Major R. F. Morris, R.E.	Do. 3rd do. ..	Furlough, p.a.	8th April 1879.	31st Mar. 1883.	2	0	0	
	Mr. R. W. Norris	Do. 2nd do. ..	Furlough	12th June ,,	23rd Sept. 1880.	1	6	0	Retired while on furlough, 31st March 1880, but re-appointed 1st August 1881.
	Captain A. R. F. Dorward, R.E. ..	Do. 3rd do.	Furlough, p.a.	4th Dec. 1880.	10th Aug. 1882.	2	0	0	
			Military duty	22nd ,, 1878.	7th Nov. 1880				
	Mr. C. J. Peters	Do. 3rd do. ..	Furlough	30th Oct. 1880.	17th Oct. 1882.	2	0	0	
	Captain and Deputy Commissary W. Jackson.	Assistant Engineer, 1st do. ..	Furlough, m.c.	5th Mar. 1879.	3rd Jan. 1881.	2	0	0	
	Mr. W. Hughes	Executive Engineer, 3rd do. ..	Furlough	21st April 1878.	17th April 1880.	2	0	0	
	Mr. A. S. Russell	Do. 4th do. .. (temporary rank).	Special famine leave and extension, m.c.	4th Feb. 1880.	29th Oct. 1881.	1	9	0	
	Lieutenant-Colonel H. R. Mead, R.E.	Superintending Engineer, 2nd Class.	Furlough, m.c.	25th Mar. 1879.	23rd Mar. 1880.	1	0	0	
	Mr. C. Vincent	Executive Engineer, 4th Grade (temporary rank).	Special famine leave	29th Oct. 1880.	28th April 1881.	0	6	0	
	Lieutenant-Colonel J. Beatty, R.E. ..	Superintending Engineer, 1st Class.	Furlough, p.a.	13th July 1878.	10th July 1880.	2	0	0	
	Colonel W. T. F. Farewell, M.S.C ..	Do. do. ..	Do.	8th April 1879.	18th Oct. ,,	2	0	0	Retired while on furlough from 19th Oct. 1880.
	Lieutenant and Assistant Commissary G. E. Wiffen.	Assistant Engineer, 1st Grade ..	Furlough	14th Mar. 1878.	9th Jan. ,,	2	0	0	Retired from 23rd Nov. 1880.
	Major J. W. Hindle, M.S.C. ..	Executive Engineer, 2nd do. ..	Furlough, m.c.	13th July ,,	12th July ,,	2	0	0	
	Mr. J. D. Grant	Do. 3rd do. ..	Furlough	21st Oct. ,,	4th Aug. ,,	2	0	0	Services replaced at the disposal of Military Department from 13th July 1880.
	Mr. W. Hughes	Do. 3rd do. ..	Do.	21st April ,,	17th April ,,	2	0	0	
	Lieutenant A. W. Smart, R.E. ..	Do. 3rd do. ..	Furlough, p.a.	13th ,, 1879.	26th Nov. ,,	2	0	0	
	Mr. G. P. Carless	Assistant Engineer, 2nd do. ..	Special famine leave	20th Mar. 1880.	12th Sept. ,,	0	6	0	
	Mr. H. B. Hutchings	Do. 2nd do. ..	Furlough, m.c.	7th Dec. 1879.	11th July ,,	1	0	0	Deceased while on furlough, 11th July 1880.
	Mr. B. C. Barton	Executive Engineer, 1st do. ..	Do.	25th Mar. ,,	..	0	9	0	Extra on Madras Engineer Establishment. Chief Engineer, Travancore.
	Captain L. Langley, R.E.	Do. 4th do. ..	Military duty	29th Jan. ,,	4th Nov. 1880.	..			Services placed at the disposal of Military Department.

Statement showing year by year, from 1882, the number of officers of the Engineer Establishment absent from duty, &c.—(*Continued*).

No.	Names.	Rank.	Nature and cause of leave, absence, &c.	Period of actual absence from duty. From	Period of actual absence from duty. To	Period of leave granted, &c. Y.	M.	D.	Remarks.
			Absentees during the Year 1880—cont.						
	Major C. Clark, R.E.	Executive Engineer, 1st Grade ..	Military duty	1st Nov. 1879.	4th April 1881.	..			Services placed at the disposal of Military Department.
	Captain O. V. Boddy, R.E. ..	Do. 4th do. ..	Do.	14th Jan. ,,	27th Jun. ,,	..			Do. do. do.
	Lieutenant H. D. Love, R.E. ..	Assistant Engineer, 1st do. ..	Transferred to Civil Department.	28th ,, 1880.		..			Transferred to Civil Department as Principal, Civil Engineering College, from 28th Jan. 1880.
	Captain H. Bailey	Executive Engineer, 3rd do. ..	Retired	25th Feb. ,,	..	..			Specially retired, 25th Feb. 1880.
	Mr. J. B. Barber	Assistant Engineer, 2nd do. ..	Do.	3rd Jan. ,,	..	..			Do. 3rd Jan. 1880.
	Lieutenant-Colonel R. B. Kennedy, M.C.S.	Executive Engineer, 2nd do. ..	Military duty	1st April ,,	..	..			Services replaced at the disposal of Military Department from 1st April 1880.
	Captain C. C. Rawson, R.E. ..	Do. 3rd do. ..	Do.	23rd Jan. 1879.	23rd Jan. 1881.	..			
	Lieutenant R. E. Hamilton, R.E. ..	Do. 4th do. .. (sub. *pro tem.*)	Do.	14th Dec. 1878.	20th April 1880.	..			
	Captain C. B. Henderson, R.E. ..	Executive Engineer, 3rd do. ..	Do.	22nd ,, ,,	13th Oct. ,,	..			
	Lieutenant and Deputy Assistant Commissary J. Joyce.	Assistant Engineer, 2nd do. ..	Retired	5th Feb. ,,	..	..			Retired under Government of India, Public Works Department, Resolution, No. 322-47G., dated 3rd Feb. 1880, from 5th Feb. 1880.
	Lieutenant H. D. Love	Do. 2nd do. ..	Educational Department ..	20th Nov. 1879.	28th Jan. 1880.	..			Appointed Principal, Civil Engineering College.
	Captain and Deputy Commissary T. Smither.	Do. 1st do. ..	Retired	5th Mar. 1880.	..	..			Retired from 5th March 1880.
	Lieutenant-Colonel J. P. Fischer, R.E.	Executive Engineer, 1st do. ..	Retransferred to Military Department.	1st April ,,	..	..			Retransferred to Military Department, 1st April 1880.
	Lieutenant-Colonel Ross Thompson, R.E.	Do. 1st do. ..	Military duty	13th Dec. 1878.	9th Nov. 1880.	..			Services placed at the disposal of Military Department.
	Lieutenant A. E. Dobson, R.E. ..	Executive Engineer, 4th do. ..	Military duty	1st Feb. 1879.	..	..			Deceased, 20th July 1880.
			Absentees during the Year 1879.						
	Lieutenant-Colonel J. Beatty, R.E. ..	Superintending Engineer, 1st Class	Furlough, p.a.	12th July 1878.	10th July 1880.	2	0	0	
	Colonel W. T. F. Farewell, M.S.C. ..	Do. do. do.	Do.	8th April 1879.	18th Oct. ,,	2	0	0	
	Colonel J. O. Hasted, R.E. ..	Chief Engineer, 2nd Class (temporary rank).	Do.	8th ,, ,,	2nd April 1881.	2	0	0	
	Lieutenant-Colonel H. R. Mead, R.E.	Superintending Engineer, 3rd Class	Furlough, m.c.	25th Mar. ,,	23rd Mar. 1880.	1	0	0	
	Colonel W. H. Burton, R.E. ..	Executive Engineer, 1st Grade ..	Special leave	1st Jan. ,,	31st July 1881.	2	0	0	
	Mr. A. C. Lawford	Do. 1st do. ..	Furlough	29th April 1877.	1st Oct. 1879.	2	4	0	Specially retired from 1st Oct. 1879.
	Major J. W. Hindle, M.S.C. ..	Do. 2nd do. ..	Do. m.c.	13th July 1878.	12th July 1880.	2	0	0	Retransferred to Military Department, 12th July 1880.
	Mr. W. B. Leggatt	Do. 2nd do. ..	Furlough	5th Feb. 1879.	1st Oct. 1879.	0	8	15	Specially retired while on furlough, 1st Oct. 1879.
	Mr. L. W. Paynter	Do. 3rd do. ..	Do. m.c.	11th Dec. 1878.	14th ,, ,,	1	0	0	Specially retired while on furlough, 14th Oct. 1879.
	Captain D. McNeil Campbell, R.E. ..	Do. 2nd do. ..	Do.	20th April 1877.	22nd Mar. ,,	2	0	0	
	Mr. E. H. Pringle	Do. 3rd do. ..	Do. m.c.	20th May 1878.	24th Nov. ,,	1	6	0	
	Mr. J. N. Grainger	Do. 4th do. ..	Do.	1st June ,,	5th ,, ,,	2	0	0	
	Major A. T. Fraser, R.E. ..	Do. 2nd do. ..	Do. p.a.	9th Sept. 1879.	21st Mar. 1881.	1	9	0	Specially retired from 5th Nov 1879.
	Mr. J. D. Grant	Do. 3rd do. ..	Do.	21st Oct. 1878.	4th Aug. 1880.	2	0	0	
	Mr. W. Hughes	Do. 3rd do. ..	Do.	21st April ,,	17th April ,,	2	0	0	
	Major R. F. Morris, R.E.	Do. 4th do. ..	Do. p.a.	8th ,, 1879.	31st Mar. 1883.	2	0	0	
	Mr. J. C. Larminie	Do. 3rd do. ..	Do.	12th Mar. 1877.	28th Jan. 1879.	2	0	0	
	Mr. R. W. Norris	Do. 2nd do. ..	Do.	12th June 1879.	23rd Sept. 1880.	1	0	0	Specially retired, but again re-appointed.
	Captain A. W. Smart, R.E. ..	Do. 3rd do. ..	Do. p.a.	13th April ,,	26th Nov. ,,	2	0	0	
	Captain and Deputy Commissary W. Jackson.	Assistant Engineer, 1st do. ..	Do. m.c.	5th Mar. ,,	3rd Jan. 1881.	2	0	0	
	Lieutenant and Deputy Assistant Commissary G. E. Wilfen.	Do. 1st do. ..	Do.	14th ,, 1878.	9th ,, 1880.	2	0	0	
	Major A. C. Smith, R.E.	Executive Engineer, 2nd do. ..	Do. p.a.	22nd June 1877.	7th June 1879.	1	8	0	
	Captain L. Langley, R.E.	Do. 4th do. ..	Military duty	29th Jan. 1879.	4th Nov. 1880.	..			Services placed at the disposal of Military Department.
	Captain G. V. Boddy, R.E. ..	Do. 4th do. ..	Do.	14th ,, ,,	27th Jan. 1881.	..			Do. do. do.
	Major H. W. Wood, R.E.	Superintending Engineer, 3rd Class	Sick leave in India	26th June ,,	8th Oct. 1879.	0	3	0	Deceased on 8th Oct. 1879.
	Lieutenant H. D. Love, R.E. ..	Assistant Engineer, 2nd Grade.	Educational Department, Accounts Branch.	22nd April ,, / 20th Nov. ,,	19th June ,, / 26th Jan. 1880.	..			Officiated as Principal, Civil Engineering College, from 22nd April 1879. Transferred from the Accounts Branch from 28th Jan. 1880.
	Lieutenant A. E. Dobson, R.E. ..	Executive Engineer, 4th do. ..	Services replaced	1st Feb. ,,	..	..			Services replaced at the disposal of Military Department 1st Feb. 1879. Deceased on 20th July 1880.
	Mr. O'Shaugnessy	Executive Engineer, 2nd Grade ..	Retired	1st Oct. ,,	..	..			Specially retired, 1st Oct. 1879.
	Mr. W. S. Harrington	Do. 1st do. ..	Do.	5th Nov. ,,	..	..			Do. do. 5th Nov. 1879.
	Mr. W. M. Montserratt	Assistant Engineer, 2nd Grade ..	Do.	30th Sept. ,,	..	..			Do. do. 30th Sept. 1879.
	Captain A. R. F. Dorward, R.E. ..	Executive Engineer, 3rd do. ..	Military duty	22nd Dec. 1878.	7th Nov. 1880.	..			Services placed at the disposal of Military Department.
	,, C. C. Rawson, R.E. ..	Do. 3rd do. ..	Do.	12th ,, ,,	23rd Jan. 1881.	..			Do. do. do. do.
	,, C. B. Henderson, R.E. ..	Do. 3rd do. ..	Do.	22nd ,, ,,	13th Oct. 1880.	..			Do. do. do. do.
	Lieutenant R. E. Hamilton, R.E. ..	Do. 4th do. (sub. *pro tem.*)	Do.	14th ,, ,,	20th April ,,	..			Do. do. do. do.
	Mr. H. Lyon	Assistant Engineer, 1st Grade ..	Retired	30th Sept. 1879.	..	..			Specially retired, 30th Sept. 1879.
	Colonel E. A. Foord, R.E. ..	Chief Engineer, 1st Class ..	Do.	15th Feb. ,,	..	..			Retired and services placed at the disposal of Military Department, 15th February 1879.
	Mr. T. Vanstavern	Executive Engineer, 2nd Grade ..	Do.	17th April ,,	..	..			Retired from 17th April 1879.
	Mr. A. D. Macleane	Assistant Engineer, 2nd do. ..	Deceased	9th Oct. ,,	..	..			Deceased 9th October 1879.
	Lieut.-Colonel Ross Thompson, R.E.	Executive Engineer, 1st do. ..	Military duty	13th Dec. 1878.	9th Nov. 1880.	..			Services placed at the disposal of Military Department.
	Mr. G. R. Leggatt	Do. 4th do. ..	Furlough	20th Sept. ,,	..	2	0	0	Deceased while on furlough in Europe.
	Mr. P. O'Ratigan	Do. 3rd do. ..	Retired	15th Nov. 1879.	..	..			Specially retired, 15th Nov. 1879.
	Mr. F. Brickwell	Assistant Engineer, 1st do. ..	Do.	22nd ,, ,,	..	..			Do. do. 22nd Dec. 1879.

Statement showing year by year, from 1882, the number of officers of the Engineer Establishment absent from duty, &c.—(*Continued*).

No.	Names.	Rank.	Nature and cause of leave, absence, &c.	Period of actual absence from duty. From	Period of actual absence from duty. To	Period of leave granted, &c. Y. M. D.	Remarks.
			Absentees during the Year 1879—cont.				
	Mr. R. E. Norfor	Executive Engineer, 3rd Grade ..	Retired	15th Oct. 1879.	..	.. ..	Specially retired, 15th Oct. 1879.
	Mr. R. J. Lowry	Do. 3rd do. ..	Do.	24th ,, ,,	..	.. ..	Do. do. 24th Oct. 1879. Deceased.
			Absentees during the Year 1878.				
	Lieutenant-Colonel J. Beatty, R.E. ..	Superintending Engineer, 1st Class.	Furlough, p.a.	13th July 1878.	10th July 1880.	2 0 0	
	,, J. F. Fischer, R.E.	Executive Engineer, 1st Grade ..	Do. p.a.	2nd ,, 1877.	5th Dec. 1878.	2 0 0	
	Colonel W. H. Burton, R.E. ..	Do. 1st do. ..	Special duty	15th Jan. 1878.	31st ,, ,,	..	Employed as a member of Defence Committee in the Military Department.
	Colonel A. S. Moberly, R.E. ..	Do. 1st do. ..	Furlough, p.a.	9th April ,,	31st Dec. ,,	1 6 0	Retired from 31st Dec. 1878. Services placed at the disposal of Military Department.
	Major J. W. Hindle, M.S.C. ..	Do. 2nd do. ..	Do. m.c.	13th July ,,	12th July 1880.	2 0 0	
	Major A. C. Smith, R.E. ..	Do. 2nd do. ..	Do. p.a.	22nd June 1877.	7th June 1879.	2 0 0	
	Mr. E. H. Pringle	Do. 3rd do. ..	Do. m.c.	20th May 1878.	24th Nov. ,,	1 6 0	
	Captain D. McNeil Campbell, R.E.	Do. 2nd do. ..	Do.	20th April 1877.	22nd Mar. ,,	2 0 0	
	Mr. G. R. Leggatt	Do. 4th do. ..	Do.	20th Sept. 1878.	..	2 0 0	Retired while on furlough.
	Mr. K. F. Nordmann	Do. 2nd do. ..	Do. m.c.	12th April ,,	12th May 1878.	0 1 0	
	Mr. J. D. Grant	Do. 3rd do. ..	Do.	21st Oct. ,,	4th Aug. 1880.	2 0 0	
	Mr. W. Hughes	Do. 4th do. ..	Do.	21st April ,,	17th April ,,	2 0 0	
	Mr. J. C. Larminie	Do. 3rd do. ..	Do.	12th Mar. 1877.	28th Jan. 1879.	2 0 0	
	Mr. J. N. Grainger	Do. 4th do. ..	Do.	1st June 1878.	5th Nov. ,,	2 0 0	
	Lieutenant and Deputy Assistant Commissary G. E. Wilton.	Assistant Engineer, 1st do. ..	Do. m.c.	14th Mar. ,,	9th Jan. 1880.	2 0 0	
	Mr. W. Jopp	Do. 1st do. ..	Do. m.c.	16th May ,,	18th Dec. 1878.	0 7 1	
	Captain C. B. Henderson, R.E. ..	Executive Engineer, 3rd do. (sub. *pro tem.*)	Military duty	22nd Dec. ,,	13th Oct. 1880.	.. ..	Services placed at the disposal of Military Department.
	Colonel J. N. Hunter, R.E. ..	Executive Engineer, 1st Grade ..	Furlough, p.a.	12th July 1876.	25th June 1878.	2 0 0	
	Lieutenant-Colonel H. Smalley, R.E.	Do. 1st do. ..	Do. p.a.	6th May ,,	30th April ,,	2 0 0	
	Mr. A. C. Lawford	Do. 1st do. ..	Do. p.a. and m.c. ..	29th April 1877.	1st Oct. 1879.	2 4 0	
	Mr. P. O'Ratigan	Do. 3rd do. ..	Do. m.c.	31st Aug. ,,	26th Aug. 1878.	1 0 0	
	Mr. W. A. Goodchap	Do. 3rd do. ..	Do. m.c.	12th Oct. ,,	17th April ,,	2 0 0	Retired from 17th April 1878.
	Mr. R. E. Norfer	Do. 3rd do. ..	Do. m.c.	22nd Sept. ,,	8th Oct. ,,	2 0 0	
	Mr. G. D. Wybrow	Do. 3rd do. ..	Do.	1st June 1876.	20th May ,,	2 0 0	
	Mr. J. W. Martin	Do. 3rd do. ..	Do.	10th Sept. ,,	4th Sept. ,,	2 0 0	
	Mr. J. M. Ball	Do. 3rd do. ..	Do.	5th April ,,	26th Mar. ,,	2 0 0	
	Mr. F. Brickwell	Do. 4th do. ..	Do.	6th May ,,	1st May ,,	2 0 0	
	Mr. C. H. Norfor	Do. 4th do. (temporary rank.)	Do. m.c.	17th Aug. 1877.	17th May ,,	0 9 0	
	Major-General C. V. Wilkieson, R.E.	Superintending Engineer, 1st Class	Do. p.a.	21st May ,,	23rd Aug. ,,	2 0 0	Deceased, 23rd August 1878.
	Lieutenant P. B. Baldwin, R.E. ..	Assistant Engineer, 2nd Grade ..	Retransferred to Military Department.	20th July 1878.	..	..	Retransferred to Military Department.
	Mr. L. P. Paynter	Executive Engineer, 3rd Grade ..	Furlough, m.c.	11th Dec. 1878.	14th Oct. 1879.	1 0 0	
	Captain A. R. F. Dorward, R.E. ..	Do. 3rd do. ..	Military duty	22nd ,, ,,	7th Nov. 1880.	..	Services placed at the disposal of Military Department.
	Colonel F. J. Moberly, R.E. ..	Do. 1st do. ..	Retired	21st ,, ,,	..	..	Retired from 31st December 1878, and services placed at the disposal of Military Department.
	Mr. A. W. Hunter	Assistant Engineer, 1st do. ..	Dismissed	24th ,, ,,	..	..	Services dispensed with from 24th December 1878.
	Lieutenant H. H. D. Love, R.E. ..	Do. 2nd do. ..	Military duty	4th Aug. 1878.	7th Aug. 1878.	..	Services placed at the disposal of Military Department.
				26th Apl. ,,	3rd May ,,	..	
				8th Sept. ,,	5th Oct. ,,	..	
	Lieut.-Colonel G. V. Law ..	Executive Engineer, 2nd do. ..	Retired	5th July ,,	..	..	Retired, 5th July 1878.
	,, Ross-Thompson, R.E.	Do. 1st do. ..	Military duty	13th Dec. ,,	9th Nov. 1880.	..	Services placed at the Disposal of Military Department.
	Lieutenant R. E. Hamilton, R. E. ..	Do. 4th do. (sub. *pro tem.*)	Do.	14th ,, ,,	20th Apl. ,,	..	Do. do. do.
				12th ,, ,,	23rd Jan. 1881.	..	Do. do. do.
	Captain C. C. Rawson, R.E. ..	Executive Engineer, 3rd do. ..	Dismissed	15th April ,,	..	..	Services dispensed with, 15th April 1878.
	Mr. H. F. Gilby	Assistant Engineer, 2nd do. ..		13th ,, 1875.	..	3 0 0	Retired under G.G.O. No. 8 of 1877.
	Lieut.-Colonel J. Goddard, R.E. ..	Executive Engineer, 1st do. ..	Furlough, p.a.	1st Dec. 1877.	20th Jan. 1878.	..	Transferred to the Pension Establishment, 20th January 1878
	Lieutenant and Deputy Assistant Commissary J. Lever.	Assistant Engineer, 2nd do. ..	Do. m.c.				
			Absentees during the Year 1877.				
	Major-General G. W. Walker, R.E.	Chief Engineer, 1st Class ..	Retired	2nd Apl. 1877.	..	..	Tenure of office is extended to 31st January 1877, and permitted to return to Europe on the 2nd April 1877.
	Colonel E. A. Foord, R.E. ..	Do. do.	Furlough	14th Aug. 1875.	7th Apl. 1877.	1 11 25	
	Lieut.-Colonel R. A. Roberts, R.E.	Superintending Engineer, 2nd Grade.	Do. p.a.	22nd May ,,	..	2 6 0	Retired in England in 1877.
	Mr. G. T. Walch	Superintending Engineer, 2nd Grade.	Furlough	22nd Feb. ,,	17th Jan. 1877.	2 0 0	
	Lieut.-Colonel J. F. Fischer, R.E. ..	Executive Engineer, 1st Grade ..	Do.	2nd July 1877.	5th Dec. 1878.	2 0 0	
	,, J. Goddard, R.E. ..	Do. 1st do. ..	Do.	13th Apl. 1875.	..	3 0 0	Retired under G.G.O. No. 8 of 1877.
	Colonel J. N. Hunter, R.E. ..	Do. 1st do. ..	Furlough, p.a.	12th July 1876.	25th June 1878.	2 0 0	
	Major-General C. V. Wilkieson, R.E.	Superintending Engineer, 1st Grade.	Do. p.a.	21st May 1877.	..	2 0 0	Deceased in 1878.
	Mr. J. W. Rundall	Superintending Engineer, 2nd Class (temporary rank).	Furlough	22nd ,, 1875.	22nd May 1877.	2 0 0	
	Mr. A. C. Lawford	Executive Engineer, 1st Grade ..	Do. and extension ..	29th Apl. 1877.	1st Oct. 1879.	1 10 0	
						0 6 0	
	Major J. Pennycuick, R.E. ..	Do. 1st do. ..	Furlough, p.a.	8th May 1876.	7th Sept. 1877.	1 4 14	
	Major J. W. Hindle, M.S.C. ..	Do. 2nd do. ..	Do. p.a.	16th Dec. 1875.	18th June ,,	1 6 0	
			Do. in India	4th July 1877.	4th Aug. ,,		
	Mr. K. F. Nordmann	Do. 2nd do. ..	Do.	26th ,, 1876.	17th Sept. ,,	2 0 0	
	Mr. O. A. Hayne	Do. 4th do. ..	Do. p.a.	12th Oct. ,,	11th Apl. ,,	0 6 0	
	Mr. W. A. Goodchap	Do. 3rd do. ..	Do. m.c.	12th ,, 1877.	17th ,, 1878.	2 0 6	
	Mr. G. D. Wybrow	Do. 3rd do. ..	Do.	1st June 1876.	20th May ,,	2 0 0	
	Mr. R. E. Norfor	Do. 3rd do. ..	Do.	22nd Sept. 1877.	6th Oct. ,,	2 0 6	
	Mr. F. Brickwell	Assistant Engineer, 1st do. ..	Do. m.c.	6th May 1876.	1st May ,,	2 0 0	

Statement showing year by year, from 1882, the number of officers of the Engineer Establishment absent from duty, &c.—(*Continued*).

No.	Names	Rank	Nature and cause of leave, absence, &c.	Period of actual absence from duty. From	Period of actual absence from duty. To	Period of leave granted, &c. Y.	M.	D.	Remarks.
			Absentees during the Year 1877—cont.						
	Mr. J. W. Martin	Executive Engineer, 3rd Grade ..	Furlough	10th Sept. 1876.	4th Sept. 1878.	2	0	0	
	Mr. J. C. Larminie	Do. 3rd do. ..	Do.	12th Mar. 1877.	28th Jan. 1879.	2	0	0	
	Mr. J. M. Bell	Do. 3rd do. ..	Do.	5th Apl. 1876.	26th Mar. 1878.	2	0	0	
	Mr. C. H. J. Norfor	Do. 4th do. .. (temporary rank).	Do. m.c.	17th Aug. 1877.	17th May ,,	0	9	0	
	S. Subroyschariar, B.C.S.	Assistant Engineer, 1st do. ..	Do. m.c.	12th Dec. 1876.	12th June 1877.	0	6	0	
	Mr. H. F. Gilby	Do. 2nd do. ..	Do.	4th June ,,	24th Sept. ,,	1	6	0	
	Mr. J. E. Paul	Do. 1st do. ..	Sick leave	18th May 1877.	18th Aug. ,,	0	3	0	
	Mr. P. O'Ratigan	Executive Engineer, 3rd do. ..	Furlough, m.c.	31st Aug. ,,	26th ,, 1878.	1	0	0	
	Lieut.-Colonel H. Smalley, R.E. ..	Do. 1st do. ..	Do. p.a.	6th May 1873.	30th Apl. ,,	2	0	0	
	Major A. C. Smith, R.E. ..	Do. 2nd do. ..	Do. p.a.	22nd June 1877.	7th June 1879.	1	8	0	
	Captain and Deputy Commissary F. Graham.	Do. 4th do. ..	Retired	1st May ,,	..	..			Transferred to Pension Establishment.
	Lieutenant and Deputy Assistant Commissary J. Lever.	Assistant Engineer, 2nd do. ..	Furlough, m.c.	11th Aug. ,,	11th Nov. 1877.	0	3	0	
	Mr. A. J. Chancellor	Do. 2nd do. ..	Deceased	11th Dec. ,,	..	..			Deceased, 11th December 1877.
	Lieut.-Colonel A. deC. Scott, R.E.	Executive Engineer, 1st do. ..	Transferred to Survey Department.	12th Feb. ,,	..	..			Appointed Superintendent of Revenue Survey Department, 12th February 1877.
	Mr. A. O. Hayne	Assistant Engineer, 1st do. ..	Resigned	12th Apl. ,,	..	..			Resigned his appointment, 12th April 1877.
	Mr. E. C. Bowyer Smith	Do. 2nd do. ..	Do.	20th May ,,	..	..			Do. do. 20th May 1877.
	Lieut.-Colonel R. F. Oakes ..	Superintending Engineer, 1st Grade.	Furlough, p.a.	9th June 1876.	1st Mar. 1877.	0	6	9	Retired, 1st March 1877.
	Lieut.-Colonel J. Vertue	Executive Engineer, 1st Grade ..	Deceased	16th Aug. 1877.	..	..			Deceased, 16th August 1877.
	Mr. G. J. Turner	Assistant Engineer, 1st Grade ..	Dismissed	1st Jan. ,,	..	..			Services dispensed with.
			Absentees during the Year 1876.						
	Colonel E. A. Foord, R.E. ..	Chief Engineer, 1st Class ..	Furlough	14th Aug. 1875.	7th Apl. 1877.	1	11	25	
	Colonel R. A. Roberts, R.E. ..	Superintending Engineer, 3rd Class.	Furlough, p.a.	22nd May ,,	..	2	0	0	
	Colonel J. Goddard, R.E. ..	Executive Engineer, 1st Grade ..	Do. p.a.	13th Apl. ,,	..	2	6	0	
	Mr. W. S. Harrington	Do. do. ..	Furlough	17th ,, ,,	24th Nov. 1876.	1	8	0	
	Mr. R. F. Chisholm	Do. do. ..	Furlough, m.c.	9th May ,,	14th Aug. 1876.	1	6	0	
	Mr. J. W. Rundall	Superintending Engineer, 2nd Class.	Furlough	22nd ,, ,,	22nd May 1877.	2	0	0	
	Major H. W. Wood, R.E. ..	Superintending Engineer, 3rd Class.	Furlough, p.a.	1st ,, 1873.	14th June 1876.	3	2	0	
	Lieut.-Colonel P. Montgomerie, R.E.	Superintending Engineer, 3rd Class.	Do. p.a.	17th Mar. 1874.	8th Mar. ,,	2	0	0	
	Major J. W. Hindle, M.S.C. ..	Executive Engineer, 2nd Grade ..	Do. p.a.	16th Dec. 1875.	13th June 1877.	1	4	2	
	Mr. G. T. Walch	Officiating Superintending Engineer, 3rd Class.	Furlough	22nd Feb. ,,	17th Jan. ,,	2	0	0	
	Lieut.-Colonel R. B. Kennedy, R.E.	Executive Engineer, 2nd Grade ..	Furlough, p.a., extension ..	2nd July ,,	20th May 1876.	0 0	9 4	0 0	
	Captain A. Awdry, R.E.	Do. do. ..	Special duty, Europe	19th ,, ,,	23rd Jan. ,,	..			On special duty to Europe.
	Mr. H. Lyon	Assistant Engineer, 1st Grade ..	Furlough, m.c.	8th Mar. ,,	6th Aug. ,,	1	6	0	
	Mr. E. Bowyer Smith	Do. 2nd do. ..	Furlough	23rd June ,,	14th Dec. ,,	1	6	0	
	Lieut.-Colonel C. J. Smith, R.E. ..	Executive Engineer, 1st do. ..	Military duty	10th Dec. ,,	6th Mar. ,,	..			Services placed at the disposal of Military Department.
	Colonel H. L. Prendergast, R.E. ..	Superintending Engineer, 1st Class (temporary).	Do.	13th May 1874.	22nd May ,,	..			Do. do. do.
	Colonel J. N. Hunter, R.E. ..	Executive Engineer, 1st Grade ..	Furlough, p.a.	12th July 1876.	25th June 1878.	2	0	0	
	Major J. Pennycuick, R.E. ..	Do. 1st do. ..	Do.	8th May ,,	7th Sept. 1877.	1	4	14	
	Mr. K. F. Nordmann	Do. 2nd do. ..	Furlough	26th July ,,	17th ,, ,,	2	0	0	
	Mr. O. A. Hayne	Do. 4th do. ..	Furlough, p.a.	12th Oct. ,,	11th April ,,	0	6	0	
	Mr. G. D. Wybrow	Do. 3rd do. ..	Furlough	1st June ,,	20th May 1878.	2	0	0	
	Mr. F. Brickwell	Assistant Engineer, 1st Grade ..	Do.	6th May ,,	1st ,, ,,	2	0	0	
	Mr. J. W. Martin	Executive Engineer, 3rd Grade ..	Do.	10th Sept. ,,	4th Sept. ,,	2	0	0	
	Mr. J. M. Bell	Do. do. ..	Do.	5th April ,,	26th Mar. ,,	2	0	0	
	S. Soobroyachariar, B.C.S.	Assistant Engineer, 1st Grade ..	Furlough, m.c.	12th Dec. ,,	12th June 1877.	0	6	0	
	Mr. H. F. Gilby	Do. 2nd do. ..	Furlough	4th June ,,	24th Sept. ,,	1	6	0	
	Mr. P. O'Ratigan	Executive Engineer, 3rd Grade ..	Furlough, m.c.	20th ,, ,,	20th ,, 1876.	0	3	0	
	Mr. A. W. Paynter	Do. 3rd do. ..	Urgent private affairs ..	17th Jan. ,,	29th Feb. ,,	0	2	0	
	Lieut.-Colonel H. Smalley, R.E. ..	Do. 1st do. ..	Furlough, p.a.	6th May ,,	30th April 1878.	2	0	0	
	Lieut.-Colonel R. F. Oakes, R.E. ..	Superintending Engineer, 1st Grade.	Do.	9th June ,,	1st Mar. 1877.	0	6	0	
	Lieutenant E. W. Cotter	Assistant Engineer, 2nd Grade ..	Services replaced	20th May ,,	..	..			Services replaced at the disposal of Military Department.
	Mr. J. M. Hawksworth	Executive Engineer, 4th Grade ..	Deceased	27th April ,,	..	..			Deceased.
	Lieutenant W. G. Brown	Assistant Engineer, 1st Grade ..	Do.	23rd July ,,	..	..			Do.
	Mr. R. Smith	Executive Engineer, 1st Grade ..	Do.	20th Jan. ,,	..	..			Do.
			Absentees during the Year 1875.						
	Colonel W. T. F. Farewell, S.C. ..	Superintending Engineer, 1st Grade.	Furlough, p.a.	13th April 1874.	6th Dec. 1875.	2	0	0	
	Colonel E. A. Foord, R.E. ..	Chief Engineer, 1st Class ..	Furlough	14th Aug. 1875.	7th April 1877.	1	11	25	
	Lieut.-Colonel R. F. Oakes, R.E. ..	Superintending Engineer, 1st Grade.	Furlough, p.a.	26th Sept. 1873.	21st Sept. 1875.	2	0	0	
	Lieut.-Colonel R. A. Roberts, R.E. ..	Superintending Engineer, 2nd Grade.	Furlough	22nd May 1875.	..	2	0	0	
	Major J. Vertue, R.E.	Executive Engineer, 1st Grade ..	Do.	17th Feb. 1874.	10th Nov. 1875.	1	9	0	
	Lieut.-Colonel J. Goddard, R.E. ..	Do. do. ..	Do.	13th April 1875.	..	2	0	0	
	Lieut.-Colonel C. J. Smith, R.E. ..	Do. do. ..	Furlough, p.a.	10th Mar. 1873.	4th Mar. 1875.	2	0	0	
	Mr. R. F. Chisholm	Do. do. ..	Furlough, m.c.	9th May 1875.	14th Aug. 1876.	1	6	0	
	Major J. Beckley, R.E.	Do. do. ..	Furlough, p.a.	20th Jan. 1873.	19th Nov. 1875.	2	10	0	Exchanged service with a Major of the Imperial Battalions.
	Mr. W. S. Harrington	Do. do. ..	Furlough	17th April 1875.	24th ,, 1876.	1	8	0	
	Lieut.-Colonel H. E. Mead, R.E. ..	Superintending Engineer, 2nd Class.	Furlough, p.a.	7th Aug. 1874.	4th Aug. 1875.	1	0	0	
	Mr. J. W. Rundall	Do. do. ..	Furlough	22nd May 1875.	22nd May 1877.	2	0	0	
	Mr. P. O'Ratigan	Executive Engineer, 3rd Grade ..	Do.	22nd June 1873.	17th June 1875.	2	0	0	
	Major H. W. Wood, R.E. ..	Do. 2nd do. ..	Furlough, p.a.	1st May 1873.	14th ,, 1876.	3	2	0	
	Mr. L. W. Paynter	Do. 3rd do. ..	Furlough	25th ,, ,,	24th May 1875.	2	0	0	
	Lieut.-Colonel P. Montgomerie, R.E.	Superintending Engineer, 3rd Grade.	Furlough, p.a.	17th Mar. 1874.	8th Mar. 1876.	2	0	0	
	Lieutenant F. J. Dorward, R.E. ..	Executive Engineer, 3rd Grade ..	Furlough, m.c.	7th July 1873.	1st Nov. 1875.	2	0	0	Joined Chatham Depôt, 1st Nov. 1875.

Statement showing year by year, from 1882, the number of officers of the Engineer Establishment absent from duty, &c.—(*Continued*).

No.	Names.	Rank.	Nature and cause of leave, absence, &c.	Period of actual absence from duty. From	To	Period of leave granted, &c. Y. M. D.	Remarks.
			Absentees during the Year 1875—cont.				
	Major J. W. Hindle, S.C.	Executive Engineer, 2nd Grade	Furlough, p.a.	16th Dec. 1875.	18th June 1877.	1 6 2	
			Furlough in India	24th July 1877.	11th Aug. ,,		
	Mr. G. T. Walch	Do. 2nd do.	Furlough	22nd Feb. 1876.	17th Jan. ,,	2 0 0	
	Captain and Deputy Commissary F. Graham.	Do. 4th do.	Furlough, m.c.	11th July 1874.	10th July 1875.	1 0 0	
	Lieut.-Colonel R. B. Kennedy	Do. 2nd do.	Furlough, p.a.	2nd ,, 1875.	20th May 1876.	0 13 27	
	Captain A. Awdry, R.E.	Do. 2nd do.	Europe, special duty	19th ,, ,,	23rd Jan. ,,	...	On special duty to Europe.
	Mr. J. Hannam	Do. 2nd do.	Furlough	23rd Oct. 1874.	10th Nov. 1875.	2 0 0	
	Mr. H. Lyon	Assistant Engineer, 1st do.	Furlough, m.c.	8th Mar. 1875.	6th Aug. 1876.	1 6 0	
	Mr. B. E. Bowyer Smith	Do. 2nd do.	Furlough	23rd June ,,	14th Dec. ,,	1 0 0	
	Major R. F. Morris, R.E.	Executive Engineer, 3rd do.	Furlough, m.c.	20th July ,,	13th Aug. 1875.	0 1 0	
	Lieut.-Colonel C. J. Smith, R.E.	Do. 1st do.	Military duty	10th Dec. ,,	6th Mar. 1876.	...	Services placed at the disposal of the Military Department.
	Colonel H. L. Prendergast, R.E.	Superintending Engineer, 2nd Class.	Do.	13th May 1874.	22nd May ,,	...	Do. do. do.
	Mr. W. C. Barton	Executive Engineer, 1st Grade	Furlough	27th April ,,	4th Nov. 1875.	2 0 0	Extra in Madras Establishment.
	Lieutenant J. Lever	Assistant do. 2nd do.	Furlough, p.a.	1st Sept. ,,	1st Mar. ,,	0 6 0	
	Mr. C. S. Sage	Executive do. 2nd do.	Furlough	7th Mar. 1875.	..	...	
	Captain E. F. Taylor	Do. do. 4th do.	Services replaced	20th Dec. ,,	..	...	Services replaced at the disposal of the Military Department.
	Lieutenant T. Greenway	Do. do. 2nd do.	Do.	6th April ,,	..	..	Services placed at the disposal of the Military Department.
			Absentees during the Year 1874.				
	Colonel C. V. Wilkieson, R.E.	Superintending Engineer, 1st Class	Furlough, p.a.	1st April 1872.	17th Mar. 1874.	2 0 0	
	Colonel W. T. F. Farewell, S.C.	Do. 1st do.	Do.	3rd ,, 1874.	6th Dec. 1875.	2 0 0	
	Major R. F. Oakes, R.E.	Do. 1st do.	Do.	26th Sept. 1873.	21st Sept. ,,	2 0 0	
	Major A. deC. Scott, R.E.	Executive Engineer, 1st Grade	Furlough	9th June 1872.	29th May 1874.	2 0 0	
	Major J. Vertue, R.E.	Do. 1st do.	Furlough, p.a.	17th Feb. 1874.	10th Nov. 1875.	1 9 0	
	Colonel H. L. Prendergast, R.E.	Superintending Engineer, 1st Class (temporary rank).	Furlough	8th April 1872.	31st Mar. 1874.	2 0 0	
	Lieut.-Colonel C. J. Smith, R.E.	Executive Engineer, 1st Grade	Furlough, p.a.	10th Mar. 1873.	4th Mar. 1875.	2 0 0	
	Colonel A. S. Moberly, R.E.	Do. 1st do.	Do.	19th May 1872.	28th ,, 1874.	2 0 0	
	Major T. Beckley, R.E.	Do. 1st do.	Do.	20th Jan. 1873.	19th Nov. 1875.	2 10 0	
	Major H. W. Wood, R.E.	Do. 2nd do.	Do.	1st May ,,	14th June 1876.	3 0 0	
	Lieut.-Colonel H. R. Mead, R.E.	Do. 2nd do.	Do.	7th Aug. 1874.	4th Aug. 1875.	1 0 0	
	Lieut.-Colonel P. Montgomerie, R.E.	Do. 2nd do.	Furlough, p.a.	17th Mar. ,,	8th Mar. 1876.	2 0 0	Camp of Exercise.
			Military duty	6th Jan. ,,	4th Feb. 1874.		
	Mr. P. O'Ratigan	Do. 3rd do.	Furlough	22nd June 1873.	17th June 1875.	2 0 0	
	Mr. L. W. Paynter	Do. 3rd do.	Do.	25th May ,,	24th May ,,	2 0 0	
	Lieutenant J. F. Dorward, R.E.	Do. 3rd do.	Do.	7th July ,,	1st Nov. ,,	2 0 0	Joined Chatham Depôt.
	Captain and Deputy Commissary F. Graham.	Do. 4th do.	Do.	11th ,, 1874.	10th July ,,	1 0 0	
	Mr. J. Hannam	Do. 2nd do.	Do.	23rd Oct. 1874.	10th Nov. 1875.	2 0 0	
	Colonel H. L. Prendergast, R.E.	Superintending Engineer, 1st Class (temporary rank).	Military duty	13th May ,,	22nd May 1876.	...	Services placed at the disposal of the Military Department.
	Lieut.-Colonel P. Montgomerie, R.E.	Superintending Engineer, 3rd Class	Do.	Dec. 1873.	4th Feb. 1874.	...	Do. do. do.
	Captain L. Langley, R.E.	Executive Engineer, 4th Grade	Furlough in India	18th June 1874.	15th Sept. ,,	0 3 0	
	Lieut.-Colonel H. R. Mead, R.E.	Superintending Engineer, 2nd Class	Military duty	1st Jan. ,,	4th Feb. ,,	...	Do. do. do.
			Furlough p.a.	7th Aug. ,,	4th Aug. 1875.	1 0 0	
	Mr. W. C. Barton	Executive Engineer, 3rd Grade	Furlough	27th April ,,	4th Nov. ,,	1 6 10	Extra. Chief Engineer, Travancore State.
	Mr. O. A. Hayne	Do. 4th do.	Furlough, m.c.	6th July 1871.	22nd Jan. 1874.	2 2 0	
	Mr. W. B. Leggatt	Do. 2nd do.	Do. m.c.	7th May 1872.	6th July ,,	2 2 0	
	Captain W. Coningham	Do. 3rd do.	Do. m.c.	9th ,, 1873.	13th Feb. ,,	1 0 0	Furlough to Europe. Died 13th February 1874.
	Major G. V. Law, S.C.	Do. 2nd do.	Furlough	12th ,, 1872.	1st Sept. ,,	2 4 0	
	Mr. K. D. P. Roberts	Do. 4th do.	Do.	1st April 1873.	1st April ,,	1 0 0	Resigned his appointment, 1st April 1874.
	Mr. W. M. Montserratt	Do. 4th do.	Furlough, m.c.	30th Dec. 1872.	9th March ,,	1 3 0	
	Colonel J. Bean	Superintending Engineer, 2nd Grade.	Do. m.c.	1st April 1874.	..	1 6 0	Services placed at the disposal of the Military Department.
	W. Fraser	Executive Engineer, 1st Grade	Deceased	12th ,, ,,	..	..	Deceased, 12th April 1874.
	Captain A. R. Edgecome	Do. 3rd do.	Do.	27th May ,,	..	..	Deceased.
	Lieutenant M. Greer	Do. 4th do.	Services replaced	22nd June ,,	..	..	Exchanged service out of India with Lieutenant Cotter, R.E.
	Lieutenant and Assistant Commissary J. Lever	Assistant Engineer, 2nd do.	Furlough, p.a.	1st Sept. ,,	1st Mar. 1875.	0 6 0	
	Ensign and Assistant Commissary Haddock.	Do. 3rd do.	Pensioned	31st July ,,	..	..	Pensioned, 31st July 1874.
	Mr. G. J. Turner	Do. 1st do.	Furlough, m.c.	21st May ,,	20th Sept. 1874.	0 4 0	
	Lieutenant C. B. Wilkieson	Do. 2nd do.	Military duty	31st Oct. ,,	..	..	Services replaced.
			Absentees during the Year 1873.				
	Colonel C. V. Wilkieson, R.E.	Superintending Engineer, 1st Grade.	Furlough, p.a.	1st April 1872.	17th Mar. 1874.	2 0 0	
	Major R. F. Oakes, R.E.	Do. 1st Grade	Do. p.a.	26th Sept. 1873.	21st Sept. 1876.	2 0 0	
	Colonel H. L. Prendergast, R.E.	Do 1st Class (temporary rank).	Furlough	8th April 1873.	31st Mar. 1874.	2 0 0	
	Colonel A. S. Moberly, R.E.	Executive Engineer, 1st Grade	Furlough, p.a.	19th May ,,	28th ,, ,,	2 0 0	
	Lieut.-Colonel C. J. Smith, R.E.	Do. 1st do.	Do. p.a.	10th Mar. 1873.	4th ,, 1875.	1 0 0	
	Major A. deC. Scott, R.E.	Do. 1st do.	Furlough	9th June 1872.	29th May 1874.	2 0 0	
	Major T. Beckley, R.E.	Do. 1st do.	Do.	20th Jan. 1873.	19th Nov. 1875.	2 0 0	
	Major H. W. Wood, R.E.	Do. 2nd do.	Furlough, p.a.	1st May ,,	14th June 1876.	3 0 0	
	Mr. W. B. Leggatt	Do. 2nd do.	Furlough, m.c.	7th ,, 1872.	6th July 1874.	2 2 0	
	Captain W. Coningham	Do. 3rd do.	Do. m.c.	9th ,, 1873.	13th Feb. ,,	1 0 0	
	Major G. V. Law, S.C.	Do. 3rd do.	Furlough	12th ,, 1872.	1st Sept. ,,	2 4 0	
	Mr. P. O'Ratigan	Do. 3rd do.	Do.	22nd June 1873.	17th June 1875.	2 0 0	
	Mr. L. W. Paynter	Do. 3rd do.	Do.	25th May ,,	24th May ,,	2 0 0	
	Mr. K. D. F. Roberts	Do. 4th do.	Do.	1st April ,,	1st April 1874.	1 0 0	
	Lieutenant J. F. Dorward, R.E.	Do. 4th do.	Do.	7th July ,,	1st Nov. 1875.	1 6 0	
	Mr. O. A. Hayne	Do. 4th do.	Furlough, m.c.	6th ,, 1871.	22nd Jan. 1874.	2 2 0	
	Mr. W. M. Montserratt	Do. 4th do.	Do. m.c.	30th Dec. 1872.	9th Mar. ,,	1 3 0	
	Lieut.-Colonel P. Montgomerie, R.E.	Superintending Engineer, 3rd Grade.	Military duty	,, 1873.	4th Feb. ,,	..	Services placed at the disposal of Military Department.
	Major A. C. Smith, R.E.	Executive Engineer, 2nd Grade	Tour of Home duty	22nd Feb. 1871.	28th Nov. 1873	..	Proceeded to England on a tour of Home duty.
	Major W. H. Conker, R.E.	Do. 2nd do.	Furlough, m.c.	21st Jan. ,,	21st Jan. ,,	2 0 0	
	Captain O. V. Boddy, R.E.	Do. 4th do.	Military duty	April 1873	June ,,	..	Services placed at the disposal of Military Department.
	Major J. Pennycuick, R.E.	Do. 1st do.	Do.	18th Nov. 1872.	17th Mar. ,,	..	
	Captain W. H. Edgecome	Do. 3rd do.	Resigned	13th May 1873	..	..	Resigned.

MADRAS,
1st August 1883.

(Signed) D. C. GORDON,
Examiner, Public Works Accounts.

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ABSTRACT OF APPENDIX A.

ABSTRACT showing the proportion of Non-effectives to Effectives each year, from 1873 to 1882, on the Sanctioned Scale, and also on the number entered in Classified List.

	Sanctioned strength as shown in Classified List.	Absentees.			Effectives 2—5.	Percentage of absentees.	Number of officers entered in Classified List.	Absentees as shown in column 5.	Effectives 8—9.	Percentage of absentees.
		Number of officers absent.	Number of months absent.	Number absent the whole year.						
1	2	3	4	5	6	7	8	9	10	11
1873	86	23	191	15½	70	18·6	99	16	83	16·1
1874	86	36	284	19·7	66	23·2	103	20	83	19·4
1875	87	33	239	19·11	67	33	112	30	82	17·8
1876	87	34	236	19·8	67	25	105	30	86	18·5
1877	87	37	265	22·1	65	25·2	108	22	86	20·3
1878	89	42	259	19·11	69	22·4	103	20	82	19·6
1879	89	44	338	28·2	61	31·4	95	28	67	29·4
1880	69	45	384	32	37	46·3	82	38	51	38·5
1881	92	25	194	16·2	76	17·3	94	16	78	17·02
1882	92	29	253	21	71	22·6	97	21	76	21·6
Average	..	..	..	21·4	..	25·3	..	..	..	21·4

APPENDIX B.

STATEMENT showing the Charges for Establishment during 1883-84 for Irrigation and Navigation Works (Imperial) calculated according to the recent orders of the Government of India.

Heads of Account.	Outlay on Works and Repairs.	23 per cent. on Works and Repairs.	Direct Revenue, Public Works Department.	10 per cent. on Direct Revenue, Public Works Department.	Civil Department Revenue.	6 per cent. on Civil Department Revenue.	Total Establishment Charges as now arrived at.	Estimate of Establishment Charges shown in budgets.	Difference.
	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
M. Expenditure on Productive Public Works, Capital Account—									
54. Irrigation and Navigation	11,81,693	2,50,621	...	...	...	...	2,50,621	2,50,621	...
G. Expenditure on Productive Public Works, Revenue Account—									
39. Irrigation and Navigation ...	6,30,620	1,45,042	1,43,230	14,323	35,48,500	2,12,910	3,72,275	2,68,074	1,03,601
H. Expenditure on Public Works not classed as Productive—									
46. Irrigation and Navigation	...	...	...	...	...	...	...	...	...
Imperial.									
Works for which Capital and Revenue Accounts are kept—									
Capital	58,634	13,487	...	...	...	...	13,487	13,487	...
Revenue	38,119	8,767	420	42	...	...	8,809	8,809	...
Works for which Capital and Revenue Accounts are not kept	12,11,807	1,74,756	15,000	1,500	27,41,500	1,64,490	3,40,746	2,41,856	98,890
Agricultural Works	3,12,000	71,760	19,000	1,900	...	...	73,660	73,660	...
F. Famine Relief and Insurance—									
34. Protective Public Works— Capital	64,000	(a) 1,25,500	...	...	...	...	1,23,500	1,23,500	...
Total ...	34,96,873	7,87,933	1,77,650	17,765	62,90,000	3,77,400	11,83,098	9,80,607	2,02,491

(a) Includes Rs. 1,12,000, the estimate cost of the actual establishment in project divisions.

(Signed) D. C. GORDON,
Examiner, Public Works Accounts.

MADRAS,
10th August 1883.

STATEMENT showing the figures of Revenue (Civil Department) on which the Tables of Establishment Charges for Irrigation and Navigation Works during 1879-80, 1880-81, 1881-82, 1882-83, and 1883-84 were framed.

Systems.	1879-80.		1880-81.		1881-82.		1882-83.		1883-84.	
	Revenue due to Improvements.	Revenue due to old Irrigation.	Revenue due to Improvements.	Revenue due to old Irrigation.	Revenue due to Improvements.	Revenue due to old Irrigation.	Revenue due to Improvements.	Revenue due to old Irrigation.	Revenue due to Improvements.	Revenue due to old Irrigation.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Godávari Delta	16,98,123	1,31,223	16,23,669	1,29,700	15,33,710	1,26,131	14,31,217	1,25,184	15,92,000	1,30,000
Kistna do.	8,83,736	79,327	8,88,628	77,031	8,75,643	75,926	7,57,321	75,102	8,99,000	76,000
Pennér Anicut	98,244	1,08,118	1,01,469	1,13,304	1,02,462	1,13,044	1,14,607	1,20,350	1,17,000	1,13,000
Cauvery Delta	6,15,256	23,41,285	4,93,692	23,41,705	5,69,041	23,40,339	5,61,632	23,43,214	7,83,000	23,25,000
Srivaikuntham Anicut	81,027	77,549	79,518	77,510	82,364	77,634	94,099	77,642	72,500	97,500
Kurnool Canal	...	...	...	...	...	...	29,825	...	85,000	...
Total ...	33,76,386	27,37,502	31,86,976	27,39,250	31,63,220	27,33,074	29,88,701	27,41,492	35,48,500	27,41,500

The figures for 1879-80, 1880-81, and 1881-82 have been taken in the case of the following systems from the Proceedings of the Madras Government noted against them :—
Godávari Delta, 72 I., dated 31st January 1882, and 774 I., dated 2nd October 1882.
Kistna do. 347 I., dated 24th April 1882, and 765 I., dated 27th September ,,
Pennér do. 517 I., dated 6th July ,, and 768 I., ,, 28th ,, ,,
Srivaikuntham Anicut, 977 I., dated 2nd December 1882.
Cauvery Delta, 574 I., dated 21st July 1883.
For 1882-83 actuals as reported by the Director of Revenue Settlement and Agriculture have been entered.
For 1883-84 the figures of the budget estimate, 1883-84, have been adopted.

MADRAS,
10th August 1883.

(Signed) D. C. GORDON,
Examiner, Public Works Accounts.

STATEMENT showing the Difference between the Actual Charges for Establishment on Irrigation and Navigation Works (Imperial) and those debitable for the same if recent ruling of Government of India had been in force during 1879-80.

Heads of Account.	Outlay on Works and Repairs.	23 per cent. on Works and Repairs.	Direct Revenue, Public Works Department.	10 per cent. on Direct Revenue, Public Works Department.	Indirect Revenue or Civil Department Receipts.	6 per cent. on Civil Department Revenue.	Total Establishment Charges.	Actual Charges as per books.	Difference.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
M. Expenditure on Productive Public Works, Capital Account—									
54. Irrigation and Navigation ...	73,747	16,962	...	...	...	...	16,962	1,34,516	—1,17,554
G. Expenditure on Productive Public Works, Revenue Account—									
39. Irrigation and Navigation (Working Expenses).	3,98,431	91,639	1,15,627	11,563	33,76,386	2,02,583	3,05,785	2,30,842	74,943
H. Expenditure on Public Works not classed as Productive—									
46. Irrigation and Navigation ...	...	...	...	...	...	...	...	...	...
Imperial.									
Works for which Capital and Revenue Accounts are kept—									
Capital	1,43,779	33,069	...	...	...	...	33,069	49,176	—16,107
Revenue	37,292	8,577	512	51		...	8,628	16,436	— 7,808
Works for which Capital and Revenue Accounts are not kept.	7,25,374	1,66,836	2,708	271	27,37,502	1,64,250	3,31,357	2,64,818	66,539
Agricultural Works	1,98,652	45,690	10,726	1,072	...	...	46,762	69,441	— 22,679
Total ...	(a) 15,77,275	3,62,773	1,29,573	12,957	61,13,888	3,66,833	7,42,563	(b) 7,65,229	(c)—22,666

(a) Charges on account of land compensation, &c., have been excluded as far as possible.
(b) Exclusive of the charges on account of Guaranteed Irrigation Works.
(c) Minus entries in this column indicate gain or profit to Provincial.

MADRAS,
10th August 1883.

(Signed) D. C. GORDON,
Examiner, Public Works Accounts.

STATEMENT showing the Difference between the Actual Charges for Establishment on Irrigation and Navigation Works (Imperial) and those debitable for the same if recent ruling of Government of India had been in force during 1880-81.

Heads of Accounts.	Outlay on Works and Repairs.	23 per cent. on Works and Repairs.	Direct Revenue, Public Works Department.	10 per cent. on Direct Revenue, Public Works Department.	Civil Department Receipts.	6 per cent. on Civil Department Revenue.	Total Establishment Charges.	Actual Charges as per books.	Difference.
	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
M. Expenditure on Productive Public Works, Capital Account—									
54. Irrigation and Navigation ...	1,08,280	24,904	...	...	...	...	24,904	26,963	— 2,059
G. Expenditure on Productive Public Works, Revenue Account—									
39. Irrigation and Navigation ...	5,25,366	1,20,834	1,46,466	14,647	31,86,976	1,91,219	3,26,700	2,49,042	77,658
H. Expenditure on Public Works not classed as Productive—									
46. Irrigation and Navigation ...	...	...	...	...	...	...	...	...	...
Imperial.									
Works for which Capital and Revenue Accounts are kept—									
Capital	4,27,243	98,266	...	...	...	...	98,266	1,22,356	— 24,090
Revenue	54,081	12,439	305	31	...	...	12,470	12,656	— 10,186
Works for which Capital and Revenue Accounts are not kept	4,13,063	95,004	6,753	675	27,39,250	1,64,355	2,60,034	1,39,686	1,20,348
Agricultural Works	2,14,261	49,280	8,712	871	...	...	50,151	63,469	—13,318
Total ...	(a) 17,42,294	4,00,727	1,62,236	16,224	59,26,226	3,55,574	7,72,525	(b) 6,24,172	(c) 1,48,353

(a) Land charges have been separated wherever possible.
(b) Exclusive of charges for Guaranteed Irrigation Works.
(c) The minus entries in this column indicate gain or profit to Provincial.

MADRAS,
10th August 1883.

(Signed) D. C. GORDON,
Examiner, Public Works Accounts.

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STATEMENT showing the Difference between the Actual Charges for Establishment on Irrigation and Navigation Works (Imperial) and those debitable to the same if the recent ruling of Government of India had been in force during 1881-82.

Heads of Account.	Outlay on Works and Repairs.	23 per cent. on Works and Repairs.	Direct Revenue, Public Works Department.	10 per cent. on Direct Revenue, Public Works Department.	Indirect Revenue or Civil Department Receipts.	6 per cent on Civil Department Receipts.	Total Establishment Charges.	Actual Charges as per books.	Difference.
	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
M. Expenditure on Productive Public Works, Capital Account—									
54. Irrigation and Navigation	2,76,320	63,554	...	...	...	...	63,554	69,080	— 5,526
G. Expenditure on Productive Public Works, Revenue Account—									
39. Irrigation and Navigation (Works and Repairs)	4,36,002	1,00,280	1,51,767	15,177	31,63,220	1,89,793	3,05,250	2,34,227	71,023
H. Expenditure on Public Works not classed as Productive—									
46. Irrigation and Navigation	...	...	...	...	...	...	...	...	...
Imperial.									
Works for which Capital and Revenue Accounts are kept—									
Capital	63,563	14,619	...	...	...	...	14,619	17,135	— 2,516
Revenue	71,325	16,405	260	26	...	...	16,431	25,838	— 9,407
Works for which Capital and Revenue Accounts are not kept	7,80,497	1,79,514	11,904	1,190	27,33,074	1,63,984	3,44,688	2,14,890	1,29,798
Agricultural Works	2,63,113	60,516	18,461	1,846	...	...	62,362	80,096	— 17,734
F. Famine Relief and Insurance—									
34. Protective Public Works—									
Capital	37,227	(a) 20,498	...	...	...	...	20,498	20,498	...
Total ...	(b) 19,28,047	4,55,386	1,82,392	18,239	58,96,294	3,53,777	8,27,402	6,61,764	1,65,638

(a) Represents the actual cost of establishment in project divisions.
(b) Exclusive of land charges, &c., wherever possible.

MADRAS,
10th August 1883.

(Signed) D. C. GORDON,
Examiner, Public Works Accounts.

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STATEMENT showing the Charges for Establishment during 1882-83 for Irrigation and Navigation Works, calculated according to the recent orders of the Government of India.

Heads of Account.	Outlay on Works and Repairs.	2½ per cent. on Works and Repairs.	Direct Revenue, Public Works Department.	10 per cent. on Direct Revenue, Public Works Department.	Indirect Revenue or Civil Department Receipts.	6 per cent. on Civil Department Receipts.	Total Establishment Charges as now arrived at.	Actuals of 1882-83.	Difference.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
M. Expenditure on Productive Public Works, Capital Account—									
54. Irrigation and Navigation ...	7,15,261	1,64,510	...	...	...	...	1,64,510	1,64,510	...
G. Expenditure on Productive Public Works, Revenue Account—									
39. Irrigation and Navigation (Working Expenses).	3,94,787	(a) 1,10,964	1,83,076	18,307	(b) 29,88,701	1,79,322	3,08,593	3,23,452	...
H. Expenditure on Public Works not classed as Productive—									
46. Irrigation and Navigation ...	...	...	...	...	...	...	...	...	...
Imperial.									
Works for which Capital and Revenue Accounts are kept—									
Capital	—1,02,222	— 23,511	...	...	...	...	— 23,511	— 23,511	...
Revenue	64,939	14,936	351	35	...	...	14,971	14,971	...
Works for which Capital and Revenue Accounts are not kept.	9,78,335	2,25,017	12,146	1,215	27,41,492	1,64,489	3,90,721	3,88,688	...
Agricultural Works	4,52,735	1,04,129	10,130	1,013	...	...	1,05,142	1,05,142	...
F. Famine Relief and Insurance—									
34. Protective Works, Irrigation—									
Capital	3,563	(c) 57,943	...	...	...	...	57,943	57,943	...
Total ...	(d) 25,07,398	6,53,988	2,05,703	20,570	57,30,193	3,43,811	10,18,369	10,31,195	...

(a) Includes Kurnool Canal Navigation Establishment charges to the extent of Rs. 70,163.
(b) Do. do. Receipts (Civil Department) do. of „ 29,825.
(c) Represents actual charges incurred in the project divisions.
(d) Exclusive of land charges as far as possible and the purchase cost of the Kurnool Canal.

MADRAS,
10th August 1883.

(Signed) D. C. GORDON,
Examiner, Public Works Accounts.

APPENDIX C.

From W. WILSON, Esq., M.A., Director of Revenue Settlement and Agriculture, Madras, to the Secretary to Government, Public Works Department, dated Camp Periyakulam, 24th August 1883, No. 41 A.

I have the honor, in reply to your letter, No. 1491 C., dated 9th current, and its accompanying extracts from a letter of the Government of India, dated 16th July 1883, No. 983 G., to inform you that the way in which 7·2 per cent. was arrived at as the proper charge to be made in this presidency for the collection in the Civil department of irrigation revenue is explained in Board's Proceedings, No. 2946, dated 17th October 1879. The percentage was determined on consideration of the total land revenue receipts and charges of the presidency during the five years ending with 1875-76. Receipts and charges on account of separate revenue, road-cess or village service establishment (which is provided for from a separate fund) were excluded from the figures. The receipt figures included land and irrigation revenue only. The charges included four-fifths of the salaries and allowances of Collectors, divisional officers, and of huzur and taluk establishments and contingent charges, but the salaries of the revenue process service establishment and contingent charges of a purely revenue nature were debited in full. The percentage is for the presidency generally and accurately represents the ratio between the two sets of figures compared. The Government of India think it "especially high." In my note of 8th May 1883 (G.O., No. 449 I., dated 6th June 1883) addressed to the Chief Engineer for Irrigation on the mode of charging the cost of collecting in the Revenue department the irrigation revenue derived from works in this presidency for which Capital and Revenue accounts are kept, I pointed out that for the years taken by the Board the ratio was much too high in the case of the Godávari, Kistna and Cauvery systems, the proper percentages calculated on district revenues for which were 4·1, 4·4 and 5, respectively, and was too high in the case of all other systems but the Pálár and Chembrambakam tank, in which the ratios were 7·3 and 8·1 respectively.

The Government of India ask whether the percentage cannot be reduced. The answer to this must, I think, be that so far as reduction of charge means reduction of establishments, it is impossible, but that so far as reduction means a redistribution of charges between different heads of account it is perfectly possible. At present the salaries of district and taluk establishments and contingent charges generally are in this presidency distributed between "Land Revenue" and "Law and Justice" in the proportions of four-fifths and one-fifth. The total charges in the Civil department amount to 9 per cent. of the land revenue receipts, "Land Revenue" being debited with 7·2 per cent. and "Law and Justice" with 1·8. The ratio of the distribution of these charges is not uniform for all India; one province has one ratio, another, another. In other provinces the charges are equally divided between "Land Revenue" and "Law and Justice," and this Government some time ago proposed that in Madras they should be distributed in the proportions of two-thirds and one-third, but the Government of India refused to alter the existing distribution. If the charges were equally divided the result would for the Capital and Revenue account works on the figures given in the statement enclosed in my note of 8th May be an average on the whole of 3·9 per cent., the ratio varying from 2·9 for the Kistna to 5·5 for the Chembrambakam tank. If, again, the charges were distributed in the proportions of two-thirds to "Law and Justice," the result would be a percentage of 5·1 on the whole, the ratio varying from 3·8 for the Kistna to 7·3 for the Chembrambakam tank.

	Godávari.	Kistna.	Nellore (Penner).	Chinglepat (Chembrambakam Tank).	North Arcot (Pálár.)	South Arcot (Polandorai).	Tanjore (Cauvery).	Trichinopoly (Cauvery).	Tinnevelly (Srivaikuntham).	Total.
At the ...	4·6	4·8	7·9	8·7	7·2	6·	5·	8·	7·8	6·2
Add 5th ...	1·1	1·2	1·9	2·3	1·9	1·8	1·2	2·	1·8	1·5
=	5·7	6·	9·8	10·9	9·8	7·8	6·2	10·	9·1	7·7
...	2·9	3·	4·9	5·6	4·9	3·7	3·1	5·	4·6	3·9
...	3·8	4·	6·6	7·3	6·6	5·	4·2	6·7	6·	5·1

APPENDIX D.

Works, 1883-84.

Provision for Works and Repairs to be supervised by the Public Works Department in 1883-84.	Rs.	Rs.	Rs.
Imperial.			
Military—			
Revised budget	4,14,987		
Add for Bellary water-supply	3,900		
For stables at Bellary	8,032		
Grant tentatively withdrawn by Government of India.	56,800		
		4,83,719	
Civil Buildings—			
Roads and Services	...	2,10,450	
Irrigation—			
Productive Public Works, Capital Account, as per budget	11,81,693		
Deduct for land compensation (Rs. 90,230) and for expenditure in England (Rs. 1,800)	92,030		
		10,89,663	
Productive Public Works, Revenue Account, as per budget	6,30,620		
Add for Pennér works ... ... Rs. 10,000			
„ for Cauvery works ... ... „ 9,520			
	19,520		
Famine Relief Protective Works as per budget ...	64,000	6,50,140	
Deduct for land compensation (Rs. 10,000) and for project divisions (Rs 4,000)	14,000		
		50,000	
Irrigation and Navigation and Agricultural Works as per budget	16,20,560		
Deduct expenditure in tank division ... Rs. 82,000	82,000	15,38,560	
Total, Irrigation ...	...	33,28,363	
Total, Imperial ...	...	...	40,22,532
Provincial.			
Civil Buildings—			
Roads and Services as per budget	11,07,421		
Add—			
Anticipated savings on establishment transferred to works	2,07,000		
Amount transferred from establishment to works on account of enhanced rate of contribution, as per Examiner's statement	2,02,491		
Amount allotted by the Financial department on account of jail works	50,000		
Amount allotted for Saidápet College	10,095		
Amount allotted for repairs to jail at Vellore ...	10,104		
Amount allotted for petty construction and repairs at Nilgiri	1,550		
	15,88,661		
Irrigation and Navigation as per budget	...	15,88,661	
		2,70,764	
			18,59,425

Works, 1883-84.—*cont.*

Provision for Works and Repairs to be supervised by the Public Works Department in 1883-84—*cont.*	Rs.	Rs.	Rs.
Local.			
Incorporated as per budget	43,160		
Deduct amount resumed	700		
		42,460	
Excluded as per budget	31,150		
Add grants since made	32,570		
		63,720	
			1,06,180
Harbour.			
Reconstruction as per budget submitted to Government of India	3,22,602	...	3,22,602
Grand Total ...	...	...	63,10,739
Establishment, 1883-84.			
Establishment Charges as shown in page 43 of the budget.	...	21,87,356	
Do. do. for Harbour Works	...	60,956	
		22,48,312	
Deduct—			
Debit to Local Funds for scrutinizing plans and estimates by Chief and Superintending Engineers ...	21,720		
Establishment on Tank Maintenance Division ...	65,600		
Establishment on Protective Public Works ...	1,12,000		
Work done by Lithographic branch of the Public Works Secretariat	6,000	2,05,320	
			20,24,992
Total, with Harbour Works	...	...	19,82,036
Do. without do.	...	...	
Deduct 10 per cent. on Direct Revenue, Productive Public Works, Rs. 143,230	14,323		
Ten per cent. on Direct Revenue on Irrigation and Navigation Works other than Productive, Rs. 34,420 ..	3,442		
Six per cent. on Indirect Revenue, Productive Public Works, due to old Irrigation, Rs 27,41,500	1,64,490		
Six per cent. on Indirect Revenue, Productive Public Works, due to revenue on the systems, Rs. 35,48,500 ..	2,12,910		
Ten per cent. on Direct Revenue from Provincial Irrigation, Rs. 1,29,000	12,900		
		4,08,065	
Five per cent. on revenue realized from Military Works, Rs. 30,000	1,500		
Five per cent. on revenue realized from Ordinary Public Works, Provincial, Rs. 2,00,000	10,000		
		11,500	
Deduct savings in establishment budget, Rs. 2,07,000— Rs. 50,000, Rs. 1,57,000	1,57,000		
		1,57,000	
(A) Total net charge including Harbour Works	...	...	14,66,427
(B) Do. without do.		...	14,05,471
(C) Total cost of works and repairs including Harbour ...	63,10,739		
(D) Total cost of works and repairs excluding Harbour ...	59,88,137		
Percentage of (A) on (C)	23·24		
Do. of (B) on (D)	23·47		

30TH NOVEMBER 1883, No. 3423 W., PUBLIC WORKS.

PUBLIC WORKS DEPARTMENT.

General.
Establishment.

LETTER—from

COLONEL J. SHAW-STEWART, R.E.,

Secretary to the Government of Madras,

Public Works Department,

To

THE SECRETARY TO THE GOVERNMENT OF INDIA,

PUBLIC WORKS DEPARTMENT.

SIR,

In continuation of my letter, No. 2230 W., dated 11th August 1883, promising a detailed reply to the several points adverted to in your letter, No. 983 G., dated 16th July 1883, I am desired, by His Excellency the Governor in Council, to submit the following observations.

2. With respect to the request preferred in paragraph 4 of that letter, that statistics of casualties extending over ten years should be submitted, I am directed to invite attention to the annexed Statement A, prepared by the Examiner, showing the number of officers of the Engineer establishment absent from duty on leave, deputation, transfer, casualty, &c., from 1873 to 1882.

The abstract of that statement gives the proportion of effectives to non-effectives for the years in question; columns 2 to 7 bring out the percentages of absentees, as tested by the sanctioned scale; and columns 8 to 11, as shown by the actual number of officers borne on the classified lists.

The results brought out in the last column, showing the minimum number of absentees to have been 16·1 per cent. in 1873, and the maximum 38·5 per cent. in 1880, are clearly those which must be taken as the guide, not those in the left hand columns.

3. It may be observed that the low number of absentees in the four years from 1873 to 1876 is probably due in great measure to the number of young Royal and Cooper's Hill Engineers who then entered the department, and who thus had not put in the qualifying periods for their first furlough.

The rapid rise in the number of absentees to a percentage of 29·4 in 1879, and 38·5 in 1880, is due to the relaxation which necessarily followed in this respect at the close of the famine.

On the whole, the average of the years is 21·4 of non-effectives, which is in excess of the demand previously preferred. As a large number of officers have now put in their qualifying period for the first furlough, it may be expected that the applications will exceed the 20 per cent. named, but His Excellency in Council is still of opinion that this percentage should be adopted as being sufficiently liberal.

4. Under Section 49, Rule 1, Chapter V, of the Civil Leave Code, Covenanted Civil Servants and Military Officers subject to the civil rules are allowed to be absent on furlough to the aggregate of 20 per cent. of actual strength, *exclusive* of those absent on medical certificate and urgent private affairs; and, under the despatch of the Secretary of State, No. 20, of 16th February 1882 (Public, Ecclesiastical), the same ruling has been extended to Chaplains.

Looking to the unhealthiness of the tracts in which engineering operations have frequently to be carried on within this Presidency, and to the exposed character of the service generally, I am to observe that the necessities of the case clearly point to the desirability of allowing a more liberal working margin to this department; and

His Excellency in Council is satisfied that there can be no question as to the necessity for increasing the percentage for non-effectives from ten, as previously sanctioned, to twenty, and trusts that the Government of India may be pleased to sanction this at a very early date, so as to insure the efficient working of the department. During the past year, owing to the insufficient margin for non-effectives, three out of four of the project divisions had to be temporarily closed; and to meet even the most ordinary requirements of the works, other divisions were placed under subordinates, and the whole machine strained in many cases almost to the point of collapse.

5. Adverting to the first portion of paragraph 5 of the letter under reply, I am to observe that, as stated in paragraph 2, Clause III, the proposals of this Government (summarised from Colonel Brownlow's note) were "that the same percentage should be allowed on irrigation revenue for the Public Works establishments in Madras as actually prevails in Upper India;" whereas, in the paragraph adverted to, the allowance is calculated on "an analysis of the latest figures furnished by the Government of the North-Western Provinces and Oudh." The allowance thus made (13·5 per cent. on direct Irrigation Revenue) appears to be the result of working during an exceptionally favorable year, on exceptionally favored works, and to have but little connection with the general percentage actually prevailing in Upper India.

As pointed out by the Chief Engineer, paragraph 38 of Appendi. E, letter No. 2696 W., dated 16th October 1882, the percentages calculated from five years' figures, as supplied unofficially by the late Inspector-General of Irrigation Works, ranged from 16·3 per cent. on the Ganges canal to 28·2 on the Upper Sutlej canal; and this, notwithstanding that 25 (not 23 per cent. as now) was charged off against the works for Public Works establishment. It must also be remembered that the scattered nature of the irrigation works of the Madras Presidency imposes on the establishment an amount of work without parallel in other parts of India.

6. Such being the case, His Excellency in Council, whilst not wishing to question in any captious spirit the decision of the Government of India in regard to this point, is compelled to submit that a ruling has thus been applied to the Madras works generally based on results which appear to be of an exceptional character.

7. From the figures which have thus been worked out, the Government of India has allowed, for the future, a contribution of 6 per cent. on the "revenue derived from outlay incurred by the British Government and on that derived from the old works for which Capital and Revenue Accounts are kept," from Imperial, to relieve the charges for establishment as debited to Provincial.

While thankfully accepting the substantial concession thus accorded, His Excellency in Council would still solicit a re-examination, in the light of the above remarks, of the figures by which the result has been arrived at. He would, moreover, in consideration of the frequent representations preferred by this Government, extending over some years, request that its claim to reimbursement on this account be now investigated.

8. In order to show the amount gained by Imperial and lost to Provincial through the delay in settlement of this question, I am to invite a reference to the annexed Statement B, drawn up by the Examiner on the figures for the revenue of the irrigation works in question furnished by the Director of Revenue Settlement and Agriculture. The Examiner has in this statement taken the 6 per cent. on revenue now conceded by the Government of India as the basis of his calculations. The pre-famine and famine years have been set aside, and the calculation of losses thus only commences with the year 1879-80.

The differences between actual charges for establishment on Irrigation and Navigation Works (Imperial) and the true amounts calculated under the late ruling would, as thus shown, be:—

	Provincial Rs.
For 1879-80	+ 22,666
„ 1880-81	— 1,48,353
„ 1881-82	+ 1,65,678
Total lost by Provincial and gained by Imperial ...	2,01,325

This does not represent the total actual loss sustained; but it is at least the amount which, on the percentage now conceded, seems to His Excellency in Council to be fairly claimable as a reimbursement from Imperial to Provincial.

9. As regards the observation made in the second clause of paragraph 5 of the letter under reply, that the charge made in the Civil Department (Madras) (7·2 per cent. on the collections) appears "especially high," and that in the North-West Provinces it amounted in 1881-82 to only 3·06 per cent. of the gross collections, I am to invite a reference to the annexed letter, No. 41 A., dated 24th August 1883, from Mr. Wilson, Director of Revenue Settlement (Appendix C).

That officer shows that the 7·2 per cent., previously adopted, covered charges, and had been determined in a manner having apparently but slight analogy to the supposed corresponding charge given for the North-West Provinces, which again, as in the case adverted to in paragraph 5 above, is in all probability exceptionally low as tested by the ordinary charges for this class of work in Upper India.

Mr. Wilson shows that, were the charges between "Land Revenue" and "Law and Justice" equally divided, the average charge for collection on the Madras works would be only 3·9 per cent., the rates varying from 2·9 for the Kistna to 5·5 for the Chembrambakam tank; whereas, if (as previously proposed by this Government and negatived by the Government of India) the proportion be adopted of two-thirds to "Land Revenue" and one-third to "Law and Justice," the average would be 5·1 per cent., varying from 3·8 for the Kistna to 7·3 for the Chembrambakam tank. This latter is a comparatively small work, and the charge is necessarily high.

10. It does not appear necessary to His Excellency in Council to pursue the investigation of this percentage charge, as it is clear that, owing to the different manner in which the accounts are kept, no reliable comparison can be instituted at present.

11. Turning now to the sixth and following paragraphs of the letter under reply, I am to submit the annexed statements (D) which exhibit the true position of the current year's budget, based on the latest information afforded by the Examiner. By the first of these statements, the total outlay on works supervised by the department under all heads of service is shown to amount to Rs. 63,10,739; or, excluding the Madras Harbour Works, to Rs. 59,88,137. The second statement gives the net cost of establishment, after deducting the various sanctioned contributions, as amounting to Rs. 14,66,427; or, excluding the Madras Harbour Works, to Rs. 14,05,471. The percentage which the establishment charges bear to the total outlay on works is therefore either 23·24 or 23·47, according as the Harbour Works are included or excluded.

Although the inclusion of the Madras Harbour Works has not hitherto been recognised by the Government of India in calculating the percentages, His Excellency in Council is unable to see any valid reason for their exclusion. The work devolving on the Chief and Superintending Engineers, as also on the Examiner, in connection with these operations, has been at least as great as in connection with any other large work under departmental control. Should, moreover, the direct control of the Harbour Works, as lately proposed to the Secretary of State by this Government, be in future vested exclusively in the Chief Engineer, there can no longer be even a technical argument for the expenditure being viewed apart from the general operations of the department.

12. Another material point which I am directed to request may receive special consideration is that, since the formation of the four project divisions, a large body of officers and subordinates have been employed exclusively on the projection of works without any expenditure being as yet shown against those works; and again, it is only of late that the establishment has at all settled down to its normal working, after the sweeping changes which had to be made in carrying out the wholesale reductions of 1879-80. These considerations being allowed the weight which they appear to be entitled to, His Excellency in Council is disposed to think that the Government of India will admit the validity of the conclusions reported in my No. 2696 W., viz., that the charge of the establishment in this Presidency does not exceed 20 per cent.

on "Works" outlay, and is thus distinctly lower than in previous years, and also in all probability lower than in any other province in India.

13. With respect to the remarks contained in paragraphs 15 to 20 of your letter under reply, on the subject of the transfer of Local Fund outlay to a separate agency under the immediate supervision of the Local Fund Boards, I am to point out that this course was unavoidable, inasmuch as, owing to the sudden withdrawal of eight lakhs of the Provincial grant for 1880-81, and the reduction of the Public Works establishment under the orders of the Government of India, the reduced establishment was numerically inadequate to supervise the numerous scattered works to be carried out from Local Funds. The transfer of works of this class for execution by the agency of Local Fund Boards was, moreover, in consonance with the declared policy of the Government of India—a policy which has been emphasised during the interval that has elapsed since the initiative was first taken by the Government of Madras under their Local Fund Act of 1871.

There can be no question that the outlay on Provincial Public Works has diminished since the decentralisation arrangements inaugurated by the Government of India Resolution, No. 3334, of the 14th December 1870, but the causes of this must be looked for under the circumstances of general administration. His Excellency in Council is, however, disposed to think that the encouraging condition of Provincial finance under present arrangements will, in the immediate future, admit of such a development of Public Works expenditure as will place the moderate cost of the supervising agency beyond doubt.

14. With respect to the objections stated in paragraph 21 of your letter under reply to the proposed allowance of 3 per cent. on the revenue derived from the irrigation projects for which neither Capital nor Revenue Accounts are kept, I am to observe that it appears unnecessary to report here the reasons for requiring this contribution, those reasons having been already laid in full before the Government of India. I may add, however, that the arguments used in support of the contribution from "Works for which Capital and Revenue Accounts are kept," to which arguments the Government of India has acceded, have equal force when applied to the class of "Works for which neither Capital nor Revenue Accounts are kept."

* *Vide* memorandum by the Chief Engineer for Irrigation, forwarded with letter, No. 266 W., dated 3rd February 1880; also that forwarded with letter, No. 187 I., dated 25th March 1880.

I have the honor to be,

Sir,

Your most obedient servant,

(Signed) J. SHAW-STEWART, Colonel, R.E.,
Secretary to Govt., P.W.D.

FORT ST. GEORGE,
30th November 1883.

Exd. P. L. Pereira.
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GENERAL.
ESTABLISHMENT.

Govt. of [1884] Madras.

PUBLIC WORKS

Dated November, 30th.

Read. *Encl.*

30th Nov. 1883. No. 3423 W.

NOVEMBER.

Engineer Establishment

Replying to the observations of the Government of India regarding the — of the Public Works Department in Madras.

16th June 1884, No. 1501 W., Public Works.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

General.
Establishment.

Read—the following letter from A. B. SAMPSON, Esq., Under Secretary to the Government of India, Public Works Department (General), to the Secretary to the Government of Madras, Public Works Department, dated Simla, 26th May 1884, No. 638 G. :—

I am directed to acknowledge the receipt of your letter, No. 3423 W., dated 30th November last, submitting observations regarding the engineer establishment of the Public Works Department in Madras, and to state, in reply to paragraphs 2 to 4, that the Government of India has been pleased to sanction the allowance for absentees being raised from 10 to 16 per cent., which will raise the sanctioned number of engineers for the province from 90 to 95, as shown in the margin, and that endeavours will be made, as soon as possible, to send five engineers from the Government of India list to fill the increased number of posts.

Sanctioned Number of Posts—	
Chief Engineers	2
Superintending Engineers ...	6
Executive and Assistant Engineers.	74
Total ...	82
Add 16 per cent	13
	95

2. In reply to paragraphs 5 to 8, I am to say that the whole question of distribution of establishment charges must come up for consideration at no distant date, and that if, as appears probable, it is decided to increase the percentage allowed to cover supervision of maintenance, as compared with that allowed for supervision of new work, the procedure will also be made applicable to Madras ; but that no change can, meanwhile, be allowed in the present procedure. The proposal to open up closed accounts of past years cannot be entertained by the Government of India, as it would entail an amount of inconvenience and correspondence out of all proportion to any benefit likely to result from it.

3. As regards paragraphs 9 and 10, I am to state that the Government of India cannot allow any debit to Productive Public Works Revenue in excess of a fair and reasonable percentage, sufficient to defray all *bonâ fide* outlay on assessment and collection of irrigation revenue. It is quite plain from Mr. Wilson's letter, appended to your letter under reply, that the 7·2 per cent. charged for assessment and collection of irrigation revenue is very considerably in excess of the real requirements of the case in all but two insignificant systems of irrigation, and the debit must, in future, commencing with the current official year, be reduced to 5 per cent., as any trifling excess of outlay over allowance on the two minor systems above referred to (Pálár anicut and Chembrambakam tank) will be amply covered by the excess of allowance over outlay on the other systems.

4. In conclusion, I am to state that the further consideration of the question of distribution of establishment charges between Imperial, Provincial and Local Fund services may very well stand over until the result of the anticipated development of Provincial Public Works expenditure is known.

ORDER—dated 16th June 1884, No. 1501 W., Public Works.

Communicated to the Examiner, Public Works Accounts, and to the Revenue and Financial Departments, with reference to paragraph 3.

2. The Government of India will be addressed in respect to paragraph 1.

(Here enter No. 1502 W., dated 16th June 1884.)

(True Extract.)

(Signed) J. SHAW-STEWART, Colonel, R.E.,
Secretary to Govt., P.W.D.

To the Examiner, Public Works Accounts.
" Chief Engineer for Irrigation.
" Revenue Department.
" Financial "

Exd. E.K.Fernandez.
Spare Copies

GENERAL.
ESTABLISHMENT.

Govt. of [1884] Madras.

PUBLIC-WORKS.

Dated June, 16*th*.

Recd. *Encl.*

G.O., 16th June 1884, No. 1501 W.

JUNE.

Engineer Establishment

Letter from the Government of India sanctioning an addition of five engineers to the authorised strength of the Madras — and decreasing the percentage charged for assessment and collection of irrigation revenue to 5 per cent., communicated to the Examiner, Public Works Accounts, and to the Revenue and Financial Departments.

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PUBLIC WORKS DEPARTMENT.

General.
Establishment.

Letter—from

Colonel J. SHAW-STEWART, R.E.,
Secretary to the Government of Madras,
Public Works Department,

To

The SECRETARY to the GOVERNMENT of INDIA,
Public Works Department.

Sir,

I am directed to acknowledge the receipt of your letter, No. 638 G., dated 26th May 1884, in paragraph 1 of which an addition of five to the authorised number of engineers for this presidency is sanctioned, the allowance for absentees being raised from 10 to 16 per cent.

2. I am to express the thanks of the Madras Government for the concession thus made by the Government of India.

3. With respect to the arrangement under which it is proposed to provide for the additional posts now sanctioned, I am directed to invite attention to my letter, No. 1375 W., dated 2nd June 1884, and to say that His Excellency the Governor in Council would greatly prefer to receive the additional aid now promised in the shape of a somewhat larger annual allotment to this presidency, during the next few years, of the recruits sent out from England.

4. In the event, however, of an officer being transferred to this presidency from another part of India, I am directed to express the hope that the name of such officer may be retained on his old list for purposes of promotion.

I have the honor to be,
Sir,
Your most obedient servant,

(Signed) J. SHAW-STEWART, Colonel, R.E.,
Secretary to Govt., P.W.D.

Ootacamund,
16th June 1884.

Exd. E. Fernandez.
Spare Copies

GENERAL.
ESTABLISHMENT.

Govt. of {1884} Madras.

PUBLIC WORKS.

Dated June, 16th.

Read. *Enc*

16th June 1884, No. 1502 W.

JUNE.

Engineer Establishment

The Government of India thanked for their sanction of an addition of five engineers to the authorised strength of the Madras — and requested to fill up the additional posts either by an increased annual allotment of the recruits from England or by a transfer of officers whose names are kept on their old lists for purposes of promotion.

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GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

General Establishment.

READ—the following letter from the Deputy Secretary to the Government of India, Public Works Department (General), to the Secretary to the Government of Madras, Public Works Department, dated Fort William, 5th March 1887, No. 479 G.:—

I am directed to acknowledge the receipt of your letter, No. 364 W., dated 9th ultimo, in regard to the Engineer and Upper Subordinates establishment of the Public Works Department in the Madras presidency.

2. With reference to paragraphs 1 and 2, I am to observe that, against the sanctioned strength of 84 * Engineer officers, there are at present 79 members of the permanent Engineer establishment, of whom 15 are absentees, so that there are 64 officers now present to fill the 73 permanent posts of the sanctioned scale of 1881,† which scale, it is observed, His Excellency the Governor does not propose to reduce. Under these circumstances, it does not seem advisable to transfer Mr. Target from Madras, and I am to say that, so long as any temporary Engineers are employed in Madras, neither he nor any other officer of the permanent establishment lent to the Madras Government can be transferred.

* See this office No. 983 G., dated 16th July 1883, paragraph 4.

† See this office No. 1950 G., dated 23rd September 1881.

3. With reference to paragraph 3, I am to invite attention to this office telegram of the 9th ultimo, which conveys the decision come to by the Government of India in regard to the whole of the temporary establishment employed in Madras, and I am to add that the employment of temporary men can only be permitted so far as to maintain the permanent scale, which may be finally decided on after a reply has been received to Public Works Department circular letter, No. 283—93 G., dated 5th ultimo, which reply is now awaited.

ORDER—dated 22nd March 1887, No. 873 W., Public Works.

Ordered that the following reply be sent:—

(Here enter No. 874-W., dated 22nd March 1887.)

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.,
Secretary to Govt., P.W.D.

LETTER—to the Secretary to the Government of India, Public Works Department, dated Fort St. George, 22nd March 1887, No. 874 W.

I am directed to acknowledge the receipt of your letter, No. 479 G., dated 5th March 1887, regarding the Engineer establishment of the Madras Public Works Department, and, in reply, to submit the following observations.

2. In paragraph 2 of your letter, the sanctioned strength for Madras is stated to be 84 Engineer officers, but I am directed to point out that the 84 officers alluded to in paragraph 4 of your letter, No. 983 G., dated 16th July 1883, was altered to 82 (42 Executives and 40 Assistants) by your letter, No. 417 G., dated 15th April 1884, and that this scale was subsequently reduced to 81 (41 Executives and 40 Assistants) consequent on the removal of Mr. Target from the Madras list for purposes of promotion (*vide* your letter, No. 1067 G., dated 9th September 1884). The sanctioned scale at present is therefore 81 Engineers (41 Executives and 40 Assistants).

3. In Government of India Resolution, No. 1442 G., dated 13th December 1884, the proportion between the number of Executives and Assistants was fixed at one to one, and this proportion has no reference to the number of divisions, as sub-divisions may be held by Executive Engineers.

4. As regards the 73 permanent posts referred to in your letter, No. 1250 G., dated 23rd September 1881, I am directed to remark that the scale alluded to was sanctioned in your letter, No. 681 G., dated 5th May 1881, and was as follows :—

2 Chief Engineers.
7 Superintending Engineers.
75 Executive and Assistant Engineers.

But in this office letter, No. 1697 W., dated 9th July 1881, it was pointed out that the scale was insufficient on account of the transfer to Government of the works of the Madras Irrigation and Canal Company, and the commencement of the Sangam Project; also that, by an oversight, only one Executive was allowed on account of absentees, instead of three. Thereupon, in your letter, No. 1250 G., dated 23rd September 1881, the increased establishment of 83 Executive and Assistant Engineers was provisionally sanctioned. This number, after deducting the two Executive Engineers of the Railway Branch, leaves 81, the sanction now in force for this presidency (*vide* your letter of 9th September 1884 above quoted).

5. On the 1st April 1887, there will be, on the Madras list, 80 permanent members of the Engineer establishment, including the Assistant Engineer who has just obtained the appointment guaranteed to the Madras College of Engineering, and during the year three Assistant Engineers will arrive from Cooper's Hill. It will therefore be impossible to retain the services of both Mr. Target and Mr. Brassington; but on account of the special work for which the latter is required, his services will be retained if, at the expiration of his six months' probation, he appears fit for the post.

6. It may be observed that, in consequence of the constitution of several temporary divisions, it was possible to allow a larger number of officers to avail themselves of furlough than would otherwise have been permitted; but several officers will shortly return, and the proportion of absentees will not then be excessive.

7. With reference to paragraph 3 of your letter under reply, I am to state that all temporary establishments have, in accordance with instructions received, been dispensed with (*vide* my letter, No. 594 W., dated 28th February 1887) with the exception of one officer and a few subordinates, whose services have been retained for a short period to obviate stoppage of works. These will shortly be relieved.

8. I am therefore to request that Mr. Target may be retransferred to his own administration, as the addition of Mr. Brassington will bring the number of Engineers up to the sanctioned limit of 81.

9. Your letter, No. 283—93 G., dated 5th February 1887, will be replied to separately.

(Signed) J. O. HASTED, Colonel, R.E.,
Secretary to Govt., P.W.D.

Exd. E. Fernandez.
Spare Copies

GENERAL.
ESTABLISHMENT.

Govt. of [1887] Madras.

PUBLIC WORKS.

Dated March, 22nd.

Read. *Encl.*

G.O., 22nd Mar. 1887, Nos. 873, 874 W.

MARCH.

Engineer Establishment

The Government of India furnished with certain observations anent the — of the Madras Public Works Department, and requested to retransfer Mr. Target, Executive Engineer, to his own administration.

57

25th April 1887, No. 1127 W., Public Works.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

General.
Establishment.

Read—the following letter from G. H. D. WALKER, Esq., Offg. Under Secretary to the Government of India, Public Works Department (General), to the Secretary to the Government of Madras, Public Works Department, dated Simla, 11th April 1887, No. 694 G.:—

In continuation of Public Works Department telegram of the 11th instant, I am directed to state that the Government of India accepts the corrections pointed out by you in the present sanctioned scale, and notes that the scale of Executive and Assistant Engineer now considered to suffice for the Madras establishment is 81, while the present actual establishment amounts to 80.

2. In the telegram quoted above you were informed that Mr. Target, Executive Engineer, must be employed in charge of the Ramnad Estate works in place of Mr. Harington, temporary Engineer, whose services should be dispensed with. I am now to explain that the Government of India is unable at present to post Mr. Target elsewhere, and considers that, as there is an opening for him in the Madras Presidency, he should be employed in preference to a temporary Engineer. As soon as the Government of Madras is in a position to provide an officer from its regular Engineer establishment for the charge of the Ramnad Estate works, the Government of India will be willing to arrange the transfer of Mr. Target if required.

Order—dated 25th April 1887, No. 1127 W., Public Works.

Recorded, with reference to G.O., No. 873 W., dated 22nd March 1887, and G.O., No. 1083 W., dated 18th April 1887.

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.,
Secretary to Govt., P.W.D.

Exd. P. L. Pereira.
Spare Copies

GENERAL.
ESTABLISHMENT.

Govt. of [1887] Madras.

PUBLIC WORKS.

Dated April, 25th.

Read. *Encl.*

G.O., 25th April 1887, No. 1127 W.

APRIL.

Madras Engineer Establishment

Letter from the Government of India accepting certain corrections pointed out in the present sanctioned scale of the —, with remarks on the proposal for the transfer from Madras of Mr. Executive Engineer Target, recorded.

PUBLIC WORKS SECRETARIAT

58

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

General.
Establishment.

READ—the following papers:—

From G. H. D. WALKER, Esq., Officiating Under Secretary to the Government of India, Public Works Department (General), to the Governments of Madras, Bombay, Bengal, North-Western Provinces and Oudh, and Punjab; the Chief Commissioners, Central Provinces, Burma and Assam; the Resident at Hyderabad; the Agents to the Governor-General for Central India and Rajputana; dated Fort William, 5th February 1887, Nos. 283—293 G.

With reference to the call made in this office Nos. 107—17 G., and Nos. 131—39 G., dated respectively the 17th and 18th January 1887, for revised estimates of Engineer and Upper Subordinate establishments suited to present circumstances and to the grants at your disposal, I am directed to request that you will carefully estimate the work on which the establishment is expected to be employed with a reasonable margin for contingencies and frame your proposals accordingly. The comparison of establishment with work should be made in the manner described in the following paragraphs, and the result forwarded concurrently with your revised estimate of establishment to the Government of India.

2. It is observed that the strength of the Engineer and Upper Subordinate establishments, on which depends the number of divisions, mainly determines the cost of the establishment head "Construction" and the corresponding head "Executive" in the case of Irrigation works, which is the most costly item of establishment and the only one capable of much variation. As soon, therefore, as their strength is determined, it should be an easy matter to work out the total cost under each of the heads—

Direction,
Accounts,
Construction or Executive,

with the additional heads in the case of Irrigation establishment. It will be well that the complete establishment estimates, after revision, should be given in the same detail as in the form which accompanies the several budget estimates, and submitted with your reply.

3. Wherever the establishments for Buildings and Roads and Irrigation are separate, separate estimates for each must be prepared.

4. The work that is to be done by each establishment, estimated as above, should then be stated as follows, Buildings and Roads and Irrigation being separately worked out:—

Buildings and Roads revenue under the control of the establishment.
Irrigation revenue (direct only).
Repairs.
Original works.

When the above heads of Revenue and Expenditure are included in several budget estimates, all worked by the same establishment, the several items under each head from the several budgets must be separately shown.

5. In regard to Local Fund works the following instructions are to be observed:—

Where the Provincial establishment carries out Local and Provincial works indiscriminately as in the Provinces of Assam and Burma, the local works may be

included in the calculations of paragraph 4, but it should be stated what is the cost of any minor establishments which are not included in the estimate framed as in paragraph 2.

Where, as in the North-Western Provinces and Oudh, the Public Works establishment is, to a considerable extent, lent to the Local Boards, and its cost included in the Local Fund budget, no Local Fund outlay should be included in estimating the normal charge, nor, on the other hand, must such establishment be included in the estimate of paragraph 2, but in working out the strength of the grades, which are to be distributed between Provincial and Local, the men of the permanent establishment provided for Local may be included.

Where, as in Bombay, the Punjab, and Central Provinces, a percentage is charged for works done for the Local Boards by the Public Works establishment, and at the same time Local establishments exist, the amount may be included in the figures of outlay, paragraph 4, and the percentage allowed by local usage added in the calculations of paragraph 6.

Where, as in Madras and Bengal, the Local Fund establishments and works are wholly separate from the Provincial, no account whatever should be taken, either of the charge for Local works or establishment.

6. The normal cost of establishment should then be worked out from the sums obtained against the several heads of paragraph 4 by charging—

5 per cent. on Buildings and Roads revenue,
10 " on Irrigation revenue,
23 " on Works and Repairs,

and the total cost so obtained, as the normal cost of establishment for works, must be compared with the actual cost of the estimates framed, as in paragraph 2. If the latter is greatly in excess of the normal cost, the cause of the excess must be explained.

7. I am to add that, in framing their estimates of establishment now asked for, Local Governments should not be in any way influenced by considerations of the present strength. What is required is an estimate of establishment adapted to carry out economically a certain outlay on works under present rules and conditions, but, if possible, on a reduced strength. Whatever establishment under the proposals now to be made becomes supernumerary should be reported in submitting the estimate, and can be dealt with separately after the proposals, now called for, have been approved.

Telegram to the Government of India, dated 22nd February 1887, No. 529 W.

ORDER—dated 26th April 1887, No. 1146 W., Public Works.

Ordered that the Government of India be addressed.

(Here enter No. 1147 W., dated 26th April 1887.)

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.,
Secretary to Govt., P.W.D.

Exd. P. L. Pereira.
Spare Copies

GENERAL.
ESTABLISHMENT.

Govt. of 1887 Madras.

PUBLIC WORKS.

Dated April, 26th.

Rcvd. *Encl.*

G.O., 26th April 1887, No. 1146 W.

APRIL.

Madras Public Works Establishment

Ordered that the Government of India be addressed in reply to their call for revised estimates of the — framed with reference to a comparison of Establishment with Work.

Accompaniments to letter to the Secretary to the Government of India, No. 1584 W., dated 31st May 1888.

Statement No. I.

STATEMENT of Divisional Grants and estimated Revenue working up to Appendix C of Budget Estimate of the Madras Presidency for the year 1887-88.

Circles.	No.	Divisions.	Works Grant.								Revenue.								Remarks.
											Direct.					Indirect.			
			Imperial, Military.	Civil Imperial, Works.	33. Construction of Protective Irrigation Works.	42. Major Works (working expenses).	43. Capital expenditure on Public Works not charged against Revenue.	Civil Provincial Works.	43. Minor Works and Navigation, Provincial.	Incorporated Local.	Imperial, Military.	Major Works, direct receipts.	Civil Works, Provincial.	Minor Works, Navigation Provincial.	Civil Works, Local.	Major Works, working expenses.	43. Minor works, Navigation Provincial.	
			Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
					* 2,30,000			3,500	13,000				1,403		22			* Rushikulya Project.
	1	Ganjam						72,000	8,000				53					
I	2	Vizagapatam	2,000	800		92,000	39,000	19,442	39,560	13,000			59,914	2,793	1,567			
	3	Godavari, Eastern	1,350	800		90,000	39,046	3,434	21,700				33,387	762	1,134	16,70,000	1,30,000	
	4	Do. Western				90,000	1,15,926		27,800				4,947	76	795			
	5	Do. Central				98,500	3,21,683	5,500	15,500	40			20,117	3,556	868			
	6	Kistna, Eastern	60	400		98,500	3,21,683	400	4,500	1,000			2,402	445	47	16,22,000	78,000	
	7	Do. Western		200		67,500	1,44,500	3,000	1,05,500	600			520	2,710	819	1,70,000	2,70,000	
II	8	Nellore	360	300		40,000	1,98,350		2,21,134					56	92,986			
	9	Buckingham Canal			75,000				23,147			185		4,305	66			
	10	Bellary	41,429	2,529				21,500	28,000					281				
III	11	Cuddapah	600	200				68,182	46,021				28,147	431		80,000		
	12	Kurnool	650	200		1,53,000		31,000				2,457		6,500				
	13	Nilgiris	51,339	700				1,53,902			500	1,135		5,780	1,337	582		
IV	14	Coimbatore	6,970	500				13,110				1,764		2,530				
	15	West Coast	43,786	400				1,44,493	1,500			247		2,387	1,315	3,452		
	16	North Arcot	6,583	200				8,245	1,48,900					15,225	1,786	93		
	17	South Arcot	174					800	1,41,355	6,640		936		477	4,320			
V	18	Chingleput	37,671					16,150	1,95,392			16,310		2,877				
	19	Presidency and Bangalore	2,16,500	550				95,790	4,000					10,415				
	20	Presidency Workshops										2,056		838	2,705	181		
	21	Trichinopoly	13,480	200		59,100	7,890	11,500	75,000	1,500			4,447	925	667	235	5,50,000	23,50,000
	22	Tanjore	400	300				37,000	75,500	3,466				283	563	1,004		
	23	Negapatam	165	450		38,000		8,000	42,500	3,788					928	284	— 24		
VI	24	Madura	240	400				42,600	1,05,000	1,20,000	1,50,000				53				
	25	Ramnad												796	1,717	1,178	160	1,20,000	80,000
	26	Tinnevelly	250	1,075		15,780	9,700	6,147	1,11,117						6,369				
	27	Consulting Architect		1,500				69,505							17,956				
	28	Presidency Stores																	
	29	Reserve with the Government	10,630	1,375				1,73,800	26,804										
	30	Reserve at disposal of Commanding Officers	9,373																
	31	Reserve at disposal of Director-General of Post-offices		7,871															
	32	Reserve at disposal of Director-General of Telegraphs		6,909					2,09,202										
	33	Minor Irrigation Works							1,28,618										
	34	Adjustment on account of old maintenance charges				— 1,28,618													
		Total	3,42,500	27,000	3,05,000	5,47,282	8,88,391	10,07,000	19,89,174	1,54,528	2,51,000	25,000	1,62,000	23,000	32,375	6,000	36,12,000	29,08,000	

NOTE.—With reference to para. 4 of India's letter, No. 305 G., dated 6th February 1888, it should be noted that the Gudivada Division was not in existence in 1887-88, and the grant for the Periyar Project was sanctioned subsequent to the budget for that year, consequently, the figures for the former cannot be given separately, and there are no figures relating to the latter to be entered either separately or otherwise.

(Signed) C. H. P. CHRISTIE, Major, R.E.,
Examiner, Public Works Accounts.

MADRAS,
10th March 1888.

Statement No. III.

STATEMENT showing the number of subdivisions in each division and the distribution of the Staff.

Division.	Officer in charge.	Subdivision.	Officer in charge.	Detached officers.	Overseers.
Rushikulya ..	Executive Engineer.	Aska	Assistant Engineer.	One Assistant Engineer (on special duty).	Three Overseers.
		Russelkonda ..	Do. ..	One temporary Sub-Engineer.	One do. One temporary Overseer.
		Sursda* ..	....	....	....
Ganjam ..	Do. ..	Berhampore or head-quarters.	Executive Engineer of the Division.	....	Two Overseers.
		Chicacole ..	Sub-Engineer ..	....	One do.
		Parlákimedi ..	One temporary Sub-Engineer.	....	Two temporary Overseers.
		Vizagapatam ..	Overseer	....	Two Overseers.
Vizagapatam.	Do. ..	Vizianagarum ..	Do.	....	....
		Koraput (Special Subdivision).	Assistant Engineer.	One Supervisor ..	One Overseer.
		Head works ..	Overseer	One Assistant Engineer (on special duty).	....
		Delta	Assistant Engineer.	One Supervisor ..	One Overseer.
Godávari, Eastern.	Do. ..	Rajahmundry ..	One Supervisor ..	....	Do.
		Dumagudiem ..	Executive Engineer (temporary rank.)	....	Do.
		Workshops ..	Supervisor ..	....	....
Godávari, Central.	Assistant Engineer.	Ralli	Sub-Engineer ..	....	One Overseer.
		Nagaram ..	Assistant Engineer.	....	Two Overseers.
		Eastern	Do. ..	Supervisor.	....
		Western ..	Supervisor ..	....	One Overseer.
Godávari, Western.	Executive Engineer.	Tank and embankment.	Sub-Engineer ..	....	Do. One temporary Overseer.
		Head-quarters or northern.	Executive Engineer of Division.	One Sub-Engineer.	Two Overseers.
Kistna, Eastern.	Do. ..	Southern ..	Assistant Engineer.	Two Supervisors ..	One temporary Overseer.
		Gudiváda ..	Do. † ..	One Supervisor ..	One Overseer.
		Eastern	Do. ..	Do. ..	One temporary Overseer.
Kistna, Western.	Do. ..	Western ..	Do. ..	Do. ..	Two Overseers.
		Head-quarters ..	Executive Engineer of Division.	Do. ..	One temporary Overseer.
Nellore ..	Executive Engineer, (temporary rank).	Gódór	Supervisor ..	....	One Overseer.
		Kandukúr ..	Do. ..	....	Two Overseers.
		Sangam ..	Assistant Engineer.	Three Supervisors ..	One Overseer.
		Southern ..	Sub-Engineer ..	....	Do.
		Pulicat	Do. ..	One Supervisor ..	One temporary Overseer.
Buckingham Canal.	Executive Engineer.	Penner	Do. ..	....	....
		Northern ..	Assistant Engineer.	....	One Overseer.
		Head-quarters ..	Executive Engineer of Division.	One Sub-Engineer ..	....
Bellary ..	Do. ..	Northern ..	Supervisor ..	One Supervisor ..	One Overseer.
		Southern ..	Sub-Engineer ..	....	Do.
		Head-quarters ..	Executive Engineer of Division.	....	Three Overseers.
Cuddapah ..	Do. ..	Nandalur or Western.	Temporary Supervisor.	....	....
		Madanapalle ..	Supervisor ..	....	....
		Cumbum ..	Do. ..	One Supervisor ..	Two Overseers.
		Canal, Upper ..	Sub-Engineer ..	....	One Overseer.
		Do. Central ..	Assistant Engineer.	....	One do.
Kurnool ..	Executive Engineer (temporary rank.)	Do. Lower ..	Honorary Assistant Engineer.	One Supervisor ..	One temporary Overseer.
		....	....	....	One Overseer.
Tank Restoration Scheme, No. III Party.	Executive Engineer (Iddia List.)	....	Sub-Engineer ..	....	Do. Two temporary Overseers. One Overseer.
West Coast ..	Executive Engineer.	Mangalore or South Canara.	Supervisor ..	....	....
		Cannanore ..	Do. ..	....	Two Overseers.
		Calicut	Assistant Engineer.	....	Two do.
		Vayitri	Sub-Engineer ..	One Supervisor ..	One Overseer.
		Coimbatore ..	Supervisor ..	Two Supervisors ..	One do.
		Erode	Executive Engineer (temporary rank.)	One Supervisor ..	One do.
		Salem	Sub-Engineer ..	....	One do.
Coimbatore ..	Do. ..	Barur	....	Do. ..	Three temporary Overseers.
Tank Restoration Scheme, No. IV Party.	Do. ..	....	....	....	....

* Not yet formed.

† An Assistant Engineer is in temporary charge. An Executive Engineer will again shortly be posted to this charge.

Statement showing the number of subdivisions in each division, &c.—*cont.*

Division.	Officer in charge.	Subdivision.	Officer in charge.	Detached officers.	Overseers.
Nilgiri ..	Executive Engineer.	No. I	Sub-Engineer ..	.....	Two Overseers.
		No. II	Supervisor ..	....	....
North Arcot ..	Do. ..	Vellore	Executive Engineer (temporary rank.)	One Supervisor ..	Two Overseers. One temporary Overseer.
		Ranipett ..	Honorary Assistant Engineer.	....	Three Overseers.
Tank Restoration Scheme, No. V Party.	Temporary Supervisor.	....	....	....	One temporary Overseer.
South Arcot ..	Executive Engineer.	Head-quarters ..	Sub-Engineer ..	One Supervisor ..	....
		Tindivanam ..	Honorary Assistant Engineer.	....	Two Overseers.
		Chidambaram ..	Assistant Engineer.	....	One Overseer.
		Vriddhachallam ..	Sub-Engineer ..	....	Do.
Chingleput ..	Do. ..	Head-quarters ..	Supervisor ..	....	One temporary Overseer.
		Tiruvallur ..	Do. ..	Two Supervisors ..	One Overseer.
Tank Restoration Scheme, No. II Party.	Honorary Assistant Engineer.	Chingleput ..	Sub-Engineer ..	One Supervisor ..	Do.
		....	....	....	Two temporary Overseers.
Presidency and Bangalore.	Executive Engineer.	Madras, Military.	Supervisor ..	One Supervisor ..	....
		Do. Civil ..	Sub-Engineer ..	Do. ..	One Overseer.
Presidency Workshops.	Do. ..	Bangalore ..	Do. ..	....	Do.
		....	....	One Honorary Assistant Engineer.	....
Trichinopoly.	Do. ..	Head-quarters ..	Executive Engineer of Division.	....	Two Overseers.
		Musuri	Supervisor ..	....	Do.
Tanjore ..	Do. ..	Head-quarters ..	Sub-Engineer ..	....	One Overseer,
		Tanjore	Executive Engineer (temporary rank.)	One Supervisor ..	Do.
		Mayaveram ..	Supervisor ..	Do. ..	Two Overseers.
Madura ..	Do. ..	Head-quarters ..	Executive Engineer of Division.	Do. ..	One Overseer.
		Vaigai bridge ..	Executive Engineer (temporary rank.)	One Honorary Assistant Engineer. One Assistant Engineer (on probation).	Do.
		Dindigul ..	Sub-Engineer ..	Two Supervisors ..	One Overseer. One temporary Overseer.
Tank Restoration Scheme, No. I Party.	Do. ..	Periakulam ..	Do. ..	....	Four Overseers.
		....	....	....	One Overseer.
Negapatam ..	Do. ..	Head-quarters ..	Executive Engineer of Division.	One Sub-Engineer ..	Two temporary Overseers. ....
		Tiruturaipúndi ..	Supervisor ..	....	One Overseer.
		Mannargudi ..	Assistant Engineer.	Two Supervisors ..	....
Tinnevelly ..	Do. ..	Head-quarters ..	Executive Engineer of Division.	One Supervisor ..	....
		Tenkarai ..	Honorary Assistant Engineer.	....	One Overseer.
Ramnad ..	Executive Engineer (temporary rank.)	Shermadevi ..	Sub-Engineer ..	One Supervisor ..	Three Overseers.
		....	....	Do. ..	One Overseer. Three temporary Overseers.
Periyar Head Works Division.	Executive Engineer.	....	....	Two Assistant Engineers. One Supervisor ..	One Overseer.
Second Division.*	....	....	....	....	....
Consulting Architect.	Executive Engineer (India List.)	....	....	One Honorary Assistant Engineer. One Supervisor ..	....

* Not yet formed.

ABSTRACT.

		Total.
Existing number of Executive and Assistant Engineers on the Madras establishment ..	81	
Two officers from the Government of India List	2	
		83
Number of Madras officers actually employed in Divisions	56	
Number of officers of the Government of India List actually employed in Divisions ..	2	
Number employed in the Secretariat	3	
Number on leave	15	
Number on other duty	7	
		83
Sanctioned number of Upper Subordinates		185
Number actually employed in Divisions	182	
On leave, &c.	3	
		185
Sanctioned number of temporary Upper Subordinates		38
Number actually employed	29	
		29

Statement No. IV.

STATEMENT showing Area and Expenditure of Public Works Subdivisions.

Division.	Subdivisions.	Area in square miles.	Expenditure during 1887-88.	Remarks.
			Rs.	
Rushikulya ...	Aska	400	91,166	
	Russelkonda	350	71,586	
	Suradá	...	12,593	
Ganjam ...	Head-quarter or Berhampore.	1,800	70,000	
	Chicacole	461	20,000	
	Parlákimedi	615	50,000	
Vizagapatam ...	Head-quarter or Vizagapatàm.	2,000	11,000	
	Vizianagrum	5,000	28,000	
	Koraput	11,000	43,000	
Godávari, Eastern.	Head Works	25	2,03,562	
	Delta	720	96,178	
	Rajahmundry	1,697	34,466	
	Dumagudiem	5	12,102	
Godávari, Central.	Ralli	320	1,20,000	
	Nagaram	185	44,000	
Godávari, Western	Eastern	520	96,962	
	Western	430	44,179	
	Tank and Embankment ...	1,620	17,018	
Kistna, Eastern ..	Head-quarter or Northern ...	1,100	95,000	
	Southern	500	81,000	
	Gudiváda	700	1,42,000	
Kistna, Western...	Eastern	670	1,36,000	
	Western	650	1,02,900	
	Head-quarter	1,327	1,15,000	
Nellore ...	Gúdúr	2,700	17,000	
	Kandukúr	4,500	26,000	
	Sangam	250	2,02,000	
Buckingham Canal.	Southern	lin. miles 70	60,000	
	Pulicat	" 80	94,000	
	Pennér or Iskapalle ...	" 50	55,000	
	Northern	" 50	59,000	
	..	..		Recently formed.
Bellary ...	Head-quarter	5,948	97,776	
	Northern	5,103	28,060	
	Southern or Anantapur ...	3,104	83,897	
Cuddapah ...	Head-quarter or Cuddapah ..	1,804	8,999	
	Nandalúr or Western ...	3,830	17,189	
	Madanapalle	7,533	19,307	
Kurnool ...	Cumbum	lin. miles 65	35,500	
	Canal, Upper	" 58	35,756	
	Canal, Central	" 67	37,500	
	Canal, Lower	" 4,000	14,000	
West Coast ...	Mangalore or South Canara.	1,600	23,000	
	Cannanore	3,200	82,000	
	Calicut	900	1,63,000	
	Vayitri	3,600	66,000	
Coimbatore ...	Coimbatore	2,900	36,700	
	Erode	5,800	26,000	
	Salem	2,000	45,900	
	Barur	30	1,44,500	
Nilgiri ...	No. I	900	1,39,500	
	No. II	5,731	1,12,100	
North Arcot ...	Vellore	1,645	39,400	
	Ranipet	1,017	47,779	
South Arcot ...	Head-quarter	2,257	45,500	
	Tindivanam	402	35,123	
	Chidambaram	1,464	24,680	
	Vriddháchalam			

Statement showing Area and Expenditure of Public Works Subdivisions—*cont.*

Division.	Subdivisions.	Area in square miles.	Expenditure during 1887-88.	Remarks.
			Rs.	
Chingleput ...	Head-quarter	7	62,367	
	Tiruvallûr	1,190	78,320	
	Chingleput	1,645	64,716	
Presidency ...	Madras, Military	9¼	1,00,343	
	Madras, Civil	20	1,74,766	
	Bangalore	13	79,298	
Trichinopoly ...	Head-quarter	1,297	90,646	
	Musiri	2,345	18,844	
Tanjore ...	Head-quarter	448	53,103	
	Tanjore	538	77,413	
	Máyavaram	770	53,525	
Madura ...	Head-quarter	1,276	91,405	
	Vaigai bridge	...	1,20,759	
	Dindigul	1,981	31,578	
	Periyakulam	1,481	91,524	
Negapatam ...	Head-quarter	239	48,398	
	Tiruturaipúndi	466	29,599	
	Mannárgudi	1,193	32,103	
Tinnevelly ...	Head-quarter	2,111	59,737	
	Tenkarai	553	48,513	
	Shermádevi	1,642	38,935	
Ramnad	.....	2,112	76,640	
Periyár	.....	...	1,05,340	
Consulting Architect.	East	7½	58,853	
	West	4	37,572	

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

General.
Establishment.

READ—the following papers:—

From Colonel R. C. B. PEMBERTON, R.E., Secretary to the Government of India, Public Works Department (General), to the Secretary to the Government of Madras, Public Works Department, dated Fort William, 6th February 1888, No. 305 G.

I am directed to acknowledge the receipt of your No. 2611 W., dated 4th October, in which you reply to the several points raised in this Office No. 1721 G., dated 2nd September last, regarding the various branches of the Madras Public Works establishment.

2. In reply, I am directed to state that the Government of India is fully aware that the administration of the Madras Presidency is mainly conducted on an economical system; and, speaking generally, if the Madras Government declare that they are unable to effect any suggested reduction, it would not be considered desirable to press the suggestion further. But in the present case it is thought that the suggestion made with regard to the reduction in the number of upper subordinates has not been fully apprehended. In your 5th paragraph it is urged that on account of the large area of executive charges and the scattered nature of the works a larger number of subordinates is required than in other Provinces. But this does not meet the suggestion of the Government of India that the number of upper subordinates was too large and that of lower subordinates too small. The numbers of these two classes of subordinates employed in Madras and in other Provinces are approximately as follows:—

	Madras.	Bengal.	North-Western Provinces.
Upper	185	114	94
Lower	30	155	249

From this statement it is evident that in Bengal and the North-Western Provinces lower subordinates do, to a considerable extent, take the place of upper subordinates, and it is considered that an attempt should be made to substitute the same agency in Madras. If it were known that lower subordinates would be more largely employed in Madras, it is believed that there would be no lack of suitable candidates.

3. I am to suggest, therefore, that, as an experiment, only one out of every three vacancies that occur may be filled up in the upper subordinate establishment, and that the others may be filled by lower subordinates, this procedure being followed for a considerable time, until the present scale of upper subordinates is reduced to a scale allowing of not more than four on an average to each division.

4. I am also to request that when replying to this reference you will forward a statement showing the Expenditure and Revenue in each of the 27 divisions

enumerated in Appendix D, which accompanied your No. 1147 W., dated 26th April 1887.

The Expenditure and Revenue should work up to the same totals as in the first three columns of Appendix C, which accompanied your letter above quoted, and Direct and Indirect Revenue should be distinguished. Under the Ganjam Division, the Rushikulya Project should be shown distinct, and under the Kistna Eastern Division, the Gudivada Division and Periyar Works, which, in your letter under reply, you state form for the present separate charges, must be kept distinct.

5. I am also to request that a map may be submitted indicating the several charges in distinct colors and their approximate areas. Wherever two or more officers are employed in one division, the nature of the distribution of their work should be stated, and if the work is divided territorially, the different areas allotted to each should be shown on the map.

6. The further reports promised regarding the possibility of reducing the clerical establishment are awaited.

From G. H. D. WALKER, Esq., Under-Secretary to the Government of India, Public Works Department (General), to the Secretary to the Government of Madras, Public Works Department, dated Calcutta, 28th March 1888, No. 757 G.

I am directed to acknowledge receipt of your No. 416 W., dated 6th February, on the subject of the Madras Public Works establishment, and to say that a reply to this office No. 305 G., of the same date, will be awaited. I am also to request that, in addition to the information to be supplied as requested in paras. 4 and 5 of that letter, you will furnish a distribution statement showing the number of subdivisions in each division or executive charge, and how the proposed number of Executive Engineers, Assistant Engineers acting as such, and upper subordinates are distributed over the subdivisional charges; also approximately, and so far as can be done by reference to information in your possession, the area and expenditure of each subdivision. If Assistant Engineers or upper subordinates are not in charge of subdivisions, it should be explained what their charges or general duties are.

Order—dated 31st May 1888, No. 1583 W., Public Works.

Ordered that the following reply be sent to the Government of India:—

(Here enter No. 1584 W., dated 31st May 1888.)

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.,
Secretary to Govt., P.W.D.

Letter—to the Secretary to the Government of India, Public Works Department, dated Ootacamund, 31st May 1888, No. 1584 W.

I am directed to acknowledge the receipt of your letters of the 6th February and 28th March 1888, Nos. 305 G. and 757 G., respectively, and, with reference to paras. 1 to 3 of the former letter, in which it is suggested that the number of upper subordinates in Madras should be reduced by the employment of a certain number of lower subordinates in their place, I am to invite attention to para. 3 of my letter No. 416 W., dated 6th February 1888, in which it was explained that the large area covered by most of the executive divisions of this Presidency and the scattered nature of the works rendered it inadvisable to reduce the number of upper subordinates employed, and that the executive charges which these officers are entrusted with, are such that they cannot be efficiently worked by the class of men who enter the lower subordinate grades.

2. The Government of India will, it is hoped, be enabled to form a correct idea of the importance of these executive charges by reference to the statements of area and expenditure herewith forwarded, in compliance with the requests contained in your letters under reply.

3. It may further be remarked that the College of Engineering does not recognise lower subordinates or sub-overseers, nor does it give instruction to any men as such. Sub-overseers usually commence life as workmen or maistries, and have very little general education or knowledge of engineering outside their own trade; and the low scale of salary authorised for this class of subordinates as shown below can scarcely be expected to offer much inducement to a better class of men. The pay of a sub-overseer is—

First Grade	Rs. 50 to 70
Second Grade	„ 35 to 45
Third Grade	„ 25 to 35

4. If the efficiency of the subordinate classes of the department is to be maintained, it is essential that the recruitment in the lower grades must be from a class who, by general education and technical knowledge, will eventually be fit to rise to the higher ranks. It may be said that the men who pass out of the college will be glad to accept appointments as sub-overseers, and this will, no doubt, be the case for a time; but the immediate saving will be small, and the eventual result will be that in a few years the class of men in the upper subordinate grades will be distinctly inferior to what is required.

5. His Excellency the Governor in Council is thus decidedly of opinion that, while lower subordinates may with advantage be more largely employed than at present, they are wholly unfitted for the large and responsible charges now held by the upper subordinates of the Madras Public Works Department. It may, however, be possible to meet the wishes of the Government of India by the employment of lower subordinates to a larger extent when the necessity for increasing the temporary establishment arises, and the Chief Engineer will be directed to keep the matter in view, and to refrain from proposing any augmentation of the temporary upper subordinate establishment in cases where lower subordinates can with advantage be substituted.

6. The following statements, &c., accompany this letter:—

(1) Statement of divisional grants and estimated revenue working up to Appendix C of the budget estimate for 1887-88.
(2) Map showing divisional charges and their approximate area.
(3) Statement showing the number of subdivisions in each division and the distribution of the staff.
(4) Statement showing the area and expenditure of each subdivision.

7. The information contained in statement (1) has been furnished by the Examiner, Public Works Accounts, but that officer being unable to supply particulars of expenditure by subdivisions, Superintending Engineers had to be referred to; and statement (4) has been compiled from the information furnished by those officers. The Examiner, to whom the statement was referred for verification, is unable to do more than indicate, without reconciling, the differences between the approximate figures furnished by Superintending Engineers and those of the booked accounts of his office. As, however, the Government of India seem to desire only approximate figures for subdivisions, the information is sent on without further reference to executive officers which would involve further considerable delay.

8. The "detached officers" shown in statement (3) are, for the most part, employed where new works are in progress, and the officer in charge of the subdivision is unable to cope with the work imposed on him in consequence of the number of the works in progress, or the distances between them.

(Signed) J. O. HASTED, Colonel, R.E.,
Secretary to Govt., P.W.D.

Exd. F. R. Bantleman.
Spare Copies

GENERAL.
ESTABLISHMENT.

Govt. of {1888} Madras.

PUBLIC WORKS.

Dated May, 31st.

Recd. *Encl.*

G.O., 31st May 1888, Nos. 1583, 1584 W.

MAY.

Madras Public Works Establishment

The Government of India addressed with regard to their suggestion relative to the reduction of upper subordinates and the increase of lower subordinates in the —.

Confidential

SECRETARY TO GOVERNMENT P.W. DEPARTMENT, MADRAS 5 SEP.

14/9/88

66

All communications should be addressed to the Secretary.

No. 2170

GOVERNMENT OF INDIA.

PUBLIC WORKS DEPARTMENT.

GENERAL.

To

The Secretary to the Government of Madras
Public Works Department

Simla the 25 August 1888

Sir,

With reference to Public Works Department No. 1731 G. dated 12th July, sanctioning a revised scale of Engineer Establishment for Madras.

I am directed to draw your

your attention to the following figures,

Revised sanction for Executive and		* Executive Engineers	27	
Assistant Engineers, including		Assistants —	19	
15 per cent for absentees in		Clerical	10	
all classes.		Secretariat	38	
	* 69	Absentees	10	
Total No. on rolls	83			69
Deduct on Foreign service	1			
Do transferred to other lists	1			
Add " from "	3			
Available strength under normal conditions	84			
Excess " "	15			

The excess calculated as above consists partly of furloughs in excess of the normal number, and partly of men actually present on duty in excess of requirements.

2. I am to request that, if you have not already named a number of officers equal to the excess shown above, in reply to the call made in Public Works Department confidential letter No 1519 G. dated 21st June 1888, you will now name the balance from amongst the officers at present serving in your Establishment, including those on leave. Those named should be the most inefficient in order of demerit after those already named, and complete confidential reports should be forwarded regarding them

I have the honour to be
Sir
Your most obedient Servant
G H Walters
Under Secretary

Documents accompg
Nil

Pol. Cal. for 5-14-83

Pol. C. No 8949

INDIAN TELEGRAPH. Local No. 234

To Dotacamund From Tripleane

Station. Station.

1 Word	Day.	Hour.	Minute.	General Instructions.
18·4	8	13	52	urgent

To (Person) From (Person) Secd Asstt:

Chief Asstt: P. W. Secretariat P. W. Secretariat

Number 2778 of Eighth

L. N.

Recd. from L. N. Sent to L. N.

DOTACAMJND 8 3 83

Telegraph Master.

Public Works Dept.

69

Confidential.

No 2778W. dated 8th September 1888

To The Secretary to the Govt of India P.W. Dept

Sir.

I am directed to acknowledge the receipt of your letter No. 2190 L. d/ 25th August 1888 in which the attention of the Madras Govt is drawn to certain figures in the sanctioned scale of the Engineer Establishment of this Presidency. It will be seen on reference to your letter No. 1731 L. d/ 12th July 1888 from which the figures are taken that, excluding 8 "Superior officers" a total strength of 71 Executive and Assistant Engineers is given, while the number is now taken at 69 by the omission of the 2 officers in training allowed in the previous Calculation. There is also a clerical error in the figures shown in para 6 of your letter under reply; 8 officers being entered instead of 3 against

PPH
7 Sep

RATES OF CHARGE FOR INLAND TELEGRAMS.

The address (containing name of Station, and name and residence of Addressee) is transmitted free.

Ordinary ... 8 Annas per 4 words
Deferred Messages ... 1 Rupee ... Each additional word, 1 Anna
Circular ... 2 Rupees ... 2 Annas
Urgent ... 4 Annas
A group of 5, or a figure, is reckoned as one word.

No charge for delivery within a distance of 5 Miles.

1. In regard to the scale considered adequate for work in this Presidency. I am to invite attention to my letter No. 25351S d/ 18 August 1888, and to say that His Excellency the Governor in Council proposes to await the orders of H.M. Govt of India on the representations therein made before adding to the list of frames already submitted in compliance with your letter No. 1519 R1 d/ 21 June 1888. H.E. in C. is still clearly of opinion that the present scale is not at all insufficient for requirements & that it will be quite impossible to carry on work with the reduced numbers now proposed.

& letter No. 3522 W d/ 17 Aug. 88

No 2778 W d/ 18 September 1888

Dept. 8.IX.88

10

Mis No 363-364 W d/ 9. II. 89

Engineer & Officer Subordinate Establ.ts — Statement shewing the present and proposed strength of the — fourth division and other charges. Replying to call from India for —

Mis No 416 W d/ 10. II. 89

Intimating by wire to India despatch of above.

1. In regard to the scale

PUBLIC WORKS DEPARTMENT.

General.
Establishment.

LETTER—from

COLONEL H. R. MEAD, R.E.,
Ag. Secretary to the Government of Madras,
Public Works Department,

To

THE SECRETARY TO THE GOVERNMENT OF INDIA,
PUBLIC WORKS DEPARTMENT.

SIR,

I am directed to acknowledge the receipt of your letter No. 2496 G., dated 25th September 1888, and in reply to para. 2 to say that, in the opinion of this Government, the Rushikulya and Periyár divisions should, for purposes of calculation of the scale of Engineer establishment, be classed among the permanent divisions. These divisions must necessarily be maintained continuously for a number of years and be officered to a great extent from the permanent staff; and although, on completion of the works, the scale of establishment will be greatly reduced, and it may then be possible to absorb the works into adjoining divisions, provision will still have to be made for their supervision. The scale of establishment requisite for maintenance purposes can best be considered when the necessity arises.

2. The rearrangement of establishment given in the last column of the statement in para. 3 of your letter under reply is accepted. As regards the number of Assistant Engineers required for sub-divisions, I am to point out that while the total number of permanent sub-divisions is 79, only 31 Assistant Engineers are asked for. The fact that all but 19 sub-divisions are held by upper subordinates goes to show not that no more than 19 Assistant Engineers are needed, but that the scale of Assistant Engineers is much below actual requirements. On return to duty of the Assistant Engineers now away, they would replace upper subordinates in the charge of the more important sub-divisions, the latter being relegated to less responsible charges.

I have the honor to be,
Sir,
Your most obedient servant,

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

FORT ST. GEORGE,
13th October 1888.

Exd. J. Henricus.
Spare Copies

GENERAL.
ESTABLISHMENT.

Govt. of {1888} Madras.

PUBLIC WORKS.

Dated October, 13th.

Read. *Encl.*

13th Oct. 1888, No. 3267 W.

OCTOBER.

Engineering Establishment,
Public Works Department,
Madras

Affording information in connection with the proposed new scale of —.

10242.

C.A.W

Please say if f°. 2522 W Dy 17. 8. 88 quoted in f°. 2778 W Dy 8. 9. & sheets f° in circulation with the folio of that current. Next f°. to Conf.l & with your minor Selection.

11/10.

Sends the file as it stands

3267 W

SECRETARY TO GOVERNMENT

All communications should be addressed to the Secretary.

No. 2496 G

SECRETARY TO GOVERNMENT — 4 OCT. 5 — P.W. DEPARTMENT, MADRAS

GOVERNMENT OF INDIA.

PUBLIC WORKS DEPARTMENT.

GENERAL.

14

To

The Secretary to the Government of Madras

Public Works Department

Simla the 25th September 1888.

Sir,

I am directed to acknowledge the receipt of your No. 2535 W dated 18th August 1888, regarding the new scale proposed for the Engineer Establishment of the Madras Public Works Department and to request information on the following points.

2. The number of permanent Divisions being shown as 29 against 27 as proposed by the Government of India I am to enquire whether the

the intention is to include 4 Rashtkulya and Periyar as Permanent Divisions and to request that it may be clearly stated whether it will be necessary to retain them as such when construction is over, and if so what additional staff of Executive and Assistant Engineers will be required for them.

3. It should be explained that in the cadre framed by the Government of India in Public Works Department ct No. 1431 G dated 12th July. 7 men were provided for these Divisions under the head of 'Special' and if this staff is transferred from Special to Permanent Divisions, the figures of the Government of India and of the Madras Government would compare as follows:-

		Government of India	Government of Madras apparently.
	Superior	8	8
(a) Including one each for Rashtkulya and Periyar	Secretariat	3	3
(b) The original 21 (including two on training) plus 5 transferred from special	Divisional Engineers	29 (a)	29 (a)
(c) One for each Division plus two on training	Assistant Engineers	26 (b)	31 (c)
(d) The original 10 less 2 Executive and 5 Assistant Engineers transferred from special	Special	3 (d)	3 (d)
	(for tank restoration only)		
	Absentees	10	11
	Total	79	85

85

I am to enquire whether the last column of this table shews accurately the extent to which the Government of Madras wish to alter the figures as rearranged above by the Government of India. If it is urged by the Government of Madras that five more Assistant Engineers are now wanted for Permanent Sub-divisions, making 31 in all, while 19 are actually so employed

P.W.C. No. 1074

employed, I am to request that it may be stated why the present staff will not suffice, and where the additional Assistants would be placed.—

I have the honour to be,
Sir,
Your most obedient servant,

G H Walker

Under Secretary to the
Govt. of India

Documents accompanying
Ref.

2778 W 8.9.88
2634-5 W 15.8.88
2223-4 W 21.7.88
1583-84 W 31.5.88
405-18 W 6.2.88
2610-11 W 4.10.87
1147 W 26.4.87
1146
1127 W 25.6.87
573-4 W 22.6.87
535-93 17.9.88

Genl
Subject
P. W. Dept:

No. 3267 W of 13th October/88.

To
The Secy. to Govt.
of India P.W.D.

Sir,

I am directed to acknowledge the receipt of your letter No. 2696 P. of 25th September 1888, and in reply to para 2 to say that in the opinion of this Govt. the Rushikulya and Vamsadhara divisions should for purposes of calculation of the scale of Engineer establishment be classed among the permanent divisions. These divisions must necessarily be maintained continuously for a number of years, and be officered to a great extent from the permanent staff; and, although, on completion of the works, the scale of establishment will be greatly reduced, and it may then be possible to absorb the works and adjoining divisions, provision will still

still have to be made for their supervision. The scale of establishment requisite for maintenance purposes can best be considered when the necessity arises.

2. The re-arrangement of establishment given in the last column of the statement in para 3 of your letter under reply is accepted, as regards the number of Asst. Engineers required for Sub divisions, save to point out that while the total number of permanent Sub divisions is 79 only 31 Asst. Engineers are asked for. The fact that all but 19 Sub divisions are held by Upper Subordinates goes to show not that no more than 19 Asst Engineers are needed, but that the scale of Asst. Engineers is much below actual requirements. On return to duty of the Asst Engineers now away, they would replace Upper Subordinates in the charge of the more important Sub divisions, the latter being relegated to less responsible charges.

I have now.

10-10-55

10/10/55

24/10

Govt. of [1888] Madras.

PUBLIC WORKS.

14/112

Dated

Rect. Encl.

G.O. 15 Oct 1888, No. 3267

Engineering Establishment
Supt, Madras

Affording information in connection with the proposed new rate

7 —

110
2

P 15/10. T 15/11

All communications should be addressed to the Secretary.

RECEIVED IN GOVERNMENT OF INDIA
- 3 DEC 88
PUBLIC WORKS DEPARTMENT

No. 3047 4.

GOVERNMENT OF INDIA.

PUBLIC WORKS DEPARTMENT. 19

GENERAL.

To, The Secretary to the Government of Madras,
Public Works Department.

Calcutta, the 29th November 1888.

Sir,

In reply to your letter No. 3267 W. dated the 13th October 1888, stating that the Purchasing and Perjiar Divisions for purposes of calculation of the scale of the Engineer Establishment should be placed among the permanent Divisions - I am directed to state that the Government of India accept this opinion and is pleased to sanction the following as the Cadre for the Public Works Department in Madras:-

Superintendent	1
Assistant	3
Divisional Engineers including Purchasing and	29
Regular Projects	31
Assistant Engineers including 2 on training	5
Special for Tank Projects	11
	Total — 85

I have the honour to be
Sir
Your most obedient servant.

D.B. Hockley.
Under Secretary to the Government of India

Document Numbering
— 1st —

11/12

Melbourne 12th Sept 1918

Geo. Hayward Esq. ✓
- Edwin Hayward - ✓
- Wm Hayward Esq. ✓
- Wm. Hayward Esq. ✓
- Wm. G. Hayward Esq. ✓

Copy

Genl Collett

A No: 3884. W 4/10 2nd Pt

Ref
Above.
Recorded.

Encl
7.12.18

7/12/18

C. E. Fox Esqre
Eqr. Rd Leonard 22/12

No. 10/12/18

Govt. of (1888) Madras.

PUBLIC WORKS.

Dated

Read

Read

G.O. 10 Dec 1888, No. 3984

Board's
Engr. Establishment

Letter from the Secy. to Govt.
Forwarding new scale
of Establishment
for Kurnool