(1) பக்கங்களின் எண்ணிக்கை 22

(2) புதுக்கித் திருப்பிய நாள் 12.90

(3) ஆதாரங்குறிப்பவர் சுருக்கொப்பம்

# தமிழ்நாடு ஆவணக் காப்பகம்.

(51)

தமிழ்நாடு அரசு

P.W.D. துறை

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|---|---|
| அரசாணை எண். | அச்சகம் |
| மு. கோப்புத் தாள் எண். 2516-7 | பலவகை |
| நாள் : 18-9-1891 | 19 . |

மடிக்கவோ கண்டபடி கையாளவோ கூடாது

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ஆவண. கா-1—18,000—15-6-87.

2576-7
1



GOVERNMENT OF MADRAS.

LOCAL AND MUNICIPAL DEPARTMENT.

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READ—the following papers:—

From J. A. JONES, Esq., MEM. INST. C.E., F.R.S.E., Sanitary Engineer to Government, to the Chief Secretary to Government, dated Fort St. George, 13th April 1891, No. 282.

I have the honour to forward copy of correspondence between myself and the Chairman of the Municipality of Kumbakónam with reference to the submission of accounts for work done.

2. I need not point out to Government that it will in time become impossible for me to meet all the varied requisitions of Municipalities in regard to the mode and time of rendering accounts, and that it seems to me, therefore, that the best plan would be for me to be treated exactly as a Public Works officer executing works such as described in chapter XI, section 1342, of the Public Works Code. There is then the question who is to audit the bills of this department, not in an administrative but an account aspect, and whether this should be done by Accountant-General (Local Fund Department)—which would seem the most convenient—or by the Examiner of Public Works Accounts, I must leave to Government to decide.

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ENCLOSURES.

From J. A. JONES, Esq, MEM. INST. C.E., F.R.S.E., Sanitary Engineer to Government, to the Chairman, Municipal Council, Kumbakonam, dated Camp, Kumbakonam, 28th November 1890, No. 28-I.

With reference to G.O., dated 4th November 1890, Mis. No. 1636 M., I have the honour to request that you will be good enough to place for the present at the Treasury the sum of Rs. 2,000 and send me a cheque book, so that I may when necessary draw against such amount. I will make arrangements to submit a monthly account of expenditure to the Council, and the amount of such expenditure can then be remitted to the separate account of the Sanitary Engineer monthly.

2. I propose to take upon myself the duty of paying the staff monthly and contingencies, &c., until the work starts, when I shall also deal with the contractors, and when work is started the imprest account may require to be increased.

3. To save two sets of accounts being kept I shall be obliged if you will send me a detailed account of all expenditure in connection with the scheme up to date, so that I may post up in my ledger in Madras.

4. Kindly advise the Treasury in reference to Sanitary Engineer's account to acknowledge cheques signed by myself or by my assistant, Mr. Hormusji Nowroji.

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From M.R.Ry. S. SESHAYYA, Rao Bahadur, Chairman, Municipal Council, Kumbakonam, to the Sanitary Engineer to Government, Madras, dated Kumbakónam, 7th April 1891, No. 9.

[*Reference*—Your office letter, No. 28-I, of 28th November 1890.]

I have the honour to request that you will be good enough to cause to be sent to me at an early date a detailed account of expenditure incurred by you from the Municipal fund in March last in connection with the drainage scheme of this town, and the same to be continued for every month in future, so as to enable me to include the expenditure in this office accounts.

From J. A. JONES, Esq., MEM. INST. C.E., F.R.S.E., Sanitary Engineer to Government, to the Chairman, Municipal Council, Kumbakonam (through the Collector of Tanjore), dated Fort St. George, 13th April 1891, No. 281.

With reference to your No. 9, of the 7th instant, I have the honour to inform you that I presume that this request is made with reference to the terms of my letter, No. 28-I, of 28th November last.

2. Since the date of that letter and taking into consideration that with many Municipalities to deal with, I have looked further into the matter and now think that looking also to G.Os., dated 20th June 1890 and 4th November 1890, Mis. Nos. 950 M. and 1636 M., Local and Municipal, respectively, that the accounts should be dealt with by me exactly the same as if I were a Public Works officer.

3. In such a case accounts would not be rendered to the Municipality, but the vouchers would be audited exactly in a manner similar to what other Public Works accounts are.

4. I propose, however, to refer the matter to Government as one which affects the question of all my future dealings with Municipal and Government funds.

5. Meantime there is no necessity to keep the Municipal accounts for March open merely to adjust small items of expenditure for which an advance has been made—possibly there may be no need for such adjustment except tri-monthly.

——

No. 328.

Referred to the Accountant-General for very early remarks.

(By order).

FORT ST. GEORGE,
*24th April* 1891.

(Signed) N. S. BRODIE,
*Ag. Under Secretary.*

——

From M.R.Ry. S. SESHAYYA, Rao Bahadur, Chairman, Municipal Council, Kumbakónam, to the Chief Secretary to Government (through the Sub-Collector and the Collector of Tanjore), dated Kumbakónam, 28th April 1891, No. 66.

In G.O., dated 5th January 1891, Mis. No. 6 M., Government were pleased to direct the Chairman to advance to the Sanitary Engineer all sums required by him for the execution of the drainage project; but until detailed bills should be submitted they were to be treated as advances for works, and not be debited in the accounts to service heads.

2. Accordingly I placed in the local treasury Rs. 2,000 to the credit of Mr. Jones, and furnished him with a cheque book, that he might issue cheques for payment at the local treasury.

3. To my call for adjustment of accounts for March last, Mr. Jones was pleased to send me the enclosed communication; and I beg to submit, for the consideration of Government, the following remarks on the same:—

(1) The proposal of the Sanitary Engineer practically amounts to ignoring the Council in the matter of the drainage works. I seriously doubt whether such a course would be legal. The Council, I beg to submit, ought to have the right of checking, in the ultimate resort, all municipal expenditure. Financial control is the chief function of Municipal Councils. I do not wish to question in the least the superiority of professional check over the unprofessional; but the latter is not altogether useless, and economy is sometimes secured by it, when it is backed by local knowledge. I am compelled to submit these observations for the consideration of Government, because of the question often put to me in the Council as to what is being done in connection with the drainage works. So long as Mr. Walsh was in charge of the works, the Council and the Chairman were in perfect ignorance as to what was going on with the drainage works. Matters have, I am glad to observe, changed since Sub-Conductor A. C. Lord was put in charge of the works. The Sanitary Engineer has courteously kept me informed from time to time as to what is being done, and I communicate the same to the Council. In these circumstances,

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I beg to submit that it is not advisable to deprive the Council of the right of checking the drainage bills, due deference being, of course, paid to professional control.

(2) So long as bills are not submitted to the Council with necessary vouchers, payments made on the orders of the Sanitary Engineer have to be treated as advances, and I do not see my way to closing the accounts without adjustment of the advances. If it is the order of Government that the advances made to the Sanitary Engineer should be treated as payments requiring no vouchers in this office for supporting them, the accounts might be closed as they are.

4. I beg to take this opportunity of submitting whether it would not simplify the accounts if the Sanitary Engineer were to order all his payments in connection with the drainage works by means of bills on the Municipality payable like other bills. The Sanitary Engineer is the best judge of the position, and must consult convenience and despatch of work in his office, dealing, as he does, with so many institutions. I make the suggestion only for the facility of municipal accounts.

——

R. No. 1529.

Forwarded.

(Signed) C. J. WEIR,
*Ag. Sub-Collector.*

*2nd May* 1891.

——

No. 398 M.

Forwarded.

(Signed) J. THOMSON,
*Acting Collector.*

TIRUTURAIPUNDI,
*7th May* 1891.

——

No. 380.

Referred to the Accountant-General, in continuation of endorsement, dated 24th April 1891, No. 328.

(By order.)

FORT ST. GEORGE,
*19th May* 1891.

(Signed) N. S. BRODIE,
*Ag. Under Secretary.*

——

From T. W. RAWLINS, Esq., Accountant-General, Madras, to the Chief Secretary to Government, dated Fort St. George, 3rd June 1891, No. 64-L.F.D.

With reference to the Under Secretary's endorsements, Nos. 328 and 380, dated 24th April and 19th May 1891, respectively, referring to me for remarks letters from the Sanitary Engineer to Government and the Chairman of the Kumbakónam Municipality regarding the manner of accounting for expenditure on the Kumbakónam drainage works entrusted for execution by the former of these officers, I have the honour to observe that the accounts of the works referred to must be dealt with either—

(*a*) by placing at the disposal of the Sanitary Engineer, both in the local treasuries and in the Bank of Madras, such sums as may from time to time be required for expenditure by that officer. These should be debited in the District Municipality's accounts to the suspense head "Advances" pending adjustment by the submission of accounts with vouchers to be audited either by the Accountant-General or the Public Works Examiner,—preferably the former, as he is already entrusted with the annual audit of the accounts of District Municipalities by means of his special inspecting staff;

(*b*) by placing the requisite funds at the disposal of the Sanitary Engineer in the manner explained in (*a*) above and debiting them to "Advances," but accounting direct to the Municipal Council for the outlays incurred; or

(*c*) by the Municipal Council making disbursement on bills and other vouchers duly checked and passed for payment by the Sanitary Engineer, and by debiting the outlay thus incurred direct to the budget heads concerned.

2. The first of these schemes would involve very considerable increase of work in the office of the Sanitary Engineer, who would have to keep up a complete set of accounts and registers, as well as in those of the District Municipalities concerned, and would have the additional disadvantage of causing some delay in the adjustment of the advances made.

3. Notwithstanding these disadvantages, concurrent and regular audit in my office appears to have been preferred by the Sanitary Engineer, in consideration, apparently, of the heavy expenditure on the works of the kind under notice and of the check it would impose on outlay in excess of or without allotments, though he really has the remedy in his own hand.

4. *System* (*b*).—Although this would dispense with the necessity of the special establishment and the consequent system of double audit necessary under System (*a*), as well as with the preparation of vouchers in triplicate, it would involve additional account work in the Engineer's office and would entail the same adjustments as Scheme (*a*). Under the circumstances, therefore, System (*b*) also does not commend itself for adoption.

5. System (*c*) has the advantage of simplifying the accounts to be maintained and rendered by all concerned. It is the cheapest of the three systems under consideration, and has the following further advantages :—

(1) No funds need be placed at the disposal of the Sanitary Engineer beyond a sum sufficient to meet petty expenses connected with advertisement and other charges. This will greatly reduce the amount of Public Works expenditure that must pass through the "Advance Account." For petty payments and for payments on account of daily labour by the officers or subordinates in immediate executive charge, imprests may be allowed. The Sanitary Engineer would exercise a professional check as controlling officer and pass for payment the bills and other vouchers relating to works executed after the required scrutiny. On receipt of these vouchers with the counter-signature of the Sanitary Engineer, the necessary payments would be made by the Chairman with the knowledge and under orders of the Council.

(2) The Sanitary Engineer would not maintain any other accounts than imprest accounts (in the ordinary Public Works form) and the register of works with its subsidiaries to guard against expenditure in excess over sub-heads of estimates, &c. The register of works would also be found useful for purposes of the annual reports required by No. 9 of the Sanitary Board rules to be rendered to Government, or for any other statistics which might be considered necessary.

(3) The amounts disbursed from time to time on bills, &c., being duly passed by the Sanitary Engineer, would at once be finally debited to the budget heads concerned, and thus no advances for works would be shown as outstanding at the end of the year.

6. Under the existing system, cheques are issued in payment by the Sanitary Engineer and transmitted to the parties concerned for encashment at the local treasuries. Under System (*c*), payments would be similarly made by cheques issued direct by the Chairman himself, instead of by the Sanitary Engineer. There would thus be no cause for delays in disbursements.

7. Payments required to be made at Madras for pipes, machinery, &c., could be made in the same manner as those made by Municipalities in the case of similar purchases.

8. I may add that, even under the system recommended for adoption, the Sanitary Engineer would be quite competent to decide upon the agencies to be employed for the execution of works, whether contract or departmental, and to arrange for all the other necessary details connected therewith ; and that if contractors are entertained, their selection will, of course, rest with that officer.

2516-7/3



Order—dated 24th June 1891, No. 955 M., Local and Municipal.

Of the three alternative systems referred to by the Accountant-General in his letter read above, the third and last is, as stated by him, at once the most simple and most easily carried out. It is therefore approved, and will be adopted by the Sanitary Engineer in future.

2. In this connection, it must be clearly understood that, in selecting contractors, settling the terms of contracts, and making arrangements for the purchase of the necessary stores and plant, full discretion must vest in the Sanitary Engineer. Any objections which may be raised by the Councils concerned will be duly considered, but must be addressed to Government through the Sanitary Engineer, and will, on no pretext whatever, be allowed to interfere with the prompt execution of the works in progress. Unless Councils are willing to accept these conditions, the services of the Sanitary Engineer, and any aid which may have been promised from Provincial funds, will be withdrawn.

3. The amount of the imprests required by the Sanitary Engineer must be settled by that officer in communication with the Councils concerned. All contracts arranged for by him will be drawn out in the name of the Council under its authority and signed by the Chairman and one of the councillors, as required by section 45 of the Municipal Act. Any letters which it may be necessary to despatch, containing orders for stores or plant, must be legalized in the same manner.

(True Extract.)

J. F. PRICE,
*Chief Secretary.*

To the Sanitary Engineer.
„ the Accountant-General.
„ all Chairmen of Municipal Councils,
through the Collectors concerned.

Exd. A. Raitt.

Gobt. of {1891} Madras.

LOCAL AND MUNICIPAL.

*Issued*

*Recd.* *Encl.*

G.O., 24th June 1891, No. 955 M.

JUNE.

Works.

Passing orders on the subject of accounting for expenditure on drainage and other works executed under the supervision of the Sanitary Engineer.

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4



GOVERNMENT OF MADRAS.

LOCAL AND MUNICIPAL DEPARTMENT.

READ—again the following papers:—

G.O., dated 2nd April 1891, Mis. No. 479 M., Local and Municipal.

*Read*—the following papers:—

From J. A. JONES, Esq., MEM. INST. C.E., F.R.S.E., Sanitary Engineer to Government, to the Chief Secretary to Government, dated Fort St. George, 5th December 1890, No. 637.

I have the honour to forward the marginally-noted correspondence, and, in view of the difficulty the Public Works Department have, and apparently will have, in finding duly qualified upper subordinates who can be placed in charge of works in the Sanitary Engineering Department, I find it necessary to address Government on the whole subject.

Letter from the Sanitary Engineer, to the Chief Engineer, Public Works Department, dated 28th November 1890, No. T-30.

Letter from the Chief Engineer, Public Works Department, to the Sanitary Engineer, dated 4th December 1890, No. 5005 C.

2. Kumbakónam is the only town, out of 24 water-works and 13 drainage-works schemes in view, at which work has been sanctioned and which ought to have been started long ago. Of the 24 water-works schemes and 13 drainage schemes under investigation or design, I believe that the following stand every chance of proceeding at an early date:—

| | Approximately estimated. |
|---|---|
| | Rs. |
| 1. Ootacamund water-supply .. .. .. | 63,000 |
| 2. Coonoor do. .. .. .. | 50,000 (Estimates not complete.) |
| 3. Coonoor drainage .. .. .. .. | 40,000 |
| 4. Trichinopoly water-supply .. .. .. | 3,00,000 |
| 5. Dindigul do. .. .. .. | 70,000 |
| 6. Madura do. .. .. .. | 3,00,000 |
| 7. Adóni do. .. .. .. | 1,53,742 |
| 8. Bellary do. .. .. .. | Unknown. |
| 9. Kurnool do. .. .. .. | Do. |
| 10. Bezváda drainage .. .. .. .. | Do. |
| 11. Masulipatam water-supply .. .. .. | Do. |
| 12. Ongole do. .. .. .. | Do. |
| 13. Salem drainage .. .. .. .. | 2,63,000 (For drainage.) |
| 14. Vellore water-supply or drainage .. .. | Unknown. |
| 15. Conjeeveram water-supply .. .. .. | 1,10,000 |
| 16. Tirupati drainage .. .. .. .. | |

3. The first-named town has an Engineer and therefore does not require to be further considered.

4. But as to the other towns, some staff to take immediate charge of the work must be provided and I need not point out to Government that this department is one which must, from its very *raison d' etre*, continue to expand and which Government will wish to expand as showing the increasing amount of sanitary works under construction.

5. I think, therefore, that the large question of the necessity for providing a proper staff of subordinates for the department ought at once to be faced and I think that towns might be grouped into sets of three or four and an officer of the rank of Assistant Engineer placed in charge with an Inspector under him on each work.

6. Thus Trichinopoly, Dindigul and Madura might form one group; Tirupati Vellore and Salem another; Adóni, Kurnool and Bellary another, and so on.

7. Trustworthy men of proper qualifications cannot be readily picked up. The majority of men one can get are either failures or there is some other reason why they are out of employment.

8. We can therefore in this country depend only on retired men of the upper subordinate class, but the class of work would be quite new to them and men who have retired are not usually gifted with that amount of energy which is required to lay out, start and give continued supervision to a new work and a class of works which, from their nature, require speedy execution.

9. Government have relieved Municipalities from any share in the expenditure on account of this department, and as provision is always made in the estimates for supervision of works, I do not think that any hardship would be created if each group of Municipalities (where work is proposed or started) had an Assistant Engineer on a pay of Rs. 350 to Rs. 500 per mensem.

10. I think that the appointments ought to be temporary—non-pensionable, but that a guarantee of employment for at least three years ought to be given and something must be sacrificed, if necessary, to get good men, because incapable men are not cheap at any price, but I do not think there need be any fear that there will not be enough work even after that time has expired.

11. I would propose to Government that at least three men such as I have suggested should be engaged at once. I can guarantee to find work for them even now and one might be sent to Kumbakónam at once.

12. I am proceeding to Rangoon and Calcutta on the 20th instant and I shall be obliged if this letter can be dealt with emergently, as, if Government agree to my proposals, I should be in a position to select men at Rangoon or Calcutta, or at least see them there and forward their names for approval to Government.

13. As to Kumbakónam in particular, I am much annoyed that the Municipality has been so unfortunate in the men sent down for the work; but the surveyor and draftsman there are now working up the new plans and estimates, and those for the Nandalar outfall (6 miles) will be ready shortly. I hope to get the land marked out soon and I shall send one of my assistants to Kumbakónam to push on the work throughout the Christmas holidays when he can be spared from my office. The whole of the plans, sections and estimates have had to be prepared anew and hence the long delay in starting work.

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From the Sanitary Engineer to Government, dated 9th December 1890, No. 650.

Abstract.—Informs that there is no immediate urgency in disposing of the whole question of future staff for the execution of water-supply and drainage works referred to in his No. 637 of 5th December 1890, as Mr. Lord's transfer from Kumbakónam has been cancelled.

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Reference—dated 19th December 1890, No. 1101.

Owing to the rapid development of the Sanitary Engineering Department and the heavy expenditure which will shortly be incurred by it, the Government is of opinion that the time has now come for considering the propriety of attaching it to the Public Works Department for the purposes of discipline and control and criticism

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of the Sanitary Engineer's plans and estimates. Mr. Jones' first letter read above will therefore be referred to the Secretary to Government, Public Works Department, for remarks as to how this can best be done.

(Signed) N. S. BRODIE,
*Ag. Assistant Secretary.*

To the Secretary to Government, Public Works Department,
with Current Nos. 3017 and 3052 M., in original, to be returned.

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No. 407 C.

Note.

The undersigned considers that the best and simplest method of attaining the end contemplated in Local and Municipal Department memorandum, No. 1101 of 19th December 1890, would be to grade the Sanitary Engineer on the Public Works establishment as a Superintending Engineer, extra to the regular scale, precisely as the Consulting Architect is now graded.

2. All estimates for works to be carried out from Municipal or Local funds should include the regular percentage for Public Works establishment, which would then be provided in the usual course. It would be open to Government in any case to relieve the Municipality concerned of the whole or any portion of this charge by a grant-in-aid from Provincial funds.

3. The designs and estimates prepared by the Sanitary Engineer would then, as a matter of course, pass through the Chief Engineer's hands before submission to Government, while the establishment employed in execution of the works would be part of the regular Public Works establishment and be subject to the same discipline and control.

4. It would be an incidental advantage of this course that the greater part of the works in question would probably be executed by the Executive Engineers of Divisions under the control of the Superintending Engineers, the Sanitary Engineer being thus relieved of executive work and left free for his own legitimate duties of design and advice.

5. The additional work thus thrown on the Public Works Department would of course require a small increase in establishment, the cost of which would be met by the percentage provided in the estimates for that purpose; this increase would be entirely in the subordinate class and in the lower grades of the Engineering class and would be almost entirely, if not entirely, "temporary;" whether any increase to the permanent establishment would be necessary, the undersigned cannot at present say with any degree of certainty, but if experience showed a small addition to be necessary, there is no reason to suppose that the Government of India would refuse to consider a proposal for its sanction.

6. The memorandum under reply asks for the views of the undersigned as to the best means of carrying out the policy indicated therein, and not as to the propriety of that policy; but the undersigned thinks it right to say that he considers the course in question to be eminently desirable. It is no slight to Mr. Jones to say that it is advisable that his schemes should be subject to further professional examination before being sanctioned for execution, and if the proposed course is advisable as regards the design of works, it is still more so as regards their execution.

7. At present there is absolutely no superior engineering control over the execution of works under the Sanitary Engineer, except that of the Sanitary Engineer himself, and no officer, however able or however active, can visit works scattered over the whole Presidency at sufficiently frequent intervals to ensure good work; the

such funds as are necessary placed at my disposal from time to time as an advance or imprest, the imprest account being recouped on submission of bills properly signed and vouched for the work as completed and paid for.

(4) The appointment of an agent at home being necessary, who can arrange for the payment against bills of lading on shipment of machinery, pipes, &c. (should tenders from English Firms be accepted, and they will probably be found cheaper than local Firms), that Messrs. H. S. King and Co., who are the Madras Municipal agents, be so appointed. Their charge is $2\frac{1}{2}$ per cent., and they also appoint, when necessary, Inspectors to pass machinery and pipes before acceptance in England; their charges will be covered by the rates in the estimates which are intended to include the English price of goods *plus* shipping charges, freight, landing charges and conveyance by rail to site in this country. This course I consider very preferable to ordering machinery through the India Office Store Department, where very considerable delays occur.

15. As the works increase in number, I shall, from time to time as necessary, ask for an increased staff; but if my proposals as above are generally sanctioned, I shall be able to proceed with the works already ordered for execution.

16. As I shall not be able to do much as regards Trichinopoly until the above points are settled, I trust that orders may be issued at an early date.

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No. 290.

Referred to the Chief Engineer, in continuation of G.O., dated 2nd April 1891, Mis. No. 479 M., for consideration of these proposals in connection with the questions referred in that Government order.

Fort St. George,
16*th April* 1891.

(Signed) O. V. BODDY, Major, R.E.,
*Under Secy. to Govt., P.W.D.*,
for *Chief Secretary*.

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No. 257 D.

Endorsement.

Proceedings in the Local and Municipal Department, dated 2nd April 1891, No. 479 M.

Letter from the Sanitary Engineer to Government, dated 11th March 1891, No. 166.

Endorsement thereon by the Local and Municipal Department, dated 16th April 1891, No. 290.

Memorandum by the Sanitary Engineer to Government—A.

Joint note by the Acting Chief Engineer, Public Works Department, and Sanitary Engineer to Government, dated 21st May 1891.

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Enclosures.

Proposals for establishment for Sanitary Engineer (with reference to G.O., Mis. No. 479 M., of 2nd April 1891), by Acting Chief Engineer and Sanitary Engineer.

It is evident from the large amount of work sketched out in A, that if this work is to be carried out in a satisfactory manner without hindrance, a special staff must be allowed, whether this be provided by advertising in the open market or by officers and subordinates lent by the Public Works Department.

The existing staff of the Public Works Department has more than enough work as it is, and in times of pressure it is almost impossible to carry work on satisfactorily.

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It is therefore evident that the Public Works Department cannot spare a single man to lend to the Sanitary Department. Whatever happens, or however constituted, the staff of the Sanitary Department must be in excess of the present strength, and therefore a special additional service must be provided for.

This being so, the question is—how such service shall be constituted?

It is thought that the proposal that the works when designed and estimated by the Sanitary Engineer and duly approved by Government should be carried out by Executive Engineers of Divisions, will not be at all a satisfactory arrangement, for—

(1) Works of this class require *constant*, if not *continuous*, supervision, and it will be impossible for an Executive Engineer of the Public Works Department, who now-a-days has so large a charge that it takes him a year to see the whole of it, to devote sufficient time for this purpose.

(2) It is always very difficult in this class of work to carry out, without constant reference, the plans and estimates made by others.

(3) There would be a dual control—no man can serve two masters—on the one hand the Superintending Engineer of the circle would have just cause for complaint if the Executive Engineer neglected, as he would be obliged to do, his own proper work in order to supervise work for the Sanitary Engineer, and the latter would undoubtedly grumble if his work was either not carried on expeditiously or scamped in the absence of proper supervision.

Then again the Sanitary Engineer would be quite justified in declining all responsibility in the results of his designs if he were not placed in the position of a superintending officer with powers to alter or modify such designs, for in these kind of works it is impossible to foresee all requirements.

Then as regards the position of the Chief Engineer, Public Works Department, with regard to the Sanitary Department, if he is to scrutinise or revise the designs and lend his officers to the Sanitary Department to carry them out, in case of failure or misadventure, the Public Works Department would be held to blame, though, as is above shown, it will be impossible for it to undertake such works satisfactorily.

Taking all these things into consideration, it is thought advisable to make the Sanitary Engineer and his department totally independent of the Public Works Department as far as designing and execution of work is concerned, except, of course, that the Chief Engineer, Public Works Department, should act as adviser to the Government on all schemes they may wish to consult him about.

*Superior Staff.*—The Sanitary Engineer should have under him a staff sufficient for the purposes of investigation and execution of the works required, and for this purpose it seems that the undermentioned staff is necessary. This staff is proposed with the idea of carrying out all the works within a few years, but it might be thought advisable to commence with only one or two sets of works geographically close together, and then, on completion, transport the staff elsewhere in much the same way as the Tank Restoration Scheme is being carried on. This would, however, delay work and there are several towns lying far apart for which schemes have been more or less matured and ready almost for execution. This will be a question for the Government to decide. It is proposed to divide the Presidency roughly into three Sanitary Circles; each Sanitary Circle to consist of two Public Works Department Circles.

The Sanitary Engineer would have charge of the whole and be director of all the works whether of investigation or execution, with powers of a Superintending Engineer, Public Works Department. It might be a convenient arrangement and relieve the Local and Municipal Department of much work if the Sanitary Engineer were made Secretary to Government. Under him would be a Deputy Sanitary Engineer whose sole duty it would be to supervise generally the works under execution, or, in case of necessity where the Sanitary Engineer could not take up certain work, to direct the designing of such work; the Deputy to have the powers of an Executive Engineer, Public Works Department. Under the above would be three Assistant

Sanitary Engineers, each in charge of a Sanitary Circle, for the purposes of directing surveys, &c., under instructions from the Sanitary or Deputy Sanitary Engineer, and executing such works as may have been sanctioned.

*Subordinate Staff.*—This will at first be small. The number will be decided by the Sanitary Engineer and will increase as work develops; but according to Statement A, a fairly large number will be at once required, and the number will be restricted not by the amount of work there has to be done so much as by the difficulty in procuring efficient men, and herein lies the *crux* of the whole question. There is *no other source* from which experienced men (and no other sort will do for works of this nature) can be obtained except from the ranks of the Public Works Department. Some few may be obtained from retired Public Works Department men, but very few, as they must be *physically capable* men as well as experienced. The only plan that suggests itself is to augment, as early as can be, but gradually, the existing Public Works Department strength—to transfer a few capable men to the Sanitary Department, their places being taken in the Public Works Department by promoting junior and deserving men, and putting new hands in (and there are several now passed practical course men unprovided for) at the bottom. This augmentation of the Public Works Department seems to be the only way out of the difficulty, if the sanitary works are really to be carried out at all satisfactorily.

All the above staff, with the exception of the Sanitary Engineer, who will thus be the head of a separate department, will be graded for promotion, &c., in the Public Works Department, and their status will be regulated in an exactly similar manner, and individuals, either officers or subordinates, may or may not be (question to be decided by Government) transferable from one department to the other. The officers would thus remain Government officers and would not be lent to Municipalities, and no question as to pensionary contributions would arise. As regards temporary staff which will be required on each work from time to time, the employment of these could be regulated in the same manner as in the Public Works Department.

*Accounts.*—As regards accounts, it might be advisable to treat the whole of the Sanitary Department as one large Public Works Department Division under the Examiner, Public Works Department. The Assistant Sanitary Engineers to be as Sub-Divisional officers, Public Works Department, and the Deputy Sanitary Engineer as an Executive Engineer, to render accounts to the Examiner direct. A reference on this point has already been made to Government by the Sanitary Engineer, but no orders have as yet been received.

*Stores.*—As great delay is experienced in many instances where stores are ordered through the India Office, it would be advisable to order them, as is done in the Madras Municipality, through an agent in England, who could arrange with the Firms whose tenders might be accepted, for the payment against bills of lading on shipment of machinery, &c. Municipalities are not bound to get supplies through the Secretary of State. The other proposals made by the Sanitary Engineer in his No. 166 of 11th March 1891, in respect to agency and powers of making contracts and as to the manner in which funds will be placed at his disposal, seem satisfactory.

*Funds.*—As regards the contributions from Municipal funds towards Establishment and Works, it will rest with the Government to decide the amount in each particular case, but doubtless the bulk of the money will have to be provided from Provincial funds, but it may be pointed out that the Municipalities under the above scheme will be relieved from making the grants now required for surveys, &c.

*Office.*—An increase in the office staff is apparently desirable, but Mr. Jones will submit separate proposals on this head which will include the necessary Accounts staff.

(Signed) A. C. SMITH, Lt.-Col., R.E.,
*Ag. Chief Engineer, P.W.D.*
( ,, ) J. A. JONES,
*Sanitary Engineer to Govt.*

2576-7/8



Extract from Memorandum by the Sanitary Engineer to Government.

* * * * *

The towns which are now being dealt with are as follow:—

North Arcot District.

*Vellore.*—Water-supply scheme, levels taken.
*Tirupati.*—Drainage scheme, levels taken.

South Arcot District.

*Chidambaram.*—Water-supply scheme, levels being taken by Public Works Department.

Bellary District.

*Bellary.*—Water-supply scheme, levels not yet taken nor any investigation made.
*Adóni.*—Scheme submitted, but details, schedules, abstract plans, &c., yet to be done.

South Canara District.

*Mangalore.*—Drainage scheme, ordered to be investigated.

Chingleput District.

*Conjeeveram.*—Water-supply scheme, to be prepared; no levels taken yet.
*Chingleput.*—Drainage scheme, is to be prepared.

Coimbatore District.

*Coimbatore.*—Water-supply and drainage schemes, under investigation; levels taken.
*Erode.*—Drainage scheme, to be prepared.
*Karúr.*— Do. do. do.

Cuddapah District.

*Cuddapah.*—Drainage scheme, ordered to be prepared; funds granted.

Ganjam District.

*Berhampore.*—Water-supply scheme, under investigation; levels taken by Public Works Department.
*Chicacole.*—Drainage scheme, to be prepared; funds granted.

Godavari District.

*Cocanada.*—Water-supply scheme, to be prepared; funds granted.
*Rajahmundry.*—Water-supply scheme, to be prepared; but funds not as yet granted.
*Ellore.*—Drainage scheme, to be prepared.

Kistna District.

*Masulipatam.*—Water-supply required, artesian well to be bored (sanctioned).
*Guntur.*—Water-supply scheme, under investigation.
*Bezváda.*—Water-supply and drainage, under investigation; levels taken.

Kurnool District.

*Kurnool.*—Water-supply, under investigation; preliminary report submitted.

Madura District.

*Madura.*—Water-supply scheme, estimate under preparation.
*Dindigul.*—Water-supply scheme, estimates submitted.
*Periyakulam.*—Drainage, estimate to be prepared.
*Palni.*— Do. do. do.

Malabar District.

*Calicut.*—Drainage scheme, to be prepared.
*Cochin.*—Water-supply and drainage scheme, ordered.
*Tellicherry.*—Drainage and water-supply schemes.
*Cannanore.*—Drainage scheme.

Nellore District.

*Nellore.*—Drainage scheme, ordered; water-supply, to be investigated; funds asked for.
*Ongole.*—Water-supply scheme, estimates ordered.

Nilgiris District.

*Ootacamund—South.*—Water-supply, estimates submitted.
*Coonoor.*—Drainage, under execution ; water-supply, schemes submitted.

Salem District.

*Salem.*—Drainage and water-supply projects, under investigation ; levels taken.

Tanjore District.

*Tanjore.*—Water-supply, estimates under preparation.
*Negapatam.*—Drainage scheme, ordered to be prepared.
*Kumbakonam.*—Drainage, under execution.

Tinnevelly District.

*Tinnevelly.*—Report on water-supply scheme, ordered.
*Palamcottah.*— Do. do. do.
*Tuticorin.*— Do. do. do.

Trichinopoly District.

*Trichinopoly.*—Water-supply scheme, estimates submitted.
*Srirangam.*—Report on water-supply, submitted.

Vizagapatam District.

*Vizagaputam.*—Water-supply scheme, estimates to be prepared.

(Signed) A. C. SMITH, Lt.-Col , R.E.,
*Ag. Chief Engineer, P.W.D.*
( „ ) J. A. JONES,
*Sanitary Engineer to Govt.*

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The joint note required by paragraph 3 of the orders quoted above, is herewith transferred to the Local and Municipal Department together with a note "for orders," dated 22nd May 1891, and the rescript of the Honorable Member thereon.

2. It is thought that the proposed application to the Government of India for the services of Assistant Engineers should be deferred until it is decided whether they, with the Sanitary Engineer, would be attached to, or be outside, the ordinary Public Works Department.

Ootacamund, 26*th May* 1891. (Signed) A. C. SMITH, Lt.-Col., R.E.,
*Ag. Jt. Secy. to Govt., P.W.D.*

To the Local and Municipal Department, with the 4 enclosures forwarded with No. 479 M., dated 2nd April 1891, and the following papers:—(1) Letter from Sanitary Engineer to Government, with endorsement by Local and Municipal Department, No. 290, dated 16th April 1891 ; (2) Memorandum by the Sanitary Engineer to Government, marked A ; (3) Joint note by the Acting Chief Engineer and Sanitary Engineer, dated 21st May 1891 ; (4) Note "for orders," dated 22nd May 1891, and the rescript of the Honorable Member thereon.

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Order—dated 14th August 1891, No. 1306 M., Local and Municipal.

In the papers read above, the Sanitary Engineer with Government makes certain proposals with a view to carrying out the works entrusted to him with greater efficiency and despatch than is possible at present. His Excellency the Governor in Council now proceeds to deal with these suggestions and those of the Public Works Department contained in the second letter read above. The proposals made are briefly as follow ;—

(1) That the Sanitary Engineer should be attached to, and graded upon, the staff of the Public Works Department.

(2) That he should be empowered to deal, as Secretary, directly with the members of Government.

2518-1/9



(3) That he should be placed at the head of a Department, to be recruited (for executive purposes) from the staff of the Public Works Department.

(4) That as regards accounts, the whole of the Sanitary Department should be treated as a Public Works Department Division under the Examiner of Public Works Accounts.

(5) That definite orders should be passed with regard to the question of entering into contracts and ordering stores, &c., for works under contemplation.

2. (1) The first of these points has been fully considered and decided in the negative by G.O., dated 2nd April 1891, No. 479 M., paragraph 1.

(2) In view of the fact that the Sanitary Engineer is, to a large extent, an inspecting as well as an executive officer, and for other reasons, it is not considered expedient that he should be appointed a Secretary to Government.

(3) The Government of India will be addressed in the Public Works Department for the loan of the services of three Assistant Engineers who will be placed under the Sanitary Engineer as suggested by the Chief Engineer or will take the place of Madras officers detailed for work under Mr. Jones. These officers will be treated as being outside the ordinary Public Works Department. The necessary subordinate staff will be provided by the latter department, their places therein being taken by temporary substitutes. These subordinate officers, although lent to the Sanitary Department, will be graded and promoted according to the ordinary rules of the Public Works Department, on whose list their names will be retained. Under the arrangements now sanctioned, all expenses incidental to the preparation and execution of schemes will be paid from Provincial funds and a percentage on the total estimated cost of works will be entered in the estimates submitted by the Sanitary Engineer with a view to meeting this expenditure. It is considered that a rate of 15 per cent. will suffice for this purpose.

(4) The proposals of the Public Works Department, with regard to the preparation and audit of accounts, are not in consonance with the provisions of the District Municipalities Act and cannot therefore be approved. The sums disbursed by the Sanitary Engineer must always be obtained from the Municipal Fund, and under section 28 (2) of the Act, payments from that fund can only be made under the orders of the Chairman or, in his absence, of two Municipal Councillors. The responsibility for expenditure rests finally, therefore, with the Chairman, and the final audit of the accounts must be carried out in his office. There is, however, no objection to the Chairman transferring the requisite funds as an "Advance recoverable" to the Sanitary Engineer, the latter spending the money and submitting vouchers for it, from time to time, to the Municipal Council. This course should be invariably adopted in future. The Accountant-General will further make special arrangements for auditing the accounts rendered by the Sanitary Engineer in accordance with the above procedure, the results of the audit being communicated to the Municipal Councils for incorporation in their accounts.

(5) This subject has been separately dealt with in G.O., dated 24th June 1891, No. 955 M.

(True Extract.)

for Chief Secretary. 2/9/91.

To the Public Works Department,
with copy of G.O., dated 24th June 1891, No. 955 M.
„ Sanitary Engineer.
„ Accountant-General.
„ Chairmen of all Municipal Councils,
through the Collectors concerned.
„ President, Municipal Commission, Madras,
with copy of G.O., dated 24th June 1891, No. 955 M.

Exd. P. L. Pereira.

P. W. CURRENT No. 9/93

257 Dg/26.5.91
407 C — 23.1.91

# Govt. of {1891} Madras.

## LOCAL AND MUNICIPAL.

Issued

Recd. Encl.

G.O., 14th Aug. 1891, No. 1306 M.

AUGUST.

### Sanitary Works.

Passing orders on the proposals submitted by the Sanitary Engineer with a view to carry out the works entrusted to him with greater efficiency and despatch than is possible at present.

No 2516 W dy / 18 Sept 1891 P. W. Deptt.

2516-2/10

Proceedings of the Madras Government

Under date the

Read the following:-

Progs of the L. & M. Deptt. (No no. 1306 M of 14 Aug 1891)

Communicated to

Supt Engineer for in-

formation.

2. The following letter

will be addressed to the

Govt of India.

To

Supt Engineers. D 1919

Catpork.

Trichy.

(No 2517 W dy 18 Septbr)

To the Secy to the Govt of India

P. W. Deptt.

Sir,

I am directed to

forward a copy of the

Proceedings of this

Government dated

14th August 1891 No: 1306 M
Local & Municipal, Re=
-garding proposals
to increase the efficiency
of the department of the
Sanitary Engineer with
this Government, and to
request that, if available,
the services of three
Assistant Engineers may
be placed at the disposal
of His Excellency the
Governor in Council,
for duty under the
Sanitary Engineer or
to take the place of
Madras Officers detailed
for such duty

2. I am to add that
this Government is
unable to post these
Officers to the Sanitary

2516-7/11

Engineer department
from the limited number
of Asst Engineers at
present on duty in this
Presidency.

Yours &c=

gvb
10.5.91

W
12.9

Dessd
Ltr to
Govt
No 1306
14-5-91

Cn

21-9-12 V

Nos. 2516-7 W 2/18 Sept 189

Dec 19/9
Feb 63. 1
Mar 12. 1
May 15. 1

Jan 21/9