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MIL NADU ARCHIVES

ERNMENT OF TAMIL NADU

PWD DEPARTMENT

G.O. No. B.P. No.	1640 & 1641	Press. Mis.
Dated	1 7. 1884	~~197~~ .

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148

1st July 1884, No. 1640 W., Public Works.

1640/1641

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

General.
Establishment.

Read—the following papers :—

Proceedings of the Madras Government, Educational Department, dated 4th October 1883, No. 670.

From H. B. GRIGG, Esq., M.A., Director of Public Instruction, Madras, to the Secretary to Government, Public Works Department, dated Ootacamund, 14th May 1884, No. 0/155.

In replying to your official memorandum, No. 317 C., dated 11th February 1884, I have the honor to state that, when writing my letter of the 6th September 1883, I was under the impression that sub-engineers and supervisors constituted the upper subordinate establishment, overseers and sub-overseers, the lower subordinate; and was not aware that men entering the department as overseers were entitled to rise to the grade of sub-engineer, or that even sub-overseers, if they existed in this presidency, would, under paragraph 62 of the Public Works Department Code, be eligible for promotion to the upper subordinate establishment. It would appear, therefore, that at present there is really no great dividing line, excepting that between the engineer and subordinate establishment, in the department based essentially on educational qualifications, and even the distinction between these two establishments cannot, I fancy, be said to be based wholly on difference in general and professional educational attainments. It is true that a man to be appointed a sub-engineer must hold a supervisor's certificate from the civil engineering college (paragraph 125) but that certificate implies no difference in the quality of his educational attainments but only a somewhat greater accuracy of knowledge of the same subjects, as ascertained by obtaining 60 per cent., instead of 40 per cent., of marks in the same subjects. I notice, moreover, that, under paragraph 104 of the Code, promotion in the upper subordinate does not appear necessarily to proceed from class to class, except as regards overseers of the 1st grade. I observe also that by paragraph 126, in considering the claims to promotion in the upper subordinate grades, the holding of certificates higher than that of overseer is to be taken into account. I presume that a supervisor's certificate is referred to.

2. I have noted these facts to show that, although there is no great dividing line between the upper and lower subordinate establishments, even now there is practically, it seems to me, an educational line marking off the members of the upper subordinate establishment who can rise to the higher classes of the establishment from members who, in consequence of professional educational inferiority, cannot now rise to these classes. Between these two classes of men General Sankey proposed to create an absolute distinction (*vide* paragraph 13 of his minute and paragraph 14 of the further report of the committee, read in G.O., dated 4th October 1883, No. 670). This restriction, however, was to begin immediately on admission to the civil engineering college, and under his scheme, as I understand, the sub-engineers were to comprise the upper subordinate, and supervisors and overseers the lower subordinate establishments. However, the grade at which the line was to be drawn is not so important as the fact that his proposal involved a great educational distinction between the upper and lower subordinate services, in place of the present arrangement by which men of different educational calibre are brought together in one establishment, special education, not

differing, as before mentioned, in quality or quantity, being simply a condition of promotion therein.

3. In the scheme submitted by me I have drawn the line of demarcation at the grade of overseer, thinking that this was already the departmental arrangement, but in taking this line I also had in mind the salaries of overseers as compared with those of supervisors. The salary of a 2nd-grade supervisor is Rs. 150, rising as sub-engineer to Rs. 400. An overseer begins on Rs. 60 and rises to Rs. 100 in the overseer's class. Looking at these two rates of pay, I said that I had no doubt that even the overseer's rate was high enough to induce men to graduate in engineering, if they had a fair chance of entering the service, whilst I entertained no doubt whatever that the supervisor's rate would do so; but to be on the safe side, I proposed that the B.C.E. degree should be the compulsory admission test only as regards men entering, what I termed, the upper subordinate establishment, *i.e.*, the grades beginning with a grade of supervisor. I see no reason whatever to reconsider the opinion I have expressed, in fact, taking into account that the Government have quite recently practically made the First Arts examination the admission test to the Revenue service, although nominally limited to appointments which demand that the candidate should have passed for the higher special test, I see little reason to fear, if due notice were given, that the Government would secure an ample supply of men who have graduated in civil engineering even for the overseer's grade. How can it be otherwise when already graduates in Arts, who have taken a good class, will accept employment, with far less satisfactory prospects than those of the subordinate service of the Public Works Department, on Rs. 20 and even Rs. 15, in Madras and the southern districts?

4. If, however, it is not practicable to fix a dividing line at all, or to fix it at the supervisor's grade instead of that of sub-engineer, as suggested by General Sankey, I would advise that, after a notice of, say, four years, the general test for admission to the proposed competitive examination for the upper subordinate grades including that of overseer should be the B.C.E. degree, but that until then men who have obtained a supervisor's certificate should be admitted to the examination. It is true that the standard would have to be kept for a time low, and that graduates in engineering would necessarily be at an immense advantage, but as the ultimate end is to limit the examination to such graduates no harm would result, whilst the supply of candidates would not run short, as might possibly, though I believe most improbably, be the case if the examination were to be limited to graduates in engineering at a much shorter interval.

5. There is one point on which I did not remark in my letter under consideration, viz., the promise of the Government of India to guarantee an appointment in the engineer establishment to the senior graduate passing from the civil engineering college, although in paragraph 4 I observed that I believed the effect of my proposal to secure the prospect of employment to graduates in engineering, if accepted, on the service and the country would be far greater than if an appointment to the engineer establishment was from time to time made direct from the college. This opinion I still hold, but I see no good reason for refusing the boon the Government of India propose, if the scheme, which has been generally approved by Government, is carried into force, for that boon will simply act as an additional encouragement to higher education in engineering. Even as matters now stand there will, if the present system is continued, be the anomaly of civil engineering graduates in the subordinate grades whilst there will be one civil engineer graduate nominated direct to the engineer establishment. No doubt men who have not had the good fortune to obtain the annual prize of an appointment direct will envy the good fortune of their fellow graduate, but I do not think that any greater administrative inconvenience is likely to arise from the countenance of such an appointment under the new scheme than is likely to arise under the present scheme. In both cases civil engineering college graduate subordinates will have to bend the knee to civil engineering graduate superior officers. In both cases it is possible the subordinate graduate may be a better man than the engineer graduate. In time probably it will be found better, as in the education department, to select for the higher service graduates who have distinguished themselves in the subordinate service rather than graduates who have distinguished themselves chiefly in theoretical work

1640/41

in the civil engineering college and the university, and have not had the opportunity of showing whether they possess the other qualities necessary to make good engineers and administrators.

Note by the Chief Engineer, Public Works Department.

The final report of the committee appointed to consider the question of remodelling the civil engineering college was presented to Government on the 1st March 1883. Having been referred to the Director of Public Instruction, Mr. Grigg resubmitted the report with his letter, No. 6159, dated 6th September 1883, in which, while approving generally of the views expressed in the committee's report, he suggested some alteration in minor points. The order of Government thereon in the Educational Department, No. 670, dated 4th October 1883, concurred generally in the views expressed by the Director of Public Instruction, and directed that effect be given to Mr. Grigg's proposals as contained in paragraphs 16 and 17 of his letter. Those views referred more particularly to the details of the scheme of selection for appointments to the Public Works Department, and to the preparation of a code of rules organising the college to do the work which will hereafter devolve on it.

2. The Public Works Department is now required to draw up a notification for publication in the Gazette, in which notification the details of selection for appointments are to be set forth.

3. Some delay has taken place in acting on these orders, principally from the necessity for obtaining from the Director of Public Instruction a more precise definition of the meaning attached by him to the terms "upper" and "lower" subordinate ranks, and "upper" and "lower" subordinate grades, which were used in a sense not recognised in the Public Works Department.

4. Mr. Grigg has now explained * that he was under the impression that sub-engineers and supervisors constituted the "upper" subordinate establishment, while overseers and sub-overseers formed the "lower" establishment.† He, however, still adheres to the opinion previously expressed, that the B.C.E. degree should be the compulsory admission test for all men entering the department in the grades beginning with *supervisor*. He adds further on (paragraph 4), if it is not practicable to fix a dividing line at the supervisor grade, he would suggest that, after a notice of, say, *four years*, the general test for admission to the proposed competitive examination for the upper subordinate grades, *including that of overseer*, should be the B.C.E. degree.

5. Before proceeding further in the matter, I wish to place before Government my views on some of the details of the scheme which I am now called on as Chief Engineer to carry out.

In dealing with this matter I am placed in a position of some difficulty, from the fact that I was appointed by Government to preside over the committee which deliberated at such great length on the questions at issue, and whose recommendations have been under consideration.

6. The Director of Public Instruction recognises the necessity for providing, by means of the college, for the needs of the public generally, but considers that the Public Works Department, as the largest employer of labor, should arrange the plan of education, which should embrace training in the following grades:—

(1) Sub-engineers and supervisors (called "upper" subordinates),
(2) Overseers (called "lower" subordinates),
(3) Surveyors,
(4) Draftsmen;

the training of these classes being considered sufficient to meet the general needs of the presidency.

7. The qualifications of the first class for appointment to the Public Works Department as sub-engineers are laid down in paragraph 5 of Mr. Grigg's letter,

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* Letter, No. 0-155, dated 14th May 1884.

† It may be noted that overseers belong to the "upper" subordinate establishment.

2

recorded with G.O., No. 670, dated 4th October 1883 (Educational), as follows, in addition to actual examination :—

Age limit
Character.
Physique.
Practical work.
Vernacular language.
B.C.E. degree.

The qualifications of the remaining classes—overseers, draftsmen, and surveyors—for admission to the department, are to be laid down on similar lines.

8. The most important portion of the Director's recommendations consists in the proposal that an examination for admission to the Government service shall be held by the Public Works Department; that it be thrown open to the public; and that the first appointments be made on the results of this competition, tempered, however, by selection.

9. I take no exception to the proposed course of study, but it seems to me that the public examination, conducted in the manner proposed, is open to objection. I am of opinion that it will not lead to the advantages anticipated from it, save perhaps in respect to the creation of a practical standard outside the college and university.

10. Stress is laid by Mr. Grigg on the examination being an open one. It will nominally be public, but virtually will be less open than at present, when all comers are examined at the college for certificates, and may thus become eligible for the public service. The B.C.E. degree being proposed as the general test of fitness for admission to competition for the sub-engineer and supervisor grades, it is clear that every candidate, without exception, must previously pass through the college—each must undergo a searching final test at the college, and a further stringent examination for the university degree. The results of these examinations, together with a certificate of practical fitness, would seem to render any further examination, by another body, not only anomalous, but superfluous. The open competition should, in my opinion, take place at the time of admission to the college, not at the close of technical training. This is the course of procedure adopted at Home for admission to both the general and scientific branches of the army, to the navy, and to the Cooper's Hill college. The competition for admission to the last-named school of training for a technical service is public, but the competition for first appointments in that service is open only to the cadets of the school. There is no reason, so far as I can see, for adopting a different course in India.

11. The objects desired by the Director would perhaps be better attained by the following modification of his proposals :—

(*a*) The college course of instruction to be arranged by the Public Works and Educational departments jointly.

(*b*) A more frequent interchange of views to take place in future between those departments on the subject of college training.

(*c*) The college final examination to be conducted by a board of officers (including the Principal, Civil Engineering College) who will be appointed by Government.

(*d*) List of candidates for the different grades of the Public Works Department to be prepared annually by the Principal, Civil Engineering College, in order of merit as decided by the final examinations (and by the B.C.E. degree in addition as regards sub-engineers and supervisors). Those lists to be submitted to the Chief Engineer, supported by certificates of age, health, conduct, physique, and practical training. The final selection of candidates for appointment to the department to rest with the Chief Engineer.

12. The adoption of these proposals would remove existing objections, and would render it somewhat less difficult to provide for the continued appointment of European non-commissioned officers and soldiers, who are, under Mr. Grigg's scheme, likely to be entirely eliminated from the department.

1640/41

13. In his letter, No. 0/155, dated 14th May 1884, the Director of Public Instruction proposes to make the B.C.E. degree a qualification for admission to the upper subordinate establishment generally, *i.e.*, to have only one class in the college, excluding surveyors and draftsmen. It seems to me that such levelling up would be undesirable. The overseers will be educated above their station and their needs, and will, as a natural consequence, become discontented with their lot. The passed engineer students who accept supervisors' posts will doubtless have more theoretical knowledge than their duties will require, but I would draw the line here, at all events for the present.

14. Although it may be held to be outside the limits of this discussion to consider the effects of the Director's proposals upon the university degree of B.C.E., I cannot, as President of the Faculty of Civil Engineering, ignore what seems to me the certain tendency of those proposals, namely, to lower the standard for that degree. I have long held the opinion that the standard is too low; and if any change is to be made, that it should be in the direction of raising it.

If it be considered essential that the possession of a university test should be an indispensable preliminary to employment in the upper subordinate grade of the Public Works Department, I would strongly advocate the institution of a lower degree, that of Licentiate of Civil Engineering, which is, I believe, now in existence in one or more of the other Indian universities.

(Signed) J. SHAW-STEWART, Col., R.E.,
Chief Engineer, P.W.D.

18th June 1884.

Order—dated 1st July 1884, No. 1640 W., Public Works.

His Excellency the Governor in Council approves the modifications proposed by the Chief Engineer in his note recorded above, and directs that effect be given to them as soon as practicable.

2. The Chief Engineer will, with the aid of the Principal, Civil Engineering College, and in communication with the Director of Public Instruction, draw up a notification embracing the details, as finally approved by Government, of the scheme of selection for appointments to the Public Works Department. That notification will, after formal approval, be published in the *Fort St. George Gazette* for general information.

(Here enter No. 1641 W., dated 1st July 1884.)

(True Extract.)

Major, R.E.,
Under Secy. to Govt., P.W.D.

To the Chief Engineer, Public Works Department.
„ Educational Department.

Exd. E. Fernandes.
Spare Copies

3

GENERAL.
ESTABLISHMENT.

Govt. of 1884 Madras.

PUBLIC WORKS.

Dated July, 1st.

Recd. *Encl.*

G.O., 1st July 1884, No. 1640 W.

JULY.

Madras Civil Engineering College

Orders on the subject of the remodelling of the —.

1640

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PUBLIC WORKS DEPARTMENT.

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(Signed) J. SHAW-STEWART, Col., R.E.,
18th June 1884. Chief Engineer, P.W.D.

Order—dated 1st July 1884, No. 1640 W., Public Works.

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(True Extract.)

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

To the Chief Engineer, Public Works Department.
„ Educational Department.

Endorsement—dated 1st July 1884, No. 1641 W., Public Works.

Copy of the above forwarded to the Government of India, in continuation of letter, No. 1450 W., dated 11th June 1884.

Major, R.E.,
Under Secy. to Govt., P.W.D.

Exd. E. Fernandez.
Spare Copies

GENERAL.
ESTABLISHMENT.

Govt. of 1884 Madras.

PUBLIC WORKS.

Dated July, 1st.

Recd. *Encl.*

G.O., 1st July 1884, No. 1641 W.

JULY.

Madras Civil Engineering College

Copy of final orders on the subject of the remodelling of the — forwarded to the Government of India.

4th October 1883, No. 670, Educational.

1640/41

GOVERNMENT OF MADRAS.

EDUCATIONAL DEPARTMENT.

Read—again G.O., dated 26th April 1882, No. 61, Educational.

Read—also the following papers:—

From Colonel J. H. M. SHAW-STEWART, R.E., President, Civil Engineering College Committee, to the Chief Secretary to Government, dated Madras, 1st March 1883.

I have the honor to forward herewith the further report of the Civil Engineering College Committee called for in G.O., No. 313, Educational, dated 10th October 1882.

2. The Committee regret the unavoidable delay which has occurred in its submission. This was occasioned partly by the pressure of work in connection with college examinations which devolved on their Secretary, Lieutenant H. D. Love, partly by the necessity of referring to Calcutta for important papers bearing on the subject before them, and partly by the unavoidable absence from Madras of some of the members.

Enclosure.

Further Report of the Civil Engineering College Committee called for in Proceedings of Government, No. 313, Educational, dated 10th October 1882.

Committee.—The original report of the Committee appointed by Government* to consider the question of remodelling the Civil Engineering College was submitted on 18th April 1881. Minutes were subsequently written by the Chief Engineer, Public Works department, and the Director of Public Instruction, which, together with certain other papers, have now been referred to the Committee for final report.

2. The Committee originally consisted of the following officers:—

Colonel J. H. M. Shaw-Stewart, R.E.
F. N. Thorowgood, Esq., M. INST. C.E.
F. H. Trevithick, Esq.
Major H. M. Vibart, R.E.
W. H. Wilson, Esq., PH.D.
Lieutenant W. L. C. Baddeley, R.E.
Lieutenant H. D. Love, R.E.

3. On its reassembling, sanction was accorded to the appointment of two additional members to replace Mr. Thorowgood and Major Vibart, who are absent in Europe, and the Committee is now constituted as follows:—

Colonel J. H. M. Shaw-Stewart, R.E.
D. Duncan, Esq., M.A., D.SC.
F. H. Trevithick, Esq.
H. C. West, Esq.
W. H. Wilson, Esq., PH.D.
Lieutenant W. L. C. Baddeley, R.E.
Lieutenant H. D. Love, R.E.

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* Proceedings of Government, Educational, No. 361, dated 23rd September 1880.

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4. The orders* first appointing the Committee were based on the recommendation of the Director of Public Instruction that the scope of the college should be extended so as to meet all the engineering wants of the presidency, that practical training should be given, that Mechanical as well as Civil Engineers should be educated, and that the scheme which had been recently sanctioned for the Calcutta Civil Engineering College should serve the Committee as a general guide, it being recognized on all sides that the time had come when greater expenditure on the institution had become desirable. These recommendations received at that time the support of the Chief Engineer, Public Works department.† The Committee's original report was drawn up in accordance with those instructions. Their proposals received the general approval of the Director of Public Instruction;‡ but the Chief Engineer, in his second minute§ now before the Committee, puts forward a radically different scheme, which ignores their more important recommendations, and which is in the main supported by several of the principal officers of the Public Works department.

5. This being the case, it appears to the Committee necessary to investigate the scheme with some minuteness. They propose first to deal with the Chief Engineer's second minute so far as it affects the Engineer and subordinate classes of the college, then to take up the minute of the Director of Public Instruction within the same limits, and finally to consider such other proposals as affect their original recommendations.

6. CHIEF ENGINEER'S SCHEME—*Leading Features.*—The leading features of the Chief Engineer's scheme are as follow :—

(i) It proposes to narrow the scope of the college to the extent of making it a mere school for the subordinates of the Public Works department.

(ii) It not only does not contemplate the education of Mechanical Engineers, but involves the abolition of the present Civil Engineer class, which has been in existence since 1862.

(iii) It provides for the exclusion from important portions of the course of all students not destined for employment in the Government service.

7. *Committee's views.*—It appears to the Committee that these proposals contain principles which are at variance with the recorded policy of the Government.

8. (i) The Chief Engineer admits‖ that he regards the whole question from a purely departmental point of view. The Committee entertain no doubt that the college when first established was intended chiefly to meet the wants of the Public Works department. The subsequent creation, however, of the University degree in engineering, the tranfer of the college to the Educational department in 1873, the gradually increasing numbers of passed students who obtain technical employment outside the Government service, and the views expressed in the Proceedings¶ of Government which called the Committee into existence, point to the fact that the institution has now ceased to be a mere appanage of the Public Works department. The Committee learn from the Principal that the appointments to works of passed students, exclusive of surveyors and draftsmen, have during the last three years been as follow :—

Government	28
Other establishments, chiefly Local Fund Boards and Municipalities ..	33

and they consider that the policy of extending the principle of local self-government is calculated to make the numerical ratio of these classes of appointments in the future one of gradually increasing inequality. The Committee in their original report accordingly considered those needs not only of the Public Works department, but of the presidency, which can be supplied only from the Civil Engineering College. They adhere to the opinions expressed on that subject in their report, which, they observe, were those held by the Government, by the Director of Public Instruction, and by the Chief Engineer in his first minute.

9. (ii) Having eliminated from consideration all requirements but those of the Public Works department, it is not perhaps surprising that the Chief Engineer should ignore the question of training Mechanical Engineers, and even propose the abolition of the present Civil Engineer class. Though passed men of this class are nominally eligible for the Engineer Establishment of the Public Works department, only three natives have been so appointed during the past twenty years. The Committee gather** that, although the Chief Engineer might not object to Europeans or Eurasians, who are, he states, ineligible under recent orders of Government,††

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* G.O., Educational, No. 361, dated 23rd September 1880.

† No. 383, dated 30th August 1880, embodied in Proceedings of Government, Educational, No. 361, dated 23rd September 1880.

‡ Proceedings of Government, Educational, No. 61, dated 26th April 1882.

§ Proceedings of Government, Educational, No. 313, dated 10th October 1882.

‖ Chief Engineer's Minute, paragraph 2.

¶ Proceedings of Government, Educational, No. 361, dated 23rd September 1880.

** Chief Engineer's Minute, paragraph 7.

†† Proceedings of Government, No. 2529-W., dated 17th October 1881, paragraph 6.

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he is unwilling to post natives to appointments of this description. The Committee observe that the experiment of employing natives in the Engineer grades has evidently not received a fair trial. A reference to the Government of India Public Works Classified List, corrected to 31st December 1881, shows that there were on that date fifty-eight natives in the Engineer establishments of the provinces under the immediate control of the Government of India, viz., ten Executive Engineers and forty-eight Assistant Engineers—a fact proving that the experiment has in Northern India been a success; and the Committee do not believe that natives of Madras would be found in any way inferior to those of Bengal and the North-West Provinces. The Government of India have recently offered facilities, which will be alluded to below, for a proper trial of Native Engineers in the Public Works department of this presidency.

10. The Committee recognise, moreover, that a considerable demand for professional men outside the Government and railway services has already arisen, and that the policy of the Government and the condition of the country point to a rapid extension of this demand. The Civil Engineering College is practically the only institution in the presidency at which the necessary technical training can be obtained; and the fact of its capabilities not having hitherto been fully utilised has been due, in their opinion, to absence of encouragement and want of practical training. These defects the Committee expect to see remedied by the adoption of the recommendations contained in their original report.

11. In one of these recommendations,* the annual guarantee of appointments to the Engineer establishment of the Public Works department, they appear to have been forestalled by the Supreme Government,† which has seen fit to guarantee a certain number of such appointments to the different Civil Engineering Colleges of India, irrespective of vacancies in the Public Works establishments. The allotment to Madras will probably be one annually commencing with 1885, and the Committee entertain no doubt that this will be sufficient to secure the existence of college classes of moderate size, though they would be glad to see the two appointments to the Sub-Engineer grade, referred to by the Chief Engineer,‡ made available in addition. The Chief Engineer, however, proposes to appropriate for subordinates of long service in the Public Works department the Supreme Government's guarantee. The Committee consider that the adoption of this proposal would place this presidency at a very great disadvantage with the other provinces of India; and they see nothing in the papers before them to lead them to suppose that, if the one appointment referred to were not guaranteed to the college, it would become available in the Public Works department for the promotion of deserving subordinates; nor, since it is guaranteed, that any such promotions as may be possible under the veto contained in Proceedings of Government, No. 2529 W., dated 17th October 1881, paragraph 5, will thereby necessarily be interfered with. The Committee consider that the terms on which the guarantee is offered to the Madras College should be published early, and that information should especially be given as to whether Europeans and Eurasians are eligible to compete. The Chief Engineer is of opinion§ that under the orders of Government‖ no natives of India, unless of pure Asiatic parentage, can be appointed to the Engineer establishment of the Public Works department. It appears to the Committee, however, on perusal of the new regulations regarding admission to the Thomason Civil Engineering College, Rurki,¶ that this stringent rule has since undergone modification.

12. The Chief Engineer's further reasons for proposing to abolish the Engineer class are that the social distinctions implied by the terms "Engineer class" and "Subordinate class" are inapplicable to native society;** that heart-burning and discontent would be the result of conferring the Government of India's guarantee on the senior man in each year;†† and that the appointment of "raw youths" to the Engineer establishment is undesirable.‡‡ The Committee confess that they are unable to understand these objections. Social distinctions there are in native society, and the terms used by the Committee correctly express the qualifications which the students are expected to attain. The award of prizes to the candidates of highest acquirements is the principle of all competitive examinations, and it appears to the Committee that discontent would be more likely to arise were the ultimate prizes to be conferred on the recommendations of the different officers under whom subordinates of long standing would be serving. "Raw youths" are an indispensable adjunct of every walk in life. Most services, the Public Works department included, possess a well-defined line lying between the superior and subordinate grades, each of which must be recruited

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* Committee's Report, paragraph 13.

† Government of India Resolution, No. 286-89 G., Public Works department, dated 23rd February 1881.
Government of India Resolution, No. 561-64, G., Public Works department, dated 19th April 1881.

‡ Chief Engineer's Minute, paragraph 11.

§ Chief Engineer's Minute, paragraph 4.

‖ Proceedings of Government, Public Works department, No. 2529 W., dated 17th October 1881, paragraph 6.

¶ Government of India Resolution, No. 1516-28 G., dated 11th November 1882.

** Chief Engineer's Minute, paragraph 7.

†† Chief Engineer's Minute, paragraph 6.

‡‡ Chief Engineer's Minute, paragraph 7.

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from raw material, *i.e.*, young men of suitable general and special education, but as yet without the practical experience which service alone can give. The scheme elaborated in the Committee's report would ensure in indigenous raw material an amount of knowledge not inferior to that possessed by passed students from Cooper's Hill, who at present constitute the bulk of the imported raw material to which first appointments in the Engineer establishment are now assigned.

13. (iii) As regards the Chief Engineer's proposal to confine the practical training to such students of the college as may be selected for the public service, the Committee observe that Government[*] did not originally contemplate its extension to all the pupils of a class. The Committee, however, recommended[†] the extension on the ground of ultimate economy to the country, as the discharge of the majority of students with a material portion of their education wanting would not conduce to the usefulness of their future services. In this view the Committee are supported by a recent despatch[‡] from the Most Honorable the Secretary of State for India, which distinctly recognises the principle that a practical training on works should be given to *all* students of the Engineer class with the object of enabling them readily to obtain employment. The Committee remark also that the terms of this despatch inferentially assume that the college is something more than a Public Works department recruiting ground.

14. CHIEF ENGINEER'S SCHEME—*Minor Features.*—The leading principles of the Chief Engineer's scheme having now been discussed, it remains to advert to some of its minor features, and the consequences which would result from their adoption.

The Chief Engineer proposes that candidates for admission should come up to the Matriculation standard, should produce certificates to show that they have worked in shops with their own hands for one year, and should then undergo the test of walking 20 miles in 6 hours and of riding 25 miles in 3½ hours.[§] After admission to the college, the candidates are to be divided into a first and second class, the former to be trained during three years to a standard suitable for Sub-Engineers (Upper Subordinate establishment), and the latter during two and-a-half years to that for Overseers.[‖] At the final examination, the first two men of the first class and the first three (excluding military students) of the second class would be selected to undergo a year's training on works with a view to their appointment to the Public Works department, the former as Sub-Engineers, the latter as Overseers.[¶] In very special cases, six months or a year's leave is to be granted to Sub-Engineers after five or six years of thoroughly approved service with the intention of aiding them to acquire the University degree in engineering,[**] and the possession of the degree is to be taken into account in the annual award to a subordinate of long and approved service of the appointment to the Engineer establishment which the Government of India have destined for the college.

15. *Committee's views.*—From these proposals the Committee entirely dissent.

16. The theoretical qualification for admission named by the Chief Engineer is insufficient, in the Committee's opinion, to permit of a candidate's studying intelligently the subjects laid down in the proposed course for the *first class.* It does not appear desirable that Engineer's should ever be selected from among men whose general knowledge is gauged by the standard of Matriculation.

17. The Committee desire to point out, moreover, that, since an undergraduate of the Madras University cannot appear for a degree until he has passed the First Examination in Arts, which necessitates a study of not less than two years in an Arts college subsequent to Matriculation, the adoption of the Chief Engineer's proposals would render it scarcely possible for any man educated in the Madras presidency ever to take the University degree in engineering. They would deplore the adoption of any scheme calculated to produce such an effect.

18. As regards the Chief Engineer's proposal that the workshop course should take place prior to the theoretical course, the Committee consider that the chief object of practical instruction is to apply theory to practice, and they accordingly adhere to the opinion expressed in their report that the practical course must follow the theoretical. Should Government not concur with them in this view, they would point out that, although workshops might be arranged with to afford a period of training to an ascertained number of passed men who would, as the Committee propose, continue to be attached to the college, varying numbers of private individuals would have little prospect of obtaining, on their own application, the training required. The Committee think, moreover, that, though castemen who have passed through the college and require only the practical training to render them eligible for employment might not object to the workshop course, the case would be widely different with youths who are uncertain whether

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[*] G.O., Educational, No. 361, dated 23rd September 1880, paragraph 4.

[†] Committee's Report, paragraph 20.

[‡] Proceedings of Government, No. 3057 W., dated 18th November 1882.

[§] Chief Engineer's Minute, paragraph 16.

[‖] Chief Engineer's Minute, paragraph 13.

[¶] Chief Engineer's Minute, paragraph 38.

[**] Chief Engineer's Minute, paragraph 46.

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this, to them uncongenial work, will qualify them for admission to the college, much less for Government employ.

19. The physical tests proposed for youths entering the college are, in the Committee's opinion, far too severe; and they support their original recommendations,[*] which are more in accordance with the rules in force at other practical training institutions.

20. The Chief Engineer's theoretical course for the "*First class*" does not differ materially from that recommended by the Committee for the *Engineer class.* They are of opinion that the Cooper's Hill standard should be adhered to; but they entertain no doubt that it would be impossible for the type of students contemplated by Colonel Sankey to grapple with such a course.

21. The Chief Engineer appears to be in error in supposing[†] that the Committee asserted that officers of the Staff Corps are eligible for appointment to the Public Works department. Paragraph 5 of the Committee's report was designed to reserve to these officers the privilege, which it is believed they still possess, of undergoing a course of technical instruction at the college.

22. *Subordinate Class.*—Passing over the qualifications for admission, and the proposals to make the workshop training precede the theoretical course, and to exclude non-selected students from the final practical course, questions which the Committee have already discussed, the Chief Engineer's scheme for the "*Second class*" does not materially differ from that which the Committee recommended for the *Subordinate class*; and they are of opinion that, considering the nature of the entrance test proposed, their course is not fixed too high.

23. In naming three as the annual number of guaranteed appointments as apprentice overseer for civilians of the second or subordinate class, the Chief Engineer appears to have overlooked the recent revision of paragraph 525, Madras Army Regulations, under which the number of annual guarantees to soldiers has been reduced to three. It appears to the Committee that the number of guarantees to civilians can thus be increased to five. They would point out, however, that in 1881[‡] sanction was accorded to the nomination of ten apprentice overseers annually as a maximum, which would reserve seven appointments for civilians.

24. MINUTE OF DIRECTOR OF PUBLIC INSTRUCTION.—The Chief Engineer's proposals with regard to the Engineer and Subordinate classes of the college having been now dealt with, the Committee turn to the recommendations made by the Director of Public Instruction in his minute contained in Proceedings of Government, Educational, No. 61, dated 26th April 1882.

25. The Director approves generally of the views expressed in the Committee's report, and suggests alteration only in the following minor points.

26. In addition to the classes of pupils named by the Committee, the Director recommends[§] that mechanical subordinates should be trained as well as civil. The Committee considered this question when drawing up their original report, and concluded that, with the system of early apprenticeship in vogue, no regular technical course would be practicable for this class of youths, nor in the absence of previous general education desirable. Having regard to the fact that foremen mechanics are practically always promoted from among the best and most skilful workmen, and that the latter belong to a class who, to earn a livelihood, must begin work very young, the Committee consider that the education of a college, many of whose students are adults, would be unsuitable to their case.

27. *Engineer Class.*—The Director considers[‖] that passed F.A. condidates of *any* Indian University should be eligible, that the maximum age limit should be 20, and that there should be no limitation of numbers. On the first point, the Committee observe that their object is merely to secure a certain standard of general education, and that they therefore concur in the Director's proposal. Their only objection to the last point is the additional and uncertain cost to Government which would be involved; but they remark that, if the liberal measure of withdrawing limitations is carried out, it might be extended to age as well as numbers.

28. The Director further thinks that the theoretical and practical courses should be carried on during alternate sessions.[¶] This plan is not, so far as the Committee know, followed in England or elsewhere, and they are of opinion that it would be impracticable.

29. The Director considers[**] that the course is fixed rather high, and that the test in language might be dispensed with in the case of students who have passed the Middle School examination, or a University examination in a vernacular of South India. On the first point

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[*] Committee's Report, paragraphs 38—40.

[†] Chief Engineer's Minute, paragraph 3.

[‡] Proceedings of Government, No. 2723 W., dated 4th November 1881.

[§] Director's Minute, paragraph 11.

[‖] Director's Minute, paragraphs 4, 17.

[¶] Director's Minute, paragraph 5.

[**] Director's Minute, paragraphs 7, 8.

simply sent to the institution to be trained and educated in theory and practice according to the scheme laid down by that department. But whether such a scheme was at one time desirable or not, it will, I think, be admitted in the present progress of the country that it is impossible to adopt it now. The scope of the institution cannot now be so narrowed, but if it is to exist at all, it must exist as an institution subserving the general needs of the public and not simply the needs of Government in the department of Works. But it is clear that the Government, as the chief employer of labor, must, in the department in which it employs that labor, determine what shall be the qualifications of its employés, for it is absurd to expect that those who employ labor shall not be the real judges of the qualifications they require. In advanced countries, employers of labor, if not satisfied with the qualifications of men trained in a particular school, have usually the option of selecting men trained in some other institution whose qualifications come nearer to what they deem necessary. But in this country it is otherwise. It remains, therefore, to determine how such a supply can be produced without interfering directly with the educational machinery which exists, and in passing I would remark that I have no sympathy with a scheme which ignores the judgment of those most competent to advise the Government, whether the material now produced, or which in their estimation would be produced under a revised scheme, is suitable.

4. In my humble opinion this object can be best attained by entirely changing the system on which men are admitted to the upper and lower subordinate ranks of the department of Works by abandoning, unless there are weighty administrative objections to this course, absolutely the present system of selection from among men who have obtained the diplomas or certificates of the Civil Engineering College, but instead admitting men to these grades by means of an independent competitive examination, tempered by selection. I have purposely abstained from mentioning the Engineer establishment, for there seem to me to be almost insuperable objections to applying such a system in this country to that branch of the service, and am entirely with General Sankey in thinking that if the general education and engineering qualifications of the upper subordinate grades are sufficiently high, the service as well as the country will be benefited more by selecting picked men for promotion to the engineer grade from the upper subordinate grade than by nominating an outsider from the college to this grade from time to time. Judging from the spread of higher education and the demand for labor among the graduates of this University, I entertain no doubt whatever that the salaries offered, not only in the upper subordinate grade, but even in the lower, will hold out ample inducement to men, at their own charges, to graduate in Civil Engineering, if, as I shall hereafter suggest, such degree be held as the general test qualification for admission to the higher subordinate grade, an overseer's certificate or the certificate of having passed the final examination prescribed for the subordinate class for the lower subordinate grades.

5. This system of competition might be framed somewhat on the following lines for the upper subordinate establishment :—

Admission.
Age-limit.
Character.
Physique.
Conditions regarding time spent in practical work.
Knowledge of a South Indian vernacular.
B.C.E. degree.

Test.—A written and *vivâ voce* examination, theoretical and practical, in the subjects on proficiency in which, in the opinion of Government in the Works department, it is desirable to base the order of merit in the examination, *e.g.*, applied mathematics, drawing and engineering. In making the final selection, which though mainly based on the results of this test, the position of the candidate in the degree examination, the history of his practical course and his physical capabilities should be allowed a reasonable but defined weight.

6. The examination should be held in Madras by officers appointed by the Chief Engineer, with whom should be vested the final selection of the candidates.

7. Each year the number of vacancies to be competed for should be published at least six months before the examination, and it should be at the same time notified that in making the selection the relative claims of Hindus including Native Christians, Muhammadans, and Europeans to State employment will be considered. This proportion would have to be fixed from time to time in view of the requirements of the department, subject to the great principle that each section of the population is entitled to its fair share of public employment, provided it presents men of suitable qualifications. Candidates should not be permitted to compete more than three times.

8. The results of the examination should be notified in the Gazette, but the names of candidates who have failed to reach a fixed standard should not be published.

9. The lower subordinate engineering test would be instituted on similar lines, as also the tests for the admission of draughtsmen and surveyors.

10. The adoption of this system would, I submit, work a most salutary revolution in scientific and engineering education in the country, and its influence would, there can be little question, extend to industrial occupations of a humbler character. A certain and definite future would lie before those who adopt the profession of engineering or professions subordinate to it. It is true that the principle of the competitive examination will not be adopted in its integrity, but the fact that the other requisites exist which cannot be gauged by an Examining Board will, I believe, have a most beneficial effect on the general education, practical work and character of young men who will know that when they select their profession on leaving school, simple success in examination will not be the sole test of their merit.

11. The adoption of this scheme will have another beneficial effect on scientific education; it will create a practical standard outside the University and the college, which cannot but result in the educational schemes of those bodies being carefully adapted to meet the requirements of the State in its capacity of the chief employer of engineering labor. It may be contended that there will be a danger of these bodies lowering their standard to meet the needs of the day instead of maintaining standards and courses of study more nearly in accord with what is theoretically desirable. But I do not think that there is any real danger of such a consequence, for it presupposes that the work the men selected will be required to do will not require scientific and engineering knowledge of a very high order, which seems to me the reverse of the facts of the case. Nor even now is an essentially lower standard suggested by the Chief Engineer but the maintenance of a standard (*vide* paragraph 20 of the Committee's report) which is practically that now laid down by the University, and which does not differ materially from that recommended by the Committee for the Engineer class. It is far more probable that the creation of such an independent test will have a most beneficial effect on the efficiency of scientific and engineering instruction in the presidency, and will greatly enhance the estimation in which the profession will be held in the country. It will, moreover, compel institutions professing to educate young men for the profession of Engineer to pay proper attention to the practical side of education, and to secure the means of proficiency therein for their students, whether such practical instruction be, as suggested by me, incorporated in the course or given subsequent to it.

12. Another benefit of the scheme is that indirectly the Government will provide a suitable test for Engineer service under Local Boards and Municipalities, for as the Public Works department is not likely to be able to employ all the candidates who distinguish themselves in the examination, those who are not selected will have the best of all recommendations for private employment, whether under local bodies, railways, or private capitalists.

13. Another consideration which cannot be lost sight of in dealing with this question is the financial. At present, and under the schemes proposed, the revenue, which is or will be derived from fees, is necessarily exceedingly small, and can hardly be expected to exceed one-tenth of the entire charge. On the other hand, if employment in the Department of Works is thrown open somewhat in the manner suggested by me, there cannot be a question that the Government will be able almost wholly to dispense with scholarships, whilst, on the other hand, it will be able to secure a

revenue from fees which will bear a fair and probably an ever-increasing proportion to the cost of the institution.

14. The constitution of the B.C.E. degree—the general education standard of admission to the examination—is, I think, essential in the interests of the University or of high scientific education. The policy of accepting a degree as a standard of general fitness has been adopted with marked advantage to the country in Law and Medicine, and although no formal restriction exists, a degree in Arts is gradually being accepted as the general test of fitness for all administrative employments requiring men of good education. To ignore the degree would virtually give the examination I propose a function and position which I would earnestly deprecate as detrimental to science education generally instead of making it subserve that end.

15. In connexion with this subject, I beg to draw the attention of Government to the present system of guaranteeing a certain number of appointments, which appears now to have been reduced to three, to soldier students under G.O., Military department, No. 175, dated 6th May 1859. I do not presume to say whether the continuance of the system is necessary either in the interests of the Public Works department or of the army, but there can be no question that this reservation must have a prejudicial effect on scientific education in the presidency. If soldiers are still to be admitted, I submit that in the interests of education they should be admitted like other candidates through the open gate of the general competitive examination now proposed. Considering the superior education which I understand is now not uncommonly met with among soldiers, the adoption of such a system may not involve a reduction in the number of soldiers obtaining employment in the department, but perhaps the reverse.

16. Should these views which I have attempted briefly to set forth be accepted by Government, I would suggest that the details of the scheme of selection be settled in the Public Works department and published under the form of a notification to have effect from a particular date, say December 1884.

17. When this has been done, I would suggest that I be instructed to call on the Principal of the Civil Engineering College to submit a code of rules organizing the college to do the work which will then devolve on it, taking care to incorporate in these rules such of the recommendations of the Committee and of the Chief Engineer as may be desirable in the altered circumstances; these rules after revision in this office to be submitted for the sanction of Government. At the same time I would submit recommendations regarding the establishment necessary to give effect to the scheme elaborated, so as not to involve the State in a net charge exceeding the grant of the Secretary of State for the college, viz., Rs. 51,618, the rupee being taken at 1*s.* 8*d.*

Order—dated 4th October 1883, No. 670, Educational.

His Excellency the Governor in Council concurs generally in the views expressed by the Director of Public Instruction on the question discussed in the foregoing papers, and directs that effect be given to Mr. Grigg's proposals as contained in paragraphs 16 and 17 of his letter.

2. The recommendation made by the Committee in paragraph 10 of their report printed in G.O., 26th April 1882, No. 61, viz., that the University degree should not be conferred until it has been certified that the candidate has satisfactorily gone through the full practical course, will form a distinct rule in the proposed code.

3. In conclusion the Right Honorable the Governor in Council has much pleasure in tendering the thanks of Government to each member of the Committee now dissolved.

(True Extract.)

for *Acting Chief Secretary.*

To the President, Civil Engineering College Committee.
" Public Works Department.
" Board of Revenue.
" Director of Public Instruction.

Exd. C. Vencatasubier.

1648/41.

Ed. 9747/83

Govt. of {1883} Madras.

EDUCATIONAL.

Issued

Recd. 10-11-83

Encl.

G.O., 4th October 1883, No. 670.

No. 1640/1641 W of 1-7-84

OCTOBER.

Civil Engineering College.

Concurring generally in the views expressed by the Director of Public Instruction on the question of remodelling the —, and directing that effect be given to certain proposals made by him.

Read the following paper:-

Pro. of the Madras Govt. Educatl. Dept., 4 Oct. 83 No 670.

OFFICE OF THE DIRECTOR OF PUBLIC INSTRUCTION,

On circuit at [illegible]

~~Madras~~, 14 May 1884.

No. 9/155

1640/41 /21

From

H. B. GRIGG, Esq., M.A.,
DIRECTOR OF PUBLIC INSTRUCTION,
Madras,

To

The Secretary to Government
Public Works Department.

SIR,

In replying your Official Memorandum No. 317 dated 11 February 1884, I have the honor to state that when writing my letter of the 6 September 1883, I was under the impression that Sub. Engineers and Supervisors constituted the Upper Subordinate establishment, Overseers and Sub. Overseers the Lower Subordinate, and was not aware that men entering the Department as Overseers were entitled to rise to the grade of Sub. Engineer or that even Sub. Overseers, if they existed in this Presidency, would under para

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62 of the Public Works Department Code be eligible for promotion to the upper subordinate establishment. It would appear therefore that at present there is really no great dividing line excepting that between the Engineer and subordinate establishment, in the Department based essentially on educational qualifications and even the distinction between these two establishments cannot I fancy be said to be based wholly on differences in general and professional educational attainments. It is true that a man to be appointed a Sub Engineer must hold a Supervisor's certificate from the Civil Engineering College (para 125) but that certificate implies no difference in the quality of his educational attainments but only a somewhat greater accuracy of knowledge of the same subjects, as ascertained by obtaining 60 per cent instead of 40 per cent of marks in the same subjects. I notice moreover that under para 104 of the Code promotion in the upper subordinate does not appear

appear necessarily to proceed from class to class except as regards Overseers of the 1st grade, I observe also that by para 126 in considering the claims to promotion in the upper subordinate grades the holding of certificates higher than that of Overseer is to be taken into account. I presume ~~moreover~~ that a Supervisor's certificate is referred to.

2. I have noted these facts to show that although there is no great dividing line between the upper and lower subordinate establishments even now there is practically, it seems to me, an educational line marking off the members of the upper subordinate establishment who can rise to the higher classes of the establishment from members who in consequence of professional educational inferiority cannot now rise to those classes. Between these two classes of men General Sankey proposed to create an absolute distinction (vide para 13 of his minute and para 14 of the further report of the Committee, read in G. O dated

dated 4 October 1883, No 670). This restriction however was to begin immediately on admission to the Civil Engineering College, and under this scheme, as I understand, the Sub Engineers were to comprise the Upper Subordinate and Supervisors and Overseers the Lower Subordinate Establishment. However the grade at which the line was to be drawn is not so important as the fact that this proposal involved a great educational distinction between the Upper and Lower Subordinate Services in place of the present arrangement by which men of different educational calibre are brought together in one establishment, special education not differing, as before mentioned, in quality or quantity, being simply a condition of promotion therein.

3. In the scheme submitted by me I have drawn the line of demarcation at the grade of Overseer, thinking that this was already

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the departmental arrangement, but in taking this line I also had in mind the salaries of Overseers as compared with those of Supervisors. The salary of a 2d grade Supervisor is Rs 150, rising as Sub Engineer to Rs 400. An Overseer begins on Rs 60 and rises to Rs 100 in the Overseers class. Looking at these two rates of pay I said that I had no doubt that even the Overseers rate was high enough to induce men to graduate in Engineering, if they had a fair chance of entering the service, whilst I entertained no doubt whatever that the Supervisors rate would do so, but to be on the safe side I proposed that the B.C.E. degree should be the compulsory admission test only as regards men entering what I termed the Upper Subordinate Establishment i.e. the grades beginning with a grade of Supervisor. I see no reason whatever to reconsider

the

the opinion I have expressed, in fact, taking into account that the Government have quite recently practically made the First Arts Examination the admission test to the Revenue Service, although nominally limited to appointments which demand that the candidates should have passed for the Higher Special Test, I see little reason to fear, if due notice were given, that the Government would secure an ample supply of men who have graduated in Civil Engineering, even for the Overseers' grade. How can it be otherwise when already graduates in Arts who have taken a good class will accept employment with far less satisfactory prospects than those of the subordinate service of the Public Works Department, on Rs 20 and even Rs 15 in Madras and the Southern Districts?

4. If however it is not practical practicable to fix a dividing line at all or to fix it at the

Supervisors

Supervisors grade instead of that of Sub-Engineer as suggested by General Sankey, I would advise that after a notice of, say, four years the general test for admission to the proposed competitive Examination for the Upper subordinate grades including that of Overseer should be the B.C.E. degree but that until then men who have obtained a Supervisors certificate should be admitted to the examination. It is true that the standard would have to be kept for a time low, and that graduates in Engineering would necessarily be at an immense advantage, but as the ultimate end is to limit the examination to such graduates no harm would result; whilst the supply of candidates would not run short as might possibly, though I believe most improbably, be the case if the examination were to be limited to

graduates

graduates in Engineering at a much shorter interval.

5. There is one point on which I did not remark in my letter under consideration, viz. the promise of the Government of India to guarantee an appointment in the Engineer establishment to the senior graduate passing from the Civil Engineering College. Although in para 4 I observed that I believed the effect of my proposal to secure the prospect of employment to graduates in Engineering if accepted on the Service and the Country would be far greater than if an appoint-ment to the Engineer establishment was from time to time made direct from the College. This opinion I still hold, but I see no good reason for refusing the boon the Government of India propose, if the scheme, which has been generally approved by Government, is carried into force, for that boon will simply act as an additional encouragement to higher education in Engineering. Even as matters now stand there will, if the present system is continued, be the anomaly of Civil Engineering graduates in the Subordinate grades whilst there will be one Civil Engineering graduate nominated direct to the Engineer establishment. No doubt men who have not had the good fortune to obtain the annual prize of an appointment direct will envy the good fortune of their fellow graduate, but I do not think that any greater administrative inconvenience is likely to arise from the continuance of such an appointment under the new scheme than is likely to arise under the present scheme. In both cases Civil Engineering College graduate subordinates will have to bend the knee to Civil Engineering graduate superior officers.

In

In both cases it is possible the subordinate graduate may be a better man than the Engineer graduate. In fine probably it will be found better as in the Education Department to select for the higher service graduates who have distinguished themselves in the subordinate service rather than the graduates who have distinguished themselves chiefly in theoretical work in the Civil Engineering College and the University and have not had the opportunity of showing whether they possess the other qualities necessary to make good Engineers and administrators.

I have the honor to be
Sir
Your Most obedient Servant

Director of Public Instruction

1449-50 w 11. 6. 84
317 C 24. 3. 84
317 C 11. 2. 84
3129. 30 w 5. 11. 83
2141 C 5. 11. 83
479 E. 24. 10. 83
1785 C. 22. 9. 83
2194 w 9. 8. 83
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1200 C 25. 6. 83
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3144 w 29. 11. 82
3057 w 18. 11. 82
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204 (Educational) 9. 8. 82
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P.W. 4208

188 4.

Educational Department.

From

THE DIRECTOR OF PUBLIC INSTRUCTION,
Madras,

To

THE ~~CHIEF~~ SECRETARY TO GOVERNMENT,
Public Works Department
Fort St. George.

16 MAY 84

No.

R.O. 1640/1641 w d/1-7-84

Dated 14
Despatched 15
Received 19
May 1884

No. 1/55

ENCLOSURES.

Subject.

Submitting explanation regarding Upper & Lower Subordinate ranks and Upper and Lower Subordinate grades referred to in the Director's letter No 6159 dated 6 September 1883.

P.S. 16/15

Communicated to [illegible] 3-6-84 [illegible] 1-7-84

P. W. Dept.

1640(41)

Note by the Chief Engineer P.W. Dept.

The final report of the Committee appointed to consider the question of remodelling the Civil Engineering College was presented to Government on the 1st March 1883. Having been referred to the Director of Public Instruction, Mr Grigg re-submitted the report with his letter No 6159 d/ 6th Septr 1883, in which, while approving generally of the views expressed in the Committee's Report, he suggested some alteration in minor points. The order of Govt thereon in the Educational Dept,

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No. 670, d/ 4th October 1883, concurred generally in the views expressed by the Director of Public Instruction, and directed that effect be given to Mr. Grigg's proposals as contained in paras 16 and 17 of his letter. Those views referred more particularly to the details of the scheme of selection for appointments to the P. W. Dept., and to the preparation of a Code of rules organising the College to do the work which will hereafter devolve on it.

2. The P. W. Dept. ~~are~~ is now required to draw up a notification for publication in the Gazette, in which notification the details of selection for appointments are to be set forth.

3. Some delay has taken place in acting on these orders, principally from the necessity for obtaining from the Director of Public Instruction a more precise definition of the meaning attached by him to the terms "Upper" and "Lower" subordinate ranks, and "Upper" and "Lower" subordinate grades, which were used in a sense not recognised in the P. W. Dept.

4. Mr. Grigg has ~~now~~ now explained* that he was under the impression that Sub Engineers and Supervisors constituted the "Upper" subordinate establishment, while

* Letter No. 0/155 d/ 14 May 1884

while Overseers and Sub Overseers formed the "Lower" x establishment. He, however, still adheres to the opinion previously expressed, that the B.C.E. degree should be the compulsory admission test for all men entering the department in the grades beginning with Supervisor. He adds further on (para 4) ~~that~~, if it is not practicable to fix a dividing line at the Supervisor grade, he would suggest that, after a notice of say four years, the general test for admission to the proposed competitive examination for the Upper Subordinate grades, including that of Overseer, should

x It may be noted that Overseer belong to the "Upper" subordinate establishment

be the B.C.E. degree.

5. Before proceeding further in the matter, I wish to place before Government my views on some of the details of the scheme which I am now called on as Chief Engineer to carry out.

In dealing with this matter I am placed in a position of some difficulty, from the fact that I was appointed by Govt. to preside over the Committee which deliberated at such great length on the questions at issue, and whose recommendations have ~~been~~ been under consideration.

6. ~~7~~. The Director of Public Instruction recognises the necessity for providing, by means of the College, for the needs of the public generally, but considers that the P.W. Dept., as the largest employer of labour,

should arrange the plan of education, which should embrace training in the following grades:—

(1) Sub Engineers & Supervisors. (called "Upper" Subordinates)
(2) Overseers (called "Lower" Subordinates)
(3) Surveyors.
(4) Draftsmen;

the training of these classes being considered sufficient to meet the general needs of the Presidency.

~~8~~7. The qualifications of the first class for appointment to the P.W. Deptt. as Sub Engineers are laid down in para 5 of Mr. Griggs' letter recorded with the G.O. No. 670 d/ 4th October 1883, (Educational), as follows, in addition to actual examination:—

Age limit
Character.
Physique
Practical work

Vernacular language
B. C. E. degree

The qualifications of the remaining classes,— Overseers, Draftsmen, and Surveyors,— for admission to the department, are to be laid down on similar lines.

8. ~~9.~~ The most important portion of the Directors' recommendations consists in the proposal that an examination for admission to the Government service shall be held by the P.W. Deptt.; that it be thrown open to the public; and that the first appointments be made on the results of this competition, tempered however by selection.

9. ~~10.~~ I take no exception to the proposed course of study, but it seems to me that the public examination, conducted in the

manner proposed, is open to objection. I am of opinion that it will not lead to the advantage anticipated from ~~for~~ it, save perhaps in respect to the creation of a practical standard outside the College and University.

10. Stress is laid by Mr Grigg on the Examination being an open one. It will nominally be public, but virtually will be less open than at present, when all comers are examined at the College for certificates, and may thus become eligible for the public service. The B.C.E. degree being proposed as the general test of fitness for admission to competition for the Sub Engineer and Supervisor grades, it is clear that every candidate, without

p 11

1640(X)

exception, must previously pass through the College. Each must undergo a searching final test at the College, and a further stringent examination for the University degree. The results of these examinations, together with a certificate of practical fitness, would seem to render any further examination, by another body, not only anomalous, but superfluous. The open competition should, in my opinion, take place at the time of admission to the College, not at the close of technical training. This is the course of procedure adopted at home for admission to both the general and scientific branches of the Army, to the

23

Navy, and to the Cooper's Hill College. The competition for admission to the last named school of training for a technical service is public, but the competition for first appointments in that service is open only to the cadets of the school. There is no reason, so far as I can see, for adopting a different course in India.

12. The objects desired by the Director would perhaps be better attained by the following modification of his proposals:—

(a) The College course of instruction to be arranged by the Public Works and Educational departments jointly.

(b) A more frequent interchange of views to take place in future between those departments on the subject of College training.

(c) The College final examinations to be conducted by a Board of officers (including the Principal C.E. College) who will be appointed by Govt.

(d) Lists to be prepared annually by the Principal C.E. College, of candidates for the different grades of the P.W. Dept. in order of merit as decided by the final examinations (and by the B.C.E. degree in addition as regards Sub Engineers and Supervisors). These lists to be submitted to the Chief Engineer, supported by certificates of age, health, conduct, physique, and practical training. The final selection of candidates for appointment to the department to rest with the Chief Engineer.

13. The adoption of these proposals would remove existing objections, and would render it somewhat less difficult to provide for the continued appointment of European non-commissioned officers and soldiers, who are, under Mr. Grigg's scheme, likely to be entirely eliminated from the department.

14. In his letter No. 0/155 d/ 14th May 1884, the Director of Public Instruction proposes to make the B.C.E. degree a qualification for admission to the Upper Subordinate establishment, - generally,

i.e. to have only one class in the College, excluding Surveyors and Draftsmen. It seems to me that such levelling up would be undesirable. The Overseers will be educated above their station and their needs, and will as a natural consequence become discontented with their lot. The passed Engineer students who accept Supervisors' posts will doubtless have more theoretical knowledge than their duties will require, but I would draw the line here, at all events for the present.

15. Although it may be held to be outside the limits of this discussion to consider the effects of the Director's

proposals upon the University degree of B.C.E., I cannot, as President of the Faculty of Civil Engineers ignore what seems to me the certain tendency of those proposals, namely, to lower the standard for that degree. I have long held the opinion that the standard is too low; and if any change is to be made, that it should be in the direction of raising it.

If it be considered essential that the possession of a University test should be an indispensable preliminary to employment in the Upper Subordinate Grade of the P.W. Dept, I would strongly advocate the institution of

p.14

1648(41).

a lower degree, that of Licentiate of Civil Engineering, which is I believe now in existence in one or more of the other Indian Universities.

18.6.84.

Col R.E.
Chief Engineer, P.W. Dept

June 1884.

No. D.

GOVT. OF MADRAS. } 188 . { P. W. DEPT.

SECRETARY.

Chepâk, 3rd June 1884.

OFFICE NOTE.

To W. 1640/41

In their letter No.591 G of 17th.May Government of India enquire for the second time what orders have been passed on the proposals of the Committee appointed to consider the future of the C.E.College at Madras, and also whether any system of giving practical training has been adopted, and if so, what it is.

To allow of an early reply being sent to this reference I shall now review briefly the proceedings from the commencement, in so far as they relate to the points on which the Govt of India require information.

The Committee, in their report dated 4th. April, 1882, after recommending what classes should be educated at the College, what should be the conditions of admission, course of study, & theoretical course, &ca., proposed that the practical course for C.E. pupils should embrace an apprenticeship (so to speak) of one year in the Public Works Workshops and one year under the P.W. Department at places where large works are in progress.

Then, after dealing with minor points, they recommended as an inducement to the study of engineering the guarantee of two appointments annually as Assistant Engineer, 3rd. grade, in the P. W. D.—to be awarded to the two students highest on the list.

I need not touch on here the proposed classes of mechanical Engineers, Surveyors, Draftsmen, but will go on to the class of Engineering Subordinates.

After regulating the conditions of admission, theoretical studies, &ca, the Committee suggested that practical training – similar to that proposed for the C.E. pupils – should not be confined to the men selected for employment in the P.W.D., as is now done, but should be given to all subordinate students alike.

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They further proposed that the number of soldier students should be limited to a number to be arrived at by establishing a fixed proportion between the number of appointments to be given to Civilians and to Soldier students.

The views of the Committee, which had been based on the principle that the scope of the College should extend to all the engineering requirements of the Presidency, received the general approval of the Director, Public Instruction, but the then Chief Engineer, General Sankey, dealing with the subject from a purely Departmental stand-point, brought forward in his minute of 10th. June, 1882, proposals in ~~two~~ one respects radically different from those of the Committee.

He proposed for the college

(1) a First Class and a Second Class, the first to educate men for appointment to the P.W.D. as Sub-Engineers, the second to educate men up to the standard of Overseers.

(2) Instead of guaranteeing appointments as Asstt. Engineer to the best students, he proposed to reserve such guaranteed appointments for selected Sub Engineers of the Department.

(3) He considered the Workshops training should precede, not follow, the theoretical training of the college – in other words, that a year's prior attendance at a recognised workshop should be a condition of admission to the college.

I set aside minor points of difference between Genl. Sankey and the Committee, regarding tests, details of theoretical course, &ca., but I note particularly that Genl. Sankey laid it down as a maxim (para 39) that the P.W.D. could only undertake the practical training of men selected for appointments in the Department, whilst the

1640/41

Committee had pointed out (para 20, clause 4) that the P.W.D. alone can afford the requisite training to Engineering students.

Ten officers of long experience who were consulted, concurred generally in Genl. Sankey's recommendations, but on the matter of the workshop training preceding or following the theoretical studies, there were two dissentients, Col. Mead & Mr. Larminie, and Col. Pennycuick saw no necessity for a workshop training at all.

The Committee to whom Genl. Sankey's proposed modifications were then referred, adhered generally to their original recommendations, and the Director of Public Instruction to whom the questions at issue were finally referred, then brought forward, in his minute No. 6159 of 6th. September, 1883, a scheme which, accepting Genl. Sankey's views as to the separation of Engineering pupils into "first class", destined to be Sub-Engineers, and "second class", destined to be Overseers, and the details of theoretical studies, &c., lays down the principle that future admission to the Department should be solely through the door of open competition. This is an altogether new departure.

In para 5 of his minute Mr. Grigg marks out the lines on which this system of competition should be framed, and in para 17 suggests that a code of rules be drawn up to organise the college to do the work that will now devolve on it.

In their order No. 670 of 4th. October 1883 the Government accept these views and direct that effect be given to the proposals.

As the distinction drawn by D.P.I. in his minute, between "Upper Subordinates" and "Lower Subordinates", was open to misconception, the point was referred from this office in No. 317C of 11th Feby, 84, and to this Mr. Grigg has now replied.

Previously, however, the Govt. of India who, in their Resolution of Febry. 23rd., 1881, had allotted one guaranteed appointment of Asstt. Engineer to the Madras C.E. College, had in their letter No. 133 G of 29th. Jany. 1884, stated that they would refuse assent to any proposal to give this one guaranteed annual appointment to an Upper Subordinate. This latter proposal was Genl. Sankey's, had the support of D.P.I., and had been accepted by Madras Govt., but had been strenuously opposed by the Committee.

1640/441

In his letter No. 155 of 14th. May D.P.I. explains the distinction he had drawn in his minute between "Upper Subordinates" and "Lower Subordinates", and I now take it that his college "First Class" is to embrace Sub Engineers and Supervisors, and the "Second Class" to be confined to overseers. The open competition would then open to the "First class" of the college and to all competitors appointments to Supervisor, 2nd. grade, and to the "Second class" appointments to overseers, 3rd. grade.

A most important point is, that he would accept the guaranteed appointment to the Engineer Class offered by the Govt. of India, awarding the same to the first on the list. He would consider it simply as a further encouragement to those desirous of following the Engineering profession. Here then he departs from Genl. Sankey's proposals, and his "First class" & "Second class" diverge also from those of that officer, who would appoint Sub-Engineers direct from the "First class" and whose "Second class" was to be the school for Supervisors and Overseers.

So far ~~then~~ it is not difficult to reconcile the proposals of the D.P.I. with those of the Committee, but when we come to discuss the terms of admission for candidates to the competitive examinations there remains unsettled the important point of the "conditions regarding time spent in practical work".

Supposing a final decision be come to as to whether the workshops training should precede or follow the college theoretical course, is the P.W. Department, in its workshops, as on its large works, to offer to all would-be-competitors the means of acquiring practical experience in the mechanical and engineering arts? If the competition were confined to C.E. College students only, it might be possible to devise such a scheme, but I take it that competitors, so long as they fulfil certain tests, may come up from any institution or from any province. It strikes me that practically the open competition examination, tempered by selection, may become simply yet another final college examination.

But, there are other points too to be settled, notably that connected with Military students, and what now presses for disposal is the reply to be sent to the Government of India.

Would it not be feasible now to write to the effect that the proposals for the future of the Madras College were based on the scheme sanctioned for the Calcutta Engineering College and had the approval of the Madras Government? That five classes are to be established, which will comprise

(1) Civil Engineers
(2) Mechanical Engineers
(3) Engineering Subordinates
(4) Surveyors
(5) Draftsmen ;

that the course to be gone through prior to the admission of pupils to the P.W.D. (which will be through the door of a final open competitive examination details regarding which have yet to be settled) will embrace two years practical training, of which one year at the P.W. or Railway Workshops and one year on large Engineering Works; and that the guarantee of one annual appointment to the Engineer Class, the appointment to be awarded to the first at the final competitive examination which will be open to the higher students and also under fixed conditions, to competitors from outside, is thankfully accepted.

CJ.

16.10/XII.

D.W.

[illegible]

SECRETARY TO GOVERNMENT
13 JUN 84
P.W. DEPARTMENT

Coonoor - 12th June 84

1640/41.

My dear Colonel

I have read through the file of papers received with your D.O letter of 10th inst; and beg to offer the following remarks thereon.

I am in accord with Major Bowen in the opinions expressed in the last paragraph of his concise note of 3rd June. In assenting to an open competitive examination however, I do not retract the views I expressed, regarding its proposed constitution, in a note (not put up with the file) which I wrote some time since on Educl. Pro. No 670 dated 4 Octr. 1883. The only useful "Open Competitive examination" which can be held is in my opinion the one at the conclusion of the College course. The results of this, of the subsequent B.C.E. degree Examination in the case of the Engineer Students, and of the practical course, will prove amply sufficient to determine the order in which admissions to the Depart.t should take place. I can conceive of no good purpose which would be served by a third Exam.n; but on the other hand waste of labour on the part of P.W. Officers, and degradation of the College and University Exam.s would be obvious results.

The most crying wants at present are:—

1640/41

(1) Practical training for all Engineer and Upper Subordinate Students

(2) Encouragement, by some guarantee, to the Engineer class.

Both these wants are provided for by Major Bowen's proposed reply to the Govt. of India's reference. If desirable, it might be stated that the contemplated class for Mechanical Engineers could stand over until the remaining classes are in working order on their amended bases.

The above observations comprise all I need say on Major Bowen's suggested answer to the Govt. of India; but

I take this opportunity to write a few words regarding Mr. Grigg's proposal (vide his No 0/155 dated 14 May 1884) to make the B.C.E. degree a qualification for admission to the P.W. Upper Subordinate Establishment, i.e. to have only one class in the College, excluding the Surveyors and Draftsmen. I consider that such levelling up would be most undesirable. The Overseers will be educated above their station and their needs. Their higher mathematics and extended acquaintance with Engineering theory will be as useless to them as the study of Mental & Moral Science to a domestic servant, and can only tend

to make them discontented with their lot. The passed Engineer Students who accept Supervisors' posts will doubtless have more theoretical knowledge than their duties will require; but Engineers are to be trained for the Government and the Country, and if some of them accept subordinate positions in the Govt. service, they will do so with their eyes open.

Another objection to Mr. Grigg's proposal is that it must result in lowering the standard of the Engineering degree. It is in the opposite direction that any change should be made; and I have no doubt that if the Supreme Government's guarantee is con-

7.20.

1648/41.

tained from year to year, it will be found possible to make the possession of the B.A degree the qualification for admission to the Engineer class.

A third result of the scheme will be that, unless one law is made for the European and another for the Native, soldier students will be altogether excluded and the services of a most useful class of men will be permanently lost to the Department.

Sincerely yours

H. D. Love

The Hon'ble Col. J. H. M. Shaw Stewart R.E.

tinued from year to year, it will be found possible to make the possession of the B.A. degree the qualification for admission to the Engineer class.

A third result of the scheme will be that unless one law is made for the European and another for the Native, soldier students will be altogether excluded and the services of a most useful class of men will be permanently lost to the Department.

Sincerely yours
E. D. Love

The Honble Col. J. Wm. Shaw Stewart R.E.

To W.

1648/41

S. of S. letter No 591 G. of 17th May 1884 enquiring when India may expect information as to the future of the Roorkee Training College, &c., has just been recd from Ooty with your endorsement asking when general questions connected therewith are likely to be disposed of.

On receipt of last letter on subject from D.P.I. I forwarded same to Captn. Love for perusal & any remarks he might wish to offer thereon. This was in accordance with your instructions. The papers have not been returned to me yet, but I have now written to Capt. Love for them & shall take up the subject as soon as possible. It will take a little time to deal with the questions which I think are somewhat difficult.

C.J.
29-5-84

To D.W.

Noted - but cannot an ad interim ~~&~~ reply be sent to India in the meanwhile?

J.M.
2-6-84

B 99–5–81, Roll. [illegible]/6/84

To the Secretary to the
Govt of India.

Sir,

1640/41

In reply to your No of
I have the honor to inform you that the details of the scheme for the future constitution of the Madras C. E. College, the general outlines of which have received the approval of H. E. the Governor in Council, are now being worked out. This scheme is based on lines similar to those established for Calcutta C. E. College, and des a course of practical ining for the students, who will attached for one year to the Public Works or Railway Workshops and for one year to large Engineering works in the Presidency. It has not yet, however, been finally settled whether the workshops or practical course should precede or follow the theoretical studies at the Colleges of the C. E. College

Students, who have passed with credit through the theoretical and practical courses indicated above, as well as pupils from other institutions who afford proof of having received an equally satisfactory theoretical & practical education in Engineering, will in future be admitted to the P. W. Department by competitive examinations, one of which will be for the Sub Engineer

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P. W. DEPARTMENT.

and Superior grades, the other for the Lower grade of the Establishment. For the higher of these it will be a condition of admission to the competition that the candidate must have attained the University Degree of B.C.E., and to the first on the list — subject of course as we will be to tests for age, health, physique &c. — will be allotted each year the Assistant Engineerships guaranteed by the Secy of State.

1640/41

To W.

In your endorsement of 16th on Mr Grigg's letter you refer the subject along for consideration "in communication with the Prin: C. E. College."

I accordingly passed on the papers to him for perusal &c, and on receipt of your endorsement on the urgent letter from India I asked Capt Lowe to return the file.

Unfortunately from stress of work at examination time he had not been able to give attention to the matter, and I now forward you an office note thereon without having had the advantage of Capt Lowe's opinion.

He is, however, now at Ooty & will have leisure to advise on the subject.

What calls for immediate attention is the nature of the reply to be sent to the last reminder from the Govt of India.

CJ

3 - 6 - 84

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P. W. Department.

W

1648/41

The papers connected with this were forwarded to Ooty yesterday with my office note reviewing the subject in its main bearings and suggesting a reply to India.

I have now roughed out the accompanying draft, on the lines of which a fair draft, longer or shorter as you may deem best, might be framed.

C.S.
4 – 6 – 84

Recd. 6.6.84

R.L. 6.84

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P. W. DEPARTMENT.

P. W. DEPARTMENT.

1640/41

It seems to me that the most suitable reply that can be sent to India's No. 591 G of 17.5.84. would be to send copies of the Pro: of Govt. - Educational - of

26.4.82. No. 61.
10.10.82. No. 313.
4.10.83. No. 670.

pointing out that the last of these papers contains the views of their Govt. with respect to the future position & constitution of the C-E. College at Madras - and adding that the details of the scheme to give effect to those views are now being worked out, & will be communicated to the Govt. of India in due course.

JM.
7.6.84

C.A.W.

Please draft letter in accordance with above.

40 7/6

To W.

Letter despatched 9.6.84.

E. 4.6.84.

P. W. DEPARTMENT.

1640/41

READ the following :—

Proceedings, Educational Dept., No. 670 d/ October 4th 1883.
Letter from the Director of Public Instn. No. 0/155 d/ May 14 1884.
Note by the Chief Engineer, P.W. Department d/ June 18th, 1884.

FOR ORDERS.

The Govt. of India have written to enquire what orders have been passed on the proposals of the Committee, and whether any system of giving practical training has been adopted. An *ad interim* reply has been sent, forwarding copies of the Pro: of Govt. quoted in the margin[*], and intimating that the final orders of Govt. will be transmitted as soon as details have been decided.

J Shaw Stewart

18-6-84

[*] No. 61 d/ 26 April 1882 (Edl)
" 313 d/ 10 Octr. " (")
" 670 d/ 4 Oct. 1883 (")

I am in favor of accepting the proposals of the Chief Engineer conveyed in para 12 of his note

H.S.

19/6.

I agree to the modifications proposed by Col Shaw Stewart

G.M.

23/6

M.G.D.

June 24

A Note by the Under Secretary, reviewing briefly the history of the points under discussion, is also put up for reference.

E. E. S.

41

14/7/84

The Hon W. C. Sullivan

FOR ORDERS.

Hon: C. G. Master

Rt. Hon'ble the Governor

24 JUL 84

1640 W

(2)

O.L.S. 44/5. Cir 18/6.

General
Establishment

Civil Engineering College,
MADRAS,
30 May 1884.

My dear Major 1640/41

I return you herewith the C.E. Coll File as requested. I notice that the papers regarding the guarantee of one Appointment per annum in the Engr. Estabt. of the P.W.D. to this College are not put up with it.

I have had no leisure to write anything on the Director's last communication, or indeed

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---

embracing the details, as

14/5/84

The Hon. W. C. Sullivan

FOR ORDERS.

Hon: C. G. Master

Rt Hon'ble the Governor

---

to do more than glance over his letter; but I shall be glad of an opportunity of expressing my views when you can again spare the file.

When final orders are passed necessitating any chan in the rules of admission, it is indispensable that a one year at least should elap before the new rules come in force.

Sincerely yours

E. O. Shore.

Maj. C. Bowen R.E.

---

to D.W.

For consideration in communication with the Prin. C. E. College.

M

16.5.84

Recd. back from Principal on 30-5-84.

C.S.

30/5

43

Genl

Establishment

PUBLIC WORKS DEPARTMENT.

P.L.S. 44/5. Cir 18/10

1-7-

10

1640/41

O.L.S. 44/5. Civ 18/10

1-7-

C.A.W. 1640/41

I think it would be well to send to the Prin: C.E. College, for any remarks he may desire to offer, the last letter from the D.P.I. dated 14.5.84 - with D.W.s Note dated 3-6-84; and any other papers necessary.

Please make selection of such papers, & let me see.

Captain Love is at present at Gray's Hotel. Coonoor -

44. 10.6.84

To W

The papers in the top file form a Connected Series. The reference to Captain Love should perhaps be d/o.

Captain

General Establishment

PUBLIC WORKS DEPARTMENT.

Captain Love is
subordinate to the
D. of S. I.

R.S.
10.6.82

Yes. You are right.
Please send the small
file to Captain Love.

do.

10.6.82

C.A.W.

Before circulating
this, please let me
the papers proposed for
circulation.

Major Brown's Note
can go, — but I would
not send either of
Captain Love's Notes.

The papers should
be marked for Mr
Ucator, & H.S. the
as well as for Mr
Gibbons.

18.6.8

To W

The papers enclosed
within the draft
may go. The others
have been made up
into a separate file
to be kept back.

R.S.

P.L.S. 44/5. Cir 18/6

Genl. Establishment

PUBLIC WORKS DEPARTMENT.

/1891

~~Please add names
of Hon. W. Markby
& the Hon. the Governor~~

I have added to the
file for circulation
copies of Pro. of 11-6-84
Nos. 1449-1450 IV
which I have taken
from personal file

1640/41

M
18-6-84

45

144/5. Cir 18/6.

General
Establishment

PUBLIC WORKS DEPARTMENT.

No. 1640 W

PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the 1st July/84

1640/41

READ the following

Proceedings, Educational deptt. (H.E. No. 670 d/ Octr. 4, 1883)
Letter from the Director of Public Instruction (" " 0/153 d/ May 14, 1884,)
Note by the Chief Engr., P.W. Deptt. (" " d/ June, 18th " ")

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His Excellency the Governor in Council approves of the modifications proposed by the Chief Engineer in his Note recorded above, and directs that effect be given to them as soon as practicable.

The Chief Engineer will, with the aid of the Principal Civil Engineering College, and in communication with the Director of Public Instruction, draw up a notification embracing the details, as

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finally approved by Govt, of the scheme of selection for appointments to the P.W. Deptmt. That notification will, after formal approval, be published in the Fort St. George Gazette for general information.

(F.E. No. 641 W dated 18th July)

Copy of the above forwarded to the Govt of India, in continuation of letter No. 1450 W dated 11th June 1884

27 JUN 84

W
24.6.84

To,
The Chief Engr., P.W. Deptt.
" Educational Deptt.

Dd 1/7

(To,
The Chief Secy. for continuation

P.W. 26/6

Dd 1/7

W/27

1640/41

1640/41

47

48

ually approved by Govt.

4208
9747 & ca

Govt. of 1884 Mad

PUBLIC WORKS.

Press 3/7/84

Dated

Recd. Encl.

G.O. 1 July 1884, No. 1640 W. & 1641 W.

Madras Civil Engineering College

Orders on the subject of the remodelling of the

50
3

Madras Civil Engineering College

56
2

Copy of final orders on subject of the remodelling of the — [illegible]

1640/41.

48

9747

Govt. of 1884 Madras

PUBLIC WORKS.

(48)

Dated

Press 3-7-84

Recd. Encl.

G.O. 1st July 1884 No. $\frac{1640}{1641}$ W

Madras Civil Engineering College

Orders on the subject of the re-modelling of.

Madras Civil Engineering College

Copy of final orders on the subject of the remodelling of, forwarded to Government of India.

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