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TAMIL NADU ARCHIVES

OVERNMENT OF TAMIL NADU

P.W.D. DEPARTMENT

G.O. No. / B.P. No.	338 W.	Press. / Mis.
Dated	8. 2. 1884 ~~197~~.	

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338/1

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Military Works.

READ—the following papers :—

From Colonel J. BEATTY, R.E., Superintending Engineer, IV Circle, to the Chief Engineer, Public Works Department, dated Ootacamund, 30th December 1883, No. 594 W.

I have the honor to submit, herewith, a fresh revised estimate for the Wellington bakery, as directed in G.O., No. 2663 W.,* of 22nd September 1883. The cost of the building has been reduced from Rs. 60,560 to Rs. 26,360 by omitting the machinery, stores, servants' quarters, and provision for unforeseen additions.

Plans.	1 Abstract estimate in duplicate.
Site plan.	1 Report.
Estimates.	

* G.O., dated 5th October 1883, No. 5401, Military.

2. The present estimate includes an item of Rs. 13,000 for three ovens, which may be reduced to Rs. 10,000, if two ovens are considered sufficient.

No. 100 C., Public Works.

Submitted for the approval of His Excellency the Commander-in-Chief, and of Government in the Military Department.

(By Order.)

(Signed) C. BOWEN, Major, R.E.,
Deputy Chief Engineer, P.W.D.

15th January 1884.

No. 260, Military.

Referred for the approval of His Excellency the Commander-in-Chief.

FORT ST. GEORGE,
17th January 1884.

(Signed) A. R. KENNEY-HERBERT, Lieut.-Col.,
Officiating Secretary to Government.

To the Quartermaster-General, who is requested to pass the papers on for the approval of the Commissary-General, should His Excellency first approve them.

From Brigadier-General R. C. STEWART, Quartermaster-General, to the Secretary to Government, Military Department, dated Fort Saint George, 4th February 1884, No. 683 :—

In returning the plans and estimates, amounting to Rs. 26,360, for a bakery at Wellington, received under reference order, No. 260, dated 17th January 1884, I am desired to say that His Excellency the Commander-in-Chief agrees generally in the opinions expressed by the Commissary-General in his letter † on the subject, enclosed, and considers that it should be possible to provide a bakery, to meet all requirements at Wellington, at a cost considerably less than that contemplated in the estimates in question.

† No. 6484, dated 1st instant.

Enclosure.

From Colonel B. H. W. MAGRATH, Commissary-General, Madras, to the Quartermaster-General, dated Madras, 1st February 1884, No. 6484.

I have the honor to return plans and estimate, for a bakery, received under your docket, No. 779/399, of 23rd January 1884.

2. I would submit, for the consideration of His Excellency the Commander-in-Chief, that the plans are unsuitable and incomplete; they are the same which were sent, for my opinion, on the 5th October, except that the machinery, &c., stores, servants' lines, and "unforeseen addition" have been excluded from the estimate.

3. With water-power close at hand, which could be utilized for both grinding and sifting the wheat as also for kneading the flour, no provision has been made for the erection of a water-wheel.

4. There is no suitable accommodation for storing wheat or cleaning it; none for storing flour and soojee, and none for storing firewood.

5. The bakery should be all under one roof and should have only one door leading into it.

6. Again, if no machinery of any kind is to be used, the upper-story would add much to the labor of preparing flour without any corresponding advantage.

7. The boiler-room and engine-room, which the Executive Engineer suggests retaining, are too small to be of any practical use if only manual labor is employed.

8. The ovens are too large. 12 feet by 10 feet, the same size as those in the Bangalore bakery, would be more convenient.

9. It is possible there may be some practical objection to using water-power for the purpose of grinding, bolting and kneading the flour. In this case, I would suggest that application be made to the Ordnance Department for an 8 horse-power vertical engine which, I understand, can be spared from the Gun Carriage Factory; the shafting, &c., would not cost more than Rs. 1,500, leaving only the grinding stones, bolter and kneading machine to be provided.

10. It seems to me that if we can get the engine from the Gun Carriage Factory, all the rest could be put up cheaply enough; but this is a question on which I am not competent to offer an opinion.

11. I take the liberty of enclosing the ground plan* of a building which, I believe, would thoroughly meet all the requirements of a bakery, whether steam, water or bullock power were used; and I think, with a light roof, such a building might be built for a small cost by the Public Works Department.

* Dated 30th January 1884.

12. On the other hand, if there be any insuperable objection to adopting this, the plan sent by the Executive Engineer, with modifications, might answer, provided cheap steam machinery were used.

13. The modifications I should suggest would be: 1st, the doing away with the separate building for the ovens and putting these (4, each 12′ by 10′) behind the room marked "Bakery," which would have to be lengthened accordingly; 2nd, the erection of an enclosed lean to outside the boiler-room for the storage of firewood; 3rd, some provision for keeping the stock of wheat required for the monthly grinding.

No. 589, Military.

Transferred and the referred papers returned to the Public Works Department, with an expression of the concurrence of Government in the Military Department in His Excellency the Commander-in-Chief's opinion.

(By Order.)

Fort St. George, 6th February 1884.

(Signed) A. R. KENNEY-HERBERT, Lieut.-Col., Officiating Secretary to Government.

Order—dated 8th February 1884, No. 338 W., Public Works.

Communicated to the Superintending Engineer, IV Circle, who will report, with the least possible delay, on the rough design furnished by the Commissary-General, and submit detailed plans and estimates based thereon, should that design appear free from objection.

2. The question of adopting water-power to drive the machinery, as suggested by the Commissary-General, should be fully considered.

(True Extract.)

338/2

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

eleven

To the Superintending Engineer, IV Circle, with ~~twelve~~ enclosures.
„ Military Department.

Exd. E. Fernandez.
Spare Copies

BUILDINGS AND ROADS.
MILITARY WORKS.

Govt. of {1884} Madras.

PUBLIC WORKS.

Dated February, 8th.

Recd.

Encl.

G.O., 8th Feb. 1884, No. 338 W.

FEBRUARY.

Bakery at Wellington

The Superintending Engineer, IV Circle, directed to report on the rough design furnished and suggestions made by the Commissary-General for constructing a —, and to submit detailed plans and estimates based thereon, if the design appears free from objection.

Proceedings of the Madras Government, Military Department, 6th January 1875.

Schools, Native Army.

338/3

Read the following papers :—

No. 41. From Brigadier-General R. C. STEWART, Adjutant-General, to Colonel A. C. SILVER, Secretary to Government, Military Department; dated Head Quarters, Ootacamund, 22nd June 1874, No. 210.

Adverting to Proceedings of Madras Government, Order 6th March 1874, No. 764, communicating instructions from the Government of India, as per margin, paragraph 3, I am directed to submit, for the information of Government, a revised code of regulations on the subject of native army schools.

I am to beg that the Government of India may hereafter be furnished with copies of the revised code of regulations which His Excellency the Commander-in-Chief proposes to draw up, embodying the recommendations previously made, and now sanctioned.

2. This revised code is framed :—

First.—On the original code, dated Madras, 27th November 1871, embodied in Proceedings of Madras Government, 16th April 1873.

Secondly.—On the order thereon, Madras Government, No. 1292, dated 16th April 1873.

Thirdly.—On the suggestions contained in letter from the Government of India, No. 374, dated 10th September 1873, referred to this department in your memorandum, dated 20th idem.

Fourthly.—On this office letter, No. 547, dated 6th November 1873, submitted to the Government of India, with your No. 8, dated 5th January 1874.

3. The code is now generally in accordance with all the rulings of superior authority in the above quoted correspondence.

4. An exception is on the subject of normal schools, and the cause as follows :—

5. In the original code, dated 27th November 1871, the first 2 paragraphs ran as follows :—

1. A native military normal school under a superintendent for the training of schoolmasters, will be established at Madras, or one of the principal military stations of the army.

2. All candidates for the situation of native army schoolmasters to be drawn from the native army, and to undergo a course of training at the normal school, previous to being employed as teachers.

6. Government did not approve of the above, considering that regimental schoolmasters might be advantageously trained at the existing normal schools in the presidency, and that classes for the instruction of regimental teachers should be formed in the normal schools of Madras, Trichinopoly, Vizagapatam, and Cannanore, and that the Director of Public Instruction should be requested to submit provisions for this purpose.

Vide Pros. of Madras Govt., No. 1292, dated 16th April 1873, page 11, sec. 1, paragraph 1.

7. As soon as acquainted with the views of Government, as above quoted, the Commander-in-Chief caused a letter to be addressed to Mr. Powell on the subject, who replied as follows, No. 445, dated 16th March 1874.

"In connexion with your letter, No. 454, of the 10th instant, I have the honor to observe that there is now no normal school at Cannanore, the school formerly

maintained there, having been transferred to Calicut; also both at Madras and at Calicut, no general instruction is now given, the schools having become simple professional training institutions; it is intended also that the school at Vizagapatam shall have its aim similarly narrowed at the beginning of 1875. The school at Madras trains only youths, who have passed the Matriculation, or some higher University examination.

2. In these circumstances, I shall be obliged by your informing me if the sepoys of whom you speak will come prepared with general knowledge, and require nothing more than some six months' professional training,—upon the answer to this enquiry depends whether I would advise His Excellency the Commander-in-Chief to try if the normal schools of this department can meet the wants of the native army in the way of providing teachers."

8. From the above, it was evident that the views of Government could not be well carried out, as Mr. Powell looked for superior attainments on the part of the sepoys prior to their admission to the normal schools.

9. Since it is certain then, that a duly qualified teaching staff cannot be raised nor procured by adopting the course indicated in the second paragraph of Mr. Powell's letter, the establishment of a normal school would appear to be the only alternative left open, by which to realize the great advantages recently sanctioned for the native army of this presidency by the Government of India.

10. The first two paragraphs of the revised code repeat, therefore, in a slightly modified form, the original recommendation for the establishment of a normal school.

11. Information has been sought relative to the practice in the presidencies of Bengal and Bombay.

Vide paragraph 6, Military Secretary's letter, No. 745, dated 26th August 1871. Proceedings, Madras Government, 16th April 1873.

12 At Umballa, there is a training school for which there has been sanctioned a monthly allowance of Rupees 175, to cover the cost of teaching staff, books and stationery.

13. A similar institution exists at Poona, with a teaching staff costing Rupees 135 per mensem; the books being procured from the Government Book Depôt, and paid for on contingent bill, and the stationery, from the Superintendent of Stationery without payment. The expenditure of books was, in the years 1872-73, Rupees 47 and 35, respectively, in addition to the large stock already in hand, and the average cost of stationery, Rupees 44.

	Rs.
English Master...	50
Hindoostani and English	45
Maharathi	40
Total...	135

14. Sir Frederick Haines, therefore, recommends that a training school for this army may be established at Bangalore; that the cost of the staff may be fixed at Rupees 140 per mensem; and that, in the first instance, a complete set of books, maps and stationery, may be issued by the Superintendent of Stationery, and, in future years, to the value of not more than Rupees 100 *per annum*.

	Rs.
Head Master to teach English, and to conduct the professional training of pupils	50
Tamil, Teloogoo, Hindustani, teachers at 30 Rupees each...	90
	140

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15. The Director of Public Instruction, who has been consulted in this matter, concurs in the recommendation now made regarding the strength and pay of the establishment.

16. At the Poona institution, education has to be communicated in three languages, whereas four are needed by the Madras army.

17. Lieutenant-Colonel Grove, the superintendent of army schools, will be enjoined to keep down the expenditure as much as is consistent with efficiency, and to endeavour not to employ more than two undermasters, provided that men possessed of the necessary linguistic attainments can be procured at the rate of pay specified in paragraph 14.

18. The annual cost of this training school would be Rupees 1,780—thus

	Per mensem. Rs.	Per annum. Rs.
Pay of Masters	140	1,680
Cost of books and stationery		100
Total ...		1,780

The above does not include cost of first issue of books and stationery, which would not exceed Rupees two hundred, nor is allusion made to accommodation, it being considered that at a large station like Bangalore, a barrack-room with a sufficient amount of furniture will be found available.

19. In the event of Government sanctioning this proposal, two sepoys from as many regiments as might be deemed desirable at first, would be detailed, and attached to the native infantry corps at Bangalore where Lieutenant-Colonel Grove would be directed to superintend the establishment of the training school now advocated.

20. As already stated in paragraph 10 of this office letter, No. 457, dated 6th November 1873, the Commander-in-Chief considers a normal school for the education of teachers should be the first step taken before anything can be done towards establishing, on a satisfactory footing, army schools in native regiments.

Madras Government letter No. 8, dated 5th January 1874, to Government of India.

21. There is one other point to which it is necessary to allude, viz., the provision for first building school-houses, which may be required in many regiments—paragraph 36 of the code has, therefore, been modified by erasing the words "original construction"; on this subject a separate communication will be submitted to Government, through the department of the Quartermaster-General.

22. Should approval be accorded to the "code of regulations," the Commander-in-Chief would wish to distribute the same to officers commanding divisions, districts, and regiments, in view to acquaint them with what is in contemplation. For this purpose, one hundred copies would be required.

Code of Regulations proposed for Madras Native Army Schools.

SECTION I.

1. *Native Military Normal School.*—A native military normal school under the Superintendent of Army Schools, for the training of schoolmasters will be established at Madras, or one of the principal military stations of the army.

2. *Candidates for Normal School.*—Those candidates for the situation of native army schoolmaster, who are drawn from the native army, are to undergo a course of training at the normal school, previously to being employed as teachers. In the event, however, of a meritorious soldier, well educated and possessed of the faculty of teaching, (or any other qualified and duly trained candidate), presenting himself at the normal school, he will receive his certificate without any residence at all.

3. *Number and extent of the Normal School.*—The number of men to be admitted to the normal school will be decided from time to time by the Commander-in-Chief.

4. *Care required on the part of commanding officers in selecting men to be trained at the Normal School.*—The greatest care will be necessary on the part of commanding officers in selecting men to enter the normal school, and they will be required to furnish the superintendent with a roll, form A, giving the fullest and most particular information in the columns headed "qualifications" and "remarks."

5. *General qualifications required in men who may be candidates, and recommended to be sent to the Normal School.*—The candidates should be men of good moral character, intelligent, with habits of application and sound health. They should have a good voice, clear enunciation and fluency of speech, and except in special cases, should not be under eighteen or over twenty-four years of age. They should be able to read and write the vernacular of their own caste, and possess some general acquaintance with arithmetic and keeping accounts in English, such as those of a native regiment, and they should have learnt the English Alphabet and be able to write it. Specimens of their qualifications in the above particulars to accompany the application for their admission to the training school.

6. *Position of soldiers, whilst under training at the Normal School.*—Soldiers will, whilst under training as masters, be allowed their full pay, and enjoy all advantages which obtain to them as if present with their regiment. The fact of their being employed as schoolmasters will not militate against their promotion to the commissioned ranks.

7. *Course of study at the Normal School.*—The course of study in the normal school will be in the first instance recommended by the superintendent, and finally approved by the Commander-in-Chief. It will comprise the following branches:—

1. Reading and writing in the vernaculars; Hindoostani, Tamil and Teloogoo.
2. Vernacular grammar and composition.
3. Arithmetic.
4. Geography of India in particular, and general geography.
5. Art of teaching.
6. Reading, writing and arithmetic in the English language.

8. *Duration of training.*—This will depend upon the progress made by the scholar. After one year he should be qualified to receive a certificate of "fair progress"—after two years, a certificate of competency to teach in the vernacular, and, at the end of three years, a certificate of qualification to teach in the English language.

9. *Liability of soldiers at the training school to be sent back to regimental duty.*—Any candidate who fails to comply with the rules laid down for the course of study, or by any irregularity of conduct, shows that he is unfit for the duty of schoolmaster, or who fails after one year's study to evince satisfactory progress, will, on the recommendation of the superintendent be remanded to his regiment.

SECTION II.

10. *Classification and promotion of Native Army Schoolmasters.*—Army schoolmasters will be divided into three classes—first, second and third. Promotion to the first class will be made by the Commander-in-Chief on the recommendation of the commanding officer, forwarded through the superintendent, after the schoolmaster shall have had charge of the school for two years and provided the Superintendent is satisfied, after a writtten examination, that he is qualified for advancement: promotion from third to second class will in like manner, be made by the commanding officer on the approval of the superintendent.

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11. *Disability of schoolmaster to resign his post.*—A schoolmaster of whatever class, once appointed, will not be allowed to resign his post without the sanction of the Commander-in-Chief.

12. *Reduction or removal of schoolmasters.*—Schoolmasters may be reduced from a higher to a lower class by the Commander-in-Chief, for incompetency or misconduct, on the recommendation of the commanding officer. Schoolmasters so reduced being transferred to other regiments, or they may be remanded to regimental duty by the same authority.

13. *Military rank of Native Army Schoolmasters.*—A schoolmaster once advanced to the first class, shall be promoted to Havildar and from the third to second class to Naigue, on the first occurrence of a vacancy in these grades in the regiment to which he belongs, this promotion, however, shall be cancelled in the case of resignation, or removal from his appointment, save under very exceptional circumstances, which shall be submitted for the decision of the Commander-in-Chief.

14. *Military duty required of schoolmasters.*—With the exception of attending monthly muster parades, schoolmasters will be exempted from all military duty, unless specially required.

15. *Monthly staff pay of Army schoolmasters.*—The monthly staff pay of native army schoolmasters, in addition to the regimental pay of their ranks, will be as follows:—

First class Schoolmaster	Rupees	9.
Second do.	do.	„	7.
Third do.	do.	„	5.

when holding a certificate from the Superintendent of Army schools of their competency to teach English, they will receive.

First class Schoolmaster,	Rupees	20.
Second do.	do.	„	12.
Third do.	do.	„	8.

16. *Pay of pupil teachers.*—The pay of pupil teachers will be as follows:—

If sixteen years of age	1 Rupee	per mensem.
Seventeen do.	2 Rupees	do.
Eighteen do.	3 „	do.

SECTION III.

17. *School establishment for native regiment.*—The following will be the fixed establishment for each native regiment.

CERTIFICATED MASTERS.

1 English and Hindoostani master.
1 Tamil and Teloogoo master.

(Of the first, second or third class.) But this division of duty need not be arbitrarily followed; as the principle should be to procure schoolmasters possessed of the maximum of teaching acquirements, however concentrated or divided. Where, however, a schoolmaster capable of teaching both tamil and teloogoo is not procurable in any particular regiment, a 3rd master, on the lower rate of pay may, if necessary, be exceptionally and temporarily employed But the sanction of His Excellency the Commander-in-Chief, submitted through the Superintendent of Army Schools, must be previously obtained.

UNCERTIFICATED MASTERS.

Pupil teachers.—Pupil teachers may be appointed by the commanding officer in the proportion of one to one hundred pupils and an extra one for every thirty pupils in excess of that number.

18.—*Duty of pupil teachers.*—These pupil teachers will be placed under the orders of the senior master to be privately instructed by him, more especially in the English language; they will as their abilities develop, be employed in instructing the junior classes in the school.

19. *Liability of pupil teachers to removal from their appointments.*—The commanding officer will, of his own authority, and on the recommendation of the school committee, remove either of the pupil teachers for misconduct or incompetency, or who, after a sufficient trial, show that they are not adapted to the work required of them.

20. *Pyall Schools.*—Where a pyall school may be established in the regimental lines, the teacher of which may place himself under the control of the school committee and fulfil such requisitions as may be prescribed, he may receive a grant-in-aid not exceeding Rupees 10 per mensem. When the children of such pyall school, reach an age at which they can attend the regimental school, they will of course pass into it.

21. *Schools of regiments on foreign service.*—In the event of a regiment proceeding on foreign service, both schoolmasters should accompany it, and a third schoolmaster, competent to teach English and a vernacular, should be engaged for the conduct of the school at family head-quarters, assisted if necessary, by one or more of the pupil teachers (according to numbers.) The pyall allowance will also remain with the families. These schools will be subject to the control of the commandant or senior staff officer of the station.

22. *Regimental School Committee.*—The regimental school committee will consist of the Commanding Officer, the Adjutant, and the Quartermaster.

23. *Duties of Regimental School Committees.*—The committee will visit the school once a month or oftener, as may be determined by the commanding officer. With the Quartermaster will rest the chief responsibility, that the duties of the school are properly conducted, he will draw up a report once a quarter of the progress made and general state of the school, on information collected from the master in charge, for the satisfaction of the committee.

24. *Yearly examination of Native Army Schools.*—A yearly examination of the most searching character, will be held by the regimental school committee, and a written report of it will be drawn up, showing the general progress made by each class, and noticing individually, such scholars as distinguish themselves in any particular branch of study. A book will be specially kept for this purpose, and the report of the committee will be verified by the signature of the president and members.

25. *Arrangement of pupils into classes.*—On the appointment of certificated masters to native regimental schools, the pupils will be at once formed into classes, the classes for adults being separate from those for boys. For the English-speaking adults and children also, separate and special English classes will be formed.

26. *Time table and hours of attendance.*—Time tables will be drawn up by the regimental school committee, the hours of attendance being fixed by the commanding officer, which in no case are to exceed three hours for adults, and four hours for children.

27. *Subjects of instruction in Native Schools.*—The subjects of instruction in the school will be as follows:—

Reading, grammar, writing, arithmetic, geography, writing from dictation, making out regimental returns.

28. *Study of the English language.*—It is particularly desirable that the study of the English language be made an essential feature in regimental schools; but this object can only be attained after the scholars have been well grounded in the vernacular of their own caste, without which no real progress in education can be expected.

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SECTION IV.

29. *School fees to be paid by pupils attending Native Army Schools.*—Recruit and pension boys will receive instruction free of any charge. All other ranks will pay fees as follows:—

Havildars, naigues and drummers, 2 annas per mensem.

Privates and bandsmen, 1 anna per mensem.

Sons of native officers, 4 annas per mensem.

Sons and relatives of non-commissioned, bandsmen, drummers, and privates, 1 anna per mensem.

This rule is to be considered applicable to the corresponding ranks in native cavalry regiments.

The school fees thus collected, will be carried to the credit of the school fund, to assist in the purchase of books, school furniture, writing materials and other incidental expenses connected with the school.

30. *Compulsory attendance at the regimental schools.*—The attendance of young soldiers at the school will be compulsory for one year after they have passed out of the drill and joined the ranks.

31. *Obligations of soldiers and others to attend punctually at the school and conform to its rules.*—Soldiers having once enrolled their names, or those of their relations and children as scholars, shall conform to the rules laid down for study and for attendance at the school: repeated absence from it or irregularity in attendance, or acts of misconduct, will entail upon them, dismissal from the school at the discretion of the regimental committee.

32. *Defaulters book to be kept in the school.*—A defaulter's book will be kept in the school. This book will contain a daily entry of scholars, who, without sufficient reason, absent themselves, or come late to the school, or who, by any acts of misconduct, require to be brought specially to the notice of the regimental school committee.

33. *Wilful damage of school books or school property.*—Wilful damage of books or of school property on the part of any of the scholars, will entail upon them removal from the school at the discretion of the regimental committee.

SECTION V.

34. *Disposal of existing school property, and school funds.*—All property, such as school houses, furniture and books, as well as any funds belonging to present regimental schools, will be made over to the new schools as they are established in each regiment, to be taken charge of by the regimental school committee.

35. *School Books.*—No books shall be used in the school, but such as are approved by the superintendent and regimental school committee.

36. *Government allowance proposed for Native Army Schools.*—The following exhibits the annual Government allowance which is proposed for each native regimental school, exclusive of pay of teaching staff.

	RS.
For the purchase of school-books	84
For stationery, &c.	50
For prizes to be given by the school committee at the yearly examination...	36
For cost of periodical repairs of school-room and for furniture, at Rupees 5 per mensem	60
Total ...	230

Allowance for school-books, stationery and repairs, may be drawn, if required in advance, and any surplus, if existing at the end of the year to be placed to the credit of the school-fund.

37. *School-room and School furniture.*—A school-room on a standard plan, capable of containing one hundred scholars will be built in the native lines of each regiment, in some central spot, and will be furnished with desks, forms and such other appliances as may be found necessary.

38. *Disposal of school-room and school furniture on removal of a regiment from one station to another.*—On the removal of a regiment from one station to another, the school-room, desks, forms and school-fixtures will be made over to the relieving regiment, all other school property, such as books, maps, stationery, &c., will be carried with the regiment—the expense of carriage being borne by the regimental school fund.

39. *Visitors to Regimental Schools.*—The school will be accessible at all times to the visits of officers of the regiment, European and Native, who, it is hoped, will take an interest in its progress, and by their attendance at the yearly examinations laid down in paragraph 24, of these rules, second the efforts of the regimental committee to encourage education amongst all ranks and classes of the regiment. It will also be accessible at all times to the parents and relatives of the pupils.

40. *General management of the Native Regimental School and duty of the Committee.*—The general management of regimental schools is vested in the school committee of which the commanding officer is the president, and they should, by constant personal supervision and admonition, encourage the men and their children, to take advantage of the opportunity afforded them of education, more especially in the English language. The committee should not rest satisfied with a stated monthly visit to the school as laid down in paragraph 23 of these rules, but should individually visit the school at uncertain times, without giving notice of their intention; by these means, the effective working of the school will be tested, and both masters and scholars kept on the alert.

A.

Roll of applicant of the *Regiment, Native Infantry, for admission to the Native Normal School for the purpose of being trained as Army Schoolmaster.*

Rank and name.	Age.	Character.	Service.	Caste.	Qualifications.	Station and date. Remarks.

Superintendent of Army Schools.

Commanding *Regiment N. I.*

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Proposed cost of Schools for the Madras Native Army.

Establishment per Regiment.	Cost per mensem.	Cost per annum.
	Rs.	Rs.
1 Schoolmaster qualified to teach English and Hindustani, average ...	14	.....
1 Do. do. do. both Tamil and Telugu, do. ...	14	.....
2 Pupil teachers at Rupees 2 each	4	.....
Allowance for pyall schools	10	.....
Total...	42	504
1 Schoolmaster for regiments on foreign service	14	.....
Total...	56	672

	Rs.	Rs.
41 Regiments + 504 / 4 Do. + 672	... ...	23,352
Third, or extra master (under paragraph 17), say for 20 regiments, at Rupees 8	... ...	1,920
Annual allowance for school books, stationery, buildings and furniture (under paragraph 36) 45 regiments + 230	... ...	10,350
Annual allowance for Assistant Superintendent's office allowance and stationery, (*vide* letter of Secretary to Government of India, dated 26th August 1871, No. 745)	... ...	270
Total annual cost...		35,892
Deduct the cost of *present* school establishment and moonshees, at Rupees 21 and 30 per mensem, respectively, = annually 45 regiments + Rupees 612	... ...	27,540
Total cost of schools on the revised scale	... ...	8,352

N. B.—Staff salary of Assistant Superintendent has not been taken into account.

(Signed) R. C. STEWART, Brigadier-General,
Adjutant-General.

No. 42. From Colonel T. GILLILAN, Controller of Military Accounts, to Colonel A. C. SILVER, Secretary to Government, Military Department; dated Fort Saint George, 13th July 1874, D.

I have the honor to forward letter from the Adjutant-General, No. 210, dated 22nd June 1874, submitting with reference to Proceedings of Government No. 764, dated 6th March 1874, a revised code of regulations on the subject of native army schools.

2. The draft code proposed seems to be unobjectionable and in accordance with the orders and intention of Government, as indicated in the correspondence on the subject, except that in paragraph 36 of the rules the sum of Rupees 60 is proposed to be granted annually to cover the cost of periodical repairs of school rooms and for furniture in each regiment, while in paragraph 35 of the code of regulations, recorded in Proceedings of Government, No. 1292, dated 16th April 1873, it was provided that the school-room and furniture having once been supplied by Government, should be kept in repair out of the regimental funds, which, it is

observed, are to be credited with the fees. The change involves an annual expenditure of Rupees 2,700 to the State.

3. The cost of the school establishment for each native regiment under the present system, is Rupees 51 per mensen, or Rupees 27,540 per annum, for all arms of the service, including cavalry, infantry and the corps of sappers and miners.

Moonshee allowance...	Rs.	30
Stationery...	„	21
Total per mensem for each regt.	„	51
Total per annum for 45 regiments	„	27,540

4. Under the proposed code of regulations, the cost of the establishment for the whole native army will amount to Rupees 35,892 per annum, or Rupees 8,352 in excess of the present expenditure, as given in the statement forwarded by the Adjutant-General.

5. The above is exclusive of the cost of the training school to be established in Bangalore, which is estimated at Rupees 1,780 per annum, and of the staff salary for the Assistant Superintendent of schools, which has not been taken into calculation; but is inclusive of the annual allowance of Rupees 270 for the office and stationery of the Assistant Superintendent.

Rupees 200 per mensem, rising to Rupees 250 in three years.

6. Should the new system be introduced without reference to the absorption of the present moonshees, as intended by the Government of India, the extra expenditure would of course for some time be larger than that sated above.

Paragraph 2 of letter from the Secretary to the Government of India, recorded in Proceedings of Govt., No. 764, dated 6th March 1874.

7. It appears to have been the intention of Government to fix the maximum pay for pupil teachers at Rupees 5 per mensem, but the draft code provides Rupees 3 only as the highest pay for that grade.

Vide paragraph 3 of Order of Govt., No. 1292, dated 16th April 1873.

8. It is observed that the same allotment of schoolmasters and of annual Government allowances has been proposed for each of the cavalry corps as for the infantry, though the former has scarcely half the number of men on its rolls compared with the latter.

Schools, Native Army.

No. 43. From Colonel T. C. LONGCROFT, Deputy Adjutant-General, to Colonel A. C. SILVER, Secretary to Government, Military Department; dated Fort Saint George, 1st September 1874, No. 429.

Adverting to your memorandum, dated 25th July, I have the honor, by order of the Commander-in-Chief, to reply as follows:—

2. The substitution of the word "Bangalore" for "Madras, or one of the principal military stations of the army," in rule I., section I., revised code native army schools, is quite unobjectionable.

3. It is correctly stated in your memorandum under reply, that in section II., rule 16 of revised code, the maximum pay of the pupil teachers is fixed at Rupees 3 per mensem, whereas Government, in Proceedings, No. 1292, dated 16th April

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1873, remarked that the proposed rates of pay were "too small" and that "the amount should be left to the school committee, Rupees 5 being fixed as a maximum."

4. These remarks of Government were well weighed—but in paragraph 6 of the letter of the Secretary to the Government of India, dated 10th September 1873, No. 374, was recommended the scale of pay entered in rule 16, section II. of the revised code, and the point was again discussed with Lieutenant-Colonel Grove, the Superintendent of Army Schools; the result being that the maximum rate of Rupees 3 was considered sufficient remuneration. Experience, however, alone will shew whether it is, or not. In the meanwhile, the Commander-in-Chief readily defers to the opinion of Government, and has no objection to a modification of rule 16, section II., revised code, in accordance with the Proceedings of Government, No. 1292, dated 16th April 1873, already quoted.

5. Government also observes as follows:—

"In rule 36 of the present code, it is proposed that the sum of Rupees 60 should be granted annually by Government to cover the cost of periodical repairs of school-rooms and furniture in each regiment, while in rule 35 of the code of regulations approved in the Proceedings of Government above quoted, it was contemplated that the school-rooms and furniture having been once supplied by Government should be kept in repair out of regimental school funds, which, it is observed, are to be credited with all fees."

Revised code, section IV., rule 29, clause 3.

6. The above quoted alteration was alluded to in paragraph 21, this office letter, No. 210, dated 22nd June 1874, as per margin, and I am now to state that, should it not be considered desirable for Government, both to build school-rooms for native regiments, and give, in addition, an annual allowance for maintenance and repairs, the Commander-in-Chief considers that the buildings had better, in the first instance, be erected by the Public Works Department, and the repairs met from the general funds of the schools.

"There is one other point to which it is necessary to allude, *viz.*, the provision for first building school-rooms which may be required in many regiments. Paragraph 36 of the code has, therefore, been modified by erasing the words, "original construction"—on this subject a separate communication will be submitted to Government, through the department of the Quartermaster-General."

7. The Chief Engineer Public Works Department having been consulted, states that—

"For 1,200 Rupees a school-room to contain 100 pupils and their master, with space equivalent to that allowed in civil schools could be built of sufficient puckah materials, such an original outlay would not involve greater cost to the State than an annual contribution of Rupees 60 per annum, considering the latter sum capitalized at 5 per cent. provided the furnishing and repairs were undertaken from regimental funds."

8. Should this be approved, rule 36, revised code, can be modified by striking out Rupees 60, leaving the total 170, involving a decrease of expenditure in the number of schools to be established—45—of Rupees 2,700 per annum. Thus $45 \times 60 = 2,700$.

No. 44. From Colonel J. G. TOUCH, conducting the duties of Controller of Military Accounts, to Colonel A. C. SILVER, Secretary to Government, Military Department; dated Fort Saint George, 3rd September 1874, C.

I have the honor to forward letter from the Adjutant-General, No. 429, dated 1st September 1874, stating, with reference to your memorandum, dated 25th July 1874, that the substitution of the word "Bangalore" for "Madras or one of the principal military stations of the army" in rule I., section I. of the revised code regulations for native army schools, is quite unobjectionable.

2. The circumstances under which the maximum pay of pupil teachers was fixed in the revised draft code above referred to, at Rupees 3, instead of Rupees 5 each per mensem, as contemplated by Government, are also explained.

3. His Excellency the Commander-in-Chief now considers that if the school-rooms are erected by the Public Works Department at the cost of Government, the repairs can be met from the general funds of the schools, and accordingly proposes that the item of Rupees 60 entered in rule 36 of the draft code, as an annual allowance to cover the cost of periodical repairs of school-rooms and furniture, be expunged.

No. 45. From Brigadier-General A. HOWLETT, C.B., Quartermaster-General, to Colonel A. C. SILVER, Secretary to Government, Military Department; dated Head Quarters, Ootacamund, 29th June 1874, No. 143-4587.

The scheme of establishing a revised system of schools for the native troops of this presidency having been submitted to Government by the Adjutant-General, I have the honor, by desire of the Commander-in-Chief, and with reference to paragraph 35 of the proposed rules and the remark thereon by the Government of India, as entered in the margin, to request that the question of providing school accommodation under the new system, may be submitted for the decision and orders of Government.

35. "A school-room on a standardplan capable of containing one hundred scholars will be built in the native lines of each regiment in some central spot. It will be furnished with desks and forms and such other appliances as may be found necessary—the school-room and furniture having been once supplied by Government will be kept in repair out of the regiment school funds."

Remark by the Government of India.

"It is proposed in the rules the school buildings, furniture, &c., should be provided in the first instance by the State and kept in repairs out of the school funds. In the other presidencies an allowance of Rupees 5 per regiment per mensem, or Rs. 60 per annum, is sanctioned, to cover both the cost of original construction and periodical repairs. Unless it can be shown that the arrangement proposed for Madras will prove more economical, it would be better to preserve uniformity of practice in this respect."

2. In the proposed rules, one hundred pupils was given as the number for whom school accommodation would be required: and from the annexed copy of letter from the Superintendent of Army schools, it will be observed that after due enquiry that officer is satisfied that accommodation for that number of pupils, both adult and juvenile, will be needed. Lieutenant-Colonel Grove describes the form and description of building he considers suitable, and recommends that the area of the building should be in the same proportion as is given in the native taluq schools erected by the Public Works Department.

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3. The description of the proposed building appears in His Excellency's judgment well suited for the purpose. Its construction is to be of the commonest materials consistent with durability and strength.

4. In providing such buildings, however inexpensive, due supervision is unquestionably needed: and this end, in the interests of Government, can best be obtained, Sir Frederick Haines considers, by having them built in the first instance by the Public Works Department; leaving all subsequent outlay for repairs to be provided for out of the monthly maintenance allowance.

5. With this view, His Excellency would recommend that the matter should be referred to the Public Works Department to ascertain what would be the cost of erecting such a building, and also the expediency of having the work done by that department, also to provide a plan.

6. I have also to add that Sir Frederick Haines proposes that these new schools should only be built from time to time as the necessity for providing a regiment with a school-room may occur.

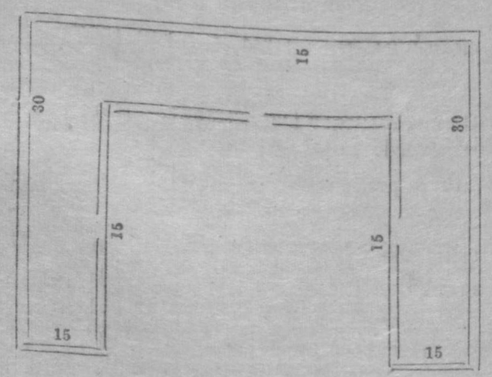
From Lieutenant-Colonel H. L. GROVE, Superintendent of Army Schools, to Brigadier-General A. HOWLETT, C.B., Quartermaster-General, Ootacamund; dated Bellary, 9th June 1874, No. 208.

No. 63, dated 21st May 1874, on the subject of school-rooms for native regiments.

I have had the honor of receiving your letter (subject and date as per margin), my reply to which has been delayed with the view of obtaining certain information respecting the number of pupils at present attending native regimental schools.

2. I beg to observe that, although these numbers are not, in most cases, large, it is the opinion of all those commanding officers with whom I have had the advantage of consulting, that the introduction of an improved system, and higher standard of education—and especially of instruction in the English language—will lead to a large increase of pupils, both adult and juvenile.

3. It is my opinion, therefore, that if the available funds will admit of it, the dimensions of the proposed new school-rooms should be such as will afford accommodation for 100 pupils at one time; and that the most convenient form to be given to these buildings would be that shown in the margin, which would render general supervision by the head master easy, while the wings would be almost as good as separate class-rooms.



4. As a precaution against fire, the roofs should be tiled, but the walls might be of mud, pierced on all sides with a sufficient number of windows (furnished with rough wooden bars and shutters) for the admission of an ample supply of air and light. It would be well to limit the number of doors to *three*, as shown in my sketch.

5. Regarding the extent of area to be given to these buildings, I am unable to offer any opinion; but I would suggest it being in the same proportion as is allowed in the native taluq schools erected by the Public Works Department.

6. I beg to return the copy of the letter from the Adjutant-General which you were good enough to send for my perusal.

Referred to the Public Works Department, with advertence to paragraph 5 of the Quartermaster-General's letter.

8th July 1874.

No. 46. From Brigadier-General A. HOWLETT, C.B., Quartermaster-General, to Colonel A. C. SILVER, Secretary to Government, Military Department; dated Head Quarters, Ootacamund, 5th August 1874, No. 224.

In continuation, and with reference to paragraphs 4 and 5 of my letter, No. 143, dated 29th June 1874, I have the honor, by desire of His Excellency the Commander-in-Chief, to forward an original letter* from the Chief Engineer, Public Works Department, relative to the outlay for erecting school-rooms for the native army.

* No. 569, dated 31st July 1874.

From Colonel G. W. WALKER, R.E., Chief Engineer, Public Works Department, to Brigadier-General A. HOWLETT, C.B., Quartermaster-General: dated Ootacamund, 31st July 1874, No. 569.

I have the honor to return letter, No. 1685, of 15th November 1873, from the Adjutant-General of the Army, bearing your endorsement, No. 8226, of 22nd November, I have to apologize for not having disposed of the subject long ago. But in order to reply, it was necessary in the first instance, to ascertain at what cost a building affording the necessary accommodation for 100 pupils could be constructed; and on that point I entered into communication with the Inspecting Engineer for Civil and Military Buildings. He did not supply the exact information required; and I have only recently satisfied myself that for Rupees 1,200 a school-room to contain 100 pupils and their master, with space equivalent to that allowed in civil schools could be built of sufficiently puckah materials, such an original outlay would not involve greater cost to the State than an annual contribution of Rupees 60 per annum, considering the latter sum capitalized at 5 per cent.; provided the furnishing and repairs were undertaken from regimental funds.

No. 47. *Proceedings of the Madras Government, Public Works Department.*

Read the following:—

From the Quartermaster-General. Here enter 29th June 1874, No. 143-4587. through Military Department.

Memorandum from the Secretary to Government, Military Department. Here enter 7th September 1874.

It is considered in the Public Works Department that the plan submitted with letter from the Superintendent of Army Schools, to the Chief Engineer, Department Public Works, No. 318, of 18th August, being a slight modification of that proposed to him by the latter officer, should be adopted as a standard plan, with one alteration, *viz.*, that the side rooms be 15 feet square instead of 15 feet by 14.

2. The area thereby afforded will be 78+15=1,170 superficial feet or 11·7 square feet per pupil, which is almost identical with that allowed in the standard plan for taluq schools, exclusive of verandahs, which cannot be afforded for regimental schools.

3. The sum of Rupees 300 named by the Superintendent of Army Schools as that which can be afforded for construction of each school, is insufficient to enable the Public Works officers to undertake their construction, while the sum of Rupees

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420 to which the furniture stated to be required will amount as per price list given, is out of all proportion to the proposed cost of each school.

4. Assuming as proposed in rule 35, the school room and furniture once provided to be kept in repair out of the regimental school funds, Public Works officers may be instructed to provide them of fair and substantial material for the sum of Rupees 1,200, representing the monthly allowance of Rupees 5 laid down by the Government of India, capitalized at 5 per cent.

(Signed) G. W. WALKER, Colonel, R.E.,
Secy. to Govt., P. W. D.

15*th October* 1874.

From Colonel G. W. WALKER, R.E., Chief Engineer, Department Public Works, to the Superintendent of Army Schools, dated Ootacamund, 30th July 1874.

With reference to the subject of native regimental schools, I have the honor to submit for your approval, the accompanying design, which I have prepared in a requisition from the Quartermaster-General of the Army.

It provides four class rooms of 15 feet square each, accommodating twenty-four pupils with space of 3 feet by 2½ to each, and clear passage of three feet; diverging from a central square of fifteen feet accommodating the master and four monitors, with ample space for black boards, &c. The total area is 75×15=1125 square feet, almost identical with that allowed in the standard plan of a school for 100 boys, which is 58×20=1160 square feet, exclusive of verandah space.

Had I been aware of your ideas as expressed in letter to the Quartermaster-General, No. 208, of 9th June, before I took up the subject, I should have endeavoured to meet them more closely as to shape of the building. Either shape may be adopted without difference of cost; which need not, I consider, exceed Rupees 1,200, if the accompanying specification is carefully worked out.

Proposed Standard Plan of Native Regimental School.

Specification.—The roof will be supported on eight pillars of brick-in-chunam 1½ feet square and 7½ feet high, on four gable walls of brick and mud, and on four arches of brick and mortar; the basements being 2 feet thick by 1 foot high and foundations { 2½ feet thick × 1½ feet high / 3 „ „ × 1½ „ do. of brick in mud. Mudwalls 1½ feet thick, and 3 feet high will run from pillar to pillar; and the spaces above them be closed with bamboo lattice work or mats. The doors will be of bamboo matting. The roof to consist of ridge pole, purlins, rafters, reepers (of best jungle wood) and pan tiles. Bressummers also to be of best jungle wood. Floor of brick jelly in mud, plastered with cow-dung. The brick pillars and walls to be pointed and whitewashed with two coats.

2. Glazed windows to be inserted in each gable, if they can be afforded.

(Signed) G. W. WALKER, Colonel,
Chief Engineer, D. P. W.

30*th July* 1874.

From Lieutenant-Colonel H. L. GROVE, Superintendent of Army Schools, Coonoor, to Colonel G. W. WALKER, Chief Engineer, Public Works Department, Ootacamund; dated Coonoor, 18th August 1874, No. 318.

I have the honor to return the plan and specification forwarded with your letter of 30th July, and to state that, in my opinion, the style of building proposed for the occupation of native army schools is of too expensive a character to meet the ideas of Government as expressed in the extract from a letter from the Government of India marginally exhibited, while it does not meet all our requirements.

"In the other presidencies an allowance of Rupees 5 per regiment per mensem, or Rupees 60 per annum, is sanctioned to cover both the cost of original construction and periodical repairs."

2. The proposed bamboo lattice work seems to be objectionable, as needing constant repair and failing to exclude rain, wind and dust, or to ensure due security of school property. No school furniture has been provided for in the estimated cost of the building.

3. I beg to submit for your consideration (and for such modifications as your experience may suggest) a rough sketch of what will afford all needful accommodation for 100 pupils—a building composed of mudwalls on a raised mud basement, a rough jungle-wood roof, tiled, plank doors and barred windows, with shutters, which might be run up, I imagine, for not more than Rupees 300.

4. For information respecting the cost of school furniture, I have addressed the Executive Commissariat Officer, Fort Saint George, whose answer shall be communicated to you, when received.

From Lieutenant-Colonel H. L. GROVE, Superintendent of Army Schools, to Colonel G. W. WALKER, R. E., Secretary to Government, Public Works Department, Ootacamund; dated Coonoor, 26th September 1874, No. 436.

I have the honor to submit a copy of a memorandum just received from the Executive Commissariat Officer, Wellington, in which the cost of certain articles of school furniture, is given.

From the Examiner of Commissariat Accounts, to the Executive Commissariat Officer, Wellington; dated Fort Saint George, 22nd September 1874, No. 2070.

Returns the enclosure* received with your letter No. 18, dated 14th instant, and forwards a memorandum of the probable cost of the school furniture therein mentioned.

* No 386, dated 10th September 1874.

2. The prices given against the last three articles in the memorandum, are the latest paid at Wellington, the others have been taken from the ranges in which articles of the same kind happen to have been supplied.

MEMORANDUM.

	RS.
1 Almirah with lock and key, Madras rate	50
1 Desk for schoolmaster, or dais, Cannanore rate	37
1 Desk, school, nine feet, or long, Wellington rate	15
1 Form nine feet, or forms, school, do.	8
1 Black board and easel. or black board with stand, Wellington rate ...	20

FORT SAINT GEORGE,
22*nd September* 1874.

Referred to His Excellency the Commander-in-Chief, with advertence to the Quartermaster-General's letter, No. 143-4587, dated 29th June 1874.

No. 48. 22*nd October* 1874.

From Brigadier-General A. HOWLETT, C.B., Quartermaster-General, to Colonel A. C. SILVER, Secretary to Government, Military Department; dated Head Quarters, Ootacamund, 7th November 1874, No. $\frac{545}{7648}$.

In returning the documents referred to the Commander-in-Chief on the 22nd ultimo, I have the honor, by order, to state that His Excellency approves of the plan of school-house for native regiments, proposed by the Secretary to Government, Public Works Department. Such a building, with mud walls of full height and sufficient, well secured, openings for light and ventilation, will answer. It is understood that both building and furniture can be provided for Rupees 1,200.

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No. 49. ORDER THEREON, 6th January 1875, No. 50.

The Right Honorable the Governor in Council approves, with the following modifications, the proposed code of regulations for Madras native army schools.

Section I., rule I., "Bangalore" to be substituted for "Madras, or one of the principal military stations of the army."

Section IV., rule 29. The final clause will run as follows:—

"The school fees thus collected will be carried to the credit of the school fund, to be applied to the repair of the school-house and the repair and renewal of furniture, and to assist in the purchase of books, writing materials and other incidental expenses connected with the school."

Section V., rule 35. The proposed annual allowance of Rupees 60, for cost of periodical repairs of school-room and for furniture at Rupees 5 per mensem will be struck out—reducing the total yearly grant by Government for each school to Rupees 170.

The final clause of this rule will open as under.

"The allowances for school books and stationery, may be drawn, if required" &c.

2. The plan of school-house proposed by the Public Works Department is accepted, and that department will provide a building and the required furniture at a maximum cost of Rupees 1,200 for each regiment, whenever called upon to do so by His Excellency the Commander-in-Chief—funds having been previously assigned in the usual manner.

3. The site will, in each case, be selected by the military authorities and new school-houses erected in only permanent lines.

4. The building and furniture once supplied at the cost of the State, will be kept in repair and the furniture renewed out of the school funds, as provided for in the modified rules.

5. The rules will now be submitted to the Government of India, for final approval—on receipt of which they will be printed separately for distribution.

(True Extract.)

(Signed) A. C. SILVER, Colonel,
Secretary to Government.

To the Adjutant-General.
" Quartermaster-General.
" Controller of Military Accounts.
" Educational Department.
" Public Works Department.

Exd. P. Ranganathum.

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Govt. of Madras.

MILITARY.

To

THE ADJUTANT-GENERAL.

&c., &c., &c.

Dated January, 6th.

Read, "

Read.

G. O., 6th January 1875, No. 50.

S.

JANUARY.
Nos. 41—50.

Approving, with certain modifications, the proposed code of regulations for Madras native army schools.

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Specification to accompany Estimate for constructing a Native Regimental School.

Excavation.—Foundation to pillars to be excavated to a depth of 3 feet and a depth of 1½ feet to screen walls between pillars, or to such other depth as may be necessary; to be watered and tamped well to a good level.

Foundation.—Pillars to be of burnt brick in clay 3 feet deep, or to such other depth as may be necessary, and built in footings of 1½ feet each. The footing courses will be carried up in two steps with an offset of 3 inches on either side, breadth of foundations to be 3 feet and 2½ feet respectively. Foundation to screen walls to be 1½ feet deep by 2½ feet broad, to be of puddle.

Basement.—Pillars to be of burnt brick in clay 1 foot deep and 2 feet thick. Basement to screen walls to be of puddle 1 foot deep and 2 feet thick.

Superstructure.—Pillars 1½ feet thick to be of brick in clay. Screen walls between pillars to be of puddle (consisting of two parts sand and one part good clay), height 7½ feet below bressummer. The interior and exterior of brick-work to be pointed with chunam, and the whole to have two coats of whitewash.

Roofing.—To consist of jungle-wood (well seasoned), coupled rafters, hip rafters and rafters, bressummer and reepers to be fastened with suitable nails and covered over with pan tiles and chunam ridge. Rafters to be set 1½ feet apart from centre to centre, and reepers 5 inches from centre to centre, the bressummer to be halved and bolted together at the angles, and the hip rafters notched into them.

Flooring.—To be of broken brick jelly in mud, well watered and rammed, and plastered with one coat of cow-dung.

Doors and Windows.—To be of good seasoned jungle-wood, doors to be battened, with hinges, bolts, &c. Windows battened, with wooden bars, and hinges, bolts, &c., complete.

Detailed Estimate for constructing a Native Regimental School for 100 Pupils.

Measurements. No.	Length.	Breadth.	Depth.	Contents.	Particulars.
					Excavation.
	FT. IN.	FT. IN.	FT. IN.	FT. IN.	
12	6 0	3 0	3 0	648 0	Pillars.
2	3 0	3 0	3 0	54 0	Do.
10	10 6	2 6	1 6	393 9	Puddle walls.
2	7 6	2 6	1 6	56 3	Do. do.
2	5 0	1 0	0 6	5 0	Steps.
				1,157 0	Cubic feet, or 43 cubic yards of excavation for foundation.
					Brickwork.
12	5 9	2 9	3 0	569 3	Foundation to pillars.
2	2 9	2 9	3 0	45 4½	Do. to do.
2	5 0	1 0	0 6	5 0	Do. to steps.
12	5 0	2 0	1 0	120 0	Basement to pillars.
2	2 0	2 0	1 0	8 0	Do. to do.
12	4 6	1 6	7 6	607 6	Superstructure to pillars.
2	1 6	1 6	7 6	33 9	Do. to do.
2	4 6	1 0	0 6	4 6	Steps.
				1,393 4½	Cubic feet of brick in clay.

Detailed Estimate for constructing a Native Regimental School for 100 Pupils.—(Concld.)

No.	Measurements. Length.	Breadth.	Depth.	Contents.	Particulars.
	Ft. In.	Ft. In.	Ft. In.	Ft. In.	*Puddle Wall.*
10	11 0	2 6	1 6	412 6	Foundation to screen walls.
2	8 6	2 6	1 6	63 9	Do. to do.
10	11 6	2 0	1 0	230 0	Basement to do.
2	9 6	2 0	1 0	38 0	Do. to do.
10	12 0	1 6	7 6	1,350 0	Superstructure to do.
2	10 6	1 6	7 6	236 3	Do. to do.
				2,330 6	
2	4 0	1 6	6 6	78 0	Deduct doors.
14	3 0	1 6	4 0	252 0	Do. windows.
				330 0	
				2,000 6	Cubic feet of puddle wall.
					Pointing.
12	9 0	...	7 6	810 0	Pillars.
2	3 0	...	7 6	45 0	Do.
2	1 2	...	13 0	30 4	Sides of doorway.
1	63 0	...	1 0	63 0	Basement to pillars.
				948 4	Square feet of pointing to pillars with chunam.
					Whitewashing.
1	192 0	...	7 6	1,440 0	Interior walls.
1	204 0	...	7 6	1,530 0	Exterior do.
1	206 0	...	1 0	206 0	Basement.
				3,176 0	
2	4 0	...	6 6	52 0	Deduct doors.
14	3 0	...	4 0	168 0	Do. windows.
				220 0	
				2,956 0	Square feet of white-washing.
					Roofing.
8	16 6	13 0	...	1,716 0	Main.
4	11 0	13 0	...	572 0	End.
				2,288 0	Square feet of roofing with jungle-wood, coupled rafters, hip rafters, rafters, bressummers and reepers, pan tiles, chunam ridge, &c.
					Flooring.
1	77 6	14 6	...	1,123 9	Square feet of flooring of brick jelly in mud and plastered with cow-dung.
	4 0	...	6 6	2	Batten doors of jungle-wood.
	3 0	...	4 0	14	Do. windows with wooden bars do.

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Abstract Estimate for constructing a Native Regimental School for 100 Pupils.

Quantities.	Particulars.	Rate. Rs. A. P.	Per.	Amount. Rs. A. P.	Total. Rs. A. P.
43	Cubic yards of excavation for foundation	0 2 0	C. yd.	5 6 0	
1,393½	Cubic feet of brick in clay ...	10 6 8	100 C. ft.	145 2 6	
2,000½	Do. of puddle wall ...	3 2 0	Do. ...	62 8 3	
948⅓	Square feet of pointing with chunam	0 14 0	Square ...	8 4 9	
2,956	Do. of whitewashing ...	0 3 0	Do. ...	5 8 8	
2,288	Do. of roofing with jungle-wood, coupled rafters, hip rafters, rafters, bressummer and reepers, pan tiles, chunam ridge, &c.	25 0 0	Do. ...	572 0 0	
1,124	Do. of flooring of brick jelly in mud and plastered with cow-dung	2 4 0	Do. ...	25 4 7	
2	Jungle-wood batten doors ...	12 8 0	Each ...	25 0 0	
14	Do. batten windows with wooden bars	5 8 0	Do. ...	77 0 0	
					926 2 9
	Furniture	...	...	...	273 13 3
	Total estimate ...	...	...	...	1,200 0 0

Madras,
29th June 1875.

(Signed) J. O. HASTED, Major, R.E.,
Offg. Joint Secretary to Government.

330/14

Proceedings of the Madras Government, Public Works Department,
23rd July 1875.

Read the following papers :—

No. 550. Proceedings of the Madras Government in the Military Department, dated 6th January 1875, No. 50.

ABSTRACT.—Approving with certain modifications the proposed Code of Regulations for Madras Native Army Schools.

No. 551. Proceedings of the Madras Government in the Military Department, dated 22nd March 1875, No. 1,361.

ABSTRACT.—Communicating the sanction of the Government of India to the adoption of the Code of Regulations proposed for Native Army Schools in the Madras Presidency, and directing the publication of the Code in pamphlet form.

No. 552. ORDER THEREON, 23rd July 1875, No. 2,087.

MILITARY WORKS, No. 16.

COMMUNICATED to District Engineers for guidance together with a copy of the standard plan, specification and estimate of quantities.

(True Extract.)

(Signed) J. O. HASTED, Major, R.E.,
Offg. Joint Secretary to Government.

To District Engineers.
To the Controller of Public Works Accounts.
" Consulting Architect.
" Military Department.

Exd. E. C. Shunker.
Spare Copies

Govt. of {1875} Madras.

PUBLIC WORKS.

To

DISTRICT ENGINEERS.

&c., &c., &c.

Dated July 23rd.

Issued

Recd. Encl.

G. O., 23rd July 1875, No. 2,087.

JULY.

Nos. 550-551

Code of Regulations proposed for Native Army Schools in the Madras Presidency.—Proceedings in the Military Department approving with certain modifications the —, communicated to District Engineers for guidance together with a copy of the standard plan, specification and estimate of quantities.

338/15

Proceedings of the Madras Government, Public Works Department, 10th April 1877. No. 1,241.

Read the following papers:—

No. 266. Endorsement of the Military Department, dated Ootacamund, 4th October 1876, No. 5,063.

From Lieutenant-Colonel H. L. GROVE, Superintendent of Army Schools, to Brigadier-General A. HOWLETT, Quartermaster-General, dated Bangalore, 30th September 1876, No. 62.

I HAVE the honor to bring to your notice that Native Cavalry Regiments will not require such large school-rooms as it is intended to provide for Native Infantry Regiments.

2. For the latter it has been estimated that the building should accommodate 100 pupils, but for the former, accommodation for 70 pupils will be ample.

No. 6,537.

FORWARDED for consideration in the Public Works Department as to the changes required in the standard plan for schools for Native Regiments sanctioned in G.O., No. 2,087, 23rd July 1875 (No. 3,607, 29th July 1875, Military Department) to adapt it for Native Cavalry Corps.

(By order.)

FORT ST. GEORGE, (Signed) A. HOWLETT, Brigadier-General,
2nd October 1876. Quartermaster-General.

To the Secretary to Government, Military Department.

TRANSFERRED to the Public Works Department.

(By order.)

(Signed) J. MICHAEL, Colonel,
Secy. to Govt., Mily. D.

No. 266-A. From Lieutenant-Colonel H. L. GROVE, Superintendent of Army Schools, to the Acting Joint Secretary to Government, Public Works Department, dated Madras, 30th October 1876, No. 131.

IN returning the documents forwarded with your communication of 26th instant, I have the honor to state that the reduced plan of the standard design for school-houses for Native Regiments presents objections from which the other lopped design is free. I would wish therefore that in the case of Cavalry Schools the original design may be adopted, but minus one wing, as suggested by you in your letter under reference.

2. The form of the black board, as shown in the plan, is not quite to my liking. I should wish the dimensions of the board to be 5 feet high and 4 broad, and it should be secured to two upright posts and made to revolve on its centre on two iron pivots secured to those uprights.

No. 266-B. From the same officer, dated Bangalore, 22nd January 1877, No. 16.

I HAVE the honor to return, as requested in your memorandum, dated 12th instant, No. 42-T, the design and estimate for a Native Cavalry School, and to offer for consideration the following observations.

Writing Desk and Form.—Space for the toes and heels of the pupils is required, and might be got by placing the innermost lower bar of both desk and form at the innerside of the legs.

Black board.—The pedestal does not cover enough ground to ensure stability, and it should rest on feet with a view to its being easily moved. The one mode for the 36th Regiment at Bangalore is top heavy, because its base is so small.

SPECIFICATION FOR FURNITURE.

Desks.—To be of teakwood 12 feet long, the falls 1¼ feet wide with a slope of 2 inches, level ink ledge 3 inches wide with back rail screwed, of 1 inch in height. The front standards are not to be connected with bars, but strengthened by knees at the angles, rear standard being strengthened by a rail 1 foot from the ground.

Forms.—To be of teakwood. Forms for desks will be 12 feet long 10 inches wide, and 1 foot 5½ inches in height. Forms for class to be 12 feet long 10 inches wide, and 1 foot 3 inches in height, the standards are to be strengthened by knees at the angles, no rails used.

Black Boards—A. To be of teakwood, the board will be 5 feet in height and 4 feet broad, properly pannelled and framed to prevent warping, and will be fitted in two upright standards and made to move on centre pivots of iron to set at any angle. The standards will rest on pedestals 3 feet long, 4 inches broad, and 4 inches deep strutted on both sides furnished with brass or iron casters as shown in drawing, and the whole wood work to be painted black.

B.—To be of teakwood, the board will be of the same description as that noted above, and will rest on hinged frames as shown in drawing, with iron hooks, wrought iron tie hooks will be provided to firmly adjust the frames, and the whole painted black.

Almirah.—To be of teakwood 5 feet 6 inches in height, 3 feet 6 inches broad, and 1 foot 6 inches deep with five shelves, provided with two pannelled shutters, hung on brass hinges and fitted with brass lock and key.

Desk or Table.—To be of teakwood 4 feet 6 inches long, 2 feet 3 inches broad, and 2 feet 6 inches in height, and will be of the ordinary description.

Chairs.—To be teakwood of the ordinary description.

Wooden Stools.—To be of teakwood 1 foot 6 inches long, 10 inches wide, and 1 foot 3 inches in height.

No. 267. ORDER THEREON, 10th April 1877, No. 1,241.

MILITARY WORKS, No. 6-A.

HIS GRACE the Governor in Council is of opinion that ordinary open thatched pandals affording free ventilation are more adapted for the use of schools for Regiments of Native Cavalry and Infantry than more permanent walled structures. The covered area to be provided being for Regiments of Native Cavalry 1,260 square feet, and for Native Infantry 1,570 square feet.

2. The standard plan circulated with G.O., No. 2,087, dated 23rd July 1875, is cancelled. In future when submitting plans and estimates for such school

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16

pandals as may be required, it will be sufficient if provision is made for enclosing a small portion of the pandal with a mud wall to form a "lock-up," to contain such of the school furniture as should be secured when not in use.

3. The estimates for Native Regimental School Pandals will include the cost of the requisite furniture in the proportions noted below, and of the patterns lithographed and herewith circulated.

For Regiment of Native Cavalry —

	Length.		Breadth.		Height.
Nine forms	12′	×	10″	×	1′ 3″
Three forms for writing-desks	12′	×	10″	×	1′ 5½″
Three writing-desks	12′	×	1′ 5″	×	2′ 8″
Three black boards	4′	×	5′	×	6′ 6″

One small almirah with lock and key.
One desk and chair for Head Master.
Two wooden stools for Assistant Master and Monitor.

For Regiment of Native Infantry —

	Length.		Breadth.		Height.
Twelve forms	12′	×	10″	×	1¼′
Four forms for writing-desks	12′	×	10″	×	1′ 5½″
Four writing-desks	12′	×	1′ 5″	×	2′ 8″
Four black boards	4′	×	3′	×	7′

One small almirah with lock and key.
One desk and chair for Head Master.
Three wooden stools for Assistant Masters and Monitor.

(True Extract.)

Colonel, R.E.,
Secretary to Government, P.W.D.

To the District Engineer, Chingleput.
" " Ganjam.
" " Vizagapatam.
" " Malabar.
" " Presidency.
" " North Arcot.
" " Trichinopoly.
" " Bellary.
" " Bangalore.
" " Tinnevelly.
" " South Canara.
" Military Department.

Exd. E. C. Shunker.
Spare Copies

11/1/84

Govt. of {1877} Madras.

PUBLIC WORKS.

To

THE DISTRICT ENGINEER,
CHINGLEPUT,
&c., &c., &c.,

Dated April 10th.

Issued

Recd. Encl.

G. O., 10th April 1877, No. 1,241

APRIL.

Nos. 266-267.

Schools for Regiments of Native Cavalry and Infantry.—Modifying the standard plan of

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GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

12th July 1877, No. 409 W.

Buildings and Roads.

Military Works.

Read the following paper :—

No. 153. Endorsement of the Secretary to Government, Military Department, dated Fort St. George, 19th June 1877, No. 3,600.

From Brigadier-General H. O'CONNELL, Quartermaster-General, to the Secretary to Government, Military Department, dated Ootacamund, 14th June 1877, No. 238—4,402.

I HAVE the honor, by order, to forward, for the consideration and orders of Government, letter No. 227, dated 1st instant, from the Superintendent of Army Schools to the Adjutant-General, bringing to notice that the thatched pandals ordered by Government in Proceedings, Public Works Department, dated 10th April 1877, No. 1,241,* to be provided for schools in the Native Army will be very unsuitable, and requesting a reconsideration of the subject with the view to sanction being granted for the erection of suitable structures for school-houses where such are required.

* Military Department, No. 2,627, dated 2nd May 1877.

2. When the order of Government quoted above was passed, it was probably considered that school-houses for each regiment in the service would be immediately required, and that, with the prospect of such an extensive outlay, it was necessary to restrict, to the lowest possible limit, the expenditure on each building. It will, however, be seen from the accompanying letter that existing public buildings, whenever available, are utilized for these schools, and consequently only a small number of school-houses are immediately required.

3. Major Jennings has described very fully in his letter the serious disadvantages of having only an open thatched pandal for a school-house, and how such a structure is likely to interfere with the efficient carrying out of the new organization for schools, which has already been attended with most encouraging success, showing how acceptable to the Madras Army is the action of Government in endeavouring to foster the general spread of education. In addition to the discouraging effect of an inappropriate building for a school, there is the danger of a thatched shed being destroyed by fire, causing not only the loss of the shed itself, but probably of all the books and school furniture, stopping for a considerable time all school operations.

4. His Excellency recommends, for the sanction of Government, the proposal made on the last page of Major Jennings' letter, that a small number of school-houses be erected each year, Rupees 1,200 each being granted for them, the buildings being erected by regimental authorities, subject to the inspection of the Local Public Works Department Officer. Two school-houses, one each at Bangalore and Trichinopoly, to be built this year, and not more than four per annum in future.

From Major C. J. JENNINGS, Officiating Superintendent Army Schools, to Brigadier-General R. C. STEWART, Adjutant-General, dated Bangalore, 1st June 1877, No. 227.

WITH reference to the Proceedings of the Madras Government, Public Works Department, dated 10th April 1877, No. 1,241, cancelling the standard plan for school-houses for Native Regiments and directing that ordinary open thatched pandals be provided for the schools of Native Infantry and Cavalry Regiments, I have the honor to request you will do me the favor of submitting the following observations for the consideration of His Excellency the Commander-in-Chief.

2. The order of Government sanctioning trained masters for the schools of the Native Army and granting an annual allowance for the purchase of books, school materials, &c., has in all those schools where the system has been introduced materially raised the standard of those schools and been appreciated by those for whose benefit these advantages have been conferred to an extent that was not anticipated. At the same time the cost of these reorganized schools, after deducting the cost of the old school establishments and Moonshees who are to die out and not be replaced, will not exceed 6,000 Rupees per annum* for the whole army.

* Proc., Madras Govt., dated 6th January 1875, No. 50.

3. To show to what extent the newly organized schools are appreciated, I would mention that whereas under the old system when they were free the attendance was about 50 consisting of recruit and pension boys whose attendance was compulsory, under the new system and in spite of fees being levied the attendance has risen to over 150.

4. I would, therefore, earnestly deprecate anything that may tendy to interfere with the success of the Government scheme of education for the Native Army, and, as I cannot but see that locating the schools in open thatched pandals will in many ways be prejudicial, I venture to lay before His Excellency the Commander-in-Chief the objections that present themselves to me.

1*st*.—Open thatched pandals will be in keeping neither with the improved system of education adopted in the re-organized schools, nor with the improved lines now being built by Government for the Native Army.

2*nd*.—They will be a source of danger from fire.

The property inside will be insecure, while to remove desks, forms, tables, maps, black boards, &c., morning and evening to and from the "lock up*" will be most inconvenient.

* Procs., Madras Govt., 10th April 1877, No. 1,241.

3*rd*.—In the majority of regimental schools, education in three vernaculars will necessarily be carried on at the same time. The model school-room approved by Government in their Proceedings of the 6th January 1875, No. 50, has been found to satisfactorily fulfil the requirements of such schools. A school-room built after this model has for some time been in use by the 36th Regiment at Bangalore. On the other hand the location of the English, Hindustani, Tamil and Telugu Schools under a pandal, however spacious that pandal may be, and even where it is enclosed and protected on three sides (as at Cannanore), was found to be attended with so much inconvenience that it was necessary to recommend the removal of the English section of the school to an old guard-room, leaving the vernacular schools to contend with the drawbacks.

4*th*.—In an open pandal wind, rain, and dust will be admitted; maps and school materials will suffer, and the attention of the pupils will be given rather to what is passing outside than to the work before them.

5. Whatever the cost of the pandal and furniture may be, I feel assured that, if Government sanctioned the grant of this sum to any regiment, the men would willingly subscribe the difference to make up the sum required for the model school-house and furniture, viz., Rupees 1,200, rather than have the regimental schools located in an open pandal; but I hope to be able to show the possibility of providing satisfactory school accommodation for the whole Native Army with but a small and gradual expenditure, and if so I would beg that Government will be pleased to reconsider the order directing the erection of open thatched pandals for the regimental schools of the Native Army, and re-sanction the original grant of Rupees 1,200 for each school-house that may be ordered to be built.

6. During my recent tour in the southern half of the Presidency, knowing that under present circumstances no expenditure would be sanctioned for the purpose of building school-houses for the Native Army, I made it a point to ascertain what disused Government buildings were available and suitable for the re-organized schools of the Native Army, and with the sanction of the authorities, satisfactory school accommodation for two regiments at Madras, two at Trichinopoly, one at Quilon, and one at Palamcottah was obtained in disused Staff Serjeants' and Apothecaries' quarters and other such buildings.

338/18

7. There is no doubt that, in the northern half of the Presidency, the same means of providing convenient school accommodation exists, and that an equal number of regiments can be similarly provided for there.

8. The requirements of the 18 regiments in the southern half of the Presidency may be stated as follows:—

* One at Bangalore.	* 4 Accommodation urgently required.
" at Palaveram.	
" at Vellore.	6 Present accommodation will suffice until better can be provided.
" at Trichinopoly.	
	8 Accommodation suitable.
	18

9. There is therefore no need for a large or an immediate expenditure, and if Government is pleased to re-sanction the standard plan of school-house for the Native Army, I would ask that the building of two† may be sanctioned this year at a total outlay of Rupees 2,400, and four every succeeding year at a total outlay of Rupees 4,800 per annum, or Rupees 1,200 for each school-house. I would further ask that conditional on the school-house being built in exact accordance with the standard plan, and subject to the inspection of the local Public Works Department Officer, the work should be carried out under the Regimental authorities in the same way as the lines of the 36th Regiment at Bangalore are being built. The saving effected in the cost of labor by this arrangement will furnish the cost of providing additional accommodation in the school, as it is now found that the attendance will be 150 pupils and not 100 only as was originally estimated.

† One at Bangalore.
" at Trichinopoly.

10. Should Government be pleased to approve of my proposal, it will be an object with me to make such arrangements as will secure the building of the school-houses being carried out in a satisfactory manner.

No. 125.

MEMORANDUM.

REFERRED.

(By Order.)

7th June 1877. (Signed) R. C. STEWART, Brgdr.-Genl., Adjutant-General.

TRANSFERRED to the Public Works Department for the consideration and orders of Government.

(By Order,)

(Signed) J. MICHAEL, Colonel, Secy. to Govt., Mily. D.

No. 154. ORDER THEREON, 12th July 1877, No. 409 W.

IN advocating the substitution of thatched for tiled roofs in the Army Schools of the Madras Presidency, His Grace the Governor in Council was influenced by the consideration that the use of thatched roofs secures greater coolness and more thorough ventilation. The Governor has personally noticed, and has heard complaints from the teachers of those Army schools which he has visited of the lack of fresh air in the better built schools of the Madras Presidency.

2. His Excellency in Council cannot think that any one standard plan can possibly be devised which will equally suit the totally different climates of Cannanore, of Bellary or Bangalore. Nor does he attach much importance to the risk of fire when thatched roofs are adopted.

3. The papers will be communicated to the Superintendent of Army Schools, who, in each case where the sanction of Government to the erection of a school is sought, will prepare a plan with such modifications from the standard plan as are necessary in view of the climate of the station, and will not enhance the cost of the building; free and full ventilation at al seasons of the year being an essential requirement in such plans.

(True Extract.)

(Signed) E. A. FOORD, Colonel, R.E.,
Secretary to Government, P.W.D.

To District Engineers.
To the Military Department.

Exd. E. C. Shunker.
Spare Copies

338/19

BUILDINGS AND ROADS.
MILITARY WORKS.

4/2/84

Govt. of {1877} Madras.

PUBLIC WORKS.

To

DISTRICT ENGINEERS,

&c., &c., &c.

Dated July 12th, 1877.

Issued

Read,

Encs.

G. O. 12th July 1877, No. 409 W.

JULY.

Nos. 153-154.

Army Schools of the Madras Presidency.
Papers regarding the substitution of thatched for tiled roofs in the ——, communicated with remarks and instructions to the Superintendent of Army Schools.

338/2D

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Military Works.

READ—the following papers:—

From G. T. WALCH, Esq., Officiating Superintending Engineer, First Circle, to the Chief Engineer, Public Works Department, dated Dowlaishweram, 28th April 1883, No. 41 G.N.

I have the honor to forward, herewith, for the sanction of Government, an estimate, amounting to Rs. 960, for constructing a Regimental Schoolhouse at Berhampore, prepared at the request of the Quartermaster-General, Madras, and in accordance with the standard design.

2. The necessary funds for the above work will be provided in the statement of requirements for minor works, &c., of this circle for 1883-84, which will be submitted to you in a day or two.

No. 942 C., Public Works.

Submitted for the orders of Government in the Military Department.

2. The estimate having received the approval of His Excellency the Commander-in-Chief, it is remitted for consideration in that department whether the orders contained in Proceedings of Government, Public Works Department, No. 1241, dated 10th April 1877, would not sufficiently meet the case.

(By Order.)

MADRAS,
11th May 1883.

(Signed) C. BOWEN, Major, R.E.,
Dy. Chief Engr. and Under Secy. to Govt., P.W.D.

G.O., dated 19th June 1883, No. 3452, Military.

Read—the following letter from Lieutenant-Colonel R. C. STEWART, Quartermaster-General, to the Secretary to Government, Military Department, dated 15th June 1883, No. 4323:—

In returning papers referred to under G.O., No. 2849, dated 18th May 1883, I am desired to state that, in the opinion of His Excellency the Commander-in-Chief, an open thatched pandal would not meet the requirements of a Regimental Schoolhouse at Berhampore.

2. The Superintendent of Army Schools has been called upon, with reference to paragraph 2 of G.O., No. 409 W., dated 12th July 1877 (Military Department, No. 4200, dated 21st July 1877), to submit a plan, with such modifications from the standard plan as are necessary, to meet the requirements of the station in question.

Order—dated 19th June 1883, No. 3452, Military.

The reply of the Quartermaster-General communicated to the Public Works Department with advertence to that department, No. 942 C., dated 11th May 1883.

2. The submission of the plan referred to in paragraph 2 will be awaited before further action is taken in the matter.

(True Extract.)

(Signed) E. L. HANKIN, Colonel,
Secretary to Government.

ORDER—dated 23rd June 1883, No. 1768 W., Public Works.

Communicated to the Superintending Engineer, First Circle, for information and guidance.

(True Extract.)

(Signed) R. H. SANKEY, Colonel, R.E.,
Secretary to Govt., P.W.D.

To the Superintending Engineer, First Circle, with Estimate.
" Military Department.

Exd. C. Howarth.
Spare Copies

338/21

BUILDINGS AND ROADS.
MILITARY WORKS.

Govt. of {1883} Madras.

PUBLIC WORKS.

Dated June, 23rd.

Recd. *Encl.*

G.O., 23rd June 1883, No. 1768 W.

JUNE.

Regimental Schoolhouse at Berhampore

Proceedings of the Military Department regarding the construction of a —, communicated to the Superintending Engineer, First Circle.

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GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Military Works.

READ—the following letter from Lieutenant-Colonel C. J. JENNINGS, Superintendent of Army Schools, to the Quartermaster-General, dated Ootacamund, 20th June 1883, No. 650 :—

With reference to your memorandum, No. 4324, forwarding copy of a letter to the Secretary to Government, Military Department, relative to the building of a Regimental School-house at Berhampore, and calling upon me, in accordance with O.G., No. 409 W., dated 12th July 1877, to submit a plan, with such modifications from the standard plan as may be necessary to meet the requirements of that station, I have the honor to state that I do not consider it necessary that any modification from the original standard plan should be made in the building to be erected for the school of the regiment at Berhampore. I would only suggest that, as the attendance in the Native Army Schools has become very much greater than was originally anticipated, accommodation for more than 100 pupils should, if possible, be provided. The average daily attendance of adults in the school of the 7th Regiment at Berhampore is now 117, and I would recommend that in the building to be erected accommodation for at least 130 adults should be provided. There should also be ridge ventilation in the roof.

* * * * *

No. 4548.

Endorsement.

True extract forwarded to Government in continuation of this Office No. 4323, dated 15th June 1883, and with a request that the Public Works Department may be asked to submit a plan accordingly.

(By Order.)

FORT ST. GEORGE,
25th June 1883.

(Signed) D. J. S. McLEOD, Major,
Offg. Dy. Quartermaster-General.

To the Secretary to Government, Military Department.

No. 3605, Military.

Forwarded to the Public Works Department with reference to Proceedings of Government, No. 3452, dated 19th June 1883, with the request that a revised plan and estimate as indicated within may be submitted to Government in the Military Department.

OOTACAMUND,
28th June 1883.

(Signed) E. L. HANKIN, Colonel,
Secretary to Government.

ORDER—dated 4th July 1883, No. 1865 W., Public Works.

Communicated, in continuation of G.O., No. 1768 W., dated 23rd June 1883, to the Superintending Engineer, First Circle, for submission of a revised plan and estimate.

(True Extract.)

(Signed) R. H. SANKEY, Colonel, R.E.,
Secretary to Govt., P.W.D.

To the Superintending Engineer, First Circle.
" Military Department.

Exd. A. F. Goodall.
Spare Copies

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23

BUILDINGS AND ROADS.
MILITARY WORKS.

Govt. of {1883} Madras

PUBLIC WORKS.

Dated July, 4th.

Recd. *Encl.*

G.O., 4th July 1883, No. 1865 W.

JULY.

Regimental School-house at Berhampore

The Superintending Engineer, First Circle, to submit a revised plan and estimate for a —.

B.B. 24

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Military Works.

READ—the following letter from G. T. WALCH, Esq., Officiating Superintending Engineer, First Circle, to the Chief Engineer, Public Works Department, dated Cocanada, 17th November 1883, No. 2468 G.D. :—

With reference to G.O., No. 1865 W., dated 4th July 1883, I have the honor to forward, herewith, a revised plan and estimate for constructing a school-house for the Native Infantry Regiment at Berhampore, and to request you will be good enough to obtain the sanction of Government to the same.

1 Plan.
1 Estimate.
1 Site plan.

2. The plan and estimate have been approved by the Commander-in-Chief.

No. 2383 C., Public Works.
Submitted for the approval of Government in the Military Department.
(By Order.)
(Signed) C. BOWEN, Major, R.E.,
Dy. Chief Engineer, P.W.D.

CHEPAUK,
1st December 1883.

No. 6576, Military.
Approved.
(By Order.)
(Signed) E. L. HANKIN, Colonel,
Secretary to Government.

FORT ST. GEORGE,
5th December 1883.
To the Public Works Department.

ORDER—dated 10th December 1883, No. 3536 W., Public Works.

The estimate, amounting to Rs. 1,390, for constructing a school-house for the Native Infantry Regiment at Berhampore, is sanctioned for execution when funds are available.

2. This sanction has been registered as Imperial Ordinary No. 48 W. of 1883-84 and classified as Military, Original Works.

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

To the Superintending Engineer, First Circle, with six enclosures.
" Examiner, Public Works Accounts.
" Military Department.

Exd. A. F. Goodall.
Spare Copies

plan and estimate had

BUILDINGS AND ROADS.
MILITARY WORKS.

Govt. of {1883} Madras

PUBLIC WORKS.

Dated July, 4th.

Recd. *Encl.*

G.O., 4th July 1883, No. 1865 W.

JULY.

Regimental School-house at Berhampore

The Superintending Engineer, First Circle, to submit a revised plan and estimate for a —.

10TH DECEMBER 1883, No. 3536 W., PUBLIC WORKS.

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GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Military Works.

READ—the following letter from G. T. WALCH, Esq., Officiating Superintending Engineer, *First Circle*, to the Chief Engineer, Public Works Department, dated Cocanada, 17th November 1883, *No. 2468 G.D.* :—

With reference to G.O., No. 1865 W., dated 4th July 1883, I have the honor to forward, herewith, a revised plan and estimate for constructing a school-house for the Native Infantry Regiment at Berhampore, and to request you will be good enough to obtain the sanction of Government to the same.

1 Plan.
1 Estimate.
1 Site plan.

2. The plan and estimate have been approved by the Commander-in-Chief.

No. 2383 C., Public Works.
Submitted for the approval of Government in the Military Department.
(By Order.)
(Signed) C. BOWEN, Major, R.E.,
Dy. Chief Engineer, P.W.D.

CHEPAUK,
1st December 1883.

No. 6576, Military.
Approved.
(By Order.)
(Signed) E. L. HANKIN, Colonel,
Secretary to Government.

FORT ST. GEORGE,
5th December 1883.
To the Public Works Department.

ORDER—dated 10th December 1883, No. 3536 W., *Public Works.*

The estimate, amounting to Rs. 1,390, for constructing a school-house for the Native Infantry Regiment at Berhampore, is sanctioned for execution when funds are available.

2. This sanction has been registered as Imperial Ordinary No. 48 W. of 1883-84 and classified as Military, Original Works.

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

To the Superintending Engineer, First Circle, with six enclosures.
„ Examiner, Public Works Accounts.
„ Military Department.

Exd. A. F. Goodall.
Spare Copies

BUILDINGS AND ROADS.
MILITARY WORKS.

Govt. of {1883} Madras.

PUBLIC WORKS.

Dated December, 10th.

Read.

Encl.

G.O., 10th Dec. 1883, No. 3536 W.

DECEMBER.

School-house

An estimate for constructing a — for the Native Infantry Regiment at Berhampore, sanctioned.

338
25

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Military Works.

READ—the following papers:—

From Major S. C. CLARKE, R.E., Officiating Superintending Engineer, III Circle, to the Chief Engineer, Public Works Department, dated Bellary, 11th December 1883, No. 2576:—

I have the honor to submit, for sanction of Government, a plan and estimate, amounting to Rs. 3,030, for constructing a school-house at Bellary, for the 27th regiment, native infantry, after the design sanctioned in G.O., No. 50, dated 6th January 1875, with certain modifications.

2. The work is entered in the list of minor new works, which accompanied G.O., No. 3002 W., dated 24th October 1883, and is recommended for execution during the coming official year.

No. 2542 C., Public Works.

Submitted for the orders of Government in the Military Department.

2. The plan and estimate are based on a standard design which was cancelled by Proceedings of Government, No. 1241, Public Works, dated 10th April 1877; and it is observed that the dimensions proposed for the building at Bellary differ from those recently adopted* for the one at Berhampore, both being schools for native infantry regiments.

* Proceedings of Government, No. 1768 W., dated 23rd June 1883.
Proceedings of Government, No. 1865 W., dated 4th July 1883.
Proceedings of Government, No. 3536 W., dated 10th December 1883.

(By Order.)

(Signed) C. BOWEN, Major, R.E.,
~~Under Secy. to Govt.~~, P.W.D.

CHEPAK,
18th December 1883.
To the Military Department
(with papers in original to be returned).

No. 163, Military.

Transferred to the Public Works Department, and the referred papers returned. The plan and estimate are approved.

(By Order.)

FORT ST. GEORGE,
14th January, 1884.

(Signed) A. KENNEY-HERBERT, Lieut.-Colonel,
Offg. Secretary to Government.

From Brigadier-General R. C. STEWART, Quartermaster-General, to the Secretary to Government, Military Department, dated Head Quarters Camp, Camp of Exercise, 13th January 1884, No. 576.

In returning, as requested, the papers received under Military Department, No. 6868, dated 21st December 1883, I have the honor, by order, to state, for the information of Government, that the school-house it is proposed to erect at Berhampore is for the head-quarters and wing only of a native infantry regiment, while that at Bellary, for which a plan and estimate have been approved by the Commander-in-Chief, is for a full regiment, and therefore a larger one is wanted there.

2. Originally a school-house for 100 pupils was found sufficient for a full native infantry regiment, but experience has shown that it is necessary in a full regiment to provide accommodation for a larger number of scholars.

ORDER—dated 17th January 1884, No. 149 W., Public Works.

The estimate, amounting to Rs. 3,030, for constructing a school-house at Bellary, for a native infantry regiment, is sanctioned for execution when funds are available.

2. This sanction has been registered as Imperial Ordinary No. 58 W. of 1883-84, and classfied as Military Original Works.

(True Extract.)

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

To the Superintending Engineer, III Circle, with 2 enclosures.
" Examiner, Public Works Accounts, with duplicate estimates.
" Military Department.

Exd. E. Fernandez.
Spare Copies.

388/26

plans and estimate have

BUILDINGS AND ROADS.
MILITARY WORKS.

Govt. of {1884} Madras.

PUBLIC WORKS.

Dated January, 17th.

Read.

Encl.

G.O., 17th Jan. 1884, No. 149 W.

JANUARY.

School-house at Bellary

Estimate, amounting to Rs. 3,030, for constructing a — for a native infantry regiment, sanctioned.

Public Works Department, 1883-84.

Current No. 1569 338/27

Letter No. 573

Dated the 15th Dec 83

From the Chief Engr. & Secy

NOTE OF REMARKS.

1. The accompanying plan and estimate for the construction of a Native Regt Quarter Guard at Bellary have been prepared at the request of the Military Dept. The present design is an enlargement of the standard design sanctioned in G.O. No. 57 Mil. Dept. of the 5th Jan/75. The latter is for the accommodation of 100 pupils at 12·15 sq. ft. per pupil; the former to accommodate 120 pupils at 12·2 sq feet per pupil. The amount of the estimate submitted is Rs. 2,150.

2. The proposed site has been selected by the Military authorities concerned. The plan and estimate have

been countersigned by
the Dy. Qr. Mr. General.

9th Jan/84

no (1)

N° 594/W.

Supg: Engineer's office IV circle
Camp. Ootacamund 30th December 1883

From,

The Superintending Engineer
IV Circle

338/28

To,

The Chief Engineer
P. W. Depart:

[illegible]

Sir,

I have the honor to submit herewith a fresh revised estimate for the Wellington Bakery, as directed in G. O. No* 2663. W of 22d September 1883. The cost of the building has been reduced from Rs 60,560 to Rs 26,360 by omitting the machinery, Stores, Servants' quarters and provision for unforeseen additions.

Enclo. 10
3 Plans
1 Site Do.
3 Estimates
1 abstract Estimate in duplicate
1 Report

* M.D. P.G. No: 5401 of 5 Oct: 83

2 The present estimate includes an item of Rs 13,000 for three ovens, which may be reduced to Rs 10,000, if two ovens

owens are considered sufficient.

I have the honor to be
Sir
Your most obt. servt.

L. Beatty Colonel RE
Supy: Engineer IV circle

338
29

Alp
PG 5 Oct /83 No 96-97 A

No 100 C a/ 16th January/84

Submitted for the approval of His Exy the Commander in Chief, & of Government in the Military Dept.

(By order)

C. Bowen.

Major RE

Dy Ch. Engr P.W.D.

11-1-84

REQUESTED TO BE
RETURNED WITH REPLY

No 260

Referred for the approval of H.E. the Commander in Chief.

A. Kenney Herbert Lt. Colonel

Offg Secry to Govt.

Fort St George 17 Jany 84

To the Quarter Master General who is requested to pass the papers on for the approval of the Commissary General, should H.E. first approve them

Mily: 1884 Dr:

No 260

From The P. W. Dt.

100-C

The Supg. Engineer 4th Circle.

Dated 30th } December 1883.
Received. }

D/15 Jany
R/16 No 594/W.

Enclosures 10

Bakery at Wellington.

Submits Revised estimates for sanction for constructing.

Endorsed

Ju. D 7 598

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n4 4

QUARTERMASTER-GENERAL'S OFFICE,
Head-Quarters, ~~Ootacamund~~, Fort St. George
4th February 1884.

No. 683.

338/30

From

THE QUARTERMASTER-GENERAL,

To

THE SECRETARY TO GOVERNMENT,
MILITARY DEPARTMENT.

SIR,

In returning the plans and estimates amounting to Rs 26,360/- for a bakery at Wellington, received under reference Order No 260 dated 17th January 1884, I am desired to say, that His Excellency the Commander-in-Chief agrees generally in the opinions expressed by the Commissary General, in his letter× on the subject, enclosed, and considers that it should be possible to provide a Bakery to meet all requirements at Wellington, at a cost considerably less than that contemplated in

× No 6484 of 1st Instant.

the

the estimates in question.

I have the honor to be,

Sir

Your Obedient Servant

DJ McLeod Major

Dy. Quarter Master Genl.

Expd.
MS

S/p 5 5

Commissary General's Office
Madras 1st February 1884

No 64 84

338/31

From,
Colonel B. H. W. Magrath,
Commissary General,
Madras.

To,
The Quarter Master General,
Fort St George.

Sir,

I have the honor to return plans and estimate for a Bakery received under your docket No 179/399 of 23d Jany/84.

2. I would submit for the consideration of His Excellency the Commander-in-chief that the plans are unsuitable, and incomplete: they are the same which were sent for my opinion on the 5th October except that the Machinery & Stores, Servants Lines, and "unforeseen addition" have been excluded from the

the Estimate.

3. With water power close at hand, which could be utilized for both grinding and sifting the wheat as also for kneading the flour, no provision has been made for the erection of a water wheel.

4. There is no suitable accommodation for storing wheat or cleaning it: none for storing flour and Soojee and none for storing firewood.

5. The Bakery should be all under one roof and should have only one door leading into it.

6. Again if no machinery of any kind is to be used, the upper story would add much to the labor of preparing flour, without any corresponding advantage.

7. The boiler room and Engine room which the Executive Engineer

8. N.6 9

Engineer suggests retaining are too small to be of any practical use if only manual labor is employed. 338/32

8. The Ovens are too large: 12ft by 10 ft, the same size as those in the Bangalore Bakery, would be more convenient.

9. It is possible there may be some practical objection to using water power for the purpose of grinding, bolting and Kneading the flour: in this case, I would suggest that application be made to the Ordnance Department for an 8 horse power vertical engine which I understand can be spared from the Gun Carriage factory: the shafting &c would not cost more than Rs1500 leaving only the grinding stones, bolter and Kneading machine to be provided.

10

10. It seems to me that if we can get the Engine from the Gun Carriage factory all the rest could be put up cheaply enough but this is a question on which I am not competent to offer an opinion.

11. I take the liberty of enclosing the ground plan of a building which I believe would thoroughly meet all the requirements of a Bakery, whether steam, water or bullock power were used and I think, with a light roof, such a building might be built for a small cost by the D. P. W.

12. On the other hand, if there be any insuperable objection to adopting this, the plan sent by the Executive Engineer with modifications might answer provided cheap steam machinery were used.

* Dated 30th Jany 1864.

Sp 7 7 33 33/33

13. The modifications I should suggest would be: 1st the doing away with the separate building for the ovens and putting these (4 each 12' by 10') behind the room marked "Bakery" which would have to be lengthened accordingly: 2d the erection of an enclosed lean to outside the boiler room for the storage of firewood: 3d Some provision for keeping the stock of wheat required for the monthly grinding.

I have the honor to be
Sir
Your most Obedient Servt
W. S. Munster Colonel
Commissary General

WS

338/34

From

Col. B. H. W. Mag[illegible]
Commissary G[illegible]
Madr[illegible]

To

The Quarter Master [illegible]
Fort St G[illegible]

Dated 1st } Fe[illegible]
Received }

No 64[illegible]

Enclosures

Returns plans a[illegible]
Estimate for the [illegible]
Bakery at Welling[illegible]
with certain rem[illegible]

338/35

QUARTER MASTER GENERAL'S OFFICE
2 * 2 * 4
848
FORT SAINT GEORGE, MADRAS

Nos 2212W. 10.8.83
2663W. 22.9.83
2302C. 23.11.83
10 C. 16.1.84.

Pro. 589.

Transferred and the referred papers returned to the Public Works Dept with an Expression of the concurrence of Govt in the Military Dept in H.E. the Commander-in-Chief's opinion.

(By order)

A. Kenny Herbert Lt Col.
Offg Secy to Govt.

To P.W. Dept. with papers
Fort St. Geo
6th Feby: 84

PWD 589 Misc. 427

Military (1883) Department.

No. 555

From

The Quartermaster-General,

To

The Secretary to Government,
Military Department.

No. 683

Dated 4th } February 1884.
Recd. 5th }

Enclosures. 4.

Regarding the construction of a Bakery at Wellington.

C. No 933.

P. W. Secretariat.

Note by Budget Section.

338/36

Work Constructing a regimental School at Vellore

Remarks and References.

Fund	Imperial.
Service Head	Military ... Rs
Departmental Head	Original Works.
Amount of estimate	Rs 2,150
Expenditure in previous year	" "
Allotment in current year	" "
Balance required to complete	" 2,150
Total Rs.	~~~

Note of available funds.

No funds available in the current year.

The work is entered under Class C, in the Imperial Military Works budget for 1884.85. vide item No. 27.

The work can be sanctioned for execution when funds are available.

[signature] 5/2
Budget Clerk.

8.2.84 8-2-84

Note by Budget Section.

9

PUBLIC WORKS DEPARTMENT.

No. 338 W

PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the 8th Feby/84

338/37

READ the following

From the Supdg Engr IV Circle No 594 W of 30th Decr 1883 on Endorsement in the Mily Dept No 589 of 6 Feby 1883, on letter from the Commy Genl No 683 4 Feby 1884.

Communicated to the Supdg Engr IV Circle who will report with the least possible delay on the rough design furnished by the Commy General, and submit detailed plans & estimates based thereon, should that design appear free from objection.

2. The question of adapting water power to drive the machinery, as suggested by the Commy-General, should be fully considered.

Deptd 12/2

9. To the S. E. IV Circle with ~~12~~ 11 enclos

15 " Military Dept.

Fort St G. 460 6th Feby: 84

8.2.84

8-2-84

10 10

83/86

1127.

Govt. of (1883) Madras.

PUBLIC WORKS.

(387)

Dated

Recd. Encl.

G. O. 8th Feby 1883/4 No. 338 W.

Barracks at Wellington

The S E IV Circle directed to report on the design design & suggestions made furnished by the Commissariat for construction & to submit detailed plans & estimates based thereon if the design appears free from objection

55

3

Sub Engr Despatch Regr

to 8/2

4 50

C E 4th Apr 13/2