GOVERNMENT OF MADRAS.

MILITARY DEPARTMENT.

---

9th May 1887, No. 2672.

**Pay and Allowances.**

Read the following papers:—

No. 143. *From the Public Works Department; dated 28th October* 1886, *No.* 3778 *C.*

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No. 144. *With report from Controller of Military Accounts; 24th Nov.* 1886, *D.*

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No. 145. *To the Secretary to the Government of India, Military Department; dated 26th November* 1886, *No.* 7401.

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No. 146. *Telegram from the Secretary to the Government of India, Military Department; dated 12th January* 1887, *No.* 88-*B.*

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No. 147. *From the Adjutant-General; dated 18th January* 1887, *No.* 104-*O* (*Pay and Allowances*).

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No. 148. *To the Secretary to the Government of India, Military Department; dated 20th January* 1887, *No.* 415.

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No. 149. *From Major T. DEANE, Deputy Secretary to the Government of India, Military Department, to Brigadier-General A. KENNEY-HERBERT, Secretary to the Government of Madras, Military Department; dated Simla, 14th April* 1887, *No.* 925-*B.*

Pay and Allowances.

Enclosures returned as requested.

With reference to the correspondence ending with your docket No. 415, dated the 20th January 1887, I am directed to say, for the information of the Governor in Council, that the Government of India sanction the grant to Captain A. R. F. Dorward of the staff salary of a Field Engineer, Rs. 240 per mensem, together with so much of the half staff of his permanent appointment as will make his whole pay not more than what he drew in the Public Works Department, for the period (from the 12th November 1885 to the 23rd February 1886) he was in command of a detachment of Sappers and Miners in Burma.

No. 150. *Telegram from the Secretary to the Government of India, Military Department, Simla, to the Secretary to the Government of Madras, Military Department, Ootacamund; dated 18th April 1887, No. 947-B.*

Please cancel my 925-B of 14th (Pay). Captain Dorward granted pay of Superintendent of Works in my 393-MW of 2nd March. Copy sent by 446-MW of 7th March.

---

No. 151. ORDER THEREON, 9th May 1887, No. 2672.

Ordered that the foregoing telegram be communicated to His Excellency the Commander-in-Chief, Controller of Military Accounts and the Public Works Department, with reference to Proceedings of Government, No. 2022, dated 5th April 1887.

(True Extract.)

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

To the Adjutant-General, with 7 enclosures.
" Controller of Military Accounts.
" Public Works Department.

Exd. P. L. Pereira.

# Govt. of {1887} Madras.

MILITARY.

*To*

THE ADJUTANT-GENERAL,
&c., &c., &c.

*Dated May, 9th.*

*Issued*

*Recd.* *Encl.*

---

**G.O., 9th May 1887, No. 2672.**

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B/B 1375 W.D. 19/5/87

**MAY.**
**Nos. 143—151.**

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## Pay and Allowances.

*Dorward, Captain A. R. F., Royal Engineers.*— Intimation from the Government of India that — has been granted the pay of Superintendent of Works during the period he was in command of a detachment of Sappers and Miners in Burma.

The question of promotion ... place of Capt Dorward ... not be raised. [illegible]

14.5.87

GOVERNMENT OF MADRAS.

MILITARY DEPARTMENT.

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9th May 1887, No. 2672.

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No. 149. *From Major T. DEANE, Deputy Secretary to the Government of India, Military Department, to Brigadier-General A. KENNEY-HERBERT, Secretary to the Government of Madras, Military Department; dated Simla, 14th April* 1887, *No.* 925-*B.*

Pay and Allowances.

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*Secretary to Government.*

To the Adjutant-General, with 7 enclosures.
„ Controller of Military Accounts.
„ Public Works Department.

Exd. P. L. Pereira.

B No 1375 W dy 19-5-87

Recorded in
Continuation of G.O
No. 1164 W d/ 28/4/87.
(sd) J. O. H.
W

# Govt. of {1887} Madras.

## MILITARY.

*To*

THE ADJUTANT-GENERAL,
&c., &c., &c.

*Dated May, 9th.*

*Issued*

*Recd.* *Encl.*

**G.O., 9th May 1887, No. 2672.**

B No 1375 W dy 19th May

**MAY.**
**Nos. 143—151.**

**Pay and Allowances.**

*Dorward, Captain A. R. F., Royal Engineers.*—Intimation from the Government of India that — has been granted the pay of Superintendent of Works during the period he was in command of a detachment of Sappers and Miners in Burma.

Exer. P.W. Accts with Copy of G.O. quoted } For information

With order

GOVERNMENT OF MADRAS.

## MILITARY DEPARTMENT.

9th May 1887, No. 2672.

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*Secretary to Government.*

To the Adjutant-General, with 7 enclosures.
" Controller of Military Accounts.
" Public Works Department.

Exd. P. L. Pereira.

B. No. 1375-W dy/19-5-87.

Recorded in
Continuation of G.O.
No 1164 W dy/28/4/87
(Sd) J.O.H
W.

# Govt. of {1887} Madras.

## MILITARY.

*To*

THE ADJUTANT-GENERAL,
&c., &c., &c.

*Dated May, 9th.*

*Issued*

*Recd.* *Encl.*

**G.O., 9th May 1887, No. 2672.**

B. No. 1375-W dy/19-5-87

**MAY.**
**Nos. 143—151.**

### Pay and Allowances.

*Dorward, Captain A. R. F., Royal Engineers.*—Intimation from the Government of India that — has been granted the pay of Superintendent of Works during the period he was in command of a detachment of Sappers and Miners in Burma.

Exr. P.W. Accts with Copy of G.O. quoted } for information.

With order

26 APR 87 GOVERNMENT OF MADRAS MILITARY DEPARTMENT

GOVERNMENT OF MADRAS.

MILITARY DEPARTMENT.

5th April 1887, No. 2022.

**Military Buildings.**

Read the following papers :—

No. 49. *From H. THIRKELL WHITE, Esq., C.S., Secretary for Upper Burma to the Chief Commissioner, to the Secretary to the Government of India, Military Department ; dated Mandalay, 22nd January* 1887, *No.* 254 :—

With reference to the orders conveyed in your telegram cited in the margin, I am directed to forward copies of papers, as per the appended list, concerning the provision of permanent barracks for a part of the garrison of Upper Burma.

*Extract from Military Department telegram to Quarter-master-General.*

No. 44C. * * * *

Separate proposals should be submitted in due course for all permanent buildings to be erected.

2. These papers refer chiefly to proposals for barracks at—

Mandalay, | Bhamo,
Katha.

At Mandalay the troops are at present quartered for the most part in monastic buildings, which it is very desirable to vacate and restore to the Buddhist monks. These temporary quarters are moreover outside the city walls, whereas it is intended to quarter most of the Mandalay garrison within the city walls. At Mandalay therefore it is very desirable that good, healthy barracks should be provided for the troops as soon as possible.

At Bhamo and Katha the troops were, and most of them are still, quartered in temporary buildings which were hastily run up at our first occupation, which are not good enough or roomy enough to secure the comfort and health of the soldiers, and which, moreover, are on sites which have proved very unhealthy. Among troops of all arms and races at both these stations, the sick-rate and the death-rate of 1886 were very high, and it is absolutely necessary to get commodious barracks erected at these two stations on healthy sites before the rainy season begins. Indeed it is very desirable to provide better accommodation for the Europeans, and better hospitals for all the troops at Bhamo, before the very hot weather sets in.

3. In Lower Burma the practice has been for many years to build frame barracks of teak wood. These structures are erected in one-third the time and at one-third the cost of masonry barracks ; they are suited to the climate, where the heat is never so great as in Northern India, and they provide, moreover, for everybody sleeping several feet above the ground—a provision absolutely necessary to health in the Burma climate for several months of the year. It has all along been intended that troops at out-stations should be housed in frame barracks ; and such barracks have already, with the sanction of the Government of India, been erected at Minbu, Pagan, Myingyan, Bhamo, and Mandalay shore. When we saw the destructive fires of last year, such as are apparently of annual occurrence at Mandalay, we thought that it would be imprudent to build any but masonry barracks at Mandalay. But a considerable part of the city has been cleared of buildings ; a further part will be so cleared under the proposals of the Cantonment Committee ; buildings inside the city will be much safer from fire than they could have been in old times ; and it has been decided, though not without some hesitation, to accept the diminished risk of fire and to erect wooden barracks for the troops at Mandalay, rather than incur a delay of two or three years and treble the expense by building masonry barracks. There is this further advantage in wooden barracks that, if a site turns out unhealthy or otherwise undesirable, the barracks can be

taken up and re-erected on another site at a cost of about one-fourth or one-third the total original outlay. When masonry barracks on the other hand are given up, the material is rarely worth carrying away. It is hoped that the Government of India may be pleased to approve the decision in favor of wooden barracks; if it were not for the risk of fire, there would be no room for doubt about the superiority of wooden barracks in the Burma climate.

It ought perhaps to be stated that though we are proposing to build our barracks of wood we have decided to make *all* our stations and buildings on the railway in Upper Burma of stone, brick or iron. But then our railway buildings will many of them be very isolated; they will be defended by only small guards; they will be exposed to accidental fires and to acts of incendiaries. The barracks, on the other hand, will be all together or in large groups; they will be strongly held; and they will be protected by open spaces round them.

4. As to the barracks, it is proposed to have half-company barracks, both for Europeans and Natives, wherever space permits, rather than whole company barracks as at Rangoon. The men prefer the smaller barracks; the risk of contagion is less; the loss by fire in a single barrack is less; smaller barracks can be located more easily on broken ground; and the cost per company of two half-company barracks is not more than 15 per cent. above the cost of one whole-company barrack. At Bhamo we are committed to a certain number of whole-company Native barracks, because, through a mistake about the superficial space allowed to each Native soldier, the frames were made for eight barracks which, according to the standard superficial space, can contain only 60 men. It will be cheaper and quicker to lengthen these frames into whole-company barracks than to cut them down to half-company barracks.

The superficial space allowed for each soldier is, according to regulation,—

120 square feet for European hospitals.
90 square feet for European barracks.
60 square feet for Native hospitals and barracks.

The cubic space provided is about what the regulations require, while the lateral and roof ventilation is ample. The roofs will be of teak shingles for Native buildings, and of shingles with an under planking nailed on the rafters for European buildings. A suggestion was made that ground space and roof surface might be saved if we had two-storied barracks. But the cost of the upright timbers would be greater, and the roof ventilation would be less complete. In reality each barrack is two-storied, as the open space below for recreation will be nine feet high in Native barracks and thirteen feet in European barracks. If we were to have two sets of sleeping-rooms, one above the other, the barracks would be really three-storied.

5. The present requirement is for—

16 European half-company barracks and three hospitals at Mandalay.
40 Native half-company barracks and three hospitals at Mandalay.
3 European half-company barracks and one hospital at Bhamo.
4 Native half-company barracks and two hospitals at Bhamo.
6 Native company barracks at Katha.

These come altogether, with subsidiary buildings, to about 9,000 tons of timber. Such material can be had more cheaply at Mandalay than at Rangoon; and the upward freight (Rs. 10 per ton) is saved on Mandalay timber. But the one saw-mill and the Native saw-pits in Mandalay cannot turn out more than 800 or 900 tons of sawn timber a month, while the railway and local demands will take up a great deal of that quantity. The Rangoon saw-mills, on the other hand, can turn out 5,000 tons of sawn timber a month. Therefore, as we are working against time, we have had to order *all* the remaining European frame barracks from Rangoon; and we shall have to order a certain number of the Native barracks also from Rangoon as soon as we ascertain for certain the utmost number we can get locally. The order at present sent to Rangoon is for 14 half-company European barracks, to be delivered, barrack by barrack, as quickly as possible. The order stipulates that the job is given subject to the confirmation of the Government of India; that telegraphic intimation will be given as soon as the orders of the Supreme Government are received; and that payment will in any case be made for any timber sawn up in anticipation of sanction.



6. The total cost of the barracks still required at these three stations will, so far as we can estimate it, be 21 lakhs of rupees for timber, cost of erection, &c. This includes officers' quarters and all subsidiary buildings except recreation-rooms, gymnasia and churches. The estimate includes accommodation for horses, mules, and Commissariat buildings. We expect to shelter horses and mules cheaply after the fashion of the transport lines at Rangoon. Out of the whole sum about two to three lakhs—we cannot at present tell the precise amount—will be spent before the 31st March out of the military works grant of the year 1886-87. The balance, about 18 lakhs, will, if the Supreme Government is pleased to sanction the present proposals, be spent during the year 1887-88.

7. The erection of these barracks, if sanctioned, will be pressed on, as far as possible, before the rainy season. But it can proceed during the rains. The engineer establishment for carrying out this scheme will consist partly of Civil Engineers belonging to the Public Works Department in Upper Burma and partly of Royal Engineer Officers belonging to the Field Force. The officers of these two branches have hitherto been working very well together. And I am to recommend that, in order to carry out this scheme, the undermentioned officers of the Royal Engineer may be appointed *temporarily*—

Captain Dorward to be Superintendent of Works;
Captain Shone to be Executive Engineer, 1st class;
Captain Appleton to be Executive Engineer, 3rd class;
Lieutenant Tanner to be Executive Engineer, 3rd class;
Lieutenant Renny Tailyour to be Assistant Engineer, 1st class;
Lieutenant Rimington to be Assistant Engineer, 2nd class;
Lieutenant Wright to be Assistant Engineer, 2nd class;
Lieutenant Hunter to be Assistant Engineer, 2nd class;
Lieutenant Palmer to be Assistant Engineer, 2nd class.

All these officers will do Field Park and purely military work for the Field Force, besides taking part in the work of erecting barracks; and Captain Dorward would remain Commanding Royal Engineer of the Field Force as well as Superintendent of Works for barracks. General Sir George White approves this scheme and thinks it will work well; and so also does His Excellency the Commander-in-Chief, Sir Frederick Roberts. There need be no clashing of interests and jurisdictions by reason of Captain Dorward and his officers working both under the General Officer Commanding and the Chief Commissioner. They will all be working together for the purpose of housing the troops as quickly, as completely, and as economically as possible.

8. In case the Government of India should be pleased to permit the Royal Engineer Officers named to be employed in the way proposed, it will be necessary to settle what salaries they should draw.

Captain Dorward now draws—

| | RS. | A. | P. |
|---|---|---|---|
| As Captain of Royal Engineers ... ... ... ... ... | 433 | 10 | 0 |
| As Commanding Royal Engineer of the Burma Field Force ... | 400 | 0 | 0 |
| Compensation for loss of salary in the Public Works Department ... ... ... ... ... ... ... ... | 106 | 6 | 0 |
| Total ... | 940 | 0 | 0 |

The salary of a Captain in the Royal Engineers, when he is Superintending Engineer of the lowest grade, is—

| | RS. | A. | P. |
|---|---|---|---|
| Captain's pay ... ... ... ... ... ... ... | 140 | 0 | 0 |
| Superintending Engineer's, 3rd grade ... ... ... | 1,100 | 0 | 0 |
| Total ... | 1,240 | 0 | 0 |

I am to suggest that, if Captain Dorward is appointed temporarily Superintendent of Works in addition to his other duties, he be granted an allowance of Rs. 300 a month for the extra duty, thus making his emoluments up to those of a 3rd-grade Superintending Engineer.

For the officers who are to be temporarily graded as Executive and Assistant Engineers, I am to recommend the salary of their temporary grade, *plus* the Burma allowance (Rs. 100 a month) granted to all Public Works Officers in Burma as some makeweight against the dearness of living and the other drawbacks to employment in Burma. First-grade Executive and Superintending Engineers would *not* get any Burma allowance, just as is the practice in Lower Burma.

9. Captain Dorward's charge as Superintendent of Works, if the arrangement now proposed is sanctioned, will extend over the whole of Upper Burma except Ningyan. This place is at present much more accessible from Rangoon than from Mandalay. Works there, both civil and military, had better be managed and directed by the Superintending Engineer and Chief Engineer, Rangoon, though funds for Ningyan will have to come out of the Upper Burma budget.

10. Captain Dorward will ordinarily do business direct with the Chief Commissioner at Mandalay. But when the Chief Commissioner is in Lower Burma, or when the Chief Engineer can find time to visit Upper Burma, the Chief Engineer will deal with Captain Dorward's references and occupy the same position as in Lower Burma. It will, however, be inconvenient and productive of delay if Upper Burma questions and papers have to go from Captain Dorward to the Chief Engineer in Rangoon while the Chief Commissioner is up at Mandalay.

11. The sanction of the Government of India is specially solicited to the proposal numbered (22) in the notes of the discussion of the 15th, namely, that in respect of the present work of barrack construction in Upper Burma, accounts be prepared in the simple form laid down by Mr. Deputy Accountant-General MacDonald for military (war) expenditure, and that full accounts, &c., of the usual Public Works Department type need not be rendered.

12. The points then on which the orders of the Supreme Government are now sought are—

(*a*) the decision that the barracks shall be built of teak wood;

(*b*) the plan and estimate of the specimen European and Native half-company barracks;

(*c*) the decision to get most of the material from Rangoon, even though it costs more, because local supplies are inadequate and would take years to deliver;

(*d*) the decision in favor of half-company as against whole-company barracks wherever the ground suits;

(*e*) the approximate estimated cost of 21 lakhs for new wooden barracks at Mandalay, Bhamo, and Katha;

(*f*) the employment of Royal Engineers and Civil (Public Works Department) Engineers together to erect the barracks;

(*g*) the proposal that accounts for the present barrack expenditure be rendered in the shape settled by the Deputy Accountant-General, Mr. MacDonald, for military (war) expenditure;

(*h*) the loan of the Engineer Officers mentioned, namely,—

Captains Dorward, Shone and Appleton.
Lieutenants Tanner, Rimington, Renny Tailyour, Wright, Palmer, and Hunter, from the Military Works Branch or elsewhere for the barrack work in Upper Burma for one year certain, it being understood that these officers will do Field Park work as well as barracks, and that they will owe a double allegiance to the General Officer Commanding and to the Chief Commissioner;



(*i*) the proposal to grade the undermentioned Royal Engineer Officers *temporarily* in the Public Works Department as shown opposite their names; thus—

Captain Dorward as Superintendent of Works;
Captain Shone as Executive Engineer, 1st class.
Captain Appleton as Executive Engineer, 3rd class.
Lieutenant Tanner as Executive Engineer, 3rd class.
Lieutenant Renny Tailyour as Assistant Engineer, 1st class.
Lieutenant Rimington as Assistant Engineer, 2nd class.
Lieutenant Wright as Assistant Engineer, 2nd class.
Lieutenant Palmer as Assistant Engineer, 2nd class.
Lieutenant Hunter as Assistant Engineer, 2nd class.

and to grant them salaries as proposed at paragraph 8 above.

It should be stated, with reference to these questions, that orders have already been given for—

(1) taking up the ground inside the city required for the—

European Hospital, | European Infantry,
British Mountain Battery, | Native Infantry,
Sappers;

(2) getting timber for the European half-company barracks from Rangoon subject to the confirmation of the Government of India, and to our paying for any timber actually delivered or sawn up in case such confirmation should be withheld.

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LIST OF ENCLOSURES.

(1) Quartermaster-General's Memorandum, No. 266 M., dated the 3rd January 1887, with enclosure.
(2) His Excellency the Commander-in-Chief's telegram, dated the 6th January 1887.
(3) Captain Dorward, Commanding Royal Engineer's Memorandum, dated the 2nd January 1887, with General Sir George White's note thereon.
(4) Quartermaster-General's Memorandum, No. 378 M., dated the 16th January 1887.
(5) Notes of a discussion on the barrack provision question, there being present—
The Chief Commissioner, | The Commanding Royal Engineer,
The Quartermaster-General, | The Superintendent of Works.
(6) Note by His Excellency the Commander-in-Chief, dated the 16th January 1887, approving minutes of discussion.
(7) Note by Captain Dorward, Commanding Royal Engineer, dated the 12th January 1887, giving proposed dimensions, &c., for European barracks.
(8) Surgeon-General Farrell's letter, No. A 61, dated the 13th January 1887, with notes thereon.
(9) Approximate estimate of total cost of frame barracks under present scheme at—
Mandalay. | Bhamo.
Katha.
(10) Plan for one half-company barrack for Europeans (will be sent separately from Rangoon).
(11) Plan for one half-company barrack for Natives (one hand-drawn copy sent with the present letter).

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( 1 )

Memorandum by Colonel H. COLLETT, C.B., Officiating Quartermaster-General in India; dated the 3rd January 1887, No. 266-M.

The Commander-in-Chief has directed this memorandum to be forwarded direct (to save time) to the Chief Commissioner of Burma. His Excellency agrees with the proposals made, and begs to recommend this important matter for the earliest possible consideration of the Chief Commissioner.

Memorandum by Colonel H. COLLETT, C.B., Officiating Quartermaster-General in India, on the measures to be taken for accommodating the troops stationed in Upper Burma, dated the 3rd January 1887.

The provision of suitable accommodation for the troops quartered in Upper Burma is a matter which has recently come under the Commander-in-Chief's special consideration, His Excellency being very desirous that the needful buildings should be completed at the more important stations and at posts which last year proved exceptionally unhealthy by the 1st May before the commencement of the rainy season.

Taking Bhamo, Katha, and Mandalay as first in order of urgency, the present requirements at each place are enumerated below :—

BHAMO.

The proposed strength of the permanent garrison is as under :—

⅓ Garrison Battery, R.A.
Head-quarter Wing, British Infantry.
1 Native Mountain Battery.
A detachment of Sappers and Miners.
1 Regiment, Native Infantry.

Barracks and a hospital for two companies, British Infantry, have already been sent to Bhamo and the barracks erected.

The hospital is in an unfinished state, although the wood is reported to have been sent up complete. A portion of the planking is supposed to have been utilised for other purposes, but no requisition for the extra material needed to complete this building appears to have been submitted.

Six barracks and two hospitals to accommodate a regiment of Native Infantry are stated to be ready and lying at Mandalay, no transport having been provided to take the materials up the river to Bhamo.

Supposing the British Infantry hospital to be finished, and the barracks and hospitals for the Native Infantry regiment to be erected, accommodation is still required at Bhamo for the head-quarters and two companies, British Infantry, the detachment of Royal Artillery, the Mountain Battery, and the detachment of Sappers and Miners.

KATHA.

Permanent garrison, 300 Native Infantry.

It is understood that barrack and hospital accommodation for this post is just being ordered.

The type of construction will be double-storied, and the cost some Rs. 67,000.

MANDALAY.

The permanent garrison proposed for Mandalay is detailed below :—

⅔ Garrison Battery, R.A.
1 British Mountain Battery.
1 Battalion, British Infantry.
1 Squadron, Native Cavalry.
2 Companies, Sappers and Miners.
3 Regiments, Native Infantry.

The distribution will be as follows :—

(*a*) *In the Palace Enclosure.*

⅔ Garrison Battery.
Head-quarters and 5 Companies, Native Infantry Regiment.

(*b*) *Inside the City Enclosure and Outside the Palace.*

1 British Mountain Battery.
Head-quarters and 7 Companies, British Infantry Battalion.
1 Squadron, Native Cavalry.
2 Companies, Sappers and Miners.
2 Regiments, Native Infantry.

(*c*) *At Shore Position.*

1 Company, British Infantry.
2 Companies, Native Infantry.

(*d*) *On Mandalay Hill.*

1 Company, Native Infantry.



Accommodation has already been provided for (*a*) the troops occupying the Palace and (*c*) the troops holding the shore position, the latter including officers' quarters and a hospital for 20 British and 30 Native soldiers.

Hence the requirements under (*b*) and (*d*) have still to be met.

Next, as regards the date of completion, the Commander-in-Chief is inclined to believe that there would be no insuperable difficulty in providing all the accommodation needed at Bhamo, Katha, Mandalay, and possibly other important stations by the 1st May, were the existing engineer establishment in Upper Burma inclusive of the Royal Engineer Officers on field service adequately augmented and departmentally organised and directed under proper professional supervision.

At present all military works and public works are directly under the Chief Commissioner, the Military authorities, acting through the Commanding Royal Engineer, being responsible only for works of a purely military nature and chargeable to the military grant. At the same time the Divisional Commanding Royal Engineer and the Field and Assistant Field Engineers under his orders have hitherto been called upon to undertake a considerable proportion of military and public works, although these officers, while in military employ, are not departmentally subordinate to the civil administration. Then again the Public Works officials at Mandalay and elsewhere have been supposed to be, to a certain extent, at the disposal of the Commanding Royal Engineer, although, as regards Mandalay itself, Captain Dorward is considerably junior to Mr. Richard, the Executive Engineer, while in every instance a Civil Engineer cannot be obliged to receive instructions from an officer in military employ.

The Commander-in-Chief has no intention of under-rating or disparaging the services of the Engineer Establishment in Upper Burma, the officers belonging to which, one and all, whether civil or military, appear to have done their utmost to meet the urgent requirements of the situation. Still individual exertions, however strenuous in the absence of proper professional direction and a comprehensive system of organization, must result in confusion and a waste of time and money.

Again, it is to be remembered that, should the Upper Burma Field Force be broken up shortly, all the Field and Assistant Field Engineers, other than those attached to Sapper companies, will revert to their employment in the Military Works Department, and cannot be ordered to serve in the Public Works Department.

If it be thought desirable to retain their services in Burma as a temporary measure, it would be necessary to put the military works in Upper Burma under the Inspector-General of Military Works. Probably some such arrangement might be advantageous, as enabling the services of experienced officers to be utilised and the work in hand to be completed more expeditiously.

The extent and importance of that work is by no means trifling. Assuming the garrison of Upper Burma to be fixed for the present as follows :—

1 Garrison, Battery, R.A.,
2 British Mountain Batteries,
2 Native Mountain Batteries,
5 Battalions, British Infantry,
1 Regiment, Native Cavalry,
3 to 5 Companies, Sappers and Miners,
17 Battalions, Native Infantry,

the cost of housing this force, exclusive of what has been spent already, will be some thirty-five lakhs.

Large expenditure on direct and lateral communications and on police posts must also be contemplated. Apart from the staff of Royal Engineer Officers in the field, the Public Works Department Distribution return shows only one Superintendent of Works, two Executive Engineers, and five Assistant Engineers as allotted to Upper Burma, an establishment which seems quite inadequate, unless works provided for out of the military works grant be transferred to the Military Works Department.

With a view to remedying the somewhat anomalous and unsatisfactory state of things above described, the following proposals are put forward, the first of which is being carried into effect under the Commander-in-Chief's orders, and the remainder are recommended for adoption—

(1) The distribution of the entire garrison of Upper Burma has to be decided on as soon and as definitely as possible, and the description of accommodation needed for the troops should also be settled.

The accommodation will be either permanent, in cases where garrisons will be maintained for a lengthened period; or semi-permanent, in cases where troops will hold the positions for some years, with the chance of being eventually replaced by police levies; or temporary, in cases where the occupation of the posts is merely a necessity of the moment.

(2) The military works and public works in Upper Burma should be brought under suitable professional direction, and an adequate engineer establishment should be

provided. Broadly speaking, military works and public works include all buildings and defences needed for the accommodation of the troops and of the departments of the Army, and for the secure occupation of the country, military and civil communications other than railways, which are dealt with separately, all civil works and police posts.

Under the assumption that the existing requirements under most of these heads must be promptly met, and that military works in Upper Burma will not be placed at present under the Inspector-General of Military Works, the following establishment is suggested as necessary :—

DIRECTION.

The Chief Engineer of Burma is presumably responsible for all public works throughout the province.

SUPERINTENDENCE.

Two Superintending Engineers : one, with head-quarters at Mandalay, designated Superintending Engineer of the Northern Circle, the other, with head-quarters at Minbu or Pagan, designated Superintending Engineer of the Southern Circle. Each Superintending Engineer would require an Assistant Engineer as his personal assistant.

CONSTRUCTION.

Seven Executive Engineers, each with one or more Assistants, distributed as under :—

Under the Superintending Engineer, Northern Circle—

1 Executive Engineer, with head-quarters at Bhamo.
1 Executive Engineer, with head-quarters at Shwebo.
1 Executive Engineer, with head-quarters at Alôn or Mingin for the Chindwin valley.
1 Executive Engineer, with head-quarters at Mandalay.

4

Under the Superintending Engineer, Southern Circle—

1 Executive Engineer, with head-quarters at Myingyan.
1 Executive Engineer, with head-quarters at Minbu.
1 Executive Engineer, with head-quarters at Ningyan.

3

Should it be decided by the Supreme Government to extend the military works organization of Upper Burma, the direction of works appertaining to that department would come under the Inspector-General, and one Superintending Engineer would probably suffice, with four Executive Engineers and an adequate proportion of Assistants, the Public Works staff being correspondingly reduced. The foregoing proposals relating to establishment may perhaps be demurred to as excessive : they are in reality economical in a high degree. Certain works are imperatively necessary for the pacification and secure and healthy occupation of the country. The quicker these works are completed within reasonable limits of time the cheaper will they be, the sooner can the garrison in Burma be reduced to its normal strength, and the fewer valuable lives will be sacrificed. As soon as the troops and police have been suitably housed and the more important lines of communication opened up, the Engineer Staff in Upper Burma might probably be reduced to one Superintending Engineer with four executive divisions under his supervision.

(3) Measures should be taken with the least possible delay for designing and ordering the barracks and other military buildings for Bhamo and Mandalay, and for the other stations where the early provision of accommodation is regarded as an urgent matter.

(4) A steamer with a couple of flats should be hired for the exclusive use of the Engineer Department until all the pressing requirements of that department have been fully met. It must be distinctly understood that these vessels are not to be held available for any other service however urgent.

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Telegram from His Excellency the Commander-in-Chief in India, to the Chief Commissioner, Burma ; dated the 6th January 1887.

My telegram of 3rd instant, and Colonel Collett's No. 266-M., of same date. Since despatch of above Captain Dorward has shown me his proposals for housing troops in Upper Burma. General White is in favor of these and, I understand, that you are also, and that Chesney approved generally. Dorward says that barracks could be built more rapidly by Royal Engineer Officers now in Burma working directly under your orders than by Public



Works Department or Military Works Officers sent from India, as these latter would be unacquainted with country and method of work, and because there would be great delay in getting new establishments together. Under these circumstances I would not wish to suggest any change being made. My sole object is to get the troops properly housed before the hot weather sets in. It is most important this should be done. Local Engineers are averse to building on rampart on account of expense and delay. If you approve of barracks being placed on the site recommended by Committee, about half way between Palace and city wall, and of British troops being accommodated in half-company barracks, work can be commenced at once.

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[ 3 ]

Memorandum by Captain A. R. F. DORWARD, Commanding Royal Engineer, Upper Burma Field Force, on the permanent accommodation required for troops in Upper Burma ; dated the 2nd January 1887.

The military posts in Upper Burma may be divided into three classes.
(1) posts that are likely to be held permanently or for several years ;
(2) posts that are likely to be held from two to four years ;
(3) posts that will soon be handed over to the police or abandoned altogether.

These three may be classed "permanent," "semi-permanent," and "temporary" posts, respectively.

2. I would propose to endeavour to complete without delay barracks, hospitals, officers' quarters, and all out-houses for the garrisons of "permanent" posts on the full scale laid down by the Government of India.

3. I would build barracks, commissariat godowns, and hospitals for all troops and followers in "semi-permanent" posts according to the full scale laid down, but would restrict the accommodation to be given to officers and departmental subordinates, and make all out-houses of a temporary nature.

4. In "temporary" posts only temporary buildings will be required.

5. Under the head "permanent posts" I would class—

| | |
|---|---|
| Bhamo. | Mandalay. |
| Ruby Mines sanitarium. | A post on the Upper Chindwin. |

6. For "semi-permanent" posts I would name—

| | |
|---|---|
| Katha. | Minbu. |
| Shwebo. | Meiktila. |
| Myingyan. | Taungdwingyi. |
| Pagan. | Ningyan. |
| Pakôkku. | Yamethin. |

7. The garrisons of Bhamo, Mandalay, and Katha have been settled. No orders have been received regarding the garrisons of the other posts.

8. Until the local characteristics of the Ruby Mines sanitarium are known, any opinion, of the garrison that can be kept there, is of little weight ; but I think we might count on having to erect barracks there for half a battalion of European infantry, one division of a European battery, and two companies of Native troops. I would provide barrack accommodation in the other posts as follows :—

| | British companies. | Native companies. |
|---|---|---|
| Upper Chindwin ... ... ... ... ... ... | ... | 6 |
| Shwebo ... ... ... ... ... ... ... | 1 | 4 |
| Myingyan ... ... ... ... ... ... ... | 2 | 4 |
| Pagan ... ... ... ... ... ... ... ... | 2 | 4 |
| Pakôkku ... ... ... ... ... ... ... | Nil | 4 |
| Minbu ... ... ... ... ... ... ... ... | 1 | 2 |
| Meiktila ... ... ... ... ... ... ... | 2 | 4 |
| Taungdwingyi ... ... ... ... ... ... | Nil | 4 |
| Ningyan ... ... ... ... ... ... ... | Nil | 8 |
| Total ... | 8 | 40 |

9. According to the above arrangement we would have to build barracks in Upper Burma for about—

One battery of artillery.
Two mountain batteries.
One Native cavalry regiment.
Three battalions of British infantry.
Eleven Native infantry regiments.
Two companies of Sappers.

10. The cost of housing the above troops would be roughly Rs. 22,00,000 * exclusive of expenditure already incurred.

11. The following barracks have already been arranged for at Bhamo :—
Barracks for two companies of British infantry have been put up.
A barrack for one company is in hand.
Eight barracks, each to hold 100 Native infantry, have been sawn up : about one-third of the timber is at Bhamo and all the remainder is at Mandalay awaiting a steamer to convey it to site. I have been promised the services of such a steamer shortly.

AT KATHA.

A double-storied barrack, to hold 300 Native infantry, is being designed by the Superintendent of Works, Mr Richard. It will be ordered from Rangoon. The barrack will be built entirely of timber, in the shape of a cross, such shape being adopted in order to give the necessary stiffness against wind pressure required by a high, light building.

AT MANDALAY.

The buildings in the Palace will be used in accordance with the recommendations of the Cantonment Committee, and barracks on the shore have been erected for 100 British infantry and 200 Native infantry, quarters for two Field and four other officers are nearly ready ; also a hospital for twenty Europeans and thirty Natives.

AT MYINGYAN.

Two full and four half-company barracks for British infantry have been finished.

AT PAGAN.

Four half-company barracks for British infantry have been finished.

AT MINBU.

Two half-company barracks for British infantry have been finished. The ground available for building at this place is very limited unless we put troops on the low-lying jungly land at the back of the existing river site which, in my opinion, is not advisable. Pakôkku is well suited for a cantonment ; it is a centre of considerable trade, and troops placed there would command the Yaw country. The style of temporary building erected at Ningyan is of a more permanent nature than that at other posts, and could, at small expense, be so altered as to make excellent accommodation for Native infantry.

12. These barracks have been erected partly by Royal Engineer officers attached to the Upper Burma Field Force and partly by Department of Public Works officers. Under recent orders from India, all such work is in future intended to be carried out solely by the Department of Public Works, and this is necessary as there is more than ample purely military work to be done by Royal Engineer officers.

13. I have consulted with the Superintendent of Works, Mr. Richard, regarding the extra establishment he will require in order to ensure that barracks for the garrison I have mentioned may be completed before the rains, and we both consider that, with the following additional assistance, the Public Works Department might fairly be called upon to execute the work :—

3 Executive Engineers, | 5 Assistant Engineers,
13 Lower Subordinates.

Considering the amount to be expended and the short time available to do it in, I think it will be conceded that a request for the above amount of extra supervision is in no way excessive.

* Allowing 90 square feet of floor area for Europeans and 36 square feet for Natives. If 60 square feet be allowed for the latter, the estimate must be considerably increased. The sum mentioned, Rs. 22,00,000, is only sufficient to house the troops and build hospitals and commissariat godowns. It does not provide for the very numerous out-buildings necessary in a cantonment, but not urgently required to be provided at once.



14. If it be desired to carry out the works by means of the Royal Engineer officers now in Burma, I would recommend the following arrangements :—

(*a*) Captain Appleton, R.E., and Lieutenant Rimington, R.E., to undertake the works at Bhamo and Katha.
(*b*) Captain Shone and Lieutenant Petrie's company of Bengal Sappers to undertake the Ruby Mines cantonment and the construction of a road leading to them.
(*c*) Lieutenant Renny Tailyour, R.E., to erect the barracks at Shwebo.
(*d*) Lieutenants Tanner and Wright to carry out the works at Mandalay.
(*e*) * Captain Fullerton and his company of Bombay Sappers (including three officers) to execute all work required at the river posts Myingyan, Pakôkku, Pagan, Minbu.

The remaining works at Meiktila, Taungdwingyi, and Ningyan could be carried out by the existing Public Works establishment.

The services of the Royal Engineer officers I have named would only occasionally be available for field service operations, and they would require the assistance of thirteen experienced overseers and small office establishments. It would be necessary to give them a very free hand, and not to hamper their executive work by requiring of them all the detailed accounts and strict adherence to the form of procedure considered necessary by the Public Works Department. The detachment of the officers I have mentioned for this special duty would necessitate the addition of more Subaltern Royal Engineer officers to the Field Force.

15. Had I to decide on the agency to be employed,—the object being to get the troops housed with the least possible delay and at the least cost,— *I would recommend for adoption the procedure I have laid down in para.* 14. Were the work to be given over entirely to the Public Works Department, there would undoubtedly be delay in getting together the extra establishment required. Part of that establishment would be unacquainted with the Burmese method of work, and it is improbable that its general standard of efficiency would be as high as that of the selected Royal Engineer officers I have named ; above all, rapidity of execution would be much retarded by the strict adherence to the provisions of the Public Works Code, which would be required of them.

16. I do not apprehend any difficulty in getting the barracks, &c., sawn up, nor in procuring sufficient labour to erect them, but there may be great difficulty regarding carriage. All the larger buildings would be sawn up at Rangoon and the smaller ones arranged for locally. The Irrawaddy Flotilla Company would of course be looked to to bring up timber from Rangoon, and at least two powerful launches capable of carrying a considerable amount of timber would be required to be placed at the disposal of the Engineers engaged in carrying out the work.

17. If the Burma Field Force is to be broken up shortly, and Royal Engineer officers are to be employed on military works, it would probably be necessary to place them under the orders of the Inspector-General of Military Works in India, as all the officers mentioned except those attached to Sappers and Miners belong to the Military Works Department.†

18. I have not in this note taken notice of the probability of the establishment of a military post in the Shan Hills east of Hlaingdet, as the establishment of a military post there will require special consideration hereafter when trustworthy information regarding the country is available.

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Memorandum by Major-General SIR GEORGE S. WHITE, K.C.B., V.C., Commanding Upper Burma Field Force, dated the 13th January 1887, No. 373-B.

I agree in Captain Dorward's recommendations, and submit that the surest way to avoid delay in the erection of barracks will be to permit the officers named in para. 14 of Captain Dorward's letter to superintend the work. If the Commander-in-Chief approves, it will be necessary to obtain the Chief Commissioner's assent to the undertaking. If, under His Excellency's orders, this is obtained and the necessary expenditure authorized, the work can be commenced at once. I do not yet endorse the distribution of troops proposed in para. 8 of Captain Dorward's letter, but will submit recommendations later on this subject.

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[ 4 ]

Memorandum by Colonel H. COLLETT, C.B., Officiating Quarter Master General in India, dated the 16th January 1887, No. 378-M.

The question of the engineer agency and establishments necessary for the construction of the barrack accommodation which is urgently required in Upper Burma is a matter for the decision of the Chief Commissioner, and should be referred to him direct by the Major-General Commanding.

* If the Bombay company proceed to India shortly on relief, this arrangement falls to the ground.

† *Note.*—If the Inspector of Military Works agrees, I think the best arrangement to meet the present emergency would be to place the military works in Upper Burma and the Royal Engineer officers named directly under the Chief Commissioner. There would then be small probability of any avoidable delay in getting the timber sawn up by the Bombay-Burma Company or in its conveyance up the river by the Flotilla Company.—A.R.F.D.

2. In the opinion of the Commander-in-Chief it is advisable, in order that delay may be avoided, to adopt the course recommended in para. 14 of Captain Dorward's note.

3 The distribution of the troops proposed is of course subject to revision.

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[ 5 ]

Notes of a discussion concerning the provision of barracks in Upper Burma, Colonel COLLETT, C.B., Quarter Master-General in India, attending by permission of His Excellency the Commander-in-Chief.

Present the following :—

The Chief Commissioner.
Colonel Collett, C.B., Quarter Master-General.
Captain Dorward, Royal Engineers.
H. J. Richard, Esq., Superintendent of Works, Upper Burma.

Barracks now wanted urgently at—

Bhamo. | Katha.
Mandalay.

BHAMO.

WANTED—

*Europeans*—

2 half-company barracks and barracks for ⅓ garrison battery.
1 European hospital.

*Natives*—

8 company barracks N. I.
1 hospital.
3 barracks M. A.

Agreed—

(1) that the eight barracks for Native infantry already ordered to be erected at Bhamo be lengthened sufficiently to accommodate each a full company ;
(2) that three barracks be ordered for the Mountain Battery to hold 72 non-commissioned officers and gunners, 92 non-commissioned officers and drivers, and 60 followers respectfully ;
(3) that plans for European barracks may be put in hand on scheme proposed in Captain Dorward's note of the 2nd January ;
(4) that all timbers, planks, shingles are to be ordered for Bhamo European barracks in the quickest possible way from Rangoon. Specifications for barracks have already gone to Rangoon ;
(5) that for—
officers' quarters,
out-houses,
subsidiary buildings,
at Bhamo, all timbers must be ordered from Rangoon ;
(6) that Captain Dorward's revised plan for half-company barracks to include 54 men and two sergeants, instead of 50 men, is approved.

KATHA.

(7) that three Native company barracks of the standard plan be arranged in a post, with one end of each barrack jutting out beyond the crest line of defence, so as to give flanking defence ;
(8) that the Katha barracks must be ordered from Rangoon, as these Katha barracks are among the most extremely emergent works before us.

MANDALAY.

The total requirements for Mandalay are—

*Europeans*—

14 half-company barracks for B. I.
3 hospitals.
2 half-company barracks for M. A.

*Natives*—

34 half-company barracks for N. I.
3 hospitals.
4 barracks for Sappers.
2 barracks for cavalry.



Agreed—

(9) that all timbers for the Mandalay barracks should be ordered at Rangoon, out-houses and subsidiary buildings being made up locally ;
(10) that the European barracks and hospitals are the most important and must be provided first of all ;
(11) that orders for all timber should be sent down to Rangoon as promptly as possible ;
(12) that timber for officers' quarters should be provided partly from Rangoon and partly locally.

Regarding the other probably permanent or semi-permanent cantonments, namely,—

Shwebo, | Meiktila,
Kyauksè, | Minbu,
Myingyan, | Upper Chindwin,
Pagan, | Ningyan,
Taungdwingyi,

it was agreed—

(13) that, as far as possible, timber for permanent buildings should be provided for these posts ; that as soon as possible a scheme should be settled showing what permanent barracks could be provided before the rains, and that for the rest the present temporary accommodation should be at once extended and improved ;
(14) that at most stations, especially riverside stations, the building of timber barracks can go on well during the rainy season.

GENERAL.

(15) that for all Native barracks now to be ordered a provision of 60 superficial feet per Native soldier of sleeping space must be provided, and that half-company barracks be preferred where the site suits.

ESTABLISHMENT.

(16) that the barrack work be done under the combined direction of Captain Dorward and Mr. Richard, who should both be Superintendents of Works.
(17) that Royal Engineer officers now attached to the Field Park and Sapper companies, as well as the civil officers of the Public Works Department, be employed on the barrack work ;
(18) that the following Royal Engineer officers be employed under Captain Dorward's superintendence on military works, namely,—
Captains Shone, Appleton ;
Lieutenants Tanner, Rimington, Renny Tailyour, Wright, Hunter, Palmer.
(19) that all these Royal Engineer officers employed on military works should receive Burma allowance, as other Public Works officers do, from the date they may enter on their new duties ; that Captain Shone, Captain Appleton, Lieutenants Tanner and Renny Tailyour each get one step of *temporary* promotion on their present rank in the Military Works Branch ; and that Lieutenants Wright, Hunter and Palmer be graded as II-Class Assistant Engineers ;
(20) that 10 more overseers, Burmese-speaking if possible, will be wanted for the barrack work and should be ordered at once ;
(21) that, except when important engineering points are involved, Captain Dorward should conduct the military works business in direct communication with the Chief Commissioner and General White, and without troubling the Chief Engineer at Rangoon ;
(22) that the account procedure, in respect to the erection of these military works, be that described for adoption by Mr. Deputy Accountant-General MacDonald on his recent visit to Mandalay, so as to prevent avoidable delays and the need for large office establishments ;
(23) that at out-stations, where there is no civil officer of the Public Works Department, the Military Works officer should take roads and other Public Works business so far as his military works duties permit.

MANDALAY CITY DRAINAGE.

Agreed—

(24) that the drainage scheme and the syphon under the moat at the south-west corner of the city should be put in hand at once. If it be possible, the work should be carried through without draining all the water out of the moat, even though some extra cost is involved ;
(25) that it is now too late to grow any crop on the barrack sites as suggested in Surgeon-General Farrell's letter of the 13th January, but that arrangements should be made for exposing the site to the sun as soon as possible ;
(26) that the ground required for the European barracks and the Native barracks should be taken up as promptly as possible.

MANDALAY,
*The 15th January* 1887.

C. BERNARD.
H. COLLETT.

[ 6 ]

Note by His Excellency the Commander-in-Chief,—dated the 16th January 1887.

This seems to me a very satisfactory arrangement. As soon as barrack accommodation has been provided, I should like recreation rooms to be constructed; they add much to the health, comfort, and good conduct of the soldiers.

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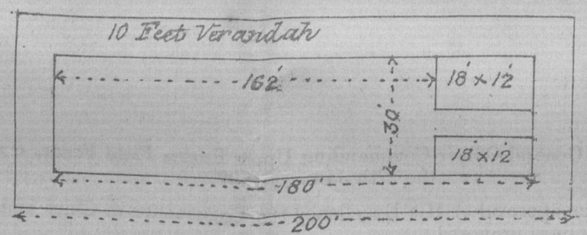
[ 7 ]

Notes by Captain Dorward, Commanding Royal Engineer, on design of a half-company British infantry barrack for Upper Burma (Mandalay),—dated the 12th January 1887.

The following men in a British infantry battalion have to be accommodated in barracks :—

| | | |
|---|---|---|
| | 16 Drummers. | |
| | 40 Corporals. | |
| | 830 Privates. | |
| | 886 | |
| Deduct ... | 34 Married men, 4 per cent. | |
| Total ... | 852 | |

Or 54 men in each half-company barrack.
Thirty-two sergeants have also to be provided for.
Therefore each half-company barrack will contain two sergeants and 54 privates.
Each Sergeant gets a room 18 feet by 12 feet and each private gets 90 square feet of floor.
The plan of barrack-room will therefore be as below :—




Posts to be 12 feet apart and doors 12 feet apart.

The following accommodation to be provided under the barrack-room :—

| | |
|---|---|
| Day-room ... ... ... ... | under each barrack. |
| Furniture store-room, | under various barracks. |
| Band-practice room, | |
| Fire-engine room, | |
| Pay office, | |
| Quartermaster's office and store-rooms, | |
| Regimental store-room, | |

All other requirements to be provided for by separate buildings. These are—

Armourer's shop.
Blacksmith's forge.
Bowling-alley.
Canteen.
Dry store-room for Commissariat department.
Fives courts.
Gymnasium.
Library and reading-room.
Magazine, Expense.
Mess and recreation room for sergeants.
Orderly and court-martial room.
Plunge-bath.
Quarter guard and cells.
Regimental voluntary workshops.
Religious reading and prayer room.
Schoolmasters' and schoolmasters' quarters.
School-room.
Warrant officers and staff sergeants' quarters.

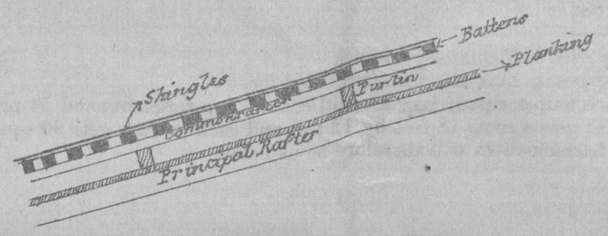


Urinaries.
Cook-houses.
Wash-houses.
Latrines.
All married quarters and out-houses.
Officers' quarters and out-houses.

The floors under the barracks to be of paving-stone on 3 inches of concrete; floor level being 1 foot above ground level.

A V-shaped stone in concrete drain to run all round the building, to be crossed by stone slabs at 12-feet intervals.

The floor of the barrack-room will be 13 feet above ground level. The whole building to be of teakwood, the roof being double, as per sketch.




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Endorsement by the General Officer Commanding Upper Burma Field Force, dated Mandalay, the 17th January 1887.

Submitted for the approval of His Excellency the Commander-in-Chief and for authority to frame plans on the lines proposed.

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Memorandum by Colonel H. COLLETT, C.B., Officiating Quartermaster-General in India,—dated the 16th January 1887, No. 377-M.

The Quartermaster-General's Department cannot deal with the structural details of barrack-building, for which (in India) the Department of Public Works is responsible.

The matter contained in this note should be referred by the Major-General direct to the Chief Commissioner for such action as he may consider necessary.

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Endorsement by the General Officer Commanding Upper Burma Field Force,—dated Mandalay, the 17th January 1887.

For approval by Chief Commissioner.

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[ 8 ]

From Deputy Surgeon-General G. W. FARRELL, C.B., Principal Medical Officer, Upper Burma Field Force, to the Assistant Adjutant and Quartermaster-General, Upper Burma Field Force, dated 13th January 1887, No. 61-A.

I have the honor to bring to the notice of the General Officer Commanding that it is not advisable, on sanitary grounds, to erect barracks and hospitals for the permanent garrison at Mandalay on sites that have been occupied until such sites shall have been cleared and exposed to the air, also well drained, and, if possible, the ground dug up and cropped.

2. The city of Mandalay, which has been selected as the site of the future cantonment, is, at present, in the occupation of the Burmans, and has been so for many years. These people have no sanitation in our meaning of the term, and the ground on which it is proposed to build barracks and hospitals is now occupied by Burmese dwellings, and has been polluted during a long course of years.

3. Whatever may be the formation of the soil, it cannot be doubted but that its surface layers must be to some extent impregnated with ordure, and much of the soil has been shut out for years form the sunlight. To build at once on such material is, I think, an unwise sanitary measure, and time should be given for the sunlight to purify the soil, which should be ploughed up and drained before buildings are erected on it.

4. Old sites are always objectionable on sanitary grounds, and there is nothing in the proposed site for the new cantonment to modify these objections, but on the contrary much to support them. I therefore think that, on sanitary grounds, it is essential that the sites for the new cantonments be drained and purified as far as possible before building on them.

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Note by Major-General Sir GEORGE S. WHITE, K.C.B., V.C., Commanding Upper Burma Field Force,—dated the 15th January 1887.

The points brought forward by Deputy Surgeon-General Farrell are worthy of all the consideration of which the higher importance of time will admit.

The sites of the buildings have now been fixed, and I would advocate that those sites be cleared without delay.

I also think that the work described by Captain Dorward as necessary for the drainage of the city should be taken in hand at once. To run the moat dry will cause inconvenience to those dependent on it for their water-supply; but this inconvenience will be more felt in the hot weather than now. This is a point about which preliminary inquiry should be made from some of the local Native officials.

I therefore submit Dr. Farrell's letter and Captain Dorward's note, in case the Commander-in-Chief may consider the matter one of sufficient importance to be brought to the attention of the Chief Commissioner for early consideration and action.

---

Memorandum by Colonel H. COLLETT, C.B., Officiating Quartermaster-General in India,—dated the 16th January 1887, No. 379-M.

His Excellency the Commander-in-Chief has consulted the Chief Commissioner on the subjects adverted to in this correspondence.

2. The houses in the city will be cleared away as soon as possible, and the ground exposed to the light and air. It must be remembered that a large area was cleared by the fires of last spring and that it has not since been built upon: also that a considerable proportion of the sites have never been occupied. It will be impossible to put the ground under cultivation without delaying for many months the construction of the barracks, an alternative which His Excellency cannot entertain. The barracks, moreover, will be built on piles and raised above the ground.

3. The Chief Commissioner has sanctioned the construction of a drainage tunnel under the south-west angle of the moat. The Engineers will decide whether it is necessary to empty the whole moat for this purpose.

---

Note by Captain A. R. F. DORWARD, Commanding Royal Engineers, Upper Burma Field Force, on letter No. A-61 of the 13th instant, of Principal Medical Officer, Mandalay,—dated the 14th January 1887.

It is expected that all the Burmese houses within the city wall will be cleared away in three months and most of them in one month.

Some of the blocks into which the city area is divided have very few houses on them. These blocks are now being levelled, and the ground has been partially purified by fire.

It is not possible to take a crop off the ground until the rainy season unless we irrigate, and I doubt if that would, from a sanitary point of view, be a wise proceeding. The ground is also much too hard to admit of its being ploughed up.

The drainage arrangements have all been settled, and it only remains for the Public Works Department to carry out the necessary works. These would in no way interfere with the progress of barrack-building, but a tunnel under the moat, near the south-west corner of the city, is necessary to carry off drainage water, and it will be necessary to lower the water in the moat to get in the foundations. Probably it would be necessary to keep the whole moat nearly dry for a fortnight and a portion at the south-west corner for about three months.



[ 9 ]

APPROXIMATE COST OF HOUSING GARRISON AT BHAMO.

| | RS. |
|---|---|
| *British Infantry.* | |
| Two half-company barracks at Rs. 25,000 ... ... ... | 50,000 |
| *Garrison Artillery.* | |
| Barracks for 40 men ... ... ... ... ... ... | 20,000 |
| *Mountain Battery.* | |
| One barrack for 72 non-commissioned officers and gunners ... | 15,000 |
| Do. for 92 non-commissioned officers and drivers ... | 17,000 |
| Do. for 60 followers ... ... ... ... ... | 13,000 |
| *Native Infantry.* | |
| Eight full-company barracks at Rs. 18,000 ... ... ... | 1,44,000 |
| European hospital ... ... ... ... ... ... ... | 30,000 |
| Native hospitals ... ... ... ... ... ... ... | 30,000 |
| Total ... | 3,19,000 |
| Add for officers' quarters and commissariat godowns ... ... | 51,000 |
| Total ... | 3,70,000 |
| Add for subsidiary buildings ... ... ... ... ... | 80,000 |
| Total ... | 4,50,000 |
| Cost of forming post at Katha for 300 men ... ... ... | 70,000 |
| Total ... | 5,20,000 |
| Add for defences at Bhamo and Katha ... ... ... ... | 21,000 |
| Total ... | 5,41,000 |

---

APPROXIMATE COST OF HOUSING GARRISON AT MANDALAY.

| | RS. |
|---|---|
| 14 Half-company British infantry barracks ... ... ... | 3,50,000 |
| 34 Half-company Native infantry barracks ... ... ... | 4,42,000 |
| 4 Sapper half-company barracks ... ... ... ... | 60,000 |
| Cavalry barracks and stables ... ... ... ... ... | 40,000 |
| Mountain battery barracks ... ... ... ... ... | 60,000 |
| 3 European hospitals ... ... ... ... ... ... | 90,000 |
| 3 Native hospitals ... ... ... ... ... ... | 77,000 |
| Total ... | 11,19,000 |
| Commissariat godowns ... ... ... ... ... ... | 30,000 |
| Officers' quarters, &c. ... ... ... ... ... ... | 2,20,000 |
| Subsidiary buildings in connection with barracks ... ... | 1,90,000 |
| Total ... | 15,59,000 |
| Add for Katha and Bhamo ... ... ... ... ... ... | 5,41,000 |
| Total ... | 21,00,000 |

---

Telegram from the Chief Commissioner, Mandalay, to the Honorable General G. CHESNEY, Calcutta; dated 20th February 1887.

Your telegram of 18th. Design of wooden barracks for Europeans. Barracks can be at once changed if you will send orders accordingly on my printed letter, reporting on our barrack arrangements and submitting plans. I have given orders for prompt preparation of revised plans for barracks 24 feet broad, but timber will already have been cut up for some of the 30-foot barracks, and I solicit permission to erect them. It is submitted that in Burma, where night punkahs are not used, the benefit of the breeze in hot weather nights is found to be best obtained by placing the beds lengthways along ward. Three rows of beds so arranged in 30-foot ward give to each man a space of nine feet in length by ten feet in breadth. The

30-foot barrack will be cheaper than the 24-foot barrack, as the former gives less verandah space per man housed, and has fewer posts per square foot of area. The wider ward gives a shorter, more compact and more manageable building; if beds must be arranged across instead of along the ward then the 24-foot barrack should certainly be adopted. In Rangoon the new wooden barracks for European troops are even wider than 30 feet, and those barracks have given general satisfaction. Sir Frederick Roberts, after inspecting a 40-foot wide barrack at Myingyan, and a 30-foot wide barrack at Mandalay shore post, appeared to prefer the 30-foot ward. On receipt of your orders, instructions will at once be given for changing the type of half-company barrack, but I solicit permission to erect as many of the 30-foot barracks as have been already sawn up on that design.

---

Telegram from the Secretary to the Government of India, Military Department, Calcutta, to the Chief Commissioner, Burma; dated 2nd March 1887, No. 393-MW (Accommodation for troops).

Your Secretary's letter No. 254, dated 22nd January, Military Buildings. All the proposals contained in para. 12 are approved, but the estimated charge for officers' quarters appears high, and a detailed statement of what is proposed for them should be forwarded as soon as possible.

---

Telegram from the Secretary to the Government of India, Military Department, Calcutta, to the Chief Commissioner, Burma; dated 2nd March 1887, No. 394-MW (Accommodation for troops).

Your telegram, 20th February, to Military Member. Approval given to construction of such barracks as have already been ordered for width 30 feet, but a width of 24 feet preferred for all others. Please adopt the latter dimensions for all barracks for which preparations are not already too far gone to admit of the change.

---

No. 446-MW.

Copy of the foregoing forwarded to the Secretary to the Government of Madras, Military Department, for the information of His Excellency the Governor in Council.

(By Order.)

FORT WILLIAM,
*7th March* 1887.

(Signed) J. E. BROADBENT, Major,
*Asst. Secy. to the Govt. of India.*

---

No. 50. ORDER THEREON, 5th April 1887, No. 2022.

Communicated to His Excellency the Commander-in-Chief and the Controller of Military Accounts.

(True Extract.)

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

To the Quarter Master General.
" Adjutant-General.
" Controller of Military Accounts.
" Public Works Department

Exd. E. C. Shunker.

P.W.C. No. 3241

B. No. 1164 Wd/28th April 1887
B

# Govt. of {1887} Madras.

MILITARY.

Recorded

To
THE QUARTER MASTER GENERAL,
&c., &c., &c.

Joh
26/4/87

Dated April, 5th.

5.6.1

Issued

Recd. 28.4.87 Encl.

G.O., 5th April 1887, No. 2022.

B. No 1164 Wd/28th April 1887

M.
28.4

APRIL.
Nos. 49-50.

NB. This paper should be noted in Estabt. branch with respect to Capt Dorward's possible continued employment in Personal

**Military Buildings.**

*Upper Burma.*—Sanction of the Government of India to certain proposals in connection with the provision of barrack accommodation for the troops in —, communicated to departments concerned.

O.L.S. 707.IV
M. 26.4.87

J. 29/7

With order

Military employment of Capt Dorward R.E.

IV

I have been told that Capt Dorward wishes to return to Mily. duty permanently, but that the Mily. Dept. objects, as he would supersede Brevet Major Wilkinson now 2nd in Command Q.O. Sappers & Miners —

There is nothing in this file to shew that Capt Dorward ever officially expressed his wish to return to the Mily. Dept.; but if he did so, it appears to me that the mere fact of a junior officer having obtained army seniority by brevet, should not stand in the way —

Shall the subject be re-opened? Capt Dorward being written to, for his opinion first

Initd.
24.2.87

I have written Opt to Capt Dorward await reply
Jon 24/2/87

2nd May 1887

P. W. D.

Deferred Telegram

Simla

Your 780. G. dated first June 85. Adverting India Military's 446 M. W. seventh March 87 may sub pro tem promotions be made vice Dorward.

Initd.
29.4.87

Jon
30/4/87

N°. 1351 W. af. 10.6.85
996/997 W. " 27.4.85
697 W. " 18.3.80
1705 W. 27.6.79
3188 W. 12.12.79
3778 C. 28.10.86.
3649 C. 19.10.86
1351 W. 10.6.85
997 W. 27.4.85
996 W. 27.4.85
1164 W. 28.4.87.

B.

Telegram

N°. 66 D af 2nd May 1887.

NB

Off. 2/5/87

~~Dw~~ W

G. 29.4.87

RATES OF CHAR
The address (including name
First 8
Deferred Message 8 An
Ordinary " 1 Ru
Urgent " 2 Ru
No charge for delivery within

(Station)
Words
23
To (Person)
M

INDIAN TELEGRAPH. Local No. 0073

From (Station) Ootacamund

Minute. 20

Official Instruction.

From (Person) A. G.

...ly

April. Please
...vices Capts
Gorward Boddy
Langley for
...nd direct
Bangalore

Recd. from L. N.
At Hr. Mts., By

Sent to I. N.
At Hrs. Mts., By

Date
MADRAS 2-4-85

Telegraph Master.

Bangalore × Rawson and

No. 1351 Waf. 10.6.86

Incl. 3161

SECRETARY TO GOVERNMENT
3 APL 86
P.W. DEPARTMENT

No. 868 W.

P.W. Department

Proceedings of the Madras Government
under date the 9th April/85

Read the following:—

Telegram from the Commandant
Sappers, Bangalore - R.E. No. — d/ 1st April/85.
—"— from the Adjutant
General — " — " — d/ 2d April/85
—"— from Col: Hasted R.E. " — " — d/ 3d April/85.

Recorded, the following telegrams having been sent to the Adjutant General on the 4th April.—

"Your telegram of second to Military × Dorward, Boddy - and Langley have been ordered to join at Bangalore × Rawson and

Henderson cannot be spared x
Services of Colonel Smalley
and Lieutenant. Colonel
Fraser can be given if
required" x

2. The requisite
notification will in due
course appear in the
Fort St. George Gazette.

~~Comd. 8-4-85~~

W.S.
7-4-85-

B-No. 868. W d/9 April/85

E

M.
9.4

Mily: Dept: ✓ L
9/4/85-

L.S.

J d
16/4 E 10

Th.
14/4

Pay and Allowances.

No. 5371-
Government of Madras-
Military Department-
Ootacamund.- 29 September 1885-
No. 796- B-
Government of India
Military Department
Simla, the 17 September 1885-

To
The Adjutant General in India-

Sir,

In continuation of Military Department letter No. 675-B dated the 27 ultimo, I am directed to request that, under the orders of the Commander-in-Chief, all Officers and departmental Warrant Officers who were detailed for service in the field may now be informed that they need no longer hold themselves in readiness for service-

I am &c.
(Signed) Arthur Crookshank-
Dy: Secy: to the Govt: of India-

Copy.

Copy forwarded to
The Foreign Department.
The Public Works Department.
The Secy: to the Govt: of Madras / Bombay Mily: Department.
The Mily: Secretary to the Govt: of Punjab.
The Director General of Ordnance in India.
The Commissary General in Chief.
The Surgeon General with the Govt: of India
The Surgeon Genl: H. M's Forces.
The Inspector General of Military Works.
The Surveyor General of India.
The Controller of Military Accounts Bengal.
The Accountant General, Mily: Department.

(By Order)
/Sd/ Edward Hay.
Offg: Asst: Secy: to the Govt: of India.

Order - communicated to the Provincial Commander-in-Chief, in continuation of Order of Government No. 5048 dated 14th Septr/83 for favor of issue of the necessary orders.

(True Extract)
/Sd/ A. Kenney Herbert.
Lt-Col:
Offg: Secy: to Govt:

To
The Asst. Genl:
" Contr: of Mily: Accts:

W
231.

Adjutant General's Office
Ootacamund.
3d October 1883.

Memorandum

Forwarded for information.

(By order)
H. K. Elles
Brigadier General
Adjutant General.

To The Chief Engineer
Public Works Department.

To W

The last distribution list in the Mily. dept. shows that Capt. Dorward is with the B. Co. Sappers which is now at Secunderabad, but which is under orders to embark at Bombay on 5th Novr, en route to Suakim –

It would appear therefore that his services are not set free, but a memo. to the Adjt. Genl asking the question is submitted for approval.

Approved

[illegible] Cu 5.10.85

5/10

C.M. called for

6/10

5 OCT 85 P.W. DEPARTMENT

Does this set free Captain Dorward?

[illegible] 5.10.85

No. 715 Ed/ October 6. 1885.

No. 715 Ed/ October 6th 1885. P.W.D.

Memo.

With advertence to endorsement from the Adjutant General No. $\frac{W}{231}$ dated 3rd October 1885, the undersigned has the honor to inquire whether, under the letter from the Govt. of India therewith communicated, the services of Capt. A. R. F. Dorward R.E. are set free from military duty, and are available for re-transfer to the P.W. Dept.

[illegible] 5.10.85

E.W.

To the Adjt. Genl

Despd 6/10/85

Cu

No. 715 Ed. October 6. 1885

H
238

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

ADJUTANT GENERAL'S OFFICE,

*Ootacamund,* 22nd October 1885.

From

BRIGADIER GENERAL W. K. ELLES, C.B., A.D.C.,

ADJUTANT GENERAL,

To

The Chief Engineer,
Public Works Department.

SIR,

In reply to your memo No 715 E dated the 6 instant, I have the honor by desire of the Provincial Commander-in-chief, to inform you that the services of Captain A.R.F. Dorward R.E. doing duty with "Queen's Own" Sappers and Miners, cannot at present be spared for transfer to the Public Works Department.

I have the honor to be,
Sir,
your most obedt. Servant,

Major.
Asstt. Adjutant General.

No. 715 Edy 6-10-85

P. W. Cho. 4264

Rcd. 24 Octr. 85.

No. 1739 Cdy 3rd Nov 85

Recorded

1-11-85

No. 273.

Government of Madras.

**MILITARY DEPARTMENT.**

*Fort St. George, the* 12th January 1886.

Memorandum.

The undersigned has the honor to request that the Services of Captain A. R. F. Dorward, R. E., Executive Engineer, Public Works Department, may be permanently placed at the disposal of the Military Department, for employment with the "Queens Own" Sappers and Miners.

(By Order)

Athmuty Herbert Lt Colonel

Secretary to Government.

To The Public Works Department

Note on this Subject written by Dept to Capt Dorward on 26-10-85

P.W.D

C/

Notification

Through C.

The services of
Capt. A. R. F. Dorward.
R.E., Ga. Engr. 3rd Grade,
are permanently re-
placed at the Disposal
of the Military Dept.
for employment
with the "Queen's Own"
Sappers & Miners.

15/1/86

15.1.86

Copy to the Milg. Dept.

Superseded

A d.o. reference on this subject was made to the Mil. Secretary on the 14th current. The matter may stand over pending receipt of reply.

21-1-86

Appointments - Regimental.

No. 471.

Government of Madras.

**MILITARY DEPARTMENT.**

*Fort St. George, the* 21st January 1886.

Telegram from the Adjutant Genl. to the Secretary to Government, Military Dept., Madras, dated Coloacamund, 20th January 1886, No. 40 C.

"Your 412. Captain Dorward not voluntary. Now considered not desirable to employ with Sappers as will supersede Major Wilkinson. Letter follows."

---

Copy furnished for the information of the Secretary to Government, Public Works Department, with intimation that the application for Captain Dorward's service for permanent Military employ is withdrawn.

(By order)

A Kennet Herbert Lt. Colonel
Secretary to Govt.

To
The Secretary to Government
Public Works Department.

868 W 29/4/85

MCS 5301

22 JAN 86

No. 190 W d/- Jany: 23rd 1886.

Recorded.

22-1-86

22/1/86

To E. J. for perusal

22/1/86

27TH APRIL 1885, No. 996 W., PUBLIC WORKS.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

General.
Establishment.

READ—the following office note from the Examiner, Public Works Accounts, dated 18th April 1885, No. 44.

The following Royal Engineer officers employed in the Public Works Department were transferred to the Military Department for field service:—

Captain L. Langley, R.E., Executive Engineer, 3rd grade, Ganjam division.
Captain O. V. Boddy, R.E., Executive Engineer, 3rd grade.
Captain W. D. Lindley, R.E., Assistant Engineer 1st grade.
Captain A. R. F. Dorward, R.E., Executive Engineer, 3rd grade.

2. With the exception of Captain W. D. Lindley, R.E., all the officers are of the Executive Engineer class.

3. With reference to the decision of the Government of India, printed with G.O. No. 697 W., dated 18th March 1880, Assistant Engineers officiating for these officers in charge of divisions may receive officiating allowances under the acting allowance rules. But, inasmuch as military officers temporarily detached for field service do not draw any portion of their staff pay in the Public Works Department, it may be that substantive *pro tem.* promotions are admissible in their stead with reference to section 4 of the Pay and Acting Allowance Code, and I would suggest that a reference be made to the Government of India on the subject.

ORDER—dated 27th April 1885, No. 996 W., Public Works.

Ordered that the Government of India be addressed.

(Here enter No. 997 W., dated 27th April 1885.)

(True Extract.)

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

To the Examiner, Public Works Accounts.

Exd. A. Grubert.
Spare Copies

GENERAL.
ESTABLISHMENT.

# Govt. of {1885} Madras.

PUBLIC WORKS.

*Dated April, 27th.*

*Recd.* *Encl.*

**G.O., 27th April 1885, No. 996 W.**

**APRIL.**

## Promotions

Ordered that the Government of India be asked whether sub *pro tem.* promotions may be made in the room of Royal Engineer officers withdrawn from the Public Works Department for field service.



## PUBLIC WORKS DEPARTMENT.

General.
Establishment.

LETTER—from

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

*Secretary to the Government of Madras,*

*Public Works Department,*

To

THE SECRETARY TO THE GOVERNMENT OF INDIA,

PUBLIC WORKS DEPARTMENT.

SIR,

Your letter No. 590-G., dated 4th March 1880, conveyed the decision of the Government of India that temporary promotions between classes could not be made *vice* officers of Royal Engineers withdrawn from the Public Works Department for field service, but that officiating allowances might be passed to an Executive Engineer acting as Superintending Engineer, or to an Assistant Engineer in charge of a division consequent on the absence from his post of the permanent incumbent.

2. As, however, no part of the pay of Royal Engineer officers thus withdrawn is now met by the Public Works Department, I am directed to inquire whether substantive *pro tem.* promotions may be made in their room under the provisions of section 4 of the Pay and Acting Allowance Code.

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

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

OOTACAMUND,
27th April 1885.

Exd. A. Grubert.
Spare Copies.

GENERAL.
ESTABLISHMENT.

# Govt. of {1885} Madras.

PUBLIC WORKS

*Dated April, 27th.*

*Recd.* *Encl.*

**27th April 1885, No. 997 W.**

**APRIL.**

## Promotions

Inquiring whether sub *pro. tem.* — may be made in the room of Royal Engineer officers withdrawn from the Public Works Department for field service.



GOVERNMENT OF MADRAS.

## PUBLIC WORKS DEPARTMENT.

**General.**
**Establishment.**

READ—the following letter from A. B. SAMPSON, Esq., Under Secretary to the Government of India, Public Works Department (General), to the Secretary to the Government of Madras, Public Works Department, dated Simla, 1st June 1885, No. 780 G. :—

In reply to your letter, No. 997 W., dated 27th April 1885, I am directed to state that the orders communicated in Public Works Department letter, No. 590 G., dated 4th March 1880, should be followed in regard to promotions in the room of officers absent from the department on field service.

2. I am to observe that the pay and allowances of officers on field service being now borne by the Military Department, sub. *pro tem.* promotions could technically be made in the room of officers so absent from the department; but war expenditure necessitates a diminution in public works expenditure, and the Government of India therefore desires that such cases should be treated exceptionally.

ORDER—dated 10th June 1885, No. 1351 W., Public Works.

Communicated to the Examiner, Public Works Accounts, with advertence to G.O., No. 996 W., dated 27th April 1885.

(True Extract.)

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

To the Examiner, Public Works Accounts.

Exd. E. Fernandez.
Spare Copies

GENERAL.
ESTABLISHMENT.

# Govt. of {1885} Madras.

PUBLIC WORKS.

*Dated June, 10th.*

*Recd.* *Encl.*

**G.O., 10th June 1885, No. 1351 W.**

**JUNE.**

## Promotions

Letter from the Government of India stating that only in exceptional cases should sub. *pro tem.* — be made in room of Royal Engineer officers withdrawn for field service, communicated to the Examiner, Public Works Accounts.

No 3778 dated 28 Oct 1886

Public Works Department

Memorandum

From Captain A. N. T. Dorward R.E. dated 28th September 1886

Office note from the Examiner P.W. Accts No. 529 of 22nd October 86

C. No. 8270 with 1 enclosure bearing C. No. 8075, referring to Govt. of India letter comd with G.O. No. 1351 W of 10th June 1885 is forwarded in original.

Transferred to the Military Department.

2. Under instructions from the Government of India, no promotions were made in the Public Works Department, consequent on Captain Dorward's transfer to Military duty, but it is not understood in this Department, why

Recd 28/10/86

why that should be a reason for retrenching a portion of the salary due to him in the Military Department.

27/10/86

J.L.
27/10/86

No. 3649 C of 19-10-86
& the file

No. 3778 C of 28-10-86

M.
28.10

To
The Military Department
with Original papers.

28/10

---

W

When the telegram was sent to the Govt of India, about promotions in place of Dorward, we were quite aware ~~that~~ if he was on field service, no promotions could be made in his place; but the question is — is he still on field service? It must be remembered ~~that~~ in the ordinary course promotions might be made in place of men on field service; but owing to financial pressure the ruling in the Code has been introduced —
From the enclosed order it would seem that Dorward is employed in the M.W. branch; and if so he should not block promotion in the Madras PWD —

WCB
14.5.87

D.W.
Please see my comment in red ink on slip with G of I W. No 1298 W. 12th May 187[7].

I do not think it is of any use making further reference

Noted
WCB
18.5.87

Put up
30/5/87

---

Telegram from India
26.5.87.

The India Code, with quoted para marked, is submitted.

We were aware of the rule, but we went on the supposition that Capt. Dorward is no longer on field service, he having been placed in charge of construction of military buildings in Burmah.

For orders whether any further communication shall be made to India. If so, it might be made by letter, as there is no hurry in the matter.

9.5.87

[illegible] Capt. Dorward is [illegible]

GOVERNMENT OF MADRAS.

MILITARY DEPARTMENT.

---

9 May 1887, No. 2672

**Pay and Allowances.**

Read the following papers:—

No. . *From the Public Works Department; dated 28th October* 1886, *No.* 3778 *C.*

---

No. . *With report from Controller of Military Accounts; 24th Nov.* 1886, *D.*

---

No. . *To ths Secretary to the Government of India, Military Department; dated 26th November* 1886, *No.* 7401.

---

No. . *Telegram from the Secretary to the Government of India, Military Department; dated 12th January* 1887, *No.* 88-*B.*

---

No. . *From the Adjutant-General; dated 18th January* 1887, *No.* 104-*O* (*Pay and Allowances*).

---

No. . *To the Secretary to the Government of India, Military Department; dated 20th January* 1887, *No.* 415.

---

No. . *From Major T. DEANE, Deputy Secretary to the Government of India, Military Department, to Brigadier-General A. KENNEY-HERBERT, Secretary to the Government of Madras, Military Department; dated Simla, 14th April* 1887, *No.* 925-*B.*

Pay and Allowances.

Enclosures returned as requested.

With reference to the correspondence ending with your docket No. 415, dated the 20th January 1887, I am directed to say, for the information of the Governor in Council, that the Government of India sanction the grant to Captain A. R. F. Dorward of the staff salary of a Field Engineer, Rs. 240 per mensem, together with so much of the half staff of his permanent appointment as will make his whole pay not more than what he drew in the Public Works Department, for the period (from the 12th November 1885 to the 23rd February 1886) he was in command of a detachment of Sappers and Miners in Burma.

No. . *Telegram from the Secretary to the Government of India, Military Department, Simla, to the Secretary to the Government of Madras, Military Department, Ootacamund; dated 18th April 1887, No. 947-B.*

Please cancel my 925-B of 14th (Pay). Captain Dorward granted pay of Superintendent of Works in my 393-MW of 2nd March. Copy sent by 446-MW. of 7th March.

---

No. . ORDER THEREON, 9th May 1887, No. 2672

Ordered that the foregoing telegram be communicated to His Excellency the Commander-in-Chief, Controller of Military Accounts and the Public Works Department, with reference to Proceedings of Government, No. 2022, dated 5th April 1887.

(True Extract.)

A Mauney Herbert Brigdr.-Genl.,
*Secretary to Government.*

To the Adjutant-General, with 7 enclosures.
" Controller of Military Accounts.
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