M.R.O. 1—77,000—3-6-37.

(1) Number of pages 1

(2) Date of repair

(3) Initials of the Reference

MADRAS RECORD OFFICE.

Government of Madras.

DEPARTMENT.

G.O. No. 2265 Press / Mis.

Dated 1 7 18

Not to be folded or roughly handled

No. 74. Read the following Proceedings of the Government of India, Public Works Department, (Buildings and Roads—Military,) dated Simla, 18th July 1871, Circular No. 38:—

Urinaries for British Troops.

Read again—

Public Works Department Circular No. 16, dated 27th February 1866.

Read also—

Abstract of replies received from Local Governments and Administrations to the above-mentioned Circular.

OBSERVATIONS.—Before deciding upon a detailed stan dard plan of urinaries for British troops, the Government of India desired that the relative merits of two modes of construction that had been recommended should be tested, and accordingly, in Public Works Department Circular No. 16, dated 27th February 1866, the Local Governments and Administrations were requested to make trials at one or two stations where such buildings might be required, and to submit reports of the results.

2. Number 1 of the two plans recommended was a temporary structure, which was described as "a little shed standing on 4 or 6 uprights 7 feet high, with a pent roof of jungle-wood, the interior being shut out from public view by a lattice-work of longitudinal split bamboos, placed one inch apart from each other. The flooring to be of earth which is to be frequently changed."

3. Plan No. 2 was a more substantial building, having a good roof supported on pillars of kiln-burnt bricks set in clay, the intervals between the pillars being filled in with open brick-work or perforated tiles also set in clay. The interior to be mud plastered, and the floor to be of earth as above described.

4. It was further observed by the Government of India when ordering these trials to be made, that "the temporary structure will of course be cheaper; but, looking to the probability that it will require constant renewal, it may perhaps prove preferable on grounds of economy, convenience, and general efficiency, to adopt the more permanent style of construction."

5. Replies to Circular No. 16 have now been received from all the Local Governments and Administrations, with the exception of the Government of the Punjab, and having had under consideration the opinions therein expressed, and the orders that have been passed by the Government of India on some of the replies, the Governor-General in Council observes—

1st.—For Burmah, Hyderabad, Central India, and Rajpootana, plans suited to the peculiarities of climate and other local circumstances have been approved by the Government of India, and those plans should be followed.

2nd.—The Government of Bombay recommends the temporary structure, but would use the best materials, whilst the more permanent structure described in the Circular is recommended by the Governments of Madras, Bengal, the North-Western Provinces, Oudh, and the Central Provinces.

3*rd*.—It does not seem necessary to issue a standard design of urinaries, as uniformity is not essential in such a matter; but with the view of spreading knowledge so as to give the means of correcting sanitary evils if they arise anywhere, the opinions of the Local Governments should be circulated, it being left to each Local Administration to decide as to the plan to be adopted.

Abstract of Replies received from Local Governments and Administrations to Public Works Department Circular No. 16, dated 27th February 1866.

URINARIES FOR BRITISH TROOPS.

Province.	Date of Reply.	Opinions.
Madras	7th Jan. 1868...	*Cannanore.*—The Military and Public Works authorities "agree in thinking the urinaries with stone in clay walls (tarred inside) as best adapted for the purpose in view." *Ramandroog.*—No 2 plan answers in every way the purpose required, and is more economical, convenient, and efficient than No. 1, which is a failure; the lattice-work soon gets broken, and the bamboos are stolen. The Superintending Engineer observes that white-ants abound at Ramandroog, and soon destroy wood-work on walls constructed with clay. For permanent urinals he proposes that the roofs should be of either iron or zinc on iron rafters and reepers.
Bombay	11th May 1871 ...	A urinary according to plan No. 1 costs Rupees 101, but requires very extensive repairs, renewal every five years; and is sometimes totally destroyed by the high winds prevailing in May and June. These urinaries are generally in use in the Bombay Presidency, being, in a sanitary point of view, preferable to the more permanent structure, as it can be removed to, or rebuilt on, a fresh site without great cost. No. 2 costs Rupees 214. One built at Poona as an experiment in 1866 is now in a perfect state of repair, and has cost little for maintenance; it is therefore more durable, and on the whole cheaper than No. 1. A third kind has been tried on the plan of No. 1, but of teak instead of jungle-wood, and teak trellis instead of bamboos. It cost Rs. 227; is neat and durable, and appears to the Local Government to be the best and most economical structure for the purpose.
Bengal	12th Aug. 1867 ...	The dimensions fixed by the Government of India, namely, 12 feet square, appear to be greater than is necessary. *Dinapore.*—After a trial of three months the standing Barrack Committee was of opinion that "the masonry building is in every way well suited for its purpose, and that it is an improvement on those in ordinary use."

Abstract of Replies, etc.—(Continued.)

Province.	Date of Reply.	Opinions
North-Western Provinces ...	23rd Nov. 1867...	*Dum-Dum.*—The Chief and Garrison Engineers and the Officer Commanding at the Station agree (after a five months' trial) in thinking that the brick-built urinary answers its purpose well, and is preferable to the temporary erection, inasmuch as it is a well ventilated permanent building which will not require the frequent renewals and repairs to which the lattice-work structure is liable. *Cawnpore.*—Only No. 1 plan was tried, and, with slight alterations, was found to answer the purpose. The cost of one building was Rs. 156. No. 2 was not tried, but the cost is estimated at Rupees 200. Preference is given to the latter as being more economical in the end.
Oudh	22nd May 1868...	*Lucknow.*—No. 1 urinary was made of eight uprights of jungle-wood carrying a thatched roof laid over bamboos and sâl bullies, and cost Rupees 65. It had been in use for about nine months, and seemed to stand well. The bamboo lattice-work had, however, been partially destroyed by white-ants. The men complained of its being too exposed. No. 2 urinary was made with pillars of kiln-burnt bricks set in clay, the intervals between the pillars being filled in with open brick-work, with arched openings for entrances, and in front of the openings screen walls. The roof consists of flat and round tiles laid on bamboo frame-work over sâl rafters. The floor has been made of terrace instead of earth as ordered by Government. The building cost Rupees 170. It had been in use for about one year, and seemed to be unobjectionable. No. 2 urinary would be in every respect satisfactory if a more permanent roof and an earthen floor were given. It would be found more economical in the end, would be less liable to destruction by fire, and would cost far less to maintain in good repair.
Central Provinces	16th Aug. 1867...	Throughout the Provinces all authorities agree in their approval of the open brick-work as being better adapted to its purpose than the bamboo screens, and affording more privacy. It is suggested that equal ventilation and perfect privacy may be secured by filling in the intervals between the supporting pillars with wheel-made tiles laid in lime and sloping upwards. They may be placed in two ways :— 1*st*, "where the tiles are all laid with their convex sides upwards—this is the cheapest way;" 2*nd*, "where the tiles are laid with the convex and concave faces upwards alternately forming as many cylinders—this is the strongest work."
British Burmah	4th May 1867...	The structures ordered in the Circular were considered too frail to withstand the heavy rains in Burmah, and a plan recommended by the local authorities as preferable has been sanctioned by the Government of India as a standard for Burmah.

Proceedings of the Madras Government, Public Works Department, 6th September 1871

Abstract of Replies, etc.—(Concluded.)

Province.	Date of Reply.	Opinion.
Hyderabad	15th Dec. 1868...	Plan No. 2 was considered preferable, but another Plan was recommended by the Resident, and has been sanctioned as a standard for Hyderabad.
Central India	26th July 1869...	Plan No. 2 is approved of on all sides. It is not only more permanent than No. 1, but it ensures more privacy. The filling in of round tile-work between the pillars has proved a good style of construction, neat in appearance, and giving perfect ventilation.
Rajpootana	2nd Aug. 1866 .. 1st April 1871..	In the climate of Central India and Rajpootana, however, it is necessary that the brick-pillars be painted with *chunam*, and the tile-work laid in mortar. With these alterations, plan No. 2 is all that can be desired, a cheap and effective Dâk Bungalow.
		The sole advantage plan No. 1 has over No. 2 is the facility with which it can be removed should the floor become offensive from saturation. This, however, should never happen with proper arrangements.
		The modifications of plan No. 2 mentioned above were approved by the Government of India.

Governments of Madras, Bombay, Bengal, North-Western Provinces, and the Punjab, the Chief Commissioners of Oudh, Central Provinces, and British Burmah; the Resident at Hyderabad; the Governor-General's Agents for Central India and Rajpootana; the Superintendent of Port Blair; the Military Department; the Advocate-General, the Quartermaster-General, and the Secretary Commissioner with the Government of India.

ORDER.—Ordered that a copy of the foregoing observations and of the abstracts of replies read be forwarded to the Local Governments Administrations and Heads of Departments marginally noted for information.

(Signed.) C. W. HUTCHINSON, Colonel, R.E.,
Offg. Deputy Secy. to the Govt. of India.

No. 75. ORDER THEREON, 6th September 1871, No. 2,366.

MILITARY WORKS, No. 2.

COMMUNICATED to the Superintending Engineers in continuation of G. O. No. 1,187, dated 17th April 1866, and with the remark that the Government consider it advisable to adopt the more permanent style of construction.

(True Extract.)

Captain, R.E.,
Under-Secretary to Government.

To the Superintending Engineers.
" Major R. B. Kennedy,
To the Military Department, } With copy of G. O. No. 1,187, dated 17th April 1866.

Ed. F. R. Bantleman.

P.W.D. Dept.

No. 22 66.

Proceedings of the Madras Government
Under date the 6th August 1871.
Read the following
From the Offg Secy to the Govt
of India.
(Here enter G.O. No 2366/16 July 1871)

Communicated to the
Superintending Engineers, in
continuation of G.O. No. 1187
of 17th April 1866, and with
the remark that the Govern
consider it advisable to
adopt the more permanent
style of construction.
~~Copies which accompanied the~~
~~Circular proceedings above.~~

Asst

To The Supg Engineers
" Major R. B. Kennedy } with copy of G.O. No 1187
" Military Department } of 17th April 66.

Desp 7/9/71

No. 373

Govt of Madras.

PUBLIC WORKS.

To

The Superintending Engr

6 Sept. 2266.

Nos. 71-75

Allowances for British Troops.

Circular from the Govt of India regarding changes for Allowances for British Troops, Comd & the Subsistence with Remarks.