(1) Number of pages 2

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TAMIL NADU ARCH

GOVERNMENT OF TAMIL NADU

PW

DEP

G.O. No. 2603 (W) Pr
B.P. No. Mi

Dated 5.11.1885 19

Not to be folded or roughly handled

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Military Works.

READ—the following letter from Major D. J. S. McLEOD, Deputy Quartermaster General, to the Secretary to Government, Military Department, Ootacamund, 27th October 1885, No. 3714 A:—

I have the honor, by order, to forward, for sanction and transfer to the Public Works Department for disposal, the estimate, &c., below-mentioned, which have been approved by the Provincial Commander-in-Chief. The estimate has been countersigned:—

Revised estimate, amounting to Rs. 594 (with a comparative statement), for constructing a dam across the Kancanthooray river at Wellington for the purpose of gauging the water available for the Wellington bakery.

2. The original estimate, amounting to Rs. 440, was sanctioned in G.O. No. 3147 W.,* of 20th December 1884, and the excess of the present estimate is reported due to laying a depth of cement concrete 1 foot 6 inches as foundation and also to the raising of two platforms on either side of the weir to enable persons to register the water passing through.

* M.D. No. 12 of 5th January 1885.

No. 6000, Military.

Approved and transferred to the Public Works Department for disposal.

(By Order.)

FORT ST. GEORGE,
29th October 1885.

(Signed) A. R. KENNEY-HERBERT, Lieut.-Col.,
Offg. Secretary to Govern

ORDER—dated 5th November 1885, No. 2603 W., Public Works.

The revised estimate, amounting to Rs. 594, for constructing a dam to gaug water-power available for the Wellington bakery, is sanctioned in supersession o estimate of Rs. 440 sanctioned in G.O., No. 3147 W., dated 20th December 188

2. This sanction has been registered as Imperial, Ordinary, No. 48 W. of 188 and classified as Military, Original Works.

(True Extract.)

Captain, R.I
Under Secy. to Govt., P.W

To the Superintending Engineer, IV Circle, with one enclosure.
" Examiner, Public Works Accounts, with the estimate for note and return to Superintending Engineer, IV Circle.
" Military Department.

Exd. J. Henricus.
Spare Copies.

BUILDINGS AND ROADS.
MILITARY WORKS.

Govt. of [1885] Madras.

PUBLIC WORKS

Dated November, 5th.

Recd. *Encl.*

G.O., 5th Nov. 1885, No. 2603 W.

NOVEMBER.

Wellington Bakery

Revised estimate for constructing a dam to gauge the water-power available for the —, sanctioned.

20TH DECEMBER 1884, No. 3147 W., PUBLIC WORKS.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Military Works.

READ—the following letter from Colonel J. BEATTY, R.E., Superintending Engineer, IV Circle, to the Chief Engineer, Public Works Department, dated Coimbatore, 16th December 1884, No. 555 E.W. :—

With reference to paragraph 2 of G.O., No. 2589 W., of 22nd October 1884, I have the honor to forward, for sanction and provision of funds, a plan and estimate, amounting to Rs. 440, with a report, for constructing a dam or over-fall weir across the Kanaccanthoory river or stream at Wellington for the purpose of gauging the supply in that stream in order to find the water-power available for the proposed bakery.

ORDER—dated 20th December 1884, No. 3147 W., Public Works.

The estimate, amounting to Rs. 440, for constructing a dam to gauge the water-power available for the Wellington bakery is sanctioned. The expenditure will be met from the current year's grant for the bakery.

2. This sanction has been registered as Imperial No. 58 W. of 1884-85, and classified as Military, Original Works.

(True Extract.)

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

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

Exd. A. Aubert.
Spare Copies

BUILDINGS AND ROADS.
MILITARY WORKS.

Govt. of {1884} Madras.

PUBLIC WORKS

Dated December, 20th.

Read.

Encl.

G.O., 20th Dec. 1884, No. 3147 W.

DECEMBER.

Dam

Estimate for a — to gauge the water-power available for the Wellington bakery, sanctioned.

26

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Military Works.

READ—the following letter from Colonel J. BEATTY, R.E., Superintending Engineer, IV Circle, to the Chief Engineer, Public Works Department, dated Coimbatore, 13th October 1884, No. 471 E.W. :—

With reference to G.O., No. 2440 W., of 2nd instant, I have the honor to report that, as the water-supply of Coonoor is occasionally scanty in the dry season, it has hitherto been considered certain that there would not be enough water to work the bakery machinery for some months in the dry season.

2. Major Smith is now of opinion, as will be seen by his letter,* copy of which I send, that even in the monsoon months the supply is doubtful.

3. The only way to settle the matter is to gauge the supply in the stream for a period of six months and compare it with the rainfall.

4. I have requested the Executive Engineer to submit an estimate for an overfall weir and for gauging.

* No. 351 of 11th October 1884.

ENCLOSURE.

From Major A. C. SMITH, R.E., Executive Engineer, Nilgiri Division, to the Superintending Engineer, IV Circle, dated Cherambádi, 11th October 1884, No. 351.

With reference to your endorsement, No. 481 N.I., of 6th instant, I have the honor to report that my remark that "the water power" for the proposed bakery, Wellington, "is doubtful" is based upon the fact that the turbine set up by Messrs. Groves and Co. on the same stream, but lower down at Coonoor, has only just sufficient water to work it in dry months, and the bakery site is situated *above* a large stream that supplements the supply to the turbine.

2. A *water wheel* was proposed for the bakery and sanctioned in G.O., No. 1838 W., of 29th July 1884, and when inspected, the site in September last then certainly was not sufficient water to work a water wheel. A turbine has been suggested as requiring less water, but even supposing we could get sufficient head and fall to work a turbine, I still have my doubts as to sufficiency of water in what may be called *the dry months*, supposing September to be a *wet month*.

3. It would of course be a very simple matter as suggested (in his letter, No. 3136, of 4th September 1884) by the Commissary-General (paragraph 5), to decide the question for any one month by gauging the stream; but as no observations have been taken for one month even—let alone a full year—he would be a bold man, who would assert that the water-supply were sufficient, and Mr. Larminie in his No. 573, of 27th February 1884, to your address states (paragraph 9) "for a short time during the dry season the supply would be scanty."

4. As I am under the impression that the grinding process will have to be carried on uninterruptedly throughout the year, I am obliged to doubt the efficacy of the water power for the purpose.

5. The buildings can be constructed, but I should certainly advise the machinery question to lie over until we have fully investigated the amount of water likely to be at our disposal.

6. In order to do this, an overfall weir would have to be constructed at the proposed site for the dam and the water carefully gauged throughout the coming dry season.

7. If good results are obtained, we can then arrange for water power, if not steam machinery will have to be allowed. I am inclined to think the latter will be necessitated, especially if the mill is to work all the year round.

ORDER—dated 22nd October 1884, No. 2589 W., Public Works.

Communicated to the Military Department.

2. The estimate referred to in paragraph 4 of the Superintending Engineer's letter should be submitted without delay.

(True Extract.)

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

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

Exd. A. Grubert.
Spare Copies

BUILDINGS AND ROADS.
MILITARY WORKS.

Govt. of 1884 Madras.

PUBLIC WORKS.

Dated October, 22nd.

Read. *Encl.*

G.O., 22nd Oct. 1884, No. 2589 W.

OCTOBER.

Bakery at Wellington

Letter from the Superintending Engineer reporting on the subject of the water power required to work the machinery of the —, communicated to the Military Department.

24TH APRIL 1885, No. 978 W., PUBLIC WORKS.

26

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Military Works.

READ—the following letter from Colonel J. BEATTY, R.E., Superintending Engineer, IV Circle, to the Chief Engineer, Public Works Department, dated Ootacamund, 9th April 1885, No. 148 E.W.:—

I have the honor to forward, herewith, a report* from the Executive Engineer, Nilgiris, giving the result of his inquiries and observations on the subject of machinery and water-power for the Wellington bakery; and as it now seems probable the water-power will be ample for nine months in the year, and that sufficient flour may be ground in the good months to last through the dry months, I request your sanction to commence building the bakery in the site already selected near Wellington bazaar.

* Letter, No. 36, of 8th April 1885.

ENCLOSURE.

From Major A. C. SMITH, Executive Engineer, Nilgiri division, to the Superintending Engineer, IV Circle, dated Ootacamund, 8th April 1885, No. 36.

In reply to your, No. $\frac{12\ C}{N.I.}$, of 1st instant, I have the honor to report that I have ascertained from the Deputy Assistant Commissary-General, Wellington, that the amount of flour required to be turned out daily is 800 lb., and that, to produce this, about 1,200 lb. of wheat would be required to be ground daily.

2. I have ascertained from Messrs. Richardson and Cruddas, Agents to Messrs. Clayton and Shuttleworth, Millwrights, England, that their firm have now some small mills with 36-inch stones capable of turning out 120 lb. of flour per hour, and that the average power to turn this and the dressing machine is only 3-horse power, price in Bombay, including small dressing machine, Rs. 1675.

3. Messrs. Richardson and Cruddas also confirm my opinion regarding the application of bullock-power. They say: "As regards the drawing of flour-grinding machinery by bullock-power, we beg to inform you that all the English makers are of opinion that the motion transmitted would be irregular and intermittent; and that mills so drawn would not work satisfactorily."

4. The Deputy Assistant Commissary-General also informs me that he would prefer that the kneading should be done by machinery, but bullock-power could be applied to this in case water-power failed as one pair of bullocks will knead 100 lb. an hour, I believe.

5. The quantity of water gauged on 31st March as passing down the stream at Wellington is about [illegible] cubic feet per second, which, with a 20 feet wheel, would give us about 10-horse power.

6. In the dry months this will of course diminish, but the chances are we may get sufficient water to work the small mill for nine months, and in favorable years for a longer period even, so that we might for this short period, at any rate, try bullock-power; but I believe no experiments have been made as to storing flour on these hills, and if this is feasible, sufficient flour might be ground in the good months and stored for use in the dry months.

ORDER—dated 24th April 1885, No. 978 W., Public Works.

The Superintending Engineer, IV Circle, is authorised to commence the construction of the Wellington bakery on the site selected near the bazaar.

2. The Commissary-General will be requested, in the Military Department, to ascertain by experiment whether it is possible to store flour at Wellington, as suggested by the Executive Engineer.

(True Extract)

(Signed) J. SHAWART, Colonel, R.E.,
Secretary to Govt., P.W.D.

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

Exd. E. Fernandez.
Spare Copies

260
6

BUILDINGS AND ROADS.
MILITARY WORKS.

Govt. of {1885} Madras.

PUBLIC WORKS.

Dated April, 24th.

Recd. *Encl.*

G.O., 24th April 1885, No. 978 W.

APRIL.

Wellington Bakery

Instructions for commencement of — on the site selected near the bazaar.

3RD OCTOBER 1885, No. 2296 W., PUBLIC WORKS.

GOVERNMENT OF MADRAS.

260

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Military Works.

READ—the following letter from Colonel B. H. W. MAGRATH, Commissary-General, to the Secretary to Government, Military Department, dated Madras, 18th September 1885, No. 3492 :—

With reference to clause 2 of Proceedings of Government in the Public Works Department, No. 978 W., of the 24th April 1885, I have the honor to report the result of the experiment made as to the keeping qualities of bread-material at Wellington.

2. The Superintendent of the Government Bakery, Madras, was ordered to prepare a bag of bread-material, and was instructed to be most careful to see that the wheat was not damped, as it is usual to do when the flour is required for immediate use.

3. I inspected this material on the 19th June and found it a little darker in color than bread-stuff made from damped wheat, but in every other respect the quality was unexceptionable.

4. This bag was then forwarded to the Executive Commissariat officer, Wellington, whose report, with a sample loaf of bread, has just been received, and proves that, after the bread-material has been kept for fully three months in the climate of Wellington, excellent bread may be made of it. The loaf is slightly darker than usual, but it is in other respects fully equal to bread made of bread-material, in the preparation of which the usual damping process has been used.

No. 5223, Military.

Transferred to the Public Works Department.

(By Order.)

(Signed) A. R. KENNEY-HERBERT, Lieut.-Col.,
22nd September 1885. Offg. Secretary to Government.

ORDER—dated 3rd October 1885, No. 2296 W., Public Works.

Communicated to the Superintending Engineer, IV Circle, with advertence to G.O., No. 978 W., dated 24th April 1885.

2. The further necessary orders will issue in the Military Department, relative to arrangements being made by the Commissariat Department, after the bakery has been brought into use, for storing a sufficient quantity of flour to last through the dry months whenever there may be reason to anticipate that the water-power will fail during that period.

(True Extract.)

Lieut.-Col., R.E.,
Offg. Under Secy. to Govt., P.W.D.

To the Superintending Engineer, IV Circle.
„ Military Department.

Exd. J. Henricus.
Spare Copies

BUILDINGS AND ROADS.
MILITARY WORKS.

Govt. of {1885} Madras.

PUBLIC WORKS.

Dated October, 3rd.

Recd. *Encl.*

G.O., 3rd Oct. 1885, No. 2296 W.

OCTOBER.

Wellington Bakery

Orders on letter from the Commissary-General reporting the result of the experiment made for the storage of materials for bread-making in connection with the water-power for working the —.

QUARTERMASTER-GENERAL'S

Barracks and Buildings
Estimates.

Ootacamund, 29th Octobe

No. 3714. A.

2603

From

THE QUARTERMASTER-GENERAL,

To

THE SECRETARY TO GOVERNMENT,

MILITARY DEPARTMENT

SIR,

I HAVE the honor, by order, to forward for sanction and transfer t
Works Department for disposal, the estimate, ~~plans~~ &c., below-mentioned
been approved by the Commander-in-Chief. The ~~plan~~ ~~and~~ estimate
countersigned.

Revised Estimate amounting to Rs: 59

Comparative Statement for constructing a

across the Kancanthooray river at Wellin

the purpose of gauging the water availab

Wellington Bakery.

2. The original Estimate amounting

M. O. No: 12 of 5th Jany: 1885

was sanctioned in G.O. No: 3147. W. of 20th

1884 and the excess of the present Estimate

due to laying a depth of Cement Concrete

foundation and also to the raising of 2 f

on either side of the weir to enable persons to

the water passing through.

I have the honor to

Sir

2603/5

Military (1885) Department.

No. 6475-

From

The Quartermaster-General,

To

The Secretary to Government,

Military Department.

No. 3714. A.

Dated 27th October

Recd. 29

Enclosures. 2

Forwards for sanction & transfer to the P.W.D. Estimate for constructing a dam across the Kancanthorray river at Wellington for gauging water for the Wellington Bakery.

2296 W 3-10-85-7ea

No. 6000

Approved and transfered to the Public Works Department for disposal.

(By order)

A. Kennedy Herbert Lieut. Col.

Offg. Secy. to Govt.

Fort Saint George
29th October 1885

Public Works De

2603

PROCEEDINGS OF THE MADRAS GOVERNMENT

Under date the Nov

Read the

From the Quarter Master General. H. E. No: 3714 A d/ 27th October 18
Endorsement by the Military Deptt. H. E. No: 6000 d/ 29th October

The revised estimate am
Rs. 594, for constructing a dam
the water-power available for
Bakery, is sanctioned in supe
of the estimate of Rs. 440 sanc
G. O. No: 3147 W dated 20th Decem

2. This sanction has be
as Imperial Ordinary No:
1885-86, and classified as
Original Works.

4/11/85

Secy
13/11

To
The Supdg. Engr. IV Circle with 1 encls.
" Examiner P. W. Accts with the estimate for note & return to S. E. IV
" Military Department.

2603
11

944d

Govt. of [1885] Madras.

PUBLIC WORKS.

Dated

Recd. Encl.

G.O. 5 Nov 1885, No. 2603 4

Wellington Factory

Revised Estimate for Repairs to Dam & Sluice for water power available for the Factory

[illegible]

80
4

809/11