M.R.O. 1—77,006—8-6-37.

(1) Number of pages 14

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(3) Initials of the Referencer

MADRAS RECORD OFFICE.

Government of Madras.

Finance DEPARTMENT.

G.O. No. 59 Press ~~Mis.~~

66-67.

Dated 14-1- 1873.

8/9

66-67

Not to be folded or roughly handled

Proceedings of the Madras Government, Financial Department,

14*th January* 1873.

No. 66. Read the following Proceedings of Government in the Public Works Department, dated 16th December 1872, No. 2975:—

ABSTRACT.—Passing orders on papers connected with the restoration of the Madras Pier.

No. 67. ORDER THEREON, 14th January 1873, No. 59.

Adverting to paragraph 4 of the foregoing Order, the Governor in Council sanctions an allotment of Rupees 30,000 for the current year from the balance under Provincial Funds.

2. The Accountant-General will transfer the amount to the Public Works Department.

3. Provision for the balance will be made in the Provincial Budget for 1873-74.

(True Extract.)

W. HUDLESTON,
Chief Secretary.

To the Public Works Department.
,, Accountant-General, with Public Works G. O., 2975.
,, Master Attendant, Madras.

Exd. J. H. Burns.

Govt. of 1873 Madras.
FINANCIAL.
To
THE PUBLIC WORKS DEPARTMENT,
&c., &c., &c.
Dated January, 14th.
Recd.
G. O., 14th January 1873, No. 69.
JANUARY.
Nos. 66-67.
Sanctioning an allotment of Rupees 30,000 fo
the current year from the balance under Provincial
Funds towards the restoration of the Madras Pier.

Proceedings of the Madras Government, Public Works Department, 16*th December* 1872.

Read the following papers :—

No. 317. Proceedings of the Madras Government in the Marine Department.

(Here enter No. 156, dated 1st July 1872.)

No. 318. From the Members of the Pier Committee, to the Secretary to Government, Public Works Department, dated Madras, 6th September 1872.

WITH reference to the Order of Government, dated the 12th June 1872, No. 1,457, we have the honour to report that of the Rupees 5,000 placed at our disposal for the purpose of making experiments to decide the possibility of restoring the Pier along the line originally occupied by it, we have spent Rupees 1,242-7-6, and we have arrived at the conclusion that no great difficulty will be experienced in screwing piles along the whole of the gap. The abovementioned outlay has not only covered the cost of making experimental borings along the line of the gap, but the gap itself has been materially shortened, one row, consisting of four piles, having been placed in position at the west or inner end.

2. With the assistance of the General Superintendent of Public Works Stores, plans and estimates have been prepared for executing the work sketched out in our letter of the 10th June, and these we have now the honour to submit.

3. It will be seen that the estimates are in three parts: first, for closing the present gap, amounting to Rupees 1,33,374 ; second, for the protective works recommended by us, amounting to Rupees 30,940 ; and third, for strengthening the Pier head, amounting to Rupees 39,110. The total amount of the estimates comes to Rupees 2,03,424.

4. Of this large sum it will be observed that the cost of materials, including carriage, is Rupees 1,08,493 ; that the estimated cost of labour is Rupees 54,246 ; and that no less a sum than Rupees 40,685 has been allowed for contingencies. The mode in which the last two items have been calculated is simple. The cost of labour is taken at 50 per cent. upon the value of the materials, and a sum equal to 25 per cent. upon the cost of materials and labour taken together is allowed for contingencies. Mr. Grainger, by whom these estimates were originally prepared, was unwilling to reduce these amounts; and as the services of that gentleman were specially placed at our disposal for the preparation of the estimates, we have not felt ourselves at liberty to alter his calculations, the more so as they are founded upon the experience gained by him when the Pier was restored three years ago. At the same time we are bound to state that, in our opinion, the estimated amounts for labour and contingencies, which together come to no less than Rupees 94,931, are excessive. While fully recognizing the great difficulty of framing any accurate estimate of the cost of work of this nature, we are of opinion that it ought to be carried out in six months, and we cannot bring ourselves to believe that the entire cost for labour, etc., ought to exceed Rupees 5,000 per mensem. The estimate for these items would thus be reduced to Rupees 30,000, being less than one-third of the sum entered in Mr. Grainger's estimates.

5. With regard to the estimated cost of the materials, which comes to no less than Rupees 1,08,493, we beg to remind the Government that the articles noted in the margin have been already procured from England for the repair of the Pier, and are now lying stored on the beach in Abercrombie's Battery. The value of these articles, as entered in the estimate, amounts to Rupees 44,292; so that the actual cost to be now paid for the materials required for restoring and protecting the Pier may be reduced from Rupees 1,08,493 to Rupees 66,201.

	Rs.	A.	P.
18 Piles 8″ diameter	16,456	8	0
38 Do. 6″ do.	19,009	8	0
18 Caps for 8″ piles	569	4	0
17 Do. for 6″ do.	443	5	10
56 Screws for do.	2,677	10	0
18 Round diagonal braces ...	1,327	0	3
10 T do. do. ...	3,565	0	0
40 Standards for handrails ...	90	5	9
Chains for do. ...	154	0	3
Total...	44,292	10	1

6. We beg to express our regret at the delay which has occurred in the submission of these estimates. The Government are aware that every member of the Committee has special duties which occupy almost all his time, and since the formation of the Committee our duties have obliged us to be absent from Madras on several occasions. Immediately after the estimates were first prepared, Mr. Grainger was obliged by ill-health to leave Madras, and the revision of the estimates was kindly undertaken by Colonel Goddard, who is performing Mr. Grainger's duties during his absence. To both of these gentlemen we beg to express our best thanks for the assistance we have received from them.

FORWARDED to the Superintending Engineer, 4th Division, with reference to his letter, No. 3,067, of 19th October.

To be returned without delay, accompanied by Mr. Grainger's revised estimate, already called for. Printed copy will hereafter be supplied.

25th October 1872.

(Signed) G. W. WALKER, Colonel, R.E.,
Secretary to Government, P.W.D.

No. 318. From the Master Attendant, Administrative Department, to the Chief Secretary to Government, Marine Department, Fort St. George, dated 9th September 1872, No. 4,967.

WITH reference to the Report of the Pier Committee sent in to Government on the 6th instant, I have the honour to make a proposal which I trust will be approved of by His Excellency the Governor in Council.

2. I beg leave respectfully to remind Government that in 1867-68, unassisted by any other department, Mr. Sadler, the Pier Master, who is a first-rate mechanic and ship builder, under my orders—expending the materials as per margin—restored three parts of the beams and planking of the Pier for Rs. 59,868-10-11. He now undertakes to close the gap for Rupees 30,000,* and I hereby guarantee that he will accomplish the work under that sum.

	Rs.	A.	P.
381 Logs, Teak timber ...	25,891	7	4
43,941 Feet, Mangoe plank ...	10,733	13	4
Iron, Coal tar, etc.	5,746	2	5
Workmen	17,497	3	10
Total...	59,868	10	11

* *Note.*—The piles, bracings, etc., etc., are already paid for.

3. It must be distinctly understood that this outlay of Rupees 30,000 will cover all expenses, namely, beams, planking, extra labour, etc., etc.; the piles, bracings, etc., now in store to be delivered by Mr. Harris of the Department of Public Works, when required, at the inner end of the Pier.

4. I would further request that the general supervision of the work be entrusted to Colonel Goddard, R.E., and myself.

5. We have now one tier of 4 piles down and beam laid; spars, staging, etc., prepared, and we are ready to go on with the work at a few hours' notice.

6. As a great saving to Government will thus be effected, I earnestly hope that sanction may, without loss of time, be accorded to this proposal.

7. I have another scheme for permanently protecting the Pier in the line of surf where it is most liable to injury, and which I shall shortly lay before Government.

No. 319. From the Vice-Chairman, Chamber of Commerce, to the Chief Secretary to Government, Ootacamund, dated Madras, 7th October 1872.

I AM desired to solicit the attention of the Government to the circumstance that though five months have elapsed since the Madras Pier was rendered useless during the cyclone, and though it is reported that ample material for its repair is in store and immediately available, no visible progress has been yet made in the work requisite for restoring the structure to an efficient condition. It will not have escaped the recollection of Government that the accident to the Pier in June 1868 was not fully repaired, and traffic resumed until November 1869, during which period the Government were compelled to maintain the Pier Establishment on a reduced yet costly footing, and the public were obliged to fall back upon the old means of communication with the shipping. The Chamber have ascertained from the Madras Administration Report that the tolls levied on the Pier from the 1st April 1870 to the 31st March 1871 amounted to Rupees 18,932, or at the rate of Rupees 1,577 per mensem. The charge for establishment is not stated, but, assuming it to have been, in accordance with the Order of Government of the 14th November 1870, No. 322, less than Rupees 1,000 per mensem—a charge which the Government concurred with the Chamber in regarding as too high—it would seem that the Pier realised a very fair surplus in the official year under notice. But situated as it now is, not only is that surplus lost, but an expenditure of probably Rupees 595 a month (the cost of the establishment when the structure was under repair in 1868-69) is entailed upon the Government, who thus virtually lose about Rupees 1,200 per mensem while the Pier is closed to traffic. Thus, not only does the public at large, and more especially the commercial section of it, suffer grave inconvenience from the tardy restoration of the Pier, but the Government must be prepared for a considerable addition to the cost of the repairs that may be fairly said to be avoidable. It seems, therefore, to the Chamber desirable to suggest, for the consideration of His Excellency the Governor in Council, that if the Department of Public Works, owing to the pressure of other calls on them, cannot speedily undertake the repairs, there would be no difficulty in finding a competent professional person to contract for the completion of the work under the requisite supervision, within a comparatively short period. Owing to the prevailing dullness of trade, the deprival of the accommodation afforded by the Pier in shipping

operations has not been felt so severely as would have been the case in a more active time; but it is obvious that if the Pier is to be restored at all, the work should, in the interests alike of the Government and the public, be commenced in earnest, and carried on to completion with as little delay as possible.

REFERRED to the Department of Public Works with a request that the preparation of estimates may be expedited as much as possible with a view to the speedy repair of the Pier.

OOTACAMUND,
19*th October* 1872.

(Signed) R. S. ELLIS,
Chief Secretary.

No. 320. From the Superintending Engineer, 4th Division, to the Chief Engineer, Public Works Department, dated Madras, 7th November 1872, No. 3,442.

IN reply to your No. 137 of 5th October 1872, I have the honour to enclose Mr. Grainger's explanation regarding the cost of work in restoring the Pier. It will be seen that at the time the Committee sent in their report (herewith returned) they did not know the amount due by them to the workshop, which was really Rupees 2,667-6-6.

1 Mr. Grainger's Report.
1 Committee Report.
3 Bills.

2. They had also omitted the cost of labour employed. It is true that the people were paid members of the establishment, but if their salaries are not to be charged to the experiment, they may be deducted from the estimate if they are able to complete the larger work.

3. Including their salaries and cost of piles, the putting down of four piles has cost really ... ... Rupees 6,631 10 0
or per pile ... ... ,, 1,657 14 6
against Mr. Grainger's estimated charge of ,, 1,326 1 6
But further, the Pier Committee have not driven their piles to the full depth, and have worked in open ground, whereas in the breach they are likely to meet with debris of Pier, broken piles, and their screws; and I fear that Mr. Grainger's estimate is likely to be rather under than over the mark.

4. I would take this opportunity of suggesting that we should run far less risk of such excess if instead of restoring the Pier we were to put down groups of piles in tolerably clear ground at the ends of the gap for abutments, and one or two piers in the opening on which to lay a girder bridge of two or three spans, which might be made movable, though I am not clear that there would be much advantage in that.

From the General Superintendent, Public Works Stores and Workshops, to the Superintending Engineer, 4th Division, dated Chepauk, 4th November 1872, No. 1,599.

IN reply to your No. 3,000 of 10th October 1872, forwarding for early report Memorandum No. 137, from the Chief Engineer, Department Public Works, requesting information relative to so heavy a cash outlay as Rupees 1,09,447 on the restoration of the Madras Pier in 1868-69 and 1869-70, I have the honour to enclose a statement of expenditure (extract from the monthly

1 Pier Committee Report.
1 Estimate.
1 Letter from Master Attendant, with Memorandum of Charges.
1 Statement.

Progress Report) showing the distribution of the above amount of Rupees 1,09,447. The estimate for the repair of the Pier in 1869, sanctioned and recorded in Government Order, 6th February 1869, No. 384, though signed by Mr. Black, the Engineer sent from England to repair the Pier, was prepared by me, and the items labour (or cost of erection including tools, etc.,) and contingencies were calculated in a similar manner as in the estimate now under consideration, viz., 50 per cent. for labour and 25 per cent. contingencies, the approximate correctness of which was shown by the subsequent carrying out of the work as per enclosed statement to be rather less than the amount necessary, for Rupees 1,76,000 had been expended on the restoration of the south side, leaving only Rupees 1,10,000 for the north side.

2. There were no special causes necessitating heavy cash outlay other than those incidental to work of this nature, viz., the expensiveness of the materials employed, for of the amount, 1,09,447 Rupees, 76,718 Rupees was paid to the Public Works Workshops for the supply of teak timber, beams, planking, caps for piles, tools, etc., leaving Rupees 32,729 as the expenditure on labour on the work (in the carrying out of which it was often necessary to take up and re-screw piles in different places on account of obstruction met with when the piles were within a few feet of their proper depth.)

3. In the preparation of the former estimate, the word labour was intended to include the cost of erection and tools, not pure labour only, and with that meaning it was used in the present estimate. In the abstract of enclosed statement Rupees 61,931-5-5 is the expenditure under the head labour and Rupees 1,14,832-15-2 under the head materials, so that the cost of erection is 54 per cent. of the cost of the materials.

4. Considering the original cost of the Pier, that in its construction the caps were not fixed to the heads of the piles, and that Battee timber was used for beams, the cost of restoring the south side in 1868-69 will compare very favourably, for then the caps were securely fastened to the heads of the piles and wrought iron girders and teak timber beams were employed.

5. The total cost of the Pier as per contract was Rupees 10,79,486 which included fourteen cranes and several turn tables, the cost of which could not exceed Rupees 20,000, and as the work was similar throughout and contained 468 piles, we get Rupees 2,264 as the average cost per pile including superstructure of 100 square feet, and in the repairs of 1869-70 the expenditure was Rupees 1,76,764 and sixty-three new piles were screwed in, we got Rupees 2,794 as the average cost per pile, including superstructure of 135 square feet or 25·5 per cent. in excess of the original rates for constructing the Pier.

6. In reply to paragraph 2 of the Chief Engineer's Memorandum, I respectfully beg to state that it is not possible to make any deduction whatever in the present estimate, and if it is considered safe to frame an estimate on the data obtained from the placing in position of the one row of piles alluded to by the Pier Committee in their report, it will be necessary to increase the present estimate as shown in the next paragraph.

7. The Pier Committee in their report, paragraph 1, state that only Rupees 1,242-7-6 had been expended, and that this had "not only covered the cost of making experimental borings along the line of the gap" but that "one row consisting of four piles" had been "placed in position." Such boring consisted in the putting down of a two-inch auger at the intended site of each pile; if the auger went down without resistance, it was considered that a pile with a face three feet diameter would do the same. These borings were made by the Pier Master under Mr. Dalrymple's instructions, but were not considered sufficiently reliable by me to be taken into account in the preparation of the present estimate. This amount was increased to Rupees 1,616-10-6 in the Master Attendant's letter, No. 6,116, of 30th October 1872, but as this amount did not include the cost of the piles, or the pay of Mr. Harris, the Foreman, and the Pier Master and his establishment who were employed on the work, and should have been charged on the

work as in 1869-70, the actual expenses incurred in the placing in position of the four piles is—

	RS.	A.	P.
To cost of two 8" piles weighing Tons 3-19-2 each, at Rupees 230 per ton ...	1,828	8	0
,, ,, 6" ,, ,, 2-3-2 ,, at ,, 230 ,, ...	1,000	8	0
To amount due to Public Works Workshops	1,050	12	0
To per Master Attendant's letter No. 6,116	1,616	10	6
To pay of Pier Master and his Establishment from 15th July to 19th August 1872	785	3	6
To Mr. Harris' pay	350	0	0
Actual cost of the row now in position	6,631	10	0
Estimated cost of same as per my estimate being 87½ per cent. on Rupees 2,829, the cost of the four piles	5,304	6	0
Difference...	1,327	4	0

Being about 25 per cent. in excess of the present estimated rates. I may here remark that this row of piles has not been screwed down to its proper depth, and their position also is in clear ground.

8. The present estimated amount for closing the gap is Rupees 1,33,374, and as only thirty-five piles are to be employed, this will give an average rate of Rupees (3,810) three thousand eight hundred and ten per pile with superstructure of about 200 square feet. This rate is higher than those given in paragraph 5 of this letter, but it is owing to one pile having to support double the superstructure of one pile in the original Pier, and the employment of horizontal bracings at the water line which were not included in the former rates.

9. In paragraph 5 of the Pier Committee's report it is stated that material to the value of Rupees 44,299, being stored at the beach will not therefore have to be paid for by cash allotment; but as these stores are Imperial stores and the Pier a Local Fund work, it is ruled under Government Order, No. 2,394, dated 4th October 1870, that all such issues must be paid for in cash or its equivalent book transaction, and must therefore be met from the funds allotted to the work; therefore the whole of the material required for the work must be paid for.

10. In conclusion, I beg to re-submit the estimate.

No. 321. ORDER THEREON, 16th December 1872, No. 2,975.

CIVIL WORKS, No. 16.

THE Committee appointed by G. O., No. 1,219, of 13th May, to report on the best means of restoring the Madras Pier and ensuring its future safety, have, under date the 6th September, submitted the three undermentioned estimates prepared by the Public Works Department of the probable cost of effecting the object in view according to designs accompanying their report, namely :—

1.—For closing the present gap—

	RS.	A.	P.
Piles and other materials already available, (namely, braces, bolts, and nails)	32,744	14	7
Other iron materials	21,410	13	11
Timber superstructure...	16,647	0	9
Cart-hire	330	0	0
Cost of erection...	35,566	6	8
Contingencies	26,671	13	0
	1,33,374	0	11
Deduct available materials...	32,744	13	7
Net money outlay ..	1,00,629	3	4

Proceedings of the Madras Government, Public Works Department,
16th December 1872.

2.—For future protection of the work—

	RS.	A.	P.
Piles and screws available...	11,546	11	6
Other materials	4,893	4	10
Cart-hire	61	5	8
Cost of erection	8,250	11	0
Contingencies	6,188	0	3
	30,940	1	3
Deduct available materials ..	11,546	11	6
Net money outlay...	19,393	5	9

3.—Strengthening the Pier head—

	RS.	A.	P.
Materials	20,788	13	2
Cart-hire	70	0	0
Cost of erection	10,429	6	7
Contingencies	7,822	1	0
Net outlay proposed...	39,110	4	9

2. The Committee's proposal is to restore the Pier in its original line, and to its original width; and the space to be worked over will be, in round numbers, 180 feet in length by 40 in breadth. In the restoration, nine rows of four piles each will be used minus one inner pile already standing, making thirty-five piles in all, at an average distance of 20 feet from row to row, or double the distance apart in the original structure.

3. The Committee were not prepared to alter the amounts of the estimates which they forwarded, but could not bring themselves to the belief that more than one-third of the sums entered in them for cost of erection and contingencies need necessarily be incurred, and stated that they had actually driven one of the nine rows of piles at a cost of Rupees 1,242-7-6, a sum which is increased by the Master Attendant to Rupees 1,616-10-6, and by the Workshop Superintendent to Rupees 2,667-6-6, excluding the pay of the Pier Establishment. The entire cost of the original work was at the rate of Rupees 2,264 per pile, complete. That of the repairs carried out in 1868-69 and 1869-70 at the rate of Rupees 2,794 per pile, complete. That involved by the amount of estimate No. 1 would be Rupees 3,810.

4. Making every allowance for the difficulty of working over the original line of Pier, His Excellency the Governor in Council cannot but think that the rate which obtained in 1868-70 may with safety be adhered to, and the total cost of restoration of the Pier set down at 35 × 2,800 = Rupees 98,400, out of which deducting Rupees 71,132-13-3 for materials and carriage, Rupees 27,267-2-9 would represent the probable cost of labour and contingencies. It will be considered in the Financial Department how provision shall be made for such a sum less Rupees 32,744-13-7 available for materials in hand.

5. Nos. 2 and 3 will be amended by adoption of a rate of 30 per cent. for labour and contingencies on the former, and half that percentage for the latter, which involves no screwing operations, reducing the amount of the former to Rupees 21,450, of which less than Rupees 10,000 will be cash outlay, and of the latter to Rupees 24,000 in round numbers. But their execution will be deferred

till after the restoration of the Pier shall have been successfully completed. It will be carried out by the Presidency District Engineer; all his own resources and those of the Marine Department being made available to co-operate in the work, and bring it as speedily and economically as possible to a conclusion.

(True Extract.)

Colonel, R.E.,
Secretary to Government.

To the District Engineer, Presidency.
,, Marine Department.
,, Master Attendant, Administrative Department.
,, Chamber of Commerce.
,, Pier Committee.
,, Controller of Public Works Accounts.
,, Financial Dept.

Exd. T. Cartledge.

Judicial 1872 Sept

Govt. of {1872} Madras.

PUBLIC WORKS.

To

THE DISTRICT ENGINEER, PRESIDENCY.

&c., &c., &c.

Dated December 16th.

Rcvd. " 20th

G. O., 16th December 1872, No. 2,975.

DECEMBER

Nos. 317-321

Madras Pier.—Passing orders on papers connected with restoration of the Madras Pier.

Today

14 Lacs: 173 Rs 59.

Adverting to paragraph 4 of the preceding order, this Govt. in Council sanction an allotment of Rs 10,000 for the current year from the Provincial funds.

The Accountant General will transfer the amount to the Public Works Department.

Provision for the last six lakhs of the estimate in the Public Works Dept. 1873/4.

To the Public Works Department.

Accountant General

With an order.

Govt. of {1873} Madras.

To
The Pub. Wks Dept.
Sir

Dated 16 Jany {1873
Recd.

Encl. 4 Nos. to 8 Ft 1/73

G O. 16 Jany 1873. No. 57

Nos. 66-7.

Sanctioning an allotment of Rs 30,000 for the current year from the balance under Provincial Funds towards the restoration of the Madras Pier.