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TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

P. W. DEPARTMENT

G.O. No. 3774W Press.
B.P. No. Mis.

Dated 29 - 11. 1988 ~~197~~.

Not to be folded or roughly handled

3774
1

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

General Account.

READ—the following papers:—

From Lieutenant-Colonel R. R. E. DRAKE-BROCKMAN, R.E., Superintending Engineer, I Circle, to the Chief Engineer, Public Works Department, dated Dowlaishweram, 25th October 1888, No. 2042 G.D.

I have the honor to submit herewith letter No. 469 S. of 20th October 1888 from the Godávari Eastern Division officer, and to state that I agree with him that the charges for loading stock materials on boats should be charged to works and not to stock. My predecessor was also of the same opinion, and I therefore request that orders of Government may be obtained for modification of orders already passed on this subject in para. 5 of G.O., No. 2523 W., of 17th August 1888.

From the Examiner, Public Works Accounts, dated 23rd November 1888, No. 2647.

ORDER—dated 29th November 1888, No. 3774 W., Public Works.

In the circumstances reported, sanction is accorded to the cost of loading materials on punts being charged to the works concerned instead of to stock as approved in G.O., No. 2523 W., dated 17th August 1888.

(True Extract.)

Captain, R.E.,
Under-Secy. to Govt., P.W.D.

To the Superintending Engineer, I Circle.
" Chief Engineer for Irrigation.
" Examiner, Public Works Accounts.

Exd. J. Henricus.
Spare Copies

GENERAL.
ACCOUNT.

Govt. of {1888} Madras.

PUBLIC WORKS.

Dated November, 29th.

Read. *Encl.*

G.O., 29th Nov. 1888, No. 3774 W.

NOVEMBER.

Cost of loading materials on Punts

Proposal of the Superintending Engineer, I Circle, for the — being charged to the works concerned instead of to stock, sanctioned.

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GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.
Account.

READ—the following paper :—

Note by the Chief Engineer for Irrigation.

No. 95 I.

In the correspondence noted in the margin the following suggestions have been made with reference to paragraph 3 of G.O., No. 1940 W., dated 21st August 1885, in connection with the system of stock accounts in the Godávari Eastern division, the first three by the Examiner of Public Works Accounts, and the last three by the Superintending Engineer, I Circle :—

From Superintending Engineer, I Circle, dated 22nd September 1885, No. 1356 G.D.
" Examiner, Public Works Accounts, dated 8th October 1885, No. 154.
" Superintending Engineer, I Circle, dated 24th September 1885, No. 1374 G.D.
To Examiner of Public Works Accounts, dated 3rd October 1885, Office note, No. 265.
From " " 9th " " " " " 539.
To Superintending Engineer, I Circle, dated 14th October 1885, No. 87 G.D.
From " " 22nd February 1886, No. 2417 G.D.
To Examiner of Public Works Accounts, dated 19th March 1886, Office note, No. 67.
From " " 23rd " " " " 604.
From Superintending Engineer, I Circle, dated 7th April 1886, No. 63 G.D.
To " " 14th " " " 454 G.D.
From " " 5th May " " 561 G.D.
To Examiner of Public Works Accounts, dated 21st May 1886, office note, No. 138.
From " " 27th " " " " " 160.

(1) That the limit of reserve stock should include expenditure on "Stock manufacture" and "Land, kilns, &c.," the limit being raised if necessary.

(2) That expenditure on "Land and kilns" should be written off to "Stock manufacture" more regularly than hitherto, the necessary adjustments being made as soon as the material turned out is valued without waiting until it is issued to works.

(3) That the outturn of stone should be valued at the rate at which stone is issued to works including trainage, loading and unloading charges, instead of at the manufacturing rate excluding the above charges.

(4) That the sum of Rs. 16,038-13-8 incurred in removing the top earth at one corner of the quarry should be charged to "Land, kilns, &c.," instead of to "Stock manufacture."

(5) That in order to facilitate the adjustment of stock transfers, the receipt of materials at work-sites should be acknowledged by Executive Engineers as soon as they are received without waiting until they are minutely measured and examined, leaving any difference, should there be any, to be settled hereafter.

(6) That the value of materials issued to works should be credited direct to "Manufacture" instead of through "Stock" as hitherto, the word "stock" being omitted from "Stock manufacture." The desirability or otherwise of adopting these suggestions will now be considered.

(1) *Limit of reserve stock.*—In G.O., No. 107 I., dated 3rd February 1883, no separate money limit was fixed for "Stock manufacture" and "Land, kilns, &c.," as expenditure under these heads would be charged off under paragraph 1669 of the Public Works Code to the outturn of stock at such percentage rate as will clear off the total charge under this head within a reasonable period. But as the Examiner has represented that large balances now remain unadjusted under "Stock manufacture" and "Land, kilns, &c.," at the end of every year, it is now considered necessary that a

separate limit should be fixed. The Superintending Engineer, I Circle, should, therefore, report the amounts to which the reserve stock and the outstanding balances under "Stock manufacture" and "Land, kilns, &c.," should be limited.

(2) *Adjustment of expenditure on "Land, kilns, &c."*—The Examiner of Public Works Accounts suggests that a fixed sum, subject to modification whenever necessary, should be credited to this head every month by a corresponding debit to "Stock manufacture;" but the Superintending Engineer is of opinion that the present system of adjusting a share of the expenditure in proportion to the extent of manufacturing operations should be continued, as the extent of operations varies every month and that, as the present value of the property charged to this head is reported to be not less than the unadjusted balance, there need be no delay in adjusting the proportionate share of the expenditure. The cost of the rails, wagons, &c., having been charged to "Land, kilns, &c.," instead of to "Tools and plant" as in other divisions, it will necessarily take a long time before expenditure on "Land, kilns, &c.," can be expected to be cleared off. The present procedure does not therefore require any change; but expenditure on important items under this head should, as suggested by the Superintending Engineer, be regulated by estimates previously framed and sanctioned by competent authority.

The adjustment of the proportionate share of expenditure under this head should not be deferred until materials are issued to works, but should be made before the material turned out is valued as suggested by the Examiner of Public Works Accounts.

(3) *Rate at which stone turned out should be valued.*—The Examiner of Public Works Accounts suggests that stone turned out in the quarries should be valued at the bill rate, or the rate at which stone is issued to works instead of at quarry rate. The object of this suggestion is apparently to prevent a larger extent of stock being kept than the prescribed limit, by valuing stock at reduced rates. Some confusion appears to have occurred by charging expenditure on trainage, loading and unloading materials to "Stock manufacture" instead of to "Stock." If this expenditure is charged to "Stock," there will be no objection to the material turned out being valued at the quarry or manufacturing rate. Under stock two separate accounts may be kept, one for "stone at quarry," and the other for "stone at landing." The stone at quarry to be at rates not only covering the actual cost of quarrying, but also general charges, and the proportionate charge to be credited to "Land and kilns." Stone at landing to be at "stone at quarry" rates, *plus* transport charges to landing.

(4) *Adjustment of the expenditure incurred in removing the top earth at the quarry.*—As the amount has already been charged to stock manufacture and has been partly absorbed by the issue of stock, there is nothing to be gained now by a write-back to land and kilns.

(5) *Early adjustment of stock transfers.*—The Examiner of Public Works Accounts supports the suggestion made by the Superintending Engineer for expediting the adjustment of stock transfers by insisting on Executive Engineers accepting bills at once without stopping to verify the items. There is no objection to the adoption of this procedure.

(6) *Value of materials issued to works to be credited direct to "Stock manufacture" instead of through "Stock" and the omission of the word "stock" in Stock manufacture.*—The suggestion of the Superintending Engineer is not understood; materials manufactured should pass through stock. If the Superintending Engineer means that expenditure on manufacture required for a specific work should be charged to that work and treated as material at site, great confusion might result if materials were being manufactured at the same time for a number of specific works. It is much simpler to pass all materials manufactured through stock and then to issue them to the specific works.

Ootacamund,
28th June 1886.

(Signed) J. O. HASTED, Colonel, R.E.,
Chief Engineer for Irrigation.

To the Joint Secretary to Government,
Public Works Department, Irrigation Branch.

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Order—dated 3rd July 1886, No. 467 I., Public Works.

The views of the Chief Engineer for Irrigation regarding the suggestions made for facilitating the adjustment of stock accounts in the Godávari Eastern division are approved and will be communicated to the officers concerned for information and guidance.

(True Extract.)

(Signed) J. O. HASTED, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

To the Superintending Engineer, I Circle.
" Chief Engineer for Irrigation.
" Examiner, Public Works Accounts.

Exd. J. Henricus.
Spare Copies

IRRIGATION.
ACCOUNT.

Govt. of {1886} Madras.

PUBLIC WORKS.

Dated July, 3rd.

Read. *Encl*

G.O., 3rd July 1886, No. 467 I.

JULY.

Stock Accounts

Adjustment of — in the Godávari Eastern Division.—The views of the Chief Engineer for Irrigation regarding the suggestions made for facilitating the —, approved and communicated to officers concerned.

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GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.
Account.

READ—the following letter from G. T. WALCH, Esq., Superintending Engineer, I Circle, to the Chief Engineer for Irrigation, dated Dowlaishweram, 4th September 1886, No. 1347 G.D.:—

With reference to paragraph 1 of your note printed with G.O., No. 467 I., of the 3rd July 1886, I have the honor to report that, in addition to the reserve stock of Rs. 30,000 already sanctioned * for the Godávari Eastern division, Rs. 22,000 under "Stock manufacture" and Rs. 35,000 under "Land and kilns" will have to be sanctioned, making the total limit to Rs. 87,000.

* G.O., No. 752 I., of the 2nd September 1885.

2. The sums now proposed under the above two sub-heads are high, but the unadjusted balances under them are "Stock manufacture," Rs. 19,190, and "Land and kilns," Rs. 32,116; and with the quarry operations now being carried on, it seems probable they may slightly increase in this year, after which I hope to be able to largely reduce them; every endeavour will be made to keep the reserve stock and the charges under Stock manufacture and Land and kilns as lowest as possible.

ORDER—dated 17th September 1886, No. 639 I., Public Works.

The maximum limit of reserve stock in the Godávari Eastern division sanctioned in G.O., No. 623 I., dated 3rd July 1884, is extended from Rs. 30,000 to Rs. 87,000, Rs. 22,000 of the increase being under Stock manufacture and the rest under Land and kilns.

(True Extract.)

(Signed) JOHN PENNYCUICK, Lieut.-Col., R.E.,
Offg. Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

To the Superintending Engineer, I Circle.
" Chief Engineer for Irrigation.
" Examiner, Public Works Accounts.

Exd. E. Fernandez.
Spare Copies

IRRIGATION.
ACCOUNT.

Govt. of [1886] Madras

PUBLIC WORKS.

Dated September, 17th.

Read. *Encl.*

G.O., 17th Sept. 1886, No. 639 I.

SEPTEMBER.

Reserve Stock

The maximum limit of — in the Godávari Eastern division extended from Rs. 80,000 to Rs. 87,000.

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GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

General Account.

READ—the following papers:—

Office Note from the Examiner, Public Works Accounts, dated Madras, 11th May 1888, No. 1472.

With reference to para. 4 of my note and para. 10 of the inspecting officer's notes of inspection of the Godávari Eastern Division, printed with G.O. No. 1063 W., dated 16th April 1887, I addressed the Superintending Engineer on the subject of the stock accounts of the above division, and in doing so, I expressed my views as to the measures required in order to place the quarry accounts on a proper footing, and asked that officer to let me know how far he was able to concur in my views so as to enable me to take the orders of Government on the points, if any, as to which we might be unable to agree, and also on those points as to which we might agree in desiring a reconsideration of orders already passed.

2. I now submit the marginally-noted correspondence for the orders of Government, and I submit it through you and not through the Joint Secretary to Government, Public Works Department, Irrigation Branch, because, though the accounts which happen to be under consideration are classed as irrigation, the principles of the proposals made are of general application, and it seems desirable that, in dealing with manufacture and other suspense accounts, a uniform system and the same principles should be followed whether the balance of the account is chargeable to Irrigation or to Provincial. The following is a summary of the case with my final remarks.

Examiner's letter, No. 112 S.E.I., dated 18th June 1887, to the Superintending Engineer, I Circle.

Letter (to be kindly returned) from the Superintending Engineer, I Circle, No. 2328 G.D., dated 2nd January 1888 (with two enclosures) to the Examiner.

3. *Proposals for procedure in future.*—The Superintending Engineer agrees with me that the full cost of manufacture, including all current charges, should be charged to stock; but instead of relieving land and kilns by fixed instalments as required by Code para. 1789, he suggests half yearly adjustments at 5 per cent. of the outstanding value of "land and kilns" and plant. I cannot agree with the Superintending Engineer on this point, as his suggestion is not only opposed to the Code rule quoted above (with which my proposal is in accord), but, as far as I can see, there would be no advantage in it and it would save no trouble. It would necessitate redetermining the amount of adjustment every time and so introduce causes of difference of opinion and consequent delay when the amount of the balance was in dispute as is often the case. Moreover, the balance would, under such a system, be almost certain to increase steadily and continuously, because the amount of the periodical adjustment in respect of each item, being at a fixed percentage of the balance, must be less and less every time.

4. The Superintending Engineer agrees that no charges whatever should be allowed under the suspense head "land and kilns" without the sanction of competent authority (to be defined)—see paras. 7 and 13 of my letter.

5. The Superintending Engineer, in para. 5 of his letter, agrees that all repairs to items under land and kilns should be treated as current charges of the manufacture

account as also all expenditure on works of renewal, improvements under arbitrary money limit which he suggests should be Rs. 500, and when the estimated charge exceeds Rs. 500 he would require the sanction of Government in all cases. I see no objection to the Rs. 500 limit, nor to all estimates above that limit being sanctioned by Government; but if Government, with a view to relieving themselves of unnecessary references, consider it preferable to leave some power of sanction to Superintending Engineers, some limit should, I think, be fixed on the principle proposed by me, viz., that the smaller the amount involved the higher the authority required to allow it to be charged to the land and kilns account.

6. Both the Superintending Engineer and Executive Engineer agree with me that a money limit for stock manufacture and carriage is inconsistent with the other controlling arrangements proposed and should therefore be done away with if they are adopted.

7. The Superintending Engineer, in para. 7 of his letter, states that the cost for loading materials on punts is charged to stock and not to the works concerned direct; and I see no objection to this charge going to stock. The alternative place may involve troublesome and inconvenient distribution of charges to several works.

8. The Executive Engineer states that all materials despatched during the month should be billed for in the month, and that the order has hitherto not been attended to, but would be brought into effect at once. This is important and should be enforced in future.

9. The Superintending Engineer, in para. 8 of his letter, states that all manufactured materials do pass through the stock account to debit of works. This also is important and should be enforced.

10. In para. 12 of my letter to the Superintending Engineer, I proposed that all plant should be valued every five years with a view to a reconsideration of the monthly instalments of recovery of the cost of plant, &c., debited to land and kilns; neither the Superintending Engineer nor the Executive Engineer has expressed an opinion on this point, but in my opinion a periodical re-adjustment does seem necessary in order to afford an opportunity of correcting arrangements which may have been based on an utterly erroneous estimate of the duration of this or that plant or building. It does not seem desirable that corrections of this sort should be left to chance, and a periodical review is the only alternative.

11. *Proposals with reference to starting the new system.*—The Superintending Engineer, in para. 6 of his letter, states that he considers the amount (Rs. 8,712-9-6) outstanding at the end of November 1887 against the sub-head of manufacture and carriage an actual loss and thinks that the only way of wiping it off is to charge it to such works now in progress as can stand the charges, and chiefly against the provision for unforseen works in the delta estimates. Subject to the further remarks made below in para. 18 *et seq*, I agree with the Superintending Engineer that any loss already incurred should be charged off at once, or at any rate the bulk of it, a fair start could then be made and all concerned should see that no similar losses are allowed to accumulate in future. If Government rule that the loss in question shall now be adjusted, it will be for the Superintending Engineer to suggest the works to be debited. I am not, however, prepared to admit that the actual loss is the amount mentioned by the Superintending Engineer, and I would suggest that the actual stock in hand be revalued as on the 1st April 1888. The settlement of this detail need not delay the decision on the points which are merely questions of principles.

12. The Superintending Engineer forwards a valuation statement of the land and kilns and plant now in existence in the Godávari Eastern Division; he values the plant at Rs. 35,332, which was the actual unadjusted balance under "land and kilns" at end of November 1887, and proposes a half yearly adjustment at 5 per cent. of the unadjusted balance under "land and kilns," but the Executive Engineer agrees with me as to the propriety of a monthly adjustment, and suggests that the present balance be cleared in ten years. The question is in principle the same as that dealt with in para. 3, and I have given my views there. As regards this particular case, I think the Executive Engineer's proposal is a reasonable one; it would mean a monthly

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charge of Rs. 35,332/120 or about Rs. 300 to manufacture, subject to acceptance of the valuation by Government and subject to increase for any land and kilns items sanctioned hereafter.

13. Both the Superintending Engineer and the Executive Engineer consider that it is not necessary to keep the quarry accounts with any such refinement of accounting, or in any such elaborate detail as is indicated in para. 4 of my letter. I quite agree with both the Superintending Engineer and Executive Engineer, and I only raised the issue in order to get it settled one way or the other. I think that any such attempts at refinement will only lead to confusion. The Executive Engineer proposes to limit the quarry operations and to adopt a few estimate sub-heads which he particularizes in para. 4 of his letter, but the arrangement of the proposed sub-heads suggest that the Executive Engineer does not quite understand the shape in which a manufacture estimate should be drawn up, and it will be convenient to get this matter settled now.

14. A manufacture estimate should be in two distinct parts, viz. (1) an estimate of outlay under expenditure heads, such as Nos. 6, 7 and 8 of the Executive Engineer's list with the addition of labor and other charges, and (2) an estimate of outturn or results under such head as Nos. 1 to 5 of his list. This is not clearly stated in the Code, and I think it should be. The estimate of outturn should be drawn up under all those heads including waste and by products and outturn of different qualities of the same kind of thing which past experience shows to be necessary in classifying actual outturn.

15. The actual outturn should be debited to stock at estimate rates, but the Executive Engineer should watch the progress of operations carefully and should take prompt steps for a revision of the estimate if and when he finds that the estimate programme as regards any item or items of outlay or outturn is likely to be departed from in a manner or to an extent which will materially affect any estimate rate or rates. It is only by prompt attention to such deviations that embarassing adjustments at the end of the season can be avoided.

16. I must add that hitherto this office has not been successful in getting an estimate for the quarry operation; for the operation of the year just expired (1887-88) no estimate has been received yet, and for the previous year the estimate was only received in September 1887, six months after the close of the year. I trust that in any order that may now issue Government would impress upon the Superintending Engineer and the Executive Engineer the necessity of preparing and furnishing to this office a proper estimate before the commencement of each season's operations.

17. Hitherto, for the purpose of accounting, the financial year has been treated as the season, the account being closed nominally at any rate at the end of each year. It is a question whether it is desirable to continue to treat the financial year as the working season. I am inclined to think that in all cases in which the necessity for some other season limits is not distinctly dictated by dependence of the operations on climatic considerations and therefore on natural seasons it would be desirable to make the closing of the manufacture account correspond with the dates of half yearly re-adjustments of stock rates. When this cannot be done, the real adjustment of any loss or profit on the manufacture operations is necessarily postponed to the date of the next ensuing stock adjustment, and this is inconvenient. This adoption of the proposal would involve half yearly estimates; but while the additional trouble would be small, the security against wide divergence from the estimate programme would be increased, and any adjustments actually required would be made much more promptly and with less disturbance of stock rates. In accordance with this principle it would be convenient to clear manufacture accounts in February and August of each year, the re-adjustment of stock rates being made after closing the accounts for March and September.

18. The following remarks are submitted with reference to the qualification in para. 11 of this letter. In his letter No. 2328 G.D., dated 2nd January 1888, the Superintending Engineer proposes to charge off to works the entire loss (Rupees 8,712-9-6) already incurred, but in a subsequent letter (to be kindly returned)

No. 2691 G.D., dated 1st March 1888 (herewith), he has suggested setting off against this loss the profit, amounting to Rs. 5,053-14-1, at the credit of the "boat officer's suspense account" under deposits of the same division.

19. I have had this suspense account for some time under consideration, and I am of opinion that the most proper course would be to bring the two accounts (quarry and boat office) together under one general suspense account "manufacture and carriage of stock," any loss on one would then, as a matter of course, neutralise the profit on the other, and another irregular suspense account would be removed from the deposit account and brought into the recognised scheme of accounts classification. The two accounts would of course continue to be kept in detail quite as separate as they are now, just as the accounts of any two works are kept distinct.

20. I must point out that the question of continuing this suspense account was dealt with in G.O. No. 530 I., dated 28th July 1886, in connection with certain suggestions of the Deputy Auditor-General, and it was decided to retain the account. It will be seen that I do not propose to discontinue the account, but only to bring it into its appropriate place in the general scheme of accounts.

21. I have no doubt whatever that the account is out of place under deposits, and my only doubt as to the propriety of classing it under stock manufacture and carriage arises from the fact that an appreciable portion of the receipts rather more than 10 per cent. in 1887 are derived from passenger traffic. These receipts should no doubt properly be brought to account under revenue direct receipts (8) Navigation receipts; but if, as I understand, the traffic (other than passengers) is certainly in materials carried on account of the works, it would be incorrect to swell the accounts of revenue and expenditure by crediting all receipts and debiting all charges to final heads. The difficulty might be got over by crediting receipts from passenger traffic to revenue and debiting working expenses by credit to stock manufacture and carriage with a rateable proportion of expenditure if it is considered that the arrangements for accommodation of passengers involve any appreciable increase of expenditure, but if this is not thought to be the case, no credit need be given to the suspense account, and the charges for carriage of materials should be so adjusted as to cover all charges, leaving the receipts from passenger traffic credited to revenue as so much clear profit.

22. In conclusion, I append a summary of the specific proposals on which orders are solicited:—

(1) That the full cost of manufacture including all current charges to, and current instalments of, charges to land and kilns be charged to stock, no charges whatever being allowed direct from manufacture to works.
(2) That debits to land and kilns be relieved monthly by fixed instalments determined at the time of sanctioning the expenditure as required by Code para. 1789.
(3) That no charges whatever be allowed under land and kilns without the sanction of competent authority (to be defined).
(4) That all repairs to items under "land and kilns" and all expenditure on works of renewal and improvements costing Rs. 500 and under be treated as current charges of the manufacture account.
(5) That charges exceeding Rs. 500 to be sanctioned by Government, or, if Government consider it preferable, to leave some power of sanction to the Superintending Engineer, some limit to be fixed on the principle indicated in para. 13 of my letter No. 112 S. E. I., dated 18th June 1887.
(6) That a reserve limit for the balance of the land and kilns account be done away with as inconsistent with other controlling arrangements.
(7) That the cost of loading materials on punts be charged to stock instead of directly to the works concerned.
(8) That all materials despatched during the month be billed for in the same month.
(9) That all manufactured materials pass through the stock account.

(10) That the plant and buildings remaining at debit of land and kilns be revalued every five years.
(11) That the actual stock in hand be revalued as on the 1st April 1888 and the entire accrued loss to end of March 1888 as thus ascertained be adjusted by debit to such works as the Superintending Engineer may suggest, or that the losses on stock and the profits on the boat office account be collected under the general suspense account, viz., miscellaneous advances, in which case only the net loss, after deducting profit on boat office account, need be adjusted to debit of works.
(12) That the Superintending Engineer's valuation of the plant, &c., corresponding with the book balance under land and kilns be accepted, and that the instalments to be charged to manufacture account (whether monthly or half yearly as may be determined) in respect of this balance be at the rate of one-tenth or Rs. 3,600 per annum.
(13) That proper estimates of manufacturing and carrying operations drawn up in accordance with the principles indicated in para. 14 shall be punctually prepared and forwarded to the Examiner, Public Works Accounts, before the commencement of each season's operations, and prompt steps should be taken to correct the estimates and rates in accordance with ascertained or anticipated divergence from the estimate programme.
(14) That the accounts shall be closed in February and August of each year with a view to the convenience of adjustment of stock rates in March and September, unless the working season is otherwise dependent on the natural season.

23. Since the above was written, it has been pointed out to me (by the Deputy Examiner in his notes of the recent examination of the Eastern Godávari Division office) that the so-called loss on stock manufacture account is in reality the still unadjusted balance of the sum of Rs. 16,038-13-8 referred to in para. 1 (4) of the note by the Chief Engineer for Irrigation, printed with G.O., No. 467 I., dated 3rd July 1886. There can, I think, be no doubt that the amount ought to have been originally charged to the head land and kilns and gradually adjusted to the debit of manufacture; and in my opinion, taking this to be the true explanation of the heavy loss on the manufacture account, the better plan would now be to charge the ascertained loss to land and kilns instead of to any arbitrary selected works and thus let the total charge to land and kilns be gradually adjusted at the 10 per cent. rate proposed by the Executive Engineer. The result would be to raise the immediate balance at debit of land and kilns to about Rs. 30,000, or to about Rs. 44,000 according as the profit on the boat account is or is not set off against the loss on manufacture, the present monthly charge to manufacture (on account of land and kilns) being increased by about Rs. 25 in one case and about Rs. 60 in the other.

24. The only objection that I can see to this proposal is that the Superintending Engineer has now valued the plant, &c., under land and kilns at the amount of the actual balance on a certain date, viz., Rs. 35,000 and odd, but this I take to be a perfectly arbitrary valuation which would be more correctly described as a distribution of the actual balance on the existing plant and other property, and, if so, the valuation could be corrected. The proposal now made would obviate the necessity of selecting works to be arbitrarily debited with the loss in question and would probably materially expedite the settlement of the question.

ENCLOSURES.

From the Examiner, Public Works Accounts, Madras, to the Superintending Engineer, I Circle, dated 18th June 1887, No. 112 S.E I.

With reference to para. 10 of the notes of inspection of the Godávari Eastern Division, printed in G.O. No. 1063 W., dated 16th April 1887, I have now the honor to state my views as to the measures required in order to place the quarry accounts on a proper footing, and I shall

feel obliged if you will at your earliest convenience let me know how far you are able to concur in my views to enable me to take the orders of Government on the points, if any, as to which we are unable to agree, and also on those points as to which we may agree in desiring a reconsideration of orders already passed.

2. I understand that the practice hitherto has been to credit the quarry account on transfer of stone to stock account with a portion only of the ascertained cost of manufacture and to credit a further sum to the quarry account on the issue of stone from stock to works. It would seem from G.O. No. 467 I., dated 3rd July 1886, that Government was under the impression that the difference only represented haulage and connected charges, but I understand that this was not the case, and that the difference was in fact an arbitrary one, the object being possibly, to quote from the above-mentioned Government Order, "to admit of larger extent of stock being kept than the prescribed limit by valuing stock at reduced rates." It is, however, useless to inquire further as to the object with which such a practice was ever introduced; the practice is now admitted to be wrong and necessarily falsifies the balances under both manufacture and stock.

3. The proper plan, assuming, to put the matter in the simplest way, that the quarrying, lifting, moving and dressing of the stone, is treated for accounts purposes as a single operation, is to debit the quarry account with all current charges incurred at any stage of this operation and on the transfer of stone to stock to debit stock by credit to quarry account with the real cost of getting and dressing the stone as ascertained from accounts of the past, modified, when necessary, by estimates of future expenditure; and in that case all that is now required is—

(1) to estimate the actual value of the balance of stone now in stock on the basis of actual cost in the past, modified, if necessary (that is if there is any ground for supposing that the stone will in future be got at a lower or higher cost) by estimate of future cost of getting, and

(2) to debit stock by credit to quarry account with the difference between the present book value of the stone in stock and its ascertained real value.

Subsequent debits and credits should then be regulated strictly on the principle stated at the beginning of this paragraph.

4. It is possible, however, that, with a view to a better control over the expenditure in the various states of the quarrying operations—jumping and drilling, blasting, moving, cutting and dressing and so on—and over stock lying in different places, it may be well to keep the accounts so as to show separately the cost of these several operations treating them as sub-heads of the work, and it may further be advisable to keep the accounts in such a way as to show from time to time the balance of stone at certain stages in the operations, *e.g.*, to show separately the quantity and cost of rough stone and the quantity and cost or value of stone in process of working. This would in fact probably be necessary if any part of the stone, even the quarry waste, is broken up into road metal, as a separate account of the manufacture of road metal will then be wanted. In this case it will be necessary at starting to make separate estimates of the values of the finished stone (presumably borne on the stock account) and of the stone still in process of working: then if A be the ascertained value of the stone in stock and B its present book value, C the estimated value of the stone in process of working, and D the amount now at debit of quarry account, the new balances should be as follows:—

Stone in stock	A
Stone in process of working	C
Rough stone	B+D–A–C
The combined balance of stock and manufacture remaining at its present amount of	B+D

The necessary estimates having been made, the required new balances in the divisional accounts would be produced by suitable entries in the adjustment book of the division, and subsequent debits and credits should be regulated on the principle of charging to rough stone all current expenditure on sub-heads prior to the commencement of working the stone *plus* the prescribed charge on account of *land and kilns*, as to which more hereafter, charging to stone in process of working (by credit to rough stone) the average cost of the stone transferred from one stage to the other, and (by credit to cash or other account concerned) all current expenditure in subsequent stages, and, finally, debiting stock (by credit to stone in working) with the average cost of stone transferred.

5. Any such refinement as is suggested in the last paragraph may, however, be unnecessary, but I have mentioned it here with the object of eliciting your opinion, and I shall accordingly be glad if you will consider the question of the detail in which it will be desirable to keep the quarry accounts.

6. Then as to the adjustment of expenditure which does not come under the head of "current" charges. This includes the balance now at debit of the head *land kilns— side* para. 13 of the Deputy Examiner's notes and all future expenditure on objects such as are therein mentioned so far as such expenditure cannot in future be dealt with as current.

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7. In my opinion this account (land kilns) should be viewed with the utmost jealousy, and charges to it should be allowed only under very exceptional circumstances. All expenditure on repairs to quarry bungalows, on dredging and silt clearing, and on extensions or shiftings of tramways, such as are of frequent occurrence should be treated as current charges, and all expenditure on works of renewal or relaying or improving should be treated as current charges if under a certain amount (say Rs. 1,000) for each individual work, and, further, no charges whatever should be allowed to land kilns without either (1) the sanction of Government, who should at the same time determine the amount of annual adjustment in respect of any such charge, or (2) the sanction of the Superintending Engineer with the concurrence of the Examiner, Public Works Accounts, as to the annual adjustment.

8. In G.O. No. 467 I, para. 2, Government ruled, as to this matter, that the present procedure does not require any change. They rejected my predecessor's proposal to charge off a fixed sum monthly on the strength of your, or your predecessor's opinion "that the present system of adjusting a share of the expenditure in proportion to the extent of manufacturing operations should be continued, as the extent of operations varies every month; and that, as the present value of the property charged to this head is reported to be not less than the unadjusted balance, there need be no delay in adjusting the proportionate share of the expenditure."

9. Dealing first with objections based on the fluctuating extent of the monthly operations, and assuming that there is any solid ground for such objection, I would point out that the difficulty can be got over in a very simple way. Instead of a charging off month by month an absolutely fixed sum on account of each item not treated as a current charge, calculate what percentage that fixed sum bears to the average amount of the monthly operations (for a series of years) and then charge off monthly that percentage on the amount of the actual operations of each month. The result in the end will be practically the same, and the difficulty will disappear.

10. I question, however, whether there really has been in the past, or, if the present system is continued, there is likely to be in the future that nice adjustment of charges to extent of operations which is supposed to justify the present practice. The quarry accounts show that during the last five years the gross charges to manufacture account, the value of outturn and the credits to *land and kilns* have been as follows:—

Year.	Gross charges to manufacture account.	Value of outturn.	Credits to land and kilns.
	Rs.	Rs.	Rs.
1882-83	32,549	35,865	*Nil.*
1883-84	52,789	58,578	9,500
1884-85	76,686	70,724	*Nil.*
1885-86	63,296	53,288	12,500
1886-87	36,267	45,382	1,000

The credit of Rs. 9,500 in 1883-84 was given in one month: the credit of Rs. 12,500 in 1885-86, thus—two months *nil*, then two months Rs. 2,000 each, then five months at Rs. 1,000, one month at Rs. 1,500, and again two months at Rs. 1,000; in the first month of the following year again Rs. 1,000, and after that up to date nothing. There is no trace here of careful adjustment. The result is, I think, just what might be expected under the circumstances. The theory probably is that the matter is considered carefully every month with reference to the output of the month; but in practice, when the accounts have to be completed, it is found that this careful consideration has not been given, and the matter is either postponed from month to month or it is settled roughly as in 1885-86. What is wanted is a procedure that works itself automatically and regularly in the place of one that requires to be worked and which is almost certain to be worked by fits and starts.

11. As for the fact, if it still remains a fact, that the present value of the property charged to *land and kilns* is not less than the unadjusted balance under that head, I fail to see that this consideration need in any way affect the principle on which these adjustments should be based. In starting the new system of adjustments on the principles stated above, one of the first steps will necessarily be to value the present plant. I mean, of course, to make a detailed valuation, not a "rough estimate" or guess. If this valuation shows that the value (A) of the plant is less than the unadjusted balance (B) under *land and kilns*, it will be for Government to decide (1) *quite arbitrarily* in how many years, *i.e.*, either at what monthly fixed sum or at what monthly percentage on charges of manufacture or on value of outturn the difference B—A) is to be cleared off, and (2) *on the basis of the usual rules for depreciation of various classes of plant and machinery*, in how many years the value (A) is to be charged off, the latter being possibly divided into classes for the purpose. Due consideration will, in this way, be given to the greater or less

permanence of the value of existing plant. If A is greater than B, so much the better; but in that case it will probably be well to take the balance at debit of *land and kilns* as the value of the plant, *i.e.*, make A = B and adjust the details of the book valuation accordingly, the alternative being to introduce a credit item under *land and kilns*, which should be gradually eliminated by monthly credits to manufacture.

12. Rules for depreciation are of course based on average experience, but they fail in particular cases, and therefore it will be well to lay down that the plant shall be revalued and the monthly fixed sums or monthly percentages, as the case may be, as far as they relate to such plant, re-adjusted periodically, say, every five years.

13. In para. 7 I have suggested that no charge should be allowed to the head *land and kilns* on account of any work, operation, or object the estimated cost of which is less than Rs. 1,000. Having regard to the extent of the annual operations, I do not think Rs. 1,000 is too large a sum; but it is only a suggestion, and if, whilst agreeing with me in principle, you think a limit of Rs. 1,000 would be too large, you will no doubt suggest a more suitable limit. The point is to make it a rule that no charge shall go to the suspense account *land and kilns unless it is really of such magnitude that it would seriously disturb the manufacture account if charged off as a current charge.* All suspense accounts have a tendency to become sinks, but there is no class of suspense accounts in which this tendency is so marked as it is in accounts of capital or quasi capital expenditure on manufacturing operations. It is so very easy to charge such expenditure to suspense and leave the difficulty to be solved by somebody else at some future time. Then from Rs. 1,000, or whatever limit may be approved, up to some higher limit, every charge to land and kilns should require the sanction of Government; above that limit the sanction of the Superintending Engineer with, I think, the concurrence of the Examiner as regards the monthly adjustment, provided of course that the work itself is within the Superintending Engineer's power of sanction, for if the work itself required the sanction of Government, the incidence of the charge would naturally be fixed by the same authority. It may seem here that the ordinary rule as to competence of authority, the greater the sums the higher the authority, is inverted; but the point is to prevent comparatively small items being placed in suspense when they might just as well be charged off, and the smaller the item the greater the objection to placing it in suspense, consequently the smaller the item the higher the authority required for placing it in suspense.

14. In G.O. No. 467 I., dated 3rd July 1886, on the suggestion of [illegible] predecessor, Government ruled, and afterwards gave effect to the ruling in G.O. No. 639 I., dated 17th September 1886, that a money limit should be fixed for the charges to land and kilns; but it will be evident that if the adjustment of credits to *land and kilns* is regulated in the manner now suggested, and if expenditure on *all* items of charges to *land and kilns*, not only "expenditure on important items under this head" as approved in G.O. No. 467 I., is "regulated by estimates previously framed and sanctioned by competent authority," any definite limit to the debit balance under *land and kilns* is unnecessary. In point of fact it would be impracticable as it might conflict with the result of the other regulating principles, sanction for each individual charge and a fixed scale for the gradual extinction of such charges.

15. With reference to para. 3 of G.O. No. 467 I., I would say that there must of course be separate accounts of stock of stone at separate places. If there were, for instance, two quarries and three landings or wharves, there should be five accounts and five balances. I do not mean that the Executive Engineer should necessarily submit five accounts to me, but that his account should (locally) be so sub-divided as to show separate balances for each quarry and each landing or wharf. This is a matter closely related to the subject of para. 4 above.

16. In connection with trainage, &c. (still para. 3 of G.O. No. 467 I.), it may be a question what carriage should be charged to stock and what to the work to which stone is delivered. As to this I should say that if there is any wharf or wharves to one or other of which all or nearly all stone is carried before being distributed to works, then all charges up to that wharf should go to the debit of stock at that wharf and all subsequent charges to the works concerned. This, I believe, is the present practice.

17. The expenditure in removing top earth (para. 4 of G.O. No. 467 I.) is simply one item under *land and kilns* and requires no very special consideration; the adjustment of stock transfers (para. 5 of Government Order) is, I understand, now carried out as ordered; all materials manufactured (para. 6 of Government Order) should I think unquestionably pass through the stock account.

18. If the value of plant comes out less than the total balance at debit of land and kilns, it may be a question whether some portion of this balance should not be charged off to works now in progress which may have escaped their full share of charges for materials in past years through failure to relieve the head *land and kilns*. Please take this into consideration if necessary, but unless the net uncovered balance is very large, which seems improbable, it will be better not to disturb past transactions.

19. I will now summarise, for your convenience, the proposals and matters as to which I solicit your opinion:—

A.—Proposals, &c., for guidance in future—

(1) Stock to be charged with full cost of manufacture including all current charges, and the prescribed monthly proportion on account of charges in suspense under *land and kilns*—see paras. 2, 3 and 4.

(2) No charge whatever to be placed under suspense (*land and kilns*) without the sanction of competent authority (to be defined)—see paras. 7 and 13.

(3) Every item charged to *land and kilns* to be gradually extinguished by crediting to that head (by debit to manufacture) either a fixed monthly sum or a fixed monthly percentage of value of outturn (or of gross charges to manufacture, as may be approved), while a monthly sum or percentage is invariably to be determined by the authority sanctioning the charge at the time of according sanction.

(*N. B.*—It will not be necessary to keep a Dr. and Cr. account of each item, the monthly sums or monthly percentages can be applied in the lump)—see paras. 7 to 13.

(4) No item whatever estimated under Rs. 1,000 (or other approved limit) to be charged to *land and kilns*.

(*N. B.*—This will not absolutely bar Government sanction, but it will prevent proposals except under very extraordinary circumstances—see paras. 7 and 13.

(5) No item estimated between Rs. 1,000 and Rs. —— to be charged to *land and kilns* without the sanction of Government—see paras. 7 and 13.

(6) Unless already sanctioned by Government, no item estimated between Rs. —— and Rs. —— to be charged to *land and kilns* without the sanction of the Superintending Engineer with the concurrence of the Examiner as regards the monthly adjustment—see paras. 7 and 13.

(7) Money limit for stock manufactured to be done away with as inconsistent with other controlling arrangements.

(8) Charges for carriage to wharf to go to stock, all carriage beyond that point to be charged to works concerned—see para. 14.

(9) Adjustment of stock transfer to be promptly made as ordered in G.O. No. 467 I. This is now done.

(10) All manufactured materials to pass through stock account, no charge to pass directly from stock to works.

(11) Plant to be revalued every five years and monthly sums or percentages in respect of such plant to be recovered accordingly—see para. 12.

B.—Proposals with reference to starting the new system—

(12) Estimates to be made of actual value of stone in stock and in different stages of manufacture and at different places, and corresponding book balances to be produced by suitable adjustment entries in the accounts—see paras. 3 and 4.

(13) Valuation to be made of plant now in use and Government to prescribe monthly sums or monthly percentages in respect of such values or of sub-divisions thereof, and also in respect of the differences, if any, between the debit balance under *land and kilns* and the value of plant in use (in other words the uncovered balance)—see para. 11.

(14) If the valuation is in excess of the balance, the former to be revised and made equal to the latter—see para. 11.

(15) If the net uncovered balance at debit of *land and kilns* is large (but not otherwise), some portion of it to be perhaps charged off direct to works in progress as their share of expenditure escaped in past years—see para. 18.

20. I shall feel obliged if you will give your early attention to this matter and favor me with your opinion as on the above proposals and remarks generally, but I may point out that as to certain matters a specific and definite expression of opinion is necessary, namely—

(*a*) The matters referred to in para. 5.

(*b*) The definition of the authority for works, &c., chargeable to land and kilns—see para. 19 A (2).

(*c*) Whether the debits to *land and kilns* should be relieved by—

(1) a fixed monthly sum, or

(2) a fixed percentage and value of outturn, or

(3) a fixed percentage on gross charges to manufacture

in respect of each item—see para. 19 A (3).

(*d*) The money limits in para. 19 A (4), (5) and (6).

I mention this lest you should overlook the fact that, as regards these points, it would not be sufficient to express a general concurrence in my proposals, supposing that, on consideration, you should find yourself generally in agreement with me.

From G. T. WALCH, Esq., Superintending Engineer, I Circle, to the Examiner of Public Works Accounts, dated Dowlaishweram, 2nd January 1888, No. 2328 G.D.

With reference to your No. 112, dated 18th June 1887, I have the honor to enclose copy of letter No. 527, dated 4th October 1887, from the Executive Engineer, Eastern Division, Godávari, whom I considered it advisable to consult on the subject of the quarry accounts.

2. His letter you will see does not deal very definitely with many of your proposals, with reference to which I will now give my opinion.

3. I consider quite unnecessary any such refinement as trying to keep the accounts, so as to show separately "the expenditure on various stages of the quarrying operations" * * * or "to keep the accounts in such a way as to show, from time to time, the balance of stone at certain stages in the operations."

4. I quite agree that, as now, the stock should "be charged with the full cost of manufacture" *plus* a periodical (say half-yearly) charge to the general head "manufacture and carriage" of a per-centage (say 5 per cent.) of the outstanding value of land and kilns and plant for depreciation.

5. I concur with your view that "land and kilns account (which in 1884-85 ran up from Rs. 7,730 to Rs. 33,392) should be viewed with the utmost jealousy," and that "all expenditure on repairs to quarry, bungalows, on dredging and silt clearing, and on extensions or shiftings of tramways, such as are of frequent occurrence, should be treated as current charges; and all expenditure on works of renewal, or relaying, or improving should be treated as current charges if under a certain amount;" that amount I would fix at Rs. 500 for each individual work. Above that amount I would recommend that all such charges should require the sanction of Government.

6. A money limit for stock manufacture and carriage is "inconsistent with other controlling arrangements," and "should therefore be done away with;" and here I may mention that I consider the amount (Rs. 8,712-9-6) outstanding at the end of November against the head of "manufacture and carriage" represents actual loss on transactions to date; the Executive Engineer hopes to clear this off by degrees by profit to be made on future transactions, but I am not very sanguine in the matter, and I think the only way of wiping out the amount is by charging it to such works still in progress as can stand the charges, chiefly the "unforeseen works" provision in the "completion estimates" of the Godávari District.

7. "Charges for carriage to wharf" should continue to be, as now, charged to stock, and "all carriage beyond that point should be charged to works;" this is now the case except as regards the *loading*, the cost of which has hitherto been charged to stock and included in the price of the materials.

8. All manufactured materials do now, and should continue to, pass through the stock account on their way to works.

9. I enclose a valuation statement of the "land and kilns and plant" now in existence; the valuation received from the Executive Engineer was Rs. 40,000, but I have revised it and made it equal to the balance shown in the November accounts. The values entered in the statement are I consider fair, regarded in the light of usefulness to the quarries, &c., but from the nature of most of the items the values in the market would be but small. Quarry channels, for instance, which have cost more than shown in the statement, are worth much in facilitating and cheapening quarry operations, but would be worthless for other purposes.

10. I regret the delay which there has been in dealing with this matter.

ENCLOSURES.

STATEMENT showing the present valuation of the different works charged to stock, land and kilns.

	Rs.
Quarry office, Dowlaishweram	1,000
Lime kilns, &c., at Dowlaishweram	1,800
Do. at Rajahmundry	600
Old loading channel at Dowlaishweram	1,000
New loading channel at do.	6,000
Kesavaram loading channel	2,000
Razole loading channel	6,000
Wharf wall in old river loading channel, Dowlaishweram	1,600
Tram line at Dowlaishweram quarry	5,000
Do. at Yerrampalem do.	4,332
Surki sheds and kilns at Dowlaishweram	3,000
Waggons and tools and plant	2,000
Total ...	35,332

(Signed) G. T. WALCH.
Superintending Engineer, I Circle.

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From the Executive Engineer, Godávari Eastern Division, to the Superintending Engineer, I Circle, dated Dowlaishweram, 4th October 1887, No. 527.

With reference to the letter, No. 112 S.E. 1st, dated 18th June 1887, of the Examiner of Public Works Accounts, forwarded with your No. 828 G.D., of 26th June 1887, I have the honor to state that I agree with the Examiner of Public Works Accounts that the system of keeping accounts of manufacture of stone requires improvement both as regards the operation and outturn.

2. I do not think, however, that any elaborate details are required to be kept up, such as are referred to by the Examiner of Public Works Accounts in para. 4 of his letter. I would state my views briefly as follows.

3. The present operations consist of quarrying and of dressing, where necessary, building stone, groyne stone, concrete, two sizes of cyclopean stone, five different kinds of cut stone dressed faces, arched faces and flooring stone. Much confusion arises from dealing with these numerous classes of stone both in the compliance of indents and in the accounts. The Executive Engineers do not like this system so well as the old one, viz., of sending all stone to the works as quarried where it can be dressed as required. I propose therefore that only the following classes of stone should be dealt with in the quarry in future:

Building stone,	Cyclopean stone, and
Groyne stone,	Specially prepared stone.
Concrete,	

The last item is introduced to cover contingent cases of any specially ordered stones, but it would be very seldom used.

4. The sub-heads of the estimate for manufacture should, I think, be also altered. At present we mean to continue to buy every thing ready made at the loadings. The only manufacturing operation now in progress is a little cut-stone, and that will be stopped shortly. Sub-heads quarrying, dressing and carriage may, therefore, be omitted in the estimate which may be framed as follows to see what the absolute cost of each class of stone is for delivery on boats:

Sub-heads of estimates—

(1) Building stone.
(2) Groyne stone.
(3) Concrete.
(4) Cyclopean stone.
(5) Specially prepared stone.
(6) Temporary establishment.
(7) Repairs to quarry channels, railroads, &c.
(8) Proportionate adjustment of expenditure of previous years on lands and kilns.

5. Expenditure on repairs to quarry bungalows, dredging, silt-clearing in quarry channels, repairs to tramway and improvements, costing Rs. 200 and under, should be treated as current charges and debited to the estimate for manufacture (sub-head No. 7) instead of to land and kilns. Expenditure under this head will be jealously guarded, and working estimates invariably sanctioned by the Executive Engineer prior to commencement of the work.

6. All new works and improvements to the tramways, &c., estimated to cost over Rs. 200 should, I think, continue to be debited to head "land and kilns," and the expenditure allowed to be gradually adjusted against manufacture in the manner prescribed in para. 1789 of the Public Works Code. The estimates for new works should, as a rule, be sanctioned by the Superintending Engineer, who will determine the number of instalments in which such expenditure should be adjusted against manufacture.

7. The expenses for loading the stone on punts should be charged against the material for which they were expended. So that the total cost of each class of stone delivered on boats could be seen at the end of each month. I would suggest that charges for loading should be paid for at once and not left, as has been the custom, until the materials despatched have been acknowledged, sometimes causing a delay of months, which makes it very difficult to obtain extraneous labor when a sudden demand occurs. No doubt a slight loss would arise from small excess payments, but this would be made up by the quicker despatch of boats.

8. All materials despatched to works during the month must be billed for in the month. This has been sanctioned in para. 5 of Notes of Chief Engineer for Irrigation, printed with G.O. No. 467 I. of 3rd July 1886. For some reason or other, the system has not, however, been brought into effect, but it will be done so at once, as it will simplify matters both in connection with issues of stock and account of materials at site of works. Any short acknowledgment of materials, which is in excess of 5 per cent., would have to be settled afterwards in communication with divisional officers concerned.

9. The estimates of outturn should be so prepared as to cover the full cost of manufacture including all current charges and the prescribed monthly proportion of adjustment on account of charges under land and kilns.

10. Money limit for "stock manufacture" and "land and kilns" are to be done away with, as inconsistent with other arrangements.

11. As regards the adjustment of expenditure under land and kilns, I beg to state that the value of the property charged to land and kilns is not less than the unadjusted balance under that head. A detailed statement is prepared and herewith attached. I would propose that the balance at debit of land and kilns, viz., Rs. 34,000, be adjusted in ten years hence. The necessary adjustment may be made monthly in divisional accounts, as stated by the Examiner in para. 9 of his letter.

12. The stone in quarries is now being brought to the different loadings. As soon as this is done, the difference between the present book value of stone and its selling price will be debited to stock and credited to manufacture as stated by the Examiner, Public Works Accounts, in para. 3 of his letter.

From G. T. WALCH, Esq., Superintending Engineer, I Circle, to the Examiner of Public Works Accounts, dated Madhoburada, 1st March 1888, No. 2691 G.D.

I have the honor to request that the matter dealt with in letters No. 77, dated 2nd August 1887, and No. 96, dated 12th September 1887, from the Executive Engineer, Eastern Division, Godávari, to you and your reply No. 243, dated 24th September 1887, may be settled as soon as possible, and that, if possible, the profit made on the "boat account" chiefly derived from carriage of materials may be taken to credit of "stock."

2. Till the matter is settled, I cannot deal with the loss under "stock" about which propositions must be made for consideration of Government.

No. 201 D.

As the subject of this correspondence intimately affects irrigation accounts, I shall be glad of your opinion on the Examiner's proposals before finally disposing of the matter.

19th May 1888. (Signed) J. O. HASTED, Colonel, R.E.,
Secretary to Govt., P.W.D.

To the Chief Engineer for Irrigation

Note by the Chief Engineer for Irrigation.

I agree with the Examiner in para. 23 of his Note that the sum of Rs. 16,038-13-8 ought to have been charged to land, kilns, &c; this has already been ordered (on the Chief Engineer for Irrigation's suggestion) to be so charged in G.O. No. 467 I., dated 3rd July 1886. This, when carried out, will make the debit of land and kilns about Rs. 44,000.

2. I agree with the Superintending Engineer that the Rs. 5,053-14-3, the sum at the credit of the boat office, may be credited to stock, land and kilns, reducing, as pointed out by the Examiner, the debit to about Rs. 39,000. No doubt, strictly speaking, this receipt or rather a portion of it should be credited to revenue, but I see no reason for this nicety now, and would credit it to stock.

3. The valuation of the land and kilns by the Superintending Engineer is Rs. 35,332; this is a perfectly arbitrary valuation, and I agree with the Examiner that it may be raised to the Rs. 39,000 now proposed to be placed to the debit of land and kilns, and this will, as pointed out, get over the necessity of charging arbitrary amounts to certain works.

The values entered of the loading channels from the quarries are absurdly below their present value to the quarries and of course not a fraction of their original cost; therefore the Rs. 3,300 proposed to be added may be safely done.

4. With regard to the Examiner's proposals, No. 1, I agree.

Nos. 2 and 12. I see no reason for the payment of Rs. 3,600 per annum to be charged to manufacture and placed to the credit of land and kilns on the adjusting of the total present debit of Rs. 39,000 in about 11 years. There is no reason for us to wipe out the whole of the debit; as long as we have value for it, it may remain a debit.

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The tram lines, wagons, plant, &c., will require renewal besides maintenance which will be provided for. The canals and channels do not. I consider with the Superintending Engineer that a payment of about 5 per cent. will suffice. Let it be a fixed sum for the present, say, Rs. 2,500 per year.

Nos. 3 and 4 accepted.

No. 5. I would make this proposal thus, that charges exceeding Rs. 500, provided they do not exceed Rs. 1,000 in a year, can be sanctioned by the Superintending Engineer, but if they exceed Rs. 1,000 the sanction of Government be necessary.

No. 6. Agreed.

No. 7. Not required; this has been already ordered, and is being carried out.

No. 8. Do. do. do.

No. 9. This, I believe, is ordered and long carried out.

No. 10. I see no objection to this, but the valuation can be but of little value.

No. 11. See para. 2 of this Note.

As ordered in G.O. No. 530 I., dated 28th July 1886, the boat office account is to be kept separate. I see no reason, as proposed by the Examiner, to make it with quarry account, a suspense account.

No. 12. See above under No. 2.

Nos. 13 and 14. There can, and must, be difficulties in preparing what the Examiner calls proper estimates for the quarry operations, and I agree with the Superintending Engineer that the refinement proposed by the Examiner in his first letter is impracticable and useless. The Examiner gives this up in para. 13 of his note, but considers the Executive Engineer does not understand what a manufacture estimate is.

The items of the Executive Engineer's proposed sub-heads Nos. 1 to 5 are not outturn; they are purchases from petty contractors and not as the Examiner thinks outturn or results; they are expenditure, and the rates at which these materials, Nos. 1 to 5, supplied to works have to be charged, will be made to include the expenditure on all the sub-heads Nos. 1 to 8.

I see no necessity for the amount being closed half-yearly. I think once a year is ample. I am doubtful when the best time for this would be. I would suggest the 1st June, but think it advisable the Superintending and Executive Engineers should be consulted.

Once a year is ample for the adjustment of stock rates.

I do not agree with the Examiner that half-yearly estimates, &c., would give but little additional trouble; it would add but little to the security against wide divergence from the estimates.

The estimates can be nothing more than rough approximation, and the accuracy which the Examiner appears to wish for must not, and cannot, be hoped for.

(Signed) H. R. MEAD, Colonel, R.E.,
22nd May 1888. Chief Engineer for Irrigation.

Office Note from the Examiner, Public Works Accounts, dated Madras, 18th July 1888, No. 1909.

I submit the following remarks on Notes by the Chief Engineer for Irrigation.

2. *Paras.* 1, 2 *and* 3 of the Chief Engineer for Irrigation. No remarks necessary.

3. *His para.* 4. *My Nos.* 1, 3, 6, 7, 8, 9, 10, 11 *and* 13. No remarks necessary.

4. *His para.* 4. *My Nos.* 2 *and* 12. The rule of Code para. 1789 is clear, that all charges to land and kilns must be gradually cleared. The proposal of the Chief Engineer for Irrigation of a 5 per cent. charges barely provides for interest on capital sunk, and leaves nothing worth numbering for sinking fund. In G.O. No. 1833 W., dated 19th June 1888, Government have approved of the principle of an extreme limit of 12 or 15 years. It *may* be perfectly true that, as far as can be foreseen, the quarrying will continue for ever, and the canals and channels will never require renewing; but it is impossible to be *certain* that the quarry will not be abandoned in

ten or twelve years, or that the canals and channels will not become useless: moreover, the canals and channels are only a part of the block, the rest of which is admittedly perishable. Taking everything into account, it seems to me that, according to all recognised standards for depreciation, 10 per cent. is a very moderate charge. In fact, if a charge of only 5 per cent. were sanctioned, I should be obliged to press the reconsideration of the matter with reference to Code para. 342, because the principle of steadily clearing all charges to land and kilns is one of the most important matter in connection with manufacture accounts.

5. *His para.* 4. *My No.* 5. I think this should be settled in accordance with the general rules already approved in G.O. No. 1833 W., dated 19th June 1888. The proposal of the Chief Engineer for Irrigation would only allow the Superintending Engineer to sanction in each year one additional debit to land and kilns. I doubt whether it is worth while further complicating the rules to secure this. At any rate, I think it would be better first to try the rules as they are for a time.

6. *His para.* 4. *My No.* 11. The boat office account is a suspense account already; but being kept under deposits it is objectionable for the reasons stated (in respect of the boat numbering account) in my Office Note No. 1409, dated 27th April 1888, printed with G.O. No. 273 I., dated 8th May 1888. This is purely a matter of account, and will not affect the Executive Engineer in any way; but as a question of account, I must press it; as it is most undesirable to perpetuate the system of recording under miscellaneous advances and deposits, receipts and charges connected with the regular business of the department. If this account is not brought under stock manufacture and carriages, there can be no ground for setting the gain on this account against the loss on the manufacture account, and the latter must be adjusted by arbitrary debits to works.

7. *His para.* 4. *My No.* 14. I see that I misunderstood the Executive Engineer.

8. *His para.* 4. *My No.* 16. I must ask that the necessity of punctual submission of estimates at, or before, the beginning of the season, may be insisted on. If, when the Chief Engineer for Irrigation says there must be difficulties in preparing estimates, he means that there must be difficulties in preparing them and submitting them punctually, I confess I do not follow him. At the beginning of each season the Executive Engineer knows what he did in the previous season, and he also knows whether he does or does not propose to do more or less, or in any way to modify the programme. If he has no definite change of programme in view, he can surely submit, at the very beginning of the season, an estimate based on the working of the previous season. If he proposes a change of programme he can modify the estimate accordingly. His estimate will necessarily be subject to modification, or duration, later on, but there is no reason that I can see why he should wait until the season is over before preparing any estimate at all. He ought to be able to submit, on any date that may be fixed, an estimate of his operations *as thus foreseen or contemplated*.

9. *His para.* 4. *My No.* 17. The suggestions regarding alterations of dates of closing accounts may be considered dropped.

Order—dated 17th August 1888, No. 2523 W., Public Works.

The above correspondence relates to the stock accounts of the Godávari Eastern Division and the measures necessary for placing the quarry accounts on a proper footing.

2. These accounts have formed the subject of elaborate inquiry, extending over a considerable period, and in paras. 22—24 of his Office Note, No. 1472, dated 11th May 1888, the Examiner appends a summary of the specific proposals which he now submits for the orders of Government.

3. Having taken the opinion of the Chief Engineer for Irrigation on these proposals, the Government proceed to pass the following orders.

3774/12

4. The sum of Rs. 16,038-13-8, referred to in para. 23 of the Examiner's Note, being the cost incurred in removing the top earth at one corner of the quarry, should be charged to the head "land and kilns," and the sum of Rs. 5,053-14-3 at the credit of the boat account, credited to the "land and kilns account," as proposed by the Superintending Engineer.

5. The Examiner's proposals Nos. 1, 3, 6, 7, 8, 9, 10, 11 and 13, are approved, and may be carried out.

6. In regard to 2 and 12, the Chief Engineer for Irrigation has suggested a charge of 5 per cent. to the manufacture account, or Rs. 2,500 a-year, in order to clear the land and kiln account. The Examiner points out that this will barely suffice for interest on the capital sunk, and will have scarcely anything for a sinking fund; and that as the account should be cleared within a reasonable period, in accordance with the principle approved in G.O. No. 1833 W., dated 19th June 1888, a charge of 10 per cent. as proposed by him is not excessive. The higher rate may be adopted.

7. *No.* 5.—The limits of sanction will follow the general rules approved in G.O. No. 1833 W., dated 19th June 1888.

8. *No.* 14.—The suggestion regarding alterations of dates of closing accounts has been withdrawn by the Examiner.

(True Extract.)

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

To the Superintending Engineer, I Circle.
" Chief Engineer for Irrigation.
" Examiner, Public Works Accounts.

Exd. F. R. Bantleman.
Spare Copies

GENERAL.
ACCOUNT.

Govt. of {1888} Madras

PUBLIC WORKS.

Dated August, 17th.

Rcvd. *Encl.*

G.O., 17th Aug. 1888, No. 2523 W.

AUGUST.

Godavari, Eastern Division

Stock Accounts.—Orders on correspondence relative to the — and the measures necessary for placing the quarry accounts on a proper footing.

119/13

No. 2523 W of 17-8-88
- 6393 - 17-9-88
- 4679 - 3-7-88

1888.

P. W. DEPARTMENT.

Current No. 11256

From

The Suptg. Engineer
I circle

Enclos.—1

No. 20425.D.
Dated 25th Octr. 1888
Received 5th Nov. 88.

Subject.

Submitting a letter from the Godavari Eastern Dn officer reporting that he agrees with him that the charges for loading stock materials on boats should not be charged to works & not to stock & requesting that orders of Govt may be obtained for modification of orders already passed on this subject in para 5 of G.O. 2523 W of 17-8-88.

Disposal.

No. [illegible] Dated [illegible]

To

C

For remarks.

(Sd) W.L.C.B.
6-11-88
Dew

B
8/11

GODAVARI EASTERN DIVISION OFFICE,
Dowlaishweram, 20th October 1888

No. 4694

From

The Executive Engineer
Eastern Division Godavari.

To

The Superintending Engineer
1st Circle.

3774
14

Sir,

1752

With reference to para 5 of G.O. No. 2523 W of 17th August 1888. forwarded with your No. 1775 G.B. of 26th September 1888, I have the honor to bring to your notice that the cost of loading materials on points has been charged by this office direct to the works concerned from January 1888. agreeably to the instructions given in para 2 of your office No. 2291 G.B. of 28th March 87.

2. The valuation of stock will be fictitious if the cost of loading be included in the rates before loading the stone actually takes place.

3. The system of debiting loading charges to works appears therefore to be more easy and correct than the one referred

referred to in the correspondence
printed with the G.O. quoted above
and I request that if necessary sanc-
tion of Government be obtained
for the modification of proposal
as contained in para 22 of
Examiner's Office No 1472 of 11th
May 1938.

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

Executive Engineer
Eastern Division
Godavari.

1558 / 20-10-88

From
The Executive Engineer
Godavari Eastern Division

To
The Superintending Engineer
First Circle

No. 469 S

Dated 20 }
Recd 20 } October 1888

Loading charges

Affords certain information regarding —

3776/16
14
88-89

ESTIMATE FORM.—Abstract.

Quantity.	Description of Work.	Rate. RS.	Per	Amount RS.	TOTAL. RS.
49.12	Quarry Rubbish well under concrete foundation	2-8-0	100 c.ft.	124	
8751 [6]	Concrete	7-2-0	Do	624 [616]	
2600.92 [500]	Rubble masonry	10-8-0	Do	2740 [83]	
3858 [87]	Brick in chunam	20-8-0	Do	791 [6]	
1683 [1250]	Cutstone in chunam	0-8-0	1 c.ft.	841 [625]	
No. 18	Cutstone Pillars	13-0-0	Each	234	
313	Dressing faces & pointing with Surkhi Mortar	12-0-0	100 sq.ft.	38	
7021	Pointing with Surkhi	3-0-0	Do	211	
175.32	Plastering with 2 coats of chunam including with whitewashing	3-2-0	Do	548	
13.68 [80]	Flooring with 9" sq. bricks on bed of concrete 4" thick	6-12-0	Do	92 [93]	
1750 [1600]	Do with 6" concrete & plastered with Portland Cement making diagonal squares complete	9-3-0	Do	161 [147]	
150	Plastering to open terrace with Portland Cement	9-3-0	Do	14	
1307 [1232]	Godavari Teak wood	3-0-0	1 c.ft.	3921 [3696]	
50	Teak wood Ballasters for stairs	0-8-0	Each	25	
93	Pegu Teak wood work	5-4-0	Do	488	
2027	Terracing with bricks on edge 3" brick jelly & 1 course of 9" sq. bricks set diagonally & pointed & 2 coats of plaster to ceiling complete	20-0-0	100 sq.ft.	405	
	Carried over			11254 [10843]	

Grand Total of Estimate ..

Station }
Dated }

Executive Engineer.

Reference to Madras P. W. D. Code.
...s, 921, 932, &c., 949, 952—955, 962—964.

36178 JUL 43 P. W. ACCOUNTS

P. W. D. Form. No. M 207.

Circle—

Division—

ESTIMATE FORM.—Abstract.

(To accompany the Detailed* Estimate No. of 188 -8 for*)

Executive Engineers Quarters at Dowleswaram

* Here enter the name and description of work in full.

3779/17

ESTIMATE FORM.—Abstract.

Quantity.	Description of Work.	Rate. RS.	Per	Amount RS.	Total. RS.
	Brought forward			~~11257~~ 10843	
50.90	Roofing with ~~teak wood rafters~~ flat & pantiles chunam borders complete	7-0-0	Sqre	356	
10	Blocks of jungle wood	1-4-0	Do	13	
196	Dressing stone for Corners	0-8-0	Rft	98	
No 5	Doors Glazed Marked A on plan with fanlight 5×8	71-8-0	Each	358	
No 8	Doors 1/3 pannel & 2/3 Venetian marked B on plan with fanlight 5×8	68-8-0	Do	548	
No 2	Doors marked C on plan with fanlight 5×8	~~81~~ 64	Do	~~162~~ 128	
No 1	Doors Batten F 3×8 with fanlight	28-0-0	Do	28	
No 1	Do Do F1 3×8 without fanlight	29-8-0	Do	29	
No 2	Do Do F2 3½×8 with fanlight	33-0-0	Do	66	
No 3	Do Do F3 4×8 with fanlight	37-8-0	Do	113	
No 2	Windows Glazed J 5×5½	51-8-0	Do	103	
No 7	Windows Venetian J1 5×5½	50-0-0	Do	350	
No 1	Do Glazed J2 4½×5½	45-0-0	Do	45	
No 1	Window Venetian J3 6×5	55-0-0	Do	55	
No 1	Window Glazed J4 7×6	79-0-0	Do	79	
No 2	Do Do J5 2½×6	13-8-0	Do	27	
No 2	Do Do D 5×6¾	65-8-0	Do	131	
No 3	Do Do E 5×5½	55-4-0	Do	166	
No 1	1/3 Pannel & 2/3 Venetian door marked G 6×8	84-0-0	Do	84	
	Carried over			~~14068~~ 13620	

Grand Total of Estimate ..

Station

Dated

Executive Engineer.

ENCE TO MADRAS P. W. D. CODE.

1, 932, &c., 949, 952—955, 962—964.

DOWLAISURE ... 3017? JUL 88

P. W. D. FORM
No. M 207.

CIRCLE—

DIVISION—

ESTIMATE FORM.—Abstract.

(To accompany the Detailed Estimate No.
of 188 8 for * Executive Engineer Quarters at Dowlaisure

* Here enter the name and description of work in full.

3774/18

ESTIMATE FORM.—Abstract.

Quantity.	Description of Work.	Rate.	Per	Amount	TOTAL.
		RS.		RS.	RS.
	Brought forward			~~14068~~ 13621	
	Painting exposed doors & windows & eave boards &c.	"	"	100	
	Wood oiling roof timber & inside of doors & windows with 2 coats	"	"	150	
	Zinc sheet 1/16" thick	"	"	30	
	Excavating foundation & filling	"	"	70	
	Filling below floor with river sand	"	"	85	
	Earthwork for foundation of road	"	"	8	
	Do for filling in between roads	"	"	72	
	Do for bank all round main building	"	"	17	
	Turfing	"	"	94	
	Metalling	"	"	16	
	Gravelling	"	"	150	
	Iron railings to open terrace	"	"	200	
·81	Bengal sloping roof to the bow of bed room	15-0-0	Sqr.	12	
25·70	Bamboo mats	2-4-0	Do	58	
192 Rft.	Leather Edging	0-4-0	Rft.	48	
	Bamboo chicks with rods	"	"	42	
	Dressed stone for pedestals	"	"	16	
	Lots for alterations in the arches & in the bow of Bed room	"	"	80	
	Punkahs with fittings complete	"	"	200	
	Carried over			~~15516~~ 15068	

Grand Total of Estimate ..

STATION
Dated

Executive Engineer.

14

88-89

Reference to Madras P. W. D. Code.

Paras. 921, 932, &c., 949, 952–955, 962–964.

ENCLOSURE 3117 JUL 23

P. W. D. 1884
No. M 207.

Circle—First

Division—Eastern

ESTIMATE FORM.—Abstract.

(To accompany the Detailed Estimate No. of 188 -8 for* Executive Engineer's Quarters at Dowlaishweram

* Here enter the name and description of work in full.

3774/19

ESTIMATE FORM.—Abstract.

Quantity.	Description of Work.	Rate.	Per	Amount	Total.
		RS.		RS.	RS.
	Brought forward			~~15516~~ 15066	
	Clearing site after completion			50	
	Dismantling old Bungalow and clearing site			215	
No. 1	Iron-barred window 1·5 × 5½			37	
	Teakwood ladder to go to up stairs on			~~80~~ 151	
205	ft. Iron cross [illegible]	0-2-6	ft	32	
	Iron ties with nuts &c. for steps			39	
	Quarters for the servants of the Executive Engineer as per separate Estimate			~~425~~ 620	
	Cook house as per separate Estimate			~~580~~ 480	
	Contingencies			~~405~~ 420	
				~~15547~~ 17012	
	Deduct the value of old materials			~~712~~	
	~~Sanctioned~~			~~11,800~~	

Executive Engineer in charge
First Circle
Dated 26th May 1888

17012
~~11,800~~

Grand Total of Estimate Rs. 11,835

Station
Dated

Executive Engineer.

4/2030/88

Reference to Madras P. W. D. Code.
Paras. 921, 932, &c., 949, 952–955, 962–964.

ENCLOSURE 3 JUL 88 ... P.W. ACCOUNTS

P. W. D. Form No. M 207.

Circle—First
Division—Eastern

ESTIMATE FORM.—Abstract.

(To accompany the Detailed Estimate No. of 188 -8 for *)

Executive Engineers Quarters Dowlaishwaram (Revised)

* Here enter the name and description of work in full.

Duplicate

To accompany letter No 559 CD of 26-5-88 from the Supdg: Engr I Circle to the Chief Engr P.W.

No. 2042 G.D.

FROM,

Lieutt Col R.H.E. Drake Brockman R.E.
~~THE~~ SUPERINTENDING ENGINEER 3774/20
FIRST CIRCLE.

1752

TO,

THE CHIEF ENGINEER
D.P.W.
~~FOR IRRIGATION.~~

DOWLAISHWARAM, 25th October 1888

SIR,

I have the honor to submit herewith letter No 469.S. of 20th October/88 from the Godavari Eastern Division officer and to state that I agree with him that the charges for loading stock materials on boats should be charged to works and not to stock. My predecessor was also of the same opinion & I therefore request that orders of Government may be obtained for modification of orders already passed on this subject in para 5 of G.O. No 2523 W of 17th August/88.

I have the honor to be
Sir,
Your most Obedt Servant
Archdale Brickman Lt Col R.E.
Superintending Engineer
1st Circle

114
—
21

G.O. 467 dt/3.7.86
" 639 dt/17.9.86
" 2523 W dt/7.8.88.
" 4331 C dt/7.11.88

No. 4331 C dt/7th Nov. 1888

To

C

For remarks.

W.C.B.
6.11.88

D.W.

SECRETARY TO GOVERNMENT 23 NOV. 88 P.W. DEPARTMENT, MADRAS

FROM,

The Chief Engineer for Irrigation

~~THE~~ SUPERINTENDING ENGINEER

FIRST CIRCLE

TO,

THE CHIEF ENGINEER

~~FOR IRRIGATION.~~

DATED 25th
DESPTCHED 26th } October 1888
RECEIVED

SECRETARY TO GOVERNMENT 1 NOV. 88 P.W. DEPARTMENT, MADRAS

No. 2042 Gd.

ENCLOSURES. 1

SUBJECT.

To P. Dt. 23.11.88
Enc: 1

There is no objection to the modification of the G.O. as proposed by the Supt. Engineer 1st. Circle. My proposal on which the order was passed was intended as an endorsement of what I understood to be the Supt. Engineer's recommendation, but I was apparently mistaken.

24/11

C.

22/11
P 20/11

Before so that the Charges for loading materials should be Charged to works Concerned I request to issue orders to that effect.

2o

General

No. 3774 W.

PUBLIC WORKS DEPARTMENT.

3774/22

PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the Nov. 29, 1888.

READ the following

From the S.E. I Circle. No: 2042 G.D. dt 25.10.88.
Exr. P.W.A. - 2467 - dt 23.11.88.

In the circumstances reported sanction is accorded to the cost of loading materials on punts being charged to the works concerned instead of to stock as approved in G.O. No: 2523 W. dt 17th August 1888.

H.C.O.
29 Nov

W.C.B.
27.11.88

27/11/88

D 6112

Supg Engr I. C.
C.E. for Irign
Exr. P.W. accts

774
23

Klu. 28.XI.88
L 29.XI.88

Govt. of (1888) ...

PUBLIC WORKS

Dated 1/12/88

Recd. Encl.

G.O., 29 Nov 1888, No. 3774 W

Costs of loading materials

in punts

Proposal of the Supg. Engr., Madras, for ~~the~~ the — being charged to the works concerned instead of to stock, sanctioned.

90
2X

S 30/11- 30/11