

(1) Number of pages \_\_\_\_\_

(2) Date of repair \_\_\_\_\_

(3) Initials of the Referencer \_\_\_\_\_

## MADRAS RECORD OFFICE.

Government of Madras.

Public works DEPARTMENT.

|           |       |        |
|-----------|-------|--------|
| G.O. No.  | 2065  | Press  |
| 493, 494, |       | Mis.   |
| 495       |       |        |
| Dated     | 29. 8 | 18 72. |

Not to be folded or roughly handled

Read the following letters:—

No. 493. From the Officiating Superintending Engineer, 4th Division, to the Secretary to Government, Public Works Department, dated Madras, 24th April 1872, No. 378.

ADVERTING to G. O. No. 6, dated 4th January 1872, I have the honour to submit, for the sanction of Government, a plan and estimate, amounting to Rupees 2,330, for erecting a building for the saw mills at Chepauk.

1 Plan.  
1 Abstract of Estimate.  
1 Specification.

2. As the Superintendent of the Public Works Stores and Workshops urges the early execution of this work; as any delay will retard the operations of the factory and result in loss to the workshop, I beg that early orders may be passed, and a grant of Rupees 2,330 be allotted from the Reserve under Civil Buildings, "Provincial," at the disposal of Government.

No. 494. From the General Superintendent of Public Works Stores and Workshops, to the Secretary to Government, Public Works Department, dated Chepauk, 6th August 1872, No. 902.

In reply to memorandum No. 166-A of 15th April 1872, I have the honour to state that, for the establishment of a timber-seasoning depôt at Madras in connection with the Public Works Workshops, it will be necessary, first, to provide a suitable storage ground large enough to permit of the stacking of at least four years' consumption of timber. From inquiries I find that six years is considered sufficient to season teak timber when freely exposed after its arrival in Madras. From inquiries made among the native timber merchants at Madras, I learn that teak timber logs cost from Rupees 30 to Rupees 50 (which agrees with the rates furnished me by the Deputy Conservator of Forests, Burmah) per ton of 50 cubic feet, girt measurement; the freight to Madras, landing charges, etc., cost about Rupees 15 per ton. It will thus be seen that timber may be obtained in Madras at from Rupees 45 to Rupees 65 per ton. I believe that the greater part of the timber sold in Madras is imported for less than Rupees 60 per ton; the merchants, however, are not willing to give much information on this point.

2. Assuming, therefore, that Rupees 65 is the average cost per ton delivered in Madras, and that the timber will be sufficiently seasoned after four years' stacked in horizontal tiers with air spaces between each log, the cost of such seasoning is

*Proceedings of the Madras Government, Public Works Department,  
29th August 1872.*

shown in the following statement, which is based on the supposition that about Rupees 50,000 will be the amount of yearly sales:—

Dr.

Cr.

| Particulars.                               | Amount.      | Particulars.                                                       | Amount.    |
|--------------------------------------------|--------------|--------------------------------------------------------------------|------------|
| <i>Increase to Capital.</i>                |              |                                                                    |            |
| Four years' stock of timber. 2,00,000      | Rs. 2,00,000 | Selling amount per annum...                                        | Rs. 50,000 |
| Tools and plant ...                        | 10,000       | Interest on Rs. 50,000 at 27-4 per cent.                           | 13,700     |
| <i>Current Expenses.</i>                   |              | Interest on Rupees 65 at 27-4 is Rupees 17-13-0.                   |            |
| Interest at 5 per cent. on stock ...       | 10,000       | Cost of seasoned timber in the log will be Rupees 82-13-0 per ton. |            |
| Do. do. on plant ...                       | 500          |                                                                    |            |
| Depreciation on plant ...                  | 200          |                                                                    |            |
| Establishment at Rupees 250 per mensem ... | 3,000        |                                                                    |            |
| Total...                                   | 13,700       | Total...                                                           | 13,700     |

3. From the foregoing statement it will be seen that the timber at the end of the four years would cost Rupees 82-13-0 per ton of 50 cubic feet in the log, the price at which inferior and green timber is obtainable in the market at present.

4. The principal source of supply appears to lie from Rangoon and Moulmien; but I fail to see why advantage is not taken of obtaining timber from Mysore, Coorg, and Travancore, unless it be that the difficulty and cost of transit enhances the cost considerably.

5. The present position of the stores and workshops is not suitable for forming a timber depôt. It will be necessary, therefore, to select some other site, and the place which appears to be the best adapted for this purpose is a piece of ground adjoining the Seven Wells, of which a plan is enclosed, belonging to Government, where there is sufficient space for stores and workshops and for a timber depôt with saw mills. The cost for erecting the buildings will amount to about Rupees 1,20,000. The advantages of having the stores and workshops in this locality are great. There is a line of tramway already laid from Clive's Battery to the old Grand Jail, and this line might be extended to reach the spot selected, a distance of about 1,000 yards; all stores and timber for this department might then be landed at Clive's Battery and brought by tramway to the store-rooms. Stores could in like manner be taken to Clive's Battery and shipped from thence. Another advantage is the close proximity of the site selected to the railway terminus, and last but not least is the pumping of the water at the Seven Wells for use of the troops and public which is now done by picottahmen, and the eventual saving which must necessarily ensue consequent on reduction of establishment, which now costs Rupees 583 per month.

6. In regard to extending the system of supply of timber to Range Officers, I have no doubt that the establishment of a timber seasoning depôt would at once commend itself to Range Officers, and that they would avail themselves largely by drawing their supplies from the workshops. At present, orders are being

*Proceedings of the Madras Government, Public Works Department,  
29th August 1872.*

executed for scantling, sluice-shutters, reepers, etc., and as the timber is delivered at the railway station nearest the works, no difficulty has yet been felt in complying promptly with the limited orders received, while the only drawback is in obtaining good timber in the market. For the Godavery and Kistna Districts and the ranges appertaining thereto, I would suggest the formation of a depôt at Cocanada, where large numbers of country vessels convey timber yearly, and the purchases could be made as cheaply there as at Madras, that is, if the depôts are to make their own arrangement for procuring timber. With the exception of the northern districts, I am of opinion that the supply to all other ranges would be most economically met from the depôt at Madras. Only a few months' ago a large quantity of teak timber in log, valued at about Rupees 72,000, was supplied by a contractor to the Hyderabad Department Public Works. I adduce this as an instance to show how much, and from how far, the Madras market is resorted to for teak timber.

7. With regard to paragraph 2, I beg to observe that teak appears to be the only timber used by the Department Public Works for buildings, office furniture, etc., and a small quantity of Chittagong and Trincomallee is used by the workshop, the former for instruments, boxes, stands for instruments, and levelling staves, and the latter for handspikes and helvies and handles for tools. As teak then is the only wood which is likely to be in great demand by the Public Works Department, I beg to append a list of probable rates at which beams, scantlings, and planks of various dimensions could be supplied and delivered at the Madras Railway Terminus. The cost of carriage by rail is varied and depends on the length of timber, whether wrought or unwrought, and the quantity forwarded at a time. On consulting the goods classification list, I find the rates for conveyance of timber as given below:—

|                                          |                                      |
|------------------------------------------|--------------------------------------|
| Timber unwrought under or over 16 feet;  |                                      |
| beams, planks not planed or chiselled... | 1st class, 12 pies per ton per mile. |
| Timber wrought under or over 16 feet ... | 2nd „ 14 „ „ „ „                     |
| Timber doors, windows, frames, etc....   | 3rd „ 18 „ „ „ „                     |

When large quantities exceeding five tons of timber are sent, special arrangements could be made with the Traffic Department for reduction of rates.

The rates for timber might therefore be accepted as those obtaining *plus* the charge for conveyance by rail and centage to the work; the price, therefore, will vary according to the quantity and distance at which the timber is to be conveyed.

In conclusion, I beg respectfully to recommend that, if the Government do not think it at present expedient to remove the stores and workshops to the site selected near the Seven Wells, that the ground may be made over for a timber depôt; and as the machinery for the saw mills is ready to be put up, that the Government will moreover be pleased to sanction its erection by the Range Officer on the spot which will be pointed out by me.

I cannot close this report without expressing my regret at the delay in its submission, which is chiefly owing to the information applied for to the Conservator of Forests, British Burmah, relative to rates for timber, freight, etc., not having reached me before the 22nd instant.

*Proceedings of the Madras Government, Public Works Department,  
29th August 1872.*

*Probable Rates of Seasoned Timber in Scantlings.*

|                                                                       |     |     |     |     |     | RS. | A. | P. |
|-----------------------------------------------------------------------|-----|-----|-----|-----|-----|-----|----|----|
| Beams, joists, rafters, and purlins, and such like, per cubic foot... |     |     |     |     |     | 2   | 10 | 0  |
| 2" plank, one foot wide, per foot running ...                         |     |     |     |     |     | 0   | 7  | 9  |
| 1 1/2"                                                                | Do. | do. | ... | ... | ... | 0   | 6  | 10 |
| 1 1/4"                                                                | Do. | do. | ... | ... | ... | 0   | 6  | 0  |
| 1 1/2"                                                                | Do. | do. | ... | ... | ... | 0   | 5  | 2  |
| 1"                                                                    | Do. | do. | ... | ... | ... | 0   | 4  | 3  |
| 3/4"                                                                  | Do. | do. | ... | ... | ... | 0   | 3  | 10 |
| 1/2"                                                                  | Do. | do. | ... | ... | ... | 0   | 3  | 4  |
| 1/4"                                                                  | Do. | do. | ... | ... | ... | 0   | 2  | 11 |
| 2 1/2" x 1/2" Reapers, per 1,000 feet ...                             |     |     |     |     |     | 0   | 2  | 6  |
| 2 1/2" x 1/2"                                                         | Do. | do. | ... | ... | ... | 27  | 8  | 0  |
| 2 1/2" x 1/2"                                                         | Do. | do. | ... | ... | ... | 23  | 8  | 0  |
| 2" x 1/2"                                                             | Do. | do. | ... | ... | ... | 19  | 8  | 0  |
| 2" x 1/2"                                                             | Do. | do. | ... | ... | ... | 22  | 0  | 0  |
| 2" x 1/2"                                                             | Do. | do. | ... | ... | ... | 19  | 0  | 0  |
| 2" x 1/2"                                                             | Do. | do. | ... | ... | ... | 16  | 0  | 0  |

CHEPAUK,  
6th August 1872.

(Signed) J. GODDARD, Lieut.-Colonel, R.E.,  
For General Superintendent, P. W. Stores, etc.

From the Acting Principal Assistant to Conservator of Forests, British Barmah, to the General Superintendent of Public Works Stores, Chepauk, dated Rangoon, 8th July 1872. No. 311/28-A.

In reply to your No. 296 of 14th May last, I am directed by the Conservator to inform you that the rate in Rangoon for selected first-class timber is 50 Rupees per ton, and the average freight on the same to Madras is Rupees 25 per ton.

2. Having to meet a large demand of the Public Works Department in this province, we cannot undertake to supply you at present with the class of timber asked for.

No. 495.

ORDER THEREON, 29th August 1872, No. 2,065.

**CIVIL WORKS, No. 33.**

THE question of the suitability of the present site for, and the adequacy of the accommodation afforded by, the Government Workshops has, on more than one occasion, demanded the attention of Government. As long ago as the 8th October 1869 the Superintending Engineer of the 4th Division was called upon to prepare and submit plans and estimates for such additions to the buildings as might be absolutely necessary for the protection of the stores and machinery lately in use in the Mint; but at the suggestion of the Government of India the provision made in the Budget Estimate of 1870-71 was transferred, and the construction of the extra buildings was postponed. Subsequently the advisability of arranging for the supply for the public works of the Presidency of seasoned timber was brought to the notice of Government, and the Superintendent of the Public Works Workshops was desired in a memorandum by the Chief Engineer to report what arrangements would be required to effect this object.

2. Again, in September 1871, in reviewing the report on the financial prospects of the workshops submitted by the Superintendent, the Government

*Proceedings of the Madras Government, Public Works Department,  
29th August 1872.*

approved of the proposal to erect the saw mill then recently purchased; and the Superintending Engineer accordingly forwarded, for the sanction of Government, an estimate of the cost of carrying out this proposal.

3. It appears to His Excellency the Governor in Council that the attainment of the several objects in view which have successively met with the approval of Government might fitly be considered, with reference to the adaptation of the materials lately sent out for the Snider Factory to the provision in part of the requisite accommodation on a new site, which it would appear from the Workshops Superintendent's report is to be found in the immediate neighbourhood of the space occupied by the Seven Wells.

4. In connection with this subject His Excellency has had under consideration the working of the present system under which the Superintendent of Public Works Workshops is under the immediate supervision and control of the Chief Engineer and Secretary to Government; and is of opinion, having regard to impending charges in the organization of the department under which the area to be supervised by the executive authority at the Presidency will be greatly restricted, and to the proposed reduction in the staff of the Secretariat, that the general supervision of the Government Workshops should be at once entrusted to the Superintending Engineer of the 4th Division.

5. His Excellency in Council therefore resolves to call upon the Superintending Engineer of the 4th Division to undertake the general control of the operations now under the charge of the Superintendent of Public Works Workshops and Stores, and to submit a full report, supported by complete estimates and designs, on the advantages and cost of adapting the materials intended for the Snider Factory, so far as they will go to the provision of the requisite accommodation on the site proposed by the Superintendent, and the further cost of supplementing them to the necessary extent.

6. The question of the utilization of the existing buildings will be considered in the Public Department; but the Superintending Engineer will turn his attention specially to the pecuniary advantages which can be shown to accrue from the proposed alteration of site, including the difference in interest chargeable on the capital outlay for the existing building and one of a character less pretending but sufficiently substantial for the object in view; the application of engine power to the replacing of the present costly method of raising water from the Seven Wells, and the facilities afforded by the site for the receipt of stores and the transmission of the worked-up material to the provinces, with any other advantages which may occur to him in the course of his investigation. Supporting his views, in every instance, by figures based both on past and prospective out-turn of the shops.

7. To arrive at a correct estimate of the prospective advantages that may be looked for from the proposed transfer of site, it is essential that the existence and successful working of the Dowlaishweram Workshop should not be ignored, and that the probable field of operations open to the Madras shop should be correctly defined. The Superintendent of the Workshop should, therefore, be directed to place himself in communication with the Superintending Engineers of Divisions, with a view to elicit the information necessary to enable an opinion to be formed on this point.

Proceedings of the Madras Government, Public Works Department,  
29th August 1872.

8. As it is most desirable that provision should be made in the Budget for 1873-74 for whatever measures may recommend themselves, His Excellency the Governor in Council desires that the subject may receive the Superintending Engineers' immediate attention.

(True Extract.)

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

To the Superintending Engineer, 4th Division.  
,, all other Superintending Engineers.  
To the General Superintendent of Public Works Stores and Workshops.  
,, Controller of Public Works Accounts.  
To Major R. B. Kennedy.  
To the Public Department.  
,, Financial do.

Ed. E. C. Shunker,

Est. No. 36 of 1872-73.  
Specification to accompany an Estimate for constructing the  
Saw Mills in Public Works Workshop at Chepauk.

3-4

Amount of Estimate Rs 2330

Masonry foundations to be built for Saw  
Mills as figured in the drawing with brick in chunam.  
The wooden and iron fixing required for the  
erection of the sawing frame will be excluded by the  
Workshop.

The space between Embankment and north  
ring of shore rooms to be filled up with sea sand to an  
average depth of 3 feet and well stamped and watered.

The existing turn table and tramway rails  
with sleepers &c to be removed and fixed as specified in  
Plan and Estimate.

Detailed dimensions and measurements are  
clearly exhibited in Plan and Estimate.

Fort Saint George  
20 April 1872

I. W. Sturdee Captain R.E.  
Executive Engineer Presidency

Comd. E.

Major R. B. Kennedy Lt Colonel R.E.  
Offg Supg Eng. 4th Div

Abstract of Volume 1236 of 1899-78

2

Mark.

After constructing the dam built at Shiprock.

Definition of words

Gate - Demand - La La - O

101

# Details for Drawing Platform

3068 1/2 York Ave. New York

8  
M<sup>rs</sup> Granite. Stones over the heads

710 Left Stirling Convent to the West of the dancing place

825 - Plastering the walls with 2 Cond. Chuanam

Done awaiting foundation and leveling the ground

Account of the

210

The wooden and iron fixings required for the erection of the  
darning frame will be executed by the work shops

4. 3. Details for filling the sand pump

1031  
by the filling in and between the space of outside masonry

North wing of slave room and small lamp; with them } " 4 in 259.8  
Boat for removing the existing turn table & replacing the  
same in necessary foundations &c. by using up the  
old materials at the site shown in plan.

4

- - - 20

Lately laid for seeking a small creek way in the river embankment  
to send to allow the floating to work through the }  
embankment.

body has for removing the existing temporary rails with sloping

201

Yes Mr. Laying 3" gravel over the new curb stone and  
heat well with water including a leveling  
course of 3" hot-well bricks and mortar

11.36

Course of 3<sup>rd</sup> dist. brick masonry

Confidential

Sanctus Charges. 100

1875

11

29/12/88 - 2.30

Post-Box Office.

Stout-Li-George

Alfred Blais

20. April 1872

of Robert Lee

Deutsche. Eng. Mus.

*Q. Huachucae*

Capitain 378

Conrad D.



by the Superintendent,  
the Govt. approved of the  
proposal to erect the  
Saw Mill then recently  
purchased; and the  
Supt Engineer accordingly  
forwarded for the  
sanction of Govt. an  
estimate of the cost  
of carrying out this  
proposal.

It appears to His  
Excellency the Governor  
in Council that the  
attainment of <sup>the</sup> several  
objects in view which  
have successively  
met with the appro-  
val of Govt. might  
fitly be considered,

with reference to the  
adaptation of the  
materials lately sent  
out for the Snider  
Factory to the provision  
in part of the requisite accom-  
modation on a new  
site; which it would  
appear from the  
Workshop Superin-  
tendent's report is  
to be found in the  
immediate neigh-  
bourhood of the  
space occupied by  
the Seven Wells.

In connection  
with this subject  
His Excellency has  
had under consideration

the working of the present system under which the Superintendent of Public Works Work-shops is under the immediate supervision and control of the Chief Engineer and Secretary to Govt., and is of opinion, having regard to impending changes in the organization of the Department under which the area to be supervised by the Executive authority at the Presidency will be greatly restricted, and to the proposed

reduction in the staff of the Secretariat, that the general supervision of the Govt. Workshops should be at once entrusted to the Super Engineer of the L. Division.

His Excellency <sup>Government</sup> therefore resolved to call upon the Super Engineer of the L. Division to undertake the general control of the operations now under the charge of the Superintendent of Public Works

Workshops and Stores;  
and to submit a full  
report, supported  
by complete estimates  
and designs, on the  
advantages and cost  
of adapting the mate-  
rials intended for  
the Snider Factory  
so far as they will go  
to the provision of the  
 requisite accommo-  
-dation on the site  
proposed by the  
Superintendent, and the further cost  
of implementing

The question of the <sup>of implementing</sup> them to the necessary  
utilization of the ex-  
-isting buildings will

be considered in the  
Public Department  
but the Super Engineer  
will

will turn his atten-  
-tion specially to the  
pecuniary advantages  
which can be shown  
to accrue from the  
proposed alteration  
of site, including  
the difference in  
interest chargeable  
on the Capital outlay  
for the existing buildings  
and one of a charac-  
-ter less pretentious  
but sufficiently sub-  
-stantial for the  
object in view; the  
application of ~~sub-~~  
~~plus or other~~ Engine  
power to the replacing  
of the present costly

method of raising  
water from the Suva  
Wells, and the faci-  
lities afforded by  
the site for the receipt  
of stores and the  
transmission of the  
worked up material  
to the provinces, with  
any other advantages  
which may occur to  
him in the course  
of his investigation.  
Supporting his views  
in every instance  
by figures based both  
on fact and pros-  
pective out-turn  
of the ships.

To arrive at a

correct estimate of the  
prospective advan-  
tages that may be  
looked for from the  
proposed transfer  
of site, it is essen-  
tial that the ex-  
istence and suc-  
cessful working  
of the Dawlish-  
Wareham Workshop  
should not be  
ignored, and that  
the probable field  
of operations open  
to the Madras Shop  
should be correctly  
defined. The Super-  
intendent of the

Workshop should  
therefore be directed  
to place himself in  
communication  
with the Superin-  
tending Engineer of  
Divisions with a  
view to elicit  
the information  
necessary to enable  
an opinion to be  
formed on this point.

As it is most  
desirable that pro-  
vision should  
be made for what-  
ever measures  
may recommend  
themselves in the  
Budget for 1873/74

His Excellency the  
Governor in Council  
desires that the  
subject may receive  
the Superintendents  
immediate attention.

C. J.

G. W.

250  
16

Engineer to the Dept.  
all other papers & documents  
to be deposited P. M. 11th Nov.  
C. J. Kennedy  
Public Secy  
Thurs Dec 19

Dec 35/9/72

Cps 2060 & 3872

Govt. of Madras.

PUBLIC WORKS.

To The *Superintending Engineer*  
of the *Public Works* Division

Dated

Recd.

No. 5

G. O. 29<sup>th</sup> Aug. 1905.

Nos. 493 & 495

Public Works Workshop.

Issuing instructions  
on the subject of the site  
to be selected for the  
Workshop, the general  
control of its operations,  
its future working  
&c.