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TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

Public Works DEPARTMENT

G.O. No.	<u>2488 W</u>	Press.
B.P. No:	<u>2489-W</u>	Mis.
Dated	<u>25-9-1882</u>	198.

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Not to be folded or roughly handled

ENCLOSURE.

From Lieutenant W. L. C. BADDELEY, R.E., General Superintendent, Public Works Stores and Workshops, to the Superintending Engineer, Fifth Circle, dated Madras, 7th September 1882, No. 1447 W.

With reference to your No. 1952 of 28th August 1882, I have the honor to submit my proposals for carrying into effect the orders of Government in No. 2064 W. of 12th August 1882.

Map.
List of Buildings.
" of Works.
" of Machinery, &c.
Draft Circular.
Chief Engineer's letter No. 528 E. of 24th August 1882.

2. The General Superintendent of the Public Works Stores and Workshops is in charge of the following :—

1. Public Works Stores and Mathematical Instrument Department.
2. Public Works Workshops.
3. State Railway Stores.
4. Government Machinery Stores.
5. Machinery at the General Hospital for working the punkahs, and water-works at Guindy.

3. The Public Works Stores and the Public Works Workshops occupy the same buildings, all office work connected with State Railway Stores is conducted in the Public Works Stores Office, and all State Railway Stores in the custody of the General Superintendent are stacked in the Public Works store-yard.

4. The Mathematical Instrument Department is usually considered as part of the workshops, but it is now necessary to recognise the difference, for the repair of instruments is totally distinct from repairs to machinery, and it does not follow that because Government wish to close the workshops they should also wish to abolish the Mathematical Instrument Department.

5. The Government machinery stores are situated in a portion of the old Mint which is adjacent to the Public Works Stores and Workshops.

6. The machinery at the General Hospital and the Guindy Water Works is worked by employes of the workshops, and all office work is carried on in the office of the Public Works Workshops.

7. As matters now stand, the iron and heavy goods belonging to the Public Works Stores are kept in the shed marked on plan as "Store shed," while the instruments and other valuable articles are kept in a portion of the upper-storey of the "main building," and the repair of instruments is carried on in a portion of the lower-storey of the same building.

It is impossible to reserve any portion of the present building for the Public Works Stores and Mathematical Instrument Department, for the only building suitable for the purpose is the main building, and this must be given up to the firm which takes over the workshop, for it contains the machine shop and all the office rooms.

It is difficult in a short letter to anticipate all the suggestions, that from an inspection of the plan might appear feasible, for setting aside a portion of the building for the Public Works Stores and Mathematical Instrument Department; but after careful consideration I am confident that such an arrangement would be impracticable.

8. When the buildings now occupied by the Public Works Stores and Workshops have been sold or leased, it will be necessary for Government to arrange for the custody of the stores, and the performance of the duties connected with—

1. Public Works Stores and Mathematical Instrument Department;
2. State Railway Stores;
3. Government Machinery Stores;
4. Machinery at the General Hospital and Guindy Water Works,

and therefore, when I have submitted my proposals for the abolition of the Public Works Workshops, I shall offer certain suggestions which, I trust, will be found of some value in arranging for carrying on the work detailed above.

9. At present the Public Works Workshop executes a considerable amount of work for all departments of Government, and obviously therefore the first step towards reduction is the refusal of all work except for the Public Works Department, and this step has already been taken except in the Mathematical Instrument Department.

Secondly, I would propose sending a circular to every Superintending Engineer for distribution, pointing out the necessity of encouraging private enterprise, and requesting that no work of any kind be sent to the workshop if it can be carried out at a reasonable rate by a private firm.

The result of this will be that a considerable reduction can be made in the number of workmen employed, and yet, as work will not be entirely stopped, the machinery and plant can be kept in working order, so that as soon as a firm comes forward to purchase or rent the concern it can be handed over ready for immediate use.

This is, in my opinion, a most important point, for if the shops were totally closed and the machinery left idle for six months, the depreciation in this climate would be so great that a large portion would become unserviceable, and it requires no argument to prove that an intending purchaser of a large concern like the Public Works Workshops would be more inclined to make a liberal offer for an establishment in working order than for one which had been idle for some time.

10. As regards the maintenance of a small Government shop, except for repairs to mathematical instruments and work of that nature, I am of opinion that it will not be needed, for when once a private firm is established in the workshop buildings, it can easily execute every bit of work, down to the smallest repair; also it must be remembered that a shop which is only to be used by the Department of Public Works for repairs and trifling manufacture must be a most expensive one, for the cost of supervision and the outlay on machinery will be distributed over a very small quantity of work: for example the most trifling repairs will require castings of iron and brass, screws to be cut, surfaces to be planed, and various other processes which are continually in progress in a large shop, all of which will require steam-power, machinery, skilled labor and supervision.

11. While the operations of the workshops are being steadily reduced in the manner described, the accompanying Circular might be distributed in whatever manner Government think best.

12. Assuming that the publication of the views of Government leads to the transfer of the workshop to a private firm, it remains to be considered what is to become of the establishment, and my views on this are—

- (1.) Mr. Francis, the Sub-Engineer, should be attached to the Presidency District, where his services will be of the greatest value in looking after the machinery at the General Hospital and Guindy Water Works, he will also be available for any work in other districts which may require an experienced Mechanical Engineer.
- (2.) Mr. Willis, the Overseer, who is a Carpenter by trade, should be posted, if possible, to one of the workshops in the north of the Presidency, if not his services should be utilised whenever a foreman carpenter is required.
- (3.) The Maistries are divided into two classes, one consisting of men who have served Government for a large number of years, and the other of men who have only been promoted within the last few years; the former class will probably retire from work when the workshop is transferred, and the latter will find ready employment under the new state of things.
- (4.) The workmen, as a rule, will be employed by the firm which takes over the workshop, but there are some who, from length of service or by reason of injuries received while in Government employ, may be entitled to special consideration.
- (5.) The Clerks, who are not entitled to pensions, will, I hope, be absorbed into other Government Offices, as vacancies occur.

13. I have now, I trust, shown how the workshops can be gradually reduced, and eventually handed over to private enterprise with the least inconvenience to the Public Works Department; the least loss to Government, and the least distress to the large number of men who now earn their living in the workshops, and I will therefore proceed to discuss the Public Works Stores.

It is inadvisable to do away with the Public Works Stores, for there must be a central depot for preparing indents, receiving supplies, storing them, issuing as required, and performing the various duties connected therewith; also in combination with the stores it is absolutely essential that there should be a Mathematical Instrument Department, where every instrument, &c., can be examined before issue, and repaired when necessary.

It will be impossible to reserve any portion of the present building for the Public Works Stores and the Mathematical Instrument Department, and it will therefore be necessary to locate them elsewhere, bearing in mind the following conditions:—

- (1.) The store-sheds must be of fairly strong construction, viz., brick in mortar with corrugated iron roof.
- (2.) There should be a suitable room for the instrument shop.
- (3.) There should be an enclosed yard for storing heavy machines and goods.
- (4.) The stores should be as near as possible to the pier.

14. The question as to whether the Public Works Stores are to continue to carry on the work of landing and despatching all State Railway Stores which are sent through Madras, will require consideration; in my opinion there is no more economical arrangement than to place the Public Works Stores, State Railway Stores, and Mathematical Instrument Department under one officer.

15. The Government Machinery Stores should, I think, be handed over to the Ordnance Department, but if Government are of opinion that the Public Works Department should continue to have charge of all spare machinery belonging to the different departments of Government, this appointment should be combined with that of the Public Works Stores, &c.

16. The machinery at the General Hospital and the Guindy Water Works should be placed in charge of the Executive Engineer, Presidency.

17. I must now revert to the question of keeping up a Government Mathematical Instrument Department in connection with the Public Works Stores, either exclusively for the use of the Public Works Department or for the benefit of all Government Departments. At present every instrument issued by the Public Works Stores is first passed through the Mathematical Instrument Department, where it is examined and repaired if necessary; in like manner every instrument returned to store is examined in the Mathematical Instrument Department and classed as "serviceable," "repairable" or "unserviceable." If the Mathematical Instrument Department is abolished it will still be necessary for a Mathematical Instrument-maker to be attached to the Public Works Stores, but his services will never be fully utilized unless he has a shop in which he can carry out repairs. The Mathematical Instrument Department now repairs all instruments, and executes a great variety of work for all departments of Government, and it is impossible, in my opinion, to propose any better or more economical arrangement than (in connection with the Public Works Stores) to maintain an instrument department for the repair of all Government levels, theodolites, &c., and for the manufacture of scales, seals, badges, weights, measures, &c., and the various other articles which are continually required by all departments of Government.

No. 193.

ORDER—dated 25th September 1882, No. 2488 W., Public Works.

With the letter above recorded the Superintending Engineer, Fifth Circle, submits proposals for giving effect to the decision of Government, recorded in G.O. No 2061 W., dated 12th August 1882, for restricting the operations of the Public Works Workshops at Madras to the execution of such repairs and trifling manufacture as may be required by the Public Works Department and cannot be executed in the open market, and for disposing of the buildings and plant which would thus become available.

It is explained that the first step for the accomplishment of the object in view has already been taken in the refusal to accept work except that required by the Public Works Department and in the instrument shops.

These arrangements are approved. Officers of the Public Works Department will now be directed to abstain as far as practicable from giving orders for work at the shops, and no new work for other departments should be accepted after the end of the present year.

A small workshop will thus still be required for departmental purposes, and the nucleus of this may, for the present, be organised within the present shops. Tenders will meanwhile be invited for the purchase of the existing buildings and available plant, and as soon as they have been received and decided on, the reduced Government Establishment may, if necessary, be removed elsewhere.

It may be practicable to have the mathematical instrument work of the department executed in Calcutta, should local firms be unable to take it up. The Surveyor-General will be communicated with on the subject.

As regards the disposal of the existing establishment, many of the workmen will no doubt find employment with the firms which will take over the work which the Government are now surrendering, and the others will be absorbed gradually. In any case no immediate action seems necessary, and the details of the process may well be left to be worked out by the Superintending Engineer as circumstances admit.

It is premature to issue any definite orders as to erection of new buildings at present. There will be ample time for decision on this question after tenders for taking over existing block and plant have been considered. Tenders may be received up to the 1st February next, and the interval should be utilized in printing and circulating lists, which should be accompanied by a lithograph block plan of the buildings, on a somewhat smaller scale than that sent up, and a small Index Map of Madras on the same sheet. The Index Map should show the situation of the shops with reference to a few of the most important places, e.g., the harbour, railway stations, fort, &c.

8. The notices should be published in the *Fort St. George Gazette*, the *Bombay Gazette*, and the *Gazette of India*.
9. The General Superintendent of the Workshops will take the requisite action for giving effect to these orders, submitting drafts of notifications for insertion in the Gazettes outside the Presidency.

(Here enter No. 2489 W., dated 25th September 1882.)

(True Extract.)

(Signed) R. H. SANKEY, Colonel, R.E.,
Secretary to Govt., P.W.D.

To the General Superintendent, Public Works Workshops, with enclosures.
To Superintending Engineers.
To the Consulting Architect to Government.
" Chief Engineer for Irrigation.
" Consulting Engineer for Railways.
" Examiner, Public Works Accounts.
" Revenue Department.
" Military
" Public, &c., Departments.

Exd. S. T. Austin
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Ch. 260 W. 9-2-84

GENERAL
ACCOUNT.

Gobt. of (1882) Madras.
PUBLIC WORKS.

*I lean repeat
2a copies*

Dated September, 25th.

Recd.

Encl.

G.O., 25th Sept. 1882, No. 2488 W.

SEPTEMBER.

Nos. 192-193.

Public Works Workshops at
Madras.

Orders on proposals of the Superintending Engineer, Fourth Circle, for restricting the operations of the Public Works Workshops at Madras to the execution of such repairs and trifling manufacture as may be required by the Public Works Department and which cannot be done in the market.

25TH SEPTEMBER 1882, No. 2488 W., PUBLIC WORKS.

2488
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GOVERNMENT OF MADRAS.
PUBLIC WORKS DEPARTMENT.

General.
Account.

No. 192.

READ—the following letter from Colonel H. L. PRENDERGAST, R.E., Superintending Engineer, Fifth Circle, to the Chief Engineer, Public Works Department, dated Madras, 13th September 1882, No. 2161 :—

I have the honor to inform you that I have discussed with the General Superintendent of the Public Works Workshop your memorandum No. 628 of the 24th ultimo, and Lieutenant Baddeley has given me the enclosed papers on the subject of closing the workshops.

2. The first step has been taken, in the refusal to accept work except for the Public Works Department and with the exception of work in the Instrument Department. I have also recommended, in my letter No. 2118 of the 9th instant, that no work should be done after the 30th November for other departments.

3. The next point (paragraph 9 of Lieutenant Baddeley's letter) is that Public Works Officers should refrain from giving orders to the workshop. But I would say nothing about the cost of work, when the workshops are closed the market prices must be accepted, and I would call upon departmental officers to abstain from applying to the workshop generally, or unless they cannot get their requirements elsewhere. There may be some trouble, some delay and extra cost, but these drawbacks are inevitable.

4. There is work now in hand in the workshop, but as it will gradually fall off there can be a reduction made in the number of workmen, while at the same time the machinery can be kept in order. Lieutenant Baddeley considers that it is of much importance that the shops should not be altogether closed; so that on inspection it may be evident that the machinery is in working order.

5. The maintenance of a small workshop will (paragraph 10) be expensive in comparison with the small amount of work to be done. The details will require careful consideration, for it appears to me that when work is generally transferred elsewhere the rest may likewise follow. Still a small workshop will not cause any heavy expense: while at the same time it cannot be expected to be self-supporting. In paragraph 17, Lieutenant Baddeley represents the need of an instrument-maker and a shop for him to carry out repairs. I consider this is highly desirable: but yet in working out the principle of abolition, if the Revenue Survey Department can get

their instruments repaired elsewhere, the Public Works Department can do so also. There may however be a small instrument department maintained with a small working shop without much expense.

6. As to reduction of establishment: this should be carried out on the general principle of reduction, such as took place in the Public Works Department recently: transfers being made where practicable. Care should be taken that in all cases three months' notice to quit should be given in good time. In fact, as a precaution, this had better be given to all employed in the workshops.

7. The list of buildings, A, gives the total cost of construction, Rs. 2,07,910. No allowance is made in these figures for depreciation. The value as a selling price will have to be considered before tenders for purchase or rent may be received.

List B is a valuation statement of machinery and plant, amounting to Rs. 81,464. This is the last valuation made nearly five years ago, and must therefore be considered as higher than the present price. It has also been stated lately by the General Superintendent that much of the machinery is old, so that it compares unfavorably in both make and cost with modern machinery. I allude to the reference made by the Superintending Engineer of the Second Circle as to defective parts and high cost of articles sent to the Kistna. Hence it must be expected that there will be offers of much less than book value.

List C gives a description of the nature of work done in the workshops: the value is entered in paper D.

The paper D is a draft notice, inviting tenders for purchase or hire of the shops.

8. A serious difficulty arises in the question of the future location of the stores and such minor working shop as may be retained. The machine shop and office rooms are in the main building, the instruments and valuable small stores are in the upper-storey; while the heavy stores are in the separate building, called the store-shed on the block plan and the State Railway Stores are in the store-yard. The machine shop must go with the workshops, and it is not possible to divide the main building so that a part might be kept for the Government Stores Department. Hence if an offer for the whole premises be accepted, the Government property will have to be removed and another place must be found. There are no Government buildings available, and therefore they must be built.

But in the event of no suitable offer being made, the present work-yard and buildings will remain on the hands of the Government, and as this cannot be considered an impossible contingency it will not do to incur the expense of constructing new buildings beforehand. I can only suggest that plans and estimates be made at once for future requirements, and that it be notified in the call for tenders that the premises can be taken over at a future date, say, after the 30th June or from such date as will allow of four months' interval, for the construction of the buildings.

9. The Public Works Stores must, it is presumed, be kept up (paragraph 13 to 15) and will require a store-shed, there must be an enclosed yard for heavy stores and the State Railway stores, there must be an instrument shop and workshop. The Government machinery stores can be left where they now are in a part of the old Mint premises. It is desirable that Sub-Engineer Francis should be available to look after the machinery at the General Hospital and the Guindy Water Works, and he might do so as a Sub-Divisional Officer under the Presidency Executive Engineer, having also charge of the repair shop.

10. For the present I would ask for orders on the following points:—

- I. Will orders be given to Public Works Officers to abstain from making demands on the workshop? Paragraph 3 above.
- II. Shall there be a small workshop maintained? Paragraph 5 above.
- III. And an instrument-maker's shop? Paragraph 5 above.
- IV. Shall the General Superintendent make a list of Establishment to be kept for II and III and for the stores? Paragraph 6 above.
- V. Is it contemplated that there should be a new set of buildings, and estimates prepared, as suggested in paragraph 8 above?

ENCLOSURE.

From Lieutenant W. L. C. BADDELEY, R.E., General Superintendent, Public Works Stores and Workshops, to the Superintending Engineer, Fifth Circle, dated Madras, 7th September 1882, No. 1447 W.

With reference to your No. 1952 of 28th August 1882, I have the honor to submit my proposals for carrying into effect the orders of Government in No. 2064 W. of 12th August 1882.

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Chief Engineer's letter No. 628 E. of 24th August 1882.

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and therefore, when I have submitted my proposals for the abolition of the Public Works Workshops, I shall offer certain suggestions which, I trust, will be found of some value in arranging for carrying on the work detailed above.

9. At present the Public Works Workshop executes a considerable amount of work for all departments of Government, and obviously therefore the first step towards reduction is the refusal of all work except for the Public Works Department, and this step has already been taken except in the Mathematical Instrument Department.

Secondly, I would propose sending a circular to every Superintending Engineer for distribution, pointing out the necessity of encouraging private enterprise, and requesting that no work of any kind be sent to the workshop if it can be carried out at a reasonable rate by a private firm.

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No. 193.

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9. The General Superintendent of the Workshops will take the requisite action for giving effect to these orders, submitting drafts of notifications for insertion in the *Gazettes* outside the Presidency.

(Here enter No. 2489 W., dated 25th September 1882.)

(True Extract.)

Lient.-Col., R.E.,
Ag. Under Secy. to Govt., P.W.D.

To the General Superintendent, Public Works Workshops, with enclosures.
To Superintending Engineers.
To the Consulting Architect to Government.

" Chief Engineer for Irrigation.
" Consulting Engineer for Railways.
" Examiner, Public Works Accounts.
" Revenue Department.
" Military
" Public, &c., Departments.

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GENERAL.
ACCOUNT.

Govt. of (1882) Madras.
PUBLIC WORKS.

Dated September, 25th.

Recd.

Encl.

G.O., 25th Sept. 1882, No. 2488 W.

SEPTEMBER.

Nos. 192-193.

Public Works Workshops at
Madras.

Orders on proposals of the Superintending Engineer, Fourth Circle, for restricting the operations of the Public Works Workshops at Madras to the execution of such repairs and trifling manufacture as may be required by the Public Works Department and which cannot be done in the market.

25TH SEPTEMBER 1882, No. 2489 W., PUBLIC WORKS.

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PUBLIC WORKS DEPARTMENT.

General.
Account.

No. 193-A.

LETTER—from

COLONEL R. H. SANKEY, C.B., R.E.,
Secretary to Government, Public Works Department,

To

THE SURVEYOR-GENERAL,
CALCUTTA.

SIR,

Adverting to the accompanying copy of Proceedings of Government, under date the 25th September 1882, No. 2488 W., I am directed to inquire whether you would be prepared to undertake the repair of mathematical instruments of the Madras Public Works Department should the local instrument shop be closed; and whether you anticipate that the arrangement would involve undue delay or excessive cost.

I have the honor to be,

Sir,

Your most obedient servant,

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

FORT ST. GEORGE,
25th September 1882.

Exd. S. T. Austin.
Spare Copies

2488
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GENERAL.
ACCOUNT.

Gobt. of (1882) Madras.
PUBLIC WORKS.

Dated September, 25th.

Recd.

Encl.

25th Sept. 1882, No. 2489 W.

SEPTEMBER.

No. 193-A.

Mathematical Instrument of the
Madras Public Works Depart-
ment.

Enquiring if the Surveyor-General, Cal-
cutta, would undertake the repair of —.

PUBLIC WORKS STORE DEPARTMENT,

Madras, 7th September 1882.

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From

THE GENERAL SUPERINTENDENT,
PUBLIC WORKS STORES, & Workshops

To

THE Superintending Engineer
5th Circular
Madras

SIR,

6 Enclosures.

Maps
List of Buildings
List of Books
List of Machinery &c
Draft Circular
CE R M
No 620 E 7/24/1882

I With reference to your No 193-A of
28th August 1882 I have the honor to submit
my proposals for carrying into effect the
orders of Government No 2064 W of 12th August
1882.

The General Superintendent
of the P. W. Stores and Workshops is in
charge of the following —
1. Public Works Stores and Mathematical
Instrument Department
2. Public Works Workshops
3. State Railway Stores
4. Government Machinery Stores
5. Machinery at the General Hospital
for working the Punkahs, and Water
Works & Grindery

III

The P. W. Stores and the P. W.
Workshops occupy the same buildings
all office work connected with State
Railway

Railway Stores is conducted in the P. H. Stores Office, and all State Railway Stores in the custody of the General Superintendent are stacked in the P. H. Store yard.

IV. The Mathematical Instrument Department is usually considered as part of the Workshops, but it is now necessary to recognize the difference, for the repair of Instruments is totally distinct from repairs to Machinery, and it does not follow that because Government wish to close the Workshops they should also wish to abolish the Mathematical Instrument Department.

V. The Government Machinery Stores are situated in a portion of the old Mint which is adjacent to the P. H. Stores and Workshops.

VI. The Machinery at the General Hospital and the Grindly Water Works is worked by employees of the Workshops, and all Office work is carried on in the Office of the P. H. Workshops.

VII. As matters now stand, the iron and heavy goods belonging to the P. H. Stores are kept in the shed marked on plan as "Store Shed", while the Instruments and other valuable articles are kept in a portion of the upper storey of the "main building", and the repair of Instruments is carried on in a portion of the lower storey of the same building.

2488/11 It is impossible to reserve any portion of the present building for the P. H. Stores and Mathematical Instrument Department, for the only building suitable for the purpose is the main building, and this must be given up to the Firm which takes over the Workshops, for it contains the Machine shop and all the Office rooms.

It is difficult in a short letter to anticipate all the suggestions that from an inspection of the plan might appear feasible, for setting aside a portion of the building for the P. H. Stores and Mathematical Instrument Department; but after careful consideration I am confident that such an arrangement would be impracticable.

VIII. When the buildings now occupied by the P. H. Stores and Workshops have been sold or leased, it will be necessary for Government to arrange for the custody of the Stores, and the performance of the duties connected with

1. P. H. Stores and Mathematical Instrument Department,
 2. State Railway Stores
 3. Government Machinery Stores.
 4. Machinery at the General Hospital and Grindly Water Works,
- and therefore when I have submitted my proposals for the abolition of the P. H.

P. h. Workshops, I shall offer certain suggestions which, I trust, will be found of some value in arranging for carrying on the work detailed above.

IX

At present the P. h. Workshop executes a considerable amount of work for all Departments of Government, and obviously therefore the first step towards reduction is the refusal of all work except for the Public Works Department, and this step has already been taken, except in the Mathematical Instrument Department.

Secondly I would propose sending a Circular to every Superintendent Engineer for Distribution, pointing out the necessity of encouraging private enterprise, and requesting that no work of any kind be sent to the Workshop if it can be carried out at a reasonable rate by a private firm.

The result of this will be that a considerable reduction can be made in the number of workmen employed, and yet as work will not be entirely stopped, the Machinery and Plant can be kept in working order, so that as soon as a firm comes forward to purchase or rent the concern it can be handed over ready for immediate use.

This

¹³
2488/2 This is, in my opinion, a most important point, for, if the shops were totally closed and the Machinery left idle for 6 months, the depreciation in this climate would be so great that a large portion would become uneconomical, and it requires no argument to prove that an intending purchaser of a large concern like the P. h. Workshop, would be more inclined to make a liberal offer for an establishment in working order, than for one which had been idle for some time.

X

As regards the maintenance of a small Government Shop, except for repairs to Mathematical Instruments and work of that nature, I am of opinion that it will not be needed, for when once a private firm is established in the Workshop buildings, it can easily execute every bit of work down to the smallest repair, also it must be remembered that a shop which is only to be used by the D. P. h. for repairs and trifling manufacture, must be a most expensive one for the cost of supervision, and the outlay on Machinery will be distributed over a very small quantity of work, for Example the most trifling repairs will require castings of iron and brass, screws to be cut, surfaces to be planed and various other

other processes which are continually in progress in a large shop all of which will require steam power, Machinery, skilled labours and supervision.

XI While the operations of the Workshops are being steadily reduced in the manner described, the accompanying circular might be distributed in whatever manner Government think best.

XII Assuming that the publication of the views of Government leads to the transfer of the Workshop to a private firm, it remains to be considered what is to become of the Establishment, and my views on this are:-

1 Mr. Francis the Sub Engineer should be attached to the Presidency District where his services will be of the greatest value in looking after the Machinery at the General Hospital and Quindry Water Works, he will also be available for any work in other Districts which may require an experienced Mechanical Engineer.

2 Mr. Willis the overseer, who is a Carpenter by trade should be posted, if possible, to one of the Workshops in the North of the

the Presidency, if not his services should be utilized whenever a foreman carpenter is required.

2488
13
3 The Maistries are divided into two classes, one consisting of men who have served Government for a large number of years, and the other of men who have only been promoted within the last few years, the former class will probably retire from work when the Workshop is transferred, and the latter will find ready employment under the new state of things.

4 The workmen, as a rule, will be employed by the firm which takes over the Workshop; but there are some who, from length of service or by reason of injuries received while in Government employ, may be entitled to Special consideration.

5 The clerks, who are not entitled to pensions, will, I hope, be absorbed into other Government Offices, as vacancies occur.

XIII I have now, I trust, shown how the Workshop can be gradually reduced, and eventually handed over to private enterprise with the least inconvenience to the P. W. Department, the least loss to Government and the least distress to

to the large number of men who now earn their living in the Workshops, and I will therefore proceed to discuss the P. H. Stores.

It is unadvisable to do away with the P. H. Stores, for there must be a central Depot for preparing Indents, receiving supplies, storing them, issuing as required and performing the various duties connected therewith; also in combination with the Stores it is absolutely essential that there should be a Mathematical Instrument Department where every Instrument can be examined before issue, and repaired when necessary.

It will be impossible to preserve any portion of the present building for the P. H. Stores and the Mathematical Instrument Department, and it will therefore be necessary to locate them elsewhere, bearing in mind the following conditions:-

1. The Store Shed must be of fairly strong construction of brick in mortar with corrugated iron roof.
2. There should be a suitable room for the Instrument Shop.
3. There should be an enclosed yard for storing heavy machines and goods.
4. The Stores should be as near as possible

possible to the Pier. ²⁴⁸⁸⁸ KS
The question as to whether the P. H. Stores are to continue to carry on the work of landing and despatching all State Railway Stores which are sent through Madras will require consideration, in my opinion there is no more economical arrangement than to place the P. H. Stores, State Railway Stores and Mathematical Instrument Department under one officer.

XIV
The Government Machinery Stores should, I think, be handed over to the Ordnance Department, but if Government are of opinion that the P. H. Department should continue to have charge of all spare Machinery belonging to the different Departments of Government, this appointment should be combined with that of the P. H. Stores.

XV
The Machinery at the General Hospital and the Quindry Water Works should be placed in charge of the Executive Engineer, Presidency.

XVI
I must now report to the question of keeping up a Government Mathematical Instrument Department in connection with the P. H. Stores either exclusively for the use of the P. H. D. or for the benefit of all Government Departments. At present every Instrument issued by the P. H. Stores is first passed through

through the Mathematical Instrument
Department where it is examined and
repaired if necessary; in like manner
every Instrument returned to Store is
examined in the Mathematical Instrument
Department and classed as "Serviceable,"
"Repairable" or "Unserviceable." If the Mathe-
matical Instrument Department is
abolished, it will still be necessary for
a Mathematical Instrument maker to be
attached to the P. M. Stores, but his services
will never be fully utilized unless he
has a shop in which he can carry out
repairs. The Mathematical Instrument
Department now repairs all Instruments,
and executes a great variety of work for
all Departments of Government, and
it is impossible, in my opinion, to propose
any better or more economical arrangement
than (in connection with the P. M. Stores)
to maintain an Instrument Department
for the repair of all Government levels,
theodolites &c, and for the manufacture
of scales, seals, badges, weights, measures &c
and the various other articles which are
continually required by all Departments
of Government.

I have the honor to be

Sir
Your most Obedt Servt

W. C. B. B. B.

Genl Supt P. M. Stores

86

2488
15

Public Works ~~Store~~ Department.

From

THE GENERAL SUPERINTENDENT,

P. W. STORES, &

MADRAS,

To

The Supg Engineer
5th Circle

Chepauk

No. 1447/82

Dated

Despd.

Reed.

No. of ENCLOSURES. 6

Subject

See minute his proposals
for carrying into effect the orders
of Govt. No. 2064 of 12th Aug 1882
restricting the P.W. Workshops

N. 2161.

From

Superintd Engrs Office
5th Circle Madras

13th September 1882.

To

Call. H. L. Pendergast. P.W.
Superintending Engineer
5th Circle

The Chief Engineer
D. P. W.

Sir

I have the honor to inform
you that I have discussed with
the General Superintendent of the
P.W. Workshop your Memo No. 628
of the 24th Ultimo, and Lieut. Baddley
has given me the enclosed paper on
the subject of closing the Workshops.

2. The first step has been taken
in the refusal to accept work except
for the P.W. Department, and with
the exception of work in the Instru-
ment Department. I have also re-
commended in my letter No. 2118 of
the 9th Instant that no work should be

Enclosures. 7
Letter No. 1447
of 7th Sept 1882.
1090/82
Letter A. P. 629
1 Block Plan

14/9/82
14/9/82
14/9/82

be done after the 30 November for other Departments.

3. The next point (para 17 of Lieut Baddley's letter) is that P.W. Officers should refrain from giving orders to the Workshop. But I would say nothing about the cost of work: when the Workshop are closed, the market prices must be accepted and I would fall upon Departmental officers to abstain from applying to the Workshop generally or unless they cannot get their requirements elsewhere. There may be some trouble, some delay and extra cost, but these drawbacks are inevitable.

4. There is work now in hand in the Workshop, but as it will gradually fall off, there can be a reduction made in the number of workmen, while at the same time the Machinery can be kept in order.

Lieut A

Lieut Baddley considers that it is of much importance, that the Shop should not be altogether closed, so that on inspection, it may be evident that the Machinery is in working order.

2488
17

5. The maintenance of a small Workshop will (para 4) be expensive in comparison with the small amount of work to be done. The details well require careful consideration for it appears to me that when work is generally transferred elsewhere, the rest may likewise follow. Still a small Workshop will not cause any heavy expense while at the same time it cannot be expected to be self supporting. In para 8 VII, Lieut Baddley represents the need of an instrument maker, and a shop for him to carry out repairs. I consider this is highly desirable.

but yet in working out the principle of
abolition, if the Revenue Survey Dept.
can get their instruments repaired
elsewhere, the P.W. Department can
do so also. There may however be a
Small Instrument Department main-
tained, with a small working shop
without much expense.

6. As to reduction of establish-
ment this should be carried out on
the general principle of reduction,
such as took place in the P.W. Dept.
Recently: transfers being made where
practicable. Care should be taken
that in all cases 3 months notice to
quit should be given in good time.
In fact as a precaution this had
better be given to all employed in
the Workshops.

7. The list of buildings A gives
the total cost of construction, Rs
pees 207,710. No allowance is made
in

in these figures for depreciation.
The value as a selling price ²⁴⁸⁸ ~~2500~~
have to be considered, before tenders
for purchase or rent may be received.

List B is a valuation statement
of Machinery and Plant amount-
ing to Rs 81,464. This is the last va-
-uation made nearly 5 years ago,
and must therefore be considered
as higher than the present price.
It has also been stated lately by
the General Superintendent, that much
of the Machinery is old so that it
compares unfavorably in both make
and cost, with modern machinery.
I allude to the reference made by
the Superintending Engineer of the
2^d Circle: as to defective parts and
high cost of articles sent to the
Fistna. Hence it must be ex-
-pected that there will be offered
of much less than book value.
List

List C gives a description of the nature of work done in the Work-shops. The Value is entered in paper D.

The paper D is a draft Notice inviting tenders for purchase or hire of the Shops.

8 A serious difficulty arises in the question of the future location of the Stores, and such minor working shops as may be retained. The Machine Shop and office rooms are in the main building the instruments and valuable small stores are in the upper story, while the heavy stores are in the separate building called the Store Shed on the Block plan, and the State Railway Stores are in the Storeyard. The Machine Shop must go with the Workshops, and it is not possible to divide the main building

building so that a part might be kept for the Govt Stores Department. Hence if an offer for the whole ²⁴⁸⁸ premises be accepted the Government property will have to be removed, and another place must be found. There are no Government Buildings available, and therefore they must be built.

But in the event of no suitable offer being made, the present Workyard and buildings will remain on the lands of the Government, and as this cannot be considered an impossible contingency, it will not do to incur the expense of constructing new buildings before hand. I can only suggest that plans & estimates be made at once for future requirements, and that it be notified in the call for tenders, that the premises can be taken over at a

a future date, say, after the 30th June or from such date as will allow of 4 month's interval, for the construction of the buildings.

7. The P. & D. Stores must, it is presumed be kept up (para III to XV) and will require a Store shed; there must be an enclosed yard for heavy stores and the State Railway Stores there must be an Instrument Shop and Workshop. The Government Machinery Stores can be left where they now are, in a part of the old Mill premises.

It is desirable that Sub Engineer Francis should be available to look after the Machinery at the General Hospital and the Aqueduct Water Works and he might do so as a Sub Divisional Officer under the Presidency Engineer.

Having

having also charge of the repair Shop.

10. For the present I would ask for orders on the following points. 2488

I Will orders be given to P. & D. Officers to abstain from making demands on the Workshop - para 3 above?

II Shall there be a small ^{Work} shop maintained? } para 5 above

III And an instrument makers shop?

IV Shall the General Superintendent make a list of Establishments to be kept for II & III and for the Stores? para 6 above

V Is it contemplated that there should be a new set of buildings, and estimates prepared, as suggested in para 8 above?

I have the honor to be

Sir

Your Most Obedt Servant
Chas. Spender J. P. E.

Superintd Engineer
5 Circle.

2488
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A. 2064 h. 12-9-82

P. W. C. no 6233

N^o 2161

From

The Sup^d Engr^s
5th Corps

To

The Chief Engr^s
D. P. W.

Dated 13th
Recd 14th } Septemb. 1882

628 Ed/219-

Encl 7.

P. W. J. Workshop

Affords certain
information in connect-
ion with reconstructing
the operation of the

W. J. J. J. J.

17.9.82

18.11.9

only 14/9 Re 25/9

Letter from S. E. V.

N^o 2161. - 13-9-82.

²⁴⁸⁸
Draft disposal in the
sense of Col. Tankey's
remarks, - and let
me have draft tomorrow
morning, when both he
& I will be at Stonehouse.

Disposal should include
a reference to Surveyor
General's Office - re
repair of instruments.

Block plan of building
is I think on too large
a scale - and should
be reduced - & re-
lithographed - with a
small index map of
Madras on same
sheet - as suggested
by IV.

The index map should
show ~~outline~~ the
situation of the place
with reference to
the river.

$$\begin{array}{r} 2488 \\ \hline 23 \end{array}$$

Am Stern Stern

I have not much
time to discuss minutely
your these papers and
must therefore ask you
to take them up

To Presidents
universities it seems to me
primary that

(I) Orders might issue
to P W Officers to curtail
as far as possible their
demands on the work-
shops. For other dept.
work might be refused
after end of year

II - As regards the small workshops, the nucleus of such might be organized within the present shops so soon as the tenders have been received. The separate ^{eight} to be if necessary removed to any selected place on purchase of the buildings by any firm.

III - Le traitement

Instrument Dept. of
Calcutta. Surveyor
General Wm. would in
all probability easily
take over all work

* which might
be written to

IV - As we do not
contemplate taking rid
of the whole Calcutta
under G. W. & Munro
there is no immediate
necessity about disposing
with men. This may
be a gradual process
which might I think
be better left to the S. F.
to carry out as circumstances
admit.

V - As regards the
suggested new set of
buildings the proposals
are premature, there
will be ample time after
tenders have been received
and the question can
in any case stand over
till Govt. move to
London

With the exception
of the provision for
the repair of instrument

instruments & Roddell's
Instruments seem pretty
good

24/80
24/80
If we give till 24/80 Feb.
in receiving tenders &
utilize the interval
in printing and cir-
culating the lists, accom-
panied if possible
by a lithographed
plan of the building
with a small circle
each of London & the
information of manufac-
turers at a distance,
I fancy we shall soon
ascertain more the
true view the operation
In notice to be published
of course be published
in the F. & S. Press
Gazette as also in
Gazette of India &
Bombay

18/9

Att

No 2488 w *sub*
sent *to* *the* *Govt*

PUBLIC WORKS DEPARTMENT.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Under date the 25 Sept 82

Read the following:—

Letter from the General
Superintendent, P.W. Stores } (M.O. No 1447 Wd 7th Sept 1882)
Workshops - Madras
Letter from the S.E. Fifth Circle (.. .. 2161 of 13th)

Q 13

With the letter above
recorded the Superintending
Engineer Fifth Circle submits
proposals for giving effect
to the decision of Govern-
ment recorded in G.O. No
2064 Wd 12th August 1882
for restricting the operations
of the Public Works Work-
shops at Madras to the
execution of such repairs
and trifling manufacture
as may be required by the

S.W. Dept and cannot
be rented in the open
market, and for disposing
of the buildings and plant
which would thus become
available.

2. It is explained
that the first step for the
accomplishment of the object
in view has already been
taken in the refusal to
accept work except that
required by the S.W. Dept,
and in the attachment
shops.

3. These arrangements
are approved - officers of
the S.W. Dept will ^{now} therefore
be directed to obtain as
far as practicable from
giving orders for work at
the shops - and no new

work for other Departments
should be accepted after
the end of the present year.

2488
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4. A small workshop
will thus still be required
for departmental purposes,
and the nucleus of this
may, for the present, be
organized within the
present shops. Senders will
nevertheless be invited for
the purchase of the existing
building and available
plant - and as soon as
they have been received
and decided upon, the reduced
Government Establishment
may, if necessary, be removed
elsewhere.

5. It may be practicable
to have the Mathematical

Instrument work of the
Department executed in
Calcutta, should local
firms be unable to take
it up. The Surveyor
General will be communi-
cated with on the subject.

6. As regards the disposal
of the existing Establishment,
many of the workmen will
no doubt find employment
with the firms which
will take over the work
which the Government
are now surrendering, and
the others will be absorbed
gradually. In any case
no immediate action seems
necessary, and the details
of the process may well be
left to be worked out by
the Supt. Engineer as

circumstances admit.

2488
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7. It is premature to
issue any definite orders
as to erection of new building
at present. There will be
ample time for decision
on this question after
tenders for taking over
existing block and plant
have been considered. Tenders
may be received up to the
1st February next, and the
interval should be utilized
in printing and circulating
lists, which should be
accompanied by a lithographic
block plan of the buildings
on a somewhat smaller
scale than that sent up,
and a small Index Map
of Madras on the same
sheet. The Index Map

should show the situation
of the shops with reference
to a few of the most im-
portant places - e.g. the
harbour, railway stations,
Fort &c.

8. The notices should
be published in the Fort
Saint George Gazette, the
Bombay Gazette, and the
Gazette of India.

9. The General Superin-
tendent of the Workshop
will take the
 requisite action for giving
effect to these orders -
submitting drafts of notification
for insertion in the Gazette
outside the Presidency.

(No. No. 2489 W of 25 Sept/82)

To,
The Surveyor Genl
Calcutta

Recd
4/10/82

To,
The Genl Supt. W Workshop
with enclosure

✓ Assty Engineer 7-8-9-10

✓ Assty Architect to Genl 3

✓ Chief Eng. for Irrigation 4

✓ Assty Eng. for Railways 11

✓ Examiner of Accounts 7

✓ Revenue Dept 21

✓ Military - 24

✓ Public Works Dept 21

Sir
2488
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Referring to the
accompanying copy of
Proceedings of Government
under date the 25 Sept/82
No. 2488 W I am directed
to enquire whether you
would be prepared to
undertake the repair of
Mathematical Instruments
of the Madras W. Dept
should the local Instrument
Shop be closed; and whether
you anticipate that the
arrangement would involve
much delay or excessive
cost

Recd
4/10 21/8/82

R.S.

7C

A 360 W 92.84

2488
29

623

Govt. of 1882 Madras

PUBLIC WORKS.

20/9/82

Encl.

Recd.

Encl.

G. O. 28th Sept. 1882, No. 2188W.

2189W

Nos. 192 to 193A

Mr workshops at Madras.

Orders on proposals
of the S. E. F. and the Civil
for constructing the operations
of the Mr workshops
at Madras to the
specification of such length
repairs & trifling manu-
facture as may be
required by the Mr D and which
cannot be done in the
market.

Ento in Receipt Regr.