

8183

Public Works. (1896.) Department.

G.O., No. 2795

DATED 29. September 1896.

[Despatch Abstract.]

Gas Works: Estimate of Rs. 28,237 for constructing
— for the Chemical, Physical and Biological
Laboratories of the Presidency College & the workshops at-
tached to the College of Engineering, and for providing fittings
and furniture for the Chemical Laboratory
of the former building at Chepak, Madras.
Sanctioned with remarks.

Government { 1896 } of Madras.
PUBLIC WORKS.

Spare copies

SEPTEMBER.

Estimate of Rs. 28,237 for constructing — for the Chemical, Physical and Biological laboratories of the Presidency College and the workshops attached to the College of Engineering and for providing fittings and furniture for the Chemical laboratory of the former building at Chepāk, Madras, sanctioned with remarks.

GOVERNMENT OF MADRAS.
PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

READ—the following papers:—

From the Honourable Mr. D. DUNCAN, M.A., D.Sc., LL.D., Director of Public Instruction, to the Chief Secretary to Government, dated Madras, 24th August 1896, No. 9120.

I have the honour to submit herewith, for the approval and sanction of Government, four plans, with estimates, amounting to Rs. 28,237, for constructing gas works to supply 5,000 cubic feet of gas to the Chemical, Physical and Biological laboratories of the Presidency College and to the workshops attached to the College of Engineering and for fittings and furniture for the Chemical laboratory. The plans and estimates have been scrutinized by the Professors of Chemistry, Physics, and Biology, and by the Principal of the College of Engineering; and the quantity of gas for which provision has been made is considered to be sufficient to meet the requirements of both the colleges.

2. A provision of Rs. 25,510 for the work has been made in the Public Works Department budget for the current official year; and as well nigh five months have passed away, and the work is urgent, I have the honour to request that Government will be pleased to accord very early sanction to the same and instruct the Consulting Architect to proceed with the work immediately on receipt of orders on this letter. It will be noticed that the estimates exceed the budget provision by Rs. 2,727 and, should the work be completed within the year, I request that this increased amount be met from general savings or from the reserve.

No. 1801, Educational.

Approved and transferred to the Public Works Department, with reference to G.O., No. 764, Educational, dated 14th September 1895.

OOTACAMUND,
8th September 1896.

(Signed) W. FRANCIS,
Acting Under Secretary.

Note by the Chief Engineer, Public Works Department.

Adverting to memorandum No. 4149 C., dated 23rd December 1895, the Consulting Architect submits revised plans and estimates, the latter amounting to Rs. 28,237, for constructing gas works for the Chemical, Physical and Biological laboratories of the Presidency College and the workshops attached to the College of Engineering and for providing fittings and furniture for the Chemical laboratory of the former building at Chépâk, Madras.

2. It is proposed to obtain a steam generator and conductor from Bridge & Gordon, White Chapel, London, and to have the necessary connections for the steam boiler and gas works provided and fitted by Messrs. Mansfield & Co., Calcutta,

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2. It is proposed to obtain a steam generator and conductor from Bridge & Gordon, White Chapel, London, and to have the necessary connections for the steam boiler and gas works provided and fitted by Messrs. Mansfield & Co., Calcutta,

No. 2795 W., 29TH SEPTEMBER 1896.

through their Agents, Messrs. Orr & Sons, Madras, and a lump sum provision of Rs. 13,500 has been made in the estimate to cover these charges. The undersigned considers that these large lump sum estimates should not be accepted without scrutiny and that the safest plan would be to obtain all the fittings through the India Office. The provision of Rs. 13,500 may, however, be accepted on the condition that the fittings are obtained from England, and in anticipation of effecting a considerable saving thereby.

3. The nature of surface and subsoils has not been reported on. The foundations proposed are however accepted on the presumption that the soil is suitable; but it would be well to continue the concrete to ground level.

4. The rates for items comprising the furniture are in many cases excessive. The furniture should therefore be ordered from the Public Works Workshops, Madras, and paid for at the usual workshop rates.

5. A backing of 9 inches of gravel may be provided for the steining of the gas holder cistern.

6. With these remarks, the estimate is recommended for sanction.

(Signed) D. McNEIL CAMPBELL, Col., R.E.,
Chief Engineer.

23rd September 1896.

ORDER—No. 2795 W., dated 29th September 1896.

The estimate, amounting to Rs. 28,237, for constructing gas works for the Chemical, Physical and Biological laboratories of the Presidency College and the workshops attached to the College of Engineering and for providing fittings and furniture for the Chemical laboratory of the former building at Chepāk, Madras, is sanctioned.

2. Attention is drawn to the Chief Engineer's note recorded above.

3. A sum of Rs. 25,510 has been provided for the work in the current year's budget, but this amount cannot be fully utilised before the close of the official year, as it will take a long time to obtain the apparatus and fittings from England. The Consulting Architect will therefore surrender at once such portion of the grant as cannot be spent.

4. The sanction accorded in paragraph 1 has been registered as Provincial No. 86 W. of 1896-97, and classified as Civil Buildings—Original Works.

(True Extract.)

Under Secretary to Government.

To the Consulting Architect to Government, with eight enclosures.
" Examiner, Public Works Accounts.
" Educational Department.

Exd. C. M. Thumbarwamy.

No. 2795 W dated 29th Sept. 1896.
PROCEEDINGS OF THE MADRAS GOVERNMENT.

READ the following

Endorsement in the Educational
Department on letter from
the Director of Public Instru-
tion, Madras, No. 9120 dated
24th August 1896
Note by the Chief Engineer, P.W.D., dated Sept. 1896.

The estimate amounting
to Rs. 28,237, for constructing
gas works for the Chemical,
Physical and Biological
Laboratories of the Presidency
College and the workshops
attached to the College of
Engineering and for providing
fittings and furniture for
the Chemical Laboratory of the
former building at Chepāk,
Madras, is sanctioned.

2. Attention is drawn to
the Chief Engineer's note recorded
above.

3. A sum of Rs. 25,510 has
been provided for the work
in the current year's budget,
but this amount cannot be
fully utilised before the close
of the official year, as it will
take a long time to obtain the
apparatus

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4. The sanction accorded in para 1 has been registered as Provincial No 86 W of 1896-97 and classified as Civil Buildings, Original Works.

23/5/96

Ca 826
23.5.96.

Tks
B

13/10/96

The Cons. Architect to Govt.
with 8 enclosures
" Examiner P. W. accounts
" Educational Department

Kraj 23/9

No. 2795 W dated 29th April 1896 P. W. Department
C. No. 8183.

Note by the Chief Engineer, P. W. D.:

Adverting to Memo No. 4149 C dated 23rd December 1895, the Consulting Architect submits revised plans and estimates, the latter amounting to Rs 28,237, for constructing gas works for the Chemical, Physical and Biological Laboratories of the Presidency College and the workshops attached to the College of Engineering and for providing fittings and furniture for the Chemical Laboratory of the former building at Chepāk, Madras.

2 It is proposed to obtain a steam generator and condenser from Bridge and Gordon, White Chapel, London, and to have the necessary connections for the steam boiler and gas works provided and fitted by Messrs. Mansfield & Co., Calcutta, through their agents Messrs Orr & Sons, Madras, and a lump sum provision of Rs 13,500 has been made in the estimate to cover these charges.

charges. The undersigned considers that these large lump sum estimates should not be accepted without scrutiny and that the safest plan would be to obtain all the fittings through the India office. The provision of Rs 13,500 may however be accepted on the condition that the fittings are obtained from England, and in anticipation of ^{effecting a considerable} ~~a large~~ saving ~~which will be effected thereby.~~

3. The nature of surface and subsoil has not been reported on. The foundations proposed are however accepted on the presumption that the soil is suitable; but it would be well to continue the concrete to ground level.

4. The rates for items comprising the furniture are in many cases excessive. The furniture should therefore be ordered from the P.W. Workshops, Madras, and paid for at the usual workshop rates.

5. A backing of 9" of gravel may be provided for the steining of the gas holder cistern.

b. With

b. With these remarks, the estimate is recommended for sanction.

23/9/96

CW

CWM
23-9-96

Maj
23/9

No 2795. w. dated 29th Sept^r. 1896

C. No. 8183

P. W. Secretariat.

Note by Budget Section.

Work	Constructing gas works to supply gas to the Chemical & Physical Laboratories of the Presidency College and to the Workshops attached to the College of Engineering and providing fittings and furniture for the Chemical Laboratory.		
Fund	Provincial		
Service Head	Civil Buildings		
Departmental Head	Original Works.		
Amount of Estimate	...	Rs.	28,237.
Expenditure in previous year	...	"	"
Allotment in current year	...	"	25,510 *
Balance required to complete	...	"	2,727
Total Rs...			28,237

Note of available Funds.

The work appears as item 76, Part I, class A Works of the current year's Provincial budget.

The balance at the credit of the Provincial reserve will be Rs 11,004, if the sum of Rs 19,200 surrendered by the S.B. V circle is accepted. vide C No 8861 submitted to W on 18 Sept. 1896.

CMB
19.9.96.

* This allotment seems to be altogether out of proportion to the estimate, considering how long it takes to get stores from England and the inadvisability of employing Indian firms for work of such a technical nature. A large surrender might safely be accepted.

CMB
22.9.96.

No 2795 W dated 29th Sept 1896.

Public Works Department.

Current No. 8183

Letter No. 1804

Dated 8th September 1896

From the Educational Dept.

Note by Budget Section.

NOTE BY TECHNICAL SECTION.

Name of work Constructing gas stove & retort house & for providing furniture, fittings &c. to the Chemical Laboratory of the Presidency College and to the Workshops attached to the College of Engineering at Chapek, Madras.

Amount of estimate Rs 28,237

Adverting to this Office Memo No. 4149 C dated 23rd Decr 1895, the Comr. is submitting architect's estimate re: - used plans & estimate, amounting to Rs 28,237, for Constructing Gas works to the Chemical, Physical & Biological Laboratories of the Presidency College and to the Workshops attached to the College of Engineering & for fittings & furniture for the Chemical Laboratory at Chapek, Madras.

The amount of the estimate is made up as follows including Comr. Engineer's & party expenses.

- (a) Constructing a retort house for the Chemical Laboratory Rs 2087
- (b) Constructing a gas stove &c. & every enclosure for gas holder } 877

C. over Rs 2,964

Brought forward Rs 2,964

- (c) Improving & extending the Chemical Laboratory ————— 1970
- (d) Providing & erecting mainfields improved gas apparatus — 14,510
- (e) Providing steam boiler & engine ————— 1,130
- (f) Providing furniture & fittings 3,782
- (g) Fitting gas & water pipes — 3861
- Total estimate Rs 28,237

The gas works will consist of a retort house and a gas store sink. The retort house will contain 3 rooms one of 25' x 10' for retorts and two of 10' x 10' each, one for coal & the other an oil store. The retort room will be fitted with a steam generator & condenser. The steam required will be obtained from Bridge & Gordon, Whitechapel, London & the necessary connections for the steam boiler & gas works will be provided & fitted by Messrs Mansfield & Co. Calcutta. Their agents Messrs Orr & Sons, Madras for the lamp sums noted in the estimate. The gas store sink or cistern will consist of a well 26' 3" inner diameter and 10' 3" deep, so as to contain the iron bell for retaining gas. This iron bell will be 25' 3" in diameter & 10 feet deep holding a capacity of 5000 cft. The cistern will be fitted with columns, girders, guide rods, inlet & outlet pipes & connections as per plan, for a lamp sum of Rs 13,500 inclusive of Contractor's & Petty expenses.

I do not consider that these large lump-sum estimates by Indian firms should be accepted. Letters have repeatedly been addressed to Superintending Engineer warning them not to accept Contractors' estimates without scrutiny. The safest plan would probably be to obtain all fittings through the India Office. On this condition only should these lump-sums be accepted. If the fittings are obtained from England the lump sum of Rs 13,500 might be accepted as a matter

of form in anticipation of a considerable saving.

The foundations may be passed presuming the soil to be suitable; but it would be well to continue the concrete to ground level.

May be accepted if the fittings are obtained through the India Office.

The nature of surface & sub-soil has not been reported on.

The retort house will be raised over a basement of 9 inches from ground level. The foundations will be sunk 4 1/2 feet. The lower 3 feet will be laid with concrete & the upper 1 1/2 feet built of stock bricks in chimney. The basement will be raised 9 inches & the superstructure walls 13' 3" and built with Claytons Press bricks set in mortar with arches & work over doors & windows. The floor will be of 6" concrete & plastered with 1/2" cement mortar & the roof tiled with Mangalore tiles laid over teak rafters fastened on teak couples.

The gas store cistern will be lined with brick-work skinning 1 1/4" thick on concrete bed 4 1/2 feet wide & 2 feet deep. The excavation will be carried down 13 1/2 feet below ground surface for the concrete bed. The floor of this room will be 2 feet thick, a sink 4 x 2 x 10" will be lowered 1' 6" below the cistern floor for fixing the outlet & inlet pipes. The brick skinning & concrete floor will be plastered with 1/2" cement mortar throughout. There will be no roof over the gas holder cistern.

Provision has been made in lump sums for the necessary gas apparatus, pipes & fittings also for furniture & fittings as detailed in estimate. The estimate further provides for improving

improving the Chemical laboratory, such as fixing new ventilation shutters in upper floor, flooring with 6 square cms. pressed tiles laid in cork motion & distemper walls R. H.

The scantlings for carp timbers in school house are correct & the rates for masonry & other building works are fair. Those for furniture & fittings cannot be examined on account of the vague way in which they are described without any specification of plan. They are all entered in lump sums.

The items under reference specially called for plans & specifications for the items entered in the estimate in lump sums. This has not been attended to, the rates entered for the furniture items in many cases appear to be excessive.

The plans & estimate have been countersigned by the Director of Public Instruction & approved in the Educational Dept. with reference to G.O. No. 764 dated 14th Sept 1895.

M.B. It is submitted that a backing of say 9" of gravel may be provided for the skinning of the gas holder etc. etc.

If the furniture be ordered from the Government workshop, Madras, and paid for at the usual workshop rates, the high rates entered in the estimate will be of no material consequence.

Yes. The estimate may be approved on the above conditions.

C.M.S.
12.9.96.

Public Works.
Educational (1896) Department.

CURRENT No. 8183

H.M.

From

The Dir. of Pub. Instruction,
Madras.

End. Order No. 1801. 28
5/9/96

Approved and trans-
ferred to the Public Works
Department with reference
to G.O. no. 764 dated 14th
September 1895.

2/9/96
Ag Under Secretary.

7/9/96
29/8.
Co. to be recommended
Note for Mr.
Ru-8/9/96
Please see notes & orders in
Regd. No. 11.9.96
764. Ed.
14.9.95

No. 9120.

Dated 24th August 1896.

Received 26th

Registered 26th

Enclosures 4 plans. Report in Estt.

Spare copies nil.

SUBJECT.

Submitting for the
approval and sanction of Government
plans with estimates for construct-
ing gas works to supply gas to the
Chemical, Physical and Biological
Laboratories of the Presidency
College and to the Workshops attach-
ed to the College of Engineering
for fittings and furniture for the
Chemical Laboratory.

T for scrutiny
C.M.S.
9/9/96

5/3/97 0/19/9 R 22/9

BACK PAPERS.

G.O.	No.	Department.	Date.
	32320 PW.		1-9-96
	16480 -		24-3-96
	917W -		14-3-96
	938C -		17-2-96
	674C -		7-2-96
	218C -		16-1-96
	4149C -		23-12-95
	2494C -		12-8-96

FURTHER PAPERS.

G.O.	No.	Department.	Date.

Edl 6 No 031
OFFICE OF THE DIRECTOR OF

PUBLIC INSTRUCTION,

Madras, 24 August 1896.

No. 9120

From

THE HONORABLE MR. D. DUNCAN, M.A., D.Sc., I. L.D.,

DIRECTOR OF PUBLIC INSTRUCTION,

Madras,

To

THE HONORABLE THE CHIEF SECRETARY TO GOVERNMENT,

FORT ST. GEORGE.

SIR,

I have the honour to submit herewith for the approval and sanction of Government four plans, with estimates amounting to Rs. 28237, for constructing gas works to supply 5000 cubic feet of gas to the Chemical, Physical College and Biological laboratories of the Presidency and to the Workshops attached to the College of Engineering for fittings and furniture for the Chemical Laboratory. The plans and estimates have been scrutinized by the Professors of Chemistry, Physics and Biology, and by the Principal of the College of Engineering; and the quantity of gas for which provision has been made is considered to be sufficient to meet the requirements of both the Colleges.

2. A provision of Rs. 25510 for the work has been made in the Public Works Department Budget for the current official year; and as well nigh five months have passed away, and the work is urgent, I have the honour to request that Government will be pleased to accord very early sanction to the same and instruct the Consulting Architect to proceed with the work immediately on receipt of orders on this letter. It will be noticed that the estimates exceed the budget provision by Rs. 2727 and, should the work be completed within the year, I request that this increased

BACK PAPERS.

amount be met from general savings or from the Reserve.

I have the honour to be,

Sir,

Your most obedient servant,

J. G. Munro

Director of Public Instruction.

2.

It is the duty of the
Government to provide
for the education of
the people of the
country.

Yours faithfully,
J. G. Munro