

(1) Number of pages _____

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MADRAS RECORD OFFICE.

Government of Madras.

Public Works **DEPARTMENT.**

G.O. No.	7	(W)	Press Mis.
Dated	1-5-	1877.	

Not to be folded or roughly handled

10
GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

1st May 1877, No. 7 W.

Buildings and Roads.

Civil Works.

Read the following :—

No. 13. From Consulting Architect to Govt., dated 31st Jan. 1877, No. 804.

ABSTRACT.—Calling attention to certain points in connection with standard designs.

No. 14. ORDER THEREON, 1st May 1877, No. 7 W.

THE Consulting Architect will submit an alternative design.

(True Extract.)

Colonel, R.E.,
Secretary to Government, P.W.D.

To the Consulting Architect.

Exd. E. C. Shunker.

Spare Copies

Read the following:—

No. 431. From the Deputy Chief Engineer, dated 14th December 1876.

Specification of Works to be performed in constructing a Sub-divisional and Overseer's Office and Stores.

Excavation.—The foundation to be excavated to such a depth as the officer in charge of the works may direct.

Brick-in-Chunam.—Foundation to be 2½ feet thick. Basement 2 feet thick and 2 feet deep. Superstructure 1½ feet thick; the whole to be of brick-in-chunam. The bricks to be well wet with water before being used and laid in proper courses.

Arches.—The heads of all openings to have flat arches 18 inches thick; the bricks will radiate to a centre midway between the top and bottom of each opening.

Steps.—Steps, two in front and two in rear, to be built with brick-in-chunam; the treads of each step to be of dressed granite slab.

Teakwood.—The ridge beam, bressummer, wall plates, rafters, and reepers to be of teakwood, sound and well seasoned and free from flaws, and to be neatly wrought in strict accordance with the details given on the drawing.

Doors and Windows.—The doors and windows to be of teakwood. Doors one-third panel and two-thirds venetian. Windows to be half panel and half venetian; the panels to be raised instead of grooved and tongued, and the edges splayed and not moulded. Venetians to be of ordinary construction.

Roofing.—The roof timber to be of teakwood well seasoned. Rafters to be 3 inches × 5 inches placed 18 inches apart from centre to centre, and reepers 2 inches × ½ inch. The rafters of the office room to be supported at their apex by a ridge beam 3 inches × 9 inches. The apex and border of the roof of the remaining rooms to rest upon wall plates 4 inches × 5 inches placed upon the top of the centre dividing wall and nailed, the whole to be covered over with well-burnt flat and pan tiles laid in the usual manner, the ridge and hips to be protected with tiles specially made for the purpose, finish with chunam bands, rough cast on the surface and bands on the tiling.

Plastering.—The interior and exterior walls to have two coats of chunam plaster; the second coat to have a smooth and level surface.

White-wash.—All walls inside to have two coats of best lime wash; the lime to be used hot and slaked on the spot.

Color-wash.—All walls outside to be color-washed by mixing colored earth with lime-wash.

Flooring.—The flooring to be of square pavement tiles laid truly level on a bed of concrete 4½ inches thick. The store rooms to be asphalted ½ inch thick.

Cornice.—The cornice at the gable ends of the roof to be of the ordinary description; the bricks to have a proper bearing not less than 4 inches and set with mortar.

Wood-oiling.—All doors and windows and exposed woodwork to have two coats of wood oil.

NOTE.—If good, reliable timber for rafters is not obtainable a purlin 5 inches by 4 inches should be used in roofing the rear rooms, the scantlings of the rafters being reduced to 4 inches by 2½ inches.

Proceedings of the Madras Government, Public Works Department,
18th December 1876. No. 3,463.

Estimate for constructing a Sub-divisional and Overseer's Office and Stores.

Description of Work.	MEASUREMENT.				Contents.	Total.
	No.	Length.	Breadth.	Depth.		
<i>Earthwork.</i>						
Excavating foundation to main longitudinal walls ...	2	43 0	2 6	3 0	645 0	
Do. to end and cross walls...	4	24 6	2 6	3 0	735 0	
Do. longitudinal walls of office room.	2	11 0	2 6	3 0	165 0	
Do. centre dividing walls, &c. ...	2	11 0	2 6	3 0	165 0	
Do. front and rear steps ...	4	4 0	2 3	1 0	36 0	
Cubic feet ...	...	...	...	...	1,746 0	64½
Cubic yards ...	...	...	...	...	...	
<i>Earth filling.</i>						
Filling in between basements of office stores, &c. ...	5	11 6	11 6	1 5½	964 3	
Do. to verandahs ...	2	11 6	4 9	1 5½	159 3	
Cubic feet ...	...	...	...	...	1,123 6	
Cubic yards ...	...	...	...	...	...	
<i>Brick-in-Chunam Foundations.</i>						
Main longitudinal walls ...	2	43 0	2 6	3 0	645 0	
End and cross walls...	4	24 6	2 6	3 0	735 0	
Longitudinal walls of office room ...	2	11 0	2 6	3 0	165 0	
Centre dividing walls ...	2	11 0	2 6	3 0	165 0	
Front and rear steps ...	4	4 0	2 3	1 0	36 0	
Cubic feet ...	...	...	...	...	...	1,746
<i>Basement.</i>						
Main longitudinal walls ...	2	42 6	2 0	2 0	340 0	
End and cross walls ...	4	25 0	2 0	2 0	400 0	
Longitudinal walls of office room ...	2	11 6	2 0	2 0	92 0	
Centre dividing walls ...	2	11 6	2 0	2 0	92 0	
Front and rear steps ...	4	3 6	2 3	0 6	15 9	
Cubic feet ...	...	...	...	...	...	939½
<i>Superstructure.</i>						
Main longitudinal walls ...	2	29 3	1 6	8 0	702 0	
Centre dividing wall ...	1	28 6	1 6	17 0	726 9	
End and cross walls ...	3	24 0	1 6	8 0	864 0	
Gables over do. ...	3	24 0	1 6	4 6	486 0	
Front wall of office room ...	1	15 0	1 6	12 6	281 3	
Gables over do. ...	1	15 0	1 6	2 3	50 7½	
Longitudinal walls of office room ...	2	12 0	1 6	12 6	450 0	
Pillars of verandah ...	2	1 6	1 6	7 3	32 7½	
					3,593 3	
<i>Deductions.</i>						
Doors ...	10	3 6	1 6	7 0	367 6	
Flat archwork over doors ...	10	4 6	1 6	1 3	84 4½	
Windows ...	5	3 0	1 6	4 0	90 0	
Flat archwork over windows ...	5	4 0	1 6	1 3	37 6	
Cubic feet ...	...	...	...	...	579 4½	3,013½

Proceedings of the Madras Government, Public Works Department,
18th December 1876. No. 3,463.

Estimate for constructing a Sub-divisional and Overseer's Office and Stores—(Continued).

Description of Work.	MEASUREMENT.				Contents.	Total.
	No.	Length.	Breadth.	Depth.		
<i>Flat Archwork.</i>						
Flat archwork over doors and windows as per deductions above	...	...	...	...	...	122
Cubic feet...	...	...	...	...	...	
<i>Dressed Stonework.</i>						
Dressed stone for steps in front and rear	16	3 6	0 9	...	42 0	
Square feet	...	...	...	...	...	42
<i>Teakwood.</i>						
Ridge beam in office room	1	14 0	0 3	0 9	2 7 6	
Rafters	54	18 9	0 3	0 5	105 5 7½	
Do.	2	11 0	0 3	0 5	2 3 6	
Do.	2	14 0	0 6	0 9	10 6 0	
Bressummers in side verandahs	...	...	...	...	...	
Wall plates in longitudinal walls of office room	2	15 0	0 4	0 5	4 2 0	
Do. in main longitudinal walls...	3	28 6	0 4	0 5	11 10 6	
Cubic feet	...	...	...	...	...	136 11 1½
<i>Doors and Windows.</i>						
Doors one-third panel and two-thirds venetian with frame and fittings...	10	3 6	...	7 0	245 0	
Windows half panel and half venetian with frame and fittings	5	3 0	...	4 0	60 0	
Square feet	...	...	...	...	...	305
<i>Tiled Roofing.</i>						
Roofing with teakwood reepers, flat and pan tiles, chunam borders, &c.	2	43 6	19 0	...	1,653	
Squares	...	...	...	...	...	1653
<i>Plastering.</i>						
Interior walls of office room	1	48 0	...	13 0	624 0	
Do. gable do.	2	12 0	...	2 3	54 0	
Do. walls of stores, Sub-divisional Officers and Overseer's rooms.	4	48 0	...	8 6	1,632 0	
Do. half gables of cross walls	8	12 0	...	4 3	408 0	
Do. upper portion of centre dividing walls	4	12 0	...	8 6	408 0	
Exterior of longitudinal walls of office room	2	13 6	...	12 0	324 0	
Do. front wall of do.	1	15 0	...	12 0	180 0	
Do. gable of do. do.	1	15 0	...	2 6	37 6	
Do. verandah walls	2	5 3	...	8 0	84 0	
Do. do. gables	2	5 3	...	2 0	24 0	
Do. longitudinal walls	2	28 6	...	7 6	427 6	
Do. end wall in rear	1	28 6	...	7 6	213 9	
Do. gable over do.	3	6 0	...	4 ½	138 11½	
Pillars and half pillars in verandah.	10	17 6	...	1 2	204 2	
Sides and soffits of doors	5	15 0	...	1 2	87 6	
Do. do. of windows	1	135 0	...	2 0	270 0	
Basement all round...	...	...	...	...	5,244 10½	

Proceedings of the Madras Government, Public Works Department,
18th December 1876. No. 3,463.

Estimate for constructing a Sub-divisional and Overseer's Office and Stores—(Continued).

Description of Work.	MEASUREMENT.				Contents.	Total.
	No.	Length.	Breadth.	Depth.		
<i>Deductions.</i>		FT. IN.	FT. IN.	FT. IN.	FT. IN.	
Doors on both sides ...	20	3 6	...	7 0	490 0	
Windows do. ...	10	3 0	...	4 0	120 0	
					610 0	
Square feet ...	...	...	...	...	4,634 10½	46-35
Squares ...	...	...	...	...	...	
WHITE AND COLOR WASHING THE SAME AS PLASTERING.						
Flooring with Square Pavement Tiles.						
Office, Sub-divisional and Overseer's rooms ...	3	12 0	12 0	...	432 0	
Verandahs ...	2	13 6	5 3	...	141 9	
Door pieces ...	6	3 6	1 2	...	24 6	
Do. ...	2	3 6	0 4	...	2 4	
Longitudinal pieces between pillars.	2	9 6	1 6	...	28 6	
Square feet ...	...	...	...	...	629 1	6-29
Squares ...	...	...	...	...	...	
Flooring with Asphalt.						
Store rooms ...	2	12 0	12 0	...	288 0	
Door pieces ...	4	3 6	0 10	...	11 8	
Square feet ...	...	...	...	...	299 8	3
Squares ...	...	...	...	...	...	
Cornice Work.						
Front gable of roof ...	2	9 6	...	...	19 0	
Rear do. do. ...	2	18 0	...	...	36 0	
Lineal feet ...	...	...	...	...	...	55
Wood-oiling.						
Doors, panel portion ...	2	10	3 6	...	163 4	
Do., venetian do. ...	3	10	3 6	...	490 0	
Windows, panel do. ...	2	5	3 0	...	60 0	
Do., venetian do. ...	3	5	3 0	...	90 0	
Bressummers ...	2	14 0	...	...	56 0	
Square feet ...	...	...	...	...	859 4	8-59
Squares ...	...	...	...	...	...	

Proceedings of the Madras Government, Public Works Department,
18th December 1876. No. 3,433.

ABSTRACT OF ESTIMATE.

Quantities.	Item.	Rate.	Per	Amount.	Total.
		RS.	C. yd.	RS.	RS.
64½	Cubic yards, excavating foundation ...	...	...	...	...
41½	Do., earth filling ...	...	C. ft.	...	...
1,748	Cubic feet, brickwork in foundation ...	...	"	...	...
939½	Do., in basement ...	...	"	...	...
3,014	Do., in superstructure ...	...	"	...	...
122	Do. flat archwork over doors and windows.	...	Sq. ft.	...	...
42	Square feet, dressed stone work ...	...	C. ft.	...	...
137	Cubic feet, teakwood wrought and put up.	...	Sq. ft.	...	...
305	Square feet, doors and windows ...	...	Square.	...	...
16-53	Squares, tiled roofing ...	...	"	...	...
46-35	Do., plastering with two coats of chunam.	...	"	...	...
6-29	Do., flooring with square pavement tiles.	...	"	...	...
3	Do., with asphalt ½ inch ...	...	Lin. ft.	...	...
55	Lineal feet, cornice work ...	...	Square.	...	...
46-35	Squares, white and color washing ...	...	"	...	...
8-59	Do., wood oiling, two coats ...	...	"	...	...
	Contingencies at 5 per cent. ...	...	...	...	...
	Total, Estimate ...	...	...	...	...

MADRAS,
7th December 1876.

(Signed) W. FAREWELL, Colonel,
Deputy Chief Engineer, P.W.D.

No. 432. ORDER THEREON, 18th December 1876, No. 3,463.

CIVIL WORKS, No. 24.

ORDERED that the design prepared by the Chief Engineer be adopted as the standard design for Sub-divisional and Overseers' Offices, and that it be lithographed and distributed to all District Engineers.

(True Extract.)

(Signed) G. W. WALKER, Major-General, R.E.,
Secretary to Government.

To District Engineers.
To the Consulting Architect.

Exd. E. C. Shunker.
Spare Copies

Chopauk, 31 January 1877.

From

THE CONSULTING ARCHITECT TO GOVERNMENT.

To

The Secretary to
Government Public Works Deptt.

SIR,

Enclosures

1 Plan
1 Specification
& Estimate

I have the honor to acknowledge the receipt of
G. O. No. 3463 dated the 18th December 1876 forwarding
a Standard design for Sub Divisional and
Oversers Offices.

I think it my duty to call the attention of
Government to the fact that the accommodation
afforded in this building is somewhat out of
proportion to the Cost. The arrangement of the
plan seems to me faulty but that of course
is a matter of opinion. The former question
however admits of clear demonstration.

Adding the current rates to the Abstract
Estimate the cost of this structure amounts
to Rupees ----- Rs. 1, 2, 3
2345.0.0

Every superficial foot of
accommodation afforded costs Rupees -- 1.15.4.13

Every cubic foot of space
enclosed Rupees ----- 0.2.2.15

For the sake of drawing a comparison

I have calculated the quantities in the Venkatagerry
Rajahs Choultry and these quantities at the above
rates give for every Superficial foot R. 1.7.0
and ~~of~~ ^{for} every cubic foot ----- $0.1.7.92$
In other words this Standard design
is place of costing Rupees ----- $2345.0.0$
should not cost more than Rupees $1738.10.3$

As the Venkatagerry Rajahs Choultry is
not an unpleasing or an ill finished building
the comparison is perfectly fair.

I wish to bring the above to the notice of
Government as I am of opinion that many of
the Standard designs in force now are
unnecessarily expensive. I have before me a
Standard design for a roof of 42 feet span
where the quantity of Timber amounts to
 25.46 Cubic ft per square value R. 76.0.0

In the school Roof Lawrence Asylum
the quantity actually used amounted
to 13.65 per square value Rupees -- $41.0.0$

Even in the Senate House a roof
upwards of 60 ft span the timber used
amounts to only 21.20 cubic ft value R. 63.10.0

When the vast amount of building going on
all over the Country is taken into consideration
the importance of binding Officers to adopt
extravagant structural forms cannot be overestimated
There are one or two points in the Specification
under notice which seem to call for revision.

I have the honor to be
Sir
Your most obedt servant
R. Christie
Consgr. Architect to Govt.

No 7 ~~Public Works Department~~

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Under date the 1 May/77
Read the following:-

Letter from the Consy Architect
to Government
(H.C. No 804 dated 31st January 1877).

The consulting Archi-
tect will submit an alternative
design.

GA 23/4/77

Consy Architect with 2 Enclosures

Drp. 12-5-77

Received

From

The Consy Architect
to Government

The Secretary to Govt
Public Works Dept.

Dated 31 January 1877

Received.

Call attention to certain
points in connection
with Standard designs.

No 7 ~~Public Works Department~~

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Under date the 1 May/77
Read the following:-

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The consulting Archi-
tect will submit an alternative
design.

GA 23/4/77

Consy Architect with 2 Enclosures

Drp. 12-5-77

Received

From

The Consy Architect
to Government

The Secretary to Govt

Public Works Dept

Dated 31 January 1877

Received

Call attention to certain
points in connection
with Standard designs

Compd Buildings, and Roads,
Govt. of 1877, Maras.
PUBLIC WORKS.

To *The Court Architect.*

Dated

Issued

Recd.

Encl.

G. O. *1st May* 1877, No. *762H*

Nos. 13-14

Sub Divisional and District
Officers' Office The
Consenting Architect
ordered to submit an
alternative design for
—

But in Reg.