(1) பக்கங்களின் எண்ணிக்கை 46-Pages

(2) புதுக்கித் திருப்பிய நாள் 7.9.90

(3) ஆதாரங்குறிப்பவர் சுருக்கொப்பம்

தமிழ்நாடு ஆவணக் காப்பகம்.

138

தமிழ்நாடு அரசு

P.W.D துறை

அரசாணை எண். மு. கோப்புத் தாள் எண்.	1078	அச்சகம் பலவகை
நாள் :	18-4-1891	198 .

மடிக்கவோ கண்டபடி கையாளவோ கூடாது

23 Sheets

Gs 15 Statement

ஆவண, கா-1—18,000—15-6-87.

1078

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

READ—the following papers:—

From Colonel C. A. PORTEOUS, Acting Inspector-General of Police, to the Chief Secretary to Government, dated Madras, 19th September 1890, No. 5353.

I have the honor to bring to your notice the very unsatisfactory state of the Jaganadarajpuram station-house in the Chípurupalle division of the Vizagapatam district.

2. This station-house was built by the Public Works Department at a cost of Rs. 1,520 and handed over to the Police in December 1884. In January 1886 it exhibited a large crevice at the back entirely from roof to foundation and several cracks in front. It is now absolutely dangerous and I have ordered it to be vacated.

3. A copy of the Superintendent's report on the state of the station is forwarded for your information.

ENCLOSURE.

From L. G. ARBUTHNOTT, Esq., Superintendent of Police, Vizagapatam district, to the Inspector-General of Police, dated Vizagapatam, 1st September 1890, No. 646.

As directed on the Deputy Inspector-General's inspection report of this district, I have the honor to bring to your notice the state of the Jaganadarajpuram station in the Chípurupalle division. This station was built in December 1884 by the Public Works Department at a cost of Rs. 1,520. On your inspection of the station on the 26th January 1886, you remark as follows:—"The building, though only very recently completed at considerable cost by the Public Works Department, has a large crack extending from roof to foundation at the back and several cracks in the front." Since this remark the cracks have extended and now appear on all sides. The building is in a very bad state both as regards walls and roofs and is, I think, dangerous. The original construction must have been very faulty and to account for all the cracks in the walls the only conclusion I can come to is that the foundations must have been scamped.

Referred to the Public Works Department for remarks.

(Signed) A. BUTTERWORTH,
Ag. Assistant Secretary.

24th September 1890.

No. 3920 C.

Referred to the Superintending Engineer, I Circle, for favor of early report with respect to the statements made by the District Superintendent of Police.

(By Order.)

(Signed) W. L. C. BADDELEY, Major, R.E.,
Under-Secy. to Govt., P.W.D.

29th September 1890.

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of {1891} Madras.

PUBLIC WORKS.

Dated April, 18th.

Read.

Encl.

G.O., 18th April 1891, No. 1078 W.

APRIL.

Police Station

Passing orders regarding the unsafe condition of the — at Jaganadarajpuram in the Vizagapatam division and directing the Superintending Engineer, I Circle, to submit an estimate for rebuilding the superstructure.

1028/3

DEPARTMENT PUBLIC WORKS.

POLICE STATIONS.

Specification of Works to be performed in executing the Standard Designs of Police Stations with Sloped Roofing according to Drawings Nos. 1, 2, 3, *A.*

EXCAVATOR.

Clearing Site.—Take down any existing building on the site stacking such materials as it may be desirable to use again.

Excavation.—After the centre lines have been pegged and lined, set out on either side of the lines half the total breadth of the foundations and excavate to the depth or depths shown on the drawing, or to such depth as the officer in charge of the works may direct.

Slips and Baling.—If slips occur during the progress of the works, clear the material away and bale any water lodging in the trenches from a hole or holes made without the limits of the same.

Ramming.—After the officer in charge of the work has seen that the trenches are the full and proper widths and depths well ram the bottom with heavy beaters for the after reception of the concrete.

BRICKLAYER.

Concrete.—Lay over the full breadth of the foundations about 9″ of concrete as hereinafter specified and well ram with heavy beaters to a thickness of about 6″. After the first layer has been consolidated, lay a second, and execute as before. The completed concrete should be about 12″ thick.

Brickwork.—Mark out carefully the centre lines and lay off the thickness of the first footing course. The steps of brickwork should be two courses high and not more than half a brick broad. When the bricks are very inferior it would be advisable to make each offset three bricks high.

The brickwork will be executed in sound material, and care will be taken to insert during the progress of the work the door frames, nogs and brackets for the arm-racks, &c.

The walls will be a brick and a half thick (not less than 1′ 1½″ or greater than 1′ 5″. The quantities allow 1′ 3″).

Splays.—The openings will be splayed as shown on the plan.

Loop holes.—Loop holes of the form and dimensions shown on the drawing will be left in the walls. After the masonry is set build in with half a brick in mud and plaster all flush on the outside.

Arching.—The heads of the openings will be covered by segmental arches built in concentric rings clear of the frame. The space between the arch and the top of the frame will be carefully closed in after the brickwork has settled down.

Bond.—The bond should be English if possible.

Stones.—Fix the stones under the verandah posts, also those under the truss, and fasten properly all wood supplied by the carpenter.

STONE MASON.

Provide and dress two lines, No.—stones 1′ × 1′ × 4″ with mortice holes 2″ square and 2″ deep to receive the verandah posts.

Steps.—Provide and dress two lines, the steps shown on the drawing tailing each stone not less than 3″.

CARPENTER.

Truss.—Frame a truss of the dimensions and form shown on the drawing. The heels of the rafters will be tenoned into the tie-beam and strapped down tight, and the heads allowed to butt simply. Over the heads place a chock, hollowed out so as to cover the joints, and fasten it down by the first nut (the struts having been cut to admit of the camber), lap a rope round the

Note.—Vary this clause according to class.

From G. D. WYBROW, Esq., Superintending Engineer, I Circle, to the Chief Engineer, Public Works Department, dated Gajapatinagaram, 27th March 1891, No. 3 V.Z.

With reference to your endorsement No. 3920 C., dated 29th September 1890, on a letter from the Inspector-General of Police regarding the unsafe condition of the Police station at Jaganadarajpuram, Vizagapatam district, I have the honor to forward a report by the Executive Engineer, Vizagapatam division.

2. From the report it will be observed that the foundations appear to be sound, but that the superstructure has cracked badly.

3. The cause of the cracks appear to be partly due to bad construction and the use of inferior lime and partly to the faulty design of the roof. The span of the roof in question is 17 feet 10 inches and had the couples been connected by collars the outward thrust of the rafters would have been diminished.

4. The construction of the building was supervised by the late Mr. T. D. Harris and Sub-Engineer Mr. T. T. Raghavacharyar.

5. I have to regret the delay in replying to this reference. The Executive Engineer was called on for a report early in October 1890; in January 1891 he forwarded a report from a subordinate. I then called for a report after his own personal inspection, which was received in March 1891.

6. As the foundations are sound, it will only be necessary to rebuild the superstructure, utilizing the materials from the present building and remedying the defect of the roof by the addition of collars to the couples.

Enclosure.

From J. TRAILL, Esq., Executive Engineer, Vizagapatam division, to the Superintending Engineer, I Circle, dated Vizianagram, 10th March 1891, No. 30 C.

With reference to your No. 70 C., dated 5th February 1891, I have the honor to report that I inspected the Police station referred to on the 18th idem.

2. I had pits dug down to the bottom of the foundations at all the main cracks and found no cracks below the basement in any case.

3. The foundations are of stone in chunam 1 foot thick over 9 inches of concrete and show no signs of settlement or cracks.

4. I removed patches of plaster in various places to examine the quality of the work in superstructure. The bricks seemed fair, but somewhat brittle, but the mortar is very sandy and has *apparently* been made with old lime. The joints are also very thick and this accounts, I think, in great measure for the failure of the walls and for the cracks over the windows.

5. The back wall has been forced very slightly out of the perpendicular by the thrust of the rafters which have no collar pieces or tie beams, but rest on purlins which are supported by the gable of the end and partition walls. These purlins have sunk into the brick work and acting as wedges have started cracks over the doors, which are situated almost below them.

6. The building was constructed in 1884 during the time of Mr. T. D. Harris and was supervised by Mr. T. T. Raghavacharyar, Assistant Engineer.

7. I do not anticipate any immediate danger; the building might stand for years yet, but, where human life is in question, it is best to be on the safe side and I should therefore recommend that the building be vacated.

8. I am of opinion that all the walls above basement level should be demolished and rebuilt, the only alteration required in the design being the addition of collar pieces to the couples and the insertion of cut stones on the gable slope for the purlins to rest on.

9. If you approve of this suggestion I will have an estimate prepared.

10 I regret the delay in replying to this reference, but owing to my being ill, when it was received, I referred the matter to the Sub-divisional officer.

11. I do not forward any sketches of the cracks as those forwarded with the supervisor's report will give you a correct idea of them.

1078/2

Order—dated 18th April 1891, No. 1078 W., Public Works.

Communicated to the Judicial Department with reference to its endorsement, dated 24th September 1890.

2. The Superintending Engineer will at once submit an estimate for rebuilding the superstructure of the Police station, which should meanwhile be vacated. Mr. T. T. Raghavacharyar, Sub-Engineer, 3rd grade, will be called on by the Superintending Engineer, V Circle, to explain his neglect of supervision resulting in faulty construction and the use of inferior materials.

3. The delay in submitting this report is unsatisfactory.

(True Extract.)

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

To the Superintending Engineer, I Circle.
" " " V "
" Judicial Department.
"

Exd. A. D. Xavier.
Spare Copies

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of {1891} Madras.

PUBLIC WORKS.

Dated April, 18*th*.

Read.

Encl.

G.O., 18th April 1891, No. 1078 W.

APRIL.

Police Station

Passing orders regarding the unsafe condition of the — at Jaganadarajpuram in the Vizagapatam division and directing the Superintending Engineer, I Circle, to submit an estimate for rebuilding the superstructure.

1028/3

DEPARTMENT PUBLIC WORKS.

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BRICKLAYER.

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The brickwork will be executed in sound material, and care will be taken to insert during the progress of the work the door frames, nogs and brackets for the arm-racks, &c.

The walls will be a brick and a half thick (not less than 1′ 1½″ or greater than 1′ 5″. The quantities allow 1′ 3″).

Splays.—The openings will be splayed as shown on the plan.

Loop holes.—Loop holes of the form and dimensions shown on the drawing will be left in the walls. After the masonry is set build in with half a brick in mud and plaster all flush on the outside.

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Bond.—The bond should be English if possible.

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Note.—Vary this clause according to class.

truss twist up the tie-beam to the required camber, and screw home the first nut on the king rod. The lower ends of the struts will butt simply against the tie-beams and against each other, and they will be held in their places by round pieces of wood; the upper ends will be tenoned into the rafters. When the truss is hoisted, put on the ridge over the king rod head and screw the second nut down tight. Halve the purlins and rafters each to the extent of 1", support the purlin over the wall.

Rafters.—Supply and fix common rafters 2" × 3" spaced 18" from centre to centre. Let the ends of ridge and purlins project beyond the face of the outer wall to the extent of 1' 8", spike on the ends the ornamental pieces shown on the plan.

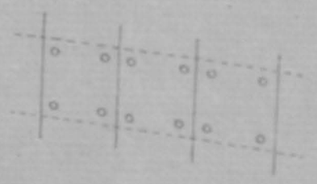
Ventilators.—Supply frame and fix two end ventilators, build the shoulders of the sills into the walls, and fasten the top by halving to the extent of 1" into the ridge and screw to the last rafter. Frame the side ventilators into the wall purlin. Frame the roof of the verandah as shown in the details on the drawing.

Reepers.—Under the tiles lay reepers 2" × ¾" spaced 5" from centre to centre.

Planking.—Over the rafters of the lock-up cells lay 1" planking in lieu of reepers, fasten the same strongly, so that prisoners cannot easily remove the planking and escape by the roofs.

Arm-racks.—Provide and fix arm-racks in strict accordance with the dimensions set forth on the drawing.

Provide strong batten doors made of three-quarters of an inch planks horizontal and vertical well held together with palm



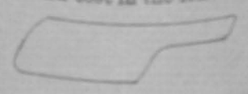
trenails four to each crossing, cut in suitable positions clear of joints and of the holes for firing through. Provide strong fastenings and iron bars on the inside of each opening.

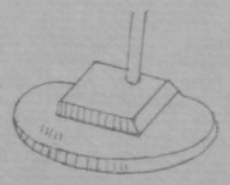
(Here specify whether the woodwork is to be painted or oiled. Painting in Carson's oak color being preferable for all wood exposed to the weather.)

FLOOR.

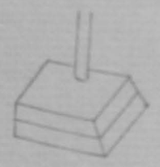
Fill in plinth with earth (specify sand if procurable), well ram the same. Put down a layer of old broken rubbish about 6" thick under the tiling and bring all to an even surface for the reception of the tiles. Lay a tiled floor of 6" square tiles.

N.B.—The ordinary tiles may be greatly improved at a very little extra cost in the following manner:—Mould in slop work in the ordinary way and allow to dry until the earth just receives the impression of the finger pressed upon it, generally from 48 to 72 hours. Then beat with a wooden mallet on a hard surface to about an inch thickness from say 1¼"; provide a template the size of the tile required and cut with sloping sides.





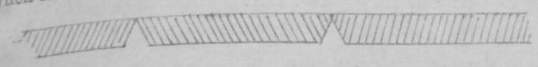
Tile uncut.



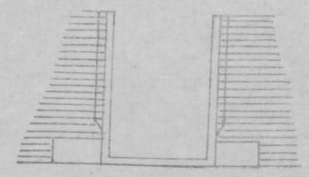
Tile cut.

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when laid the underside should be turned up thus:



the texture of the earth being closer will require heavier firing. Where stone is cheap it will add much to the durability of the building to curb the verandah with stone and to place stone at the bottom of all openings.



ROOFING.

The roof will consist of tiles neatly shaped and well burnt.

Lay in the valleys caused by the two slopes of the verandah roof either sheet lead or zinc. Then tile over the whole protecting by chunam bands if necessary.

IRONMONGER.

Provide iron doors as shown on the drawing neatly rivetted, bolted or screwed as the case may be.

Provide for the entrance a rim lock with a key hole on either side; the other iron gratings may be padlocked.

PLASTERER.

Plaster the whole of the interior and exterior two coats of plaster, making the last coat sufficiently smooth for the after reception of wash.

Wash the interior and exterior with two coats of wash well sized. The general tint of the interior should be composed of—

40 parts lime,
1 part yellow ochre.

This tint should be used on the parts marked A exterior. Those marked B should be washed with—

200 parts lime,
8 „ yellow ochre,
2 „ red ochre,
1 part lamp black.

The imitation arch bricks marked C—

20 parts lime,
5 „ yellow ochre,
10 „ red ochre.

The colors may be renewed from year to year and will always have a neat and finished appearance.

MATERIALS.

The bricks will be cast in a mould * * * * well burnt and free from defects.

The tiles will be * * well burnt and water-tight.

The timber will be well seasoned, sound and free from defects.

The lime will be collected at properly burnt and slaked.

The sand will be collected at

The iron work will be procured from the Government Workshops.

(Signed) R. F. CHISHOLM,
Consulting Architect to Government.

CHEPAUK,
9th July 1880.

(Signed) T. K. GUTHRIE, Major,
Asst. Inspector-General of Police,
for Inspector-General of Police.

MADRAS,
20th July 1880.

ESTIMATE of the Cost of constructing a First-class Police Station-house with Sloped Roofing according to Standard Design No. 1-A.

Detailed Quantities.

Description of Work.	No.	Length.	Breadth.	Depth.	Contents.	Total.
		FT. IN.	FT. IN.	FT. IN.		
Excavation for Foundations.						
Outer walls	...	112 0	4 0	3 0	1,344	
Partitions	2	12 3	4 0	3 0	294	
Do.	1	6 3	3 6	3 0	66	
Verandah walls	...	48 3	3 6	3 0	507	
Steps	...	11 0	3 0	1 6	50	
Cubic feet ...	...	...	...	...	2,261	
Cubic yards ...	...	...	...	...	...	84
Earthfilling in Basement.						
Guard-room	1	18 0	15 0	1 6	405	
Lock-up	1	9 0	15 0	1 6	203	
Do. and Inspector's	2	9 0	7 1½	1 6	192	
Verandah	1	37 0	6 3	1 6	347	
Cubic feet ...	...	...	...	...	1,147	
Cubic yards ...	...	...	...	...	...	43
Concrete 12 inches thick.						
Excavation 2,211 cubic feet ÷ 3 = ...	...	...	...	...	...	
Steps	1	11 0	3 0	1 0	737	
Cubic feet ...	...	...	...	...	33	
Brickwork in Foundations.						
Footings—						
Outer walls	...	112 0	2 3	1 6	378	
Partitions	2	14 0	2 3	1 6	95	
Do.	1	8 0	1 9	1 6	21	
Verandah walls	...	50 0	1 9	1 6	131	
Above footings to ground level—						
Outer walls	...	112 0	1 3	0 6	70	
Extra thickness for plinth ...	2	15 0	0 3	0 6	10	
Partitions	1	9 0	1 3	0 6	10	
Do.	...	51 0	0 9	0 6	3	
Verandah walls	1	11 0	0 9	0 6	19	
Steps	...	...	3 0	0 6	17	
Cubic feet ...	...	...	...	...	763	
Brickwork in Basement.						
Outer walls	...	112 0	1 3	2 0	280	
Extra thickness for plinth ...	2	15 0	0 3	2 0	40	
Partitions	1	9 0	1 3	2 0	75	
Do.	...	51 0	0 9	2 0	14	
Verandah walls	1	11 0	0 9	2 0	77	
Steps	1	9 0	3 0	0 6	17	
Do.	1	7 0	2 0	0 6	9	
Deduct stone in steps	...	...	1 0	0 6	4	
Cubic feet ...	...	...	...	...	...	516
	...	...	...	...	...	23
						193

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Detailed Quantities—cont.

Description of Work.	No.	Length.	Breadth.	Depth.	Contents.	Total.
		FT. IN.	FT. IN.	FT. IN.		
Brickwork in Superstructure.						
Outer walls	...	112 0	1 3	10 6	1,470	
Partitions	2	15 0	1 3	10 6	394	
Gables	4	17 6	1 3	2 10½	252	
Partition	1	9 0	0 9	16 3	110	
						2,226
Deductions.						
Doors	2	3 9	1 3	6 6	61	
Do.	4	2 9	1 3	6 0	83	
Window	1	3 0	1 3	4 0	15	
Ventilators	5	4 9	1 3	1 9	52	
Do. in gables	2	3 6	1 3	2 7	23	
Archwork as per details	...	...	...	...	33	
						267
Cubic feet ...	...	...	...	...	...	1,959
Archwork.						
Segmental arches over doors	2	4 6	1 3	1 0	33	C. ft.
Do. do.	4	3 6	1 3	1 0		
Do. windows ...	1	3 6	1 3	1 0		
Stonework if easily procured.						
Steps	...	37 0	1 3	0 6	23	Do.
Teakwood.						
Verandah posts	2	0 5	0 5	8 0	3	
Do.	4	0 5	0 5	5 9	4	
Breastsummers	2	17 0	0 5	0 5½	6	
Rafters for verandah	20	10 6	0 2½	0 3½	13	
Ridge for entrance	1	9 0	0 2½	0 5	1	
Hip rafters for do.	2	12 6	0 3	0 4½	2	
Small rafters for do.	4	9 0	0 2½	0 3½		
Do. do.	4	8 0	0 2½	0 3½		
Do. do.	4	6 6	0 2½	0 3½	7	
Do. do.	2	5 0	0 2½	0 3½		
Do. do.	4	4 0	0 2½	0 3½		
Do. do.	2	9 8	0 ¾	0 4	1	
Barge board for do.	2	5 0	0 2½	0 10½	2	
Struts for do.						
Cleats to secure verandah—						
Rafters to breastsummers ...	20	0 2½	0 8	1 0	3	
Truss, 15 feet span. Tie beams ...	1	17 6	0 4	0 6	3	
Truss, 15 feet span. Principal rafters.	2	9 6	0 4	0 4	2	
Truss, 15 feet span. Struts	2	4 9	0 3	0 3	1	
Purlins	2	45 0	0 4	0 5	13	
Wall purlins ...	2	45 0	0 4	0 4	10	
Ridge	1	45 0	0 2½	0 7	5	
Common rafters ...	31	11 9	0 2	0 3	15	
Do. do. ...	27	10 6	0 2	0 3	12	
Do. at ends ...	4	11 9	0 3	0 3	3	
Barge boards ...	4	12 6	1 0	0 1	4	
Cubic feet ...	...	...	...	...	110	
Wrought Iron Work in Truss.						
1″ diameter king rod	1	6 9	×	2·62	17·68	
1″ hex. nut and bolt head	3	...	×	0·55	1·65	

Detailed Quantities—cont.

Description of Work.	No.	Length.	Breadth.	Depth.	Contents.	Total.
Wrought Iron Work in Truss—cont.		FT. IN.	FT. IN.	FT. IN.		
3 inches × 3 inches × ¼ inch washers.	3					
1½ inches × ⅝ inch flat iron straps ...	2	...	×	0·32	0·96	
1¼ inches × ½ inch bearing plates ...	2	2 6	×	1·87	9·35	
½ inch hex. nuts for straps	4	0 6	×	2·92	2·92	
2 inches × 2 inches × ¼ inch washers.	4	...	×	0·06	0·24	
		...	×	0·14	0·56	
lbs. ...	...	...	...	...	33·36	
Inner Doors.						
Inner doors	4	2 9	...	6 0	66	S. ft.
Teak Batten Doors with Frames and Fastenings.						
Outer doors	2	3 9	...	6 6	49	Do.
Batten window	1	3 0	...	4 0	12	Do.
Ventilators, wooden frames, and venetians with iron bars.	5	4 9	...	1 9	42	Do.
Ventilators, wooden frames, and iron bars at gable ends.	2	3 6	...	2 7	18	Do.
Frames with fixed venetians in gables ...	2	7 6	...	1 3	19	Do.
Moulding over exterior opening.						
Doors	2	5 0				
Window	1	4 6	...	...	10	
Lineal feet ...	...	...	...	...	4½	
Stones under verandah posts 1′ × 1′ × 4″.	...	6 in number.			14½	
Stones under truss	...	2 in number.				
Tiled Roofing with Pan Tiles over 1″ Teak Planking.						
Lock-up	2	12 6				
Do.	1	1 8	...	12 0	320	
Do.	1	10 10	...	12 0		
			...	10 6	114	
Square feet ...	...	...	...	...	434	
Squares ...	...	...	...	...	...	4·34
Tiled Roofing with Flat and Pan Tiles over Teak Reepers.						
Guard room, lock-up, &c.	1	19 4				
	1	1 8	...	12 0	252	
Verandah	1	10 10	...	12 0		
Entrance	1	19 4	...	10 6	317	
	2	33 10½	...	10 6		
		9 0	...	10 0	339	
Square feet ...	...	...	...	4 10	87	
Squares ...	...	...	...	...	995	
				...	...	9·95

Detailed Quantities—cont.

Description of Work.	No.	Length.	Breadth.	Depth.	Contents.	Total.
Flooring with Square Tiles.		FT. IN.	FT. IN.	FT. IN.		
Guard room	1	15 0	...	18 0	270	
Inspector's room	1	7 1½	...	9 0	64	
Verandah	1	38 6	...	7 0	270	
Door pieces	2	3 9	...	1 3	13	
Do.	1	2 9	...	1 3		
Do.	3	2 9	...	0 7½	5	
Square feet ...	...	...	...	...	622	
Squares ...	...	...	...	...	...	6·22
Flooring with Jelly 6″ thick and painting over with a composition of 1 lb. of Asphalte to 5 lbs. of Tar.						
Lock-up	1	15 0	...	9 0	135	
Do.	1	7 1½	...	9 0	64	
Door pieces	3	2 9	...	0 7½	5	
Square feet ...	...	...	...	...	204	
Squares ...	...	...	...	...	...	2·04
Plastering interior and washing.						
Guard room	...	66 0	...	10 6	693	
Gables	2	17 6	...	2 10½	101	
Lock-up	2	32 3	...	10 6	677	
Gables	2	9 0	...	5 9	104	
Lock-up and Inspector's room ...	2	16 3	...	2 10½	93	
Do. partition, upper portion ...	2	17 0	...	1 3	43	
Gables	4	15 0	...	1 3	75	
Door jambs	1	14 0	...	1 3	18	
Do.	5	8 3	...	1 3	52	
Window jambs	2	7 6	...	1 3	19	
Ventilator do.						
Do. do.						2,480
Deductions.						
Doorways ... ... 2 ×	2	3 9	...	6 6	49	
Do.	4	2 9	...	6 0	132	
Window	1	3 0	...	4 0	12	
Ventilators	5	4 9	...	1 9	42	
Do.	2	3 6	...	2 0	14	
						249
Square feet ...	...	...	...	...	...	2,231
Squares ...	...	...	...	...	...	22·31
Plastering exterior and washing.						
Basement	...	132 6	...	2 0	265	
Superstructure	...	117 0	...	10 6	1,229	
Gables	2	17 6	...	2 10½	101	
						1,595

Detailed Quantities—cont.

Description of Work.	No.	Length.	Breadth.	Depth.	Contents.	Total.
		FT. IN.	FT. IN.	FT. IN.		
Deductions.						
Door	2	3 9	...	6 6	49	
Window	1	3 0	...	4 0	12	
Venilators	5	4 9	...	1 9	42	
Do.	2	3 6	...	2 0	14	
						117
Square feet		...	...	...	...	1,478
Squares		...	...	...	...	14·78
Painting with three Coats of Wood-oil.						
Rafters for verandah	20	10 6	...	0 9½	166	
Ridge for entrance	1	9 0	...	1 4	9	
Hip rafters for do.	2	12 6	...	1 0	25	
Small rafters for do.	...	120 0	...	0 9½	95	
Tie beam	1	17 6	...	1 8	29	
Principal rafters	2	9 6	...	1 4	25	
Struts	2	4 9	...	1 6	10	
Purlins	2	44 4	...	1 2	103	
Wall purlins	1	44 4	...	1 0	89	
Ridge	31	11 9	...	1 4½	61	
Common rafters	27	10 6	...	0 8	} 432	
Do.	4	11 9	...	0 8		
Planking at ends	...	...	...	0 6	24	
Reepers	...	2,488 0	...	...	434	
				0 3½	726	
Square feet		...	...	...	2,228	
Squares		...	...	...	...	22·28
Painting with three Coats of Carson's Oak Color.						
Doors ... ... 2 ×	2	3 9	...	6 6	98	
Do. ... ... 2 ×	4	2 9	...	6 0	132	
Window ... ... 2 ×	1	3 0	...	4 0	24	
Ventilators with venetians and iron bars ... ... 3 ×	5	4 9				
Ventilators with iron bars ... 2 ×	2	3 6	...	1 9	125	
Frames with venetians in gables 3 ×	2	7 6	...	2 7	36	
Posts	4	1 8	...	1 3	56	
Do.	2	1 8	...	5 5	} 62	
Breastsummers	2	17 0	...	7 8		
Cleats	2	0 6	...	1 9	60	
Barge board over entrance	2	9 8	...	0 9	8	
Struts for do.	20	4 0	...	0 4½	8	
Barge board in gables	2	12 6	...	1 0	8	
	4		...	1 0	50	
Square feet		...	...	...	667	
Squares		...	...	...	...	6·67
Arm-rack for ten rifles	...	7 lineal feet.				
Pegs for accoutrements	...	12 in number.				
Moveable shelf for Inspector's room ...	...	1 in number.				

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ABSTRACT.

First-class Police Station-house with Tiled Roofing, Plan No. 1-A.

Quantity.	Item.	Rate.	Per	Amount.
		RS. A. P.		RS. A. P.
84 C. yds.	Excavation for foundations			
43 „	Earthfilling in basement			
770 C. ft.	Concrete			
753 „	Brickwork in foundations			
493 „	Do. in basement			
1,959 „	Do. in superstructure			
33 „	Archwork			
23 „	Stonework in steps (if easily procured).			
110 „	Teakwood wrought and put up ...			
33·36 lbs.	Wrought iron work in truss			
66 S. ft.	Iron doors			
49 „	Teak batten doors with frames and fastenings.			
12 „	Teak batten window do. ...			
42 „	Ventilators, wooden frames, and venetians with iron bars.			
18 „	Do. wooden frames and iron bars at gable ends.			
19 „	Frames with fixed venetians in gables.			
14⅛ L. ft.	Mouldings over exterior openings ...			
6 No.	Stones under verandah posts			
2 „	Do. under truss			
4·34 Sqs.	Tiled roofing with pan-tiles over 1 inch teak planking.			
9·95 „	Tiled roofing with flat and pan-tiles over teak reepers.			
6·22 „	Flooring with square tiles			
2·04 „	Do. with jelly 6 inches thick and painting over with tar and asphalte composition.			
22·31 „	Plastering interior and washing ...			
14·78 „	Do. exterior and washing ...			
22·28 „	Painting with three coats of wood-oil ..			
6·67 „	Do. with three coats of Carson's oak color.			
7 L. ft.	Arm-rack for ten rifles			
12 No.	Pegs for accoutrements			
1 „	Moveable shelf for Inspector's room ...			
	Contingencies at 5 per cent. ...			
	Total ...			

CHEPAUK,
9th July 1880.

(Signed) R. F. CHISHOLM,
Consulting Architect to Government.

MADRAS,
20th July 1880.

(Signed) T. K. GUTHRIE, Major,
Asst. Inspector-General of Police,
for Inspector-General of Police.

ESTIMATE of the Cost of constructing a Second-class Police Station-house with Sloped Roofing according to Standard Design No. 2-A.

Detailed Quantities.

Description of Work.	No.	Length.	Breadth.	Depth.	Cubicals.	Total.
		FT. IN.	FT. IN.	FT. IN.		
Excavation for Foundations.						
Outer walls		100 0	4 0	3 0	1,200	
Partitions 2		12 3	4 0	3 0	294	
Do. 1		6 3	3 6	3 0	66	
Verandah walls		41 3	3 6	3 0	433	
Steps		11 0	3 0	1 6	50	
Cubic feet		...	...	...	2,043	
Cubic yards		...	...	...	...	76
Earth filling in Basement.						
Guard room 1		12 0	15 0	1 6	270	
Lock-up 1		9 0	15 0	1 6	203	
Do. and Inspector's 2		9 0	7 1½	1 6	192	
Verandah		31 0	5 9	1 6	267	
Cubic feet		...	...	...	932	
Cubic yards		...	...	...	...	35
Concrete 12 inches thick.						
Excavation 1,993 cubic feet + 3 =						
Steps 1		11 0	3 0	1 0	664	
Cubic feet		...	...	...	33	
Brickwork in Foundations.						
Footings—					697	
Outer walls...		100 0				
Partitions 2		14 0	2 3	1 6	338	
Do. 1		8 0	2 3	1 6	95	
Verandah walls		43 0	1 9	1 6	21	
Above footings to ground level—					113	
Outer walls...		100 0				
Extra thickness for plinth		74 0	1 3	0 6	63	
Partitions 2		15 0	0 3	0 6	9	
Do. 1		9 0	1 3	0 6	19	
Verandah walls		44 0	0 9	0 6	5	
Steps		11 0	0 9	0 6	17	
Cubic feet		...	3 0	0 6	17	
Brickwork in Basement.					695	
Outer walls		100 0				
Extra thickness for plinth		74 0	1 3	2 0	250	
Partitions 2		15 0	0 3	2 0	37	
Do. 1		9 0	1 3	2 0	75	
Verandah walls		44 0	0 9	2 0	14	
Steps 1		11 0	0 9	2 0	66	
Do. 1		9 0	3 0	0 6	17	
Do. 1		7 0	2 0	0 6	9	
Deduct stone in steps			1 0	0 6	4	
Cubic feet		...	...	...	472	
		...	...	...	23	
					449	

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Detailed Quantities—cont.

Description of Work.	No.	Length.	Breadth.	Depth.	Contents.	Total.
		FT. IN.	FT. IN.	FT. IN.		
Brickwork in Superstructure.						
Outer walls		100 0	1 3	10 6	1,313	
Partitions 2		15 0	1 3	10 6	394	
Gables 4		17 6	1 3	2 10½	252	
Partition 1		9 0	0 9	16 3	110	
						2,069
Deductions.						
Door 1		3 9	1 3	6 6	30	
Do. 4		2 9	1 3	6 0	83	
Window 1		3 0	1 3	4 0	15	
Ventilators 4		4 9	1 3	1 9	42	
Do. in gable ends 2		3 6	1 3	2 7	23	
Archwork as per details		...	...	...	28	
						221
Cubic feet		...	...	...	...	1,848
Archwork.						
Segmental arches over door 1		4 6	1 3	1 0	28	C. ft.
Do. do. 4		3 6	1 3	1 0		
Do. window 1		3 6	1 3	1 0		
Stonework if easily procured.						
Steps		37 0	1 3	0 6	23	Do.
Teakwood.						
Posts 4		0 5	0 5	6 1½	4	
Do. 2		0 5	0 5	8 0	3	
Breastsummers 2		14 0	0 5	0 5	5	
Rafters for verandah 16		10 0	0 2½	0 3½	10	
Ridge for entrance 1		8 7	0 2½	0 5	1	
Hip rafters for do. 2		11 6	0 3	0 4½	2	
Small rafters for entrance 2		8 6	0 2½	0 3½		
Do. do. 4		7 0	0 2½	0 3½	6	
Do. do. 4		6 0	0 2½	0 3½		
Do. do. 4		4 6	0 2½	0 3½		
Do. do. 4		3 6	0 2½	0 3½		
Barge board 2		9 0	0 4	0 ¾	1	
Struts for entrance 2		0 10	0 2½	5 1	2	
Cleats to secure verandah rafters to breastsummers. 18		0 2½	0 8	1 0	3	
Purlins over guard room 2		14 0	0 5	0 6	6	
Do. over lock-up and Inspector's room. 4		12 8	0 4	0 5	7	
Wall purlins 2		38 6	0 4	0 4	9	
Ridge 1		38 6	0 2½	0 7	5	
Common rafters 27		11 9	0 2	0 3		
Do. 23		10 6	0 2	0 3	23	
Common rafters at ends 4		11 9	0 3	0 3	3	
Barge boards 4		12 6	1 0	0 1	4	
					94	
Cubic feet		...	...	...	66	Sq. ft.
Iron inner doors 4		2 9	...	6 0	24	Do.
Teak batten door with frames and fastening. 1		3 9	...	6 6		

Detailed Quantities—cont.

Description of Work.	No.	Length.	Breadth.	Depth.	Contents.	Total.
		FT. IN.	FT. IN.	FT. IN.		
Teakwood—cont.						
Batten window with frames and fastenings.	1	3 0	...	4 0	12	Sq. ft.
Ventilators, wooden frames and venetians with iron bars.	4	4 9	...	1 9	33½	Do.
Ventilators, wooden frames, and iron bars at gable ends.	2	3 6	...	2 7	18	Do.
Frame with fixed venetians in gables ...	2	7 6	...	1 3	19	Do.
Stones under posts 1′ × 1′ × 4″		6 in number.		...	...	
Moulding over exterior openings.						
Door	1					
Window	1	...	...	...	5	
Lineal feet ...	...	...	...	...	4½	
					9½	
Tiled Roofing with Pan Tiles over 1″ Teak Planking.						
Lock-up	2	12 6				
Do.	1	1 8	...	12 0	} 320	
... ...	1	10 10	...	12 0		
Square feet ...	...	...	...	10 6	114	
Squares ...	...	...	...	...	434	
Tiled Roofing with Flat and Pan Tiles over Teak Reepers.				...	...	4·34
	1	13 4				
Verandah ...	1	1 8	...	12 0		
Entrance	1	10 10	...	12 0	} 180	
... ...	...	13 4	...	10 6		
	2	28 4½	...	10 6	} 254	
		9 0	...	9 6		
Square feet ...	...		...	4 6	270	
Squares ...	...	...	...	...	81	
		...	...	...	785	
Flooring with Square Tiles.						
Guard room	1	12 0				
Inspector's room	1	9 0	...	15 0	180	
Verandah	1	32 6	...	7 1½	64	
Door piece	1	3 9	...	6 6	211	
Do.	3	2 9	...	1 3		
Do.		2 9	...	1 3	} 8	
Square feet ...	...		...	0 7½	5	
Squares ...	...	...	...	...	468	
		...	...	...	...	4·68

Detailed Quantities—cont.

Description of Work.	No.	Length.	Breadth.	Depth.	Contents.	Total.
		FT. IN.	FT. IN.	FT. IN.		
g with Jelly 6″ thick and Painting ith a composition of 1 lb. Asphalte to 5 lbs. of Tar.						
ıp	1	15 0	...	9 0	135	
... ...	1	7 1½	...	9 0	64	
pieces	3	2 9	...	0 7½	5	
					204	
Square feet ...	...	...	...	...	...	2 04
Squares ...	...	...	...	...		
Plastering interior and washing.						
d room	...	54 0	...	10 6	567	
les	2	17 6	...	2 10½	101	
k-up	...	48 0	...	10 6	504	
les	2	17 6	...	2 10½	101	
k-up and Inspector's room ...	2	32 3	...	10 6	677	
ition, upper portion	2	9 0	...	5 9	104	
les	2	16 3	...	2 10½	93	
r jambs	1	17 0	...	1 3	21	
Do.	4	15 0	...	1 3	75	
ndow jambs	1	11 0	...	1 3	14	
ntilator	4	8 3	...	1 3	41	
Do.	2	7 6	...	1 3	19	
						2,317
Deductions.						
orway ... ... 2 ×	1	3 9	...	6 6	24	
Do.	4	2 9	...	6 0	132	
ndow	1	3 0	...	4 0	12	
ntilators	4	4 9	...	1 9	33	
Do.	2	3 6	...	2 0	14	
						215
Square feet ...					...	2,102
Squares ...	...	...	...	...	...	21·02
Plastering exterior and washing.						
ement	...	119 6	...	2 0	239	
perstructure	...	105 0	...	10 6	1,103	
bles	2	17 6	...	2 10½	101	
						1,443
Deductions.						
ors	1	3 9	...	6 6	24	
ndow	1	3 0	...	4 0	12	
ntilators	4	4 9	...	1 9	33	
Do.	2	3 6	...	2 0	14	
						83
Square feet ...	...	...	...	...	...	1,360
Squares ...	...	...	...	...	...	13·60

Detailed Quantities—cont.

Description of Work.	No.	Length.	Breadth.	Depth.	Contents.	Total.
		FT. IN.	FT. IN.	FT. IN.		
Painting Roof with three coats of Wood oil.						
Rafters for verandah	16	10 0	...	0 9½	127	
Ridge for entrance	1	8 7	...	1 ¼	9	
Hip rafters for do.	2	11 6	...	1 0	23	
Small rafters for do.	...	101 0	...	0 9½	80	
Purlins	2	12 0	...	1 5	24	
Do.	4	10 8	...	1 2	50	
Wall purlins	2	38 0	...	1 0	76	
Ridge	1	35 6	...	1 4½	49	
Common rafters	27	11 9	...	0 8	373	
Do.	23	10 6	...	0 8		
Do.	4	11 9	...	0 6	24	
Planking	...	...	...	...	434	
Reepers	...	1,945 0	...	0 3¼	567	
Square feet ...	...	...	...	...	1,846	18·46
Squares ...	...	...	...	...	...	
Painting with three coats of Carson's Oak color.						
Doors	2 ×	1				
Do.	2 ×	4	3 9	...	6 6	49
Window	2 ×	1	2 9	...	6 0	132
Ventilators with venetians and iron bars	3 ×	...	3 0	...	4 0	24
Do. with iron bars ...	2 ×	2	4 9			
Frames with venetians in gables	3 ×	2	3 6	...	1 9	100
Posts	...	4	7 6	...	2 7	36
Do.	...	2	1 8	...	1 3	56
Breastsummers	...	2	1 8	...	5 9	64
Cleats	...	18	14 0	...	7 9	
Barge board over entrance ...	...	2	0 6	...	1 8	47
Struts	...	2	9 0	...	0 2	7
Barge board in gables	...	4	4 0	...	0 4½	7
			12 6	...	1 0	8
					1 0	50
Square feet ...	...	...	...	...	580	5·80
Squares ...	...	...	...	...	...	
Arm-rack for four rifles	...	2¾ lineal feet.				
Pegs for accoutrements	...	6 in number.				
Moveable shelf for Inspector's room ...	...	1 in number.				

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ABSTRACT.

SECOND-CLASS Police Station-house with Sloped Roofing, Plan No. 2-A.

Quantity.	Item.	Rate.	Per	Amount.
		RS. A. P.		RS. A. P.
76 C. yds.	Excavation for foundations ...			
35 „	Earth filling in basement...			
697 C. ft.	Concrete			
695 „	Brick work in foundations ...			
449 „	Do. in basement			
1,848 „	Do. in superstructure ...			
28 „	Archwork			
23 „	Cut-stone work in steps			
94 „	Teak wood wrought and put up ...			
66 Sq. ft.	Iron inner doors			
24 „	Teak batten door with frames and fastenings.			
12 „	Do. window do. ...			
33¼ „	Ventilators, wooden frames, and venetians with iron bars.			
18 „	Ventilators wooden frames and iron bars for gable ends.			
19 „	Frames with fixed venetians for do. do.			
6 No.	Stones under posts			
9½ L. ft.	Moulding over exterior openings.			
4·34 Sqs.	Tiled roofing with pan tiles over one inch teak planking for lock-up.			
7·85 „	Tiled roofing with flat and pan tiles and teak reepers.			
4·68 „	Flooring with square tiles ...			
2·04 „	Do. lock-up with jelly six inches thick and painting over with tar and asphalte composition.			
21·02 „	Plastering and washing interior ...			
13·60 „	Plastering and washing exterior...			
18·46 „	Painting roof with three coats of wood-oil.			
5·80 „	Do. doors and windows and exposed wood work with three coats of Carson's oak color.			
2¾ L. ft.	Arm-rack for four rifles			
6 No.	Pegs for accoutrements			
1 „	Moveable shelf for Inspector's room.			
	Rupees ...	...	...	...
	Contingencies at 5 per cent. ...	...	...	...
	Total ...	...	...	...

CHEPAUK,
9th July 1880.

(Signed) R. F. CHISHOLM,
Consulting Architect to Government.

MADRAS,
20th July 1880.

(Signed) T. K. GUTHRIE, Major,
Asst. Inspector-General of Police,
for Inspector-General of Police.

ESTIMATE of the Cost of constructing a Third-class Police Station-house with Sloped Roofing according to Standard Design No. 3-A

Detailed Quantities.

Description of Work.	No.	Length.	Breadth.	Depth.	Contents.	Total.
		FT. IN.	FT. IN.	FT. IN.		
Excavation for Foundations.						
Outer walls	...	69 6	4 0	3 0	} 945	
Partition	1	9 3	4 0	3 0		
Verandah walls	...	28 0	3 6	3 0	294	
Steps	1	11 0	3 0	1 6	50	
Cubic feet ...	...	...	...	...	1,289	48
Cubic yards ...	...	...	...	...	...	
Earthfilling in Basement.						
Guard room	1	12 0	12 0	1 6	} 342	
Lock-up	1	7 0	12 0	1 6		
Verandah	1	18 9	5 3	1 6	148	
Cubic feet ...	...	...	...	...	490	
Cubic yards ...	...	...	...	...	...	18
Concrete 12 inches thick.						
Excavation 1,239 cubic feet ÷ 3 = ...	...	...	...	...	...	
Steps	1	11 0	...	3 0	33	
Cubic feet ...	...	...	...	...	446	
Brickwork in Foundations Footings.						
Outer wall	...	69 6	...	...		
Partition	1	11 0	2 3	1 6	} 272	
Verandah walls	...	29 9	2 3	1 6		
Above footings to ground level—			1 9	1 6	78	
Outer walls	...	69 6	1 3	0 6		
Partition	1	12 0	1 3	0 6	} 51	
Extra thickness for plinth ...	...	55 3	0 3	0 6		
Verandah walls	...	30 9	0 9	0 6	7	
Steps	1	11 0	3 0	0 6	12	
				0 6	17	
Cubic feet ...	...	...	...	...	437	
Brickwork in Basement.						
Outer walls	...	69 6				
Extra thickness for plinth	...	55 3	1 3	2 0	174	
Partition	1	12 0	0 3	2 0	28	
Verandah walls	...	30 9	1 3	2 0	30	
Steps	1	11 0	0 9	2 0	46	
Do.	1	9 0	3 0	0 6	17	
Do.	1	7 0	2 0	0 6	9	
			1 0	0 6	4	
Deduct stone in steps	...	...	...	...	308	
Cubic feet ...	...	...	...	...	23	
Brickwork in Superstructure.						
Outer walls	...	69 6	...	...	285	
Partition	1	12 0	1 3	10 6	} 1,070	
Gables	3	14 6	1 3	10 6		
			1 3	2 5	131	
						1,201

Detailed Quantities—cont.

Description of Work.	No.	Length.	Breadth.	Depth.	Contents.	Total.
		FT. IN.	FT. IN.	FT. IN.		
Deductions.						
Door	1	3 9	1 3	6 6	30	
Do.	1	2 9	1 3	6 0	21	
Ventilators	3	4 9	1 3	1 9	31	
Do. in gables	2	3 6	1 3	2 4	20	
Archwork as per details	...	...	...	...	10	
						112
Cubic feet ...	...	...	...	...	...	1,089
Archwork.						
Segmental arch over door	1	4 6	1 3	1 0	} 10	C. ft.
Do. do.	1	3 6	1 3	1 0		
Stonework if easily procured.						
Steps	...	37 0	1 3	0 6	23	Do.
Teakwood.						
Posts	2	0 5	0 5	6 4	2	
Do.	2	0 5	0 5	8 1½	3	
Breastsummers	2	7 10	0 5	0 5	3	
Rafters, verandah	8	9 6	0 2⅓	0 3⅓	5	
Ridge for entrance	1	8 3	0 2⅓	0 5	1	
Hip rafters for do.	2	11 0	0 3	0 4½	2	
Small rafters do.	2	8 0	0 2⅓	0 3⅓	} 6	
Do.	4	7 0	0 2⅓	0 3⅓		
Do.	4	6 0	0 2½	0 3⅓		
Do.	2	4 6	0 2⅓	0 3⅓		
Barge board for do.	4	3 6	0 2½	0 3¼	1	
Struts	2	8 9	0 4	0 5	2	
Cleats to secure verandah rafters to breastsummers	2	5 0	0 2½	0 10	2	
Purlins over guard room	8	0 2½	0 8	1 0	1	
Do. over lock-up	2	15 9	0 5	0 6	7	
Wall purlins	2	10 6	0 4	0 5	3	
Ridge	2	26 6	0 4	0 4	6	
Common rafters...	1	26 6	0 2⅓	0 6	3	
Do.	19	9 10	0 2	0 3	8	
Do. ends	15	8 3	0 2	0 3	5	
Barge board	4	9 10	0 3	0 3	2	
	4	10 7	0 1	1 0	4	
Cubic feet ...	...	...	...	...	64	
Iron inner doors	1	2 9	...	6 0	17	Sq. ft.
Teak batten door with frames and fastenings	1	3 9	...	6 6	24	Do.
Ventilators, wooden frames and venetians with iron bars	3	4 9	...	1 9	25	Do.
Ventilators, wooden frames, and iron bars at gable ends	2	3 6	...	2 4	16⅓	Do.
Frames with fixed venetians in gables ...	2	6 6	...	1 1½	15	Do.
Mouldings over exterior openings.						
Door	...	...	...	...	5	L. ft.
Stones under verandah posts 1′ × 1′ × 4″	...	4 in number.				

Detailed Quantities—cont.

Description of Work.	No.	Length.	Breadth.	Depth.	Contents.	Total.
		FT. IN.	FT. IN.	FT. IN.		
Tiled Roofing with Pan Tiles over 1 inch Teak Planking.						
Lock-up ...	...	10 6	...	10 6	128	
Do. ...	...	1 8	...	10 6		
Do. ...	...	8 10	...	8 9	77	
Square feet ...	...	...	...	...	205	
Squares ...	...	...	...	...	...	2·05
Tiled Roofing with Flat and Pan Tiles over Teak Reepers.						
Guard room ...	...	15 7	...	10 6	181	
Do. ...	...	1 8	...	10 6		
Verandah ...	...	13 11	...	8 9	122	
Do. over entrance ...	2	16 4½	...	8 0	131	
		7 3	...	4 4½	63	
Square feet ...	...	...	...	...	497	
Squares ...	...	...	...	...	...	5
Flooring with Square Tiles.						
Guard room ...	1	12 0	...	12 0	144	
Verandah ...	1	3 9	...	6 0	122	
Door piece ...	1	2 9	...	1 3	5	
Do. ...			...	0 7½	2	
Square feet ...	...	...	...	...	273	
Squares ...	...	...	...	...	...	2·73
Flooring with jelly 6" thick and painting over with a composition of 1 lb. asphalte to 5 lbs. of tar.						
Lock-up ...	1	7 0	...	12 0	84	
Door piece ...	1	2 9	...	0 7½	2	
Square feet ...	...	...	...	...	86	
Squares ...	...	...	...	...	...	·86
Plastering interior and washing.						
Guard room ...	...	48 0	...	10 6	504	
Lock-up ...	4	38 0	...	10 6	399	
Gables ...	1	14 6	...	2 5	140	
Door jambs ...	1	17 0	...	1 3		
Do. ...	3	15 0	...	1 3	88	
Ventilator jambs ...	2	8 3	...	1 3		
Do. ...		7 0	...	1 3		
Deductions.						
Door ...	1	3 9	...			
Do. ...	3	2 9	...	6 6	24	
Ventilators ...	2	4 9	...	6 0	33	
Do. ... 2 ×		3 6	...	1 9	25	
			...	1 6	11	
Square feet ...	...	...	...	...	93	
Squares ...	...	...	...	...	...	1,038
		...	...	...	...	10·38

1028/12

Detailed Quantities—cont.

Description of Work.	No.	Length.	Breadth.	Depth.	Contents.	Total.
		FT. IN.	FT. IN.	FT. IN.		
Plastering exterior and washing.						
Basement ...	...	88 0	...	2 0	176	
Superstructure ...	...	74 6	...	10 6	782	
Gables ...	2	14 6	...	2 5	70	1,028
Deductions.						
Door ...	1	3 9	...	6 6	24	
Ventilators ...	3	4 9	...	1 9	25	
Do. ...	2	3 6	...	1 6	11	60
Square feet ...	...	...	...	...	...	968
Squares ...	...	...	...	...	...	9·68
Painting with three coats of wood oil.						
Rafters for verandah ...	8	9 6	...	0 9½	60	
Ridge for entrance ...	1	8 3	...	1 ½	9	
Hip rafters for do. ...	2	11 0	...	1 0	22	
Small do. do. ...	...	91 0	...	0 9½	72	
Purlins over guard room ...	2	15 7	...	1 5	44	
Do. over lock-up ...	2	10 4	...	1 2	24	
Wall purlins ...	2	26 1	...	1 0	52	
Ridge ...	1	26 1	...	1 2½	32	
Common rafters ...	19	9 10	...	0 8	207	
Do. ...	15	8 3	...	0 8		
Do. ...	4	9 10	...	0 6	20	
Planking ...	...	...	...	...	205	
Reepers ...	...	1,250 0	...	0 8½	365	
Square feet ...	...	...	...	...	1,112	
Squares ...	...	...	...	...	...	11·12
Painting with three coats of Carson's Oak color.						
Posts ...	2	6 0	...	1 8	72	
Do. ...	2	7 9	...	1 8		
Breastsummers ...	2	7 10	...	1 8		
Barge board for entrance ...	2	8 9	...	0 4½	7	
Struts ...	2	5 0	...	1 0	10	
Cleats ...	8	0 6	...	0 9	3	
Barge board ...	4	10 7	...	1 1	46	
Door ... 2 ×	1	3 9	...	6 6	49	
Do. ... 2 ×	1	2 9	...	6 0	33	
Ventilators with venetians ... 3 ×	3	4 9	...	1 9	75	
Do. with iron bars ... 2 ×	2	3 6	...	2 4	33	
Frames with fixed venetians ... 3 ×	2	6 6	...	1 1½	44	
Square feet ...	...	...	...	...	372	
Squares ...	...	...	...	...	...	3·72
Arm-rack for two rifles ...	1½ lineal feet.					
Pegs for accoutrements ...	4 in number.					
Moveable shelf for records ...	1 in number.					

ABSTRACT.

THIRD-CLASS Police Station-house with Tiled Roofing, Plan No. 3-A.

Quantity.	Item.	Rate.	Per	Amount.
		Rs. A. P.		Rs. A. P.
48 C. yds.	Excavation for foundations			
18 ,,	Earthfilling in basement			
446 C. ft.	Concrete			
437 ,,	Brickwork in foundations			
285 ,,	Do. in basement			
1,089 ,,	Do. in superstructure			
10 ,,	Archwork			
23 ,,	Stonework in steps (if easily procured)			
64 ,,	Teakwood wrought and put up ...			
17 S. ft.	Iron inner doors			
24 ,,	Teak batten door with frames and fastenings.			
25 ,,	Ventilators, wooden frames, and venetians with iron bars.			
16½ ,,	Ventilators, wooden frames, and iron bars at gable end.			
15 ,,	Frames with fixed venetians in gables.			
5 L. ft.	Moulding over exterior opening ...			
4 No.	Stones under verandah posts			
2·05 Sqs.	Tiled roofing with pan tiles over 1 inch teak planking.			
5 ,,	Tiled roofing with flat and pan tiles over teak rafters.			
·86 ,,	Flooring with square tiles			
	Do. with jelly 6 inches thick and painting with tar and asphalte composition.			
10·38 ,,	Plastering interior and washing ...			
9·68 ,,	Do. exterior and washing ...			
11·12 ,,	Painting with three coats of wood oil...			
3·72 ,,	Do. with three coats of Carson's oak color.			
1½ L. ft.	Arm-rack for two rifles			
4 No.	Pegs for accoutrements...			
1 ,,	Moveable shelf for records			
	Contingencies at 5 per cent.			
	Total ...			

CHEPAUK,
9th July 1880.

MADRAS,
20th July 1880.

(Signed) R. F. CHISHOLM,
Consulting Architect to Government.

(Signed) T. K. GUTHRIE, Major,
Asst. Inspector-General of Police,
for Inspector-General of Police.

1028/13

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

2nd August 1880, No. 1,828 W.

Buildings and Roads.
Civil Works.

Read the following paper :—

No. 4. From R. F. CHISHOLM, Esq., Consulting Architect to Government, to the Chief Engineer, Public Works Department, Buildings and Roads Branch, dated Chepauk, 21st July 1880, No. 276.

I HAVE the honor to return the plans and estimates of the alternative design for
3 Plans.
3 Estimates,
1 Specification.
first, second and third class stations with sloped roofing countersigned by the Assistant Inspector-General of Police.

No. 5. ORDER THEREON, 2nd August 1880, No. 1,828 W.

THE Government approve the alternative standard designs for first, second and third class Police stations submitted by the Consulting Architect and direct their adoption in supersession of all previous designs for such buildings.

2. The designs will be lithographed and the specification and estimates of quantities printed and circulated for the information of the department.

(True Extract.)

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

To Superintending Engineers.
,, Superintendents of Works.
To the Consulting Architect.
,, Judicial Department.

Exd. E. C. Shunker.
Spare Copies

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of (1880) Madras.

PUBLIC WORKS.

To

SUPERINTENDING ENGINEERS,
&c., &c., &c.

Dated August, 2nd.

Issued

Read. Encl.

G. O., 2nd August 1880, No. 1,828 W.

AUGUST.
Nos. 4-5.

Standard designs for Police Stations — Directing the adoption of the alternative — submitted by the Consulting Architect in supersession of all previous designs for such buildings.

1078/14

20TH AUGUST 1883, No. 2339 W., PUBLIC WORKS.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

READ—the following letter from G. T. WALCH, Esq., Officiating Superintending Engineer, First Circle, to the Chief Engineer, Public Works Department, dated Dowlaishweram, 6th August 1883, No. 203 V.Z. :—

I have the honor to forward, herewith, estimates * and site plans for constructing second-class Police Station-houses at Kurapam, Kumarada, and Jagannadharajupuram, in the Vizagapatam District, and to request you will be good enough to obtain the sanction of Government to the same.

* 3 Plans.
3 Estimates, amounting to Rs. 1,520 each.

Funds for the works in question will be applied for in 1884-85 as required by the Inspector-General of Police.

2. The estimates and site plans have been countersigned by the Inspector-General of Police.

ORDER—dated 20th August 1883, No. 2339 W., Public Works.

The undermentioned estimates, for constructing second-class Police Station-houses in the Vizagapatam District, are sanctioned for execution in 1884-85 :—

	Amount of Estimate Rs.	Register No.
Kurapam	1,520	Provincial No. 94 W. of 1883-84.
Kumarada	1,520	Do. „ 95 W. of „
Jagannadharajupuram	1,520	Do. „ 96 W. of „

2. These sanctions have been registered as shown above and classified as Civil Buildings, Original Works.

(True Extract.)

(Signed) R. H. SANKEY, Major-General, R.E.,
Secretary to Govt., P.W.D.

To the Superintending Engineer, First Circle, with eight Enclosures.
„ Examiner, Public Works Accounts.
„ Inspector-General of Police.
„ Judicial Department.

Exd. A. F. Goodall.
Spare Copies

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of (1883) Madras.

PUBLIC WORKS.

Dated August, 20th.

Recd. Entd.

G.O., 20th Aug. 1883, No. 2339 W.

10784

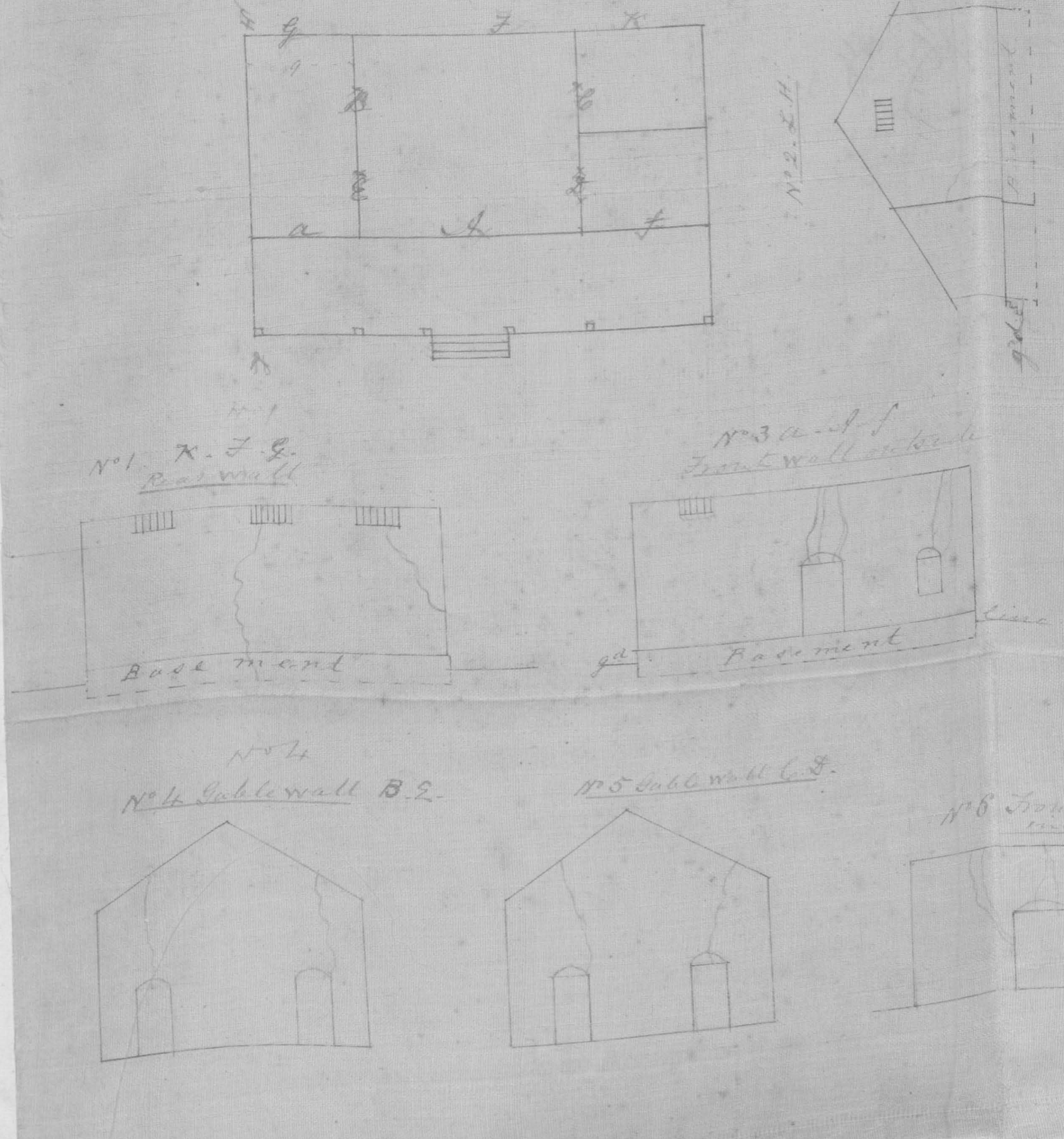
AUGUST.

Police Station-houses

Estimates for constructing second-class — at Kurapam, Kumarada, and Jagannadharajupuram, in the Vizagapatam Division, sanctioned.

1078/15

Rough Sketch or
Skeleton plan & elevations of the
Police Stations at Jaganathrajpuram



[signature]
Supd. D.P.W.
25/1/91

General Department. No. 5353 1028/16 .01.

CHIEF OFFICE OF THE INSPECTOR GENERAL OF POLICE,

Madras, 19 September 1890

FROM

Colonel C. A. Sorteons

Ag. INSPECTOR GENERAL OF POLICE,

To

THE Chief Secretary
to Government
Ootacamund

SIR,

I have the honor to bring to your notice the very unsatisfactory State of the Jagamadarajpuram Station House in the Cheepurapalli Division of the Vizagapatam District.

This Station House was built by the L. S. W. at a Cost of Rupees 1520-"-" and handed over to the Police in December 1884. In January 1886 it exhibited a large Crevice at the back entirely from roof to foundation and several Cracks in front. It is now absolutely dangerous and I have ordered it to be vacated.

A Copy of the Superintendent's report on the State of the Station is forwarded for Your information.

I have the honor to be
Sir
Your most Obedt. Servant.

[illegible]
Ag. Asst. Inspr. Genl of Police
for Inspr. Genl of Police

No. 3920 C d/ 29th Septr
Proc 3 1890

Referred to the Supdg Engineer I Circle for favour of early report with respect to the Statement made by the District Supt. of Police

(By order)
W W Berkeley Major R.E.
Under Secy to Govt. P.W.D.

Recd. 25.x.90

Judicial (1890) DEPARTMENT.

FROM

Col. C. A. Porteous
Ag. Inspector General of Police.

No 5353

Dated 19th } September 1890
Received 20th }

SUBJECT.

Reporting the dangerous State of the Jaganadarajpuram Police Station in the Cheepurapalle Division Vizagapatam District.

Referred to the Public Works department for remarks

A. Arbuthnot
Ag Acctnt Secretary

No. 646

Office of the Supt. of Police
Vizagapatam 1st September 1890

From

L. G. Arbuthnott Esqre.
Superintendent of Police
Vizagapatam District.

To

The Inspector General of Police
Madras.

Sir,

As directed on the Deputy Inspector General's inspection report of this District, I have the honor to bring to your notice the State of the Jaganadarajpuram Station in the Cheepurapalli division. This Station was built in December 1884 by the D. P. W. at a Cost of 1520. On your inspection of the Station on the 26th January 1886 you remark as follows. "the building though only very recently completed at considerable Cost by the P. W. D. has a large Crack extending from roof to foundation at the back and Several Cracks in the front". Since this remark the Cracks have extended and now appear on all Sides. The building is in a very bad State both as regards walls and roofs and is I think dangerous. The original Construction must have been very faulty and to account for all the

Cracks

Cracks in the walls the only conclusion I can come to is that the foundations must have been scamped. ——————

I have &ca.
(Sd) L. G. Arbuthnott
Superintendent of Police

(True Copy)

[signature]
Actg. Asst. Inspr. Genl. of Police.

Pwd Genl. 3790/91

Exec. Ins. corr. 3784/91

SUPERINTENDING ENGINEER.
No. 4117
18 MAR. 91
FIRST CIRCLE.

No. 30/C
1028/18

Vizagapatam Dn. Office
Camp Vizianagram
10th March 1891

From
J. Traill Esquire
Executive Engineer
Vizagapatam Division

To
The Superintending Engineer
First Circle
Dowlaishweram

Sir,

With reference to your No. 70/C dated 5th February/91, I have the honor to report that I inspected the Police Station referred to on the 18th idem.

2. I had pits dug down to the bottom of the foundations at all the main cracks and found no cracks below the basement in any case.

3. The foundations are of stone in chunam & they over 9" of concrete and

show no signs of settlement or cracks.
4. I removed patches of plaster in various places to examine the quality of the work in superstructure. The bricks seemed fair but somewhat brittle but the mortar is very sandy and has apparently been made with old lime. The joints are also very thick and this accounts I think, in great measure, for the failure of the walls and for the cracks over the windows.
5. The back wall has been forced very slightly out of the perpendicular by the thrust of the rafters which have no collar pieces or tie beams but rest on purlins which are supported by the gable of the end and

1078/19

partition walls. These purlins have sunk into the brick work and by acting as wedges, have started cracks over the doors which are situated almost below them.

6. The building was constructed in 1894 during the time of Mr. J. D. Harper and was supervised by Mr. T. T. Raghavacharlar Assistant Engineer

Sub?

7. I do not anticipate any immediate danger; the building might stand for years yet, but where human life is in question it is best to be on the safe side and I should therefore recommend that the building be vacated.
8. I am of opinion that all the walls above basement level should be demolished and rebuilt. The only alteration required in the design being the

addition of Collar pieces to the Couples and the insertion of Cut stones on the gable slope for the purlins to rest on.

9. If you approve of this suggestion I will have an Estimate prepared.

10. I regret the delay in replying to this reference, but owing to my being ill when it was received I referred the matter to the Sub Divisional Officer.

11. I do not forward any sketches of the Cracks as those forwarded with the Supervisor's report will give you a correct idea of them.

I have the honor to be
Sir
Your most obedt. Servt.

[illegible]
Executive Engineer
Vizagapatam Dn

Ent. 12-3.
[illegible]

3790 / C.S. 10.W 1078/91

Send me [illegible] design

1028/20

[illegible] 6/4

D.W.
The designs for 1st & 2nd Police Stations are herewith [illegible]
6.4.91
[illegible]

C.W. 4436 [illegible]

I suppose Jagannadharajapuram Police Station is 2nd Class - constructed 1884. Send the Est. & accompany standard design.

OVH
7-4-91

D.W.

It is a 2nd Class Station. I have put up the order sanctioning its construction, also the Est. [illegible]
7.4.91

No. 3 V.L. [illegible] 4

1028/21

FROM,

G. D. Wylerow Esqre

SUPERINTENDING ENGINEER

FIRST CIRCLE.

Enclo: 4
1 Report by Ex: Engr. No 30/C of 10-3-91
1 Sketch
1 Chief Engrs endorsement No 3920 C
1 Letter No 646 from Supt of Police
4

TO,

THE CHIEF ENGINEER

PUBLIC WORKS DEPARTMENT.

Camp Gajapatinagram, ~~BOWLAISHWERAM,~~ 27th March 1891.
[illegible] 2nd April.

SIR,

With reference to your endorsement No 3920 C dated 29th September 1890 on a letter from the Inspector General of Police regarding the unsafe condition of the Police Station at Jaganadarajapuram, Vizagapatam District I have the honor to forward a report by the Executive Engineer Vizagapatam Division.

2. From the report it will be observed that the foundations appear to be sound but that the superstructure has cracked badly.

3. The cause of the cracks appear to be partly due to bad construction & the use of inferior lime & partly to the faulty design of the roof. The span of the roof in question is 17'-10" & had the couples been connected by collars, the outward thrust of the rafters would have been diminished.

4. The construction of the building was supervised by the late Mr. J. D. Harris, and Sub-Engineer Mr. T. T. Raghavacharyar.

5. I have to regret the delay in replying to this reference. The Ex Engineer was called on for a report early in October 90. in January 1891 he forwarded a report from a Subordinate. I then called for a report after his own personal inspection, which was received in March 1891.

6. As the foundations are sound, it will only be necessary to rebuild the superstructure utilizing the materials from the present building, & remedying the defect of the roof by the addition of collars to the couples.

I have the honor to be,
Your most Obedient Servt

F. D. Dykes.
Supt Engineer 1st Circle.

JK

1028/98

P.W. C. Ak. 3790

FROM,

G. E. Wybrowlege

SUPERINTENDING ENGINEER

FIRST CIRCLE.

TO,

THE CHIEF ENGINEER

PUBLIC WORKS DEPARTMENT.

DATED 27th March
DESPATCHED 2nd April 1891.
RECEIVED 6-4-91

NO. 38 Z.

ENCLOSURES 4 (+1 sketch)

SUBJECT.

Jaganadarajapuram. Police station at — forwarding the Exe Engineer's report on the unsafe condition of —

2339 Wy 20-8-83
1828 Wy 2-8-80

OLS 5.5.IV
C.S. 10.IV
H.W. 13.IV.91
W. Conner 14.IV
16.IV.91

Ooty 8/4/91

R 18.4.91

Bd. P. Civil works

No. 1078 W. 18th April 1891

A/

Communicated to the judicial dept with reference to its endorsement dated 24th September 1890.

2. The Supdg Engineer will at once submit an estimate for rebuilding the superstructure of the police station, which should meanwhile be vacated. Mr. T.T. Raghava-*

3. The delay in submitting this report is unsatisfactory

OVB
7.4.91

11 April

(Is not Mr. Raghavachari the culprit? — anonymous?)

* Chariyar, Sub Engineer 3rd grade will be called on by the Supdg Engr Fifth Circle to explain his neglect of supervision resulting in faulty construction and the use of inferior materials

RS

S.E. I Circle
S.E. II Circle
Judl dept

4/5/91

3790

1890.

Public Works Department.

No.

Dated

Despatched

Received

18.4.91 No 1078 W.

SUBJECT.

Police Station

Passing orders regarding the unsafe condition of the — at Jagannadharajapuram in the Vizagapatam Dist & directing the S.E. I Circle to submit an estimate for rebuilding the superstructure ~~of the buildings~~.

~~50/1~~ ~~70~~/3

L&C 10/4/ 9/20/4

23