M.R.O. 1—10,006—28-2-50.

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MADRAS RECORD OFFICE

Government of Madras

Public works DEPARTMENT

G.O. No.	1697	Press
~~B.P. No.~~ 572573		~~Mis.~~
Dated	26-6-1874	~~195~~ .

Not to be folded or roughly handled

Proceedings of the Madras Government, Public Works Department, 24th June 1874.

Read the following papers :—

No. 512. From Colonel E. A. FOORD, R.E., Inspecting Engineer for Civil and Military Buildings, to Colonel G. W. WALKER, R.E., Secretary to Government, Public Works Department, dated Chepauk, 18th April 1874, No. 611.

WITH reference to the Order of Government of the 14th of October 1873, No. 76, I have the honour to forward an estimate of Rupees 19,972 accompanied by a specification, plans, and a block plan, of the improvements and alterations proposed to be made to the barracks of the European Infantry Regiment at Cannanore. The works have been planned in general accordance with the suggestions in the report of the Sanitary Commissioner.

1 Estimate of Rupees 18,648, with 6 Plans received with G. O., No. 76, dated 14th October 1873.
1 Revised Estimate.
1 Do. Abstract Estimate.
1 Specification.
1 Block Plan.

2. To improve the ventilation of the enclosed area, and to allow of free admission of the sea breeze, the openings on sides of the barracks facing the sea are to be enlarged, and openings are to be made in the other sides.

3. Some buildings that from their position obstruct the sea breeze, or are otherwise objectionable, are to be removed. These buildings are the canteen and covered passage to it, guard-room, prison-room, latrine, wash-house. The canteen is to be rebuilt on a different site on the standard plan, and there is a separate estimate* for this work. No. 1 block of married quarters is to be converted into a guard and prison room, and one of the wash-houses is to be rebuilt. The waste water from the cook-rooms, lavatories, etc., is to be carried off by glazed earthenware pipes, and the open drains for rain water are to be rebuilt with an improved section.

* G. O., No. 2,633, dated 28th October 1873.

4. The specification does not go sufficiently into detail, and I have requested the present District Engineer to send me one prepared in such a manner as will prevent any mistakes being made when the works are carried out.

No. 512A. From the same Officer, dated Coonoor, 23rd April 1874, No. 620.

WITH reference to the last paragraph of my letter of the 18th of April, No. 611, I have the honour to forward a specification giving the necessary information regarding the alterations and improvements to the barracks of the European Infantry at Cannanore.

CHIEF ENGINEER'S MEMORANDUM.

THE works proposed to be carried out for the improvement of the European Infantry Barracks at Cannanore consist of—

		Rs.
Rupees 7,123.	1. Dismantling the Guard-room, Prison-rooms, Guard latrine, and covered passage to Court-martial room.	390
	2. Converting No. 1 married quarters into Guard and Prison rooms	5,241
	3. Covered passage from No. 2 to Orderly-room and a new School latrine	1,492

			Rs.
	4.	Altering the covered passage between the old and new barracks	446
Rupees 4,260.	5.	Improving the ventilation of the sea face of old barracks	1,110
	6.	Do. do. of north face, do.	1,360
	7.	Do. do. of south face, do.	1,790
	8.	Dismantling and rebuilding a wash-house	212
	9.	Raising portion of a covered passage between the Orderly-room and old barracks	49
Rupees 7,882.	10.	Glazed piping from Cook-rooms and Bath-rooms to the sea	1,397
	11.	Improving barrack drains	6,485
		Total...	19,972

2. It is not likely that funds for the full amount of the aggregate estimate will be available in the current official year; but it will be well that a beginning should be made, and the works are of a nature that admits of their being carried out independently of one another, each being a gradual improvement. Thus Nos. 10 and 11 might be sanctioned as one estimate of Rupees 7,700 for inclusion in next year's Budget; Nos. 5 to 7 provided for from the current year's Reserve; and Nos. 4, 8, and 9 carried out as Minor New Works with the funds at the disposal of the District Engineer.

3. As to Items 1 to 3, the Chief Engineer recommends revision of the details of the proposed conversion of No. 1 married quarters into guard and prison rooms. It is a block which was built on contract, of brick in clay, in a very unsatisfactory manner, with reference to which several Government Orders were issued in 1863-64, and he is strongly of opinion that none of the cross walls in the main rooms or verandahs should be demolished. The former may be perforated with arched openings to such extent as may be necessary for their conversion into prison-rooms, if they cannot be so utilized as they are. The arched walls in the verandahs cannot be touched without risk. The cost of flooring the verandahs with Cuddapah slate, viz., Rupees 2,160, forms an excessive proportion of the total of Estimate No. 2, which is Rupees 5,241, and the use of that material at Rupees 60 a square cannot be recommended. There is no separate allowance made for old materials of the buildings to be dismantled, but rates of the new work have been reduced to allow for their use. The charge of 10 per cent. for superintendence and sundries appears excessive. The attention of the District Engineer may be given with advantage to these two latter points in revising the first set of Estimates (1 to 3).

OOTACAMUND, *20th May* 1874. (Signed) G. W. WALKER, Colonel R.E., *Chief Engineer.*

No. 515. ORDER THEREON, 24th June 1874, No. 1,697.

MILITARY WORKS, No. 18.

His Excellency the Governor in Council approves of the recommendation of the Chief Engineer to carry

Proceedings of the Madras Government, Public Works Department,
24th June 1874.

out the improvements and alterations to the barracks of the European Infantry Regiment at Cannanore as separate works, and accordingly sanctions the inclusion in the Budget of 1875-76 of the works numbered 10 and 11 at an aggregate cost of Rupees 7,700, the percentage for superintendence and sundries being reduced.

2. A sum of Rupees 4,260 is allotted from the Military Reserve for those numbered 5 to 7, and those numbered 4, 8, and 9 will be carried out as Minor New Works with funds at the disposal of the District Engineer, the aggregate amount of the estimates being Rupees 707.

3. The estimates for these works are sanctioned, but those for Nos. 1 to 3 will be returned to the District Engineer for revision in accordance with the Chief Engineer's suggestions.

(True Extract.)

Colonel, R.E.,
Secretary to Government.

To the District Engineer, Malabar. *with Revised Estimate.*
" Officiating Controller of Public Works Accounts.
" Military Department.

Exd. S. T. Austin

Spare Copies

No. 611

Office of the Inspecting Engineer
for Civil and Military Buildings,
Chepauk, 18 April 1874.

From

The INSPECTING ENGINEER
for CIVIL and MILITARY BUILDINGS,

To

The Secretary to Government
Public Works Department

Sir,

Enclosures 11
1 Estimate of Rs 18648, with
6 Plans received with G.O. No 976, 9th Dec 1873.
1 Revised Estimate
1 do abstract do
1 Specification
1 Block Plan

With reference to the order of Government of the 14th of October 1873, No 976, I have the honor to forward, an estimate of Rs 19972 accompanied by a specification, plans and a block plan, of the improvements and alterations proposed to be made to the Barracks of the European Infantry Regiment at Cannanore.

The works have been planned in general accordance with the suggestions in the report of the Sanitary Commissioner.

2. To improve the ventilation of the enclosed

enclosed are and to allow of free admission of the air large, the openings on side of the Barracks facing the sea are to be enlarged and openings are to be made in the other side.

3. Separate buildings shall from this position obstruct the air spaces, are otherwise objectionable, are to be removed. These buildings are the Canteen and covered passage to it, guard room, prisoners room, Latrines cook houses. The Canteen is to be rebuilt on a different site on the standard plan used there is a separate estimate for this work. Separate Block of married quarters is to be converted into a guard and prisoners room and one of the wash houses is to be re-built. The waste water from the cook rooms, Lavatories &c. is to be carried off by glazed earthen ware pipes and

× G.O. 2633 1873

the open drains for rain water are to be rebuilt with an improved section.

4. The specification does not go sufficiently into detail, and I have requested the present District Engineer to send me one prepared in such a manner as will prevent any mistakes being made when the works are carried out.

I have the honor to be,
Sir
Your Most Obedient Servant
E A Drl Coglan R.E.
Inspecting Engineer for
Civil & Military Buildings

Pub: Works 1874 Sept
Pub Govt Jour Pte. 2366

No. 611

From

The Inspecting Engineer
for Buildings.

To

The Secretary to
Government C.W.D.

Encls: 11

Dated 18 } April 1874.
Recd. 20th }

G.O. No: 1697 24-4-74.

Forwards an Estimate
ree of Rs 19972 for
improvements & alterations to the Barracks
of the European Infantry
Regiment at Cannanore,
Malabar District.

No 572
Rec'd to Cody 23 April/74

		Brought forward			4795 11 6 12 1/2
1532 1/3	2062 2/3	Sqrft: of facing sides bottom of drain with Catch stone laid in Portland Cement Mortar	50	Rft.	1021 5 4
1532 1/2	2295	Sqrft: of Plastering sides of Drains with Portland Cimint mortar	6	"	137 14 1
1067		Rqft: of 6 Inch pipe from 1st P.3 Coste			
		from near Tiles Count to sea			
1095		Do Do near Middle alley to sea			
2162		Rqft: of 6 Inch pipe including fixing	2	Rft.	22 8 6
683		Rqft: of 3 Inch pipe to join Bath			
		room and Cook room			
439		Rqft of Do Do			
439		Do to join Bath rooms in			
		Barracherry face			
1511		Rqft: of 3 Inch pipeing including			
		fixing	1	"	7 13 11
		Total			5895 5 2
		Sundries and Superintendence	10	"	589 10 10
		Total			6485 " "
		Grand Total Estimate Rupees			18648 " "

Comm Ansr Range Office
5th September 1873.

A. Bailey Captain.
Executive Engineer
Malabar.

Comm Coke Brigt General
Commanding Madras Dist.

No 572
Rec'd 6 Oct 23 Oct 1873

Brought forward _____ 191 8 10 10 3/6 " "

Dismantling roof

1 66 41 "	2706	Guard room	
	400	Coach house	
1 66 28 "	1868	Prison rooms	
1 19 32 "	608	Latrine	
1 121 17 "	2057	Covered passage	
	550	Do to old Barracks from Prison room & Guard room	
	8169	Total dismantling roof throughout 2 " " @	163 4 10
		Total	354 13 8
		Sundries & Superintendence 10 " " Rd	35 2 4
		Total	390 " "

Giving glazed Pipes from Cook Rooms & Bathrooms of the European Infantry Barracks, at Cannanore to the sea.

2696		Rg. ft. of 6 Inch glazed Earthenware pipeing including excavation & fitting Rs	" 6 " Rs 936 " "
976		Rg. ft. of 3 Inch glazed earthenware pipeing including excavating & fitting	" 4 " " 244 " "
18		Siphon traps with gratings including laying in masonry	5 " " each 90 " "
		Total	1270 " "
		Sundries & Supdce	10 " " Cost 127 " "
		Total	1397 " "

Improving drainage of Barracks.

3964		Rg. ft. of fitting in Corners of drains with Portland Cement Concrete	" 1 6 Rft: 371 10 "
3964 1/3 "	5285 1/3	Sqft: of Catch stone laid in Portland Cement mortar	50 " " @ Rs 2662 10 8
3964 2 "	7928	Sqft: of Plastering ends of drains with Portland Cement mortar	6 " " " 476 10 10
2136		Rg. ft. of opening up old Drain & pereving	" " 6 Rft 66 12 "
		Reconstructing Drain in Barracks Square.	
1532 1 2/3	3830	Cft of Masonry in Portland Cement Mortar	30 " " 100 Cft 1149 " "
		Cost	4705 11 6 1263 " "

Brought f°. 15 9 8 1037 " "

720 Dismantling roof & putting it on again. 4 " " @ 5d 28 12 10

Total 4466

Sentries & Superintendance 10 " " @ 1/2 4 9 6

Total 49 " "

Dismantling the Guard & Prison Room & Guard Latrine & Covered Passage to Court Martial Room of European Infantry Barracks, Connaught

Dismantling

2	65	1½	12	2340	Front & rear main walls of Guard room
1	65	1½	9	877	Verandah rear wall
9	1½	1½	6½	132	Pillars in front
2	16	1½	12	576	End walls of main room & Rear Verandah
1	20½	1½	12	369	Side wall of wash house at the side of Guard room
2	8	1½	12	288	Front & rear wall of Do
2	65	1½	12	2340	Prison rooms Front & Rear
4	10	1½	12	720	End & cross walls
9	1½	1½	7	142	Pillars in front
1	34	1½	10	570	Side walls of Latrine
4	1½	1½	7½	67	Pillars
26	1½	1½	7	409	Pillars of Covered passage
4	1½	1½	7	63	Do to old Barracks from Prison room & Guard room
				8833	Total.

Deductions

7	4½	1½	7½	354	Doorways in Guard room
1	6	1½	7	42	Do in front of wash house
3	4½	1½	7	142	Do in Prison room
10	3½	1½	6½	236	Windows in Guard room
3	3½	1½	6½	71	Do in Prison Do
5	3	1½	4	90	Ventilators Do
				935	Total deductions
				1898	Total Dismantling @ 3 d° 123 6 6

Filling out Basement throughout 30 " "

Removing Floor

1	61½	9½	"	584	Centre hall of Guard room
1	61½	5½	"	338	Rear Verandah
1	65	7½	"	487	Front Do
1	18	8	"	144	Wash house
1	59	10	"	590	Prison rooms
				400	Front Verandah of Prison rooms
				2543	Total Removing Floor 18 " @ 2d 38 2 6

@ 5 d° 191 8 10 103/6 " "

				310	Brought fo.		28 2 8 10115 " "
2	2½	2½	3	38	Pillars		
4	7½	1½	2	87	Retaining walls between pillars		
				427	Total Foundation & Basement		
					Superstructure		
2	13	1½	8	312	Front & rear walls of Wash house		
2	10	1½	8	240	End walls		
2	11½×½ / 2	1½	"	69	Gable portion		
2	1½	1½	8	36	Pillars		
				657	Total		
					Deductions		
1	4	"	7	28	Doorway in front of wash house		
				28	Total deductions		
				1056	Total Qft. of Latente in Chunam pacing old stone		12 " " 1056 ft 176 ft 6
					Plastering		
1	40	"	8	320	Inside of Wash house		
1	52	"	8	416	Outside of Do.		
2	10×4	"	"	80	Gable walls both sides		
4	6	"	8	192	Pillars		
1	18	½	"	27	Sides & offset of doorway in front of wash house		
	55	"	1	55	Basement all round		
				1090	Total		
					Deductions		
2	4	"	7	56	Doorways both sides		
				56	Total deductions		
				1034	Total Plastering		2 " " Qft 20 10 "
					Flooring with Asphalte		
1	9½	9½	"	86	Wash house		
				86	Total flooring with Asphalte		18 " " " 15 7 8
					Excavating foundations & filling in		1 " "
							192 " 8
					Sundries & superintendence		10 " " Plent 19 15 6
					Total		Qto " "
10	1½	1½	4	90	Raising Pillars part the ins of the Covered passage from the Orderly room & School to old Barracks		
				90	Total Qft. of Latente in Chunam paving old stone		12 " " 1039 ft 10 12 10
					Plastering		
10	6	"	4	240	Pillars raised		
				240	Total Plastering		2 " " Pqu 4 12 10
					Qft		15 9 8 1032 7 "
					Qto		197 8 10 1038 " "

Mess & Cookg 23 Apl 174

Brought f: 138 11 8 9193 " "

2	16	6"	4"	5_4_ " Top & bottom frames for Iron bars	
	28	4½	4"	3_6_ " Cross beams	
4	10	6"	4"	6_8_ " Uprights	
1	22	1	1¼	27_6_ " Beam over the frames at top	
				43_" " Total Qft: of Woodwork brought forward 14 " Qft:	53 12 "
1	4	"	11	Over Venetian with Hooks. Hinges &c	
				Complete 50 " " Inch	50 " "
				Over Venetian fixed at each end 50 " " " "	50 " "
				Iron Bars	
			316	Rft: of Iron Bars 6 " Rft	119 4 "
				Painting	
2×3	4	"	11	264 Over Venetian including at ends	
	20	"	3½	70 Tie Beam	
	7½	"	2	15 King post	
				349 Total Painting 24 " Qft	7 138
				Total	449 9 4
				Sundries & Superintendence 10 " " Cent	41 6 8
				Total for one opening	461 " "
				Add for another	461 " "
				Total for 2 openings	922 " "

Dismantling Wash house

2	13	1½	8	312 Front & rear walls of wash house	
2	10	1½	8	240 End walls	
2	10×4/2	1½	"	60 Gable over them	
2	1½	1½	7	32 Pillars of Covered passage to wash house	
				160 Pulling out stone in foundation & Basement	
				744 Total	
				Deductions	
1	4	1½	7	42 Doors in front of Wash house	
				42 Total deductions	
				702 Total Dismantling	" " 3 Qft 10 15 6
				Dismantling Roof	
2	13	8	"	208 Roof over the Wash house front & Rear	
2	18½	6	"	222 Do of the Covered passage to Wash house	
				430 Total dismantling roof & putting up again	4 " " Qft 17 32
2	13¾	2¼	3	185 Foundation & Basement of the front & rear wall of wash house	
2	9½	2¼	3	125 End walls	
				310 Qft	28 2 8 10115 " "
				Qft	198 8 10 10376 " "

					Brought up		44 13 8 8259 ..
					Sundries & Superintendence	10 .. Cent	44 2 6
					Total for one Opening		452 ..
					Add for another		452 ..
					Total for 2 Openings		904 ..
					Making Openings in the sides of European Bankets facing the Sea at their Southern ends.		
					Dismantling		
1	20	1½	13	390	Front wall of the Centre room		
	20/2	1½	"	105	Gable over it		
2	20	1½	13	780	Side walls		
1	1½	1½	7	16	Part of Pillars at the Corner		
				1291	Total		
					Deductions		
1	10	1½	7	105	Archway up to Opening line		
	10×7854	1½		59	Do above Do		
2	2½	1½	5	35	Part of the Windows		
				202	Total Deductions		
				1089	Total Dismantling		.. 3 Ft 17 . 3
					Dismantling Roof		
1	18½	13	"	240	Verandah		
				240	Total dismantling		3 .. 0 Ft 7 3 2
2	1½	1½	3	13	Raising pillars		
1	1½	1½	5	11	Remnant portion of the Windows		
				24	Total Qft. of Labour in Chunam using old stone		12 .. 10 Ft 2 16 1
					Plastering		
2	1½	"	13	39	Part of the wall in Centre room		
2	6	"	3	36	Pillars raised above		
1	1½	"	7	10	Corner pillars in part dismantled		
1	10	1½	"	15	Sides & Offset of door		
1	3	"	5	15	Part of the Windows now Closed both sides		
				115	Total Plastering		2 .. 0 Ft .. 4 ..
					Roofing		
1	18½	11	"	203	Verandah		
				203	Total roofing with galvanized Iron	35 .. 2	71 .. 10
					Wood work		
1	23	1	1½	28 9 ..	Beams instead of dismantled wall		
1	1½	6"	6"	1 06	Long post		
				30 7 6	Total Qft. of Wood work in Roof with post of size	1 4 . Qft	38 4 6
					Qft		138 11 8 9193 ..

Brought ____ 10 43 8289 " "

Dismantling Roof

1	22½	13	"	293	Part of the roof in Front
				293	Total Dismantling Roof ____ 3 " " 15ª 8 11 8
4	1½	1½	2½	23	Raising wall over the pillars
1	5¾	5½	1	29	Steps in Foundation including parapets
1	5¾	5½	2	60	Do. Basement
2	5½	1	2	24	Parapets of Steps in Basement
				134	Total Qt. of Plastering in Chimneying old stone ____ 12 " " 100ª 16 1 4

Plastering

4	6	"	2½	60	Pillars all round
1	6	"	12½	75	Part where dismantled
				82	Parapets of Steps
				12	Ends of steps
				229	Total Plastering ____ 2 " " 15ª 4 9 3

Roofing

1	22½	11	"	248	Part of the Verandah dismantled
				248	Total Roofing with Galvanized Corrugated Iron ____ 35 " " —" — 86 12 10

Wood work

1	23	1	1¼	28 9	Tie Beam notched of the wall dismantled
1	15	6	6		1 no 6 King post
	23	4½	6"	4 3 9	Ridge piece
				34 11 3	Total Qt. of Woodwork wrought fixed up ____ 1 6 " Qt. 43 11 9
	40	6"	4"	6 8 "	Cross Beam on top of Iron Bars
	32	6½	4	4 " "	Do. in Middle
4	12½	6"	6"	8 4 "	Upright
	23	1	1¼	23 9 "	Beam
				47 9 "	Total Qt. of Woodwork wrought fixed up ____ 1 6 " " ____ 59 11 "
1	4	"	7		Half panelled half Venetian Teak door with Irons, hinges &c Complete ____ 40 " " each 40 " "

Iron Railings

				365	Total Rg. ft. of Iron Rails Complete ____ h. Qtt. 136 ft "

Painting

1×3	4	"	3½	42	Over Venetian part
1×2	4	"	3½	28	Do. panelled Do.
	20	"	3½	70	Tie beam
	20	"	1½	30	Ridge Do.
				15	King post
				185	Total painting with Carem's brown paint ____ 24 " 4ª 4 27

Carᵈ ____ C/O 13 8 8289 " "

			Brought up	181 2 11 479 " "
			Dismantling present roof of Room & putting up again.	
2	20	12	500	Keeping of taking down Roof of Room & putting up again with old rafters, purlins and tile @	10 " " 83.33	50 " "
2	20	11	460	Giving a Galvanized Iron Roof to Verandah using old rafters & purlins		
			460	Total	35 " " "	161 " "
				Woodwork		
2	20	8"	10"	22_2_8	Measurements for Drain roof	
2	18	8"	10"	20_"	do the front & rear Verandah	
1	18	8"	12"	24_"	Ridge Beam for room	
				66_2_8	Total Cft. of Woodwork Brought forward	14 " Cft. 82 12 5
2	6	"	8		Doors fr panelled & fr Venetians at ends of opening with hard Co. hinges @ Complete	35 " " each 70 " "
				Painting		
2×3	6	"	4	144	Venetian Parts	
2×2	6	"	4	96	Panelled part	
				240	Total painting	24 " Sqr. 5 65
					Removing the Ceiling at end of Room enlarge opening and rebuilding	3 " "
					Excavating & filling in	1 " "
					Total	506 59
					Sundries & Superintendence	10 " " Prct 50 10 3
					Total Estimate for enlarging opening on one side	556 " "
					Add for the other	555 " "
					Total for 2 openings	1110 " "
					Improving the Ventilation of the Barrack (North West) side of old Barracks	
					Dismantling	
2	20	1½	12½	750	Front & rear walls of Centre room	
1	2×6¾ / 2	½	"	101	Gable ends	
				851	Total	
					Deductions	
1	10	1½	7	105	Archways in rear up to opening line	
	10×7.84 / 2	½		59	do above do	
1	4	1½	5	30	Windows	
				194	Total deductions	
				657	Total dismantling	3 Cft. 10 4 3
					Cft.	10 4 3 5259 " "

Brought f _____ 7179 " "

Deductions

2	1½	1½	5½	24¾	Part of Windows _____
1	6	1½	5	45	Archway pier wall upto springing line
	6'×7854/2	1½		21¾	___Do___ above ___Do___
				91	Total Deductions
				892	Total Quantity _____ " " 3 ft. 12 06

Pulling out stones in Foundation Basement _____ 1 " "

Removing present floor.

1	20	7 "	140		Wall _____
2	7½	7½ "	112		Verandah front & Rear _____
			252		Total removing present floor _____ 18 " ft. 3 46
1	18½	3	3	166½	Foundation for the proposed wall at the
1	19¼	2¼	2	86¾	Basement ___Do___
1	20	1½	12¼	367½	Superstructure _____
1	21½	1½	3½	112¾	Gable over the wall _____
2	1½	1¼	3¼	12 3/16	Raising wall over the Pillars in front
2	1½	1½	3¼	14⅝	___Do___ in rear
2	4¼	1½	5½	70¾	Closing windows in face of the new wall
				40	Part of the Archway to make it a door
				871	Total

Deductions

1	6	1½	5	45	Archway upto springing line _____
	6×7854/2	1½		21	___Do___ above ___Do___
				66	Total deductions
				805	Total Qty. of Latente in Quantity
					Add stone from demolished buildings 12 " " 1149 96 97

Plastering.

1	63	"	12½	527.	Area wall both sides _____
2×2	4¼	"	5½	94	Windows both sides now Closed _____
1	23	"	3¼	75	Pillars in front & rear _____
1	21¼	"	7	149	Gable of end wall both sides _____
	19½	1½	"	29	Side & soffit of arch _____
				52	Roof of the arch both sides _____
1	23	"	2	46	Basement of wall _____
1	9	"	2	18	___Do___ Verandah _____
				990	Total.

Deductions.

2	6	"	5	60	Archway upto springing line both sides
2	6×7854	"		57	___Do___ above ___Do___
				117	Total deductions
				873	Total Plastering _____ 2 " " 17 76
					131 3 " 709 " "

Brought forward _____ 6733 " "

Along the Court passage from old to new Barracks

36	2	1½	½	54	Raising wall over the Piers in front & rear
2	5½	1½	½	8	Do. _____ End piers _____
				62	Total Qty. of Latente in Chunam _____ 12 " " 100 ft 77 "

Dismantling

36	6	1½	5½	1782	Face walls in front & rear _____
				1782	Total.

Deductions

36	$\frac{6^2 + 7.854}{2}$	1½		763	Arches _____
				763	Total deductions
				1019	Total Dismantling _____ " " 3 Qft. 15 M 9

Plastering

36	4	"	½	72	New walls raised on the Piers both sides
2	22	"	½	22	_____ Do. _____ End Piers Do. _____
72	1½	"	9	972	Ends of Piers where dismantled _____
				1066	Total Plastering _____ 2 " " Sqr. 21 51

Dismantling roof and putting again with 5 New Tiles, rafters, battens giving an additional collar piece as shewn.

2	168	10¾	"	3612	Front & Rear _____
				3612	Total _____ 10 " " Sqr. 361 3 2

Total _____ 405 14 "

Sundries & Superintendance _____ 10 " p Cent 40 2 "

Total Estimate _____ 446 " "

Enlarging openings in the centre of the sides of the European Infantry Barracks facing the Sea.

Dismantling

1	23	1½	12¾	422⅝	End wall _____
1	20	1½	3½	105	Gable over it _____
2	7½	1½	12¾	275⅝	Portion of the front & rear walls _____
1	1½	1¼	6¾	12⅜	Pillars in front _____
1	1½	1½	6¾	15¼	Do. in rear _____
				50	Part above springing of arch in front & rear _____
1	6	1½	3½	31½	Part of the end wall at the bottom of the arch to make it a doorway _____
				913	Total. Qft. _____ 7 79 " "

			4140	Brought Fd	6289	5341
1	74	" 4	296	Longitudinal wall 4 projection inclusive		
	37	¾ "	28	Do Do at top		
1	¾	" 4	3	End		
3	12	" 4½	162	Gables of End & Cross walls both sides		
2	15	1½ "	45	Sides and ffftt of doorways		
1	532	" 1	532	Basement throughout		
			5216	Total		
				Deductions		
2×2	3	" 6	72	Doorways both sides in Latrine		
			72	Total Deductions		
			5134	Total Plastering	2 " " @	102 10 11
				Flooring with Asphalte ¾ Inch thick on a levelling course of Latrite in Chunam.		
2	7½	13¾ "	206	Latrine		
2	15¾	2¼ "	62	Do		
			268	Total asphalte flooring	18 " " "	45 3 10
				Roofing		
1	33	20 "	660	Front of Latrine		
1	33	11 "	363	Rear Do		
2	39	8 "	624	Covered passage Front & Rear both sides		
1	68	8 "	544	Verandah to School to connect as a Covered passage		
2	111	7 "	1554	Covered passage South of road		
2	15	9 "	270	Coping road front & rear		
			4015	Total roofing with old rafters, repairs &c. Pc. using the old ones for the distance	10 " " @	401 8 "
				Woodwork		
2	10	6 6"		5 " " Tie beams between piers		
4	7½	6" 6"		7 6 " Do for Covered passage		
2	2¾	6" 4½		1 " 5 King post for the Tie Beams between piers		
4	2	6" 4½		1 6 " Do for Covered passage		
	58	4½ 6"		10 10 6 Ridge Beam throughout		
	643	6" 6"		110 9 " Purlins Do		
				136 7 11 Total Cft. of Woodwork @ Rs 1 4 " Cft.		170 13 2
				Excavating foundation & filling in Basement		5 " "
				Total		1356 12 11
				Sundries & Superintendence	10 " " Cent	135 3 1
				Total Estimate for Constructing a Covered passage & Reconstructing School Latrine		1492 " "
				Say Rs		1500 " "

Brought up 4764 12 8

Sundries & Superintendance ____ 10 " " Nett 476 3 4

Total Estimate for Constructing Married Qrs No. 1 pair Guard & Prison rooms ____ 5241 " "

Constructing a Covered passage and reconstructing School Latrine from proposed new Guard room to Orderly room.

Foundation & Basement

40	2½	2½	3½	708¾	Pillars throughout
1	207½	¾	2½	595½	Retaining wall throughout
4	3¾	2½	3½	115	Piers
2	33¾	2½	3½	531½	Front & Rear walls of Latrine
3	11½	2½	3½	266	End walls
1	33¾	1½	2½	126½	Longitudinal wall
1	3½	1½	2½	12	Cross wall
2	11½	1½	3½	115	Do in face of Latrine
				2476	Total

Superstructure

14	6½	1½	7½	236	Pillars on the South side of road
26	1½	1½	6	351	Do South Do
6	3	1½	9½	171	Piers
2	33	1½	11½	1138	Front & rear Walls of Latrine to top of Woodwork
3	12	1½	11½	621	End and Cross wall
3	18½	1½	2½	137	Gables of End & Cross wall
1	33	¾	4	99	Longitudinal wall in rear
1	4	¾	4	12	Cross wall in rear
1	11½	¾	6	57	Do in face of Latrine
				2816	Total.

Deductions

2	3	1½	6	54	Doorways in front of Latrine
				54	Total deductions
				5238	Total Foundations, Basement, Superstructure, roughed stone from dismantled building ____ 12 " " ~~115 9~~ 628 9 "

Plastering

14	6	"	7½	630	Pillars on the South of road
26	6	"	6	936	Do South do
2	57¾	"	11½	1190	Latrine inside
2	3½	"	5½	8	Part above cross wall inside
2	3½	"	6	258	Cross wall in face of Wing both sides
2	11½	¾	"	17	Do Do at top
1	95½	"	11½	1095	Outside all round
1	¾	"	7½	6	Part above cross wall
				4140	Carried ½

628 9 " 5241 " "

Brought up _____ 281 12 4

Removing present floor

6	11/4	17½	2566	Front rooms _____
13	11/4	11/2	1682	Rear do _____
13	11/4	11	1609	Front Verandah _____
26	3/2	5/8	769	Bath rooms _____
			6620	Total removing present flooring ____ 18 " Sqrs 994 00

Plank flooring

6	25	18	2700	Front rooms _____
1	11/4	18	212	Inf rooms do _____
			2912	Total Plank flooring _____ 32 " " " 931 13 5

Flooring with Cuddapah Slab.

			3600	Verandahs front, Rear & Bath rooms 60 " " — " — 2160 " "

Plastering

12	1/2	15/4	275	Part dismantled in Front Verandah
1	15	1/2	159	sides & soffit of doorway newly put in
				front & rear rooms _____
18	15 7/8	3/4	212	do _____ do _____ rear Bath rooms _____
12	1/2	15/4	275	Part dismantled in front rooms _____
12	1/2	10 3/4	194	Part do in rear wall of Rear room
12	3/4	7	63	_____ do _____ do _____
8×2	3	6	288	Doorways both sides now closed _____
			1496	Total Plastering _____ 2 " " — " — 29 14 9

Woodwork

6	21	7"	9"	55-16 Tie beam front room _____
6	7	7"	9"	18-4-6 King post _____
12	12	4"	5"	20-- Principal rafters _____
12	5/2	3"	4"	5-6- Struts _____
6	13/2	8"	10"	45-- Tie beam for rear rooms _____
6	9/4	5"	6"	5-3-9 King post _____
6	7/4	4"	4"	4-10- Flanking beam _____
1	163	3"	6"	20-9- Ridge Beam _____
			174 09	Total Cft of Woodwork Framing put up 14 " Cft 215 9 11

6	5	"	7	Framing Span Grated door inside present door of improved Prisoners room with Span hooks, hinges, Span Cuphold bolt & lock & key _____ 50 " " Each 300 " "
6	3/4	"	7	Small door in rear as above _____ 40 " " — " — 240 " "
7	4	"	7	Doors 1/2 Venetians & 1/2 panelled _____ 60 " " — " — 280 " "
8	3	"	6	Doors Batten to Bath rooms _____ 95 " " — " — 200 " "

Painting

3×7	4	"	3/2	294	Doors Venetian front _____
2×7	4	"	3/2	196	do panelled do _____
2×8	3	"	6	288	do Batten in Bath rooms _____
				778	Total painting with 2 Coats of Carsons Chocolate colour Paint as coarse front 3 " " Sqrs 23 55

Carried up _____ 476 12 8

Estimate for Improvements and Alterations to the Barracks for the European Infantry Regiment at Cannanore

Measurement Contents			Particulars of Work	Rate	Amount of each Article	Explanation of the necessity for recommended	By whom recommended
No.	L	B	D				
			Altering No. 1 Block of Mamed Qrs to fit it for a Guard & Prison Room.				
			Dismantling				
6	18	1½	15/16	2457	Walls in front room		
6	12	1½	11/16	1224	Do rear do		
6	18	1½	3	486	Gable of cross walls in front		
12	14	¾	8	1008	Walls in rear rooms lengthway		
12	12½	¾	2½	281	Gable over rear rooms		
24	6	¾	8	864	Side and cross walls		
8	6	¾	4¾	171	Part above in middle Cross wall		
12	1½	¾	3½	47	Projection in rear up to Pedestal		
12	12¾	¾	3½	402	Partition wall up to Pedestal		
24	1½	1½	3½	189	Pedestals		
6	12	¾	3½	189	Walls between Partitions		
12	3⅜	1½	8	522	Cross wall in front up to top of arch		
12	11¼	1½	4	810	Do above arch		
7	4	1½	7	294	Part cross wall in front & rear rooms for doorways		
8	3	¾	6	108	Do in rear Bath rooms		
10	5	1½	7	525	Part in rear wall of the rear rooms		
3	6¾	1½	7	213	Do Do		
				2500	Pulling out the Bricks in foundation & Basement		
				12290	Total		
			Deductions				
16	3	¾	6	216	Doorways in Bath rooms		
10	3½	1½	4	210	Windows large in rear Walls of rear rooms		
2	3	1½	4	36	Do small Do		
				462	Total deductions		
				11828	Total Dismantling	" " 3 Cft. 184 13 "	
14	17½	¾	2	368	Retaining wall for flooring joists		
8	3	¾	6	108	Closing doorways in side walls of Bath rooms		
				476	Total Cft. of Laterite in Chunam using old stones from dismantled Buildings	12 " " 10 Cft. 57 1 14	
					Dismantling roof of Bath rooms		
2x4	14½	10	"	1160	Front and rear		
2x4	4	5¼	-	168	Small portion on top		
				1328	Total dismantling roof	3 " " 1 Cft. 39 13 5	
					Carried Fo	381 12 4	

Specification and Estimate for Alterations to the Barracks for the European Infantry Regiment at Cannanore

Chunam

Schedule No 6

Encl. in a letter No 671
of 18th April 1874

Estimate for Improvements & Additions to Chief Surveyor's Office Compound & Quarters

Extimate No 1864
G.W. 5480/73

No 2
In Accordance with
No 2366/74
2/74
Go-2897-24-6-74

Pl. 24 June/74
In 18 M 512

Copy to 7802

Chief Engineers Memorandum.

The works proposed to be carried out for the improvement of the Govt. Jetty Barracks &c Compound consist of

Prisoners Rooms, £ 7123

1. Converting the Guard Room, Guard Latrine, Covered Passage to Court Martial Room — £ 390 -
2. Converting No 1 Married Quarters into Guard and Prisoners Room £ 5241 -
3. Covered passage from No 2 to Orderly Room; to new Latrine — £ 1492 -
4. Altering the Covered Passage between the old & new Barracks — £ 446 -

£ 4260

5. Improving the ventilation of the Sea face of old Barrack £ 1110 -
6. Improving the ventilation of North face, old Barrack £ 1360 -
7. Improving the ventilation of South face, old Barracks £ 1790 -

8. Dismantling and rebuilding a Workhouse — £ 212 -
9. Raising portion of a covered passage between the Orderly Room and old Barracks — £ 49 -

£ 7882

10. Glazed Piping from Cookhouse and Dark Room to the Sea, £ 1397 -
11. Improving Ground Drains £ 6485 -

Total £ 19.972.

It is not likely that funds for ~~odd~~ the full amount of the aggregate Estimate will be available in the current year; but it will be well that a beginning should be made, and the works of one of a nature that admits of their being carried out independently of one another; each being a gradual improvement — Thus Items 10 & 11 might be treated as one Estimate of £7,00 for inclusion in next years' Budget; Nos 5 to 7 provided for from the Current years' Revenue; and Nos 4, 8, & 9 carried out as Famine Relief Works with the funds at the disposal of the District Engineer —

As to Items 1 to 3, The Chief Engineer recommends revision of the details of the proposed conversion of No 1 Pyramided Quarters into Guard & Prisoners Rooms — It is a Block which was built on Contract, of Brick in Clay, in a very unsatisfactory manner, with reference to actual revenue Govt. Orders were issued in 1863-64 - and he is strongly of opinion that none of the ~~Contract~~ Walls of the Main Rooms of Nos 1 & 2 should be demolished. The former may be perforated with Arched openings to such extent as may be necessary for their conversion into Prison Rooms, if they cannot be otherwise utilized as they are - The Arched Walls will thereafter require no Flooring - The Verandahs at Cuddalapah are of Stone, in lieu of which in the case of the Verandah of the Court House No 2, which is of Wood, the cost of material at £60 a square is recommended - There is no separate allowance made for old materials of the buildings to be dismantled, but rates of the new work have been reduced to allow for their use - The charge of 10 per Cent for Sup.ce rent Establishment &c appears excessive - The attention of

the District Engineer ready to
give him advantage to
these two Lakes permit in
reviewing the first act of
Estimate (1873) —

Lt. Wilkes (Ld. R.E.)
Chief Engineer —

Ootacamund
20th May 1874.

Public Works Department

Proceedings of the Madras Govt
Read thereon Viewing

From
The Supdg Engr for Buildings Revd Extract to 611 dated
18 April 74)
do do do Revd Extract to 620 dated
23 April 74)
Chief Engrs Memo. of 20 May 1874 —

His Excellency the
Governor in Council
approves of the re-
commendation of
the Chief Engineer to
carry out the im-
provements and
alterations to the
barracks of the Eu-
ropean Infantry
Regiment at Banga-
more as separate
work, and accordingly
sanctions the inclusion
in

30-5-74.

in the Budget of 1875-76
of the works numbered
10 and 11 at an aggregate
cost of Rs 7700, the percentage for Sup.
and Sundries being reduced -
A sum of Rs 4,960
is allotted from the
Military Reserve for
those numbered 5 to 9,
and those numbered
4, 8 and 9 will be
carried out as Imp.
New Works with funds
at the disposal of the
District Engineer -
the aggregate amount
of the estimates being
Rs 707 -

The estimates for
these works are now
- being - last those
for

for Nos 1 to 3 will be
returned to the District
Engineer for revision
in accordance with
the Chief Engineers
suggestions -

Sd/-

No. 1. C. for 1875.
D. E. Malabar with Revised Estimates
Cent. Sr. Accts.
Guilty. Departt. &
1. Copies despd to all 6/7/74.

X. Le Cerclo. Rect. to the Asst Com.
vide Cir. 201 of 1874

2366
2550

Govt. of H.E.H. the Nizam's
PUBLIC WORKS.

Nos. 572 & 573

Barracks at Cannanore

Certain estimates for improvements and alterations to the Barracks of the European Infantry Regiment at Cannanore in the Malabar District Executive and other Officers Quarters for revision —

Madras Mail Office 1877

Malabar Dist. Engr.
Malabar