GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Railway.

Read again the following papers :—

G.O., dated 2nd August 1890, No. 1123 R., Public Works.

Read again the following paper :—

G.O., dated 1st July 1890, No. 943 R., Public Works.

From the Under-Secretary to the Government of India, Public Works Department (Railway Construction), to the Joint Secretary to the Government of Madras, Public Works Department, Railway Branch, dated Calcutta, 3rd February 1890, No. 103 R.C.

With reference to correspondence ending with Public Works Department letter No. 32 R.C., dated 10th January 1890, I am directed to request that the detailed estimates for the East Coast Railway Survey may be submitted to the Government of India for sanction at an early date.

No. 791 C.

Copy forwarded to the Engineer-in-Chief, East Coast Railway Survey, for favor of early compliance in continuation of Public Works Department letter No. 790 C., dated 12th February 1890.

(Signed) C. J. SMITH, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Railway Branch.

12th February 1890.

From the Assistant Secretary to the Government of India, Public Works Department, dated Calcutta, 14th March 1890, No. 103/1 R.C.

Telegram from the Joint Secretary to the Government of Madras, Public Works Department, Railway Branch, to the Engineer-in-Chief, East Coast Railway Survey, Waltair, dated 20th March 1890.

My 791 C., twelfth ultimo. Please expedite submission of detailed estimates required by India.

From the Consulting Engineer for Railways, dated Madras, 28th March 1890, No. 223.

Telegram from the Engineer-in-Chief, East Coast Railway Survey, to the Consulting Engineer for Railways, dated Vizagapatam, 22nd March 1890.

Wired Examiner to send actual expenditure for pucca estimate.

Submitted to Government.

From the Assistant Secretary to the Government of India, Public Works Department, dated Simla, 14th May 1890, No. 103/2 R.C.

Telegram from the Joint Secretary to the Government of Madras, Public Works Department, Railway Branch, to the Engineer-in-Chief, East Coast Railway Survey, Waltair, dated 26th May 1890.

My 791 C., 12th February. Please expedite detailed estimates. India has already sent two reminders.

From the Secretary to the Government of India, Public Works Department (Railway Construction), to the Joint Secretary to the Government of Madras, Public Works Department, Railway Branch, dated Simla, 4th June 1890, No. 490 R.C.

It has been brought to the notice of the Government of India that the survey of the East Coast Railway is being carried out without an estimate of its cost having been sanctioned, and that up to the end of January last a sum of Rs. 42,315 had been spent without formal sanction, although in Public Works Department letter No. 103 R.C., dated 3rd February 1890, the Government of India requested that detailed estimates should be submitted for sanction.

2. Considering that operations were started so far back as October 1889, the Government of India is of opinion that these estimates ought to have been submitted by this time; and I am directed to request that they may now be forwarded with as little delay as possible and to inquire when they may be expected.

Telegram from the Engineer-in-Chief, East Coast Railway Survey, to the Consulting Engineer for Railways, dated Vizagapatam, 7th June 1890.

Detailed estimates for survey leave this day.

From the Consulting Engineer for Railways, dated Madras, 25th June 1890, No. 445.

From the Engineer-in-Chief, East Coast Railway Survey, to the Consulting Engineer for Railways, dated Waltair, 7th June 1890, No. 976/1.

I have the honor to submit herewith, for the sanction of the Government of India, detailed estimates for the survey of the East Coast Railway, amounting to Rs. 3,00,910.

Submitted to Government for transmission to the Government of India with reference to its No. 103 R.C., dated 3rd February 1890, embodied in G.O., No. 791 C., dated 12th February 1890.

Order—dated 1st July 1890, No. 943 R., Public Works.

Ordered to be forwarded for the sanction of the Government of India with reference to its letters Nos. 103 R.C. and 490 R.C., dated 3rd February and 4th June 1890.

(Here enter No. 944 R., dated 1st July 1890.)

(True Extract.)

(Signed) SIDNEY SMITH, Major, R.E.,
Under-Secy. to Govt., P.W.D.,
Railway Branch.

Endorsement—dated 1st July 1890, No. 944 R., Public Works.

Forwarded.

(By Order.)

(Signed) R. R. E. DRAKE-BROCKMAN, Lt.-Col., R.E.,
Ag. Joint Secy. to Govt., P.W.D.

Read also the following papers:—

Telegram from the Government of India, Public Works Department, dated Simla, 21st July 1890, No. C 79.

Telegram from the Joint Secretary to the Government of Madras, Public Works Department, Railway Branch, to the Engineer-in Chief, East Coast Railway Survey, Waltair, dated 28th July 1890.

Your letter 976 by 1, seventh June, submitting detailed estimate for East Coast Railway Survey. India wires. Begins. It seems to Government of India that the amount provided for drawing instruments and survey expenses generally is extremely small compared with cost of establishment employed, while on other hand provision under audit and accounts is altogether too high. One accountant and clerk for the survey accounts should suffice. Government of India desires that the survey estimate may be revised in light of foregoing remarks and latest actuals. Ends. Please submit revised estimate called for as soon as possible.

From the Secretary to the Government of India, Public Works Department (Railway Construction), to the Joint Secretary to the Government of Madras, Public Works Department, Railway Branch, dated Simla, 22nd July 1890, No. 650 R.C.

In continuation of the Government of India's telegram, quoted in the margin, asking that the detailed estimate of the cost of the East Coast Railway Survey may be revised, I am directed to invite attention to the following remarks thereon.

Public Works Department, No. C 79, dated 21st July 1890.

Your letter numbered and dated as follows: 944 R., 1st instant, estimate for East Coast Railway Survey. It seems to Government of India that the amount provided for drawing instruments and survey expenses generally is extremely small compared with cost of establishment employed, while on other hand provision under audit and accounts is altogether too high. One accountant and clerk for the survey accounts should suffice. Government of India desires that the survey estimate may be revised in light of foregoing remarks and latest actuals.

2. It appears to the Government of India that the amount of survey and mathematical instruments provided in the estimate received with your No. 944 R., dated 1st July 1890, is extremely small having regard to the magnitude of the survey operations, and compared with the cost of the establishment to be employed, estimated at Rs. 2,39,922. For example, one set of railway curves, two steel straight edges, four sets of plotting scales, &c., are a small allowance amongst nineteen Engineers. Even on surveys through easy country it has been found that the proportion of establishment charges to other charges is usually about as 3 to 2, while in the present estimate the proportion is nearly as 4 to 1.

3. As these instruments will not be expended on the survey and there will be a credit for them when they are returned to store on completion of the survey, it would seem specially undesirable to restrict the supply of instruments to a limit below that at which it may reasonably be fixed and so incur a risk of unnecessarily delaying the preparation of the plans.

4. The provision under audit and accounts is Rs. 22,550, and includes an Examiner, four accountants and ten clerks.

In the opinion of the Government of India one clerk, in addition to the accountant already employed, should be sufficient for the compilation of the accounts of the survey, under the supervision of the Examiner of Public Works Accounts, Madras.

5. The Engineer-in-Chief should now be in a position to frame an estimate more in accordance with the probable expenditure than it appears to the Government of India that the present estimate is likely to be; I am therefore to return the estimate and to request that it may be revised in the light of the above remarks and with due regard to recent orders and the latest actuals available.

6. The Engineer-in-Chief should be instructed to revise the estimate before he comes up to Simla as desired in Public Works Department letter No. 647 R.C., dated 21st July 1890.

Order—dated 2nd August 1890, No. 1123 R., Public Works.

Communicated to the Consulting Engineer for Railways with reference to his endorsement No. 445, dated 25th June 1890.

2. Ordered that the following telegram be despatched to the Engineer-in-Chief, East Coast Railway Survey :—

My telegram, 28th July. India requests that you will revise the estimate of cost of East Coast Railway Survey before leaving for Simla. G.O. follows.

(True Extract.)

(Signed) T. GRACEY, Lieut.-Colonel, R.E.,
Offg. Joint Secy. to Govt., P.W.D.,
Railway Branch.

G.O., dated 28th August 1890, No. 1280 R., Public Works.

From the Engineer-in-Chief, East Coast Railway, to the Joint Secretary to the Government of Madras, Public Works Department, Railway Branch, dated Waltair, 12th August 1890, No. —.

In compliance with your telegram of 28th July conveying the wishes of Government of India to revise the estimates of East Coast Railway Survey, I have the honor to submit herewith a revised estimate for the same in which the amount under audit and accounts has been reduced to Rs. 4,000.

2. With reference to Government of India's remarks regarding the provision for drawing instruments and survey expenses, I beg to state that the cost of same is made up from actuals.

ENCLOSURES.

EAST COAST RAILWAY.

ABSTRACT of Estimate, East Coast Railway.

Quantity.	Description.	Rate per mile.	Amount.	Total.
MILES.	*Preliminary Expenses.*			
	Survey expenses	RS. ...	RS. 28,325	RS.
509	Total, Survey expenses ...	55	...	28,325
	Plant, Engineering.			
	Tools	...	6,300	
	Instruments	...	15,490	
	Camp equipage	...	10,873	
509	Total, Plant ...	65	...	32,663
	Establishment.			
	Salaries	...	1,87,632	
	Travelling allowances	...	20,040	
	Contingencies	...	15,300	
509	Total, Establishment ...	438	...	2,22,972
509	Grand Total ...	558	...	2,83,960

(Signed) F. B. WALKER,
Engineer-in-Chief, East Coast Railway.

EAST COAST RAILWAY SURVEY.

ABSTRACT of Estimate, Survey Expenses.

Quantity.	Description.	Rate.	Amount.	Total.
MILES.		RS.	RS.	RS.
509	Daghbelling	15 a mile.	7,635	
509	Jungle cutting	7 „	3,563	
509	Bench-mark stones and masonry pillars.	18 „	9,162	
509	Trial pits	3 „	1,527	
509	Compensation for damages and other miscellaneous charges	10 „	5,090	
	Total ...	...	26,977	...
	Add 5 per cent. contingencies ...	...	1,348	...
	Grand Total ...	...	28,325	...

ABSTRACT of Estimate, Plant, Tools, Engineering.

Quantity.	Description.	Rate.	Amount.	Total.
SETS.		RS.	RS.	RS.
10	Boring tools	420 a set.	4,200	
	Other petty tools costing less than Rs. 50 each	...	1,800	
	Total ...	...	6,000	...
	Add 5 per cent. contingencies ...	...	300	...
	Grand Total ...	...	6,300	...

ABSTRACT of Estimate, Plant, Survey and Mathematical Instruments.

Quantity.	Description.	Rate.	Amount.	Total.
NO.		RS.	RS.	RS.
11	Theodolite with stand	470 each	5,170	
14	Level 14′ Cook	254 „	3,556	
11	Prismatic compasses	72 „	792	
1	Arithmometer	420 „	420	
1	Pentagraph	182 „	182	
1	Plainmeter	55 „	55	
1	Chronominometer	123 „	123	
8	Drawing instruments, first class ...	60 „	480	
4	Scales, plotting, ivory	50 „	200	
1	Curves, Railway, ebonite	65 „	65	
2	Rules, straight edge, steel, 5½ ...	58 „	116	
5	Rules, parallel, 2′	66 „	330	
3	Do. do. 18″	50 „	150	
2	Do. do. 12″	31 „	62	
1	Do. flat, electrum, 5½′	62 „	62	
	Other items costing less than Rs. 50 each	...	2,988	
	Total ...	...	14,751	...
	Add 5 per cent. contingencies ...	...	739	...
	Grand Total ...	...	15,490	...

(Signed) F. B. WALKER,
Engineer-in-Chief, East Coast Railway.

EAST COAST RAILWAY.

Abstract of Estimate, Camp Equipage.

Quantity.	Description.	Rate.	Amount.	Total.
		RS.	RS.	RS.
4	Swiss cottage, 14′	450 each	1,800	
3	Do. 13′	400 „	1,200	
8	Hill tents, 14′	310 „	2,480	
5	Do. 12′	300 „	1,500	
1	Sleeping pall, 12′	170	170	
7	Do. 12′	115 each	805	
7	Do. 10′	100 „	700	
5	Servants' palls, 12′	100 „	500	
20	Do. 10′	60 „	1,200	
	Total ...	...	10,355	...
	Add 5 per cent. contingencies ...	...	518	...
	Grand Total ...	...	10,873	...

Abstract of Estimate, Establishment.

Quantity.	Description.	Rate.	Amount.	Total.
	Direction.			
MONTHS.		RS.	RS.	RS.
10	1 Superintending Engineer, 1st class.	1,600	16,000	
8	1 Chief Engineer, 3rd class	1,800	14,400	
6	1 Executive Engineer, 3rd grade, P.A.	700	4,200	
	Travelling allowance	...	1,200	
	Total ...	...	35,800	...
	Engineering.			
11	2 Executive Engineers, 1st grade ...	950 each.	20,900	
8	1 Executive Engineer, 1st „ ...	950	7,600	
11	2 Executive Engineers, 2nd „ ...	800 each.	17,600	
10	1 Executive Engineer, 2nd „ ...	800	8,000	
7	1 Do. do. 2nd „ ...	800	5,600	
11	3 Executive Engineers, 4th „ ...	600 each.	19,800	
9	5 Assistant Engineers, 2nd „ ...	400 „	18,000	
8	1 Temporary Assistant Engineer ...	400	3,200	
9	1 Do. do. do. ...	300	2,700	
	Travelling allowance ...	...	15,600	
	Total ...	...	1,19,000	...
	Subordinates.			
12	1 Sub-Engineer	300	3,600	
12	2 Supervisors	150 each.	3,600	
12	3 Overseers	100 „	3,600	
10	10 Surveyors	60 „	6,000	
	Travelling allowance ...	...	2,000	
	Total ...	...	18,800	...

EAST COAST RAILWAY.

Abstract of Estimate, Establishment—*cont.*

Quantity.	Description.	Rate.	Amount.	Total.
	Petty Establishment.	RS.	RS.	RS.
MONTHS.				
18	1 Jamadar	15	270	
6	1 Do.	15	90	
12	3 Chuprasees	10 each.	360	
12	16 Do.	8 „	1,536	
12	16 Do.	7 „	1,344	
14	1 Tindel	10	140	
4	170 Khalasees	7 each.	4,760	
12	6 Do.	7 „	504	
16	4 Chowkidars	7 „	448	
	Travelling allowance	...	200	
	Total ..	...	9,652	...
	Office Establishment.			
18	1 Head Clerk	160	2,880	
13	1 Second Clerk	90	1,170	
12	2 Clerks	60 each.	1,440	
12	2 Do.	50 „	1,200	
12	5 Do.	40 „	2,400	
12	6 Do.	30 „	2,160	
12	1 Duftry	10	120	
13	1 Head Draftsman	150	1,950	
12	1 Draftsman	90	1,080	
12	1 Do.	75	900	
12	2 Draftsmen	60 each.	1,440	
12	6 Tracers	40 „	2,880	
	Travelling allowance	...	800	
	Office rent	...	3,000	
	Office contingencies	...	3,800	
	Engineer-in-Chief's office furniture ...	...	4,000	
	Stationery and printing	...	4,500	
	Total, Office Establishment ...	...	35,720	...
	Audit and Accounts.			
	Superior Establishment proportionate cost.	...	1,000	
12	1 Accountant, 4th grade	150	1,800	
12	1 Clerk	50	600	
12	1 Do.	30	360	
	Travelling allowance	...	240	
	Total ...	...	4,000	...
	Abstract of Establishment.			
	Direction	...	35,800	
	Engineering	...	1,19,000	
	Subordinates	..	18,800	
	Petty	...	9,652	
	Office	...	35,720	
	Audit and Accounts	...	4,000	
	Total, Establishment ...	...	2,22,972	...

(Signed) F. B. WALKER,
Engineer-in-Chief, East Coast Railway.

EAST COAST RAILWAY.

ABSTRACT of Estimate, Engineer-in-Chief's Office Furniture debitable to Establishment Contingencies.

Quantity.	Description.	Rate.	Amount.	Total.
		RS.	RS.	RS.
2	Office clocks	75	150	
10	Office almirahs	40	400	
5	Office tables	40	200	
15	Office do.	25	375	
10 Pairs	Camp do.	10	100	
60	Arm chairs	5	300	
1	Book-shelf, revolving	70	70	
6	Book-shelves, teakwood	10	60	
16	Drawing tables	35	560	
6	Drawing almirahs	50	300	
8	Cash-chests	50	400	
1	Copying press	50	50	
6	Letter balances	25	150	
6	Despatch boxes, tin	40	240	
12	Do. do. wooden	10	120	
15	Record boxes	15	225	
	Petty items	...	100	
	Total ...	...	3,800	...
	Add 5 per cent. contingencies, freight, &c.	...	200	...
	Grand Total ...	...	4,000	

(Signed) F. B. WALKER,
Engineer-in-Chief, East Coast Railway.

Order—dated 28th August 1890, No. 1280 R., Public Works.

Ordered to be forwarded to the Government of India with reference to its letter No. 650 R.C., dated 22nd July 1890.

(Here enter No. 1281 R., dated 28th August 1890.)

(True Extract.)

(Signed) T. GRACEY, Lieut.-Colonel, R.E.,
Offg. Joint Secy. to Govt., P.W.D.,
Railway Branch.

Endorsement—dated 28th August 1890, No. 1281 R., Public Works.

Forwarded.

(By Order.)

(Signed) T. GRACEY, Lieut.-Colonel, R.E.,
Offg. Joint Secy to Govt., P.W.D.,
Railway Branch.

Read also the following paper:—

From the Officiating Under-Secretary to the Government of India, Public Works Department (Railway Construction), to the Joint Secretary to the Government of Madras, Public Works Department, Railway Branch, dated Simla, 19th September 1890, No. 845 R.C.

I am directed to acknowledge the receipt of your No. 1281 R., dated 28th August 1890, and in reply to communicate the sanction of the Government of India to the estimate of the East Coast Railway Survey, therewith forwarded, amounting to Rs. 2,83,960.

2. As the cost of the establishment (*a*) on field works and (*b*) on recess work is not separately given in the estimate, I am to request that the Engineer-in-Chief may be directed to divide the expenditure and show it separately in detail under the above heads in the completion report of the survey which should be submitted for the information of the Government of India.

ORDER—dated 17th October 1890, No. 1514 R., Public Works.

Communicated, with reference to Proceedings No. 1123 R., dated 2nd August 1890, to the Consulting Engineer for Railways who will draw the attention of the Engineer-in-Chief, East Coast Railway, to para. 2 of the Government of India letter read above.

(True Extract.)

(Signed) T. GRACEY, Lieut.-Colonel, R.E.,
Offg. Joint Secy. to Govt., P.W.D.,
Railway Branch.

To the Consulting Engineer for Railways.
„ Examiner, Public Works Accounts.

Exd. J. Moses.
Spare Copies

RAILWAY.

Govt. of {1890} Madras.

PUBLIC WORKS.

Dated October, 17th.

Recd, *Encl.*

G.O., 17th Oct. 1890, No. 1514 R.

OCTOBER.

East Coast Railway Survey

Letter from the Government of India communicating sanction to the estimate of the — amounting to Rs. 2,83,960 and requesting to show in detail in the completion report of the Survey the cost of establishment on field works and on recess work, communicated to the Consulting Engineer for Railways.

Abstract of Estimate East Coast Railway Survey

Quantity.	Description.	Rate per mile	Amount. Rs.	A.	P.	Total.
Miles	Preliminary Expenses					
	Survey Expenses		28325	-	-	
509	Total Survey Expenses	55/-				28325
	Plant. Engineering					
	Tools		6300	-	-	
	Instruments		1540	-	-	
	Camp Equipage		1073	-	-	
509	Total Plant	65				32663
	Establishment					
	Salaries		198722	-	-	
	Travelling Allowances		21400	-	-	
	Contingencies		19800	-	-	
509	Total Establishment	472/-				239922
509	Grand Total	592/-				300910

J. G. Walker
Engineer-in-Chief E.C.R.

Abstract of Estimate

Quantity.	Description.	Rate.	Amount. Rs.	A.	P.	Total.

14 JUN 1890

East Coast Railway Survey 2

Abstract of Estimate Survey Expenses

Quantity.	Description.	Rate.	Amount. Rs.	A.	P.	Total.
Miles						
509	Daghbelling	15/a mile	7635	-	-	
509	Jungle Cutting	7/- "	3563	-	-	
509	Bench Mark Stones and Masonry Pillars	18/- "	9162	-	-	
509	Trial Pits	3/- "	1527	-	-	
509	Compensation for damages and other Miscellaneous Charges	10/- "	5090			
		Total	26977	-	-	
	Add 5% Contingencies		1348	-	-	
		Grand Total	28325	-	-	

J B Wauchope

Engineer-in-Chief.
E. Ry

Abstract of Estimate

Quantity.	Description.	Rate.	Amount. Rs.	A.	P.	Total.

pw line 8
6031/90

3

East Coast Railway Survey

Abstract of Estimate Plant

Tools Engineering

Quantity.	Description.	Rate.	Amount. Rs.	A.	P.	Total.
Sets 10	Boring Tools	420/- set	4200	-	-	
	Other petty tools costing less than Rs 50/- each		1800	-	-	
	Total		6000	-	-	
	Add 5% Contingencies		300	-	-	
	Grand Total		6300	-	-	

J. H. Walker

Engineer-in-Chief
E. Ry

Abstract of Estimate

Quantity.	Description.	Rate.	Amount. Rs.	A.	P.	Total.

18 JUN 1890

East Coast Railway Survey

Abstract of Estimate Plant

Survey and Mathematical Instruments

Quantity.	Description.	Rate.	Amount. Rs.	A.	P.	Total.
Number						
11	Theodolite with Stand	470/- Each	5170	-	-	
14	Levels 14' Cook	254/-	3556	-	-	
11	Prismatic Compasses	72/- "	792	-	-	
1	Arithmometer	420/- "	420	-	-	
1	Pantagraph	182/- "	182	-	-	
1	Planimeter	55/- "	55	-	-	
1	Chrono Micrometer	123/- "	123	-	-	
8	Drawing Instruments 1st Class	60/- "	480	-	-	
4	Scales Plotting Ivory	50/- "	200	-	-	
1	Curves Railway Ebonite	66/- "	65	-	-	
2	Rules Straight Edge Steel 5'/2	58/-	116	-	-	
5	Rules Parallel 2'	66/-	330	-	-	
3	Do 18"	50/- "	150	-	-	
2	Do 12"	31/- "	62	-	-	
1	Rules Flat Electrum 5'/2'	62/- "	62	-	-	
			C/O	11763	-	-

pw Enc 7
6021/90

Abstract of Estimate 18 JUN 1890

Quantity.	Description.	Rate.	Amount. Rs.	A.	P.	Total.
	Brought forward		11763	-	-	
	Other items costing less than Rs 50/- Each		2988	-	-	
	Total		14751	-	-	
	Add 5% Contingencies		739	-	-	
			15490	-	-	

J S Maurice
Engineer-in-Chief
E C Rly

Pw Line 6
6031/90

5

East Coast Railway Survey

Abstract of Estimate Camp Equipage

Quantity.	Description.	Rate.	Amount. Rs.	A.	P.	Total.
4	Swiss Cottage 14'	450/-	1800	-	-	
3	Do 13'	400/-	1200	-	-	
8	Hill Tents 14'	310/-	2480	-	-	
5	Do 12'	300/-	1500	-	-	
1	Sleeping Pall 12'	170/-	170	-	-	
7	Do 12'	115/-	805	-	-	
7	Do 10'	100/-	700	-	-	
5	Servants Palls 12'	100/-	500	-	-	
20	Do 10'	60/-	1200	-	-	
	Total		10355	-	-	
	Add 5/- % Contingencies		518	-	-	
	Grand Total		10873	-	-	

J S Maurice
Engineer-in-Chief
E C Rly

Abstract of Estimate

Quantity.	Description.	Rate.	Amount. Rs.	A.	P.	Total.

East Coast Railway Survey

Abstract of Estimate Establishment

Quantity.	Description.	Rate.	Amount. Rs.	A.	P.	Total.
Months	Direction					
18	1 Superintending Engineer 1st Class	1600	28800	-	-	
6	1 Executive Engineer 3rd Grade Rs	700	4200	-	-	
	Travelling allowance		1200	-	-	
	Total		34200	-	-	
	Engineering					
11	2 Executive Engineers 1st Grade	950/-	20900	-	-	
8	1 Do Do Do	950	7600	-	-	
11	2 Do Do 2nd Grade	800/-	17600	-	-	
10	1 Do Do do	800/-	8000	-	-	
7	1 Do Do Do	800/-	5600	-	-	
11	2 Do Do 4th Grade	600/-	19800	-	-	
9	5 Asst Engineers 2nd Do	400/-	18000	-	-	
8	1 Temply Asst Engineer	400/-	3200	-	-	
9	1 Do Do	300/-	2700	-	-	
	Travelling Allowance		15600	-	-	
	Total		119000	-	-	

Abstract of Estimate

Quantity.	Description.	Rate.	Amount. Rs.	A.	P.	Total.
Months	Subordinates					
12	1 Sub Engineer	300/-	3600	-	-	
12	2 Supervisors	150/- each	3600	-	-	
12	3 Overseers	100/- "	3600	-	-	
10	10 Surveyors	60/- "	6000	-	-	
	Travelling Allowance		2000	-	-	
	Total		18800	-	-	
	Petty Establishment					
18	1 Jamadar	15/-	270	-	-	
6	1 Do	15/-	90	-	-	
12	3 Chuprassees	10/-	360	-	-	
12	16 Chuprassees	8/-	1536	-	-	
12	16 Chuprassees	7/-	1344	-	-	
14	1 Jindal	10/-	140	-	-	
	C/o		3740	-	-	

Abstract of Estimate

Quantity.	Description.	Rate.	Amount. Rs.	A.	P.	Total.
Months	Petty Establishment (Ctd)					
	Brought Over		3740	-	-	
4	170 Khalasees	7/-	4760	-	-	
12	6 Khalasees	7/-	504	-	-	
16	4 Chowkidars	7/-	448	-	-	
	Travelling Allowance		200	-	-	
	Total		9652	-	-	
	Office Establishment					
18	1 Head Clerk	160/-	2880	-	-	
12	1 Second Clerk	90/-	1170	-	-	
12	2 Clerks	60/-	1440	-	-	
12	2 Do	50/-	1200	-	-	
12	5 Do	40/-	2400	-	-	
12	6 Do	30/-	2160	-	-	
12	1 Duftry	10/-	120	-	-	
	C/o		11370	-	-	

Abstract of Estimate

Quantity.	Description.	Rate.	Amount. Rs.	A.	P.	Total.
Months	Office Establishment &c &c					
	Brought forward		11370	-	-	
13	1 Head Draftsman	150/-	1950	-	-	
12	1 Draftsman	90/-	1080	-	-	
12	1 Do	75/-	900	-	-	
12	2 Do	60/-	1440	-	-	
12	6 Tracers	40/-	2880	-	-	
	Travelling Allowance		800	-	-	
	Office Rent		3000	-	-	
	Office Contingencies		3800	-	-	
	Engineer-in-Chief's Office Furniture		4000	-	-	
	Stationery & Printing		4500	-	-	
	Total Office Establishment		35720	-	-	
	Audit & Account					
8	1 Examiner 4th Class 3rd Grade	650/-	5200	-	-	
8	1 Accountant 2nd Grade	340/-	2720	-	-	
9	3 Do 4th Do	150/-	4050	-	-	
	C/o		11970	-	-	

Abstract of Estimate

Quantity.	Description.	Rate.	Amount. Rs.	A.	P.	Total.
Months	Audit & Account &c &c					
	Brought on		11970	-	-	
8	1 Head Clerk	100/-	800	-	-	
8	1 Clerk	75/-	600	-	-	
8	2 Clerks	60/-	960	-	-	
8	2 Do	50/-	800	-	-	
8	4 Do	30/-	960	-	-	
8	1 Duftry	10/-	80	-	-	
8	4 Peons	7/-	224	-	-	
8	1 Chowkidar	7/-	56	-	-	
	Travelling Allowance		1600	-	-	
	Office Contingencies		2000	-	-	
	Office Furniture		2500	-	-	
	Total Audit Account		22550	-	-	

Abstract of Estimate 10 JUN 1890

Quantity.	Description.	Rate.	Amount. Rs.	A.	P.	Total.
	Abstract of Establishment					
	Direction		34200	-	-	
	Engineering		119000	-	-	
	Subordinate		18800	-	-	
	Petty		9652	-	-	
	Office		35720	-	-	
	Audit & Accounts		22550	-	-	
	Total Establishment		239922	-	-	

J. B. Groves
Engineer-in-Chief
&c &c &c

Pw Vuc 4
6031/90

Abstract of Estimate Engineer-in-Chief's Office
Furniture debitable to Establishment Contingencies

Quantity.	Description.	Rate.	Amount. Rs.	A.	P.	Total.
2	Office Clocks	75/-	150	-	-	
10	Do Almirahs	40/-	400	-	-	
5	Do Tables	40/-	200	-	-	
15	Do Do	25/-	375	-	-	
10 pairs	Camp Tables	10/-	100	-	-	
60	Arm Chairs	5/-	300	-	-	
1	Book Shelf Revolving	70/-	70	-	-	
6	Book Shelves Teakwood	10/-	60	-	-	
16	Drawing Tables	35/-	560	-	-	
6	Do Almirahs	50/-	300	-	-	
8	Cash Chests	50/-	400	-	-	
1	Copying Press	50/-	50	-	-	
6	Letter Balances	25/-	150	-	-	
6	Despatch Boxes Tin	40/-	240	-	-	
12	Do Do Wooden	10/-	120	-	-	
		C/o	3475	-	-	

Abstract of Estimate _____

Quantity.	Description.	Rate.	Amount. Rs.	A.	P.	Total.
	Brought forward		3475	.	.	
15	Record Boxes	15/-	225	.	.	
	Petty Items		100	.	.	
	Total		3800	.	.	
	Add 5% for Contingencies freight &c.a		200	.	.	
	Grand Total		4000	.	.	

J S Walker
Engineer in chief
S C R

P W Rec'd 6 Oct 1890

Abstract of Estimate Office Furniture for Examiner's Office: debitable to Establishment Contingencies

Quantity.	Description.	Rate.	Amount. Rs.	A.	P.	Total.
2	Office Clocks	75/-	150	.	.	
12	Almirahs	40/-	480	.	.	
1	Office Table	40/-	40	.	.	
15	Do	20/-	300	.	.	
20	Arm Chairs	5/-	100	.	.	
6	Book Shelves	10/-	60	.	.	
2	Cash Chests	100/-	200			
2	Letter Balances	30/-	60	.	.	
2	Despatch Boxes Tin	40/	80	.	.	
6	Do Do Wooden	10/-	60	.	.	
10	Record Boxes	15/-	150	.	.	
2 pairs	Lamp Tables	10/-	20	.	.	
10	Record Racks	20/	200	.	.	
12	Pigeon Holes with Shutters	15/-	180	.	.	
	Petty Items		300	.	.	
	C/o		2380	.	.	

15

Abstract of Estimate

3845
15 JUN 1890

Quantity.	Description.	Rate.	Amount. Rs.	A.	P.	Total.
	Brought over		2380	-	-	
	Add 5% Contingencies		120	-	-	
	Grand Total		2500	-	-	

J. B. Wauchope

Engineer-in-Chief
D C R.

P.W. Enc. 2
6031/90.

All communications should be addressed to the Secretary.

No. 103 R. C.

GOVERNMENT OF INDIA.

PUBLIC WORKS DEPARTMENT.

RAILWAY Construction.

To

The Joint Secretary to the Government of Madras,
Public Works Department, Railway Branch.

Calcutta, the 3rd February 1890.

Sir,

With reference to correspondence ending with Public Works Department letter No. 32 R. C. dated 10th January 1890, I am directed to request that the detailed estimates for the East Coast Railway Survey may be submitted to the Government

No. 162 Rly 5/2 in prees.

C.J.
14. 2. 90
2 S.C.S.

F. C. 2.

P.W.C. No. 1316

of India for sanction at an early date.

13 JUN 1890

I have the honour to be
Sir
your most obedient Servant,

Rec'd 10-2-90.

H. Wheatcroft Major, R.E.,
Under Secretary.

Documents accompanying letter.

No. 738 C dy 10th Feby 1890
No. 791 C dy 12-2-90

Copy forwarded to the Engineer-in-Chief East Coast Railway Survey for favour of early compliance in continuation of P.W.D. letter No. 790 C, dated 12th February 1890.

C.I.S.
12.2.90

R.

To
The Engineer-in-Chief
East Coast Ry.

Copy forwarded to the Consulting Engineer for Railways for early compliance.

C.I.S.
10.2.90

R.

To
The Comptroller for Rys.
Info copy despatched to E.R.
10/2/90.

Hm. 11-2-90.

Draft

Ld
19/3/90

No. 103 R. C

GOVERNMENT OF INDIA.
PUBLIC WORKS DEPARTMENT.
RAILWAY Construction

To
THE Joint Secretary to the Government of Madras (Railway Branch) Public Works Dept.

Calcutta the 1st March 1890.

The undersigned is directed to invite attention to the letter noted below, and to request that the reply may be expedited.

F. D. Hebbert
~~Major, R.E.~~,
Assistant ~~Under~~ Secretary.

P. W. D. No. 103 R.C, dated 3rd February 1890
Requesting to be furnished with detailed Estimates for the East Coast Railway Survey.

Ld.

No. 744 P. W. D.—24-12-88.—500.

P.W.C. No. 2854.

38hs
18 JUN 1890

Rd. 19-3-90.

Form No. 1.

PUBLIC WORKS DEPARTMENT.

OFFICE OF CONSULTING ENGINEER FOR RAILWAYS,
Madras, 20th March 1890.

From the

To the Examiner-in-chief

Code Class. } D S INDIAN TELEGRAPHS. Monthly Number. } 09433

To (Office) Madras | From (Office) Vizagapatam

Words 18 | Day 22 | Hour 20 | Minute 24 | Official Instructions. } De Lo

To (Person) C. Ex | From (Person) Ex. C & C Rly

Wired Examiner to send actual Expenditure for Pucca Estimate

Accts 24. 3. 90

papers &c

Sir Thomas

Dft 24/3

with letter of today

64 Word Form.

F.C.2.

Recd. from I.S. | Sent to I.S.

At Hrs. Rlts. by

MADRAS 23-3-90

C.W. Allen & C. —No. 199 T.—20-11-89—14,000.

3845
18 JUN 1890

P W Rec'd
3199/90.

Form No. 1.

PUBLIC WORKS DEPARTMENT.

OFFICE OF CONSULTING ENGINEER FOR RAILWAYS,

Madras, 20th March 1890.

Telegram from the Engineer-in-chief.

East Coast Railway Survey dated

22nd March 1890

No. 223

~~Government.~~

SUBMITTED. ——— to ——— Government.

Secy: submits

Engr: C.E.

Dy: Consg: Engr: for Sg.

TELEGRAM ~~URGENT~~ ~~ORDINARY~~ DEFERRED

FROM E. R.

TO Engr. in Chief
S.C. Ry Sy
Wallais

My ~~number~~ 791 C ~~of~~ twelfth
ultimo x Please expedite submission
of detailed Estimates required by
India. -

LS
20/3/90

Telegram desp 20-3-90

TELEGRAM ~~URGENT~~ ~~ORDINARY~~ DEFERRED

FROM E. R.

TO Engr. in Chief
S.C. Ry Sy
Wallais

My ~~number~~ 791 C ~~of~~ twelfth
ultimo x Please expedite submission
of detailed Estimates required by
India. -

LS
20/3/90

Telegram desp 20-3-90

Form No. 3.

3845
13 JUN 1890

P.W. Cur. 3199.

From

THE CONSULTING ENGINEER
FOR RAILWAYS,
MADRAS,

No. 223

Dated 28th } March 1890
Received 28 }

No. of Enclosures. 1.

Subject.

Telegram from the Engineer-in-Chief East Coast Railway re actual Expenditure 1889-90.

Dft
2-3-90
Cover
Papers

No. 103 R.C.
GOVERNMENT OF INDIA.
PUBLIC WORKS DEPARTMENT.
RAILWAY CONSTRUCTION.

8 P

To

THE Jt Secy: to the Govt of Madras
(Railway Branch)
P.W.D.

SIMLA, THE 14 May 1890.

The undersigned is directed to invite attention to and subsequent reminder,
the letter noted below, and to request that the reply
may be expedited.

F. B. Hebbert
Major, R.E.,
Asstt Under-Secretary.

Telt.
9/5

No. 103 R.C. dt 14th March/90.
Cur 2852

No. 103 R C., dated the 3rd Feby 1890.
Requesting to be furnished with
Detailed Estimates for the East
Coast Rly Survey.

Copy. g. c. c.
10/5/90.

Tmlt. Cur 2852 sent
to R on 27/3/90

Govt. G. Press, Simla.—No. 240 P. W. D.—21-5-88.—500

P.W. Cir. 4758.

3845
18 JUN 1890

Rd 20-5-90

Transferred to the Consulting Engineer for Railways

TELEGRAM Urgent ~~Ordinary~~ Deferred

From N. R.

To E.C.I. Walters

My 791.C., 12th February x Please expedite detailed Estimates. India has already sent two reminders

J.A.D 26.5.90

Rd 26.5.90

Replied by telegram 27.6.90

Ent

3845
18 JUN 1890

No. 490 R. C.

GOVERNMENT OF INDIA.

PUBLIC WORKS DEPARTMENT.

RAILWAY Construction.

All communications should be addressed to the Secretary.

To

The Joint Secretary to the Government of Madras,
(Railway Branch) Public Works Department.

Simla, the 4th June 1890.

Sir,

It has been brought to the notice of the Government of India that the Survey of the ~"~ East Coast Railway is being carried out without an estimate of its cost having been sanctioned, and that up to the end of January last a sum of Rs. 42,315 had been spent without formal sanction, although in Public Works ~"~ Department letter No. 103 R.C. dated 3rd February 1890 the Government of India requested that detailed estimates should be submitted for sanction

P.W. C. No. 5506.

2. Considering that operations were started so far back as October 1889, the Government of India is of opinion that these estimates ought to have been submitted by this time; and I am directed to request that they may now be forwarded with as little delay as possible and to inquire when they may be expected. Rd 12-6-90

I have the honour to be,

Sir,

Your most obedient Servant,

R V Dawkes
Colonel R.E.

Secretary.

Documents accompanying
Nil

12/6.

No. 976/1

Endorsement hereon

WALTAIR. 7th June 1890

Code Class. 105. INDIAN TELEGRAPHS. 118 02627 Daily Number.

To (Office)	Madras.	From (Office)	Vizagapatam
Words. 16.	Day. 7.	Hour. 9.	Minute. 1.
Official Instructions.			

To (Person) C. En.

From (Person) En. C. E. C. Ry.

Detailed Estimates for this Survey leave daff

Rcvd 8.6.90

Recd. from LN. Sent to PRAS 7-6-90

At Hrs. Mts. by At Hrs. Mts. by

Telegraph Master.

W Allen and Co.—No. 100 T—23 11 89—16,000, 80

F. C. 2.

REGISTERED
No. 392
FILE
No.

3845
18 JUN 1890

No. 976/1

From

WALTAIR, 7th June 1890

THE ENGINEER-IN-CHIEF, EAST COAST RAILWAY.

To The Consulting Engineer
for Railways
Madras

Sir

I have the honor to submit herewith for the sanction of the Government of India, detailed Estimates for the Survey of the East Coast Railway, amounting to Rs. 3,00,910.

I have the honor to be
Sir
Your most Obedient Servant

F. S. Brander
Engineer-in-Chief E.C.Ry.

Asstt 11.6.90

12/6.

REGISTER
No. 443
FILE
No.

Ex Estimate 15 Page

PW Encl 60-01/90

FORM No. 1.

PUBLIC WORKS DEPARTMENT.

From the Secretary

OFFICE OF CONSULTING ENGINEER FOR RAILWAYS,

Madras. 25th June 1890.

Letter from the Engineer-in-Chief, East Coast Railway Survey, No 976, dated 7th June 1890, with enclosures.

13P

No. 445

SUBMITTED ——— to ——— Government for transmission to the Government of India with reference to its No 103 R. C., dated 3rd February 1890, embodied in G. O. No 791 C, dated 12th February 1890.

Subject.—

Seeley Smith
Major R.E.,
Offg: Consg: Engr: for Rlys.

Abstract of Estimate

Quantity.	Description.	Rate.	Amount. Rs.	A.	P.	Total.

14 JUN 1890

East Coast Railway Survey 2

Abstract of Estimate Survey Expenses

Quantity.	Description.	Rate.	Amount. Rs.	A.	P.	Total.
Miles						
509	Daghbelling	15/a mile	7635	-	-	
509	Jungle Cutting	7/- "	3563	-	-	
509	Bench Mark Stones and Masonry Pillars	18/- "	9162	-	-	
509	Trial Pits	3/- "	1527	-	-	
509	Compensation for damages and other Miscellaneous Charges	10/- "	5090			
		Total	26977	-	-	
	Add 5% Contingencies		1348	-	-	
		Grand Total	28325	-	-	

J B Wauchope

Engineer-in-Chief.
E. Ry

P. Dis. Work dy 3-2-91

Form No. 3.

P.W.C. No. 6031.

From

THE CONSULTING ENGINEER

FOR RAILWAYS,

MADRAS,

No. 445

Dated 25th
Received 26 } June 1890

No. of Enclosures, 9.

Subject.

Submits detailed Estimates for the survey of the East Coast Railway amounting to Rs. 3,00,910.

B

No. 923-24 R dy 1st July 1890.

0/26/6. R 5-7-90

Ist. 27/6

B — No. 923 R

PUBLIC WORKS DEPARTMENT,

RAILWAY BRANCH.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the 1st July 1890.

READ the following

15 P

P. W. D. Endorsement — Mt. No. 791 C dy 12th Feby '90

Reminder from the Govt. of India Pub. D. — " — " — 103/1 R.C. dy 14th March '90

Telegram to the Engr. in Ch: E. C. Ry Agy. — — — — dy 20th do —

Endorsement from the Consg Engr for Rys — " — " — 223 dy 28th do —

Reminder from the Govt: of India P. W. Dpt. — " — " — 103/2 R.C. dy 14th May '90

Telegram to the Engr in Ch: E. C. Ry Agy. — — — — dy 26th May '90

Letter from the Govt. of India P. W. Dpt. — " — " — 490 R.C. dy 4th June '90

Telegram from do — " — " — — dy 7th June '90

Endorsement from the Consg Engr for Rys — " — " — 445 dy 25th do —

Ordered to be forwarded for the sanction of the Govt. of India with reference to its letters Nos 103 R.C. and

L45
28/6/90

and 490 R.C. dated 3rd February and 4th June 1890.

H.E. No 9 dtd R 9 1st July 1890

Forwarded

Rhedn
27-6-90
W.
for R

Mfs despd to India with 8 Encls:
2/7/90.

No 923-24 S R 3 1st July 1890.

Mm 27/6 R 30-6-90

INDIAN TELEGRAPHS. 08505 Monthly Number.

Cl. 2 O

To (Office) Madras O | From (Office) Simla 16P

Words.	Day.	Hour.	Minute.	Official Instructions.
86.5	21	18	36	Sfd

To (Person) Madras O. Works

From (Person) Works.

Word Rjr 22.7

(Upon letter mentioned)

C. 79 applauding 944 r. annotatory estimate for east Coast railway Survey it seems to Government of India that the amount provided for drawing instruments and Survey expenses generally is extremely small Compared with cost of establishment employed while on other hand provision under audit and accounts is altogether too high one accountant and clerk for the survey accounts should suffice Government of India desires

64 Word Form

Recd. from LN. | Sent to LN.

At Hrs. Mts. by | At Hrs. Mts. by

MADRAS 22-7-90 Telegraph Master.

Survey revised in light of foregoing remarks

90.

INDIAN TELEGRAPHS. Monthly Number. 9

Code Class.

To (Office)

From (Office)

Words.	Day.	Hour.	Minute.	Official Instructions.

To (Person)

From (Person)

II

that the Survey estimate
may be revised in
light of foregoing remarks
and latest actuals.

64 Word Form

F. C 2.

Recd. from LN.

Sent to LN.

Mad. by

Hrs. Mts. by

Telegraph Master.

Survey estimate may be
revised in light of foregoing
remarks

Nm 27/6 R 30-6-90

PW Coll 6908

Rd 22-7-

0/22/17

Htm 27/6 R 30-6-90

TELEGRAM ~~URGENT~~ ~~ORDINARY~~ DEFERRED

FROM R.

TO Engineer-in-Chief East-Coast Ry: Sy. Waltair

Your letter 976 by 1 Seventh June submitting detailed estimate for East-Coast Railway Survey × India wires begins × It seems to Government of India that the amount provided for drawing instruments and Survey expenses generally is extremely small compared with cost of establishment employed × while on other hand provision under audit and accounts is altogether too high × one accountant and clerk for the Survey accounts should suffice × Government of India desires that the Survey estimate may be revised in light of foregoing remarks

remarks and latest actuals
and x.- Please submit
revised estimate called for
as soon as possible.-

Telegram desp 28-7-90

For Sy R

28/7/90

No. 650 R. 6.

All communications should be addressed to the Secretary.

GOVERNMENT OF INDIA.

PUBLIC WORKS DEPARTMENT.

RAILWAY Construction.

19

To

The Joint Secretary to the Government of Madras
(Railway Branch), Public Works Department.

a Cir 6908 sent to
Govt on the 22-7-90.
Ed
3577/90

Simla, the 22nd July 1890.

Sir,

In continuation of the Government of India
telegram, quoted in the margin, asking that the detail
estimate of the cost
of the East Coast
Railway Survey
may be revised
I am directed to
invite attention
to the following

* Public Works Department R. 649 dated 21st July 1890.
your letter numbered and dated as follows:
944 R 1st Instant, Estimate for East Coast Railway
Survey. It seems to Government of India that the
amount provided for drawing instruments and
Survey expenses generally is extremely small Compared
with cost of Establishment employed, while on other
hand provision under Audit and Accounts is altogether
too high. One Accountant and Clerk for the Survey
accounts should suffice. Government of India
desires that the Survey Estimate may be revised
in light of foregoing remarks and latest actuals.

remarks thereon.

2. It appears to the Government of India that the
amount of survey and mathematical instruments
provided in the estimate received with your No. 944
R. dated 1st July 1890, is extremely small having
regard to the magnitude of the Survey operations
and compared with the cost of the establishment

to

to be employed, estimated at Rs 2.39.922/. For example, 1 set of railway curves, 2 steel straight edges, 4 sets of plotting scales, &c &c, are a small allowance + amongst minutiæ Engineers. Even on survey through easy country it has been found that the proportion of establishment charges to other charges is usually about as 3 to 2, while in the present estimate the proportion is nearly as 4 to 1.

3. As these instruments will not be expended on the survey and there will be a credit for them when they are returned to store on completion of the survey, it would seem especially undesirable to restrict the supply of instruments to a limit below that at which it may reasonably be fixed and so incur a risk of unnecessarily delaying the preparation of the plans.

4. The provision under audit and Accounts is Rs 22,550/-; and includes an Examiner, 4 accountants and 10 clerks.

In the opinion of the Government of India one clerk, in addition to the Accountant already employed, should be sufficient for the compilation of the Accounts of the survey, under the supervision of the Examiner of Public Works Accounts, Madras.

5. The Engineer-in-Chief should now be in a position to frame an estimate more in accordance with the probable expenditure than it appears to the Government of India that the present estimate is likely to be; I am therefore to return the estimate and to request that it may be revised in the light of the above remarks and with due regard to recent orders and the latest actuals available.

6. The Engineer-in-Chief should be instructed to revise the estimate before he comes up to Simla as desired in Public Works Department letter No 647/R.C. dated 21st July 1890.

I have the honour to be,
Sir,
Your most obedient Servant,
per Secretary
Coll. R.E.
Secretary

Documents accompanying
Estimate of the cost of the East Coast Railway Survey.

P.W.C No. 7166

Rd 30-7-90
Enc 1

0/30/7
Action c/o

B

No. 1123 R

PUBLIC WORKS DEPARTMENT,

RAILWAY BRANCH.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the 2nd August 1890.

Read again the following

Progs: of the Madras Govt: P.W. Deptt:— } H.C. No. 943-44 Ry 1st July 90

Read also the following

Telegram from the Govt of India P.W.D.— } —"— —"— C 79 dated 21st do —

Telegram to Engr. in Chief East-Coast Ry Sy.— } —"— —"— 28th do —

Letter from the Govt of India P.W.D — } —"— —"— 650 R.C. dy - 22nd do —

2 P

445
2/8/90

Communicated to the Consulting Engineer for Railways with reference to his endorsement No 445 dated 25th June 1890.—

2. Ordered that the following telegram be despatched to the Engineer-in-Chief East-Coast Railway Surveys.—

My

My telegram 28 July
India requests that you
will revise the estimate of cost for
East Coast Railway Survey before
leaving for Simla - G. O.
follows: -

Telegram despd. 2-8-90

Gr.

For My: R
1/8/90

B

No. 1123 R. & S. Aug. 1/90.

To
Rec Comg Engr for Rys
— " Engr-in-Ch. E.C. Ry by
with estimate
— " Exr P.W. Accts
Dft despd by Daly office
10 C 8/8 2/8/90.

30/7
1/8 R 2/8/90

Abstract of Estimate East Coast Railway. 23

Quantity.	Description.	Rate. per mile	Amount. Rs.	A.	P.	Total.
Miles	Preliminary Expenses					
	Survey Expenses.		28,325	"	"	
509	Total Survey Expenses	55/-				28,325
	Plant: Engineering					
	Tools		6,300	"	"	
	Instruments		15,490	"	"	
	Camp Equipage		10,873	"	"	
509	Total Plant	65/-				32,663
	Establishment					
	Salaries		1,87,632	"	"	
	Travelling Allowances		20,040	"	"	
	Contingencies		15,300	"	"	
509	Total Establishment	438				2,22,972
509	Grand Total	558				2,83,960

J. B. Walker
Engineer-in-Chief
E. C. Ry.
5/8/90

Abstract of Estimate _____

Quantity.	Description.	Rate.	Amount. Rs.	A.	P.	Total.

East Coast Railway

24

Abstract of Estimate Survey Expenses

Quantity.	Description.	Rate.	Amount. Rs.	A.	P.	Total.
Mibs						
509	Daghlelling	15/ a mile	7.635	"	"	
509	Jungle Cutting	7/— "	3.563	"	"	
509	Benchmark stones and Masonry pillars	18/— "	9.162	"	"	
509	Trial pits	3/— "	1527	"	"	
509	Compensation for damages and other Miscellaneous Charges	10/— "	5.090	"	"	
	Total					26.977 " "
	Add 5% Contingencies					1.348 " "
	Grand Total					28.325 " "

Engineer-in-Chief
E. C. Ry.

Abstract of Estimate

Quantity.	Description.	Rate.	Amount. Rs.	A.	P.	Total.

East Coast Railway Survey

Abstract of Estimate Plant Tools Engineering

Quantity.	Description.	Rate.	Amount. Rs.	A.	P.	Total.
Lots						
10	Boring Tools	420/- each	4,200	"	"	
	Other petty tools costing less than Rs 50/- each		1,800	"	"	
	Total		6,000	"	"	
	Add 5% Contingencies		300	"	"	
	Grand Total		6,300	"	"	

A B Walker
Engineer-in-Chief
E. C. Ry.

Abstract of Estimate _____

Quantity.	Description.	Rate.	Amount. Rs.	A.	P.	Total.

Coats
Pr 82 2/20

East Coast Railway Survey 26

Abstract of Estimate Plant Survey and mathematical Instruments

Quantity.	Description.	Rate.	Amount. Rs.	A.	P.	Total.
Number						
11	Theodolite with stand	470/- each	5,170	"	"	
14	Level 14' Cook	254/- "	3,556	"	"	
11	Prismatic Compasses	72/- "	792	"	"	
1	Arithmometer	420/- "	420	"	"	
1	Pentagraph	182/- "	182	"	"	
1	Plainmeter	55/- "	55	"	"	
1	Chrono Minometer	123/- "	123	"	"	
8	Drawing Instruments 1st class	60/- "	480	"	"	
4	Scales Plotting Ivory	50/- "	200	"	"	
1	Curves Railway Ebonite	65/- "	65	"	"	
2	Rules straight-edge steel 5'/2	58/- "	116	"	"	
5	Rules Parallel 2'	66/- "	330	"	"	
3	Do Do 18"	50/- "	150	"	"	
2	Do Do 12"	31/- "	62	"	"	
1	Do Flat Electrum 5'/2	62/- "	62	"	"	
	Other items costing less than Rs 50/- each		2,988	"	"	
	Total		14,751	"	"	
	Add 5% Contingencies		739	"	"	
	Grand Total		15,490	"	"	

J B Wratten
Engineer-in-Chief
E. C. Ry

Abstract of Estimate

Quantity.	Description.	Rate.	Amount. Rs.	A.	P.	Total.

East Coast Railway Survey

Abstract of Estimate Camp Equipage

27

Quantity.	Description.	Rate.	Amount. Rs.	A.	P.	Total.
4	Swiss Cottage 14'	45/-	1.800	"	"	
3	Do 13'	40/-	1.200	"	"	
8	Hill Tents 14'	31/-	2.480	"	"	
5	Do 12'	30/-	1.500	"	"	
1	Sleeping Pall 12'	17/-	170	"	"	
7	Do 12'	11 5/-	805	"	"	
7	Do 10'	100/-	700	"	"	
5	Servants Palls 12'	100/-	500	"	"	
20	Do 10'	60/-	1.200	"	"	
	Total		10,355	"	"	
	Add 5% Contingencies		518	"	"	
	Grand Total		10,873	"	"	

J. G. Walker
Engineer-in-Chief
E. C. Ry.

Silao

Abstract of Estimate

Quantity.	Description.	Rate.	Amount. Rs.	A.	P.	Total.

East Coast Railway

Abstract of Estimate Establishment

28

Quantity.	Description.	Rate.	Amount. Rs.	A.	P.	Total.
Months	Direction					
10	1 Superintending Engineer 1st class	1600/-	16,000	"	"	
8	1 Chief Engineer — 2d —	1800/-	14,400	"	"	
6	1 Executive Engineer 3d grade PA	700/-	4,200	"	"	
	Travelling allce		1,200	"	"	
	Total		35,800	"	"	
	Engineering					
11	2 Executive Engineers 1st grade	950	20900	"	"	
8	1 Do Do — "	950	7600	"	"	
11	2 Do Do 2d — "	800	17,600	"	"	
10	1 Do Do	800	8,000	"	"	
7	1 Do Do	800	5,600	"	"	
11	3 Do Do 4th grade	600	19,800	"	"	
9	5 Assistant Engineers 2d grade	400	18,000	"	"	
8	1 Temporary Assistant Engr	400	3,200	"	"	
9	1 Do Do	300	2,700	"	"	
	Travelling allowance		15,600	"	"	
	Total		1,19,000	"	"	

Abstract of Estimate Establishment (Continued)

Quantity.	Description.	Rate.	Amount. Rs.	A.	P.	Total.
Months	Subordinates					
12	1 Sub-Engineer	300	3,600	"	"	
12	2 Supervisors	150 each	3,600	"	"	
12	3 Overseers	100/-	3,600	"	"	
10	10 Surveyors	60/-	6,000	"	"	
	Travelling Allowance		2,000	"	"	
	Total		18,800	"	"	
	Petty Establishment					
18	1 Jamadar	15/-	270	"	"	
6	1 Do	15/-	90	"	"	
12	3 Chuprassers	10/-	360	"	"	
12	16 Chuprassers	8/-	1.536	"	"	
12	16 Chuprassers	7/-	1.344	"	"	
14	1 Tindel	10/-	140			
	Carried Over		3.740	"	"	

Abstract of Estimate Establishment (Continued)

29

Quantity.	Description.	Rate.	Amount. Rs.	A.	P.	Total.
Months	Petty Establishment (Contd)					
	Brought Over		3.740	"	"	
4	170 Khalassars	7/-	4.760	"	"	
12	6 Khalassers	7/-	504	"	"	
16	4 Chowkidars	7/-	448	"	"	
	Travelling Allowance		200	"	"	
	Total		9.652	"	"	
	Office Establishment					
18	1 Head Clerk	160/-	2.880	"	"	
13	1 Second Clerk	90/-	1.170	"	"	
12	2 Clerks	60/-	1.440	"	"	
12	2 Do	50/-	1.200	"	"	
12	5 Do	40/-	2.400	"	"	
12	6 Do	30/-	2.160	"	"	
12	1 Duftry	10/-	120	"	"	
	Carried Over		11.370	"	"	

Abstract of Estimate Establishment (continued)

Quantity.	Description.	Rate.	Amount. Rs.	A.	P.	Total.
Months	Office Establishment (Contd)					
	Brought Over		11.370	"	"	
13	1 Head Draftsman	150/-	1.950	"	"	
12	1 Draftsman	90/-	1.080	"	"	
12	1 Do	75/-	900	"	"	
12	2 Do	60/-	1.440	"	"	
12	6 Tracers	40/-	2,880	"	"	
	Travelling Allowance		800	"	"	
	Office Rent		3,000	"	"	
	Office Contingencies		3800	"	"	
	Engineer-in-chief's Office furniture		4,000	"	"	
	Stationery & printing		4.500	"	"	
	Total Office Establishment		35,720	"	"	
	Audit and Accounts					
	Superior Establishment proportionate Cost		1.000	"	"	
12	1 Accountant 4th grade	150/-	1.800	"	"	
12	1 Clerk	50/-	600	"	"	
12	1 do	30/-	360	"	"	
	Travelling allowance		240	"	"	
	Total		4.000	"	"	

Abstract of Estimate

30

Quantity.	Description.	Rate.	Amount. Rs.	A.	P.	Total.
	Abstract of Establishment					
	Direction		35,800	"	"	
	Engineering		1.19.000	"	"	
	Subordinates		18,800	"	"	
	Petty		9.652	"	"	
	Office		35.720	"	"	
	Audit and Accounts		4,000	"	"	
	Total Establishment		2,22,972	"	"	

J B Walker.
Engineer-in-Chief
E. C. Ry.

S/Mac

Abstract of Estimate _____

Quantity.	Description.	Rate.	Amount. Rs.	A.	P.	Total.

Cw 27/90
Pd 8/23 2nd

Abstract of Estimate Engineer-in-Chief's Office 31

Furniture debitable to Establishment Contingencies

Quantity.	Description.	Rate.	Amount. Rs.	A.	P.	Total.
2	Office Clocks	75/-	150	"	"	
10	Do Almirahs	40/-	400	"	"	
5	Do Tables	40/-	200	"	"	
15	Do Do	25/-	375	"	"	
10 pairs	Camp tables	10/-	100	"	"	
60	Arm Chairs	5/-	300	"	"	
1	Book Shelf revolving	70/-	70	"	"	
6	Book Shelves teakwood	10/-	60	"	"	
16	Drawing tables	35	560	"	"	
6	Do Almirahs	50/-	300	"	"	
8	Cash Chests	50/-	400	"	"	
1	Copying press	50/-	50	"	"	
6	Letter balances	25/-	150	"	"	
6	Dispatch boxes tin	40/-	240	"	"	
12	Do Do wooden	10/-	120	"	"	
15	Record boxes	15/-	225	"	"	
	Petty items		100	"	"	
	Total		3,800	"	"	
	Add 5/- % Contingencies freight &c		200	"	"	
	Grand Total		4,000	"	"	

J B Brauvr
Engineer-in-Chief
Lko
L. C. Dy-

Abstract of Estimate

Quantity.	Description.	Rate.	Amount. Rs.	A.	P.	Total.

Abstract of Estimate

Quantity.	Description.	Rate.	Amount. Rs.	A.	P.	Total.

Abstract of Estimate _____

Quantity.	Description.	Rate.	Amount. Rs.	A.	P.	Total.

PW 8252 Encl 1/100

No. 13-1/1

Waltair. August 12th 1890

From

THE ENGINEER-IN-CHIEF, EAST COAST RAILWAY.

To

The Joint Secretary
to Government of Madras
P.W.D. Railway Branch
Cotacamund

Sir,

In compliance with your telegram of 28th July, conveying the wishes of Government of India to revise the estimates of East Coast Railway Survey, I have the honor to submit herewith a revised estimate for the same in which the amount under Audit and accounts has been reduced to Rs 40000/-

With reference to Government of India's remarks regarding the provision for Drawing instruments and Survey expenses, I beg to state that the cost of same is made up from actuals.

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

J. Stracey
Engineer in Chief
E. C. Rly.

Sd

F.W. (Rs. 8252

Rec'd 2-9-VIII-90

B. No. 1280 R dy 28. Augt/90.

H.F. 26/8/90

Ordered to be forwarded to the Govt. of India with reference to its letter No. 650 R.C. dated 22d July 1890.

H.E. No 1281 R dy 28th Augt. 90

Forwarded

B.

No. 1280-81 R dy 28. augt/90.

Inf. despd to India
Copies of
with estimates
28/8/90.

R.R. 5/9.

Obs 14-VIII

A.A. 21/8
Adm 22/8. R 26/8

No. 845 R.C.

All communications should be addressed to the Secretary.

GOVERNMENT OF INDIA.

PUBLIC WORKS DEPARTMENT.

RAILWAY Construction

34 P

To,

The Joint Secretary to the Government of Madras (Railway Branch),
Public Works Department.

H.E. 28/9/90

Simla the 19th September 1890.

Sir,

I am directed to acknowledge the receipt of your No. 1281 R. dated 28th August 1890, and in reply to communicate the sanction of the Government of India to the Estimate of the East Coast Railway Survey, therewith forwarded, amounting to Rs 2,83,960/-

2. As the cost of the establishment (a) on field works and (b) on recess work is not separately given

P. W. Cir. 9150

in the Estimate. I am to request that the Engineer in Chief may be directed to divide the expenditure and shew it separately in detail under the above heads in the completion report of the Survey which should be submitted for the information of the Government of India.

Recd 29-9-90

I have the honour to be
Sir,
Your most obedt. Servant

J. B. Hobbs

offg: Under Secretary

Documents accompg Sd/-

Nil

No. 1280-1R 428-8-90
" 1123 R - 2-8-90
" 943-4R - 1-7-90
" 168R - 3-2-90

N. Cir. 7-x-90. R14/-

Sir

15149

Please say if, instead of sending a copy of this letter to Comy. Engrs for Rys for comn., a copy be sent to S. C. S. direct for compliance in continuation of our letter regarding Co objection Statement asking for an estimate for whole line in British Territory. Yes herewith.

Sd/-
11/2

Sd/ (2)

Sd/

Ch. 20/7
Ch. 23/7. R 20.7.90

FOR ORDERS.

No. 1514 R

A

PUBLIC WORKS DEPARTMENT,

RAILWAY BRANCH.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the 17th October 90

again

READ the following

Progs: of the Madras Govt: P. W. Deptt:— } Lr. No. 1123 R dy 2d August 90

Do. — Do. — " — 1280-87 Rg 28 do —

Read also the following:—

Letter from the Govt. of India P. W. Deptt:— } Lr. No. 845 R. C. dy 19 Septr 90

35

13/10/90

Communicated with reference to Progs: No. 1123 R dy 22 August 1890 to the Consulting Engineer for Railways who will draw the attention of the Engineer-in-Chief East Coast Railway to para 2 of the Government of India's letter read above.—

To
The Consg: Engr for Rys
— " — Exr P. W. Accounts.

1/11

Sd/ 14/10/90

Sd/ W. R

A

A No. 1512 R 8 17-Oct 90.

Km. 7-X-90

9150.

Govt. of [18] Madras.

PUBLIC WORKS.

Dated Pentcoor 28/Oct/90 18[illegible]

Read. Encl.

G.O. 17th Oct 1890, No. 1514R.

East Coast Railway Survey.

A

Letter from the Chief Engr. Cuddapah & the Estimate of the — amt. Rs. 2,83,960/- & regarding to shew in detail the — in the Completion Report of the Survey the cost of establishments on field works & on recess work & Camp to the CE for Rys. —

80/3

CEC 17/10.