

(1) Number of pages 120
(2) Date of repair 1-12-38
(3) Initials of the Referencer CF

MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

Cor 29-2-1860

G.O. No.	381	Press Mis.
Dated	21-2-1860	

Not to be folded or roughly handled

No. 10144

Official Memo

With reference to the Chief
Secretary's Memo of the 6th Instant No. 89,
the Chief Engineer has the honor to forward
a list of works proposed to be included
in the Budget of 1860/61 in lieu of
the sum of Rupees 1,50,000, omitted from
the Budget, on account of the Junction
Canal between Adyar and the Siam.

2 The Estimate of Rupees 1,15,590
for the Artillery Barracks at Bellary
with provision of Rupees 50,000 for
expenditure in 1860/61, should the Chief
Engineer considers be included in the
Budget No. 1, being for a Military work
of importance. Should the Government
consider that the amount of the Es-
timate being above one lac of Rupees,
properly excludes any assignment
upon it, it may be observed that
the Married Quarters at Bellary
estimate at Rupees 1,16,700 and
the

Enc 2
1 List
1 Distribution

Yes

The improvements to the Fort Artillery
Barracks at Bangalore estimated at
Rupees 10,660 were sanctioned by
the Government of India in their Secretary's
letter of the 30th July 1859 No. 5136
paras 6 and 13, and that probably
any other Military work of equal
importance would be sanctioned.

Communicated
in No. 11200/59
18th Aug/59

3. As the Budget is to be presented
it is requested that the full amount of
the reduced Estimate for connecting the
Saffor Sack and Survasully Channels
may be included in it. The Channel
being now recommended on account of
its urgent importance for the safety
of the lands on the right bank of the
Pennair, the Revenue particulars
referred to in the Chief Secretary's
Memo of the 15th Inst. No. 59, which
cannot be altered without much delay,
do not seem of much importance.

Abstract
Estimate of Rs.
48570 submitted
in Chief Engineer's
letter of the 2nd Feb.
1860 No. 11200.

4. The Estimate of Rupees 34,000
for the additional Locks to the Nizampetam
Channel, being one of acknowledged im-
portance is likewise proposed to

Recd. by
Sd/- 16 Aug/59
No. 11200/59
No. 556.

be included in the Budget. The Budget
an assignment of the full amount for
expenditure.

5. For the Presidency work shop
and Store yard recommended in Chief
Engineer's letter of the 3rd Instant 1859,
a sum of Rupees 45,220 is proposed
to be spent out of the sanctioned Estimate
of Rupees 76,390.

6. The two Roads in Madura and
Canara sanctioned by the Government of
India in their Secretary's letter already
alluded to, not being provided for
in the revised Budget sent up from the
Central Office, have been now allowed
assignments to the extent asked for
them by the District Engineers.

7. As the above assignments
the sum of Rupees 3,30,000 reserved
for emergency works, has been increased
to Rupees 3,50,000 and a revised
distribution list of this amount is
forwarded in lieu of that forwarded
in a Memo from the Central Office.

Rephrasing & im-
proving Part 104
in Madura
Completing the list
from Madurai &
Shenoi.

of the 2^d Instant No 9542-

Central Office
Department
of the Navy

J. H. Bell
Chief Engineer

To
The Chief Secretary to Government

7

6 of July 1815..

5

I have the honor to submit for the sanction of Government a Plan and Estimate, amounting to Rupees (654) six hundred and fifty four, prepared by the District Engineer Malabar for certain alterations proposed to be made to the wall round the European Hospital at Cannanore.

2. The work has received the approval of His Excellency the Commander-in-Chief, and the Estimate, after examination in this Office, having been found correct and the rates moderate but sufficient, I beg to recommend the same for entry in the Budget for 1860/61, namely Rupees 654.

I have the honor to acknowledge the receipt of an Official Memorandum under date 20th December 1859, regarding the proposed alterations to the walls of the Hospital compound of Her Majesty's 66th Regiment at Cannanore, and to knocking down a portion of a high wall round the Majesty's 66th Regiment and substituting Railings to admit the sea breeze more freely—the alteration was proposed by the Medical Department, but does not, the District Engineer reports,* appear

- *No. 10, dated 13th January 1860.

ORDER, No. 537, 6th February 1860.

Approved for entry in the Budget.

Mumtaz Ali
Acting Secretary to Government.

Acting Secretary to Government.

- Exd. J. E. Cashart.

91

27.9935

To The Secretary to Government
Department of P. Works

Li.

It appearing from the Chief
Secretarys Memo No 22 of the 1st Instant, that
a larger Sum. is to be set apart for emergent
& isolated works in the Budget of 1860/61, than
at first expected, would be available for
this purpose, and as I now consider it
very desirable that the Presidency Store-
yard and workshop sanctioned, but kept
in abeyance with reference to the correspond.

Letter to Gov. 3rd June
27th 84/65

Reino to the if.

Secretary to Govt.

125 January 1860

0729072

renewed noted in the margin, should be proceeded
with as early as possible, in order to the
protection of the valuable machinery of the

P. M. D. I have the honor to request that
provision

Public Nov 1860 Sept 1861
 20 of Genl 29 February.
 No 960.

Proceedings of the
 classes given in the
 Military Department.
 1860
 March 6th } February 1860
 Dec 29th } Feb. 5. 5. 1860
 Approving for entry
 in the Catalogue are
 estimate of the cost
 for certain attempts
 to the North round
 the European Hospital
 at Lancaster.

8-360

Proceedings of the
classical department in the
classical Department.

Edward B. L. 12.

March 6th of February 1860

Paig & Pado-j.5.5.4

Approving for entry

in the number an
estimate of Dr. 654.

estimate of
for certain attention

to the north round
to the Arabian Sea

the Magnificent
and at the same time

100-443888-100

Provision may be made in the Budget now
being closed, by allowing one half of the
Estimate for Expenditure in the following
year, namely Rupees 38,000. —

Provided Estimate for
Rs 53900 sanctioned
3rd Aug 1860 / V. G.

(I have the honor to be)

Sir

Contract Office of Mr
Sephakam } Your most obedient servant
3rd Feb. 1860

J. H. Bell Colonel
Chief Engineer

To The Secretary to Government
Department of Works.

10/10

(New Work)

Buildings

Abstract of Estimate No. of 185/5
District Malabar

Work alterations to the wall round the European Hospital at Cannanore
more viz. Cutting down portion of former wall & replacing it by a strong railing

Quantities.	Description of Work.	Rate.		Amount.	Amount of each part.
		No.	A. P.	Rupees.	Rupees.
C. Yards.	193 Cft. of Enool wood — 7/11	1	"	193	
	Carpenters work —	"	"	100	
	Breaking down and carrying away old wall —	"	"	30	
	Sanctuary about 5 1/2 cent —	"	"	31	
Total Rupees —					554

J. K. L. D. Lieut. Colonel
Chief Engineer S. P. H.

Central Office of P. H.
Fort Saint George
14 December 1859

Transit the Chingling 29/12/59
Ch. E. in Ch. 29/12/59
29/12/59 20 January 1860

Recd 18/12/59
29/12/59 20 January 1860

Chief Engineer
S. P. H.

29/12/59
29/12/59 20 January 1860

29/12/59

Transit the Chingling 29/12/59
Ch. E. in Ch. 29/12/59
29/12/59 20 January 1860

Chief Engineer

With reference

Ch. E. in Ch. 29/12/59

29/12/59

The Budget of 1860/1
having been closed, the request was
made in this letter cannot be
attended to.

[illegible]

Enclosure

In a letter

From

The Chief Engineer

G. P. H.

31/12

Letter 6542 of 1857

To

The Secretary to Govt

G. P. H.

360/60

1857/7/15

Dated 14th Dec 1857

Received

N^o 8310.

Abstract Estimate for alterations to the wall round the European Hospital at Cannanore. Viz. -
Cutting down portion of former wall and replacing it by a Strong Railing in the District of Malabar.
Amounting to Rupees 654-...

Distribution List of Rupees 4,00,000 to be
Reserved for emergent works

Ganjam	10,000	
Vizagapatam	10,000	
Godavari	20,000	
Mistna	20,000	
Bellary	20,000	
Murnool	15,000	
North Canara	15,000	
South Canara	15,000	125,000
North Arcot	20,000	
Chingleput	20,000	
Nellur	20,000	
Cuddaput	10,000	
Civil Architect	25,000	
Garrison Engineer	20,000	115,000
South Arcot	10,000	
Tanjore	10,000	
Tiruchinopoly	15,000	
Madurai	10,000	
Tinnevely	15,000	
Coimbatore	15,000	
Salem	20,000	
Malabar	20,000	
Mysore	10,000	
Tackatallah	10,000	135,000
		3,75,000

H. L. W. Colonel
Chief Engineer

CH

Enclosure on a house
 from the Chief Engineer
 to the Secretary of the
 Government
 dated 3rd July 1876
 No. 372/66
 The Secretary of the
 Government
 No. 372/66

19

		Amount of estimate	Proposed for Administration	
Mellur	For connecting the upper tank and successfully Channel	48,580		
	Amount previously included	25,000		
			23,580	No-1
Mairra	Repairing and improving road No. 4	74,200	18,200	No-2
North Canara Civil Architect Presidency	Completing the road from Mullal to Sheshashgum	126,400	26,400	No-2
	Presidency Store yard and work shop	76,390	45,220	No-1-V
Mishia	Additional locks for the Vijayapattam Chan- nel	34,600	34,600	No-1
	Increased amount for emergent works - Difference between Rs. 37,50,000 & Rs. 37,50,000		2,000	
				150,000

74,200
 126,400
 2,000

76,390
 20,600
 11,700

J. W. Colver
 Chief Engineer

Central Office
 Portland, Oregon
 November 1859

From, The Chief Engineer
 To, The Secretary to Government
 D.O.W.

Public

Inclusives 13

- 1. Abstract of Statements.
- 2. List of Omissions.
- 3. Budget Maps.
- 4. Letter from Bureau.
- 5. Envelope 273, 400.
- 1859 4. 578.

I have the honor to submit herewith for the consideration of the Honorable the Governor in Council, the usual Six (Nos 1, 2, and 3,) constituting the Budget of Public Works proposed to be undertaken during the Official year 1860-61.

2. A separate List of those works included in the Budget of 1859-60 and not entered in the accompanying Statement is also transmitted with explanatory remarks opposite to each Item of the cause of the omission.

3. The amount which I have considered it advisable to

Enclosure in a letter from the Chief Engineer to the Secretary to Government
 1859 3/2/60
 Mr. Miller
 Acting Secy to Govt
 Portland, Ore

4 In determining the sums above specified for new works, I have carefully kept in view the present Financial position of the Country and the often expressed wish of the Government of India that the expenditure upon Public Works should be confined within the strictest limits and although not anxious to restrict the sum to be laid out under all heads to 50 lakhs, the amount fixed for the current years expenditure by the Government of India, I have found it quite impossible with any regard to the interests of the

the State to keep next years outlay within these bounds, since fully $\frac{3}{5}$ th of that sum was asked for by the District Engineers on account of repairs.

5 In List No 1 Fund have been allotted only to those work which have been sanctioned for entry in the Budget or recommended to be included therein, with the single exception of the Item under the Garrison Engineer for the reconstruction of the Fortifications of Port Saint George, for which 2 lakhs has been requested in addition to the still available balance of Estimates already sanctioned and entered in List No 2. In connection with this and in explanation of the difference between the sums stated in last Budget as "awaiting sanction" and that brought forward in the present List No 1 I consider it best to transmit

transmit in original a letter from the Garrison Engineer in which he enters fully into his requirements for the ensuing year.

No 578 of
3 Nov 1859

In this List I have not been able to include the Estimate for the Junction Canal to unite the Northern and Southern portions of the Eastern Coast Canal as Mr Kennedy the Engineer in charge of the undertaking has not as yet completed his investigations and Estimate.

No time will however be lost after his report is received in forwarding them to Government in time I

trust for insertion in this Budget.

Consequent upon

the

the expected return of Captain Dudgeon in the course of a few months the Estimate for the Upper Godavary has been entered in the List under consideration in order that the

project may be before the Government of India in case the sanction of the Home Government to its prosecution should be received during next year.

No portion however of the above sum has been allocated to this undertaking.

In List No 2 the

the only works upon which
any sum has been recommend-
ed to be expended are.

1st Those exempted by the
Madras Government from the
restrictive orders and those recently
sanctioned by the Government of India

2nd Those sanctioned
on emergency and in progress.

3rd Those either sanctioned
by Government for entry in the
Budget or recommended to be in-
serted therein.

The projects that
have been held in abeyance
and which far exceed those
above referred to both
in number and amount -

are

are those which sanctioned in former years were
placed under restriction in July 1859 and are
still unexecuted therefrom.

These two Lists have been prepared
in the form hitherto adopted and after they have
undergone the usual investigation, the assistance
heretofore given by this Office will be afforded
to enable you to recast them either according to
the model established by the Government of India
and adopted in former Budgets, or in accordance
with the forms in the "Classification Report"
referred to in para 2 of Colonel Gule's letter
No 5136 dated 30th July 1859.

Communicated with
Pr. of Govt. No 1975
18th Aug^r 1859-

Para 14 of No 2460 b. 23rd
September 1858

120371
87485
52288
263144

8 List No 3 has in accordance with
the instructions of the Government of India been
subdivided into the same heads as those used in
the printed Budget in the case of new works.
The amount of proposed outlay under this List
it will be observed, is in excess of that entered
in the present year's Budget, the increase Paper
2, 63, 144 extends over the 3 Branches as follows -

Irrigation Paper 120371
Chiefly in Nellore and North Arcot, in which
Paper

Paper 10000 and Paper 20000 respectively have been added for next year upon the application of the District Engineer on account of the insufficiency of this year's allowance under this head. The bulk of the remainder is owing to the transfer of the Grants for Durries which under the new Classification are included in Forests, a Sub-head of agricultural or Irrigation.

Communications Paper 8 1/2 85
Consisting principally of additional maintenance Grants for Roads, and provision for the repair of Envelles & Kumbalams formerly included in Buildings, a provision similar to last year has been made for Roads and supplied with special Grants.

Buildings Paper 55 288.
Rajahmundry, the Civil Architect and Engineer are the charges where most of this has occurred. In the first it is on account of Harbours and Marine Buildings. The Civil Architect states his increased demand arising to the transfer from the Garrison Engineer of Buildings outside the Port, and that latter Officer says that he cannot make any corresponding reduction in consequence of the Land face of the Port demanding outlay for repairs.

29
repairs. The District Engineer of Chingleput remarks that the Military Buildings under his charge require greater attention and expenditure, and that the transfer of Guide Park from the Civil Architect increases his demands.

9. For convenience of reference and in order to exhibit the comparative requirements of the several Circles I forward an Abstract of the Lists, showing at a glance the aggregate outlay recommended for each Circle and for each District thereunder under the heads, Irrigation, Communications and Buildings.

10. As regards the transmission of Estimates from this Office and the entry of Sanctions by Government, the accompanying Lists were closed upon the 26th Instant, but their preparation has been much retarded and a good deal of inconvenience experienced by the nonreceipt of the Budget Lists from the Districts of Madras and Tanjore until the 25th and 28th Instant, notwithstanding that the District Engineer's attention was called to the necessity for their early submission by Circular No. CXVIII dated 4th.

Althaus

Albino, and repeated notifications in the Govern-
ment Gazette.

Port Saint George }
30 November 1859 }

I have the honor to be,
Sir,
Your Most Obedt Servant

W. Bell ^{Lieut. Colonel}
Chief Engineer

To, The Secretary to Government
Public Works Department

3-2-59

E. M. S. S. S.

N^o 578 Garrison Eng^r Office.
 From 33
 Captain H. R. Rawlins,
 Garrison Engineer.
 To
 The Deputy Chief Engineer,
 Northern Circle,
 Fort St. George.

Sir,

In obedience to the orders con-
 tained in your Circular Memorandum, N^o CXVIII,
 dated the 1st ultimo, I have the honor to forward
 Budget Statements N^{os} I, II and III for 1860-61,
 and to offer the following explanation regarding
 some of the most important works therein proposed.

Certifications of Fort Saint George.

In the Budget for 1858-59, Statement
 N^o I, twenty one Estimates were submitted for
 sanction, amounting to Rupees 14,37,210. Of this
 sum Rupees 2,76,260 were sanctioned for im-
 mediate execution. The following tabular state-
 ment will show the particular works detailed
 in the Budget for 1859-60. Statement N^o II,
 and the amount expended thereon up to 30th
 April 1859.

Item N^o 1.

Items 1, 2, 3, 4,
 5 and 6.

Recd 1859
 2136

From the Chief Engineer
 to the Secy to Govt. 1859.

Recd 1859
 2136

1859

Subm^{it} Budget
 N^o 1, 2, 3, 4, 5
 the enclosed & dated 1/11/59

1859

14-15-59

Description of work.		Date of sanction.	Amount of Estimate.	Amount expended up to 30 th April 1859.
Sea Face.	Rebuilding a portion of the Sea Bace on the South of the Flag Staff of the Fortifications, —	S. Govt. No. 288 19 th Feb. 58	31,500	10,815
	Rebuilding a portion of the Sea Bace on the North of the Flag Staff of the Fortifications, —	Do. —	31,500	9,874
	Rebuilding a part of the North East Orillon Demi Bastion on the Sea Bace of the Fortifications, —	Do. —	13,000	10,678
			1,12,000	31,367
Land side.	Rebuilding the Saint Thome Caponniers of the Fortifications, —	S. Govt. No. 288 19 th Feb. 58	10,650	5,632
	Rebuilding the North Ravelin of the Fortifications, —	Do. —	75,000	—
	Rebuilding the South Lunette of St. George's Ravelin of the Fortifications, —	Do. —	18,630	—
			1,04,260	5,632
Grand total,			2,76,260	31,999

In the Proceedings of the Indian Government, No. 1036, dated the 3rd of May last, a revised plan for the repair of the Sea Face was submitted by the Commandant of Engineers, together with a rough Estimate amounting to Rupees 1,80,000, and which was mentioned for immediate execution.

* No. 171 dated 27th April 1859.

at the same time, Colonel A. Cotton stated that his Estimate was only a rough and approximate one, and that some of the points must be considered more at leisure as the works advanced, adding as follows:-
 "Of the remaining 10 lacs, being the amount for the Land Baces, 1,60,000 Rupees is for the rebuilding of the works near the Saint Thome Gate, which are in a state of entire ruin, & must be rebuilt at once. The rest are of far less importance and it will be quite sufficient to decide about them in their turn, as the whole cannot be done at once, and probably the above works, 3,40,000 Rupees, will require more than a year to complete."

The alteration in the original plans necessitated the amalgamation of the Estimates for the various works on the Sea Face, and the following Statement will shew in detail the revised sums now sanctioned, and the corresponding expenditure up to the 31st October 1859-

* Vide ltr: Engrs Pro: No. 2719, dated 14th July 1859.

Sea Face.

Land Side.

Description of work.	Date of Sanction.	Amount of Estimate.	Amount expended up to 31 st October 1859.	Balance remaining available for expenditure.
Amount expended up to 30 th April 1859, as per foregoing Statement.	Supreme Govt. 19 th Feb. 1858	31,367	31,367	—
For remodelling the Sea Face and substituting solid earth Battery for the old ramparts, —	Madras Govt. 1036 3 rd May 1859.	180,000	38,946	1,41,054
For building a portion of the Counterscarp wall of the South Bastion being a portion of Rupees 2,02,500, contemplated in original Estimates for repairs to the "Counter-scarp Sea Face", —	Madras Govt. 118, 30 th March 1859.	8,775	—	8,775
For pulling down & rebuilding a further portion of the North East Demi Orillon Bastion, being found in a dilapidated & dangerous state, but which was not provided for in original Estimates, —	Madras Govt. 118, 30 th March 1859.	18,500	—	18,500
		2,38,612	70,313	1,68,329
Rebuilding the St. Thome Caponniere of the Fortifications, —	Govt. 13 th Aug. 1858	40,630	3,632	36,998
Rebuilding the St. Thome Ravelin of the Fortifications, —	Do.	75,000	8,827	66,173
Rebuilding the South Limette of Saint George's Ravelin of the Fortifications, —	Do.	18,630	—	18,630
		1,61,260	12,459	1,51,801
Grand Total		4,02,902	82,772	3,20,130

Out of this sum, Rupees 3,20,130, I estimate that the expenditure up to 30th April 1860, will be about Rupees 90,000, which with the past expenditure of Rupees 82,772, will make an aggregate of Rupees 1,72,772 for the whole of the works of the Fortifications up to the end of the Official year 1859-60, leaving a balance of Rupees 1,47,358 unexpended from the amount already sanctioned.

But in addition to Rupees 1,47,358 required for expenditure in 1860-61, I also solicit that sanction be obtained for the following items being entered in the forthcoming Budget, viz: Rs.

- A further portion of Rs. 2,02,500 proposed in original estimates for "Counter-scarp Sea Face", — 40,950
- South East Counterguard, — 12,240
- South East Spur, — 30,200
- South East Demi Bastion, — 57,900
- North East Blind in front of North Spur, — 28,710
- Total for sanction in 1860-61, 2,00,000

Constructing a Landing place from the Pier at Madras. Rupees 32,200. This work does not belong to the Garrison Engineer's range, but the Estimate having been prepared by me, I thought it right to include it in my statement.

Laying down a new line of Pipes from the
Seven wells to the Fort, and for purchasing and
setting up three Hand Pumps at Wells on the
Esplanade. Rupees 1,3800. The Garrison is entirely
supplied with drinking water from the "Seven Wells",
and the work here proposed has been rendered necessary
in consequence of the complete decay & dilapidation
of the old pipes, which are irreparable. The three
Pumps have been sanctioned on emergency. Vide
Proceedings of Government, N: 3725 dated 21st
October 1859.

Rebuilding the Civil Audit Office.
Rupees 37,350. This work was sanctioned in the
Budget of 1856-57, but the execution of the work
was deferred from year to year and nothing has
been done. Now however in consequence of the new
line given to the defences on the Sea Bree; a
portion of the old building will have to be removed
to make room for the Gun Plat forms, and as the
building will probably be not constructed upon
the original plan, it may be considered desirable
to erase this item altogether from the Budget
List.

Improving the Drainage of Fort
Saint George. Rupees 50,000 has been sanctioned
by

by the Supreme Government in their Secretary's
letter, N: 2861, of the 5th May 1859, but in conse-
quence of the original plan having been departed
from, so as to obtain a more efficient head of water,
for thoroughly flushing all the drains in the Fort,
revised plans have been submitted to the Chief
Engineer, and are now under consideration, mean-
while portions of the work are in course of execution.
The revised Project will I hope not exceed the
original Estimate.

The alterations and improvements
to the European Barracks are particularly de-
tailed in the Chief Engineer's Proceedings, N: 5016
dated 15th September last, and the detailed Estimates
for the same, amounting in the aggregate to Rupees
26,800, were submitted with my letter, N: 567 of
the 28th ultimo.

Cleaning the Fort Ditch.
Rupees 12,700. This Estimate was submitted
by order of the Chief Engineer, vide Proceedings
of Government, N: 200 dated 21st January 1859.
The late Superintending Engineer, Captain Francis
reported that the Ditch required immediate
cleansing. The work was deferred some time
longer than it otherwise would have been, pending
the repairs to the various parts of the Fort, but

I strongly recommend that the work should
be executed before the next hot weather; as it
concerns the health of the inhabitants in
Garrison.

I have the honor to be,

Sir,

Your most Obedt. Servant,

Fort St. George,
3^d November,
1839.

W. Rawlin Captain,
Garrison Engineers.

Thom
The Provisioning Co.
To
The Wm. Craig & Co.

18/10/15

Date 3rd December/59
 Dec. 14th
 116
 Dec. 598
 Dec. 3rd

Sturges & Burdick

III. In 1880-81 & affording
 explanation regarding
 some of the most im-
 portant work of the

6-1860
773436154

General Abstract of the proposed expenditure on New Works and Repairs in the Madras Presidency within the Official Year 1860/61. - 45

Southern Circle
Central Circle
Northern Circle

Districts	In Budget of 1861			In Budget of 1862			In Budget of 1863			Total	
	Irrigation	Communicating	Buildings	Total	Irrigation	Communicating	Buildings	Total			
Panjam					45,605	6,570	52,175	30,350	27,970	74,000	125,705
Vizagapatnam					3,600	11,109	14,709	12,432	16,638	29,072	52,291
Rajahmundry					42,068	25,704	1,05,523	1,60,000	30,552	18,232	3,95,557
Masulipatam	21,250			21,250	37,751	38,460	79,099	1,60,000	47,000	15,192	3,97,349
Pimlicoer					1,28,818	586	5856	60,000	12,300	4,000	1,54,856
Kurnool	72,700			72,700	52,700		30,500	35,732	35,500	3,400	1,05,412
Canara					64,774	51,410	1,16,184		1,33,157	9,500	2,78,841
Bellary		20,000		20,000		13,000	79,522	1,20,962	1,17,310	52,425	3,03,691
Upper Pedavery					1,2440						
Total	72,700	10,1250		173,950	1,97,779	2,44,707	1,86,130	6,28,616	5,76,474	35,7522	19,11,246
North Arcot					68,389	705	4,9094	70,970	67,167	12,400	1,50,537
Chengelpat					1,27,721	35,888	1,65,609	61,144	1,20,214	21,890	3,76,857
Cuddapah					60,406	6,595	62,861	56,968	58,855	5,112	1,20,935
Nellore					15,260	3,573	1,25,661	25,000	40,910	7,000	3,05,910
Civil Architect					34,852	80,757	1,15,221	3,200	6,700	5,200	3,04,111
Parrison Engineer			12,6390	12,6390	1,000	2,97,568	2,98,568			1,00,000	6,40,568
Municipal Commissioners			242,000	242,000					24,397		24,397
Total			3,68,390	3,68,390	70,712	3,13,082	4,23,220	8,17,014	4,42,282	3,34,243	19,90,002
South Arcot					17,449		17,449	85,435	58,640	3,450	1,47,525
Tanjore			16,000	16,000	9,372	2530	12,802	26,1564	57,061	5,880	3,18,505
Trichinopoly					38,968	19,796	84,264	1,14,000	33,290	7,336	1,52,626
Madura					13,500	9,572	40,216	62,560	32,562	2,150	97,272
Tinnevely					38,704	2,620	25,520	70,106	44,107	7,190	1,29,403
Coimbatore					22,900	4,418	37,701	40,970	75,332	5,000	1,21,302
Salem		30,000		30,000	3,203	4,460	26,960	52,000	72,871	2,500	1,27,331
Malabar					22,500	58,399	14,7162	1,100	28,358	11,064	41,422
Mysore					8,410	37,7831	35,6241			16,200	402,441
Sackatalla						293,825	293,825		1,152	5,896	7,050
Total					2,70,349	77,3391	1,00,0140	697,735	397,375	67,566	11,62,676
Grand Total	72,700	13,1250	3,68,390	5,58,340	2,84,891	4,88,130	13,92,741	25,25,770	17,16,691	36,37,988	31,49,449

Central Office of P.W.D.
Fort Saint George
30th November 1859

[Signature]
Chief Engineer

Statement of expenditure proposed to be made upon repairs in the year 1860-61, in the
Madras Presidency.

Districts.	Items.	Date of Govern- ment Sanction.	Amount.	Total.	Total in each District or Sta- tion.	Remarks.
<u>State</u>						
<u>Military</u>						
	Fortifications		.			
	Cantonments		"			
	Accommodation for Troops		200			
	Ordnance		.			
	Commissariat		"			
	Studs		"			
	Staff		.	200		
<u>Naval</u>						
<u>Judicial</u>						
	Police		.			
	Court Houses		800			
	Jails		300	1100		
<u>Revenue</u>						
	Land and Miscellaneous		600			
	Customs		150			
	Opium		"			
	Salt		1500	2250		
<u>Ecclesiastical</u>						
	Churches and other buildings		"			
	Burial grounds		50	50		
<u>Educational</u>						
<u>General</u>						
	Government		"			
	Public Works		200			
	Post Office		"			
	Mint		"			
	Charitable Institutions		"			
	Scientific Institutions		"			
	Monuments and Antiquities		"			
	Miscellaneous		200	400		

Guntur

Enclosed in a letter
from the Chief Engineer
to the Secretary to Govt.
P. M. D. Dated 30th Dec.
November 1859. at 17833

6/106
1733739

General Abstract
of the proposed repairs
to the several works
and repairs in the
Madras Presidency
within the General Year
1860/61.

Guntur

Districts.	Items.	Date of Government Sanction.	Amount.	Total.	Total in each District or Station.	Remarks.
	<u>Public</u>					
	<u>Municipal</u>					
	Town Buildings		"			
	Markets		"			
	Caring and Streets		"			
	Lighting		"			
	Water Supply		"			
	Sewage		"			
	<u>Marine</u>					
	Harbours and Navigation		"			
	Light Houses		"			
	<u>Industrial</u>					
	Mines		"			
	Manufactures		"			
	<u>Agricultural</u>					
	Irrigation Canals		32,000			
	Tanks		21,000			
	Dykes		5,000			
	Drainage		2,000			
	Forests		"			
	<u>Communications</u>			60,000		
	<u>Metalled Roads</u>					
	Trunk Road No 7 between					
	Copperapaud and Nackerual 25 July 1914					
	being 30 miles		3,000			
	Roads not provided with					
	special grants		5,700			
	<u>Unmetalled Roads</u>		8,700			
	Discretionary Allowance 25 Oct 1915		1,300			
	Bridges		2,000			
	Boat Bridges and Ferries		"			
	Navigable Canals		"			
	River Improvements		"			
	Mapping Canals and Waterways		300			
				12,300		
				76,300		

Guntur

Districts.	Items.	Date of Government Sanction.	Amount.	Total.	Total in each District or Station.	Remarks.
	<u>Abstract</u>					
	Irrigation		60,000			
	Communication		12,300			
	Buildings		4,000			
				76,300		

Canara

Districts.	Items.	Date of Government Sanction.	Amount.	Total.	Total in each District or Station.	Remarks.
Public						
Municipal						
	Town Buildings					
	Markets					
	Pavies and Streets					
	Lighting					
	Water Supply					
	Sewage					
Marine						
	Harbours and Navigation					
	Light Houses		50			
Industrial						
	Miners			50		
	Manufactures			9500		
Agricultural						
	Irrigation Canals					
	Tanks					
	Dykes					
	Drainage					
	Forests					
Communications						
Unmetalled Roads						
	Portion of Trunk Road No. 2 from the	4 Jan/54				
	Simphie Phant to Mangalore	22/1/57				
	Mangalore Phant road 30 miles	17 June/57				
	at 100 Rupees a mile	27/1/58				
	Road between Copinungady and Pottom	23/2/58				
	Coolom Phant	28 June/56				
	Peradupphah Phant	27/3/53				
	Roads in the town of Comptah	27 June/53				
	Mangalore Streets	11 July/56				
	Road Cricote in North Canara	21/4/54				
	38 1/2 miles	27/1/53				
	Road from Dhawar to Comptah					
	20 miles					
	Arby & Phant and Road 77 miles					

53

Canara

Districts.	Items.	Date of Government Sanction.	Amount.	Total.	Total in each District or Station.	Remarks.
Unmetalled Roads						
	Bridges					
	Boat Bridges and Ferries					
	Navigable Canals					
	Repairs to Boat's Sengars and Shes		1000			
	over the same					
	River Improvements					
	Staging Bungalows and Serais		2500			
	Discretionary allowance	9 Jan/55	20000			
		22/1/58		133157		
				142657		
Abstract						
	Irrigation					
	Communications			133157		
	Buildings			9500		
	Total				142657	

[illegible]

Communication

My dear friend -

August 1905 to June 1906

10,6800 3 years

Ms. 606.

Ordered for entry in the English
of Herbert's will, Jan. 6. 18. 18.
of the 18. 18. 18. 18. 18. 18.

56450

"

Ordered for entry in the English
of Herbert's will, Jan. 6. 18. 18.
of the 18. 18. 18. 18. 18. 18.

7

Ordered by the Government of India

132800

to be over for more than a few
 weeks. Family of 4 enjoyed it very much.

"

72.700

Buagh Lick No. 3 for the
District of Podary, Kentucky
and North and South Carolina

6-160
0003293/59

1859 Agreement

North Canada

Recommendations

Widening Redoubt, Grant and connecting
3 Bridges and 3 drains — 26,980

Constructing minor bridges and
tunnels between Redoubt and
the foot of the Grant — 32,820

Constructing minor bridges and
tunnels between Redoubt and
Ravenhill — 2,980

Constructing 2 bridges on the creek
lead from Ravenhill to
Sumpstead and connecting the
Redoubt with the Devenance
line — 84,710

84,710	78,250	39,000	20,000
Total North Canada — 78,250			

W. A. C. C. North Canada
Chief Engineer

Under the Government
order of 1879 dated 21st
November 1879.

1858 Statement

15th Dec 1858

Enclosure 1 in a Memo
from the Chief Engineer to the
Secretary to Government S. P. O.
dated December 15th 1858 No. 8381

5-60
324875

Exhibit No. 1 for the
District of Ponnaiy District
and North Arcot

Abstract

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District	Military Works	Other Works	Total
<u>Northern Circle</u>			
Ganjam	.	32,005	32,005
Viragapalam	11,800	4,609	16,409
Godavery	.	32,537	32,537
Krishna	.	150,679	150,679
Rencond	3710	27,200	30,910
North Canara	"	30,787	30,787
South Canara	3,210	105,417	108,627
Pottur	12,6762	617	127,379
Upper Godavery	.	.	.
Total	145,482	373,853	519,335
<u>Central Circle</u>			
North Arcot	.	68,289	68,289
Chingleput	28,898	278,879	307,777
Cuddapah	3,000	30,301	33,301
Tellicott	.	65,082	65,082
Civil Architect	.	19,6516	19,6516
Government Engineer	340,148	.	340,148
Municipal Commissioners	.	.	.
Total	372,046	639,367	10,114,13
<u>Southern Circle</u>			
South Arcot	"	10,562	10,562
Chennai	13,105	43,520	56,625
Tiruchirappalli	.	13,707	13,707
Madurai	.	26,309	26,309
Tirunelveli	.	49,500	49,500
Cumbalur	.	81,735	113,100
Salem	31365	.	31,365
Madurai	3,00,000	.	3,00,000
Mysore	3,00,000	.	3,00,000
Jackatalla	3,00,000	.	3,00,000
Total	6,44,470	225,333	8,69,803
Grand Total	11,61,998	123,553	24,00,551

J. A. L. Lieut. Col.
Chief Engineer

1860 Department

Enclosed in a letter
from the Chief Engineer to
the Secretary to Government,
Department Public Works,
dated January 3rd 1860,
No. 8765.

1860/60.

Abstract of the Vols
of military works and works
of improvements to be
undertaken in the year
1860/61. —

Northern Circle Military Works

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District	No.	Work	Estimated Total cost	Expended during the year	Total Ex- penditure
Tyzapatam		Shuttle Alley for European Veterans	630	630	✓
		Proposed Temporary Barracks at Wallail	3960	3960	✓
		Buildings in Harris Valley & road to it at Galleparvatum	7600	6600	✓
		Lightening conductors to Military Building at Narsapatam	610	610	11,800
		Proposed Barracks with married D ^{rs} at Bellary	118590	50000	✓
Bellary	11	European Hospital	82330	11439	✓
	13	Out houses to Hospital	5650	5650	✓
		New Married D ^{rs}	116700	25,000	✓
	17	D ^{rs} for Garrison Sergeant Majors	2970	2438	✓
		Two School rooms for divine service at- tached to new Barracks	18080	18080	✓
		D ^{rs} for four medical warrant Officers	13600	13600	✓
	15	Shed for depositing Iron Targets of the 74 th	325	325	✓
		Repairs to Soldiers shed at Hospell	230	230	✓
					126762

District	No	Work	Estimated total Cost	Expenditure during the year	Total ex- penditure
Hurnool		Assistant at the camps at Hurnool	2880	2880	"
		Lighting Conductors Hurnool	"	830	3710
South Canara		Doc for the Medical warrant Officers at Pooleon	3210	3210	3210
		Grand Total			145482

W. B. L. [Signature]
Chief Engineer

District	No.	Work	Estimated total Cost	Expenditure during the year	Total ex- penditure
Hurnool		Assistant at the camps & at Hurnool	2880	2880	"
		Lighting Conductors Hurnool	"	830	3710
South Canara		Doz for the Medical warrant Officers at Pooleen - - -	3210	3210	3210
		Grand Total			145482

J. B. [Signature]
Chief Engineer

W. B. Smith
Chap. 1st

District	No.	Work	Estimated total Cost	Expenditure during the year	Total Expenditure

District.	No.	Work.	Estimated Total cost.	Expended here during the year.	Total Ex- penditure.

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District.	No.	Work.	Estimated Total cost.	Proposed Expendi- ture during the year 1880/81	Total Ex- penditure.
Carrion Region.		Pipes from the seven wells water works to the Fort.	42,000	42,000	
	196	Construction of the sea face of the Fortifications	238,642	108,329	
	197	St. James & St. George's Barracks and Buildings	14,260	12,180	
		Drainage of the Fort	50,000	39,343	
		Verandas to European Barracks	42,220	12,144	
		Soldiers Cells, Cook House and Piers	18,100	5,000	
		Alterations for ventilation of interior of Barracks	9,930	4,000	
		Castern water wheels for Government Printing Press	11,670	3,000	
		Openings for Ventilation of Barracks	6,500	1,000	

Index.

District	No	Work	Estimated Total Cost	Expenditure during the year	Total ex- penditure
Garrison Ingham		Addition to the Canvas Hq in the Barracks	2530	2530	
	107	Leaves for the protection of the gun face	1000	1000	
					310,168
Shinglepuk		Arms School Room at St. John's Mount	10,450	8,930	
		Soldiers shed at Camp	310	310	
	100	Commisariat Store Room St. John's Mount	2,70	1,489	
		Building Eastern Range to Artillery Depot St. John's Mount	22,200	22,200	
		Shuttle Alley and improvements to the Canton Pt. at St.	3,310	434	
					28,898
Puddalapah		Assistant Apothecary's Quarters	3,240	3,000	3,000
					372,066

J. H. Bell Knapp
Chief Engineer

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[illegible]

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Southern Circle Military works Index

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District	N ^o	Work	Estimated Total cost	Expended here during the year	Total Ex- penditure

District	N ^o	Work	Estimated Total cost	Proposed Expended here during the year 1880/81	Total Ex- penditure
Michigan		Improvements to the Hospital	10500	8945	
		Removing floor of sick stable	1770	1770	
		Hospital at Port	2390	2390	
				13,105	13,105
Malabar		Ranch at Cochin	5234	5234	
		at Malapooram	4994	4994	
		Plans to the Fort of Cannanore	12300	2160	
		Gun shed at Malapooram	1200	170	
		European Hospital at Cochin	8610	2620	
		Alterations to Building at Cochin	2400	320	
		Improvements to European			
		Barracks at Cochin	1620	1620	
		to the Fort & Ball at Cannanore	1384	445	
		Two Assistant Apothecaries	4930	4930	
		Quarters at Malapooram	3060	3012	
		Lighting Conduct at Malapooram		690	

Index

District	No	Work	Estimated total cost	Expenditure during the year	Total ex- penditure
Malabar Cant.		Improvements to the Garrison Hospital at Cannanore	1100	1100	
		Building at Malappuram for Police Service	2920	2053	
		Improvements to the Garrison at Cannanore	963	963	
		Alterations to the Dispensary at Cannanore	654	654	
		Sanctions 20 Dec 99 & 14/7/00			
		Total	5421		31305
Mysore		Order of Improvements to Fort Melling Barracks	10600	50000	
		Manned Quarters to Store Artillery Barracks	16100	16100	
		Order of Room to Store Melling Barracks	4500	4800	
		Quarters for 2 Medical warrant Officers	6500	6500	
		Soldiers' mess houses at Tombour Bannaghoray and Kere	3500	3500	
	29/1/00	Improvements to Barracks for an Infantry Regiment	16000	26156	
	31/1/00	Manned Quarters on D.	98000	49000	
	31 D.	Quarters for 2nd Supt on D.	23750	11875	

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District	No	Work	Estimated total cost	Expenditure during the year	Total Expenditure
Mysore Cant.	30/1/00	New Barracks Barracks Cantonment Base	572,250	123,759	
			17,410	8,410	
					300,000
Dachaballa	30/1/00	5 Ranges of Barracks	834,732	89,256	
		Manned Quarters & Store	272,900	34,306	
		Artillery to D.	57,820	57,820	
		Drainage to Barracks and Hospital	22,640	15,144	
		School & Library	58,450	2,186	
		Range Band & Band	37,580	9,383	
		Drainage of Barracks	4,030	4,030	
		Magnetic Tower & Gun	27,708	15,708	
		Armourer's Forge	990	990	
		Water Cane Press	4,070	4,070	
		D. D. 2	4,020	1,87	
	31/1/00	Punishment shed	3,270	3,270	
	38 D.	Barracks Supt. Quarters	4,800	4,800	
		Military Prison	52,700	32,180	
		Total			300,000
		Grand Total			644,470

H. M. Bell
Lieut. Col.
Chief Engineer

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[illegible]

1860 Department

Enclosed in a letter
from the Chief Engineer
to the Secretary to Government
Department Public Works
dated January 3rd 1860,
No. 8765

186/60.

List of elementary works
to be undertaken in the
Year 1860/61. -

Northern Circle 81

Works of Improvements

District	No	Work	Estimated Total cost	Proposed Expendi- ture during the year	Total Ex- penditure
Ganja m	322	Road from Chicacole to Calingapatam	21,000	8,115	
	329	Do from Noppadab. Salt pan to Tectally	5,330	2,330	
		Do from Noppadab. to Bunnally	10,500	3,500	
		Do from Ameravally Salt Pans to Chicacole	1,400	1,400	
		Seven miles of Road from Tectally to Mulapetta	9,060	4,660	
		Bridge over the Bendegodda on Road from Kemeddy to Pondy	2,200	1,700	2,2005
		Police Cutcherry at Simada	820	600	
Vijayapatam		Do at Vijayapatam	2,830	2,830	
		Overseers sheds	1,282	1,179	1,609
Godavari		Mursapoor Lock	23,500	12,181	
		Leocanada Harbour	18,068	18,068	
		Dowlaisherum work Shop	~~2,186~~	~~2,186~~	
		Beacon Buoys at Masulipatam	1,300	2,290	32,539
Carried Over				59,153	

Northern circle. Works of improvements (contd)

District.	No.	Work.	Estimated total cost.	Proposed Expenditure during the year.	Total ex- penditure.
Kistnah		Brought Over B.C.			59,153
	197	Canal from Boodmair to Dendalone	2,14,385	60,000	
	198	Do from Polairoo to Canal Basin	2,37,107	60,000	
	205	Lock and Calingulah near Casarapelly	13,660	6,115	
		Channel and sluice from main duct from the Kistnah aicut	4,348	1,000	
		Drainage channel into Sultanagarum swamp	3,350	14,03	
		Calingulah to Ulloorank	1,500	500	
		Do to Boodanor	1,500	500	
		Do to Kunkelanaud Sank.	1,800	800	
	68	Paupetta Noondiff's Court House	1,630	61	
		Road to Nizam's Frontier	44,170	20,000	1,50,679
Kurnool		Heindree Bridge	1,9619	5,000	
	359	Nundycanama Ghaut	50,000	15,000	
	174	3 Bridges on Road from Kurnool to Nundycanama	9,700	4,700	
		Completing Road from Kurnool to footy	10,7160	2,500	27,200
		Carried Over B.C.			2,37,032

Northern circle. Works of improvements (Cont.)

District	No	Work	Estimated Total Cost	Proposed Expenditure during the year	Total Expenditure
		Brought Over	Rs.		2,37,032
North Canara	422	Road Circuits	34,996	10,000	
		Keyah ghaut	"	10,000	
		Bridges on Sircy Road	6,000	5,806	
		Gairiuppah ghaut	3,820	602	
		Clearing Jungles at ruins of Gairiuppah	300	197	
	421	Road from Gairiuppah to Mysore Frontier	2,0426	4,184	30,787
South Canara	424	Metalling Sumpajee ghaut	17,200	5,002	
		Sea Custom House at Kulpay	490	415	
		Proposed Mangalore and Cannanore Canal	"	1,00,000	1,05,417
Bellary	84	Salook Catcherry at Havenhuddully — Revised Estimate	8,760	617	617
Grand Total					Rs. 3,73,853

H. L. Kulkarni
 Secy.

Central Circle Works of Improvement

District	No	Work	Estimated Total cost	Expenditure during the year	Total Expenditure
Central Architect		Two New Wings to the General Hospital	66,500	66,500	66,500
		Mylapore Sanitary Building	1,745	1,745	
	58	John Pereira's	3,080		
	61	Chintadrapettah	3,220		
	63	Morobay Road	570		
	64	Saint Thomas	440		
		Pothan's Broadway	2,830		
		Mylapore	550		
		Beach Damak	5,730		
		Land for Damak	30,250	20,345	20,345
	102	Amack Distillery	15,400	4,830	
	100	Foundling Hospital at Innegar Choulhy	5,390	3,090	
		Additions to School Asylum	4,100	4,100	
		Wall to Royapettah Police	4,730	2,000	
		Verandah to the Vepery do	796	796	
		Lightning Conductors for Commissariat Stores	4,260	1,000	
		Banks of the Cooum River	8,580	4,000	
		Additions to Mint Building	6,270	2,000	
		Foundry at the Mint	13,220	13,220	
		Saint Mary's Bridge near the Burial Ground	4,750	4,750	
		Graves No 14, 15 & 16	12,010	1,743	
		Dwarf Grains	3,600	1,774	
		Work Depot Chintadrapettah	6,442	2,000	
		Road within the compound of Royapettah Police	363	363	
		Salv. Colar Drain	2,650	2,200	
		Drain for Lying in Hospital	500	500	
				70,456	66,500

Central Circle Works of Improvement

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District	No	Work	Estimated total cost	Expenditure during the year	Total Expenditure
Central Architect		Buildings at the Sun		70,456	66,500
		Carnage for Kaimylo Kaim	5,920	5,920	
		do for Smithy	3,900	3,900	
		Converting a portion of the Central Museum for an Office	500	500	
		Houses for the Principals of the Civil Engineering College	20,620	17,000	
		Upper Room in the Daman Khana	17,640	17,640	
		Upper Story in South side of do	14,900	14,900	130,316
North Arch		Palace Bridge	134,663	18,749	196,816
		Road from Chintampettah to Vengal	29,100	15,000	
		Road from Wallajahung to Benilaveram	12,600	1,216	
		Proposed road from Tholing to Chintampettah or Benilaveram	20,400	10,000	
		Road from Vellore to Arnee	27,260	3,324	
		Proposed road from Arnee to Arnee 19 miles @ 2000 ft	38,000	20,000	68,289
Chunglepatt		Road from Tiruvallur to the Pottelliar River	6,236		
		Additional for completing it	7,650	6,000	
		Proposed junction canal between Adyar & Hochmanes Canal	3,59,300	1,50,000	
557		Canal from Durgarajpetam to Chintampettah	1,30,658	1,00,000	
		Deepening of Hochmanes Canal	12,000	9,479	
		Remettalling of Road & between the 49 1/2 mile stones	13,400	13,400	278,879

573,664

Index

District.	N ^o	Work.	Estimated Total cost.	Expended during the year.	Total Ex- penditure.
Nellore		Brought over			54,398.4
		Restoration of the Pennair Amnicut	11,250	54,852	
		Masonry works on trunk Road No. 8	84,580	10,000	
		Sewerage on trunk road No. 8	8930	50	
		Ekapully Salt Cutchery	360	180	65,082
Cuddalore		Road from Vencalarampett to Royasholij	41,300	20,000	
		Road from Cuddalore to Polymamalah	8,800	7,126	
		Goodcheroo Ghaut	1,800	500	
		Road dam across the Mullewankas on trunk road No. 11	1,160	160	
		District Engineers Office	4,232	2,575	30,301
		Grand Total			639,367

J. K. M. J. G.
Chief Engineer

Southern Circle Works of Improvement

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District.	N ^o	Work.	Estimated Total cost.	Expended during the year.	Total Ex- penditure.
Trichinopoly		Remodelling the Trunk Road No. 8	19,263	13,020	
		Road from Coimbatore to Trichinopoly	45,710	15,000	
		Paravolay Channel	24,700	10,000	
		Yecondum Channel	5,500	5,500	43,520
		Ambaranthi Bridge	26,340	7,740	
Madurai		Salt Platforms	8,520	5,520	
		Building for Divine Service Pamban	300	300	
		Boundary Pillars for Pamban	192	112	
		Room to Collectors Cutchery	480	35	
		Coimbatore			13,707
Coimbatore		Hoanoor Ghaut	5,600	3,204	
		Road between Jachattalla and Coimbatore	32,000	10,000	
		Road from Perundory to the Railway station	8,735	8,735	
		d ^o from Chinnanoor Rail- way station to Trunk Road No. 5	4,260	4,260	
		Privy to Pottamungalam Bungalow	110	110	26,309
Salem		Road from Adaman Cottah to the station at Mulla- pattur	16,800	15,400	
		Road from Pamporey to Moogoonoor	4,200	4,200	
		Road to connect the town & Railway station of Salem	18,000	2,900	

Index

District	No.	Work	Estimated total costs	Expenditure during the year	Total ex- penditure
Malabar		Completion of the Salem Jail	74500	14500	
		Acq. of Court-Houses at	32500	12500	49500
		Bridge over the Kulshully Culvert and Panighat Road	23000	10000	
		Prembadyghat Road	88800	20000	
	444	Tambacherryghat	60000	25000	
		Nagumfully Bridge on Palghat & Walliar R.R.	59400	10000	
		Bridge over Hook-todum on Trunk Road N.E. 4	11610	5170	
		Road at Cooldapuram Railway station	5650	360	
		Trunk Road N.E. 5 between Palghat & Ponany	2060	2015	
		Road from Desparat to avalanch	7190	7190	
South Arcot		Road from Desparat to avalanch	2000	2000	81735
		Trunk Road N.E. 8 between dounda- pelt and dummavaram	15050		10562
					225333

J. K. Lall Secy. to Govt.
Chgo. Engineer

1860 Departments

Enclosure in a letter
from the Chief Engineers
to the Secretary to Government,
Department Public Works

dated January 3rd 1860
N^o 8765

0006/60

Lists of work &c. of
improvement to be
undertaken in the year
1860/61. —

N^o 8765

Central Office of P.W.
Sd/- J. K. K. K.
3 January 1860.

From
The Chief Engineers

To
The Secretary
to Government P.W.
Sir,

With reference to the Orders of

En: 7

Proceedings of the Council
of P.W. dated 15th March
1859, N^o 2952.

the Government of India communicated in their
Secretary's letter of the 5th ultimo N^o 8349, desiring
that the Budget of Public Works of this Presidency
for the ensuing Official Year should not provide for
a larger expenditure than Rspees 75 lakhs including
Establishments and all other charges. I have the
honor to retransmit herewith the Budget Lists
Nos 1, 2, and 3 which were returned by

Government

Government for revision. —

2. Of the sum of Rupees 75 lakhs allowed for next year Rupees 14 lakhs should be set apart to meet salaries, establishments and contingencies, which will leave Rupees 58 lakhs for all works, of which if Rupees 31,49,449 the amount entered in list No. 3 for

repairs, be deducted, the sum

which will remain for new

works is Rupees 26,50,557. If

from this amount Rupees

4 lakhs were set apart

for emergency and isolated

works then the amount which will be available for

new works will be insufficient to meet the outlay

required for several important works, many of

which are in progress and require to be

proceeded with, both for the necessities of the

State

Total allowed for expenditure Rupees 75,00,000
Deduct for Establishments: — — — — — 17,00,000

Remains for all works: — — — — — 58,00,000
Deduct for repairs: — — — — — 31,49,449
26,50,557

To be set apart for emergency
and isolated works: — — — — — 2,50,000
Leaves for new works: — — — — — 24,00,557

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State as also on account of the urgent need
for improvement of the communications in this
Presidency which have been very much neglected
ever since the restriction imposed by the Government
of India in July 1857. —

3. The sum recommended to be laid
out on works in the ensuing year is Rupees 24,00,557
after setting apart Rupees 2,50,000 for emergency
and isolated works, within which sum all future
requirements of this kind should be limited.

The above sum of Rupees 24,00,557 has been
divided amongst military works, and works of
internal improvement by allotting Rupees 11,61,998
to the former and Rupees 12,38,553 to the
latter. —

4. I submit also separate
Memorandum showing the amount provided
for

for in the Budget. Lists for each work,
for expenditure in the next year in each Circle
under the two heads of military works and
Works of improvement. The only works in
Dist. No. 1 which are provided with funds

for expenditure in the
incoming year are
those noted in the
margin which
are deemed of
urgent importance
and require immediate action.

Junction Canal from the Sagar to the Coimbatore	Rs. 1,50,000
Canal from Mangalore to near Cannanore	Rs. 1,00,000
Barracks proposed to be built at Bellary	Rs. 50,000
Pipes to carry water to the Parson of Fort Bellary	Rs. 42,000
One new wing to the General Hospital, Madras	Rs. 66,500
	<u>Rs. 4,08,500</u>

5. The Estimate for the Junction
Canal has been received from Mr. Henry
1st April
District Engineer Chingleput accd

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is under examination. It will
be submitted in a few days.
Mr. Estimate for the Canal
from Mangalore to Cannanore
has been not received, but the
District Engineer reports
that a careful survey and
estimate of this line have been
made, and though the rates in
the Estimate were considered by
him too high, he has been
unable to succeed in lowering
them below an average of Rs. 20,000 per mile which for

37 miles amounts to 1 Rupee
 740000. He promises however
 to hand the Estimate revised
 with reference to the rates adopted
 for the Northern Canal, and
 I shall call upon him to
 expedite the transmission of
 the revised Estimate with
 reference to the orders of
 Government dated the 21st
 ultimo N^o 2966 para 3.

Rs 66500

The sum entered for the
 new wing to the General Hospital is
 that referred to in the Report of the
 Committee which assembled to report
 on the improvements to that Building
 communicated in the order of Govern-
 ment dated the 5th October 1859 N^o 2374.
 A detailed Estimate of only a portion
 of the buildings comprised within the
 new wing has been made in the Cen-
 tral Office and I shall cause a
 correct Estimate of the whole to be
 prepared.

In the List N^o 2 the
 only works of improvement for which
 large amounts have been provided
 are those noted in the margin. All
 the others are chiefly
 those which have
 been sanctioned
 formerly to be
 proceeded with
 on emergency and some of those re-
 cently exempted from restriction which
 should

Northern Canal from Doorazpatam to Dist. napatam	100,000	
High level Canal to Illor.	60,000	
Do from Pootaroon to Canal Basin.	60,000	
Pennair Annicut	55,000	

should be proceeded with as promptly
as possible.

8. Under the head Military
works Rs. 3 lacs each have been
allowed for the Executive Engineers at
Jachattalla and Mysore, it being ne-
cessary that the works now in pro-
gress should be prosecuted without
interruption. No provision has been made
for the Married Quarters proposed to
be erected for the Royal Artillery
at Saint Thomas Mount at a cost of
Rs. 45,000 for which an Estimate
will be called for, and if it is deter-
mined that expenditure should take
place on this work in the ensuing
year it could only be done by either
making a proportionate reduction
in the sum allowed for works of
internal improvements or by taking
advantage of the stoppage of
particular work connected with
the Jachattalla Barracks which
it may be deemed advisable to stop
because of the intended transfer of the
Corps now occupying it to the Presidency

Under order of
Government
No. 2843 dated
7 Dec/59

or any other station. The Presidency workshop
and Store Rooms and the improve-
ments to the Dowlatabad workshop
I have been constrained to keep
back from a provision of funds for
prosecution in next year because of
the great demand for works of
Communication, and with all the
effort made to distribute the sum
available for works under this head,
I have not been able to set apart a
sufficiently large sum to meet the re-
quirements of the Railway Company
for fenders to the Lines of Railway
under construction - I have however
set down as much as could be spared
for the most important of the Fenders
which have come under the notice
of the Central Office.

I am obliged to include
the amount Rs. (14900) estimated
for the Upper South Front of the Dewar
Khana at Sepakkum, as the Civil
Architect now informs me that he has
not

Proceedings of the Madras Government
under date the 21st February 1860
Read the following

From D. — D.

From D. — D.

Proceedings of the Madras Govt
in the Military Department

From the Chief Engineer.



W. Ck.



1. July 1815

Wm. H. McAdams
Chicago, Ill.

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John H. Johnson

[illegible]

Estate of
 David J. Cunningham
 11/15/65

Handwritten: *Handwritten signature*

1870 2. - no 3 provided with red lines

in the bank order of the Government

Christian Congregation in the vicinity of New Bedford

He answered to him in 1800, 1801, 1802.

at seventeen lacs of Rupees.

2 The Government so proposed to make these lists the basis of their Budget, and the work had proceeded to some extent when the orders of the Government of India communicated in Captain Dickens's letter dated the 5th and received at this Presidency on the 17th December 1857 viz^t to restrict the entire expenditure in Public Works during 1860/61 to a sum not exceeding 70 or 75 lacs, involved the reconsideration of the whole scheme and a re-arranging of the Budget.

3 The Budget lists were accordingly returned to the Chief Engineer, and his letter of the 30th January 1860 retransmits them revised, with reference to the orders of the Government of India above mentioned. It is not necessary to notice these at any length as since their receipt, there has been much correspondence and various changes, alterations and additions.

Memo. from Chief Eng^r 18th December 1857 No. 8881
do — " 17th January 1860 " 9219
do — " 20 — " — " 9275
do — " 23 — " — " 9478
do — " 23 — " — " 9511
do — " 31 — " — " 9702
do — " 2nd February — " 10020
do — " 7 — " — " —

Artillery Barracks and out offices at
Bellary - Estimate 118570 Expenditure 50000.
Junction Canal between the Aslyar &
Kannur Estimate Rs. 357300 Expenditure 150000.

* agreeably to para 4 of the letter from
the Government of India dated
1st July 1856 No. 3173

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additions have been suggested in the details of the Budget, either as respects the works themselves, or the expenditure proposed to be laid out on them, and the frequent revision of the Budget has unavoidably retarded its progress and delayed its submission to the Government of India.

4 In his revised Budget lists, the Chief Engineer entered the two Projects named in the margin, the estimates of each of which exceed a lac of Rupees; and he proposed an expenditure in the one of half a lac of Rupees, and in the other of one and a half lac of Rupees. On consideration of the large amount of the estimates, and the delay, which a reference to the Home Authorities would involve, by which in all probability, the season would have been lost, the Government resolved^x on not proposing any expenditure on either of these works, so that the amount set down for them might be made

immediately

immediately available for other pressing works. This view was communicated to the Chief Engineer and he was requested ^{before} to recasting the Budget ^{in the Govt. office} and to propose other works in lieu.

5 The Chief Engineer's letter of the 9th February suggests a distribution of the sum of 1½ lac of Rupees assigned to the Junction Canal between the Adyar and Kurnool, which the Government have accepted, but in regard to the artillery barracks at Bellary, he considers it to be a military work of an importance, one which should have an early commencement, and he recommends that the expenditure of half a lac of Rs. ~~Rs.~~ proposed for these buildings should find a place in the Budget, and he refers to the sanction granted by the Govt. of India without previous reference to the Home Government to ~~the~~ estimates for the construction of the

Memo dated 6th Feb^y 1860 R. 60

the married quarters at Bellary and to the improvement of the Fort Artillery barracks at Bangalore, the ^{estimated} amount of each of which exceeded a lac of rupees, and suggesting that the same discretion might be used in the proposed military work. The Government have assented to this view, and have entered the expenditure accordingly.

Order 15th Decr 1859 No. 2916.
Order 1st Feby 1860 No. 256.

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6. The distribution of the sum of 1½ lac of Rupees referred to in the preceding paragraph has enabled provision being made for the construction of the Coak and Calingulab to the Nizom-patom Canal, a work which it was recently proposed, in modification of a previous order, to defer until the following season.

7. From the same source the Chief Engineer has proposed an expenditure of Rs 45,220 to be laid out on the Presidency Workshops, in lieu of the sum of Rs 38,000 recommended in his letter of the 3rd February 1860. The Government have admitted the larger amount in the Budget.

8. The sanction granted in the Military Department to the Estimate of Rs 654 for alterations to the wall round the European Hospital at Cananore having

having arrived too late for entry in the Budget, instructions will be issued to the Chief Engineer to have the work executed out of the funds allotted for isolated and emergent works.

9. Referring to the arrangements above mentioned for the appropriation of the sum originally designed for expenditure in the Junction Canal between the Adyar and Kuanu, the Government must remark that in a letter to the Secretary of State dated 12 December 1859 No. 78, this Government requested permission to commence operations on the Canal in the year 1860/61. The Government attach much importance to this work, and they are desirous in the event of their application being complied with, that funds should be devised for at once commencing operations on the Canal.

10. The Government regret exceedingly

+ by stopping other less important works

11. exceeding that from the limit on expenditure fixed by the Government of India, it has not been found practicable to allot any sum for the improvement of the navigation of the Godavery during 1860/61, a work which the Government have always regarded as of special character and of vast public importance. They have in a letter to the Secretary of State dated 26th October 1859 No. 56 applied for permission to commence the operations for overcoming the Sinteral barrier, and if this application be complied with, the subject will be dealt with specially and reference made to the Govt of India, especially as Capt. Haig having returned to India is on the spot and quite ready to carry on work vigorously.

12. The following works entered in the Chief Engineer's lists

hits have been removed from the Budget.

1. Bellary. Repairing the Building used as soldiers' shed at Hospett. ————— Rs. 230
2. Chingleput. Supplemental Estimate for completing the road from Trivellore to Cortelliar river ————— 7,650
3. Mysore. Erecting a soldiers' rest house at Toomhoor ————— 1,500
Do Do at Bowankerry ————— 1,500
Converting the old Bungalow at Hennur ————— 500
4. Malabar. Hospital at Cannanore ————— 654

The items marked No. 1 and 3 having been sanctioned for immediate execution on emergency will have been completed by the close of the current official year. In regard to No. 2 and 4 the information required respecting the former has not yet been received, while the subject of the latter was recently disposed of in the Military Department and has now been ordered to be executed from the funds allotted for regular and urgent works.

- 1 Constructing a road from Adamanacottah on Enayk Road N° 5 to the Railway Station at Mallapooram Rs. 16,800.
- 2 Constructing a road to connect the town and Railway station at Salem ————— Rs. 13,000.

New works.
Statement N° 1.
Statement N° 2.
Total for new works ———
Repairs
Statement N° 3.
Total for new works and repairs —

	Estimated Cost.	Proposed expenditure
Statement N° 1.	7,66,660.	19,84,00
Statement N° 2.	60,14,857	20,77,151
Total for new works	67,81,517	22,75,551
Repairs		31,49,449
Total for new works and repairs	67,81,517.	54,25,000.

12. The Chief Engineer has erroneously entered in his budget lists the sum of Rs. 11,000 as the estimated cost of constructing out-houses to the apothecary Quarters at Cannanore, instead of Rs. 498 the sum sanctioned on that account in the Military Department. The error has been rectified.

13. The works noted in the margin have been removed from the Budget as they have been made the subject of special recommendations to the Government of India.

14. The Budget lists as finally revised and adopted by this Government show the following results.

15-15- Adverting to para 2 of
Colonel Ayres' letter of the 30th
July 1857, N^o 5136, which is ad-
verted to in para 7 of the Chief Engineer's
letter of the 30th November last
N^o 7838, it is to be observed that
the Budget of 1860/61 has been
prepared on the same principle
as that of its predecessor, and
that the changes of form
introduced in the Classification
report, have not been adopted
at this Presidency, as the Govern-
ment have not yet received
the Rules based on that
report which it was stated
in Col. Ayres' letter of the
30th June 1858 would be drawn
out and sent as soon as ready.

Statement N^o 3 has been elapsed
in the same way as N^o 1 & 2
with reference to the remarks
of the Government of India, com-
municated on the Budget of
1859/60.

	Repairs
1856-57	18,54,470.
1857-58	21,83,442.
1858-59	21,18,261.
1859-60	29,42,444.
1860-61	31,49,449.

There has been a large
increase in the local
works, but the
Government have been
able to meet the
expenditure.

15- On para 13 of their re-
-view of the previous year's Bud-
-get the Government had oc-
-casion to notice the large out-
-lay proposed for repairs, and
-particularly called the atten-
-tion of the Chief Engineer to
the observations of the Govern-
-ment of India on the sub-
-ject in order to the expendi-
-ture being restricted. They now
notice that the expenditure on
the same account entered in
the present Budget, is far
greater than any heretofore
proposed. In 1856/57 the ex-
-penditure proposed was 18½
lacs of rupees; in the two fol-
-lowing years it averaged
21½ lacs; in 1859/60 it amount-
-ed to 29½ lacs, and in 1860/61 a
sum of 31½ lacs has been set
down. If the efficient per-
-formance of work, is, as it
should be, the characteristic
of the new department the
Government

Government cannot but regard the annual increase in the item of repairs as not satisfactorily accounted for. The expenditure on this branch must be restricted.

[illegible]

16. The Government now proceed to allot funds for expenditure on public works in the next official year. The sum entered for expenditure in Statements No. 2 and 3 of the Budget of 1860/61 vizt Rupees 54,25,000 will be distributed among the Districts of this Presidency according to the particulars given in the general abstract stated in addition to which a sum of three lacs and seventy five thousand Rupees will be provided for isolated and emergent works, which will make the total proposed expenditure Rupees 58,00,000.

17. The Governor in Council
sanctions the sums specified below
for the several Districts and Military
Stations of this Presidency, and
directs the Accountant General to
instruct the several Collectors and
Paymasters to make advances
within the limits which may be
required from time to time in each
District. The Chief Engineer will be
good enough to signify to the Officers
of

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[illegible]

Public Works 1860 Dept.
Pro: of Govt 29th February

N^o 381.

Pro: of the Madras Govt.
Dy 21st February 1860.

From Ch. Eng 15th April/60
Cnd 925 in

Min. Sec. 5th Aug 1/60 Ch. 1744

Pro: 18th March 209-210

Min. Sec. 19th Aug 1/60 Ch. 1744

Pro: 18th March 209-210

Reviewing the budget
list of works proposed to be
undertaken during 1860-61 and
allocating funds for expenditure
on Public Works.

N^o 1 at 6.

Ch. Secy R15th