

(1) Number of pages _____

(2) Date of repair _____

(3) Initials of the Referencer _____

MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

G.O. No.	1502	Press
67-68		~~Mis.~~
Dated	2. 6.	18 65.

Not to be folded or roughly handled

No. 67. Read the following letter from Lieutenant-Colonel J. C. ANDERSON, R. E., Superintending Engineer, 2nd Division, to Colonel C. A. ORR, R. E., Secretary to Government, Department Public Works, dated Masulipatam, 17th April 1865, No. 7:—

Sir,

1. Referring to G. O. No. 438, dated 14th February 1865, I have the honor to submit estimates of the probable expense of the channels required for the drainage of the town of Masulipatam.

2. As explained in the Memorandum which accompanied the report* of the President of the Sanitary Commission, there are no difficulties in the way of carrying off the drainage water in the town, provided the Sultanagram swamp, which runs parallel to it in the landward side, were also to be drained. At present there is no outlet for the water, and it remains an immense lake for the greater part of the year.

3. The bed of the swamp is low in some places below the level of ordinary high tides, but the passage of the water to the sea is impeded by inequalities on the ground, and by the silting up of the natural outlet near the village of Goondlapollem 3½ miles south of the town. This course is a very circuitous one, and instead of attempting to improve it, I would propose to cut through the sandy ridge at the extreme end of the Petta, and after joining the channel to the south bank of the Masulipatam canal, where the ground again becomes low, to continue it parallel to the canal as far as the tidal creek at the Fort. The earth thus obtained would form a very substantial embankment on the south side of the canal, and effectually prevent the encroachment of the Kistna floods into the swamp between the Fort and town.

4. It is proposed to give the bed of the drainage channel along the Sultanagram swamp a depth of one foot below ordinary high water, for the portion extending from the bridge on the Hyderabad road to the tunnel under the Masulipatam canal, and of two feet below high water from the tunnel to the sand ridge above mentioned.

5. A masonry bridge is proposed to be constructed on the sand ridge where the channel will cross the road from the town to the southward, and self-acting gates are provided in rear of the bridge to prevent the ingress of tidal water.

6. From the bridge to the tidal creek, the depth of the channel will be 4 feet below high water, and its width 50 feet while that of the upper section of the channel will be 30 feet. Although the water way of the bridge on the Hyderabad road and of the tunnel under the canal will be considerably greater than that of the channel, I have thought it unnecessary to increase the width beyond the limits above mentioned, as the embankment will be on one side only, and as the stream will extend on the opposite side considerably beyond the margin of the channel.

7. A separate project, which was sanctioned in G. O. No. 3,681, dated 22nd December 1864, provided for the excavation of a channel from the village of Lunkapully 9 miles west of Masulipatam to Goondlapollem, and from thence to the tidal creek. I would propose to combine this project with the one above described, by intercepting a smaller body of drainage water than was intended, and by meeting the channel with the Sultanagram swamp channel at the point where the latter enters the sand ridge.

*Proceedings of the Madras Government, Public Works Department,
2nd June 1865.*

8. The cost of the two projects separately would amount to Rupees 79,270 whereas if they are combined in the manner proposed it will be Rupees 60,620.

The latter amount is made up of the following items:—

	RS.
Drainage channels and culverts in the town ...	15,200
Channel along Sultanagram swamp to sand ridge ...	3,460
Bridge with self-acting gates ...	8,870
Channel in continuation to tidal creek ...	20,740
Channel from Lunkapully to sand ridge ...	12,350

Total... 60,620

* Rupees 4,000 and 5,000, vide G. O. Nos. 763 and 791, dated 18th and 21st March 1865, respectively.

Excepting the small portion of the above amount* which has been allotted from Imperial Funds, for expenditure during the current year, I would recommend that funds for the execution of the work may be appropriated from the Income Tax grant for next official year, or should this prove insufficient I think the amount may properly be defrayed in part from Local Funds.

9. Application for the necessary transfer will be submitted after receipt of the Budget of those funds.

No. 63.

ORDER THEREON, 2nd June 1865, No. 1,502.

CIVIL WORKS, No. 10.

1. The estimates submitted with this letter, amounting to Rupees 48,270, provide for certain improvements to the drainage of Masulipatam, and of the adjacent Sultanagram swamp. The necessity for these works was first brought to the notice of Government by the President of the Sanitary Commission, in his report upon the state of Masulipatam, dated 17th December 1864; and subsequently G. O. No. 791, dated 21st March 1865, a sum of Rupees 5,000 was sanctioned for expenditure during the past official year, chiefly with the view of providing employment for such of the inhabitants as had been left destitute by the cyclone of November 1864.

2. Along with these estimates for improving the drainage the Superintendent-Engineer has also included a separate project for deepening the tidal creek at Masulipatam, by diverting into it the drainage of a tract of land which now flows into the Kistna. For this work also a grant of Rupees 4,000 was made, with the sanction of the Government of India, for expenditure during 1864-65, to alleviate the distress caused by the cyclone by providing employment for the survivors. The original estimate for this work was Rupees 31,000; but the Superintendent-Engineer states that by combining it with the drainage scheme, the united amount of the two estimates may be reduced by Rupees 18,650, or from Rupees 79,270 to Rupees 60,620.

3. Looking to the fact that the former of these works is of a purely municipal nature, and that the urgency of the circumstances under which a special grant was made, in the last official year, for the commencement of the latter has now in great measure passed away, the Government cannot allot for their completion any portion of the very limited amount of Imperial Funds at their disposal for the current year.

*Proceedings of the Madras Government, Public Works Department,
2nd June 1865.*

They consider that the scheme for improving the tidal creek may lie over as already ordered; but provision for carrying on G. O. No. 2,783, dated 26th September 1864. the drainage works will, if possible, be made from the Income Tax Funds for the current year.

(True Extract.)

(Signed) CHARLES A. ORR, Colonel, R. E.,
Secretary to Government.

To the Superintending Engineer, 2nd Division.
" Accountant General.
" Controller of Public Works Accounts.

Ed. S. T. Augustin.

No 7

Superintendent Office D.D.
Maulipatam
17th April 1865.

From V. Col. J. C. Anderson R.E.,
Dist. B. May 1865

Superintendent D.D.
To Colonel C. A. O. R.E.
Secy to Government
D.D.

Sir, Referring to G. O. No 438 dated

11th Feb/65 I have the honor to submit
Estimates of the probable expense
of the Channel required for the
drainage of the town of Maulipatam.

As explained in the Memo
which accompanied the report
of the President of the Sanitary
Commissions, there are no difficulties
in the way of carrying off the
drainage water in the town, provided
the Sultanagram swamp, which
runs parallel to it in the landward
side, were also to be drained. At
present there is no outlet for the
water and it remains an immense

G. O. No 438
dated 11th Feb/65
1865

lake for the greater part of its year.

3. The head of the swamp is lower in some places below the level of ordinary high tide, but the passage of the water to the sea is impeded by inequalities on the ground, and by the silting up of the natural outlet near the village of Gondalpollem $3\frac{1}{2}$ miles south of the town. This

course is a very circuitous one, and instead of attempting to improve it, I would propose to cut through the sandy ridge at the extreme end of the Delta and after joining the Channel to the South bank of the Miaulipatam Canal, where the ground again becomes lower to continue it parallel to the Canal as far as the Tidal Creek at the Fort. The earth thus obtained would form a substantial embankment on the South side of the Canal, and effectually

prevent the encroachment of the Krishna floods into the swamp between the Fort and town.

4. It is proposed to give the head of the drainage Channel along the Sultanagum Swamp a depth of 1 foot below ordinary high water, for the portion extending from the Bridge on the Hyderabad Road to the Tunnel under the Miaulipatam Canal, and of 2 feet below M. L. from the Tunnel to the sand ridge above mentioned.

5. A masonry Bridge is proposed to be constructed on the sand ridge where the Channel will cross the Road from the Town to the Southward and self acting gates are provided in rear of the Bridge to prevent the ingress of tidal water.

6. From the Bridge to the Tidal Creek, the depth of the Channel will be 4 feet below M. L. and its width 50 ft. while that of the upper section of the Channel will

be 30 ft. Although the waterway of the bridge on the Hyderabad Road and of the Tunnel under the Canal, will be considerably greater than that of the Channel, I have thought it unnecessary to increase the width beyond the limits above mentioned, as the Embankment will be on one side only, and as the stream will extend on the opposite side considerably beyond the margins of the Channel.

7. A separate project which was sanctioned in G.O. No 3681 dated 22nd December/64 provided for the Excavation of a Channel from the Village of Vunka fully 9 miles west of Maunipatam to Gondalpolam and from thence to the Tidal Creek. I would propose to combine this project with the one above described, by intercepting a smaller body of drainage water than was intended and by meeting the Channel with the Sullamagum Swamp Channel at the

60,620
15,200
3,460
8,870
20,740
12,350
60,620

31,000
12,350
16,150

Rs
4000000000.
vide G.O. No 763
and 791 dated
18th and 21st
March 1865
respectively

point where the latter enters the sand ridge.

8. The Cost of the two projects separately would amount to Rs 79290 whereas if they are combined in the manner proposed it will be Rs 60,620.

The latter amount is made up of the following items.

Drainage Channels and
Culverts in the Town ----- 15,200
Channel along Sullamagum Swamp to Sandridge - 3,460
Bridge with self acting gates ----- 8,870
Channel in continuation to Tidal Creek ----- 20,740
Channel from Vunka fully to Sandridge ----- 12,350
Total 60,620

Excepting the small portion of the above amount which has been allotted from Imperial funds, for expenditure during the current year, I would recommend that funds for the Execution of the work may be appropriated from the

Income tax grant for next offl
year or should ^{this} prove insufficient
I think the amount may properly
be defrayed in part from local
funds.

9- Application for the necessary
transfer will be submitted after
receipt of the Budget of those
funds.

I have the honor to be
Sir

Your most Obedient Servant

Andrew Smith Colville
Superintending Engineer & Surveyor

Work

Work Excavating a Drainage Channel from Ankappully to Thenapuzha, Masulipatam, fall of bed 6" per mile level at terminus 1-9 ft. below H.M.

Quantity.	Description of Charges.	Rate.	Amount.	Total.
188204 ² / ₃	Cost of Earth work	" / "	11762 ¹ / ₂ 8	
	Sundries & Contingencies	- - .	589 34	
<u>Total Rupees —</u>				12350 " 2

Superintending Engineer, P.W.D.
2^d Division

Manuscript 17 April 1866
Deposited May 1865

Anderson
Sept 20 1898
Superintendent of the Oregon

14th July 1863. No 438

Dr. W. B. Stewart

[illegible]

280 Devon
Doyley to Park
6 Pairs

22nd June 1865

Dec 15 - a - day.

22.9

Section of Colinva's
of the firstable bottom
of the Channel's requiring
for the Drainage of
the town of Inverlitha
Dair:

10/502-20 June/68

2. 24th May 1865. 22. 29th

Work *Excavating a Drainage Channel from the Sultanagar Bridge to the junction of the Lunkapally Channel with Lunkapally road*

Quantity.	Description of Charges.	Rate.	Amount.	Total.
26928	From Sultanagar Bridge to New Tunnel Bed 1 foot below ordinary high water.	"	1683	"
2	Exp of earth work.	"	500	"
	Small drains, —	"	117	"
	Surveys & contingencies	"		2300
15085	From New Tunnel to the junction of Lunkapally Channel with Lunkapally Road — Bed 2 feet below ordinary H. water.	"	121099	152
	Exp of earth work —	"	60	10
	Surveys and contingencies	"		1160
Grand Total Rupees —			3460	"

Superintending Engineer's Office
 & Division
 Darsulpatana 17 April 1865
 Darsulpatana 6 May 1865
 [Signature]
 [Signature]
 [Signature]

Abstract Estimate
 No. of 1864/65
 Division District
 Excavating a Drainage
 Channel from the
 Sultanagar Bridge to the
 junction of the Lunkapally
 Channel with Lunkapally
 Road Rupees 34600

Work *Hydrabad District*
 Excavating New & Improving the Existing Drainage
 Channels in the Town of Masulipatam

Quantity.	Description of Charges.	Rate.	Amount.	Total.
	<i>No 2</i> Deepening the <i>Cartoon</i> Drainage Channel to its proper level -			
8950	Cubic yards of Earthwork at	" 1 "	559 6 "	
	1 Palmyra Bridge	" 15 "	15 " "	
	Grading and Surfing -	" 150 "	150 " "	
	Surrounding & contingencies.	" 35 10 "	35 10 " "	760 " "
	<i>No 3.</i> Deepening <i>Chak's</i> Drainage Channel to its proper level -			
5242	Cubic yards of Earthwork at	" 1 "	327 10 "	
	2 Palmyra Bridges -	" 15 "	30 " "	
	Surfing the side slopes and Grading the banks -	" 150 "	150 " "	
	Surrounding & contingencies.	" 32 6 "	32 6 " "	540 " "
	<i>No 4.</i> Deepening <i>Doapully</i> Drainage Channel to its proper level -			
8950	Cubic yards of Earthwork at	" 1 "	559 6 "	
	1 Palmyra Bridge	" 15 "	15 " "	
	3 New Maxing -	" 300 "	900 " "	
	Calverts	" 300 "	900 " "	
	Carried forward		1474 6 "	1300 " "

Hydr. 1895/65

*Abstract estimate
 No. of 1864/65
 for the District
 Excavating and Drainage
 Channels from the
 Cartoon to the
 Doapully Channel
 with a view to
 improve the
 same.*

Quantity.	Description of Charges.	Rate.	Amount.	Total.
	Brought forward			
	Excavating Minor Drains		1474 6 "	1300 " "
	Surfing the Side slopes and sloping along the back of the	" " "	200 " "	
	Summers & Outingencies	" " "	150 " "	
	No 5.	" " "	95 10 "	1920 " "
	Excavating a New Branch Drain from the pump to rear Swamp			
9240	Cuttings of Earth work	" 1 "	577 8 "	
	Clearing out line and removing Palmyra Stumps		75 " "	
	Palmyra Bridges		20 " "	
	Compensation		150 " "	
	Surfing and Hedging the Channel		100 " "	
	1 Masonry Culvert		300 " "	
	Small Drains		100 " "	
	Summers & Outingencies		47 8 "	1370 " "
	No 8. Excavating a New Drainage Channel from the low ground near the Regimental River into the Rear Swamp			
17213	Cuttings of Earth work	" 1 "	1075 13 "	
	Clearing line and removing Palmyra Stumps		75 " "	
	Carried forward		1150 13	4590 " "

Quantity	Description of Charges.	Rate	Amount	Total
	Brought over		1150 13	4590 " "
	1 Palmyra Bridge		15 " "	
	Summers & Outingencies		59 3 "	
	Total		1225 " "	
	Compensation for lands	" " "	300 " "	
	Constructing a Masonry Bridge over the Road from Potta to Pedana	" " "	350 " "	1875 " "
	No 9. Excavating a New Drainage Channel from the low ground near Robertson Potta into the Puttana pond Swamp			
13398	Cuttings of Earth work	" 1 "	837 6 "	
	Clearing line and removing Palmyra trees		60 " "	
	3 Palmyra Bridges	15 " "	45 " "	
	3 Masonry Culverts	300 " "	900 " "	
	Summers & Outingencies		47 10 "	
	Compensation for the Houses and lands		1920 " "	3810 " "
	No 10. Excavating a New Drainage Channel from the low ground at Vurupodam into the Puttana pond Swamp			
2425	Cuttings of Earth work	" 1 "	164 3 1	
	Clearing line and removing Palmyra trees	" " "	30 " "	10275 " "
	Carried forward		194 3 1	

Quantity	Description of Charges	Rate	Amount	Total
	Brought forward		194 31	10275 " "
	Sundries & Contingencies		10 12 11	
	Total		205 " "	
1	Masonry Bridge		250 " "	
2	Palmyra Bridges	15 " "	30 " "	
	Compensation		100 " "	
	Hedging and surfacing the levees		80 " "	665 " "
No 2.	Excavating a Drainage Channel from the low ground at Payoppetta into Sultanaga low Swamp -			
2730	Cubic yards of Earth work	" 1 1	184 136	
	Clearing lines and removing Palmyra trees &c	" " "	30 " "	
	Sundries & Contingencies		10 26	
	Total		225 " "	
3	Palmyra Bridges	15 " "	30 " "	
1	Masonry Bridge	" " "	300 " "	
	Compensation for lands and houses -	" " "	120 " "	675 " "
No 7.	Excavating a Drainage Channel into the Fresh Swamp through the Government School Compound			
8095	Cubic yards of Earth work	" 1 "	505 15 "	
	Clearing lines &c	" " "	40 " "	
	Sundries & Contingencies		29 1 "	
	Total		575 " "	
	Constructing 2 Masonry Bridges	300 " "	600 " "	
2	Palmyra Bridges	15 " "	30 " "	
	Compensation for the ground and houses -	" " "	300 " "	
	Carried forward		1505 " "	11615 " "

Quantity	Description of Charges	Rate	Amount	Total
	Brought forward		1505 " "	11615 " "
	Minor Drains		100 " "	
				1605 " "
	Minor Drainage Channels in the Fow for passing of the Drainage water of in to the River Cuts	" " "	" " "	1080 " "
	3 Masonry Bridges on Roads	300 " "	" " "	900 " "
	Total Estimate Proper		15200 " "	

Superintending Engineer
Manufacture -
8th May 1865

E. J. G. W. H. E.

Geo. Hornicou
Superintending Engineer
Edwin Kent

District *Rishra*

Work *Constructing a self acting sluice in Drainage Channel from Sultanagarum Swamp to Tidal Creek near Fort of Kasulipatam*

Quantity.	Description of Charges.	Rate.	Amount.	Total.
5898	Cft. of Concrete —	26	9219	
11904	Sq. of Brick in Churnam —	3	2232	
2380	Sq. of Arch work —	4	595	
99 1/3	Crs of Cut stones —	10	993 54	
180	Rft. of Grooves & Girders —	1	180	
41 1/3	Sq. of Plastering 2 Coats —	3	124	
166	Rft. of Locomotion —	8	83	
100	Crs of Rough stone —	3	300	
4	Pairs of self acting gates —	500	2000	
120	Shutters for grooves —	1	120	
	Centrings —		100	
	Excavation for foundations —		200 9 10	
	Railing —		500	
	Road way —		100	
			8449 82	
	Levies & Contingencies —		4207 10	8870
	Total Rupees —			8870

Superintending Engineer Office of the Madras Legislative Council
Kasulipatam 17 April 1865
D. B. Inayat 22/4/65

Dr. P. 1693/65

Abstract Estimate

for 1864-65

for the District

Beaucaudam and

improving the existing

Drainage Channel

in the lower of

Drainage of the

amounting to Rs. 10200

Dr. P. 1693/65

78ishnah District

Work *Excavating a Drainage Channel from the
junction of, Lunkapully Channel with, Lunkhad,
road to Piers head near the Fort of Masculipatan,*

Quantity.	Description of Charges.	Rate.	Amount.	Total.
	From the junction of Sunkapully Channel with Sunkady Road to Pier Head near Fort of Masulipatam Bed 4 feet below ordinary high water.			
20620	Crs of earth work	" 16 19745/10 "		
	Surveys & Contingencies -	---	9946 "	
	Total			20740 "

Superintending Engineer's Office
2^d Division
Masulipatam 17th April 1865
Dispd 6th May 1865
22/4/65

W. Anderson Esq. Lt Col
Superintending Engineer

Superintending Engineer's Office,

2^d Division

manicipatae 17^o April 1885

Dispel 6th May 1865

[Handwritten signature]

Andrew Little 6/6/88

Superintendent, Aug 2000

Altheach Colliery
 No 4 1864-65
 Notice is hereby
 given that all
 persons who are
 engaged in the
 business of
 mining in the
 district of
 Altheach Colliery
 shall be liable
 to the payment
 of a rate of
 one penny per
 ton of coal
 raised in the
 district of
 Altheach Colliery
 for the purpose
 of the Altheach
 Colliery Act
 of 1864.

Civil Works Public Works Dept
27

1302- No 1302

Proceedings of the Madras Government

Under date the 2nd June 1865.

Read the following

From the Superintending Engineer
2^d Division

Submits Estimates of the
probable expense of the Channels
required for the drainage of the
Town of Masulipatam.

Here enters 6th May 1865
(No 1)

The Estimate sub-
mitted with this letter,
amounting to Rs. 1,82,270,
provide for certain im-
provements to the drain-
age of Masulipatam,
and of the adjacent
Sultanagram swamp.
The necessity for these
works was first brought
to the notice of Govt. by
the President of the
Sanitary

207-1895/65.

Official Estimate
No. 1302/65.
For the District
Sanitary Engineer
Channel from the
junction of the
Kaly Channel with
the Kaly road to
bein 1000 feet the
top of the Masulipatam
the fees 207/100-
from 25 June/1865

Sanitary Commission,
in his report upon the
state of Masulipatam,
dated 17th December 1864;
and subsequently a sum
of Rs. 5000 was sanctioned
for expenditure during the
past Official year, chiefly
with the view of providing
employment for such of the
inhabitants as had been
left destitute by the
Cyclone of November 1864.
2. Along with these
Estimates for improving
the drainage the Sup^r has
also included a separate
project for deepening the
tidal creek at Masulipatam,
by diverting into it the
drainage of a tract of
land

GO No 763 of 18 March/65

GO No 791 of 21 March/65

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for expenditure during 1864/65
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but the Sup^r General
states that by combining
it with the drainage scheme
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two Estimates may be
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from Rs. ^{79,270}~~79,270~~ to Rs.
60,620. Looking to the
fact that the former of
these works is of a
purely municipal nature
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and that the urgency
of the circumstances
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last official year for the
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their disposal for the
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for improving the total
reach may lie over, as
already ordered; but pro-
vision for carrying on the
drainage works will, if
possible, be made from
the

2783 of 26
Sept/64

The Income Tax
Funds for the Current
Year

W.B.

To
The 59th 2^d Div. H. H.
Acct Genl ✓
Cmtr ✓

Recd 3rd June

7-11-3711

P. W. 1865 Department
P. of Cash for June
No. 1502
P. of the Madras Cash
D. J. 2 June 1865.

Letter from the
Supg. Chief D. D. S. S.
submitting estimates
amounting to Rs.
48,270 for certain im-
provements to the
drainage of the
Sulphur and of the
Adjacent Sulta-
nagar and Sultana
Wells & thereon.

No. 67. 68.