(1) Number of pages 64

(2) Date of repair -2-88

(3) Initials of the Referencer 29/3

TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

P.W. DEPARTMENT

G.O. No. / B.P. No. 2910 W Press. / Mis.

Dated 4. 11. 1886 ~~197~~ .

Not to be folded or roughly handled

Archives I—10,006—19-4-79.

2910/1

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

Read—the following papers :—

From G. D. WYBROW, Esq., Superintending Engineer, II Circle, to the Chief Engineer, Public Works Department, dated 1st October 1886, No. 1078 K.S.

I have the honor to forward, herewith, for your approval and the early sanction of Government, six estimates for constructing and metalling roads in the Kistna district, noted in the margin, amounting in the aggregate to Rs. 2,21,991.

	RS.
1. Metalling the Guntúr-Bápatla road from south end of bridge over Commamur canal to Bápatla	88,685
2. Constructing a road from Sattenapalle to Krósúr	38,126
3. Constructing road from Gurazala to Tumarkod village	34,710
4. Masulipatam to Kistna river, *viâ* Tsallapalli, metalling	10,000
5. Constructing a metalled road from Nidamole to Iyalur	35,040
6. Revised estimate for metalling the road from Gudiváda to Puttagunta, portion of Perikeed-Gudiváda road not yet completed	15,430
Total ...	2,21,991

2. Copy of the proceedings of the Local Fund Board is forwarded together with reports, data, &c., attached to each estimate.

3. There are some minor details which have escaped the Local Fund District Engineer's attention in drawing up these estimates, with reference to the Public Works Code, but as the President expressed a wish that early sanction to these estimates is necessary, and if returned there would be another year's delay, I beg to forward them.

4. The President submits a comparative statement for the revised estimate for the road from Gudiváda to Perikeed. The original estimate, amounting to Rs. 1,15,675, was sanctioned in G.O., No. 2069 W., of the 22nd August 1884. The revised estimate now submitted amounts to Rs. 80,000, and the work still to be done is from Gudiváda to Puttagunta, a distance of about 5 miles, for which an estimate, amounting to Rs. 15,430, is herewith sent. The net saving on this estimate is Rs. 35,675, and this is due to the abandonment of first coat metal (or large boulders) so called.

5. The rates, &c., are suitable and the estimates are recommended for sanction.

Enclosure.

List of plans and estimates connected with the Local Fund Roads in the Kistna to accompany Superintending Engineer's letter, No. 1078 K.S., dated 1st October 1886, to the Chief Engineer, Public Works Department.

Road from Masulipatam to Tsallapalli.

Section of road	1
Specification report	1
Detailed and abstract estimate	1
Data	1

Road from Nidamole to Iyalur.

Specification report ...	1
Data ...	2
Detailed estimate ...	1
Abstract do. ...	1
Data for rough-stone ...	1
Detailed and abstract estimates of road dams ...	1

Road from Chebrole Bridge to Bápatla.

Specification report ...	1
Report ...	1
Data ...	1
Detailed and abstract estimate ...	1

Road from Sattenapalle to Krósúr.

Specification report ...	1
Detailed and abstract estimate ...	1
Tracing ...	1
Data ...	1

Road from Gurazala to Tumarkod.

Tracing ...	1
Detailed estimate ...	1
Abstract do. ...	1
Specification report ...	1
Data ...	1

Road from Puttagunta to the junction of Pamaru Road or incomplete portion of Perikeed and Gudiváda Road.

Detailed estimate ...	1
Abstract do. ...	1
Data ...	1
Specification report ...	1
Comparative statement ...	1
Plans ...	7
Copy of the proceedings of the Local Fund Board ...	1

Note by the Chief Engineer, Public Works Department.

(1) *Estimate for metalling the Guntúr-Bápatla road from the Chebrole bridge at Bápatla, Kistna district.*—The object of putting sand on the top of the gravel is not apparent, and it is considered that it might be omitted. It is understood that about two miles of the road near Bápatla consist at present of loose sand, and it is therefore doubtful whether the 6 inches of kunker proposed to be laid down will not disappear in a very short time.

As the Superintending Engineer reports that the estimate is urgent, it is recommended for sanction, with the foregoing remarks.

(2) *Estimate for constructing a road from Sattenapalle to Krósúr, Kistna district.*—The plan and longitudinal section do not agree, the difference in the width of the streams being considerable. In the absence of any information as to the velocity of the water in these streams, it is not possible to say whether the road dams allowed are sufficiently strong; but as the depth of water in Nos. 3, 4 and 5 streams appears to be 6 feet, 11 feet and 8 feet, respectively, it appears advisable to construct bridges to prevent interruption in the traffic.

With these remarks, the estimate is recommended for sanction.

(3) *Estimate for constructing a road from Gurazala to Tumarkod, Kistna district.*—This estimate is recommended for sanction.

(4) *Estimate for metalling a portion of the road from Masulipatam to Tsallapalli, Kistna district.*—It is considered that a thickness of 2 inches of sand over the black cotton soil is far too little, and that at least 6 inches of sand should be provided, to be spread in layers of 2 inches.

2910
/2

It appears advisable also to increase the thickness of metal to 6 inches.

With these remarks, the estimate is recommended for sanction.

(5) *Estimate for constructing a road from Nidamole to Iyalur, Kistna district.*—It is considered that the thickness of sand should be increased to 6 inches, to be spread in 2-inch layers, and that 6 inches of metal should be provided. The approaches to the road dams should not be steeper than 1 in 30.

With these remarks, the estimate is recommended for sanction.

(6) *Revised estimate for metalling the road from Gudiváda to Puttagunta, Kistna district.*—This piece of road forms a portion of the road from Gudiváda to Perikeed, an estimate for which was sanctioned in G.O., No. 2069 W., dated 22nd August 1884. The estimate now submitted should be returned to the Superintending Engineer, in view to the submission of a revised estimate in proper form for the whole road.

(Signed) J. O. HASTED, Colonel, R.E.,
Chief Engineer, P.W.D.

1st November 1886.

ORDER—dated 4th November 1886, No. 2910 W., Public Works.

The undermentioned estimates, for roads in the Kistna district, are sanctioned:—

	RS.	
1. Renewing the road from the Chebrole bridge to Bápatla ...	88,685	Local No. 22 W. of 1886-87.
2. Constructing a road from Sattenapalle to Krósúr ...	38,126	„ „ 23 W. of „
3. Constructing a road from Gurazala to Tumarkod ...	34,710	„ „ 24 W. of „
4. Metalling 5 miles of road from Masulipatam to Tsallapalli ...	10,000	„ „ 25 W. of „
5. Constructing a road from Nidamole to Iyalur ...	35,040	„ „ 26 W. of „

2. Attention is drawn to the remarks of the Chief Engineer with respect to estimates (1), (2), (4) and (5). Estimate No. (6) will be returned to the Superintending Engineer for revision as recommended by the Chief Engineer.

(True Extract.)

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

To the Financial Department (L.F.), with twenty-one enclosures.
„ Superintending Engineer, II Circle, with five enclosures.
„ Examiner, Public Works Accounts.

Exd. E. Fernandez.
Spare Copies

Road from Nidamole to Iyalur.

Specification report	1
Data	2
Detailed estimate	1
Abstract do.	1
Data for rough-stone	1
Detailed and abstract estimates of road dams	1

Road from Chebrole Bridge to Bápatla.

Specification report	1
Report	1
Data	1
Detailed and abstract estimate	1

Road from Sattenapalle to Krósúr.

Specification report	1
Detailed and abstract estimate	1
Tracing	1
Data	1

Road from Gurazala to Tumarkod.

Tracing	1
Detailed estimate	1
Abstract. do.	1
Specification report	1
Data	1

Road from Puttagunta to the junction of Pamaru Road or incomplete portion of Perikeed and Gudiváda Road.

Detailed estimate	1
Abstract do.	1
Data	1
Specification report	1
Comparative statement...	1
Plans	7
Copy of the proceedings of the Local Fund Board	1

Note by the Chief Engineer, Public Works Department.

(1) *Estimate for metalling the Guntúr-Bápatla road from the Chebrole bridge at Bápatla, Kistna district.*—The object of putting sand on the top of the gravel is not apparent, and it is considered that it might be omitted. It is understood that about two miles of the road near Bápatla consist at present of loose sand, and it is therefore doubtful whether the 6 inches of kunker proposed to be laid down will not disappear in a very short time.

As the Superintending Engineer reports that the estimate is urgent, it is recommended for sanction, with the foregoing remarks.

(2) *Estimate for constructing a road from Sattenapalle to Krósúr, Kistna district.*—The plan and longitudinal section do not agree, the difference in the width of the streams being considerable. In the absence of any information as to the velocity of the water in these streams, it is not possible to say whether the road dams allowed are sufficiently strong; but as the depth of water in Nos. 3, 4 and 5 streams appears to be 6 feet, 11 feet and 8 feet, respectively, it appears advisable to construct bridges to prevent interruption in the traffic.

With these remarks, the estimate is recommended for sanction.

(3) *Estimate for constructing a road from Gurazala to Tumarkod, Kistna district.*—This estimate is recommended for sanction.

(4) *Estimate for metalling a portion of the road from Masulipatam to Tsallapalli, Kistna district.*—It is considered that a thickness of 2 inches of sand over the black cotton soil is far too little, and that at least 6 inches of sand should be provided, to be spread in layers of 2 inches.

2910/2

It appears advisable also to increase the thickness of metal to 6 inches.

With these remarks, the estimate is recommended for sanction.

(5) *Estimate for constructing a road from Nidamole to Iyalur, Kistna district.*—It is considered that the thickness of sand should be increased to 6 inches, to be spread in 2-inch layers, and that 6 inches of metal should be provided. The approaches to the road dams should not be steeper than 1 in 30.

With these remarks, the estimate is recommended for sanction.

(6) *Revised estimate for metalling the road from Gudiváda to Puttagunta, Kistna district.*—This piece of road forms a portion of the road from Gudiváda to Perikeed, an estimate for which was sanctioned in G.O., No. 2069 W., dated 22nd August 1884. The estimate now submitted should be returned to the Superintending Engineer, in view to the submission of a revised estimate in proper form for the whole road.

(Signed) J. O. HASTED, Colonel, R.E.,
Chief Engineer, P.W.D.

1st November 1886.

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4. Metalling 5 miles of road from Masulipatam to Tsallapalli	10,000	„ „ 25 W. of „
5. Constructing a road from Nidamole to Iyalur	35,040	„ „ 26 W. of „

2. Attention is drawn to the remarks of the Chief Engineer with respect to estimates (1), (2), (4) and (5). Estimate No. (6) will be returned to the Superintending Engineer for revision as recommended by the Chief Engineer.

(True Extract.)

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

To the Financial Department (L.F.), with twenty-one enclosures.
„ Superintending Engineer, II Circle, with five enclosures.
„ Examiner, Public Works Accounts.

Exd. E. Fernandez.
Spare Copies

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of (1886) Madras.

PUBLIC WORKS.

Dated November, 4th.

Recd. *Encl.*

G.O., 4th Nov. 1886, No. 2910 W.

NOVEMBER.

Roads in the Kistna District

Certain estimates for —, sanctioned with remarks.

PROCEEDINGS OF THE DISTRICT BOARD, KISTNA PASSED AT A Special
MEETING HELD AT Masulipatam ON SATURDAY,
THE 24th July 1886.

291/()

Present.

Officials.

M. R. Weld. Esquire Acting Collector and President

M. R. Ry. B. Raja Rao Pantulu Garu Rao Sahib
Treasury Deputy Collector Kistna.

do C. Venkata Chellam Pantulu Garu Rao Bahadur Temporary Deputy Collector and Vice President.

Non-Officials.

M. R. Ry. S. V. Subbarayadu Pantulu Garu Rao Sahib
do J. V. Subbarayudu " do
do V. Venkata Chellam " do
do K. Brahmanandam " do
do M. Nagabhushanam Garu do
J. W. Maiden Esquire
Mir Shah Savaralli Sahib Khan Sahib
M. R. Ry. K. Lakshminarayanappa Garu Rao Sahib,

Read letter No $\frac{177}{23.7.86}$ from the District Engineer Kistna forwarding estimates for

for the following works.

(1) Metalling portion of road from Guntur to Bapatla between Chebrole bridge and Bapatla.

Amount of Estimate Rs88,750-0-0

Amount allotted Rs23,250-0-0

Approved.

(2) Forming a road from Sattinapalli to Krosur.

Amount of Estimate Rs37,845-0-0

Amount allotted Rs10,000-0-0

Approved.

(3) Forming a road from Gurazala to Tumercode.

Amount of Estimate Rs34,700-0-0

Amount allotted Rs 5,000-0-0

Approved.

(4) Metalling the road from Masulipatam to Isollapalli & the Kistna bank to join the [illegible]ding to Repalli and Bapatla

Amount of estimate for the 1st 5 miles Rs10,000

Amount allotted Rs10,000

Approved.

(5) Forming a metalled road from Nidamole at the 9th mile of the Bander Bezwada road to Iyalur on the Kistna & meet the road from Guntur to the Kistna.

2810/4

Amount of Estimate Rs35,200-0-0

Amount allotted Rs17,000-0-0

The 17000 will form the road of black soil and sand and make it available for traffic.

Approved.

(6). Metalling the road from Gudivada & Puttagunta (portion of Perikid-gudivada road not yet completed).

Amount of revised estimate Rs15,430-0-0

Amount allotted Rs10,000-0-0

Approved.

(Signed) M.R. Weld
President

True Copy

M.R. Weld
President

List of Plans and Estimates connected with the Local Fund Roads in the Kistna to accompany S. E's letter No. dated to the Chief Engineer P. W. D.

2910/5

Road from Masulipatam to Tsallapally	
Section of Road	1
Specification Report	1
Detailed & Abstract estimate	1
Data	1
Road from Nidumole to Ilur	
Specification Report	1
Datas	2
Detailed estimate	1
Abstract estimate	1
Data for rough stone	1
Detailed & Abstract Estimates of Road Dams	1
Road from Chebrole Bridge to Bapatla	
Specification report	1
Report	1
Data	1
Detailed & A. estimate	1
Road from Pattinepalli to Hosur	
Specification Report	1
Detailed & A. estimate	1
Tracing	1
Data	1
Road from Gurizala to Tumercodu	
Tracing	1
Detailed estimate	1
Abstract estimate	1

Specification report	1
Data	1

Road from Puttaguinta to the junction of Pamarru Road or incomplete portion of Porikud and Gudivada Road

Detailed estimate	1
Abstract estimate	1
Data	1
Specification report	1
Comparative statement	1
Plans	7
Copy of the Proceedings of the L. F. Board	1

No. 1078 Ks

Superintending Engineer's Office
2d Circle 7th October 1886.

From

The Superintending Engineer
2nd Circle 2810/6

To

The Chief Engineer
Public Works Department

Sir

[illegible] Enclosures [illegible]

I have the honor to forward herewith for your approval, and the early sanction of Government, 6 Estimates for constructing and metalling Roads in the Kistna District noted in the margin amounting in the aggregate to Rs. 2,21,991.

	Rs
(1) Metalling the Guntoor-Bapatla Road from south end of Bridge over Commamur Canal at Bapatla	88,685
(2) Constructing a Road from Sattenapally to Krosur	38,126 ✓
(3) Constructing Road from Gurzala to Tummercode village	34,710 ✓
(4) Masulipatam to Kistna River via Challapalli metalling	10,000 ✓
(5) Constructing a [illegible] Road from [illegible] to [illegible]	35,034 ✓
(6) Revised Estimate for metalling the road [illegible] a portion of Porikud-Gudivada Road not yet completed	15,436
Total	Rs 2,21,991

2. Copy of the Proceedings of the Local Fund Board is forwarded together with Reports, Data &c attached to each Estimate.

3. There are some minor details which have escaped the Local Fund District Engineer's attention in drawing these Estimates, with reference to the Public Works Code, but as the President expressed a wish that early sanction to these Estimates is necessary

Specification report — 1
Data — 1

Road from Puttaguenta to the junction of Pamarru Road or incomplete portion of Pasikood and Gudivada Road.

Detailed estimate — 1
Abstract estimate — 1
Data — 1
Specification report — 1
Comparative statement — 1
Plans — 7
Copy of the Proceedings of the L. F. Board } — 1

No 1078 Ks

Superintending Engineer's Office
2nd Circle 1st October 1886.

From

The Superintending Engineer 2810/6
2nd Circle

To

The Chief Engineer
Public Works Department

Sir

I have the honor to forward herewith for your approval, and the early sanction of Government, 6 Estimates for constructing and metalling Roads in the Kistna District noted in the margin amounting in the aggregate to Rs 221,991.

	Rs
(1) Metalling the Guntoor-Bapatla Road from south end of Bridge over Commamur Canal to Bapatla	88,685 ✓
(2) Constructing a Road from Sattenapally to Krosur	38,126 ✓
(3) Constructing Road from Gudivada to Timmercode village	34,710 ✓
4) Masulipatam to Kistna River via Challapalle metalling	10,000 ✓
(5) Constructing a [illegible] Road from [illegible] to [illegible]	35,000 ✓
(6) Revised Estimate for metalling the Road [illegible] Gudivada to Puttaguenta a portion of Pasikood Gudivada road not yet completed	15,436
Total Rs	221,991

2. Copy of the Proceedings of the Local Fund Board is forwarded together with Reports, Datas &c attached to each Estimate.

3. There are some minor details which have escaped the Local Fund District Engineer's attention in drawing these Estimates, with reference to the Public Works Code, but as the President expressed a wish that early sanction to these Estimates is necessary

8 OCT 86

From

The Superintending Engineer
2d Circle

To

The Chief Engineer
Public W. Dept
Madras

Dated 1st October/86
Despd 4 Do -

Encls 26

No 1078 Ks

Local Fund Roads
Certain in Kistna District.
Forwards Plans & Estimates for the approval & sanction of Govt -

---

P. W. D.

Note by the Chief Engineer.

2910/4

(1) Estimate for metalling the Guntoor - Bapatla road from the Chebrole bridge at Bapatla - Kistna district.

The object of putting sand on the top of the gravel is not apparent and it is considered that it might be omitted. It is understood that about two miles of the road near Bapatla consists at present of loose sand and it is therefore ~~is~~ doubtful whether the 6" of Kunker proposed to be laid down will not disappear in a very short time.

As the Supg. Engineer reports that the estimate is urgent it is recommended for

for sanction with the foregoing remarks.

---

(2) Estimate for constructing a road from Sattenapalle to Krosur, Kistna District

---

The plan and longitudinal section do not agree, the differences in the width of the streams being considerable. In the absence of any information as to the velocity of the water in these streams it is not possible to say whether the road dams allowed are sufficiently strong, but as the depth of water in No. 3, 4, and 5 streams appears to be 6', 11' and 8' respectively it appears advisable to construct bridges to prevent interruption in the traffic.

With these remarks the estimate is recommended for sanction.

(3.) Estimate for constructing a road from Garuzala to Tumarkod Kistna District.

2910/

This estimate is recommended for sanction.

---

(4) Estimate for metalling a portion of the road from Masulipatam to Tsallapelle. Kistna District.

It is considered that a thickness of 2" of sand over the black cotton soil is far too little, and that at least 6" of sand should be provided, to be spread in layers of 2". It appears advisable also to increase the thickness of metal to 6".

With these remarks the estimate is recommended for sanction

(5.) Estimate for constructing a road from Nidamole to Iyalur, Kistna District.

It is considered that the

the thickness of sand should be increased to 6", to be spread in 2" layers, and that 6" of metal should be provided. The approaches to the road dams should not be steeper than 1 in 30.

With these remarks the estimate is recommended for sanction.

Note by Ch. Engr.

(b.) Revised estimate for metalling the road from Gudivada to Puttagunta. Kistna District.

This piece of road forms a portion of the road from Gudivada to Perikeed an estimate for which was sanctioned in G.O. No. 2069 W. dated 22d August 1884. The estimate now submitted should be returned to the Supg. Engineer in view to the submission of a revised estimate in proper form for the whole road.

1/11/86

1/11/86.

JB.

EW

---

vide Encl 1

subject of putting

on the top of

used in the assum-

D. W.

This estimate does not appear to require any special remarks

2910/10

22.10.86.

I doubt if swampy kunkur could be [illegible] so as to form an efficient substitute for gravel.

20/10/86.

---

5. The estimate has been countersigned by the President of the L. F. Board.

2910/2

BH
22/10/86

the thickness of sand should be increased to 6", to be spread in 2" layers, and that 6" of metal should be provided. The approaches to the road dams should not be steeper than 1 in 30.

With these remarks the estimate is recommended for sanction.

(6.) Revised estimate for metalling the road from Gudivada to Puttagunta. Kistna District.

This piece of road forms a portion of the road from Gudivada to Perikeed an estimate for which was sanctioned in G. O. No. 2069 W. dated 22d. August 1884. The estimate now submitted should be returned to the Supg. Engineer in view to the submission of a revised estimate in proper form for the whole road.

1/11/86

1/11/86.

JB.

EW.

---

vide Encl 1

The object of putting sand on the top of the gravel is not apparent & it is cheaper than it would be otherwise & a slight saving is effected thereby.

2910/11

I do believe that about 2 miles of the line near Bapatla [illegible] consist at present of loose sand & it is likely [illegible] of the 6" of kunkur it is proposed to lay down will not disappear in a very short time.

20/10/86.

the thickness of sand should be increased to 6", to be spread in 2" layers, and that 6" of metal should be provided. The approaches to the road dams should not be steeper than 1 in 30.

With these remarks the estimate is recommended for sanction.

(6.) Revised estimate for metalling the road from Gudivada to Puttagunta - Kistna District.

This piece of road forms a portion of the road from Gudivada to Perikeed an estimate for which was sanctioned in G. O. No. 2069 W. dated 22nd August 1884. The estimate now submitted should be returned to the Supg. Engineer in view to the submission of a revised estimate in proper form for the whole road.

1/11/86
FB.

1/11/86

EW

Current No. 7502

Letter No. 1078 R.

Dated the 4 October 86

From the S.E. II Circle

2910/14

NOTE OF REMARKS.

This estimate, No. [illegible] provides for renewing the Guntur Bapatla road, Kistna district, from the Chebrole bridge to Bapatla, a distance of 21 miles 553 yards. The estimate amounts to Rs. 53,615 being at an average cost of Rs. 4,150 per mile.

The metalling of the first 14 miles 550 yards is to consist of "Bhintuman stone", broken to pass through a 1½ inch ring laid on the prepared surface of the road to a thickness of 3 inches and a width of 12 feet. On this metal a coating of red gravel 1½ inch thick, is to be spread with a final overcoating or sprinkling of sand 50 c. yards of sand being allowed per mile. For the remaining 7 miles of road the metal is to be of "swamp stone" broken to the size of the Bhintuman

Current No. 4802

Letter No. 1078 R.

Dated the 4 October 76

From the S.E. II Circle

2910/14

NOTE OF REMARKS.

his estimate, No. 1, provides for
enewing the Guntur Bapatla
oad, Kistna district, from the
hebrole bridge to Bapatla, a
istance of 21 miles 550 yards. The
stimate amounts to Rs. 88,685 —
being at an average cost of
Rs. 4150 per mile.

The metalling of the first 14 miles
530 yards is to consist of "Chintaman
stone," broken to pass through a
½ inch ring, laid on the prepared
surface of the road to a thickness
of 5 inches and a width of 12 feet.
On this metal a coating of red
gravel 1½ inch thick, is to be
spread with a final overcoating
or sprinkling of sand — 50 c. yards
of sand being allowed per mile.
For the remaining 7 miles of road
the metal is to be of "Iron ore stone"
broken to the size of the Chintamani

[illegible]
of 12 feet and a thickness of 6 inches.
on the swamp stone metal the
and gravel coating is to be ¾ inch
thick and the overcoat of sand
is also to be ¾ inch thick. —
Along the line of road to be renewed
provision is made for earthwork
where necessary.
3. The rates appear to be fair,
but subject to approval a
suggestion might be made by
which a saving of, at least, Rs.1000
could be effected — for the last
7 miles, for which swamp stone
metal is provided, the price
of gravel is higher than that
of metal, rising in the case of
2 miles to more than double that
of metal, might it not be sug
-gested that for the last seven
miles of road to be renewed the
substitution of metal, broken
sufficiently small, for gravel
would effect a great saving —
while it would increase the
durability of the road's new
surface? — On the "30th mile"
the cost of metal is Rs.2-6-0 per

cubic yard, and of gravel, Rs.5-0-0.
It may be here remarked that
the units of work adopted in
this estimate are not those
laid down in the P.W.D. Code.
4. The estimate has been counter
-signed by the President
of L. F. Board.

210/15

JBH
22/10/86

vide Index No. 5

The plan & longitudinal section do not agree the difference in the width of the stream being considerable. In 29/10/16

the absence of any information as to the velocity of the water in these streams it is impossible to say if the waterway allowed is sufficiently large; but as the depth of water in No 3. 4. 5 streams appears to be ~~[illegible]~~ 6. 11 & 8' it would seem advisable to construct ~~[illegible]~~ bridges to prevent interruption to the traffic.

In other respects the estimate may be accepted.

23/10/86

D.W.

The Longitudinal Section is drawn to such a distorted scale that it is difficult to form any idea as to what the road is like & the gradients are nowhere shown.

In the water courses 3. 4 & 5. the depth of water shown is about 6 ft. 11 ft & 8 ft. respectively (N.B the water level is not marked)

The surface of the road at these courses is simply to be paved with dry stone packed 9in deep. for 12 ft. width ~~no provision being made for any description of curtain walls, nor is the depth~~ there being a dry stone retaining wall. 6'.0" wide & 2'.0" deep. This hardly seems sufficient for the above depths of water.

The steepest gradient is 1 in 34.21.

C.S.
20/12/86

2410/17

thickness of seam
ave be increased to
t be spread in 2"
n, the metal there

D. W.

This estimate does not appear to call for any special remarks.

CH.
23-10-66.

2910
/19

The thickness of stone should be increased to 6" & be spread in 2" layers, the metal should also be 6" thick. The approaches to the new dam should not be steeper than 1 in 30

29/10
VP

23/10/81

vide Encl 20

Public Works Department.

Current No. 7802

Letter No. 1078 Rs.

Dated the 1st October/86

From the S.E. II Circle

2910/21

NOTE OF REMARKS.

1. Estimate No. 2 with survey and levels, provides for constructing a road from Sattenapalle to Hrovur in the Kistna district, a distance of 9 miles, 2092 feet. The estimate amounts to Rs. 38,126 – the average cost per mile being Rs. 4063.

2. The surface width of the proposed road is to be 18 feet of which the center 12 feet are to be metalled. The metalling is to be of stone, broken to pass through a 1½ inch ring and laid on the road's prepared surface to a thickness of 6 inches and covered with a coating of 1 inch thick unscreened gravel. The earth embankments are to receive side slopes of 2 to 1. A berm to 39 feet clear [illegible] side, is to run on each side of the road. Roadside drains [illegible] ne dry packed, are

to be constructed where main drainage courses cross the line of road.

3 The horizontal scale of the line is not that to which the survey is drawn but this does not explain the great difference between the waterspread of the stream when crossing the line of the proposed road as shown in the longitudinal section and as shown on the survey. Also by the ill chosen relative lengths of the vertical and horizontal scales of the longitudinal section (the ratio is 1 to 16) comparatively easy gradients are made to appear as precipitous rises and falls. — The severest gradient on the line is 1 in 34.21.

4 The rates are fair. — Rs. 2,500 are to be paid in compensation for land. 6. — The units of work adopted are not those of the P.W.D. Code.

5. The estimate has been countersigned by the President of the L.F. Board

22/10/86

Public Works Department.

Current No. 7802 129/10

Letter No. 278 Mo.

Dated the 1st October/86

From the S.E. II Circle

NOTE OF REMARKS

1. Estimate No 3, with survey and levels, provides for constructing a road from Gurazala to Imarpaud in the Kistna district, a distance of 12 miles 1160 feet. The estimate amounts to Rs. 34,710 — the average cost per mile being Rs. 2,841.

2. The top surface of the proposed road is to be 18 feet wide. The center 12 feet of this width are to be metalled with stone broken to pass through a 1½ inch ring and laid on the road's prepared surface to a thickness of 6 inches and covered with a coating of unscreened gravel 2 inches thick. When the road passes through soft soil the earth embankments are to receive side slopes of 3 to 1, when through hard soil [illegible] 2 to 1. A berm 3 feet [illegible]

clear, is to run on each side of
the proposed road. Road dam
of rough stone loosely packed, a
to be constructed where necessar
- As it is stated in estimate No. 1
that the metalled surface o
the road in cross section is to
curve with a rise at center
of 1 in 36 it may be assumed
that that transverse sectio
is to be adopted for all the
proposed new roads for which
estimates are now submitted
from the Kistna district -
The hardest gradient to be allo
on this line of proposed road
is 1 in 30

3. The survey and levels are not
ll drawn. - No details of the
proposed road dams are give
in the estimate but a lump sum
Rs. 2,116-15-2, is allotted in the
abstract for their constructio.
4. The rates, apart from the cost
of the road dams, are fair. -
Rs. 2,670 are to be paid in compe
-sation for land. - The unit
of work adopted are not tho
of the P.W.D. Code.

5. The estimate has been counter
-signed by the President of
the L. F. Board

29/10
VB

BH
22/10/86

2" of sand allowe
be spread on the
lack cotton soil in
the bottom, & at

D.W.:

As in Estimate No 4. the thickness of sand & metal is very small. Proposed culverts are marked in the plan but not provided in the Estimate. The gradients of the approaches to the road dams are steep the worst being 1 in 22.75

23.10.86

29/10

The 2" of sand above
to be spread on the
black cotton soil is
for the bottom, & at
least 6" should be
provided to be spread
in layers of 2"
The thickness of metal
should also be increased
to 6" In other respects
the dimensions may be
accepted.

2910/15

23/Feb

vide Enclos No 10.

Public Works Department.

290/27

No. 7802

1078 Rs

1st October 86

S.E. II Circle

D.W.

The thickness of sand & metal allowed seems very small.

CH
23/10/86

290/26

nd and [illegible]
ined with the soil beneath
ntre 10 feet of breadth are
odered with stone broken
s through a 1½ inch ring, to
kness of 3 inches – the stone
l receiving a final overcoat
nding of sand ½ inch thick

Public Works Department.

910/27

Current No. 7802

Letter No. 1078 Rs.

Dated the 1st October 80

From the S.E. II Circle

NOTE OF REMARKS.

Estimate No.4, with cross section of road, provides for metalling 5 miles f the road from Masulipatam to Isallapalle in the Kistna district.— The estimate amounts to Rs.10,000— the average cost per mile being Rs.2,000.

The proposed new surface of road is to be 16 feet wide of which the center 10 feet are to be metalled. As the soil is black cotton it is intended that a layer of sand 2 inches thick, should first be spread over the full width of the road and that after it has combined with the soil beneath the center 10 feet of breadth are to be covered with stone, broken to pass through a 1½ inch ring, to a thickness of 3 inches — the stone metal receiving a final overcoat blinding of sand ½ inch thick or

[illegible]

The unmetalled sides, which 3 fe
wide, are to be covered with
of what description is not stat
3 inches thick.

3. Of course the use of sand in
this case (and subject to ap
it were well to adopt it for th
other roads of this district whe
black cotton soil occurs) is corre
but the quantity allowed
altogether insufficient to form
anything of a firm basis for the
metal — subject to approval
6 inches, or even 4 inches, of sand
laid in successive 2 inches layer
would be far preferable. The
thickness of the metal coat shou
subject to approval, be certainly
increased to 6 inches.

4. The rates are fair. — The estimat
has been countersigned by
the President of the L.F. Board.

/10/86

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vide No. 14

D.W.

The S.E. II's letter mention is made of a revised estimate for Rs 20.000 for the road from Pudukada to Panikeri. 'This estimate is not submitted but only a comparative statement an estimate for the portion of the road still remaining to be done.

It does not seem clear why the estimate for a portion of the road only is submitted & not a revised estimate in proper form for the whole road

CH
23.10.86

The estimate must be returned for a revised estimate for the whole road.

23/10/86

are to be covered

Public Works Department.

Current No. 7802

Letter No. 1078 Er.

Dated the 1st October/86

From the S.E. II Circle

2910
26

Note of Remarks.

1. Estimate No. 5, with survey and levels provides for constructing a road from Nidamole to Iyalur in the Kistna district. The estimate amounts to Rs. 35,040. As the length of the proposed road is 13 miles 3800 feet the average cost per mile amounts to Rs. 2554.

2. The top width of this proposed road is to be 16 feet of which the center 10 feet are to be metalled. The soil is chiefly black cotton, and sand to a thickness of 2 inches is to be spread over the full surface of the road with a metal coating of stone broken to pass through a 1½ inch ring, over the center 10 feet of width. The metal coating is to be 3 inches thick with a blindage of sand ½ inch thick. The unmetalled sides are to be covered

earth 3 inches thick. Reven
dams are provided. Culverts
are marked on the longitudi
section but none are provided
in the estimate — The gradien
of the approaches to some of
the road dams are rather
severe — The gradient of one of
the approaches is 1 in 22.75, an
this seems to be the severest o
the whole line.

3. Subject to approval, as
in the case of the Masulipa
-tam-Isallapalle road,
the thickness of both metal
and sanding must be increa
prove satisfactory.

4. The rates are fair. — The
estimate has been counter
signed by the President of
the L. F. Board.

BH
22/10/86

Public Works Department.

rrent No. 7802
tter No. 1078 Ps
ted the 1st October/86
om the S.E. II Circle

Rp/30

NOTE OF REMARKS.

stimate No. 5 is altogether wrong
d, subject to approval, must be
turned to S.E. II.

To judge from the documents for
arded to E.W. in connection with
is estimate, No. 5, it appears that
e estimate which should have
n submitted is a revised
timate for metalling the road
m Gudivada to Perikeed in
the Kistna district amounting
Rs. 80,000, and of which estimate
No. 5, "a revised estimate for
talling the road from Gudiv
Puttagunta, Rs. 15,430," would
m a part.

The original estimate for
etalling the road from Gudivada
Perikeed in the Kistna dis
trict, Rs. 127,000, was sanctioned
G. O. No. 753 W. of the 13th March/79 for revision as recomme
[illegible] ded by the

nction accorded to a revi
stimate for that work, Rs. 1,15,57
in G.O. No. 2069 W. of the 22nd August
If, those submitted in correc
loom, the second revised estima
for metalling the Gudivada-
Perikeed Road, Rs. 80,000, should
be sanctioned the saving
n the original estimate would
amount to (Rs. 1,27,000 – Rs. 80,000 =)
Rs. 47,000.

4. It must be noted that in the
documents submitted in con
nection with estimate No. the
original estimate for metallin
the Gudivada–Perikeed road
Rs. 1,27,000, sanctioned in G.O. No. 765
of the 12th March/79, appears to
sight of, and that the revi
timate, Rs. 1,15,875, sanctioned
No. 2069 W. of the 22nd August/84,
ated as the original for
ork

A/

PROCEEDINGS OF THE MADRAS GOVERNMENT.

2910

READ the following

From the Supdg. Engineer II Circle. H. E. No: 1078 K. S. d/1st October 1886.
Note by the Chief Engineer P. W. Department, d/1st November 1886

The undermentioned estimates for roads in the Kistna District are sanctioned:-

1. Renewing the road from the Chebrole Bridge to Bapatla	Rs. 88,685.	Local No: 22 W of 1886-87.
2. Constructing a road from Sattenapalle to Krosur	" 38,126	— Do — No: 23 W of — Do —
3. Constructing a road from Gurazala to Tumarkod	" 34,710	— Do — No: 24 W of — Do —
4. Metalling 5 miles of road from Masulipatam to Tsallapalli	" 10,000	— Do — No: 25 W of — Do —
5. Constructing a road from Nidamdr to Iyalur	" 35,040	— Do — No: 26 W of — Do —

2. Attention is drawn to the remarks of the Chief Engineer with respect to estimates (1), (2), (4) and (5). Estimate No: 6 will be returned to the Superintending Engineer for revision as recommended by

the

the Chief Engineer.

1/11/86

Jolr
1/11/86

4/11/86

7 — 1314/4/11/86

5/11

To
The Financial Deptt (L. F.) with
21 enclos

" Supdg. Engineer II Circle wi
5 enclos.

" Examiner of P. W. Accounts.

(To) The Chief Secy for favor of counter-initia

Cu

7/11

2810/32

7802

Govt. of {1886} Madras.

PUBLIC WORKS.

Dated 5/11/86

Recd. 8/11/86 Gm Encl.

G.O. 4th Nov. 1886, No. 2910

Roads in the Kistn
District

=

Certain estimates
for —— sanction
with remarks.

60/4

5/11 5/11