

(1) Number of pages \_\_\_\_\_

(2) Date of repair \_\_\_\_\_

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# MADRAS RECORD OFFICE

## Government of Madras

*Public Works*

DEPARTMENT

G.O. No.  
B.P. No.

1998

Press  
Mis.

Dated

4-8-

2876  
195

Not to be folded or roughly handled

*Proceedings of the Madras Government, Public Works Department,  
4th August 1876. No. 1,998.*

No. 100. Read the following endorsement of the Chief Secretary to Government in the Financial Department, dated 20th June 1876, No. 934:—

Proceedings of the Board of Revenue, dated 10th May 1876, No. 1,224.

From J. HOPE, Esq., President of the Local Fund Boards, Godavery District, to C. A. GALTON, Esq., Acting Secretary to the Board of Revenue, dated Cocanada, 15th April 1876, No. 39.

With reference to the Board's Proceedings, dated 11th February and 28th March last, Miscellaneous Nos. 1,272 and 2,657, embodied in G.Os. of the 15th January and 29th February 1876, Nos. 94 and 560, respectively, I have the honor to forward herewith, for submission to Government, copy of a letter\* from the Vice-

\* Dated 8th April 1876, No. 62.

† Dated 18th March 1876.

President of the Local Fund Board, Ellore Circle, and an extract from the Proceedings† of the Local Fund Board of that Circle, regarding the embankment and road from Vijeshwaram to Polaveram.

From C. A. BIRD, Esq., Vice-President, to J. HOPE, Esq., President of the Local Fund Boards, Godavery District, dated Ellore, 8th April 1876, No. 62.

With reference to your endorsement on the Revenue Board's Proceedings (returned), dated 11th February 1876, Miscellaneous No. 1,272, passed on G.O., No. 185, of 28th January 1876, I have the honor to forward herewith an extract from the Proceedings of this Board at a meeting held on 18th March 1876, from which you will observe that they have agreed to contribute Rupees 26,150, in addition to the sum of Rupees 30,000 already agreed upon, for constructing and raising the river embankment and road from Vijeshwaram to Polaveram.

2. In the above order of Government we have been asked to contribute the sum of Rupees 43,500, which the Board are not willing to agree to.

3. You will observe that the mode in which that sum of Rupees 43,500 is arrived at, is by supposing that the Board were about to construct, at all costs, a road from Vijeshwaram to Polaveram, that they could not have constructed one for less than Rupees 73,500, and that therefore their fair share is the balance above what they have already paid.

4. Now the Board seemed to consider, at the meeting above mentioned, that the road from Vijeshwaram to Polaveram was not of a pressing nature, though the embankment was, and besides, if they had a road, it would have been better not to have it raised such a prodigious height above the level of the adjacent country.

5. But waiving these objections for the present, in consideration of what has been already agreed to be paid by the Board, they came to the conclusion that they would not allow that sum of Rupees 30,000 to be thrown away, but would make what they consider must be admitted by all parties concerned to be a fair and liberal offer, *viz.*, Rupees 26,150.

6. This amount is calculated on the supposition that the former agreement that the Local Fund Board will keep the road and consequently the embankment in repair is still binding. The sum offered is arrived at as follows:—A road from Vijeshwaram to Polaveram is estimated to cost at least Rupees 73,500, and the Board are not inclined to dispute the fact.

7. The Board formerly agreed to keep the road, and consequently the embankment in ordinary repair, and then the share to be paid by them was three-eighths, which amounted to Rupees 30,000. But it does not hold good in the event of these having to pay the full amount of estimate for the road in question that they should relieve the Imperial Funds of the cost of all ordinary repairs. Therefore, calculating the yearly cost which the Imperial Funds would have to meet in keeping the embankment in repair at Rupees 817, which is at the rate of Rupees 324 per mile, the Board deduct the sum of Rupees 16,350 which, as capital at 5 per cent., would yield

*Proceedings of the Madras Government, Public Works Department,  
4th August 1876. No. 1,998.*

yearly Rupees 817, which is the estimated charge for keeping the embankment in ordinary repair.

8. The estimate of Rupees 817 was roughly made by Mr. Martin, an officer of the Public Works Department, who was present at the meeting.

9. You will observe, further, that the Board desire that they should be relieved from the responsibility of reconstructing any portion of the embankment should it unfortunately happen to be washed away by a flood, and consider that some understanding regarding this should be come to at once.

10. My own opinion is that if the Board keep this road and embankment in ordinary repair, they should be in no way responsible for damage caused by flood, all which, in unlikely event of its occurring, should be remedied from Imperial Funds.

EXTRACT from the Proceedings of the Local Fund Board of the Ellore Circle, dated 18th March 1876.

MEMBERS PRESENT:—

C. A. BIRD, Esq., Vice-President.  
J. W. MARTIN, Esq., Officer in charge of No. IV Range, Ellore.  
M. DURGA MALEKHARJUNA PRASADA ROW, GARU.  
P. VENKATAPATHIRAZU, GARU.  
J. RAMAKRISHNAMAH NAIDOO, GARU.  
MAMIAVI MAHOMED MEER NAZALI, SAHEB GARU.  
K. BHARASILADE NAIDOO, GARU.

Read Revenue Board's Proceedings dated 11th February 1876, Miscellaneous No. 1,272, communicating Government Order, Financial Department, No. 185, dated 28th January 1876, passed on the subject of the division of cost of the combined river embankment and road from Vijeshwaram to Polaveram between the Local and Imperial Funds according to the revised estimate, *viz.*, out of the total estimate of Rupees 1,48,730, Rupees 73,500 from Local Funds and Rupees 75,230 from Imperial Funds, *viz.*, Rupees 43,500 in addition to Rupees 30,000 already agreed by the Local Fund Board.

2. The Board are willing to contribute Rupees 26,150 towards this work, taking the estimate of a road at Rupees 73,500 and deducting therefrom Rupees 30,000 already sanctioned and a sum of Rupees 16,350, which is equivalent of 5 per cent. to an annual sum of Rupees 817, which may be put down as a fair proportion of the yearly maintenance, of which sum the Imperial Funds will be relieved. The Board, having been called upon unexpectedly, are not prepared to pay this sum out of this year's budget. It further seems desirable that some understanding be come to regarding the reconstructing of any portion of the bund which may be carried away by a flood.

(True Extract)

(Signed) C. A. BIRD,  
Vice-President.

SUBMITTED for the orders of Government with reference to G.O., dated 28th January 1876, No. 185.

2. The Local Fund Board's contribution towards an estimate of Rupees 80,000 was fixed at Rupees 30,000, on the understanding that the future maintenance of the road was to be provided from Local Funds. The Circle Board now state that their agreement to keep the road in repair carries with it the necessity for keeping the embankment also in ordinary repair: they estimate these annual repairs at Rupees 33½ per mile, and the capitalized value at Rupees 16,350, which they therefore deduct from their further share of the cost of completing the road, *viz.*, Rupees 43,500.

*Proceedings of the Madras Government, Public Works Department,  
4th August 1876. No. 1,998.*

They agree to pay a further sum of Rupees 26,150, which should be Rupees 27,150, provided it is distinctly understood that they are to be held responsible only for ordinary repairs and not for the reconstruction of any portion of the embankment which may be carried away by flood.

3. The Board do not know how far the repairs of the road and embankment are separable; but it seems inadvisable that the Local Fund Board should have anything to do with the conservancy of the embankment.

(True Copies and Extract.)

(Signed) C. A. GALTON,  
Acting Secretary.

TRANSFERRED to the Department Public Works, with reference to G.O., dated 15th July 1876, No. 94, in that department.

(Signed) W. HUDLESTON,  
Chief Secretary.

No. 101. ORDER THEREON, 4th August 1876, No. 1,998.

|                       |
|-----------------------|
| IRRIGATION, No. 11-A. |
| Account.              |

The recommendation made by the Board of Revenue in paragraph 3 of their Proceedings will be acted upon in this particular case, and the Local Fund Board will be deemed responsible only for the proper

up-keep of the roadway on the top of the embankment from Vijeshwaram to Polaveram, and under these circumstances no deduction will be required from the contribution, shown to be due from Local Funds for widening the embankment to carry the road, on account of the conservancy of the embankment itself which will be provided for from Agricultural Funds. On a consideration of all the circumstances, however, the Local Fund contribution will be reduced from Rupees 3,000 to Rupees 2,500 a mile, which will make the total subscription Rupees 61,250, leaving a balance of Rupees 31,250, instead of Rupees 43,500 to be provided by the Local Fund Board.

2. The revised estimate of Rupees 1,48,730 is now sanctioned under Ordinary Agricultural, Original Works, object of G.O., 15th January 1876, No. 94. work—River embankments, and this sanction has been registered as No. 107-I. of 1876-77.

3. His Grace the Governor in Council desires the general subject of the combination of roads with flood or canal embankments to be further considered, in order that a decision may be come to as to the arrangements to be made generally applicable. It is considered that roadways along embankments must lead to additional wear and tear, particularly from their use by cattle, which cannot be entirely kept to the roadway. The location of roads on high embankments moreover must often be inconvenient, by causing difficulty of communication with adjacent lands, either necessitating steep inclines, or the diversion of the road itself from what would be the most convenient direction for the traffic to be accommodated, while a road constructed along a river embankment can only accommodate land upon one side: in effect

only as moiety of the land of the district which would be accommodated by a road passing through the centre of a certain area. On the other hand, some additional security is obtained in the case of flood banks by the consolidation of the embankment by the roadway; the more certain up-keep is ensured by the necessary maintenance of the full width necessary to carry roadway. The opinions of the Collectors and District Engineers of the Godavery, Kistna, Nellore, South Arcot, Tanjore, and Tinnevely districts, in which combinations of river and flood embankments and roads are, or are likely to be, most frequently suggested, will be obtained as to whether—

1stly.—Such combination is desirable.

2ndly.—If it be desirable, what contribution from Local Funds, in addition to the cost of maintaining the road surface and providing ramps for the access of traffic from adjoining lands to the roadway on the top of embankments, should be required in order to cover the increased cost of repairs to the embankments, due to their being used as communications. It should not be lost sight of that a breach in an embankment used as a road must necessarily stop traffic for some time, whereas a low level road, even if damaged, can be readily made passable again.

(True Extract.)

(Signed) G. W. WALKER, Major-General, R.E.,  
*Secretary to Government.*

To all District Engineers.

To the Financial Department.

„ Chief Engineer for Irrigation.

„ Examiner of Public Works Accounts.

Exd. E. C. Shunker.

Spare Copies

No. 1,224.

PROCEEDINGS OF THE BOARD OF REVENUE, dated 10th May 1876.

Read the following letter from J. HOPE, Esq., President of the Local Fund Boards, Godavery District, to C. A. GALTON, Esq., Acting Secretary to the Board of Revenue, dated Cocanada, 15th April 1876, No. 39:—

With reference to the Board's Proceedings, dated 11th February and 28th March last, Miscellaneous Nos. 1,272 and 2,657, embodied in G.O. of the 15th January and 29th February 1876, Nos. 91 and 560 respectively, I have the honor to forward herewith, for submission to Government, copy of a letter\* from the

\* Dated 8th April 1876, No. 62.

Vice-President of the Local Fund Board, Ellore Circle, and an extract from the Proceedings† of the Local Fund Board of that Circle, regarding the embank-

† Dated 18th March 1876.

ment and road from Vijeshwaram to Polaveram.

ENCLOSURE No. 1.

From C. A. BIRD, Esq., Vice-President, to J. HOPE, Esq., President of the Local Fund Boards, Godavery District, dated Ellore, 8th April 1876, No. 62.

With reference to your endorsement on the Revenue Board's Proceedings (returned), dated 11th February 1876, Miscellaneous No. 1,272, passed on G.O., No. 185, of 28th January 1876, I have the honor to forward, herewith, an extract from the Proceedings of this Board at a meeting held on 18th March 1876, from which you will observe that they have agreed to contribute Rupees 26,150, in addition to the sum of Rupees 30,000 already agreed upon, for constructing and raising the river embankment and road from Vijeshwaram to Polaveram.

2. In the above order of Government we have been asked to contribute the sum of Rs. 43,500, which the Board are not willing to agree to.

3. You will observe that the mode in which that sum of Rupees 43,500 is arrived at, is by supposing that the Board were about to construct, at all costs, a road from Vijeshwaram to Polaveram, that they could not have constructed one for less than Rupees 73,500, and that therefore their fair share is the balance above what they have already paid.

4. Now the Board seemed to consider, at the meeting above mentioned, that the road from Vijeshwaram to Polaveram was not of a pressing nature, though the embankment was, and besides, if they had a road, it would have been better not to have it raised such a prodigious height above the level of the adjacent country.

5. But waiving these objections for the present, in consideration of what has been already agreed to be paid by the Board, they came to the conclusion that they would not allow that sum of Rupees 30,000 to be thrown away, but would make what they consider must be admitted by all parties concerned to be a fair and liberal offer, viz., Rupees 26,150.

6. This amount is calculated on the supposition that the former agreement that the Local Fund Board will keep the road, and consequently the embankment in repair is still binding. The sum offered is arrived at as follows: A road from Vijeshwaram to Polaveram is estimated to cost at least Rupees 73,500, and the Board are not inclined to dispute the fact.

7. The Board formerly agreed to keep the road, and consequently the embankment in ordinary repair, and then the share to be paid by them was three-eighths, which amounted to Rupees 30,000. But it does not hold good in the event of these having to pay the full amount of estimate for the road in question that they should relieve the Imperial Funds of the cost of all ordinary repairs. Therefore, calculating the yearly cost which the Imperial Funds would have to meet in keeping the embankment in repair at Rupees 817, which is at the rate of Rupees 33½ per mile, the Board deduct the sum of Rupees 19,350 which, as capital at 5 per cent., would yield yearly Rupees 817, which is the estimated charge for keeping the embankment in ordinary repair.

1376 Department  
88-5850  
The Financial Dept

Public Works Department.

PROCEEDINGS of the MADRAS GOVERNMENT.

Under date the

Read the following:—

*Pro. of the Bd of Revenue (48 No 1224 of 10 May 76)  
I have written through the Financial Dept  
I think the words "the surface" really  
distinct enough  
with a road. The sub-division  
the edges will not meet  
damaged by the heavy rain  
cattle &c. and much more  
damaged & heavy rain fall  
than if road  
was there*

*His Grace the  
Governor in Council  
concur with the Board  
of Revenue in the opinion  
that Local Fund Boards  
should be considered  
responsible for the main-  
tenance only of the top  
surface of river embank-  
ments which are utilized  
as roads, and that the con-  
servancy of the embank-  
ments otherwise should  
be provided for from  
Imperial funds.*

*The local fund should maintain  
the road way. The faces  
of embankment from all  
damage except subsidence  
of foundation or flood  
damages. I should specially  
maintain all ramps along with  
at the same time I should  
have thought a road  
at such a height in view  
of the district - nearly  
seen*

8. The estimate of Rupees 817 was roughly made by Mr. Martin, an officer of the Public Works Department, who was present at the meeting.
9. You will observe, further, that the Board desire that they should be relieved from the responsibility of reconstructing any portion of the embankment should it unfortunately happen to be washed away by a flood, and consider that some understanding regarding this should be come to at once.
10. My own opinion is that if the Board keep this road and embankment in ordinary repair, they should be in no way responsible for damage caused by flood, all which, in unlikely event of its occurring, should be remedied from Imperial Funds.

(True Copy.) (Signed) J. HOPE,  
President.

ENCLOSURE No. 2.—Extract from Proceedings of Local Fund Board.

- SUBMITTED for the orders of Government with reference to G.O., dated 28th January 1876, No. 185.
2. The Local Fund Board's contribution towards an estimate of Rs. 80,000 was fixed at Rupees 30,000, on the understanding that the future maintenance of the road was to be provided from Local Funds. The Circle Board now state that their agreement to keep the road in repair carries with it the necessity for keeping the embankment also in ordinary repair: they estimate these annual repairs at Rupees 33½ per mile, and the capitalized value at Rupees 16,350, which they therefore deduct from their further share of the cost of completing the road, viz., Rupees 43,500. They agree to pay a further sum of Rupees 26,150, which should be Rupees 27,150, provided it is distinctly understood that they are to be held responsible only for ordinary repairs and not for the reconstruction of any portion of the embankment which may be carried away by flood.
  3. The Board do not know how far the repairs of the road and embankment are separable; but it seems unadvisable that the Local Fund Board should have anything to do with the conservancy of the embankment.

(True Copies and Extract.)

*W. H. French*  
Acting Secretary.

To the Chief Secretary to Government, Financial Department,  
with extract from Proceedings of Local Fund Board, to be returned.  
President of the Local Fund Boards, Godavery District.

Exd. W. H. French.

*Received 22 May 76  
MAY.  
No. 1,224  
Board of Revenue,  
MADRAS.  
1876.  
Proceedings, 10th May 1876, No. 1,224.  
Received 22 May 76  
Encd. 1/6  
N. 100-*

2. Under this ruling, which will be applicable to all similar cases, the Local Fund Board, Ellore Circle, will be relieved of the anticipated charge of Rupees 819 per annum for the conservancy of the embankment from Vijeshwaram to Polavaram, and its capitalised value which this Board has calculated to be Rupees 16,350 will not be deductible from the estimated additional cost of the embankments due to making them wide enough to carry a roadway. This difference or rather the cost of a separate road was roughly estimated

by the District Engineer at Rupees 3,000 a mile, or Rupees 75,500 for the whole length, of which Rupees 30,000 have already been contributed under the former estimate, but although under the altered arrangement the Board would apparently not object to pay the balance of Rupees 45,500, the Government <sup>think</sup> consider that some consideration should be shown to the remarks of the Board on two points, 1<sup>st</sup> that it was the embankment and not the road which was urgently required, 2<sup>ndly</sup> that a road on a less high level would have been more convenient

simply as a communication.  
To these considerations  
may be added the fact  
that the wider embank-  
ment is safer as a  
protective work, and  
His Excellency in Council  
resolves therefore to  
reduce the share charge-  
able to Local Funds  
to Rupees 2,500 a mile,  
or Rupees 61,250 altogether,  
leaving a balance of  
Rupees 31,250 instead  
of Rupees 43,500 to be  
provided by the Board.

3. The revised estimate  
of Rupees 1,48,730 is now  
sanctioned under  
Ordinary Agricultural,  
Original Works - Object of  
Work - River Embankments,  
and this sanction has been  
registered as No. 197

H.O. 15<sup>th</sup> January/76, 21094  
" 29<sup>th</sup> February/76, 21560

Subt. Engr.  
S. Engineers  
C. E. for J.  
Ex. P. W. D.

## Memorandum

All ramps required for local  
village traffic should, it is  
considered, be provided from  
Imperial funds & be similarly  
maintained. The necessity  
for them is occasioned by the  
embankments, which would  
otherwise cause much inconve-  
nience, while the embank-  
ments themselves would suffer.  
Instructions to provide such ramps  
are given by the Chief Engineer for  
I very frequently when flood  
banks are inspected by 19/7/76

The following information is submitted with reference to the remarks of His Grace the Governor on the Draft Order on Proceedings Board of Revenue, No 1224. 10<sup>th</sup> May 1876.

The embankment will be gravelled at the expense of Local Funds and it appears to be probable that the possible increased cost of conservancy of the slopes due to traffic and to rainfall not absorbed on the top will be covered by the saving on repairs of the top.

If the Local Funds are to bear the cost of maintaining the slopes, the Rupees 817 yearly, or its capitalised value Rupees 16,350, will be claimed as a set off.

Embankments when not regularly adapted for carrying roads are much injured by cattle

*[Faint handwritten notes, mostly illegible due to fading.]*

Rotacammund  
7<sup>th</sup> July 1896

Lieutenant Sir. Colonel &c.  
 Joint Secretary to Govt.  
 P. W. Dept.

3. His Grace the Governor  
in Council desires the  
general subject of the combina-  
tion of roads with flood  
or Canal embankments  
be further considered  
in order that a decision  
may be come to as to the  
arrangements to be made  
generally applicable. It  
is considered that road-  
ways along embankments  
must lead to additional  
wear and tear, particularly  
from their use by Cattle,  
which cannot be entirely  
kept off the roadway. The  
location of roads on  
high

high embankments moreover  
must often be inconvenient,  
by causing difficulty of  
communication with  
adjacent lands either  
necessitating steep inclines  
or the diversion of the road  
itself from what would  
be the most convenient  
direction for the traffic  
to be accommodated, while  
a road constructed along  
a river embankment can  
only accommodate land  
upon one side - in effect  
only a moiety of the land  
of the District which would  
be accommodated by a road  
passing through the centre  
of a certain area. On the  
other hand some additional  
security

security is obtained in the  
case of flood hazards by  
the consolidation of the  
embankment by the road-  
way, the more certain  
up-trap is ensured by  
the necessary maintenance  
of the full width necessary  
to carry road-way. The  
opinions of the collectors  
and District Engineers  
of the Godavery, Nistara,  
Koller, South Arcot,  
Pangora and Sinnerally  
Districts, in which  
combinations of river &  
flood embankments  
and roads are, or are  
likely to be, most  
frequently

frequently suggested will  
be obtained as to whether  
1<sup>st</sup> such combination is  
desirable.

2<sup>dly</sup> if it be desirable,  
what contribution from  
Local funds, in addition  
to the cost of maintaining  
the road surface and  
providing ramps for  
the access of traffic  
from adjoining lands  
to the roadway on the  
top of embankments,  
should be required in  
order to cover the increased  
cost of repairs to the  
embankments, due to  
their being used as  
communications. It  
should not be lost  
sight of that a breach

in

in an embankment  
used as a road must  
necessarily stop traffic  
for some time, whereas  
a low level road, even  
if damaged, can be  
readily made passable  
again.

No 1998

Public Works Department.

PROCEEDINGS of the MADRAS GOVERNMENT.

UNDER date the 6 Aug 76

READ the following:—

Pro. of the B. of Searum (H.E. No 1224 of 10 May 76)  
 This the Financial Dept

B (2/3)

The recommendations made by the Board of Searum in para 3 of their Proceedings will be acted upon in this particular case and the Local Fund Board will be deemed responsible only for the proper upkeep of the roadway on the top of the embankment from Vijeshwaram to Polavaram, and under these circumstances no deduction will be required from the com-

tribution, shown to be due from local funds for widening the embankment to carry the road, on account of the concurrency of the embankment itself which will be provided for from Agricultural funds. On a consideration of all the circumstances however the local fund contribution will be reduced from Rupees 3,000 to Rupees 2,500 a mile, which will make the total subscription Rupees 6,250, leaving a balance of Rupees 31,250, instead of Rupees 43,500, to be provided by the L. F. Board.

2 The revised estimate

G.O. 15<sup>th</sup> January 1976, No 914  
" 29<sup>th</sup> February 1976, No 560

of Rupees 148,700 is now sanctioned under Ordinary Agricultural, Original Works, object of work - River embankments, and this sanction has been registered as No 107 L of 1876-77.

3. His Grace the Governor in Council decides the general subject of the combination of roads with flood or canal embankments to be further considered, in order that a decision may be come to as to the arrangements to be made generally applicable. It is considered that ~~roads~~ ways along embankments must lead to additional wear and tear, particularly

from their use by cattle  
which cannot be entirely  
kept to the roadway.  
The location of roads  
on ~~high~~ embankments

moreover must after  
be inconvenient, ~~by~~ <sup>causing difficulty of</sup>  
~~from~~ <sup>communication with adjacent</sup>  
~~the road~~ <sup>land</sup> ~~the road~~ <sup>occupying</sup>  
~~the diversion of the road~~ <sup>considerable steep incline</sup>  
itself from what would  
be the most convenient  
direction for the traffic  
to be accommodated.

On the other hand additional  
security is obtained  
in the case of flood  
banks by ~~making them~~  
~~embankments of the roadway~~ <sup>the roadway</sup>  
~~the roadway~~ <sup>the roadway</sup>  
~~the roadway~~ <sup>the roadway</sup>  
The opinions of  
the Collectors and  
District Engineers of the  
Godavari, Krishna, & others,  
South Coast, Tanjore and

while a road constructed along  
a river embankment can  
accommodate land upon  
one side - in effect only a  
minority of the land adjacent  
to the river is available for  
cultivation as the road  
passing through the  
center of the culture  
area

I allie this  
because the  
bank should  
be thick enough  
to resist flood  
water without  
a wall.

1. Annually districts, in  
which combinations of  
side & flood  
embankments and roads  
are, or are likely to be,  
most ~~convenient~~ <sup>frequent & successful</sup> will be  
obtained as to whether  
1st such combination is  
desirable.

2ndly if it be desirable, what  
contribution from local  
funds, in addition to  
the cost of maintaining  
the road surface and  
providing ramps for  
the access of traffic  
from adjoining lands  
to the roadway on the  
top of embankments,  
should be required in  
order to cover the necessary  
cost of repairs to the  
embankments, due to  
their being used as  
communications. It  
should not be lost

sight of that a breach  
in an embankment  
used as a road must  
necessarily stop traffic  
for some time, whereas  
a low level road, even  
if damaged, can be  
readily made passable  
again.

Finl. Sept. 17  
St. Engineer. 121.  
Ch. for I. & S.  
by Bnd. 15  
Recd. Dept. 17  
Despatched. 17  
Date 26/8/6

5-650  
 Sd/- of 1876 Madras  
 PUBLIC WORKS.

All District Engineers

6  
 8  
 9

100 - 101

Princ  
In Government and road  
from Vysakhavaram to  
Polavaram - Porabery &

~~Passing order~~  
 sanctioning with obser-  
 vations the revised estimate  
 for the —

29-8-1901