

(1) Number of pages 20
(2) Date of repair 3/11/86
(3) Initials of the Referencer lwa ✓

TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

FW DEPARTMENT

G.O. No.	1249(W)	Press.
B.P. No.		Mis.
Dated 28-4-1829-197.		

Not to be folded or roughly handled

Copy

1249
1

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

28th April 1879, No. 1,249 W.

Buildings and Roads.

Civil Works.

Read the following paper :—

No. 231. Endorsement of the Acting Chief Engineer for Irrigation, dated Fort St. George, 2nd April 1879, No. 17 E.W.

Extracts from Inspection Notes of the Superintending Engineer, First Circle, for February 1879.

* * * * *

RAJAHMUNDY SUB-DIVISION, 14TH AND 15TH—*Road from Samuleottah to Kattipadu.*—This has been much cut up by the cyclone rains in 3rd, 4th, 8th, 9th miles and many avenue trees blown down.

15TH AND 16TH—*Trunk Road* from junction of Kattipadu Road ($44\frac{1}{2}$ miles) to Tuni (62 miles).—This has not been much damaged by cyclone except as regards its avenue trees, scores of which have been blown down.

DISTRICT, VIZAGAPATAM—DIVISION, VIZAGAPATAM, between 17th and 25th—Over the *Trunk Road* from Tuni ($60\frac{1}{2}$ miles from Vizagapatam) to where the branch road from Vizagapatam joins it (at 18 $\frac{1}{2}$ from Vizagapatam).—

This has in parts been breached and dreadfully cut up by the floods of 7th and 8th December. Some emergent repairs were done quickly which made it just possible for the wing of the 29th Regiment, on the march from Rajahmundry, to pass over it at the end of December; but since that nothing has been done, the Divisional Officer apparently supposing for some time that there would be no funds and then

* Order 49—G, dated 23rd February 1879. waiting for estimates to be prepared by the Sub-Divisional Officer. I point out* to him the advisability of, under some circumstances, departing from the generally excellent rule of pre-estimating, and I issue instructions as to the places to be first and at once dealt with to make the road decently passable.

The *Road from the Trunk Road near Anakapalle to Vizagapatam* (inspected 25th and 26th) did not suffer much and is in fair order except in the last portion of the 14th mile, which requires immediate attention.

* * * * *

On 19th, inspected the various public buildings of Yellamahelly. The *Munsif's Court* requires the mending of the glass ventilators and the venetians broken during the cyclone.

The out-buildings of the *Taluk Cutcherry* suffered much by the cyclones; the *ryots' shed* has fallen down and the roof of the *latrine* has moved.

In one of the wards of the Subsidiary Jail one of the upright iron bars of the door is broken where rivet passed through it, the upright bars having been rivetted to the cross bar instead of passing through holes in it.

† Since writing the above I have been told that a new office at Yellamandully was sanctioned in G.O., No. 3,550, dated 17th December 1874; but no funds have been provided.

The Sub-Divisional Office was formerly a Police Station; it is in a horrible state of disrepair and I consider it will be advisable to build an entirely new and more† suitable office.

* * *
Dispensary at Anakapalle.—The water in the flood went about 15 inches over the floor of this; the pavement of the verandahs and parts of the rooms (the filling in under which was probably earth and not sand) has sunk much. In the dispensary room the truss has been placed over the doorways and apparently rests directly on the arches over the openings without any slab or anything to distribute the pressure, and the arches seem to have skew backs of chiefly mortar; the consequence of all this is that the arches over the doorways are dangerously cracked and the truss has to be propped up with junglewood posts.

* * *
School-house.—The water stood 2 feet 6 inches on the floors of this. The building is in fair order except the chunam floors which are much broken up, especially in the verandahs where cattle seem to herd at night.

* * *
Pudimadaku Road, Northern, five miles.—For nearly the whole distances the metal and gravel of surface washed away, and southern three miles riddled with breaches and gaps.

24th.—Over the Chodavaram road to see the Govada bridge which this flood destroyed, leaving only three arches standing out of nine. All the destroyed work and one of the remaining piers were built on three wells 7 feet deep with 4 feet solid above, whilst the piers for two of the remaining arches and the remaining abutment and wings were founded solid on clay. It seems to me very evident that in these streams with a very rapid bed-fall well foundations with only the usual flooring and shallow retaining walls to same are pretty certain to come to grief; there must be curtain walls to a considerable depth along the whole length of the work, both front and rear, to prevent scour under the floor; scour from the surface downwards is nearly all that the floors of many bridges provide against, and in rivers of small fall this is often enough; in these mountain torrents the case is different. I consider also that the system, which is nearly universal, of putting flooring so high is a mistake; what is often adopted as the deep bed in sandy rivers is merely the lowest place when the river is dry or nearly so, which is very different, especially in rapid streams from the real deep bed when in flood, and irrespective of the question of depth of foundations the floors should be placed as low as they can be without excessive cost for baling instead of being put up at what is considered the top of the foundations. If the foundations are on wells the top of them would be a better level for the floor than, as is now almost universal, the top of the solid part of the foundations some 4 feet or so above the wells; if the foundations rest on clay or depend entirely on solidity under them than if a floor has to be placed at all, it would be best at close to the bottom of the foundations.

I make out from water-marks that the flood never came within 4 feet 6 inches of the crown of the arches of this bridge, which fell, I have no doubt, from the moving of the sand under the floors and the wells being thereby deprived of their supporting power. There is no chance of getting this bridge restored this season, and I order the last pier to be buttressed and ramps to the bed of the river made as easy as possible for the traffic. From a short distance above Anakapalle for about two miles the flood swept over this road, obliterated it in parts, and breached it in others.

The damage done in this division is piteous to see and will take years of patient labor to repair. Most unfortunate has been the necessity for restriction of expenditure, and the staff of the department appears to have been paralyzed by the extent of the damage and the want of funds combined.

FORWARDED to the Chief Engineer, Public Works Department.

(Signed) J. O. HASTED, Lt.-Col., R.E.,
Ag. Chief Engineer for Irrigation.

No. 232. ORDER THEREON, 28th April 1879, No. 1,249 W.

COMMUNICATED to the Financial and Educational Departments for information.

2. The Government observe that the Local Fund Budgets have not as yet been received from the Board of Revenue. It is therefore not known what provision (if any) has been made during 1879-80 for the dispensary at Anakapalle and for the several roads referred to by the Superintending Engineer.

3. For the school-house at Anakapalle no provision is made in the Educational Fund Budget for 1879-80. It is suggested that, if it is a Government building, the necessary funds for repairs may be provided from the unappropriated reserve alluded to in paragraph 2 of G.O., Financial Department, No. 1,986, dated 2nd November 1878.

4. For the Sub-Divisional Office at Ellamanchili an estimate amounting to Rupees 2,320 was sanctioned in G.O., No. 3,550, of 17th December 1874, but no funds appropriated. As the question of Sub-Divisional Office accommodation is now under consideration, no present action is necessary in regard to this work.

5. Provision for the other works referred to, which are petty repairs, should be made by the Superintending Engineer from the Provincial allotment placed at his disposal for 1879-80.

(True Extract.)

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

To the Superintending Engineer, First Circle.

" Public Department.
" Educational Department.
" Financial Department.

Ed. G. Freeman.
Spare Copies

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of (1879) *Madras*.

PUBLIC WORKS.

To
THE SUPERINTENDING ENGINEER,
FIRST CIRCLE.
Secy. to Govt.

Dated April 26th.

From

Secy. to Govt.

G. O., 28th April 1879, No. 1249 W.

APRIL

Nos. 231-232.

Inspection Notes of the Superintending
Engineer, First Circle, for January 1879.
Extracts from — communicated with
remarks to the Financial and Educational
Departments for information.

Under heading 1249
Extracts from Inspection Notes of the
Superintending Engineer, First Circle,
for February 1879

1249
3

14th and 15th Road from Samulathu to Katti-
padi. This has been much cut up by the
cyclone rains in 3rd, 4th, 8th, 9th miles and many
avenue trees blown down.

15th and 16th Trunk Road from junction of Katti-
padi Road (44 1/2 miles) to Tuni (62 miles) this
has not been much damaged by cyclone
except as regards its Avenue trees some of which
have been blown down.

District, Vizagapatam
Divn. Vizagapatam Between 17th and 25th — Over the Trunk
Road from Tuni (60 1/2 miles from Vizagapatam)
to where the Branch Road from Vizagapatam
joins it (at 18 6/8 from Vizagapatam)

This has in parts been breached and
dreadfully cut up by the floods of 7th and 8th
December. Some emergent repairs were done
quickly which made it just possible for the
wing of the 29th Regiment, on the march from
Rajahmundry, to pass over it at the end of
December. but since that nothing has been
done. the Divisional Officer apparently supposing
for

for some time that there would be no funds
and then waiting for estimates to be prepared
by the Sub-Divisional Officer. I point out ^{+ Order 49 dated}
to him the advisability of under some cir- ^{25th Feby. 1879.}
-cumstances departing from the generally
excellent rule of pre-estimating - and I issue
instructions as to the places to be first and
at once dealt with to make the Road decently
passable.

The Road from the Trunk Road near
Ankapiilly to Vizagapatam inspected 25th
and 26th did not suffer much and is
in fair order except in the last portion
of the 14th mile which requires immediate
attention.

On 19th - Inspected the various Public
Buildings of Yellammahilly. The Munsiff's
Court requires the mending of the glass
ventilators and the panes broken during
the cyclone.

The out buildings of the Taluk Cutcherry
suffered much by the cyclones. The "pyots
shed" has fallen down and the roof of the
latrine has moved.

In one of the wards of the subsidiary
jail one of the upright iron bars of the
door is broken where rivet passed through
it

it, the upright bars having been pivotted
to the cross bar instead of passing through
holes in it. 1249

* Since writing the
above I have been told
that a new office at
Yellamandully was
sanctioned in G.O.
3550 dated 17th Decr 1874
but no funds have
been provided.

The Sub-Divisional Office was formerly a
Police Station. It is in a horrible state of
disrepair and I consider it will be advisa-
-ble to build an entirely new and more
suitable Office.

Dispensary at Ankapiilly. The water in the
flood went about 15" over the floor of this. the
pavement of the verandahs and parts of the
rooms (the filling in under which was probably
earth and not sand) has sunk much. In
the dispensary room the truss has been placed
over the door ways, and apparently rests directly
on the arches over the openings without any
slab or anything to distribute the pressure
and the arches seem to have shewn backs
of chiefly mortar. the consequence of all
this is that the arches over the doorways
are dangerously cracked and the truss
to be propped up with jungle wood posts.

School House. The water stood 2'-6" on the
floors of this. The building is in fair order
except the chunam floors which are much
broken up especially in the verandahs where
cattle

cattle seem to herd at night.

Pudimadaka Road, Northern 5 miles. For nearly the whole distance the metal and gravel of surface washed away and Southern 3 miles riddled with breaches and gaps.

24th. Over the Chodavaram Road to see the Govada Bridge which this flood destroyed leaving only 3 arches standing out of 9. All the destroyed work and one of the remaining piers, were built on 3 wells, 7' deep, with 4' solid above, whilst the piers for 2 of the remaining arches and the remaining abutment and wings were founded solid on clay. It seems to me very evident that in these streams with a very rapid bed fall, well foundations with only the usual flooring and shallow retaining walls to same, are pretty certain to come to grief, there must be certain walls to a considerable depth along the whole length of the work both front and rear to prevent scour under the floor, scour from the surface downwards is nearly all that the floors of many bridges provide against and in rivers of small fall this is often enough, in

1229/5

P3
in these mountain torrents the case is different. I consider also that the system which is nearly universal of putting flooring so high is a mistake, what is often adopted as the deep bed in sandy rivers is merely the lowest place when the river is dry or nearly so, which is very different, especially in rapid streams from the real deep bed when in flood and irrespective of the question of depth of foundations the floors should be placed as low as they can be without excessive cost for baling instead of being put up at what is considered the top of the foundations. If the foundations are on wells the top of them would be a better level for the floor than, as is now almost universal, the top of the solid part of the foundations some 4 feet or so above the wells, if the foundations rest on clay or depend entirely on solidity under them then if a floor has to be placed at all, it would be best at close to the bottom of the foundations.

I make out from water marks -
that the flood never came within 4'-6"
of the crown of the arches of this Bridge
which fell. I have no doubt from
the moving of the sand under the floors
and the wells being thereby deprived
of their supporting power. There is no
chance of getting this bridge restored -
this season and I order the last pier
to be buttressed and ramps to the bed
of the river made as easy as possible for
the traffic. From a short distance above
Anakapully for about 2 miles the flood
swept over this road obliterated it in
parts and breached it in others.

The damage done in this division
is pitious to see and will take years of
patient labor to repair. Most unfortunate
has been the necessity for restriction of
expenditure, and the staff of the Depart-
ment appears to have been paralyzed
by the extent of the damage and the want of
funds combined.

Forwarded

Forwarded to the Chief Engineer, P. M. D.

1249
6
For the Chief Engineer
2^d April 1879

For the Chief Engineer
Ag. Chief Engineer for Inspr.

For the Chief Engineer
P. M. D.

G.O. No 1986 d/2^o Oct. 1878

Ms. 928-4-77 N. 1249 Tr

Cir 24.4.79 Retd 26.4.79
To 204.16.4.79-

1289
7

Note on C No 2714

As the Local Fund Budgets have not as yet been received from the Board of Revenue, it is not known what provision ^{has been} made ~~during 79-80~~ ~~for the~~ ~~Fund Budgets~~ for the Dispensary at Ankapilly and for the several roads mentioned in this paper.

2. For the School house at Ankapilly, no provision is made in the Educational Fund Budget. That Department might be requested to provide the necessary funds from the balances at their disposal.

3. For the Divisional Office at Yellammuchelly, an Estimate amounting to Rs 2320 was sanctioned in G.O. No 3550 of 17th December 1874 but no funds are provided. As the question of

of Sub Divisional office accom-
modation is now under consideration,
no present action seems necessary
in regard to this work.

Provision for the other
works referred to, which are petty repairs,
could be made by the Supergr
from the Provincial Allotment
placed at his disposal for

79-80-

G.O. No 12497

28-4-79

12497 No 1249 W
Proceedings of the headras Govt.

Under date the 28th April 1879

Read the following

Endorsement of the
Chief Eng for S } (S.C. No 17 S.C. 72nd
April 1879.)

Communicated to
the Financial and
Educational Departments
for information.

2. The Government
shows that the
Local Fund Budgets
have not as yet been
received from the
Board of Revenue.
It is therefore not known
what provision (if any)
has been made during

77

77

77

77

$$\frac{1229}{9}$$

16.4

9.4

E. E. S.

Cir 24-4-79. Kl 26/4
to 20.4-79. Kl 17/4

1249
110

Cu 29/4

Govt. of 1879 Madras.

PUBLIC WORKS.

To

Dated

Issued

Recd.

Encl.

A note in
Shelf.
2-5-7

G. O. 28 April 1879, No. 1249 W

Nos. 231-232.

Inspection notes of the
Punjab District Circle for July
1877. Extract from —
Commenced in the remarks to
the Financial & Educational
Depart for information.