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TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

P.W.D. DEPARTMENT

G.O. No. 3197-W Press.
B.P. No. Mis.

Dated 10-8-1878 197 .

R.R

Not to be folded or roughly handled

3197/1

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

10th August 1878, No. 3,197 W.

Buildings and Roads.
Civil Works.

Read the following papers :—

No. 115. From Major ROSS THOMPSON, R.E., District Engineer, Presidency, to the Chief Engineer, Buildings and Roads, dated Fort St. George, 2nd June 1878, No. 1,953.

One plan.

WITH reference to G.O., No. 2,174 W, of 15th May 1878, I have the honor to report that the diversion of sewage from the Cochrane's Canal north of the General Hospital bridge promises to be a tedious and expensive work.

2. In communication with the Executive Engineer of the Municipality, I have ascertained that a diversion of the sewage may be made at the end of Mint Street, near the Memorial Hall (*vide* accompanying tracing), and by means of extra piping conducted eastwards to the main sewer marked X.

3. The drain running down Hospital road and some others would also have to be taken up and relaid to alter the direction of the flow.

4. There are, however, a number of other drains north of the Hospital bridge in addition to the one more particularly in question near the temporary dam, all of which should be diverted from Cochrane's Canal if the pollution of the Cooum is to be prevented from these sources.

5. To draw up a comprehensive project for this diversion of sewage, giving all requisite details, would take some time, and the work itself would be both an extensive and expensive one.

6. As the Executive Engineer of the Municipality is naturally in possession of better information necessary for drawing up a project of this description, I would suggest the advisability of Government calling upon him for a report and estimate, granting him such extra staff as he may find necessary for the purpose.

7. The Municipality are also in possession of the necessary materials and tools, and have a staff of workmen experienced in the laying of drains and sewers. It would, therefore, I think be advisable to have the work carried out by the Municipal Engineer in the event of the Government approving and sanctioning his proposals and granting the necessary funds for carrying them out.

8. Under the circumstances, I have the honor to solicit further orders as to whether or not the dam near the Hospital bridge may be removed to admit of the salt boats passing up to the Salt Depôt. Bunds have already been constructed at the Salt Depôt, so that the Cooum cannot flow away further towards Ennore.

No. 115-A. From the same Officer, dated Fort St. George, 17th July 1878, No. 2,277.

One plan.

WITH reference to your No. 3,009, of 8th July 1878, I have the honor to report that the Municipal Engineer agrees with me in considering that the area in question cannot be "properly and effectively surface drained so as to admit of the underground drainage now used being dispensed with" for the following reasons.

In the centre of the area to be drained runs a ridge, the ground sloping on one side towards the canal, on the other towards the sea. Any surface drainage therefore must run in these two directions.

To prevent the sewage from falling into the canal, an intercepting sewer would be necessary, then to conduct the sewage to the eastern or sea side of the ridge an under-ground sewer would have to be constructed, or, if an open sewer were substituted, a cutting of more than six feet deep would be necessary to get through the ridge; even then a great part of it would have to be covered over at road crossings, &c.

Again, if an open sewer is used and continued across the esplanade to meet the main drain, it would in floods catch large quantities of storm water, unless special provisions were made to divert the storm water from the sewer into the scoop drain where it now finds vent; such arrangements would necessarily add considerably to the cost of the work.

The present main drain, moreover, is not large enough even for the amount it has now to discharge, and could not, therefore, bear the additional work which would be thrown upon it.

A scheme has been submitted to Government by the Municipal Engineer, which provides for all sewage being diverted from the canal. If there is any chance of this or any other comprehensive system of drainage being undertaken, it would, I most respectfully submit, appear well to defer the present proposed work until the drainage question could be treated as a whole.

No. 116. ORDER THEREON, 10th August 1878, No. 3,197 W.

THE District Engineer points out, as a reason why the area *in question* cannot be surface-drained, that there is a ridge running along the centre of the ground which would involve a deep cutting to carry away the drainage.

2. It would thus appear that drainage which would naturally flow to the sea has been diverted into the canal. Surface drainage necessarily implies that surface inclinations are followed.

3. Believing that in the circumstances and climate of Madras, surface drainage properly formed will, with a careful system of scavengering, be *found* the healthiest and cheapest, His Grace the Governor in Council still considers that the whole of the area served by drain A on the plan and *probably* the portion which is drained through the Railway Station should be carefully surface drained by properly formed channels, no deeper than *may* be necessary to carry off the drainage; that these drains, so far as they incline to the canal, should *empty there*, and that those tending to the sea should be continued to a suitable gully of the existing main drain.

4. It must not be overlooked that with an under-ground system of drainage the filth would accumulate to a very great extent and be eventually emptied into the canal, while with surface drainage, arrangements could readily be made for allowing nothing but actual liquid drainage from passing into the canal. The escape from surface drains would therefore be much less noxious than from those carried below the surface.

5. The area to be dealt with in the present case is small and would afford a good opportunity for practically testing the surface drainage system, while there would not probably be any very great objection to the escape of the surface drainage of a carefully scavengered area into the canal.

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6. As regards *storm* water, any attempt to divert the natural flow will prove costly, and probably not very successful in a locality like Madras where the rainfall is so heavy.

7. His Grace the Governor in Council desires that the President of the Municipality will arrange for giving early effect to the suggestions now made.

(True Extract.)

(Signed) E. A. FOORD, Colonel, R.E.,
Secretary to Govt., P.W.D.

(True Copy.)

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

To the District Engineer, Presidency.
" President, Madras Municipal Commission.
" Financial Department.

Exd. T. D. Ryan.
Spare Copies

Govt. of (1878) Madras.
PUBLIC WORKS

The DISTRICT ENGINEER,

AUGUST.
Nos. 115-116.

No. 1933.

From,

3197/27

The District Engineer,
Presidency

To,

The Chief Engineer
Buildings & Roads

Sir,

With reference to G. O. No. 2172 W. of 15 May 1878, I have the honor to report that the diversion of sewage from the Cochrane's Canal north of the General Hospital Bridge promises to be a tedious and expensive work.

Enclo.
1 Plan

2. In communication with the Executive Engineer of the Municipality, I have ascertained that a diversion of the sewage may be made at the end of Mint Street, near the Memorial Hall (vide accompanying tracing) and by means of extra piping conducted eastwards to the Main Sewer marked X.

3. The drain running down Hospital Road and some others would also have to be taken up and re-laid to alter the

the

the direction of the flow.

4 There are however a number of other drains north of the Hospital Bridge in addition to the one more particularly in question near the temporary dam all of which should be diverted from Cochranes Canal if the pollution of the Cooum is to be prevented from these sources.

5 To draw up a comprehensive project for this diversion of sewage giving all requisite details would take some time and the work itself would be both an extensive and expensive one.

6 As the Executive Engineer of the Municipality is naturally in possession of better information necessary for drawing up a project of this description I would suggest the advisability of Government calling upon him for a report and Estimate granting him such extra staff as he

may

3192/4

may find necessary for the purpose.

7 The Municipality are also in possession of the necessary materials & tools, and have a staff of workmen experienced in the laying of drains and sewers. It would therefore I think be advisable to have the work carried out by the Municipal Engineer, in the event of the Government approving and sanctioning his proposals, and granting the necessary funds for carrying them out.

8 Under the circumstances I have the honor to solicit further orders as to whether or not the dam near the Hospital Bridge may be removed to admit of the Salt boats passing up to the Salt Depot. Bunds have already been constructed at the Salt Depot so that the Cooum cannot flow away further towards Ennore.

I have the honor to be
Sir,
Your most obdt servant
[illegible]
Major

[illegible]
2 June 18[illegible]

G.O. No. 2174 W of 15 May/78 and C.E.'s 1806 – Report —

Buildings and Roads.

From
The District Engineer
Presidency

C.E.'s No. 3009 of 8th July 78

No. 1935
Dated 2nd June 1878.
Recd [illegible]

No. of Enclosures, 1.

Cochrane's Canal.—

Reports upon the diversion of sewage from the — north of the General Hospital Bridge.

to Audit 5-7-78

C.E. 5 7/78 Recd 9/7/8

2192/5

No. 2277

From,

The District Engineer,
Presidency

To,

The Chief Engineer,
Buildings and Roads.

Sir,

Enclo.
1 Plan

With reference to your No. 3009 of 8th July 1878, I have the honor to report that the Municipal Engineer agrees with me in considering that the area in question, cannot be "properly and effectively surface drained so as as to admit of the underground drainage "now used being dispensed with" for the following reasons:—

In the centre of the area to be drained runs a ridge, the ground sloping on one side towards the Canal, on the other towards the sea. Any surface drainage therefore must run in these two directions.

To prevent the sewage from falling into the Canal, an intercepting sewer would be necessary, then to conduct the sewage to the eastern or sea side of the ridge an

underground

underground sewer would have to be constructed, or, if an open sewer were substituted a cutting of more than six feet deep would be necessary to get through the ridge; even then a great part of it would have to be covered over at road crossings &c &c.

Again, if an open sewer is used, and continued across the Esplanade to meet the main drain, it would in floods catch large quantities of storm water - unless special provisions were made to direct the storm water from the sewer into the scoop drain - where it now finds vent, such arrangements would necessarily add considerably to the cost of the work.

The present main drain moreover is not large enough even for the amount it has now to discharge, and could not therefore bear the additional work which would be thrown upon it.

A scheme has been submitted to Govt by the Municipal Engineer, which provides for all sewage being diverted from the Canal. If there is any chance of this or ~~an~~ any other comprehensive system of drainage being undertaken, it would, I most

respectfully -

respectfully submit appear well to defer the present proposed work until the drainage question could be treated as a whole.

I have the honor to be,
Sir,
Your most obed^t serv^t
Major R.E.
District Engineer
Presidency.

3197/6

Fort St George
17 July 1878.

Geo L.
V.

C.E. 3009 of 8.7.78
G.O. 2174 W. 16-5-78

Buildings and Roads.

From,

The District Engineer,
Presidency.

No. 2277

Dated 17th of July 1878.
Recd 17th

No. of Enclosures, one.

Cochrane's Canal. —

Submits further report in connection with the diversion of sewage falling into —

Recir 8.8.78 Fld 10.8.78
Recir 6.8.78 Fld 8.8.78
Loavly 18-7-78
Recir 5.8.78 Fld 6.8.78
Cir 20.7.78 Fld 5.8.78

W

219

drained by drain A. &
probably that of the next when
passes through R. W. station
should be carefully surface
drained by properly
formed channels. no
deeper than necessary to
carry off the drainage —
that these drains so far as
they incline to Canal. &
run there. & as they incline
to the sea — should be
continued to a proper place
or gully of main drain —

It must not be overlooked
that all filth ~~one~~ which
is once in ~~a~~ underground
drain — ~~[illegible]~~ must be
eventually carried on &
deposited in Canal — or become
a growing nuisance in the
drain —

That in surface drainage
properly formed & with proper
scavenging — all except
actual liquid is remov

of scavenging — than the
escape from a surface
drain is much less common
than from an underground
drain —

The area to be dealt with
in this case is small —
and therefore affords a
good opportunity of
trying the surface drainage

I do not consider there
would be any great objection
to escape of the surface
drainage of a carefully
scavenged area — into the
Canal —

As regards the storm
water it will go mainly
according to the natural
fall — & any attempt to
divert it will be costly
— probably not very successful

3157

when it falls in such
quantities as at Madras

Wm. F.

A. G.'s minute should
be embodied in a
G.O. I agree with
them so far as
the general principle
is concerned. &
also as regards the
particular locality
so far as I am
acquainted with
it. As the surface
drain at this [illegible]
subdrained involves
cutting thro' a ridge —
it is evident that
the subdrainage has
diverted the natural
flow from part of the
area concerned

Expense bars my entertaining a propl for underground drainage & therefore we must be satisfied with surface drainage system

I concur with this paper

3192

PUBLIC WORKS DEPARTMENT.

Letter from the District Engineer Presidency No. 2277 dated 17th July 1878.

FOR ORDERS.

The D.E. gives no certain reasons why the area cannot be surface drained —

1st a ridge in centre of area & consequent necessity for deep cutting —

2. It then appears that drainage which would naturally flow to the sea has been diverted into Canal —

Surface drainage necessarily implies that surface inclinations are followed —

Believing ~~that~~ in the circs & climate of Madras — surface drainage properly planned will be the best & cheapest — attended of course by proper scavenging — I still consider ~~that~~ the whole of the area

20th July 1878

Circulated with reference to remarks of Members of Government on the District Engineer's previous letter.

The complete system of drainage referred to by the Municipal Engineer has not been submitted to the Public Works Dept.

E. A. Ford Col. R.E.

Secy. to Govt. P.W.D.

FOR ORDERS.

(1) Hon W. Huddleston
(2) Hon [illegible]
[illegible]

[illegible]

Recd 6.8.78 [illegible] 10.8.78
Recd 6.8.78 [illegible] 6.8.78
Cir 2.8.78 [illegible] 6.8.78
18.7.78

3197
TC

PUBLIC WORKS DEPARTMENT.

Letter from the District Engineer, Presidency, No. 1732, dated 2nd July 1878.

FOR ORDERS.

× [illegible] drain of the sea —
I would ask [illegible] why this area should not be at once properly surfaced [illegible] — it is not a large area — fall is good? [illegible] at the bridge — it will [illegible] down the Canal [illegible] water

E A Ford [illegible] Col. R.E.
Secy. to Government P.W.D.

Unless the Hosp. [illegible] drain be [illegible] I don't see how the Canal Com: is to be [illegible]
I imagine that sewage in its ordinary acceptation is drained into the Canal although much filth must enter the drain. The diversion can only [illegible] [illegible] [illegible] filth drain into the [illegible]

The diversion of the [illegible] [illegible] [illegible]

FOR ORDERS.

[illegible]

No 3197 – 10-8-78

To Actg 5-7-78

3197/11

No 3197

Public Works Department.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Under date the 10 Aug/78

Read the following :—

From
The District Engineer Presidency } (N.E. No. 1933 d/ 2nd June 1878)
— do — do — (" — " 2277 — " 17th July — ")

The District Engineer points out, as a reason why the area in question cannot be surface drained, that there is a ridge running along the centre of the ground which would involve a deep cutting to carry away the drainage.

It would thus appear that drainage which would naturally flow to the sea has been

10/8/78

R.S.

is small - and would afford a good opportunity for practically testing the surface drainage system - while there would not probably be any very great objection to the escape of the surface drainage of a carefully scavengered area into the Canal.

As regards storm water, any attempt to divert the natural flow will prove costly, and probably not very successful in a locality like Madras where the rain fall is so heavy.

His Grace the Governor in Council desires that the President of the Municipality will arrange for giving early effect to the suggestions now made.

Recd 8.8.78 wf
Cir 9.8.78 Desp 10.8.78
1st.A.A. 18.7.78 Retd 8.8.78

D. E. Presidency
Presidt. Madras M. Commrs.
Financial Dept.
Despd. 16-8-78

3197
13

Govt. of [1878] Madras,

PUBLIC WORKS

To The Chief Engr.
Presidency

Dated

Issued

Recd.

Encl.

G. O. 10 Augt 1878, No. 3197W

Nos. 115 to 116

Diversion of sewage falling into Cochrane's Canal, Madras. The President of the Municipality to arrange for giving early effect to the suggestions made for the —

Ent. in Regr.