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TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

PUB. WORKS DEPARTMENT

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Dated	27. 10. 1879	197.

MY.

Not to be folded or roughly handled

1/2698

GOVERNMENT OF MADRAS.
PUBLIC WORKS DEPARTMENT.

27th October 1879, No. 2,698 W.

Buildings and Roads.
Civil Works.

Read the following :—

No. 54. SCHEME for drainage of Black Town.

No. 55. ORDER THEREON, 27th October 1879, No. 2,698 W.

THE President of the Madras Municipality will convey to Mr. Jones the approval by Government of the care with which the details of the scheme of surface drainage have been worked out.

2. Endeavours will be made for placing at the disposal of the Financial Department an officer of the Public Works Department for the purpose of examining the scheme and considering its suitability to the town. The Chief Engineer will arrange to submit for approval as early as possible the name of the Engineer whose services he proposes to make available for this duty.

3. In the meanwhile, with a view that the merits of the scheme of Mr. Jones may be actually tested, and looking to the fact that the area to which it is suggested at present to apply surface drainage is divided into several wholly independent areas, the Government see no reason why one or more of these sections should not be at once taken up according to the plan submitted, by which means some knowledge of the exact cost and the materials most suitable would be promptly gained.

4. The Government would suggest the selection for these experiments of areas in which the drainage is proposed to be entirely surface, as they would still hope that plans may be devised for entirely dispensing with covered drains, excepting so far as concerns the crossings of streets.

5. With respect to the sewer near the hospital bridge, it is remarked that the hospital drainage has already been disconnected from it and diverted to purely surface drainage, so that the small area remaining may probably on further consideration be similarly treated.

6. This order will be communicated to the President of the Municipality through the Financial Department.

(True Extract.)

(Signed) R. H. SANKEY, Colonel, R.E.,
Secretary to Govt., P.W.D.

To the Financial Department.
„ Chief Engineer, Public Works Department.

Exd. S. T. Austin.
Spare Copies

BUILDINGS AND ROADS
CIVIL WORKS.

Govt. of (1879) Madras.
PUBLIC WORKS.

To

THE FINANCIAL DEPARTMENT.

&c., &c., &c.

Dated October 27th.

Issued

Recd.

Encl.

G. O., 27th October 1879, No. 2,698 W.

OCTOBER

Nos. 54-55.

SURFACE DRAINAGE SCHEME OF
TOWN, MADRAS.

GOVERNMENT OF MADRAS,

Public Works Department,

Stonehouse, Ootacamund,

9th August 1879.

My Lord Duke

I have looked over the
proposed part drainage scheme for
Madras as requested in your note of
the 7th inst., and beg to return herewith
the enclosures as also the papers and
plans.

In Business I see besides that
it will be a great assistance to
the Commission if I should be able
to depute a P.W. Officer to examine
the scheme and I have seen
many discrepancies arise from

want of checks by a fresh
professional opinion that I will
be strongly to support the proposed
Some delay no doubt will thus
result - Mr Jones I have no doubt
is an intelligent and well trained
Engineer but he will nevertheless
be his own satisfaction and wrong
often kind

The principle on which the Scheme
rests is that all solid matters
are to be removed from the surface
drains by "dredge and constant
scavenging" and that some such work
thus makes the underground or
closed drains - Of the principle

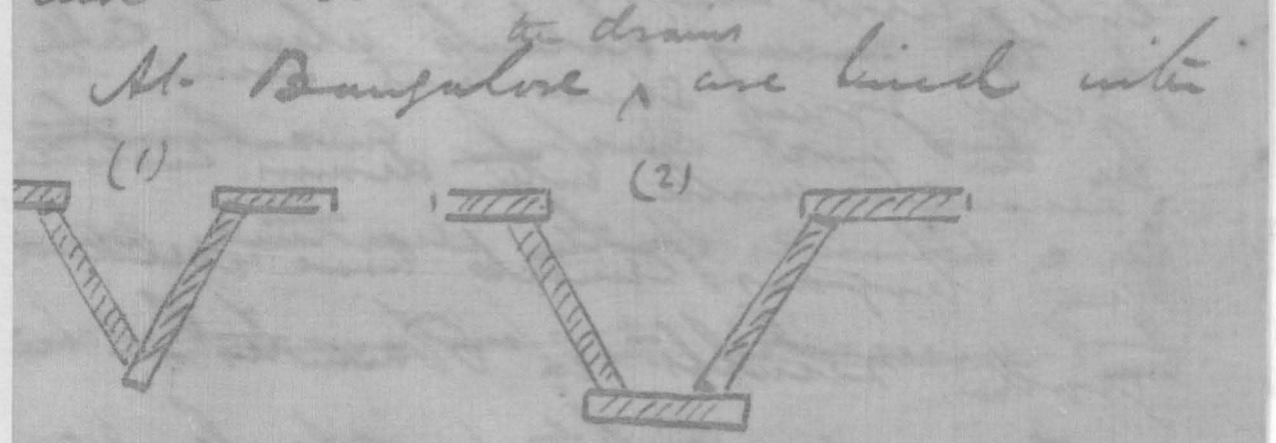
can be carried out (about which
I can however express no opinion)
the question to be solved is how to
a given amount of storm water
($\frac{1}{2}$ an inch per hour as calculated
shows a fair allowance as provided
for by Mr Jones) the section of the
surface drains can be reduced to
a minimum - This is a question
of detail - Mr Jones has solved
it one way - A fresh Engineer
~~might~~ might possibly arrive at a
better solution

Again the Sectional Plan and
materials used in constructing these
drains is a matter of vital im-
portance to the Scheme - As to

papers I see restoration showing
 the terrible results of having used
 wrong material in constructing the
 old London drain - Is this pos-
 -sibly more than anything else
 the power seems to attribute the
 work now sought to be rectified

Mr Jones shows that some ex-
 -periments made with drains constructed
 from Morgan's cement have yielded
 good results in 6 months - but
 will such results be equally good
 20, 30, 40 or 50 years hence? - This
 is the real question - The drains
 have not only to stand the effects
 of acids constantly, but in the

continued churning
 which forms the basis
 of the scheme, have to
 stand an amount of actual
 hard wear & tear which I should
 consider incompatible with anything
 but Stone Slabs



Slabs of fine rock which have
 been split off by the action of fire
 and arranged in small and
 large sections somewhat as (1) and
 (2) above - These are admirably

last to eternity with any
amount of hard usage - and
are thus cheap & probably
double or triple the cost of
less durable material

There are however only specimens
of the many details which call
for the most careful consideration
in a scheme of this nature, showing
the necessity for professional scrutiny

To my mind in all such
schemes for town drainage in
India what meets the eye
(as we may ~~say~~ the exposed
street and other drains) is

though affecting the outward
senses the most, is in reality
of secondary importance

What we really want to have
and correct is the unsightly
filth in all the dirty little
court yards screened from view
and where rotting soil is being
daily manufactured - for
by some such machinery as
caste committees for different
localities in connection with
sanitation the proper in-
spections could be made
we should make a great

towards securing proper
Sanitation — I observe that
Mr. Jones finds himself
in the face of a real difficulty
in regard to the house
connections into the street
drains.

If there is any other point
regarding which you would wish
to see an opinion I shall endeavor
to give it as I am very much
interested in all experiments of
this nature. I remain
your sincere
Obedient Servant
W. H. Lambey

Municipal Office,
Madras, 24 July 1879.

My Lord Duke,

Mr. Jones has com-
pleted his plans for
draining the South
West portion of Black
Town, and his report
has been laid before the
Standing Committee of
the Municipality who
have adjourned the
subject for future con-
sideration.

The report, along with

Towards securing proper
Sanitation - I have to

Mr. Jones &
in the face
in regard
connections
drains

If there is
regarding which
he has opinion
to give it as
interested in
the nature

4.9.27-10-27-12-26-28

plan, book of sections,
& estimate are forwarded
separately for your
grace's perusal & in-
specture. Mr. Jones
has been guided by
the instructions con-
veyed to him verbally
& in deputation letters
from your grace, and
it has occurred to the
Standing Committee that
your grace might wish

to have an opportunity of
offering some remarks
on the work before
the scheme is formally
submitted to Government
by the Commis. iners.
For the sake of convenience
I enclose a letter from
your grace about the drain-
age with some notes
thereon by Mr. Jones show-
ing to what extent your
grace's wishes have been
achieved in the present

Ernesto Laming

Scheme.

It would be of great assistance to the Commission in deciding upon the report of Mr. Jones, if the Government would appoint an Officer of the S. P. S. to examine the scheme, & report upon it to the Commission.

If your Grace would prefer the latter request being made specially, I should be glad to do so. I am

Your Grace's most obedt. Servant

L. R. Hurry

SURFACE DRAINAGE SCHEME OF
TOWN, MADRAS.

My dear Sir

8/2698
15th Oct 1878

The question of what we are rather what I should have expected to find to suggest the objection of - but I have no objection to make dear any suggestion of mine -
I have gathered from the plans & sections I have seen that no part of Madras lies below the level of the sea - that all

The parts which are very low
 have an elevation of 2 or 3 feet
 above H. W. mark.

The (own) hole & Canal looks
 as about 18 inches above H. W.
 & not more.

No. 1 & 2
 understood by surface drainage
 Jones No. 2. of which No. 1 & 3
 may be necessary as occasional but
 undesirable modifications.
 No 3 - I apprehend the section of

drain must depend on the amount
 of water to be conveyed in it. This depends
 on area drained & inclination.
 I should not myself have contemplated
 that a depth of 2 feet would be
 needed in any empirical sheet. Having
 regard to the distances which drainage
 on a map have to pass before reaching
 an outfall.

No 4 & 5 - where sewage is used for
 land. it will probably be found necessary
 to pump to lift it from wells or cisterns.
 No 7. The section is exaggerated as
 No part of Madras has been H. W.

Mark
 No 8. Probably makes the difficulty
 great as possible - but even with this
 the difficulty is not insurmountable.
 The 5/6 of square mile does not all
 fall in to the bottom of valley at the
 upper end - it is distributed over the
 whole length - and comes in from the
 sides - and altho a drain
 exists - I believe the drainage is by
 a 9 inch pipe with engine at South end
 by a 12 inch pipe at the North end
 therefore I do not take the 5x10 drain
 as any evidence of the size required

No 9. ^{9/26/87} if a dead level of any
 extent exists - it will need
 indication - but I have not seen any
 evidence of dead level - shown
 up - i.e. that is a plane - without
 inclination in any direction -
 No 10. I presume up to Beach - the
~~diff~~ objection was not - or is not - to
 drainage falling into the sea - but into
 an unlined flume - or saturating
 the bed of sand
 I do not agree with Hofer's remarks
 that the same solid matter caused by
 great underground ~~drains~~ would

be still carried by open drains —
good & constant scavenging ^{and prevent}
any solid matter being carried down
by the drains — the open drains should
be a carefully swept & cleaned as
the surface of the street — the open drains should
be so cleaned — Solid or joint
matter once in a covered drain ^{should}
be left until swept out by flushing
or in the mean time fermenting
generating gas — it will be at

once removed in any part of the
open drain —

The grade inclination required for the main
drains will depend on a variety of
circumstances connected with each —

As regards the summary of the points

1. 2. & 3. — They appear to me to
be only capable of decision on the facts
of the streets to be drained — & cannot
be decided of hypothetical cases —

No 4. if surface drainage be
completed — some will be done away
with — Many others made

& all improved
5 - in laying out the drainage - the
matter of the difficulty shd be
divided -

I am quite sure that Mr Jones will very
overcome all the difficulties raised - and
also that they will be found much less
in fact - than they at first appear to be
and that he may in a comparatively
short time render Madras one of the
cleanest - best-drained cities of India
And with his special thanks -
A. Brown 27/10

2698

I have gone
carefully over the plans I think the Mr. Pung
scheme - I suppose the actual visit test
of a well devised
scheme -

step being taken
in the matter - the
plan not being really
of the amount involved
in its real test being
set back -

27/10

I consent

27/10

I would suggest - that
get express approval
of the law with a view
to details of a scheme
of surface drainage
have been worked out
that they will endeavor
to make available
one of the Engineers of P.W.D.
for the purpose of

Examining the scheme &
its suitability to the town -
That as the fact perceived that
the area proposed to be
used ^{is} ~~is~~ ^{is} divided into several
distinctly independent drain age
areas - They see no reason
why ~~one~~ ^{one} ~~or~~ ^{or} ~~none~~ ^{none} of them should
not be at once ~~examined~~ ^{examined} ~~not~~
according to the plans submitted
& which a practical test of
^{materials} ~~the~~ ^{the} ~~results~~ ^{results} would
be promptly obtained -
The fact would suggest that those

19/2698
Areas be selected which
are proposed to be entirely separate
as they would still hope that
them may be devised for
entirely dispensing with ^{sewer}
drains - except so far as ^{sewer}
is necessary at crossings of
streets -
and with respect to the sewers
near the Hospital Bridge -
The Hospital drainage has
always been ^{from this} ~~the~~ ^{connected} ~~connected~~
devoted to purely surface
drainage - so that the
small area remaining ^{may}
safely be put to ^{use} ~~use~~ ^{use}

be also thus treated:

The Chief Engineer will be
instructed to arrange
the series of ~~some~~
experiments being made available
for examination of ~~these~~
the plans & suggestions for
the surface drawings

Recd. 22/10

Q. 6. 27-10-77 No 26, 77

June 10

Madras Drainage

W

His draft which
is pretty much made
for and with his
former sketch "draft"
should, it is thought,
issue in this dept.
(a) As at any rate proposed
in it before issuing
in the final dept.

If you are at once
able to select an
(b) officer, the name might
be entered in the
draft.

The plans have
been retained here,
in case you don't
wish to see them
again; they are

AW
(a) yes
(b) An Officer who en

and will be named
in charge of the Buckingham
Canal will in all pro-
-bability be permitted to
take his station in
Council also — but
the Order need not
be delayed in consequence

Att

25/10/79

10/10/79

1415 W. 19. 5. 79.

11/10/79

2-

B. R. R.
No. 2698 W. 29. 10. 79
Scheme for Drainage of
Black Land.

Order thereon.

The President of
the Madras Municipality
will convey to Mr
Jones the approval of
Government of the
care with which the
details of the scheme
of surface drainage
have been worked out.

2 Endeavours will
be made for placing
at the disposal of the
Financial Dept. an
Officer of the Public
Works Department
for the purpose of
examining the scheme
and considering its suit-
ability to the town

The Chief Engineer will ^{for approval} arrange to submit as early as possible the name of the Engineer whose services he proposes to make available for this duty.

3. In the meanwhile with a view that the merits of the scheme proposed by Mr. Jones may be actually tested and looking to the fact that the area to which it is suggested at present to apply surface drainage is divided into several wholly independent areas, the Government see no reason why one or more of these sections should not be at once taken up according to the plan

submitted, by which means some knowledge of the exact cost and the materials most suitable would be promptly gained

4. The Government would suggest the selection for these experiments of areas in which the drainage is proposed to be entirely surface, as they would still hope that plans may be devised for entirely dispensing with covered drains, excepting so far as ~~concerns~~ ^{concerns} ~~may~~ ^{be necessary at} the crossings of streets.

5. With respect to the sewer near the Hospital Bridge, it is remarked that the hospital drainage

has already been
disconnected from
it and directed to
purely surface
drainage so that the
small area remain-
ing may probably
on further considera-
tion be similarly
treated

This order will be
communicated to the
President of the
Municipality through
the Financial Dept

AMH

25/10/79

with 1 book of estimates, 1 mounted plan
1 Paper C-8, 1 estimate 5/12 44.
all the envelopes 5/12 44.
10/12

Encl. Dept.
Chief Engineer C.W.D.

Deid
3-11-79

13
2698


Govt. of Madras.

PUBLIC WORKS.

To

13/2/98

Dated

Issued

Recd.

Encl.

G. O. 27 Oct 1879, No. 26986

Nos. 54-55

Surface drainage scheme
of Black Town, Madras