Date taken out.	For what purpose.			Initials of clerk taking the paper or of attender.	Date returned.	Initials of attender.
	Department.	C. No.	Year.			

[L. & M.
5,000—5-4-99.]

Local & Munl. (1896) Department.

MISCELLANEOUS.

G.O., No. 1919 M.

DATED 11-11-1896.

[Despatch Abstract.]

Water-Suply.- Deferring for the present,,the consideration of the proposals recommended by the Sanitary Board for carrying out the filtering portion of the scheme for which estimates were called for in G.O. No. 1311M. dated 12-8-95, and stating that the Sanitary Board should direct their officers to de~~n~~vote their attention to the drainage of Cuddapah.

BACK PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

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anitary Board.

ues dt 11-11-96

defer for the present

eration of the ~~[illegible]~~ proposals re-

te Sanitary Board ~~con-~~

filtering portion of the

~~[illegible]~~

were called for in G.O. 12 Aug 95 & 13 [illegible]

~~satisfied that malarial~~

n that

~~[illegible] in~~ the water-

es from a distant point,

alarial germs. Evidence

~~be regretted that the~~

~~r, instead of devoting his~~

~~the much more im-~~

~~of the drainage, should~~

~~the secondary one of~~

~~water supply.~~

from orders)

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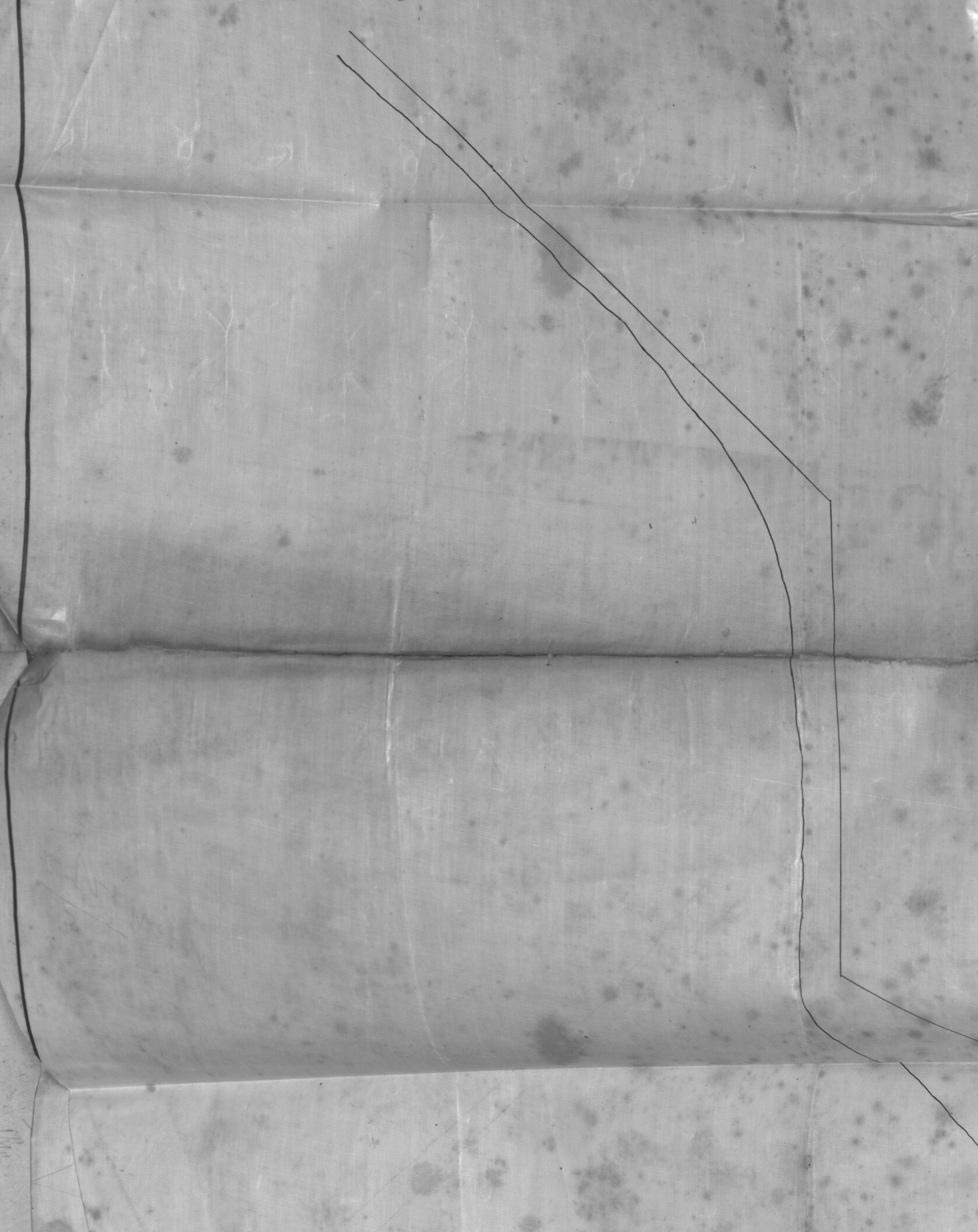
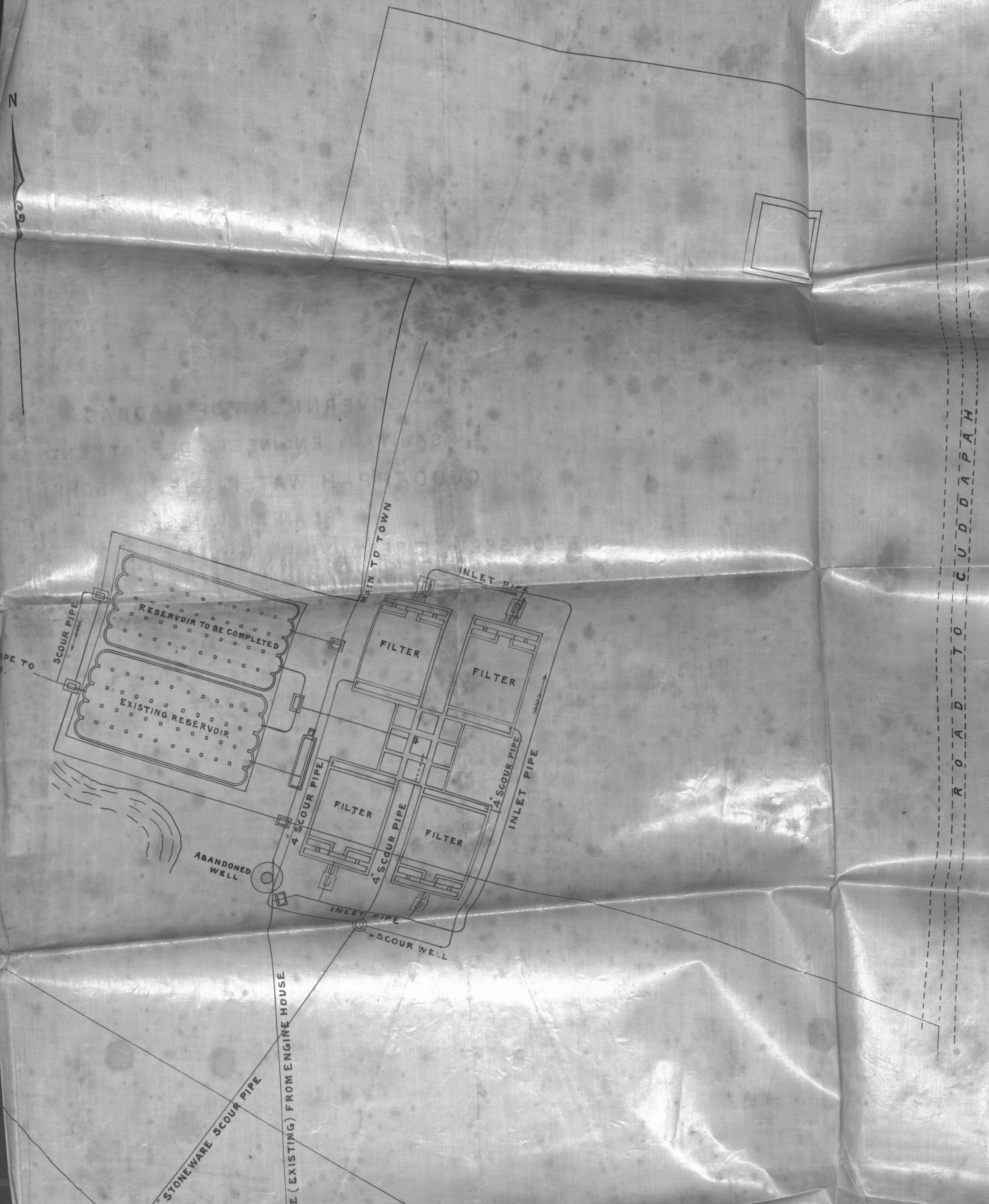
Enclosure No 3 to letter No. 2996 of 1906



OFFICE OF SANITARY ENGINEER
F ORGE 4-9-96



GOVERNMENT OF MADRAS

SANITARY ENGINEER'S DEPARTMENT

CUDDAPPAH WATER SUPPLY SCHE

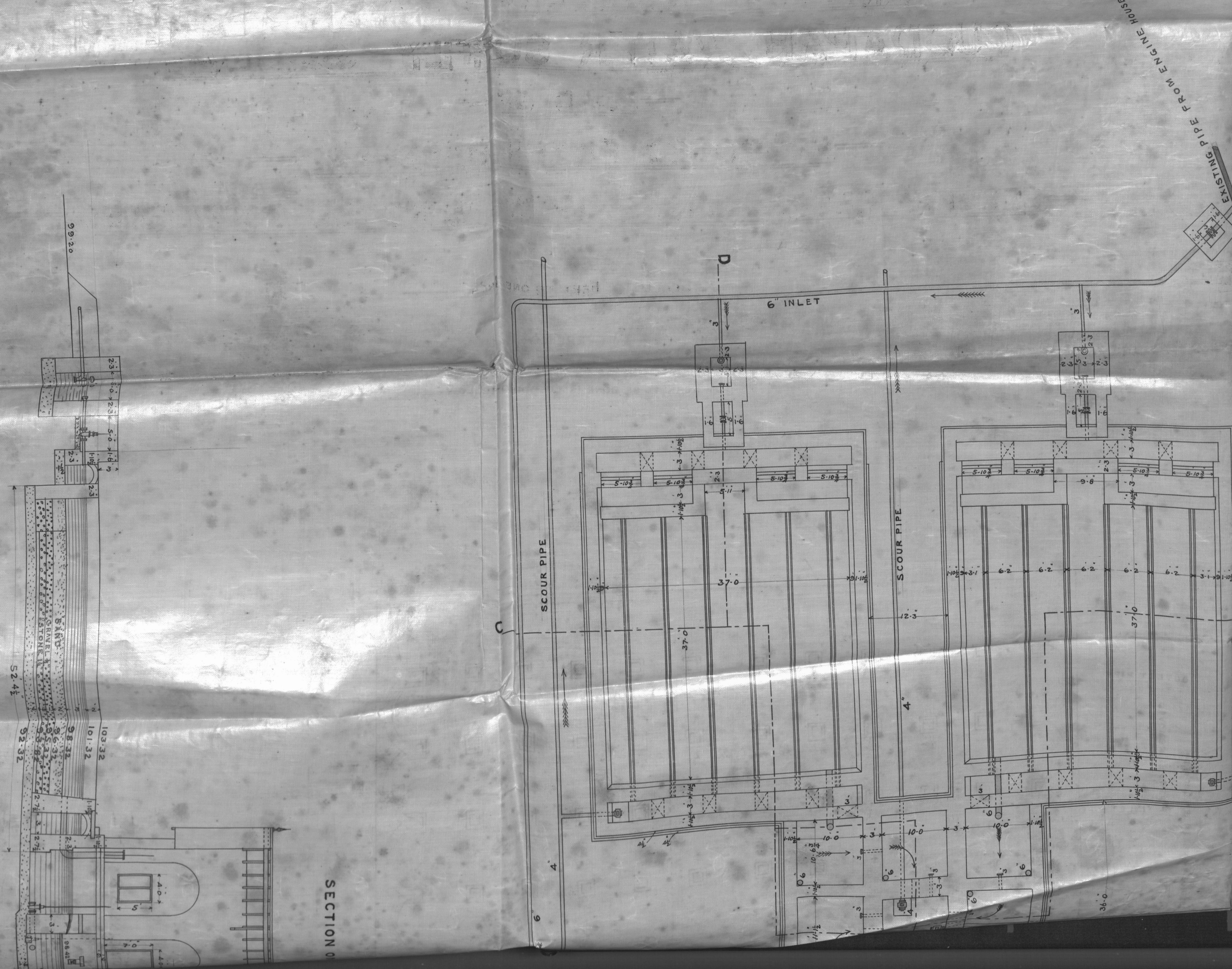
PLAN SHEWING

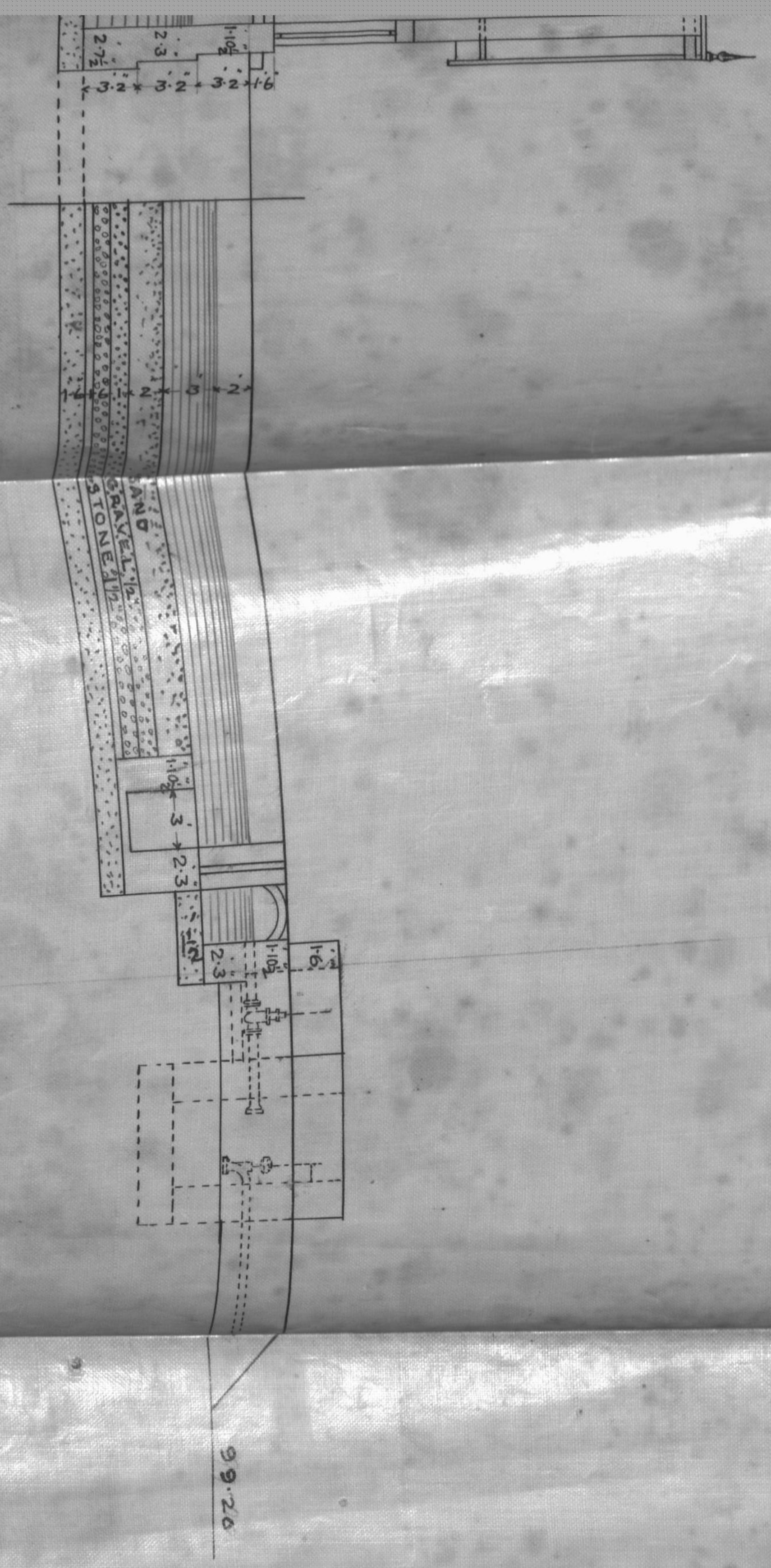
SITE OF SERVICE RESERVOIRS, EXISTING, AND TO BE
AND PROPOSED FILTER BEDS

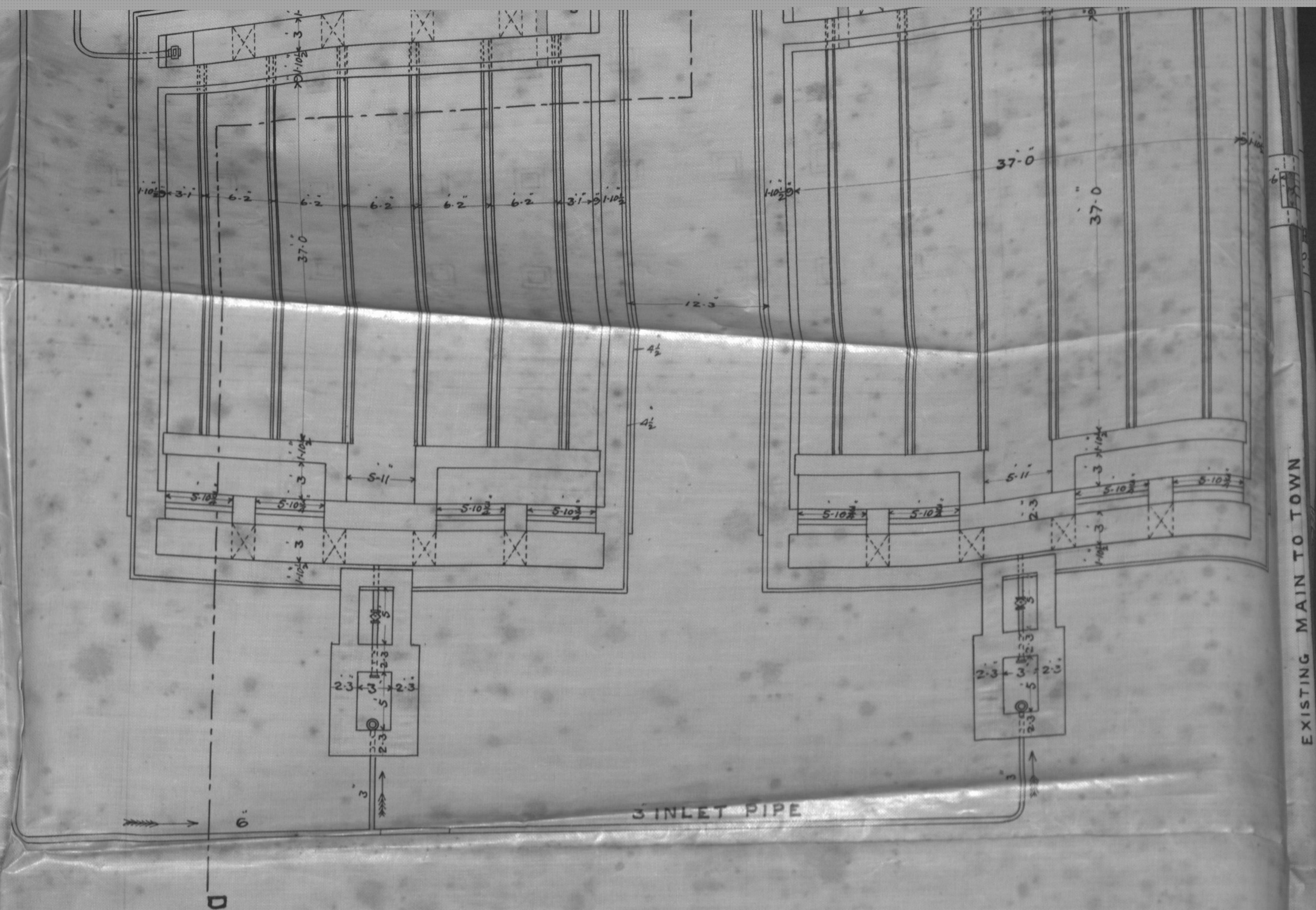
SCALE 40'=1"

MEM.I
SANITARY E
TO

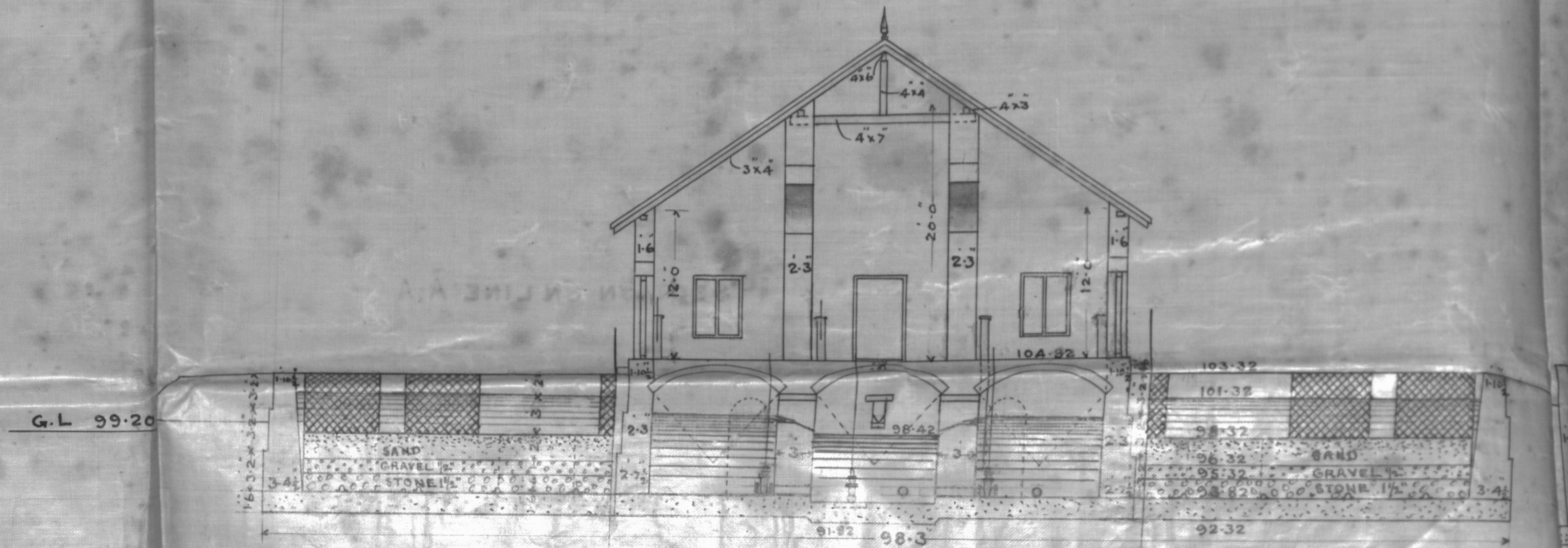
Enclosure to letter No. 2996 of 1 6







SECTION ON LINE C.C



OFFICE OF SANITARY ENGINEER
FORT ST. GEORGE

SHEET No. 2.

GOVERNMENT OF MADRAS

SANITARY ENGINEER'S DEPARTMENT

CUDDAPAH WATER SUPPLY SCHEME

PLAN OF

PROPOSED FILTER BEDS AND

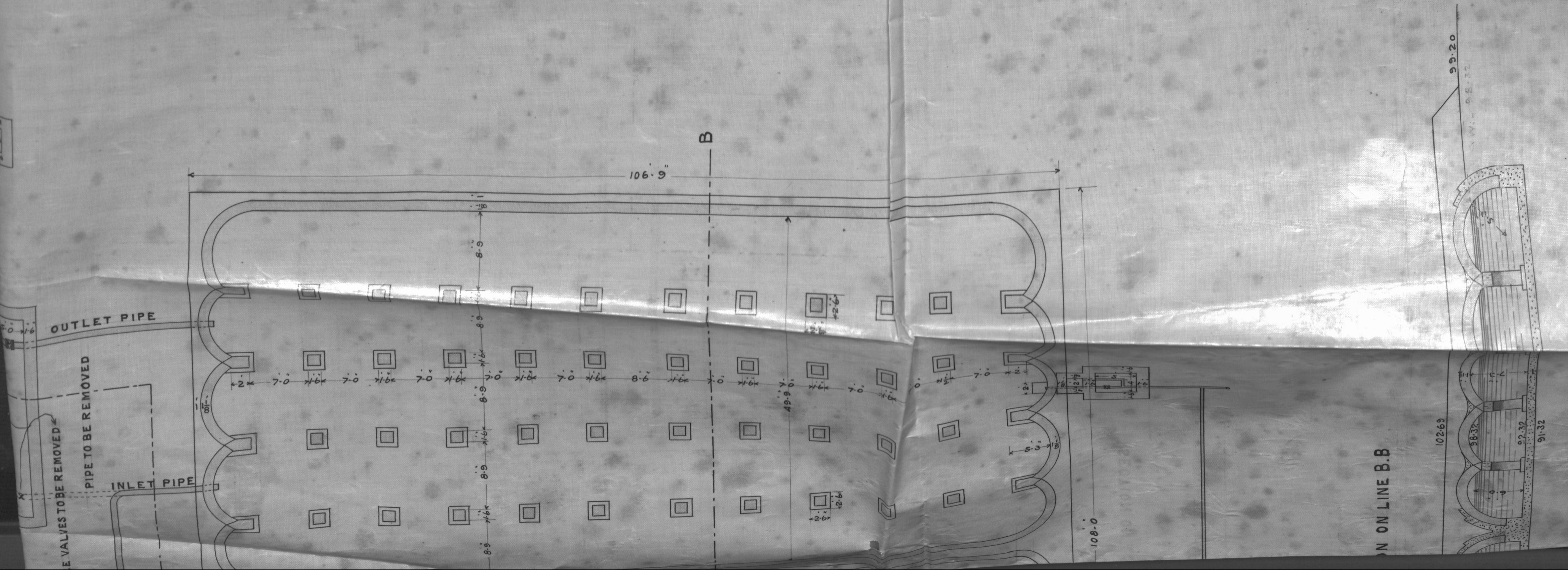
SERVICE RESERVOIRS, EXISTING & TO BE COMPLETED

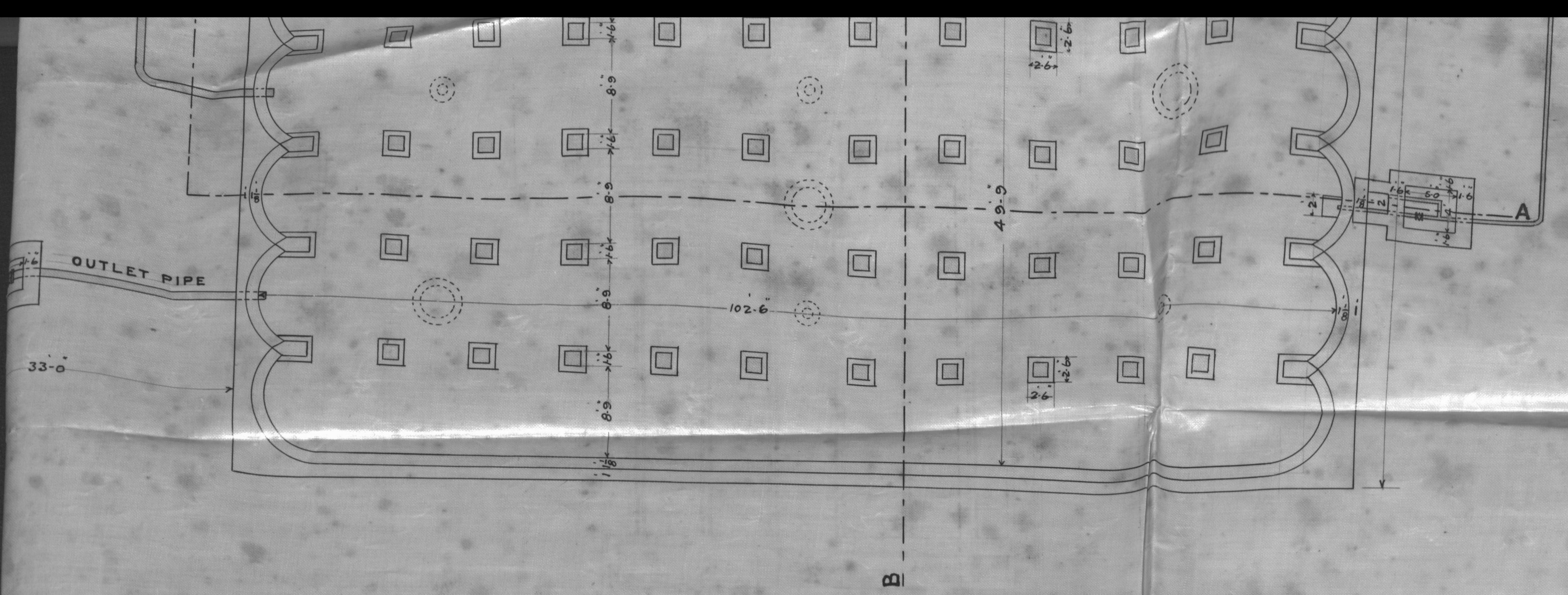
SCALE 10 FEET TO ONE INCH

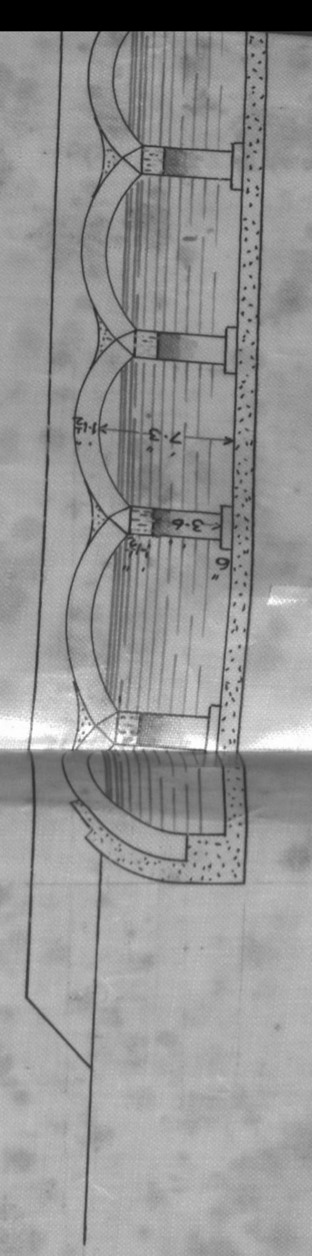
REFERENCE

WORK DONE IS COLOURED B

WORK TO BE DONE IS COLOURED YELLOW.



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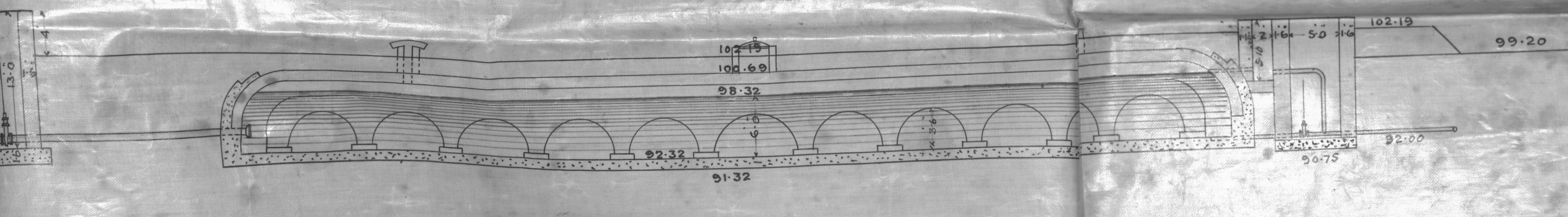
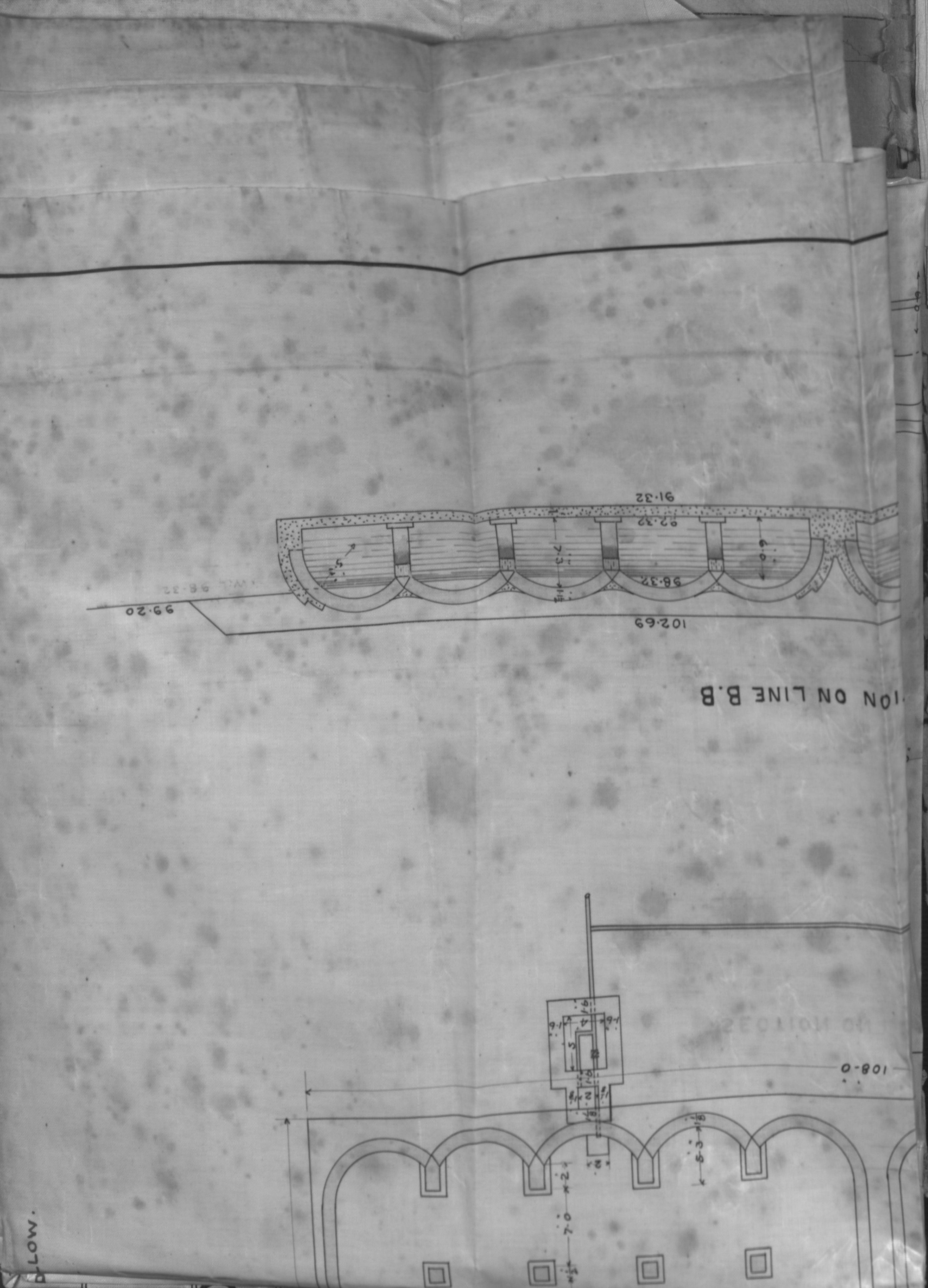

SECTION ON LINE A.A

MEM: INST: C.E.

SANITARY ENGINEER
TO GOVERNMENT.



LOCAL AND MUNICIPAL DEPARTMENT.

[5]
-4-96.

Papers to be read in Proceedings:—

Again G.O., dated . 189 , No.

Current No 2721M of 1896, dated 7th October 1896 from the Sanitary Board.

Current No. of 189 , dated from the

No 1919 issued dt 11-11-96

Order. The Govt. will defer for the present the consideration ~~construction~~ of the proposals ~~works~~ recommended by the Sanitary Board ~~can-~~ for carrying out the filtering portion of the ~~not be sanctioned at present as the~~ scheme for which ests. were called for in G.O. 12 Aug. 95 No 1341 ~~Government is not satisfied that malaria~~ It has not been shown that ~~germs are to be found in~~ the water-supply, which comes from a distant point, is infected with malarial germs. Evidence ~~It is to be regretted that the~~ on this point shd. be procured & laid before Govt. H.E. the Govr. moreover considers that the primary & more urgent portion of the scheme is that relating to the drainage, to which the Sanitary Board shd. direct their officers to devote their earliest & most earnest attention.

S.S.
10/11/6

~~Sanitary Engineer, instead of devoting his whole energy to the much more important question of the drainage, should have taken up the secondary one of improving the water supply.~~

(from orders)

V.R.
7/11/96

To
The Sanitary Board.
P.S.O.
Despd. 14/11/96

Note Should this [illegible] be done [illegible] Sanitary Engineer also, or left to the San. Board to be communicated to him.

FOR WHAT PURPOSE.

LOCAL AND MUNICIPAL DEPARTMENT.

Date.

Papers to be read in Proceedings:—

Again G.O., dated 189 , No.

Current No 2721 M of 1896, dated 7th October 1896 from the Sanitary Board.

Current No. of 189 , dated from the

No 1919 [illegible] dt 11-11-96

Order. The Govt. will defer for the present ~~the cons~~ideration of the proposals ~~re-~~ commended by the Sanitary Board ~~con-~~ for carrying out the filtering portion of the ~~[illegible]~~ scheme for which ests. were called for in G.O. 12 Aug. 95 & 13 [illegible] ~~Government is not satisfied that malarial~~ It has not been shown that ~~germs are to be found in~~ the water-supply, which comes from a distant point, is infected with malarial germs. Evidence ~~It is to be regretted that the~~ ~~Sanitary Engineer, instead of devoting his whole energy to the much more im-portant question of the drainage, should have taken up the secondary one of improving the water supply.~~

(from orders)

V.R.
7/11/96

on this point shd. be procured & laid before Govt. H.E. the [illegible] moreover considers that the primary & more urgent portion of the scheme is that relating to the drainage, to which the Sanitary Board shd. direct their officers to devote their earliest & most earnest attention.

10/11/6

To

The Sanitary Board. P.S.O. ✓

Dispt. 14/11/96

Note Should [illegible] be [illegible] Sanitary Engineer also, [illegible] Board to be communicated [illegible]

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cal & Munl. (1896) Department.

CURRENT No. 2721 M

From
The Secretary, Sanitary Board
Engineering Branch

No. 2997

Dated 7th October 1896

Received 8 OCT. 96

Registered 9-10-96

Enclosures - one 5 (2 plans)

Spare copies

SUBJECT.

Cuddapah water supply

~~Forwarding~~ Sub. resolution of the Sanitary Board approving ~~of~~ the plans & estimates for the construction of filter beds and completion of the service reservoir in connection with the ———

Order

The estimates amounting t Rs. 33,600 is sanctioned. The work should be commenced at an early date.

V.R.
28/10/96

D.S./

The proposals of the Sanitary Bd. to ameliorate the condition of Cuddapah, by eradicating as far as possible the plasmodium malariae are four in number.

(1) to abandon the Pallia Cuddapa Tank (2) to drain the town both of subsoil water & sewage.

(3) to resection the bed of the

To The Sanitary Board with 2 plans and estimates
" Chairman, M.C. Cuddapah.
thro' the Collector.
" Public Works Department

[illegible]/2/10

5A 8/10

For what purpose.

Booga River (A) to supply the existing water supply with effective filter beds. (1) was referred to the D.P.W. for an estimate and the other to the Sany. Engr. (Flag. B)

The ^estimate was submitted for filter beds costing 36,000 Rs.^ the first instalment of the Sany. Engr's estimate (Flag C)

In this connection please see G.M.s and G.O.s noted at Flag A. Submitted that the remaining estimates shd. be awaited.

A.L.H.
31/10/96

~~Office put up proper flags.~~
A.L.H.
31/10/96

BACK PAPE

G.O.	No	Department.	Date.
G.O.	1202	M	
Do	420	M	
Do	1311	M	

FURTHER PAPE

G.O.	No.	Department.	D

H.
M.

O.H.14

This is an estimate to carry out recommendation (5) of the San. Bd.: page 2 G.O. 12th Augt. 95 no. 1311 L. & M., by ~~supplying~~ ^providing^ filter beds to the existing water supply, & is a measure wh. shd. in any case be carried out for the benefit of the inhabitants. There seems no need to defer it. The estimates may be sanctioned & orders given to commence the work

There is a budget prov.: grant of R 150000 for 96/97 for drainage works in Cuddapah. Of this R 8100 have been appropriated for the Cuddh. water supply: but there is an ample balance for the present work. G.K. 3/11/6

I wd. not sanction this estt. at present. The water supply comes from a distant point at which, so far as I know, there is no malaria. No doubt filtering is a good thing, but I am of opinion that the urgent matter is the drainage. If that fails we may try filtering. But even then the Sanitarians should demonstrate that the plasmodium malariæ exists in the water. This they have not attempted to do. We cannot afford to spend Rs 33600 on the mere chance that it may so exist. I am surprised that they should have taken up this secondary question now instead of devoting their whole energy to the much more important & primary question of the drainage.

H.S.
5/11/96

Enclosure to letter No. 2996 of 1896.

Report regarding Cuddapah Filter Beds.

The water will be delivered on to the filter beds direct from the Engines which at present pump directly into the Service Reservoir. It would have been advisable to have put a reservoir or tank above the level of the filter beds to equalise delivery on the filter beds, but the machinery could not cope with the extra lift involved and the water will be regulated to a maximum height of 5 feet over sand level by selfclosing floating valves.

2. The present supply to Cuddapah is arranged for 10 gallons per head for 20000 people. The filter beds are each 37x 37, three will be in use, therefore the flow through the filters will be at the rate of 4" per hour.

3. Gills' arrangement (improved) has been adopted for the filters, only 1 discharge well being required instead of four as under previous designs modified by the Sanitary Board.

4. The completion of the second service reservoir is very desirable so that the filters may work properly. The two reservoirs will contain together only 250,000 gallons above level of outlet pipe which is 1¼ days' supply. The design of the Service Reservoir cannot be altered, the main arches only remaining unbuilt.

Office of Sanitary Engineer to Govt.
Fort St. George, 4 Septr 1896.

Sanitary Engineer to Govt.

W.B.H.

1
27/2/mo 96

FOR WHAT PURPOSE.

S. E./18 500—21-5-96.

Abstract of Detailed Estimate No. 8, dated 7 October 1896 for the construction of a portion of Sanitary Works referred to in G. O. L. & M. No. 1311, dated 12th August 1895

Quantity.	Description of work.	Rate.			Per	Amount.			Total.		
		RS.	A.	P.		RS.	A	P	RS.	A.	P.
	Filter Beds										
107523	Cft Earthwork in excavation	4	..	..	1000 cft	430	..	..			
18054	do Concrete in chunam	11	..	..	100 cft	1986	..	..			
38262	do Brickwork in chunam	13	..	..	do	4973	..				
1478	do Archwork, brick in chunam	16	..	..	do	236	..	..			
39879	Sft: Plastering with cement ½ inch thick	10	..	..	Sqre	3988	..	..			
392¼	Cft Cut stone Cuddapah slabs	..	9	..	Cft	221	..	..			
1000	Eft Burn and Co's 4" Semi oval stoneware drains without sockets	..	12	..	Feet	750	..	..			
960	do Laying and jointing the 4" drains	..	2	..	do	120	..	..			
8389	Cft Stone filling 1½" size for the bottom 1½ feet of filtering materials	11	..	..	100 cft	923	..	..			
5593	do Gravel filling ½" size for the next 1 foot of filtering materials	7	..	..	100 cft	392	..	..			
11190	do Sand filling for the next 2 feet of filtering materials	4	..	..	100 cft	448	..	..			
16	No. Copper wire screens 6'-3" x 5' with frames &c complete	250	..	..	Each	4000	..	..			
	Carried over					18467	..	..			

Grand Total of Estimate.

Office of Sanitary Engineer to Government,

189 .

Sanitary Eng to Government

FOR WHAT PURPOSE.

S.E./18 500—21-5-96.

Abstract of Detailed Estimate No. 8 , dated 7 October 1896 for the construction of a portion of Sanitary Works referred to in G. O. Loc. M. No. 1311, dated 12th August 1895

Quantity.	Description of work.	Rate. Rs.	A.	P.	Per	Amount. Rs.	A	P	Total. Rs.	A.	P.
	Filter Beds										
107523	Cft Earthwork in excavation	4	..	..	1000cft	430	..	..			
18054	do Concrete in chunam	11	..	..	100cft	1986	..	..			
38262	do Brickwork in chunam	13	..	..	do	4973	.				
1478	do Archwork, brick in chunam	16	..	..	do	236	..	.			
39879	Sft: Plastering with cement ½ inch thick	10	..	..	Sqre	3988	..	.			
392¼	Cft: Cut stone Cuddapah slabs	..	9	..	Cft	221	..	.			
1000	Rft Burn and Co's 4" Semi oval stoneware drains without sockets	..	12	..	Foot	750	..	..			
960	do Laying and jointing the 4" drains	..	2	..	do	120	..	.			
8389	Cft Stone filling 1½" size for the bottom 1½ feet of filtering materials	11	..	.	100cft	923	..	.			
5593	do Gravel filling ½" size for the next 1 foot of filtering materials	7	..	..	100cft	392	..	.			
11190	do Sand filling for the next 2 feet of filtering materials	4	..	..	100cft	448	..	.			
16	No. Copper wire screens 6'-3" x 5' with frames &c complete	250	..	..	Each	4000	..	.			
	Carried over					18467	..	..			

Grand Total of Estimate

OFFICE OF SANITARY ENGINEER TO GOVERNMENT,

189 .

Sanitary [illegible] to Government.

FOR WHAT PURPOSE.

18 500—21-5-96.

Abstract of Detailed Estimate No. 8, dated 7 October 1896 for the construction of a portion of Sanitary works referred to in G. O. L & M No. 1311 dated 12th August 1895.

Quantity.	Description of work.	Rate.			Per	Amount.			TOTAL.		
		RS.	A.	P.		RS.	A.	P.	RS.	A.	P.
	Filter Beds (contd)										
	Brought forward					18467	..	..			
2223	Sft: Roofing with Mangalore tiles and teak reepers	25	..	..	Sqre	558	..	..			
138	Cft: Teakwood wrought and put up	4	8	..	Cft	621	..	..			
272	Sft: Doors and Windows	2	..	..	Sft	544	..	..			
2378	do Carsons oak paint	4	8	..	Sqre	107	..	..			
2	No Wooden finials	3	..	..	Each	6	..	..			
9·2	Tons: Cast Iron pipes	125	..	..	Ton	1150	..	..			
22·17	Cwts: Specials	10	8	..	Cwt	233	..	..			
8	No 3" Reservoir sluice with rod & Pillar, complete	80	..	..	Each	640	..	..			
5	No 4" do	100	..	..	do	500	..	..			
1	No 6" Sluice-valve	48	..	..	do	48	..	..			
1	No Browns patent surface box for above	12	..	..	do	12	..	..			
4	do 3" Sluice-valves	34	..	..	do	136	..	..			
4	do Browns patent surface boxes for above	12	..	..	do	48	..	..			
4	do 3" Valve arrangement for excluding water above 3 feet over sand in filter	150	..	..	do	600	..	..			
4	do Mr Gills regulating arrangements with weirs &c	250	..	..	do	1000	..	..			
	Carried over					24670	..	..			

Grand Total of Estimate

ICE OF SANITARY ENGINEER TO GOVERNMENT,
George, 189 }

Sanitary Engineer to Government.

ent.

S. E./18 500—21-5-96.

Abstract of Detailed Estimate No. 8, dated 7 October 1896, for the construction of a portion of Sanitary Works referred to in G. O. L. & M No. 1311 dated 12th August 1895.

Quantity.	Description of work.	Rate. RS.	Rate. A.	Rate. P.	Per	Amount. RS.	Amount. A.	Amount. P	TOTAL. RS.	TOTAL. A.	TOTAL. P.
	Filter Beds (continued)										
	Brought forward					24670	"	"			
240	Cft: 4" Stoneware pipes	"	12	"	Cft	180	"	"			
270	do Laying and jointing 6" C. I. pipes, cement joints	"	2	6	Cft	42	"	"			
63	do do Lead joints	"	5	"	do	20	"	"			
396	do do 4" C. I. pipes Cement joints	"	2	"	do	50	"	"			
99	do do 4" Lead joints	"	3	2	do	20	"	"			
81	do do 3" cement joints	"	1	10	do	9	"	"			
9	do do 3" Lead joints	"	2	4	do	2	"	"			
215	do Laying and jointing 4" Stoneware pipe	"	3	"	do	40	"	"			
16	No. Fixing in position copper wire screens	1	"	"	Each	16	"	"			
8	No. Fixing 3" Reservoir Sluice complete	10	"	"	do	80	"	"			
5	do Fixing 4" Reservoir Sluice complete	12	"	"	do	60	"	"			
1	No. Fixing 6" valve with surface box &c complete	7	"	"	do	7	"	"			
4	do Fixing 3" valve with surface box &c complete	5	"	"	Each	20	"	"			
	Carried over					25216	"	"			

Grand Total of Estimate

Office of Sanitary Engineer to Government,
Fort St. George, 189 .

Sanitary Engineer to Government

$\frac{\text{S. E.}}{18}$ 500–21-5-96.

Abstract of Detailed Estimate No. 8, dated 7 October 1896, for the construction of a portion of Sanitary Works referred to in G. O. L.a No. 1311, dated 12th August 1895.

Quantity.	Description of work.	Rate. RS.	Rate. A.	Rate. P.	Per	Amount. RS.	Amount. A.	Amount. P	TOTAL. RS.	TOTAL. A.	TOTAL. P.
	Filter Beds (continued)										
	Brought forward					25216	„	„			
4	No.: Fixing 3" valve arrangement for excluding water above 3 feet over sand	25	„	„	Each	100	„	„			
4	No. Fixing Mc. Gill's regulating arrangement complete	50	„	„	Each	200	„	„			
	Cutting ends of C. I pipes 8"				Sum	5	„	„			
	Petty charges				Sum	479	„	„			
									26000	„	„
	Completing North Service Reservoir										
11985	Cft: Earthwork excavation	4	„	„	1000 cft	48	„	„			
2926	do Concrete in chunam	11	„	„	100 cft	322	„	„			
2680	do Brick in chunam	13	„	„	do	348	„	„			
7336	do Archwork brick in chunam	16	„	„	do	1174	„	„			
14700	Sft Plastering with cement ½" thick	10	„	„	100 Sft	1470	„	„			
3.714	Tons: Cast Iron pipes	125	„	„	Ton	464	„	„			
22.31	Cwts: do Specials	10	8	„	Cwt	234	„	„			
1	No. 8" Reservoir sluice with rod and pillar &c complete	100	„	„	Each	100	„	„			
2	No. 8" Sluice-valves	70	„	„	do	140	„	„			
2	No. 4" do	40	„	„	do	80	„	„			
3	No. Manhole covers	50	„	„	do	150	„	„			
4	No. Ventilators	15	„	„	do	60	„	„			
	Carried over					4690	„	„	26,000	„	„

Grand Total of Estimate

OFFICE OF SANITARY ENGINEER TO GOVERNMENT,
Fort St. George, 189 .

Sanitary Engineer to Government.

S. E. / 18 500—21-5-96.

Abstract of Detailed Estimate No. 8, dated 7 October 1896, for the construction of a portion of Sanitary Works referred to in G. O. L & M. No. 1311 dated 12th August 1895.

Quantity.	Description of work.	Rate.			Per	Amount.			TOTAL.		
		RS.	A.	P.		RS.	A.	P	RS.	A.	P.
	Brought forward				———	4590	"	"	26,000	"	"
3	Nº Iron Ladders	50	"	"	Each	150	"	"			
117	Lft Laying and jointing 8" C.I. pipes Cement joints	"	3	"	Lft	22	"	"			
81	do do 4" do	"	2	"	do	10	"	"			
27	do Laying and jointing 8" C.I. pipes Lead joints	"	6	"	do	10	"	"			
18	Lft Laying and jointing 4" C.I. pipes Lead joints	"	8	2	do	4	"	"			
2	Nº Cutting ends of 8" sluice valves and removing	7	"	"	Each	14	"	"			
4	Nº Fixing 8" sluice valves	8	"	"	do	32	"	"			
2	Nº do 4" do	6	"	"	do	12	"	"			
1	Nº do 8" Reservoir sluice complete	20	"	"	do	20	"	"			
	Petty charges				Sum	136	"	"	5000	"	"
	Sand washing box &c								1000	"	"
	Total								32,000	"	"
	Contingencies at 5%								1600	"	"
	Grand Total of Estimate ..								33,600	"	"

Sanitary Engineer to Government.

OFFICE OF SANITARY ENGINEER TO GOVERNMENT,
Fort St. George, Septr 1896

204 Letter No. 2996 of 1896

GOVERNMENT OF MADRAS.

SANITARY ENGINEER'S DEPARTMENT.

SPECIFICATION and Detailed Estimate No. 8 of 1896-97 of the cost of constructing

Water Works

for the town
of Cuddapah

Amount of Estimate No. 8

Rs. 33600/-

Covering letter No. 2997 dated 7 Oct/96

S.E./23 200—9-3-96.

GOVERNMENT OF MADRAS.

SANITARY BOARD OFFICE.

SANITARY ENGINEERING BRANCH.

Proceedings of the Sanitary Board, No. 2996 dated 7 October 1896.

Present.

The Hon'ble Col. D. Mc. Neil Campbell, R.E., President.
Surgn. Lieut. Col. W.G. King, M.B., C.M., D.P.H.,
Sanitary Commissioner for Madras.
J. A. Jones, Esqr., Mem. Inst. C.E., F.R.SE.,
Sanitary Engineer to Government.

READ the following:—

G. O. No. 1311 M., dated 12th. August 1895.

Also Sanitary Engineer's Note dated 4th. September 1896 forwarding report, plans & estimates for the construction of filter beds and completion of the Service Reservoir in connection with the Cuddapah Water Supply.

Resolved that the plans & estimates be approved and the construction of the work recommended to Government.

(True Extract)

Secretary,
Sanitary Board (Engineering Branch)

To

The Chief Secretary to Government,
Local & Municipal Department.

5/2721 m/7/96

W 1 No. 2997 of 1896

S. B./1 29-6-96—200.

No. 2997

GOVERNMENT OF MADRAS.

OFFICE OF SANITARY BOARD,

Fort St. George, 7 Oct 1896

Local & Municipal Dept.
CURRENT No. 2721 M

From

J. A. JONES, Esq., MEM. INST. C.E., F.R.S.E.,
SECRETARY, SANITARY BOARD (ENGINEERING BRANCH),

To

The Chief Secretary to Government,
Local & Municipal Department.

SIR,

In forwarding the accompanying resolution of the Sanitary Board No. 2996 dated 7 October 1896, I have the honor to explain that the plans forwarded have been prepared in accordance with the terms of G. O. No. 1311 M. dated 12th. August 1895 and form the first instalment of the plans for the improvement of the town of Cuddapah. The Drainage Scheme is still under preparation but as funds have been allotted in the present year's budget it is considered desirable to send the plan for the construction of the filter beds forward at once so that some of the money at least may be utilised during the present year. The drainage plans are not likely to be before Government before April 1897.

2. The report, plans, & estimates of the Sanitary Engineer are explanatory of the proposal.

I have the honor to be,
Sir,
Your most obedient servant,

J A Jones

Secretary,
Sanitary Board (Engineering Branch)

When given for copying
When copied
When examined
When signed } 189 .

Read again G.O., No. , dated
189 .

Current No.

Enclosures to C. No.

Order of Government .. .. .. A A A A A A A

Letter of Government.

Statement with ditto.

Papers not filed up, being meant for despatch in original.

N.B.—
A = Copy in full.
B = Not to be copied.
P = Copy abstract only.
Q = Copy heading only.