

(1) Number of pages _____

(2) Date of repair _____

(3) Initials of the Referencer _____

MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

G.O. No.	2133 W	Press Mis.
105-6		
Dated	7-9	18 72

Not to be folded or roughly handled

Read the following papers:—

No. 105. From the Acting Superintending Engineer, 1st Division, to the Secretary to Government, Public Works Department, dated Dowlaishweram, 6th July 1872, No. 1,325.

ADVERTING to paragraph 3 of G. O. of the 14th May 1872, No. 1,286, I have the honour to forward copy of a letter from the Assistant Engineer in charge of No. 6 Range showing that it is not practicable to embank the Thovigedda drain, Mr. Hannan has consequently

- 2 Plans.
- 2 Estimates.
- 1 Comparative Statement.
- 1 Copy of letter from Assistant Engineer, No. 115, dated 15th June 1872.

estimated for the design proposed for a sluice by the Acting Chief Engineer for Irrigation; the cost of this is Rupees 16,970, and it will be seen the cost of the sluice as proposed before was Rupees 10,970, so that the excess is 55 per cent.

2. As it occurred to me that a work could be designed without such a width of arch as that proposed by the Acting Chief Engineer, and also without exposing so much of the embankment and roadway to the action of the river floods and waves, I beg to submit a plan and estimate, amounting to Rupees 14,750, for carrying the roadway in the ordinary manner over a bridge; in this estimate I have included the cost of concrete foundations such as we usually put down.

3. I have to explain, with reference to paragraph 2 of the Note of the Acting Chief Engineer, that, in the original design, the piers were constructed above the sluice arches, and filled in between with gravel, their thickness of 2 feet was, therefore, of no importance; the planking will be altered to 4 inches as proposed in paragraph 4. Whilst heavy floods prevail in the Godavery river, there is very little or no drainage running into it from this district; as far as our experience goes, generally speaking, the heavier the flood in the river the clearer is the weather here. I think, therefore, the design will answer for all purposes—my only doubt is, if an arch so flat as $\frac{1}{4}$ the span, and 50 feet wide, and only 18 inches thick throughout can be so well built in this country as it ought to be, particularly as the extrados will be liable to have at times a considerable quantity of wet earth on it.

4. Mr. Hannan shows that the Thovigedda drain cannot be embanked, as the land slopes away from the river along its banks, and the length of the embankment required, probably 18 miles, would be far more expensive than the sluice even as now estimated for from the design sent up here.

From the Acting Superintending Engineer, 1st Division, to the Chief Engineer for Irrigation, dated Dowlaishweram, 12th August 1872, No. 1,801.

With reference to your letter No. 125, dated 19th July 1872, I have the honour to forward herewith a revised estimate amounting to Rupees 13,200 and the plan of the sluice over the Thovigedda drain, with the alterations as suggested in your letter under reference duly carried out; but I beg to observe the original design provided for the discharge of only $\frac{1}{4}$ inch in twenty-four hours from the whole drainage area, and not for $\frac{1}{4}$ inch in one hour and 6 inches in twenty-four hours; I am, therefore, of opinion that the design should not be reduced.

*Proceedings of the Madras Government, Public Works Department,
7th September 1872.*

No. 105A.

No. 168.

Note by the Acting Chief Engineer for Irrigation.

IN G. O. No. 1,286, dated 14th May 1872, the Superintending Engineer of the 1st Division was directed to submit certain information relative to the Thovigedda drain to admit of its being determined whether it would be more economical to embank the stream and to provide a bridge where the river embankment meets the stream, or to provide a head-sludge by which the flood waters in the river might be excluded from the drain. From the information supplied by the Superintending Engineer, it would appear that the latter arrangement would be the more economical, and an estimate of Rupees 12,000 for the sluice is submitted for the sanction of Government. The sluice provides amply for the discharge of rainfall over the area of 375 square miles drained by the Thovigedda.

2. The original estimate for the sluice amounted to Rupees 10,970, while the revised estimate amounts to Rupees 12,000. The estimate for the road will now be Rupees 47,330 instead of Rupees 46,300.

OOTACAMUND,
27th August 1872.

(Signed) R. F. OAKES, Major, R.E.,
Acting Chief Engineer for Irrigation.

No. 106.

ORDER THEREON, 7th September 1872, No. 2,133.

IRRIGATION, No. 4.

His Excellency the Governor in Council sanctions the revised estimate of Rupees 12,000 for a sluice at the

mouth of the Thovigedda drain on the road from Rajahmundry to Rahitapuram along the east bank of the Godavery.

(True Extract.)

Colonel, R.E.,

Secretary to Government.

To the Acting Superintending Engineer, 1st Division.

.. Controller of Public Works Accounts.

.. Chief Engineer for Irrigation.

Exl. E. C. Shunker.

*Cp 3410 received this day from Acty into
Note by Major Oakes regarding Thovigedda
drain has 5 Inclosures missing.*

Could

No. 1325

From

Lieutenant C. P. Fitch R.E.
Superintending Engineer

1st Division

To

Colonel G. W. Walker R.E.
Secretary to Government D. P. W.

MADRAS

SIR,

3

I directing to para 3 of G. O. of
the 11th May 1872 No 1286 I have the honor
to forward copy of a letter from the Assistant
Engineer in charge of N. C. Range showing that
it is not practicable to embank the Thore-
-gedda drain, Mr. Hannan has consequently
estimated for the design proposed for a
sluice by the Acting Chief Engineer for
Irrigation the cost of this is Rupees 16,970
and it will be seen, the cost of the sluice
as proposed before, was Rupees 310,970
so that the excess is 55 per cent.

2. As it occurred to me that a work
could

could be designed without such a width of arch as that proposed by the Acting Chief Engineer, and also without exposing so much of the embankment and roadways to the action of the river floods and waves, I beg to submit a plan and Estimate amounting to Rupees 11,750 for carrying the road way in the ordinary manner over a bridge; in this Estimate I have included the cost of concrete foundations such as we usually put down.

3. I have to explain with reference to para 2 of the Note of the Acting Chief Engineer that, in the original design the piers were constructed across the Shivee Arches, and filled in between with gravel - their thickness of 2 feet was therefore of no importance. The planking will

will be altered to 14" as proposed in para 4. whilst heavy floods prevail in the Godavari river there is very little or no drainage running into it from this District as far as our experience goes, generally speaking the heavier the flood in the river, the clearer is the weather here. I think therefore the design will answer for all purposes; my only doubt is, if an arch so flat as $\frac{1}{6}$ the span, and 50 feet wide, and only 18 inches thick throughout can be so well built in this country as it ought to be, particularly as the extrados will be liable to have at times a considerable quantity of wet earth on it.

14. Mr. Harman shows that, the Thorigessa drain cannot be embanked as the land slopes away from the river along its banks and the length of the embankment required, probably 18 Miles, would be far more expensive than the Shivee even as now estimated.

3

Sept 13

Lieut. Col. J. F. Nichols, U.S.A.
Acting Superintending Engineer

Major A. S. Coates M.E.

SIR,

With reference to your letter No. 28
dated 17th July 1872, I have the honor to forward herewith
a revised Estimate, amounting to Rs. 13,200, and the
Plan of the sluice over the Shorrigedda Drain with
the alterations as suggested in your letter under re-
ference duly carried out; but I beg to observe, the
original design provided for the discharge of only
 $\frac{1}{4}$ inch in 24 hours from the whole drainage area,
and not for $\frac{1}{2}$ inch in one hour and 6 inches in 24
hours, I am therefore of opinion that the design
should not be reduced.

Shew the honor to be
Sir

Your most obed^t servant

Wm. H. Tucker Secy Col. Regt.

A. G. Supt. of Eng. 1st Division

Dr. W. Brown / 2-2361-38

20th 1872. Received
from the Superintendent
the Superintendent's Report.

70

The Secretary to Government
Department Public Works
MADRAS

ADD.19

Total \$16. Judy } 1870
 Received. 15 — }

No. 325

INCLOS: *2*

Subject.

Forwards copy of letter

from the Assistant Surgeon
in Charge 1010

Warning the infirmly & ability

Embarking for Chicago
I leave with a

in our
illumination

the Lapham-423572.

80 2
6
N^o 168

Letter N^o. 1861 of 12th August from Super-
intending Engineer 1st Division
Note by the Dy Chief Engineer for Irrigation.

In G.O. N^o. 1286 dated 14th May 1892 the
Superintending Engineer of the 1st Division
was directed to submit certain information
relative to the Thovigedda drain to admit
of its being determined whether it would
be more economical to embank the stream
& to provide a Bridge, where the River
embankment meets the stream, or to
provide a head Sluice by which the
flood waters in the River might be
excluded from the Drain. From the
information supplied by the Superintend-
ing Engineer it would appear that the
latter arrangement would be the more
economical and an estimate of Rs 12000
for the Sluice is submitted for the
sanction of Government. The Sluice
provides

1892. O.A. 1529
192

From
The Superintending Engineer,
First Division.

To
The Chief Engineer for Irrigation
MADRAS

Dated 12th August 1892
Received 21st 1892

NO. 1804
ENCLOSURE

Subject.

Memorandum forwarded to the
Secretary to Govt. 1890
and a plan of the Sluice Quot.
Thovigedda Drain with the
affidavits suggested duly con-
sidered and

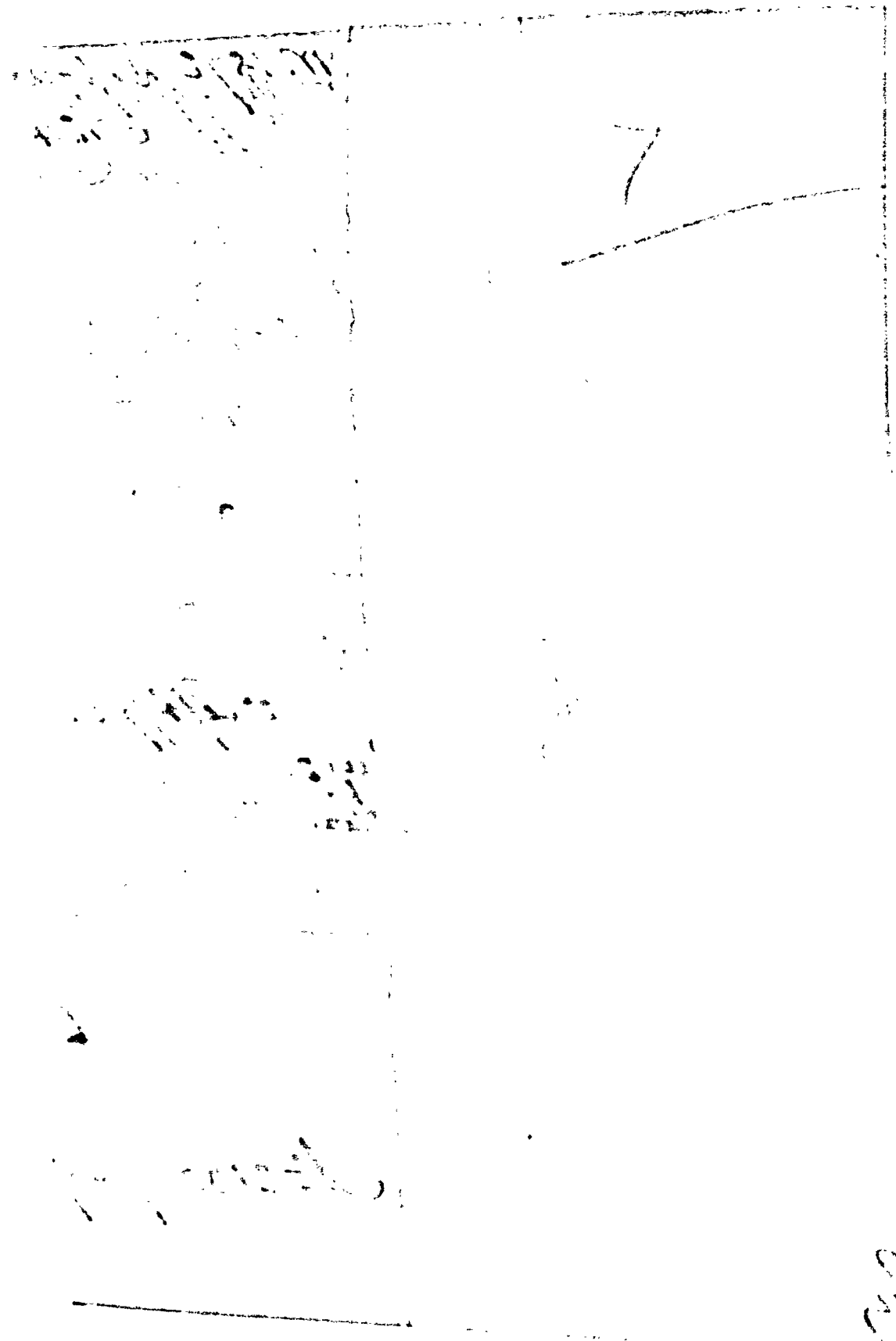
P. N. 4275/92
Sd/- Sd/- Sd/-

provides amply for the discharge of rain
fall over the area of 375 square miles
drained by the Thorijoda.

2. The original estimate for the sluice
amounted to Rs 10970 while the revised
estimate amounts to Rs 12000.
The estimate for the Road will
now be Rs 47330 instead of Rs 46300

Ootacamund
27 August 1872
W. F. Walker Major R.E.
Chief Engineer for Irrigation

The Secretary to Govt
W. Dept.



Bridge of sluice & sluice
approaches must be provided

DEPARTMENT *Revised* NEW WORK.

TALUQ Rajahmundry

WORK. Constructing a sluice of 8 fms over Thorrigeddo,
on the Road from Rajahmunde to Pakhalapootam

[illegible]

Solut Propos 13200.

Westchester Sixth Coll. P. E.
By Superintending Engineer,
1st Division

Supr. Engrs Office
1st Dist. Vt.
New Brunswick
1872

x. The embankment is not
caused as it appears the
bridge or pier & hence
approaches must be widened.

P. W. 1872 Sept 11
Thom 11 4275

The Ap. Church

Greiner School

37 00

The Secretary

Specimen 67.2.1

12/68

dated 27th 30
 Dec 28 30
 Dec 2nd 1872.

Dec 3.
10th vote on the re-
estimate, & on a plan
of the line over other
ground drain - L

N^o 2133-7 "Sept 1/11"

Chas. A.

for in the letter for introduction;
 for forming business men
 together & for general
 the should be in point

Enclosed in your letter
 of 11th July 1872
 from the Hon. Mr. Lygon
 is a letter to the
 Chief Secretary for
 the Colonies dated 11th

18th July 1872.
 Aug. 1st 1872

1872/73

1872/73
 1/10/72
 1/10/72
 1/10/72

go 2133 W
 7-9-1872

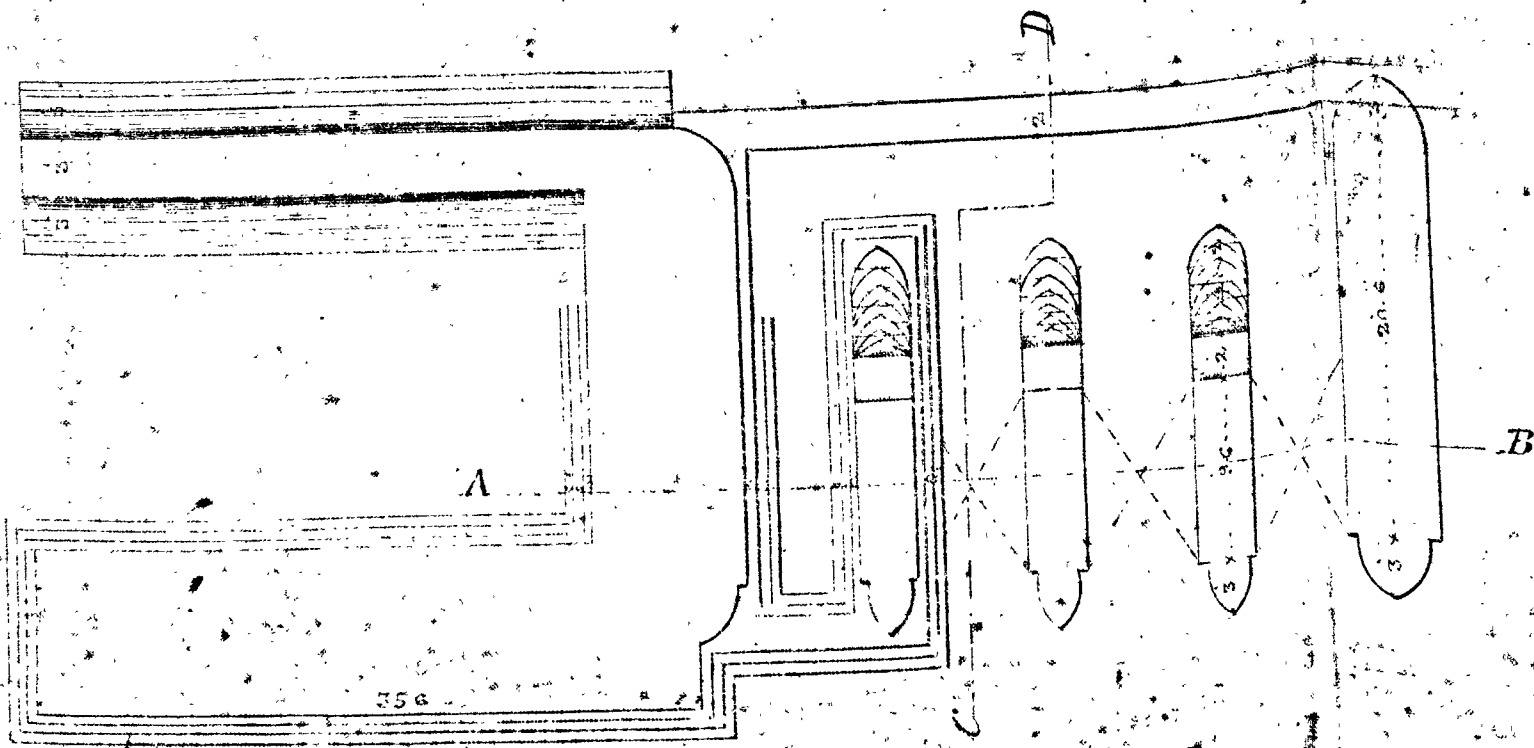
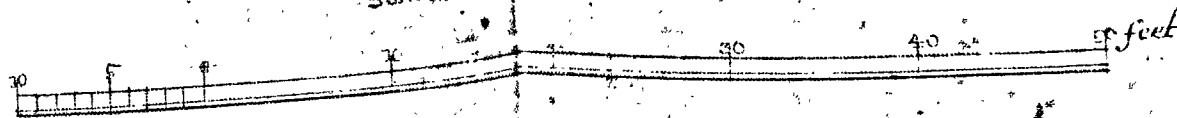
PROPOSED DESIGN OF A SLUICE
BY SUPERINTENDING ENGINEER
OVER THE THOREGEDDA DRAIN

OF 12 VENTS 6 x 7½

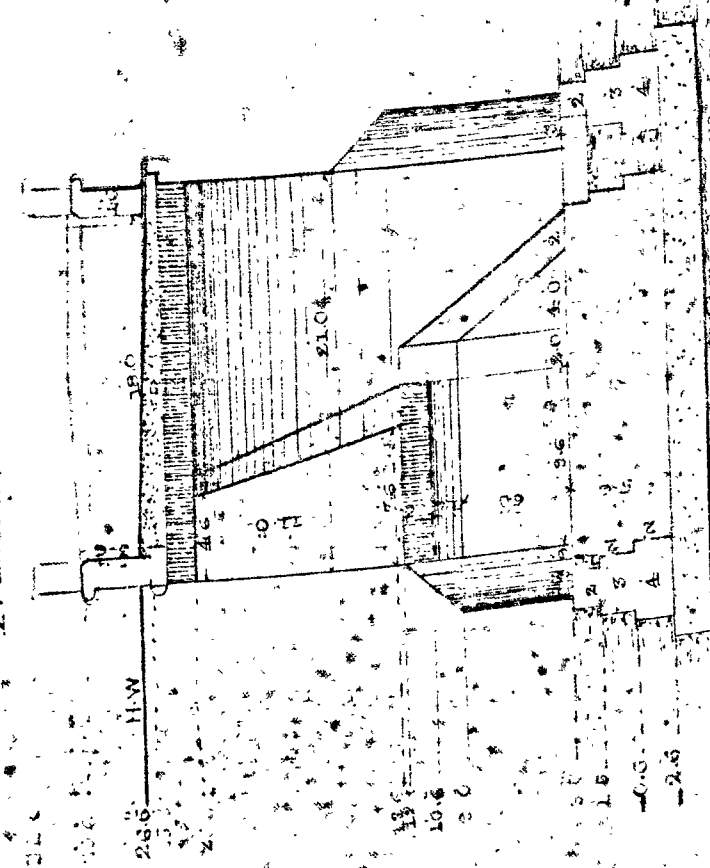
WITH BRIDGE ABOVE OF 3 SPANS OF 33 FEET

RISE 11 FEET

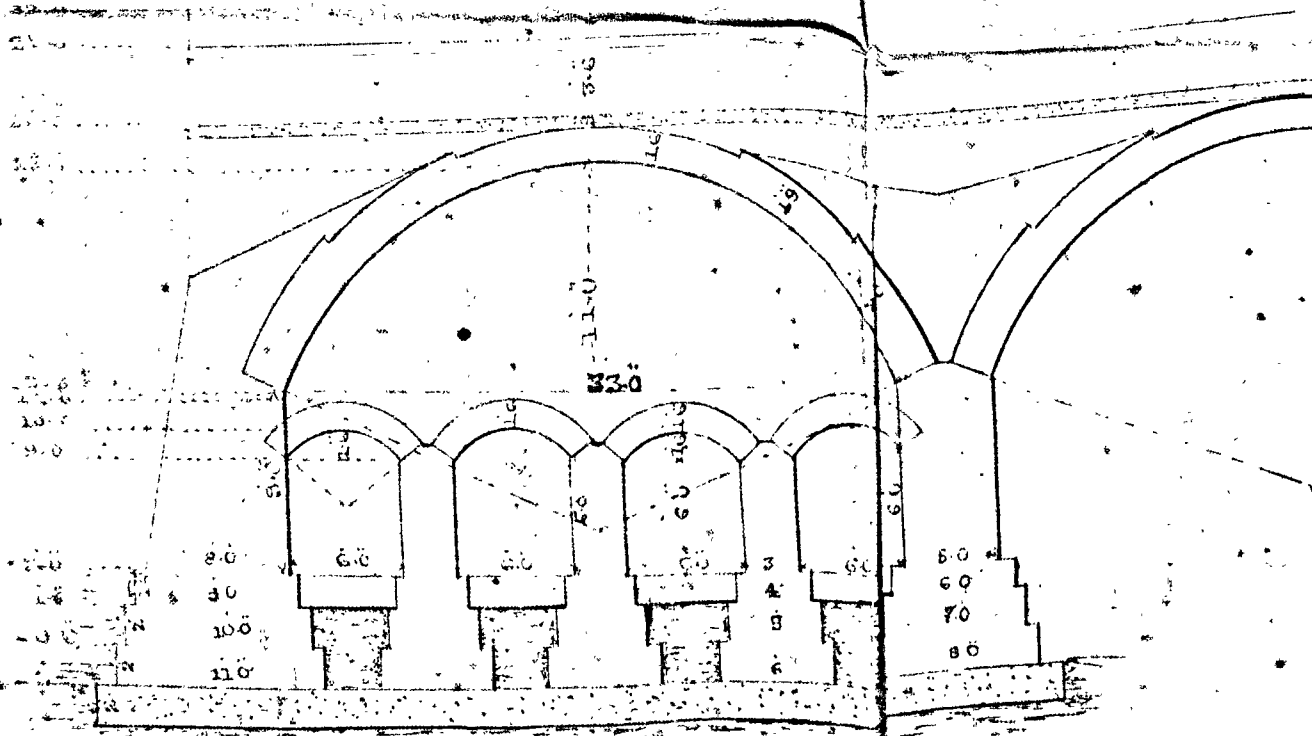
SCALE 10 FEET TO AN INCH



Transverse Section thro C.D.



Section thro A.B.



Section of Wing Wall



Superintending Engineer's office
1st Division, Bangalore
July 1872

W. L. ... Lieut. Colonel R.E.
Acting Superintending Engineer 1st Division

Public Works Department
No. 2183
Proceedings of the Madras Government
Read the following

From The Supt Engineer 1st 8th / H.E. No. 1325 of 6th July 1924
From The Asst Chief Engineer } ----- 1687/27th Aug 1924
for Irrigation }

His Excellency
the Governor in Council
sanctions the revised
estimate of Rs 12000
for a sluice at the
mouth of the Thorizedda
drain on the Road from
Rajahmundry to Rahu
tapuram along the East
bank of the Godavary.

S. S. S. 1st 8th /
Controlled
By: S. S. S. 13/9/24

M. F. S. S. S.

27-9-29M
23-9-31 Bill
4-8-37M

Cho 4275
of 1872 Madras.
PUBLIC WORKS.

The Agent in Charge
1st Division

Encl. 4

7 Sept 72 No. 2133 W

No. 1054104

The river is
shut at the mouth
The river is
in Godavari
mentioned -