

PUBLIC WORKS DEPARTMENT

WATER RESOURCES ORGANISATION

MADURAI REGION



TN – IAMWARM PROJECT

THERKKAR SUB BASIN
(ADDITIONAL)

DETAILED PROJECT REPORT

Est. Amount: Rs.143.31 Lakhs

NODAL DIVISION: GUNDAR BASIN DIVISION
MADURAI





**TN- IAMWARM PROJECT
THERKKAR SUB BASIN**

Introduction Report

Additional proposals for providing Lining of Head Irrigation Channel and Flow

Measuring Device in Therkkar sub basin (Phase II) under IAMWARM Project

The lining of irrigation channel and installation of measuring device has been proposed for Phase I and II sub basins by utilizing the Project Savings as discussed with the World Bank, during the implementation support mission from Sept 12-20th 2011.

Accordingly in the Therkkar sub basin of Phase the following works have been proposed.

1. Lining of head irrigation channel below the tanks sluice using c.c. M 15 as per sketch enclosed
2. Installing flow measuring device in the head irrigation channel as per sketch
3. L.S provision of 2.8 % for Provision of labour welfare @ 0.30 % and provision for contingencies, advertisement charges , photographic charges @ 2.5%

The package details are appended separately and works are proposed to be taken up under national shopping procedure

The total cost for the DPR works out to Rs.143.31 lakhs

Executive Engineer,WRO.
Gundar Basin Division,
Madurai

Superintending Engineer,WRD.,
Vaippar Basin Circle,
Virudhunagar.

Chief Engineer,WRD.,
Madurai Region,
Madurai

FORMAT 1

Name of Region : Madurai
Name of Circle : Vaippar Basin Circle , Virudhunagar.
Name of Division : Gundar Division, Madurai
Name of Sub Basin : THERKKAR
Total Number of Tanks taken up under IAMWARM : 31

NO OF TANKS, SLUICES IN EACH PACKAGE

Rs in Lakhs

Sl. No.	PackageNo	Name of the Tank	No of Sluices	Flow Measuring Device		Lining of Head Irrigation Channel			Total Amount	LS Provision @ 2.80 %	Grand Total	Remarks
				No.	Amount	Type of soil BC / OS	Length in m	Amount				
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Package No 1	1)Sirupatti new Tank	2	2	0.24	BC	80	3.68	3.92			
2		2)Thimanatham periya kanmoi	4	4	0.48	BC	160	7.36	7.84			
		Package Total	6	6	0.72		240	11.04	11.76	0.33	12.09	
1	Package No 2	3)Mallattar	1	1	0.12	BC	40	1.84	1.96			
2		4)Vadugapatti	2	2	0.24	BC	80	3.68	3.92			
3		5)Anaiyur periya kanmoi	1	1	0.12	BC	40	1.84	1.96			
		Package Total	4	4	0.48		160	7.36	7.84	0.22	8.06	
1	Package No 3	6)Periya Alangulam	2	2	0.24	BC	80	3.68	3.92			
2		7)Othai Alangulam	4	4	0.48	BC	160	7.36	7.84			
		Package Total	6	6	0.72		240	11.04	11.76	0.33	12.09	

Sl. No.	PackageNo	Name of the Tank	No of Sluices	Flow Measuring Device		Lining of Head Irrigation Channel			Total Amount	LS Provision @ 2.80 %	Grand Total	Remarks
				No.	Amount	Type of soil BC / OS	Length in m	Amount				
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Package No 4	8)Virusankulam	2	2	0.24	BC	80	3.68	3.92			
2		9)Vadapalanji periyakanmoi	2	2	0.24	BC	80	3.68	3.92			
3		10)Thenpalanji periyakulam	2	2	0.24	BC	80	3.68	3.92			
		Package Total	6	6	0.72		240	11.04	11.76	0.33	12.09	
1	Package No 5	11)Keelakuilkudi	3	3	0.36	BC	120	5.52	5.88			
2		12)Melakuilkudi	2	2	0.24	BC	80	3.68	3.92			
3		13)Maruthanikulam & Pottakulam	1	1	0.12	BC	40	1.84	1.96			
		Package Total	6	6	0.72		240	11.04	11.76	0.33	12.09	
1	Package No 6	14)Vedar puliankulam	2	2	0.24	BC	80	3.68	3.92			
2		15)Sambakulam	3	3	0.36	BC	120	5.52	5.88			
		Package Total	5	5	0.60		200	9.20	9.80	0.27	10.07	
1	Package No 7	16)Periyakulam & Chinnakulam of Vadakarai kanmoi	2	2	0.24	BC	80	3.68	3.92			
2		17)Kallanai karisal kulam kanmoi	2	2	0.24	BC	80	3.68	3.92			
3		18)Maikkudi kanmoi	2	2	0.24	BC	80	3.68	3.92			
		Package Total	6	6	0.72		240	11.04	11.76	0.33	12.09	

Sl. No.	PackageNo	Name of the Tank	No of Sluices	Flow Measuring Device		Lining of Head Irrigation Channel			Total Amount	LS Provision @ 2.80 %	Grand Total	Remarks
				No.	Amount	Type of soil BC / OS	Length in m	Amount				
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Package No 8	19)Periyakulam of Kappalur kanmoi	2	2	0.24	BC	80	3.68	3.92			
2		20)Vidathakulam periya kanmoi	2	2	0.24	BC	80	3.68	3.92			
3		21)Periyakulam of Ulagani kanmoi	1	1	0.12	BC	40	1.84	1.96			
		Package Total	5	5	0.60		200	9.20	9.80	0.27	10.07	
1	Package No 9	22)Periya kanmoi of Valyankulam	2	2	0.24	BC	90	4.05	4.29			
2		23)Thumbakulam periyakanmoi	6	6	0.72	BC	120	5.52	6.24			
		Package Total	8	8	0.96		210	9.57	10.53	0.29	10.82	
1	Package No 10	24)Kurayur kanmoi	7	7	0.84	BC	200	9.20	10.04			
		Package Total	7	7	0.84		200	9.20	10.04	0.28	10.32	
1	Package No 11	25)Maruthankudi periyakulam kanmoi	2	2	0.24	BC	90	4.05	4.29			
2		26)Karisalkulam Illupaikulam kanmoi	2	2	0.24	BC	80	3.60	3.84			
		Package Total	4	4	0.48		170	7.65	8.13	0.23	8.36	
1	Package No 12	27)Ariyanendal idayankulam	4	4	0.48	BC	120	5.52	6.00			
2		28)Nedungulam kanmoi	4	4	0.48	BC	80	3.68	4.16			
		Package Total	8	8	0.96		200	9.20	10.16	0.28	10.44	

Sl. No.	PackageNo	Name of the Tank	No of Sluices	Flow Measuring Device		Lining of Head Irrigation Channel			Total Amount	LS Provision @ 2.80 %	Grand Total	Remarks
				No.	Amount	Type of soil BC / OS	Length in m	Amount				
1	Package No 13	29)Thoppur	4	4	0.48	BC	40	1.84	2.32			
2		30)Kattu kuthagai karisalkulam	3	3	0.36	BC	80	3.68	4.04			
		Package Total	7	7	0.84		120	5.52	6.36	0.18	6.54	
1	Package No 14	31)Vakkanangundu kanmoi	5	5	0.60	BC	160	7.36	7.96			
		Package Total	5	5	0.60		160	7.36	7.96	0.22	8.18	
		Grand Total	83	83	9.96		2820	129.46	139.42	3.89	143.31	

Certified that the Tanks included in the originally approved DPR of Upper Gundar Sub Basin alone are considered now

Certified that the above works have not been taken up in any other Project

Certified that the field / Irrigation channel drawing type I is adopted in Nil number of tanks having soil other than black cotton soil.

Certified that the field / Irrigation channel drawing type II is adopted in 31 number of tanks having black cotton soil

* BC- Black Cotton soil

OS - Other Soil

Executive Engineer,WRO.,
Gundar Basin Division,
Madurai.

Superintending Engineer,WRO.,
Vaippar Basin Circle,
Virudhunagar.

Chief Engineer,WRO.,
Madurai Region,
Madurai

FORMAT II

Name of Region : Madurai
Name of Circle : Vaippar Basin Circle , Virudhunagar.
Name of Division : Gundar Division, Madurai
Name of Sub Basin : Therkkar
Total Number of Tanks taken up under IAMWARM : 31
Method of Procurement National Shopping

(Note : Procurement Plan to be got approved by world bank separately)

PACKAGEWISE ABSTRACT

Sl.No.	Package Number	Name of work	No of tanks	No of flow measuring device (Nos)	Length of Lining Head Irrigation Channel (in M)	Total amount including L.S.(Rs in Lakhs)	Remarks
1	01 / IAMWARM / WRD / TKR / WORKS / II / 2011 - 2012	Lining of head Irrigation channel and providing Flow measuring devices for Sirupatti new tank and Thimmanatham Periakanmoi in Therkkar sub basin in Usilampatti Taluk of Madurai District	2	6	240	12.09	
2	02 / IAMWARM / WRD / TKR / WORKS / II / 2011 - 2012	Lining of head Irrigation channel and providing Flow measuring devices for Mallatar, Vadugapatti tank and Anaiyur Periakanmoi in Therkkar sub basin in Usilampatti Taluk of Madurai District	3	4	160	8.06	
3	3 / IAMWARM / WRD / TKR / WORKS / II / 2011 - 2012	Lining of head Irrigation channel and providing Flow measuring devices for Peria alankulam tank and Othai alankulam tank in Therkkar sub basin in Madurai south Taluk of Madurai District	2	6	240	12.09	
4	4 / IAMWARM / WRD / TKR / WORKS / II / 2011 - 2012	Lining of head Irrigation channel and providing Flow measuring devices for Virusankulam tank, Vadapalanji Periakanmoi and Thenpalanji Periakulam in Therkkar sub basin in Madurai south Taluk of Madurai District	3	6	240	12.09	

Sl.No.	Package Number	Name of work	No of tanks	No of flow measuring device (Nos)	Length of Lining Head Irrigation Channel (in M)	Total amount including L.S.(Rs in Lakhs)	Remarks
5	5 / IAMWARM / WRD / TKR / WORKS / II / 2011 - 2012	Lining of head Irrigation channel and providing Flow measuring devices for Keelakuilkudi tank, Melakuilkudi tank and Maruthani pottakulam in Therkkar sub basin in Madurai south Taluk of Madurai District	3	6	240	12.09	
6	6 / IAMWARM / WRD / TKR / WORKS / II / 2011 - 2012	Lining of head Irrigation channel and providing Flow measuring devices for Vedarpuliyanakulam and Sambakulam in Therkkar sub basin in Madurai south Taluk of Madurai District	2	5	200	10.07	
7	7 / IAMWARM / WRD / TKR / WORKS / II / 2011 - 2012	Lining of head Irrigation channel and providing Flow measuring devices for Periakulam & Chinnakulam of Vadakarai kanmoi , Kallanai karisalkulam kanmoi and Maikudi kanmoi in Therkkar sub basin in Thirumangalam Taluk of Madurai District	3	6	240	12.09	
8	8 / IAMWARM / WRD / TKR / WORKS / II / 2011 - 2012	Lining of head Irrigation channel and providing Flow measuring devices for Periakulam of Kappalur kanmoi , Vidathakulam periakanmoi and Periakulam of Ulagani kanmoi in Therkkar sub basin in Thirumangalam Taluk of Madurai District	3	5	200	10.07	
9	9 / IAMWARM / WRD / TKR / WORKS / II / 2011 - 2012	Lining of head Irrigation channel and providing Flow measuring devices for Periakanmoi of Valayankualm and Thoombakulam Periakanmoi in Therkkar sub basin in Thirumangalam Taluk of Madurai District	2	8	210	10.82	
10	10 / IAMWARM / WRD / TKR / WORKS / II / 2011 - 2012	Lining of head Irrigation channel and providing Flow measuring devices for Kurayur Periakanmoi in Therkkar sub basin in Thirumangalam Taluk of Madurai District	1	7	200	10.32	

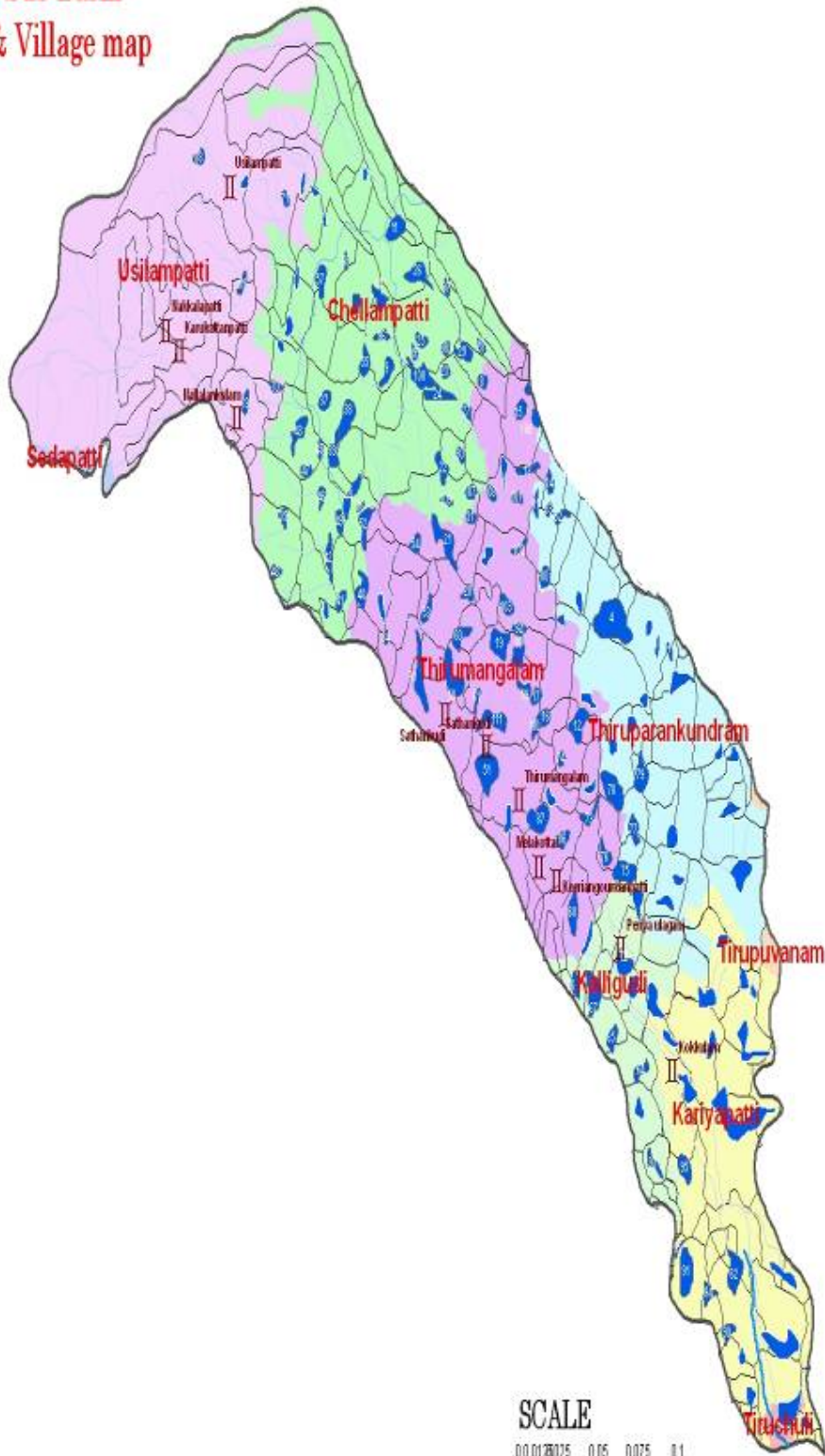
Sl.No.	Package Number	Name of work	No of tanks	No of flow measuring device (Nos)	Length of Lining Head Irrigation Channel (in M)	Total amount including L.S.(Rs in Lakhs)	Remarks
11	11 / IAMWARM / WRD / TKR / WORKS / II / 2011 - 2012	Lining of head Irrigation channel and providing Flow measuring devices for Maruthankudi Periakulam Periakamoi and Illuppaikulam karisalkualm in Therkkar sub basin in Thirumangalam Taluk of Madurai District	2	4	170	8.36	
12	12 / IAMWARM / WRD / TKR / WORKS / II / 2011 - 2012	Lining of head Irrigation channel and providing Flow measuring devices for Ariyanendal Idayankulam and Nedunkulam tank in Therkkar sub basin in Kariapatti Taluk of Virudhunagar District	2	8	200	10.44	
13	13 / IAMWARM / WRD / TKR / WORKS / II / 2011 - 2012	Lining of head Irrigation channel and providing Flow measuring devices for Thoppur tank and Kattu kuthagai Karisalkulam tank in Therkkar sub basin in Kariapatti Taluk of Virudhunagar District	2	7	120	6.54	
14	14 / IAMWARM / WRD / TKR / WORKS / II / 2011 - 2012	Lining of head Irrigation channel and providing Flow measuring devices for Vakkanankundu kanmoi in Therkkar sub basin in Kariapatti Taluk of Virudhunagar District	1	5	160	8.18	
		TOTAL	31	83	2820	143.31	

Executive Engineer,WRD.,
Gundar Basin Division,
Madurai

Superintending Engineer,WRD.,
Vaippar Basin Circle,
Virudhunagar.

Chief Engineer,WRD.,
Madurai Region,
Madurai – 2.

Therkar Sub Basin Drainage & Village map



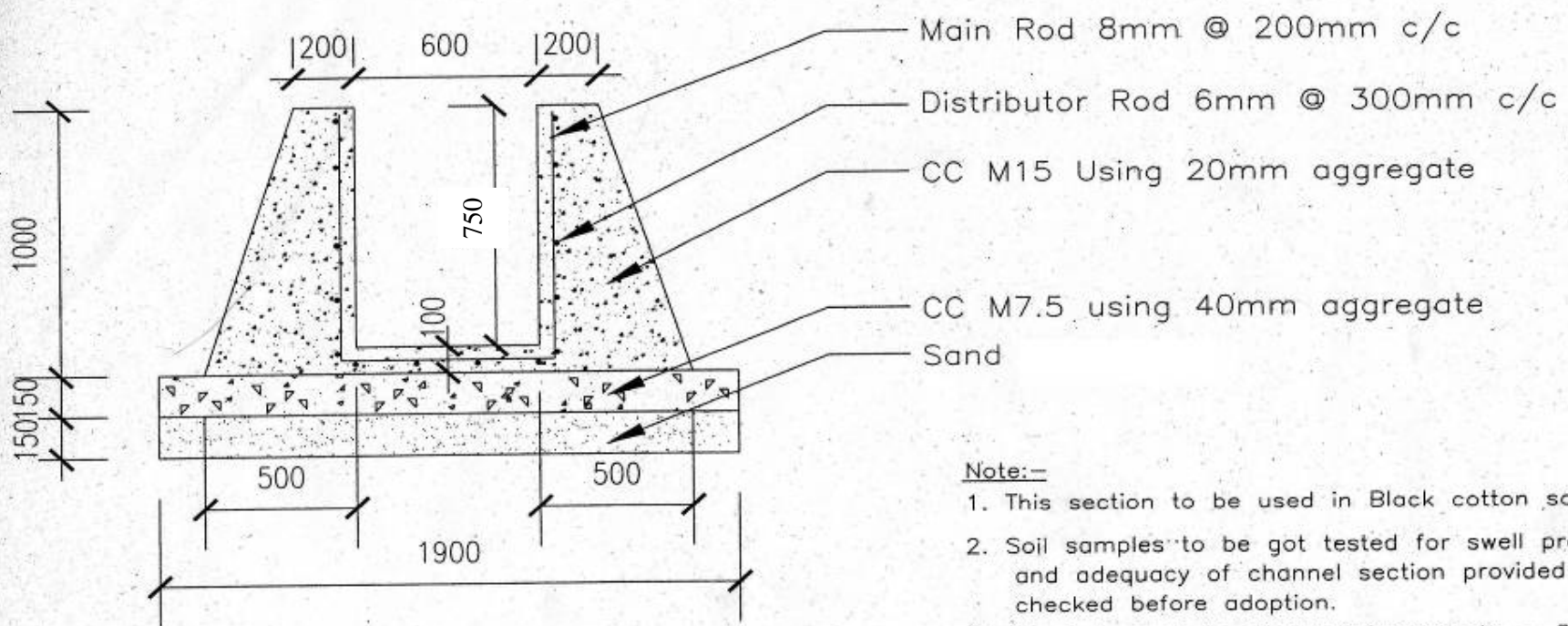
LEGEND

- II Anicut
- Stream
- River
- Tank
- Village
- Block

SCALE



LINING OF IRRIGATION CHANNEL
TYPICAL CROSS SECTION
FOR BLACK COTTON SOIL



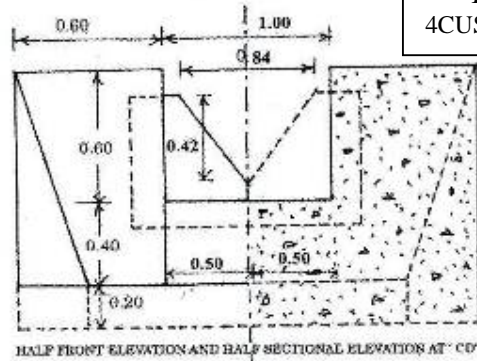
Note:-

1. This section to be used in Black cotton soil.
2. Soil samples to be got tested for swell pressure and adequacy of channel section provided to be checked before adoption.
3. Nominal cover to steel reinforcements = 30 mm

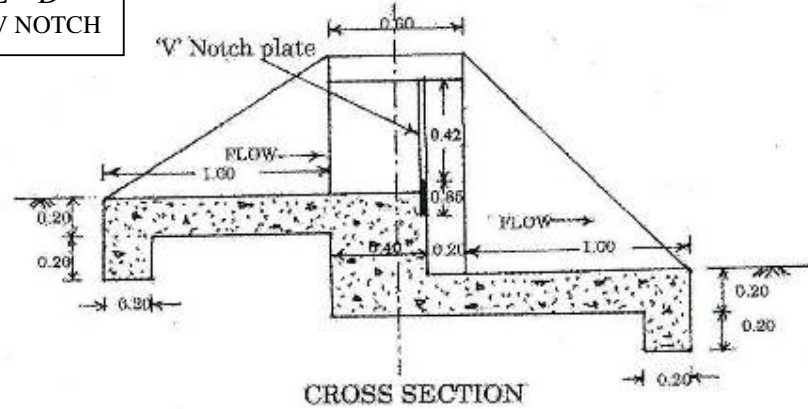
Executive Engineer PWD
 Gundar Basin Division
 Madurai

IAMWARM PROJECT
 THERKKAR SUB BASIN
 IRRIGATION CHANNEL LINING
 Scale:- 1:1000
 All Dimension are in Metre

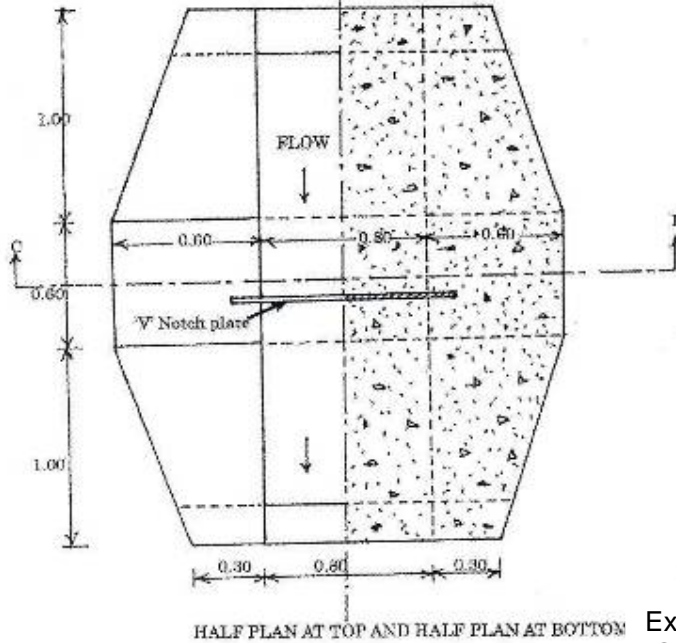
**TYPE - D
4CUSEC V NOTCH**



HALF FRONT ELEVATION AND HALF SECTIONAL ELEVATION AT 'C-C'



CROSS SECTION



HALF PLAN AT TOP AND HALF PLAN AT BOTTOM

V' NOTCH - SALIENT DETAILS (For 1 to 4 C/s)

Discharge		Head Over Crest Cm	V' Notch size Cm	Overall size Cm
Cusec	Litre / sec			
1	28.3	20.5	25 x 50	50 x 65
2	56.6	27	30 x 80	50 x 75
3	85	32	35 x 70	55 x 90
4	113.27	36	42 x 84	60 x 100

Executive Engineer PWD
Gundar Basin Division
Madurai

IAMWARM PROJECT
THERKKAR SUB BASIN
PROVIDING FLOW MEASURING
DEVICE('V') NOTCH) IN THE FIELD
CHANNEL OF TANK SLUICE
Scale 1cm=0.25m All dimation are
in Metre

TYPE - D

