## GOVERNMENT OF GOA QUALITY CONTROL LABORATORY WATER RESOURCES DEPARTMENT

Test Report No.: WRD / QC / F.6-2 / Cube -T : 1951,1952,1967,1968,1978,1979,1987,/ Lab / **84** / 2021 - 22 Dated: - 26 /05/ 2021. Laboratory : Bicholim - Goa. 1988,1994 ,1995,2019,2020,2025,2026,2045,2046,2052,2053 Sub Division V (QC)/WRD/ Bicholim- Goa.

### Name of work: Construction of open type Bandhara across Bicholim River at Gaonkarwada at Bicholim.

Ref. to Requisition No.: WRD/WDVI/SDI/F.W.215/2021-22/39 Dated :- 28/04/2021.

Qty. Recived. :18 Sets of cube Date of Receipt:- 03/05 / 2021. Tested on: - 12,14,15,16,17,19,20,22,23/05/2021 as per due dates. Ref to CPWD :2009, Vol. I Sample: Cube Mix PCC 1:2:4 O.S No. :6174,6175,6192,6193,6204,6205,6215,6216,6224,6225,6242,6243,6249,6250,6269,6270,6276,6277/SS

Lab. Sample No.: 1401 to 1418 Tested By: Mrs. Shirodkar. J.E.

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SR. NO	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissable	% above or below	REMARK
1	Cement concrete cube of mix <b>1:2:4</b> , cast on 14/04/2021. PCC for Retaining wall Foundation.	28 <sup>th</sup> day	235.59	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	3.91	Oty represents -47.00 Cum for two sets of cubes.
		compressive	203.87	Kg/Cm <sup>2</sup>			
'		strength	215.20	Kg/Cm <sup>2</sup>			
		Average	218.22	Kg/Cm <sup>2</sup>			
	Cement concrete cube of mix <b>1:2:4</b> , cast on 14/04/2021. PCC for Retaining wall Foundation.	28 <sup>th</sup> day	215.20	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	2.48	do
2		compressive	212.93	Kg/Cm <sup>2</sup>			
-		strenath	217.47	Kg/Cm <sup>2</sup>			
		Average	215.20	Kg/Cm <sup>2</sup>			
	Cement concrete cube of mix <b>1:2:4</b> , cast on 16/04/2021. PCC for Retaining wall Foundation.	28 <sup>th</sup> day	215.20	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	2.48	Oty represents -47.00 Cum for two sets of cubes.
3		compressive	217.47	Kg/Cm <sup>2</sup>			
		strength	212.93	Kg/Cm <sup>2</sup>			
		Average	215.20	Kg/Cm <sup>2</sup>			
	Cement concrete cube of mix <b>1:2:4</b> , cast on 16/04/2021. PCC for Retaining wall Foundation.	28 <sup>th</sup> day	235.59	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	4.27	do
4		compressive	206.14	Kg/Cm <sup>2</sup>			
		strenath	215.20	Kg/Cm <sup>2</sup>			
		Average	218.98	Kg/Cm <sup>2</sup>			
	Cement concrete cube of mix <b>1:2:4</b> , cast on 17/04/2021. PCC for Retaining wall Foundation.	28 <sup>th</sup> day	242.38	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	5.71	Qty represents -47.00 Cum for two sets of cubes.
5		compressive	208.40	Kg/Cm <sup>2</sup>			
		strength	215.20	Kg/Cm <sup>2</sup>			
		Average	222.00	Kg/Cm <sup>2</sup>			
	Cement concrete cube of mix <b>1:2:4</b> , cast on 17/04/2021. PCC for Retaining wall Foundation.	28 <sup>th</sup> day	228.79	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	7.87	do
6		compressive	203.87	Kg/Cm <sup>2</sup>			
		strenath	246.91	Kg/Cm <sup>2</sup>			
		Average	226.53	Kg/Cm <sup>2</sup>			

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SR. NO	DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissable	% above or below	REMARK
7	Cement concrete cube of mix <b>1:2:4</b> , cast on 18/04/2021. PCC for 1 <sup>st</sup> Lift.	28 <sup>th</sup> day	231.06	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	6.43	Oty represents -38.70 Cum for two sets of cubes.
		compressive	212.93	Kg/Cm <sup>2</sup>			
		strenath	226.53	Kg/Cm <sup>2</sup>			
		Average	223.51	Kq/Cm <sup>2</sup>			
	Cement concrete cube of mix <b>1:2:4</b> , cast on 18/04/2021. PCC for 1 <sup>st</sup> Lift.	28 <sup>th</sup> day	226.53	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	9.31	do
8		compressive	235.59 226.53	Kg/Cm <sup>2</sup>			
		strength Average	<b>229.55</b>	Kg/Cm <sup>2</sup> Kg/Cm <sup>2</sup>			
		28 <sup>th</sup> day	208.40	Kg/Cm <sup>2</sup>			
	Cement concrete cube of mix <b>1:2:4</b> , cast on 19/04/2021. PCC for 1 <sup>st</sup> Lift.	compressive	212.93	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	2.84	Oty represents -38.70 Cum for two sets of cubes.
9		strength	226.53	Kg/Cm <sup>2</sup>			
		Average	215.95	Kg/Cm <sup>2</sup>			
	Cement concrete cube of mix <b>1:2:4</b> , cast on 19/04/2021. PCC for 1 <sup>st</sup> Lift.	28 <sup>th</sup> day	226.53	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	2.84	do
10		compressive	217.47	Kg/Cm <sup>2</sup>			
10		strength	203.87	Kg/Cm <sup>2</sup>			
		Average	215.95	Kg/Cm <sup>2</sup>			
	Cement concrete cube of mix <b>1:2:4</b> , cast on 21/04/2021. PCC for 1 <sup>st</sup> Lift.	28 <sup>th</sup> day	235.59	Kg/Cm <sup>2</sup>	- 210.00 Kg/cm <sup>2</sup>	12.90	Oty represents -38.70 Cum for two sets of cubes.
11		compressive	249.18	Kg/Cm <sup>2</sup>			
' '		strength	226.53	Kg/Cm <sup>2</sup>			
		Average	237.10	Ka/Cm <sup>2</sup>			
		28 <sup>th</sup> day	244.65	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	13.26	do
12	Cement concrete cube of mix 1:2:4, cast on	compressive	237.85	Kg/Cm <sup>2</sup>			
12	21/04/2021. PCC for 1 <sup>st</sup> Lift.	strength	231.06	Kg/Cm <sup>2</sup>			
		Average	237.85	Kg/Cm <sup>2</sup>			
		28 <sup>th</sup> day	240.12	Kg/Cm <sup>2</sup>	- 210.00 Kg/cm <sup>2</sup> 6	6.43	Oty represents -28.80 Cum for two sets of cubes.
13	Cement concrete cube of mix 1:2:4, cast on	compressive	203.87	Kg/Cm <sup>2</sup>			
13	22/04/2021. PCC for 2 <sup>nd</sup> Lift.	strength	226.53	Kg/Cm <sup>2</sup>		0.43	
		Average	223.51	Kg/Cm <sup>2</sup>			
14	Cement concrete cube of mix <b>1:2:4</b> , cast on 22/04/2021. PCC for 2 <sup>nd</sup> Lift.	28 <sup>th</sup> day	242.38	Kg/Cm <sup>2</sup>	- 210.00 Kg/cm <sup>2</sup>	9.67	do
		compressive	222.00	Kg/Cm <sup>2</sup>			
		strength	226.53	Kg/Cm <sup>2</sup>			
		Average	230.30	Kg/Cm <sup>2</sup>			

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SR. NO	I DISCRIPTION OF SAMPLE	TESTED FOR	RESULTS		Max./Min.Value permissable	% above or below	REMARK
15	Cement concrete cube of mix <b>1:2:4</b> , cast on 24/04/2021. PCC for 2 <sup>nd</sup> Lift.	28 <sup>th</sup> day	249.18	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	13.98	Oty represents -28.80 Cum for two sets of cubes.
		compressive	237.85	Kg/Cm <sup>2</sup>			
		strength	231.06	Kg/Cm <sup>2</sup>			
		Average	239.36	Kg/Cm <sup>2</sup>			
	Cement concrete cube of mix <b>1:2:4</b> , cast on 24/04/2021. PCC for 2 <sup>nd</sup> Lift.	28 <sup>th</sup> day	260.51	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	11.47	do
16		compressive	222.00	Kg/Cm <sup>2</sup>			
'0		strength	219.73	Kg/Cm <sup>2</sup>			
		Average	234.08	Kg/Cm <sup>2</sup>			
	Cement concrete cube of mix <b>1:2:4</b> , cast on 25/04/2021. PCC for 2 <sup>nd</sup> Lift.	28 <sup>th</sup> day	219.73	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	3.20	Oty represents -28.80 Cum for two sets of cubes.
17		compressive	212.93	Kg/Cm <sup>2</sup>			
' '		strength	217.47	Kg/Cm <sup>2</sup>			
		Average	216.71	Kg/Cm <sup>2</sup>			
18	Cement concrete cube of mix 1:2:4, cast on 25/04/2021. PCC for 2 <sup>nd</sup> Lift.	28 <sup>th</sup> day	231.06	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	11.82	do
		compressive	237.85	Kg/Cm <sup>2</sup>			
		strength	235.59	Kg/Cm <sup>2</sup>			
		Average	234.83	Kg/Cm <sup>2</sup>			

Copy to: 1. The Assistant Engineer, SD I, WD VI, WRD, Bicholim - Goa.

Junior Engineer

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<sup>2.</sup> Copy submitted to The Superintending Engineer ,CPO,WRD, Sinchai Bhavan, Porvorim Goa for kind Information.

<sup>3.</sup> Copy submitted to The Executive Engineer, WD VI, WRD, Bicholim - Goa.

<sup>4.</sup> QC Lab File. 5. Bill File.