

GOVERNMENT OF GOA  
QUALITY CONTROL LABORATORY  
WATER RESOURCES DEPARTMENT

Test Report No.: WRD / QC / F.6-2 / Cube -T : 1572,1573,1583,1584,1586,1587,1594,1595,/ Lab /26/ 2021 - 22 Dated:- 24/ 04/ 2021 Laboratory : Bicholim - Goa.

1601 to 1604, 1613,1614,1628,1629,1639,1640,1650,1651,1663,1664,1681,1682,1695,1696,1714,1715,1725,1726 Sub Division V (QC)/WRD/ Bicholim- Goa.

**Name of work : Improvement to the existing Bund and Manas at Konadi Corgao in Pernem Taluka.**

Ref. to Requisition No.: MI/SDIII/WDI/F-58/2019-20/463 dt. 22/03/2021.

Qty. Recived. : 30 Sets of cube Date of Receipt:- 24 / 03 / 2021. Tested on: -01,02,03,05 to ,09,10,12 to 17/04/2021 as per due dates. Ref to CPWD :2009, Vol. I

Sample: Cube Mix 1 : 2 : 4 O.S

No:5712,5713,5728,5729,5735,5736,5750,5751,5759,5760,5765,5766,5776,5777,5793,5794,5806,5807,5818,5819,5832,5833,5850,5851,5865,5866,5886,5887,5902,5903/SS. Lab.

Sample No.: 968 TO 997 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 04/03/2021. Ch-200.00 to Ch-230.00 (1)	28 <sup>th</sup> day compressive strength	244.65	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	17.22	Qty represents - 36.00 Cum for two sets of cubes.
			255.97	Kg/Cm <sup>2</sup>			
			237.85	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>246.16</b>	<b>Kg/Cm<sup>2</sup></b>			
2	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 04/03/2021. Ch-200.00 to Ch-230.00 (1)	28 <sup>th</sup> day compressive strength	246.91	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	18.30	----- do -----
			262.77	Kg/Cm <sup>2</sup>			
			235.59	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>248.42</b>	<b>Kg/Cm<sup>2</sup></b>			
3	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 05/03/2021. Ch-230.00 to Ch-260.00 (1)	28 <sup>th</sup> day compressive strength	231.06	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	7.15	Qty represents - 32.00 Cum for two sets of cubes.
			206.14	Kg/Cm <sup>2</sup>			
			237.85	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>225.02</b>	<b>Kg/Cm<sup>2</sup></b>			
4	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 05/03/2021. Ch-230.00 to Ch-260.00 (1)	28 <sup>th</sup> day compressive strength	255.97	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	21.17	----- do -----
			258.24	Kg/Cm <sup>2</sup>			
			249.18	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>254.46</b>	<b>Kg/Cm<sup>2</sup></b>			
5	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 06/03/2021. Ch-260.00 to Ch-300.00 (1)	28 <sup>th</sup> day compressive strength	258.24	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	17.94	Qty represents - 35.00 Cum for two sets of cubes.
			246.91	Kg/Cm <sup>2</sup>			
			237.85	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>247.67</b>	<b>Kg/Cm<sup>2</sup></b>			

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6	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 06/03/2021. Ch-260.00 to Ch-300.00 (1)	28 <sup>th</sup> day compressive strength	265.04	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	22.25	Qty represents - 35.00 Cum for two sets of cubes.
			260.51	Kg/Cm <sup>2</sup>			
			244.65	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>256.73</b>	<b>Kg/Cm<sup>2</sup></b>			
7	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 08/03/2021. Ch-250.00 to Ch-300.00 (2)	28 <sup>th</sup> day compressive strength	244.65	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	18.30	Qty represents - 38.00 Cum for two sets of cubes.
			237.85	Kg/Cm <sup>2</sup>			
			262.77	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>248.42</b>	<b>Kg/Cm<sup>2</sup></b>			
8	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 08/03/2021. Ch-250.00 to Ch-300.00 (2)	28 <sup>th</sup> day compressive strength	240.12	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	16.86	----- do -----
			258.24	Kg/Cm <sup>2</sup>			
			237.85	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>245.40</b>	<b>Kg/Cm<sup>2</sup></b>			
9	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 09/03/2021. Ch-300.00 to Ch-350.00 (2)	28 <sup>th</sup> day compressive strength	203.87	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	6.07	Qty represents - 38.00 Cum for two sets of cubes.
			217.47	Kg/Cm <sup>2</sup>			
			246.91	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>222.75</b>	<b>Kg/Cm<sup>2</sup></b>			
10	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 09/03/2021. Ch-300.00 to Ch-350.00 (2)	28 <sup>th</sup> day compressive strength	265.04	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	16.14	----- do -----
			240.12	Kg/Cm <sup>2</sup>			
			226.53	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>243.89</b>	<b>Kg/Cm<sup>2</sup></b>			
11	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 10/03/2021. Ch-350.00 to Ch-400.00 (2)	28 <sup>th</sup> day compressive strength	215.20	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	6.79	Qty represents - 36.00 Cum for two sets of cubes.
			226.53	Kg/Cm <sup>2</sup>			
			231.06	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>224.26</b>	<b>Kg/Cm<sup>2</sup></b>			
12	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 10/03/2021. Ch-350.00 to Ch-400.00 (2)	28 <sup>th</sup> day compressive strength	210.67	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	2.48	----- do -----
			212.93	Kg/Cm <sup>2</sup>			
			222.00	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>215.20</b>	<b>Kg/Cm<sup>2</sup></b>			

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13	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 11/03/2021. Ch-210.00 to Ch-270.00 (3)	28 <sup>th</sup> day compressive strength	219.73	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	9.31	Qty represents - 38.00 Cum for two sets of cubes.
			258.24	Kg/Cm <sup>2</sup>			
			210.67	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>229.55</b>	<b>Kg/Cm<sup>2</sup></b>			
14	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 11/03/2021. Ch-210.00 to Ch-270.00 (3)	28 <sup>th</sup> day compressive strength	267.30	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	22.25	----- do -----
			258.24	Kg/Cm <sup>2</sup>			
			244.65	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>256.73</b>	<b>Kg/Cm<sup>2</sup></b>			
15	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 12/03/2021. Ch-270.00 to Ch-330.00 (3)	28 <sup>th</sup> day compressive strength	237.85	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	16.50	Qty represents -40.00 Cum for two sets of cubes.
			249.18	Kg/Cm <sup>2</sup>			
			246.91	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>244.65</b>	<b>Kg/Cm<sup>2</sup></b>			
16	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 12/03/2021. Ch-270.00 to Ch-330.00 (3)	28 <sup>th</sup> day compressive strength	244.65	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	12.18	----- do -----
			235.59	Kg/Cm <sup>2</sup>			
			226.53	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>235.59</b>	<b>Kg/Cm<sup>2</sup></b>			
17	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 13/03/2021. Ch-330.00 to Ch-390.00 (3)	28 <sup>th</sup> day compressive strength	203.87	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	4.63	Qty represents -36.00 Cum for two sets of cubes.
			217.47	Kg/Cm <sup>2</sup>			
			237.85	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>219.73</b>	<b>Kg/Cm<sup>2</sup></b>			
18	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 13/03/2021. Ch-330.00 to Ch-390.00 (3)	28 <sup>th</sup> day compressive strength	212.93	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	10.03	----- do -----
			226.53	Kg/Cm <sup>2</sup>			
			253.71	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>231.06</b>	<b>Kg/Cm<sup>2</sup></b>			
19	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 15/03/2021. Ch-250.00 to Ch-300.00 (2)	28 <sup>th</sup> day compressive strength	226.53	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	4.99	Qty represents -40.00 Cum for two sets of cubes.
			208.40	Kg/Cm <sup>2</sup>			
			226.53	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>220.49</b>	<b>Kg/Cm<sup>2</sup></b>			

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20	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 15/03/2021. Ch-250.00 to Ch-300.00 (2)	28 <sup>th</sup> day compressive strength	212.93	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	5.35	Qty represents -40.00 Cum for two sets of cubes.
			224.26	Kg/Cm <sup>2</sup>			
			226.53	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>221.24</b>	<b>Kg/Cm<sup>2</sup></b>			
21	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 16/03/2021. Ch-300.00 to Ch-330.00 (1)	28 <sup>th</sup> day compressive strength	215.20	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	5.71	Qty represents -40.00 Cum for two sets of cubes.
			219.73	Kg/Cm <sup>2</sup>			
			231.06	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>222.00</b>	<b>Kg/Cm<sup>2</sup></b>			
22	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 16/03/2021. Ch-300.00 to Ch-330.00 (1)	28 <sup>th</sup> day compressive strength	233.32	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	12.18	----- do -----
			242.38	Kg/Cm <sup>2</sup>			
			231.06	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>235.59</b>	<b>Kg/Cm<sup>2</sup></b>			
23	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 17/03/2021. Ch-330.00 to Ch-370.00 (1)	28 <sup>th</sup> day compressive strength	212.93	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	6.43	Qty represents -36.00 Cum for two sets of cubes.
			219.73	Kg/Cm <sup>2</sup>			
			237.85	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>223.51</b>	<b>Kg/Cm<sup>2</sup></b>			
24	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 17/03/2021. Ch-330.00 to Ch-370.00 (1)	28 <sup>th</sup> day compressive strength	226.53	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	5.35	----- do -----
			203.87	Kg/Cm <sup>2</sup>			
			233.32	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>221.24</b>	<b>Kg/Cm<sup>2</sup></b>			
25	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 18/03/2021. Ch-370.00 to Ch-410.00 (1)	28 <sup>th</sup> day compressive strength	215.20	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	3.91	Qty represents -42.00 Cum for two sets of cubes.
			219.73	Kg/Cm <sup>2</sup>			
			219.73	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>218.22</b>	<b>Kg/Cm<sup>2</sup></b>			
26	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 18/03/2021. Ch-370.00 to Ch-410.00 (1)	28 <sup>th</sup> day compressive strength	237.85	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>2</sup>	10.75	----- do -----
			226.53	Kg/Cm <sup>2</sup>			
			233.32	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>232.57</b>	<b>Kg/Cm<sup>2</sup></b>			

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27	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 19/03/2021. Ch-300.00 to Ch-350.00 (2)	28 <sup>th</sup> day compressive strength	226.53	Kg/Cm <sup>2</sup>	21.00 Kg/cm <sup>2</sup>	9.31	Qty represents -38.00 Cum for two sets of cubes.
			224.26	Kg/Cm <sup>2</sup>			
			237.85	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>229.55</b>	<b>Kg/Cm<sup>2</sup></b>			
28	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 19/03/2021. Ch-300.00 to Ch-350.00 (2)	28 <sup>th</sup> day compressive strength	244.65	Kg/Cm <sup>2</sup>	210.00 Kg/cm <sup>3</sup>	15.42	----- do -----
			235.59	Kg/Cm <sup>2</sup>			
			246.91	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>242.38</b>	<b>Kg/Cm<sup>2</sup></b>			
29	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 20/03/2021. Ch-350.00 to Ch-400.00 (2)	28 <sup>th</sup> day compressive strength	206.14	Kg/Cm <sup>2</sup>	21.00 Kg/cm <sup>3</sup>	5.71	Qty represents -38.00 Cum for two sets of cubes.
			226.53	Kg/Cm <sup>2</sup>			
			233.32	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>222.00</b>	<b>Kg/Cm<sup>2</sup></b>			
30	Cement concrete cube of mix <b>1 : 2 : 4</b> , cast on 20/03/2021. Ch-350.00 to Ch-400.00 (2)	28 <sup>th</sup> day compressive strength	237.85	Kg/Cm <sup>2</sup>	21.00 Kg/cm <sup>3</sup>	7.15	----- do -----
			215.20	Kg/Cm <sup>2</sup>			
			222.00	Kg/Cm <sup>2</sup>			
		<b>Average</b>	<b>225.02</b>	<b>Kg/Cm<sup>2</sup></b>			

Copy to: 1. The Assistant Engineer , SDIII , WD I , WRD, Dhargal, Pernem - Goa.

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

3. Copy submitted to The Executive Engineer ,WD I ,WRD, Porvorim - Goa.

4. QC Lab File.      5. Bill File.

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