GOVERNMENT OF GOA QUALITY CONTROL LABORATORY WATER RESOURCES DEPARTMENT

Test Report No.: WRD / QC / F.6-2 / Cube -T : 1165 to 1168,1174 to 1177,1194/ Lab / **289**/ 2020 - 21 Dated:- 09/03 / 2021. Laboratory : Bicholim - Goa. ,1195,1196,1197 ,1212,1213,1214,1215 Sub Division V (QC)/WRD/ Bicholim- Goa.

Name of work:-: Construction of Protection wall for nalla on both sides from main road to Sagun Sinari House and Govind Parab house to shekri, at pimpalwada, Amona in Bicholim Taluka.

Ref. to Requisition No.: F.211/WRD/WDVI/SDI/509/2020-21 Dated :- 08/02/2021.

Qty. Recived. :16 Sets of cube Date of Receipt:- 08/02/2021. Tested on: -03 to 06/03/2021 as per due dates. Ref to CPWD :2009, Vol. I

Sample: Cube Mix 1:2:4 O.S No.: 5245, 5246 to 5248, 5258 to 5261, 5281 to 5284, 5302 to 5305/SS. Lab. Sample No.: 378 To 393 Tested By: Mrs. S.B. Naik Shirodkar. J.E.

| SR. NO. | DISCRIPTION OF SAMPLE | TESTED FOR | RESULTS | | Max./Min.Value permissable | % above or below | REMARK |
|------------|--|----------------------|---------|--------------------|-------------------------------|--------------------------------|--|
| | Cement concrete cube of mix $1:2:4$, cast on $03/02/2021$. For 2^{nd} step of L.H.S wall from ch 140m to 150m. | 28 th day | 226.53 | Kg/Cm ² | 210.00 Kg/cm ² | 12.90 | Qty represents - 9.00 Cum for two sets of cubes. |
| | | compressive | 226.53 | Kg/Cm ² | | | |
| | | strength | 258.24 | Kg/Cm ² | | | |
| | | Average | 237.10 | Kg/Cm ² | | | |
| | Cement concrete cube of mix $1:2:4$, cast on $03/02/2021$. For 2^{nd} step of L.H.S wall from ch 140m to 150m. | 28 th day | 237.85 | Kg/Cm ² | 210.00 Kg/cm ² | 8.59 | do |
| 2 | | compressive | 215.20 | Kg/Cm ² | | | |
| | | strength | 231.06 | Kg/Cm ² | | | |
| | | Average | 228.04 | Kg/Cm ² | | | |
| | Cement concrete cube of mix $1:2:4$, cast on $03/02/2021$. For 1^{st} step of L.H.S wall from ch 150m to 160m. | 28 th day | 233.32 | Kg/Cm ² | 210.00 Kg/cm ² | 10.75 | Qty represents - 13.50 Cum for two sets of cubes. |
| 3 | | compressive | 237.85 | Kg/Cm ² | | | |
| 5 | | strength | 226.53 | Kg/Cm ² | | | |
| | | Average | 232.57 | Kg/Cm ² | | | |
| | Cement concrete cube of mix $1:2:4$, cast on $03/02/2021$. For 1^{st} step of L.H.S wall from ch 150m to 160m. | 28 th day | 215.20 | Kg/Cm ² | 210.00 Kg/cm ² | 8.59 | do |
| 4 | | compressive | 228.79 | Kg/Cm ² | | | |
| – | | strength | 240.12 | Kg/Cm ² | | | |
| | | Average | 228.04 | Kg/Cm ² | | | |
| | Cement concrete cube of mix $1:2:4$, cast on $04/02/2021$. For Foundation of L.H.S wall from ch 310m to 320m. | 28 th day | 231.06 | Kg/Cm ² | 210.00 Kg/cm ² | 8.23 | Qty represents - 16.50 Cum for two sets of cubes. |
| 5 | | compressive | 212.93 | Kg/Cm ² | | | |
| | | strength | 237.85 | Kg/Cm ² | | | |
| | | Average | 227.28 | Kg/Cm ² | | | |

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| SR. NO. | DISCRIPTION OF SAMPLE | TESTED FOR | RES | SULTS | Max./Min.Value permissable | % above or below | REMARK |
|------------|--|---|---|---|-------------------------------|-----------------------------|--|
| | Cement concrete cube of mix 1:2:4 , cast on 04/02/2021. For Foundation of L.H.S wall from ch 310m to 320m. | 28 th day compressive strength Average | 217.47 235.59 226.53 226.53 | Kg/Cm ² Kg/Cm ² Kg/Cm ² Kg/Cm ² | 210.00 Kg/cm ² | 7.87 | Qty represents - 16.50 Cum for two sets of cubes. |
| | Cement concrete cube of mix 1:2:4 , cast on 04/02/2021. For Foundation of R.H.S wall from ch 310m to 320m. | 28 th day compressive strength Average | 219.73 222.00 237.85 226.53 | Kg/Cm ² Kg/Cm ² Kg/Cm ² Kg/Cm ² | 210.00 Kg/cm ² | 7.87 | Qty represents -16.00 Cum for two sets of cubes. |
| | Cement concrete cube of mix 1:2:4 , cast on 04/02/2021. For Foundation of R.H.S wall from ch 310m to 320m. | 28 th day compressive strength Average | 258.24 231.06 226.53 238.61 | $\begin{array}{c} \mathbf{Kg/Cm}^{2} \\ \mathbf{Kg/Cm}^{2} \\ \mathbf{Kg/Cm}^{2} \\ \mathbf{Kg/Cm}^{2} \\ \mathbf{Kg/Cm}^{2} \end{array}$ | 210.00 Kg/cm ² | 13.62 | do |
| | Cement concrete cube of mix $1:2:4$, cast on $05/02/2021$. For 2^{nd} step of L.H.S wall from ch 150m to 160m. | 28 th day compressive strength Average | 215.20 212.93 237.85 222.00 | Kg/Cm ² Kg/Cm ² Kg/Cm ² Kg/Cm ² | 210.00 Kg/cm ² | 5.71 | Qty represents - 9.00 Cum for two sets of cubes. |
| | Cement concrete cube of mix $1:2:4$, cast on 05/02/2021. For 2 nd step of L.H.S wall from ch 150m to 160m. | 28 th day compressive strength Average | 242.38 235.59 226.53 234.83 | Kg/Cm ² Kg/Cm ² Kg/Cm ² Kg/Cm ² | 210.00 Kg/cm ² | 11.82 | do |
| | Cement concrete cube of mix 1:2:4 , cast on 05/02/2021. For Foundation of L.H.S wall from ch 320m to 330m. | 28 th day compressive strength Average | 255.97 235.59 231.06 240.87 | | 210.00 Kg/cm ² | 14.70 | Qty represents - 16.50 Cum for two sets of cubes. |
| | Cement concrete cube of mix 1 :2 : 4 , cast on 05/02/2021. For Foundation of L.H.S wall from ch 320m to 330m. | 28 th day compressive strength Average | 240.12 249.18 228.79 239.36 | Kg/Cm ² Kg/Cm ² Kg/Cm ² Kg/Cm ² | 210.00 Kg/cm ² | 13.98 | do |
| | Cement concrete cube of mix 1 :2 : 4 , cast on 06/02/2021. For Foundation of R.H.S wall from ch 320m to 340m. | 28 th day compressive strength Average | 231.06 258.24 219.73 236.34 | Kg/Cm²Kg/Cm²Kg/Cm²Kg/Cm²Kg/Cm² | 210.00 Kg/cm ² | 12.54 | Qty represents - 33.00 Cum for two sets of cubes. |

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| SR. NO. | DISCRIPTION OF SAMPLE | TESTED FOR | RESULTS | | Max./Min.Value permissable | % above or below | REMARK |
|------------|---|--|---|--|-------------------------------|-----------------------------|--|
| 14 | Cement concrete cube of mix 1:2:4 , cast on 06/02/2021. For Foundation of R.H.S wall from ch 320m to 340m. | 28 th day compressive strength Average | 237.85 215.20 253.71 235.59 | Kg/Cm ² Kg/Cm ² Kg/Cm ² Kg/Cm ² | 210.00 Kg/cm ² | 12.18 | Qty represents - 33.00 Cum for two sets of cubes. |
| 15 | Cement concrete cube of mix 1:2:4 , cast on 06/02/2021. For Foundation of L.H.S wall from ch 320m to 340m. | 28 th day compressive strength Average | 210.67 215.20 231.06 218.98 | Kg/Cm ² Kg/Cm ² Kg/Cm ² Kg/Cm ² | 210.00 Kg/cm ² | 4.27 | Qty represents - 16.50 Cum for two sets of cubes. |
| 16 | Cement concrete cube of mix 1:2:4 , cast on 06/02/2021. For Foundation of L.H.S wall from ch 320m to 340m. | 28 th day compressive strength | 249.18 237.85 237.85 | Kg/Cm ² Kg/Cm ² Kg/Cm ² | 210.00 Kg/cm ² | 15.06 | do |
| | | Average | 241.63 | Kg/Cm ² | | | |

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

4. QC Lab File. 5. Bill File.

Junior Engineer

Assistant Engineer