

GOVERNMENT OF KERALA  
Finance (Inspection Wing - Technical) Department  
Thiruvananthapuram

Finance (Insp. Tech. Wing) Dept,  
Thiruvananthapuram,  
Dated : 18.11.2016.

No. 87/2016

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CIRCULAR

Sub:- Estimate preparation for Retaining Walls with DR Masonry  
- Typical design - Reg.

Ref:- CTE inspection in various works.

1. It is observed that various departments are following different design drawings for construction of Retaining walls, which are either oversized or undersized. There is a need to standardise the design of construction of Retaining Wall in all the departments. The typical design of DR masonry to be followed for construction of Retaining Wall is enclosed as appx 'A'.
2. The base width of the Retaining Wall shall be limited to  $0.4H + 0.3$  m. The Retaining Wall shall have a side slope of 1:4 as given in the drawing. The base shall have an upward slope as given in the sketch.
3. PCC 1:3:6 belt with nominal reinforcement shall be provided after every 2m height of DR wall with 15cm thickness. The steel to be provided is 8 mm bar 4 Nos ( two nos each at top and bottom) and 8 mm dia stirrups 30 cm c/c for top band. RRM belt with 45 cm thickness may also be considered instead of PCC belt as per site condition.
4. The maximum size to be followed with typical design for Retaining Wall of up to 5 m height only. All other Retaining Walls above 5 m and those Retaining Walls with heavy surcharge and point loads need to be designed as per the site condition. All RCC retaining walls of any height shall also be designed separately.

5. The PCC belt with nominal reinforcement shall be provided after 2 m height of Dry Rubble. Minor variations of above shall be approved by TS authority.
6. The depth of foundation to be provided for the retaining walls shall be 0.60 m or  $0.1 H + 0.3m$  whichever is maximum.
7. This circular may be communicated up to section office for necessary action.

**K.P. PURUSHOTHAMAN,**  
Chief Technical Examiner &  
Ex-officio Special Secretary to Government

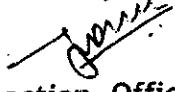
Att: Appx 'A" - Typical design of DR Wall

To

- The Accountant General (A&E/Audit), Kerala, Thiruvananthapuram
- The Principal Secretary, Finance Department.
- The Principal Secretary, Public Works Department.
- The Secretary, Water Resources Department.
- The Secretary, Fisheries Department.
- The Principal Secretary, Ports Department.
- The Principal Secretary, Local Self Government Department.
- The Principal Secretary, Forest & Wild Life Department.
- The Principal Secretary, Industries Department.
- The Principal Secretary, Science and Technology Department.
- The Secretary, Agriculture Department.
- The Chief Engineer, PWD (Roads & Bridges) & Admin, Thiruvananthapuram.
- The Chief Engineer, National Highways
- The Chief Engineer, Harbour Engg. Department.
- The Chief Engineer, Local Self Government Dept.
- The Chief Conservator of Forest (Admn), Thiruvananthapuram.
- The Chief Engineer, Irrigation and Administration, Thiruvananthapuram.
- The Chief Engineer, Irrigation Projects I/II Calicut/ Thiruvananthapuram.
- The Chief Executive Officer, Road Fund Board.
- The Chief Engineer, KSTP, Thiruvananthapuram.
- The Chief Engineer, Buildings & Local Works, Thiruvananthapuram.
- The Chairman, KSEB, Thiruvananthapuram.
- The Managing Director, Kerala Water Authority.
- The Managing Director, KITCO, Ernakulam.
- The Chairman, GCDA, Ernakulam.
- The Managing Director, KSRTC, Thiruvananthapuram.
- The Managing Director, KTDC, Thiruvananthapuram.
- The Managing Director, KLDC, Thrissur.
- The Managing Director, KSCC, Thiruvananthapuram
- The Managing Director, KPHCC, Thiruvananthapuram.

- The Managing Director, KINFRA, Thiruvananthapuram.
- The Managing Director, Kerala Electricals Ltd, Thiruvananthapuram.
- The Registrar, Kerala/Kottayam/Kochi/Calicut/Kannur Universities
- The Registrar, Sanskrit University, Kalady.
- The Registrar, Kerala Agricultural University, Thrissur.
- The Superintending Engineer, PWD, Roads, South Circle, Thiruvananthapuram / Central Circle, Ernakulam / North Circle, Calicut.
- The Superintending Engineer, HED - Thiruvananthapuram, Ernakulam, Calicut.
- The Superintending Engineer, LSGD, Thiruvananthapuram.
- The Superintending Engineer, National Highways, Thiruvananthapuram / Ernakulam / Calicut
- The Superintending Engineer, Irrigation, Thiruvananthapuram / Thrissur / Calicut
- The Executive Engineer, LSGD, ~~Thiruvananthapuram/ Kollam/ Kottayam/ Alappuzha/ Pathanamthitta/ Idukki/ Thrissur/ Calicut/ Wayanad/ Kannur/ Kasaragod.~~
- The Executive Engineer, Road and Bridges, Thiruvananthapuram / Kollam / Alleppey / Kottayam / Ernakulam / Thrissur / Kozhikode / Malappuram / Kannur / Kasaragod / Pathanamthitta / Idukki / Palakkad / Wayanad / Muvattupuzha.
- The Executive Engineer, N.H., Thiruvananthapuram / Ernakulam / Kollam / Malappuram / Alappuzha / Trissur / Kozhikode / Kannur / Muvattupuzha.
- The Commissioner, Devaswom Board, Travancore / Kochi / Malabar.
- All Heads of Engineering Departments & PSUs concerned.
- The Nodal Officer, [www.finance.kerala.gov.in](http://www.finance.kerala.gov.in)
- Office Copy/ Stock file.

Forwarded / By Order

  
Section Officer

Appendix A

Typical design of DR Wall

