Technical Note No: 15

Sub: APRRP-Roads –Construction of CD works- Roadway Width at Cross Drainage Works - Guidelines – Communicating - Reg.

Ref: 1) Inspection of APRRP works by Project Director and Project Advisor (PMC) in Nellore district.

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Background:

During the inspection of works by Project Director and Project Advisor (PMC) it was observed that the Roadway width provided for construction of CD works is not satisfying the IRC specifications and over and above the widths were noticed. Due to the extra width as against the specified will leads to unnecessary extra cost and boosting the estimate amount also.

Observations:

a) Pkg : 28- Satyavolu - Ganugapenta Road in Nellore Dist:

The Roadway width of the Submersible causeway in Km 7/8 to 8/0 is observed as 8.75 m which is against to the specified width of 7.50 m as per IRC:SP:20. The details of causeway are shown in the following Fig.

b) Km 1325/8 of NH5 to Batladinne of Kavali(m) in Nellore Dist- Pkg 28:

The Roadway width of the Culvert (3V of 8m span) in Km 1 /4 to 1/6 is observed as 8.40 m which is against to the specified width of 7.50 m as per IRC: SP:20. The details of the culvert are shown in the following Fig.

Hence there is a need to create awareness among all PIUs to follow the below mentioned guidelines in execution of CD works in APRRP as per IRC: SP:20 Specifications.

1. Roadway width at Cross- Drainage Structures:

1.1. Culvert: The Roadway width at Culvert (measured from outside to outside of the parapet walls) shall be as given in Table 1.

Table 1: Roadway width at Culvert

Road Classification	Terrain (m)	
	Plain and rolling	Mountainous or Steep
Rural Roads (ODR and VR)	7.50	6.0

1.2. Bridge: The Roadway width between the kerb for Major and Minor Bridges shall be as given in Table 2.

Table 2: Roadway width at Bridge

Road Classification	Clear Roadway Width (m)
Rural Roads (ODR and VR)	5.50

The Roadway width specified in Table 2 is exclusive of Parapet.

For rural roads, where the traffic is less than 100 motorized vehicles per day and it is not likely to grow due to situation, like, dead end, low habitation and difficult terrain conditions, the roadway width at bridge may be reduced to 4.25 m.

1.3. Causeway and Submersible Bridge: The Roadway width at causeway and submersible bridge shall be as given in Table 3.

Table 3: Roadway width at Causeway and Submersible Bridges

Road Classification	Overall Roadway Width (m)	
	Plain and rolling	Mountainous or Steep
Rural Roads (ODR and VR)	7.50	6.0

2. As per IRC: SP:82-2008:

Minimum carriageway width of submersible structures, measured at right angles to the longitudinal center line of the structure, between the inner faces of discontinuous kerbs/safety kerbs wherever provided or between the guideposts/stones (without kerbs), should be as given in Table 2.1

Table 2.1: Minimum width of Carriageway for submersible structures

Category of Road	Minimum width of carriage way* (m)	
	Plain and Rolling Terrain	Mountainous and Steep Terrain
Single Lane	6.8	5.5
Two Lane	7.5	7.5

Note: * Minimum width of carriage way should be suitably increased as per IRC:73 in the case of structures located on curves.

References:

1. IRC: SP:20-2002- Rural Roads Manual
2. IRC: SP:82-2008 – Guidelines for Causeways and Submersible Bridge.

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