

## 13<sup>th</sup> TECHNICAL COMMITTEE MEETING

Technical Committee Meeting for the scrutiny and Technical Sanction of project reports prepared by PMU (21 works)

Meeting No. 13

Date - 29<sup>th</sup> December, 2020; 2.30 pm

PD Venue : Online Platform (Google Meet)

### AGENDA

Technical Committee Meeting for the scrutiny and Technical Sanction of project reports prepared by PMU (21 works)

### PRESENT

S.No		Name	Designation and Office Address
FO	1	Sri Johnson	Chief Engineer, LID EW, LSGD
SS	2	Dr. B.G.Sreedevi	Former Director, NATPAC
	3	Smt Sreela S	Superintending Engineer (Rtd)
	4	Dr. Nivin Philip	Professor, Saint Gits College of Engineering
	5	Dr Jaya V	Professor CET
	6	Dr Neethu Roy	Professor, Mar Baselios College of Engineering and Technology
	7	Dr. Vishnu R	Assistant Professor, NIT, Waranagal
	8	Sri Vishnukumar G	Project Director, PMU RKI LSGD
	9	Sri Shiju Chandran	Assistant Executive Engineer, PMU RKI LSGD
	10	Shainy N	Assistant Executive Engineer, PMU RKI LSGD
	11	Binod S	Assistant Engineer, PMU RKI LSGD
	12	Riphin K John	Assistant Engineer, PMU RKI LSGD
	13	Remjish	Assistant Engineer, PMU RKI LSGD

Sl.No.	Description	
1.1	The Chief Engineer, LSGID informed that the proposed meeting is scheduled for according the Technical Sanction of 21 DPRs submitted by PD,PMU for which Administrative Sanction has been accorded by the Government based on the designs approved by the Technical Committee	-
1.2	PD, PMU informed that the Designs approved by the 11 <sup>th</sup> Technical Committee, after making necessary corrections to the suggestions made by the Technical Committee, the DPRs were submitted to the Government and Administrative Sanction had been accorded vide G.O. (Rt.) No.404/2020/P&EA Dated 23/10/2020 for 21 DPRs having length of roads 26.85 kms and costing 40 crores.	-
<b>DISCUSSIONS</b>		
2.1	Chief Engineer invited PD, PMU to brief about the 21 DPRs to the Technical Committee	-
2.2	<p>Chief Engineer, LID EW, LSGD raised concern about providing DR packing in weak soils underneath the Box Culverts.</p> <p>Chief Engineer opined that generally DR packing provided in weak soil above coconut piling and below the Box Culverts is intended only for providing a firm bed and this is not a good practice and decision could be made on the basis of a general discussion within the Technical Committee.</p> <p>PD, PMU informed that providing 20cm bed of Sand, then DR packing and PCC thereafter is the usual practice adopted in Alappuzha District for Box Culverts and Motor Thara in paddy fields.</p> <p>TC opined that there is no theoretical explanation available as to the provision of sand bed and DR packing over coconut piling. Sand Bedding may provide a dense cushion and prevent the escape of clay to the overlying beds and it may also as a filter. If this practice is found successful, the same practices adopted in such locations will be appropriate. TC also instructed that strict technical supervision shall be ensured during execution.</p> <p>TC opined PMU to make the corrections in the DPR based on the above</p>	PD, PMU
2.3	<p>TC opined that when using BC-2 in flexible pavements, mix design should be designed for 50 blows</p> <p>PMU informed that this could be incorporated as a condition while doing</p>	PD, PMU

	Tender	
2.4	<p>In the case of Stability analysis in embankments, the stability check was checked by PMU using Plaxis Software using Finite Element Method and the embankment is found stable on checking for sliding failure</p> <p>TC opined that the exact values if Poisson's ratio, Stiffness and Angle of internal friction should be ascertained and if the soil is Silty gravel the values are found with acceptable limits. Also while analysis is done the value obtained is 1.9 which is above the required value of 1.3.</p>	PD, PMU
2.5	<p>PMU informed that in the 11<sup>th</sup> TC for Manathukadu Puthuvvedu Road &amp; Protection work the TC had instructed to check if any other additional material than Bamboo could also be used for Bio fencing works.</p> <p>PMU informed that as per IRC 56 an alternate material Vetiver is also provided in the estimate</p> <p>PMU informed that in the case of Bio Fencing, the planting and maintenance strategy vests with the contractor. TC instructed that PMU should ensure this</p>	PD, PMU
2.6	<p>For Puthiyakavu - Pozhankavu road, TC had opined that the Thickness of Culvert Slab should be made to 18cm or else proper design may be submitted.</p> <p>PMU informed that on detailed site inspection, the requirement of providing a Box Culvert has necessitated and the same is provided</p>	-
2.7	<p>In the case of Karoorchira - Anjalangadi road, TC had opined that the PMU should ensure the stability of the existing culvert as well the abutment area over which widening is proposed as there is a chance that the area where abutment is resting may become weak.</p> <p>PMU informed that new wing wall is constructed, the structure is designed as to transfer the load safely to the underlying strata and hence the concern raised by TC is addressed and alternative is incorporated in the DPR</p>	PD, PMU
2.8	<p>In the case of Panjamkavala road ward-18, Technical Committee had opined that possibility of using ICBP should also be checked.</p> <p>PMU informed that due to heavy maintenance required in case of ICBP, the same is not resorted to and in future the provisions for ICBP and Panelled Concrete will be checked</p>	PD, PMU
2.9	PMU informed that all the concerns raised by the TC in the 11 <sup>th</sup> Technical	

	Committee regarding the 21 DPRs has been addressed and the same is incorporated in the DPRs	
<b>DECISIONS</b>		
3.1	Technical Committee approved the 25 DPRs (Annexure 1) submitted by PD, PMU subject to the conditions attached along with this minutes	PMU
<b>NEXT MEETING</b>		
4.1	Next Technical Committee meeting will be informed well in advance.	


1. Dr. Nivind Philip

2. Dr. Vishnu R

Gayal  
Dr. Jayal

Dr. Neethu Roy

Sreedhar  
Dr. B.G. Sreedhar

  
**Chief Engineer**  
**JOHNSON. K.**  
PEN 530757  
CHIEF ENGINEER  
OFFICE OF THE CHIEF ENGINEER  
LSGD (LID&EW)  
THIRUVANANTHAPURAM.

## ANNEXURE 1

S.No	Name of Work	Length of Road (in kms)	Reconstruction or Rehabilitation Suggested	Nature of Pavement Suggested	Additional Features or Structures provided	Total Cost (in lakhs)	Per km Cost of Pavement (in lakhs)
1	Kanjikkal mukku ganam theatre road	1.62	Reconstruction	BC	DR Side Protection	214	132.1
2	Madathilkadavu Mahilasamajam Kandathilpalli Road	0.85	Reconstruction	Panelled concrete (PQCM30)	Coir Geotextile	145	170.59
3	Manathukadu Puthuveedu Road & Protection	1.145	Reconstruction	Rigid (PQC M30)	Coir Geotextile	200	174.67
4	Olassa - Cherthalli Road	0.88	Reconstruction	Panelled concrete (PQCM30)	DR, Reconstruction of 5 Culverts	121	137.5
5	Kambinikadavu Pattamadom Road	1.315	Reconstruction/Rehabilitation	Rigid/White topping (PQC M 40)	Nil	114	86.69
6	Chillukarankunnu road	1.2	Rehabilitation	White topping (PQC M 30)	Nil	96	80
7	Cheepunkal - Malikayal Chirza Road	1.095	Rehabilitation	White Topping (PQC M30)	DR, Reconstruction of Box Culverts	148	135.16
8	LPS Makkam Kollori Road	0.332	Rehabilitation	Rigid (PQC M30)	Coir Geotextile	52	156.63
9	Chakkam colony road	0.828	Reconstruction	Rigid (PQC M40)	Box Culvert, Reconstruction of Slab Culvert	93	112.32
10	Paris Road	1.305	Rehabilitation	BC	Nil	170	130.27

11	Puthiyakavu - Pozhankavu road	0.84	Rehabilitation	White topping (PQC M 40)	Reconstruction of Box Culvert	75	89.29
12	Karoorchira - Anjalangadi road	1.65	Rehabilitation	BC	DR, Reconstruction of Slab Culvert	195	118.18
13	AC Canal to Mankuzhy Road	0.765	Reconstruction	MSS	Coir Geotextile	115	150.32
14	Musiris Puzhayoram road ward-4	0.258	Reconstruction	Rigid (PQC M40)	DR	100	387.6
15	Panjamkavala road ward-18	1.09	Rehabilitation	White topping (PQC M 40)	DR	134	122.37
16	Harbour Road to Maaladi Jetty Road	1.175	Reconstruction/Rehabilitation	Rigid/Panelled (PQC M30)	Coir Geotextile	124	105.53
17	Maravayal Chathothu road	1.288	Rehabilitation	White topping (PQC M 40)	Nil	160	124.22
18	Kothadu School Road	0.995	Rehabilitation	White topping (PQC M 40)	Nil	86	86.43
19	Kuranchery - Nayarangadi road- Kallampara colony -	4.988	Rehabilitation	BC	DR	1250	250.6
20	Ramankary LPS Vaikkathussery bridge road	0.4765	Reconstruction	Panelled concrete (PQCM30)	DR	60	125.92
21	Chirakkarapadi - hetalapuncha, Pmattipuncha, Pazhamchira Road	2.71	Rehabilitation/New	BC	DR	348	128.41

## ANNEXURE 2

The Technical Sanction for the estimate is hereby accorded as per the decision (Minutes of Meeting) of the 10<sup>th</sup> Technical Committee subject to the put forth by the Technical Committee in the previous meetings and as per the conditions listed below:

- a. All the instructions put forth by the Technical Committee should be adhered to
- b. All required statutory approval should be obtained from competent authority. NOC from concerned authorities in connection with utility shifting may be obtained.
- c. Consent from the land owners shall be obtained where the widening of the road, construction of retaining wall, if any, is proposed through private property.
- d. Necessary quality check and lab tests should be ensured and conducted as per MoRD / MORTH Specifications and relevant IS / IRC codes. Supervising officers should ensure that the work is carried out as per MoRD / MORTH Specifications and relevant IS / IRC codes (including density of all the layers after compaction, their thickness, Gradation, bitume content, spreading and compaction temperatures, and density after compaction and other relevant tests)
- e. Initial and final Levels for earthwork, GSB, WMM, BM and BC etc should be reported to CTE. All the Circulars / instructions issued by the CTE should be adhered to and followed
- f. Excavated earth should be accounted for before disposal.
- g. Materials obtained from demolition of existing structures should be accounted.
- h. The gradient provided for the road shall be as per IRC Specification or the relevant codes
- i. Adequate number of Weep Holes should be provided in the Retaining Wall. It shall also be ensured that the base width of the retaining wall is provided as per provisions prevailing in the relevant IS codes
- j. In the case of Culverts and Minor Bridges, the Safe bearing Capacity of the soil should be ensured prior construction of these.
- k. Safety measures wherever required should be done at site.
- l. If any changes have to be made in the sanctioned estimate during execution, the same shall be intimated to this office and If any extra item of work is proposed for execution during which the work is in progress, prior approval should be obtained from Technical sanctioning Authority/Technical Committee or otherwise cannot be approved.
- m. Different principal stages such as tendering, awarding of work (road work and foundation work etc), completion etc. should be reported to this office / PMU before effecting the final payment.
- n. Every Completed work should be test checked by the Project Director/Executive Engineer before effecting payment.
- o. Pre-Qualification method of tendering should be followed as per existing norms.