

## TECHNICAL REPORT

**Name of Work:** - Const. of road from Ramnagar to Basantgarh (Phase-II).  
(Length= 11 km).

**Authority :-** J&K Govt. PW(R&B) Deptt. Civil Secretariat J&K Jammu vide  
letter No. PW(R&B)/Plan/830/2017 Dated: 10/10/2017.

**History & Necessity:-** Ramnagar is one of Tehsil Head Quarter which is 38 km away from the District Head Quarter Udhampur on Eastern side of. The proposed road shall take off from km 37<sup>th</sup> RD 600 of Udhampur Ramnagar road on Right side. The 21 kms of Ramnagar Basantgarh road has already approved for widening and upgradation and in progress. Further, 11 km Length of the road has been proposed and projected under CRF. The road feed back and connect to 70000 souls residing in the big villages of Padarka, Kulwanta, Ancha, Kaitha, Keya etc and No. of small villages located along the road right from Ramnagar to Basantgarh. Due to damaged riding surface and limited width, it has become quite unfit for smooth and safe plying of vehicular traffic and there is every apprehension for occurrence of mishaps/ accidents. The road could not be maintained properly due to paucity of funds. Ramnagar is famous and known nationwide for being a religious sacred place along with adjoining Bassi & Naag Temple at Tarmian. Everyday every day no. of devotees from whole of the state as well as local people from the Dudu Basantgarh area come at Temple and pay their obeisance. Considering all these factors, the road has been proposed to intermediate lane specification.

All sectors of the development in rural area such as agriculture, Forestry, Fishery, Dairy Farming, Education, Health, Medicare & Postal Services etc. vitally depend on good network of road communication system. People living in the far flung areas away from road network still travel on foot carrying loads with them on foot tracks/ bridle path.

Therefore, breaking the isolation of village communities & drawing them into main stream of national life is very important. By const. of the road the fatigue & discomfort during travel will also be considerably reduced. Employment potential in the area will be generated to a large extent with

the opening of this area to communication; the land value will go up. Farmers will get motorable access to the market for selling their produce & this will give impetus to the agricultural production in this area.

Keeping in view the above cited facts, it is felt necessary the const. of road under Central Roads Funds and to complete it shortest possible time.

#### **Proposals :-**

it has been proposed to widen/ upgrade the existing road for a length of 11 km by way of earth work, walling, X-drainage to achieve the formation width of 8.50 mtr for intermediate lane specification with carriage way 5.50 mtr. Extra width at curves & passing places shall be provided to facilitate the movement of vehicular traffic. The riding surface strengthened with WBM G-II, WBM, BM & SDBC. The following specifications shall be adopted strictly in accordance to the IRC/ MORT&H.

- (i) **Earth work :-** Prior to commencement of earthwork, the site shall be cleared off vegetation such as trees, roots under growth grass and rubbish falling with excavation and fill lines. After the site has been cleared, the limits of excavation shall be set out, true to the lines, curves, slopes, grades and section shown on drawings, with the help of pegs, stone bajree, lime etc. the earthwork in cutting excavation shall be conforming to the lines, grades, side slopes and levels. The surplus excavated soil shall be disposed off from the road limits and dressed properly to slopes.
- (ii) **Drainage Crossing:-** 1.0 mtr dia H.P culvert/ RCC culverts shall be constructed as per the standard IRC/ MOST specifications.
- (iii) **Protection works:-** It is proposed to construct R/ walls and B/ walls in semi pucca store masonry. The pucca band shall be provided in cement sand mortar 1:6. 50 mm thick coping with construction joints in M-15 grade concrete shall be provided.
- (iv) **Sub- base course (WBM G-II) 150 mm thick in two layers:-** This course shall be WBM with thickness 150 mm and shall be laid over raised compacted portions of the road with Nallah broken stones 63 mm to 45 mm size and screening 13.2 mm conforming to IRC/ clause 404 of MOST Specifications 1995.

- (v) **Base course (WMM) 75 mm thick:-** Granular material mixed with water in mechanical wet mix plant of 75 tonne capacity laying into uniform layers having compact thickness of 75 mm each with motor grader of adequate capacity its blade having hydraulic control suitable for adjustment or with paver finisher in sub base/ base course on well prepared sub grade and compacting with vibratory roller 8 to 10 tonne to achieve the desired density and laid to line, grade and cross section as approved by the Engineer in charge as per MORT & H Specification complete.
- (vi) **Bitumen Macadam:-** Bituminous macadam with 100-120 TPH hot mix plant producing an average output of 75 tonnes per hour using crushed aggregates of specified grading premixed with bituminous binder, transported to site, laid over a previously prepared surface with paver finisher to the required grade, level and alignment and rolled as per clauses 501.6 and 501.7 to achieve the desired compaction.
- (vii) **Premix Carpet :-** 30 mm thick semi dense bituminous concrete on surface with specified graded stone aggregate for wearing course including loading of aggregate with FE loader and hot mixing of bitumen with filler and stone aggregate in hot mix plant, transporting the mixed material by tipper to paver and laying the mixed material with mechanical paver finisher to the required level and grade, rolling with power road roller to achieve the desired density and compaction including cost of priming/ tack coat, (bitumen used shall be of 60/70 grade and grading of mix shall be as per the clause No.508 of MORT & H).

**Time & Cost:-**

The estimated cost of the work is **Rs 18.00 crores** & shall be completed in a period of 02 years subject to availability of funds and key constructional material.

*Self*  
Asstt. Executive Engineer  
PWD(R&B) Sub-Division  
Ramnagar


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Udhampur

## ABSTRACT OF COST

**St work: -Const. of road from Ramnagar to Basantgarh Phase-II**

Length of Road	=	11.00 Km
Specifications		
Road way Width	=	8.50 mtr
Carriage way Width	=	5.50 mtr
Pavement	=	500 mm

S. No.	Particulars of Item	Unit	Rate (In Rs.)	Qty.	Amount (in lacs)
	Earth work in cutting				
1.	In cutting	Cum	227.23	113757.52	258.49
2	<b><u>Drainage X- ings work:</u></b>				
2.1	<b><u>Minor</u></b>				
a.	1.0 mtr span H.P culvert	No.	1.60	10.00	16.00
b.	3.0 mtr span RCC Culvert	No.	13.53	6.00	81.18
	Extension of H.P culvert	No.	0.70	40.00	28.00
c.	Puuca Drain	Rmt.	1676.00	950.00	15.92
2.2	<b><u>Major</u></b>				
a.	Bridge	Rmt.	7.50	25.00	187.50
3	<b><u>Protection works:</u></b>				
a.	R/wall 3.0 mtr. av. ht.	Rmt.	21135.00	800.00	169.08
b.	B/wall	Rmt.	11753.00	800.00	94.02
4	<b><u>Pavement:</u></b>				
a.	GSB 200 mm thick Extended Portion (11x1000x2.50x0.20)+10%= 6050.00 cum Shoulder Filling (2x11x1000x0.90x0.30 = 5940.00 cum Total = 11990.00 cum	Cum	1167.65	11990.00	140.00
	150 mm thick WBM G-II (11x1000x2.50x0.15)+10%	Cum	1742.20	4537.50	79.05
b.	WMM 75 mm thick (11x1000x5.50x0.075)+10%	Cum	2233.30	4991.25	111.47
c.	Providing/ laying 50 mm thick BM. (11000x5.5x0.5)+10%	Cum	9272.80	3327.50	308.55
d.	30 mm thick SDBC (11000x5.5x0.03)+10%	Cum	9207.00	1996.50	183.82

  
 Executive Engineer  
 PWD (R&B) Division  
 Udhampur

**ROAD SAFETY MEASURES**

Provision for providing and fixing sign boards and mile stone (Road safety) crash barriers, road marking, cats eye etc.

L.S

35.00

Total

1708.09

Add 3% for contingencies

50.19

Add 1% for devising &amp; operation

16.73

Add 1% for quality assurance

16.73

Add 0.5% for work charges establishment

8.37

Total

1800.11

Grand Total

1800.11

Say Rs. 18.00 crores

Asstt. Executive Engineer  
PWD(R&B) Sub- Division  
Ramnagar

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Udhampur