

Office of The Superintending Engineer, N.H. Planning & Design Circle,
P.W (Roads) Directorate
Govt. of West Bengal

2ND ADDENDUM & CORRIGENDUM to NH Schedule of Rates for ROAD & BRIDGE Works 2015-16

A.

The item given below is an addendum to the NH Schedule of Rates 2015-2016 (which remains valid till date). The item to be treated as Serial no 12 of Chapter 17 of the said Schedule of rates and as a continuation of the existing Schedule of Rates.

Serial No.	Item	Unit	Rate (Rs.)	Remarks
			Labour, T&P, Machinery etc.	
1	2	3	4	5
1	Laying Bituminous Concrete up to 50mm thickness with Hot In-Place Recycling Technology with 60% recycled and 40% fresh material with a range of +10% /-10 % as per IRC 120 and MoRTH's specification (5th rev.) clause 519 with binder content (VG - 10) @ 7 % minimum with respect to the fresh material using Hot Milling machine, hot mix plant, paver finisher. tandem vibratory roller without disturbing the underlying layer to proper line and level, necessary guarding, barricading & lighting, including supply of required Rejuvenating oil as per approved design mix after necessary structural evaluation of the existing pavement, cost of fuel and labour and other incidental charges all complete and as per direction of Engineer-in-Charge.	cu.m	4810	Quantity of fresh material to be mixed will depend upon the approved mix design based on site condition. For estimation purpose the material cost to be added based on Chapter A Sl. No. 5.8(Gr-1) and 5.8(Gr-2) with a VG-10 Bitumen Percentage of 7% (min) in place of 5.2%(min) and 5.4%(min) respectively of the said table. A multiplying factor based on percentage of fresh material to total required volume is to be applied on the entire table. Cost of Lime need not be added.

Note- (a) The above rate is applicable to compacted volume of the finished work which comprises both fresh and recycled materials

(b) An illustrative example given in the next page.

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Illustrative example:

Laying Bituminous Concrete up to 50mm thickness with Hot In-Place Recycling Technology

(Ref SI No 12 chapter 17 of schedule of rates 2015-16)

Rate analysis for 1.0 Cum compacted volume of Bituminous Concrete:

Grading -1 (19 mm nominal size) for layer thickness of 50mm

(Consider 40% of total volume mixed at HMP and transportation to site)

UNIT : Cu.m.

A. Labour ,T. & P.,Machinery cost component:(including cost of lime and rejuvenating oil) in Rs. 4810.00

Size of crushed stone aggregates	Grading -1 material as per table 5.8 (in cum for stone and kg for Bitumen & lime))	Material required 40% of column (2) (in cum for stone and kg for Bitumen & lime))	Unit cost for a paritular site (Rs) *	Total Cost (Rs)
(1)	(2)	(3)	(4)	(5)
20mm	0.07	0.028	3016.80	84.47
13.2mm	0.38	0.152	3051.80	463.87
10mm	0.10	0.04	2676.80	107.07
5.6mm	0.25	0.1	2415.80	241.58
2.36mm	0.13	0.052	2316.80	120.47
1.18mm	0.13	0.052	2316.80	120.47
600 micron	0.09	0.036	2316.80	83.40
300 micron	0.09	0.036	2316.80	83.40
150 micron	0.09	0.036	2316.80	83.40
75 micron	0.13	0.052	2316.80	120.47
VG-10, Bitumen content (%) by mass of total mix	7.00 % (min.)	7.00 % (min.)		
Bitumen content by mass	166 Kg (Min)	66.4 kg	43.9758	2919.99
Filler(2 % by total weight of aggregate)(Cement /lime / Rock dust)	45 kg	18 Kg	cost is already included with Labour,T. & P., Machinery cost component	
B. Total material cost in Rs.				4428.59
Cost of formwork (C)	@ 0% of B in Rs.			0.00
	Cost of (A+B+C) in Rs.			9238.59
Add overhead charge (D)	@ 10%of (A+B+C) in Rs.			923.86
	(A+B+C+D) in Rs.			10162.45
Add contractor's profit (E)	@ 10% of (A+B+C+D) in Rs.			1016.25
	(A+B+C+D+E) in Rs.			11178.70
Add labour welfare cess(F)	@ 1% of (A+B+C+D+E) in Rs.			111.79
	Total cost (A+B+C+D+E+F) in Rs.			11290.49
ITEM RATE =				Rs. 11290.49 per cum

* This will vary from place to place



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