

BILL OF QUANTITY**Name of Project :** 400/110kV Substation Thappagundu**Name of work :** Construction of approach road, gravelling etc .

Sl. No.	Qty	Unit	DESCRIPTION	Unit Rate (Rs)	Total Amount (Rs)
1	11,000	m3	Supplying and Filling with stone dust for yard portion including cost of all materials lead lift etc. complete		
2	15,000	m3	supplying and spreading machine broken 20 mm HBG metal including cost of all materials labour, lead, lift etc., complete.		
3	1,000	m3	Supplying and Filling with quarry rubbish for the road portion including cost of all materials lead lift etc. complete		
4	5,300	m3	Supplying and Filling with gravel as base course over the filled quarry rubbish area including cost of all materials lead lift consolidation etc. complete		
5	2,814	m3	Providing granular surface 250mm thickness compacting with 40mm -22m graded metal including cost of conveyance of all materials from approved quarry and consolidation by power roller as per clause 401 of MORTH specification		

6	2,175	m3	Providing laying spreading and compacting 200mm graded stone aggregate (45-22.40mm graded metal and 22.4-2.36 mm graded metal) to wet mix macadam specification including premixing the materials with water at OMC in mechanical mix plant transport of mixed materials by tipper to site laying in uniform layers in sub base /base course on well prepared surface and compacting with vibratory roller to achieve the desired density		
7	11,256	m2	Providing and laying tack coat over WMM surface using 6 kgs of bitumen emulsion for 10 sqm.area including labour charges for preparing the surface and applying the required quantity of bitumen as tack coat by bitumen sprayer etc., complete as per 502 of MORTH specification		
8	11,256	m2	Providing and laying tack coat over WMM surface treated with prime coat using 2.5 kgs of bitumen emulsion for 10 sqm.area including labour charges for preparing the surface and applying the required quantity of bitumen as tack coat by bitumen sprayer etc., complete as per 502 of MORTH specification		

9	11,256	m2	Providing and laying 50mm thick bituminous macadam using 0.42 cum of 26.5-11.2mm graded metal and 0.10cum of 11.2-2.8mm graded metal and 0.1cum 2.8 mm and below metal with 38 kg of bitumenous for premixing per 10 sqm including cost and conveyance of all materials to work site and stacking them on road side to departmental metric guage for premeasurement, heading the bitumen in bitumen boiler ,heading the aggregates and hot mix plant, spreading the mix after mixing them with bitumen in required grade and compaction by 80-100 KN power roller including labour charges hire charges for machanieries and other tools and plants etc., complete as per specification		
10	11,256	m2	Providing and laying premix carpet with seal coat type 'A' for 20 mm thickness using 0.18 cum of 13.2 mm IRC HBG metal and 0.09 cum of 11.2 mm IRC metal with 14.6 kgs of bitumen for pre mixing 10 sqm of pre mix carpet and 0.09 cum of 6.7 mm IRC HBG metal with 9.8 kg of bitumen for seal coat type -A per 10sqm including cost and conveyance of all materials to work site and stacking them on road side to departmental metric guage for premeasurement, heading the bitumen in bitumen boiler, heading the aggregates and semi hot mix plant for premix carpet rolling by 80-100 KN for premix carpet and seal coat separetly including labour charges spreading the mix for premix carpet,application of bitumen for seal coat separetly over premix carpet coat etc., including labour charges hire charges and fuel charges for mini hot mix plant,bitumen boiler,power roller and other tools and plants deployed etc., complete as per standard specification		

11 (a)	1	MT	Supplying and fabricating and placing in position of MS/RTS steel reinforcement for RCC works including labour for cutting, bending, tying and fixing in position as per specification including cost of all materials, lead, lift, labour, cost of binding wire, etc., complete. Reinforcement steel to be procured from SAIL, TISCO, IISCO, RINL, Jindal Steel only.		
(b)	2	MT	Fabricating and placing in position of steel reinforcement including cost of binding wire, labour for cutting, bending and tying in position etc. complete. Reinforcement steel shall be supplied by BHEL free of cost as per norms indicated in conditions of contract. The rate quoted against this shall be deemed to be inclusive of cost against all activities required including transportation of material from (SAIL, TISCO, IISCO, RINL, Jindal Steel or rerollers approved by main producers) stockyard.		
12	980	m2	Providing concrete road with R.C.C 1:2:4, 150 mm thick over M 10 grade concrete 100 mm thick using 12 to 20 mm metal including cost of materials leads and lifts etc. complete.		
13	200	RM	Providing expansion joint for road concrete as per specification in both direction using impregnated asphaltic pad 20 mm thick to full width and depth of 150mm thick plastering with CM 1:3, 20 mm thick including cost of cement, all materials, labour, curing, all leads, and lifts, etc., complete as per standard specification.		

14			Providing RCC heavy duty pipe (NP3) across road crossing including cost of collar pipe as directed by department engineer at site for cable crossing and stormwater drainage including all materials leads and lifts etc., complete		
a	100	RM	300 mm dia		
b	100	RM	150 mm dia		
15	50	RM	Supply and laying of 100 mm dia GI pipe B Class including cost of materials labour, lead and lift etc. complete.		
16	704	m3	RR masonry in CM 1:5 using random rubble stone including cost of all materials leads and lifts etc. complete.		
17	1,875	m2	Plastering with CM 1:3 12 mm thick for wall sides including cost of all materials labour etc complete		
18	200	m3	Earthwork excavation for 400 kv yard area in hard rock by drilling with jack hammer using compressor ,all labour lead and lift etc. complete		
19	100	m3	Removing the Hard rock by blasting and stocking from yard upto 5 KM away thro vehicle including cost of all labour, T&P, lead, lift etc., complete		
			Total Value		