CHAPTER NO. 24

ROAD WORK

Notes :-

(i) The clauses of MORT&H Specifications,which have been mentioned, may be referred for detailed specifications and construction procedures. The rate mention only brief description of work.

(ii) Unless otherwise stated, the rates include rehandling of materials within 100 metres.

(iii) The rates include the cost of working of road machinery including cost of fuels, lubricants, stores, establishment, depreciation and intrest chrages. In case the machinery is provided by the department, the working cost as mentioned shall be recovered from the contractor at the rates fixed by the department.

(iv) All type of quarry materials has been taken from quarry with an average lead of 5 Km to work site/plant site. If the lead increases/decreases from the nearest quarry to work site/plant site, then rates will be adjusted accordingly.

(v) All type of Bitumen has been taken from Panipat Refinery with an average round trip lead of 5 Km to work site/plant site. The bitumen rates are as prevailing in July, 2010. If the rate of bitumen increases/decreases or round trip lead is different from 5 Km then the rates will be adjusted accordingly. The rates are based on bulk bitumen. If packed bitumen is used then the rates will be adjusted accordingly also.

(vi) Carriage of mixed material from plant site to work site is not included in the rates and it will be paid as per chapter 5 of CSR. For bituminous items it will be paid 10% above the rates of item no. 5.2(i) of chapter 5 of CSR. The carriage of wet mix macadam will be paid as per rates of item no. 5.2(i) of chapter 5 of CSR.

(vii) Wherever any extra lead is involved than specified in the description of item, the same shall be payable as per chapter 5 of CSR.

(viii) Carriage of good earth for embankment construction/binding material has been taken as 1 km with compensation of earth. If the lead increases/decreases then the rates will be adjusted accordingly.

(ix) The rates of item No. 24.37 to 24.57 are inclusive of all leads and nothing extra on account of carriage is payable on these items.

(x) The rates of item no. 24.17 to 24.19, 24.21 to 24.24, 24.28 and 24.31 are worked out with average bitumen contents. If bitumen contents of these items increases/decreases as per approved job mix formula or during the trials conducted by the Engineer In Charge, then the rates will be adjusted accordingly.

Sr. No.	Description	Unit	Plains		Sub-Mountainous	
			Labour Rate	Through Rate	Labour Rate	Through Rate
1	*2*	*3*	*4*	*5*	*6*	*7*
24.1	Clearing Grass and Removal of Rubbish					
	Clearing grass and removal of rubbish up to a distance of 50 metres outside the periphery of the area as per technical clause 201 of MORT&H specifications	ha	9333.43	9333.43	10266.77	10266.77

Sr. No.	Description	Unit	Plains		Sub-Mountainous	
			Labour Rate	Through Rate	Labour Rate	Through Rate
1	*2*	*3*	*4*	*5*	*6*	*7*
24.2	Clearing and Grubbing Road Land					
	Clearing and grubbing road land including uprooting rank vegetation, grass, bushes, shrubs, saplings and trees girth up to 300 mm, removal of stumps of trees cut earlier and disposal of unserviceable materials and stacking of serviceable material to be used or auctioned, up to a lead of 1000 metres including removal and disposal of top organic soil not exceeding 150 mm in thickness as per technical clause 201 of MORT&H specifications					
	(a) In area of Light Jungle (By Manual Means)	ha	28311.68	28311.68	31142.85	31142.85
	(b) In area of Thorny Jungle (By Manual Means)	ha	37956.51	37956.51	41752.16	41752.16
	(c) In area of Light Jungle (By Mechanical Means)	ha	27644.49	27644.49	30408.94	30408.94
	(d) In area of Thorny Jungle (By Mechanical Means)	ha	33490.80	33490.80	36839.88	36839.88
24.3	Dismantling of Flexible Pavements (Bituminous Courses) (By Manual Means)					
	(a) Dismantling of bituminous courses of flexible pavements by manual means and disposal of dismantled materials up to a lead of 1000 metres, stacking serviceable and unserviceable materials separately as per technical clause 202 of MORT&H specifications	cum	398.34	398.34	438.17	438.17
24.3	Dismantling of Flexible Pavements (Bituminous Courses) (By Mechanical Means)					
	(b) Dismantling of bituminous courses of flexible pavements by mechanical means and disposal of dismantled materials up to a lead of 1000 metres, stacking serviceable and unserviceable materials separately as per technical clause 202 of MORT&H specifications	cum	179.23	179.23	197.15	197.15
24.3	Dismantling of Flexible Pavements (Granular Courses) (By Manual Means)					

Sr. No.	Description		Unit	Plains		Sub-Mountainous	
				Labour Rate	Through Rate	Labour Rate	Through Rate
1	2		3	4	5	6	7
	(c)	Dismantling of granular courses of flexible pavements by manual means and disposal of dismantled materials up to a lead of 1000 metres, stacking serviceable and unserviceable materials separately as per technical clause 202 of MORT&H specifications	cum	289.44	289.44	318.38	318.38
24.4	Compacting original ground below road crust						
	(a)	Loosening, leveling and compacting original ground up to a level of 500mm below road crust, mixed with water at OMC, levelled, graded and compacted in layers by rolling so as to achieve minimum dry density as given in Table 300-2 for sub grade construction as per technical clause 305 of MORT&H specifications	cum	53.94	53.94	59.33	59.33
24.4	Compacting original ground below Embankment						
	(b)	Loosening, leveling and compacting original ground below embankment to facilitate placement of first layer of embankment, scarified to a depth of 150 mm, mixed with water at OMC and then compacted by rolling so as to achieve minimum dry density as given in Table 300-2 for embankment construction as per technical clause 305 of MORT&H specifications	cum	23.05	23.05	25.36	25.36
24.5	Construction of Embankment with Good Quality Earth obtained from Borrowpits						
	(a)	Construction of embankment with good quality earth obtained from borrow pits including compensation of earth, loading, unloading, carriage to site of work, spreading, grading to required slope and compacting to meet requirement of table 300-2 as per technical clause 305 of MORT&H specifications	cum	106.04	229.88	116.64	240.48
24.5	Construction of Embankment with Earth obtained from Roadway Cutting or Excavation						

Sr. No.	Description		Unit	Plains		Sub-Mountainous	
				Labour Rate	Through Rate	Labour Rate	Through Rate
1	2		3	4	5	6	7
	(b)	Construction of embankment with earth obtained from roadway cutting or excavation including spreading, grading to required slope and compacting to meet requirement of table 300-2 as per technical clause 305 of MORT&H specifications	cum	78.76	78.76	86.64	86.64
24.6	Excavation for Roadway (By Manual Means)						
	(a)	Excavation for roadway in soil by manual means including carrying of cut earth to embankment site with all lead and lifts up to 50m as per technical clause 301 of MORT&H specifications	cum	70.35	70.35	77.39	77.39
24.6	Excavation for Roadway (By Mechanical Means)						
	(b)	Excavation for roadway in soil by mechanical means with dozer including cutting and pushing earth to embankment site with all lead and lifts up to 100m including trimming bottom and side slopes as per technical clause 301 of MORT&H specifications	cum	47.15	47.15	51.87	51.87
24.6	Excavation for Roadway (By Mechanical Means)						
	(c)	Excavation for roadway in soil by mechanical means with hydraulic excavator including cutting and loading in tippers including trimming bottom and side slopes with all leads and lifts up to 1000m as per technical clause 301 of MORT&H specifications	cum	64.83	64.83	71.31	71.31
24.7	Granular Sub-Base (Close Graded Material Grading-I)						
	(a)	Construction of granular sub-base by providing close graded material grading -I, spreading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with vibratory roller to achieve the desired density, complete as per technical clause 401 of MORT&H specifications	cum	108.88	518.69	119.77	529.58

Sr. No.	Description		Unit	Plains		Sub-Mountainous	
				Labour Rate	Through Rate	Labour Rate	Through Rate
1	*2*		*3*	*4*	*5*	*6*	*7*
24.7	Granular Sub-Base (Close Graded Material Grading-II)						
	(b)	Construction of granular sub-base by providing close graded material grading -II, spreading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with vibratory roller to achieve the desired density, complete as per technical clause 401 of MORT&H specifications	cum	108.88	518.69	119.77	529.58
24.7	Granular Sub-Base (Close Graded Material Grading-III)						
	(c)	Construction of granular sub-base by providing close graded material grading -III, spreading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with vibratory roller to achieve the desired density, complete as per technical clause 401 of MORT&H specifications	cum	108.88	518.69	119.77	529.58
24.8	Granular Sub-Base (Coarse Graded Material Grading-I)						
	(a)	Construction of granular sub-base by providing coarse graded material grading-I, spreading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with vibratory roller to achieve the desired density, complete as per technical clause 401 of MORT&H specifications	cum	101.37	511.18	111.51	521.32
24.8	Granular Sub-Base (Coarse Graded Material Grading-II)						

Sr. No.	Description		Unit	Plains		Sub-Mountainous	
				Labour Rate	Through Rate	Labour Rate	Through Rate
1	*2*		*3*	*4*	*5*	*6*	*7*
	(b)	Construction of granular sub-base by providing coarse graded material grading-II, spreading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with vibratory roller to achieve the desired density, complete as per technical clause 401 of MORT&H specifications	cum	101.37	511.18	111.51	521.32
24.8	Granular Sub-Base (Coarse Graded Material Grading-III)						
	(c)	Construction of granular sub-base by providing coarse graded material grading-III, spreading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with vibratory roller to achieve the desired density, complete as per technical clause 401 of MORT&H specifications	cum	101.37	511.18	111.51	521.32

Sr. No.	Description	Unit	Plains		Sub-Mountainous	
			Labour Rate	Through Rate	Labour Rate	Through Rate
1	2	3	4	5	6	7
24.9	Lime Treated Soil for Sub- Base					
	Laying and spreading soil on a prepared sub grade, pulverising, mixing the spread soil in place with rotavator with 3 per cent slaked lime with minimum content of 70 per cent of CaO, grading with motor grader and compacting with the road roller at OMC to achieve at least 98 per cent of the max dry density to form a layer of sub base complete as per technical clause 402 of MORT&H specifications	cum	149.81	481.54	164.79	496.52
24.10	Making 50 mm x 50 mm Furrows					
	Making 50 mm x 50 mm furrows 45 degree to the center line of the road and at one metre interval in the existing bituminous wearing coarse including sweeping and disposal of excavated material within 1000 metres lead complete as per technical clause 404 of MORT&H specifications (Full surface area will be measured for payment)	sqm	2.07	2.07	2.28	2.28
24.11	Inverted Choke					
	Construction of inverted choke by providing, laying, spreading and compacting coarse sand of specified grade in uniform layer on a prepared surface with motor grader and compacting with power roller etc complete as per technical clause 404 of MORT&H specifications	cum	59.44	433.71	65.38	439.65
24.12	Water Bound Macadam Grading I					

Sr. No.	Description	Unit	Plains		Sub-Mountainous	
			Labour Rate	Through Rate	Labour Rate	Through Rate
1	2	3	4	5	6	7
	Providing, laying, spreading and compacting stone aggregates of Grading I to water bound macadam specification including spreading in uniform thickness, hand packing, rolling with smooth wheeled roller 8-10 tonnes in stages to proper grade and camber, applying and brooming requisite type of screening/ binding Materials to fill up the interstices of coarse aggregate, watering and compacting to the required density complete as per technical clause 404 of MORT&H specifications	cum	202.85	1003.58	223.14	1023.87
24.13	Water Bound Macadam Grading II					
	Providing, laying, spreading and compacting stone aggregates of Grading II to water bound macadam specification including spreading in uniform thickness, hand packing, rolling with smooth wheeled roller 8-10 tonnes in stages to proper grade and camber, applying and brooming requisite type of screening/ binding Materials to fill up the interstices of coarse aggregate, watering and compacting to the required density complete as per technical clause 404 of MORT&H specifications	cum	212.24	990.17	233.46	1011.39
24.14	Water Bound Macadam Grading III					
	Providing, laying, spreading and compacting stone aggregates of Grading III to water bound macadam specification including spreading in uniform thickness, hand packing, rolling with smooth wheeled roller 8-10 tonnes in stages to proper grade and camber, applying and brooming requisite type of screening/ binding Materials to fill up the interstices of coarse aggregate, watering and compacting to the required density complete as per technical clause 404 of MORT&H specifications	cum	212.24	1054.50	233.46	1075.72

Sr. No.	Description	Unit	Plains		Sub-Mountainous	
			Labour Rate	Through Rate	Labour Rate	Through Rate
1	2	3	4	5	6	7
24.15	Wet Mix Macadam					
	Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechanical mix plant, carriage from mix plant to site of work, laying in uniform layers with paver in sub- base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per technical clause 406 of MORT&H specifications	cum	206.66	844.51	227.33	865.18
24.16	Brick on end edging					
	Providing and laying of Brick on end edging 6.83cm wide, 11.11cm long and 22.86cm high half brick deep including excavation, refilling and disposal of surplus earth up to 50mtr complete as per Punjab PWD specifications	m	5.15	38.01	5.67	38.53
24.17	Prime Coat @ 0.85kg per sqm					
	Providing and applying primer coat with bitumen emulsion SS on prepared surface of granular base including cleaning of road surface and spraying primer at the rate of 0.85kg/sqm complete as per technical clause 502 of MORT&H specifications	sqm	1.41	24.91	1.55	25.05
24.18	Tack Coat @ 0.25kg per sqm					
(a)	Providing and applying tack coat with bitumen emulsion RS using emulsion pressure distributor at the rate of 0.25 kg per sqm on the prepared bituminous surface/granular surface treated with prime coat after cleaning the surface complete as per technical clause 503 of MORT&H specifications	sqm	1.31	8.43	1.44	8.56
24.18	Tack Coat @ 0.40kg per sqm					

Sr. No.	Description		Unit	Plains		Sub-Mountainous	
				Labour Rate	Through Rate	Labour Rate	Through Rate
1	2		3	4	5	6	7
	(b)	Providing and applying tack coat with penetration grade bitumen VG-10 using bitumen pressure distributor at the rate of 0.40 kg per sqm on the prepared bituminous surface/granular surface treated with prime coat after cleaning the surface complete as per technical clause 503 of MORT&H specifications	sqm	1.50	16.28	1.65	16.43
24.19	Bituminous Macadam 80mm to 100mm thickness (Grading I)						
	(a)	Providing and laying bituminous macadam 80mm to 100mm thick with batch type hot mix plant using crushed aggregates of specified grading premixed with bituminous binder VG-10 @ 3.25%, carriage of mixed material to site of work, laid over a previously prepared surface with paver finisher to the required grade, level and alignment and rolled to achieve the desired compaction complete as per technical clause 504 of MORT&H specifications	cum	1196.03	4425.70	1315.63	4545.30
24.19	Bituminous Macadam 50mm to 75mm thickness (Grading II)						
	(b)	Providing and laying bituminous macadam 50mm to 75mm thick with batch type hot mix plant using crushed aggregates of specified grading premixed with bituminous binder VG-10 @3.4%, carriage of mixed material to site of work, laid over a previously prepared surface with paver finisher to the required grade, level and alignment and rolled to achieve the desired compaction complete as per technical clause 504 of MORT&H specifications	cum	1196.03	4607.13	1315.63	4726.73
24.20	Built-up-Spray Grout 75mm thickness						

Sr. No.	Description		Unit	Plains		Sub-Mountainous	
				Labour Rate	Through Rate	Labour Rate	Through Rate
1	2		3	4	5	6	7
		Providing, laying and rolling of built-up-spray grout layer over prepared base consisting of a two layer composite construction of compacted crushed coarse aggregates of specified grading with application of bituminous binder VG-10 @ 1.50kg per sqm after each layer, and with key aggregates placed on top of the second layer to serve as a Base conforming to the line, grades and cross-section specified, the compacted layer thickness being 75 mm complete as per technical clause 506 of MORT&H specifications	cum	417.66	2605.81	459.43	2647.58
24.21	Dense Graded Bituminous Macadam 80mm to 100mm thickness (Grading I)						
	(a)	Providing and laying dense graded bituminous macadam 80mm to 100mm thick with batch type HMP using crushed aggregates of specified grading, premixed with bituminous binder VG-30 @ 4%, carriage of mixed material to site of work, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction complete as per technical clause 507 of MORT&H specifications	cum	1257.37	5625.01	1383.11	5750.75
24.21	Dense Graded Bituminous Macadam 50mm to 75mm thickness (Grading II)						

Sr. No.	Description		Unit	Plains		Sub-Mountainous	
				Labour Rate	Through Rate	Labour Rate	Through Rate
1	2		3	4	5	6	7
	(b)	Providing and laying dense graded bituminous macadam 50mm to 75mm thick with batch type HMP using crushed aggregates of specified grading, premixed with bituminous binder VG-30 @ 4.5%, carriage of mixed material to site of work, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction complete as per technical clause 507 of MORT&H specifications	cum	1257.37	6060.81	1383.11	6186.55
24.22	Semi-Dense Bituminous Concrete 35mm to 40mm thickness (Grading I)						
	(a)	Providing and laying semi dense bituminous concrete 35mm to 40mm thick with batch type HMP using crushed aggregates of specified grading, premixed with bituminous binder VG-30 @ 4.5%, carriage of mixed material to site of work, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction complete as per technical clause 508 of MORT&H specifications	cum	1257.37	6078.21	1383.11	6203.95
24.22 b		Semi-Dense Bituminous Concrete 25mm to 30mm thickness (Grading II)					

Sr. No.		Description	Unit	Plains		Sub-Mountainous	
				Labour Rate	Through Rate	Labour Rate	Through Rate
1		2	3	4	5	6	7
		Providing and laying semi dense bituminous concrete 25mm to 30mm thick with batch type HMP using crushed aggregates of specified grading, premixed with bituminous binder VG-30 @ 5%, carriage of mixed material to site of work, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction complete as per technical clause 508 of MORT&H specifications	cum	1257.37	6519.24	1383.11	6644.98
24.23 a		Bituminous Concrete 50mm to 65mm thickness (Grading I)					
		Providing and laying bituminous concrete 50mm to 65mm thick with batch type hot mix plant using crushed aggregates of specified grading, premixed with bituminous binder VG-30 @ 5.5%, carriage of mixed material to site of work, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction complete as per technical clause 509 of MORT&H specifications	cum	1283.70	7091.85	1412.07	7220.22
24.23 b		Bituminous Concrete 30mm to 45mm thickness (Grading II)					
		Providing and laying bituminous concrete 30mm to 45mm thick with batch type hot mix plant using crushed aggregates of specified grading, premixed with bituminous binder VG-30 @ 6%, carriage of mixed material to site of work, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction complete as per technical clause 509 of MORT&H specifications	cum	1283.70	7412.34	1412.07	7540.71

Sr. No.	Description	Unit	Plains		Sub-Mountainous	
			Labour Rate	Through Rate	Labour Rate	Through Rate
1	2	3	4	5	6	7
24.24	Surface Dressing					
	Providing and laying surface dressing in single coat using crushed stone aggregates of specified size on a layer of bituminous binder VG-10 @ 1kg per sqm laid on prepared surface after cleaning the road surface and rolling with 8-10 tonne smooth wheeled steel roller complete as per technical clause 510 of MORT&H specifications	sqm	8.81	50.58	9.69	51.46
24.25	Open - Graded Premix Surfacing 20mm thickness					
	Providing, laying and compaction of open - graded premix surfacing of 20 mm thickness consisting of crushed stone aggregates of specified grading premixed in a batch type hot mix plant with bituminous binder VG-10 @ 1.46kg per sqm, carriage of mixed material to site of work and laid with paver and rolling with a smooth wheeled roller 8-10 tonne capacity, finished to required level and grades complete as per technical clause 511 of MORT&H specifications	sqm	22.50	89.49	24.75	91.74
24.26 a	Close Graded Premix Surfacing/ Mixed Seal Surfacing 20mm thickness (Type A)					
	Providing, laying and rolling of close graded premix surfacing material of 20 mm thickness Type A consisting of crushed stone aggregates of specified grading premixed in a batch type hot mix plant with bituminous binder VG-10 @ 2.2kg per sqm, carriage of mixed material to site of work, laying with paver and rolling with a Smooth wheeled roller 8-10 tonne capacity, and finishing to required level and grade complete as per technical clause 512 of MORT&H specifications	sqm	22.65	117.76	24.92	120.03
24.26 b	Close Graded Premix Surfacing/ Mixed Seal Surfacing 20mm thickness (Type B)					

Sr. No.	Description	Unit	Plains		Sub-Mountainous	
			Labour Rate	Through Rate	Labour Rate	Through Rate
1	2	3	4	5	6	7
	Providing, laying and rolling of close-graded premix surfacing material of 20 mm thickness Type B consisting of crushed stone aggregates of specified grading premixed in a batch type hot mix plant with bituminous binder VG-10 @ 1.9kg per sqm, carriage of mixed material to site of work, laying with paver and rolling with a Smooth wheeled roller 8-10 tonne capacity, and finishing to required level and grade complete as per technical clause 512 of MORT&H specifications	sqm	22.65	106.69	24.92	108.96
24.27 a	Seal Coat Type A					
	Providing and laying seal coat type A (Liquid Seal Coat) sealing the voids in a bituminous surface using crushed stone aggregates and penetration grade bitumen VG-10 @ 0.98kg per sqm laid to the specified levels, grade and cross fall complete as per technical clause 513 of MORT&H specifications	sqm	7.38	48.20	8.12	48.94
24.27 b	Seal Coat Type B					
	Providing and laying of premix sand seal coat premixed in batch type hot mix plant using specified fine aggregates and penetration grade bitumen VG-10 @ 0.68kg per sqm, carriage of mixed material to site of work, laid to the specified levels, grade and cross fall complete as per technical clause 513 of MORT&H specifications	sqm	10.45	35.35	11.50	36.40
24.28	Mastic Asphalt 25mm thickness					

Sr. No.	Description	Unit	Plains		Sub-Mountainous	
			Labour Rate	Through Rate	Labour Rate	Through Rate
1	2	3	4	5	6	7
	Providing and laying 25 mm thick mastic asphalt wearing course with paving grade bitumen 85/25 or 30/40 @10.2%, fine aggregates, coarse aggregates, lime filler @ 17.92% of total mix, prepared by using mastic cooker and laid to required level and slope, including providing antiskid surface with bitumen precoated fine grained hard stone chipping at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surface is not less than 100 degree C, protruding 1 mm to 4 mm over mastic surface complete as per technical clause 515 of MORT&H specifications.	sqm	122.12	199.77	134.33	211.98
24.29 a	Slurry Seal 5mm thickness					
	Providing and laying slurry seal consisting of a mixture of fine aggregates, portland cement filler, bituminous emulsion RS @ 11% and water on a road surface including cleaning of surface, mixing of slurry seal in a suitable mobile plant, laying and compacting to provide even riding surface complete as per technical clause 516 of MORT&H specifications	sqm	1.95	39.80	2.15	40.00
24.29 b	Slurry Seal 3mm thickness					
	Providing and laying slurry seal consisting of a mixture of fine aggregates, portland cement filler, bituminous emulsion RS @ 13% and water on a road surface including cleaning of surface, mixing of slurry seal in a suitable mobile plant, laying and compacting to provide even riding surface complete as per technical clause 516 of MORT&H specifications	sqm	1.10	27.53	1.21	27.64
24.29 c	Slurry Seal 1.5mm thickness					

Sr. No.	Description	Unit	Plains		Sub-Mountainous	
			Labour Rate	Through Rate	Labour Rate	Through Rate
1	2	3	4	5	6	7
	Providing and laying slurry seal consisting of a mixture of fine aggregates, portland cement filler, bituminous emulsion RS @ 16% and water on a road surface including cleaning of surface, mixing of slurry seal in a suitable mobile plant, laying and compacting to provide even riding surface complete as per technical clause 516 of MORT&H specifications	sqm	0.91	17.02	1.00	17.11
24.30	Fog Spray					
	Providing and applying low viscosity bitumen emulsion RS @ 0.75kg per sqm for sealing cracks less than 3 mm wide or incipient fretting or disintegration in an existing bituminous surfacing complete as per technical clause 518 of MORT&H specifications	sqm	1.07	22.43	1.18	22.54
24.31 a	Crack Prevention Courses (Stress Absorbing Membrane crack width less than 6mm)					
	Laying of a stress absorbing membrane over a cracked road surface after cleaning the road surface, using modified binder CRMB-55 complying with clause 521 @ 0.90kg per sqm and crushed stone aggregates of specified grading, spraying binder and spreading crushed stone aggregates, sweeping the surface for uniform spread of aggregates complete as per technical clause 522 of MORT&H specifications	sqm	3.34	43.79	3.67	44.12
24.31 b	Crack Prevention Courses (Stress Absorbing Membrane crack width 6mm to 9mm)					

Sr. No.	Description	Unit	Plains		Sub-Mountainous	
			Labour Rate	Through Rate	Labour Rate	Through Rate
1	2	3	4	5	6	7
	Laying of a stress absorbing membrane over a cracked road surface after cleaning the road surface, using modified binder CRMB-55 complying with clause 521 @ 1.1kg per sqm and crushed stone aggregates of specified grading, spraying binder and spreading crushed stone aggregates, sweeping the surface for uniform spread of aggregates complete as per technical clause 522 of MORT&H specifications	sqm	3.34	46.51	3.67	46.84
24.31 c	Crack Prevention Courses (Stress Absorbing Membrane crack width above 9mm and cracked area above 50%)					
	Laying of a stress absorbing membrane over a cracked road surface after cleaning the road surface, using modified binder CRMB-55 complying with clause 521 @ 1.5kg per sqm and crushed stone aggregates of specified grading, spraying binder and spreading crushed stone aggregates, sweeping the surface for uniform spread of aggregates complete as per technical clause 522 of MORT&H specifications	sqm	3.34	68.37	3.67	68.70
24.31 d	Crack Prevention Courses (Bitumen Impregnated Geotextile)					
	Laying of a bitumen impregnated geotextile layer after cleaning the road surface, laid over a tack coat of paving grade bitumen VG-10 @ 1.05kg per sqm complete as per technical clause 522 & 703 of MORT&H specifications	sqm	3.01	73.07	3.31	73.37
24.32	Restoration of Rain Cuts					

Sr. No.	Description	Unit	Plains		Sub-Mountainous	
			Labour Rate	Through Rate	Labour Rate	Through Rate
1	2	3	4	5	6	7
	Restoration of rain cuts with good quality earth obtained from borrow pits including compensation of earth, carriage, loading, unloading, clearing the loose soil, benching for 300mm width, laying in 250mm thick layers and compacting with plate compactor to restore the original alignment, levels and slopes as per technical clause 3002 of MORT&H specifications	cum	63.34	156.22	69.67	162.55
24.33	Patch Work with Close Graded Premix Surfacing/ Mixed Seal Surfacing 20mm thickness (Type B)					
	Providing and laying patch work with close-graded premix surfacing material of 20 mm thickness Type B using penetration grade bitumen VG-10 @ 1.9kg per sqm and crushed stone aggregates of specified grading after trimming the pot hole, removal of failed material, including mixing in a batch type hot mix plant, carriage of mixed material to site of work, laying by suitable means and rolling with a smooth wheeled roller to match the adjoining surface complete as per technical clause 512 of MORT&H specifications	sqm	30.92	119.15	34.01	122.24
24.34	Patch Work with Bituminous Macadam 50mm to 75mm thickness (Grading II)					
	Providing and laying patch work with bituminous macadam 50mm to 75mm thick using crushed stone aggregates of specified grading premixed with bituminous binder VG-10 @ 3.4% in batch type hot mix plant, carriage of mixed material to site of work, laid after trimming the pot hole, removal of failed material, laying by suitable means and rolling with a smooth wheeled roller to match the adjoining surface complete as per technical clause 504 of MORT&H specifications	cum	1546.15	5127.87	1700.77	5282.49

Sr. No.	Description	Unit	Plains		Sub-Mountainous	
			Labour Rate	Through Rate	Labour Rate	Through Rate
1	2	3	4	5	6	7
24.35	Patch Work with Built-up-Spray Grout					
	Patch work with built-up-spray grout consisting of single layer construction of compacted crushed coarse aggregates with application of bituminous binder VG-10 @ 1.5kg per sqm after triming the pot hole, removal of failed material, and with key aggregates placed on top, rolling with a smooth wheeled roller to match the adjoining surface complete as per technical clause 506 of MORT&H specifications	cum	626.52	1820.98	689.17	1883.63
24.36	Patch Work with Water Bound Macadam Grading III					
	Providing and laying patch work with stone aggregates of Grading III laid to water bound macadam specification after trimming the pot hole, removal of failed material, hand packing, applying and brooming requisite type of screening/ binding materials to fill up the interstices of coarse aggregate, watering and rolling with smooth wheeled roller 8-10 tonnes to match the adjoining surface complete as per technical clause 404 of MORT&H specifications	cum	318.36	1201.17	350.20	1233.01
24.37 a	Ordinary Kilometre Stone for Plan Roads					
	Reinforced cement concrete M-15 grade ordinary kilometre stone of standard design as per IRC 8-1980 fixing in position including painting and printing etc. complete as per technical clause 804 of MORT&H specifications	each	-	2403.61	-	2429.18
24.37 b	5th Kilometre Stone for Plan Roads					
	Reinforced cement concrete M-15 grade 5th kilometre stone of standard design as per IRC 8-1980 fixing in position including painting and printing etc. complete as per technical clause 804 of MORT&H specifications	each	-	4143.22	-	4197.69

Sr. No.	Description	Unit	Plains		Sub-Mountainous	
			Labour Rate	Through Rate	Labour Rate	Through Rate
1	2	3	4	5	6	7
24.37 c	Kilometre Stone for Village Roads					
	Reinforced cement concrete M-15 grade ordinary kilometre stone of standard design for village roads as per IRC 8-1980 fixing in position including painting and printing etc. complete as per technical clause 804 of MORT&H specifications	each	-	1798.84	-	1821.77
24.38	200 metre Stone					
	Reinforced cement concrete M-15 grade 200 metre stone of standard design as per IRC 26-1967 fixing in position including painting and printing etc. complete as per technical clause 804 of MORT&H specifications	each	-	452.93	-	464.23
24.39	Boundary Pillars					
	Reinforced cement concrete M-15 grade boundary pillars of standard design as per IRC 25-1967 fixing in position including painting and printing etc. complete as per technical clause 806 of MORT&H specifications	each	-	875.45	-	883.67
24.40	Village Board					
	Reinforced cement concrete M-15 grade village board of standard design fixing in position including painting and printing etc. complete as per PWD specifications	each	-	3575.36	-	3600.93
24.41	Precast Cement Concrete Kerb					
	Plain cement concrete M-20 grade precast kerb 250mm high with bottom width 165mm and top width 115mm fixed in position on earth base including carriage to site of work complete as per technical clause 408 of MORT&H specifications	m	-	504.38	-	508.84
24.42	Precast Cement Concrete Channel					

Sr. No.	Description	Unit	Plains		Sub-Mountainous	
			Labour Rate	Through Rate	Labour Rate	Through Rate
1	2	3	4	5	6	7
	Plain cement concrete M-20 grade precast channel 300mm wide and 75mm thick fixed in position on earth base including carriage to site of work complete as per technical clause 408 of MORT&H specifications	m	-	415.01	-	417.24
24.43 a	1.2 Metre High G.I. Barbed Wire Fencing					
	1.2 metre high G.I. barbed wire fencing with 1.8 metre angle iron posts 40x40x6mm placed every 3 metres centre to centre 0.6 metre below ground level, every 15th post, end post, corner post suitably strutted and provided with 9 horizontal lines and two diagonals interwoven with horizontal wires fixed with GI staples, turn buckles etc. including foundation concrete 1:2:4 of size 0.30x0.30x0.75m for each post complete as per technical clause 807 of MORT&H specifications	m	-	276.23	-	277.76
24.43 b	1.8 Metre High G.I. Barbed Wire Fencing					
	1.8 metre high G.I. barbed wire fencing with 2.4 metre angle iron posts 50x50x6mm placed every 3 metres centre to centre 0.6 metre below ground level, every 15th post, end post, corner post suitably strutted and provided with 12 horizontal lines and two diagonals interwoven with horizontal wires fixed with GI staples, turn buckles etc. including foundation concrete 1:2:4 of size 0.30x0.30x0.75m for each post complete as per technical clause 807 of MORT&H specifications	m	-	401.69	-	403.70
24.44 a	Cautionary Sign Board 900x900x900mm Triangular					

Sr. No.	Description	Unit	Plains		Sub-Mountainous	
			Labour Rate	Through Rate	Labour Rate	Through Rate
1	2	3	4	5	6	7
	Cautionary sign board 900x900x900mm triangular as per IRC 67-2001 with retro reflective high intensity microprismatic grade sheeting fixed over 2mm thick aluminium sheet with 25x25x3mm angle iron frame supported on a mild steel angle iron post 65x65x6mm without cost of definition plate firmly fixed to ground in foundation concrete 1:2:4 of size 0.45x0.45x0.75m for vertical post complete as per technical clause 801 of MORT&H specifications	each	-	5867.28	-	5903.39
24.44 b	Cautionary Sign Board 600x600x600mm Triangular					
	Cautionary sign board 600x600x600mm triangular as per IRC 67-2001 with retro reflective high intensity microprismatic grade sheeting fixed over 2mm thick aluminium sheet with 25x25x3mm angle iron frame supported on a mild steel angle iron post 65x65x6mm without cost of definition plate firmly fixed to ground in foundation concrete 1:2:4 of size 0.45x0.45x0.60m for vertical post complete as per technical clause 801 of MORT&H specifications	each	-	3505.79	-	3541.90
24.45 a	Mandatory Sign Board 900mm Circular or Octagonal					
	Mandatory sign board 900mm circular as per IRC 67-2001 with retro reflective high intensity microprismatic grade sheeting fixed over 2mm thick aluminium sheet with 25x25x3mm angle iron frame supported on a mild steel angle iron post 65x65x6mm without cost of definition plate firmly fixed to ground in foundation concrete 1:2:4 of size 0.45x0.45x0.60m for vertical post complete as per technical clause 801 of MORT&H specifications	each	-	8486.81	-	8522.92
24.45 b	Mandatory Sign Board 600mm Circular or Octagonal					

Sr. No.	Description	Unit	Plains		Sub-Mountainous	
			Labour Rate	Through Rate	Labour Rate	Through Rate
1	2	3	4	5	6	7
	Mandatory sign board 600mm circular as per IRC 67-2001 with retro reflective high intensity microprismatic grade sheeting fixed over 2mm thick aluminium sheet with 25x25x3mm angle iron frame supported on a mild steel angle iron post 65x65x6mm without cost of definition plate firmly fixed to ground in foundation concrete 1:2:4 of size 0.45x0.45x0.60m for vertical post complete as per technical clause 801 of MORT&H specifications	each	-	4852.47	-	4888.58
24.46 a	Informatory Sign Board 800x600mm Rectangular					
	Informatory sign board 800x600mm rectangular as per IRC 67-2001 with retro reflective high intensity microprismatic grade sheeting fixed over 2mm thick aluminium sheet with 25x25x3mm angle iron frame supported on a mild steel angle iron post 65x65x6mm without cost of definition plate firmly fixed to ground in foundation concrete 1:2:4 of size 0.45x0.45x0.60m for vertical post complete as per technical clause 801 of MORT&H specifications	each	-	6791.06	-	6827.17
24.46 b	Informatory Sign Board 600x450mm Rectangular					
	Informatory sign board 600x450mm rectangular as per IRC 67-2001 with retro reflective high intensity microprismatic grade sheeting fixed over 2mm thick aluminium sheet with 25x25x3mm angle iron frame supported on a mild steel angle iron post 65x65x6mm without cost of definition plate firmly fixed to ground in foundation concrete 1:2:4 of size 0.45x0.45x0.60m for vertical post complete as per technical clause 801 of MORT&H specifications	each	-	4542.88	-	4578.99
24.46 c	Informatory Sign Board 600x600mm Square					

Sr. No.		Description	Unit	Plains		Sub-Mountainous	
				Labour Rate	Through Rate	Labour Rate	Through Rate
1		2	3	4	5	6	7
		Informatory sign board 600x600mm square as per IRC 67-2001 with retro reflective high intensity microprismatic grade sheeting fixed over 2mm thick aluminium sheet with 25x25x3mm angle iron frame supported on a mild steel angle iron post 65x65x6mm without cost of definition plate firmly fixed to ground in foundation concrete 1:2:4 of size 0.45x0.45x0.60m for vertical post complete as per technical clause 801 of MORT&H specifications	each	-	5735.50	-	5771.61
24.47		Place Identification Sign Board 900x600mm Rectangular					
		Place Identification sign board 900x600mm rectangular as per IRC 67-2001 with retro reflective high intensity microprismatic grade sheeting fixed over 2mm thick aluminium sheet with 25x25x3mm angle iron frame supported on two mild steel angle iron post 65x65x6mm firmly fixed to ground in foundation concrete 1:2:4 of size 0.45x0.45x0.60m for vertical post complete as per technical clause 801 of MORT&H specifications	each	-	8939.01	-	8975.12
24.48 a		Advance Direction Sign Board 900x900mm Square					
		Advance Direction sign board 900x900mm square as per IRC 67-2001 with retro reflective high intensity microprismatic grade sheeting fixed over 2mm thick aluminium sheet with 25x25x3mm angle iron frame supported on two mild steel angle iron post 65x65x6mm firmly fixed to ground in foundation concrete 1:2:4 of size 0.60x0.60x0.75m for vertical post complete as per technical clause 801 of MORT&H specifications	each	-	12628.23	-	12664.34
24.48 b		Advance Direction Sign Board 1200x900mm Rectangular					

Sr. No.		Description	Unit	Plains		Sub-Mountainous	
				Labour Rate	Through Rate	Labour Rate	Through Rate
1		2	3	4	5	6	7
		Advance Direction sign board 1200x900mm rectangular as per IRC 67-2001 with retro reflective high intensity microprismatic grade sheeting fixed over 2mm thick aluminium sheet with 25x25x3mm angle iron frame supported on two mild steel angle iron posts 65x65x6mm firmly fixed to ground in foundation concrete 1:2:4 of size 0.60x0.60x0.75m for vertical post complete as per technical clause 801 of MORT&H specifications	each	-	15635.01	-	15707.24
24.48 c		Advance Direction Sign Board 1200x1200mm Rectangular					
		Advance Direction sign board 1200x1200mm rectangular as per IRC 67-2001 with retro reflective high intensity microprismatic grade sheeting fixed over 2mm thick aluminium sheet with 25x25x3mm angle iron frame supported on two mild steel angle iron posts 65x65x6mm firmly fixed to ground in foundation concrete 1:2:4 of size 0.60x0.60x0.75m for vertical post complete as per technical clause 801 of MORT&H specifications	each	-	19345.09	-	19417.32
24.48 d		Advance Direction Sign Board 1200x1800mm Rectangular					
		Advance Direction sign board 1200x1800mm rectangular as per IRC 67-2001 with retro reflective high intensity microprismatic grade sheeting fixed over 2mm thick aluminium sheet with 25x25x3mm angle iron frame supported on two mild steel angle iron posts 65x65x6mm firmly fixed to ground in foundation concrete 1:2:4 of size 0.60x0.60x0.75m for vertical post complete as per technical clause 801 of MORT&H specifications	each	-	25003.02	-	25095.26
24.49		Definition Plate 600x200mm Rectangular					

Sr. No.	Description	Unit	Plains		Sub-Mountainous	
			Labour Rate	Through Rate	Labour Rate	Through Rate
1	2	3	4	5	6	7
	Definition Plate 600x200mm rectangular as per IRC 67-2001 with retro reflective high intensity microprismatic grade sheeting fixed over 2mm thick aluminium sheet welded with vertical post of sign board complete as per technical clause 801 of MORT&H specifications	each	-	1363.79	-	1369.75
24.50 a	Direction/Diversion Plate 900x300mm Rectangular					
	Direction/Diversion Plate 900x300mm rectangular as per IRC 67-2001 with retro reflective high intensity microprismatic grade sheeting fixed over 2mm thick aluminium sheet fixed in position complete as per technical clause 801 of MORT&H specifications	each	-	2062.74	-	2063.92
24.50 b	Direction/Diversion Plate 1800x300mm Rectangular					
	Direction/Diversion Plate 1800x300mm rectangular as per IRC 67-2001 with retro reflective high intensity microprismatic grade sheeting fixed over 2mm thick aluminium sheet fixed in position complete as per technical clause 801 of MORT&H specifications	each	-	4106.42	-	4107.60
24.51	Hazard Marker Sign Board 300x900mm Rectangular					
	Hazard Marker sign board 300x900mm rectangular as per IRC 67-2001 with retro reflective high intensity microprismatic grade sheeting fixed over 2mm thick aluminium sheet with 25x25x3mm angle iron frame supported on a mild steel angle iron post 65x65x6mm firmly fixed to ground including foundation concrete 1:2:4 of size 0.45x0.45x0.60m for vertical post complete as per technical clause 801 of MORT&H specifications	each	-	3494.35	-	3530.46
24.52 a	Overhead Sign Board 6000x1500mm Cantilever Type Single Sided					

Sr. No.	Description	Unit	Plains		Sub-Mountainous	
			Labour Rate	Through Rate	Labour Rate	Through Rate
1	2	3	4	5	6	7
	Overhead sign board 6000x1500mm cantilever type single sided as per IRC 67-2001 with retro reflective high intensity microprismatic grade sheeting fixed over 2mm thick aluminium sheet with 40x40x6mm angle iron frame supported on designed single support system of MS pipe and plates in the form of a cantilever type truss made with 350NB pipe @50kg per mtr as verical support, 50NB pipe @ 4.50kg per mtr and 40NB pipe @ 3.61kg per mtr for truss including base plates, gusset plates, designed RCC foundation for fixing in ground complete as per technical clause 802 of MORT&H specifications	each	-	198868.96	-	200302.73
24.52 b	Overhead Sign Board 6000x1500mm Cantilever Type Double Sided					
	Overhead sign board 6000x1500mm cantilever type double sided as per IRC 67-2001 with retro reflective high intensity microprismatic grade sheeting fixed over 2mm thick aluminium sheet with 40x40x6mm angle iron frame supported on designed single support system of MS pipe and plates in the form of a cantilever type truss made with 350NB pipe @50kg per mtr as verical support, 50NB pipe @ 4.50kg per mtr and 40NB pipe @ 3.61kg per mtr for truss including base plates, gusset plates, designed RCC foundation for fixing in ground complete as per technical clause 802 of MORT&H specifications	each	-	289939.01	-	291427.21
24.53	Overhead Sign Board 9000x1500mm Simply Supported Type Double Sided					

Sr. No.		Description	Unit	Plains		Sub-Mountainous	
				Labour Rate	Through Rate	Labour Rate	Through Rate
1		2	3	4	5	6	7
		Overhead sign board 9000x1500mm simply supported type double sided as per IRC 67-2001 with retro reflective high intensity microprismatic grade sheeting fixed over 2mm thick aluminium sheet with 40x40x6mm angle iron frame supported on designed double support system of MS pipe and plates in the form of a simply supported type truss made with 350NB pipe @50kg per mtr as verical support, 50NB pipe @ 4.50kg per mtr and 40NB pipe @ 3.61kg per mtr for truss including base plates, gusset plates, designed RCC foundation for fixing in ground complete as per technical clause 802 of MORT&H specifications	each	-	460003.76	-	462577.78
24.54		Overhead Sign Board 12000x1500mm Simply Supported Type Double Sided					
		Overhead sign board 12000x1500mm simply supported type double sided as per IRC 67-2001 with retro reflective high intensity microprismatic grade sheeting fixed over 2mm thick aluminium sheet with 40x40x6mm angle iron frame supported on designed double support system of MS pipe and plates in the form of a simply supported type truss made with 350NB pipe @50kg per mtr as verical support, 50NB pipe @ 4.50kg per mtr and 40NB pipe @ 3.61kg per mtr for truss including base plates, gusset plates, designed RCC foundation for fixing in ground complete as per technical clause 802 of MORT&H specifications	each	-	574819.25	-	578097.94
24.55		Hume Pipe Road Indicator					

Sr. No.	Description	Unit	Plains		Sub-Mountainous	
			Labour Rate	Through Rate	Labour Rate	Through Rate
1	2	3	4	5	6	7
	Hume pipe road indicator of 350mm dia NP-2 hume pipe 1200mm high, 900mm above ground level, 300mm embedded in ground in cement concrete 1:4:8 of size 0.75x0.75x0.60m, filled with earth and plugged from top with 300mm thick cement concrete 1:2:4, painted with two coats ready mixed exterior paint in black and white strips fixed in position complete as per PWD specifications	each	-	1453.72	-	1476.65
24.56 a	"W" Type Metal Beam Crash Barrier Single Sided					
	"W" type metal beam crash barrier single sided comprising of 3mm thick corrugated sheet metal beam rail 70cm above road or ground level fixed on channel vertical post 150x75x5mm spaced 2mtr centre to centre 1.80mtr high, 1.1mtr below road or ground level, all steel parts and fitments to be galvanized by hot dip process, all fittings to conform to IS:1367 & IS:1364, metal beam rail to be fixed on the vertical post with a spacer of channel section 150x75x5mm, 330mm long fixed firmly to ground with foundation concrete 1:2:4 of size 0.45x0.45x1.10m for vertical post complete as per approved drawings and technical clause 810 of MORT&H specifications	m	-	2057.01	-	2071.47
24.56 b	"W" Type Metal Beam Crash Barrier Double Sided					

Sr. No.	Description	Unit	Plains		Sub-Mountainous	
			Labour Rate	Through Rate	Labour Rate	Through Rate
1	2	3	4	5	6	7
	"W" type metal beam crash barrier double sided comprising of 3mm thick corrugated sheet metal beam rail 70cm above road or ground level fixed on both sided on channel vertical post 150x75x5mm spaced 2mtr centre to centre 1.80mtr high, 1.1mtr below road or ground level, all steel parts and fitments to be galvanized by hot dip process, all fittings to conform to IS:1367 & IS:1364, metal beam rails to be fixed on the vertical post with a spacer of channel section 150x75x5mm, 330mm long on both sides fixed firmly to ground with foundation concrete 1:2:4 of size 0.45x0.45x1.10m for vertical post complete as per approved drawings and technical clause 810 of MORT&H specifications	m	-	3417.03	-	3442.48
24.57	Road Marking with Thermoplastic Compound					
	Road marking with hot applied thermoplastic compound 2.5mm thick including reflectorising glass beads @ 0.25kg per sqm area as per IRC:35 1997 complete as per technical clause 803 of MORT&H specifications	sqm	28.57	561.88	31.43	564.74
24.58	Plain Cement Concrete Pavement					

Sr. No.	Description	Unit	Plains		Sub-Mountainous	
			Labour Rate	Through Rate	Labour Rate	Through Rate
1	2	3	4	5	6	7
	Construction of unreinforced plain cement concrete pavement in M-30 mix design over a prepared sub base with cement contents 350kg per cum and coarse and fine aggregates conforming to IS:383 mixed with concrete mixer using weigh batcher, laid in position over 125 micron thick polythene sheet, compacted with needle vibrator, screed vibrator and plate vibrator, dewatering of free water with vaccum pump, finishing the surface with power floater, including provision of contraction and expansion joints as required, finishing to required lines and grades as per drawings and technical clause 1501 of MORD specifications	cum	998.02	3792.74	1097.82	3892.54
24.59 a	Fibre Board Expansion Joints					
	Providing and fixing 20mm thick compressible fibre board in expansion joints complete as per drawings and technical clause 2605 of MORT&H specifications	cum	0.14	4.03	0.15	4.04
24.59 b	Joint Sealing Compound					
	Providing and filling joint sealing compound with coarse sand and 6 percent bitumen by weight complete as per drawings and technical clause 2605 of MORT&H specifications	cum	0.95	1.29	1.05	1.39
24.60 a	Rumble Strips with thermoplastic road marking					

Sr. No.	Description	Unit	Plains		Sub-Mountainous	
			Labour Rate	Through Rate	Labour Rate	Through Rate
1	2	3	4	5	6	7
	Providing and making rumble strips 15-20mm high at centre, 250mm wide placed at 1m centre to centre over freshly laid bituminous layer by using close graded premix surfacing material type B at approved locations to control speed and marked with 100mm wide white strips of thermoplastic road marking paint. The close graded premix surfacing material type B shall conform to technical clause 512 and thermoplastic road marking paint shall conform to technical clause 803 of MORT&H specifications	m	8.52	82.86	9.37	91.15
24.60 b	Rumble Strips without thermoplastic road marking					
	Providing and making rumble strips 15-20mm high at centre, 250mm wide placed at 1m centre to centre over freshly laid bituminous layer by using close graded premix surfacing material type B at approved locations to control speed. The close graded premix surfacing material type B shall conform to technical clause 512 of MORT&H specifications	m	5.66	26.67	6.23	29.34