

DPR FOR ROAD DEVELOPMENT IN NANDED CITY UNDER JNNURM

MEASUREMENTS FOR COST ESTIMATE														
Salient features of Road No 8														
(Mutha chowk To Degloor Naka)														
A	Total Length of Road No.8	2.9 km												
(Mutha chowk To Degloor Naka)														
	Type of existing Road	BT 2 L												
B	DP width	24 m (proposed)												
C	Existing Road details													
	Stretch	From(Km)	To(Km)	Length(Km)	Lanes	CW(m)	Median(m)	PA.SH(m)	UN PA.SH(m)	FPATH(m)	DRAIN(m)	TOTAL WIDTH(m)		
	Mutha chowk to Old Monda	0.000	1.220	1.220	2	7.00		3.00	3.00		1.60	14.60		
	Old Monda to Barki Chowk	1.320	1.860	0.540	2	7.00		4.00			1.60	12.60		
	Barki Chowk to Deggloor Naka	1.860	2.900	1.040	2	4.50		0.00	5.00		1.60	11.10		
	Old Monda Circle	1.220	1.320	0.250	3	11.00		2.00	4.00		1.60	18.60		
			Total	3.050										
D	Proseded Road details													
	Type of Pavement proposed : CC PAVEMENT													
	Stretch	From(Km)	To(Km)	Length(Km)	Lanes	CW(m)	Median(m)	PAVER BLOCKS(m)	PA.SH(m)	UN PA.SH(m)	FPATH&DRAIN(m)	DRAIN(m)	TOTAL WIDTH(m)	
	Mutha chowk to Old Monda	0.000	1.220	1.220	2	11.5	0	2	0	0	4.5	0	18	
	Old Monda to Barki Chowk	1.320	1.860	0.540	2	11.5	0	2	0	0	4.5	0	18	
	Barki Chowk to Deggloor Naka	1.860	2.900	1.040	2	11.5	0	2	0	0	4.5	0	18	
	Old Monda Circle	1.220	1.320	0.250	6	11								
			Total	3.050										
	Old Monda Circle			L(m)		W(m)	Area(Sqm)							
	- Inner footpath cum drain			250.000		1.5								
	- outer footpath cum drain			300.000		1.5								
	- Paver blocks in parking Area						600							
	- Median around cental circle(roundabout)			100.000		1.2								
E	Construction details													
						Overlay Width&Thickness			CC Widening or Reconstruction -width &Thickness					
						Width(m)	BM(m)	BC(m)	Width(M)	PQC(m)	DLC(m)	*WMM(m)	GSB(m)-I	GSB(m)-II
	Mutha chowk to Old Monda	0.000	1.220	1.220		0.00	0	0	15.00	0.300	0.150	0.320	0.200	0.200
	Old Monda to Barki Chowk	1.320	1.860	0.540		0.00	0	0	15.00	0.300	0.150	0.320	0.200	0.200
	Barki Chowk to Deggloor Naka	1.860	2.900	1.040		0.00	0	0	15.00	0.300	0.150	0.320	0.200	0.200
	Old Monda Circle	1.220	1.320	0.250		0.00	0	0	11.00	0.300	0.150	0.320	0.200	0.200
			Total	3.050										

* WMM is provided below paver blocks only.

DPR FOR ROAD DEVELOPMENT IN NANDED UNDER JNNURM
ROAD FROM MUTHA CHOWK TO DEGLOOR NAKA (ROAD NO. 8)
(From Ch: 0+000 TO 3+050)
MEASUREMENT SHEETS

Sr. No.	Item No.	Description	Unit	Nos.	Length in M	Breadth in M	Depth / Height in M	Qty
	Sec-1	Site Clearance						
1	1.1	Clearing & grubbing road land including uprooting all vegetation, grass, bush shrubs, saplings and trees of girth up to 300 mm, removal of stumps of trees of girth of all sizes including removing stumps of trees cut earlier and disposal of unserviceable materials and stacking of serviceable materials as directed by engineer with all leads and lifts etc. complete						
		Mutha chowk to Old Monda CH: 0.000 to 1220	Ha	prop.DP24m	1220	9.4		1.1468
		Old Monda to Barki Chowk CH: 1320 to 1860	Ha	ex.rd width	540	5.4		0.2916
		Barki Chowk to Deggloor Naka CH: 1860 to 2900	Ha	varies from	1040	12.9		1.3416
		Old Monda Circle Length: 250m, open area 600sqm appr.	Ha	11.1 -18.6m	Area	600		0.0600
							Total	2.8400
							Say	3.00
2	1.2	Cutting of trees of all girth above 300 mm including cutting of trunks, branches,uprooting and removal of all materials and stacking within the ROW and filling depressions/pits by earth etc. complete. including liasoning with concerned authorities for obtaining permissions.						
		1) girth 300 mm to 600 mm	Nos	8				8
		2) girth above 600 mm to 900 mm	Nos	5				5
		3) girth above 900 mm to 1800 mm	Nos	3				3
3	1.3	Transplantation of existng trees of girth above 600 mm girth as directed by engineer, including uprooting and shifting of the tree and placing in excavated pits of suitable size and after transplanting, removal and stacking of excavated earth to desired location, filling the pit with soil mixture of excavated earth, fresh red earth etc as	Nos	13				13
4	1.4	Dismantling of structures on roadway including sorting out the dismantled material, disposal of unserviceable material and utilising the serviceable material free of cost in permanent works as directed by the Engineer with all leads and lifts etc. complete						
	a)	Brick masonry	Cum					7319.32
	b)	Stone masonry	Cum					511.26
	c)	Plain Concrete	Cum					3271.64
	d)	Reinforced Concrete	Cum					1804.59
	e)	Dismantling pavement						
		- Bituminous pavement	Cum					
		Mutha chowk to Old Monda CH: 0.000 to 1220			1220	10.00	0.20	2440
		Old Monda to Barki Chowk CH: 1320 to 1860			540	11.00	0.20	1188
		Barki Chowk to Deggloor Naka CH: 1860 to 2900			500	4.50	0.20	450
		Old Monda Circle Length: 250m, open area 600sqm appr.			250	13.00	0.20	650
		Median construction			2800	1.2	0.15	504
							Total	5232
							Say	5232
		- metal pavement						
		Mutha chowk to Old Monda CH: 0.000 to 1220			1220	10.00	0.30	3660
		Old Monda to Barki Chowk CH: 1320 to 1860			540	11.00	0.30	1782
		Barki Chowk to Deggloor Naka CH: 1860 to 2900			1040	4.5	0.30	1404
		Old Monda Circle Length: 250m,			250	13.00	0.30	975
							Total	7821
	f)	Dismantling						
		(i)MS Pipes, Guard rails, and Fencing	RM					200
		(ii)Footpaths and Medians	Sqm					504
		(iii) Electric /telephone poles/Transformers	No					179
		(iv) Bus shelters	No					0

Sr. No.	Item No.	Description	Unit	Nos.	Length in M	Breadth in M	Depth / Height in M	Qty
	Sec-2	Earth Work						
1	2.1	Earth work in excavation for roadway in all types of strata other than rock requiring blasting including dressing section to the required grade, camber and side slopes and conveying and/or disposing off the excavated material with mechanical means, spreading or disposing as directed by Engineer, with all leads and lifts etc. complete.	Cum					
		For Main Carriageway, Paverblocks						
		Mutha chowk to Old Monda CH: 0.000 to 1220		1	1220	15.6	0.850	16177.2
		Old Monda to Barki Chowk CH: 1320 to 1860		1	540	15.6	0.850	7160.4
		Barki Chowk to Degglloor Naka CH: 1860 to 2900		1	1040	15.6	0.850	13790.4
		Old Monda Circle Length: 250m, open area 600sqm appr.		1	area	600	0.850	510.0
		For Junctions along the road (There are 10 junction to improve)		10	40	7	1.050	2940.0
		(average width for widening of the road at all junctionas = 7m, and length of road = 45m,avg.)						
							Total	40578
							Say	40578
2	2.2.	Earth work in excavation for roadway in rock by Wedging including dressing section to the required grade, camber and side slopes and conveying and/or disposing off the excavated material preferably with mechanical means, spreading or disposing as directed , with all leads and lifts etc. complete	Cum					
						Provisional	Say	0
3	2.3	Earth work in embankment including median by using mechanical means with approved material obtained from the excavated portions of the roadway, laying in layers not exceeding 250 mm loose breaking clods, dressing to the required lines, curves, grades and watering to OMC and compacting to 95 % modified proctor density with vibratory roller having minimum 80-100 KN static weight with all leads and lifts	Cum					
						provisional	Say	0
4	2.4	Leveling, watering and rolling the prepared subgrade with power roller weighing not less than 8 to 10 Tonnes and preparing the ground to required level, grade and camber etc. complete as directed by Engineer..	Sqm					
		Mutha chowk to Old Monda CH: 0.000 to 1220						
		Old Monda to Barki Chowk CH: 1320 to 1860						
		Barki Chowk to Degglloor Naka CH: 1860 to 2900						
		Old Monda Circle Length: 250m, open area 600sqm appr.						
		For Junctions along the road (There are 10 junction to improve)						
							Total	0
							Say	0
5	2.5	Earth work in embankment for subgrade/cushion and hard shoulders by using mechanical means with approved material obtained from borrow areas outside ROW having 4 days soaked CBR equal to or more than 8%, laying in layers not exceeding 250 mm loose, breaking clods and dressing to the required lines,curve grades, and watering to OMC and compacting to 97 % modified proctor density with vibratory roller having minimum 80-100KN static weight including all leads and lifts etc. complete.	Cum					
		For CW widening and for paver block strip						
		Mutha chowk to Old Monda CH: 0.000 to 1220		1	1220	15.6	0.200	3806.4
		Old Monda to Barki Chowk CH: 1320 to 1860		1	540	15.6	0.200	1684.8
		Barki Chowk to Degglloor Naka CH: 1860 to 2900		1	1040	15.6	0.200	3244.8
		Old Monda Circle Length: 250m, open area 600sqm appr.		1	Area	600	0.200	120
		For Junctions along the road (There are10 junction to improve)		10	40.000	7	0.200	560
		(average width for widening of the road at all junctionas = 7m, and length of road = 40m,avg.)						
		Cushion Below side drains		2	3,325	1.4	0.200	1862
							Total	11278
6	2.6	Removal of unsuitable materials (debris) in the embankment foundation and /or subgrade and disposing the excavated material as directed by the engineer including all leads and lifts etc. complete.	Cum	Provisional				50
							Say	0

Sr. No.	Item No.	Description	Unit	Nos.	Length in M	Breadth in M	Depth / Height in M	Qty
	Sec- 3	Drainage and Protective Works, paver blocks in FP, cross pipes for utilities etc						
1	3.1	Earth work in excavation in all types of strata other than rock for drains and channels etc., including dressing of bottom and sides of trenches, stacking the excavated spoil, clear from the edge of excavation including disposal of surplus spoil as directed by the Engineer with all leads and lifts etc. complete.	Cum					
		Mutha chk to Deg. naka CH. 000 TO 2900m, less for 100m old Monda, junctions@10x15m		2	2650	1.4	1.450	10759
		For Junctions along the road (There are 10 junction to improve)		20	40	1.4	1.450	1624
		Old Monda Circle						
		- Inner footpath cum drain		1	250	1.4	1.450	507.5
		- outer footpath cum drain		1	300	1.4	1.450	609
		(average width for widening of the road at all junctionas = 7m, and length of road = 40m,avg.)						
		For cross ducts @150m interval		19	20	1.9	0.750	544.2
							Total	14044
							Say	14044
2	3.2	Earth work in excavation in rock by chiselling / wedging for drains and channels etc., including dressing of bottom and side of trenches, stacking the excavated spoil, clear from the edge of excavation including disposal of surplus spoil as directed by the Engineer with all leads and lifts etc. complete.	Cum					
						provisional	Say	0
3	3.3	Providing dry trap /granite /quartzite/ gneiss rubble stone soling 15 to 20 cm thick including hand packing and compacting etc. complete	Cum	2	3325	1.4	0.15	1396.5
		For cross ducts @150m interval		19	20	1.9	0.15	109
							Total	1505.3415
							Say	1505
4	3.4	Providing and laying PCC M-15 grade for bed for lined drain, median cross drain, kerb with the maximum size of coarse aggregate 20 mm including necessary form work, mixing, vibrating, curing by sprinkling / ponding of water for 14 days etc. complete.	Cum					
		Bedding concrete for drain		2	2925	1.4	0.100	819
		Bedding concrete for Kerbs of median		0	2700	0.365	0.10	0
		Bedding concrete for Kerbs of footpath and water table		2	3,325	0.565	0.10	375.725
		Bedding concrete for runner beam of paver blocks in CW		2	2,800	0.43	0.10	240.8
		encasement of utility pipes (tranverse)		19	20	Area	0.688	262.8
		For Junctions along the road (There are 10 junction to improve)		20	40	1.4	0.10	112
		(average width for widening of the road at all junctionas = 7m, and length of road = 40m,avg.)						
		For Junctions island kerb (There are 5 junction to improve)		5	25	0.315	0.10	3.9375
							Total	1814
							Say	1814
5	3.5	Providing and laying in situ PCC/RCC M25 grade for trenches, drains, precast cover, retaining walls, toe walls, head walls including coping. with stone metal, natural or crushed sand, including necessary form work, centering, mixing with mechanical mixers, compacting vibrating , curing by sprinkling/ponding of water for 14 days and finishing as directed and including construction of weep holes as directed by the Engineer including all leads and lifts etc. complete(excluding reinforcement)	Cum					
		RCC drain walls and bottom		2	2,925	3.6	0.15	3159
		RCC drain top		2	2,925	1.2	0.15	1053
								0
		(Drain Cross Sectional length =((0.9+0.075+0.075)x0.2+0.9 = 3 m)						
		For Junctions along the road (There are 10 junction to improve)		20	40	4.2	0.15	504
		(average width for widening of the road at all junctionas = 7m, and length of road = 40m,avg.)						

Sr. No.	Item No.	Description	Unit	Nos.	Length in M	Breadth in M	Depth / Height in M	Qty
		RCC runner beam of size 150mmx100m for paver blocks on FP		2	3,325	0.15	0.10	99.75
		Utility service chambers wall(1050x1500mm)		38	4.3	0.2	0.615	20.0982
							Total	4835.8482
		Deduction for drian covers (provided at @10m interval of size 1200x50x150mm)		1330	1.2	1.0	0.15	239.40
							Net	4596.45
							Say	4596
6	3.6	Providing and laying HYSD bars for reinforcement for structure including cutting,bending hooking by machine,trying in position including binding wire, spacers, chairs,cover blocks as per detailed drawing including all leads and lifts etc. complete. (Steel = 60kg/1Cum,)	MT					275.78689
							Say	276
7	3.7	Providing and laying cement concrete kerb in M-25 grade concrete as per drawing and directed by Engineer with all leads lifts etc. complete.				CS Area		
		Pre-cast/cast-in-situ kerbs	Cum	0	2700	0.078		0
		(I) for median (Cross sectional Area : 0.078sq.m - type D) (Total length : 2800m, less for junctions @15m for 10nos, 100 around circle)						
		(ii) for foot paths (Cross sectional Area : 0.038sq.m - type B) (Total length : 2800m, less for junctions @15m for 10nos, add for inner and outer FPs)		2	2950	0.038		224.2
		(iii) for foot paths (Cross sectional Area : 0.038sq.m - type B) (Total length :800m, for junctions @40m for10nos)		2	400	0.038		30.4
		(iv) for traffic islands (Cross sectional Area : 0.038sq.m - type B) - assumed 5 junctions@ 25m kerb lengh		5	25	0.038		4.75
							Total	259.35
							Say	259
8	3.8	Raising or lowering of manholes of any shape	No	44				44
9	3.9	Providing and laying in position to the level and grade 150 mm dia precast NP2 class pipe below footpath for discharging water into concrete open drains including providing and fixing GI grating etc. complete as directed by Engineer. (at 10m interval, each location will have 1.5m pipe	RM	750	1.5			1125
							Say	1125
10	3.10	Providing and laying interlocking concrete paving blocks in footpaths and medians including sand bed of thickness 50 mm and precast concrete head strips etc. complete as per drawing and specifications.						
		(I) For Footpath (60 mm Thick Paver Block) Total width :1.5m, less for edge beam 0.1m, kerb top width :0.115m	Sqm	2	2950	2.035		12007
		(ii) for junction improvement: 800m		2	400	2.035		1628
							Total	13635
							Say	13635
11	3.11	Water table sets	RM	2	2950			5900
12	3.12	RCC runner beam of size 230mmx300m for paver blocks on CW	Cum	2	2,950	0.23	0.30	407.1
13	3.13	RCC Covers for Utility service chambers(1050x600*200 in 3nos) for drains (provided at @10m interval of size 1200x50x150mm in 2nos)	Nos	114				114
			Nos	1330				1330
							Total	1444
	3.14	Providing and laying 250mm dia NP2 for utility services For cross direction	Rm	19	60			1145.7
							Total	1145.7
							Say	1146
	3.15	Perforated 100mm dia perforated	Rm	2	298			596
	3.16	Chequerred tiles	Sqm			from drawing		50
	Sec-4	Pavement						

Sr. No.	Item No.	Description	Unit	Nos.	Length in M	Breadth in M	Depth / Height in M	Qty
1	4.1(a)	Providing and laying Granular Sub Base (structural layer) conforming to Grading II of Table 400.2 of compacted thickness of 150 mm with specified graded stone metal and sand mixed in place and laid with mechanical means spreading with motor grader and compacting with vibratory roller having minimum 80-100 KN static weight to achieve desired density of 98% of MDD including all material , labour , machinery with all leads and lifts etc. complete.	Cum					
		For Carriageway with CC & paver blocks						
		Barki Chowk to Degglloor Naka CH: 1860 to 2900		1	1220	15.6	0.200	3806.4
		Old Monda to Barki Chowk CH: 1320 to 1860		1	540	15.6	0.200	1684.8
		Barki Chowk to Degglloor Naka CH: 1860 to 2900		1	1040	15.6	0.200	3244.8
		Old Monda Circle Length: 250m		1	250.000	11.00	0.200	550.0
		Old Monda Circle Length: 250m, open area 600sqm appr.		1	area	600	0.200	120
		For Junctions along the road (There are 10 junctions to improve)		10	40.000	7	0.200	560
		(average width for widening of the road at all junctionas = 7m, and length of road = 40m,avg.)						
							Total	9966
							Say	9966
	4.1(b)	GSB in drainage layer						
		Mutha chowk to Old Monda CH: 0.000 to 1220		1	1220	15.6	0.200	3806.4
		Old Monda to Barki Chowk CH: 1320 to 1860		1	540	15.6	0.200	1684.8
		Barki Chowk to Degglloor Naka CH: 1860 to 2900		1	1040	15.6	0.200	3244.8
		Old Monda Circle Length: 250m		1	250.000	11.00	0.200	550.0
		Old Monda Circle Length: 250m, open area 600sqm appr.		1	area	600	0.200	120
		For Junctions along the road (There are 10 junctions to improve)		10	40.000	7	0.200	560
		(average width for widening of the road at all junctionas = 7m, and length of road = 40m,avg.)						
	4.1(c)	GSB Below Footpath		2	2950	0.935	0.53	2923.745
							Total	12889.745
							Say	12890
2	4.2	Providing and laying Wet Mix Macadam with paver finisher in specified thickness, each layer not exceeding 200 mm compacted thickness including premixing in pugmill/plant well graded crushed stone aggregate, with watering and spreading by to required profile and compacting with vibratory roller having minimum 80-100 KN static weight to achieve desired density of 98% of MDD including all material , labour , machinery with all leads and lifts etc. complete.	Cum					
		For Carriageway with CC						
		Mutha chowk to Old Monda CH: 0.000 to 1220		1	1220	21.6	0.000	0.00
		Old Monda to Barki Chowk CH: 1320 to 1860		1	540	21.6	0.000	0.00
		Barki Chowk to Degglloor Naka CH: 1860 to 2900		1	1040	21.6	0.000	0.00
		For Junctions along the road (There are 10 junctions to improve)		10	40.0	7	0.000	0.00
		(average width for widening of the road at all junctionas = 7m, and length of road = 40m,avg.)						
		For Carriageway paver blocks						
		Mutha chowk to Old Monda CH: 0.000 to 1220		1	1220	1.585	0.320	618.78
		Old Monda to Barki Chowk CH: 1320 to 1860		1	540	1.585	0.320	273.89
		Barki Chowk to Degglloor Naka CH: 1860 to 2900		1	1040	1.585	0.320	527.49
		Old Monda Circle Length: 250m, open area 600sqm appr.		1	area	600	0.320	192.00
		For Junctions (10 Nos.) Main C/W		10	45.0	21.6	0.320	69.12
		For Junctions (10 Nos.)- Cross Road		10	20.0	7	0.320	22.40
							Total	1703.68
							Say	1704
3	4.3	Providing and applying primer coat using bituminous emulsion complying to IS:8887 over prepared surface of granular base with emulsion at a temperature between 20 - 60 deg. C and applying a uniform coat with the aid of self propelled bitumen pressure spraying bar with nozzles of constant volume of pressure system @10Kg/10Sqm including all material , labour , machinery with all leads and lifts etc. complete.	Sqm					
		Mutha chowk to Old Monda CH: 0.000 to 1220		1	1220	0		0
		Old Monda to Barki Chowk CH: 1320 to 1860		1	540	0		0
		Barki Chowk to Degglloor Naka CH: 1860 to 2900		1	1040	0		0
		For Junctions along the road (There are 10 junctions to improve)		10	40.0	0		0

Sr. No.	Item No.	Description	Unit	Nos.	Length in M	Breadth in M	Depth / Height in M	Qty
		(average width for widening of the road at all junctionas = 7m, and length of road = 40m,avg.)						
							Total	0
4	4.4	Providing and applying tack coat by using bituminous emulsion complying to IS: 8887 over prepared surface preheated to a temperature between 20 - 70 deg. C and applying a uniform coat with the aid of self propelled bitumen pressure sprayer with self heating arrangement and spraying bar with nozzles of constant volume or pressure system at the rate of 5Kg/10Sqm on primed / blacktop surface and curing etc. including all material, labour,machinery, with all leads and lifts etc. complete.	Sqm					
		For new construction						
		Mutha chowk to Old Monda CH: 0.000 to 1220		2	1220	0		0
		Old Monda to Barki Chowk CH: 1320 to 1860		2	540	0		0
		Barki Chowk to Deggloor Naka CH: 1860 to 2900		2	1040	0		0
		For Junctions along the road (There are 10 junctions to improve)		20	40.0	0		0
		(average width for widening of the road at all junctionas = 7m, and length of road = 40m,avg.)						
		For over lay(2 layers)& Profile Corrective Course						
		Mutha chowk to Old Monda CH: 0.000 to 1220		3	1220	0		0
		Old Monda to Barki Chowk CH: 1320 to 1860		3	540	0		0
		Old Monda Circle Length: 250m		3	250.000	0		0
							Total	0
							Say	0
5	4.5	Providing and laying Bituminous Macadam of maximum 100 mm compacted thickness on prepared surface using 30 - 40 grade bitumen	Cum					
		For over lay(1 layer)						
		Mutha chowk to Old Monda CH: 0.000 to 1220		1	1220	7	0.000	0.0
		Old Monda to Barki Chowk CH: 1320 to 1860		1	540	7	0.000	0.0
		Old Monda Circle Length: 250m, deduct for water table:0.3m		1	250.000	10.70	0.000	0.0
		For profile corrective course(camber)-deficit by 2.5%						
		Mutha chowk to Old Monda CH: 0.000 to 1220		1	1220	7	0.00	0.0
		Old Monda to Barki Chowk CH: 1320 to 1860		1	540	7	0.00	0.0
		Old Monda Circle Length: 250m		1	250.000	11.00	0.00	0.0
							Total	0.0
							Say	0
6	4.6	Providing and laying Dense Bituminous macadam in a single layer of 50mm to 100 mm compacted thickness on prepared surface using 30 - 40 grade bitumen	Cum					
		For new construction						
		Mutha chowk to Old Monda CH: 0.000 to 1220		1	1220	8	0.000	0
		Old Monda to Barki Chowk CH: 1320 to 1860		1	540	8	0.000	0
		Barki Chowk to Deggloor Naka CH: 1860 to 2900		1	1040	15	0.000	0
		For Junctions along the road (There are 10 junctions to improve)		10	40.0	7	0.000	0
		(average width for widening of the road at all junctionas = 7m,						
							Total	0
							Say	0
7	4.7	Providing and laying Bituminous Concrete in a single layer of 25mm to 50 mm compacted thickness on prepared surface using 30-40 bitumen	Cum					
		For over lay						
		Mutha chowk to Old Monda CH: 0.000 to 1220		1	1220	7	0.000	0
		Old Monda to Barki Chowk CH: 1320 to 1860		1	540	7	0.000	0
		Old Monda Circle Length: 250m, deduct for water table:0.3m		1	250	10.70	0.000	0
		For New construction						
		Mutha chowk to Old Monda CH: 0.000 to 1220		1	1220	8	0.000	0
		Old Monda to Barki Chowk CH: 1320 to 1860		1	540	8	0.000	0
		Barki Chowk to Deggloor Naka CH: 1860 to 2900		1	1040	15	0.000	0
		For Junctions along the road (There are 10 junctions to improve)		10	40.0	7	0.000	0
		(average width for widening of the road at all junctionas = 7m,						
							Total	0
							Say	0

Sr. No.	Item No.	Description	Unit	Nos.	Length in M	Breadth in M	Depth / Height in M	Qty
8	4.8	Providing and laying 20 mm thick mix seal surfacing 'A' type as renewal coat for maintenance of the existing road surface during construction including supplying of all materials , clearing the base, heating the bitumen and aggregates and rolling with power roller 8 - 10 tonne using 30/40 grade bitumen.	Sqm	(Proviional)				0
9	4.9	Providing and laying Dry Lean Concrete base including providing coarse and fine aggregate to the specified gradation using minimum cement content 150 kg/cum of concrete with OPC 43 grade cement	Cum					
		Mutha chowk to Old Monda CH: 0.000 to 1220		1	1220	11.035	0.150	2019.41
		Old Monda to Barki Chowk CH: 1320 to 1860		1	540	11.035	0.150	893.84
		Barki Chowk to Deggloor Naka CH: 1860 to 2900		1	1040	11.035	0.150	1721.46
		Old Monda Circle Length: 250m		1	250.000	11.00	0.150	412.5
		For Junctions along the road (There are 10 junctions to improve)		10	45.0	7	0.150	472.50
		(average width for widening of the road at all junctionas = 7m, and length of road = 40m,avg.)						
		deduction for Junctions with paver blocks(10 Nos.)		-10	45.000	11.035	0.150	-744.8625
		deduction for cross RD with paver blocks(10 Nos.)		-10	20.000	7	0.150	-210
							Total	4564.84
							Say	4565
10	4.10	Providing and laying Pavement Quality Concrete of M 35grade including providing 125 micron thick impermeable plastic sheet membrane over the surface to be covered, coarse and fine aggregates of specified gradation using minimum cement content 350 kg/cum of concrete with OPC 43 grade cement	Cum					
		Mutha chowk to Old Monda CH: 0.000 to 1220		1	1220	10.575	0.300	3870.45
		Old Monda to Barki Chowk CH: 1320 to 1860		1	540	10.575	0.300	1713.15
		Barki Chowk to Deggloor Naka CH: 1860 to 2900		1	1040	10.575	0.300	3299.40
		Old Monda Circle Length: 250m		1	250.000	11.00	0.300	825.0
		For Junctions along the road (There are 10 junctions to improve)		10	45.0	7	0.300	945.00
		(average width for widening of the road at all junctionas = 7m, and length of road = 40m,avg.)						
		deduction for Junctions with paver blocks(10 Nos.)		-10	45.000	10.575	0.300	-1427.625
		deduction for cross RD with paver blocks(10 Nos.)		-10	20.000	7	0.300	-420
							Total	8805.38
							Say	8805
11	4.11	Providing and laying Pavement Quality Concrete for Profile correction Coarse/overlay of M 35 grade including roughening the existing surface by Shot blasting and providing bonding material (cement sand slurry/low viscous epoxy) providing over the surface to be covered,						
							Total	0
12	4.12	Paver blocks of 80mm thick in Carriageway& old Monda Parking				Area		
		- Paver blocks of 80mm thick in Old Monda Parking	Sqm			600		600
		- Paver blocks of 80mm thick in Carriageway	Sqm	1	2800	1.585		4438
		(deduct runner beam and water table from width= 2.4-0.1-0.3						
		Add for Junctions along the road (There are 10 junction to						
		Junctions with paver blocks(10 Nos.)		10	45.000	16.2		7290
		cross RD with paver blocks(10 Nos.)		10	20.000	7		1400
							Total	13728.00
							Say	13728
13	4.13	Pot hole filling with open graded 20mm premix surfasing	Sqm					0
14	4.14	Crack sealing	Sqm	(Proviional)				0
	Sec-5	Cross-Drainage Work						
1	5.1	Earthwork in excavation for foundation for structures in all types of strata other than rock for all depths including dressing of bottom and sides of trenches, stacking excavated stuff clear from the edges of the trenches, including disposal of surplus						
		HEAD WALL	Cum	2	6.40	1.4	1.15	20.61
		PIPE CRADAL	Cum	1	8.20	3.2	1.78	46.71
		STONE PITCHING FOR APPRON	Cum	2	2.000	4.5	0.55	9.90

Sr. No.	Item No.	Description	Unit	Nos.	Length in M	Breadth in M	Depth / Height in M	Qty
							TOTAL	77.22
							Say	77
2	5.2	Providing and laying in situ cement concrete M-15 using stone metal, natural or crushed sand and OPC 43/53 grade for levelling course for head wall including necessary formwork, centering, mixing in mechanised batch mix plant, compacting, curing by spri						
		Head wall	Cum	2	6.40	1.4	0.15	2.69
							Say	3
3	5.3	Providing and laying in situ M-20 grade cement conc. for head wall using stone metal, natural or crushed sand, OPC 43/53 grade, including necessary formwork, centering, mixing in mechanised batch mix plant, compacting, curing by sprinkling/ponding of wate						
	(a)	for M-20 Grade Concrete	Cum	2	6.400	@ area =	2.021	25.87
							Say	26
4	5.4	Providing and laying in situ 230mm rubble soling below the pipe cradal including nessary dreassig, chiselling,laying etc. complete as directed by engineer incharge.	Cum	1	9.02	3.2	0.23	6.64
5	5.5	Providing and laying in situ cement concrete M-15 using stone metal, natural or crushed sand and OPC 43/53 grade for levelling course for head wall including necessary formwork, centering, mixing in mechanised batch mix plant, compacting, curing by spri						
		PIPE CRADAL	Cum	1	9.02	3.2	0.55	15.88
6	5.6	Providing and laying in situ 1000MM dia. ISI mark class NP-4 pipe complete as per specifications and as directed by Engineer.	RM	1	11.00			11.00
7	5.7	Providing and laying in situ 300MM TH. Dry stone pitching for apron.	cum	1	4.5	2	0.30	2.70
8	5.8	Providing and laying in situ 300mm th. Filter media behind head wall as per specifications and as directed by engineer.	cum	1	6.4	0.3	2.00	3.8
9	5.9	providing and filling the portion over the pipe by selected granular material as per specifications and as directed by engineer.	cum	1	11.00	3.2	1.3	45.76
	Sec-6	Road Markings, etc.						
1	6.1	Providing and laying hot applied thermoplastic road marking compound in approved colour and shade for road marking on bituminous/ concrete road surface in lane marking 100mm wide 2.5mm thick using fully automatic extrusion machine and using premelter for melting thermoplastic Material including cleaning the surface of all dirt, dust, and other foriegn matter, demarcation at site/premarking, finishing and managing the traffic control etc.complete. The thermoplastic compound shall be of approved colour and shade. Marking to be done as per	Sq.m					
		Lane marking (main CW - 3lane-broken line)		1	1000	0.1		100
		Total length :2990m, straight:2800m, curves: 190 (crieteria: 1/3 length on straight, 1/2 on curves)						
		lane marking in junction improvement (@one centre line for 10JNs)		10	20	0.1		20.0
							Total	120
2	6.2	Providing and applying two coats of synthetic enamel paint including primer to kerb as per Technical Specification and as directed by the engineer.	Sqm					0

Sr. No.	Item No.	Description	Unit	Nos.	Length in M	Breadth in M	Depth / Height in M	Qty
		(I) For footpath kerbs						
		- Main CW, Old Monda FPs		2	50		0.290	29.0
		- Junctions		2	40		0.290	23.2
		(ii) for Median kerbs		0	50		0.464	0.0
							Total	52
3	6.3	Providing and laying hot applied thermoplastic road marking compound in approved colour and shade for road marking on bituminous/ concrete road surface in edge line 150mm wide 2.5mm thick using fully automatic extrusion machine and using premelter for melting thermoplastic Material,including cleaning the surface of all dirt, dust, and other foriegn matter, demarcation at site/ premarking, finishing and managing the traffic control etc.complete and as per specifications, detailed drawings and as directed.	Sqm	1	2950	0.15		443
		Edge lines (continuous by FP side and Median sides)						
4	6.4	Providing and laying hot applied thermoplastic road marking compound in approved colour and shade for road marking on bituminous/ concrete road surface in pedestrian crossings, chevrons, directional arrows etc, 2.5mm thick using fully automatic extrusion machine and using premelter for melting thermoplastic .Material,including dispensing drop on glass beads of approved make and as per BS 6088 at the rate 250 gms per sqm. including cleaning the surface of all dirt, dust, and other foriegn matter, demarcation at site/ premarking, finishing and managing the traffic control etc.complete. Marking to be done as per specifications, drawings and as directed.	Sqm				Area	
		(I) Straight arrows		200			1.1	220
		(ii) Straight and turn arrows		75			1.42	106.5
		(iii) Turn Arrows		40			1.125	45
		(iv) Chevron markings		20			5	100
		(v) Pedestrian crossings		15			375	5625
		(vi) Stop lines		10			4	40
		(vii) Additional provision for any						50
							Total	6187
	Sec-7	TRAFFIC SIGNS/ROAD FURNITURE						
1	7.1	Supplying and fixing informatory road sign boards made up with high intensity grade retro-reflective type sheeting complete as per drawing and Technical specifications.						
	a)	Boards of area not exceeding 1 sq. m.	Nos	20				20
2	7.2	Supplying and fixing utility/services road sign boards made up with high intensity grade retro-reflective type sheeting complete as per drawing and Technical specifications.						
	a)	Boards of area not exceeding 1 sq. m.	Nos	10				10
3	7.3	Supplying and fixing cautionary/warning road sign boards (Equilateral triangle 900 mm side) made up with high intensity grade retro-reflective type sheeting complete as per drawing and technical specifications.	Nos					
		Cautionary sign boards						
		-cross road signs		20				20
		-median gap signs		10				10
		-traffic signals sign		10				10
		-curves signs		6				6
		-pedestrian crossing signs		30				30
		-school locations		6				6
		-for junctions		10				10
							Total	92
4	7.4	Supplying and fixing regulatory/mandatory road sign boards (Circular 600 mm dia) made up with high intensity grade retro-reflective type sheeting complete as per drawing and Technical specifications.	Nos					
		-speed signs		12				12
		-stop signs		10				10
		-giveaway signs		10				10
							Total	32
5	7.5	Supplying/Erecting and fixing in position road overhead retro-reflective informatory sign boards including fixing on overhead gantry structure including the cost of gantry and other supports and including cost of back frame complete as per drawing and specifications.	Nos	3				3

Sr. No.	Item No.	Description	Unit	Nos.	Length in M	Breadth in M	Depth / Height in M	Qty
6	7.6	Supplying and fixing in position road cantilever overhang retro-reflective informatory sign boards including fixing on specified galvoniged overhang structure including the cost of overhang and other supports but including cost of back frame complete as per drawing and specifications.	Nos.	6				6
7	7.7	Cat Eye studs	Nos.	0				0
8	7.8	Delineators (on edge lines 4nos @ 3m interval)	Nos.	0				0
6	8.6	Provoding and fixing MS Railing.	Rm	1	2950.00			2950.00
Sec - 8 Traffic Management								
1	8.1	Traffic Management and Regulation during construction						
		Maintaining, Managing, Operating the traffic plying on road during day and night smoothly and safely as and when required without hindrance to traffic during entire construction activity by providing necessary equipments such as, various road signs, delineators, barricading,						
	a)	Installation of a steel portable barricade with horizontal rail 300 mm wide, 2.5 m in length fitted on a 'A' frame made with 45x45x5 mm angle iron section, 1.5 m in height, horizontal rail painted (2 coats) with yellow and white strips, 150 mm in width at an angle of 45o, 'A' frame painted with 2 coats of yellow paint, complete as per IRC:SP:55-2001.	Nos	976	two rows per 40% length has been provided			976
	b)	Providing Red lanterns or warning lights of similar type on the barricades.	Nos	49				49
	c)	Provision of metal drum / empty bitumen drum delineator, 300 mm in diameter 800 mm high filled with earth for stability painted in circumferntial strips of alternate black and white 100 mm white fitted with reflectors 3 nos. of 7.5 cm dia. All as per IRC-SP:55-2001.	Nos	407	two rows per 20% length @ 3m interval			407
	d)	Installation of a steel portable barricade with horizontal sheet of 800 mm wide, 3.0 m in length fitted on a 'wooden bamboos of diameter 200 mm 1.5 m in height, horizontal sheet painted (2 coats) with yellow and white stripes, 150 mm in width at an angle of 450, complete as directed by Engineer.	Nos	813	two rows per 40% length @ 3m interval			813
Sec - 9 Utility Relocation Items								
		Utility Relocation Items (Provisional)			B Section 100			
1	9.1	Water Pipe Line						
		Relocation of water pipelines by nominated sub-contractors.	per 100 m	1	30.50			30.50
2	9.2	Sewerage Line						
		Relocation of sewerage services by nominated sub-contractors.	per 100 m	1	30.50			30.50
3	9.3	Electricity, (M.S.E.B.)						
	i)	Relocation of electrical services by nominated sub-contractors.	per 100 m	1	30.50			30.50
	ii)	Relocation of electrical services by nominated sub-contractors.	per 100 m	1	30.50			30.50
4	9.4	Telephone						
		Relocation of telephone services by nominated sub-contractors.	per 100 m	1	30.50			30.50
5	9.5	Relocation of OFC Lines by nominated sub-contractors.	per 100 m	1	30.50			30.50

**DPR FOR ROAD DEVELOPMENT IN NANDED UNDER JNNURM
ROAD FROM MUTHA CHOWK TO DEGLOOR NAKA (ROAD NO. 8)
(From Ch: 0+000 TO 3+050)
COST ESTIMATE**

Note: The specification reference is as under:

A - As per Additional Technical Specifications (SP) Vol. - III

B - As per MORT&H specifications (4th revision August 2001) and revisions as made in Part B Vol. - III

Sr. No.	Item No.	Description	Unit	Specifications	Qty	Estimated Cost	
						Unit Rate in Rs.	Amount in Rs.
	Sec-1	Site Clearance					
1	1.1	Clearing & grubbing road land including uprooting all vegetation, grass, bush shrubs, saplings and trees of girth up to 300 mm, removal of stumps of trees of girth of all sizes including removing stumps of trees cut earlier and disposal of unserviceable materials and stacking of serviceable materials as directed by engineer with all leads and lifts etc. complete	Ha	B Clause 201	3	16,461.00	49,383.00
2	1.2	Cutting of trees of all girth above 300 mm including cutting of trunks, branches, uprooting and removal of all materials and stacking within the ROW and filling depressions/pits by earth etc. complete. including liasoning with concerned authorities for obtaining permissions.		B Clause 201 & 305			
		1) girth 300 mm to 600 mm	Nos		8	49.00	392.00
		2) girth above 600 mm to 900 mm	Nos		5	101.00	505.00
		3) girth above 900 mm to 1800 mm	Nos		3	244.00	732.00
3	1.3	Transplantation of existing trees of girth above 600 mm girth as directed by engineer, including uprooting and shifting of the tree and placing in excavated pits of suitable size and after transplanting, removal and stacking of excavated earth to desired location, filling the pit with soil mixture of excavated earth, fresh red earth etc as directed.	Nos	MORT&H	13	2,168.00	28,184.00
4	1.4	Dismantling of structures on roadway including sorting out the dismantled material, disposal of unserviceable material and utilising the serviceable material free of cost in permanent works as directed by the Engineer with all leads and lifts etc. complete.		B Clause 202			
	a)	Brick masonry	Cum		7319.32	138.00	1,010,066.16
	b)	Stone masonry	Cum		511.26	138.00	70,553.88
	c)	Plain Concrete	Cum		3271.64	138.00	451,486.32
	d)	Reinforced Concrete	Cum		1804.59	144.00	259,860.96
	e)	Dismantling pavement					
		- Bituminous pavement	Cum		5232	144.00	753,408.00
		- Metal Pavement	Cum		7821	144.00	1,126,224.00
	f)	Dismantling					
		(i)MS Pipes, Guard rails, and Fencing	RM		200	10.00	2,000.00
		(ii)Footpaths and Medians	Sqm		504	144.00	72,576.00
		(iii) Electric poles/Telephone poles/Transformers	Nos		179	74.00	13,246.00
		(iv) Bus Shelters	Nos				-
		Total of Section 1					3,838,617.32
	Sec-2	Earth Work and Ground Improvement					

Sr. No.	Item No.	Description	Unit	Specifications	Qty	Estimated Cost		
						Unit Rate in Rs.	Amount in Rs.	
1	2.1	Earth work in excavation for roadway in all types of strata other than rock requiring blasting including dressing section to the required grade, camber and side slopes and conveying and/or disposing off the excavated material with mechanical means, spreading or disposing as directed by Engineer, with all leads and lifts etc. complete.	Cum	B Clause 301	40578	40.00	1,623,120.00	
2	2.2.	Earth work in excavation for roadway in rock by Wedging/controlled blasting including dressing section to the required grade, camber and side slopes and conveying and/or disposing off the excavated material preferably with mechanical means, spreading or disposing as directed , with all leads and lifts etc. complete	Cum	B Clause 301, 302		228.00		
3	2.3	Earth work in embankment including median by using mechanical means with approved material obtained from the excavated portions of the roadway, laying in layers not exceeding 250 mm loose breaking clods, dressing to the required lines, curves, grades and watering to OMC and compacting to 95 % modified proctor density with vibratory roller having minimum 80-100 KN static weight with all leads and lifts etc. complete.	Cum	B Clause 305		33.00		
4	2.4	Leveling, watering and rolling the prepared subgrade with power roller weighing not less than 8 to 10 Tonnes and preparing the ground to required level, grade and camber etc. complete as directed by Engineer..	Sqm	MORT&H				
5	2.5	Earth work in embankment for subgrade/cushion and hard shoulders by using mechanical means with approved material obtained from borrow areas outside ROW having 4 days soaked CBR equal to or more than 8%, laying in layers not exceeding 250 mm loose, breaking clods and dressing to the required lines, curve grades, and watering to OMC and compacting to 97 % modified proctor density with vibratory roller having minimum 80-100KN static weight including all leads and lifts etc. complete.	Cum	B Clause 305	11278	86.00	969,908.00	
6	2.6	Removal of unsuitable materials (debris) in the embankment foundation and /or subgrade and disposing the excavated material as directed by the engineer including all leads and lifts etc. complete.	Cum	B Clause 301		46.00		
Total of Section 2								2,593,028.00
	Sec- 3	Drainage and Protective Works, paver blocks in FP, cross pipes for utilities etc						
1	3.1	Earth work in excavation in all types of strata other than rock for drains and channels etc., including dressing of bottom and sides of trenches, stacking the excavated spoil, clear from the edge of excavation including disposal of surplus spoil as directed by the Engineer with all leads and lifts etc. complete.	Cum	B Clause 301,304 & 309	14044	40.00	561,760.00	

Sr. No.	Item No.	Description	Unit	Specifications	Qty	Estimated Cost	
						Unit Rate in Rs.	Amount in Rs.
2	3.2	Earth work in excavation in rock by chiselling / wedging for drains and channels etc., including dressing of bottom and side of trenches, stacking the excavated spoil, clear from the edge of excavation including disposal of surplus spoil as directed by the Engineer with all leads and lifts etc. complete.	Cum	B Clause 301 & 303		228.00	
3	3.3	Providing dry trap /granite /quartzite/ gneiss rubble stone soling 15 to 20 cm thick including hand packing and compacting etc. complete	Cum	MORT&H	1505	205.00	308,525.00
4	3.4	Providing and laying PCC M-15 grade for bed for lined drain, median cross drain, kerb with the maximum size of coarse aggregate 20 mm including necessary form work, mixing, vibrating, curing by sprinkling / ponding of water for 14 days etc. complete.	Cum	B Section 1500,1700 & 2100, ASP	1814	1,871.00	3,393,994.00
5	3.5	Providing and laying in situ PCC/RCC M25 grade for trenches, drains, precast cover, retaining walls, toe walls, head walls including coping. with stone metal, natural or crushed sand, including necessary form work, centering, mixing with mechanical mixers, compacting vibrating , curing by sprinkling/ponding of water for 14 days and finishing as directed and including construction of weep holes as directed by the Engineer including all leads and lifts etc. complete(excluding reinforcement)	Cum	B Section 1500 & 1700, ASP	4596	2,467.00	11,339,437.71
6	3.6	Providing and laying HYSD bars for reinforcement for structure including cutting,bending hooking by machine,trying in position including binding wire, spacers, chairs,cover blocks as per detailed drawing including all leads and lifts etc. complete.	MT	B Section 1600 ASP	276	34,042.00	9,395,592.00
7	3.7	Providing and laying cement concrete kerb in M-25 grade concrete as per drawing and directed by Engineer with all leads lifts etc. complete.	Cum	B clause 408, ASP			
		Pre-cast/cast-in-situ kerbs	Cum		259	2,468.00	639,212.00
8	3.8	Raising or lowering any shape and size of manhole to the required level including all material formwork ,brickwork and with 16 mm thick M15 (1:2:4) c c Coping under frames of manhole including curing etc. complete as specified and as directed by Enginner In Charge	No	MORT&H	44	953.00	41,932.00
9	3.9	Providing and laying in position to the level and grade 150 mm dia precast NP2 class pipe below footpath for discharging water into concrete open drains including providing and fixing GI grating etc. complete as directed by Engineer.	RM	B-Section 2900	1125	216.00	243,000.00
10	3.10	Providing and laying interlocking concrete paving blocks in footpaths and medians including sand bed of thickness 50 mm and precast concrete head strips etc. complete as per drawing and specifications.	Sqm	ASP			
		a) For 60mm Thick Paver Block			13635	595.00	8,112,825.00
11	3.11	Providing And fixing of the precast tapered water table of thickness 105 mm , 300 mm width in M35 grade concrete as detailed in drawing including laying a levelling course of M15 grade concrete slope,inclusive of form work jointing in 1:2 CM prop flush to concrete surface including curing as directed	RM	MORT&H	5900	336.00	1,982,400.00

Sr. No.	Item No.	Description	Unit	Specifications	Qty	Estimated Cost	
						Unit Rate in Rs.	Amount in Rs.
12	3.12	Providing and laying required size RCC running Beam in M35 concrete including formwork ,mixing,compacting and curing etc.complete reinforced with 12 mm dia (min 4 nos) MS main bars and 6 mm dia MS ring at 15 mm c/c to be anchored in slipper slab properly with MS reinforcement as per drawing etc. complete as specified (steel will not be paid separately) etc. complete as directed by Engineer in Charge	Cum	MORT&H	407.1	2,531.00	1,030,370.10
13	3.13	Providing and fixing RCC cover of any size, shape and thickness over drain/chamber with necessary heavy duty cast iron frame including all labour and material etc complete as directed by Engineer.	No	MORT&H	1444	1,500.00	2,166,000.00
14	3.14	Providing and laying service ducts in position , precast RCC Pipes NP2 class including bed preparation ,cost of lifting ,loading and unloading ,jointing with collar or flush joints including cost of backfilling the trenches including all leads and lifts etc. complete.					
		For 250 mm Diameter pipes	RM	MORT&H	1146	368.00	421,728.00
15	3.15	Providing & laying 100 mm dia PVC perforated pipe median under drain including geotextile and building through kerb etc. complete as per drawing and specification (at 15 m interval in median with approximate width of 1.5 m)	RM	MORT&H	596	144.00	85,824.00
16	3.16	Providing and fixing 150x100 mm non skidding precast chequered tiles 25 mm thick of approved quality in traffic island and where ever necessary i city suburban limit over 18 mm thick C.M 1:3 including curing etc.complete as per drawing and as directed by Engineer.	Sqm	MORT&H	50	244.00	12,200.00
		Total of Section 3					39,734,799.81
	Sec-4	Pavement					
1	4.1(a)	Providing and laying Granular Sub Base (structural layer) close graded conforming to Grading II of Table 400.2 of compacted thickness of 150 mm with specified graded stone metal and sand mixed in place and laid with mechanical means spreading with motor grader and compacting with vibratory roller having minimum 80-100 KN static weight to achieve desired density of 98% of MDD including all material , labour , machinery with all leads and lifts etc. complete.(by plant mix method)	Cum	B Clause 401	9966	445.00	4,434,870.00
	4.1(b)	Providing and laying Granular Sub Base (drainage layer) coarse graded conforming to Grading II of Table 400.2 of compacted thickness of 150 mm with specified graded stone metal and sand mixed in place and laid with mechanical means spreading with motor grader and compacting with vibratory roller having minimum 80-100 KN static weight to achieve desired density of 98% of MDD including all material , labour , machinery with all leads and lifts etc. complete.	Cum	B Clause 401	12890	389.00	5,014,210.00

Sr. No.	Item No.	Description	Unit	Specifications	Qty	Estimated Cost	
						Unit Rate in Rs.	Amount in Rs.
2	4.2	Providing and laying Wet Mix Macadam with paver finisher in specified thickness, each layer not exceeding 200 mm compacted thickness including premixing in pugmill/plant well graded crushed stone aggregate, with watering and spreading by to required profile and compacting with vibratory roller having minimum 80-100 KN static weight to achieve desired density of 98% of MDD including all material , labour , machinery with all leads and lifts etc. complete.	Cum	B Clause 406	1704	484.00	824,736.00
3	4.3	Providing and applying primer coat using bituminous emulsion complying to IS:8887 over prepared surface of granular base with emulsion at a temperature between 20 - 45 deg. C and applying a uniform coat with the aid of self propelled bitumen pressure spraying bar with nozzles of constant volume of pressure system @10Kg/10Sqm including all material , labour , machinery with all leads and lifts etc. complete.	Sqm	B Clause 502			
4	4.4	Providing and applying tack coat by using bituminous emulsion complying to IS: 8887 over prepared surface preheated to a temperature between 20 - 50 deg. C and applying a uniform coat with the aid of self propelled bitumen pressure sprayer with self heating arrangement and spraying bar with nozzles of constant volume or pressure system at the rate of 3Kg/10Sqm on primed / blacktop surface and curing etc. including all material, labour, machinery, with all leads and lifts etc. complete.	Sqm	B Clause 503			
5	4.5	Providing and laying Bituminous Macadam of maximum 100 mm compacted thickness on prepared surface using 30 - 40 grade bitumen providing necessary aggregates with specified gradation mixing with mechanical means in hot mix plant of suitable capacity of batch mix type and electronically controlled mixing to the specified temperature, transporting and laying the mix with self propelled paver finisher with electronic sensor device and initial compaction with minimum 80 - 100 KN static weight smooth wheeled roller followed by intermediate rolling with minimum 80 – 100 KN static weight vibratory roller/pneumatic tyred roller having minimum 150 – 250 KN weight having a tyre pressure of atleast 0.7 Mpa and finished with minimum 60 - 80 KN weight smooth wheeled tandem roller to achieve desired density including all material, labour, machinery with all leads and lifts (Excluding tack coat) etc. complete.	Cum	B Clause 504			

Sr. No.	Item No.	Description	Unit	Specifications	Qty	Estimated Cost	
						Unit Rate in Rs.	Amount in Rs.
6	4.6	Providing and laying Dense Bituminous macadam in a single layer of 50mm to 100 mm compacted thickness on prepared surface using 30 - 40 grade bitumen including providing necessary aggregates with specified gradation mixing with mechanical means in hot mix plant of suitable capacity of batch mix type and electronically controlled mixing of the specified temperature, transporting and laying the mix with self propelled paver finisher with electronic sensor device in full width and initial compaction with minimum 80 - 100 KN static weight vibratory roller/pneumatic tyre roller having minimum 150 – 250 KN weight having a tyre pressure of atleast 0.7 MPa and finished with minimum 60 – 80 KN weight smooth wheeled tandem roller to achieve desired density including all material, labour, machinery with all leads and lifts (excluding tack coat) complete.	Cum	B Clause 507			
7	4.7	Providing and laying Bituminous Concrete in a single layer of 25mm to 50 mm compacted thickness on prepared surface using 30-40 bitumen of grade approved by the engineer including providing necessary aggregates with specified gradation mixing with mechanical means in hot mix plant of suitable capacity of batch mix type and electronically controlled mixing to the specified temperature, transporting and laying the mix with self propelled paver finisher with electronic sensor device in full width and initial compaction with minimum 80 - 100 KN static weight smooth wheeled roller followed by intermediate rolling with minimum 80 - 100 KN static weight vibratory roller / pneumatic tyre roller having minimum 150 - 250 KN weight having a tyre pressure of atleast 0.7 MPa and finished with minimum 60 - 80 KN weight smooth wheeled tandem roller to achieve desired density including all material, labour, machinery with all leads and lifts etc. complete (excluding tack coat) and including cement filler @2% by weight of mix.	Cum	B Clause 509 & 521			
8	4.8	Providing and laying 20 mm thick mix seal surfacing 'A' type as renewal coat for maintenance of the existing road surface during construction including supplying of all materials , clearing the base, heating the bitumen and aggregates and rolling with power roller 8 - 10 tonne using 30/40grade bitumen.	Sqm	B Clause 512		80.00	

Sr. No.	Item No.	Description	Unit	Specifications	Qty	Estimated Cost	
						Unit Rate in Rs.	Amount in Rs.
9	4.9	Providing and laying Dry Lean Concrete base including providing coarse and fine aggregate to the specified gradation using minimum cement content 150 kg/cum of concrete with OPC 43 grade cement mixing of concrete as per approved design mix using mechanised batch mix plant of appropriate capacity, transporting and laying with self propelled paver with electronic sensor device and compacting with vibratory roller of minimum 80 - 100 KN static weight to give desired compacted density and average compressive strength of 10 MPa at 7 days and curing with liquid curing compound and sprinkling water and covering with moist hessian or ponding of water for 7 days including providing construction joints, including all material, labour, machinery with all leads and lifts etc. complete.	Cum	B Clause 601 B-Section 900, 1000 & ASP	4565	1,043.00	4,761,295.00
10	4.10	Providing and laying Pavement Quality Concrete of M35 grade including providing 125 micron thick impermeable plastic sheet membrane over the surface to be covered, coarse and fine aggregates of specified gradation using minimum cement content 350 kg/cum of concrete with OPC 43 grade cement, approved admixture, mixing with mechanised batch mix plant of appropriate capacity as per the design mix to the specified workability, transporting the mix with dumpers or transit mixers and laying with self propelled slip form paving train of required capacity having electronic sensor device, curing with approved resin based aluminised reflective curing compound and covering with moist hessian or ponding and sprinkling of water for a minimum period of 14 days and including providing and fixing dowels, tie bars, approved precompressed seals for joint filling and sealing all types of joints and finishing to the desired surface texture including all material, labour, machinery with all leads and lifts etc. complete	Cum	B Clause 602 & 704 B-Section 900,1000 & ASP	8805	3,046.00	26,820,030.00

Sr. No.	Item No.	Description	Unit	Specifications	Qty	Estimated Cost	
						Unit Rate in Rs.	Amount in Rs.
11	4.11	Providing and laying Pavement Quality Concrete for Profile correction Coarse/overlay of M 35 grade including roughening the existing surface by Shot blasting and providing bonding material (cement sand slurry/low viscous epoxy) providing over the surface to be covered, coarse and fine aggregates of specified gradation using minimum cement content 350 kg/cum of concrete with OPC 43 grade cement, approved admixture, mixing with mechanised batch mix plant of appropriate capacity as per the design mix to the specified workability, transporting the mix with dumpers or transit mixers and laying with self propelled slip form paving train of required capacity having electronic sensor device, curing with approved resin based aluminised reflective curing compound and covering with moist hessian or ponding and sprinkling of water for a minimum period of 14 days and including providing and fixing dowels, tie bars, approved precompressed seals for joint filling and sealing all types of joints and finishing to the desired surface texture including all material, labour, machinery with all leads and lifts etc. comp	Cum	B Clause 602 & 704 B-Section 900,1000 & ASP			
12	4.12	Providing and laying interlocking 80mm thick Concrete paving blocks in carraigeway including sand bed of thickness 50 mm and precast concrete head strips etc. complete as per drawing and specifications.	Sqm	ASP	13728	710.00	9,746,880.00
13	4.13	Filling pot hole and patch repair with premix surfacing (20 mm)Removal of all failed material, trimming of completed excavation to provide firm vertical faces, cleaning of surface, painting of tack coat on the sides and base of excavation as per clause 503, back filling the pot holes with hot bituminous material as per clause 511, compacting, trimming and finishing the surface to form a smooth continuous surface, all as per clause 3004.2	Sqm	MORT&H		71.00	
14	4.14	Providing and laying slurry seal consisting of a mixture of fine aggregates, portland cement filler, bituminous emulsion 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	Sqm	MORT&H		26.00	
		Total of Section 4					51,602,021.00
	Sec-5	Cross-Drainage Work					
1	5.1	Earthwork in excavation for foundation for structures in all types of strata other than rock for all depths including dressing of bottom and sides of trenches, stacking excavated stuff clear from the edges of the trenches, including disposal of surplus	Cum	B Clause 301,304 & 309	77	40.00	3,080.00

Sr. No.	Item No.	Description	Unit	Specifications	Qty	Estimated Cost		
						Unit Rate in Rs.	Amount in Rs.	
2	5.2	Providing and laying in situ cement concrete M-15 using stone metal, natural or crushed sand and OPC 43/53 grade for levelling course for head wall including necessary formwork, centering, mixing in mechanised batch mix plant, compacting, curing by spri		B Section 1500, 1700 & 2100, ASP 1				
		Head wall	Cum		3	1,869.00	5,607.00	
3	5.3	Providing and laying in situ M-25 grade cement conc. for head wall using stone metal, natural or crushed sand, OPC 43/53 grade, including necessary formwork, centering, mixing in mechanised batch mix plant, compacting, curing by sprinkling/ponding of wate		B Section 1500 & 1700 ASP				
	(a)	for M-25 Grade Concrete	Cum		26.00	2,457.00	63,882.00	
4	5.4	Providing and laying in situ 230mm rubble soling below the pipe cradal including nessary dreassig, chiselling, laying etc. complete as directed by engineer incharge.	Cum	MORT&H	6.64	132.00	876.51	
5	5.5	Providing and laying in situ cement concrete M-15 using stone metal, natural or crushed sand and OPC 43/53 grade for levelling course for head wall including necessary formwork, centering, mixing in mechanised batch mix plant, compacting, curing by spri		B Section 1500, 1700 & 2100, ASP				
		PIPE CRADLE	cum		15.88	1,869.00	29,670.75	
6	5.6	Providing and laying in situ 1000MM dia. ISI mark class NP-4 pipe complete as per specifications and as directed by Engineer.	RM	MORT&H	11	9,161.00	100,771.00	
7	5.7	Providing and laying in situ 300MM TH. Dry stone pitching for apron.	Cum	MORT&H	2.70	46.20	124.74	
8	5.8	Providing and laying in situ 300mm th. Filter media behind head wall as per specifications and as directed by engineer.	Cum	MORT&H	3.84	166.00	637.44	
9	5.9	providing and filling the portion over the pipe by selected granular material as per specifications and as directed by engineer.	Cum	MORT&H	45.76	176.00	8,053.76	
Total of Section 5								212,703.19
	Sec-6	Road Markings, etc.						
1	6.1	Providing and laying hot applied thermoplastic road marking compound in approved colour and shade for road marking on bituminous/ concrete road surface in centre line 100mm wide 2.5mm thick using fully automatic extrusion machine and using premelter for melting thermoplastic Material including cleaning the surface of all dirt, dust, and other foriegn matter, demarcation at site/premarking, finishing and managing the traffic control etc.complete. The thermoplastic compound shall be of approved colour and shade. Marking to be done as per specifications, detailed drawings and as directed.	Sqm	B Clause 803	120	630.00	75,600.00	

Sr. No.	Item No.	Description	Unit	Specifications	Qty	Estimated Cost	
						Unit Rate in Rs.	Amount in Rs.
2	6.2	Providing and applying two coats of synthetic enamel paint including primer to kerb as per Technical Specification and as directed by the engineer.	Sqm	MORT&H	52	60.00	3,132.00
3	6.3	Providing and laying hot applied thermoplastic road marking compound in approved colour and shade for road marking on bituminous/ concrete road surface in edge line 150mm wide 2.5mm thick using fully automatic extrusion machine and using premelter for melting thermoplastic Material,including cleaning the surface of all dirt, dust, and other foriegn matter, demarcation at site/ premarking, finishing and managing the traffic control etc.complete and as per specifications, detailed drawings and as directed.	Sqm	B Clause 803	443	630.00	278,775.00
4	6.4	Providing and laying hot applied thermoplastic road marking compound in approved colour and shade for road marking on bituminous/ concrete road surface in pedestrian crossings, chevrons, directional arrows etc, 2.5mm thick using fully automatic extrusion machine and using premelter for melting thermoplastic .Material,including dispensing drop on glass beads of approved make and as per BS 6088 at the rate 250 gms per sqm. including cleaning the surface of all dirt, dust, and other foriegn matter, demarcation at site/ premarking, finishing and managing the traffic control etc.complete. Marking to be done as per specifications, drawings and as directed.	Sqm	B Clause 803	6187	630.00	3,897,495.00
		Total of Section 6					4,255,002.00
	Sec-7	TRAFFIC SIGNS/ROAD FURNITURE					
1	7.1	Supplying and fixing informatory road sign boards made up with high intensity grade retro-reflective type sheeting complete as per drawing and Technical specifications.		B Section 800 ASP			
	a)	Boards of area not exceeding 1 sq. m.	Nos		20	10,500.00	210,000.00
2	7.2	Supplying and fixing utility/services road sign boards made up with high intensity grade retro-reflective type sheeting complete as per drawing and Technical specifications.		B Section 800 ASP			
	a)	Boards of area not exceeding 1 sq. m.	Nos	B Section 800 ASP	10	10,500.00	105,000.00
3	7.3	Supplying and fixing cautionary/warning road sign boards (Equilateral triangle 900 mm side) made up with high intensity grade retro-reflective type sheeting complete as per drawing and technical specifications.	Nos	B Section 800 ASP	92	3,675.00	338,100.00
4	7.4	Supplying and fixing regulatory/mandatory road sign boards (Circular 600 mm dia) made up with high intensity grade retro-reflective type sheeting complete as per drawing and Technical specifications.	Nos	B Section 800 ASP	32	3,439.00	110,048.00

Sr. No.	Item No.	Description	Unit	Specifications	Qty	Estimated Cost	
						Unit Rate in Rs.	Amount in Rs.
5	7.5	Supplying/Erecting and fixing in position road overhead retro-reflective informatory sign boards including fixing on overhead gantry structure including the cost of gantry and other supports and including cost of back frame complete as per drawing and specifications.	Nos	B Section 800 ASP	3	1,195,272.00	3,585,816.00
	(a)	12 mt	Nos			864,184.00	-
	(b)	15 mt	Nos			1,050,515.00	-
	©	18-22 mt	Nos		3	1,152,864.00	3,458,592.00
	(d)	24-30 mt	Nos			1,434,326.00	-
6	7.6	Supplying and fixing in position road cantilever overhang retro-reflective informatory sign boards including fixing on specified galvoniged overhang structure including the cost of overhang and other supports but including cost of back frame complete as per drawing and specifications.	Nos.	B Section 800 ASP	6	360,000.00	2,160,000.00
7	7.7	Providing and fixing aluminium casted CAT EYE STUD of size 10 cm *10 cm at the base with zinc coated nalls of size 12 mm dia of 12 cm long having both side (dual direction) high impact ABC 3 nos of eyes of 16 mm dia on both side containin 7 beads each i.e . 42 beads in retro reflective etc. complete		MORT&H		191.00	-
8	7.8	Supplying and installation of delineators (road way indicators, hazard markers, object markers), 80-100 cm high above ground level, painted black and white in 15 cm wide strips, fitted with 80 x 100 mm rectangular or 75 mm dia circular reflectorised panels at the top, buried or pressed into the ground and conforming to I RC-79 and the		MORT&H		701.00	-
6	7.9	Provoding and fixing MS Railing.	Rm		2950.00	2,000.00	5,900,000.00
		Total of Section 7					15,867,556.00
	Sec - 8	Traffic Management					
		Traffic Management		B Section 100 ASP			
1	8.1	Traffic Management and Regulation during construction Maintaining, Managing, Operating the traffic plying on road during day and night smoothly and safely as and when required C262without hindrance to traffic during entire construction activity by providing necessary equipments such as, various road signs, delineators, barricading,					
	a)	Installation of a steel portable barricade with horizontal rail 300 mm wide, 2.5 m in length fitted on a 'A' frame made with 45x45x5 mm angle iron section, 1.5 m in height, horizontal rail painted (2 coats) with yellow and white strips, 150 mm in width at an angle of 45o, 'A' frame painted with 2 coats of yellow paint, complete as per IRC:SP:55-2001.	RM		976	1,522.00	1,485,472.00
	b)	Providing Red lanterns or warning lights of similar type on the barricades.	Nos		49	50.00	2,450.00

Sr. No.	Item No.	Description	Unit	Specifications	Qty	Estimated Cost		
						Unit Rate in Rs.	Amount in Rs.	
	c)	Provision of metal drum / empty bitumen drum delineator, 300 mm in diameter 800 mm high filled with earth for stability painted in circumferential strips of alternate black and white 100 mm white fitted with reflectors 3 nos. of 7.5 cm dia. All as per IRC-SP:55-2001.	Nos		407	322.00	131,054.00	
	d)	Installation of a steel portable barricade with horizontal sheet of 800 mm wide, 3.0 m in length fitted on a 'wooden bamboos of diameter 200 mm 1.5 m in height, horizontal sheet painted (2 coats) with yellow and white stripes, 150 mm in width at an angle of 45°, complete as directed by Engineer.	Nos		813	447.00	363,411.00	
Total of Section 8								1,982,387.00
Sec - 9								
Sec - 9		Utility Relocation Items						
		Utility Relocation Items (Provisional Sum)		B Section 100				
1	9.1	Water Pipe Line						
		Relocation of water pipelines by nominated sub-contractors.	Per 100 m		30.50	115,000.00	3,507,500.00	
2	9.2	Sewerage Line						
		Relocation of sewerage services by nominated sub-contractors.	Per 100 m		30.50	100,000.00	3,050,000.00	
3	9.3	Electricity, (M.S.E.B.)						
	i)	Relocation of electrical services by nominated sub-contractors.	Per 100 m		30.50	115,630.00	3,526,715.00	
	ii)	Relocation of H.T. pylons of (M.S.E.B) by nominated sub-contractors.	Per 100 m		30.50	81,625.00	2,489,562.50	
4	9.4	Telephone						
		Relocation of telephone services by nominated sub-contractors	Per 100 m		30.50	1,600.00	48,800.00	
5	9.5	Relocation of OFC Lines by nominated sub-contractors.	Per 100 m		30.50	12,000.00	366,000.00	
Total of Section 9								12,988,577.50

**DPR FOR ROAD DEVELOPMENT IN NANDED UNDER JNNURM
ROAD FROM MUTHA CHOWK TO DEGLOOR NAKA (ROAD NO. 8)
(From Ch: 0+000 TO 3+050)
SUMMARY**

SECTION	SHORT DESCRIPTION	TOTAL AMOUNT (Rs.In Figures)
1)	Site Clearance	3,838,617
2)	Earthwork	2,593,028
3)	Drainage and Protective Works, paver blocks in FP, cross pipes for utilities etc	39,734,800
4)	Pavement	51,602,021
5)	Cross Drainage Works & Retaining Wall	212,703
6)	Road Markings	4,255,002
7)	Traffic Signs/Road Furniture	15,867,556
8)	Traffic Management	1,982,387
9)	Utility Relocation Items	12,988,578
	TOTAL (FROM SECTION 1 TO 9)	133,074,692