



बिहार सरकार

ग्रामीण कार्य विभाग

Rural Works Department, Govt. of Bihar

TS Copy

MMGSY NDB (AWSESH) BRRP-2 (TRANCHE -I)

2023-24

BIHAR RURAL ROADS PROJECT

STATE :- BIHAR

DISTRICT :- Munger

BLOCK :- Dharhara

Survey ID :- 22062

Lanka Tola Road to Mahuderh Tola.

DETAILED PROJECT REPORT

TOTAL LENGTH OF ROAD	1.960	KM
TOTAL NO. OF CD WORKS	5	Nos.
TOTAL COST OF CD WORKS	Rs. 30.43	Lacs
TOTAL COST OF PAVEMENT	Rs. 126.59	Lacs
GST COST	Rs. 28.27	Lacs
LABOUR CESS	Rs. 1.57	Lacs
SEIGNIORAGE FEE	Rs. 3.07	Lacs
TOTAL COST OF CONSTRUCTION	Rs. 189.94	Lacs
CONTINGENCY COST	Rs. 4.27	Lacs
TOTAL MAINTENANCE COST	Rs. 30.04	Lacs
TOTAL COST OF PROJECT	Rs. 224.25	Lacs
TOTAL COST OF PROJECT PER KM.	Rs. 114.42	Lacs

Submitted by :

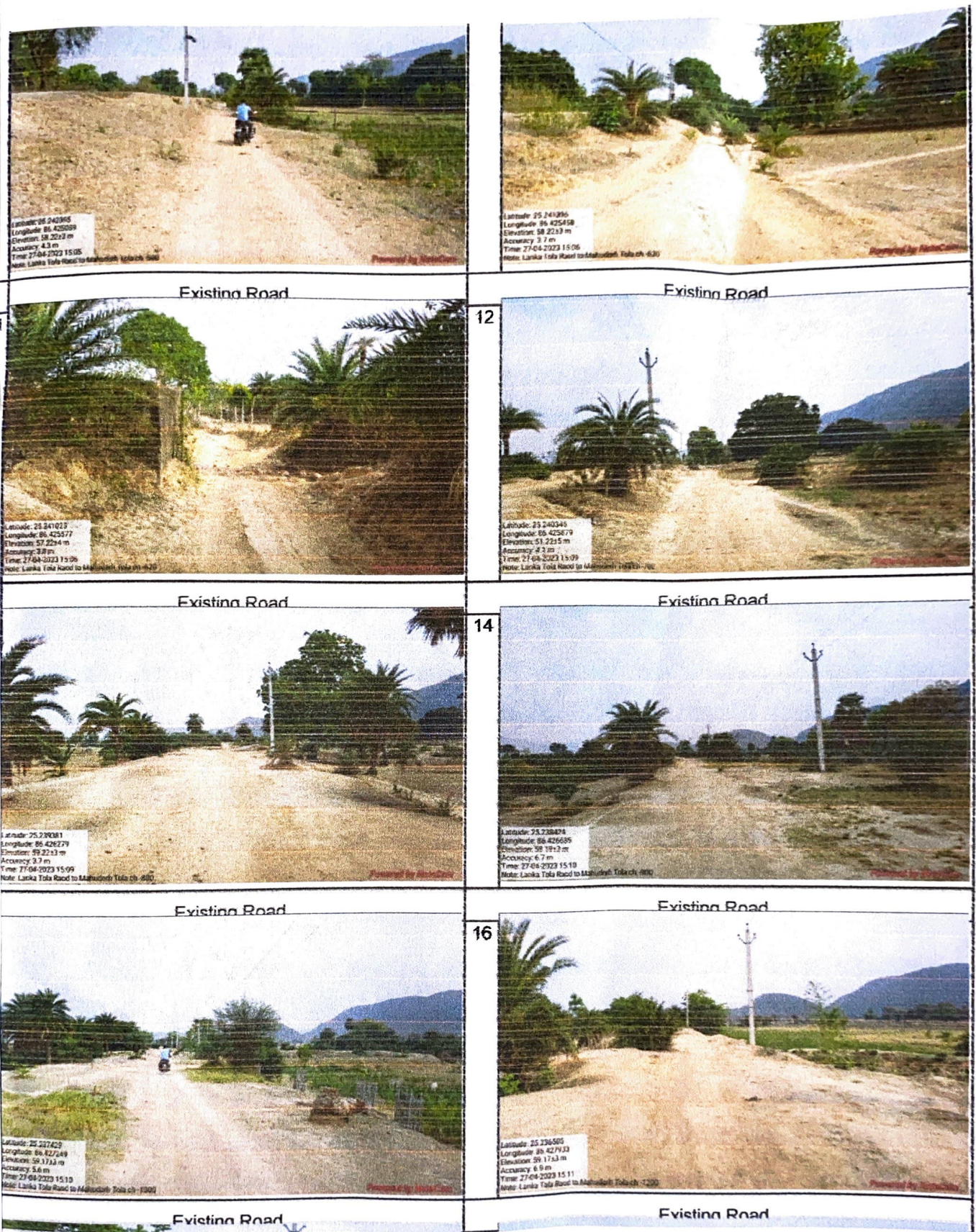
Executive Engineer
RWD (W) Division, Munger
Munger

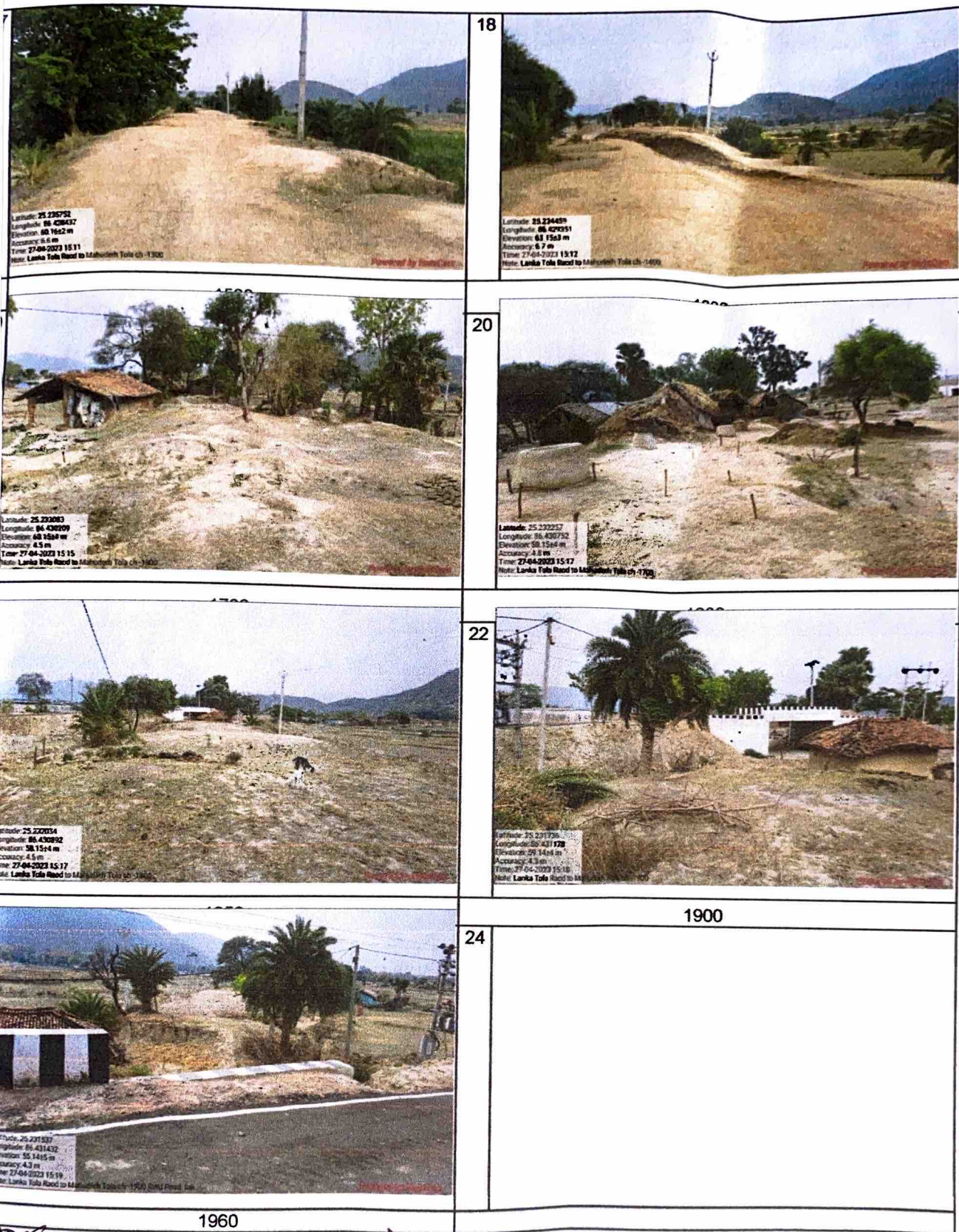
Prepared by :

Shishir Consultants Pvt. Ltd.
Kriti Apartment, Flat no- 33/A, Road No-3H,
New Patliputtra colony, Patna -13
PH # 0612 - 2270007

Road Name : Lanka Tola Road to Mahuderh Tola.
Block : Dharhara







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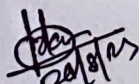
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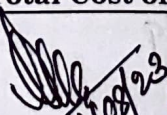
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SUMMARY OF COST ESTIMATE FOR THE PROJECT

Survey ID	22062
Name of Road	Lanka Tola Road to Mahuderh Tola.
District	Munger
Block	Dharhara
Length of Road As Per Survey List (KM)	0.800
Length of Road (in Km)	1.960
Length of New Construction (in Km)	1.960
Length of BT Pavement	1.750
Length of CC Pavement	0.210
CD Structures	
Hume Pipe	3
RCC Culvert	2

Sl. No.	DESCRIPTION	AMOUNT (LAKHS)
1	Preparatory Works ,Site Clearance,Dismantling	0.779
2	Earth Work	17.577
3	GSB For Rigid	2.218
4	GSB For Flexible	39.917
5	WBM Grade III	21.519
6	WBM Grade III For CC Pavement	2.582
7	Prime Coat	3.943
8	Tack Coat	1.349
9	Mix Seal Surfacing	18.315
10	CC Pavement	10.467
11	Hard Shoulder	0.566
12	Road Furnitures,KM Stones,Traffic & Direction Sign,MMGSY Logo,Road Marking.	7.362
	Sub Total of Pavement Cost in Lacs	126.594
13	Cross Drainage Structures	
	Hume Pipe Culvert	8.387
	Rcc Culvert	22.047
	Sub Total of CD Structures Cost in Lacs	30.434
	Construction Cost	157.028
	GST 18 %	28.265
	Labour Cess 1 %	1.570
	Seigniorage Fee of Construction	3.072
A	Total Construction Cost of Project in Lacs	189.936
B	Contingency Charge @ 2.25%	4.27
	Maintenance Cost	25.18
	GST 18 %	4.533
	Labour Cess 1 %	0.252
	Seigniorage Fee for Maintenance	0.077
C	Total Maintenance Cost of Project in Lacs	30.045
	Total Cost of Project Including GST , Labour Cess & Contingency Cost in Lacs (A+B+C)	224.254
	Cost of Construction Per Km (In Lacs)	96.906
	Total Cost of Project Per Km (in Lacs)	114.415


J.E


24/08/23

Superintending Engineer
A.Rural Works Department
Circle, Munger
E.E

A/A vide Letter no - 1438 dt- 21.8.23

A/A Amount

Const. cost - ₹ 190.145 lac.
Maint. cost - ₹ 29.869 lac.
Contingency - ₹ 4.28 lac.

224.294 lac.

Estimate Amount

Const. cost - ₹ 189.936 lac.
Maint. cost - ₹ 30.045 lac.
Contingency - ₹ 4.27 lac.

₹ 224.251 lac.

T.S. No.- 218

dt- 8.9.23

Ref. SE Letter No- 959

dt- 5.9.23

Technically Sanctioned for Rs. 224.251 lac.

(Rupees. Two crore twentyfour lac
twenty five thousand one hundred) only.

Technically sanction does not mean sanction
of rate Instruction given in technical note
should be followed strictly.

~~80/08/09/23~~

Chief Engineer-2
Rural Works Department
Patna

[Signature]

SUMMARY OF 5 YEARS MAINTENANCE COST

District
Block
Name of Road
Link Route No
Length of Road (in Km)

Munger
Dharhara
Lanka Tola Road to Mahuderh Tola.
22062
1.960

Particulars	Amount in Rs.	Amount in (Lakh)
1st Year Maintenance cost	100099.89	1.001
2nd Year Maintenance cost	304341.79	3.043
3rd Year Maintenance cost	725715.15	7.257
4th Year Maintenance cost	528685.96	5.287
5th Year Maintenance cost	859320.02	8.593
Cost of 5 years Maintenance	2518162.80	25.182
GST 18 %	453269.30	4.533
Labour Cess 1 %	25181.63	0.252
Seigniorage Fee	7742.00	0.077
Total Cost of 5 years Maintenance	3004355.74	30.044

ESTIMATE FOR 5 YEARS MAINTENANCE WORKS

Total Length Of Road = 1960 m
Length Of the Flexible Pavement = 1750 m
Length Of the Regid Pavement = 210 m
Width Of the Road (Br) = 3.75 m
Width Of the Shoulder (Bs) = 1.125 m
No. Of Hume Pipe Culvert = 3
No. Of Slab Culvert = 2
Length of Drain = 0 m

Multiplying Factor for Commercial Vehicle 15 to 45 per days = 1.25 {ref. – Annexure 14.4 operation Manual from Rural Road}

No.	SOR No.	Description of Items	Unit	% Taken	Yearly Estimated	Rate (Rs.)	Amount (Rs.)
1	15.1	Restoration of Raincuts/Berms with soil.moorum etc(Qty=L*Bs*0.3*%taken) X 1.25	Cum	6	99.23	477.89	47418.64
2	15.2	Making up of Berms/shoulder, stripping excess soil from the shoulder surfaces to achieve level etc. (Qty=L*Br*%taken) X 1.25	Sqm	10	551.25	71.08	39182.85
3	15.3 (i)	Repair of Pot holes filled with 75 mm BM X 1.25	Cum	0	0.00	13864.29	0.00
4	15.3(ii)	Patch repair over Pot holevs with 13.2 mm to 0.09 mm Mix Seal Surfacing (Qty=L*Br*%taken) X 1.25	Sqm	0	0.00	371.40	0.00
5	15.3(iii)	Patch repair over bituminous surface with Surface Dressing (Qty=L*Br*%taken) X 1.25	Sqm	0	0.00	0.00	0.00
6	15.6	Maintenance of Earthen Drains	M	-	0.00		0.00
7	15.7 (i)	Maintenance of C/D Works (Hume Pipe Culvert)	No.	-	3.00	1577.08	4731.24
8	15.7 (ii)	Maintenance of C/D Works (Slab Culvert)	No.	-	2.00	3202.21	6404.42
9	15.9	Maintenance of Road signs	Km	0	0.00	1447.13	0.00
10	15.11	Maintenance of 200 m and km stones	Km	0	0.00	974.61	0.00
11	15.12	(I)Cutting of branches of trees and shrubs	No.	-	4.00	162.17	648.68
		(ii) Cutting of shrubs from roadway	No.	-	18.00	9.97	179.46
		(iii) Trimming of grass and weeds	Sqm	-	44.00	3.32	146.08
2	15.13	White washing of parapet walls of CD work and tree trunkcs	Sqm	-	63.00	22.04	1388.52
Estimate For First Year Maintenance Work						Rs.	100099.89

1	15.1	Restoration of Raincuts/Berms with soil.moorum etc(Qty=L*Bs*0.3*%taken) X 1.25	Cum	7.2	119.07	477.89	56902.36
2	15.2	Making up of Berms/shoulder, stripping excess soil from the shoulder surfaces to achieve level etc. (Qty=L*Br*%taken) X 1.25	Sqm	12	661.50	71.08	47019.42
3	15.3 (i)	Repair of Pot holes filled with 75 mm BM X 1.25	Cum	0	0.00	13864.29	0.00
4	15.3(ii)	Patch repair over Pot holevs with 13.2 mm to 0.09 mm Mix Seal Surfacing (Qty=L*Br*%taken) X 1.25	Sqm	0	0.00	371.40	0.00
5	15.3(iii)	Patch repair over bituminous surface with Surface Dressing (Qty=L*Br*%taken) X 1.25	Sqm	0	0.00	0.00	0.00
6	15.6	Maintenance of Earthen Drains	M	-	0.00	3.99	0.00
7	15.7 (i)	Maintenance of C/D Works (Hume Pipe Culvert)	No.	-	3.00	1577.08	4731.24
8	15.7 (ii)	Maintenance of C/D Works (Slab Culvert)	No.	-	2.00	3202.21	6404.42
9	15.9	Maintenance of Road signs	Km	-	1.96	1447.13	2836.37
10	15.11	Maintenance of 200 m and km stones	Km	-	1.96	974.61	1910.24
11	15.12	(i)Cutting of branches of trees and shrubs	No.	-	4.00	162.17	648.68
		(ii) Cutting of shrubs from roadway	No.	-	18.00	9.97	179.46
		(iii) Trimming of grass and weeds	Sqm	-	44.00	3.32	146.08
12	15.13	White washing of parapet walls of CD work and tree trunkcs	Sqm	-	63.00	22.04	1388.52
New	Ref. to MoRTH Spec. 307	Maintenance of Already Planted Trees for additional four Years-Maintenance of trees by the road side (Avenue trees) by mixing the soil with decayed farm yard/sludge manure, watering, fixing the tree guard and maintaining the plants for additional four years.	Each	-	175.00	1041.00	182175.00
Estimate For Second Year Maintenance Work							Rs. 304341.79
1	15.1	Restoration of Raincuts/Berms with soil.moorum etc(Qty=L*Bs*0.3*%taken) X 1.25	Cum	8.4	138.92	477.89	66386.09
2	15.2	Making up of Berms/shoulder, stripping excess soil from the shoulder surfaces to achieve level etc. (Qty=L*Br*%taken) X 1.25	Sqm	14	771.75	71.08	54855.99
3	15.3 (i)	Repair of Pot holes filled with 75 mm BM X 1.25	Cum	1.5	9.23	13864.29	127946.82
4	15.3(ii)	Patch repair over Pot holevs with 13.2 mm to 0.09 mm Mix Seal Surfacing (Qty=L*Br*%taken) X 1.25	Sqm	1.5	123.05	371.40	45699.61
5	15.3(iii)	Patch repair over bituminous surface with Surface Dressing (Qty=L*Br*%taken) X 1.25	Sqm	1.5	123.05	0.00	0.00
6	15.6	Maintenance of Earthen Drains	M	-	0.00	3.99	0.00
7	15.7 (i)	Maintenance of C/D Works (Hume Pipe Culvert)	No.	-	3.00	1577.08	4731.24
8	15.7 (ii)	Maintenance of C/D Works (Slab Culvert)	No.	-	2.00	3202.21	6404.42
9	15.9	Maintenance of Road signs	Km	0	0.00	1447.13	0.00
10	15.11	Maintenance of 200 m and km stones	Km	0	0.00	974.61	0.00
11	15.12	(i)Cutting of branches of trees and shrubs	No.	-	4.00	162.17	648.68
		(ii) Cutting of shrubs from roadway	No.	-	18.00	9.97	179.46
		(iii) Trimming of grass and weeds	Sqm	-	44.00	3.32	146.08
12	15.13	White washing of parapet walls of CD work and tree trunkcs	Sqm	-	63.00	22.04	1388.52
13	10.8	Road Marking with Hot Applied Thermoplastic Compound with Reflectorising Glass Beads on Bituminous Surface	Sqm		350.00	663.72	232302.00
14	10.8	Road Marking with Hot Applied Thermoplastic Compound with Reflectorising Glass Beads on Rigid Surface	Sqm		42.00	663.72	27876.24
New	Ref. to MoRTH Spec. 307	Maintenance of Already Planted Trees for additional four Years-Maintenance of trees by the road side (Avenue trees) by mixing the soil with decayed farm yard/sludge manure, watering, fixing the tree guard and maintaining the plants for additional four years.	Each	-	175.00	898.00	157150.00
Estimate For Third Year Maintenance Work							Rs. 725715.15

1	15.1	Restoration of Raincuts/Berms with soil.moorum etc(Qty=L*Bs*0.3*%taken) X 1.25	Cum	9.6	158.76	477.89	75869.82
2	15.2	Making up of Berms/shoulder, stripping excess soil from the shoulder surfaces to achieve level etc. (Qty=L*Br*%taken) X 1.25	Sqm	16	882.00	71.08	62692.56
3	15.3 (i)	Repair of Pot holes filled with 75 mm BM X 1.25	Cum	2	12.30	13864.29	170595.76
4	15.3(ii)	Patch repair over Pot holevs with 13.2 mm to 0.09 mm Mix Seal Surfacing (Qty=L*Br*%taken) X 1.25	Sqm	2	164.06	371.40	60932.81
5	15.3(iii)	Patch repair over bituminous surface with Surface Dressing (Qty=L*Br*%taken) X 1.25	Sqm	2	164.06	0.00	0.00
6	15.6	Maintenance of Earthen Drains	M	-	0.00	3.99	0.00
7	15.7 (i)	Maintenance of C/D Works (Hume Pipe Culvert)	No.	-	3.00	1577.08	4731.24
8	15.7 (ii)	Maintenance of C/D Works (Slab Culvert)	No.	-	2.00	3202.21	6404.42
9	15.9	Maintenance of Road signs	Km	-	1.96	1447.13	2836.37
10	15.11	Maintenance of 200 m and km stones	Km	-	1.96	974.61	1910.24
11	15.12	(I)Cutting of branches of trees and shrubs	No.	-	4.00	162.17	648.68
		(ii) Cutting of shrubs from roadway	No.	-	18.00	9.97	179.46
		(iii) Trimming of grass and weeds	Sqm	-	44.00	3.32	146.08
12	15.13	White washing of parapet walls of CD work and tree trunkcs	Sqm	-	63.00	22.04	1388.52
New	Ref. to MoRTH Spec. 307	Maintenance of Already Planted Trees for additional four Years-Maintenance of trees by the road side (Avenue trees) by mixing the soil with decayed farm yard/sludge manure, watering, fixing the tree guard and maintaining the plants for additional four years.	Each	-	175.00	802.00	140350.00

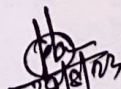
Estimate For Forth Year Maintenance Work

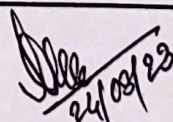
Rs. 528685.96

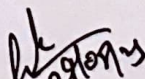
1	15.1	Restoration of Raincuts/Berms with soil.moorum etc(Qty=L*Bs*0.3*%taken) X 1.25	Cum	10.8	178.61	477.89	85353.54
2	15.2	Making up of Berms/shoulder, stripping excess soil from the shoulder surfaces to achieve level etc. (Qty=L*Br*%taken) X 1.25	Sqm	18	992.25	71.08	70529.13
3	15.3 (i)	Repair of Pot holes filled with 75 mm BM X 1.25	Cum	2.5	15.38	13864.29	213244.69
4	15.3(ii)	Patch repair over Pot holevs with 13.2 mm to 0.09 mm Mix Seal Surfacing (Qty=L*Br*%taken) X 1.25	Sqm	2.5	205.08	371.40	76166.02
5	15.3(iii)	Patch repair over bituminous surface with Surface Dressing (Qty=L*Br*%taken) X 1.25	Sqm	2.5	205.08	0.00	0.00
6	15.6	Maintenance of Earthen Drains	M	-	0.00	3.99	0.00
7	15.7 (i)	Maintenance of C/D Works (Hume Pipe Culvert)	No.	-	3.00	1577.08	4731.24
8	15.7 (ii)	Maintenance of C/D Works (Slab Culvert)	No.	-	2.00	3202.21	6404.42
9	15.9	Maintenance of Road signs	Km	0	0.00	1447.13	0.00
10	15.11	Maintenance of 200 m and km stones	Km	0	0.00	974.61	0.00
11	15.12	(I)Cutting of branches of trees and shrubs	No.	-	4.00	162.17	648.68
		(ii) Cutting of shrubs from roadway	No.	-	18.00	9.97	179.46
		(iii) Trimming of grass and weeds	Sqm	-	44.00	3.32	146.08
12	15.13	White washing of parapet walls of CD work and tree trunkcs	Sqm	-	63.00	22.04	1388.52
13	10.8	Road Marking with Hot Applied Thermoplastic Compound with Reflectorising Glass Beads on Bituminous Surface	Sqm		350.00	663.72	232302.00
14	10.8	Road Marking with Hot Applied Thermoplastic Compound with Reflectorising Glass Beads on Rigid Surface	Sqm		42.00	663.72	27876.24
New	Ref. to MoRTH Spec. 307	Maintenance of Already Planted Trees for additional four Years-Maintenance of trees by the road side (Avenue trees) by mixing the soil with decayed farm yard/sludge manure, watering, fixing the tree guard and maintaining the plants for additional four years.	Each	-	175.00	802.00	140350.00

Estimate For Fifth Year Maintenance Work

Rs. 859320.02


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