Attachment-1

Brief note on Project Development Proposal

Name of Project Road Section- *"Rehabilitation and Up-gradation of Amravati-Nandgaon-Morshi-Warud-Pandhurna National Highway from existing km 95+670 (on 140+200 NH-53, Nandgaon) to km 52+440 (Morshi) [Design km.0.00 to km. 43.00] (Package-I) and existing km 52+440 (Morshi) to km 0+000 (Maharashtra/Madhya Pradesh State Border upto Wardha River Bridge) [Design km.43.000 to km. 95.390] (Package-II) to Two lane with paved shoulders in the state of Maharashtra on Engineering, Procurement & Construction (EPC) Basis Contract"*.

1. General

Ministry of Road Transport and Highways Government of India, MoRT&H through the Governor of State of Maharashtra acting through the Chief Engineer National Highways (P.W.) Konkan Bhavan Navi Mumbai, has decided to undertake "Consultancy services for preparation of Detailed Project Report of Amravati-Nandgaon-Morshi-Warud-Pandhurna National Highway from Km 0/000 to 100/000 in the State of Maharashtra for up-gradation to Two Lanes with Paved Shoulder/Four lane configurations in the State of Maharashtra upto State border on EPC/PPP Mode, on behalf of MORT&H Govt. of India as per guidelines issued by MORT&H New Delhi.

In this regard for Preparation of Feasibility Study & Detailed Project Report M/s K&J Projects Pvt. Ltd., Nagpur has been awarded the work by the Chief Engineer National Highway (P W) Region Navi Mumbai vide letter no. CENH/D-1/106/2016 dtd.31.05.2016.

The Technical Consultant will prepare the Feasibility Report and Detailed Project Report in accordance with the Terms of Reference specified in Appendix-I (the "TOR). Government of Maharashtra, Public works Department, NH Division had issued Letter of Award vide L. No. CENH/D-1/106/2016 dtd.31.05.2016. The agreement was sign on dt.05.07.2016, Consultant had mobilised staff to site and started field activities accordingly

2. Site Appraisal

The concept of development improvement & construction of the project highway to 2 Lane Carriageway with paved shoulder is for reduction in transport cost, enhanced safety & Level of Service for road users, with superior operation & maintenance enabling enhanced operation efficiency, minimal adverse impact on the local population, minimal adverse impact on environment, minimal land acquisition by appropriate engineering solutions.

The State of Maharashtra is located in West – Central - South Part of India and is surrounded by Gujarat, Madhya Pradesh, Chhattisgarh, Andhra Pradesh, Karnataka, Goa. The Project Road Nandgaon – Morshi – Warud – Pandhurna part of MSH-10 passes entirely through Amravati District of Maharashtra State.

The existing length of NH as per TOR is 100.00 km. Project road stretch starts from Km. 0.000 (Nandgaon) Y Junction with NH-53 (NH-6 old) and ends at Km. 95.670 (Maharashtra/MP State Border, near Wardha River) of this NH.

However, the existing MSH 10 start from km. 0.000 (Maharashtra/MP State Border, near Wardha River) and ends at Km. 95.670 (Nandgaon) Y Junction with NH-53 (NH-6 old) . The location of the Project Road lies between Latitude 21°59'25" N and 20°93'74"N & Longitude 78°52'92" E and 77°77'96" E.

3. Benefits of the Project

The existing Major State Highway (MSH 10) Amravati Nandgaon Morshi Warud Pandhurna connects two National Highways i.e. NH 53 Hawarah – Raipur - Nagpur to Mumbai / Gujrat & NH 47 Nagpur – Saoner- Obedullaganj National Highway

This Major State Highway No.10 is a link for interstate connectivity of Maharashtra & Madhya Pradesh State. It will also connect Capital of Madhya Pradesh & Chindwara districts of Madhya Pradesh.

The MSH 10 carries significant commercial Traffic. The present average traffic is 5358 PCU. The proposed alignment is a key route for the commercial vehicles plying between Maharashtra & Madhya Pradesh. It also carries the International Tourists to Melghat Tiger Reserve National Park / Pachmarhi Hill Station in M.P. There is existing Soffia Power Plant near Wagholi along the project road. Further Govt of Maharahstra has declared MIDC, Amravati which is situated adjacent of project road as Textile Zone. Many textile industries are coming up in the Textile zone. Therefore, proposed alignment will be important shorter route for the commercial and tourists vehicles from Maharashtra & MP. The traffic is also expected to be induced by a significant number and it will be attracted towards this road after completion of this project. Therefore, up gradation of existing two lane MSH 10 to two lane road with paved shoulders National Highway Standard is very much beneficial.

The project will have multiple benefits as it will provide all weather high speed National Highway. The road is a key artery connecting with shortest and fastest distance for commuter traveling between Amravati (Maharashtra) & Pandhurna (Madhya Pradesh).

More specifically, the project will:-

a. Enhance the road condition and user safety.

a. Increase travel speeds, and reduce travel time, accidents, and vehicle emissions.

b. Ensure more efficient road asset development and management, and higher quality of construction and maintenance, resulting in decreased recurrent costs over the medium and long term.

c. Accelerate the social and economic development in the state through improves access to socioeconomic services, increase employment opportunities, and improve transport services.

d. Better approach to Medical & Educational services and quick transportation of perishable goods like fruits, vegetables and dairy products.

4. Improvement Proposal

The development proposal divided into Phases with Phase Development & in Construction packages:

PHASE I

a. Construction Package I : km 95+670 to km 52+440 – Nandgaon to Morshi, Length = 43.230 km
b. Construction Package II : km 52+440 to km 0+000 – Morshi to Maharashtra/Madhya Pradesh State Border upto Wardha River Bridge, Length = 52.440 km

PHASE II

c. Construction Package III : New Construction of Morshi & Warud Bypass

At present the department has decided to start executing project with PHASE I, Construction Package I & II: km 95+670 to km 52+440 – Nandgaon to Morshi, Length = 43.230 km & from km 52+440 to km

0+000 – Morshi to Maharashtra/Madhya Pradesh State Border upto Wardha River Bridge, Length = 52.440 km

5. Scope of Work

a. Under Construction Package I : km 95+670 to km 52+440 – Nandgaon to Morshi, Length = 43.230 km

Table 1: Physical Scope

Sr. No.	Silent Features		Scope for Proposed Improvement	
1)	Total Length		43.000 Km. (Two Lane carriageway with 2 X 1.5m paved shoulder and Four Lane carriageway with 2 x 1.5m Paved shoulders with drain and Footpath in built-up sections)	
2)	4 Lane Road		5.500 Km	
3)	2 Lane Road		37.500 Km	
4)	Service/Slip Road		2.400 Km (Linear Length)	
5)	Bypass		NIL	
6)	Realignment		1.70 Km (2 Lane 1.40 km, 4 Lane 0.30 km)	
7)	Drainage		13.400 Km (Linear) for 1.50m wide drain RCC drain with Footpath and 0.40 Km (Linear) wide open drain at cut portion.	
8)	Intersection		36 Nos. (03 No. Major & 33 No. Minor)	
9)	Strengthening		Nil	
10)	Reconstruction		40.10 Km	
11)	Raising		1.20 Km	
12)	New Construction		1.70 Km	
13)	Crust Design		Main Carriageway PQC 280 mm DLC 150 mm GSB 200 mm Total 630mm	Service/Slip Road BC 40 mm DBM 60 mm WMM 250mm GSB 200 mm Total 550mm
14)	Structure -			
i)	Major Bridges	New Construction - Reconstruction- Widening - Retained/Repair -	NIL 2 Nos. NIL NIL	
ii)	Minor Bridges	New Construction– Reconstruction- Retained/Repair - Widening	NIL 10 Nos. 05 Nos. NIL	
iii)	Slab / Box Culverts	New Construction – Reconstruction- Retained/Repair - Widening -	NIL 06 Nos. 01 No. NIL	
iv)	H.P. Culvert	New Construction –	Nil.	

Sr. No.	Silent Features		Scope for Proposed Improvement
		Reconstruction- Retained/Repair – Widening – At Junction –	41 Nos. Nil. NIL 46 Nos.
v)	Grade Separators	New Construction -	01 No. (2 Lane)
vi)	VUP	New Construction -	01 No. (4 Lane)
vii)	PUP	New Construction -	NIL
viii)	ROB / RUB	Retained -	RUB-1 No.
15)	Toll Plaza		1 No. (At Km 30.480)
16)	Truck Lay bay		1 No. (At Km 30.920)
17)	Bus Bay/ Bus Shelter		02 nos. B/s - Bus bay with bus shelter 15 nos. O/s - Bus bay with bus shelter 07 nos. B/s Bus shelter 05 nos. O/s Bus shelter
18)	Utility Service Pipe		100 nos. (Utility pipe in C.C. Pipe – 600mm @ 500.00m c/c for rural & @ 200.00m c/c for urban length of project road across road width) along with 12.200 km Utility Duct of 600mm dia.
19)	Over Head Portal		4 No. (Overhead Sign gantry) 7 No. (cantilever Sign gantry)
20)	Metal Beam Crash Barrier		24.730 Km
21)	Steel Railing		15.150 Km (Linear)
22)	PCC Retaining Wall		2.250 Km
23)	Road Furniture		43.000 Km.
24)	Traffic signage for road safety		43.000 Km.
25)	Shifting of Electric/Telephone Poles, Water Pipeline		As per requirement
26)	Horticulture		Work related to the greening of National Highway (1 % of Civil cost)
27)	Street Lighting		Street Lighting at Four lane & Underpass section and High mast light at Major Junction Locations

b. Scope of Work

Under construction Package II : km 52+440 to km 0+000 – Morshi to Maharashtra/Madhya Pradesh State Border upto Wardha River Bridge, Length = 52.440 km

Table 2 :Physical Scope

Sr. No.	Silent Features	Scope for Proposed Improvement
1)	Total Length	52.390 Km. (Two Lane carriageway with 2 X 1.5m paved shoulder and Four Lane carriageway with 2 x 1.5m Paved shoulders with drain and Footpath in built-up sections)
2)	4 Lane Road	8.800 Km
3)	2 Lane Road	43.590 Km
4)	Service/Slip Road	NIL
5)	Bypass	NIL
6)	Realignment	3.840 Km (2 Lane)

Sr. No.	Silent Features		Scope for Proposed Improvement	
7)	Drainage		17.600 Km (Linear) for 1.50m wide drain RCC drain with Footpath and 3.760 Km (Linear) wide open drain at cut portion.	
8)	Intersection		36 Nos. (05 No. Major & 31 No. Minor)	
9)	Strengthening		Nil	
10)	Reconstruction		44.970 Km	
11)	Raising		3.580 Km	
12)	New Construction		3.840 Km	
13)	Crust Design		Main Carriageway PQC 280 mm DLC 150 mm GSB 200 mm Total 630mm	Service/Slip Road BC 40 mm DBM 60 mm WMM 250mm GSB 200 mm Total 550mm
14)	Structure -			
i)	Major Bridges	New Construction - Reconstruction- Widening - Retained/Repair -	01 No. NIL NIL NIL	
ii)	Minor Bridges	New Construction– Reconstruction- Retained/Repair - Widening	01 No. 12 Nos. 14 Nos. NIL	
iii)	Slab / Box Culverts	New Construction – Reconstruction- Retained/Repair - Widening -	NIL 08 Nos. 06 No. 01 No.	
iv)	H.P. Culvert	New Construction – Reconstruction- Retained/Repair – Widening – At Junction –	NIL 56 Nos. NIL. NIL 42 Nos.	
v)	Flyovers	New Construction -	NIL	
vi)	VUP	New Construction -	NIL	
vii)	PUP	New Construction -	NIL	
viii)	ROB / RUB	Retained -	ROB -1 No.	
15)	Toll Plaza		1 No. (At Km 85.380)	
16)	Truck Lay bay		1 No. (At Km 86.020)	
17)	Bus Bay/ Bus Shelter		04 nos. B/s - Bus bay with bus shelter 18 nos. O/s - Bus bay with bus shelter 08 nos. B/s - Bus shelter 06 no. O/s- Bus shelter	
18)	Utility Service Pipe		131 nos. (Utility pipe in C.C. Pipe – 600mm @ 500.00m c/c for rural & @ 200.00m c/c for urban length of project road across road width) along with 17.600 km Utility Duct of 600mm dia.	
19)	Over Head Portal		4 No. (Overhead Sign gantry) 5 No. (cantilever Sign gantry)	
20)	Metal Beam Crash Barrier		14.390 Km	

Sr. No.	Silent Features	Scope for Proposed Improvement
21)	Steel Railing	24.76 Km (Linear)
22)	PCC Retaining Wall	1.800 Km
23)	Road Furniture	52.390 Km.
24)	Traffic signage for road safety	52.390 Km.
25)	Shifting of Electric/Telephone Poles, Water Pipeline	As per requirement
26)	Horticulture	Work related to the greening of National Highway (1 % of Civil cost)
27)	Street Lighting	Street Lighting at Four lane section and High mast light at Major Junction Locations

Date

Place: -

Executive Engineer
National Highway Division
Akola, Maharashtra

Executive Engineer
National Highway Division
Akola

Signature & Seal