

**Four laning of Kothi-Satna- Maihar Section of NH 135BG from km 55.000 to km 76.960 (Package-II) and km 80.800 to km 119.535 (Package-III) under Bharatmala Pariyojana in the State of Madhya Pradesh**

**Brief Summary of Project**

- (i) Government of India has declared new National Highway (**NH-135BG**) vide Gazette Notification S.O. 3807(E) dated 5<sup>th</sup> December 2017. NH-135BG starts from its junction with NH-35 (old NH-76) near Chitrakoot in the State of Uttar Pradesh connecting Majhgawa, Satna and terminating at its junction with NH-30 (old NH-7) near Maihar in the State of Madhya Pradesh. Total length of the existing road is 121.350 km. The project road is part of the newly declared NH-135BG from Kothi to Maihar in the State of Madhya Pradesh.
- (ii) **Proposal:** The proposed project is the 4 laning of Kothi – Satna – Maihar Section of NH 135BG which includes Kothi to Satna (Package-II: design Ch. 55+000 to 76+960) section of 21.960 km and Satna to Maihar Section (Package-III: design Ch. 80+800 to 119+535) section of 38.735 km under Bharatmala Pariyojana Phase-I. The total length of the existing road is 64.763 Km and design length is **60.695 km**.
- (iii) **Location:** The proposed project road originates from design Km 55+000 i.e. near Kothi village and ends at design Km 119+535 on NH-7 near Maihar in State of Madhya Pradesh. The proposed alignment is passing through 3 talukas (Raghuraj Nagar, Uchehara & Maihar) and 42 villages (9 villages in Raghuraj Nagar Taluka, 23 villages in Uchehara Taluka & 10 villages of Maihar Taluka) of Satna district in the state of Madhya Pradesh.
- (iv) **Land Acquisition and RoW:** Total land acquisition for the proposed project is **285.139 ha**, out of which 15.496 ha is government land and 269.643 ha is private land. The existing RoW varies between 15 m to 30 m and **Proposed ROW** shall be **70 meter** in general. At location of major & minor junction, bus bays, truck lay bye, toll plaza, way side amenities, entry & exit of VUP / Flyovers and interchange, extra land to be provided in addition to above mentioned ROW as per the actual Design requirement.
- (v) **Land Use of the Site and around the site up to 10 km radius:** The alignment is passing through plain terrain. The predominant land use along the alignment is agricultural followed by residential & commercial and mix land use.
- (vi) **Proposed Bypasses & Realignment:** Bypass / realignment has been proposed at 3 locations – a) Realignment from design Ch. 70+300 to Ch. 72+480 (2.180 km), b) Satna bypass from design Ch. 75+900 to 76+960 (1.160 km) and c) greenfield alignment from Satna to Maihar from design Ch. 80+800 to 119+535 (38.735 km) is proposed
- (vii) **Justification for selection of the site:** Along the existing road in Khuja village, there are graveyards close to existing road on both sides. Considering the sentiment of local villagers, a small realignment has been proposed for a length of 2.15km (design chainage Km 70+300 to Km 72+480). Then the alignment follows the existing road upto Satna (Junction with NH 39). Within Satna municipality, the existing road crosses NH 39 (old NH 75), West Central Railway line and there are 4 right angle junctions. In addition to these junctions, there are about 12 sub-standard curves which required improvement. The clearance between the building lines is about 15m. The existing road crosses the railway line with RUB having clearance of about 4m. Improvement along existing as per IRC codal provision may not be feasible and will involve large scale demolition of structures. Hence to avoid these hindrances for improvement a bypass option

has been proposed using the existing under construction bypass on West- North quadrant of MPRDC and then the alignment of existing ring road on West- south quadrant which joins the existing project road near Satna River. The bypass for NH39 (MPRDC) will be used as common section for a length of about 2.84 km and existing ring road for a length of 6.2 km.

At Uchahera, improvement along existing road will involve acquisition of additional land which concluded to demolition of structures. There are about 570 private structures including 6 religious structures along the road. Beyond Uchahera, the existing road is running parallel to railway line up to end point (Maihar). At some location the railway line is about 25m from the project road. At the end point before joins with NH 30 (Old NH 7) the existing road passes through congested market area of Maihar town. There are about 6 sub-standard curves having least value of 10m which required improvement. The clearance between the building lines is about 20m. Improvement along existing as per IRC codal provision may not be feasible and will involve large scale demolition of structures at Maihar. Considering the above facts, a combined green field alignment has been proposed from Satna to Maihar.

- (viii) **Widening Details:** Greenfield alignment (38.735 km), Bypass (1.16 km), Realignment (2.13 km), Eccentric Widening (16.14 km) and Curve Improvement (2.53 km)
- (ix) **Proposed development:**
- **Bridge & Culverts:** 3 major bridges, 12 minor bridges and 110 culverts
  - **Interchange:** connecting with MPRDC Bypass at Ch. 76+960 & 80+800 and with NH-7 at Ch. 119+535
  - **Flyover & VUP:** 2 Flyovers; 2 Vehicular Underpasses; 12 Light Vehicular Underpasses, 7 Small Vehicular over bridge
  - **ROB:** 6-lane ROB at Ch. 76+820 and Ch. 104+660
  - **Junction:** 22 major junctions and 20 minor junctions
  - **Slip Roads:** 10.25 km on left side and 9.88 km on right side
  - **Wayside Amenity:** at Ch. 62+550 on RHS
  - **Toll Plaza:** 1 toll plaza at Ch. 109+100
  - **Truck Lay Bye:** at 2 locations (Design Ch. 103+820 and 103+990)
  - **Bus Bys:** at 34 Locations
- (x) **Estimated Project Cost:** estimated project cost is Rs. 1,581.15 Crore.
- (xi) **Diversion of Forest Land:** No diversion of forest land
- (xii) **National Park/ Wildlife Sanctuary & Eco-Sensitive Zone in 10 km radius:** There are **NO** National Park, Wildlife Sanctuary, Eco-Sensitive Zone within 10 km radius of the proposed project road. Eco-sensitive Zone boundary of Ranipur Wildlife Sanctuary is located at a distance of **approx.14.3 km** from the start point (design Ck. 55+000) of the project road.
- (xiii) **Whether the project is in Critically Polluted area:** No
- (xiv) **Water Bodies, diversion if any:** The proposed alignment is crossing Satna River at Ch. 85+550, Barua Nala at Ch. 106+750 and Patan Nala at Ch. 114+250.
- (xv) **Terrain, level with respect to MSL, requirement of filling if any:** The alignment is mainly passing through plain terrain with elevation ranges from 318m to 339m AMSL.

(xvi) **Tree cutting, types, number, girth size etc.:**

**Tentative Number of Trees to be felled along existing Road**

Existing Chainage (Km)	Design Ch. (Km) & Package	Girth Size wise Number of Trees					Major Species
		30 to 60 cm	60 to 90 cm	90 to 180 cm	>180 cm	Total	
56+600 to 121+300	55+000 to 76+960 (Pkg-II)	725	134	78	61	998	Sal, Sagaun, Peepal, Shisham, Mango, Neem, Jamun etc.
	80+800 to 119+535 (Pkg-III)	228	120	69	65	482	
<b>Grand Total</b>		<b>953</b>	<b>254</b>	<b>147</b>	<b>126</b>	<b>1,480</b>	

Actual numbers of government and private trees are to be felled can be ascertained after completion of Joint Measurement Survey (JMS) with appropriate authorities. The details will be provided in the EIA Report.

- (xvii) **Rehabilitation involved, if any:** Initial enumeration reveals an impact on approx. 141 properties in Package-II and 17 properties in Package-III (Private, Religious, Community and Government). Actual details will be provided in the EIA Report.
- (xviii) **Water Requirement, source, status of clearance:** Total water requirement for 24 months of construction period is 15,25,000 KL (2,542 KLD). It would be sourced from surface (40%) and ground water (60%). The required permission will be obtained by the Contractor prior to construction as per law.
- (xix) **Material Requirement:** 3.77 lakh MT Cement, 15,77,000 cum Aggregate, 10,50,000 Sand, 7,000 MT Bitumen, 10,800 KL Diesel, 45,50,000 cum Earth material is estimated to be required for construction of the proposed project road. The construction material will be sourced from government approved quarries and borrow areas identified along the proposed project road.
- (xx) **Utilization of Fly Ash:** There are three Thermal Power Plants (TPPs) within 300 km of the proposed project road. Fly ash from the above mentioned TPPs will be utilized for construction of road embankment as per IRC Guidelines (IRC:SP:58-2001). Total Quantity of fly ash requirement in Package-II and Package-III is 20,81,656 cum
- (xxi) **Court cases if any:** No.
- (xxii) **Employment potential:** Approx. 400 during construction phase of 24 months and approx. 120 during operation phase.
- (xxiii) **Benefits of the project:** Proposed project will Improved road network benefiting the local people & tourist; reduce the travel time, distance as well as transportation cost; boost socio-economic and tourism development along the project road; income of vulnerable and poor people will be increased; increase possibility of employment of semi-skilled and unskilled people living along the project road and its adjoining villages during the construction and operational period; will provide better driving conditions and road safety

Name of the Consultant: **Intercontinental Consultants and Technocrats Pvt. Ltd., New Delhi**

Sl. No. in QCI's List of Accredited EIA Consultant Organization: (17<sup>th</sup> December 2018): **89**