



*Project Note.*

# **PROJECT NOTE**

By the Project Authority

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**Name of the Project:** Rehabilitation and Up-gradation of Malkapur - Buldana - Chikhli -Deulgaonraja - Jalna NH-753-A Road, Section-I, Chikhali to Takarkhed Bhagile Km 68.900 to Km 108.500 And Section-II, Takarkhed Bhagile to Jalna, km 108+500 to km 153+160 to Four lane with paved shoulder in the State of Maharashtra.

## **1.0 GENERAL**

1.1 With the growth of urban centre and the economic activities around the focal points, the demand for inter-urban transportation has been increasing steadily in India. To cope with this ever-increasing demand 4 laning of several National Highway have been undertaken in various phases under National Highway Division for safe, economic and fast travel.

1.2 Considering the ever-increasing traffic demand on major link roads This link is beneficial for exchange of traffic from one highway to another highway. As it acts as North-South Corridor in Maharashtra etc.

The project road starts from Malkapur at Y-Junction (Major Junction on NH-6) at Km 0.0 (20.903186°Latitude), (76.204513°Longitudes) and ends at Jalna (Nagpur-Aurangabad-Mumbai Highway SH-30) at 155.110 Km (19.850728° Latitude) (75.864388° Longitudes). Project road divided into three section As per NH-PWD annual maintenance plan 2016-17 for Existing alignment of Deulgaon Raja Bypass from existing km 124.450(PWD km 121.700) to km 128.900 (PWD km 128.800) (Design Chainage from km 122+600 to km 127+000) has been already approved and fund had already been sanctioned to NH-PWD for construction of the same. The Project Road Malkapur-Buldana-Chikhali-Deulgaonraja-Jalna (Aurangabad) Road is

situated in eastern part of Maharashtra State having a total existing length 155.110 Kms and design length 153.160 Kms. The project road section between Malkapur and Jalna has been divided into following traffic homogeneous sections:

## **2.0 DESIGN STANDARDS**

2.1 The following standards for some major design elements of the proposed road, generally conforming to the internationally accepted standards for highway on similar terrain and traffic conditions were recommended by Consultants and were accepted by the National Highway Division.

### **2.2. Roads**

The proposal for the Rehabilitation and Up-gradation of Malkapur - Buldana - Chikhli -Deulgaonraja - Jalna NH-753-A Road, Section-I, Chikhali to Takarkhed Bhagile Km 68.900 to Km 108.500 And Section-II, Takarkhed Bhagile to Jalna, km 108+500 to km 153+160 to Four lane with paved shoulder in the State of Maharashtra with bridges for 4 lanning are provided in Table 2.1

**Table 2.1 Improvement Proposals**

| <b>Sr. No.</b> | <b>Design Elements</b>    | <b>Proposed Features</b> |
|----------------|---------------------------|--------------------------|
| 1              | Design speed              | 80 Km/h                  |
| 2              | Right of way (m)          | As per ROW –30 mtr.      |
| 3              | Carriageway width         | 15.00 m.                 |
| 4              | Paved Shoulder (m)        | 1.500                    |
| 5              | Earthen Shoulder (m)      | 1.0m.                    |
| 6              | Edge Strip (m)            | 1.00 m.                  |
| 7              | Median (m)                | 1.20 m.                  |
| 8              | Lane width                | 3.50 m.                  |
| 9              | Longitudinal Gradient (%) | 1:60 min.                |
|                | Ruling                    | 1 : 30                   |
|                | Absolute                  | 1 : 20                   |

|    |                         |        |
|----|-------------------------|--------|
|    | Minimum                 | 1 : 20 |
| 10 | Cambers                 | 2.0%   |
| 11 | Length of Service roads | Nil    |
| 12 | Bus Bays                | Nil    |
| 13 | Truck lay byes          | Nil    |

## **B. Bridge and Culverts**

The improvement proposal for bridges and structures essentially consists of two components

- Up gradation of project corridor by provision of new bridges and structures to accommodate projected traffic.
- Widening / rehabilitation / replacing the bridges and structures on existing road.

The numbers of Bridges/Flyovers/CD structures proposed for the project is presented in the table -2.2

**Table 2.2 Proposed Bridges, Flyovers & CD structures**

| <b>Sr. No.</b> | <b>Structures</b>                     | <b>Nos.</b> |
|----------------|---------------------------------------|-------------|
| 1              | No. of Major bridges                  | 01 Nos.     |
| 2              | No. of Minor bridges                  | 16 Nos.     |
| 3              | Flyover/ROB                           | Nil         |
| 4              | Vehicular underpass                   | 02 Nos.     |
| 5              | Pedestrian underpass                  | Nil         |
| 6              | Cattle/underpass                      | Nil         |
| 7              | Foot Over Bridges                     | Nil         |
| 8              | Culverts<br>(Widening/rehabilitation) | 74 Nos.     |

Widening/rehabilitation of bridges and structures on existing road

- The existing minor bridges on the existing road required to be repaired/ rehabilitated/ widened/ replaced to cater for safe movement of present day traffic and traffic expected in future.
- The repair/rehabilitation for existing bridges is proposed as contained in IRC SP on Techniques for strengthening of bridges.

### **2.3 Road Alignment**

The project road starts from Malkapur at Y-Junction (Major Junction on NH-6) at Km 0.0 (20.903186°Latitude), (76.204513°Longitudes) and ends at Jalna (Nagpur-Aurangabad-Mumbai Highway SH-30) at 155.110 Km (19.850728° Latitude) (75.864388° Longitudes).

### **2.4 Existing ROW/Land width**

The objectives of the proposal project is to improve the existing road to standard 4 lanes depending upon the growth of vehicular traffic, proposed road development requires various studies such as traffic, terrain ribbon development, need for alternative alignments, bypass, service road for urban/built-up areas and flyover/interchanges and widening of major as well as minor bridges and CD structures etc.

### **2.5 Proposed ROW**

In general, right of way (ROW) of 30mtr is required for the widening to 4 lanes of project road. This required additional land acquisition where ROW is other than specified location where geometric improvement requires additional lanes; additional land width will be required.

### **2.6 Lane Configuration**

Based on the traffic survey, analysis and forest the 4-lane configuration is sufficient to cater to the traffic up to year 2040.

### **2.7 Financial Details**

- |                                   |               |
|-----------------------------------|---------------|
| • The capital cost of the project | 811.00 Crores |
| • Construction period             | 24 Months     |

Date: - 02/04/2019

Place: - Akola.

  
(R. B. Zalte)

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