Project Justification

INTRODUCTION

Government of India has decided to develop ~42,000 km of Economic Corridors, Inter Corridors and Feeder Routes to improve the efficiency of freight movement in India under the Bharatmala Pariyojana. One of the projects of the Bharatmala Pariyojana is Delhi-Mumbai Greenfield Highway *via* Sohna, Alwar, Dausa, Sawai Madhopur, Kota, Ratlam and Vadodara.

The proposed project is development of 8 lanes (Greenfield Highway) from Firozpur Jhirka (Ch. 79+394) to Itawa (Ch. 284+000) Section of NH-148 N (Total length 204.606 km), Under Bharatmala Priyojana Lot-4/Pkg-4 in the state of Rajasthan

Proposed Greenfield Highway is notified as National Highway 148N by MoRTH Gazette notification S.O. 1842(E) dated 8th May, 2018.

PROJECT JUSTIFICATION

The proposed project is a part of the proposed 8-lane access-controlled Greenfield Delhi-Mumbai highway corridor (~1,335 km) interlinking different State & National highways while connecting Delhi to Mumbai. The project is planned as an ambitious high-speed corridor which provides high speed connectivity between states of North India and states of West & South India, more importantly giving a reliable access to the country's prominent economic and social hubs like Mumbai, Delhi, Vadodara, Jaipur etc.

The proposed highway will provide better connectivity to several towns and cities viz. Gurgaon, Alwar, Dausa, Sawai Madhopur, Tonk, Bundi, Kota, Jaora, Ratlam etc. and give an infrastructure fillip to the states of Delhi, Haryana, Rajasthan, Gujarat, Madhya Pradesh and Maharashtra. The highway will be access-controlled and ensure high speed traffic movement from Delhi to Mumbai. The proposed alignment is selected so as to cover one of the most important North-South arterial connectivity in the country, further interspersed with feeder highways on its either sides.

At present, the connectivity between Delhi and Mumbai is either via NH-48 or via NH-19 & NH-47, which are 4/6 lane. The new proposed highway shall bring down the travel distance by approximately 95 Km (as compared to alternate routes) and result in time savings of over 2-3 hours. Moreover, the new highway facility is access controlled and hence will provide good riding quality, better safety and a reliable infrastructure. All of these elements will result in cost savings and efficiency improvement.

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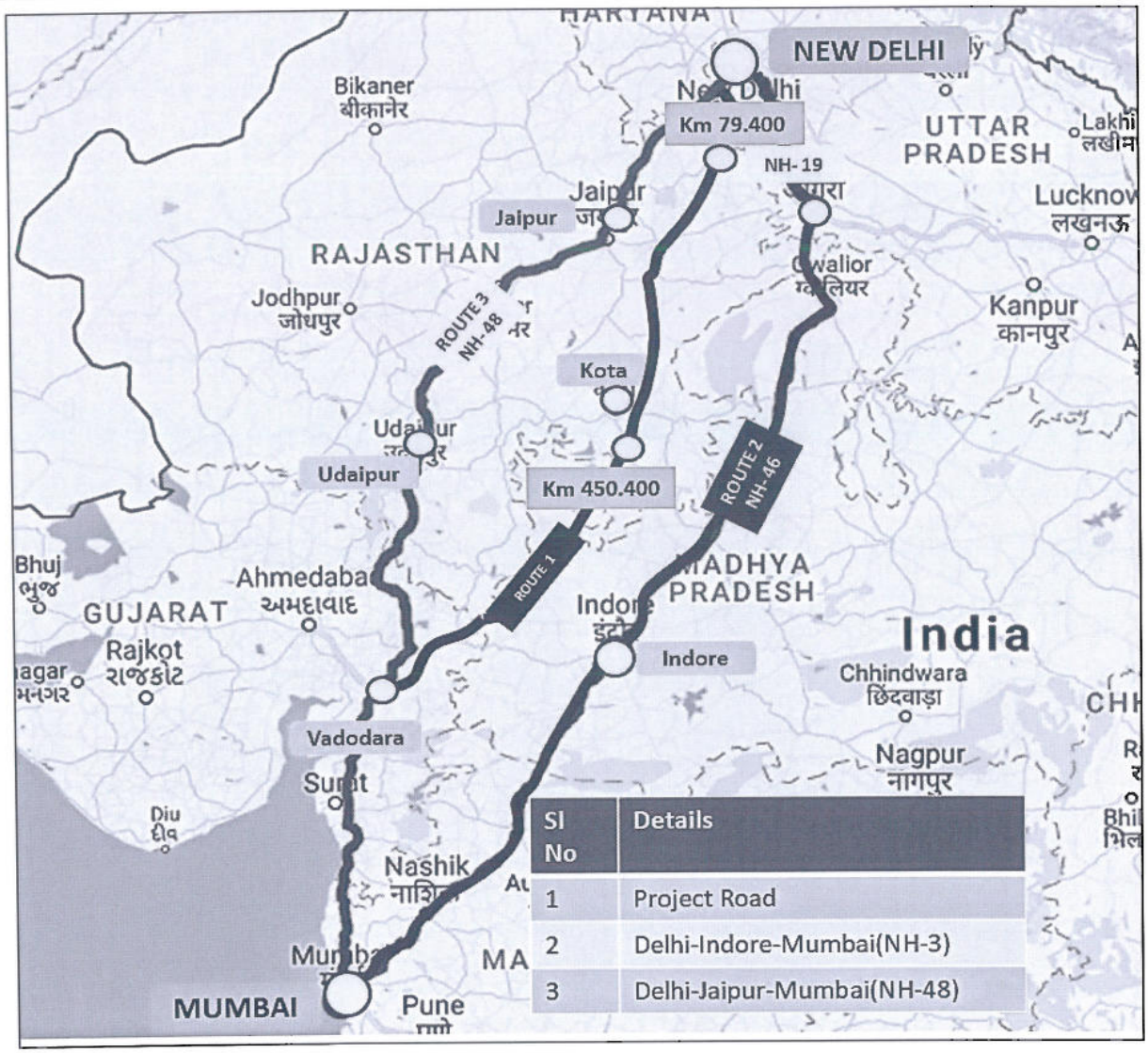

Route map of proposed Project vs. existing road network

The Project will further have following benefits at national and regional level:

- **High-speed connectivity and access:** The projected corridor is a proposed 8-lane, access-controlled highway. This will avoid traffic congestion and speed-up the freight movement. It is expected that overall, the proposed Delhi-Mumbai corridor will reduce the travel time between the two economic hubs by half.
- **Aiding economic growth:** The seamless connectivity will provide better access to vehicles as a link to the National Highways. The Project will reduce travel time and provide boost to trade and commerce linked to the regions connected through this highway.
- **Growth of backward areas:** The biggest strength of the alignment is that it plans to cover backward districts of Rajasthan. As a result of connectivity and access to other parts of the country, these backward areas will be aided to integrate with other part of

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India. Further, freight and passenger traffic on the highway will help promoting ancillary economy of these regions.

- **Decongestion of existing National and State Highways:** The proposed corridor will take away traffic pressures from existing SH and NH passing through various cities. Also, long-distance traffic will shift to the proposed highway, thereby leaving the NH and SH for regional and local usage.
- **Usage shift:** Long-distance traffic will shift from existing National Highways to the proposed highway, resulting in lesser congestion on these highways
- **Improved safety**: Due to access control, the Roadway & Travel Safety of the traffic connecting the cities will be enhanced as there will be minimum distractions & conflict zones
- **Support to industry:** Different types of industries like Manufacturing, Tourism etc. along the proposed corridor will be facilitated in their business operation and reachability.

Following major types of traffic load is expected on the Project:

Commercial and Industrial: Traffic on the existing roads is driven by local, commercial and industrial traffic. Industries such as cement, chemicals and minerals are present along and around the proposed corridor as it traverses through Haryana, Rajasthan, Madhya Pradesh and Gujarat. These industries are expected to benefit from the highway.

Tourist: Passenger traffic will be generated due to many places of tourist interest in the districts connected by the project corridor. Apart from places of historical importance such as forts and palaces, traffic would be augmented due to several famous religious places such as the Mehandipur Balaji Temple (Dausa) and wildlife parks and safari like Ranthambore National Park and Tiger Reserve.

Health and Education: Faster connectivity and accessibility to Delhi NCR will help in higher flow of traffic from Rajasthan, especially for higher education, tertiary healthcare and specialized treatments. Reduction in travel time will allow patients to avail OPD / other medical services from the capital region.

ALIGNMENT FIXING CRITERIAS

Indicators used for fixing of the alignment are as follows.

1. The Greenfield alignment between two terminal stations should be short and straight as far as possible, but due to engineering, social and environmental considerations some deviations may be required.

2. The project should be constructible and easy to maintain; the Greenfield project should reduce the vehicle operation cost with respect to the existing option already available *i.e.* using the NH/SHs in combination to reach from point A to point B.

3. It should be safe at all stages i.e. during design, construction and operation stages. Safety audits at each stage should confirm the same.

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4. The project initial cost, maintenance cost, and operating cost should be optimum so as to be considered economical with respect to its options.

5. The Greenfield alignment should be finalised giving due consideration to siting / location of major structures including Major / Minor Bridges, Interchanges and ROBs. The space requirement of interchanges should be kept into consideration to avoid major resettlement.

6. Tunnel / Box cutting of Hills should be considered as the last option and should be provided only when it is absolutely necessary.

7. The location of spurs for connecting the important towns to be decided while fixing the alignment Options.

8. The alignment should follow the unused / barren land to the extent possible to reduce the cost of land acquisition.

9. The proposed options in the present case connects the under developed regions of the state which would lead to the development of new growth centres along the proposed highway i.e. paving the way for economic development of the region.

Obligatory points through which Greenfield alignment options should not pass are detailed below:

Habitations: Proposed alignment is fixed in such a way that traverses at a minimum distance of 150m from built up areas and avoiding important buildings and structures. However, few isolated buildings falling along the alignment can't be avoided due to Geometric needs.

Wildlife Sanctuaries, National Parks, Reserve Forest and other Eco Sensitive Zones: Utmost care is taken while fixing the alignment near wildlife sanctuaries and national parks. The MOEF&CC guidelines have been adhered to and the alignment has been fixed keeping it away from WLS, and Tiger Reserves. It was not possible to completely avoid the protected and forest areas. However, every effort has been made to reduce the acquisition of forest area.

Water Bodies: The Greenfield alignment has been fixed taking due consideration & importance of retaining the existing water bodies as far as feasible.

Railway Crossings and Important Structures: The components which increases the project cost are the presence of the Major bridges, ROBs and other structures. In order to reduce the project cost number of structures and its length were given due consideration while finalising the Greenfield Option.

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