

Diversion of 7.2834 hac. of Forest Land for Rehabilitation and Upgradation to Four Lane Configuration and Strengthening of Sihuni to Rajol (Package IIA) from KM 51.00 to KM 72.00 (Design Length of 18.450 km) of NH 20 (New NH 154) of Pathankot Mandi Section in the State of Himachal Pradesh

FILE NO. : FP/HP/Road/152261/2022

DATE OF PROPOSAL : 15.07.2022

CHECK LIST SERIAL NUMBER: - 3

DETAIL NOTE ON THE PROJECT

1. INTRODUCTION:

The National Highways Authority of India (NHAI) under Ministry of Road Transport & Highways, Government of India has decided to take up the up-gradation of existing NH-20 from Sihuni to Rajol (Package IIA) from Km 51.00 to Km 72.00 (Design Length 18.450 km) of NH-20 (New NH-154) in the state of Himachal Pradesh. It is worthwhile to mention here that the Package is a part of the project road which is a major link for the movement of traffic from the Pathankot (Punjab) to Centre City of Mandi as well as tourist destination of Kangra/Dharmshala. Also, it is strategically important route from defence point of view as it connects the international boundaries.

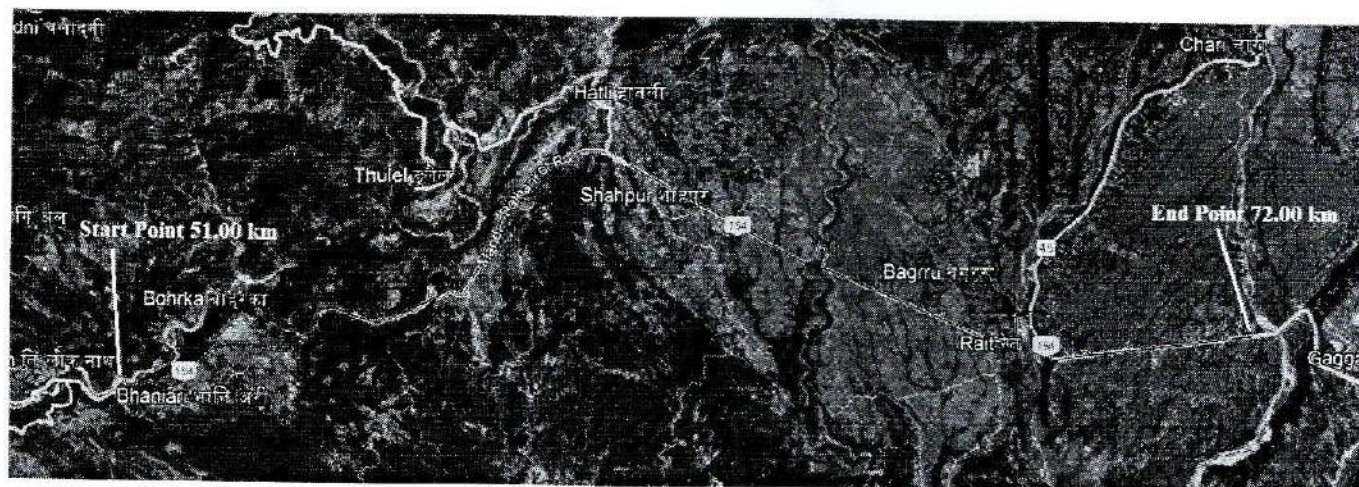
2. DESCRIPTION OF THE PROJECT ROAD:

Package-IIA starts from the Sihuni and ends at Rajol in Kangra District in the state of Himachal Pradesh. The major built-up sections along the Project Road is Dramman, Shahpur, Rait and Rajol, a brief description of the project road w.r.t environmental aspects is given in Table below:

Table 1. Project description at glance

Total Length (Km)	18.450
Project Districts	Kangra & Chamba
Terrain	Plain, Rolling, Hilly & Steep
Protected Monument with 300 m of the Project Road	NIL
Name of the protected Area within 10 km of project Road (Buffer Zone)	NIL

The Project Route (Package-IIA), Location map is given in Fig.1 below:



3. EXISTING FEATURES:

The existing features of the project road is presented in Table 2.

Table 2: Existing Features of the Project Road

Carriageway	2 Lane
No. of Major Bridges	2
No. of Minor Bridges	9 Nos
Railway Level Crossing	Nil
Road Under Bridges (RUB)/Road Over Bridges (ROB)/Underpasses (VUP)	3
No. of Culverts	113 No.
Bus Bays	1 No.
Truck Lay Bays	1 No.
Major Junctions	3 No. (VUP)
Minor Junctions	Nil
Existing Bypass	NIL

4. TRAFFIC STUDY ON THE PROJECT ROAD

The details of traffic on the Package IIA are given in Table 3 below:

Table 3: Traffic on the Package IIA

Sr.	Package No.	Chainage	Base year Traffic (2017) AADT (PCU)	Traffic in Year 2022
1	Homogenous section (Sihuni-Rajol)	Existing Km 21.00	10890	13822

5. IMPROVEMENT PROPOSAL

The existing Traffic on the project road justifies the requirement of 4-laning of the Project Road Section. The Project Road is proposed to be widened/re-constructed to 4-lane along with the proposed of bypass & Realignment. The salient characteristics of this Package is given in Table 4 below:

Table 4: Salient Characteristics of the Package

Item	
Design Length	18.450 Km
Grade Separators/VUP/LVUP	3 No,
Major Bridge	2 No.
Minor Bridge	09 Nos
Culverts (Widening/Re-construction/New-Construction)	113 Nos
ROB/RUB	Nil
Toll Plaza	Nil
Type of Pavement	Flexible.
Number of Bypass	1 No
Tunnel	NIL

6. PROPOSED RIGHT OF WAY (PROW)

Proposed ROW of construction zones is tabulated below, in Table 5:

Details of Proposed Right of Way

S. No	Design Chainage (Km)		Design Length (Km)	Proposed ROW(m)
	From	To		
1.	51+000	53+200	1.615	45
2.	53+200	53+820	0.620	35.5
3.	53+820	57+820	3.415	40
4.	57+820	61+980	4.128	35.5
5.	61+980	62+067	0.084	35.5-50
6.	62+067	62+173	0.106	50-48
7.	62+173	62+235	0.062	48-35.5
8.	62+235	62+522	0.287	35.50
9.	62+522	62+597	0.075	35.50-47.6
10.	62+597	62+635	0.038	47.6-48.6
11.	62+635	62+745	0.111	48.6-35.50
12.	62+745	66+545	3.358	35.50
13.	66+545	69+725	2.350	45
14.	69+725	72+000	2.201	35.50
Total			18.450	

7. WIDENING SCHEME

The Project Road in this stretch has been widened with a combination of Concentric and Eccentric along with the proposed of bypass & realignments and the summary of the widening Proposal is indicated in Table 6 below:

Table 6: Summary of Widening Proposal

Package/NH	Widening length in (Km)	Flyover cum ROB (Km.)	Re-alignment Km.)	By-pass (Km.)
2A/NH-154	13.075	Nil	2.975	2.40

8. BYPASSES AND RE-ALIGNMENTS

The Improvement Proposal for the Package-IIA consists of the improvement along the existing Road as indicated in Table 6 above including bypass of Rait and minor re-alignments. The detail of bypass is given in Table-7 below.

Table 7: Bypasses & Other Improvements Along the proposed road.

Section	Design Chainage(Km)		Length (Km)
	From	To	
Rait	61+900	64+300	2.40

9. PROPOSED CULVERTS

Under package-IIAC, the existing project road has 104 culverts most of them are under re-construction due to inadequate width & capacity as per 4L+PS. Also, some culverts are newly proposed due to bypass/re-alignments. The following Table 8 illustrates improvement of existing culverts on design project road alignment.

Table 8: Summary of Culverts

Sr. No	Description	No. of Culverts
1	Retained & widening	NIL
2	Replace & reconstruction	104 Nos
3	Existing Culverts abandoned due re-alignment/by-passes	45 Nos
4	Additional new Culverts	9 Nos
	Total nos of Culverts in the Package	158 Nos

10. PROPOSED BRIDGES

Out of the 06 Nos. existing Minor Bridges and all 6 No. of bridges are proposed to be replaced and Nil number of Existing bridges are proposed to be abandoned due to re-alignment and by-pass. 2 No. of Major Bridges are proposed in the alignment (4 Laning). The details of existing bridges which are proposed to be retained/replaced /abandoned along with newly proposed bridges are given in **Table 9 below**:

Table-9: Summary of Bridges

Items	2/4- Lane Section (Nos.)
Total Number of existing Bridges	06 Nos
Number of existing bridges to be Abandoned	Nil
Number of existing bridges to be replaced with new 4-lane bridges.	06 No
Number of existing bridges to be retained with additional 2 lane bridges	NIL
Number of new 4-lane bridges in replacement of existing bridges.	2 No.
Number of new 4-lane bridges on by-pass/re-alignment.	3 Nos
Number of new 2-lane bridges.	NIL
Number of existing 2-lane bridges retained.	NIL

11. TUNNELS

New Tunnel proposed to be built parallel to existing Tunnel. The details of the Tunnel proposed are tabulated in **Table-9** below:

Table 9: Details of Proposed Tunnels

Sr. No	Design Chainage		Length
	From	To	
	NIL		

12. At-Grade intersection/Grade Separated intersection.

- a. Major Intersections : NIL
- b. Minor Intersections : NIL
- c. VUP/LVUP/SVUP/VOP : 3 No.
- d. Flyover cum ROB : NIL
- e. RUB : NIL

13. Road Side Drain:

KC Drain and Box drain have been proposed considering the site conditions as well as storm water discharge.

14. Other Amenities

- Bus bays including Passenger shelters : 09 Nos
- Toll Plaza : Nil
- Truck Lay Bys : 01 No.
- Passenger Wayside Amenity : Nil

15. ENVIRONMENTAL CONSIDERATIONS

Statutory Requirements:

a) Environment Clearance:

The project does not require prior environment clearance from the Ministry of Environment, Forest and Climate Change as per the EIA notification Amendment dated 22nd August, 2013.

b) Forest Clearance:

Diversion of 7.2834 Ha. Forest Land has been processed for Stage-I Clearance for the project Rehabilitation and Upgradation to Four Lane configuration & Strengthening of Sihuni to Rajol (Package IIA) from Km 51.00 to Km 72.00 (Design Length 18.450 km) of NH-20 (New NH-154) of Pathankot-Mandi Section in the state of Himachal Pradesh.

c) Wildlife Clearance .:

The project corridor does not pass through any Wildlife Sanctuary/National Park etc., Hence, Wildlife clearance as per Wildlife (Protection) Act, 1972 and Amendments is not required.

Environmental Impacts & their Mitigation.

The proposed project will have impacts on environment during the construction and operation phases. The negative impacts can be reduced or minimized only if proper safeguards are put in place during the design and construction stage itself. These can include reducing pollutant discharge from the harmful activities at source or protecting the sensitive receptor. Mitigation measures to the anticipated impacts have been worked out to minimize any adverse impacts on the various environmental and social components.

To mitigate the impact on forests, following measures have been proposed:

Compensatory afforestation will be carried out as per Himachal Pradesh Forest department norms and cost towards CA and NPV of diverted forest land will be paid by NHAI. Green belt development plan has been prepared for the project road in which avenue and median plantation have been proposed.

16. COST ESTIMATE OF THE PROJECT


The details of cost estimate are given in Table-10


Table-10: Total Civil and Project Cost.

Sr. No	Component of Costs	Cost (INR) in Crores
1	Civil Cost without GST	Rs 401.586
2	Civil Cost/Km	21.77 Cr./Km
3	Total project Costs	Rs 637.617
4	Total project Cost/Km	34.56 Cr./Km

The project would have lot of long term direct and indirect advantages. Hence the project is requested to be considered.

Place : Palampur
Date : 26-01-2023


Divisional Forest Officer
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