

PROJECT REPORT AND TYPICAL CROSS SECTION (TCS)

1. Following is the salient features of the project:

	Name of Project	Widening /strengthening/ Up-gradation to two lane with paved shoulder from existing chainage km 250+600 to 275+000 (Wajwana, - Talwara - Banswara) section of NH-927A in the State of Rajasthan on EPC mode. (Package-VI)
1.	Length of the project	24.400 Km
2.	Major Bridges	1 Nos. (New Construction)
3.	Minor Bridges	1 Nos. (Reconstruction)
4.	Culverts (Pipe & Box)	(7+26)=33 Nos.
5.	CUP	Nil
6.	VUP	1 Nos.
7.	LVUP	Nil
8.	ROB	Nil
9.	Major & Minor Road Junctions	(1+13)=14 Nos.
10.	Toll Plaza	1 No.

2. Improvement Proposals:

Keeping in view the length of the project, the design parameters and likely facilities to be provided in the project, the NH Division had submitted the Estimate. It is proposed to have flexible pavement for 2 lane carriageway including paved shoulders for this project package. Based on Engineering Surveys, Investigations, Traffic analysis and projections the following design standards have been adopted as per Manual of specifications and standards for 2-laning of Highways with paved shoulder(IRC:SP;73-2015)published by IRC.


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Sr. No.	Item	Standards for Plain / Rolling Terrain
1.	Design Speed	80- 100 Kmph
2.	Land width in open / Built-up Area	30 /25m
3.	Width of Carriageway	7 m
4.	Paved Shoulder	1.5 m both side
5.	Unpaved shoulder	1 m both side
6.	Camber / Cross fall	
i.	Carriageway & Paved Shoulder (Rigid Pavement)	2.5 %
ii.	Earthen Shoulder	3 %
7.	Total Pavement thickness in mm	570

3. Last Treatment & DLP: Being new declared NH, so no DLP for entire stretch.

4. Scope of work: Broadly the Scope of work is defined as under:

(A) Main Carriageway:

(i) Crust Composition (Flexible Pavement):- The overlay has been designed as per guidelines given in IRC: 81:1997.

a. BC - 40 mm thick for overlay

(ii) Crust Composition (Flexible Pavement): The composition of flexible pavement on realignment section has been designed as per guidelines given in IRC : 37:2012, considering CBR of subgrade as 9%, & 24 msa traffic:

- a. GSB - 200 mm thick
- b. WMM - 250 mm thick
- c. DBM - 80 mm thick
- d. BC - 40 mm thick

(B) Length of main carriageway is 23.88 Kms. of comprising of

- Overlay - 11.03 Kms
- Widening & Reconstruction - 13.37 Kms
- Total - 24.40 kms**

(C) Junction Improvements

- Major Junctions - 1 Nos.
- Minor Junction - 13 Nos

(D) Bridges -

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- Major Bridges - 1 Nos.

S.No	Pro. Ch.	Proposal	Pro. Type	Pro. Size
1	253+327	New	Major Bridge	4x20m

- Minor Bridges - 1 Nos.

S.No	Pro. Ch.	Proposal	Pro. Type	Pro. Size
1	252+429	Reconstruction	Minor Bridge	3x8.0m

- (E) VUP - 1 Nos.**

S.No	Pro. Ch.	Proposal	Pro. Size
1	256+687	New Construction	1x12.0m

- (F) VOP - Nil**

- G) LVUP - Nil**

- (H) ROB - Nil**

- (I) CUP - Nil**

- (J) Culverts - 33 Nos.**

S.No	Type of Culvert	Widening	Reconstruction	New Construction	Total
1	Pipe Culvert	5	2	-	7
2	Box Culvert	8	18	-	26
3	Slab Culvert	-	-	-	-
Total Culvert					33

- (K) Toll Plaza - 1 No @ Km 254+700 (Design chainage) as per IRC: SP:37**

- (L) Traffic Control Devices, Road Safety Work and Road Furniture** as per provision of manual have also been taken.

- (M) Miscellaneous Work**-The provision of slope and shoulder protection, high embankment protection, utility ducts, RCC cover drains with footpath in built up section have also been taken.


- (N) Project Facilities**-The provision of project facilities in accordance to requirement of manual such as


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- (i) Toll Plaza
- (ii) Truck lay-bye
- (iii) Rest Area
- (iv) Road Boundary, Km and 200 m stones
- (v) Street lighting in habitation, toll plaza, Truck lay-bye and structure approaches.
- (vi) Bus Bay with Shelter (4 Nos.)

(O) Safety and Traffic Management during Construction-The provision of traffic management as per clause 112 of Ministry specification during construction shall be maintained by the EPC contractor.

(P) Utility Shifting:-As there is Electricity poles are at some places and water supply line at few point found in between ROW to be shifted.


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