



**Ministry of Road Transport & Highways
Government of India**

&

**PUBLIC WORKS DEPARTMENT, (NH ZONE)
KARNATAKA STATE**

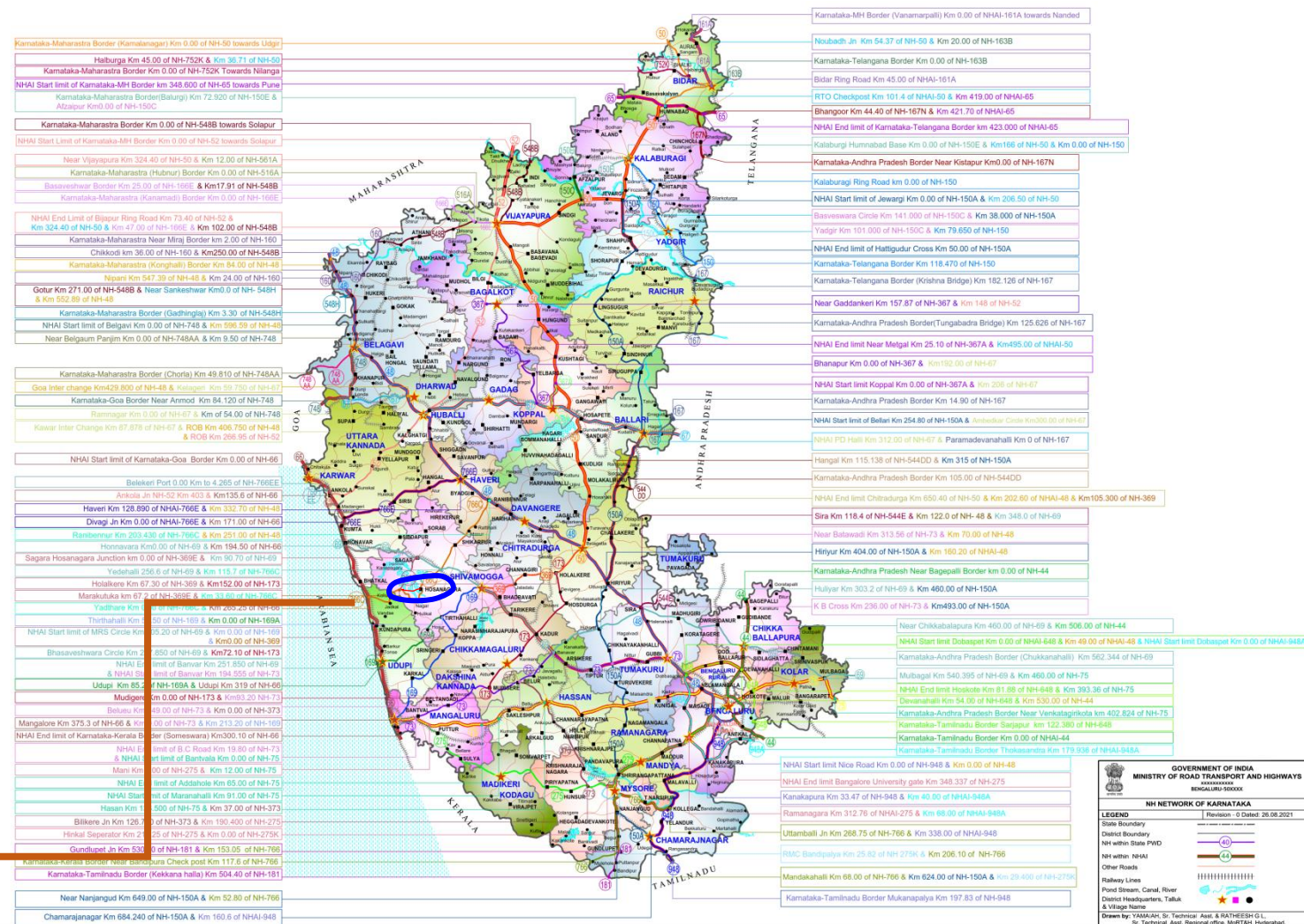
**RE-ALIGNMENT REPORT NH-766C FROM KM 55.6 (ADAGODI) TO
90.7 (MAVINAKOPPA-HOSANAGARA)**

Realignment to NH 766C

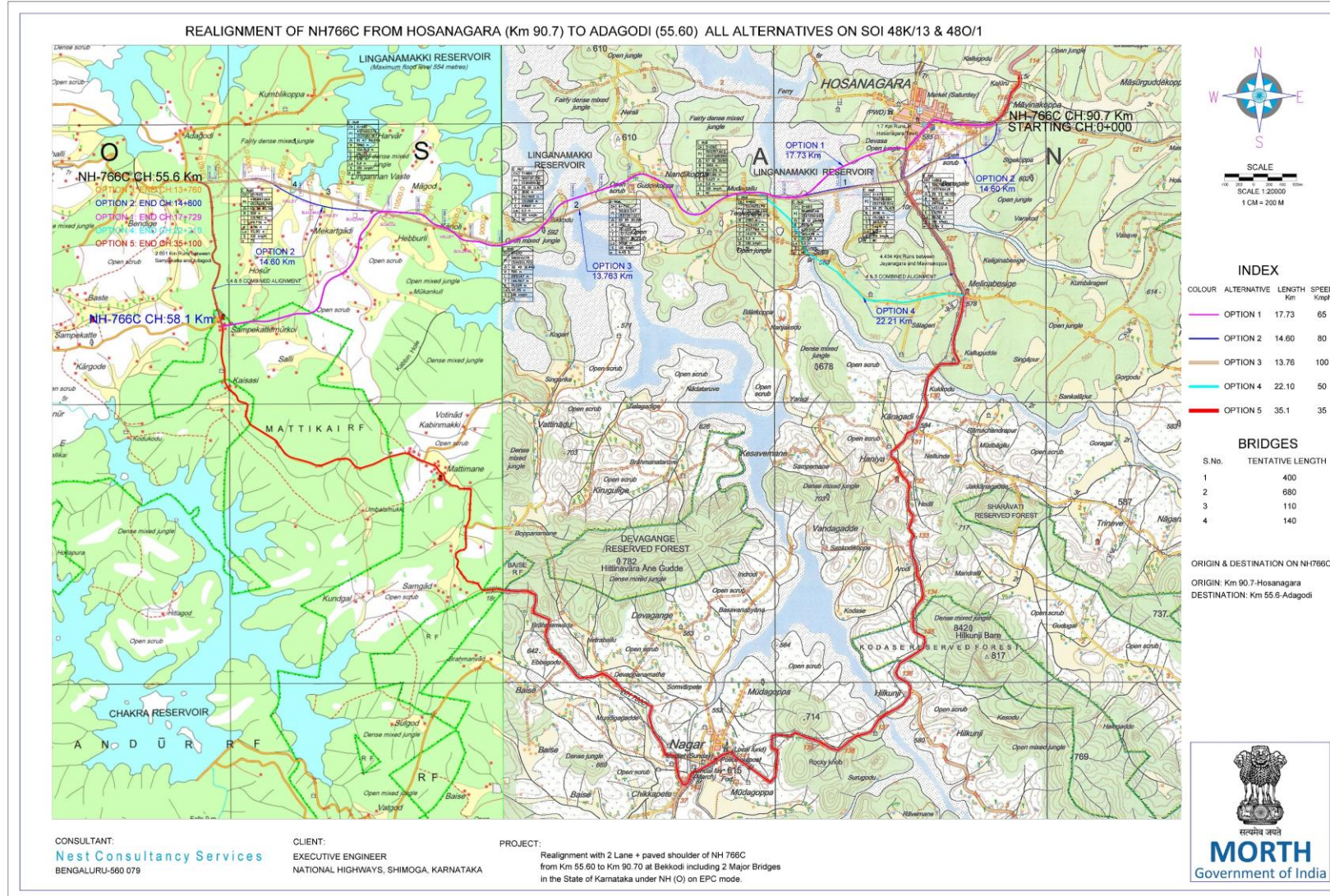
Introduction

- The NH 766C road which originates at Byndur (at NH 66) and passes through the famous temple town Kollur which hosts the deity Mookambika, and important towns Hosanagara, Anandpura, Shikaripura, Masur, Rattehalli and terminates at Rane bennur (at NH 48) with a total length of 203 km. This is an important Highway of Karnataka state connects Coastal and Malnad region from North and Interior Karnataka.
- Existing Alignment from km 55.60 to 90.70 from Aduvodi to Mavina koppa passes through villages Sampekatte, Matthimane, Nagara, Arodi, Jayanagara & Hosanagara with a length of 35.10 km runs in Steep/Hilly and rolling terrains with a huge number of Horizontal and Vertical curves and too steep gradients.
- The realignment which was studied with several options and finally conclude that Realignment of this highway with a length of 13.763 km with a design speed of 100 kmph will be the best option of realignment to save a length of about 22 km and Journey time is reduced to 10 min from 1 hour. Road safety also increases due to avoidance of existing black spots.

Location Map of NH 766C



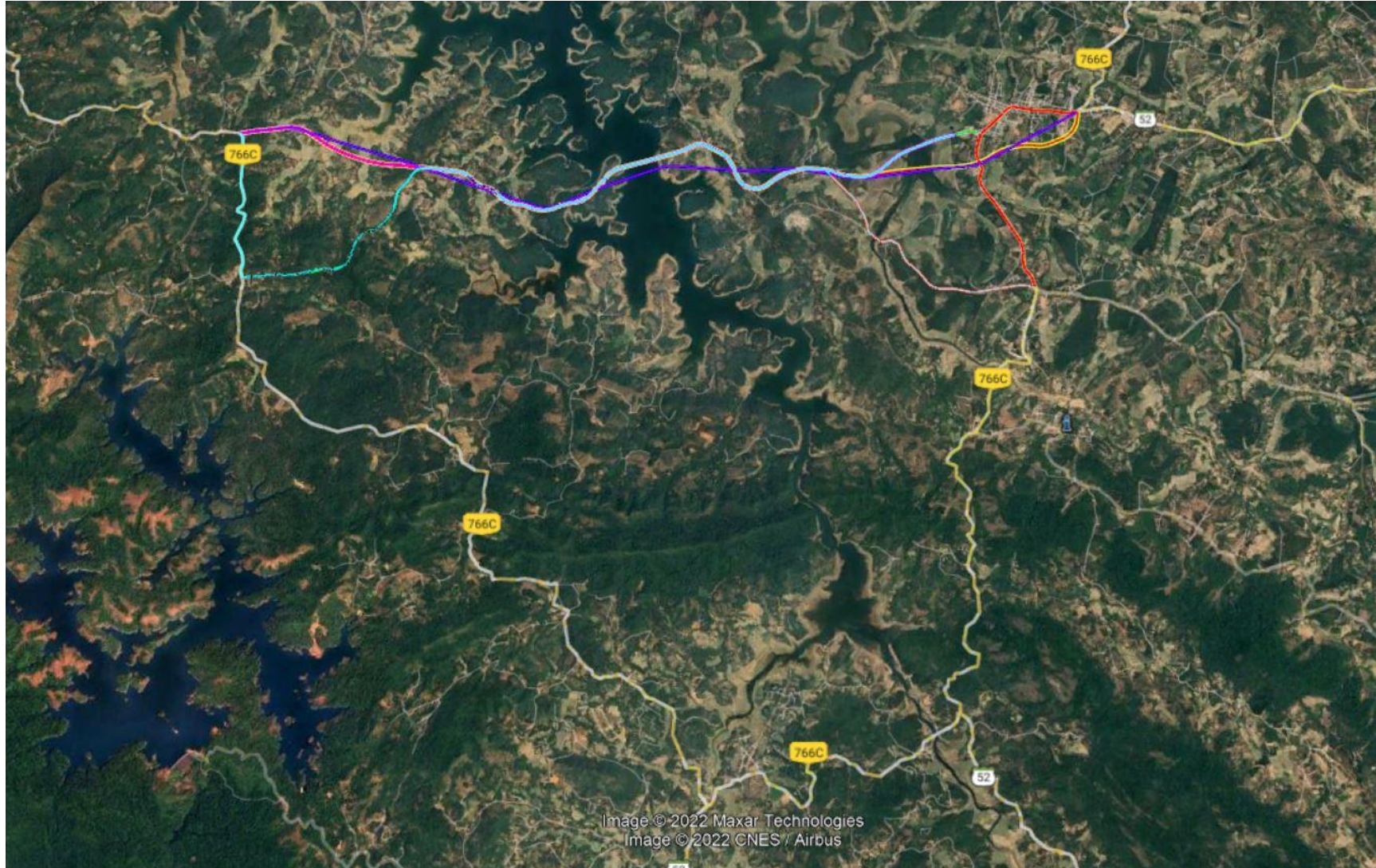
RE-ALIGNMENT OPTIONS ON TOPO SHEETS



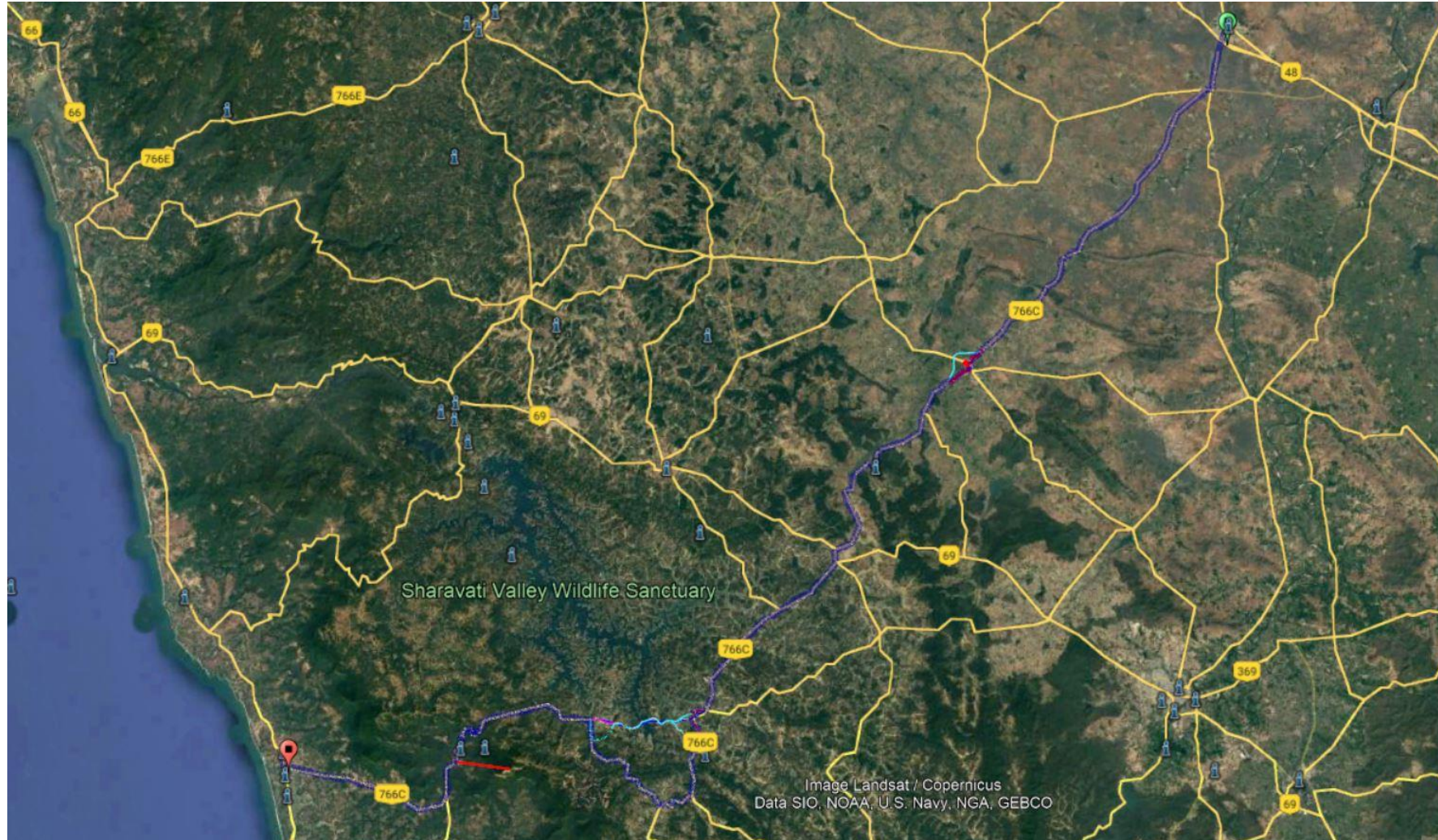
RE-ALIGNMENT OPTIONS ON SATELLITE IMAGERY



RE-ALIGNMENT OPTIONS WITH EXISTING CIRCUTOUS ROAD



BEKKODI REALIGNMENT WITH ENTIRE 766C



Need for the Re-alignment

- The NH 766C Byndoor to Rane bennur is an important Highway of Karnataka state which connects Malnad and Coastal region from Northern portions of Karnataka with a length of 203 km. This Highway from Km 55.6 to Km 90.7 (35.1Km) having an Intermediate lane where the traffic of about 12500 PCU and runs most of its length in Hilly Terrain with more than 215 nos of horizontal curves and huge nos of Vertical curves with a gradient up to 10 % in many places, this reach of highway need to be widened with rectification of geometry of this road or realignment for this road. by construction of 4 major bridges for the back water of Sharavathi . This realignment of road reduces the length of about 22 km and this alignment has design for a speed of 100 km per hour with a length of 13.7 km. .
- The existing alignment examined for widening with rectification of Geometry of road and cost of widening for 2L+PS in this reach of 35.10 km length (414.59 cr) has comparatively too high with cost of realignment from Adagodi (Km 55.6) to Hosanagara-Mavinakoppa (Km 90.7) with a length of 13.723 km including construction of 4 major Bridges with a cost of Rs 228.75 cr.
- The journey in the existing alignment is too hectic and unsafe due to its bad geometry and steep gradients this road consumes about 01 hour to cover this length of 35.10 km. The proposed alignment designed for a speed of 100km / hour which will cover the safe journey in 10 minutes. This realignment saves the fuel, time and maintenance cost of road etc.,
- The proposed Re alignment runs as green field alignment where about 70 % of land belongs to State Government departments, KPC, Forest and revenue.

Salient Features of Option-1 alignment

Description	Remarks
Start and End	Ch. 0+000 to Ch. 18+450
Length of Alignment	18.450 Km
Length bypassed	16.65 Km
Built-ups	Sampakatte (750m) & Hosangara (1700m)
Carriageway Configuration	Two- lane with Paved Shoulders
Design Speed	65 Kmph
Proposed RoW	30 m
Structures	2 Major Bridges, 60 Culverts

Salient Features of Option -2 Alignment

Description	Remarks
Start and End	Ch. 0+000 to Ch. 14+670
Length of Alignment	14.67 Km
Length bypassed	20.43 Km
Carriageway Configuration	Two- lane with Paved Shoulders
Design Speed	80 Kmph
Proposed RoW	30 m
Structures	4 Major Bridges, 45 Culverts

Salient Features of Option – 3 Alignment-Preferred

Description	Remarks
Start and End	Ch. 0+000 to Ch. 13+763
Length of Alignment	13.763 Km
Length bypassed	21.337 Km
Carriageway Configuration	Two lane with Paved Shoulder
Design Speed	100 Kmph
Proposed RoW	30 m
Structures	4 Major Bridge, 40 Culverts

Salient Features of Option – 4 Alignment

Description	Remarks
Start and End	Ch. 0+000 to Ch. 22+210
Length of Alignment	22.210 Km
Length bypassed	12.89 Km
Built-ups	Jaya nagara (1300 m) Sampakatte (750m) & Hosangara (1700m)
Carriageway Configuration	Two lane with Paved Shoulder
Design Speed	50 Kmph
Proposed RoW	30 m
Structures	2 Major Bridge, 60 Culverts

Salient Features of Option – 5 Existing NH766C

Description	Remarks
Start and End	Ch. 0+000 to Ch. 35+10
Length of Alignment	35.100 Km
Length bypassed	0.00 Km
Built-ups	Jaya nagara (1300 m) Sampakatte (750m) & Hosangara (1700m), Nagara (2000m), Various other Built up of 2750m, Put together 8500m of Bult up on LHS & RHS.
Carriageway Configuration	Two lane with Paved Shoulder
Design Speed	50 Kmph
Proposed RoW	30 m
Structures	88 Culverts

Photos of site inventory



Photos of site inventory



Photos of site inventory



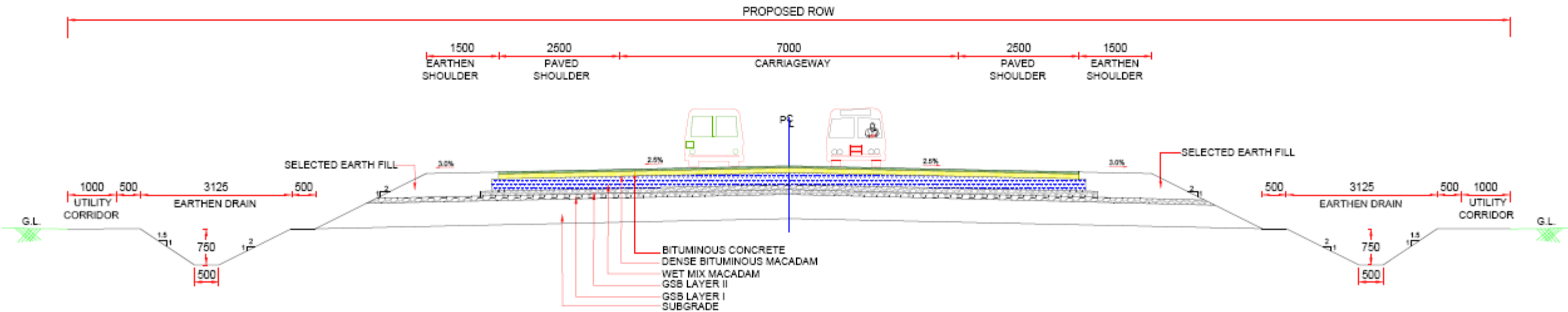
Obstacles to overcome

- The alignment report contains the plan as enclosures/Annexures with curve details. The alignment thoroughly inspected at site and inventory is also been prepared.
- The number of obstacles such as existing poor horizontal alignment & poor vertical profile, water bodies and expensive farming assets have been consciously avoided to bring down the total cost of the project while ensuring the sound geometry to achieve the objectives of providing bypass.
- The following tables provide details of geometry of preferred alignment, the vertical alignment is designed at this stage to have information on type structures to be provided and to optimize the cost and extend land acquisition

Horizontal Alignment Details

Horizontal Alignment Details of Realignment of NH766C from Km 55.6 to Km 90.7														
Sl.No.	HIP Chainage	Easting	Northing	Radius	Hand of Curve	Transition Length	Transition Start	Circular Start	Circular End	Transition End	Speed	Delta	Lc	e
	m			m		m	m	m	m	m	kmph	Degree	m	%
1	1+802.119	506708.435	1537604.18	800	Right	60	1+597.001	1+657.001	1+944.115	1+657.001	100	20 33 46.923	287.114	5.56
2	2+474.208	506038.884	1537517.574	2000	Left	-	-	2+398.180	2+550.163	-	100	04 21 14.415	151.983	NC
3	3+683.568	504852.48	1537282.685	2000	Right	-	-	3+363.090	3+998.642	-	100	18 12 26.048	635.552	NC
4	4+612.447	503925.179	1537396.682	2000	Left	-	-	4+374.723	4+847.950	-	100	13 33 25.079	473.227	NC
5	5+282.126	503257.663	1537320.055	3000	Right	-	-	5+098.267	5+465.526	-	100	07 00 50.921	367.26	NC
6	6+737.850	501801.547	1537327.027	1000	Left	50	6+510.085	6+560.085	6+911.940	6+560.085	100	20 09 35.287	351.855	4.44
7	7+884.172	500737.731	1536890.36	3000	Left	-	-	7+753.104	8+015.073	-	100	05 00 11.673	261.969	NC
8	8+692.225	500014.075	1536531.723	500	Right	95	8+450.657	8+545.657	8+830.804	8+545.657	100	32 40 31.449	285.147	7.00
9	11+105.064	497683.076	1537182.507	5000	Left	-	-	11+026.951	11+183.164	-	100	01 47 24.256	156.213	NC
10	12+945.588	495897.064	1537625.795	500	Left	95	12+790.812	12+885.812	13+004.800	12+885.812	100	13 38 05.760	118.987	7.00

PROPOSED TYPICAL CROSS SECTION



TCS 1 - TWO LANE CARRIAGEWAY WITH PAVED SHOULDER IN RURAL AREA (NEW CONSTRUCTION)

THANKS FOR THE TIME & ATTENTION