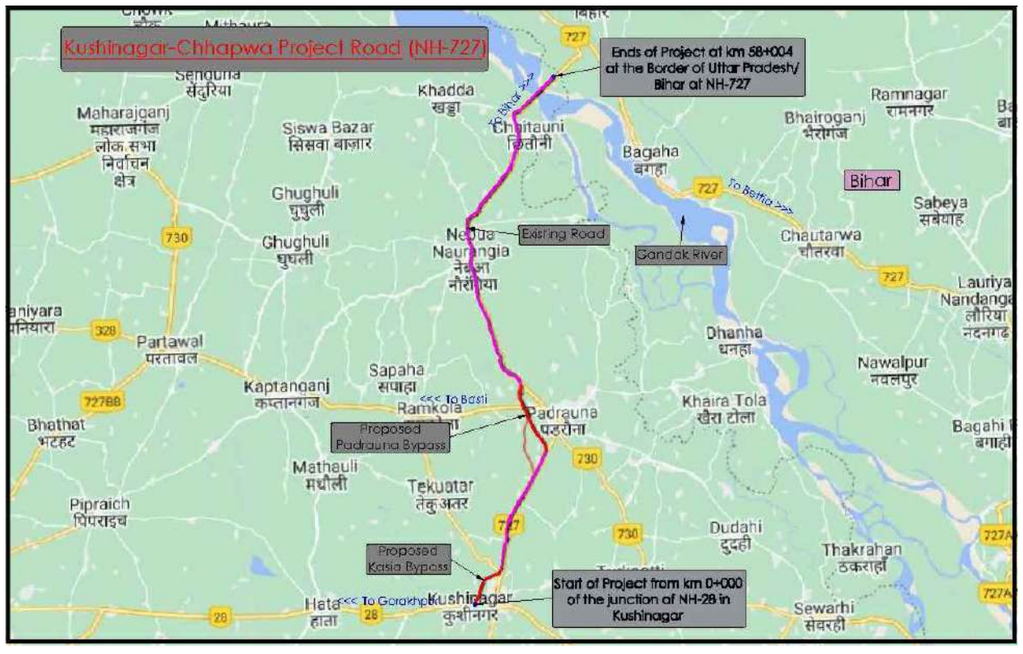
सत्यमेव जयते

MINISTRY OF ROAD TRANSPORT & HIGHWAYS
GOVERNMENT OF INDIA

Construction of Four Laning of NH-727 from Km. 4.115 to km 23.800 i/c Padrauna bypass Two lane with paved shoulder from km 23.800 to km 46.500 along with One time improvement in 28.50 km (km 0.00 to km 4.115, km 46.500 to km 58.004 & project realignment/bypass) on Hybrid Annuity Mode (HAM) basis in the State of Uttar Pradesh.



DETAILED PROJECT REPORT

DRAWING VOLUME

CLIENT:-

सत्यमेव जयते

MINISTRY OF ROAD TRANSPORT & HIGHWAY
GOVERNMENT OF INDIA

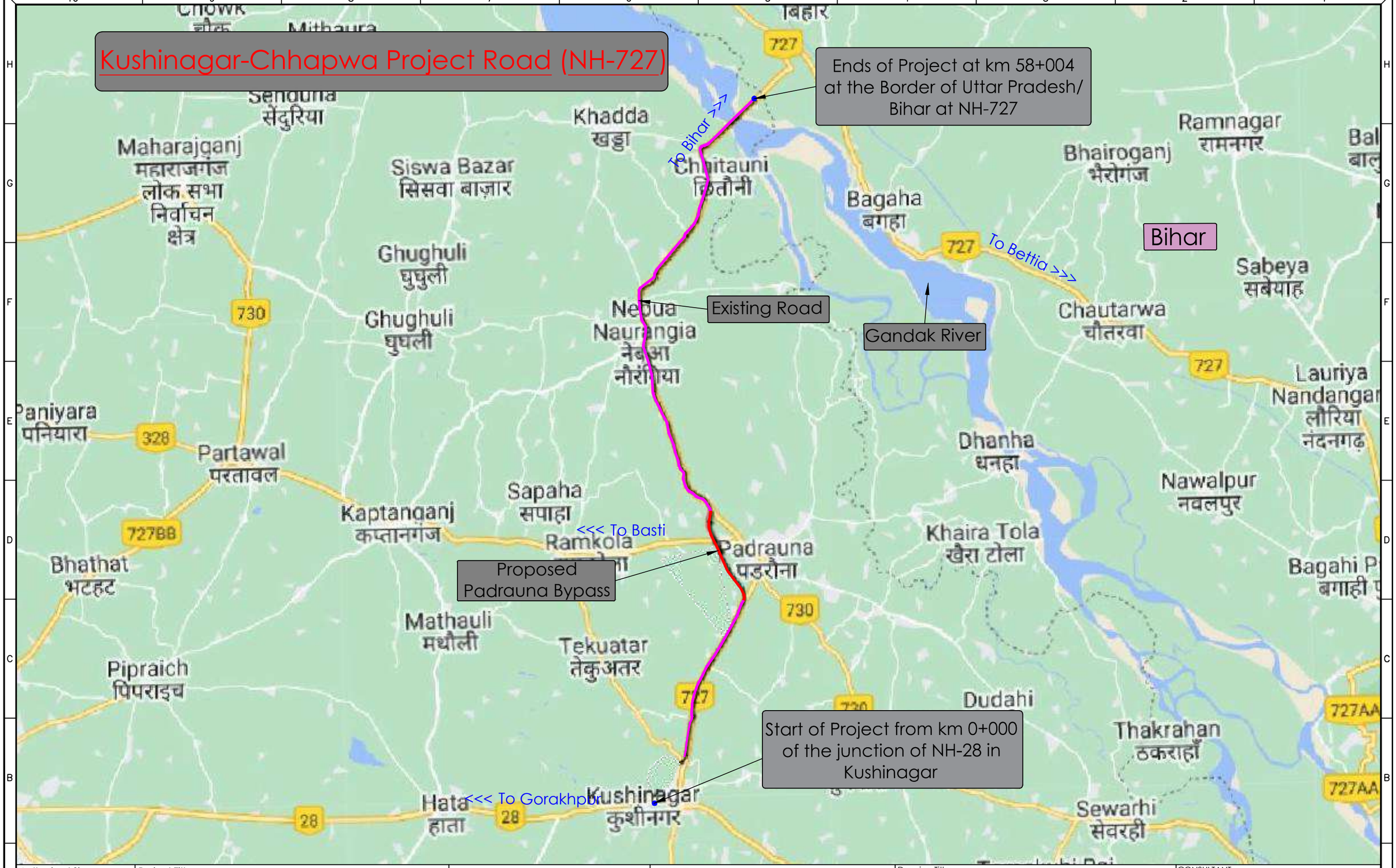
CONSULTANT:-

TASPL

Technocrats Advisory Services Pvt. Ltd.
Flat No 140, Mithila Apartment,76, I.P.Extension
Patparganj, Delhi-110092

KEY PLAN ▶

Kushinagar-Chhapwa Project Road (NH-727)



Authorized Sign Technocrats Advisory Services Private Limited Delhi	Project Title:- Preparation of Detailed Project Report, Pre construction activities and project supervision of 1) preparation of detailed project report of padrauna bypass 4l+ps. 2) completion of pre-construction activities of 4l+ps /2l+ps work of nh-727 from 0.000 to 46.500. 3) project supervision as independent engineer of 4l+ps/2l+ps work of nh-727 from 0.000 to 46.500, for the project national highways in the state of uttar pradesh	DESIGNED BY:- **SOWiL Limited** Goodwill Avenue,1st Floor,"A" Wing Office No.-2, Plot No.- 1 Sector-40, Nerul (west), Navi Mumbay-400706 Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259	CLIENT:- सत्यमेव जयते MINISTRY OF ROAD TRANSPORT & HIGHWAYS	Drawing Title:- Key Plan Drawing No. :- MORTH/TASPL/DPR/KUSHI-CHAP/KP Scale :- 1 Mile OR 1:3960 Drn: DEEPAK; Dgn.: S.B.PANDEY; Appd: S.K.UPADHYAY; Sheet : OF 01
				CONSULTANT:- TASPL Technocrats Advisory Services Pvt. Ltd. Flat No. 140, Mithila Apartment 76 IP Extension Patparganj Delhi-110092

ACTUAL SHEET SIZE – A3

WIDENING SCHEME ▶

Widening Scheme of NH-727

S.NO	FROM (km)	TO (km)	LENGTH (m)	TCS	Type of TCS
1	0+000	4+115	4115	TCS - 15	One time Improvement of existing road in length of 5.3km
2	4+115	6+500	2385	TCS - 6	4-Lane highway without service road with Flush median
3	6+500	6+718	218	TCS - 17	4-Lane highway without service road with Flush median
4	6+718	6+742	024	MNB	Minor bridge
5	6+742	6+900	158	TCS - 17	4-Lane highway without service road with Flush median
6	6+900	8+415	1515	TCS - 6	4-Lane highway without service road with Flush median
7	8+415	9+315	900	TCS - 7	4-lane without service road (Built-Up section)
8	9+315	11+915	2600	TCS - 6	4-Lane highway without service road with depressed median
9	11+915	12+915	1000	TCS - 7	4-lane without service road (Built-Up section)
10	12+915	13+620	705	TCS - 6	4-Lane highway without service road with depressed median
11	13+620	16+753	3133	TCS - 5	4 Lane bypass without service road
12	16+753	16+768	015	TCS - 11	MNB
13	16+768	17+684	916	TCS - 5	4 Lane bypass without service road
14	17+684	17+696	012	TCS - 11	MNB
15	17+696	17+700	004	TCS - 5	4 Lane bypass without service road
16	17+700	18+400	700	Toll Plaza	16 Lane Toll plaza
17	18+400	18+516	116	TCS - 5	4 Lane bypass without service road

Authorized Sign

Technocrats Advisory Services Private Limited Delhi

Project Title:-

Preparation of Detailed Project Report, Pre construction activities and project supervision of 1) preparation of detailed project report of padrauna bypass 4l+ps. 2) completion of pre-construction activities of 4l+ps /2l+ps work of nh-727 from 0.000 to 46.500. 3) project supervision as independent engineer of 4l+ps/2l+ps work of nh-727 from 0.000 to 46.500, for the project national highways in the state of uttar pradesh

DESIGNED BY:-

SOWiL Limited

Goodwill Avenue,1st Floor,"A" Wing Office No.-2, Plot No.- 1 Sector-40, Nerul (west), Navi Mumbay-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

CLIENT:-

सत्यमेव जयते

MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:- Widening Scheme

Drawing No. :- MORTH/TASPL/DPR/PADRAUNA -BYPASS/WS

Scale :- Not to Scale

Drn	Dgn.	Appd	Sheet :
DEEPAK	S.B.PANDEY	S.K.UPADHYAY	01 OF 04

CONSULTANT:-

TASPL

Technocrats Advisory Services Pvt. Ltd.
Flat No. 140, Mithila Apartment 76 IP Extension Patparganj Delhi-110092

ACTUAL SHEET SIZE – A3

Widening Scheme of NH-727

S.NO	FROM (km)	TO (km)	LENGTH (m)	TCS	Type of TCS
18	18+516	18+524	008	TCS - 11	MNB
19	18+524	18+610	086	TCS - 5	4 Lane bypass without service road
20	18+610	19+155	545	TCS - 12	6 - LANE HIGHWAY (APPROACH)
21	19+155	19+545	390	TCS - 11	Major Bridge over Gandak Canal & RoB
22	19+545	20+180	635	TCS - 8	6 Lane grade separated structure with slip road
23	20+180	20+440	260	TCS - 8A	6 Lane grade separated structure with slip road & service road
24	20+440	20+630	190	TCS - 8	6 Lane grade separated structure with slip road
25	20+630	20+690	060	TCS - 13	Grade Separated Structure Vehicular Underpass & Elevated Section
26	20+690	20+803	113	TCS - 8	6 Lane grade separated structure with slip road
27	20+803	20+818	015	TCS - 11	MNB
28	20+818	21+400	582	TCS - 8	6 Lane grade separated structure with slip road
29	21+400	21+951	551	TCS - 12	6 - LANE HIGHWAY (APPROACH)
30	21+951	22+029	078	TCS - 11	ROB
31	22+029	22+530	501	TCS - 12	6 - LANE HIGHWAY (APPROACH)
32	22+530	23+070	540	TCS - 5	4 Lane bypass without service road
33	23+800	24+015	215	TCS - 1A	2-Lane Highway without service road (overlay)
34	24+015	24+815	800	TCS - 4	2-Lane Highway without service road (Built-up Area)
35	24+815	26+000	1185	TCS - 1	2-Lane Highway Without Service Road

Authorized Sign

Technocrats Advisory Services Private Limited Delhi

Project Title:-

Preparation of Detailed Project Report, Pre construction activities and project supervision of 1) preparation of detailed project report of padrauna bypass 4l+ps. 2) completion of pre-construction activities of 4l+ps /2l+ps work of nh-727 from 0.000 to 46.500. 3) project supervision as independent engineer of 4l+ps/2l+ps work of nh-727 from 0.000 to 46.500, for the project national highways in the state of uttar pradesh

DESIGNED BY:-

SOWiL Limited

Goodwill Avenue,1st Floor,"A" Wing Office No.-2, Plot No.- 1 Sector-40, Nerul (west), Navi Mumbay-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

CLIENT:-

सत्यमेव जयते

MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:- Widening Scheme

Drawing No. :- MORTH/TASPL/DPR/PADRAUNA -BYPASS/WS

Scale :- Not to Scale

Drn	Dgn.	Appd	Sheet :
DEEPAK	S.B.PANDEY	S.K.UPADHYAY	02 OF 04

CONSULTANT:-

TASPL

Technocrats Advisory Services Pvt. Ltd.
Flat No. 140, Mithila Apartment 76 IP
Extension Patparganj Delhi-110092

ACTUAL SHEET SIZE – A3

Widening Scheme of NH-727

S.NO	FROM (km)	TO (km)	LENGTH (m)	TCS	Type of TCS
36	26+000	26+500	500	TCS - 2	2-Lane Highway without service road (Built-up Area)
37	26+500	27+100	600	TCS - 1	2-Lane Highway Without Service Road
38	27+100	27+800	700	TCS - 2	2-Lane Highway without service road (Built-up Area)
39	27+800	29+100	1300	TCS - 1	2-Lane Highway Without Service Road
40	29+100	29+650	550	TCS - 4	2-Lane Highway without service road (Built-up Area)
41	29+650	30+150	500	TCS - 4B	2-Lane Highway without service road (Built-up Area)
42	30+150	30+500	350	TCS - 2	2-Lane Highway without service road (Built-up Area)
43	30+500	31+415	915	TCS - 1	2-Lane Highway Without Service Road
44	31+415	32+815	1400	TCS - 4A	2-Lane Highway without service road (overlay) (Built-up Area)
45	32+815	34+000	1185	TCS - 4	2-Lane Highway without service road (Built-up Area)
46	34+000	34+500	500	TCS - 1	2-Lane Highway Without Service Road
47	34+500	36+090	1590	TCS - 4A	2-Lane Highway without service road (overlay) (Built-up Area)
48	36+090	36+200	110	TCS - 4	2-Lane Highway without service road (Built-up Area)
49	36+200	37+600	1400	TCS - 4B	2-Lane Highway without service road (Built-up Area)

Authorized Sign

Technocrats Advisory Services Private Limited Delhi

Project Title:-

Preparation of Detailed Project Report, Pre construction activities and project supervision of 1) preparation of detailed project report of padrauna bypass 4l+ps. 2) completion of pre-construction activities of 4l+ps /2l+ps work of nh-727 from 0.000 to 46.500. 3) project supervision as independent engineer of 4l+ps/2l+ps work of nh-727 from 0.000 to 46.500, for the project national highways in the state of uttar pradesh

DESIGNED BY:-

SOWiL Limited

Goodwill Avenue,1st Floor,"A" Wing Office No.-2, Plot No.- 1 Sector-40, Nerul (west), Navi Mumbay-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

CLIENT:-

सत्यमेव जयते

MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:- Widening Scheme

Drawing No. :- MORTH/TASPL/DPR/PADRAUNA -BYPASS/WS

Scale :- Not to Scale

Drn	Dgn.	Appd	Sheet :
DEEPAK	S.B.PANDEY	S.K.UPADHYAY	03 OF 04

CONSULTANT:-

TASPL

Technocrats Advisory Services Pvt. Ltd.
Flat No. 140, Mithila Apartment 76 IP Extension Patparganj Delhi-110092

ACTUAL SHEET SIZE – A3

Widening Scheme of NH-727

S.NO	FROM (km)	TO (km)	LENGTH (m)	TCS	Type of TCS
50	37+600	38+000	400	TCS - 2	2-Lane Highway without service road (Built-up Area)
51	38+000	38+700	700	TCS - 1A	2-Lane Highway without service road (overlay)
52	38+700	39+000	300	TCS - 2	2-Lane Highway without service road (Built-up Area)
53	39+000	39+800	800	TCS - 1A	2-Lane Highway without service road (overlay)
54	39+800	41+471	1671	TCS - 2	2-Lane Highway without service road (Built-up Area)
55	41+471	42+085	614	TCS - 1	2-Lane Highway Without Service Road
56	42+085	42+669	584	TCS - 3A	2-Lane Highway without service road (Built-up Area)
57	42+669	42+685	016	MNB	Minor Bridge
58	42+685	43+013	328	TCS - 3A	2-Lane Highway without service road (Built-up Area)
59	43+013	43+065	052	TCS - 1A	2-Lane Highway without service road (overlay)
60	43+065	43+615	550	TCS - 3	2-Lane Highway without service road (Built-up Area)
61	43+615	44+340	725	TCS - 1A	2-Lane Highway without service road (overlay)
62	44+340	45+135	795	TCS - 4	2-Lane Highway without service road (Built-up Area)
63	45+135	46+500	1365	TCS - 1	2-Lane Highway Without Service Road
64	46+500	58+004	11504	TCS - 15	One time Improvement

Authorized Sign

Technocrats Advisory Services Private Limited Delhi

Project Title:-

Preparation of Detailed Project Report, Pre construction activities and project supervision of 1) preparation of detailed project report of padrauna bypass 4l+ps. 2) completion of pre-construction activities of 4l+ps /2l+ps work of nh-727 from 0.000 to 46.500. 3) project supervision as independent engineer of 4l+ps/2l+ps work of nh-727 from 0.000 to 46.500, for the project national highways in the state of uttar pradesh

DESIGNED BY:-

SOWiL Limited

Goodwill Avenue,1st Floor,"A" Wing Office No.-2, Plot No.- 1 Sector-40, Nerul (west), Navi Mumbay-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

CLIENT:-

सत्यमेव जयते

MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:- Widening Scheme

Drawing No. :- MORTH/TASPL/DPR/PADRAUNA -BYPASS/WS

Scale :- Not to Scale

Drn	Dgn.	Appd	Sheet :
DEEPAK	S.B.PANDEY	S.K.UPADHYAY	04 OF 04

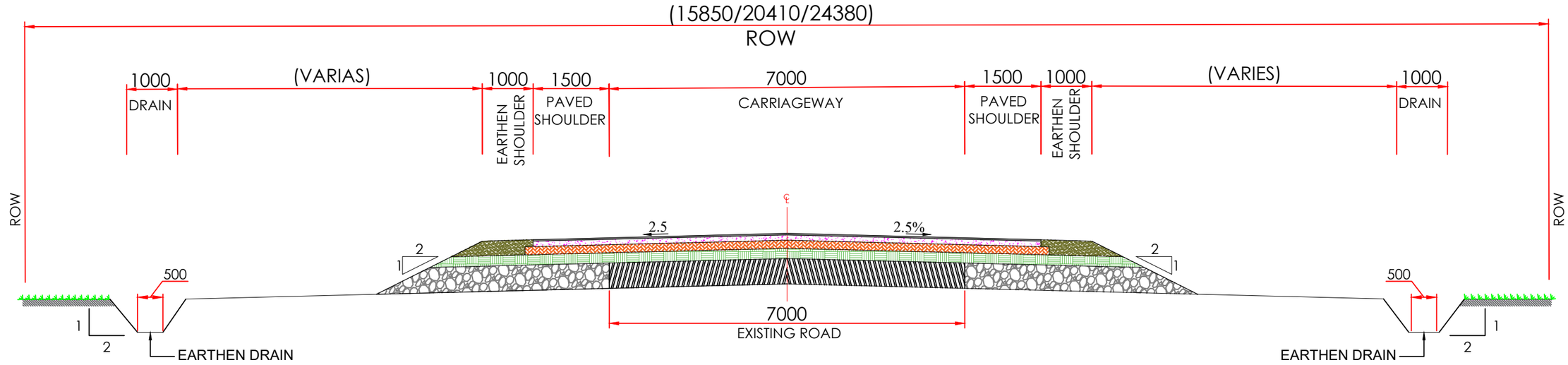
CONSULTANT:-

TASPL

Technocrats Advisory Services Pvt. Ltd.
Flat No. 140, Mithila Apartment 76 IP Extension Patparganj Delhi-110092

ACTUAL SHEET SIZE – A3

TYPICAL CROSS SECTION



TCS FOR 2-LANE HIGHWAY WITHOUT SERVICE ROAD
(OPEN COUNTRY -PLAIN/ROLLING TERRAIN)
(TCS-1)

S.No	From (km)	To (km)	Length (m)	Type
1	24+815	26+000	1185	TCS - 1
2	26+500	27+100	600	TCS - 1
3	27+800	29+100	1300	TCS - 1
4	30+500	31+415	915	TCS - 1
5	34+000	34+500	500	TCS - 1
6	41+471	42+085	614	TCS - 1
7	45+135	46+500	1365	TCS - 1
	Total		6479	

CLIENT:
MINISTRY OF ROAD TRANSPORT & HIGHWAYS

CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2, Plot No.- 1, Sector-40, Nerul (west), Navi Mumbay-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for Feasibility Study of Detailed Project Report for improvement and up-gradation of newly declared National Highways including existing NH-97 & NH-28B in the state of Uttar Pradesh-PkgVI.[Stretch (i) Chapwa-Betwa-Chatauni-Kushinagar Road-NH-28B (ii) Ghazipur-Jamaniya-Saiyad Raja Road-NH-97 and Length 116.43 Km.]

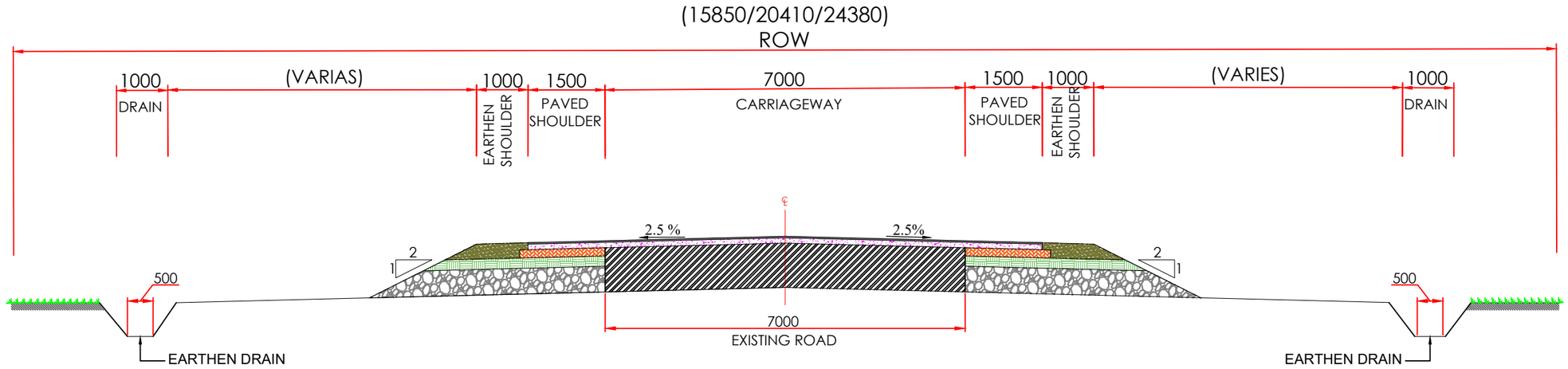
Prepared by	M.S.Bisht
Designed by	Gulista Parveen
Checked by	Arun Kumar Bag
Approved by	Pankaj Vora

Revisions	Date	Description
R4	May, 2023	FINAL FEASIBILITY PROJECT REPORT

DRAWING TITLE:- TYPICAL CROSS SECTION

DRAWING No:- KN-D_FDPR_HWY_TCS-02 | SHEET 01 OF25

SCALE : 1:50 @ (A2) | DATE : May 2023 | REV : R4



TCS FOR 2-LANE HIGHWAY WITHOUT SERVICE ROAD(OVERLAy)
(OPEN COUNTRY -PLAIN/ROLLING TERRAIN)
(TCS-1A)

S.No	From (km)	To (km)	Length (m)	Type
1	23+800	24+015	215	TCS - 1A
2	38+000	38+700	700	TCS - 1A
3	39+000	39+800	800	TCS - 1A
4	43+013	43+065	052	TCS - 1A
5	43+615	44+340	725	TCS - 1A
	Total		2492	

CLIENT:
MINISTRY OF ROAD TRANSPORT & HIGHWAYS

CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2, Plot No.- 1, Sector-40, Nerul (west), Navi Mumbay-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for Feasibility Study of Detailed Project Report for improvement and up-gradation of newly declared National Highways including existing NH-97 & NH-28B in the state of Uttar Pradesh-PkgVI.[Stretch (i) Chapwa-Betwa-Chatauni-Kushinagar Road-NH-28B (ii) Ghazipur-Jamaniya-Saiyad Raja Road-NH-97 and Length 116.43 Km.]

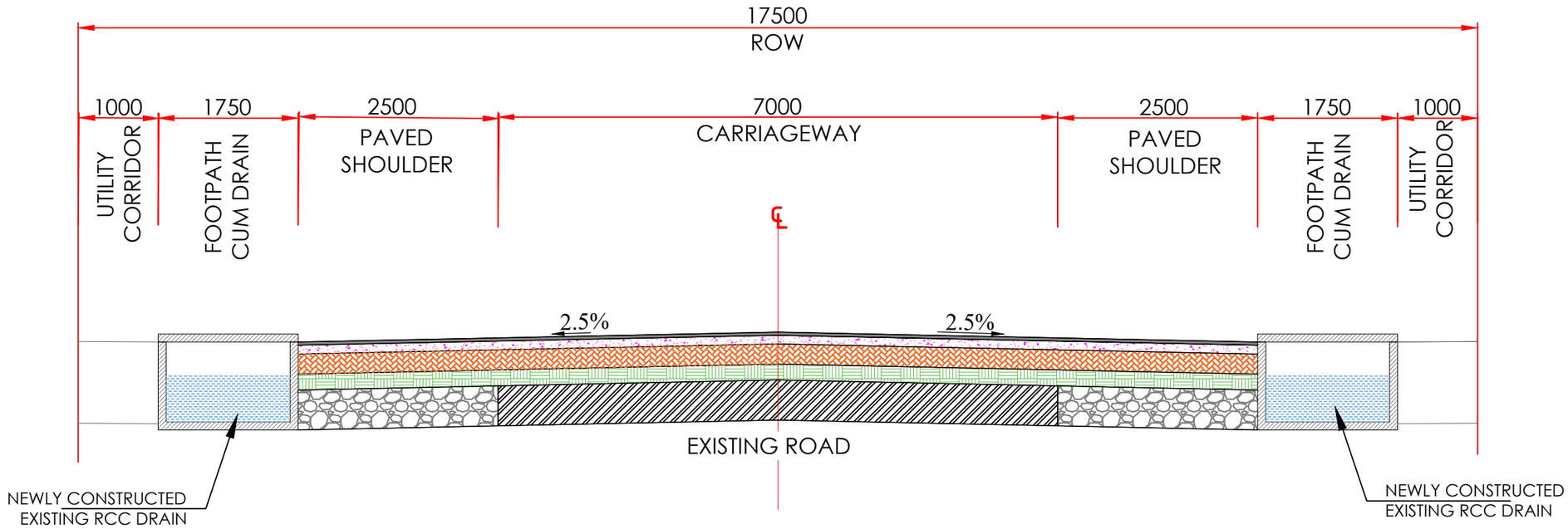
Prepared by	M.S.Bisht
Designed by	Gulista Parveen
Checked by	Arun Kumar Bag
Approved by	Pankaj Vora

Revisions	Date	Description
R4	May, 2023	FINAL FEASIBILITY PROJECT REPORT

DRAWING TITLE:- TYPICAL CROSS SECTION

DRAWING No:- KN-D_FDPR_HWY_TCS-02 | SHEET 02 OF25

SCALE : 1:50 @ (A2) | DATE : May 2023 | REV : R4



TCS FOR 2-LANE HIGHWAY WITHOUT SERVICE ROAD
(BUILTUP AREA -PLAIN/ROLLING TERRAIN)
(TCS-2)

S.No	From (km)	To (km)	Length (m)	Type
1	26+000	26+500	500	TCS - 2
2	27+100	27+800	700	TCS - 2
3	30+150	30+500	350	TCS - 2
4	37+600	38+000	400	TCS - 2
5	38+700	39+000	300	TCS - 2
6	39+800	41+471	1671	TCS - 2
	Total		3921	

CLIENT: MINISTRY OF ROAD TRANSPORT & HIGHWAYS

CONSULTANT: **SOWiL Limited**
Goodwill Avenue,1st Floor,"A" Wing Office No.-2, Plot No.- 1, Sector-40, Nerul (west), Navi Mumbay-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for Feasibility Study of Detailed Project Report for improvement and up-gradation of newly declared National Highways including existing NH-97 & NH-28B in the state of Uttar Pradesh-PkgVI.[Stretch (i) Chapwa-Betwa-Chatauni-Kushinagar Road-NH-28B (ii) Ghazipur-Jamaniya-Saiyad Raja Road-NH-97 and Length 116.43 Km.]

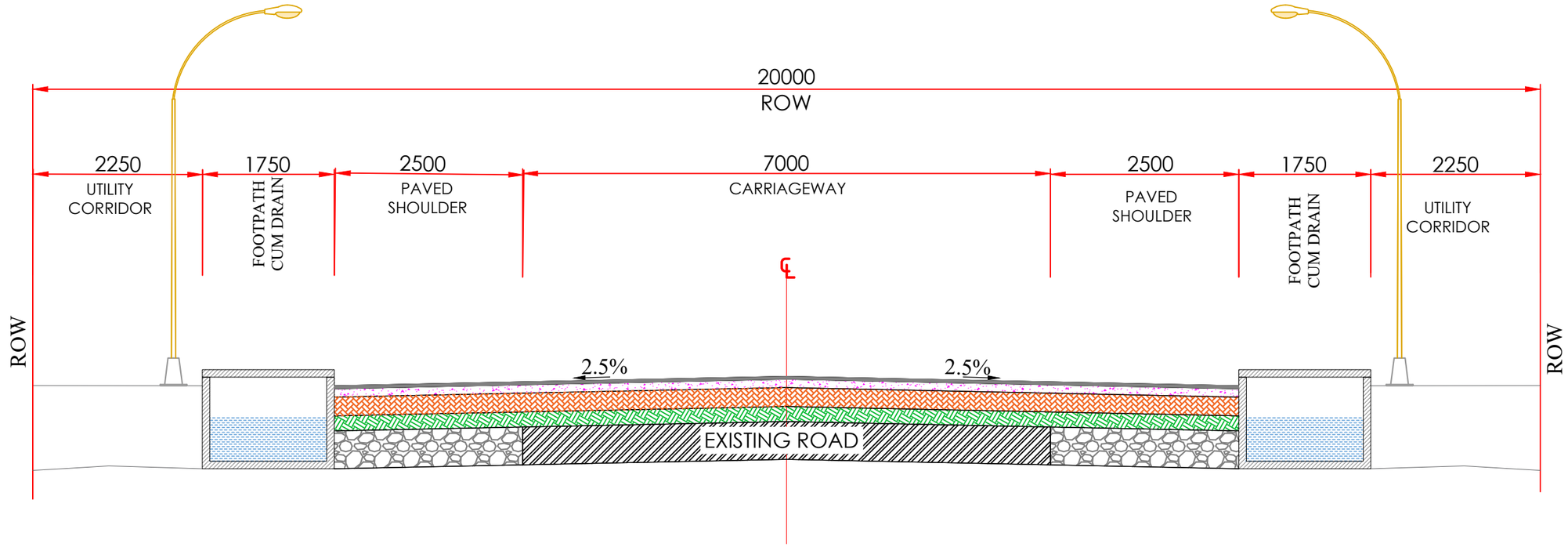
Prepared by	M.S.Bisht
Designed by	Gulista Parveen
Checked by	Arun Kumar Bag
Approved by	Pankaj Vora

Revisions	Date	Description
R4	May, 2023	FINAL FEASIBILITY PROJECT REPORT

DRAWING TITLE:- TYPICAL CROSS SECTION

DRAWING No:- KN-D_FDPR_HWY_TCS-02 | SHEET 03 OF25

SCALE : 1:50 @ (A2) | DATE : May 2023 | REV : R4



TCS FOR 2-LANE HIGHWAY WITHOUT SERVICE ROAD
(BUILTUP AREA -PLAIN/ROLLING TERRAIN)
(TCS-3)

S.No	From (km)	To (km)	Length (m)	Type
1	43+065	43+615	550	TCS - 3
	Total		550	

CLIENT:
MINISTRY OF ROAD TRANSPORT & HIGHWAYS

CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2, Plot No.- 1, Sector-40, Nerul (west), Navi Mumbay-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for Feasibility Study of Detailed Project Report for improvement and up-gradation of newly declared National Highways including existing NH-97 & NH-28B in the state of Uttar Pradesh-PkgVI.[Stretch (i) Chapwa-Betwa-Chatauni-Kushinagar Road-NH-28B (ii) Ghazipur-Jamaniya-Saiyad Raja Road-NH-97 and Length 116.43 Km.]

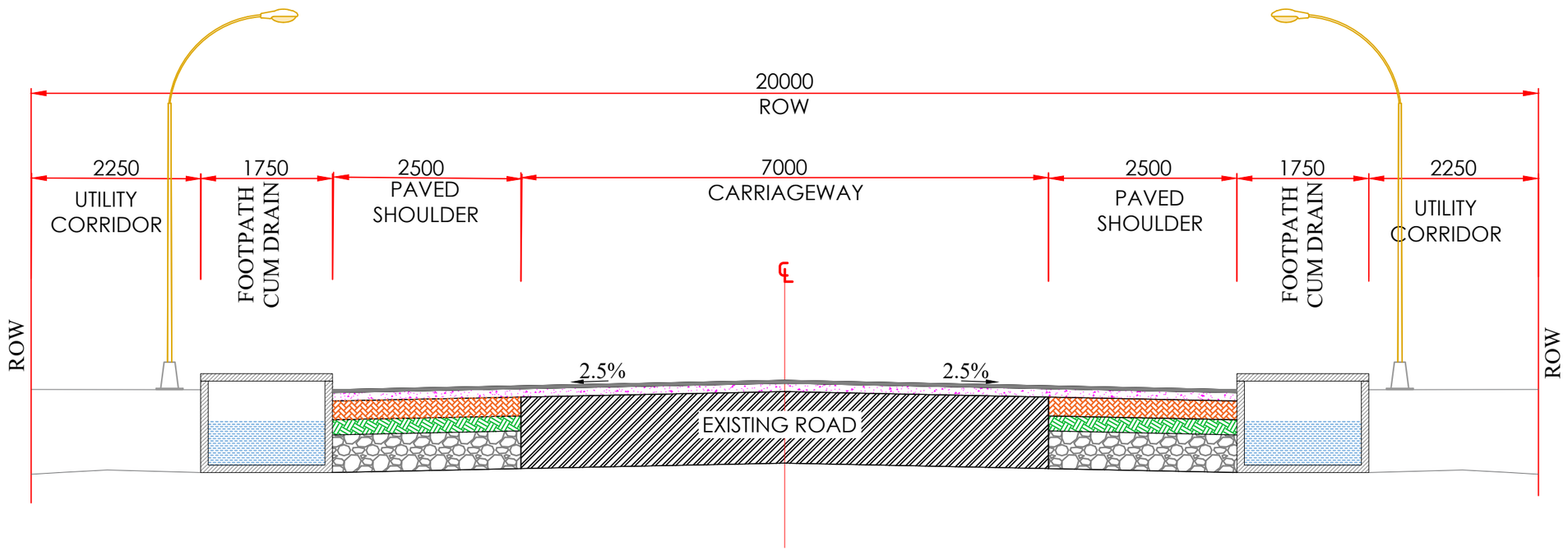
Prepared by	M.S.Bisht
Designed by	Gulista Parveen
Checked by	Arun Kumar Bag
Approved by	Pankaj Vora

Revisions	Date	Description
R4	May, 2023	FINAL FEASIBILITY PROJECT REPORT

DRAWING TITLE:- TYPICAL CROSS SECTION

DRAWING No:- KN-D_FDPR_HWY_TCS-02 | SHEET 04 OF25

SCALE : 1:50 @ (A2) | DATE : May 2023 | REV : R4



TCS FOR 2-LANE HIGHWAY WITHOUT SERVICE ROAD
(BUILTUP AREA -PLAIN/ROLLING TERRAIN)
(TCS-3A)

S.No	From (km)	To (km)	Length (m)	Type
1	42+085	42+669	584	TCS - 3A
2	42+685	43+013	328	TCS - 3A
	Total		912	

CLIENT: MINISTRY OF ROAD TRANSPORT & HIGHWAYS

CONSULTANT: **SOWiL Limited**
Goodwill Avenue,1st Floor,"A" Wing Office No.-2, Plot No.- 1, Sector-40, Nerul (west), Navi Mumbay-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for Feasibility Study of Detailed Project Report for improvement and up-gradation of newly declared National Highways including existing NH-97 & NH-28B in the state of Uttar Pradesh-PkgVI.[Stretch (i) Chapwa-Betwa-Chatauni-Kushinagar Road-NH-28B (ii) Ghazipur-Jamaniya-Saiyad Raja Road-NH-97 and Length 116.43 Km.]

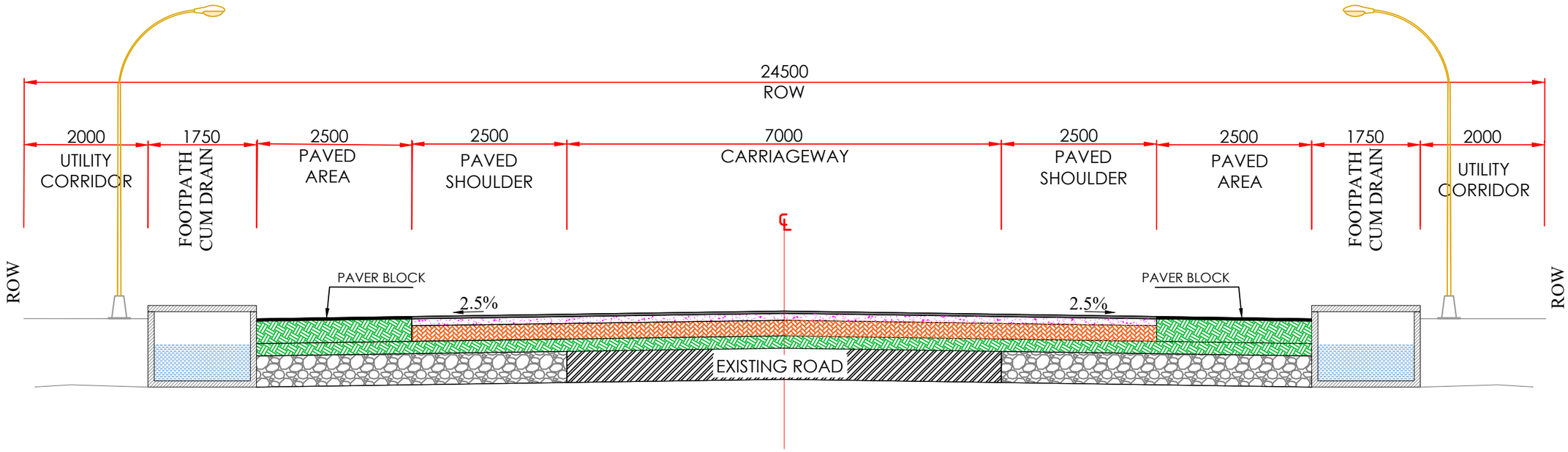
Prepared by	M.S.Bisht
Designed by	Gulista Parveen
Checked by	Arun Kumar Bag
Approved by	Pankaj Vora

Revisions	Date	Description
R4	May, 2023	FINAL FEASIBILITY PROJECT REPORT

DRAWING TITLE:- TYPICAL CROSS SECTION

DRAWING No:- KN-D_FDPR_HWY_TCS-02 | SHEET 05 OF25

SCALE : 1:50 @ (A2) | DATE : May 2023 | REV : R4



TCS FOR 2-LANE HIGHWAY WITHOUT SERVICE ROAD

(BUILTUP AREA -PLAIN/ROLLING TERRAIN)

(TCS-4)

S.No	From (km)	To (km)	Length (m)	Type
1	24+015	24+815	800	TCS - 4
2	29+100	29+650	550	TCS - 4
3	32+815	34+000	1185	TCS - 4
4	36+090	36+200	110	TCS - 4
5	44+340	45+135	795	TCS - 4
	Total		3440	

CLIENT: MINISTRY OF ROAD TRANSPORT & HIGHWAYS

CONSULTANT: ***SOWiL Limited***
Goodwill Avenue,1st Floor,"A" Wing Office No.-2, Plot No.- 1, Sector-40, Nerul (west), Navi Mumbay-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for Feasibility Study of Detailed Project Report for improvement and up-gradation of newly declared National Highways including existing NH-97 & NH-28B in the state of Uttar Pradesh-PkgVI.[Stretch (i) Chapwa-Betwa-Chatauni-Kushinagar Road-NH-28B (ii) Ghazipur-Jamaniya-Saiyad Raja Road-NH-97 and Length 116.43 Km.]

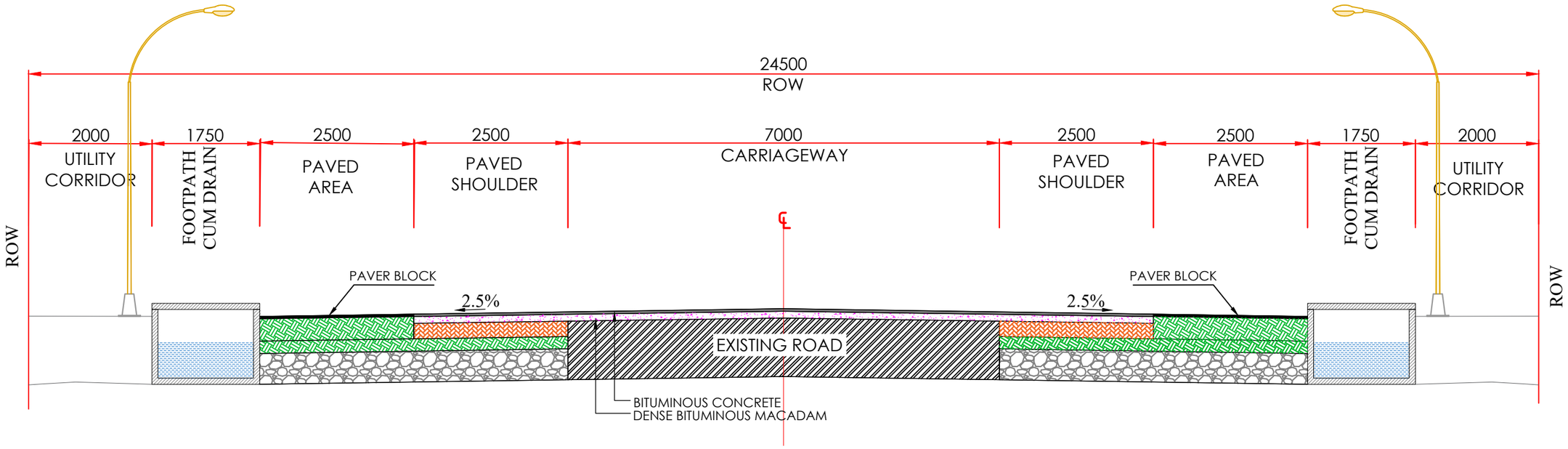
Prepared by	M.S.Bisht
Designed by	Gulista Parveen
Checked by	Arun Kumar Bag
Approved by	Pankaj Vora

Revisions	Date	Description
R4	May, 2023	FINAL FEASIBILITY PROJECT REPORT

DRAWING TITLE:- TYPICAL CROSS SECTION

DRAWING No:- KN-D_FDPR_HWY_TCS-02 | SHEET 06 OF25

SCALE : 1:50 @ (A2) | DATE : May 2023 | REV : R4



TCS FOR 2-LANE HIGHWAY WITHOUT SERVICE ROAD(OVERLAY)
(BUILTUP AREA -PLAIN/ROLLING TERRAIN)
(TCS-4A)

S.No	From (km)	To (km)	Length (m)	Type
1	31+415	32+815	1400	TCS - 4A
2	34+500	36+090	1590	TCS - 4A
	Total		2990	

CLIENT: MINISTRY OF ROAD TRANSPORT & HIGHWAYS

CONSULTANT: **SOWiL Limited**
Goodwill Avenue,1st Floor,"A" Wing Office No.-2, Plot No.- 1, Sector-40, Nerul (west), Navi Mumbay-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for Feasibility Study of Detailed Project Report for improvement and up-gradation of newly declared National Highways including existing NH-97 & NH-28B in the state of Uttar Pradesh-PkgVI.[Stretch (i) Chapwa-Betwa-Chatauni-Kushinagar Road-NH-28B (ii) Ghazipur-Jamaniya-Saiyad Raja Road-NH-97 and Length 116.43 Km.]

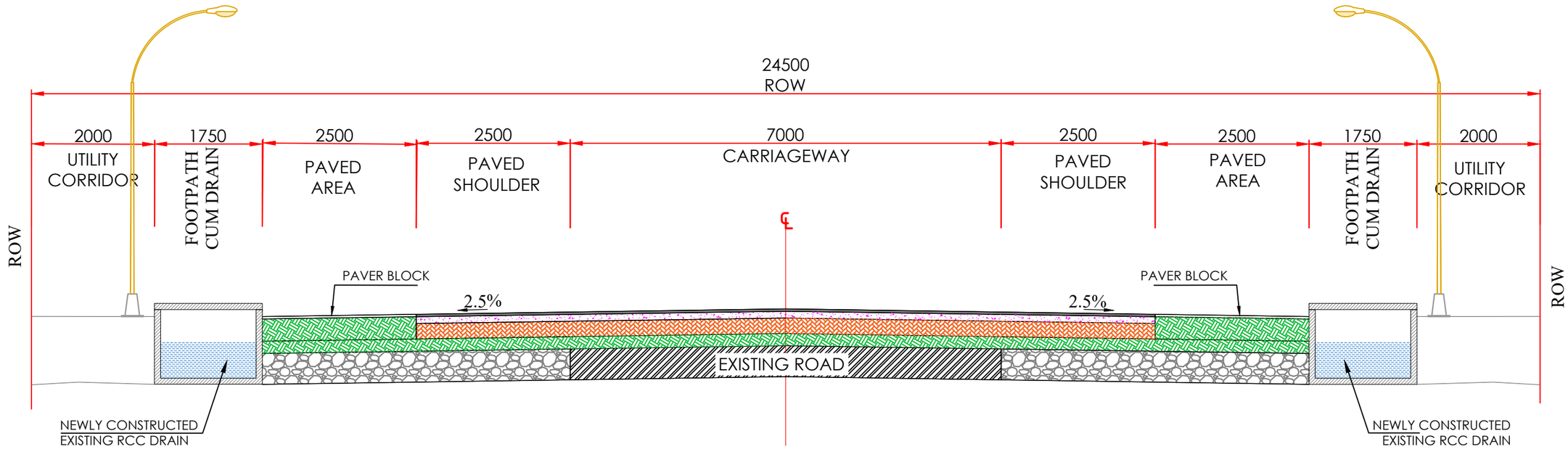
Prepared by	M.S.Bisht
Designed by	Gulista Parveen
Checked by	Arun Kumar Bag
Approved by	Pankaj Vora

Revisions	Date	Description
R4	May, 2023	FINAL FEASIBILITY PROJECT REPORT

DRAWING TITLE:- TYPICAL CROSS SECTION

DRAWING No:- KN-D_FDPR_HWY_TCS-02 | SHEET 07 OF25

SCALE : 1:50 @ (A2) | DATE : May 2023 | REV : R4



TCS FOR 2-LANE HIGHWAY WITHOUT SERVICE ROAD

(BUILTUP AREA -PLAIN/ROLLING TERRAIN)

(TCS-4B)

S.No	From (km)	To (km)	Length (m)	Type
1	29+650	30+150	500	TCS - 4B
2	36+200	37+600	1400	TCS - 4B
	Total		1900	

CLIENT:
MINISTRY OF ROAD TRANSPORT & HIGHWAYS

CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2, Plot No.- 1, Sector-40, Nerul (west), Navi Mumbay-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for Feasibility Study of Detailed Project Report for improvement and up-gradation of newly declared National Highways including existing NH-97 & NH-28B in the state of Uttar Pradesh-PkgVI.[Stretch (i) Chapwa-Betwa-Chatauni-Kushinagar Road-NH-28B (ii) Ghazipur-Jamaniya-Saiyad Raja Road-NH-97 and Length 116.43 Km.]

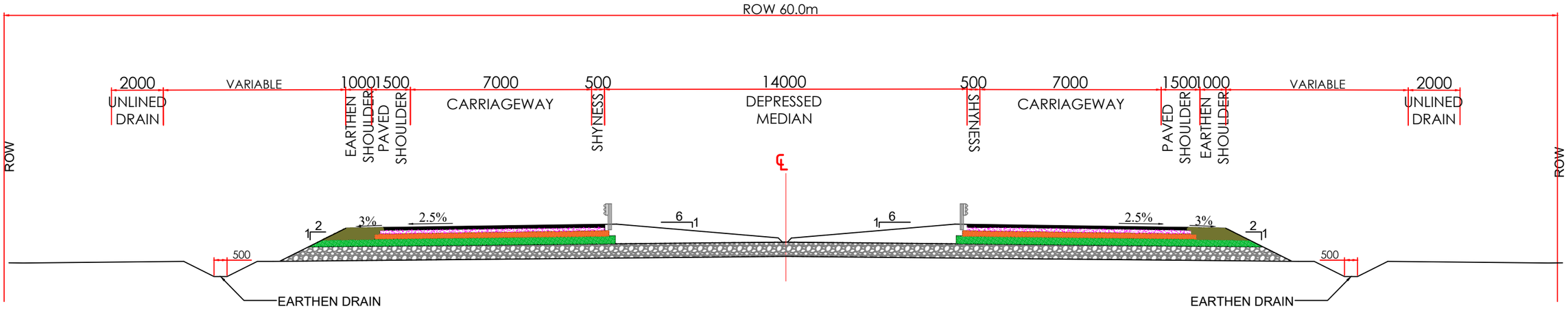
Prepared by	M.S.Bisht
Designed by	Gulista Parveen
Checked by	Arun Kumar Bag
Approved by	Pankaj Vora

Revisions	Date	Description
R4	May, 2023	FINAL FEASIBILITY PROJECT REPORT

DRAWING TITLE:- TYPICAL CROSS SECTION

DRAWING No:- KN-D_FDPR_HWY_TCS-02 | SHEET 08 OF25

SCALE : 1:50 @ (A2) | DATE : May 2023 | REV : R4



TCS FOR 4 - LANE BYPSS WITHOUT SERVICE ROAD

(OPEN COUNTRY - PLAIN/ROLLING TERRAIN)
(TCS - 5)

S.No	From (km)	To (km)	Length (m)	Type
1	13+620	16+753	3133	TCS - 5
2	16+768	17+684	916	TCS - 5
3	17+696	17+700	004	TCS - 5
4	18+400	18+516	116	TCS - 5
5	18+524	18+610	086	TCS - 5
6	22+530	23+070	540	TCS - 5
	Total		4795	

Technocrats Advisory Services Private Limited Delhi

Project Title:-

Preparation of detailed project report of Padrauna bypass & completion of Preconstruction activities of 4L+PS /2L+PS work of NH-727 from km 0.000 to km 46.500 for the project National Highways in the state of Uttar Pradesh.

CLIENT:-

सत्यमेव जयते

MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:- TYPICAL CROSS SECTION

Drawing No. :-TASPL/MORTH/DPR/PADRAUNA BYPASS/TCS

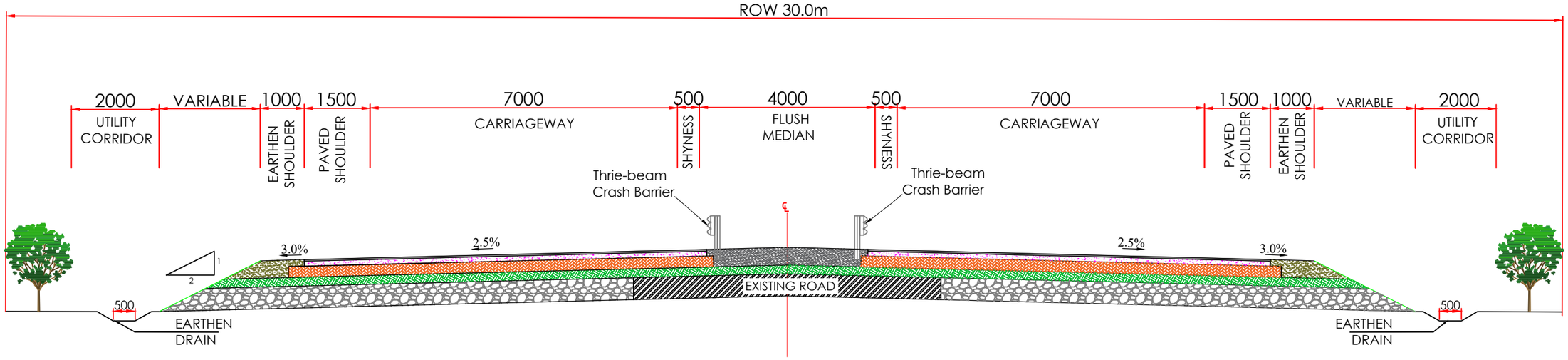
Scale :- Not to Scale

Drn	Dgn.	Appd	Sheet :
Deepak	Fayaz Ahmad	A. K. Singh	09 OF 25

CONSULTANT:-

TASPL

Technocrats Advisory Services Pvt. Ltd.
Flat No. 140, Mithila Apartment 76 IP Extension
Patparganj Delhi-110092



TCS FOR 4 - LANE HIGHWAY WITHOUT SERVICE ROAD WITH FLUSH MEDIAN
(OPEN COUNTRY - PLAIN/ROLLING TERRAIN)
(TCS - 6)

S.No	From (km)	To (km)	Length(m)	Type
1	4+115	6+500	2385	TCS - 6
2	6+900	8+415	1515	TCS - 6
3	9+315	11+915	2600	TCS - 6
4	12+915	13+620	705	TCS - 6
	Total		7205	

CLIENT: MINISTRY OF ROAD TRANSPORT & HIGHWAYS

CONSULTANT: **SOWiL Limited**
Goodwill Avenue,1st Floor,"A" Wing Office No.-2, Plot No.- 1, Sector-40, Nerul (west), Navi Mumbay-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for Feasibility Study of Detailed Project Report for improvement and up-gradation of newly declared National Highways including existing NH-97 & NH-28B in the state of Uttar Pradesh-PkgVI.[Stretch (i) Chapwa-Betwa-Chatauni-Kushinagar Road-NH-28B (ii) Ghazipur-Jamaniya-Saiyad Raja Road-NH-97 and Length 116.43 Km.]

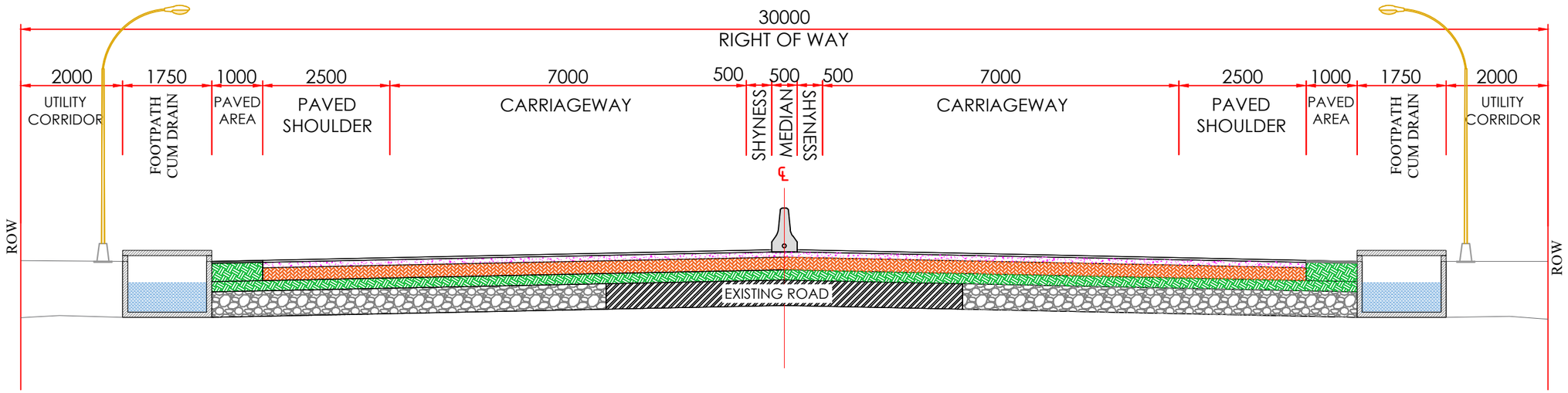
Prepared by	M.S.Bisht
Designed by	Gulista Parveen
Checked by	Arun Kumar Bag
Approved by	Pankaj Vora

Revisions	Date	Description
R4	May, 2023	FINAL FEASIBILITY PROJECT REPORT

DRAWING TITLE:- TYPICAL CROSS SECTION

DRAWING No:- KN-D_FDPR_HWY_TCS-02 | SHEET 10 OF25

SCALE : 1:50 @ (A2) | DATE : May 2023 | REV : R4



TCS FOR 4-LANE HIGHWAY WITHOUT SERVICE ROAD

(BUILT-UP SECTION -PLAIN/ROLLING TERRAIN)

(TCS-7)

S.No	From (km)	To (km)	Length (m)	Type
1	8+415	9+315	900	TCS - 7
2	11+915	12+915	1000	TCS - 7
	Total		1900	

CLIENT: MINISTRY OF ROAD TRANSPORT & HIGHWAYS

CONSULTANT: **SOWiL Limited**
Goodwill Avenue,1st Floor,"A" Wing Office No.-2, Plot No.- 1, Sector-40, Nerul (west), Navi Mumbay-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for Feasibility Study of Detailed Project Report for improvement and up-gradation of newly declared National Highways including existing NH-97 & NH-28B in the state of Uttar Pradesh-PkgVI.[Stretch (i) Chapwa-Betwa-Chatauni-Kushinagar Road-NH-28B (ii) Ghazipur-Jamaniya-Saiyad Raja Road-NH-97 and Length 116.43 Km.]

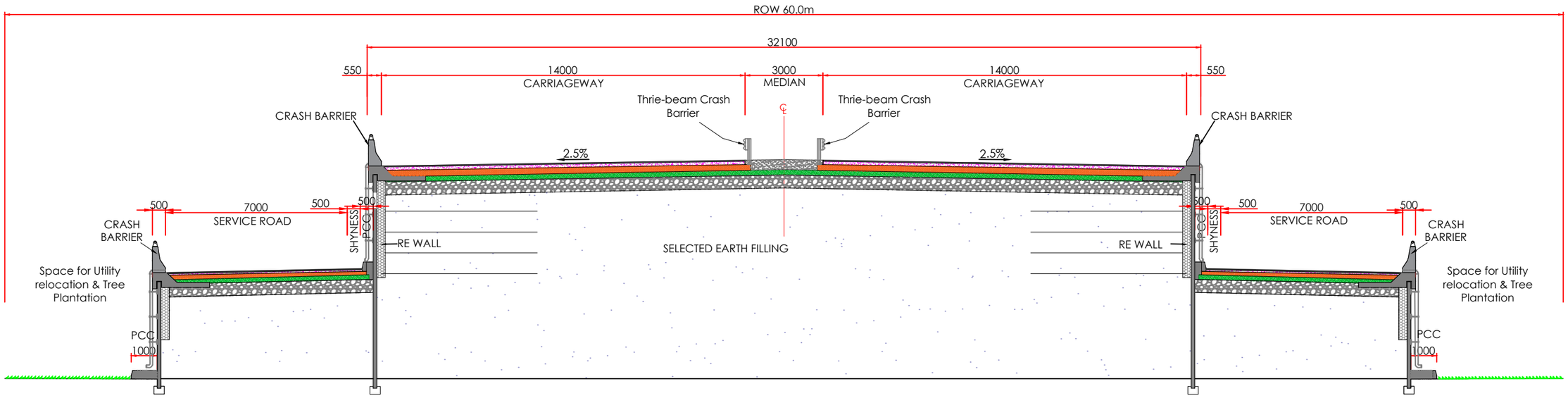
Prepared by	M.S.Bisht
Designed by	Gulista Parveen
Checked by	Arun Kumar Bag
Approved by	Pankaj Vora

Revisions	Date	Description
R4	May, 2023	FINAL FEASIBILITY PROJECT REPORT

DRAWING TITLE:- TYPICAL CROSS SECTION

DRAWING No:- KN-D_FDPR_HWY_TCS-02 | SHEET 11 OF25

SCALE : 1:50 @ (A2) | DATE : May 2023 | REV : R4



TCS FOR 6 LANE GRADE SEPARATED STRUCTURE WITH SLIP ROAD (RE WALL)

(TCS - 8)

S.No	From(km)	To (km)	Length (M)	Type
1	19+545	20+180	635	TCS-8
2	20+440	20+630	190	TCS-8
3	20+690	20+803	113	TCS-8
4	20+818	21+400	582	TCS-8
	Total		1520	

Technocrats Advisory Services Private Limited Delhi

Project Title:-

Preparation of detailed project report of Padrauna bypass & completion of Preconstruction activities of 4L+PS /2L+PS work of NH-727 from km 0.000 to km 46.500 for the project National Highways in the state of Uttar Pradesh.

CLIENT:-

सत्यमेव जयते

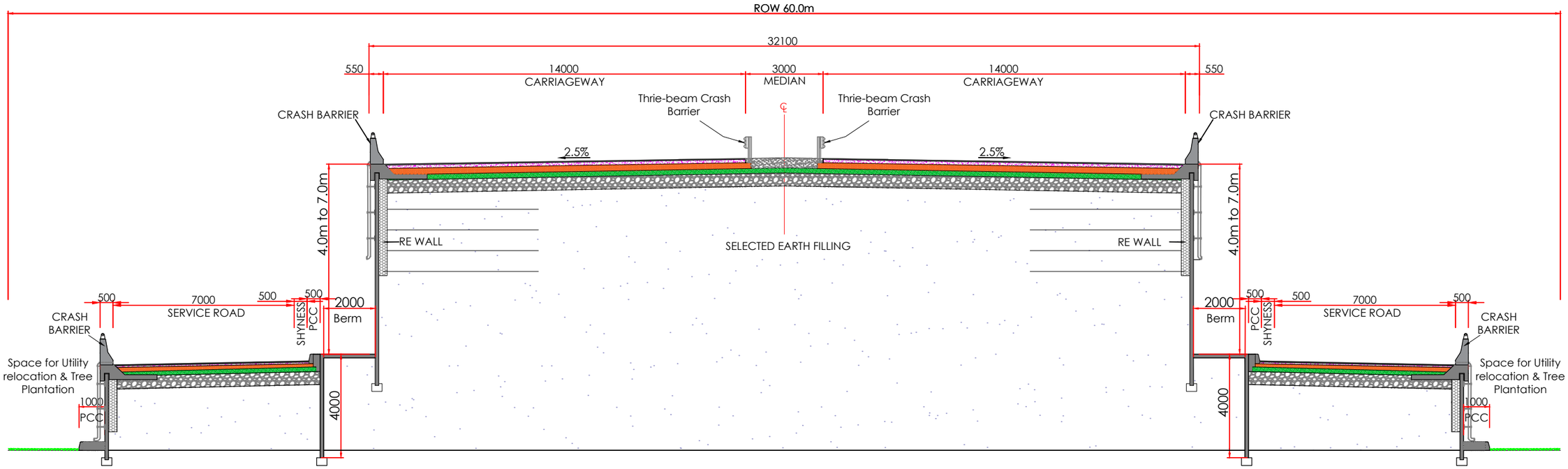
MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:-	TYPICAL CROSS SECTION		
Drawing No. :-	TASPL/MORTH/DPR/PADRAUNA BYPASS/TCS		
Scale :-	Not to Scale		
Drn	Dgn.	Appd	Sheet :
Deepak	Fayaz Ahmad	A. K. Singh	12 OF 25

CONSULTANT:-

TASPL

Technocrats Advisory Services Pvt. Ltd.
Flat No. 140, Mithila Apartment 76 IP Extension
Patparganj Delhi-110092



RE WALL CONFIGURATION (WHERE HEIGHT OF FRL-OGL IS MORE THAN 7.0m)

Project Title:-

Preparation of detailed project report of Padrauna bypass & completion of Preconstruction activities of 4L+PS /2L+PS work of NH-727 from km 0.000 to km 46.500 for the project National Highways in the state of Uttar Pradesh.

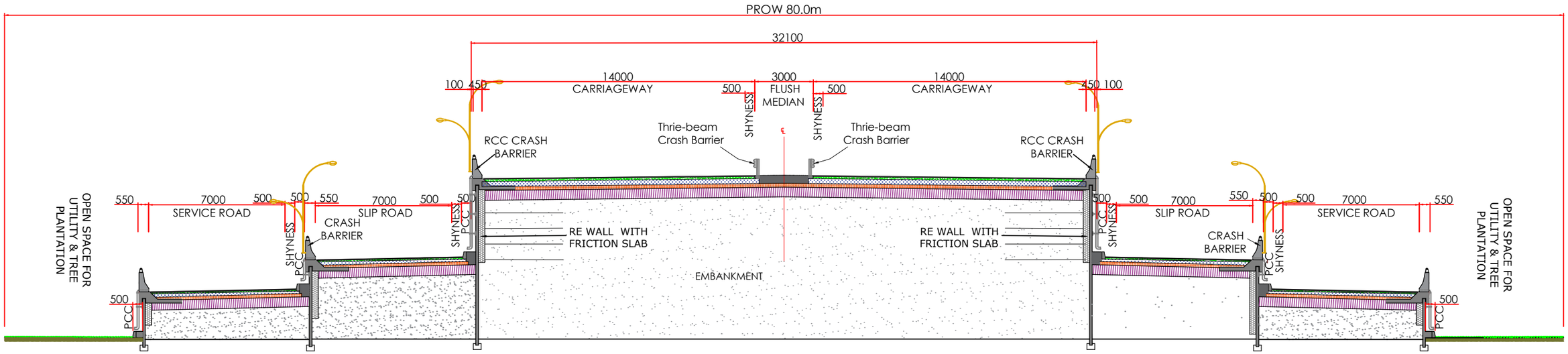
CLIENT:-

MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:- TYPICAL CROSS SECTION			
Drawing No. :-TASPL/MORTH/DPR/PADRAUNA BYPASS/TCS			
Scale :- Not to Scale			
Drn	Dgn.	Appd	Sheet :
Deepak	Fayaz Ahmad	A. K. Singh	13OF 25

CONSULTANT:-

Technocrats Advisory Services Pvt. Ltd.
Flat No. 140, Mithila Apartment 76 IP Extension
Patparganj Delhi-110092



TCS OF 6-LANE GRADE SEPARATED STRUCTURE & ELEVATED SECTION WITH
SLIP ROAD & SERVICE ROAD (RE WALL SECTION)
(TCS - 8A)

S.No	From(km)	To (km)	Length (m)	Type
1	20+180	20+440	220	TCS-8A
	Total		220	

CLIENT: MINISTRY OF ROAD TRANSPORT & HIGHWAYS

CONSULTANT: **SOWiL Limited**
Goodwill Avenue,1st Floor,"A" Wing Office No.-2, Plot No.- 1, Sector-40, Nerul (west), Navi Mumbay-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for Feasibility Study of Detailed Project Report for improvement and up-gradation of newly declared National Highways including existing NH-97 & NH-28B in the state of Uttar Pradesh-PkgVI.[Stretch (i) Chapwa-Betwa-Chatauni-Kushinagar Road-NH-28B (ii) Ghazipur-Jamaniya-Saiyad Raja Road-NH-97 and Length 116.43 Km.]

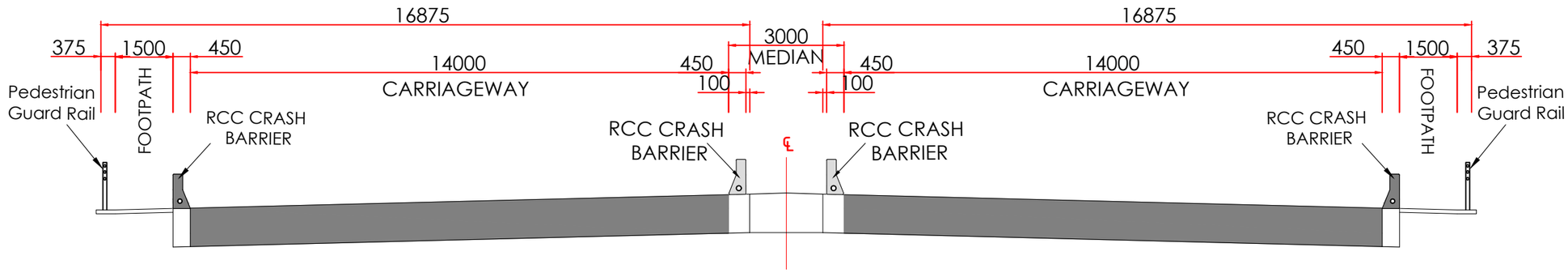
Prepared by	M.S.Bisht
Designed by	Gulista Parveen
Checked by	Arun Kumar Bag
Approved by	Pankaj Vora

Revisions	Date	Description
R4	May, 2023	FINAL FEASIBILITY PROJECT REPORT

DRAWING TITLE:- TYPICAL CROSS SECTION

DRAWING No:- KN-D_FDPR_HWY_TCS-02 | SHEET 14 OF25

SCALE : 1:50 @ (A2) | DATE : May 2023 | REV : R4



TYPICAL CROSS SECTION FOR SIX LANE BRIDGE AND ROB
(Between Km.13+600 to Km.23+000)

(TCS-11)

IRC SP 84-2019-Fig-7.3 Page No-68
& MORT&H Circular Dated 06-02-2023

Project Title:-

Preparation of detailed project report of Padrauna bypass & completion of Preconstruction activities of 4L+PS /2L+PS work of NH-727 from km 0.000 to km 46.500 for the project National Highways in the state of Uttar Pradesh.

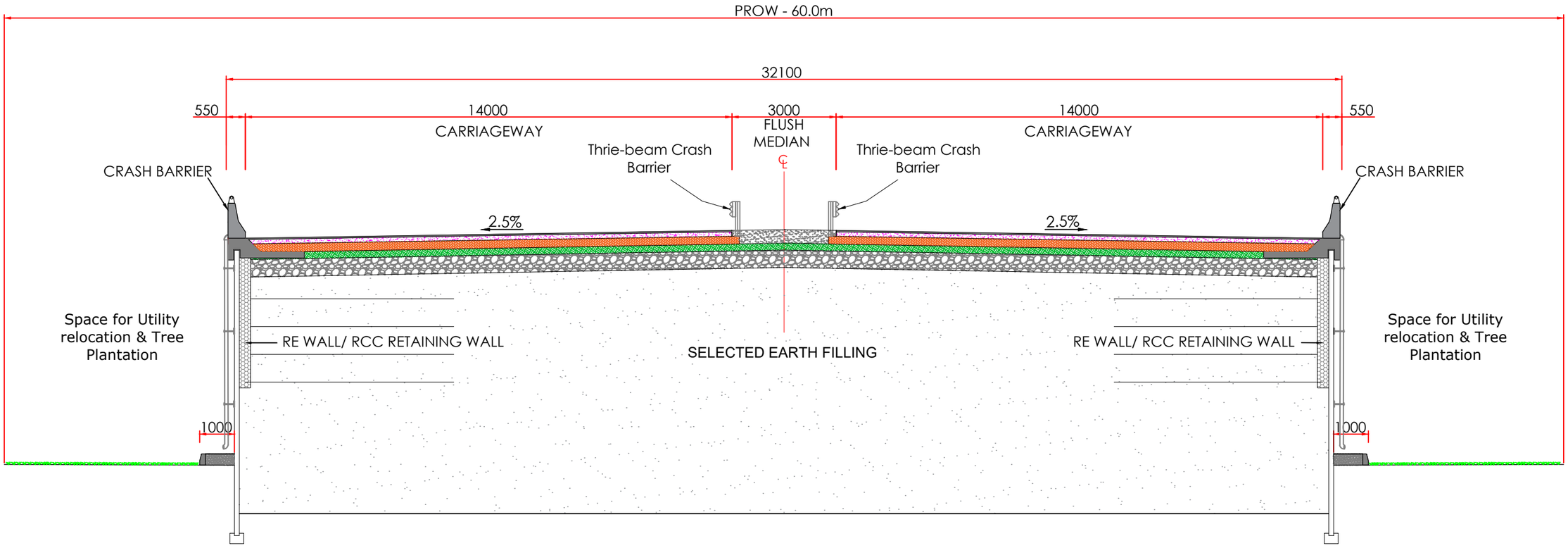
CLIENT:-

MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:- TYPICAL CROSS SECTION			
Drawing No. :-TASPL/MORTH/DPR/PADRAUNA BYPASS/TCS			
Scale :- Not to Scale			
Drn	Dgn.	Appd	Sheet :
Deepak	Fayaz Ahmad	A. K. Singh	18 OF 25

CONSULTANT:-

TASPL
Technocrats Advisory Services Pvt. Ltd.
68, Ajanta Apartment, 36, I.P.Extension
Patparganj, Delhi-110092



TCS FOR 6 - LANE HIGHWAY (APPROACH)

(PLAIN/ROLLING TERRAIN)

(TCS - 12)

S.No	From(km)	To (km)	Length (m)	Type	Remark
1	18+610	19+000	390	TCS-12	RE WALL
2	19+000	19+155	155	TCS-12	RCC RETAINING WALL
3	21+400	21+951	551	TCS-12	RE WALL
4	22+029	22+530	501	TCS-12	RE WALL
	Total		1597		

CLIENT: MINISTRY OF ROAD TRANSPORT & HIGHWAYS

CONSULTANT: **SOWiL Limited**
Goodwill Avenue,1st Floor,"A" Wing Office No.-2, Plot No.- 1, Sector-40, Nerul (west), Navi Mumbay-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for Feasibility Study of Detailed Project Report for improvement and up-gradation of newly declared National Highways including existing NH-97 & NH-28B in the state of Uttar Pradesh-PkgVI.[Stretch (i) Chapwa-Betwa-Chatauni-Kushinagar Road-NH-28B (ii) Ghazipur-Jamaniya-Saiyad Raja Road-NH-97 and Length 116.43 Km.]

Prepared by	M.S.Bisht
Designed by	Gulista Parveen
Checked by	Arun Kumar Bag
Approved by	Pankaj Vora

Revisions	Date	Description
R4	May, 2023	FINAL FEASIBILITY PROJECT REPORT

DRAWING TITLE:- TYPICAL CROSS SECTION

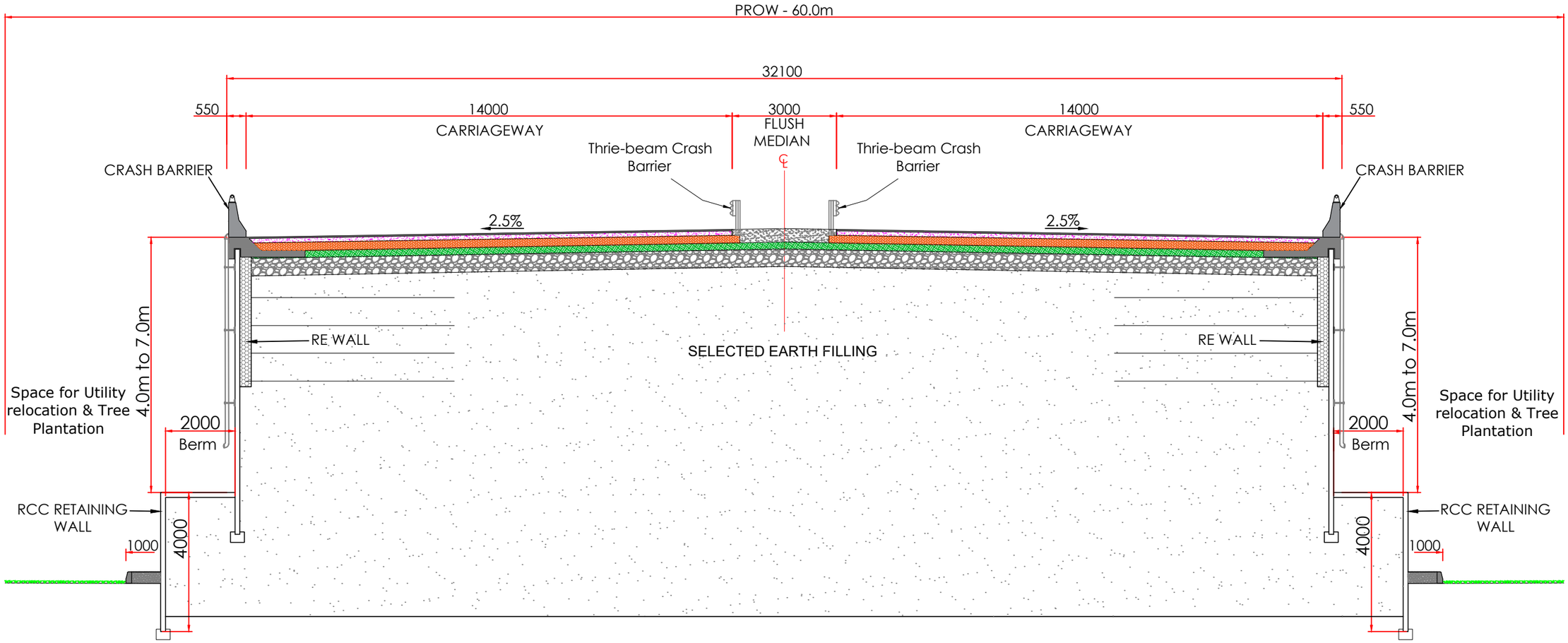
DRAWING NO:- KN-D_FDPR_HWY_TCS-02

SHEET 19 OF25

SCALE : 1:50 @ (A2)

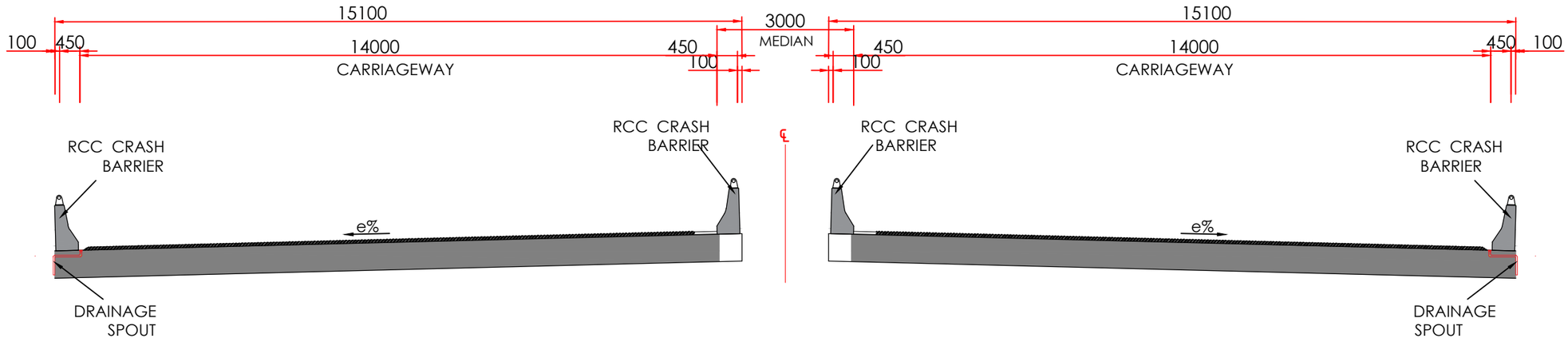
DATE : May 2023

REV : R4



RE WALL CONFIGURATION (WHERE HEIGHT OF FRL-OGL IS MORE THAN 7.0m)

CLIENT: MINISTRY OF ROAD TRANSPORT & HIGHWAYS	CONSULTANT: **SOWiL Limited** Goodwill Avenue,1st Floor,"A" Wing Office No.-2, Plot No.- 1, Sector-40, Nerul (west), Navi Mumbay-400706 Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259	PROJECT: Consultancy Services for Feasibility Study of Detailed Project Report for improvement and up-gradation of newly declared National Highways including existing NH-97 & NH-28B in the state of Uttar Pradesh-PkgVI.[Stretch (i) Chapwa-Betwa-Chatauni-Kushinagar Road-NH-28B (ii) Ghazipur-Jamaniya-Saiyad Raja Road-NH-97 and Length 116.43 Km.]	Prepared by: M.S.Bisht Designed by: Gulista Parveen Checked by: Arun Kumar Bag Approved by: Pankaj Vora	Revisions: R4 Date: May, 2023 Description: FINAL FEASIBILITY PROJECT REPORT	DRAWING TITLE:- TYPICAL CROSS SECTION DRAWING No:- KN-D_FDPR_HWY_TCS-02 SCALE : 1:50 @ (A2) DATE : May 2023 SHEET 20 OF25 REV : R4



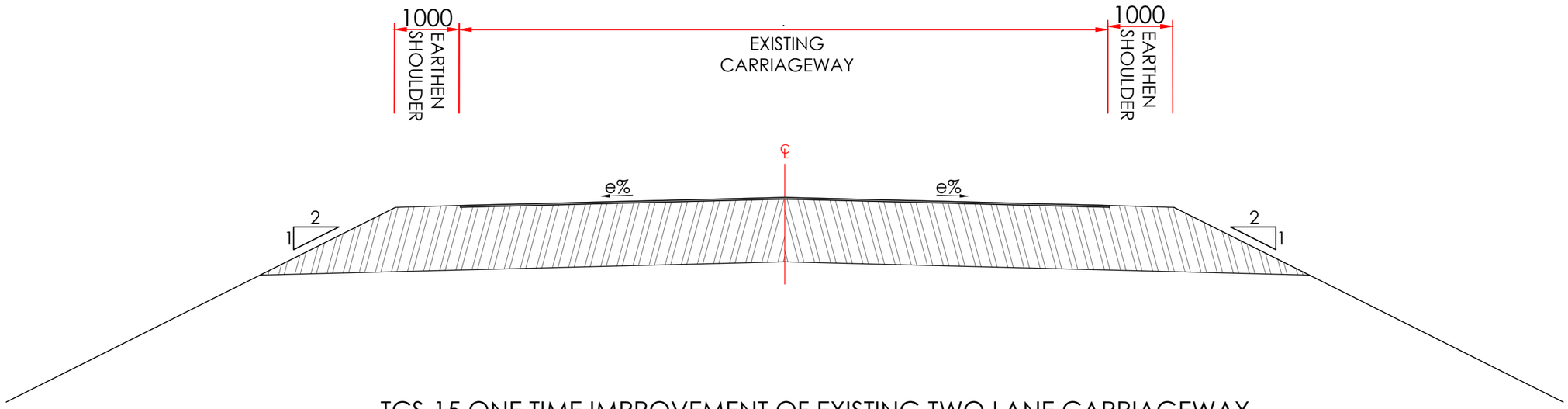
TCS- 13 : Grade Separated Structure Vehicular Underpass & Elevated Section

(6-Lane divided highway)

Ref. :: Fig. 7.8 of IRC-SP-84-2019, (Page No. 72)

S.No	From (km)	To (km)	Length (m)	Type
1	20+630	20+690	60	TCS-13
	Total		60	

CLIENT: MINISTRY OF ROAD TRANSPORT & HIGHWAYS	CONSULTANT: **SOWiL Limited** Goodwill Avenue,1st Floor,"A" Wing Office No.-2, Plot No.- 1, Sector-40, Nerul (west), Navi Mumbay-400706 Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259	PROJECT: Consultancy Services for Feasibility Study of Detailed Project Report for improvement and up-gradation of newly declared National Highways including existing NH-97 & NH-28B in the state of Uttar Pradesh-PkgVI.[Stretch (i) Chapwa-Betwa-Chatauni-Kushinagar Road-NH-28B (ii) Ghazipur-Jamaniya-Saiyad Raja Road-NH-97 and Length 116.43 Km.]	Prepared by: M.S.Bisht Designed by: Gulista Parveen Checked by: Arun Kumar Bag Approved by: Pankaj Vora	Revisions: R4 Date: May, 2023 Description: FINAL FEASIBILITY PROJECT REPORT	DRAWING TITLE:- TYPICAL CROSS SECTION	
					DRAWING NO:- KN-D_FDPR_HWY_TCS-02	SHEET 21OF25
					SCALE : 1:50 @ (A2) DATE : May 2023	REV : R4



TCS-15 ONE TIME IMPROVEMENT OF EXISTING TWO LANE CARRIAGEWAY

S.NO	From (km)	To (km)	Existing Road Length (m)
1	0+000	4+115	5300
2	Existing Road (Re-alignment)		500
3	Existing Road (Padrauna)		11145
4	46+500	58+004	11504

CLIENT: MINISTRY OF ROAD TRANSPORT & HIGHWAYS

CONSULTANT: **SOWiL Limited**
Goodwill Avenue,1st Floor,"A" Wing Office No.-2, Plot No.- 1, Sector-40, Nerul (west), Navi Mumbay-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for Feasibility Study of Detailed Project Report for improvement and up-gradation of newly declared National Highways including existing NH-97 & NH-28B in the state of Uttar Pradesh-PkgVI.[Stretch (i) Chapwa-Betwa-Chatauni-Kushinagar Road-NH-28B (ii) Ghazipur-Jamaniya-Saiyad Raja Road-NH-97 and Length 116.43 Km.]

Prepared by	M.S.Bisht
Designed by	Gulista Parveen
Checked by	Arun Kumar Bag
Approved by	Pankaj Vora

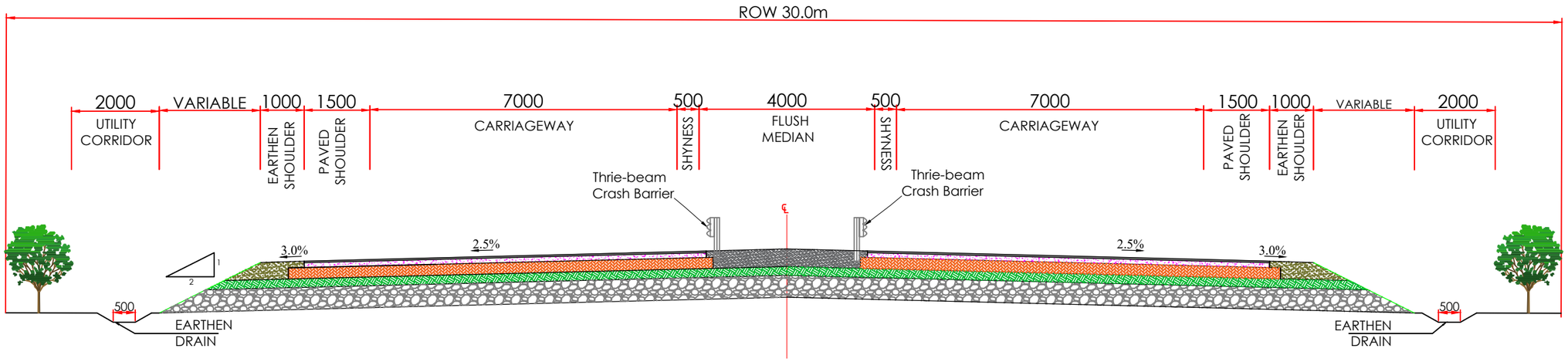
Revisions	Date	Description
R4	May, 2023	FINAL FEASIBILITY PROJECT REPORT

DRAWING TITLE:- TYPICAL CROSS SECTION

DRAWING NO:- KN-D_FDPR_HWY_TCS-02

SHEET 23OF25

SCALE : 1:50 @ (A2) DATE : May 2023 REV : R4



TCS FOR 4 - LANE HIGHWAY WITHOUT SERVICE ROAD WITH FLUSH MEDIAN
(OPEN COUNTRY - PLAIN/ROLLING TERRAIN)
(TCS - 17)

S.No	From (km)	To (km)	Length(m)	Type
1	6+500	6+718	218	TCS - 17
2	6+742	6+900	158	TCS - 17
	Total		376	

CLIENT: MINISTRY OF ROAD TRANSPORT & HIGHWAYS

CONSULTANT: **SOWiL Limited**
Goodwill Avenue,1st Floor,"A" Wing Office No.-2, Plot No.- 1, Sector-40, Nerul (west), Navi Mumbay-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for Feasibility Study of Detailed Project Report for improvement and up-gradation of newly declared National Highways including existing NH-97 & NH-28B in the state of Uttar Pradesh-PkgVI.[Stretch (i) Chapwa-Betwa-Chatauni-Kushinagar Road-NH-28B (ii) Ghazipur-Jamaniya-Saiyad Raja Road-NH-97 and Length 116.43 Km.]

Prepared by	M.S.Bisht
Designed by	Gulista Parveen
Checked by	Arun Kumar Bag
Approved by	Pankaj Vora

Revisions	Date	Description
R4	May, 2023	FINAL FEASIBILITY PROJECT REPORT

DRAWING TITLE:- TYPICAL CROSS SECTION

DRAWING NO:- KN-D_FDPR_HWY_TCS-02 | SHEET 25OF25

SCALE : 1:50 @ (A2) | DATE : May 2023 | REV : R4

HORIZONTAL REPORT ▶

Horizontal Alignment Report [Padrauna Bypass]

Curve No.	Horizontal Curve								Terrain	Horizontal Intersection Point (HIP)			Transition length	Speed (Kmph)
	Start Chainage	End Chainage	Start Easting	Start Northing	End Easting	End Northing	Radius	Direction		Chainage	Easting	Northing		
1	13+866.396	14+260.899	793136.687	2973444.654	792918.424	2973754.14	400	Right	Plain	14+081.361	792944.395	2973540.748	115	100
2	14+650.226	14+752.532	792921.845	2974143.25	792928.058	2974245.35	1800	Right	Plain	14+701.393	792923.5	2974194.39	35	100
3	14+881.033	15+343.365	792940.221	2974373.275	792868.464	2974825.85	1000	Left	Plain	15+116.407	792957.604	2974608.006	50	100
4	16+199.172	16+404.566	792525.421	2975609.886	792467.634	2975806.61	1000	Right	Plain	16+302.231	792486.391	2975705.269	50	100
5	16+979.831	17+250.023	792376.781	2976374.65	792356.654	2976643.84	1800	Right	Plain	17+115.181	792356.597	2976508.487	30	100
6	18+532.965	18+830.317	792366.636	2977926.722	792292.582	2978212.4	700	Left	Plain	18+683.918	792360.412	2978077.547	70	100
7	19+404.084	19+861.542	792011.512	2978712.575	791949.128	2979157.59	700	Right	Plain	19+641.317	791904.912	2978924.509	70	100
8	20+280.492	20+669.807	792046.332	2979565.086	792069.031	2979952.03	1200	Left	Plain	20+476.875	792089.344	2979756.701	40	100
9	20+958.141	21+172.401	792034.753	2980238.318	792026.434	2980452.23	1500	Right	Plain	21+065.454	792022.942	2980344.979	30	100
10	21+384.401	21+396.804	792035.353	2980664.046	792035.842	2980676.44	2000	Left	Plain	21+390.602	792035.617	2980670.242	0	100
11	22+237.943	22+243.785	792066.413	2981517.023	792066.617	2981522.86	2000	Left	Plain	22+240.864	792066.52	2981519.942	0	100
12	22+851.160	22+931.321	792085.142	2982129.921	792077.142	2982209.62	600	Left	Plain	22+891.300	792083.808	2982170.039	80	100

Authorized Sign

Technocrats Advisory Services Private Limited Delhi

Project Title:-

Preparation of Detailed Project Report, Pre construction activities and project supervision of 1) Preparation of Detailed project report of Padrauna bypass 4L+PS. 2) Completion of pre-construction activities of 4L+PS /2L+PS work of NH-727 from 0.000 to 46.500.
3) Project Supervision as Independent engineer of 4L+PS/2L+ PS work of NH-727 from 0.000 to 46.500, for the project national highways in the state of Uttar Pradesh

CLIENT:-

सत्यमेव जयते

MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:- Horizontal Report

Drawing No. :- MORTH/TASPL/DPR/KUSHI-CHAP/HR

Scale :- Not to Scale

Drn	Dgn.	Appd	Sheet :
DEEPAK	S.B.PANDEY	S.K.UPADHYAY	OF 01

CONSULTANT:-

TASPL

Technocrats Advisory Services Pvt. Ltd.
68, Ajanta Apartment, 36, I.P.Extension
Patparganj, Delhi-110092

ACTUAL SHEET SIZE – A3

VERTICAL REPORT ►

VERTICAL ALIGNMENT REPORT OF PADRAUNA BYPASS

Sl. No	PVI	Level (m)	Curve Length	Grade		Diff. in Grade (%)	Chainage (m)		Level (m)		Type of Curve	K Value
	Design Chainage (m)			IN (%)	OUT (%)		Start of Curve	End of Curve	Start of Curve	End of Curve		
1	13+830.000	87.113	75	0.387	1.47	1.083	13+792.304	391+135.951	86.967	87.667	Sag	69.645
2	13+996.638	89.562	200	1.47	-0.022	-1.491	13+896.638	391+424.427	88.092	89.54	Hog	134.12
3	14+190.000	89.520	110	-0.022	-0.811	-0.79	14+135.000	391+707.156	89.532	89.074	Hog	139.32
4	14+412.065	87.719	100	-0.811	0.725	1.536	14+362.065	391+827.822	88.124	88.081	Sag	65.098
5	14+705.369	89.845	200	0.725	-0.681	-1.406	14+605.369	391+947.445	89.12	89.164	Hog	142.3
6	14+914.022	88.425	100	-0.681	0.032	0.712	14+864.022	392+137.467	88.765	88.441	Sag	140.37
7	15+410.000	88.583	150	0.032	0.084	0.052	15+335.000	392+457.031	88.559	88.646	Sag	2863.9
8	15+910.000	89.004	100	0.084	1.115	1.031	15+860.000	393+164.911	88.962	89.562	Sag	96.996
9	16+080.000	90.900	160	1.115	0	-1.115	16+000.000	393+872.727	90.008	90.9	Hog	143.47
10	16+220.000	90.900	75	0	1.711	1.711	16+182.395	394+375.424	90.9	91.543	Sag	43.964
11	16+370.000	93.466	141	1.711	-0.028	-1.739	16+299.482	394+838.479	92.26	93.446	Hog	81.095
12	16+602.449	93.400	225	-0.028	-0.585	-0.557	16+489.949	395+966.259	93.432	92.741	Hog	403.92
13	16+887.205	91.733	150	-0.585	-1.108	-0.522	16+812.205	397+206.817	92.172	90.902	Hog	287.34
14	17+125.000	89.099	100	-1.108	0.145	1.252	17+075.000	398+591.783	89.653	89.172	Sag	79.852
15	17+380.000	89.468	100	0.145	0.914	0.77	17+330.000	399+738.356	89.396	89.926	Sag	129.95
16	17+635.000	91.800	135	0.914	0	-0.914	17+567.500	400+674.514	91.183	91.8	Hog	147.65
17	17+845.000	91.800	197	0	-1.436	-1.436	17+746.256	401+210.786	91.8	90.382	Hog	137.54
18	18+040.000	89.000	103	-1.436	1.152	2.5	17+988.569	401+790.329	89.738	89.593	Sag	39.743
19	18+245.303	91.366	135	1.152	0.193	-0.959	18+177.803	402+216.353	90.588	91.496	Hog	140.78
20	18+470.000	91.800	80	0.193	0	-0.193	18+430.000	402+683.949	91.723	91.8	Hog	413.87
21	18+608.625	91.800	125	0	1.183	1.183	18+546.125	402+887.766	91.8	92.539	Sag	105.69
22	18+820.000	94.300	175	1.183	0	-1.183	18+732.500	405+100.487	93.265	94.3	Hog	147.96
23	19+000.000	94.300	80	0	-0.407	-0.407	18+960.000	405+988.208	94.3	94.137	Hog	196.45
24	19+147.499	93.699	100	-0.407	2.055	2.462	19+097.499	406+733.784	93.903	94.727	Sag	40.621
25	19+380.000	98.476	300	2.055	0.029	-2.026	19+230.000	412+899.773	95.394	98.519	Hog	148.1
26	19+810.000	98.600	350	0.029	-2.336	-2.364	19+635.000	414+194.035	98.55	94.513	Hog	148.02
27	20+175.000	90.075	185	-2.336	1.906	4.242	20+082.500	416+385.995	92.235	91.838	Sag	43.613
28	20+500.000	96.270	275	1.906	0	-1.906	20+362.500	416+636.955	93.649	96.27	Hog	144.27
29	20+870.000	96.270	310	0	-2.201	-2.201	20+715.000	416+741.604	96.27	92.859	Hog	140.86
30	21+146.667	90.181	100	-2.201	-0.124	2.077	21+096.667	416+950.212	91.282	90.119	Sag	48.141

Authorized Sign

Technocrats Advisory Services Private Limited Delhi

Project Title:-

Preparation of Detailed Project Report, Pre construction activities and project supervision of 1) Preparation of Detailed project report of Padrauna bypass 4L+PS. 2) Completion of pre-construction activities of 4L+PS /2L+PS work of NH-727 from 0.000 to 46.500.
3) Project Supervision as Independent engineer of 4L+PS/2L+ PS work of NH-727 from 0.000 to 46.500, for the project national highways in the state of Uttar Pradesh

CLIENT:-

सत्यमेव जयते

MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:- Vertical Report

Drawing No. :- MORTH/TASPL/DPR/KUSHI-CHAP/VR

Scale :- Not to Scale

Drn	Dgn.	Appd	Sheet :
DEEPAK	S.B.PANDEY	S.K.UPADHYAY	01 OF 02

CONSULTANT:-

TASPL

Technocrats Advisory Services Pvt. Ltd.
68, Ajanta Apartment, 36, I.P.Extension
Patparganj, Delhi-110092

ACTUAL SHEET SIZE – A3

VERTICAL ALIGNMENT REPORT OF PADRAUNA BYPASS

Sl. No	PVI	Level (m)	Curve Length	Grade		Diff. in Grade (%)	Chainage (m)		Level (m)		Type of Curve	K Value
	Design Chainage (m)			IN (%)	OUT (%)		Start of Curve	End of Curve	Start of Curve	End of Curve		
31	21+395.249	89.874	100	-0.124	2.508	2.631	21+345.249	417+148.180	89.936	91.128	Sag	38.004
32	21+779.100	99.500	350	2.508	0	-2.508	21+604.100	417+378.772	95.111	99.5	Hog	139.57
33	22+225.000	99.500	350	0	-2.494	-2.494	22+050.000	417+646.771	99.5	95.136	Hog	140.35
34	22+530.000	91.894	99	-2.494	-0.17	2.324	22+480.227	419+015.042	93.135	3182.6	Sag	16

Authorized Sign

Technocrats Advisory Services Private Limited Delhi

Project Title:-

Preparation of Detailed Project Report, Pre construction activities and project supervision of 1) Preparation of Detailed project report of Padrauna bypass 4L+PS. 2) Completion of pre-construction activities of 4L+PS /2L+PS work of NH-727 from 0.000 to 46.500.
3) Project Supervision as Independent engineer of 4L+PS/2L+ PS work of NH-727 from 0.000 to 46.500, for the project national highways in the state of Uttar Pradesh

CLIENT:-

सत्यमेव जयते

MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:- Vertical Report

Drawing No. :- MORTH/TASPL/DPR/KUSHI-CHAP/VR

Scale :- Not to Scale

Drn	Dgn.	Appd	Sheet :
DEEPAK	S.B.PANDEY	S.K.UPADHYAY	02 OF 02

CONSULTANT:-

TASPL

Technocrats Advisory Services Pvt. Ltd.
68, Ajanta Apartment, 36, I.P.Extension
Patparganj, Delhi-110092

ACTUAL SHEET SIZE – A3

Plan & Profile

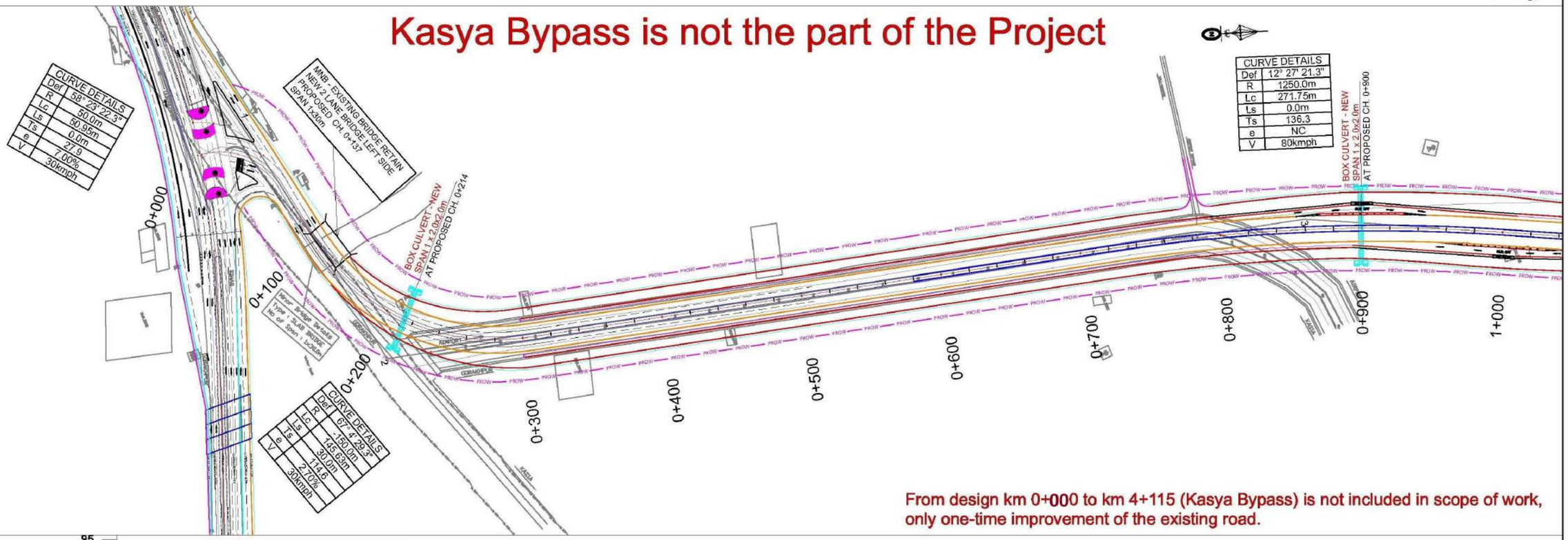
PLAN & PROFILE

SOWiL Limited

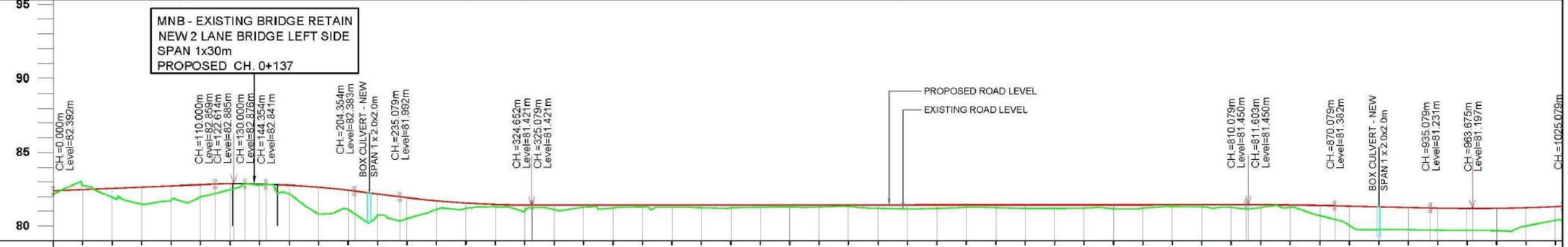
TO KUSHINAGAR

TO CHAPWA

Kasya Bypass is not the part of the Project

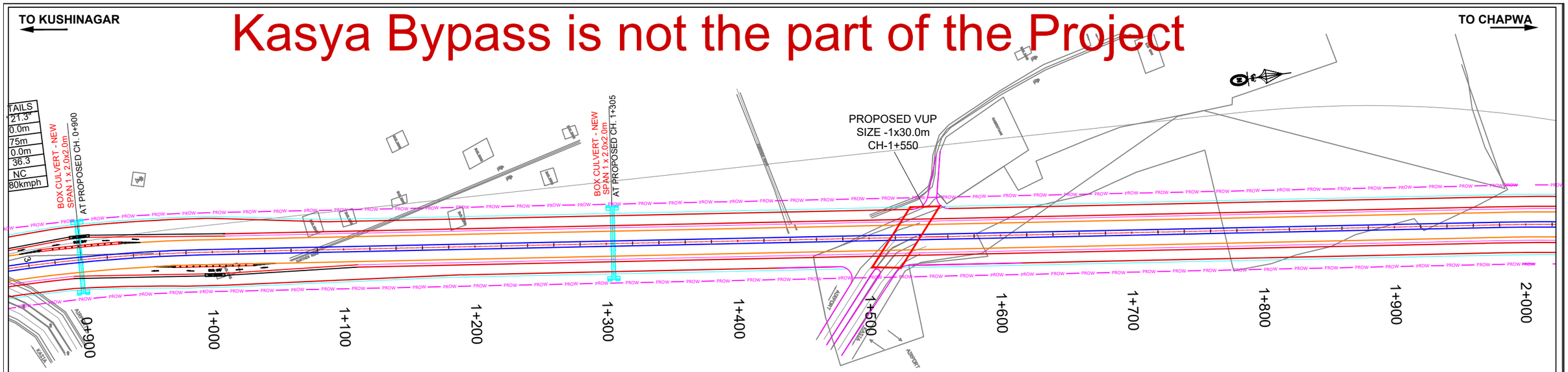


From design km 0+000 to km 4+115 (Kasya Bypass) is not included in scope of work, only one-time improvement of the existing road.

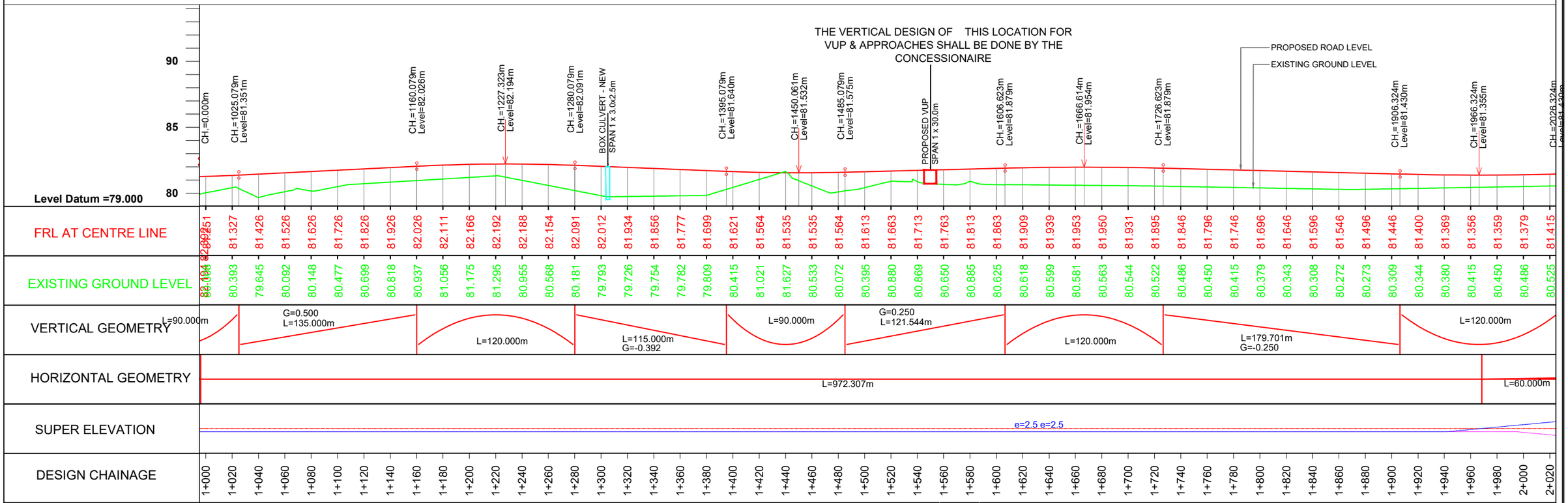


| | | |

Kasya Bypass is not the part of the Project



From design km 0+000 to km 4+115 (Kasya Bypass) is not included in scope of work, only one-time improvement of the existing road.



CLIENT:	CONSULTANT: **SOWiL Limited** Goodwill Avenue,1st Floor,"A" Wing Office No.-2, Plot No-1, Sector-40, Nerul (west), Navi Mumbay-400706 Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259	PROJECT: Consultancy Services for Feasibility Study of Detailed Project Report for improvement and up-gradation of newly declared National Highways including existing NH-97 & NH-28B in the state of Uttar Pradesh-PkgVI.[Stretch (i) Chapwa-Betwa-Chatauni-Kushinagar Road-NH-28B (ii) Ghazipur-Jamaniya-Saiyad Raja Road-NH-97 and Length 116.43 Km.]	Prepared by: M.S.Bisht Designed by: Gulista Parveen Checked by: Arun Kumar Bag Approved by: Pankaj Vora	Revisions: R0 Date: October, 2023 Description: FINAL DETAIL PROJECT REPORT	TITLE : PLAN AND PROFILE CHAINAGE 1+000Km. TO 2+000Km. DWG NO. : KN-D_FDPR_HWY_PP-02 — SHEET 02 TO 58 SCALEH-1:2000 V-200 @ (A2) — DATE : October, 2023

Kasya Bypass is not the part of the Project

TO KUSHINAGAR

TO CHAPWA

CURVE DETAILS	
Def	44° 42' 25.8"
R	800.0m
Lc	564.23m
Ls	60.0m
Ts	359.1
e	3.00%
V	100kmph

AIRPORT BOUNDARY WALL

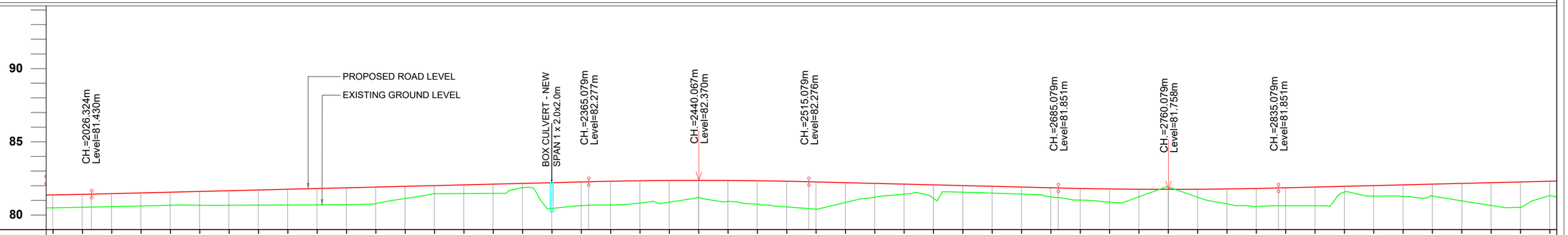
KASYA BYPASS

BOX CULVERT - NEW
SPAN 1 x 2.0x2.0m
AT PROPOSED CH 2+440

BOX CULVERT - NEW
SPAN 1 x 2.0x2.0m
AT PROPOSED CH 1+860

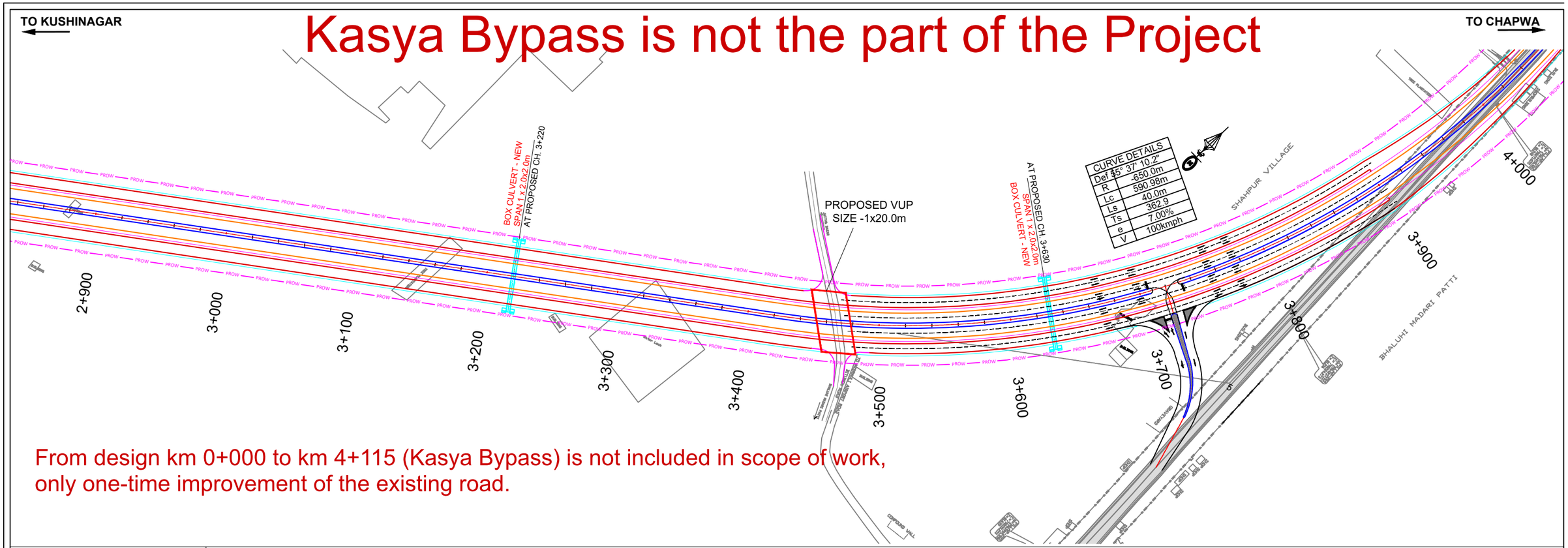
1+800 1+900 2+000 2+100 2+200 2+300 2+400 2+500 2+600 2+700 2+800 2+900 3+000

From design km 0+000 to km 4+115 (Kasya Bypass) is not included in scope of work, only one-time improvement of the existing road.

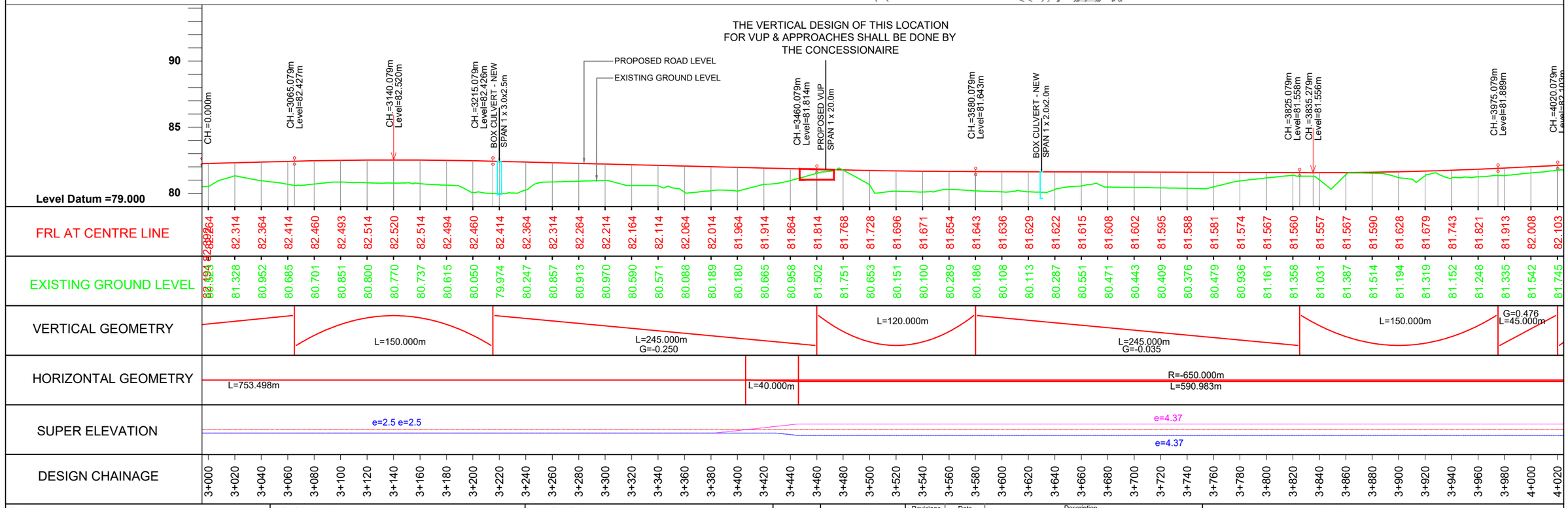


| | | |

Kasya Bypass is not the part of the Project



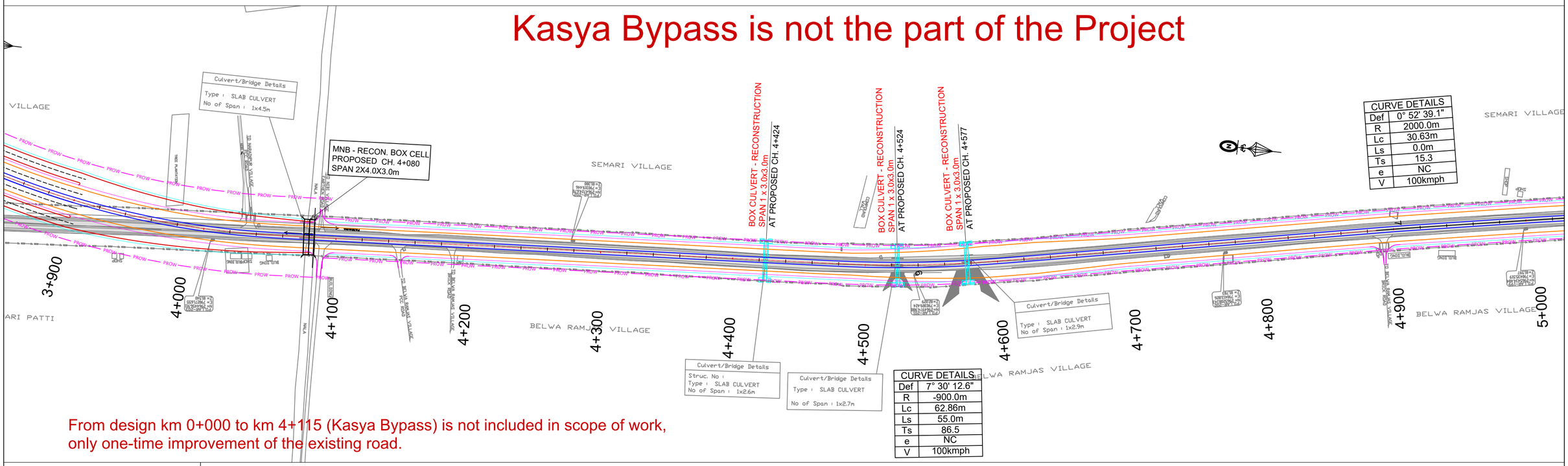
From design km 0+000 to km 4+115 (Kasya Bypass) is not included in scope of work, only one-time improvement of the existing road.



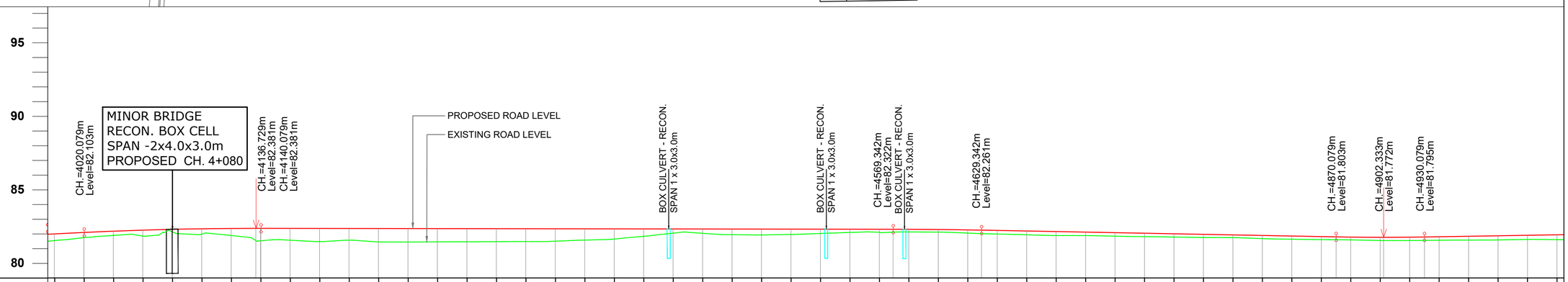
CLIENT:	CONSULTANT: **SOWiL Limited** Goodwill Avenue,1st Floor,"A" Wing Office No.-2, Plot No.-1, Sector-40, Nerul (west), Navi Mumbay-400706 Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259	PROJECT: Consultancy Services for Feasibility Study of Detailed Project Report for improvement and up-gradation of newly declared National Highways including existing NH-97 & NH-28B in the state of Uttar Pradesh-PkgVI.[Stretch (i) Chapwa-Betwa-Chatauni-Kushinagar Road-NH-28B (ii) Ghazipur-Jamaniya-Saiyad Raja Road-NH-97 and Length 116.43 Km.]	Prepared by: M.S.Bisht Designed by: Gulista Parveen Checked by: Arun Kumar Bag Approved by: Pankaj Vora	Revisions: R0 Date: October, 2023 Description: FINAL DETAIL PROJECT REPORT	TITLE : PLAN AND PROFILE CHAINAGE 3+000Km. TO 4+000Km. DWG NO. : KN-D_FDPR_HWY_PP-04 — SHEET 04 TO 58 SCALE-1:2000 V-200 @ (A2) — DATE : October, 2023

TO KUSHINAGAR ← **TO CHAPWA** →

Kasya Bypass is not the part of the Project



From design km 0+000 to km 4+115 (Kasya Bypass) is not included in scope of work, only one-time improvement of the existing road.



| | | |

TO KUSHINAGAR ←

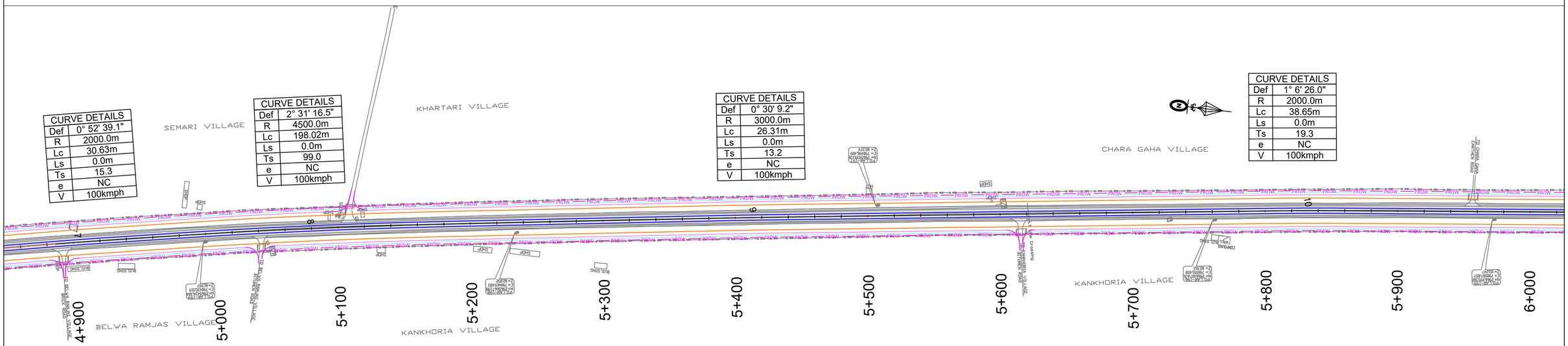
TO CHAPWA →

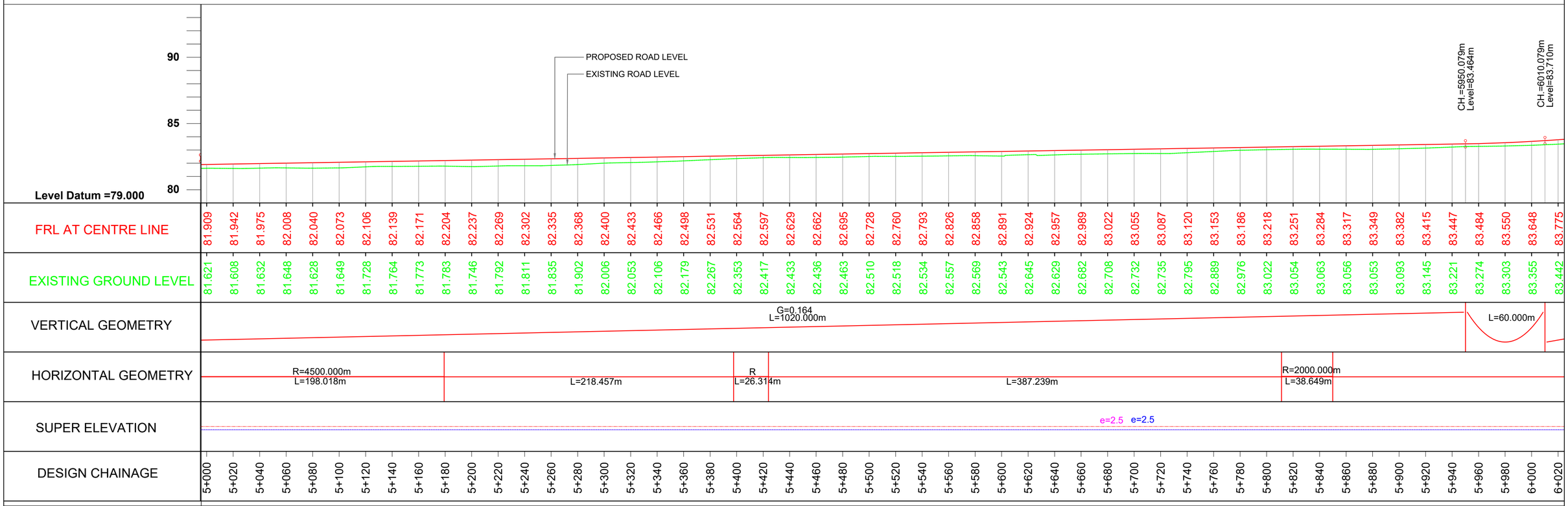
CURVE DETAILS	
Def	0° 52' 39.1"
R	2000.0m
Lc	30.63m
Ls	0.0m
Ts	15.3
e	NC
V	100kmph

CURVE DETAILS	
Def	2° 31' 16.5"
R	4500.0m
Lc	198.02m
Ls	0.0m
Ts	99.0
e	NC
V	100kmph

CURVE DETAILS	
Def	0° 30' 9.2"
R	3000.0m
Lc	26.31m
Ls	0.0m
Ts	13.2
e	NC
V	100kmph

CURVE DETAILS	
Def	1° 6' 26.0"
R	2000.0m
Lc	38.65m
Ls	0.0m
Ts	19.3
e	NC
V	100kmph





CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार Government of India

CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2, Plot No.- 1, Sector-40, Nerul (west), Navi Mumbay-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for Feasibility Study of Detailed Project Report for improvement and up-gradation of newly declared National Highways including existing NH-97 & NH-28B in the state of Uttar Pradesh-PkgVI.[Stretch (i) Chapwa-Betwa-Chatauni-Kushinagar Road-NH-28B (ii) Ghazipur-Jamaniya-Saiyad Raja Road-NH-97 and Length 116.43 Km.]

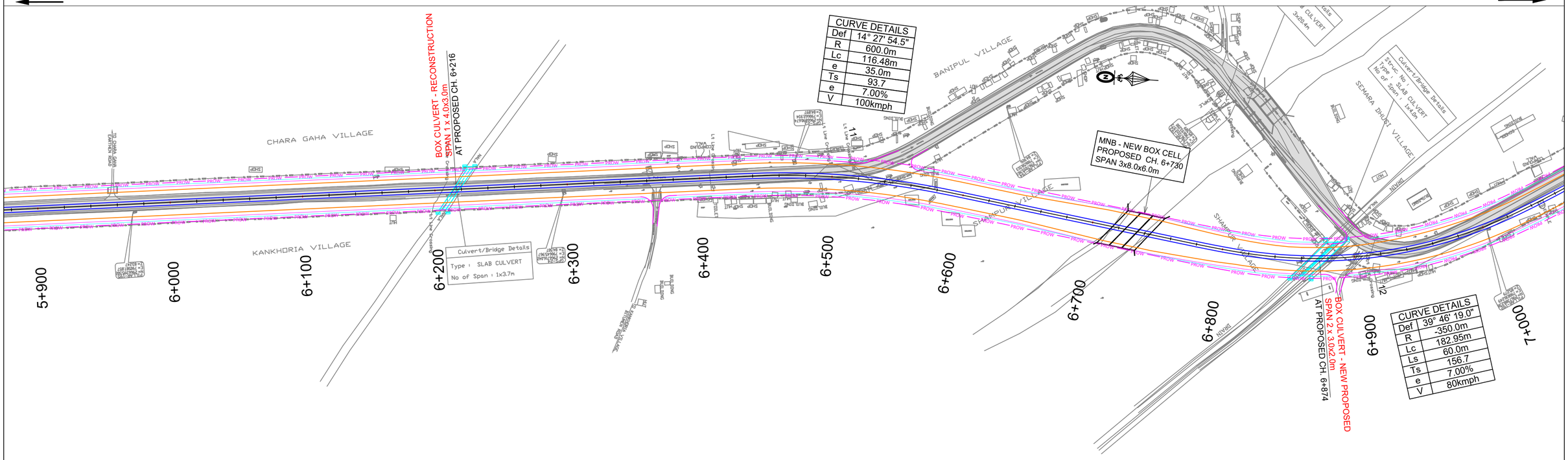
Prepared by	M.S.Bisht
Designed by	Gulista Parveen
Checked by	Arun Kumar Bag
Approved by	Pankaj Vora

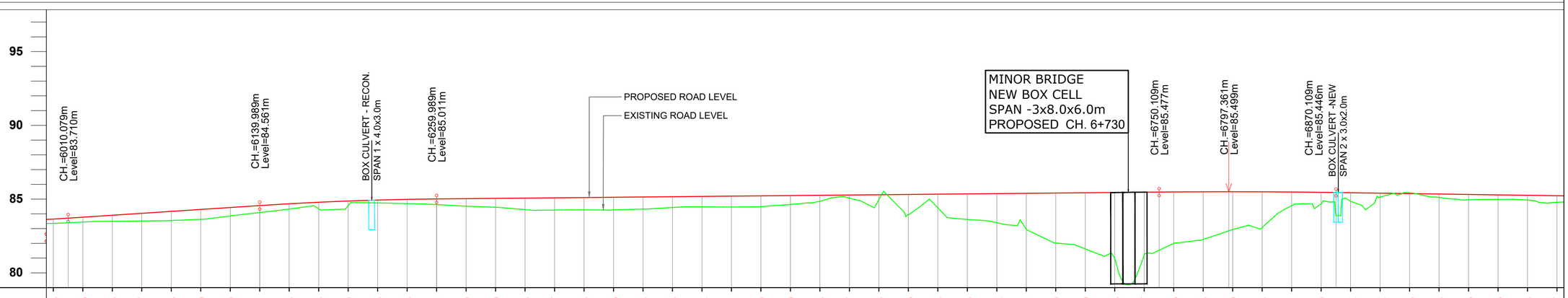
Revisions	Date	Description
R0	October, 2023	FINAL DETAIL PROJECT REPORT

TITLE : PLAN AND PROFILE
CHAINAGE : 5+000Km. TO 6+000Km.
DWG NO. : KN-D_FDPR_HWY_PP-06 | SHEET 06 TO 58
SCALE : H-1:2000 V-200 @ (A2) | DATE : October, 2023

TO KUSHINAGAR

TO CHAPWA

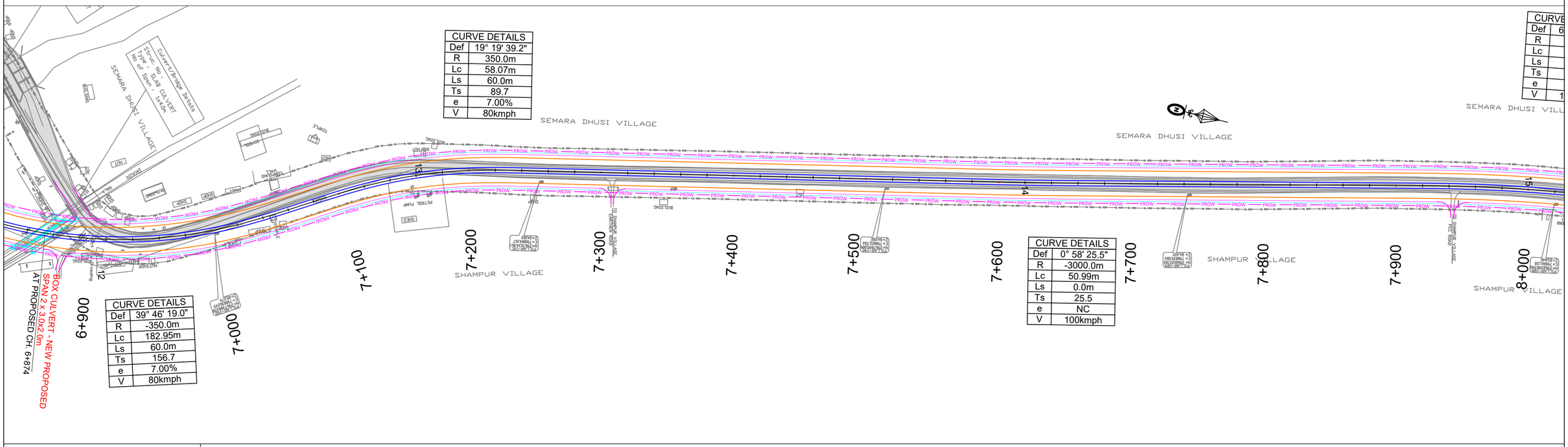




| | | |

TO KUSHINAGAR ←

TO CHAPWA →

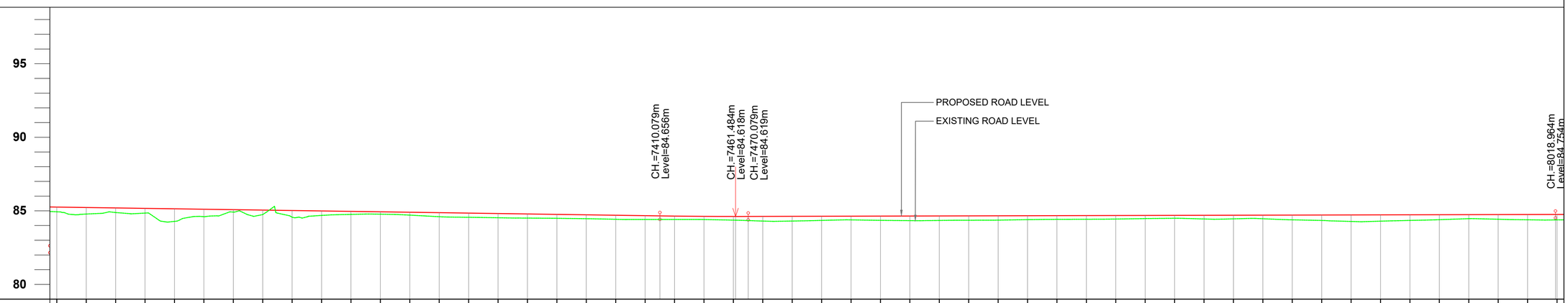


CURVE DETAILS	
Def	19° 19' 39.2"
R	350.0m
Lc	58.07m
Ls	60.0m
Ts	89.7
e	7.00%
V	80kmph

CURVE DETAILS	
Def	39° 46' 19.0"
R	-350.0m
Lc	182.95m
Ls	60.0m
Ts	156.7
e	7.00%
V	80kmph

CURVE DETAILS	
Def	0° 58' 25.5"
R	-3000.0m
Lc	50.99m
Ls	0.0m
Ts	25.5
e	NC
V	100kmph

CURVE	
Def	6
R	
Lc	
Ls	
Ts	
e	
V	1



| | | |

TO KUSHINAGAR ←

TO CHAPWA →

CURVE DETAILS	
Def	6° 49' 52.1"
R	1200.0m
Lc	103.07m
Ls	40.0m
Ts	91.6
e	3.70%
V	100kmph

CURVE DETAILS	
Def	2° 32' 17.3"
R	3000.0m
Lc	132.90m
Ls	0.0m
Ts	66.5
e	NC
V	100kmph

CURVE DETAILS	
Def	4° 30' 11.9"
R	2000.0m
Lc	157.19m
Ls	0.0m
Ts	78.6
e	NC
V	100kmph

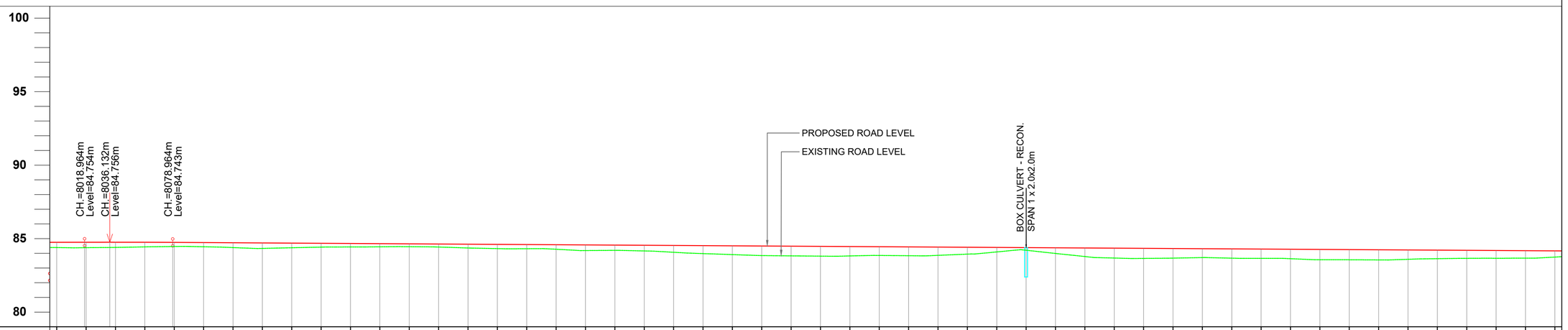
CURVE DETAILS	
Def	1° 24' 48.3"
R	2000.0m
Lc	49.34m
Ls	0.0m
Ts	24.7
e	NC
V	100kmph

BOX CULVERT - RECONSTRUCTION
SPAN 1 x 2.0x2.0m
AT PROPOSED CH. 8+660

Culvert/Bridge Details	
Type :	SLAB CULVERT
No of Span :	1x1.5m

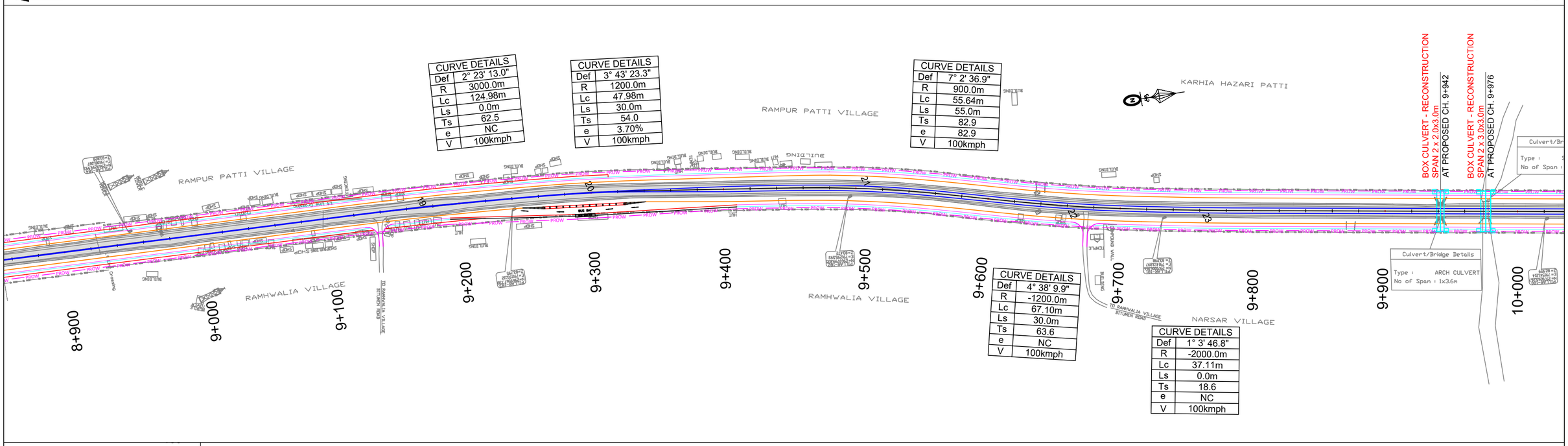
SEMARA DHUSI VILLAGE
RAMPUR PATTI VILLAGE
RAMHWALIA VILLAGE
SHAMPUR VILLAGE
RAMPUR P

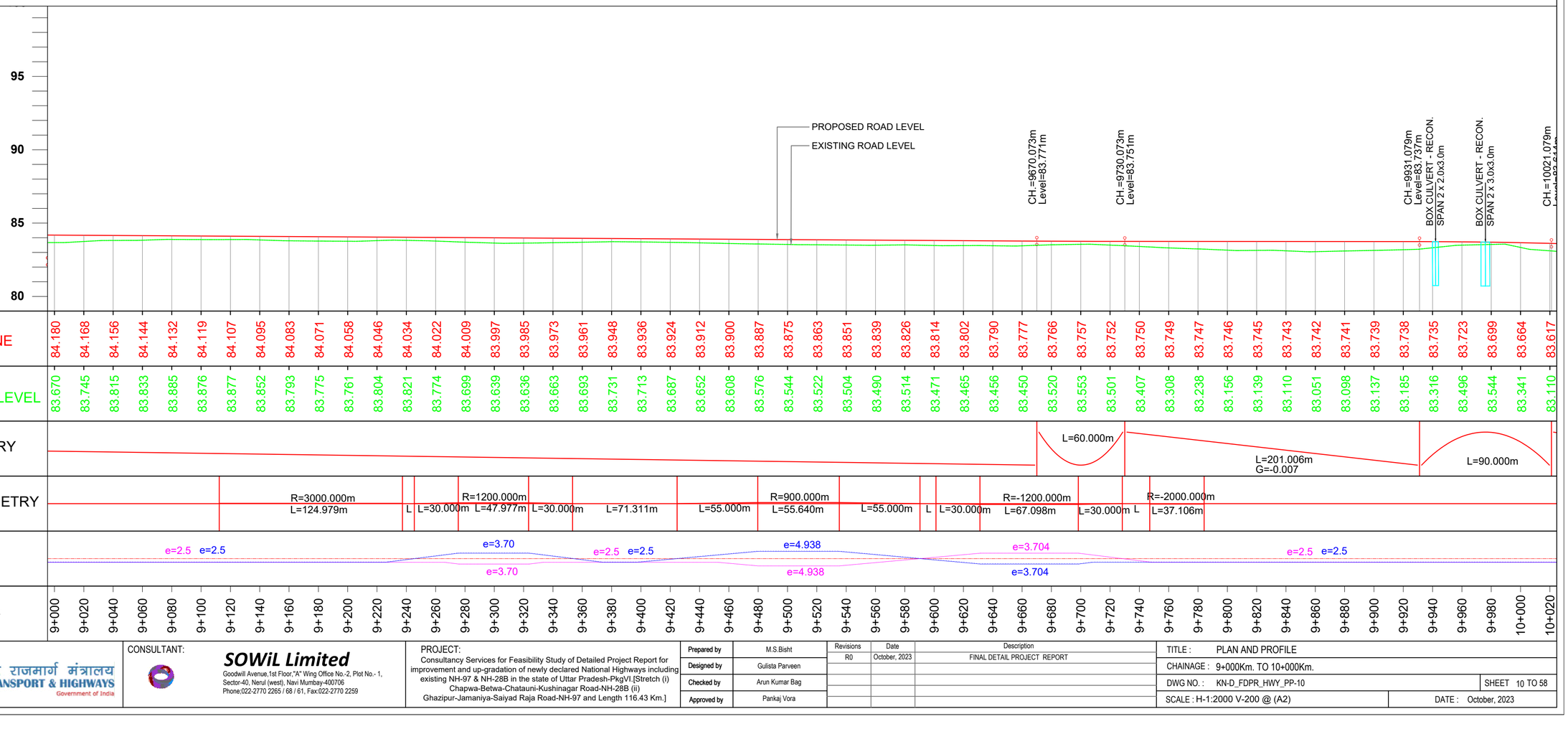
7+900 8+000 8+100 8+200 8+300 8+400 8+500 8+600 8+700 8+800 8+900 9+000



| | | |

TO KUSHINAGAR ← **TO CHAPWA** →





CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार Government of India

CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2, Plot No.- 1, Sector-40, Nerul (west), Navi Mumbay-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for Feasibility Study of Detailed Project Report for improvement and up-gradation of newly declared National Highways including existing NH-97 & NH-28B in the state of Uttar Pradesh-PkgVI.[Stretch (i) Chapwa-Betwa-Chatauni-Kushinagar Road-NH-28B (ii) Ghazipur-Jamaniya-Saiyad Raja Road-NH-97 and Length 116.43 Km.]

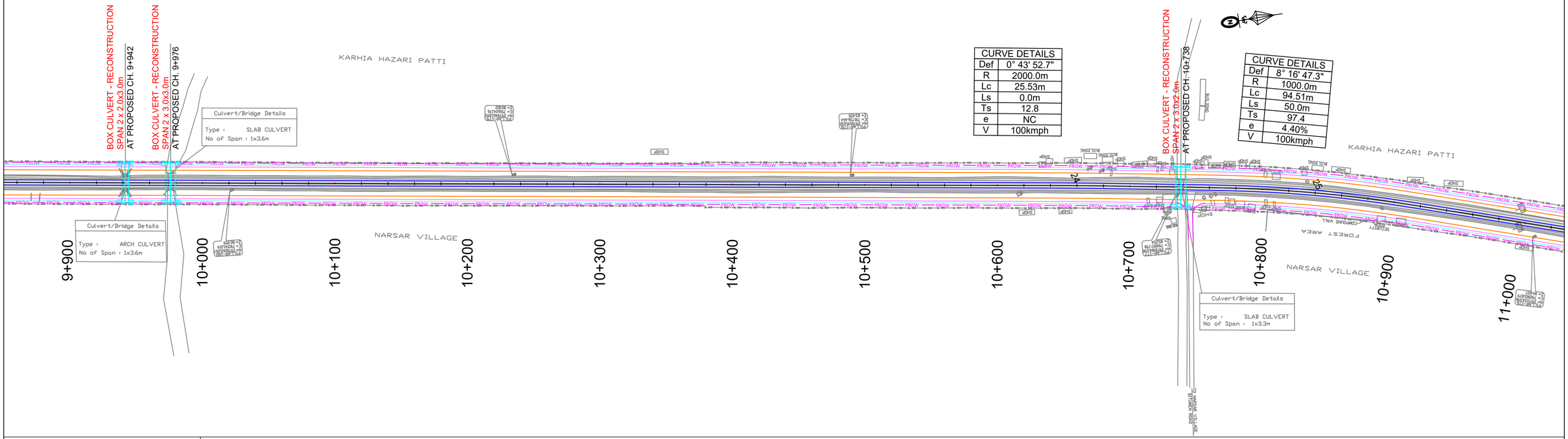
Prepared by	M.S.Bisht
Designed by	Gulista Parveen
Checked by	Arun Kumar Bag
Approved by	Pankaj Vora

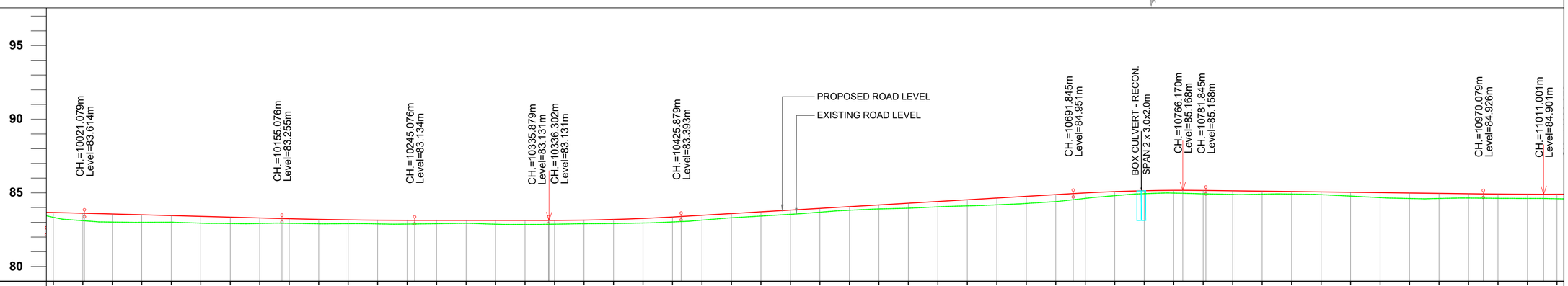
Revisions	Date	Description
R0	October, 2023	FINAL DETAIL PROJECT REPORT

TITLE : PLAN AND PROFILE
CHAINAGE : 9+000Km. TO 10+000Km.
DWG NO. : KN-D_FDPR_HWY_PP-10 SHEET 10 TO 58
SCALE : H-1:2000 V-200 @ (A2) DATE : October, 2023

TO KUSHINAGAR ←

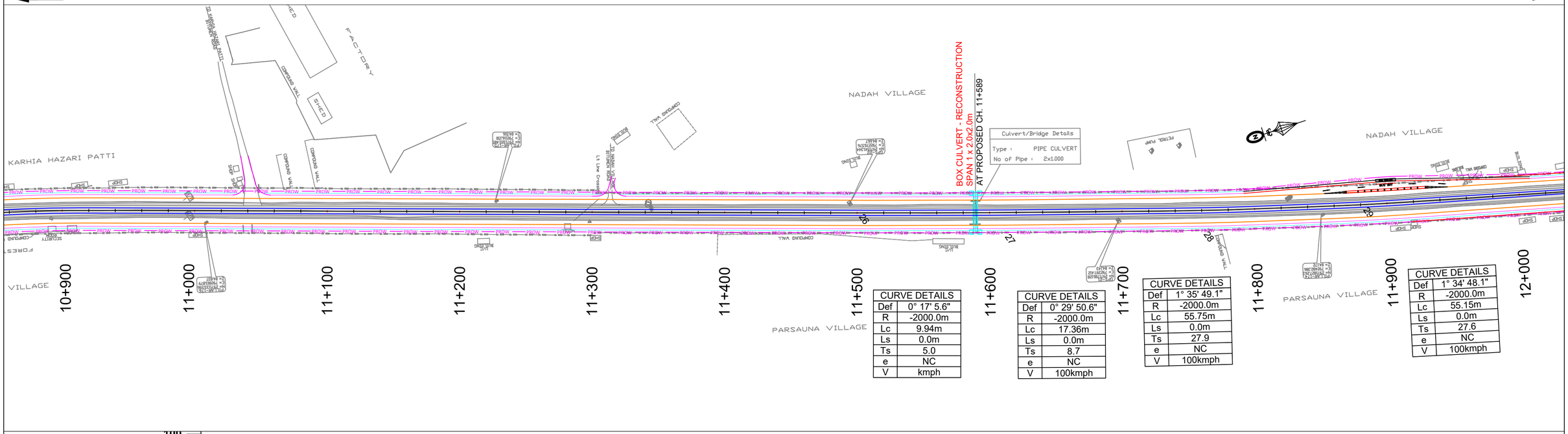
TO CHAPWA →





| | | |

TO KUSHINAGAR ← **TO CHAPWA** →

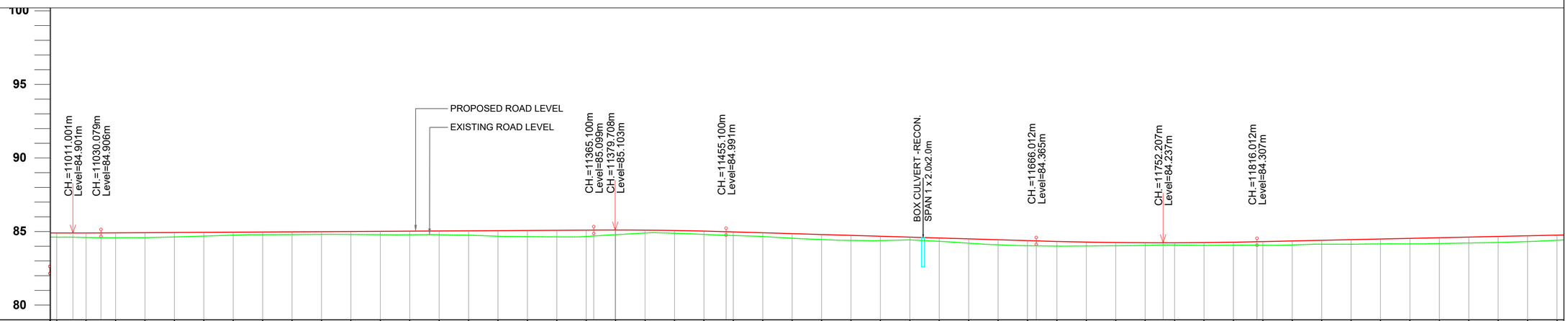


CURVE DETAILS	
Def	0° 17' 5.6"
R	-2000.0m
Lc	9.94m
Ls	0.0m
Ts	5.0
e	NC
V	kmph

CURVE DETAILS	
Def	0° 29' 50.6"
R	-2000.0m
Lc	17.36m
Ls	0.0m
Ts	8.7
e	NC
V	100kmph

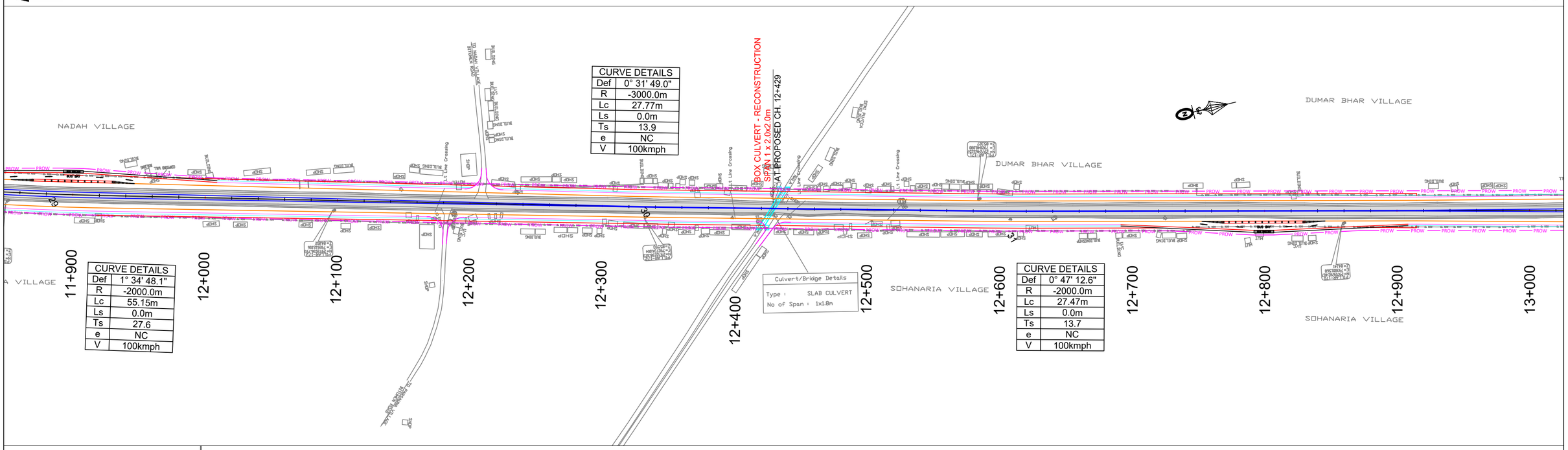
CURVE DETAILS	
Def	1° 35' 49.1"
R	-2000.0m
Lc	55.75m
Ls	0.0m
Ts	27.9
e	NC
V	100kmph

CURVE DETAILS	
Def	1° 34' 48.1"
R	-2000.0m
Lc	55.15m
Ls	0.0m
Ts	27.6
e	NC
V	100kmph



| | | |

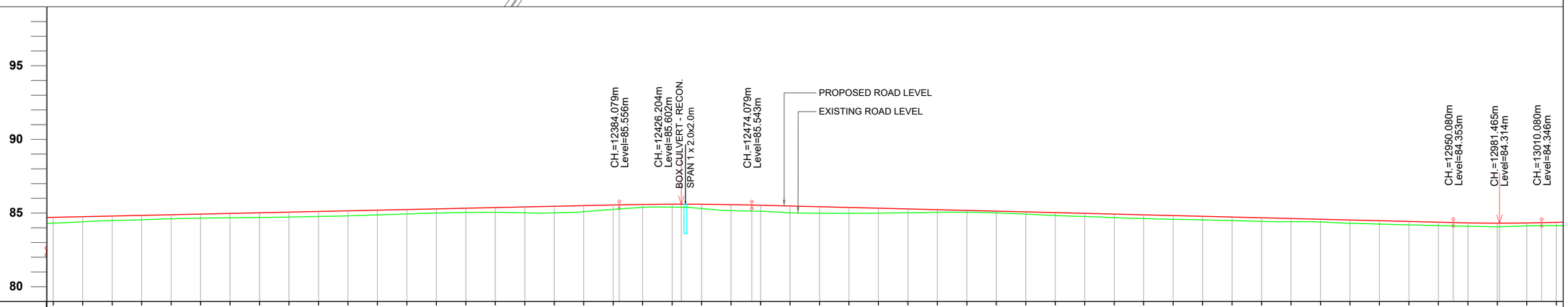
TO KUSHINAGAR ← **TO CHAPWA** →



CURVE DETAILS	
Def	1° 34' 48.1"
R	-2000.0m
Lc	55.15m
Ls	0.0m
Ts	27.6
e	NC
V	100kmph

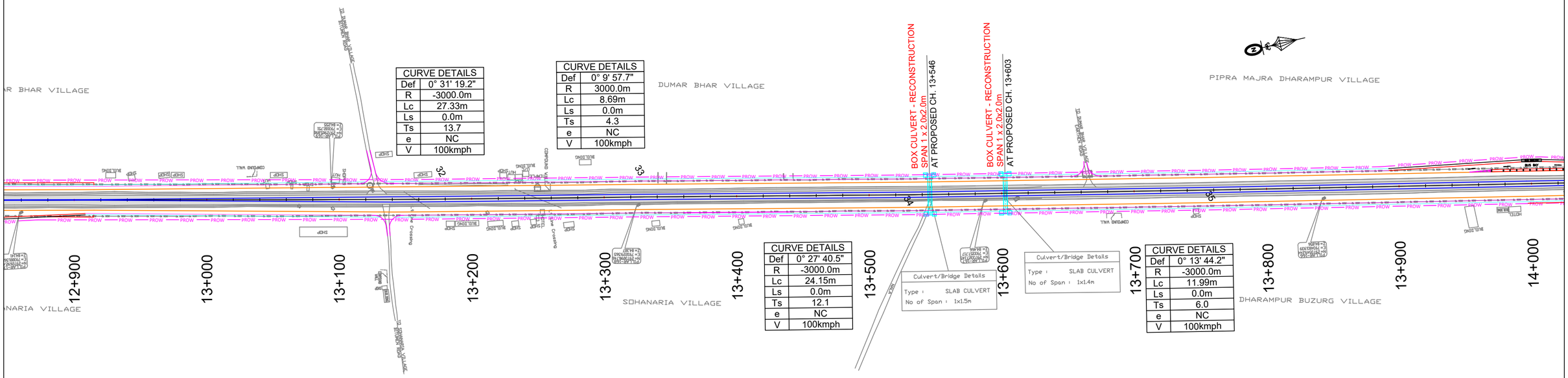
CURVE DETAILS	
Def	0° 31' 49.0"
R	-3000.0m
Lc	27.77m
Ls	0.0m
Ts	13.9
e	NC
V	100kmph

CURVE DETAILS	
Def	0° 47' 12.6"
R	-2000.0m
Lc	27.47m
Ls	0.0m
Ts	13.7
e	NC
V	100kmph



| | | |

TO KUSHINAGAR ← → **TO CHAPWA**

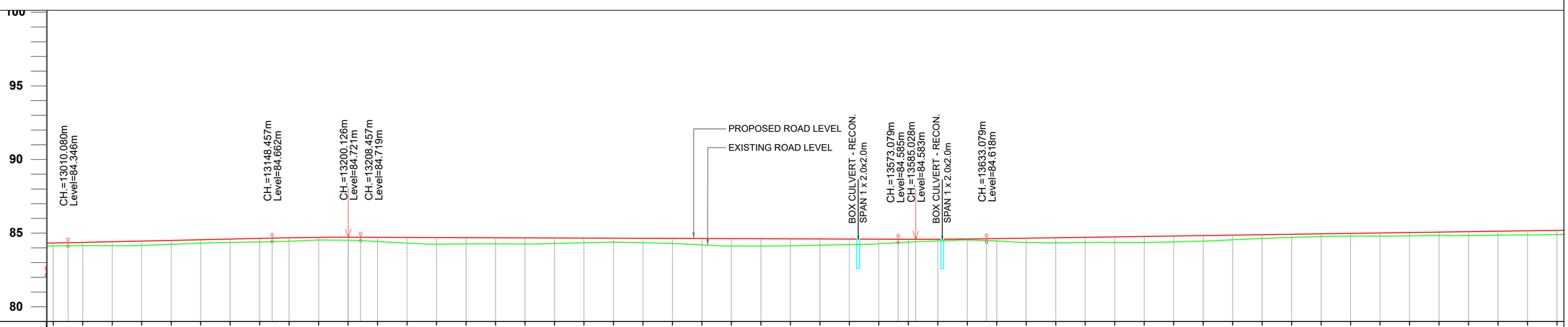


CURVE DETAILS	
Def	0° 31' 19.2"
R	-3000.0m
Lc	27.33m
Ls	0.0m
Ts	13.7
e	NC
V	100kmph

CURVE DETAILS	
Def	0° 9' 57.7"
R	3000.0m
Lc	8.69m
Ls	0.0m
Ts	4.3
e	NC
V	100kmph

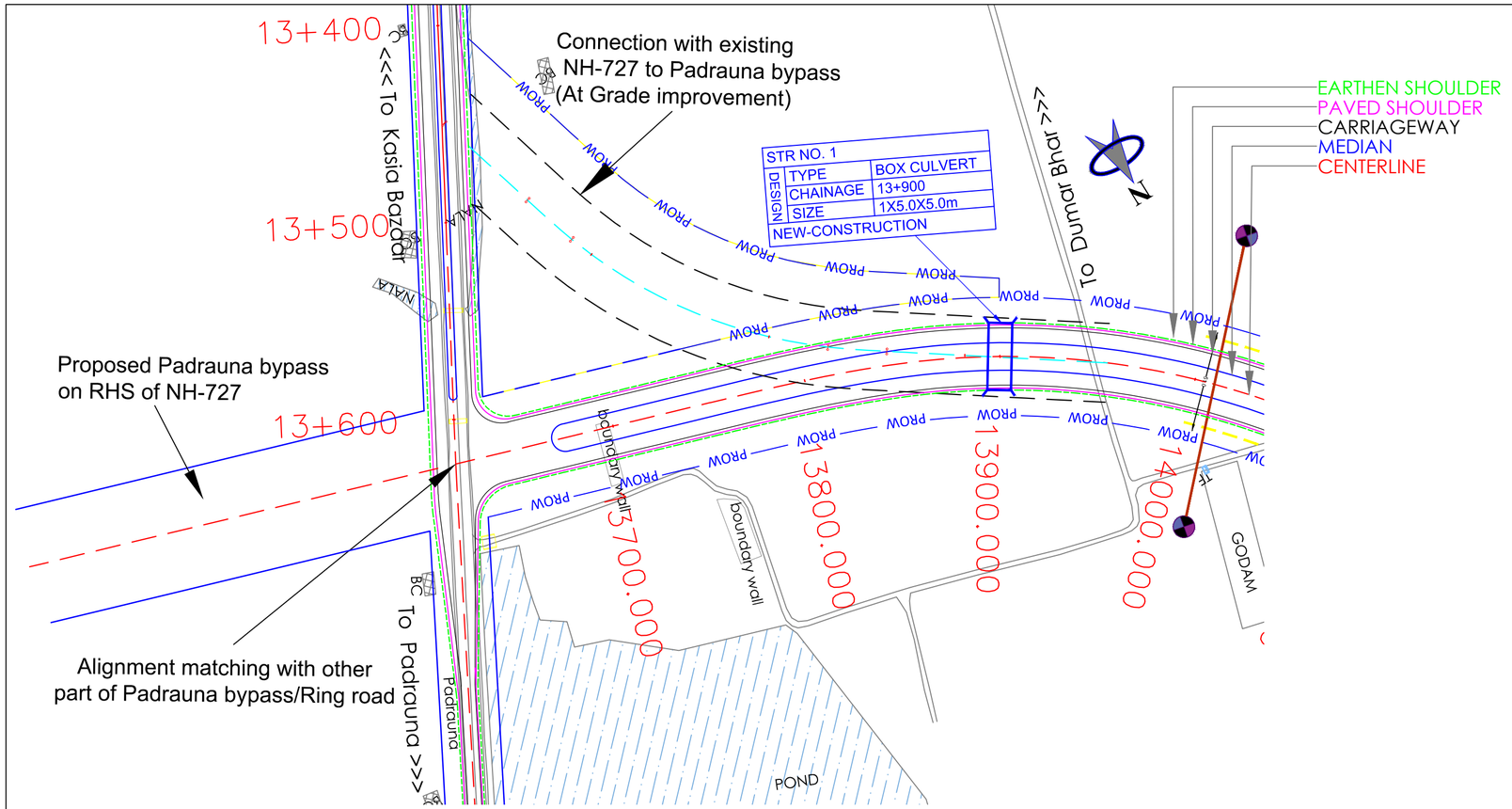
CURVE DETAILS	
Def	0° 27' 40.5"
R	-3000.0m
Lc	24.15m
Ls	0.0m
Ts	12.1
e	NC
V	100kmph

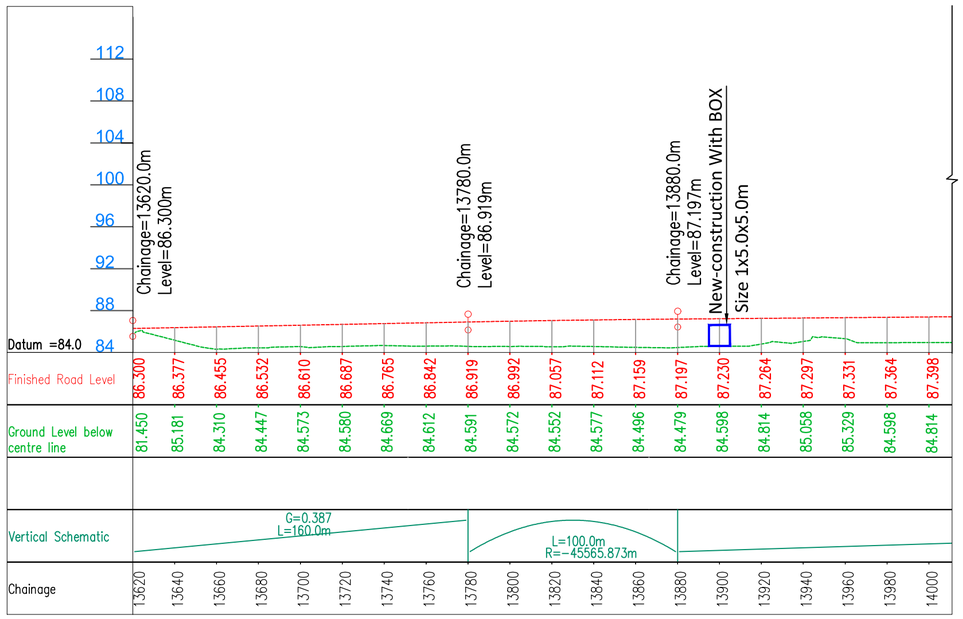
CURVE DETAILS	
Def	0° 13' 44.2"
R	-3000.0m
Lc	11.99m
Ls	0.0m
Ts	6.0
e	NC
V	100kmph



| | | |

PADRAUNA BYPASS ▶





Legend:-

- Center Line
- Carriageway
- Paved Shoulder
- Eartahn shoulder
- Crash Barrier
- Drain

Project Title:-

Preparation of DPR of Padrauna bypass & completion of Preconstruction activities of 4L+PS /2L+PS work of NH-727 from km 0.000 to km 46.500 in the state of Uttar Pradesh.

CLIENT:-

सत्यमेव जयते

MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:- Plan & Profile
From Km 13+620 to Km 14+000

Drawing No. :-TASPL/MORTH/DPR/PADRAUNA BYPASS/GAD/01

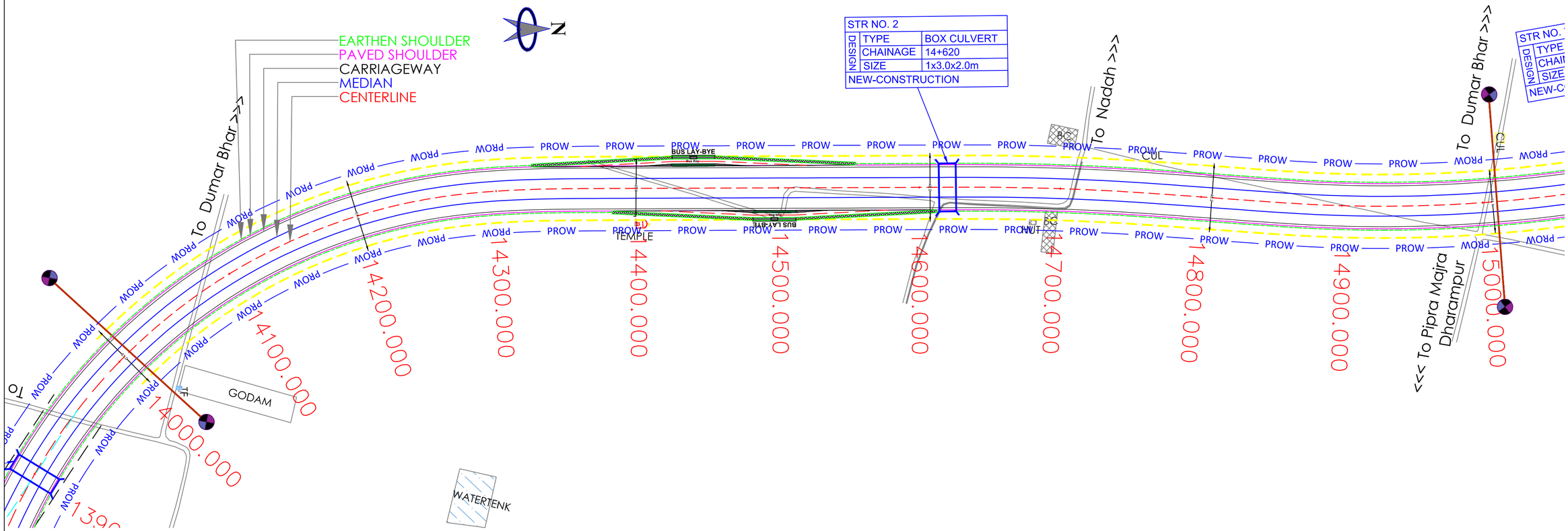
Scale :- 1:2000

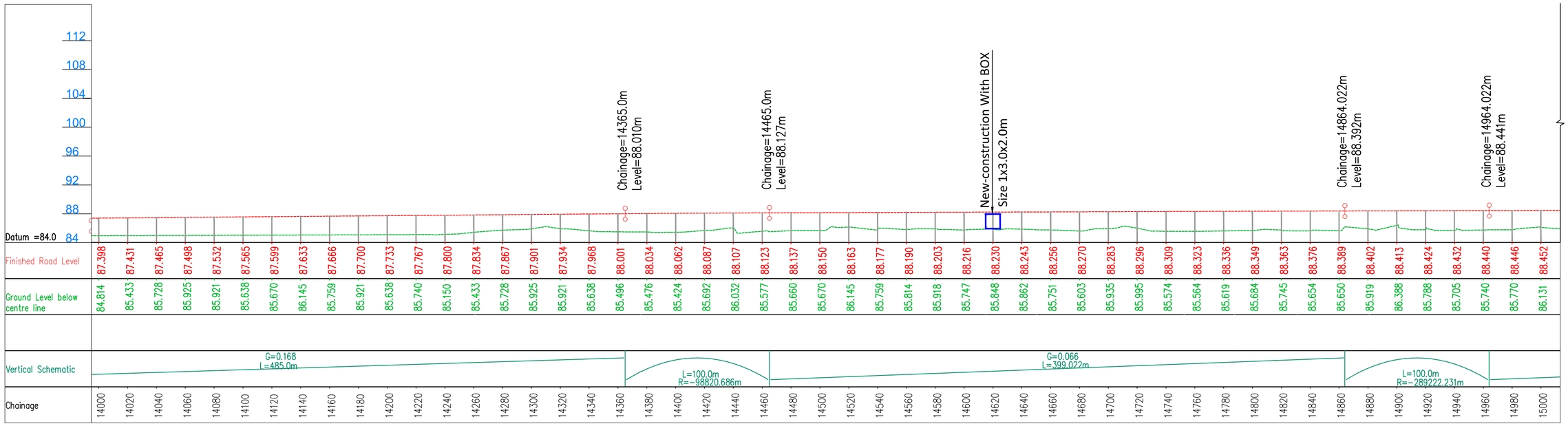
Drn	Dgn.	Appd	Sheet :
Deepak	Fayaz Ahmad	A. K. Singh	01 OF 11

CONSULTANT:-

TASPL

Technocrats Advisory Services Pvt. Ltd.
Flat No. 140, Mithila Apartment 76 IP
Extension Patparganj Delhi-110092





Technocrats Advisory Services Private Limited, Delhi

Legend:-

- Center Line
- Carriageway
- Paved Shoulder
- Eartahn shoulder
- Crash Barrier
- Drain

Project Title:-

Preparation of DPR of Padrauna bypass & completion of Preconstruction activities of 4L+PS /2L+PS work of NH-727 from km 0.000 to km 46.500 in the state of Uttar Pradesh.

CLIENT:-

सत्यमेव जयते

MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:- Plan & Profile
From Km 14+000 to Km 15+000

Drawing No. :-TASPL/MORTH/DPR/PADRAUNA BYPASS/GAD/01

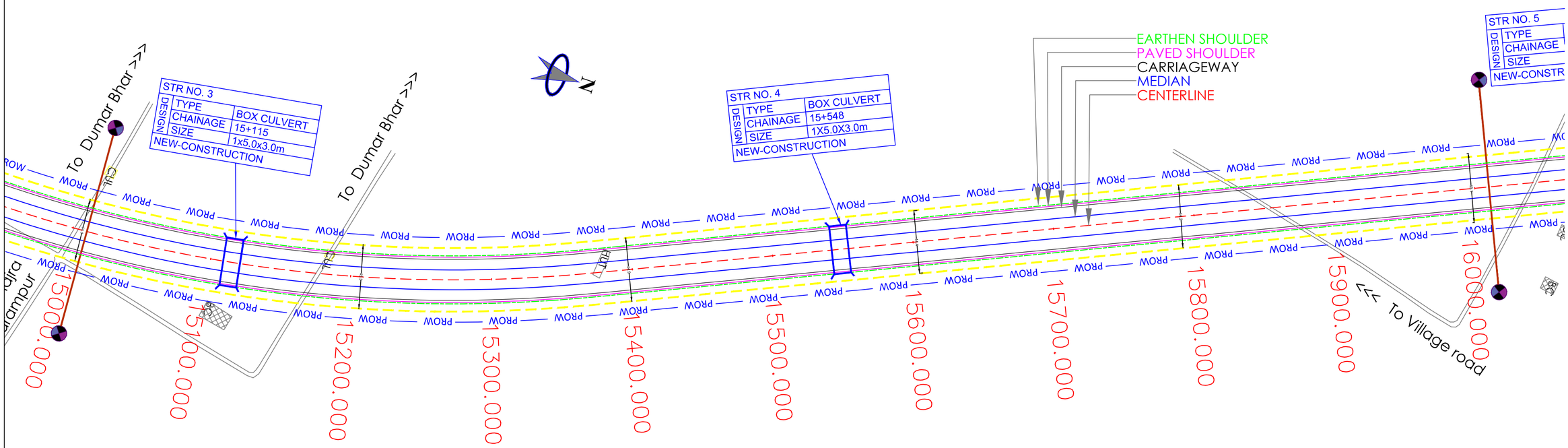
Scale :- 1:2000

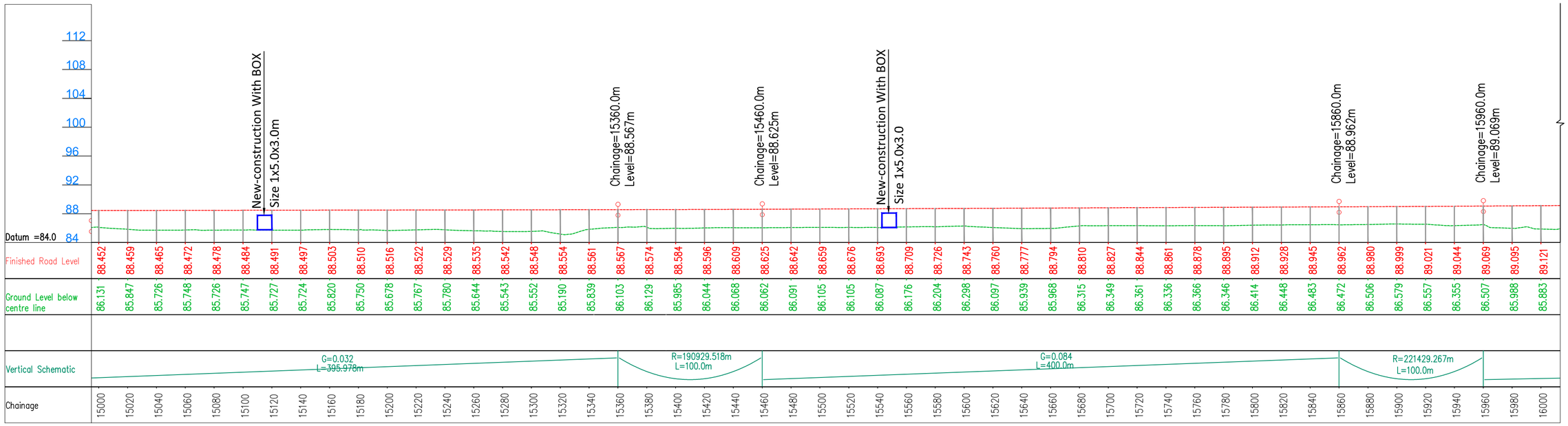
Drn	Dgn.	Appd	Sheet :
Deepak	Fayaz Ahmad	A. K. Singh	02 OF 11

CONSULTANT:-

TASPL

Technocrats Advisory Services Pvt. Ltd.
Flat No. 140, Mithila Apartment 76 IP
Extension Patparganj Delhi-110092





Legend:-

- Center Line
- Carriageway
- Paved Shoulder
- Eartahn shoulder
- Crash Barrier
- Drain

Project Title:-

Preparation of DPR of Padrauna bypass & completion of Preconstruction activities of 4L+PS /2L+PS work of NH-727 from km 0.000 to km 46.500 in the state of Uttar Pradesh.

CLIENT:-

MINISTRY OF ROAD TRANSPORT & HIGHWAYS

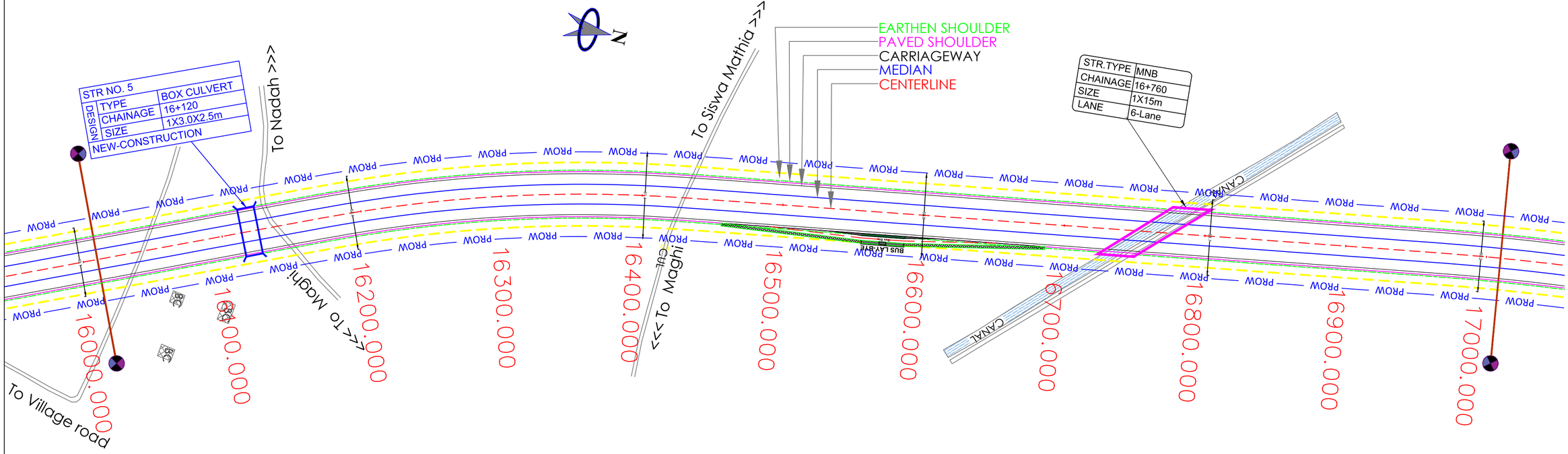
Drawing Title:- Plan & Profile
From Km 15+000 to Km 16+000

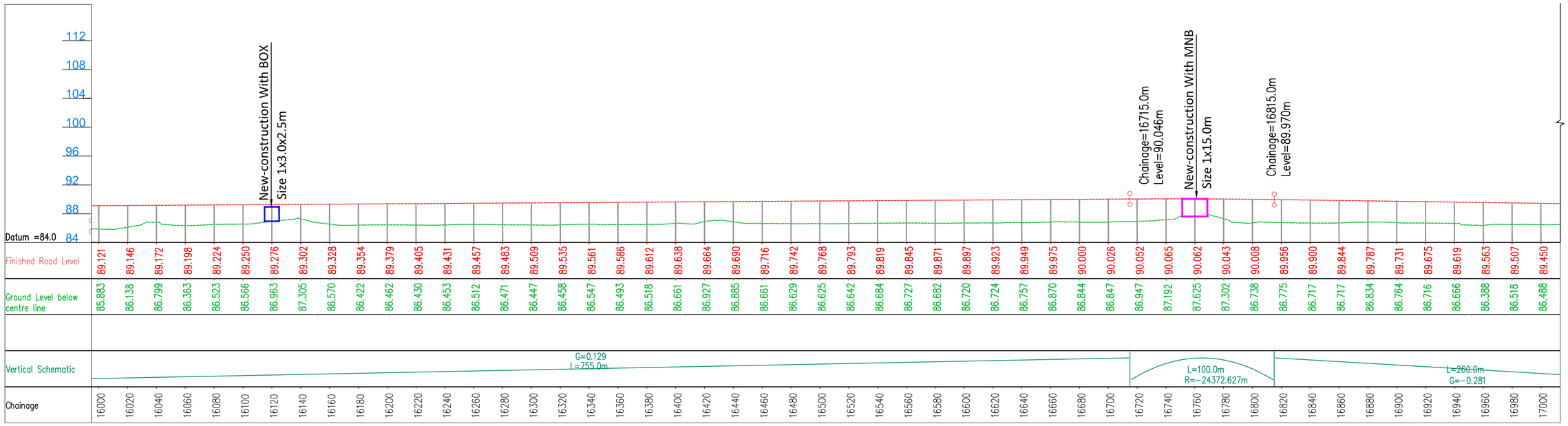
Drawing No. :-TASPL/MORTH/DPR/PADRAUNA BYPASS/GAD/01

Scale :- 1:2000			
Drn	Dgn.	Appd	Sheet :
Deepak	Fayaz Ahmad	A. K. Singh	03 OF 11

CONSULTANT:-

TASPL
Technocrats Advisory Services Pvt. Ltd.
Flat No. 140, Mithila Apartment 76 IP
Extension Patparganj Delhi-110092





Legend:-

- Center Line
- Carriageway
- Paved Shoulder
- Eartahn shoulder
- Crash Barrier
- Drain

Project Title:-

Preparation of DPR of Padrauna bypass & completion of Preconstruction activities of 4L+PS /2L+PS work of NH-727 from km 0.000 to km 46.500 in the state of Uttar Pradesh.

CLIENT:-

सत्यमेव जयते

MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:- Plan & Profile
From Km 16+000 to Km 17+000

Drawing No. :-TASPL/MORTH/DPR/PADRAUNA BYPASS/GAD/01

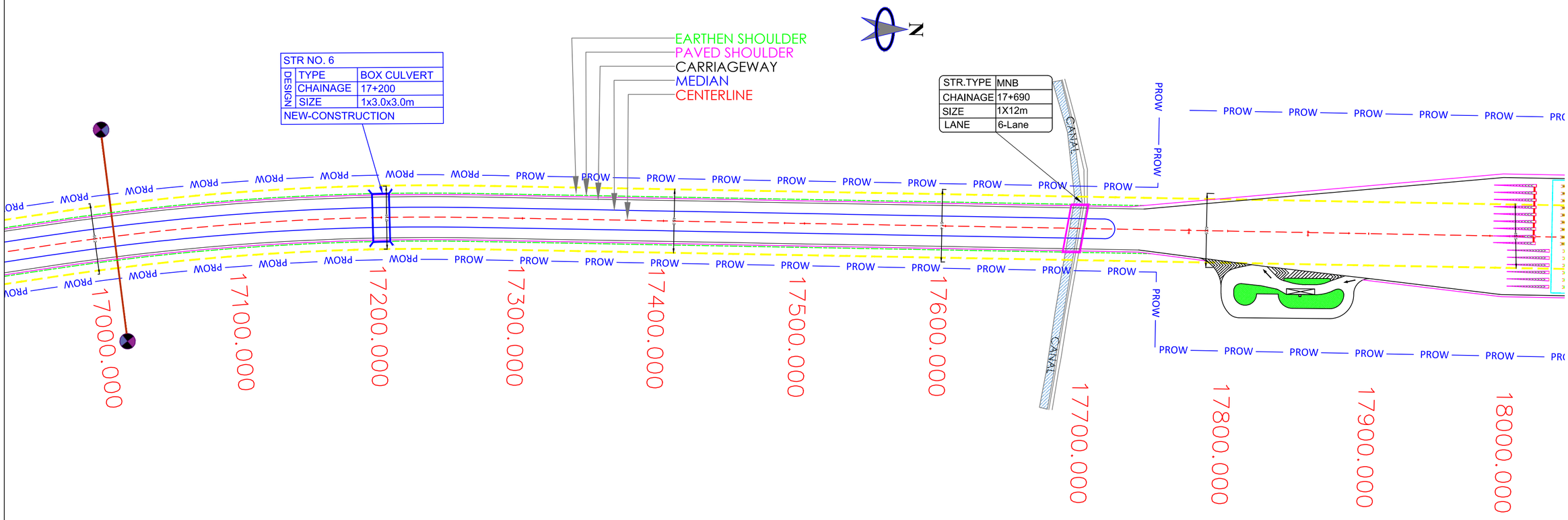
Scale :- 1:2000

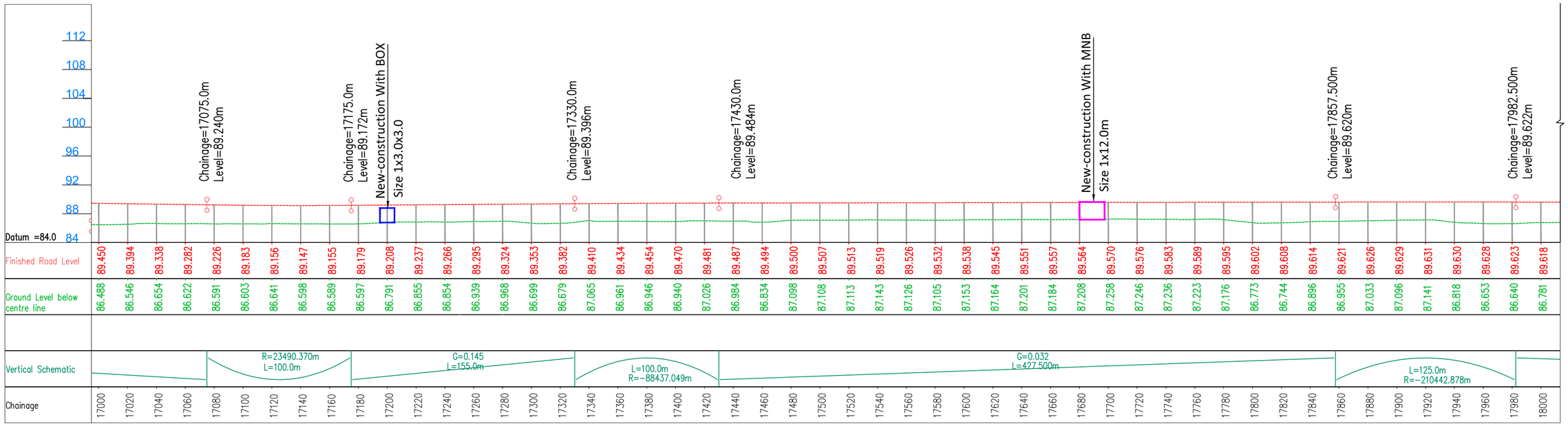
Drn	Dgn.	Appd	Sheet :
Deepak	Fayaz Ahmad	A. K. Singh	04 OF 11

CONSULTANT:-

TASPL

Technocrats Advisory Services Pvt. Ltd.
Flat No. 140, Mithila Apartment 76 IP
Extension Patparganj Delhi-110092





Technocrats Advisory Services Private Limited Delhi

Legend:-

- Center Line
- Carriageway
- Paved Shoulder
- Eartahn shoulder
- Crash Barrier
- Drain

Project Title:-

Preparation of DPR of Padrauna bypass & completion of Preconstruction activities of 4L+PS /2L+PS work of NH-727 from km 0.000 to km 46.500 in the state of Uttar Pradesh.

CLIENT:-

सत्यमेव जयते

MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:- Plan & Profile From Km 17+000 to Km 18+000

Drawing No. :-TASPL/MORTH/DPR/PADRAUNA BYPASS/GAD/01

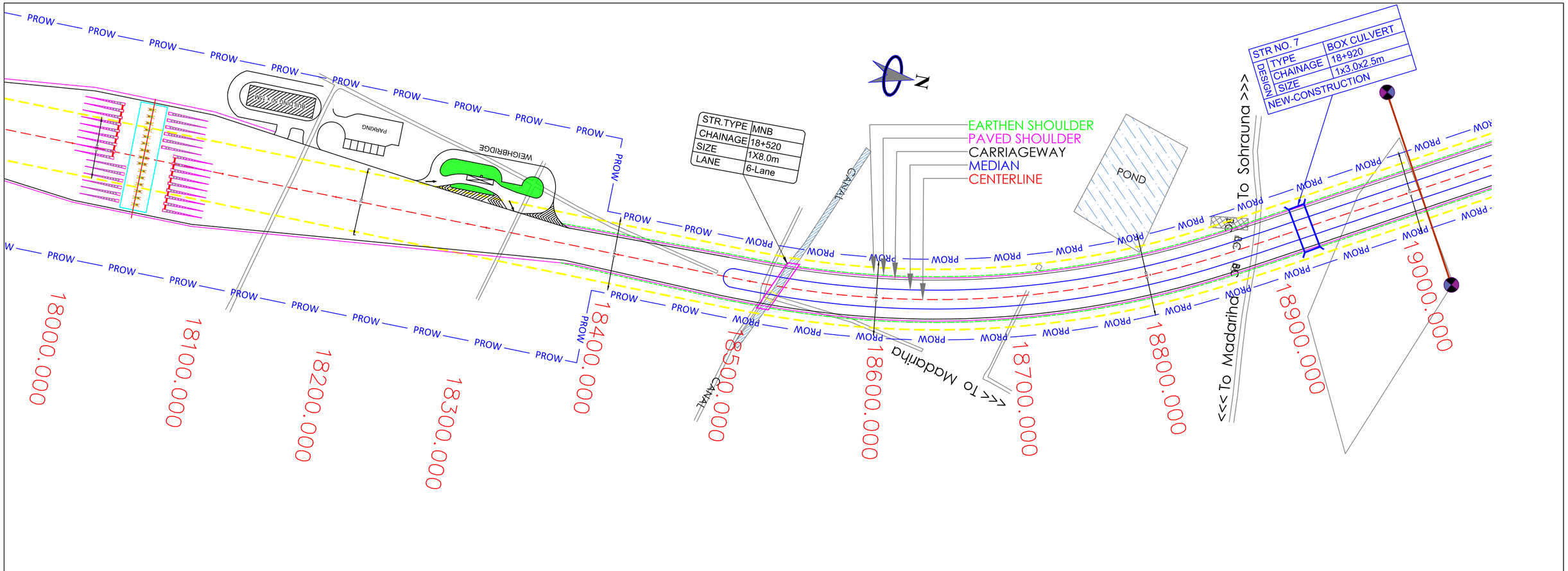
Scale :- 1:2000

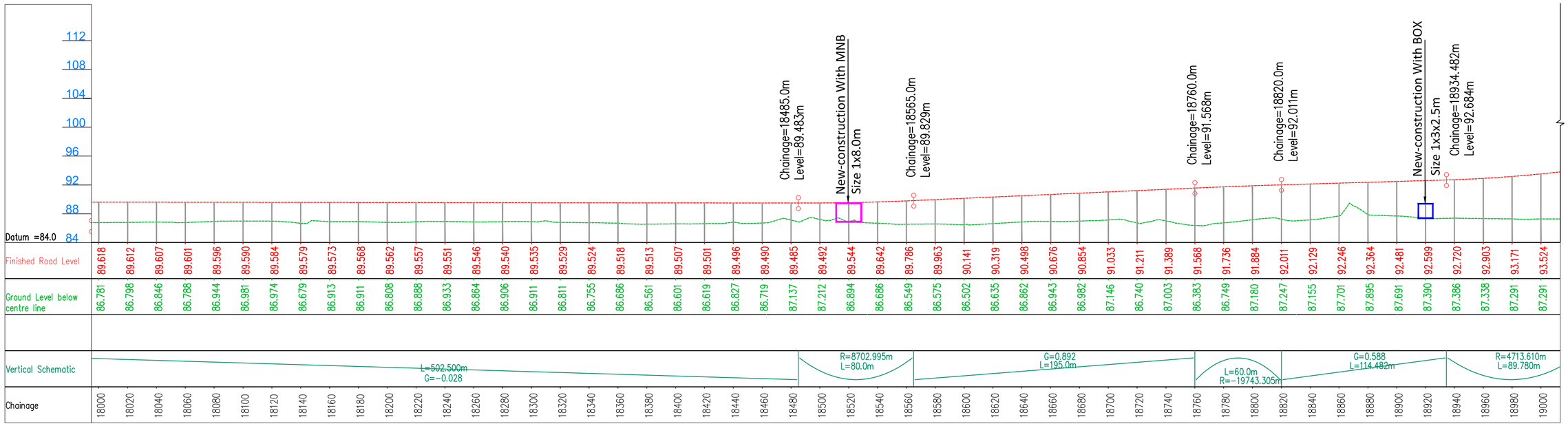
Drn	Dgn.	Appd	Sheet :
Deepak	Fayaz Ahmad	A. K. Singh	05 OF 11

CONSULTANT:-

TASPL

Technocrats Advisory Services Pvt. Ltd.
Flat No. 140, Mithila Apartment 76 IP
Extension Patparganj Delhi-110092





Legend:-

- Center Line
- Carriageway
- Paved Shoulder
- Eartahn shoulder
- Crash Barrier
- Drain

Project Title:-

Preparation of DPR of Padrauna bypass & completion of Preconstruction activities of 4L+PS /2L+PS work of NH-727 from km 0.000 to km 46.500 in the state of Uttar Pradesh.

CLIENT:-

सत्यमेव जयते

MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:- Plan & Profile
From Km 18+000 to Km 19+000

Drawing No. :-TASPL/MORTH/DPR/PADRAUNA BYPASS/GAD/01

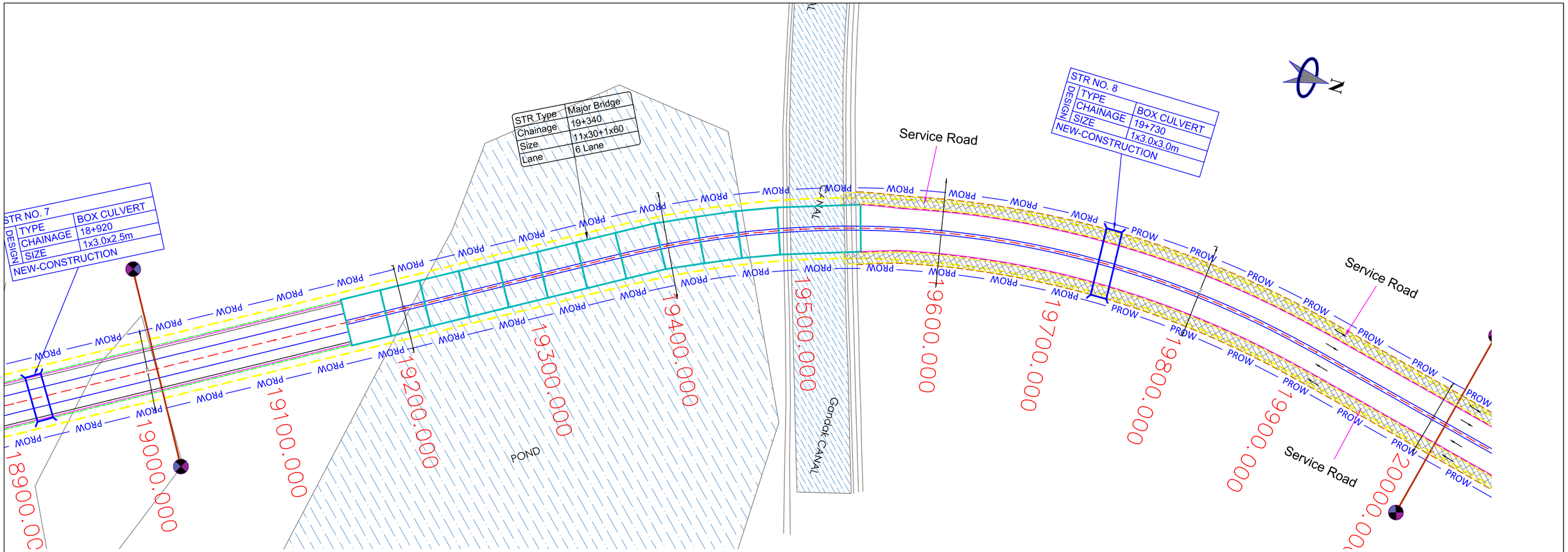
Scale :- 1:2000

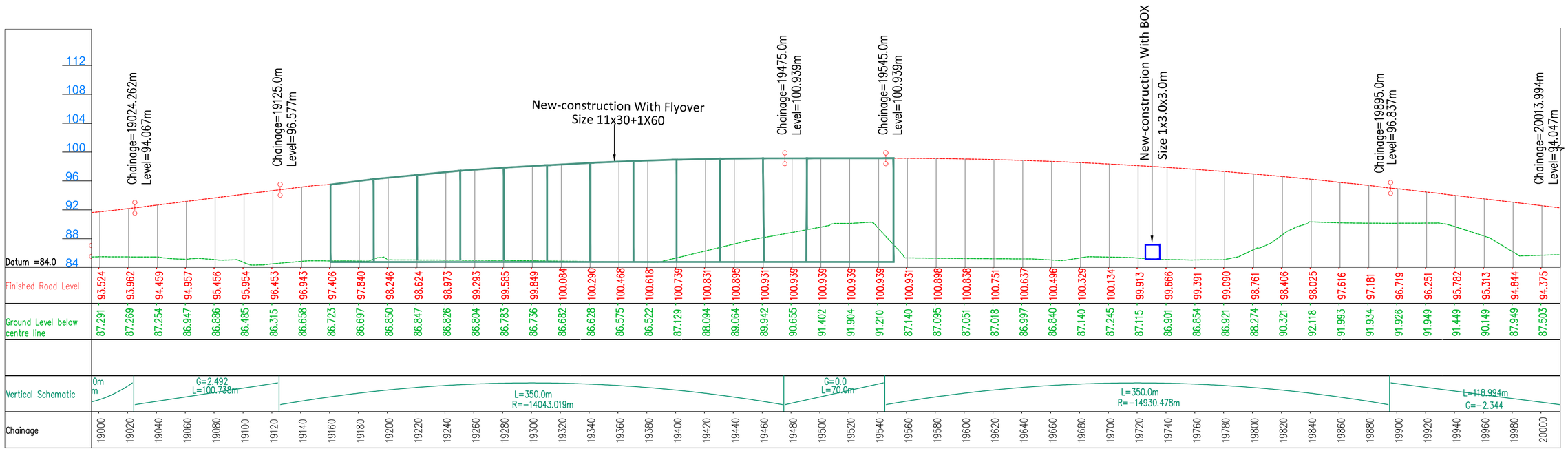
Drn	Dgn.	Appd	Sheet :
Deepak	Fayaz Ahmad	A. K. Singh	06 OF 11

CONSULTANT:-

TASPL

Technocrats Advisory Services Pvt. Ltd.
Flat No. 140, Mithila Apartment 76 IP
Extension Patparganj Delhi-110092





Legend:-

- Center Line
- Carriageway
- Paved Shoulder
- Eartahn shoulder
- Crash Barrier
- Drain

Project Title:-

Preparation of DPR of Padrauna bypass & completion of Preconstruction activities of 4L+PS /2L+PS work of NH-727 from km 0.000 to km 46.500 in the state of Uttar Pradesh.

CLIENT:-

MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:- Plan & Profile
From Km 19+000 to Km 20+000

Drawing No. :-TASPL/MORTH/DPR/PADRAUNA BYPASS/GAD/01

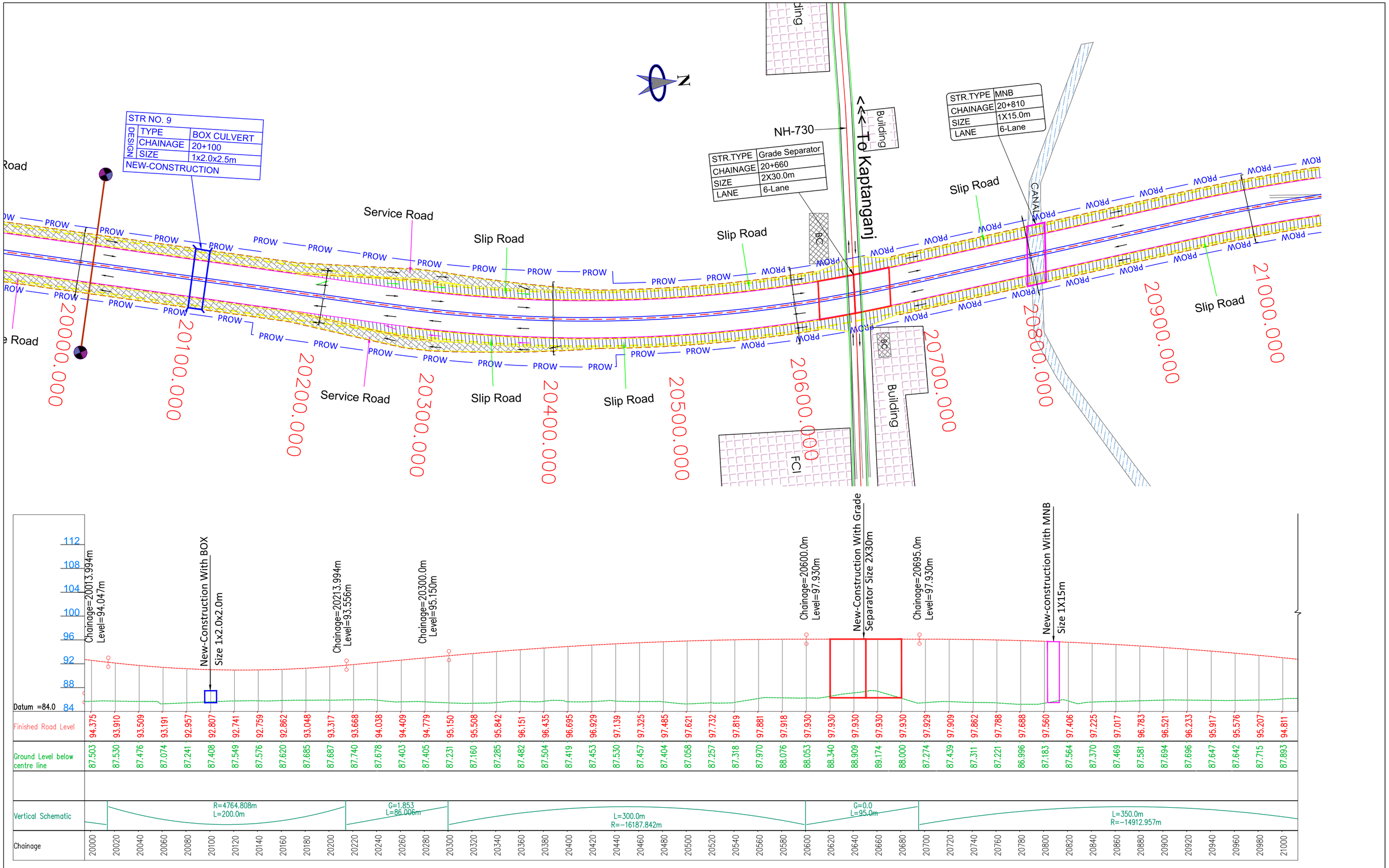
Scale :- 1:2000

Drn	Dgn.	Appd	Sheet :
Deepak	Fayaz Ahmad	A. K. Singh	07 OF 11

CONSULTANT:-

TASPL

Technocrats Advisory Services Pvt. Ltd.
Flat No. 140, Mithila Apartment 76 IP
Extension Patparganj Delhi-110092



Legend:-

- Center Line
- Carriageway
- Paved Shoulder
- Eartahn shoulder
- Crash Barrier
- Drain

Project Title:-

Preparation of DPR of Padrauna bypass & completion of Preconstruction activities of 4L+PS /2L+PS work of NH-727 from km 0.000 to km 46.500 in the state of Uttar Pradesh.

CLIENT:-

सत्यमेव जयते

MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:- Plan & Profile
From Km 20+000 to Km 21+000

Drawing No. :-TASPL/MORTH/DPR/PADRAUNA BYPASS/GAD/01

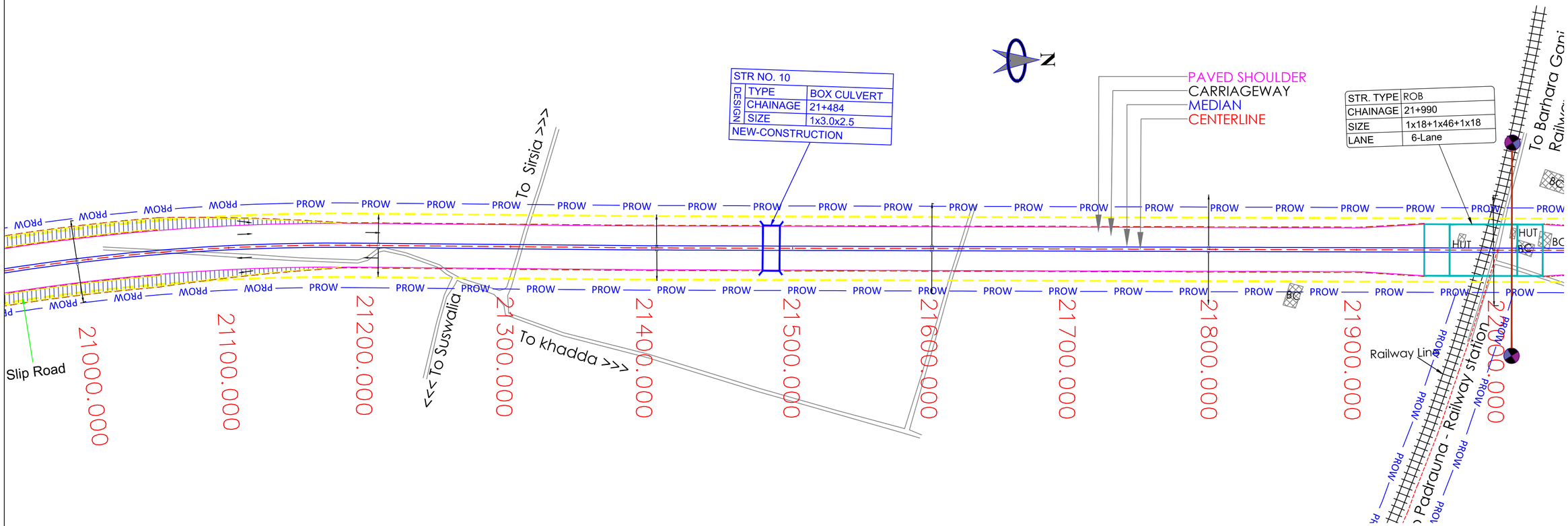
Scale :- 1:2000

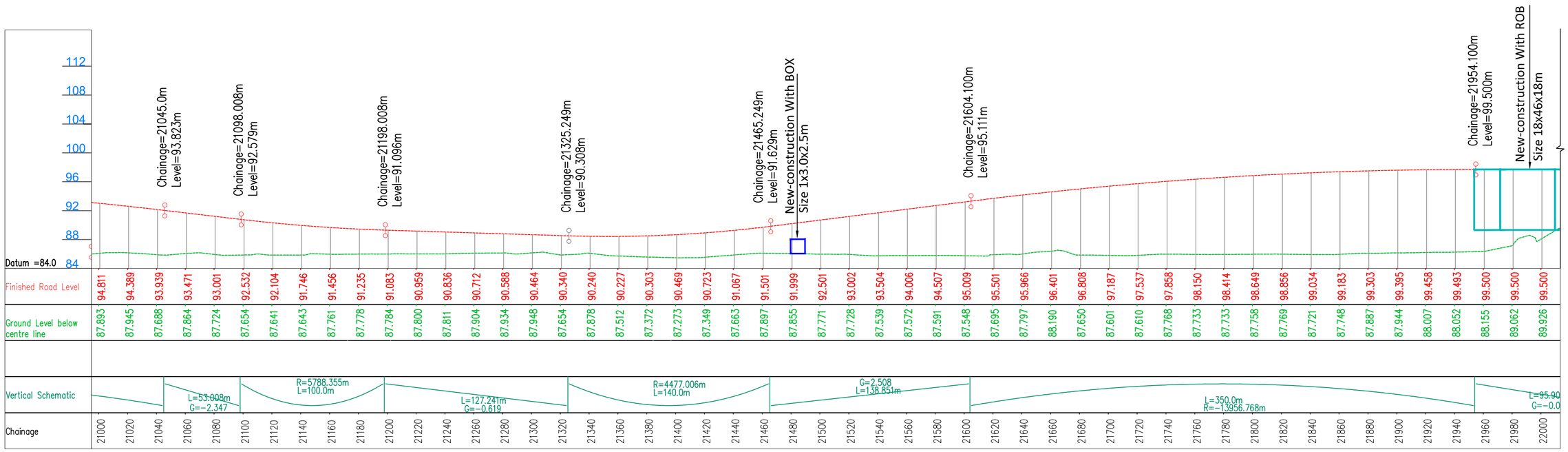
Drn	Dgn.	Appd	Sheet :
Deepak	Fayaz Ahmad	A. K. Singh	08OF 11

CONSULTANT:-

TASPL

Technocrats Advisory Services Pvt. Ltd.
Flat No. 140, Mithila Apartment 76 IP
Extension Patparganj Delhi-110092





Technocrats Advisory Services Private Limited Delhi

Legend:-

- Center Line
- Carriageway
- Paved Shoulder
- Eartahn shoulder
- Crash Barrier
- Drain

Project Title:-

Preparation of DPR of Padrauna bypass & completion of Preconstruction activities of 4L+PS /2L+PS work of NH-727 from km 0.000 to km 46.500 in the state of Uttar Pradesh.

CLIENT:-

सत्यमेव जयते

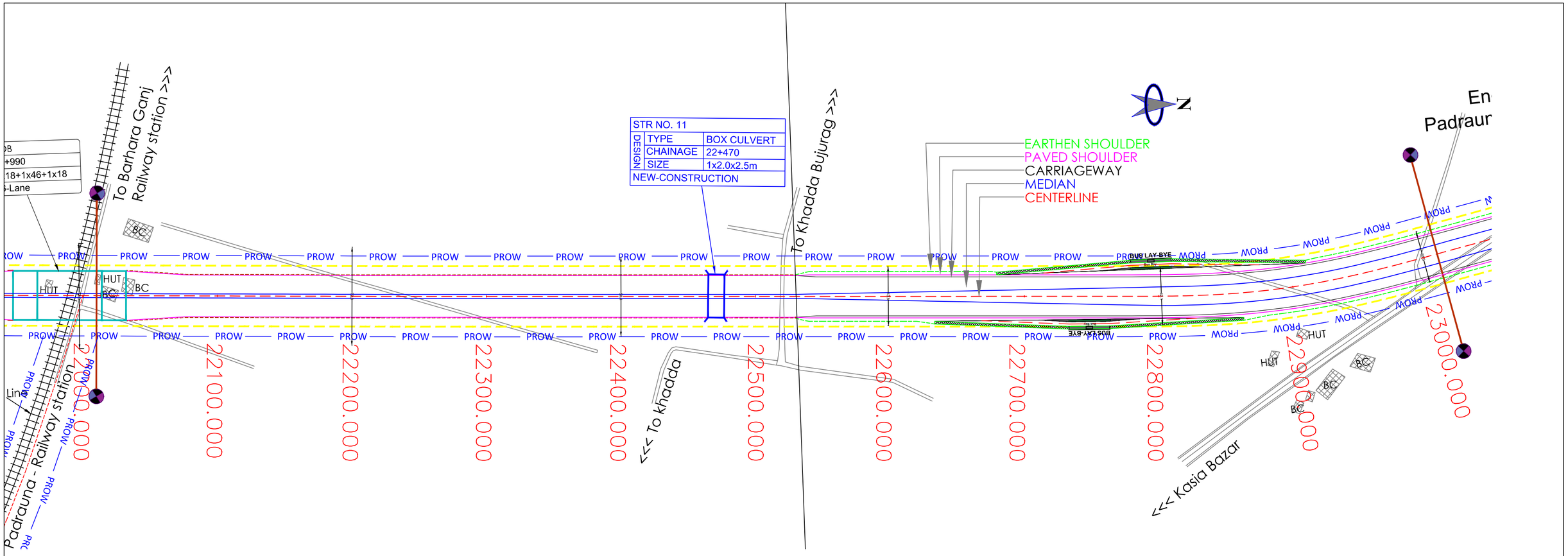
MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:-	Plan & Profile From Km 21+000 to Km 22+000		
Drawing No. :-	TASPL/MORTH/DPR/PADRAUNA BYPASS/GAD/01		
Scale :-	1:2000		
Drn	Dgn.	Appd	Sheet :
Deepak	Fayaz Ahmad	A. K. Singh	09 OF 11

CONSULTANT:-

TASPL

Technocrats Advisory Services Pvt. Ltd.
Flat No. 140, Mithila Apartment 76 IP
Extension Patparganj Delhi-110092



Legend:-

- Center Line
- Carriageway
- Paved Shoulder
- Eartahn shoulder
- Crash Barrier
- Drain

Project Title:-

Preparation of DPR of Padrauna bypass & completion of Preconstruction activities of 4L+PS /2L+PS work of NH-727 from km 0.000 to km 46.500 in the state of Uttar Pradesh.

CLIENT:-

MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:- Plan & Profile
From Km 22+000 to Km 23+000

Drawing No. :-TASPL/MORTH/DPR/PADRAUNA BYPASS/GAD/01

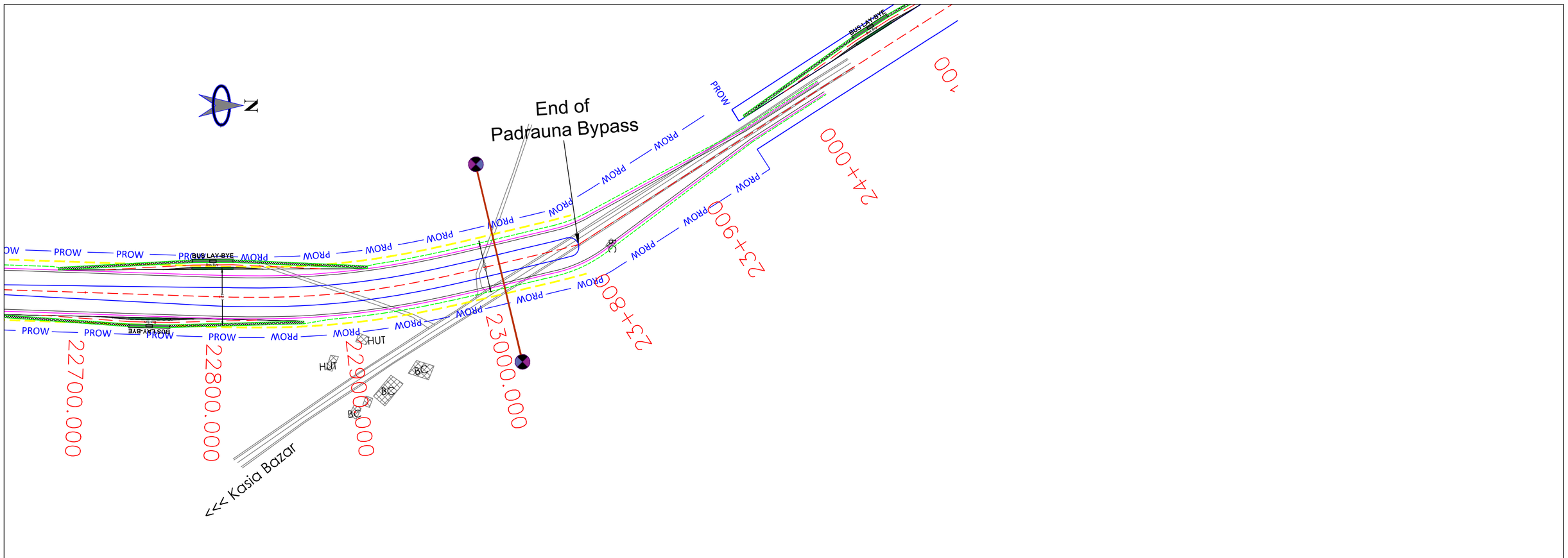
Scale :- 1:2000

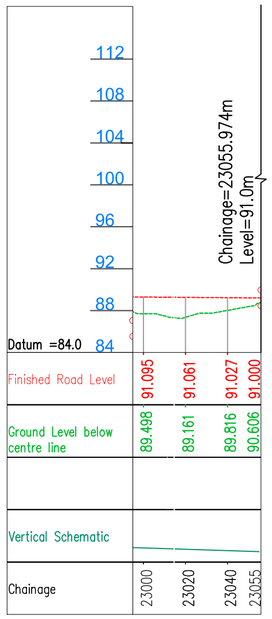
Drn	Dgn.	Appd	Sheet :
Deepak	Fayaz Ahmad	A. K. Singh	10 OF 11

CONSULTANT:-

TASPL

Technocrats Advisory Services Pvt. Ltd.
Flat No. 140, Mithila Apartment 76 IP
Extension Patparganj Delhi-110092





Legend:-

- Center Line
- Carriageway
- Paved Shoulder
- Eartahn shoulder
- Crash Barrier
- Drain

Project Title:-

Preparation of DPR of Padrauna bypass & completion of Preconstruction activities of 4L+PS /2L+PS work of NH-727 from km 0.000 to km 46.500 in the state of Uttar Pradesh.

CLIENT:-

सत्यमेव जयते

MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:- Plan & Profile
From Km 23+000 to Km 23+055

Drawing No. :-TASPL/MORTH/DPR/PADRAUNA BYPASS/GAD/01

Scale :- 1:2000

Drn	Dgn.	Appd	Sheet :
Deepak	Fayaz Ahmad	A. K. Singh	10 OF 11

CONSULTANT:-

TASPL
Technocrats Advisory Services Pvt. Ltd.
Flat No. 140, Mithila Apartment 76 IP
Extension Patparganj Delhi-110092

TO KUSHINAGAR

TO CHAPWA

CURVE DETAILS	
Def	0° 14' 16.6"
R	-3000.0m
Lc	12.46m
Ls	0.0m
Ts	6.2
e	NC
V	80kmph

CURVE DETAILS	
Def	0° 33' 25.8"
R	3000.0m
Lc	29.17m
Ls	0.0m
Ts	14.6
e	NC
V	80kmph

CURVE DETAILS	
Def	13° 8' 18.3"
R	350.0m
Lc	20.26m
Ls	60.0m
Ts	70.3
e	7.00%
V	80kmph

CURVE DETAILS	
Def	0° 3' 25.9"
R	-3000.0m
Lc	2.99m
Ls	0.0m
Ts	1.5
e	NC
V	80kmph

CURVE DETAILS	
Def	26° 28' 1.1"
R	250.0m
Lc	55.48m
Ls	60.0m
Ts	88.9
e	7.00%
V	80kmph

CURVE DETAILS	
Def	2° 27' 54.3"
R	-1200.0m
Lc	51.63m
Ls	0.0m
Ts	25.8
e	NC
V	80kmph

BARAHRA VILLAGE

NAGARI VILLAGE

CULTIVATED LAND

BOX CULVERT - RECONSTRUCTION SPAN 1 x 2.0x2.0m AT PROPOSED CH. 24+303

BOX CULVERT - RECONSTRUCTION SPAN 1 x 2.0x2.0m AT PROPOSED CH. 24+424

BOX CULVERT - RECONSTRUCTION SPAN 1 x 2.0x2.0m AT PROPOSED CH. 24+787

Culvert/Bridge Details
Type : SLAB CULVERT
No of Span : 1x1.2m

Culvert/Bridge Details
Struc. No :
Type : PIPE CULVERT
DAMAGE

Culvert/Bridge Details
Type : SLAB CULVERT
No of Span : 1x1.5m

23+900 24+000 24+100 24+200 24+300 24+400 24+500 24+600 24+700 24+800 24+900 25+000

CH.=24028.671m Level=89.266m
CH.=24265.807m Level=89.666m
CH.=24294.943m Level=89.691m
BOX CULVERT - RECON. SPAN 1 x 2.0x2.0m
CH.=24355.807m Level=89.583m
BOX CULVERT - RECON. SPAN 1 x 2.0x2.0m
CH.=24439.936m Level=89.287m
CH.=24477.925m Level=89.220m
CH.=24489.936m Level=89.227m
PROPOSED ROAD LEVEL
EXISTING ROAD LEVEL
CH.=24756.594m Level=89.524m
CH.=24777.757m Level=89.536m
BOX CULVERT - RECON. SPAN 1 x 2.0x2.0m
CH.=24846.594m Level=89.411m
CH.=24927.885m Level=89.116m

95 90 85 80

Level Datum =79.000

FRL AT CENTRE LINE	89.230 89.253 89.285 89.319 89.353 89.386 89.420 89.454 89.488 89.521 89.555 89.589 89.623 89.656 89.684 89.690 89.673 89.632 89.569 89.498 89.428 89.357 89.287 89.235 89.220 89.238 89.260 89.283 89.305 89.327 89.349 89.372 89.394 89.416 89.439 89.461 89.483 89.505 89.527 89.536 89.523 89.489 89.434 89.362 89.290 89.217 89.145 89.075 89.015 88.968 88.932 88.908
EXISTING GROUND LEVEL	89.064 89.095 89.133 89.173 89.157 89.158 89.159 89.150 89.137 89.157 89.103 89.125 89.187 89.297 89.494 89.573 89.534 89.361 89.146 89.029 88.967 88.975 88.964 88.978 89.071 89.054 89.001 88.956 88.956 88.982 88.953 88.932 88.923 88.923 88.927 88.908 88.908 89.006 89.178 89.340 89.394 89.161 88.927 88.796 88.793 88.814 88.831 88.835 88.797 88.746 88.686 88.619
VERTICAL GEOMETRY	=50.000m; G=0.169 L=237.136m; L=90.000m; L=84.129m G=-0.352; L=50.000m; G=0.111 L=266.658m; L=90.000m; L=81.291m G=-0.362; L=
HORIZONTAL GEOMETRY	R L; L=163.023m; R L=29.173m; L=26.104m; L=60.000m; R L; L=60.000m; L=52.996m; R L; L; L=60.000m; R=-250.000m L=55.484m; L=60.000m; L=171.612m; R=1200.000m L=51.629m; L; L=45.000m; R=52 L=21
SUPER ELEVATION	e=2.5 e=2.5; e=7.000; e=7.000; e=2.5 e=2.5; e=6.400; e=6.400; e=2.5 e=2.5; e=5.470; e=5.470
DESIGN CHAINAGE	24+000 24+020 24+040 24+060 24+080 24+100 24+120 24+140 24+160 24+180 24+200 24+220 24+240 24+260 24+280 24+300 24+320 24+340 24+360 24+380 24+400 24+420 24+440 24+460 24+480 24+500 24+520 24+540 24+560 24+580 24+600 24+620 24+640 24+660 24+680 24+700 24+720 24+740 24+760 24+780 24+800 24+820 24+840 24+860 24+880 24+900 24+920 24+940 24+960 24+980 25+000 25+020

CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार Government of India

CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2, Plot No.- 1, Sector-40, Nerul (west), Navi Mumbay-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

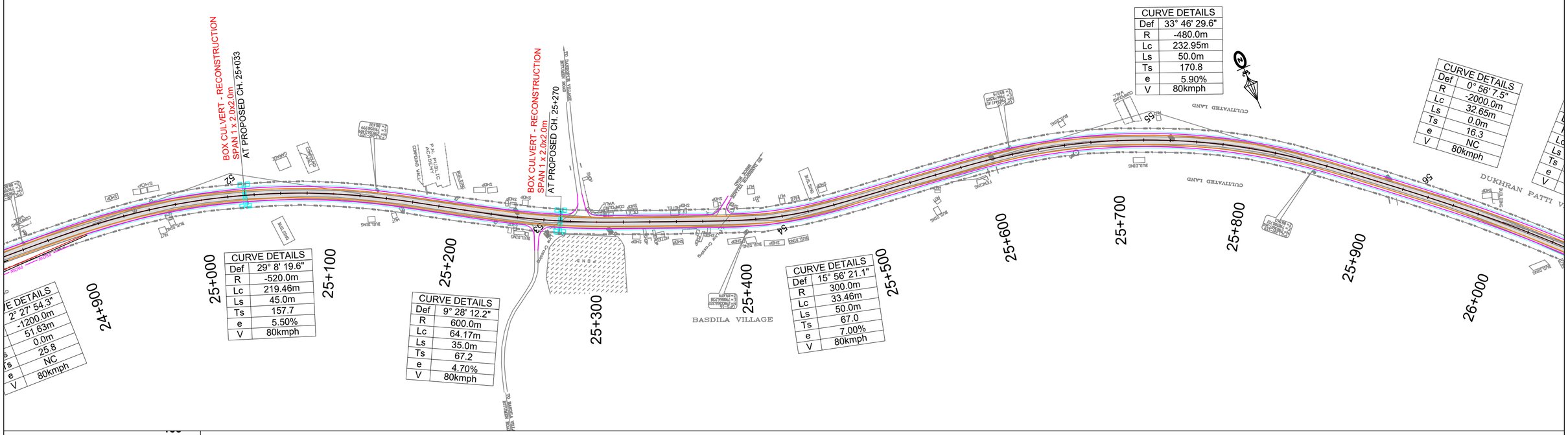
PROJECT:
Consultancy Services for Feasibility Study of Detailed Project Report for improvement and up-gradation of newly declared National Highways including existing NH-97 & NH-28B in the state of Uttar Pradesh-PkgVI.[Stretch (i) Chapwa-Betwa-Chatauni-Kushinagar Road-NH-28B (ii) Ghazipur-Jamaniya-Saiyad Raja Road-NH-97 and Length 116.43 Km.]

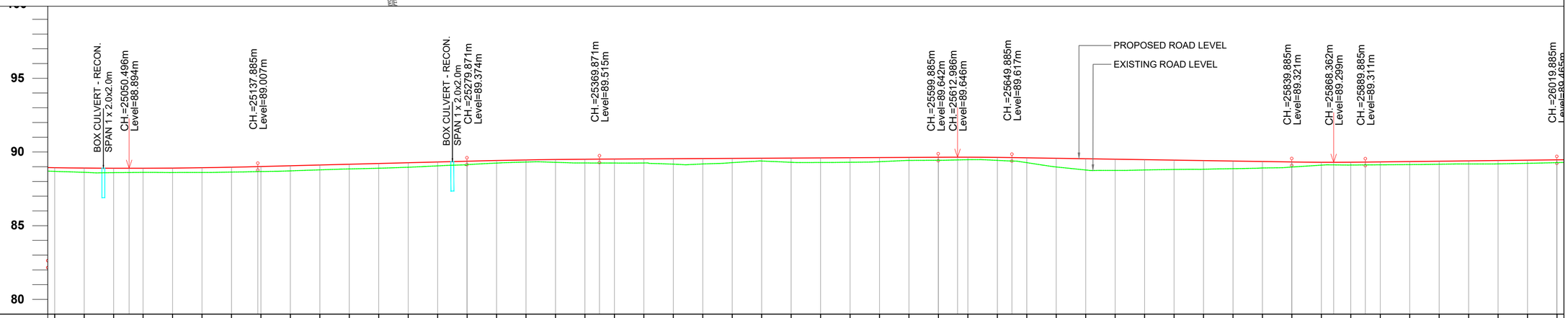
Prepared by	M.S.Bisht
Designed by	Gulista Parveen
Checked by	Arun Kumar Bag
Approved by	Pankaj Vora

Revisions	Date	Description
R0	October, 2023	FINAL DETAIL PROJECT REPORT

TITLE : PLAN AND PROFILE
CHAINAGE : 24+000Km. TO 25+000Km.
DWG NO. : KN-D_FDPR_HWY_PP-25 SHEET 25 TO 58
SCALE : H-1:2000 V-200 @ (A2) DATE : October, 2023

TO KUSHINAGAR ← → **TO CHAPWA**





FRL AT CENTRE LINE	88.932 88.908 88.896 88.896 88.907 88.931 88.966 89.013 89.064 89.116 89.168 89.219 89.271 89.322 89.374 89.421 89.459 89.488 89.508 89.521 89.532 89.543 89.554 89.565 89.576 89.587 89.598 89.609 89.620 89.631 89.642 89.645 89.630 89.601 89.570 89.539 89.508 89.477 89.445 89.414 89.383 89.352 89.321 89.301 89.302 89.323 89.347 89.370 89.394 89.418 89.441 89.465
EXISTING GROUND LEVEL	88.686 88.619 88.597 88.613 88.604 88.607 88.636 88.673 88.718 88.787 88.849 88.896 88.964 89.057 89.132 89.246 89.316 89.297 89.253 89.250 89.251 89.174 89.187 89.276 89.387 89.300 89.285 89.302 89.341 89.425 89.435 89.476 89.430 89.277 88.983 88.777 88.749 88.780 88.814 88.827 88.867 88.916 88.977 89.105 89.115 89.129 89.144 89.169 89.188 89.193 89.230 89.277
VERTICAL GEOMETRY	L=210.000m; G=0.258 L=141.986m; L=90.000m; G=0.055 L=230.014m; L=50.000m; L=190.000m G=-0.156; L=50.000m; G=0.118 L=130.000m
HORIZONTAL GEOMETRY	R=520.000m L=219.455m; L=45.000m L; L=35.000m; R=-600.000m L=64.170m; L=35.000m; L=44.161m; L=50.000m; R=-300.000m L=33.457m; L=50.000m; L=52.479m; L=50.000m; R=480.000m L=232.952m; L=50.000m; L=26.178m; R=2000.000m L=32.652m L
SUPER ELEVATION	e=5.470; e=2.5; e=3.704; e=5.926
DESIGN CHAINAGE	25+000 25+020 25+040 25+060 25+080 25+100 25+120 25+140 25+160 25+180 25+200 25+220 25+240 25+260 25+280 25+300 25+320 25+340 25+360 25+380 25+400 25+420 25+440 25+460 25+480 25+500 25+520 25+540 25+560 25+580 25+600 25+620 25+640 25+660 25+680 25+700 25+720 25+740 25+760 25+780 25+800 25+820 25+840 25+860 25+880 25+900 25+920 25+940 25+960 25+980 26+000 26+020

CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार Government of India

CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2, Plot No.- 1, Sector-40, Nerul (west), Navi Mumbay-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

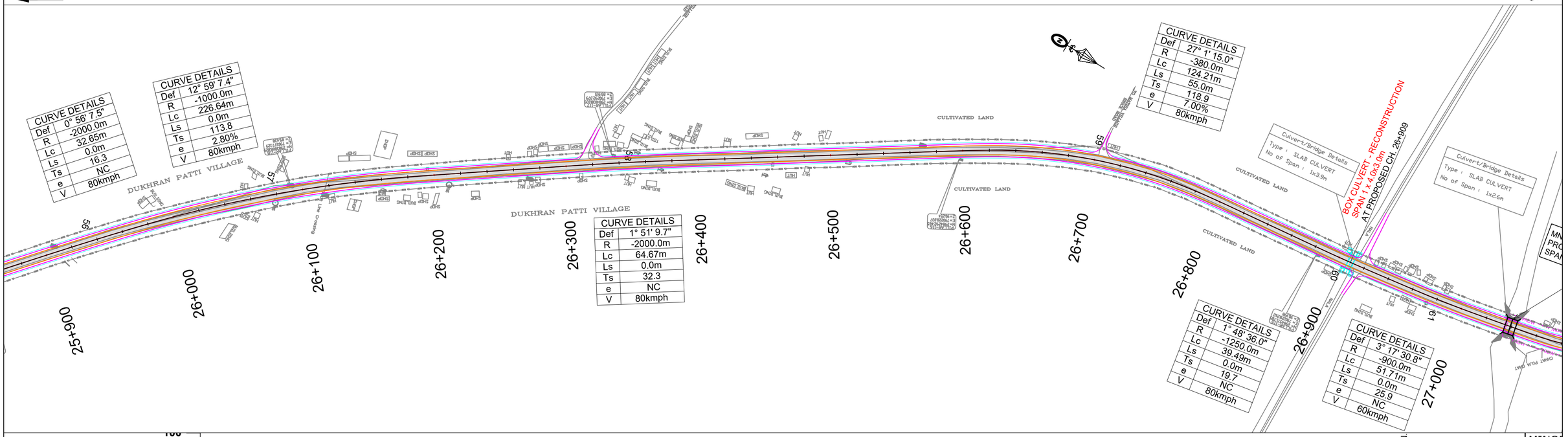
PROJECT:
Consultancy Services for Feasibility Study of Detailed Project Report for improvement and up-gradation of newly declared National Highways including existing NH-97 & NH-28B in the state of Uttar Pradesh-PkgVI.[Stretch (i) Chapwa-Betwa-Chatauni-Kushinagar Road-NH-28B (ii) Ghazipur-Jamaniya-Saiyad Raja Road-NH-97 and Length 116.43 Km.]

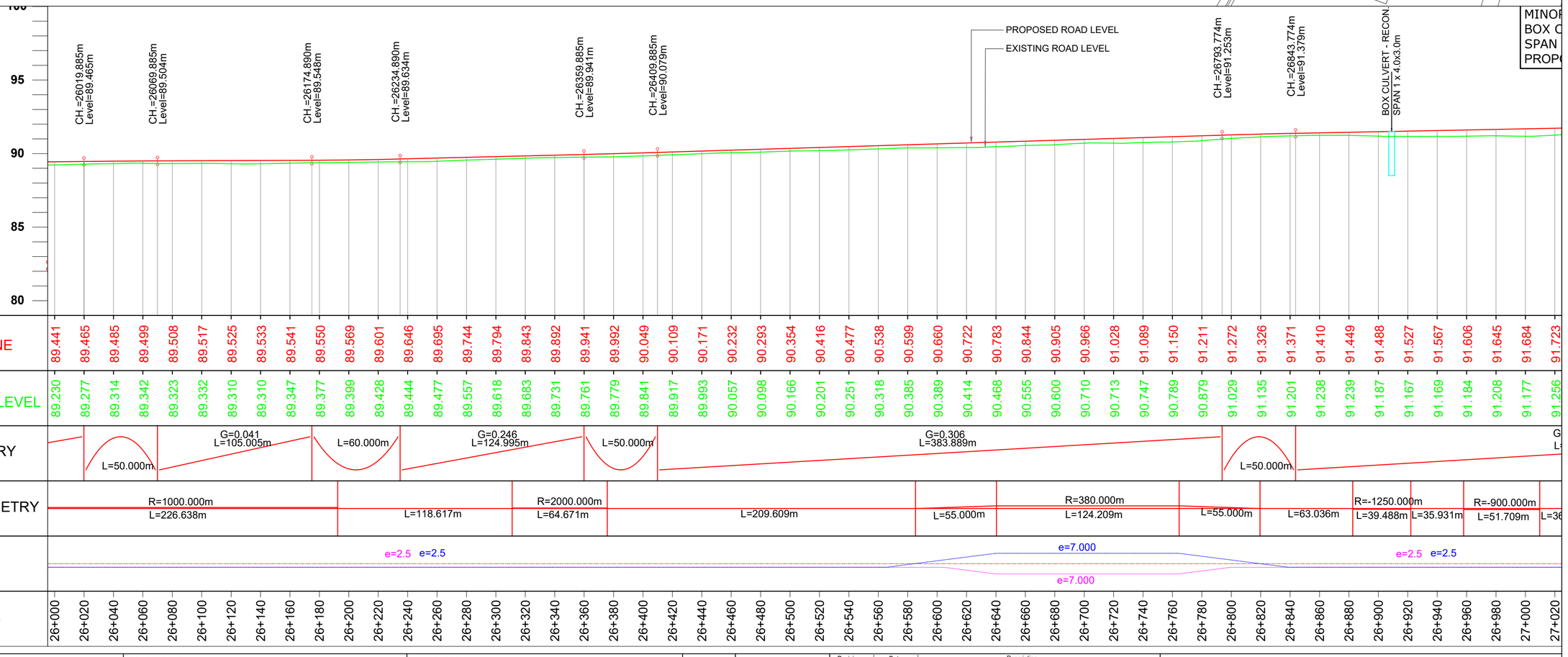
Prepared by	M.S.Bisht
Designed by	Gulista Parveen
Checked by	Arun Kumar Bag
Approved by	Pankaj Vora

Revisions	Date	Description
R0	October, 2023	FINAL DETAIL PROJECT REPORT

TITLE : PLAN AND PROFILE
CHAINAGE : 25+000Km. TO 26+000Km.
DWG NO. : KN-D_FDPR_HWY_PP-26 SHEET 26 TO 58
SCALE : H-1:2000 V-200 @ (A2) DATE : October, 2023

TO KUSHINAGAR ← **TO CHAPWA** →





CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार Government of India

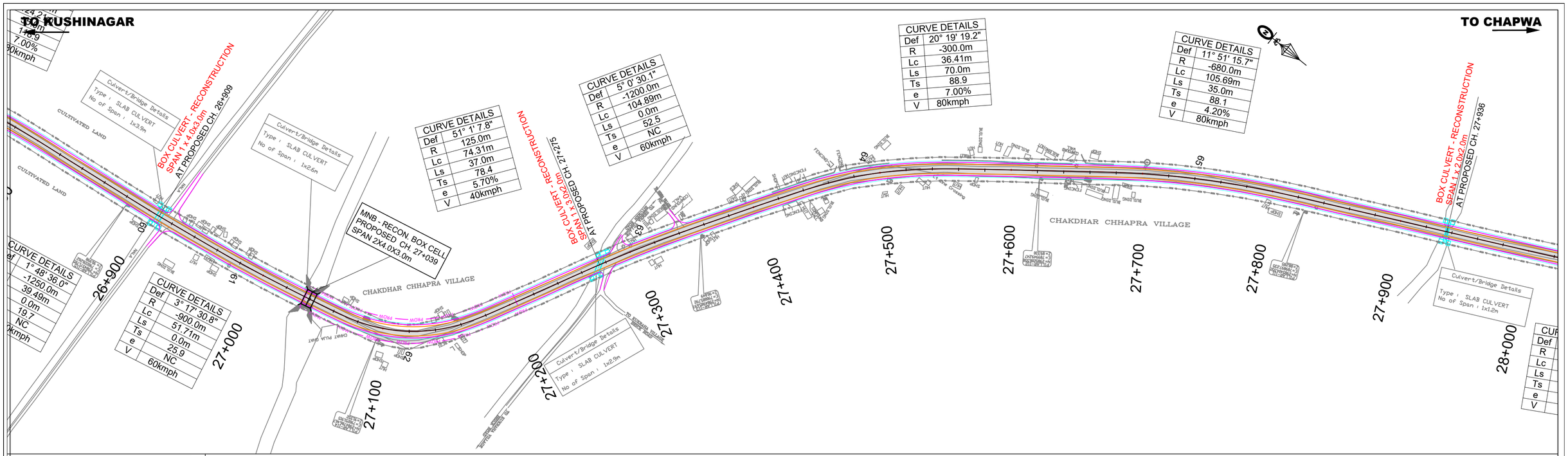
CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2, Plot No.- 1, Sector-40, Nerul (west), Navi Mumbay-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

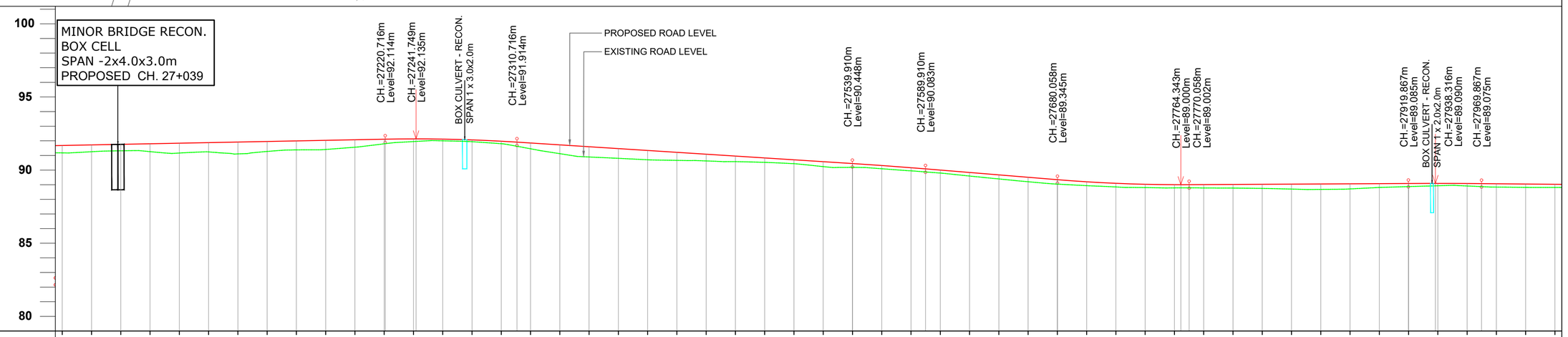
PROJECT:
Consultancy Services for Feasibility Study of Detailed Project Report for improvement and up-gradation of newly declared National Highways including existing NH-97 & NH-28B in the state of Uttar Pradesh-PkgVI.[Stretch (i) Chapwa-Betwa-Chatauni-Kushinagar Road-NH-28B (ii) Ghazipur-Jamaniya-Saiyad Raja Road-NH-97 and Length 116.43 Km.]

Prepared by	M.S.Bisht
Designed by	Gulista Parveen
Checked by	Arun Kumar Bag
Approved by	Pankaj Vora

Revisions	Date	Description
R0	October, 2023	FINAL DETAIL PROJECT REPORT

TITLE : PLAN AND PROFILE
CHAINAGE : 26+000Km. TO 27+000Km.
DWG NO. : KN-D_FDPR_HWY_PP-27
SHEET 27 TO 58
SCALE : H-1:2000 V-200 @ (A2)
DATE : October, 2023





FRL AT CENTRE LINE	91.684 91.723 91.762 91.801 91.840 91.879 91.918 91.957 91.996 92.035 92.074 92.113 92.135 92.119 92.067 91.977 91.855 91.727 91.599 91.471 91.343 91.215 91.087 90.959 90.831 90.703 90.575 90.447 90.312 90.163 90.001 89.837 89.673 89.510 89.346 89.201 89.096 89.029 89.001 89.007 89.019 89.030 89.041 89.052 89.063 89.074 89.085 89.090 89.083 89.066 89.047 89.028
EXISTING GROUND LEVEL	91.177 91.256 91.319 91.263 91.167 91.241 91.106 91.273 91.382 91.410 91.565 91.797 91.951 92.003 91.944 91.805 91.458 91.124 90.896 90.803 90.697 90.663 90.611 90.553 90.507 90.420 90.222 90.179 90.103 89.962 89.812 89.606 89.399 89.202 89.045 88.937 88.856 88.815 88.788 88.779 88.772 88.743 88.697 88.675 88.711 88.805 88.868 88.928 88.918 88.839 88.815 88.813
VERTICAL GEOMETRY	G=0.195 L=376.942m; L=90.000m; L=229.194m G=-0.640; L=50.000m; L=90.148m G=-0.819; L=90.000m; G=0.056 L=149.809m; L=50.000m; L=14 G=-0
HORIZONTAL GEOMETRY	00m m L=36.578m; L=37.000m; R=-125.000m L=74.306m; L=37.000m; L=61.580m; R=1200.000m L=104.895m; L=44.257m; L=70.000m; R=300.000m L=36.406m; L=70.000m; L=73.174m; L=35.000m; R=680.000m L=105.690m; L=35.000m; L=170.204m; L=35.0
SUPER ELEVATION	e=5.688 e=5.688; e=2.5 e=2.5; e=7.000 e=7.000; e=2.5 e=2.5; e=4.184 e=4.184; e=2.5 e=2.5
DESIGN CHAINAGE	27+000 27+020 27+040 27+060 27+080 27+100 27+120 27+140 27+160 27+180 27+200 27+220 27+240 27+260 27+280 27+300 27+320 27+340 27+360 27+380 27+400 27+420 27+440 27+460 27+480 27+500 27+520 27+540 27+560 27+580 27+600 27+620 27+640 27+660 27+680 27+700 27+720 27+740 27+760 27+780 27+800 27+820 27+840 27+860 27+880 27+900 27+920 27+940 27+960 27+980 28+000 28+020

CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार Government of India

CONSULTANT:
SOWiL Limited
Goodwill Avenue, 1st Floor,"A" Wing Office No.-2, Plot No.- 1, Sector-40, Nerul (west), Navi Mumbay-400706
Phone:(022-2770 2265 / 68 / 61, Fax:022-2770 2259

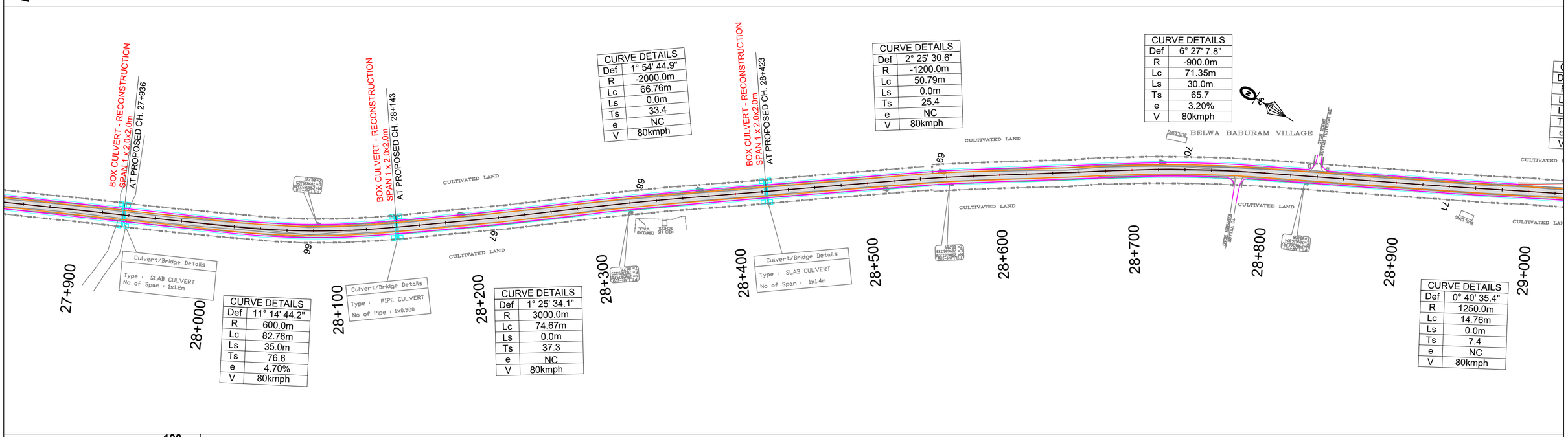
PROJECT:
Consultancy Services for Feasibility Study of Detailed Project Report for improvement and up-gradation of newly declared National Highways including existing NH-97 & NH-28B in the state of Uttar Pradesh-PkgVI.[Stretch (i) Chapwa-Betwa-Chatauni-Kushinagar Road-NH-28B (ii) Ghazipur-Jamaniya-Saiyad Raja Road-NH-97 and Length 116.43 Km.]

Prepared by	M.S.Bisht
Designed by	Gulista Parveen
Checked by	Arun Kumar Bag
Approved by	Pankaj Vora

Revisions	Date	Description
R0	October, 2023	FINAL DETAIL PROJECT REPORT

TITLE : PLAN AND PROFILE
CHAINAGE : 27+000Km. TO 28+000Km.
DWG NO. : KN-D_FDPR_HWY_PP-28
SHEET 28 TO 58
SCALE : H-1:2000 V-200 @ (A2)
DATE : October, 2023

TO KUSHINAGAR ← **TO CHAPWA** →



CURVE DETAILS	
Def	11° 14' 44.2"
R	600.0m
Lc	82.76m
Ls	35.0m
Ts	76.6
e	4.70%
V	80kmph

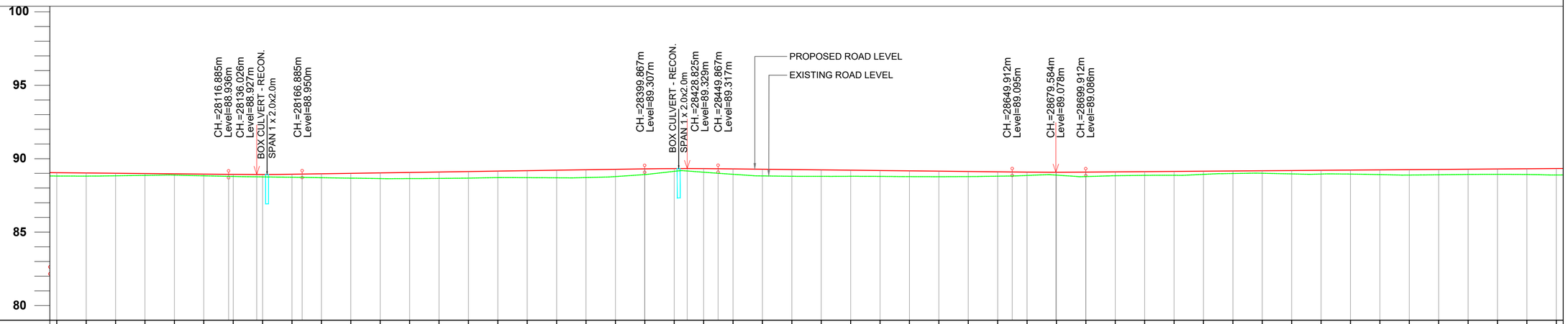
CURVE DETAILS	
Def	1° 54' 44.9"
R	-2000.0m
Lc	66.76m
Ls	0.0m
Ts	33.4
e	NC
V	80kmph

CURVE DETAILS	
Def	1° 25' 34.1"
R	3000.0m
Lc	74.67m
Ls	0.0m
Ts	37.3
e	NC
V	80kmph

CURVE DETAILS	
Def	2° 25' 30.6"
R	-1200.0m
Lc	50.79m
Ls	0.0m
Ts	25.4
e	NC
V	80kmph

CURVE DETAILS	
Def	6° 27' 7.8"
R	-900.0m
Lc	71.35m
Ls	30.0m
Ts	65.7
e	3.20%
V	80kmph

CURVE DETAILS	
Def	0° 40' 35.4"
R	1250.0m
Lc	14.76m
Ls	0.0m
Ts	7.4
e	NC
V	80kmph



FRL AT CENTRE LINE	89.047 89.028 89.009 88.990 88.971 88.952 88.933 88.927 88.941 88.970 89.001 89.032 89.062 89.093 89.123 89.154 89.185 89.215 89.246 89.276 89.307 89.327 89.326 89.306 89.284 89.261 89.239 89.217 89.195 89.173 89.150 89.128 89.106 89.085 89.078 89.086 89.101 89.117 89.132 89.147 89.162 89.178 89.193 89.208 89.223 89.238 89.254 89.269 89.284 89.299 89.315 89.330
EXISTING GROUND LEVEL	88.815 88.813 88.835 88.862 88.880 88.836 88.791 88.760 88.737 88.705 88.674 88.647 88.646 88.659 88.676 88.714 88.709 88.699 88.716 88.784 88.918 89.140 89.079 88.936 88.827 88.803 88.800 88.802 88.796 88.780 88.772 88.783 88.808 88.860 88.880 88.786 88.841 88.867 88.871 88.933 88.991 89.008 88.964 88.956 88.952 88.916 88.886 88.904 88.927 88.932 88.924 88.890
VERTICAL GEOMETRY	L=147.018m G=-0.095 · L=50.000m · G=0.153 L=232.982m · L=50.000m · L=200.045m G=-0.111 · L=50.000m
HORIZONTAL GEOMETRY	L=35.000m · R=-600.000m L=82.764m · L=35.000m · L=25.545m · R=-3000.000m L=74.672m · L=39.279m · R=2000.000m L=66.758m · L=167.553m · R=1200.000m L=50.793m · L=101.606m · L=30.000m · R=900.000m L=71.350m · L=30.000m · L=116.579m · R L · L=121.854m
SUPER ELEVATION	e=4.740 · e=2.5 e=2.5 · e=3.160 · e=2.5 e=2.5 · e=4.740 · e=3.160
DESIGN CHAINAGE	28+000 28+020 28+040 28+060 28+080 28+100 28+120 28+140 28+160 28+180 28+200 28+220 28+240 28+260 28+280 28+300 28+320 28+340 28+360 28+380 28+400 28+420 28+440 28+460 28+480 28+500 28+520 28+540 28+560 28+580 28+600 28+620 28+640 28+660 28+680 28+700 28+720 28+740 28+760 28+780 28+800 28+820 28+840 28+860 28+880 28+900 28+920 28+940 28+960 28+980 29+000 29+020

CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार Government of India

CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2, Plot No.- 1, Sector-40, Nerul (west), Navi Mumbay-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for Feasibility Study of Detailed Project Report for improvement and up-gradation of newly declared National Highways including existing NH-97 & NH-28B in the state of Uttar Pradesh-PkgVI.[Stretch (i) Chapwa-Betwa-Chatauni-Kushinagar Road-NH-28B (ii) Ghazipur-Jamaniya-Saiyad Raja Road-NH-97 and Length 116.43 Km.]

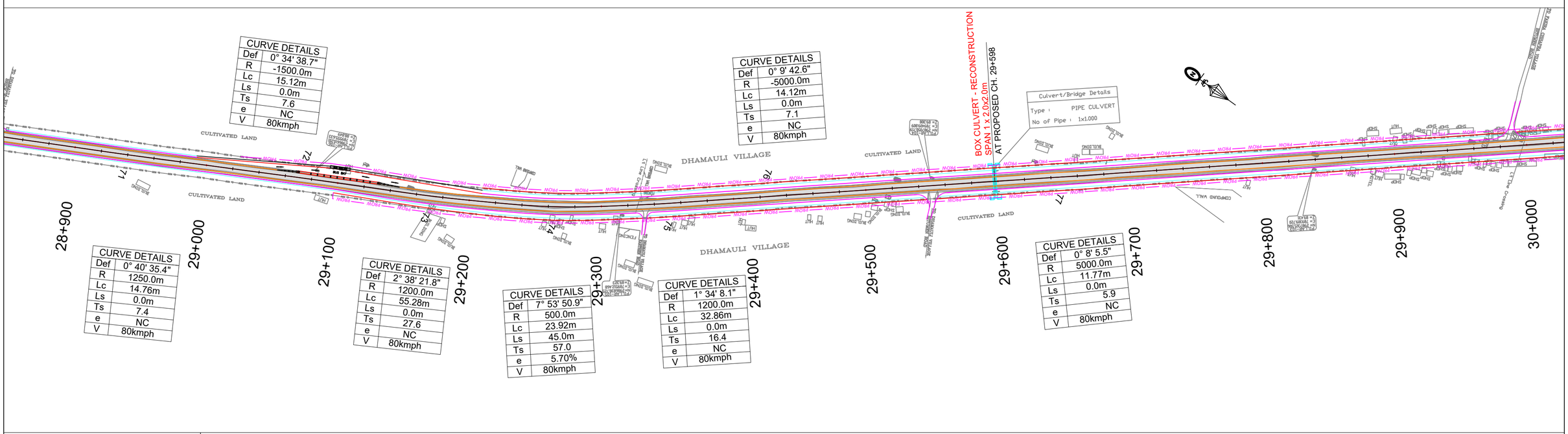
Prepared by	M.S.Bisht
Designed by	Gulista Parveen
Checked by	Arun Kumar Bag
Approved by	Pankaj Vora

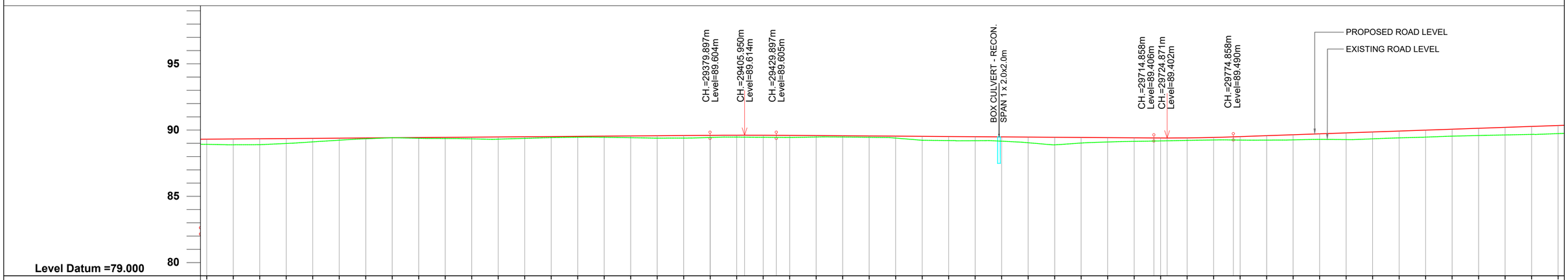
Revisions	Date	Description
R0	October, 2023	FINAL DETAIL PROJECT REPORT

TITLE : PLAN AND PROFILE
CHAINAGE : 28+000Km. TO 29+000Km.
DWG NO. : KN-D_FDPR_HWY_PP-29 | SHEET 29 TO 58
SCALE : H-1:2000 V-200 @ (A2) | DATE : October, 2023

TO KUSHINAGAR ←

TO CHAPWA →





FRL AT CENTRE LINE	89.315 89.330 89.345 89.360 89.376 89.391 89.406 89.421 89.436 89.452 89.467 89.482 89.497 89.513 89.528 89.543 89.558 89.574 89.589 89.604 89.613 89.611 89.598 89.584 89.570 89.556 89.542 89.528 89.514 89.500 89.486 89.472 89.458 89.444 89.430 89.416 89.403 89.410 89.446 89.508 89.578 89.648 89.718 89.787 89.857 89.927 89.997 90.067 90.137 90.207 90.277 90.347
EXISTING GROUND LEVEL	88.924 88.890 88.899 88.988 89.110 89.237 89.346 89.424 89.383 89.365 89.339 89.316 89.375 89.432 89.462 89.457 89.425 89.392 89.397 89.443 89.471 89.460 89.444 89.477 89.475 89.454 89.395 89.230 89.210 89.198 89.161 89.044 88.885 89.022 89.101 89.147 89.182 89.221 89.255 89.247 89.244 89.261 89.298 89.282 89.340 89.411 89.470 89.542 89.590 89.633 89.674 89.735
VERTICAL GEOMETRY	G=0.076 L=679.985m; L=50.000m; L=284.961m G=-0.070; L=60.000m; G=0.349 L=530.02
HORIZONTAL GEOMETRY	=121.854m; R L; L=67.169m; R=-1200.000m L=55.279m; L; L=45.000m; R=-500 L; L=45.000m; L; R L=32.859m; L=37.735m; R L; L=229.112m; R L; L=449.163m
SUPER ELEVATION	e=2.5 e=2.5; e=5.688; e=5.688; e=2.5 e=2.5
DESIGN CHAINAGE	29+000 29+020 29+040 29+060 29+080 29+100 29+120 29+140 29+160 29+180 29+200 29+220 29+240 29+260 29+280 29+300 29+320 29+340 29+360 29+380 29+400 29+420 29+440 29+460 29+480 29+500 29+520 29+540 29+560 29+580 29+600 29+620 29+640 29+660 29+680 29+700 29+720 29+740 29+760 29+780 29+800 29+820 29+840 29+860 29+880 29+900 29+920 29+940 29+960 29+980 30+000 30+020

CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार Government of India

CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2, Plot No.- 1, Sector-40, Nerul (west), Navi Mumbay-400706
Phone:022-2770 2265 / 68 / 61, Fax:022-2770 2259

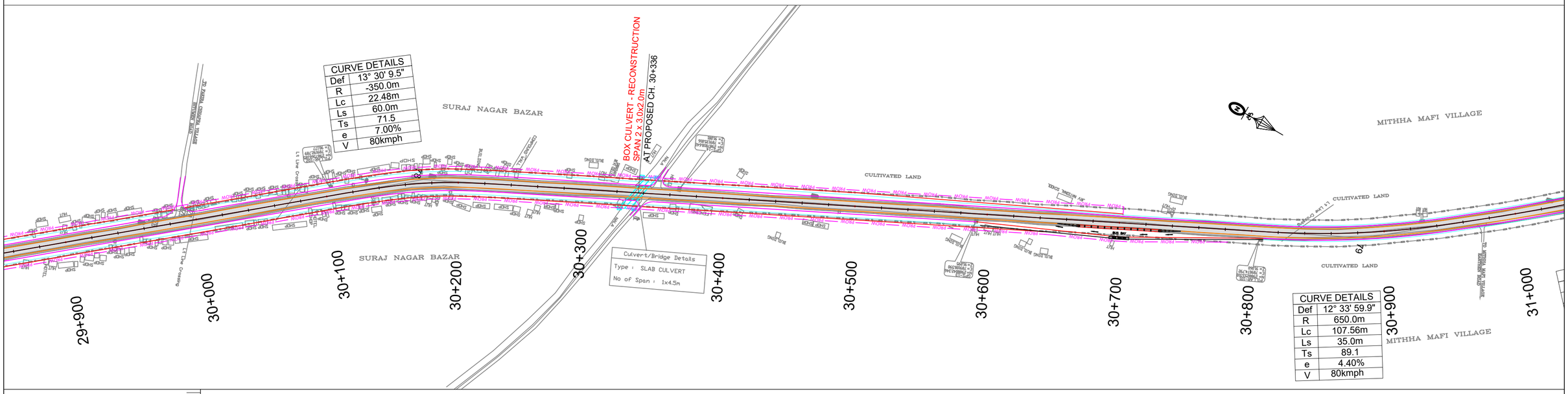
PROJECT:
Consultancy Services for Feasibility Study of Detailed Project Report for improvement and up-gradation of newly declared National Highways including existing NH-97 & NH-28B in the state of Uttar Pradesh-PkgVI.[Stretch (i) Chapwa-Betwa-Chatauni-Kushinagar Road-NH-28B (ii) Ghazipur-Jamaniya-Saiyad Raja Road-NH-97 and Length 116.43 Km.]

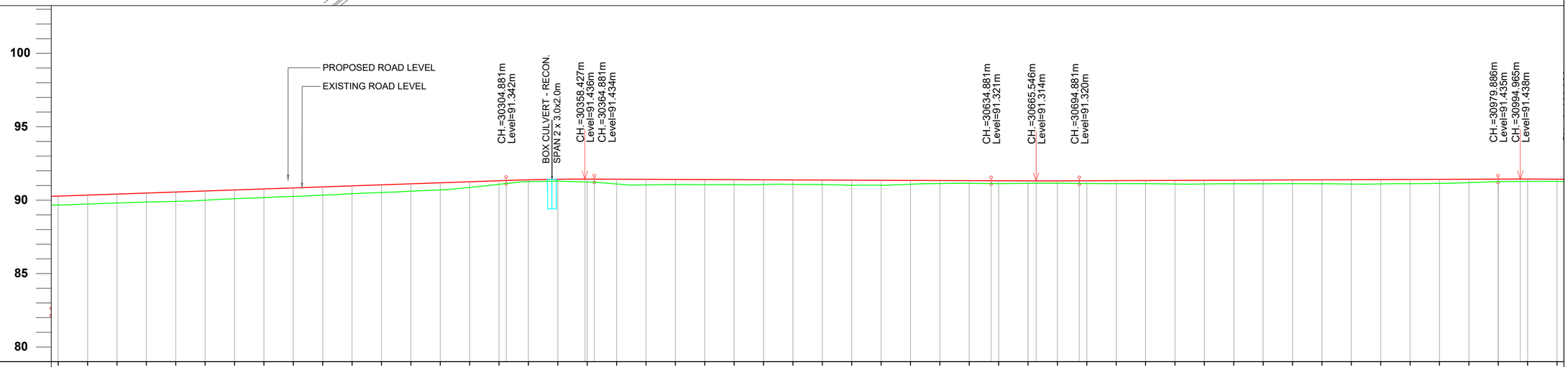
Prepared by	M.S.Bisht
Designed by	Gulista Parveen
Checked by	Arun Kumar Bag
Approved by	Pankaj Vora

Revisions	Date	Description
R0	October, 2023	FINAL DETAIL PROJECT REPORT

TITLE : PLAN AND PROFILE
CHAINAGE : 29+000Km. TO 30+000Km.
DWG NO. : KN-D_FDPR_HWY_PP-30 SHEET 30 TO 58
SCALE : H-1:2000 V-200 @ (A2) DATE : October, 2023

TO KUSHINAGAR ← **TO CHAPWA** →





FRL AT CENTRE LINE	90.277 90.347 90.416 90.486 90.556 90.626 90.696 90.766 90.836 90.906 90.976 91.046 91.115 91.185 91.255 91.325 91.388 91.425 91.436 91.428 91.420 91.411 91.403 91.394 91.386 91.377 91.369 91.361 91.352 91.344 91.335 91.327 91.319 91.314 91.316 91.322 91.330 91.338 91.346 91.354 91.362 91.371 91.379 91.387 91.395 91.403 91.411 91.419 91.427 91.435 91.438 91.430
EXISTING GROUND LEVEL	89.674 89.735 89.805 89.871 89.918 89.998 90.098 90.172 90.258 90.344 90.442 90.523 90.610 90.698 90.870 91.081 91.258 91.297 91.235 91.102 91.039 91.064 91.053 91.054 91.068 91.078 91.061 91.014 91.019 91.084 91.133 91.147 91.126 91.146 91.151 91.134 91.123 91.123 91.100 91.103 91.116 91.117 91.124 91.117 91.097 91.105 91.121 91.144 91.194 91.260 91.280 91.277
VERTICAL GEOMETRY	G=0.349 L=530.023m; L=60.000m; L=270.000m G=-0.042; L=60.000m; G=0.040 L=285.005m; L=50.000m
HORIZONTAL GEOMETRY	L=60.000m; R=350 L; L=60.000m; L=550.399m; L=35.000m; R=-650.000m L=107.564m; L=35.000m; L
SUPER ELEVATION	e=2.5 e=2.5; e=7.000; e=7.000; e=2.5 e=2.5; e=4.736; e=4.736
DESIGN CHAINAGE	30+000 30+020 30+040 30+060 30+080 30+100 30+120 30+140 30+160 30+180 30+200 30+220 30+240 30+260 30+280 30+300 30+320 30+340 30+360 30+380 30+400 30+420 30+440 30+460 30+480 30+500 30+520 30+540 30+560 30+580 30+600 30+620 30+640 30+660 30+680 30+700 30+720 30+740 30+760 30+780 30+800 30+820 30+840 30+860 30+880 30+900 30+920 30+940 30+960 30+980 31+000 31+020

CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार Government of India

CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2, Plot No.- 1, Sector-40, Nerul (west), Navi Mumbay-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

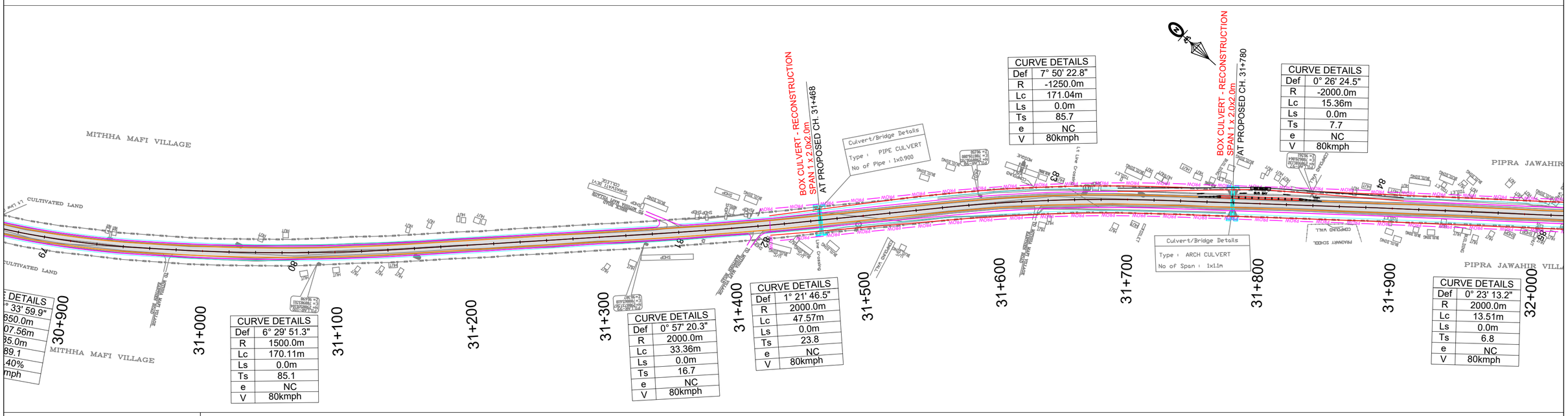
PROJECT:
Consultancy Services for Feasibility Study of Detailed Project Report for improvement and up-gradation of newly declared National Highways including existing NH-97 & NH-28B in the state of Uttar Pradesh-PkgVI.[Stretch (i) Chapwa-Betwa-Chatauni-Kushinagar Road-NH-28B (ii) Ghazipur-Jamaniya-Saiyad Raja Road-NH-97 and Length 116.43 Km.]

Prepared by	M.S.Bisht
Designed by	Gulista Parveen
Checked by	Arun Kumar Bag
Approved by	Pankaj Vora

Revisions	Date	Description
R0	October, 2023	FINAL DETAIL PROJECT REPORT

TITLE : PLAN AND PROFILE
CHAINAGE : 30+000Km. TO 31+000Km.
DWG NO. : KN-D_FDPR_HWY_PP-31 SHEET 31 TO 58
SCALE : H-1:2000 V-200 @ (A2) DATE : October, 2023

TO KUSHINAGAR ← **TO CHAPWA** →



CURVE DETAILS	
Def	6° 29' 51.3"
R	1500.0m
Lc	170.11m
Ls	0.0m
Ts	85.1
e	NC
V	80kmph

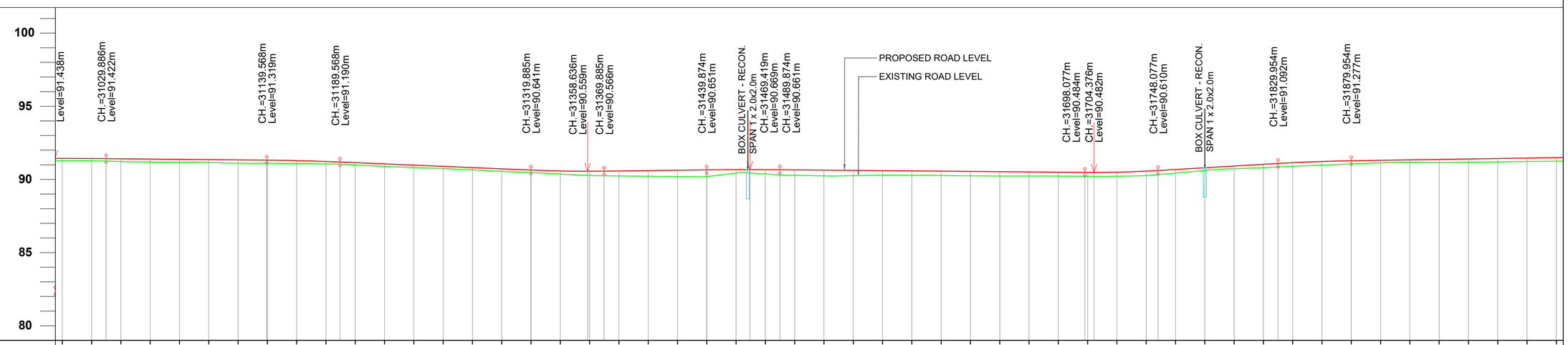
CURVE DETAILS	
Def	0° 57' 20.3"
R	2000.0m
Lc	33.36m
Ls	0.0m
Ts	16.7
e	NC
V	80kmph

CURVE DETAILS	
Def	1° 21' 46.5"
R	2000.0m
Lc	47.57m
Ls	0.0m
Ts	23.8
e	NC
V	80kmph

CURVE DETAILS	
Def	7° 50' 22.8"
R	-1250.0m
Lc	171.04m
Ls	0.0m
Ts	85.7
e	NC
V	80kmph

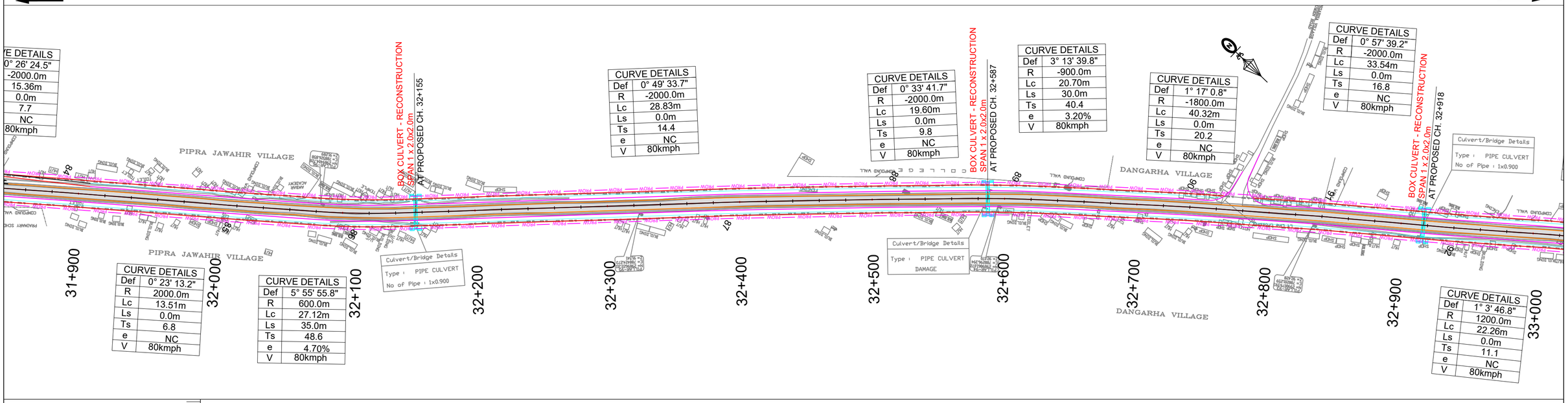
CURVE DETAILS	
Def	0° 26' 24.5"
R	-2000.0m
Lc	15.36m
Ls	0.0m
Ts	7.7
e	NC
V	80kmph

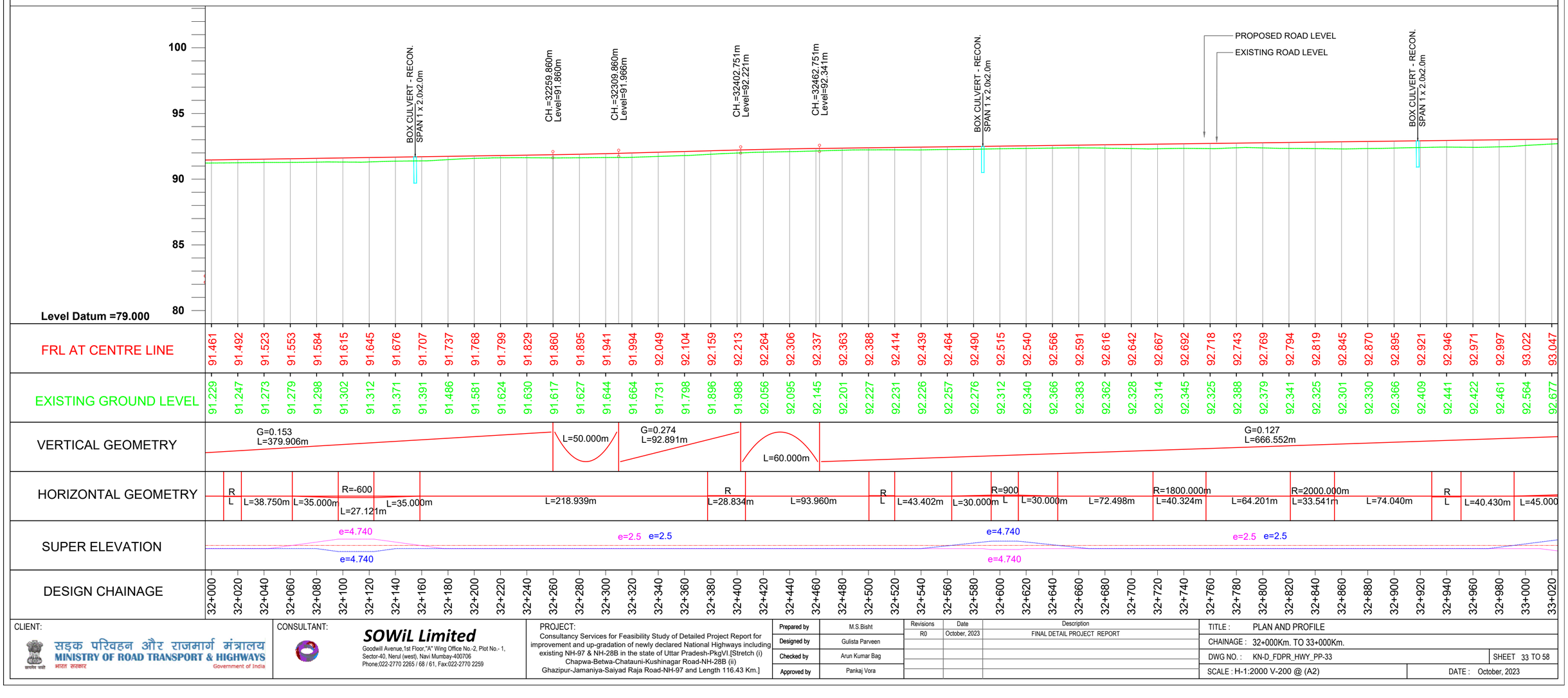
CURVE DETAILS	
Def	0° 23' 13.2"
R	2000.0m
Lc	13.51m
Ls	0.0m
Ts	6.8
e	NC
V	80kmph



| | | |

TO KUSHINAGAR ← **TO CHAPWA** →





CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार Government of India

CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2, Plot No.- 1, Sector-40, Nerul (west), Navi Mumbay-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for Feasibility Study of Detailed Project Report for improvement and up-gradation of newly declared National Highways including existing NH-97 & NH-28B in the state of Uttar Pradesh-PkgVI.[Stretch (i) Chapwa-Betwa-Chatauni-Kushinagar Road-NH-28B (ii) Ghazipur-Jamaniya-Saiyad Raja Road-NH-97 and Length 116.43 Km.]

Prepared by	M.S.Bisht
Designed by	Gulista Parveen
Checked by	Arun Kumar Bag
Approved by	Pankaj Vora

Revisions	Date	Description
R0	October, 2023	FINAL DETAIL PROJECT REPORT

TITLE : PLAN AND PROFILE
CHAINAGE : 32+000Km. TO 33+000Km.
DWG NO. : KN-D_FDPR_HWY_PP-33 SHEET 33 TO 58
SCALE : H-1:2000 V-200 @ (A2) DATE : October, 2023

TO KUSHINAGAR

TO CHAPWA

CURVE DETAILS	
Def	12° 59' 53.3"
R	-500.0m
Lc	113.43m
Ls	0.0m
Ts	57.0
e	5.70%
V	80kmph

CURVE DETAILS	
Def	8° 5' 39.6"
R	-500.0m
Lc	25.64m
Ls	45.0m
Ts	57.9
e	5.70%
V	80kmph

CURVE DETAILS	
Def	57' 39.2"
R	2000.0m
Lc	33.54m
Ls	0.0m
Ts	16.8
e	NC
V	80kmph

CURVE DETAILS	
Def	1° 3' 46.8"
R	1200.0m
Lc	22.26m
Ls	0.0m
Ts	11.1
e	NC
V	80kmph

CURVE DETAILS	
Def	3° 38' 12.2"
R	900.0m
Lc	57.135
Ls	0.0m
Ts	28.6
e	3.20%
V	80kmph

CURVE DETAILS	
Def	3° 32' 37.6"
R	-1200.0m
Lc	74.22m
Ls	0.0m
Ts	37.1
e	NC
V	80kmph

CURVE DETAILS	
Def	0° 27' 27.6"
R	2000.0m
Lc	15.98m
Ls	0.0m
Ts	8.0
e	NC
V	80kmph

Culvert/Bridge Details
Type : PIPE CULVERT
No of Pipe : 1x0.900

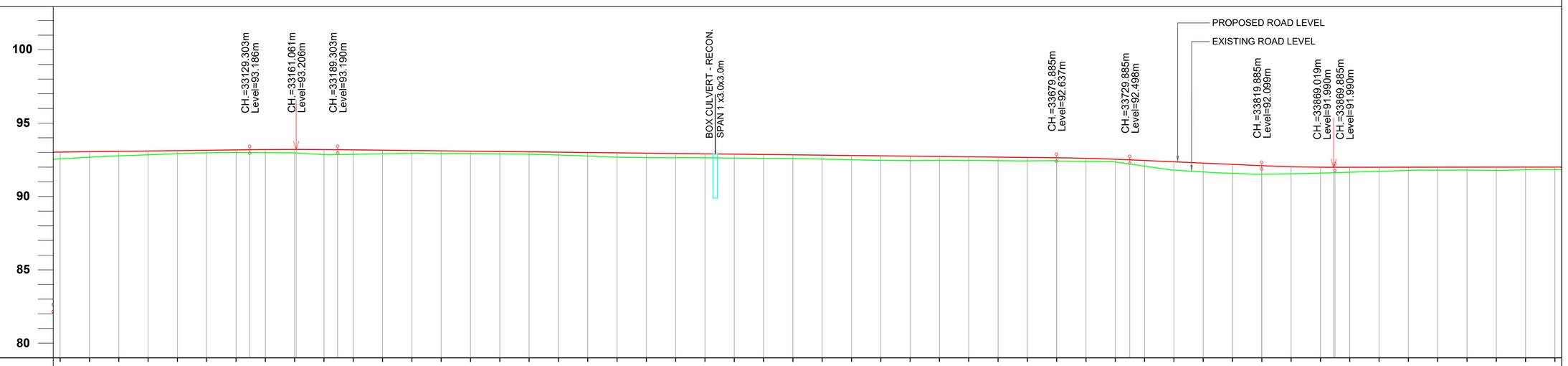
Culvert/Bridge Details
Type : SLAB CULVERT
No of Span : 1x2.5m

BOX CULVERT - RECONSTRUCTION SPAN 1 x 2.0x2.0m AT PROPOSED CH. 32+918

BOX CULVERT - RECONSTRUCTION SPAN 1 x 3.0x3.0m AT PROPOSED CH. 33+447

CULTIVATED LAND

32+900 33+000 33+100 33+200 33+300 33+400 33+500 33+600 33+700 33+800 33+900 34+000



FRL AT CENTRE LINE	93.022 93.047 93.073 93.098 93.123 93.149 93.174 93.197 93.206 93.199 93.178 93.156 93.133 93.110 93.088 93.065 93.043 93.020 92.998 92.975 92.953 92.930 92.908 92.885 92.862 92.840 92.817 92.795 92.772 92.750 92.727 92.705 92.682 92.660 92.637 92.601 92.539 92.453 92.365 92.276 92.187 92.098 92.028 91.994 91.991 91.992 91.994 91.995 91.997 91.999 92.000 92.002
EXISTING GROUND LEVEL	92.564 92.677 92.769 92.838 92.919 92.978 92.999 92.988 92.968 92.855 92.871 92.914 92.939 92.915 92.924 92.903 92.874 92.827 92.756 92.680 92.648 92.640 92.639 92.618 92.600 92.584 92.547 92.502 92.463 92.445 92.456 92.451 92.440 92.427 92.424 92.393 92.351 92.065 91.798 91.669 91.576 91.517 91.548 91.591 91.651 91.714 91.776 91.793 91.798 91.773 91.822 91.832
VERTICAL GEOMETRY	L=60.000m; L=490.582m G=-0.113; L=50.000m; L=90.000m G=-0.444; L=50.000m; G=0.008 L=270.000m
HORIZONTAL GEOMETRY	L=45.000m; R=500 L=25.636m; L=45.000m; L=43.459m; R=-900.000m L=57.125m; L=45.000m; R=500.000m L=62.187m; L=45.000m; L=74.605m; R=1200.000m L=74.221m; L=294.641m; R L
SUPER ELEVATION	e=5.688; e=3.20; e=5.688; e=2.5 e=2.5; e=5.688; e=3.20; e=5.688
DESIGN CHAINAGE	33+000 33+020 33+040 33+060 33+080 33+100 33+120 33+140 33+160 33+180 33+200 33+220 33+240 33+260 33+280 33+300 33+320 33+340 33+360 33+380 33+400 33+420 33+440 33+460 33+480 33+500 33+520 33+540 33+560 33+580 33+600 33+620 33+640 33+660 33+680 33+700 33+720 33+740 33+760 33+780 33+800 33+820 33+840 33+860 33+880 33+900 33+920 33+940 33+960 33+980 34+000 34+020

CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार
Government of India

CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2, Plot No.- 1, Sector-40, Nerul (west), Navi Mumbay-400706
Phone:(022-2770 2265 / 68 / 61, Fax:022-2770 2259

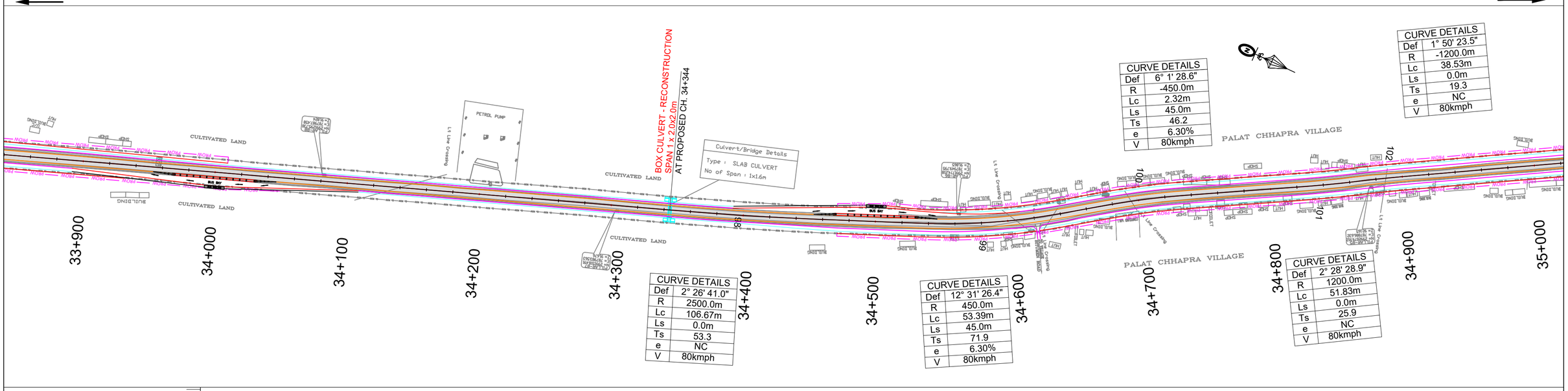
PROJECT:
Consultancy Services for Feasibility Study of Detailed Project Report for improvement and up-gradation of newly declared National Highways including existing NH-97 & NH-28B in the state of Uttar Pradesh-PkgVI.[Stretch (i) Chapwa-Betwa-Chatauni-Kushinagar Road-NH-28B (ii) Ghazipur-Jamaniya-Saiyad Raja Road-NH-97 and Length 116.43 Km.]

Prepared by	M.S.Bisht
Designed by	Gulista Parveen
Checked by	Arun Kumar Bag
Approved by	Pankaj Vora

Revisions	Date	Description
R0	October, 2023	FINAL DETAIL PROJECT REPORT

TITLE : PLAN AND PROFILE
CHAINAGE : 33+000Km. TO 34+000Km.
DWG NO. : KN-D_FDPR_HWY_PP-34 SHEET 34 TO 58
SCALE : H-1:2000 V-200 @ (A2) DATE : October, 2023

TO KUSHINAGAR ← → **TO CHAPWA**



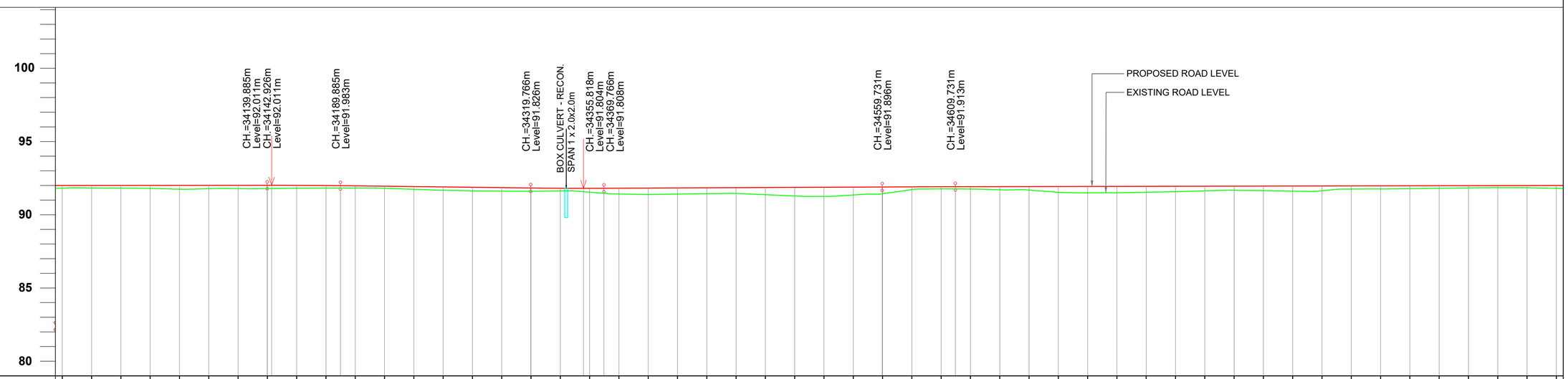
CURVE DETAILS	
Def	2° 26' 41.0"
R	2500.0m
Lc	106.67m
Ls	0.0m
Ts	53.3
e	NC
V	80kmph

CURVE DETAILS	
Def	6° 1' 28.6"
R	-450.0m
Lc	2.32m
Ls	45.0m
Ts	46.2
e	6.30%
V	80kmph

CURVE DETAILS	
Def	12° 31' 26.4"
R	450.0m
Lc	53.39m
Ls	45.0m
Ts	71.9
e	6.30%
V	80kmph

CURVE DETAILS	
Def	1° 50' 23.5"
R	-1200.0m
Lc	38.53m
Ls	0.0m
Ts	19.3
e	NC
V	80kmph

CURVE DETAILS	
Def	2° 28' 28.9"
R	1200.0m
Lc	51.83m
Ls	0.0m
Ts	25.9
e	NC
V	80kmph



FRL AT CENTRE LINE	92.000 92.002 92.003 92.005 92.006 92.008 92.009 92.011 92.007 91.994 91.971 91.947 91.922 91.898 91.874 91.850 91.826 91.809 91.805 91.812 91.822 91.831 91.840 91.850 91.859 91.868 91.878 91.887 91.896 91.905 91.911 91.915 91.919 91.924 91.928 91.932 91.936 91.940 91.944 91.948 91.952 91.957 91.961 91.965 91.969 91.973 91.977 91.981 91.985 91.990 91.994 91.998
EXISTING GROUND LEVEL	91.822 91.832 91.822 91.794 91.746 91.779 91.781 91.785 91.813 91.826 91.828 91.804 91.737 91.676 91.630 91.615 91.603 91.631 91.541 91.417 91.381 91.411 91.439 91.453 91.369 91.283 91.254 91.349 91.440 91.719 91.760 91.751 91.700 91.685 91.537 91.515 91.498 91.539 91.573 91.633 91.673 91.646 91.613 91.639 91.753 91.760 91.778 91.807 91.834 91.849 91.846 91.806
VERTICAL GEOMETRY	8 000m; L=50.000m; L=129.881m G=-0.121; L=50.000m; G=0.047 L=189.965m; L=50.000m; G=0.021 L=430.000m
HORIZONTAL GEOMETRY	L=528.652m; R=-2500.000m L=106.672m; L=59.534m; L=45.000m; R=-450.000m L=53.385m; L=45.000m; L=45.000m; R=450 L=45.000m; L=64.657m; R=-1200.000m L=51.830m; R=1200.000m L=38.534m; L=2
SUPER ELEVATION	e=2.5 e=2.5; e=3.556; e=3.556; e=3.556; e=3.556; e=2.5 e=2.5
DESIGN CHAINAGE	34+000 34+020 34+040 34+060 34+080 34+100 34+120 34+140 34+160 34+180 34+200 34+220 34+240 34+260 34+280 34+300 34+320 34+340 34+360 34+380 34+400 34+420 34+440 34+460 34+480 34+500 34+520 34+540 34+560 34+580 34+600 34+620 34+640 34+660 34+680 34+700 34+720 34+740 34+760 34+780 34+800 34+820 34+840 34+860 34+880 34+900 34+920 34+940 34+960 34+980 35+000 35+020

CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार Government of India

CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2, Plot No.- 1, Sector-40, Nerul (west), Navi Mumbay-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for Feasibility Study of Detailed Project Report for improvement and up-gradation of newly declared National Highways including existing NH-97 & NH-28B in the state of Uttar Pradesh-PkgVI.[Stretch (i) Chapwa-Betwa-Chatauni-Kushinagar Road-NH-28B (ii) Ghazipur-Jamaniya-Saiyad Raja Road-NH-97 and Length 116.43 Km.]

Prepared by	M.S.Bisht
Designed by	Gulista Parveen
Checked by	Arun Kumar Bag
Approved by	Pankaj Vora

Revisions	Date	Description
R0	October, 2023	FINAL DETAIL PROJECT REPORT

TITLE : PLAN AND PROFILE
CHAINAGE : 34+000Km. TO 35+000Km.
DWG NO. : KN-D_FDPR_HWY_PP-35 SHEET 35 TO 58
SCALE : H-1:2000 V-200 @ (A2) DATE : October, 2023

TO KUSHINAGAR ← **TO CHAPWA** →

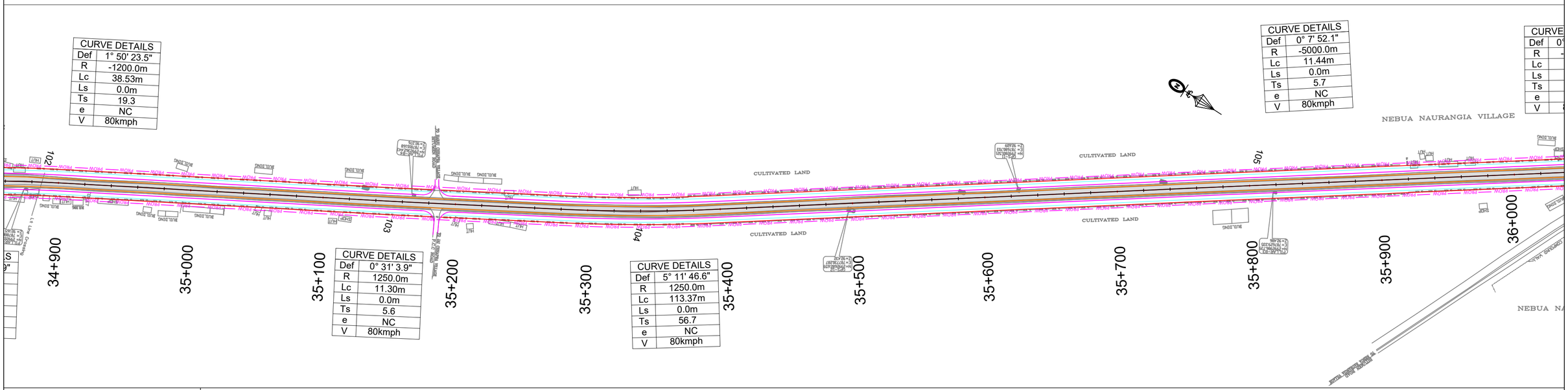
CURVE DETAILS	
Def	1° 50' 23.5"
R	-1200.0m
Lc	38.53m
Ls	0.0m
Ts	19.3
e	NC
V	80kmph

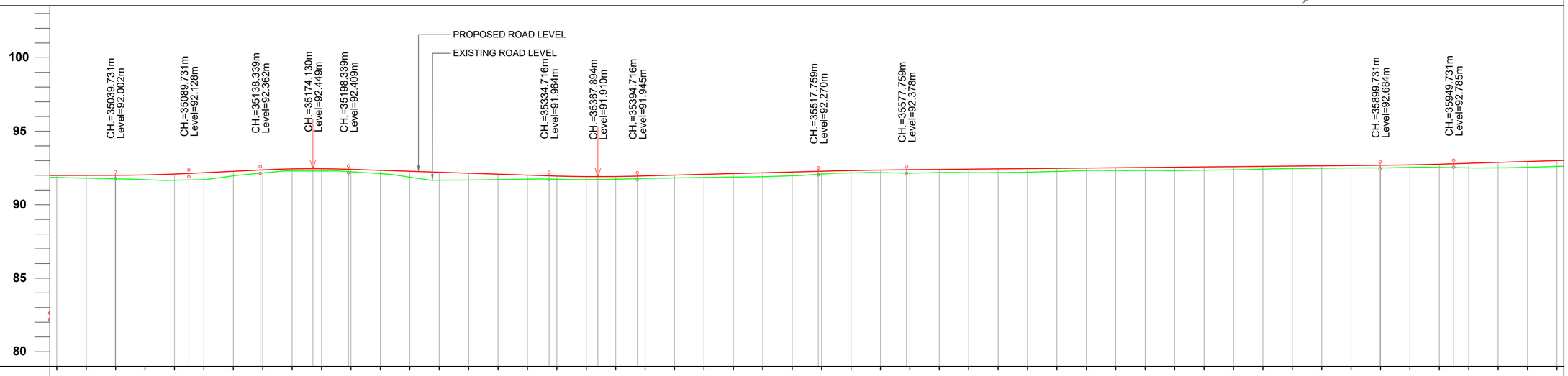
CURVE DETAILS	
Def	0° 31' 3.9"
R	1250.0m
Lc	11.30m
Ls	0.0m
Ts	5.6
e	NC
V	80kmph

CURVE DETAILS	
Def	5° 11' 46.6"
R	1250.0m
Lc	113.37m
Ls	0.0m
Ts	56.7
e	NC
V	80kmph

CURVE DETAILS	
Def	0° 7' 52.1"
R	-5000.0m
Lc	11.44m
Ls	0.0m
Ts	5.7
e	NC
V	80kmph

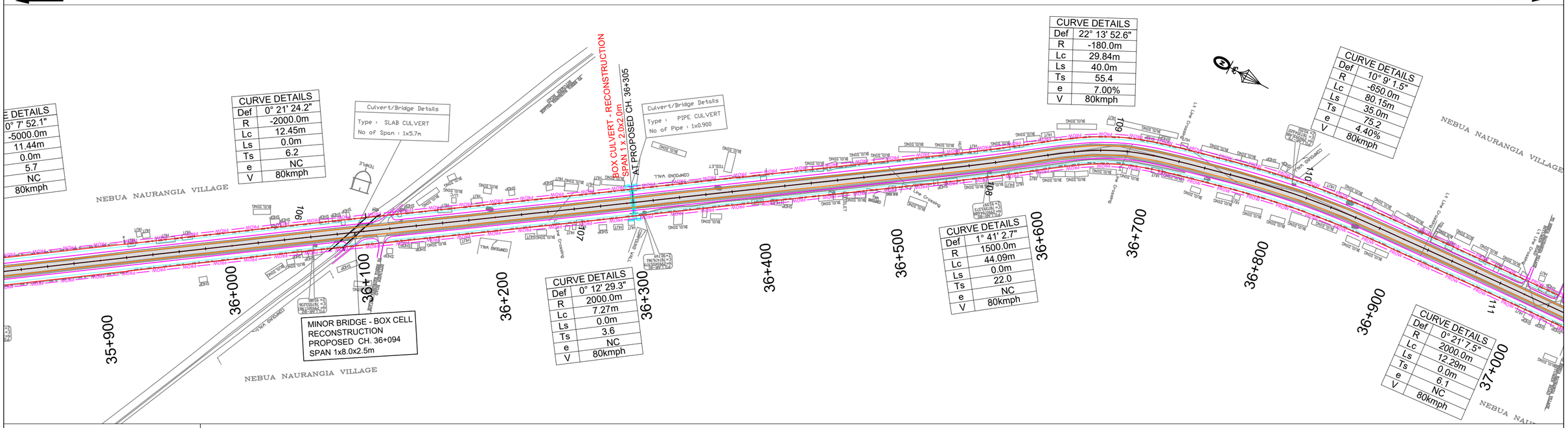
CURVE	
Def	0°
R	-
Lc	
Ls	
Ts	
e	
V	

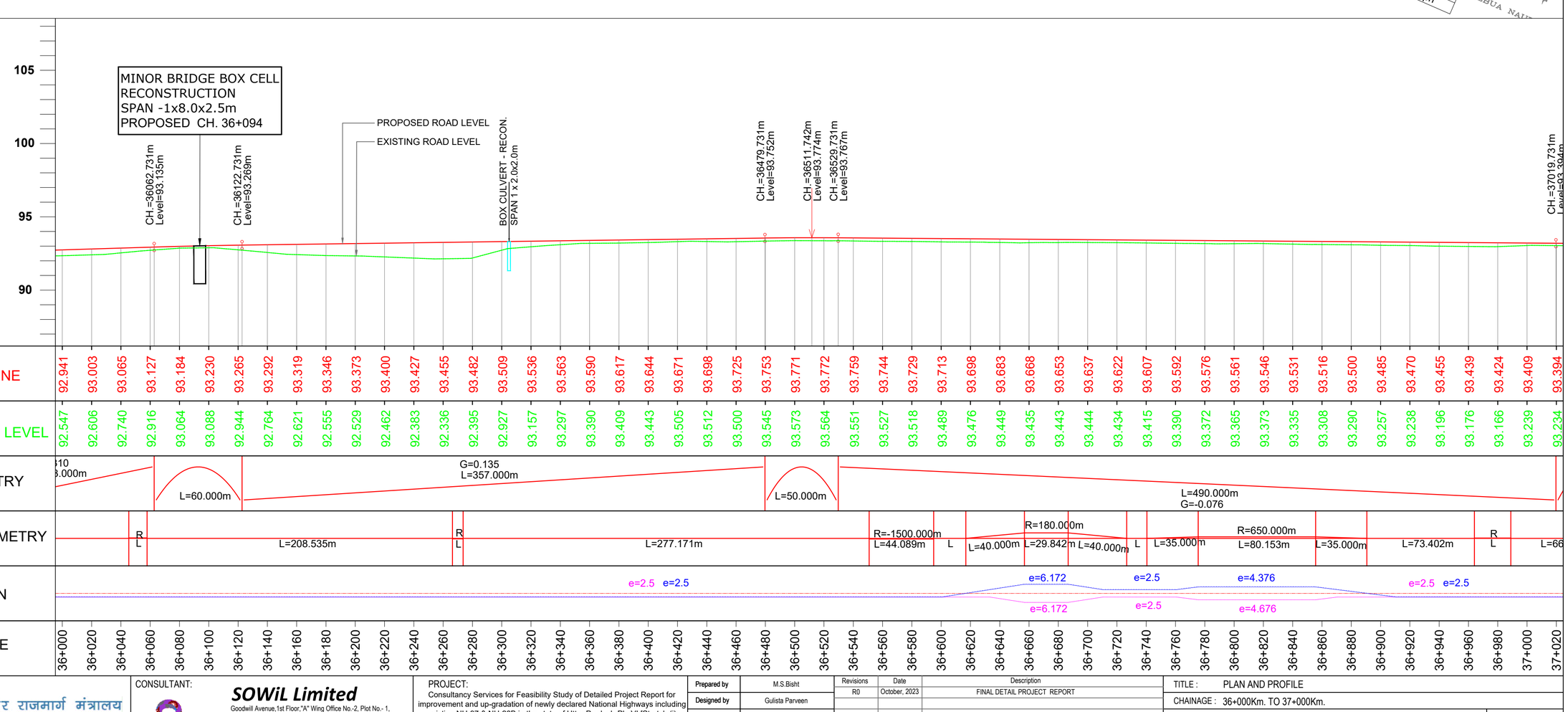




| | | |

TO KUSHINAGAR ← **TO CHAPWA** →





CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार Government of India

CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2, Plot No.- 1, Sector-40, Nerul (west), Navi Mumbay-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

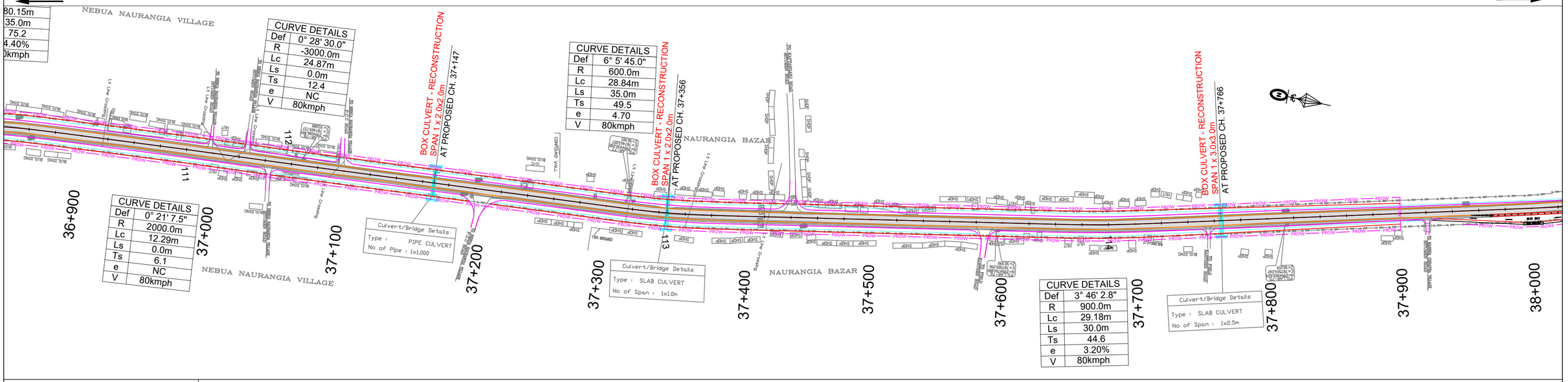
PROJECT:
Consultancy Services for Feasibility Study of Detailed Project Report for improvement and up-gradation of newly declared National Highways including existing NH-97 & NH-28B in the state of Uttar Pradesh-PkgVI.(Stretch (i) Chapwa-Betwa-Chatauni-Kushinagar Road-NH-28B (ii) Ghazipur-Jamaniya-Saiyad Raja Road-NH-97 and Length 116.43 Km.]

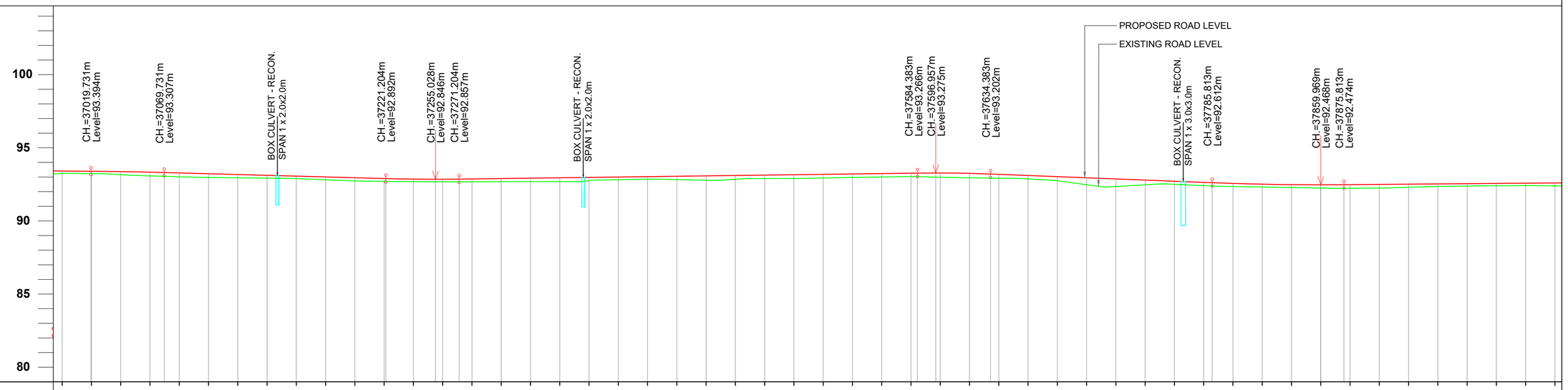
Prepared by	M.S.Bisht
Designed by	Gulista Parveen
Checked by	Arun Kumar Bag
Approved by	Pankaj Vora

Revisions	Date	Description
R0	October, 2023	FINAL DETAIL PROJECT REPORT

TITLE : PLAN AND PROFILE
CHAINAGE : 36+000Km. TO 37+000Km.
DWG NO. : KN-D_FDPR_HWY_PP-37
SHEET 37 TO 58
SCALE : H-1:2000 V-200 @ (A2)
DATE : October, 2023

TO KUSHINAGAR ← **TO CHAPWA** →





FRL AT CENTRE LINE	93.409 93.394 93.370 93.331 93.279 93.224 93.169 93.114 93.060 93.005 92.950 92.896 92.855 92.847 92.868 92.894 92.921 92.947 92.973 92.999 93.025 93.051 93.077 93.104 93.130 93.156 93.182 93.208 93.234 93.261 93.274 93.247 93.180 93.102 93.024 92.946 92.868 92.791 92.713 92.635 92.562 92.510 92.478 92.468 92.478 92.495 92.511 92.528 92.544 92.561 92.578 92.594
EXISTING GROUND LEVEL	93.239 93.234 93.158 93.077 93.012 92.967 92.947 92.922 92.889 92.807 92.730 92.699 92.684 92.674 92.674 92.683 92.688 92.685 92.748 92.813 92.855 92.824 92.780 92.848 92.895 92.900 92.933 92.971 93.003 93.034 92.986 92.947 92.922 92.868 92.742 92.471 92.352 92.470 92.499 92.411 92.349 92.315 92.279 92.243 92.233 92.245 92.298 92.352 92.381 92.400 92.412 92.393
VERTICAL GEOMETRY	L=50.000m; L=151.473m G=-0.273; L=50.000m; G=0.131 L=313.179m; L=50.000m; L=151.430m G=-0.389; L=90.000m; G L=
HORIZONTAL GEOMETRY	L=66.326m; R L; L=231.656m; L=35.000m; R=-600 L=28.836m L=35.000m; L=233.108m; L=30.000m; R L=29.179m L=30.000m; L=278.873m; L=5
SUPER ELEVATION	e=2.5 e=2.5; e=4.740; e=4.740; e=2.5 e=2.5; e=3.160; e=3.160; e=2.5 e=2.5
DESIGN CHAINAGE	37+000 37+020 37+040 37+060 37+080 37+100 37+120 37+140 37+160 37+180 37+200 37+220 37+240 37+260 37+280 37+300 37+320 37+340 37+360 37+380 37+400 37+420 37+440 37+460 37+480 37+500 37+520 37+540 37+560 37+580 37+600 37+620 37+640 37+660 37+680 37+700 37+720 37+740 37+760 37+780 37+800 37+820 37+840 37+860 37+880 37+900 37+920 37+940 37+960 37+980 38+000 38+020

CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार Government of India

CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2, Plot No.- 1, Sector-40, Nerul (west), Navi Mumbay-400706
Phone:022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for Feasibility Study of Detailed Project Report for improvement and up-gradation of newly declared National Highways including existing NH-97 & NH-28B in the state of Uttar Pradesh-PkgVI.[Stretch (i) Chapwa-Betwa-Chatauni-Kushinagar Road-NH-28B (ii) Ghazipur-Jamaniya-Saiyad Raja Road-NH-97 and Length 116.43 Km.]

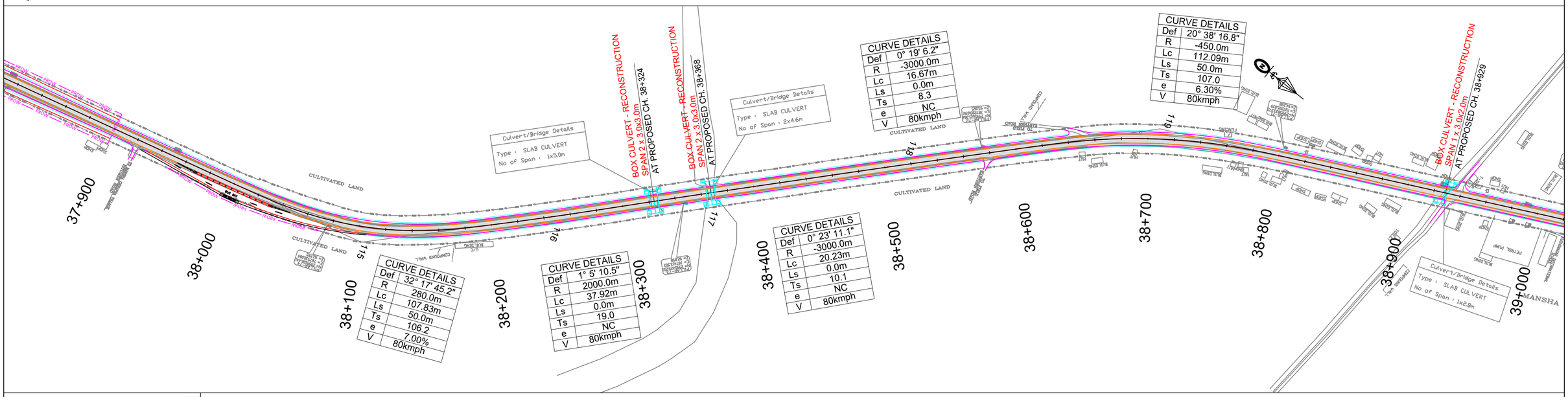
Prepared by	M.S.Bisht
Designed by	Gulista Parveen
Checked by	Arun Kumar Bag
Approved by	Pankaj Vora

Revisions	Date	Description
R0	October, 2023	FINAL DETAIL PROJECT REPORT

TITLE : PLAN AND PROFILE
CHAINAGE : 37+000Km. TO 38+000Km.
DWG NO. : KN-D_FDPR_HWY_PP-38 SHEET 38 TO 58
SCALE : H-1:2000 V-200 @ (A2) DATE : October, 2023

TO KUSHINAGAR

TO CHAPWA



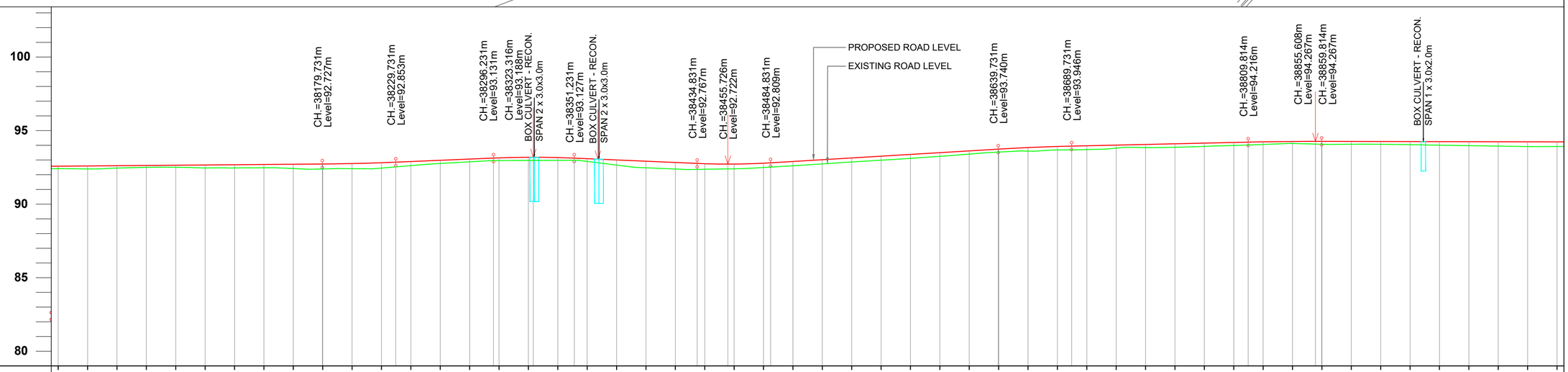
CURVE DETAILS	
Def	32° 17' 45.2"
R	280.0m
Lc	107.83m
Ls	50.0m
Ts	106.2
e	7.00%
V	80kmph

CURVE DETAILS	
Def	1° 5' 10.5"
R	2000.0m
Lc	37.92m
Ls	0.0m
Ts	19.0
e	NC
V	80kmph

CURVE DETAILS	
Def	0° 19' 6.2"
R	-3000.0m
Lc	16.67m
Ls	0.0m
Ts	8.3
e	NC
V	80kmph

CURVE DETAILS	
Def	0° 23' 11.1"
R	-3000.0m
Lc	20.23m
Ls	0.0m
Ts	10.1
e	NC
V	80kmph

CURVE DETAILS	
Def	20° 38' 16.8"
R	-450.0m
Lc	112.09m
Ls	50.0m
Ts	107.0
e	6.30%
V	80kmph



FRL AT CENTRE LINE	92.578 92.594 92.611 92.628 92.644 92.661 92.678 92.694 92.711 92.727 92.758 92.815 92.896 92.979 93.063 93.146 93.187 93.166 93.090 93.003 92.917 92.831 92.747 92.724 92.783 92.900 93.020 93.141 93.261 93.381 93.501 93.621 93.741 93.846 93.921 93.969 94.014 94.059 94.104 94.149 94.194 94.236 94.261 94.267 94.263 94.259 94.254 94.250 94.246 94.242 94.238 94.234
EXISTING GROUND LEVEL	92.412 92.393 92.452 92.500 92.506 92.458 92.464 92.475 92.420 92.392 92.411 92.452 92.619 92.764 92.877 92.959 92.970 92.976 92.901 92.650 92.469 92.386 92.371 92.403 92.492 92.608 92.736 92.867 92.988 93.114 93.252 93.404 93.540 93.604 93.683 93.711 93.812 93.843 93.867 93.927 93.989 94.057 94.124 94.070 94.071 94.067 94.044 94.005 93.974 93.945 93.916 93.919
VERTICAL GEOMETRY	G=0.083 L=303.918m; L=50.000m; G=0.418 L=66.500m; L=55.000m; L=83.600m G=-0.431; L=50.000m; G=0.601 L=154.900m; L=50.000m; G=0.225 L=120.083m; L=50.000m; L=269.921m G=-0.021
HORIZONTAL GEOMETRY	L=50.000m; R=-280.000m L=107.827m; L=50.000m; L=25.510m; R=-2000.000m L=37.917m; L=72.949m; R L; L=131.466m; R L; L=91.010m; L=50.000m; R=450.000m L=112.090m; L=50.000m; L=300.071m
SUPER ELEVATION	e=3.160; e=2.5 e=2.5; e=6.320; e=2.5 e=2.5; e=3.160; e=6.320
DESIGN CHAINAGE	38+000 38+020 38+040 38+060 38+080 38+100 38+120 38+140 38+160 38+180 38+200 38+220 38+240 38+260 38+280 38+300 38+320 38+340 38+360 38+380 38+400 38+420 38+440 38+460 38+480 38+500 38+520 38+540 38+560 38+580 38+600 38+620 38+640 38+660 38+680 38+700 38+720 38+740 38+760 38+780 38+800 38+820 38+840 38+860 38+880 38+900 38+920 38+940 38+960 38+980 39+000 39+020

CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार Government of India

CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2, Plot No.- 1, Sector-40, Nerul (west), Navi Mumbay-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

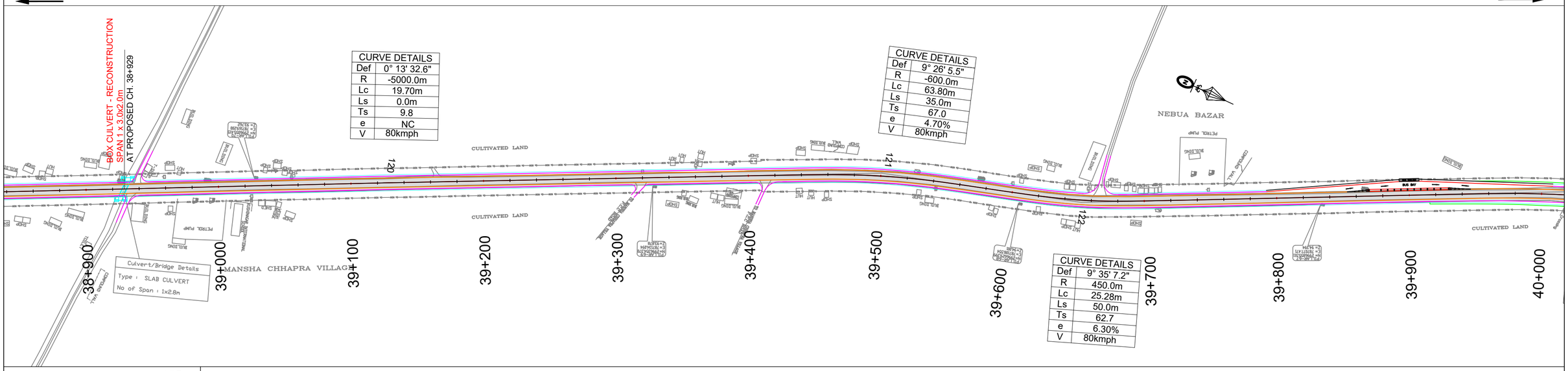
PROJECT:
Consultancy Services for Feasibility Study of Detailed Project Report for improvement and up-gradation of newly declared National Highways including existing NH-97 & NH-28B in the state of Uttar Pradesh-PkgVI.[Stretch (i) Chapwa-Betwa-Chatauni-Kushinagar Road-NH-28B (ii) Ghazipur-Jamaniya-Saiyad Raja Road-NH-97 and Length 116.43 Km.]

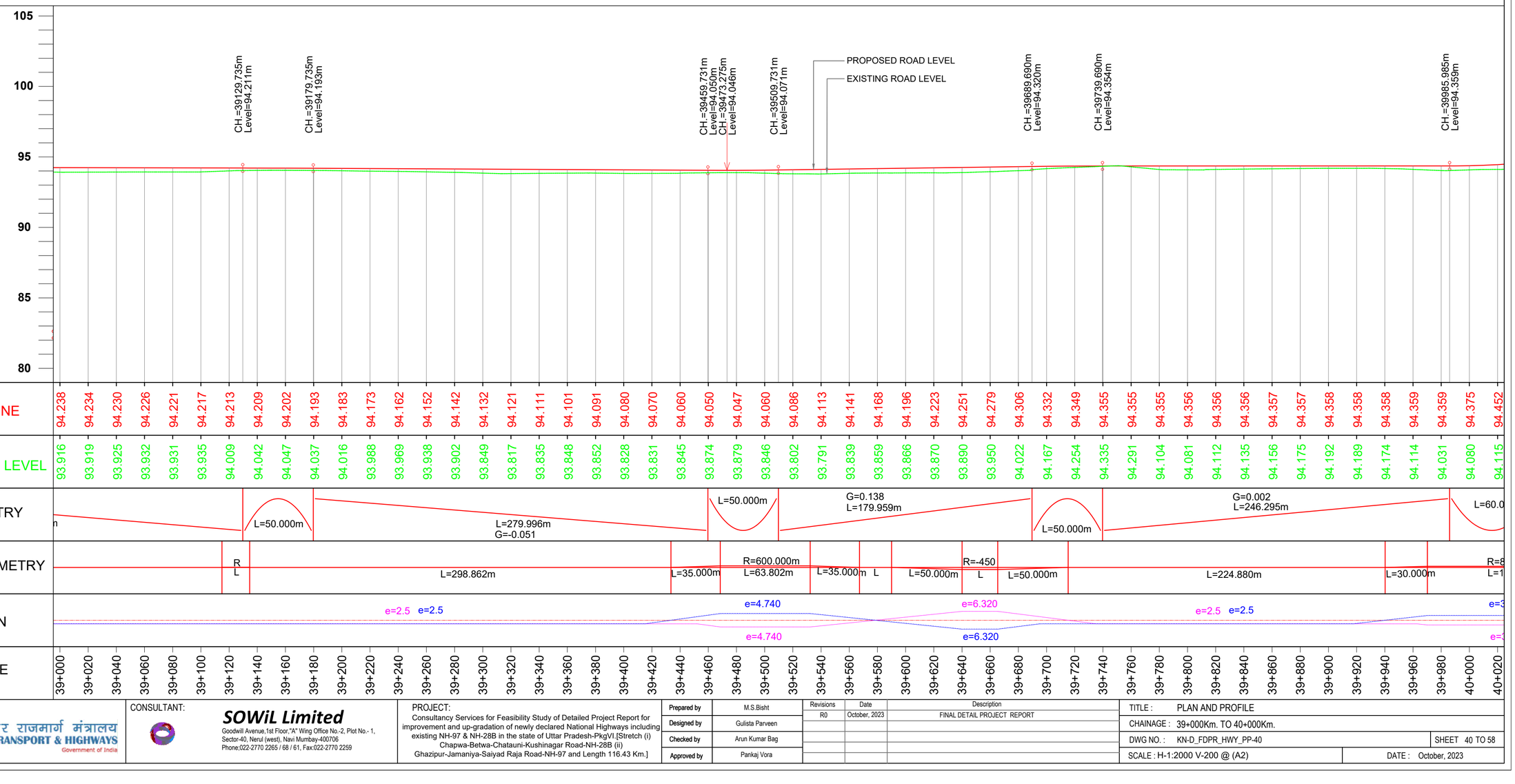
Prepared by	M.S.Bisht
Designed by	Gulista Parveen
Checked by	Arun Kumar Bag
Approved by	Pankaj Vora

Revisions	Date	Description
R0	October, 2023	FINAL DETAIL PROJECT REPORT

TITLE : PLAN AND PROFILE
CHAINAGE : 38+000Km. TO 39+000Km.
DWG NO. : KN-D_FDPR_HWY_PP-39
SHEET 39 TO 58
SCALE : H-1:2000 V-200 @ (A2)
DATE : October, 2023

TO KUSHINAGAR ← **TO CHAPWA** →





CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार Government of India

CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2, Plot No.- 1, Sector-40, Nerul (west), Navi Mumbay-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

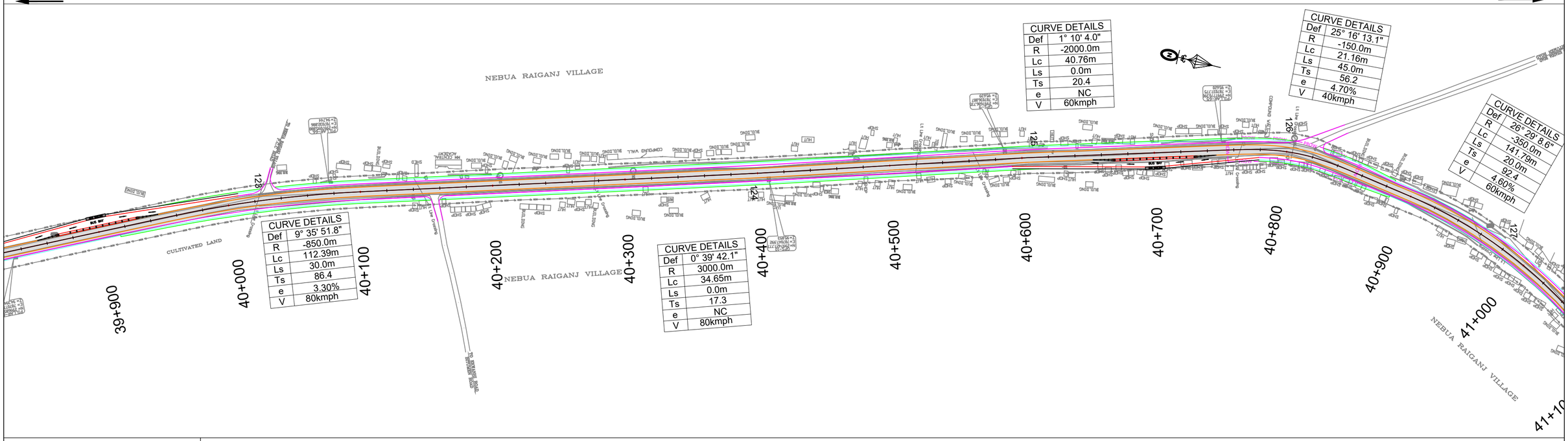
PROJECT:
Consultancy Services for Feasibility Study of Detailed Project Report for improvement and up-gradation of newly declared National Highways including existing NH-97 & NH-28B in the state of Uttar Pradesh-PkgVI.[Stretch (i) Chapwa-Betwa-Chatauni-Kushinagar Road-NH-28B (ii) Ghazipur-Jamaniya-Saiyad Raja Road-NH-97 and Length 116.43 Km.]

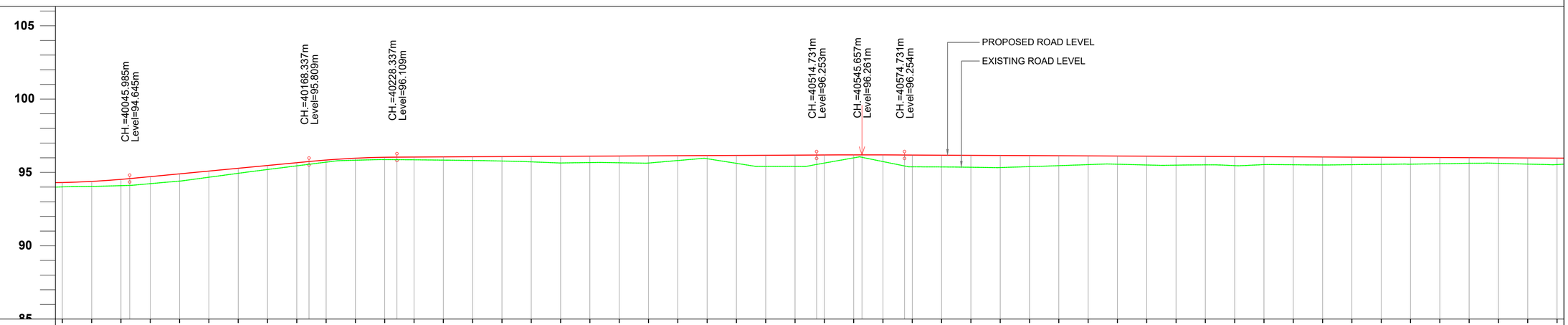
Prepared by	M.S.Bisht
Designed by	Gulista Parveen
Checked by	Arun Kumar Bag
Approved by	Pankaj Vora

Revisions	Date	Description
R0	October, 2023	FINAL DETAIL PROJECT REPORT

TITLE : PLAN AND PROFILE
CHAINAGE : 39+000Km. TO 40+000Km.
DWG NO. : KN-D_FDPR_HWY_PP-40 SHEET 40 TO 58
SCALE : H-1:2000 V-200 @ (A2) DATE : October, 2023

TO KUSHINAGAR ← **TO CHAPWA** →





FRL AT CENTRE LINE	94.375 94.452 94.591 94.779 94.969 95.159 95.349 95.539 95.729 95.909 96.035 96.100 96.115 96.125 96.135 96.145 96.155 96.165 96.175 96.185 96.195 96.205 96.215 96.225 96.235 96.246 96.255 96.260 96.259 96.251 96.242 96.232 96.223 96.214 96.204 96.195 96.185 96.176 96.166 96.157 96.147 96.138 96.129 96.119 96.110 96.100 96.091 96.081 96.072 96.062 96.053 96.044
EXISTING GROUND LEVEL	94.080 94.115 94.163 94.300 94.475 94.740 95.007 95.267 95.517 95.767 95.897 95.939 95.926 95.904 95.879 95.842 95.785 95.710 95.738 95.724 95.707 95.878 95.997 95.681 95.477 95.473 95.707 96.062 95.800 95.448 95.441 95.417 95.398 95.461 95.527 95.598 95.622 95.572 95.560 95.582 95.528 95.600 95.589 95.574 95.594 95.614 95.627 95.657 95.690 95.682 95.631 95.602
VERTICAL GEOMETRY	L=60.000m; G=0.951 L=122.352m; L=60.000m; G=0.050 L=286.394m; L=60.000m; L=484.987m G=-0.047
HORIZONTAL GEOMETRY	R=850.000m L=112.385m; L=30.000m; L=268.498m; R=-3000.000m L=34.646m; L=168.114m; R=2000.000m L=40.763m; L=125.924m; L=45.000m; R=150 L; L=45.000m; L=26.945m; L; R=350.000m L=141.792m
SUPER ELEVATION	e=3.346; e=2.5 e=2.5; e=7.000; e=2.5; e=3.174 / e=3.346; e=7.000; e=2.5; e=3.174
DESIGN CHAINAGE	40+000 40+020 40+040 40+060 40+080 40+100 40+120 40+140 40+160 40+180 40+200 40+220 40+240 40+260 40+280 40+300 40+320 40+340 40+360 40+380 40+400 40+420 40+440 40+460 40+480 40+500 40+520 40+540 40+560 40+580 40+600 40+620 40+640 40+660 40+680 40+700 40+720 40+740 40+760 40+780 40+800 40+820 40+840 40+860 40+880 40+900 40+920 40+940 40+960 40+980 41+000 41+020

CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार Government of India

CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2, Plot No.- 1, Sector-40, Nerul (west), Navi Mumbay-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

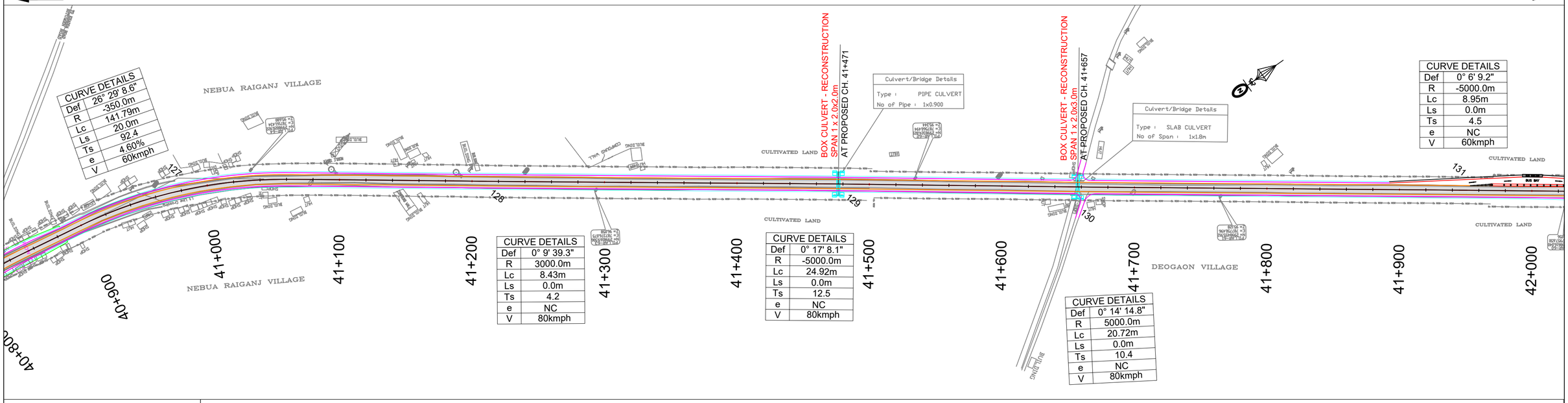
PROJECT:
Consultancy Services for Feasibility Study of Detailed Project Report for improvement and up-gradation of newly declared National Highways including existing NH-97 & NH-28B in the state of Uttar Pradesh-PkgVI.[Stretch (i) Chapwa-Betwa-Chatauni-Kushinagar Road-NH-28B (ii) Ghazipur-Jamaniya-Saiyad Raja Road-NH-97 and Length 116.43 Km.]

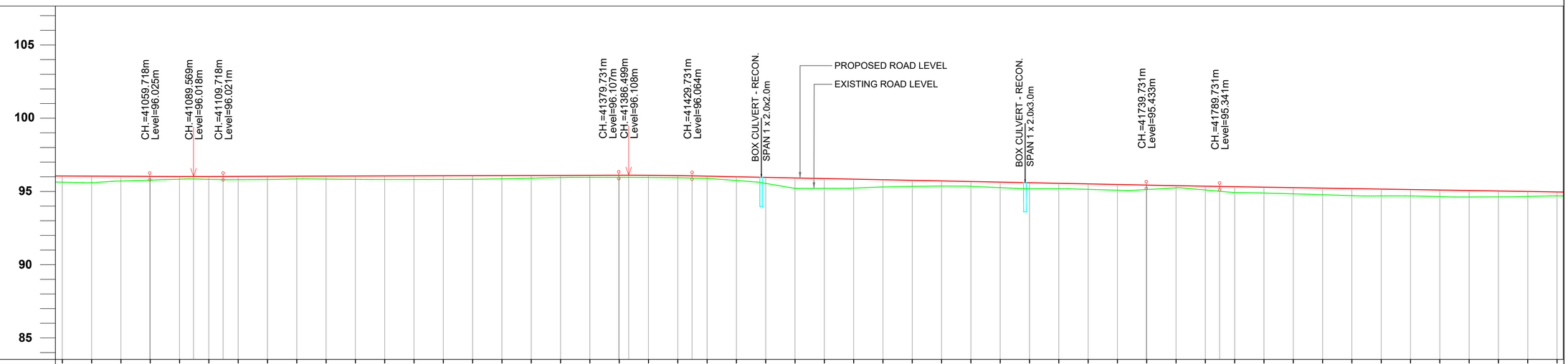
Prepared by	M.S.Bisht
Designed by	Gulista Parveen
Checked by	Arun Kumar Bag
Approved by	Pankaj Vora

Revisions	Date	Description
R0	October, 2023	FINAL DETAIL PROJECT REPORT

TITLE : PLAN AND PROFILE
CHAINAGE : 40+000Km. TO 41+000Km.
DWG NO. : KN-D_FDPR_HWY_PP-41 SHEET 41 TO 58
SCALE : H-1:2000 V-200 @ (A2) DATE : October, 2023

TO KUSHINAGAR ← **TO CHAPWA** →





FRL AT CENTRE LINE	96.053 96.044 96.034 96.025 96.018 96.019 96.024 96.031 96.037 96.043 96.050 96.056 96.062 96.069 96.075 96.082 96.088 96.094 96.101 96.107 96.104 96.082 96.043 96.002 95.962 95.921 95.880 95.840 95.799 95.758 95.717 95.677 95.636 95.595 95.555 95.514 95.473 95.432 95.393 95.358 95.325 95.292 95.259 95.227 95.194 95.162 95.129 95.096 95.064 95.031 94.999 94.966
EXISTING GROUND LEVEL	95.631 95.602 95.711 95.770 95.836 95.826 95.802 95.815 95.854 95.843 95.825 95.816 95.818 95.822 95.831 95.863 95.905 95.951 95.966 95.964 95.957 95.931 95.890 95.744 95.543 95.211 95.212 95.228 95.305 95.343 95.366 95.349 95.258 95.181 95.182 95.141 95.080 95.128 95.246 95.097 94.926 94.891 94.834 94.774 94.711 94.691 94.691 94.646 94.622 94.630 94.659 94.695
VERTICAL GEOMETRY	L=50.000m; G=0.032 L=270.013m; L=50.000m; L=310.000m G=-0.204; L=50.000m; L=300.025m G=-0.163
HORIZONTAL GEOMETRY	0m 2m; L; L=133.217m; R L; L=249.683m; R L; L=160.096m; R L; L=276.090m; R L
SUPER ELEVATION	e=2.5 e=2.5
DESIGN CHAINAGE	41+000 41+020 41+040 41+060 41+080 41+100 41+120 41+140 41+160 41+180 41+200 41+220 41+240 41+260 41+280 41+300 41+320 41+340 41+360 41+380 41+400 41+420 41+440 41+460 41+480 41+500 41+520 41+540 41+560 41+580 41+600 41+620 41+640 41+660 41+680 41+700 41+720 41+740 41+760 41+780 41+800 41+820 41+840 41+860 41+880 41+900 41+920 41+940 41+960 41+980 42+000 42+020

CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार Government of India

CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2, Plot No.- 1, Sector-40, Nerul (west), Navi Mumbay-400706
Phone:(022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for Feasibility Study of Detailed Project Report for improvement and up-gradation of newly declared National Highways including existing NH-97 & NH-28B in the state of Uttar Pradesh-PkgVI.[Stretch (i) Chapwa-Betwa-Chatauni-Kushinagar Road-NH-28B (ii) Ghazipur-Jamaniya-Saiyad Raja Road-NH-97 and Length 116.43 Km.]

Prepared by	M.S.Bisht
Designed by	Gulista Parveen
Checked by	Arun Kumar Bag
Approved by	Pankaj Vora

Revisions	Date	Description
R0	October, 2023	FINAL DETAIL PROJECT REPORT

TITLE : PLAN AND PROFILE
CHAINAGE : 41+000Km. TO 42+000Km.
DWG NO. : KN-D_FDPR_HWY_PP-42
SHEET 42 TO 58
SCALE : H-1:2000 V-200 @ (A2)
DATE : October, 2023

TO KUSHINAGAR

TO CHAPWA

CURVE DETAILS	
Def	0° 6' 9.2"
R	-5000.0m
Lc	8.95m
Ls	0.0m
Ts	4.5
e	NC
V	60kmph

CURVE DETAILS	
Def	48° 38' 33.8"
R	150.0m
Lc	47.35m
Ls	80.0m
Ts	108.5
e	7.00%
V	50kmph

CURVE DETAILS	
Def	28° 40' 15.7"
R	-230.0m
Lc	70.09m
Ls	45.0m
Ts	81.4
e	5.70%
V	50kmph

CURVE DETAILS	
Def	22° 5' 26.0"
R	-150.0m
Lc	12.83m
Ls	45.0m
Ts	51.9
e	7.00%
V	50kmph

CURVE DETAILS	
Def	14° 51' 29.2"
R	400.0m
Lc	73.73m
Ls	30.0m
Ts	67.2
e	4.00%
V	50kmph

BOX CULVERT - RECONSTRUCTION
SPAN 1 x 2.0x2.0m
AT PROPOSED CH. 42+176

MINOR BRIDGE - BOX CELL
RECONSTRUCTION
PROPOSED CH. 42+677
SPAN 2x8.0x3.0m

Culvert/Bridge Details
Type : Slab BRIDGE
No of Span : 5x2.5m

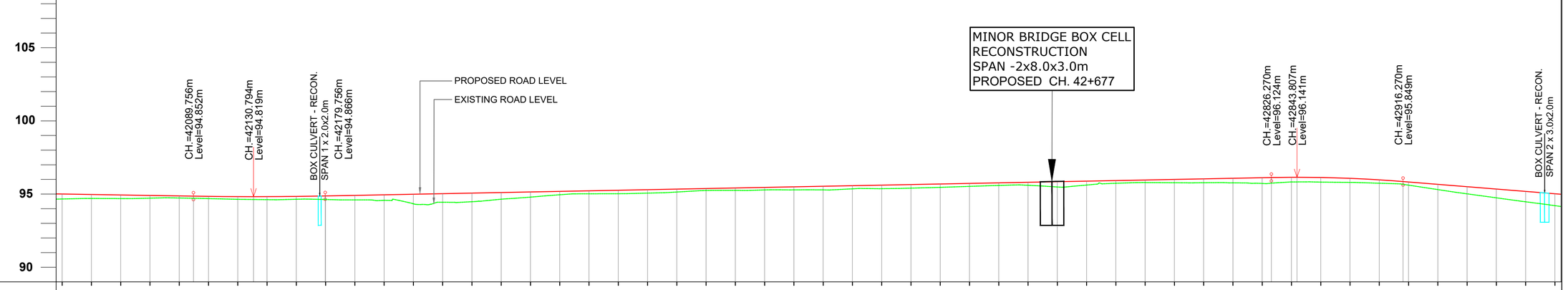
Culvert/Bridge Details
Type : PIPE CULVERT
No of Pipe : 1x0.600

Culvert/Bridge Details
Type : SLAB CULVERT
No of Span : 1x4.5m

SAKHUI VILLAGE

CULTIVATED LAND

41+900 42+000 42+100 42+200 42+300 42+400 42+500 42+600 42+700 42+800 42+900 43+000



FRL AT CENTRE LINE	94.999 94.966 94.933 94.901 94.868 94.838 94.821 94.821 94.836 94.867 94.906 94.945 94.984 95.023 95.061 95.100 95.139 95.178 95.217 95.256 95.295 95.334 95.372 95.411 95.450 95.489 95.528 95.567 95.606 95.645 95.684 95.722 95.761 95.800 95.839 95.878 95.917 95.956 95.995 96.034 96.072 96.111 96.140 96.126 96.068 95.966 95.820 95.659 95.498 95.337 95.177 95.016
EXISTING GROUND LEVEL	94.659 94.695 94.687 94.716 94.726 94.686 94.637 94.613 94.641 94.625 94.599 94.570 94.328 94.434 94.474 94.646 94.787 94.950 95.015 95.021 95.061 95.136 95.241 95.247 95.279 95.283 95.281 95.354 95.364 95.401 95.454 95.521 95.585 95.595 95.477 95.615 95.733 95.780 95.769 95.769 95.763 95.719 95.823 95.812 95.792 95.734 95.601 95.298 95.008 94.735 94.465 94.200
VERTICAL GEOMETRY	L=90.000m G=0.194 L=646.514m L=90.000m
HORIZONTAL GEOMETRY	L=199.933m L=80.000m R=-150.000m L=47.346m L=80.000m L=65.225m L=45.000m R=230.000m L=70.093m L=45.000m L=45.702m L=30.000m R=-400.000m L=73.729m L=30.000m L=45.000m R=150 L=45.000m L=126.796m R=3000 L=32.49
SUPER ELEVATION	e=2.5 e=2.5 e=7.000 e=7.000 e=2.5 e=2.5 e=6.956 e=6.956 e=4.000 e=4.000 e=7.000 e=7.000 e=2.5 e=2.5
DESIGN CHAINAGE	42+000 42+020 42+040 42+060 42+080 42+100 42+120 42+140 42+160 42+180 42+200 42+220 42+240 42+260 42+280 42+300 42+320 42+340 42+360 42+380 42+400 42+420 42+440 42+460 42+480 42+500 42+520 42+540 42+560 42+580 42+600 42+620 42+640 42+660 42+680 42+700 42+720 42+740 42+760 42+780 42+800 42+820 42+840 42+860 42+880 42+900 42+920 42+940 42+960 42+980 43+000 43+020

CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार Government of India

CONSULTANT:
SOWiL Limited
Goodwill Avenue, 1st Floor,"A" Wing Office No.-2, Plot No.- 1, Sector-40, Nerul (west), Navi Mumbay-400706
Phone:(022-2770 2265 / 68 / 61, Fax:022-2770 2259

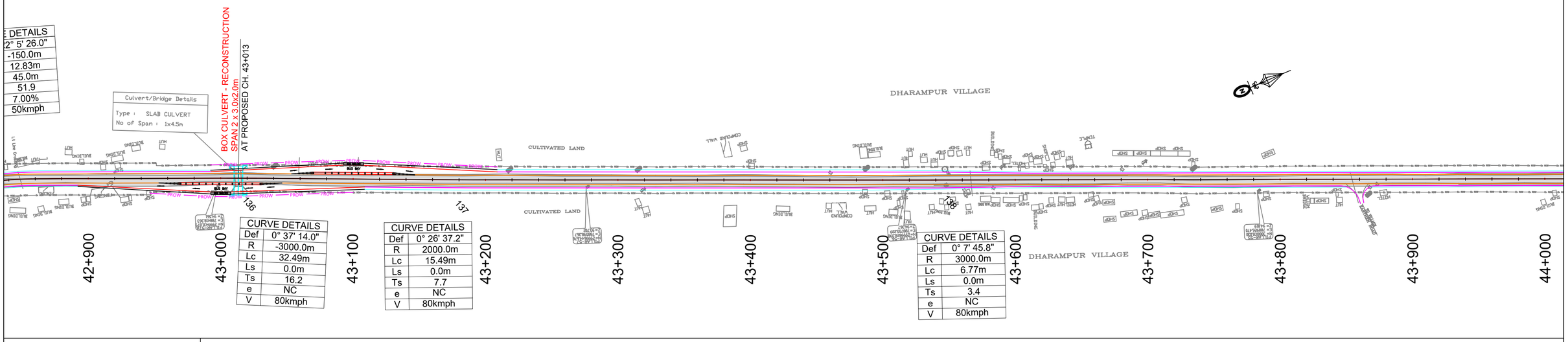
PROJECT:
Consultancy Services for Feasibility Study of Detailed Project Report for improvement and up-gradation of newly declared National Highways including existing NH-97 & NH-28B in the state of Uttar Pradesh-PkgVI.[Stretch (i) Chapwa-Betwa-Chatauni-Kushinagar Road-NH-28B (ii) Ghazipur-Jamaniya-Saiyad Raja Road-NH-97 and Length 116.43 Km.]

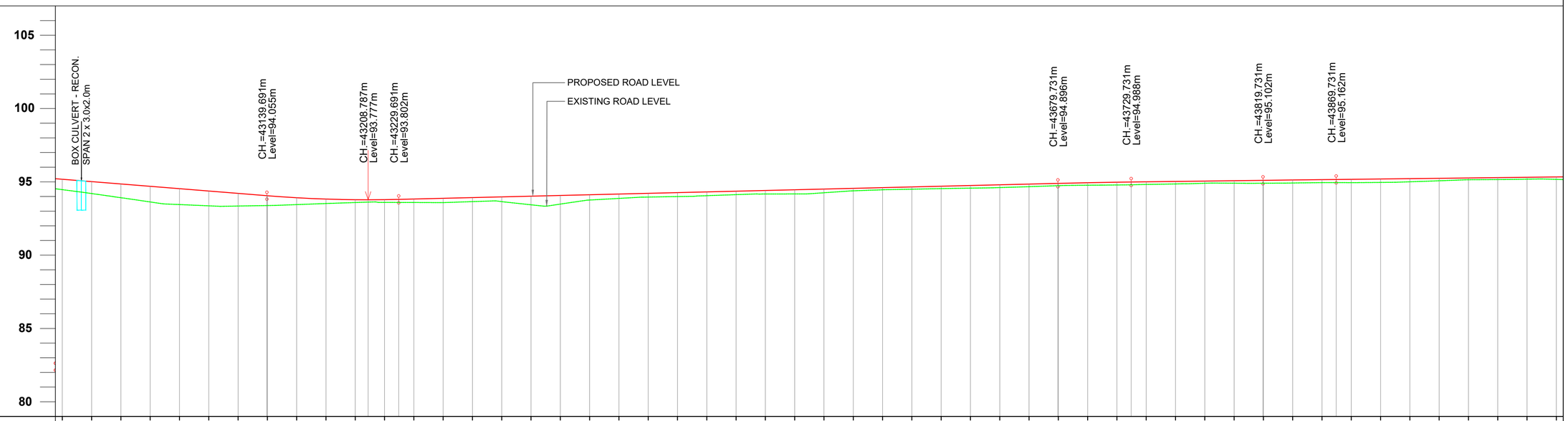
Prepared by	M.S.Bisht
Designed by	Gulista Parveen
Checked by	Arun Kumar Bag
Approved by	Pankaj Vora

Revisions	Date	Description
R0	October, 2023	FINAL DETAIL PROJECT REPORT

TITLE : PLAN AND PROFILE
CHAINAGE : 42+000Km. TO 43+000Km.
DWG NO. : KN-D_FDPR_HWY_PP-43 SHEET 43 TO 58
SCALE : H-1:2000 V-200 @ (A2) DATE : October, 2023

TO KUSHINAGAR ← → **TO CHAPWA**





Level Datum =79.000

FRL AT CENTRE LINE	95.177 95.016 94.855 94.695 94.534 94.373 94.213 94.052 93.915 93.825 93.781 93.784 93.827 93.876 93.925 93.973 94.022 94.070 94.119 94.168 94.216 94.265 94.314 94.362 94.411 94.459 94.508 94.557 94.605 94.654 94.702 94.751 94.800 94.848 94.897 94.941 94.975 95.001 95.026 95.052 95.077 95.102 95.127 95.151 95.174 95.197 95.220 95.243 95.266 95.289 95.312 95.335
EXISTING GROUND LEVEL	94.465 94.200 93.915 93.626 93.450 93.363 93.351 93.385 93.449 93.523 93.590 93.597 93.593 93.584 93.653 93.650 93.433 93.486 93.761 93.872 93.963 93.997 94.058 94.128 94.171 94.176 94.258 94.390 94.459 94.500 94.538 94.571 94.609 94.671 94.739 94.770 94.788 94.823 94.857 94.905 94.908 94.906 94.923 94.947 94.947 94.962 95.005 95.074 95.143 95.158 95.185 95.169
VERTICAL GEOMETRY	L=223.421m G=-0.803 · L=90.000m · G=0.243 L=450.040m · L=50.000m · G=0.126 L=90.000m · L=50.000m · G=0.115 L=190.000m
HORIZONTAL GEOMETRY	R=3000.000m L=32.492m · L=142.642m · R L · L=344.819m · R L · L=652.398m
SUPER ELEVATION	e=2.5 e=2.5
DESIGN CHAINAGE	43+000 43+020 43+040 43+060 43+080 43+100 43+120 43+140 43+160 43+180 43+200 43+220 43+240 43+260 43+280 43+300 43+320 43+340 43+360 43+380 43+400 43+420 43+440 43+460 43+480 43+500 43+520 43+540 43+560 43+580 43+600 43+620 43+640 43+660 43+680 43+700 43+720 43+740 43+760 43+780 43+800 43+820 43+840 43+860 43+880 43+900 43+920 43+940 43+960 43+980 44+000 44+020

CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार Government of India

CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2, Plot No.- 1, Sector-40, Nerul (west), Navi Mumbay-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

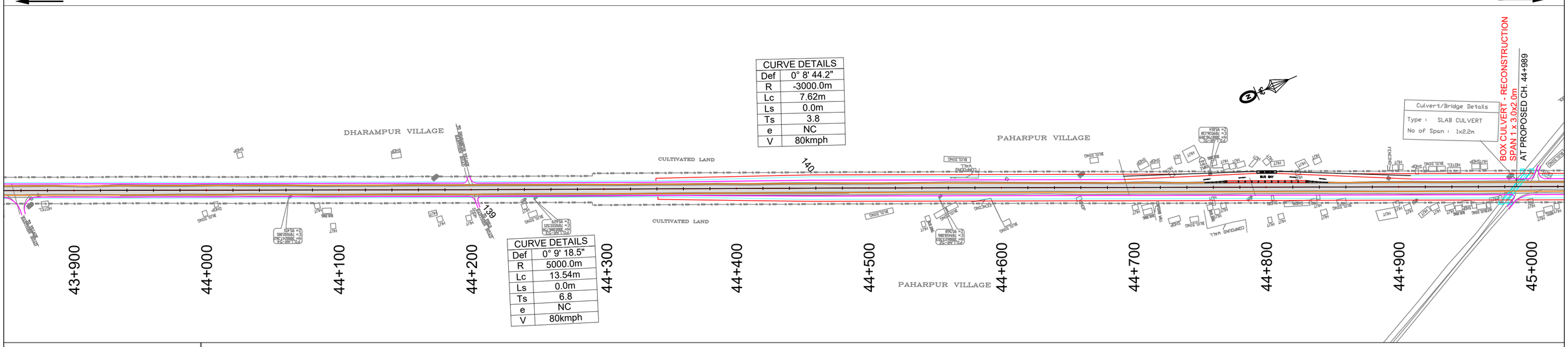
PROJECT:
Consultancy Services for Feasibility Study of Detailed Project Report for improvement and up-gradation of newly declared National Highways including existing NH-97 & NH-28B in the state of Uttar Pradesh-PkgVI.[Stretch (i) Chapwa-Betwa-Chatauni-Kushinagar Road-NH-28B (ii) Ghazipur-Jamaniya-Saiyad Raja Road-NH-97 and Length 116.43 Km.]

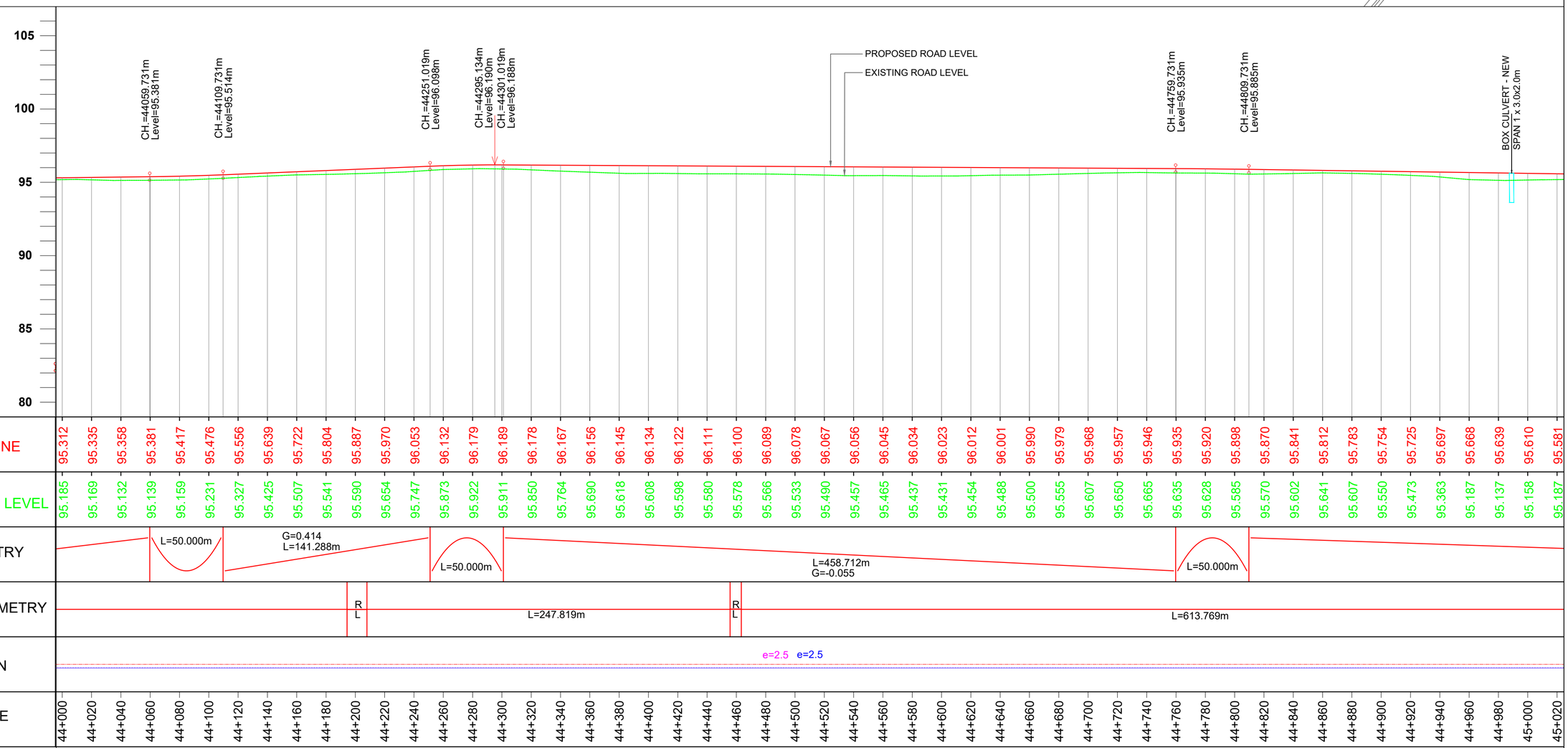
Prepared by	M.S.Bisht
Designed by	Gulista Parveen
Checked by	Arun Kumar Bag
Approved by	Pankaj Vora

Revisions	Date	Description
R0	October, 2023	FINAL DETAIL PROJECT REPORT

TITLE : PLAN AND PROFILE
CHAINAGE : 43+000Km. TO 44+000Km.
DWG NO. : KN-D_FDPR_HWY_PP-44 SHEET 44 TO 58
SCALE : H-1:2000 V-200 @ (A2) DATE : October, 2023

TO KUSHINAGAR ← **TO CHAPWA** →





CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार
Government of India

CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2, Plot No.- 1, Sector-40, Nerul (west), Navi Mumbay-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

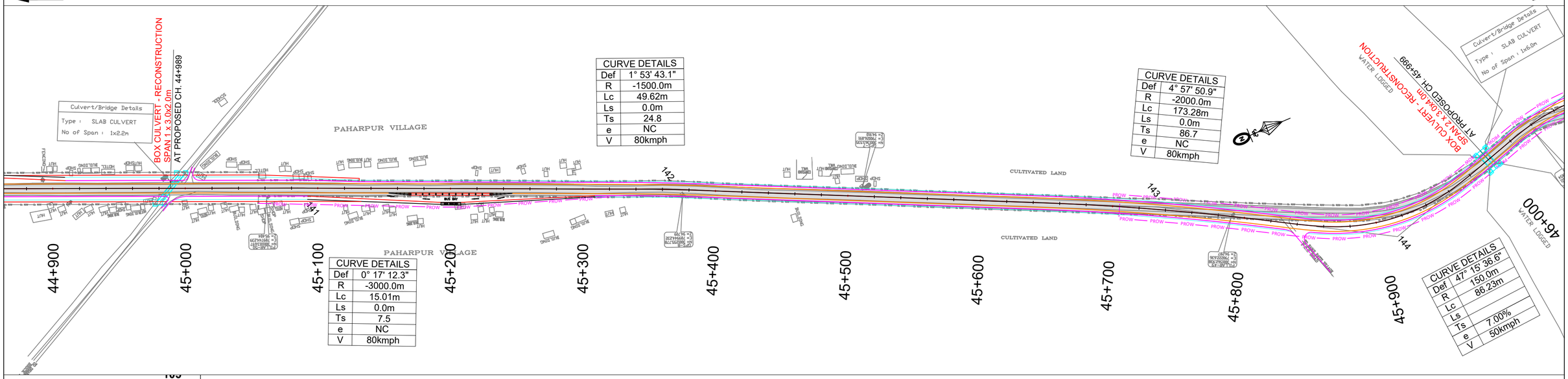
PROJECT:
Consultancy Services for Feasibility Study of Detailed Project Report for improvement and up-gradation of newly declared National Highways including existing NH-97 & NH-28B in the state of Uttar Pradesh-PkgVI.[Stretch (i) Chapwa-Betwa-Chatauni-Kushinagar Road-NH-28B (ii) Ghazipur-Jamaniya-Saiyad Raja Road-NH-97 and Length 116.43 Km.]

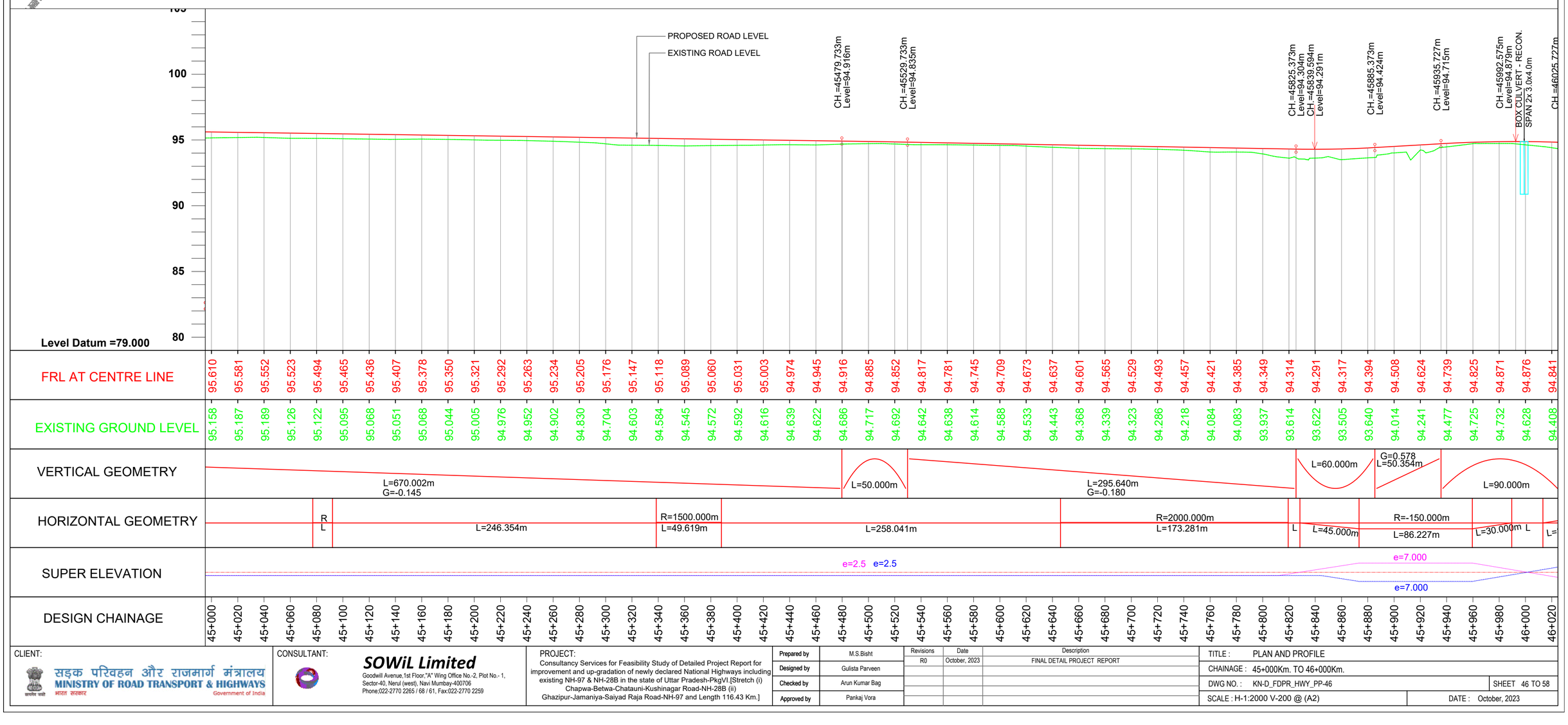
Prepared by	M.S.Bisht
Designed by	Gulista Parveen
Checked by	Arun Kumar Bag
Approved by	Pankaj Vora

Revisions	Date	Description
R0	October, 2023	FINAL DETAIL PROJECT REPORT

TITLE : PLAN AND PROFILE
CHAINAGE : 44+000Km. TO 45+000Km.
DWG NO. : KN-D_FDPR_HWY_PP-45 | SHEET 45 TO 58
SCALE : H-1:2000 V-200 @ (A2) | DATE : October, 2023

TO KUSHINAGAR ← | → **TO CHAPWA**





CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार Government of India

CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2, Plot No.- 1, Sector-40, Nerul (west), Navi Mumbay-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

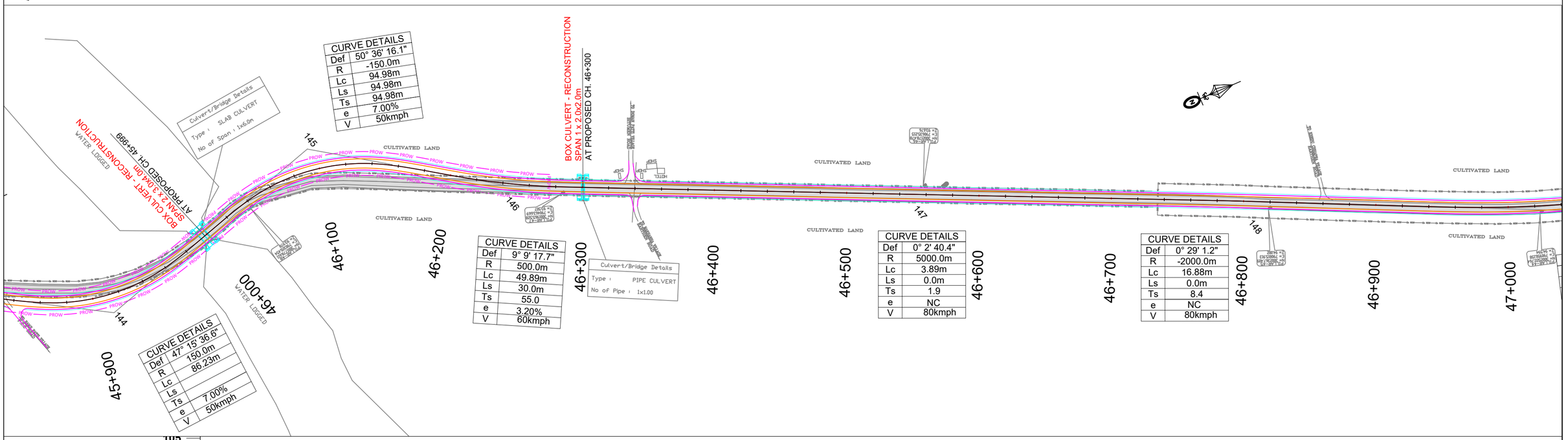
PROJECT:
Consultancy Services for Feasibility Study of Detailed Project Report for improvement and up-gradation of newly declared National Highways including existing NH-97 & NH-28B in the state of Uttar Pradesh-PkgVI.[Stretch (i) Chapwa-Betwa-Chatauni-Kushinagar Road-NH-28B (ii) Ghazipur-Jamaniya-Saiyad Raja Road-NH-97 and Length 116.43 Km.]

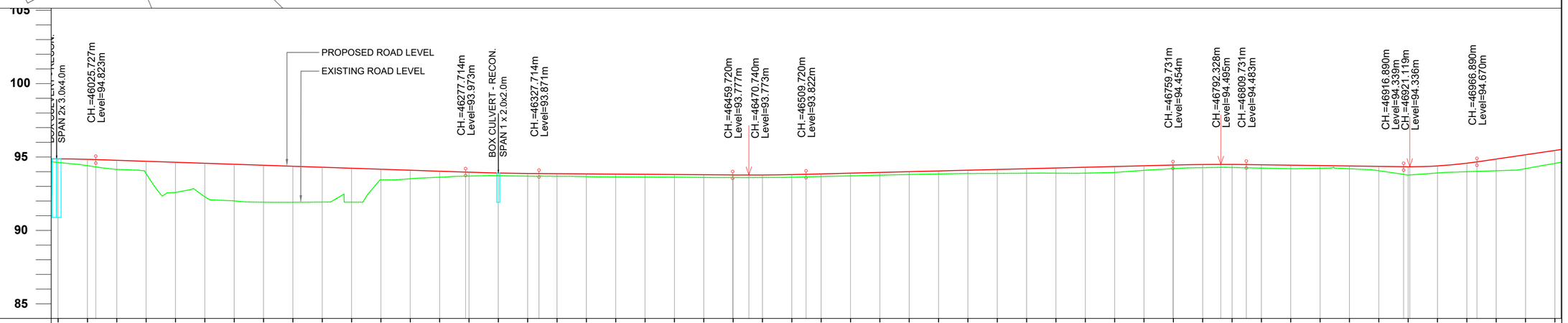
Prepared by	M.S.Bisht
Designed by	Gulista Parveen
Checked by	Arun Kumar Bag
Approved by	Pankaj Vora

Revisions	Date	Description
R0	October, 2023	FINAL DETAIL PROJECT REPORT

TITLE : PLAN AND PROFILE
CHAINAGE : 45+000Km. TO 46+000Km.
DWG NO. : KN-D_FDPR_HWY_PP-46 | SHEET 46 TO 58
SCALE : H-1:2000 V-200 @ (A2) | DATE : October, 2023

TO KUSHINAGAR ← **TO CHAPWA** →





FRL AT CENTRE LINE	94.876 94.841 94.775 94.708 94.640 94.573 94.505 94.438 94.370 94.303 94.235 94.168 94.101 94.033 93.966 93.911 93.878 93.862 93.848 93.834 93.820 93.805 93.791 93.777 93.776 93.801 93.848 93.899 93.949 94.000 94.050 94.101 94.151 94.202 94.252 94.303 94.353 94.404 94.455 94.489 94.493 94.469 94.442 94.415 94.388 94.362 94.336 94.393 94.577 94.861 95.153 95.445
EXISTING GROUND LEVEL	94.628 94.408 94.151 93.825 92.587 92.272 92.009 91.922 91.918 91.932 91.924 93.449 93.520 93.621 93.702 93.723 93.696 93.691 93.666 93.645 93.636 93.627 93.606 93.598 93.601 93.622 93.677 93.713 93.762 93.808 93.845 93.879 93.885 93.897 93.898 93.902 93.952 94.093 94.209 94.276 94.286 94.246 94.204 94.233 94.197 94.060 93.771 93.915 93.999 94.065 94.213 94.567
VERTICAL GEOMETRY	L=251.987m G=-0.337 · L=50.000m · L=132.006m G=-0.071 · L=50.000m · G=0.253 L=250.011m · L=50.000m · L=107.159m G=-0.135 · L=50.000m · G=1.460 L=85.332m
HORIZONTAL GEOMETRY	L L=30.000m R=150.000m L=94.982m L=45.000m L L=30.000m R=-500.000m L=49.892m L=30.000m L=243.881m R L L=239.589m R L L=133.325m L=30.000m
SUPER ELEVATION	e=7.000 e=3.200 e=2.5 e=2.5 e=7.000 e=3.200
DESIGN CHAINAGE	46+000 46+020 46+040 46+060 46+080 46+100 46+120 46+140 46+160 46+180 46+200 46+220 46+240 46+260 46+280 46+300 46+320 46+340 46+360 46+380 46+400 46+420 46+440 46+460 46+480 46+500 46+520 46+540 46+560 46+580 46+600 46+620 46+640 46+660 46+680 46+700 46+720 46+740 46+760 46+780 46+800 46+820 46+840 46+860 46+880 46+900 46+920 46+940 46+960 46+980 47+000 47+020

CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार Government of India

CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2, Plot No.- 1, Sector-40, Nerul (west), Navi Mumbay-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

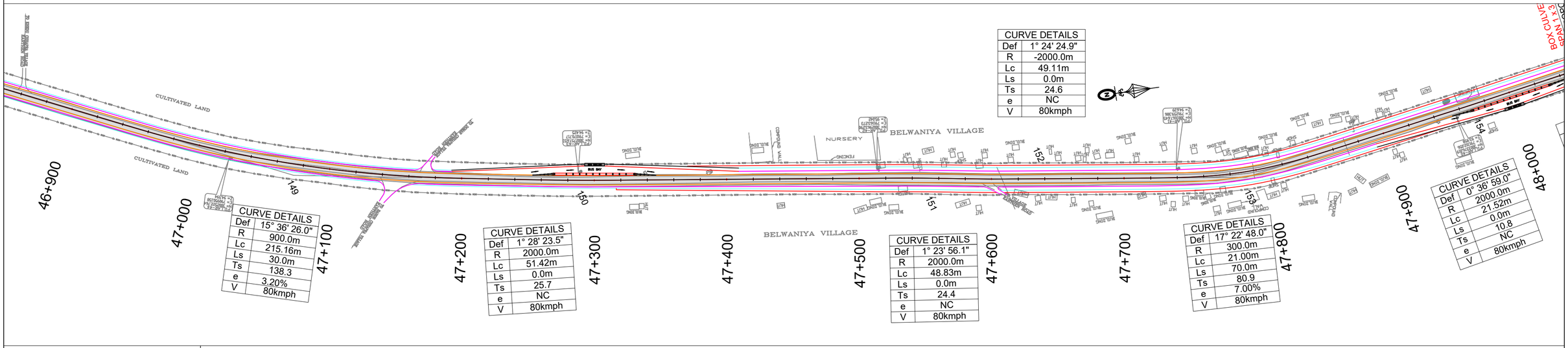
PROJECT:
Consultancy Services for Feasibility Study of Detailed Project Report for improvement and up-gradation of newly declared National Highways including existing NH-97 & NH-28B in the state of Uttar Pradesh-PkgVI.[Stretch (i) Chapwa-Betwa-Chatauni-Kushinagar Road-NH-28B (ii) Ghazipur-Jamaniya-Saiyad Raja Road-NH-97 and Length 116.43 Km.]

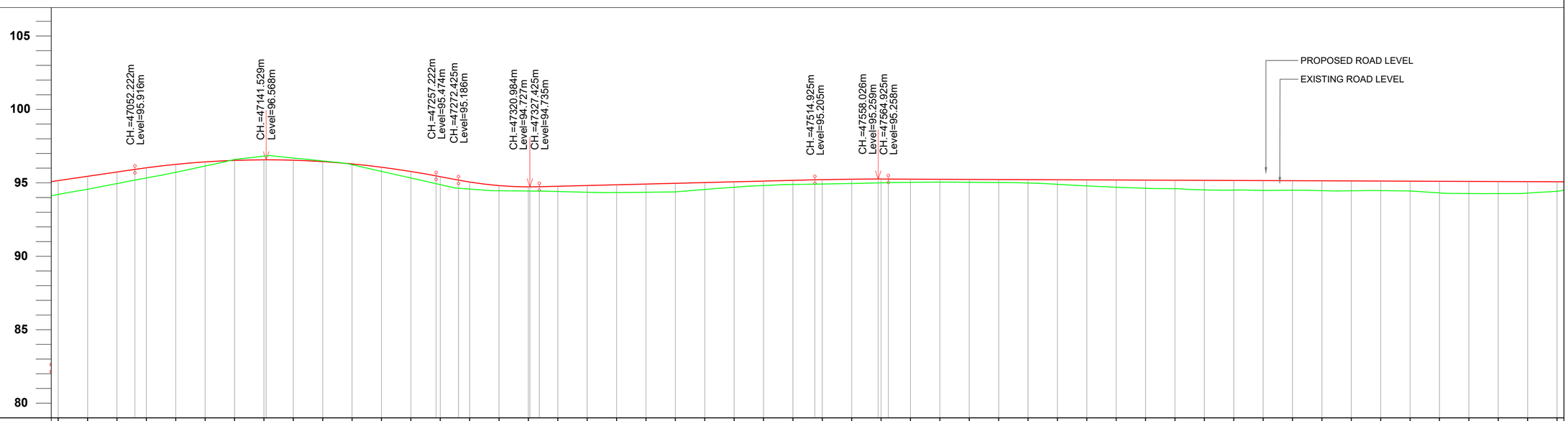
Prepared by	M.S.Bisht
Designed by	Gulista Parveen
Checked by	Arun Kumar Bag
Approved by	Pankaj Vora

Revisions	Date	Description
R0	October, 2023	FINAL DETAIL PROJECT REPORT

TITLE : PLAN AND PROFILE
CHAINAGE : 46+000Km. TO 47+000Km.
DWG NO. : KN-D_FDPR_HWY_PP-47
SHEET 47 TO 58
SCALE : H-1:2000 V-200 @ (A2)
DATE : October, 2023

TO KUSHINAGAR ← **TO CHAPWA** →





| | | |

TO KUSHINAGAR

TO CHAPWA

BOX CULVERT - RECONSTRUCTION SPAN 1 x 3.0x2.0m AT PROPOSED CH. 48+053

BOX CULVERT - RECONSTRUCTION SPAN 1 x 3.0x3.0m AT PROPOSED CH. 48+484

MINOR BRIDGE - BOX CULVERT RECONSTRUCTION PROPOSED CH. 49+01 SPAN 2x10x5.0m

BELWANIYA VILLAGE

BELWANIYA VILLAGE

CULTIVATED LAND

CULTIVATED LAND

NALA

NALA

CURVE DETAILS	
Def	13° 40' 53.0"
R	-600.0m
Lc	108.27m
Ls	35.0m
Ts	89.5
e	4.70%
V	80kmph

Culvert/Bridge Details
Type : SLAB CULVERT
No of Span : 1x3.1m

CURVE DETAILS	
Def	0° 36' 59.0"
R	2000.0m
Lc	21.52m
Ls	0.0m
Ts	10.8
e	NC
V	80kmph

CURVE DETAILS	
Def	0° 49' 42.4"
R	-2000.0m
Lc	28.92m
Ls	0.0m
Ts	14.5
e	NC
V	80kmph

Culvert/Bridge Details
Type : SLAB CULVERT
No of Span : 1x2.8

CURVE DETAILS	
Def	1° 9' 2.5"
R	2000.0m
Lc	40.17m
Ls	0.0m
Ts	20.1
e	NC
V	80kmph

CURVE DETAILS	
Def	0° 48' 15.1"
R	2000.0m
Lc	28.07m
Ls	0.0m
Ts	14.0
e	NC
V	80kmph

CURVE DETAILS	
Def	0° 52' 29.0"
R	-3000.0m
Lc	45.80m
Ls	0.0m
Ts	22.9
e	NC
V	80kmph

CURVE DETAILS	
Def	4° 50' 17.8"
R	-600.0m
Lc	35.67m
Ls	15.0m
Ts	32.8
e	2.70%
V	60kmph

CURVE DETAILS	
Def	15° 10' 48.5"
R	300.0m
Lc	49.48m
Ls	30.0m
Ts	55.0
e	7.00%
V	60kmph

Culvert/Bridge Deta
Type : Slab BRIDGE
No of Span : 2x8.6m

47+900 48+000 48+100 48+200 48+300 48+400 48+500 48+600 48+700 48+800 48+900 49+000

105
100
95
90
85
DATUM LEVEL

BOX CULVERT - RECON. SPAN 1 x 2.0x2.0m
PROPOSED ROAD LEVEL
EXISTING ROAD LEVEL
CH.=48324.434m Level=94.953m
CH.=48384.434m Level=94.711m
BOX CULVERT - RECON. SPAN 1 x 3.0x2.0m
CH.=48530.246m Level=93.594m
CH.=48617.684m Level=93.259m
CH.=48620.246m Level=93.259m
CH.=48799.714m Level=93.299m
CH.=48849.714m Level=93.494m
CH.=48954.597m Level=94.285m

FRL AT CENTRE LINE	95.083 95.075 95.067 95.059 95.051 95.043 95.035 95.027 95.019 95.011 95.003 94.995 94.987 94.979 94.971 94.963 94.955 94.932 94.862 94.744 94.592 94.439 94.285 94.132 93.979 93.826 93.672 93.523 93.405 93.321 93.273 93.259 93.264 93.268 93.273 93.277 93.281 93.286 93.290 93.295 93.299 93.334 93.427 93.571 93.722 93.873 94.024 94.175 94.324 94.436 94.496 94.506
EXISTING GROUND LEVEL	94.306 94.423 94.777 94.690 94.443 94.323 94.385 94.395 94.398 94.392 94.406 94.481 94.514 94.553 94.613 94.696 94.791 94.786 94.723 94.554 94.240 93.767 93.644 93.532 93.471 93.446 93.408 93.318 93.201 93.106 93.057 93.061 93.084 93.082 93.063 93.032 93.062 93.070 93.077 93.086 93.103 93.143 93.155 93.190 93.187 93.276 93.405 93.563 93.736 93.996 94.401 94.266
VERTICAL GEOMETRY	L=60.000m; L=145.812m G=-0.766; L=90.000m; G=0.022 L=179.468m; L=50.000m; G=0.755 L=104.883m; L=90.000m
HORIZONTAL GEOMETRY	L=74.752m; R L=28.918m; L=88.137m; L=35.000m; R=600.000m L=108.271m; L=35.000m; L=73.728m; R=-2000.000m L=40.167m; L=115.924m; R L=28.072m; L=144.899m; R=3000.000m L=45.801m; L; L; R=600.000m L=35.666m; L; L L=30.000m; R=-300.000m L=49.483m; L=30.000m; L=43
SUPER ELEVATION	.5 e=2.5; e=4.740; e=4.740; e=2.5 e=2.5; e=2.760; e=2.760; e=5.334; e=5.334
DESIGN CHAINAGE	48+000 48+020 48+040 48+060 48+080 48+100 48+120 48+140 48+160 48+180 48+200 48+220 48+240 48+260 48+280 48+300 48+320 48+340 48+360 48+380 48+400 48+420 48+440 48+460 48+480 48+500 48+520 48+540 48+560 48+580 48+600 48+620 48+640 48+660 48+680 48+700 48+720 48+740 48+760 48+780 48+800 48+820 48+840 48+860 48+880 48+900 48+920 48+940 48+960 48+980 49+000 49+020

CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार
Government of India

CONSULTANT:
SOWiL Limited
Goodwill Avenue, 1st Floor,"A" Wing Office No.-2, Plot No.- 1, Sector-40, Nerul (west), Navi Mumbay-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for Feasibility Study of Detailed Project Report for improvement and up-gradation of newly declared National Highways including existing NH-97 & NH-28B in the state of Uttar Pradesh-PkgVI.[Stretch (i) Chapwa-Betwa-Chatauni-Kushinagar Road-NH-28B (ii) Ghazipur-Jamaniya-Saiyad Raja Road-NH-97 and Length 116.43 Km.]

Prepared by	M.S.Bisht
Designed by	Gulista Parveen
Checked by	Arun Kumar Bag
Approved by	Pankaj Vora

Revisions	Date	Description
R0	October, 2023	FINAL DETAIL PROJECT REPORT

TITLE : PLAN AND PROFILE
CHAINAGE : 48+000Km. TO 49+000Km.
DWG NO. : KN-D_FDPR_HWY_PP-49 SHEET 49 TO 58
SCALE : H-1:2000 V-200 @ (A2) DATE : October, 2023

TO KUSHINAGAR — **TO CHAPWA**

-600.0m
35.67m
15.0m
32.8
2.70%
60kmph

MINOR BRIDGE - BOX CELL
RECONSTRUCTION
PROPOSED CH. 49+010
SPAN 2x10x5.0m

BOX CULVERT - RECONSTRUCTION
SPAN 1 x 2.0x2.0m
AT PROPOSED CH. 49+513

NALA — GRAVEYARD — CULTIVATED LAND — WATER LOGGED — CULTIVATED LAND — CULTIVATED LAND — CULTIVATED LAND — TEGRAHA CHAK VILLAGE

CURVE DETAILS	
Def	15° 10' 48.5"
R	300.0m
Lc	49.48m
Ls	30.0m
Ts	55.0
e	7.00%
V	60kmph

CURVE DETAILS	
Def	12° 24' 52.9"
R	-300.0m
Lc	53.00m
Ls	30.0m
Ts	47.6
e	5.30%
V	60kmph

CURVE DETAILS	
Def	6° 20' 12.5"
R	700.0m
Lc	42.42m
Ls	35.0m
Ts	56.3
e	4.00%
V	80kmph

CURVE DETAILS	
Def	0° 7' 10.6"
R	3000.0m
Lc	6.26m
Ls	0.0m
Ts	3.1
e	NC
V	80kmph

Culvert/Bridge Details
Type : Slab BRIDGE
No of Span : 2x8.6m

Culvert/Bridge Details
Struc. No :
Type : PIPE CULVERT
No of Pipe : 2x1.000

48+900 | 49+000 | 49+100 | 49+200 | 49+300 | 49+400 | 49+500 | 49+600 | 49+700 | 49+800 | 49+900 | 50+000

MINOR BRIDGE BOX CELL
RECONSTRUCTION
SPAN -2x10x5.0m
PROPOSED CH. 49+010

PROPOSED ROAD LEVEL
EXISTING ROAD LEVEL

CH.=49013.693m Level=94.508m
CH.=49044.597m Level=94.447m
CH.=49194.819m Level=93.854m
CH.=49253.471m Level=93.739m
CH.=49254.819m Level=93.739m
BOX CULVERT - RECON. SPAN 1 X 3.0x3.0m
CH.=49795.000m Level=93.788m
CH.=49809.970m Level=93.788m
CH.=49845.000m Level=93.785m

105 | 100 | 95 | 90 | 85 — DATUM LEVEL

FRL AT CENTRE LINE
94.496 94.506 94.464 94.387 94.308 94.229 94.150 94.071 93.992 93.913 93.835 93.776 93.745 93.739 93.741 93.743 93.745 93.746 93.748 93.750 93.752 93.754 93.756 93.757 93.759 93.761 93.763 93.765 93.766 93.768 93.770 93.772 93.774 93.775 93.777 93.779 93.781 93.783 93.785 93.786 93.788 93.788 93.786 93.782 93.777 93.773 93.769 93.765 93.760 93.756 93.752

EXISTING GROUND LEVEL
94.401 94.266 94.071 93.814 93.637 93.516 93.638 93.531 93.542 93.565 93.581 93.583 93.560 93.534 93.496 93.535 93.590 93.609 93.597 93.567 93.557 93.496 93.398 93.376 93.391 93.392 93.327 93.412 93.457 93.482 93.491 93.525 93.521 93.524 93.536 93.557 93.618 93.624 93.622 93.602 93.568 93.526 93.478 93.434 93.400 93.371 93.358 93.347 93.310 93.261 93.211

VERTICAL GEOMETRY: L=90.000m | L=150.222m G=-0.395 | L=60.000m | G=0.009 L=540.181m | L=50.000m

HORIZONTAL GEOMETRY: 0.000m | L=43.339m | L=30.000m | R=300.000m L=35.003m | L=30.000m | L | L=35.000m | R=-700.000m L=42.419m | L=35.000m | L=418.071m | R L | L=550.814m

SUPER ELEVATION: e=5.334 | e=5.334 | e=5.334 | e=5.334 | e=2.5 | e=2.5

DESIGN CHAINAGE
49+000 49+020 49+040 49+060 49+080 49+100 49+120 49+140 49+160 49+180 49+200 49+220 49+240 49+260 49+280 49+300 49+320 49+340 49+360 49+380 49+400 49+420 49+440 49+460 49+480 49+500 49+520 49+540 49+560 49+580 49+600 49+620 49+640 49+660 49+680 49+700 49+720 49+740 49+760 49+780 49+800 49+820 49+840 49+860 49+880 49+900 49+920 49+940 49+960 49+980 50+000

CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार — Government of India

CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2, Plot No.- 1, Sector-40, Nerul (west), Navi Mumbay-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for Feasibility Study of Detailed Project Report for improvement and up-gradation of newly declared National Highways including existing NH-97 & NH-28B in the state of Uttar Pradesh-PkgVI.[Stretch (i) Chapwa-Betwa-Chatauni-Kushinagar Road-NH-28B (ii) Ghazipur-Jamaniya-Saiyad Raja Road-NH-97 and Length 116.43 Km.]

Prepared by	M.S.Bisht
Designed by	Gulista Parveen
Checked by	Arun Kumar Bag
Approved by	Pankaj Vora

Revisions	Date	Description
R0	October, 2023	FINAL DETAIL PROJECT REPORT

TITLE : PLAN AND PROFILE
CHAINAGE : 49+000Km. TO 50+000Km.
DWG NO. : KN-D_FDPR_HWY_PP-50 — SHEET 50 TO 58
SCALE : H-1:2000 V-200 @ (A2) — DATE : October, 2023

TO KUSHINAGAR

TO CHAPWA

TEGRAHA CHAK VILLAGE

RAMPUR JUNGAL

CHHITAUNI VILLAGE

CULTIVATED LAND

CURVE DETAILS	
Def	1° 45' 49.2"
R	-1250.0m
Lc	38.48m
Ls	0.0m
Ts	19.2
e	NC
V	80kmph

CURVE DETAILS	
Def	1° 15' 39.4"
R	-2000.0m
Lc	44.01m
Ls	0.0m
Ts	22.0
e	NC
V	80kmph

CURVE DETAILS	
Def	0° 57' 12.7"
R	-3000.0m
Lc	49.93m
Ls	0.0m
Ts	25.0
e	NC
V	80kmph

CURVE DETAILS	
Def	32° 52' 20.3"
R	200.0m
Lc	74.75m
Ls	40.0m
Ts	79.1
e	7.00%
V	60kmph

CURVE DETAILS	
Def	1° 9' 9.3"
R	2000.0m
Lc	40.23m
Ls	0.0m
Ts	20.1
e	NC
V	80kmph

CURVE DETAILS	
Def	0° 27' 4.3"
R	5000.0m
Lc	39.38m
Ls	0.0m
Ts	19.7
e	NC
V	80kmph

BOX CULVERT - RECONSTRUCTION
SPAN 1 x 3.0x2.0m
AT PROPOSED CH. 50+449

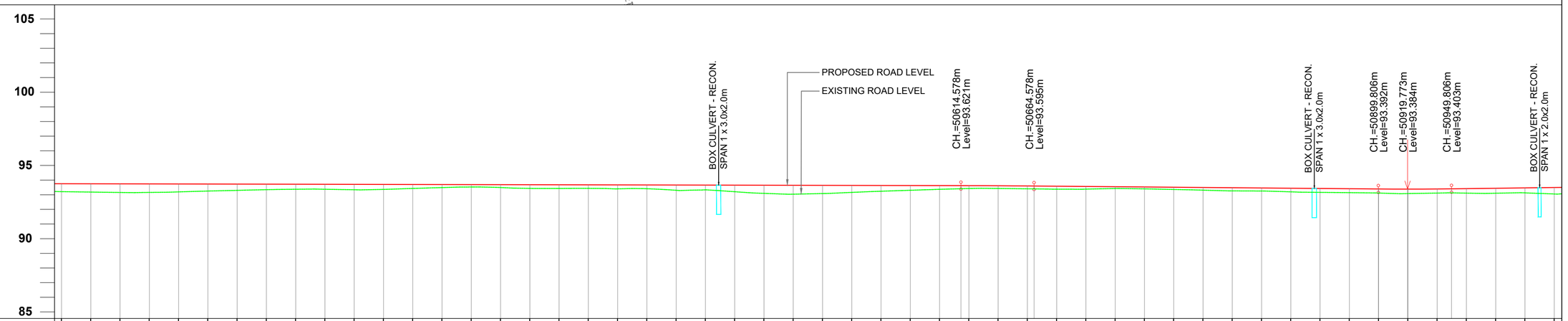
BOX CULVERT - RECONSTRUCTION
SPAN 1 x 2.0x2.0m
AT PROPOSED CH. 50+856

BOX CULVERT - RECONSTRUCTION
SPAN 1 x 2.0x2.0m
AT PROPOSED CH. 51+010

Culvert/Bridge Details
Type : Slab BRIDGE
No of Span : 3x1.6m

Culvert/Bridge Details
Type : PIPE CULVERT
No of Pipe : 1x0.900

49+900 50+000 50+100 50+200 50+300 50+400 50+500 50+600 50+700 50+800 50+900 51+000



FRL AT CENTRE LINE	93.752 93.748 93.743 93.739 93.735 93.731 93.726 93.722 93.718 93.714 93.709 93.705 93.701 93.697 93.692 93.688 93.684 93.680 93.675 93.671 93.667 93.663 93.658 93.654 93.650 93.646 93.641 93.637 93.633 93.629 93.624 93.620 93.612 93.598 93.581 93.564 93.547 93.530 93.513 93.495 93.478 93.461 93.444 93.427 93.409 93.392 93.384 93.393 93.416 93.442 93.468 93.494
EXISTING GROUND LEVEL	93.211 93.183 93.155 93.159 93.195 93.253 93.298 93.345 93.376 93.375 93.340 93.367 93.431 93.490 93.527 93.492 93.434 93.432 93.441 93.406 93.413 93.311 93.342 93.205 93.094 93.038 93.081 93.160 93.239 93.306 93.373 93.425 93.428 93.405 93.381 93.384 93.426 93.400 93.360 93.313 93.263 93.255 93.198 93.163 93.142 93.114 93.080 93.114 93.110 93.103 93.127 93.052
VERTICAL GEOMETRY	L=769.578m G=-0.021 · L=50.000m · L=235.228m G=-0.086 · L=50.000m
HORIZONTAL GEOMETRY	R=1250.000m L=38.477m · L=36.856m · L=40.000m · R=-200.000m L=74.746m · L=40.000m · L=27.312m · R=2000.000m L=44.015m · L · R=-2000.000m L=40.232m · L=66.508m · R=3000.000m L=49.927m · L=129.962m · R=-5000.000m L=39.375m
SUPER ELEVATION	e=2.5 e=2.5 · e=7.000 · e=7.000 · e=2.5 e=2.5
DESIGN CHAINAGE	50+000 50+020 50+040 50+060 50+080 50+100 50+120 50+140 50+160 50+180 50+200 50+220 50+240 50+260 50+280 50+300 50+320 50+340 50+360 50+380 50+400 50+420 50+440 50+460 50+480 50+500 50+520 50+540 50+560 50+580 50+600 50+620 50+640 50+660 50+680 50+700 50+720 50+740 50+760 50+780 50+800 50+820 50+840 50+860 50+880 50+900 50+920 50+940 50+960 50+980 51+000 51+020

CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार
Government of India

CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2, Plot No.- 1, Sector-40, Nerul (west), Navi Mumbay-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

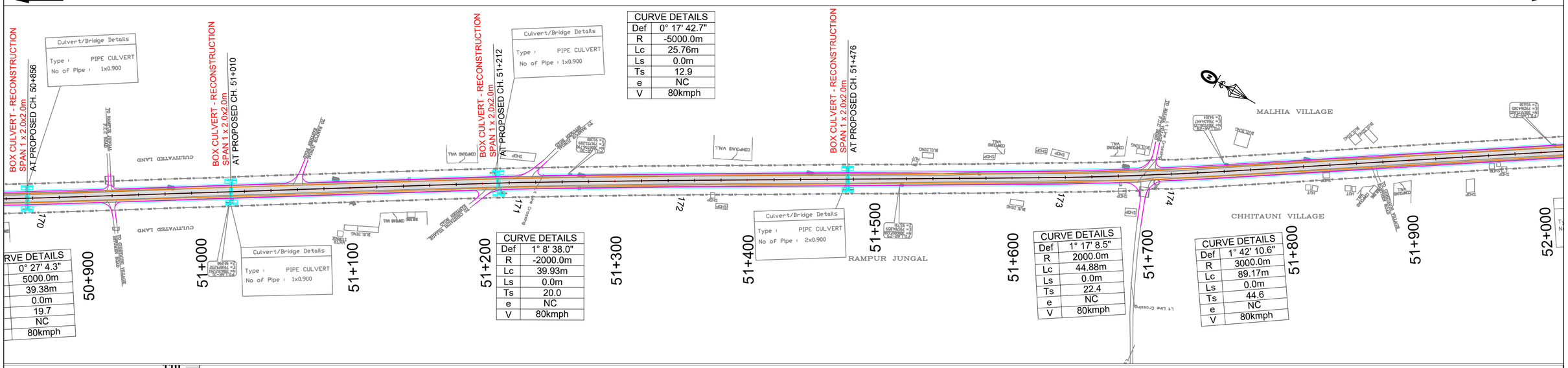
PROJECT:
Consultancy Services for Feasibility Study of Detailed Project Report for improvement and up-gradation of newly declared National Highways including existing NH-97 & NH-28B in the state of Uttar Pradesh-PkgVI.[Stretch (i) Chapwa-Betwa-Chatauni-Kushinagar Road-NH-28B (ii) Ghazipur-Jamaniya-Saiyad Raja Road-NH-97 and Length 116.43 Km.]

Prepared by	M.S.Bisht
Designed by	Gulista Parveen
Checked by	Arun Kumar Bag
Approved by	Pankaj Vora

Revisions	Date	Description
R0	October, 2023	FINAL DETAIL PROJECT REPORT

TITLE : PLAN AND PROFILE
CHAINAGE : 50+000Km. TO 51+000Km.
DWG NO. : KN-D_FDPR_HWY_PP-51 | SHEET 51 TO 58
SCALE : H-1:2000 V-200 @ (A2) | DATE : October, 2023

TO KUSHINAGAR ← **TO CHAPWA** →



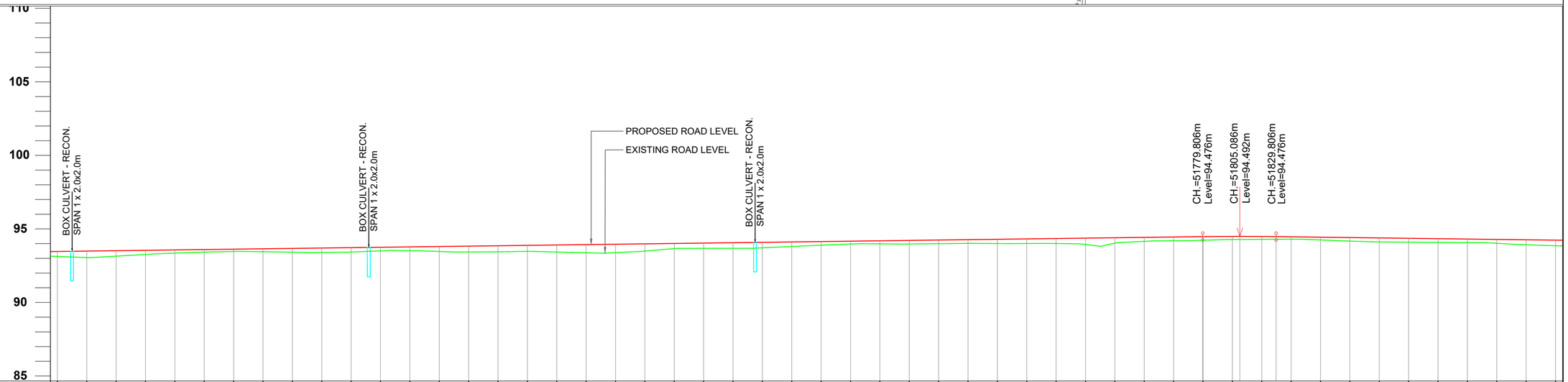
CURVE DETAILS	
Def	0° 17' 42.7"
R	-5000.0m
Lc	25.76m
Ls	0.0m
Ts	12.9
e	NC
V	80kmph

CURVE DETAILS	
Def	1° 8' 38.0"
R	-2000.0m
Lc	39.93m
Ls	0.0m
Ts	20.0
e	NC
V	80kmph

CURVE DETAILS	
Def	1° 17' 8.5"
R	2000.0m
Lc	44.88m
Ls	0.0m
Ts	22.4
e	NC
V	80kmph

CURVE DETAILS	
Def	1° 42' 10.6"
R	3000.0m
Lc	89.17m
Ls	0.0m
Ts	44.6
e	NC
V	80kmph

RVE DETAILS
0° 27' 4.3"
5000.0m
39.38m
0.0m
19.7
NC
80kmph



FRL AT CENTRE LINE
93.468 93.494 93.520 93.546 93.572 93.597 93.623 93.649 93.675 93.701 93.727 93.752 93.778 93.804 93.830 93.856 93.882 93.907 93.933 93.959 93.985 94.011 94.037 94.062 94.088 94.114 94.140 94.166 94.192 94.218 94.243 94.269 94.295 94.321 94.347 94.373 94.398 94.424 94.450 94.476 94.491 94.486 94.464 94.438 94.413 94.388 94.362 94.337 94.312 94.287 94.261 94.236

EXISTING GROUND LEVEL
93.127 93.052 93.148 93.264 93.354 93.419 93.469 93.450 93.418 93.405 93.428 93.509 93.520 93.467 93.431 93.443 93.475 93.427 93.377 93.387 93.494 93.663 93.680 93.680 93.715 93.805 93.895 93.971 93.983 93.974 93.997 94.020 94.007 94.009 94.009 93.940 94.030 94.154 94.197 94.229 94.281 94.292 94.301 94.248 94.174 94.115 94.099 94.082 94.071 94.023 93.921 93.858

VERTICAL GEOMETRY
G=0.129 L=830.000m ; L=50.000m ; L=241.876m G=-0.126

HORIZONTAL GEOMETRY
L=314.660m ; R=2000.000m L=39.930m ; L=87.698m ; R L=25.761m ; L=258.905m ; R=-2000.000m L=44.879m ; L ; R=-3000.000m L=89.166m ; L=467.719m

SUPER ELEVATION
e=2.5 e=2.5

DESIGN CHAINAGE
51+000 51+020 51+040 51+060 51+080 51+100 51+120 51+140 51+160 51+180 51+200 51+220 51+240 51+260 51+280 51+300 51+320 51+340 51+360 51+380 51+400 51+420 51+440 51+460 51+480 51+500 51+520 51+540 51+560 51+580 51+600 51+620 51+640 51+660 51+680 51+700 51+720 51+740 51+760 51+780 51+800 51+820 51+840 51+860 51+880 51+900 51+920 51+940 51+960 51+980 52+000 52+020

CLIENT: सड़क परिवहन और राजमार्ग मंत्रालय MINISTRY OF ROAD TRANSPORT & HIGHWAYS भारत सरकार Government of India

CONSULTANT: **SOWiL Limited**
Goodwill Avenue,1st Floor,"A" Wing Office No.-2, Plot No.- 1, Sector-40, Nerul (west), Navi Mumbay-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for Feasibility Study of Detailed Project Report for improvement and up-gradation of newly declared National Highways including existing NH-97 & NH-28B in the state of Uttar Pradesh-PkgVI.[Stretch (i) Chapwa-Betwa-Chatauni-Kushinagar Road-NH-28B (ii) Ghazipur-Jamaniya-Saiyad Raja Road-NH-97 and Length 116.43 Km.]

Prepared by	M.S.Bisht
Designed by	Gulista Parveen
Checked by	Arun Kumar Bag
Approved by	Pankaj Vora

Revisions	Date	Description
R0	October, 2023	FINAL DETAIL PROJECT REPORT

TITLE : PLAN AND PROFILE
CHAINAGE : 51+000Km. TO 52+000Km.
DWG NO. : KN-D_FDPR_HWY_PP-52 SHEET 52 TO 58
SCALE : H-1:2000 V-200 @ (A2) DATE : October, 2023

TO KUSHINAGAR

TO CHAPWA

ROB UNDER CONSTRUCTION
BY INDIAN RAILWAY
CH. 52+630

BOX CULVERT - RECONSTRUCTION
SPAN 1 x 2.0x2.0m
AT PROPOSED CH. 52+040

Culvert/Bridge Details
Struc. No : XXXXXX
Type : PIPE CULVERT
No of Pipe : 1x1.1

BOX CULVERT - RECONSTRUCTION
SPAN 1 x 2.0x2.0m
AT PROPOSED CH. 52+223

Culvert/Bridge Details
Type : PIPE CULVERT
No of Pipe : 1x1.0

CURVE DETAILS	
Def	0° 45' 24.8"
R	2500.0m
Lc	33.03m
Ls	0.0m
Ts	16.5
e	NC
V	80kmph

CURVE DETAILS	
Def	94° 25' 14.2"
R	250.0m
Lc	361.99m
Ls	50.0m
Ts	295.5
e	4.44%
V	50kmph

CHHITAUNI VILLAGE
PANHIWA VILLAGE
51+900
52+000
52+100
52+200
52+300
52+400
52+500
52+600
52+700
52+800
52+900
53+000

CONSTRUCTION
Proposed CH. 52+630

PROPOSED ROAD LEVEL
EXISTING ROAD LEVEL

BOX CULVERT - RECON.
SPAN 1 x 2.0x2.0m
CH.=52071.682m
Level=94.171m
CH.=52076.731m
Level=94.168m
CH.=52191.682m
Level=95.821m
BOX CULVERT - RECON.
SPAN 1 x 2.0x2.0m
CH.=52477.306m
Level=104.037m
CH.=52652.306m
Level=106.554m
CH.=52668.794m
Level=106.554m
CH.=52843.794m
Level=104.037m
CH.=52961.987m
Level=100.637m

DATUM

FRL AT CENTRE LINE	94.261 94.236 94.211 94.186 94.169 94.235 94.402 94.668 95.035 95.502 96.060 96.636 97.211 97.786 98.361 98.937 99.512 100.087 100.663 101.238 101.813 102.389 102.964 103.539 104.114 104.647 105.115 105.517 105.854 106.124 106.329 106.468 106.542 106.554 106.544 106.474 106.338 106.137 105.870 105.538 105.139 104.675 104.145 103.571 102.995 102.420 101.845 101.269 100.694 100.159 99.724 99.389
EXISTING GROUND LEVEL	93.921 93.858 93.864 93.878 93.922 93.981 93.912 93.866 93.843 93.888 94.019 94.076 94.017 94.030 93.830 93.805 94.003 94.059 94.234 94.186 94.231 94.306 94.287 94.261 94.205 94.160 94.044 93.919 94.119 94.086 94.628 95.753 95.831 96.960 95.953 95.102 96.080 97.421 97.093 96.293 96.087 96.125 96.520 96.747 97.500 97.970 98.237 98.345 98.578 98.672 98.726 98.740
VERTICAL GEOMETRY	L=120.000m; G=2.877 L=285.624m; L=175.000m; L G; L=175.000m; L=118.193m G=-2.877; L=12
HORIZONTAL GEOMETRY	467.719m; R=2500.000m L=33.026m; L=285.166m; L=50.000m; R=250.000m L=361.988m; L=50.000m
SUPER ELEVATION	e=2.5 e=2.5; e=6.400; e=6.400
DESIGN CHAINAGE	52+000 52+020 52+040 52+060 52+080 52+100 52+120 52+140 52+160 52+180 52+200 52+220 52+240 52+260 52+280 52+300 52+320 52+340 52+360 52+380 52+400 52+420 52+440 52+460 52+480 52+500 52+520 52+540 52+560 52+580 52+600 52+620 52+640 52+660 52+680 52+700 52+720 52+740 52+760 52+780 52+800 52+820 52+840 52+860 52+880 52+900 52+920 52+940 52+960 52+980 53+000 53+020

CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार
Government of India

CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2, Plot No.- 1, Sector-40, Nerul (west), Navi Mumbay-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

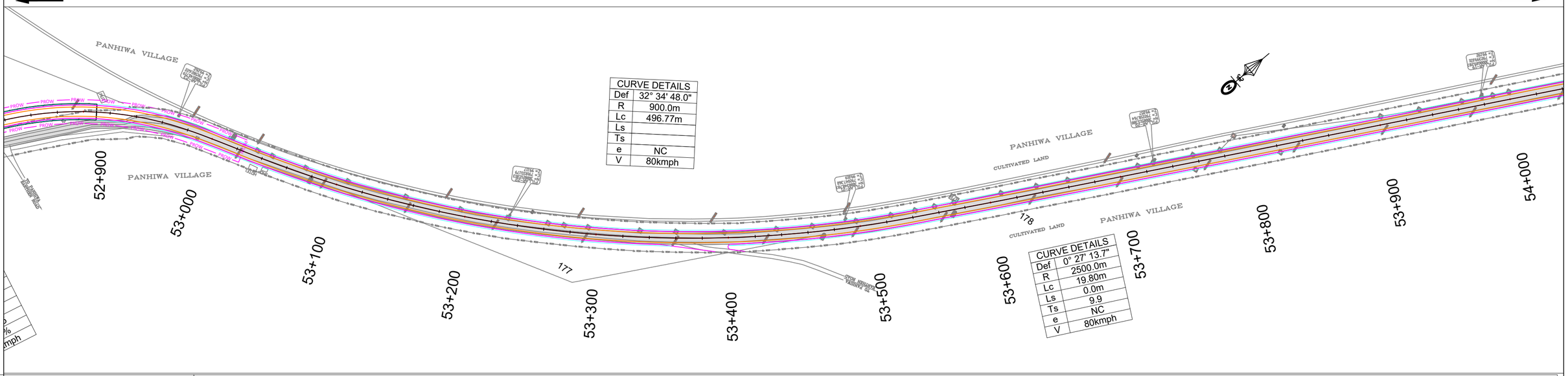
PROJECT:
Consultancy Services for Feasibility Study of Detailed Project Report for improvement and up-gradation of newly declared National Highways including existing NH-97 & NH-28B in the state of Uttar Pradesh-PkgVI.[Stretch (i) Chapwa-Betwa-Chatauni-Kushinagar Road-NH-28B (ii) Ghazipur-Jamaniya-Saiyad Raja Road-NH-97 and Length 116.43 Km.]

Prepared by	M.S.Bisht
Designed by	Gulista Parveen
Checked by	Arun Kumar Bag
Approved by	Pankaj Vora

Revisions	Date	Description
R0	October, 2023	FINAL DETAIL PROJECT REPORT

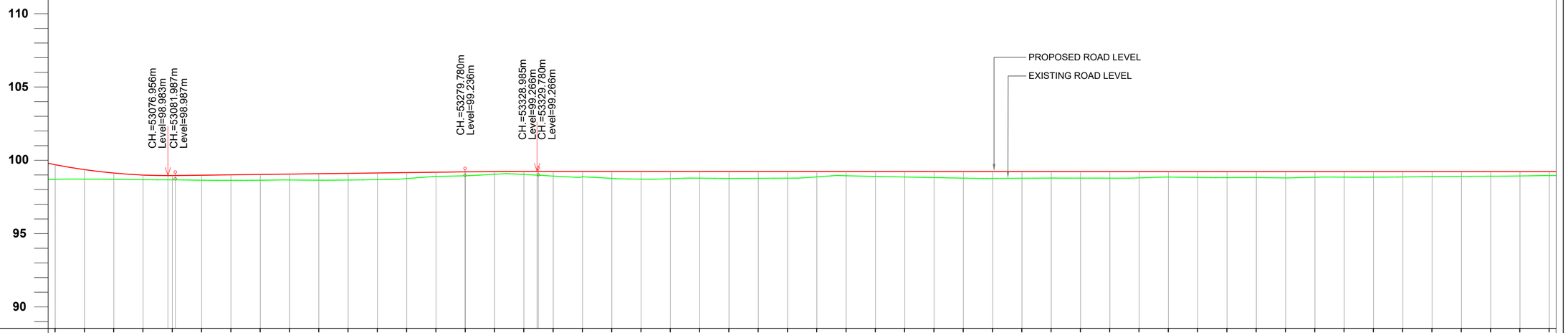
TITLE : PLAN AND PROFILE
CHAINAGE : 52+000Km. TO 53+000Km.
DWG NO. : KN-D_FDPR_HWY_PP-53
SHEET 53 TO 58
SCALE : H-1:2000 V-200 @ (A2)
DATE : October, 2023

TO KUSHINAGAR ← **TO CHAPWA** →



CURVE DETAILS	
Def	32° 34' 48.0"
R	900.0m
Lc	496.77m
Ls	
Ts	
e	NC
V	80kmph

CURVE DETAILS	
Def	0° 27' 13.7"
R	2500.0m
Lc	19.80m
Ls	0.0m
Ts	9.9
e	NC
V	80kmph



FRL AT CENTRE LINE	99.724 99.389 99.154 99.019 98.985 99.009 99.034 99.060 99.085 99.110 99.135 99.160 99.185 99.211 99.236 99.256 99.265 99.266 99.266 99.265 99.265 99.265 99.264 99.264 99.263 99.263 99.263 99.262 99.262 99.261 99.261 99.261 99.260 99.260 99.259 99.259 99.259 99.258 99.258 99.257 99.257 99.257 99.256 99.256 99.255 99.255 99.254 99.254 99.254 99.253 99.253 99.252
EXISTING GROUND LEVEL	98.726 98.740 98.723 98.700 98.693 98.667 98.656 98.665 98.685 98.668 98.681 98.704 98.779 98.925 98.970 99.070 99.057 98.948 98.899 98.793 98.739 98.768 98.806 98.789 98.796 98.806 98.894 98.971 98.926 98.886 98.846 98.809 98.790 98.800 98.812 98.811 98.808 98.828 98.882 98.855 98.843 98.846 98.824 98.868 98.877 98.875 98.889 98.917 98.930 98.940 98.958 98.983
VERTICAL GEOMETRY	L=120.000m; G=0.126 L=197.793m; L=50.000m; L=1094.283m G=-0.002
HORIZONTAL GEOMETRY	000m L; R=-900.000m L=496.765m; L=30.000m; L=41.770m; R L; L=783.42
SUPER ELEVATION	e=2.5 e=2.5
DESIGN CHAINAGE	53+000 53+020 53+040 53+060 53+080 53+100 53+120 53+140 53+160 53+180 53+200 53+220 53+240 53+260 53+280 53+300 53+320 53+340 53+360 53+380 53+400 53+420 53+440 53+460 53+480 53+500 53+520 53+540 53+560 53+580 53+600 53+620 53+640 53+660 53+680 53+700 53+720 53+740 53+760 53+780 53+800 53+820 53+840 53+860 53+880 53+900 53+920 53+940 53+960 53+980 54+000 54+020

CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार Government of India

CONSULTANT:
SOWiL Limited
Goodwill Avenue, 1st Floor,"A" Wing Office No.-2, Plot No.- 1, Sector-40, Nerul (west), Navi Mumbay-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

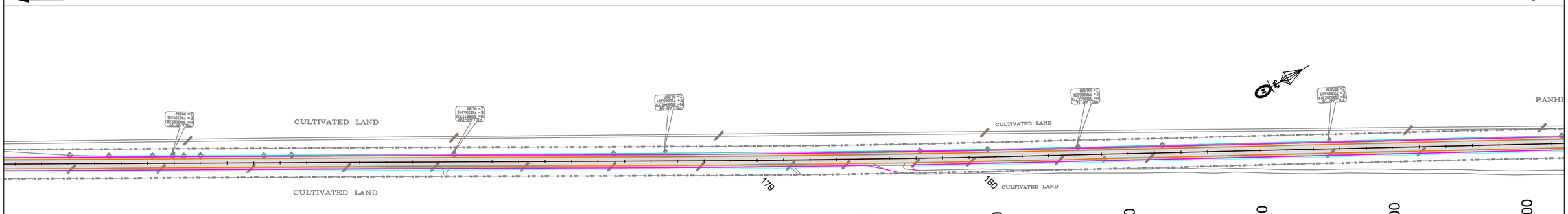
PROJECT:
Consultancy Services for Feasibility Study of Detailed Project Report for improvement and up-gradation of newly declared National Highways including existing NH-97 & NH-28B in the state of Uttar Pradesh-PkgVI.[Stretch (i) Chapwa-Betwa-Chatauni-Kushinagar Road-NH-28B (ii) Ghazipur-Jamaniya-Saiyad Raja Road-NH-97 and Length 116.43 Km.]

Prepared by	M.S.Bisht
Designed by	Gulista Parveen
Checked by	Arun Kumar Bag
Approved by	Pankaj Vora

Revisions	Date	Description
R0	October, 2023	FINAL DETAIL PROJECT REPORT

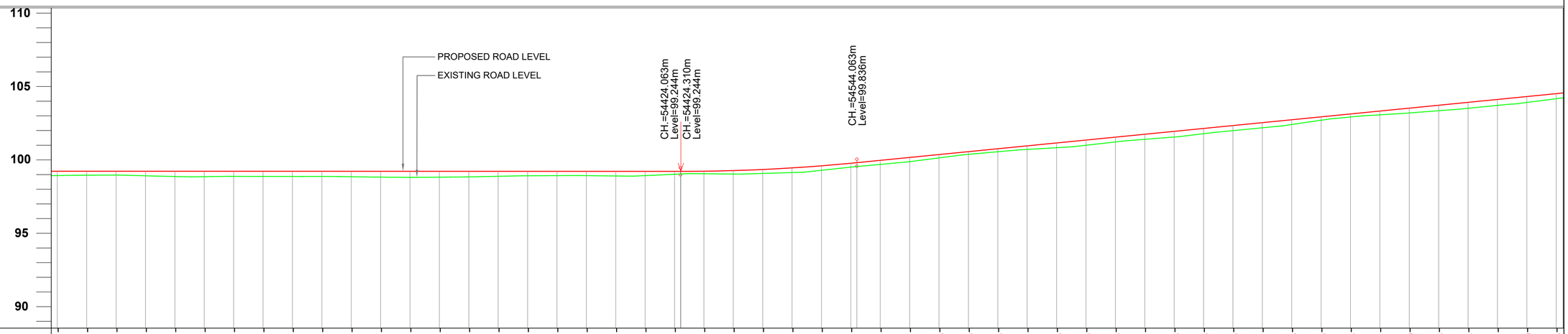
TITLE : PLAN AND PROFILE
CHAINAGE : 53+000Km. TO 54+000Km.
DWG NO. : KN-D_FDPR_HWY_PP-54 SHEET 54 TO 58
SCALE : H-1:2000 V-200 @ (A2) DATE : October, 2023

TO KUSHINAGAR ← **TO CHAPWA** →



CURVE DETAILS	
Def	0° 33' 39.9"
R	2000.0m
Lc	19.59m
Ls	0.0m
Ts	9.8
e	NC
V	80kmph

CURVE DETAILS	
Def	0° 30' 31.7"
R	3000.0m
Lc	26.64m
Ls	0.0m
Ts	13.3
e	NC
V	80kmph



| | | |

TO KUSHINAGAR ← **TO CHAPWA** →

CURVE DETAILS	
Def	0° 36' 44.7"
R	-2000.0m
Lc	21.38m
Ls	0.0m
Ts	10.7
e	NC
V	80kmph

CURVE DETAILS	
Def	0° 48' 55.6"
R	2000.0m
Lc	28.46m
Ls	0.0m
Ts	14.2
e	NC
V	80kmph

CURVE DETAILS	
Def	1° 0' 56.3"
R	-4000.0m
Lc	70.90m
Ls	0.0m
Ts	35.5
e	NC
V	80kmph

PANHIWA VILLAGE

PANHIWA VILLAGE

CULTIVATED LAND

Culvert/Bridge Details
Major Bridge
Type : PSC BOX
No of Span : 14x64

MAJOR BRIDGE - RETAINED
PROPOSED CH. 55+871
SPAN 14x64.0m

181 182 183

54+900 55+000 55+100 55+200 55+300 55+400 55+500 55+600 55+700 55+800 55+900 56+000

EXISTING MAJOR BRIDGE
RETAIN SPAN -14x64.0m
PROPOSED CH. 55+871

CH.=55138.693m Level=105.708m
CH.=55303.176m Level=106.521m
CH.=55388.693m Level=106.301m
CH.=55399.805m Level=106.244m
CH.=55488.595m Level=106.016m
CH.=55489.805m Level=106.016m
CH.=55819.806m Level=106.039m
CH.=55840.661m Level=106.040m
CH.=55869.806m Level=106.039m

110
105
100
95
DATUM LEVEL

FRL AT CENTRE LINE	104.339 104.536 104.734 104.931 105.129 105.326 105.524 105.721 105.905 106.065 106.201 106.313 106.401 106.465 106.505 106.520 106.512 106.480 106.424 106.344 106.243 106.152 106.084 106.040 106.018 106.017 106.018 106.020 106.021 106.022 106.024 106.025 106.027 106.028 106.029 106.031 106.032 106.034 106.035 106.036 106.038 106.039 106.040 106.039 106.038 106.036 106.034 106.032 106.030 106.028 106.026 106.024
EXISTING GROUND LEVEL	103.938 104.190 104.463 104.742 104.980 105.199 105.375 105.521 105.633 105.759 105.891 106.022 106.152 106.156 106.153 106.180 106.209 106.241 106.250 106.190 106.077 105.927 105.861 105.780 105.934 105.907 105.896 105.896 105.892 105.886 105.886 105.886 105.914 105.941 105.943 105.945 105.948 105.950 105.949 105.957 105.972 105.975 105.970 105.956 105.938 105.940 105.944 105.946 105.947 105.928 105.915 105.925
VERTICAL GEOMETRY	L=250.000m; L; G; L=90.000m; G=0.007 L=330.001m; L=50.000m
HORIZONTAL GEOMETRY	R L=124.937m; R L=28.465m; L=84.682m; R=4000.000m L=70.905m; L=820.214m
SUPER ELEVATION	e=2.5 e=2.5
DESIGN CHAINAGE	55+000 55+020 55+040 55+060 55+080 55+100 55+120 55+140 55+160 55+180 55+200 55+220 55+240 55+260 55+280 55+300 55+320 55+340 55+360 55+380 55+400 55+420 55+440 55+460 55+480 55+500 55+520 55+540 55+560 55+580 55+600 55+620 55+640 55+660 55+680 55+700 55+720 55+740 55+760 55+780 55+800 55+820 55+840 55+860 55+880 55+900 55+920 55+940 55+960 55+980 56+000 56+020

CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार Government of India

CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2, Plot No.- 1, Sector-40, Nerul (west), Navi Mumbay-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for Feasibility Study of Detailed Project Report for improvement and up-gradation of newly declared National Highways including existing NH-97 & NH-28B in the state of Uttar Pradesh-PkgVI.[Stretch (i) Chapwa-Betwa-Chatauni-Kushinagar Road-NH-28B (ii) Ghazipur-Jamaniya-Saiyad Raja Road-NH-97 and Length 116.43 Km.]

Prepared by	M.S.Bisht
Designed by	Gulista Parveen
Checked by	Arun Kumar Bag
Approved by	Pankaj Vora

Revisions	Date	Description
R0	October, 2023	FINAL DETAIL PROJECT REPORT

TITLE : PLAN AND PROFILE
CHAINAGE : 55+000Km. TO 56+000Km.
DWG NO. : KN-D_DDPR_HWY_PP-56 SHEET 56 TO 58
SCALE : H-1:2000 V-200 @ (A2) DATE : October, 2023

TO KUSHINAGAR ← **TO CHAPWA** →

CURVE DETAILS	
Def	1° 23' 10.9"
R	-2000.0m
Lc	48.39m
Ls	0.0m
Ts	24.2
e	NC
V	80kmph

CURVE DETAILS	
Def	0° 44' 40.6"
R	-3000.0m
Lc	38.99m
Ls	0.0m
Ts	19.5
e	NC
V	80kmph

CURVE DETAILS	
Def	1° 0' 29.0"
R	2000.0m
Lc	35.19m
Ls	0.0m
Ts	17.6
e	NC
V	80kmph

R BRIDGE - RETAINED
POSED CH. 55+871
14x64.0m

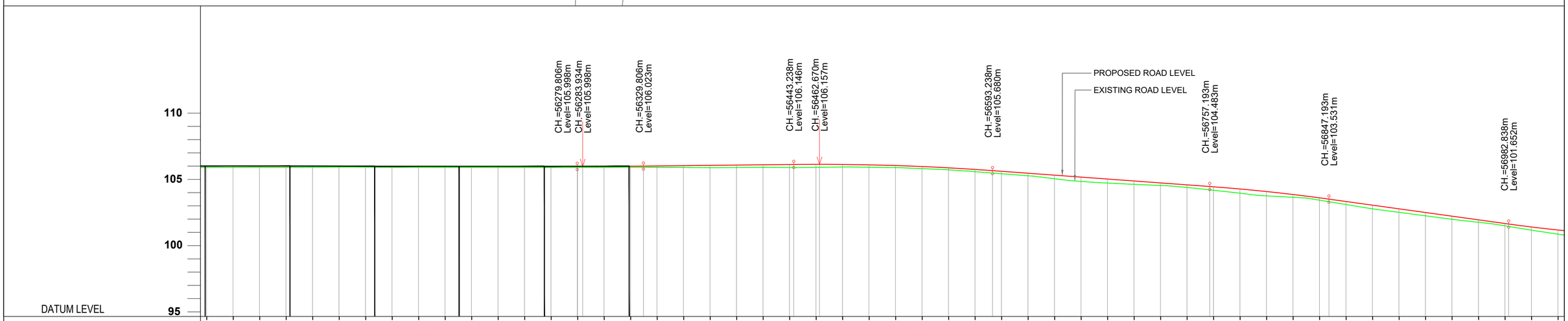
184 186

"CULTIVATED LAND"

SALIKI

JAHADA VIL

55+900 56+000 56+100 56+200 56+300 56+400 56+500 56+600 56+700 56+800 56+900 57+000



FRL AT CENTRE LINE	106.026 106.024 106.022 106.020 106.018 106.016 106.014 106.012 106.010 106.008 106.006 106.004 106.002 106.000 105.998 106.001 106.014 106.034 106.056 106.078 106.099 106.121 106.143 106.157 106.149 106.118 106.065 105.990 105.892 105.772 105.631 105.485 105.339 105.193 105.046 104.900 104.754 104.608 104.462 104.297 104.103 103.881 103.629 103.353 103.077 102.800 102.523 102.246 101.969 101.692 101.429 101.203
EXISTING GROUND LEVEL	105.915 105.925 105.931 105.924 105.927 105.943 105.944 105.934 105.930 105.927 105.924 105.920 105.919 105.919 105.919 105.923 105.938 105.930 105.917 105.903 105.912 105.929 105.912 105.927 105.952 105.934 105.911 105.831 105.742 105.603 105.446 105.294 105.070 104.869 104.744 104.648 104.561 104.409 104.198 103.978 103.777 103.670 103.452 103.126 102.800 102.536 102.273 102.014 101.784 101.515 101.193 100.891
VERTICAL GEOMETRY	L=410.000m G=-0.010 · L=50.000m · G=0.109 L=113.432m · L=150.000m · L=163.955m G=-0.730 · L=90.000m · L=135.645m G=-1.385 · L=60.00
HORIZONTAL GEOMETRY	R=2000.000m L=48.393m · L=31.755m · R=-2000.000m L=35.188m · L=389.086m · R=3000.000m L=38.987m · L=203.204m
SUPER ELEVATION	e=2.5 e=2.5
DESIGN CHAINAGE	56+000 56+020 56+040 56+060 56+080 56+100 56+120 56+140 56+160 56+180 56+200 56+220 56+240 56+260 56+280 56+300 56+320 56+340 56+360 56+380 56+400 56+420 56+440 56+460 56+480 56+500 56+520 56+540 56+560 56+580 56+600 56+620 56+640 56+660 56+680 56+700 56+720 56+740 56+760 56+780 56+800 56+820 56+840 56+860 56+880 56+900 56+920 56+940 56+960 56+980 57+000 57+020

CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार Government of India

CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2, Plot No.- 1, Sector-40, Nerul (west), Navi Mumbay-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for Feasibility Study of Detailed Project Report for improvement and up-gradation of newly declared National Highways including existing NH-97 & NH-28B in the state of Uttar Pradesh-PkgVI.[Stretch (i) Chapwa-Betwa-Chatauni-Kushinagar Road-NH-28B (ii) Ghazipur-Jamaniya-Saiyad Raja Road-NH-97 and Length 116.43 Km.]

Prepared by	M.S.Bisht
Designed by	Gulista Parveen
Checked by	Arun Kumar Bag
Approved by	Pankaj Vora

Revisions	Date	Description
R0	October, 2023	FINAL DETAIL PROJECT REPORT

TITLE : PLAN AND PROFILE
CHAINAGE : 56+000Km. TO 57+000Km.
DWG NO. : KN-D_FDPR_HWY_PP-57 SHEET 57 TO 58
SCALE : H-1:2000 V-200 @ (A2) DATE : October, 2023

TO KUSHINAGAR ← | → **TO CHAPWA**

ETAILS
4' 40.6"
00.0m
.99m
.0m
9.5
NC
kmph

CURVE DETAILS	
Def	0° 52' 20.8"
R	-1250.0m
Lc	19.03m
Ls	0.0m
Ts	9.5
e	NC
V	80kmph

SALIKPUR VILLAGE

CULTIVATED LAND

JAHADA VILLAGE

JAHADA VILLAGE

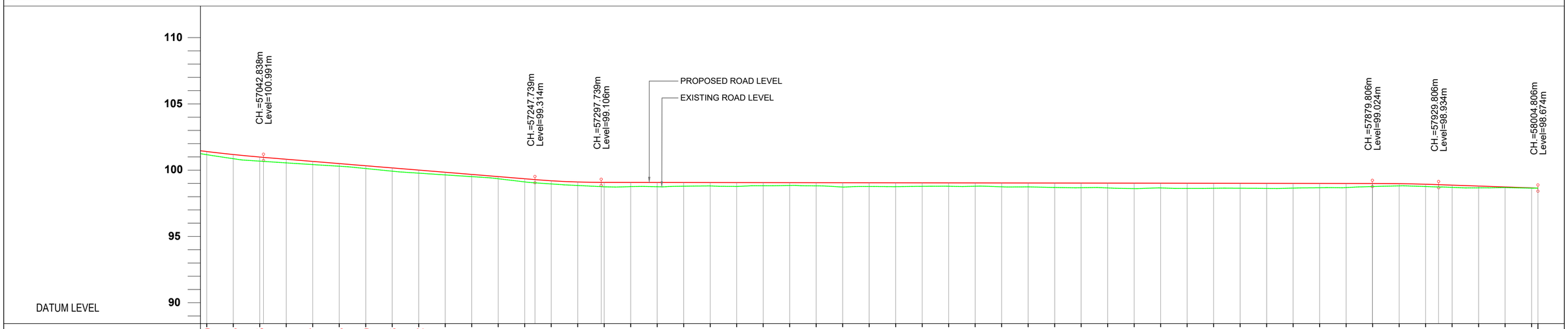
CURVE DETAILS	
Def	0° 38' 47.3"
R	3000.0m
Lc	33.85m
Ls	0.0m
Ts	16.9
e	NC
V	80kmph

CURVE DETAILS	
Def	0° 40' 58.2"
R	2000.0m
Lc	23.84m
Ls	0.0m
Ts	11.9
e	NC
V	80kmph

CURVE DETAILS	
Def	0° 8' 1.7"
R	5000.0m
Lc	11.68m
Ls	0.0m
Ts	5.8
e	NC
V	80kmph

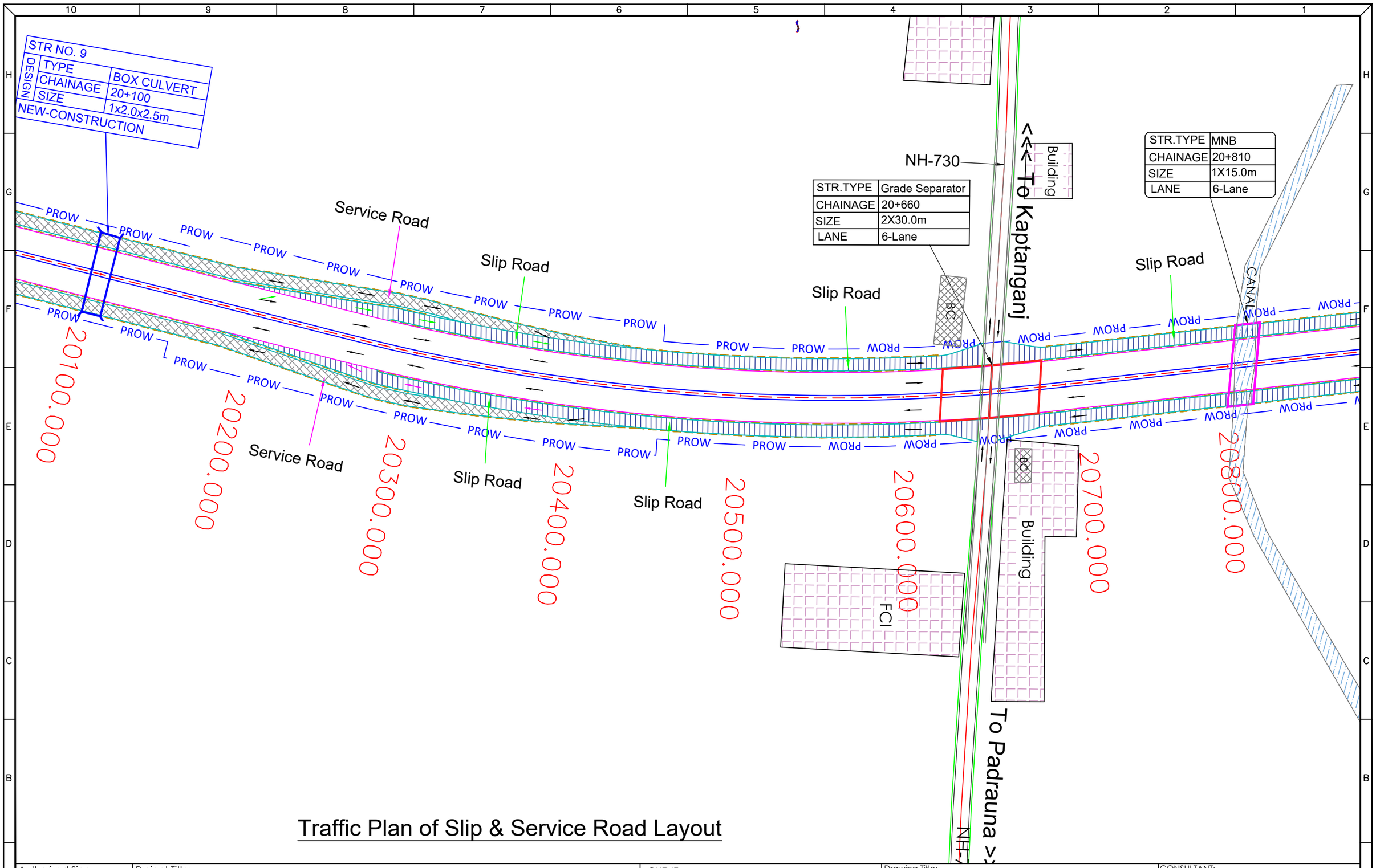
56+900 | 57+000 | 57+100 | 57+200 | 57+300 | 57+400 | 57+500 | 57+600 | 57+700 | 57+800 | 57+900 | 58+000

187 | 188 | 189 | 190



| | | |

TRAFFIC PLAN OF SLIP & SERVICE ROAD



Traffic Plan of Slip & Service Road Layout

Authorized Sign

Technocrats Advisory Services Private Limited Delhi

Project Title:-

Preparation of Detailed Project Report, Pre construction activities and project supervision of 1) Preparation of Detailed project report of Padrauna bypass 4L+PS. 2) Completion of pre-construction activities of 4L+PS /2L+PS work of NH-727 from 0.000 to 46.500.
3) Project Supervision as Independent engineer of 4L+PS/2L+ PS work of NH-727 from 0.000 to 46.500, for the project national highways in the state of Uttar Pradesh

CLIENT:-

सत्यमेव जयते

MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:- Slip & Service Road

Drawing No. :- MORTH/TASPL/DPR/KUSHI-CHAP/SR

Scale :- Not to Scale

Drn	Dgn.	Appd	Sheet :
DEEPAK	S.B.PANDEY	S.K.UPADHYAY	01 OF 01

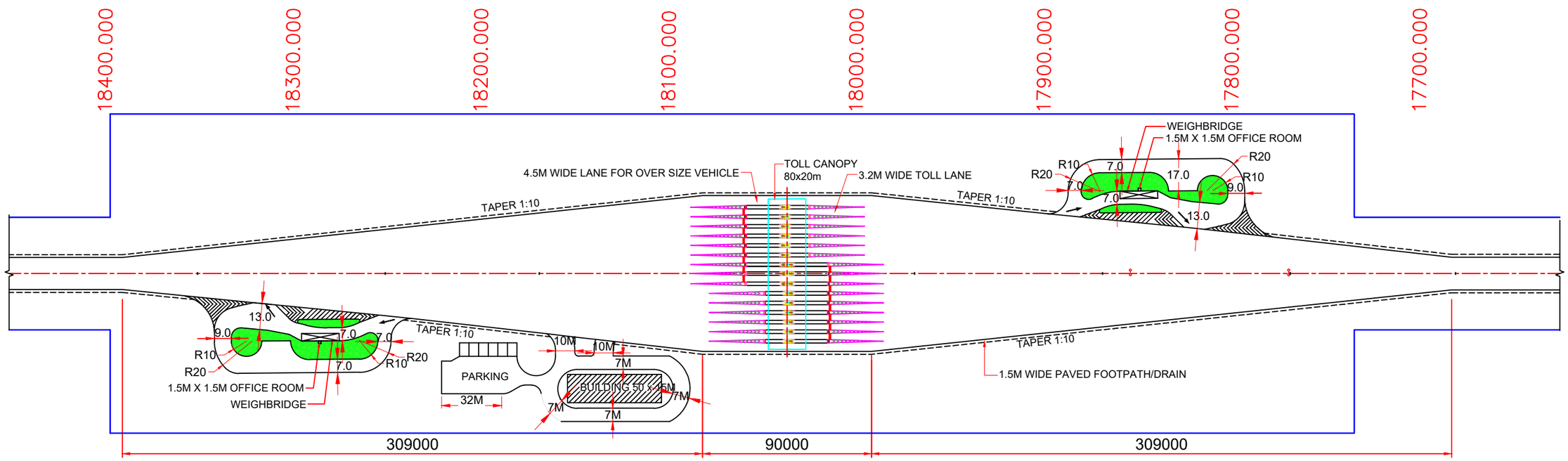
CONSULTANT:-

TASPL

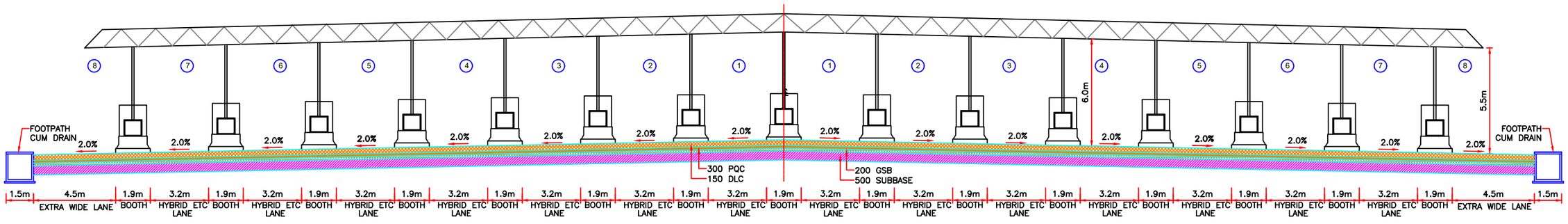
Technocrats Advisory Services Pvt. Ltd.
68, Ajanta Apartment, 36, I.P.Extension
Patparganj, Delhi-110092

ACTUAL SHEET SIZE – A3

LAYOUT OF TOLL PLAZA



LAYOUT PLAN AT TOLL PLAZA



TYPICAL ELEVATION OF TOLL BOOTH

Authorized Sign

Technocrats Advisory Services Private Limited Delhi

Project Title:-

Preparation of Detailed Project Report, Pre construction activities and project supervision of 1) preparation of Detailed Project Report of Padrauna bypass 4L+PS. 2) completion of pre-construction activities of 4L+PS /2L+PS work of NH-727 from 0.000 to 46.500.
3) Project supervision as independent engineer of 4L+PS/2L+PS work of NH-727 from 0.000 to 46.500, for the project National Highways in the state of Uttar Pradesh

CLIENT:-

सत्यमेव जयते

MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:- LAYOUT PLAN AT TOLL PLAZA

Drawing No. :- MORTH/TASPL/DPR/KUSHI-CHAP/TP

Scale :- ----

Drn	Dgn.	Appd	Sheet :
DEEPAK	S.B.PANDEY	S.K.UPADHYAY	01 OF 01

CONSULTANT:-

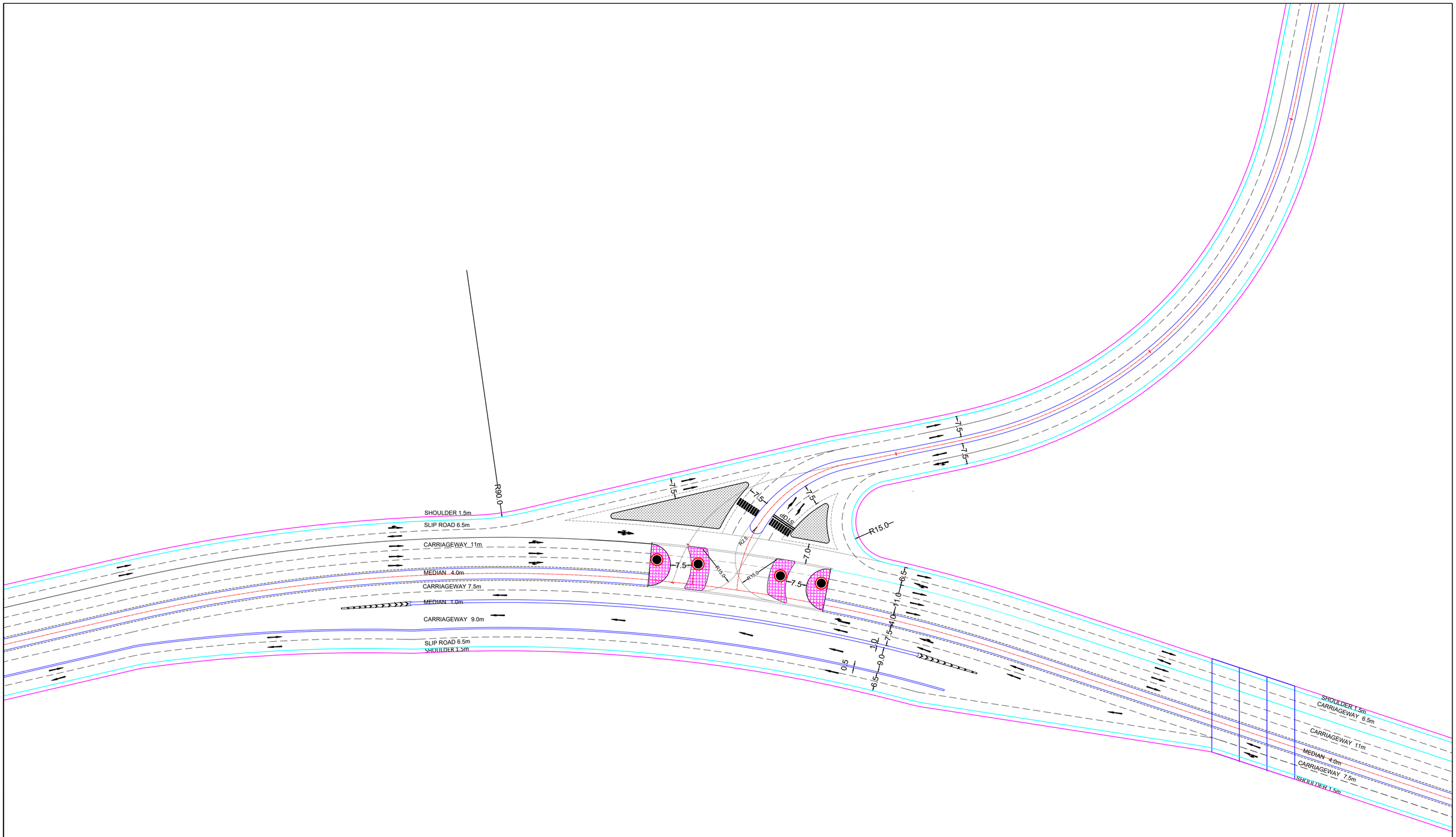
TASPL

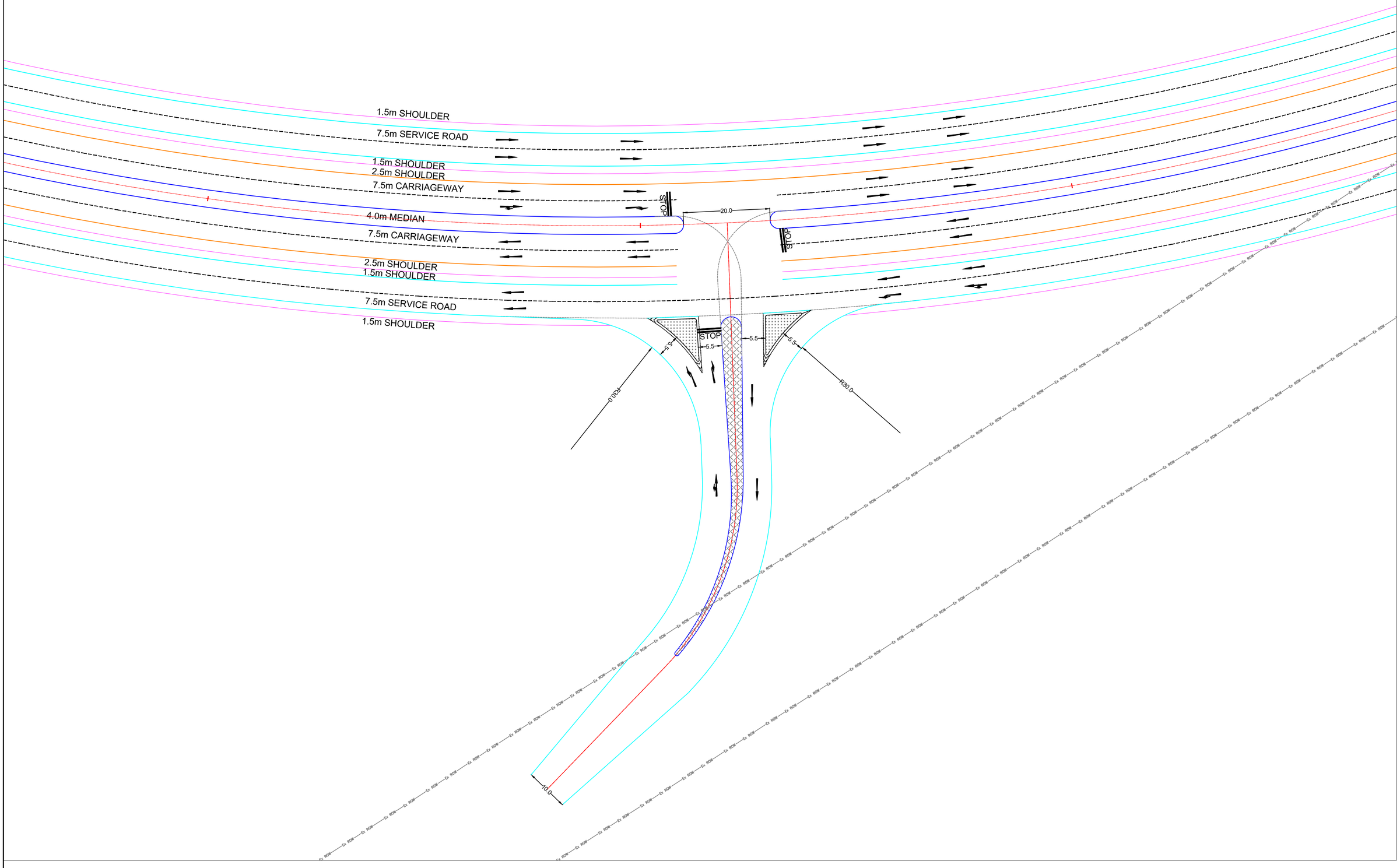
Technocrats Advisory Services Pvt. Ltd.
68, Ajanta Apartment, 36, I.P.Extension
Patparganj, Delhi-110092

Junction

JUNCTION

SOWiL Limited


R90.0
SHOULDER 1.5m
SLIP ROAD 6.5m
CARRIAGEWAY 11m
MEDIAN 4.0m
CARRIAGEWAY 7.5m
MEDIAN 1.0m
CARRIAGEWAY 9.0m
SLIP ROAD 6.5m
SHOULDER 1.5m
7.5
R15.0
R25
R15.0
7.5
7.5
7.5
7.5
7.5
7.0
R15.0
SLIP ROAD
R15.0
7.5
7.5
7.5
7.5
7.5



CLIENT:

सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार Government of India

CONSULTANT:

SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2, Plot No.- 1, Sector-40, Nerul (west), Navi Mumbay-400706
Phone:022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for Feasibility Study of Detailed Project Report for improvement and up-gradation of newly declared National Highways including existing NH-97 & NH-28B in the state of Uttar Pradesh-PkgVI.[Stretch (i) Chapwa-Betwa-Chatauni-Kushinagar Road-NH-28B (ii) Ghazipur-Jamaniya-Saiyad Raja Road-NH-97 and Length 116.43 Km.]

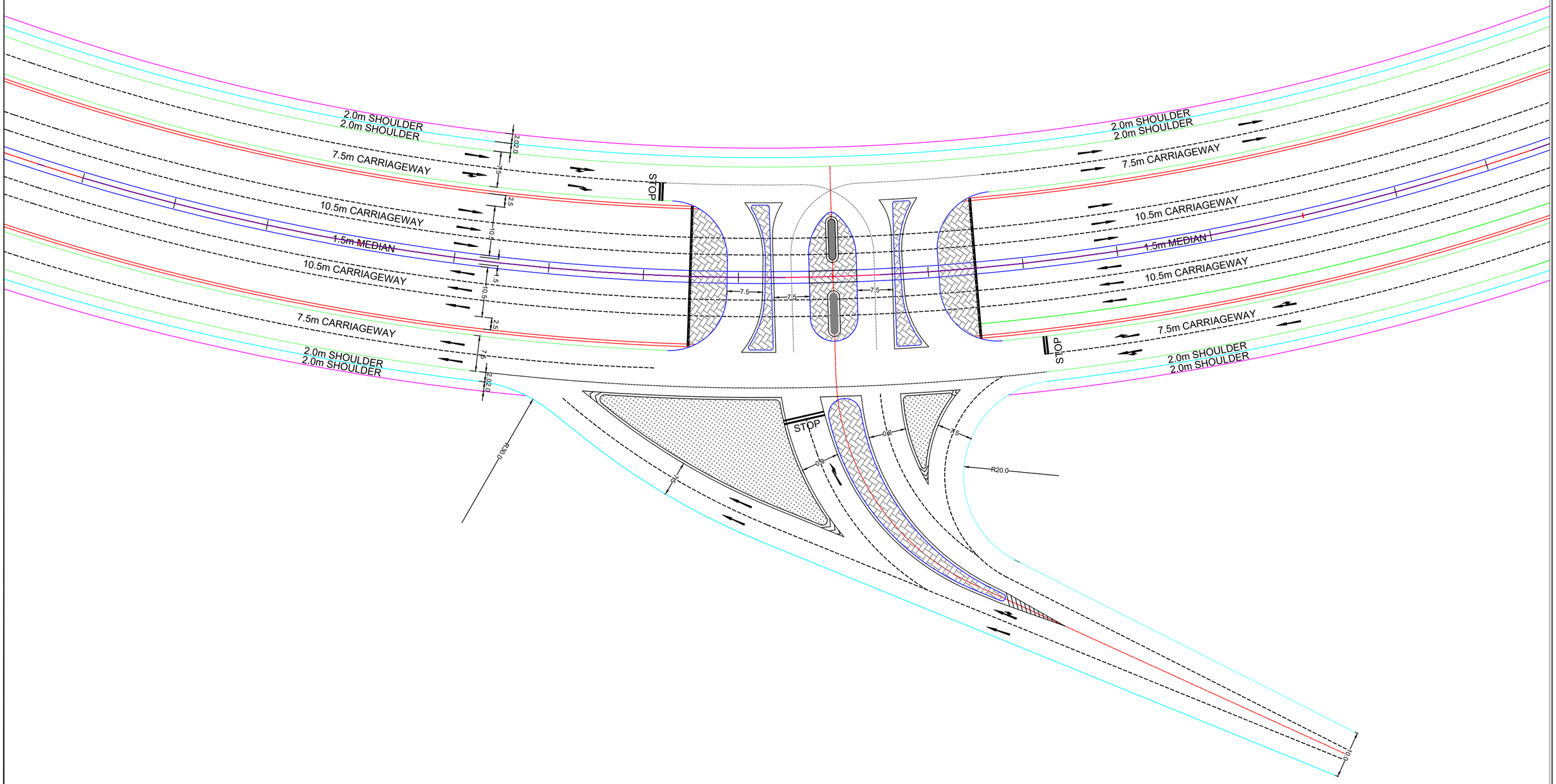
Prepared by	M.S.Bisht
Designed by	Gulista Parveen
Checked by	Arun Kumar Bag
Approved by	Pankaj Vora

Revisions	Date	Description
	October, 2023	FINAL DETAIL PROJECT REPORT

DRAWING TITLE:- JUNCTION
(CHAINAGE - 3+720Km.)

DRAWING No:- KN-B_DD_HWY_JU | SHEET 01

SCALE : NTS. | DATE : October 2023 | REV :



CLIENT:

सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार
Government of India

CONSULTANT:

SOWiL Limited

Goodwill Avenue,1st Floor,"A" Wing Office No.-2, Plot No.- 1, Sector-40, Nerul (west), Navi Mumbay-400706
Phone:022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for Feasibility Study of Detailed Project Report for improvement and up-gradation of newly declared National Highways including existing NH-97 & NH-28B in the state of Uttar Pradesh-PkgVI.[Stretch (i) Chapwa-Betwa-Chatauni-Kushinagar Road-NH-28B (ii) Ghazipur-Jamaniya-Saiyad Raja Road-NH-97 and Length 116.43 Km.]

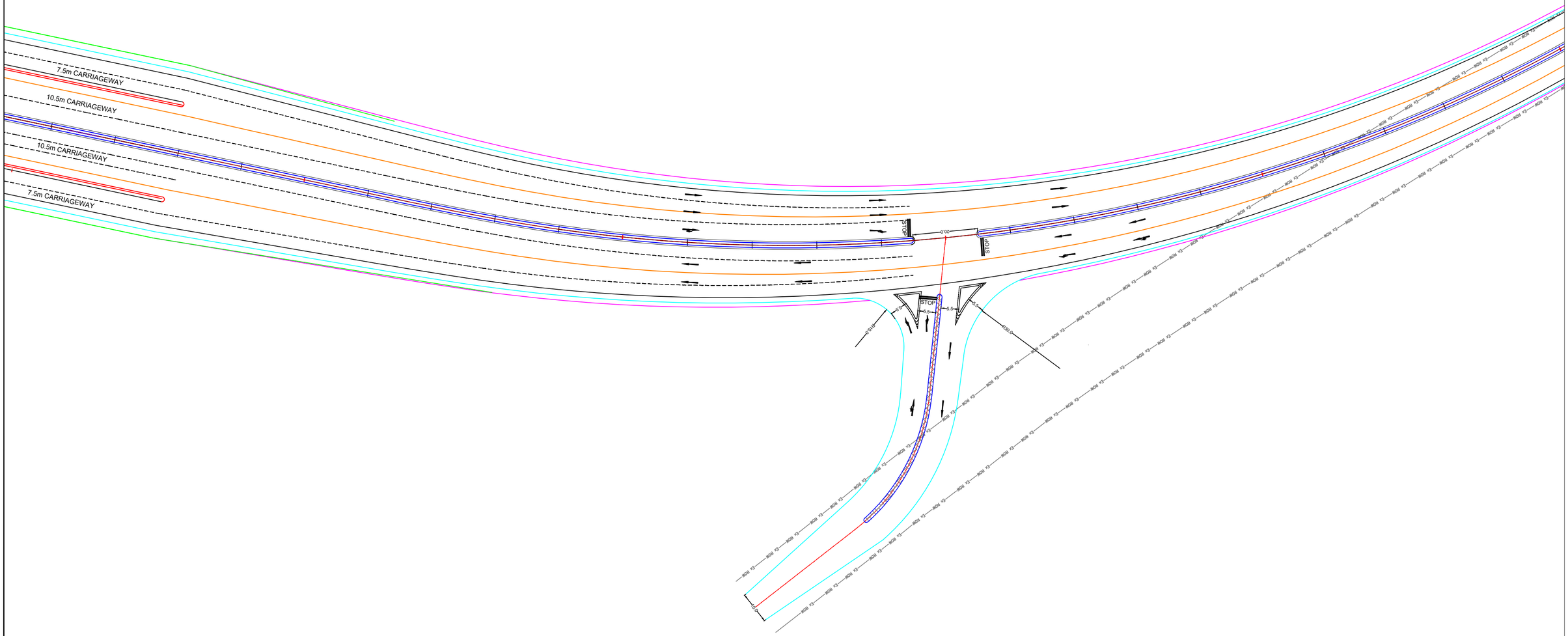
Prepared by	M.S.Bisht
Designed by	Gulista Parveen
Checked by	Arun Kumar Bag
Approved by	Pankaj Vora

Revisions	Date	Description
	October, 2023	FINAL DETAIL PROJECT REPORT

DRAWING TITLE:- JUNCTION
(CHAINAGE - 16+400Km.)

DRAWING No:- KN-B_DD_HWY_JU | SHEET 01

SCALE : NTS. | DATE : October 2023 | REV :



CLIENT:

सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार
Government of India

CONSULTANT:

SOWiL Limited

Goodwill Avenue,1st Floor,"A" Wing Office No.-2, Plot No.- 1, Sector-40, Nerul (west), Navi Mumbay-400706
Phone:022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:

Consultancy Services for Feasibility Study of Detailed Project Report for improvement and up-gradation of newly declared National Highways including existing NH-97 & NH-28B in the state of Uttar Pradesh-PkgVI.[Stretch (i) Chapwa-Betwa-Chatauni-Kushinagar Road-NH-28B (ii) Ghazipur-Jamaniya-Saiyad Raja Road-NH-97 and Length 116.43 Km.]

Prepared by	M.S.Bisht
Designed by	Gulista Parveen
Checked by	Arun Kumar Bag
Approved by	Pankaj Vora

Revisions	Date	Description
	October, 2023	FINAL DETAIL PROJECT REPORT

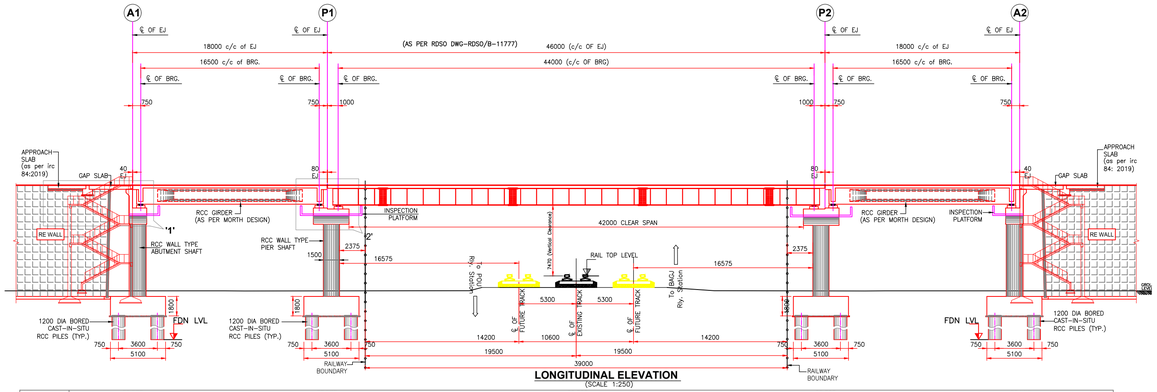
DRAWING TITLE:- JUNCTION
(CHAINAGE - 23+500Km.)

DRAWING No:- KN-B_DD_HWY_JU | SHEET 01

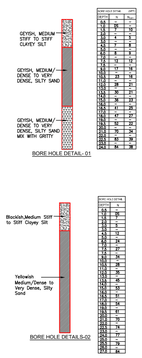
SCALE : NTS. | DATE : October 2023 | REV :

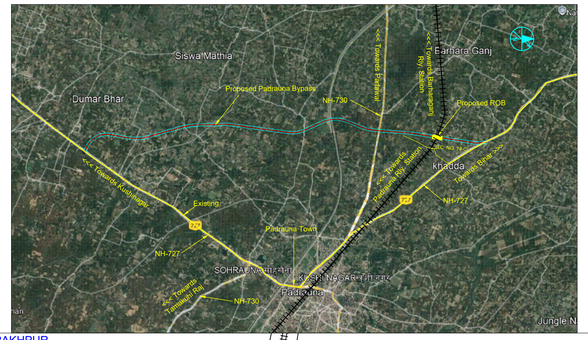
GENERAL ARRANGEMENT DRAWING (ROB)

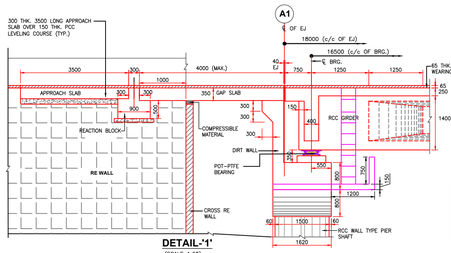
TO GORAKHPUR

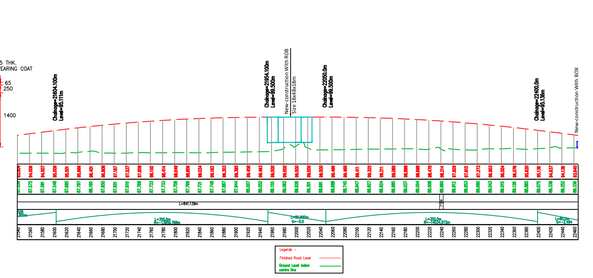


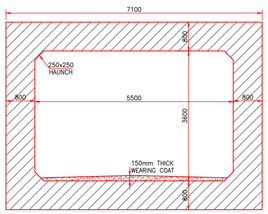
FRL	99.500	99.500	99.500	99.500	99.500
GL	88.102	88.516	90.314	91.244	88.763
RAIL LVL.			90.515		
CHAINAGE	21+951	21+969	21+990	22+011	22+029

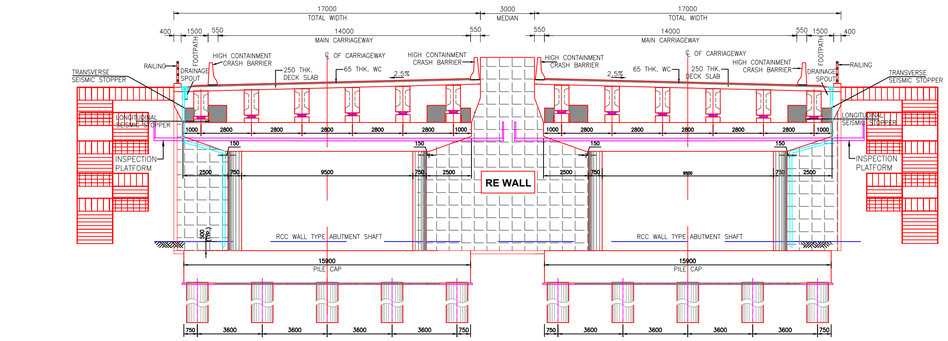






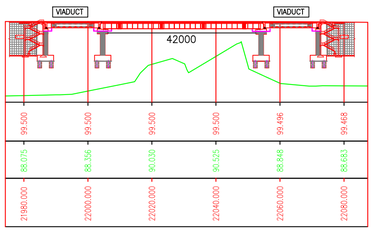


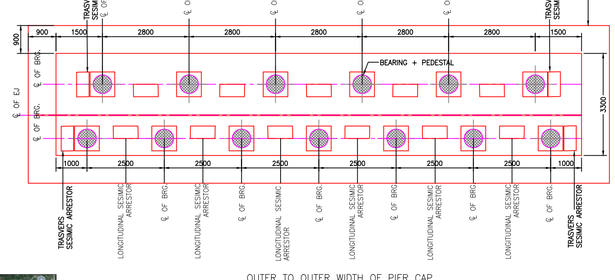




SECTION A-A

SCALE 1:125

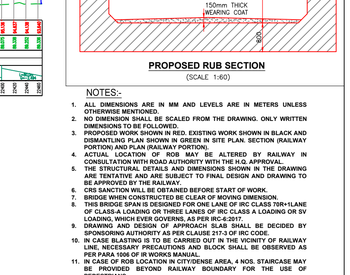


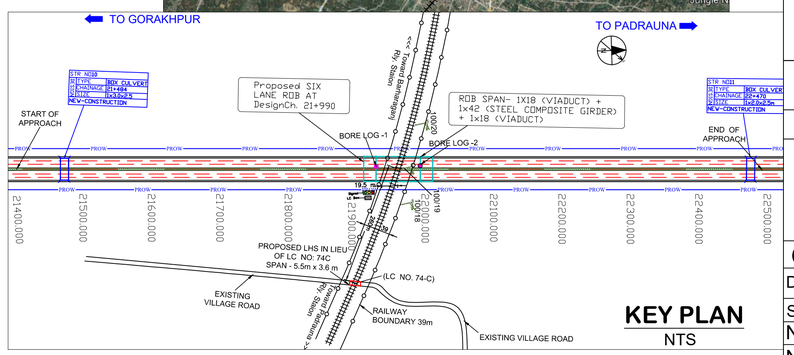


OUTER TO OUTER WIDTH OF PIER CAP

PIER CAP PLAN AT 'P1 & P2' LOCATION

SCALE 1:75





SAFE BEARING CAPACITY (qnf/F) - 25.20 टन/ (at 1.5 m)

LEGENDS
1. RAILWAY BOUNDARY
2. PROPOSED WORK IS SHOWN RED IN COLOR
3. EXISTING TRACK IS SHOWN BLACK IN COLOR
4. FUTURE TRACK IS SHOWN COLOR IS GRAY

NOTES:-

1. ALL DIMENSIONS ARE IN MM AND LEVELS ARE IN METERS UNLESS OTHERWISE MENTIONED.
2. NO DIMENSION SHALL BE SCALED FROM THE DRAWING. ONLY WRITTEN DIMENSIONS TO BE FOLLOWED.
3. PROPOSED WORK SHOWN IN RED. EXISTING WORK SHOWN IN BLACK AND DISMANTLING PLAN SHOWN IN GREEN IN SITE PLAN. SECTION (RAILWAY PORTION) AND PLAN (RAILWAY PORTION).
4. ACTUAL LOCATION OF ROB MAY BE ALTERED BY RAILWAY IN CONSULTATION WITH ROAD AUTHORITY WITH THE H.Q. APPROVAL.
5. THE STRUCTURAL DETAILS AND DIMENSIONS SHOWN IN THE DRAWING ARE TENTATIVE AND ARE SUBJECT TO FINAL DESIGN AND DRAWING TO BE APPROVED BY THE RAILWAY.
6. CRS SANCTION WILL BE OBTAINED BEFORE START OF WORK.
7. BRIDGE WHEN CONSTRUCTED BE CLEAR OF MOVING DIMENSION.
8. THIS BRIDGE SPAN IS DESIGNED FOR ONE LANE OF IRC CLASS 70R+1LANE OF CLASS-A LOADING OR THREE LANES OF IRC CLASS A LOADING OR SV LOADING, WHICH EVER GOVERNS, AS PER IRC-6-2017.
9. DRAWING AND DESIGN OF APPROACH SLAB SHALL BE DECIDED BY SPONSORING AUTHORITY AS PER CLAUSE 217-3 OF IRC CODE.
10. IN CASE BLASTING IS TO BE CARRIED OUT IN THE VICINITY OF RAILWAY LINE, NECESSARY PRECAUTIONS AND BLOCK SHALL BE OBSERVED AS PER PARA 1006 OF IR WORKS MANUAL.
11. IN CASE OF ROB LOCATION IN CITY/DENSE AREA, 4 NOS. STAIRCASE MAY BE PROVIDED BEYOND RAILWAY BOUNDARY FOR THE USE OF PEDESTRIANS.
12. DRAINAGE ARRANGEMENTS IN THE RAILWAY PORTION SHALL BE PROVIDED AVOIDING TRACK BELOW AS PER STANDARD DRAWINGS OF MAST.
13. SUITABLE JACKING POINTS SHALL BE PROVIDED FOR LIFTING GIRDER FOR INSPECTION/REPAIR OF BEARINGS.
14. NO PLASTERING, CEMENT WASH, PROTECTIVE COATING OVER THE CONCRETE IS PERMITTED. ANY BAD WORK WILL QUALIFY SUMMARY RELECTION OF MEMBER ELEMENT.
15. PROTECTION SCREEN SHALL BE PROVIDED IN THE ROB IN ELECTRIFIED SECTIONS.
16. BEARINGS SHALL BE PROVIDED AS PER THE RDSO DRAWING.
17. CONTROLLED CEMENT CONCRETE MIX TO BE PROVIDED AND SHOULD NOT BE LEANER THAN PROVISIONS IN RAILWAY CONCRETE BRIDGE CODE.
18. ALL WORK WITHIN 6m FROM CENTER LINE OF TRACK WILL BE CARRIED OUT WITH DUE PERMISSION AND UNDER SUPERVISION OF RAILWAY AUTHORITY.
19. PWS WILL ENSURE SAFETY PRECAUTIONS AS PER RLY. BOARDS L.MO. 97/CE-I/BRO/158/9 (POLICY) PT.II DATED 16.07.2009.
20. NO CONSTRUCTION JOINT SHALL BE NORMALLY ALLOWED IN CONCRETE WORK WITHOUT SPECIAL PRECAUTIONS AS PER RELEVANT BRIDGE CODES.
21. RDSO STANDARD DRG. NO. RDSO/B-11777 HAS BEEN ADOPTED.
22. PROPOSED ROB IS NOT ON DFCC ALIGNMENT.
23. THE TYPE AND DIMENSIONS OF FOUNDATION SHOWN IN THE DRAWING ARE INDICATIVE & TENTATIVE & SHALL BE DECIDED AS PER STRUCTURAL DESIGN FOR WHICH SEPARATE STRUCTURAL DRAWINGS SHALL BE GOT APPROVED BY COMPETENT AUTHORITY KEEPING VIEW OF RLY.BD. LETTER NO. 2014/CE-IV/ROB/250, (ESTT. DESIGN) AT 60.09.14.
24. DIMENSIONS MARKED MAY VARY AT THE TIME OF DETAILED DESIGN.
25. ROB LIES IN SEISMIC ZONE-IV.
26. EXISTING LC 74C WILL BE CLOSED BY PROPOSED LIMITED HEIGHT SUB WAY.

MODUS OPERANDI / METHODLOGY

1. MODUS OPERANDI / METHODLOGY CONSTRUCTION ACTIVITIES, SAFETY PRECAUTIONS AND MEASURES TO BE OBSERVED DURING CONSTRUCTION OF ROB SHOULD BE IN ACCORDANCE WITH IRPWM & BOARD'S LETTER NO. 97/CE-I/BRO/1539 (POLICY), PT II DATED 16-07-2009.
2. FABRICATED STEEL GIRDER WILL BE LAUNCHED FIRST AND THEN RCC DECK SLAB WILL BE CAST-IN SITU AFTER PROVIDING TEMPORARY ARRANGEMENT.
3. GIRDER WILL BE LAUNCHED AFTER PROVIDING TEMPORARY ARRANGEMENT DURING TRAFFIC AND POWER BLOCK.
4. CASTING OF DECK WILL BE EXECUTED UNDER SPEED RESTRICTION.
5. THE WORK UNDER TRAFFIC BLOCK SHALL BE CARRIED OUT UNDER THE PROVISION OF BANNER FLAG AND PROTECTION OF ENGINEERING FLAG MAN.
6. INSTRUCTION ON "SPECIAL CONDITION OF WORKING OF ROAD CRANES" AS PER RAILWAY BOARD LATEST GUIDELINES IN LETTER NO. 2015/CE-II/RUB/2006 DATED 15-02-2016 SHALL BE FOLLOWED.
7. THE STEEL GIRDER SHALL BE FABRICATED ASSEMBLED AND WILL BE LAUNCHED AS PER APPROVED LAUNCHING SCHEME THE RCC DECK SLAB SHALL BE CAST-IN-SITU AFTER PLACEMENT OF GIRDER.

Feasibility of the Proposal has been checked and found correct.	
ADEN	
SSE/WORKS	
SSE/P-WAY	
SSE/DRG.	

Divisional Office	Signature	Head Quater Officers	Signature
DRM		CBE	
Sr. DEN/CO.			
Sr.DEE/TRD		DY. CE/Br/HQ	
Sr.DSTE			
Sr.DOM		XEN/BR/Design	
Sr.DEN/II		SSE/ Design	

EXECUTIVE ENGINEER NH/PWD/GORAKHPUR

NORTH EASTERN RAILWAY

VARANASI DIVISION

PROPOSED 6 LANE (TWIN 3 LANE) ROAD OVER BRIDGE AT RLY KM 100/849.35(ROAD CHAINAGE 21+990M) BETWEEN RAILWAY STATION PADRAUNA AND BADHARAGANJ ON KAPTANGANJ - THANE SECTION IN VARANASI DIVISION DESIGN BY MORTH ON PADRAUNA BYPASS

GENERAL ARRANGEMENT DRAWING

DEPOSIT WORK

SCALE: NOT TO SCALE

N.E.R DIVL. PLAN NO

N.E.R H.Q.E.(P) PLAN NO

N.E.R RLY. CE(CONST)/LKO PLAN NO

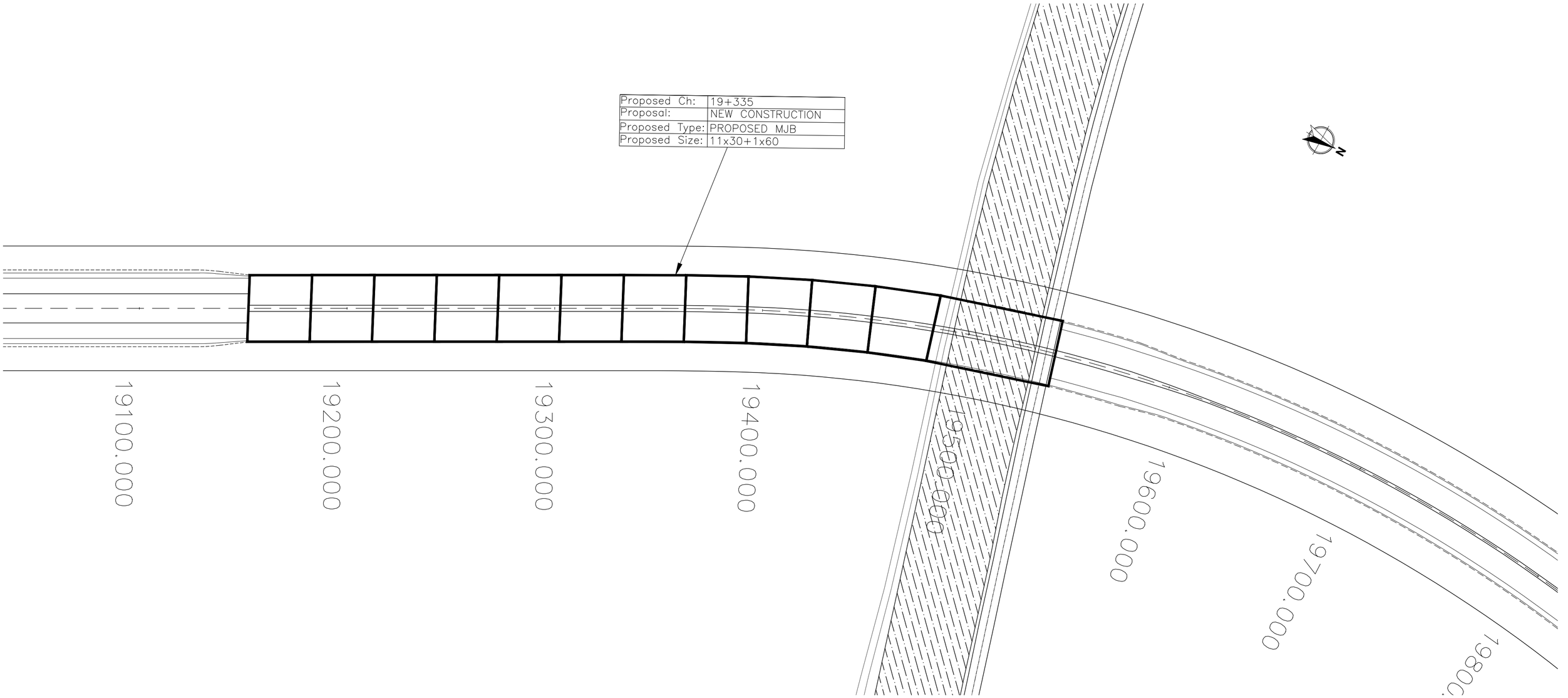
TECHNOCRATS ADVISORY SERVICE PVT.LTD.
DPR CONSULTANT

MINISTRY OF ROAD TRANSPORT & HIGHWAYS (MORT&H)

EXECUTIVE ENGINEER/NH DIV./GORAKHPUR

GENERAL ARRANGEMENT DRAWING

{MAJOR BRIDGE}



KEY PLAN

Project Title:

Preparation of detailed project report of Padrauna bypass & completion of Preconstruction activities of 4L+PS /2L+PS work of NH-727 from km 0.000 to km 46.500 for the project National Highways in the state of Uttar Pradesh.

CLIENT:

MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title: GENERAL ARRANGEMENT DRAWING OF MJB AT DESIGN CH-19+335

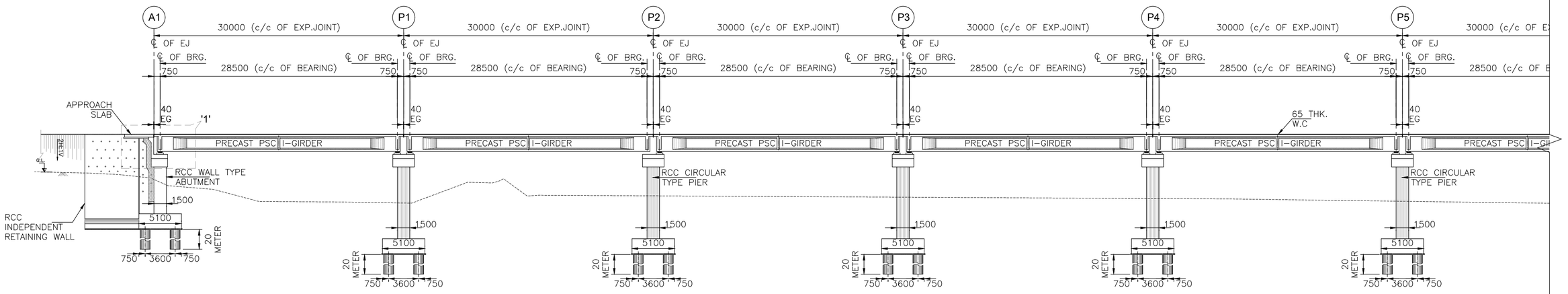
Drawing No. :- TASPL/MORTH/DPR/PB/MJB/GAD/101

Scale :- AS SHOWN

Drn	Dgn.	Appd	Sheet :
Deepak	S.B.Pandey	S.K.Upadhyay	01 OF 05

CONSULTANT

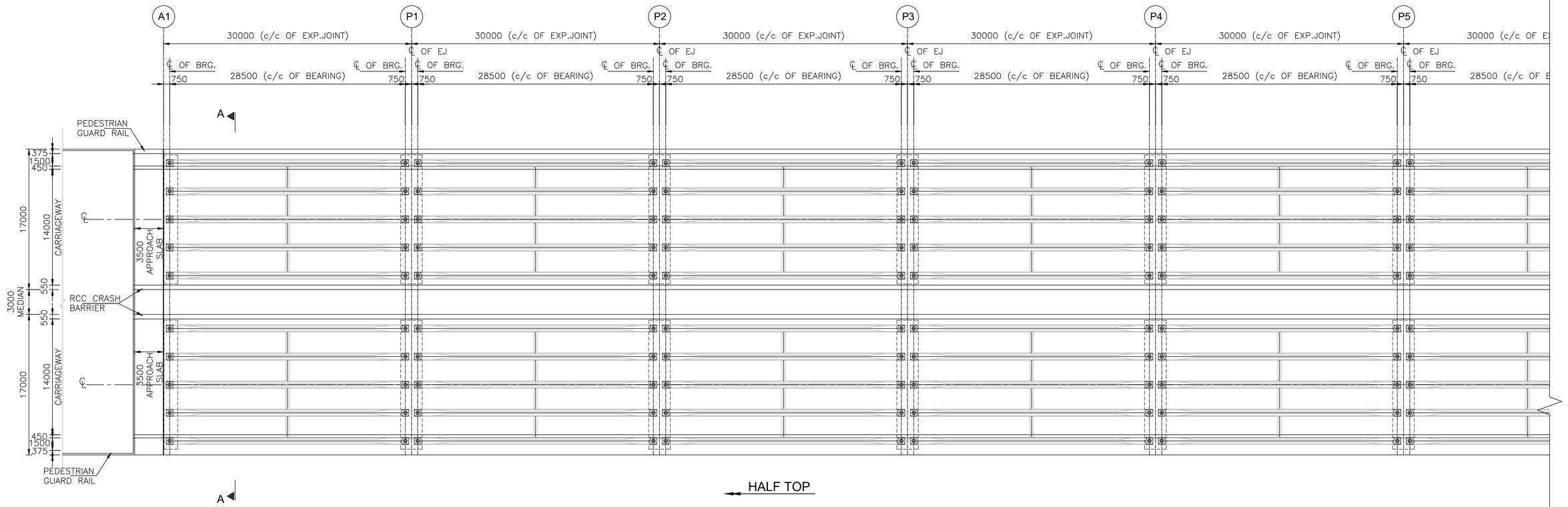
TASPL
Technocrats Advisory Services Pvt. Ltd.
68, Ajanta Apartments, 36, I.P.Extension
Patparganj Delhi-110092



LONGITUDINAL ELEVATION

(SCALE 1:350)

FRL.	97.238	97.900	97.897	98.531	99.055	99.514	99.909
GROUND LEVEL	86.726	86.681	86.681	86.852	86.820	86.788	86.722
CHAINAGE	19+155	19+185		19+215	19+245	19+275	19+305



HALF TOP

Technocrats Advisory Services Private Limited ★ Delhi

Project Title:

Preparation of detailed project report of Padrauna bypass & completion of Preconstruction activities of 4L+PS /2L+PS work of NH-727 from km 0.000 to km 46.500 for the project National Highways in the state of Uttar Pradesh.

CLIENT:

सत्यमेव जयते

MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title: GENERAL ARRANGEMENT DRAWING OF MJB AT DESIGN CH-19+335

Drawing No. :- TASPL/MORTH/DPR/PB/MJB/GAD/101

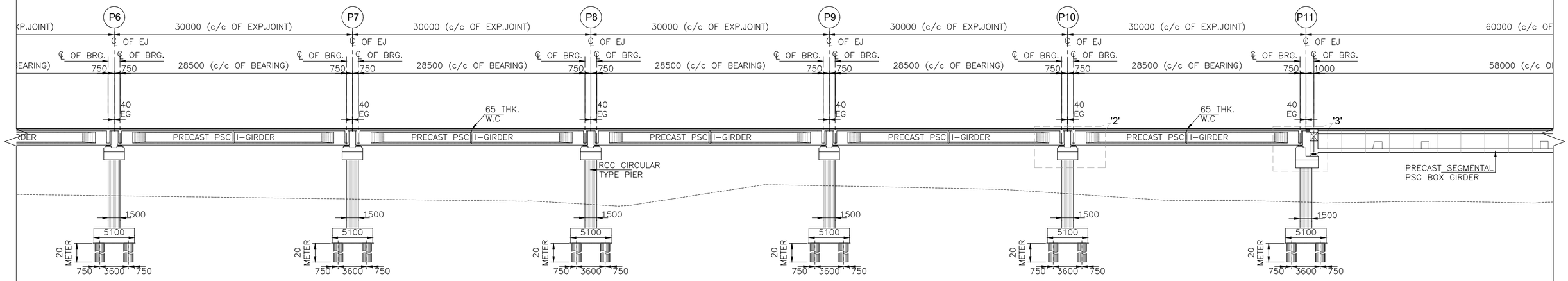
Scale :- AS SHOWN

Drn	Dgn.	Appd	Sheet :
Deepak	S.B.Pandey	S.K.Upadhyay	02 OF 05

CONSULTANT

TASPL

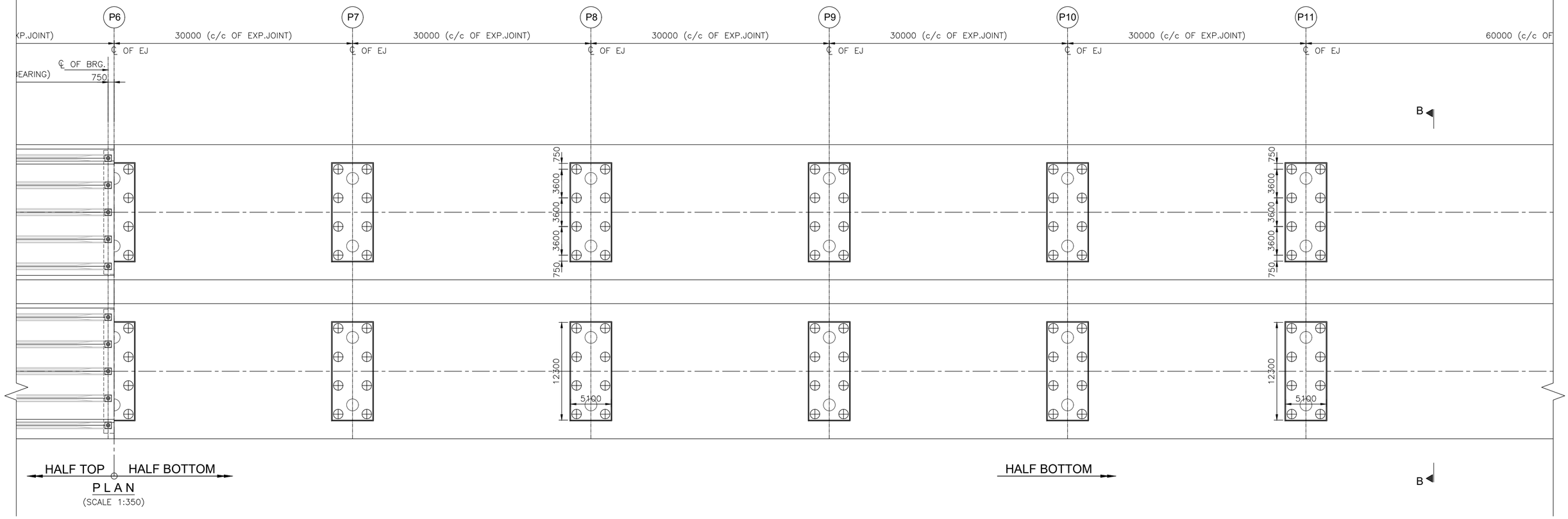
Technocrats Advisory Services Pvt. Ltd.
68, Ajanta Apartments, 36, I.P.Extension
Patparganj Delhi-110092



LONGITUDINAL ELEVATION

(SCALE 1:350)

100.237	100.504	100.707	100.846	100.920	100.930
86.642	86.561	86.889	88.336	89.770	90.840
19+335	19+365	19+395	19+425	19+455	19+485



PLAN

(SCALE 1:350)

Project Title:

Preparation of detailed project report of Padrauna bypass & completion of Preconstruction activities of 4L+PS /2L+PS work of NH-727 from km 0.000 to km 46.500 for the project National Highways in the state of Uttar Pradesh.

CLIENT:

MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title: GENERAL ARRANGEMENT DRAWING OF MJB AT DESIGN CH-19+335

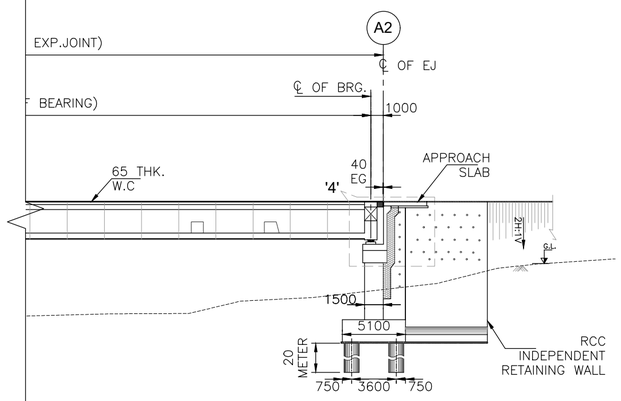
Drawing No. :- TASPL/MORTH/DPR/PB/MJB/GAD/101

Scale :- AS SHOWN

Drn	Dgn.	Appd	Sheet :
Deepak	S.B.Pandey	S.K.Upadhyay	03 OF 05

CONSULTANT

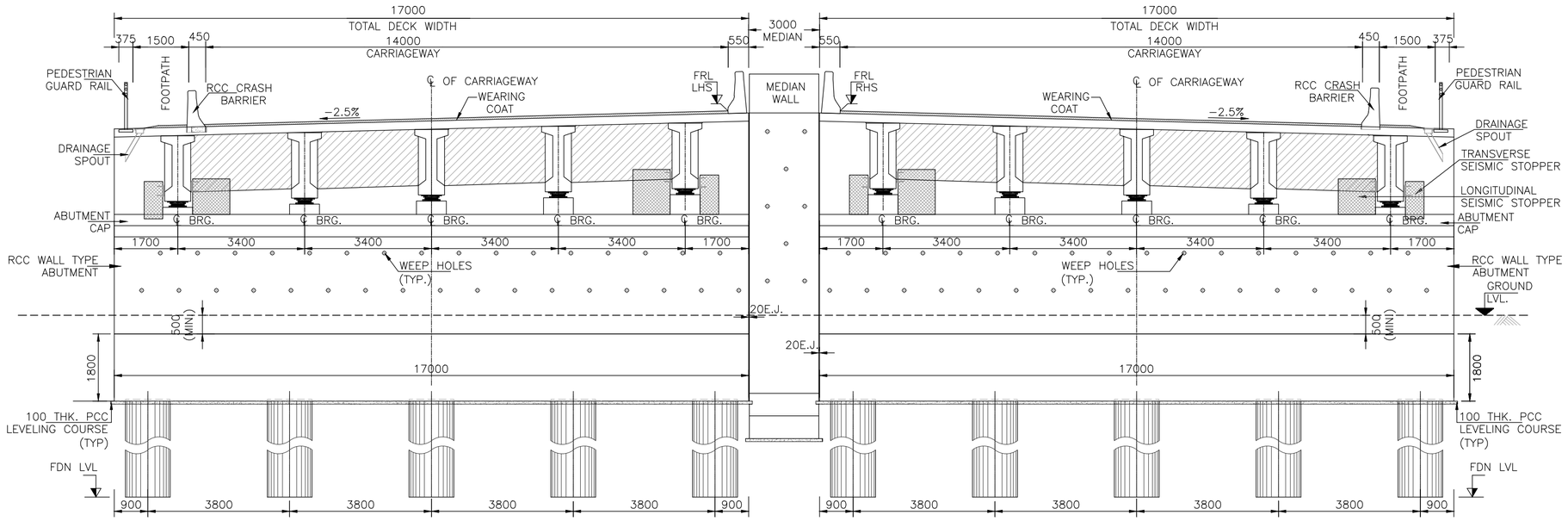
Technocrats Advisory Services Pvt. Ltd.
68, Ajanta Apartments, 36, I.P.Extension
Patparganj Delhi-110092



LONGITUDINAL ELEVATION

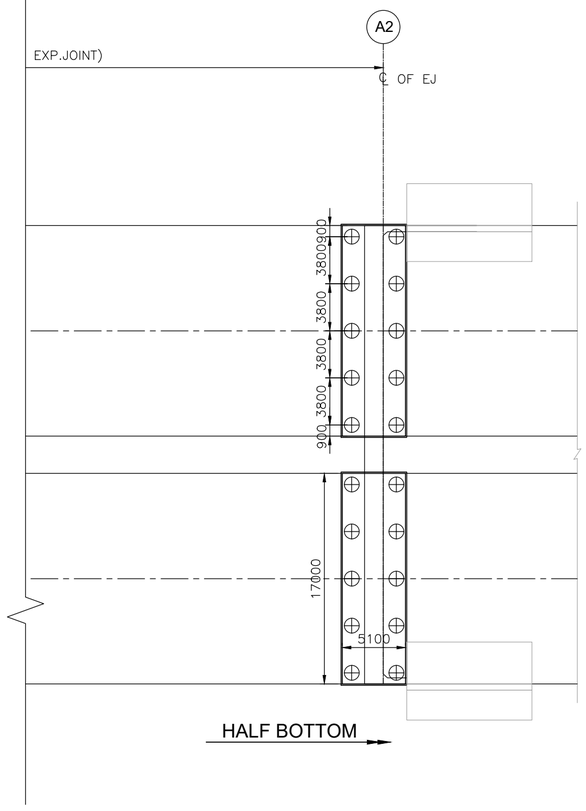
(SCALE 1:350)

100.938
90.125
19+545

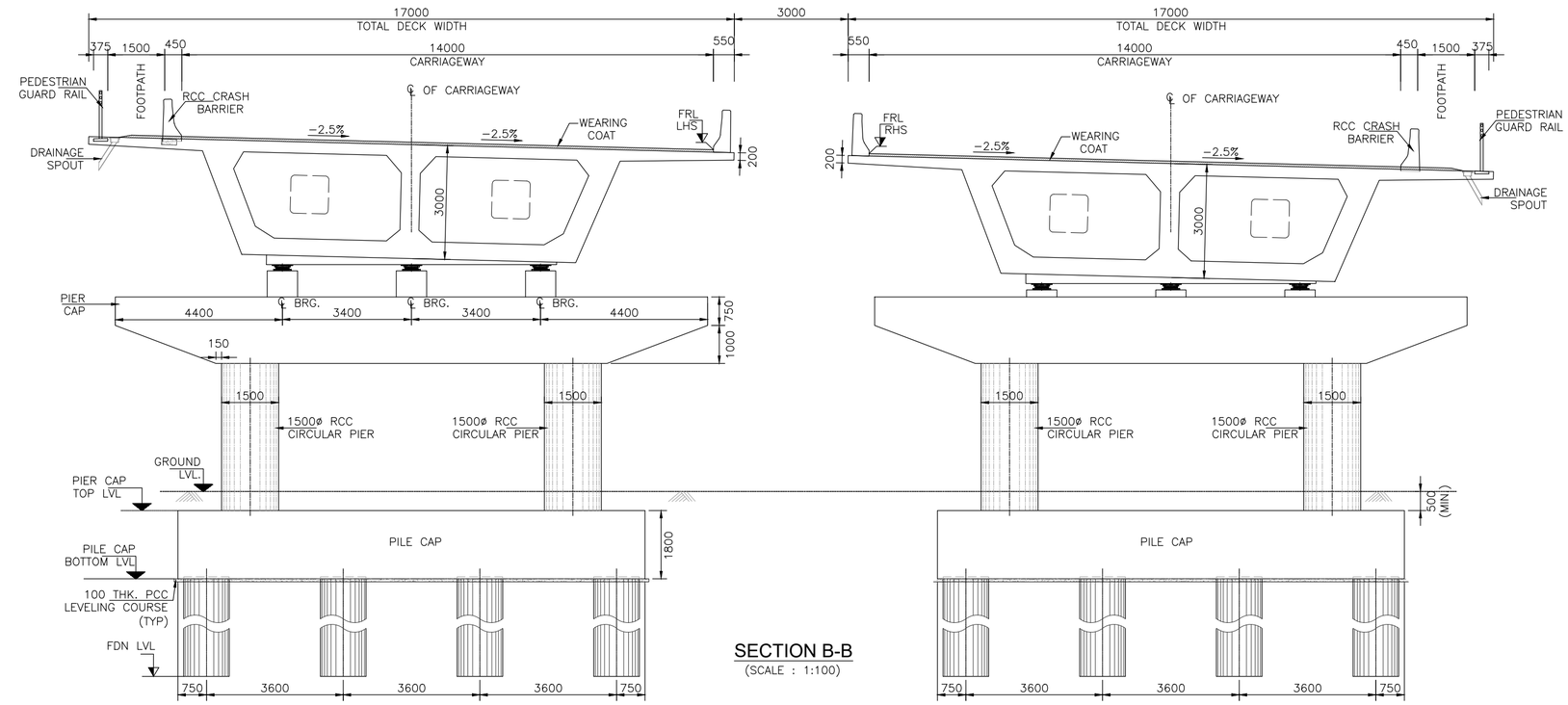


SECTION A-A

(SCALE : 1:100)



HALF BOTTOM



SECTION B-B

(SCALE : 1:100)

Project Title:

Preparation of detailed project report of Padrauna bypass & completion of Preconstruction activities of 4L+PS /2L+PS work of NH-727 from km 0.000 to km 46.500 for the project National Highways in the state of Uttar Pradesh.

CLIENT:

MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title: GENERAL ARRANGEMENT DRAWING OF MJB AT DESIGN CH-19+335

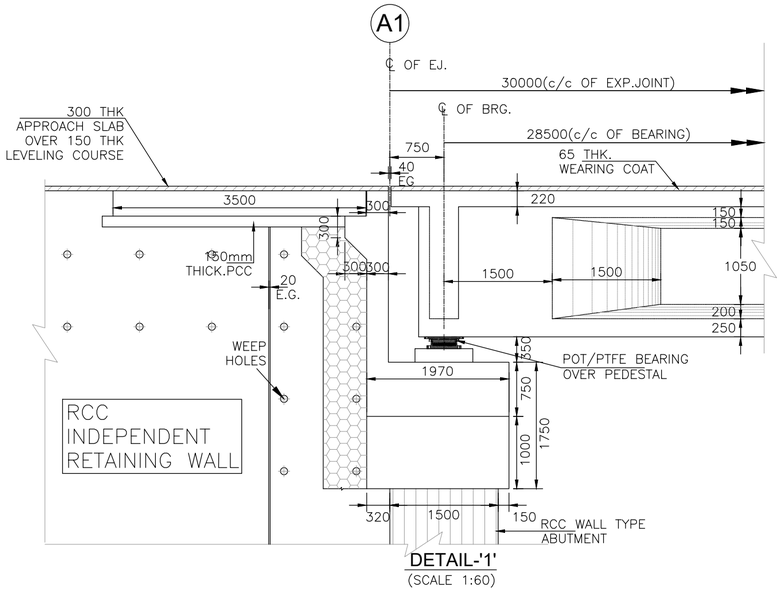
Drawing No. :- TASPL/MORTH/DPR/PB/MJB/GAD/101

Scale :- AS SHOWN

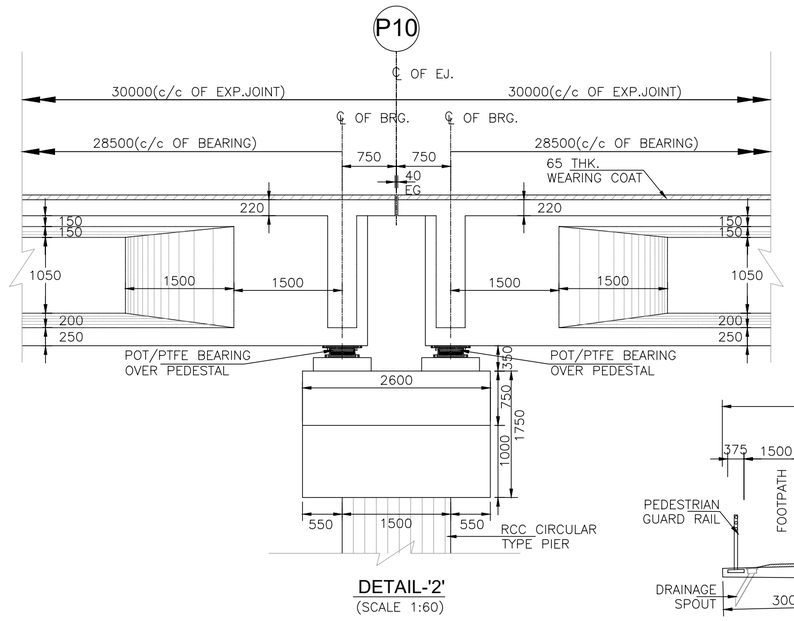
Drn	Dgn.	Appd	Sheet :
Deepak	S.B.Pandey	S.K.Upadhyay	04 OF 05

CONSULTANT

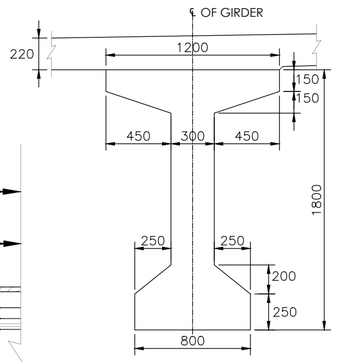
Technocrats Advisory Services Pvt. Ltd.
68, Ajanta Apartments, 36, I.P.Extension
Patparganj Delhi-110092



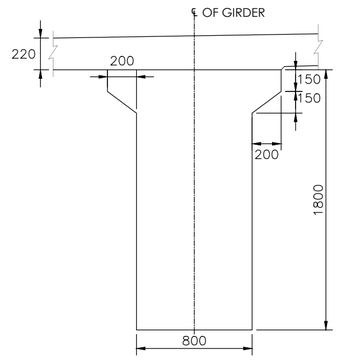
DETAIL-'1'
(SCALE 1:60)



DETAIL-'2'
(SCALE 1:60)

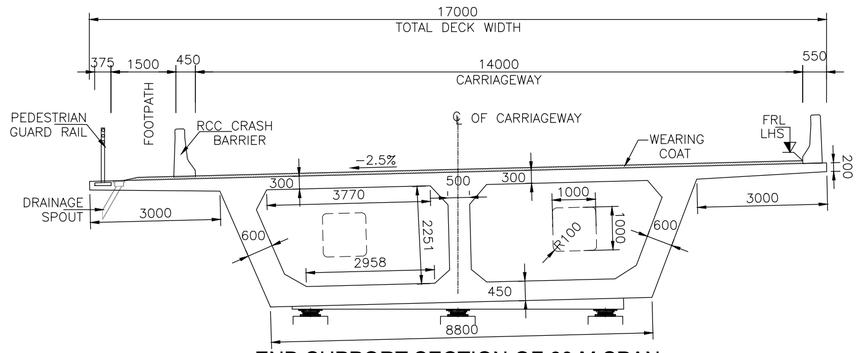


MID SECTION
(SCALE 1:30)

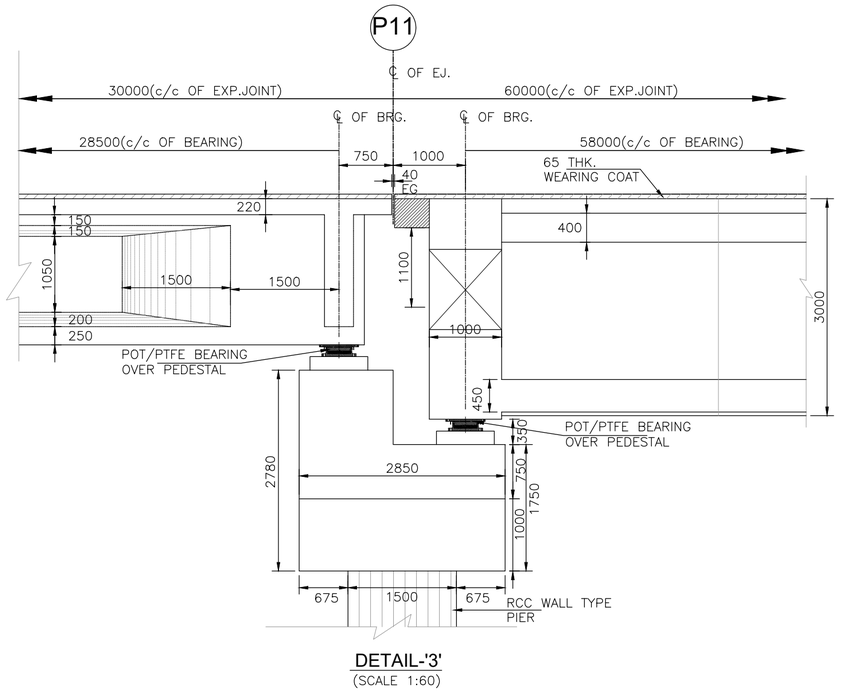


SUPPORT SECTION
(SCALE 1:30)

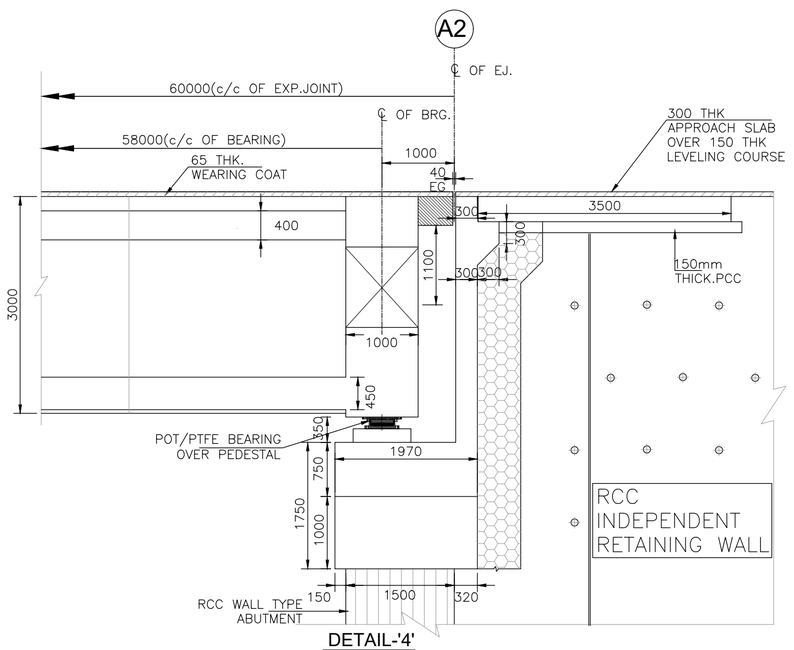
CROSS SECTION OF PSC PRECAST I-GIRDER (1X30M)



END SUPPORT SECTION OF 60 M SPAN
(SCALE : 1:100)



DETAIL-'3'
(SCALE 1:60)



DETAIL-'4'
(SCALE 1:60)

NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETERS, LEVELS ARE IN METERS UNLESS OTHERWISE MENTIONED.
2. NO DIMENSION SHALL BE MEASURED FROM THE DRAWINGS. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
3. THE DRAWING SHALL BE READ IN CONJUNCTION WITH RELEVANT HIGHWAY PLAN AND PROFILE DRAWINGS. FRL, BED LEVEL, CAMBER/SUPERELEVATION AND LAYOUT SHALL ALSO BE VERIFIED AT SITE BEFORE EXECUTION. DISCEPANCIES SHALL BE BROUGHT TO THE NOTICE OF THE ENGINEER FOR REVISION IN DRAWINGS, IF ANY.
4. CHAINAGE OF THE STRUCTURE IS AT THE CENTER LINE OF THE PROPOSED STRUCTURE.
5. THE REINFORCEMENT SHALL BE HYSD BARS OF GRADE DESIGNATION Fe 500D CONFORMING TO IS 1786–2008.
6. CONCRETE SHALL BE DESIGN MIX WITH A MINIMUM 28 DAYS CHARACTERISTIC CUBE STRENGTH FOR DIFFERENT ELEMENTS AS FOLLOWS:

a. RCC DECK SLAB	M40
b. RCC ABUT. & ABUT. CAP	M35
c. RCC CRASH BARRIER	M40
d. RCC APPROACH SLAB	M30
e. PCC LEVELING COURSE	M15

7. CLEAR COVER TO OUTER STEEL SHALL BE AS FOLLOWS:–

a. SUPERSTRUCTURE	40MM
b. RCC ABUT. STEM EARTH SIDE	75MM
c. RCC ABUT. OUTER SIDE	40MM
d. RCC ABUT. CAP	40MM
e. CRASH BARRIER	40MM

8. 65MM THICK WEARING COURSE COMPRISING OF BITUMINOUS CONCRETE 40MM THICK OVERLAID WITH 25MM THICK BITUMEN MASTIC ASPHALTIC SHALL BE PROVIDED AS PER SECTION 500 OF MORTH SPECIFICATION.
9. DRAINAGE SPOUT 100MM DIA SPACED 5000MM C/C SHALL BE PROVIDED IN SUPERSTRUCTURE.
10. CONDITION OF EXPOSURE IS SEVERE.
11. THIS STRUCTURE LIES IN SEISMIC ZONE IV.
12. THE STRUCTURE HAS BE DESIGNED FOR LIVE LOAD COMBINATIONS CONFORMING TO IRC: 6–2017 INCLUDING SPECIAL VEHICLE (SV) LOADING.
13. 600MM THICK FILTER MEDIA SHALL BE PROVIDED BEHIND SOLID ABUTMENT WALL & RETURN WALLS.
14. ALL SOLID WALLS RETAINING THE EARTH SHALL BE PROVIDED WITH WEEP HOLES (100MM DIA AND SLOPE 1V:20H) STARTING 150MM ABOVE THE GROUND LEVEL AND SPACED 1000MM C/C BOTH HORIZONTALLY AND VERTICALLY IN STAGGERED MANNER.

Technocrats Advisory Services Private Limited

Project Title:

Preparation of detailed project report of Padrauna bypass & completion of Preconstruction activities of 4L+PS /2L+PS work of NH-727 from km 0.000 to km 46.500 for the project National Highways in the state of Uttar Pradesh.

CLIENT:

सत्यमेव जयते

MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title: GENERAL ARRANGEMENT DRAWING OF MJB AT DESIGN CH-19+335

Drawing No. :- TASPL/MORTH/DPR/PB/MJB/GAD/101

Scale :- AS SHOWN

Drn	Dgn.	Appd	Sheet :
Deepak	S.B.Pandey	S.K.Upadhyay	05 OF 05

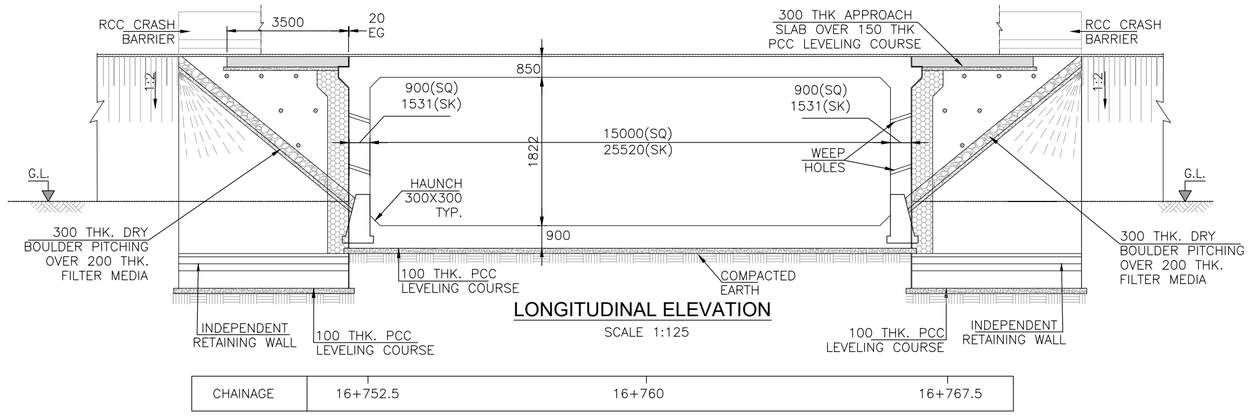
CONSULTANT

TASPL

Technocrats Advisory Services Pvt. Ltd.
68, Ajanta Apartments, 36, I.P.Extension
Patparganj Delhi-110092

GENERAL ARRANGEMENT DRAWING

{MINOR BRIDGE}



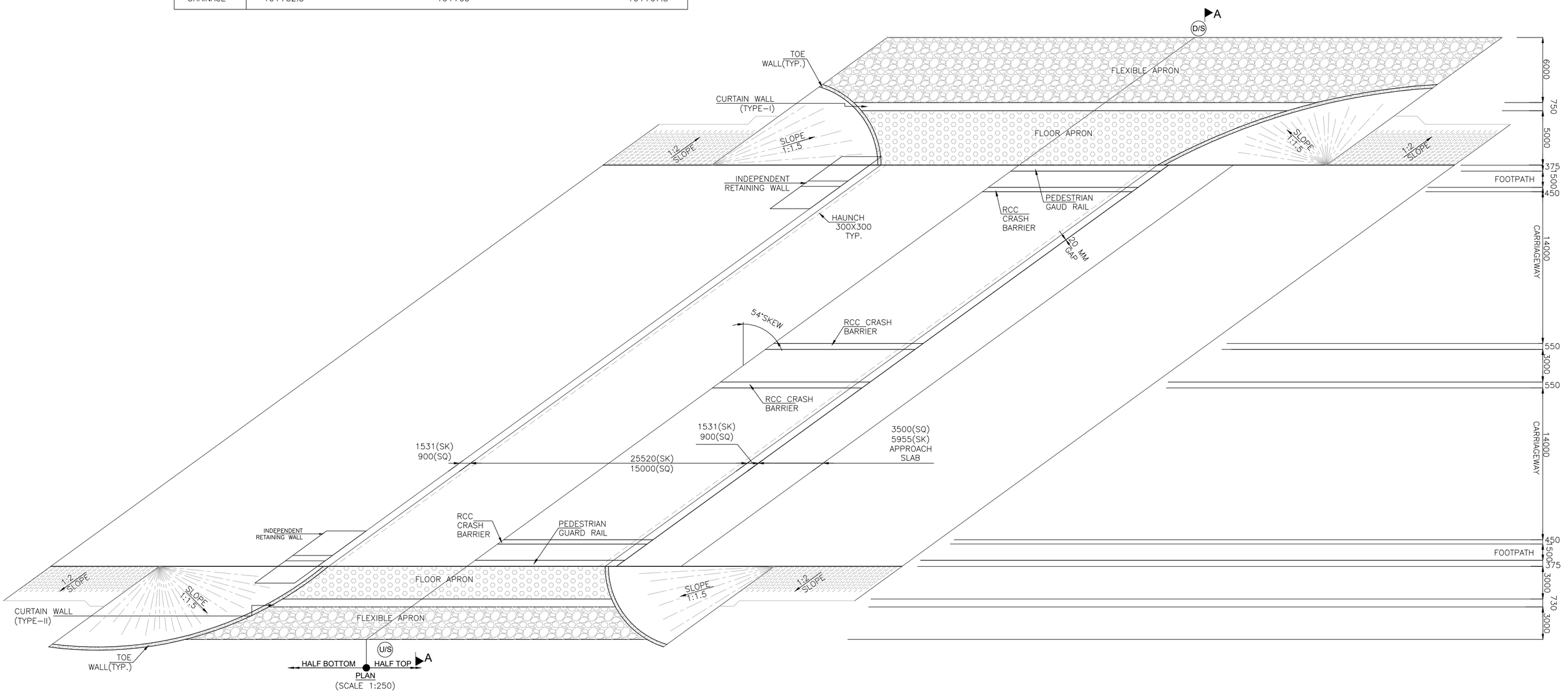
LONGITUDINAL ELEVATION

SCALE 1:125

CHAINAGE	16+752.5	16+760	16+767.5

SCHEDULE OF BOX MINOR BRIDGE :-

S.No.	DESIGN CH.	SKEW	PROPOSAL	PROPOSED STRUCTURE	PROPOSED SPAN (NOS. x L)	TOP SLAB (T.S)	BOTTOM SLAB (B.S)	SIDE WALL (S.W)	FRL	INVERT LEVEL I.L	GROUND LEVEL (GL)	SBC t/m^2
1	16+760	54°	NEW CONSTRUCTION	MINOR BRIDGE	1x15m	850	900	900	90.062	87.325	87.625	10



Technocrats Advisory Services Private Limited Delhi

Project Title:

Preparation of detailed project report of Padrauna bypass & completion of Preconstruction activities of 4L+PS /2L+PS work of NH-727 from km 0.000 to km 46.500 for the project National Highways in the state of Uttar Pradesh.

CLIENT:

सत्यमेव जयते

MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title: GENERAL ARRANGEMENT DRAWING OF BOX MNB AT DESIGN CH-16+760

Drawing No. :- TASPL/MORTH/DPR/PB/MNB/GAD/101

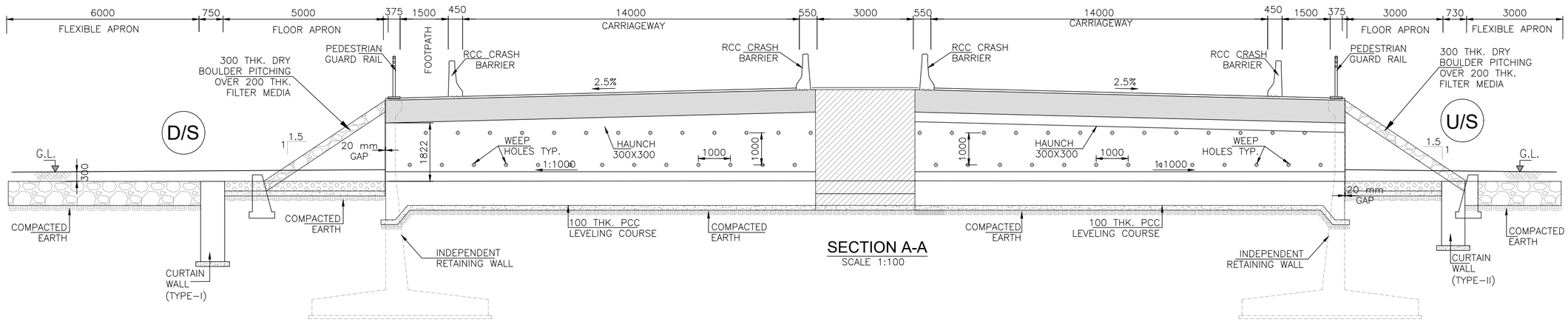
Scale :- AS SHOWN

Drn	Dgn.	Appd	Sheet :
Deepak	S.B.Pandey	S.K.Upadhyay	01 OF 02

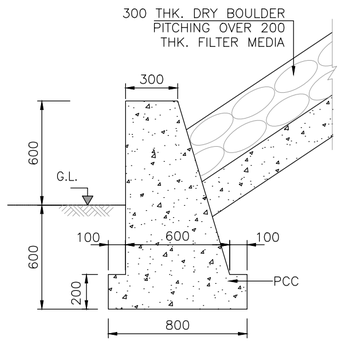
CONSULTANT

TASPL

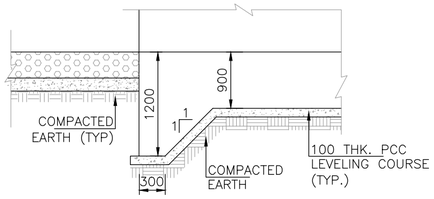
Technocrats Advisory Services Pvt. Ltd.
68, Ajanta Apartments, 36, I.P.Extension
Patparganj Delhi-110092



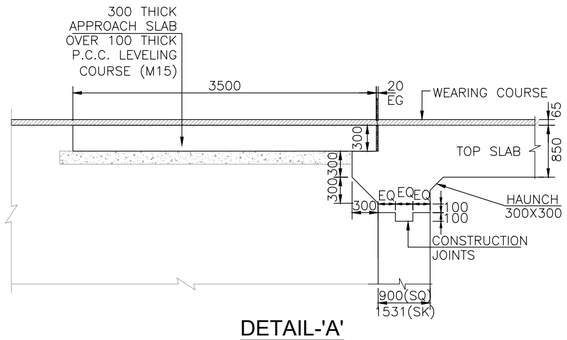
SECTION A-A
SCALE 1:100



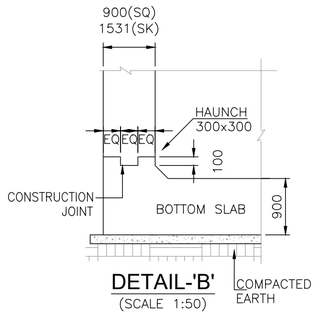
TYPICAL DETAIL OF TOE WALL
SCALE 1:25



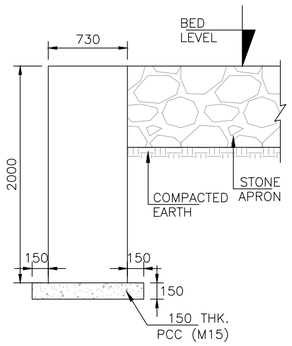
DETAIL-'C'
(SCALE 1:50)



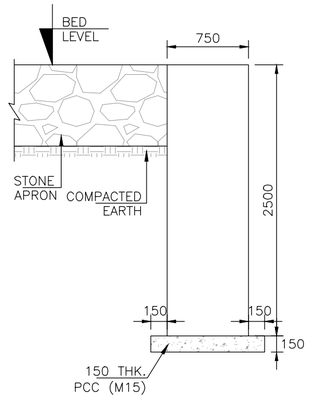
DETAIL-'A'
(SCALE 1:50)



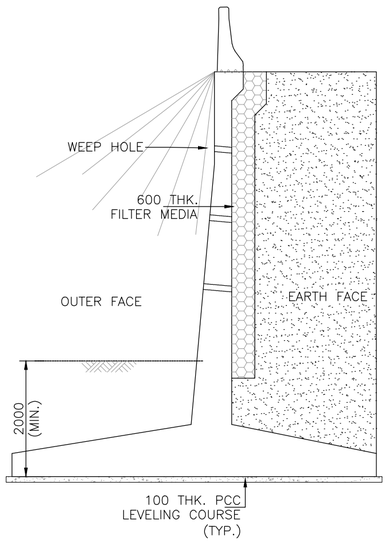
DETAIL-'B'
(SCALE 1:50)



TYPICAL CROSS SECTION OF PCC CURTAIN WALL TYPE-II
(UP STREAM SIDE)
(SCALE: 1:40)



TYPICAL CROSS SECTION OF PCC CURTAIN WALL TYPE-I
(DOWN STREAM SIDE)
(SCALE: 1:40)



TYPICAL SECTION OF RCC INDEPENDENT RETAINING WALL FOR (A1)
(REFER SEPARATE DRAWING)
(SCALE 1:75)

NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETERS, LEVELS ARE IN METERS UNLESS OTHERWISE MENTIONED.
2. NO DIMENSION SHALL BE MEASURED FROM THE DRAWINGS. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
3. THE DRAWING SHALL BE READ IN CONJUNCTION WITH RELEVANT HIGHWAY PLAN AND PROFILE DRAWINGS. FRL, BED LEVEL, CAMBER/SUPERELEVATION AND LAYOUT SHALL ALSO BE VERIFIED AT SITE BEFORE EXECUTION. DISCEPANCIES SHALL BE BROUGHT TO THE NOTICE OF THE ENGINEER FOR REVISION IN DRAWINGS, IF ANY.
4. CHAINAGE OF THE STRUCTURE IS AT THE CENTER LINE OF THE PROPOSED STRUCTURE.
5. THE REINFORCEMENT SHALL BE HYSD BARS OF GRADE DESIGNATION Fe 500D CONFORMING TO IS 1786–2008.
6. CONCRETE SHALL BE DESIGN MIX WITH A MINIMUM 28 DAYS CHARACTERISTIC CUBE STRENGTH FOR DIFFERENT ELEMENTS AS FOLLOWS:
   a. RCC BOX STRUCTURE – M35
   b. PCC LEVELING COURSE – M15
   c. CRASH BARRIER – M40
   d. APPROACH SLAB –M30
7. CLEAR COVER TO OUTER STEEL SHALL BE AS FOLLOWS:–
   a. SUPERSTRUCTURE 40MM
   b. VERTICAL FACE IN CONTACT WITH EARTH 75MM
   c. VERTICAL FACE NOT IN CONTACT WITH EARTH 50MM
   d. FOUNDATION 75MM
8. BACK FILLING BEHIND WALLS/ABUTMENT SHALL CONSISTS OF SELECTED EARTH CONFORMING TO APPENDIX 6 OF IRC:78–2014 HAVING PROPERTIES C=0, ø>=30°, γ=2.0t/cu.m.
9. FORMATION LEVEL SHOWN IS AT CENTER.
10. THE STRUCTURE HAS BE DESIGNED FOR LIVE LOAD COMBINATIONS CONFORMING TO IRC: 6–2017.
11. THE TOP OF BOTTOM RAFT SHALL BE KEPT MIN. 300MM BELOW LOWEST BED LEVEL.
12. ALL SOLID WALLS RETAINING THE EARTH SHALL BE PROVIDED WITH WEEP HOLES (100MM DIA AND SLOPE 1V:20H) STARTING 150MM ABOVE THE GROUND LEVEL AND SPACED 1000MM C/C BOTH HORIZONTALLY AND VERTICALLY IN STAGGERED MANNER.
13. 600MM THICK FILTER MEDIA SHALL BE PROVIDED BEHIND SOLID ABUTMENT WALL & RETURN WALL.
14. CONDITION OF EXPOSURE IS MODERATE.
15. ROAD FURNITURE SHALL BE PROVIDED AS PER HIGHWAY DRAWINGS.
16. THE STRUCTURE LIES IN SEISMIC ZONE–IV.

ABBREVIATION:-

℄	–	CENTER LINE
FRL	–	FINISHED ROAD LEVEL
GL	–	GROUND LEVEL
THK	–	THICKNESS
U/S	–	UPSTREAM
D/S	–	DOWNSTREAM
HFL	–	HIGHEST FLOOD LEVEL
IL	–	INVERT LEVEL
EG	–	EXPANSION GAP
FP	–	FOOTPATH
ES	–	EARTHEN SHOULDER

Technocrats Advisory Services Private Limited ★ Delhi

Project Title:

Preparation of detailed project report of Padrauna bypass & completion of Preconstruction activities of 4L+PS /2L+PS work of NH-727 from km 0.000 to km 46.500 for the project National Highways in the state of Uttar Pradesh.

CLIENT:

सत्यमेव जयते

MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title: GENERAL ARRANGEMENT DRAWING OF BOX MNB AT DESIGN CH-16+760

Drawing No. :- TASPL/MORTH/DPR/PB/MNB/GAD/101

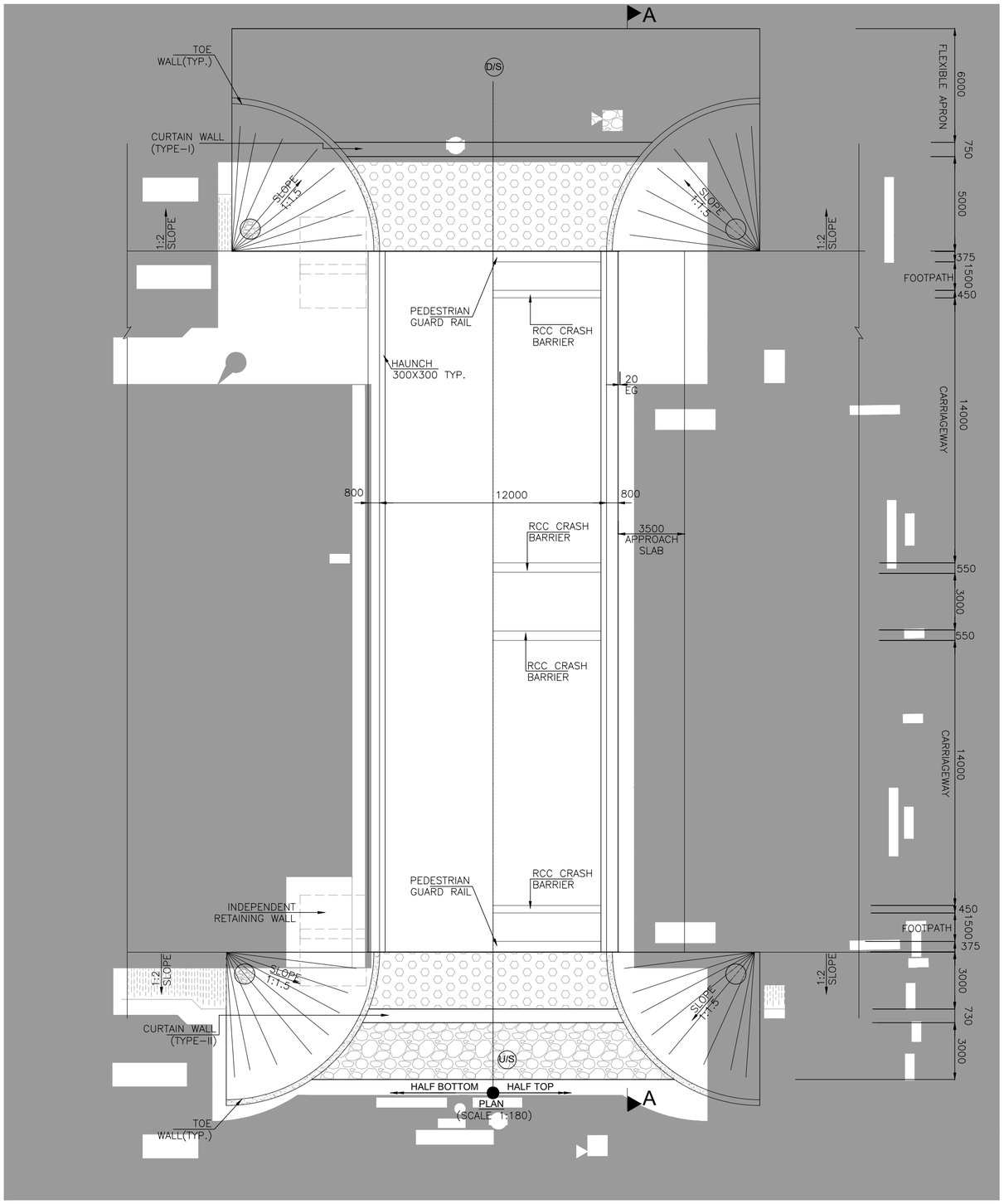
Scale :- AS SHOWN

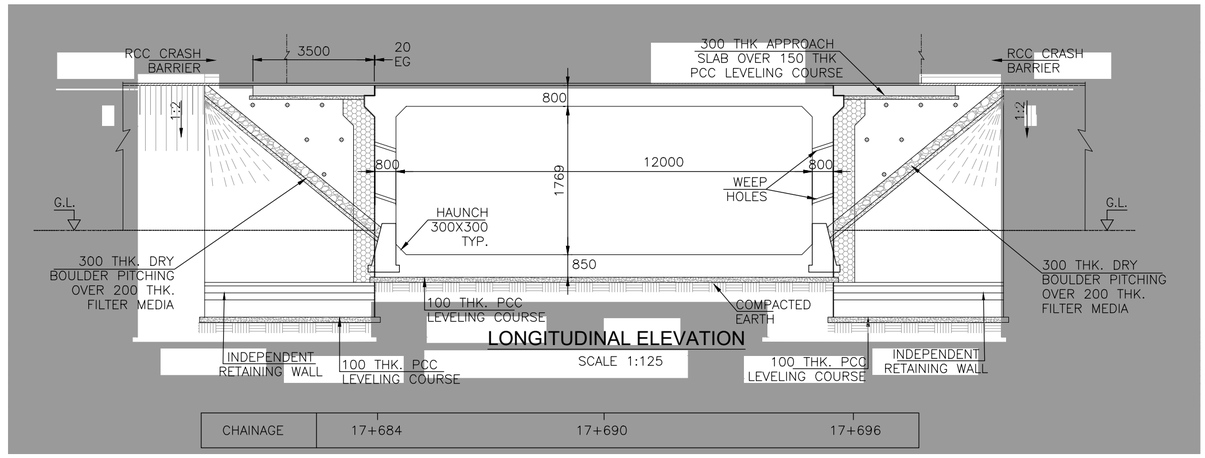
Drn	Dgn.	Appd	Sheet :
Deepak	S.B.Pandey	S.K.Upadhyay	02 OF 02

CONSULTANT

TASPL

Technocrats Advisory Services Pvt. Ltd.
68, Ajanta Apartments, 36, I.P.Extension
Patparganj Delhi-110092





LONGITUDINAL ELEVATION

SCALE 1:125

NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETERS, LEVELS ARE IN METERS UNLESS OTHERWISE MENTIONED.
2. NO DIMENSION SHALL BE MEASURED FROM THE DRAWINGS. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
3. THE DRAWING SHALL BE READ IN CONJUNCTION WITH RELEVANT HIGHWAY PLAN AND PROFILE DRAWINGS. FRL, BED LEVEL, CAMBER/SUPERELEVATION AND LAYOUT SHALL ALSO BE VERIFIED AT SITE BEFORE EXECUTION. DISCEPANCIES SHALL BE BROUGHT TO THE NOTICE OF THE ENGINEER FOR REVISION IN DRAWINGS, IF ANY.
4. CHAINAGE OF THE STRUCTURE IS AT THE CENTER LINE OF THE PROPOSED STRUCTURE.
5. THE REINFORCEMENT SHALL BE HYSD BARS OF GRADE DESIGNATION Fe 500D CONFORMING TO IS 1786-2008.
6. CONCRETE SHALL BE DESIGN MIX WITH A MINIMUM 28 DAYS CHARACTERISTIC CUBE STRENGTH FOR DIFFERENT ELEMENTS AS FOLLOWS:
   a. RCC BOX STRUCTURE – M35
   b. PCC LEVELING COURSE – M15
   c. CRASH BARRIER – M40
   d. APPROACH SLAB –M30
7. CLEAR COVER TO OUTER STEEL SHALL BE AS FOLLOWS:-
   a. SUPERSTRUCTURE 40MM
   b. VERTICAL FACE IN CONTACT WITH EARTH 75MM
   c. VERTICAL FACE NOT IN CONTACT WITH EARTH 50MM
   d. FOUNDATION 75MM
8. BACK FILLING BEHIND WALLS/ABUTMENT SHALL CONSISTS OF SELECTED EARTH CONFORMING TO APPENDIX 6 OF IRC:78-2014 HAVING PROPERTIES C=0, ø>=30°, γ=2.0t/cu.m.
9. FORMATION LEVEL SHOWN IS AT CENTER.
10. THE STRUCTURE HAS BE DESIGNED FOR LIVE LOAD COMBINATIONS CONFORMING TO IRC: 6-2017.
11. THE TOP OF BOTTOM RAFT SHALL BE KEPT MIN. 300MM BELOW LOWEST BED LEVEL.
12. ALL SOLID WALLS RETAINING THE EARTH SHALL BE PROVIDED WITH WEEP HOLES (100MM DIA AND SLOPE 1V:20H) STARTING 150MM ABOVE THE GROUND LEVEL AND SPACED 1000MM C/C BOTH HORIZONTALLY AND VERTICALLY IN STAGGERED MANNER.
13. 600MM THICK FILTER MEDIA SHALL BE PROVIDED BEHIND SOLID ABUTMENT WALL & RETURN WALL.
14. CONDITION OF EXPOSURE IS MODERATE.
15. ROAD FURNITURE SHALL BE PROVIDED AS PER HIGHWAY DRAWINGS.
16. THE STRUCTURE LIES IN SEISMIC ZONE-IV.

LEGEND:-

℄ – CENTER LINE
FRL – FINISHED ROAD LEVEL
GL – GROUND LEVEL
THK – THICKNESS
U/S – UPSTREAM
D/S – DOWNSTREAM
HFL – HIGHEST FLOOD LEVEL
IL – INVERT LEVEL
EG – EXPANSION GAP
FP – FOOTPATH
ES – EARTHEN SHOULDER

SCHEDULE OF BOX MINOR BRIDGE :-

S.No.	DESIGN CH.	SKEW	PROPOSAL	PROPOSED STRUCTURE	PROPOSED SPAN (NOS. x L)	TOP SLAB (T.S)	BOTTOM SLAB (B.S)	SIDE WALL (S.W)	FRL	INVERT LEVEL I.L	GROUND LEVEL (GL)	SBC t/m²
1	17+690	0°	NEW CONSTRUCTION	MINOR BRIDGE	1x12m	800	850	800	89.567	86.933	87.233	10

Technocrats Advisory Services Private Limited Delhi

Project Title:

Preparation of detailed project report of Padrauna bypass & completion of Preconstruction activities of 4L+PS /2L+PS work of NH-727 from km 0.000 to km 46.500 for the project National Highways in the state of Uttar Pradesh.

CLIENT:

सत्यमेव जयते

MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title: GENERAL ARRANGEMENT DRAWING OF BOX MNB AT DESIGN CH-17+690

Drawing No. :- TASPL/MORTH/DPR/PB/MNB/GAD/101

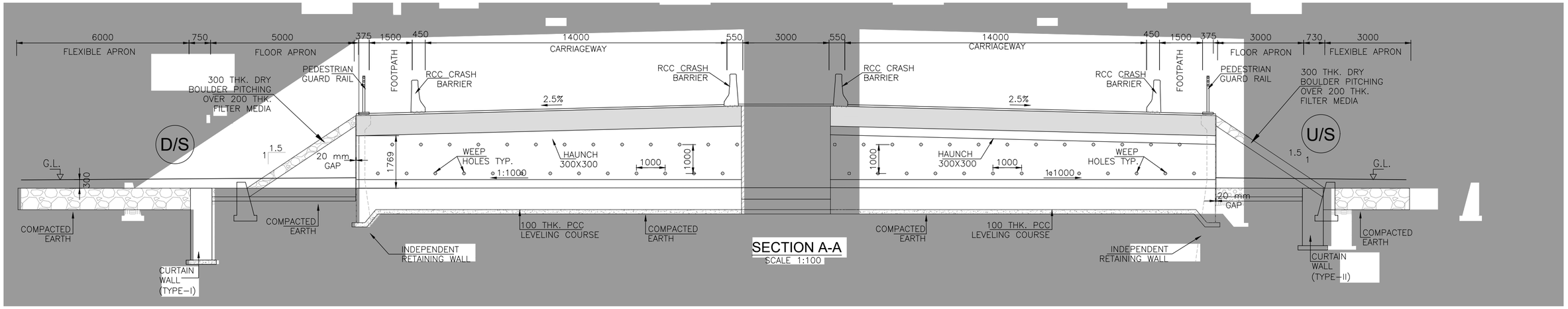
Scale :- AS SHOWN

Drn	Dgn.	Appd	Sheet :
Deepak	S.B.Pandey	S.K.Upadhyay	01 OF 02

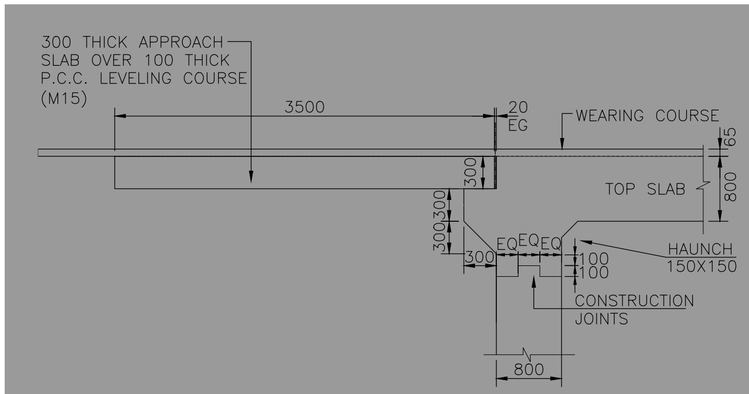
CONSULTANT

TASPL

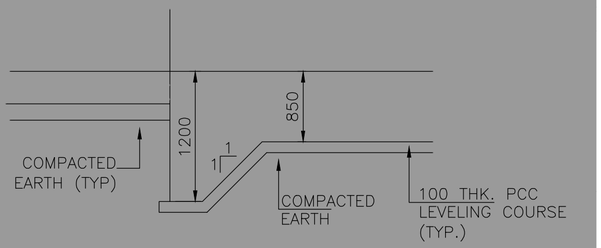
Technocrats Advisory Services Pvt. Ltd.
68, Ajanta Apartments, 36, I.P.Extension
Patparganj Delhi-110092



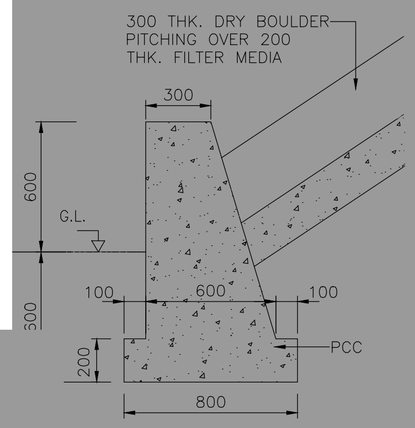
SECTION A-A
SCALE 1:100



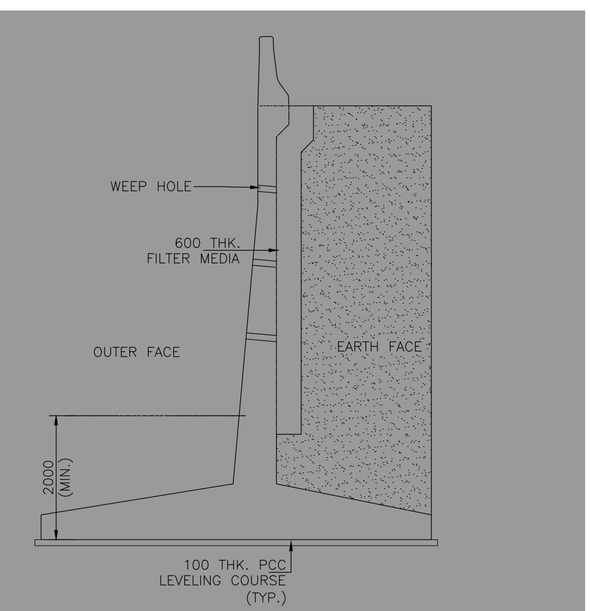
DETAIL-'A'
(SCALE 1:50)



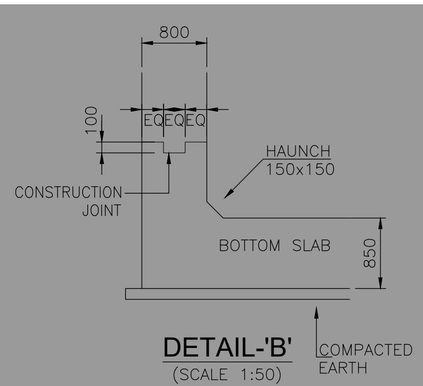
DETAIL-'C'
(SCALE 1:50)



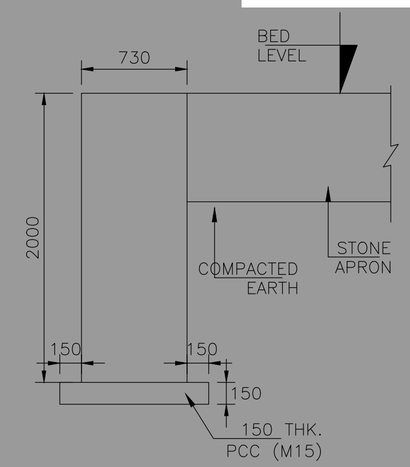
TYPICAL DETAIL OF TOE WALL
SCALE 1:25



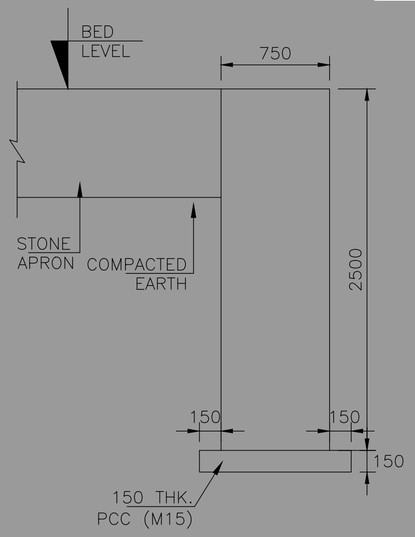
TYPICAL SECTION OF RCC INDEPENDENT RETAINING WALL FOR (A1)
(REFER SEPARATE DRAWING)
(SCALE 1:75)



DETAIL-'B'
(SCALE 1:50)



TYPICAL CROSS SECTION OF PCC CURTAIN WALL TYPE-II
(UP STREAM SIDE)
(SCALE: 1:40)



TYPICAL CROSS SECTION OF PCC CURTAIN WALL TYPE-I
(DOWN STREAM SIDE)
(SCALE: 1:40)

Project Title:

Preparation of detailed project report of Padrauna bypass & completion of Preconstruction activities of 4L+PS /2L+PS work of NH-727 from km 0.000 to km 46.500 for the project National Highways in the state of Uttar Pradesh.

CLIENT:

MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title: GENERAL ARRANGEMENT DRAWING OF BOX MNB AT DESIGN CH-17+690

Drawing No. :- TASPL/MORTH/DPR/PB/MNB/GAD/101

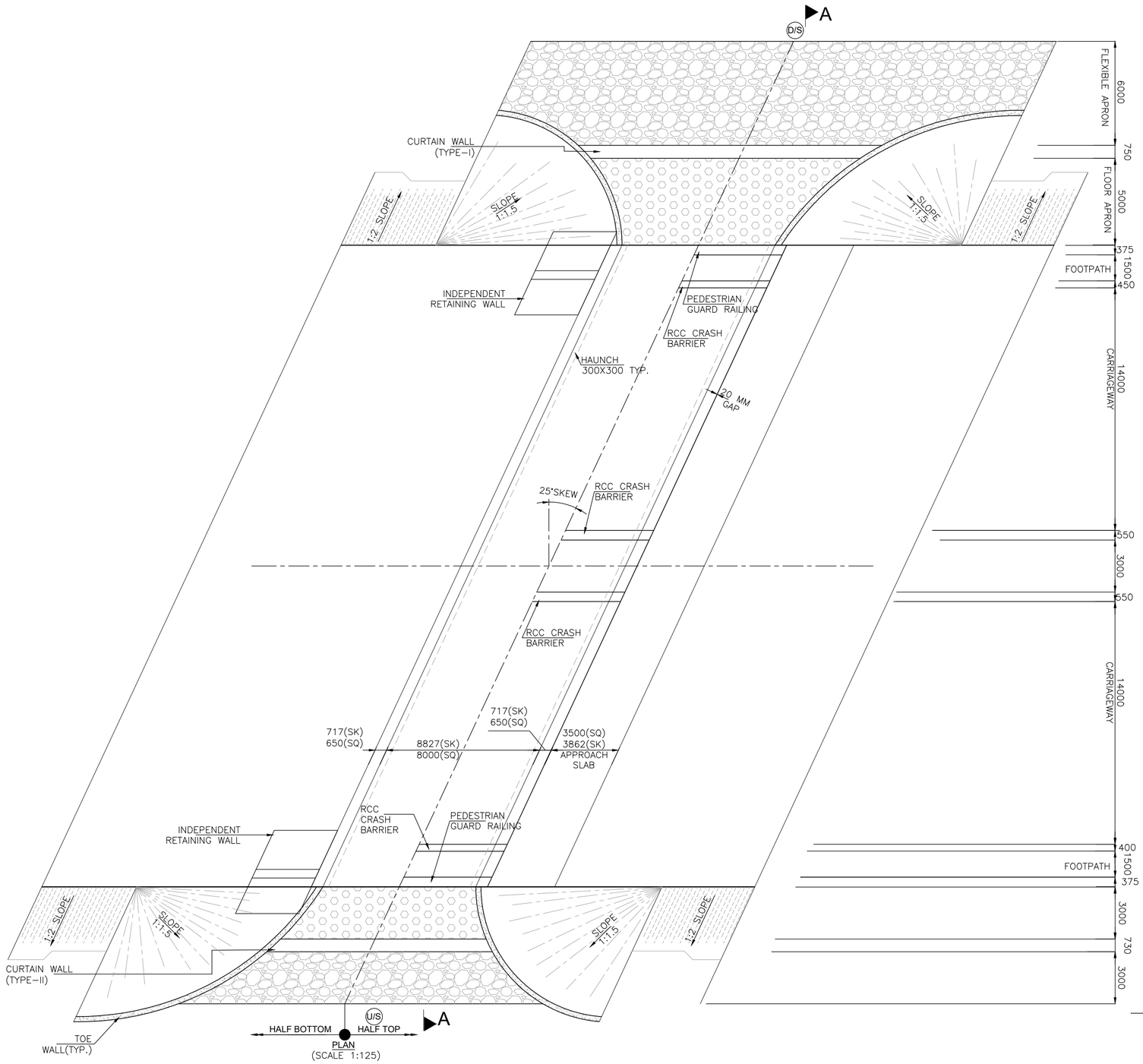
Scale :- AS SHOWN

Drn	Dgn.	Appd	Sheet :
Deepak	S.B.Pandey	S.K.Upadhyay	02 OF 02

CONSULTANT

TASPL

Technocrats Advisory Services Pvt. Ltd.
68, Ajanta Apartments, 36, I.P.Extension
Patparganj Delhi-110092



NOTES:-

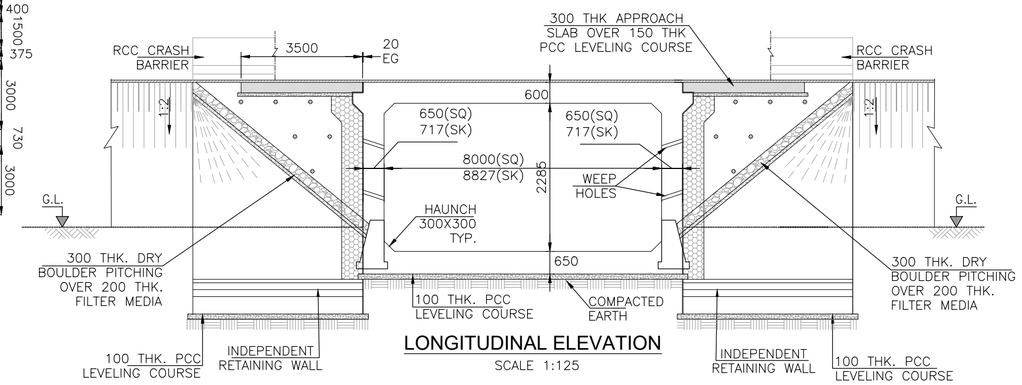
1. ALL DIMENSIONS ARE IN MILLIMETERS, LEVELS ARE IN METERS UNLESS OTHERWISE MENTIONED.
2. NO DIMENSION SHALL BE MEASURED FROM THE DRAWINGS. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
3. THE DRAWING SHALL BE READ IN CONJUNCTION WITH RELEVANT HIGHWAY PLAN AND PROFILE DRAWINGS. FRL, BED LEVEL, CAMBER/SUPERELEVATION AND LAYOUT SHALL ALSO BE VERIFIED AT SITE BEFORE EXECUTION. DISCEPANCIES SHALL BE BROUGHT TO THE NOTICE OF THE ENGINEER FOR REVISION IN DRAWINGS, IF ANY.
4. CHAINAGE OF THE STRUCTURE IS AT THE CENTER LINE OF THE PROPOSED STRUCTURE.
5. THE REINFORCEMENT SHALL BE HYSD BARS OF GRADE DESIGNATION Fe 500D CONFORMING TO IS 1786–2008.
6. CONCRETE SHALL BE DESIGN MIX WITH A MINIMUM 28 DAYS CHARACTERISTIC CUBE STRENGTH FOR DIFFERENT ELEMENTS AS FOLLOWS:
   a. RCC BOX STRUCTURE – M35
   b. PCC LEVELING COURSE – M15
   c. CRASH BARRIER – M40
   d. APPROACH SLAB –M30
7. CLEAR COVER TO OUTER STEEL SHALL BE AS FOLLOWS:–
   a. SUPERSTRUCTURE 40MM
   b. VERTICAL FACE IN CONTACT WITH EARTH 75MM
   c. VERTICAL FACE NOT IN CONTACT WITH EARTH 50MM
   d. FOUNDATION 75MM
8. BACK FILLING BEHIND WALLS/ABUTMENT SHALL CONSISTS OF SELECTED EARTH CONFORMING TO APPENDIX 6 OF IRC:78–2014 HAVING PROPERTIES C=0, ϕ>=30°, γ=2.0t/cu.m.
9. FORMATION LEVEL SHOWN IS AT CENTER.
10. THE STRUCTURE HAS BE DESIGNED FOR LIVE LOAD COMBINATIONS CONFORMING TO IRC: 6–2017.
11. THE TOP OF BOTTOM RAFT SHALL BE KEPT MIN. 300MM BELOW LOWEST BED LEVEL.
12. ALL SOLID WALLS RETAINING THE EARTH SHALL BE PROVIDED WITH WEEP HOLES (100MM DIA AND SLOPE 1V:20H) STARTING 150MM ABOVE THE GROUND LEVEL AND SPACED 1000MM C/C BOTH HORIZONTALLY AND VERTICALLY IN STAGGERED MANNER.
13. 600MM THICK FILTER MEDIA SHALL BE PROVIDED BEHIND SOLID ABUTMENT WALL & RETURN WALL.
14. CONDITION OF EXPOSURE IS MODERATE.
15. ROAD FURNITURE SHALL BE PROVIDED AS PER HIGHWAY DRAWINGS.
16. THE STRUCTURE LIES IN SEISMIC ZONE–III.

LEGEND:-

℄	–	CENTER LINE
FRL	–	FINISHED ROAD LEVEL
GL	–	GROUND LEVEL
THK	–	THICKNESS
U/S	–	UPSTREAM
D/S	–	DOWNSTREAM
HFL	–	HIGHEST FLOOD LEVEL
IL	–	INVERT LEVEL
EG	–	EXPANSION GAP
FP	–	FOOTPATH
ES	–	EARTHEN SHOULDER

SCHEDULE OF BOX MINOR BRIDGE :-

S.No.	DESIGN CH.	SKEW	PROPOSAL	PROPOSED STRUCTURE	PROPOSED SPAN (NOS. x L)	TOP SLAB (T.S)	BOTTOM SLAB (B.S)	SIDE WALL (S.W)	FRL	INVERT LEVEL I.L	GROUND LEVEL (GL)	SBC t/m²
1	18+520	25°	NEW CONSTRUCTION	MINOR BRIDGE	1x8m	600	650	650	89.544	86.594	86.894	10



LONGITUDINAL ELEVATION
SCALE 1:125

CHAINAGE	18+516	18+520	18+524

Project Title:

Preparation of detailed project report of Padrauna bypass & completion of Preconstruction activities of 4L+PS /2L+PS work of NH-727 from km 0.000 to km 46.500 for the project National Highways in the state of Uttar Pradesh.

CLIENT:

सत्यमेव जयते

MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title: GENERAL ARRANGEMENT DRAWING OF BOX MNB AT DESIGN CH-18+520

Drawing No. :- TASPL/MORTH/DPR/PB/MNB/GAD/101

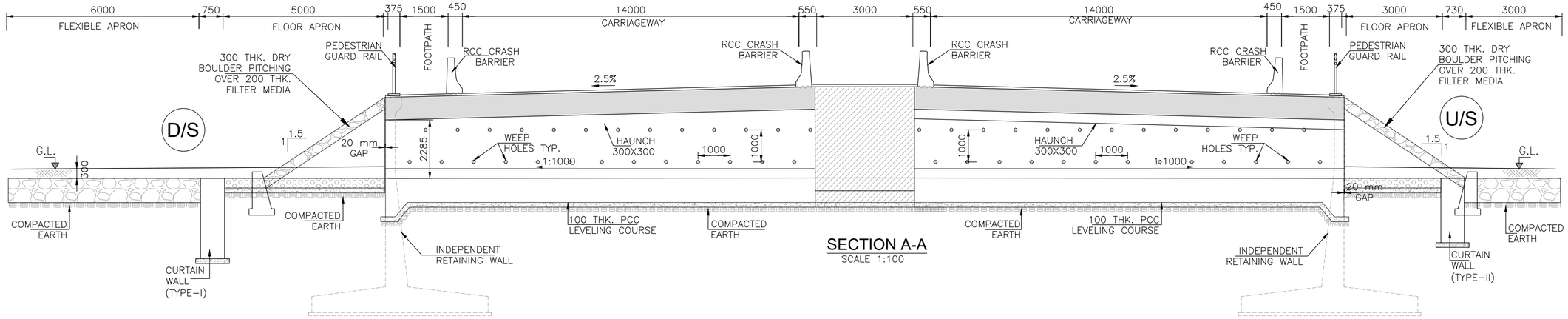
Scale :- AS SHOWN

Drn	Dgn.	Appd	Sheet :
Deepak	S.B.Pandey	S.K.Upadhyay	01 OF 02

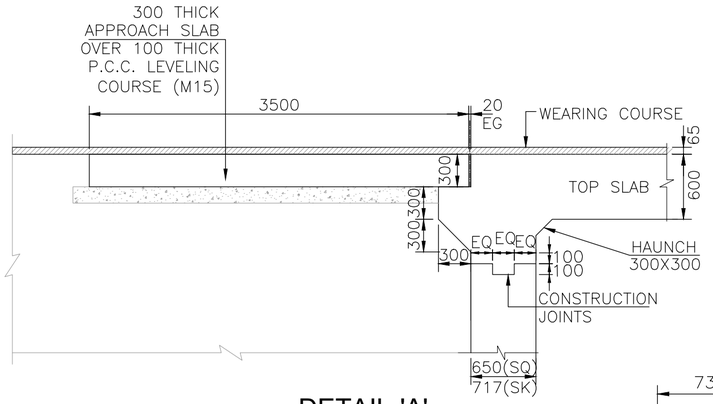
CONSULTANT

TASPL

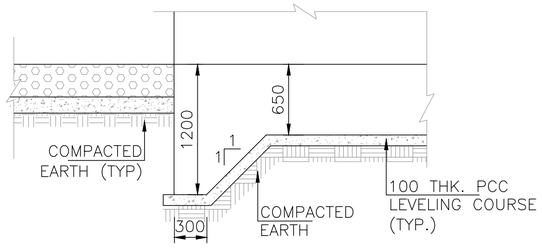
Technocrats Advisory Services Pvt. Ltd.
68, Ajanta Apartments, 36, I.P.Extension
Patparganj Delhi-110092



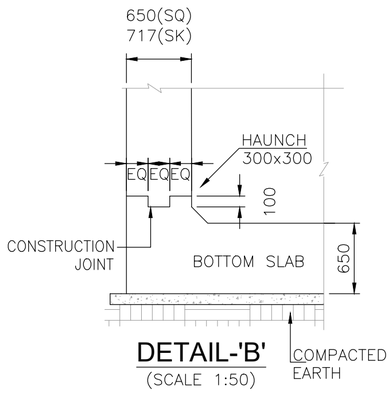
SECTION A-A
SCALE 1:100



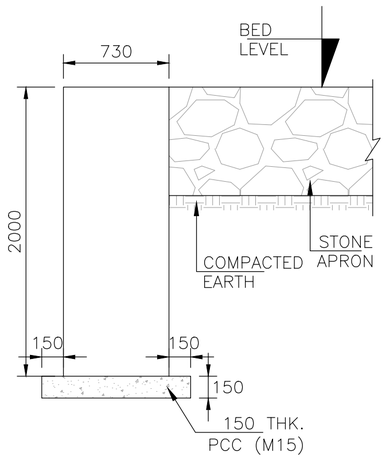
DETAIL-'A'
(SCALE 1:50)



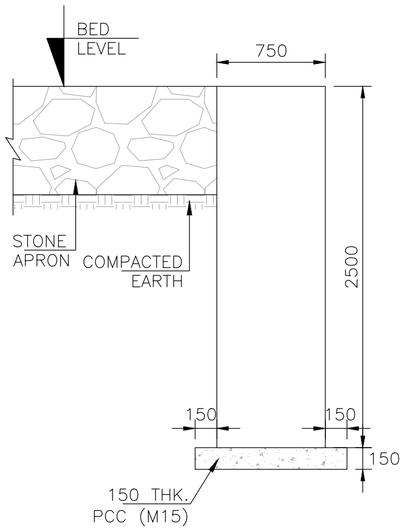
DETAIL-'C'
(SCALE 1:50)



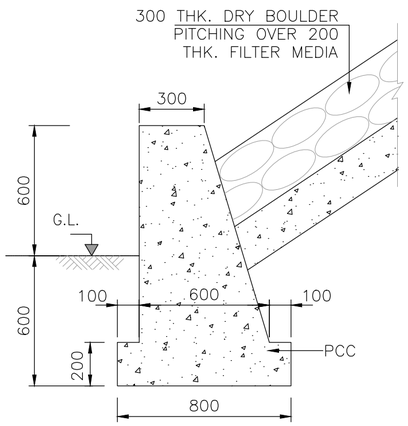
DETAIL-'B'
(SCALE 1:50)



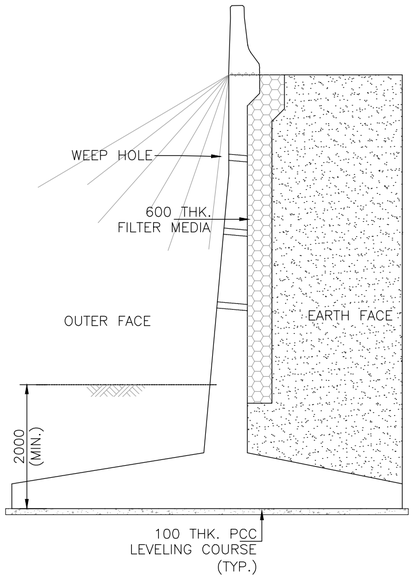
TYPICAL CROSS SECTION OF PCC CURTAIN WALL TYPE-II
(UP STREAM SIDE)
(SCALE: 1:40)



TYPICAL CROSS SECTION OF PCC CURTAIN WALL TYPE-I
(DOWN STREAM SIDE)
(SCALE: 1:40)



TYPICAL DETAIL OF TOE WALL
SCALE 1:25



TYPICAL SECTION OF RCC INDEPENDENT RETAINING WALL FOR (A1)
(REFER SEPARATE DRAWING)
(SCALE 1:75)

Project Title:

Preparation of detailed project report of Padrauna bypass & completion of Preconstruction activities of 4L+PS /2L+PS work of NH-727 from km 0.000 to km 46.500 for the project National Highways in the state of Uttar Pradesh.

CLIENT:

सत्यमेव जयते

MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title: GENERAL ARRANGEMENT DRAWING OF BOX MNB AT DESIGN CH-18+520

Drawing No. :- TASPL/MORTH/DPR/PB/MNB/GAD/101

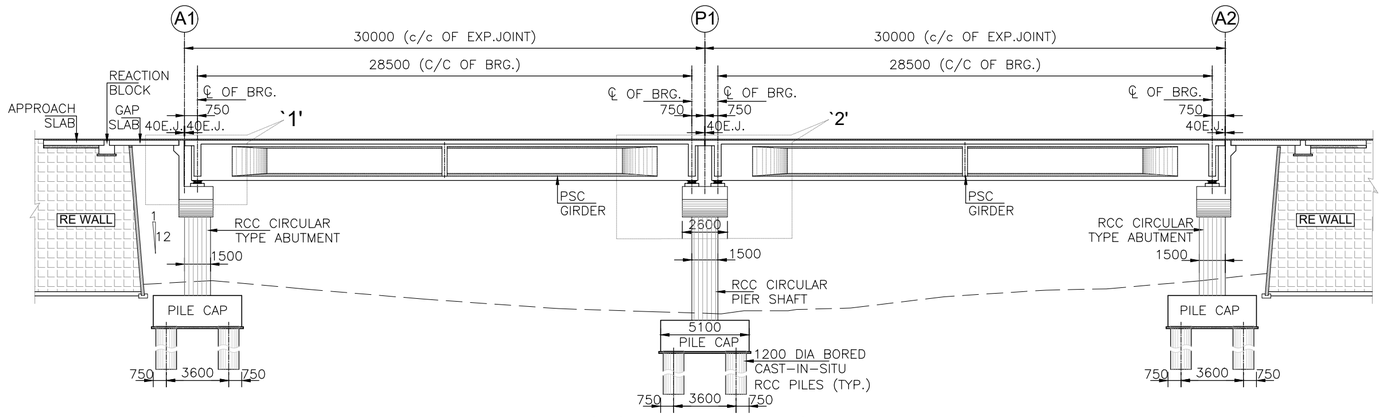
Scale :- AS SHOWN

Drn	Dgn.	Appd	Sheet :
Deepak	S.B.Pandey	S.K.Upadhyay	02 OF 02

CONSULTANT

TASPL

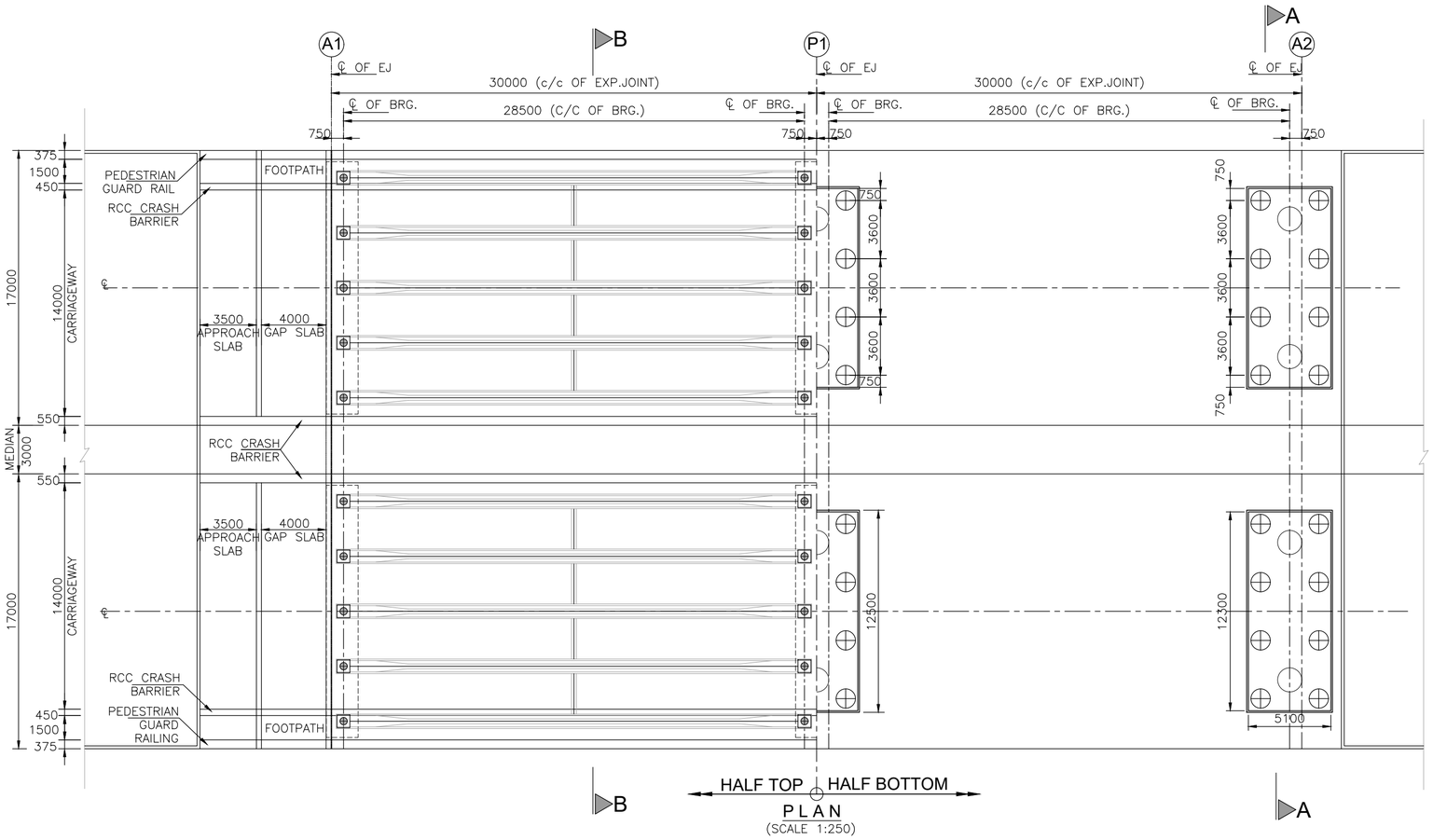
Technocrats Advisory Services Pvt. Ltd.
68, Ajanta Apartments, 36, I.P.Extension
Patparganj Delhi-110092



LONGITUDINAL ELEVATION

(SCALE 1:250)

FRL	97.930	97.930	97.930
GROUND LVL.	88.340	88.153	88.000
CHAINAGE	20+620	20+650	20+680



PLAN

(SCALE 1:250)

NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETERS, LEVELS ARE IN METERS UNLESS OTHERWISE MENTIONED.
2. NO DIMENSION SHALL BE MEASURED FROM THE DRAWINGS. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
3. THE DRAWING SHALL BE READ IN CONJUNCTION WITH RELEVANT HIGHWAY PLAN AND PROFILE DRAWINGS. FRL, BED LEVEL, CAMBER/SUPERELEVATION AND LAYOUT SHALL ALSO BE VERIFIED AT SITE BEFORE EXECUTION. DISCEPANCIES SHALL BE BROUGHT TO THE NOTICE OF THE ENGINEER FOR REVISION IN DRAWINGS, IF ANY.
4. CHAINAGE OF THE STRUCTURE IS AT THE CENTER LINE OF THE PROPOSED STRUCTURE.
5. THE REINFORCEMENT SHALL BE HYSD BARS OF GRADE DESIGNATION Fe 500D CONFORMING TO IS 1786–2008.
6. CONCRETE SHALL BE DESIGN MIX WITH A MINIMUM 28 DAYS CHARACTERISTIC CUBE STRENGTH FOR DIFFERENT ELEMENTS AS FOLLOWS:
   a. RCC DECK SLAB — M40
   b. RCC ABUT. & ABUT. CAP — M35
   c. RCC CRASH BARRIER — M40
   d. RCC APPROACH SLAB — M30
   e. PCC LEVELING COURSE — M15
7. CLEAR COVER TO OUTER STEEL SHALL BE AS FOLLOWS:–
   a. SUPERSTRUCTURE — 40MM
   b. RCC ABUT. STEM EARTH SIDE — 75MM
   c. RCC ABUT. OUTER SIDE — 40MM
   d. RCC ABUT. CAP — 40MM
   e. CRASH BARRIER — 40MM
8. 65MM THICK WEARING COURSE COMPRISING OF BITUMINOUS CONCRETE 40MM THICK OVERLAID WITH 25MM THICK BITUMEN MASTIC ASPHALTIC SHALL BE PROVIDED AS PER SECTION 500 OF MORTH SPECIFICATION.
9. DRAINAGE SPOUT 100MM DIA SPACED 5000MM C/C SHALL BE PROVIDED IN SUPERSTRUCTURE.
10. CONDITION OF EXPOSURE IS SEVERE.
11. THIS STRUCTURE LIES IN SEISMIC ZONE III.
12. THE STRUCTURE HAS BE DESIGNED FOR LIVE LOAD COMBINATIONS CONFORMING TO IRC: 6–2017 INCLUDING SPECIAL VEHICLE (SV) LOADING.

LEGEND:-

FRL	–	FINISHED ROAD LEVEL
GL.	–	GROUND LEVEL
LVL.	–	LEVEL
FDN	–	FOUNDATION.
EJ	–	EXPANSION JOINT
LBL	–	LOWEST BED LEVEL
HFL	–	HIGHEST FLOOD LEVEL
EG	–	EXPANSION GAP

Technocrats Advisory Services Private Limited

Project Title:

Preparation of detailed project report of Padrauna bypass & completion of Preconstruction activities of 4L+PS /2L+PS work of NH-727 from km 0.000 to km 46.500 for the project National Highways in the state of Uttar Pradesh.

CLIENT:

MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title: GENERAL ARRANGEMENT DRAWING OF GRADE SEPERATOR AT DESIGN CH-20+650

Drawing No. :- TASPL/MORTH/DPR/PB/GS/GAD/101

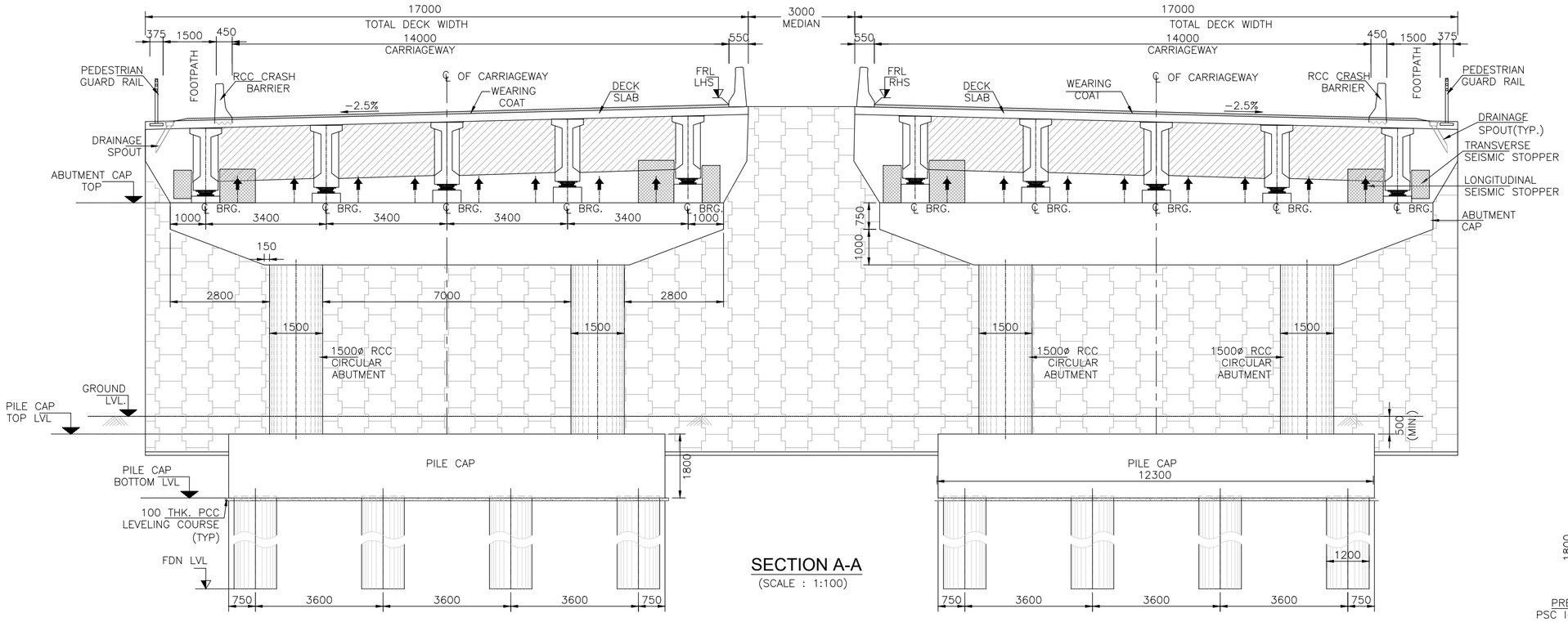
Scale :- AS SHOWN

Drn	Dgn.	Appd	Sheet :
Deepak	S.B.Pandey	S.K.Upadhyay	01 OF 02

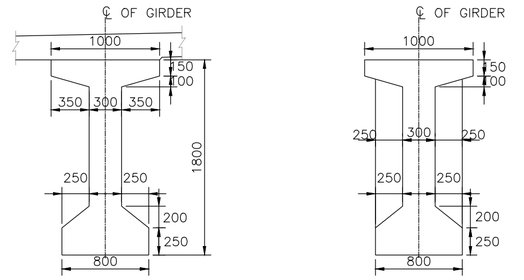
CONSULTANT

TASPL

Technocrats Advisory Services Pvt. Ltd.
68, Ajanta Apartments, 36, I.P.Extension
Patparganj Delhi-110092



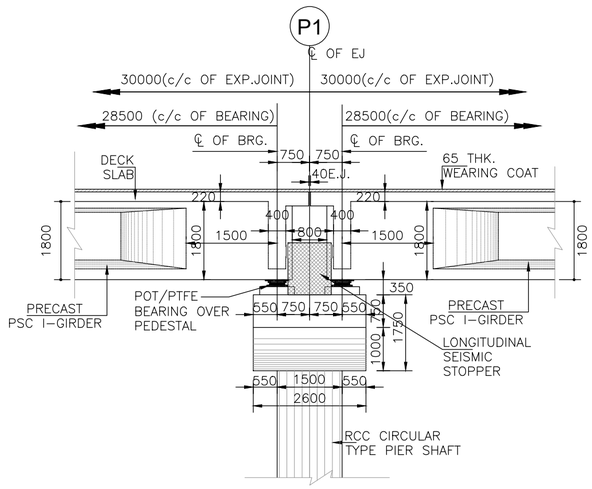
SECTION A-A
(SCALE : 1:100)



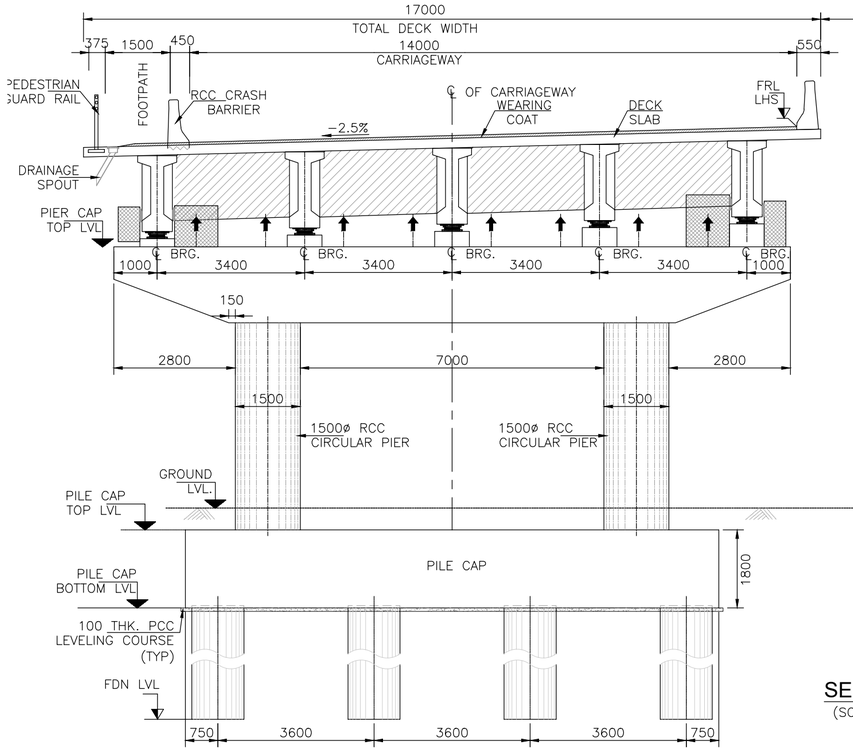
MID SECTION
(SCALE 1:40)

SUPPORT SECTION
(SCALE 1:40)

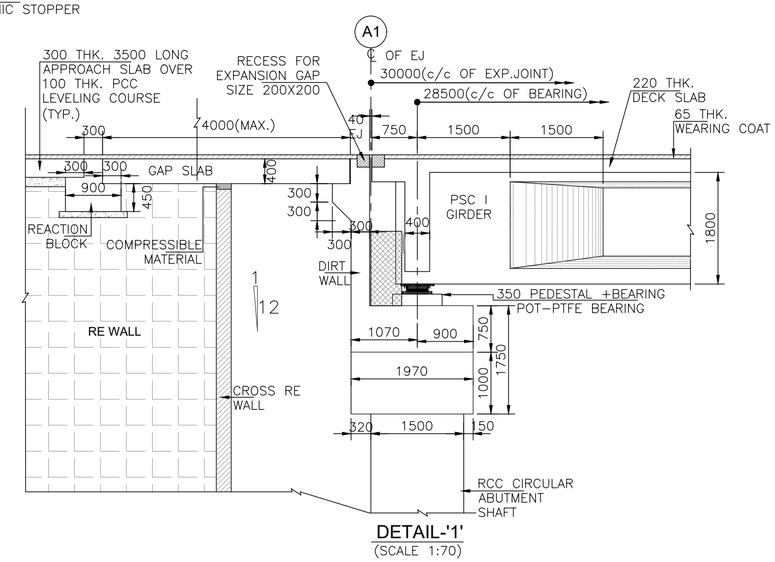
CROSS SECTION OF PSC PRECAST I-GIRDER



DETAIL-'2'
(SCALE 1:100)



SECTION B-B
(SCALE : 1:100)



DETAIL-'1'
(SCALE 1:70)

Project Title:

Preparation of detailed project report of Padrauna bypass & completion of Preconstruction activities of 4L+PS /2L+PS work of NH-727 from km 0.000 to km 46.500 for the project National Highways in the state of Uttar Pradesh.

CLIENT:

सत्यमेव जयते

MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:
GENERAL ARRANGEMENT DRAWING OF GRADE SEPERATOR AT DESIGN CH-20+650

Drawing No. :- TASPL/MORTH/DPR/PB/GS/GAD/101

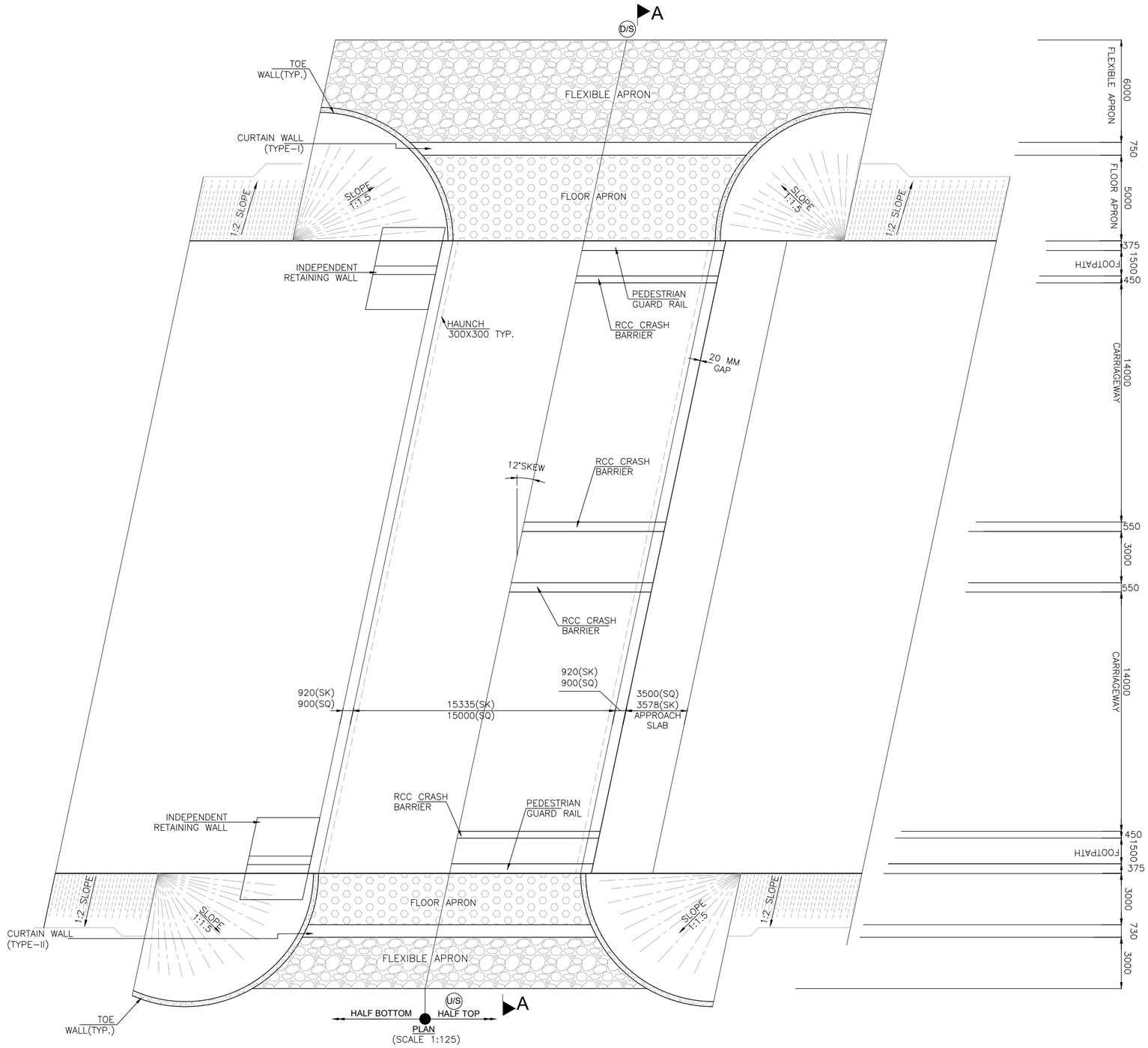
Scale :- AS SHOWN

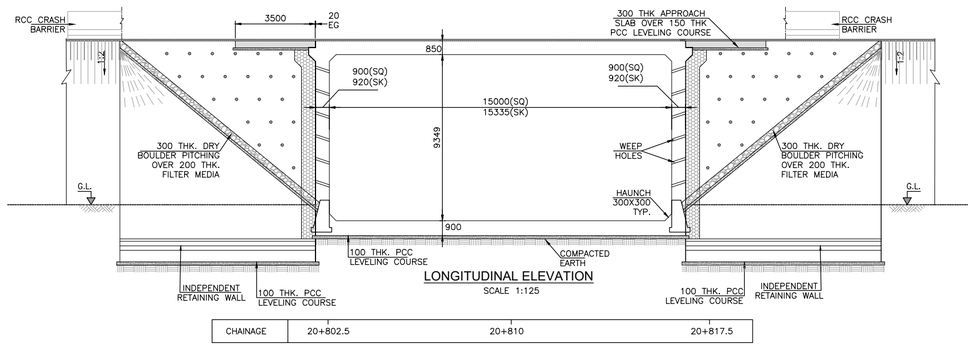
Drn	Dgn.	Appd	Sheet :
Deepak	S.B.Pandey	S.K.Upadhyay	02 OF 02

CONSULTANT

TASPL

Technocrats Advisory Services Pvt. Ltd.
68, Ajanta Apartments, 36, I.P.Extension
Patparganj Delhi-110092





LONGITUDINAL ELEVATION
SCALE 1:125

NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETERS, LEVELS ARE IN METERS UNLESS OTHERWISE MENTIONED.
2. NO DIMENSION SHALL BE MEASURED FROM THE DRAWINGS. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
3. THE DRAWING SHALL BE READ IN CONJUNCTION WITH RELEVANT HIGHWAY PLAN AND PROFILE DRAWINGS. FRL, BED LEVEL, CAMBER/SUPERELEVATION AND LAYOUT SHALL ALSO BE VERIFIED AT SITE BEFORE EXECUTION. DISCEPANCIES SHALL BE BROUGHT TO THE NOTICE OF THE ENGINEER FOR REVISION IN DRAWINGS, IF ANY.
4. CHAINAGE OF THE STRUCTURE IS AT THE CENTER LINE OF THE PROPOSED STRUCTURE.
5. THE REINFORCEMENT SHALL BE HYSD BARS OF GRADE DESIGNATION Fe 500D CONFORMING TO IS 1786–2008.
6. CONCRETE SHALL BE DESIGN MIX WITH A MINIMUM 28 DAYS CHARACTERISTIC CUBE STRENGTH FOR DIFFERENT ELEMENTS AS FOLLOWS:
   a. RCC BOX STRUCTURE – M35
   b. PCC LEVELING COURSE – M15
   c. CRASH BARRIER – M40
   d. APPROACH SLAB –M30
7. CLEAR COVER TO OUTER STEEL SHALL BE AS FOLLOWS:–
   a. SUPERSTRUCTURE 40MM
   b. VERTICAL FACE IN CONTACT WITH EARTH 75MM
   c. VERTICAL FACE NOT IN CONTACT WITH EARTH 50MM
   d. FOUNDATION 75MM
8. BACK FILLING BEHIND WALLS/ABUTMENT SHALL CONSISTS OF SELECTED EARTH CONFORMING TO APPENDIX 6 OF IRC:78–2014 HAVING PROPERTIES C=0, ø>=30°, γ=2.0t/cu.m.
9. FORMATION LEVEL SHOWN IS AT CENTER.
10. THE STRUCTURE HAS BE DESIGNED FOR LIVE LOAD COMBINATIONS CONFORMING TO IRC: 6–2017.
11. THE TOP OF BOTTOM RAFT SHALL BE KEPT MIN. 300MM BELOW LOWEST BED LEVEL.
12. ALL SOLID WALLS RETAINING THE EARTH SHALL BE PROVIDED WITH WEEP HOLES (100MM DIA AND SLOPE 1V:20H) STARTING 150MM ABOVE THE GROUND LEVEL AND SPACED 1000MM C/C BOTH HORIZONTALLY AND VERTICALLY IN STAGGERED MANNER.
13. 600MM THICK FILTER MEDIA SHALL BE PROVIDED BEHIND SOLID ABUTMENT WALL & RETURN WALL.
14. CONDITION OF EXPOSURE IS MODERATE.
15. ROAD FURNITURE SHALL BE PROVIDED AS PER HIGHWAY DRAWINGS.
16. THE STRUCTURE LIES IN SEISMIC ZONE–IV.

ABBREVIATION:-

℄ – CENTER LINE
FRL – FINISHED ROAD LEVEL
GL – GROUND LEVEL
THK – THICKNESS
U/S – UPSTREAM
D/S – DOWNSTREAM
HFL – HIGHEST FLOOD LEVEL
IL – INVERT LEVEL
EG – EXPANSION GAP
FP – FOOTPATH
ES – EARTHEN SHOULDER

SCHEDULE OF BOX MINOR BRIDGE :-

S.No.	DESIGN CH.	SKEW	PROPOSAL	PROPOSED STRUCTURE	PROPOSED SPAN (NOS. x L)	TOP SLAB (T.S)	BOTTOM SLAB (B.S)	SIDE WALL (S.W)	FRL	INVERT LEVEL I.L	GROUND LEVEL (GL)	SBC t/m^2
1	20+810	12°	NEW CONSTRUCTION	MINOR BRIDGE	1x15m	850	900	900	97.487	87.223	87.523	10

Technocrats Advisory Services Private Limited Delhi

Project Title:

Preparation of detailed project report of Padrauna bypass & completion of Preconstruction activities of 4L+PS /2L+PS work of NH-727 from km 0.000 to km 46.500 for the project National Highways in the state of Uttar Pradesh.

CLIENT:

MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title: GENERAL ARRANGEMENT DRAWING OF BOX MNB AT DESIGN CH-20+810

Drawing No. :- TASPL/MORTH/DPR/PB/MNB/GAD/101

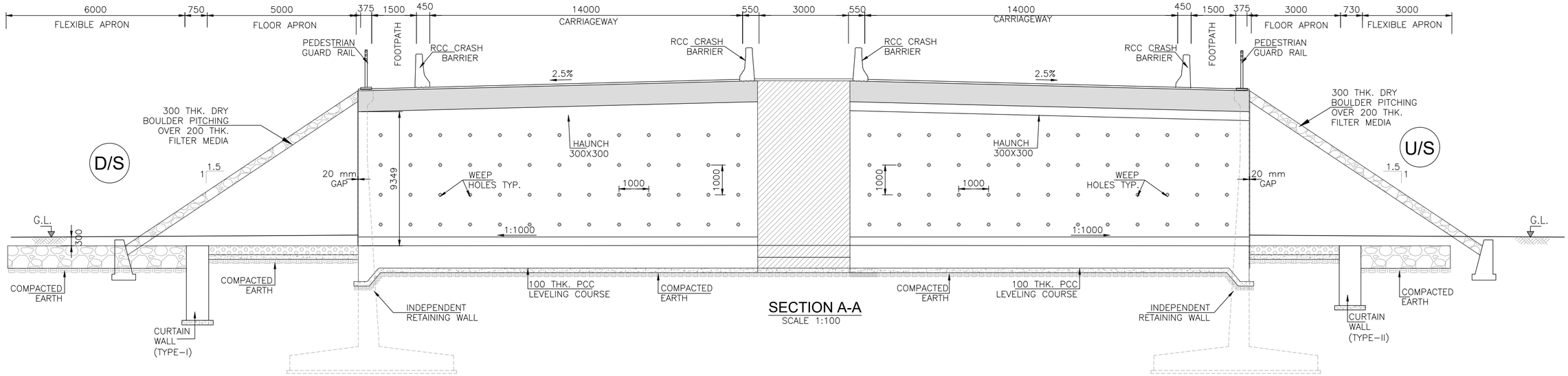
Scale :- AS SHOWN

Drn	Dgn.	Appd	Sheet :
Deepak	S.B.Pandey	S.K.Upadhyay	01 OF 02

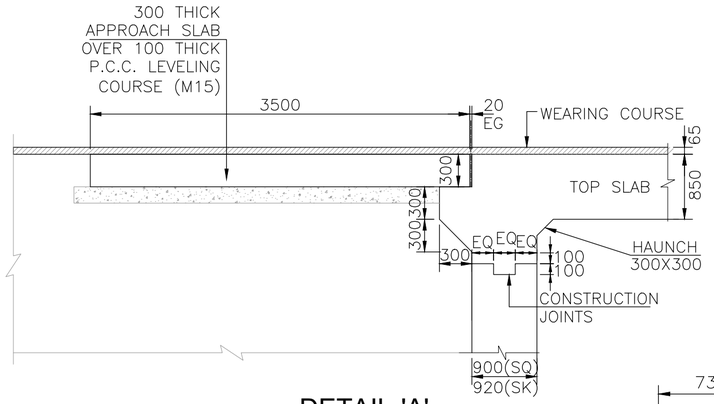
CONSULTANT

TASPL

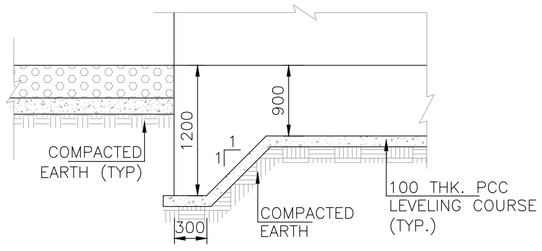
Technocrats Advisory Services Pvt. Ltd.
68, Ajanta Apartments, 36, I.P.Extension
Patparganj Delhi-110092



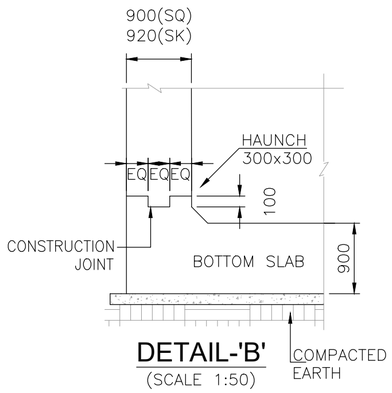
SECTION A-A
SCALE 1:100



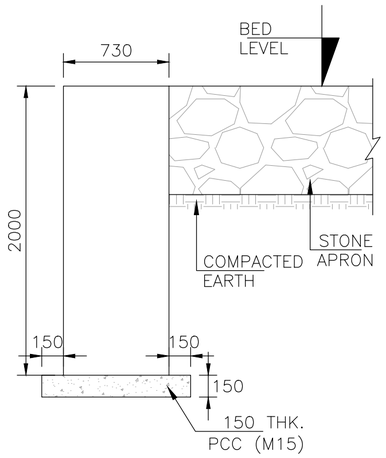
DETAIL-'A'
(SCALE 1:50)



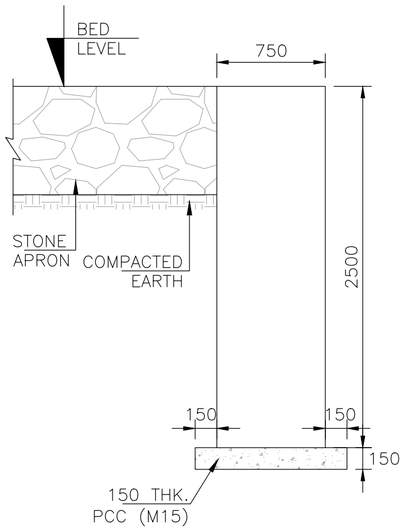
DETAIL-'C'
(SCALE 1:50)



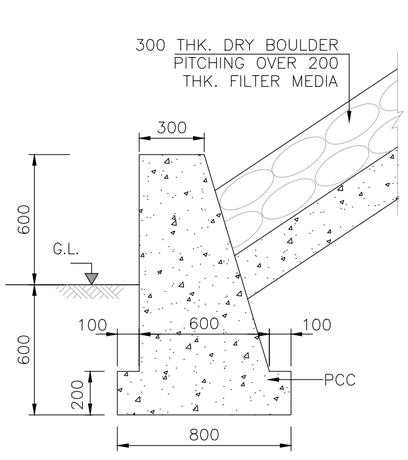
DETAIL-'B'
(SCALE 1:50)



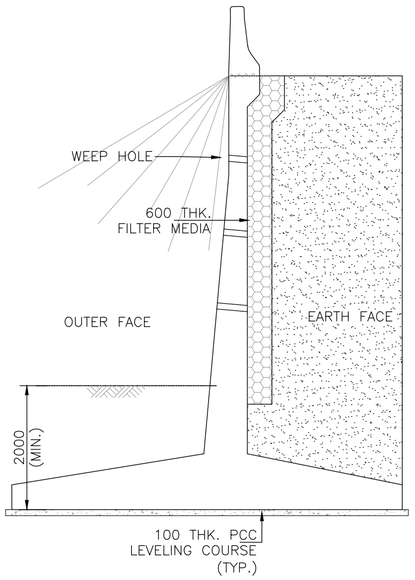
TYPICAL CROSS SECTION OF PCC CURTAIN WALL TYPE-II
(UP STREAM SIDE)
(SCALE: 1:40)



TYPICAL CROSS SECTION OF PCC CURTAIN WALL TYPE-I
(DOWN STREAM SIDE)
(SCALE: 1:40)



TYPICAL DETAIL OF TOE WALL
SCALE 1:25



TYPICAL SECTION OF RCC INDEPENDENT RETAINING WALL FOR (A1)
(REFER SEPARATE DRAWING)
(SCALE 1:75)

Project Title:

Preparation of detailed project report of Padrauna bypass & completion of Preconstruction activities of 4L+PS /2L+PS work of NH-727 from km 0.000 to km 46.500 for the project National Highways in the state of Uttar Pradesh.

CLIENT:

सत्यमेव जयते

MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title: GENERAL ARRANGEMENT DRAWING OF BOX MNB AT DESIGN CH-20+810

Drawing No. :- TASPL/MORTH/DPR/PB/MNB/GAD/101

Scale :- AS SHOWN

Drn	Dgn.	Appd	Sheet :
Deepak	S.B.Pandey	S.K.Upadhyay	02 OF 02

CONSULTANT

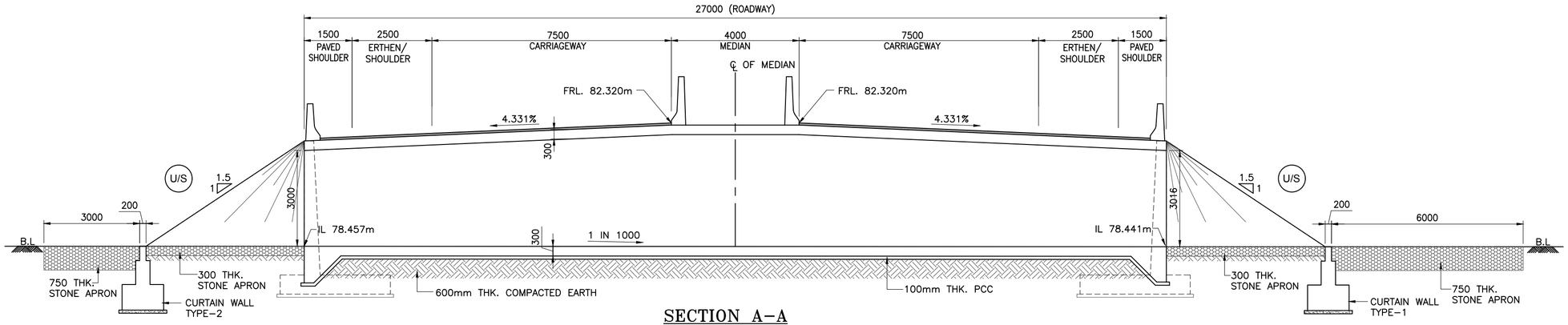
TASPL

Technocrats Advisory Services Pvt. Ltd.
68, Ajanta Apartments, 36, I.P.Extension
Patparganj Delhi-110092

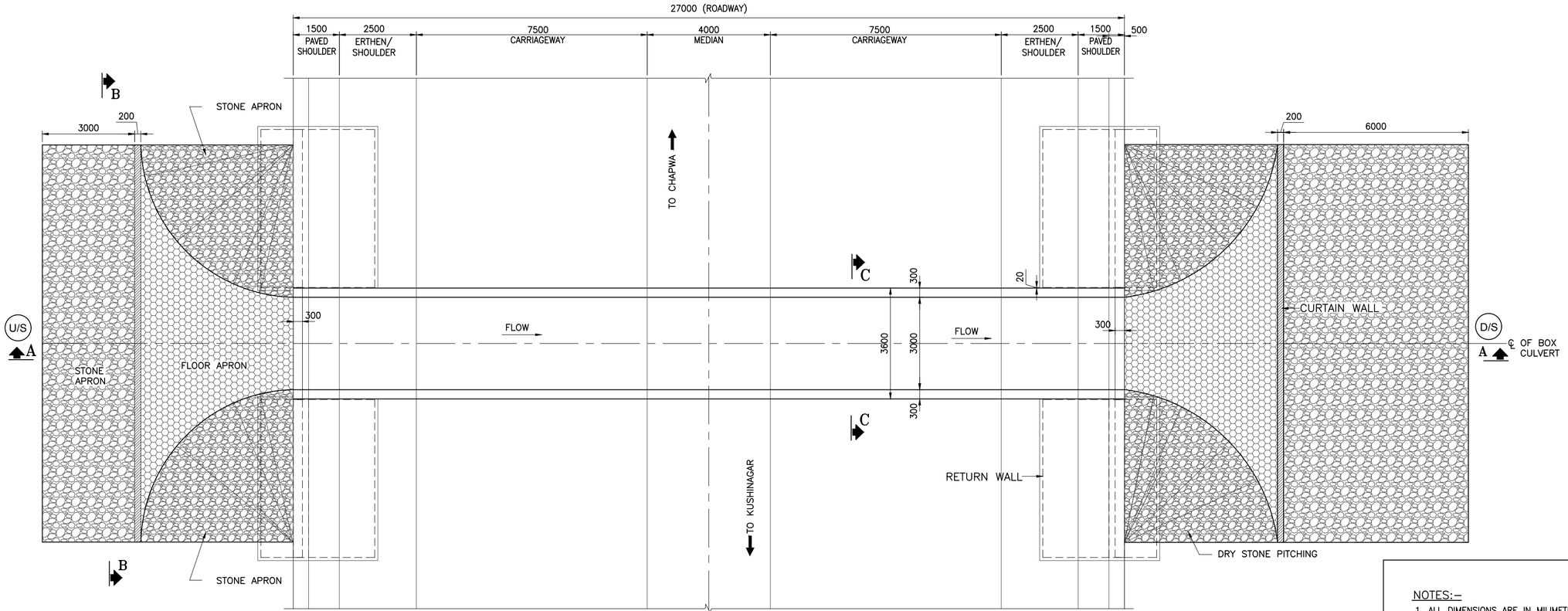
Bridge & Culvert

BRIDGE & CULVERT

SOWiL Limited



SECTION A-A
(SCALE 1:100)



PLAN
(SCALE 1:100)

LIST OF BOX CULVERT SINGLE CELL (1x2.0x 2.0M)

SR. NO.	EXISTING TYPE OF STRUCTURE	DESIGN CHAINAGE	EXISTING SPAN ARRANGEMENT /C-C DISTANCE	PROPOSED SPAN ARRANGEMENT	EXISTING CARRIAGEWAY WIDTH (m)	EXISTING WIDTH OF THE STRUCTURE (m)	TOTAL ROADWAY WIDTH	SKEW ANGLE	BARREL LENGTH(m)	PROPOSED CARRIAGEWAY				FILL		F.R.L.	INVERT LEVEL	REMARK
										MAIN CARRIAGEWAY (m)		SEVICE ROAD (m)						
										LHS	RHS	-	-	LHS	RHS			
1	ARCH / BOX	4+577	2X3.0/ 1X3.0	1x3.0x3.0m	10.8	11.5	-	0.0	27.0	7.5	7.5	-	-	0.0	0.0	82.320	78.457	RECONSTRUCTION

NOTES:-

1. ALL DIMENSIONS ARE IN MILIMETRES & LEVELS ARE IN METRE UNLESS OTERWISE MENTIONED.
2. REINFORCEMENT STEEL:Fe500 TMT BARS CONFIRMING TO IS:1786-2008.
3. GRADE OF CONCRETE AS FOLLOWS:-
   - BOX M-35
   - RETAINING WALL M-25
   - CURTAIN WALL M-15
   - LEVELING COURSE M-15
4. PROPOSED ROAD LEVEL WITH RESPECT TO EXISTING RTL ARE NOT TO SCALE.
5. LONGITUDINAL SLOPE OF BOX SHALL BE MINIMUM 1:1000.
6. BACKFILL MATERIAL BEHIND SIDE WALL OF BOX SHALL CONFIRM TO APPENDIX-6 OF IRC 78-2014 HAVING PROPERTIES α=0, ϕ=30°, Δ=20° AND γ=20 KN/m^3.
7. SEISMIC ZONE IV.

CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
Government of India

CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2
Plot No.- 1, Sector-40, Nerul (west),
Navi Mumbai-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for feasibility Study & preparation of Detail Project Report for Improvement & up- gradation of newly Declared National Highways including existing NH-91A, NH-92, NH-97 & NH-28B in The State of Uttar Pradesh- Pkg-I. Stretch from Kushinagar-Betwa.

Prepared by	DEVENDRA D.
Designed by	MOHIT G.
Checked by	RAVINDRA JOSHI
Approved by	RAVINDRA JOSHI

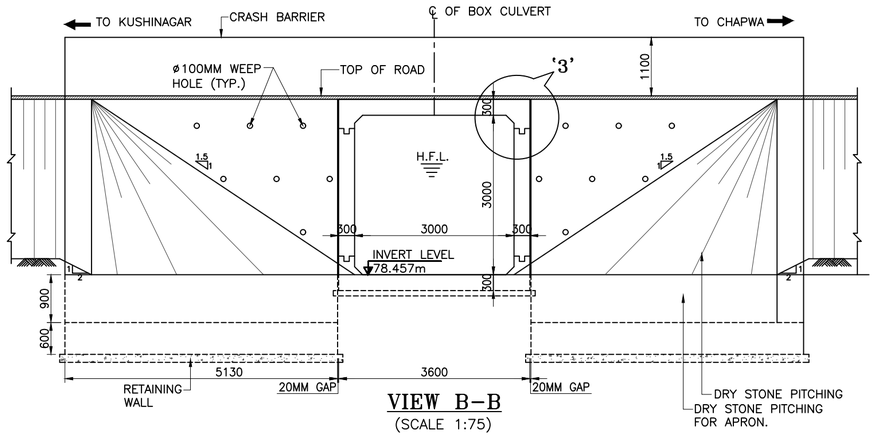
Revisions	Date	Description
R0	MAY. 2018	FOR APPROVAL
R1	APRIL . 2019	FOR APPROVAL
R2	MAY . 2023	FOR APPROVAL

TITLE : GENERAL ARRANGEMENT DRAWING OF BOX CULVERT FOR RECONSTRUCTION (1x3.0x3.0m)

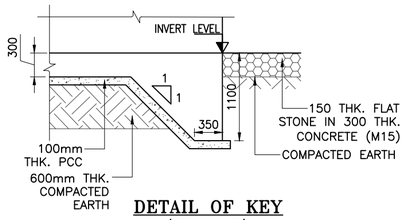
CHAINAGE : 4+577 | PURPOSE OF DRAWING: FOR APPROVAL

DWG NO. : SOWiL.KN-BT.Viii/BXCL/4+577/GA-04

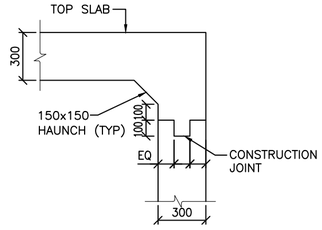
SCALE : AS SHOWN | DATE : APRIL . 2023 | SHEET NO : 01 OF 02 | REV : R2



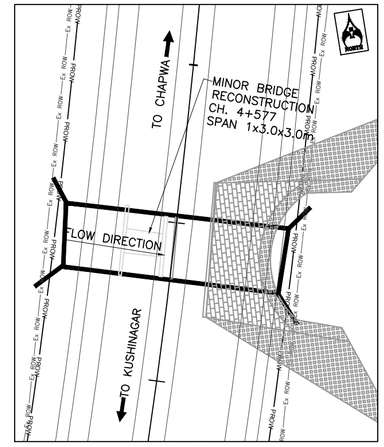
VIEW B–B
(SCALE 1:75)



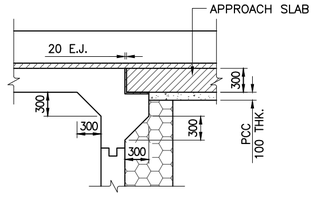
DETAIL OF KEY
(SCALE 1:50)



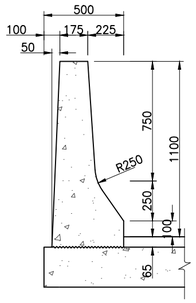
DETAIL–3
(SCALE 1:25)



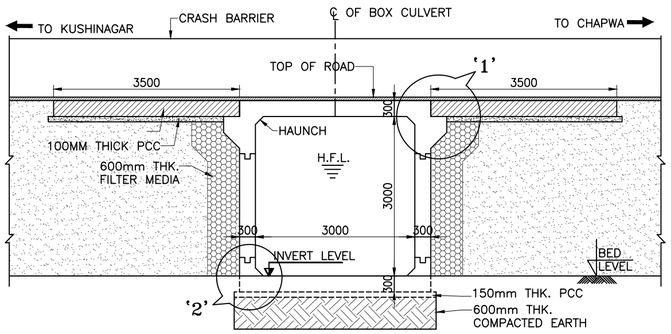
KEY PLAN
(NOT TO SCALE)



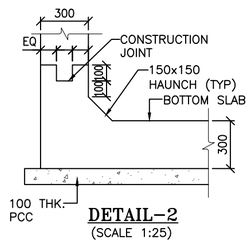
DETAIL–1
(SCALE 1:50)



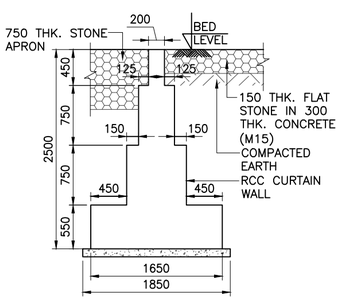
DETAILS OF CRASH BARRIER
(SCALE 1:25)



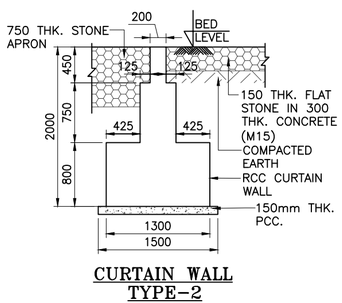
VIEW C–C
(SCALE 1:75)



DETAIL–2
(SCALE 1:25)

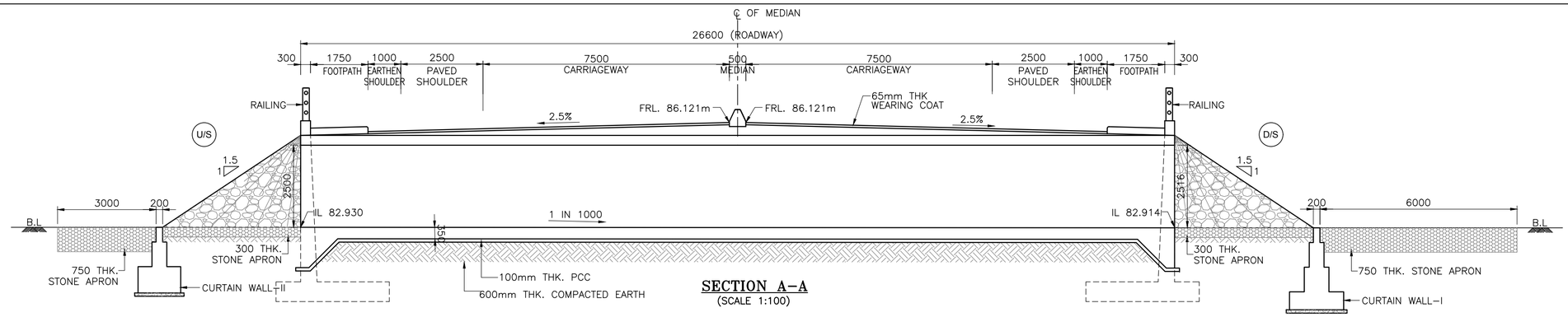


CURTAIN WALL TYPE–1
(SCALE 1:50)

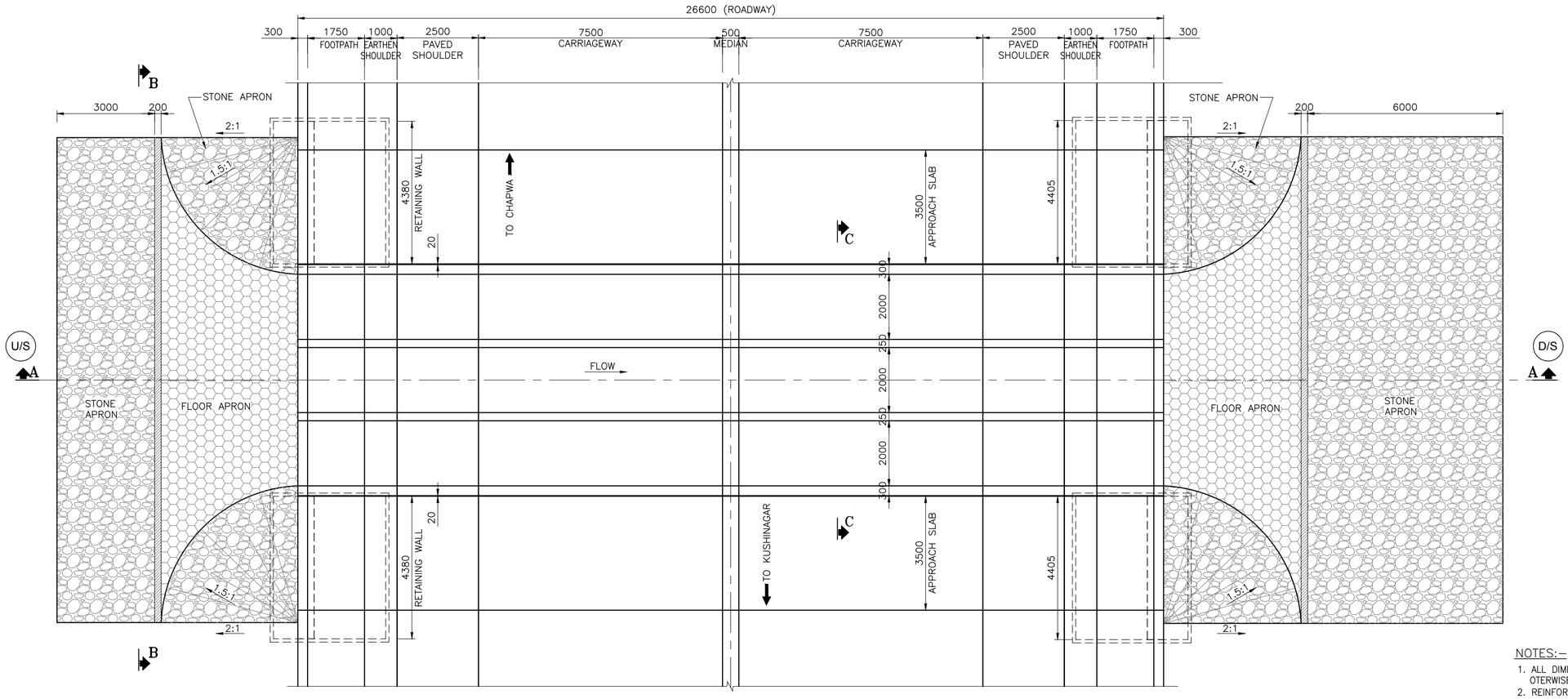


CURTAIN WALL TYPE–2
(SCALE 1:50)

CLIENT: सड़क परिवहन और राजमार्ग मंत्रालय MINISTRY OF ROAD TRANSPORT & HIGHWAYS Government of India	CONSULTANT: **SOWiL Limited** Goodwill Avenue,1st Floor,"A" Wing Office No.-2 Plot No.- 1, Sector-40, Nerul (west), Navi Mumbai-400706 Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259	PROJECT: Consultancy Services for feasibility Study & preparation of Detail Project Report for Improvement & up- gradation of newly Declared National Highways including existing NH-91A, NH-92, NH-97 & NH-28B in The State of Uttar Pradesh- Pkg-I. Stretch from Kushinagar-Betwa.	Prepared by: DEVENDRA D. Designed by: MOHIT G. Checked by: RAVINDRA JOSHI Approved by: RAVINDRA JOSHI	Revisions / Date / Description: R0 MAY. 2018 FOR APPROVAL R1 APRIL . 2019 FOR APPROVAL R2 MAY . 2023 FOR APPROVAL	TITLE : GENERAL ARRANGEMENT DRAWING OF BOX CULVERT FOR RECONSTRUCTION (1x3.0x3.0m) CHAINAGE : 4+577 — PURPOSE OF DRAWING: FOR APPROVAL DWG NO. : SOWiL.KN-BT.Viii/BXCL/4+577/GA-04 SCALE : AS SHOWN — DATE : APRIL . 2023 — SHEET NO : 02 OF 02 — REV : R2



SECTION A–A
(SCALE 1:100)



PLAN
(SCALE 1:100)

NOTES:–

1. ALL DIMENSIONS ARE IN MILIMETRES & LEVELS ARE IN METRE UNLESS OTERWISE MENTIONED.
2. REINFORCEMENT STEEL:Fe500 TMT BARS CONFIRMING TO IS:1786–2008.
3. GRADE OF CONCRETE AS FOLLOWS:–

BOX	M–35
RETAINING WALL	M–25
CURTAIN WALL	M–15
LEVELING COURSE	M–15

4. PROPOSED ROAD LEVEL WITH RESPECT TO EXISTING RTL ARE NOT TO SCALE.
5. LONGITUDINAL SLOPE OF BOX SHALL BE MINIMUM 1:1000.
6. BACKFILL MATERIAL BEHIND SIDE WALL OF BOX SHALL CONFIRM TO APPENDIX–6 OF IRC 78–2014 HAVING PROPERTIES α=0, ϕ=30°, Δ=20° AND γ=20 KN/m³.
7. SEISMIC ZONE IV.
8. SBC– 20kN/m^2
9. FOR RETAINING WALL REFER SEPARATE DRAWING.

CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार Government of India

CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2
Plot No.- 1, Sector-40, Nerul (west),
Navi Mumbai-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for feasibility Study & preparation of Detail Project Report for Improvement & up- gradation of newly Declared National Highways including existing NH-91A, NH-92, NH-97 & NH-28B in The State of Uttar Pradesh- Pkg-I. Stretch from Kushinagar-Betwa.

Prepared by	GANESH
Designed by	MOHIT G.
Checked by	RAVINDRA JOSHI
Approved by	RAVINDRA JOSHI

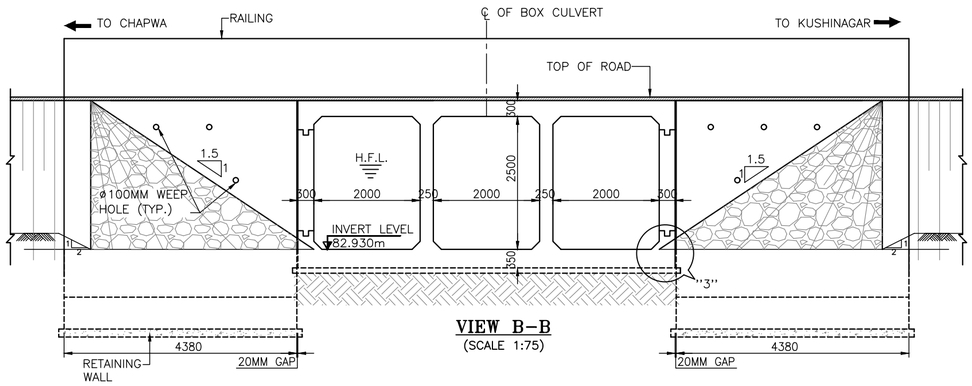
Revisions	Date	Description
R0	MAY. 2018	FOR APPROVAL
R1	APRIL . 2019	FOR APPROVAL
R2	MAY . 2023	FOR APPROVAL

TITLE :GENERAL ARRANGEMENT DRAWING OF BOX CULVERT FOR NEW PROPOSED.(3X2.0X2.5m)

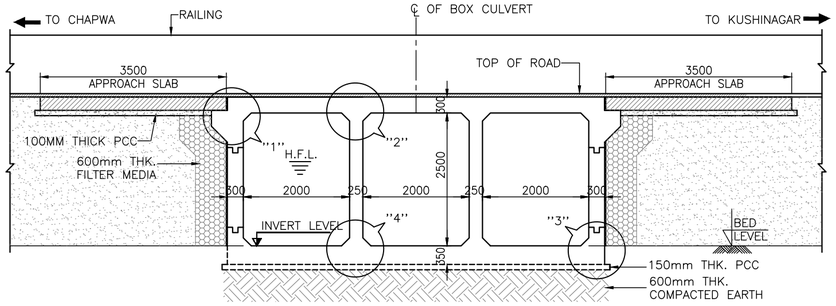
CHAINAGE : 14+657 | PURPOSE OF DRAWING: FOR APPROVAL

DWG NO. : SOWiL.KN-BT.Viii/BXCL/14+657/GA-03

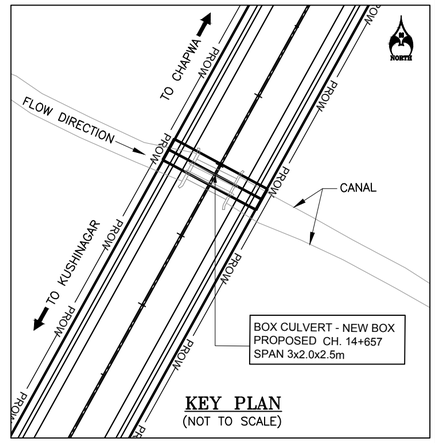
SCALE : AS SHOWN | DATE : APRIL . 2023 | SHEET NO : 01 OF 02 | REV : R2



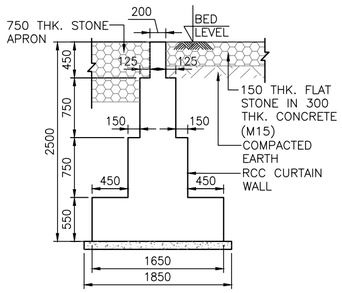
VIEW B–B
(SCALE 1:75)



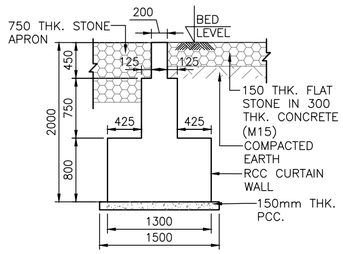
SECTION C–C
(SCALE 1:75)



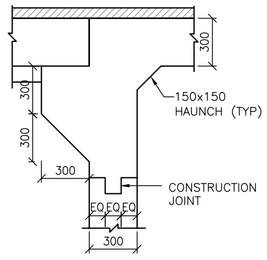
KEY PLAN
(NOT TO SCALE)



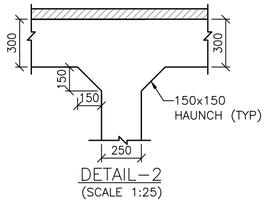
CURTAIN WALL TYPE–I
(SCALE 1:50)



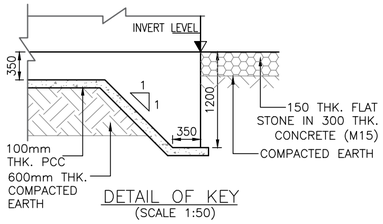
CURTAIN WALL TYPE–II
(SCALE 1:50)



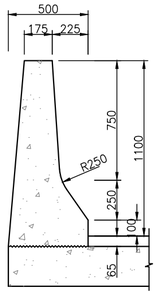
DETAIL–1
(SCALE 1:25)



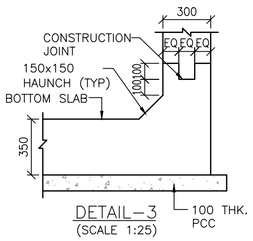
DETAIL–2
(SCALE 1:25)



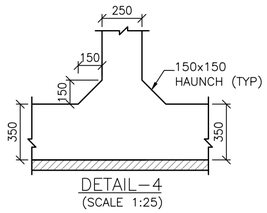
DETAIL OF KEY
(SCALE 1:50)



DETAILS OF CRASH BARRIER
(SCALE 1:25)



DETAIL–3
(SCALE 1:25)



DETAIL–4
(SCALE 1:25)

LIST OF BOX CULVERT THREE CELL (3x2.0x 2.5M)

SR. NO.	EXISTING TYPE OF STRUCTURE	DESIGN CHAINAGE	EXISTING SPAN ARRANGEMENT /C-C DISTANCE	PROPOSED SPAN ARRANGEMENT	EXISTING CARRIAGEWAY WIDTH (m)	EXISTING WIDTH OF THE STRUCTURE (m)	TOTAL ROADWAY WIDTH	SKEW ANGLE	BARREL LENGTH(m)	PROPOSED CARRIAGEWAY				FILL		F.R.L.	INVERT LEVEL	REMARK
										MAIN CARRIAGEWAY (m)		SEVICE ROAD (m)						
										LHS	RHS	LHS	RHS	LHS	RHS			
1	SOLID SLAB	14+657	3.2X1.3	3X2.0X2.5	-	12.8	-	0.0	26.600	7.5	7.5	-	-	0.0	0.0	86.121	82.930	RECONSTRUCTION

CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार Government of India

CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2
Plot No.- 1, Sector-40, Nerul (west),
Navi Mumbai-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for feasibility Study & preparation of Detail Project Report for Improvement & up- gradation of newly Declared National Highways including existing NH-91A, NH-92, NH-97 & NH-28B in The State of Uttar Pradesh- Pkg-I. Stretch from Kushinagar-Betwa.

Prepared by	GANESH
Designed by	MOHIT G.
Checked by	RAVINDRA JOSHI
Approved by	RAVINDRA JOSHI

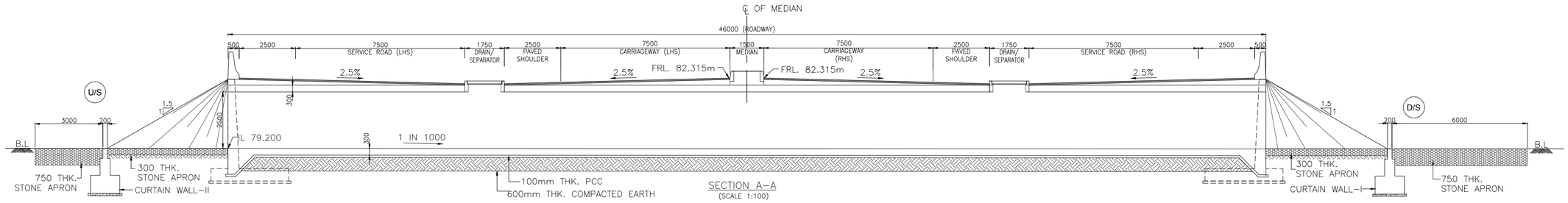
Revisions	Date	Description
R0	MAY. 2018	FOR APPROVAL
R1	APRIL . 2019	FOR APPROVAL
R2	MAY . 2023	FOR APPROVAL

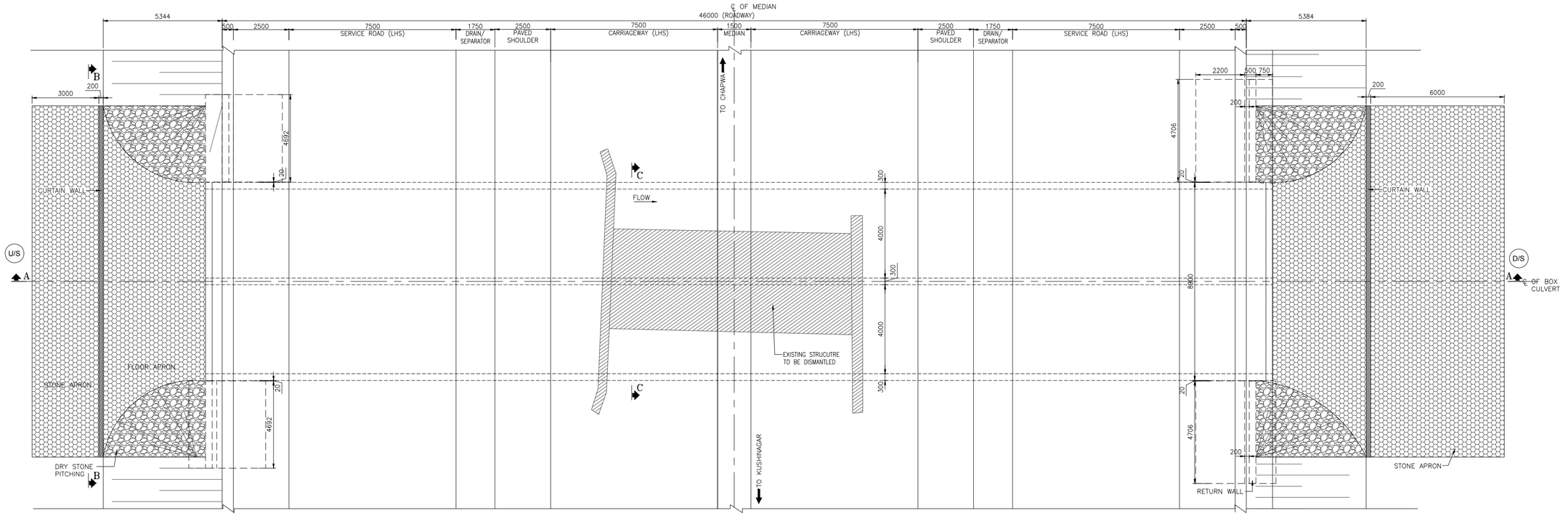
TITLE : GENERAL ARRANGEMENT DRAWING OF BOX CULVERT FOR NEW PROPOSED.(3X2.0X2.5m)

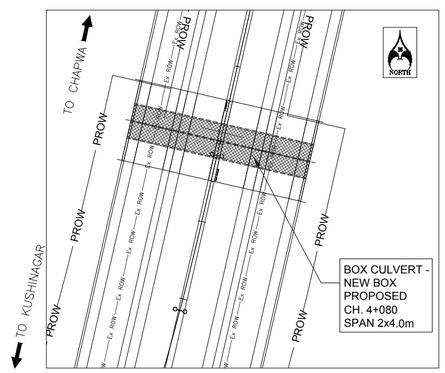
CHAINAGE : 14+657 | PURPOSE OF DRAWING: FOR APPROVAL

DWG NO. : SOWiL.KN-BT.Viii/BXCL14+657/GA-03

SCALE : AS SHOWN | DATE : APRIL . 2023 | SHEET NO : 02 OF 02 | REV : R2







NOTES:-

1. ALL DIMENSIONS ARE IN MILIMETRES & LEVELS ARE IN METRE UNLESS OTERWISE MENTIONED.
2. REINFORCEMENT STEEL:Fe500 TMT BARS CONFIRMING TO IS:1786-2008.
3. GRADE OF CONCRETE AS FOLLOWS:-

BOX	M-35
RETAINING WALL	M-25
CURTAIN WALL	M-15
LEVELING COURSE	M-15

4. PROPOSED ROAD LEVEL WITH RESPECT TO EXISTING RTL ARE NOT TO SCALE.
5. LONGITUDINAL SLOPE OF BOX SHALL BE MINIMUM 1:1000.
6. BACKFILL MATERIAL BEHIND SIDE WALL OF BOX SHALL CONFIRM TO APPENDIX-6 OF IRC 78-2014 HAVING PROPERTIES α=0, ϕ=30°, Δ=20° AND γ=20 KN/m³.
7. SEISMIC ZONE IV.
8. SBC-20Kn/m
9. FOR RETAINING WALL REFER SEPARATE DRG.

CLIENT:

सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार Government of India

CONSULTANT:

SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2
Plot No.- 1, Sector-40, Nerul (west),
Navi Mumbai-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:

Consultancy Services for feasibility Study & preparation of Detail Project Report for Improvement & up- gradation of newly Declared National Highways including existing NH-91A, NH-92, NH-97 & NH-28B in The State of Uttar Pradesh- Pkg-I. Stretch from Kushinagar-Betwa.

Prepared by	SANJAY MN
Designed by	MOHIT G.
Checked by	RAVINDRA JOSHI
Approved by	PANKAJ VORA

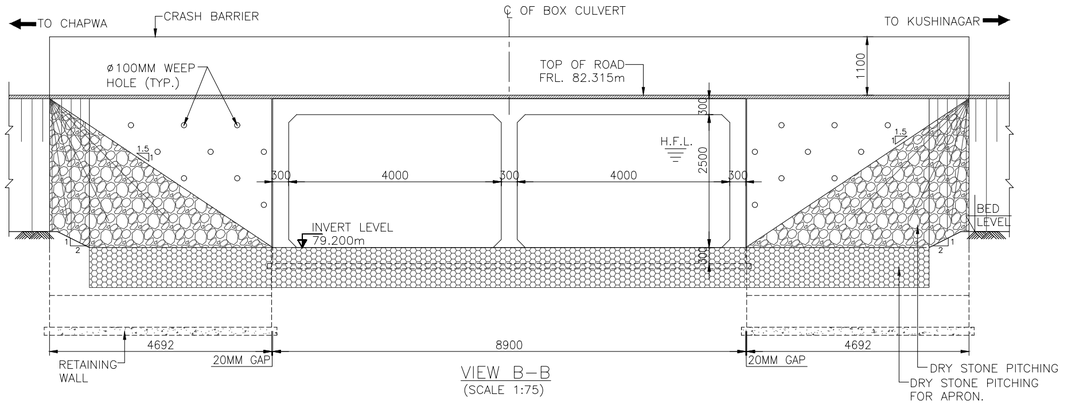
Revisions	Date	Description
R0	MAY 2018	FOR APPROVAL
R1	APRIL 2019	FOR APPROVAL
R2	MAY 2023	FOR APPROVAL

TITLE : GENERAL ARRANGEMENT DRAWING OF BOX CULVERT AT DESIGN CH. 4+080

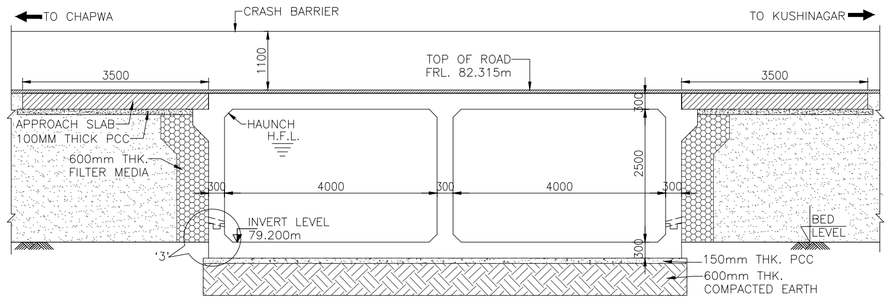
CHAINAGE : 4+080 | PURPOSE OF DRAWING: FOR APPROVAL

DWG NO. : SOWiL.KN-BT.Viii/BXCL/4+080/GA-01

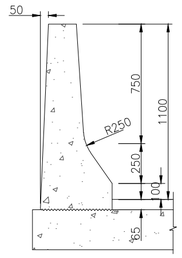
SCALE : AS SHOWN | DATE : APRIL 2023 | SHEET NO : 01 OF 02 | REV : R2



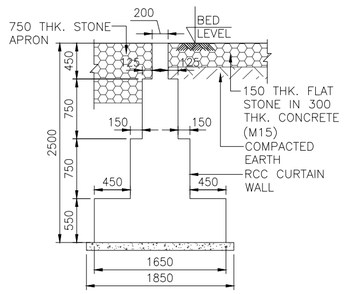
VIEW B–B
(SCALE 1:75)



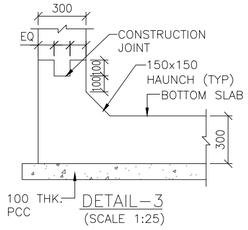
SECTION C–C
(SCALE 1:75)



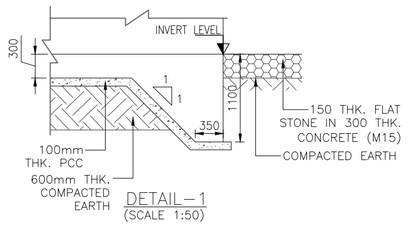
DETAILS OF CRASH BARRIER
(SCALE 1:25)



DETAILS–2
(SCALE 1:50)



DETAIL–3
(SCALE 1:25)



DETAIL–1
(SCALE 1:50)

LIST OF BOX CULVERT SINGLE CELL (2x4.0m)

SR. NO.	EXISTING TYPE OF STRUCTURE	DESIGN CHAINAGE	EXISTING SPAN ARRANGEMENT /C-C DISTANCE	PROPOSED SPAN ARRANGEMENT	EXISTING CARRIAGEWAY WIDTH (m)	EXISTING WIDTH OF THE STRUCTURE (m)	TOTAL ROADWAY WIDTH	SKEW LENGTH OF PROPOSED BOX (m)	BARREL LENGTH(m)	PROPOSED CARRIAGEWAY				FILL		F.R.L.	INVERT LEVEL	REMARK
										MAIN CARRIAGEWAY (m)		SEVICE ROAD (m)						
										LHS	RHS	LHS	RHS	LHS	RHS			
1	SOLID SLAB	4+080	4.5x1.35	2x4.0	-	11.5	-	0.0	46.0	7.5	7.5	7.5	7.5	0.0	0.0	82.315	79.200	RECONSTRUCTION

CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार Government of India

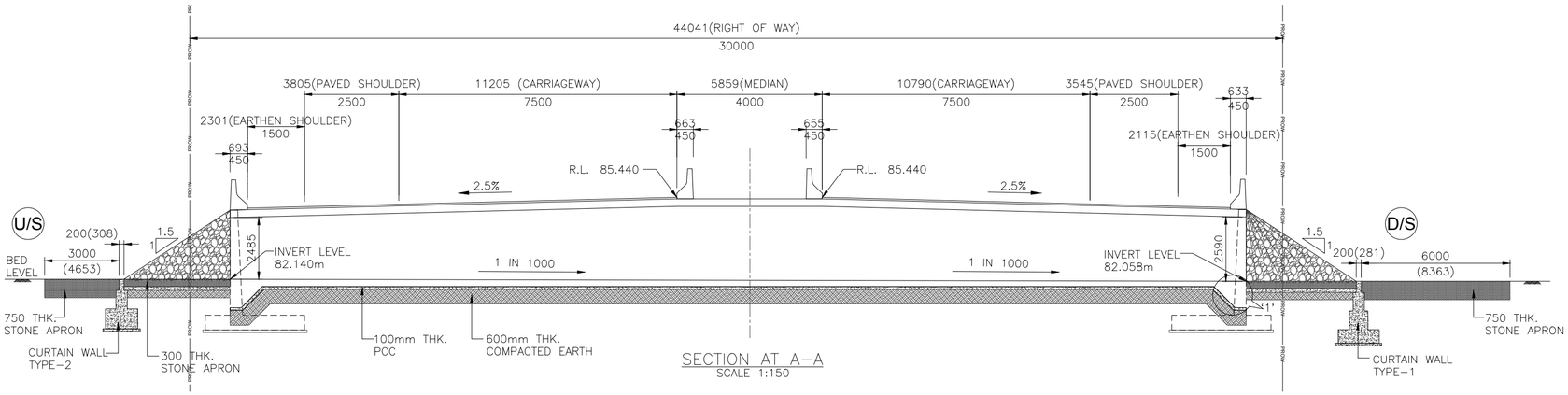
CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2
Plot No.- 1, Sector-40, Nerul (west),
Navi Mumbai-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for feasibility Study & preparation of Detail Project Report for Improvement & up- gradation of newly Declared National Highways including existing NH-91A, NH-92, NH-97 & NH-28B in The State of Uttar Pradesh- Pkg-I. Stretch from Kushinagar-Betwa.

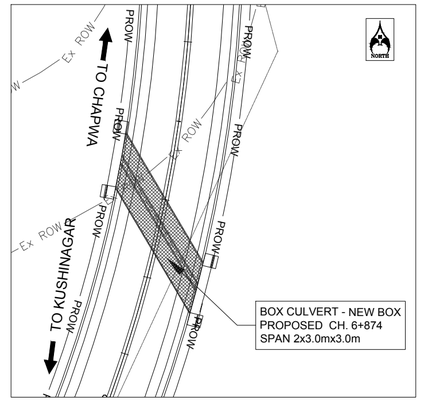
Prepared by	SANJAY MN
Designed by	MOHIT G.
Checked by	RAVINDRA JOSHI
Approved by	PANKAJ VORA

Revisions	Date	Description
R0	MAY 2018	FOR APPROVAL
R1	APRIL 2019	FOR APPROVAL
R2	MAY 2023	FOR APPROVAL

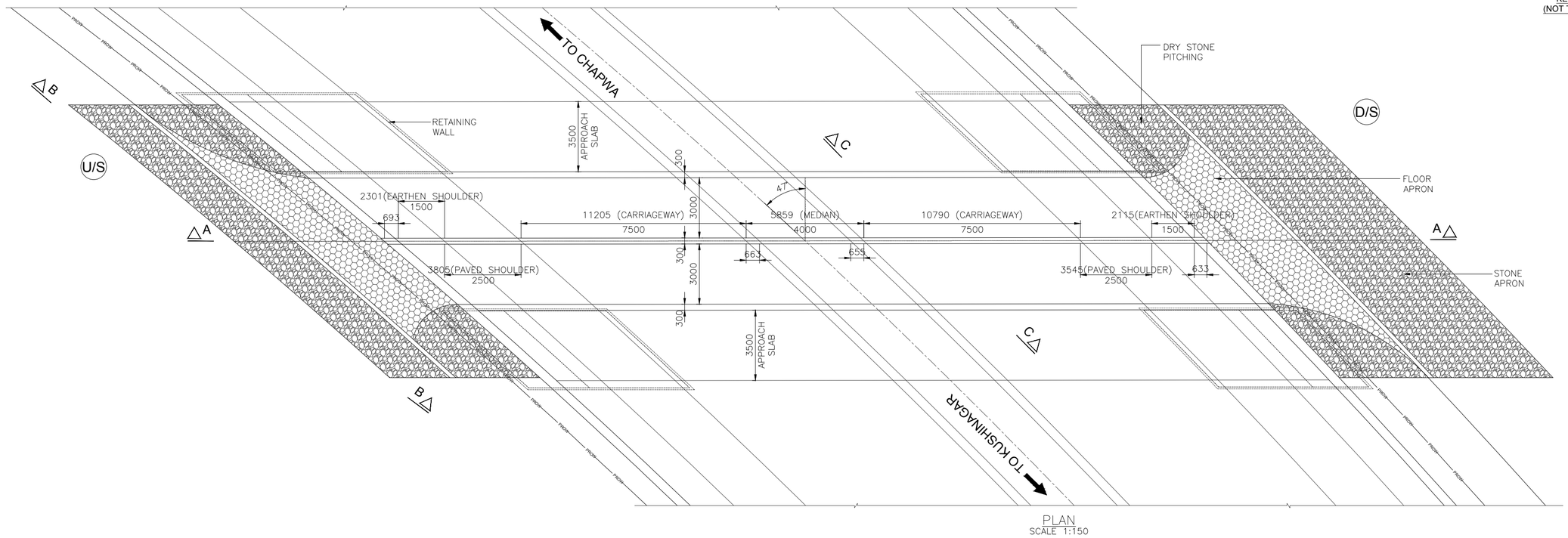
TITLE : GENERAL ARRANGEMENT DRAWING OF BOX CULVERT AT DESIGN CH. 4+080
CHAINAGE : 4+080
PURPOSE OF DRAWING FOR APPROVAL
DWG NO. : SOWiL.KN-BT.Viii/BXCL/4+080/GA-01
SCALE : AS SHOWN | DATE : APRIL 2023 | SHEET NO : 02 OF 02 | REV : R2



SECTION AT A–A
SCALE 1:150



KEY PLAN
(NOT TO SCALE)



PLAN
SCALE 1:150

NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETRES & LEVELS ARE IN METRES UNLESS OTHERWISE MENTIONED. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
2. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRG. NO. SOWiL.KN-BT.Viii/BXCL/6+874/GA-02 (SHEET 2 OF 2)
3. REINFORCEMENT STEEL:Fe500 TMT BARS CONFIRMING TO IS:1786-2008.
4. GRADE OF CONCRETE AS FOLLOWS:-
   i) BOX M-35
   ii) RETAINING WALL M-35
   iii) CURTAIN WALL M-25
   iv) LEVELING COURSE M-15
5. PROPOSED ROAD LEVEL WITH RESPECT TO EXISTING RTL ARE NOT TO SCALE.
6. LONGITUDINAL SLOPE OF BOX SHALL BE MINIMUM 1:1000.
7. BACKFILL MATERIAL BEHIND SIDE WALL OF BOX SHALL CONFIRM TO APPENDIX-6 OF IRC 78-2014 HAVING PROPERTIES =0, ϕ=30°, Δ=20° AND =20 KN/m³.
8. SEISMIC ZONE IV.
9. SBC-20Kn/m²
10. FOR RETAINING WALL REFER SEPARATE DRG.

CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार Government of India

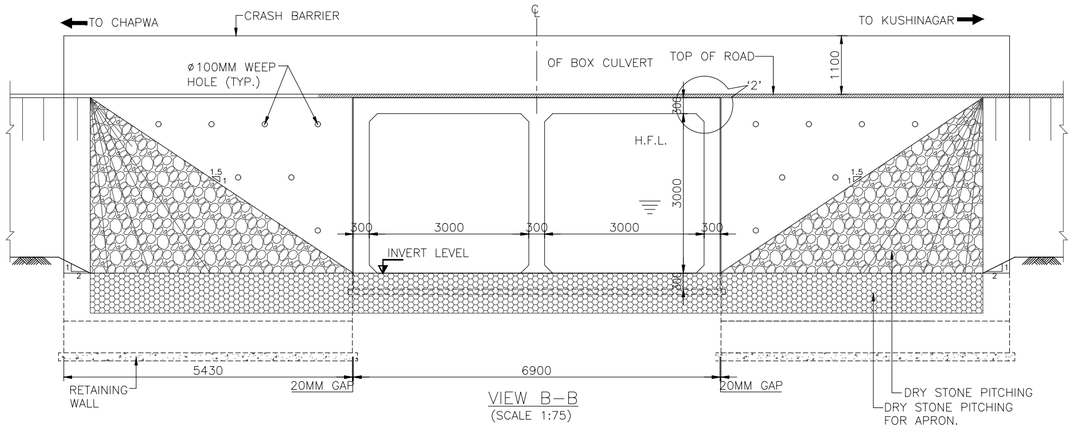
CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2
Plot No.- 1, Sector-40, Nerul (west),
Navi Mumbai-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for feasibility Study & preparation of Detail Project Report for Improvement & up- gradation of newly Declared National Highways including existing NH-91A, NH-92, NH-97 & NH-28B in The State of Uttar Pradesh- Pkg-I. Stretch from Kushinagar-Betwa.

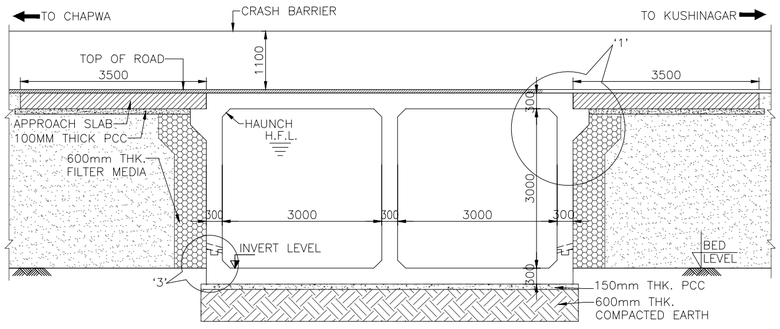
Prepared by	SANJAY MN
Designed by	MOHIT G.
Checked by	RAVINDRA JOSHI
Approved by	PANKAJ VORA

Revisions	Date	Description
R0	MAY 2018	FOR APPROVAL
R1	APRIL 2019	FOR APPROVAL
R2	MAY 2023	FOR APPROVAL

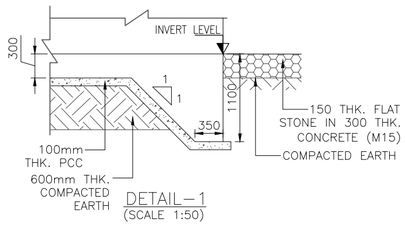
TITLE : GENERAL ARRANGEMENT DRAWING OF BOX CULVERT AT DESIGN CH. 6+874
CHAINAGE : 6+874
PURPOSE OF DRAWING : FOR APPROVAL
DWG NO. : SOWiL.KN-BT.Viii/BXCL/6+874/GA-02
SCALE : AS SHOWN | DATE : APRIL 2023 | SHEET NO : 01 OF 02 | REV : R2



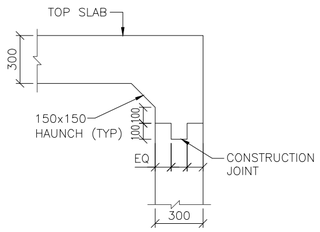
VIEW B–B
(SCALE 1:75)



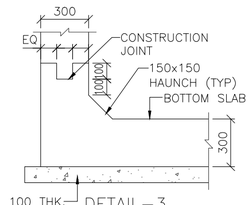
SECTION C–C
(SCALE 1:75)



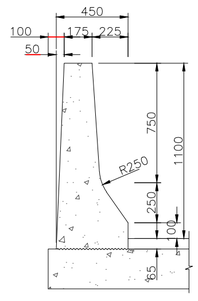
DETAIL–1
(SCALE 1:50)



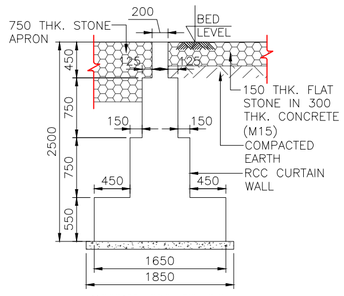
DETAIL–2
(SCALE 1:25)



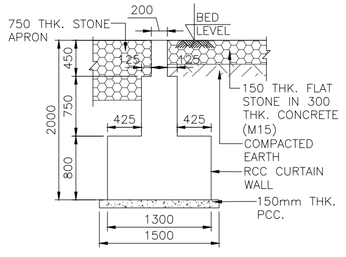
DETAIL–3
(SCALE 1:25)



DETAILS OF CRASH BARRIER
(SCALE 1:25)



CURTAIN WALL TYPE–1
(SCALE 1:50)



CURTAIN WALL TYPE–2
(SCALE 1:50)

LIST OF BOX CULVERT SINGLE CELL (2x3.0x 2.0M)

SR. NO.	EXISTING TYPE OF STRUCTURE	CHAINAGE	EXISTING SPAN ARRANGEMENT /C-C DISTANCE	PROPOSED SPAN ARRANGEMENT	EXISTING CARRIAGEWAY WIDTH (m)	EXISTING WIDTH OF THE STRUCTURE (m)	TOTAL ROADWAY WIDTH	SKEW LENGTH OF PROPOSED BOX (m)	ACTION REQUIRED (BASED ON CLAUSE 7.3 (I), (II), (III) & (IV) OF IRC:SP-73-2015)		FILL		F.R.L.	INVERT LEVEL	REMARK
									LHS	RHS	LHS	RHS			
1	SLAB CULVERT	6+874	1x6.0	2x3.0x3.0	10.8	12.0	-	0	-	-	0.0	0.0	85.440	82.140	EXISTING STRUCTURE TO BE DISMANTLED

CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार Government of India

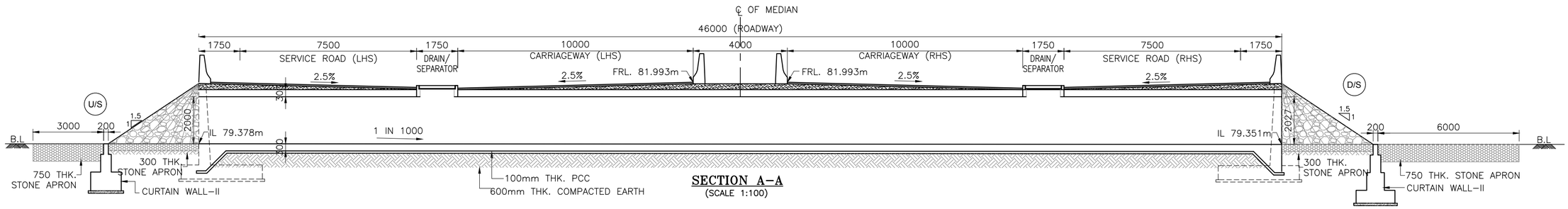
CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2
Plot No.- 1, Sector-40, Nerul (west),
Navi Mumbai-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for feasibility Study & preparation of Detail Project Report for Improvement & up- gradation of newly Declared National Highways including existing NH-91A, NH-92, NH-97 & NH-28B in The State of Uttar Pradesh- Pkg-I. Stretch from Kushinagar-Betwa.

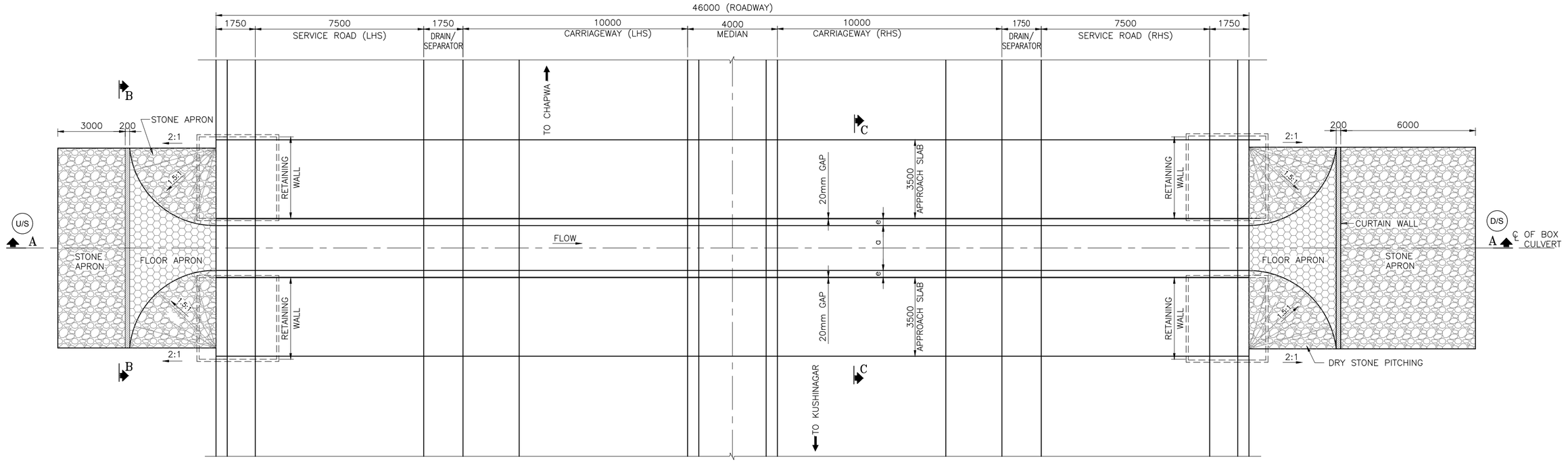
Prepared by	SANJAY MN
Designed by	MOHIT G.
Checked by	RAVINDRA JOSHI
Approved by	PANKAJ VORA

Revisions	Date	Description
R0	MAY 2018	FOR APPROVAL
R1	APRIL 2019	FOR APPROVAL
R2	MAY 2023	FOR APPROVAL

TITLE : GENERAL ARRANGEMENT DRAWING OF BOX CULVERT AT DESIGN CH. 6+874
CHAINAGE : 6+874
PURPOSE OF DRAWING FOR APPROVAL
DWG NO. : SOWiL.KN-BT.Viii/BXCL/6+874/GA-02
SCALE : AS SHOWN | DATE : APRIL 2023 | SHEET NO : 02 OF 02 | REV : R2



SECTION A–A
(SCALE 1:100)



PLAN
(SCALE 1:100)

NOTES:–

1. ALL DIMENSIONS ARE IN MILIMETRES & LEVELS ARE IN METRE UNLESS OTERWISE MENTIONED.
2. REINFORCEMENT STEEL:Fe500 TMT BARS CONFIRMING TO IS:1786–2008.
3. GRADE OF CONCRETE AS FOLLOWS:–

BOX	M–35
RETAINING WALL	M–25
CURTAIN WALL	M–15
LEVELING COURSE	M–15

4. PROPOSED ROAD LEVEL WITH RESPECT TO EXISTING RTL ARE NOT TO SCALE.
5. LONGITUDINAL SLOPE OF BOX SHALL BE MINIMUM 1:1000.
6. BACKFILL MATERIAL BEHIND SIDE WALL OF BOX SHALL CONFIRM TO APPENDIX–6 OF IRC 78–2014 HAVING PROPERTIES c=0, ϕ=30°, Δ=20° AND γ=20 KN/m³.
7. SEISMIC ZONE IV.
8. SBC– 20kN/m^2
9. FOR RETAINING WALL REFER SEPARATE DRAWING.

CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
Government of India

CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2
Plot No.- 1, Sector-40, Nerul (west),
Navi Mumbai-400706
Phone;022-2770 2265 / 68 / 61, Fax.022-2770 2259

PROJECT:
Consultancy Services for feasibility Study & preparation of Detail Project Report for Improvement & up- gradation of newly Declared National Highways including existing NH-91A, NH-92, NH-97 & NH-28B in The State of Uttar Pradesh- Pkg-I. Stretch from Kushinagar-Betwa.

Prepared by	GANESH
Designed by	MOHIT G.
Checked by	RAVINDRA JOSHI
Approved by	RAVINDRA JOSHI

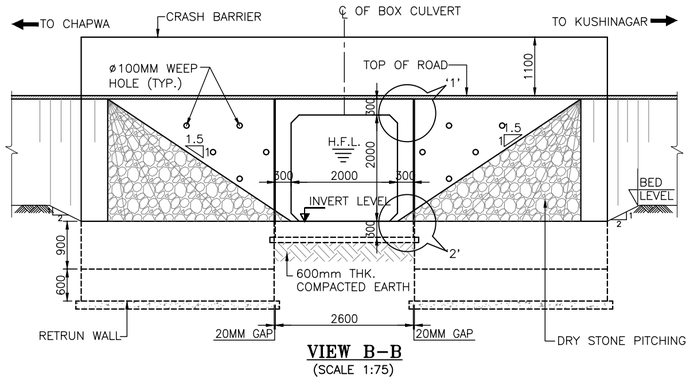
Revisions	Date	Description
R0	MAY. 2018	FOR APPROVAL
R1	APRIL . 2019	FOR APPROVAL
R2	MAY 2023	FOR APPROVAL

TITLE : GENERAL ARRANGEMENT DRAWING OF BOX CULVERT FOR NEW PROPOSED.(1X2.0mX2.0m)

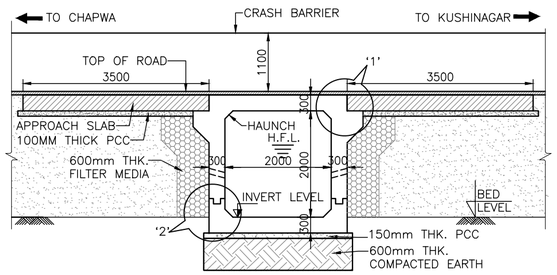
CHAINAGE : 1+305 | PURPOSE OF DRAWING: FOR APPROVAL

DWG NO. : SOWiL.KN-BT.Viii/BC.GA-06

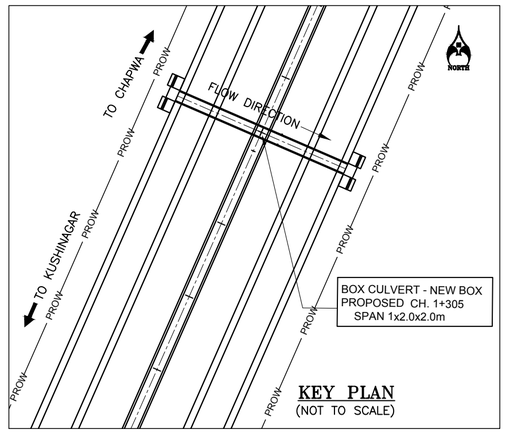
SCALE : AS SHOWN | DATE : MAY 2023 | SHEET NO : 01 OF 02 | REV : R2



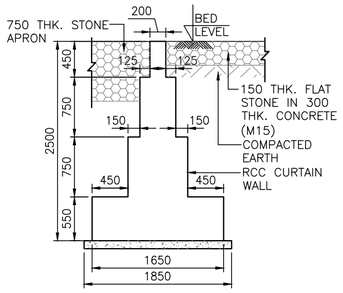
VIEW B–B
(SCALE 1:75)



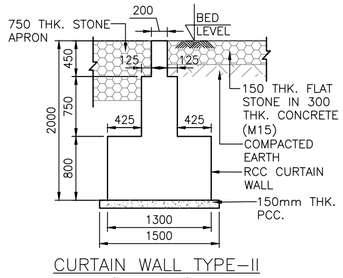
SECTION C–C
(SCALE 1:75)



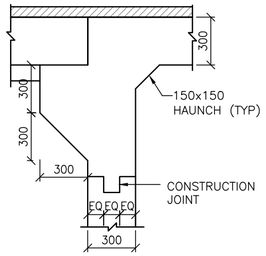
KEY PLAN
(NOT TO SCALE)



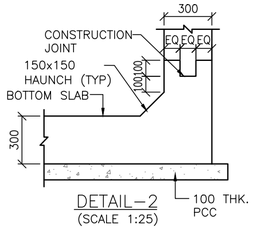
CURTAIN WALL TYPE–I
(SCALE 1:50)



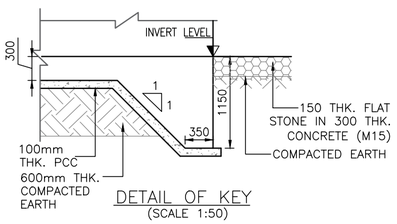
CURTAIN WALL TYPE–II
(SCALE 1:50)



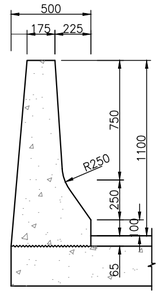
DETAIL–1
(SCALE 1:25)



DETAIL–2
(SCALE 1:25)



DETAIL OF KEY
(SCALE 1:50)



DETAILS OF CRASH BARRIER
(SCALE 1:25)

LIST OF BOX CULVERT SINGLE CELL (1x2.0x 2.0M)

SR. NO.	EXISTING TYPE OF STRUCTURE	DESIGN CHAINAGE	EXISTING SPAN ARRANGEMENT /C-C DISTANCE	PROPOSED SPAN ARRANGEMENT	EXISTING CARRIAGEWAY WIDTH (m)	EXISTING WIDTH OF THE STRUCTURE (m)	TOTAL ROADWAY WIDTH	SKEW ANGLE	BARREL LENGTH(m)	PROPOSED CARRIAGEWAY				FILL		F.R.L.	INVERT LEVEL	REMARK
										MAIN CARRIAGEWAY (m)		SEVICE ROAD (m)						
										LHS	RHS	LHS	RHS	LHS	RHS			
1	-	0+900	-	1X2.0X2.0	-	-	-	0.0	46.000	10.0	10.0	7.5	7.5	0.0	0.0	81.312	78.697	NEW PROPOSED
2	-	1+305	-	1X2.0X2.0	-	-	-	0.0	46.000	10.0	10.0	7.5	7.5	0.0	0.0	81.993	79.378	NEW PROPOSED
3	-	1+860	-	1X2.0X2.0	-	-	-	0.0	46.000	10.0	10.0	7.5	7.5	0.0	0.0	81.546	78.931	NEW PROPOSED
4	-	2+340	-	1X2.0X2.0	-	-	-	0.0	46.000	10.0	10.0	7.5	7.5	0.0	0.0	82.214	79.599	NEW PROPOSED
5	-	3+220	-	1X2.0X2.0	-	-	-	0.0	46.000	10.0	10.0	7.5	7.5	0.0	0.0	82.414	79.799	NEW PROPOSED
6	-	3+630	-	1X2.0X2.0	-	-	-	0.0	46.000	10.0	10.0	7.5	7.5	0.0	0.0	86.626	84.011	NEW PROPOSED

CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
Government of India

CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2
Plot No.- 1, Sector-40, Nerul (west),
Navi Mumbai-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for feasibility Study & preparation of Detail Project Report for Improvement & up- gradation of newly Declared National Highways including existing NH-91A, NH-92, NH-97 & NH-28B in The State of Uttar Pradesh- Pkg-I. Stretch from Kushinagar-Betwa.

Prepared by	GANESH
Designed by	MOHIT G.
Checked by	RAVINDRA JOSHI
Approved by	RAVINDRA JOSHI

Revisions	Date	Description
R0	MAY. 2018	FOR APPROVAL
R1	APRIL. 2019	FOR APPROVAL
R2	MAY 2023	FOR APPROVAL

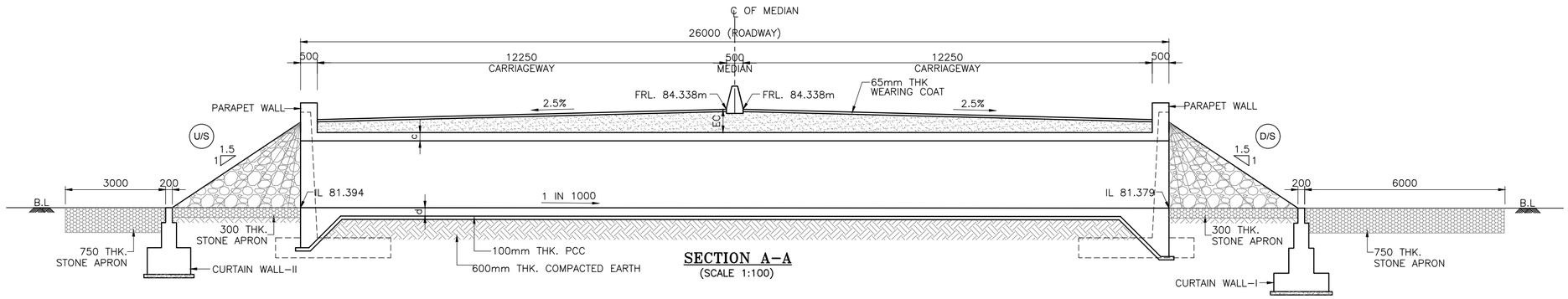
TITLE : GENERAL ARRANGEMENT DRAWING OF BOX CULVERT FOR NEW PROPOSED.(1X2.0mX2.0m)

CHAINAGE : 1+305

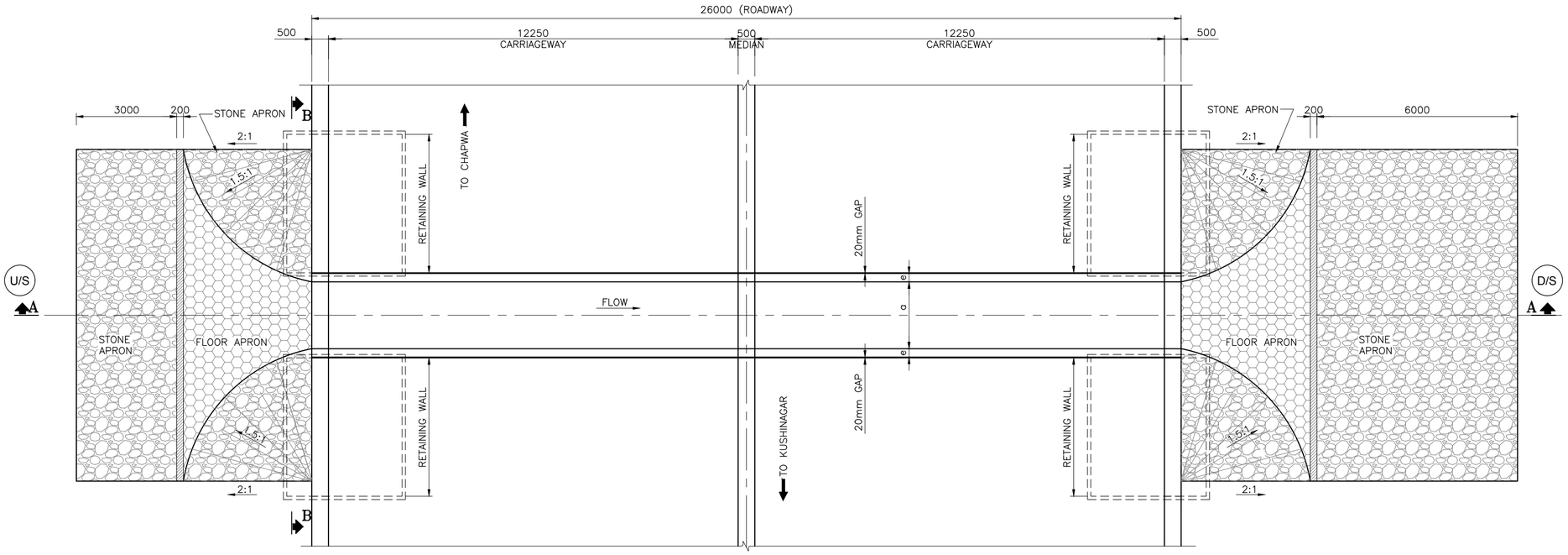
PURPOSE OF DRAWING FOR APPROVAL

DWG NO. : SOWiL.KN-BT.Viii/BC.GA-06

SCALE : AS SHOWN | DATE : MAY 2023 | SHEET NO : 02 OF 02 | REV : R1



SECTION A-A
(SCALE 1:100)



PLAN
(SCALE 1:100)

NOTES:-

1. ALL DIMENSIONS ARE IN MILIMETRES & LEVELS ARE IN METRE UNLESS OTERWISE MENTIONED.
2. REINFORCEMENT STEEL:Fe500 TMT BARS CONFIRMING TO IS:1786-2008.
3. GRADE OF CONCRETE AS FOLLOWS:-

BOX	M-35
RETAINING WALL	M-25
CURTAIN WALL	M-15
LEVELING COURSE	M-15

4. PROPOSED ROAD LEVEL WITH RESPECT TO EXISTING RTL ARE NOT TO SCALE.
5. LONGITUDINAL SLOPE OF BOX SHALL BE MINIMUM 1:1000.
6. BACKFILL MATERIAL BEHIND SIDE WALL OF BOX SHALL CONFIRM TO APPENDIX-6 OF IRC 78-2014 HAVING PROPERTIES α=0, ϕ=30°, Δ=20° AND γ=20 KN/m^3.
7. SEISMIC ZONE IV.
8. SBC- 20kN/m^2
9. FOR RETAINING WALL REFER SEPARATE DRAWING.

CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
Government of India

CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2
Plot No.- 1, Sector-40, Nerul (west),
Navi Mumbai-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for feasibility Study & preparation of Detail Project Report for Improvement & up- gradation of newly Declared National Highways including existing NH-91A, NH-92, NH-97 & NH-28B in The State of Uttar Pradesh- Pkg-I. Stretch from Kushinagar-Betwa.

Prepared by	GANESH
Designed by	MOHIT G.
Checked by	RAVINDRA JOSHI
Approved by	RAVINDRA JOSHI

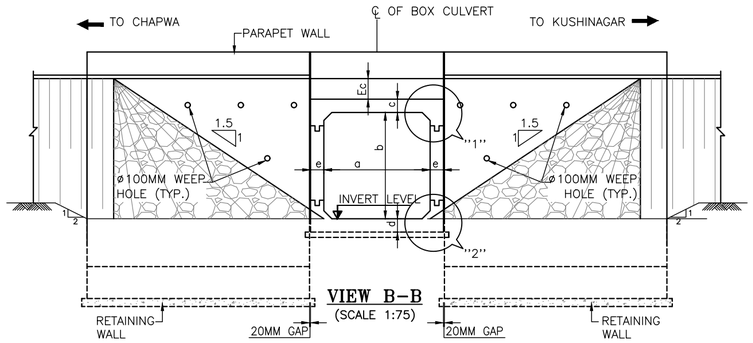
Revisions	Date	Description
R0	MAY. 2018	FOR APPROVAL
R1	APRIL . 2019	FOR APPROVAL
R2	MAY . 2023	FOR APPROVAL

TITLE :GENERAL ARRANGEMENT DRAWING OF BOX CULVERT FOR NEW PROPOSED.(X2.0X2.0m)

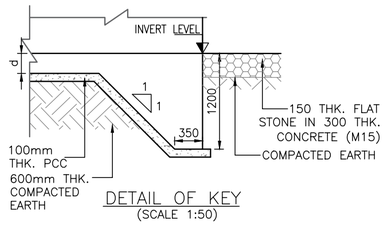
CHAINAGE : 8+660 | PURPOSE OF DRAWING: FOR APPROVAL

DWG NO. : SOWiL.KN-BT.Viii/BXCL/14+657/GA-09

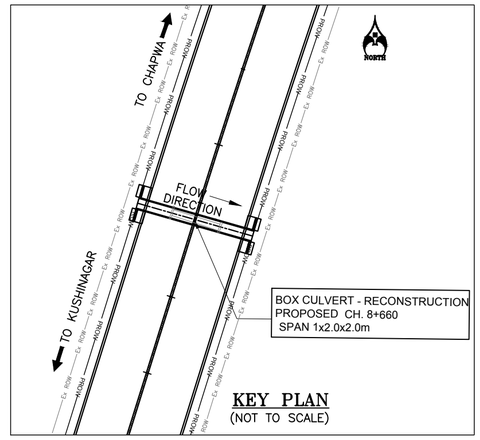
SCALE : AS SHOWN | DATE : MAY . 2023 | SHEET NO : 01 OF 02 | REV : R2



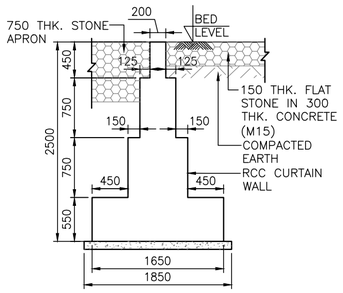
VIEW B–B
(SCALE 1:75)



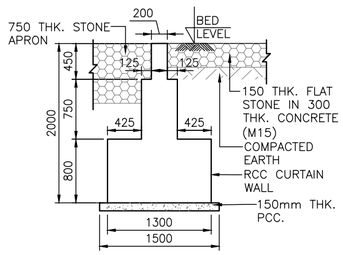
DETAIL OF KEY
(SCALE 1:50)



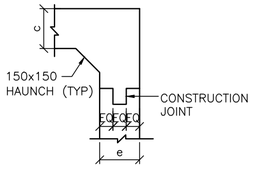
KEY PLAN
(NOT TO SCALE)



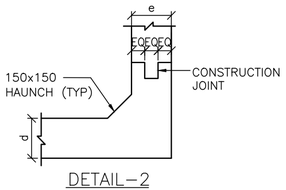
CURTAIN WALL TYPE–I
(SCALE 1:50)



CURTAIN WALL TYPE–II
(SCALE 1:50)



DETAIL–1
(SCALE 1:25)



DETAIL–2
(SCALE 1:25)

LIST OF BOX CULVERT SINGLE CELL

SR. NO.	EXISTING TYPE OF STRUCTURE	DESIGN CHAINAGE	EXISTING SPAN ARRANGEMENT /C-C DISTANCE	PROPOSED SPAN ARRANGEMENT	EXISTING CARRIAGEWAY WIDTH (m)	EXISTING WIDTH OF THE STRUCTURE (m)	TOTAL ROADWAY WIDTH	SKEW ANGLE	BARREL LENGTH(m)	PROPOSED CARRIAGEWAY				F.R.L.	INVERT LEVEL	REMARK	TABLE SHOWING SALIENT DIMENSIONS					
										MAIN CARRIAGEWAY (m)		SEVICE ROAD (m)					a (mm)	b (mm)	c (mm)	d (mm)	e (mm)	Ec (mm)
										LHS	RHS	-	-									
1	SOLID SLAB	8+660	1.5X2.45	1X2.0X2.0	-	13.0	-	0.00°	26.000	12.250	12.250	-	-	84.338	81.394	RECONSTRUCTION	2000	2000	250	250	250	694
2	SOLID SLAB	12+429	1.8X1.0	1X2.0X2.0	-	12.0	-	30.65°	26.000	12.250	12.250	-	-	85.602	82.968	RECONSTRUCTION	2000	2000	250	250	250	-
3	PIPE CULVERT	14+794	2.0X1.0	1X2.0X2.0	-	17.5	-	0.00°	26.000	12.250	12.250	-	-	85.247	83.612	RECONSTRUCTION	2000	2000	250	250	250	-
4	SOLID SLAB	15+186	1.7X0.5	1X2.0X2.0	-	11.3	-	0.00°	26.000	12.250	12.250	-	-	85.423	82.789	RECONSTRUCTION	2000	2000	250	250	250	-

CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार Government of India

CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2
Plot No.- 1, Sector-40, Nerul (west),
Navi Mumbai-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for feasibility Study & preparation of Detail Project Report for Improvement & up- gradation of newly Declared National Highways including existing NH-91A, NH-92, NH-97 & NH-28B in The State of Uttar Pradesh- Pkg-I. Stretch from Kushinagar-Betwa.

Prepared by	GANESH
Designed by	MOHIT G.
Checked by	RAVINDRA JOSHI
Approved by	RAVINDRA JOSHI

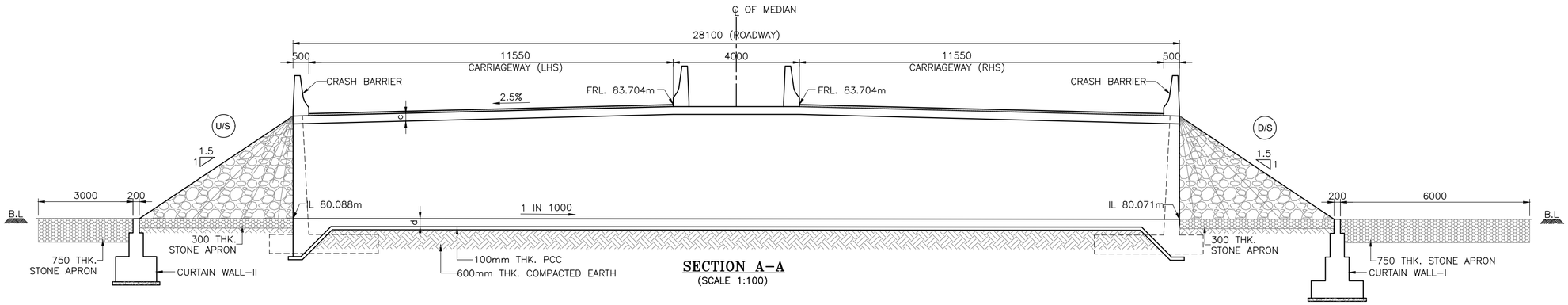
Revisions	Date	Description
R0	MAY. 2018	FOR APPROVAL
R1	APRIL . 2019	FOR APPROVAL
R2	MAY . 2023	FOR APPROVAL

TITLE : GENERAL ARRANGEMENT DRAWING OF BOX CULVERT FOR NEW PROPOSED.(1X2.0X2.0m)

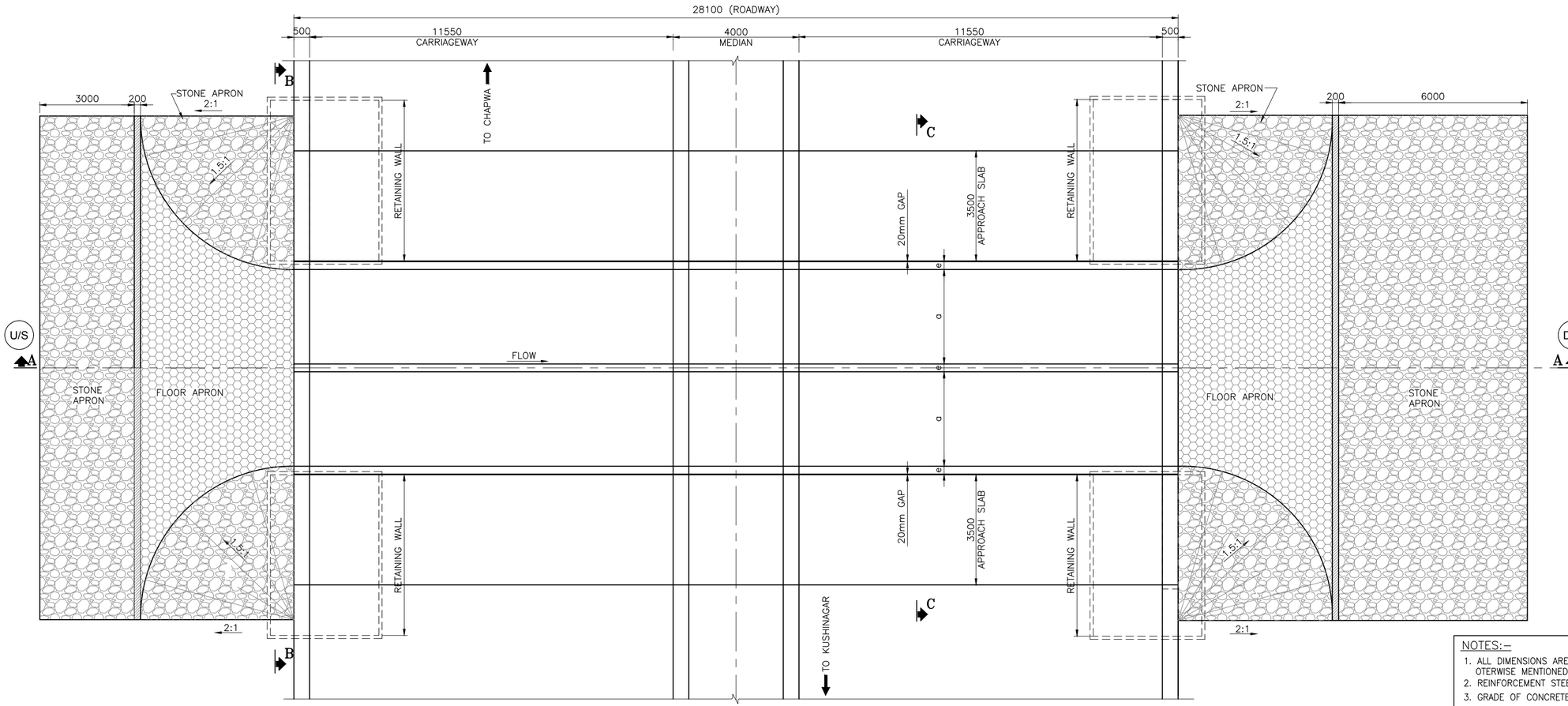
CHAINAGE : 8+660 | PURPOSE OF DRAWING FOR APPROVAL

DWG NO. : SOWiL.KN-BT.Viii/BXCL14+657/GA-09

SCALE : AS SHOWN | DATE : MAY . 2023 | SHEET NO : 02 OF 02 | REV : R2



SECTION A–A
(SCALE 1:100)



PLAN
(SCALE 1:100)

NOTES:–

1. ALL DIMENSIONS ARE IN MILIMETRES & LEVELS ARE IN METRE UNLESS OTERWISE MENTIONED.
2. REINFORCEMENT STEEL:Fe500 TMT BARS CONFIRMING TO IS:1786–2008.
3. GRADE OF CONCRETE AS FOLLOWS:–

BOX	M–35
RETAINING WALL	M–25
CURTAIN WALL	M–15
LEVELING COURSE	M–15

4. PROPOSED ROAD LEVEL WITH RESPECT TO EXISTING RTL ARE NOT TO SCALE.
5. LONGITUDINAL SLOPE OF BOX SHALL BE MINIMUM 1:1000.
6. BACKFILL MATERIAL BEHIND SIDE WALL OF BOX SHALL CONFIRM TO APPENDIX–6 OF IRC 78–2014 HAVING PROPERTIES α=0, ϕ=30°, Δ=20° AND γ=20 KN/m³.
7. SEISMIC ZONE IV.
8. SBC– 20kN/m^2
9. FOR RETAINING WALL REFER SEPARATE DRAWING.

CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
Government of India

CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2
Plot No.- 1, Sector-40, Nerul (west),
Navi Mumbai-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for feasibility Study & preparation of Detail Project Report for Improvement & up- gradation of newly Declared National Highways including existing NH-91A, NH-92, NH-97 & NH-28B in The State of Uttar Pradesh- Pkg-I. Stretch from Kushinagar-Betwa.

Prepared by	GANESH
Designed by	MOHIT G.
Checked by	RAVINDRA JOSHI
Approved by	RAVINDRA JOSHI

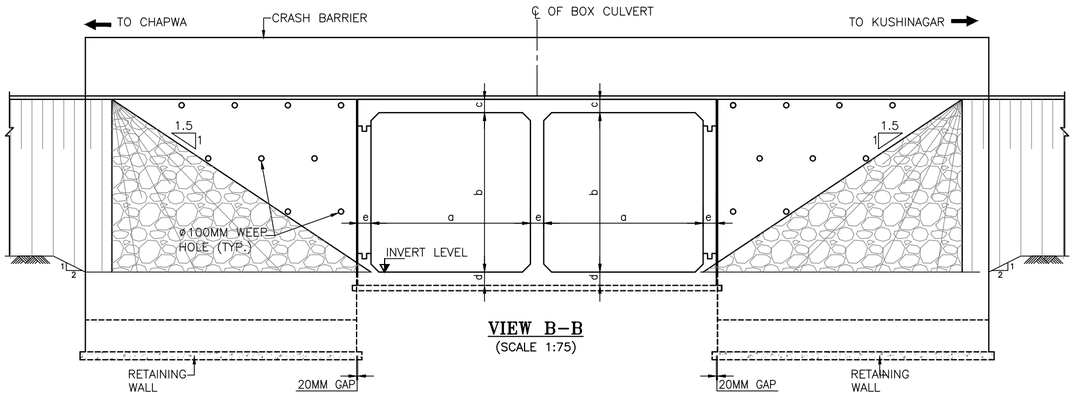
Revisions	Date	Description
R0	MAY. 2018	FOR APPROVAL
R1	APRIL . 2019	FOR APPROVAL
R2	MAY 2023	FOR APPROVAL

TITLE : GENERAL ARRANGEMENT DRAWING OF BOX CULVERT FOR RECONSTRUCTION.(2X3.0mX3.0m)

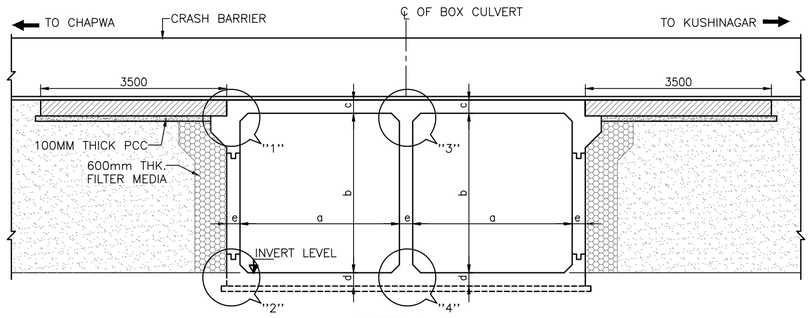
CHAINAGE : 9+976 — PURPOSE OF DRAWING: FOR APPROVAL

DWG NO. : SOWiL.KN-BT.Viii/BC.GA-11

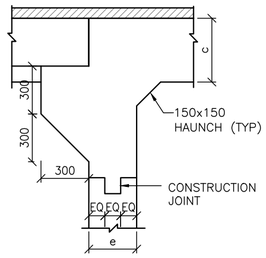
SCALE : AS SHOWN | DATE : MAY 2023 | SHEET NO : 01 OF 02 | REV : R2



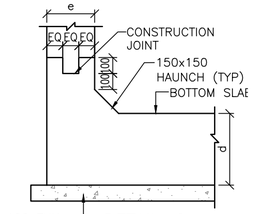
VIEW B–B
(SCALE 1:75)



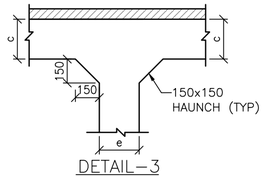
VIEW C–C
(SCALE 1:75)



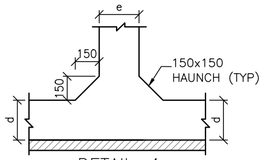
DETAIL–1
(SCALE 1:25)



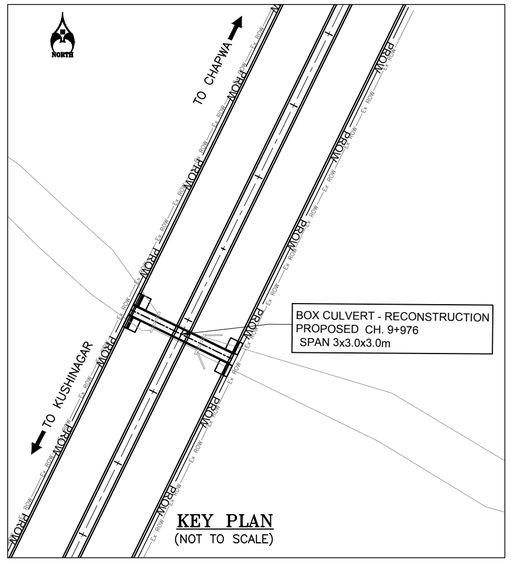
DETAIL–2
(SCALE 1:25)



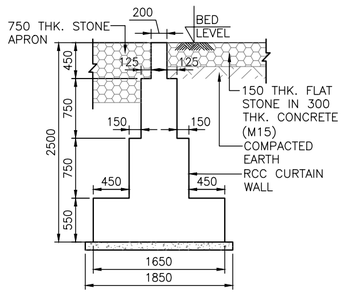
DETAIL–3
(SCALE 1:25)



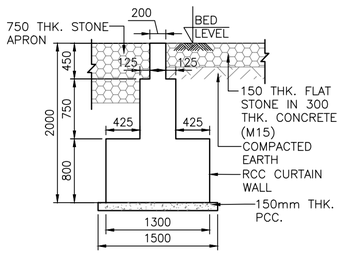
DETAIL–4
(SCALE 1:25)



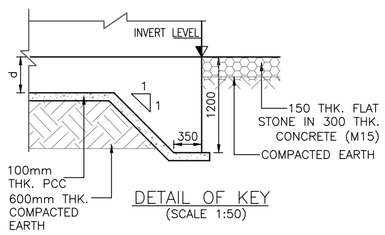
KEY PLAN
(NOT TO SCALE)



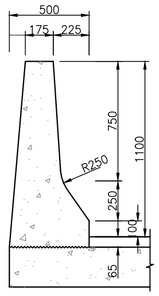
CURTAIN WALL TYPE–I
(SCALE 1:50)



CURTAIN WALL TYPE–II
(SCALE 1:50)



DETAIL OF KEY
(SCALE 1:50)



DETAILS OF CRASH BARRIER
(SCALE 1:25)

LIST OF BOX CULVERT TWIN CELL

SR. NO.	EXISTING TYPE OF STRUCTURE	DESIGN CHAINAGE	EXISTING SPAN ARRANGEMENT /C-C DISTANCE	PROPOSED SPAN ARRANGEMENT	EXISTING CARRIAGEWAY WIDTH (m)	EXISTING WIDTH OF THE STRUCTURE (m)	TOTAL ROADWAY WIDTH	SKEW ANGLE	BARREL LENGTH(m)	PROPOSED CARRIAGEWAY				FILL		F.R.L.	INVERT LEVEL	REMARK	TABLE SHOWING SALIENT DIMENSIONS				
										MAIN CARRIAGEWAY (m)		SEVICE ROAD (m)							a (mm)	b (mm)	c (mm)	d (mm)	e (mm)
										LHS	RHS	-	-	LHS	RHS								
1	SOLID SLAB	6+886	1.0X6.0	2X3.0X2.0	-	12.75	-	0.0°	28.100	11.550	11.550	-	-	0.0	0.0	85.423	82.807	NEW PROPOSED	3000	2000	250	250	250
2	SOLID SLAB	10+738	3.3X1.2	2X3.0X2.0	-	11.2	-	0.0°	28.100	11.550	11.550	-	-	0.0	0.0	85.136	82.520	RECONSTRUCTION	3000	2000	250	250	250
3	ARCH SLAB	9+942	3.6X1.7	2X2.0X3.0	-	9.7	-	0.0°	28.100	11.550	11.550	-	-	0.0	0.0	83.734	80.118	RECONSTRUCTION	2000	3000	250	250	250
4	SOLID SLAB	9+976	3.6X1.5	2X3.0X3.0	-	13.0	-	0.0°	28.100	11.550	11.550	-	-	0.0	0.0	83.704	80.088	RECONSTRUCTION	3000	3000	250	250	250

CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार Government of India

CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2
Plot No.- 1, Sector-40, Nerul (west),
Navi Mumbai-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for feasibility Study & preparation of Detail Project Report for Improvement & up- gradation of newly Declared National Highways including existing NH-91A, NH-92, NH-97 & NH-28B in The State of Uttar Pradesh- Pkg-I. Stretch from Kushinagar-Betwa.

Prepared by	GANESH
Designed by	MOHIT G.
Checked by	RAVINDRA JOSHI
Approved by	RAVINDRA JOSHI

Revisions	Date	Description
R0	MAY. 2018	FOR APPROVAL
R1	APRIL . 2019	FOR APPROVAL
R2	MAY 2023	FOR APPROVAL

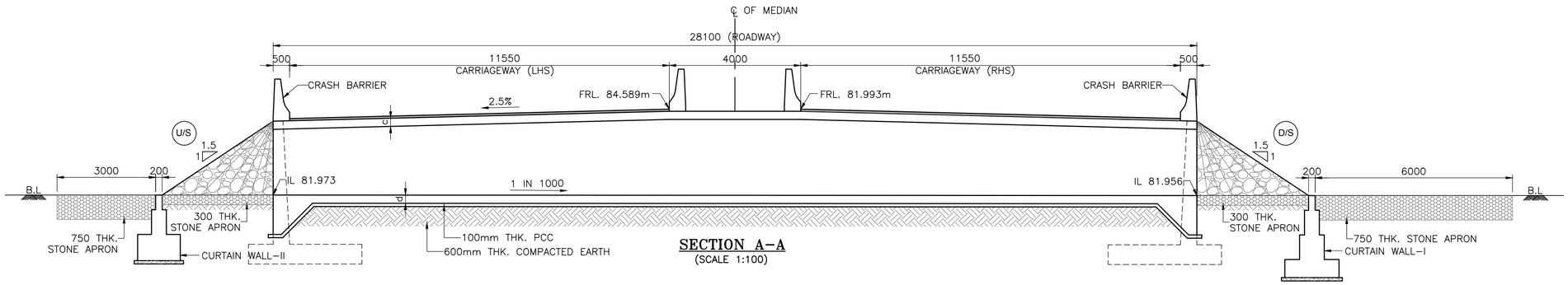
TITLE : GENERAL ARRANGEMENT DRAWING OF BOX CULVERT FOR RECONSTRUCTION.(2X3.0mX3.0m)

CHAINAGE : 9+976

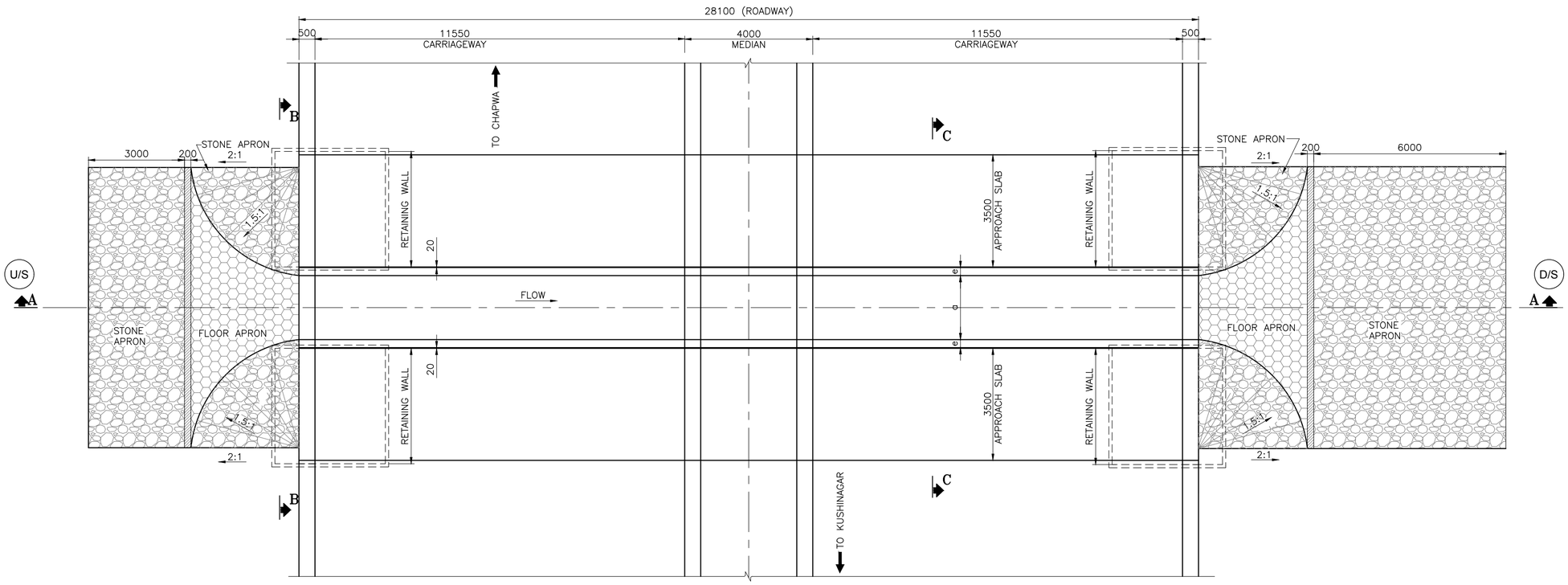
PURPOSE OF DRAWING FOR APPROVAL

DWG NO. : SOWiL.KN-BT.Viii/BC.GA-11

SCALE : AS SHOWN | DATE : MAY 2023 | SHEET NO : 02 OF 02 | REV : R2



SECTION A-A
(SCALE 1:100)



PLAN
(SCALE 1:100)

NOTES:-

1. ALL DIMENSIONS ARE IN MILIMETRES & LEVELS ARE IN METRE UNLESS OTERWISE MENTIONED.
2. REINFORCEMENT STEEL:Fe500 TMT BARS CONFIRMING TO IS:1786-2008.
3. GRADE OF CONCRETE AS FOLLOWS:-

BOX	M-35
RETAINING WALL	M-25
CURTAIN WALL	M-15
LEVELING COURSE	M-15

4. PROPOSED ROAD LEVEL WITH RESPECT TO EXISTING RTL ARE NOT TO SCALE.
5. LONGITUDINAL SLOPE OF BOX SHALL BE MINIMUM 1:1000.
6. BACKFILL MATERIAL BEHIND SIDE WALL OF BOX SHALL CONFIRM TO APPENDIX-6 OF IRC 78-2014 HAVING PROPERTIES α=0, ϕ=30°, Δ=20° AND γ=20 KN/m^3.
7. SEISMIC ZONE IV.
8. SBC- 20kN/m^2
9. FOR RETAINING WALL REFER SEPARATE DRAWING.

CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
Government of India

CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2
Plot No.- 1, Sector-40, Nerul (west),
Navi Mumbai-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for feasibility Study & preparation of Detail Project Report for Improvement & up- gradation of newly Declared National Highways including existing NH-91A, NH-92, NH-97 & NH-28B in The State of Uttar Pradesh- Pkg-I. Stretch from Kushinagar-Betwa.

Prepared by	GANESH
Designed by	MOHIT G.
Checked by	RAVINDRA JOSHI
Approved by	RAVINDRA JOSHI

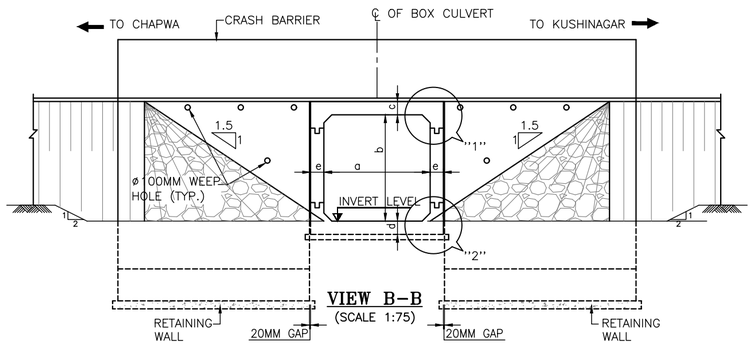
Revisions	Date	Description
R0	MAY. 2018	FOR APPROVAL
R1	APRIL. 2019	FOR APPROVAL
R2	MAY 2023	FOR APPROVAL

TITLE : GENERAL ARRANGEMENT DRAWING OF BOX CULVERT FOR RECONSTRUCTION.(1X2.0mX2.0m)

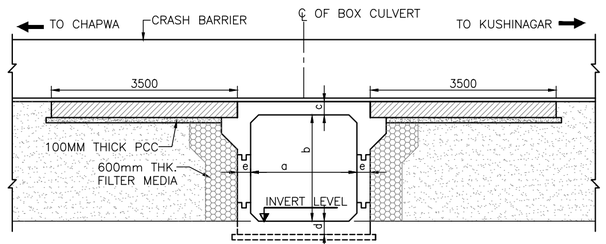
CHAINAGE : 11+589 | PURPOSE OF DRAWING FOR APPROVAL

DWG NO. : SOWiL.KN-BT.Viii/BC.GA-10

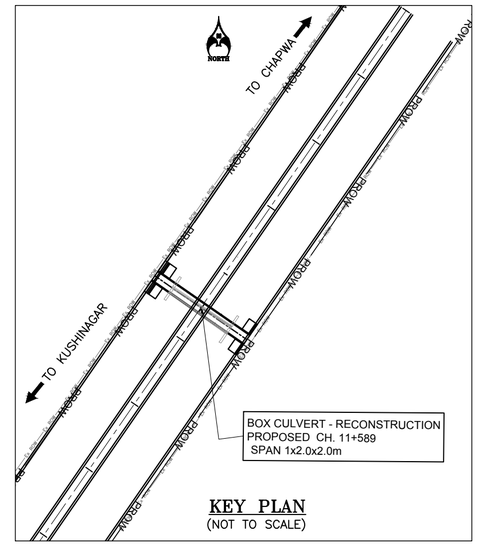
SCALE : AS SHOWN | DATE : MAY 2023 | SHEET NO : 01 OF 02 | REV : R2



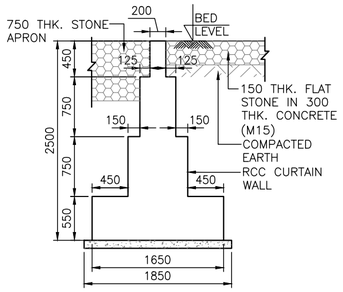
VIEW B–B
(SCALE 1:75)



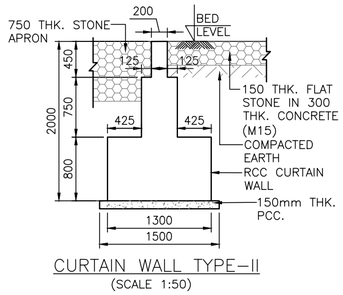
VIEW C–C
(SCALE 1:75)



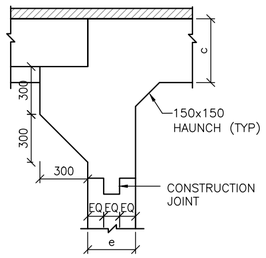
KEY PLAN
(NOT TO SCALE)



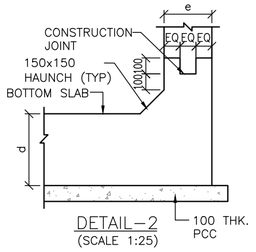
CURTAIN WALL TYPE–I
(SCALE 1:50)



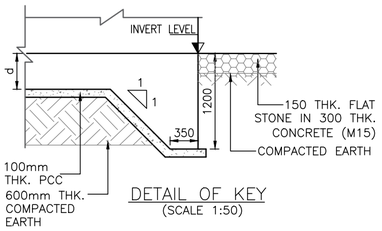
CURTAIN WALL TYPE–II
(SCALE 1:50)



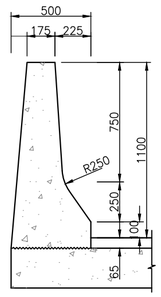
DETAIL–1
(SCALE 1:25)



DETAIL–2
(SCALE 1:25)



DETAIL OF KEY
(SCALE 1:50)



DETAILS OF CRASH BARRIER
(SCALE 1:25)

LIST OF BOX CULVERT SINGLE CELL

SR. NO.	EXISTING TYPE OF STRUCTURE	DESIGN CHAINAGE	EXISTING SPAN ARRANGEMENT /C-C DISTANCE	PROPOSED SPAN ARRANGEMENT	EXISTING CARRIAGEWAY WIDTH (m)	EXISTING WIDTH OF THE STRUCTURE (m)	TOTAL ROADWAY WIDTH	SKEW ANGLE	BARREL LENGTH(m)	PROPOSED CARRIAGEWAY				F.R.L.	INVERT LEVEL	REMARK	TABLE SHOWING SALIENT DIMENSIONS					
										MAIN CARRIAGEWAY (m)		SEVICE ROAD (m)					a (mm)	b (mm)	c (mm)	d (mm)	e (mm)	Cushion (mm)
										LHS	RHS	-	-									
1	SOLID SLAB	4+424	2.6X1.3	1X3.0X3.0	-	11.0	-	0.0°	28.100	11.550	11.550	-	-	82.342	78.726	RECONSTRUCTION	3000	3000	250	250	250	-
2	ARCH SLAB	6+216	3.7X1.6	1X3.0X3.0	-	11.7	-	36.60°	35.00	11.550	11.550	-	-	84.923	80.623	RECONSTRUCTION	3000	3000	250	250	250	1050
3	PIPE CULVERT	11+589	2.0X1.0	1X2.0X2.0	-	18.0	-	0.0°	28.100	11.550	11.550	-	-	84.589	81.973	RECONSTRUCTION	2000	2000	250	250	250	-
4	SOLID SLAB	13+546	1.5X1.5	1X2.0X2.0	-	10.0	-	0.0°	28.100	11.550	11.550	-	-	84.595	81.979	RECONSTRUCTION	2000	2000	250	250	250	-
5	SOLID SLAB	13+603	1.4X1.6	1X2.0X2.0	-	9.0	-	0.0°	28.100	11.550	11.550	-	-	84.588	81.972	RECONSTRUCTION	2000	2000	250	250	250	-

CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
Government of India

CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2
Plot No.- 1, Sector-40, Nerul (west),
Navi Mumbai-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for feasibility Study & preparation of Detail Project Report for Improvement & up- gradation of newly Declared National Highways including existing NH-91A, NH-92, NH-97 & NH-28B in The State of Uttar Pradesh- Pkg-I. Stretch from Kushinagar-Betwa.

Prepared by	GANESH
Designed by	MOHIT G.
Checked by	RAVINDRA JOSHI
Approved by	RAVINDRA JOSHI

Revisions	Date	Description
R0	MAY. 2018	FOR APPROVAL
R1	APRIL . 2019	FOR APPROVAL
R2	MAY 2023	FOR APPROVAL

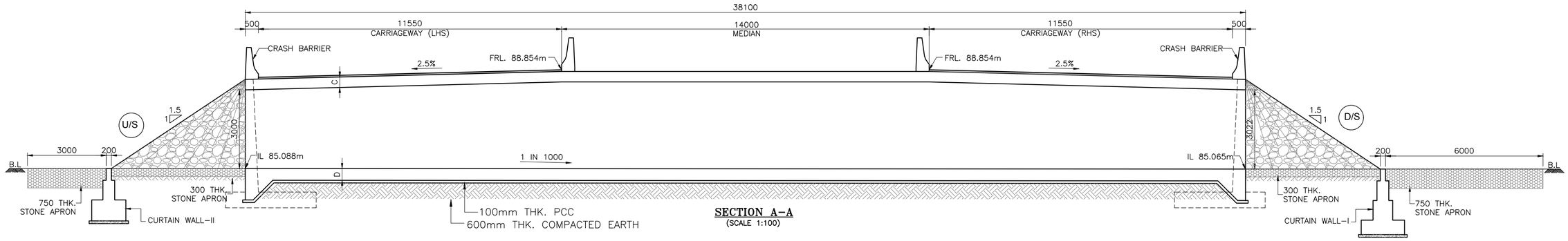
TITLE : GENERAL ARRANGEMENT DRAWING OF BOX CULVERT FOR RECONSTRUCTION.(1X2.0mX2.0m)

CHAINAGE : 11+589

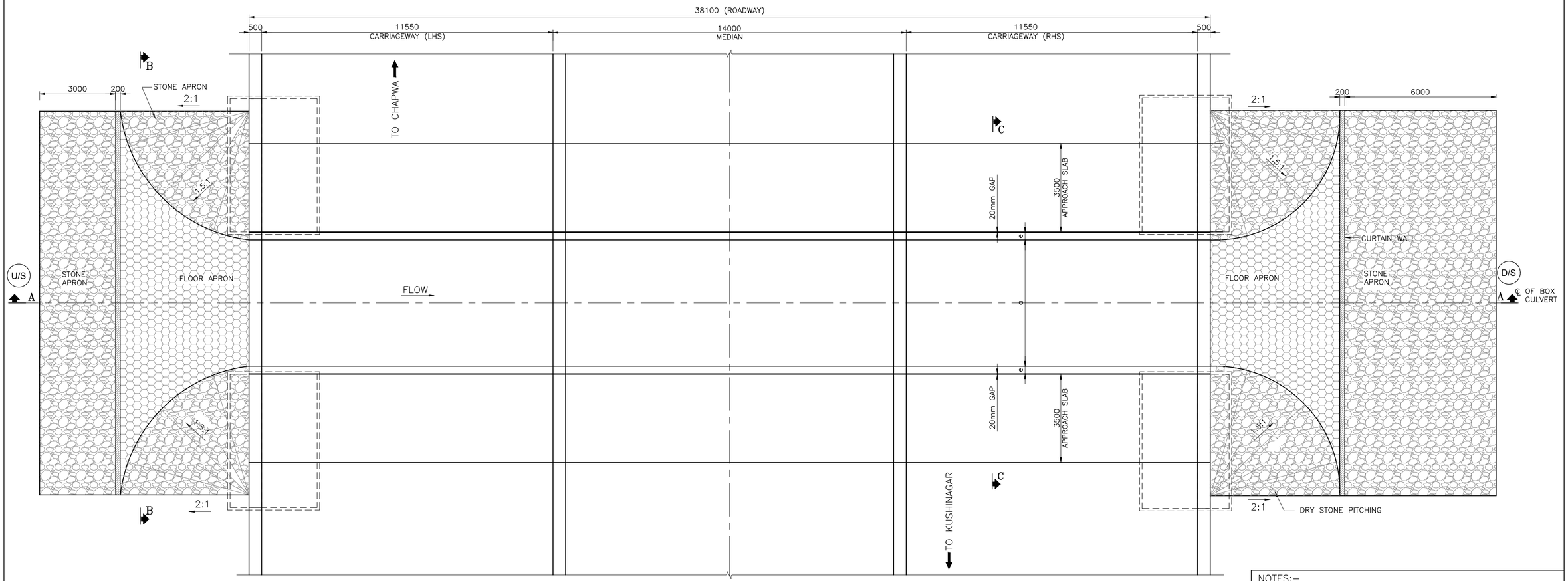
PURPOSE OF DRAWING FOR APPROVAL

DWG NO. : SOWiL.KN-BT.Viii/BC.GA-10

SCALE : AS SHOWN | DATE : MAY 2023 | SHEET NO : 02 OF 02 | REV : R2



SECTION A-A
(SCALE 1:100)



PLAN
(SCALE 1:100)

NOTES:-

1. ALL DIMENSIONS ARE IN MILIMETRES & LEVELS ARE IN METRE UNLESS OTERWISE MENTIONED.
2. REINFORCEMENT STEEL:Fe500 TMT BARS CONFIRMING TO IS:1786-2008.
3. GRADE OF CONCRETE AS FOLLOWS:-
   - BOX M-35
   - RETAINING WALL M-25
   - CURTAIN WALL M-15
   - LEVELING COURSE M-15
4. PROPOSED ROAD LEVEL WITH RESPECT TO EXISTING RTL ARE NOT TO SCALE.
5. LONGITUDINAL SLOPE OF BOX SHALL BE MINIMUM 1:1000.
6. BACKFILL MATERIAL BEHIND SIDE WALL OF BOX SHALL CONFIRM TO APPENDIX-6 OF IRC 78-2014 HAVING PROPERTIES α=0, ϕ=30°, Δ=20° AND γ=20 KN/m³.
7. SEISMIC ZONE IV.
8. SBC- 20kN/m^2
9. FOR RETAINING WALL REFER SEPARATE DRAWING.

CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
MORT&H
Government of India

CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2
Plot No.- 1, Sector-40, Nerul (west),
Navi Mumbai-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for feasibility Study & preparation of Detail Project Report for Improvement & up- gradation of newly Declared National Highways including existing NH-91A, NH-92, NH-97 & NH-28B in The State of Uttar Pradesh- Pkg-I. Stretch from Kushinagar-Betwa.

Prepared by	GANESH
Designed by	MOHIT G.
Checked by	RAVINDRA JOSHI
Approved by	RAVINDRA JOSHI

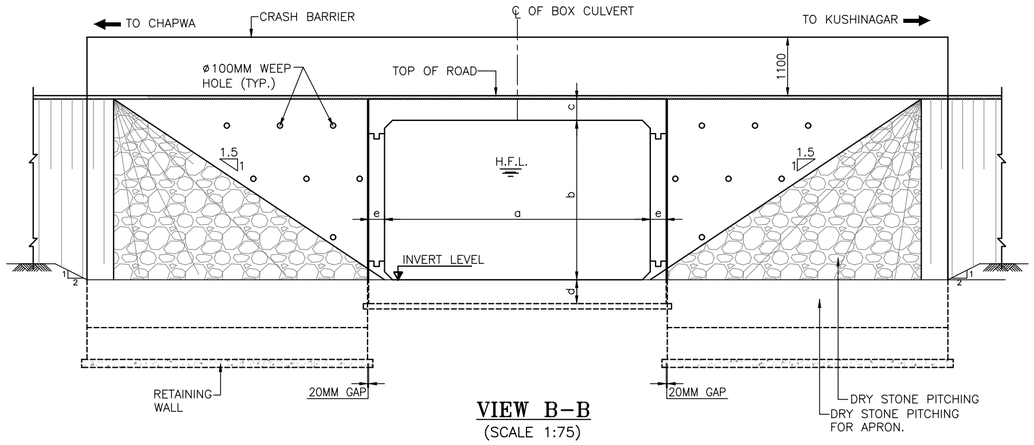
Revisions	Date	Description
R0	MAY. 2018	FOR APPROVAL
R1	APRIL . 2019	FOR APPROVAL
R2	MAY 2023	FOR APPROVAL

TITLE : GENERAL ARRANGEMENT DRAWING OF BOX CULVERT FOR NEW PROPOSED.(1X5.0mX3.0m)

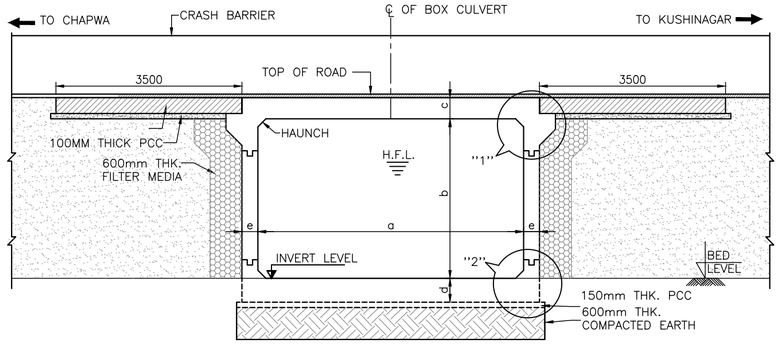
CHAINAGE : 18+348 | PURPOSE OF DRAWING: FOR APPROVAL

DWG NO. : SOWiL.KN-BT.Viii/BC.GA-07

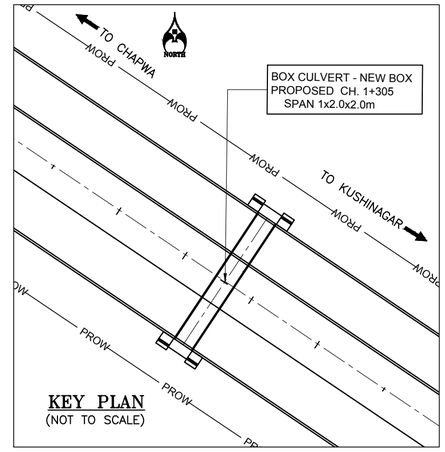
SCALE : AS SHOWN | DATE : MAY 2023 | SHEET NO : 01 OF 02 | REV : R2



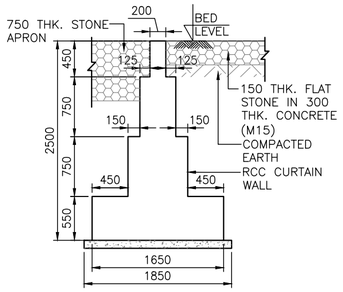
VIEW B–B
(SCALE 1:75)



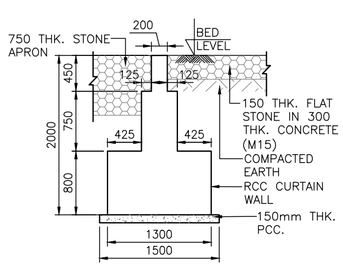
VIEW C–C
(SCALE 1:75)



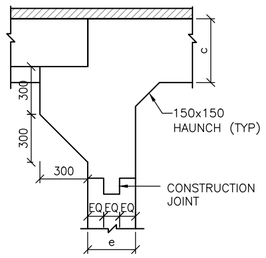
KEY PLAN
(NOT TO SCALE)



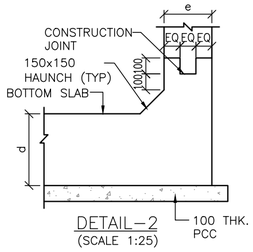
CURTAIN WALL TYPE–I
(SCALE 1:50)



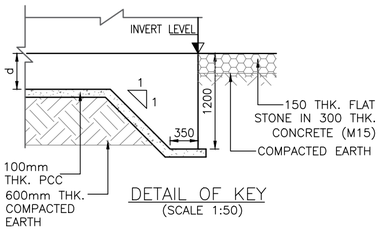
CURTAIN WALL TYPE–II
(SCALE 1:50)



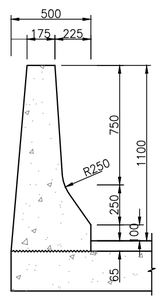
DETAIL–1
(SCALE 1:25)



DETAIL–2
(SCALE 1:25)



DETAIL OF KEY
(SCALE 1:50)



DETAILS OF CRASH BARRIER
(SCALE 1:25)

LIST OF BOX CULVERT SINGLE CELL

SR. NO.	EXISTING TYPE OF STRUCTURE	DESIGN CHAINAGE	EXISTING SPAN ARRANGEMENT /C-C DISTANCE	PROPOSED SPAN ARRANGEMENT	EXISTING CARRIAGEWAY WIDTH (m)	EXISTING WIDTH OF THE STRUCTURE (m)	TOTAL ROADWAY WIDTH	SKEW ANGLE	BARREL LENGTH(m)	PROPOSED CARRIAGEWAY				FILL		F.R.L.	INVERT LEVEL	REMARK	TABLE SHOWING SALIENT DIMENSIONS				
										MAIN CARRIAGEWAY (m)		SEVICE ROAD (m)							a (mm)	b (mm)	c (mm)	d (mm)	e (mm)
										LHS	RHS	-	-	LHS	RHS								
1	-	17+420	-	1X3.0X2.0	-	-	-	0.0	38.100	11.550	11.550	-	-	0.0	0.0	86.671	84.055	NEW PROPOSED	3000	2000	250	250	250
2	-	17+920	-	1X5.0X3.0	-	-	-	0.0	38.100	11.550	11.550	-	-	0.0	0.0	88.398	84.632	NEW PROPOSED	5000	3000	400	450	300
3	-	18+348	-	1X5.0X3.0	-	-	-	0.0	38.100	11.550	11.550	-	-	0.0	0.0	88.854	85.088	NEW PROPOSED	5000	3000	400	450	300
4	-	18+620	-	1X3.0X3.0	-	-	-	0.0	38.100	11.550	11.550	-	-	0.0	0.0	87.523	83.907	NEW PROPOSED	3000	3000	250	250	250
5	-	18+920	-	1X3.0X2.5	-	-	-	0.0	38.100	11.550	11.550	-	-	0.0	0.0	87.736	84.620	NEW PROPOSED	3000	2500	250	250	250
6	-	19+444	-	1X5.0X4.0	-	-	-	0.0	38.100	11.550	11.550	-	-	0.0	0.0	90.425	85.659	NEW PROPOSED	5000	4000	400	450	350

CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
Government of India

CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2
Plot No.- 1, Sector-40, Nerul (west),
Navi Mumbai-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for feasibility Study & preparation of Detail Project Report for Improvement & up- gradation of newly Declared National Highways including existing NH-91A, NH-92, NH-97 & NH-28B in The State of Uttar Pradesh- Pkg-I. Stretch from Kushinagar-Betwa.

Prepared by	GANESH
Designed by	MOHIT G.
Checked by	RAVINDRA JOSHI
Approved by	RAVINDRA JOSHI

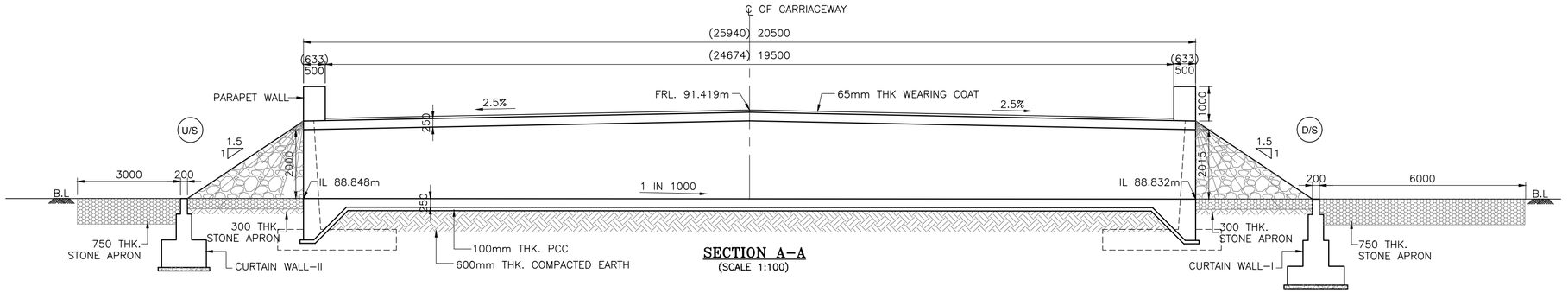
Revisions	Date	Description
R0	MAY. 2018	FOR APPROVAL
R1	APRIL . 2019	FOR APPROVAL
R2	MAY 2023	FOR APPROVAL

TITLE : GENERAL ARRANGEMENT DRAWING OF BOX CULVERT FOR NEW PROPOSED.(1X5.0mX3.0m)

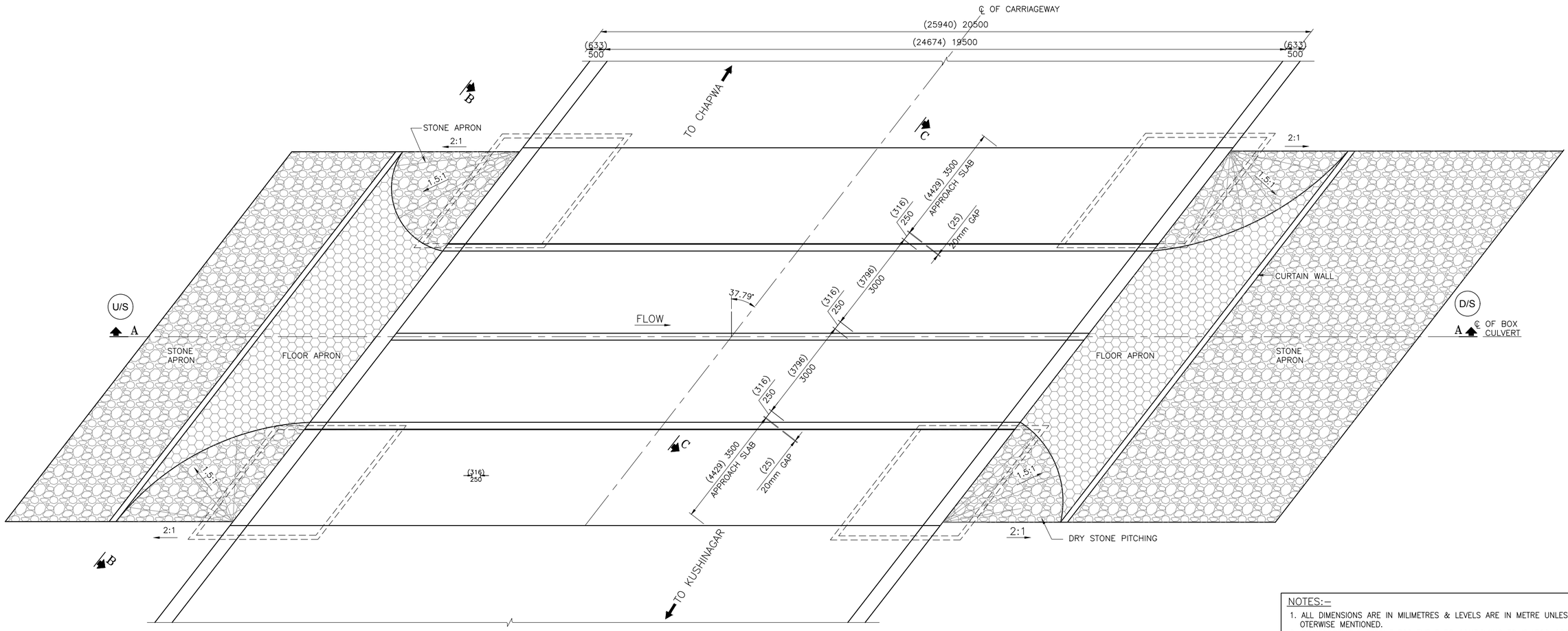
CHAINAGE : 18+348 | PURPOSE OF DRAWING: FOR APPROVAL

DWG NO. : SOWiL.KN-BT.Viii/BC.GA-07

SCALE : AS SHOWN | DATE : MAY 2023 | SHEET NO : 02 OF 02 | REV : R1



SECTION A-A
(SCALE 1:100)



NOTES:-

1. ALL DIMENSIONS ARE IN MILIMETRES & LEVELS ARE IN METRE UNLESS OTERWISE MENTIONED.
2. REINFORCEMENT STEEL:Fe500 TMT BARS CONFIRMING TO IS:1786-2008.
3. GRADE OF CONCRETE AS FOLLOWS:-

BOX	M-35
RETAINING WALL	M-25
CURTAIN WALL	M-15
LEVELING COURSE	M-15

4. PROPOSED ROAD LEVEL WITH RESPECT TO EXISTING RTL ARE NOT TO SCALE.
5. LONGITUDINAL SLOPE OF BOX SHALL BE MINIMUM 1:1000.
6. BACKFILL MATERIAL BEHIND SIDE WALL OF BOX SHALL CONFIRM TO APPENDIX-6 OF IRC 78-2014 HAVING PROPERTIES α=0, ϕ=30°, Δ=20° AND γ=20 KN/m³.
7. SEISMIC ZONE IV.
8. SBC- 20kN/m^2
9. FOR RETAINING WALL REFER SEPARATE DRAWING.

CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार Government of India

CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2
Plot No.- 1, Sector-40, Nerul (west),
Navi Mumbai-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for feasibility Study & preparation of Detail Project Report for Improvement & up- gradation of newly Declared National Highways including existing NH-91A, NH-92, NH-97 & NH-28B in The State of Uttar Pradesh- Pkg-I. Stretch from Kushinagar-Betwa.

Prepared by	GANESH
Designed by	MOHIT G.
Checked by	RAVINDRA JOSHI
Approved by	RAVINDRA JOSHI

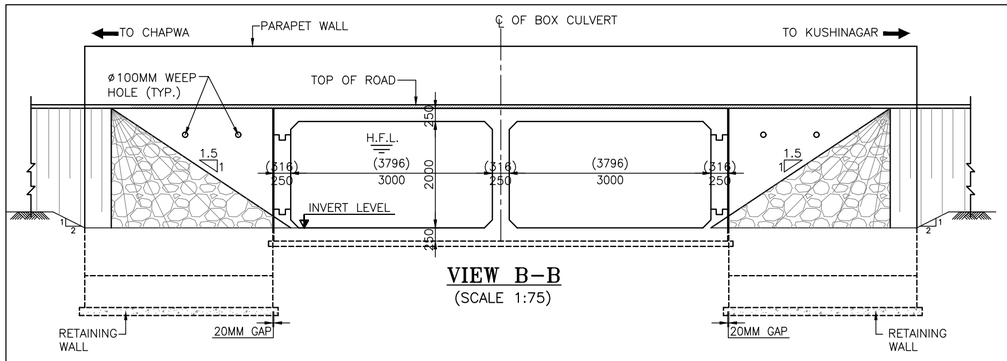
Revisions	Date	Description
R0	MAY. 2018	FOR APPROVAL
R1	APRIL . 2019	FOR APPROVAL
R2	MAY 2023	FOR APPROVAL

TITLE : GENERAL ARRANGEMENT DRAWING OF BOX CULVERT FOR NEW PROPOSED.(2X3.0mX2.0m)

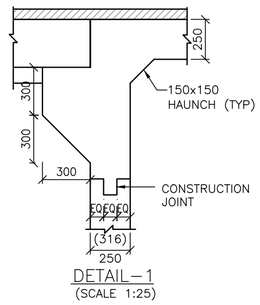
CHAINAGE : 30+336 | PURPOSE OF DRAWING: FOR APPROVAL

DWG NO. : SOWiL.KN-BT.Viii/BC.GA-14

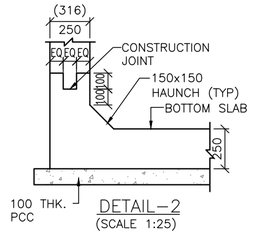
SCALE : AS SHOWN | DATE : MAY 2023 | SHEET NO : 01 OF 02 | REV : R2



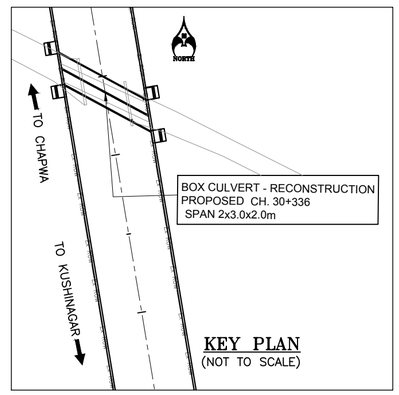
VIEW B–B
(SCALE 1:75)



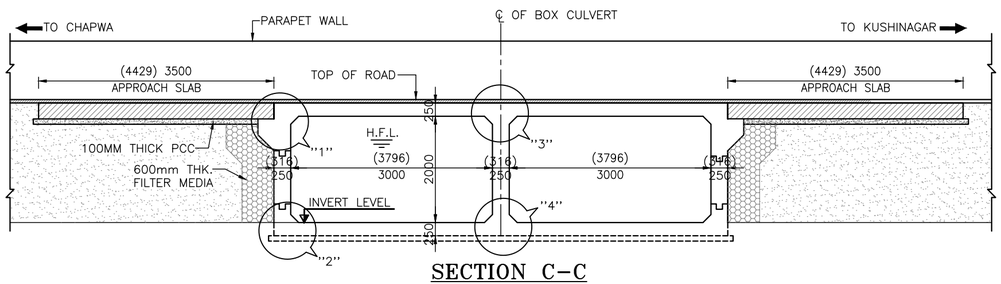
DETAIL–1
(SCALE 1:25)



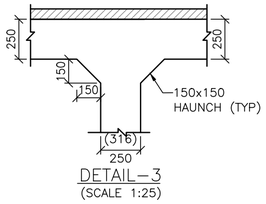
DETAIL–2
(SCALE 1:25)



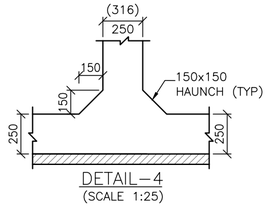
KEY PLAN
(NOT TO SCALE)



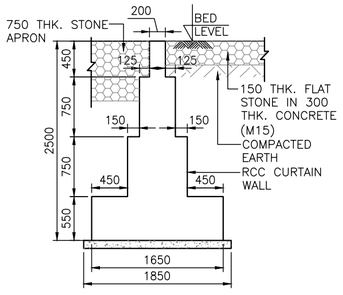
SECTION C–C
(SCALE 1:75)



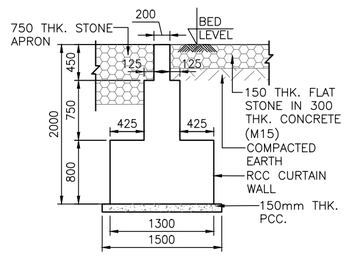
DETAIL–3
(SCALE 1:25)



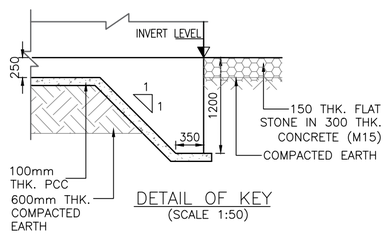
DETAIL–4
(SCALE 1:25)



CURTAIN WALL TYPE–I
(SCALE 1:50)



CURTAIN WALL TYPE–II
(SCALE 1:50)



DETAIL OF KEY
(SCALE 1:50)

LIST OF BOX CULVERT

SR. NO.	EXISTING TYPE OF STRUCTURE	DESIGN CHAINAGE	EXISTING SPAN ARRANGEMENT /C-C DISTANCE	PROPOSED SPAN ARRANGEMENT	EXISTING CARRIAGEWAY WIDTH (m)	EXISTING WIDTH OF THE STRUCTURE (m)	TOTAL ROADWAY WIDTH	SKEW ANGLE	BARREL LENGTH(m)	PROPOSED CARRIAGEWAY			FILL		F.R.L.	INVERT LEVEL	REMARK
										MAIN CARRIAGEWAY (m)	SEVICE ROAD (m)						
											-	-	LHS	RHS			
1	SOLID SLAB	17+420	4.5X1.0	2X3.0X2.0	-	13.5	-	37.79°	20.500	19.500	-	-	0.0	0.0	91.419	88.848	RECONSTRUCTION

CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार Government of India

CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2
Plot No.- 1, Sector-40, Nerul (west),
Navi Mumbai-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for feasibility Study & preparation of Detail Project Report for Improvement & up- gradation of newly Declared National Highways including existing NH-91A, NH-92, NH-97 & NH-28B in The State of Uttar Pradesh- Pkg-I. Stretch from Kushinagar-Betwa.

Prepared by	GANESH
Designed by	MOHIT G.
Checked by	RAVINDRA JOSHI
Approved by	RAVINDRA JOSHI

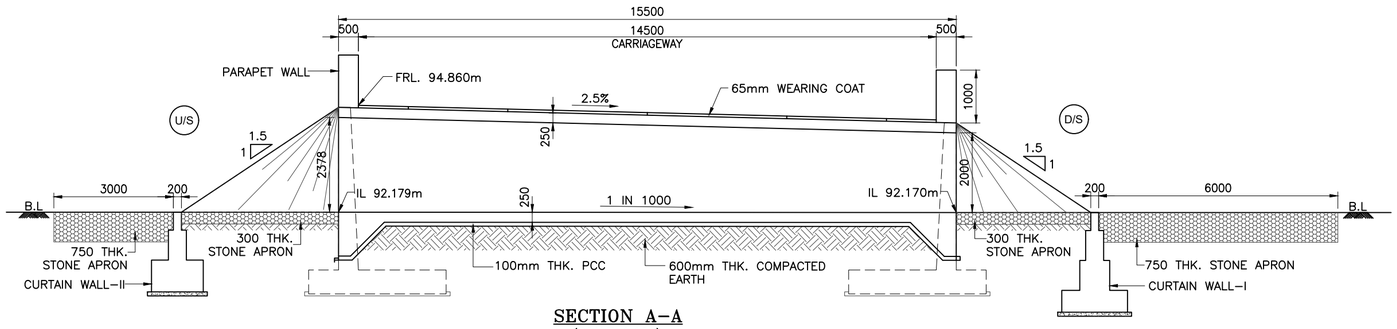
Revisions	Date	Description
R0	MAY. 2018	FOR APPROVAL
R1	APRIL . 2019	FOR APPROVAL
R2	MAY 2023	FOR APPROVAL

TITLE : GENERAL ARRANGEMENT DRAWING OF BOX CULVERT FOR RECONSTRUCTION(2X3.0mX2.0m)

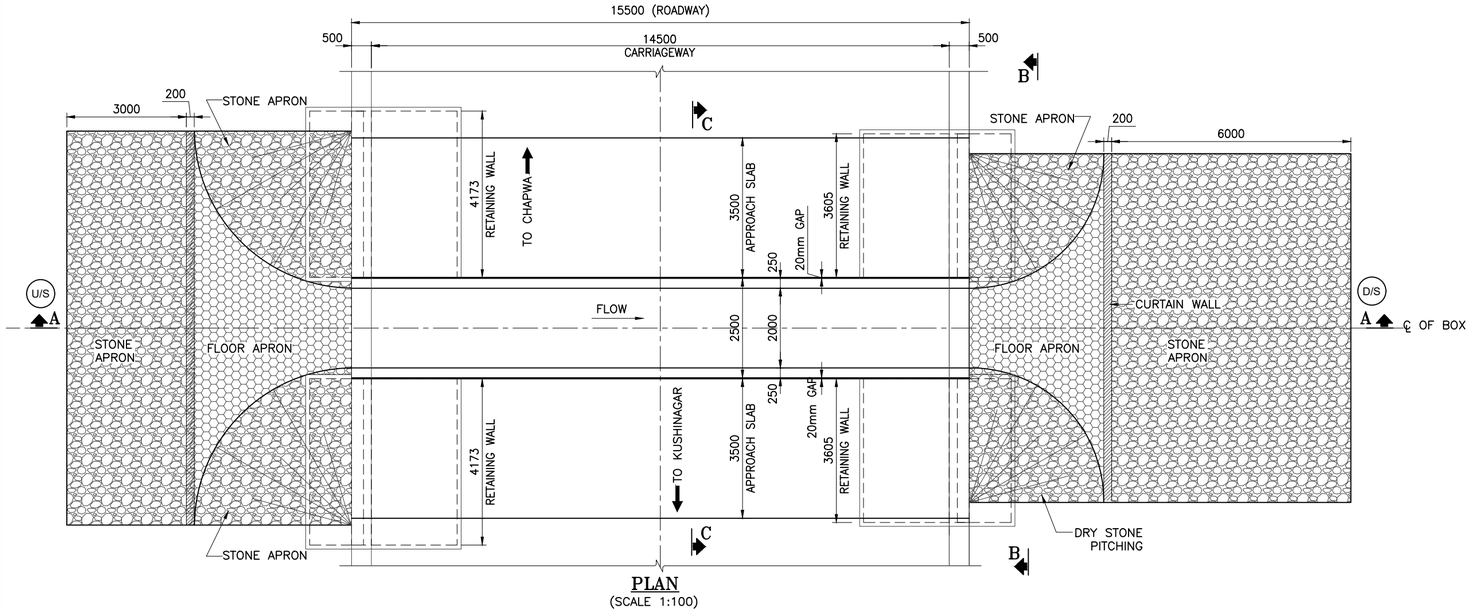
CHAINAGE : 30+336 | PURPOSE OF DRAWING FOR APPROVAL

DWG NO. : SOWiL.KN-BT.Viii/BC.GA-14

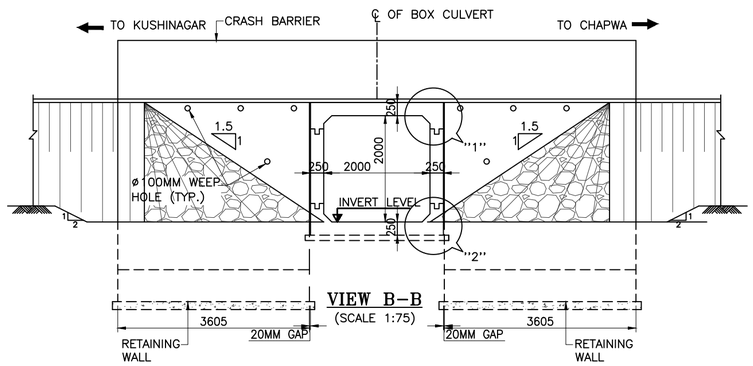
SCALE : AS SHOWN | DATE : MAY 2023 | SHEET NO : 02 OF 02 | REV : R2



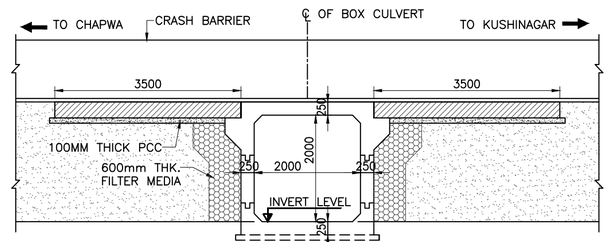
SECTION A-A
(SCALE 1:100)



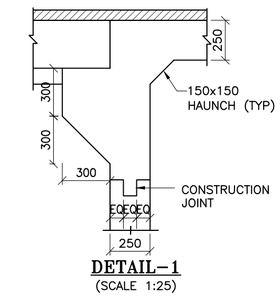
PLAN
(SCALE 1:100)



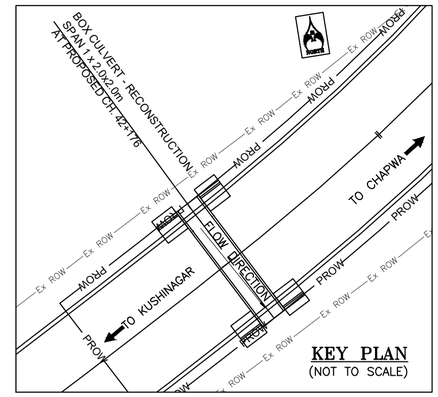
VIEW B-B
(SCALE 1:75)



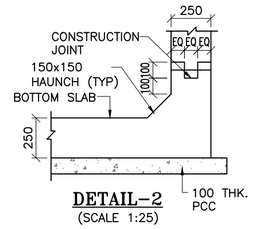
SECTION C-C
(SCALE 1:75)



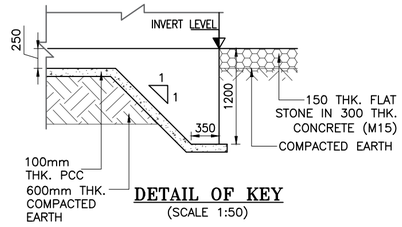
DETAIL-1
(SCALE 1:25)



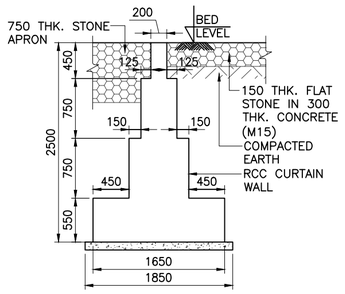
KEY PLAN
(NOT TO SCALE)



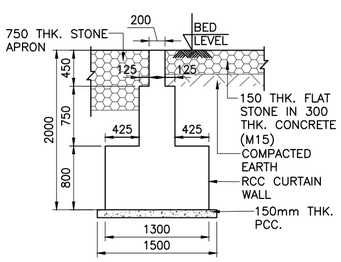
DETAIL-2
(SCALE 1:25)



DETAIL OF KEY
(SCALE 1:50)



CURTAIN WALL TYPE-1
(SCALE 1:50)



CURTAIN WALL TYPE-2
(SCALE 1:50)

LIST OF BOX CULVERT SINGLE CELL (1x2.0x 2.0M)

SR. NO.	EXISTING TYPE OF STRUCTURE	DESIGN CHAINAGE	EXISTING SPAN ARRANGEMENT /C-C DISTANCE	PROPOSED SPAN ARRANGEMENT	EXISTING CARRIAGEWAY WIDTH (m)	EXISTING WIDTH OF THE STRUCTURE (m)	TOTAL ROADWAY WIDTH	SKEW LENGTH OF PROPOSED BOX (m)	BARREL LENGTH(m)	PROPOSED CARRIAGEWAY	FILL		F.R.L.	INVERT LEVEL	REMARK
											LHS	RHS			
1	PIPE CULVERT	42+176	1X06	1x2.0x2.0m	-	7.4	-	0.0	15.5	14.5	0.0	0.0	94.860	92.129	RECONSTRUCTION

NOTES:-

1. ALL DIMENSIONS ARE IN MILIMETRES & LEVELS ARE IN METRE UNLESS OTERWISE MENTIONED.
2. REINFORCEMENT STEEL:Fe500 TMT BARS CONFIRMING TO IS:1786-2008.
3. GRADE OF CONCRETE AS FOLLOWS:-
   - BOX M-35
   - RETAINING WALL M-25
   - CURTAIN WALL M-15
   - LEVELING COURSE M-15
4. PROPOSED ROAD LEVEL WITH RESPECT TO EXISTING RTL ARE NOT TO SCALE.
5. LONGITUDINAL SLOPE OF BOX SHALL BE MINIMUM 1:1000.
6. BACKFILL MATERIAL BEHIND SIDE WALL OF BOX SHALL CONFIRM TO APPENDIX-6 OF IRC 78-2014 HAVING PROPERTIES α=0, ϕ=30°, Δ=20° AND γ=20 KN/m^3.
7. SEISMIC ZONE IV.

CLIENT:

..\..\logo\CLIENT LOGO_02.JPG

CONSULTANT:

SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2
Plot No.- 1, Sector-40, Nerul (west),
Navi Mumbai-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:

Consultancy Services for feasibility Study & preparation of Detail Project Report for Improvement & up- gradation of newly Declared National Highways including existing NH-91A, NH-92, NH-97 & NH-28B in The State of Uttar Pradesh- Pkg-I. Stretch from Kushinagar-Betwa.

Prepared by	DEVENDRA D.
Designed by	MOHIT G.
Checked by	RAVINDRA JOSHI
Approved by	RAVINDRA JOSHI

Revisions	Date	Description
R0	MAY. 2018	FOR APPROVAL
R1	APRIL . 2019	FOR APPROVAL
R2	MAY . 2023	

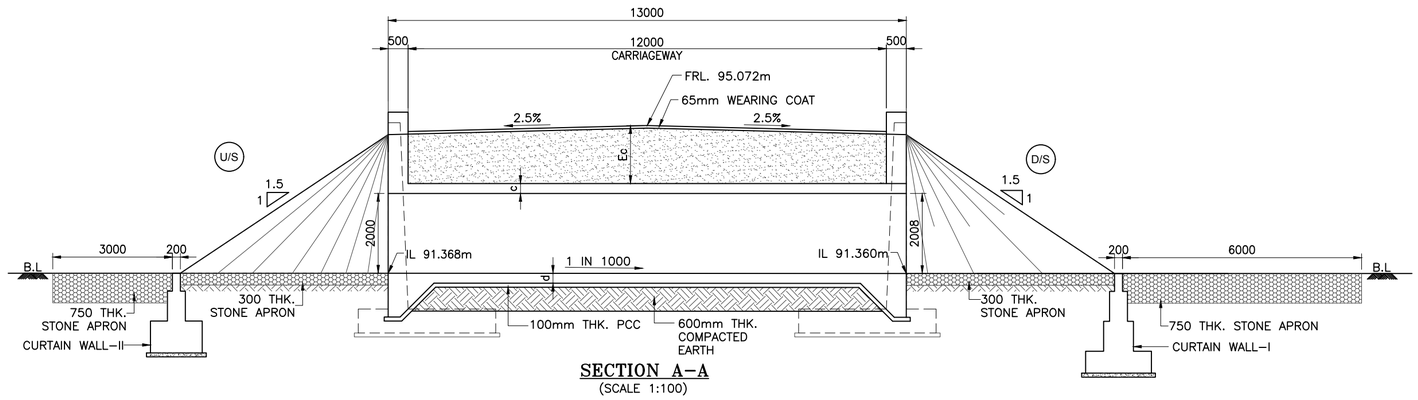
TITLE : GENERAL ARRANGEMENT DRAWING OF BOX CULVERT FOR RECONSTRUCTION (1x2.0x2.0m)

CHAINAGE : 42+176

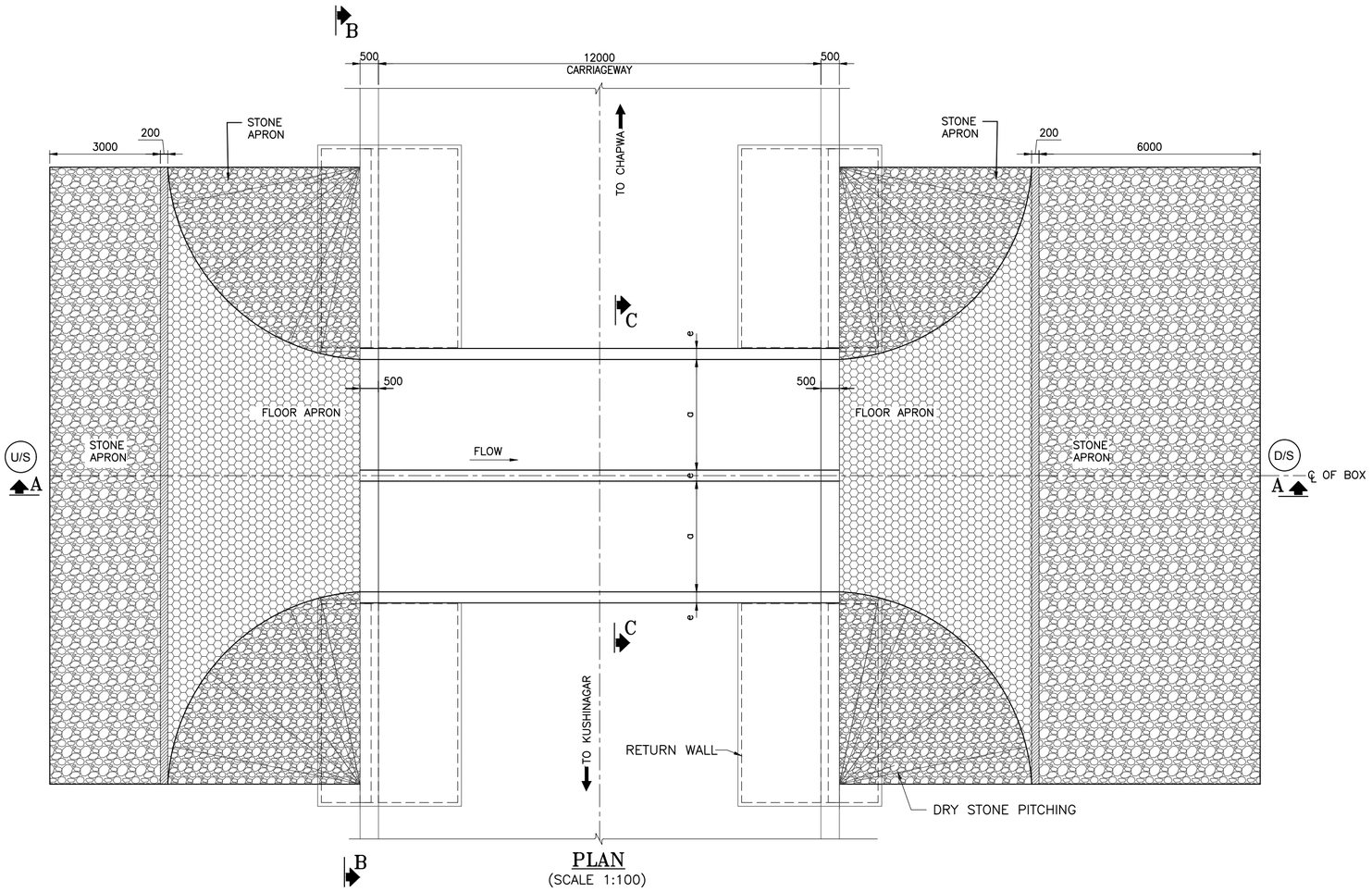
PURPOSE OF DRAWING FOR APPROVAL

DWG NO. : SOWiL.KN-BT.Viii/BC.GA-08

SCALE : AS SHOWN | DATE : APRIL . 2023 | SHEET NO : 01 OF 01 | REV : R2



SECTION A–A
(SCALE 1:100)



PLAN
(SCALE 1:100)

NOTES:–

1. ALL DIMENSIONS ARE IN MILIMETRES & LEVELS ARE IN METRE UNLESS OTERWISE MENTIONED.
2. REINFORCEMENT STEEL:Fe500 TMT BARS CONFIRMING TO IS:1786–2008.
3. GRADE OF CONCRETE AS FOLLOWS:–

BOX	M–35
RETAINING WALL	M–25
CURTAIN WALL	M–15
LEVELING COURSE	M–15

4. PROPOSED ROAD LEVEL WITH RESPECT TO EXISTING RTL ARE NOT TO SCALE.
5. LONGITUDINAL SLOPE OF BOX SHALL BE MINIMUM 1:1000.
6. BACKFILL MATERIAL BEHIND SIDE WALL OF BOX SHALL CONFIRM TO APPENDIX–6 OF IRC 78–2014 HAVING PROPERTIES α=0, ϕ=30°, Δ=20° AND γ=20 KN/m³.
7. SEISMIC ZONE IV.

CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार Government of India

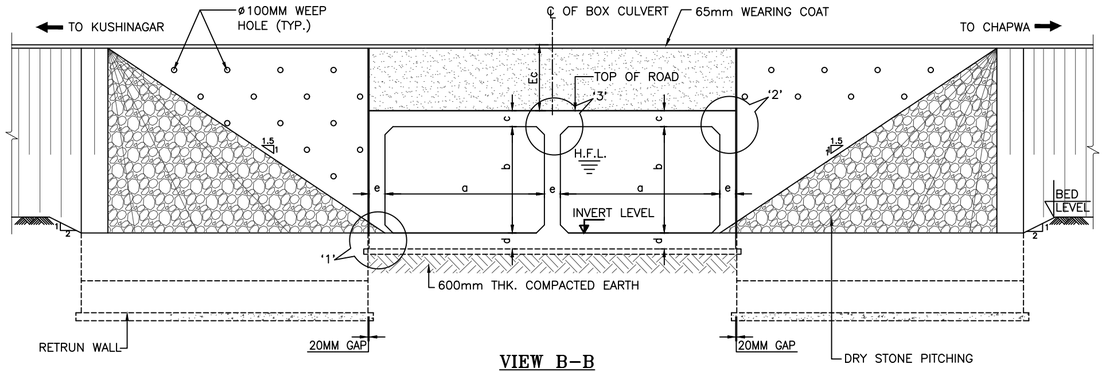
CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2
Plot No.- 1, Sector-40, Nerul (west),
Navi Mumbai-400706
Phone;022-2770 2265 / 68 / 61, Fax.022-2770 2259

PROJECT:
Consultancy Services for feasibility Study & preparation of Detail Project Report for Improvement & up- gradation of newly Declared National Highways including existing NH-91A, NH-92, NH-97 & NH-28B in The State of Uttar Pradesh- Pkg-I. Stretch from Kushinagar-Betwa.

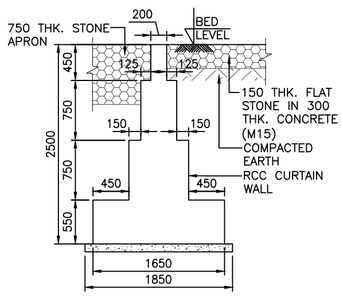
Prepared by	DEVENDRA D.
Designed by	MOHIT G.
Checked by	RAVINDRA JOSHI
Approved by	RAVINDRA JOSHI

Revisions	Date	Description
R0	MAY. 2018	FOR APPROVAL
R1	APRIL . 2019	FOR APPROVAL
R2	MAY 2023	

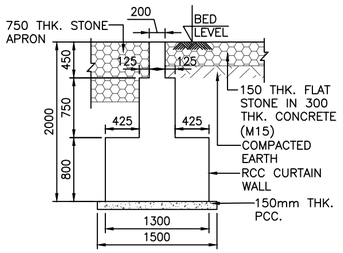
TITLE : GENERAL ARRANGEMENT DRAWING OF BOX CULVERT FOR RECONSTRUCTION
CHAINAGE : 43+013
DWG NO. : SOWiL.KN-BT.Viii/BC.GA-012
PURPOSE OF DRAWING FOR APPROVAL
SCALE : AS SHOWN | DATE : MAY 2023 | SHEET NO : 01 OF 02 | REV : R2



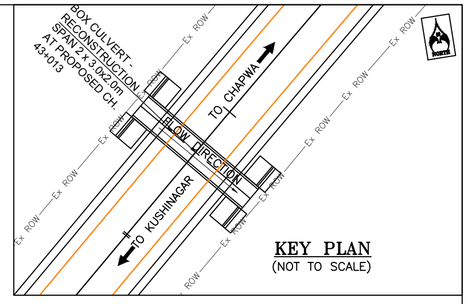
VIEW B–B
(SCALE 1:75)



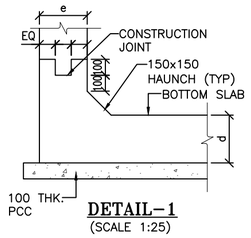
CURTAIN WALL TYPE–1
(SCALE 1:50)



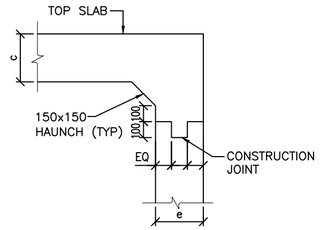
CURTAIN WALL TYPE–2
(SCALE 1:50)



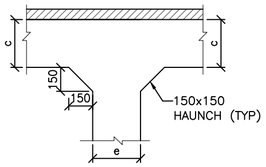
KEY PLAN
(NOT TO SCALE)



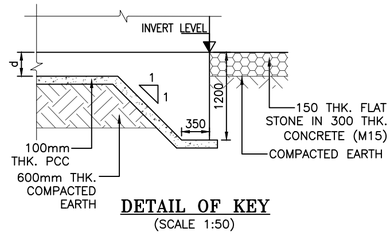
DETAIL–1
(SCALE 1:25)



DETAIL–2
(SCALE 1:25)



DETAIL–3
(SCALE 1:25)



DETAIL OF KEY
(SCALE 1:50)

LIST OF BOX CULVERT TWIN CELL

SR. NO.	EXISTING TYPE OF STRUCTURE	DESIGN CHAINAGE	EXISTING SPAN ARRANGEMENT /C-C DISTANCE	PROPOSED SPAN ARRANGEMENT	EXISTING CARRIAGEWAY WIDTH (m)	EXISTING WIDTH OF THE STRUCTURE (m)	TOTAL ROADWAY WIDTH	SKEW ANGLE	BARREL LENGTH(m)	PROPOSED CARRIAGEWAY			F.R.L.	INVERT LEVEL	REMARK	TABLE SHOWING SALIENT DIMENSIONS					
										MAIN CARRIAGEWAY (m)	SEVICE ROAD (m)					a (mm)	b (mm)	c (mm)	d (mm)	e (mm)	Ec (mm)
											-	-									
1	SOLID SLAB	38+324	5.0X2.75	2X3.0X3.0	-	12.0	-	0.0	13.000	12.000	-	-	93.187	89.710	RECONSTRUCTION	3000	3000	250	250	250	-
2	SOLID SLAB	38+368	2X4.6X2.45	2X3.0X3.0	-	9.0	-	0.0	13.000	12.000	-	-	93.055	89.587	RECONSTRUCTION	3000	3000	250	250	250	-
3	SOLID SLAB	43+013	4.5X2.2	2X3.0X2.0		12.3		0.0	13.000	12.000	-	-	95.072	91.368	RECONSTRUCTION	3000	2000	250	250	250	1454

CLIENT: सड़क परिवहन और राजमार्ग मंत्रालय MINISTRY OF ROAD TRANSPORT & HIGHWAYS भारत सरकार Government of India

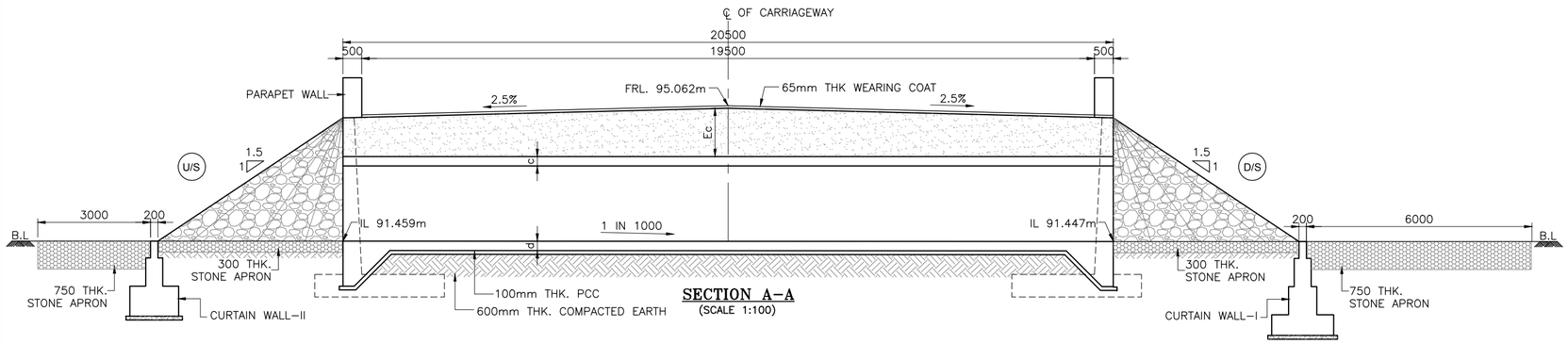
CONSULTANT: **SOWiL Limited**
Goodwill Avenue,1st Floor,"A" Wing Office No.-2
Plot No.- 1, Sector-40, Nerul (west),
Navi Mumbai-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for feasibility Study & preparation of Detail Project Report for Improvement & up- gradation of newly Declared National Highways including existing NH-91A, NH-92, NH-97 & NH-28B in The State of Uttar Pradesh- Pkg-I. Stretch from Kushinagar-Betwa.

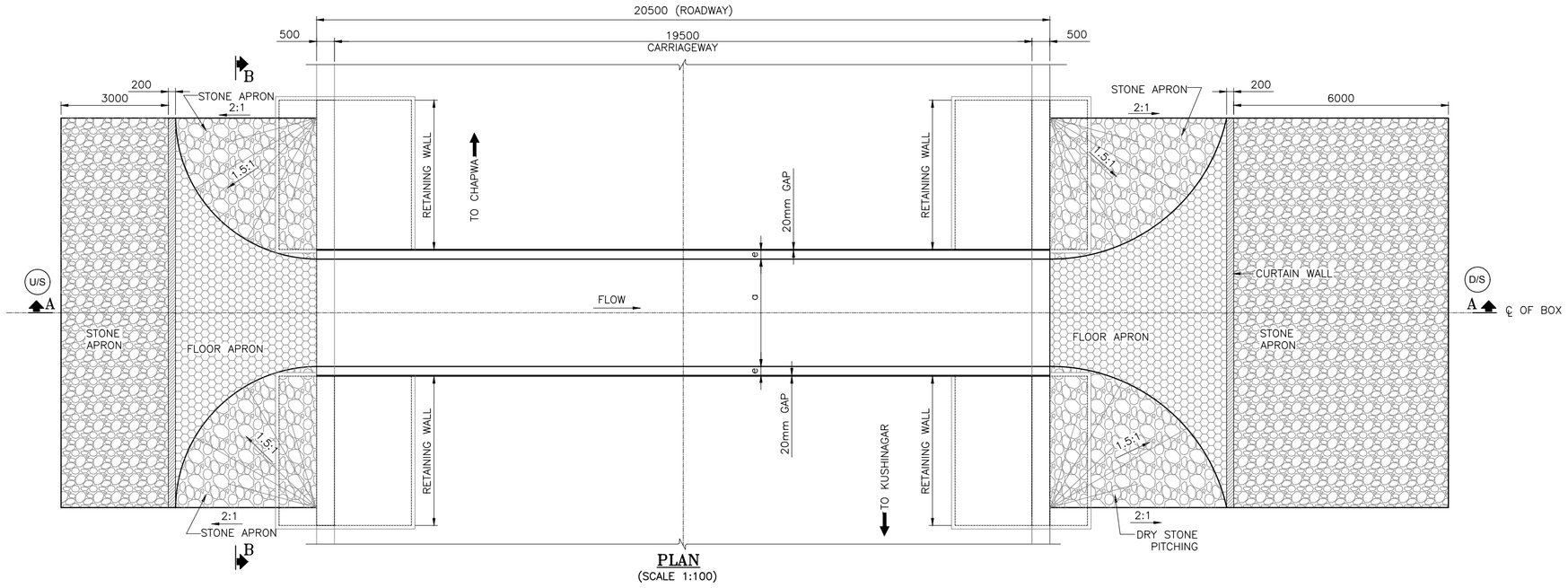
Prepared by	DEVENDRA D.
Designed by	MOHIT G.
Checked by	RAVINDRA JOSHI
Approved by	RAVINDRA JOSHI

Revisions	Date	Description
R0	MAY. 2018	FOR APPROVAL
R1	APRIL . 2019	FOR APPROVAL
R2	MAY 2023	FOR APPROVAL

TITLE : GENERAL ARRANGEMENT DRAWING OF BOX CULVERT FOR RECONSTRUCTION
CHAINAGE : 43+013
DWG NO. : SOWiL.KN-BT.Viii/BC.GA-012
PURPOSE OF DRAWING FOR APPROVAL
SCALE : AS SHOWN | DATE : MAY 2023 | SHEET NO : 02 OF 02 | REV : R2



SECTION A-A
(SCALE 1:100)



PLAN
(SCALE 1:100)

NOTES:-

1. ALL DIMENSIONS ARE IN MILIMETRES & LEVELS ARE IN METRE UNLESS OTERWISE MENTIONED.
2. REINFORCEMENT STEEL:Fe500 TMT BARS CONFIRMING TO IS:1786-2008.
3. GRADE OF CONCRETE AS FOLLOWS:-

BOX	M-35
RETAINING WALL	M-25
CURTAIN WALL	M-15
LEVELING COURSE	M-15

4. PROPOSED ROAD LEVEL WITH RESPECT TO EXISTING RTL ARE NOT TO SCALE.
5. LONGITUDINAL SLOPE OF BOX SHALL BE MINIMUM 1:1000.
6. BACKFILL MATERIAL BEHIND SIDE WALL OF BOX SHALL CONFIRM TO APPENDIX-6 OF IRC 78-2014 HAVING PROPERTIES α=0, ϕ=30°, Δ=20° AND γ=20 KN/m³.
7. SEISMIC ZONE IV.
8. SBC- 20kN/m^2
9. FOR RETAINING WALL REFER SEPARATE DRAWING.

CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
Government of India

CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2
Plot No.- 1, Sector-40, Nerul (west),
Navi Mumbai-400706
Phone;022-2770 2265 / 68 / 61, Fax.022-2770 2259

PROJECT:
Consultancy Services for feasibility Study & preparation of Detail Project Report for Improvement & up- gradation of newly Declared National Highways including existing NH-91A, NH-92, NH-97 & NH-28B in The State of Uttar Pradesh- Pkg-I. Stretch from Kushinagar-Betwa.

Prepared by	GANESH
Designed by	MOHIT G.
Checked by	RAVINDRA JOSHI
Approved by	RAVINDRA JOSHI

Revisions	Date	Description
R0	MAY. 2018	FOR APPROVAL
R1	APRIL . 2019	FOR APPROVAL
R2	MAY 2023	FOR APPROVAL

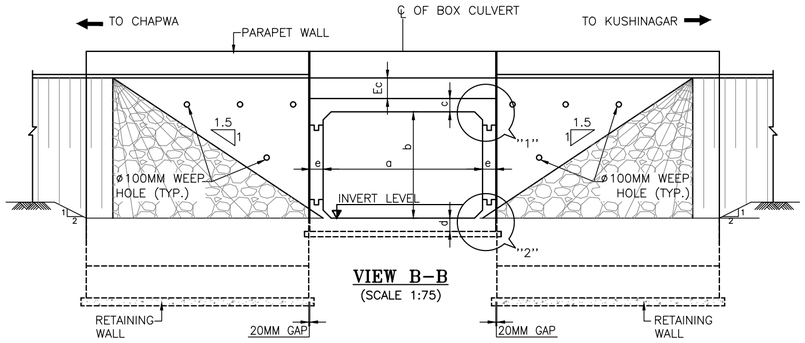
TITLE : GENERAL ARRANGEMENT DRAWING OF BOX CULVERT FOR RECONSTRUCTION (1X3.0X2.0)

CHAINAGE : 48+053

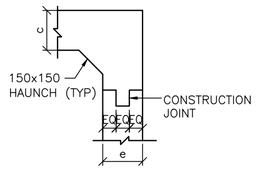
PURPOSE OF DRAWING FOR APPROVAL

DWG NO. : SOWiL.KN-BT.Viii/BC.GA-15

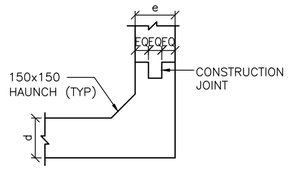
SCALE : AS SHOWN | DATE : MAY 2023 | SHEET NO : 01 OF 02 | REV : R2



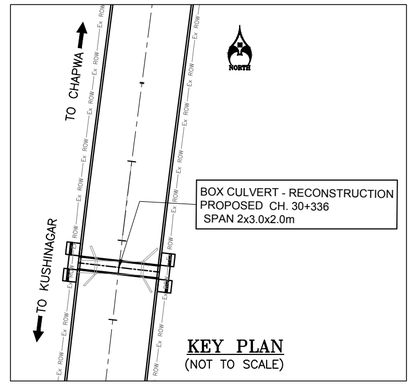
VIEW B–B
(SCALE 1:75)



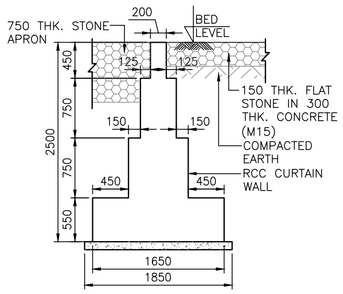
DETAIL–1
(SCALE 1:25)



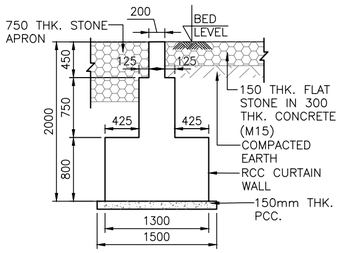
DETAIL–2
(SCALE 1:25)



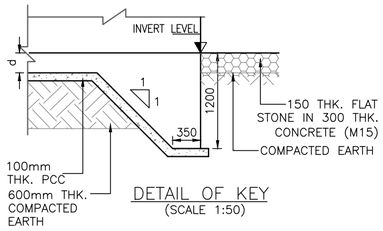
KEY PLAN
(NOT TO SCALE)



CURTAIN WALL TYPE–I
(SCALE 1:50)



CURTAIN WALL TYPE–II
(SCALE 1:50)



DETAIL OF KEY
(SCALE 1:50)

LIST OF BOX CULVERT SINGLE CELL

SR. NO.	EXISTING TYPE OF STRUCTURE	DESIGN CHAINAGE	EXISTING SPAN ARRANGEMENT /C-C DISTANCE	PROPOSED SPAN ARRANGEMENT	EXISTING CARRIAGEWAY WIDTH (m)	EXISTING WIDTH OF THE STRUCTURE (m)	TOTAL ROADWAY WIDTH	SKEW ANGLE	BARREL LENGTH(m)	PROPOSED CARRIAGEWAY			F.R.L.	INVERT LEVEL	REMARK	TABLE SHOWING SALIENT DIMENSIONS					
										MAIN CARRIAGEWAY (m)	SEVICE ROAD (m)					a (mm)	b (mm)	c (mm)	d (mm)	e (mm)	Ec (mm)
											-	-									
1	SOLID SLAB	24+303	1.2X0.6	1X2.0X2.0	-	19.7	-	56.60°	20.500	19.500	-	-	89.688	87.077	RECONSTRUCTION	2000	2000	250	250	250	-
2	PILE CULVERT	24+424	1.0X0.9	1X2.0X2.0		12.7	-	0.00°	20.500	19.500	-	-	89.343	86.772	RECONSTRUCTION	2000	2000	250	250	250	-
3	SOLID SLAB	24+787	1.5X2.2	1X2.0X2.0		12.0	-	0.00°	20.500	19.500	-	-	89.533	86.846	RECONSTRUCTION	2000	2000	250	250	250	-
4	PILE CULVERT	29+598	1X1.0	1X2.0X2.0		17.0	-	0.00°	20.500	19.500	-	-	89.488	86.917	RECONSTRUCTION	2000	2000	250	250	250	-
5	PILE CULVERT	31+468	1X0.9	1X2.0X2.0		17.9	-	0.00°	20.500	19.500	-	-	90.669	88.098	RECONSTRUCTION	2000	2000	250	250	250	-
6	ARCH SLAB	31+780	1.0X0.9	1X2.0X2.0		11.0	-	0.00°	20.500	19.500	-	-	90.798	88.227	RECONSTRUCTION	2000	2000	250	250	250	-
7	PILE CULVERT	32+155	1X0.9	1X2.0X2.0		17.3	-	0.00°	20.500	19.500	-	-	91.699	89.128	RECONSTRUCTION	2000	2000	250	250	250	-
8	PILE CULVERT	32+587	1X0.9	1X3.0X3.0		14.0	-	0.00°	20.500	19.500	-	-	92.499	89.119	RECONSTRUCTION	3000	3000	250	250	250	1130
9	PILE CULVERT	32+918	1X0.9	1X2.0X2.0		17.2	-	0.00°	20.500	19.500	-	-	92.918	90.347	RECONSTRUCTION	2000	2000	250	250	250	-
10	SOLID SLAB	33+447	2.5X0.7	1X3.0X3.0		11.0	-	0.00°	20.500	19.500	-	-	92.900	89.329	RECONSTRUCTION	3000	3000	250	250	250	-
11	PILE CULVERT	36+305	1X0.9	1X2.0X2.0		17.2	-	0.00°	20.500	19.500	-	-	93.515	90.944	RECONSTRUCTION	2000	2000	250	250	250	-
12	PILE CULVERT	37+147	1X1.0	1X2.0X2.0		17.7	-	0.00°	20.500	19.500	-	-	93.095	90.524	RECONSTRUCTION	2000	2000	250	250	250	-
13	SOLID SLAB	37+356	1X0.7	1X2.0X2.0		8.6	-	0.00°	20.500	19.500	-	-	92.968	90.397	RECONSTRUCTION	2000	2000	250	250	250	-
14	SOLID SLAB	37+766	2.5X2.1	1X3.0X3.0		11.7	-	0.00°	20.500	19.500	-	-	92.689	89.118	RECONSTRUCTION	3000	3000	250	250	250	-
15	SOLID SLAB	44+989	2.2X1.2	1X2.0X2.0		14.1	-	39.03°	20.500	19.500	-	-	95.626	93.055	RECONSTRUCTION	2000	2000	250	250	250	-
16	SOLID SLAB	48+053	3.1X2.6	1X3.0X2.0		12.4	-	39.03°	20.500	19.500	-	-	95.062	91.459	RECONSTRUCTION	3000	2000	250	250	250	1355

CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार Government of India

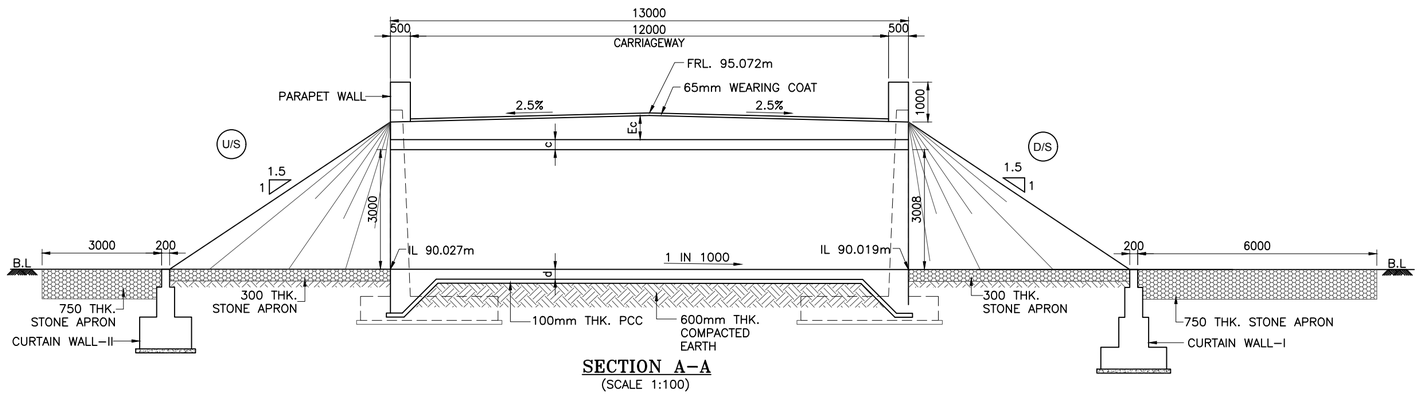
CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2
Plot No.- 1, Sector-40, Nerul (west),
Navi Mumbai-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for feasibility Study & preparation of Detail Project Report for Improvement & up- gradation of newly Declared National Highways including existing NH-91A, NH-92, NH-97 & NH-28B in The State of Uttar Pradesh- Pkg-I. Stretch from Kushinagar-Betwa.

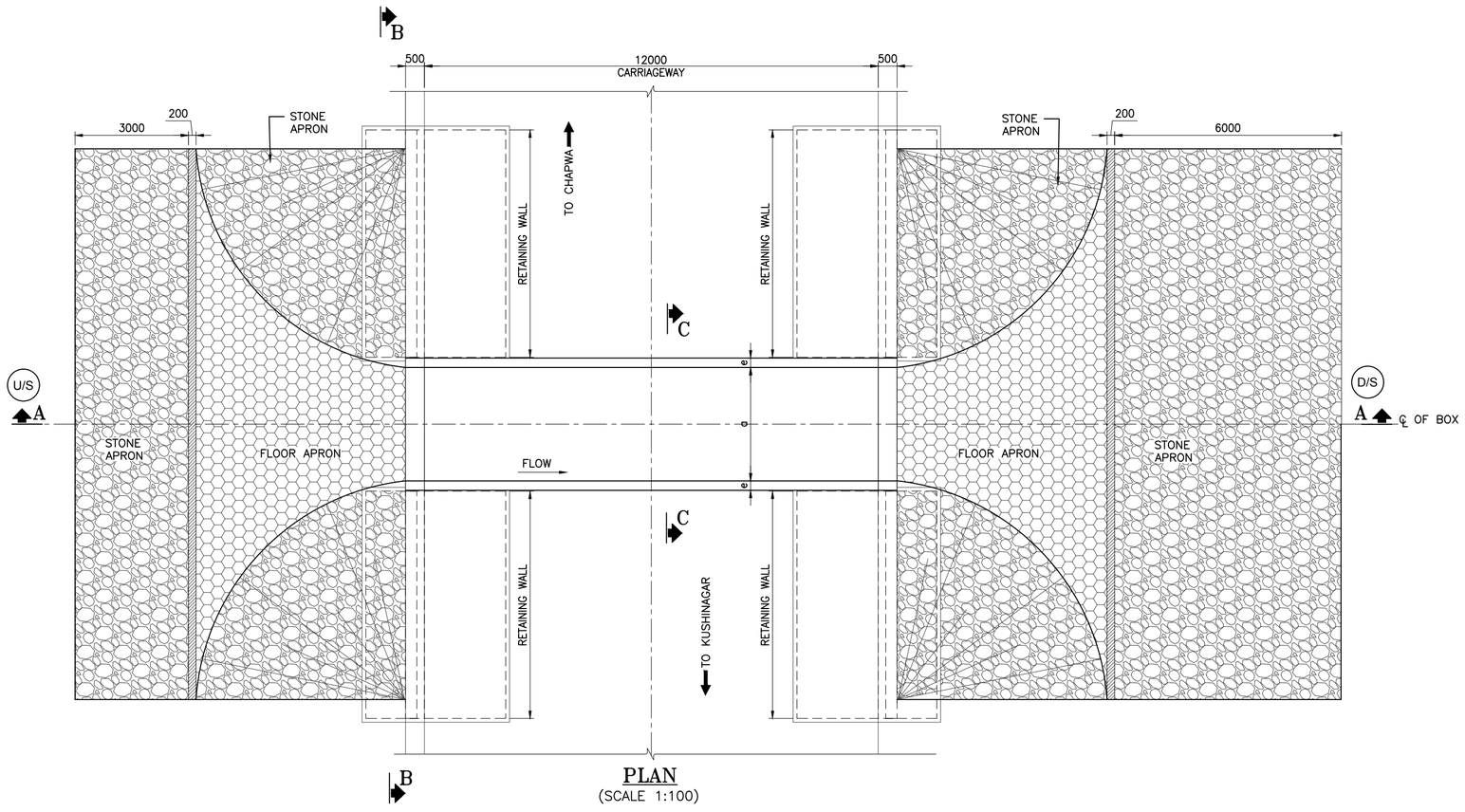
Prepared by	GANESH
Designed by	MOHIT G.
Checked by	RAVINDRA JOSHI
Approved by	RAVINDRA JOSHI

Revisions	Date	Description
R0	MAY. 2018	FOR APPROVAL
R1	APRIL . 2019	FOR APPROVAL
R2	MAY 2023	FOR APPROVAL

TITLE : GENERAL ARRANGEMENT DRAWING OF BOX CULVERT FOR RECONSTRUCTION (1X3.0X2.0)
CHAINAGE : 48+053
PURPOSE OF DRAWING FOR APPROVAL
DWG NO. : SOWiL.KN-BT.Viii/BC.GA-15
SCALE : AS SHOWN | DATE : MAY 2023 | SHEET NO : 02 OF 02 | REV : R2



SECTION A–A
(SCALE 1:100)



PLAN
(SCALE 1:100)

NOTES:–

1. ALL DIMENSIONS ARE IN MILIMETRES & LEVELS ARE IN METRE UNLESS OTERWISE MENTIONED.
2. REINFORCEMENT STEEL:Fe500 TMT BARS CONFIRMING TO IS:1786–2008.
3. GRADE OF CONCRETE AS FOLLOWS:–

BOX	M–35
RETAINING WALL	M–25
CURTAIN WALL	M–15
LEVELING COURSE	M–15

4. PROPOSED ROAD LEVEL WITH RESPECT TO EXISTING RTL ARE NOT TO SCALE.
5. LONGITUDINAL SLOPE OF BOX SHALL BE MINIMUM 1:1000.
6. BACKFILL MATERIAL BEHIND SIDE WALL OF BOX SHALL CONFIRM TO APPENDIX–6 OF IRC 78–2014 HAVING PROPERTIES α=0, ϕ=30°, Δ=20° AND γ=20 KN/m³.
7. SEISMIC ZONE IV.

CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार Government of India

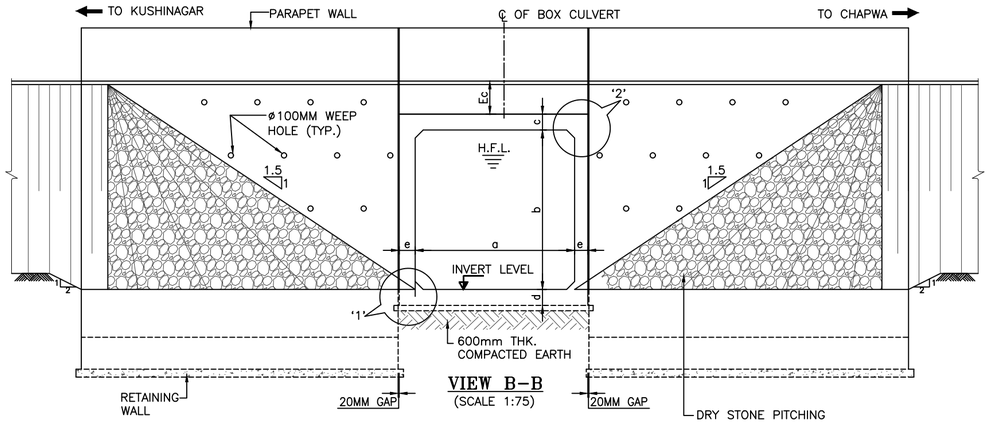
CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2
Plot No.- 1, Sector-40, Nerul (west),
Navi Mumbai-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for feasibility Study & preparation of Detail Project Report for Improvement & up- gradation of newly Declared National Highways including existing NH-91A, NH-92, NH-97 & NH-28B in The State of Uttar Pradesh- Pkg-I. Stretch from Kushinagar-Betwa.

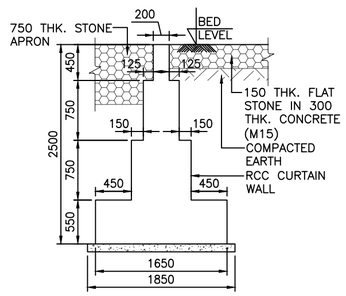
Prepared by	GANESH
Designed by	MOHIT G.
Checked by	RAVINDRA JOSHI
Approved by	RAVINDRA JOSHI

Revisions	Date	Description
R0	MAY. 2018	FOR APPROVAL
R1	APRIL . 2019	FOR APPROVAL
R2	MAY 2023	FOR APPROVAL

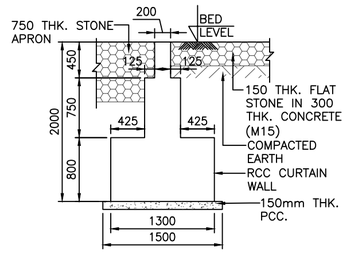
TITLE : GENERAL ARRANGEMENT DRAWING OF BOX CULVERT FOR RECONSTRUCTION
CHAINAGE : 48+484
PURPOSE OF DRAWING FOR APPROVAL
DWG NO. : SOWiL.KN-BT.Viii/BC.GA-013
SCALE : AS SHOWN | DATE : MAY 2023 | SHEET NO : 01 OF 02 | REV : R2



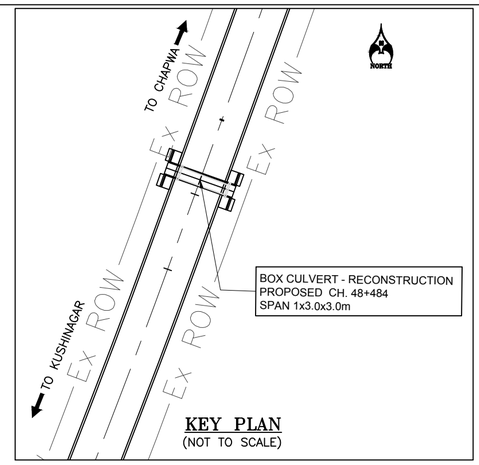
VIEW B–B
(SCALE 1:75)



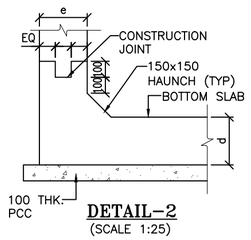
CURTAIN WALL TYPE–1
(SCALE 1:50)



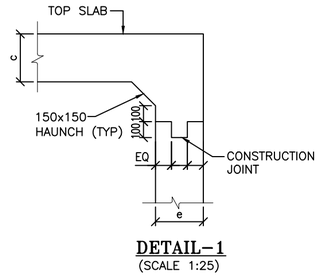
CURTAIN WALL TYPE–2
(SCALE 1:50)



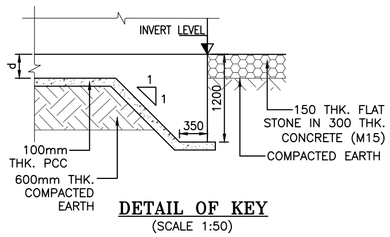
KEY PLAN
(NOT TO SCALE)



DETAIL–2
(SCALE 1:25)



DETAIL–1
(SCALE 1:25)



DETAIL OF KEY
(SCALE 1:50)

LIST OF BOX CULVERT SINGLE CELL

SR. NO.	EXISTING TYPE OF STRUCTURE	DESIGN CHAINAGE	EXISTING SPAN ARRANGEMENT /C-C DISTANCE	PROPOSED SPAN ARRANGEMENT	EXISTING CARRIAGEWAY WIDTH (m)	EXISTING WIDTH OF THE STRUCTURE (m)	TOTAL ROADWAY WIDTH	SKEW ANGLE	BARREL LENGTH(m)	PROPOSED CARRIAGEWAY			F.R.L.	INVERT LEVEL	REMARK	TABLE SHOWING SALIENT DIMENSIONS					
										MAIN CARRIAGEWAY (m)	SEVICE ROAD (m)					a (mm)	b (mm)	c (mm)	d (mm)	e (mm)	Ec (mm)
											-	-									
1	SOLID SLAB	26+909	3.9X1.0	1X3.0X3.0	-	11.4	-	0.0	13.000	12.000	-	-	91.506	88.028	RECONSTRUCTION	3000	3000	250	250	250	-
2	SOLID SLAB	38+929	2.8X1.8	1X3.0X2.0	-	12.7	-	0.0	13.000	12.000	-	-	94.253	91.775	RECONSTRUCTION	3000	2000	250	250	250	-
3	SOLID SLAB	48+484	2.8X1.65	1X3.0X3.0		13.1		0.0	13.000	12.000	-	-	93.948	90.027	RECONSTRUCTION	3000	3000	250	250	250	671
4	SOLID SLAB	50+449	3.0X1.6	1X3.0X2.0		10.4		0.0	13.000	12.000	-	-	93.656	91.178	RECONSTRUCTION	3000	2000	250	250	250	-

CLIENT: सड़क परिवहन और राजमार्ग मंत्रालय MINISTRY OF ROAD TRANSPORT & HIGHWAYS भारत सरकार Government of India

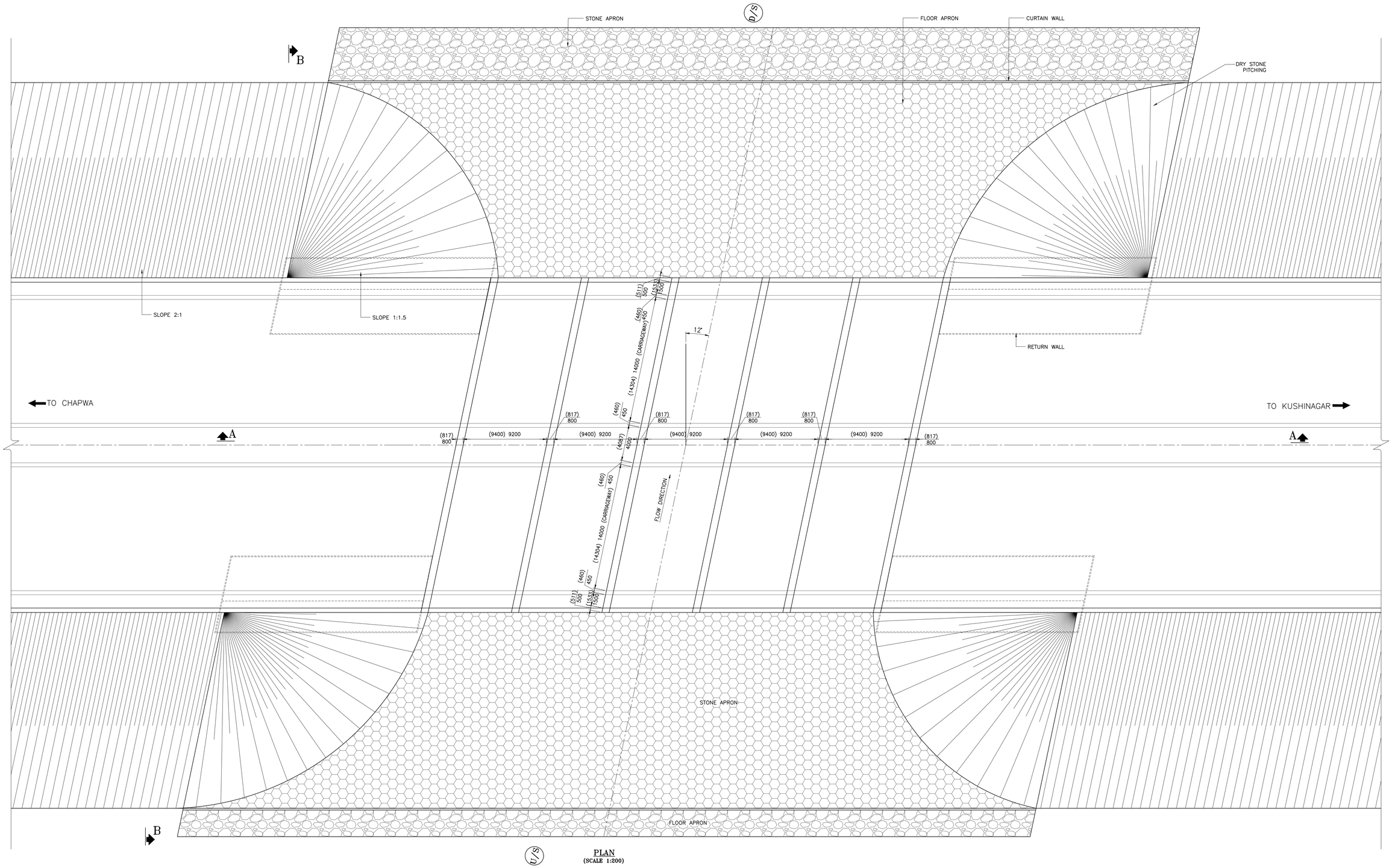
CONSULTANT: **SOWiL Limited**
Goodwill Avenue,1st Floor,"A" Wing Office No.-2
Plot No.- 1, Sector-40, Nerul (west),
Navi Mumbai-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for feasibility Study & preparation of Detail Project Report for Improvement & up- gradation of newly Declared National Highways including existing NH-91A, NH-92, NH-97 & NH-28B in The State of Uttar Pradesh- Pkg-I. Stretch from Kushinagar-Betwa.

Prepared by	GANESH
Designed by	MOHIT G.
Checked by	RAVINDRA JOSHI
Approved by	RAVINDRA JOSHI

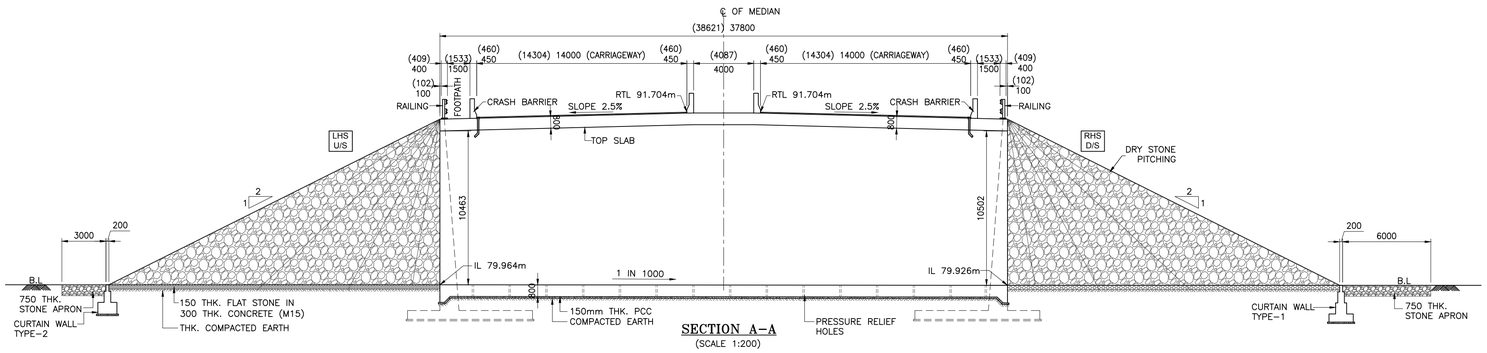
Revisions	Date	Description
R0	MAY. 2018	FOR APPROVAL
R1	APRIL . 2019	FOR APPROVAL
R2	MAY 2023	FOR APPROVAL

TITLE : GENERAL ARRANGEMENT DRAWING OF BOX CULVERT FOR RECONSTRUCTION
CHAINAGE : 48+484
DWG NO. : SOWiL.KN-BT.Viii/BC.GA-013
PURPOSE OF DRAWING FOR APPROVAL
SCALE : AS SHOWN | DATE : MAY 2023 | SHEET NO : 02 OF 02 | REV : R2

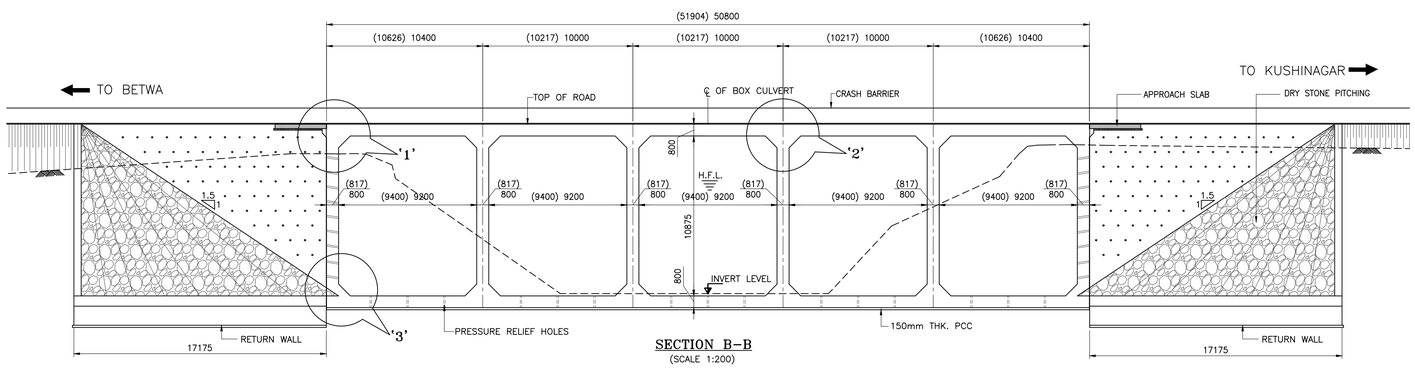


PLAN
(SCALE 1:200)

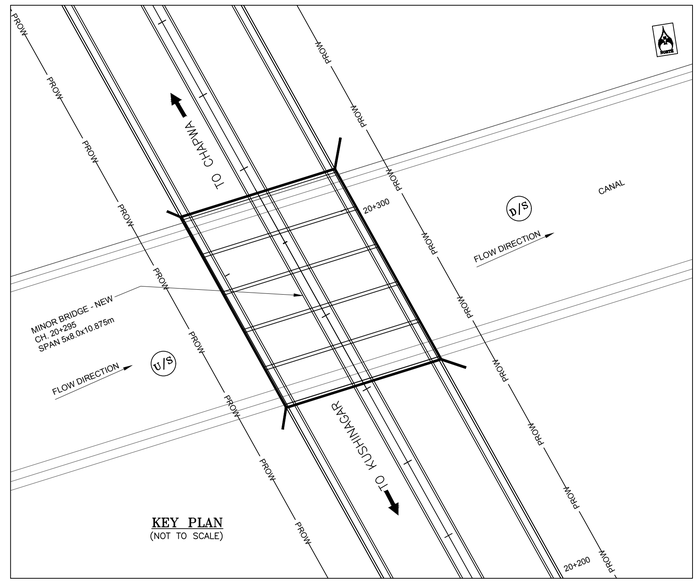
CLIENT: सड़क परिवहन और राजमार्ग मंत्रालय MINISTRY OF ROAD TRANSPORT & HIGHWAYS Government of India	CONSULTANT: **SOWiL Limited** Goodwill Avenue,1st Floor,"A" Wing Office No.-2 Plot No.- 1, Sector-40, Nerul (west), Navi Mumbay-400706 Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259	PROJECT: Consultancy Services for feasibility Study & preparation of Detail Project Report for Improvement & up- gradation of newly Declared National Highways including existing NH-91A, NH-92, NH-97 & NH-28B in The State of Uttar Pradesh- Pkg-I. Stretch from Kushinagar-Betwa.	Prepared by: DEVENDRA Designed by: MOHIT G. Checked by: RAVINDRA JOSHI Approved by: RAVINDRA JOSHI	Revisions / Date / Description: R0 MAY. 2018 R1 APRIL . 2019 R2 MAY . 2023	TITLE : GENERAL ARRANGEMENT DRAWING OF MINOR BRIDGE AT CH.20+295 CHAINAGE : 20+295 DWG NO. : SOWiL.KN-BT.Viii/MNB.GA-005 SCALE : AS SHOWN | DATE : 03/04/2023 | SHEET NO : 01 OF 02 | REV : R2	PURPOSE OF DRAWING FOR APPROVAL



SECTION A-A
(SCALE 1:200)



SECTION B-B
(SCALE 1:200)



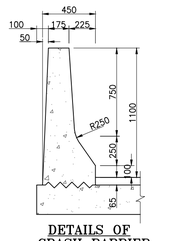
KEY PLAN
(NOT TO SCALE)

NOTES:-

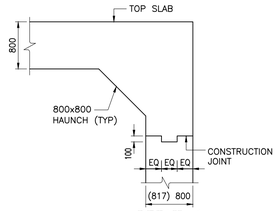
1. ALL DIMENSIONS ARE IN MILIMETRES & LEVELS ARE IN METRE UNLESS OTERWISE MENTIONED.
2. REINFORCEMENT STEEL:Fe500 TMT BARS CONFIRMING TO IS:1786-2008.
3. GRADE OF CONCRETE AS FOLLOWS:-

BOX	M-35
RETAINING WALL	M-35
CURTAIN WALL	M-25
LEVELING COURSE	M-15

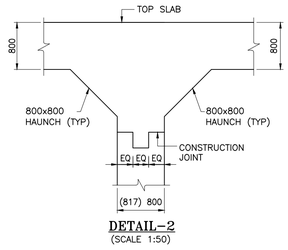
4. PROPOSED ROAD LEVEL WITH RESPECT TO EXISTING RTL ARE NOT TO SCALE.
5. LONGITUDINAL SLOPE OF BOX SHALL BE MINIMUM 1:1000.
6. BACKFILL MATERIAL BEHIND SIDE WALL OF BOX SHALL CONFIRM TO APPENDIX-6 OF IRC 78-2014 HAVING PROPERTIES $\propto$=0, ϕ=30°, Δ=20° AND γ=20 KN/m^3.
7. SKEW DIMENSION SHOWN IN ( ).



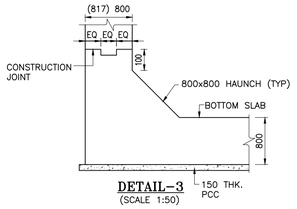
DETAILS OF CRASH BARRIER
(SCALE 1:25)



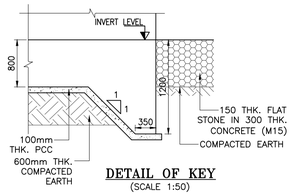
DETAIL-1
(SCALE 1:50)



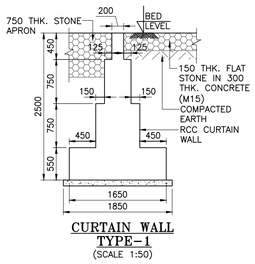
DETAIL-2
(SCALE 1:50)



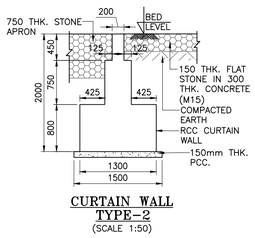
DETAIL-3
(SCALE 1:50)



DETAIL OF KEY
(SCALE 1:50)

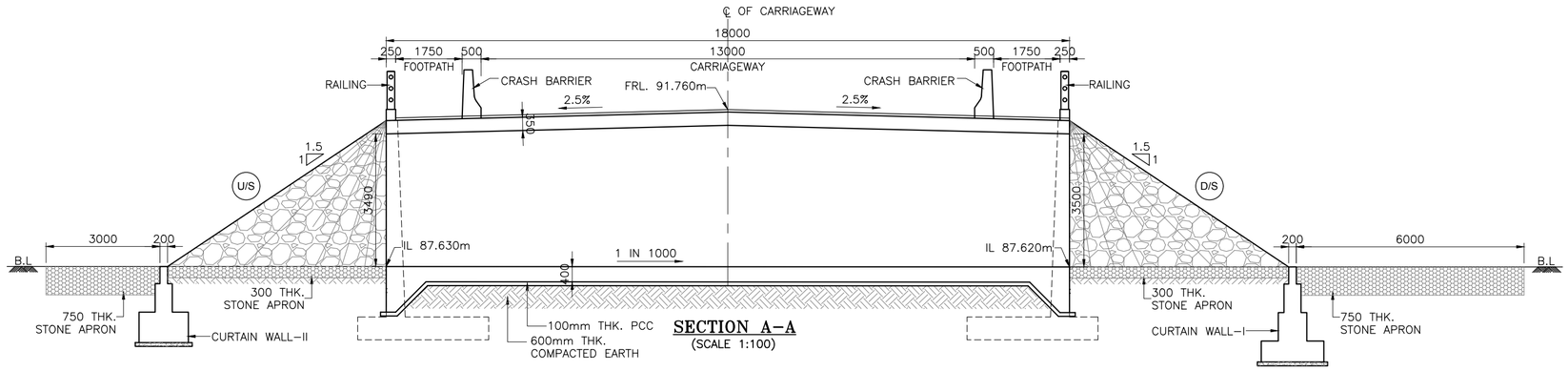


CURTAIN WALL TYPE-1
(SCALE 1:50)

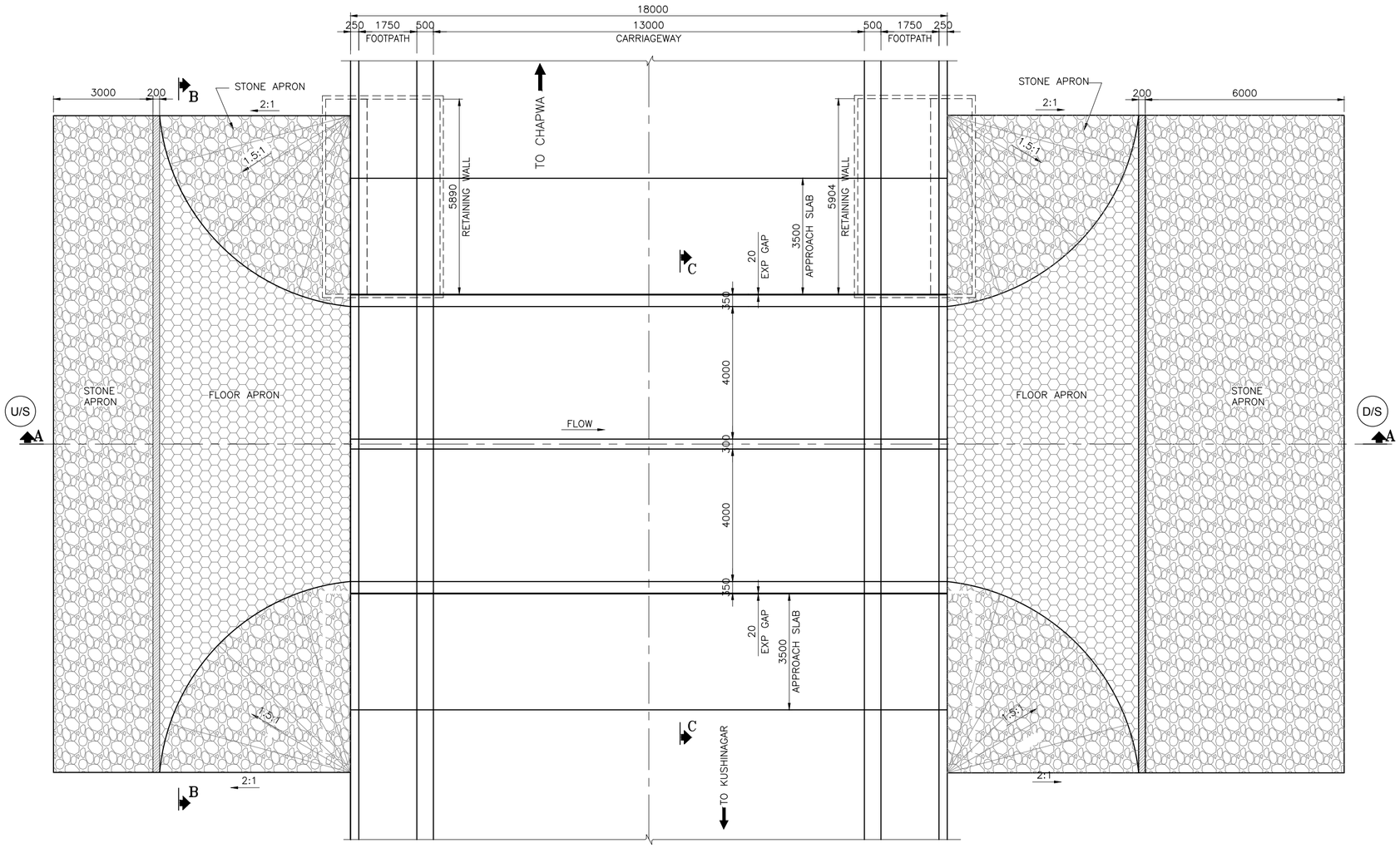


CURTAIN WALL TYPE-2
(SCALE 1:50)

CLIENT: सड़क परिवहन और राजमार्ग मंत्रालय MINISTRY OF ROAD TRANSPORT & HIGHWAYS Government of India	CONSULTANT: SOWiL Limited, Goodwill Avenue,1st Floor,"A" Wing Office No.-2, Plot No.- 1, Sector-40, Nerul (west), Navi Mumbay-400706, Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259	PROJECT: Consultancy Services for feasibility Study & preparation of Detail Project Report for Improvement & up- gradation of newly Declared National Highways including existing NH-91A, NH-92, NH-97 & NH-28B in The State of Uttar Pradesh- Pkg-I. Stretch from Kushinagar-Betwa.	Prepared by: DEVENDRA Designed by: MOHIT G. Checked by: RAVINDRA JOSHI Approved by: RAVINDRA JOSHI	Revisions / Date / Description: R0 MAY. 2018 R1 APRIL . 2019 R2 MAY . 2023	TITLE : GENERAL ARRANGEMENT DRAWING OF MINOR BRIDGE AT CH.20+295 CHAINAGE : 20+295 — PURPOSE OF DRAWING: FOR APPROVAL DWG NO. : SOWiL.KN-BT.Viii/MNB.GA-005 SCALE : AS SHOWN — DATE : 03/04/2023 — SHEET NO : 02 OF 02 — REV : R2



SECTION A-A
(SCALE 1:100)



PLAN
(SCALE 1:125)

NOTES:-

1. ALL DIMENSIONS ARE IN MILIMETRES & LEVELS ARE IN METRE UNLESS OTERWISE MENTIONED.
2. REINFORCEMENT STEEL:Fe500 TMT BARS CONFIRMING TO IS:1786-2008.
3. GRADE OF CONCRETE AS FOLLOWS:-

BOX	M-35
RETAINING WALL	M-25
CURTAIN WALL	M-15
LEVELING COURSE	M-15

4. PROPOSED ROAD LEVEL WITH RESPECT TO EXISTING RTL ARE NOT TO SCALE.
5. LONGITUDINAL SLOPE OF BOX SHALL BE MINIMUM 1:1000.
6. BACKFILL MATERIAL BEHIND SIDE WALL OF BOX SHALL CONFIRM TO APPENDIX-6 OF IRC 78-2014 HAVING PROPERTIES α=0, ϕ=30°, Δ=20° AND γ=20 KN/m³.
7. SEISMIC ZONE IV.
8. SBC- 20kN/m^2
9. FOR RETAINING WALL REFER SEPARATE DRAWING.

CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
Government of India

CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2
Plot No.- 1, Sector-40, Nerul (west),
Navi Mumbai-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for feasibility Study & preparation of Detail Project Report for Improvement & up- gradation of newly Declared National Highways including existing NH-91A, NH-92, NH-97 & NH-28B in The State of Uttar Pradesh- Pkg-I. Stretch from Kushinagar-Betwa.

Prepared by	GANESH
Designed by	MOHIT G.
Checked by	RAVINDRA JOSHI
Approved by	RAVINDRA JOSHI

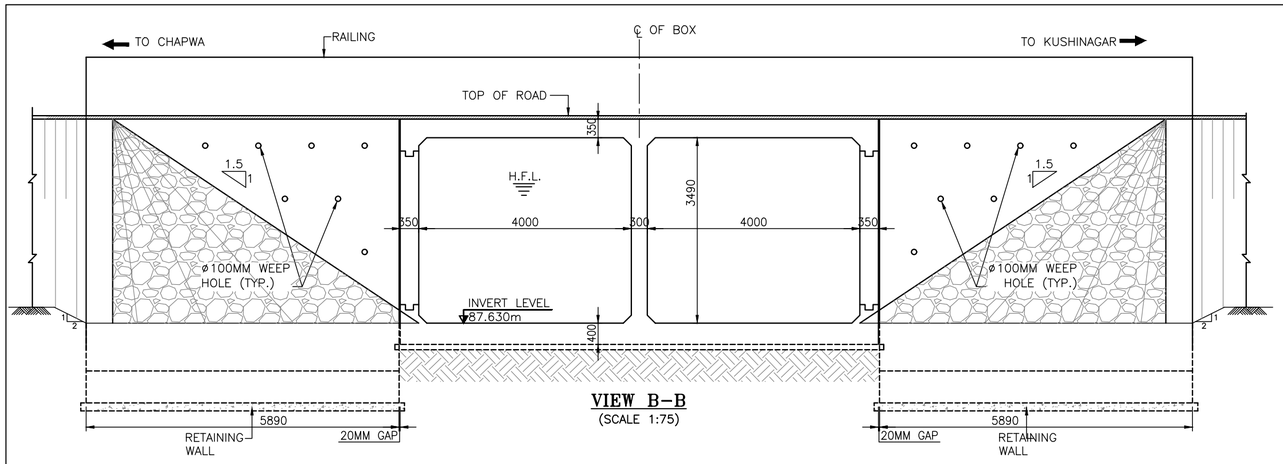
Revisions	Date	Description
R0	MAY. 2018	FOR APPROVAL
R1	APRIL. 2019	FOR APPROVAL
R2	MAY . 2023	FOR APPROVAL

TITLE : GENERAL ARRANGEMENT DRAWING OF MINOR BRIDGE FOR RECONSTRUCTION.(2X4.0X3.490m)

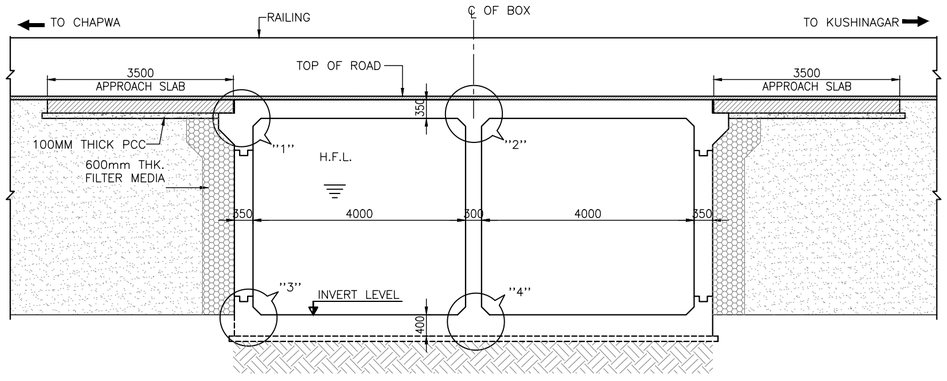
CHAINAGE : 27+039 — PURPOSE OF DRAWING FOR APPROVAL

DWG NO. : SOWiL.KN-BT.Viii/MNB/27+039/GA-04

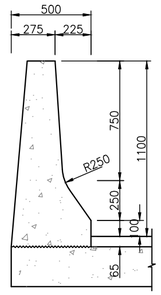
SCALE : AS SHOWN | DATE : APRIL . 2023 | SHEET NO : 01 OF 02 | REV : R2



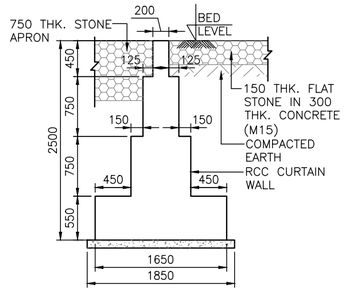
VIEW B–B
(SCALE 1:75)



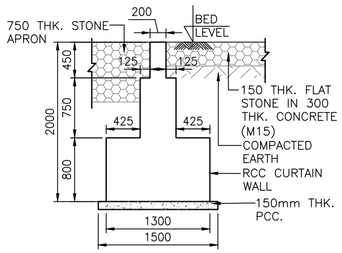
VIEW C–C
(SCALE 1:75)



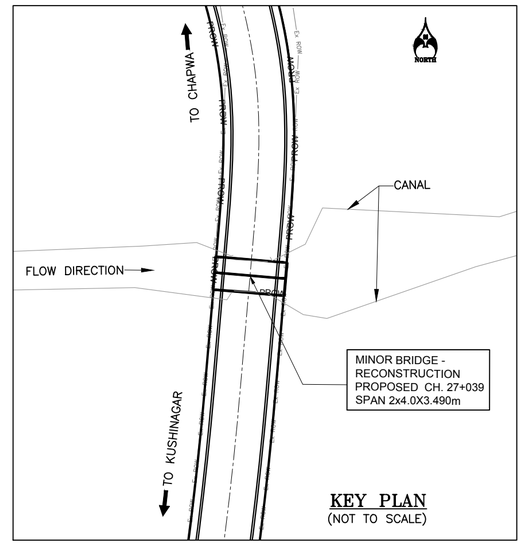
DETAILS OF CRASH BARRIER
(SCALE 1:25)



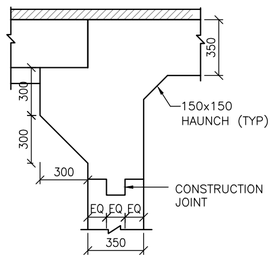
CURTAIN WALL TYPE–I
(SCALE 1:50)



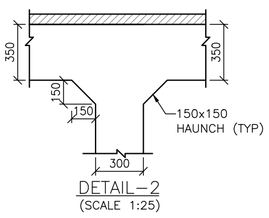
CURTAIN WALL TYPE–II
(SCALE 1:50)



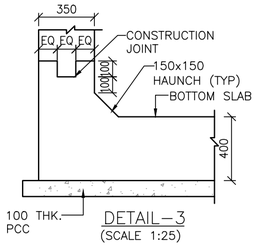
KEY PLAN
(NOT TO SCALE)



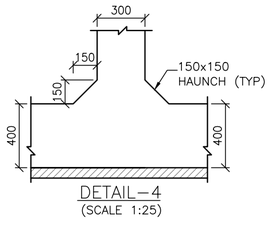
DETAIL–1
(SCALE 1:25)



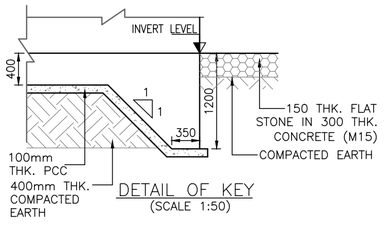
DETAIL–2
(SCALE 1:25)



DETAIL–3
(SCALE 1:25)



DETAIL–4
(SCALE 1:25)



DETAIL OF KEY
(SCALE 1:50)

LIST OF MINOR BRIDGE TWO CELL (2x4)

SR. NO.	EXISTING TYPE OF STRUCTURE	DESIGN CHAINAGE	EXISTING SPAN ARRANGEMENT /C-C DISTANCE	PROPOSED SPAN ARRANGEMENT	EXISTING CARRIAGEWAY WIDTH (m)	EXISTING WIDTH OF THE STRUCTURE (m)	TOTAL ROADWAY WIDTH	SKEW ANGLE	BARREL LENGTH(m)	PROPOSED CARRIAGEWAY		FILL		F.R.L.	INVERT LEVEL	REMARK
										MAIN CARRIAGEWAY (m)	SERVICE ROAD (m)	LHS	RHS			
1	ARCH	27+039	2X3.0	2X4.0	10.0	11.2	-	0.00°	18.0	13.0	-	0.0	0.0	91.760	87.630	RECONSTRUCTION

CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
Government of India

CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2
Plot No.- 1, Sector-40, Nerul (west),
Navi Mumbai-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for feasibility Study & preparation of Detail Project Report for Improvement & up- gradation of newly Declared National Highways including existing NH-91A, NH-92, NH-97 & NH-28B in The State of Uttar Pradesh- Pkg-I. Stretch from Kushinagar-Betwa.

Prepared by	GANESH
Designed by	MOHIT G.
Checked by	RAVINDRA JOSHI
Approved by	RAVINDRA JOSHI

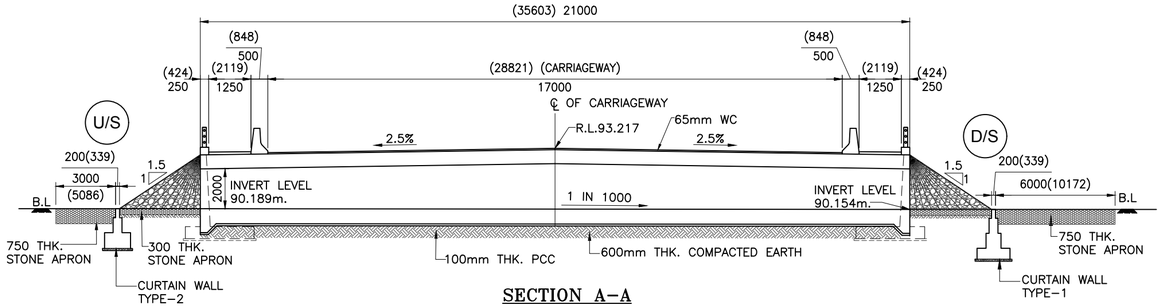
Revisions	Date	Description
R0	MAY. 2018	FOR APPROVAL
R1	APRIL . 2019	FOR APPROVAL
R2	MAY. 2023	FOR APPROVAL

TITLE : GENERAL ARRANGEMENT DRAWING OF MINOR BRIDGE FOR RECONSTRUCTION.(2X4.0X3.490m)

CHAINAGE : 27+039 | PURPOSE OF DRAWING FOR APPROVAL

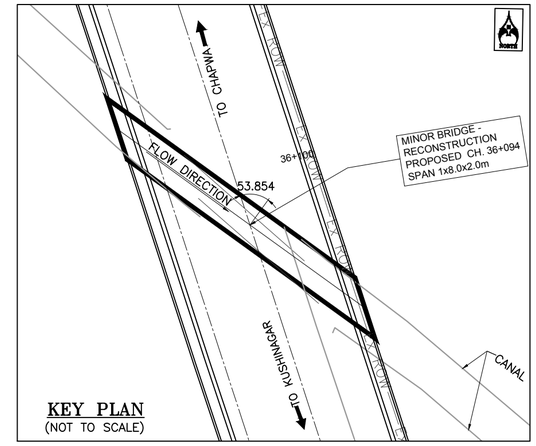
DWG NO. : SOWiL.KN-BT.Viii/MNB/27+039/GA-04

SCALE : AS SHOWN | DATE : APRIL . 2023 | SHEET NO : 02 OF 02 | REV : R2



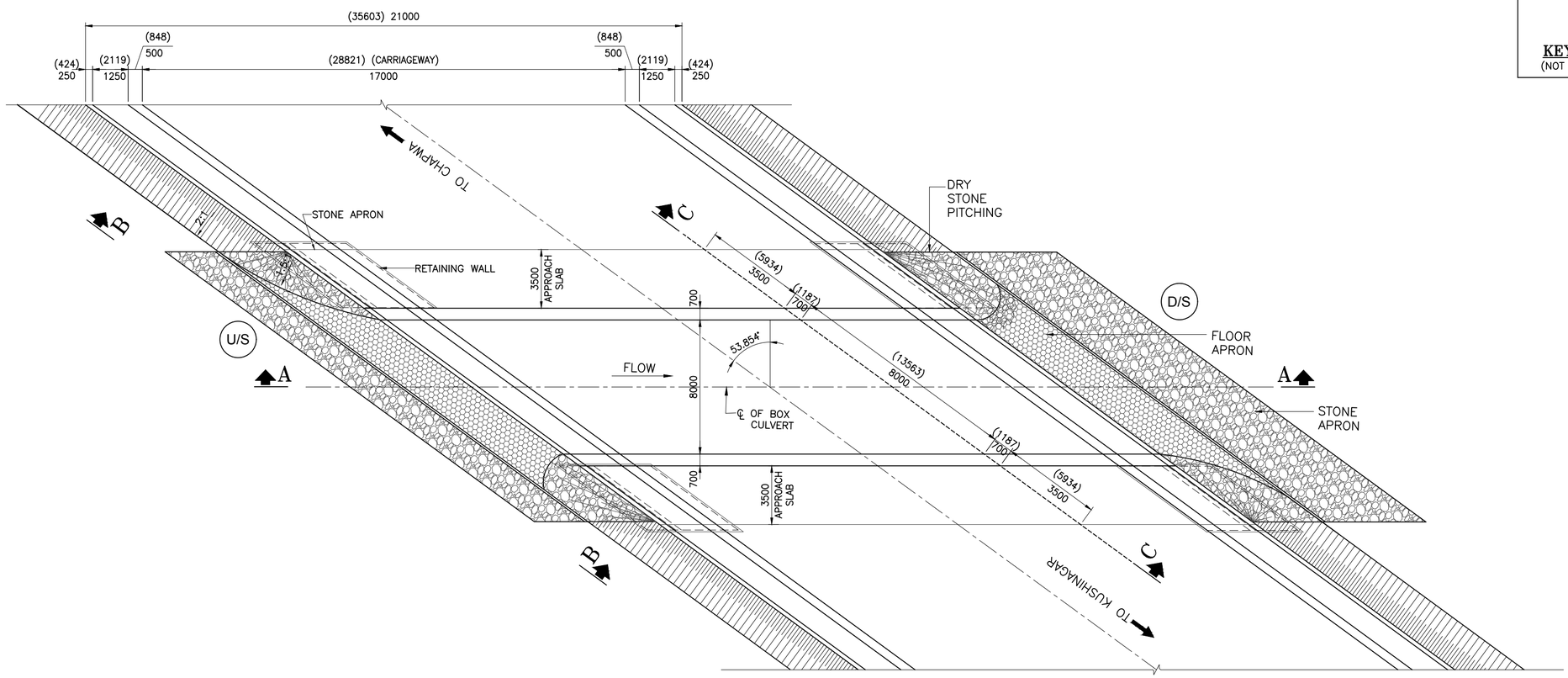
SECTION A–A

(SCALE 1:200)



KEY PLAN

(NOT TO SCALE)



PLAN

(SCALE 1:200)

LIST OF BOX CULVERT SINGLE CELL (1x2.0x 2.0M)

SR. NO.	EXISTING TYPE OF STRUCTURE	DESIGN CHAINAGE	EXISTING SPAN ARRANGEMENT /C-C DISTANCE	PROPOSED SPAN ARRANGEMENT	EXISTING CARRIAGEWAY WIDTH (m)	EXISTING WIDTH OF THE STRUCTURE (m)	TOTAL ROADWAY WIDTH	SKEW ANGLE	BARREL LENGTH(m)	PROPOSED CARRIAGEWAY	FILL		F.R.L.	INVERT LEVEL	REMARK
										MAIN CARRIAGEWAY (m)	LHS	RHS			
1	SLAB TYPE	36+094	1x6.3	1x8.0x2.0m	11.0	12.0	-	53.854	28.821	17.0	0.0	0.0	93.217	90.189	NEW PROPOSED

NOTES:–

1. ALL DIMENSIONS ARE IN MILIMETRES & LEVELS ARE IN METRE UNLESS OTERWISE MENTIONED.
2. REINFORCEMENT STEEL:Fe500 TMT BARS CONFIRMING TO IS:1786–2008.
3. GRADE OF CONCRETE AS FOLLOWS:–
   - BOX M–35
   - RETAINING WALL M–25
   - CURTAIN WALL M–15
   - LEVELING COURSE M–15
4. PROPOSED ROAD LEVEL WITH RESPECT TO EXISTING RTL ARE NOT TO SCALE.
5. LONGITUDINAL SLOPE OF BOX SHALL BE MINIMUM 1:1000.
6. BACKFILL MATERIAL BEHIND SIDE WALL OF BOX SHALL CONFIRM TO APPENDIX–6 OF IRC 78–2014 HAVING PROPERTIES α=0, ϕ=30°, Δ=20° AND γ=20 KN/m^3.
7. SEISMIC ZONE IV.
8. SBC– 20kN/m^2
9. FOR RETAINING WALL REFER SEPARATE DRAWING.
9. SKEW DIMENSION SHOWN IN ( ).

CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार Government of India

CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2
Plot No.- 1, Sector-40, Nerul (west),
Navi Mumbai-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for feasibility Study & preparation of Detail Project Report for Improvement & up- gradation of newly Declared National Highways including existing NH-91A, NH-92, NH-97 & NH-28B in The State of Uttar Pradesh- Pkg-I. Stretch from Kushinagar-Betwa.

Prepared by	DEVENDRA D.
Designed by	MOHIT G.
Checked by	RAVINDRA JOSHI
Approved by	RAVINDRA JOSHI

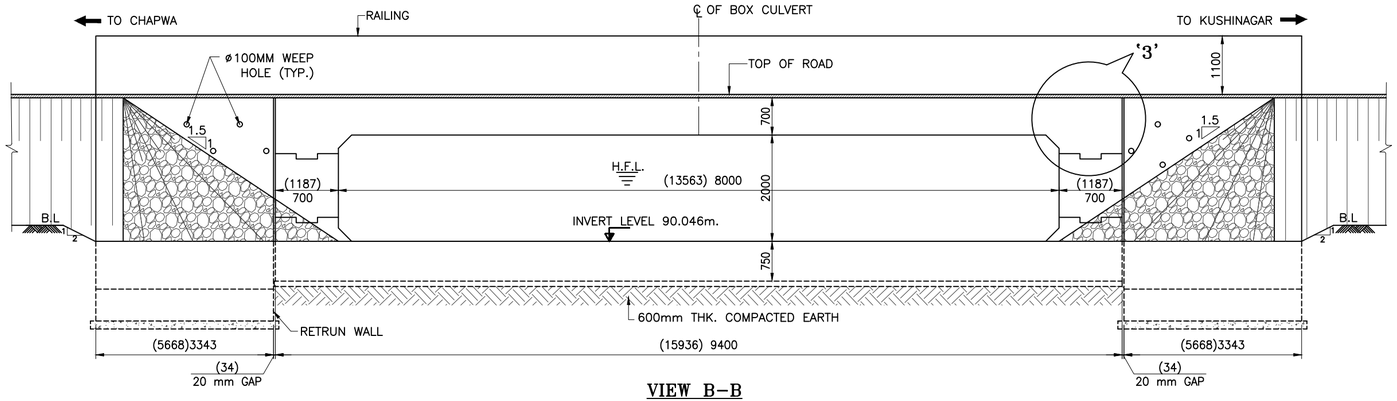
Revisions	Date	Description
R0	MAY. 2018	FOR APPROVAL
R1	APRIL . 2019	FOR APPROVAL
R2	MAY . 2023	FOR APPROVAL

TITLE : GENERAL ARRANGEMENT DRAWING OF MINOR BRIDGE FOR RECONSTRUCTION (1x8.0x2.0m)

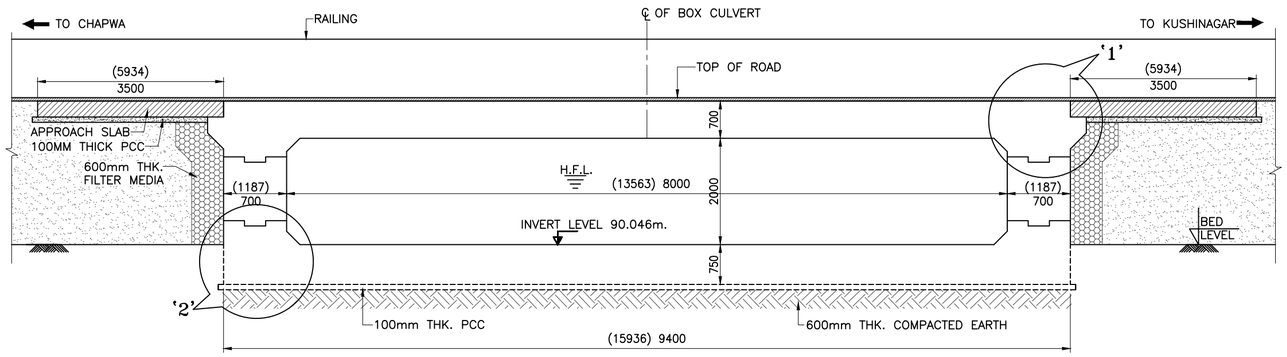
CHAINAGE : 36+094 | PURPOSE OF DRAWING: FOR APPROVAL

DWG NO. : SOWiL.KN-BT.Viii/MNB/36+094.GA-01

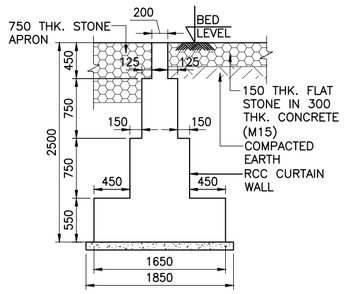
SCALE : AS SHOWN | DATE : APRIL . 2023 | SHEET NO : 01 OF 02 | REV : R2



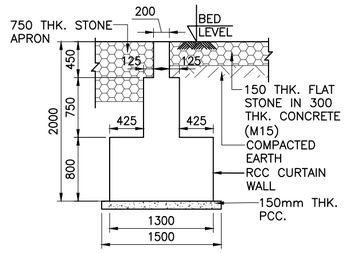
VIEW B–B
(SCALE 1:75)



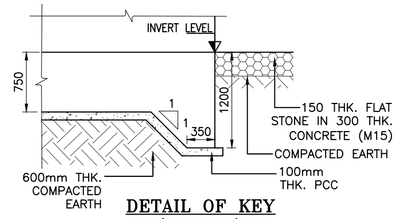
SECTION C–C
(SCALE 1:75)



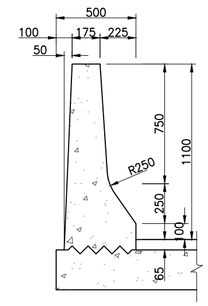
CURTAIN WALL TYPE–1
(SCALE 1:50)



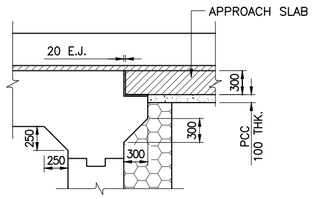
CURTAIN WALL TYPE–2
(SCALE 1:50)



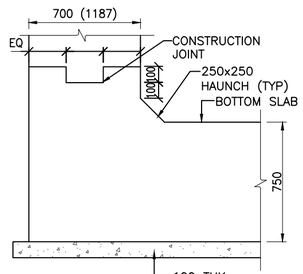
DETAIL OF KEY
(SCALE 1:50)



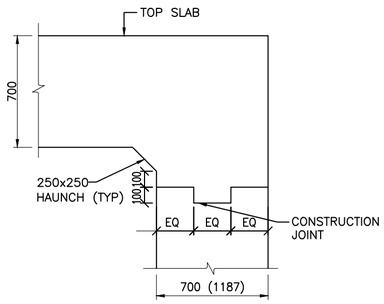
DETAILS OF CRASH BARRIER
(SCALE 1:25)



DETAIL–1
(SCALE 1:50)



DETAIL–2
(SCALE 1:25)



DETAIL–3
(SCALE 1:25)

NOTES:–

1. ALL DIMENSIONS ARE IN MILIMETRES & LEVELS ARE IN METRE UNLESS OTERWISE MENTIONED.
2. REINFORCEMENT STEEL:Fe500 TMT BARS CONFIRMING TO IS:1786–2008.
3. GRADE OF CONCRETE AS FOLLOWS:–

BOX	M–35
RETAINING WALL	M–25
CURTAIN WALL	M–15
LEVELING COURSE	M–15

4. PROPOSED ROAD LEVEL WITH RESPECT TO EXISTING RTL ARE NOT TO SCALE.
5. LONGITUDINAL SLOPE OF BOX SHALL BE MINIMUM 1:1000.
6. BACKFILL MATERIAL BEHIND SIDE WALL OF BOX SHALL CONFIRM TO APPENDIX–6 OF IRC 78–2014 HAVING PROPERTIES c=0, ϕ=30°, Δ=20° AND γ=20 KN/m³.
7. SEISMIC ZONE IV.
8. SBC– 20kN/m²
9. FOR RETAINING WALL REFER SEPARATE DRAWING.
9. SKEW DIMENSION SHOWN IN ( ).

CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार Government of India

CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2
Plot No.- 1, Sector-40, Nerul (west),
Navi Mumbai-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for feasibility Study & preparation of Detail Project Report for Improvement & up- gradation of newly Declared National Highways including existing NH-91A, NH-92, NH-97 & NH-28B in The State of Uttar Pradesh- Pkg-I. Stretch from Kushinagar-Betwa.

Prepared by	DEVENDRA D.
Designed by	MOHIT G.
Checked by	RAVINDRA JOSHI
Approved by	RAVINDRA JOSHI

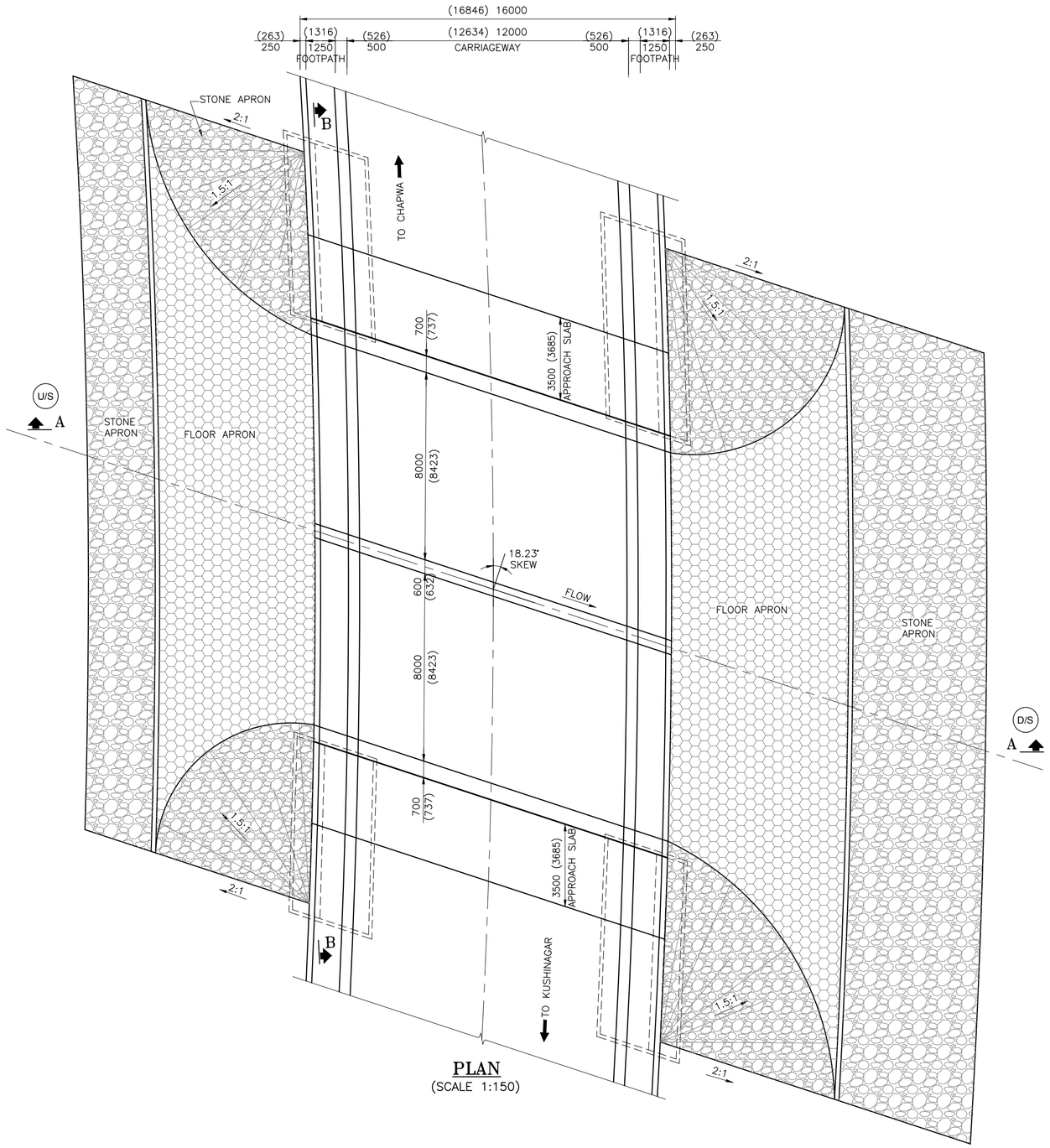
Revisions	Date	Description
R0	MAY. 2018	FOR APPROVAL
R1	APRIL . 2019	FOR APPROVAL
R2	MAY . 2023	FOR APPROVAL

TITLE : GENERAL ARRANGEMENT DRAWING OF MINOR BRIDGE FOR RECONSTRUCTION (1x8.0x2.0m)

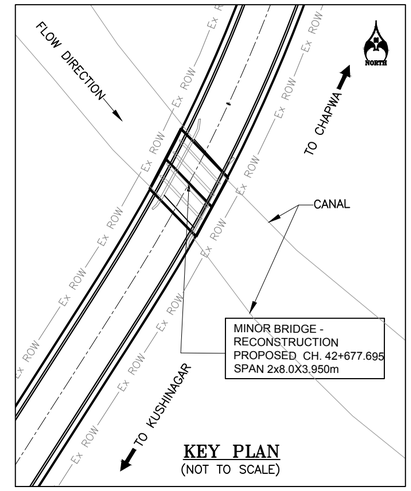
CHAINAGE : 36+094 | PURPOSE OF DRAWING: FOR APPROVAL

DWG NO. : SOWiL.KN-BT.Viii/MNB/36+094.GA-01

SCALE : AS SHOWN | DATE : APRIL . 2023 | SHEET NO : 02 OF 02 | REV : R2



PLAN
(SCALE 1:150)



KEY PLAN
(NOT TO SCALE)

NOTES:–

1. ALL DIMENSIONS ARE IN MILIMETRES & LEVELS ARE IN METRE UNLESS OTERWISE MENTIONED.
2. REINFORCEMENT STEEL:Fe500 TMT BARS CONFIRMING TO IS:1786–2008.
3. GRADE OF CONCRETE AS FOLLOWS:–

BOX	M–35
RETAINING WALL	M–25
CURTAIN WALL	M–15
LEVELING COURSE	M–15

4. PROPOSED ROAD LEVEL WITH RESPECT TO EXISTING RTL ARE NOT TO SCALE.
5. LONGITUDINAL SLOPE OF BOX SHALL BE MINIMUM 1:1000.
6. BACKFILL MATERIAL BEHIND SIDE WALL OF BOX SHALL CONFIRM TO APPENDIX–6 OF IRC 78–2014 HAVING PROPERTIES α=0, ϕ=30°, Δ=20° AND γ=20 KN/m^3.
7. SEISMIC ZONE IV.
8. SBC– 20kN/m^2
9. FOR RETAINING WALL REFER SEPARATE DRAWING.
10. SKEW DIMENSION SHOWN IN ( )

CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
Government of India

CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2
Plot No.- 1, Sector-40, Nerul (west),
Navi Mumbai-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for feasibility Study & preparation of Detail Project Report for Improvement & up- gradation of newly Declared National Highways including existing NH-91A, NH-92, NH-97 & NH-28B in The State of Uttar Pradesh- Pkg-I. Stretch from Kushinagar-Betwa.

Prepared by	GANESH
Designed by	MOHIT G.
Checked by	RAVINDRA JOSHI
Approved by	RAVINDRA JOSHI

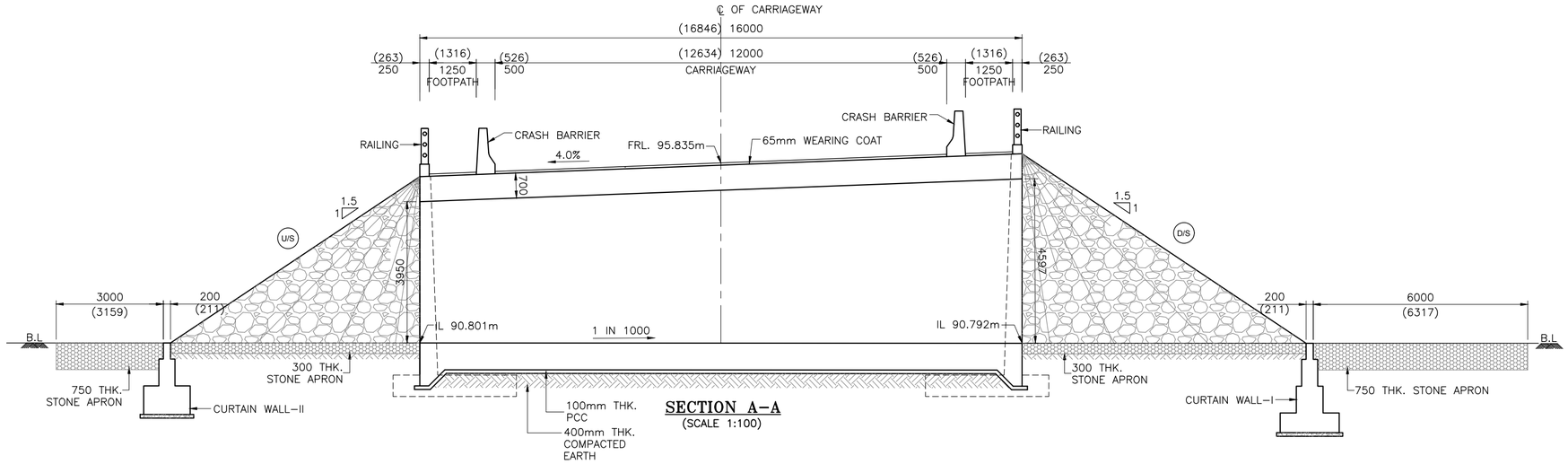
Revisions	Date	Description
R0	MAY. 2018	FOR APPROVAL
R1	APRIL . 2019	FOR APPROVAL
R2	MAY . 2023	FOR APPROVAL

TITLE :GENERAL ARRANGEMENT DRAWING OF MINOR BRIDGE FOR RECONSTRUCTION.(2x8.0X3.950m)

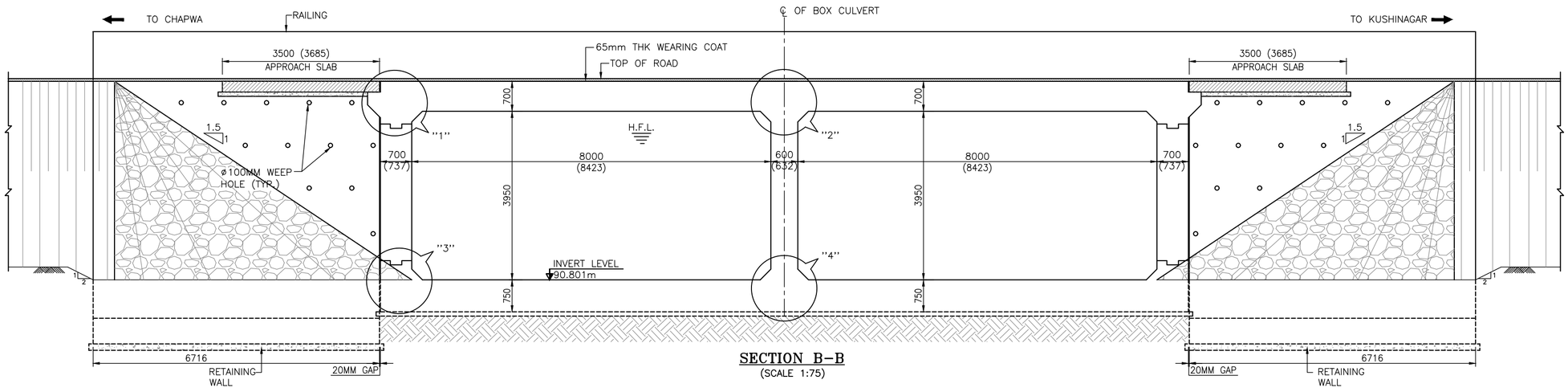
CHAINAGE : 42+677.695 | PURPOSE OF DRAWING FOR APPROVAL

DWG NO. : SOWiL.KN-BT.Viii/MNB/42+677.695/GA-02

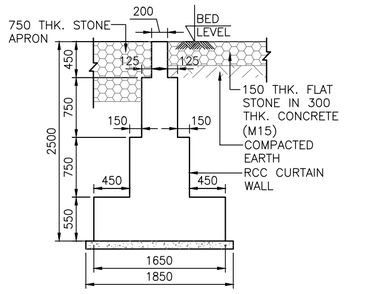
SCALE : AS SHOWN | DATE : APRIL . 2023 | SHEET NO : 01 OF 02 | REV : R2



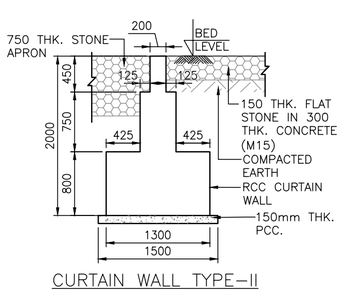
SECTION A-A
(SCALE 1:100)



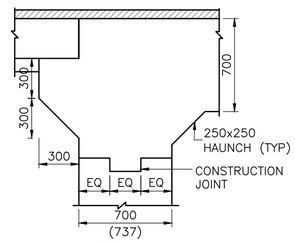
SECTION B-B
(SCALE 1:75)



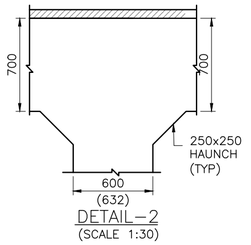
CURTAIN WALL TYPE-I
(SCALE 1:50)



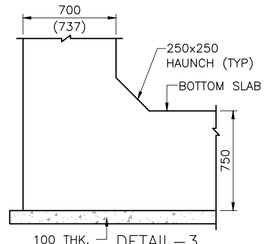
CURTAIN WALL TYPE-II
(SCALE 1:50)



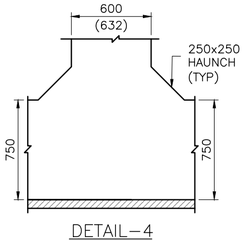
DETAIL-1
(SCALE 1:30)



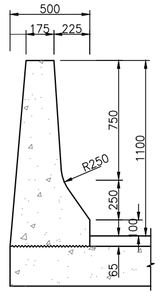
DETAIL-2
(SCALE 1:30)



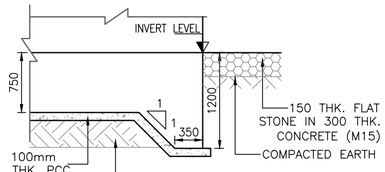
DETAIL-3
(SCALE 1:30)



DETAIL-4
(SCALE 1:30)



DETAILS OF CRASH BARRIER
(SCALE 1:25)



DETAIL OF KEY
(SCALE 1:50)

LIST OF MINOR BRIDGE TWO CELL (2x8)

SR. NO.	EXISTING TYPE OF STRUCTURE	DESIGN CHAINAGE	EXISTING SPAN ARRANGEMENT /C-C DISTANCE	PROPOSED SPAN ARRANGEMENT	EXISTING CARRIAGEWAY WIDTH (m)	EXISTING WIDTH OF THE STRUCTURE (m)	TOTAL ROADWAY WIDTH	SKEW ANGLE	BARREL LENGTH(m)	PROPOSED CARRIAGEWAY		FILL		F.R.L.	INVERT LEVEL	REMARK
										MAIN CARRIAGEWAY (m)	SEVICE ROAD (m)	LHS	RHS			
1	SOLID SLAB	42+677.695	5X3	2X8	-	12.6	-	18.23°	16.846	12.0	-	0.0	0.0	95.835	90.801	RECONSTRUCTION

CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार Government of India

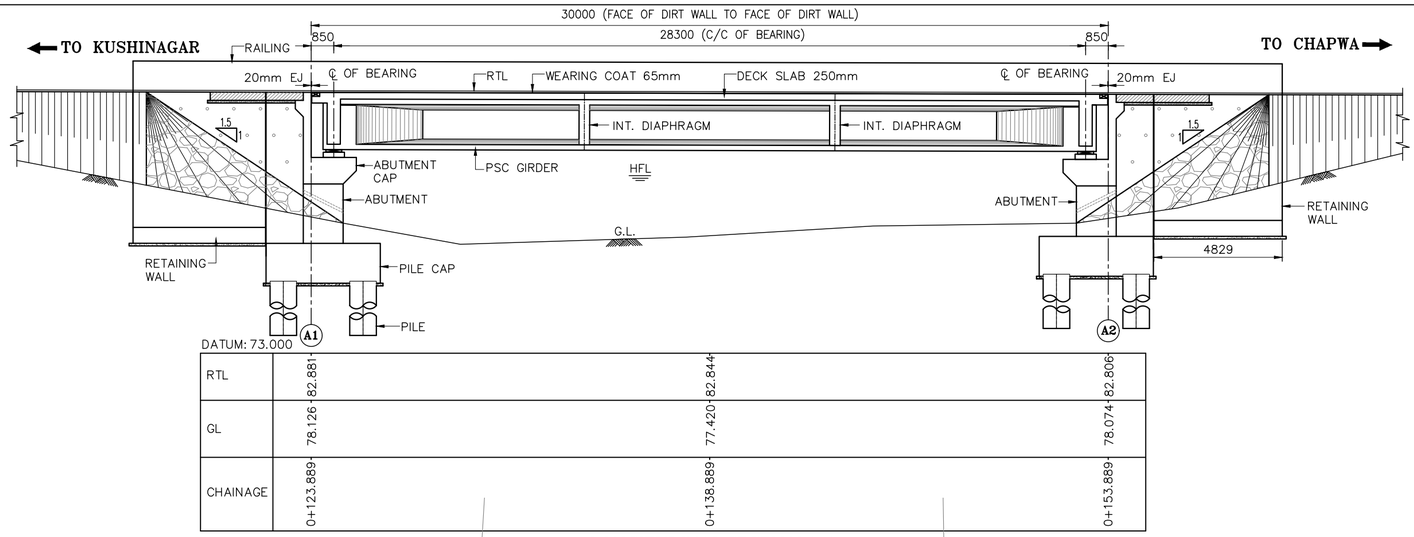
CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2
Plot No.- 1, Sector-40, Nerul (west),
Navi Mumbai-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for feasibility Study & preparation of Detail Project Report for Improvement & up- gradation of newly Declared National Highways including existing NH-91A, NH-92, NH-97 & NH-28B in The State of Uttar Pradesh- Pkg-I. Stretch from Kushinagar-Betwa.

Prepared by	GANESH
Designed by	MOHIT G.
Checked by	RAVINDRA JOSHI
Approved by	RAVINDRA JOSHI

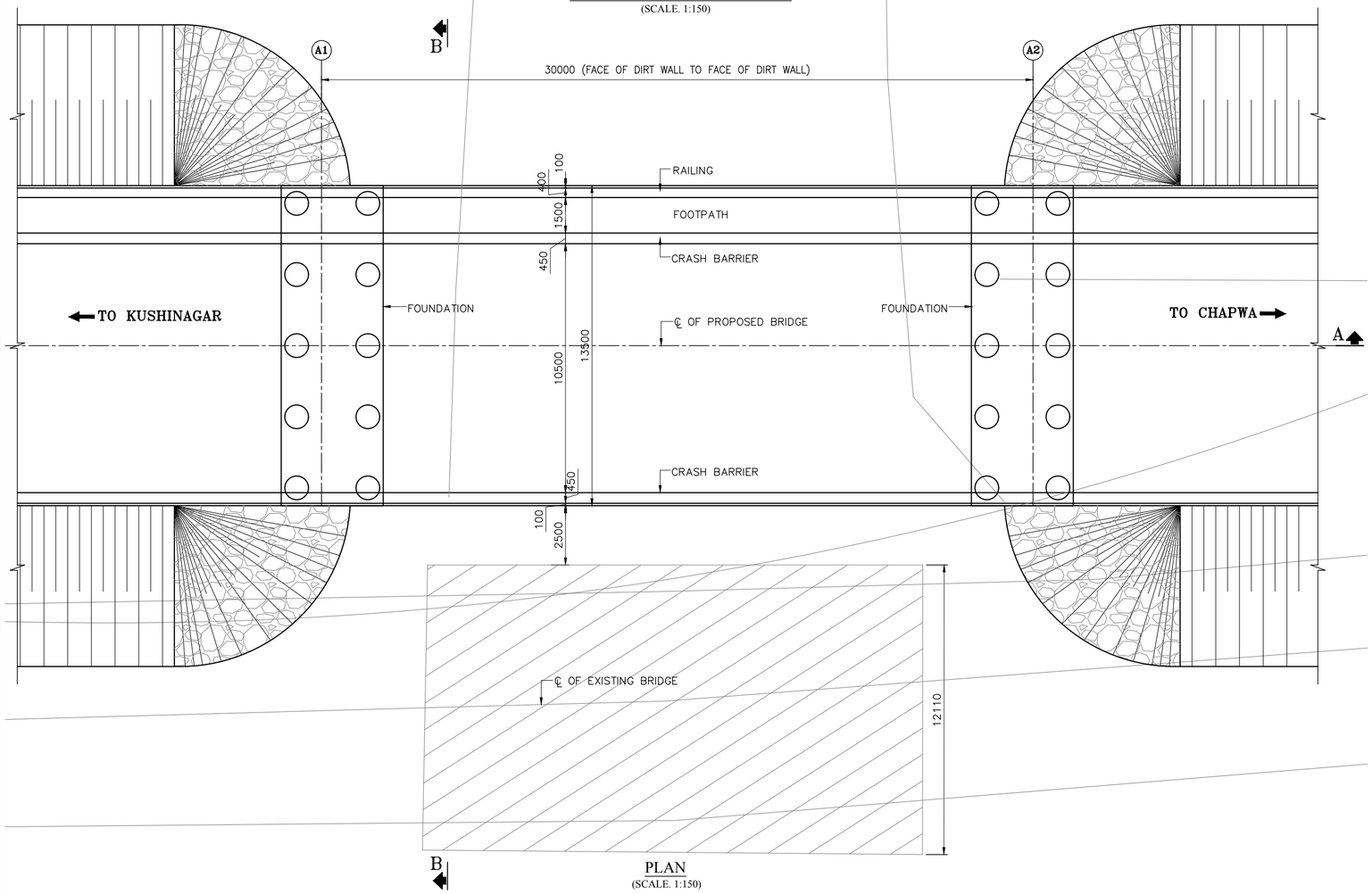
Revisions	Date	Description
R0	MAY. 2018	FOR APPROVAL
R1	APRIL . 2019	FOR APPROVAL
R2	MAY . 2023	FOR APPROVAL

TITLE :GENERAL ARRANGEMENT DRAWING OF MINOR BRIDGE FOR RECONSTRUCTION.(2x8.0X3.950m)
CHAINAGE : 42+677.695
PURPOSE OF DRAWING FOR APPROVAL
DWG NO. : SOWiL.KN-BT.Viii/MNB/42+677.695/GA-02
SCALE : AS SHOWN | DATE : APRIL . 2023 | SHEET NO : 02 OF 02 | REV : R2



LONGITUDINAL SECTION A-A

(SCALE. 1:150)



PLAN

(SCALE. 1:150)

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS, CHAINAGES & LEVELS ARE IN METER, UNLESS NOTED OTHERWISE.
2. ONLY WRITTEN DIMENSIONS ARE TO BE FOLLOWED, DO NOT SCALE THE DRAWING.
3. BACK FILLING SHALL BE CARRIED OUT WITH SOIL PROPERTIES, C=0 & Ø > 30°.
   THE SOIL SHALL BE COMPACTED AT OPTIMUM MOISTURE CONTENT TO 98%
   PROCTOR DENSITY, SHALL BE CONFIRMED AS PER CI:710.1.4 OF IRC 78 AND
   MORTH SPECIFICATIONS.
4. WEEP HOLES OF 100MM DIA SHALL BE PLACED AT 1.0M C/C HORIZONTALLY AND 1.0M C/C VERTICALLY FROM LWL. TO H.F.L. IN RETAINING WALLS AND ABUTMENTS
   WITH SLOPE 20:1 TOWARDS THE DRAINING FACE. AS PER IRC 78 2014.
5. THE WORK IS TO BE CARRIED OUT AS PER APPROVED RELEVANT DETAILED DRAWINGS FOR DIFFERENT COMPONENTS OF THE STRUCTURE.
6. EXPANSION JOINTS: STRIP SEAL TYPE.
7. LAYOUT OF STRUCTURE SHALL BE CHECKED AT SITE WITH RESPECT TO FORMATION LEVEL, EXISTING GROUND LEVEL, AVAILABLE CLEARANCE ETC. AND ANY DISCREPANCY/ AMBIGUITY FOUND IN DRAWING OR AT SITE SHALL BE BROUGHT TO THE NOTICE OF DESIGN CONSULTANT PRIOR TO EXECUTION OF WORK.
8. GRADES CONSIDERED:

a.	PSC GIRDER	-M40
b.	DECK SLAB & DIAPHRAGM	-M35
c.	ABUTMENT, ABUTMENT CAP & SUBSTRUCTURE	-M35
d.	PIER	-M35
e.	PIER CAP	-M35
f.	DIRT WALL	-M35
g.	APPROACH SLAB	-M35
h.	PEDESTAL	-M40
i.	RETAINING, MEDIAN & RETURN WALL	-M30
j.	LEVELING COURSE/PCC AND TOE WALL	-M15
k.	CRASH BARRIER	-M40
l.	RAILING	-M30

9. THE REINFORCEMENT STEEL IS HYSD BARS OF GRADE FE-500D CONFIRMING TO IS:1786-2008, REINFORCEMENT SHALL BE COATED AS PER IRC: SP:80.
10. WEARING COAT SHALL BE 40mm THK. BITUMINOUS CONCRETE OVER 25mm THK. MASTIC ASPHALT.
11. THE 600mm THK. FILTER MEDIA BEHIND ABUTMENT SHALL BE MINIMUM 500mm BELOW EXISTING GROUND LEVEL
12. DRAINAGE SPOUT SHALL BE PROVIDED IN DECK SLAB AS PER MORTH SPECIFICATION.
13. 300 THK. STONE PITCHING OVER 150 THK. FILTER MEDIA SHALL BE PROVIDED AS PER MORTH STANDARD.
14. STRUCTURE IS DESIGNED FOR SEISMIC ZONE: IV.
15. DESIGN IS BASED ON IRC-06:2017 LOADING STANDARDS.
16. THE STRUCTURE IS DESIGNED FOR LIVE LOAD COMBINATION AS PER TABLE 6A OF IRC-6:2017 OR SPECIAL VEHICLE LOADING, WHICHEVER IS GOVERNS. ALSO DESIGNED FOR EDGE MOVEMENT OF VEHICLE FOR FUTURE WIDENING ON EARTHEN SHOULDER SIDE.
17. THE SKEW ANGLE OF THE BRIDGE IS = 0° NORMAL TO TRAFFIC DIRECTION.

CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार Government of India

CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2
Plot No.- 1, Sector-40, Nerul (west),
Navi Mumbai-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for feasibility Study & preparation of Detail Project Report for Improvement & up- gradation of newly Declared National Highways including existing NH-91A, NH-92, NH-97 & NH-28B in The State of Uttar Pradesh- Pkg-I. Stretch from Kushinagar-Betwa.

Prepared by	GANESH
Designed by	MOHIT G.
Checked by	RAVINDRA JOSHI
Approved by	RAVINDRA JOSHI

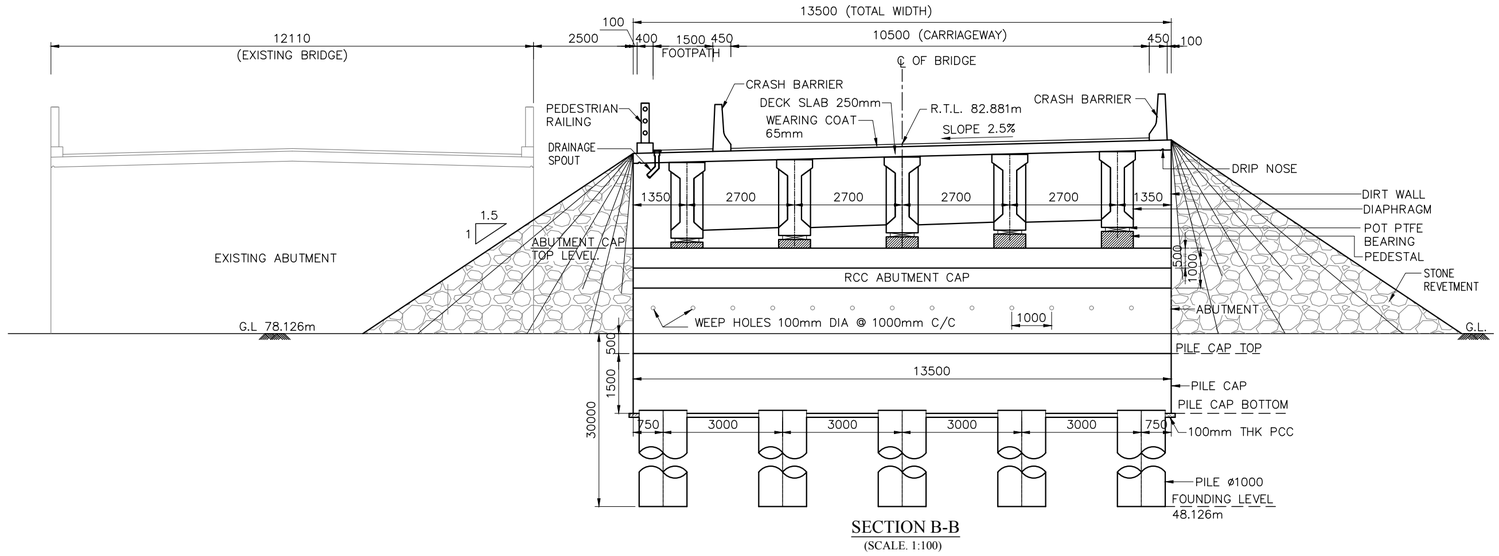
Revisions	Date	Description
R0	MAY. 2018	FOR APPROVAL
R1	APRIL . 2019	FOR APPROVAL
R2	MAY . 2023	FOR APPROVAL

TITLE :GENERAL ARRANGEMENT DRAWING OF MINOR BRIDGE FOR RECONSTRUCTION.(1x30m)

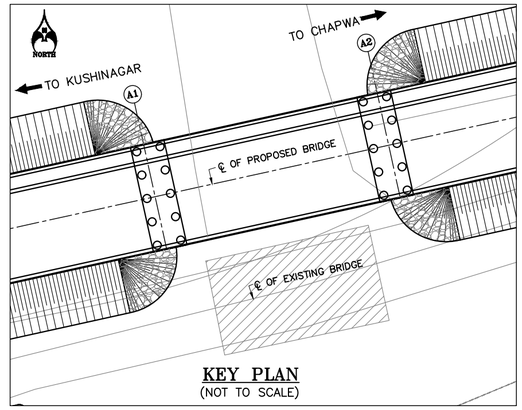
CHAINAGE : 0+138.889 | PURPOSE OF DRAWING: FOR APPROVAL

DWG NO. : SOWiL.KN-BT.Viii/MNB/0+138.889/GA-02

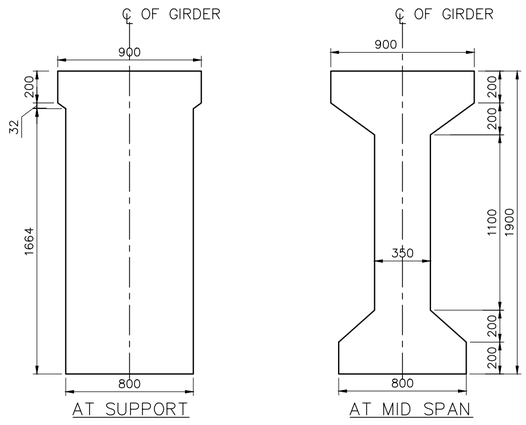
SCALE : AS SHOWN | DATE : MAY . 2023 | SHEET NO : 01 OF 02 | REV : R2



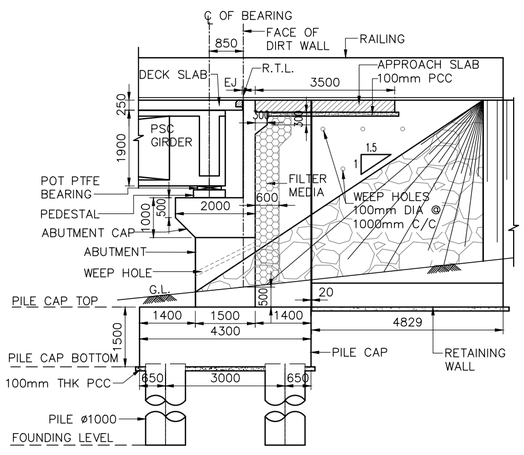
SECTION B-B
(SCALE. 1:100)



KEY PLAN
(NOT TO SCALE)

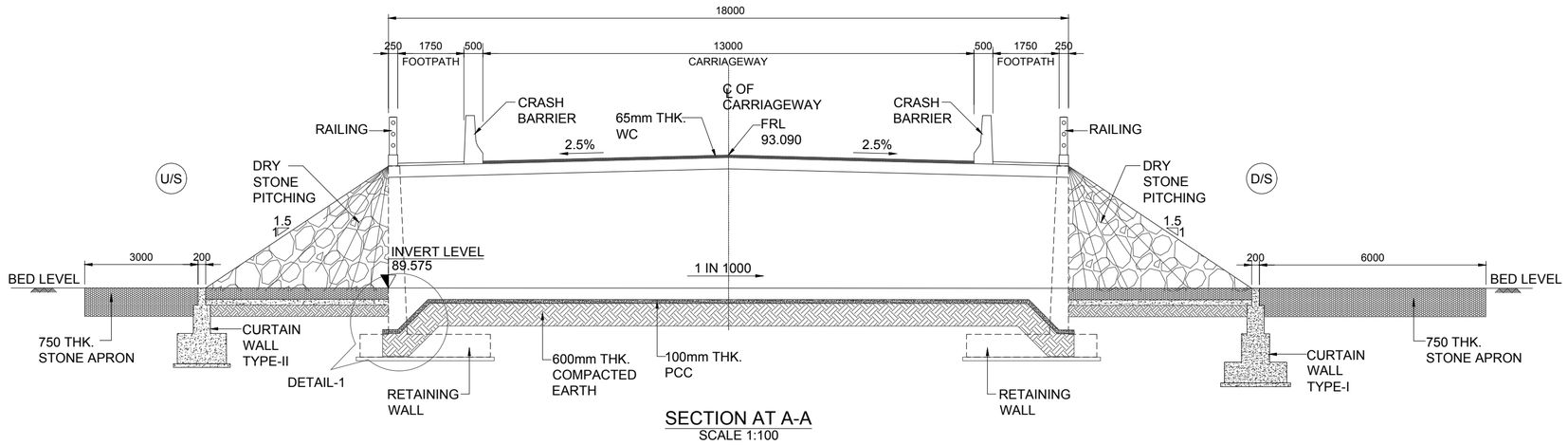


DETAIL OF PSC GIRDER
(SCALE. 1:25)

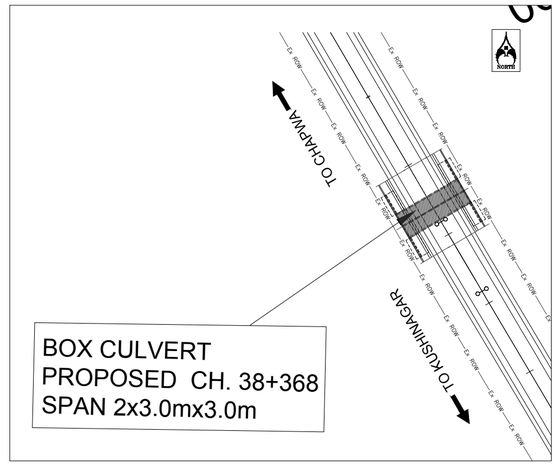


SECTION AT ABUTMENT A2
(SCALE. 1:100)

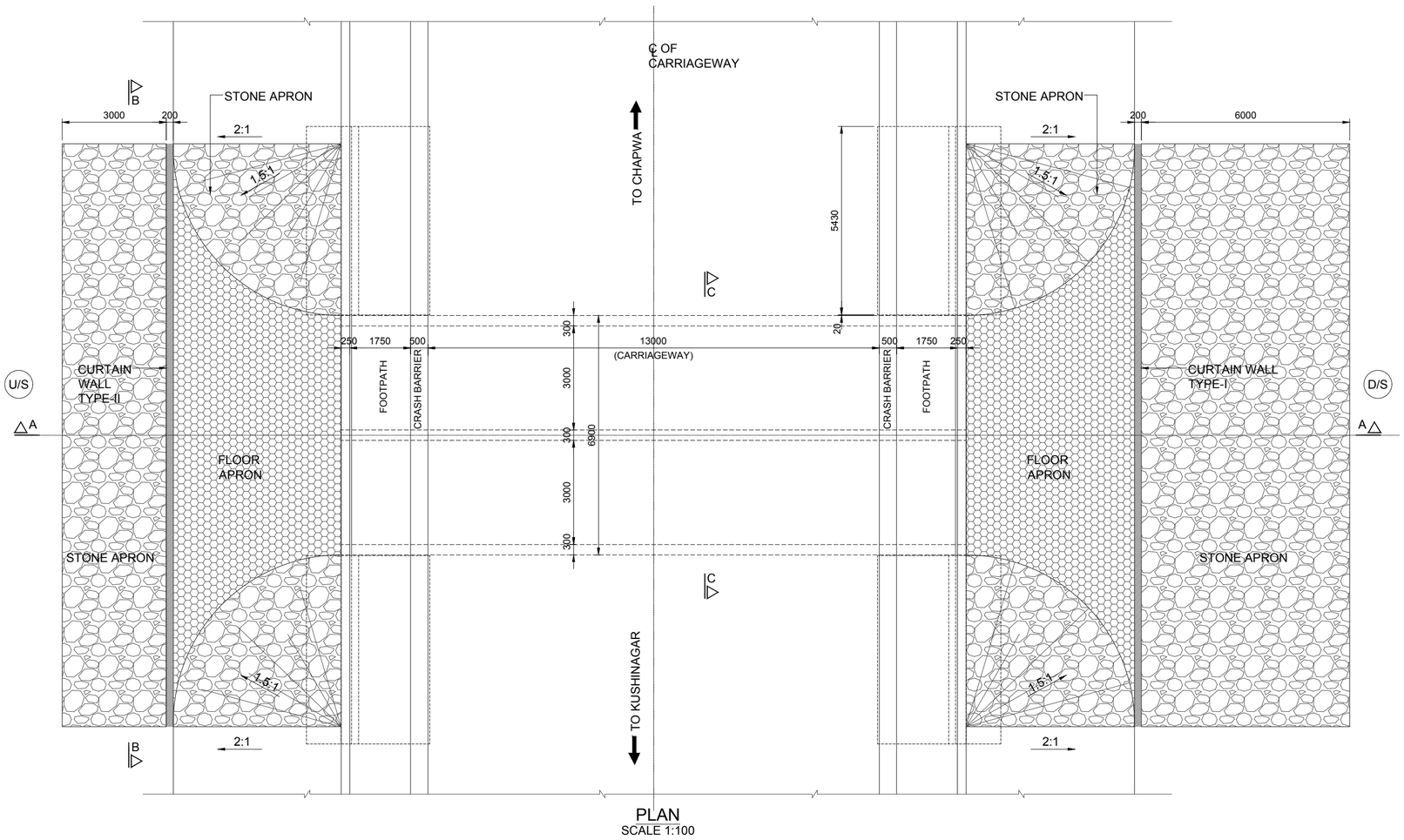
CLIENT: सड़क परिवहन और राजमार्ग मंत्रालय MINISTRY OF ROAD TRANSPORT & HIGHWAYS भारत सरकार Government of India	CONSULTANT: **SOWiL Limited** Goodwill Avenue,1st Floor,"A" Wing Office No.-2 Plot No.- 1, Sector-40, Nerul (west), Navi Mumbai-400706 Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259	PROJECT: Consultancy Services for feasibility Study & preparation of Detail Project Report for Improvement & up- gradation of newly Declared National Highways including existing NH-91A, NH-92, NH-97 & NH-28B in The State of Uttar Pradesh- Pkg-I. Stretch from Kushinagar-Betwa.	Prepared by: GANESH Designed by: MOHIT G. Checked by: RAVINDRA JOSHI Approved by: RAVINDRA JOSHI	Revisions / Date / Description: R0 MAY. 2018 FOR APPROVAL R1 APRIL . 2019 FOR APPROVAL R2 MAY . 2023 FOR APPROVAL	TITLE :GENERAL ARRANGEMENT DRAWING OF MINOR BRIDGE FOR RECONSTRUCTION.(2x8.0X3.950m) CHAINAGE : 42+677.695 — PURPOSE OF DRAWING: FOR APPROVAL DWG NO. : SOWiL.KN-BT.Viii/MNB/42+677.695/GA-02 SCALE : AS SHOWN — DATE : APRIL . 2023 — SHEET NO : 01 OF 02 — REV : R2



SECTION AT A-A
SCALE 1:100



KEY PLAN
(NOT TO SCALE)



PLAN
SCALE 1:100

NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETRES & LEVELS ARE IN METRES UNLESS OTHERWISE MENTIONED. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
2. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRG. NO. SOWiL.KN-BT.Viii/BXCL/6+874/GA-05 (SHEET 2 OF 2)
3. REINFORCEMENT STEEL:Fe500 TMT BARS CONFIRMING TO IS:1786-2008.
4. GRADE OF CONCRETE AS FOLLOWS:-
   - i) BOX M-35
   - ii) RETAINING WALL M-35
   - iii) CURTAIN WALL M-25
   - iv) LEVELING COURSE M-15
5. PROPOSED ROAD LEVEL WITH RESPECT TO EXISTING RTL ARE NOT TO SCALE.
6. LONGITUDINAL SLOPE OF BOX SHALL BE MINIMUM 1:1000.
7. BACKFILL MATERIAL BEHIND SIDE WALL OF BOX SHALL CONFIRM TO APPENDIX-6 OF IRC 78-2014 HAVING PROPERTIES =0, ϕ=30°, Δ=20° AND =20 KN/m³.
8. SEISMIC ZONE IV.
9. SBC-20Kn/m²
10. FOR RETAINING WALL REFER SEPARATE DRG.

CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार Government of India

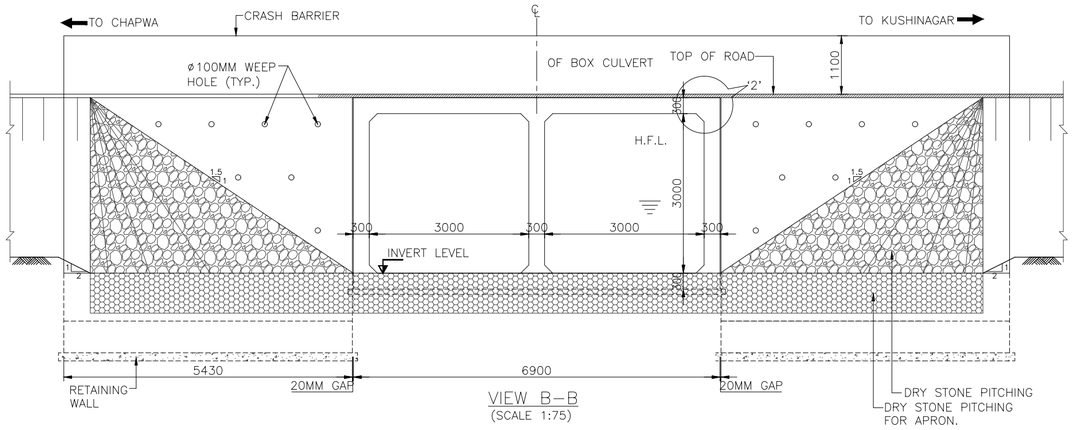
CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2
Plot No.- 1, Sector-40, Nerul (west),
Navi Mumbai-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for feasibility Study & preparation of Detail Project Report for Improvement & up- gradation of newly Declared National Highways including existing NH-91A, NH-92, NH-97 & NH-28B in The State of Uttar Pradesh- Pkg-I. Stretch from Kushinagar-Betwa.

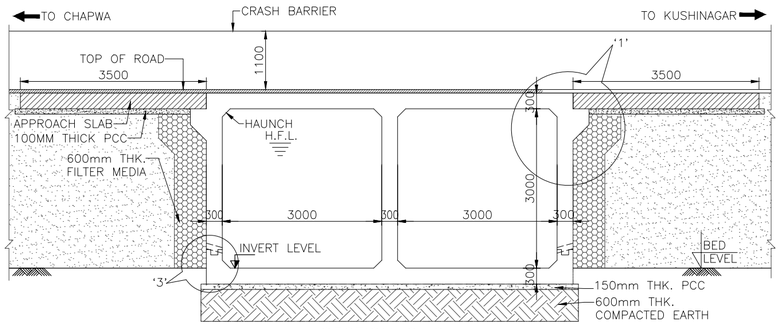
Prepared by	SANJAY MN
Designed by	MOHIT G.
Checked by	RAVINDRA JOSHI
Approved by	PANKAJ VORA

Revisions	Date	Description
R0	MAY 2018	FOR APPROVAL
R1	APRIL 2019	FOR APPROVAL
R2	MAY 2023	FOR APPROVAL

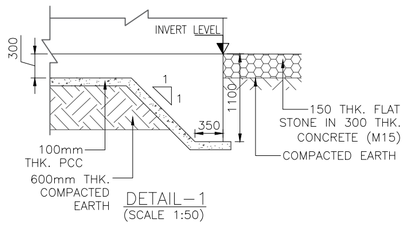
TITLE : GENERAL ARRANGEMENT DRAWING OF BOX CULVERT AT DESIGN CH. 38+368
CHAINAGE : 38+368
PURPOSE OF DRAWING : FOR APPROVAL
DWG NO. : SOWiL.KN-BT.Viii/BXCL/38+368/GA-05
SCALE : AS SHOWN | DATE : APRIL 2023 | SHEET NO : 01 OF 02 | REV : R2



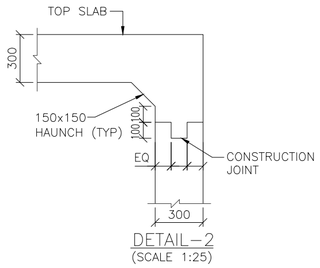
VIEW B–B
(SCALE 1:75)



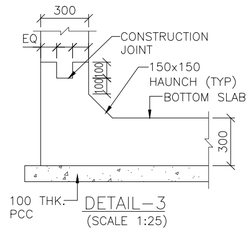
SECTION C–C
(SCALE 1:75)



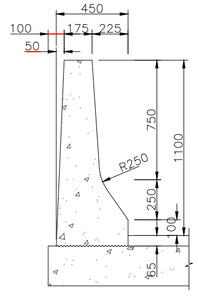
DETAIL–1
(SCALE 1:50)



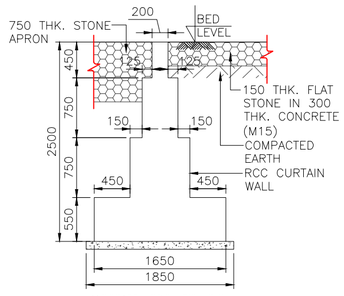
DETAIL–2
(SCALE 1:25)



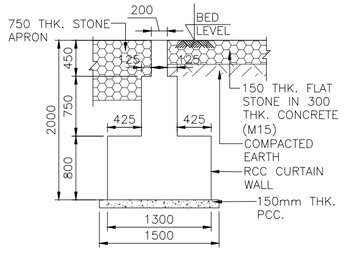
DETAIL–3
(SCALE 1:25)



DETAILS OF CRASH BARRIER
(SCALE 1:25)



CURTAIN WALL TYPE–1
(SCALE 1:50)



CURTAIN WALL TYPE–2
(SCALE 1:50)

LIST OF BOX CULVERT SINGLE CELL (2x3.0mx 3.0m)

SR. NO.	EXISTING TYPE OF STRUCTURE	CHAINAGE	EXISTING SPAN ARRANGEMENT /C-C DISTANCE	PROPOSED SPAN ARRANGEMENT	EXISTING CARRIAGEWAY WIDTH (m)	EXISTING WIDTH OF THE STRUCTURE (m)	TOTAL ROADWAY WIDTH	SKEW LENGTH OF PROPOSED BOX (m)	ACTION REQUIRED (BASED ON CLAUSE 7.3 (I), (II), (III) & (IV) OF IRC:SP-73-2015)		FILL		F.R.L.	INVERT LEVEL	REMARK
									LHS	RHS	LHS	RHS			
1	SLAB CULVERT	38+368	2x3.0	2x3.0x3.0	10.0	10.70	-	0	-	-	0.0	0.0	93.090	89.575	RECONSTRUCTION

CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार Government of India

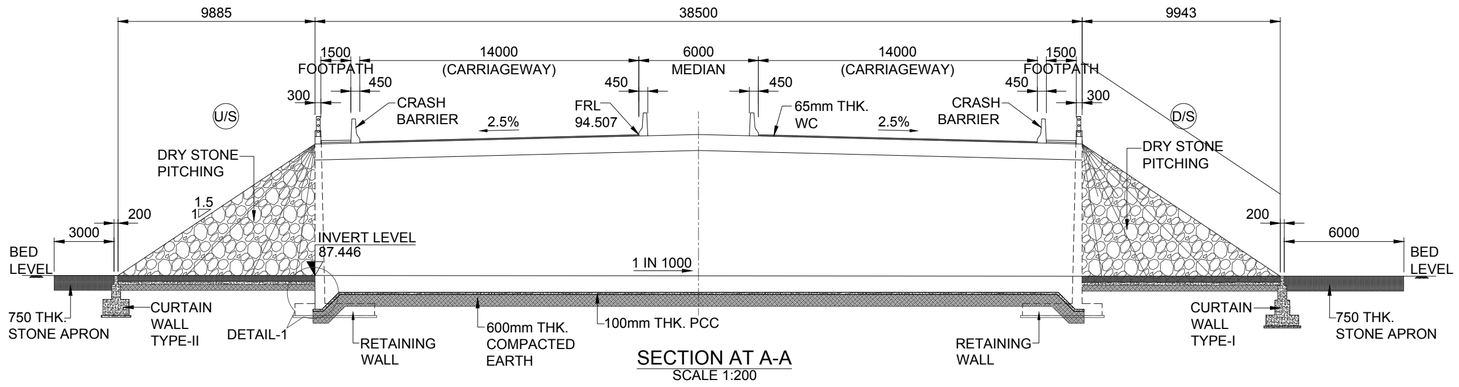
CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2
Plot No.- 1, Sector-40, Nerul (west),
Navi Mumbai-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for feasibility Study & preparation of Detail Project Report for Improvement & up- gradation of newly Declared National Highways including existing NH-91A, NH-92, NH-97 & NH-28B in The State of Uttar Pradesh- Pkg-I. Stretch from Kushinagar-Betwa.

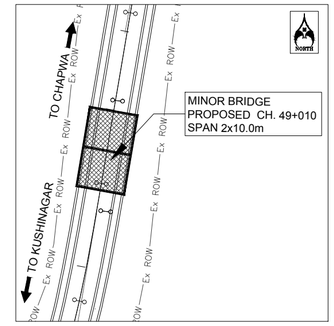
Prepared by	SANJAY MN
Designed by	MOHIT G.
Checked by	RAVINDRA JOSHI
Approved by	PANKAJ VORA

Revisions	Date	Description
R0	MAY 2018	FOR APPROVAL
R1	APRIL 2019	FOR APPROVAL
R2	MAY 2023	FOR APPROVAL

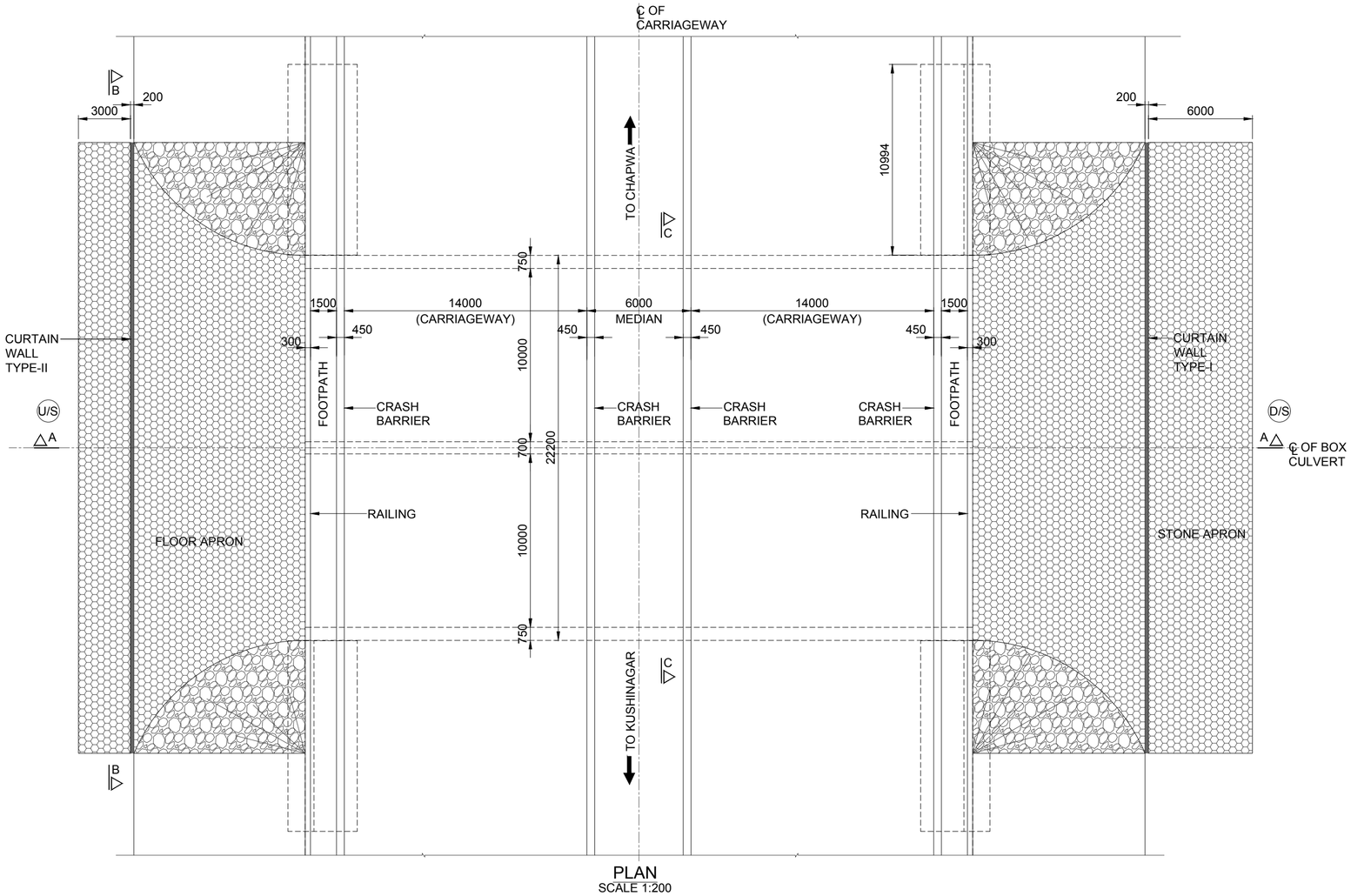
TITLE : GENERAL ARRANGEMENT DRAWING OF BOX CULVERT AT DESIGN CH. 38+368
CHAINAGE : 38+368 — PURPOSE OF DRAWING: FOR APPROVAL
DWG NO. : SOWiL.KN-BT.Viii/BXCL/38+368/GA-05
SCALE : AS SHOWN | DATE : APRIL 2023 | SHEET NO : 02 OF 02 | REV : R2



SECTION AT A-A
SCALE 1:200



KEY PLAN
(NOT TO SCALE)



PLAN
SCALE 1:200

NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETRES & LEVELS ARE IN METRES UNLESS OTHERWISE MENTIONED. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
2. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRG. NO. SOWiL.KN-BT.Viii/MNB/49+010/GA-03 (SHEET 2 OF 2)
3. REINFORCEMENT STEEL:Fe500 TMT BARS CONFIRMING TO IS:1786-2008.
4. GRADE OF CONCRETE AS FOLLOWS:-
   i) BOX M-35
   ii) RETAINING WALL M-35
   iii) CURTAIN WALL M-25
   iv) LEVELING COURSE M-15
5. PROPOSED ROAD LEVEL WITH RESPECT TO EXISTING RTL ARE NOT TO SCALE.
6. LONGITUDINAL SLOPE OF BOX SHALL BE MINIMUM 1:1000.
7. BACKFILL MATERIAL BEHIND SIDE WALL OF BOX SHALL CONFIRM TO APPENDIX-6 OF IRC 78-2014 HAVING PROPERTIES =0, ϕ=30°, Δ=20° AND =20 KN/m³.
8. SEISMIC ZONE IV.
9. SBC-20Kn/m²
10. FOR RETAINING WALL REFER SEPARATE DRG.

SR. NO.	EXISTING TYPE OF STRUCTURE	CHAINAGE	EXISTING SPAN ARRANGEMENT /C-C DISTANCE	PROPOSED SPAN ARRANGEMENT	EXISTING CARRIAGEWAY WIDTH (m)	EXISTING WIDTH OF THE STRUCTURE (m)	TOTAL ROADWAY WIDTH AFTER WIDENING	ACTION REQUIRED (BASED ON CLAUSE 7.3 (I), (II), (III) & (IV) OF IRC:SP-73-2015)		FILL		F.R.L.	INVERT LEVEL	REMARK
								LHS	RHS	LHS	RHS			
1	SOLID SLAB	49+010	2x6.10	2x10.0	10.50	11.50	-	0.0	0.0	0.000	0.000	94.507	87.446	EXISTING STRUCTURE TO BE DISMANTLED

CLIENT:
सड़क परिवहन और राजमार्ग मंत्रालय
MINISTRY OF ROAD TRANSPORT & HIGHWAYS
भारत सरकार Government of India

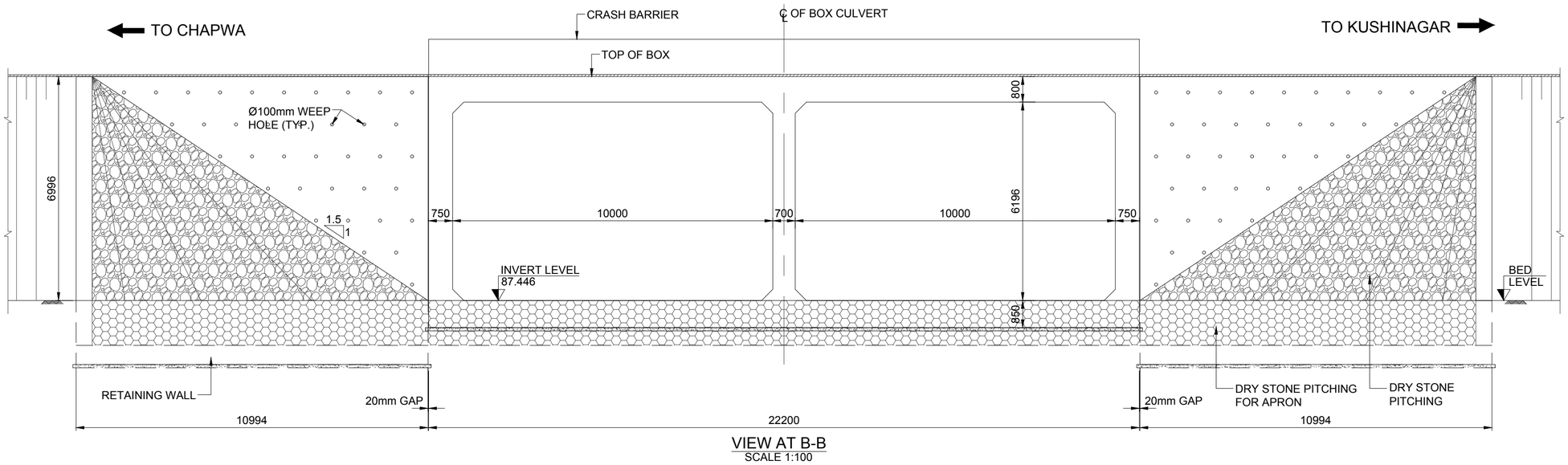
CONSULTANT:
SOWiL Limited
Goodwill Avenue,1st Floor,"A" Wing Office No.-2
Plot No.- 1, Sector-40, Nerul (west),
Navi Mumbai-400706
Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259

PROJECT:
Consultancy Services for feasibility Study & preparation of Detail Project Report for Improvement & up- gradation of newly Declared National Highways including existing NH-91A, NH-92, NH-97 & NH-28B in The State of Uttar Pradesh- Pkg-I. Stretch from Kushinagar-Betwa.

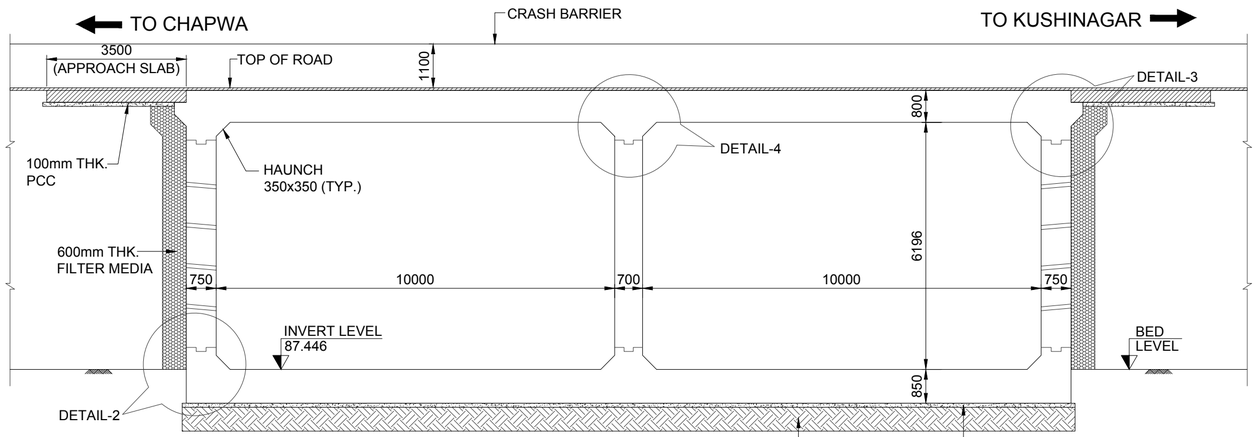
Prepared by	SANJAY MN
Designed by	MOHIT G.
Checked by	RAVINDRA JOSHI
Approved by	PANKAJ VORA

Revisions	Date	Description
R0	MAY 2018	FOR APPROVAL
R1	APRIL 2019	FOR APPROVAL
R2	MAY 2023	FOR APPROVAL

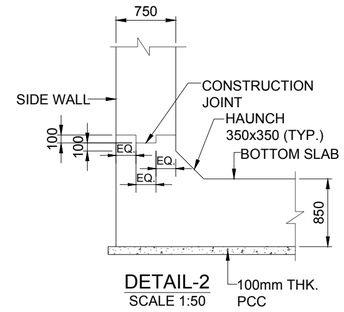
TITLE : GENERAL ARRANGEMENT DRAWING OF MINOR BRIDGE AT DESIGN CH. 49+010
CHAINAGE : 49+010
DWG NO. : SOWiL.KN-BT.Viii/MNB/49+010/GA-03
SCALE : AS SHOWN | DATE : APRIL . 2023 | SHEET NO : 01 OF 02
PURPOSE OF DRAWING: FOR APPROVAL
REV : R2



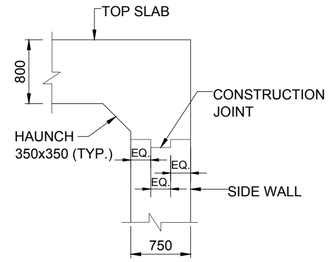
VIEW AT B-B
SCALE 1:100



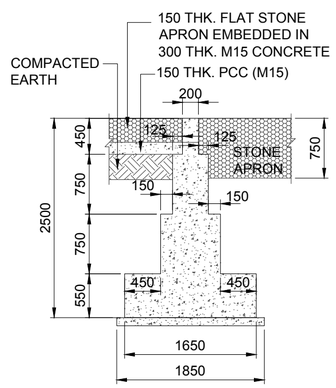
SECTION AT C-C
SCALE 1:100



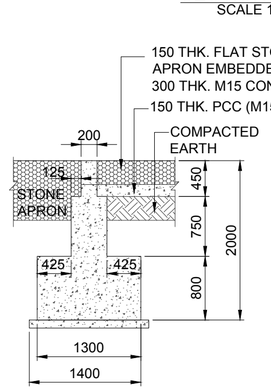
DETAIL-2
SCALE 1:50



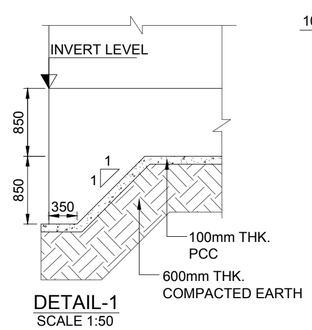
DETAIL-3
SCALE 1:50



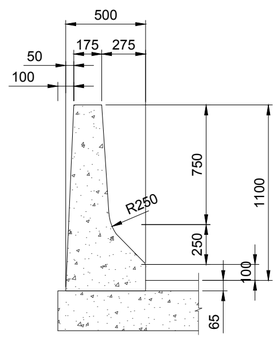
TYPICAL CROSS SECTION CURTAIN WALL TYPE-I (DOWN STREAM SIDE)
SCALE 1:50



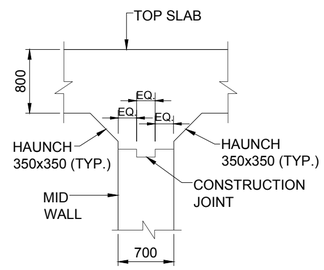
TYPICAL CROSS SECTION CURTAIN WALL TYPE-II (UP STREAM SIDE)
SCALE 1:50



DETAIL-1
SCALE 1:50



DETAILS OF CRASH BARRIER
SCALE 1:25



DETAIL-4
SCALE 1:50

CLIENT:	सड़क परिवहन और राजमार्ग मंत्रालय MINISTRY OF ROAD TRANSPORT & HIGHWAYS भारत सरकार Government of India
CONSULTANT:	**SOWiL Limited** Goodwill Avenue,1st Floor,"A" Wing Office No.-2 Plot No.- 1, Sector-40, Nerul (west), Navi Mumbai-400706 Phone;022-2770 2265 / 68 / 61, Fax:022-2770 2259
PROJECT:	Consultancy Services for feasibility Study & preparation of Detail Project Report for Improvement & up- gradation of newly Declared National Highways including existing NH-91A, NH-92, NH-97 & NH-28B in The State of Uttar Pradesh- Pkg-I. Stretch from Kushinagar-Betwa.

Prepared by	SANJAY MN
Designed by	MOHIT G.
Checked by	RAVINDRA JOSHI
Approved by	PANKAJ VORA

Revisions	Date	Description
R0	MAY 2018	FOR APPROVAL
R1	APRIL 2019	FOR APPROVAL
R2	MAY 2023	FOR APPROVAL

TITLE : GENERAL ARRANGEMENT DRAWING OF MINOR BRIDGE AT DESIGN CH. 49+010

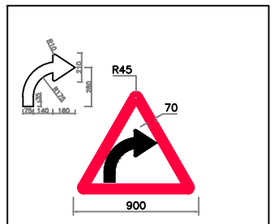
CHAINAGE : 49+010 | PURPOSE OF DRAWING: FOR APPROVAL

DWG NO. : SOWiL.KN-BT.Viii/MNB/49+010/GA-03

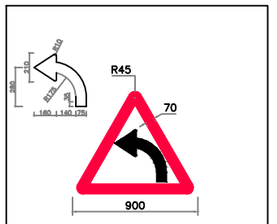
SCALE : AS SHOWN | DATE : APRIL . 2023 | SHEET NO : 02 OF 02 | REV : R2

MISCELLANEOUS DRAWING ►

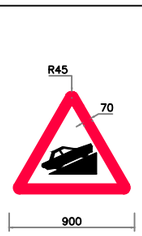
CAUTIONARY/WARNING SIGNS



RIGHT HAND CURVE
CS-01



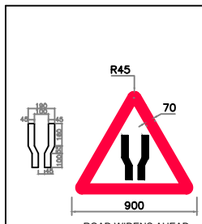
LEFT HAND CURVE
CS-02



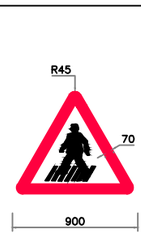
STEEP ASCENT
CS-03



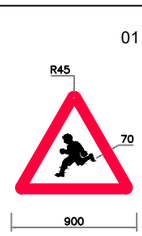
STEEP DESCENT
CS-04



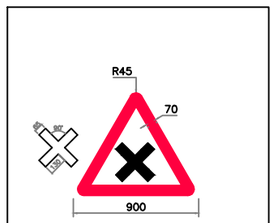
ROAD WIDENS AHEAD
CS-05



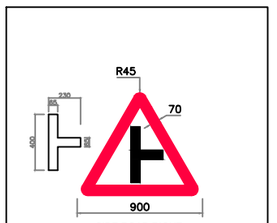
PEDESTRIANS CROSSING
CS-08



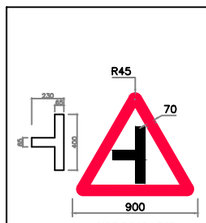
SCHOOL
CS-09



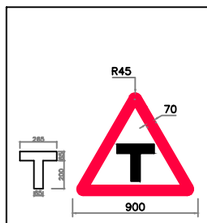
CROSS ROAD SIGNS
CS-10



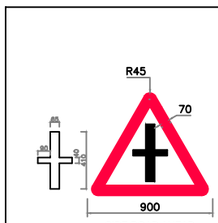
SIDE ROAD RIGHT
CS-11



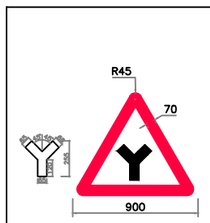
SIDE ROAD LEFT
CS-12



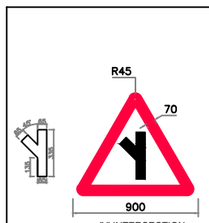
'T' INTERSECTION
CS-13



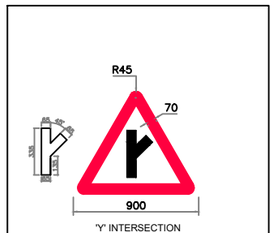
SIDE ROAD AHEAD
CS-14



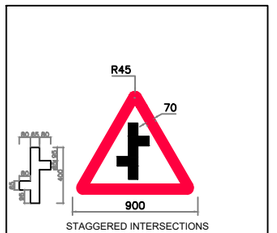
'Y' INTERSECTION
CS-15



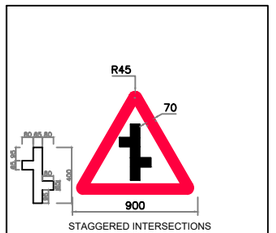
'Y' INTERSECTION
CS-16



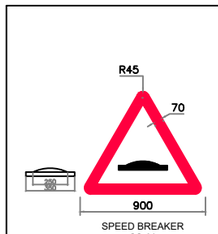
'Y' INTERSECTION
CS-17



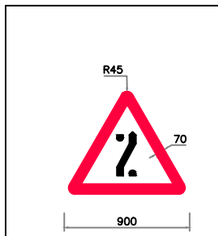
STAGGERED INTERSECTIONS
CS-18



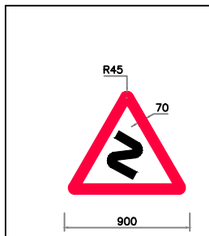
STAGGERED INTERSECTIONS
CS-19



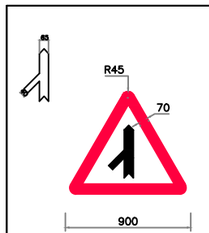
SPEED BREAKER
CS-20



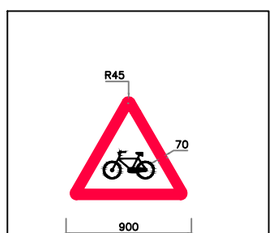
DIVERSION TO THE OTHER CARRIAGEWAY
OF DUAL CARRIAGEWAY ROAD
CS-25



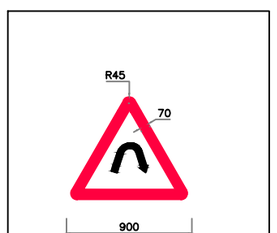
SERIES OF BENDS
CS-26



ROAD MERGING AHEAD
CS-27



CYCLE CROSSING
CS-28



HAIR PIN BEND
CS-29

Authorized Sign

Technocrats Advisory Services Private Limited Delhi

Project Title:-

Preparation of DPR, Pre construction activities and project supervision of 1) preparation of DPR of Padrauna bypass 4L+PS. 2) Completion of pre-construction activities of 4L+PS /2L+PS work of NH-727 from 0.000 to 46.500. 3) Project supervision as independent engineer of 4L+PS/2L+PS work of NH-727 from 0.000 to 46.500, for the project national highways in the state of Uttar Pradesh

CLIENT:-

MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:- ROAD SIGNS-I

Drawing No. :- MORTH/TASPL/DPR/KUSHI-CHAP/MISC

Scale :- -----

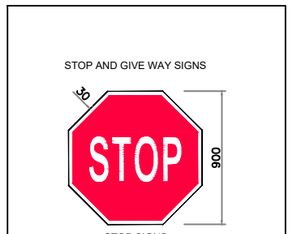
Drn	Dgn.	Appd	Sheet :
DEEPAK	S.B.PANDEY	S.K.UPADHYAY	01 OF 03

CONSULTANT:-

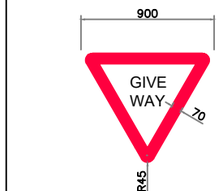
TASPL

Technocrats Advisory Services Pvt. Ltd.
68, Ajanta Apartment, 36, I.P.Extension
Patparganj, Delhi-110092

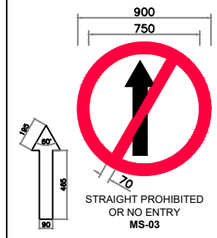
MANDATORY/REGULATORY SIGNS



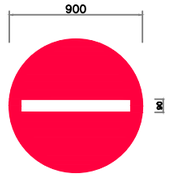
STOP SIGNS
MS-01



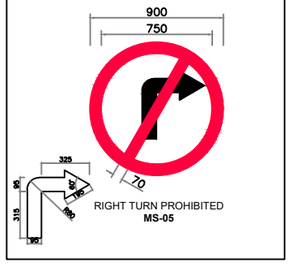
STOP AND GIVE WAY SIGNS
MS-02



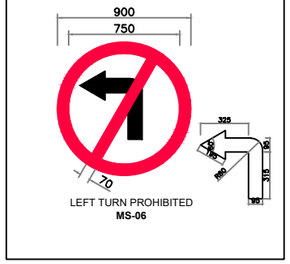
STRAIGHT PROHIBITED
OR NO ENTRY
MS-03



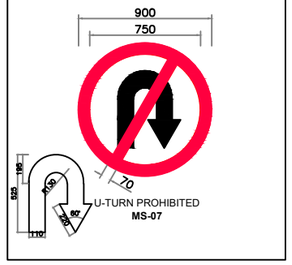
NO ENTRY
MS-04



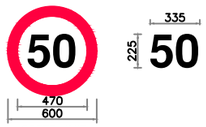
RIGHT TURN PROHIBITED
MS-05



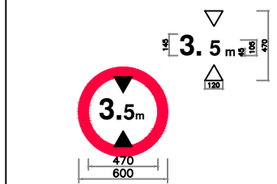
LEFT TURN PROHIBITED
MS-06



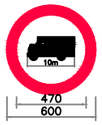
U-TURN PROHIBITED
MS-07



SPEED LIMIT
MS-08



HEIGHT LIMIT
MS-09



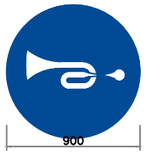
LENGTH LIMIT
MS-10



SPEED LIMIT END
MS-11



COMPULSORY
KEEP LEFT
MS-12



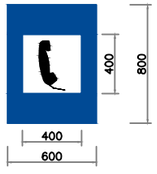
COMPULSORY
SOUND HORN
MS-13



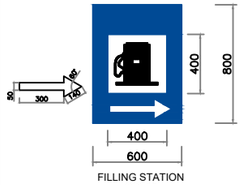
HORN PROHIBITED
MS-14

INFORMATORY SIGN BOARD:-

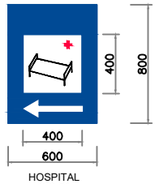
(A) FACILITY INFORMATION SIGNS



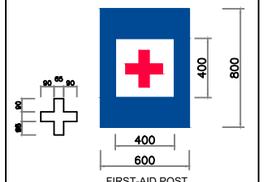
PUBLIC TELEPHONE
OIS-01



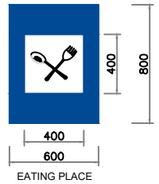
FILLING STATION
OIS-02



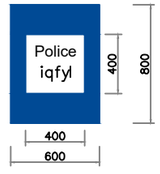
HOSPITAL
OIS-03



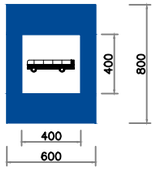
FIRST-AID POST
OIS-04



EATING PLACE
OIS-05



POLICE STATION
OIS-06



BUS STOP
OIS-07

(B) DIRECTION AND PLACE IDENTIFICATION SIGNS

Authorized Sign

Technocrats Advisory Services Private Limited

Project Title:-

Preparation of DPR, Pre construction activities and project supervision of 1) preparation of DPR of Padrauna bypass 4L+PS. 2) Completion of pre-construction activities of 4L+PS /2L+PS work of NH-727 from 0.000 to 46.500. 3) Project supervision as independent engineer of 4L+PS/2L+PS work of NH-727 from 0.000 to 46.500, for the project national highways in the state of Uttar Pradesh

CLIENT:-

MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:- ROAD SIGNS-II

Drawing No. :- MORTH/TASPL/DPR/KUSHI-CHAP/MISC

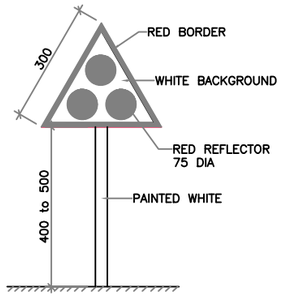
Scale :- -----

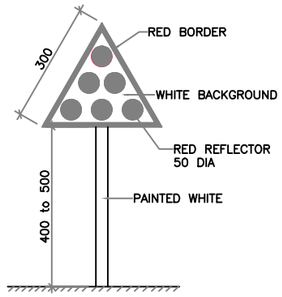
Drn	Dgn.	Appd	Sheet :
DEEPAK	S.B.PANDEY	S.K.UPADHYAY	02 OF 03

CONSULTANT:-

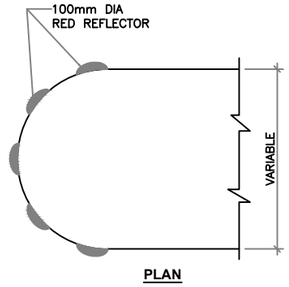
TASPL

Technocrats Advisory Services Pvt. Ltd.
68, Ajanta Apartment, 36, I.P.Extension
Patparganj, Delhi-110092

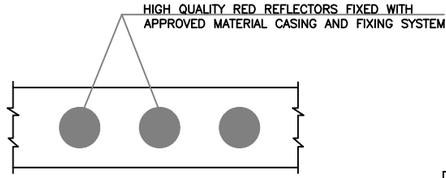




CLUSTER OF RED REFLECTORS
TA-1

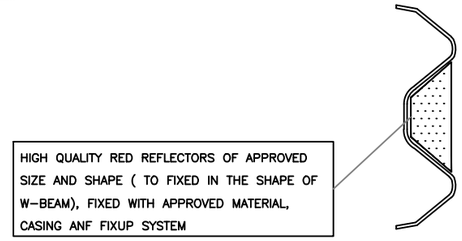


PLAN

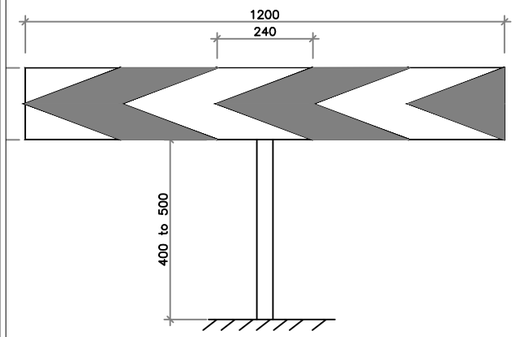


ELEVATION

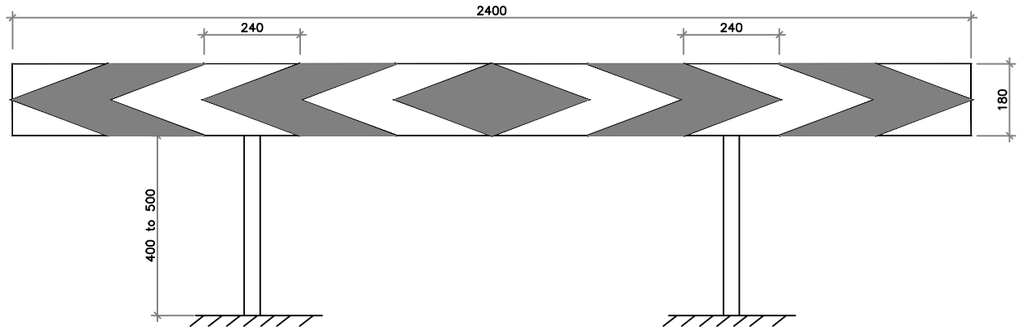
MEDIAN TIP REFLECTORS
TA-4



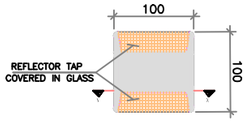
ON W-BEAM OF METAL BEAM CRASH BARRIER
TA-5



ONE-WAY HAZARD MARKER
TA-2

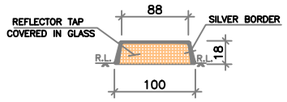


TWO-WAY HAZARD MARKER
TA-3



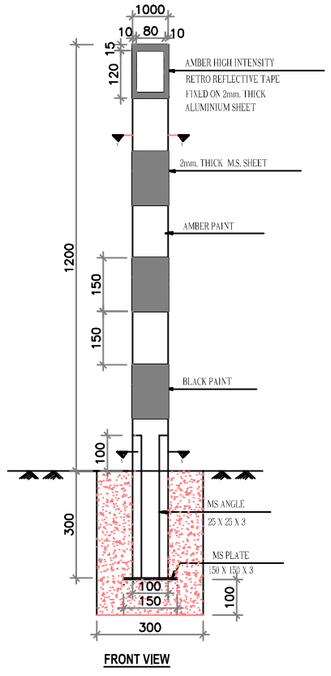
PLAN

Road Studs (Cateyes)

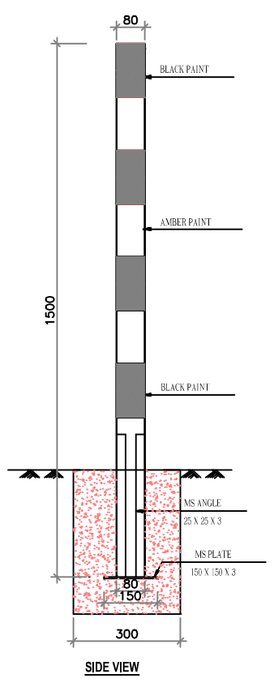


Section X - X

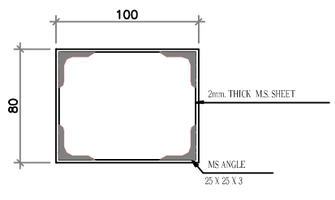
Road Studs (Cateyes)



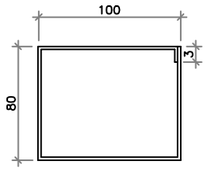
FRONT VIEW



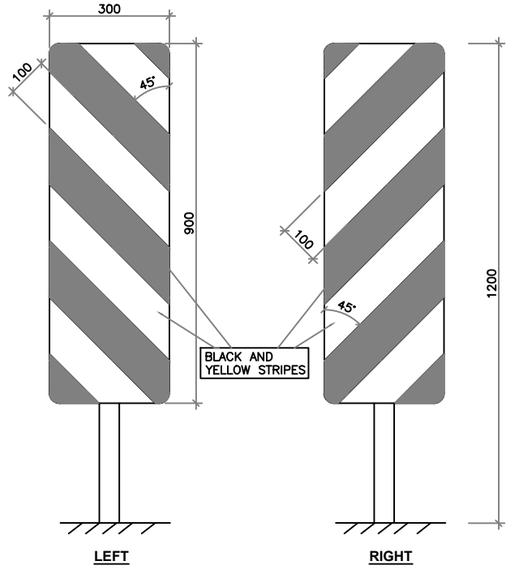
SIDE VIEW



SECTION Y-Y

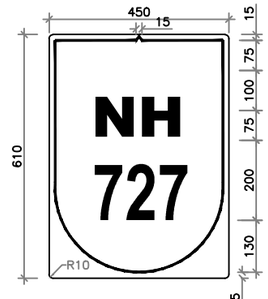


SECTION X-X

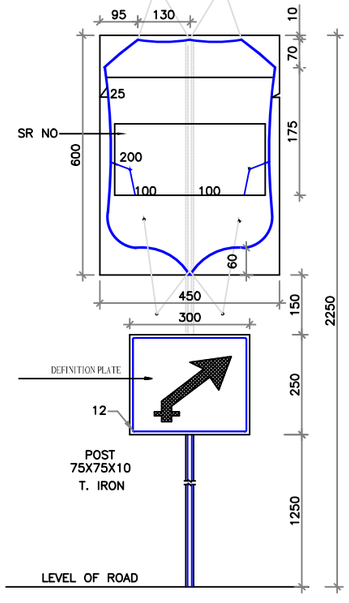


LEFT **RIGHT**

OBJECT HAZARD MARKERS



NH ROUTE MARKER SIGN
IS-07



ASSEMBLY OF ROUTE MARK SIGN ARRANGEMENT FOR ERECTION OF STATE ROUTE MARKER SIGN

Authorized Sign

Technocrats Advisory Services Private Limited Delhi

Project Title:-

Preparation of DPR, Pre construction activities and project supervision of 1) preparation of DPR of Padrauna bypass 4L+PS. 2) Completion of pre-construction activities of 4L+PS /2L+PS work of NH-727 from 0.000 to 46.500. 3) Project supervision as independent engineer of 4L+PS/2L+PS work of NH-727 from 0.000 to 46.500, for the project national highways in the state of Uttar Pradesh

CLIENT:-

सत्यमेव जयते

MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:- ROAD SIGNS-III

Drawing No. :- MORTH/TASPL/DPR/KUSHI-CHAP/MISC

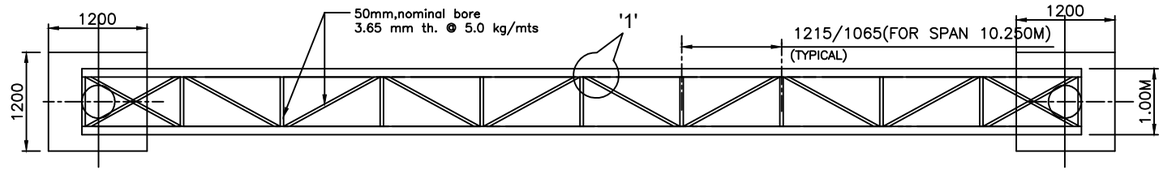
Scale :- -----

Drn	Dgn.	Appd	Sheet :
DEEPAK	S.B.PANDEY	S.K.UPADHYAY	03 OF 03

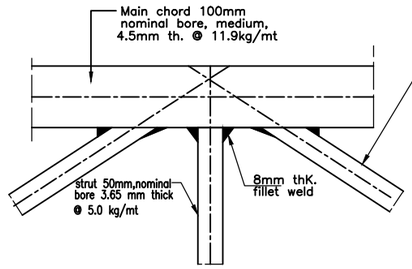
CONSULTANT:-

TASPL

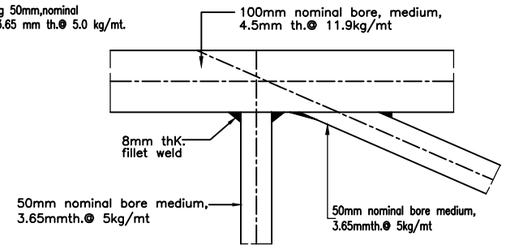
Technocrats Advisory Services Pvt. Ltd.
68, Ajanta Apartment, 36, I.P.Extension
Patparganj, Delhi-110092



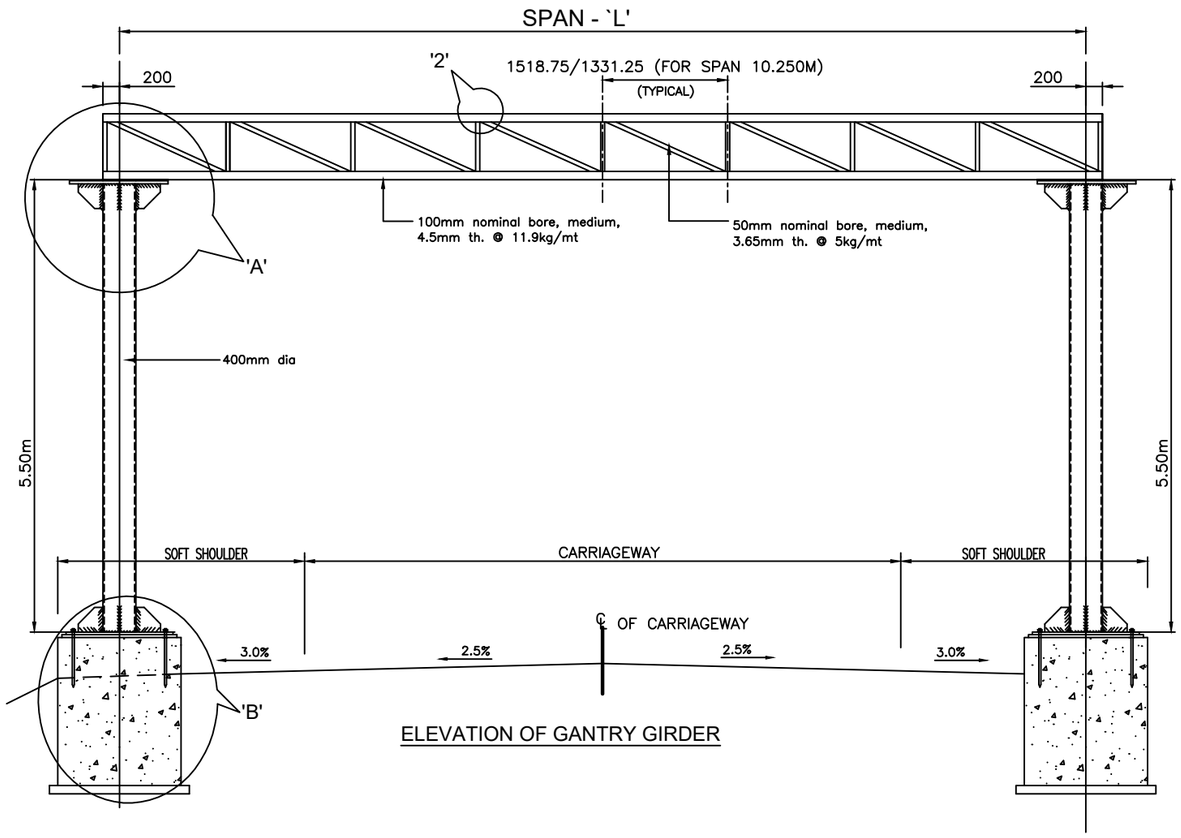
TOP/BOTTOM PLAN



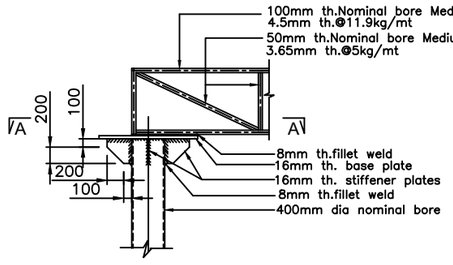
DETAIL-1



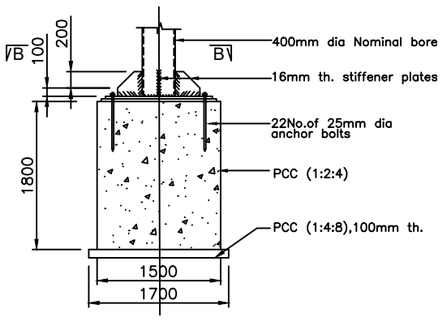
DETAIL-2



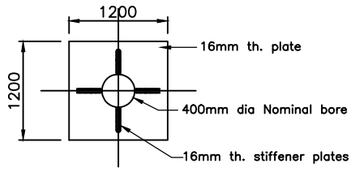
ELEVATION OF GANTRY GIRDER



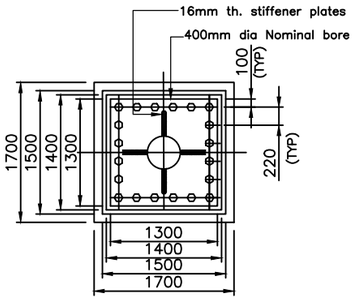
DETAIL - A



DETAIL - B



SECTION A-A
PLAN



SECTION B-B
COLUMN BASE DETAILS

Authorized Sign

Technocrats Advisory Services Private Limited

Project Title:-

Preparation of DPR, Pre construction activities and project supervision of 1) preparation of DPR of Padrauna bypass 4L+PS. 2) Completion of pre-construction activities of 4L+PS /2L+PS work of NH-727 from 0.000 to 46.500. 3) Project supervision as independent engineer of 4L+PS/2L+PS work of NH-727 from 0.000 to 46.500, for the project national highways in the state of Uttar Pradesh

CLIENT:-

MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:-

TYPICAL DETAILS OF OVERHEAD GANTRY

Drawing No. :- MORTH/TASPL/DPR/KUSHI-CHAP/MISC

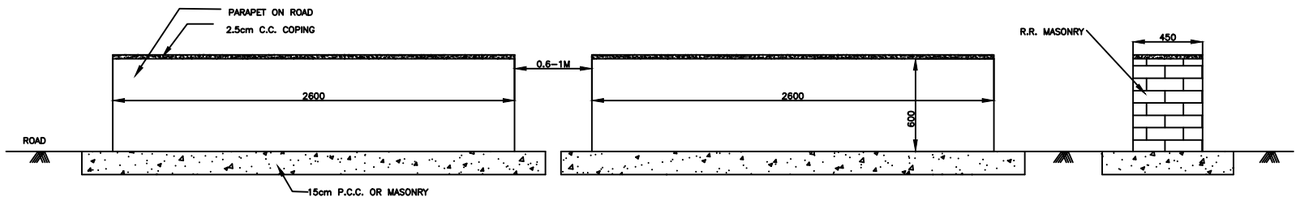
Scale :- -----

Drn	Dgn.	Appd	Sheet :
DEEPAK	S.B.PANDEY	S.K.UPADHYAY	01 OF 01

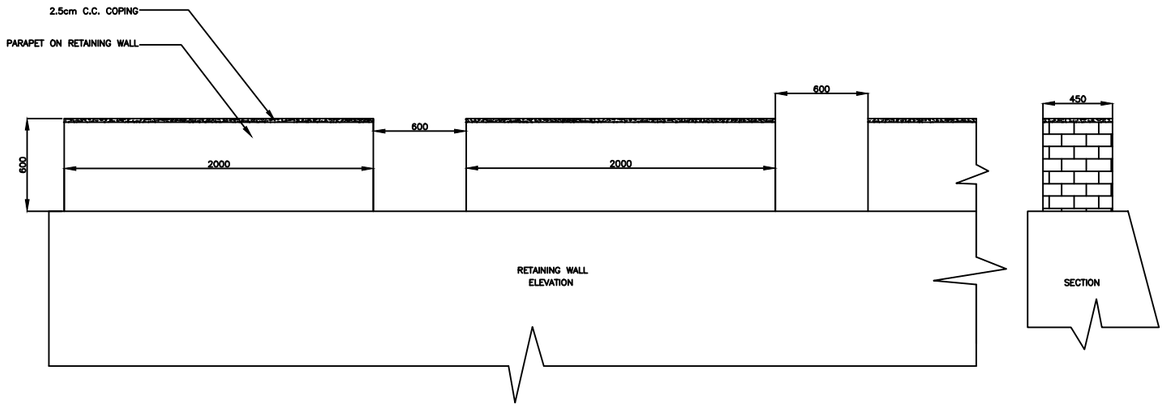
CONSULTANT:-

TASPL

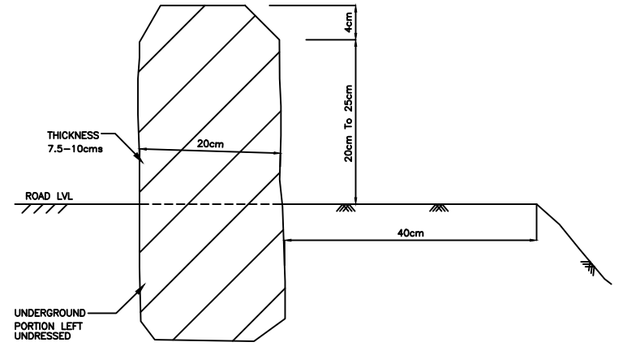
Technocrats Advisory Services Pvt. Ltd.
68, Ajanta Apartment, 36, I.P.Extension
Patparganj, Delhi-110092



PARAPET ON ROAD

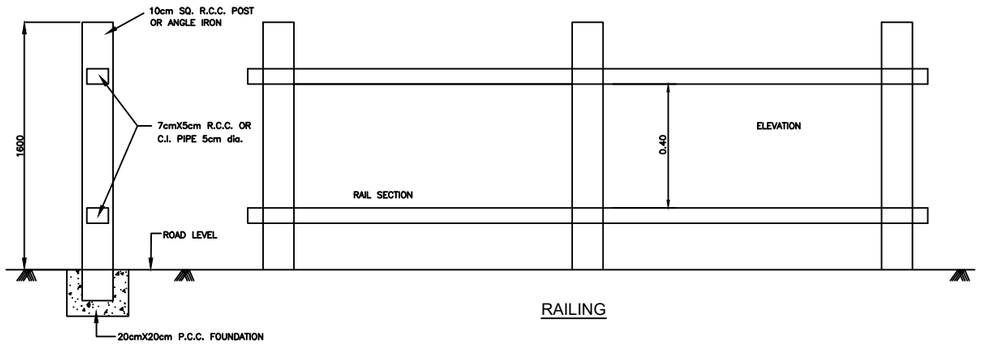


PARAPET ON RETAINING WALL

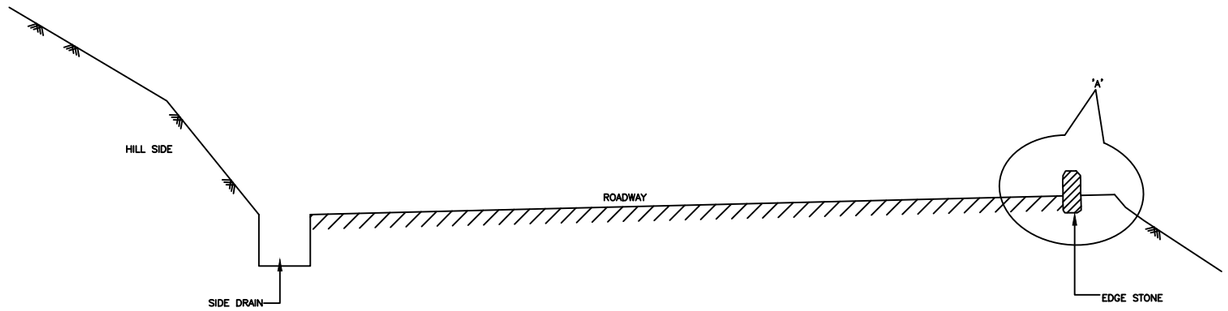


DETAIL 'A'

DETAIL 'A'



RAILING



SECTION
EDGE STONE

Authorized Sign

Technocrats Advisory Services Private Limited

Project Title:-

Preparation of DPR, Pre construction activities and project supervision of 1) preparation of DPR of Padrauna bypass 4L+PS. 2) Completion of pre-construction activities of 4L+PS /2L+PS work of NH-727 from 0.000 to 46.500. 3) Project supervision as independent engineer of 4L+PS/2L+PS work of NH-727 from 0.000 to 46.500, for the project national highways in the state of Uttar Pradesh

CLIENT:-

MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:-

PARAPET, RAILING AND EDGE STONE

Drawing No. :- MORTH/TASPL/DPR/KUSHI-CHAP/MISC

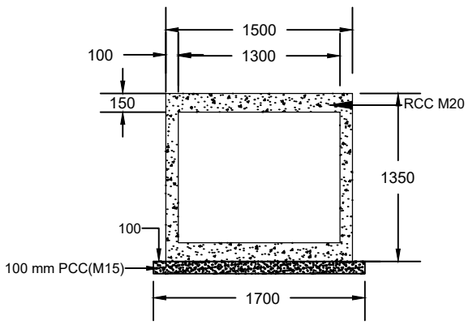
Scale :- -----

Drn	Dgn.	Appd	Sheet :
DEEPAK	S.B.PANDEY	S.K.UPADHYAY	01 OF 01

CONSULTANT:-

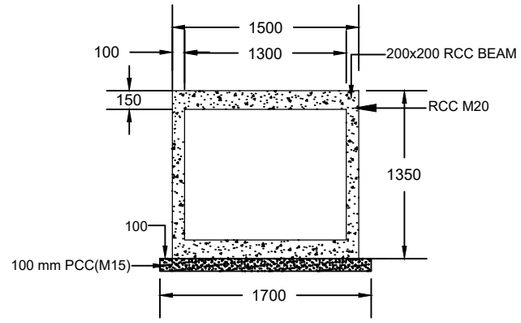
TASPL

Technocrats Advisory Services Pvt. Ltd.
68, Ajanta Apartment, 36, I.P.Extension
Patparganj, Delhi-110092



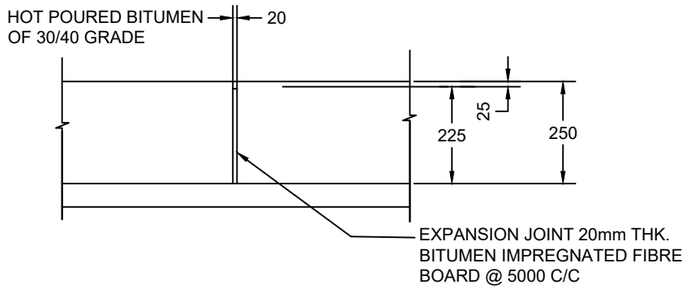
SECTION OF RCC COVERED DRAIN

SECTION E-E

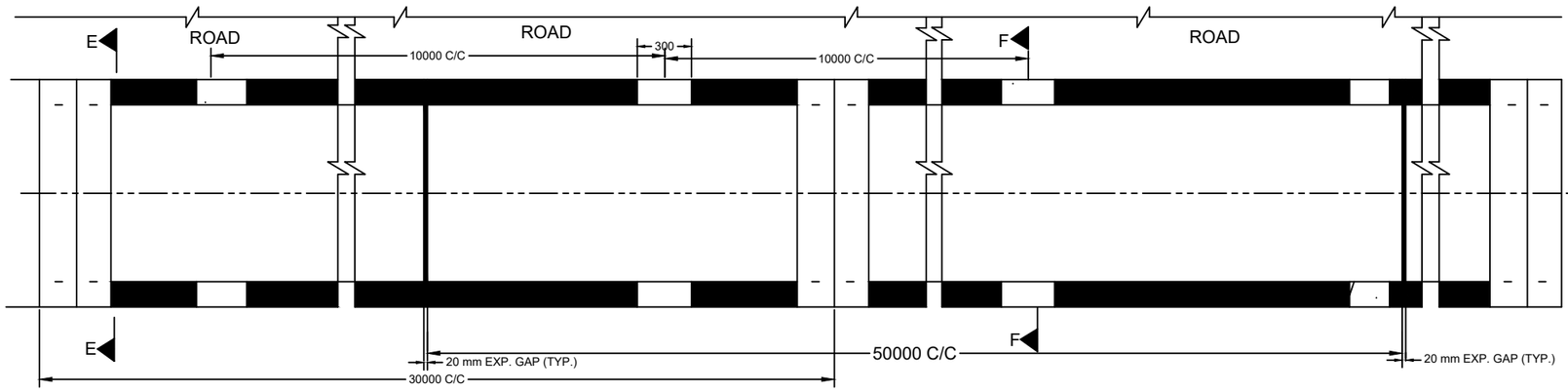


SECTION OF RCC COVERED DRAIN

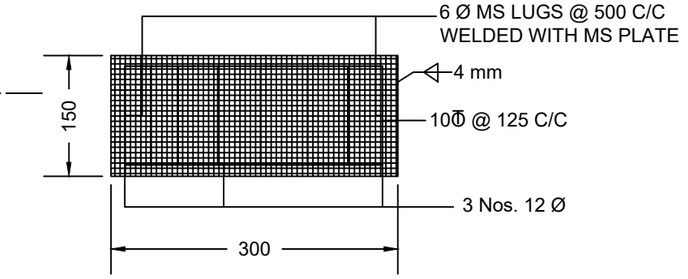
SECTION F-F



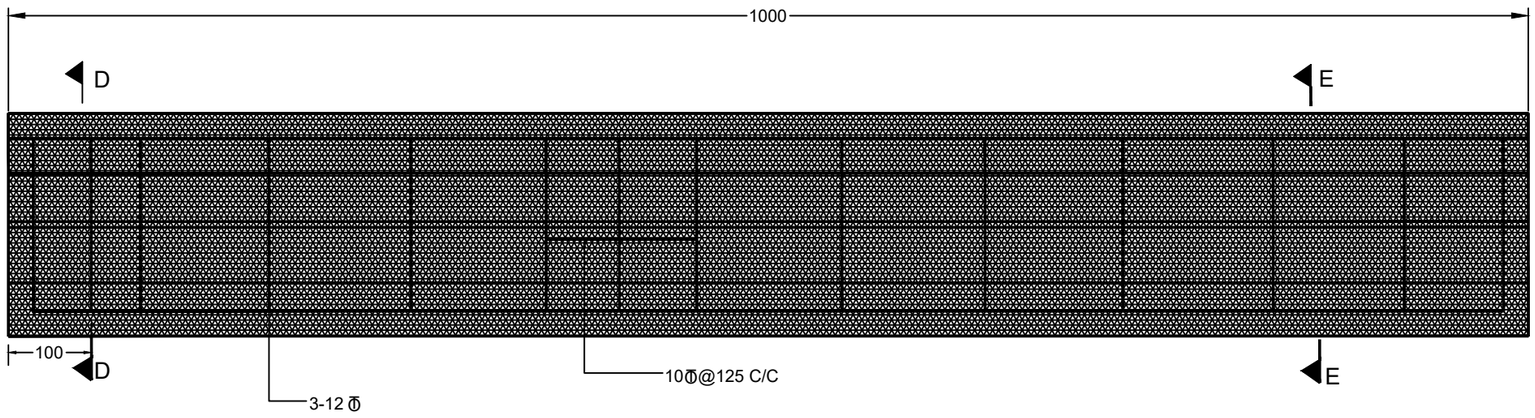
DETAIL OF EXP. JOINT



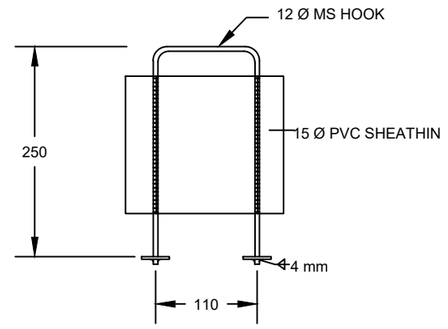
PLAN OF OPEN DRAIN



SECTION D-D



SECTIONAL PLAN OF PRECAST SLAB



SECTION E-E

Authorized Sign

Technocrats Advisory Services Private Limited Delhi

Project Title:-

Preparation of DPR, Pre construction activities and project supervision of 1) preparation of DPR of Padrauna bypass 4L+PS. 2) Completion of pre-construction activities of 4L+PS /2L+PS work of NH-727 from 0.000 to 46.500. 3) Project supervision as independent engineer of 4L+PS/2L+PS work of NH-727 from 0.000 to 46.500, for the project national highways in the state of Uttar Pradesh

CLIENT:-

MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:-

TYPICAL DETAILS OF RCC DRAIN

Drawing No. :- MORTH/TASPL/DPR/KUSHI-CHAP/MISC

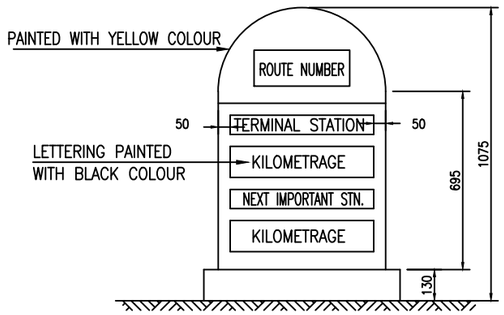
Scale :- -----

Drn	Dgn.	Appd	Sheet :
DEEPAK	S.B.PANDEY	S.K.UPADHYAY	01 OF 01

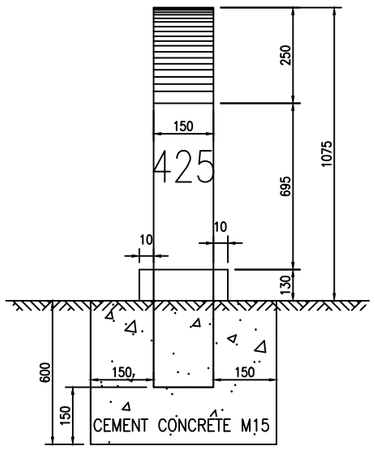
CONSULTANT:-

TASPL

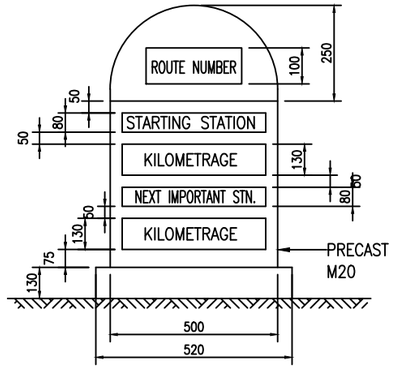
Technocrats Advisory Services Pvt. Ltd.
68, Ajanta Apartment, 36, I.P.Extension
Patparganj, Delhi-110092



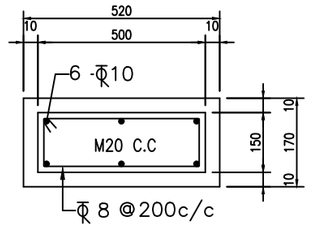
FACE 1



SIDE ELEVATION



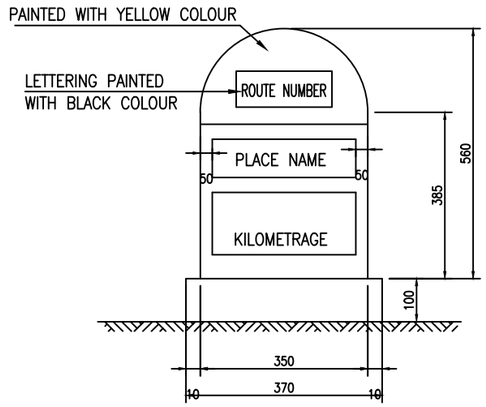
FACE 2



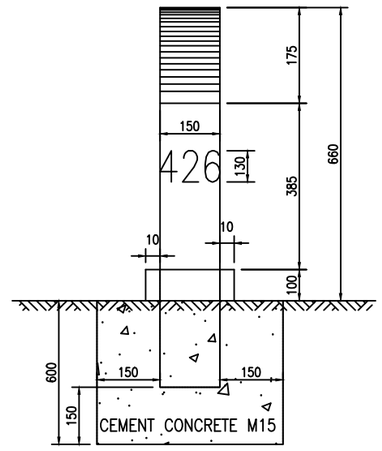
SECTIONAL PLAN

TYPICAL DESIGN FOR THE 5TH KILOMETRE STONE

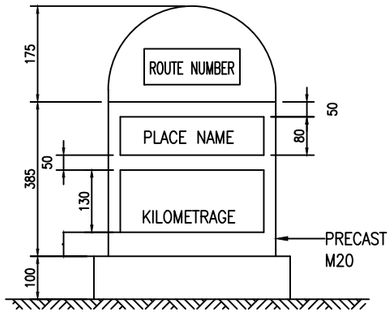
INDEX FOR KILOMETRE STONES		
Km No.	SCRIPT FOR PLACE NAMES	PLACE TO BE SHOWN
0	ROMAN	TERMINAL/STARTING STATION AND NEXT IMPORTANT TOWN
1	HINDI (DEVANAGARI SCRIPT)	NEXT IMPORTANT TOWN
2	LOCAL LANGUAGE	NEXT IMPORTANT TOWN
3	HINDI (DEVANAGARI SCRIPT)	TERMINAL / STARTING STATION
4	LOCAL LANGUAGE	TERMINAL / STARTING STATION
5	ROMAN	TERMINAL/STARTING STATION AND NEXT IMPORTANT TOWN
6	HINDI (DEVANAGARI SCRIPT)	NEXT IMPORTANT TOWN



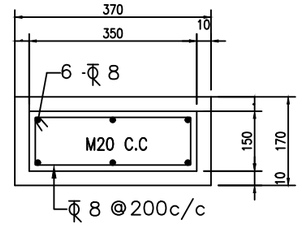
FACE 1



SIDE ELEVATION



FACE 2



SECTIONAL PLAN

TYPICAL DESIGN FOR ORDINARY KILOMETRE STONE

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. REFLECTORISED PAINT SHALL BE IN ACCORDANCE WITH CL.803.5 OF M.O.R.T & H SPEC.
3. FOR TYPE & STYLE SIZE OF LETTERING RELEVANT IRC CODE OF PRATICE SHALL BE REFERED.
4. LETTERING IS DONE WITH APPROVED QUALITY BLACK ENAMEL PAINT USING STENCIL

Authorized Sign

Technocrats Advisory Services Private Limited

Project Title:-

Preparation of DPR, Pre construction activities and project supervision of 1) preparation of DPR of Padrauna bypass 4L+PS. 2) Completion of pre-construction activities of 4L+PS /2L+PS work of NH-727 from 0.000 to 46.500. 3) Project supervision as independent engineer of 4L+PS/2L+PS work of NH-727 from 0.000 to 46.500, for the project national highways in the state of Uttar Pradesh

CLIENT:-

MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:- TYPICAL DRAWING OF KM STONE

Drawing No. :- MORTH/TASPL/DPR/KUSHI-CHAP/MISC

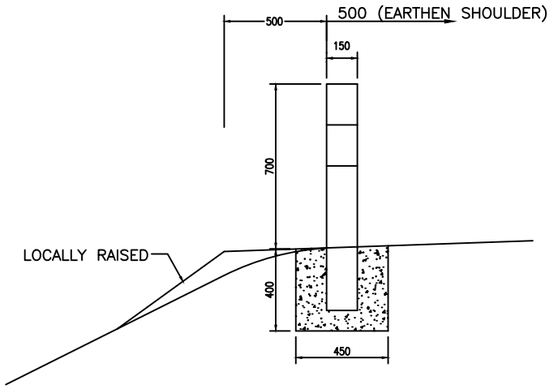
Scale :- -----

Drn	Dgn.	Appd	Sheet :
DEEPAK	S.B.PANDEY	S.K.UPADHYAY	01 OF 02

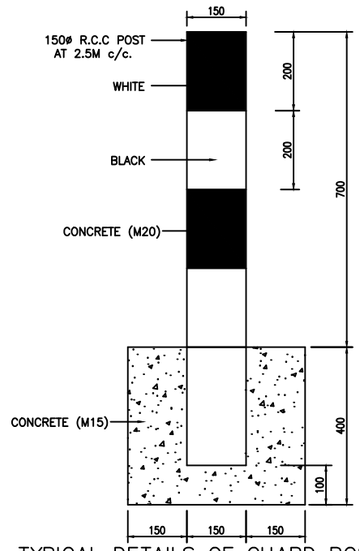
CONSULTANT:-

TASPL

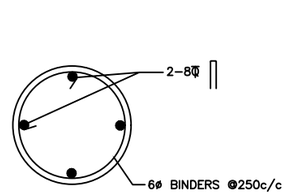
Technocrats Advisory Services Pvt. Ltd.
68, Ajanta Apartment, 36, I.P.Extension
Patparganj, Delhi-110092



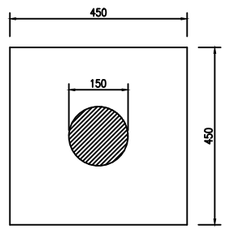
FIXING DETAILS OF GUARD POST



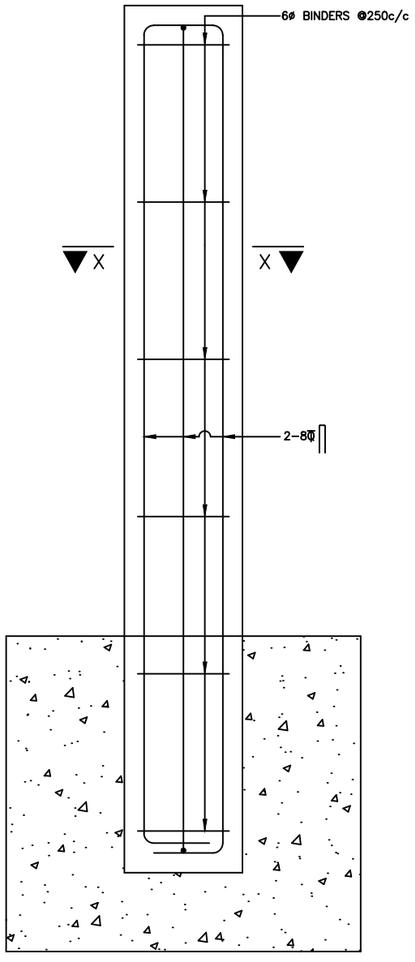
TYPICAL DETAILS OF GUARD POST



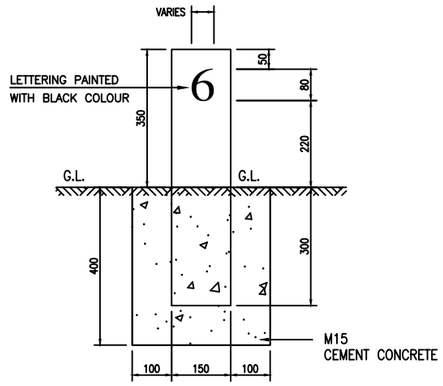
SECTION X–X



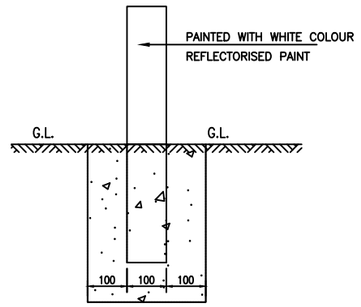
PLAN OF GUARD POST



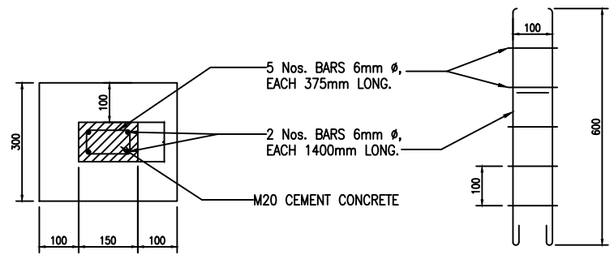
REINFORCEMENT DETAIL OF GUARD POST



FRONT ELEVATION



SIDE VIEW



PLAN

SCHEDULE OF
REINFORCEMENT

TYPICAL DESIGN FOR 200m STONES

NOTES:

1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE MENTIONED.
2. FOR EXACT DETAILS OF W–BEAM, REFER MANUFACTURER DRAWING.
3. W–BEAM BARRIER IS INSTALLED WHERE EMBANKMENT HEIGHT IS MORE THAN 6 METRES & AT IMMEDIATE BRIDGE APPROACHES.
4. R.C.C. GUARD POSTS IS TO BE INSTALLED AS PER THE INSTRUCTIONS OF ENGINEER.

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. REFLECTORISED PAINT SHALL BE IN ACCORDANCE WITH CL.803.5 OF M.O.R.T & H SPEC.
3. FOR TYPE & STYLE SIZE OF LETTERING RELEVANT IRC CODE OF PRATICE SHALL BE REFERED.
4. LETTERING IS DONE WITH APPROVED QUALITY BLACK ENAMEL PAINT USING STENCIL

Authorized Sign

Technocrats Advisory Services Private Limited

Project Title:-

Preparation of DPR, Pre construction activities and project supervision of 1) preparation of DPR of Padrauna bypass 4L+PS. 2) Completion of pre-construction activities of 4L+PS /2L+PS work of NH-727 from 0.000 to 46.500. 3) Project supervision as independent engineer of 4L+PS/2L+PS work of NH-727 from 0.000 to 46.500, for the project national highways in the state of Uttar Pradesh

CLIENT:-

MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:- TYPICAL DRAWING OF KM STONE

Drawing No. :- MORTH/TASPL/DPR/KUSHI-CHAP/MISC

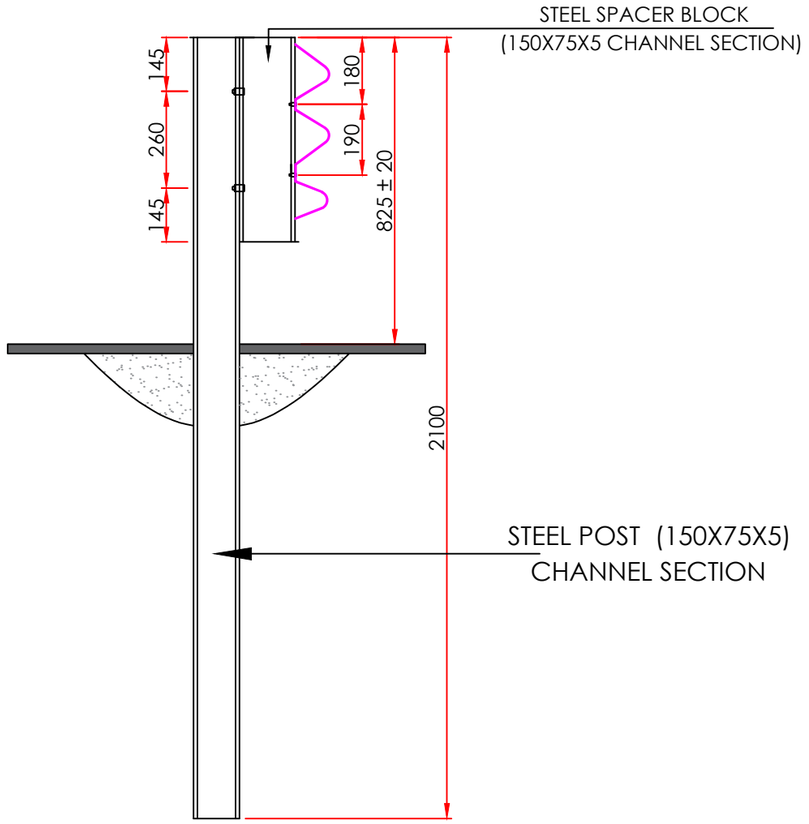
Scale :- -----

Drn	Dgn.	Appd	Sheet :
DEEPAK	S.B.PANDEY	S.K.UPADHYAY	02 OF 02

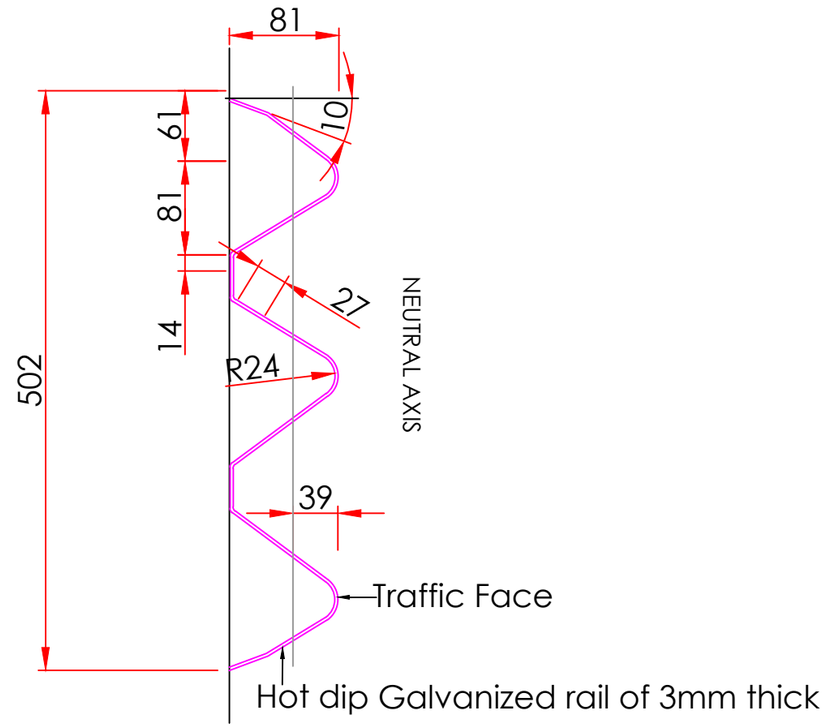
CONSULTANT:-

TASPL

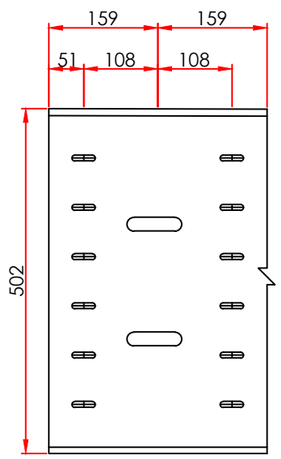
Technocrats Advisory Services Pvt. Ltd.
68, Ajanta Apartment, 36, I.P.Extension
Patparganj, Delhi-110092



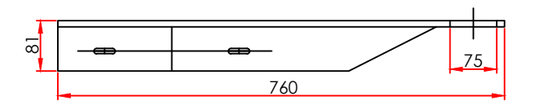
DETAIL OF THRIE BEAM BARRIER

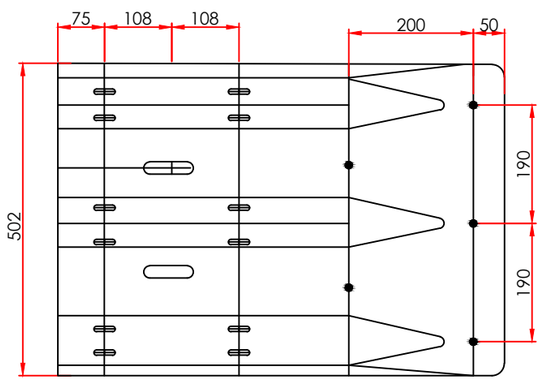


SECTION THROUGH THRIE BEAM RAIL ELEMENT



RAIL SPLICE





THRIE BEAM TERMINAL CONNECTOR

Authorized Sign

Technocrats Advisory Services Private Limited Delhi

Project Title:-

Preparation of DPR, Pre construction activities and project supervision of 1) preparation of DPR of Padrauna bypass 4L+PS. 2) Completion of pre-construction activities of 4L+PS /2L+PS work of NH-727 from 0.000 to 46.500. 3) Project supervision as independent engineer of 4L+PS/2L+PS work of NH-727 from 0.000 to 46.500, for the project national highways in the state of Uttar Pradesh

CLIENT:-

MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:- TYPICAL THRIE BEAM CRASH BARRIER

Drawing No. :- MORTH/TASPL/DPR/KUSHI-CHAP/MISC

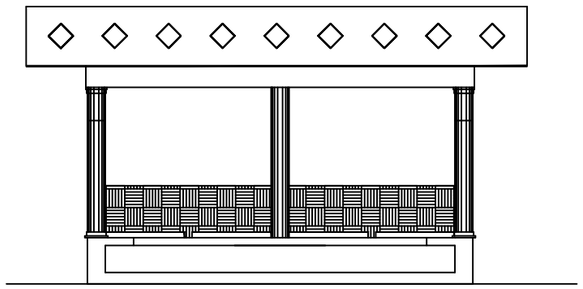
Scale :- -----

Drn	Dgn.	Appd	Sheet :
DEEPAK	S.B.PANDEY	S.K.UPADHYAY	01 OF 01

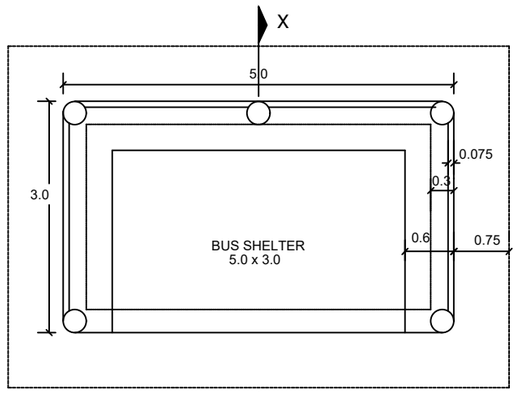
CONSULTANT:-

TASPL

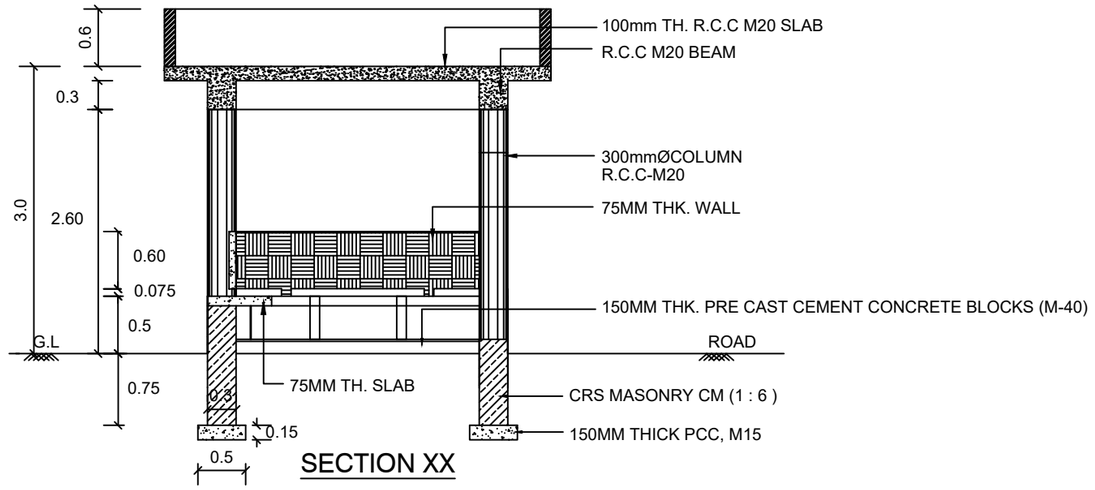
Technocrats Advisory Services Pvt. Ltd.
68, Ajanta Apartment, 36, I.P.Extension
Patparganj, Delhi-110092



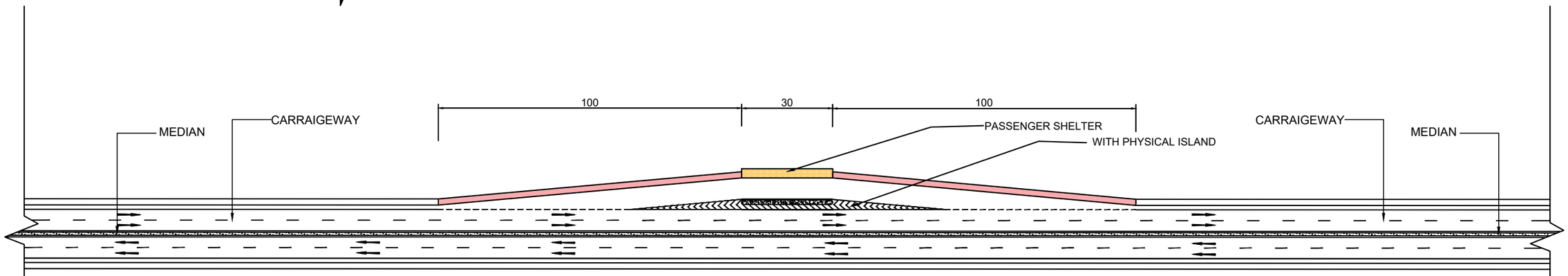
FRONT ELEVATION



PLAN FOR BUS SHELTER



SECTION XX



TYPICAL LAYOUT OF BUS BAY

NOTES:-

1. ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS ARE IN METERS, UNLESS OTHERWISE STATED;
2. DIMENSIONS SHALL NOT BE SCALED OFF FROM THE DRAWING;
3. THE SIZE OF THE SIGNS ARE BASED ON THE TEXT HEIGHT & WIDTH AND PROVIDED AS PER IRC SP 84-2014 FIG:12.2

Authorized Sign

Technocrats Advisory Services Private Limited

Project Title:-

Preparation of DPR, Pre construction activities and project supervision of 1) preparation of DPR of Padrauna bypass 4L+PS. 2) Completion of pre-construction activities of 4L+PS /2L+PS work of NH-727 from 0.000 to 46.500. 3) Project supervision as independent engineer of 4L+PS/2L+PS work of NH-727 from 0.000 to 46.500, for the project national highways in the state of Uttar Pradesh

CLIENT:-

MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:- TYPICAL BUS BAY DETAILS

Drawing No. :- MORTH/TASPL/DPR/KUSHI-CHAP/MISC

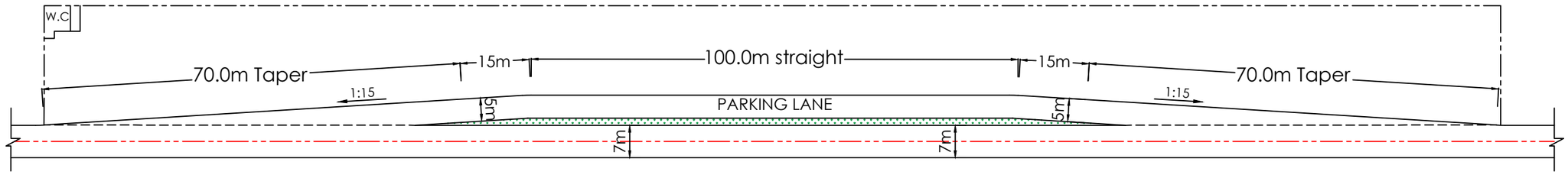
Scale :- -----

Drn	Dgn.	Appd	Sheet :
DEEPAK	S.B.PANDEY	S.K.UPADHYAY	01 OF 01

CONSULTANT:-

TASPL

Technocrats Advisory Services Pvt. Ltd.
68, Ajanta Apartment, 36, I.P.Extension
Patparganj, Delhi-110092



TYPICAL LAYOUT OF TRUCK LAY BYE IRC-SP-73

Authorized Sign

Technocrats Advisory Services Private Limited

Project Title:-

Preparation of DPR, Pre construction activities and project supervision of 1) preparation of DPR of Padrauna bypass 4L+PS. 2) Completion of pre-construction activities of 4L+PS /2L+PS work of NH-727 from 0.000 to 46.500. 3) Project supervision as independent engineer of 4L+PS/2L+PS work of NH-727 from 0.000 to 46.500, for the project national highways in the state of Uttar Pradesh

CLIENT:-

सत्यमेव जयते

MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:- TYPICAL LAYOUT OF TRUCK LAY BYE

Drawing No. :- MORTH/TASPL/DPR/KUSHI-CHAP/MISC

Scale :- -----

Drn	Dgn.	Appd	Sheet :
DEEPAK	S.B.PANDEY	S.K.UPADHYAY	01 OF 01

CONSULTANT:-

TASPL

Technocrats Advisory Services Pvt. Ltd.
68, Ajanta Apartment, 36, I.P.Extension
Patparganj, Delhi-110092

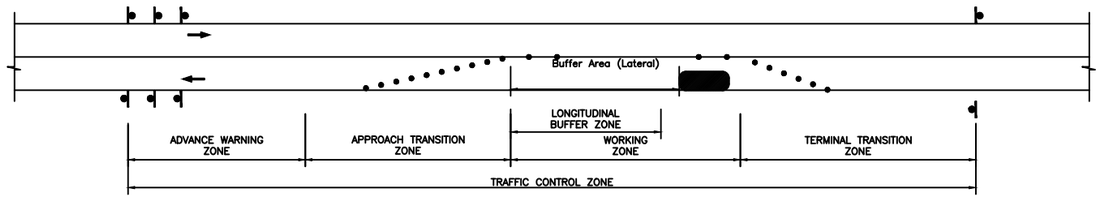
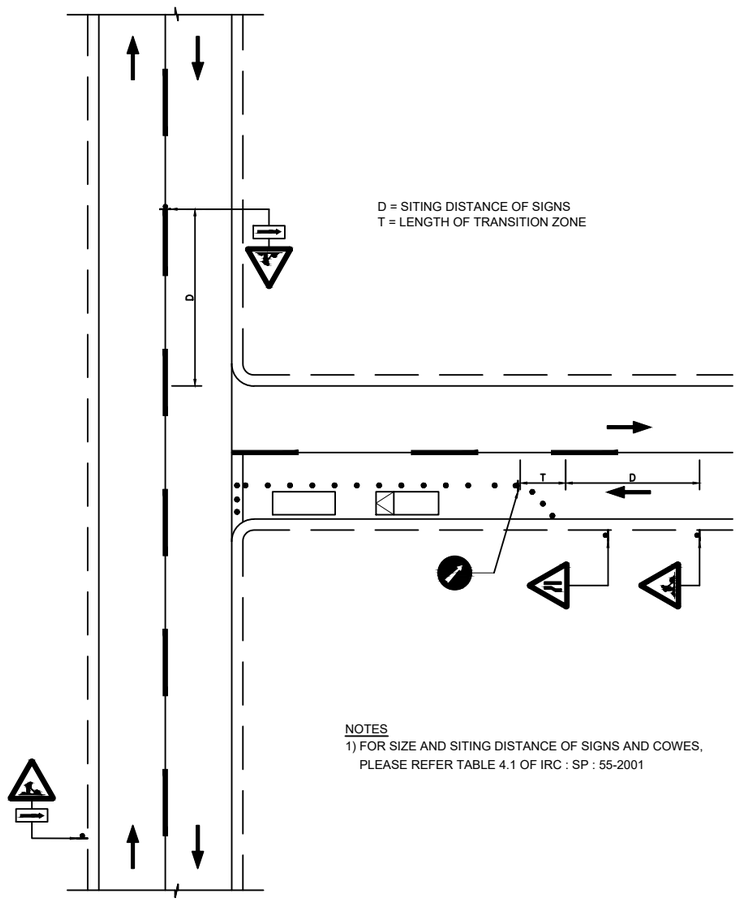


Fig IB/4.1 : ELEMENTS OF TRAFFIC CONTROL ZONE



NOTES
1) FOR SIZE AND SITING DISTANCE OF SIGNS AND COWES, PLEASE REFER TABLE 4.1 OF IRC : SP : 55-2001

Fig. IB/4.2 : WORKS AT JUNCTIONS

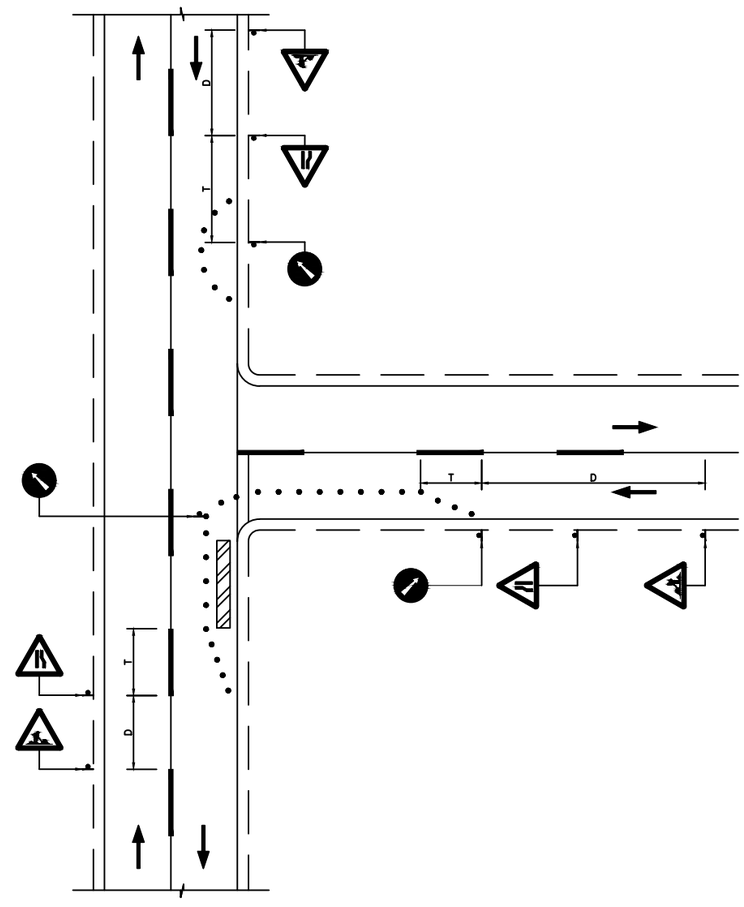


Fig. IB/4.3 : WORKS AT JUNCTIONS

Authorized Sign

Technocrats Advisory Services Private Limited

Project Title:-

Preparation of DPR, Pre construction activities and project supervision of 1) preparation of DPR of Padrauna bypass 4L+PS. 2) Completion of pre-construction activities of 4L+PS /2L+PS work of NH-727 from 0.000 to 46.500. 3) Project supervision as independent engineer of 4L+PS/2L+PS work of NH-727 from 0.000 to 46.500, for the project national highways in the state of Uttar Pradesh

CLIENT:-

MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:-
TRAFFIC SAFETY DURING CONSTRUCTION

Drawing No. :- MORTH/TASPL/DPR/KUSHI-CHAP/MISC

Scale :- -----

Drn	Dgn.	Appd	Sheet :
DEEPAK	S.B.PANDEY	S.K.UPADHYAY	01 OF 03

CONSULTANT:-

TASPL

Technocrats Advisory Services Pvt. Ltd.
68, Ajanta Apartment, 36, I.P.Extension
Patparganj, Delhi-110092

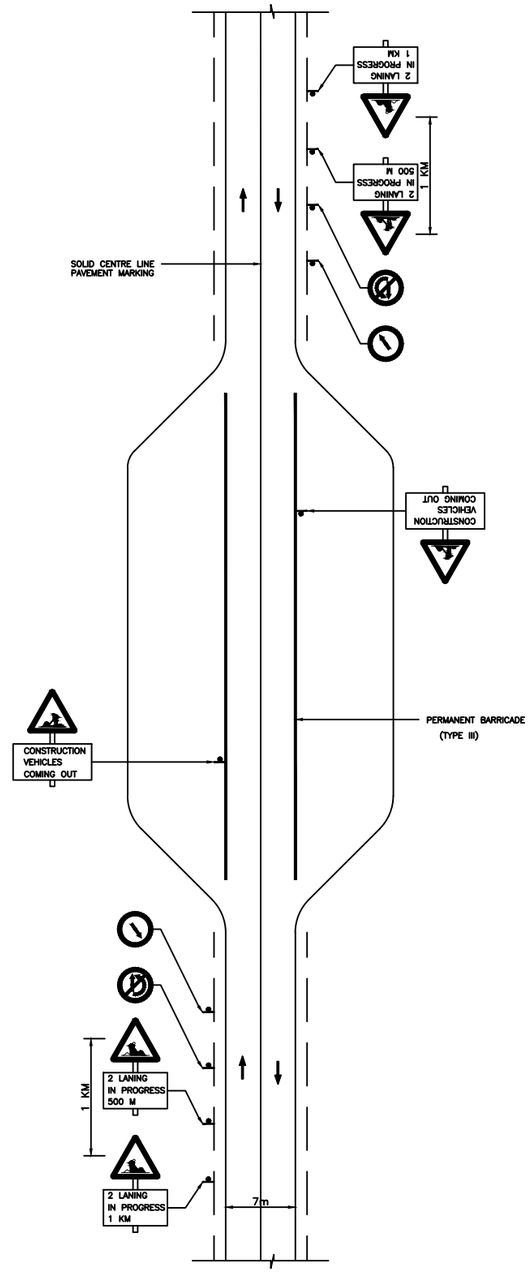


Fig. IB/4.4 : CONCENTRIC WIDENING :
STAGE I - CONSTRUCTION OF NEW LANES

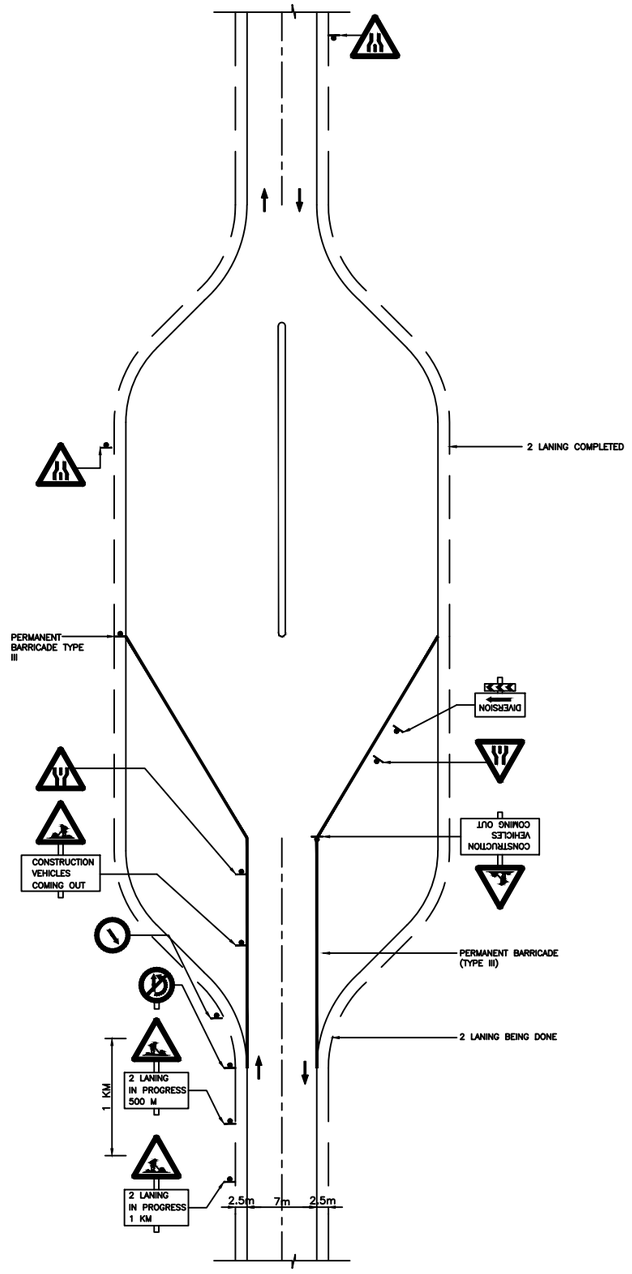


Fig. IB/4.5 : CONCENTRIC WIDENING :
STAGE II - SHIFTING OF WORK ZONE

Authorized Sign

Technocrats Advisory Services Private Limited

Project Title:-

Preparation of DPR, Pre construction activities and project supervision of 1) preparation of DPR of Padrauna bypass 4L+PS. 2) Completion of pre-construction activities of 4L+PS /2L+PS work of NH-727 from 0.000 to 46.500. 3) Project supervision as independent engineer of 4L+PS/2L+PS work of NH-727 from 0.000 to 46.500, for the project national highways in the state of Uttar Pradesh

CLIENT:-

सत्यमेव जयते

MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:-

TRAFFIC SAFETY DURING CONSTRUCTION

Drawing No. :- MORTH/TASPL/DPR/KUSHI-CHAP/MISC

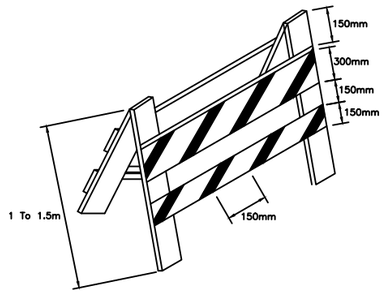
Scale :- -----

Drn	Dgn.	Appd	Sheet :
DEEPAK	S.B.PANDEY	S.K.UPADHYAY	02 OF 03

CONSULTANT:-

TASPL

Technocrats Advisory Services Pvt. Ltd.
68, Ajanta Apartment, 36, I.P.Extension
Patparganj, Delhi-110092



PORTABLE BARRICADE (TYPE III)



LANE CLOSED
(2-LANE ROAD)



DIVERSION TO THE
OTHER CARRIAGEWAY



DUAL CARRIAGEWAY
STARTS

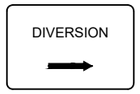


DUAL CARRIAGEWAY
ENDS



TWO WAY
TRAFFIC

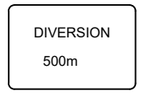
WARNING SIGNS



INDICATION OF
DIVERSION ROAD



ROUTE FOR
PEDESTRIANS



DISTANCE TO
DIVERSION



RESTRICTION
END



SHARP DEVIATION
OF ROUTES



ROAD AHEAD
CLOSED

GUIDE SIGNS



ROAD CLOSED



DO NOT ENTER



GIVE WAY TO
PEDESTRIANS

REGULATORY SIGNS

Authorized Sign

Technocrats Advisory Services Private Limited

Project Title:-

Preparation of DPR, Pre construction activities and project supervision of 1) preparation of DPR of Padrauna bypass 4L+PS. 2) Completion of pre-construction activities of 4L+PS /2L+PS work of NH-727 from 0.000 to 46.500. 3) Project supervision as independent engineer of 4L+PS/2L+PS work of NH-727 from 0.000 to 46.500, for the project national highways in the state of Uttar Pradesh

CLIENT:-

MINISTRY OF ROAD TRANSPORT
& HIGHWAYS

Drawing Title:-
TRAFFIC SAFETY DURING CONSTRUCTION

Drawing No. :- MORTH/TASPL/DPR/KUSHI-CHAP/MISC

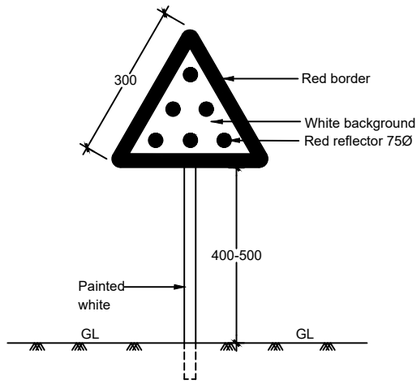
Scale :- -----

Drn	Dgn.	Appd	Sheet :
DEEPAK	S.B.PANDEY	S.K.UPADHYAY	03 OF 03

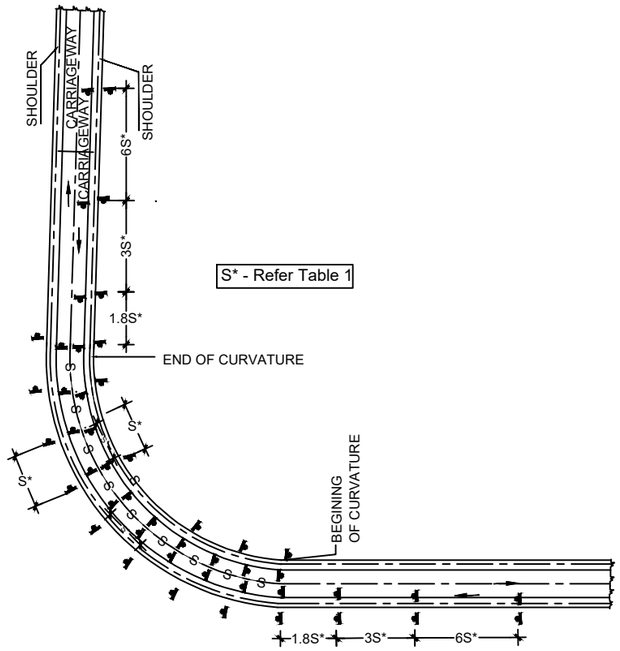
CONSULTANT:-

TASPL

Technocrats Advisory Services Pvt. Ltd.
68, Ajanta Apartment, 36, I.P.Extension
Patparganj, Delhi-110092

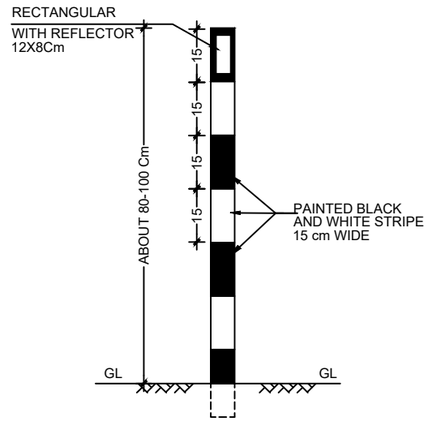


OBJECT MARKER



ROADWAY DELINETOR SPACING ON CURVES

(FOR 2 LANE SECTION)



DELINEATOR WITH
RECTANGULAR REFLECTOR

RECOMMENDED SPACING FOR ROADWAY
INDICATORS ON HORIZONTAL CURVES

Table - 1

Radius of Curvature (metres)	Spacing On Curve,S (metres)
400	30
500	35
600	38
700	42
800	45
900	48
1000	50

Notes:

1. All Dimensions are in Millimetres unless otherwise mentioned
2. Road Delinators and object marker are as per IRC 79 - 1981.

Authorized Sign

Technocrats Advisory Services Private Limited Delhi

Project Title:-

Preparation of DPR, Pre construction activities and project supervision of 1) preparation of DPR of Padrauna bypass 4L+PS. 2) Completion of pre-construction activities of 4L+PS /2L+PS work of NH-727 from 0.000 to 46.500. 3) Project supervision as independent engineer of 4L+PS/2L+PS work of NH-727 from 0.000 to 46.500, for the project national highways in the state of Uttar Pradesh

CLIENT:-

सत्यमेव जयते

MINISTRY OF ROAD TRANSPORT
& HIGHWAYS

Drawing Title:- TYPICAL DETAILS OF ROAD DELINEATOR

Drawing No. :- MORTH/TASPL/DPR/KUSHI-CHAP/MISC

Scale :- -----

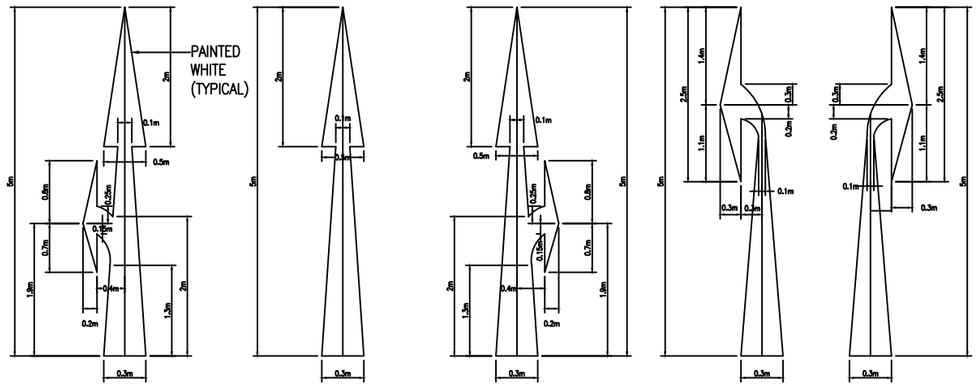
Drn	Dgn.	Appd	Sheet :
DEEPAK	S.B.PANDEY	S.K.UPADHYAY	01 OF 01

CONSULTANT:-

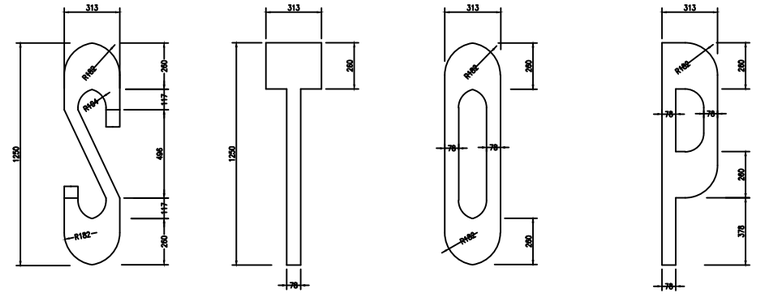
TASPL

Technocrats Advisory Services Pvt. Ltd.
68, Ajanta Apartment, 36, I.P.Extension
Patparganj, Delhi-110092

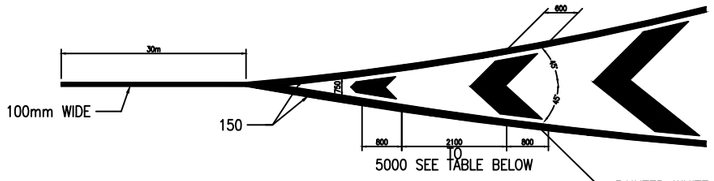
DIRECTIONAL ARROWS



SIZE OF LETTERS



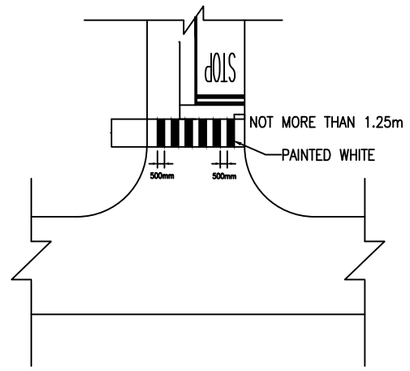
DIAGONAL MARKINGS



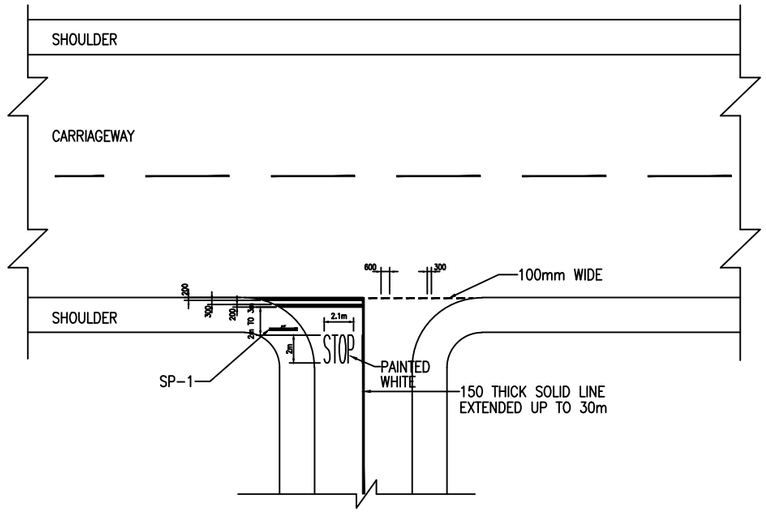
CHEVRON MARKINGS

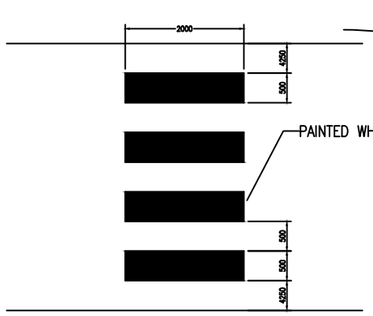
TABLE : SPACING BETWEEN DIAGONALS/CHEVRONS		
TOTAL LENGTH OF MARKING (m)	CLEAR SPACING BETWEEN DIAGONALS OR CHEVRONS (mm)	
	SPEED (<75 km/h)	SPEED (>75 km/h)
<6	2100	–
6 TO 22	3500	–
>22	5000	–
<10	–	4000
>10	–	6000

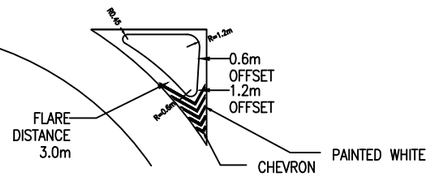
PEDESTRIAN CROSSING



STOP LINE







CHANELISING ISLAND

PEDESTRIAN CROSSING

NOTE:

1. ALL LENGTHS AND SPACINGS IN THE TABLE ARE MEASURED PARALLEL TO ROAD CENTRE LANE.
2. FIRST DIAGONAL OR CHEVRON IS TO BE SO LOCATED THAT ITS LENGTH IS ATLEAST EQUAL TO ITS WIDTH
3. WIDTH OF ALL DIAGONALS/CHEVRONS MEASURED AT RIGHT ANGLES TO THE DIAGONALS OR CHEVRONS IS 600mm.
4. FOR CENTERLINE AND EDGELINE MARKING AT BUS BAY LOCATION REFER DRAWING NO. VSPL/PWDR/761/TYP/BB/01
5. ROAD MARKING SHOULD BE DONE WITH THERMOPLASTIC PAINT CONFORMING TO CL. 803.4 OF M.O.R.T & H SPECIFICATIONS
6. DETAILS OF MARKING AT INTERSECTIONS ARE AS PER M.O.R.T & H TYPE DESIGNS FOR INTERSECTIONS ON NH/SH

Authorized Sign

Technocrats Advisory Services Private Limited

Project Title:-

Preparation of DPR, Pre construction activities and project supervision of 1) preparation of DPR of Padrauna bypass 4L+PS. 2) Completion of pre-construction activities of 4L+PS /2L+PS work of NH-727 from 0.000 to 46.500. 3) Project supervision as independent engineer of 4L+PS/2L+PS work of NH-727 from 0.000 to 46.500, for the project national highways in the state of Uttar Pradesh

CLIENT:-

MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Drawing Title:- ROAD MARKING DETAILS

Drawing No. :- MORTH/TASPL/DPR/KUSHI-CHAP/MISC

Scale :- -----

Drn	Dgn.	Appd	Sheet :
DEEPAK	S.B.PANDEY	S.K.UPADHYAY	01 OF 01

CONSULTANT:-

TASPL

Technocrats Advisory Services Pvt. Ltd.
68, Ajanta Apartment, 36, I.P.Extension
Patparganj, Delhi-110092