

Government of Jammu & Kashmir



JHELUM & TAWI FLOOD RECOVERY PROJECT

Kashmir Province

**Consultancy Services for Preparing Detailed Project Report for the Road
works in Jammu and Kashmir**

(Hajin-Ajas via Saidnara in Bandipora District)

(DRAWINGS)

(Detailed Project Report)

September 2019



ROAD DRAWINGS

≡ LIST OF DRAWINGS ≡

LIST OF DRAWINGS FOR ROAD

Sl. No.	Descriptions	Drawing No.	No.of Sheet
(A)	ROAD WORKS		
1.	List of Drawings	EPTISA/JTFRP/DPR/J&K/LOD-01	01
2.	Legend, Abbreviations & General Notes	EPTISA/JTFRP/DPR/J&K/LEGEND-01	01
3.	Index Map	EPTISA/JTFRP/DPR/J&K/IM-01	01
4.	Typical Cross Section	EPTISA/JTFRP/DPR/J&K/TCS-01 to 03	03
5.	Strip Plan	EPTISA/JTFRP/DPR/J&K/SP-01 to 02	02
6.	Plan and Profile	EPTISA/JTFRP/DPR/J&K/PP-01 to 07	07
7.	Horizontal Alignment Report	EPTISA/JTFRP/DPR/J&K/HAR-01	01
8.	Vertical Alignment Report	EPTISA/JTFRP/DPR/J&K/VAR-01	01
9.	Signage Plan	EPTISA/JTFRP/DPR/J&K/SP-01 to 08	08
10.	Detailed Cross Section	EPTISA/JTFRP/DPR/J&K/DCS-01 to 12	12
11.	Utility Relocation Plan-(For Electricity Department)	EPTISA/JTFRP/DPR/J&K/URP-01 to 08	08
12.	Utility Relocation Plan-(For Telephone Department)	EPTISA/JTFRP/DPR/J&K/URP-01 to 08	08
13.	Utility Relocation Plan-(For Water Department)	EPTISA/JTFRP/DPR/J&K/URP-01 to 08	08
14.	Tree Cutting	EPTISA/JTFRP/DPR/J&K/TC-01 to 08	08
15.	<i>Miscellaneous Drawings</i>		
i.)	Road Signs & Road Delineators – (3 Sheets)	EPTISA/JTFRP/DPR/J&K/MISC-01 to 03	03
ii.)	Typical Details of Distance Stone, Boundary Stone & Guard Post	EPTISA/JTFRP/DPR/J&K/MISC-02	01
iii.)	Typical Details of Metal Beam Crash Barrier	EPTISA/JTFRP/DPR/J&K/MISC-03	01
16.	<i>GIS Mapping</i>		03
17.	Details of PCC Retaining Wall	EPTISA/JTFRP/DPR/J&K/RW-01	01
18.	<i>Culvert Drawings</i>		
i.)	Typical General Arrangement Drawing for Single Cell Box Culvert	EPTISA/JTFRP/DPR/J&K/BOX/GAD/01	01
ii.)	Typical General Arrangement Drawing for Single Cell Pipe Culvert	EPTISA/JTFRP/DPR/J&K/PIPE/GAD/01	01

CLIENT :



Jhelum Tawi Flood Recovery Project
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DESIGN CONSULTANT:



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West Bengal
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DRAWN BY : SD

DESIGNED BY : SCK/MM

APPROVED BY : KG

TITLE :

LIST OF DRAWING

DRG. NO. : EPTISA/JTFRP/DPR/J&K/LOD/01

REVISION : R-1























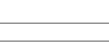

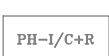


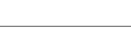


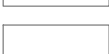





























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








≡ LEGEND, ABBREVIATIONS & GENERAL NOTES ≡

LEGEND

A. PLAN

a) Existing

1	Security Room		31	Divider	
2	Pump house		32	Dusbin	
3	Solar		33	Earthen Road	
4	Rail trac		34	Bitumen Road	
5	Railing		35	Existing Center Line	
6	Telephone Pst tp.		36	Shed	
7	Under Construction Building		37	Sign Board	
8	Hoarding Post		38	Bedi	
9	Water Tank		39	Canal / River	
10	Wire Crossing Details		40	Drain	
11	P.c.c Road		41	Alart Post ap.	
12	Pucca House One Storied Commercial& Residential ph-i/c+r.		42	Compound wall	
13	Pucca House Two Storied Residential ph-ii-r.		43	Fencing	
14	Abandoned Building		44	Gate	
15	Damage Culvert		45	GPS Pillar gps.	
16	Damage Pipe Culvert		46	Reference Pillar	
17	Ep Box		47	Electric Post ep.	
18	Hotel		48	Guard Wall	
19	Retaining Wall		49	Temple / Mandir	
20	Ohe		50	Pond / Ditch / Water Logged	
21	Parking		51	Nala / Natural Stream	
22	Shoulder		52	Petrol Pump	
23	Pave Shoulder		53	Heigh Must Light hmt.	
24	Pavement		54	Water Tap tap.	
25	Pipe Culvert		55	Wildlife Sanctuary Sign Board	
26	Seating bench		56	H.F.L hfl.	
27	Showroom		57	Toilet	
28	Stair		58	Handpump/Tube well tw.	
29	Chamber		59	OFC	
30	Cover Drain		60	Kancha House Commercial kh-c.	

61	Kancha House Residential	kh-r.	
62	Km Stone	kmp.	
63	Lamp Post	lp.	
64	Semi Pucca House Commercial	sp-c.	
65	Semi Pucca House Residential	sp-r.	
66	Survey Station	stn.	
67	Pucca House One Storied Commercial	ph-i-c.	
68	Pucca House One Storied Residential	ph-i-r.	
69	Pucca House Two Storied Commercial	ph-ii-c.	
70	Transformer	tns.	
71	TREE 1 (Ã?300 TO Ã?600)	t1	
72	TREE 2 (Ã?600 TO Ã?900)	t2	
73	TREE 3 (Ã?900 TO Ã?1200)	t3	
74	TREE 4 (Ã?1200 TO ABOVE)	t4	

GENERAL NOTES

A) General




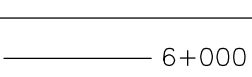
1. All angles are in degree (°) – minute (') – second (") format.
2. All chainages are in kilometres and all levels are in meters unless otherwise specified.
3. All the co-ordinates (X, Y) are with respect to GPS values (established for project road at 2 km interval).
4. Details shown in the plans are based on topographical survey carried out under the assignment,
5. The scale mentioned for all drawings is applicable for A2 sheet.

B) Geometric Design



1. The pavements have been considered to be rotated about the Carriageway Center line to attain requisite amount of superelevation.

b) Proposed

A. PLAN

Proposed Center Line	
Edge of Carriageway	
Edge of Unpaved Shoulder	
Proposed Chainage	

B. PROFILE

Finished Grade Line	
Existing Grade Line	

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REV.	DATE	DESCRIPTION

DRAWN BY : SD

DESIGNED BY : SCK/MM

APPROVED BY : KG

SCALE : N.T.S

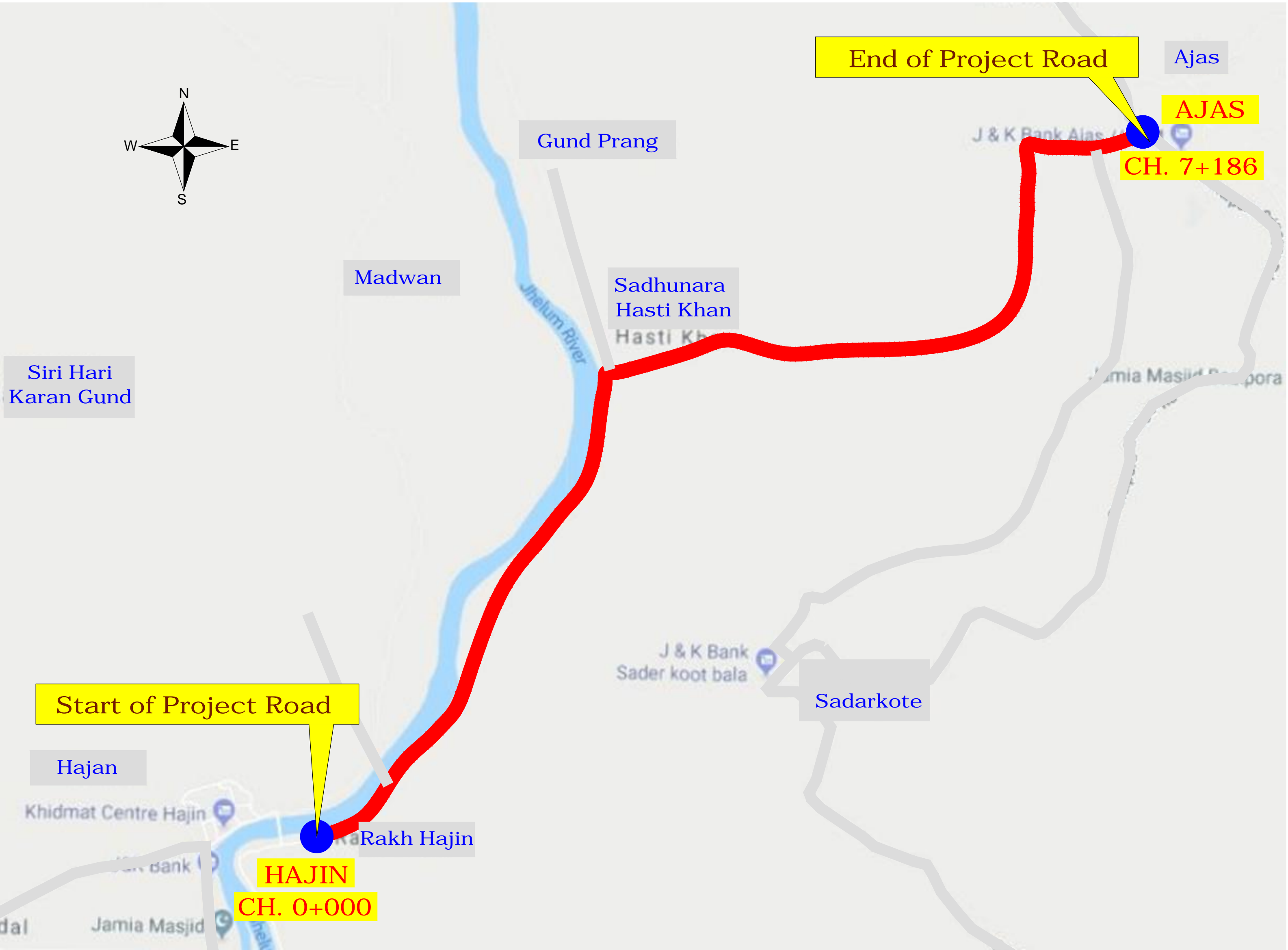
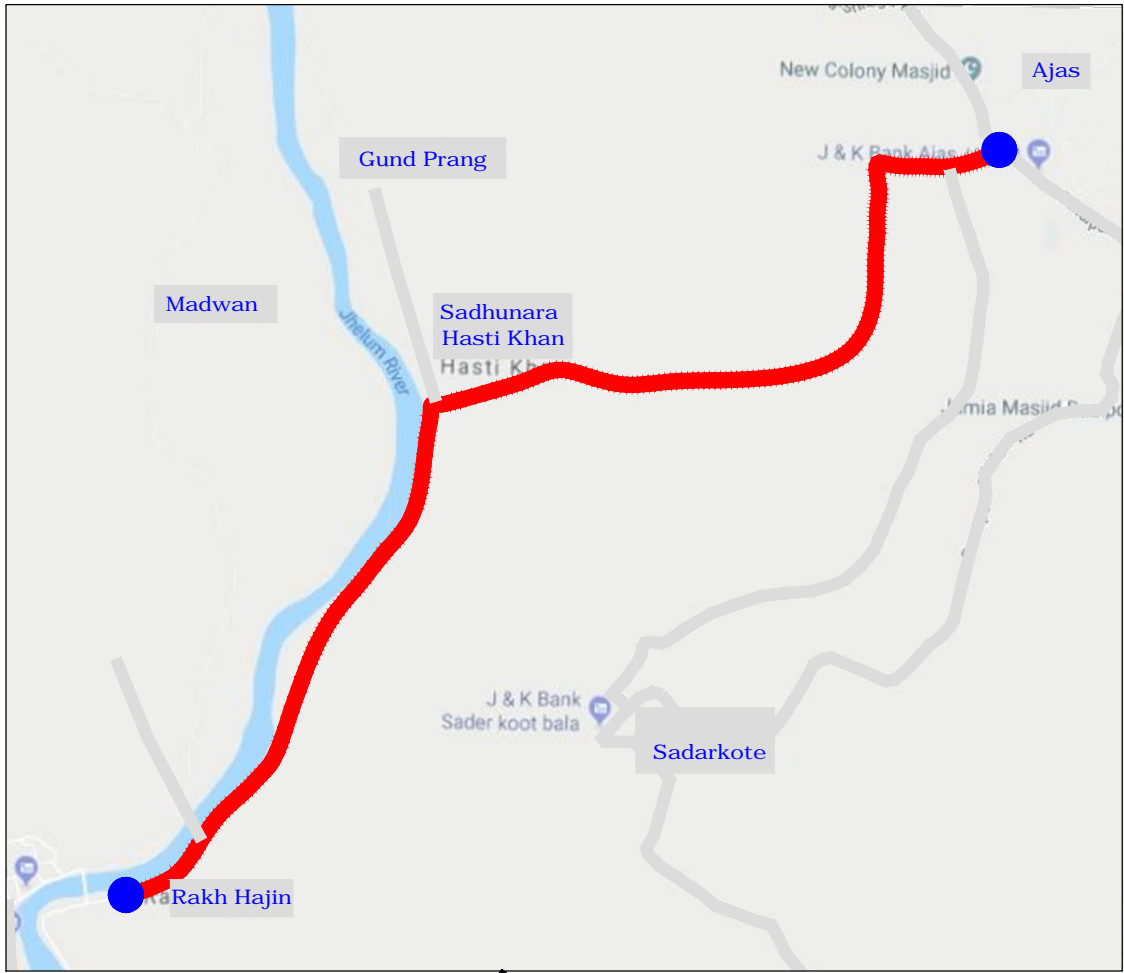
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Project Road Stretch
Other Roads

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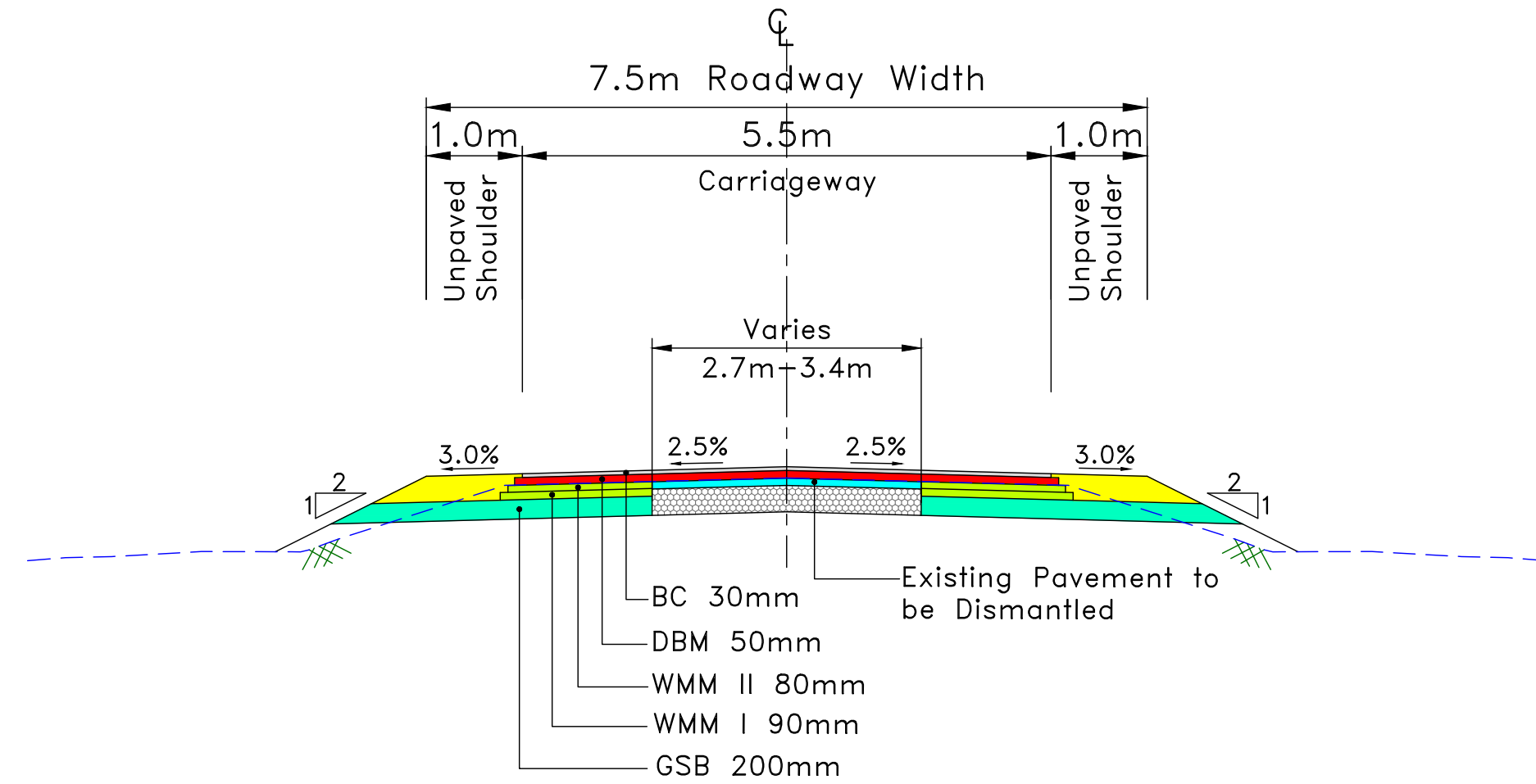
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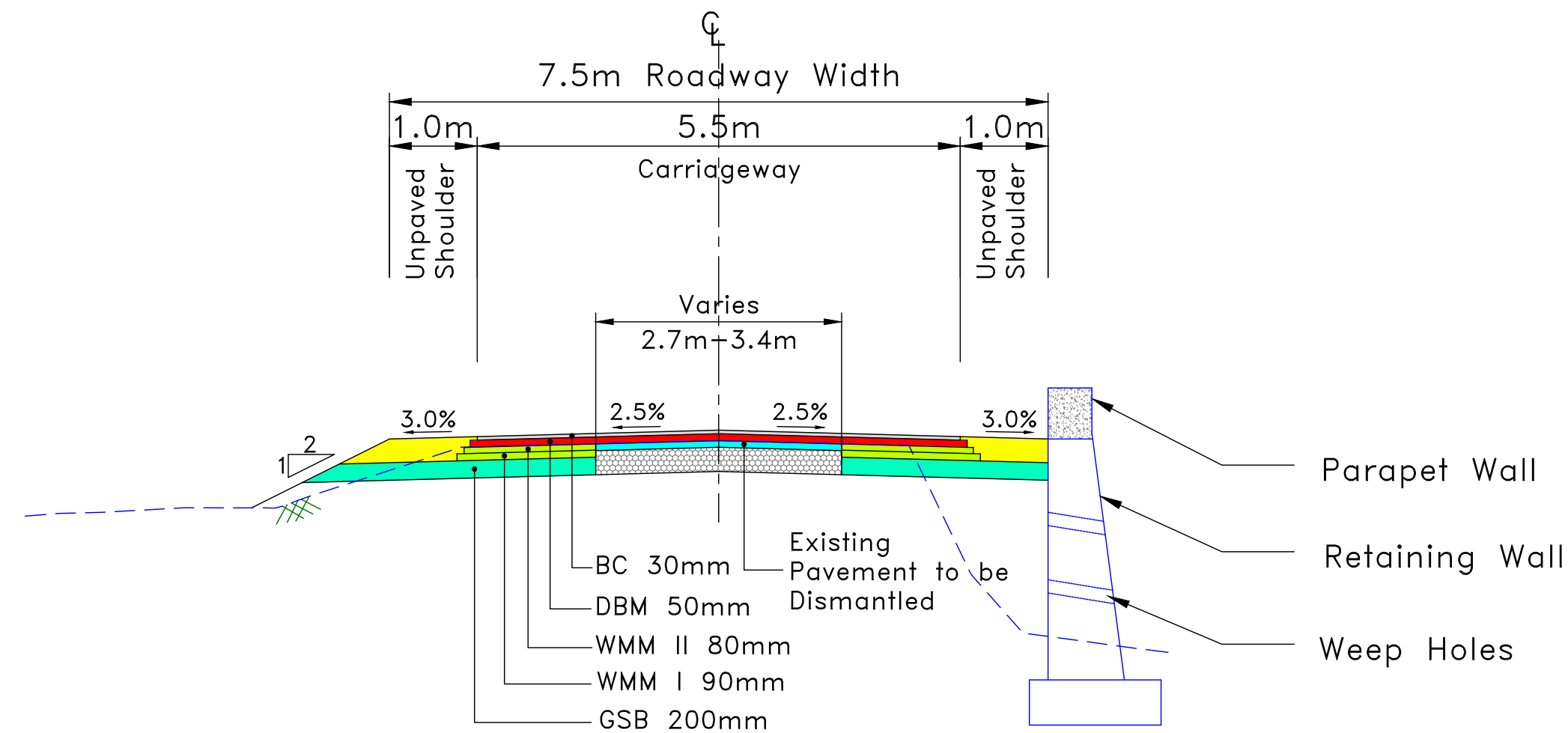
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DESIGNED BY :	SCK/MM
APPROVED BY :	KG
SCALE :	N.T.S

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Index Map	
DRG. NO. :	EPTISA/JTRP/DPR/J&K/IM/01
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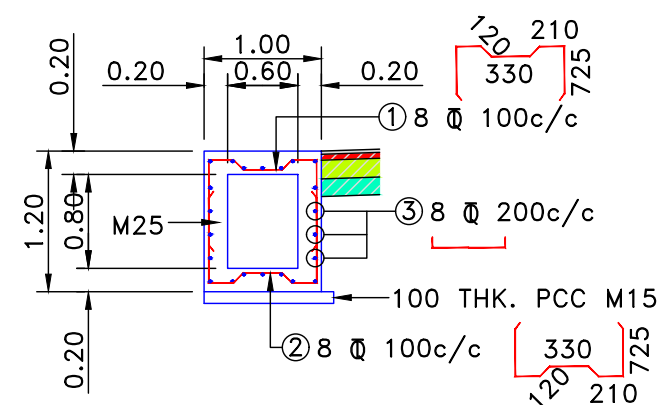
≡ TYPICAL CROSS SECTIONS ≡



TYPE - 1 : TYPICAL CROSS SECTION OF INTERMEDIATE LANE CARRIAGEWAY WITH CONCENTRIC WIDENING STRETCH



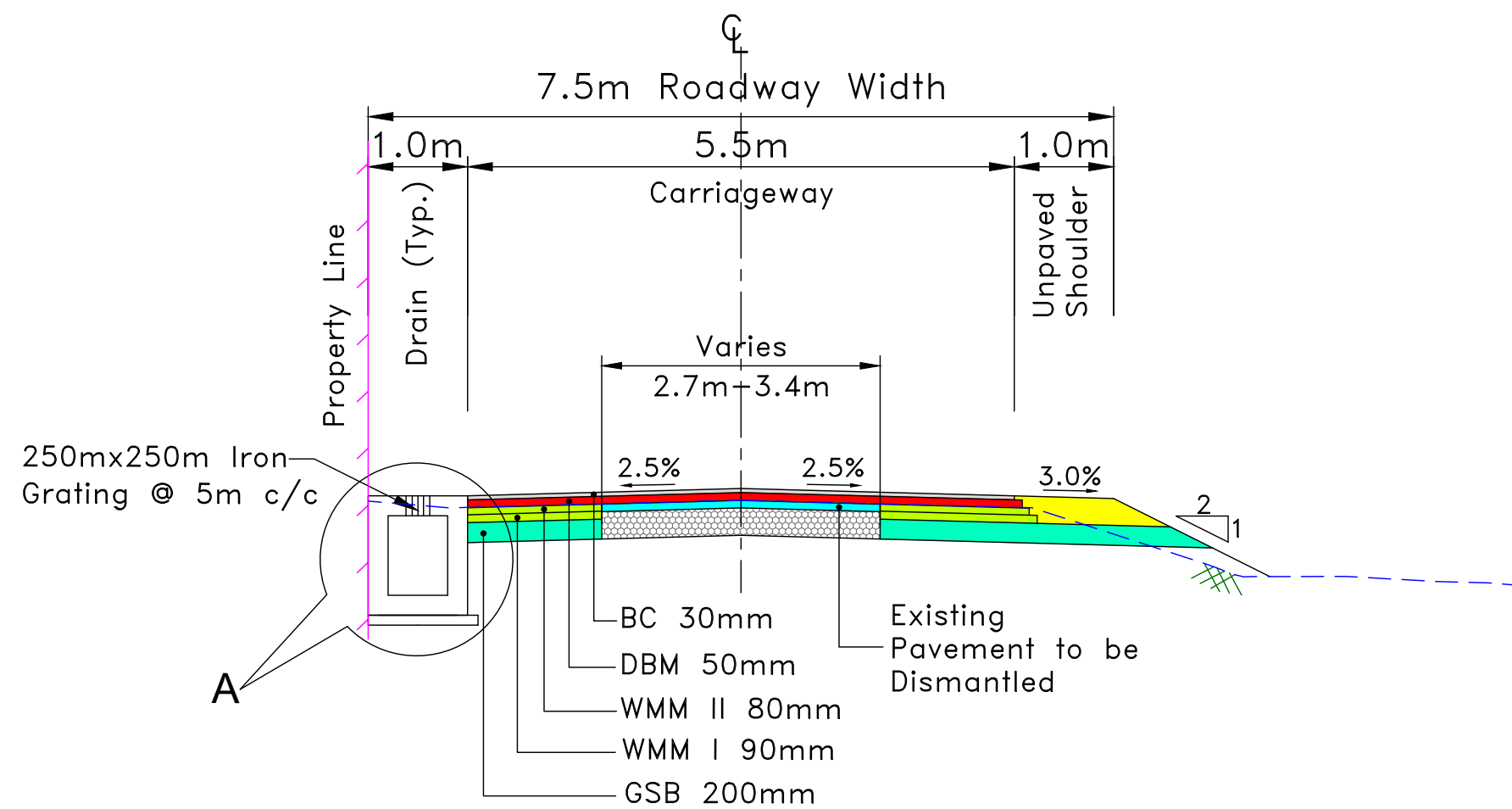
TYPE - 2 : TYPICAL CROSS SECTION OF INTERMEDIATE LANE CARRIAGEWAY WITH CONCENTRIC WIDENING STRETCH WITH RIGHT SIDE RETAINING WALL



DETAIL-A
CROSS SECTION & R/F DETAILS
OF ROAD DRAIN

NOTES :

1. ALL DIMENSIONS ARE IN MM.
UNLESS OTHERWISE MENTIONED.
2. GRADE OF CONCRETE :-
STRUCTURE - M25
LEVELING COURSE(P.C.C) - M15
3. GRADE OF STEEL Fe-500 AS PER I.S.-1786.
4. CLEAR COVER SHALL BE 40MM.



TYPE - 5 : TYPICAL CROSS SECTION OF INTERMEDIATE LANE CARRIAGEWAY WITH
CONCENTRIC WIDENING STRETCH WITH LEFT SIDE DRAIN

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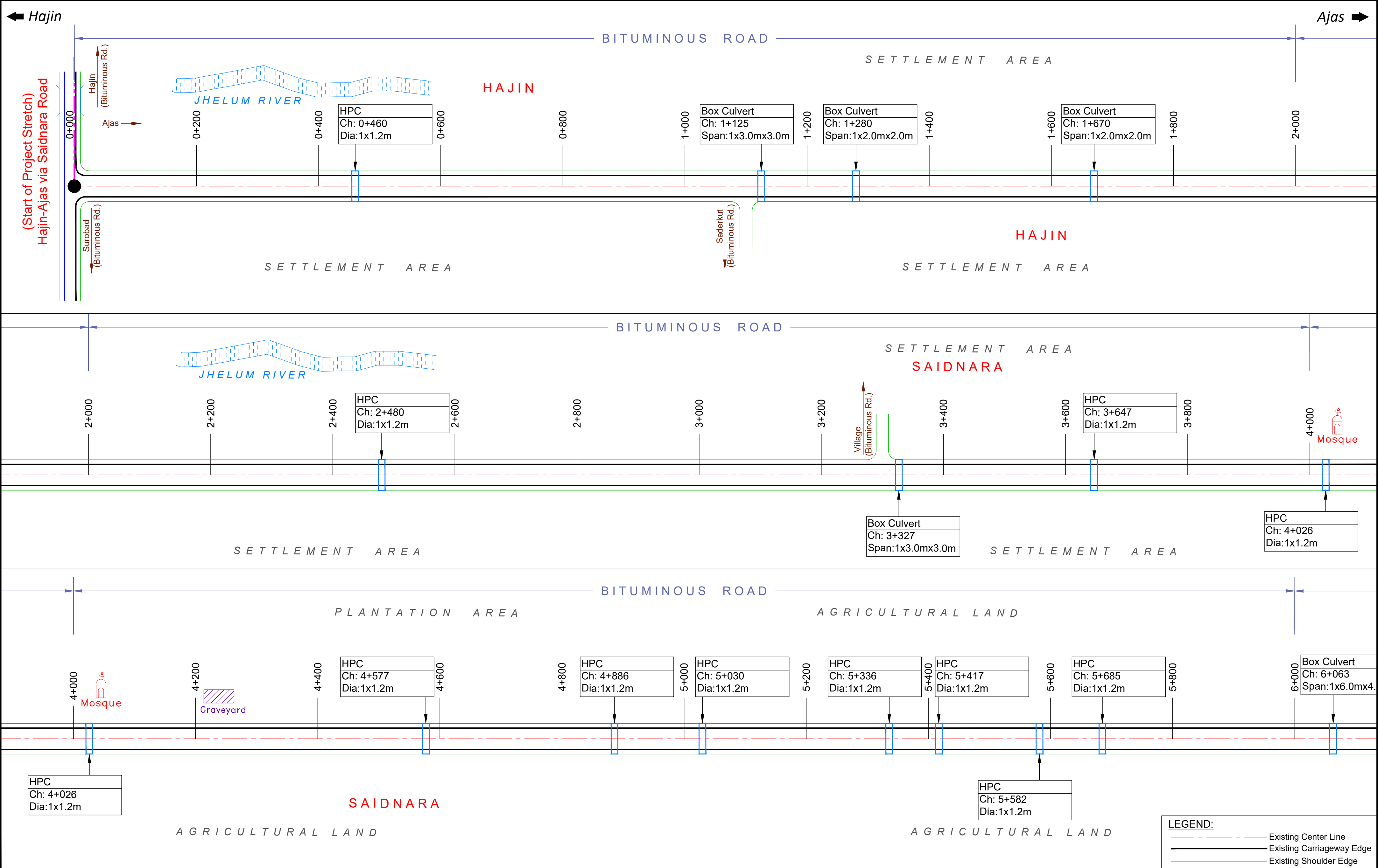


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DRAWN BY :	SD
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APPROVED BY :	KG
SCALE :	1:100

TITLE :	TYPICAL CROSS SECTION
DRG. NO. :	EPTISA/JTFRP/DPR/J&K/TCS/03
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DESIGNED BY : SCK/MM

APPROVED BY : KG

LONG SCALE: 0 25 50 75 100 (m)

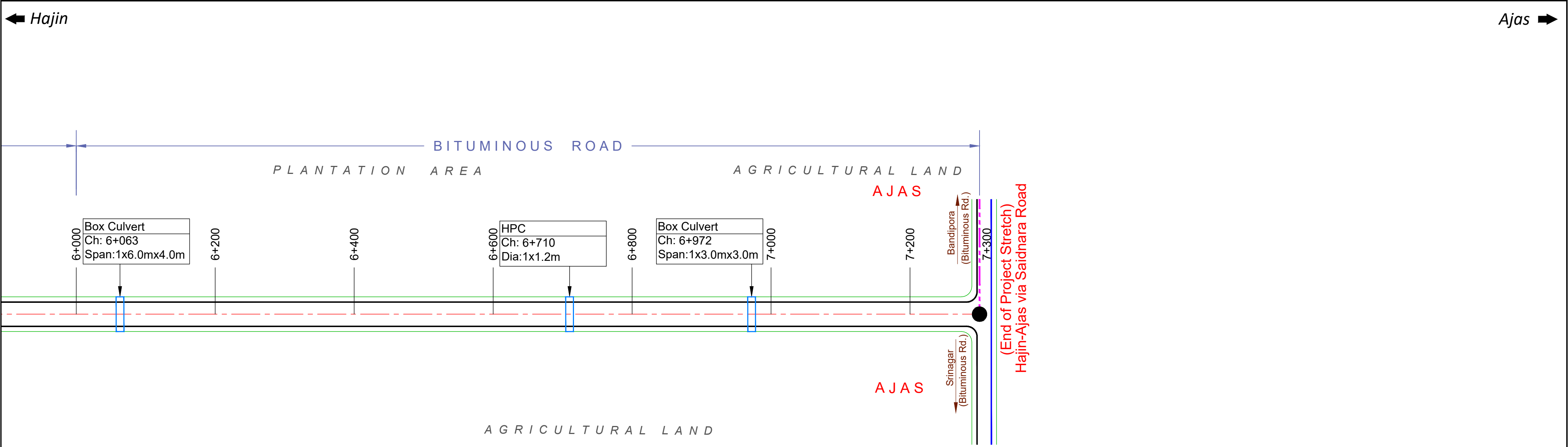
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TITLE :
Strip Plan
(Hajin- Ajas Road)

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LEGEND:

Existing Center Line

Existing Carriageway Edge

Existing Shoulder Edge

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REV.	DATE	DESCRIPTION

DRAWN BY : SD

DESIGNED BY : SCK/MM

APPROVED BY : KG

LONG SCALE: 0 25 50 75 100 (m)

TRANS SCALE: 0 7 14 21 (m)

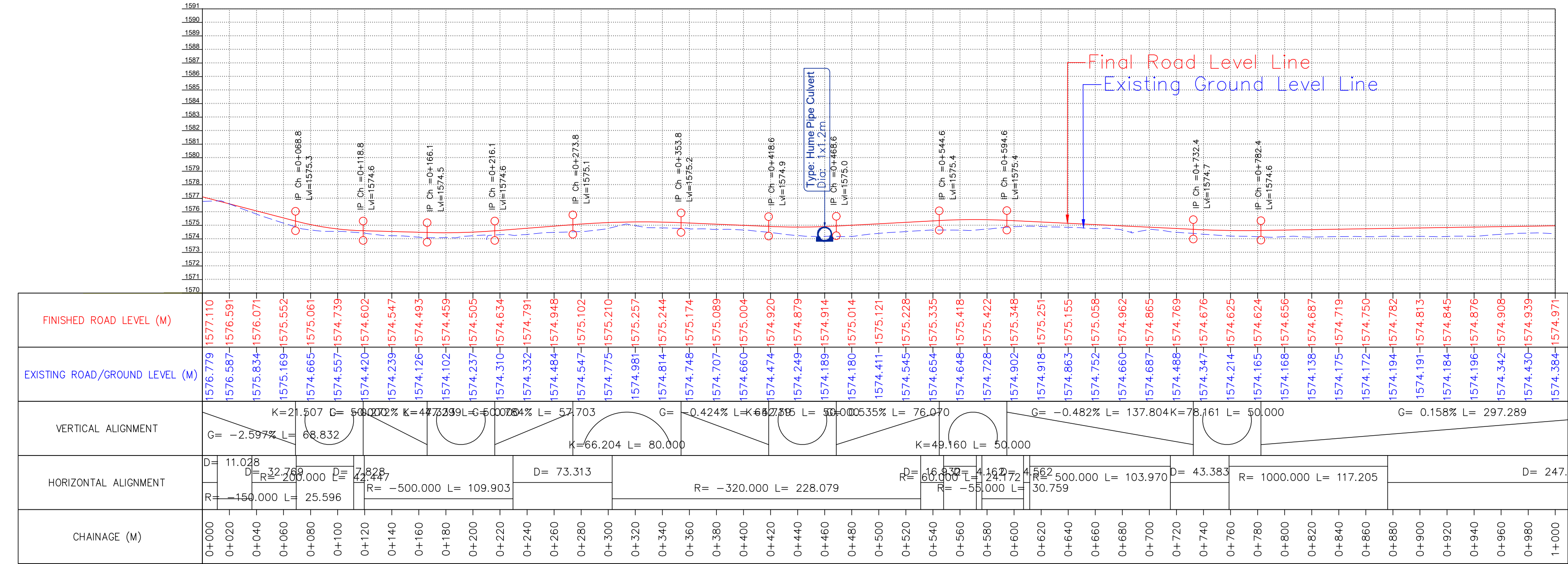
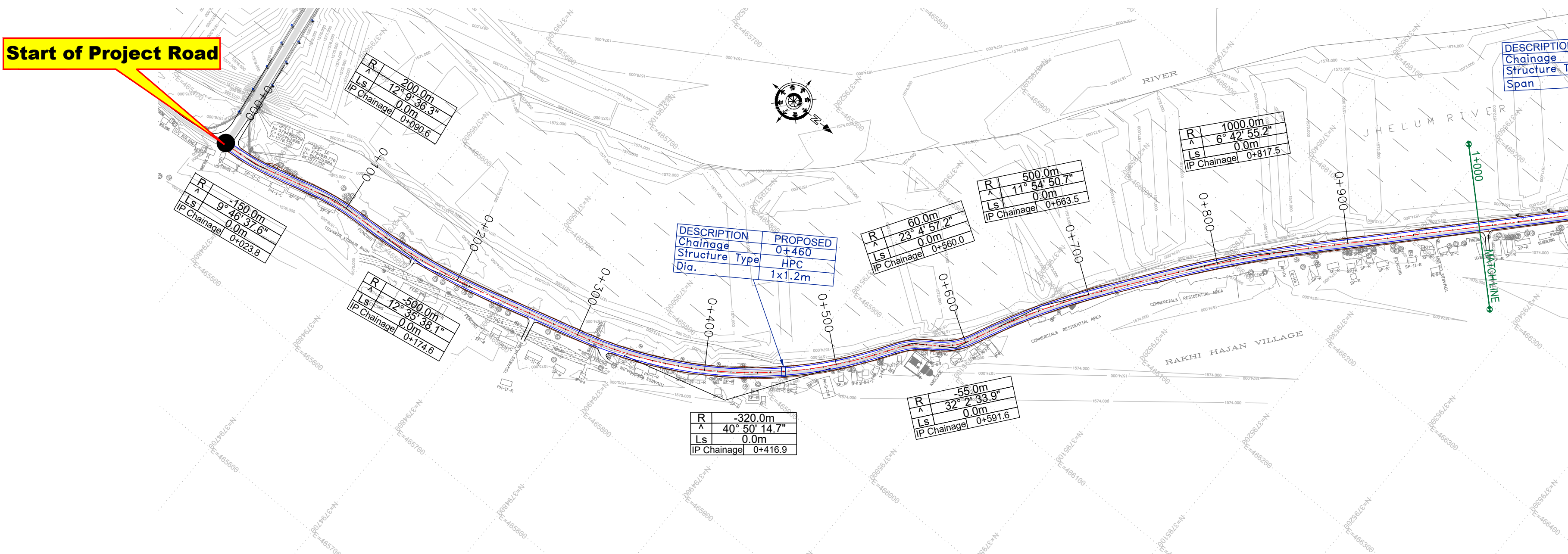
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(Hajin- Ajas Road)

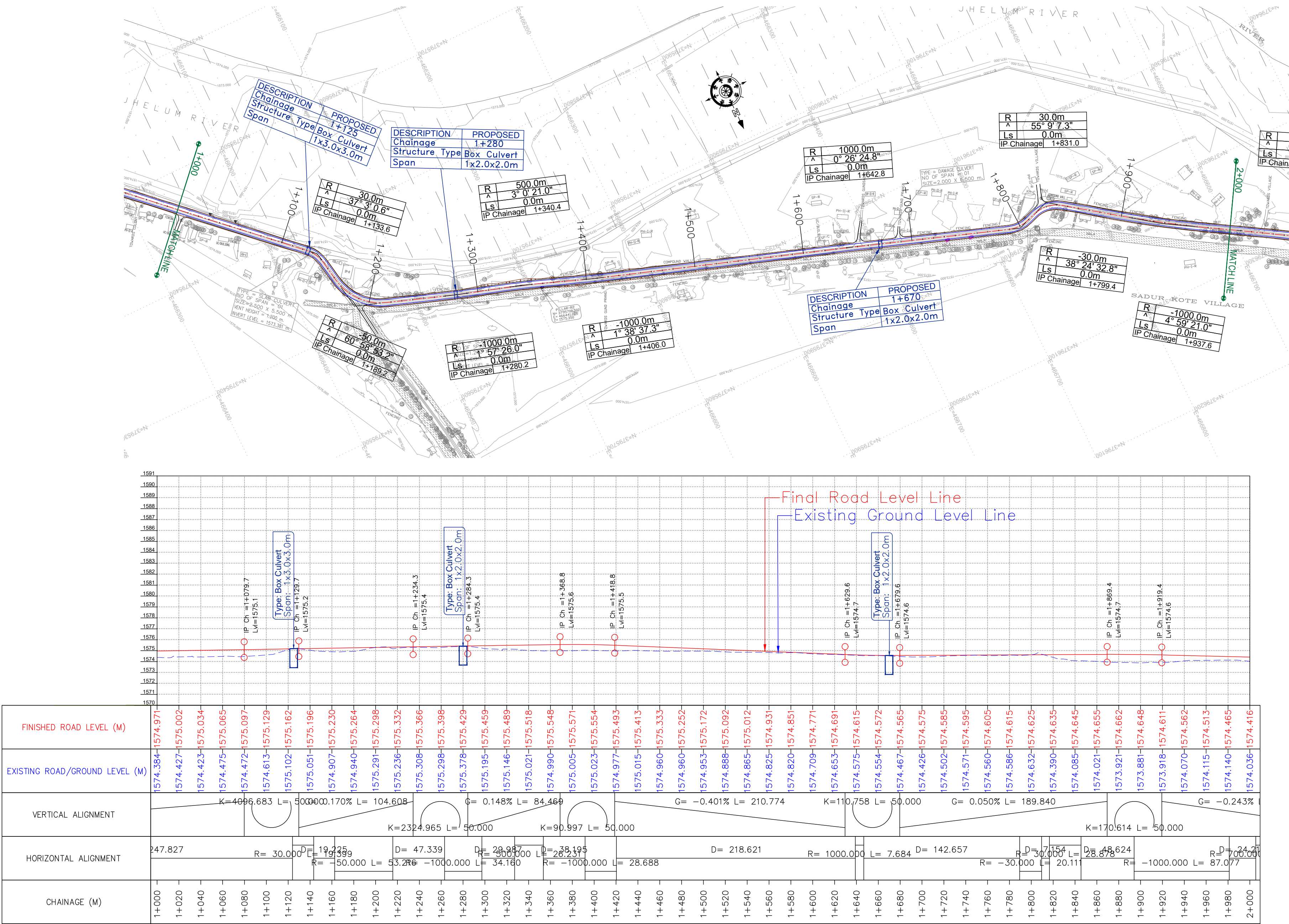
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Start of Project Road





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SCALE :	HOR 1:2500 VER 1:250

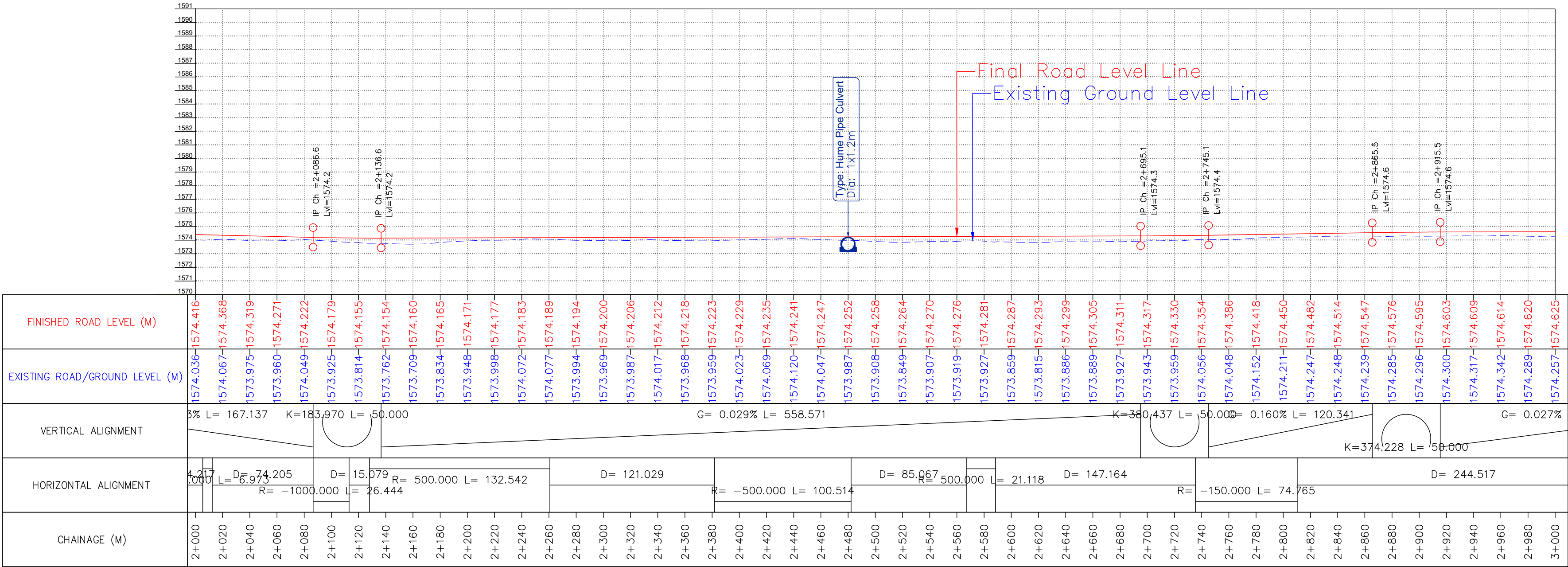
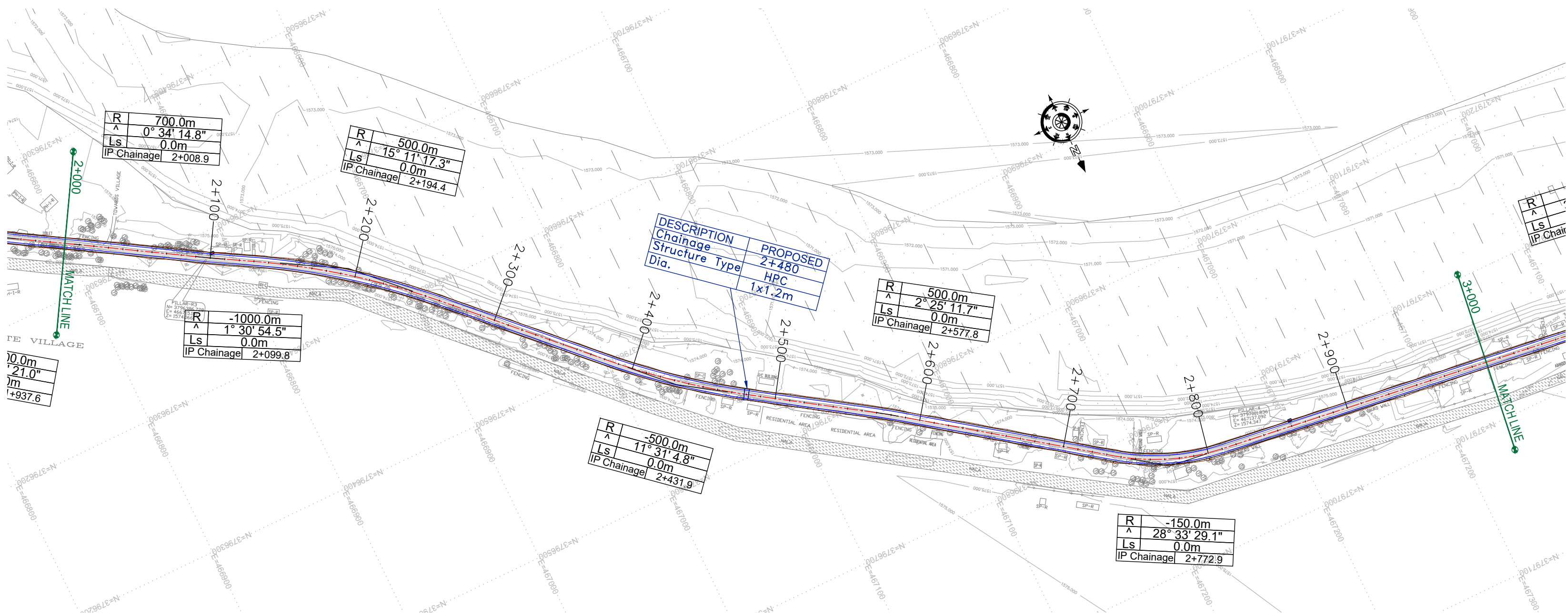
TITLE :

Plan & Profile
(km 1+000 to km 2+000)

DRG. NO. : EPTISA/JTRP/DPR/J&K/PP/02

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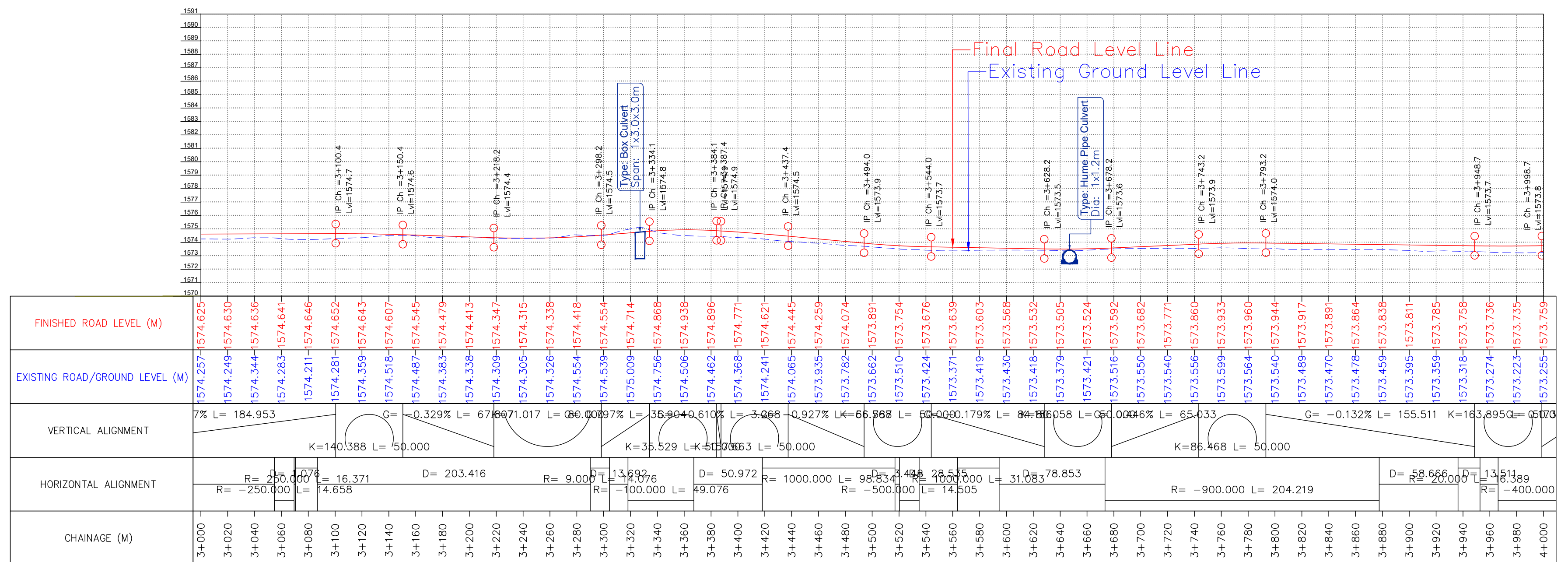
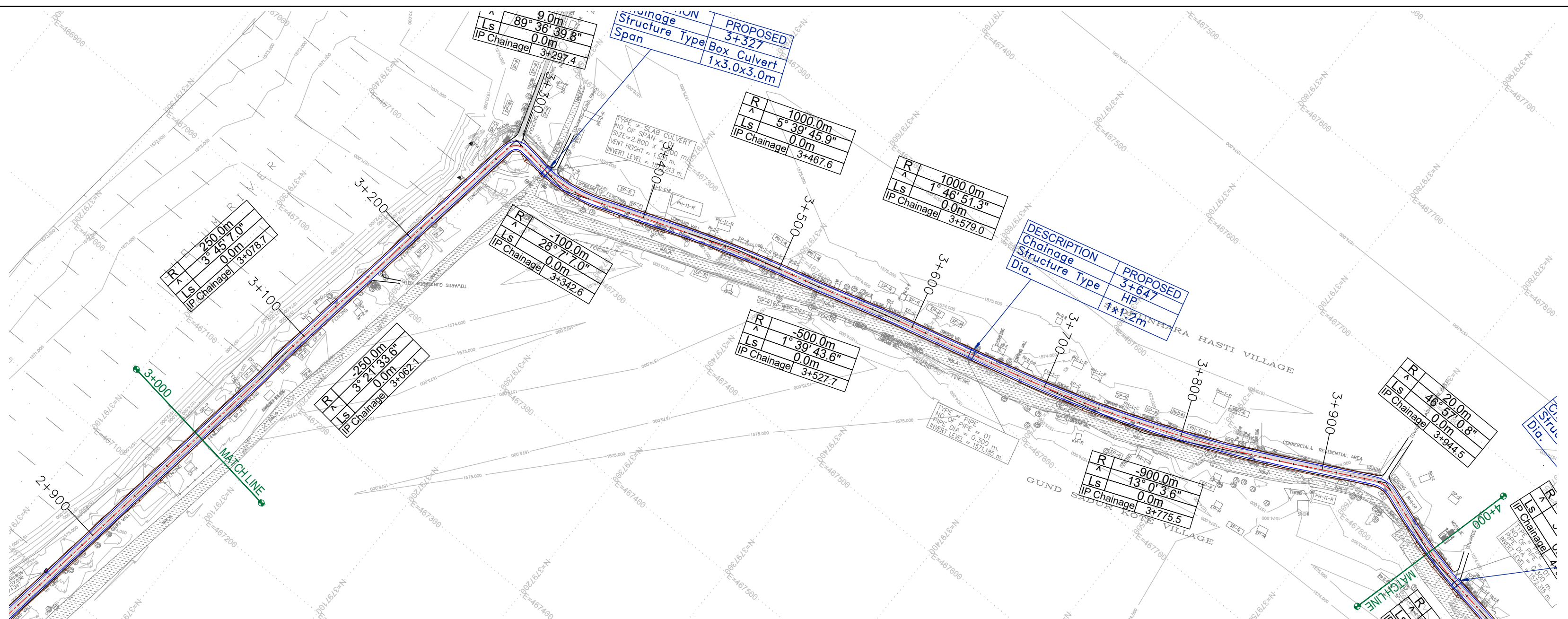
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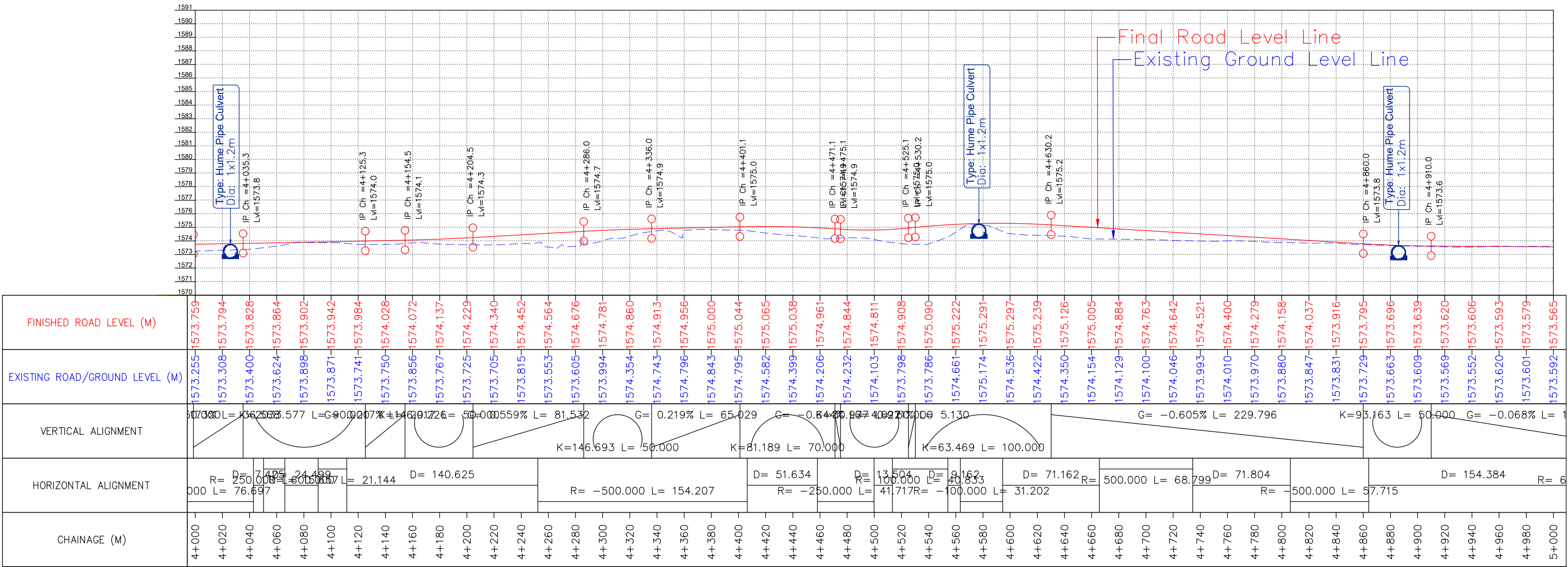
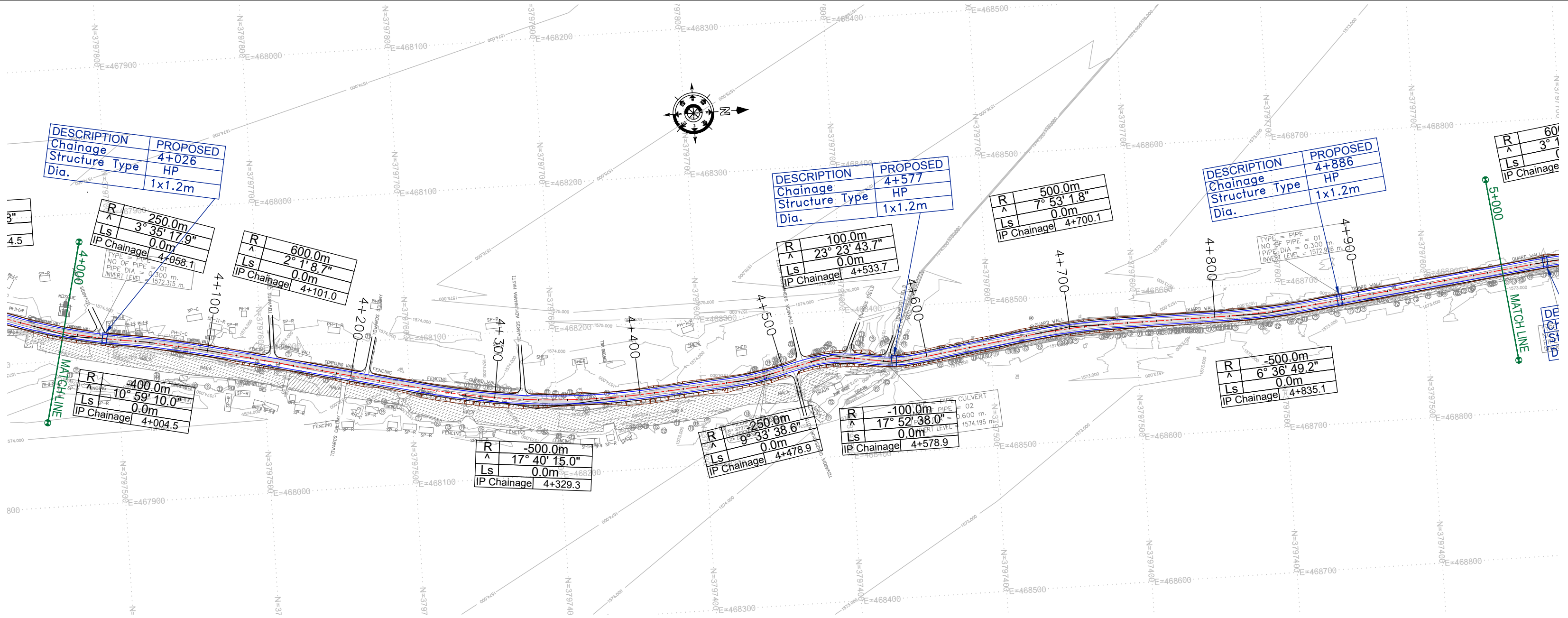
Plan & Profile
(km 2+000 to km 3+000)

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APPROVED BY :

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VER 1:250

TITLE :

Plan & Profile
(km 4+000 to km 5+000)

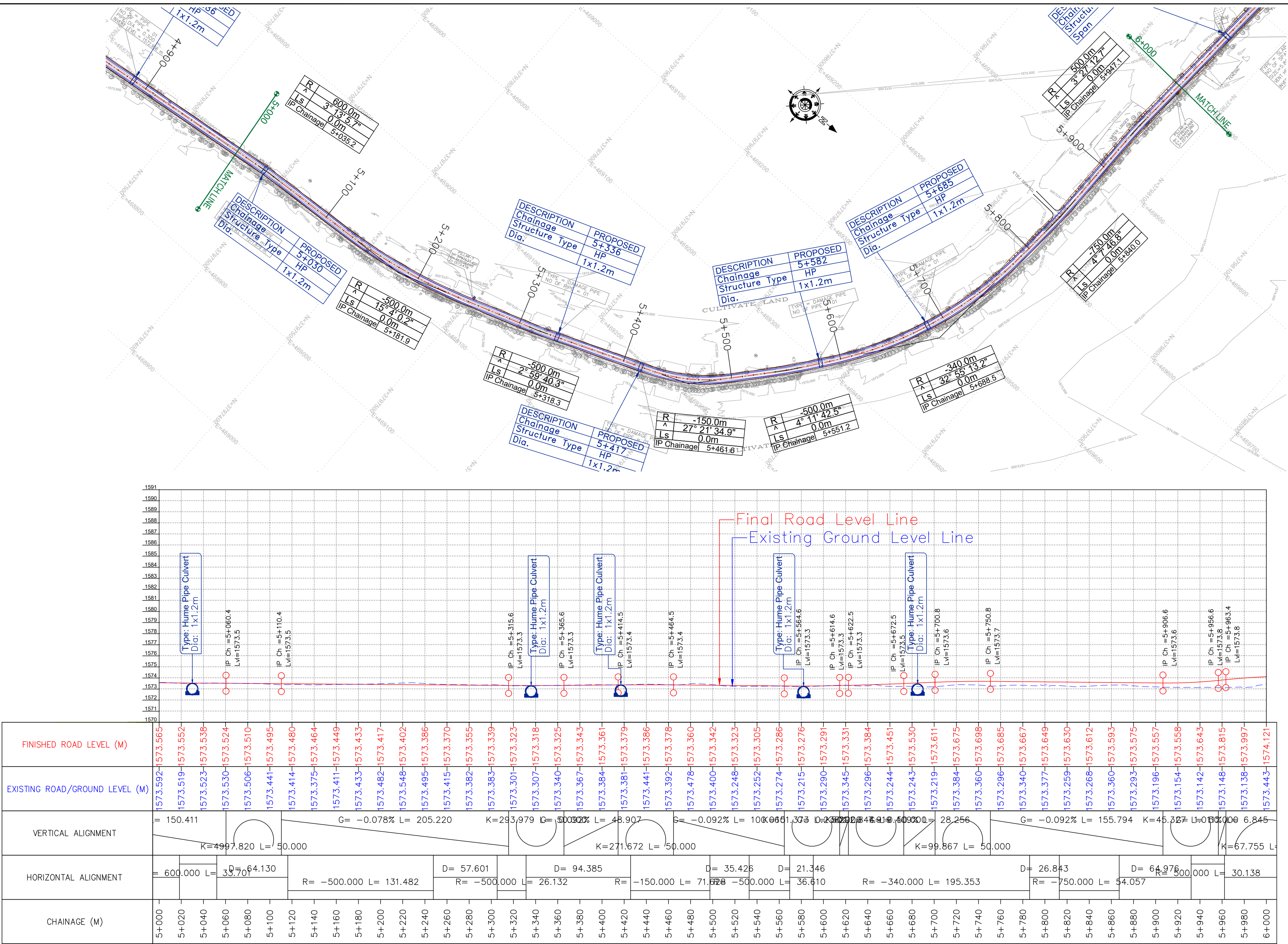
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← Hajin

Ajas →



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DRAWN BY :	SD
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APPROVED BY :	KG
SCALE :	HOR 1:2500 VER 1:250

TITLE :

Plan & Profile
(km 5+000 to km 6+000)

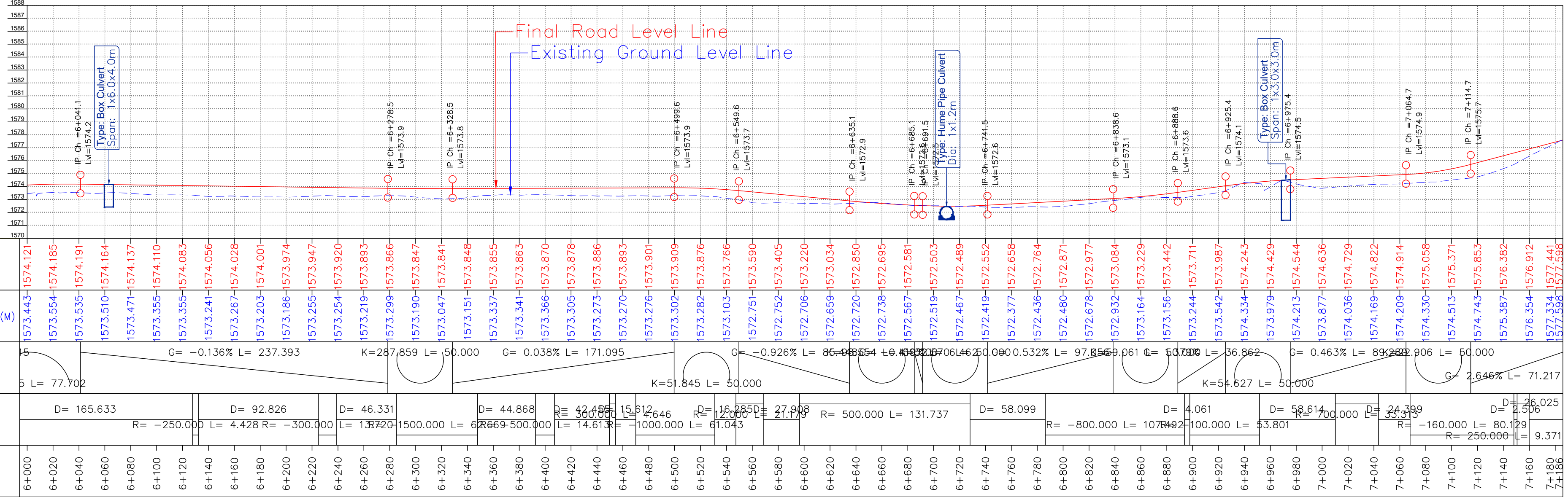
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September 2019

← Hajin

Ajas →



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SCALE :	HOR 1:2500 VER 1:250

TITLE :	Plan & Profile (km 6+000 to km 7+186)
DRG. NO. :	EPTISA/JTRP/DPR/J&K/PP/07
REVISION : R-1	September 2019

HORIZONTAL ALIGNMENT REPORT

Horizontal Alignment Report																								
HIP No.	Start of Transition (TS)	Start of Curve	HIP	End of Curve	End of Transition (ST)	HIP Coordinates		Radius	Design Speed (V kmph)	Transition Start Length	Transition End Length	Circular Curve Length	Shift (s)		Tangent Length (Ts)		qs (°)		Dc (°)	D (°)	Apex Distance (Es)	Hand of Curve	e%	Extra Widening
		PC / SC		CS / PT		Easting	Northing						Leading	Trailing	Leading	Trailing	Leading	Trailing						
1	0+011.028	0+011.028	0+023.857	0+036.624	0+036.624	465489.696	3794887.219	150	40	0.00	0.00	25.60	0.000	0.000	12.83	12.83	0.00	0.00	9.78	9.78	0.548	Left	4.74	0.6
2	0+069.393	0+069.393	0+090.697	0+111.840	0+111.840	465554.262	3794904.742	200	40	0.00	0.00	42.45	0.000	0.000	21.30	21.30	0.00	0.00	12.16	12.16	1.131	Right	3.56	0.6
3	0+119.667	0+119.667	0+174.841	0+229.570	0+229.570	465638.449	3794909.189	500	40	0.00	0.00	109.90	0.000	0.000	55.17	55.17	0.00	0.00	12.59	12.59	3.035	Left	2.50	0
4	0+302.883	0+302.883	0+422.009	0+530.962	0+530.962	465876.919	3794975.852	320	40	0.00	0.00	228.08	0.000	0.000	119.13	119.13	0.00	0.00	40.84	40.84	21.454	Left	2.50	0
5	0+547.894	0+547.894	0+560.146	0+572.066	0+572.066	465958.873	3795099.462	60	25	0.00	0.00	24.17	0.000	0.000	12.25	12.25	0.00	0.00	23.08	23.08	1.238	Right	4.63	1.2
6	0+576.229	0+576.229	0+592.022	0+606.988	0+606.988	465985.770	3795117.179	55	25	0.00	0.00	30.76	0.000	0.000	15.79	15.79	0.00	0.00	32.04	32.04	2.223	Left	5.00	1.2
7	0+611.549	0+611.549	0+663.723	0+715.520	0+715.520	466015.945	3795183.133	500	40	0.00	0.00	103.97	0.000	0.000	52.17	52.17	0.00	0.00	11.91	11.91	2.715	Right	2.50	0
8	0+758.903	0+758.903	0+817.573	0+876.108	0+876.108	466107.679	3795307.111	1000	40	0.00	0.00	117.21	0.000	0.000	58.67	58.67	0.00	0.00	6.72	6.72	1.720	Right	2.50	0
9	1+123.935	1+123.935	1+133.987	1+143.334	1+143.334	466324.427	3795537.813	30	20	0.00	0.00	19.40	0.000	0.000	10.05	10.05	0.00	0.00	37.05	37.05	1.639	Right	5.00	1.5
10	1+162.560	1+162.560	1+192.001	1+215.776	1+215.776	466382.301	3795547.743	50	25	0.00	0.00	53.22	0.000	0.000	29.44	29.44	0.00	0.00	60.98	60.98	8.024	Left	5.00	1.2
11	1+263.115	1+263.115	1+280.197	1+297.275	1+297.275	466413.296	3795636.339	1000	40	0.00	0.00	34.16	0.000	0.000	17.08	17.08	0.00	0.00	1.96	1.96	0.146	Left	2.50	0
12	1+327.262	1+327.262	1+340.381	1+353.493	1+353.493	466431.220	3795693.796	500	40	0.00	0.00	26.23	0.000	0.000	13.12	13.12	0.00	0.00	3.01	3.01	0.172	Right	2.50	0
13	1+391.688	1+391.688	1+406.033	1+420.376	1+420.376	466454.033	3795755.364	1000	40	0.00	0.00	28.69	0.000	0.000	14.34	14.34	0.00	0.00	1.64	1.64	0.103	Left	2.50	0
14	1+638.997	1+638.997	1+642.839	1+646.681	1+646.681	466529.907	3795979.688	1000	40	0.00	0.00	7.68	0.000	0.000	3.84	3.84	0.00	0.00	0.44	0.44	0.007	Right	2.50	0
15	1+789.338	1+789.338	1+799.788	1+809.449	1+809.449	466581.335	3796127.971	30	20	0.00	0.00	20.11	0.000	0.000	10.45	10.45	0.00	0.00	38.41	38.41	1.768	Left	5.00	1.5
16	1+816.603	1+816.603	1+832.271	1+845.481	1+845.481	466570.349	3796159.376	30	20	0.00	0.00	28.88	0.000	0.000	15.67	15.67	0.00	0.00	55.15	55.15	3.845	Right	5.00	1.5
17	1+894.104	1+894.104	1+937.671	1+981.182	1+981.182	466633.549	3796246.778	1000	40	0.00	0.00	87.08	0.000	0.000	43.57	43.57	0.00	0.00	4.99	4.99	0.949	Left	2.50	0
18	2+005.399	2+005.399	2+008.886	2+012.372	2+012.372	466670.129	3796307.944	700	40	0.00	0.00	6.97	0.000	0.000	3.49	3.49	0.00	0.00	0.57	0.57	0.009	Right	2.50	0
19	2+086.578	2+086.578	2+099.801	2+113.022	2+113.022	466717.567	3796385.502	1000	40	0.00	0.00	26.44	0.000	0.000	13.22	13.22	0.00	0.00	1.52	1.52	0.087	Left	2.50	0
20	2+128.101	2+128.101	2+194.762	2+260.642	2+260.642	466764.958	3796467.794	500	40	0.00	0.00	132.54	0.000	0.000	66.66	66.66	0.00	0.00	15.19	15.19	4.424	Right	2.50	0
21	2+381.671	2+381.671	2+432.098	2+482.185	2+482.185	466933.700	3796635.801	500	40	0.00	0.00	100.51	0.000	0.000	50.43	50.43	0.00	0.00	11.52	11.52	2.536	Left	2.50	0
22	2+567.252	2+567.252	2+577.813	2+588.370	2+588.370	467014.541	3796757.442	500	40	0.00	0.00	21.12	0.000	0.000	10.56	10.56	0.00	0.00	2.42	2.42	0.112	Right	2.50	0
23	2+735.533	2+735.533	2+773.709	2+810.298	2+810.298	467129.763	3796915.874	150	40	0.00	0.00	74.76	0.000	0.000	38.18	38.18	0.00	0.00	28.56	28.56	4.782	Left	4.74	0.6
24	3+054.815	3+054.815	3+062.146	3+069.473	3+069.473	467167.463	3797203.438	250	40	0.00	0.00	14.66	0.000	0.000	7.33	7.33	0.00	0.00	3.36	3.36	0.107	Left	2.84	0.6
25	3+070.549	3+070.549	3+078.737	3+086.920	3+086.920	467168.653	3797219.990	250	40	0.00	0.00	16.37	0.000	0.000	8.19	8.19	0.00	0.00	3.75	3.75	0.134	Right	2.84	0.6
26	3+290.337	3+290.337	3+299.276	3+304.413	3+304.413	467198.819	3797438.462	9	20	0.00	0.00	14.08	0.000	0.000	8.94	8.94	0.00	0.00	89.61	89.61	3.685	Right	5.00	1.5
27	3+318.105	3+318.105	3+343.148	3+367.181	3+367.181	467246.088	3797432.261	100	35	0.00	0.00	49.08	0.000	0.000	25.04	25.04	0.00	0.00	28.12	28.12	3.088	Left	5.00	0.9
28	3+418.153	3+418.153	3+467.610	3+516.987	3+516.987	467363.502	3797476.502	1000	40	0.00	0.00	98.83	0.000	0.000	49.46	49.46	0.00	0.00	5.66	5.66	1.222	Right	2.50	0
29	3+520.434	3+520.434	3+527.687	3+534.939	3+534.939	467421.614	3797492.055	500	40	0.00	0.00	14.50	0.000	0.000	7.25	7.25	0.00	0.00	1.66	1.66	0.053	Left	2.50	0
30	3+563.474	3+563.474	3+579.017	3+594.557	3+594.557	467470.793	3797506.758	1000	40	0.00	0.00	31.08	0.0											

≡ VERTICAL ALIGNMENT REPORT ≡

Vertical Alignment Report

PVI No.	Start		PVI Details		End		Gradient (%)		Type of Curve	Curve Lenght (m)	K-Value
	Chainage (Km)	Level(m)	Chainage (Km)	Level(m)	Chainage (Km)	Level(m)	IN	OUT			
1	0+068.832	1575.322	0+093.832	1574.673	0+118.832	1574.605	-2.597	-0.272	Sag	50	21.51
2	0+166.131	1574.476	0+191.131	1574.408	0+216.131	1574.604	-0.272	0.784	Sag	50	47.33
3	0+273.833	1575.056	0+313.833	1575.370	0+353.833	1575.200	0.784	-0.424	Hog	80	66.20
4	0+418.573	1574.925	0+443.573	1574.819	0+468.573	1574.953	-0.424	0.535	Sag	50	52.12
5	0+544.643	1575.360	0+569.643	1575.494	0+594.643	1575.373	0.535	-0.482	Hog	50	49.16
6	0+732.447	1574.709	0+757.447	1574.589	0+782.447	1574.628	-0.482	0.158	Sag	50	78.16
7	1+079.736	1575.097	1+104.736	1575.136	1+129.736	1575.178	0.158	0.170	Sag	50	4096.68
8	1+234.345	1575.356	1+259.345	1575.399	1+284.345	1575.436	0.170	0.148	Hog	50	2324.97
9	1+368.813	1575.561	1+393.813	1575.598	1+418.813	1575.498	0.148	-0.401	Hog	50	91.00
10	1+629.587	1574.652	1+654.587	1574.552	1+679.587	1574.565	-0.401	0.050	Sag	50	110.76
11	1+869.427	1574.660	1+894.427	1574.673	1+919.427	1574.612	0.050	-0.243	Hog	50	170.61
12	2+086.564	1574.206	2+111.564	1574.146	2+136.564	1574.153	-0.243	0.029	Sag	50	183.97
13	2+695.135	1574.315	2+720.135	1574.322	2+745.135	1574.362	0.029	0.160	Sag	50	380.44
14	2+865.476	1574.555	2+890.476	1574.595	2+915.476	1574.602	0.160	0.027	Hog	50	374.23
15	3+100.430	1574.652	3+125.430	1574.659	3+150.430	1574.576	0.027	-0.329	Hog	50	140.39
16	3+218.237	1574.353	3+258.237	1574.221	3+298.237	1574.540	-0.329	0.797	Sag	80	71.02
17	3+334.141	1574.826	3+359.141	1575.026	3+384.141	1574.873	0.797	-0.610	Hog	50	35.53
18	3+387.408	1574.853	3+412.408	1574.701	3+437.408	1574.469	-0.610	-0.927	Hog	50	157.66
19	3+493.976	1573.944	3+518.976	1573.712	3+543.976	1573.668	-0.927	-0.179	Sag	50	66.79
20	3+628.162	1573.517	3+653.162	1573.473	3+678.162	1573.584	-0.179	0.446	Sag	50	80.06
21	3+743.195	1573.874	3+768.195	1573.986	3+793.195	1573.953	0.446	-0.132	Hog	50	86.47
22	3+948.706	1573.747	3+973.706	1573.714	3+998.706	1573.757	-0.132	0.173	Sag	50	163.90
23	4+035.274	1573.820	4+080.274	1573.898	4+125.274	1573.996	0.173	0.217	Sag	90	2033.58
24	4+154.500	1574.059	4+179.500	1574.113	4+204.500	1574.253	0.217	0.559	Sag	50	146.02
25	4+286.032	1574.709	4+311.032	1574.849	4+336.032	1574.904	0.559	0.219	Hog	50	146.69
26	4+401.061	1575.046	4+436.061	1575.123	4+471.061	1574.897	0.219	-0.644	Hog	70	81.19
27	4+475.082	1574.871	4+500.082	1574.711	4+525.082	1574.953	-0.644	0.971	Sag	50	30.98
28	4+530.212	1575.003	4+580.212	1575.488	4+630.212	1575.186	0.971	-0.605	Hog	100	63.47
29	4+860.008	1573.795	4+885.008	1573.644	4+910.008	1573.627	-0.605	-0.068	Sag	50	93.16
30	5+060.420	1573.524	5+085.420	1573.507	5+110.420	1573.487	-0.068	-0.078	Hog	50	4997.82
31	5+315.639	1573.327	5+340.639	1573.307	5+365.639	1573.330	-0.078	0.092	Sag	50	293.98
32	5+414.547	1573.375	5+439.547	1573.398	5+464.547	1573.375	0.092	-0.092	Hog	50	271.67
33	5+564.607	1573.282	5+589.607	1573.259	5+614.607	1573.319	-0.092	0.238	Sag	50	151.37
34	5+622.526	1573.338	5+647.526	1573.397	5+672.526	1573.499	0.238	0.409	Sag	50	292.84
35	5+700.782	1573.615	5+725.782	1573.717	5+750.782	1573.694	0.409	-0.092	Hog	50	99.87
36	5+906.576	1573.551	5+931.576	1573.528	5+956.576	1573.780	-0.092	1.011	Sag	50	45.33
37	5+963.421	1573.850	6+002.272	1574.242	6+041.123	1574.190	1.011	-0.136	Hog	78	67.76
38	6+278.516	1573.868	6+303.516	1573.834	6+328.516	1573.843	-0.136	0.038	Sag	50	287.86
39	6+499.611	1573.908	6+524.611	1573.918	6+549.611	1573.686	0.038	-0.926	Hog	50	51.85
40	6+635.059	1572.895	6+660.059	1572.663	6+685.059	1572.558	-0.926	-0.419	Sag	50	98.55
41	6+691.520	1572.531	6+716.520	1572.427	6+741.520	1572.560	-0.419	0.532	Sag	50	52.57
42	6+838.576	1573.076	6+863.576	1573.209	6+888.576	1573.554	0.532	1.379	Sag	50	59.06
43	6+925.438	1574.062	6+950.438	1574.407	6+975.438	1574.522	1.379	0.463	Hog	50	54.63
44	7+064.718	1574.936	7+089.718	1575.052	7+114.718	1575.713	0.463	2.646	Sag	50	22.91

CLIENT :



Jhelum Tawi Flood Recovery Project
2nd Floor ERA Commercial Complex Rambagh
Srinagar-190 009.

PROJECT :

Consultancy Services for Preparing Detailed Project Report
for the Road works in Jammu and Kashmir
(Hajin-Ajas via Saidnara in Bandipora District)

DESIGN CONSULTANT:



Eptisa Servicios de Ingenieria S.L.
Unit 1203, 12th Floor, Tower 1, PS Srijan
Corporate Park, Plot No. 2, Block EP & GP,
Sector v, Salt Lake Kolkata - 700091,
West Bengal
Ph: 033-40347200
www.eptisa.com

REV.

DATE

DESCRIPTION

DRAWN BY :

SD

DESIGNED BY :

SCK/MM

APPROVED BY :

KG

SCALE :

N.T.S

TITLE :

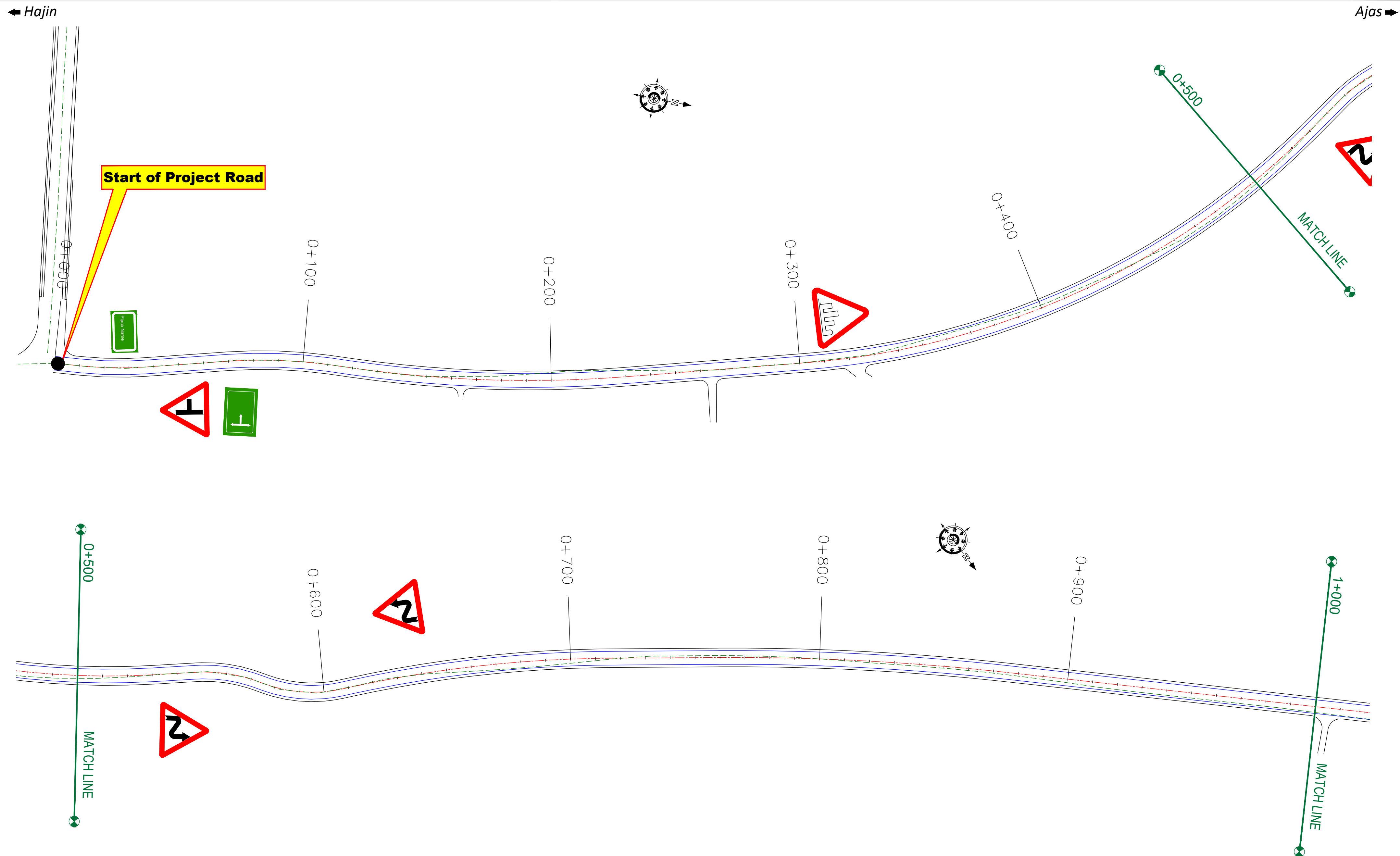
Vertical Alignment Report

DRG. NO. : EPTISA/JTRFP/DPR/J&K/VAR/01

REVISION : R-1

September 2019

≡ SIGNAGE PLAN (MAIN ROAD) ≡



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REV.	DATE	DESCRIPTION

DRAWN BY :	SD
DESIGNED BY :	SCK/MM
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SCALE :	1:1000

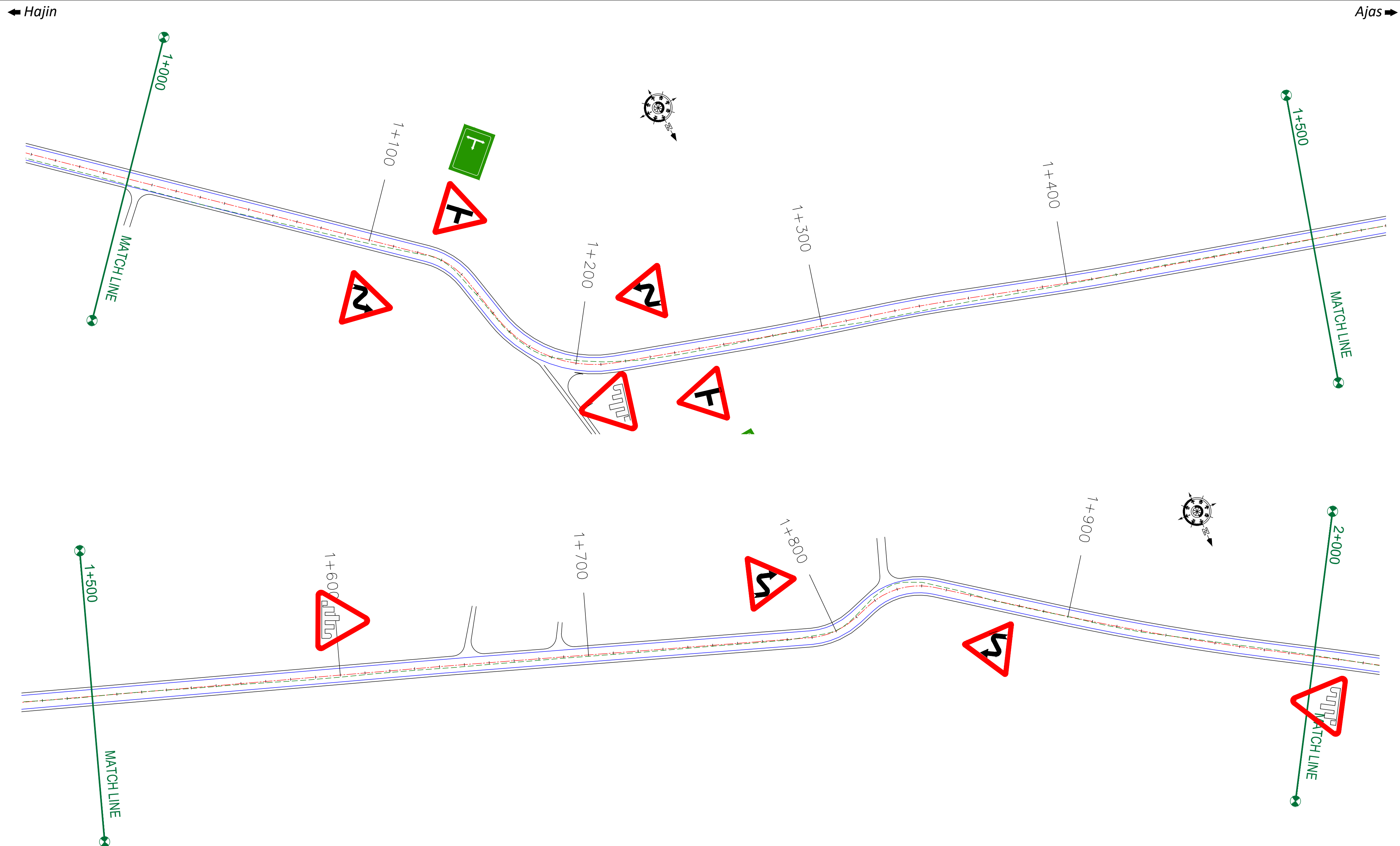
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Signage Plan
(Ch. 0+000 to Ch. 1+000)

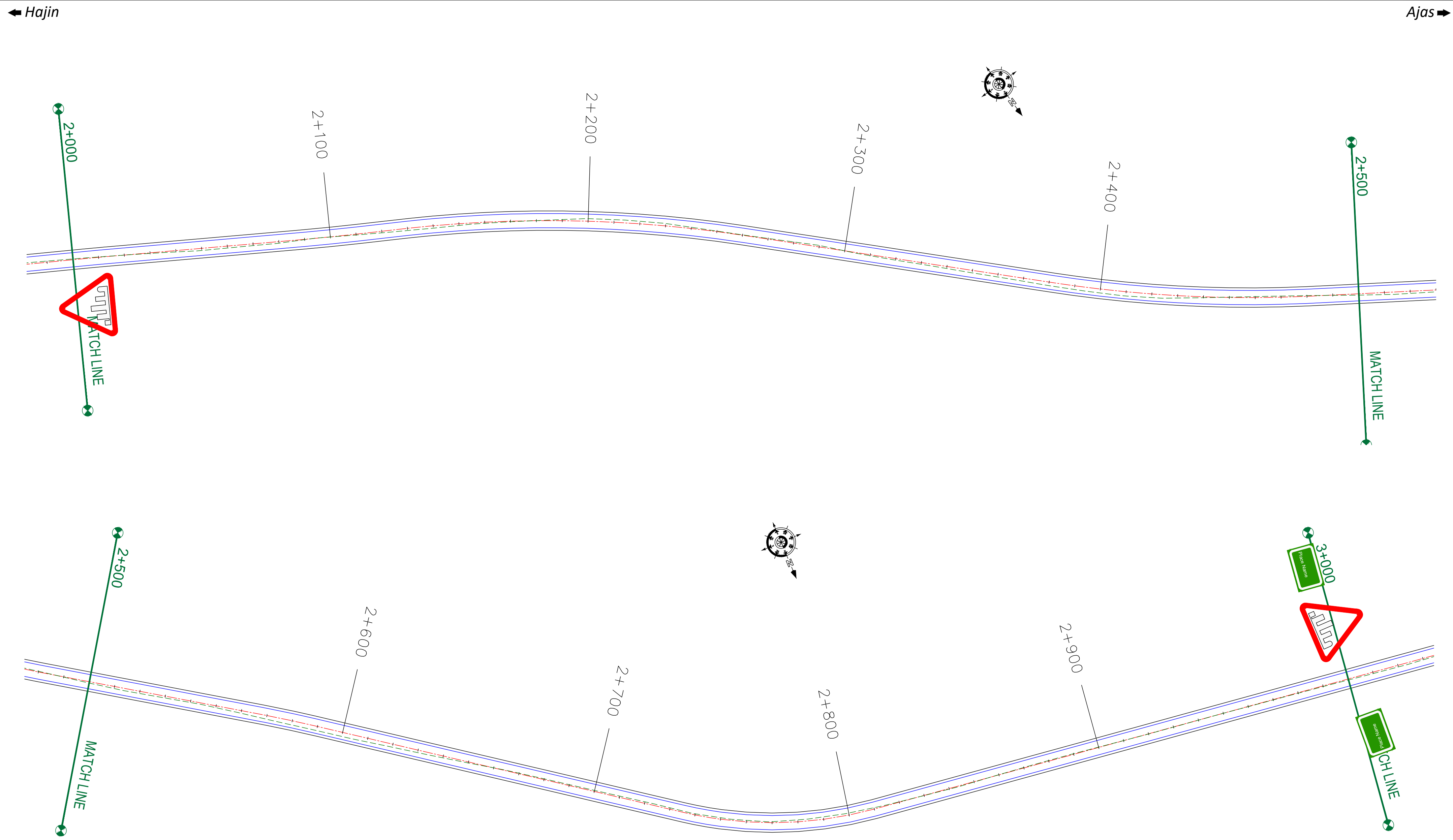
DRG. NO. : EPTISA/JTFRP/DPR/J&K/SC/01

REVISION : R-1

September 2019



CLIENT : <div> Jhelum Tawi Flood Recovery Project 2nd Floor ERA Commercial Complex Rambagh Srinagar-190 009.</div>	PROJECT : Consultancy Services for Preparing Detailed Project Report for the Road works in Jammu and Kashmir <u>(Hajin-Ajas via Saidnara in Bandipora District)</u>	DESIGN CONSULTANT: <div>Servicios de Ingenieria S.L. Unit 1203, 12th Floor, Tower 1, PS Srijan Corporate Park, Plot No. 2, Block EP & GP, Sector v, Salt Lake Kolkata - 700091, West Bengal Ph: 033-40347200 www.eptisa.com</div>				DRAWN BY : SD	TITLE : Signage Plan (Ch. 1+000 to Ch. 2+000)	
						DESIGNED BY : SCK/MM		
						APPROVED BY : KG	DRG. NO. : EPTISA/JTFRP/DPR/J&K/SC/02	
						SCALE : 1:1000		
			REV.	DATE	DESCRIPTION	REVISION : R-1		September 2019



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DRAWN BY : SD

DESIGNED BY : SCK/MM

APPROVED BY : KG

SCALE : 1:1000

TITLE :

Signage Plan
(Ch. 2+000 to Ch. 3+000)

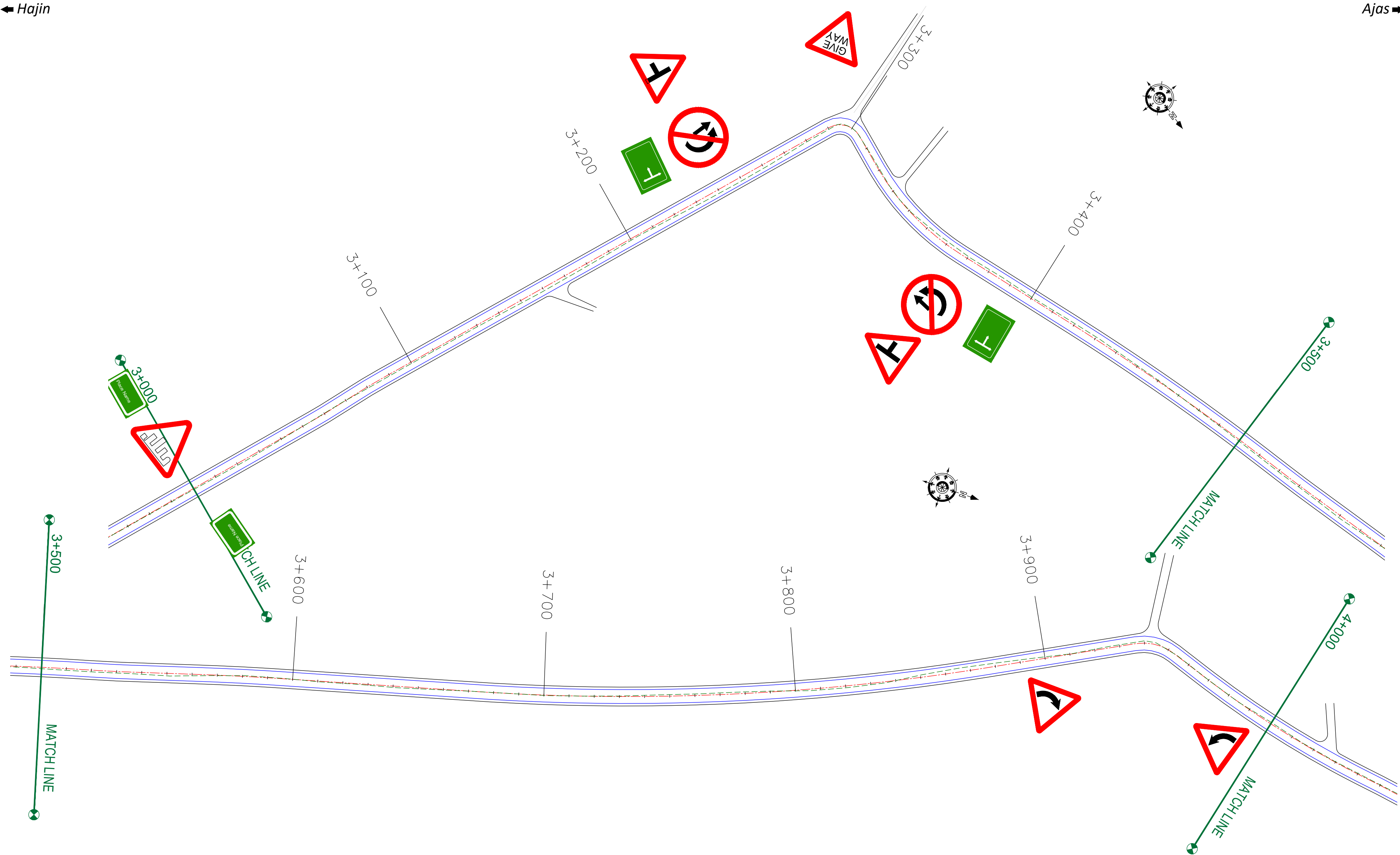
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September 2019

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CLIENT :



Jhelum Tawi Flood Recovery Project
2nd Floor ERA Commercial Complex Rambagh
Srinagar-190 009.

PROJECT :

Consultancy Services for Preparing Detailed Project Report
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DESIGN CONSULTANT:

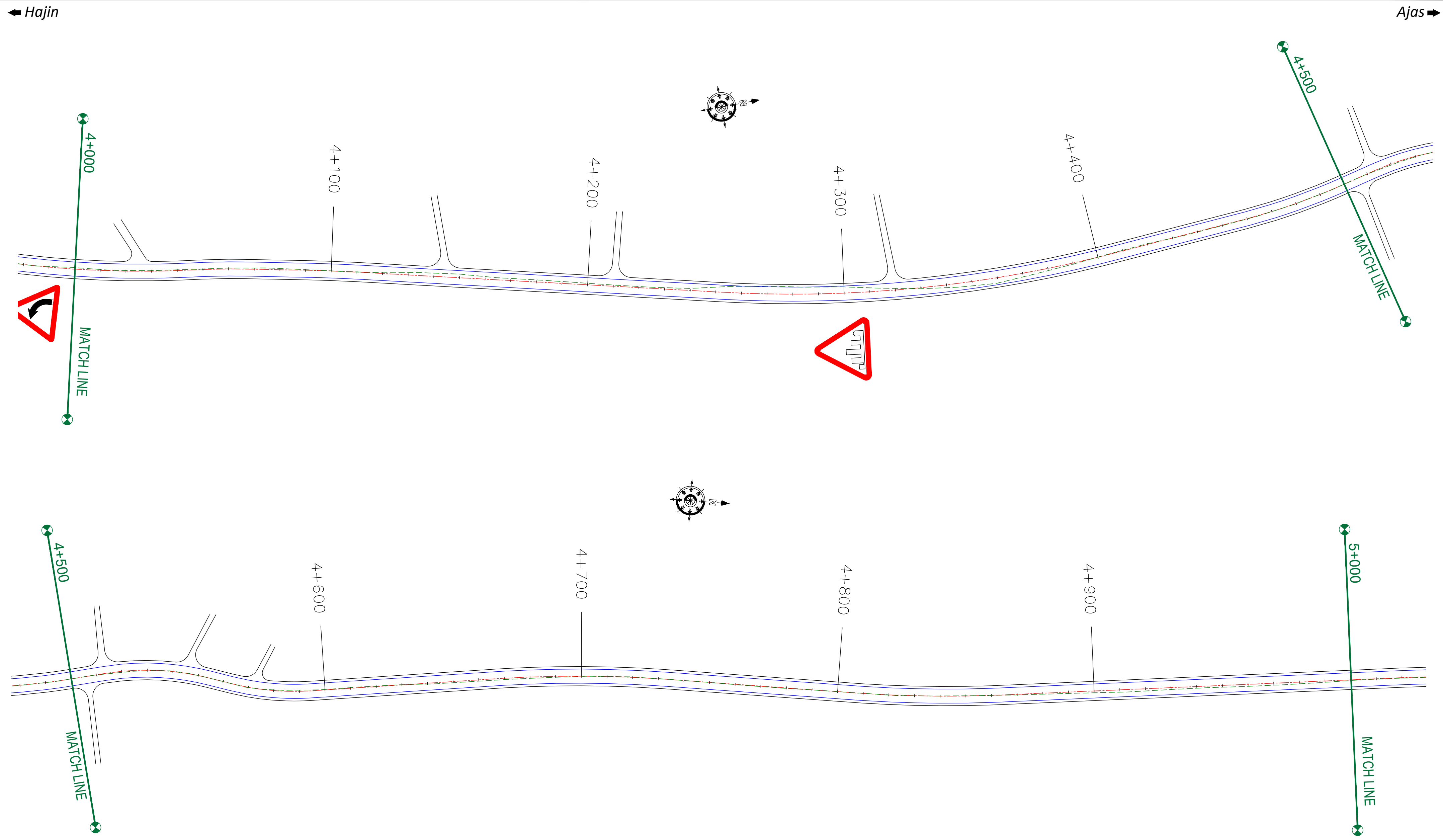


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SCALE :	1:1000

TITLE :	Signage Plan (Ch. 3+000 to Ch. 4+000)
DRG. NO. :	EPTISA/JTRP/DPR/J&K/SC/04
REVISION : R-1	September 2019



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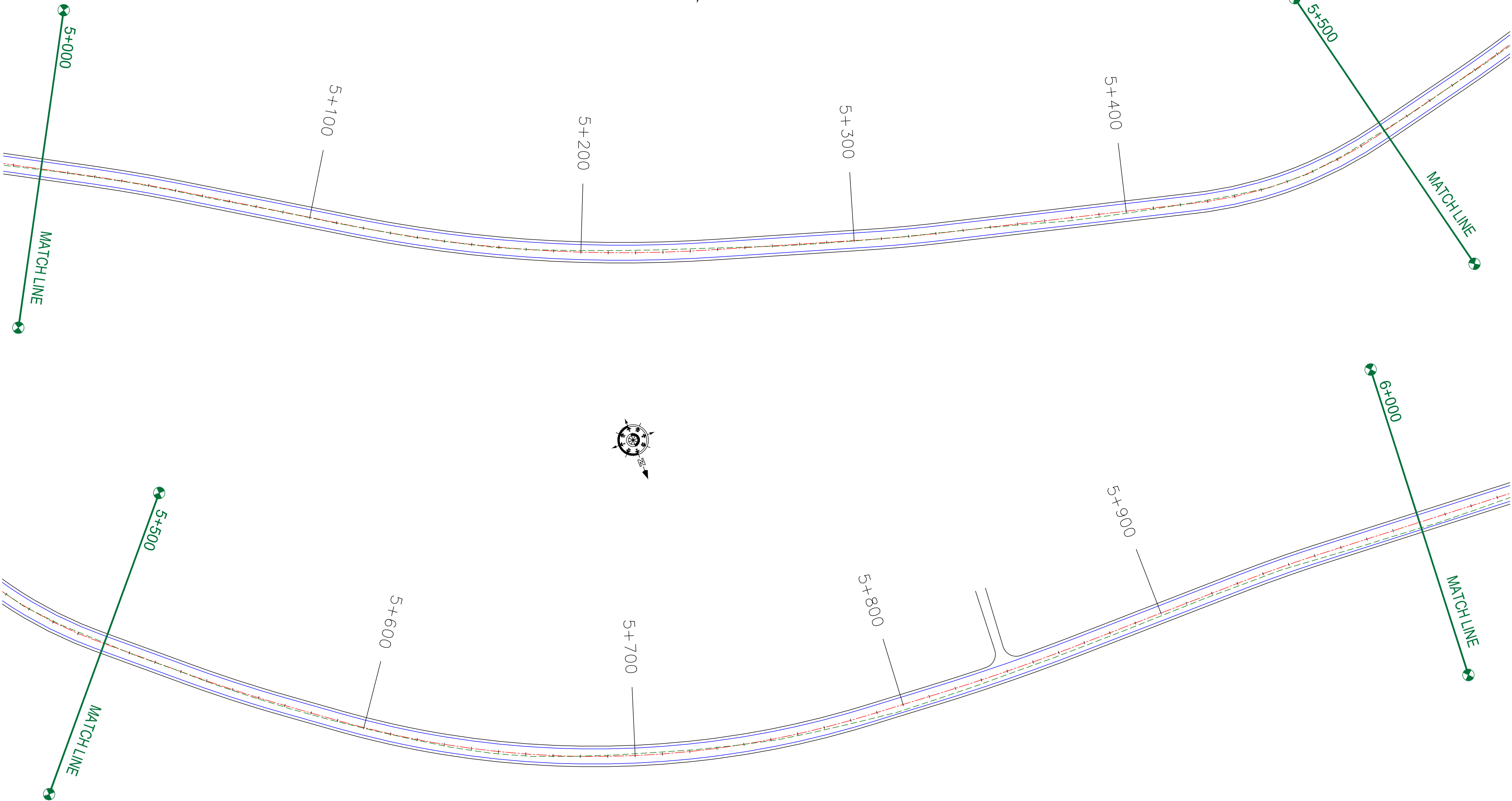
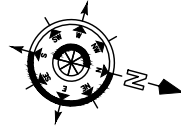
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APPROVED BY :	KG
SCALE :	1:1000

TITLE :	
Signage Plan (Ch. 4+000 to Ch. 5+000)	
DRG. NO. : EPTISA/JTRP/DPR/J&K/SC/05	
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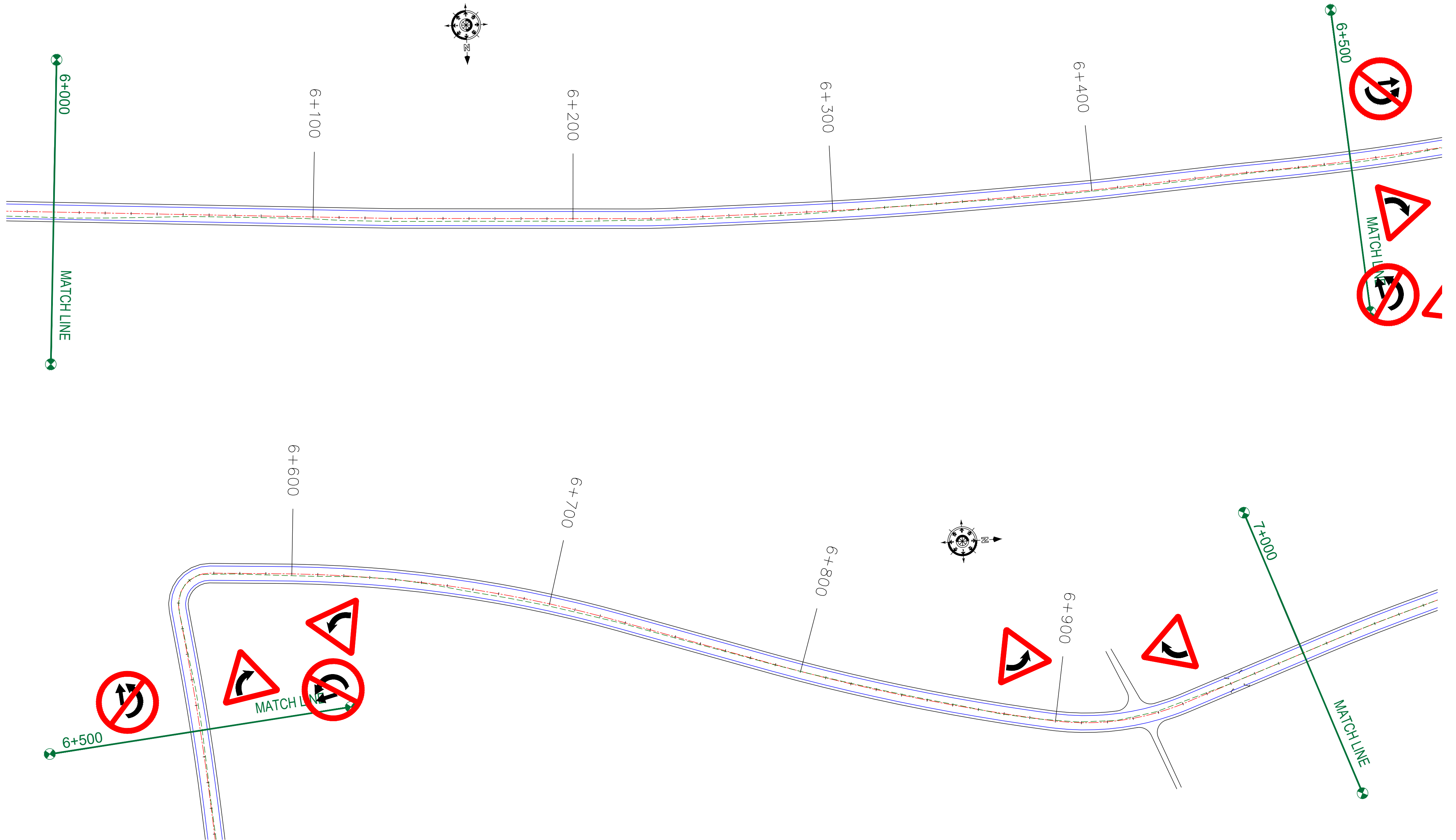
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APPROVED BY :	KG
SCALE :	1:1000

TITLE :	Signage Plan (Ch. 5+000 to Ch. 6+000)
DRG. NO. :	EPTISA/JTRFP/DPR/J&K/SC/06
REVISION : R-1	September 2019

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Ajas →



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Jhelum Tawi Flood Recovery Project
2nd Floor ERA Commercial Complex Rambagh
Srinagar-190 009.

PROJECT :

Consultancy Services for Preparing Detailed Project Report
for the Road works in Jammu and Kashmir
(Hajin-Ajas via Saidnara in Bandipora District)

DESIGN CONSULTANT:



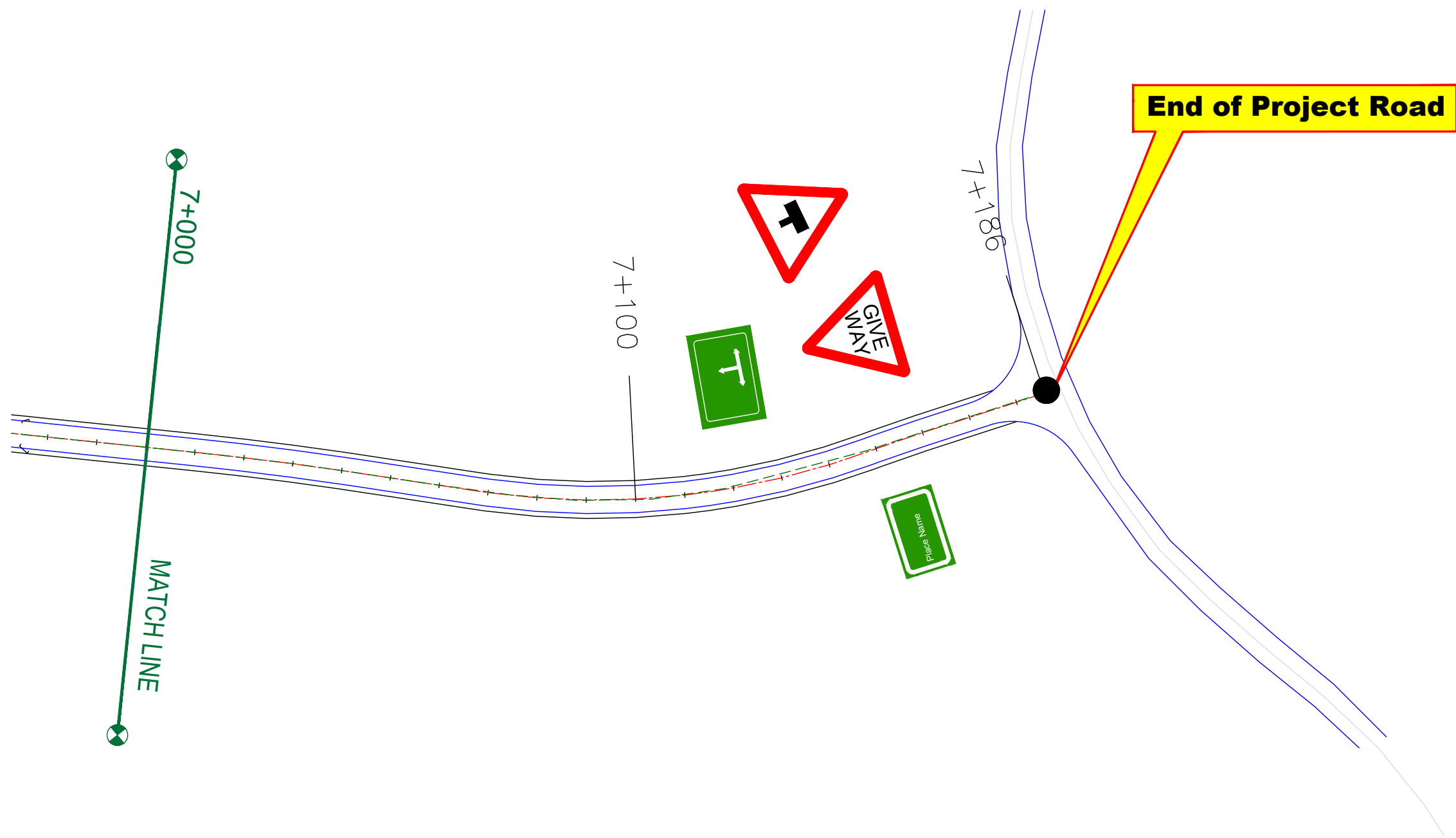
Servicios de Ingenieria S.L.

Unit 1203, 12th Floor, Tower 1, PS Srijan
Corporate Park, Plot No. 2, Block EP & GP,
Sector v, Salt Lake Kolkata - 700091,
West Bengal
Ph: 033-40347200
www.eptisa.com

REV.	DATE	DESCRIPTION

DRAWN BY :	SD
DESIGNED BY :	SCK/MM
APPROVED BY :	KG
SCALE :	1:1000

TITLE :	Signage Plan (Ch. 6+000 to Ch. 7+000)
DRG. NO. :	EPTISA/JTRFP/DPR/J&K/SC/07
REVISION : R-1	September 2019



CLIENT :



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2nd Floor ERA Commercial Complex Rambagh
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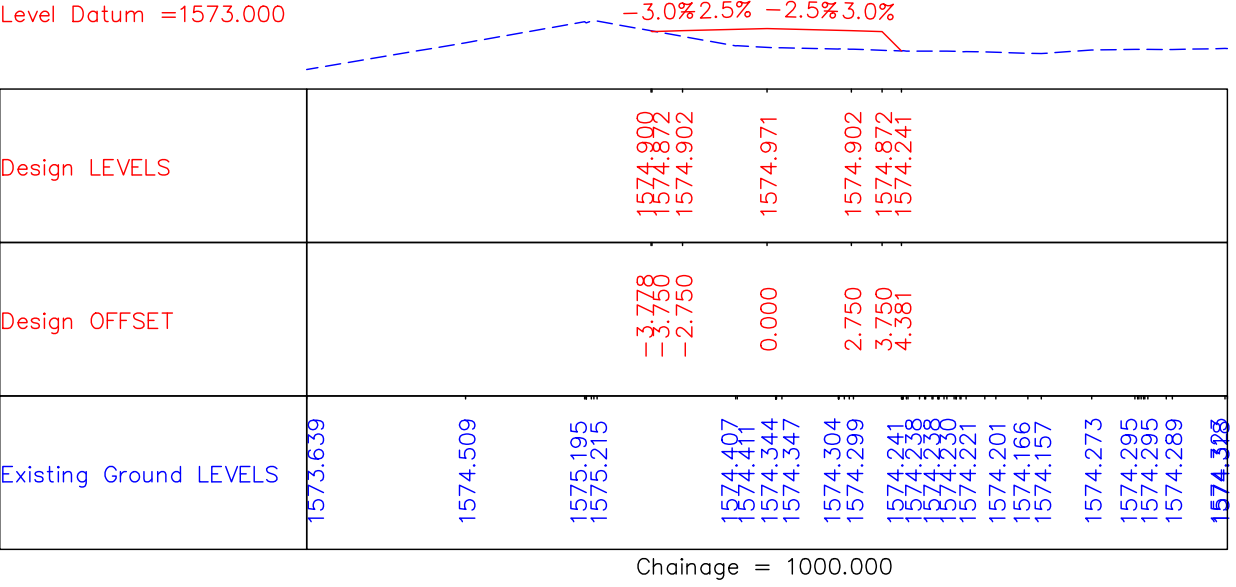
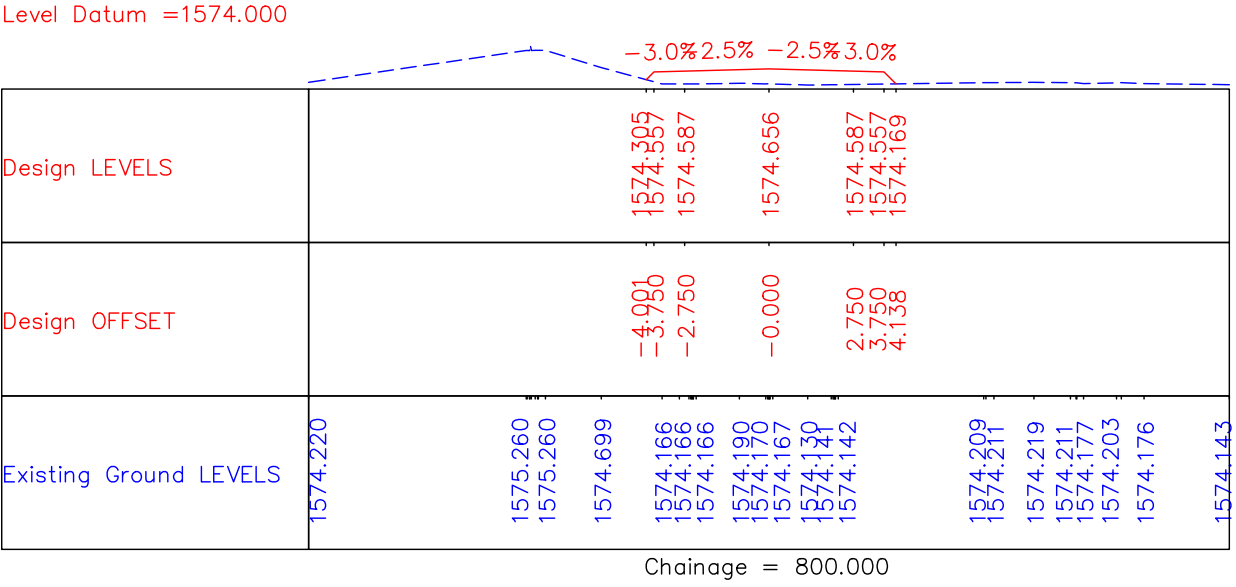
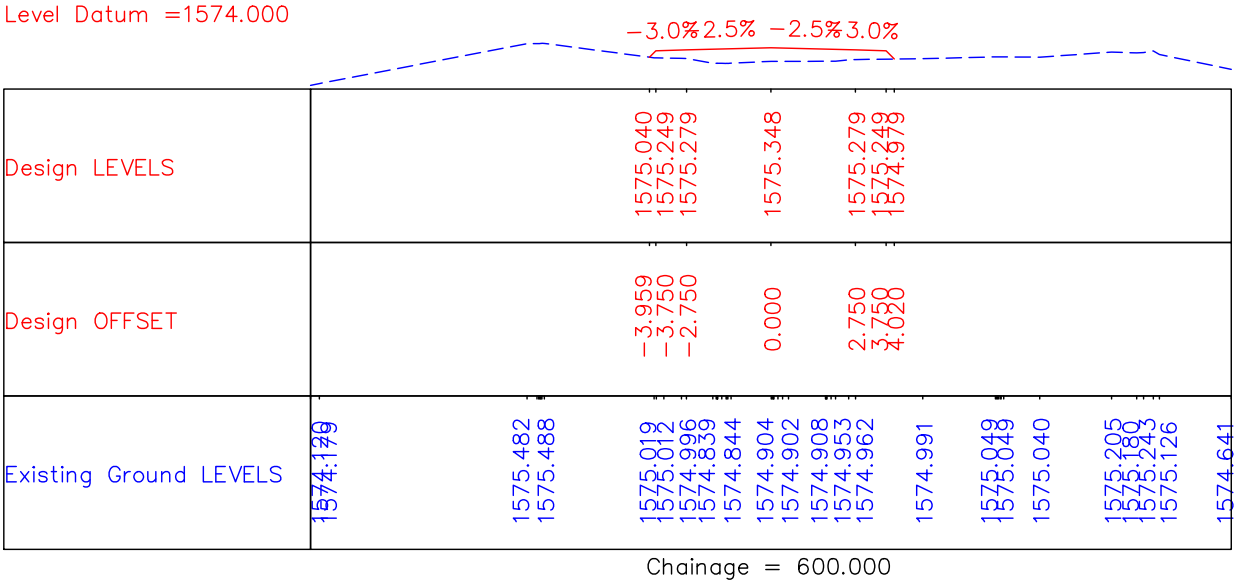
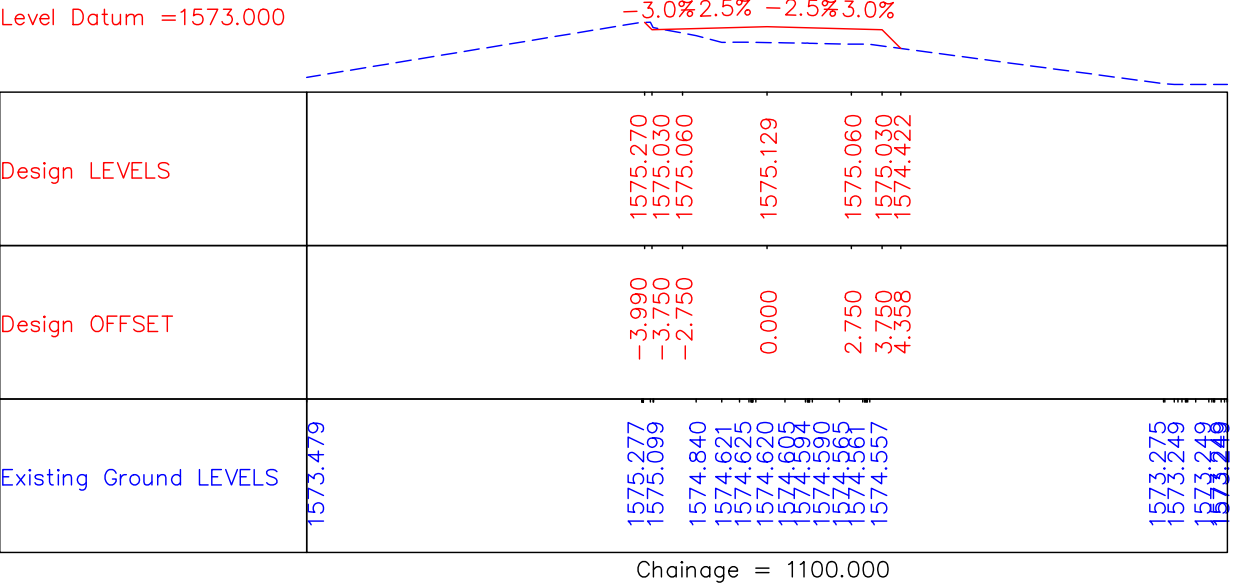
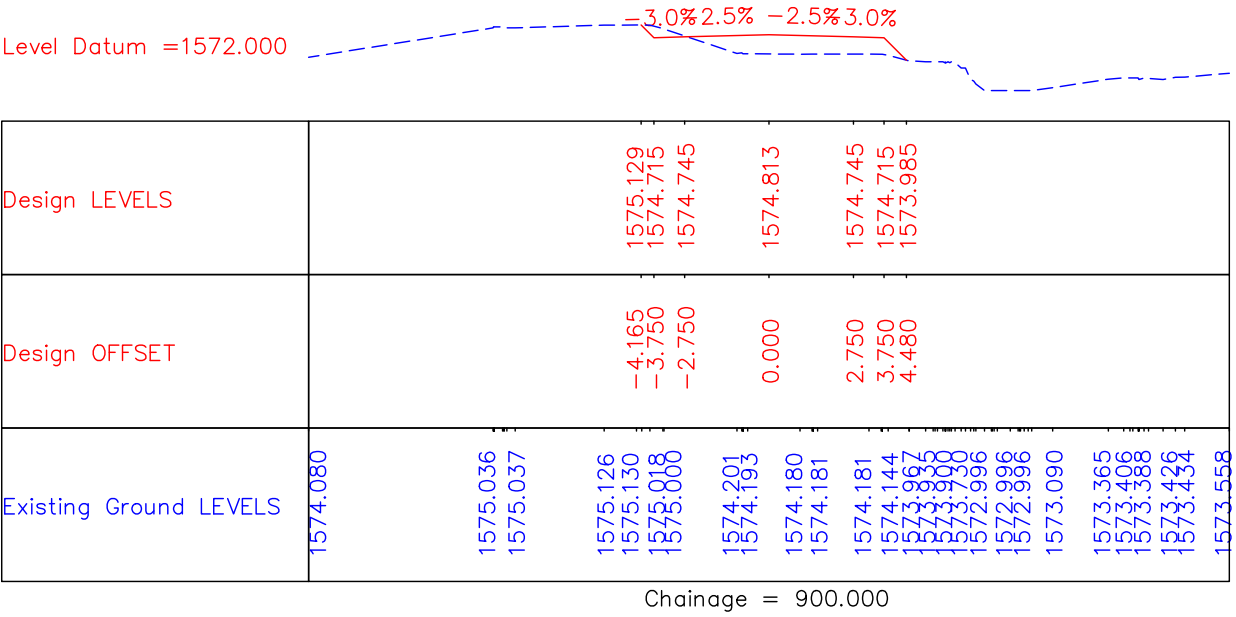
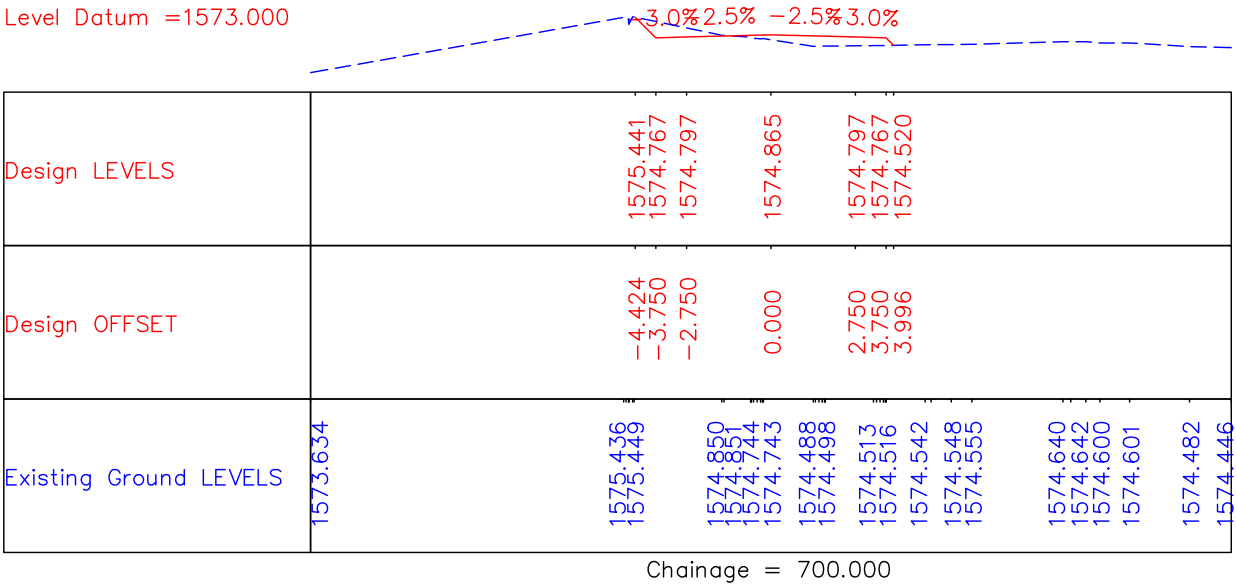
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Sector v, Salt Lake Kolkata - 700091,
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REV.	DATE	DESCRIPTION

DRAWN BY :	SD
DESIGNED BY :	SCK/MM
APPROVED BY :	KG
SCALE :	1:1000

TITLE :	Signage Plan (Ch. 7+000 to Ch. 7+186)
DRG. NO. :	EPTISA/JTFRP/DPR/J&K/SC/08
REVISION : R-1	September 2019

≡ DETAILED CROSS SECTION ≡



CLIENT :



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PROJECT :

Consultancy Services for Preparing Detailed Project Report
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DESIGN CONSULTANT:

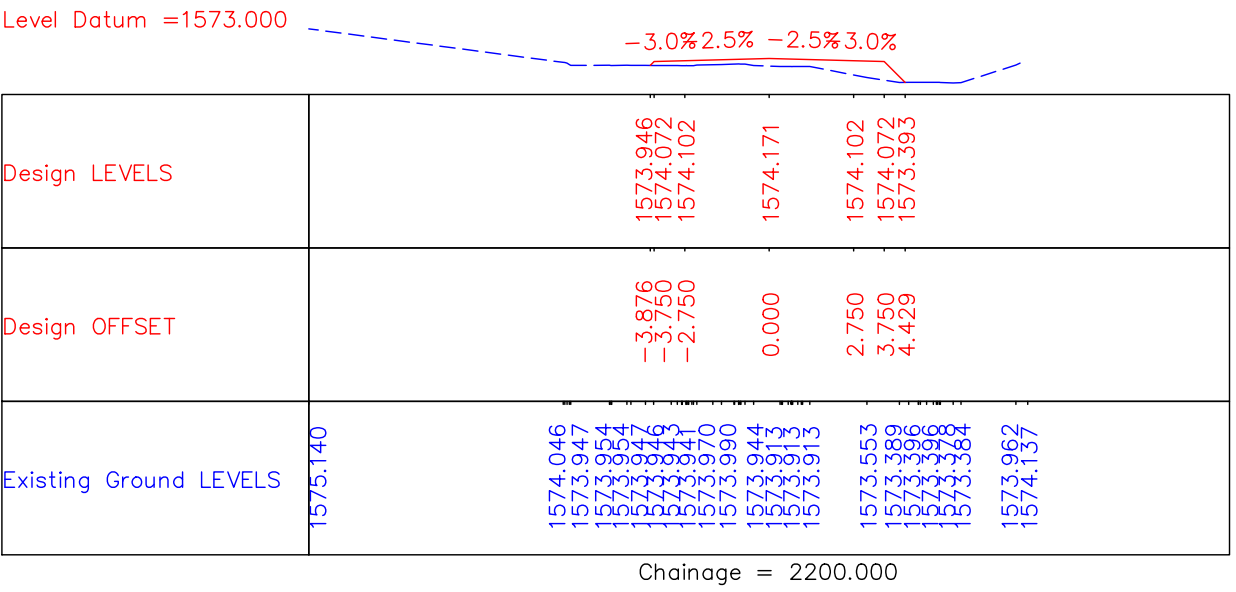
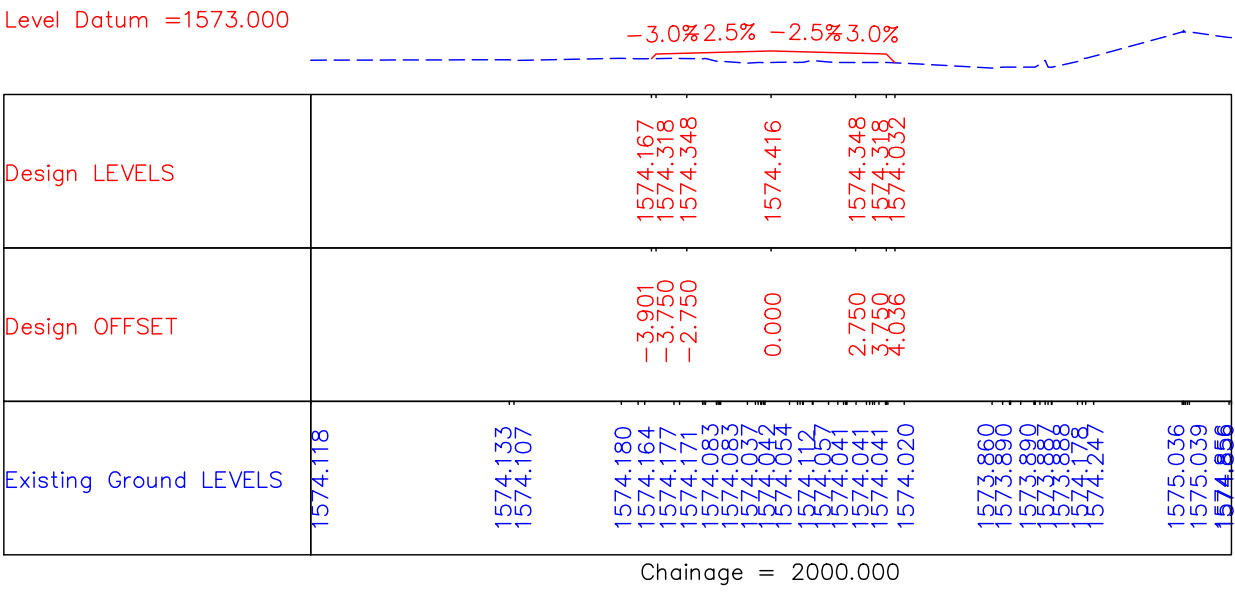
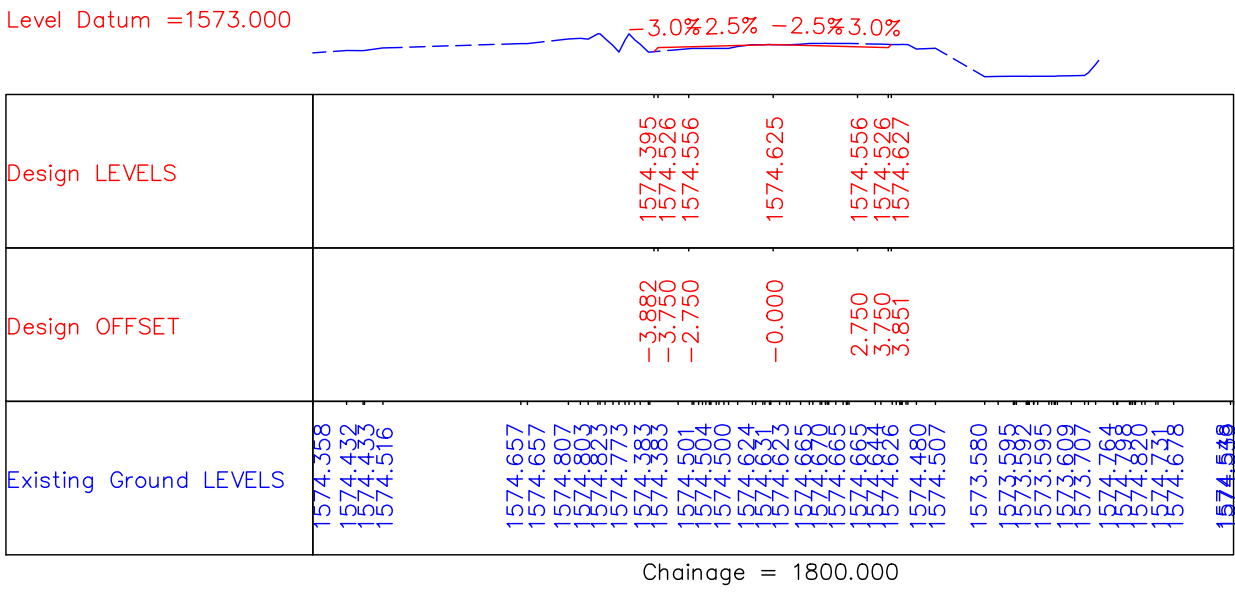
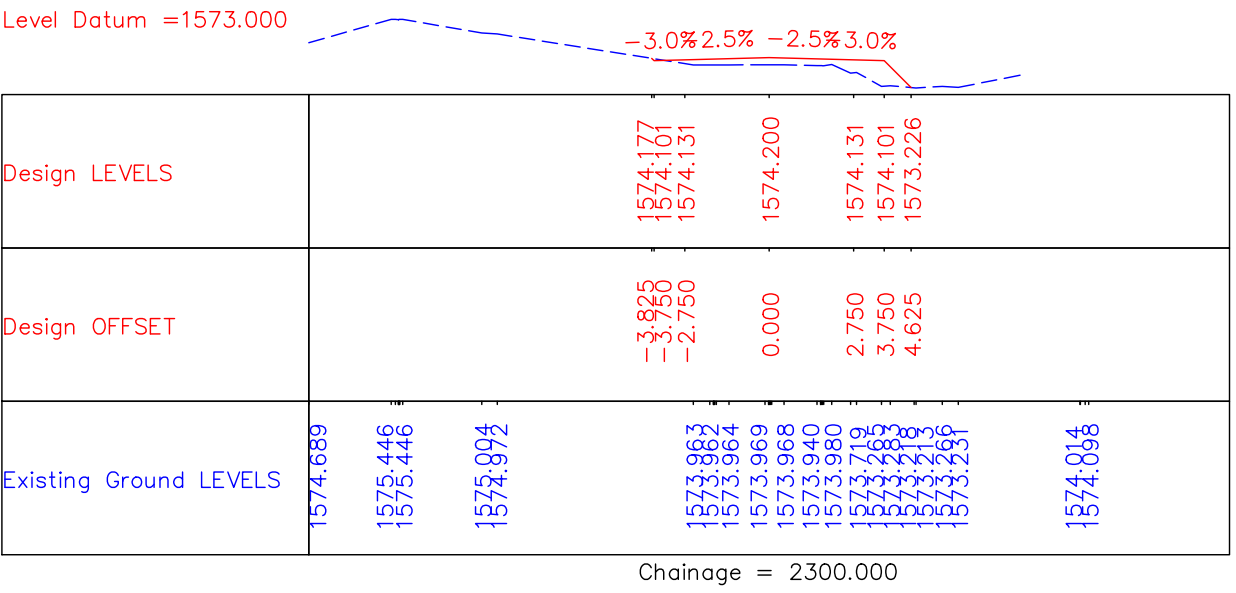
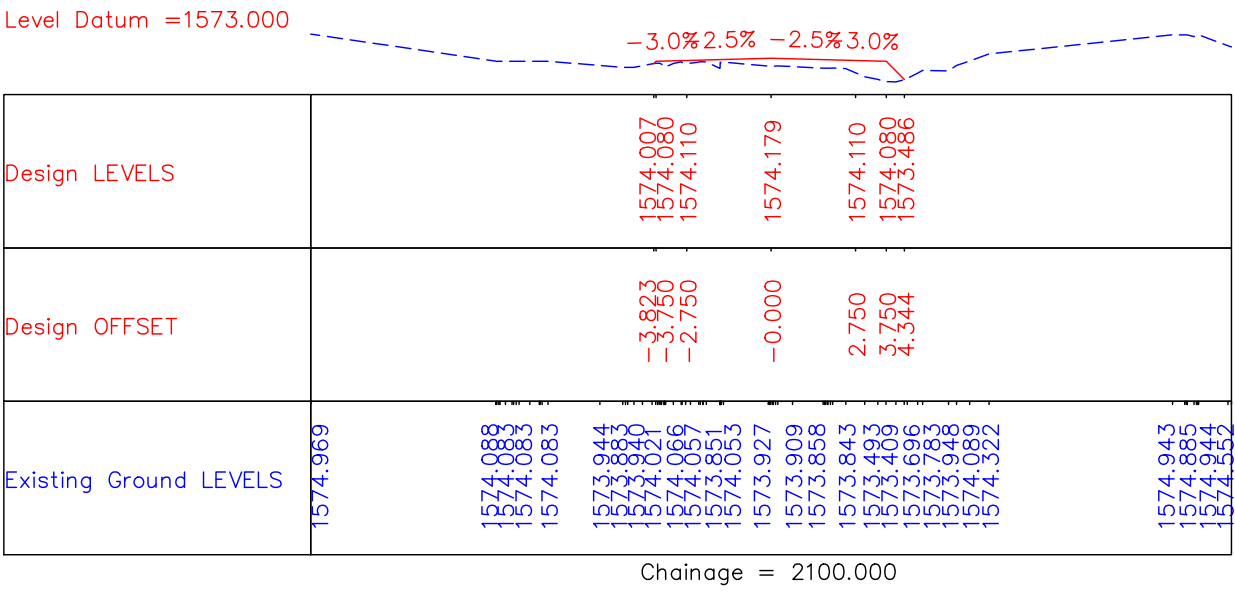
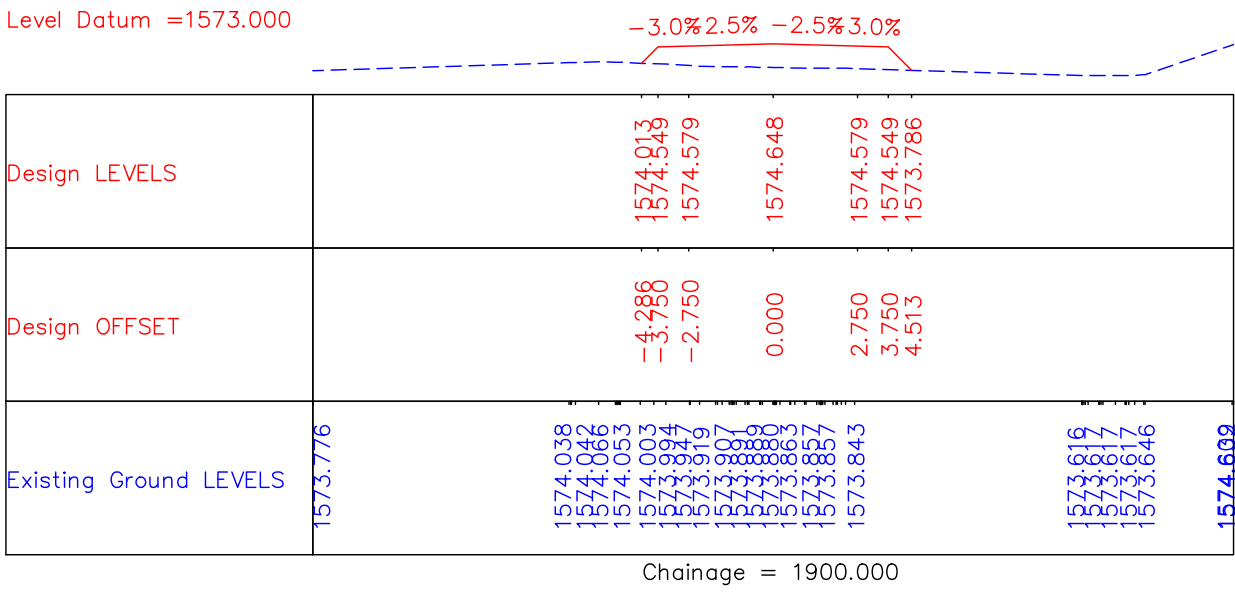


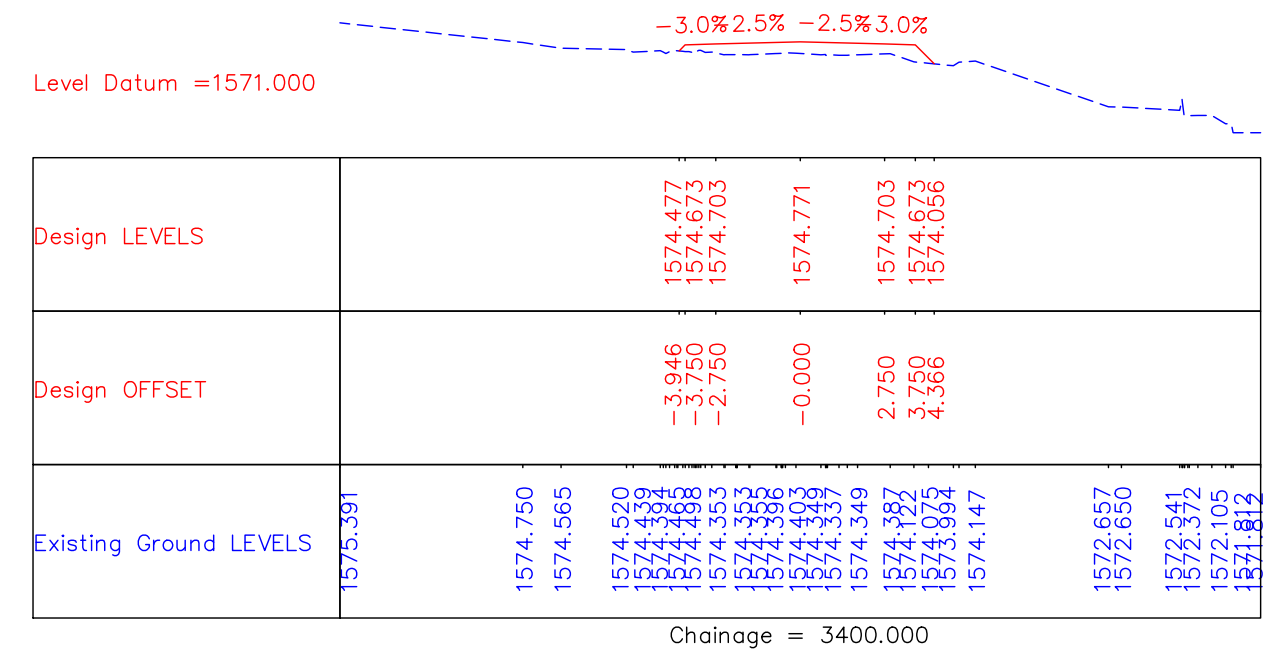
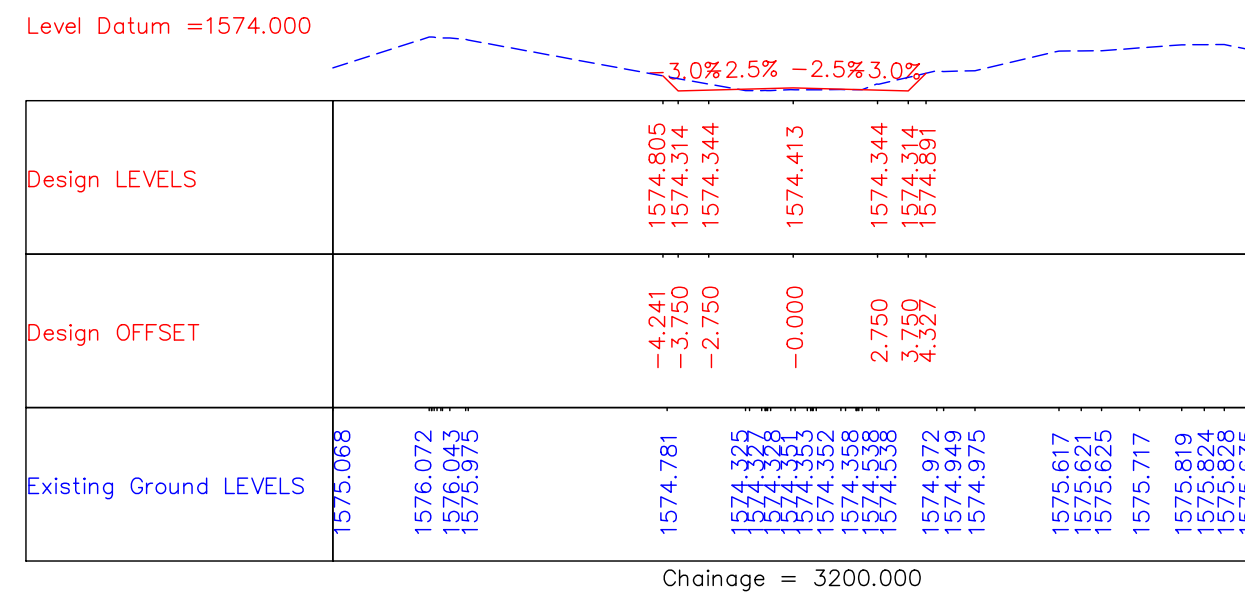
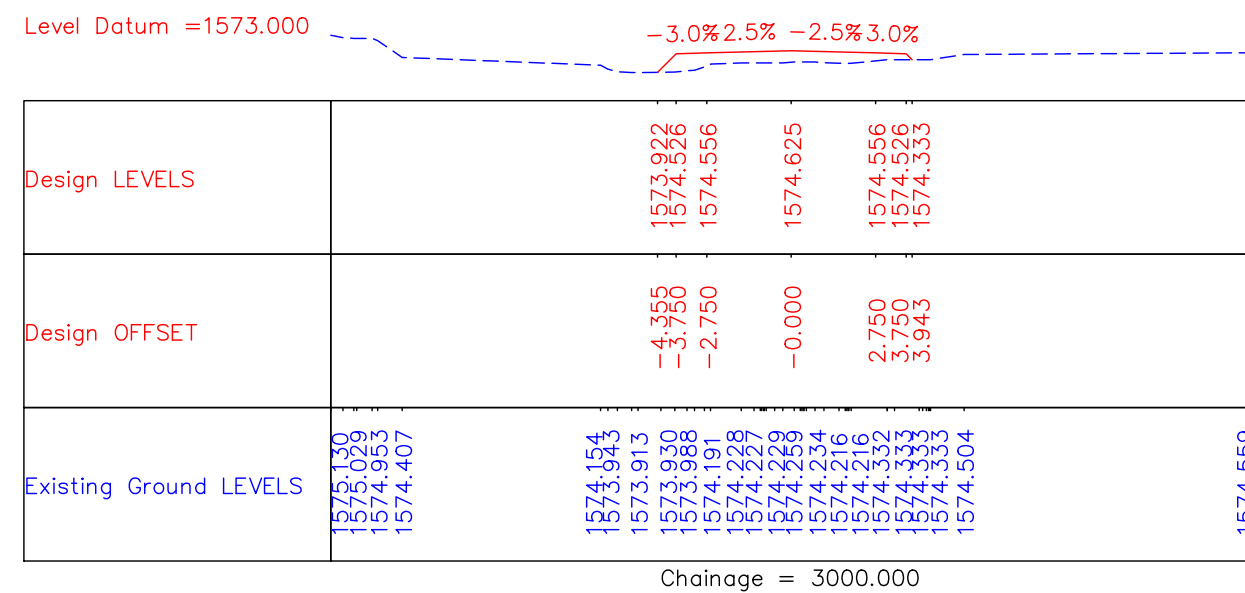
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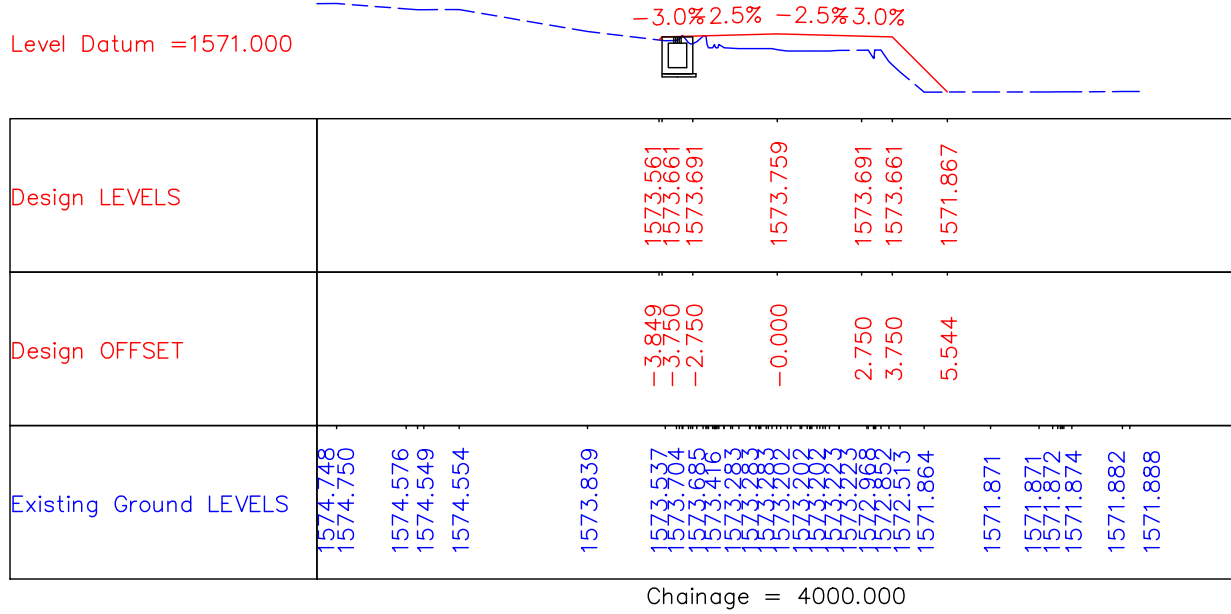
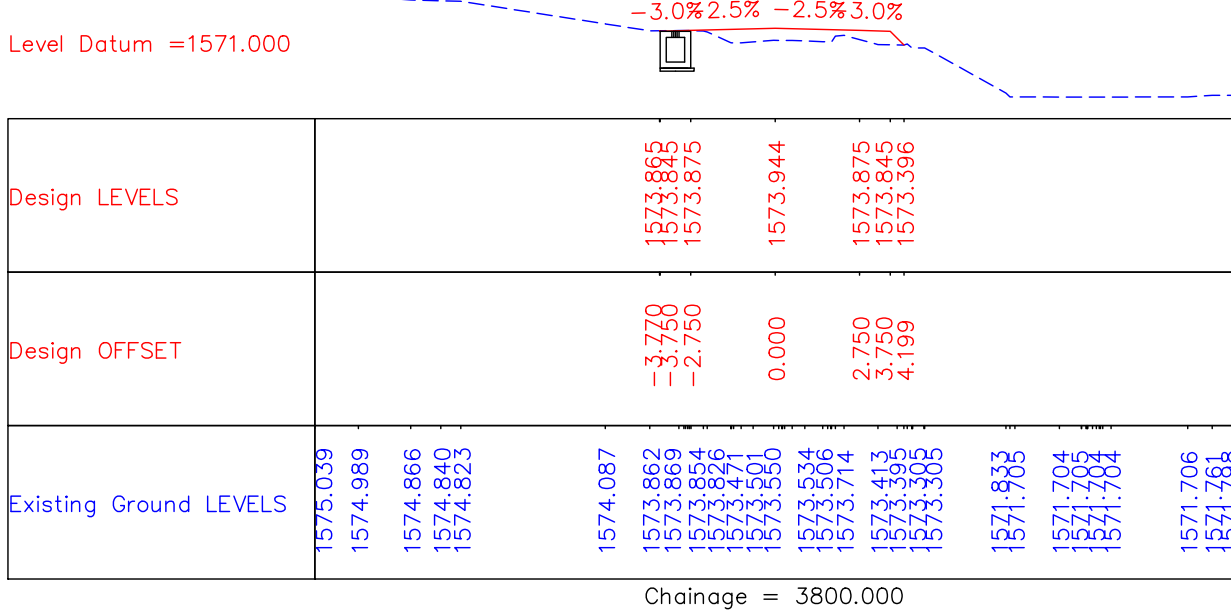
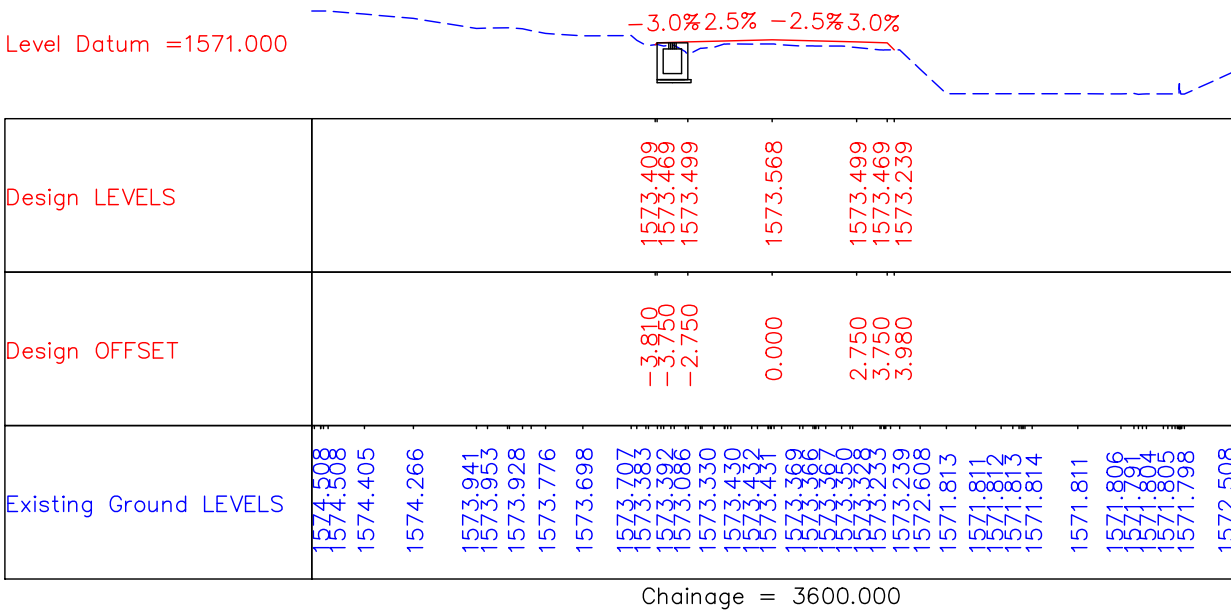
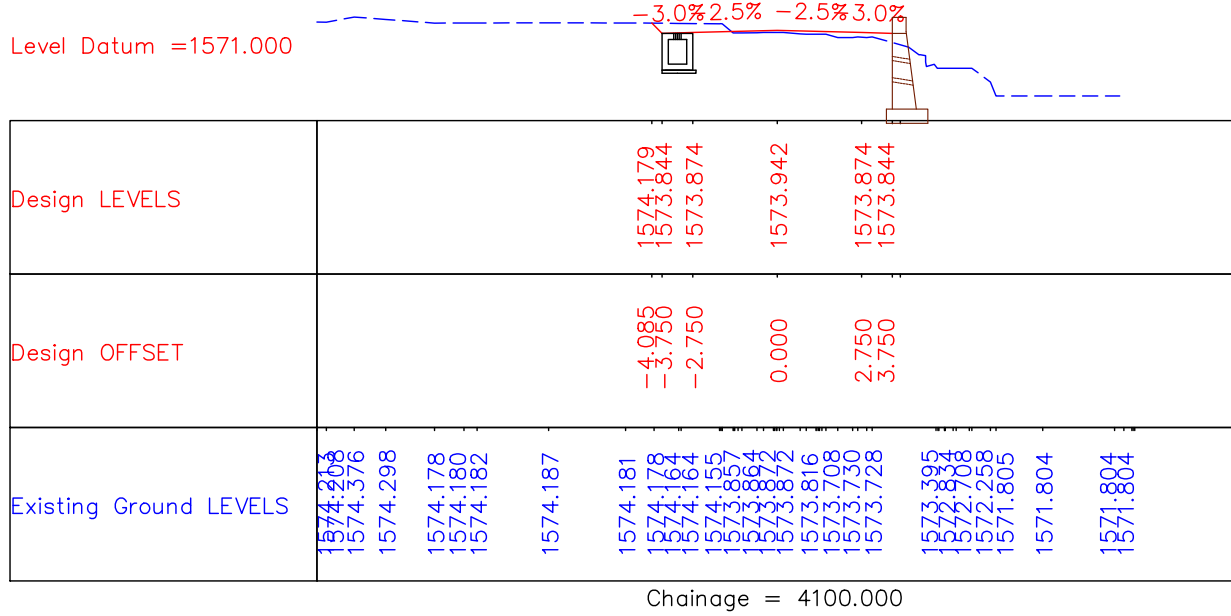
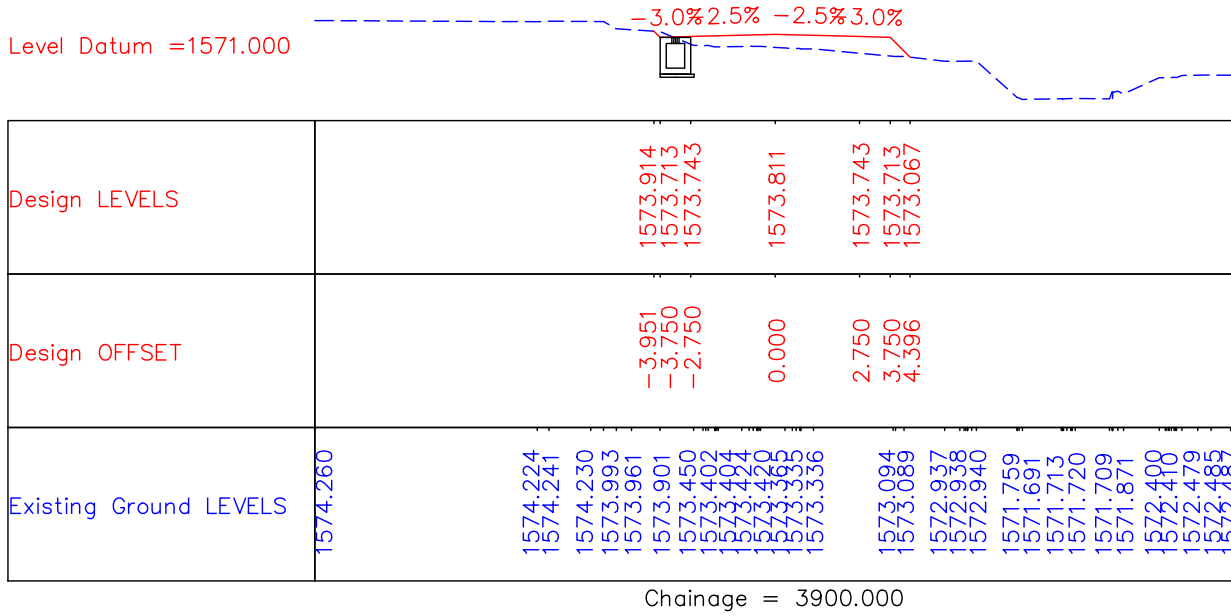
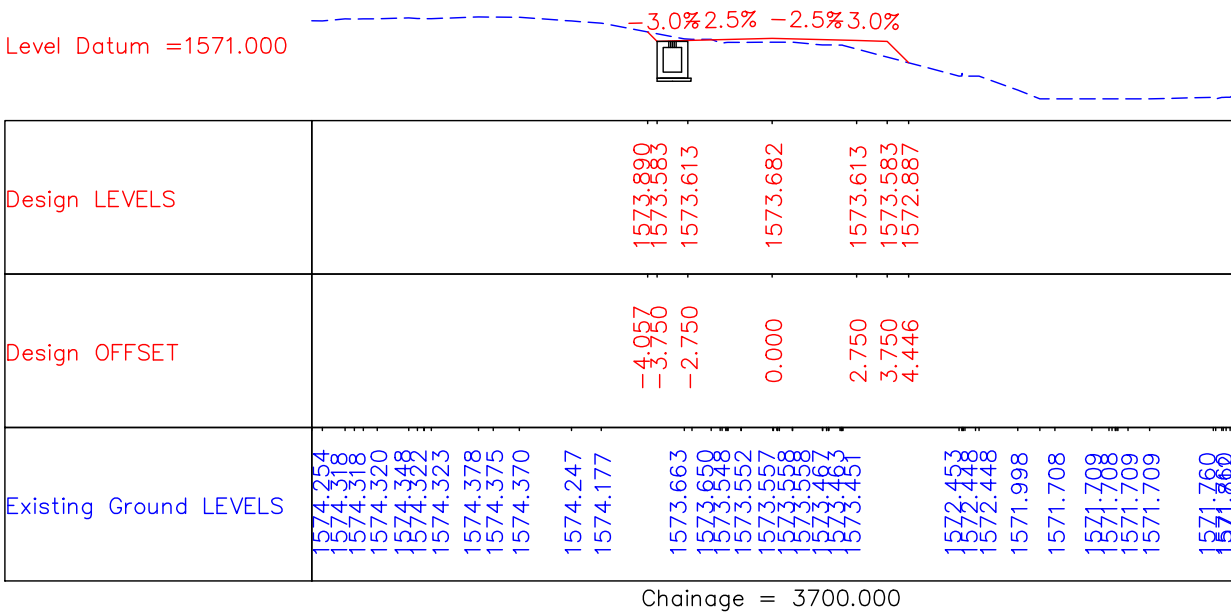
REV.	DATE	DESCRIPTION

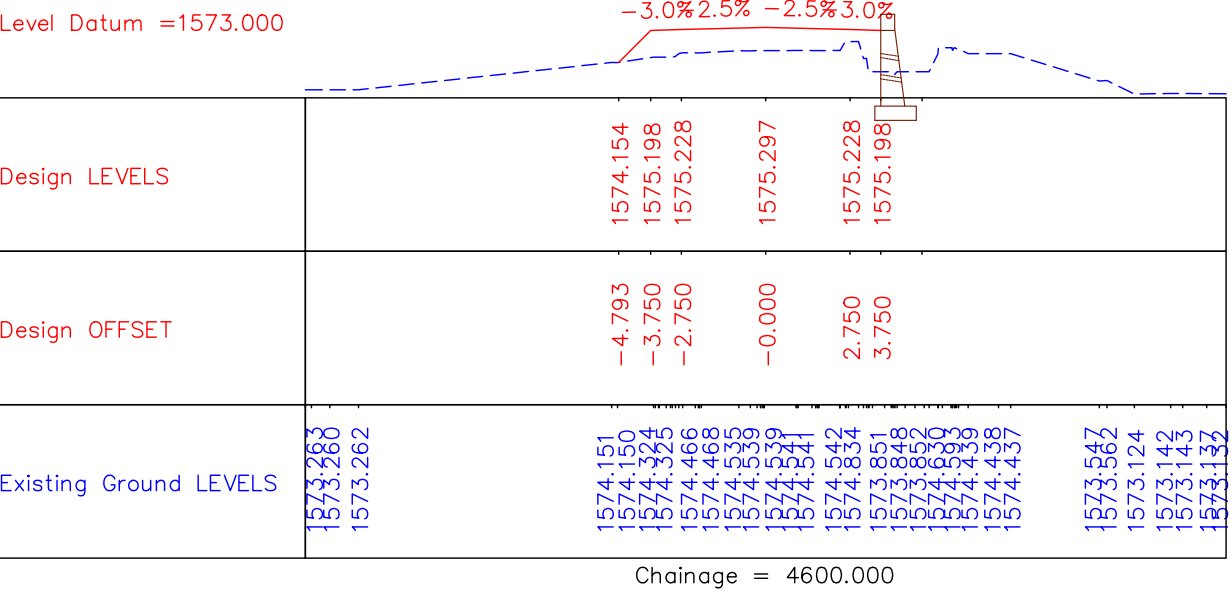
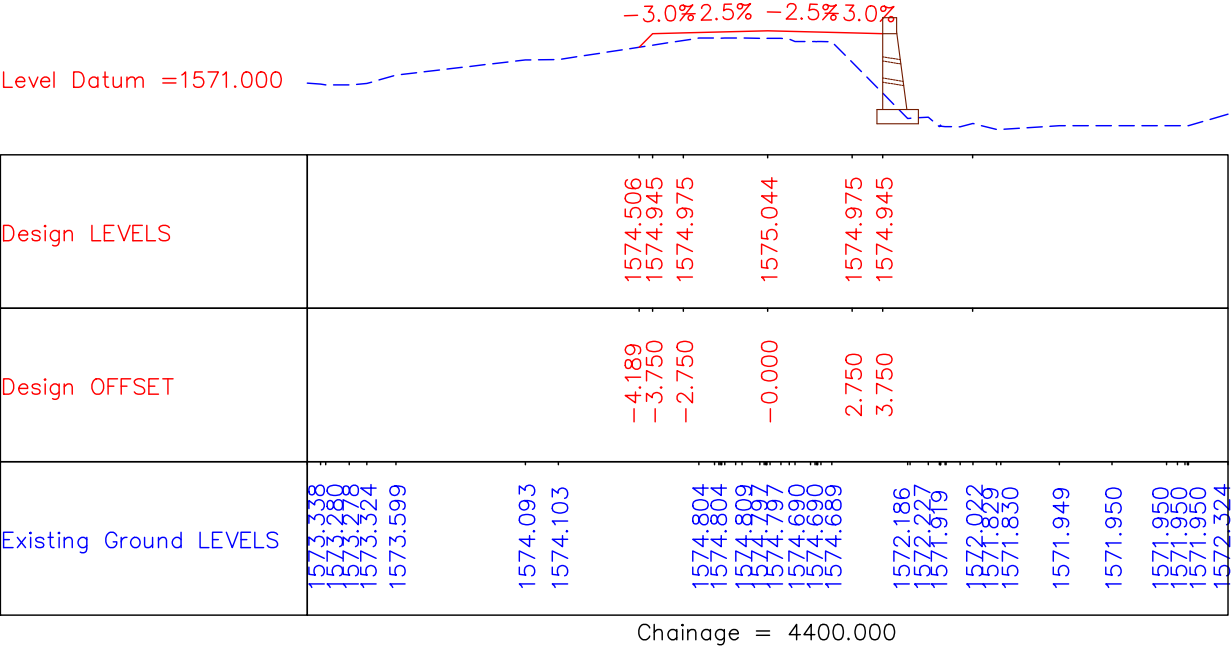
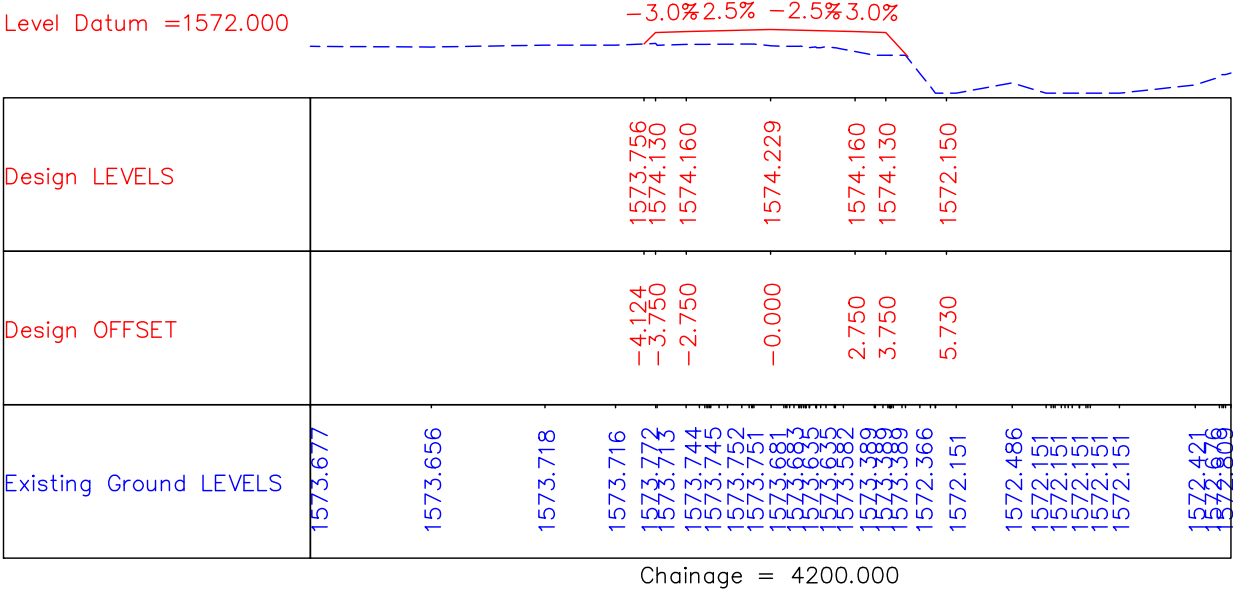
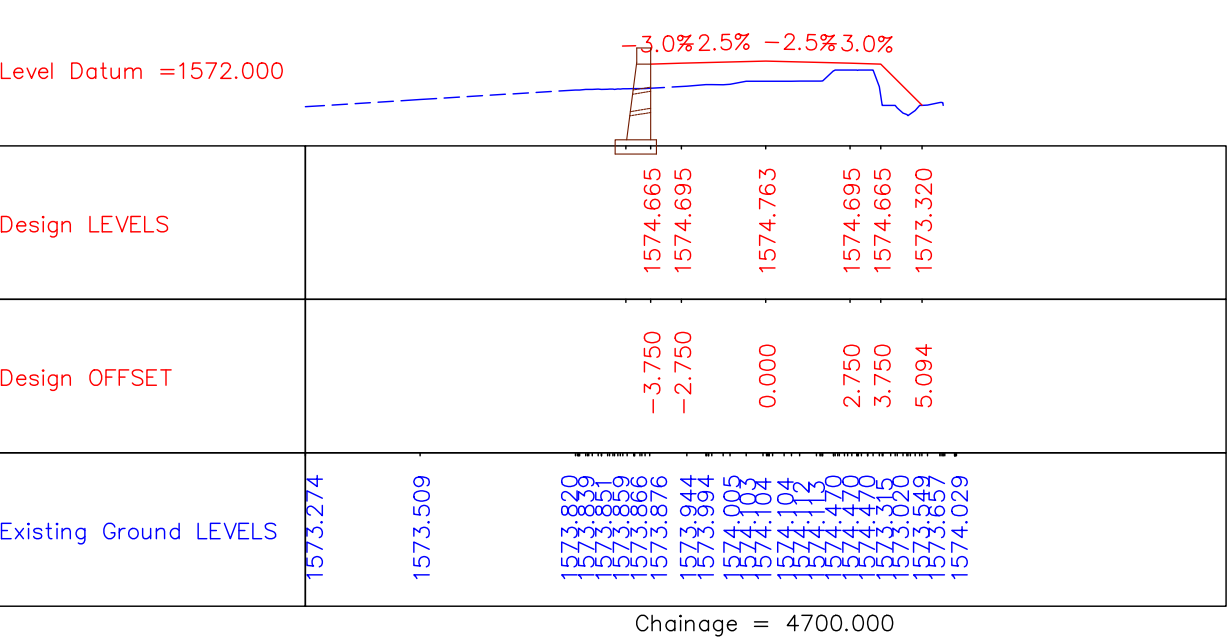
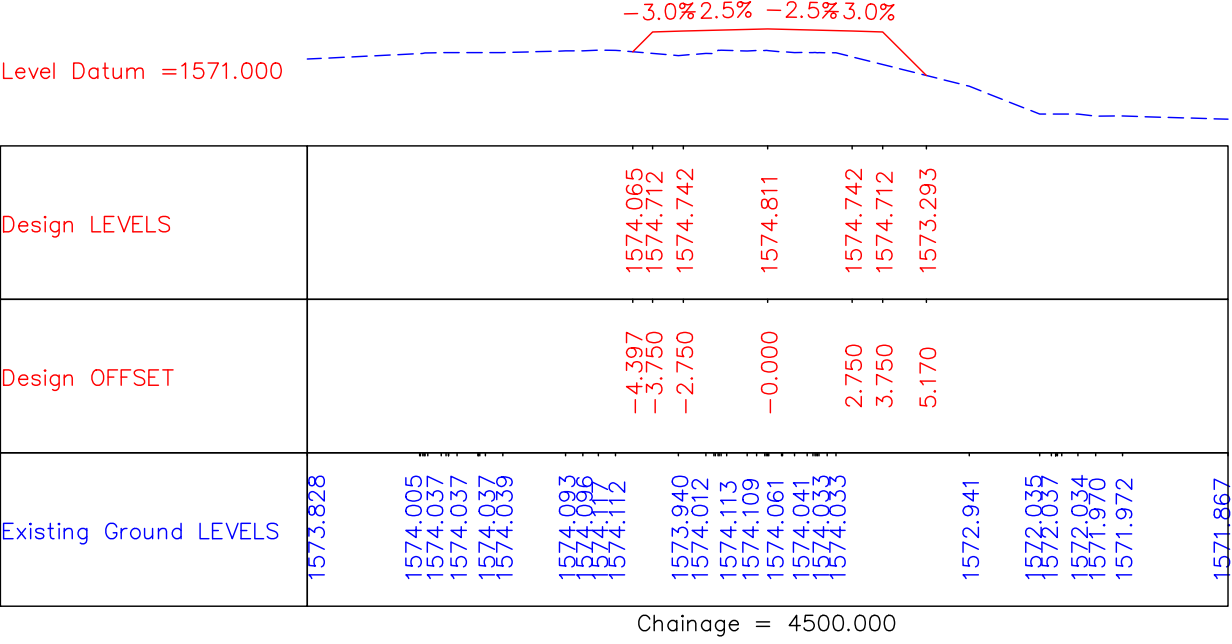
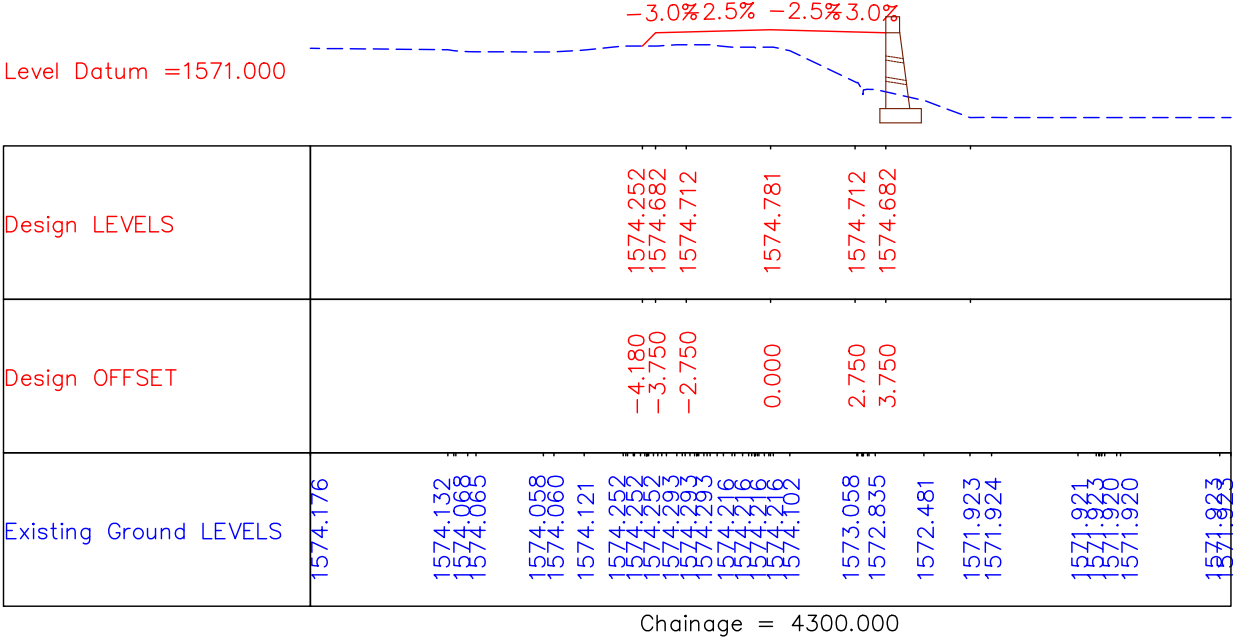
DRAWN BY :	SD
DESIGNED BY :	SCK/MM
APPROVED BY :	KG
SCALE	1 : 250

TITLE : Detailed Cross Section (Ch.0+600 to Ch.1+100)	
DRG. NO. : EPTISA/JTRFP/DPR/J&K/DCS/02	
REVISION : R-1	September 2019









CLIENT :



Jhelum Tawi Flood Recovery Project
2nd Floor ERA Commercial Complex Rambagh
Srinagar-190 009.

PROJECT :

Consultancy Services for Preparing Detailed Project Report
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(Hajin-Ajas via Saidnara in Bandipora District)

DESIGN CONSULTANT:



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Ph: 033-40347200
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REV.	DATE	DESCRIPTION

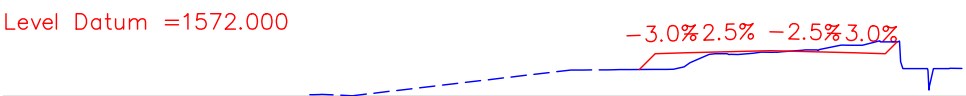
DRAWN BY :	SD
DESIGNED BY :	SCK/MM
APPROVED BY :	KG
SCALE	1 : 250

TITLE : Detailed Cross Section (Ch.4+200 to Ch.4+700)	
DRG. NO. : EPTISA/JTRFP/DPR/J&K/DCS/09	
REVISION : R-1	September 2019



Design LEVELS	
Design OFFSET	
Existing Ground LEVELS	

Chainage = 4900.000



Design LEVELS	
Design OFFSET	
Existing Ground LEVELS	

Chainage = 5100.000



Design LEVELS	
Design OFFSET	
Existing Ground LEVELS	

Chainage = 5300.000



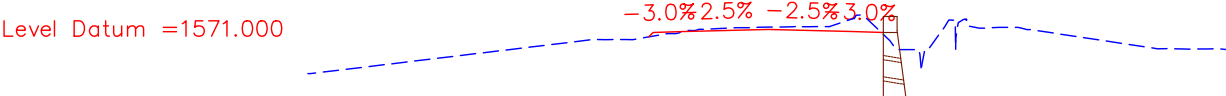
Design LEVELS	
Design OFFSET	
Existing Ground LEVELS	

Chainage = 4800.000



Design LEVELS	
Design OFFSET	
Existing Ground LEVELS	

Chainage = 5000.000



Design LEVELS	
Design OFFSET	
Existing Ground LEVELS	

Chainage = 5200.000

CLIENT :



Jhelum Tawi Flood Recovery Project
2nd Floor ERA Commercial Complex Rambagh
Srinagar-190 009.

PROJECT :

Consultancy Services for Preparing Detailed Project Report
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(Hajin-Ajas via Saidnara in Bandipora District)

DESIGN CONSULTANT:

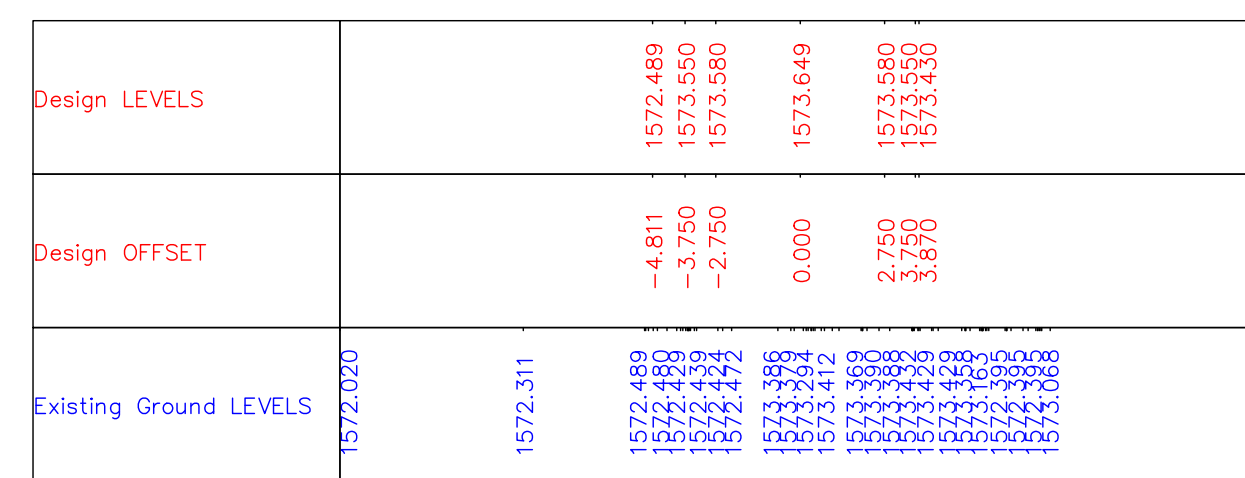
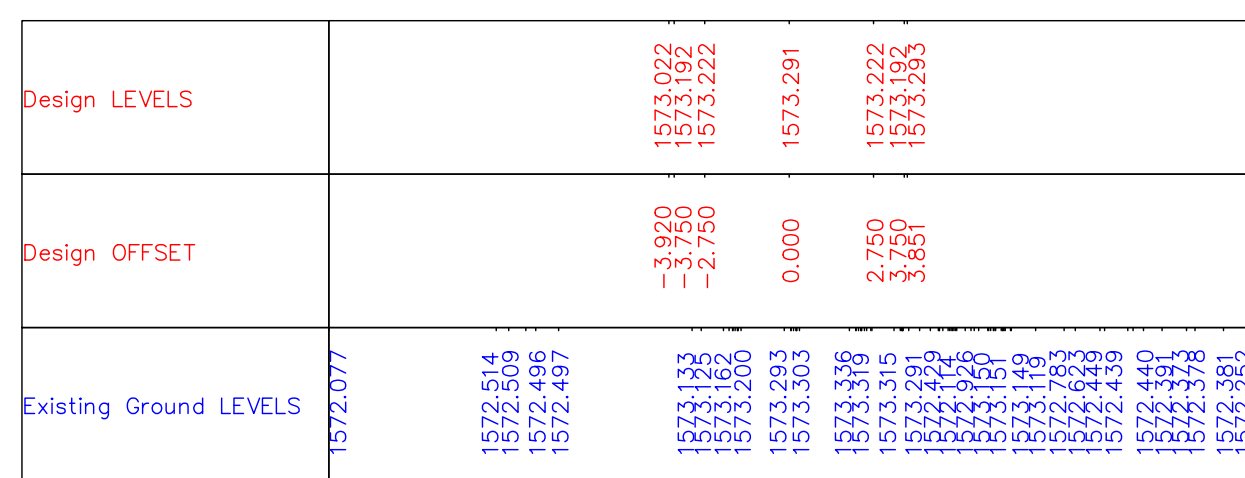
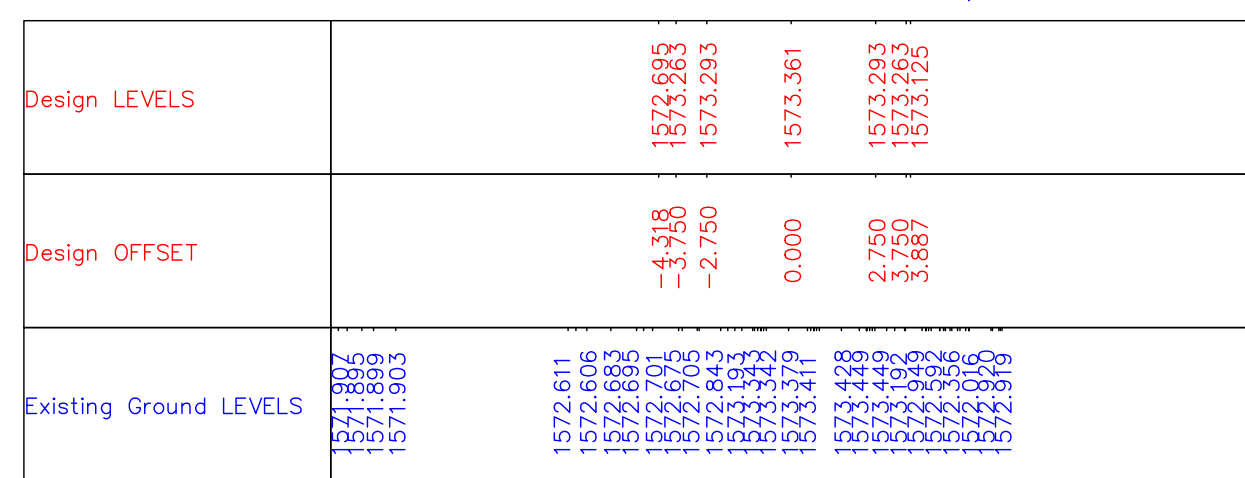
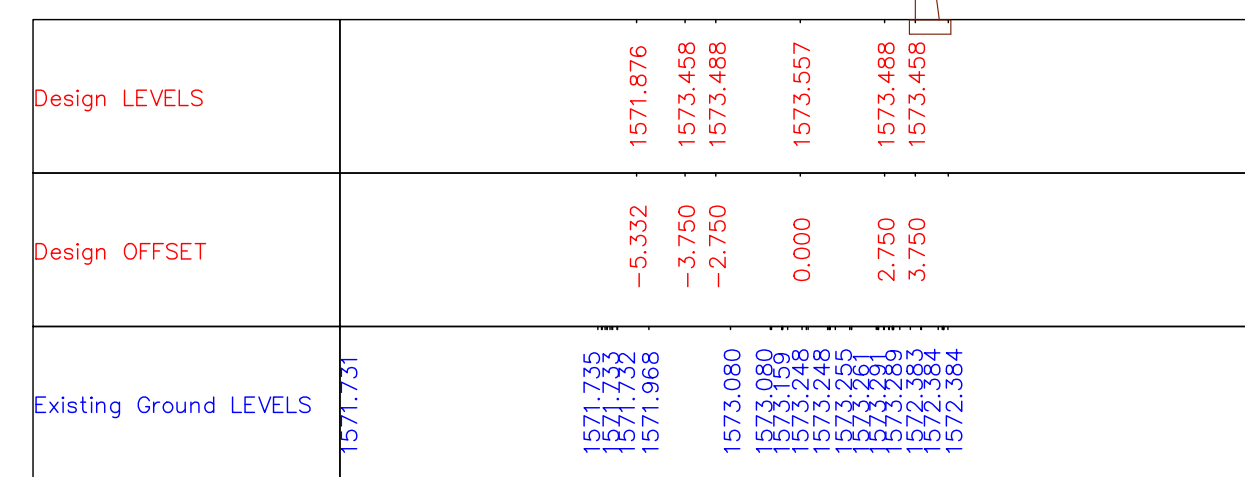
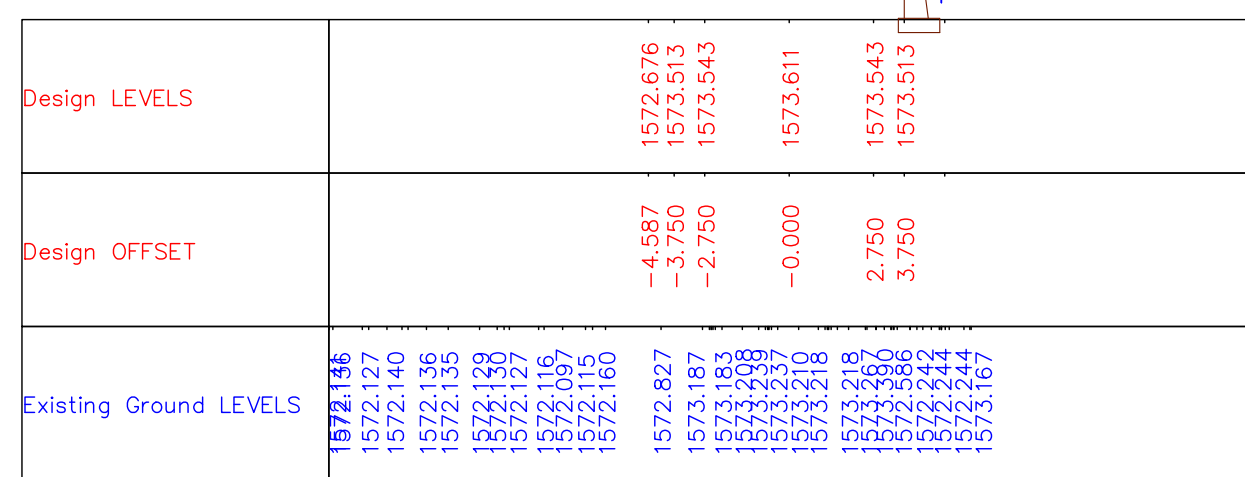
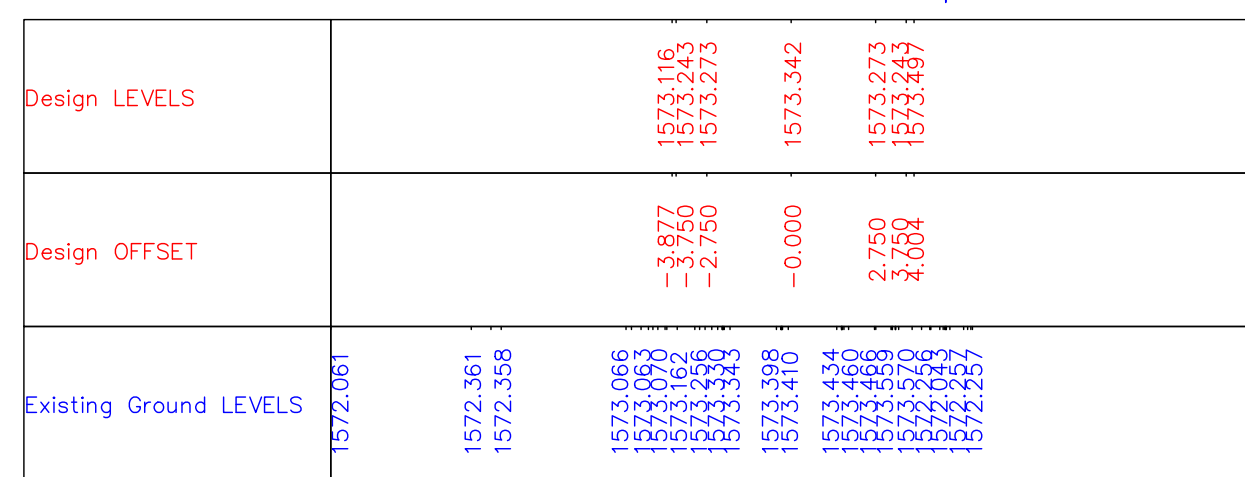


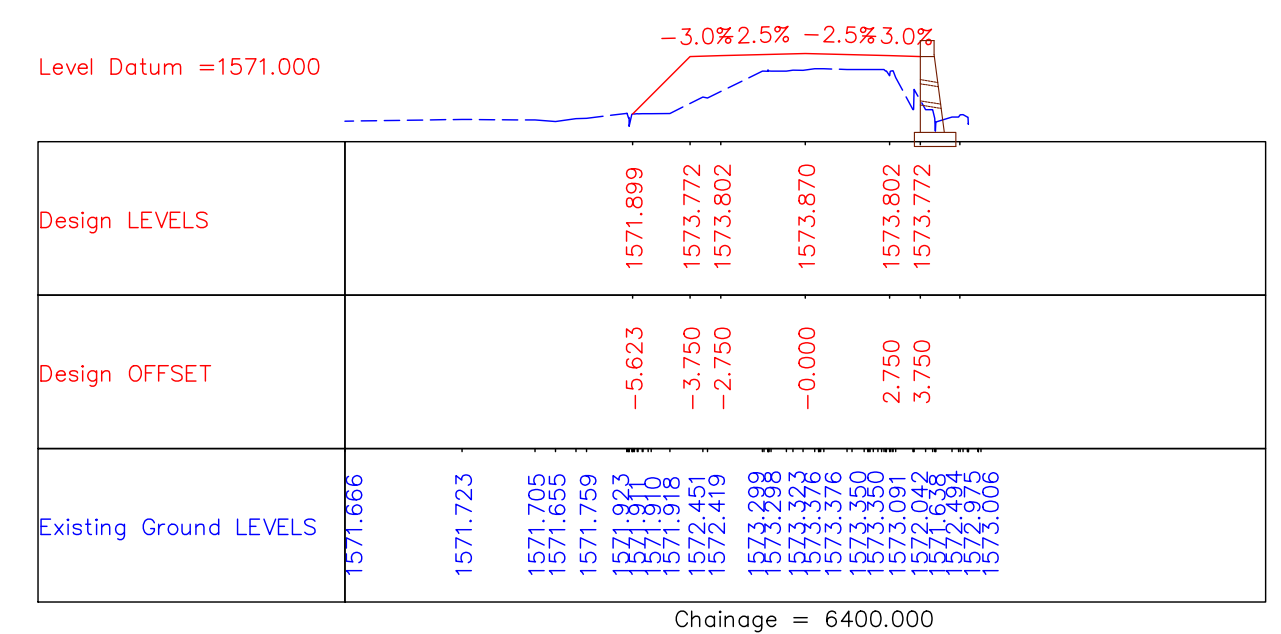
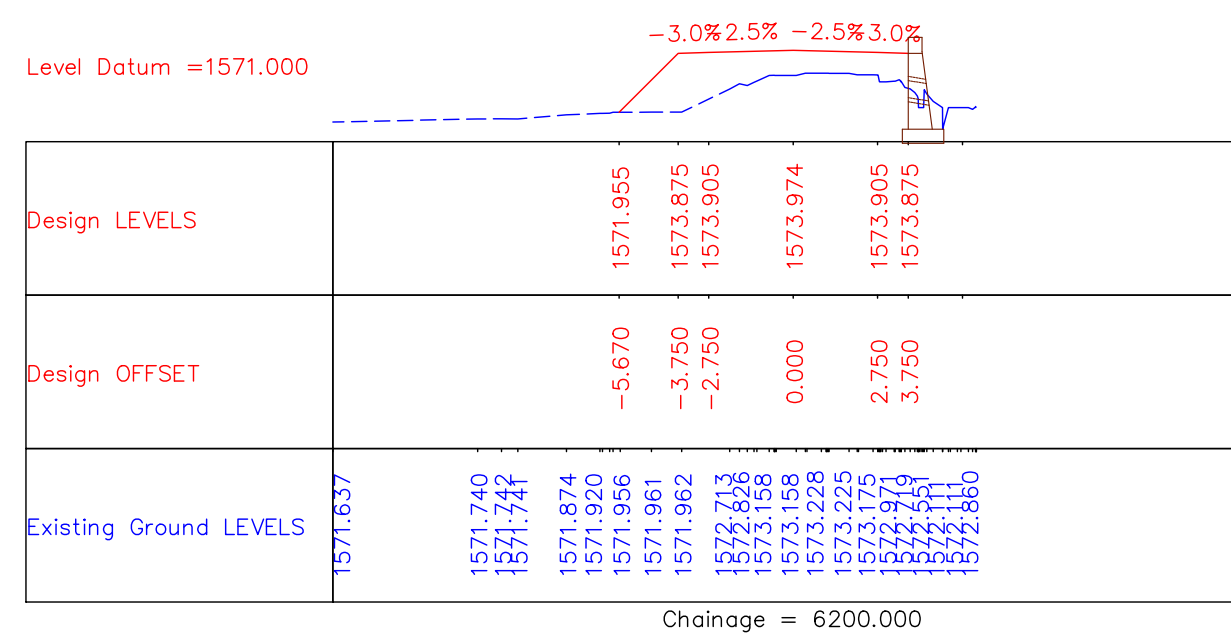
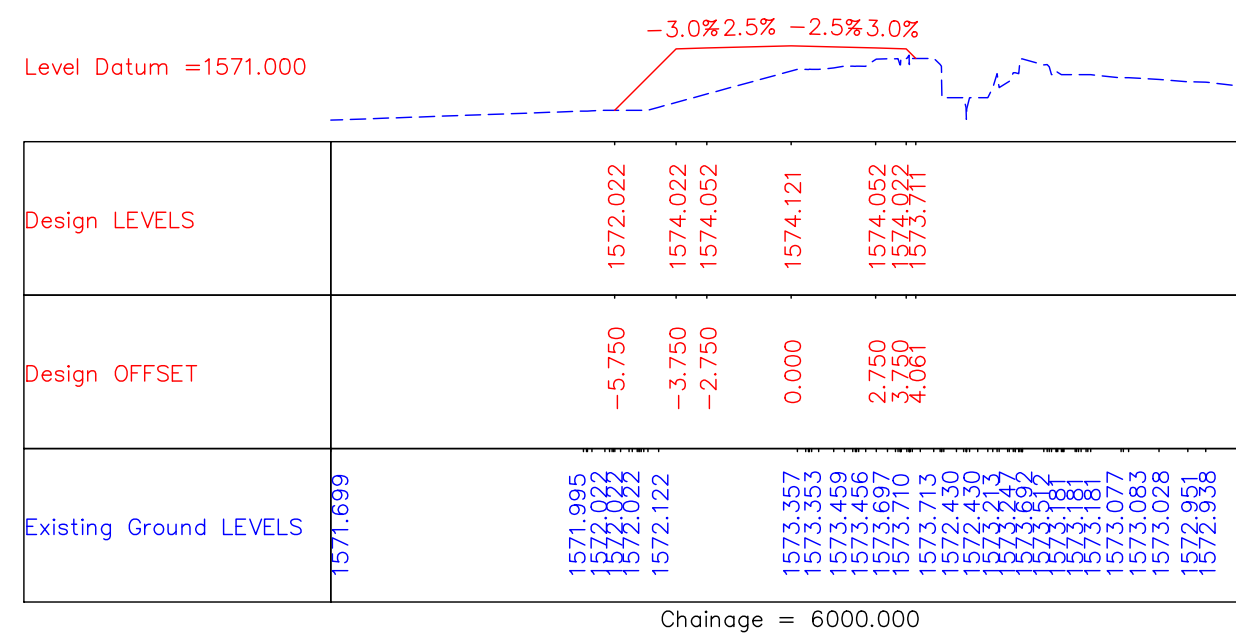
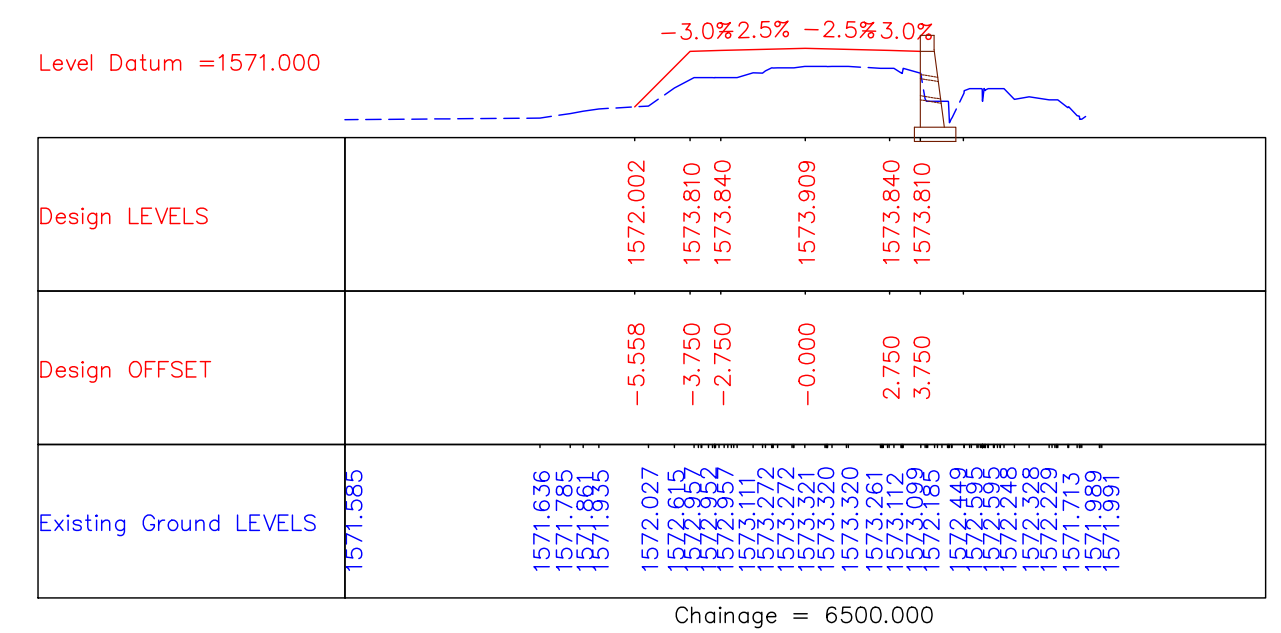
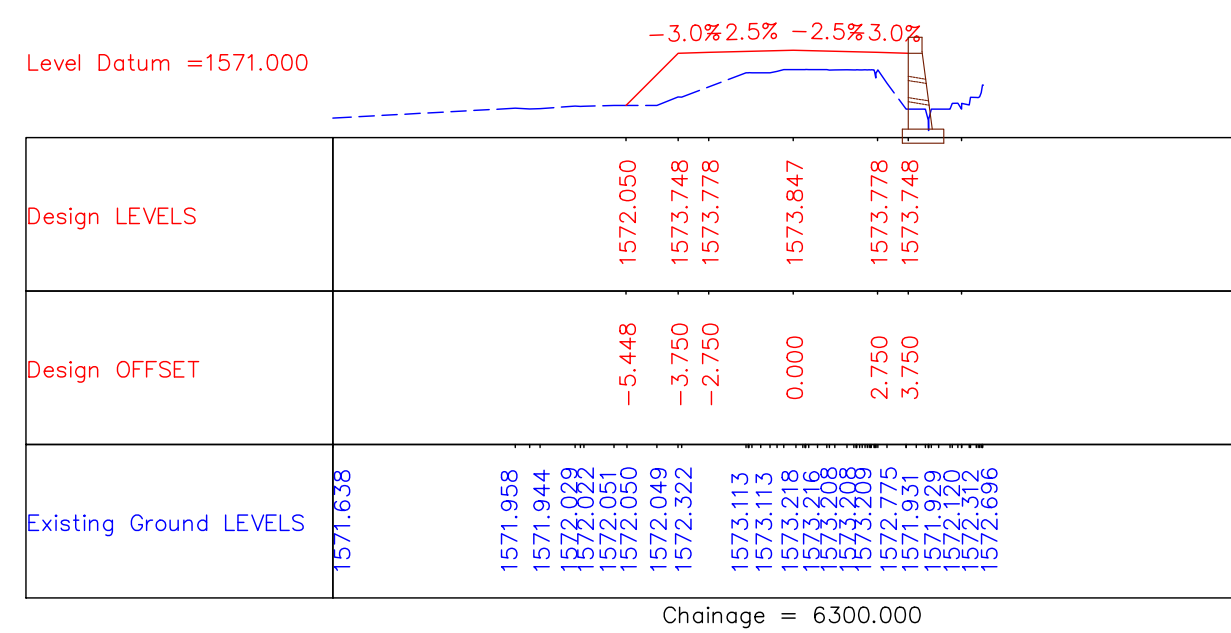
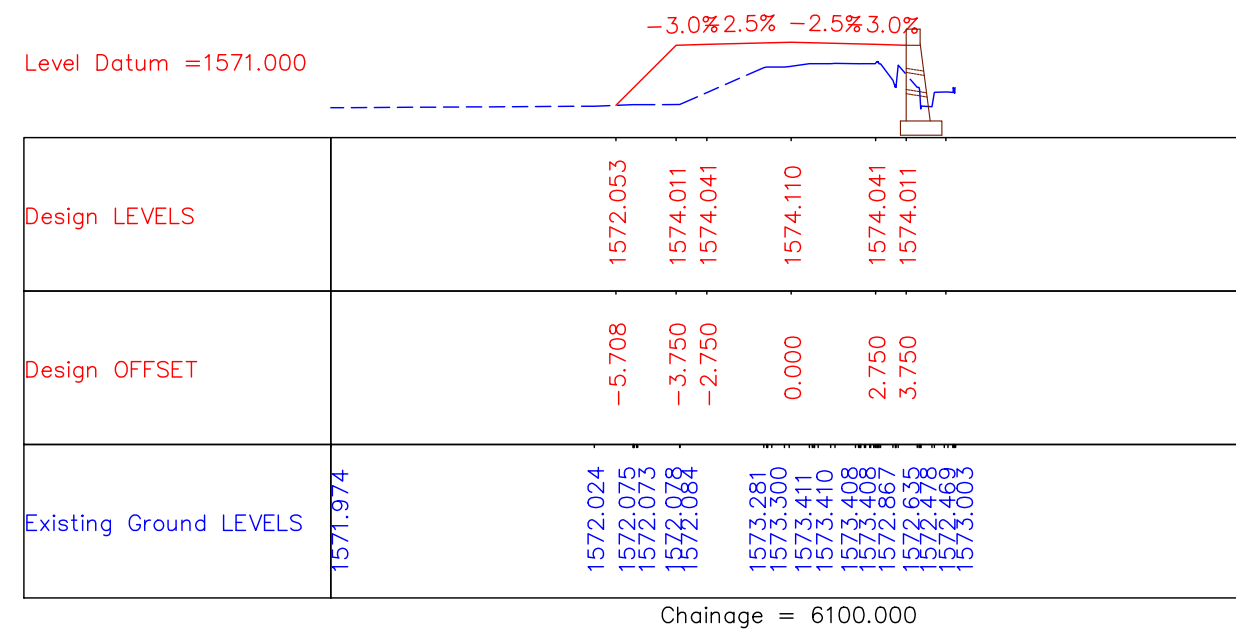
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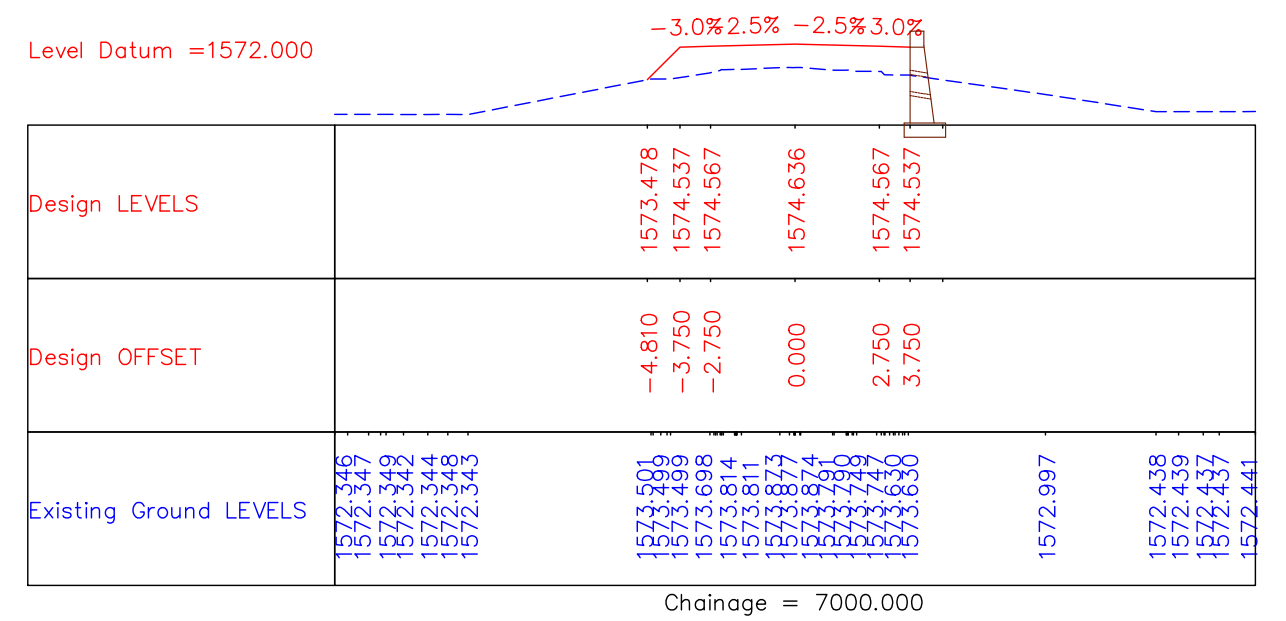
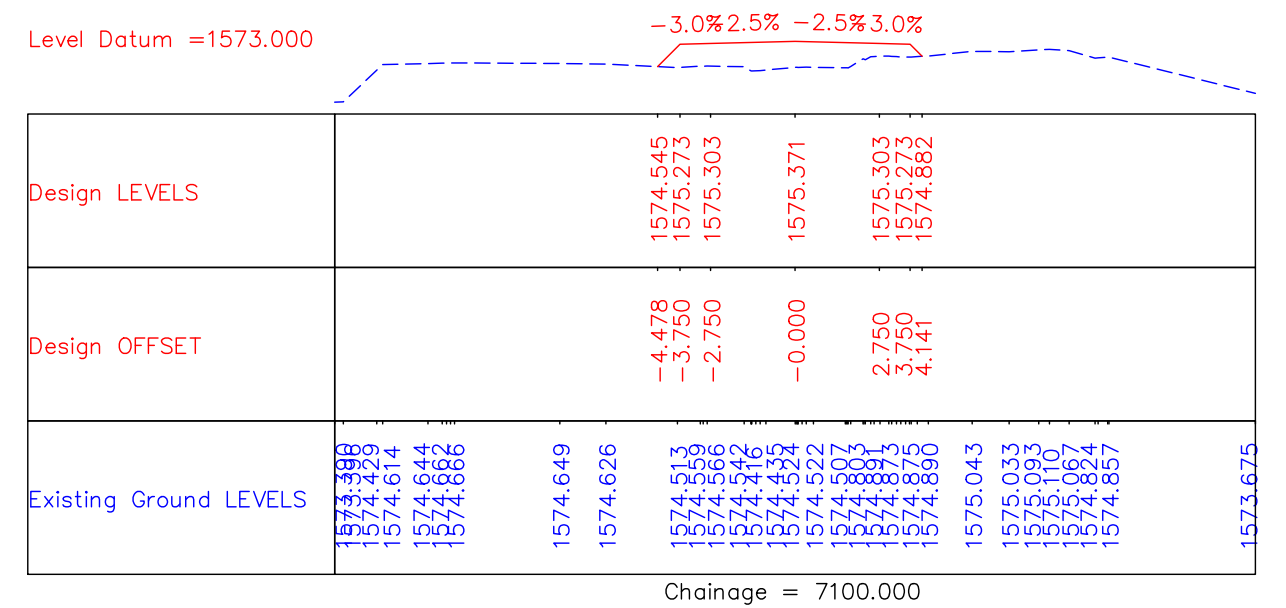
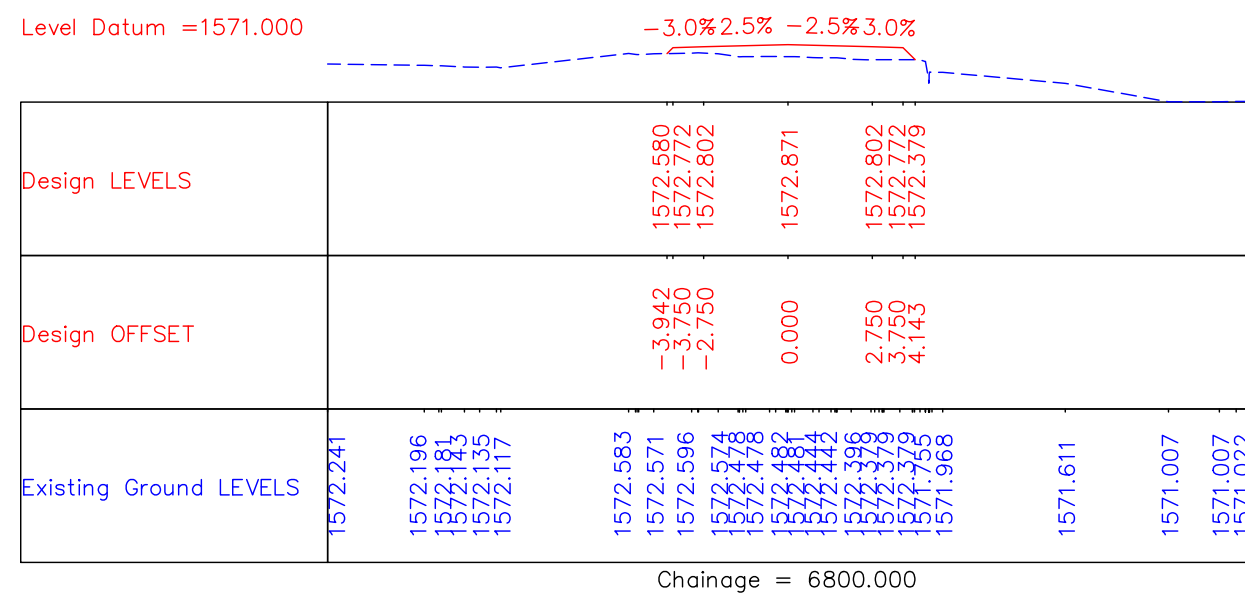
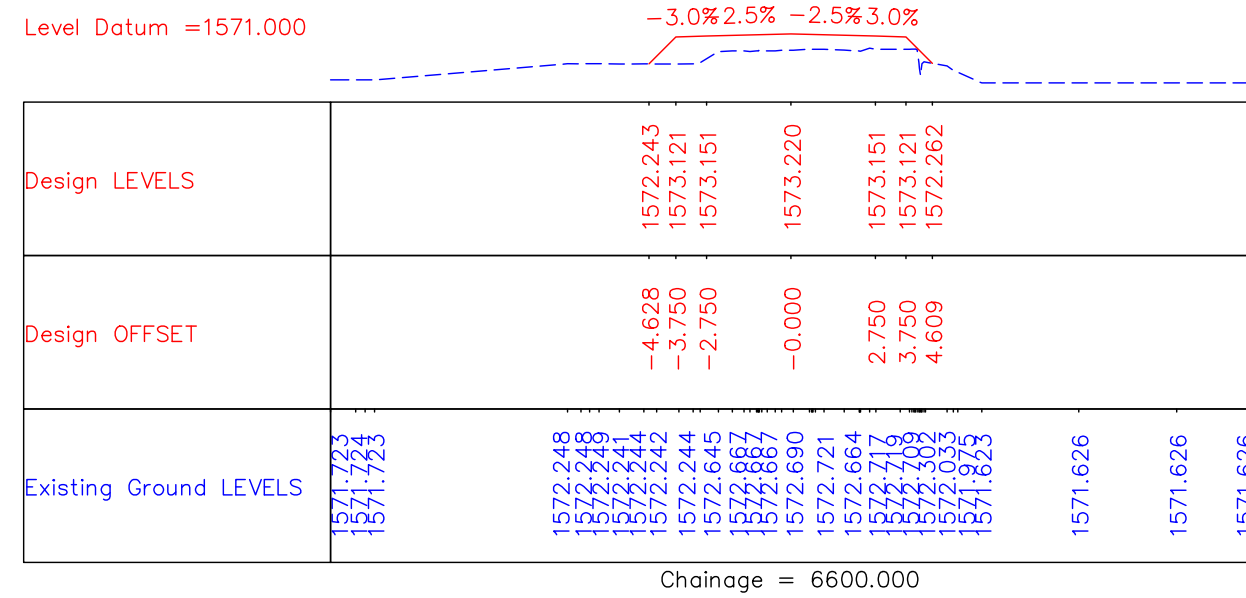
REV.	DATE	DESCRIPTION

DRAWN BY :	SD
DESIGNED BY :	SCK/MM
APPROVED BY :	KG
SCALE	1 : 250

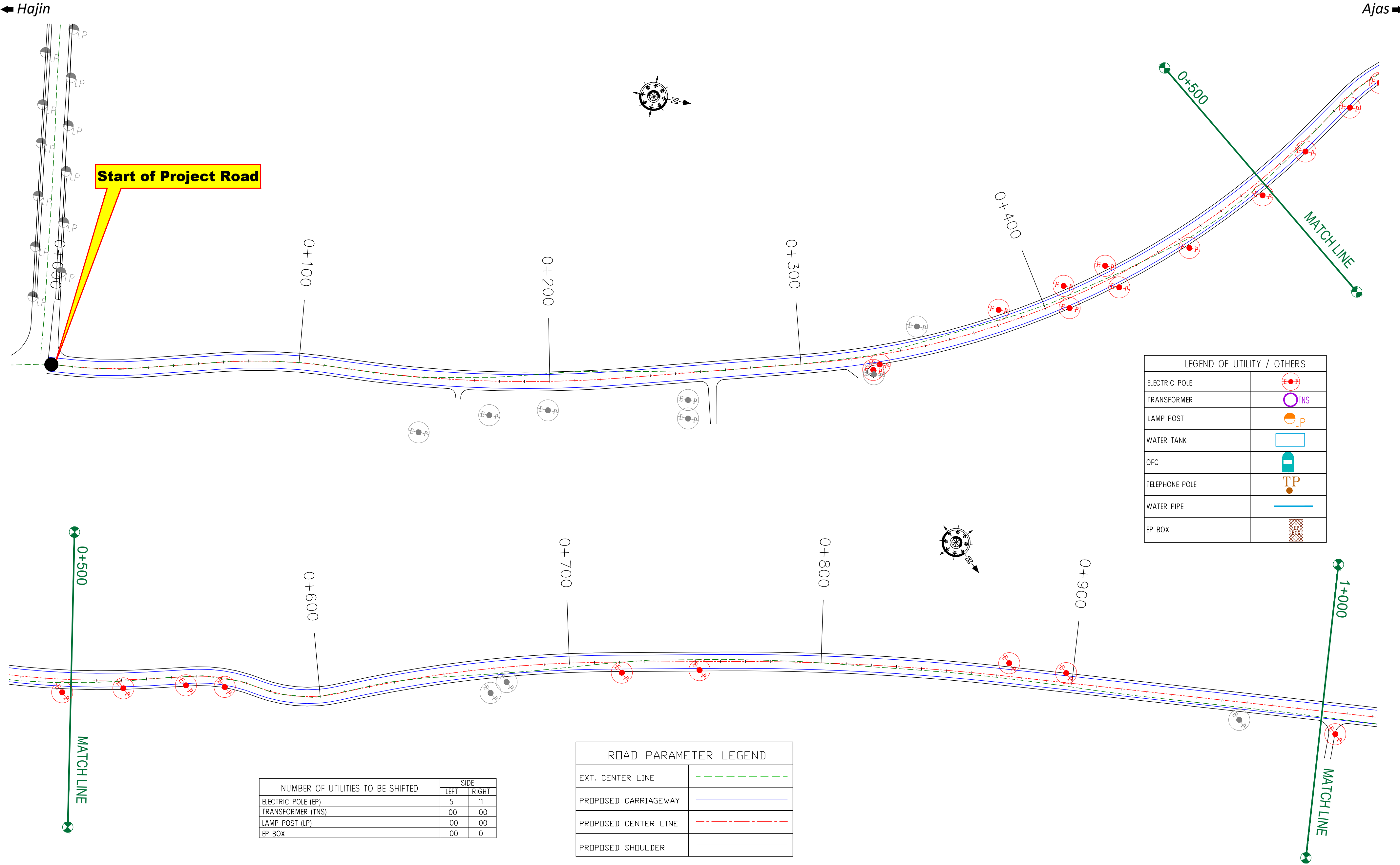
TITLE :	Detailed Cross Section (Ch.4+800 to Ch.5+300)
DRG. NO. :	EPTISA/JTRFP/DPR/J&K/DCS/09
REVISION : R-1	September 2019







≡ UTILITY RELOCATION PLAN FOR MAIN ROAD (ELECTRICITY DEPARTMENT) ≡



CLIENT : 
Jhelum Tawi Flood Recovery Project
2nd Floor ERA Commercial Complex Rambagh
Srinagar-190 009.

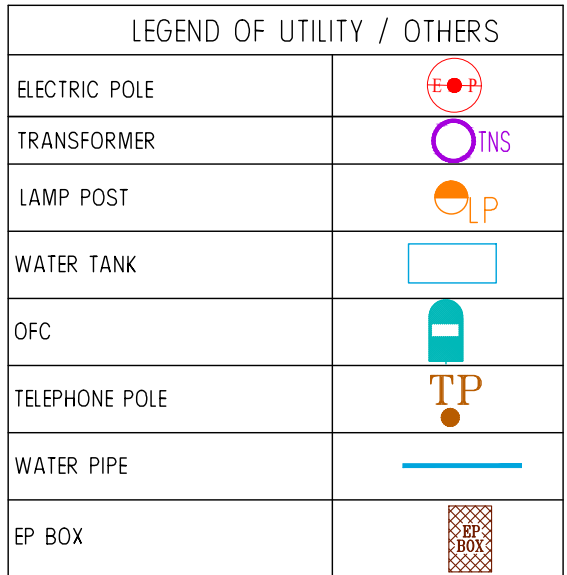
PROJECT :
Consultancy Services for Preparing Detailed Project Report
for the Road works in Jammu and Kashmir
(Hajin-Ajas via Saidnara in Bandipora District)

DESIGN CONSULTANT:
 **servicios de Ingenieria S.L.**
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REV.	DATE	DESCRIPTION

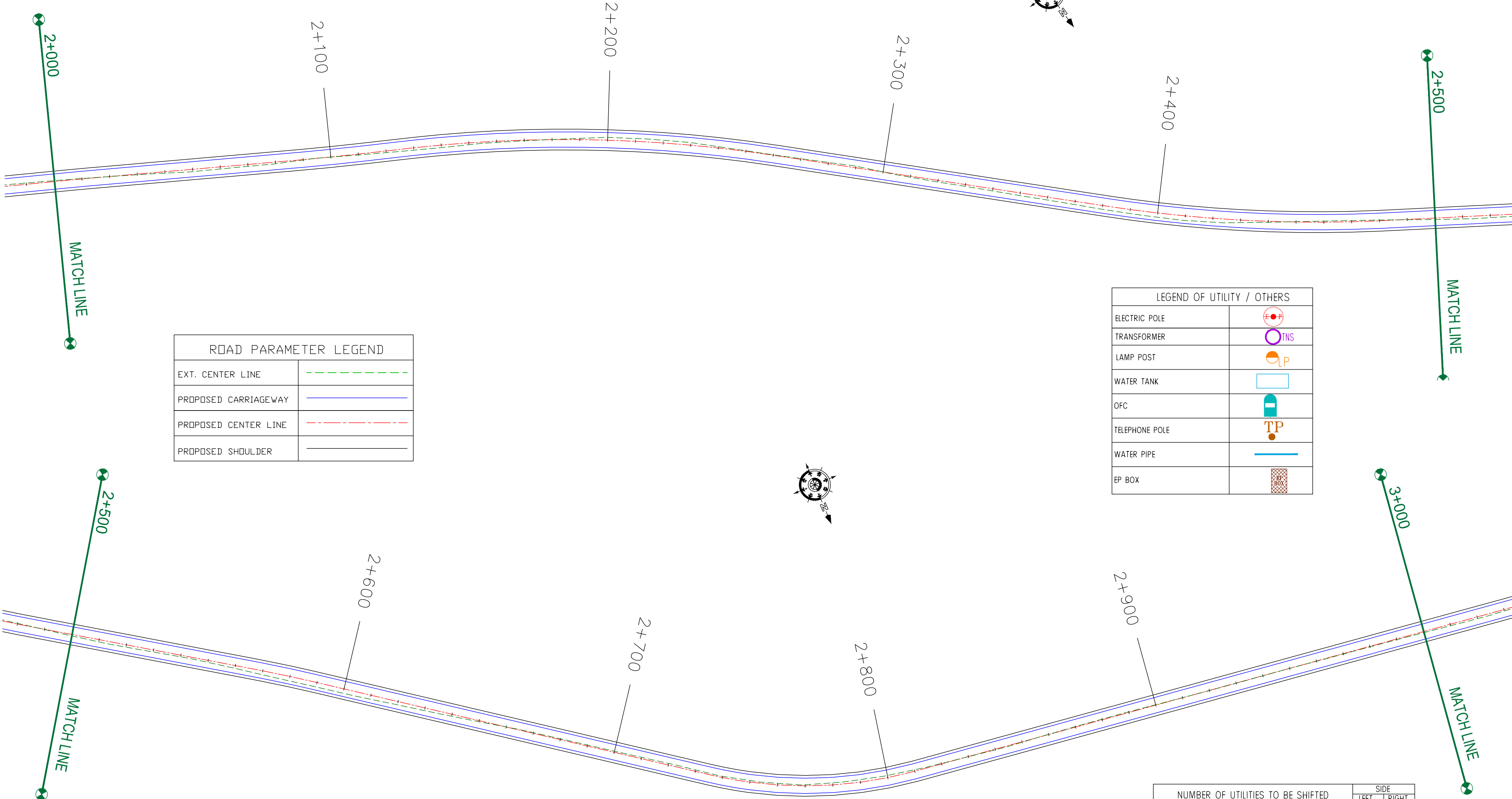
DRAWN BY :	SD
DESIGNED BY :	SCK/MM
APPROVED BY :	KG
SCALE :	1:1000

TITLE : Utility Relocation Plan (For Electricity Department) (Ch. 0+000 to Ch. 1+000)	
DRG. NO. : EPTISA/JTFRP/DPR/J&K/URP/01	
REVISION : R-1	September 2019



← Hajin

Ajas →



ROAD PARAMETER LEGEND	
EXT. CENTER LINE	---
PROPOSED CARRIAGEWAY	---
PROPOSED CENTER LINE	---
PROPOSED SHOULDER	---

LEGEND OF UTILITY / OTHERS	
ELECTRIC POLE	
TRANSFORMER	
LAMP POST	
WATER TANK	
OFC	
TELEPHONE POLE	
WATER PIPE	
EP BOX	

NUMBER OF UTILITIES TO BE SHIFTED	SIDE	
	LEFT	RIGHT
ELECTRIC POLE (EP)	0	00
TRANSFORMER (TNS)	00	00
LAMP POST (LP)	00	00
EP BOX	00	0

CLIENT :



Jhelum Tawi Flood Recovery Project
2nd Floor ERA Commercial Complex Rambagh
Srinagar-190 009.

PROJECT :

Consultancy Services for Preparing Detailed Project Report
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DESIGN CONSULTANT:

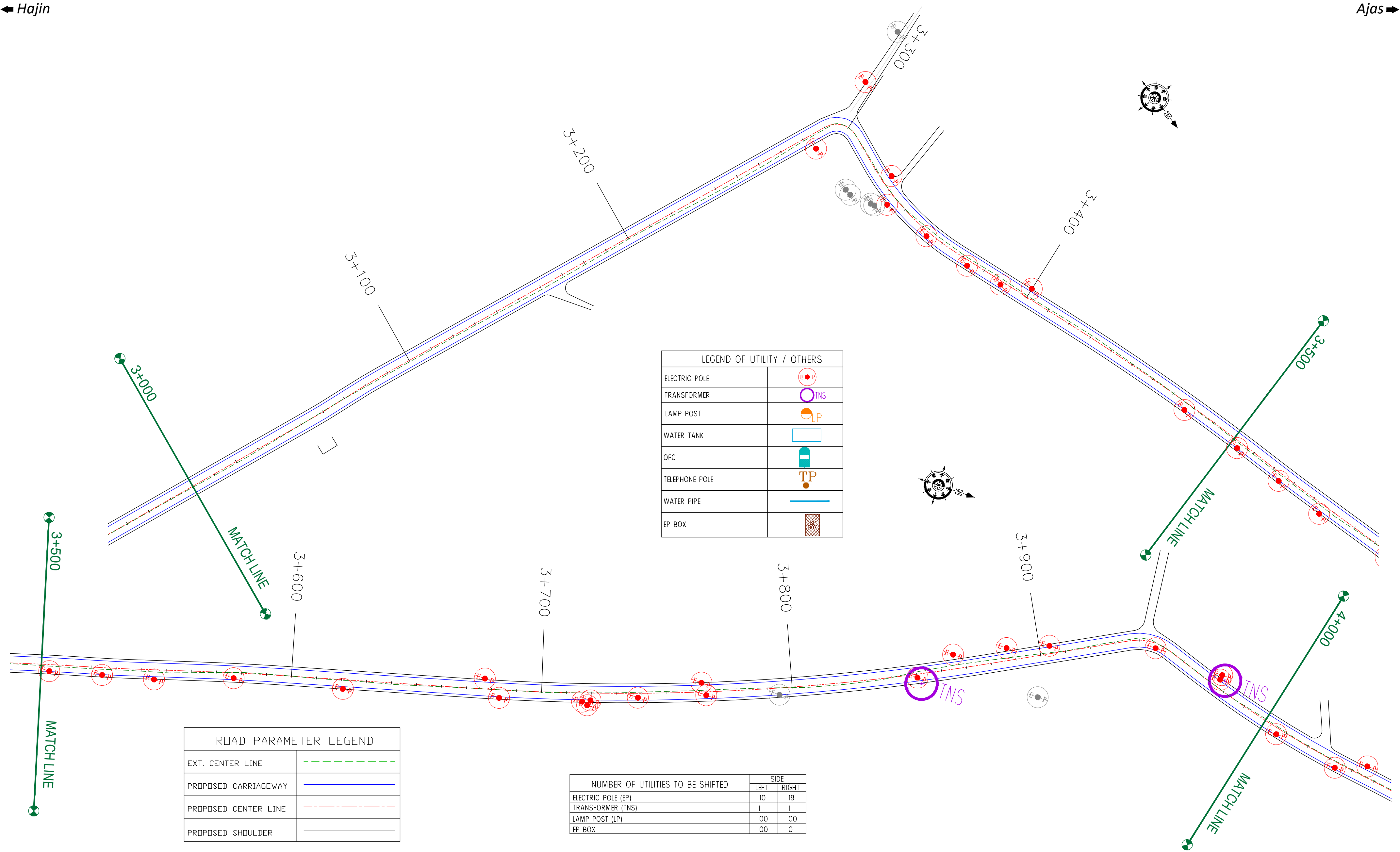


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REV.	DATE	DESCRIPTION

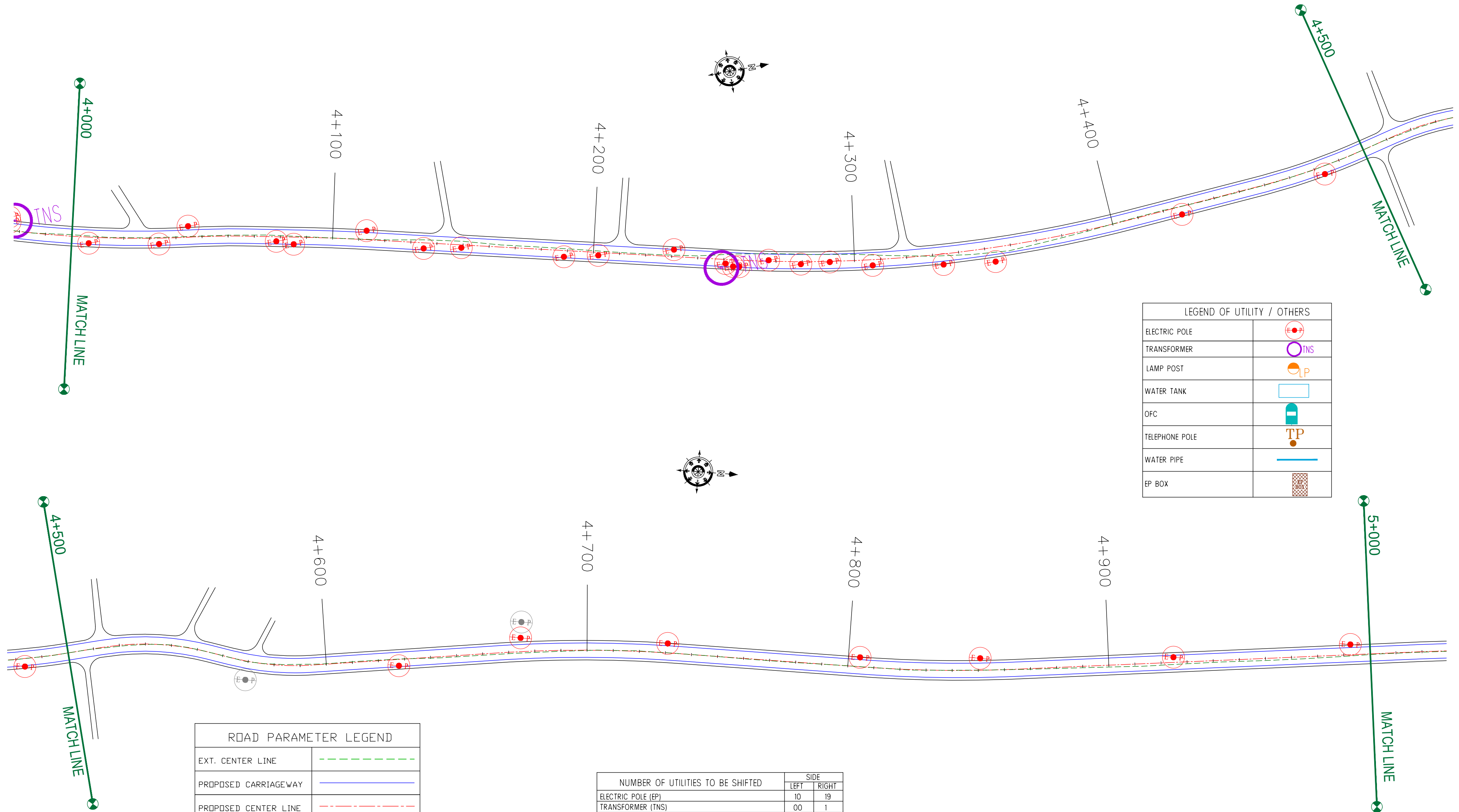
DRAWN BY :	SD
DESIGNED BY :	SCK/MM
APPROVED BY :	KG
SCALE :	1:1000

TITLE :	Utility Relocation Plan (For Electricity Department) (Ch. 2+000 to Ch. 3+000)	
DRG. NO. :	EPTISA/JTRFP/DPR/J&K/URP/03	
REVISION : R-1	September 2019	



← Hajin

Ajas →



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Jhelum Tawi Flood Recovery Project
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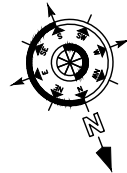
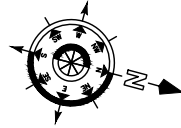
REV.	DATE	DESCRIPTION

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DESIGNED BY :	SCK/MM
APPROVED BY :	KG
SCALE :	1:1000

TITLE :	Utility Relocation Plan (For Electricity Department) (Ch. 4+000 to Ch. 5+000)
DRG. NO. :	EPTISA/JTRFP/DPR/J&K/URP/05
REVISION : R-1	September 2019

← Hajin

Ajas →



ROAD PARAMETER LEGEND	
EXT. CENTER LINE	
PROPOSED CARRIAGEWAY	
PROPOSED CENTER LINE	
PROPOSED SHOULDER	

LEGEND OF UTILITY / OTHERS	
ELECTRIC POLE	
TRANSFORMER	
LAMP POST	
WATER TANK	
OFC	
TELEPHONE POLE	
WATER PIPE	
EP BOX	

	SIDE	
	LEFT	RIGHT
ELECTRIC POLE (EP)	0	2
TRANSFORMER (TNS)	00	00
LAMP POST (LP)	00	00
EP BOX	00	0

CLIENT :



Jhelum Tawi Flood Recovery Project
2nd Floor ERA Commercial Complex Rambagh
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Ph: 033-40347200
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REV.	DATE	DESCRIPTION
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DRAWN BY :	SD
DESIGNED BY :	SCK/MM
APPROVED BY :	KG
SCALE :	1:1000

TITLE :

Utility Relocation Plan
(For Electricity Department)
(Ch. 5+000 to Ch. 6+000)

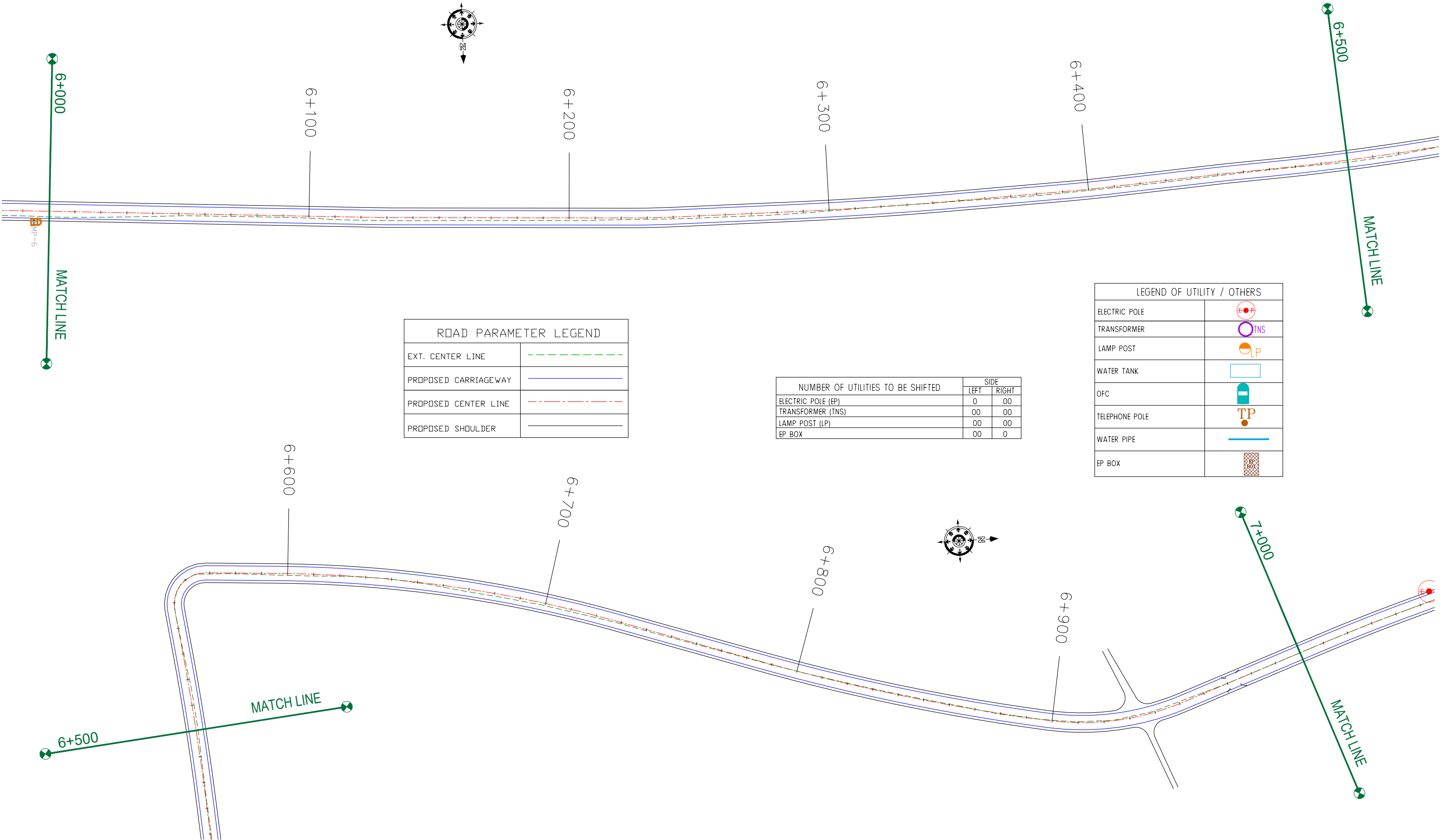
DRG. NO. : EPTISA/JTRFP/DPR/J&K/URP/06

REVISION : R-1

September 2019

← Hajin

Ajas →



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Jhelum Tawi Flood Recovery Project
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DESIGN CONSULTANT:



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Ph: 033-40347200
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REV.	DATE	DESCRIPTION

DRAWN BY : SD

DESIGNED BY : SCK/MM

APPROVED BY : KG

SCALE : 1:1000

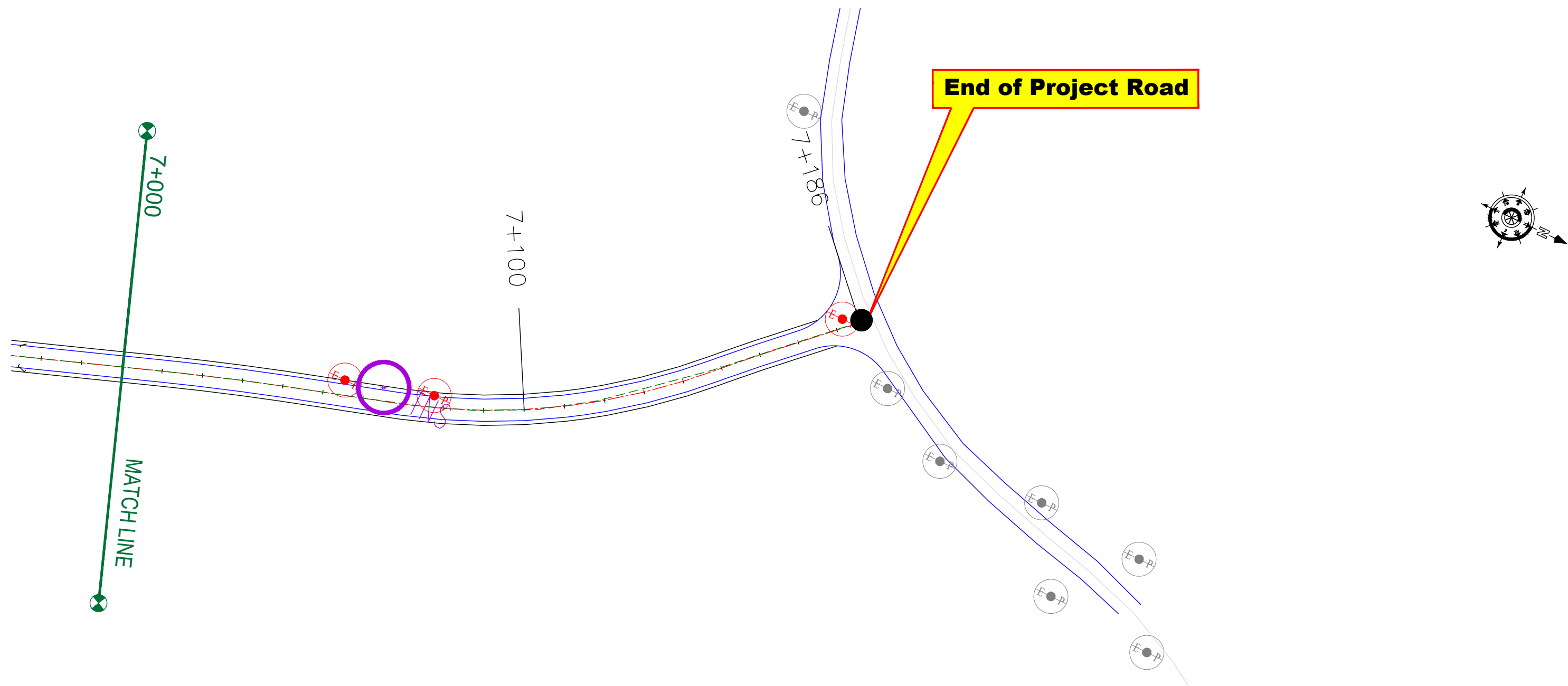
TITLE :

Utility Relocation Plan
(For Electricity Department)
(Ch. 6+000 to Ch. 7+000)

DRG. NO. : EPTISA/JTRFP/DPR/J&K/URP/07

REVISION : R-1

September 2019



ROAD PARAMETER LEGEND	
EXT. CENTER LINE	---
PROPOSED CARRIAGEWAY	---
PROPOSED CENTER LINE	---
PROPOSED SHOULDER	---

NUMBER OF UTILITIES TO BE SHIFTED	SIDE	
	LEFT	RIGHT
ELECTRIC POLE (EP)	3	00
TRANSFORMER (TNS)	1	00
LAMP POST (LP)	00	00
EP BOX	00	0

LEGEND OF UTILITY / OTHERS	
ELECTRIC POLE	
TRANSFORMER	
LAMP POST	
WATER TANK	
OFC	
TELEPHONE POLE	
WATER PIPE	
EP BOX	

CLIENT :



Jhelum Tawi Flood Recovery Project
2nd Floor ERA Commercial Complex Rambagh
Srinagar-190 009.

PROJECT :

Consultancy Services for Preparing Detailed Project Report
for the Road works in Jammu and Kashmir
(Hajin-Ajas via Saidnara in Bandipora District)

DESIGN CONSULTANT:



servicios de Ingenieria S.L.
Unit 1203, 12th Floor, Tower 1, PS Srijan
Corporate Park, Plot No. 2, Block EP & GP,
Sector v, Salt Lake Kolkata - 700091,
West Bengal
Ph: 033-40347200
www.eptisa.com

REV.	DATE	DESCRIPTION
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DRAWN BY :	SD
DESIGNED BY :	SCK/MM
APPROVED BY :	KG
SCALE :	1:1000

TITLE :

Utility Relocation Plan
(For Electricity Department)
(Ch. 7+000 to Ch. 7+186)

DRG. NO. : EPTISA/JTFRP/DPR/J&K/URP/08

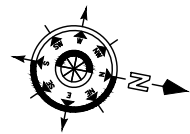
REVISION : R-1

September 2019

≡ UTILITY RELOCATION PLAN FOR MAIN ROAD (TELEPHONE DEPARTMENT) ≡

← Hajin

Ajas →



Start of Project Road

0+100

0+200

0+300

0+400

0+500

MATCH LINE

LEGEND OF UTILITY / OTHERS	
ELECTRIC POLE	
TRANSFORMER	
LAMP POST	
WATER TANK	
OFC	
TELEPHONE POLE	
WATER PIPE	
EP BOX	

0+600

0+700

0+800

0+900

1+000

MATCH LINE

MATCH LINE

ROAD PARAMETER LEGEND	
EXT. CENTER LINE	
PROPOSED CARRIAGEWAY	
PROPOSED CENTER LINE	
PROPOSED SHOULDER	

NUMBER OF UTILITIES TO BE SHIFTED	SIDE	
	LEFT	RIGHT
TELEPHONE POLE (TP)	0	0
OFC	0	1

CLIENT :



Jhelum Tawi Flood Recovery Project
2nd Floor ERA Commercial Complex Rambagh
Srinagar-190 009.

PROJECT :

Consultancy Services for Preparing Detailed Project Report
for the Road works in Jammu and Kashmir
(Hajin-Ajas via Saidnara in Bandipora District)

DESIGN CONSULTANT:



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Sector v, Salt Lake Kolkata - 700091,
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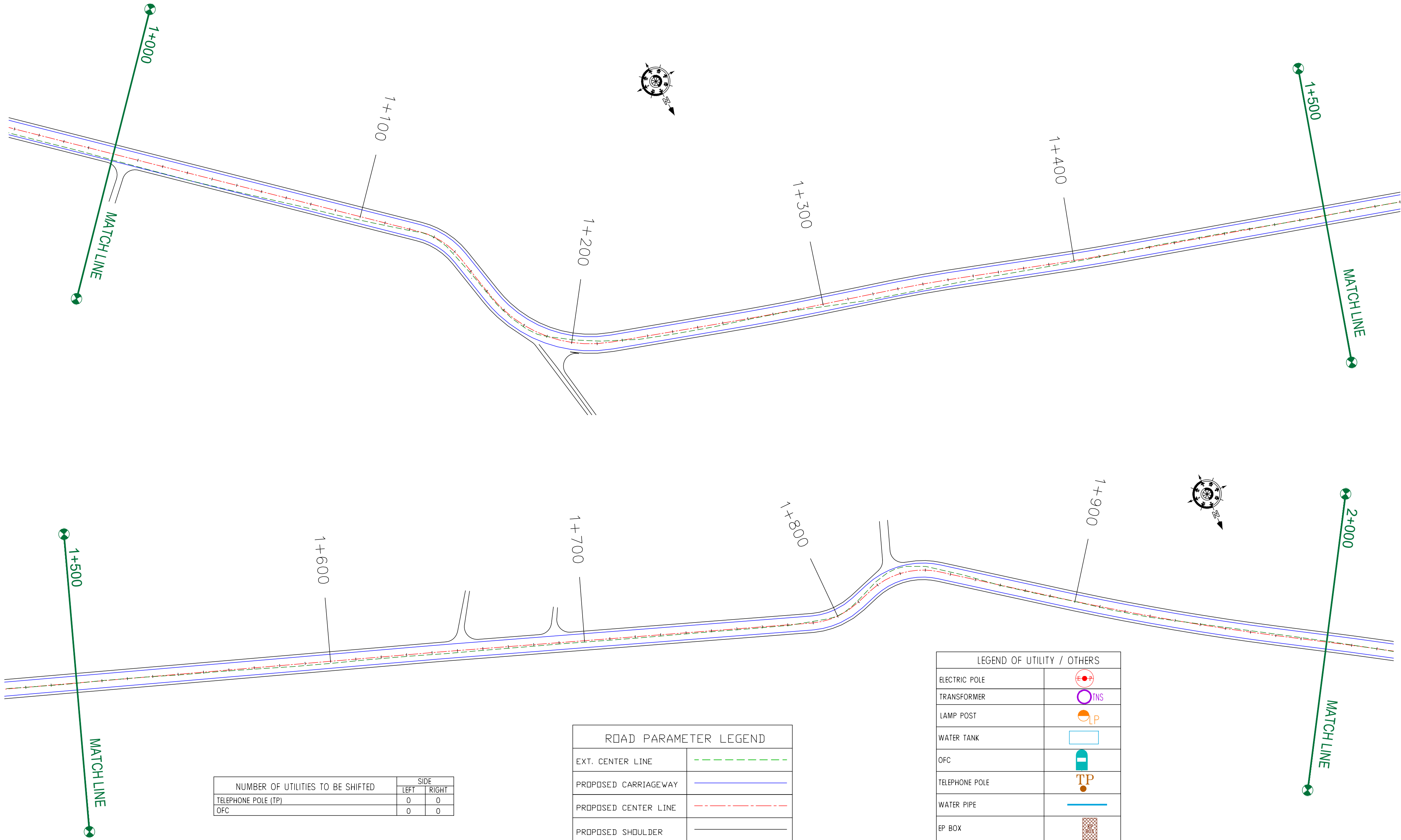
REV.	DATE	DESCRIPTION

DRAWN BY :	SD
DESIGNED BY :	SCK/MM
APPROVED BY :	KG
SCALE :	1:1000

TITLE : Utility Relocation Plan (For Telephone Department) (Ch. 0+000 to Ch. 1+000)	
DRG. NO. : EPTISA/JTFRP/DPR/J&K/URP/01	
REVISION : R-1	September 2019

← Hajin

Ajas →



CLIENT :



Jhelum Tawi Flood Recovery Project
2nd Floor ERA Commercial Complex Rambagh
Srinagar-190 009.

PROJECT :

Consultancy Services for Preparing Detailed Project Report
for the Road works in Jammu and Kashmir
(Hajin-Ajas via Saidnara in Bandipora District)

DESIGN CONSULTANT:



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Sector v, Salt Lake Kolkata - 700091,
West Bengal
Ph: 033-40347200
www.eptisa.com

REV.	DATE	DESCRIPTION

DRAWN BY :	SD
DESIGNED BY :	SCK/MM
APPROVED BY :	KG
SCALE :	1:1000

TITLE :

Utility Relocation Plan
(For Telephone Department)
(Ch. 1+000 to Ch. 2+000)

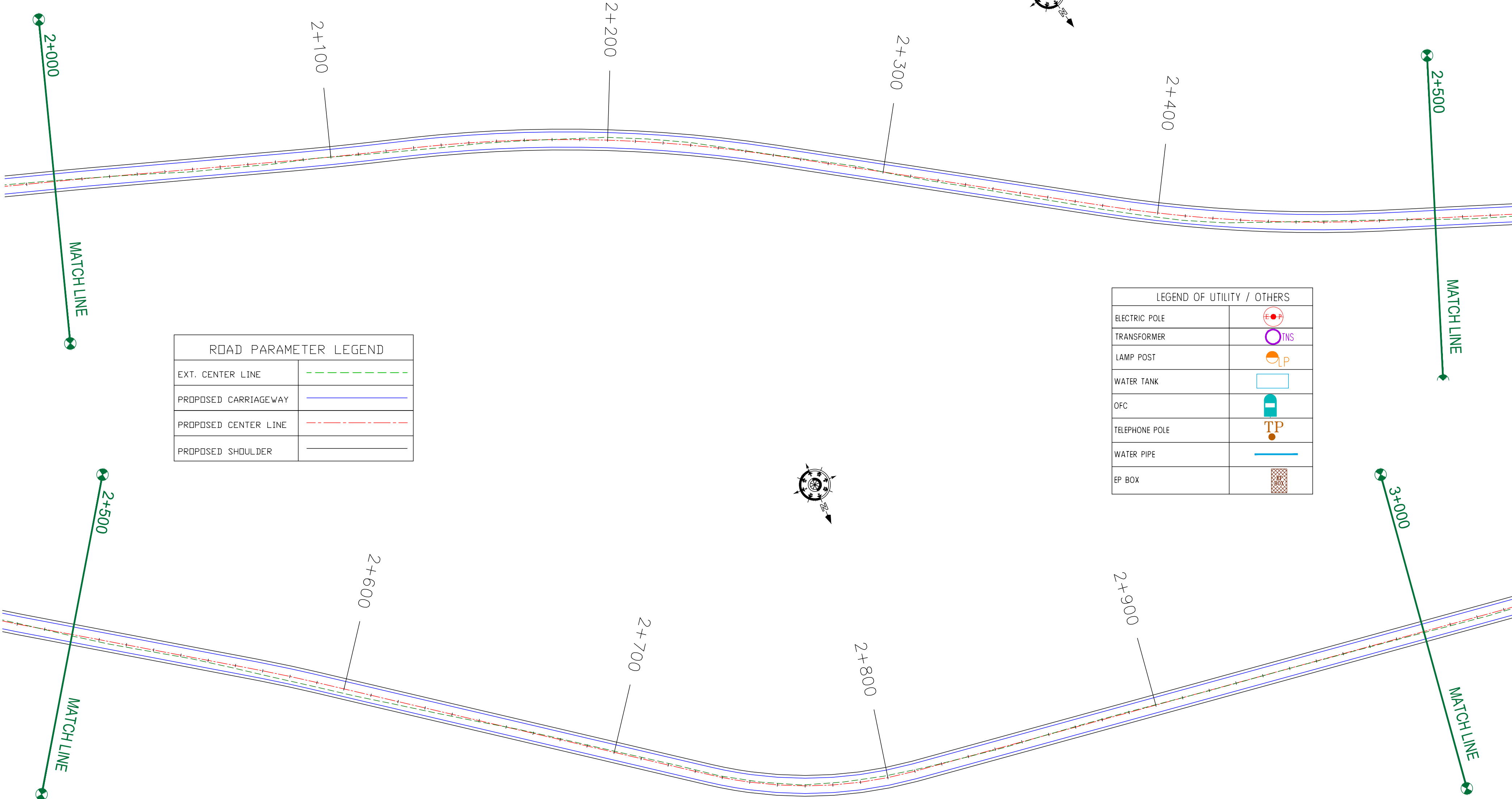
DRG. NO. : EPTISA/JTRFP/DPR/J&K/URP/02

REVISION : R-1

September 2019

← Hajin

Ajas →



ROAD PARAMETER LEGEND	
EXT. CENTER LINE	---
PROPOSED CARRIAGEWAY	---
PROPOSED CENTER LINE	- . -
PROPOSED SHOULDER	---

LEGEND OF UTILITY / OTHERS	
ELECTRIC POLE	
TRANSFORMER	
LAMP POST	
WATER TANK	
OFC	
TELEPHONE POLE	
WATER PIPE	
EP BOX	

NUMBER OF UTILITIES TO BE SHIFTED	SIDE	
	LEFT	RIGHT
TELEPHONE POLE (TP)	0	0
OFC	0	0

CLIENT :



Jhelum Tawi Flood Recovery Project
2nd Floor ERA Commercial Complex Rambagh
Srinagar-190 009.

PROJECT :

Consultancy Services for Preparing Detailed Project Report
for the Road works in Jammu and Kashmir
(Hajin-Ajas via Saidnara in Bandipora District)

DESIGN CONSULTANT:



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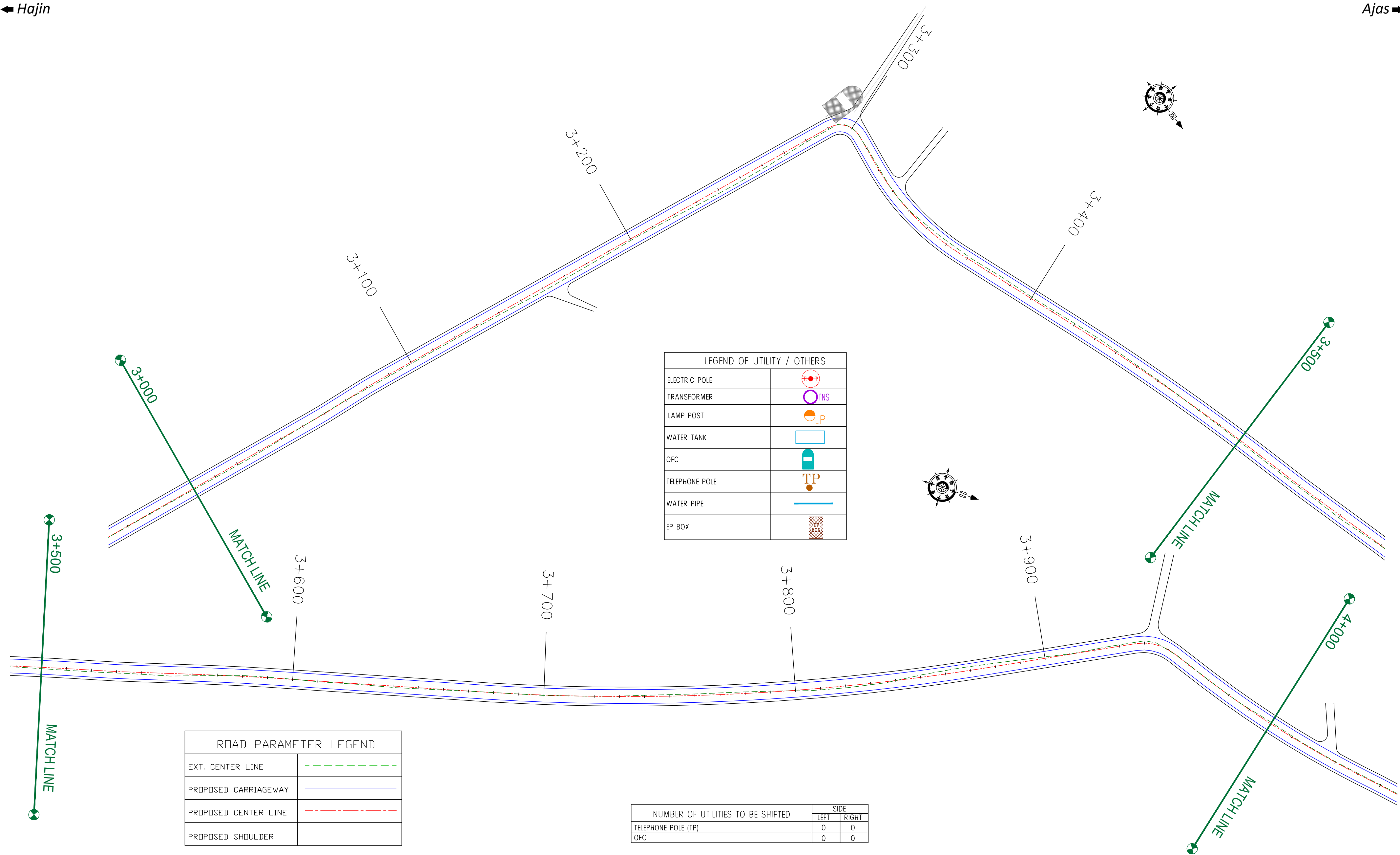
REV.	DATE	DESCRIPTION

DRAWN BY :	SD
DESIGNED BY :	SCK/MM
APPROVED BY :	KG
SCALE :	1:1000

TITLE : Utility Relocation Plan (For Telephone Department) (Ch. 2+000 to Ch. 3+000)	
DRG. NO. : EPTISA/JTRP/DPR/J&K/URP/03	
REVISION : R-1	September 2019

← Hajin

Ajas →



LEGEND OF UTILITY / OTHERS	
ELECTRIC POLE	
TRANSFORMER	
LAMP POST	
WATER TANK	
OFC	
TELEPHONE POLE	
WATER PIPE	
EP BOX	

ROAD PARAMETER LEGEND	
EXT. CENTER LINE	
PROPOSED CARRIAGEWAY	
PROPOSED CENTER LINE	
PROPOSED SHOULDER	

NUMBER OF UTILITIES TO BE SHIFTED	SIDE	
	LEFT	RIGHT
TELEPHONE POLE (TP)	0	0
OFC	0	0

CLIENT :



Jhelum Tawi Flood Recovery Project
2nd Floor ERA Commercial Complex Rambagh
Srinagar-190 009.

PROJECT :

Consultancy Services for Preparing Detailed Project Report
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(Hajin-Ajas via Saidnara in Bandipora District)

DESIGN CONSULTANT:



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West Bengal
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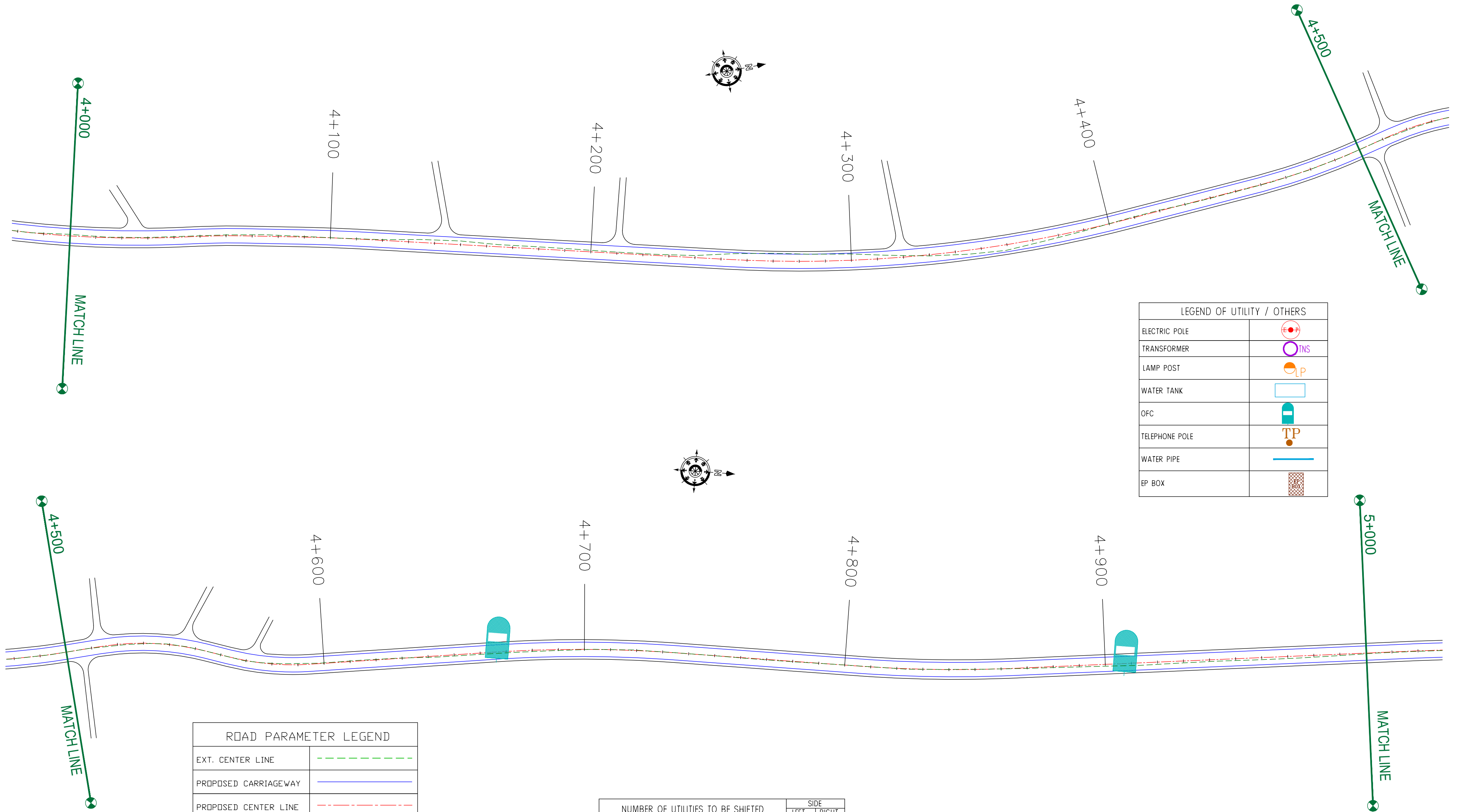
REV.	DATE	DESCRIPTION

DRAWN BY :	SD
DESIGNED BY :	SCK/MM
APPROVED BY :	KG
SCALE :	1:1000

TITLE :	Utility Relocation Plan (For Telephone Department) (Ch. 3+000 to Ch. 4+000)	
DRG. NO. :	EPTISA/JTRP/DPR/J&K/URP/04	
REVISION : R-1	September 2019	

← Hajin

Ajas →



ROAD PARAMETER LEGEND	
EXT. CENTER LINE	<div></div>
PROPOSED CARRIAGEWAY	<div></div>
PROPOSED CENTER LINE	<div></div>
PROPOSED SHOULDER	<div></div>

NUMBER OF UTILITIES TO BE SHIFTED	SIDE	
	LEFT	RIGHT
TELEPHONE POLE (TP)	0	0
OFC	0	2

LEGEND OF UTILITY / OTHERS	
ELECTRIC POLE	<div></div>
TRANSFORMER	<div>TNS</div>
LAMP POST	<div>LP</div>
WATER TANK	<div></div>
OFC	<div></div>
TELEPHONE POLE	<div>TP</div>
WATER PIPE	<div></div>
EP BOX	<div>EP BOX</div>

CLIENT :



Jhelum Tawi Flood Recovery Project
2nd Floor ERA Commercial Complex Rambagh
Srinagar-190 009.

PROJECT :

Consultancy Services for Preparing Detailed Project Report
for the Road works in Jammu and Kashmir
(Hajin-Ajas via Saidnara in Bandipora District)

DESIGN CONSULTANT:



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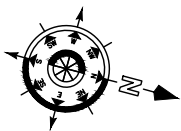
REV.	DATE	DESCRIPTION

DRAWN BY :	SD
DESIGNED BY :	SCK/MM
APPROVED BY :	KG
SCALE :	1:1000

TITLE : Utility Relocation Plan (For Telephone Department) (Ch. 4+000 to Ch. 5+000)	
DRG. NO. : EPTISA/JTFRP/DPR/J&K/URP/05	
REVISION : R-1	September 2019

← Hajin

Ajas →



ROAD PARAMETER LEGEND	
EXT. CENTER LINE	
PROPOSED CARRIAGEWAY	
PROPOSED CENTER LINE	
PROPOSED SHOULDER	

LEGEND OF UTILITY / OTHERS	
ELECTRIC POLE	
TRANSFORMER	
LAMP POST	
WATER TANK	
OFC	
TELEPHONE POLE	
WATER PIPE	
EP BOX	

NUMBER OF UTILITIES TO BE SHIFTED	SIDE	
	LEFT	RIGHT
TELEPHONE POLE (TP)	0	0
OFC	0	2

CLIENT :



Jhelum Tawi Flood Recovery Project
2nd Floor ERA Commercial Complex Rambagh
Srinagar-190 009.

PROJECT :

Consultancy Services for Preparing Detailed Project Report
for the Road works in Jammu and Kashmir
(Hajin-Ajas via Saidnara in Bandipora District)

DESIGN CONSULTANT:



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Ph: 033-40347200
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REV.	DATE	DESCRIPTION
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DRAWN BY :	SD
DESIGNED BY :	SCK/MM
APPROVED BY :	KG
SCALE :	1:1000

TITLE : **Utility Relocation Plan**
(For Telephone Department)
(Ch. 5+000 to Ch. 6+000)

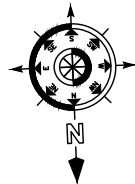
DRG. NO. : EPTISA/JTFRP/DPR/J&K/URP/06

REVISION : R-1

September 2019

← Hajin

Ajas →



6+000

6+100

6+200

6+300

6+400

6+500

MATCH LINE

MATCH LINE

ROAD PARAMETER LEGEND	
EXT. CENTER LINE	
PROPOSED CARRIAGEWAY	
PROPOSED CENTER LINE	
PROPOSED SHOULDER	

LEGEND OF UTILITY / OTHERS	
ELECTRIC POLE	
TRANSFORMER	
LAMP POST	
WATER TANK	
OFC	
TELEPHONE POLE	
WATER PIPE	
EP BOX	

6+600

6+700

6+800

6+900

7+000

MATCH LINE

MATCH LINE

NUMBER OF UTILITIES TO BE SHIFTED	SIDE	
	LEFT	RIGHT
TELEPHONE POLE (TP)	0	0
OFC	0	0

CLIENT :



Jhelum Tawi Flood Recovery Project
2nd Floor ERA Commercial Complex Rambagh
Srinagar-190 009.

PROJECT :

Consultancy Services for Preparing Detailed Project Report
for the Road works in Jammu and Kashmir
(Hajin-Ajas via Saidnara in Bandipora District)

DESIGN CONSULTANT:

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REV.	DATE	DESCRIPTION
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DRAWN BY :	SD
DESIGNED BY :	SCK/MM
APPROVED BY :	KG
SCALE :	1:1000

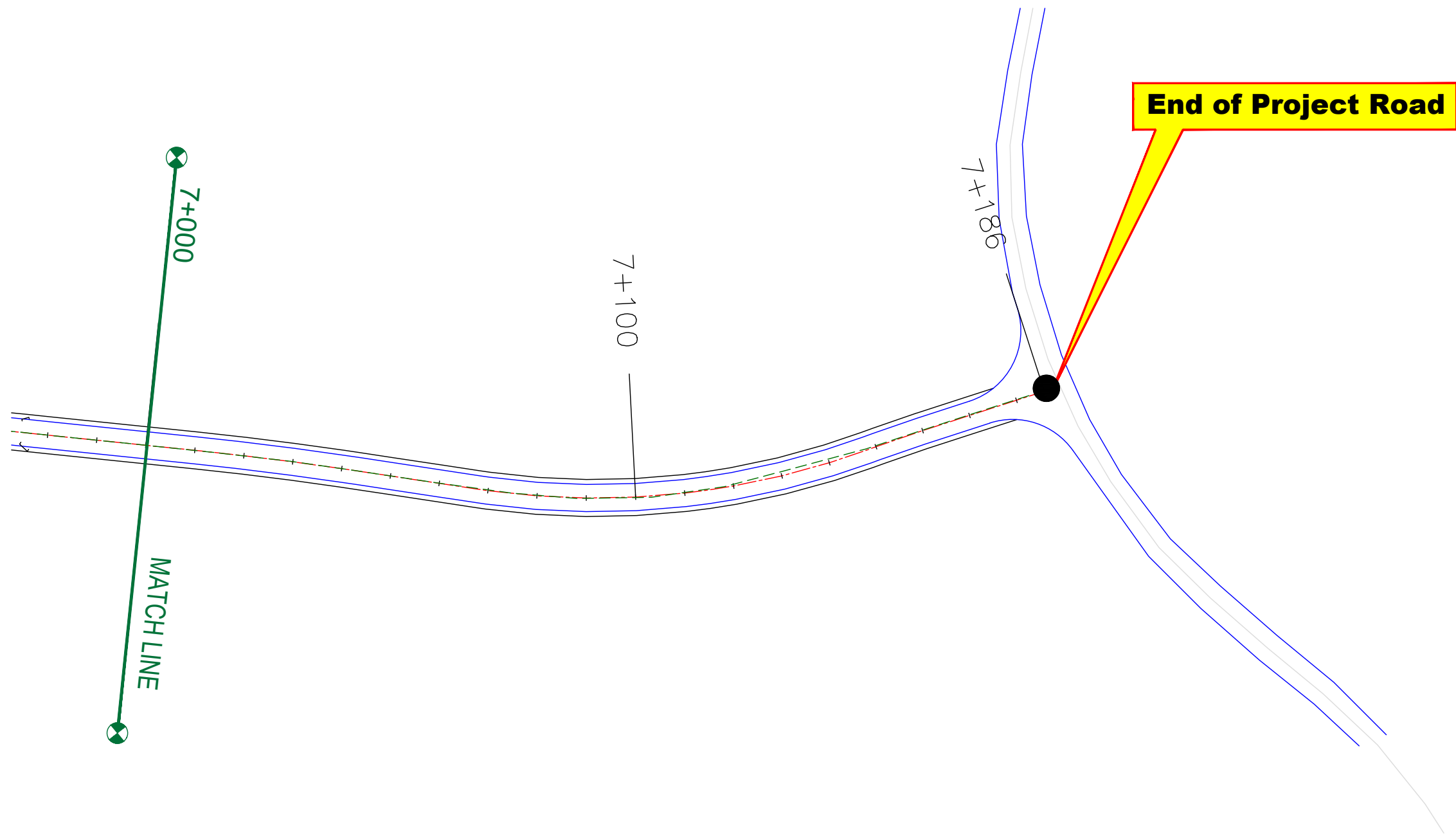
TITLE :

Utility Relocation Plan
(For Telephone Department)
(Ch. 6+000 to Ch. 7+000)

DRG. NO. : EPTISA/JTRFP/DPR/J&K/URP/07

REVISION : R-1

September 2019



ROAD PARAMETER LEGEND	
EXT. CENTER LINE	---
PROPOSED CARRIAGEWAY	---
PROPOSED CENTER LINE	---
PROPOSED SHOULDER	---

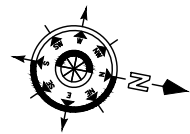
NUMBER OF UTILITIES TO BE SHIFTED	SIDE	
	LEFT	RIGHT
TELEPHONE POLE (TP)	0	0
OFC	0	0

LEGEND OF UTILITY / OTHERS	
ELECTRIC POLE	
TRANSFORMER	
LAMP POST	
WATER TANK	
OFC	
TELEPHONE POLE	
WATER PIPE	
EP BOX	

≡ UTILITY RELOCATION PLAN FOR MAIN ROAD (WATER DEPARTMENT) ≡

← Hajin

Ajas →



Start of Project Road

0+100

0+200

0+300

0+400

0+500

MATCH LINE

LEGEND OF UTILITY / OTHERS	
ELECTRIC POLE	
TRANSFORMER	
LAMP POST	
WATER TANK	
OFC	
TELEPHONE POLE	
WATER PIPE	
EP BOX	

0+600

0+700

0+800

0+900

1+000

MATCH LINE

MATCH LINE

ROAD PARAMETER LEGEND	
EXT. CENTER LINE	
PROPOSED CARRIAGEWAY	
PROPOSED CENTER LINE	
PROPOSED SHOULDER	

NUMBER OF UTILITIES TO BE SHIFTED	SIDE	
	LEFT	RIGHT
WATER TANK	0	0
WATER PIPE	0	0

CLIENT :



Jhelum Tawi Flood Recovery Project
2nd Floor ERA Commercial Complex Rambagh
Srinagar-190 009.

PROJECT :

Consultancy Services for Preparing Detailed Project Report
for the Road works in Jammu and Kashmir
(Hajin-Ajas via Saidnara in Bandipora District)

DESIGN CONSULTANT:



Servicios de Ingenieria S.L.

Unit 1203, 12th Floor, Tower 1, PS Srijan
Corporate Park, Plot No. 2, Block EP & GP,
Sector v, Salt Lake Kolkata - 700091,
West Bengal
Ph: 033-40347200
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REV.	DATE	DESCRIPTION

DRAWN BY :	SD
DESIGNED BY :	SCK/MM
APPROVED BY :	KG
SCALE :	1:1000

TITLE : **Utility Relocation Plan**
(For Water Department)
(Ch. 0+000 to Ch. 1+000)

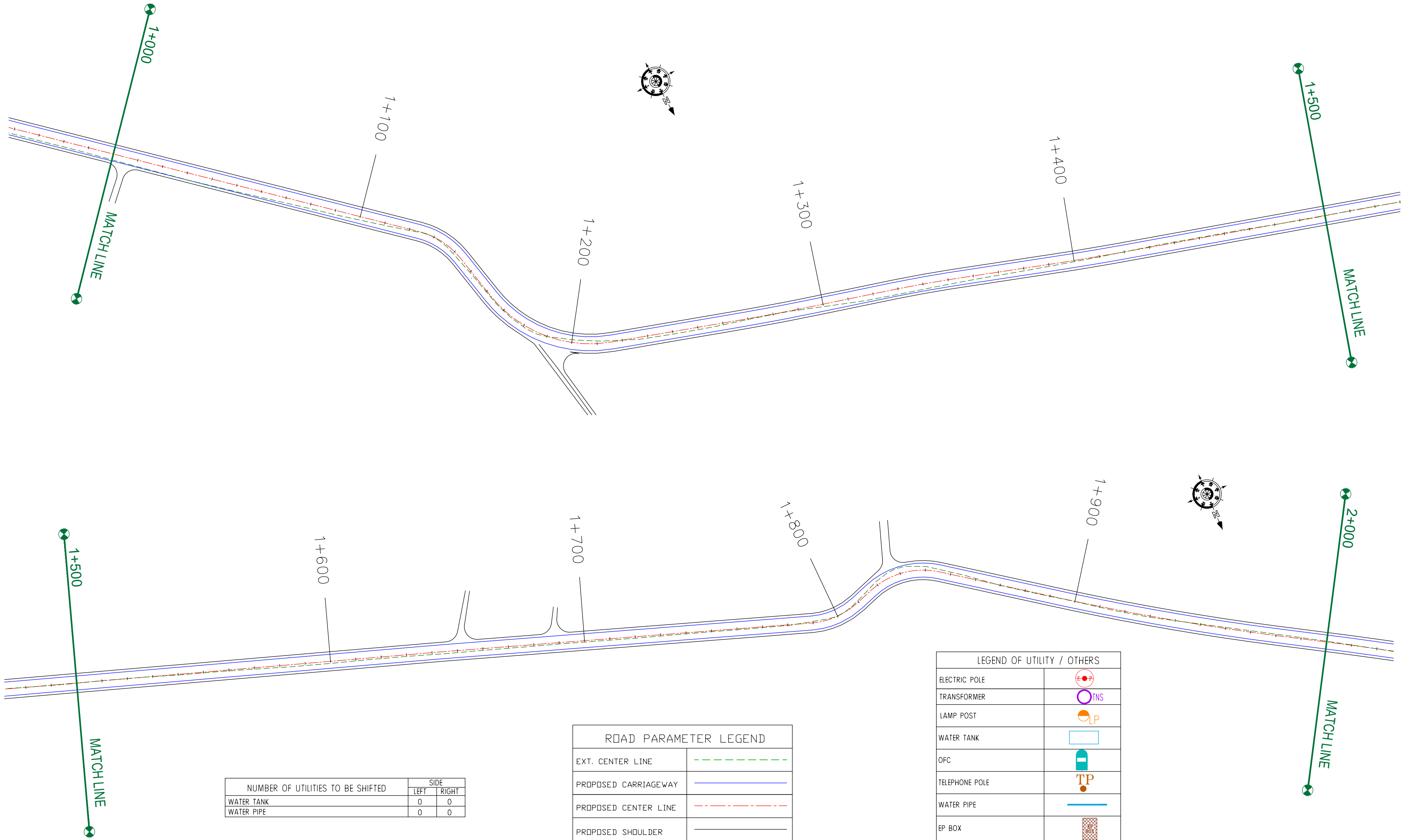
DRG. NO. : EPTISA/JTFRP/DPR/J&K/URP/01

REVISION : R-1

September 2019

← Hajin

Ajas →



NUMBER OF UTILITIES TO BE SHIFTED	SIDE	
	LEFT	RIGHT
WATER TANK	0	0
WATER PIPE	0	0

ROAD PARAMETER LEGEND	
EXT. CENTER LINE	---
PROPOSED CARRIAGEWAY	---
PROPOSED CENTER LINE	---
PROPOSED SHOULDER	---

LEGEND OF UTILITY / OTHERS	
ELECTRIC POLE	⦿
TRANSFORMER	⦿ TNS
LAMP POST	⦿ LP
WATER TANK	□
OFC	⦿
TELEPHONE POLE	⦿ TP
WATER PIPE	---
EP BOX	⦿

CLIENT :



Jhelum Tawi Flood Recovery Project
2nd Floor ERA Commercial Complex Rambagh
Srinagar-190 009.

PROJECT :

Consultancy Services for Preparing Detailed Project Report
for the Road works in Jammu and Kashmir
(Hajin-Ajas via Saidnara in Bandipora District)

DESIGN CONSULTANT:



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Sector v, Salt Lake Kolkata - 700091,
West Bengal
Ph: 033-40347200
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REV.	DATE	DESCRIPTION
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DRAWN BY :	SD
DESIGNED BY :	SCK/MM
APPROVED BY :	KG
SCALE :	1:1000

TITLE :

Utility Relocation Plan
(For Water Department)
(Ch. 1+000 to Ch. 2+000)

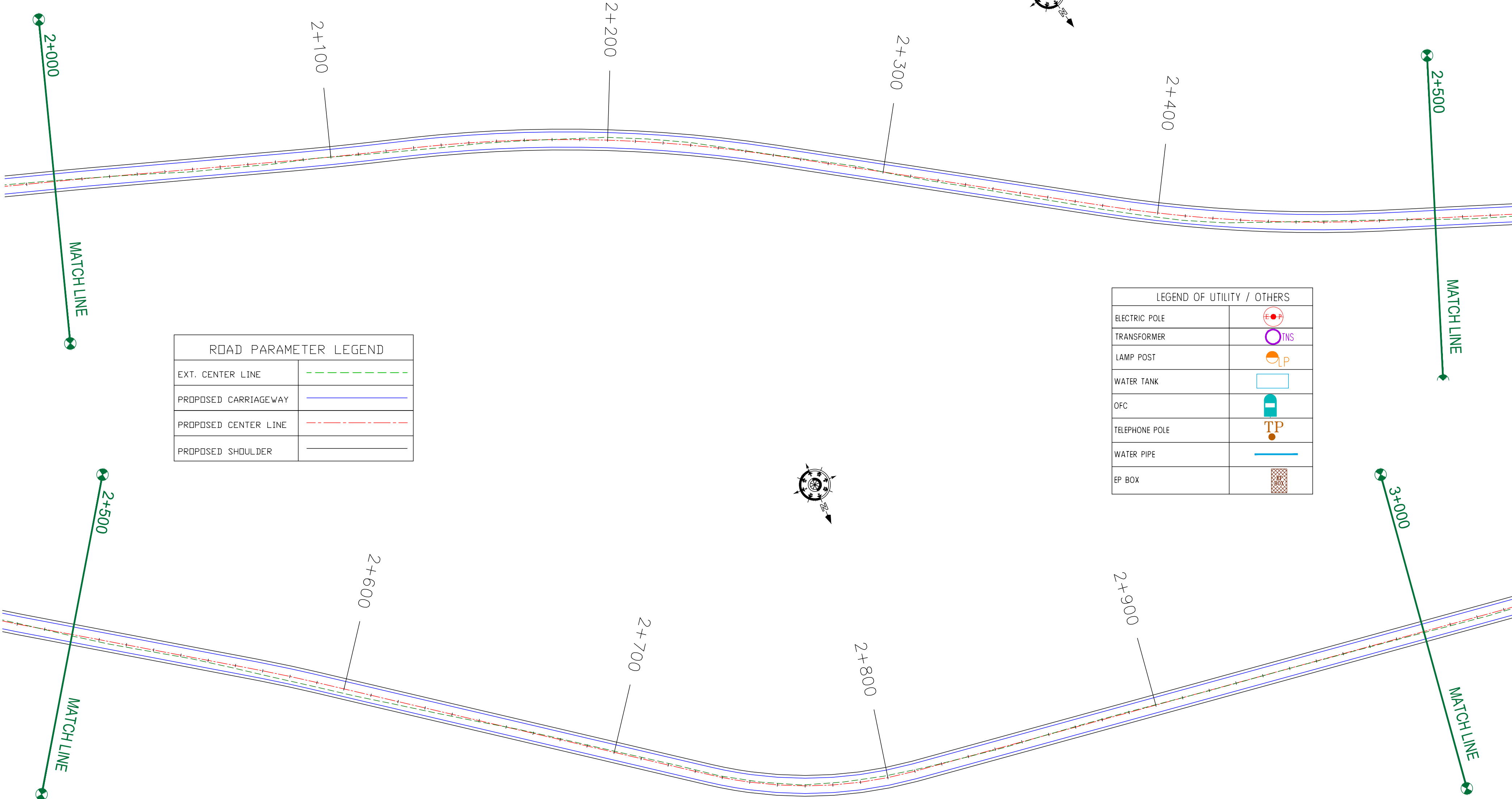
DRG. NO. : EPTISA/JTRFP/DPR/J&K/URP/02

REVISION : R-1

September 2019

← Hajin

Ajas →



ROAD PARAMETER LEGEND	
EXT. CENTER LINE	<div></div>
PROPOSED CARRIAGEWAY	<div></div>
PROPOSED CENTER LINE	<div></div>
PROPOSED SHOULDER	<div></div>

LEGEND OF UTILITY / OTHERS	
ELECTRIC POLE	<div></div>
TRANSFORMER	<div></div> TNS
LAMP POST	<div></div> LP
WATER TANK	<div></div>
OFC	<div></div>
TELEPHONE POLE	<div></div> TP
WATER PIPE	<div></div>
EP BOX	<div></div> EP BOX

NUMBER OF UTILITIES TO BE SHIFTED	SIDE	
	LEFT	RIGHT
WATER TANK	0	0
WATER PIPE	0	0

CLIENT :



Jhelum Tawi Flood Recovery Project
2nd Floor ERA Commercial Complex Rambagh
Srinagar-190 009.

PROJECT :

Consultancy Services for Preparing Detailed Project Report
for the Road works in Jammu and Kashmir
(Hajin-Ajas via Saidnara in Bandipora District)

DESIGN CONSULTANT:



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REV.	DATE	DESCRIPTION

DRAWN BY :	SD
DESIGNED BY :	SCK/MM
APPROVED BY :	KG
SCALE :	1:1000

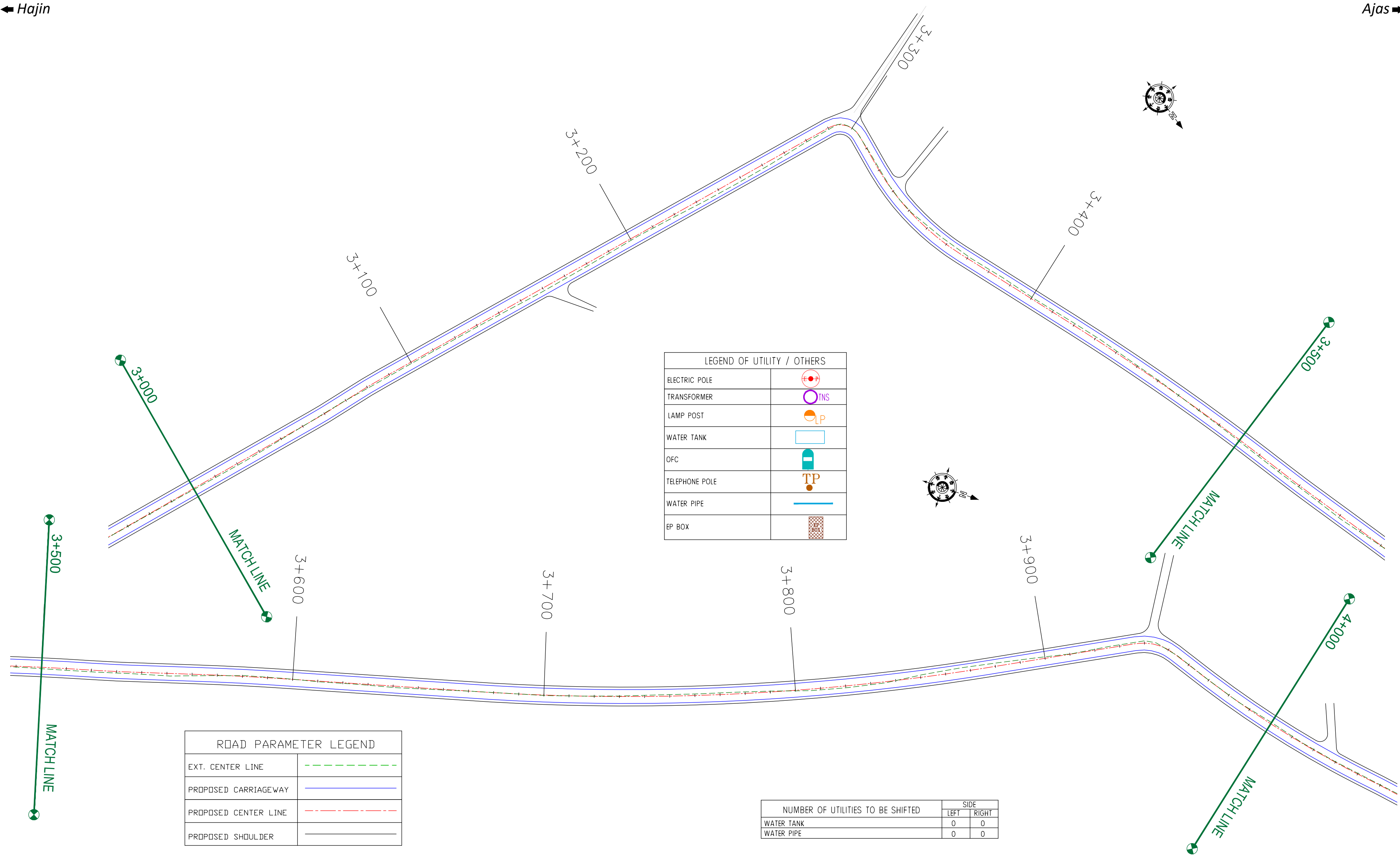
TITLE : **Utility Relocation Plan**
(For Water Department)
(Ch. 2+000 to Ch. 3+000)

DRG. NO. : EPTISA/JTRFP/DPR/J&K/URP/03

REVISION : R-1 September 2019

← Hajin

Ajas →



LEGEND OF UTILITY / OTHERS	
ELECTRIC POLE	
TRANSFORMER	
LAMP POST	
WATER TANK	
OFC	
TELEPHONE POLE	
WATER PIPE	
EP BOX	

ROAD PARAMETER LEGEND	
EXT. CENTER LINE	
PROPOSED CARRIAGEWAY	
PROPOSED CENTER LINE	
PROPOSED SHOULDER	

NUMBER OF UTILITIES TO BE SHIFTED	SIDE	
	LEFT	RIGHT
WATER TANK	0	0
WATER PIPE	0	0

CLIENT :



Jhelum Tawi Flood Recovery Project
2nd Floor ERA Commercial Complex Rambagh
Srinagar-190 009.

PROJECT :

Consultancy Services for Preparing Detailed Project Report
for the Road works in Jammu and Kashmir
(Hajin-Ajas via Saidnara in Bandipora District)

DESIGN CONSULTANT:



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Sector v, Salt Lake Kolkata - 700091,
West Bengal
Ph: 033-40347200
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REV.	DATE	DESCRIPTION

DRAWN BY :	SD
DESIGNED BY :	SCK/MM
APPROVED BY :	KG
SCALE :	1:1000

TITLE :

Utility Relocation Plan
(For Water Department)
(Ch. 3+000 to Ch. 4+000)

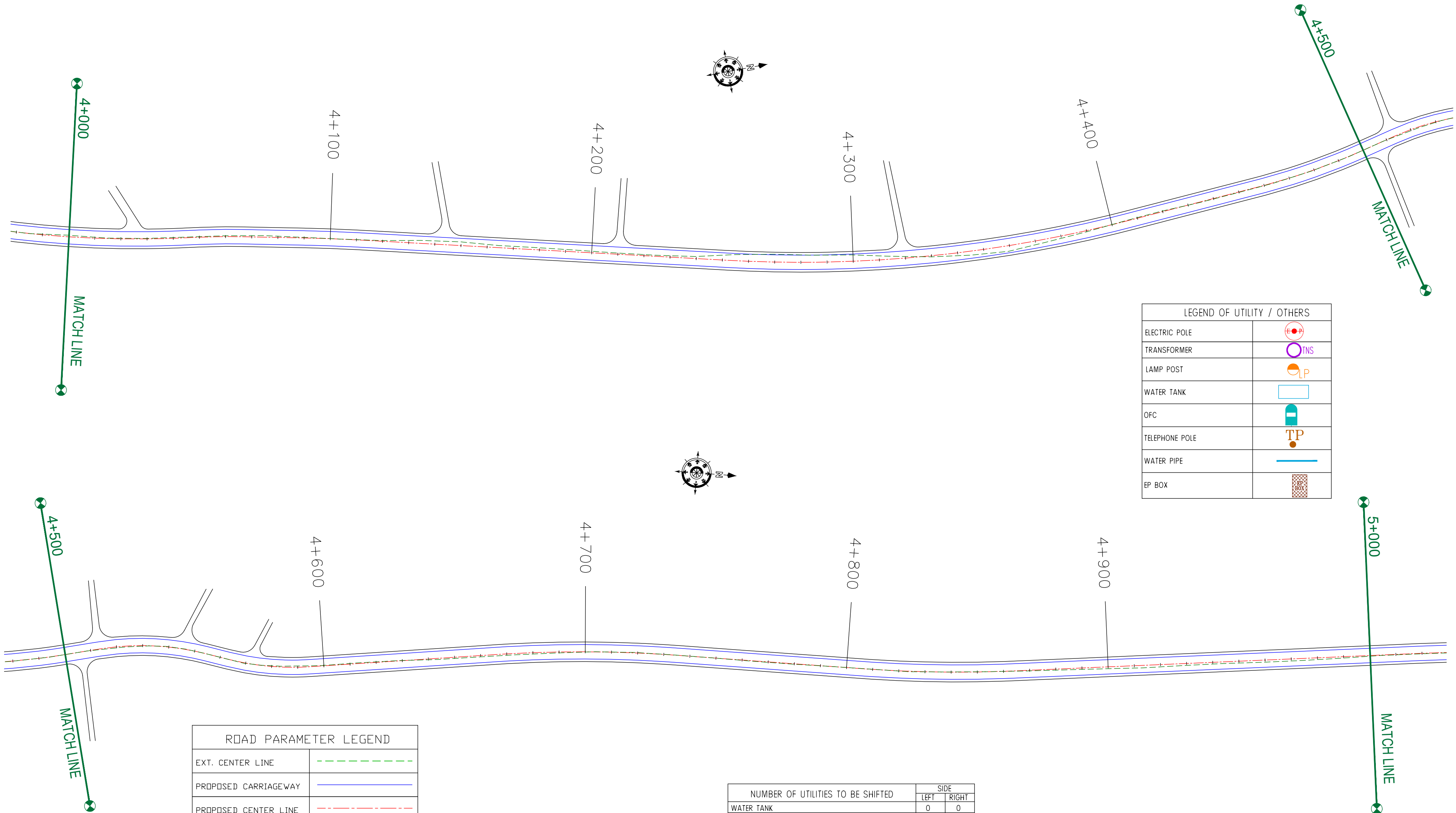
DRG. NO. : EPTISA/JTRP/DPR/J&K/URP/04

REVISION : R-1

September 2019

← Hajin

Ajas →



LEGEND OF UTILITY / OTHERS	
ELECTRIC POLE	
TRANSFORMER	
LAMP POST	
WATER TANK	
OFC	
TELEPHONE POLE	
WATER PIPE	
EP BOX	

ROAD PARAMETER LEGEND	
EXT. CENTER LINE	
PROPOSED CARRIAGEWAY	
PROPOSED CENTER LINE	
PROPOSED SHOULDER	

NUMBER OF UTILITIES TO BE SHIFTED	SIDE	
	LEFT	RIGHT
WATER TANK	0	0
WATER PIPE	0	0

CLIENT :



Jhelum Tawi Flood Recovery Project
2nd Floor ERA Commercial Complex Rambagh
Srinagar-190 009.

PROJECT :

Consultancy Services for Preparing Detailed Project Report
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DESIGN CONSULTANT:



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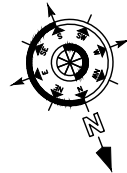
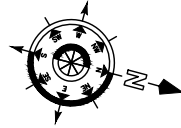
REV.	DATE	DESCRIPTION

DRAWN BY :	SD
DESIGNED BY :	SCK/MM
APPROVED BY :	KG
SCALE :	1:1000

TITLE :	Utility Relocation Plan (For Water Department) (Ch. 4+000 to Ch. 5+000)
DRG. NO. :	EPTISA/JTRFP/DPR/J&K/URP/05
REVISION : R-1	September 2019

← Hajin

Ajas →



ROAD PARAMETER LEGEND	
EXT. CENTER LINE	
PROPOSED CARRIAGEWAY	
PROPOSED CENTER LINE	
PROPOSED SHOULDER	

LEGEND OF UTILITY / OTHERS	
ELECTRIC POLE	
TRANSFORMER	
LAMP POST	
WATER TANK	
OFC	
TELEPHONE POLE	
WATER PIPE	
EP BOX	

NUMBER OF UTILITIES TO BE SHIFTED	SIDE	
	LEFT	RIGHT
WATER TANK	0	0
WATER PIPE	0	0

CLIENT :



Jhelum Tawi Flood Recovery Project
2nd Floor ERA Commercial Complex Rambagh
Srinagar-190 009.

PROJECT :

Consultancy Services for Preparing Detailed Project Report
for the Road works in Jammu and Kashmir
(Hajin-Ajas via Saidnara in Bandipora District)

DESIGN CONSULTANT:



Servicios de Ingenieria S.L.

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Sector v, Salt Lake Kolkata - 700091,
West Bengal
Ph: 033-40347200
www.eptisa.com

REV.	DATE	DESCRIPTION
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DRAWN BY :	SD
DESIGNED BY :	SCK/MM
APPROVED BY :	KG
SCALE :	1:1000

TITLE :

Utility Relocation Plan
(For Water Department)
(Ch. 5+000 to Ch. 6+000)

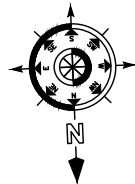
DRG. NO. : EPTISA/JTRFP/DPR/J&K/URP/06

REVISION : R-1

September 2019

← Hajin

Ajas →



6+000

6+100

6+200

6+300

6+400

6+500

MATCH LINE

MATCH LINE

ROAD PARAMETER LEGEND	
EXT. CENTER LINE	
PROPOSED CARRIAGEWAY	
PROPOSED CENTER LINE	
PROPOSED SHOULDER	

LEGEND OF UTILITY / OTHERS	
ELECTRIC POLE	
TRANSFORMER	
LAMP POST	
WATER TANK	
OFC	
TELEPHONE POLE	
WATER PIPE	
EP BOX	

6+600

6+700

6+800

6+900

7+000

MATCH LINE

MATCH LINE

NUMBER OF UTILITIES TO BE SHIFTED	SIDE	
	LEFT	RIGHT
WATER TANK	0	0
WATER PIPE	0	0

CLIENT :



Jhelum Tawi Flood Recovery Project
2nd Floor ERA Commercial Complex Rambagh
Srinagar-190 009.

PROJECT :

Consultancy Services for Preparing Detailed Project Report
for the Road works in Jammu and Kashmir
(Hajin-Ajas via Saidnara in Bandipora District)

DESIGN CONSULTANT:

eptisa

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Corporate Park, Plot No. 2, Block EP & GP,
Sector v, Salt Lake Kolkata - 700091,
West Bengal
Ph: 033-40347200
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REV.	DATE	DESCRIPTION

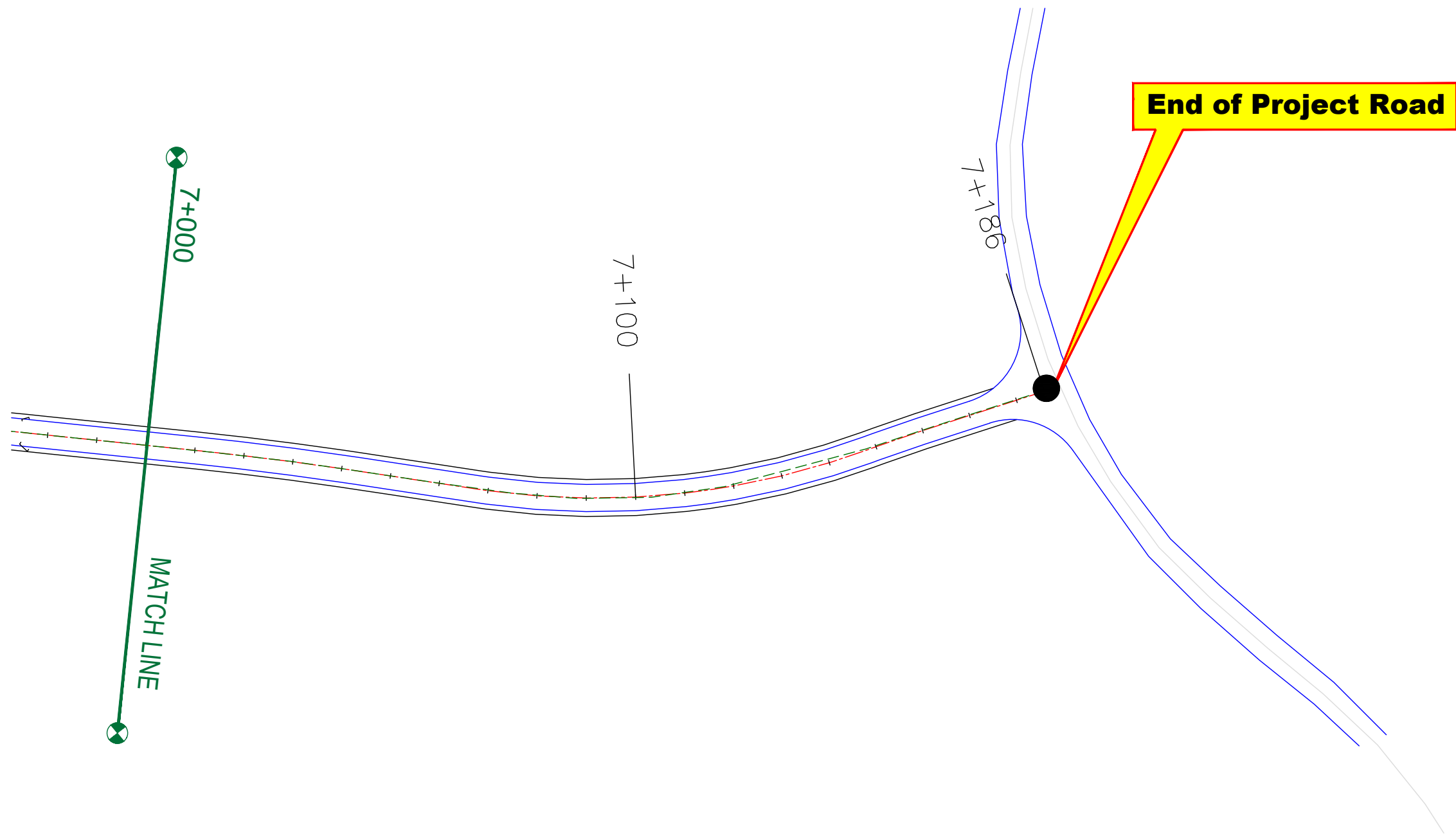
DRAWN BY :	SD
DESIGNED BY :	SCK/MM
APPROVED BY :	KG
SCALE :	1:1000

TITLE : **Utility Relocation Plan**
(For Water Department)
(Ch. 6+000 to Ch. 7+000)

DRG. NO. : EPTISA/JTRFP/DPR/J&K/URP/07

REVISION : R-1

September 2019



ROAD PARAMETER LEGEND	
EXT. CENTER LINE	
PROPOSED CARRIAGEWAY	
PROPOSED CENTER LINE	
PROPOSED SHOULDER	

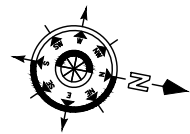
NUMBER OF UTILITIES TO BE SHIFTED	SIDE	
	LEFT	RIGHT
WATER TANK	0	0
WATER PIPE	0	0

LEGEND OF UTILITY / OTHERS	
ELECTRIC POLE	
TRANSFORMER	
LAMP POST	
WATER TANK	
OFC	
TELEPHONE POLE	
WATER PIPE	
EP BOX	

≡ TREE CUTTING (MAIN ROAD) ≡

← Hajin

Ajas →



Start of Project Road

0+100

0+200

0+300

0+400

0+500

MATCH LINE

0+600

0+700

0+800

0+900

1+000

MATCH LINE

MATCH LINE

ROAD PARAMETER LEGEND

EXT. CENTER LINE	
PROPOSED CARRIAGEWAY	
PROPOSED CENTER LINE	
PROPOSED SHOULDER	

LEGEND OF TREES

TREE 1 (À?300 TO À?600)	t1	
TREE 2 (À?600 TO À?900)	t2	
TREE 3 (À?900 TO À?1200)	t3	
TREE 4 (À?1200 TO ABOVE)	t4	

NUMBER OF TREES	SIDE	
	LEFT	RIGHT
T1	2	0
T2	0	4
T3	0	1
T4	00	00

CLIENT :



Jhelum Tawi Flood Recovery Project
2nd Floor ERA Commercial Complex Rambagh
Srinagar-190 009.

PROJECT :

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(Hajin-Ajas via Saidnara in Bandipora District)

DESIGN CONSULTANT:



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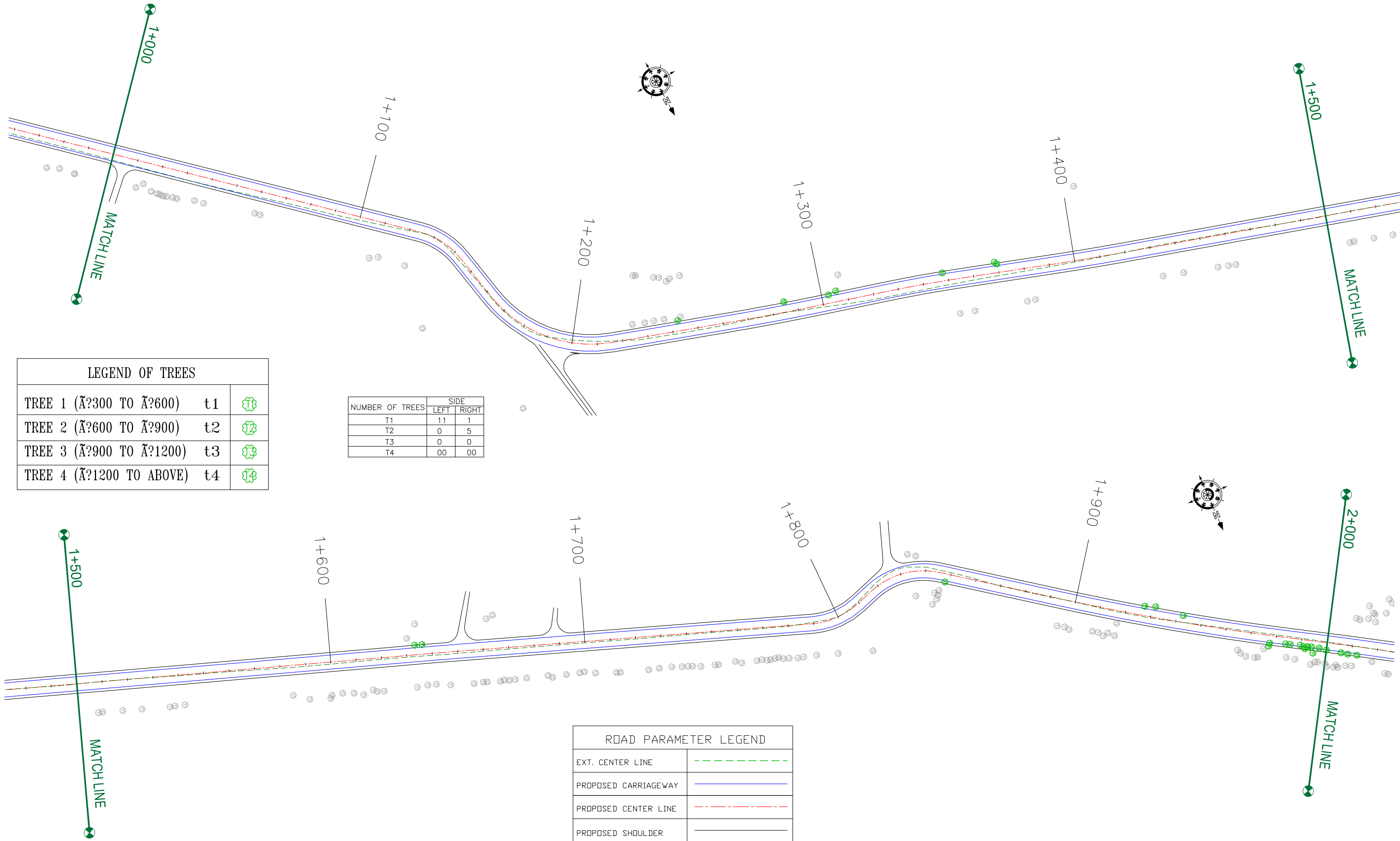
REV.	DATE	DESCRIPTION

DRAWN BY :	SD
DESIGNED BY :	SCK/MM
APPROVED BY :	KG
SCALE :	1:1000

TITLE : TREE CUTTING (Ch. 0+000 to Ch. 1+000)	
DRG. NO. : EPTISA/JTFRP/DPR/J&K/TC/01	
REVISION : R-1	September 2019

Hajin

Ajas



LEGEND OF TREES		
TREE 1 (300 TO 600)	t1	
TREE 2 (600 TO 900)	t2	
TREE 3 (900 TO 1200)	t3	
TREE 4 (1200 TO ABOVE)	t4	

NUMBER OF TREES	SIDE	
	LEFT	RIGHT
T1	11	1
T2	0	5
T3	0	0
T4	00	00

ROAD PARAMETER LEGEND	
EXT. CENTER LINE	
PROPOSED CARRIAGEWAY	
PROPOSED CENTER LINE	
PROPOSED SHOULDER	

CLIENT :



Jhelum Tawi Flood Recovery Project
2nd Floor ERA Commercial Complex Rambagh
Srinagar-190 009.

PROJECT :

Consultancy Services for Preparing Detailed Project Report
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(Hajin-Ajas via Saidnara in Bandipora District)

DESIGN CONSULTANT:



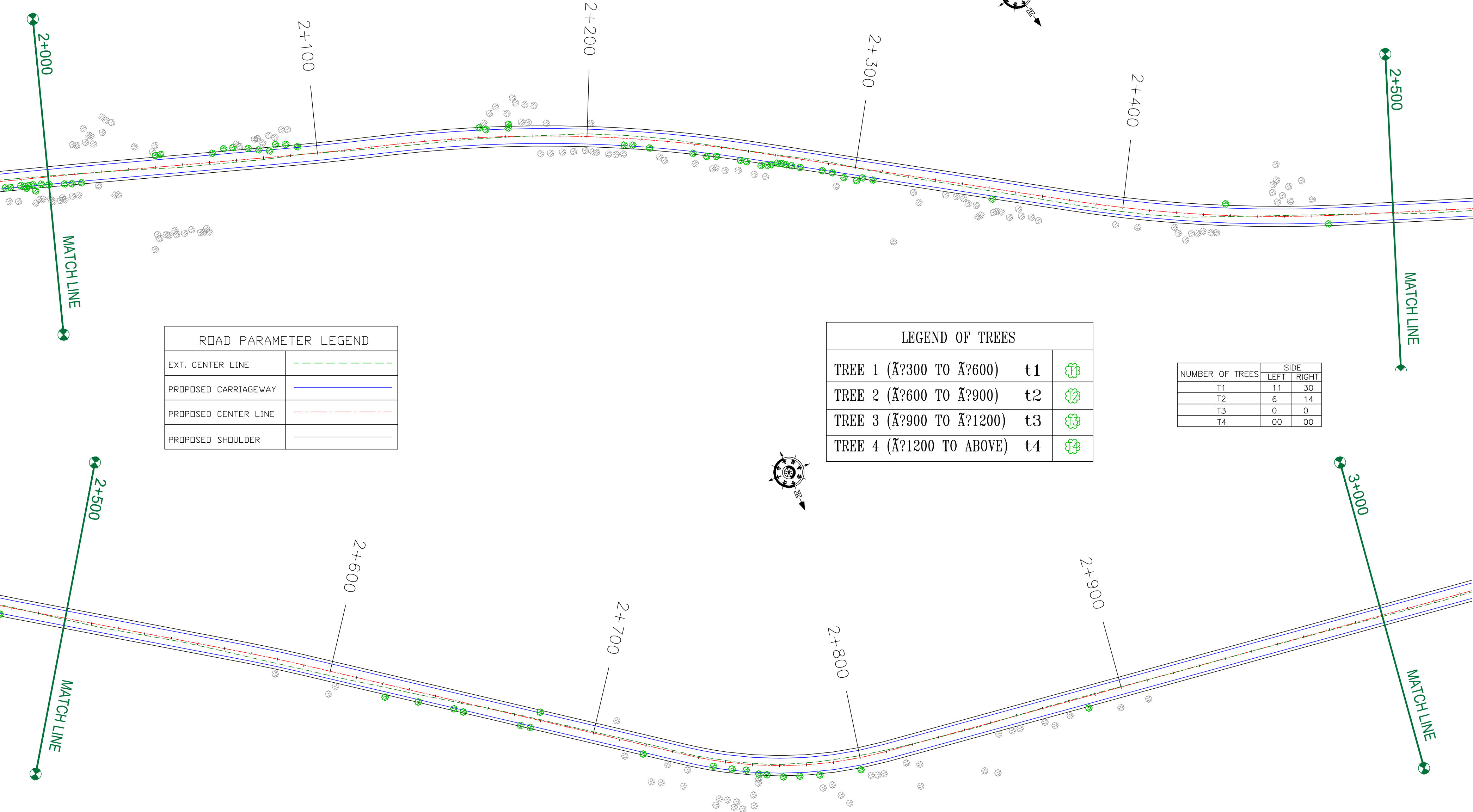
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Sector v, Salt Lake Kolkata - 700091,
West Bengal
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REV.	DATE	DESCRIPTION

DRAWN BY :	SD
DESIGNED BY :	SCK/MM
APPROVED BY :	KG
SCALE :	1:1000

TITLE :	TREE CUTTING (Ch. 1+000 to Ch. 2+000)	
DRG. NO. :	EPTISA/JTRFP/DPR/J&K/TC/02	
REVISION : R-1	September 2019	



ROAD PARAMETER LEGEND	
EXT. CENTER LINE	---
PROPOSED CARRIAGEWAY	—
PROPOSED CENTER LINE	- - -
PROPOSED SHOULDER	—

LEGEND OF TREES		
TREE 1 (300 TO 600)	t1	t1
TREE 2 (600 TO 900)	t2	t2
TREE 3 (900 TO 1200)	t3	t3
TREE 4 (1200 TO ABOVE)	t4	t4

NUMBER OF TREES	SIDE	
	LEFT	RIGHT
T1	11	30
T2	6	14
T3	0	0
T4	00	00

CLIENT :



Jhelum Tawi Flood Recovery Project
2nd Floor ERA Commercial Complex Rambagh
Srinagar-190 009.

PROJECT :

Consultancy Services for Preparing Detailed Project Report
for the Road works in Jammu and Kashmir
(Hajin-Ajas via Saidnara in Bandipora District)

DESIGN CONSULTANT:

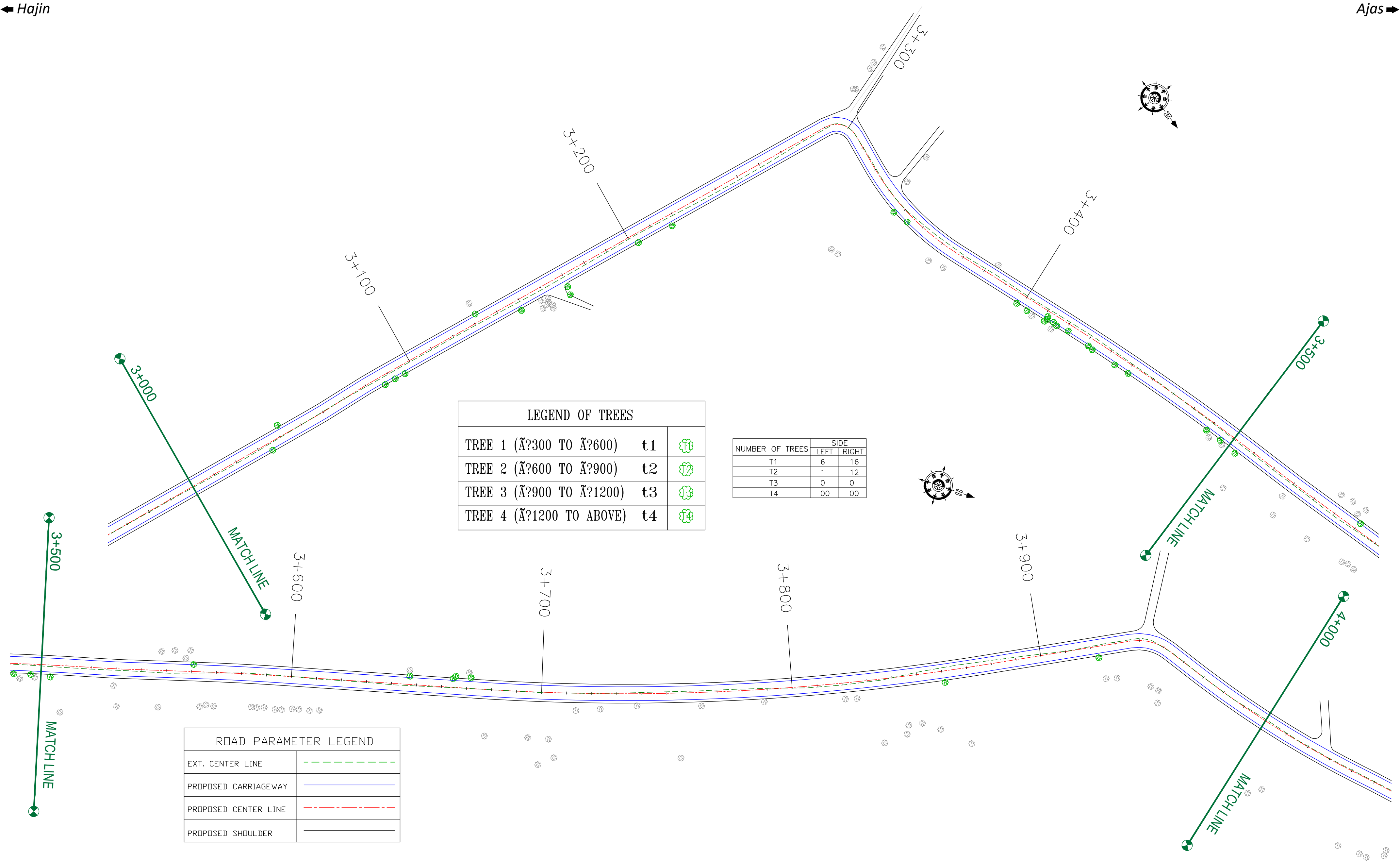


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Corporate Park, Plot No. 2, Block EP & GP,
Sector v, Salt Lake Kolkata - 700091,
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REV.	DATE	DESCRIPTION

DRAWN BY :	SD
DESIGNED BY :	SCK/MM
APPROVED BY :	KG
SCALE :	1:1000

TITLE :	
TREE CUTTING	
(Ch. 2+000 to Ch. 3+000)	
DRG. NO. : EPTISA/JTRP/DPR/J&K/TC/03	
REVISION : R-1	September 2019



LEGEND OF TREES		
TREE 1 (300 TO 600)	t1	
TREE 2 (600 TO 900)	t2	
TREE 3 (900 TO 1200)	t3	
TREE 4 (1200 TO ABOVE)	t4	

NUMBER OF TREES	SIDE	
	LEFT	RIGHT
T1	6	16
T2	1	12
T3	0	0
T4	00	00

ROAD PARAMETER LEGEND	
EXT. CENTER LINE	
PROPOSED CARRIAGEWAY	
PROPOSED CENTER LINE	
PROPOSED SHOULDER	

CLIENT :



Jhelum Tawi Flood Recovery Project
2nd Floor ERA Commercial Complex Rambagh
Srinagar-190 009.

PROJECT :

Consultancy Services for Preparing Detailed Project Report
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DESIGN CONSULTANT:



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REV.	DATE	DESCRIPTION
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DRAWN BY : SD

DESIGNED BY : SCK/MM

APPROVED BY : KG

SCALE : 1:1000

TITLE :

TREE CUTTING

(Ch. 3+000 to Ch. 4+000)

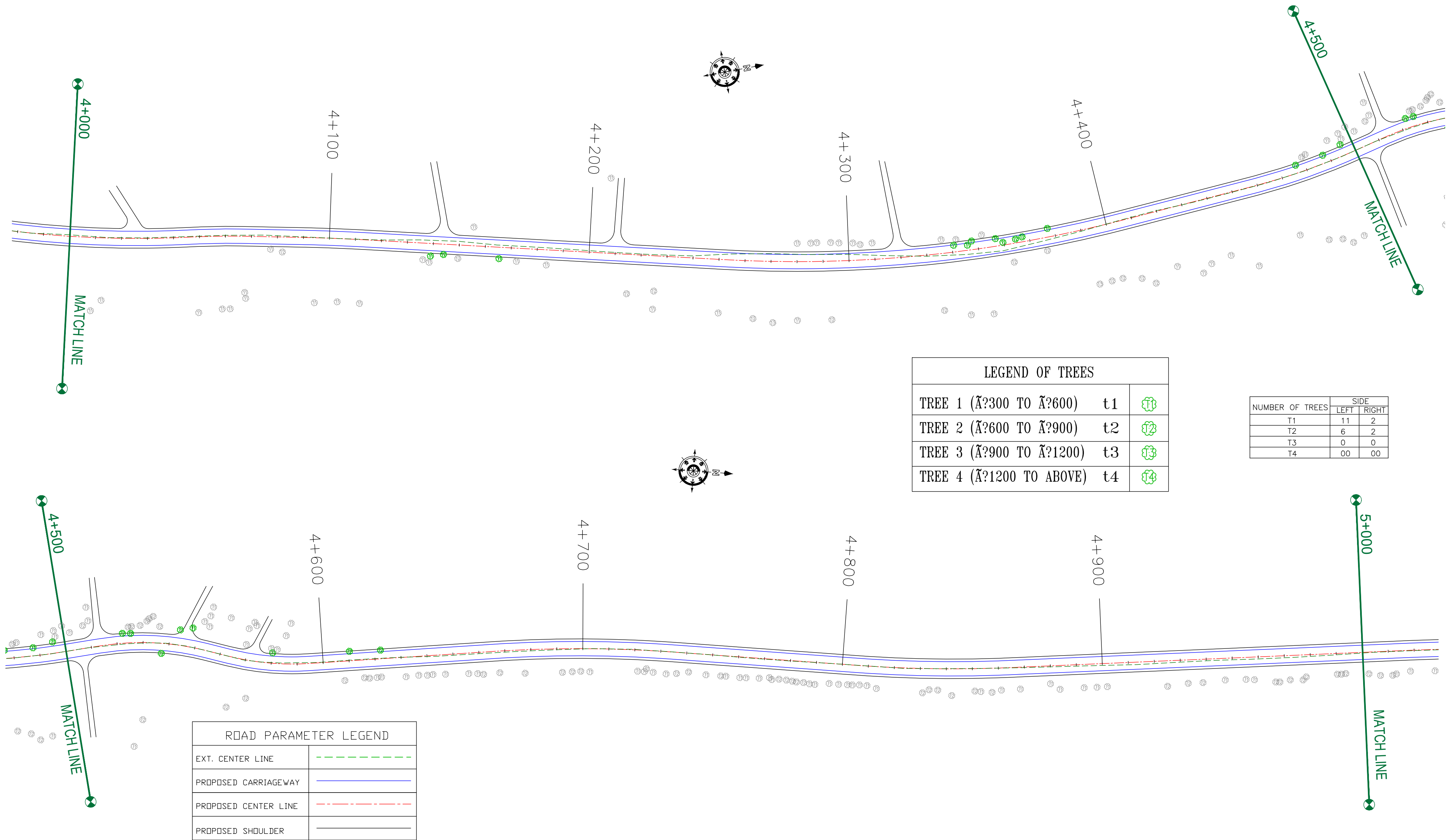
DRG. NO. : EPTISA/JTRP/DPR/J&K/TC/04

REVISION : R-1

September 2019

← Hajin

Ajas →



CLIENT :


Jhelum Tawi Flood Recovery Project
2nd Floor ERA Commercial Complex Rambagh
Srinagar-190 009.

PROJECT :

Consultancy Services for Preparing Detailed Project Report
for the Road works in Jammu and Kashmir
(Hajin-Ajas via Saidnara in Bandipora District)

DESIGN CONSULTANT:

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REV.	DATE	DESCRIPTION

DRAWN BY : SD

DESIGNED BY : SCK/MM

APPROVED BY : KG

SCALE : 1:1000

TITLE : TREE CUTTING
(Ch. 4+000 to Ch. 5+000)

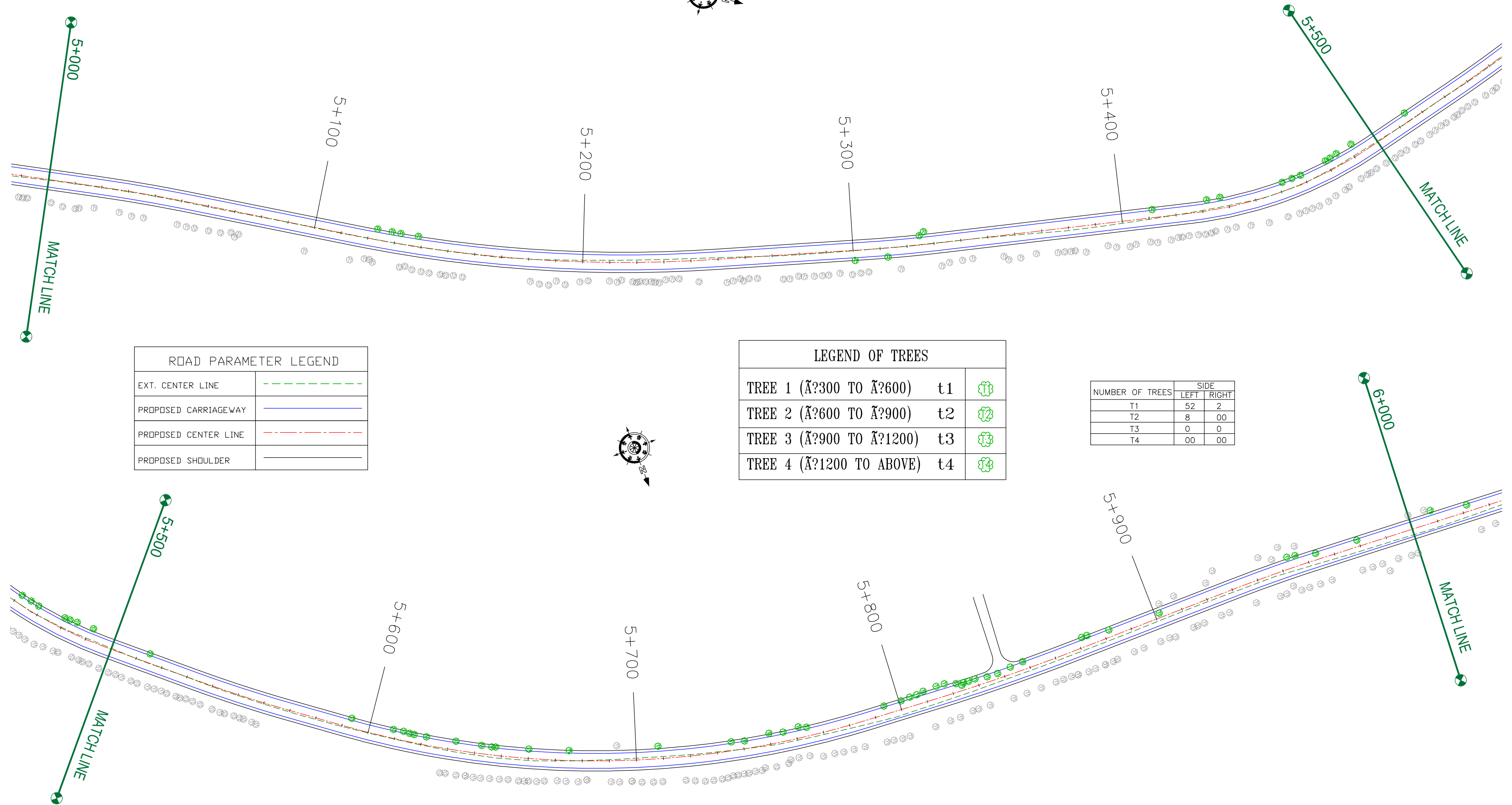
DRG. NO. : EPTISA/JTRFP/DPR/J&K/TC/05

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September 2019

← Hajin

Ajas →



ROAD PARAMETER LEGEND	
EXT. CENTER LINE	---
PROPOSED CARRIAGEWAY	—
PROPOSED CENTER LINE	- - -
PROPOSED SHOULDER	—

LEGEND OF TREES		
TREE 1 (ŀ?300 TO ŀ?600)	t1	
TREE 2 (ŀ?600 TO ŀ?900)	t2	
TREE 3 (ŀ?900 TO ŀ?1200)	t3	
TREE 4 (ŀ?1200 TO ABOVE)	t4	

NUMBER OF TREES	SIDE	
	LEFT	RIGHT
T1	52	2
T2	8	00
T3	0	0
T4	00	00

CLIENT :



Jhelum Tawi Flood Recovery Project
2nd Floor ERA Commercial Complex Rambagh
Srinagar-190 009.

PROJECT :

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DESIGN CONSULTANT:



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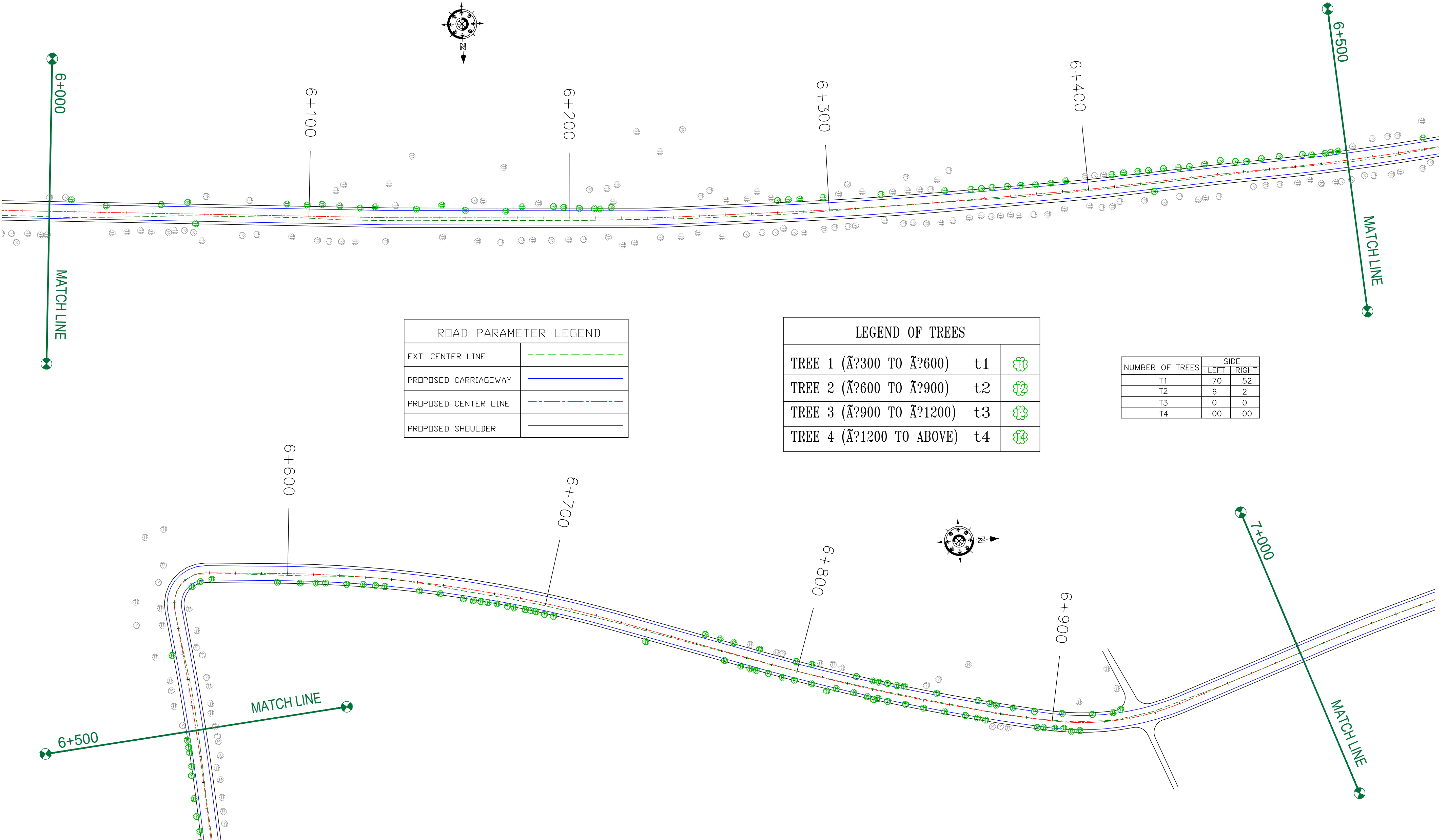
REV.	DATE	DESCRIPTION

DRAWN BY :	SD
DESIGNED BY :	SCK/MM
APPROVED BY :	KG
SCALE :	1:1000

TITLE :	
TREE CUTTING	
(Ch. 5+000 to Ch. 6+000)	
DRG. NO. : EPTISA/JTRFP/DPR/J&K/TC/06	
REVISION : R-1	September 2019

← Hajin

Ajas →



ROAD PARAMETER LEGEND	
EXT. CENTER LINE	---
PROPOSED CARRIAGEWAY	---
PROPOSED CENTER LINE	---
PROPOSED SHOULDER	---

LEGEND OF TREES		
TREE 1 (300 TO 600)	t1	☼
TREE 2 (600 TO 900)	t2	☼
TREE 3 (900 TO 1200)	t3	☼
TREE 4 (1200 TO ABOVE)	t4	☼

NUMBER OF TREES	SIDE	
	LEFT	RIGHT
T1	70	52
T2	6	2
T3	0	0
T4	00	00

CLIENT :



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2nd Floor ERA Commercial Complex Rambagh
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REV.	DATE	DESCRIPTION

DRAWN BY :	SD
DESIGNED BY :	SCK/MM
APPROVED BY :	KG
SCALE :	1:1000

TITLE :

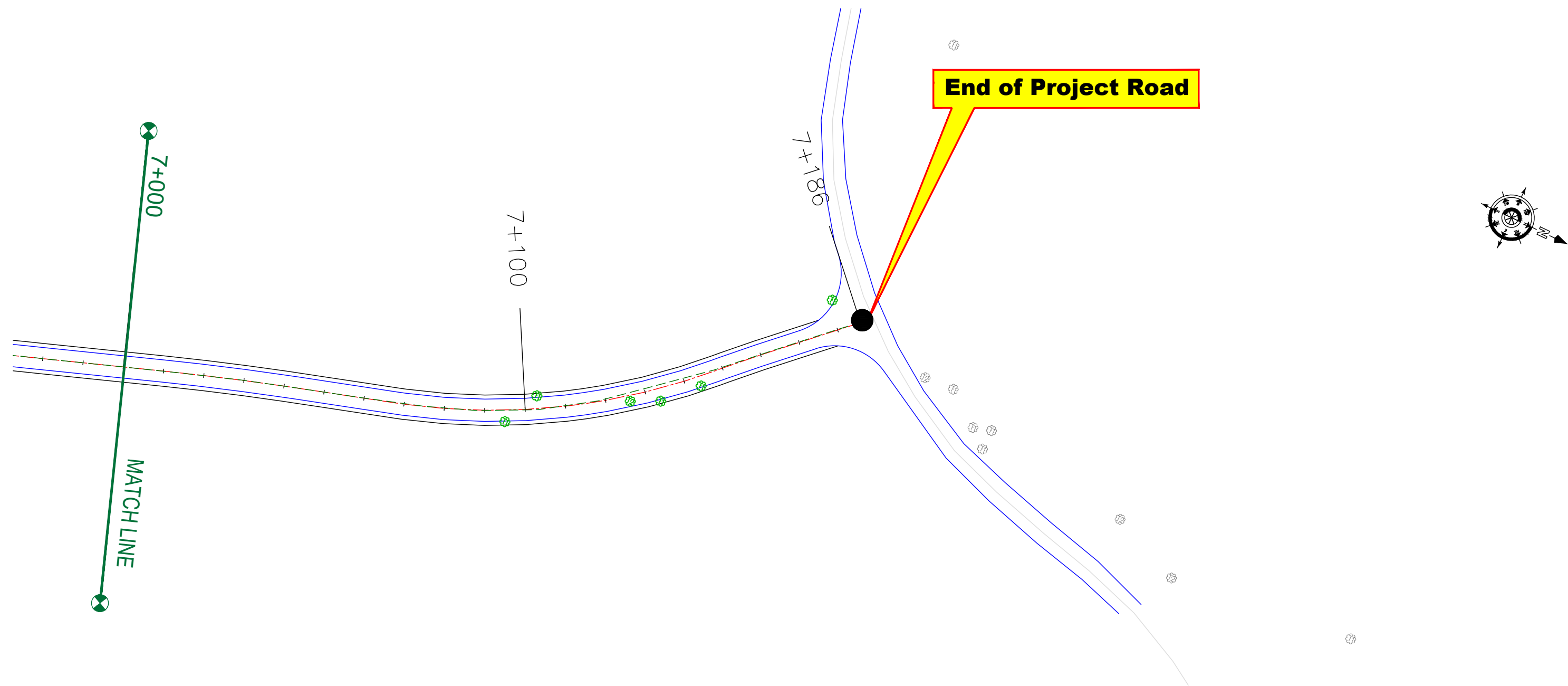
TREE CUTTING

(Ch. 6+000 to Ch. 7+000)

DRG. NO. : EPTISA/JTRP/DPR/J&K/TC/07

REVISION : R-1

September 2019



ROAD PARAMETER LEGEND	
EXT. CENTER LINE	---
PROPOSED CARRIAGEWAY	---
PROPOSED CENTER LINE	---
PROPOSED SHOULDER	---

LEGEND OF TREES		
TREE 1 (300 TO 600)	t1	
TREE 2 (600 TO 900)	t2	
TREE 3 (900 TO 1200)	t3	
TREE 4 (1200 TO ABOVE)	t4	

NUMBER OF TREES	SIDE	
	LEFT	RIGHT
T1	2	3
T2	0	1
T3	0	0
T4	00	00

CLIENT :



Jhelum Tawi Flood Recovery Project
2nd Floor ERA Commercial Complex Rambagh
Srinagar-190 009.

PROJECT :

Consultancy Services for Preparing Detailed Project Report
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DESIGN CONSULTANT:



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West Bengal
Ph: 033-40347200
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REV.	DATE	DESCRIPTION

DRAWN BY : SD

DESIGNED BY : SCK/MM

APPROVED BY : KG

SCALE : 1:1000

TITLE :

TREE CUTTING

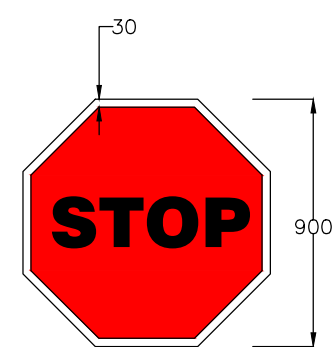
(Ch. 7+000 to Ch. 7+186)

DRG. NO. : EPTISA/JTFRP/DPR/J&K/TC/08

REVISION : R-1

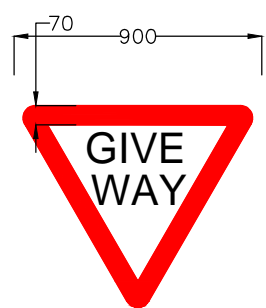
September 2019

≡ MISCELLANEOUS DRAWINGS ≡



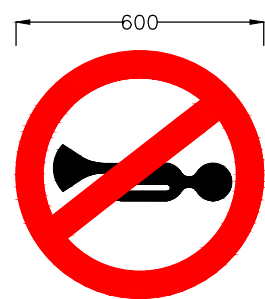
STOP SIGNS
Fig. 14.01

MS-1



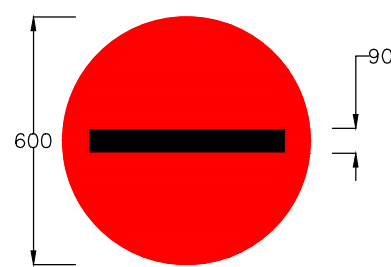
GIVE WAY
Fig. 14.02

MS-2



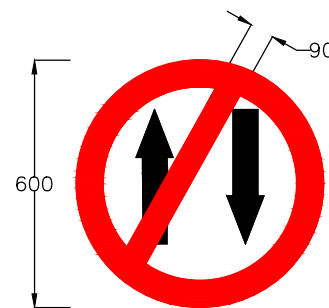
HORN PROHIBITED
Fig. 14.18

MS-3



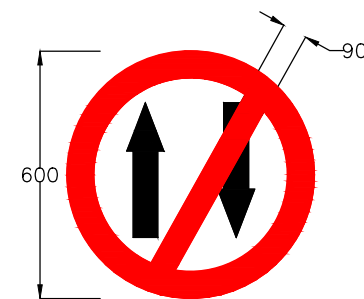
NO ENTRY
Fig. 14.19

MS-4



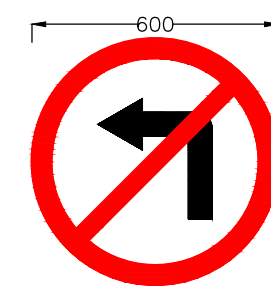
ONE WAY
Fig. 14.20

MS-5



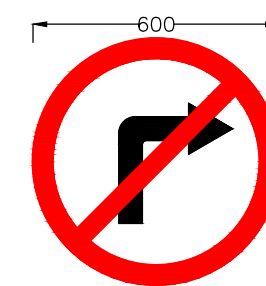
ONE WAY
Fig. 14.20

MS-6



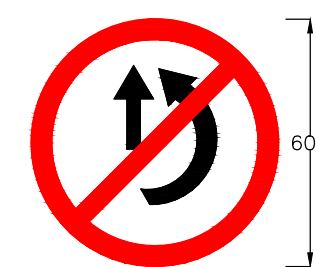
LEFT TURN PROHIBITED
Fig. 14.21

MS-7



RIGHT TURN PROHIBITED
Fig. 14.22

MS-8



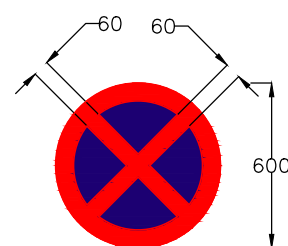
OVERTAKING PROHIBITED
Fig. 14.23

MS-9



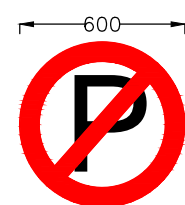
U- TURN PROHIBITED
Fig. 14.24

MS-10



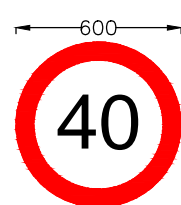
NO STOPPING AND NO STANDING
Fig. 14.28

MS-11



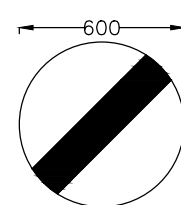
NO PARKING
Fig. 14.29

MS-12



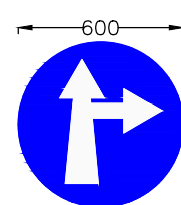
MAXIMUM SPEED LIMIT
Fig. 14.37

MS-13



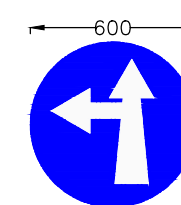
RESTRICTION ENDS
Fig. 14.40

MS-14



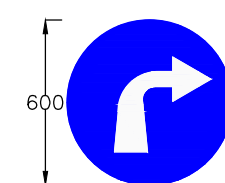
COMPULSORY AHEAD
OR RIGHT TURN
Fig. 14.42

MS-15



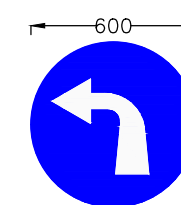
COMPULSORY AHEAD
OR LEFT TURN
Fig. 14.43

MS-16



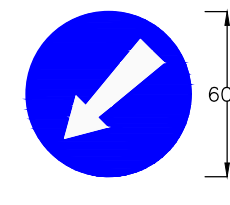
COMPULSORY
TURN RIGHT
Fig. 14.46

MS-17



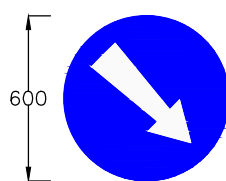
COMPULSORY
TURN LEFT
Fig. 14.47

MS-18



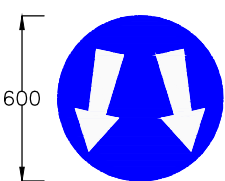
COMPULSORY KEEP LEFT
Fig. 14.48

MS-19



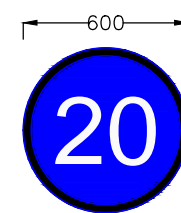
COMPULSORY KEEP RIGHT
Fig. 14.49

MS-20



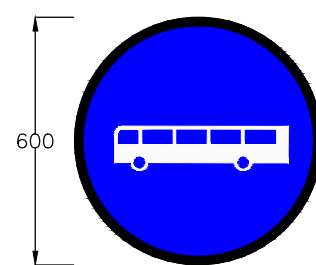
PASS EITHER SIDE
Fig. 14.50

MS-21



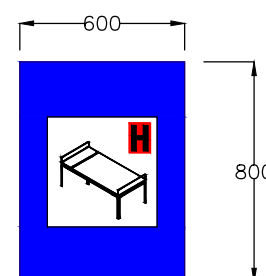
MINIMUM SPEED LIMIT
Fig. 14.51

MS-22



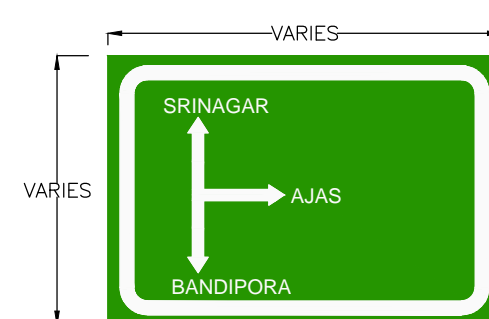
BUS WAY/BUSES ONLY
Fig. 14.56

MS-23



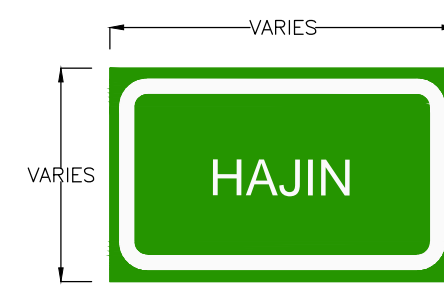
HOSPITAL
Fig. 17.07

IS-08



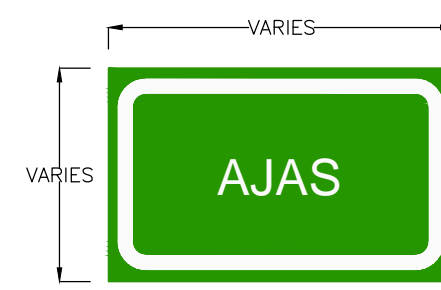
ADVANCE DIRECTION SIGN
Fig. 16.03

DS-01



PLACE IDENTIFICATION SIGN
Fig. 16.06

DS-02



PLACE IDENTIFICATION SIGN
Fig. 16.06

DS-03


Notes:

1. Road signs shall be erected as per IRC:67-2012.
2. Sizes of arrows, letters and numerals for road signs shall be as per IRC:67-2012
3. Route marker signs, letters and numerals shall be erected as per IRC:2-1968.
4. Spacing of TA2 on kerb face shall be 250mm C/C and that on metal beam crash barrier shall be 3000mm C/C. The number of reflector at island/median tips shall be as instructed by the Engineer, but in no case shall be less than five number at a tip.
5. All items indicated in this drawing may not be relevant for the subject project, these shall be used depending upon the requirement.
6. Besides the above, standards and specifications mentioned in IRC : SP : 73-2015 shall be followed strictly whenever applicable.
7. All dimensions are in millimetres unless otherwise mentioned.

CLIENT :

Jhelum Tawi Flood Recovery Project
2nd Floor ERA Commercial Complex Rambagh
Srinagar-190 009.

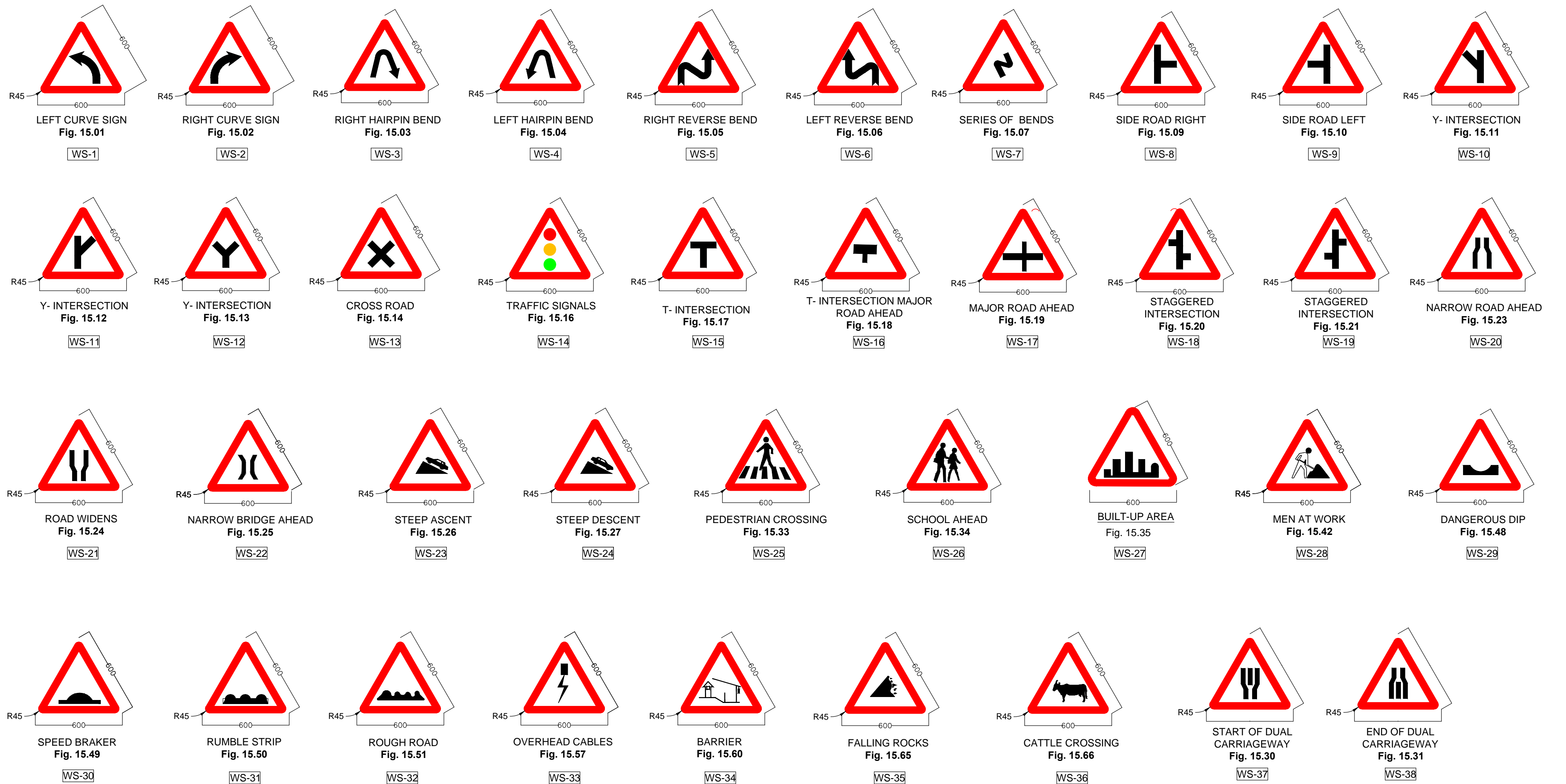
PROJECT :
Consultancy Services for Preparing Detailed Project Report
for the Road works in Jammu and Kashmir
(Hajin-Ajas via Saidnara in Bandipora District)

DESIGN CONSULTANT:
 **Eptisa Servicios de Ingenieria S.L.**
Unit 1203, 12th Floor, Tower 1, PS Srijan
Corporate Park, Plot No. 2, Block EP & GP,
Sector v, Salt Lake Kolkata - 700091,
West Bengal
Ph: 033-40347200
www.eptisa.com

REV.	DATE	DESCRIPTION

DRAWN BY : SD
DESIGNED BY : SCK/MM
APPROVED BY : KG
SCALE : N.T.S

TITLE :
Road Signs & Road Delineators
DRG. NO. : EPTISA/JTRP/DPR/J&K/MISC/01
(Sheet 01 of 03)
REVISION : R-1
September 2019



Notes:

- 1.Road signs shall be erected as per IRC:67–2012.
- 2.Sizes of arrows, letters and numerals for road signs shall be as per IRC:67–2012
- 3.All items indicated in this drawing may not be relevant for the subject project, these shall be used depending upon the requirement.
- 4.Besides the above, standards and specifications mentioned in IRC:SP:73–2015 shall be followed strictly whenever applicable.
- 5.All dimensions are in millimetres unless otherwise mentioned.

CLIENT :



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REV.	DATE	DESCRIPTION

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DESIGNED BY :

SCK/MM

APPROVED BY :

KG

SCALE :

N.T.S

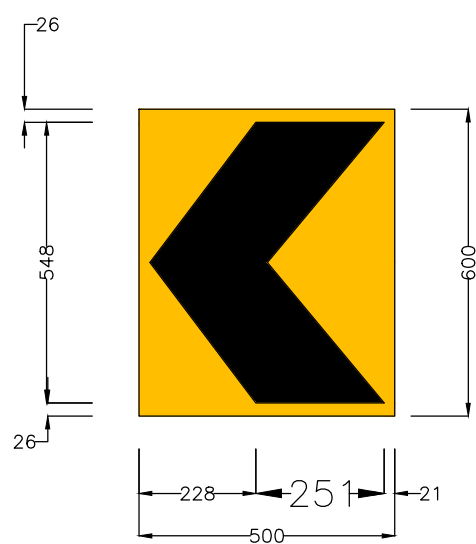
TITLE :

Road Signs & Road Delineators

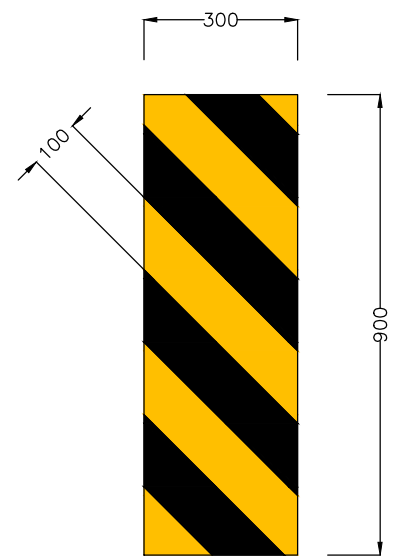
DRG. NO. : EPTISA/JTRP/DPR/J&K/MISC/01
(Sheet 02 of 03)

REVISION : R-1

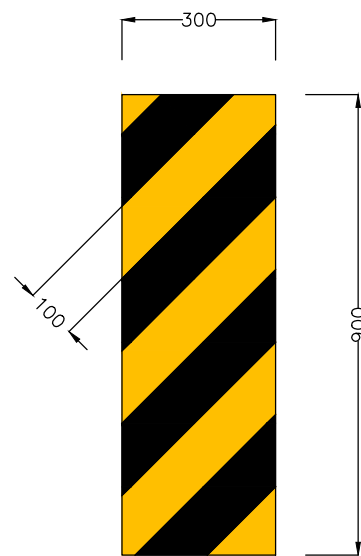
September 2019



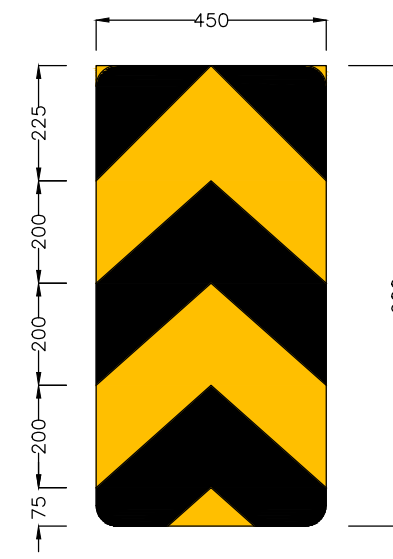
SINGLE CHEVRON
Fig. 15.72
TA-1
SCALE 1:15000



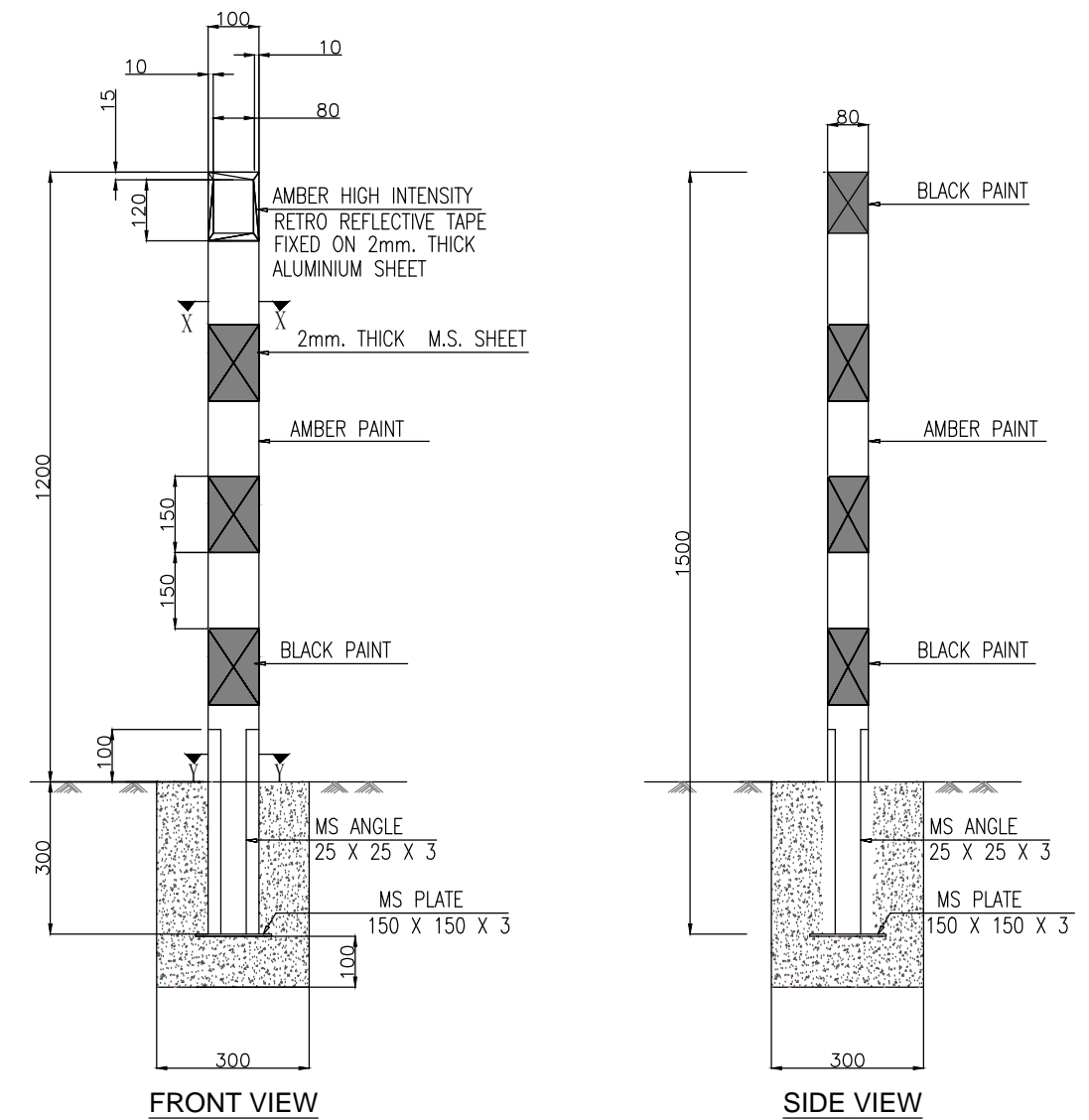
OBJECT HAZARD (LEFT)
Fig. 15.76
TA-2
SCALE 1:15000



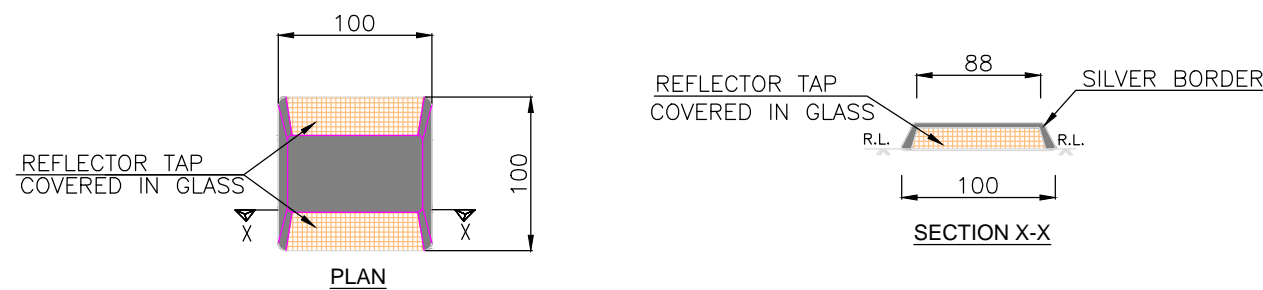
OBJECT HAZARD (RIGHT)
Fig. 15.77
TA-3
SCALE 1:15000



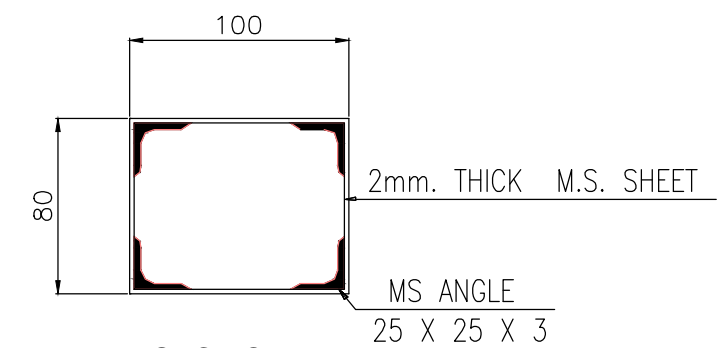
TWO WAY HAZARD MARKER
Fig. 15.78
TA-4
SCALE 1:15000



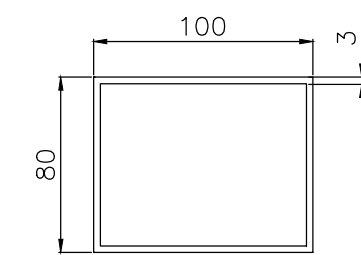
ROAD DELINEATORS
TA-6
SCALE 1:15000



ROAD STUDS (CATS'S EYE)
TA-7
SCALE 1:5000



SECTION Y-Y
SCALE 1:3500



SECTION X-X
SCALE 1:3500


Notes:

- 1.Road signs shall be erected as per IRC:67–2012.
- 2.Sizes of arrows, letters and numerals for road signs shall be as per IRC:67–2012
- 3.All items indicated in this drawing may not be relevant for the subject project, these shall be used depending upon the requirement.
- 4.Besides the above, standards and specifications mentioned in IRC:SP:73–2015 shall be followed strictly whenever applicable.
- 5.All dimensions are in millimetres unless otherwise mentioned.
- 6.The scale mentioned is applicable for A2 size sheet.

CLIENT :

Jhelum Tawi Flood Recovery Project
2nd Floor ERA Commercial Complex Rambagh
Srinagar-190 009.

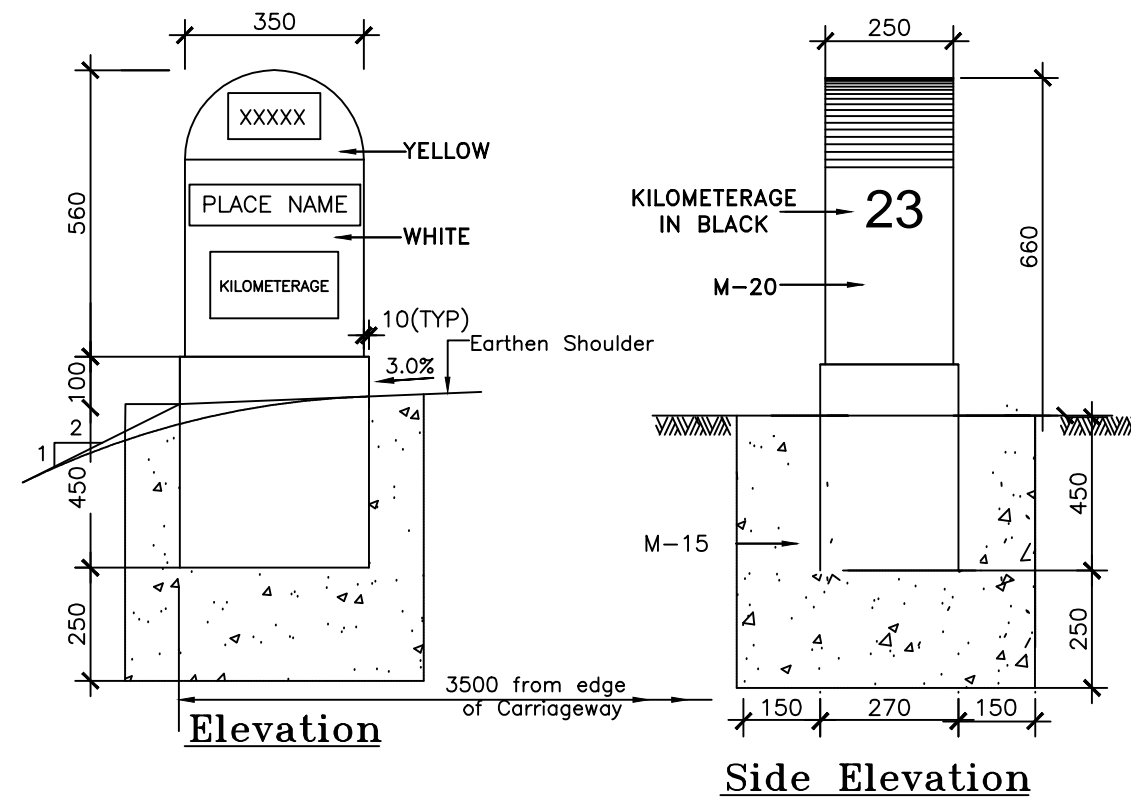
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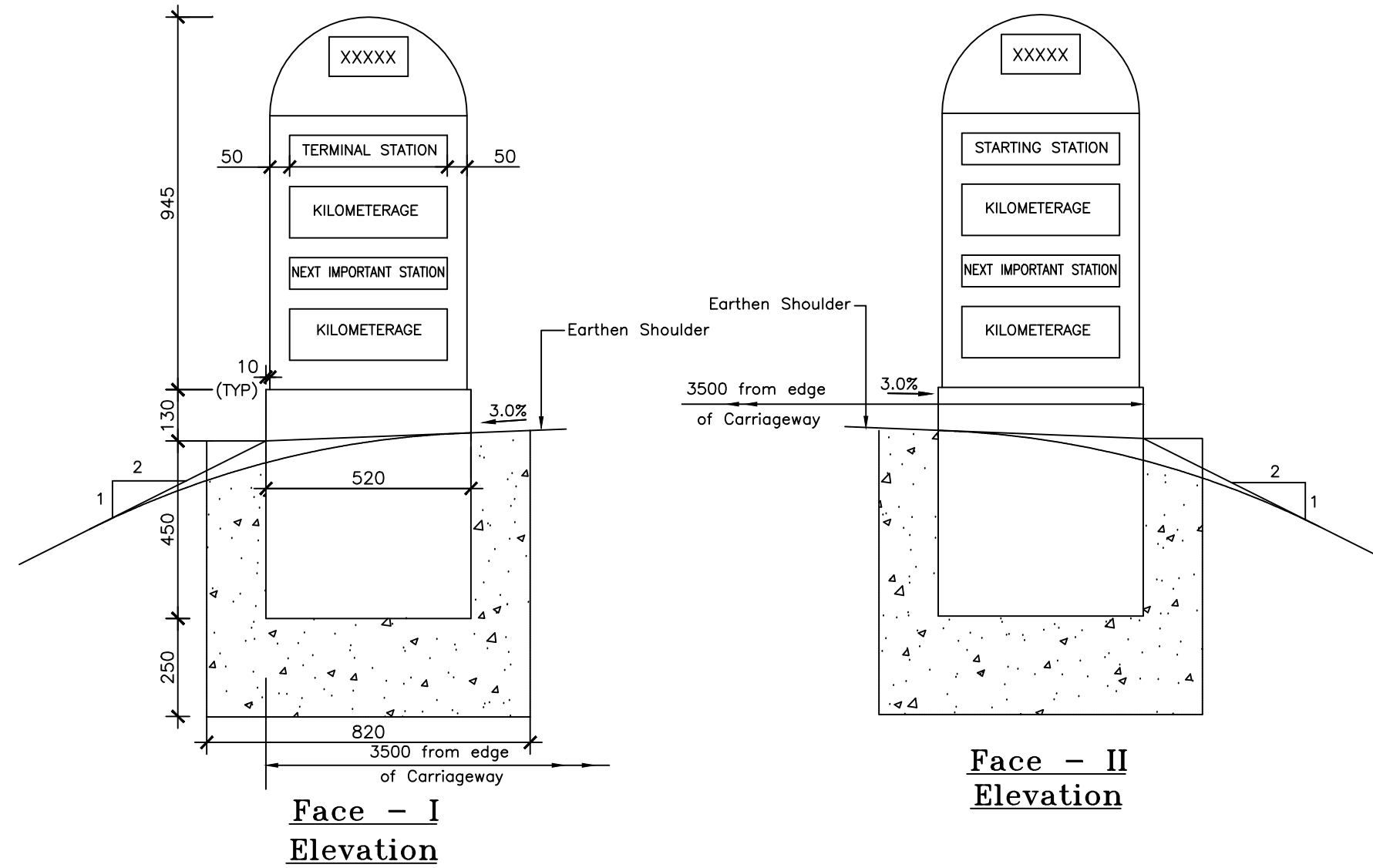
REV.	DATE	DESCRIPTION

DRAWN BY : SD
DESIGNED BY : SCK/MM
APPROVED BY : KG
SCALE : AS SHOWN

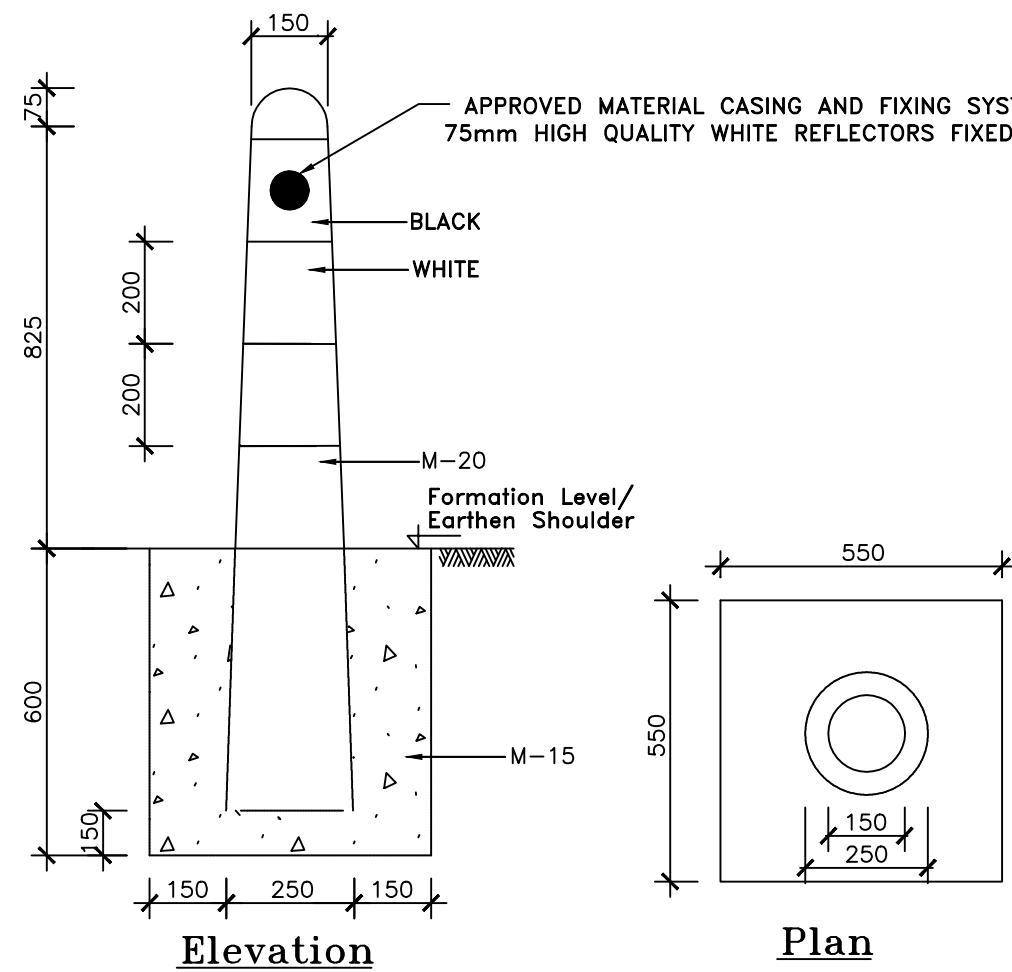
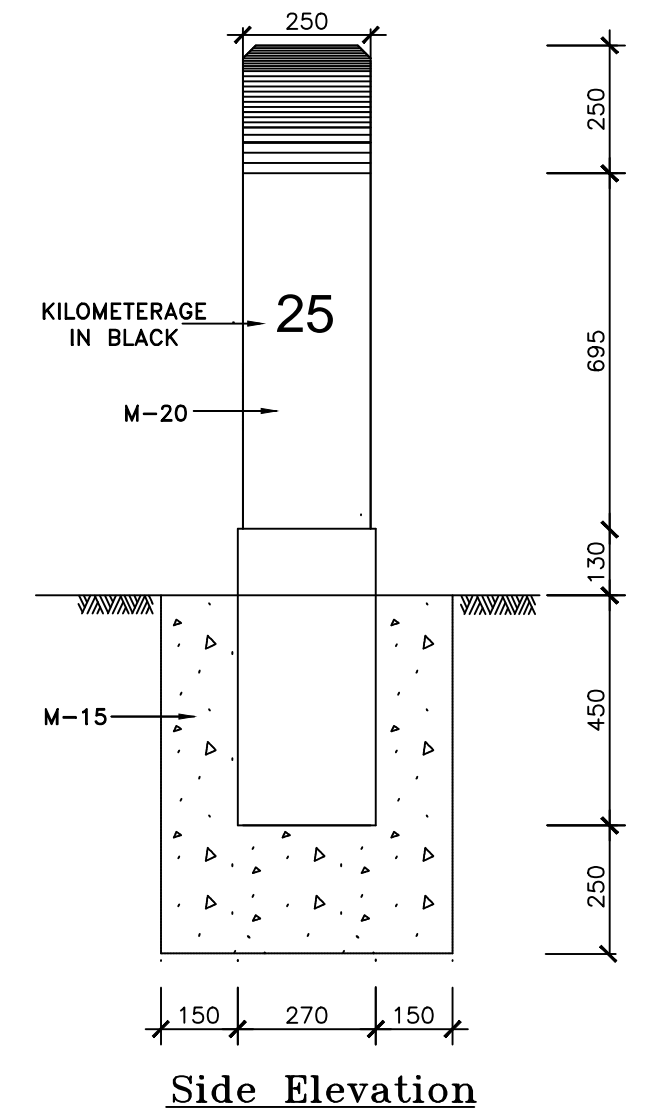
TITLE :
Road Signs & Road Delineators
DRG. NO. : EPTISA/JTRP/DPR/J&K/MISC/01
(Sheet 03 of 03)
REVISION : R-1
September 2019



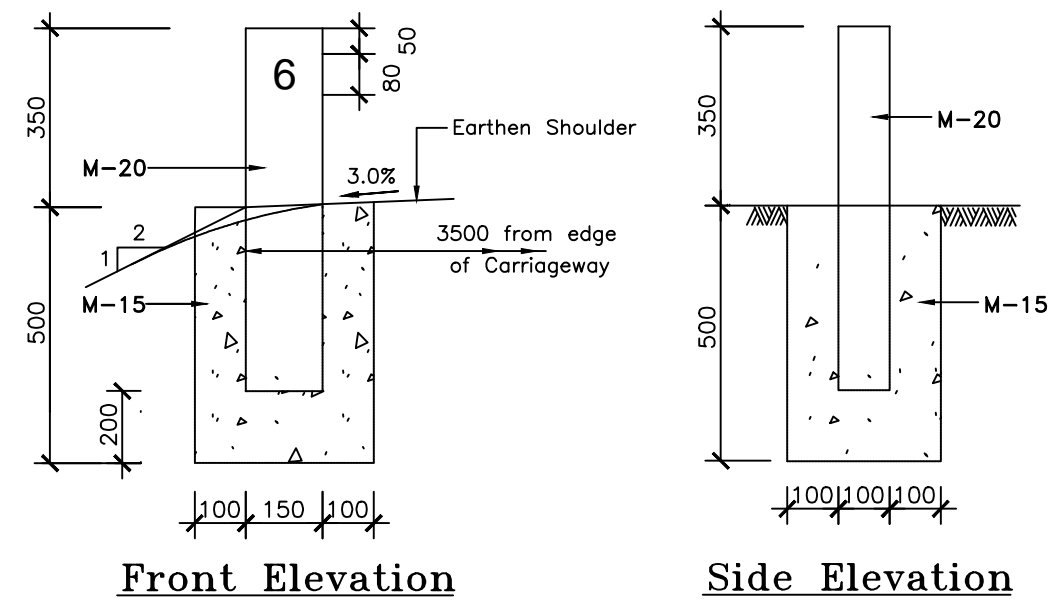
Kilometre Stone



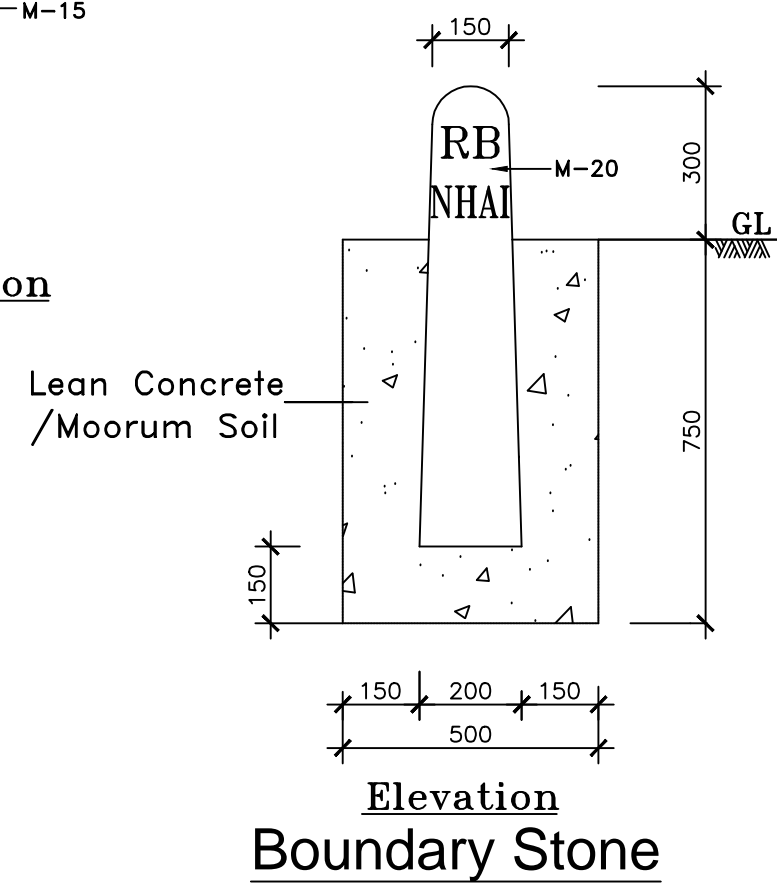
Fifth Kilometre Stone



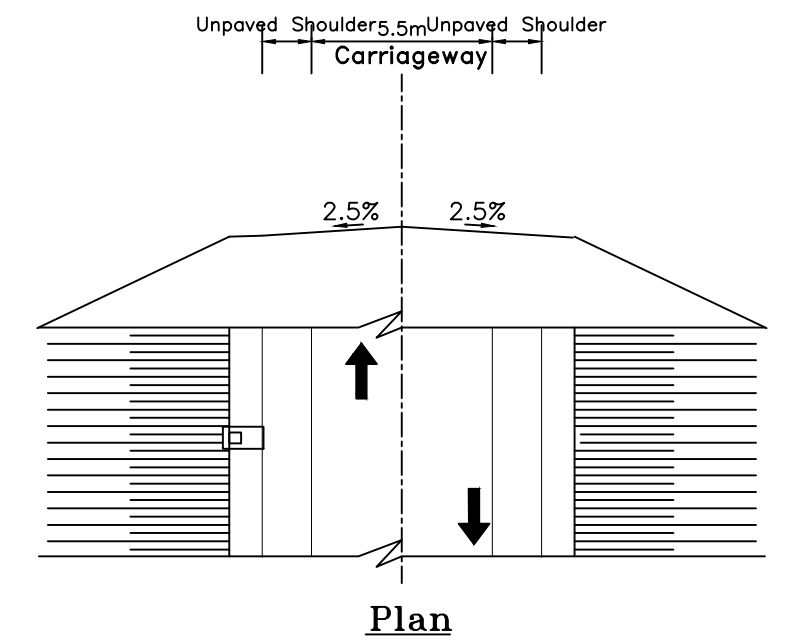
Guard Post



200 metre Stone



Boundary Stone



Location of Distance Stones

Notes:

1. Details of kilometre stone and 5th kilometre stone are generally based on IRC:8-1980
2. Details of 200m stones are generally based on IRC:26-1967.
3. The distance stones shall be provided on left side of the road as shown independently for each direction of traffic flow.
4. The letters and numerals on distance stones shall be as per IRC:8-1980.
5. Details of boundary stones are generally based on IRC:25-1967.
6. Besides the above, standards and specifications mentioned in IRC : SP : 73-2015 shall be followed strictly whenever applicable.
7. All dimensions are in millimetres unless otherwise mentioned.
8. Location of Distance Stones shall be as per applicable TCSs for the stretches where Depressed Median has been provided.

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REV.	DATE	DESCRIPTION

DRAWN BY :	SD
DESIGNED BY :	SCK/MM
APPROVED BY :	KG
SCALE :	N.T.S

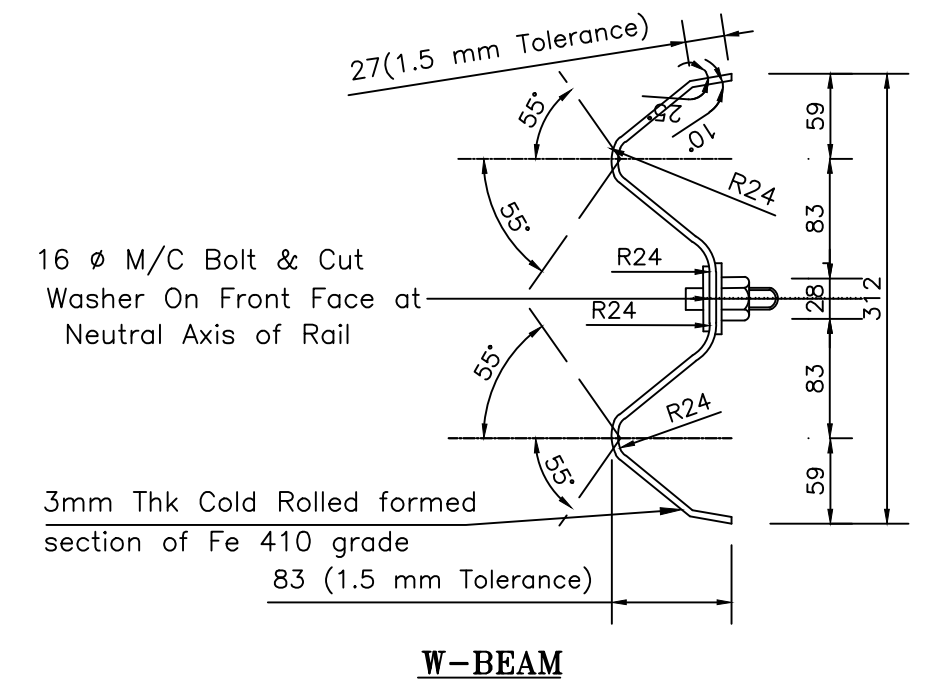
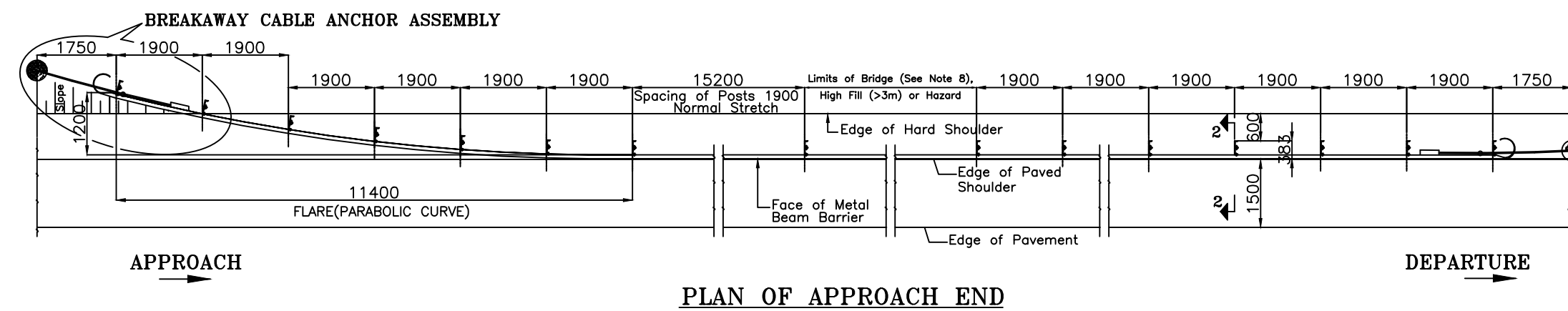
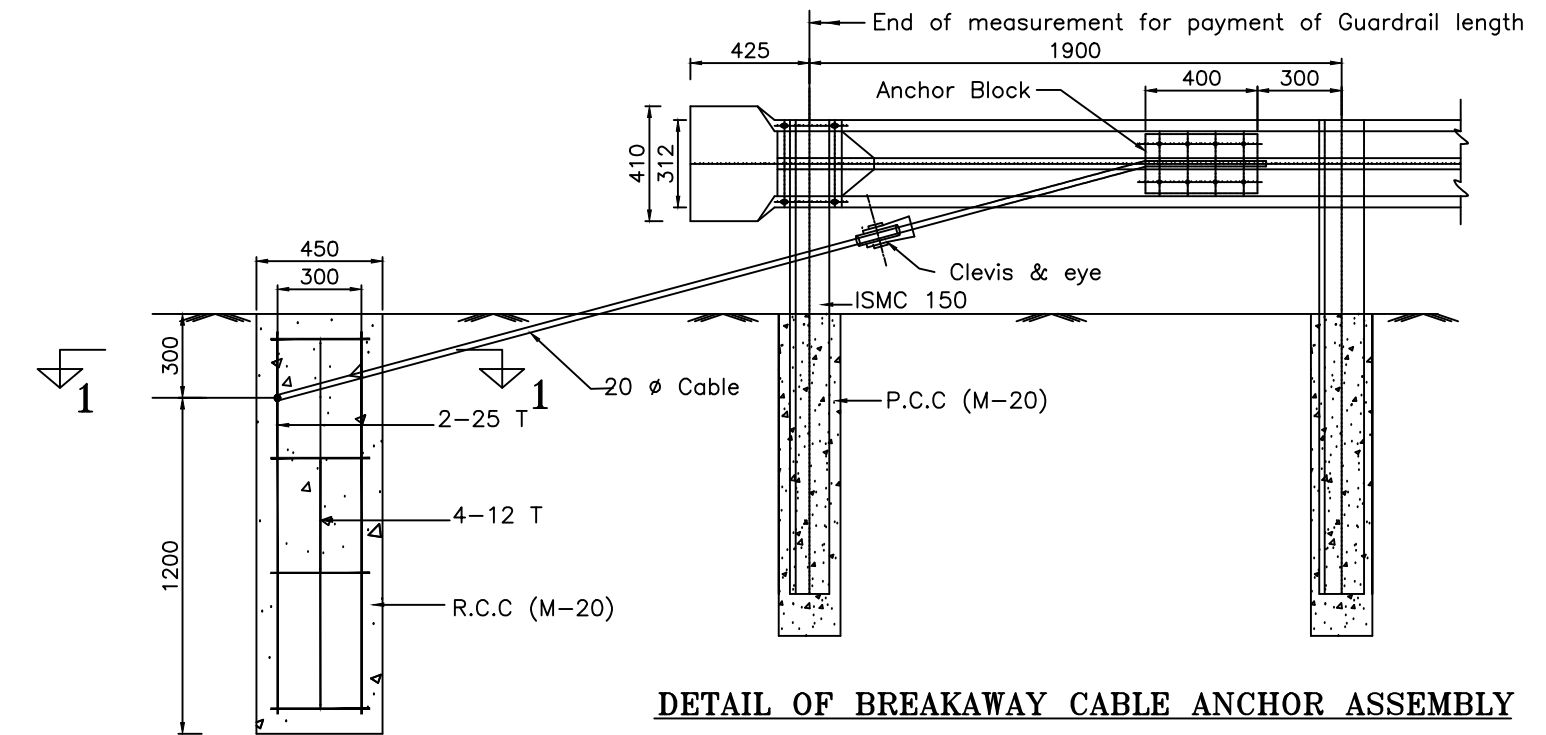
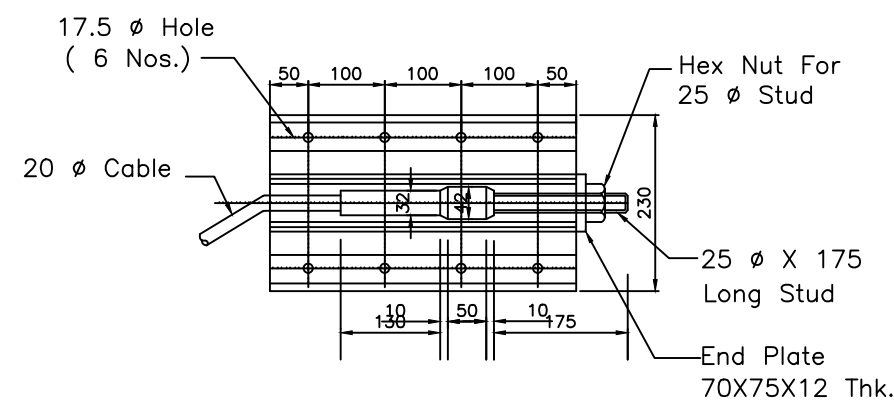
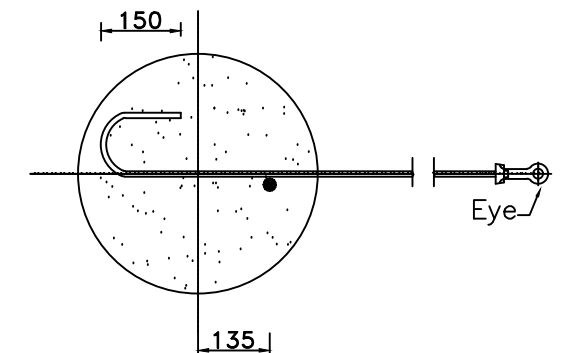
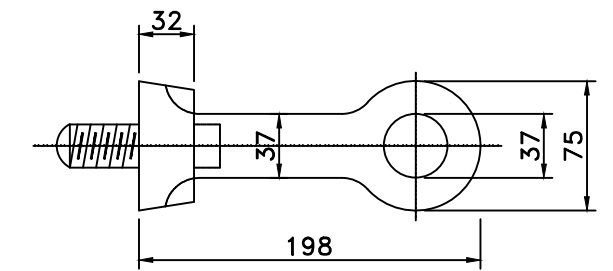
TITLE :

Typical Details of Distance Stone,
Boundary Stone & Guard Post

DRG. NO. : EPTISA/JTRP/DPR/J&K/MISC/02

REVISION : R-1

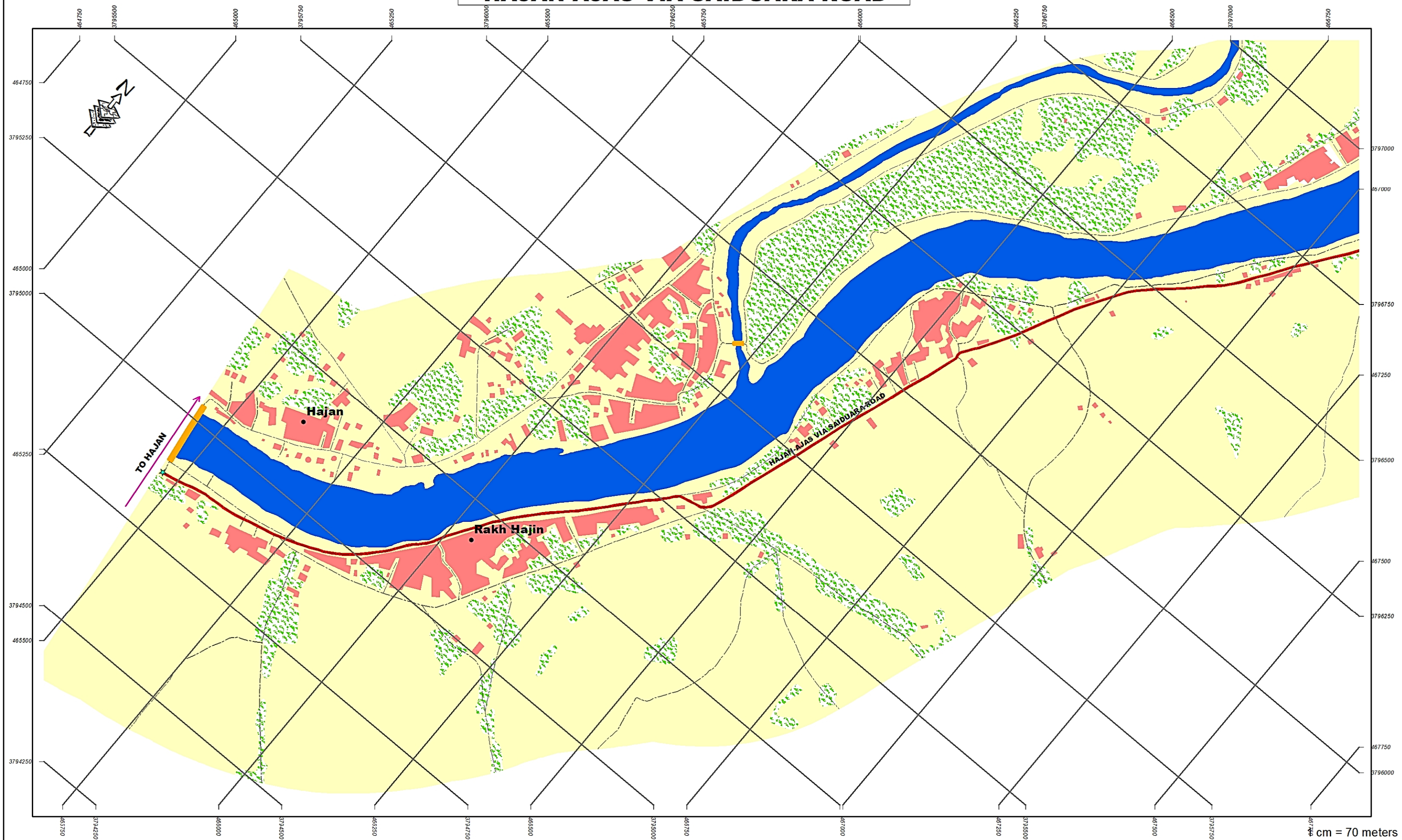
September 2019



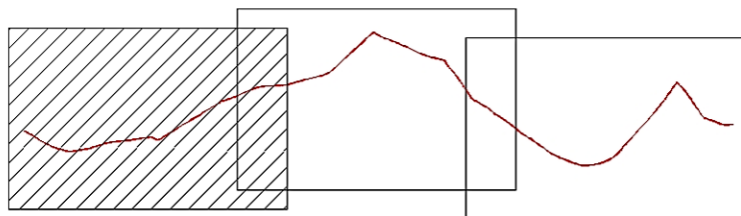
1. All dimensions are in millimetres unless otherwise mentioned
2. Suitable reflectors are to be provided on W-Beam at a spacing of 3 m c/c
3. Anchor cable hooks to be in contact with anchor reinforcement when concrete is placed
4. All holes in posts and blocks shall be 21.50mm max
5. W-beam shall be as per IS : 5986 – 1992 and post, spacers etc. shall be as per IS : 2062 – 1992
6. W-beam, posts & spacers shall be hot dip galvanised as per specifications
7. At bridge locations, the metal beam crash barrier shall terminate preferably with end section Type A and connected with bridge/culvert railing/crash barrier in a suitable manner as approved.
8. Besides the above, standards and specifications mentioned in IRC : SP : 73-2015 shall be followed strictly whenever applicable.

TITLE : Details of Metal Beam Crash Barrier	
DRG. NO. : EPTISA/JTRFP/DPR/J&K/MISC/03	
REVISION : R-1	September 2019

HAJAN-AJAS VIA SAIDUARA ROAD

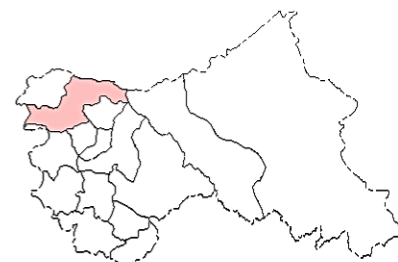


INDEX MAP



Legend

- | | | |
|-----------------------|---------------------|-----------------------|
| ▲ Importance LandMark | --- Road Centerline | Water |
| ★ Start End Point | Proposed Road | Swamp |
| ● Village Name | Major Road | Vegetation |
| Park | Other Road | Open/Agriculture Land |
| Bridge | Building | |
| Restricted Area | Forest | |



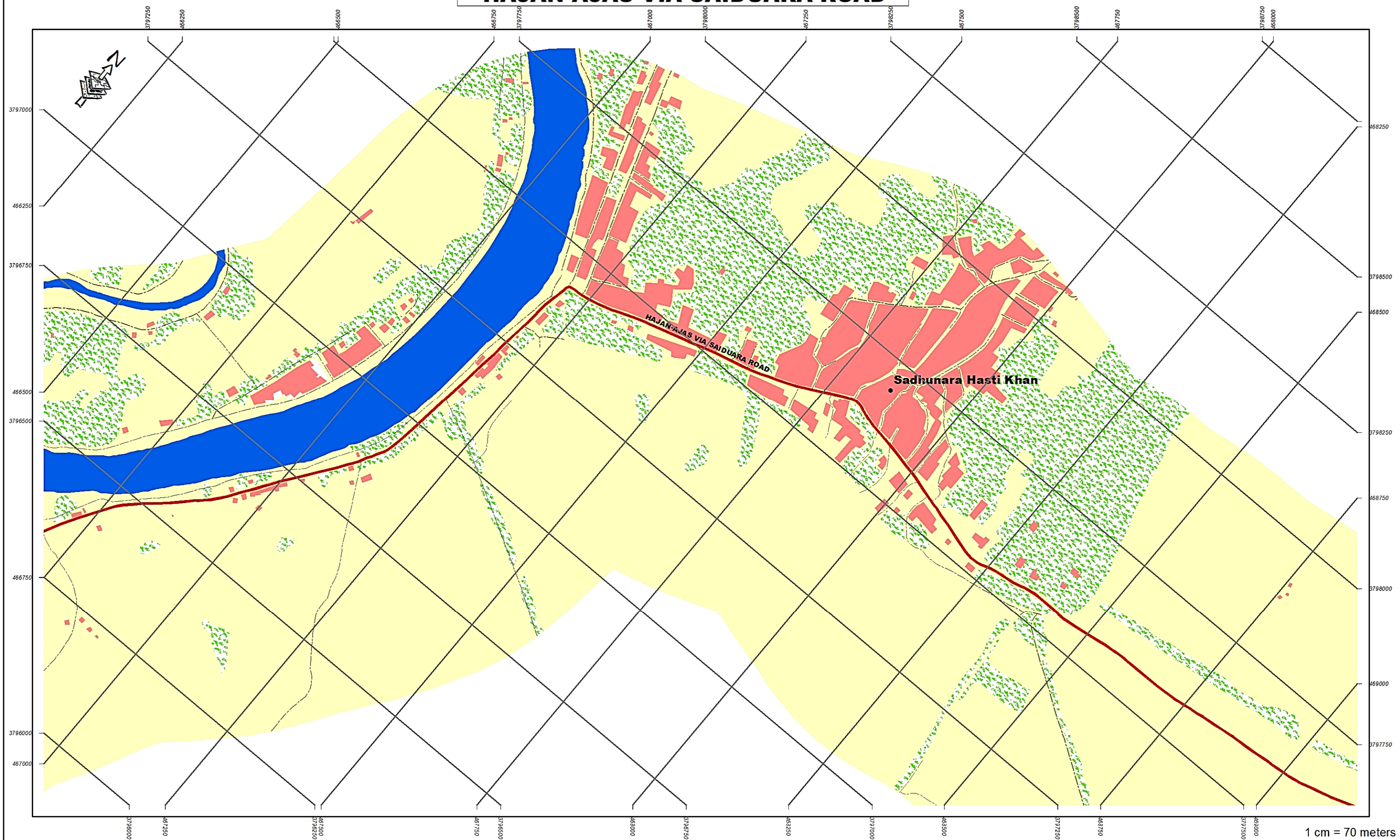
Project: JHELUM TAWI FLOOD RECOVERY PROJECT

Sub-Project: FOR RECONSTRUCTION OF
HAJAN-AJAS VIA SAIDUARA ROAD
UNDER KASHMIR DIVISION

Agency: PROJECT MANAGEMENT UNIT JTFRP

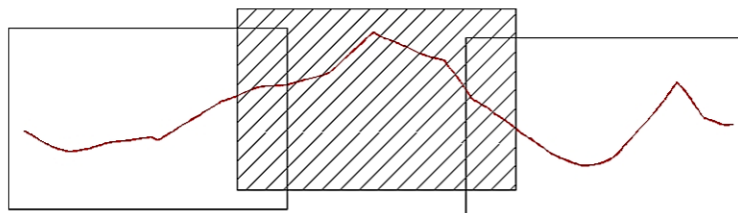
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HAJAN-AJAS VIA SAIDUARA ROAD



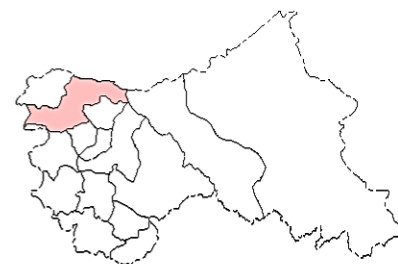
1 cm = 70 meters

INDEX MAP



Legend

- | | | |
|-----------------------|---------------------|-----------------------|
| ▲ Importance LandMark | --- Road Centerline | Water |
| ★ Start End Point | Red Proposed Road | Swamp |
| ● Village Name | Major Road | Vegetation |
| Park | Other Road | Open/Agriculture Land |
| Bridge | Building | |
| Restricted Area | Forest | |



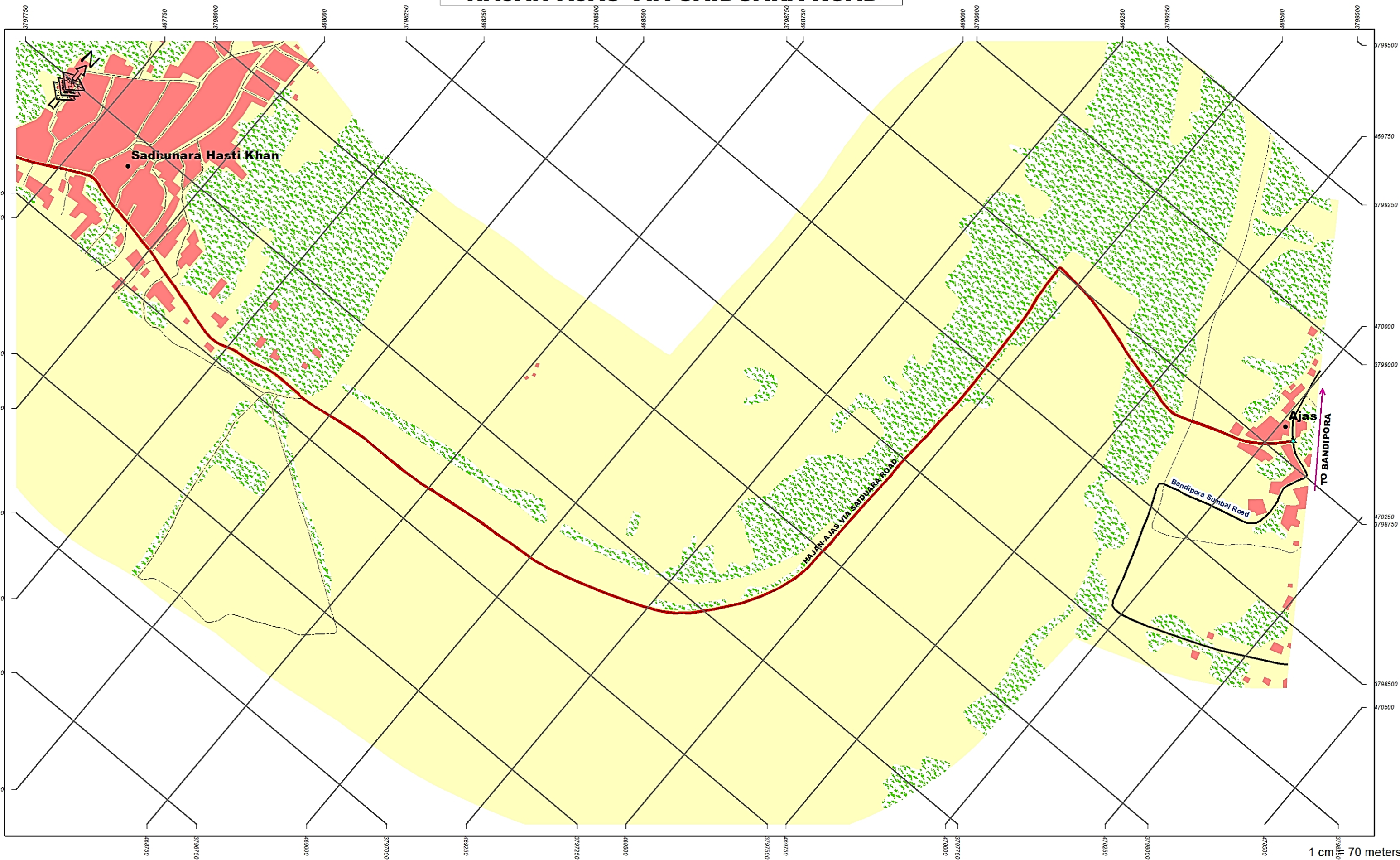
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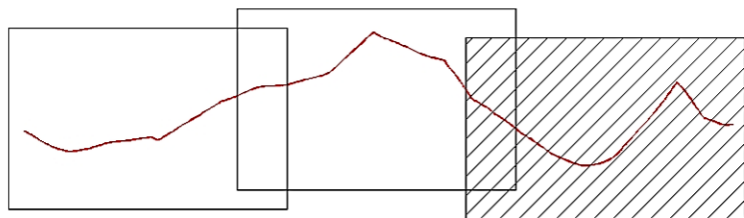
Agency: PROJECT MANAGEMENT UNIT JTFRP

eptisa

HAJAN-AJAS VIA SAIDUARA ROAD

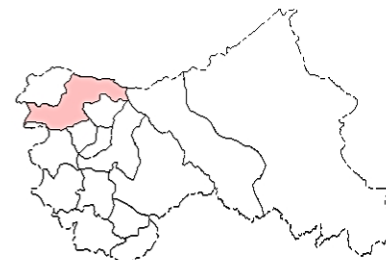


INDEX MAP



Legend

- | | | |
|-----------------------|---------------------|-----------------------|
| ▲ Importance LandMark | --- Road Centerline | Water |
| ★ Start End Point | Proposed Road | Swamp |
| ● Village Name | Major Road | Vegetation |
| Park | Other Road | Open/Agriculture Land |
| Bridge | Building | |
| Restricted Area | Forest | |



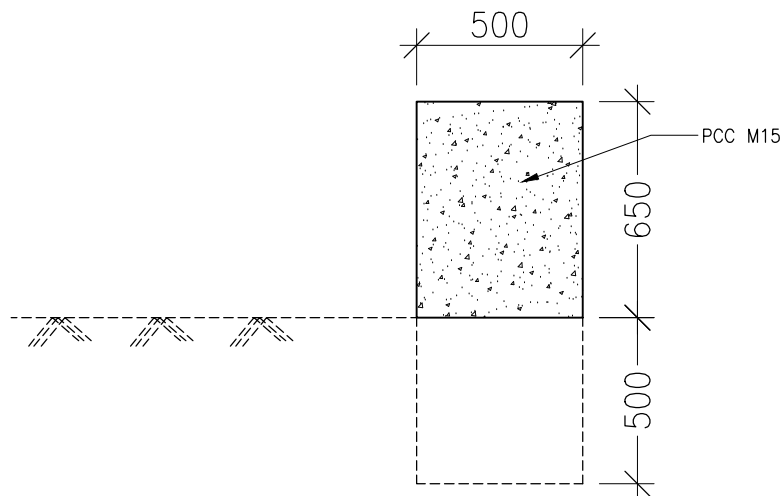
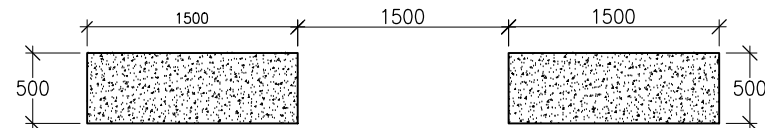
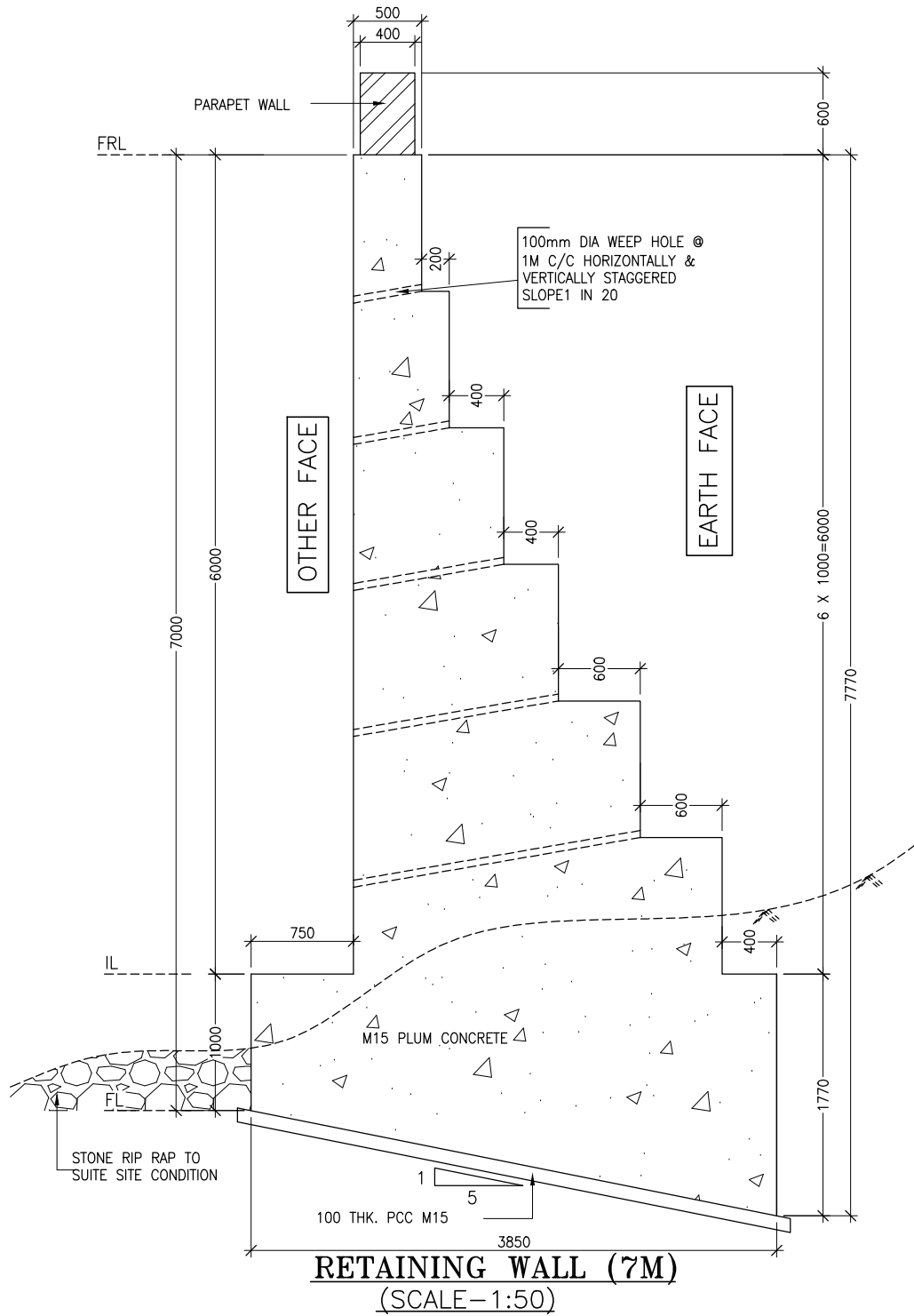
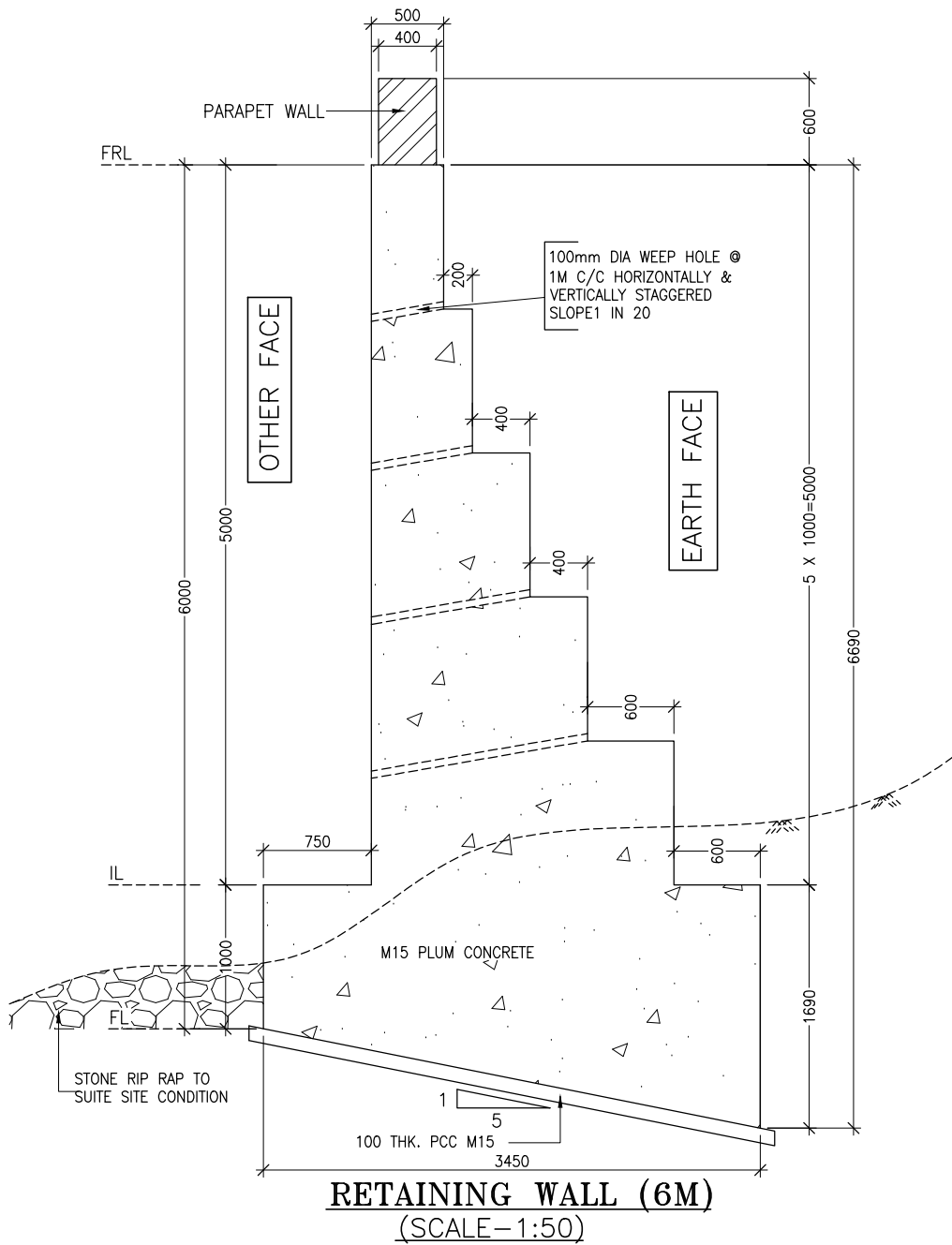
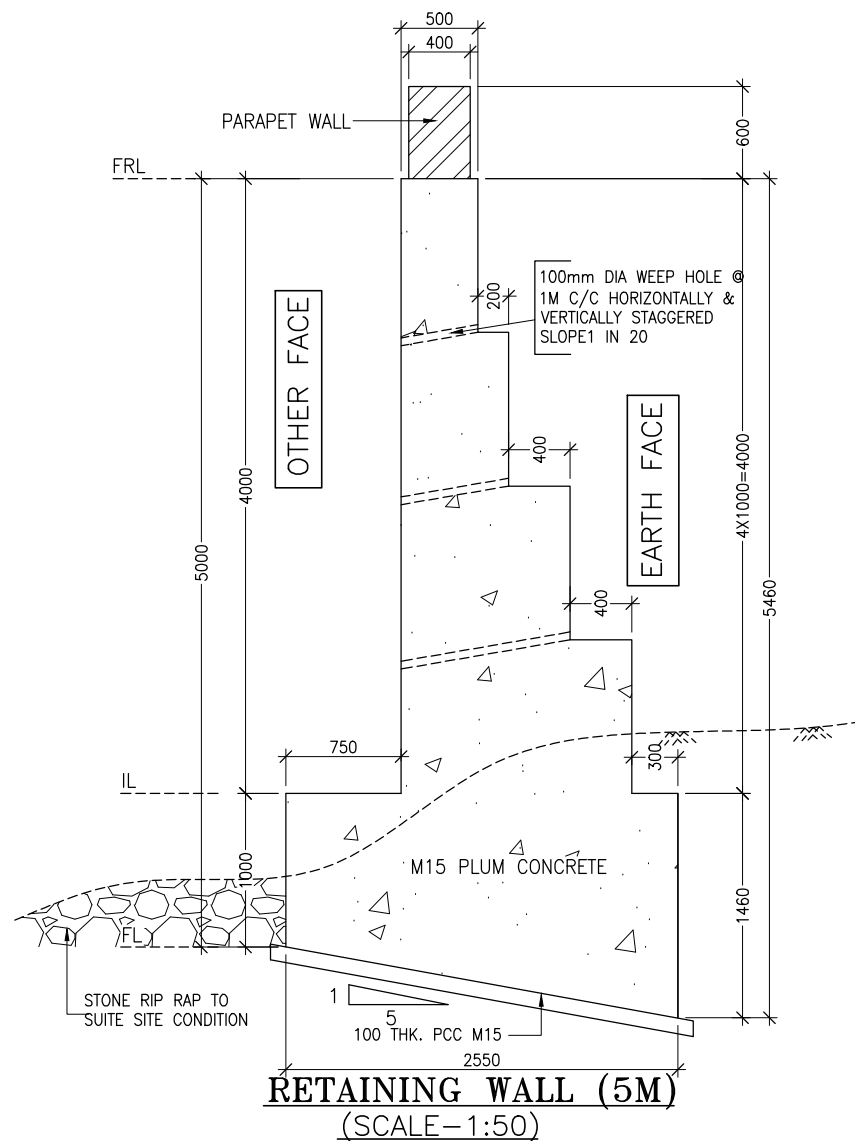
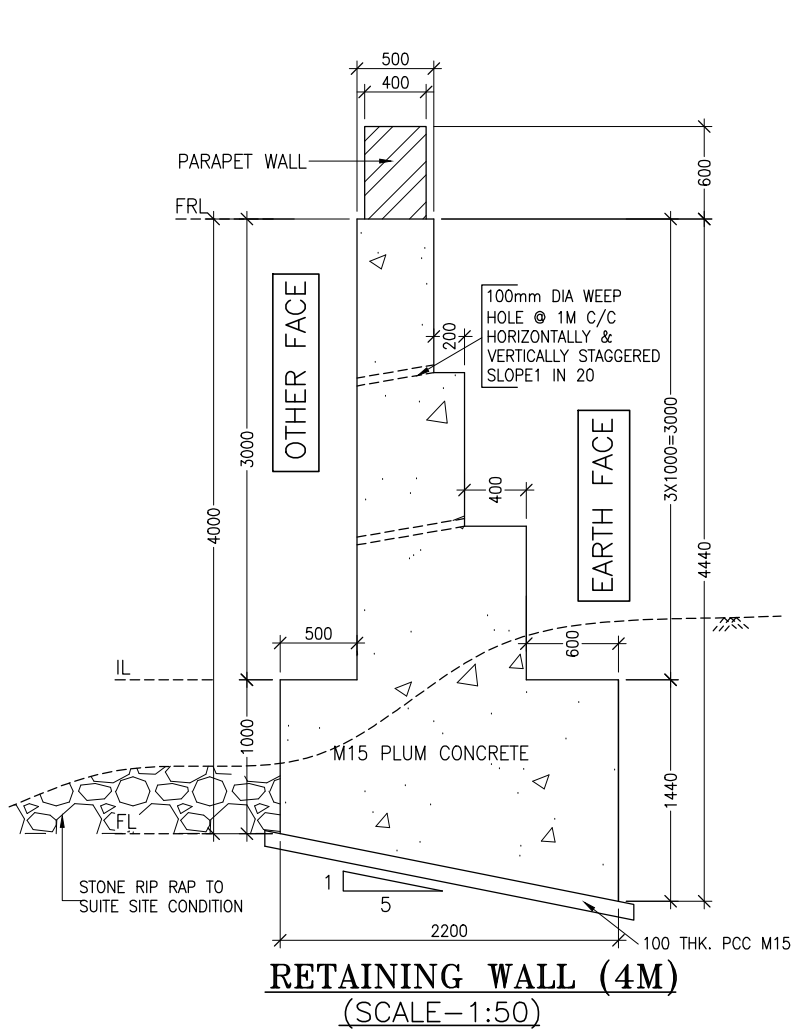
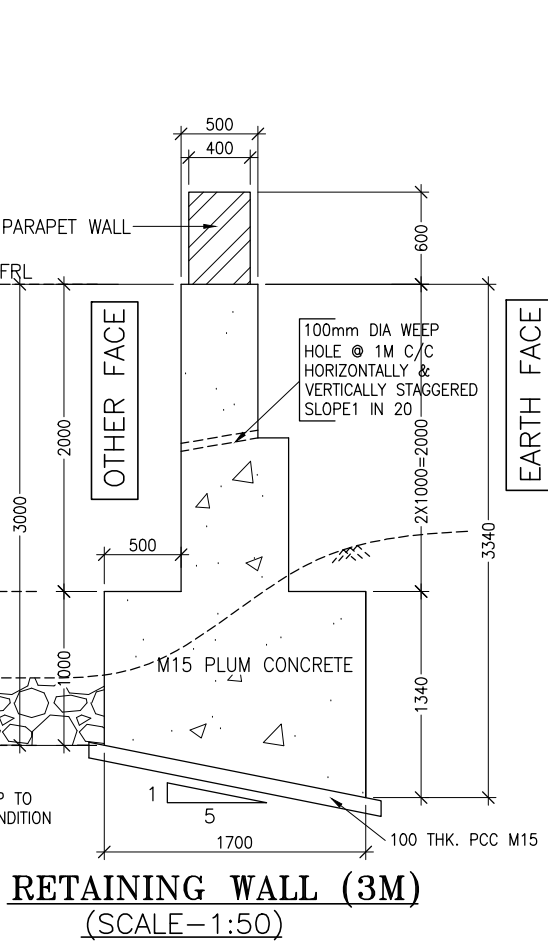
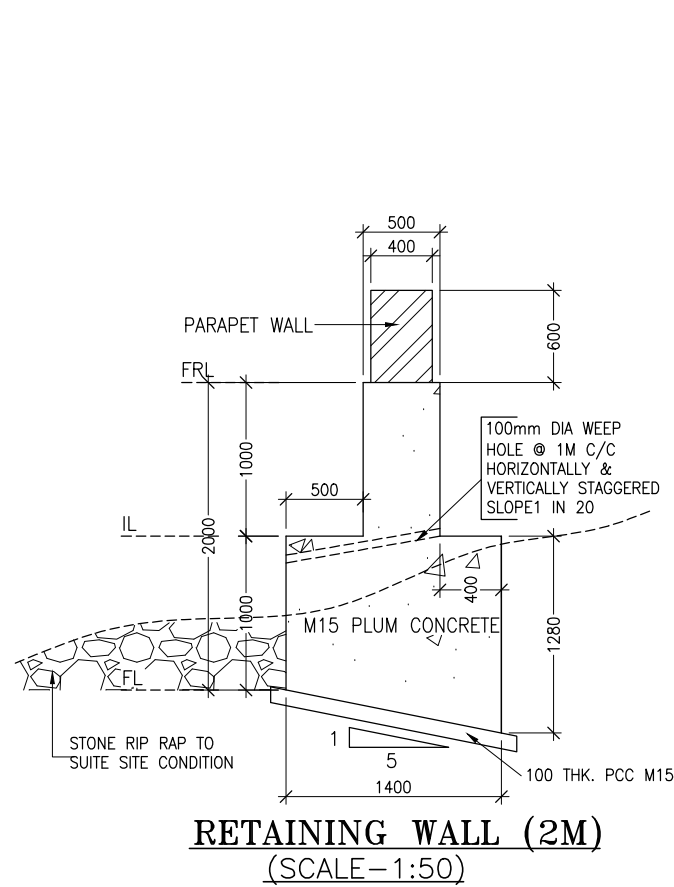
Project: JHELM TAWI FLOOD RECOVERY PROJECT

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UNDER KASHMIR DIVISION

Agency: PROJECT MANAGEMENT UNIT JTFRP

eptisa

DETAILS OF PCC RETAINING WALL



- NOTES :**
- ALL DIMENSIONS ARE IN MM. UNLESS OTHERWISE MENTIONED.
 - DIMENSIONS ARE NOT TO BE SCALED. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
 - 100 DIA WEEP HOLES WITH SLOPE 1 IN 20 SHALL BE PROVIDED AT SPACING OF 1000 C/C BOTH HORIZONTALLY & VERTICALLY (STAGGERED) IN FULL HEIGHT OF THE RETAINING WALL WITH BOTTOM MOST ROW 150mm ABOVE G.L.
 - BACK FILLING AND FILTER MEDIA BEHIND THE RETAINING WALL SHALL BE PROVIDED WITH SELECTED EARTH CONFORMING TO APPENDIX 6 OF IRC:78-2000 HAVING PROPERTIES $\phi=35^\circ$, $C=0$, $\gamma=21/m^3$
 - ALL FACE OF WALL SHALL BE PROVIDED WITH A MINIMUM STEEL OF 250mm² IN EACH DIRECTION. SPACING OF THESE BARS SHALL NOT EXCEED 300mm.
 - THESE DRAWING ARE APPLICABLE FOR M15 PCC OR M15 GRADE CONCRETE WITH PLUM. REFER SPECIFICATIONS FOR PLUM CONCRETE GIVEN IN THIS DRAWING.
- PLUM CONCRETE SPECIFICATIONS:**
- THE SIZE OF STONE PLUMS MAY BE FORM 150-300MM. THE MAXIMUM DIMENSION OF THESE STONES OR PLUMS SHALL NOT EXCEED $\frac{1}{3}$ RD THE LEAST DIMENSION OF THE MEMBERS.
- MATERIAL:**
- ALL PLUMS SHALL BE HARD, DURABLE, CLEAN AND FREE FROM SOFT MATERIALS OR LOOSEPIECES OR DELETERIOUS SUBSTANCE IN THEM & SHALL NOT HAVE SHARP.
- CONSTRUCTION OPERATIONS:**
- DURING CONCRETING THE FIRST LAYER OF CONCRETE OF THE SPECIFIED MIX SHALL BE LAID TO A THICKNESS OF THE MAXIMUM SIZE OF THE PLUMS TO BE USED. THE PLUMS SHALL THEN BE LAID WHILE THE TOP PORTION OF THIS CONCRETE IS STILL GREEN BUT SUFFICIENTLY STIFF TO PREVENT COMPLETE SUBMERGENCE OF THE PLUM UNDER THEIR OWN WEIGHT. THESE PLUMS SHALL BE ABOUT HALF EMBEDDED IN THE CONCRETE & THE REMAINING PART EXPOSED 150 AS TO FORM A KEY WITH THE NEXT LAYER OF THE CONCRETE. NO PLUM SHALL BE USED FOR CONCRETE LAID UNDER WATER.
- WHILE PLACING THE PLUMS, CARE SHALL BE TAKEN TO SEE THAT THE CLEAR DISTANCE BETWEEN ANY TWO PLUMS IS NOT LESS THAN EITHER THE WIDTH OR THICKNESS OF EITHER OF THE PLUMS. THE DISTANCE FROM THE PLUMS TO THE OUTER SURFACE FROM ANY STEEL REINFORCEMENT SHALL BE EQUAL TO GREATEST WIDTH OF PLUMS. IF PLUMS OF STRATIFIED STONE ARE USED THEY SHALL BE LAID ON THEIR NATURAL BED. STONES WITH CONCAVE FACES SHALL BE LAID WITH THE CONCAVE UPWARD WITH THE THICKNESS OF THE NEXT AND SUCCESSIVE LAYERS OF CONCRETE SHALL BE AT LEAST TWICE THAT OF THE LARGEST PLUM.
- QUALITY OF PLUM:**
- THE TOTAL VOLUME OF PLUMS SHALL NOT EXCEED 15% OF THE VOLUME OF THE FINISHED CONCRETE.
- MIX OF CONCRETE:**
- PLUM CONCRETE 1:2:4 (1 CEMENT, 2 SAND, 4 GRADED STONE AGGREGATE 40 MM NORMAL SIZE) WITH 15% PLUMS.

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REV.	DATE	DESCRIPTION

DRAWN BY :	SD
DESIGNED BY :	SCK/MM
APPROVED BY :	KG

TITLE :	DETAILS OF PCC RETAINING WALL
DRG. NO. :	EPTISA/JTRFP/DPR/J&K/RW-01
REVISION : R-1	September 2019

||| CULVERT DRAWINGS |||

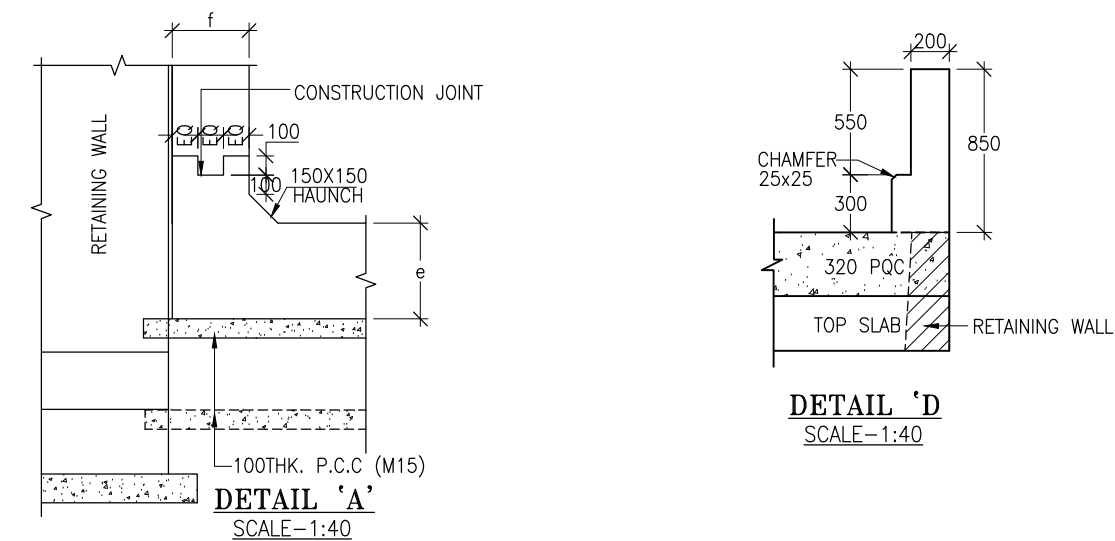
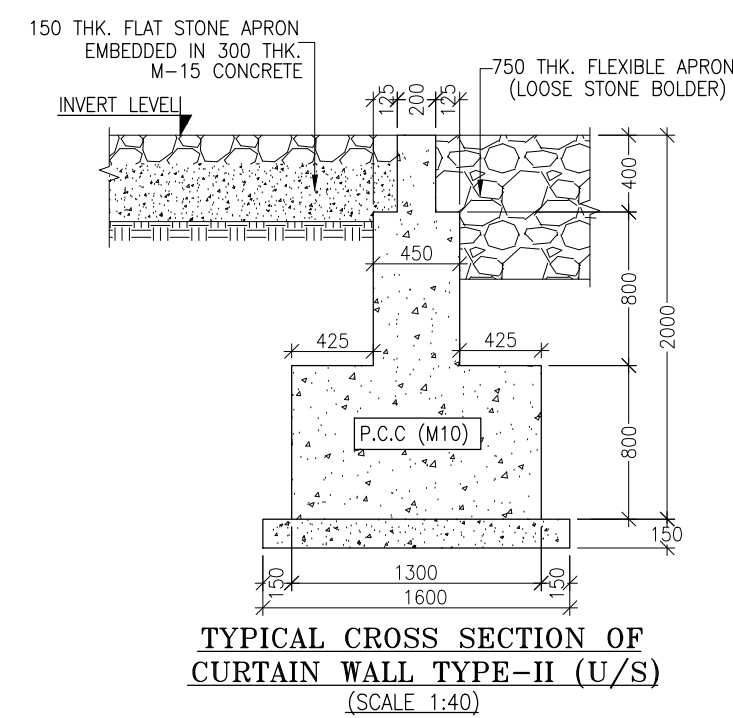
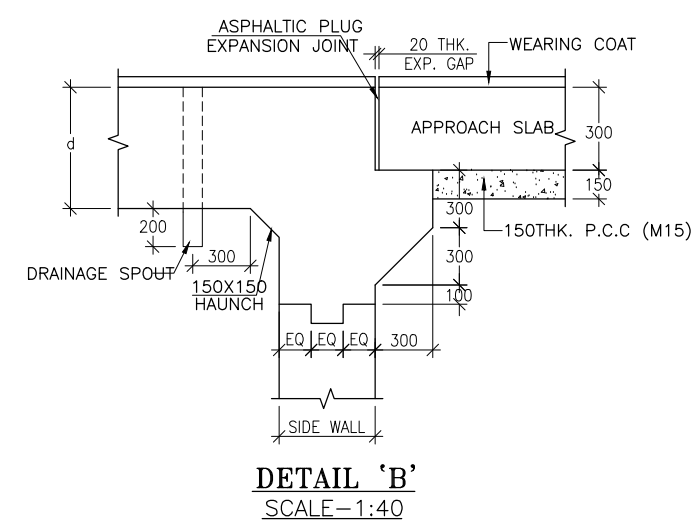
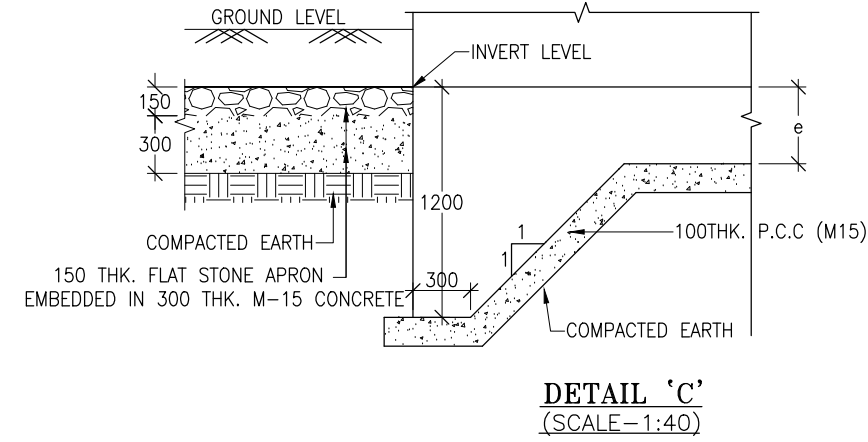
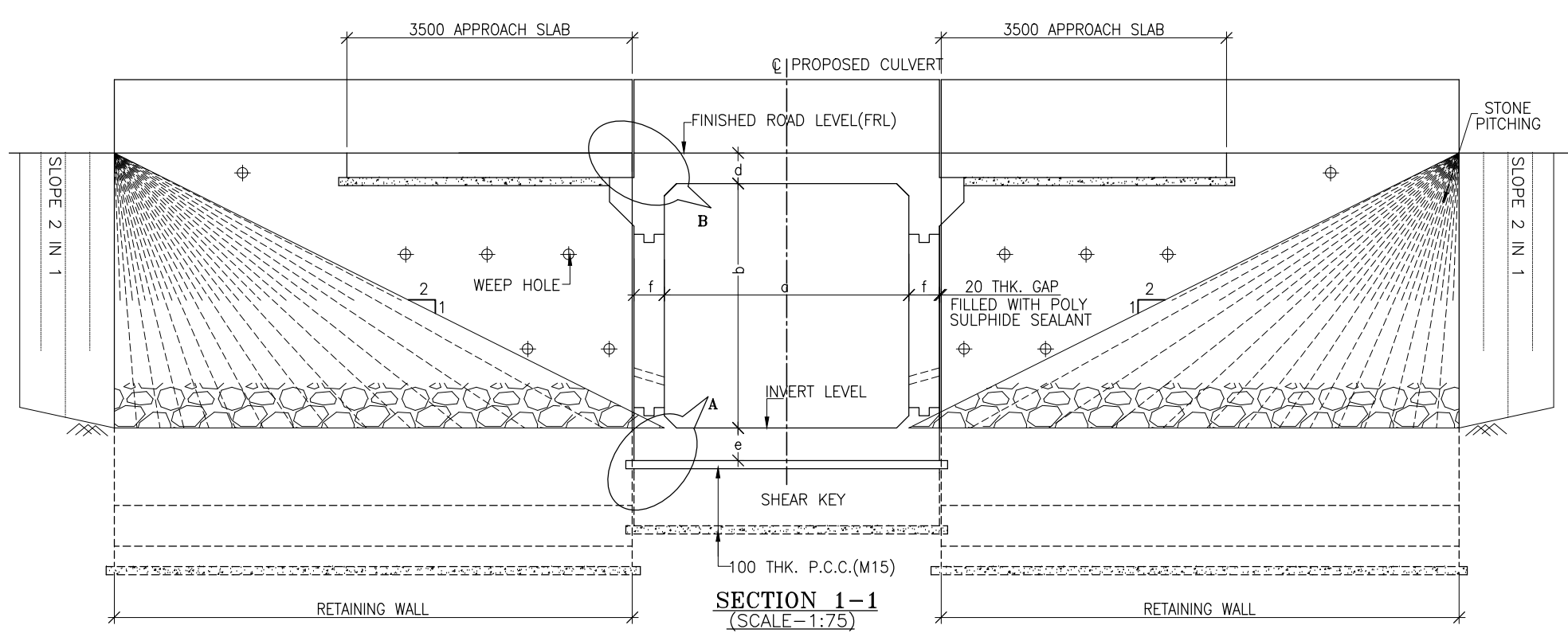
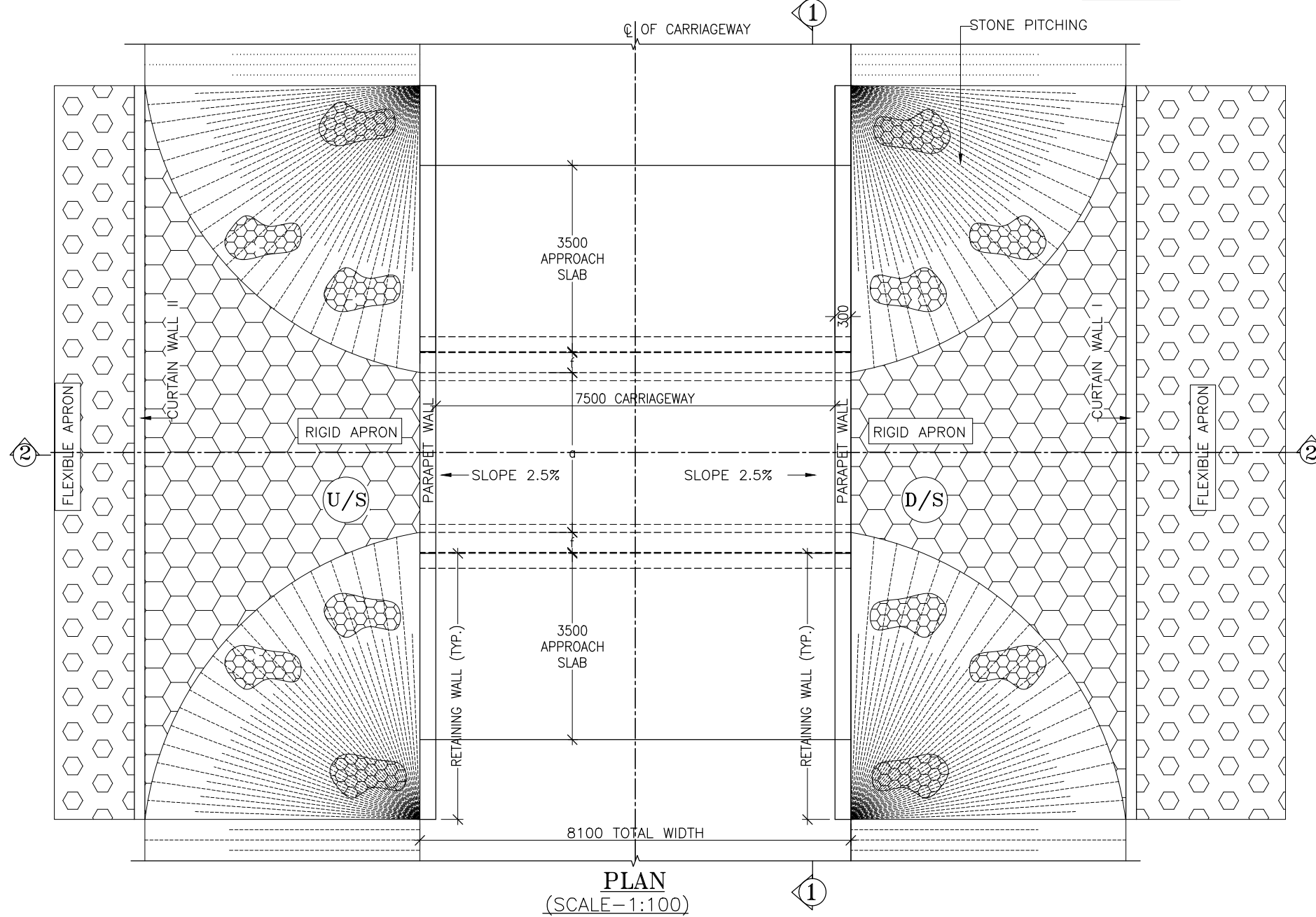
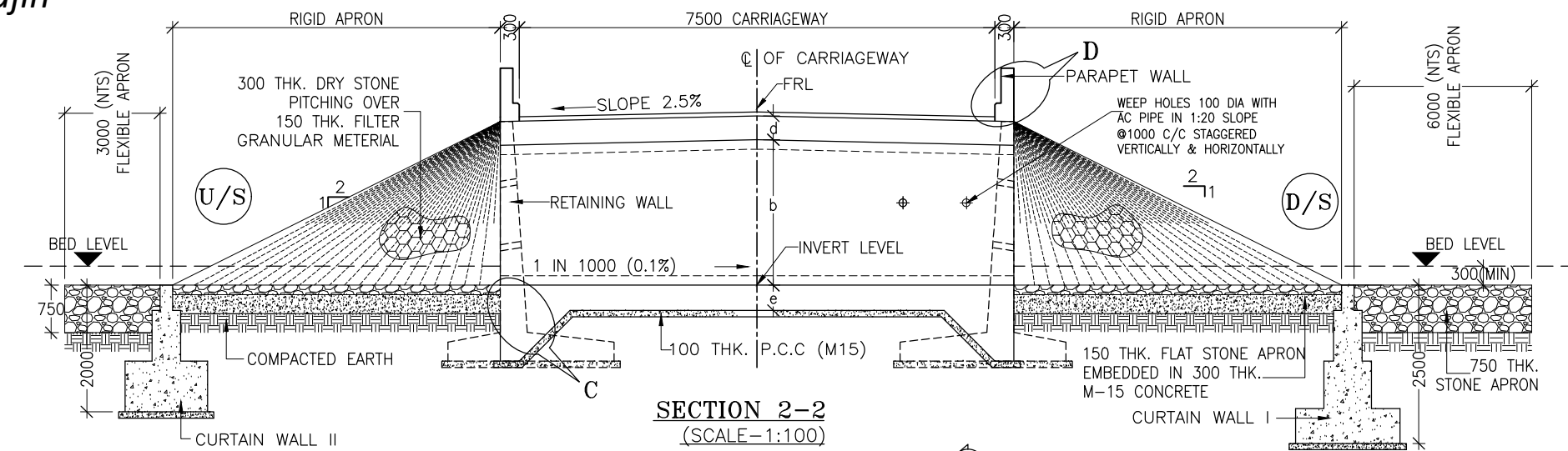
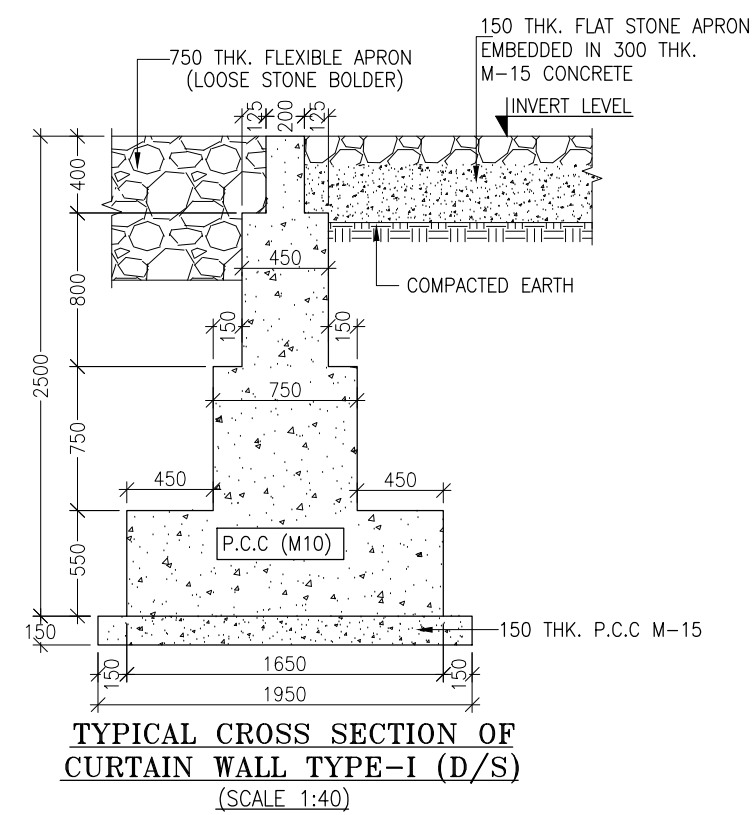


TABLE SHOWING SILENT DIMENSIONS

BOX CELL DESIGNATION	a (mm)	b (mm)	d (mm)	e (mm)	f (mm)
1/22/0	2000	2000	350	380	350
1/33/0	3000	3000	420	420	420
1/64/0	6000	4000	680	720	750

- NOTES:-**
- ALL DIMENSIONS ARE IN MILLIMETRES, LEVELS ARE IN METRES AND CHAINAGES ARE IN KILOMETRES, UNLESS OTHERWISE MENTIONED. ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
 - THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE RELEVANT ROAD PLAN AND PROFILE DRAWING.
 - THE STRUCTURE IS DESIGNED FOR LIVE LOAD COMBINATION OF 3 LANE CLASS A OR 1-LANE OF 70 R+1-LANE OF CLASS A, WHICHEVER PRODUCES SEVERE.
 - GRADE OF CONCRETE FOR VARIES ELEMENTS SHALL BE AS FOLLOWS:
a) RCC BOX.....M35
b) RCC RETAINING WALL.....M35
c) PCC LEVELLING COURSE.....M15
d) PCC CURTAIN WALL.....M20
e) PARAPET WALL.....M35
 - GRADE OF STEEL SHALL BE Fe-500 (H.Y.S.D. REBAR CONFORMING TO IS-1786)
 - BACK FILLING BEHIND THE STRUCTURE SHALL CONSIST OF SELECTED EARTH CONFORMING TO APPENDIX 6 OF IRC:78-2014 HAVING PROPERTIES $\phi < 30^\circ$, $C=0$, $\gamma = 2.0T/M^3$
 - COMPRESSIBLE FILLER BOARD SHALL BE PROVIDED IN ALL EXPANSION GAPS AND SEALED WITH POLY-SULPHIDE SEALANT.
 - FOUNDATION OF BOX SHALL BE PLACED OVER A FIRM STRATA HAVING BEARING CAPACITY EQUAL TO $12T/M^2$ IN GENERAL. IF THE MATERIAL ENCOUNTERED IS SOFT, SPONZY OR OTHER UNSUITABLE SOIL, SUCH UNSUITABLE MATERIAL SHALL BE TOTALLY REMOVED TO SUCH DEPTH, WIDTH & LENGTH, AS DIRECTED BY THE ENGINEER. THE EXCAVATED AREA SHALL BE BACKFILLED WITH APPROVED GRANULAR MATERIAL & THOROUGHLY COMPACTED UP TO THE SPECIFIED LEVEL.
 - 600MM THICK FILTER MEDIA SHALL BE PROVIDED BEHIND SIDE WALLS AND WING WALLS AS PER IR:78-2014.
 - ALL THE LEVELS AND CAMBERS TO BE VERIFIED WITH RESPECT TO PLAN & PROFILE DRAWINGS BEFORE EXCAVATION. ANY DISCREPANCY NOTED SHOULD BE REPORTED TO THE DESIGN ENGINEER IMMEDIATELY.
 - BACK FILLING BEHIND WALLS SHALL BE DONE SIMULTANEOUSLY ON EITHER SIDE OF THE STRUCTURE WITH HEIGHT DIFFERENCE NOT MORE THAN 1.0M. BACK FILLING SHALL BE DONE ONLY AFTER THE TOP SLAB IS CONCRETED AND CURED FOR 14 DAYS.
 - SPRADING & COMPACTED OF SAND WILL BE DONE IN ACCORDANCE WITH CLAUSE 401.3.2 OF SPECIFICATION FOR ROAD & BRIDGE WORKS BY MINISTRY OF ROAD TRANSPORT & HIGHWAY



CLIENT :



Jhelum Tawi Flood Recovery Project
2nd Floor ERA Commercial Complex Rambagh
Srinagar-190 009.

PROJECT :

Consultancy Services for Preparing Detailed Project Report
for the Road works in Jammu and Kashmir
(Hajin-Ajas via Saidnara in Bandipora District)

DESIGN CONSULTANT:

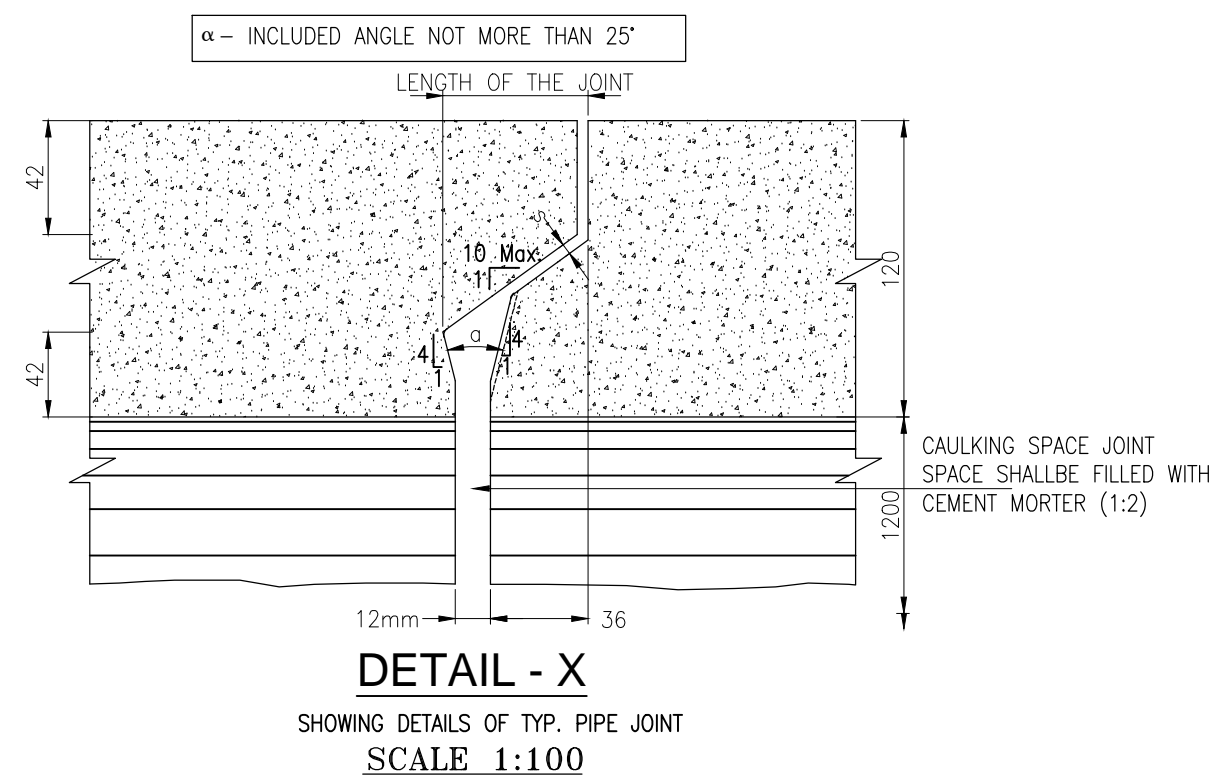
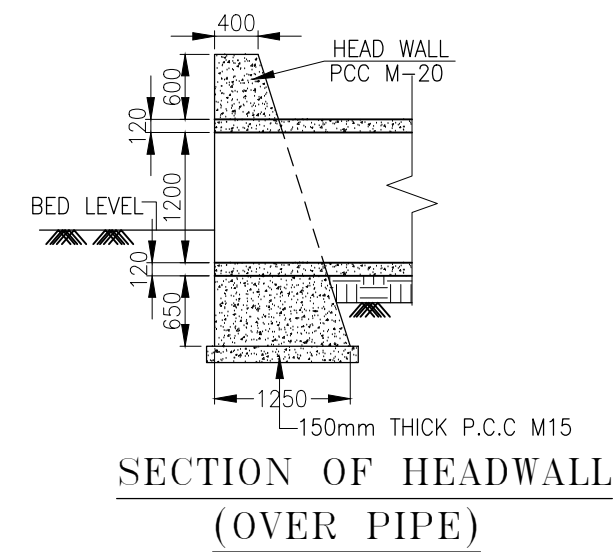
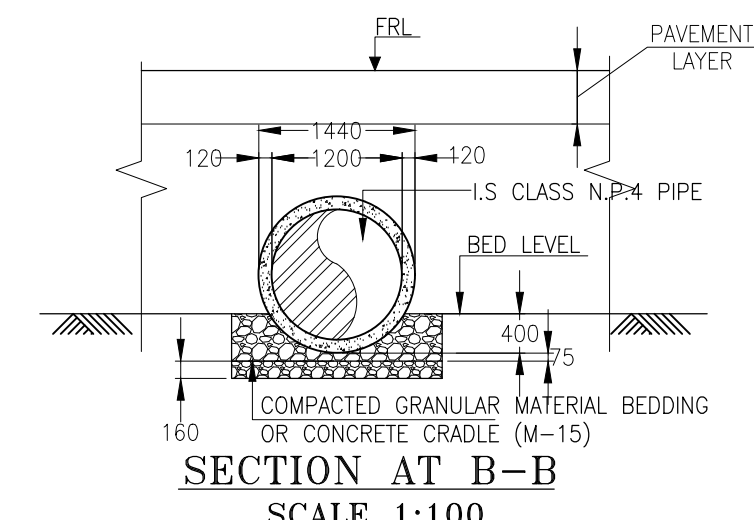
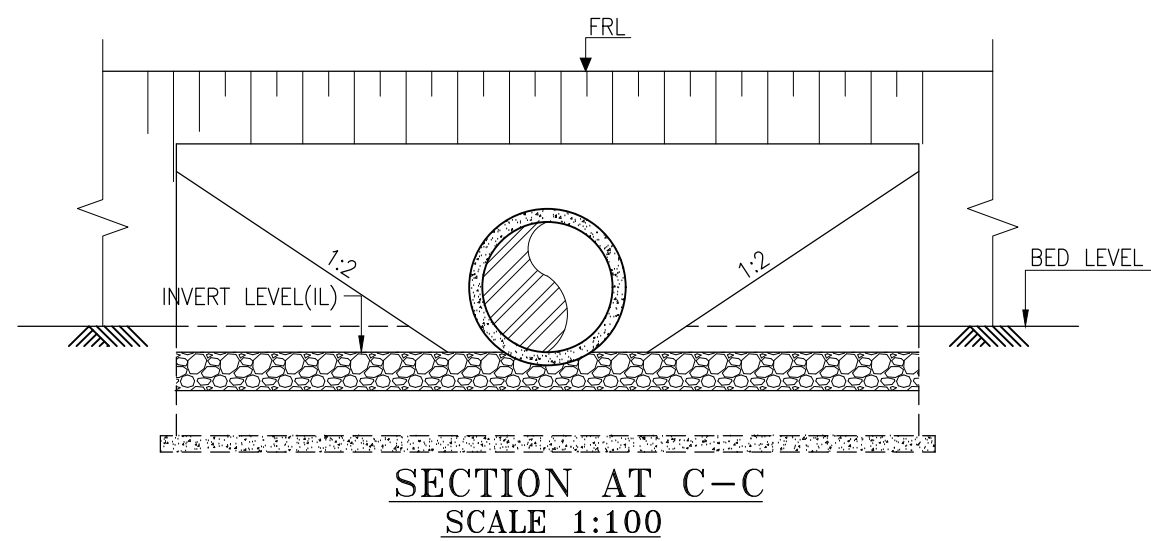
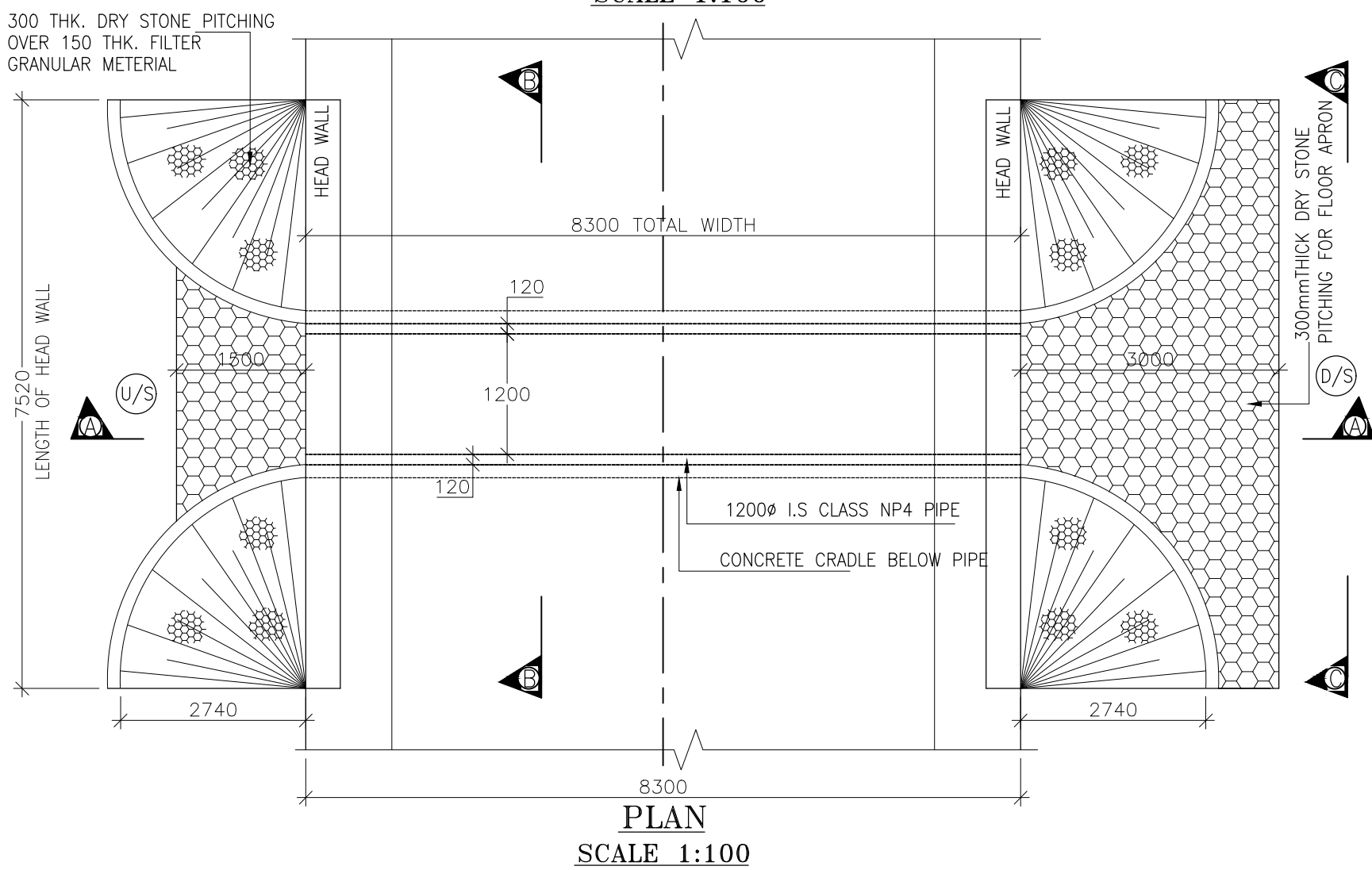
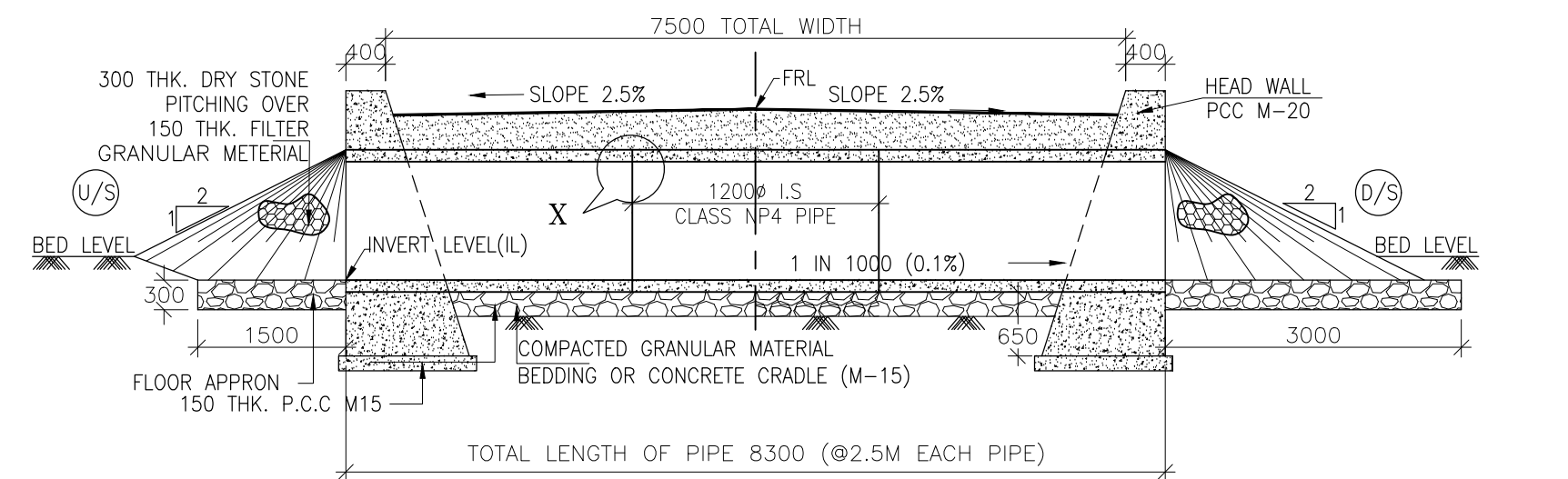


Eptisa Servicios de Ingenieria S.L.
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Ph: 033-40347200
www.eptisa.com

REV.	DATE	DESCRIPTION

DRAWN BY :	PD
DESIGNED BY :	SD
APPROVED BY :	KG
SCALE :	AS SHOWN

TITLE :	TYPICAL GENERAL ARRANGEMENT DRAWING FOR SINGLE BOX CULVERT
DRG. NO. :	EPTISA/JTRP/DPR/J&K/BOX/GAD/01
REVISION : R-1	September 2019



NOTES:-

1. ALL DIMENSIONS ARE IN mm, EXCEPT OTHERWISE MENTIONED.
2. NO DIMENSION SHALL BE SCALED ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.
3. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH RELEVANT ROAD DRAWINGS. FRL & CAMBER / SUPER ELEVATION AT PARTICULAR LOCATION SHALL BE VERIFIED WITH THE HIGHWAY DWG. DISCREPANCY, IF ANY, IS TO BE IMMEDIATELY BROUGHT TO THE NOTICE OF ENGINEER FOR NECESSARY MODIFICATION IN THE DRAWING.
4. HUME PIPE (NP4 TYPE), SHALL CONFORM TO IS : 458-2003.
5. COMPACTED GRANULAR BED SHALL CONFORM TO MORT&H SPECIFICATION CLAUSE NO.2904.
6. LONGITUDINAL SLOPE OF WIDENED PIPE SHALL BE 1 : 1000 (MIN.)
7. LENGTH, LOCATION, ORIENTATION & INVERT LEVEL OF PIPE CULVERT SHALL BE ADJUSTED TO SUIT SITE CONDITION AND AS APPROVED BY THE ENGINEER.
8. TRENCHES SHALL BE BACKFILLED IMMEDIATELY AFTER THE PIPES HAVE BEEN LAID AND THE JOINTING MATERIAL HAS HARDENED.
9. PIPE SHALL BE JOINTED BY FLUSH JOINT METHOD AS PER THE DETAILS GIVEN IN SECTION 2906 OF MORT&H SPECIFICATIONS OF ROAD & BRIDGE WORKS.
10. FLOOR APRON SHALL BE PROVIDED AT NON-IRRIGATION CROSS DRAINAGE WORKS ONLY.

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REV.	DATE	DESCRIPTION

DRAWN BY :	PD
DESIGNED BY :	SD
APPROVED BY :	KG
SCALE :	AS SHOWN

TITLE :	TYPICAL GENERAL ARRANGEMENT DRAWING FOR SINGLE CELL PIPE CULVERT
DRG. NO. :	EPTISA/JTFRP/DPR/J&K/PIPE/GAD/01
REVISION : R-1	September 2019