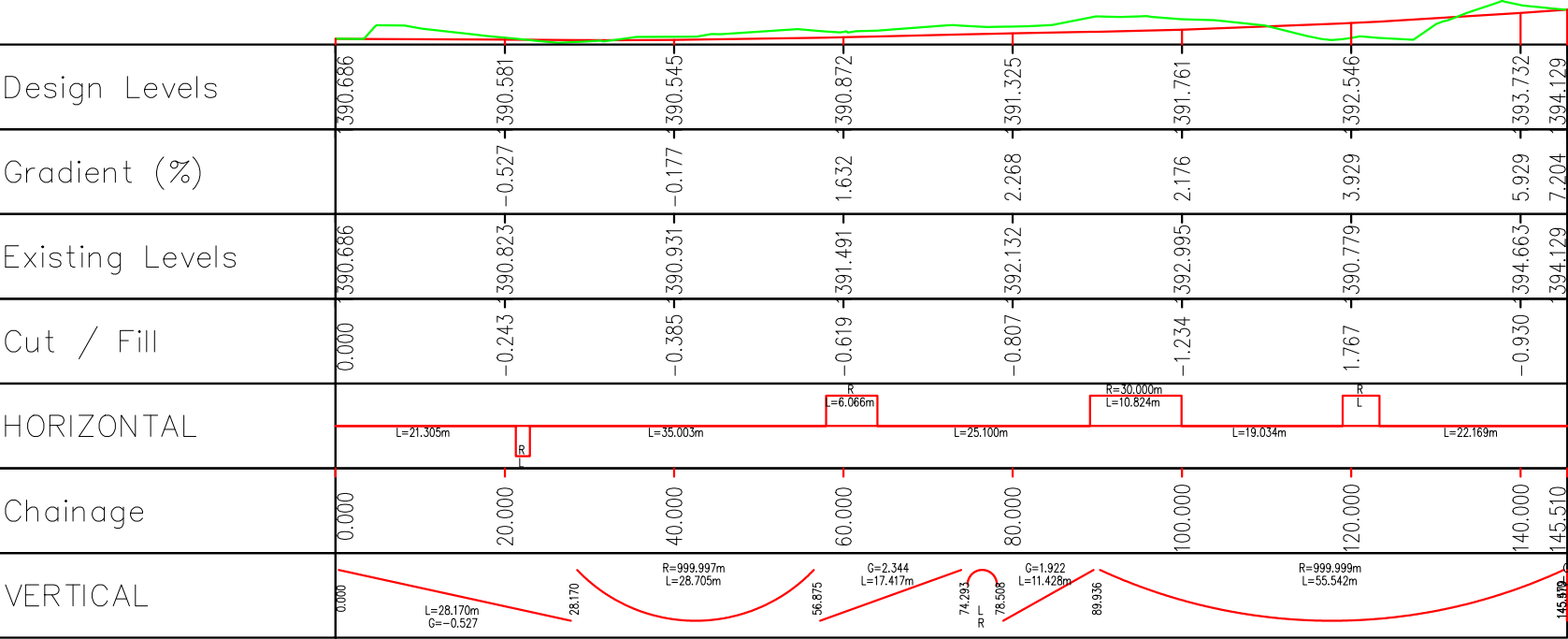
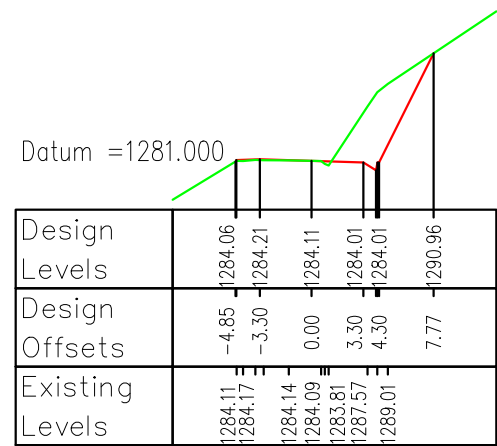


START

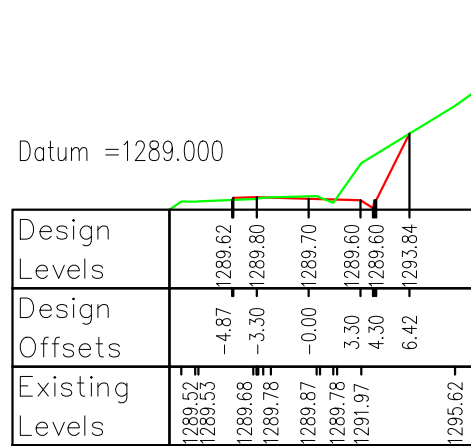
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Datum =1390.000

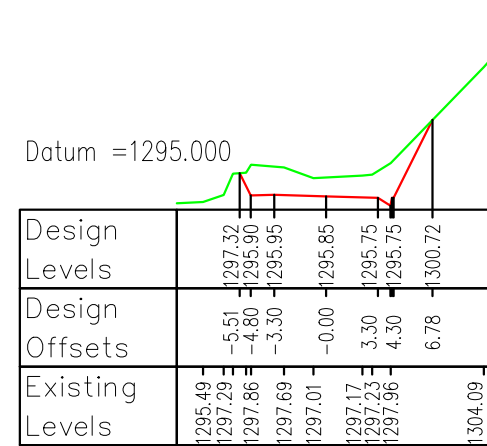




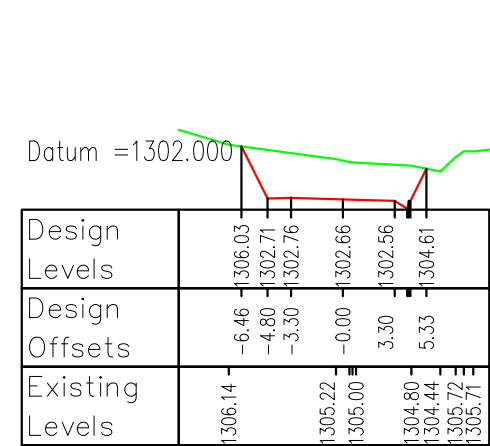
Chainage =0.000



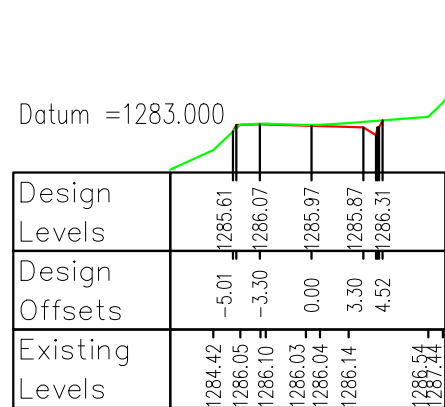
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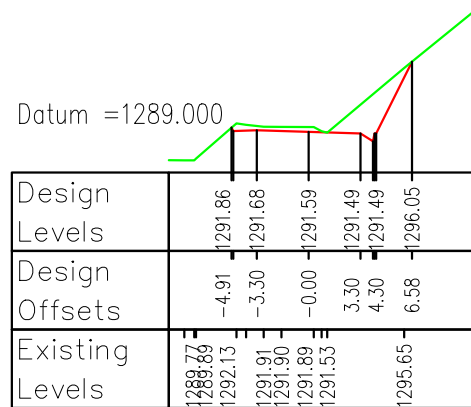
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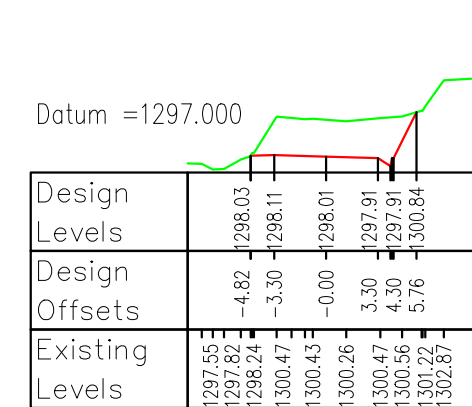
Chainage =180.000



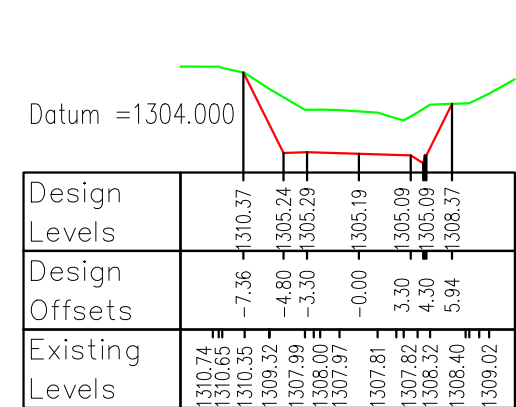
Chainage =20.000



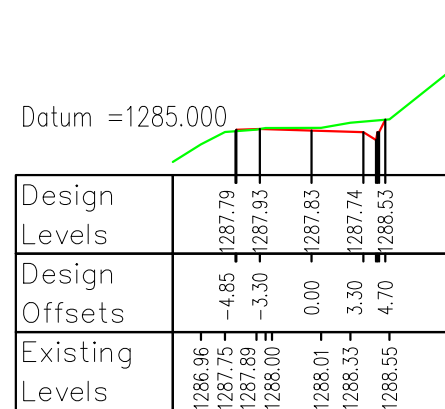
Chainage =80.000



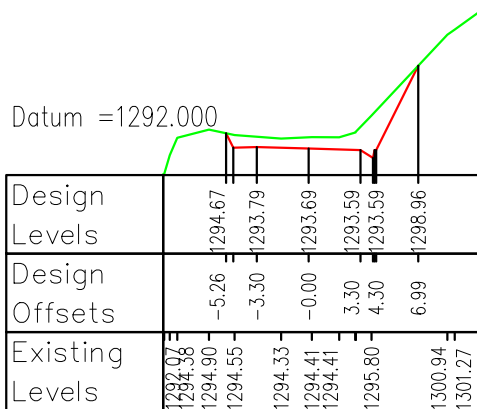
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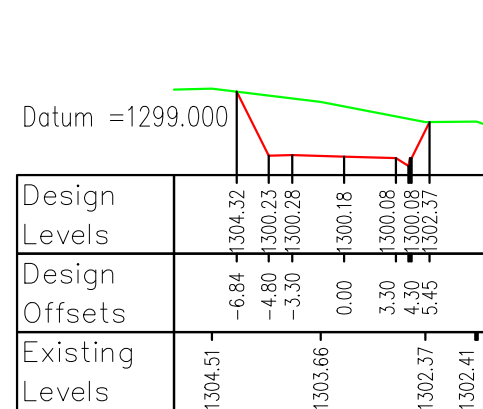
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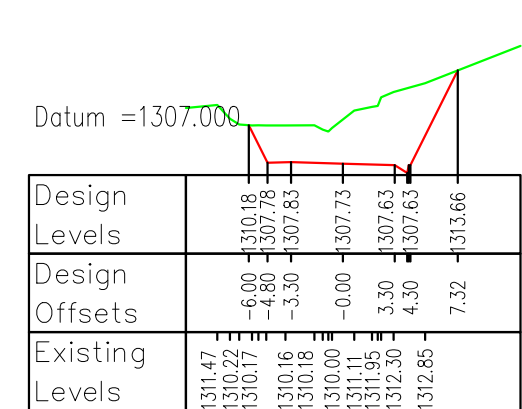
Chainage =40.000



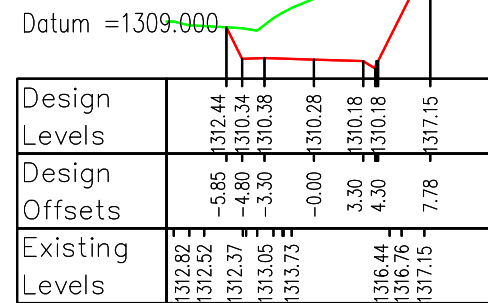
Chainage =100.000



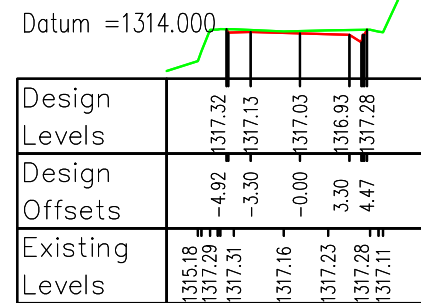
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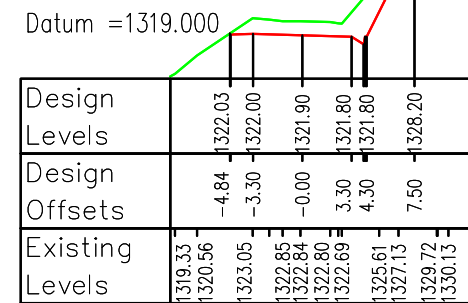
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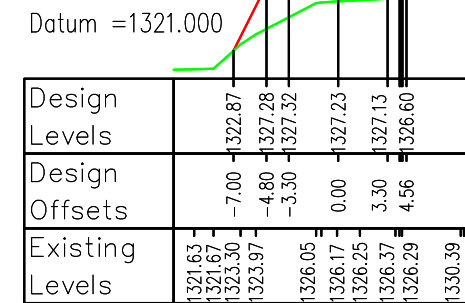
Chainage =240.000



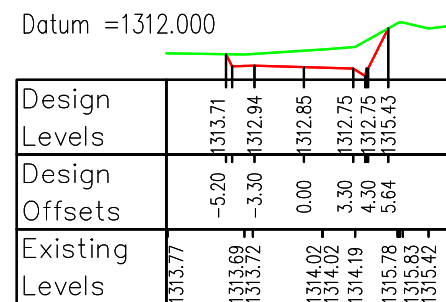
Chainage =300.000



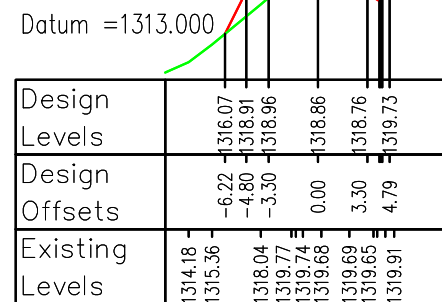
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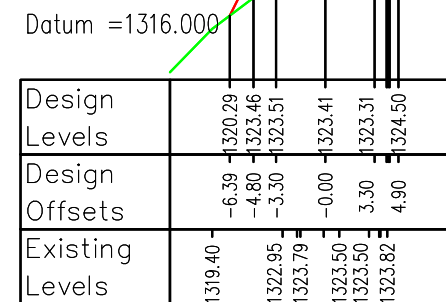
Chainage =420.000



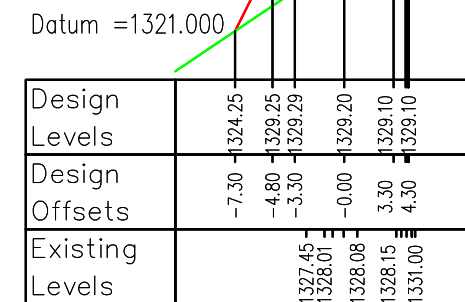
Chainage =260.000



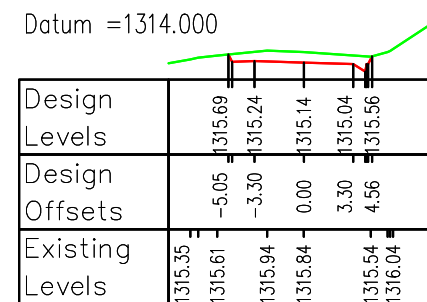
Chainage =320.000



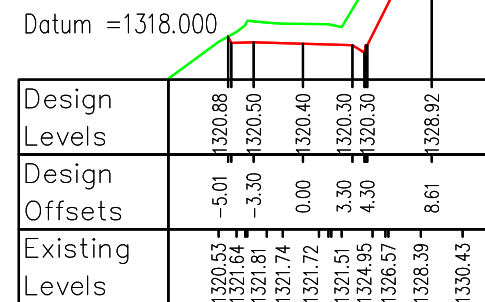
Chainage =380.000



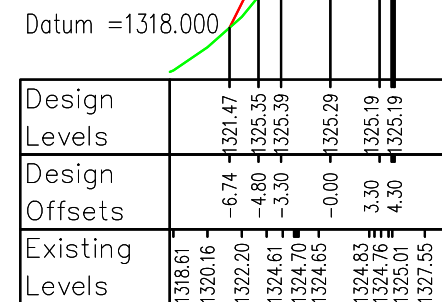
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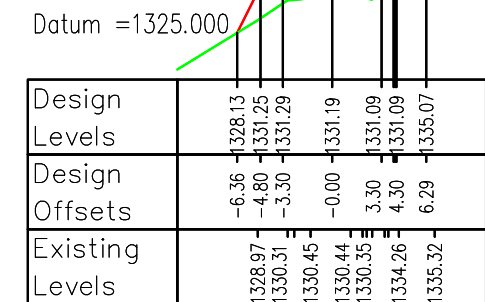
Chainage =280.000



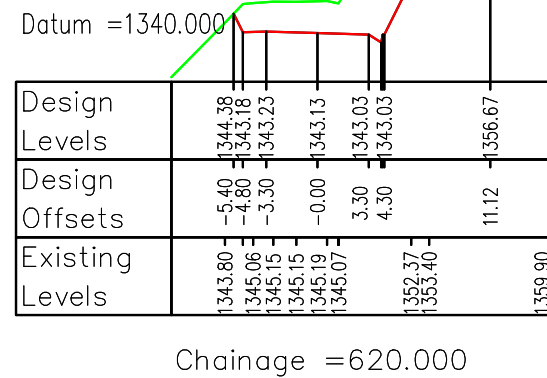
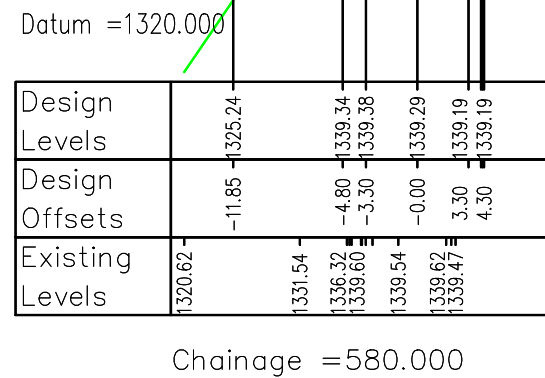
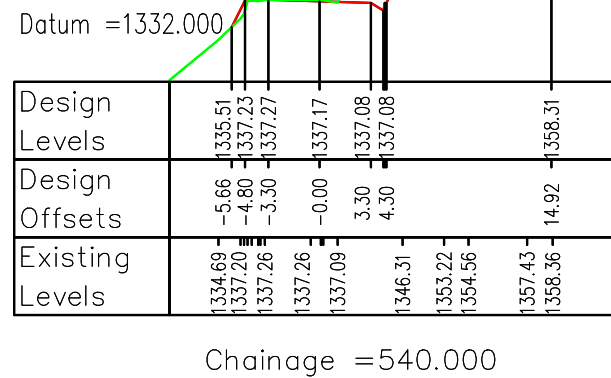
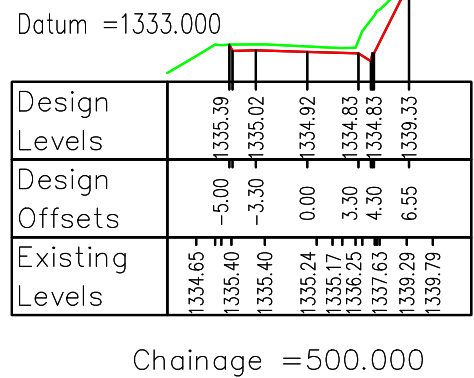
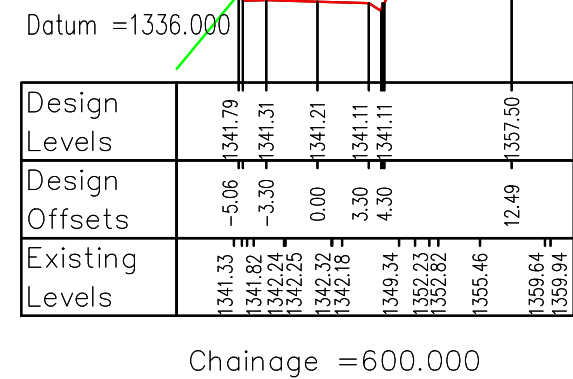
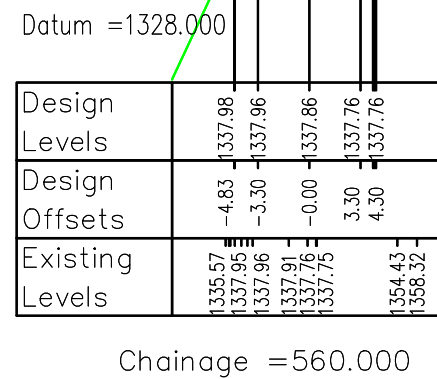
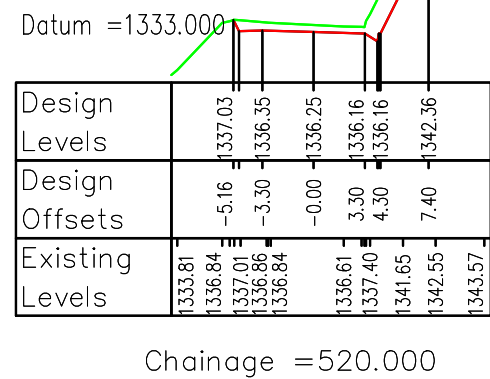
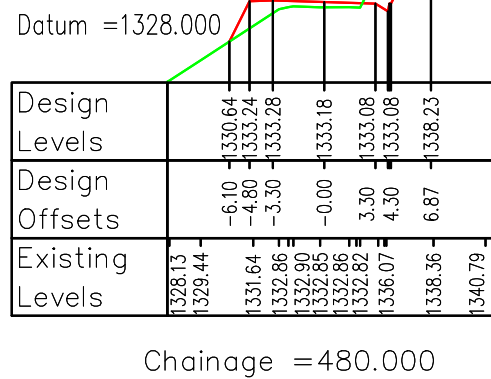
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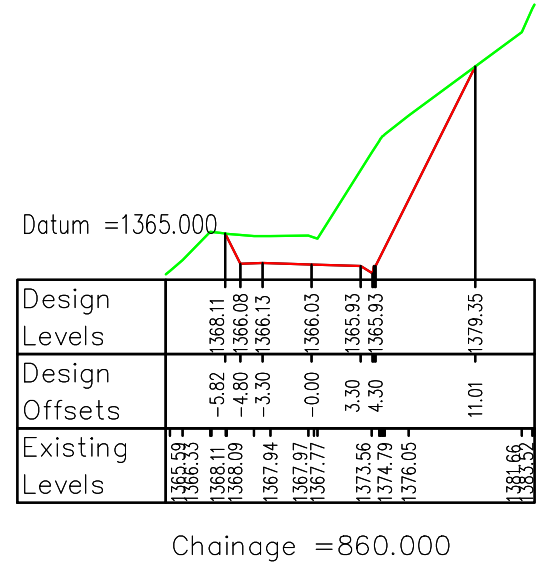
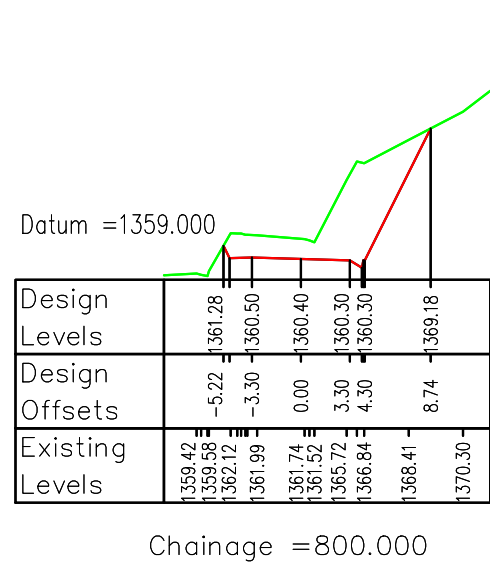
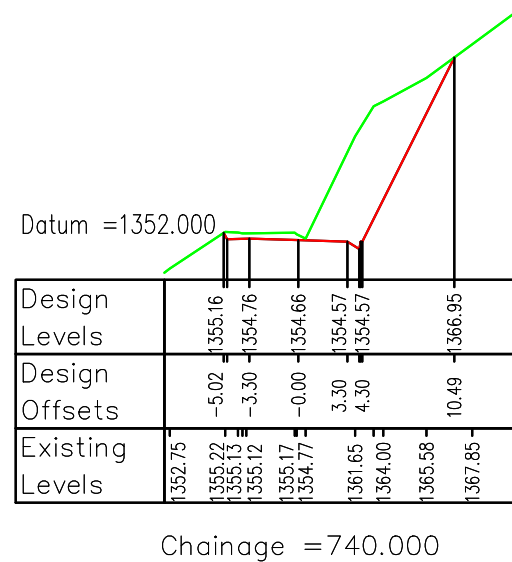
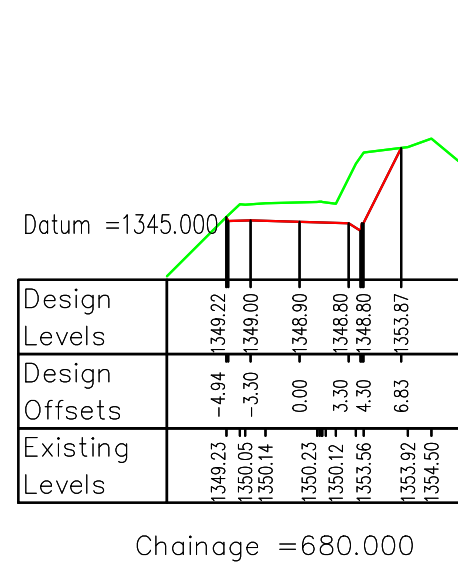
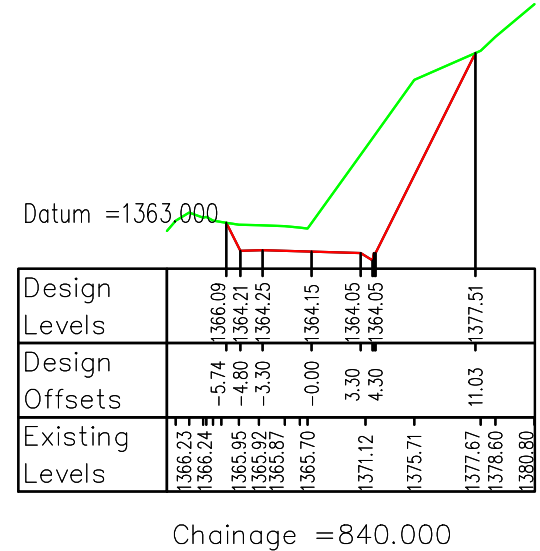
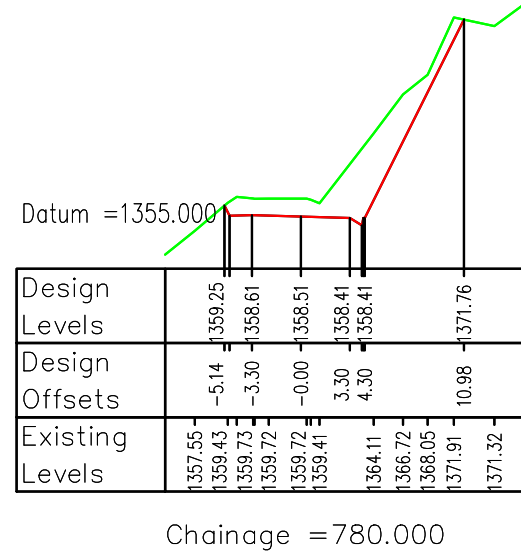
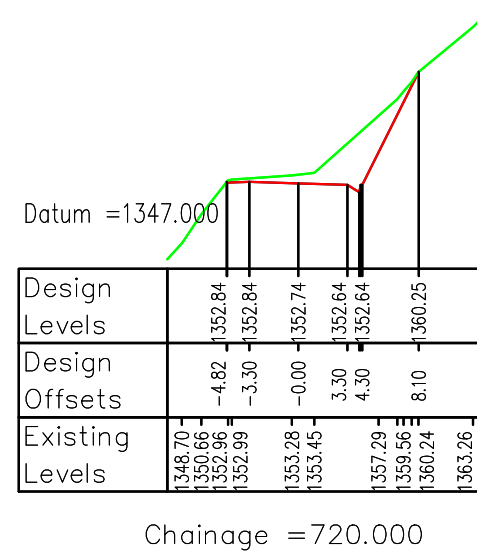
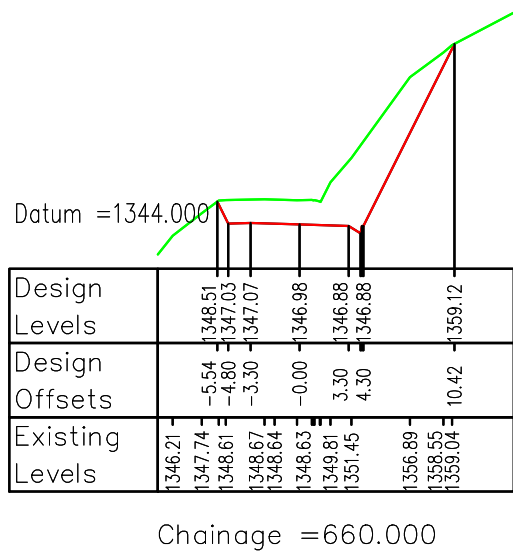
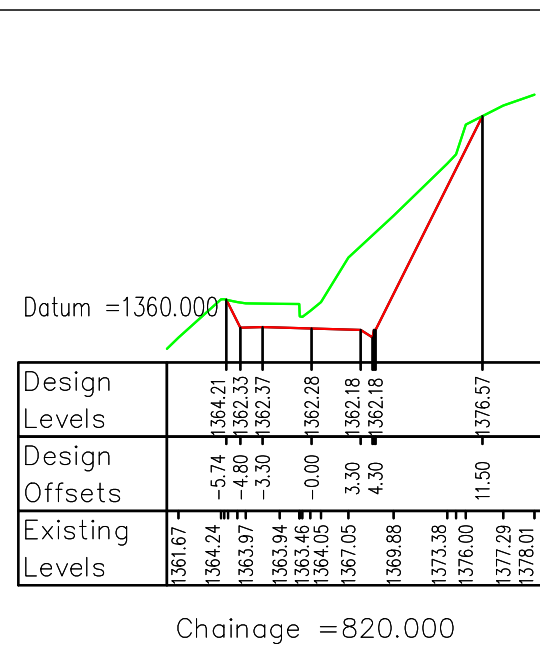
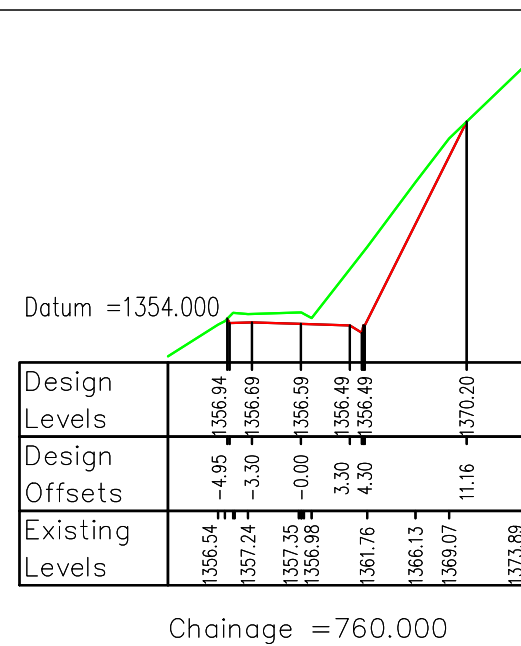
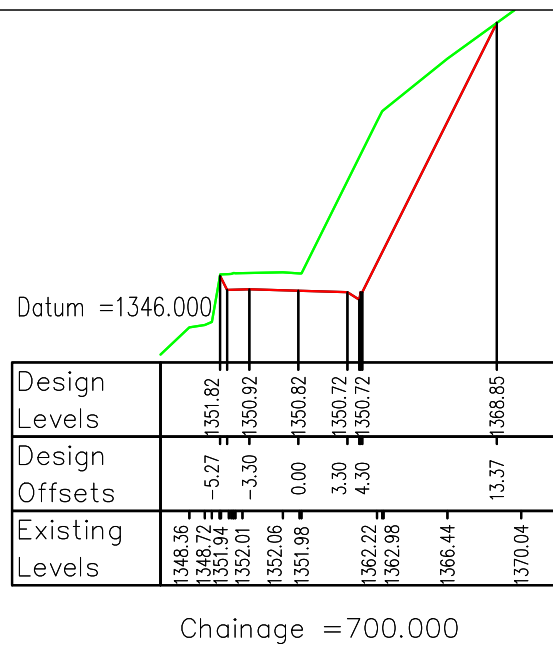
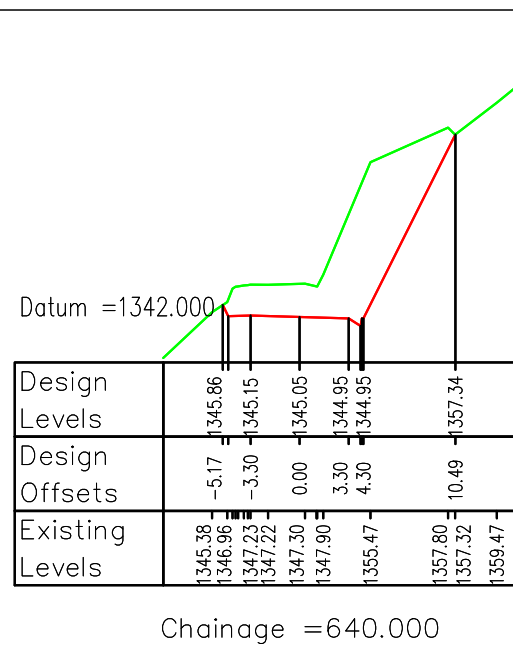


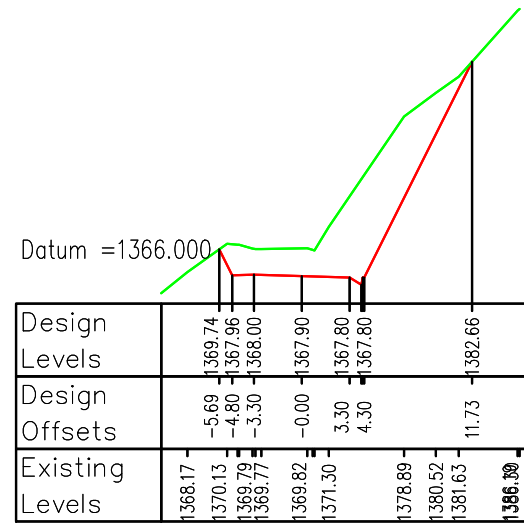
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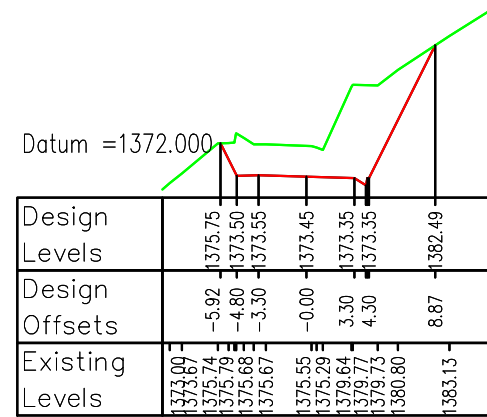
Chainage =460.000



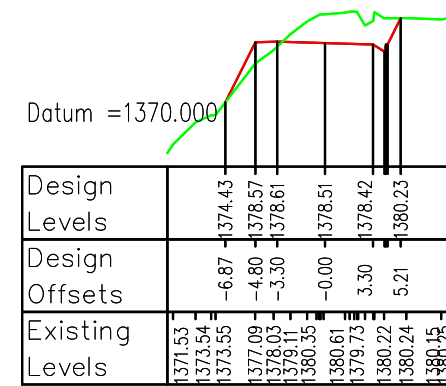




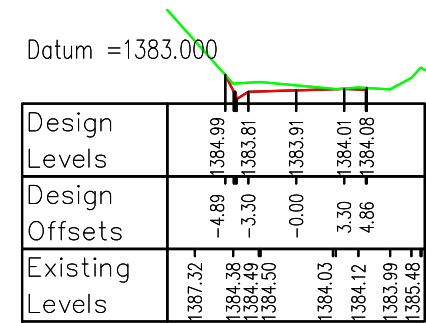
Chainage = 880.000



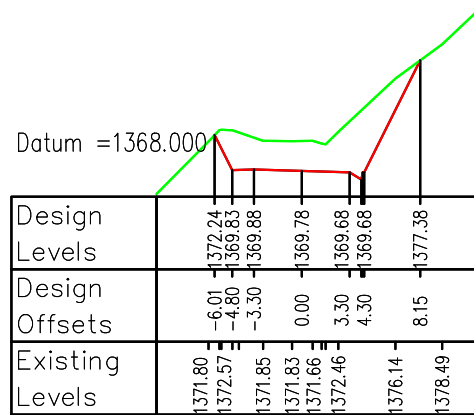
Chainage = 940.000



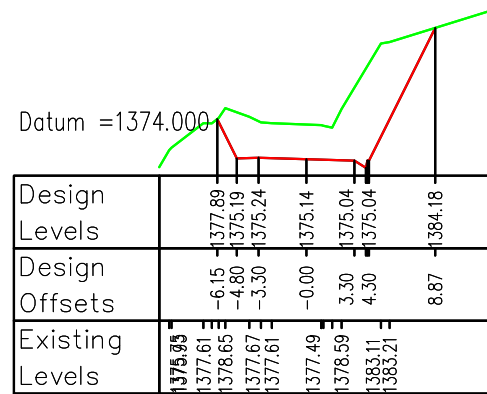
Chainage = 1000.000



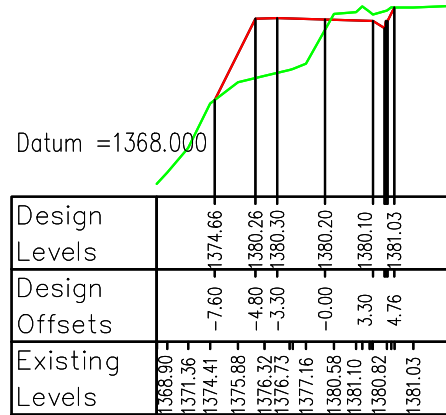
Chainage = 1060.000



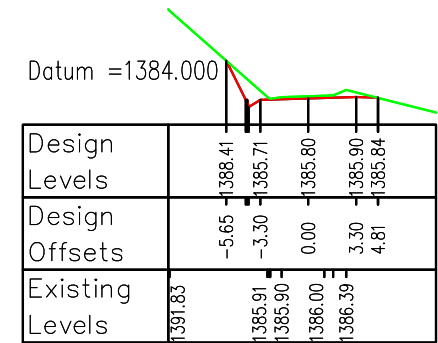
Chainage = 900.000



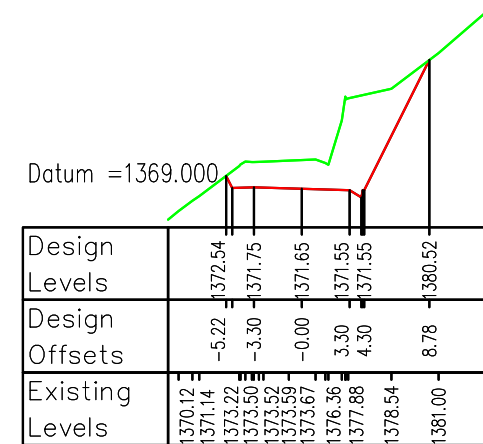
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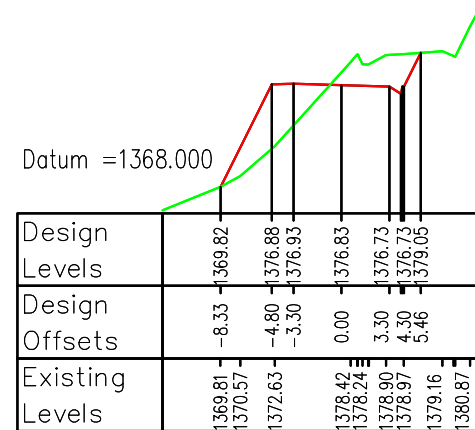
Chainage = 1020.000



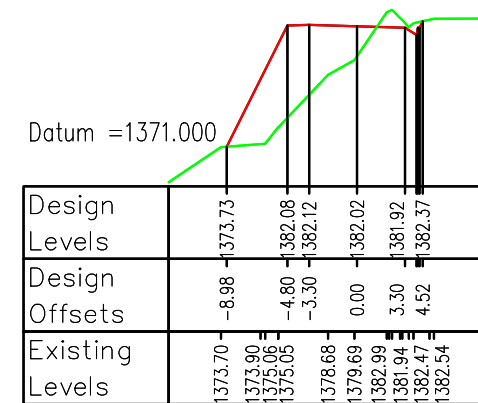
Chainage = 1080.000



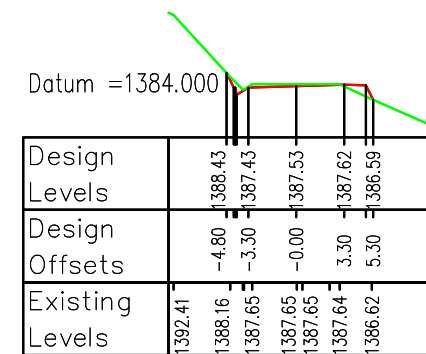
Chainage = 920.000



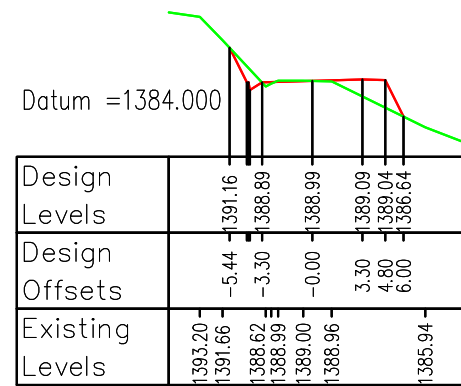
Chainage = 980.000



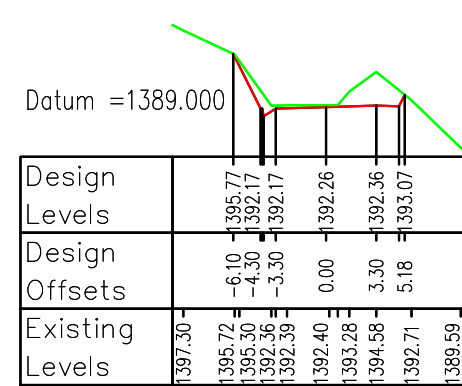
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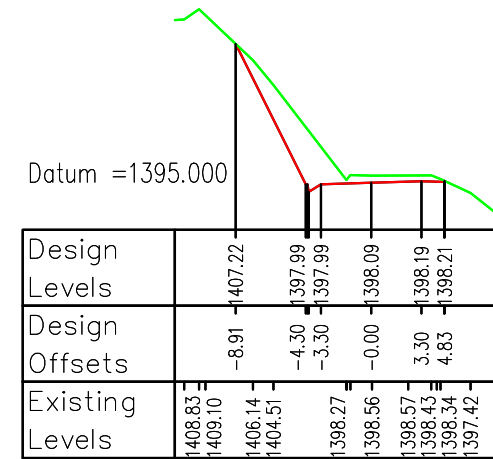
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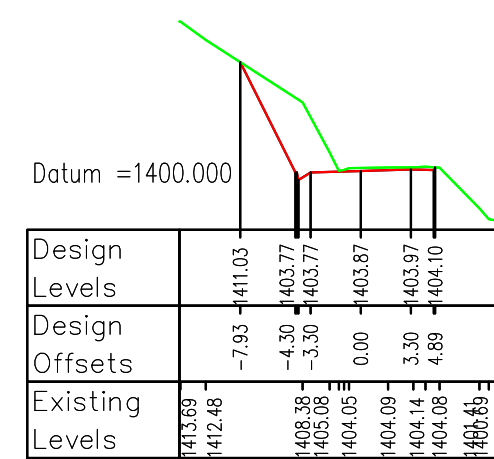
Chainage =1120.000



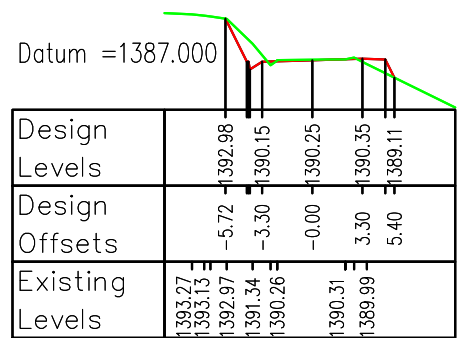
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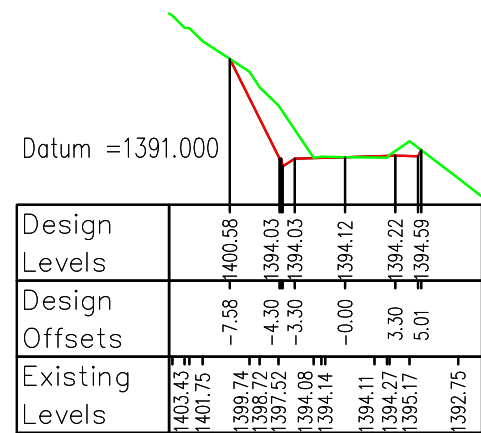
Chainage =1240.000



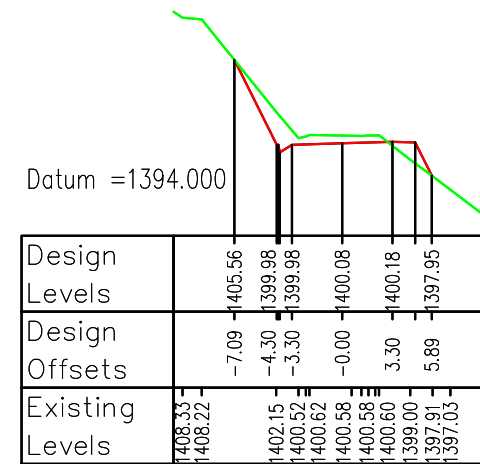
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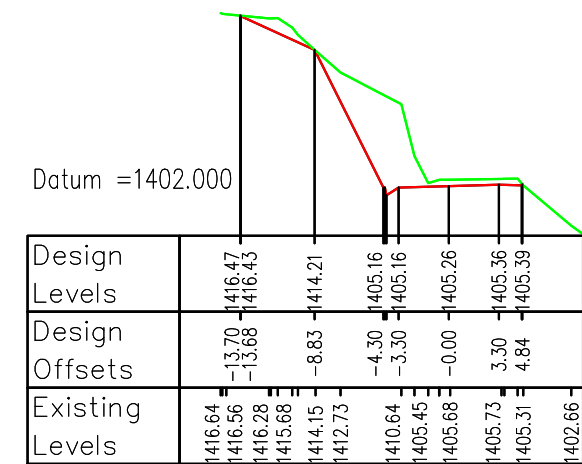
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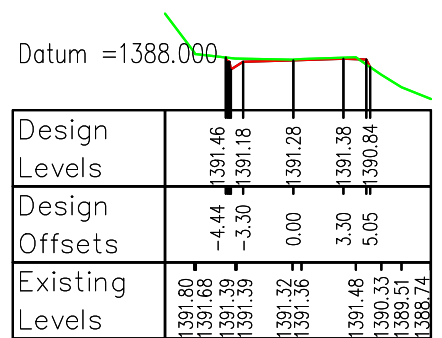
Chainage =1200.000



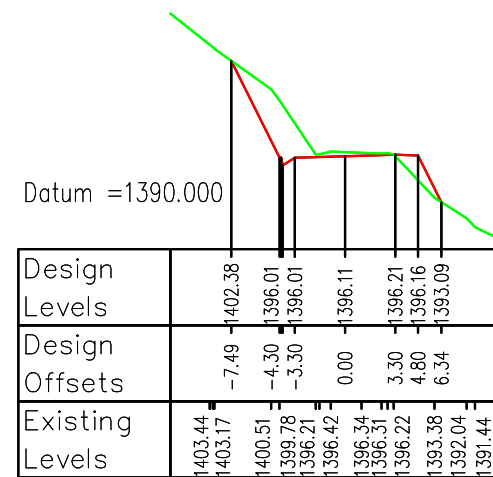
Chainage =1260.000



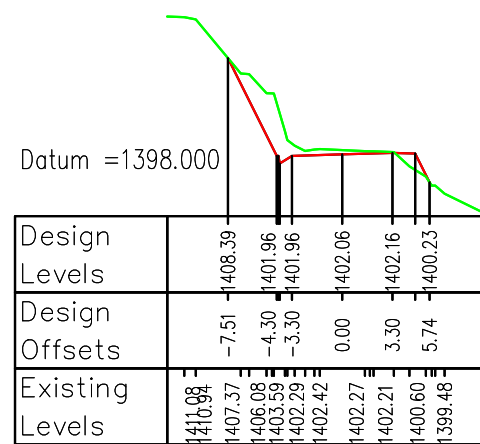
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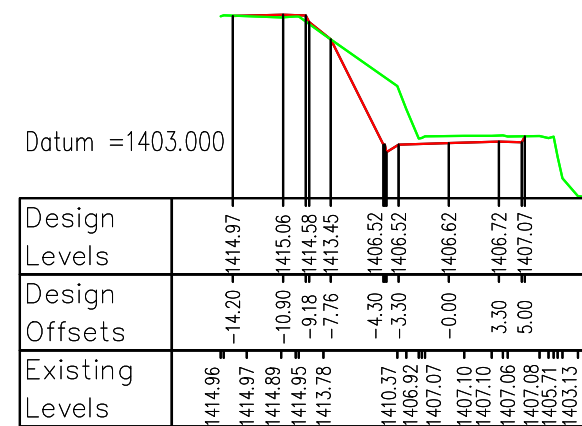
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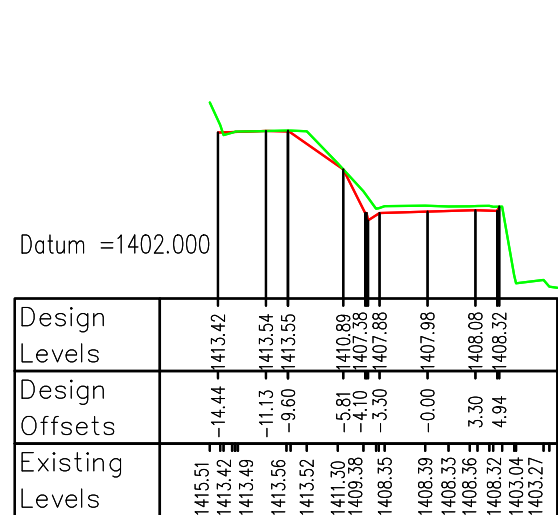
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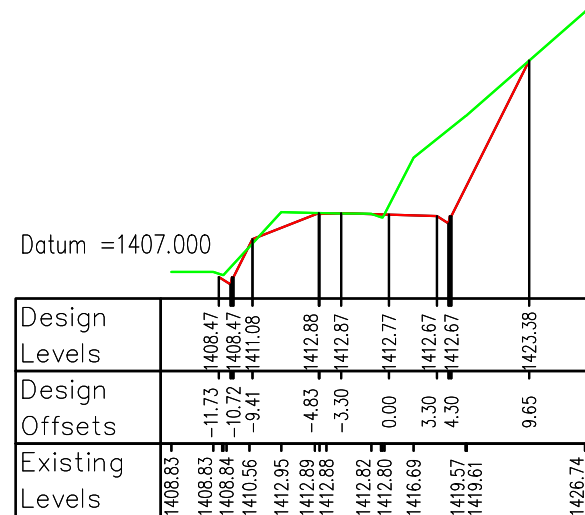
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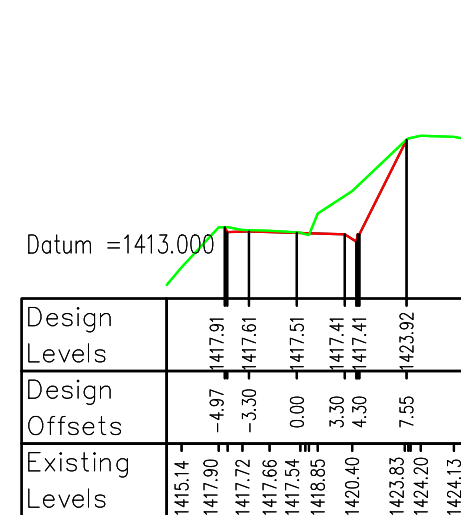
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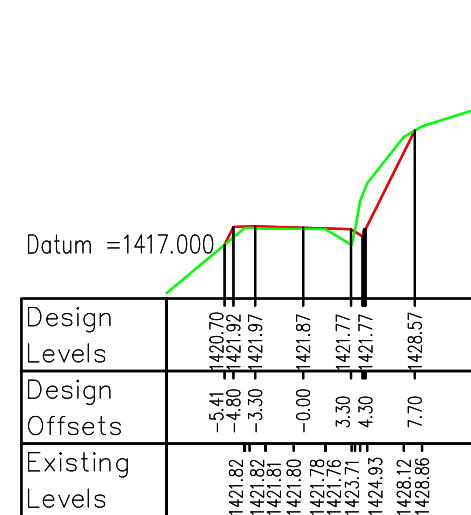
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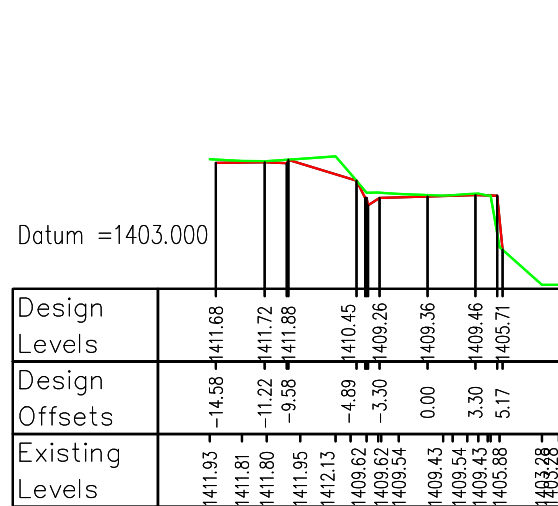
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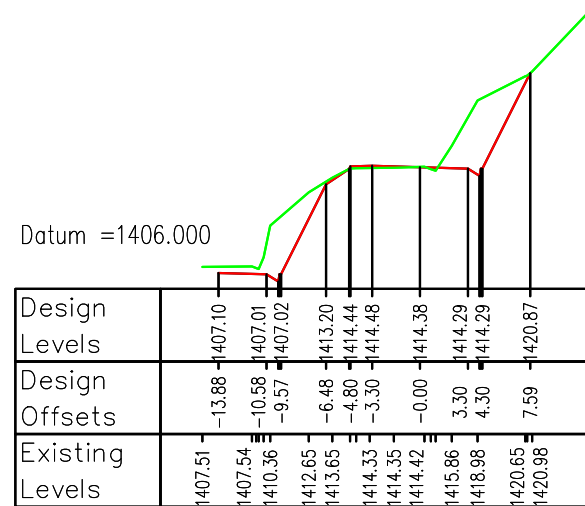
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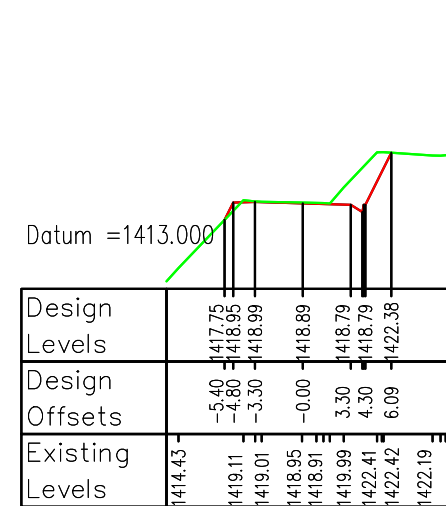
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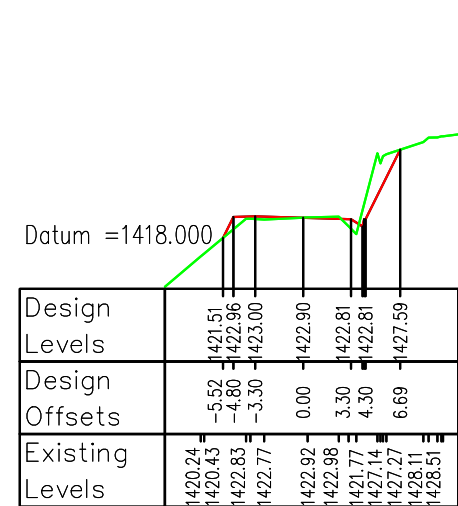
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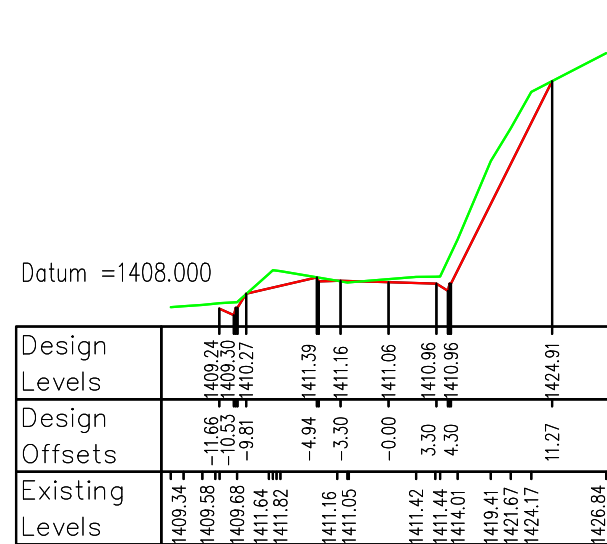
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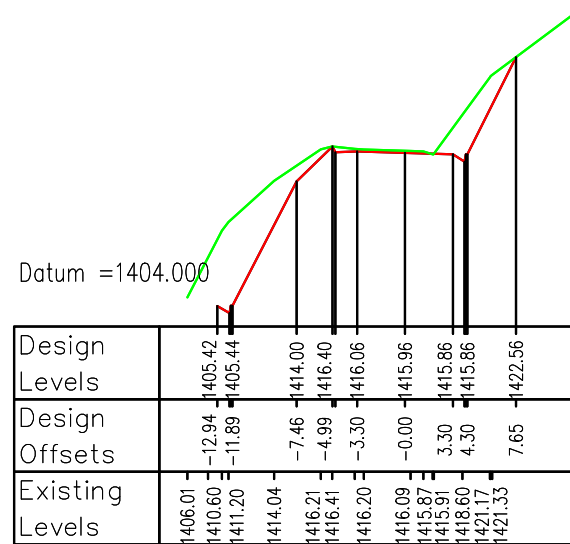
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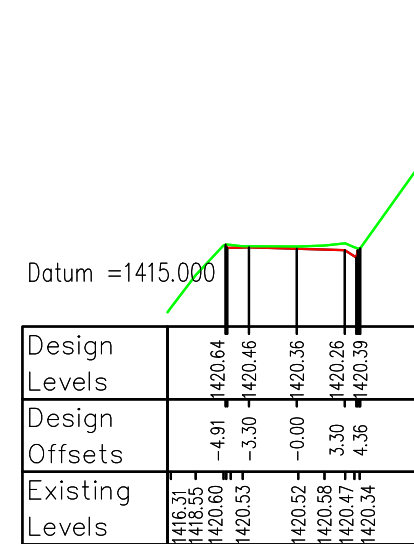
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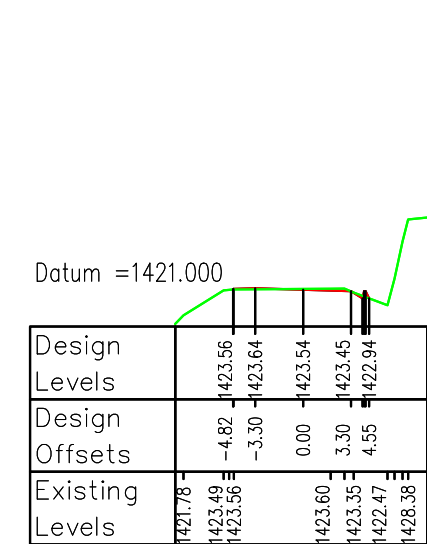
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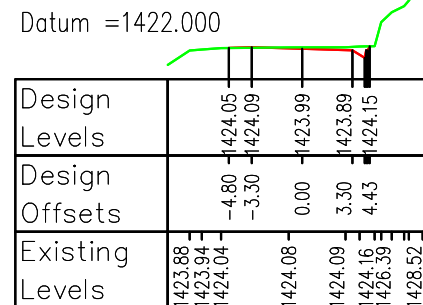
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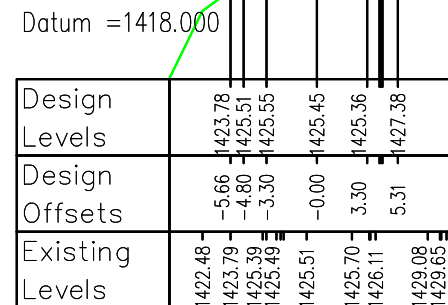
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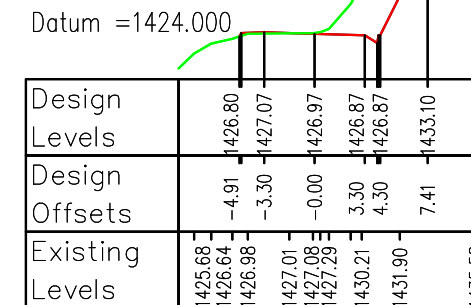
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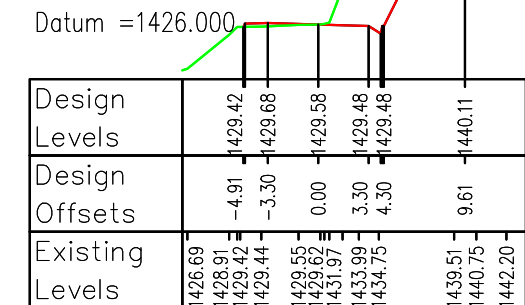
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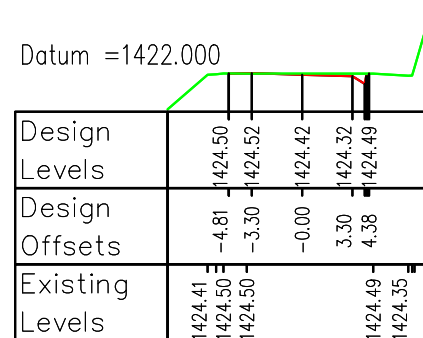
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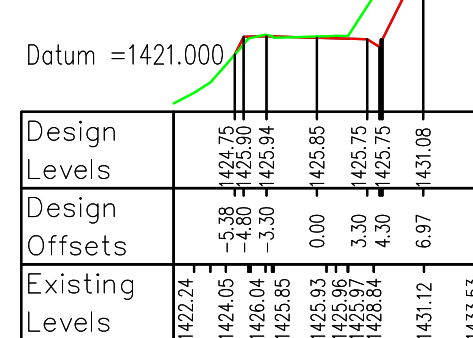
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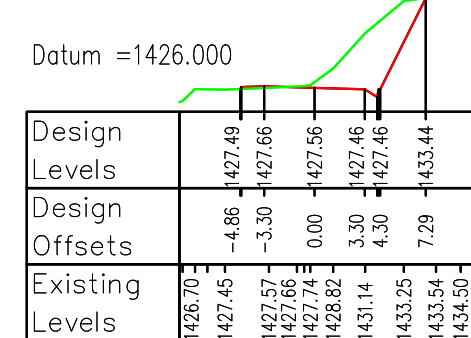
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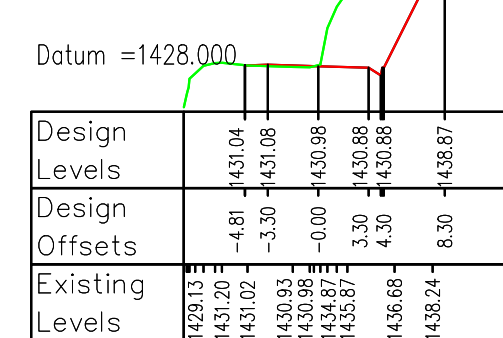
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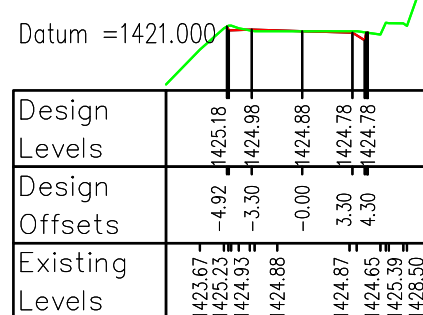
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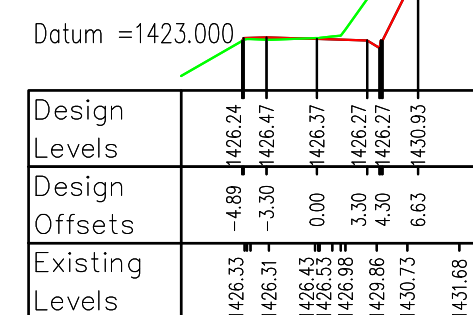
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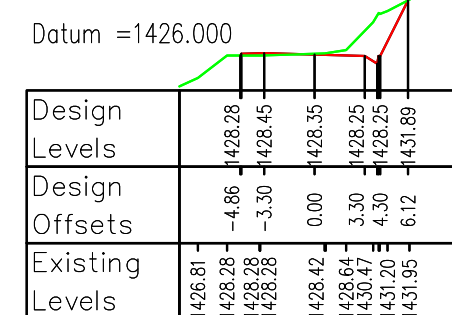
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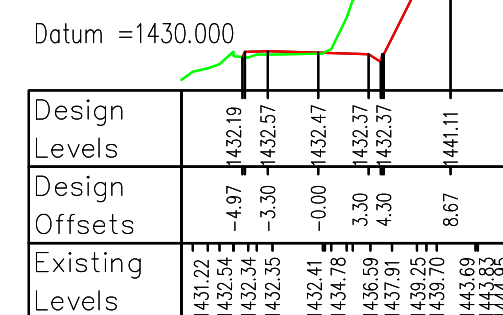
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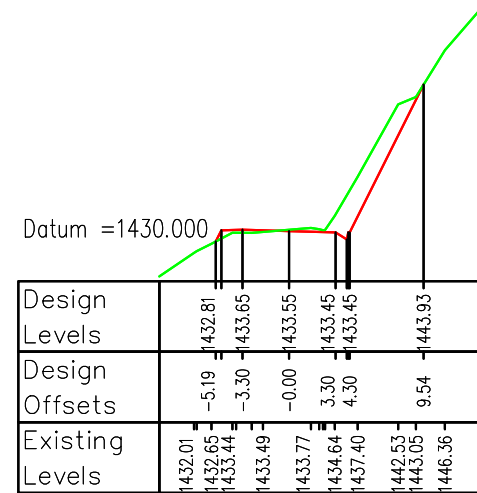
Chainage =1700.000



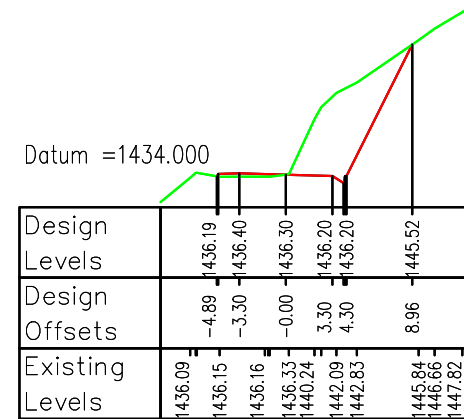
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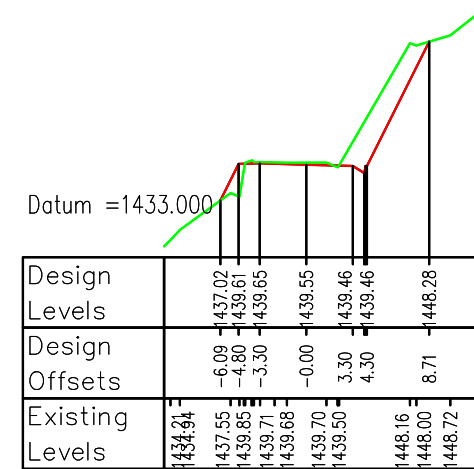
Chainage = 1820.000



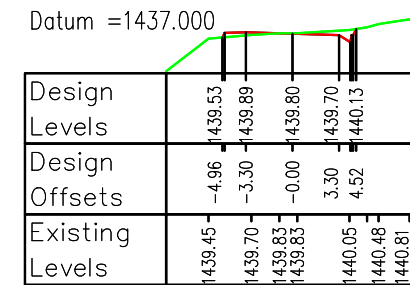
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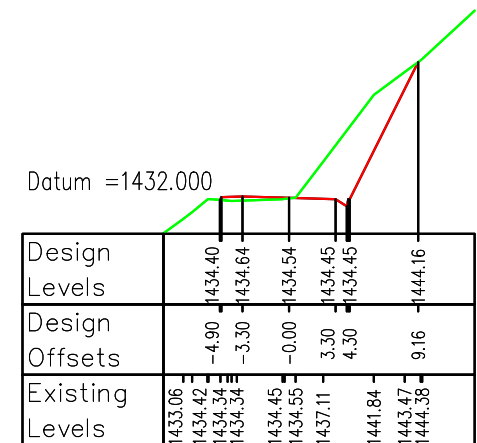
Chainage = 1900.000



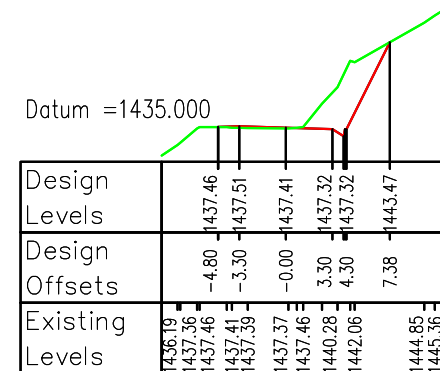
Chainage = 1960.000



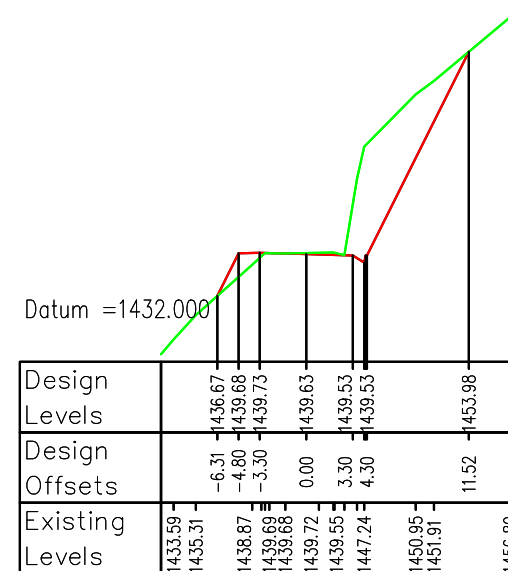
Chainage = 2020.000



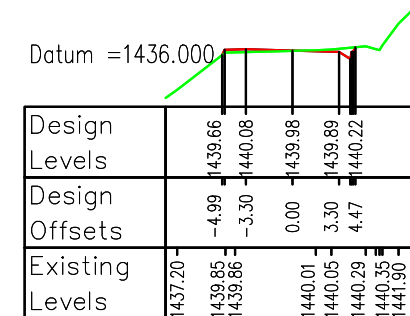
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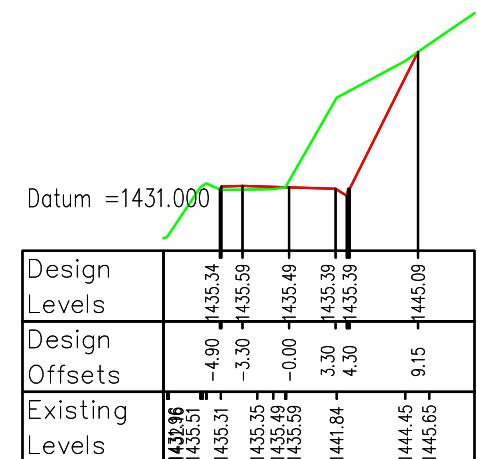
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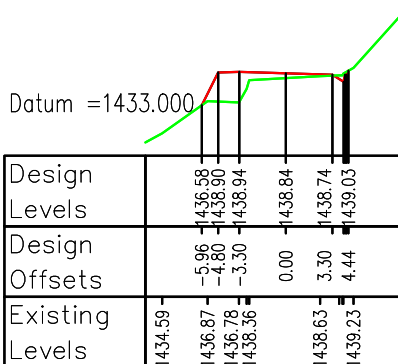
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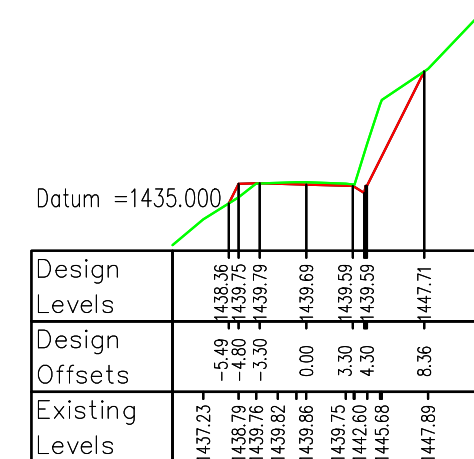
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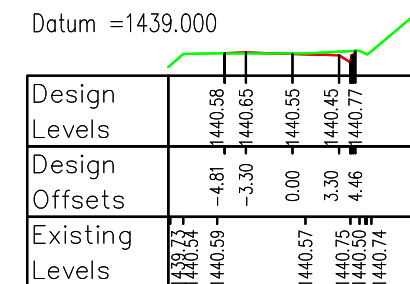
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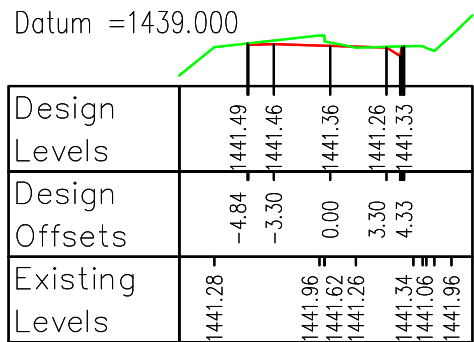
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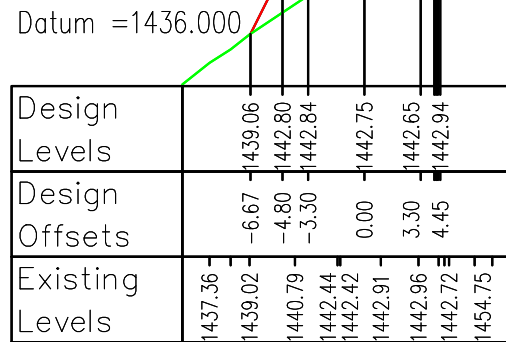
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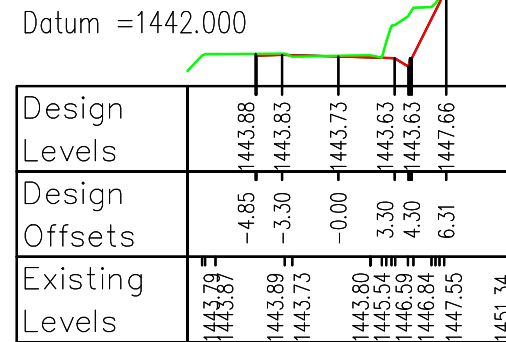
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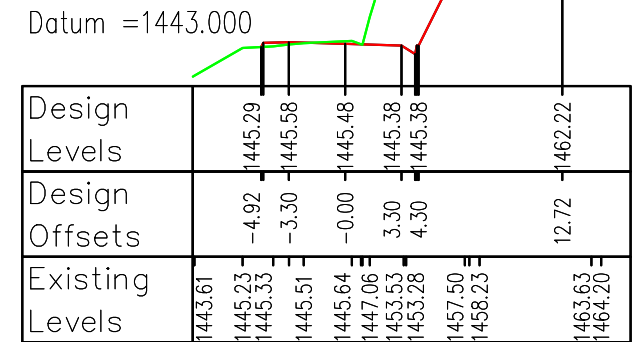
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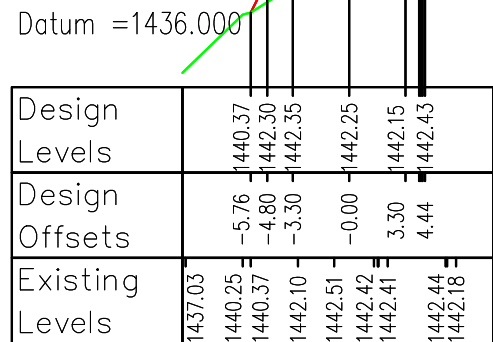
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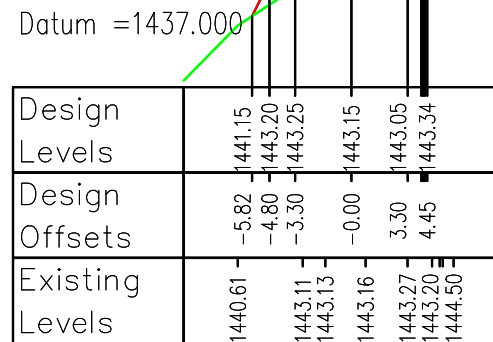
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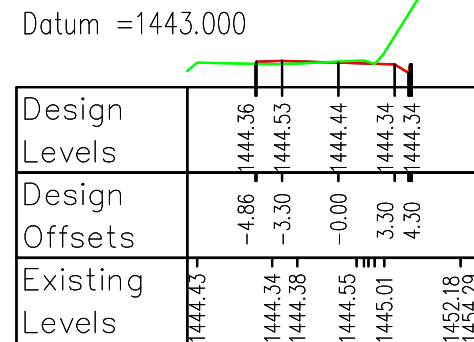
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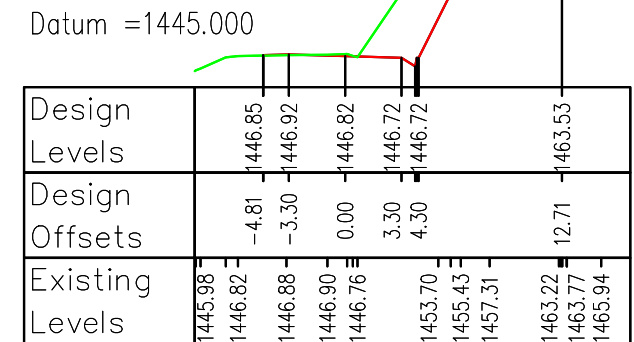
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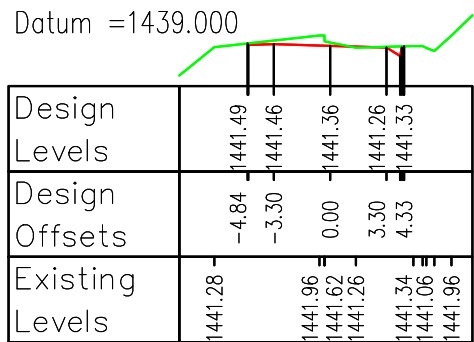
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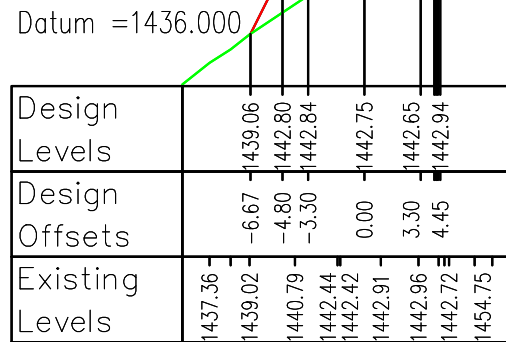
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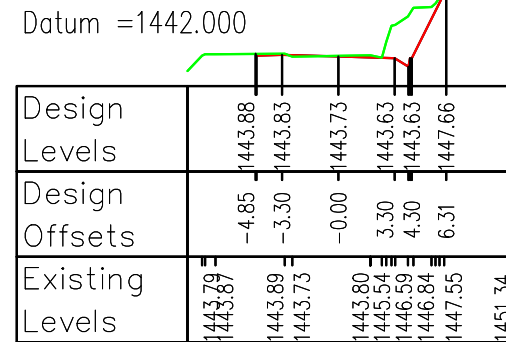
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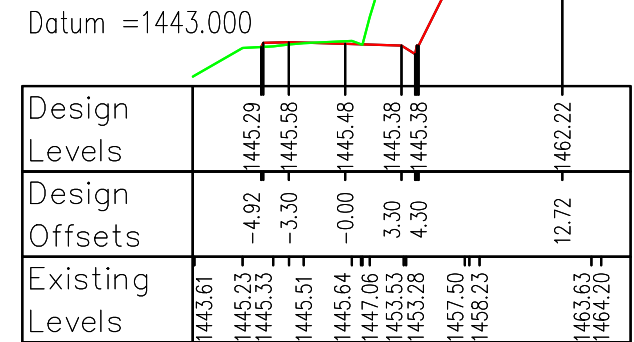
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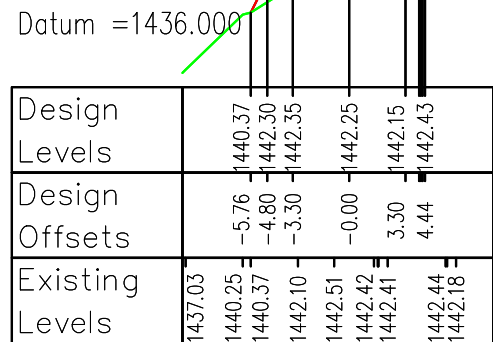
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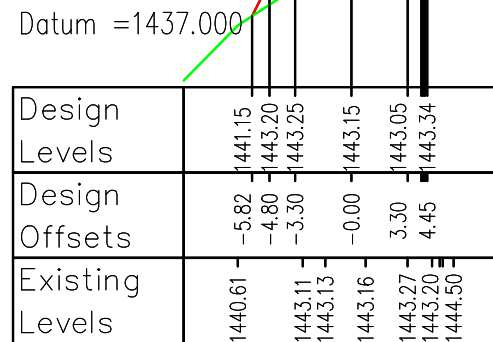
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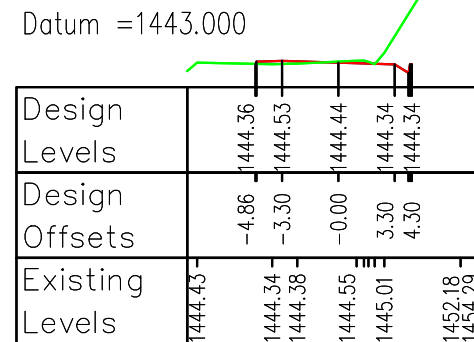
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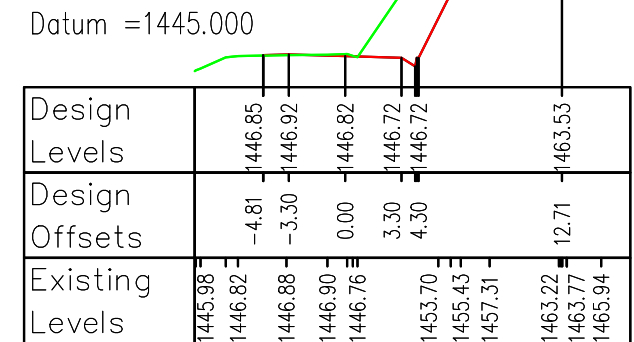
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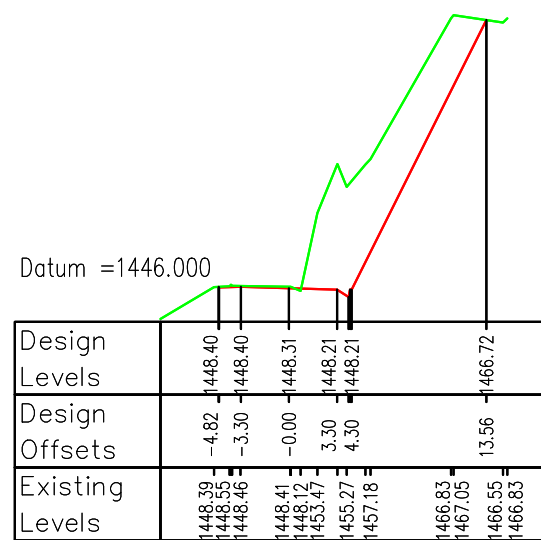
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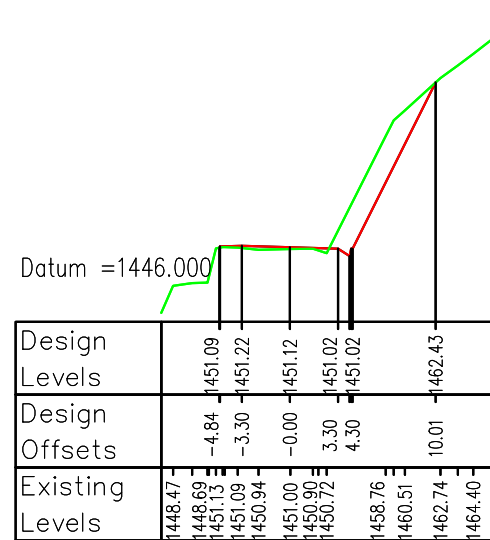
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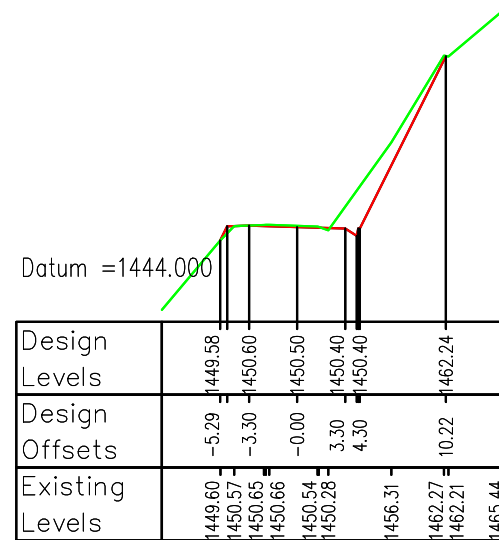
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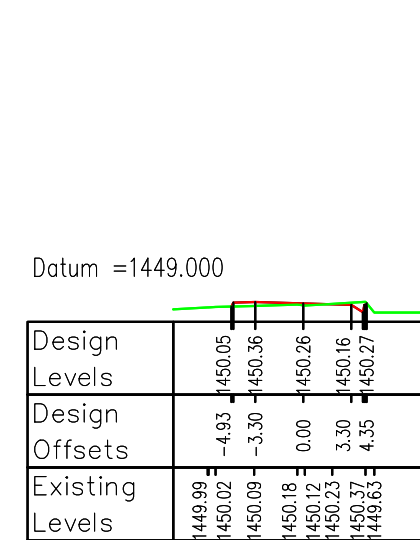
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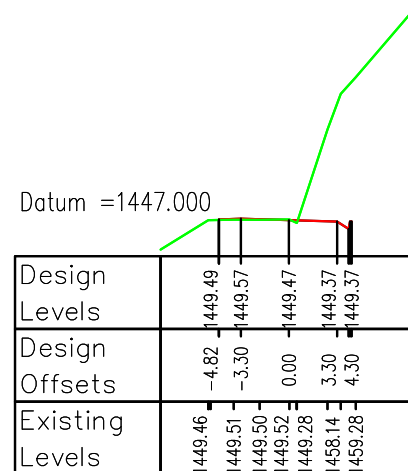
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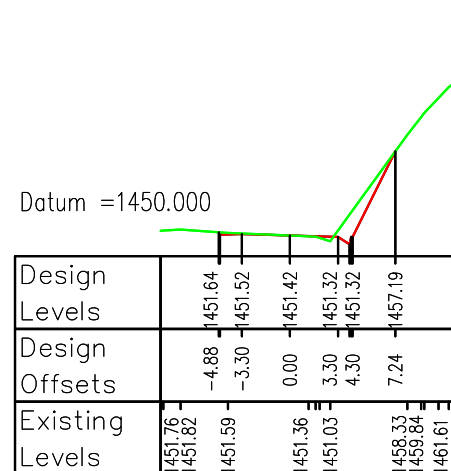
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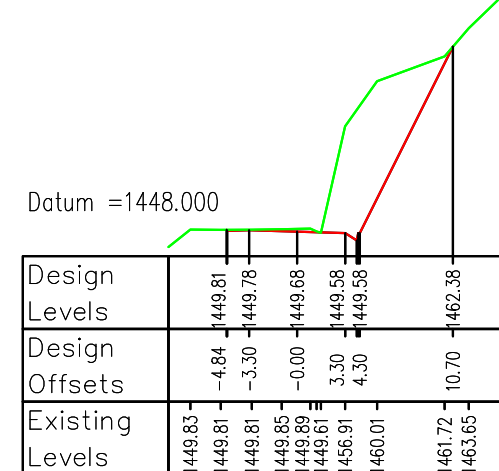
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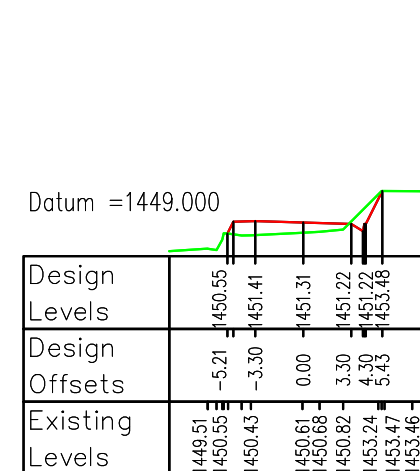
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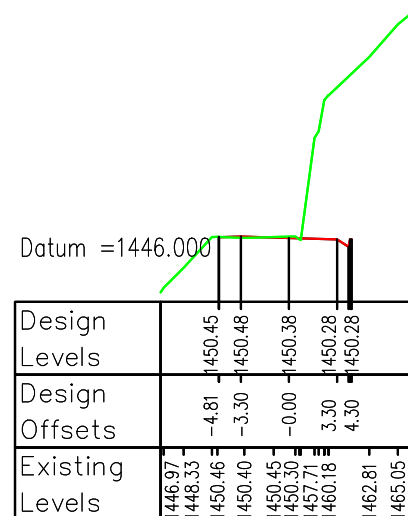
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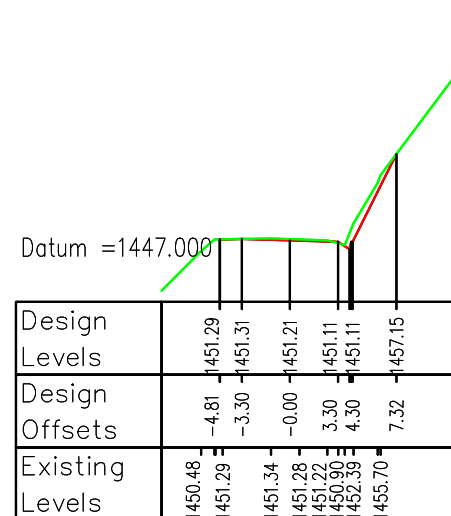
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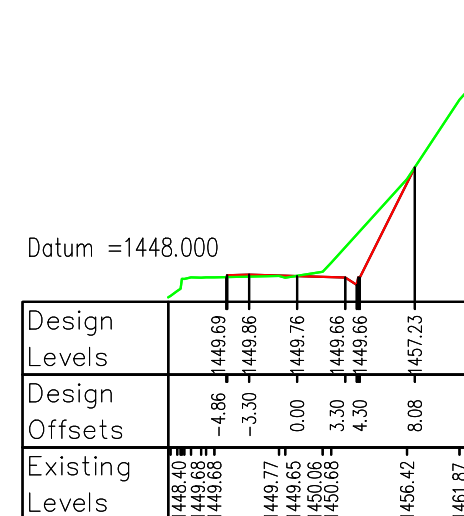
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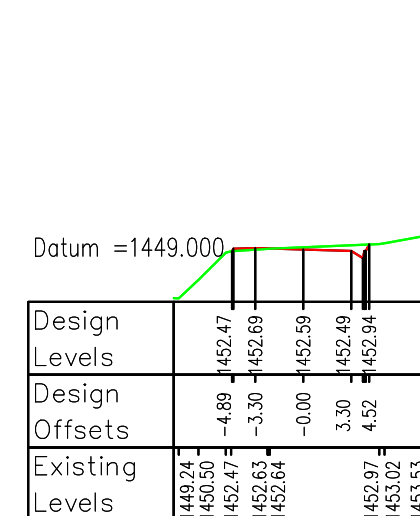
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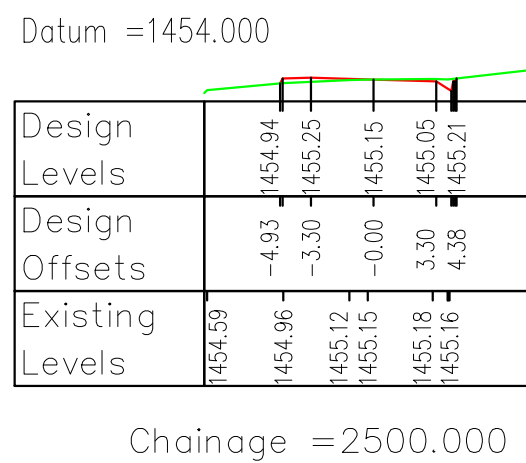
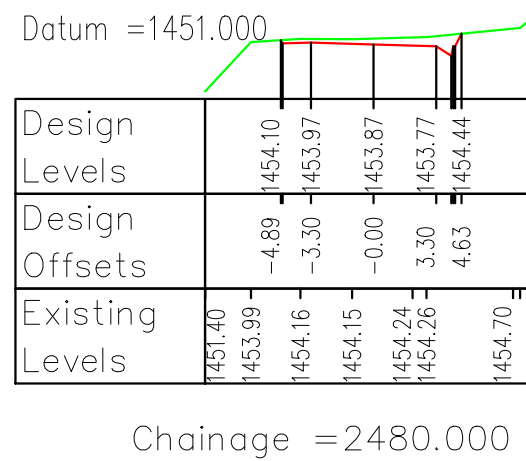
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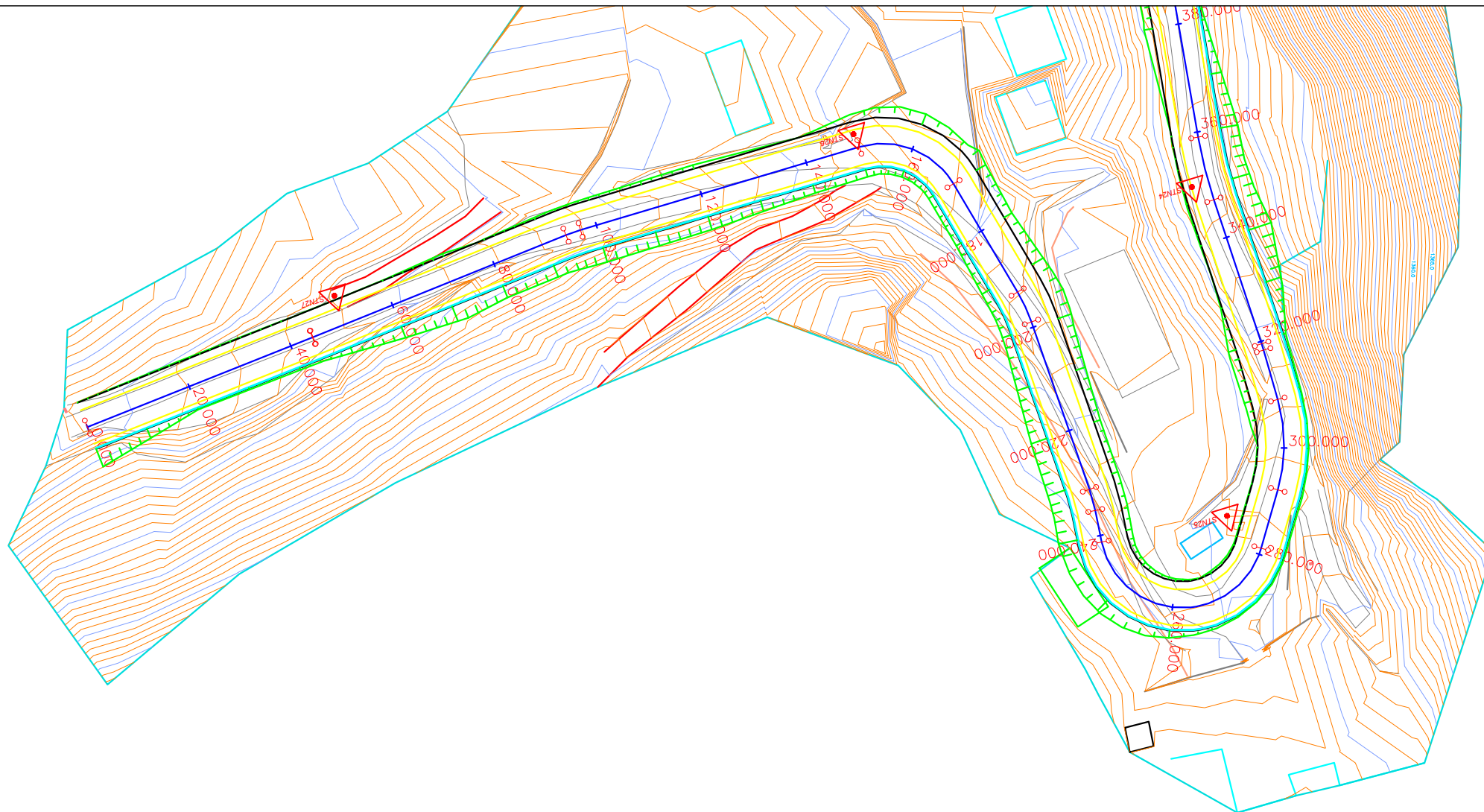
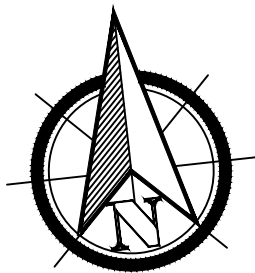


Chainage =2400.000



Chainage =2460.000





START

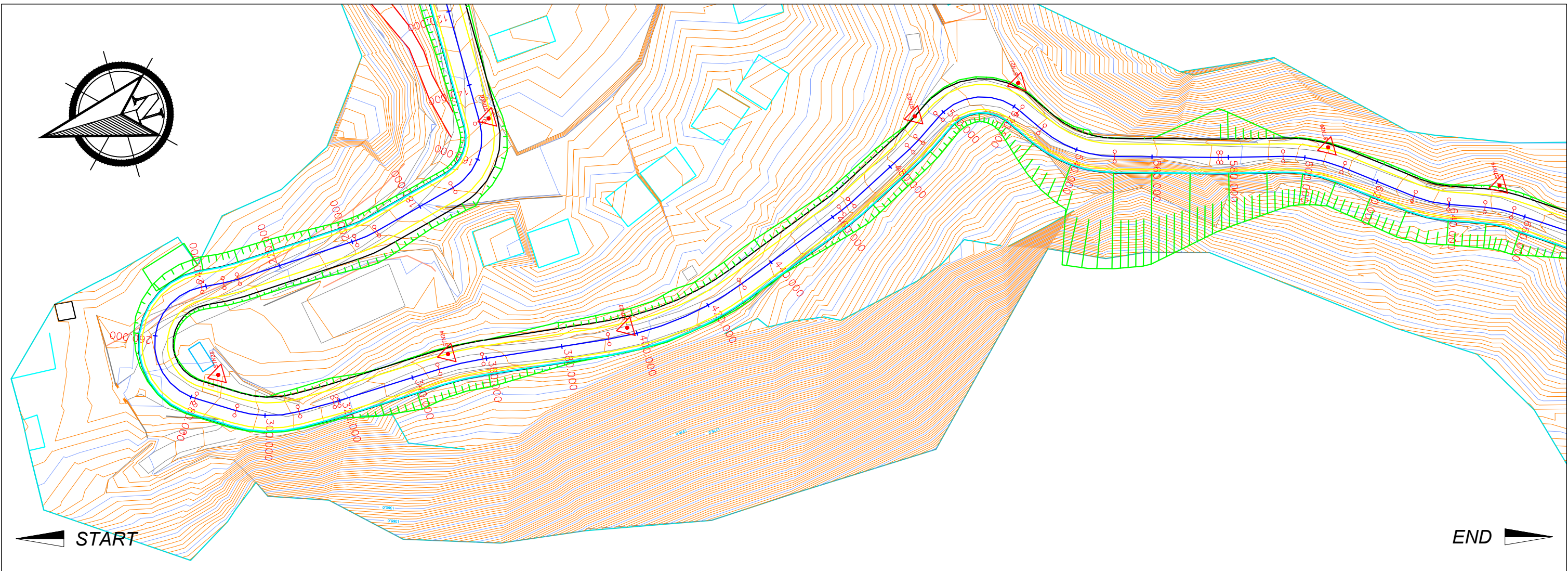
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Datum =1284.000

Design Levels	284.108	285.971	287.835	289.698	291.585	293.690	295.850	298.009	300.178	302.657	305.190	307.728	310.282	312.845	315.141	317.030	318.859	320.398
Gradient (%)		9.317	9.317	9.317	9.435	10.526	10.797	10.797	10.845	12.396	12.661	12.691	12.772	12.815	11.477	9.449	9.142	7.694
Existing Levels	284.108	286.032	288.005	289.852	291.891	294.404	297.054	300.359	303.374	305.128	307.887	310.539	314.346	313.939	315.841	317.186	319.692	321.727
Cut / Fill	0.001	-0.061	-0.170	-0.154	-0.305	-0.714	-1.204	-2.349	-3.195	-2.471	-2.698	-2.811	-4.063	-1.093	-0.701	-0.155	-0.833	-1.330
HORIZONTAL																		
Chainage	0.000	20.000	40.000	60.000	80.000	100.000	120.000	140.000	160.000	180.000	200.000	220.000	240.000	260.000	280.000	300.000	320.000	340.000
VERTICAL																		

CODE DATE DESCRIPTION		APPROVAL DATE COMMENTS		DESIGNED USING MXROADS SOFTWARE FINAL LAYOUT IN AUTOCAD		DESIGNED BY Phuntsho Rinzin Engineer		SIGNATURE 		RECOMMENDED BY		SIGNATURE		APPROVED BY Kado Off. Chief Engineer		SIGNATURE						THIMPHU BHUTAN		DESIGN DIVISION DEPARTMENT OF ROADS, THIMPHU BHUTAN. Lhuntse Urban Road LONGITUDINAL SECTION CHAINAGE 0.000- 340.000		Tel: +975-2- 324472 (T/F)	
AMENDMENTS AND REVISIONS						CHECKED BY		SIGNATURE		SURVEYED BY		SIGNATURE												1		SHEET	

SCALES = NTS



Datum =1320.000

Design Levels	320.398	321.904	323.410	325.293	327.225	329.196	331.191	333.184	334.924	336.254	337.174	337.862	339.286	341.208	343.131	345.053	346.975	348.898
Gradient (%)	7.694	7.530	7.530	9.417	9.661	9.852	9.978	9.962	8.702	6.651	4.600	3.439	7.118	9.612	9.612	9.612	9.612	9.612
Existing Levels	321.727	322.838	323.500	324.692	326.177	328.047	330.444	332.849	335.268	336.706	337.257	337.881	339.573	342.300	345.179	347.286	348.614	350.200
Cut / Fill	-1.350	-0.935	-0.091	0.601	1.049	1.149	0.747	0.335	-0.344	-0.452	-0.083	-0.018	-0.288	-1.091	-2.048	-2.232	-1.638	-1.303
HORIZONTAL	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>																	
Chainage	340.000	360.000	380.000	400.000	420.000	440.000	460.000	480.000	500.000	520.000	540.000	560.000	580.000	600.000	620.000	640.000	660.000	680.000
VERTICAL	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>																	

CODE

DATE

DESCRIPTION

AMENDMENTS AND REVISIONS

APPROVAL

DATE

COMMENTS

DESIGNED USING MXROADS SOFTWARE

FINAL LAYOUT IN AUTOCAD

DESIGNED BY
Phuntsho Rinzin
Engineer

CHECKED BY

SIGNATURE

SIGNATURE

RECOMMENDED BY

SURVEYED BY
DoR

SIGNATURE

APPROVED BY
Kado
Off. Chief Engineer

SIGNATURE

THIMPHU

MINISTRY OF WORKS & TRANSPORT

DESIGN DIVISION

BHUTAN

DESIGN DIVISION

DEPARTMENT OF ROADS, THIMPHU BHUTAN.

Thuntse Urban Road

LONGITUDINAL SECTION

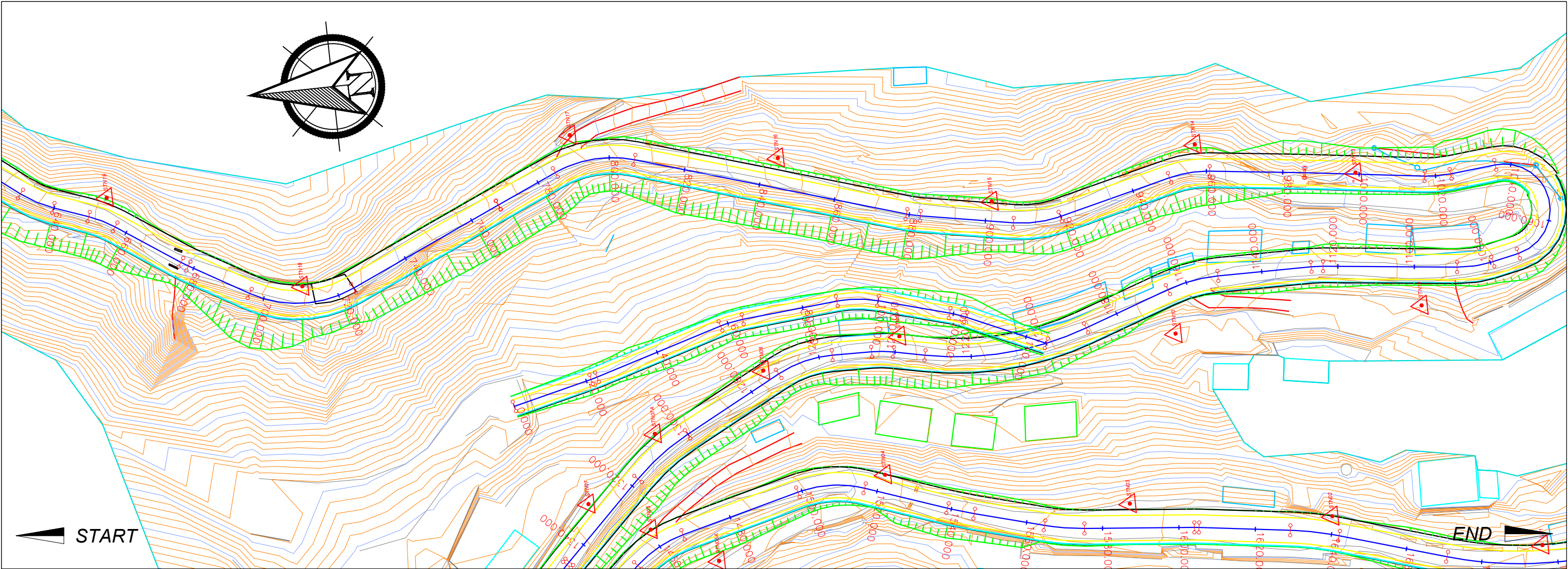
CHAINAGE 340.000- 680.000

2

SHEET

SCALES = NTS

Tel: +975-2- 324472 (T/F)



Datum =1348.000

Design Levels	348.898	350.820	352.742	354.665	356.587	358.510	360.400	362.276	364.151	366.026	367.902	369.777	371.652	373.446	375.138	376.826	378.514	380.202
Gradient (%)	9.612	9.612	9.612	9.612	9.612	9.612	9.455	9.377	9.377	9.377	9.377	9.377	9.376	8.971	8.458	8.441	8.441	8.441
Existing Levels	350.200	351.994	353.329	355.003	357.352	359.717	361.756	363.536	366.085	367.897	369.811	371.835	373.631	375.563	377.524	377.708	380.499	379.500
Cut / Fill	-1.303	-1.173	-0.586	-0.339	-0.764	-1.208	-1.356	-1.261	-1.933	-1.871	-1.909	-2.058	-1.979	-2.117	-2.385	-0.882	-1.985	0.703
HORIZONTAL																		
Chainage	680.000	700.000	720.000	740.000	760.000	780.000	800.000	820.000	840.000	860.000	880.000	900.000	920.000	940.000	960.000	980.000	1000.000	1020.000
VERTICAL																		

DESIGNED USING MXROADS SOFTWARE

FINAL LAYOUT IN AUTOCAD

DESIGNED BY
Phuntsho Rinzin
Engineer

CHECKED BY

SIGNATURE

SIGNATURE

RECOMMENDED BY

SURVEYED BY

DoR

SIGNATURE

SIGNATURE

APPROVED BY
Kado
Off. Chief Engineer

SIGNATURE

SCALES = NTS

DESIGN DIVISION

DEPARTMENT OF ROADS, THIMPHU BHUTAN.

Lhuntse Urban Road

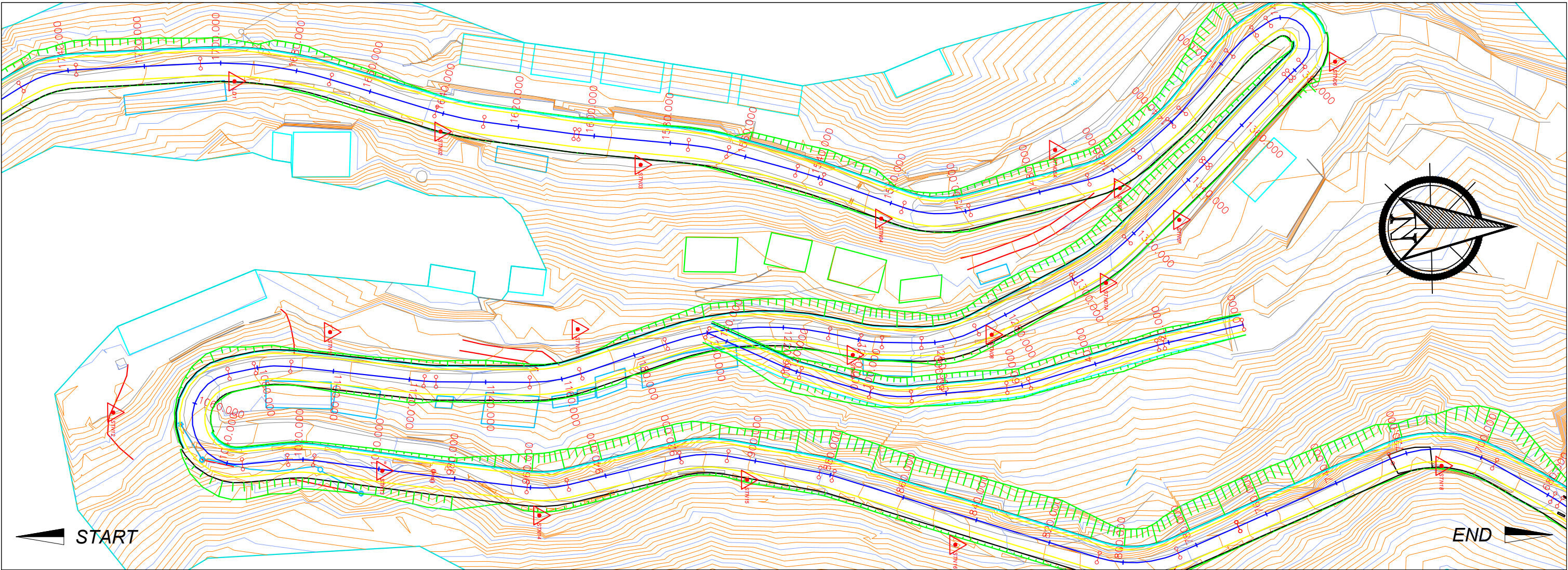
LONGITUDINAL SECTION

CHAINAGE 680.000- 1020.000

Tel: +975-2- 324472 (T/F)

3

SHEET



Datum =1378.000

Design Levels	380.202	382.022	383.913	385.804	387.525	388.987	390.250	391.280	392.265	394.125	396.109	398.092	400.076	402.060	403.867	405.258	406.618	407.978
Gradient (%)	8.441	9.100	9.455	9.455	8.605	7.310	6.314	5.149	4.924	9.301	9.919	9.919	9.919	9.919	9.035	6.957	6.799	6.799
Existing Levels	379.500	379.960	384.265	385.960	387.651	388.985	390.288	391.325	392.398	394.129	396.385	398.561	400.585	402.345	404.061	405.683	407.089	408.385
Cut / Fill	0.703	2.062	-0.352	-0.155	-0.126	0.003	-0.037	-0.046	-0.133	-0.004	-0.277	-0.469	-0.509	-0.285	-0.193	-0.424	-0.470	-0.406
HORIZONTAL																		
Chainage	020.000	040.000	060.000	080.000	100.000	120.000	140.000	160.000	180.000	200.000	220.000	240.000	260.000	280.000	300.000	320.000	340.000	360.000
VERTICAL																		

CODE | DATE | AMENDMENTS AND REVISIONS

DESCRIPTION

APPROVAL

DATE

COMMENTS

DESIGNED USING MXROADS SOFTWARE

FINAL LAYOUT IN AUTOCAD

DESIGNED BY
Phuntsho Rinzin
Engineer

CHECKED BY

DESIGNED BY

CHECKED BY

RECOMMENDED BY

SURVEYED BY
DoR

DESIGNED BY

RECOMMENDED BY

APPROVED BY
Kado
Off. Chief Engineer

DESIGNED BY

RECOMMENDED BY

APPROVED BY

DESIGNED BY

RECOMMENDED BY

APPROVED BY

THIMPHU
MINISTRY OF WORKS & TRANSPORT
BHUTAN
DESIGN DIVISION

DESIGN DIVISION

DEPARTMENT OF ROADS, THIMPHU BHUTAN.

Lhuntse Urban Road

LONGITUDINAL SECTION

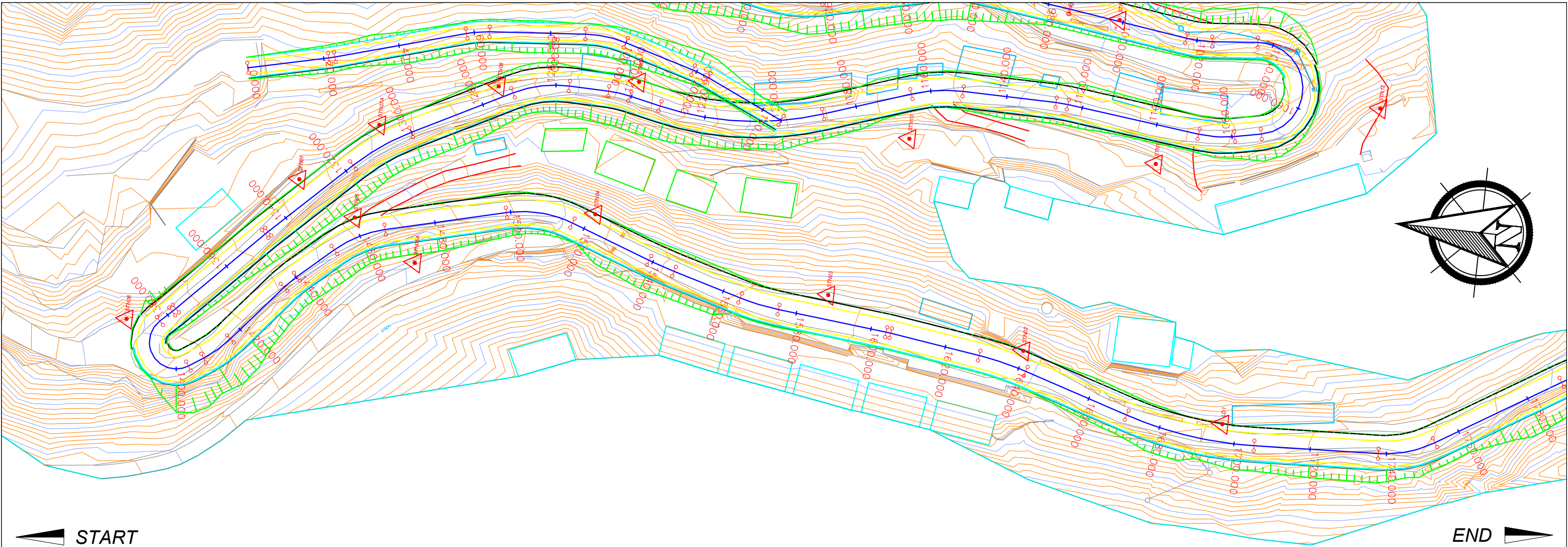
CHAINAGE 1020.000- 1360.000

Tel: +975-2- 324472 (T/F)

4

SHEET

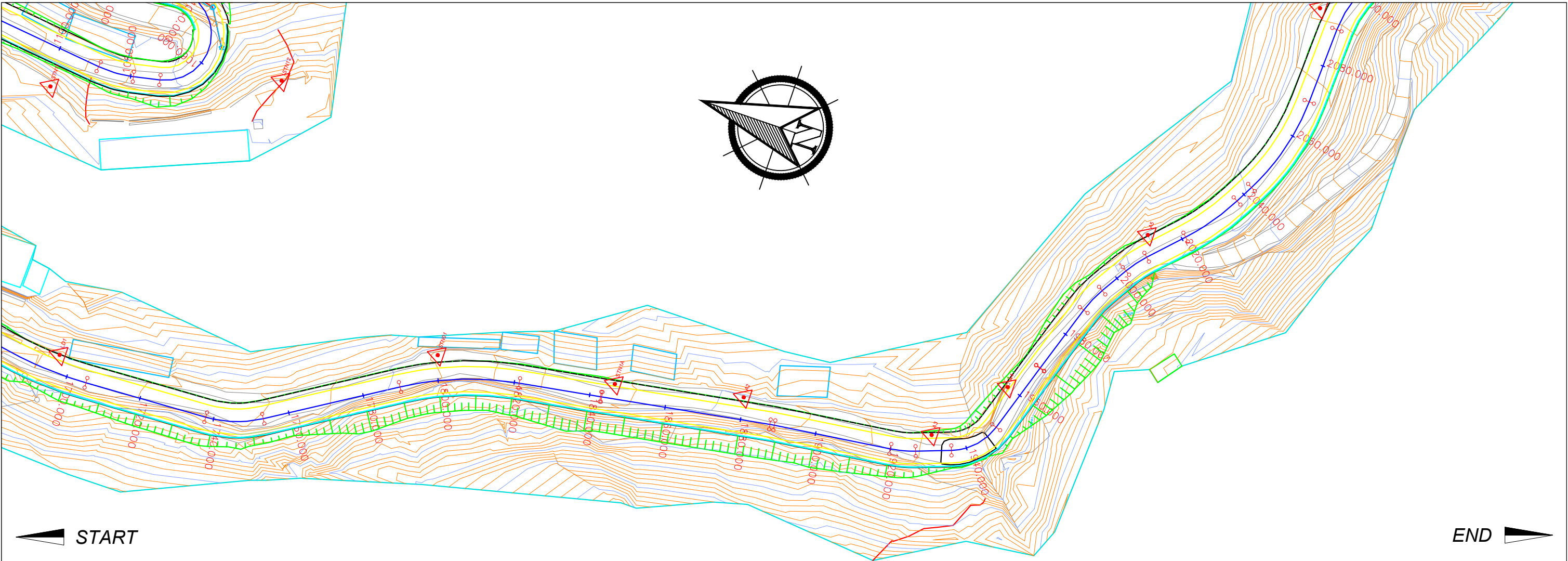
SCALES = NTS



Datum =1407.000

Design Levels	407.978	409.361	411.061	412.769	414.384	415.962	417.514	418.891	420.361	421.869	422.904	423.544	423.993	424.423	424.880	425.454	425.846	426.373
Gradient (%)	6.799	6.915	8.497	8.541	8.077	7.890	7.759	6.886	7.352	7.539	5.174	3.202	2.242	2.150	2.285	2.871	1.958	2.637
Existing Levels	408.385	409.466	411.271	413.415	414.408	416.107	417.557	418.947	420.521	421.791	422.902	423.592	424.083	424.495	424.876	425.552	425.919	426.430
Cut / Fill	-0.406	-0.104	-0.210	-0.646	-0.024	-0.145	-0.043	-0.056	-0.160	0.078	0.003	-0.048	-0.091	-0.072	0.003	-0.098	-0.073	-0.056
HORIZONTAL																		
Chainage	360.000	380.000	400.000	420.000	440.000	460.000	480.000	500.000	520.000	540.000	560.000	580.000	600.000	620.000	640.000	660.000	680.000	700.000
VERTICAL																		

CODE DATE AMENDMENTS AND REVISIONS		DESCRIPTION		APPROVAL		DATE COMMENTS		DESIGNED USING MXROADS SOFTWARE FINAL LAYOUT IN AUTOCAD		DESIGNED BY Phuntsho Rinzin Engineer		SIGNATURE 		RECOMMENDED BY		SIGNATURE		APPROVED BY Kado Off. Chief Engineer		SIGNATURE						THIMPHU BHUTAN		DESIGN DIVISION DEPARTMENT OF ROADS, THIMPHU BHUTAN. Lhuntse Urban Road LONGITUDINAL SECTION CHAINAGE 1360.000- 1700.000		Tel: +975-2- 324472 (T/F)		5 SHEET	
										SCALES = NTS																							



Datum =1426.000

Design Levels	426.375	426.973	427.560	428.347	429.582	430.977	432.468	433.550	434.545	435.491	436.303	437.414	438.842	439.555	439.629	439.692	439.796	439.984
Gradient (%)	2.637	2.999	2.934	3.938	6.176	6.975	7.455	5.407	4.977	4.733	4.057	5.557	7.138	3.565	0.371	0.314	0.518	0.942
Existing Levels	426.430	427.027	427.939	428.400	429.577	431.043	432.404	433.641	434.508	435.949	436.306	437.375	438.501	439.692	439.706	439.858	439.830	439.964
Cut / Fill	-0.056	-0.055	-0.379	-0.053	0.005	-0.066	0.065	-0.091	0.037	-0.458	-0.004	0.040	0.341	-0.137	-0.076	-0.166	-0.034	0.021
HORIZONTAL																		
Chainage	700.000	720.000	740.000	760.000	780.000	800.000	820.000	840.000	860.000	880.000	900.000	920.000	940.000	960.000	980.000	1000.000	1020.000	1040.000
VERTICAL																		

CODE | DATE

DESCRIPTION

AMENDMENTS AND REVISIONS

APPROVAL

COMMENTS

DATE

DESCRIPTION

DESIGNED USING MXROADS SOFTWARE

FINAL LAYOUT IN AUTOCAD

DESIGNED BY
Phuntsho Rinzin
Engineer

CHECKED BY

SIGNATURE

SURVEYED BY
DoR

SIGNATURE

APPROVED BY
Kado
Off. Chief Engineer

SIGNATURE

THIMPHU
MINISTRY OF WORKS & TRANSPORT
BHUTAN
DESIGN DIVISION

DESIGN DIVISION

DEPARTMENT OF ROADS, THIMPHU BHUTAN.

Thuntse Urban Road

LONGITUDINAL SECTION

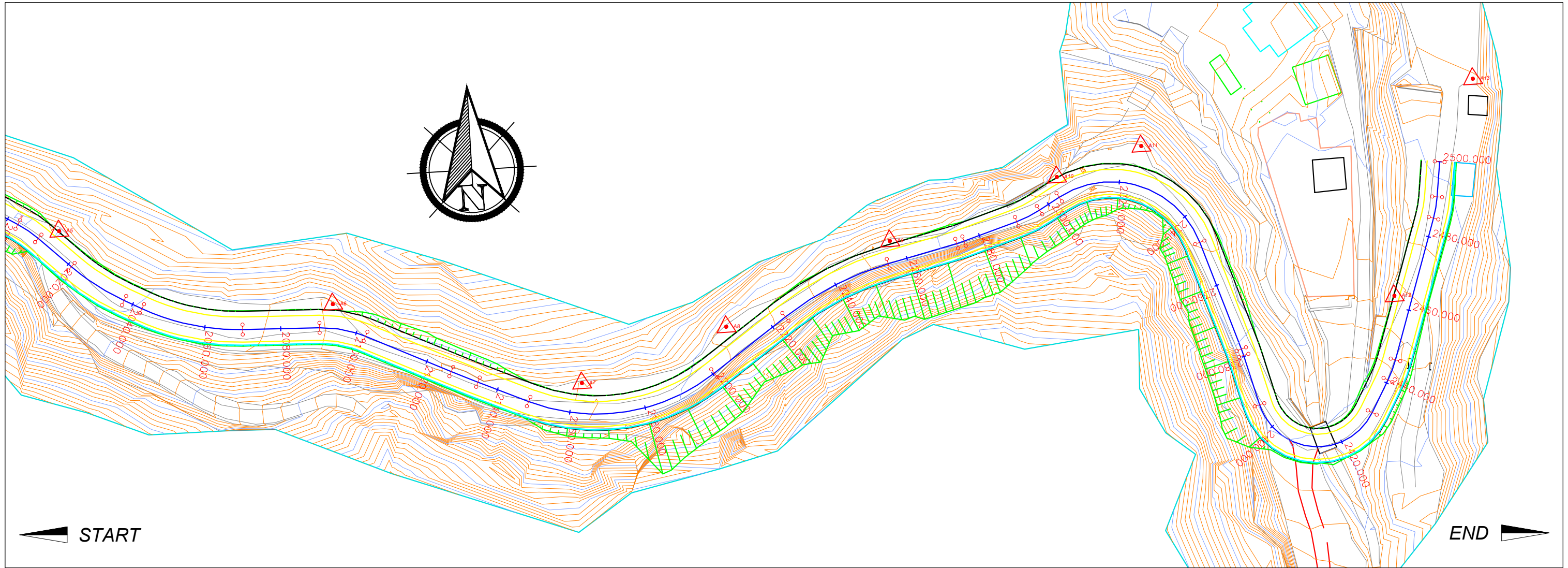
CHAINAGE 1700.000- 2040.000

Tel: +975-2- 324472 (T/F)

6

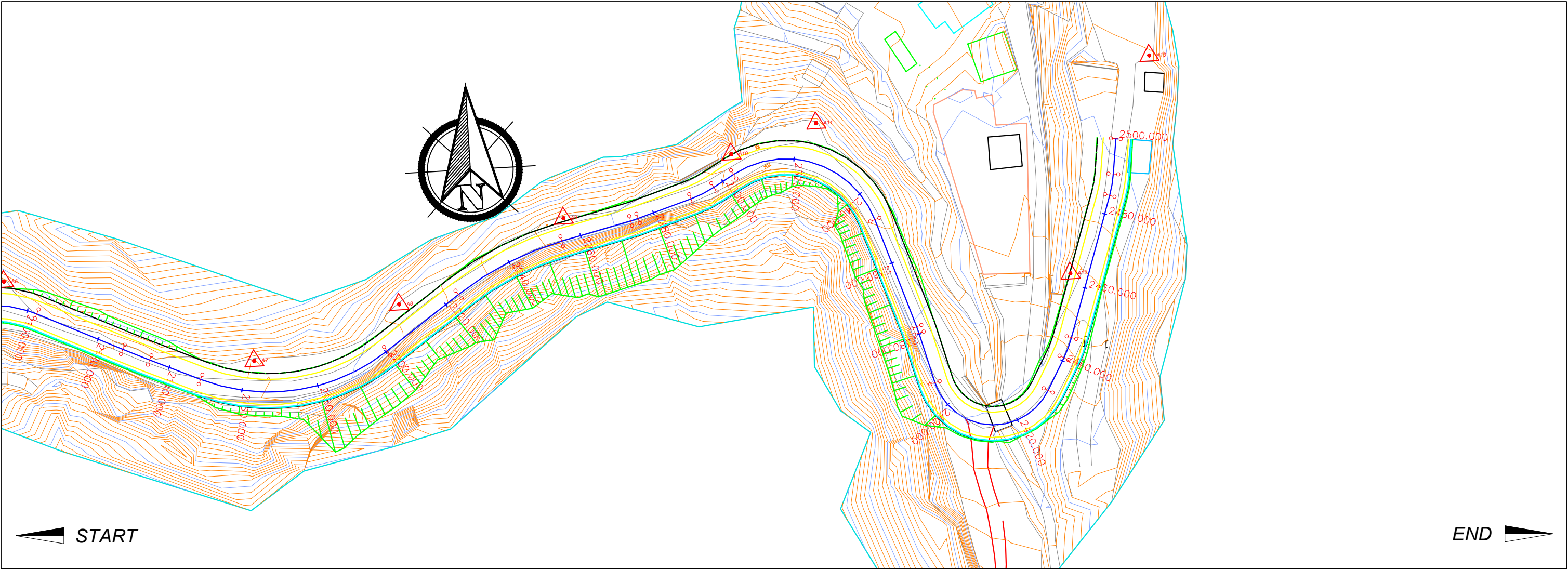
SHEET

SCALES = NTS



Datum =1439.000

Design Levels	439.984	440.548	441.359	442.248	442.745	443.147	443.733	444.436	445.476	446.819	448.305	449.469	450.376	451.118	451.419	451.213	450.502	449.679
Gradient (%)	0.942	2.818	4.058	4.443	2.486	2.009	2.929	3.514	5.203	6.713	7.431	5.819	4.538	3.710	1.502	-1.028	-3.558	-4.112
Existing Levels	439.964	440.576	441.557	442.478	442.711	443.147	443.773	444.495	445.624	446.934	448.409	449.523	450.470	451.002	451.415	451.302	450.589	449.874
Cut / Fill	0.021	-0.029	-0.198	-0.230	0.034	0.001	-0.041	-0.059	-0.147	-0.115	-0.103	-0.054	-0.094	0.117	0.004	-0.089	-0.087	-0.195
HORIZONTAL																		
Chainage	2040.000	2060.000	2080.000	2100.000	2120.000	2140.000	2160.000	2180.000	2200.000	2220.000	2240.000	2260.000	2280.000	2300.000	2320.000	2340.000	2360.000	2380.000
VERTICAL																		



Datum =1449.000

Design Levels	449.679	449.762	450.261	451.315	452.593	453.872	455.151
Gradient (%)	-4.112	0.413	2.494	5.268	6.394	6.394	6.394
Existing Levels	449.874	449.781	450.133	450.612	452.742	454.182	455.151
Cut / Fill	-0.195	-0.019	0.127	0.703	-0.148	-0.310	0.000
HORIZONTAL							
Chainage	2380.000	2400.000	2420.000	2440.000	2460.000	2480.000	2500.000
VERTICAL							