

## VERTICAL ALIGNMENT REPORT

No.	PVI Station	PVI Elevation	Grade In	Grade Out	A (Grade Change)	Profile Curve Type	Profile Curve Length	K Value	Curve Radius
1	00.000m	1040.247m		6.22%					
2	1348.254m	1124.097m	6.22%	5.74%	0.48%	Crest	150.000m	311.185	31118.533m
3	1976.392m	1160.134m	5.74%	-6.32%	12.06%	Crest	450.000m	37.319	3731.904m
4	2653.966m	1117.304m	-6.32%	-2.83%	3.49%	Sag	200.000m	57.259	5725.923m
5	3973.003m	1080.000m	-2.83%	0.00%	2.83%	Sag	50.000m	17.679	1767.938m
6	4103.423m	1080.000m	0.00%	-2.80%	2.80%	Crest	50.000m	17.874	1787.370m
7	5582.827m	1038.615m	-2.80%	0.00%	2.80%	Sag	50.000m	17.874	1787.370m
8	5722.126m	1038.615m	0.00%	-1.78%	1.78%	Crest	80.000m	44.852	4485.188m
9	6554.745m	1023.764m	-1.78%	-6.55%	4.77%	Crest	300.000m	62.885	6288.498m
10	7350.476m	971.610m	-6.55%	7.66%	14.22%	Sag	100.000m	7.035	703.476m
11	7665.804m	995.767m	7.66%	6.12%	1.54%				
12	7753.423m	1001.127m	6.12%	8.00%	1.88%				
13	7853.423m	1009.127m	8.00%	7.00%	1.00%				
14	7953.423m	1016.127m	7.00%	8.00%	1.00%				
15	8053.423m	1024.127m	8.00%	7.00%	1.00%				
16	8153.423m	1031.127m	7.00%	8.00%	1.00%				
17	8253.423m	1039.127m	8.00%	7.00%	1.00%				
18	8353.423m	1046.127m	7.00%	8.00%	1.00%				
19	8453.423m	1054.127m	8.00%	7.00%	1.00%				
20	8553.423m	1061.127m	7.00%	8.00%	1.00%				
21	8653.423m	1069.127m	8.00%	7.00%	1.00%				
22	8753.423m	1076.127m	7.00%	8.00%	1.00%				
23	8853.423m	1084.127m	8.00%	6.36%	1.64%				
24	10924.570m	1215.922m	6.36%	3.61%	2.76%				
25	13198.474m	1297.965m	3.61%	-2.50%	6.11%	Crest	150.000m	24.558	2455.779m
26	13694.851m	1285.556m	-2.50%	-6.74%	4.24%	Crest	150.000m	35.41	3540.992m
27	13959.730m	1267.713m	-6.74%	-7.00%	0.26%				
28	14059.730m	1260.713m	-7.00%	-8.00%	1.00%				
29	14159.730m	1252.713m	-8.00%	-7.00%	1.00%				
30	14259.730m	1245.713m	-7.00%	-8.00%	1.00%				
31	14359.730m	1237.713m	-8.00%	-7.00%	1.00%				
32	14459.730m	1230.713m	-7.00%	-8.00%	1.00%				
33	14559.730m	1222.713m	-8.00%	-7.00%	1.00%				
34	14699.237m	1212.948m	-7.00%	0.00%	7.00%	Sag	120.000m	17.143	1714.286m
35	14928.698m	1212.948m	0.00%	-5.71%	5.71%	Crest	100.000m	17.528	1752.849m
36	15394.713m	1186.361m	-5.71%	-1.67%	4.03%				
37	16323.894m	1170.831m	-1.67%	-2.56%	0.89%				
38	18225.140m	1122.204m	-2.56%	-4.77%	2.21%				
39	20074.676m	1034.051m	-4.77%	-0.80%	3.97%				
40	21444.836m	1023.099m	-0.80%	-6.85%	6.06%	Crest	100.000m	16.515	1651.494m
41	22310.422m	963.769m	-6.85%	-4.07%	2.78%				
42	23510.973m	914.899m	-4.07%	0.00%	4.07%	Sag	100.000m	24.567	2456.651m
43	23682.307m	914.899m	0.00%	0.75%	0.75%	Sag	100.000m	133.976	13397.554m
44	23944.460m	916.856m	0.75%	5.50%	4.75%	Sag	250.000m	52.649	5264.869m
45	26679.380m	1067.136m	5.50%	6.66%	1.17%	Sag	300.000m	256.851	25685.074m

46	28476.251m	1186.859m	6.66%	2.10%	4.56%	Crest	250.000m	54.83	5483.031m
47	30449.955m	1228.373m	2.10%	6.97%	4.86%	Sag	200.000m	41.134	4113.372m
48	30979.063m	1265.228m	6.97%	8.00%	1.03%				
49	31079.063m	1273.228m	8.00%	7.00%	1.00%				
50	31179.063m	1280.228m	7.00%	8.00%	1.00%				
51	31279.063m	1288.228m	8.00%	7.00%	1.00%				
52	31379.063m	1295.228m	7.00%	8.00%	1.00%				
53	31479.063m	1303.228m	8.00%	7.00%	1.00%				
54	31579.063m	1310.228m	7.00%	8.00%	1.00%				
55	31679.063m	1318.228m	8.00%	7.00%	1.00%				
56	31779.063m	1325.228m	7.00%	8.00%	1.00%				
57	31879.063m	1333.228m	8.00%	6.77%	1.23%				
58	32013.155m	1342.311m	6.77%	-2.50%	9.27%	Crest	150.000m	16.174	1617.436m
59	32654.944m	1326.266m	-2.50%	-2.83%	0.33%	Crest	300.000m	904.341	90434.067m
60	35539.302m	1244.589m	-2.83%	0.00%	2.83%	Sag	100.000m	35.315	3531.535m
61	35690.833m	1244.589m	0.00%	-0.45%	0.45%	Crest	150.000m	335.253	33525.348m
62	37411.816m	1236.887m	-0.45%	4.57%	5.02%	Sag	268.432m	53.494	5349.364m
63	38708.874m	1296.169m	4.57%	4.82%	0.25%	Sag	500.000m	2035.05	203505.016m
64	44516.556m	1575.878m	4.82%						