

Element	Station	Elevation	Length	Entrance Grade	Exit Grade	K	Middle Ordinate	SSD/HSD	Element	Station	Elevation	Length	Entrance Grade	Exit Grade	K	Middle Ordinate	SSD/HSD	Element	Station	Elevation	Length	Entrance Grade	Exit Grade	K	Middle Ordinate	SSD/HSD	
Symmetrical Parabola	PVRC A 16+80.00	739.74	100	0.06%	-0.77%	121.4	-0.1	1359.93	Linear	PVT A 37+90.00	714.78	180	-0.46%					Linear	PVT A 62+45.00	739.03	465	3.25%					
	VHIGH A 16+86.96	739.74								POVT A 38+00.00	714.74								POVT A 62+50.00	739.19							
	POVC A 17+00.00	739.73								POVT A 38+50.00	714.51								POVT A 63+00.00	740.82							
	PVI A 17+30.00	739.76								POVT A 39+00.00	714.28								POVT A 63+50.00	742.45							
	POVC A 17+50.00	739.57								POVT A 39+50.00	714.06								POVT A 64+00.00	744.07							
PVT A 17+80.00	739.38	PVC A 39+70.00	713.96	POVT A 64+50.00	745.7																						
Linear	PVT A 17+80.00	739.38	215	-0.77%					Symmetrical Parabola	PVC A 39+70.00	713.96	300	-0.46%	4.42%	61.57	1.83			Symmetrical Parabola	PVI A 67+10.00	754.15	480	3.25%	-1.05%	111.7	-2.58	491.07
	PVC A 19+95.00	737.73								VLOW A 39+98.08	713.9									PVC A 67+10.00	754.15						
	POVT A 18+00.00	739.23								POVC A 40+00.00	713.9									POVC A 67+50.00	755.38						
	POVT A 18+50.00	738.84								POVC A 40+50.00	714.12									POVC A 68+00.00	756.71						
	POVT A 19+00.00	738.46								POVC A 41+00.00	714.74									POVC A 68+50.00	757.82						
POVT A 19+50.00	738.08	PVI A 41+20.00	713.28	POVC A 69+00.00	758.71																						
Symmetrical Parabola	PVC A 19+95.00	737.73	400	-0.77%	-4.56%	105.6	-1.89	484.85	Linear	PVT A 42+70.00	719.9	240	4.42%					Symmetrical Parabola	PVI A 69+50.00	761.95	480	3.25%	-1.05%	111.7	-2.58	491.07	
	PVI A 21+95.00	736.2								POVT A 43+00.00	721.23								PVC A 69+50.00	761.95							
	PVT A 23+95.00	727.09								POVT A 43+50.00	723.44								POVC A 70+00.00	759.81							
	POVC A 20+00.00	737.69								POVT A 44+00.00	725.65								POVC A 70+50.00	760.03							
	POVC A 20+50.00	737.17								POVT A 44+50.00	727.85								VHIGH A 70+73.07	760.05							
Symmetrical Parabola	POVC A 21+00.00	736.41	400	-0.77%	-4.56%	105.6	-1.89	484.85	Linear	PVT A 42+70.00	719.9	240	4.42%					Symmetrical Parabola	POVC A 71+00.00	760.02	480	3.25%	-1.05%	111.7	-2.58	491.07	
	POVC A 21+50.00	735.41								PVC A 45+10.00	730.5								POVC A 71+50.00	759.79							
	POVC A 22+00.00	734.17								PVC A 45+10.00	730.5								PVT A 71+90.00	759.44							
	POVC A 22+50.00	732.7								POVC A 45+50.00	732.05								PVT A 71+90.00	759.44							
	POVC A 23+00.00	730.99								POVC A 46+00.00	733.38								POVT A 72+00.00	759.33							
Linear	POVC A 23+50.00	729.04	65	-4.56%					Symmetrical Parabola	PVI A 46+65.00	737.35	310	4.42%	-4.03%	36.7	-3.27	281.46		Symmetrical Parabola	PVC A 72+85.00	758.44	190	-1.05%	-0.59%	418.1	0.11	
	PVT A 23+95.00	727.09								VHIGH A 46+72.11	734.08									PVC A 72+85.00	758.44						
	PVC A 24+60.00	724.13								POVC A 47+00.00	733.98									POVC A 73+00.00	758.29						
	POVT A 24+00.00	726.86								POVC A 47+50.00	733.26									POVC A 73+50.00	757.81						
	POVT A 24+50.00	724.58								POVC A 48+00.00	731.86									POVC A 74+00.00	757.4						
Symmetrical Parabola	PVC A 24+60.00	724.13	270	-4.56%	2.44%	38.59	2.36		Linear	PVT A 48+20.00	731.1	85	-4.03%					Symmetrical Parabola	PVI A 73+80.00	757.45	190	-1.05%	-0.59%	418.1	0.11		
	POVC A 25+00.00	722.51								POVT A 48+50.00	729.9								PVC A 74+50.00	757.04							
	POVC A 25+50.00	721.08								POVT A 49+00.00	727.88								PVT A 74+75.00	756.89							
	PVI A 25+95.00	717.98								PVC A 49+05.00	727.68								POVT A 75+00.00	756.74							
	POVC A 26+00.00	720.29								POVC A 49+50.00	725.96								POVT A 75+50.00	756.44							
Symmetrical Parabola	VLOW A 26+35.78	720.13	270	-4.56%	2.44%	38.59	2.36		Symmetrical Parabola	PVI A 50+40.00	722.24	270	-4.03%	-1.66%	114	0.8		Symmetrical Parabola	PVC A 75+80.00	756.26	140	-0.59%	-2.48%	74.2	-0.33	641.98	
	POVC A 26+50.00	720.15								POVC A 50+50.00	722.76								PVC A 75+80.00	756.26							
	POVC A 27+00.00	720.66								POVC A 51+00.00	721.49								POVC A 76+00.00	756.12							
	PVT A 27+30.00	721.28								POVC A 51+50.00	720.44								PVI A 76+50.00	755.85							
	PVT A 27+30.00	721.28								PVT A 51+75.00	720								POVC A 76+50.00	755.52							
Linear	PVT A 27+30.00	721.28	55	2.44%					Linear	POVT A 52+00.00	719.58	177.5	-1.66%					Symmetrical Parabola	PVT A 77+20.00	754.11	21.59	-2.48%					
	POVT A 27+50.00	721.76								POVT A 52+50.00	718.75								PVT A 77+20.00	754.11							
	PVC A 27+85.00	722.62								POVT A 53+00.00	717.92								POE A 77+41.59	753.58							
	PVC A 27+85.00	722.62								POVT A 53+50.00	717.09																
	PVI A 28+60.00	724.45								PVC A 53+52.50	717.05																
Symmetrical Parabola	PVT A 29+35.00	723.4	150	2.44%	-1.39%	39.11	-0.72	356.36	Symmetrical Parabola	PVC A 53+52.50	717.05	275	-1.66%	3.20%	56.59	1.67		Symmetrical Parabola	PVI A 77+50.00	754.11	140	-0.59%	-2.48%	74.2	-0.33	641.98	
	PVT A 29+35.00	723.4								POVC A 54+00.00	716.46								PVC A 77+50.00	754.11							
	PVC A 31+40.00	720.55								VLOW A 54+46.43	716.27								POVC A 77+00.00	754.58							
	POVT A 29+50.00	723.2								POVC A 54+50.00	716.27								PVT A 77+20.00	754.11							
	POVT A 30+00.00	722.5								PVI A 54+90.00	714.77																
Symmetrical Parabola	POVT A 30+50.00	721.8	100	-1.39%	-1.38%	10792	0		Symmetrical Parabola	POVC A 55+00.00	716.53	275	-1.66%	3.20%	56.59	1.67		Symmetrical Parabola	PVC A 78+00.00	754.11	21.59	-2.48%					
	PVC A 31+40.00	720.55								POVC A 55+50.00	717.22								PVC A 78+00.00	754.11							
	POVC A 31+50.00	720.41								POVC A 56+00.00	718.36								PVT A 78+00.00	754.11							
	PVI A 31+90.00	719.85								PVT A 56+27.50	719.17																
	POVC A 32+00.00	719.71								PVT A 56+27.50	719.17																
Symmetrical Parabola	POVC A 32+40.00	719.16	110	-1.38%	-1.47%	1346	-0.01	13260.14	Linear	POVT A 57+00.00	721.49	217.5	3.20%					Symmetrical Parabola	PVI A 79+00.00	754.11	21.59	-2.48%					
	PVRC A 32+40.00	719.16								POVT A 57+50.00	723.09								PVI A 79+00.00	754.11							
	POVC A 32+50.00	719.02								POVT A 58+00.00	724.69								PVC A 79+00.00	754.11							
	PVI A 32+95.00	718.4								PVC A 58+45.00	726.13								PVT A 79+00.00	754.11							
	POVC A 33+00.00	718.31								PVC A 58+45.00	726.13																
Linear	PVT A 33+50.00	717.59	70	-1.47%					Symmetrical Parabola	POVC A 59+00.00	727.89	400	3.20%	3.25%	7778	0.03		Symmetrical Parabola	PVC A 80+00.00	754.11	21.59	-2.48%					
	PVT A 33+50.00	717.59								POVC A 59+50.00	729.5								PVC A 80+00.00	754.11							
	POVT A 34+00.00	716.86								PVI A 60+45.00	732.53								POVC A 81+00.00	754.11							
	PVC A 34+20.00	716.56								POVC A 60+50.00	732.72								POVC A 81+50.00	754.11							
	PVC A 34+20.00	716.56								POVC A 61+00.00	734.33								PVT A 81+50.00	754.11							
Symmetrical Parabola	POVC A 34+50.00	716.18	100	-1.47%	-0.30%	85.93	0.15		Linear	PVT A 62+45.00	739.03	217.5	3.20%					Symmetrical Parabola	PVC A 82+00.00	754.11	21.59	-2.48%					
	PVI A 34+70.00	715.83								PVT A 62+45.00	739.03								PVC A 82+00.00	754.11							
	POVC A 35+00.00	715.76																	PVC A 82+00.00	754.11							
	PVT A 35+20.00	715.68																	PVC A 82+00.00	754.11							
	PVT A 35+20.00	715.68																	PVC A 82+00.00	754.11							
Linear	POVT A 35+50.00	715.59	170	-0.30%					Symmetrical Parabola	PVC A 82+00.00	754.11	400	3.20%	3.25%	7778	0.03		Symmetrical Parabola	PVC A 82+00.00	754.11	21.59	-2.48%					
	POVT A 36+00.00	715.44								PVC A 82+00.00	754.11								PVC A 82+00.00	754.11							
	POVT A 36+50.00	715.29								PVC A 82+00.00	754.11								PVC A 82+00.00	754.11							
	PVC A 36+90.00	715.16								PVC A 82+00.00	754.11								PVC A 82+00.00	754.11							
	PVC A 36+90.00	715.16								PVC A 82+00.00	754.11								PVC A 82+00.00	754.11							
Symmetrical Parabola	POVC A 37+00.00	715.13	100	-0.30%	-0.46%	651.9	-0.02	7084.84	Symmetrical Parabola	PVC A 82+00.00	754.11	400	3.20%	3.25%	7778	0.03		Symmetrical Parabola	PVC A 82+00.00	754.11	21.59	-2.48%					
	PVI A 37+40.00	715.01								PVC A 82+00.00	754.11								PVC A 82+00.00	754.11							
	POVC A 37+50.00	714.95								PVC A 82+00.00	754.11								PVC A 82+00.00	754.11							
	PVT A 37+50.00	714.95								PVC A 82+00.00	754.11								PVC A 82+00.00	754.11							
	PVT A 37+90.00	714.78								PVC A 82+00.00	754.11								PVC A 82+00.00	754.11							

PVC - POINT OF VERTICAL CURVATURE
PVT - POINT OF VERTICAL TANGENCY
PVI - POINT OF VERTICAL INTERSECTION
POVT - POINT ON VERTICAL TANGENT
POVC - POINT ON VERTICAL CURVE

PROJECT NAME:	BETHEL-RANDOLPH	PLOT DATE:	4/23/2015
PROJECT NUMBER:	STP 2921(I)	DRAWN BY:	S. LAMPHERE
FILE NAME:	z10c244.dgn	DESIGNED BY:	S. LAMPHERE
PROJECT LEADER:	C. LATHROP	CHECKED BY:	C. LATHROP
VERTICAL ALIGNMENT TABLE SHEET 5		SHEET	130 OF 211