Vertical Alignment Review Report

Report Created: 3/26/2009
Time: 2:27pm

Project: SPB Proposed
Description: Proposed SPB Alignments
File Name: L:\45647\Civil\Design\Inroads\alg (Geometry)\SPB.alg
Last Revised: etevans 3/26/2009 10:08:28 AM
Input Grid Factor: 1.00000000 **Note:** All units in this report are in feet unless specified otherwise.

Horizontal Alignment: SPB
Horizontal Description:
Horizontal Style: Default

	Station	Elevation

Vertical Alignment: South Park
Vertical Description: South End Adjustments for Sidewalk and Drainage
Vertical Style: Default

Element: Linear

POB	23+40.000	19.497
PVI	24+15.000	19.197
Tangent Grade:	-0.400%	
Tangent Length:	75.000	

Element: Linear

PVI	24+15.000	19.197
PVI	24+82.998	19.061
Tangent Grade:	-0.200%	
Tangent Length:	67.998	

Element: Linear

PVI	24+82.998	19.061
PVC	25+50.000	19.281
Tangent Grade:	0.328%	
Tangent Length:	67.002	

Element: Symmetrical Parabola

PVC	25+50.000	19.281
PVI	26+75.000	19.691
PVT	28+00.000	25.940
Length:	250.000	
Entrance Grade:	0.328%	
Exit Grade:	4.999%	
r = (g2 - g1) / L:	1.869	
K = l / (g2 - g1):	53.516	
Middle Ordinate:	1.460	

Element: Linear

PVT	28+00.000	25.940
PVC	31+62.500	44.064
Tangent Grade:	4.999%	
Tangent Length:	362.500	

Element: Symmetrical Parabola

PVC	31+62.500	44.064
PVI	34+00.000	55.938
PVT	36+37.500	44.057
VHIGH	33+99.932	49.999
Length:	475.000	
Entrance Grade:	4.999%	
Exit Grade:	-5.002%	
r = (g2 - g1) / L:	-2.106	
K = l / (g2 - g1):	47.491	
Middle Ordinate:	-5.939	

Element: Linear

PVT	36+37.500	44.057
PVC	40+17.000	25.073
Tangent Grade:	-5.002%	
Tangent Length:	379.500	

Element: Symmetrical Parabola

PVC	40+17.000	25.073
PVI	41+47.000	18.570
PVT	42+77.000	18.310
Length:	260.000	
Entrance Grade:	-5.002%	
Exit Grade:	-0.200%	
r = (g2 - g1) / L:	1.847	
K = l / (g2 - g1):	54.140	
Middle Ordinate:	1.561	

Element: Linear

PVT	42+77.000	18.310
PVI	44+50.000	17.964
Tangent Grade:	-0.200%	
Tangent Length:	173.000	

Element: Linear

PVI	44+50.000	17.964
POE	45+10.000	17.682
Tangent Grade:	-0.471%	
Tangent Length:	60.000	

Vertical Alignment: South Park-void

Vertical Description: 320-FT crest curve
Vertical Style: Default

Element: Linear

POB	23+39.930	19.517
PVC	25+89.930	19.672
Tangent Grade:	0.062%	
Tangent Length:	250.000	

Element: Symmetrical Parabola

PVC	25+89.930	19.672
PVI	27+14.930	19.750
PVT	28+39.930	26.000
Length:	250.000	
Entrance Grade:	0.062%	
Exit Grade:	5.000%	
r = (g2 - g1) / L:	1.975	
K = l / (g2 - g1):	50.626	
Middle Ordinate:	1.543	

Element: Linear

PVT	28+39.930	26.000
PVC	32+39.930	46.000
Tangent Grade:	5.000%	
Tangent Length:	400.000	

Element: Symmetrical Parabola

PVC	32+39.930	46.000
PVI	33+99.930	54.000
PVT	35+59.930	46.000
VHIGH	33+99.930	50.000
Length:	320.000	
Entrance Grade:	5.000%	
Exit Grade:	-5.000%	
r = (g2 - g1) / L:	-3.125	
K = l / (g2 - g1):	32.000	
Middle Ordinate:	-4.000	

Element: Linear

PVT	35+59.930	46.000
PVC	39+99.930	24.000
Tangent Grade:	-5.000%	
Tangent Length:	440.000	

Element: Symmetrical Parabola

PVC	39+99.930	24.000
PVI	41+29.930	17.499
PVT	42+59.930	17.477
Length:	260.000	

Entrance Grade:	-5.000%	
Exit Grade:	-0.017%	
r = (g2 - g1) / L:	1.917	
K = l / (g2 - g1):	52.177	
Middle Ordinate:	1.619	

Element: Linear

PVT	42+59.930	17.477
POE	46+99.930	17.402
Tangent Grade:	-0.017%	
Tangent Length:	440.000	

Vertical Alignment: South Park-void2
Vertical Description: 475-FT crest curve
Vertical Style: Default

Element: Linear

POB	23+40.000	19.517
PVC	25+50.750	19.650
Tangent Grade:	0.063%	
Tangent Length:	210.750	

Element: Symmetrical Parabola

PVC	25+50.750	19.650
PVI	26+75.750	19.729
PVT	28+00.750	25.978
Length:	250.000	
Entrance Grade:	0.063%	
Exit Grade:	4.999%	
r = (g2 - g1) / L:	1.975	
K = l / (g2 - g1):	50.642	
Middle Ordinate:	1.543	

Element: Linear

PVT	28+00.750	25.978
PVC	31+62.500	44.064
Tangent Grade:	4.999%	
Tangent Length:	361.750	

Element: Symmetrical Parabola

PVC	31+62.500	44.064
PVI	34+00.000	55.938
PVT	36+37.500	44.061
VHIGH	33+99.977	50.000
Length:	475.000	
Entrance Grade:	4.999%	
Exit Grade:	-5.001%	
r = (g2 - g1) / L:	-2.105	
K = l / (g2 - g1):	47.500	

Middle Ordinate:	-5.937	

Element: Linear

PVT	36+37.500	44.061
PVC	40+23.000	24.785
Tangent Grade:	-5.001%	
Tangent Length:	385.500	

Element: Symmetrical Parabola

PVC	40+23.000	24.785
PVI	41+53.000	18.284
PVT	42+83.000	18.209
Length:	260.000	
Entrance Grade:	-5.001%	
Exit Grade:	-0.057%	
r = (g2 - g1) / L:	1.901	
K = l / (g2 - g1):	52.599	
Middle Ordinate:	1.607	

Element: Linear

PVT	42+83.000	18.209
PVI	44+50.000	18.114
Tangent Grade:	-0.057%	
Tangent Length:	167.000	

Element: Linear

PVI	44+50.000	18.114
POE	47+00.000	17.402
Tangent Grade:	-0.285%	
Tangent Length:	250.000	