

# Your Company Name

123 Main Street

Suite #321

City, State 01234

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## Alignment Station and Curve Report

Project Name: \\SERVER\d\PROYECTOS 2023\PROYECTO  
PACTO-PACTOLOMA GUAYABILLAS\CIVIL\PACTO CIVIL  
V.16.dwg

Report Date: 21/3/2023 19:48:20

Client: Client Company

Project Description:

Prepared by: Preparer

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Alignment: eje p

Description:

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### Tangent Data

Description	PT Station	Northing	Easting
Start:	0+00.000	15825.503	748889.275
End:	0+21.062	15846.323	748886.096

### Tangent Data

Parameter	Value	Parameter	Value
Length:	21.062	Course:	N 08° 40' 56.3807" W

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### Curve Point Data

Description	Station	Northing	Easting
PC:	0+21.062	15846.323	748886.096
RP:		15830.473	748782.299
PT:	0+67.092	15888.884	748869.553

### Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	25° 07' 03.8151"	Type:	LEFT
Radius:			105
Length:	46.031	Tangent:	23.391
Mid-Ord:	2.512	External:	2.574
Chord:	45.663	Course:	N 21° 14' 28.2882" W

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### Tangent Data

Description	PT Station	Northing	Easting
Start:	0+67.092	15888.884	748869.553
End:	0+82.920	15902.037	748860.748

Tangent Data

Parameter	Value	Parameter	Value
Length:	15.828	Course:	N 33° 48' 00.1957" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	0+82.920	15902.037	748860.748
SPI:		15918.665	748849.616
SC:	1+12.920	15926.385	748843.245

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		30 L Tan:	20.01
Radius:		150 S Tan:	10.01
Theta:	05° 43' 46.4806"	P:	0.25
X:		29.97 K:	14.995
Y:		0.999 A:	67.082
Chord:		29.987 Course:	N 35° 42' 35.1071" W

Curve Point Data

Description	Station	Northing	Easting
SC:	1+12.920	15926.385	748843.245
RP:		15830.914	748727.551
CS:	1+25.502	15935.743	748834.839

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	04° 48' 22.1225"	Type:	LEFT
Radius:		150	
Length:		12.582 Tangent:	6.295
Mid-Ord:		0.132 External:	0.132
Chord:		12.579 Course:	N 41° 55' 57.7376" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	1+25.502	15935.743	748834.839
SPI:		15942.903	748827.844
ST:	1+55.502	15955.748	748812.5

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		30 L Tan:	20.01
Radius:		150 S Tan:	10.01
Theta:	05° 43' 46.4806"	P:	0.25
X:		29.97 K:	14.995
Y:		0.999 A:	67.082
Chord:		29.987 Course:	N 48° 09' 20.3681" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	1+55.502	15955.748	748812.5
End:	2+08.565	15989.809	748771.813

Tangent Data

Parameter	Value	Parameter	Value
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Length:

53.063 Course: N 50° 03' 55.2795" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	2+08.565	15989.809	748771.813
SPI:		15998.374	748761.582
SC:	2+28.565	16003.231	748757.002

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.343
Radius:		85 S Tan:	6.675
Theta:	06° 44' 26.4478"	P:	0.196
X:		19.972 K:	9.995
Y:		0.784 A:	41.231
Chord:		19.988 Course:	N 47° 49' 07.4116" W

Curve Point Data

Description	Station	Northing	Easting
SC:	2+28.565	16003.231	748757.002
RP:		16061.552	748818.837
CS:	2+69.700	16038.698	748736.967

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	27° 43' 39.1792"	Type:	RIGHT
Radius:		85	
Length:		41.135 Tangent:	20.978
Mid-Ord:		2.476 External:	2.551
Chord:		40.734 Course:	N 29° 27' 39.2421" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	2+69.700	16038.698	748736.967
SPI:		16045.127	748735.172
ST:	2+89.700	16058.311	748733.118

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.343
Radius:		85 S Tan:	6.675
Theta:	06° 44' 26.4478"	P:	0.196
X:		19.972 K:	9.995
Y:		0.784 A:	41.231
Chord:		19.988 Course:	N 11° 06' 11.0725" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	2+89.700	16058.311	748733.118
End:	3+09.564	16077.938	748730.06

Tangent Data

Parameter	Value	Parameter	Value
Length:		19.864 Course:	N 08° 51' 23.2047" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	3+09.564	16077.938	748730.06
SPI:		16091.156	748728
SC:	3+29.564	16097.321	748725.36

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	N 13° 37' 42.8301" W

Curve Point Data

Description	Station	Northing	Easting
SC:	3+29.564	16097.321	748725.36
RP:		16081.576	748688.59
CS:	3+46.160	16110.808	748715.894

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	23° 46' 19.0913"	Type:	LEFT
Radius:		40	
Length:		16.596 Tangent:	8.419
Mid-Ord:		0.858 External:	0.876
Chord:		16.477 Course:	N 35° 03' 58.9519" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	3+46.160	16110.808	748715.894
SPI:		16115.386	748710.993
ST:	3+66.160	16121.814	748699.262

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	N 56° 30' 15.0736" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	3+66.160	16121.814	748699.262
End:	4+06.027	16140.974	748664.3

Tangent Data

Parameter	Value	Parameter	Value
Length:		39.868 Course:	N 61° 16' 34.6991" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	4+06.027	16140.974	748664.3
SPI:		16150.594	748646.747
SC:	4+36.027	16156.464	748638.633

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		30 L Tan:	20.016
Radius:		120 S Tan:	10.015
Theta:	07° 09' 43.1008"	P:	0.312
X:		29.953 K:	14.992
Y:		1.249 A:	60
Chord:		29.979 Course:	N 58° 53' 21.4694" W

Curve Point Data

Description	Station	Northing	Easting
SC:	4+36.027	16156.464	748638.633
RP:		16253.687	748708.973
CS:	4+77.656	16186.171	748609.768

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	19° 52' 35.2695"	Type:	RIGHT
Radius:		120	
Length:		41.629 Tangent:	21.026
Mid-Ord:		1.801 External:	1.828
Chord:		41.421 Course:	N 44° 10' 33.9635" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	4+77.656	16186.171	748609.768
SPI:		16194.451	748604.133
ST:	5+07.656	16212.273	748595.022

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		30 L Tan:	20.016
Radius:		120 S Tan:	10.015
Theta:	07° 09' 43.1008"	P:	0.312
X:		29.953 K:	14.992
Y:		1.249 A:	60
Chord:		29.979 Course:	N 29° 27' 46.4577" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	5+07.656	16212.273	748595.022
End:	5+49.268	16249.324	748576.082

Tangent Data

Parameter	Value	Parameter	Value
Length:		41.611 Course:	N 27° 04' 33.2280" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	5+49.268	16249.324	748576.082

SPI:		16261.236	748569.993
SC:	5+69.268	16266.266	748565.558

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	N 31° 50' 52.8535" W

Curve Point Data

Description	Station	Northing	Easting
SC:	5+69.268	16266.266	748565.558
RP:		16239.814	748535.553
CS:	6+01.196	16279.764	748537.554

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	45° 44' 02.0088"	Type:	LEFT
Radius:		40	
Length:		31.928 Tangent:	16.869
Mid-Ord:		3.144 External:	3.412
Chord:		31.087 Course:	N 64° 16' 00.4339" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	6+01.196	16279.764	748537.554
SPI:		16280.099	748530.855
ST:	6+21.196	16277.442	748517.745

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	S 83° 18' 51.9856" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	6+21.196	16277.442	748517.745
End:	6+52.226	16271.278	748487.334

Tangent Data

Parameter	Value	Parameter	Value
Length:		31.029 Course:	S 78° 32' 32.3601" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	6+52.226	16271.278	748487.334
SPI:		16268.616	748474.199
SC:	6+72.226	16269.371	748467.512

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.402
Radius:		32 S Tan:	6.729
Theta:	17° 54' 17.7520"	P:	0.519
X:		19.806 K:	9.968
Y:		2.069 A:	25.298
Chord:		19.913 Course:	S 84° 30' 20.4725" W

Curve Point Data

Description	Station	Northing	Easting
SC:	6+72.226	16269.371	748467.512
RP:		16301.169	748471.105
CS:	7+09.605	16292.013	748440.443

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	66° 55' 36.3364"	Type:	RIGHT
Radius:		32	
Length:		37.379 Tangent:	21.151
Mid-Ord:		5.304 External:	6.358
Chord:		35.29 Course:	N 50° 05' 21.7197" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	7+09.605	16292.013	748440.443
SPI:		16298.461	748438.517
ST:	7+29.605	16311.86	748438.817

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.402
Radius:		32 S Tan:	6.729
Theta:	17° 54' 17.7520"	P:	0.519
X:		19.806 K:	9.968
Y:		2.069 A:	25.298
Chord:		19.913 Course:	N 04° 41' 03.9120" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	7+29.605	16311.86	748438.817
End:	7+39.554	16321.807	748439.039

Tangent Data

Parameter	Value	Parameter	Value
Length:		9.949 Course:	N 01° 16' 44.2004" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	7+39.554	16321.807	748439.039
SPI:		16335.194	748439.338
SC:	7+59.554	16341.682	748437.588

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
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Length: 20 L Tan: 13.391  
 Radius: 35 S Tan: 6.719  
 Theta: 16° 22' 12.8018" P: 0.475  
 X: 19.837 K: 9.973  
 Y: 1.894 A: 26.458  
 Chord: 19.928 Course: N 04° 10' 26.4644" W

Curve Point Data

Description	Station	Northing	Easting
SC:	7+59.554	16341.682	748437.588
RP:		16332.569	748403.795
CS:	8+02.179	16367.429	748406.925

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	69° 46' 42.4059"	Type:	LEFT
Radius:			35
Length:		42.625 Tangent:	24.407
Mid-Ord:		6.291 External:	7.669
Chord:		40.039 Course:	N 49° 58' 49.8043" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	8+02.179	16367.429	748406.925
SPI:		16368.03	748400.233
ST:	8+22.179	16365.42	748387.099

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.391
Radius:		35 S Tan:	6.719
Theta:	16° 22' 12.8018"	P:	0.475
X:		19.837 K:	9.973
Y:		1.894 A:	26.458
Chord:		19.928 Course:	S 84° 12' 46.8557" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	8+22.179	16365.42	748387.099
End:	8+96.443	16350.944	748314.26

Tangent Data

Parameter	Value	Parameter	Value
Length:		74.263 Course:	S 78° 45' 36.1909" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	8+96.443	16350.944	748314.26
SPI:		16348.342	748301.163
SC:	9+16.443	16348.144	748294.482

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684

Theta: 09° 32' 57.4677" P: 0.278  
 X: 19.945 K: 9.991  
 Y: 1.109 A: 34.641  
 Chord: 19.975 Course: S 81° 56' 32.6503" W

Curve Point Data

Description	Station	Northing	Easting
SC:	9+16.443	16348.144	748294.482
RP:		16408.118	748292.712
CS:	9+31.448	16349.572	748279.583

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	14° 19' 46.0413"	Type:	RIGHT
Radius:			60
Length:		15.006 Tangent:	7.542
Mid-Ord:		0.468 External:	0.472
Chord:		14.967 Course:	N 84° 31' 33.3207" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	9+31.448	16349.572	748279.583
SPI:		16351.035	748273.061
ST:	9+51.448	16356.077	748260.697

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641
Chord:		19.975 Course:	N 70° 59' 39.2917" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	9+51.448	16356.077	748260.697
End:	9+52.109	16356.327	748260.086

Tangent Data

Parameter	Value	Parameter	Value
Length:		0.66 Course:	N 67° 48' 42.8323" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	9+52.109	16356.327	748260.086
SPI:		16360.114	748250.8
SC:	9+67.109	16360.879	748245.832

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		15 L Tan:	10.029
Radius:		32 S Tan:	5.026
Theta:	13° 25' 43.3140"	P:	0.292
X:		14.918 K:	7.486

Y: 1.167 A: 21.909  
 Chord: 14.963 Course: N 72° 17' 09.7666" W

Curve Point Data

Description	Station	Northing	Easting
SC:	9+67.109	16360.879	748245.832
RP:		16329.253	748240.959
CS:	9+83.832	16359.09	748229.395

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	29° 56' 34.6437"	Type:	LEFT
Radius:			32
Length:		16.723 Tangent:	8.557
Mid-Ord:		1.086 External:	1.124
Chord:		16.534 Course:	S 83° 47' 16.5318" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	9+83.832	16359.09	748229.395
SPI:		16357.274	748224.709
ST:	9+98.832	16351.577	748216.455

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		15 L Tan:	10.029
Radius:		32 S Tan:	5.026
Theta:	13° 25' 43.3140"	P:	0.292
X:		14.918 K:	7.486
Y:		1.167 A:	21.909
Chord:		14.963 Course:	S 59° 51' 42.8303" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	9+98.832	16351.577	748216.455
End:	10+71.243	16310.446	748156.859

Tangent Data

Parameter	Value	Parameter	Value
Length:		72.411 Course:	S 55° 23' 15.8960" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	10+71.243	16310.446	748156.859
SPI:		16302.848	748145.85
SC:	10+91.243	16300.522	748139.559

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	S 60° 09' 35.5215" W

Curve Point Data

Description	Station	Northing	Easting
SC:	10+91.243	16300.522	748139.559
RP:		16338.041	748125.689
CS:	11+09.001	16298.202	748122.1

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	25° 26' 12.7744"	Type:	RIGHT
Radius:			40
Length:		17.758 Tangent:	9.028
Mid-Ord:		0.981 External:	1.006
Chord:		17.613 Course:	S 82° 25' 48.4848" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	11+09.001	16298.202	748122.1
SPI:		16298.804	748115.42
ST:	11+29.001	16303.263	748102.808

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	N 75° 17' 58.5519" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	11+29.001	16303.263	748102.808
End:	11+31.717	16304.169	748100.248

Tangent Data

Parameter	Value	Parameter	Value
Length:		2.716 Course:	N 70° 31' 38.9264" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	11+31.717	16304.169	748100.248
SPI:		16308.172	748088.927
SC:	11+49.717	16309.526	748083.074

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		18 L Tan:	12.008
Radius:		80 S Tan:	6.007
Theta:	06° 26' 44.7907"	P:	0.169
X:		17.977 K:	8.996
Y:		0.674 A:	37.947
Chord:		17.99 Course:	N 72° 40' 33.0277" W

Curve Point Data

Description	Station	Northing	Easting
SC:	11+49.717	16309.526	748083.074
RP:		16231.584	748065.041
CS:	11+68.728	16311.58	748064.219

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	13° 36' 57.0961"	Type:	LEFT
Radius:			80
Length:		19.011 Tangent:	9.551
Mid-Ord:		0.564 External:	0.568
Chord:		18.967 Course:	N 83° 46' 52.2652" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	11+68.728	16311.58	748064.219
SPI:		16311.518	748058.212
ST:	11+86.728	16310.048	748046.294

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		18 L Tan:	12.008
Radius:		80 S Tan:	6.007
Theta:	06° 26' 44.7907"	P:	0.169
X:		17.977 K:	8.996
Y:		0.674 A:	37.947
Chord:		17.99 Course:	S 85° 06' 48.4973" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	11+86.728	16310.048	748046.294
End:	11+94.059	16309.15	748039.019

Tangent Data

Parameter	Value	Parameter	Value
Length:		7.33 Course:	S 82° 57' 54.3960" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	11+94.059	16309.15	748039.019
SPI:		16307.515	748025.767
SC:	12+14.059	16307.808	748019.089

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641
Chord:		19.975 Course:	S 86° 08' 50.8554" W

Curve Point Data

Description	Station	Northing	Easting
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SC:	12+14.059	16307.808	748019.089
RP:		16367.75	748021.721
CS:	12+30.488	16310.753	748002.978

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	15° 41' 19.9419"	Type:	RIGHT
Radius:			60
Length:		16.429 Tangent:	8.266
Mid-Ord:		0.561 External:	0.567
Chord:		16.378 Course:	N 79° 38' 28.1653" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	12+30.488	16310.753	748002.978
SPI:		16312.841	747996.628
ST:	12+50.488	16319.059	747984.811

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641
Chord:		19.975 Course:	N 65° 25' 47.1860" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	12+50.488	16319.059	747984.811
End:	12+55.344	16321.32	747980.514

Tangent Data

Parameter	Value	Parameter	Value
Length:		4.856 Course:	N 62° 14' 50.7266" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	12+55.344	16321.32	747980.514
SPI:		16325.983	747971.651
SC:	12+70.344	16327.55	747966.889

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		15 L Tan:	10.015
Radius:		45 S Tan:	5.013
Theta:	09° 32' 57.4677"	P:	0.208
X:		14.958 K:	7.493
Y:		0.832 A:	25.981
Chord:		14.981 Course:	N 65° 25' 47.1860" W

Curve Point Data

Description	Station	Northing	Easting
SC:	12+70.344	16327.55	747966.889
RP:		16284.802	747952.831

CS: 12+95.318 16328.541 747942.254

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	31° 47' 52.3510"	Type:	LEFT
Radius:		45	
Length:		24.974 Tangent:	12.818
Mid-Ord:		1.721 External:	1.79
Chord:		24.655 Course:	N 87° 41' 44.3698" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	12+95.318	16328.541	747942.254
SPI:		16327.362	747937.381
ST:	13+10.318	16323.426	747928.173

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		15 L Tan:	10.015
Radius:		45 S Tan:	5.013
Theta:	09° 32' 57.4677"	P:	0.208
X:		14.958 K:	7.493
Y:		0.832 A:	25.981
Chord:		14.981 Course:	S 70° 02' 18.4464" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	13+10.318	16323.426	747928.173
End:	13+11.150	16323.1	747927.408

Tangent Data

Parameter	Value	Parameter	Value
Length:		0.831 Course:	S 66° 51' 21.9870" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	13+11.150	16323.1	747927.408
SPI:		16317.859	747915.147
SC:	13+31.150	16314.995	747909.126

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.334
Radius:		250 S Tan:	6.668
Theta:	02° 17' 30.5922"	P:	0.067
X:		19.997 K:	9.999
Y:		0.267 A:	70.711
Chord:		19.999 Course:	S 66° 05' 31.8268" W

Curve Point Data

Description	Station	Northing	Easting
SC:	13+31.150	16314.995	747909.126
RP:		16089.228	748016.5
CS:	13+38.741	16311.631	747902.321

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	01° 44' 23.3843"	Type:	LEFT
Radius:		250	
Length:		7.591 Tangent:	3.796
Mid-Ord:		0.029 External:	0.029
Chord:		7.591 Course:	S 63° 41' 39.7026" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	13+38.741	16311.631	747902.321
SPI:		16308.585	747896.389
ST:	13+58.741	16302.026	747884.779

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.334
Radius:		250 S Tan:	6.668
Theta:	02° 17' 30.5922"	P:	0.067
X:		19.997 K:	9.999
Y:		0.267 A:	70.711
Chord:		19.999 Course:	S 61° 17' 47.5783" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	13+58.741	16302.026	747884.779
End:	13+73.159	16294.933	747872.226

Tangent Data

Parameter	Value	Parameter	Value
Length:		14.418 Course:	S 60° 31' 57.4182" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	13+73.159	16294.933	747872.226
SPI:		16288.335	747860.55
SC:	13+93.159	16287.123	747853.922

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.412
Radius:		30 S Tan:	6.738
Theta:	19° 05' 54.9354"	P:	0.553
X:		19.779 K:	9.963
Y:		2.205 A:	24.495
Chord:		19.901 Course:	S 66° 53' 34.1143" W

Curve Point Data

Description	Station	Northing	Easting
SC:	13+93.159	16287.123	747853.922
RP:		16316.633	747848.522
CS:	14+00.050	16286.668	747847.061

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	13° 09' 34.1649"	Type:	RIGHT

Radius: 30  
 Length: 6.89 Tangent: 3.46  
 Mid-Ord: 0.198 External: 0.199  
 Chord: 6.875 Course: S 86° 12' 39.4360" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	14+00.050	16286.668	747847.061
SPI:		16286.996	747840.331
ST:	14+20.050	16291.997	747827.887

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.412
Radius:		30 S Tan:	6.738
Theta:	19° 05' 54.9354"	P:	0.553
X:		19.779 K:	9.963
Y:		2.205 A:	24.495
Chord:		19.901 Course:	N 74° 28' 15.2423" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	14+20.050	16291.997	747827.887
End:	14+37.802	16298.615	747811.414

Tangent Data

Parameter	Value	Parameter	Value
Length:		17.752 Course:	N 68° 06' 38.5462" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	14+37.802	16298.615	747811.414
SPI:		16303.586	747799.04
SC:	14+57.802	16305.76	747792.736

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.335
Radius:		200 S Tan:	6.668
Theta:	02° 51' 53.2403"	P:	0.083
X:		19.995 K:	9.999
Y:		0.333 A:	63.246
Chord:		19.998 Course:	N 69° 03' 56.2202" W

Curve Point Data

Description	Station	Northing	Easting
SC:	14+57.802	16305.76	747792.736
RP:		16116.684	747727.542
CS:	14+97.997	16314.969	747753.68

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	11° 30' 53.8875"	Type:	LEFT
Radius:		200	
Length:		40.195 Tangent:	20.165

Mid-Ord: 1.009 External: 1.014  
 Chord: 40.127 Course: N 76° 43' 58.7302" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	14+97.997	16314.969	747753.68
SPI:		16315.84	747747.069
ST:	15+17.997	16316.92	747733.778

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.335
Radius:		200 S Tan:	6.668
Theta:	02° 51' 53.2403"	P:	0.083
X:		19.995 K:	9.999
Y:		0.333 A:	63.246
Chord:		19.998 Course:	N 84° 24' 01.2403" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	15+17.997	16316.92	747733.778
End:	15+56.238	16320.017	747695.662

Tangent Data

Parameter	Value	Parameter	Value
Length:		38.241 Course:	N 85° 21' 18.9143" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	15+56.238	16320.017	747695.662
SPI:		16321.097	747682.366
SC:	15+76.238	16320.971	747675.694

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.34
Radius:		100 S Tan:	6.673
Theta:	05° 43' 46.4806"	P:	0.167
X:		19.98 K:	9.997
Y:		0.666 A:	44.721
Chord:		19.991 Course:	N 87° 15' 53.8257" W

Curve Point Data

Description	Station	Northing	Easting
SC:	15+76.238	16320.971	747675.694
RP:		16220.989	747677.587
CS:	15+86.150	16320.293	747665.809

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	05° 40' 46.4483"	Type:	LEFT
Radius:		100	
Length:		9.913 Tangent:	4.96
Mid-Ord:		0.123 External:	0.123
Chord:		9.909 Course:	S 86° 04' 31.3809" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	15+86.150	16320.293	747665.809
SPI:		16319.507	747659.182
ST:	16+06.150	16316.621	747646.158

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.34
Radius:		100 S Tan:	6.673
Theta:	05° 43' 46.4806"	P:	0.167
X:		19.98 K:	9.997
Y:		0.666 A:	44.721
Chord:		19.991 Course:	S 79° 24' 56.5875" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	16+06.150	16316.621	747646.158
End:	16+75.598	16301.596	747578.354

Tangent Data

Parameter	Value	Parameter	Value
Length:	69.448	Course:	S 77° 30' 21.6761" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	16+75.598	16301.596	747578.354
SPI:		16298.71	747565.326
SC:	16+95.598	16298.089	747558.679

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.344
Radius:		80 S Tan:	6.677
Theta:	07° 09' 43.1008"	P:	0.208
X:		19.969 K:	9.995
Y:		0.832 A:	40
Chord:		19.986 Course:	S 79° 53' 34.9058" W

Curve Point Data

Description	Station	Northing	Easting
SC:	16+95.598	16298.089	747558.679
RP:		16377.743	747551.244
CS:	17+13.115	16298.376	747541.199

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	12° 32' 43.2369"	Type:	RIGHT
Radius:		80	
Length:		17.517 Tangent:	8.793
Mid-Ord:		0.479 External:	0.482
Chord:		17.482 Course:	N 89° 03' 33.6047" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	17+13.115	16298.376	747541.199
SPI:		16299.214	747534.575
ST:	17+33.115	16302.527	747521.649

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.344
Radius:		80 S Tan:	6.677
Theta:	07° 09' 43.1008"	P:	0.208
X:		19.969 K:	9.995
Y:		0.832 A:	40
Chord:		19.986 Course:	N 78° 00' 42.1151" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	17+33.115	16302.527	747521.649
End:	17+84.176	16315.205	747472.187

Tangent Data

Parameter	Value	Parameter	Value
Length:	51.061	Course:	N 75° 37' 28.8854" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	17+84.176	16315.205	747472.187
SPI:		16320.172	747452.805
SC:	18+14.176	16321.793	747442.93

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		30 L Tan:	20.008
Radius:		170 S Tan:	10.007
Theta:	05° 03' 19.8358"	P:	0.221
X:		29.977 K:	14.996
Y:		0.882 A:	71.414
Chord:		29.99 Course:	N 77° 18' 35.0975" W

Curve Point Data

Description	Station	Northing	Easting
SC:	18+14.176	16321.793	747442.93
RP:		16154.037	747415.399
CS:	18+79.788	16319.816	747377.754

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	22° 06' 48.9349"	Type:	LEFT
Radius:		170	
Length:		65.612 Tangent:	33.22
Mid-Ord:		3.156 External:	3.215
Chord:		65.206 Course:	S 88° 15' 46.8113" W

Spiral Point Data

Description	Station	Northing	Easting
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CS:	18+79.788	16319.816	747377.754
SPI:		16317.6	747367.995
ST:	19+09.788	16311.467	747348.95

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		30 L Tan:	20.008
Radius:		170 S Tan:	10.007
Theta:	05° 03' 19.8358"	P:	0.221
X:		29.977 K:	14.996
Y:		0.882 A:	71.414
Chord:		29.99 Course:	S 73° 50' 08.7200" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	19+09.788	16311.467	747348.95
End:	19+14.489	16310.027	747344.476

Tangent Data

Parameter	Value	Parameter	Value
Length:		4.7 Course:	S 72° 09' 02.5080" W

Curve Point Data

Description	Station	Northing	Easting
PC:	19+14.489	16310.027	747344.476
RP:		17071.519	747099.264
PT:	20+78.157	16276.09	747184.656

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	11° 43' 18.6995"	Type:	RIGHT
Radius:		800	
Length:		163.668 Tangent:	82.121
Mid-Ord:		4.182 External:	4.204
Chord:		163.383 Course:	S 78° 00' 41.8578" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	20+78.157	16276.09	747184.656
End:	20+95.475	16274.241	747167.437

Tangent Data

Parameter	Value	Parameter	Value
Length:		17.318 Course:	S 83° 52' 21.2075" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	20+95.475	16274.241	747167.437
SPI:		16273.53	747160.808
SC:	21+05.475	16273.301	747157.482

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		10 L Tan:	6.667
Radius:		130 S Tan:	3.334
Theta:	02° 12' 13.2618"	P:	0.032

X: 9.999 K: 5  
 Y: 0.128 A: 36.056  
 Chord: 9.999 Course: S 84° 36' 25.5950" W

Curve Point Data

Description	Station	Northing	Easting
SC:	21+05.475	16273.301	747157.482
RP:		16402.997	747148.586
CS:	21+31.442	16274.115	747131.57

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	11° 26' 41.5429"	Type:	RIGHT
Radius:			130
Length:		Tangent:	13.027
Mid-Ord:		0.648 External:	0.651
Chord:		25.924 Course:	N 88° 12' 04.7593" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	21+31.442	16274.115	747131.57
SPI:		16274.552	747128.265
ST:	21+41.442	16275.678	747121.694

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		10 L Tan:	6.667
Radius:		130 S Tan:	3.334
Theta:	02° 12' 13.2618"	P:	0.032
X:		9.999 K:	5
Y:		0.128 A:	36.056
Chord:		9.999 Course:	N 81° 00' 35.1135" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	21+41.442	16275.678	747121.694
End:	21+94.527	16284.645	747069.372

Tangent Data

Parameter	Value	Parameter	Value
Length:		53.084 Course:	N 80° 16' 30.7260" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	21+94.527	16284.645	747069.372
SPI:		16286.904	747056.187
SC:	22+14.527	16286.366	747049.502

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284

Chord:

19.944 Course: N 85° 02' 50.3515" W

Curve Point Data

Description	Station	Northing	Easting
SC:	22+14.527	16286.366	747049.502
RP:		16246.495	747052.709
CS:	22+27.549	16283.246	747036.918

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	18° 39' 10.5793"	Type:	LEFT
Radius:			40
Length:		13.022 Tangent:	6.569
Mid-Ord:		0.529 External:	0.536
Chord:		12.965 Course:	S 76° 04' 27.7827" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	22+27.549	16283.246	747036.918
SPI:		16280.599	747030.756
ST:	22+47.549	16272.441	747020.154

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	S 57° 11' 45.9170" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	22+47.549	16272.441	747020.154
End:	22+61.045	16264.211	747009.458

Tangent Data

Parameter	Value	Parameter	Value
Length:		13.496 Course:	S 52° 25' 26.2915" W

Curve Point Data

Description	Station	Northing	Easting
PC:	22+61.045	16264.211	747009.458
RP:		16311.764	746972.869
PT:	23+07.748	16252.214	746965.534

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	44° 35' 52.9977"	Type:	RIGHT
Radius:			60
Length:		46.703 Tangent:	24.607
Mid-Ord:		4.487 External:	4.85
Chord:		45.533 Course:	S 74° 43' 22.7904" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	23+07.748	16252.214	746965.534
End:	23+21.924	16253.947	746951.464

Tangent Data

Parameter	Value	Parameter	Value
Length:	14.176	Course:	N 82° 58' 40.7108" W

Curve Point Data

Description	Station	Northing	Easting
PC:	23+21.924	16253.947	746951.464
RP:		16124.922	746935.572
PT:	23+58.165	16253.339	746915.346

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	15° 58' 21.1308"	Type:	LEFT
Radius:			130
Length:	36.241	Tangent:	18.239
Mid-Ord:	1.261	External:	1.273
Chord:	36.123	Course:	S 89° 02' 08.7238" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	23+58.165	16253.339	746915.346
End:	24+02.903	16246.378	746871.153

Tangent Data

Parameter	Value	Parameter	Value
Length:	44.738	Course:	S 81° 02' 58.1584" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	24+02.903	16246.378	746871.153
End:	24+72.655	16240.014	746801.692

Tangent Data

Parameter	Value	Parameter	Value
Length:	69.752	Course:	S 84° 45' 52.5133" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	24+72.655	16240.014	746801.692
End:	25+09.224	16237.571	746765.205

Tangent Data

Parameter	Value	Parameter	Value
Length:	36.569	Course:	S 86° 10' 09.7676" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	25+09.224	16237.571	746765.205
SPI:		16236.456	746748.566
SC:	25+34.224	16236.768	746740.23

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		25 L Tan:	16.676
Radius:		120 S Tan:	8.342
Theta:	05° 58' 05.9173"	P:	0.217
X:		24.973 K:	12.495
Y:		0.867 A:	54.772
Chord:		24.988 Course:	S 88° 09' 31.0820" W

Curve Point Data

Description	Station	Northing	Easting
SC:	25+34.224	16236.768	746740.23
RP:		16356.684	746744.706
CS:	25+54.839	16239.298	746719.796

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	09° 50' 34.5487"	Type:	RIGHT
Radius:		120	
Length:		20.615 Tangent:	10.333
Mid-Ord:		0.442 External:	0.444
Chord:		20.59 Course:	N 82° 56' 27.0407" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	25+54.839	16239.298	746719.796
SPI:		16241.03	746711.636
ST:	25+79.839	16246.169	746695.771

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		25 L Tan:	16.676
Radius:		120 S Tan:	8.342
Theta:	05° 58' 05.9173"	P:	0.217
X:		24.973 K:	12.495
Y:		0.867 A:	54.772
Chord:		24.988 Course:	N 74° 02' 25.1634" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	25+79.839	16246.169	746695.771
End:	25+95.967	16251.139	746680.428

Tangent Data

Parameter	Value	Parameter	Value
Length:		16.128 Course:	N 72° 03' 03.8490" W

Curve Point Data

Description	Station	Northing	Easting
PC:	25+95.967	16251.139	746680.428
RP:		16175.032	746655.774
PT:	26+21.060	16255.032	746655.743

Circular Curve Data

Parameter	Value	Parameter	Value
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Delta: 17° 58' 16.2876" Type: LEFT  
 Radius: 80  
 Length: 25.093 Tangent: 12.65  
 Mid-Ord: 0.982 External: 0.994  
 Chord: 24.99 Course: N 81° 02' 11.9928" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	26+21.060	16255.032	746655.743
End:	26+36.979	16255.026	746639.824

Tangent Data

Parameter	Value	Parameter	Value
Length:	15.919	Course:	S 89° 58' 39.8634" W

Curve Point Data

Description	Station	Northing	Easting
PC:	26+36.979	16255.026	746639.824
RP:		16215.026	746639.84
PT:	26+66.827	16244.386	746612.674

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	42° 45' 16.0007"	Type:	LEFT
Radius:	40		
Length:	29.848	Tangent:	15.657
Mid-Ord:	2.752	External:	2.955
Chord:	29.161	Course:	S 68° 36' 01.8631" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	26+66.827	16244.386	746612.674
End:	28+07.688	16148.721	746509.281

Tangent Data

Parameter	Value	Parameter	Value
Length:	140.861	Course:	S 47° 13' 23.8627" W

Curve Point Data

Description	Station	Northing	Easting
PC:	28+07.688	16148.721	746509.281
RP:		16178.082	746482.115
PT:	28+51.471	16140.479	746468.476

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	62° 42' 49.3341"	Type:	RIGHT
Radius:	40		
Length:	43.782	Tangent:	24.375
Mid-Ord:	5.842	External:	6.842
Chord:	41.629	Course:	S 78° 34' 48.5298" W

Tangent Data

Description	PT Station	Northing	Easting
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Start: 28+51.471 16140.479 746468.476  
 End: 28+88.547 16153.122 746433.621

Tangent Data

Parameter	Value	Parameter	Value
Length:	37.077	Course:	N 70° 03' 46.8032" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	28+88.547	16153.122	746433.621
SPI:		16157.671	746421.08
SC:	29+08.547	16159.308	746414.611

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.34
Radius:		100 S Tan:	6.673
Theta:	05° 43' 46.4806"	P:	0.167
X:		19.98 K:	9.997
Y:		0.666 A:	44.721
Chord:		19.991 Course:	N 71° 58' 21.7145" W

Curve Point Data

Description	Station	Northing	Easting
SC:	29+08.547	16159.308	746414.611
RP:		16062.367	746390.068
CS:	29+32.975	16162.366	746390.437

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	13° 59' 45.4203"	Type:	LEFT
Radius:		100	
Length:		24.428 Tangent:	12.275
Mid-Ord:		0.745 External:	0.751
Chord:		24.367 Course:	N 82° 47' 25.9940" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	29+32.975	16162.366	746390.437
SPI:		16162.391	746383.764
ST:	29+52.975	16161.108	746370.486

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.34
Radius:		100 S Tan:	6.673
Theta:	05° 43' 46.4806"	P:	0.167
X:		19.98 K:	9.997
Y:		0.666 A:	44.721
Chord:		19.991 Course:	S 86° 23' 29.7266" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	29+52.975	16161.108	746370.486
End:	30+61.043	16150.716	746262.918

Tangent Data

Parameter	Value	Parameter	Value
Length:	108.068	Course:	S 84° 28' 54.8153" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	30+61.043	16150.716	746262.918
SPI:		16149.432	746249.627
SC:	30+81.043	16149.902	746242.959

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641
Chord:		19.975 Course:	S 87° 39' 51.2747" W

Curve Point Data

Description	Station	Northing	Easting
SC:	30+81.043	16149.902	746242.959
RP:		16209.754	746247.177
CS:	30+84.917	16150.299	746239.107

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	03° 41' 57.2491"	Type:	RIGHT
Radius:		60	
Length:		3.874 Tangent:	1.938
Mid-Ord:		0.031 External:	0.031
Chord:		3.873 Course:	N 84° 07' 09.0925" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	30+84.917	16150.299	746239.107
SPI:		16151.198	746232.483
ST:	31+04.917	16155.164	746219.733

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641
Chord:		19.975 Course:	N 75° 54' 09.4596" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	31+04.917	16155.164	746219.733
End:	31+21.179	16159.995	746204.205

Tangent Data

Parameter	Value	Parameter	Value
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Length:

16.262 Course: N 72° 43' 13.002" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	31+21.179	16159.995	746204.205
SPI:		16163.956	746191.471
SC:	31+41.179	16165.58	746185.004

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.335
Radius:		180 S Tan:	6.669
Theta:	03° 10' 59.1559"	P:	0.093
X:		19.994 K:	9.999
Y:		0.37 A:	60
Chord:		19.997 Course:	N 73° 46' 52.6191" W

Curve Point Data

Description	Station	Northing	Easting
SC:	31+41.179	16165.58	746185.004
RP:		15991.001	746141.163
CS:	32+29.270	16165.697	746097.789

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	28° 02' 24.4686"	Type:	LEFT
Radius:		180	
Length:		88.091 Tangent:	44.946
Mid-Ord:		5.362 External:	5.527
Chord:		87.214 Course:	N 89° 55' 24.3904" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	32+29.270	16165.697	746097.789
SPI:		16164.09	746091.317
ST:	32+49.270	16160.163	746078.573

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.335
Radius:		180 S Tan:	6.669
Theta:	03° 10' 59.1559"	P:	0.093
X:		19.994 K:	9.999
Y:		0.37 A:	60
Chord:		19.997 Course:	S 73° 56' 03.8382" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	32+49.270	16160.163	746078.573
End:	33+06.915	16143.187	746023.484

Tangent Data

Parameter	Value	Parameter	Value
Length:	57.645	Course:	S 72° 52' 24.2194" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	33+06.915	16143.187	746023.484
SPI:		16139.26	746010.739
SC:	33+26.915	16136.875	746004.51

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.336
Radius:		150 S Tan:	6.669
Theta:	03° 49' 10.9871"	P:	0.111
X:		19.991 K:	9.999
Y:		0.444 A:	54.772
Chord:		19.996 Course:	S 71° 36' 00.7295" W

Curve Point Data

Description	Station	Northing	Easting
SC:	33+26.915	16136.875	746004.51
RP:		15996.788	746058.134
CS:	33+80.277	16109.427	745959.077

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	20° 22' 58.1873"	Type:	LEFT
Radius:		150	
Length:		53.362 Tangent:	26.966
Mid-Ord:		2.367 External:	2.405
Chord:		53.081 Course:	S 58° 51' 44.1386" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	33+80.277	16109.427	745959.077
SPI:		16105.023	745954.068
ST:	34+00.277	16095.568	745944.663

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.336
Radius:		150 S Tan:	6.669
Theta:	03° 49' 10.9871"	P:	0.111
X:		19.991 K:	9.999
Y:		0.444 A:	54.772
Chord:		19.996 Course:	S 46° 07' 27.5478" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	34+00.277	16095.568	745944.663
End:	34+48.342	16061.493	745910.764

Tangent Data

Parameter	Value	Parameter	Value
Length:		48.064 Course:	S 44° 51' 04.0579" W

Curve Point Data

Description	Station	Northing	Easting
PC:	34+48.342	16061.493	745910.764
RP:		16089.704	745882.407
PT:	34+68.796	16051.225	745893.331

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	29° 17' 56.2954"	Type:	RIGHT
Radius:			40
Length:		20.455 Tangent:	10.456
Mid-Ord:		1.3 External:	1.344
Chord:		20.232 Course:	S 59° 30' 02.2055" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	34+68.796	16051.225	745893.331
End:	35+01.228	16042.367	745862.132

Tangent Data

Parameter	Value	Parameter	Value
Length:		32.432 Course:	S 74° 09' 00.3532" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	35+01.228	16042.367	745862.132
SPI:		16038.721	745849.292
SC:	35+21.228	16036.001	745843.192

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.348
Radius:		70 S Tan:	6.68
Theta:	08° 11' 06.4009"	P:	0.238
X:		19.959 K:	9.993
Y:		0.951 A:	37.417
Chord:		19.982 Course:	S 71° 25' 19.9174" W

Curve Point Data

Description	Station	Northing	Easting
SC:	35+21.228	16036.001	745843.192
RP:		15972.07	745871.702
CS:	35+46.937	16021.5	745822.138

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	21° 02' 33.3818"	Type:	LEFT
Radius:			70
Length:		25.708 Tangent:	13.001
Mid-Ord:		1.177 External:	1.197
Chord:		25.564 Course:	S 55° 26' 37.2614" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	35+46.937	16021.5	745822.138
SPI:		16016.771	745817.421

ST: 35+66.937 16006.074 745809.437

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.348
Radius:		70 S Tan:	6.68
Theta:	08° 11' 06.4009"	P:	0.238
X:		19.959 K:	9.993
Y:		0.951 A:	37.417
Chord:		19.982 Course:	S 39° 27' 54.6054" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	35+66.937	16006.074	745809.437
End:	35+81.380	15994.5	745800.798

Tangent Data

Parameter	Value	Parameter	Value
Length:	14.443	Course:	S 36° 44' 14.1696" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	35+81.380	15994.5	745800.798
SPI:		15986.485	745794.816
SC:	35+96.380	15982.622	745791.64

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		15 L Tan:	10.001
Radius:		160 S Tan:	5.001
Theta:	02° 41' 08.6628"	P:	0.059
X:		14.997 K:	7.499
Y:		0.234 A:	48.99
Chord:		14.999 Course:	S 37° 37' 56.9972" W

Curve Point Data

Description	Station	Northing	Easting
SC:	35+96.380	15982.622	745791.64
RP:		16084.228	745668.044
CS:	36+16.573	15967.873	745777.868

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	07° 13' 52.0395"	Type:	RIGHT
Radius:		160	
Length:		20.193 Tangent:	10.11
Mid-Ord:		0.318 External:	0.319
Chord:		20.18 Course:	S 43° 02' 18.8521" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	36+16.573	15967.873	745777.868
SPI:		15964.44	745774.231
ST:	36+31.573	15957.923	745766.644

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		15 L Tan:	10.001
Radius:		160 S Tan:	5.001
Theta:	02° 41' 08.6628"	P:	0.059
X:		14.997 K:	7.499
Y:		0.234 A:	48.99
Chord:		14.999 Course:	S 48° 26' 40.7070" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	36+31.573	15957.923	745766.644
End:	36+78.089	15927.615	745731.357

Tangent Data

Parameter	Value	Parameter	Value
Length:	46.516	Course:	S 49° 20' 23.5347" W

Curve Point Data

Description	Station	Northing	Easting
PC:	36+78.089	15927.615	745731.357
RP:		15988.302	745679.232
PT:	36+98.765	15916.308	745714.116

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	14° 48' 28.3318"	Type:	RIGHT
Radius:		80	
Length:		20.676 Tangent:	10.396
Mid-Ord:		0.667 External:	0.673
Chord:		20.618 Course:	S 56° 44' 37.7006" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	36+98.765	15916.308	745714.116
End:	37+66.961	15886.571	745652.745

Tangent Data

Parameter	Value	Parameter	Value
Length:	68.196	Course:	S 64° 08' 51.8665" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	37+66.961	15886.571	745652.745
SPI:		15880.754	745640.739
SC:	37+86.961	15878.458	745634.474

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.34
Radius:		100 S Tan:	6.673
Theta:	05° 43' 46.4806"	P:	0.167
X:		19.98 K:	9.997
Y:		0.666 A:	44.721
Chord:		19.991 Course:	S 66° 03' 26.7778" W

Curve Point Data

Description	Station	Northing	Easting
SC:	37+86.961	15878.458	745634.474
RP:		15972.354	745600.071
CS:	38+03.979	15873.988	745618.074

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	09° 45' 03.1618"	Type:	RIGHT
Radius:			100
Length:		Tangent:	17.018 8.53
Mid-Ord:		External:	0.362 0.363
Chord:		Course:	16.998 S 74° 45' 09.9280" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	38+03.979	15873.988	745618.074
SPI:		15872.787	745611.51
ST:	38+23.979	15871.707	745598.214

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.34
Radius:		100 S Tan:	6.673
Theta:	05° 43' 46.4806"	P:	0.167
X:		19.98 K:	9.997
Y:		0.666 A:	44.721
Chord:		19.991 Course:	S 83° 26' 53.0782" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	38+23.979	15871.707	745598.214
End:	38+53.218	15869.341	745569.07

Tangent Data

Parameter	Value	Parameter	Value
Length:		29.239 Course:	S 85° 21' 27.9895" W

Curve Point Data

Description	Station	Northing	Easting
PC:	38+53.218	15869.341	745569.07
RP:		15809.537	745573.926
PT:	38+85.099	15858.635	745539.438

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	30° 26' 36.4900"	Type:	LEFT
Radius:			60
Length:		Tangent:	31.88 16.326
Mid-Ord:		External:	2.105 2.182
Chord:		31.507 Course:	S 70° 08' 09.7445" W

Tangent Data

Description	PT Station	Northing	Easting
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Start:	38+85.099	15858.635	745539.438
End:	39+47.372	15822.84	745488.481

Tangent Data

Parameter	Value	Parameter	Value
Length:	62.273	Course:	S 54° 54' 51.4995" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	39+47.372	15822.84	745488.481
SPI:		15817.09	745480.294
SC:	39+62.372	15813.842	745476.486

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		15 L Tan:	10.005
Radius:		80 S Tan:	5.004
Theta:	05° 22' 17.3256"	P:	0.117
X:		14.987 K:	7.498
Y:		0.468 A:	34.641
Chord:		14.994 Course:	S 53° 07' 26.2040" W

Curve Point Data

Description	Station	Northing	Easting
SC:	39+62.372	15813.842	745476.486
RP:		15752.971	745528.397
CS:	39+81.392	15799.904	745463.61

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	13° 37' 19.8024"	Type:	LEFT
Radius:		80	
Length:		19.02 Tangent:	9.555
Mid-Ord:		0.565 External:	0.569
Chord:		18.975 Course:	S 42° 43' 54.2727" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	39+81.392	15799.904	745463.61
SPI:		15795.852	745460.674
ST:	39+96.392	15787.236	745455.589

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		15 L Tan:	10.005
Radius:		80 S Tan:	5.004
Theta:	05° 22' 17.3256"	P:	0.117
X:		14.987 K:	7.498
Y:		0.468 A:	34.641
Chord:		14.994 Course:	S 32° 20' 22.3414" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	39+96.392	15787.236	745455.589
End:	40+03.585	15781.042	745451.933

Tangent Data

Parameter	Value	Parameter	Value
Length:	7.193	Course:	S 30° 32' 57.0459" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	40+03.585	15781.042	745451.933
SPI:		15775.296	745448.542
SC:	40+13.585	15772.655	745446.5

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		10 L Tan:	6.672
Radius:		40 S Tan:	3.338
Theta:	07° 09' 43.1008"	P:	0.104
X:		9.984 K:	4.997
Y:		0.416 A:	20
Chord:		9.993 Course:	S 32° 56' 10.2756" W

Curve Point Data

Description	Station	Northing	Easting
SC:	40+13.585	15772.655	745446.5
RP:		15797.122	745414.856
CS:	40+34.425	15760.15	745430.123

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	29° 51' 05.5660"	Type:	RIGHT
Radius:		40	
Length:		20.84 Tangent:	10.662
Mid-Ord:		1.35 External:	1.397
Chord:		20.605 Course:	S 52° 38' 12.9297" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	40+34.425	15760.15	745430.123
SPI:		15758.876	745427.037
ST:	40+44.425	15757.118	745420.601

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		10 L Tan:	6.672
Radius:		40 S Tan:	3.338
Theta:	07° 09' 43.1008"	P:	0.104
X:		9.984 K:	4.997
Y:		0.416 A:	20
Chord:		9.993 Course:	S 72° 20' 15.5838" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	40+44.425	15757.118	745420.601
End:	40+92.012	15744.581	745374.695

Tangent Data

Parameter	Value	Parameter	Value
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Length:

47.587 Course: S 74° 43' 28.8134" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	40+92.012	15744.581	745374.695
SPI:		15741.946	745365.047
SC:	41+07.012	15740.449	745360.276

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		15 L Tan:	10.001
Radius:		200 S Tan:	5.001
Theta:	02° 08' 54.9302"	P:	0.047
X:		14.998 K:	7.5
Y:		0.187 A:	54.772
Chord:		14.999 Course:	S 74° 00' 30.5341" W

Curve Point Data

Description	Station	Northing	Easting
SC:	41+07.012	15740.449	745360.276
RP:		15549.626	745420.164
CS:	41+60.768	15717.694	745311.753

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	15° 23' 59.5019"	Type:	LEFT
Radius:		200	
Length:		53.756 Tangent:	27.041
Mid-Ord:		1.803 External:	1.82
Chord:		53.594 Course:	S 64° 52' 34.1323" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	41+60.768	15717.694	745311.753
SPI:		15714.983	745307.55
ST:	41+75.768	15709.251	745299.355

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		15 L Tan:	10.001
Radius:		200 S Tan:	5.001
Theta:	02° 08' 54.9302"	P:	0.047
X:		14.998 K:	7.5
Y:		0.187 A:	54.772
Chord:		14.999 Course:	S 55° 44' 37.7305" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	41+75.768	15709.251	745299.355
End:	41+81.440	15706	745294.708

Tangent Data

Parameter	Value	Parameter	Value
Length:		5.672 Course:	S 55° 01' 39.4511" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	41+81.440	15706	745294.708
SPI:		15698.357	745283.781
SC:	42+01.440	15694.748	745278.175

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.334
Radius:		260 S Tan:	6.668
Theta:	02° 12' 13.2618"	P:	0.064
X:		19.997 K:	10
Y:		0.256 A:	72.111
Chord:		19.999 Course:	S 55° 45' 43.8386" W

Curve Point Data

Description	Station	Northing	Easting
SC:	42+01.440	15694.748	745278.175
RP:		15913.372	745137.45
CS:	42+22.958	15683.863	745259.62

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	04° 44' 30.9283"	Type:	RIGHT
Radius:		260	
Length:		21.518 Tangent:	10.765
Mid-Ord:		0.223 External:	0.223
Chord:		21.512 Course:	S 59° 36' 08.1770" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	42+22.958	15683.863	745259.62
SPI:		15680.73	745253.734
ST:	42+42.958	15674.922	745241.731

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.334
Radius:		260 S Tan:	6.668
Theta:	02° 12' 13.2618"	P:	0.064
X:		19.997 K:	10
Y:		0.256 A:	72.111
Chord:		19.999 Course:	S 63° 26' 32.5155" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	42+42.958	15674.922	745241.731
End:	42+80.753	15658.458	745207.71

Tangent Data

Parameter	Value	Parameter	Value
Length:		37.795 Course:	S 64° 10' 36.9030" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	42+80.753	15658.458	745207.71
SPI:		15652.647	745195.702
SC:	43+00.753	15650.355	745189.435

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.34
Radius:		100 S Tan:	6.673
Theta:	05° 43' 46.4806"	P:	0.167
X:		19.98 K:	9.997
Y:		0.666 A:	44.721
Chord:		19.991 Course:	S 66° 05' 11.8143" W

Curve Point Data

Description	Station	Northing	Easting
SC:	43+00.753	15650.355	745189.435
RP:		15744.268	745155.08
CS:	43+25.516	15644.799	745165.369

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	14° 11' 16.4983"	Type:	RIGHT
Radius:		100	
Length:		24.763 Tangent:	12.445
Mid-Ord:		0.766 External:	0.771
Chord:		24.699 Course:	S 77° 00' 01.6327" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	43+25.516	15644.799	745165.369
SPI:		15644.112	745158.731
ST:	43+45.516	15644.071	745145.391

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.34
Radius:		100 S Tan:	6.673
Theta:	05° 43' 46.4806"	P:	0.167
X:		19.98 K:	9.997
Y:		0.666 A:	44.721
Chord:		19.991 Course:	S 87° 54' 51.4512" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	43+45.516	15644.071	745145.391
End:	44+13.154	15643.864	745077.753

Tangent Data

Parameter	Value	Parameter	Value
Length:		67.639 Course:	S 89° 49' 26.3625" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	44+13.154	15643.864	745077.753

SPI:		15643.823	745064.415
SC:	44+33.154	15644.357	745057.765

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.338
Radius:		120 S Tan:	6.671
Theta:	04° 46' 28.7339"	P:	0.139
X:		19.986 K:	9.998
Y:		0.555 A:	48.99
Chord:		19.994 Course:	N 88° 35' 04.3964" W

Curve Point Data

Description	Station	Northing	Easting
SC:	44+33.154	15644.357	745057.765
RP:		15763.971	745067.386
CS:	44+61.313	15649.873	745030.217

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	13° 26' 41.4386"	Type:	RIGHT
Radius:		120	
Length:		28.159 Tangent:	14.144
Mid-Ord:		0.825 External:	0.831
Chord:		28.094 Course:	N 78° 40' 44.1843" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	44+61.313	15649.873	745030.217
SPI:		15651.939	745023.874
ST:	44+81.313	15657.111	745011.58

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.338
Radius:		120 S Tan:	6.671
Theta:	04° 46' 28.7339"	P:	0.139
X:		19.986 K:	9.998
Y:		0.555 A:	48.99
Chord:		19.994 Course:	N 68° 46' 23.9723" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	44+81.313	15657.111	745011.58
End:	44+97.480	15663.381	744996.679

Tangent Data

Parameter	Value	Parameter	Value
Length:		16.167 Course:	N 67° 10' 54.7312" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	44+97.480	15663.381	744996.679
SPI:		15668.559	744984.371
SC:	45+17.480	15670.093	744977.865

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641
Chord:		19.975 Course:	N 70° 21' 51.1906" W

Curve Point Data

Description	Station	Northing	Easting
SC:	45+17.480	15670.093	744977.865
RP:		15611.695	744964.094
CS:	45+29.644	15671.67	744965.824

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	11° 36' 58.4313"	Type:	LEFT
Radius:		60	
Length:		12.164 Tangent:	6.103
Mid-Ord:		0.308 External:	0.31
Chord:		12.144 Course:	N 82° 32' 21.4146" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	45+29.644	15671.67	744965.824
SPI:		15671.863	744959.143
ST:	45+49.644	15670.029	744945.916

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641
Chord:		19.975 Course:	S 85° 17' 08.3615" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	45+49.644	15670.029	744945.916
End:	45+60.691	15668.511	744934.974

Tangent Data

Parameter	Value	Parameter	Value
Length:		11.047 Course:	S 82° 06' 11.9021" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	45+60.691	15668.511	744934.974
SPI:		15666.672	744921.714
SC:	45+80.691	15667.608	744915.063

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
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Length:		20 L Tan:	13.388
Radius:		36 S Tan:	6.716
Theta:	15° 54' 55.7795"	P:	0.462
X:		19.846 K:	9.974
Y:		1.842 A:	26.833
Chord:		19.931 Course:	S 87° 24' 17.9965" W

Curve Point Data

Description	Station	Northing	Easting
SC:	45+80.691	15667.608	744915.063
RP:		15703.256	744920.085
CS:	46+07.947	15680.796	744891.951

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	43° 22' 49.4520"	Type:	RIGHT
Radius:			36
Length:		27.257 Tangent:	14.319
Mid-Ord:		2.549 External:	2.743
Chord:		26.61 Course:	N 60° 17' 27.5924" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	46+07.947	15680.796	744891.951
SPI:		15686.045	744887.761
ST:	46+27.947	15698.397	744882.598

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.388
Radius:		36 S Tan:	6.716
Theta:	15° 54' 55.7795"	P:	0.462
X:		19.846 K:	9.974
Y:		1.842 A:	26.833
Chord:		19.931 Course:	N 27° 59' 13.1813" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	46+27.947	15698.397	744882.598
End:	46+49.947	15718.695	744874.113

Tangent Data

Parameter	Value	Parameter	Value
Length:		21.999 Course:	N 22° 41' 07.0869" W

Curve Point Data

Description	Station	Northing	Easting
PC:	46+49.947	15718.695	744874.113
RP:		15687.841	744800.302
PT:	46+72.798	15738.242	744862.429

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	16° 21' 57.8528"	Type:	LEFT
Radius:			80

Length: 22.851 Tangent: 11.504  
 Mid-Ord: 0.815 External: 0.823  
 Chord: 22.774 Course: N 30° 52' 06.0133" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	46+72.798	15738.242	744862.429
End:	46+98.951	15758.552	744845.952

Tangent Data

Parameter	Value	Parameter	Value
Length:	26.153	Course:	N 39° 03' 04.9397" W

Curve Point Data

Description	Station	Northing	Easting
PC:	46+98.951	15758.552	744845.952
RP:		15695.551	744768.294
PT:	47+34.881	15781.835	744818.84

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	20° 35' 10.1872"	Type:	LEFT
Radius:	100		
Length:	35.93	Tangent:	18.161
Mid-Ord:	1.609	External:	1.636
Chord:	35.737	Course:	N 49° 20' 40.0333" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	47+34.881	15781.835	744818.84
End:	47+56.563	15792.795	744800.133

Tangent Data

Parameter	Value	Parameter	Value
Length:	21.681	Course:	N 59° 38' 15.1269" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	47+56.563	15792.795	744800.133
End:	48+41.565	15831.953	744724.687

Tangent Data

Parameter	Value	Parameter	Value
Length:	85.003	Course:	N 62° 34' 09.3397" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	48+41.565	15831.953	744724.687
End:	48+66.338	15843.226	744702.628

Tangent Data

Parameter	Value	Parameter	Value
Length:	24.773	Course:	N 62° 55' 55.6830" W

Curve Point Data

Description	Station	Northing	Easting
PC:	48+66.338	15843.226	744702.628
RP:		15807.607	744684.426
PT:	48+86.728	15847.579	744682.933

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	29° 12' 23.4868"	Type:	LEFT
Radius:			40
Length:		20.39 Tangent:	10.422
Mid-Ord:		1.292 External:	1.335
Chord:		20.17 Course:	N 77° 32' 07.4263" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	48+86.728	15847.579	744682.933
End:	49+62.039	15844.769	744607.675

Tangent Data

Parameter	Value	Parameter	Value
Length:	75.311	Course:	S 87° 51' 40.8303" W

Curve Point Data

Description	Station	Northing	Easting
PC:	49+62.039	15844.769	744607.675
RP:		15904.727	744605.436
PT:	49+88.185	15849.427	744582.156

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	24° 58' 04.7372"	Type:	RIGHT
Radius:			60
Length:		26.146 Tangent:	13.284
Mid-Ord:		1.419 External:	1.453
Chord:		25.94 Course:	N 79° 39' 16.8012" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	49+88.185	15849.427	744582.156
End:	51+31.606	15905.073	744449.97

Tangent Data

Parameter	Value	Parameter	Value
Length:	143.421	Course:	N 67° 10' 14.4326" W

Curve Point Data

Description	Station	Northing	Easting
PC:	51+31.606	15905.073	744449.97
RP:		15075.574	744100.782
PT:	51+70.640	15919.433	744413.677

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	02° 29' 05.9145"	Type:	LEFT
Radius:			900

Length: 39.034 Tangent: 19.52  
 Mid-Ord: 0.212 External: 0.212  
 Chord: 39.031 Course: N 68° 24' 47.3898" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	51+70.640	15919.433	744413.677
End:	52+92.935	15961.95	744299.011

Tangent Data

Parameter	Value	Parameter	Value
Length:	122.295	Course:	N 69° 39' 20.3470" W

Curve Point Data

Description	Station	Northing	Easting
PC:	52+92.935	15961.95	744299.011
RP:		16055.712	744333.777
PT:	53+96.007	16037.317	744235.483

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	59° 03' 20.5022"	Type:	RIGHT
Radius:			100
Length:	103.072	Tangent:	56.641
Mid-Ord:	12.988	External:	14.927
Chord:	98.569	Course:	N 40° 07' 40.0959" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	53+96.007	16037.317	744235.483
End:	54+62.994	16103.161	744223.161

Tangent Data

Parameter	Value	Parameter	Value
Length:	66.987	Course:	N 10° 35' 59.8448" W

Curve Point Data

Description	Station	Northing	Easting
PC:	54+62.994	16103.161	744223.161
RP:		16011.186	743731.693
PT:	55+40.783	16178.204	744202.973

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	08° 54' 50.2670"	Type:	LEFT
Radius:			500
Length:	77.789	Tangent:	38.973
Mid-Ord:	1.512	External:	1.517
Chord:	77.711	Course:	N 15° 03' 24.9783" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	55+40.783	16178.204	744202.973
End:	55+86.393	16221.194	744187.738

Tangent Data

Parameter	Value	Parameter	Value
Length:	45.61	Course:	N 19° 30' 50.1118" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	55+86.393	16221.194	744187.738
SPI:		16233.772	744183.281
SC:	56+06.393	16239.737	744180.283

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.344
Radius:		80 S Tan:	6.677
Theta:	07° 09' 43.1008"	P:	0.208
X:		19.969 K:	9.995
Y:		0.832 A:	40
Chord:		19.986 Course:	N 21° 54' 03.3415" W

Curve Point Data

Description	Station	Northing	Easting
SC:	56+06.393	16239.737	744180.283
RP:		16203.822	744108.798
CS:	56+25.965	16255.983	744169.455

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	14° 01' 03.1929"	Type:	LEFT
Radius:		80	
Length:		19.572 Tangent:	9.835
Mid-Ord:		0.598 External:	0.602
Chord:		19.523 Course:	N 33° 41' 04.8090" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	56+25.965	16255.983	744169.455
SPI:		16261.045	744165.102
ST:	56+45.965	16269.999	744155.208

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.344
Radius:		80 S Tan:	6.677
Theta:	07° 09' 43.1008"	P:	0.208
X:		19.969 K:	9.995
Y:		0.832 A:	40
Chord:		19.986 Course:	N 45° 28' 06.2766" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	56+45.965	16269.999	744155.208
End:	56+56.319	16276.946	744147.531

Tangent Data

Parameter	Value	Parameter	Value
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Length:

10.353 Course: N 47° 51' 19.5063" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	56+56.319	16276.946	744147.531
SPI:		16285.898	744137.64
SC:	56+76.319	16290.847	744133.164

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.34
Radius:		100 S Tan:	6.673
Theta:	05° 43' 46.4806"	P:	0.167
X:		19.98 K:	9.997
Y:		0.666 A:	44.721
Chord:		19.991 Course:	N 45° 56' 44.5949" W

Curve Point Data

Description	Station	Northing	Easting
SC:	56+76.319	16290.847	744133.164
RP:		16357.923	744207.331
CS:	56+94.334	16305.222	744122.346

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	10° 19' 18.9322"	Type:	RIGHT
Radius:		100	
Length:		18.015 Tangent:	9.032
Mid-Ord:		0.405 External:	0.407
Chord:		17.991 Course:	N 36° 57' 53.5596" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	56+94.334	16305.222	744122.346
SPI:		16310.893	744118.829
ST:	57+14.334	16322.875	744112.965

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.34
Radius:		100 S Tan:	6.673
Theta:	05° 43' 46.4806"	P:	0.167
X:		19.98 K:	9.997
Y:		0.666 A:	44.721
Chord:		19.991 Course:	N 27° 59' 02.5242" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	57+14.334	16322.875	744112.965
End:	57+30.416	16337.321	744105.897

Tangent Data

Parameter	Value	Parameter	Value
Length:	16.082	Course:	N 26° 04' 27.6128" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	57+30.416	16337.321	744105.897
SPI:		16349.312	744100.029
SC:	57+50.416	16354.793	744096.207

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.35
Radius:		65 S Tan:	6.682
Theta:	08° 48' 53.0471"	P:	0.256
X:		19.953 K:	9.992
Y:		1.024 A:	36.056
Chord:		19.979 Course:	N 29° 00' 43.1746" W

Curve Point Data

Description	Station	Northing	Easting
SC:	57+50.416	16354.793	744096.207
RP:		16317.614	744042.89
CS:	57+89.284	16378.357	744066.025

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	34° 15' 38.8979"	Type:	LEFT
Radius:		65	
Length:		38.868 Tangent:	20.034
Mid-Ord:		2.884 External:	3.017
Chord:		38.291 Course:	N 52° 01' 10.1089" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	57+89.284	16378.357	744066.025
SPI:		16380.735	744059.781
ST:	58+09.284	16383.519	744046.724

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.35
Radius:		65 S Tan:	6.682
Theta:	08° 48' 53.0471"	P:	0.256
X:		19.953 K:	9.992
Y:		1.024 A:	36.056
Chord:		19.979 Course:	N 75° 01' 37.0433" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	58+09.284	16383.519	744046.724
End:	58+20.005	16385.754	744036.239

Tangent Data

Parameter	Value	Parameter	Value
Length:		10.721 Course:	N 77° 57' 52.6050" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	58+20.005	16385.754	744036.239
SPI:		16388.536	744023.192
SC:	58+40.005	16390.572	744016.837

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.34
Radius:		100 S Tan:	6.673
Theta:	05° 43' 46.4806"	P:	0.167
X:		19.98 K:	9.997
Y:		0.666 A:	44.721
Chord:		19.991 Course:	N 76° 03' 17.6937" W

Curve Point Data

Description	Station	Northing	Easting
SC:	58+40.005	16390.572	744016.837
RP:		16485.804	744047.348
CS:	58+50.999	16394.495	744006.573

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	06° 17' 56.5770"	Type:	RIGHT
Radius:		100	
Length:		10.994 Tangent:	5.503
Mid-Ord:		0.151 External:	0.151
Chord:		10.988 Course:	N 69° 05' 07.8359" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	58+50.999	16394.495	744006.573
SPI:		16397.216	744000.479
ST:	58+70.999	16403.844	743988.902

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.34
Radius:		100 S Tan:	6.673
Theta:	05° 43' 46.4806"	P:	0.167
X:		19.98 K:	9.997
Y:		0.666 A:	44.721
Chord:		19.991 Course:	N 62° 06' 57.9781" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	58+70.999	16403.844	743988.902
End:	58+97.014	16416.771	743966.326

Tangent Data

Parameter	Value	Parameter	Value
Length:		26.015 Course:	N 60° 12' 23.0667" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	58+97.014	16416.771	743966.326

SPI:		16423.403	743954.742
SC:	59+17.014	16427.513	743949.477

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.348
Radius:		70 S Tan:	6.68
Theta:	08° 11' 06.4009"	P:	0.238
X:		19.959 K:	9.993
Y:		0.951 A:	37.417
Chord:		19.982 Course:	N 57° 28' 42.6309" W

Curve Point Data

Description	Station	Northing	Easting
SC:	59+17.014	16427.513	743949.477
RP:		16482.69	743992.553
CS:	59+44.763	16448.424	743931.513

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	22° 42' 47.0820"	Type:	RIGHT
Radius:		70	
Length:		27.749 Tangent:	14.059
Mid-Ord:		1.371 External:	1.398
Chord:		27.568 Course:	N 40° 39' 53.1249" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	59+44.763	16448.424	743931.513
SPI:		16454.249	743928.243
ST:	59+64.763	16466.7	743923.433

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.348
Radius:		70 S Tan:	6.68
Theta:	08° 11' 06.4009"	P:	0.238
X:		19.959 K:	9.993
Y:		0.951 A:	37.417
Chord:		19.982 Course:	N 23° 51' 03.6188" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	59+64.763	16466.7	743923.433
End:	59+73.827	16475.155	743920.167

Tangent Data

Parameter	Value	Parameter	Value
Length:		9.064 Course:	N 21° 07' 23.1830" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	59+73.827	16475.155	743920.167
SPI:		16487.665	743915.334
SC:	59+93.827	16492.81	743910.983

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.412
Radius:		30 S Tan:	6.738
Theta:	19° 05' 54.9354"	P:	0.553
X:		19.779 K:	9.963
Y:		2.205 A:	24.495
Chord:		19.901 Course:	N 27° 28' 59.8791" W

Curve Point Data

Description	Station	Northing	Easting
SC:	59+93.827	16492.81	743910.983
RP:		16473.438	743888.076
CS:	60+24.739	16503.047	743883.249

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	59° 02' 14.7771"	Type:	LEFT
Radius:		30	
Length:		30.912 Tangent:	16.986
Mid-Ord:		3.894 External:	4.475
Chord:		29.562 Course:	N 69° 44' 25.5070" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	60+24.739	16503.047	743883.249
SPI:		16501.963	743876.599
ST:	60+44.739	16495.592	743864.796

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.412
Radius:		30 S Tan:	6.738
Theta:	19° 05' 54.9354"	P:	0.553
X:		19.779 K:	9.963
Y:		2.205 A:	24.495
Chord:		19.901 Course:	S 68° 00' 08.8652" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	60+44.739	16495.592	743864.796
End:	60+80.486	16478.613	743833.339

Tangent Data

Parameter	Value	Parameter	Value
Length:	35.747	Course:	S 61° 38' 32.1691" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	60+80.486	16478.613	743833.339
SPI:		16472.277	743821.6
SC:	61+00.486	16469.71	743815.44

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
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Length: 20 L Tan: 13.34  
 Radius: 100 S Tan: 6.673  
 Theta: 05° 43' 46.4806" P: 0.167  
 X: 19.98 K: 9.997  
 Y: 0.666 A: 44.721  
 Chord: 19.991 Course: S 63° 33' 07.0804" W

Curve Point Data

Description	Station	Northing	Easting
SC:	61+00.486	16469.71	743815.44
RP:		16562.012	743776.966
CS:	61+11.965	16465.91	743804.615

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	06° 34' 37.6236"	Type:	RIGHT
Radius:			100
Length:		11.479 Tangent:	5.746
Mid-Ord:		0.165 External:	0.165
Chord:		11.473 Course:	S 70° 39' 37.4615" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	61+11.965	16465.91	743804.615
SPI:		16464.065	743798.202
ST:	61+31.965	16461.675	743785.078

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.34
Radius:		100 S Tan:	6.673
Theta:	05° 43' 46.4806"	P:	0.167
X:		19.98 K:	9.997
Y:		0.666 A:	44.721
Chord:		19.991 Course:	S 77° 46' 07.8425" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	61+31.965	16461.675	743785.078
End:	61+43.254	16459.652	743773.972

Tangent Data

Parameter	Value	Parameter	Value
Length:		11.289 Course:	S 79° 40' 42.7539" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	61+43.254	16459.652	743773.972
SPI:		16457.263	743760.854
SC:	61+63.254	16455.905	743754.326

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.334
Radius:		400 S Tan:	6.667

Theta: 01° 25' 56.6202" P: 0.042  
 X: 19.999 K: 10  
 Y: 0.167 A: 89.443  
 Chord: 19.999 Course: S 79° 12' 03.8896" W

Curve Point Data

Description	Station	Northing	Easting
SC:	61+63.254	16455.905	743754.326
RP:		16064.293	743835.809
CS:	61+72.465	16453.925	743745.331

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	01° 19' 09.6574"	Type:	LEFT
Radius:			400
Length:		9.211 Tangent:	4.606
Mid-Ord:		0.027 External:	0.027
Chord:		9.211 Course:	S 77° 35' 11.3050" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	61+72.465	16453.925	743745.331
SPI:		16452.417	743738.837
ST:	61+92.465	16449.077	743725.928

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.334
Radius:		400 S Tan:	6.667
Theta:	01° 25' 56.6202"	P:	0.042
X:		19.999 K:	10
Y:		0.167 A:	89.443
Chord:		19.999 Course:	S 75° 58' 18.7204" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	61+92.465	16449.077	743725.928
End:	62+29.368	16439.834	743690.201

Tangent Data

Parameter	Value	Parameter	Value
Length:		36.903 Course:	S 75° 29' 39.8561" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	62+29.368	16439.834	743690.201
SPI:		16436.486	743677.259
SC:	62+49.368	16436.279	743670.564

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.368
Radius:		45 S Tan:	6.698
Theta:	12° 43' 56.6236"	P:	0.37
X:		19.901 K:	9.984

Y: 1.476 A: 30  
 Chord: 19.956 Course: S 79° 44' 12.3356" W

Curve Point Data

Description	Station	Northing	Easting
SC:	62+49.368	16436.279	743670.564
RP:		16481.257	743669.172
CS:	62+89.299	16451.775	743635.174

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	50° 50' 31.8429"	Type:	RIGHT
Radius:			45
Length:		39.931 Tangent:	21.388
Mid-Ord:		4.357 External:	4.824
Chord:		38.634 Course:	N 66° 21' 07.5988" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	62+89.299	16451.775	743635.174
SPI:		16456.836	743630.786
ST:	63+09.299	16468.617	743624.469

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.368
Radius:		45 S Tan:	6.698
Theta:	12° 43' 56.6236"	P:	0.37
X:		19.901 K:	9.984
Y:		1.476 A:	30
Chord:		19.956 Course:	N 32° 26' 27.5332" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	63+09.299	16468.617	743624.469
End:	63+24.500	16482.014	743617.286

Tangent Data

Parameter	Value	Parameter	Value
Length:		15.201 Course:	N 28° 11' 55.0538" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	63+24.500	16482.014	743617.286
SPI:		16493.782	743610.977
SC:	63+44.500	16499.067	743606.885

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641
Chord:		19.975 Course:	N 31° 22' 51.5132" W

Curve Point Data

Description	Station	Northing	Easting
SC:	63+44.500	16499.067	743606.885
RP:		16462.336	743559.442
CS:	63+62.323	16511.345	743594.056

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	17° 01' 08.3367"	Type:	LEFT
Radius:			60
Length:		17.822 Tangent:	8.977
Mid-Ord:		0.661 External:	0.668
Chord:		17.757 Course:	N 46° 15' 26.6898" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	63+62.323	16511.345	743594.056
SPI:		16515.201	743588.596
ST:	63+82.323	16520.988	743576.563

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641
Chord:		19.975 Course:	N 61° 08' 01.8665" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	63+82.323	16520.988	743576.563
End:	63+82.408	16521.025	743576.486

Tangent Data

Parameter	Value	Parameter	Value
Length:		0.086 Course:	N 64° 18' 58.3259" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	63+82.408	16521.025	743576.486
SPI:		16526.823	743564.43
SC:	64+02.408	16531.135	743559.293

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	N 59° 32' 38.7004" W

Curve Point Data

Description	Station	Northing	Easting
SC:	64+02.408	16531.135	743559.293
RP:		16561.773	743585.009
CS:	64+33.176	16557.647	743545.222

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	44° 04' 15.7725"	Type:	RIGHT
Radius:			40
Length:		30.767 Tangent:	16.19
Mid-Ord:		2.922 External:	3.152
Chord:		30.015 Course:	N 27° 57' 24.2381" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	64+33.176	16557.647	743545.222
SPI:		16564.317	743544.53
ST:	64+53.176	16577.551	743546.485

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	N 03° 37' 50.2242" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	64+53.176	16577.551	743546.485
End:	64+74.028	16598.18	743549.532

Tangent Data

Parameter	Value	Parameter	Value
Length:		20.852 Course:	N 08° 24' 09.8497" E

Curve Point Data

Description	Station	Northing	Easting
PC:	64+74.028	16598.18	743549.532
RP:		16604.025	743509.962
PT:	65+18.210	16636.744	743532.971

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	63° 17' 10.2155"	Type:	LEFT
Radius:			40
Length:		44.182 Tangent:	24.65
Mid-Ord:		5.947 External:	6.985
Chord:		41.97 Course:	N 23° 14' 25.2580" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	65+18.210	16636.744	743532.971

End: 65+76.037 16670.008 743485.67

Tangent Data

Parameter	Value	Parameter	Value
Length:	57.827	Course:	N 54° 53' 00.3658" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	65+76.037	16670.008	743485.67
SPI:		16677.685	743474.755
SC:	65+96.037	16680.814	743468.857

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.344
Radius:		80 S Tan:	6.677
Theta:	07° 09' 43.1008"	P:	0.208
X:		19.969 K:	9.995
Y:		0.832 A:	40
Chord:		19.986 Course:	N 57° 16' 13.5955" W

Curve Point Data

Description	Station	Northing	Easting
SC:	65+96.037	16680.814	743468.857
RP:		16610.149	743431.355
CS:	65+98.327	16681.859	743466.819

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	01° 38' 24.8262"	Type:	LEFT
Radius:		80	
Length:		2.29 Tangent:	1.145
Mid-Ord:		0.008 External:	0.008
Chord:		2.29 Course:	N 62° 51' 55.8797" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	65+98.327	16681.859	743466.819
SPI:		16684.819	743460.834
ST:	66+18.327	16689.197	743448.228

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.344
Radius:		80 S Tan:	6.677
Theta:	07° 09' 43.1008"	P:	0.208
X:		19.969 K:	9.995
Y:		0.832 A:	40
Chord:		19.986 Course:	N 68° 27' 38.1639" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	66+18.327	16689.197	743448.228
End:	66+20.422	16689.884	743446.249

Tangent Data

Parameter	Value	Parameter	Value
Length:	2.095	Course:	N 70° 50' 51.3935" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	66+20.422	16689.884	743446.249
SPI:		16693.168	743436.795
SC:	66+35.422	16695.387	743432.306

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		15 L Tan:	10.008
Radius:		60 S Tan:	5.007
Theta:	07° 09' 43.1008"	P:	0.156
X:		14.977 K:	7.496
Y:		0.624 A:	30
Chord:		14.99 Course:	N 68° 27' 38.1639" W

Curve Point Data

Description	Station	Northing	Easting
SC:	66+35.422	16695.387	743432.306
RP:		16749.17	743458.904
CS:	66+58.173	16709.053	743414.288

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	21° 43' 29.2192"	Type:	RIGHT
Radius:		60	
Length:		22.75 Tangent:	11.513
Mid-Ord:		1.075 External:	1.095
Chord:		22.614 Course:	N 52° 49' 23.6831" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	66+58.173	16709.053	743414.288
SPI:		16712.776	743410.94
ST:	66+73.173	16720.994	743405.228

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		15 L Tan:	10.008
Radius:		60 S Tan:	5.007
Theta:	07° 09' 43.1008"	P:	0.156
X:		14.977 K:	7.496
Y:		0.624 A:	30
Chord:		14.99 Course:	N 37° 11' 09.2024" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	66+73.173	16720.994	743405.228
End:	66+80.688	16727.166	743400.939

Tangent Data

Parameter	Value	Parameter	Value
Length:	7.516	Course:	N 34° 47' 55.9727" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	66+80.688	16727.166	743400.939
SPI:		16738.124	743393.323
SC:	67+00.688	16743.089	743388.859

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.344
Radius:		80 S Tan:	6.677
Theta:	07° 09' 43.1008"	P:	0.208
X:		19.969 K:	9.995
Y:		0.832 A:	40
Chord:		19.986 Course:	N 37° 11' 09.2024" W

Curve Point Data

Description	Station	Northing	Easting
SC:	67+00.688	16743.089	743388.859
RP:		16689.599	743329.371
CS:	67+19.383	16755.41	743374.856

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	13° 23' 20.2935"	Type:	LEFT
Radius:		80	
Length:		18.695 Tangent:	9.39
Mid-Ord:		0.545 External:	0.549
Chord:		18.652 Course:	N 48° 39' 19.2203" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	67+19.383	16755.41	743374.856
SPI:		16759.206	743369.364
ST:	67+39.383	16765.365	743357.526

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.344
Radius:		80 S Tan:	6.677
Theta:	07° 09' 43.1008"	P:	0.208
X:		19.969 K:	9.995
Y:		0.832 A:	40
Chord:		19.986 Course:	N 60° 07' 29.2381" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	67+39.383	16765.365	743357.526
End:	67+72.375	16780.593	743328.259

Tangent Data

Parameter	Value	Parameter	Value
Length:	32.992	Course:	N 62° 30' 42.4678" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	67+72.375	16780.593	743328.259
SPI:		16786.749	743316.428
SC:	67+92.375	16790.19	743310.716

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.336
Radius:		160 S Tan:	6.669
Theta:	03° 34' 51.5504"	P:	0.104
X:		19.992 K:	9.999
Y:		0.417 A:	56.569
Chord:		19.997 Course:	N 61° 19' 05.4265" W

Curve Point Data

Description	Station	Northing	Easting
SC:	67+92.375	16790.19	743310.716
RP:		16927.238	743393.287
CS:	68+12.022	16801.337	743294.551

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	07° 02' 08.6879"	Type:	RIGHT
Radius:		160	
Length:		19.648 Tangent:	9.836
Mid-Ord:		0.301 External:	0.302
Chord:		19.635 Course:	N 55° 24' 46.5735" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	68+12.022	16801.337	743294.551
SPI:		16805.452	743289.303
ST:	68+32.022	16814.321	743279.344

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.336
Radius:		160 S Tan:	6.669
Theta:	03° 34' 51.5504"	P:	0.104
X:		19.992 K:	9.999
Y:		0.417 A:	56.569
Chord:		19.997 Course:	N 49° 30' 27.7205" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	68+32.022	16814.321	743279.344
End:	69+78.273	16911.585	743170.123

Tangent Data

Parameter	Value	Parameter	Value
Length:		146.251 Course:	N 48° 18' 50.6792" W

Spiral Point Data

Description	Station	Northing	Easting
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TS:	69+78.273	16911.585	743170.123
SPI:		16920.459	743160.158
SC:	69+98.273	16924.243	743154.657

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.344
Radius:		80 S Tan:	6.677
Theta:	07° 09' 43.1008"	P:	0.208
X:		19.969 K:	9.995
Y:		0.832 A:	40
Chord:		19.986 Course:	N 50° 42' 03.9088" W

Curve Point Data

Description	Station	Northing	Easting
SC:	69+98.273	16924.243	743154.657
RP:		16858.332	743109.317
CS:	70+31.608	16936.954	743124.101

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	23° 52' 28.0583"	Type:	LEFT
Radius:		80	
Length:		33.335 Tangent:	16.913
Mid-Ord:		1.73 External:	1.768
Chord:		33.094 Course:	N 67° 24' 47.8091" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	70+31.608	16936.954	743124.101
SPI:		16938.188	743117.539
ST:	70+51.608	16939	743104.22

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.344
Radius:		80 S Tan:	6.677
Theta:	07° 09' 43.1008"	P:	0.208
X:		19.969 K:	9.995
Y:		0.832 A:	40
Chord:		19.986 Course:	N 84° 07' 31.7093" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	70+51.608	16939	743104.22
End:	70+61.690	16939.613	743094.157

Tangent Data

Parameter	Value	Parameter	Value
Length:		10.082 Course:	N 86° 30' 44.9390" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	70+61.690	16939.613	743094.157
SPI:		16940.424	743080.843

SC: 70+81.690 16941.383 743074.241

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.338
Radius:		120 S Tan:	6.671
Theta:	04° 46' 28.7339"	P:	0.139
X:		19.986 K:	9.998
Y:		0.555 A:	48.99
Chord:		19.994 Course:	N 84° 55' 15.6979" W

Curve Point Data

Description	Station	Northing	Easting
SC:	70+81.690	16941.383	743074.241
RP:		17060.138	743091.486
CS:	71+22.834	16954.092	743035.321

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	19° 38' 41.0627"	Type:	RIGHT
Radius:		120	
Length:		41.144 Tangent:	20.776
Mid-Ord:		1.759 External:	1.785
Chord:		40.943 Course:	N 71° 54' 55.6738" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	71+22.834	16954.092	743035.321
SPI:		16957.215	743029.426
ST:	71+42.834	16964.417	743018.2

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.338
Radius:		120 S Tan:	6.671
Theta:	04° 46' 28.7339"	P:	0.139
X:		19.986 K:	9.998
Y:		0.555 A:	48.99
Chord:		19.994 Course:	N 58° 54' 35.6497" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	71+42.834	16964.417	743018.2
End:	72+23.191	17007.807	742950.564

Tangent Data

Parameter	Value	Parameter	Value
Length:		80.357 Course:	N 57° 19' 06.4086" W

Curve Point Data

Description	Station	Northing	Easting
PC:	72+23.191	17007.807	742950.564
RP:		17108.809	743015.361
PT:	72+71.397	17041.183	742916.231

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	23° 01' 00.1953"	Type:	RIGHT
Radius:		120	
Length:		48.206 Tangent:	24.433
Mid-Ord:		2.413 External:	2.462
Chord:		47.883 Course:	N 45° 48' 36.3110" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	72+71.397	17041.183	742916.231
End:	73+61.794	17115.859	742865.288

Tangent Data

Parameter	Value	Parameter	Value
Length:	90.397	Course:	N 34° 18' 06.2133" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	73+61.794	17115.859	742865.288
SPI:		17126.879	742857.77
SC:	73+81.794	17131.988	742853.477

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.34
Radius:		100 S Tan:	6.673
Theta:	05° 43' 46.4806"	P:	0.167
X:		19.98 K:	9.997
Y:		0.666 A:	44.721
Chord:		19.991 Course:	N 36° 12' 41.1246" W

Curve Point Data

Description	Station	Northing	Easting
SC:	73+81.794	17131.988	742853.477
RP:		17067.668	742776.908
CS:	73+94.508	17141.178	742844.703

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	07° 17' 05.2385"	Type:	LEFT
Radius:		100	
Length:		12.714 Tangent:	6.366
Mid-Ord:		0.202 External:	0.202
Chord:		12.706 Course:	N 43° 40' 25.3132" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	73+94.508	17141.178	742844.703
SPI:		17145.702	742839.798
ST:	74+14.508	17153.722	742829.138

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.34
Radius:		100 S Tan:	6.673

Theta: 05° 43' 46.4806" P: 0.167  
 X: 19.98 K: 9.997  
 Y: 0.666 A: 44.721  
 Chord: 19.991 Course: N 51° 08' 09.5017" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	74+14.508	17153.722	742829.138
End:	74+81.874	17194.221	742775.305

Tangent Data

Parameter	Value	Parameter	Value
Length:	67.365	Course:	N 53° 02' 44.4130" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	74+81.874	17194.221	742775.305
SPI:		17202.243	742764.641
SC:	75+01.874	17205.56	742758.847

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.344
Radius:		80 S Tan:	6.677
Theta:	07° 09' 43.1008"	P:	0.208
X:		19.969 K:	9.995
Y:		0.832 A:	40
Chord:		19.986 Course:	N 55° 25' 57.6427" W

Curve Point Data

Description	Station	Northing	Easting
SC:	75+01.874	17205.56	742758.847
RP:		17136.134	742719.099
CS:	75+26.419	17214.323	742736.023

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	17° 34' 44.6720"	Type:	LEFT
Radius:		80	
Length:		24.545 Tangent:	12.37
Mid-Ord:		0.939 External:	0.951
Chord:		24.449 Course:	N 68° 59' 49.8498" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	75+26.419	17214.323	742736.023
SPI:		17215.736	742729.497
ST:	75+46.419	17216.911	742716.205

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.344
Radius:		80 S Tan:	6.677
Theta:	07° 09' 43.1008"	P:	0.208
X:		19.969 K:	9.995

Y: 0.832 A: 40  
 Chord: 19.986 Course: N 82° 33' 42.0570" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	75+46.419	17216.911	742716.205
End:	75+78.774	17219.759	742683.975

Tangent Data

Parameter	Value	Parameter	Value
Length:	32.355	Course:	N 84° 56' 55.2866" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	75+78.774	17219.759	742683.975
SPI:		17220.934	742670.683
SC:	75+98.774	17222.347	742664.157

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.344
Radius:		80 S Tan:	6.677
Theta:	07° 09' 43.1008"	P:	0.208
X:		19.969 K:	9.995
Y:		0.832 A:	40
Chord:		19.986 Course:	N 82° 33' 42.0570" W

Curve Point Data

Description	Station	Northing	Easting
SC:	75+98.774	17222.347	742664.157
RP:		17300.536	742681.081
CS:	76+49.837	17247.825	742620.902

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	36° 34' 15.8799"	Type:	RIGHT
Radius:		80	
Length:		51.063 Tangent:	26.435
Mid-Ord:		4.04 External:	4.254
Chord:		50.2 Course:	N 59° 30' 04.2459" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	76+49.837	17247.825	742620.902
SPI:		17252.847	742616.503
ST:	76+69.837	17263.903	742609.031

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.344
Radius:		80 S Tan:	6.677
Theta:	07° 09' 43.1008"	P:	0.208
X:		19.969 K:	9.995
Y:		0.832 A:	40
Chord:		19.986 Course:	N 36° 26' 26.4348" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	76+69.837	17263.903	742609.031
End:	76+70.932	17264.81	742608.417

Tangent Data

Parameter	Value	Parameter	Value
Length:	1.095	Course:	N 34° 03' 13.2051" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	76+70.932	17264.81	742608.417
SPI:		17275.869	742600.943
SC:	76+90.932	17280.814	742596.453

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.348
Radius:		70 S Tan:	6.68
Theta:	08° 11' 06.4009"	P:	0.238
X:		19.959 K:	9.993
Y:		0.951 A:	37.417
Chord:		19.982 Course:	N 36° 46' 53.6410" W

Curve Point Data

Description	Station	Northing	Easting
SC:	76+90.932	17280.814	742596.453
RP:		17233.759	742544.628
CS:	77+03.132	17289.088	742587.508

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	09° 59' 09.4386"	Type:	LEFT
Radius:		70	
Length:		12.2 Tangent:	6.116
Mid-Ord:		0.266 External:	0.267
Chord:		12.185 Course:	N 47° 13' 54.3253" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	77+03.132	17289.088	742587.508
SPI:		17293.18	742582.228
ST:	77+23.132	17299.771	742570.622

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.348
Radius:		70 S Tan:	6.68
Theta:	08° 11' 06.4009"	P:	0.238
X:		19.959 K:	9.993
Y:		0.951 A:	37.417
Chord:		19.982 Course:	N 57° 40' 55.0096" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	77+23.132	17299.771	742570.622
End:	77+54.706	17315.361	742543.166

Tangent Data

Parameter	Value	Parameter	Value
Length:	31.573	Course:	N 60° 24' 35.4455" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	77+54.706	17315.361	742543.166
SPI:		17321.951	742531.562
SC:	77+74.706	17325.946	742526.213

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.344
Radius:		80 S Tan:	6.677
Theta:	07° 09' 43.1008"	P:	0.208
X:		19.969 K:	9.995
Y:		0.832 A:	40
Chord:		19.986 Course:	N 58° 01' 22.2158" W

Curve Point Data

Description	Station	Northing	Easting
SC:	77+74.706	17325.946	742526.213
RP:		17390.044	742574.081
CS:	78+10.637	17353.087	742503.129

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	25° 44' 02.0179"	Type:	RIGHT
Radius:		80	
Length:		35.931 Tangent:	18.274
Mid-Ord:		2.009 External:	2.061
Chord:		35.63 Course:	N 40° 22' 51.3357" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	78+10.637	17353.087	742503.129
SPI:		17359.008	742500.045
ST:	78+30.637	17371.52	742495.404

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.344
Radius:		80 S Tan:	6.677
Theta:	07° 09' 43.1008"	P:	0.208
X:		19.969 K:	9.995
Y:		0.832 A:	40
Chord:		19.986 Course:	N 22° 44' 20.4557" W

Tangent Data

Description	PT Station	Northing	Easting
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Start: 78+30.637 17371.52 742495.404  
 End: 78+42.686 17382.817 742491.213

Tangent Data

Parameter	Value	Parameter	Value
Length:	12.049	Course:	N 20° 21' 07.2260" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	78+42.686	17382.817	742491.213
SPI:		17395.336	742486.57
SC:	78+62.686	17401.902	742485.317

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641
Chord:		19.975 Course:	N 17° 10' 10.7666" W

Curve Point Data

Description	Station	Northing	Easting
SC:	78+62.686	17401.902	742485.317
RP:		17413.147	742544.253
CS:	79+24.545	17457.923	742504.315

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	59° 04' 14.4385"	Type:	RIGHT
Radius:		60	
Length:		61.859 Tangent:	33.995
Mid-Ord:		7.797 External:	8.961
Chord:		59.155 Course:	N 18° 43' 57.4609" E

Spiral Point Data

Description	Station	Northing	Easting
CS:	79+24.545	17457.923	742504.315
SPI:		17462.373	742509.303
ST:	79+44.545	17469.485	742520.604

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641
Chord:		19.975 Course:	N 54° 38' 05.6885" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	79+44.545	17469.485	742520.604
End:	79+51.424	17473.149	742526.426

Tangent Data

Parameter	Value	Parameter	Value
Length:	6.879	Course:	N 57° 49' 02.1479" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	79+51.424	17473.149	742526.426
SPI:		17480.274	742537.748
SC:	79+71.424	17485.139	742542.364

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	N 53° 02' 42.5224" E

Curve Point Data

Description	Station	Northing	Easting
SC:	79+71.424	17485.139	742542.364
RP:		17512.67	742513.346
CS:	80+24.973	17534.578	742546.812

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	76° 42' 13.2362"	Type:	LEFT
Radius:		40	
Length:		53.549 Tangent:	31.649
Mid-Ord:		8.631 External:	11.006
Chord:		49.639 Course:	N 05° 08' 29.3282" E

Spiral Point Data

Description	Station	Northing	Easting
CS:	80+24.973	17534.578	742546.812
SPI:		17540.19	742543.139
ST:	80+44.973	17549.221	742533.271

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	N 42° 45' 43.8660" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	80+44.973	17549.221	742533.271
End:	80+72.148	17567.568	742513.225

Tangent Data

Parameter	Value	Parameter	Value
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Length:

27.175 Course: N 47° 32' 03.4915" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	80+72.148	17567.568	742513.225
SPI:		17576.6	742503.356
SC:	80+92.148	17579.763	742497.443

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	N 52° 18' 23.1170" W

Curve Point Data

Description	Station	Northing	Easting
SC:	80+92.148	17579.763	742497.443
RP:		17544.492	742478.577
CS:	81+15.266	17584.341	742475.109

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	33° 06' 51.3999"	Type:	LEFT
Radius:		40	
Length:		23.118 Tangent:	11.892
Mid-Ord:		1.659 External:	1.73
Chord:		22.798 Course:	N 78° 24' 55.3930" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	81+15.266	17584.341	742475.109
SPI:		17583.76	742468.428
ST:	81+35.266	17579.339	742455.802

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	S 75° 28' 32.3310" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	81+35.266	17579.339	742455.802
End:	81+53.009	17573.476	742439.056

Tangent Data

Parameter	Value	Parameter	Value
Length:		17.743 Course:	S 70° 42' 12.7055" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	81+53.009	17573.476	742439.056
SPI:		17569.055	742426.43
SC:	81+73.009	17568.474	742419.749

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	S 75° 28' 32.3310" W

Curve Point Data

Description	Station	Northing	Easting
SC:	81+73.009	17568.474	742419.749
RP:		17608.323	742416.282
CS:	82+07.356	17579.66	742388.382

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	49° 11' 56.2434"	Type:	RIGHT
Radius:		40	
Length:		34.347 Tangent:	18.313
Mid-Ord:		3.63 External:	3.993
Chord:		33.302 Course:	N 70° 22' 22.9712" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	82+07.356	17579.66	742388.382
SPI:		17584.338	742383.576
ST:	82+27.356	17595.75	742376.597

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	N 36° 13' 18.2734" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	82+27.356	17595.75	742376.597
End:	83+34.727	17687.348	742320.576

Tangent Data

Parameter	Value	Parameter	Value
Length:		107.371 Course:	N 31° 26' 58.6480" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	83+34.727	17687.348	742320.576
SPI:		17698.739	742313.609
SC:	83+54.727	17704.941	742311.116

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641
Chord:		19.975 Course:	N 28° 16' 02.1886" W

Curve Point Data

Description	Station	Northing	Easting
SC:	83+54.727	17704.941	742311.116
RP:		17727.321	742366.786
CS:	83+91.221	17740.766	742308.312

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	34° 50' 57.6077"	Type:	RIGHT
Radius:		60	
Length:		36.494 Tangent:	18.831
Mid-Ord:		2.753 External:	2.886
Chord:		35.934 Course:	N 04° 28' 32.3764" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	83+91.221	17740.766	742308.312
SPI:		17747.28	742309.81
ST:	84+11.221	17759.617	742314.919

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641
Chord:		19.975 Course:	N 19° 18' 57.4358" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	84+11.221	17759.617	742314.919
End:	84+22.006	17769.58	742319.046

Tangent Data

Parameter	Value	Parameter	Value
Length:		10.785 Course:	N 22° 29' 53.8952" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	84+22.006	17769.58	742319.046

SPI:		17781.917	742324.156
SC:	84+42.006	17788.431	742325.653

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641
Chord:		19.975 Course:	N 19° 18' 57.4358" E

Curve Point Data

Description	Station	Northing	Easting
SC:	84+42.006	17788.431	742325.653
RP:		17801.876	742267.179
CS:	84+80.296	17825.912	742322.155

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	36° 33' 51.5373"	Type:	LEFT
Radius:		60	
Length:		38.29 Tangent:	19.822
Mid-Ord:		3.029 External:	3.19
Chord:		37.644 Course:	N 05° 19' 59.3412" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	84+80.296	17825.912	742322.155
SPI:		17832.037	742319.477
ST:	85+00.296	17843.214	742312.172

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641
Chord:		19.975 Course:	N 29° 58' 56.1181" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	85+00.296	17843.214	742312.172
End:	85+31.805	17869.591	742294.935

Tangent Data

Parameter	Value	Parameter	Value
Length:		31.51 Course:	N 33° 09' 52.5775" W

Curve Point Data

Description	Station	Northing	Easting
PC:	85+31.805	17869.591	742294.935
RP:		17924.296	742378.645
PT:	85+63.936	17898.827	742281.943

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	18° 24' 35.1443"	Type:	RIGHT
Radius:			100
Length:		32.131 Tangent:	16.205
Mid-Ord:		1.288 External:	1.305
Chord:		31.993 Course:	N 23° 57' 35.0054" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	85+63.936	17898.827	742281.943
End:	86+91.311	18022.002	742249.503

Tangent Data

Parameter	Value	Parameter	Value
Length:	127.375	Course:	N 14° 45' 17.4332" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	86+91.311	18022.002	742249.503
SPI:		18034.914	742246.102
SC:	87+11.311	18041.571	742245.495

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641
Chord:		19.975 Course:	N 11° 34' 20.9738" W

Curve Point Data

Description	Station	Northing	Easting
SC:	87+11.311	18041.571	742245.495
RP:		18047.015	742305.248
CS:	87+25.361	18055.584	742245.863

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	13° 25' 01.4672"	Type:	RIGHT
Radius:			60
Length:		14.05 Tangent:	7.057
Mid-Ord:		0.411 External:	0.414
Chord:		14.018 Course:	N 01° 30' 10.7681" E

Spiral Point Data

Description	Station	Northing	Easting
CS:	87+25.361	18055.584	742245.863
SPI:		18062.2	742246.818
ST:	87+45.361	18074.916	742250.891

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353

Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641
Chord:		19.975 Course:	N 14° 34' 42.5100" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	87+45.361	18074.916	742250.891
End:	87+72.587	18100.845	742259.196

Tangent Data

Parameter	Value	Parameter	Value
Length:	27.226	Course:	N 17° 45' 38.9694" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	87+72.587	18100.845	742259.196
SPI:		18131.689	742269.076
SS:	88+17.587	18143.147	742256.257

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:	45	L Tan:	32.388
Radius:	19.541	S Tan:	17.193
Theta:	65° 58' 14.0667"	P:	4.119
X:	39.4	K:	21.542
Y:	15.705	A:	29.654
Chord:	42.404	Course:	N 03° 58' 27.8188" W

Spiral Point Data

Description	Station	Northing	Easting
SS:	88+17.587	18143.147	742256.257
SPI:		18154.604	742243.438
ST:	88+62.587	18141.338	742213.892

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:	45	L Tan:	32.388
Radius:	19.541	S Tan:	17.193
Theta:	65° 58' 14.0667"	P:	4.119
X:	39.4	K:	21.542
Y:	15.705	A:	29.654
Chord:	42.404	Course:	S 87° 33' 17.6241" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	88+62.587	18141.338	742213.892
End:	88+68.473	18138.927	742208.522

Tangent Data

Parameter	Value	Parameter	Value
Length:	5.886	Course:	S 65° 49' 10.8360" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	88+68.473	18138.927	742208.522
SPI:		18129.326	742187.141
SC:	89+03.473	18121.627	742178.249

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		35 L Tan:	23.438
Radius:		60 S Tan:	11.762
Theta:	16° 42' 40.5685"	P:	0.848
X:		34.703 K:	17.45
Y:		3.382 A:	45.826
Chord:		34.868 Course:	S 60° 15' 11.7848" W

Curve Point Data

Description	Station	Northing	Easting
SC:	89+03.473	18121.627	742178.249
RP:		18076.27	742217.527
CS:	89+57.237	18073.933	742157.572

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	51° 20' 26.4822"	Type:	LEFT
Radius:		60	
Length:		53.764 Tangent:	28.838
Mid-Ord:		5.922 External:	6.57
Chord:		51.983 Course:	S 23° 26' 17.0264" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	89+57.237	18073.933	742157.572
SPI:		18062.18	742158.031
ST:	89+92.237	18040.011	742165.639

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		35 L Tan:	23.438
Radius:		60 S Tan:	11.762
Theta:	16° 42' 40.5685"	P:	0.848
X:		34.703 K:	17.45
Y:		3.382 A:	45.826
Chord:		34.868 Course:	S 13° 22' 37.7320" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	89+92.237	18040.011	742165.639
End:	89+92.681	18039.59	742165.784

Tangent Data

Parameter	Value	Parameter	Value
Length:		0.445 Course:	S 18° 56' 36.7832" E

Spiral Point Data

Description	Station	Northing	Easting
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TS:	89+92.681	18039.59	742165.784
SPI:		18020.611	742172.298
SC:	90+22.681	18010.584	742173.108

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		30 L Tan:	20.066
Radius:		60 S Tan:	10.06
Theta:	14° 19' 26.2016"	P:	0.624
X:		29.813 K:	14.969
Y:		2.489 A:	42.426
Chord:		29.917 Course:	S 14° 10' 17.1577" E

Curve Point Data

Description	Station	Northing	Easting
SC:	90+22.681	18010.584	742173.108
RP:		18005.752	742113.303
CS:	90+27.112	18006.159	742173.302

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	04° 13' 51.6033"	Type:	RIGHT
Radius:		60	
Length:		4.431 Tangent:	2.216
Mid-Ord:		0.041 External:	0.041
Chord:		4.43 Course:	S 02° 30' 14.7800" E

Spiral Point Data

Description	Station	Northing	Easting
CS:	90+27.112	18006.159	742173.302
SPI:		17999.474	742173.347
ST:	90+47.112	17986.292	742171.221

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641
Chord:		19.975 Course:	S 05° 58' 42.0300" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	90+47.112	17986.292	742171.221
End:	90+62.456	17971.143	742168.778

Tangent Data

Parameter	Value	Parameter	Value
Length:		15.344 Course:	S 09° 09' 38.4894" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	90+62.456	17971.143	742168.778
SPI:		17957.961	742166.652

SC: 90+82.456 17951.63 742164.508

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641
Chord:		19.975 Course:	S 12° 20' 34.9488" W

Curve Point Data

Description	Station	Northing	Easting
SC:	90+82.456	17951.63	742164.508
RP:		17970.876	742107.679
CS:	90+97.207	17938.377	742158.115

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	14° 05' 10.1329"	Type:	RIGHT
Radius:		60	
Length:		14.751 Tangent:	7.413
Mid-Ord:		0.453 External:	0.456
Chord:		14.714 Course:	S 25° 45' 11.0236" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	90+97.207	17938.377	742158.115
SPI:		17932.758	742154.495
ST:	91+17.207	17922.889	742145.5

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641
Chord:		19.975 Course:	S 39° 09' 47.0983" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	91+17.207	17922.889	742145.5
End:	91+40.730	17905.504	742129.655

Tangent Data

Parameter	Value	Parameter	Value
Length:		23.523 Course:	S 42° 20' 43.5577" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	91+40.730	17905.504	742129.655
SPI:		17895.617	742120.644
SC:	91+60.730	17889.696	742117.494

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	S 37° 34' 23.9322" W

Curve Point Data

Description	Station	Northing	Easting
SC:	91+60.730	17889.696	742117.494
RP:		17870.904	742152.804
CS:	91+79.863	17871.333	742112.807

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	27° 24' 23.3207"	Type:	LEFT
Radius:		40	
Length:		19.133 Tangent:	9.753
Mid-Ord:		1.139 External:	1.172
Chord:		18.951 Course:	S 14° 19' 05.6958" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	91+79.863	17871.333	742112.807
SPI:		17864.627	742112.735
ST:	91+99.863	17851.631	742115.905

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	S 08° 56' 12.5406" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	91+99.863	17851.631	742115.905
End:	92+15.159	17836.771	742119.53

Tangent Data

Parameter	Value	Parameter	Value
Length:		15.296 Course:	S 13° 42' 32.1661" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	92+15.159	17836.771	742119.53
SPI:		17823.799	742122.694
SC:	92+35.159	17817.132	742123.179

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353

Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641
Chord:		19.975 Course:	S 10° 31' 35.7067" E

Curve Point Data

Description	Station	Northing	Easting
SC:	92+35.159	17817.132	742123.179
RP:		17812.78	742063.337
CS:	92+70.391	17783.249	742115.567

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	33° 38' 37.2186"	Type:	RIGHT
Radius:			60
Length:		35.232 Tangent:	18.14
Mid-Ord:		2.567 External:	2.682
Chord:		34.728 Course:	S 12° 39' 43.9109" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	92+70.391	17783.249	742115.567
SPI:		17777.43	742112.277
ST:	92+90.391	17767.058	742103.868

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641
Chord:		19.975 Course:	S 35° 51' 03.5285" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	92+90.391	17767.058	742103.868
End:	93+04.718	17755.929	742094.845

Tangent Data

Parameter	Value	Parameter	Value
Length:		14.327 Course:	S 39° 01' 59.9879" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	93+04.718	17755.929	742094.845
SPI:		17745.557	742086.436
SC:	93+24.718	17739.738	742083.146

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278

X: 19.945 K: 9.991  
 Y: 1.109 A: 34.641  
 Chord: 19.975 Course: S 35° 51' 03.5285" W

Curve Point Data

Description	Station	Northing	Easting
SC:	93+24.718	17739.738	742083.146
RP:		17710.207	742135.375
CS:	93+51.312	17714.485	742075.528

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	25° 23' 45.9062"	Type:	LEFT
Radius:			60
Length:		26.595 Tangent:	13.519
Mid-Ord:		1.467 External:	1.504
Chord:		26.378 Course:	S 16° 47' 09.5671" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	93+51.312	17714.485	742075.528
SPI:		17707.817	742075.052
ST:	93+71.312	17694.525	742076.322

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641
Chord:		19.975 Course:	S 02° 16' 44.3943" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	93+71.312	17694.525	742076.322
End:	93+88.981	17676.937	742078.004

Tangent Data

Parameter	Value	Parameter	Value
Length:		17.668 Course:	S 05° 27' 40.8537" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	93+88.981	17676.937	742078.004
SPI:		17652.601	742080.331
SS:	94+23.981	17643.946	742071.057

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		35 L Tan:	24.447
Radius:		19.122 S Tan:	12.685
Theta:	52° 26' 04.4657"	P:	2.591
X:		32.182 K:	17.023
Y:		10.055 A:	25.871

Chord:

33.714 Course: S 11° 53' 25.2886" W

Spiral Point Data

Description	Station	Northing	Easting
SS:	94+23.981	17643.946	742071.057
SPI:		17635.29	742061.784
ST:	94+58.981	17639.286	742037.667

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		35 L Tan:	24.447
Radius:		19.122 S Tan:	12.685
Theta:	52° 26' 04.4657"	P:	2.591
X:		32.182 K:	17.023
Y:		10.055 A:	25.871
Chord:		33.714 Course:	S 82° 03' 21.9354" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	94+58.981	17639.286	742037.667
End:	94+59.793	17639.419	742036.865

Tangent Data

Parameter	Value	Parameter	Value
Length:		0.813 Course:	N 80° 35' 31.9223" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	94+59.793	17639.419	742036.865
SPI:		17641.605	742023.673
SS:	94+79.793	17644.203	742017.495

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.372
Radius:		42.763 S Tan:	6.702
Theta:	13° 23' 54.6364"	P:	0.389
X:		19.891 K:	9.982
Y:		1.553 A:	29.245
Chord:		19.951 Course:	N 76° 07' 41.1633" W

Spiral Point Data

Description	Station	Northing	Easting
SS:	94+79.793	17644.203	742017.495
SPI:		17646.8	742011.318
ST:	94+99.793	17654.699	742000.528

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.372
Radius:		42.763 S Tan:	6.702
Theta:	13° 23' 54.6364"	P:	0.389
X:		19.891 K:	9.982
Y:		1.553 A:	29.245
Chord:		19.951 Course:	N 58° 15' 33.4085" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	94+99.793	17654.699	742000.528
End:	95+42.671	17680.025	741965.93

Tangent Data

Parameter	Value	Parameter	Value
Length:	42.877	Course:	N 53° 47' 42.6496" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	95+42.671	17680.025	741965.93
SPI:		17692.668	741948.659
SS:	95+72.671	17687.681	741938.532

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:	30	L Tan:	21.404
Radius:	13.768	S Tan:	11.288
Theta:	62° 25' 27.5971"	P:	2.611
X:	26.635	K:	14.426
Y:	10.006	A:	20.323
Chord:	28.447	Course:	N 74° 23' 16.8374" W

Spiral Point Data

Description	Station	Northing	Easting
SS:	95+72.671	17687.681	741938.532
SPI:		17682.694	741928.406
ST:	96+02.671	17661.296	741927.899

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:	30	L Tan:	21.404
Radius:	13.768	S Tan:	11.288
Theta:	62° 25' 27.5971"	P:	2.611
X:	26.635	K:	14.426
Y:	10.006	A:	20.323
Chord:	28.447	Course:	S 21° 56' 56.3440" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	96+02.671	17661.296	741927.899
End:	96+09.160	17654.808	741927.746

Tangent Data

Parameter	Value	Parameter	Value
Length:	6.489	Course:	S 01° 21' 22.1562" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	96+09.160	17654.808	741927.746
SPI:		17641.435	741927.429
SC:	96+29.160	17634.899	741928.934

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	S 03° 24' 57.4693" E

Curve Point Data

Description	Station	Northing	Easting
SC:	96+29.160	17634.899	741928.934
RP:		17643.876	741967.914
CS:	96+47.225	17618.788	741936.76

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	25° 52' 33.7948"	Type:	LEFT
Radius:		40	
Length:		18.065 Tangent:	9.189
Mid-Ord:		1.015 External:	1.042
Chord:		17.912 Course:	S 25° 54' 20.9428" E

Spiral Point Data

Description	Station	Northing	Easting
CS:	96+47.225	17618.788	741936.76
SPI:		17613.564	741940.966
ST:	96+67.225	17605.545	741951.673

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	S 48° 23' 44.4163" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	96+67.225	17605.545	741951.673
End:	96+88.223	17592.957	741968.48

Tangent Data

Parameter	Value	Parameter	Value
Length:		20.998 Course:	S 53° 10' 04.0418" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	96+88.223	17592.957	741968.48
SPI:		17584.938	741979.187
SC:	97+08.223	17579.714	741983.393

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
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Length: 20 L Tan: 13.377  
 Radius: 40 S Tan: 6.707  
 Theta: 14° 19' 26.2016" P: 0.416  
 X: 19.875 K: 9.979  
 Y: 1.659 A: 28.284  
 Chord: 19.944 Course: S 48° 23' 44.4163" E

Curve Point Data

Description	Station	Northing	Easting
SC:	97+08.223	17579.714	741983.393
RP:		17554.626	741952.239
CS:	97+79.557	17518.88	741970.189

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	102° 10' 46.8338"	Type:	RIGHT
Radius:			40
Length:		71.335 Tangent:	49.555
Mid-Ord:		14.876 External:	23.684
Chord:		62.251 Course:	S 12° 14' 45.5766" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	97+79.557	17518.88	741970.189
SPI:		17515.871	741964.196
ST:	97+99.557	17513.012	741951.128

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	S 72° 53' 15.5696" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	97+99.557	17513.012	741951.128
End:	98+03.085	17512.258	741947.681

Tangent Data

Parameter	Value	Parameter	Value
Length:		3.528 Course:	S 77° 39' 35.1951" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	98+03.085	17512.258	741947.681
SPI:		17509.37	741934.481
SC:	98+23.085	17504.89	741929.326

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.512
Radius:		20 S Tan:	6.83

Theta: 28° 38' 52.4031" P: 0.826  
 X: 19.506 K: 9.917  
 Y: 3.274 A: 20  
 Chord: 19.779 Course: S 68° 07' 50.9274" W

Curve Point Data

Description	Station	Northing	Easting
SC:	98+23.085	17504.89	741929.326
RP:		17489.793	741942.444
CS:	98+23.477	17504.631	741929.033

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	01° 07' 19.7677"	Type:	LEFT
Radius:			20
Length:		0.392 Tangent:	0.196
Mid-Ord:		0.001 External:	0.001
Chord:		0.392 Course:	S 48° 27' 02.9081" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	98+23.477	17504.631	741929.033
SPI:		17500.051	741923.966
ST:	98+43.477	17487.294	741919.513

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.512
Radius:		20 S Tan:	6.83
Theta:	28° 38' 52.4031"	P:	0.826
X:		19.506 K:	9.917
Y:		3.274 A:	20
Chord:		19.779 Course:	S 28° 46' 14.8889" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	98+43.477	17487.294	741919.513
End:	98+75.985	17456.601	741908.8

Tangent Data

Parameter	Value	Parameter	Value
Length:		32.508 Course:	S 19° 14' 30.6211" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	98+75.985	17456.601	741908.8
SPI:		17443.939	741904.38
SC:	98+95.985	17438.654	741900.2

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.412
Radius:		30 S Tan:	6.738
Theta:	19° 05' 54.9354"	P:	0.553
X:		19.779 K:	9.963

Y: 2.205 A: 24.495  
 Chord: 19.901 Course: S 25° 36' 07.3172" W

Curve Point Data

Description	Station	Northing	Easting
SC:	98+95.985	17438.654	741900.2
RP:		17457.264	741876.67
CS:	99+21.242	17427.317	741878.461

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	48° 14' 13.4338"	Type:	RIGHT
Radius:			30
Length:		25.257 Tangent:	13.431
Mid-Ord:		2.619 External:	2.869
Chord:		24.518 Course:	S 62° 27' 32.2734" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	99+21.242	17427.317	741878.461
SPI:		17426.915	741871.735
ST:	99+41.242	17430.539	741858.822

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.412
Radius:		30 S Tan:	6.738
Theta:	19° 05' 54.9354"	P:	0.553
X:		19.779 K:	9.963
Y:		2.205 A:	24.495
Chord:		19.901 Course:	N 80° 41' 02.7704" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	99+41.242	17430.539	741858.822
End:	99+87.638	17443.075	741814.152

Tangent Data

Parameter	Value	Parameter	Value
Length:	46.396	Course:	N 74° 19' 26.0743" W

Curve Point Data

Description	Station	Northing	Easting
PC:	99+87.638	17443.075	741814.152
RP:		17500.843	741830.364
PT:	100+16.331	17457.017	741789.385

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	27° 24' 01.2608"	Type:	RIGHT
Radius:			60
Length:		28.694 Tangent:	14.627
Mid-Ord:		1.707 External:	1.757
Chord:		28.421 Course:	N 60° 37' 25.4439" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	100+16.331	17457.017	741789.385
End:	101+28.212	17533.429	741707.663

Tangent Data

Parameter	Value	Parameter	Value
Length:	111.881	Course:	N 46° 55' 24.8135" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	101+28.212	17533.429	741707.663
SPI:		17551.748	741688.07
SC:	101+68.212	17557.225	741675.757

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		40 L Tan:	26.824
Radius:		60 S Tan:	13.476
Theta:	19° 05' 54.9354"	P:	1.107
X:		39.558 K:	19.926
Y:		4.409 A:	48.99
Chord:		39.803 Course:	N 53° 17' 01.5096" W

Curve Point Data

Description	Station	Northing	Easting
SC:	101+68.212	17557.225	741675.757
RP:		17502.403	741651.374
CS:	102+40.060	17545.101	741609.221

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	68° 36' 33.0647"	Type:	LEFT
Radius:		60	
Length:		71.847 Tangent:	40.936
Mid-Ord:		10.437 External:	12.635
Chord:		67.631 Course:	S 79° 40' 23.7188" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	102+40.060	17545.101	741609.221
SPI:		17535.634	741599.631
ST:	102+80.060	17511.58	741587.759

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		40 L Tan:	26.824
Radius:		60 S Tan:	13.476
Theta:	19° 05' 54.9354"	P:	1.107
X:		39.558 K:	19.926
Y:		4.409 A:	48.99
Chord:		39.803 Course:	S 32° 37' 48.9471" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	102+80.060	17511.58	741587.759
End:	103+08.848	17485.765	741575.017

Tangent Data

Parameter	Value	Parameter	Value
Length:	28.789	Course:	S 26° 16' 12.2510" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	103+08.848	17485.765	741575.017
SPI:		17473.791	741569.107
SC:	103+28.848	17467.39	741567.184

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641
Chord:		19.975 Course:	S 23° 05' 15.7916" W

Curve Point Data

Description	Station	Northing	Easting
SC:	103+28.848	17467.39	741567.184
RP:		17450.127	741624.647
CS:	103+35.182	17461.239	741565.685

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	06° 02' 52.1899"	Type:	LEFT
Radius:		60	
Length:		6.333 Tangent:	3.17
Mid-Ord:		0.084 External:	0.084
Chord:		6.33 Course:	S 13° 41' 48.6884" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	103+35.182	17461.239	741565.685
SPI:		17454.671	741564.447
ST:	103+55.182	17441.32	741564.185

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641
Chord:		19.975 Course:	S 04° 18' 21.5851" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	103+55.182	17441.32	741564.185

End: 103+64.115 17432.388 741564.01

Tangent Data

Parameter	Value	Parameter	Value
Length:		8.934 Course:	S 01° 07' 25.1257" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	103+64.115	17432.388	741564.01
SPI:		17419.014	741563.747
SC:	103+84.115	17412.549	741561.961

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	S 05° 53' 44.7512" W

Curve Point Data

Description	Station	Northing	Easting
SC:	103+84.115	17412.549	741561.961
RP:		17423.204	741523.406
CS:	104+11.512	17390.562	741546.526

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	39° 14' 33.5935"	Type:	RIGHT
Radius:		40	
Length:		27.397 Tangent:	14.26
Mid-Ord:		2.323 External:	2.466
Chord:		26.864 Course:	S 35° 04' 08.1240" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	104+11.512	17390.562	741546.526
SPI:		17386.686	741541.053
ST:	104+31.512	17381.895	741528.563

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	S 64° 14' 31.4968" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	104+31.512	17381.895	741528.563
End:	104+53.424	17374.047	741508.105

Tangent Data

Parameter	Value	Parameter	Value
Length:	21.912	Course:	S 69° 00' 51.1223" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	104+53.424	17374.047	741508.105
SPI:		17369.256	741495.615
SC:	104+73.424	17368.478	741488.953

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	S 73° 47' 10.7477" W

Curve Point Data

Description	Station	Northing	Easting
SC:	104+73.424	17368.478	741488.953
RP:		17408.208	741484.313
CS:	104+86.907	17369.18	741475.552

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	19° 18' 47.9300"	Type:	RIGHT
Radius:		40	
Length:		13.483 Tangent:	6.806
Mid-Ord:		0.567 External:	0.575
Chord:		13.419 Course:	N 87° 00' 18.7112" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	104+86.907	17369.18	741475.552
SPI:		17370.648	741469.008
ST:	105+06.907	17376.716	741457.087

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	N 67° 47' 48.1701" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	105+06.907	17376.716	741457.087
End:	105+39.111	17391.324	741428.386

Tangent Data

Parameter	Value	Parameter	Value
Length:	32.204	Course:	N 63° 01' 28.5446" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	105+39.111	17391.324	741428.386
SPI:		17398.892	741413.518
SC:	105+64.111	17401.613	741405.625

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		25 L Tan:	16.684
Radius:		90 S Tan:	8.349
Theta:	07° 57' 27.8898"	P:	0.289
X:		24.952 K:	12.492
Y:		1.156 A:	47.434
Chord:		24.979 Course:	N 65° 40' 36.2811" W

Curve Point Data

Description	Station	Northing	Easting
SC:	105+64.111	17401.613	741405.625
RP:		17316.525	741376.297
CS:	106+55.790	17386.124	741319.237

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	58° 21' 51.2506"	Type:	LEFT
Radius:		90	
Length:		91.678 Tangent:	50.262
Mid-Ord:		11.423 External:	13.084
Chord:		87.766 Course:	S 79° 50' 07.9403" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	106+55.790	17386.124	741319.237
SPI:		17380.831	741312.78
ST:	106+80.790	17368.569	741301.467

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		25 L Tan:	16.684
Radius:		90 S Tan:	8.349
Theta:	07° 57' 27.8898"	P:	0.289
X:		24.952 K:	12.492
Y:		1.156 A:	47.434
Chord:		24.979 Course:	S 45° 20' 52.1617" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	106+80.790	17368.569	741301.467
End:	106+81.220	17368.253	741301.175

Tangent Data

Parameter	Value	Parameter	Value
Length:		0.43 Course:	S 42° 41' 44.4252" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	106+81.220	17368.253	741301.175
SPI:		17358.451	741292.132
SC:	107+01.220	17353.259	741287.946

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.336
Radius:		150 S Tan:	6.669
Theta:	03° 49' 10.9871"	P:	0.111
X:		19.991 K:	9.999
Y:		0.444 A:	54.772
Chord:		19.996 Course:	S 41° 25' 20.9354" W

Curve Point Data

Description	Station	Northing	Easting
SC:	107+01.220	17353.259	741287.946
RP:		17259.114	741404.722
CS:	107+03.526	17351.452	741286.512

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	00° 52' 51.5647"	Type:	LEFT
Radius:		150	
Length:		2.306 Tangent:	1.153
Mid-Ord:		0.004 External:	0.004
Chord:		2.306 Course:	S 38° 26' 07.6558" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	107+03.526	17351.452	741286.512
SPI:		17346.196	741282.406
ST:	107+23.526	17335.163	741274.915

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.336
Radius:		150 S Tan:	6.669
Theta:	03° 49' 10.9871"	P:	0.111
X:		19.991 K:	9.999
Y:		0.444 A:	54.772
Chord:		19.996 Course:	S 35° 26' 54.3763" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	107+23.526	17335.163	741274.915
End:	107+23.806	17334.932	741274.758

Tangent Data

Parameter	Value	Parameter	Value
Length:		0.279 Course:	S 34° 10' 30.8864" W

Spiral Point Data

Description	Station	Northing	Easting
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TS:	107+23.806	17334.932	741274.758
SPI:		17323.851	741267.234
SC:	107+43.806	17319.623	741262.008

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.394
Radius:		34 S Tan:	6.722
Theta:	16° 51' 06.1195"	P:	0.489
X:		19.828 K:	9.971
Y:		1.949 A:	26.077
Chord:		19.923 Course:	S 39° 47' 18.0861" W

Curve Point Data

Description	Station	Northing	Easting
SC:	107+43.806	17319.623	741262.008
RP:		17346.056	741240.624
CS:	107+84.675	17316.581	741223.676

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	68° 52' 21.1079"	Type:	RIGHT
Radius:		34	
Length:		40.87 Tangent:	23.312
Mid-Ord:		5.958 External:	7.224
Chord:		38.453 Course:	S 85° 27' 47.5598" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	107+84.675	17316.581	741223.676
SPI:		17319.932	741217.848
ST:	108+04.675	17329.688	741208.671

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.394
Radius:		34 S Tan:	6.722
Theta:	16° 51' 06.1195"	P:	0.489
X:		19.828 K:	9.971
Y:		1.949 A:	26.077
Chord:		19.923 Course:	N 48° 51' 42.9665" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	108+04.675	17329.688	741208.671
End:	108+66.987	17375.075	741165.977

Tangent Data

Parameter	Value	Parameter	Value
Length:		62.311 Course:	N 43° 14' 55.7668" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	108+66.987	17375.075	741165.977
SPI:		17384.844	741156.788

SC: 108+86.987 17387.971 741150.819

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.412
Radius:		30 S Tan:	6.738
Theta:	19° 05' 54.9354"	P:	0.553
X:		19.779 K:	9.963
Y:		2.205 A:	24.495
Chord:		19.901 Course:	N 49° 36' 32.4629" W

Curve Point Data

Description	Station	Northing	Easting
SC:	108+86.987	17387.971	741150.819
RP:		17361.398	741136.896
CS:	109+18.402	17386.742	741120.845

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	59° 59' 55.8324"	Type:	LEFT
Radius:		30	
Length:		31.415 Tangent:	17.32
Mid-Ord:		4.019 External:	4.641
Chord:		29.999 Course:	S 87° 39' 11.3816" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	109+18.402	17386.742	741120.845
SPI:		17383.137	741115.153
ST:	109+38.402	17372.649	741106.793

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.412
Radius:		30 S Tan:	6.738
Theta:	19° 05' 54.9354"	P:	0.553
X:		19.779 K:	9.963
Y:		2.205 A:	24.495
Chord:		19.901 Course:	S 44° 54' 55.2261" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	109+38.402	17372.649	741106.793
End:	109+52.662	17361.498	741097.906

Tangent Data

Parameter	Value	Parameter	Value
Length:		14.26 Course:	S 38° 33' 18.5300" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	109+52.662	17361.498	741097.906
SPI:		17351.049	741089.578
SC:	109+72.662	17346.749	741084.45

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.361
Radius:		50 S Tan:	6.692
Theta:	11° 27' 32.9612"	P:	0.333
X:		19.92 K:	9.987
Y:		1.33 A:	31.623
Chord:		19.964 Course:	S 42° 22' 24.8561" W

Curve Point Data

Description	Station	Northing	Easting
SC:	109+72.662	17346.749	741084.45
RP:		17385.059	741052.32
CS:	109+88.381	17338.691	741071.029

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	18° 00' 45.5920"	Type:	RIGHT
Radius:		50	
Length:		15.719 Tangent:	7.925
Mid-Ord:		0.616 External:	0.624
Chord:		15.654 Course:	S 59° 01' 14.2872" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	109+88.381	17338.691	741071.029
SPI:		17336.187	741064.823
ST:	110+08.381	17333.749	741051.686

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.361
Radius:		50 S Tan:	6.692
Theta:	11° 27' 32.9612"	P:	0.333
X:		19.92 K:	9.987
Y:		1.33 A:	31.623
Chord:		19.964 Course:	S 75° 40' 03.7183" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	110+08.381	17333.749	741051.686
End:	110+78.830	17320.894	740982.42

Tangent Data

Parameter	Value	Parameter	Value
Length:		70.449 Course:	S 79° 29' 10.0445" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	110+78.830	17320.894	740982.42
SPI:		17318.453	740969.267
SC:	110+98.830	17315.636	740963.181

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377

Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	S 74° 42' 50.4190" W

Curve Point Data

Description	Station	Northing	Easting
SC:	110+98.830	17315.636	740963.181
RP:		17279.336	740979.983
CS:	111+26.198	17296.846	740944.019

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	39° 12' 06.3573"	Type:	LEFT
Radius:			40
Length:		27.368 Tangent:	14.244
Mid-Ord:		2.318 External:	2.46
Chord:		26.837 Course:	S 45° 33' 40.6643" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	111+26.198	17296.846	740944.019
SPI:		17290.816	740941.083
ST:	111+46.198	17277.713	740938.385

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	S 16° 24' 30.9096" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	111+46.198	17277.713	740938.385
End:	111+90.130	17234.684	740929.524

Tangent Data

Parameter	Value	Parameter	Value
Length:		43.932 Course:	S 11° 38' 11.2841" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	111+90.130	17234.684	740929.524
SPI:		17221.548	740926.818
SC:	112+10.130	17215.756	740923.375

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.412
Radius:		30 S Tan:	6.738
Theta:	19° 05' 54.9354"	P:	0.553

X: 19.779 K: 9.963  
 Y: 2.205 A: 24.495  
 Chord: 19.901 Course: S 17° 59' 47.9802" W

Curve Point Data

Description	Station	Northing	Easting
SC:	112+10.130	17215.756	740923.375
RP:		17231.088	740897.589
CS:	112+44.874	17201.318	740893.885

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	66° 21' 22.2354"	Type:	RIGHT
Radius:			30
Length:		34.744 Tangent:	19.615
Mid-Ord:		4.891 External:	5.843
Chord:		32.835 Course:	S 63° 54' 47.3372" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	112+44.874	17201.318	740893.885
SPI:		17202.15	740887.199
ST:	112+64.874	17208.069	740875.164

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.412
Radius:		30 S Tan:	6.738
Theta:	19° 05' 54.9354"	P:	0.553
X:		19.779 K:	9.963
Y:		2.205 A:	24.495
Chord:		19.901 Course:	N 70° 10' 13.3058" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	112+64.874	17208.069	740875.164
End:	112+84.883	17216.9	740857.209

Tangent Data

Parameter	Value	Parameter	Value
Length:		20.008 Course:	N 63° 48' 36.6097" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	112+84.883	17216.9	740857.209
SPI:		17222.793	740845.228
SC:	113+04.883	17224.707	740838.823

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641

Chord:

19.975 Course: N 66° 59' 33.0691" W

Curve Point Data

Description	Station	Northing	Easting
SC:	113+04.883	17224.707	740838.823
RP:		17167.22	740821.641
CS:	113+15.005	17226.776	740828.927

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	09° 39' 56.1847"	Type:	LEFT
Radius:			60
Length:		10.122 Tangent:	5.073
Mid-Ord:		0.213 External:	0.214
Chord:		10.11 Course:	N 78° 11' 32.1697" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	113+15.005	17226.776	740828.927
SPI:		17227.587	740822.292
ST:	113+35.005	17226.988	740808.953

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641
Chord:		19.975 Course:	N 89° 23' 31.2703" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	113+35.005	17226.988	740808.953
End:	113+99.378	17224.096	740744.644

Tangent Data

Parameter	Value	Parameter	Value
Length:		64.374 Course:	S 87° 25' 32.2703" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	113+99.378	17224.096	740744.644
SPI:		17223.489	740731.146
SC:	114+19.378	17219.949	740725.305

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.512
Radius:		20 S Tan:	6.83
Theta:	28° 38' 52.4031"	P:	0.826
X:		19.506 K:	9.917
Y:		3.274 A:	20
Chord:		19.779 Course:	S 77° 53' 48.0025" W

Curve Point Data

Description	Station	Northing	Easting
SC:	114+19.378	17219.949	740725.305
RP:		17202.846	740735.673
CS:	114+22.767	17217.956	740722.57

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	09° 42' 27.4166"	Type:	LEFT
Radius:			20
Length:		3.389 Tangent:	1.698
Mid-Ord:		0.072 External:	0.072
Chord:		3.385 Course:	S 53° 55' 26.1588" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	114+22.767	17217.956	740722.57
SPI:		17213.482	740717.41
ST:	114+42.767	17200.819	740712.695

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.512
Radius:		20 S Tan:	6.83
Theta:	28° 38' 52.4031"	P:	0.826
X:		19.506 K:	9.917
Y:		3.274 A:	20
Chord:		19.779 Course:	S 29° 57' 04.3151" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	114+42.767	17200.819	740712.695
End:	114+46.209	17197.593	740711.494

Tangent Data

Parameter	Value	Parameter	Value
Length:		3.442 Course:	S 20° 25' 20.0474" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	114+46.209	17197.593	740711.494
SPI:		17185.025	740706.814
SC:	114+66.209	17179.827	740702.527

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.412
Radius:		30 S Tan:	6.738
Theta:	19° 05' 54.9354"	P:	0.553
X:		19.779 K:	9.963
Y:		2.205 A:	24.495
Chord:		19.901 Course:	S 26° 46' 56.7435" W

Curve Point Data

Description	Station	Northing	Easting
SC:	114+66.209	17179.827	740702.527
RP:		17198.918	740679.385
CS:	114+88.349	17169.224	740683.661

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	42° 17' 06.1349"	Type:	RIGHT
Radius:			30
Length:		22.14 Tangent:	11.602
Mid-Ord:		2.019 External:	2.165
Chord:		21.641 Course:	S 60° 39' 48.0502" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	114+88.349	17169.224	740683.661
SPI:		17168.264	740676.991
ST:	115+08.349	17170.801	740663.822

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.412
Radius:		30 S Tan:	6.738
Theta:	19° 05' 54.9354"	P:	0.553
X:		19.779 K:	9.963
Y:		2.205 A:	24.495
Chord:		19.901 Course:	N 85° 27' 20.6430" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	115+08.349	17170.801	740663.822
End:	115+29.829	17174.864	740642.73

Tangent Data

Parameter	Value	Parameter	Value
Length:		21.48 Course:	N 79° 05' 43.9469" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	115+29.829	17174.864	740642.73
SPI:		17177.401	740629.56
SC:	115+49.829	17176.441	740622.891

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.412
Radius:		30 S Tan:	6.738
Theta:	19° 05' 54.9354"	P:	0.553
X:		19.779 K:	9.963
Y:		2.205 A:	24.495
Chord:		19.901 Course:	N 85° 27' 20.6430" W

Curve Point Data

Description	Station	Northing	Easting
SC:	115+49.829	17176.441	740622.891

RP:		17146.747	740627.167
CS:	115+51.754	17176.106	740620.996

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	03° 40' 35.0016"	Type:	LEFT
Radius:			30
Length:		1.925 Tangent:	0.963
Mid-Ord:		0.015 External:	0.015
Chord:		1.925 Course:	S 79° 58' 03.6169" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	115+51.754	17176.106	740620.996
SPI:		17174.72	740614.402
ST:	115+71.754	17167.818	740602.902

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.412
Radius:		30 S Tan:	6.738
Theta:	19° 05' 54.9354"	P:	0.553
X:		19.779 K:	9.963
Y:		2.205 A:	24.495
Chord:		19.901 Course:	S 65° 23' 27.8768" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	115+71.754	17167.818	740602.902
End:	116+06.936	17149.714	740572.735

Tangent Data

Parameter	Value	Parameter	Value
Length:		35.182 Course:	S 59° 01' 51.1807" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	116+06.936	17149.714	740572.735
SPI:		17142.85	740561.296
SC:	116+26.936	17140.004	740555.26

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.34
Radius:		100 S Tan:	6.673
Theta:	05° 43' 46.4806"	P:	0.167
X:		19.98 K:	9.997
Y:		0.666 A:	44.721
Chord:		19.991 Course:	S 60° 56' 26.0920" W

Curve Point Data

Description	Station	Northing	Easting
SC:	116+26.936	17140.004	740555.26
RP:		17230.458	740512.62
CS:	116+28.301	17139.431	740554.022

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	00° 46' 55.4401"	Type:	RIGHT
Radius:		100	
Length:		1.365	Tangent: 0.682
Mid-Ord:		0.002	External: 0.002
Chord:		1.365	Course: S 65° 09' 05.3814" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	116+28.301	17139.431	740554.022
SPI:		17136.668	740547.947
ST:	116+48.301	17132.385	740535.313

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.34
Radius:		100 S Tan:	6.673
Theta:	05° 43' 46.4806"	P:	0.167
X:		19.98 K:	9.997
Y:		0.666 A:	44.721
Chord:		19.991	Course: S 69° 21' 44.6707" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	116+48.301	17132.385	740535.313
End:	117+15.108	17110.935	740472.044

Tangent Data

Parameter	Value	Parameter	Value
Length:		66.807	Course: S 71° 16' 19.5820" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	117+15.108	17110.935	740472.044
SPI:		17106.635	740459.362
SC:	117+35.108	17106.359	740452.648

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.391
Radius:		35 S Tan:	6.719
Theta:	16° 22' 12.8018"	P:	0.475
X:		19.837 K:	9.973
Y:		1.894 A:	26.458
Chord:		19.928	Course: S 76° 43' 30.2468" W

Curve Point Data

Description	Station	Northing	Easting
SC:	117+35.108	17106.359	740452.648
RP:		17141.329	740451.209
CS:	117+74.023	17124.546	740420.495

Circular Curve Data

Parameter	Value	Parameter	Value
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Delta: 63° 42' 12.7530" Type: RIGHT  
 Radius: 35  
 Length: 38.914 Tangent: 21.745  
 Mid-Ord: 5.27 External: 6.205  
 Chord: 36.941 Course: N 60° 30' 21.2397" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	117+74.023	17124.546	740420.495
SPI:		17130.442	740417.273
ST:	117+94.023	17143.526	740414.424

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.391
Radius:		35 S Tan:	6.719
Theta:	16° 22' 12.8018"	P:	0.475
X:		19.837 K:	9.973
Y:		1.894 A:	26.458
Chord:		19.928 Course:	N 17° 44' 12.7262" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	117+94.023	17143.526	740414.424
End:	118+04.316	17153.584	740412.234

Tangent Data

Parameter	Value	Parameter	Value
Length:		10.294 Course:	N 12° 17' 02.0614" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	118+04.316	17153.584	740412.234
SPI:		17166.668	740409.385
SC:	118+24.316	17172.564	740406.163

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.391
Radius:		35 S Tan:	6.719
Theta:	16° 22' 12.8018"	P:	0.475
X:		19.837 K:	9.973
Y:		1.894 A:	26.458
Chord:		19.928 Course:	N 17° 44' 12.7262" W

Curve Point Data

Description	Station	Northing	Easting
SC:	118+24.316	17172.564	740406.163
RP:		17155.781	740375.45
CS:	118+58.151	17190.592	740379.082

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	55° 23' 21.0396"	Type:	LEFT
Radius:			35

Length: 33.835 Tangent: 18.371  
 Mid-Ord: 4.01 External: 4.528  
 Chord: 32.533 Course: N 56° 20' 55.3830" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	118+58.151	17190.592	740379.082
SPI:		17191.289	740372.399
ST:	118+78.151	17188.869	740359.229

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.391
Radius:		35 S Tan:	6.719
Theta:	16° 22' 12.8018"	P:	0.475
X:		19.837 K:	9.973
Y:		1.894 A:	26.458
Chord:		19.928 Course:	S 85° 02' 21.9603" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	118+78.151	17188.869	740359.229
End:	119+02.064	17184.547	740335.711

Tangent Data

Parameter	Value	Parameter	Value
Length:		23.912 Course:	S 79° 35' 11.2955" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	119+02.064	17184.547	740335.711
SPI:		17182.136	740322.592
SC:	119+22.064	17180.388	740316.154

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.338
Radius:		120 S Tan:	6.671
Theta:	04° 46' 28.7339"	P:	0.139
X:		19.986 K:	9.998
Y:		0.555 A:	48.99
Chord:		19.994 Course:	S 77° 59' 42.0544" W

Curve Point Data

Description	Station	Northing	Easting
SC:	119+22.064	17180.388	740316.154
RP:		17064.58	740347.593
CS:	119+53.827	17168.13	740286.952

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	15° 09' 57.0061"	Type:	LEFT
Radius:		120	
Length:		31.763 Tangent:	15.975
Mid-Ord:		1.049 External:	1.059

Chord:

31.671 Course: S 67° 13' 44.0586" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	119+53.827	17168.13	740286.952
SPI:		17164.759	740281.195
ST:	119+73.827	17157.084	740270.287

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.338
Radius:		120 S Tan:	6.671
Theta:	04° 46' 28.7339"	P:	0.139
X:		19.986 K:	9.998
Y:		0.555 A:	48.99
Chord:		19.994 Course:	S 56° 27' 46.0627" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	119+73.827	17157.084	740270.287
End:	119+99.183	17142.494	740249.549

Tangent Data

Parameter	Value	Parameter	Value
Length:		25.356 Course:	S 54° 52' 16.8216" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	119+99.183	17142.494	740249.549
SPI:		17134.796	740238.608
SC:	120+19.183	17132.414	740232.339

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	S 59° 38' 36.4471" W

Curve Point Data

Description	Station	Northing	Easting
SC:	120+19.183	17132.414	740232.339
RP:		17169.806	740218.131
CS:	120+46.815	17131.934	740205.257

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	39° 34' 48.0356"	Type:	RIGHT
Radius:		40	
Length:		27.632 Tangent:	14.393
Mid-Ord:		2.362 External:	2.511
Chord:		27.086 Course:	S 88° 59' 07.0410" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	120+46.815	17131.934	740205.257
SPI:		17134.093	740198.907
ST:	120+66.815	17141.398	740187.701

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	N 61° 40' 22.3651" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	120+66.815	17141.398	740187.701
End:	122+02.954	17215.742	740073.654

Tangent Data

Parameter	Value	Parameter	Value
Length:	136.138	Course:	N 56° 54' 02.7396" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	122+02.954	17215.742	740073.654
SPI:		17223.026	740062.481
SC:	122+22.954	17227.121	740057.215

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.338
Radius:		120 S Tan:	6.671
Theta:	04° 46' 28.7339"	P:	0.139
X:		19.986 K:	9.998
Y:		0.555 A:	48.99
Chord:		19.994 Course:	N 55° 18' 33.4986" W

Curve Point Data

Description	Station	Northing	Easting
SC:	122+22.954	17227.121	740057.215
RP:		17321.845	740130.886
CS:	122+26.922	17229.609	740054.123

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	01° 53' 40.7383"	Type:	RIGHT
Radius:		120	
Length:		3.968 Tangent:	1.984
Mid-Ord:		0.016 External:	0.016
Chord:		3.968 Course:	N 51° 10' 43.6366" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	122+26.922	17229.609	740054.123
SPI:		17233.876	740048.996
ST:	122+46.922	17243.232	740039.489

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.338
Radius:		120 S Tan:	6.671
Theta:	04° 46' 28.7339"	P:	0.139
X:		19.986 K:	9.998
Y:		0.555 A:	48.99
Chord:		19.994 Course:	N 47° 02' 53.7747" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	122+46.922	17243.232	740039.489
End:	122+86.687	17271.126	740011.148

Tangent Data

Parameter	Value	Parameter	Value
Length:	39.765	Course:	N 45° 27' 24.5336" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	122+86.687	17271.126	740011.148
SPI:		17280.478	740001.644
SC:	123+06.687	17285.095	739996.835

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.333
Radius:		800 S Tan:	6.667
Theta:	00° 42' 58.3101"	P:	0.021
X:		20 K:	10
Y:		0.083 A:	126.491
Chord:		20 Course:	N 45° 41' 43.9692" W

Curve Point Data

Description	Station	Northing	Easting
SC:	123+06.687	17285.095	739996.835
RP:		16707.948	739442.848
CS:	123+14.788	17290.675	739990.962

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	00° 34' 48.6871"	Type:	LEFT
Radius:		800	
Length:		8.101 Tangent:	4.051
Mid-Ord:		0.01 External:	0.01
Chord:		8.101 Course:	N 46° 27' 47.1872" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	123+14.788	17290.675	739990.962

SPI:		17295.243	739986.106
ST:	123+34.788	17304.256	739976.28

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.333
Radius:		800 S Tan:	6.667
Theta:	00° 42' 58.3101"	P:	0.021
X:		20 K:	10
Y:		0.083 A:	126.491
Chord:		20 Course:	N 47° 13' 50.4053" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	123+34.788	17304.256	739976.28
End:	124+88.266	17408.005	739863.18

Tangent Data

Parameter	Value	Parameter	Value
Length:	153.478	Course:	N 47° 28' 09.8409" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	124+88.266	17408.005	739863.18
SPI:		17417.048	739853.322
SC:	125+08.266	17422.663	739849.655

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	N 42° 41' 50.2154" W

Curve Point Data

Description	Station	Northing	Easting
SC:	125+08.266	17422.663	739849.655
RP:		17444.534	739883.146
CS:	125+52.470	17464.638	739848.566

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	63° 19' 03.7132"	Type:	RIGHT
Radius:		40	
Length:		44.204 Tangent:	24.665
Mid-Ord:		5.952 External:	6.993
Chord:		41.989 Course:	N 01° 29' 11.7827" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	125+52.470	17464.638	739848.566
SPI:		17470.436	739851.936
ST:	125+72.470	17479.978	739861.312

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	N 39° 43' 26.6500" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	125+72.470	17479.978	739861.312
End:	126+42.186	17529.706	739910.173

Tangent Data

Parameter	Value	Parameter	Value
Length:	69.716	Course:	N 44° 29' 46.2755" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	126+42.186	17529.706	739910.173
SPI:		17539.272	739919.573
SC:	126+62.186	17545.359	739922.463

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.412
Radius:		30 S Tan:	6.738
Theta:	19° 05' 54.9354"	P:	0.553
X:		19.779 K:	9.963
Y:		2.205 A:	24.495
Chord:		19.901 Course:	N 38° 08' 09.5794" E

Curve Point Data

Description	Station	Northing	Easting
SC:	126+62.186	17545.359	739922.463
RP:		17558.226	739895.362
CS:	126+74.933	17557.675	739925.357

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	24° 20' 39.8941"	Type:	LEFT
Radius:		30	
Length:		12.747 Tangent:	6.471
Mid-Ord:		0.674 External:	0.69
Chord:		12.651 Course:	N 13° 13' 31.3930" E

Spiral Point Data

Description	Station	Northing	Easting
CS:	126+74.933	17557.675	739925.357
SPI:		17564.412	739925.481
ST:	126+94.933	17577.164	739921.327

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
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Length: 20 L Tan: 13.412  
 Radius: 30 S Tan: 6.738  
 Theta: 19° 05' 54.9354" P: 0.553  
 X: 19.779 K: 9.963  
 Y: 2.205 A: 24.495  
 Chord: 19.901 Course: N 11° 41' 06.7934" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	126+94.933	17577.164	739921.327
End:	127+06.167	17587.845	739917.847

Tangent Data

Parameter	Value	Parameter	Value
Length:	11.234	Course:	N 18° 02' 43.4895" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	127+06.167	17587.845	739917.847
SPI:		17603.749	739912.665
SS:	127+31.167	17612.124	739912.214

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:	25	L Tan:	16.727
Radius:	47.876	S Tan:	8.388
Theta:	14° 57' 33.7095"	P:	0.543
X:	24.83	K:	12.472
Y:	2.165	A:	34.596
Chord:	24.924	Course:	N 13° 03' 42.6295" W

Spiral Point Data

Description	Station	Northing	Easting
SS:	127+31.167	17612.124	739912.214
SPI:		17620.5	739911.762
ST:	127+56.167	17636.869	739915.204

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:	25	L Tan:	16.727
Radius:	47.876	S Tan:	8.388
Theta:	14° 57' 33.7095"	P:	0.543
X:	24.83	K:	12.472
Y:	2.165	A:	34.596
Chord:	24.924	Course:	N 06° 53' 23.0696" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	127+56.167	17636.869	739915.204
End:	127+71.031	17651.415	739918.262

Tangent Data

Parameter	Value	Parameter	Value
Length:	14.864	Course:	N 11° 52' 23.9295" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	127+71.031	17651.415	739918.262
SPI:		17664.506	739921.014
SC:	127+91.031	17671.206	739920.727

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	N 07° 06' 04.3041" E

Curve Point Data

Description	Station	Northing	Easting
SC:	127+91.031	17671.206	739920.727
RP:		17669.496	739880.764
CS:	127+96.127	17676.27	739920.186

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	07° 17' 59.4066"	Type:	LEFT
Radius:		40	
Length:		5.096 Tangent:	2.552
Mid-Ord:		0.081 External:	0.081
Chord:		5.093 Course:	N 06° 06' 01.9753" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	127+96.127	17676.27	739920.186
SPI:		17682.88	739919.05
ST:	128+16.127	17695.093	739913.593

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	N 19° 18' 08.2547" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	128+16.127	17695.093	739913.593
End:	128+49.244	17725.33	739900.084

Tangent Data

Parameter	Value	Parameter	Value
Length:		33.117 Course:	N 24° 04' 27.8802" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	128+49.244	17725.33	739900.084
SPI:		17737.51	739894.642
SC:	128+69.244	17743.844	739892.542

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.34
Radius:		100 S Tan:	6.673
Theta:	05° 43' 46.4806"	P:	0.167
X:		19.98 K:	9.997
Y:		0.666 A:	44.721
Chord:		19.991 Course:	N 22° 09' 52.9688" W

Curve Point Data

Description	Station	Northing	Easting
SC:	128+69.244	17743.844	739892.542
RP:		17775.317	739987.46
CS:	129+19.523	17793.477	739889.123

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	28° 48' 28.2976"	Type:	RIGHT
Radius:		100	
Length:		50.279 Tangent:	25.683
Mid-Ord:		3.143 External:	3.245
Chord:		49.751 Course:	N 03° 56' 27.2507" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	129+19.523	17793.477	739889.123
SPI:		17800.039	739890.335
ST:	129+39.523	17812.851	739894.055

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.34
Radius:		100 S Tan:	6.673
Theta:	05° 43' 46.4806"	P:	0.167
X:		19.98 K:	9.997
Y:		0.666 A:	44.721
Chord:		19.991 Course:	N 14° 16' 58.4673" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	129+39.523	17812.851	739894.055
End:	129+51.328	17824.187	739897.347

Tangent Data

Parameter	Value	Parameter	Value
Length:		11.804 Course:	N 16° 11' 33.3787" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	129+51.328	17824.187	739897.347

SPI:		17833.862	739900.156
SC:	129+66.328	17838.908	739899.689

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		15 L Tan:	10.075
Radius:		20 S Tan:	5.068
Theta:	21° 29' 09.3023"	P:	0.466
X:		14.79 K:	7.465
Y:		1.856 A:	17.321
Chord:		14.906 Course:	N 09° 02' 21.0770" E

Curve Point Data

Description	Station	Northing	Easting
SC:	129+66.328	17838.908	739899.689
RP:		17837.063	739879.774
CS:	129+85.547	17854.445	739889.667

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	55° 03' 35.0267"	Type:	LEFT
Radius:		20	
Length:		19.219 Tangent:	10.425
Mid-Ord:		2.265 External:	2.554
Chord:		18.488 Course:	N 32° 49' 23.4370" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	129+85.547	17854.445	739889.667
SPI:		17856.951	739885.262
ST:	130+00.547	17858.382	739875.29

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		15 L Tan:	10.075
Radius:		20 S Tan:	5.068
Theta:	21° 29' 09.3023"	P:	0.466
X:		14.79 K:	7.465
Y:		1.856 A:	17.321
Chord:		14.906 Course:	N 74° 41' 07.9510" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	130+00.547	17858.382	739875.29
End:	130+02.577	17858.67	739873.281

Tangent Data

Parameter	Value	Parameter	Value
Length:		2.03 Course:	N 81° 50' 20.2527" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	130+02.577	17858.67	739873.281
SPI:		17860.565	739860.068
SC:	130+22.577	17860.562	739853.388

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.348
Radius:		70 S Tan:	6.68
Theta:	08° 11' 06.4009"	P:	0.238
X:		19.959 K:	9.993
Y:		0.951 A:	37.417
Chord:		19.982 Course:	N 84° 34' 00.6885" W

Curve Point Data

Description	Station	Northing	Easting
SC:	130+22.577	17860.562	739853.388
RP:		17790.562	739853.418
CS:	130+42.478	17857.744	739833.756

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	16° 17' 20.7411"	Type:	LEFT
Radius:		70	
Length:		19.901 Tangent:	10.018
Mid-Ord:		0.706 External:	0.713
Chord:		19.834 Course:	S 81° 49' 52.9759" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	130+42.478	17857.744	739833.756
SPI:		17855.867	739827.345
ST:	130+62.478	17850.333	739815.199

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.348
Radius:		70 S Tan:	6.68
Theta:	08° 11' 06.4009"	P:	0.238
X:		19.959 K:	9.993
Y:		0.951 A:	37.417
Chord:		19.982 Course:	S 68° 13' 46.6402" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	130+62.478	17850.333	739815.199
End:	130+89.011	17839.33	739791.055

Tangent Data

Parameter	Value	Parameter	Value
Length:		26.533 Course:	S 65° 30' 06.2044" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	130+89.011	17839.33	739791.055
SPI:		17833.801	739778.92
SC:	131+09.011	17831.342	739772.722

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
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Length:		20 L Tan:	13.335
Radius:		200 S Tan:	6.668
Theta:	02° 51' 53.2403"	P:	0.083
X:		19.995 K:	9.999
Y:		0.333 A:	63.246
Chord:		19.998 Course:	S 66° 27' 23.8784" W

Curve Point Data

Description	Station	Northing	Easting
SC:	131+09.011	17831.342	739772.722
RP:		18017.255	739698.988
CS:	131+22.108	17826.916	739760.398

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	03° 45' 07.0796"	Type:	RIGHT
Radius:			200
Length:		13.097 Tangent:	6.551
Mid-Ord:		0.107 External:	0.107
Chord:		13.094 Course:	S 70° 14' 32.9845" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	131+22.108	17826.916	739760.398
SPI:		17824.868	739754.052
ST:	131+42.108	17821.413	739741.172

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.335
Radius:		200 S Tan:	6.668
Theta:	02° 51' 53.2403"	P:	0.083
X:		19.995 K:	9.999
Y:		0.333 A:	63.246
Chord:		19.998 Course:	S 74° 01' 42.0906" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	131+42.108	17821.413	739741.172
End:	131+80.582	17811.445	739704.012

Tangent Data

Parameter	Value	Parameter	Value
Length:		38.474 Course:	S 74° 58' 59.7646" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	131+80.582	17811.445	739704.012
SPI:		17807.987	739691.124
SC:	132+00.582	17807.075	739684.51

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.344
Radius:		80 S Tan:	6.677

Theta: 07° 09' 43.1008" P: 0.208  
 X: 19.969 K: 9.995  
 Y: 0.832 A: 40  
 Chord: 19.986 Course: S 77° 22' 12.9943" W

Curve Point Data

Description	Station	Northing	Easting
SC:	132+00.582	17807.075	739684.51
RP:		17886.324	739673.577
CS:	132+09.891	17806.341	739675.234

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	06° 40' 03.0332"	Type:	RIGHT
Radius:			80
Length:		9.31 Tangent:	4.66
Mid-Ord:		0.135 External:	0.136
Chord:		9.304 Course:	S 85° 28' 44.3820" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	132+09.891	17806.341	739675.234
SPI:		17806.203	739668.559
ST:	132+29.891	17807.592	739655.287

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.344
Radius:		80 S Tan:	6.677
Theta:	07° 09' 43.1008"	P:	0.208
X:		19.969 K:	9.995
Y:		0.832 A:	40
Chord:		19.986 Course:	N 86° 24' 44.2303" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	132+29.891	17807.592	739655.287
End:	132+39.202	17808.561	739646.027

Tangent Data

Parameter	Value	Parameter	Value
Length:		9.31 Course:	N 84° 01' 31.0006" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	132+39.202	17808.561	739646.027
SPI:		17809.957	739632.689
SC:	132+59.202	17812.813	739626.585

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.412
Radius:		30 S Tan:	6.738
Theta:	19° 05' 54.9354"	P:	0.553
X:		19.779 K:	9.963

Y: 2.205 A: 24.495  
 Chord: 19.901 Course: N 77° 39' 54.3045" W

Curve Point Data

Description	Station	Northing	Easting
SC:	132+59.202	17812.813	739626.585
RP:		17839.985	739639.299
CS:	132+99.060	17845.811	739609.87

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	76° 07' 25.7584"	Type:	RIGHT
Radius:			30
Length:		39.858 Tangent:	23.491
Mid-Ord:		6.38 External:	8.103
Chord:		36.991 Course:	N 26° 51' 53.1860" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	132+99.060	17845.811	739609.87
SPI:		17852.421	739611.178
ST:	133+19.060	17864.001	739617.944

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.412
Radius:		30 S Tan:	6.738
Theta:	19° 05' 54.9354"	P:	0.553
X:		19.779 K:	9.963
Y:		2.205 A:	24.495
Chord:		19.901 Course:	N 23° 56' 07.9325" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	133+19.060	17864.001	739617.944
End:	133+46.253	17887.48	739631.662

Tangent Data

Parameter	Value	Parameter	Value
Length:		27.193 Course:	N 30° 17' 44.6286" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	133+46.253	17887.48	739631.662
SPI:		17898.997	739638.391
SC:	133+66.253	17905.017	739641.265

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.338
Radius:		120 S Tan:	6.671
Theta:	04° 46' 28.7339"	P:	0.139
X:		19.986 K:	9.998
Y:		0.555 A:	48.99
Chord:		19.994 Course:	N 28° 42' 15.3875" E

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Curve Point Data

Description	Station	Northing	Easting
SC:	133+66.253	17905.017	739641.265
RP:		17956.718	739532.973
CS:	133+85.092	17922.584	739648.016

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	08° 59' 42.1516"	Type:	LEFT
Radius:			120
Length:		18.839 Tangent:	9.439
Mid-Ord:		0.37 External:	0.371
Chord:		18.82 Course:	N 21° 01' 24.8190" E

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Spiral Point Data

Description	Station	Northing	Easting
CS:	133+85.092	17922.584	739648.016
SPI:		17928.98	739649.914
ST:	134+05.092	17942.038	739652.63

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.338
Radius:		120 S Tan:	6.671
Theta:	04° 46' 28.7339"	P:	0.139
X:		19.986 K:	9.998
Y:		0.555 A:	48.99
Chord:		19.994 Course:	N 13° 20' 34.2504" E

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Tangent Data

Description	PT Station	Northing	Easting
Start:	134+05.092	17942.038	739652.63
End:	134+91.895	18027.022	739670.309

Tangent Data

Parameter	Value	Parameter	Value
Length:		86.803 Course:	N 11° 45' 05.0093" E

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Spiral Point Data

Description	Station	Northing	Easting
TS:	134+91.895	18027.022	739670.309
SPI:		18040.087	739673.027
SC:	135+11.895	18046.403	739675.191

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.344
Radius:		80 S Tan:	6.677
Theta:	07° 09' 43.1008"	P:	0.208
X:		19.969 K:	9.995
Y:		0.832 A:	40
Chord:		19.986 Course:	N 14° 08' 18.2390" E

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Curve Point Data

Description	Station	Northing	Easting
SC:	135+11.895	18046.403	739675.191
RP:		18020.472	739750.872
CS:	135+45.273	18074.846	739692.191

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	23° 54' 17.6848"	Type:	RIGHT
Radius:			80
Length:		33.378 Tangent:	16.935
Mid-Ord:		1.734 External:	1.773
Chord:		33.136 Course:	N 30° 51' 56.9525" E

Spiral Point Data

Description	Station	Northing	Easting
CS:	135+45.273	18074.846	739692.191
SPI:		18079.743	739696.729
ST:	135+65.273	18088.324	739706.948

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.344
Radius:		80 S Tan:	6.677
Theta:	07° 09' 43.1008"	P:	0.208
X:		19.969 K:	9.995
Y:		0.832 A:	40
Chord:		19.986 Course:	N 47° 35' 35.6660" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	135+65.273	18088.324	739706.948
End:	136+40.921	18136.97	739764.881

Tangent Data

Parameter	Value	Parameter	Value
Length:		75.648 Course:	N 49° 58' 48.8956" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	136+40.921	18136.97	739764.881
SPI:		18145.602	739775.161
SC:	136+60.921	18151.475	739778.486

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.424
Radius:		28 S Tan:	6.749
Theta:	20° 27' 46.0022"	P:	0.593
X:		19.746 K:	9.958
Y:		2.359 A:	23.664
Chord:		19.887 Course:	N 43° 10' 00.1586" E

Curve Point Data

Description	Station	Northing	Easting
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SC:	136+60.921	18151.475	739778.486
RP:		18165.27	739754.12
CS:	137+14.007	18192.766	739759.409

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	108° 37' 45.2266"	Type:	LEFT
Radius:			28
Length:		53.086 Tangent:	38.987
Mid-Ord:		11.667 External:	20
Chord:		45.485 Course:	N 24° 47' 49.7199" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	137+14.007	18192.766	739759.409
SPI:		18194.041	739752.782
ST:	137+34.007	18191.808	739739.546

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.424
Radius:		28 S Tan:	6.749
Theta:	20° 27' 46.0022"	P:	0.593
X:		19.746 K:	9.958
Y:		2.359 A:	23.664
Chord:		19.887 Course:	S 87° 14' 20.4017" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	137+34.007	18191.808	739739.546
End:	138+36.994	18174.678	739637.993

Tangent Data

Parameter	Value	Parameter	Value
Length:		102.987 Course:	S 80° 25' 31.6646" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	138+36.994	18174.678	739637.993
SPI:		18172.446	739624.763
SC:	138+56.994	18173.638	739618.126

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.417
Radius:		29 S Tan:	6.743
Theta:	19° 45' 25.7953"	P:	0.572
X:		19.763 K:	9.96
Y:		2.279 A:	24.083
Chord:		19.895 Course:	S 87° 00' 16.3287" W

Curve Point Data

Description	Station	Northing	Easting
SC:	138+56.994	18173.638	739618.126
RP:		18202.182	739623.252

CS: 139+18.366 18221.373 739601.511

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	121° 15' 11.5623"	Type:	RIGHT
Radius:			29
Length:		61.372 Tangent:	51.523
Mid-Ord:		14.776 External:	30.123
Chord:		50.544 Course:	N 19° 11' 26.7590" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	139+18.366	18221.373	739601.511
SPI:		18226.428	739605.974
ST:	139+38.366	18232.894	739617.731

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.417
Radius:		29 S Tan:	6.743
Theta:	19° 45' 25.7953"	P:	0.572
X:		19.763 K:	9.96
Y:		2.279 A:	24.083
Chord:		19.895 Course:	N 54° 36' 50.1533" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	139+38.366	18232.894	739617.731
End:	140+07.549	18266.23	739678.352

Tangent Data

Parameter	Value	Parameter	Value
Length:		69.183 Course:	N 61° 11' 34.8174" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	140+07.549	18266.23	739678.352
SPI:		18272.668	739690.06
SC:	140+27.549	18276.994	739695.166

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.361
Radius:		50 S Tan:	6.692
Theta:	11° 27' 32.9612"	P:	0.333
X:		19.92 K:	9.987
Y:		1.33 A:	31.623
Chord:		19.964 Course:	N 57° 22' 28.4912" E

Curve Point Data

Description	Station	Northing	Easting
SC:	140+27.549	18276.994	739695.166
RP:		18315.146	739662.849
CS:	140+81.148	18325.274	739711.813

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	61° 25' 13.8183"	Type:	LEFT
Radius:		50	
Length:		53.6 Tangent:	29.7
Mid-Ord:		7.012 External:	8.156
Chord:		51.07 Course:	N 19° 01' 24.9470" E

Spiral Point Data

Description	Station	Northing	Easting
CS:	140+81.148	18325.274	739711.813
SPI:		18331.828	739710.457
ST:	141+01.148	18344.114	739705.205

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.361
Radius:		50 S Tan:	6.692
Theta:	11° 27' 32.9612"	P:	0.333
X:		19.92 K:	9.987
Y:		1.33 A:	31.623
Chord:		19.964 Course:	N 19° 19' 38.5973" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	141+01.148	18344.114	739705.205
End:	141+12.455	18354.511	739700.76

Tangent Data

Parameter	Value	Parameter	Value
Length:		11.307 Course:	N 23° 08' 44.9234" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	141+12.455	18354.511	739700.76
SPI:		18363.719	739696.824
SC:	141+27.455	18368.592	739695.645

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		15 L Tan:	10.015
Radius:		45 S Tan:	5.013
Theta:	09° 32' 57.4677"	P:	0.208
X:		14.958 K:	7.493
Y:		0.832 A:	25.981
Chord:		14.981 Course:	N 19° 57' 48.4640" W

Curve Point Data

Description	Station	Northing	Easting
SC:	141+27.455	18368.592	739695.645
RP:		18379.171	739739.384
CS:	141+40.877	18381.912	739694.468

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	17° 05' 19.3870"	Type:	RIGHT

Radius: 45  
 Length: 13.421 Tangent: 6.761  
 Mid-Ord: 0.499 External: 0.505  
 Chord: 13.372 Course: N 05° 03' 07.7622" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	141+40.877	18381.912	739694.468
SPI:		18386.916	739694.773
ST:	141+55.877	18396.672	739697.033

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		15 L Tan:	10.015
Radius:		45 S Tan:	5.013
Theta:	09° 32' 57.4677"	P:	0.208
X:		14.958 K:	7.493
Y:		0.832 A:	25.981
Chord:		14.981 Course:	N 09° 51' 32.9396" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	141+55.877	18396.672	739697.033
End:	141+72.036	18412.415	739700.68

Tangent Data

Parameter	Value	Parameter	Value
Length:		16.16 Course:	N 13° 02' 29.3990" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	141+72.036	18412.415	739700.68
SPI:		18425.423	739703.693
SC:	141+92.036	18431.594	739706.261

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641
Chord:		19.975 Course:	N 16° 13' 25.8584" E

Curve Point Data

Description	Station	Northing	Easting
SC:	141+92.036	18431.594	739706.261
RP:		18408.546	739761.657
CS:	142+14.828	18450.492	739718.756

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	21° 45' 51.6300"	Type:	RIGHT
Radius:		60	
Length:		22.792 Tangent:	11.535

Mid-Ord: 1.079 External: 1.099  
 Chord: 22.655 Course: N 33° 28' 22.6817" E

Spiral Point Data

Description	Station	Northing	Easting
CS:	142+14.828	18450.492	739718.756
SPI:		18455.271	739723.429
ST:	142+34.828	18463.138	739734.218

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641
Chord:		19.975 Course:	N 50° 43' 19.5050" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	142+34.828	18463.138	739734.218
End:	142+72.286	18485.206	739764.485

Tangent Data

Parameter	Value	Parameter	Value
Length:		37.458 Course:	N 53° 54' 15.9644" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	142+72.286	18485.206	739764.485
SPI:		18491.105	739772.578
SC:	142+87.286	18494.69	739776.082

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		15 L Tan:	10.015
Radius:		45 S Tan:	5.013
Theta:	09° 32' 57.4677"	P:	0.208
X:		14.958 K:	7.493
Y:		0.832 A:	25.981
Chord:		14.981 Course:	N 50° 43' 19.5050" E

Curve Point Data

Description	Station	Northing	Easting
SC:	142+87.286	18494.69	739776.082
RP:		18526.15	739743.906
CS:	143+51.689	18553.635	739779.537

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	82° 00' 04.3998"	Type:	LEFT
Radius:		45	
Length:		64.404 Tangent:	39.119
Mid-Ord:		11.038 External:	14.626
Chord:		59.046 Course:	N 03° 21' 16.2968" E

Spiral Point Data

Description	Station	Northing	Easting
CS:	143+51.689	18553.635	739779.537
SPI:		18557.604	739776.475
ST:	143+66.689	18564.409	739769.128

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		15 L Tan:	10.015
Radius:		45 S Tan:	5.013
Theta:	09° 32' 57.4677"	P:	0.208
X:		14.958 K:	7.493
Y:		0.832 A:	25.981
Chord:		14.981 Course:	N 44° 00' 46.9114" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	143+66.689	18564.409	739769.128
End:	143+68.077	18565.352	739768.11

Tangent Data

Parameter	Value	Parameter	Value
Length:		1.388 Course:	N 47° 11' 43.3708" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	143+68.077	18565.352	739768.11
SPI:		18574.442	739758.295
SC:	143+88.077	18577.64	739752.4

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	N 51° 58' 02.9963" W

Curve Point Data

Description	Station	Northing	Easting
SC:	143+88.077	18577.64	739752.4
RP:		18542.481	739733.326
CS:	143+99.040	18581.491	739742.172

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	15° 42' 14.6693"	Type:	LEFT
Radius:		40	
Length:		10.964 Tangent:	5.516
Mid-Ord:		0.375 External:	0.379
Chord:		10.929 Course:	N 69° 22' 16.9070" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	143+99.040	18581.491	739742.172
SPI:		18582.974	739735.631
ST:	144+19.040	18582.613	739722.259

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	N 86° 46' 30.8177" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	144+19.040	18582.613	739722.259
End:	144+24.498	18582.465	739716.803

Tangent Data

Parameter	Value	Parameter	Value
Length:		5.458 Course:	S 88° 27' 09.5568" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	144+24.498	18582.465	739716.803
SPI:		18582.103	739703.396
SC:	144+44.498	18584.135	739696.972

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.412
Radius:		30 S Tan:	6.738
Theta:	19° 05' 54.9354"	P:	0.553
X:		19.779 K:	9.963
Y:		2.205 A:	24.495
Chord:		19.901 Course:	N 85° 11' 13.7471" W

Curve Point Data

Description	Station	Northing	Easting
SC:	144+44.498	18584.135	739696.972
RP:		18612.738	739706.019
CS:	144+66.652	18597.676	739680.074

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	42° 18' 38.5353"	Type:	RIGHT
Radius:		30	
Length:		22.154 Tangent:	11.609
Mid-Ord:		2.022 External:	2.168
Chord:		21.654 Course:	N 51° 17' 36.2402" W

Spiral Point Data

Description	Station	Northing	Easting
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CS:	144+66.652	18597.676	739680.074
SPI:		18603.503	739676.691
ST:	144+86.652	18616.667	739674.123

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.412
Radius:		30 S Tan:	6.738
Theta:	19° 05' 54.9354"	P:	0.553
X:		19.779 K:	9.963
Y:		2.205 A:	24.495
Chord:		19.901 Course:	N 17° 23' 58.7332" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	144+86.652	18616.667	739674.123
End:	144+92.375	18622.283	739673.027

Tangent Data

Parameter	Value	Parameter	Value
Length:		5.723 Course:	N 11° 02' 22.0371" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	144+92.375	18622.283	739673.027
SPI:		18632.101	739671.112
SC:	145+07.375	18636.926	739669.788

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		15 L Tan:	10.003
Radius:		100 S Tan:	5.003
Theta:	04° 17' 49.8605"	P:	0.094
X:		14.992 K:	7.499
Y:		0.375 A:	38.73
Chord:		14.996 Course:	N 12° 28' 18.4117" W

Curve Point Data

Description	Station	Northing	Easting
SC:	145+07.375	18636.926	739669.788
RP:		18610.477	739573.35
CS:	145+19.439	18648.34	739665.904

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	06° 54' 44.4412"	Type:	LEFT
Radius:		100	
Length:		12.064 Tangent:	6.039
Mid-Ord:		0.182 External:	0.182
Chord:		12.057 Course:	N 18° 47' 34.1182" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	145+19.439	18648.34	739665.904
SPI:		18652.97	739664.01

ST: 145+34.439 18661.919 739659.54

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		15 L Tan:	10.003
Radius:		100 S Tan:	5.003
Theta:	04° 17' 49.8605"	P:	0.094
X:		14.992 K:	7.499
Y:		0.375 A:	38.73
Chord:		14.996 Course:	N 25° 06' 49.8246" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	145+34.439	18661.919	739659.54
End:	145+36.905	18664.124	739658.438

Tangent Data

Parameter	Value	Parameter	Value
Length:		2.466 Course:	N 26° 32' 46.1992" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	145+36.905	18664.124	739658.438
SPI:		18676.091	739652.459
SC:	145+56.905	18682.646	739651.039

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	N 21° 46' 26.5737" W

Curve Point Data

Description	Station	Northing	Easting
SC:	145+56.905	18682.646	739651.039
RP:		18691.114	739690.133
CS:	145+80.560	18705.879	739652.957

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	33° 53' 03.1238"	Type:	RIGHT
Radius:		40	
Length:		23.656 Tangent:	12.185
Mid-Ord:		1.736 External:	1.815
Chord:		23.312 Course:	N 04° 43' 11.5643" E

Spiral Point Data

Description	Station	Northing	Easting
CS:	145+80.560	18705.879	739652.957
SPI:		18712.112	739655.433
ST:	146+00.560	18722.937	739663.293

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	N 31° 12' 49.7022" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	146+00.560	18722.937	739663.293
End:	146+16.932	18736.184	739672.913

Tangent Data

Parameter	Value	Parameter	Value
Length:	16.372	Course:	N 35° 59' 09.3277" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	146+16.932	18736.184	739672.913
SPI:		18747.019	739680.781
SC:	146+36.932	18753.348	739683.037

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.391
Radius:		35 S Tan:	6.719
Theta:	16° 22' 12.8018"	P:	0.475
X:		19.837 K:	9.973
Y:		1.894 A:	26.458
Chord:		19.928 Course:	N 30° 31' 58.6630" E

Curve Point Data

Description	Station	Northing	Easting
SC:	146+36.932	18753.348	739683.037
RP:		18765.098	739650.068
CS:	146+53.861	18770.029	739684.719

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	27° 42' 50.1733"	Type:	LEFT
Radius:		35	
Length:		16.929 Tangent:	8.634
Mid-Ord:		1.019 External:	1.049
Chord:		16.765 Course:	N 05° 45' 31.4393" E

Spiral Point Data

Description	Station	Northing	Easting
CS:	146+53.861	18770.029	739684.719
SPI:		18776.68	739683.773
ST:	146+73.861	18788.869	739678.226

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.391

Radius:		35 S Tan:	6.719
Theta:	16° 22' 12.8018"	P:	0.475
X:		19.837 K:	9.973
Y:		1.894 A:	26.458
Chord:		19.928 Course:	N 19° 00' 55.7844" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	146+73.861	18788.869	739678.226
End:	147+29.087	18839.134	739655.352

Tangent Data

Parameter	Value	Parameter	Value
Length:	55.225	Course:	N 24° 28' 06.4491" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	147+29.087	18839.134	739655.352
SPI:		18851.288	739649.822
SC:	147+49.087	18856.828	739646.082

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641
Chord:		19.975 Course:	N 27° 39' 02.9085" W

Curve Point Data

Description	Station	Northing	Easting
SC:	147+49.087	18856.828	739646.082
RP:		18823.261	739596.35
CS:	147+62.695	18867.152	739637.26

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	12° 59' 43.1713"	Type:	LEFT
Radius:		60	
Length:		13.609 Tangent:	6.834
Mid-Ord:		0.385 External:	0.388
Chord:		13.58 Course:	N 40° 30' 55.5025" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	147+62.695	18867.152	739637.26
SPI:		18871.709	739632.371
ST:	147+82.695	18879.067	739621.228

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278

X: 19.945 K: 9.991  
 Y: 1.109 A: 34.641  
 Chord: 19.975 Course: N 53° 22' 48.0964" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	147+82.695	18879.067	739621.228
End:	147+94.578	18885.615	739611.312

Tangent Data

Parameter	Value	Parameter	Value
Length:	11.883	Course:	N 56° 33' 44.5558" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	147+94.578	18885.615	739611.312
SPI:		18892.973	739600.169
SC:	148+14.578	18897.53	739595.279

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641
Chord:		19.975 Course:	N 53° 22' 48.0964" W

Curve Point Data

Description	Station	Northing	Easting
SC:	148+14.578	18897.53	739595.279
RP:		18941.421	739636.189
CS:	148+48.002	18925.794	739578.26

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	31° 55' 01.0069"	Type:	RIGHT
Radius:		60	
Length:		33.423 Tangent:	17.158
Mid-Ord:		2.312 External:	2.405
Chord:		32.993 Course:	N 31° 03' 16.5847" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	148+48.002	18925.794	739578.26
SPI:		18932.248	739576.519
ST:	148+68.002	18945.538	739575.228

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641

Chord:

19.975 Course: N 08° 43' 45.0729" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	148+68.002	18945.538	739575.228
End:	148+93.319	18970.737	739572.781

Tangent Data

Parameter	Value	Parameter	Value
Length:	25.317	Course:	N 05° 32' 48.6135" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	148+93.319	18970.737	739572.781
SPI:		18980.723	739571.811
SC:	149+08.319	18985.453	739570.102

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:	15	L Tan:	10.033
Radius:	30	S Tan:	5.03
Theta:	14° 19' 26.2016"	P:	0.312
X:	14.907	K:	7.484
Y:	1.244	A:	21.213
Chord:	14.958	Course:	N 10° 19' 08.2390" W

Curve Point Data

Description	Station	Northing	Easting
SC:	149+08.319	18985.453	739570.102
RP:		18975.256	739541.888
CS:	149+41.997	19005.102	739544.923

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	64° 19' 17.8279"	Type:	LEFT
Radius:	30		
Length:	33.679	Tangent:	18.863
Mid-Ord:	4.603	External:	5.438
Chord:	31.938	Course:	N 52° 01' 53.7290" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	149+41.997	19005.102	739544.923
SPI:		19005.611	739539.919
ST:	149+56.997	19004.125	739529.997

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:	15	L Tan:	10.033
Radius:	30	S Tan:	5.03
Theta:	14° 19' 26.2016"	P:	0.312
X:	14.907	K:	7.484
Y:	1.244	A:	21.213
Chord:	14.958	Course:	S 86° 15' 20.7809" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	149+56.997	19004.125	739529.997
End:	149+64.931	19002.951	739522.151

Tangent Data

Parameter	Value	Parameter	Value
Length:	7.933	Course:	S 81° 29' 01.1555" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	149+64.931	19002.951	739522.151
SPI:		19001.467	739512.243
SC:	149+79.931	19001.662	739507.23

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		15 L Tan:	10.018
Radius:		40 S Tan:	5.017
Theta:	10° 44' 34.6512"	P:	0.234
X:		14.947 K:	7.491
Y:		0.935 A:	24.495
Chord:		14.977 Course:	S 85° 03' 48.8658" W

Curve Point Data

Description	Station	Northing	Easting
SC:	149+79.931	19001.662	739507.23
RP:		19041.632	739508.784
CS:	149+89.864	19003.27	739497.454

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	14° 13' 42.6274"	Type:	RIGHT
Radius:		40	
Length:		9.933 Tangent:	4.992
Mid-Ord:		0.308 External:	0.31
Chord:		9.908 Course:	N 80° 39' 32.8797" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	149+89.864	19003.27	739497.454
SPI:		19004.691	739492.642
ST:	150+04.864	19009.27	739483.732

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		15 L Tan:	10.018
Radius:		40 S Tan:	5.017
Theta:	10° 44' 34.6512"	P:	0.234
X:		14.947 K:	7.491
Y:		0.935 A:	24.495
Chord:		14.977 Course:	N 66° 22' 54.6252" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	150+04.864	19009.27	739483.732
End:	150+07.242	19010.357	739481.617

Tangent Data

Parameter	Value	Parameter	Value
Length:	2.378	Course:	N 62° 48' 06.9148" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	150+07.242	19010.357	739481.617
SPI:		19016.456	739469.748
SC:	150+27.242	19018.744	739463.475

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.344
Radius:		80 S Tan:	6.677
Theta:	07° 09' 43.1008"	P:	0.208
X:		19.969 K:	9.995
Y:		0.832 A:	40
Chord:		19.986 Course:	N 65° 11' 20.1445" W

Curve Point Data

Description	Station	Northing	Easting
SC:	150+27.242	19018.744	739463.475
RP:		18943.586	739436.066
CS:	150+37.768	19021.69	739453.378

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	07° 32' 19.9118"	Type:	LEFT
Radius:		80	
Length:		10.526 Tangent:	5.271
Mid-Ord:		0.173 External:	0.173
Chord:		10.519 Course:	N 73° 43' 59.9715" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	150+37.768	19021.69	739453.378
SPI:		19023.135	739446.859
ST:	150+57.768	19024.376	739433.573

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.344
Radius:		80 S Tan:	6.677
Theta:	07° 09' 43.1008"	P:	0.208
X:		19.969 K:	9.995
Y:		0.832 A:	40
Chord:		19.986 Course:	N 82° 16' 39.7985" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	150+57.768	19024.376	739433.573

End: 150+59.388 19024.526 739431.96

Tangent Data

Parameter	Value	Parameter	Value
Length:		1.62 Course:	N 84° 39' 53.0282" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	150+59.388	19024.526	739431.96
SPI:		19025.459	739421.971
SC:	150+74.388	19027.151	739417.234

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		15 L Tan:	10.033
Radius:		30 S Tan:	5.03
Theta:	14° 19' 26.2016"	P:	0.312
X:		14.907 K:	7.484
Y:		1.244 A:	21.213
Chord:		14.958 Course:	N 79° 53' 33.4027" W

Curve Point Data

Description	Station	Northing	Easting
SC:	150+74.388	19027.151	739417.234
RP:		19055.403	739427.327
CS:	150+92.665	19038.01	739402.883

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	34° 54' 22.8611"	Type:	RIGHT
Radius:		30	
Length:		18.277 Tangent:	9.432
Mid-Ord:		1.381 External:	1.448
Chord:		17.996 Course:	N 52° 53' 15.3961" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	150+92.665	19038.01	739402.883
SPI:		19042.108	739399.967
ST:	151+07.665	19051.468	739396.354

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		15 L Tan:	10.033
Radius:		30 S Tan:	5.03
Theta:	14° 19' 26.2016"	P:	0.312
X:		14.907 K:	7.484
Y:		1.244 A:	21.213
Chord:		14.958 Course:	N 25° 52' 57.3894" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	151+07.665	19051.468	739396.354
End:	151+41.401	19082.94	739384.203

Tangent Data

Parameter	Value	Parameter	Value
Length:	33.736	Course:	N 21° 06' 37.7640" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	151+41.401	19082.94	739384.203
SPI:		19095.38	739379.4
SC:	151+61.401	19101.713	739377.312

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.335
Radius:		200 S Tan:	6.668
Theta:	02° 51' 53.2403"	P:	0.083
X:		19.995 K:	9.999
Y:		0.333 A:	63.246
Chord:		19.998 Course:	N 20° 09' 20.0899" W

Curve Point Data

Description	Station	Northing	Easting
SC:	151+61.401	19101.713	739377.312
RP:		19164.331	739567.257
CS:	151+83.572	19123.111	739371.551

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	06° 21' 05.9213"	Type:	RIGHT
Radius:		200	
Length:		22.171 Tangent:	11.097
Mid-Ord:		0.307 External:	0.308
Chord:		22.16 Course:	N 15° 04' 11.5630" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	151+83.572	19123.111	739371.551
SPI:		19129.636	739370.176
ST:	152+03.572	19142.806	739368.084

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.335
Radius:		200 S Tan:	6.668
Theta:	02° 51' 53.2403"	P:	0.083
X:		19.995 K:	9.999
Y:		0.333 A:	63.246
Chord:		19.998 Course:	N 09° 59' 03.0361" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	152+03.572	19142.806	739368.084
End:	152+07.053	19146.243	739367.537

Tangent Data

Parameter	Value	Parameter	Value
Length:	3.48	Course:	N 09° 01' 45.3621" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	152+07.053	19146.243	739367.537
SPI:		19159.43	739365.442
SC:	152+27.053	19165.766	739363.312

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641
Chord:		19.975 Course:	N 12° 12' 41.8214" W

Curve Point Data

Description	Station	Northing	Easting
SC:	152+27.053	19165.766	739363.312
RP:		19146.65	739306.439
CS:	152+43.856	19180.742	739355.812

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	16° 02' 45.8784"	Type:	LEFT
Radius:		60	
Length:		16.803 Tangent:	8.457
Mid-Ord:		0.587 External:	0.593
Chord:		16.749 Course:	N 26° 36' 05.7689" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	152+43.856	19180.742	739355.812
SPI:		19186.242	739352.014
ST:	152+63.856	19195.819	739342.71

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641
Chord:		19.975 Course:	N 40° 59' 29.7164" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	152+63.856	19195.819	739342.71
End:	153+05.972	19226.026	739313.362

Tangent Data

Parameter	Value	Parameter	Value
Length:	42.116	Course:	N 44° 10' 26.1758" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	153+05.972	19226.026	739313.362
SPI:		19230.812	739308.712
SC:	153+15.972	19232.897	739306.106

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		10 L Tan:	6.672
Radius:		40 S Tan:	3.338
Theta:	07° 09' 43.1008"	P:	0.104
X:		9.984 K:	4.997
Y:		0.416 A:	20
Chord:		9.993 Course:	N 46° 33' 39.4055" W

Curve Point Data

Description	Station	Northing	Easting
SC:	153+15.972	19232.897	739306.106
RP:		19201.664	739281.115
CS:	153+49.407	19241.147	739274.701

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	47° 53' 32.5928"	Type:	LEFT
Radius:		40	
Length:		33.435 Tangent:	17.764
Mid-Ord:		3.443 External:	3.767
Chord:		32.47 Course:	N 75° 16' 55.5730" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	153+49.407	19241.147	739274.701
SPI:		19240.611	739271.406
ST:	153+59.407	19238.728	739265.005

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		10 L Tan:	6.672
Radius:		40 S Tan:	3.338
Theta:	07° 09' 43.1008"	P:	0.104
X:		9.984 K:	4.997
Y:		0.416 A:	20
Chord:		9.993 Course:	S 75° 59' 48.2595" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	153+59.407	19238.728	739265.005
End:	153+61.289	19238.197	739263.199

Tangent Data

Parameter	Value	Parameter	Value
Length:		1.882 Course:	S 73° 36' 35.0298" W

Spiral Point Data

Description	Station	Northing	Easting
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TS:	153+61.289	19238.197	739263.199
SPI:		19236.315	739256.798
SC:	153+71.289	19234.981	739253.738

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		10 L Tan:	6.672
Radius:		40 S Tan:	3.338
Theta:	07° 09' 43.1008"	P:	0.104
X:		9.984 K:	4.997
Y:		0.416 A:	20
Chord:		9.993 Course:	S 71° 13' 21.8001" W

Curve Point Data

Description	Station	Northing	Easting
SC:	153+71.289	19234.981	739253.738
RP:		19198.313	739269.721
CS:	154+11.250	19204.714	739230.237

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	57° 14' 20.3333"	Type:	LEFT
Radius:		40	
Length:		39.96 Tangent:	21.826
Mid-Ord:		4.887 External:	5.567
Chord:		38.319 Course:	S 37° 49' 41.7624" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	154+11.250	19204.714	739230.237
SPI:		19201.419	739229.703
ST:	154+21.250	19194.751	739229.464

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		10 L Tan:	6.672
Radius:		40 S Tan:	3.338
Theta:	07° 09' 43.1008"	P:	0.104
X:		9.984 K:	4.997
Y:		0.416 A:	20
Chord:		9.993 Course:	S 04° 26' 01.7246" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	154+21.250	19194.751	739229.464
End:	154+40.905	19175.108	739228.762

Tangent Data

Parameter	Value	Parameter	Value
Length:		19.656 Course:	S 02° 02' 48.4949" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	154+40.905	19175.108	739228.762
SPI:		19161.67	739228.282

SC: 154+60.905 19155.532 739225.425

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.447
Radius:		25 S Tan:	6.77
Theta:	22° 55' 05.9225"	P:	0.663
X:		19.682 K:	9.947
Y:		2.636 A:	22.361
Chord:		19.858 Course:	S 09° 40' 33.0727" W

Curve Point Data

Description	Station	Northing	Easting
SC:	154+60.905	19155.532	739225.425
RP:		19166.084	739202.761
CS:	155+01.165	19143.855	739191.32

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	92° 16' 08.1945"	Type:	RIGHT
Radius:		25	
Length:		40.26 Tangent:	26.01
Mid-Ord:		7.676 External:	11.077
Chord:		36.048 Course:	S 71° 05' 58.5146" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	155+01.165	19143.855	739191.32
SPI:		19146.953	739185.3
ST:	155+21.165	19157.277	739176.684

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.447
Radius:		25 S Tan:	6.77
Theta:	22° 55' 05.9225"	P:	0.663
X:		19.682 K:	9.947
Y:		2.636 A:	22.361
Chord:		19.858 Course:	N 47° 28' 36.0434" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	155+21.165	19157.277	739176.684
End:	155+75.488	19198.983	739141.878

Tangent Data

Parameter	Value	Parameter	Value
Length:		54.322 Course:	N 39° 50' 51.4656" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	155+75.488	19198.983	739141.878
SPI:		19209.221	739133.333
SC:	155+95.488	19214.121	739128.81

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.335
Radius:		200 S Tan:	6.668
Theta:	02° 51' 53.2403"	P:	0.083
X:		19.995 K:	9.999
Y:		0.333 A:	63.246
Chord:		19.998 Course:	N 40° 48' 09.1397" W

Curve Point Data

Description	Station	Northing	Easting
SC:	155+95.488	19214.121	739128.81
RP:		19078.457	738981.856
CS:	156+12.756	19226.288	739116.563

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	04° 56' 49.4643"	Type:	LEFT
Radius:		200	
Length:		17.269 Tangent:	8.64
Mid-Ord:		0.186 External:	0.187
Chord:		17.263 Course:	N 45° 11' 09.4381" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	156+12.756	19226.288	739116.563
SPI:		19230.779	739111.635
ST:	156+32.756	19239.257	739101.341

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.335
Radius:		200 S Tan:	6.668
Theta:	02° 51' 53.2403"	P:	0.083
X:		19.995 K:	9.999
Y:		0.333 A:	63.246
Chord:		19.998 Course:	N 49° 34' 09.7365" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	156+32.756	19239.257	739101.341
End:	156+49.437	19249.862	739088.465

Tangent Data

Parameter	Value	Parameter	Value
Length:		16.681 Course:	N 50° 31' 27.4105" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	156+49.437	19249.862	739088.465
SPI:		19258.343	739078.168
SC:	156+69.437	19262.05	739072.619

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.34

Radius:		100 S Tan:	6.673
Theta:	05° 43' 46.4806"	P:	0.167
X:		19.98 K:	9.997
Y:		0.666 A:	44.721
Chord:		19.991 Course:	N 52° 26' 02.3219" W

Curve Point Data

Description	Station	Northing	Easting
SC:	156+69.437	19262.05	739072.619
RP:		19178.9	739017.068
CS:	156+92.100	19272.406	739052.516

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	12° 59' 04.0047"	Type:	LEFT
Radius:			100
Length:		22.662 Tangent:	11.38
Mid-Ord:		0.641 External:	0.645
Chord:		22.614 Course:	N 62° 44' 45.8935" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	156+92.100	19272.406	739052.516
SPI:		19274.771	739046.276
ST:	157+12.100	19278.231	739033.392

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.34
Radius:		100 S Tan:	6.673
Theta:	05° 43' 46.4806"	P:	0.167
X:		19.98 K:	9.997
Y:		0.666 A:	44.721
Chord:		19.991 Course:	N 73° 03' 29.4652" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	157+12.100	19278.231	739033.392
End:	157+23.507	19281.19	739022.375

Tangent Data

Parameter	Value	Parameter	Value
Length:		11.408 Course:	N 74° 58' 04.3765" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	157+23.507	19281.19	739022.375
SPI:		19284.65	739009.491
SC:	157+43.507	19285.729	739002.906

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.34
Radius:		100 S Tan:	6.673
Theta:	05° 43' 46.4806"	P:	0.167

X: 19.98 K: 9.997  
 Y: 0.666 A: 44.721  
 Chord: 19.991 Course: N 76° 52' 39.2879" W

Curve Point Data

Description	Station	Northing	Easting
SC:	157+43.507	19285.729	739002.906
RP:		19187.044	738986.741
CS:	157+55.753	19286.964	738990.731

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	07° 00' 57.6695"	Type:	LEFT
Radius:			100
Length:		12.245 Tangent:	6.13
Mid-Ord:		0.187 External:	0.188
Chord:		12.238 Course:	N 84° 12' 19.6919" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	157+55.753	19286.964	738990.731
SPI:		19287.23	738984.063
ST:	157+75.753	19286.429	738970.747

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.34
Radius:		100 S Tan:	6.673
Theta:	05° 43' 46.4806"	P:	0.167
X:		19.98 K:	9.997
Y:		0.666 A:	44.721
Chord:		19.991 Course:	S 88° 27' 59.9040" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	157+75.753	19286.429	738970.747
End:	158+29.388	19283.208	738917.208

Tangent Data

Parameter	Value	Parameter	Value
Length:		53.636 Course:	S 86° 33' 24.9927" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	158+29.388	19283.208	738917.208
SPI:		19282.397	738903.72
SC:	158+49.388	19285.305	738897.541

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.512
Radius:		20 S Tan:	6.83
Theta:	28° 38' 52.4031"	P:	0.826
X:		19.506 K:	9.917
Y:		3.274 A:	20

Chord:

19.779 Course: N 83° 54' 50.7396" W

Curve Point Data

Description	Station	Northing	Easting
SC:	158+49.388	19285.305	738897.541
RP:		19303.401	738906.058
CS:	158+83.384	19314.175	738889.208

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	97° 23' 23.8391"	Type:	RIGHT
Radius:			20
Length:		33.996 Tangent:	22.761
Mid-Ord:		6.799 External:	10.3
Chord:		30.048 Course:	N 16° 06' 00.6846" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	158+83.384	19314.175	738889.208
SPI:		19319.929	738892.887
ST:	159+03.384	19326.429	738904.733

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.512
Radius:		20 S Tan:	6.83
Theta:	28° 38' 52.4031"	P:	0.826
X:		19.506 K:	9.917
Y:		3.274 A:	20
Chord:		19.779 Course:	N 51° 42' 49.3703" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	159+03.384	19326.429	738904.733
End:	159+55.960	19351.724	738950.825

Tangent Data

Parameter	Value	Parameter	Value
Length:		52.577 Course:	N 61° 14' 33.6381" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	159+55.960	19351.724	738950.825
SPI:		19358.16	738962.552
SC:	159+75.960	19362.741	738967.451

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	N 56° 28' 14.0126" E

Curve Point Data

Description	Station	Northing	Easting
SC:	159+75.960	19362.741	738967.451
RP:		19391.956	738940.129
CS:	160+07.373	19390.613	738980.107

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	44° 59' 42.2681"	Type:	LEFT
Radius:			40
Length:		31.412 Tangent:	16.567
Mid-Ord:		3.044 External:	3.295
Chord:		30.611 Course:	N 24° 25' 16.3024" E

Spiral Point Data

Description	Station	Northing	Easting
CS:	160+07.373	19390.613	738980.107
SPI:		19397.316	738980.332
ST:	160+27.373	19410.381	738977.459

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	N 07° 37' 41.4077" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	160+27.373	19410.381	738977.459
End:	161+29.856	19510.474	738955.452

Tangent Data

Parameter	Value	Parameter	Value
Length:		102.483 Course:	N 12° 24' 01.0332" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	161+29.856	19510.474	738955.452
SPI:		19523.607	738952.564
SC:	161+49.856	19530.263	738953.8

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.447
Radius:		25 S Tan:	6.77
Theta:	22° 55' 05.9225"	P:	0.663
X:		19.682 K:	9.947
Y:		2.636 A:	22.361
Chord:		19.858 Course:	N 04° 46' 16.4554" W

Curve Point Data

Description	Station	Northing	Easting
SC:	161+49.856	19530.263	738953.8
RP:		19525.7	738978.38
CS:	161+75.777	19549.181	738969.798

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	59° 24' 22.9849"	Type:	RIGHT
Radius:			25
Length:		25.921 Tangent:	14.262
Mid-Ord:		3.285 External:	3.782
Chord:		24.775 Course:	N 40° 13' 16.3818" E

Spiral Point Data

Description	Station	Northing	Easting
CS:	161+75.777	19549.181	738969.798
SPI:		19551.504	738976.157
ST:	161+95.777	19550.838	738989.587

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.447
Radius:		25 S Tan:	6.77
Theta:	22° 55' 05.9225"	P:	0.663
X:		19.682 K:	9.947
Y:		2.636 A:	22.361
Chord:		19.858 Course:	N 85° 12' 49.2189" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	161+95.777	19550.838	738989.587
End:	162+14.718	19549.898	739008.505

Tangent Data

Parameter	Value	Parameter	Value
Length:		18.941 Course:	S 87° 09' 26.2033" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	162+14.718	19549.898	739008.505
SPI:		19549.236	739021.841
SC:	162+34.718	19550.017	739028.48

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641
Chord:		19.975 Course:	N 89° 39' 37.3373" E

Curve Point Data

Description	Station	Northing	Easting
SC:	162+34.718	19550.017	739028.48

RP:		19609.606	739021.473
CS:	162+65.507	19561.132	739056.831

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	29° 24' 06.8303"	Type:	LEFT
Radius:			60
Length:		30.79 Tangent:	15.742
Mid-Ord:		1.964 External:	2.031
Chord:		30.453 Course:	N 68° 35' 32.9138" E

Spiral Point Data

Description	Station	Northing	Easting
CS:	162+65.507	19561.132	739056.831
SPI:		19565.071	739062.232
ST:	162+85.507	19574.621	739071.565

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641
Chord:		19.975 Course:	N 47° 31' 28.4904" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	162+85.507	19574.621	739071.565
End:	162+90.668	19578.312	739075.172

Tangent Data

Parameter	Value	Parameter	Value
Length:		5.161 Course:	N 44° 20' 32.0310" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	162+90.668	19578.312	739075.172
SPI:		19587.903	739084.546
SC:	163+10.668	19593.998	739087.419

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.412
Radius:		30 S Tan:	6.738
Theta:	19° 05' 54.9354"	P:	0.553
X:		19.779 K:	9.963
Y:		2.205 A:	24.495
Chord:		19.901 Course:	N 37° 58' 55.3349" E

Curve Point Data

Description	Station	Northing	Easting
SC:	163+10.668	19593.998	739087.419
RP:		19606.792	739060.284
CS:	163+51.851	19630.88	739078.167

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	78° 39' 15.3900"	Type:	LEFT
Radius:			30
Length:	41.183	Tangent:	24.578
Mid-Ord:	6.794	External:	8.783
Chord:	38.025	Course:	N 14° 05' 00.5994" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	163+51.851	19630.88	739078.167
SPI:		19634.896	739072.756
ST:	163+71.851	19638.927	739059.965

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.412
Radius:		30 S Tan:	6.738
Theta:	19° 05' 54.9354"	P:	0.553
X:		19.779 K:	9.963
Y:		2.205 A:	24.495
Chord:	19.901	Course:	N 66° 08' 56.5337" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	163+71.851	19638.927	739059.965
End:	163+79.368	19641.186	739052.796

Tangent Data

Parameter	Value	Parameter	Value
Length:	7.516	Course:	N 72° 30' 33.2298" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	163+79.368	19641.186	739052.796
SPI:		19645.194	739040.078
SC:	163+99.368	19647.409	739033.79

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.334
Radius:		300 S Tan:	6.667
Theta:	01° 54' 35.4935"	P:	0.056
X:		19.998 K:	10
Y:		0.222 A:	77.46
Chord:	19.999	Course:	N 71° 52' 21.4202" W

Curve Point Data

Description	Station	Northing	Easting
SC:	163+99.368	19647.409	739033.79
RP:		19930.374	739133.441
CS:	164+11.328	19651.605	739022.59

Circular Curve Data

Parameter	Value	Parameter	Value
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Delta: 02° 17' 03.5968" Type: RIGHT  
 Radius: 300  
 Length: 11.961 Tangent: 5.981  
 Mid-Ord: 0.06 External: 0.06  
 Chord: 11.96 Course: N 69° 27' 25.9379" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	164+11.328	19651.605	739022.59
SPI:		19654.069	739016.395
ST:	164+31.328	19659.406	739004.175

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.334
Radius:		300 S Tan:	6.667
Theta:	01° 54' 35.4935"	P:	0.056
X:		19.998 K:	10
Y:		0.222 A:	77.46
Chord:		19.999 Course:	N 67° 02' 30.4556" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	164+31.328	19659.406	739004.175
End:	164+74.708	19676.77	738964.422

Tangent Data

Parameter	Value	Parameter	Value
Length:		43.38 Course:	N 66° 24' 18.6459" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	164+74.708	19676.77	738964.422
SPI:		19682.108	738952.2
SC:	164+94.708	19685.207	738946.294

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.337
Radius:		140 S Tan:	6.67
Theta:	04° 05' 33.2004"	P:	0.119
X:		19.99 K:	9.998
Y:		0.476 A:	52.915
Chord:		19.995 Course:	N 65° 02' 27.7913" W

Curve Point Data

Description	Station	Northing	Easting
SC:	164+94.708	19685.207	738946.294
RP:		19809.177	739011.345
CS:	165+05.676	19690.678	738936.792

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	04° 29' 19.0564"	Type:	RIGHT
Radius:			140

Length: 10.968 Tangent: 5.487  
 Mid-Ord: 0.107 External: 0.107  
 Chord: 10.965 Course: N 60° 04' 05.9173" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	165+05.676	19690.678	738936.792
SPI:		19694.23	738931.146
ST:	165+25.676	19702.12	738920.393

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.337
Radius:		140 S Tan:	6.67
Theta:	04° 05' 33.2004"	P:	0.119
X:		19.99 K:	9.998
Y:		0.476 A:	52.915
Chord:		19.995 Course:	N 55° 05' 44.0433" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	165+25.676	19702.12	738920.393
End:	165+25.999	19702.311	738920.132

Tangent Data

Parameter	Value	Parameter	Value
Length:		0.323 Course:	N 53° 43' 53.1886" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	165+25.999	19702.311	738920.132
SPI:		19710.2	738909.381
SC:	165+45.999	19713.871	738903.814

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.335
Radius:		200 S Tan:	6.668
Theta:	02° 51' 53.2403"	P:	0.083
X:		19.995 K:	9.999
Y:		0.333 A:	63.246
Chord:		19.998 Course:	N 54° 41' 10.8626" W

Curve Point Data

Description	Station	Northing	Easting
SC:	165+45.999	19713.871	738903.814
RP:		19546.909	738793.707
CS:	165+63.350	19722.783	738888.934

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	04° 58' 13.8030"	Type:	LEFT
Radius:		200	
Length:		17.35 Tangent:	8.681
Mid-Ord:		0.188 External:	0.188

Chord:

17.345 Course: N 59° 04' 53.3304" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	165+63.350	19722.783	738888.934
SPI:		19725.958	738883.07
ST:	165+83.350	19731.713	738871.041

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.335
Radius:		200 S Tan:	6.668
Theta:	02° 51' 53.2403"	P:	0.083
X:		19.995 K:	9.999
Y:		0.333 A:	63.246
Chord:		19.998 Course:	N 63° 28' 35.7983" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	165+83.350	19731.713	738871.041
End:	165+89.211	19734.243	738865.754

Tangent Data

Parameter	Value	Parameter	Value
Length:		5.861 Course:	N 64° 25' 53.4723" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	165+89.211	19734.243	738865.754
SPI:		19740.012	738853.695
SC:	166+09.211	19744.164	738848.439

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.368
Radius:		45 S Tan:	6.698
Theta:	12° 43' 56.6236"	P:	0.37
X:		19.901 K:	9.984
Y:		1.476 A:	30
Chord:		19.956 Course:	N 60° 11' 20.9928" W

Curve Point Data

Description	Station	Northing	Easting
SC:	166+09.211	19744.164	738848.439
RP:		19779.478	738876.329
CS:	166+29.672	19760.001	738835.763

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	26° 03' 07.5497"	Type:	RIGHT
Radius:		45	
Length:		20.461 Tangent:	10.411
Mid-Ord:		1.158 External:	1.189
Chord:		20.285 Course:	N 38° 40' 23.0738" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	166+29.672	19760.001	738835.763
SPI:		19766.039	738832.864
ST:	166+49.672	19779.069	738829.876

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.368
Radius:		45 S Tan:	6.698
Theta:	12° 43' 56.6236"	P:	0.37
X:		19.901 K:	9.984
Y:		1.476 A:	30
Chord:		19.956 Course:	N 17° 09' 25.1548" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	166+49.672	19779.069	738829.876
End:	167+41.866	19868.932	738809.27

Tangent Data

Parameter	Value	Parameter	Value
Length:		92.195 Course:	N 12° 54' 52.6754" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	167+41.866	19868.932	738809.27
SPI:		19882.038	738806.265
SC:	167+61.866	19888.705	738807.441

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.447
Radius:		25 S Tan:	6.77
Theta:	22° 55' 05.9225"	P:	0.663
X:		19.682 K:	9.947
Y:		2.636 A:	22.361
Chord:		19.858 Course:	N 05° 17' 08.0975" W

Curve Point Data

Description	Station	Northing	Easting
SC:	167+61.866	19888.705	738807.441
RP:		19884.363	738832.061
CS:	167+82.459	19905.376	738818.517

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	47° 11' 37.8093"	Type:	RIGHT
Radius:		25	
Length:		20.592 Tangent:	10.921
Mid-Ord:		2.09 External:	2.281
Chord:		20.015 Course:	N 33° 36' 02.1518" E

Spiral Point Data

Description	Station	Northing	Easting
CS:	167+82.459	19905.376	738818.517
SPI:		19909.044	738824.208
ST:	168+02.459	19911.352	738837.455

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.447
Radius:		25 S Tan:	6.77
Theta:	22° 55' 05.9225"	P:	0.663
X:		19.682 K:	9.947
Y:		2.636 A:	22.361
Chord:		19.858 Course:	N 72° 29' 12.4012" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	168+02.459	19911.352	738837.455
End:	168+02.803	19911.411	738837.795

Tangent Data

Parameter	Value	Parameter	Value
Length:		0.345 Course:	N 80° 06' 56.9790" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	168+02.803	19911.411	738837.795
SPI:		19913.702	738850.941
SC:	168+22.803	19915.659	738857.324

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.344
Radius:		80 S Tan:	6.677
Theta:	07° 09' 43.1008"	P:	0.208
X:		19.969 K:	9.995
Y:		0.832 A:	40
Chord:		19.986 Course:	N 77° 43' 43.7493" E

Curve Point Data

Description	Station	Northing	Easting
SC:	168+22.803	19915.659	738857.324
RP:		19992.145	738833.873
CS:	168+42.847	19923.862	738875.555

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	14° 21' 19.1590"	Type:	LEFT
Radius:		80	
Length:		20.044 Tangent:	10.075
Mid-Ord:		0.627 External:	0.632
Chord:		19.991 Course:	N 65° 46' 34.2987" E

Spiral Point Data

Description	Station	Northing	Easting
CS:	168+42.847	19923.862	738875.555

SPI: 19927.34 738881.254  
 ST: 168+62.847 19935.659 738891.688

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.344
Radius:		80 S Tan:	6.677
Theta:	07° 09' 43.1008"	P:	0.208
X:		19.969 K:	9.995
Y:		0.832 A:	40
Chord:		19.986 Course:	N 53° 49' 24.8481" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	168+62.847	19935.659	738891.688
End:	168+82.064	19947.638	738906.714

Tangent Data

Parameter	Value	Parameter	Value
Length:		19.217 Course:	N 51° 26' 11.6184" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	168+82.064	19947.638	738906.714
SPI:		19955.965	738917.158
SC:	169+02.064	19961.01	738921.547

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.356
Radius:		55 S Tan:	6.688
Theta:	10° 25' 02.6920"	P:	0.303
X:		19.934 K:	9.989
Y:		1.209 A:	33.166
Chord:		19.971 Course:	N 47° 57' 54.2223" E

Curve Point Data

Description	Station	Northing	Easting
SC:	169+02.064	19961.01	738921.547
RP:		19997.108	738880.05
CS:	169+22.106	19978.169	738931.687

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	20° 52' 41.0798"	Type:	LEFT
Radius:		55	
Length:		20.042 Tangent:	10.133
Mid-Ord:		0.91 External:	0.926
Chord:		19.931 Course:	N 30° 34' 48.3865" E

Spiral Point Data

Description	Station	Northing	Easting
CS:	169+22.106	19978.169	738931.687
SPI:		19984.448	738933.99
ST:	169+42.106	19997.613	738936.246

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.356
Radius:		55 S Tan:	6.688
Theta:	10° 25' 02.6920"	P:	0.303
X:		19.934 K:	9.989
Y:		1.209 A:	33.166
Chord:		19.971 Course:	N 13° 11' 42.5507" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	169+42.106	19997.613	738936.246
End:	169+42.936	19998.431	738936.386

Tangent Data

Parameter	Value	Parameter	Value
Length:		0.83 Course:	N 09° 43' 25.1546" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	169+42.936	19998.431	738936.386
SPI:		20011.596	738938.642
SC:	169+62.936	20017.874	738940.945

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.356
Radius:		55 S Tan:	6.688
Theta:	10° 25' 02.6920"	P:	0.303
X:		19.934 K:	9.989
Y:		1.209 A:	33.166
Chord:		19.971 Course:	N 13° 11' 42.5507" E

Curve Point Data

Description	Station	Northing	Easting
SC:	169+62.936	20017.874	738940.945
RP:		19998.936	738992.581
CS:	169+86.452	20037.581	738953.446

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	24° 29' 52.5564"	Type:	RIGHT
Radius:		55	
Length:		23.516 Tangent:	11.941
Mid-Ord:		1.252 External:	1.281
Chord:		23.338 Course:	N 32° 23' 24.1248" E

Spiral Point Data

Description	Station	Northing	Easting
CS:	169+86.452	20037.581	738953.446
SPI:		20042.34	738958.145
ST:	170+06.452	20049.99	738969.094

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
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Length: 20 L Tan: 13.356  
 Radius: 55 S Tan: 6.688  
 Theta: 10° 25' 02.6920" P: 0.303  
 X: 19.934 K: 9.989  
 Y: 1.209 A: 33.166  
 Chord: 19.971 Course: N 51° 35' 05.6990" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	170+06.452	20049.99	738969.094
End:	170+38.255	20068.206	738995.163

Tangent Data

Parameter	Value	Parameter	Value
Length:	31.803	Course:	N 55° 03' 23.0951" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	170+38.255	20068.206	738995.163
SPI:		20075.875	739006.14
SC:	170+58.255	20078.016	739012.509

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:	20	L Tan:	13.391
Radius:	35	S Tan:	6.719
Theta:	16° 22' 12.8018"	P:	0.475
X:	19.837	K:	9.973
Y:	1.894	A:	26.458
Chord:	19.928	Course:	N 60° 30' 33.7598" E

Curve Point Data

Description	Station	Northing	Easting
SC:	170+58.255	20078.016	739012.509
RP:		20044.838	739023.657
CS:	170+84.400	20076.756	739038.019

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	42° 47' 58.3895"	Type:	RIGHT
Radius:	35		
Length:	26.145	Tangent:	13.716
Mid-Ord:	2.413	External:	2.592
Chord:	25.541	Course:	S 87° 10' 24.9084" E

Spiral Point Data

Description	Station	Northing	Easting
CS:	170+84.400	20076.756	739038.019
SPI:		20073.999	739044.146
ST:	171+04.400	20065.285	739054.314

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:	20	L Tan:	13.391
Radius:	35	S Tan:	6.719

Theta: 16° 22' 12.8018" P: 0.475  
 X: 19.837 K: 9.973  
 Y: 1.894 A: 26.458  
 Chord: 19.928 Course: S 54° 51' 23.5767" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	171+04.400	20065.285	739054.314
End:	171+18.723	20055.965	739065.189

Tangent Data

Parameter	Value	Parameter	Value
Length:	14.323	Course:	S 49° 24' 12.9119" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	171+18.723	20055.965	739065.189
SPI:		20047.276	739075.328
SC:	171+38.723	20043.829	739081.055

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641
Chord:		19.975 Course:	S 52° 35' 09.3713" E

Curve Point Data

Description	Station	Northing	Easting
SC:	171+38.723	20043.829	739081.055
RP:		20095.233	739111.999
CS:	171+60.279	20036.231	739101.104

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	20° 35' 03.4660"	Type:	LEFT
Radius:		60	
Length:		21.556 Tangent:	10.895
Mid-Ord:		0.965 External:	0.981
Chord:		21.44 Course:	S 69° 14' 42.1126" E

Spiral Point Data

Description	Station	Northing	Easting
CS:	171+60.279	20036.231	739101.104
SPI:		20035.017	739107.677
ST:	171+80.279	20034.804	739121.028

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991

Y: 1.109 A: 34.641  
 Chord: 19.975 Course: S 85° 54' 14.8539" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	171+80.279	20034.804	739121.028
End:	172+33.352	20033.958	739174.095

Tangent Data

Parameter	Value	Parameter	Value
Length:	53.074	Course:	S 89° 05' 11.3133" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	172+33.352	20033.958	739174.095
SPI:		20033.637	739194.241
SC:	172+63.352	20037.198	739203.731

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		30 L Tan:	20.149
Radius:		40 S Tan:	10.136
Theta:	21° 29' 09.3023"	P:	0.933
X:		29.581 K:	14.93
Y:		3.713 A:	34.641
Chord:		29.813 Course:	N 83° 45' 36.3850" E

Curve Point Data

Description	Station	Northing	Easting
SC:	172+63.352	20037.198	739203.731
RP:		20074.648	739189.675
CS:	172+82.681	20048.017	739219.522

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	27° 41' 12.4076"	Type:	LEFT
Radius:		40	
Length:		19.329 Tangent:	9.857
Mid-Ord:		1.162 External:	1.197
Chord:		19.142 Course:	N 55° 35' 03.1805" E

Spiral Point Data

Description	Station	Northing	Easting
CS:	172+82.681	20048.017	739219.522
SPI:		20055.58	739226.27
ST:	173+12.681	20074.483	739233.246

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		30 L Tan:	20.149
Radius:		40 S Tan:	10.136
Theta:	21° 29' 09.3023"	P:	0.933
X:		29.581 K:	14.93
Y:		3.713 A:	34.641
Chord:		29.813 Course:	N 27° 24' 29.9760" E

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Tangent Data

Description	PT Station	Northing	Easting
Start:	173+12.681	20074.483	739233.246
End:	173+12.776	20074.572	739233.278

Tangent Data

Parameter	Value	Parameter	Value
Length:	0.095	Course:	N 20° 15' 17.6744" E

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Spiral Point Data

Description	Station	Northing	Easting
TS:	173+12.776	20074.572	739233.278
SPI:		20090.272	739239.072
SC:	173+37.776	20098.643	739239.707

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		25 L Tan:	16.735
Radius:		45 S Tan:	8.395
Theta:	15° 54' 55.7795"	P:	0.577
X:		24.808 K:	12.468
Y:		2.302 A:	33.541
Chord:		24.914 Course:	N 14° 57' 11.5800" E

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Curve Point Data

Description	Station	Northing	Easting
SC:	173+37.776	20098.643	739239.707
RP:		20102.048	739194.836
CS:	173+63.925	20123.833	739234.211

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	33° 17' 38.5596"	Type:	LEFT
Radius:		45	
Length:		26.149 Tangent:	13.455
Mid-Ord:		1.886 External:	1.969
Chord:		25.783 Course:	N 12° 18' 27.3850" W

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Spiral Point Data

Description	Station	Northing	Easting
CS:	173+63.925	20123.833	739234.211
SPI:		20131.179	739230.147
ST:	173+88.925	20143.039	739218.341

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		25 L Tan:	16.735
Radius:		45 S Tan:	8.395
Theta:	15° 54' 55.7795"	P:	0.577
X:		24.808 K:	12.468
Y:		2.302 A:	33.541
Chord:		24.914 Course:	N 39° 34' 06.3499" W

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Tangent Data

Description	PT Station	Northing	Easting
Start:	173+88.925	20143.039	739218.341
End:	173+91.337	20144.748	739216.639

Tangent Data

Parameter	Value	Parameter	Value
Length:	2.412	Course:	N 44° 52' 12.4443" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	173+91.337	20144.748	739216.639
SPI:		20154.222	739207.208
SC:	174+11.337	20159.894	739203.645

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.368
Radius:		45 S Tan:	6.698
Theta:	12° 43' 56.6236"	P:	0.37
X:		19.901 K:	9.984
Y:		1.476 A:	30
Chord:		19.956 Course:	N 40° 37' 39.9648" W

Curve Point Data

Description	Station	Northing	Easting
SC:	174+11.337	20159.894	739203.645
RP:		20183.832	739241.749
CS:	174+34.905	20182.159	739196.781

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	30° 00' 27.6161"	Type:	RIGHT
Radius:		45	
Length:		23.568 Tangent:	12.061
Mid-Ord:		1.534 External:	1.588
Chord:		23.3 Course:	N 17° 08' 02.0126" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	174+34.905	20182.159	739196.781
SPI:		20188.853	739196.532
ST:	174+54.905	20201.993	739198.991

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.368
Radius:		45 S Tan:	6.698
Theta:	12° 43' 56.6236"	P:	0.37
X:		19.901 K:	9.984
Y:		1.476 A:	30
Chord:		19.956 Course:	N 06° 21' 35.9395" E

Tangent Data

Description	PT Station	Northing	Easting
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Start: 174+54.905 20201.993 739198.991  
 End: 174+55.524 20202.601 739199.105

Tangent Data

Parameter	Value	Parameter	Value
Length:	0.619	Course:	N 10° 36' 08.4190" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	174+55.524	20202.601	739199.105
SPI:		20215.741	739201.565
SC:	174+75.524	20222.435	739201.316

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.368
Radius:		45 S Tan:	6.698
Theta:	12° 43' 56.6236"	P:	0.37
X:		19.901 K:	9.984
Y:		1.476 A:	30
Chord:		19.956 Course:	N 06° 21' 35.9395" E

Curve Point Data

Description	Station	Northing	Easting
SC:	174+75.524	20222.435	739201.316
RP:		20220.762	739156.347
CS:	174+90.205	20236.758	739198.408

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	18° 41' 31.5229"	Type:	LEFT
Radius:		45	
Length:		14.681 Tangent:	7.406
Mid-Ord:		0.597 External:	0.605
Chord:		14.616 Course:	N 11° 28' 33.9660" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	174+90.205	20236.758	739198.408
SPI:		20243.019	739196.027
ST:	175+10.205	20254.159	739188.638

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.368
Radius:		45 S Tan:	6.698
Theta:	12° 43' 56.6236"	P:	0.37
X:		19.901 K:	9.984
Y:		1.476 A:	30
Chord:		19.956 Course:	N 29° 18' 43.8716" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	175+10.205	20254.159	739188.638
End:	175+10.227	20254.177	739188.626

Tangent Data

Parameter	Value	Parameter	Value
Length:		0.022 Course:	N 33° 33' 16.3509" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	175+10.227	20254.177	739188.626
SPI:		20265.326	739181.232
SC:	175+30.227	20269.824	739176.257

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	N 38° 19' 35.9766" W

Curve Point Data

Description	Station	Northing	Easting
SC:	175+30.227	20269.824	739176.257
RP:		20240.155	739149.429
CS:	175+53.528	20279.69	739155.511

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	33° 22' 35.2309"	Type:	LEFT
Radius:		40	
Length:		23.301 Tangent:	11.992
Mid-Ord:		1.685 External:	1.759
Chord:		22.973 Course:	N 64° 34' 00.1681" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	175+53.528	20279.69	739155.511
SPI:		20280.709	739148.882
ST:	175+73.528	20279.409	739135.568

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	S 89° 11' 35.6404" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	175+73.528	20279.409	739135.568
End:	175+82.333	20278.553	739126.805

Tangent Data

Parameter	Value	Parameter	Value
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Length:

8.805 Course: S 84° 25' 16.0149" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	175+82.333	20278.553	739126.805
SPI:		20277.249	739113.457
SC:	176+02.333	20278.824	739106.905

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.412
Radius:		30 S Tan:	6.738
Theta:	19° 05' 54.9354"	P:	0.553
X:		19.779 K:	9.963
Y:		2.205 A:	24.495
Chord:		19.901 Course:	N 89° 13' 07.2890" W

Curve Point Data

Description	Station	Northing	Easting
SC:	176+02.333	20278.824	739106.905
RP:		20307.993	739113.919
CS:	176+21.838	20289.02	739090.68

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	37° 15' 04.7551"	Type:	RIGHT
Radius:		30	
Length:		19.505 Tangent:	10.111
Mid-Ord:		1.571 External:	1.658
Chord:		19.163 Course:	N 57° 51' 16.6721" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	176+21.838	20289.02	739090.68
SPI:		20294.24	739086.419
ST:	176+41.838	20306.832	739081.803

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.412
Radius:		30 S Tan:	6.738
Theta:	19° 05' 54.9354"	P:	0.553
X:		19.779 K:	9.963
Y:		2.205 A:	24.495
Chord:		19.901 Course:	N 26° 29' 26.0552" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	176+41.838	20306.832	739081.803
End:	176+96.960	20358.587	739062.832

Tangent Data

Parameter	Value	Parameter	Value
Length:	55.122	Course:	N 20° 07' 49.3591" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	176+96.960	20358.587	739062.832
SPI:		20374.278	739057.081
SC:	177+21.960	20381.289	739052.501

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		25 L Tan:	16.712
Radius:		55 S Tan:	8.375
Theta:	13° 01' 18.3651"	P:	0.473
X:		24.871 K:	12.479
Y:		1.887 A:	37.081
Chord:		24.943 Course:	N 24° 28' 08.6394" W

Curve Point Data

Description	Station	Northing	Easting
SC:	177+21.960	20381.289	739052.501
RP:		20351.212	739006.454
CS:	177+52.821	20401.18	739029.435

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	32° 08' 56.7322"	Type:	LEFT
Radius:		55	
Length:		30.861 Tangent:	15.848
Mid-Ord:		2.15 External:	2.238
Chord:		30.458 Course:	N 49° 13' 36.0903" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	177+52.821	20401.18	739029.435
SPI:		20404.68	739021.827
ST:	177+77.821	20408.062	739005.461

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		25 L Tan:	16.712
Radius:		55 S Tan:	8.375
Theta:	13° 01' 18.3651"	P:	0.473
X:		24.871 K:	12.479
Y:		1.887 A:	37.081
Chord:		24.943 Course:	N 73° 59' 03.5412" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	177+77.821	20408.062	739005.461
End:	177+82.161	20408.94	739001.211

Tangent Data

Parameter	Value	Parameter	Value
Length:		4.34 Course:	N 78° 19' 22.8214" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	177+82.161	20408.94	739001.211
SPI:		20412.331	738984.805
SC:	178+07.161	20416.484	738977.489

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		25 L Tan:	16.753
Radius:		40 S Tan:	8.412
Theta:	17° 54' 17.7520"	P:	0.649
X:		24.757 K:	12.459
Y:		2.586 A:	31.623
Chord:		24.892 Course:	N 72° 21' 34.7091" W

Curve Point Data

Description	Station	Northing	Easting
SC:	178+07.161	20416.484	738977.489
RP:		20451.27	738997.236
CS:	178+36.301	20438.46	738959.343

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	41° 44' 25.5562"	Type:	RIGHT
Radius:		40	
Length:		29.14 Tangent:	15.251
Mid-Ord:		2.624 External:	2.809
Chord:		28.5 Course:	N 39° 32' 52.2913" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	178+36.301	20438.46	738959.343
SPI:		20446.429	738956.649
ST:	178+61.301	20463.18	738956.423

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		25 L Tan:	16.753
Radius:		40 S Tan:	8.412
Theta:	17° 54' 17.7520"	P:	0.649
X:		24.757 K:	12.459
Y:		2.586 A:	31.623
Chord:		24.892 Course:	N 06° 44' 09.8736" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	178+61.301	20463.18	738956.423
End:	178+61.394	20463.272	738956.422

Tangent Data

Parameter	Value	Parameter	Value
Length:		0.093 Course:	N 00° 46' 21.7613" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	178+61.394	20463.272	738956.422

SPI: 20479.976 738956.196  
 SC: 178+86.394 20488.138 738954.355

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		25 L Tan:	16.705
Radius:		60 S Tan:	8.368
Theta:	11° 56' 11.8346"	P:	0.433
X:		24.892 K:	12.482
Y:		1.731 A:	38.73
Chord:		24.952 Course:	N 04° 45' 00.4375" W

Curve Point Data

Description	Station	Northing	Easting
SC:	178+86.394	20488.138	738954.355
RP:		20474.938	738895.826
CS:	179+11.311	20510.63	738944.055

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	23° 47' 38.3295"	Type:	LEFT
Radius:		60	
Length:		24.917 Tangent:	12.641
Mid-Ord:		1.289 External:	1.317
Chord:		24.738 Course:	N 24° 36' 22.7606" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	179+11.311	20510.63	738944.055
SPI:		20517.357	738939.077
ST:	179+36.311	20528.439	738926.578

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		25 L Tan:	16.705
Radius:		60 S Tan:	8.368
Theta:	11° 56' 11.8346"	P:	0.433
X:		24.892 K:	12.482
Y:		1.731 A:	38.73
Chord:		24.952 Course:	N 44° 27' 45.0837" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	179+36.311	20528.439	738926.578
End:	179+37.560	20529.267	738925.643

Tangent Data

Parameter	Value	Parameter	Value
Length:		1.249 Course:	N 48° 26' 23.7600" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	179+37.560	20529.267	738925.643
SPI:		20538.151	738915.623
SC:	179+57.560	20543.844	738912.056

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.391
Radius:		35 S Tan:	6.719
Theta:	16° 22' 12.8018"	P:	0.475
X:		19.837 K:	9.973
Y:		1.894 A:	26.458
Chord:		19.928 Course:	N 42° 59' 13.0952" W

Curve Point Data

Description	Station	Northing	Easting
SC:	179+57.560	20543.844	738912.056
RP:		20562.428	738941.715
CS:	179+75.604	20560.882	738906.749

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	29° 32' 21.0784"	Type:	RIGHT
Radius:		35	
Length:		18.044 Tangent:	9.228
Mid-Ord:		1.156 External:	1.196
Chord:		17.845 Course:	N 17° 18' 00.4190" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	179+75.604	20560.882	738906.749
SPI:		20567.595	738906.452
ST:	179+95.604	20580.597	738909.656

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.391
Radius:		35 S Tan:	6.719
Theta:	16° 22' 12.8018"	P:	0.475
X:		19.837 K:	9.973
Y:		1.894 A:	26.458
Chord:		19.928 Course:	N 08° 23' 12.2572" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	179+95.604	20580.597	738909.656
End:	180+35.925	20619.747	738919.301

Tangent Data

Parameter	Value	Parameter	Value
Length:	40.321	Course:	N 13° 50' 22.9220" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	180+35.925	20619.747	738919.301
SPI:		20632.7	738922.492
SC:	180+55.925	20639.307	738923.433

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
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Length:		20 L Tan:	13.34
Radius:		100 S Tan:	6.673
Theta:	05° 43' 46.4806"	P:	0.167
X:		19.98 K:	9.997
Y:		0.666 A:	44.721
Chord:		19.991 Course:	N 11° 55' 48.0106" E

Curve Point Data

Description	Station	Northing	Easting
SC:	180+55.925	20639.307	738923.433
RP:		20653.414	738824.433
CS:	180+79.528	20662.848	738923.987

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	13° 31' 24.3642"	Type:	LEFT
Radius:			100
Length:		23.603 Tangent:	11.857
Mid-Ord:		0.696 External:	0.7
Chord:		23.548 Course:	N 01° 20' 54.2592" E

Spiral Point Data

Description	Station	Northing	Easting
CS:	180+79.528	20662.848	738923.987
SPI:		20669.491	738923.358
ST:	180+99.528	20682.58	738920.78

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.34
Radius:		100 S Tan:	6.673
Theta:	05° 43' 46.4806"	P:	0.167
X:		19.98 K:	9.997
Y:		0.666 A:	44.721
Chord:		19.991 Course:	N 09° 13' 59.4921" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	180+99.528	20682.58	738920.78
End:	181+59.467	20741.389	738909.196

Tangent Data

Parameter	Value	Parameter	Value
Length:		59.939 Course:	N 11° 08' 34.4035" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	181+59.467	20741.389	738909.196
SPI:		20754.482	738906.617
SC:	181+79.467	20760.821	738904.52

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.344
Radius:		80 S Tan:	6.677

Theta: 07° 09' 43.1008" P: 0.208  
 X: 19.969 K: 9.995  
 Y: 0.832 A: 40  
 Chord: 19.986 Course: N 13° 31' 47.6332" W

Curve Point Data

Description	Station	Northing	Easting
SC:	181+79.467	20760.821	738904.52
RP:		20735.695	738828.568
CS:	182+20.918	20795.139	738882.107

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	29° 41' 14.7546"	Type:	LEFT
Radius:			80
Length:		41.451 Tangent:	21.202
Mid-Ord:		2.67 External:	2.762
Chord:		40.989 Course:	N 33° 08' 54.8816" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	182+20.918	20795.139	738882.107
SPI:		20799.607	738877.146
ST:	182+40.918	20807.232	738866.194

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.344
Radius:		80 S Tan:	6.677
Theta:	07° 09' 43.1008"	P:	0.208
X:		19.969 K:	9.995
Y:		0.832 A:	40
Chord:		19.986 Course:	N 52° 46' 02.1300" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	182+40.918	20807.232	738866.194
End:	182+64.532	20820.724	738846.814

Tangent Data

Parameter	Value	Parameter	Value
Length:		23.614 Course:	N 55° 09' 15.3597" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	182+64.532	20820.724	738846.814
SPI:		20828.375	738835.825
SC:	182+84.532	20830.505	738829.452

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.391
Radius:		35 S Tan:	6.719
Theta:	16° 22' 12.8018"	P:	0.475
X:		19.837 K:	9.973

Y: 1.894 A: 26.458  
 Chord: 19.928 Course: N 60° 36' 26.0245" W

Curve Point Data

Description	Station	Northing	Easting
SC:	182+84.532	20830.505	738829.452
RP:		20797.308	738818.36
CS:	183+00.860	20831.946	738813.336

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	26° 43' 43.8700"	Type:	LEFT
Radius:			35
Length:		16.328 Tangent:	8.315
Mid-Ord:		0.948 External:	0.974
Chord:		16.18 Course:	N 84° 53' 20.0965" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	183+00.860	20831.946	738813.336
SPI:		20830.981	738806.687
ST:	183+20.860	20825.402	738794.514

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.391
Radius:		35 S Tan:	6.719
Theta:	16° 22' 12.8018"	P:	0.475
X:		19.837 K:	9.973
Y:		1.894 A:	26.458
Chord:		19.928 Course:	S 70° 49' 45.8316" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	183+20.860	20825.402	738794.514
End:	183+42.476	20816.396	738774.864

Tangent Data

Parameter	Value	Parameter	Value
Length:	21.616	Course:	S 65° 22' 35.1668" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	183+42.476	20816.396	738774.864
SPI:		20810.832	738762.725
SC:	183+62.476	20807.078	738757.195

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641
Chord:		19.975 Course:	S 62° 11' 38.7074" W

Curve Point Data

Description	Station	Northing	Easting
SC:	183+62.476	20807.078	738757.195
RP:		20757.437	738790.896
CS:	183+76.125	20798.198	738746.867

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	13° 02' 03.1459"	Type:	LEFT
Radius:			60
Length:		13.649 Tangent:	6.854
Mid-Ord:		0.388 External:	0.39
Chord:		13.62 Course:	S 49° 18' 36.1261" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	183+76.125	20798.198	738746.867
SPI:		20793.293	738742.326
ST:	183+96.125	20782.125	738735.006

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641
Chord:		19.975 Course:	S 36° 25' 33.5449" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	183+96.125	20782.125	738735.006
End:	184+06.555	20773.402	738729.289

Tangent Data

Parameter	Value	Parameter	Value
Length:		10.43 Course:	S 33° 14' 37.0855" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	184+06.555	20773.402	738729.289
SPI:		20762.249	738721.978
SC:	184+26.555	20756.862	738718.049

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.335
Radius:		200 S Tan:	6.668
Theta:	02° 51' 53.2403"	P:	0.083
X:		19.995 K:	9.999
Y:		0.333 A:	63.246
Chord:		19.998 Course:	S 34° 11' 54.7595" W

Curve Point Data

Description	Station	Northing	Easting
SC:	184+26.555	20756.862	738718.049
RP:		20874.725	738556.468
CS:	184+41.586	20745.063	738708.743

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	04° 18' 21.2333"	Type:	RIGHT
Radius:			200
Length:		15.03 Tangent:	7.519
Mid-Ord:		0.141 External:	0.141
Chord:		15.027 Course:	S 38° 15' 40.9424" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	184+41.586	20745.063	738708.743
SPI:		20739.986	738704.42
ST:	184+61.586	20730.278	738695.278

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.335
Radius:		200 S Tan:	6.668
Theta:	02° 51' 53.2403"	P:	0.083
X:		19.995 K:	9.999
Y:		0.333 A:	63.246
Chord:		19.998 Course:	S 42° 19' 27.1254" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	184+61.586	20730.278	738695.278
End:	184+80.437	20716.554	738682.355

Tangent Data

Parameter	Value	Parameter	Value
Length:		18.851 Course:	S 43° 16' 44.7994" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	184+80.437	20716.554	738682.355
SPI:		20706.845	738673.212
SC:	185+00.437	20701.695	738668.973

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.336
Radius:		150 S Tan:	6.669
Theta:	03° 49' 10.9871"	P:	0.111
X:		19.991 K:	9.999
Y:		0.444 A:	54.772
Chord:		19.996 Course:	S 42° 00' 21.3095" W

Curve Point Data

Description	Station	Northing	Easting
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SC:	185+00.437	20701.695	738668.973
RP:		20606.366	738784.785
CS:	185+16.700	20688.604	738659.338

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	06° 12' 43.9822"	Type:	LEFT
Radius:		150	
Length:		16.264	Tangent: 8.14
Mid-Ord:		0.22	External: 0.221
Chord:		16.256	Course: S 36° 21' 11.8212" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	185+16.700	20688.604	738659.338
SPI:		20683.026	738655.681
ST:	185+36.700	20671.41	738649.129

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.336
Radius:		150 S Tan:	6.669
Theta:	03° 49' 10.9871"	P:	0.111
X:		19.991 K:	9.999
Y:		0.444 A:	54.772
Chord:		19.996	Course: S 30° 42' 02.3329" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	185+36.700	20671.41	738649.129
End:	185+67.478	20644.603	738634.007

Tangent Data

Parameter	Value	Parameter	Value
Length:		30.778	Course: S 29° 25' 38.8431" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	185+67.478	20644.603	738634.007
SPI:		20632.96	738627.439
SC:	185+87.478	20627.994	738622.943

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.368
Radius:		45 S Tan:	6.698
Theta:	12° 43' 56.6236"	P:	0.37
X:		19.901 K:	9.984
Y:		1.476 A:	30
Chord:		19.956	Course: S 33° 40' 11.3225" W

Curve Point Data

Description	Station	Northing	Easting
SC:	185+87.478	20627.994	738622.943
RP:		20658.199	738589.586

CS: 186+05.772 20617.266 738608.281

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	23° 17' 31.9617"	Type:	RIGHT
Radius:			45
Length:		18.294 Tangent:	9.275
Mid-Ord:		0.926 External:	0.946
Chord:		18.168 Course:	S 53° 48' 21.4475" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	186+05.772	20617.266	738608.281
SPI:		20614.483	738602.188
ST:	186+25.772	20611.746	738589.104

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.368
Radius:		45 S Tan:	6.698
Theta:	12° 43' 56.6236"	P:	0.37
X:		19.901 K:	9.984
Y:		1.476 A:	30
Chord:		19.956 Course:	S 73° 56' 31.5725" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	186+25.772	20611.746	738589.104
End:	186+33.162	20610.233	738581.87

Tangent Data

Parameter	Value	Parameter	Value
Length:		7.39 Course:	S 78° 11' 04.0519" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	186+33.162	20610.233	738581.87
SPI:		20607.5	738568.806
SC:	186+53.162	20605.215	738562.529

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.348
Radius:		70 S Tan:	6.68
Theta:	08° 11' 06.4009"	P:	0.238
X:		19.959 K:	9.993
Y:		0.951 A:	37.417
Chord:		19.982 Course:	S 75° 27' 23.6161" W

Curve Point Data

Description	Station	Northing	Easting
SC:	186+53.162	20605.215	738562.529
RP:		20539.437	738586.471
CS:	186+57.875	20603.455	738558.157

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	03° 51' 29.3373"	Type:	LEFT
Radius:		70	
Length:		4.714 Tangent:	2.358
Mid-Ord:		0.04 External:	0.04
Chord:		4.713 Course:	S 68° 04' 12.9824" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	186+57.875	20603.455	738558.157
SPI:		20600.753	738552.048
ST:	186+77.875	20593.671	738540.734

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.348
Radius:		70 S Tan:	6.68
Theta:	08° 11' 06.4009"	P:	0.238
X:		19.959 K:	9.993
Y:		0.951 A:	37.417
Chord:		19.982 Course:	S 60° 41' 02.3487" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	186+77.875	20593.671	738540.734
End:	186+79.540	20592.788	738539.323

Tangent Data

Parameter	Value	Parameter	Value
Length:		1.665 Course:	S 57° 57' 21.9128" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	186+79.540	20592.788	738539.323
SPI:		20581.364	738521.072
SS:	187+09.540	20587.548	738511.487

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		30 L Tan:	21.532
Radius:		13.248 S Tan:	11.407
Theta:	64° 52' 28.3865"	P:	2.705
X:		26.382 K:	14.381
Y:		10.328 A:	19.936
Chord:		28.325 Course:	S 79° 20' 19.4170" W

Spiral Point Data

Description	Station	Northing	Easting
SS:	187+09.540	20587.548	738511.487
SPI:		20595.154	738499.698
ST:	187+44.540	20619.711	738507.923

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		35 L Tan:	25.898

Radius:		13.248	S Tan:	14.03
Theta:	75° 41' 13.1175"		P:	3.621
X:		29.386	K:	16.53
Y:		13.597	A:	21.533
Chord:		32.36	Course:	N 06° 19' 20.1918" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	187+44.540	20619.711	738507.923
End:	187+64.473	20638.613	738514.254

Tangent Data

Parameter	Value	Parameter	Value
Length:	19.933	Course:	N 18° 31' 03.4168" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	187+64.473	20638.613	738514.254
SPI:		20651.282	738518.498
SC:	187+84.473	20657.924	738519.32

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.361
Radius:		50 S Tan:	6.692
Theta:	11° 27' 32.9612"	P:	0.333
X:		19.92 K:	9.987
Y:		1.33 A:	31.623
Chord:		19.964 Course:	N 14° 41' 57.0907" E

Curve Point Data

Description	Station	Northing	Easting
SC:	187+84.473	20657.924	738519.32
RP:		20664.068	738469.699
CS:	188+17.399	20689.574	738512.704

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	37° 43' 49.7851"	Type:	LEFT
Radius:		50	
Length:		32.926 Tangent:	17.085
Mid-Ord:		2.686 External:	2.838
Chord:		32.334 Course:	N 11° 48' 24.4370" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	188+17.399	20689.574	738512.704
SPI:		20695.33	738509.29
ST:	188+37.399	20705.239	738500.327

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.361
Radius:		50 S Tan:	6.692
Theta:	11° 27' 32.9612"	P:	0.333

X: 19.92 K: 9.987  
 Y: 1.33 A: 31.623  
 Chord: 19.964 Course: N 38° 18' 45.9646" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	188+37.399	20705.239	738500.327
End:	188+51.391	20715.615	738490.941

Tangent Data

Parameter	Value	Parameter	Value
Length:	13.991	Course:	N 42° 07' 52.2908" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	188+51.391	20715.615	738490.941
SPI:		20725.587	738481.921
SC:	188+71.391	20731.98	738479.693

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.447
Radius:		25 S Tan:	6.77
Theta:	22° 55' 05.9225"	P:	0.663
X:		19.682 K:	9.947
Y:		2.636 A:	22.361
Chord:		19.858 Course:	N 34° 30' 07.7130" W

Curve Point Data

Description	Station	Northing	Easting
SC:	188+71.391	20731.98	738479.693
RP:		20740.207	738503.301
CS:	188+91.478	20751.488	738480.991

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	46° 02' 11.9422"	Type:	RIGHT
Radius:		25	
Length:		20.087 Tangent:	10.621
Mid-Ord:		1.991 External:	2.163
Chord:		19.551 Course:	N 03° 48' 19.6028" E

Spiral Point Data

Description	Station	Northing	Easting
CS:	188+91.478	20751.488	738480.991
SPI:		20757.53	738484.046
ST:	189+11.478	20766.219	738494.307

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.447
Radius:		25 S Tan:	6.77
Theta:	22° 55' 05.9225"	P:	0.663
X:		19.682 K:	9.947
Y:		2.636 A:	22.361

Chord:

19.858 Course: N 42° 06' 46.9186" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	189+11.478	20766.219	738494.307
End:	189+11.831	20766.448	738494.577

Tangent Data

Parameter	Value	Parameter	Value
Length:	0.353	Course:	N 49° 44' 31.4964" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	189+11.831	20766.448	738494.577
SPI:		20775.18	738504.889
SC:	189+31.831	20781.551	738507.346

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.512
Radius:		20 S Tan:	6.83
Theta:	28° 38' 52.4031"	P:	0.826
X:		19.506 K:	9.917
Y:		3.274 A:	20
Chord:		19.779 Course:	N 40° 12' 47.2287" E

Curve Point Data

Description	Station	Northing	Easting
SC:	189+31.831	20781.551	738507.346
RP:		20788.75	738488.687
CS:	189+54.512	20802.614	738503.102

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	64° 58' 40.7997"	Type:	LEFT
Radius:		20	
Length:		22.682 Tangent:	12.736
Mid-Ord:		3.13 External:	3.711
Chord:		21.486 Course:	N 11° 23' 41.3065" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	189+54.512	20802.614	738503.102
SPI:		20805.03	738500.777
ST:	189+64.512	20808.554	738495.092

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		10 L Tan:	6.689
Radius:		20 S Tan:	3.353
Theta:	14° 19' 26.2016"	P:	0.208
X:		9.938 K:	4.99
Y:		0.83 A:	14.142
Chord:		9.972 Course:	N 53° 26' 08.2824" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	189+64.512	20808.554	738495.092
End:	190+07.828	20831.375	738458.275

Tangent Data

Parameter	Value	Parameter	Value
Length:	43.316	Course:	N 58° 12' 27.9079" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	190+07.828	20831.375	738458.275
SPI:		20838.423	738446.905
SC:	190+27.828	20843.256	738442.256

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	N 53° 26' 08.2824" W

Curve Point Data

Description	Station	Northing	Easting
SC:	190+27.828	20843.256	738442.256
RP:		20870.984	738471.086
CS:	190+57.842	20870.361	738431.091

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	42° 59' 27.2087"	Type:	RIGHT
Radius:		40	
Length:		30.013 Tangent:	15.753
Mid-Ord:		2.782 External:	2.99
Chord:		29.314 Course:	N 22° 23' 18.1020" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	190+57.842	20870.361	738431.091
SPI:		20877.067	738430.986
ST:	190+77.842	20890.078	738434.093

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	N 08° 39' 32.0784" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	190+77.842	20890.078	738434.093
End:	190+80.659	20892.818	738434.748

Tangent Data

Parameter	Value	Parameter	Value
Length:	2.817	Course:	N 13° 25' 51.7039" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	190+80.659	20892.818	738434.748
SPI:		20905.792	738437.846
SC:	191+00.659	20912.387	738438.85

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.338
Radius:		120 S Tan:	6.671
Theta:	04° 46' 28.7339"	P:	0.139
X:		19.986 K:	9.998
Y:		0.555 A:	48.99
Chord:		19.994 Course:	N 11° 50' 22.4629" E

Curve Point Data

Description	Station	Northing	Easting
SC:	191+00.659	20912.387	738438.85
RP:		20930.448	738320.217
CS:	191+14.240	20925.9	738440.131

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	06° 29' 03.4602"	Type:	LEFT
Radius:		120	
Length:		13.581 Tangent:	6.798
Mid-Ord:		0.192 External:	0.192
Chord:		13.573 Course:	N 05° 24' 51.2400" E

Spiral Point Data

Description	Station	Northing	Easting
CS:	191+14.240	20925.9	738440.131
SPI:		20932.566	738440.383
ST:	191+34.240	20945.89	738439.778

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.338
Radius:		120 S Tan:	6.671
Theta:	04° 46' 28.7339"	P:	0.139
X:		19.986 K:	9.998
Y:		0.555 A:	48.99
Chord:		19.994 Course:	N 01° 00' 39.9829" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	191+34.240	20945.89	738439.778

End: 191+73.166 20984.777 738438.01

Tangent Data

Parameter	Value	Parameter	Value
Length:	38.927	Course:	N 02° 36' 09.2239" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	191+73.166	20984.777	738438.01
SPI:		20998.275	738437.397
SC:	191+93.166	21004.114	738433.854

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.512
Radius:		20 S Tan:	6.83
Theta:	28° 38' 52.4031"	P:	0.826
X:		19.506 K:	9.917
Y:		3.274 A:	20
Chord:		19.779 Course:	N 12° 07' 53.4917" W

Curve Point Data

Description	Station	Northing	Easting
SC:	191+93.166	21004.114	738433.854
RP:		20993.738	738416.755
CS:	191+94.547	21005.268	738433.097

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	03° 57' 17.3414"	Type:	LEFT
Radius:		20	
Length:		1.38 Tangent:	0.691
Mid-Ord:		0.012 External:	0.012
Chord:		1.38 Course:	N 33° 13' 40.2977" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	191+94.547	21005.268	738433.097
SPI:		21010.849	738429.16
ST:	192+14.547	21016.803	738417.03

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.512
Radius:		20 S Tan:	6.83
Theta:	28° 38' 52.4031"	P:	0.826
X:		19.506 K:	9.917
Y:		3.274 A:	20
Chord:		19.779 Course:	N 54° 19' 27.1038" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	192+14.547	21016.803	738417.03
End:	192+29.667	21023.466	738403.457

Tangent Data

Parameter	Value	Parameter	Value
Length:	15.12	Course:	N 63° 51' 11.3716" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	192+29.667	21023.466	738403.457
SPI:		21029.344	738391.484
SC:	192+49.667	21032.772	738385.761

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.338
Radius:		120 S Tan:	6.671
Theta:	04° 46' 28.7339"	P:	0.139
X:		19.986 K:	9.998
Y:		0.555 A:	48.99
Chord:		19.994 Course:	N 62° 15' 42.1305" W

Curve Point Data

Description	Station	Northing	Easting
SC:	192+49.667	21032.772	738385.761
RP:		21135.717	738447.425
CS:	192+57.323	21036.913	738379.323

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	03° 39' 20.2133"	Type:	RIGHT
Radius:		120	
Length:		7.656 Tangent:	3.829
Mid-Ord:		0.061 External:	0.061
Chord:		7.655 Course:	N 57° 15' 02.5310" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	192+57.323	21036.913	738379.323
SPI:		21040.699	738373.83
ST:	192+77.323	21049.157	738363.516

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.338
Radius:		120 S Tan:	6.671
Theta:	04° 46' 28.7339"	P:	0.139
X:		19.986 K:	9.998
Y:		0.555 A:	48.99
Chord:		19.994 Course:	N 52° 14' 22.9316" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	192+77.323	21049.157	738363.516
End:	192+91.245	21057.984	738352.752

Tangent Data

Parameter	Value	Parameter	Value
Length:	13.921	Course:	N 50° 38' 53.6905" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	192+91.245	21057.984	738352.752
SPI:		21066.443	738342.436
SC:	193+11.245	21070.138	738336.879

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.34
Radius:		100 S Tan:	6.673
Theta:	05° 43' 46.4806"	P:	0.167
X:		19.98 K:	9.997
Y:		0.666 A:	44.721
Chord:		19.991 Course:	N 52° 33' 28.6019" W

Curve Point Data

Description	Station	Northing	Easting
SC:	193+11.245	21070.138	738336.879
RP:		20986.867	738281.508
CS:	193+24.556	21076.75	738325.338

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	07° 37' 36.8373"	Type:	LEFT
Radius:		100	
Length:		13.311 Tangent:	6.666
Mid-Ord:		0.221 External:	0.222
Chord:		13.302 Course:	N 60° 11' 28.5898" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	193+24.556	21076.75	738325.338
SPI:		21079.675	738319.34
ST:	193+44.556	21084.295	738306.825

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.34
Radius:		100 S Tan:	6.673
Theta:	05° 43' 46.4806"	P:	0.167
X:		19.98 K:	9.997
Y:		0.666 A:	44.721
Chord:		19.991 Course:	N 67° 49' 28.5778" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	193+44.556	21084.295	738306.825
End:	193+50.120	21086.223	738301.605

Tangent Data

Parameter	Value	Parameter	Value
Length:		5.564 Course:	N 69° 44' 03.4891" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	193+50.120	21086.223	738301.605
SPI:		21090.903	738288.93
SC:	193+70.120	21096.05	738284.441

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.512
Radius:		20 S Tan:	6.83
Theta:	28° 38' 52.4031"	P:	0.826
X:		19.506 K:	9.917
Y:		3.274 A:	20
Chord:		19.779 Course:	N 60° 12' 19.2214" W

Curve Point Data

Description	Station	Northing	Easting
SC:	193+70.120	21096.05	738284.441
RP:		21109.194	738299.516
CS:	193+86.651	21111.379	738279.635

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	47° 21' 28.5301"	Type:	RIGHT
Radius:			20
Length:		16.531 Tangent:	8.771
Mid-Ord:		1.684 External:	1.839
Chord:		16.064 Course:	N 17° 24' 26.8209" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	193+86.651	21111.379	738279.635
SPI:		21118.168	738280.381
ST:	194+06.651	21129.247	738288.116

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.512
Radius:		20 S Tan:	6.83
Theta:	28° 38' 52.4031"	P:	0.826
X:		19.506 K:	9.917
Y:		3.274 A:	20
Chord:		19.779 Course:	N 25° 23' 25.5795" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	194+06.651	21129.247	738288.116
End:	194+09.410	21131.509	738289.695

Tangent Data

Parameter	Value	Parameter	Value
Length:		2.759 Course:	N 34° 55' 09.8472" E

Spiral Point Data

Description	Station	Northing	Easting
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TS:	194+09.410	21131.509	738289.695
SPI:		21142.589	738297.43
SC:	194+29.410	21149.378	738298.176

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.512
Radius:		20 S Tan:	6.83
Theta:	28° 38' 52.4031"	P:	0.826
X:		19.506 K:	9.917
Y:		3.274 A:	20
Chord:		19.779 Course:	N 25° 23' 25.5795" E

Curve Point Data

Description	Station	Northing	Easting
SC:	194+29.410	21149.378	738298.176
RP:		21151.562	738278.296
CS:	194+34.469	21154.423	738298.09

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	14° 29' 36.6725"	Type:	LEFT
Radius:		20	
Length:		5.059 Tangent:	2.543
Mid-Ord:		0.16 External:	0.161
Chord:		5.046 Course:	N 00° 58' 30.8921" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	194+34.469	21154.423	738298.09
SPI:		21161.182	738297.113
ST:	194+54.469	21171.992	738289.006

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.512
Radius:		20 S Tan:	6.83
Theta:	28° 38' 52.4031"	P:	0.826
X:		19.506 K:	9.917
Y:		3.274 A:	20
Chord:		19.779 Course:	N 27° 20' 27.3638" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	194+54.469	21171.992	738289.006
End:	194+54.645	21172.132	738288.901

Tangent Data

Parameter	Value	Parameter	Value
Length:		0.176 Course:	N 36° 52' 11.6315" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	194+54.645	21172.132	738288.901
SPI:		21180.192	738282.856

SC: 194+69.645 21185.078 738281.512

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		15 L Tan:	10.075
Radius:		20 S Tan:	5.068
Theta:	21° 29' 09.3023"	P:	0.466
X:		14.79 K:	7.465
Y:		1.856 A:	17.321
Chord:		14.906 Course:	N 29° 42' 59.3299" W

Curve Point Data

Description	Station	Northing	Easting
SC:	194+69.645	21185.078	738281.512
RP:		21190.384	738300.795
CS:	194+76.390	21191.759	738280.842

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	19° 19' 29.7739"	Type:	RIGHT
Radius:		20	
Length:		6.746 Tangent:	3.405
Mid-Ord:		0.284 External:	0.288
Chord:		6.714 Course:	N 05° 43' 17.4423" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	194+76.390	21191.759	738280.842
SPI:		21196.815	738281.191
ST:	194+91.390	21205.913	738285.516

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		15 L Tan:	10.075
Radius:		20 S Tan:	5.068
Theta:	21° 29' 09.3023"	P:	0.466
X:		14.79 K:	7.465
Y:		1.856 A:	17.321
Chord:		14.906 Course:	N 18° 16' 24.4454" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	194+91.390	21205.913	738285.516
End:	195+14.834	21227.086	738295.582

Tangent Data

Parameter	Value	Parameter	Value
Length:		23.444 Course:	N 25° 25' 36.7470" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	195+14.834	21227.086	738295.582
SPI:		21239.168	738301.326
SC:	195+34.834	21244.324	738305.614

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	N 30° 11' 56.3725" E

Curve Point Data

Description	Station	Northing	Easting
SC:	195+34.834	21244.324	738305.614
RP:		21218.746	738336.367
CS:	195+42.014	21249.403	738310.675

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	10° 17' 03.2289"	Type:	RIGHT
Radius:		40	
Length:		7.18 Tangent:	3.6
Mid-Ord:		0.161 External:	0.162
Chord:		7.17 Course:	N 44° 53' 34.5630" E

Spiral Point Data

Description	Station	Northing	Easting
CS:	195+42.014	21249.403	738310.675
SPI:		21253.711	738315.815
ST:	195+62.014	21259.5	738327.875

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	N 59° 35' 12.7535" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	195+62.014	21259.5	738327.875
End:	195+64.238	21260.463	738329.88

Tangent Data

Parameter	Value	Parameter	Value
Length:		2.225 Course:	N 64° 21' 32.3790" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	195+64.238	21260.463	738329.88
SPI:		21266.281	738342.003
SC:	195+84.238	21271.356	738346.484

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.447

Radius:		25 S Tan:	6.77
Theta:	22° 55' 05.9225"	P:	0.663
X:		19.682 K:	9.947
Y:		2.636 A:	22.361
Chord:		19.858 Course:	N 56° 43' 47.8012" E

Curve Point Data

Description	Station	Northing	Easting
SC:	195+84.238	21271.356	738346.484
RP:		21287.903	738327.743
CS:	195+96.136	21281.782	738351.982

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	27° 16' 06.7182"	Type:	LEFT
Radius:			25
Length:		11.898 Tangent:	6.064
Mid-Ord:		0.704 External:	0.725
Chord:		11.786 Course:	N 27° 48' 23.0974" E

Spiral Point Data

Description	Station	Northing	Easting
CS:	195+96.136	21281.782	738351.982
SPI:		21288.346	738353.639
ST:	196+16.136	21301.636	738351.594

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.447
Radius:		25 S Tan:	6.77
Theta:	22° 55' 05.9225"	P:	0.663
X:		19.682 K:	9.947
Y:		2.636 A:	22.361
Chord:		19.858 Course:	N 01° 07' 01.6063" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	196+16.136	21301.636	738351.594
End:	196+42.588	21327.78	738347.572

Tangent Data

Parameter	Value	Parameter	Value
Length:		26.452 Course:	N 08° 44' 46.1841" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	196+42.588	21327.78	738347.572
SPI:		21341.07	738345.528
SC:	196+62.588	21347.634	738347.185

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.447
Radius:		25 S Tan:	6.77
Theta:	22° 55' 05.9225"	P:	0.663

X: 19.682 K: 9.947  
 Y: 2.636 A: 22.361  
 Chord: 19.858 Course: N 01° 07' 01.6063" W

Curve Point Data

Description	Station	Northing	Easting
SC:	196+62.588	21347.634	738347.185
RP:		21341.513	738371.424
CS:	196+66.872	21351.678	738348.584

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	09° 49' 07.2879"	Type:	RIGHT
Radius:			25
Length:		4.284 Tangent:	2.147
Mid-Ord:		0.092 External:	0.092
Chord:		4.279 Course:	N 19° 04' 53.3823" E

Spiral Point Data

Description	Station	Northing	Easting
CS:	196+66.872	21351.678	738348.584
SPI:		21357.863	738351.337
ST:	196+86.872	21367.05	738361.156

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.447
Radius:		25 S Tan:	6.77
Theta:	22° 55' 05.9225"	P:	0.663
X:		19.682 K:	9.947
Y:		2.636 A:	22.361
Chord:		19.858 Course:	N 39° 16' 48.3710" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	196+86.872	21367.05	738361.156
End:	196+87.202	21367.275	738361.398

Tangent Data

Parameter	Value	Parameter	Value
Length:		0.33 Course:	N 46° 54' 32.9488" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	196+87.202	21367.275	738361.398
SPI:		21374.142	738368.738
SC:	197+02.202	21378.556	738371.185

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		15 L Tan:	10.052
Radius:		24 S Tan:	5.047
Theta:	17° 54' 17.7520"	P:	0.389
X:		14.854 K:	7.476
Y:		1.552 A:	18.974

Chord:

14.935 Course: N 40° 56' 44.8364" E

Curve Point Data

Description	Station	Northing	Easting
SC:	197+02.202	21378.556	738371.185
RP:		21390.193	738350.195
CS:	197+07.786	21383.709	738373.303

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	13° 19' 49.6734"	Type:	LEFT
Radius:			24
Length:		5.584 Tangent:	2.805
Mid-Ord:		0.162 External:	0.163
Chord:		5.571 Course:	N 22° 20' 20.3601" E

Spiral Point Data

Description	Station	Northing	Easting
CS:	197+07.786	21383.709	738373.303
SPI:		21388.568	738374.666
ST:	197+22.786	21398.612	738374.275

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		15 L Tan:	10.052
Radius:		24 S Tan:	5.047
Theta:	17° 54' 17.7520"	P:	0.389
X:		14.854 K:	7.476
Y:		1.552 A:	18.974
Chord:		14.935 Course:	N 03° 43' 55.8838" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	197+22.786	21398.612	738374.275
End:	197+46.769	21422.577	738373.341

Tangent Data

Parameter	Value	Parameter	Value
Length:		23.983 Course:	N 02° 13' 52.2286" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	197+46.769	21422.577	738373.341
SPI:		21429.261	738373.081
SC:	197+56.769	21432.475	738372.125

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		10 L Tan:	6.689
Radius:		20 S Tan:	3.353
Theta:	14° 19' 26.2016"	P:	0.208
X:		9.938 K:	4.99
Y:		0.83 A:	14.142
Chord:		9.972 Course:	N 07° 00' 11.8541" W

Curve Point Data

Description	Station	Northing	Easting
SC:	197+56.769	21432.475	738372.125
RP:		21426.776	738352.954
CS:	197+85.551	21446.53	738349.822

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	82° 27' 17.9169"	Type:	LEFT
Radius:			20
Length:		28.782 Tangent:	17.526
Mid-Ord:		4.958 External:	6.592
Chord:		26.362 Course:	N 57° 46' 57.3886" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	197+85.551	21446.53	738349.822
SPI:		21446.004	738346.51
ST:	197+95.551	21443.355	738340.369

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		10 L Tan:	6.689
Radius:		20 S Tan:	3.353
Theta:	14° 19' 26.2016"	P:	0.208
X:		9.938 K:	4.99
Y:		0.83 A:	14.142
Chord:		9.972 Course:	S 71° 26' 17.0769" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	197+95.551	21443.355	738340.369
End:	197+98.168	21442.319	738337.966

Tangent Data

Parameter	Value	Parameter	Value
Length:		2.617 Course:	S 66° 39' 57.4514" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	197+98.168	21442.319	738337.966
SPI:		21438.357	738328.781
SC:	198+13.168	21436.693	738324.064

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		15 L Tan:	10.002
Radius:		110 S Tan:	5.002
Theta:	03° 54' 23.5095"	P:	0.085
X:		14.993 K:	7.499
Y:		0.341 A:	40.62
Chord:		14.997 Course:	S 67° 58' 05.1034" W

Curve Point Data

Description	Station	Northing	Easting
SC:	198+13.168	21436.693	738324.064
RP:		21540.43	738287.476
CS:	198+20.035	21434.612	738317.521

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	03° 34' 36.4917"	Type:	RIGHT
Radius:		110	
Length:		6.867 Tangent:	3.435
Mid-Ord:		0.054 External:	0.054
Chord:		6.866 Course:	S 72° 21' 39.2068" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	198+20.035	21434.612	738317.521
SPI:		21433.246	738312.709
ST:	198+35.035	21431.176	738302.923

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		15 L Tan:	10.002
Radius:		110 S Tan:	5.002
Theta:	03° 54' 23.5095"	P:	0.085
X:		14.993 K:	7.499
Y:		0.341 A:	40.62
Chord:		14.997 Course:	S 76° 45' 13.3101" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	198+35.035	21431.176	738302.923
End:	198+38.255	21430.51	738299.773

Tangent Data

Parameter	Value	Parameter	Value
Length:		3.22 Course:	S 78° 03' 20.9621" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	198+38.255	21430.51	738299.773
SPI:		21427.743	738286.695
SC:	198+58.255	21424.947	738280.608

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.368
Radius:		45 S Tan:	6.698
Theta:	12° 43' 56.6236"	P:	0.37
X:		19.901 K:	9.984
Y:		1.476 A:	30
Chord:		19.956 Course:	S 73° 48' 48.4826" W

Curve Point Data

Description	Station	Northing	Easting
SC:	198+58.255	21424.947	738280.608

RP:		21384.056	738299.395
CS:	198+78.036	21413.064	738264.993

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	25° 11' 08.9323"	Type:	LEFT
Radius:			45
Length:		19.781 Tangent:	10.053
Mid-Ord:		1.083 External:	1.109
Chord:		19.622 Course:	S 52° 43' 49.8723" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	198+78.036	21413.064	738264.993
SPI:		21407.943	738260.675
ST:	198+98.036	21396.076	738254.522

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.368
Radius:		45 S Tan:	6.698
Theta:	12° 43' 56.6236"	P:	0.37
X:		19.901 K:	9.984
Y:		1.476 A:	30
Chord:		19.956 Course:	S 31° 38' 51.2620" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	198+98.036	21396.076	738254.522
End:	199+04.148	21390.649	738251.709

Tangent Data

Parameter	Value	Parameter	Value
Length:		6.113 Course:	S 27° 24' 18.7826" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	199+04.148	21390.649	738251.709
SPI:		21381.769	738247.105
SC:	199+19.148	21377.513	738244.476

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		15 L Tan:	10.003
Radius:		100 S Tan:	5.003
Theta:	04° 17' 49.8605"	P:	0.094
X:		14.992 K:	7.499
Y:		0.375 A:	38.73
Chord:		14.996 Course:	S 28° 50' 15.1571" W

Curve Point Data

Description	Station	Northing	Easting
SC:	199+19.148	21377.513	738244.476
RP:		21430.063	738159.397
CS:	199+49.292	21354.623	738225.038

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	17° 16' 16.0337"	Type:	RIGHT
Radius:		100	
Length:		30.144 Tangent:	15.187
Mid-Ord:		1.134 External:	1.147
Chord:		30.03 Course:	S 40° 20' 16.6599" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	199+49.292	21354.623	738225.038
SPI:		21351.339	738221.263
ST:	199+64.292	21345.357	738213.246

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		15 L Tan:	10.003
Radius:		100 S Tan:	5.003
Theta:	04° 17' 49.8605"	P:	0.094
X:		14.992 K:	7.499
Y:		0.375 A:	38.73
Chord:		14.996 Course:	S 51° 50' 18.1626" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	199+64.292	21345.357	738213.246
End:	199+95.425	21326.738	738188.294

Tangent Data

Parameter	Value	Parameter	Value
Length:		31.133 Course:	S 53° 16' 14.5372" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	199+95.425	21326.738	738188.294
SPI:		21318.764	738177.607
SC:	200+15.425	21314.993	738172.108

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.334
Radius:		250 S Tan:	6.668
Theta:	02° 17' 30.5922"	P:	0.067
X:		19.997 K:	9.999
Y:		0.267 A:	70.711
Chord:		19.999 Course:	S 54° 02' 04.6974" W

Curve Point Data

Description	Station	Northing	Easting
SC:	200+15.425	21314.993	738172.108
RP:		21521.179	738030.731
CS:	200+35.386	21304.374	738155.212

Circular Curve Data

Parameter	Value	Parameter	Value
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Delta: 04° 34' 28.9469" Type: RIGHT  
 Radius: 250  
 Length: 19.961 Tangent: 9.986  
 Mid-Ord: 0.199 External: 0.199  
 Chord: 19.956 Course: S 57° 50' 59.6029" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	200+35.386	21304.374	738155.212
SPI:		21301.054	738149.43
ST:	200+55.386	21294.882	738137.61

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.334
Radius:		250 S Tan:	6.668
Theta:	02° 17' 30.5922"	P:	0.067
X:		19.997 K:	9.999
Y:		0.267 A:	70.711
Chord:		19.999 Course:	S 61° 39' 54.5085" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	200+55.386	21294.882	738137.61
End:	200+61.407	21292.095	738132.273

Tangent Data

Parameter	Value	Parameter	Value
Length:		6.021 Course:	S 62° 25' 44.6686" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	200+61.407	21292.095	738132.273
SPI:		21285.872	738120.353
SC:	200+81.407	21280.649	738116.046

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.447
Radius:		25 S Tan:	6.77
Theta:	22° 55' 05.9225"	P:	0.663
X:		19.682 K:	9.947
Y:		2.636 A:	22.361
Chord:		19.858 Course:	S 54° 48' 00.0908" W

Curve Point Data

Description	Station	Northing	Easting
SC:	200+81.407	21280.649	738116.046
RP:		21264.743	738135.333
CS:	201+00.776	21262.616	738110.424

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	44° 23' 28.5912"	Type:	LEFT
Radius:			25

Length: 19.369 Tangent: 10.2  
 Mid-Ord: 1.853 External: 2.001  
 Chord: 18.889 Course: S 17° 18' 54.4505" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	201+00.776	21262.616	738110.424
SPI:		21255.871	738111
ST:	201+20.776	21243.976	738117.271

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.447
Radius:		25 S Tan:	6.77
Theta:	22° 55' 05.9225"	P:	0.663
X:		19.682 K:	9.947
Y:		2.636 A:	22.361
Chord:		19.858 Course:	S 20° 10' 11.1898" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	201+20.776	21243.976	738117.271
End:	201+70.873	21199.66	738140.635

Tangent Data

Parameter	Value	Parameter	Value
Length:		50.097 Course:	S 27° 47' 55.7676" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	201+70.873	21199.66	738140.635
SPI:		21187.707	738146.937
SC:	201+90.873	21180.879	738146.835

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.512
Radius:		20 S Tan:	6.83
Theta:	28° 38' 52.4031"	P:	0.826
X:		19.506 K:	9.917
Y:		3.274 A:	20
Chord:		19.779 Course:	S 18° 16' 11.4998" E

Curve Point Data

Description	Station	Northing	Easting
SC:	201+90.873	21180.879	738146.835
RP:		21181.175	738126.838
CS:	201+92.224	21179.53	738146.77

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	03° 52' 09.8789"	Type:	RIGHT
Radius:		20	
Length:		1.351 Tangent:	0.676
Mid-Ord:		0.011 External:	0.011

Chord:

1.35 Course: S 02° 47' 01.5750" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	201+92.224	21179.53	738146.77
SPI:		21172.723	738146.208
ST:	202+12.224	21161.438	738138.776

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.512
Radius:		20 S Tan:	6.83
Theta:	28° 38' 52.4031"	P:	0.826
X:		19.506 K:	9.917
Y:		3.274 A:	20
Chord:		19.779 Course:	S 23° 50' 14.6499" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	202+12.224	21161.438	738138.776
End:	202+17.190	21157.291	738136.045

Tangent Data

Parameter	Value	Parameter	Value
Length:		4.966 Course:	S 33° 21' 58.9176" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	202+17.190	21157.291	738136.045
SPI:		21146.118	738128.688
SC:	202+37.190	21139.779	738126.499

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	S 28° 35' 39.2921" W

Curve Point Data

Description	Station	Northing	Easting
SC:	202+37.190	21139.779	738126.499
RP:		21126.728	738164.311
CS:	202+40.137	21136.961	738125.642

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	04° 13' 12.9527"	Type:	LEFT
Radius:		40	
Length:		2.946 Tangent:	1.474
Mid-Ord:		0.027 External:	0.027
Chord:		2.946 Course:	S 16° 55' 56.2397" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	202+40.137	21136.961	738125.642
SPI:		21130.477	738123.926
ST:	202+60.137	21117.101	738123.81

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	S 05° 16' 13.1873" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	202+60.137	21117.101	738123.81
End:	203+08.389	21068.85	738123.39

Tangent Data

Parameter	Value	Parameter	Value
Length:	48.252	Course:	S 00° 29' 53.5618" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	203+08.389	21068.85	738123.39
SPI:		21056.721	738123.285
SC:	203+26.389	21051.235	738120.576

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		18 L Tan:	12.13
Radius:		20 S Tan:	6.118
Theta:	25° 46' 59.1628"	P:	0.67
X:		17.639 K:	8.94
Y:		2.661 A:	18.974
Chord:		17.839 Course:	S 09° 04' 39.9817" W

Curve Point Data

Description	Station	Northing	Easting
SC:	203+26.389	21051.235	738120.576
RP:		21060.09	738102.643
CS:	203+50.330	21040.162	738100.946

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	68° 35' 10.5172"	Type:	RIGHT
Radius:		20	
Length:		23.941 Tangent:	13.64
Mid-Ord:		3.477 External:	4.208
Chord:		22.537 Course:	S 60° 34' 27.9832" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	203+50.330	21040.162	738100.946
SPI:		21040.682	738094.85
ST:	203+68.330	21046.865	738084.415

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		18 L Tan:	12.13
Radius:		20 S Tan:	6.118
Theta:	25° 46' 59.1628"	P:	0.67
X:		17.639 K:	8.94
Y:		2.661 A:	18.974
Chord:		17.839 Course:	N 67° 55' 44.0152" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	203+68.330	21046.865	738084.415
End:	203+69.143	21047.28	738083.715

Tangent Data

Parameter	Value	Parameter	Value
Length:		0.813 Course:	N 59° 20' 57.5954" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	203+69.143	21047.28	738083.715
SPI:		21052.446	738074.997
SC:	203+84.143	21052.625	738069.878

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		15 L Tan:	10.134
Radius:		15 S Tan:	5.122
Theta:	28° 38' 52.4031"	P:	0.619
X:		14.629 K:	7.438
Y:		2.456 A:	15
Chord:		14.834 Course:	N 68° 52' 41.8631" W

Curve Point Data

Description	Station	Northing	Easting
SC:	203+84.143	21052.625	738069.878
RP:		21037.635	738069.353
CS:	203+85.769	21052.594	738068.253

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	06° 12' 38.1974"	Type:	LEFT
Radius:		15	
Length:		1.626 Tangent:	0.814
Mid-Ord:		0.022 External:	0.022
Chord:		1.625 Course:	S 88° 53' 50.9028" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	203+85.769	21052.594	738068.253

SPI: 21052.218 738063.144  
 ST: 204+00.769 21046.72 738054.631

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		15 L Tan:	10.134
Radius:		15 S Tan:	5.122
Theta:	28° 38' 52.4031"	P:	0.619
X:		14.629 K:	7.438
Y:		2.456 A:	15
Chord:		14.834 Course:	S 66° 40' 23.6687" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	204+00.769	21046.72	738054.631
End:	204+17.823	21037.468	738040.305

Tangent Data

Parameter	Value	Parameter	Value
Length:	17.054	Course:	S 57° 08' 39.4010" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	204+17.823	21037.468	738040.305
SPI:		21030.224	738029.089
SC:	204+37.823	21027.579	738022.95

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641
Chord:		19.975 Course:	S 60° 19' 35.8604" W

Curve Point Data

Description	Station	Northing	Easting
SC:	204+37.823	21027.579	738022.95
RP:		21082.683	737999.211
CS:	204+43.296	21025.646	738017.832

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	05° 13' 32.5804"	Type:	RIGHT
Radius:		60	
Length:		5.472 Tangent:	2.738
Mid-Ord:		0.062 External:	0.062
Chord:		5.47 Course:	S 69° 18' 23.1589" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	204+43.296	21025.646	738017.832
SPI:		21023.572	738011.478
ST:	204+63.296	21021.591	737998.273

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641
Chord:		19.975 Course:	S 78° 17' 10.4574" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	204+63.296	21021.591	737998.273
End:	204+71.019	21020.445	737990.635

Tangent Data

Parameter	Value	Parameter	Value
Length:		7.723 Course:	S 81° 28' 06.9168" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	204+71.019	21020.445	737990.635
SPI:		21018.959	737980.731
SC:	204+86.019	21019.048	737975.719

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		15 L Tan:	10.015
Radius:		45 S Tan:	5.013
Theta:	09° 32' 57.4677"	P:	0.208
X:		14.958 K:	7.493
Y:		0.832 A:	25.981
Chord:		14.981 Course:	S 84° 39' 03.3762" W

Curve Point Data

Description	Station	Northing	Easting
SC:	204+86.019	21019.048	737975.719
RP:		21064.041	737976.518
CS:	204+86.038	21019.049	737975.7

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	00° 01' 27.3164"	Type:	RIGHT
Radius:		45	
Length:		0.019 Tangent:	0.01
Mid-Ord:		0 External:	0
Chord:		0.019 Course:	N 88° 58' 11.9572" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	204+86.038	21019.049	737975.7
SPI:		21019.14	737970.687
ST:	205+01.038	21020.981	737960.843

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
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Length: 15 L Tan: 10.015  
 Radius: 45 S Tan: 5.013  
 Theta: 09° 32' 57.4677" P: 0.208  
 X: 14.958 K: 7.493  
 Y: 0.832 A: 25.981  
 Chord: 14.981 Course: N 82° 35' 27.2907" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	205+01.038	21020.981	737960.843
End:	205+12.340	21023.058	737949.733

Tangent Data

Parameter	Value	Parameter	Value
Length:	11.303	Course:	N 79° 24' 30.8313" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	205+12.340	21023.058	737949.733
SPI:		21024.905	737939.857
SC:	205+27.340	21024.325	737934.847

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:	15	L Tan:	10.048
Radius:	25	S Tan:	5.043
Theta:	17° 11' 19.4419"	P:	0.374
X:	14.866	K:	7.478
Y:	1.49	A:	19.365
Chord:	14.94	Course:	N 85° 08' 01.5622" W

Curve Point Data

Description	Station	Northing	Easting
SC:	205+27.340	21024.325	737934.847
RP:		20999.491	737937.719
CS:	205+28.553	21024.157	737933.646

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	02° 46' 44.4692"	Type:	LEFT
Radius:	25		
Length:	1.213	Tangent:	0.606
Mid-Ord:	0.007	External:	0.007
Chord:	1.212	Course:	S 82° 00' 47.4922" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	205+28.553	21024.157	737933.646
SPI:		21023.335	737928.671
ST:	205+43.553	21018.842	737919.684

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:	15	L Tan:	10.048
Radius:	25	S Tan:	5.043

Theta: 17° 11' 19.4419" P: 0.374  
 X: 14.866 K: 7.478  
 Y: 1.49 A: 19.365  
 Chord: 14.94 Course: S 69° 09' 36.5466" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	205+43.553	21018.842	737919.684
End:	205+44.249	21018.53	737919.061

Tangent Data

Parameter	Value	Parameter	Value
Length:	0.697	Course:	S 63° 26' 05.8158" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	205+44.249	21018.53	737919.061
SPI:		21012.555	737907.11
SC:	205+64.249	21010.811	737900.649

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.361
Radius:		50 S Tan:	6.692
Theta:	11° 27' 32.9612"	P:	0.333
X:		19.92 K:	9.987
Y:		1.33 A:	31.623
Chord:		19.964 Course:	S 67° 15' 12.1419" W

Curve Point Data

Description	Station	Northing	Easting
SC:	205+64.249	21010.811	737900.649
RP:		21059.083	737887.619
CS:	205+66.379	21010.3	737898.582

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	02° 26' 25.1922"	Type:	RIGHT
Radius:		50	
Length:		2.13 Tangent:	1.065
Mid-Ord:		0.011 External:	0.011
Chord:		2.129 Course:	S 76° 06' 51.3731" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	205+66.379	21010.3	737898.582
SPI:		21008.833	737892.053
ST:	205+86.379	21008.551	737878.694

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.361
Radius:		50 S Tan:	6.692
Theta:	11° 27' 32.9612"	P:	0.333
X:		19.92 K:	9.987

Y: 1.33 A: 31.623  
 Chord: 19.964 Course: S 84° 58' 30.6043" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	205+86.379	21008.551	737878.694
End:	206+19.141	21007.862	737845.939

Tangent Data

Parameter	Value	Parameter	Value
Length:	32.762	Course:	S 88° 47' 36.9305" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	206+19.141	21007.862	737845.939
SPI:		21007.577	737832.43
SC:	206+39.141	21010.724	737826.369

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.512
Radius:		20 S Tan:	6.83
Theta:	28° 38' 52.4031"	P:	0.826
X:		19.506 K:	9.917
Y:		3.274 A:	20
Chord:	19.779	Course:	N 81° 40' 38.8018" W

Curve Point Data

Description	Station	Northing	Easting
SC:	206+39.141	21010.724	737826.369
RP:		21028.474	737835.585
CS:	206+79.258	21044.313	737823.374

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	114° 55' 33.3044"	Type:	RIGHT
Radius:		20	
Length:	40.117	Tangent:	31.349
Mid-Ord:	9.243	External:	17.185
Chord:	33.722	Course:	N 05° 05' 44.0142" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	206+79.258	21044.313	737823.374
SPI:		21048.483	737828.782
ST:	206+99.258	21050.593	737842.129

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.512
Radius:		20 S Tan:	6.83
Theta:	28° 38' 52.4031"	P:	0.826
X:		19.506 K:	9.917
Y:		3.274 A:	20
Chord:	19.779	Course:	N 71° 29' 10.7734" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	206+99.258	21050.593	737842.129
End:	207+01.905	21051.007	737844.743

Tangent Data

Parameter	Value	Parameter	Value
Length:	2.647	Course:	N 81° 00' 55.0411" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	207+01.905	21051.007	737844.743
SPI:		21053.091	737857.924
SC:	207+21.905	21054.947	737864.337

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.344
Radius:		80 S Tan:	6.677
Theta:	07° 09' 43.1008"	P:	0.208
X:		19.969 K:	9.995
Y:		0.832 A:	40
Chord:		19.986 Course:	N 78° 37' 41.8115" E

Curve Point Data

Description	Station	Northing	Easting
SC:	207+21.905	21054.947	737864.337
RP:		21131.792	737842.089
CS:	207+32.594	21058.596	737874.375

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	07° 39' 18.3631"	Type:	LEFT
Radius:		80	
Length:		10.689 Tangent:	5.352
Mid-Ord:		0.178 External:	0.179
Chord:		10.681 Course:	N 70° 01' 32.7588" E

Spiral Point Data

Description	Station	Northing	Easting
CS:	207+32.594	21058.596	737874.375
SPI:		21061.29	737880.484
ST:	207+52.594	21068.156	737891.926

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.344
Radius:		80 S Tan:	6.677
Theta:	07° 09' 43.1008"	P:	0.208
X:		19.969 K:	9.995
Y:		0.832 A:	40
Chord:		19.986 Course:	N 61° 25' 23.7062" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	207+52.594	21068.156	737891.926
End:	207+85.333	21085	737920

Tangent Data

Parameter	Value	Parameter	Value
Length:	32.739	Course:	N 59° 02' 10.4765" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	207+85.333	21085	737920
End:	208+04.477	21091.789	737937.899

Tangent Data

Parameter	Value	Parameter	Value
Length:	19.144	Course:	N 69° 13' 39.8831" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	208+04.477	21091.789	737937.899
SPI:		21096.543	737950.43
SC:	208+24.477	21100.748	737955.684

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.402
Radius:		32 S Tan:	6.729
Theta:	17° 54' 17.7520"	P:	0.519
X:		19.806 K:	9.968
Y:		2.069 A:	25.298
Chord:		19.913 Course:	N 63° 15' 51.7708" E

Curve Point Data

Description	Station	Northing	Easting
SC:	208+24.477	21100.748	737955.684
RP:		21125.73	737935.686
CS:	208+83.890	21151.961	737954.014

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	106° 22' 48.4152"	Type:	LEFT
Radius:		32	
Length:		59.414 Tangent:	42.76
Mid-Ord:		12.827 External:	21.408
Chord:		51.24 Course:	N 01° 52' 02.0764" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	208+83.890	21151.961	737954.014
SPI:		21155.815	737948.498
ST:	209+03.890	21159.742	737935.684

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.402

Radius:		32 S Tan:	6.729
Theta:	17° 54' 17.7520"	P:	0.519
X:		19.806 K:	9.968
Y:		2.069 A:	25.298
Chord:		19.913 Course:	N 66° 59' 55.9236" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	209+03.890	21159.742	737935.684
End:	209+59.919	21176.159	737882.114

Tangent Data

Parameter	Value	Parameter	Value
Length:	56.029	Course:	N 72° 57' 44.0359" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	209+59.919	21176.159	737882.114
SPI:		21180.071	737869.347
SC:	209+79.919	21183.063	737863.37

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641
Chord:		19.975 Course:	N 69° 46' 47.5765" W

Curve Point Data

Description	Station	Northing	Easting
SC:	209+79.919	21183.063	737863.37
RP:		21236.718	737890.223
CS:	210+04.696	21198.35	737844.095

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	23° 39' 37.4446"	Type:	RIGHT
Radius:		60	
Length:		24.777 Tangent:	12.568
Mid-Ord:		1.274 External:	1.302
Chord:		24.601 Course:	N 51° 34' 57.8459" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	210+04.696	21198.35	737844.095
SPI:		21203.489	737839.82
ST:	210+24.696	21215.029	737833.103

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278

X: 19.945 K: 9.991  
 Y: 1.109 A: 34.641  
 Chord: 19.975 Course: N 33° 23' 08.1153" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	210+24.696	21215.029	737833.103
End:	210+41.247	21229.333	737824.776

Tangent Data

Parameter	Value	Parameter	Value
Length:	16.551	Course:	N 30° 12' 11.6559" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	210+41.247	21229.333	737824.776
SPI:		21240.862	737818.065
SC:	210+61.247	21246.265	737814.149

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.34
Radius:		100 S Tan:	6.673
Theta:	05° 43' 46.4806"	P:	0.167
X:		19.98 K:	9.997
Y:		0.666 A:	44.721
Chord:		19.991 Course:	N 32° 06' 46.5673" W

Curve Point Data

Description	Station	Northing	Easting
SC:	210+61.247	21246.265	737814.149
RP:		21187.582	737733.179
CS:	210+75.623	21257.26	737804.907

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	08° 14' 12.1157"	Type:	LEFT
Radius:		100	
Length:		14.376 Tangent:	7.2
Mid-Ord:		0.258 External:	0.259
Chord:		14.363 Course:	N 40° 03' 04.1944" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	210+75.623	21257.26	737804.907
SPI:		21262.047	737800.257
ST:	210+95.623	21270.639	737790.053

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.34
Radius:		100 S Tan:	6.673
Theta:	05° 43' 46.4806"	P:	0.167
X:		19.98 K:	9.997
Y:		0.666 A:	44.721

Chord:

19.991 Course: N 47° 59' 21.8215" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	210+95.623	21270.639	737790.053
End:	211+50.917	21306.256	737747.758

Tangent Data

Parameter	Value	Parameter	Value
Length:	55.294	Course:	N 49° 53' 56.7328" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	211+50.917	21306.256	737747.758
SPI:		21314.849	737737.554
SC:	211+70.917	21319.636	737732.904

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.34
Radius:		100 S Tan:	6.673
Theta:	05° 43' 46.4806"	P:	0.167
X:		19.98 K:	9.997
Y:		0.666 A:	44.721
Chord:		19.991 Course:	N 47° 59' 21.8215" W

Curve Point Data

Description	Station	Northing	Easting
SC:	211+70.917	21319.636	737732.904
RP:		21389.314	737804.632
CS:	212+11.894	21353.98	737711.083

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	23° 28' 40.0127"	Type:	RIGHT
Radius:		100	
Length:		40.976 Tangent:	20.78
Mid-Ord:		2.092 External:	2.136
Chord:		40.69 Course:	N 32° 25' 50.2459" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	212+11.894	21353.98	737711.083
SPI:		21360.223	737708.725
ST:	212+31.894	21373.111	737705.281

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.34
Radius:		100 S Tan:	6.673
Theta:	05° 43' 46.4806"	P:	0.167
X:		19.98 K:	9.997
Y:		0.666 A:	44.721
Chord:		19.991 Course:	N 16° 52' 18.6703" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	212+31.894	21373.111	737705.281
End:	212+85.093	21424.506	737691.546

Tangent Data

Parameter	Value	Parameter	Value
Length:	53.199	Course:	N 14° 57' 43.7589" W

Curve Point Data

Description	Station	Northing	Easting
PC:	212+85.093	21424.506	737691.546
RP:		21501.961	737981.375
PT:	213+35.679	21474.245	737682.658

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	09° 39' 40.4235"	Type:	RIGHT
Radius:			300
Length:	50.586	Tangent:	25.353
Mid-Ord:	1.066	External:	1.069
Chord:	50.526	Course:	N 10° 07' 53.5472" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	213+35.679	21474.245	737682.658
End:	213+85.841	21524.192	737678.023

Tangent Data

Parameter	Value	Parameter	Value
Length:	50.162	Course:	N 05° 18' 03.3355" W

Curve Point Data

Description	Station	Northing	Easting
PC:	213+85.841	21524.192	737678.023
RP:		21510.334	737528.665
PT:	214+29.337	21566.319	737667.826

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	16° 36' 50.1833"	Type:	LEFT
Radius:			150
Length:	43.495	Tangent:	21.901
Mid-Ord:	1.574	External:	1.59
Chord:	43.343	Course:	N 13° 36' 28.4271" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	214+29.337	21566.319	737667.826
End:	214+64.532	21598.971	737654.69

Tangent Data

Parameter	Value	Parameter	Value
Length:	35.196	Course:	N 21° 54' 53.5188" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	214+64.532	21598.971	737654.69
SPI:		21611.507	737649.647
SC:	214+84.532	21615.845	737644.372

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.512
Radius:		20 S Tan:	6.83
Theta:	28° 38' 52.4031"	P:	0.826
X:		19.506 K:	9.917
Y:		3.274 A:	20
Chord:		19.779 Course:	N 31° 26' 37.7865" W

Curve Point Data

Description	Station	Northing	Easting
SC:	214+84.532	21615.845	737644.372
RP:		21600.399	737631.667
CS:	215+00.912	21620.229	737629.061

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	46° 55' 29.0308"	Type:	LEFT
Radius:		20	
Length:		16.38 Tangent:	8.681
Mid-Ord:		1.654 External:	1.803
Chord:		15.926 Course:	N 74° 01' 30.4373" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	215+00.912	21620.229	737629.061
SPI:		21619.339	737622.29
ST:	215+20.912	21611.37	737611.377

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.512
Radius:		20 S Tan:	6.83
Theta:	28° 38' 52.4031"	P:	0.826
X:		19.506 K:	9.917
Y:		3.274 A:	20
Chord:		19.779 Course:	S 63° 23' 36.9119" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	215+20.912	21611.37	737611.377
End:	215+39.119	21600.634	737596.672

Tangent Data

Parameter	Value	Parameter	Value
Length:		18.207 Course:	S 53° 51' 52.6442" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	215+39.119	21600.634	737596.672
SPI:		21592.666	737585.759
SC:	215+59.119	21591.776	737578.988

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.512
Radius:		20 S Tan:	6.83
Theta:	28° 38' 52.4031"	P:	0.826
X:		19.506 K:	9.917
Y:		3.274 A:	20
Chord:		19.779 Course:	S 63° 23' 36.9119" W

Curve Point Data

Description	Station	Northing	Easting
SC:	215+59.119	21591.776	737578.988
RP:		21611.605	737576.382
CS:	215+61.720	21591.605	737576.395

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	07° 27' 00.2044"	Type:	RIGHT
Radius:		20	
Length:		2.601 Tangent:	1.302
Mid-Ord:		0.042 External:	0.042
Chord:		2.599 Course:	S 86° 14' 15.1495" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	215+61.720	21591.605	737576.395
SPI:		21591.601	737569.565
ST:	215+81.720	21598.071	737557.703

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.512
Radius:		20 S Tan:	6.83
Theta:	28° 38' 52.4031"	P:	0.826
X:		19.506 K:	9.917
Y:		3.274 A:	20
Chord:		19.779 Course:	N 70° 55' 06.6129" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	215+81.720	21598.071	737557.703
End:	215+83.581	21598.962	737556.069

Tangent Data

Parameter	Value	Parameter	Value
Length:		1.861 Course:	N 61° 23' 22.3452" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	215+83.581	21598.962	737556.069

SPI: 21602.173 737550.182  
 SC: 215+93.581 21602.73 737546.859

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		10 L Tan:	6.706
Radius:		15 S Tan:	3.369
Theta:	19° 05' 54.9354"	P:	0.277
X:		9.889 K:	4.982
Y:		1.102 A:	12.247
Chord:		9.951 Course:	N 67° 44' 59.0413" W

Curve Point Data

Description	Station	Northing	Easting
SC:	215+93.581	21602.73	737546.859
RP:		21587.936	737544.381
CS:	216+11.249	21595.891	737531.663

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	67° 29' 14.1871"	Type:	LEFT
Radius:		15	
Length:	17.668	Tangent:	10.02
Mid-Ord:	2.527	External:	3.039
Chord:	16.664	Course:	S 65° 46' 05.6258" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	216+11.249	21595.891	737531.663
SPI:		21593.034	737529.877
ST:	216+21.249	21586.498	737528.377

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		10 L Tan:	6.706
Radius:		15 S Tan:	3.369
Theta:	19° 05' 54.9354"	P:	0.277
X:		9.889 K:	4.982
Y:		1.102 A:	12.247
Chord:		9.951 Course:	S 19° 17' 10.2929" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	216+21.249	21586.498	737528.377
End:	216+28.435	21579.495	737526.769

Tangent Data

Parameter	Value	Parameter	Value
Length:	7.186	Course:	S 12° 55' 33.5968" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	216+28.435	21579.495	737526.769
SPI:		21566.325	737523.747
SC:	216+48.435	21561.216	737519.215

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.512
Radius:		20 S Tan:	6.83
Theta:	28° 38' 52.4031"	P:	0.826
X:		19.506 K:	9.917
Y:		3.274 A:	20
Chord:		19.779 Course:	S 22° 27' 17.8646" W

Curve Point Data

Description	Station	Northing	Easting
SC:	216+48.435	21561.216	737519.215
RP:		21574.487	737504.253
CS:	216+59.383	21555.368	737510.121

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	31° 21' 48.0513"	Type:	RIGHT
Radius:		20	
Length:		10.948 Tangent:	5.615
Mid-Ord:		0.744 External:	0.773
Chord:		10.812 Course:	S 57° 15' 20.0256" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	216+59.383	21555.368	737510.121
SPI:		21553.364	737503.592
ST:	216+79.383	21556.077	737490.355

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.512
Radius:		20 S Tan:	6.83
Theta:	28° 38' 52.4031"	P:	0.826
X:		19.506 K:	9.917
Y:		3.274 A:	20
Chord:		19.779 Course:	N 87° 56' 37.8133" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	216+79.383	21556.077	737490.355
End:	218+31.186	21586.563	737341.644

Tangent Data

Parameter	Value	Parameter	Value
Length:	151.803	Course:	N 78° 24' 53.5456" W

Curve Point Data

Description	Station	Northing	Easting
PC:	218+31.186	21586.563	737341.644
RP:		21782.488	737381.809
PT:	218+75.197	21600.055	737299.846

Circular Curve Data

Parameter	Value	Parameter	Value
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Delta: 12° 36' 29.0979" Type: RIGHT  
 Radius: 200  
 Length: 44.011 Tangent: 22.094  
 Mid-Ord: 1.209 External: 1.217  
 Chord: 43.922 Course: N 72° 06' 38.9966" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	218+75.197	21600.055	737299.846
End:	219+01.263	21610.737	737276.07

Tangent Data

Parameter	Value	Parameter	Value
Length:	26.066	Course:	N 65° 48' 24.4476" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	219+01.263	21610.737	737276.07
SPI:		21616.219	737263.868
SC:	219+21.263	21620.395	737258.62

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	N 61° 02' 04.8222" W

Curve Point Data

Description	Station	Northing	Easting
SC:	219+21.263	21620.395	737258.62
RP:		21651.692	737283.53
CS:	219+33.960	21629.735	737250.096

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	18° 11' 18.5764"	Type:	RIGHT
Radius:		40	
Length:		12.698 Tangent:	6.403
Mid-Ord:		0.503 External:	0.509
Chord:		12.645 Course:	N 42° 23' 18.9579" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	219+33.960	21629.735	737250.096
SPI:		21635.34	737246.414
ST:	219+53.960	21647.991	737242.066

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416

X: 19.875 K: 9.979  
 Y: 1.659 A: 28.284  
 Chord: 19.944 Course: N 23° 44' 33.0936" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	219+53.960	21647.991	737242.066
End:	219+68.905	21662.124	737237.207

Tangent Data

Parameter	Value	Parameter	Value
Length:	14.944	Course:	N 18° 58' 13.4681" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	219+68.905	21662.124	737237.207
SPI:		21674.743	737232.87
SC:	219+88.905	21681.278	737231.503

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.344
Radius:		80 S Tan:	6.677
Theta:	07° 09' 43.1008"	P:	0.208
X:		19.969 K:	9.995
Y:		0.832 A:	40
Chord:		19.986 Course:	N 16° 35' 00.2384" W

Curve Point Data

Description	Station	Northing	Easting
SC:	219+88.905	21681.278	737231.503
RP:		21697.65	737309.81
CS:	219+98.972	21691.236	737230.068

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	07° 12' 36.8393"	Type:	RIGHT
Radius:		80	
Length:		10.067 Tangent:	5.04
Mid-Ord:		0.158 External:	0.159
Chord:		10.061 Course:	N 08° 12' 11.9477" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	219+98.972	21691.236	737230.068
SPI:		21697.891	737229.532
ST:	220+18.972	21711.222	737230.129

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.344
Radius:		80 S Tan:	6.677
Theta:	07° 09' 43.1008"	P:	0.208
X:		19.969 K:	9.995
Y:		0.832 A:	40

Chord:

19.986 Course: N 00° 10' 36.3431" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	220+18.972	21711.222	737230.129
End:	220+32.448	21724.685	737230.732

Tangent Data

Parameter	Value	Parameter	Value
Length:	13.476	Course:	N 02° 33' 49.5728" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	220+32.448	21724.685	737230.732
SPI:		21738.024	737231.329
SC:	220+52.448	21744.659	737230.517

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641
Chord:		19.975 Course:	N 00° 37' 06.8866" W

Curve Point Data

Description	Station	Northing	Easting
SC:	220+52.448	21744.659	737230.517
RP:		21737.362	737170.962
CS:	220+67.915	21759.6	737226.689

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	14° 46' 09.4819"	Type:	LEFT
Radius:		60	
Length:		15.466 Tangent:	7.776
Mid-Ord:		0.498 External:	0.502
Chord:		15.424 Course:	N 14° 22' 12.6359" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	220+67.915	21759.6	737226.689
SPI:		21765.808	737224.211
ST:	220+87.915	21777.217	737217.273

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641
Chord:		19.975 Course:	N 28° 07' 18.3852" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	220+87.915	21777.217	737217.273
End:	221+15.875	21801.107	737202.746

Tangent Data

Parameter	Value	Parameter	Value
Length:	27.96	Course:	N 31° 18' 14.8446" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	221+15.875	21801.107	737202.746
SPI:		21812.516	737195.808
SC:	221+35.875	21817.572	737191.435

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641
Chord:		19.975 Course:	N 34° 29' 11.3040" W

Curve Point Data

Description	Station	Northing	Easting
SC:	221+35.875	21817.572	737191.435
RP:		21778.324	737146.052
CS:	221+54.881	21829.756	737176.952

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	18° 08' 58.3692"	Type:	LEFT
Radius:		60	
Length:		19.006 Tangent:	9.583
Mid-Ord:		0.751 External:	0.761
Chord:		18.927 Course:	N 49° 55' 41.4969" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	221+54.881	21829.756	737176.952
SPI:		21833.198	737171.222
ST:	221+74.881	21838.081	737158.794

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641
Chord:		19.975 Course:	N 65° 22' 11.6898" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	221+74.881	21838.081	737158.794
End:	221+78.342	21839.346	737155.573

Tangent Data

Parameter	Value	Parameter	Value
Length:	3.461	Course:	N 68° 33' 08.1492" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	221+78.342	21839.346	737155.573
SPI:		21844.238	737143.122
SC:	221+98.342	21848.158	737137.681

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	N 63° 46' 48.5237" W

Curve Point Data

Description	Station	Northing	Easting
SC:	221+98.342	21848.158	737137.681
RP:		21880.612	737161.063
CS:	222+09.218	21855.63	737129.824

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	15° 34' 43.6752"	Type:	RIGHT
Radius:		40	
Length:		10.876 Tangent:	5.472
Mid-Ord:		0.369 External:	0.373
Chord:		10.843 Course:	N 46° 26' 20.1100" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	222+09.218	21855.63	737129.824
SPI:		21860.868	737125.635
ST:	222+29.218	21873.057	737120.125

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	N 29° 05' 51.6963" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	222+29.218	21873.057	737120.125

End: 222+49.645 21891.671 737111.71

Tangent Data

Parameter	Value	Parameter	Value
Length:	20.427	Course:	N 24° 19' 32.0709" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	222+49.645	21891.671	737111.71
SPI:		21903.838	737106.21
SC:	222+69.645	21910.302	737104.505

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641
Chord:		19.975 Course:	N 21° 08' 35.6115" W

Curve Point Data

Description	Station	Northing	Easting
SC:	222+69.645	21910.302	737104.505
RP:		21925.604	737162.521
CS:	222+93.896	21934.35	737103.162

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	23° 09' 28.4950"	Type:	RIGHT
Radius:		60	
Length:		24.251 Tangent:	12.293
Mid-Ord:		1.221 External:	1.246
Chord:		24.086 Course:	N 03° 11' 50.3557" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	222+93.896	21934.35	737103.162
SPI:		21940.963	737104.136
ST:	223+13.896	21953.667	737108.247

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641
Chord:		19.975 Course:	N 14° 44' 54.9001" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	223+13.896	21953.667	737108.247
End:	223+65.284	22002.56	737124.068

Tangent Data

Parameter	Value	Parameter	Value
Length:	51.388	Course:	N 17° 55' 51.3595" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	223+65.284	22002.56	737124.068
SPI:		22015.416	737128.228
SC:	223+85.284	22022.126	737126.958

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.512
Radius:		20 S Tan:	6.83
Theta:	28° 38' 52.4031"	P:	0.826
X:		19.506 K:	9.917
Y:		3.274 A:	20
Chord:		19.779 Course:	N 08° 24' 07.0918" E

Curve Point Data

Description	Station	Northing	Easting
SC:	223+85.284	22022.126	737126.958
RP:		22018.407	737107.307
CS:	224+21.513	22036.605	737099.011

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	103° 47' 17.7655"	Type:	LEFT
Radius:		20	
Length:		36.229 Tangent:	25.502
Mid-Ord:		7.658 External:	12.409
Chord:		31.475 Course:	N 62° 36' 39.9264" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	224+21.513	22036.605	737099.011
SPI:		22033.773	737092.797
ST:	224+41.513	22022.96	737084.694

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.512
Radius:		20 S Tan:	6.83
Theta:	28° 38' 52.4031"	P:	0.826
X:		19.506 K:	9.917
Y:		3.274 A:	20
Chord:		19.779 Course:	S 46° 22' 33.0555" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	224+41.513	22022.96	737084.694
End:	224+68.025	22001.744	737068.795

Tangent Data

Parameter	Value	Parameter	Value
Length:	26.512	Course:	S 36° 50' 48.7878" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	224+68.025	22001.744	737068.795
SPI:		21991.051	737060.783
SC:	224+88.025	21985.005	737057.914

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.361
Radius:		50 S Tan:	6.692
Theta:	11° 27' 32.9612"	P:	0.333
X:		19.92 K:	9.987
Y:		1.33 A:	31.623
Chord:		19.964 Course:	S 33° 01' 42.4616" W

Curve Point Data

Description	Station	Northing	Easting
SC:	224+88.025	21985.005	737057.914
RP:		21963.568	737103.085
CS:	224+96.414	21977.161	737054.968

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	09° 36' 45.1662"	Type:	LEFT
Radius:		50	
Length:		8.389 Tangent:	4.204
Mid-Ord:		0.176 External:	0.176
Chord:		8.379 Course:	S 20° 34' 53.2434" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	224+96.414	21977.161	737054.968
SPI:		21970.721	737053.149
ST:	225+16.414	21957.398	737052.143

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.361
Radius:		50 S Tan:	6.692
Theta:	11° 27' 32.9612"	P:	0.333
X:		19.92 K:	9.987
Y:		1.33 A:	31.623
Chord:		19.964 Course:	S 08° 08' 04.0252" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	225+16.414	21957.398	737052.143
End:	225+19.798	21954.023	737051.889

Tangent Data

Parameter	Value	Parameter	Value
Length:		3.385 Course:	S 04° 18' 57.6991" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	225+19.798	21954.023	737051.889
SPI:		21940.549	737050.872
SC:	225+39.798	21934.819	737047.156

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.512
Radius:		20 S Tan:	6.83
Theta:	28° 38' 52.4031"	P:	0.826
X:		19.506 K:	9.917
Y:		3.274 A:	20
Chord:		19.779 Course:	S 13° 50' 41.9668" W

Curve Point Data

Description	Station	Northing	Easting
SC:	225+39.798	21934.819	737047.156
RP:		21945.701	737030.375
CS:	225+44.988	21930.877	737043.801

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	14° 52' 07.6039"	Type:	RIGHT
Radius:			20
Length:		5.19 Tangent:	2.61
Mid-Ord:		0.168 External:	0.17
Chord:		5.176 Course:	S 40° 23' 53.9041" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	225+44.988	21930.877	737043.801
SPI:		21926.292	737038.739
ST:	225+64.988	21923.134	737025.601

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.512
Radius:		20 S Tan:	6.83
Theta:	28° 38' 52.4031"	P:	0.826
X:		19.506 K:	9.917
Y:		3.274 A:	20
Chord:		19.779 Course:	S 66° 57' 05.8415" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	225+64.988	21923.134	737025.601
End:	225+88.431	21917.653	737002.808

Tangent Data

Parameter	Value	Parameter	Value
Length:		23.443 Course:	S 76° 28' 50.1092" W

Spiral Point Data

Description	Station	Northing	Easting
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TS:	225+88.431	21917.653	737002.808
SPI:		21914.532	736989.825
SC:	226+08.431	21911.913	736983.676

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641
Chord:		19.975 Course:	S 73° 17' 53.6498" W

Curve Point Data

Description	Station	Northing	Easting
SC:	226+08.431	21911.913	736983.676
RP:		21856.71	737007.186
CS:	226+52.420	21881.997	736952.774

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	42° 00' 20.6693"	Type:	LEFT
Radius:		60	
Length:		43.988 Tangent:	23.035
Mid-Ord:		3.986 External:	4.27
Chord:		43.01 Course:	S 45° 55' 42.3068" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	226+52.420	21881.997	736952.774
SPI:		21875.935	736949.957
ST:	226+72.420	21863.06	736946.417

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641
Chord:		19.975 Course:	S 18° 33' 30.9639" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	226+72.420	21863.06	736946.417
End:	227+07.268	21829.459	736937.176

Tangent Data

Parameter	Value	Parameter	Value
Length:		34.848 Course:	S 15° 22' 34.5045" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	227+07.268	21829.459	736937.176
SPI:		21816.561	736933.629

SC: 227+27.268 21810.735 736930.306

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	S 20° 08' 54.1300" W

Curve Point Data

Description	Station	Northing	Easting
SC:	227+27.268	21810.735	736930.306
RP:		21830.554	736895.561
CS:	227+32.726	21806.193	736927.287

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	07° 49' 07.0767"	Type:	RIGHT
Radius:		40	
Length:		5.458 Tangent:	2.733
Mid-Ord:		0.093 External:	0.093
Chord:		5.454 Course:	S 33° 36' 34.2444" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	227+32.726	21806.193	736927.287
SPI:		21800.874	736923.203
ST:	227+52.726	21792.609	736912.684

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	S 47° 04' 14.3588" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	227+52.726	21792.609	736912.684
End:	227+74.232	21779.322	736895.774

Tangent Data

Parameter	Value	Parameter	Value
Length:		21.506 Course:	S 51° 50' 33.9843" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	227+74.232	21779.322	736895.774
SPI:		21771.073	736885.274
SC:	227+94.232	21767.872	736879.406

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641
Chord:		19.975 Course:	S 55° 01' 30.4437" W

Curve Point Data

Description	Station	Northing	Easting
SC:	227+94.232	21767.872	736879.406
RP:		21820.547	736850.677
CS:	228+06.162	21763.235	736868.436

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	11° 23' 30.5850"	Type:	RIGHT
Radius:		60	
Length:		11.929 Tangent:	5.984
Mid-Ord:		0.296 External:	0.298
Chord:		11.91 Course:	S 67° 05' 16.7445" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	228+06.162	21763.235	736868.436
SPI:		21761.257	736862.051
ST:	228+26.162	21759.475	736848.817

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641
Chord:		19.975 Course:	S 79° 09' 03.0453" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	228+26.162	21759.475	736848.817
End:	228+31.769	21758.727	736843.26

Tangent Data

Parameter	Value	Parameter	Value
Length:		5.607 Course:	S 82° 19' 59.5047" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	228+31.769	21758.727	736843.26
SPI:		21756.943	736830.002
SC:	228+51.769	21754.431	736823.784

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377

Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	S 77° 33' 39.8792" W

Curve Point Data

Description	Station	Northing	Easting
SC:	228+51.769	21754.431	736823.784
RP:		21717.342	736838.762
CS:	229+30.483	21689.186	736810.35

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	112° 44' 59.2730"	Type:	LEFT
Radius:			40
Length:		78.714 Tangent:	60.148
Mid-Ord:		17.85 External:	32.234
Chord:		66.614 Course:	S 11° 38' 03.6666" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	229+30.483	21689.186	736810.35
SPI:		21684.422	736815.071
ST:	229+50.483	21677.545	736826.545

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	S 54° 17' 32.5459" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	229+50.483	21677.545	736826.545
End:	229+53.209	21676.144	736828.883

Tangent Data

Parameter	Value	Parameter	Value
Length:		2.726 Course:	S 59° 03' 52.1714" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	229+53.209	21676.144	736828.883
SPI:		21670.965	736837.525
SC:	229+68.209	21666.948	736840.615

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		15 L Tan:	10.075
Radius:		20 S Tan:	5.068
Theta:	21° 29' 09.3023"	P:	0.466

X: 14.79 K: 7.465  
 Y: 1.856 A: 17.321  
 Chord: 14.906 Course: S 51° 54' 39.8698" E

Curve Point Data

Description	Station	Northing	Easting
SC:	229+68.209	21666.948	736840.615
RP:		21654.751	736824.765
CS:	230+03.813	21636.712	736833.4

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	101° 59' 54.9527"	Type:	RIGHT
Radius:			20
Length:		Tangent:	24.697
Mid-Ord:		External:	11.78
Chord:		Course:	S 13° 25' 14.6073" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	230+03.813	21636.712	736833.4
SPI:		21634.523	736828.829
ST:	230+18.813	21633.804	736818.78

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		15 L Tan:	10.075
Radius:		20 S Tan:	5.068
Theta:	21° 29' 09.3023"	P:	0.466
X:		14.79 K:	7.465
Y:		1.856 A:	17.321
Chord:		14.906 Course:	S 78° 45' 09.0843" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	230+18.813	21633.804	736818.78
End:	230+19.712	21633.74	736817.884

Tangent Data

Parameter	Value	Parameter	Value
Length:		0.899 Course:	S 85° 54' 21.3860" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	230+19.712	21633.74	736817.884
SPI:		21632.787	736804.574
SC:	230+39.712	21631.484	736798.026

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.344
Radius:		80 S Tan:	6.677
Theta:	07° 09' 43.1008"	P:	0.208
X:		19.969 K:	9.995
Y:		0.832 A:	40

Chord:

19.986 Course: S 83° 31' 08.1563" W

Curve Point Data

Description	Station	Northing	Easting
SC:	230+39.712	21631.484	736798.026
RP:		21553.023	736813.641
CS:	230+42.937	21630.791	736794.876

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	02° 18' 35.4073"	Type:	LEFT
Radius:		80	
Length:		3.225 Tangent:	1.613
Mid-Ord:		0.016 External:	0.016
Chord:		3.225 Course:	S 77° 35' 20.5816" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	230+42.937	21630.791	736794.876
SPI:		21629.225	736788.386
ST:	230+62.937	21624.502	736775.905

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.344
Radius:		80 S Tan:	6.677
Theta:	07° 09' 43.1008"	P:	0.208
X:		19.969 K:	9.995
Y:		0.832 A:	40
Chord:		19.986 Course:	S 71° 39' 33.0068" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	230+62.937	21624.502	736775.905
End:	230+65.665	21623.536	736773.353

Tangent Data

Parameter	Value	Parameter	Value
Length:		2.728 Course:	S 69° 16' 19.7772" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	230+65.665	21623.536	736773.353
SPI:		21618.754	736760.716
SC:	230+85.665	21619.695	736753.951

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.512
Radius:		20 S Tan:	6.83
Theta:	28° 38' 52.4031"	P:	0.826
X:		19.506 K:	9.917
Y:		3.274 A:	20
Chord:		19.779 Course:	S 78° 48' 04.0449" W

Curve Point Data

Description	Station	Northing	Easting
SC:	230+85.665	21619.695	736753.951
RP:		21639.504	736756.707
CS:	230+98.628	21625.376	736742.551

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	37° 08' 09.9886"	Type:	RIGHT
Radius:			20
Length:		12.963 Tangent:	6.718
Mid-Ord:		1.041 External:	1.098
Chord:		12.737 Course:	N 63° 30' 42.8254" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	230+98.628	21625.376	736742.551
SPI:		21630.21	736737.727
ST:	231+18.628	21643.179	736733.935

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.512
Radius:		20 S Tan:	6.83
Theta:	28° 38' 52.4031"	P:	0.826
X:		19.506 K:	9.917
Y:		3.274 A:	20
Chord:		19.779 Course:	N 25° 49' 29.6957" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	231+18.628	21643.179	736733.935
End:	231+50.405	21673.679	736725.019

Tangent Data

Parameter	Value	Parameter	Value
Length:		31.777 Course:	N 16° 17' 45.4279" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	231+50.405	21673.679	736725.019
SPI:		21696.376	736718.384
SC:	231+85.405	21704.835	736709.941

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		35 L Tan:	23.646
Radius:		35 S Tan:	11.952
Theta:	28° 38' 52.4031"	P:	1.445
X:		34.135 K:	17.355
Y:		5.73 A:	35
Chord:		34.613 Course:	N 25° 49' 29.6957" W

Curve Point Data

Description	Station	Northing	Easting
SC:	231+85.405	21704.835	736709.941
RP:		21680.111	736685.168
CS:	232+34.629	21708.596	736664.831

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	80° 34' 52.2689"	Type:	LEFT
Radius:		35	
Length:		49.224 Tangent:	29.672
Mid-Ord:		8.303 External:	10.885
Chord:		45.267 Course:	N 85° 14' 03.9655" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	232+34.629	21708.596	736664.831
SPI:		21701.651	736655.104
ST:	232+69.629	21680.367	736644.802

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		35 L Tan:	23.646
Radius:		35 S Tan:	11.952
Theta:	28° 38' 52.4031"	P:	1.445
X:		34.135 K:	17.355
Y:		5.73 A:	35
Chord:		34.613 Course:	S 35° 21' 21.7647" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	232+69.629	21680.367	736644.802
End:	232+70.712	21679.392	736644.33

Tangent Data

Parameter	Value	Parameter	Value
Length:		1.083 Course:	S 25° 49' 37.4969" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	232+70.712	21679.392	736644.33
SPI:		21667.384	736638.518
SC:	232+90.712	21661.698	736635.026

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.34
Radius:		100 S Tan:	6.673
Theta:	05° 43' 46.4806"	P:	0.167
X:		19.98 K:	9.997
Y:		0.666 A:	44.721
Chord:		19.991 Course:	S 27° 44' 12.4083" W

Curve Point Data

Description	Station	Northing	Easting
SC:	232+90.712	21661.698	736635.026

RP:		21714.032	736549.814
CS:	233+08.355	21647.554	736624.518

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	10° 06' 29.9506"	Type:	RIGHT
Radius:			100
Length:		17.642 Tangent:	8.844
Mid-Ord:		0.389 External:	0.39
Chord:		17.619 Course:	S 36° 36' 38.9529" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	233+08.355	21647.554	736624.518
SPI:		21642.569	736620.082
ST:	233+28.355	21633.539	736610.263

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.34
Radius:		100 S Tan:	6.673
Theta:	05° 43' 46.4806"	P:	0.167
X:		19.98 K:	9.997
Y:		0.666 A:	44.721
Chord:		19.991 Course:	S 45° 29' 05.4975" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	233+28.355	21633.539	736610.263
End:	234+93.060	21522.042	736489.035

Tangent Data

Parameter	Value	Parameter	Value
Length:		164.705 Course:	S 47° 23' 40.4088" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	234+93.060	21522.042	736489.035
SPI:		21506.144	736471.749
SC:	235+28.060	21501.617	736460.847

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		35 L Tan:	23.485
Radius:		50 S Tan:	11.805
Theta:	20° 03' 12.6822"	P:	1.016
X:		34.574 K:	17.429
Y:		4.048 A:	41.833
Chord:		34.81 Course:	S 54° 04' 19.6064" W

Curve Point Data

Description	Station	Northing	Easting
SC:	235+28.060	21501.617	736460.847
RP:		21547.793	736441.671
CS:	235+71.084	21503.144	736419.166

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	49° 18' 06.9472"	Type:	RIGHT
Radius:		50	
Length:		43.024 Tangent:	22.946
Mid-Ord:		4.557 External:	5.014
Chord:		41.709 Course:	N 87° 54' 03.4354" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	235+71.084	21503.144	736419.166
SPI:		21508.458	736408.625
ST:	236+06.084	21525.578	736392.55

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		35 L Tan:	23.485
Radius:		50 S Tan:	11.805
Theta:	20° 03' 12.6822"	P:	1.016
X:		34.574 K:	17.429
Y:		4.048 A:	41.833
Chord:		34.81 Course:	N 49° 52' 26.4772" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	236+06.084	21525.578	736392.55
End:	236+59.372	21564.426	736356.074

Tangent Data

Parameter	Value	Parameter	Value
Length:		53.288 Course:	N 43° 11' 47.2796" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	236+59.372	21564.426	736356.074
SPI:		21574.167	736346.928
SC:	236+79.372	21579.858	736343.407

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.361
Radius:		50 S Tan:	6.692
Theta:	11° 27' 32.9612"	P:	0.333
X:		19.92 K:	9.987
Y:		1.33 A:	31.623
Chord:		19.964 Course:	N 39° 22' 40.9534" W

Curve Point Data

Description	Station	Northing	Easting
SC:	236+79.372	21579.858	736343.407
RP:		21606.159	736385.931
CS:	236+94.000	21593.239	736337.629

Circular Curve Data

Parameter	Value	Parameter	Value
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Delta: 16° 45' 42.1224" Type: RIGHT  
 Radius: 50  
 Length: 14.627 Tangent: 7.366  
 Mid-Ord: 0.534 External: 0.54  
 Chord: 14.575 Course: N 23° 21' 23.2571" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	236+94.000	21593.239	736337.629
SPI:		21599.704	736335.9
ST:	237+14.000	21613.04	736335.08

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.361
Radius:		50 S Tan:	6.692
Theta:	11° 27' 32.9612"	P:	0.333
X:		19.92 K:	9.987
Y:		1.33 A:	31.623
Chord:		19.964 Course:	N 07° 20' 05.5608" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	237+14.000	21613.04	736335.08
End:	237+14.151	21613.191	736335.071

Tangent Data

Parameter	Value	Parameter	Value
Length:		0.151 Course:	N 03° 30' 59.2347" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	237+14.151	21613.191	736335.071
SPI:		21626.613	736334.246
SC:	237+34.151	21632.675	736331.232

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.447
Radius:		25 S Tan:	6.77
Theta:	22° 55' 05.9225"	P:	0.663
X:		19.682 K:	9.947
Y:		2.636 A:	22.361
Chord:		19.858 Course:	N 11° 08' 43.8124" W

Curve Point Data

Description	Station	Northing	Easting
SC:	237+34.151	21632.675	736331.232
RP:		21621.545	736308.846
CS:	237+48.763	21643.179	736321.375

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	33° 29' 20.1376"	Type:	LEFT
Radius:			25

Length: 14.612 Tangent: 7.522  
 Mid-Ord: 1.06 External: 1.107  
 Chord: 14.405 Course: N 43° 10' 45.2259" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	237+48.763	21643.179	736321.375
SPI:		21646.572	736315.517
ST:	237+68.763	21648.248	736302.175

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.447
Radius:		25 S Tan:	6.77
Theta:	22° 55' 05.9225"	P:	0.663
X:		19.682 K:	9.947
Y:		2.636 A:	22.361
Chord:		19.858 Course:	N 75° 12' 46.6394" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	237+68.763	21648.248	736302.175
End:	237+69.060	21648.285	736301.88

Tangent Data

Parameter	Value	Parameter	Value
Length:		0.297 Course:	N 82° 50' 31.2172" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	237+69.060	21648.285	736301.88
SPI:		21649.96	736288.538
SC:	237+89.060	21648.121	736282.023

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.447
Radius:		25 S Tan:	6.77
Theta:	22° 55' 05.9225"	P:	0.663
X:		19.682 K:	9.947
Y:		2.636 A:	22.361
Chord:		19.858 Course:	S 89° 31' 44.2050" W

Curve Point Data

Description	Station	Northing	Easting
SC:	237+89.060	21648.121	736282.023
RP:		21624.061	736288.813
CS:	237+99.327	21643.41	736272.982

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	23° 31' 47.3472"	Type:	LEFT
Radius:		25	
Length:		10.267 Tangent:	5.207
Mid-Ord:		0.525 External:	0.536

Chord:

10.195 Course: S 62° 28' 29.1867" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	237+99.327	21643.41	736272.982
SPI:		21639.123	736267.742
ST:	238+19.327	21627.227	736261.473

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.447
Radius:		25 S Tan:	6.77
Theta:	22° 55' 05.9225"	P:	0.663
X:		19.682 K:	9.947
Y:		2.636 A:	22.361
Chord:		19.858 Course:	S 35° 25' 14.1684" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	238+19.327	21627.227	736261.473
End:	238+50.731	21599.446	736246.83

Tangent Data

Parameter	Value	Parameter	Value
Length:		31.404 Course:	S 27° 47' 29.5906" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	238+50.731	21599.446	736246.83
SPI:		21587.581	736240.577
SC:	238+70.731	21582.976	736235.658

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.412
Radius:		30 S Tan:	6.738
Theta:	19° 05' 54.9354"	P:	0.553
X:		19.779 K:	9.963
Y:		2.205 A:	24.495
Chord:		19.901 Course:	S 34° 09' 06.2867" W

Curve Point Data

Description	Station	Northing	Easting
SC:	238+70.731	21582.976	736235.658
RP:		21604.878	736215.156
CS:	239+03.714	21576.666	736204.953

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	62° 59' 33.7559"	Type:	RIGHT
Radius:		30	
Length:		32.983 Tangent:	18.381
Mid-Ord:		4.42 External:	5.183
Chord:		31.347 Course:	S 78° 23' 11.4039" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	239+03.714	21576.666	736204.953
SPI:		21578.958	736198.617
ST:	239+23.714	21587.395	736188.191

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.412
Radius:		30 S Tan:	6.738
Theta:	19° 05' 54.9354"	P:	0.553
X:		19.779 K:	9.963
Y:		2.205 A:	24.495
Chord:		19.901 Course:	N 57° 22' 43.4788" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	239+23.714	21587.395	736188.191
End:	239+36.877	21595.675	736177.959

Tangent Data

Parameter	Value	Parameter	Value
Length:		13.163 Course:	N 51° 01' 06.7827" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	239+36.877	21595.675	736177.959
SPI:		21604.123	736167.52
SS:	239+56.877	21606.203	736161.095

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.429
Radius:		27.234 S Tan:	6.753
Theta:	21° 02' 18.0530"	P:	0.609
X:		19.732 K:	9.955
Y:		2.424 A:	23.338
Chord:		19.88 Course:	N 58° 01' 23.8902" W

Spiral Point Data

Description	Station	Northing	Easting
SS:	239+56.877	21606.203	736161.095
SPI:		21608.284	736154.67
ST:	239+76.877	21607.559	736141.261

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.429
Radius:		27.234 S Tan:	6.753
Theta:	21° 02' 18.0530"	P:	0.609
X:		19.732 K:	9.955
Y:		2.424 A:	23.338
Chord:		19.88 Course:	N 86° 05' 25.7813" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	239+76.877	21607.559	736141.261
End:	239+77.273	21607.537	736140.865

Tangent Data

Parameter	Value	Parameter	Value
Length:	0.396	Course:	S 86° 54' 17.1112" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	239+77.273	21607.537	736140.865
SPI:		21606.817	736127.54
SC:	239+97.273	21607.29	736120.881

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.344
Radius:		80 S Tan:	6.677
Theta:	07° 09' 43.1008"	P:	0.208
X:		19.969 K:	9.995
Y:		0.832 A:	40
Chord:		19.986 Course:	S 89° 17' 30.3409" W

Curve Point Data

Description	Station	Northing	Easting
SC:	239+97.273	21607.29	736120.881
RP:		21687.089	736126.554
CS:	240+02.457	21607.825	736115.725

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	03° 42' 46.6693"	Type:	RIGHT
Radius:		80	
Length:		5.184 Tangent:	2.593
Mid-Ord:		0.042 External:	0.042
Chord:		5.183 Course:	N 84° 04' 36.4533" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	240+02.457	21607.825	736115.725
SPI:		21608.729	736109.11
ST:	240+22.457	21612.17	736096.217

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.344
Radius:		80 S Tan:	6.677
Theta:	07° 09' 43.1008"	P:	0.208
X:		19.969 K:	9.995
Y:		0.832 A:	40
Chord:		19.986 Course:	N 77° 26' 43.2476" W

Tangent Data

Description	PT Station	Northing	Easting
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Start: 240+22.457 21612.17 736096.217  
 End: 240+37.880 21616.146 736081.315

Tangent Data

Parameter	Value	Parameter	Value
Length:	15.423	Course:	N 75° 03' 30.0179" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	240+37.880	21616.146	736081.315
SPI:		21619.586	736068.426
SS:	240+57.880	21620.643	736061.837

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:	20	L Tan:	13.341
Radius:	98.409	S Tan:	6.673
Theta:	05° 49' 19.9289"	P:	0.169
X:	19.979	K:	9.997
Y:	0.677	A:	44.364
Chord:	19.991	Course:	N 76° 59' 56.0500" W

Spiral Point Data

Description	Station	Northing	Easting
SS:	240+57.880	21620.643	736061.837
SPI:		21621.701	736055.248
ST:	240+77.880	21622.468	736041.929

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:	20	L Tan:	13.341
Radius:	98.409	S Tan:	6.673
Theta:	05° 49' 19.9289"	P:	0.169
X:	19.979	K:	9.997
Y:	0.677	A:	44.364
Chord:	19.991	Course:	N 84° 45' 43.8437" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	240+77.880	21622.468	736041.929
End:	240+79.310	21622.551	736040.502

Tangent Data

Parameter	Value	Parameter	Value
Length:	1.43	Course:	N 86° 42' 09.8758" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	240+79.310	21622.551	736040.502
SPI:		21623.32	736027.141
SS:	240+99.310	21621.926	736020.575

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:	20	L Tan:	13.383
Radius:	37.469	S Tan:	6.712

Theta: 15° 17' 29.0466" P: 0.444  
 X: 19.858 K: 9.976  
 Y: 1.77 A: 27.375  
 Chord: 19.937 Course: S 88° 12' 11.5258" W

Spiral Point Data

Description	Station	Northing	Easting
SS:	240+99.310	21621.926	736020.575
SPI:		21620.531	736014.01
ST:	241+19.310	21614.395	736002.115

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.383
Radius:		37.469 S Tan:	6.712
Theta:	15° 17' 29.0466"	P:	0.444
X:		19.858 K:	9.976
Y:		1.77 A:	27.375
Chord:		19.937 Course:	S 67° 48' 30.6295" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	241+19.310	21614.395	736002.115
End:	241+24.078	21612.209	735997.878

Tangent Data

Parameter	Value	Parameter	Value
Length:		4.768 Course:	S 62° 42' 52.0310" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	241+24.078	21612.209	735997.878
SPI:		21606.092	735986.018
SC:	241+44.078	21603.795	735979.749

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.344
Radius:		80 S Tan:	6.677
Theta:	07° 09' 43.1008"	P:	0.208
X:		19.969 K:	9.995
Y:		0.832 A:	40
Chord:		19.986 Course:	S 65° 06' 05.2607" W

Curve Point Data

Description	Station	Northing	Easting
SC:	241+44.078	21603.795	735979.749
RP:		21678.911	735952.225
CS:	241+53.320	21601.123	735970.907

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	06° 37' 09.9294"	Type:	RIGHT
Radius:		80	
Length:		9.242 Tangent:	4.626

Mid-Ord: 0.133 External: 0.134  
 Chord: 9.237 Course: S 73° 11' 10.0965" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	241+53.320	21601.123	735970.907
SPI:		21599.564	735964.415
ST:	241+73.320	21598.09	735951.152

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.344
Radius:		80 S Tan:	6.677
Theta:	07° 09' 43.1008"	P:	0.208
X:		19.969 K:	9.995
Y:		0.832 A:	40
Chord:		19.986 Course:	S 81° 16' 14.9323" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	241+73.320	21598.09	735951.152
End:	242+64.716	21587.994	735860.316

Tangent Data

Parameter	Value	Parameter	Value
Length:		91.396 Course:	S 83° 39' 28.1620" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	242+64.716	21587.994	735860.316
SPI:		21586.521	735847.062
SS:	242+84.716	21585.436	735840.482

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.335
Radius:		189.676 S Tan:	6.668
Theta:	03° 01' 14.5593"	P:	0.088
X:		19.994 K:	9.999
Y:		0.351 A:	61.592
Chord:		19.998 Course:	S 82° 39' 03.3942" W

Spiral Point Data

Description	Station	Northing	Easting
SS:	242+84.716	21585.436	735840.482
SPI:		21584.351	735833.903
ST:	243+04.716	21581.491	735820.878

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.335
Radius:		189.676 S Tan:	6.668
Theta:	03° 01' 14.5593"	P:	0.088
X:		19.994 K:	9.999
Y:		0.351 A:	61.592

Chord:

19.998 Course: S 78° 37' 23.8112" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	243+04.716	21581.491	735820.878
End:	243+92.157	21562.739	735735.472

Tangent Data

Parameter	Value	Parameter	Value
Length:	87.441	Course:	S 77° 36' 59.0434" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	243+92.157	21562.739	735735.472
SPI:		21559.876	735722.435
SC:	244+12.157	21557.53	735716.181

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.348
Radius:		70 S Tan:	6.68
Theta:	08° 11' 06.4009"	P:	0.238
X:		19.959 K:	9.993
Y:		0.951 A:	37.417
Chord:		19.982 Course:	S 74° 53' 18.6076" W

Curve Point Data

Description	Station	Northing	Easting
SC:	244+12.157	21557.53	735716.181
RP:		21491.992	735740.774
CS:	244+34.332	21546.607	735696.988

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	18° 09' 03.1398"	Type:	LEFT
Radius:		70	
Length:		22.175 Tangent:	11.181
Mid-Ord:		0.876 External:	0.887
Chord:		22.083 Course:	S 60° 21' 21.0726" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	244+34.332	21546.607	735696.988
SPI:		21542.429	735691.777
ST:	244+54.332	21532.682	735682.657

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.348
Radius:		70 S Tan:	6.68
Theta:	08° 11' 06.4009"	P:	0.238
X:		19.959 K:	9.993
Y:		0.951 A:	37.417
Chord:		19.982 Course:	S 45° 49' 23.5377" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	244+54.332	21532.682	735682.657
End:	244+65.037	21524.866	735675.344

Tangent Data

Parameter	Value	Parameter	Value
Length:	10.705	Course:	S 43° 05' 43.1018" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	244+65.037	21524.866	735675.344
SPI:		21515.119	735666.224
SC:	244+85.037	21510.941	735661.013

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.348
Radius:		70 S Tan:	6.68
Theta:	08° 11' 06.4009"	P:	0.238
X:		19.959 K:	9.993
Y:		0.951 A:	37.417
Chord:		19.982 Course:	S 45° 49' 23.5377" W

Curve Point Data

Description	Station	Northing	Easting
SC:	244+85.037	21510.941	735661.013
RP:		21565.556	735617.227
CS:	245+18.408	21496.938	735631.069

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	27° 18' 52.2316"	Type:	RIGHT
Radius:		70	
Length:		33.371 Tangent:	17.009
Mid-Ord:		1.979 External:	2.037
Chord:		33.056 Course:	S 64° 56' 15.6186" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	245+18.408	21496.938	735631.069
SPI:		21495.617	735624.522
ST:	245+38.408	21494.867	735611.195

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.348
Radius:		70 S Tan:	6.68
Theta:	08° 11' 06.4009"	P:	0.238
X:		19.959 K:	9.993
Y:		0.951 A:	37.417
Chord:		19.982 Course:	S 84° 03' 07.6994" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	245+38.408	21494.867	735611.195
End:	245+42.902	21494.615	735606.708

Tangent Data

Parameter	Value	Parameter	Value
Length:	4.494	Course:	S 86° 46' 48.1353" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	245+42.902	21494.615	735606.708
SPI:		21493.866	735593.384
SC:	245+62.902	21494.324	735586.724

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.344
Radius:		80 S Tan:	6.677
Theta:	07° 09' 43.1008"	P:	0.208
X:		19.969 K:	9.995
Y:		0.832 A:	40
Chord:		19.986 Course:	S 89° 10' 01.3649" W

Curve Point Data

Description	Station	Northing	Easting
SC:	245+62.902	21494.324	735586.724
RP:		21574.135	735592.223
CS:	245+79.661	21497.213	735570.247

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	12° 00' 08.4399"	Type:	RIGHT
Radius:		80	
Length:		16.758 Tangent:	8.41
Mid-Ord:		0.438 External:	0.441
Chord:		16.728 Course:	N 80° 03' 24.5440" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	245+79.661	21497.213	735570.247
SPI:		21499.047	735563.827
ST:	245+99.661	21504.284	735551.554

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.344
Radius:		80 S Tan:	6.677
Theta:	07° 09' 43.1008"	P:	0.208
X:		19.969 K:	9.995
Y:		0.832 A:	40
Chord:		19.986 Course:	N 69° 16' 50.4530" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	245+99.661	21504.284	735551.554

End: 246+24.110 21513.879 735529.065

Tangent Data

Parameter	Value	Parameter	Value
Length:	24.449	Course:	N 66° 53' 37.2233" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	246+24.110	21513.879	735529.065
SPI:		21519.117	735516.789
SC:	246+44.110	21520.837	735510.334

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.348
Radius:		70 S Tan:	6.68
Theta:	08° 11' 06.4009"	P:	0.238
X:		19.959 K:	9.993
Y:		0.951 A:	37.417
Chord:		19.982 Course:	N 69° 37' 17.6592" W

Curve Point Data

Description	Station	Northing	Easting
SC:	246+44.110	21520.837	735510.334
RP:		21453.197	735492.31
CS:	246+59.878	21523.154	735494.771

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	12° 54' 22.6052"	Type:	LEFT
Radius:		70	
Length:		15.768 Tangent:	7.918
Mid-Ord:		0.444 External:	0.446
Chord:		15.735 Course:	N 81° 31' 54.9268" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	246+59.878	21523.154	735494.771
SPI:		21523.389	735488.096
ST:	246+79.878	21521.954	735474.825

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.348
Radius:		70 S Tan:	6.68
Theta:	08° 11' 06.4009"	P:	0.238
X:		19.959 K:	9.993
Y:		0.951 A:	37.417
Chord:		19.982 Course:	S 86° 33' 27.8055" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	246+79.878	21521.954	735474.825
End:	246+84.054	21521.505	735470.674

Tangent Data

Parameter	Value	Parameter	Value
Length:	4.175	Course:	S 83° 49' 47.3697" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	246+84.054	21521.505	735470.674
SPI:		21520.067	735457.374
SC:	247+04.054	21521.019	735450.735

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	S 88° 36' 06.9951" W

Curve Point Data

Description	Station	Northing	Easting
SC:	247+04.054	21521.019	735450.735
RP:		21560.614	735456.409
CS:	247+37.554	21538.327	735423.193

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	47° 59' 08.2694"	Type:	RIGHT
Radius:		40	
Length:		33.5 Tangent:	17.803
Mid-Ord:		3.456 External:	3.783
Chord:		32.53 Course:	N 57° 51' 12.2941" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	247+37.554	21538.327	735423.193
SPI:		21543.896	735419.456
ST:	247+57.554	21556.504	735414.983

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	N 24° 18' 31.5833" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	247+57.554	21556.504	735414.983
End:	247+60.672	21559.442	735413.94

Tangent Data

Parameter	Value	Parameter	Value
Length:	3.118	Course:	N 19° 32' 11.9578" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	247+60.672	21559.442	735413.94
SPI:		21572.109	735409.445
SS:	247+80.672	21577.147	735404.932

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.441
Radius:		25.673 S Tan:	6.765
Theta:	22° 19' 03.2033"	P:	0.646
X:		19.699 K:	9.95
Y:		2.569 A:	22.66
Chord:		19.865 Course:	N 26° 57' 58.5005" W

Spiral Point Data

Description	Station	Northing	Easting
SS:	247+80.672	21577.147	735404.932
SPI:		21582.186	735400.418
ST:	248+00.672	21588.042	735388.32

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.441
Radius:		25.673 S Tan:	6.765
Theta:	22° 19' 03.2033"	P:	0.646
X:		19.699 K:	9.95
Y:		2.569 A:	22.66
Chord:		19.865 Course:	N 56° 44' 31.8216" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	248+00.672	21588.042	735388.32
End:	248+42.796	21606.394	735350.404

Tangent Data

Parameter	Value	Parameter	Value
Length:		42.124 Course:	N 64° 10' 18.3643" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	248+42.796	21606.394	735350.404
SPI:		21612.208	735338.392
SC:	248+62.796	21615.843	735332.792

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.344
Radius:		80 S Tan:	6.677
Theta:	07° 09' 43.1008"	P:	0.208
X:		19.969 K:	9.995
Y:		0.832 A:	40
Chord:		19.986 Course:	N 61° 47' 05.1346" W

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Curve Point Data

Description	Station	Northing	Easting
SC:	248+62.796	21615.843	735332.792
RP:		21682.944	735376.352
CS:	249+06.651	21648.376	735304.206

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	31° 24' 30.5705"	Type:	RIGHT
Radius:			80
Length:		43.855 Tangent:	22.493
Mid-Ord:		2.986 External:	3.102
Chord:		43.307 Course:	N 41° 18' 19.9783" W

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Spiral Point Data

Description	Station	Northing	Easting
CS:	249+06.651	21648.376	735304.206
SPI:		21654.397	735301.321
ST:	249+26.651	21667.056	735297.1

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.344
Radius:		80 S Tan:	6.677
Theta:	07° 09' 43.1008"	P:	0.208
X:		19.969 K:	9.995
Y:		0.832 A:	40
Chord:		19.986 Course:	N 20° 49' 34.8220" W

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Tangent Data

Description	PT Station	Northing	Easting
Start:	249+26.651	21667.056	735297.1
End:	249+27.267	21667.641	735296.905

Tangent Data

Parameter	Value	Parameter	Value
Length:		0.616 Course:	N 18° 26' 21.5923" W

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Spiral Point Data

Description	Station	Northing	Easting
TS:	249+27.267	21667.641	735296.905
SPI:		21680.331	735292.674
SC:	249+47.267	21687.021	735292.193

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	N 13° 40' 01.9668" W

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Curve Point Data

Description	Station	Northing	Easting
SC:	249+47.267	21687.021	735292.193
RP:		21689.891	735332.09
CS:	249+67.267	21706.499	735295.701

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	28° 38' 50.4899"	Type:	RIGHT
Radius:		40	
Length:		20 Tangent:	10.213
Mid-Ord:		1.243 External:	1.283
Chord:		19.792 Course:	N 10° 12' 29.8542" E

Spiral Point Data

Description	Station	Northing	Easting
CS:	249+67.267	21706.499	735295.701
SPI:		21712.6	735298.485
ST:	249+87.267	21723.018	735306.878

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	N 34° 05' 01.6753" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	249+87.267	21723.018	735306.878
End:	250+00.564	21733.373	735315.22

Tangent Data

Parameter	Value	Parameter	Value
Length:		13.297 Course:	N 38° 51' 21.3008" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	250+00.564	21733.373	735315.22
SPI:		21744.236	735323.971
SS:	250+20.564	21751.286	735322.366

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.95
Radius:		11.086 S Tan:	7.231
Theta:	51° 40' 57.3461"	P:	1.46
X:		18.434 K:	9.735
Y:		5.673 A:	14.89
Chord:		19.286 Course:	N 21° 44' 57.9642" E

Spiral Point Data

Description	Station	Northing	Easting
SS:	250+20.564	21751.286	735322.366

SPI:		21758.336	735320.761
ST:	250+40.564	21764.339	735308.169

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.95
Radius:		11.086 S Tan:	7.231
Theta:	51° 40' 57.3461"	P:	1.46
X:		18.434 K:	9.735
Y:		5.673 A:	14.89
Chord:		19.286 Course:	N 47° 24' 10.0549" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	250+40.564	21764.339	735308.169
End:	250+43.482	21765.595	735305.535

Tangent Data

Parameter	Value	Parameter	Value
Length:		2.918 Course:	N 64° 30' 33.3914" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	250+43.482	21765.595	735305.535
SPI:		21771.361	735293.441
SS:	250+63.482	21775.936	735288.511

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.398
Radius:		32.988 S Tan:	6.726
Theta:	17° 22' 07.8969"	P:	0.504
X:		19.817 K:	9.969
Y:		2.008 A:	25.686
Chord:		19.918 Course:	N 58° 43' 27.0100" W

Spiral Point Data

Description	Station	Northing	Easting
SS:	250+63.482	21775.936	735288.511
SPI:		21780.511	735283.581
ST:	250+83.482	21792.14	735276.928

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.398
Radius:		32.988 S Tan:	6.726
Theta:	17° 22' 07.8969"	P:	0.504
X:		19.817 K:	9.969
Y:		2.008 A:	25.686
Chord:		19.918 Course:	N 35° 33' 23.9792" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	250+83.482	21792.14	735276.928
End:	250+83.984	21792.576	735276.679

Tangent Data

Parameter	Value	Parameter	Value
Length:	0.502	Course:	N 29° 46' 17.5977" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	250+83.984	21792.576	735276.679
SPI:		21804.163	735270.051
SS:	251+03.984	21809.398	735265.899

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:	20	L Tan:	13.349
Radius:	66.248	S Tan:	6.681
Theta:	08° 38' 55.2650"	P:	0.251
X:	19.954	K:	9.992
Y:	1.005	A:	36.4
Chord:	19.98	Course:	N 32° 39' 14.0164" W

Spiral Point Data

Description	Station	Northing	Easting
SS:	251+03.984	21809.398	735265.899
SPI:		21814.632	735261.747
ST:	251+23.984	21823.725	735251.973

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:	20	L Tan:	13.349
Radius:	66.248	S Tan:	6.681
Theta:	08° 38' 55.2650"	P:	0.251
X:	19.954	K:	9.992
Y:	1.005	A:	36.4
Chord:	19.98	Course:	N 44° 11' 11.7092" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	251+23.984	21823.725	735251.973
End:	251+26.578	21825.492	735250.073

Tangent Data

Parameter	Value	Parameter	Value
Length:	2.595	Course:	N 47° 04' 08.1278" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	251+26.578	21825.492	735250.073
SPI:		21839.159	735235.382
SC:	251+56.578	21847.621	735229.94

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:	30	L Tan:	20.066
Radius:	60	S Tan:	10.06
Theta:	14° 19' 26.2016"	P:	0.624
X:	29.813	K:	14.969

Y: 2.489 A: 42.426  
 Chord: 29.917 Course: N 42° 17' 48.5023" W

Curve Point Data

Description	Station	Northing	Easting
SC:	251+56.578	21847.621	735229.94
RP:		21880.075	735280.405
CS:	251+67.636	21857.418	735224.847

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	10° 33' 34.7890"	Type:	RIGHT
Radius:			60
Length:		11.058 Tangent:	5.545
Mid-Ord:		0.255 External:	0.256
Chord:		11.042 Course:	N 27° 27' 54.5318" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	251+67.636	21857.418	735224.847
SPI:		21866.734	735221.049
ST:	251+97.636	21886.611	735218.304

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		30 L Tan:	20.066
Radius:		60 S Tan:	10.06
Theta:	14° 19' 26.2016"	P:	0.624
X:		29.813 K:	14.969
Y:		2.489 A:	42.426
Chord:		29.917 Course:	N 12° 38' 00.5612" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	251+97.636	21886.611	735218.304
End:	252+47.448	21935.954	735211.491

Tangent Data

Parameter	Value	Parameter	Value
Length:		49.811 Course:	N 07° 51' 40.9357" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	252+47.448	21935.954	735211.491
SPI:		21949.165	735209.667
SC:	252+67.448	21955.696	735208.317

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.336
Radius:		150 S Tan:	6.669
Theta:	03° 49' 10.9871"	P:	0.111
X:		19.991 K:	9.999
Y:		0.444 A:	54.772
Chord:		19.996 Course:	N 09° 08' 04.4256" W

Curve Point Data

Description	Station	Northing	Easting
SC:	252+67.448	21955.696	735208.317
RP:		21925.327	735061.423
CS:	252+97.509	21984.33	735199.331

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	11° 28' 56.9993"	Type:	LEFT
Radius:			150
Length:		30.061 Tangent:	15.081
Mid-Ord:		0.752 External:	0.756
Chord:		30.011 Course:	N 17° 25' 20.4224" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	252+97.509	21984.33	735199.331
SPI:		21990.462	735196.708
ST:	253+17.509	22002.347	735190.657

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.336
Radius:		150 S Tan:	6.669
Theta:	03° 49' 10.9871"	P:	0.111
X:		19.991 K:	9.999
Y:		0.444 A:	54.772
Chord:		19.996 Course:	N 25° 42' 36.4193" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	253+17.509	22002.347	735190.657
End:	253+37.041	22019.752	735181.794

Tangent Data

Parameter	Value	Parameter	Value
Length:		19.532 Course:	N 26° 58' 59.9092" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	253+37.041	22019.752	735181.794
SPI:		22040.592	735171.184
SC:	253+72.041	22051.897	735168.115

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		35 L Tan:	23.385
Radius:		85 S Tan:	11.714
Theta:	11° 47' 46.2836"	P:	0.6
X:		34.852 K:	17.475
Y:		2.395 A:	54.544
Chord:		34.934 Course:	N 23° 03' 09.5660" W

Curve Point Data

Description	Station	Northing	Easting
SC:	253+72.041	22051.897	735168.115
RP:		22074.164	735250.146
CS:	254+19.579	22098.813	735168.799

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	32° 02' 39.1513"	Type:	RIGHT
Radius:			85
Length:		47.539 Tangent:	24.409
Mid-Ord:		3.302 External:	3.435
Chord:		46.921 Course:	N 00° 50' 05.9501" E

Spiral Point Data

Description	Station	Northing	Easting
CS:	254+19.579	22098.813	735168.799
SPI:		22110.024	735172.196
ST:	254+54.579	22130.545	735183.409

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		35 L Tan:	23.385
Radius:		85 S Tan:	11.714
Theta:	11° 47' 46.2836"	P:	0.6
X:		34.852 K:	17.475
Y:		2.395 A:	54.544
Chord:		34.934 Course:	N 24° 43' 21.4662" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	254+54.579	22130.545	735183.409
End:	254+60.615	22135.842	735186.303

Tangent Data

Parameter	Value	Parameter	Value
Length:		6.036 Course:	N 28° 39' 11.8094" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	254+60.615	22135.842	735186.303
SPI:		22147.544	735192.697
SC:	254+80.615	22153.49	735195.713

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.334
Radius:		325 S Tan:	6.667
Theta:	01° 45' 46.6094"	P:	0.051
X:		19.998 K:	10
Y:		0.205 A:	80.623
Chord:		19.999 Course:	N 28° 03' 56.2899" E

Curve Point Data

Description	Station	Northing	Easting
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SC:	254+80.615	22153.49	735195.713
RP:		22300.482	734905.854
CS:	254+90.183	22162.085	735199.914

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	01° 41' 12.0869"	Type:	LEFT
Radius:			325
Length:		9.567 Tangent:	4.784
Mid-Ord:		0.035 External:	0.035
Chord:		9.567 Course:	N 26° 02' 49.1565" E

Spiral Point Data

Description	Station	Northing	Easting
CS:	254+90.183	22162.085	735199.914
SPI:		22168.118	735202.753
ST:	255+10.183	22180.351	735208.057

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.334
Radius:		325 S Tan:	6.667
Theta:	01° 45' 46.6094"	P:	0.051
X:		19.998 K:	10
Y:		0.205 A:	80.623
Chord:		19.999 Course:	N 24° 01' 42.0232" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	255+10.183	22180.351	735208.057
End:	255+32.286	22200.63	735216.85

Tangent Data

Parameter	Value	Parameter	Value
Length:		22.103 Course:	N 23° 26' 26.5036" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	255+32.286	22200.63	735216.85
SPI:		22212.873	735222.158
SC:	255+52.286	22219.282	735224.03

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.344
Radius:		80 S Tan:	6.677
Theta:	07° 09' 43.1008"	P:	0.208
X:		19.969 K:	9.995
Y:		0.832 A:	40
Chord:		19.986 Course:	N 21° 03' 13.2740" E

Curve Point Data

Description	Station	Northing	Easting
SC:	255+52.286	22219.282	735224.03
RP:		22241.707	735147.237

CS: 255+79.656 22246.345 735227.102

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	19° 36' 08.6315"	Type:	LEFT
Radius:			80
Length:		27.37 Tangent:	13.82
Mid-Ord:		1.168 External:	1.185
Chord:		27.237 Course:	N 06° 28' 39.0871" E

Spiral Point Data

Description	Station	Northing	Easting
CS:	255+79.656	22246.345	735227.102
SPI:		22253.01	735226.715
ST:	255+99.656	22266.132	735224.287

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.344
Radius:		80 S Tan:	6.677
Theta:	07° 09' 43.1008"	P:	0.208
X:		19.969 K:	9.995
Y:		0.832 A:	40
Chord:		19.986 Course:	N 08° 05' 55.0997" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	255+99.656	22266.132	735224.287
End:	256+49.445	22315.089	735215.226

Tangent Data

Parameter	Value	Parameter	Value
Length:		49.789 Course:	N 10° 29' 08.3294" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	256+49.445	22315.089	735215.226
SPI:		22328.243	735212.791
SC:	256+69.445	22334.935	735213.24

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	N 05° 42' 48.7039" W

Curve Point Data

Description	Station	Northing	Easting
SC:	256+69.445	22334.935	735213.24
RP:		22332.257	735253.15
CS:	256+90.092	22354.284	735219.762

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	29° 34' 30.5698"	Type:	RIGHT
Radius:		40	
Length:		20.647 Tangent:	10.559
Mid-Ord:		1.325 External:	1.37
Chord:		20.419 Course:	N 18° 37' 33.1571" E

Spiral Point Data

Description	Station	Northing	Easting
CS:	256+90.092	22354.284	735219.762
SPI:		22359.882	735223.455
ST:	257+10.092	22368.879	735233.355

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	N 42° 57' 55.0181" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	257+10.092	22368.879	735233.355
End:	257+28.897	22381.526	735247.272

Tangent Data

Parameter	Value	Parameter	Value
Length:		18.805 Course:	N 47° 44' 14.6436" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	257+28.897	22381.526	735247.272
SPI:		22390.613	735257.272
SC:	257+48.897	22397.067	735259.505

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.512
Radius:		20 S Tan:	6.83
Theta:	28° 38' 52.4031"	P:	0.826
X:		19.506 K:	9.917
Y:		3.274 A:	20
Chord:		19.779 Course:	N 38° 12' 30.3759" E

Curve Point Data

Description	Station	Northing	Easting
SC:	257+48.897	22397.067	735259.505
RP:		22403.608	735240.605
CS:	257+79.541	22422.242	735247.87

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	87° 47' 23.9004"	Type:	LEFT

Radius: 20  
 Length: 30.644 Tangent: 19.243  
 Mid-Ord: 5.588 External: 7.754  
 Chord: 27.734 Course: N 24° 48' 19.7097" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	257+79.541	22422.242	735247.87
SPI:		22424.723	735241.507
ST:	257+99.541	22422.994	735228.106

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.512
Radius:		20 S Tan:	6.83
Theta:	28° 38' 52.4031"	P:	0.826
X:		19.506 K:	9.917
Y:		3.274 A:	20
Chord:		19.779 Course:	N 87° 49' 09.7953" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	257+99.541	22422.994	735228.106
End:	258+24.239	22419.835	735203.611

Tangent Data

Parameter	Value	Parameter	Value
Length:		24.698 Course:	S 82° 39' 05.9369" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	258+24.239	22419.835	735203.611
SPI:		22418.107	735190.209
SC:	258+44.239	22420.588	735183.846

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.512
Radius:		20 S Tan:	6.83
Theta:	28° 38' 52.4031"	P:	0.826
X:		19.506 K:	9.917
Y:		3.274 A:	20
Chord:		19.779 Course:	N 87° 49' 09.7953" W

Curve Point Data

Description	Station	Northing	Easting
SC:	258+44.239	22420.588	735183.846
RP:		22439.222	735191.111
CS:	258+45.435	22421.055	735182.746

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	03° 25' 31.9885"	Type:	RIGHT
Radius:		20	
Length:		1.196 Tangent:	0.598

Mid-Ord: 0.009 External: 0.009  
 Chord: 1.196 Course: N 66° 59' 15.6657" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	258+45.435	22421.055	735182.746
SPI:		22423.912	735176.542
ST:	258+65.435	22434.756	735168.481

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.512
Radius:		20 S Tan:	6.83
Theta:	28° 38' 52.4031"	P:	0.826
X:		19.506 K:	9.917
Y:		3.274 A:	20
Chord:		19.779 Course:	N 46° 09' 21.5361" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	258+65.435	22434.756	735168.481
End:	258+68.418	22437.15	735166.701

Tangent Data

Parameter	Value	Parameter	Value
Length:		2.983 Course:	N 36° 37' 37.2683" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	258+68.418	22437.15	735166.701
SPI:		22447.886	735158.72
SC:	258+88.418	22452.111	735153.512

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	N 41° 23' 56.8938" W

Curve Point Data

Description	Station	Northing	Easting
SC:	258+88.418	22452.111	735153.512
RP:		22421.047	735128.313
CS:	258+97.714	22457.079	735145.68

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	13° 18' 55.2530"	Type:	LEFT
Radius:		40	
Length:		9.296 Tangent:	4.669
Mid-Ord:		0.27 External:	0.272
Chord:		9.275 Course:	N 57° 36' 31.0964" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	258+97.714	22457.079	735145.68
SPI:		22459.991	735139.639
ST:	259+17.714	22462.638	735126.526

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	N 73° 49' 05.2990" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	259+17.714	22462.638	735126.526
End:	259+26.187	22464.314	735118.22

Tangent Data

Parameter	Value	Parameter	Value
Length:		8.473 Course:	N 78° 35' 24.9244" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	259+26.187	22464.314	735118.22
SPI:		22467.04	735104.713
SS:	259+46.187	22472.894	735100.743

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.779
Radius:		12.891 S Tan:	7.074
Theta:	44° 26' 51.1859"	P:	1.265
X:		18.83 K:	9.803
Y:		4.954 A:	16.057
Chord:		19.47 Course:	N 63° 51' 03.6110" W

Spiral Point Data

Description	Station	Northing	Easting
SS:	259+46.187	22472.894	735100.743
SPI:		22478.749	735096.773
ST:	259+66.187	22492.306	735099.238

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.779
Radius:		12.891 S Tan:	7.074
Theta:	44° 26' 51.1859"	P:	1.265
X:		18.83 K:	9.803
Y:		4.954 A:	16.057
Chord:		19.47 Course:	N 04° 26' 03.8661" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	259+66.187	22492.306	735099.238
End:	259+66.203	22492.322	735099.24

Tangent Data

Parameter	Value	Parameter	Value
Length:		0.016 Course:	N 10° 18' 17.4477" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	259+66.203	22492.322	735099.24
SPI:		22505.459	735101.629
SC:	259+86.203	22512.143	735101.717

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641
Chord:		19.975 Course:	N 07° 07' 20.9879" E

Curve Point Data

Description	Station	Northing	Easting
SC:	259+86.203	22512.143	735101.717
RP:		22512.934	735041.722
CS:	259+87.914	22513.854	735101.715

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	01° 38' 01.8670"	Type:	LEFT
Radius:		60	
Length:		1.711 Tangent:	0.856
Mid-Ord:		0.006 External:	0.006
Chord:		1.711 Course:	N 00° 03' 40.9539" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	259+87.914	22513.854	735101.715
SPI:		22520.538	735101.613
ST:	260+07.914	22533.67	735099.196

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641
Chord:		19.975 Course:	N 07° 14' 42.8957" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	260+07.914	22533.67	735099.196
End:	260+80.794	22605.346	735086.005

Tangent Data

Parameter	Value	Parameter	Value
Length:	72.88	Course:	N 10° 25' 39.3551" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	260+80.794	22605.346	735086.005
SPI:		22618.461	735083.592
SS:	261+00.794	22625.064	735082.668

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:	20	L Tan:	13.335
Radius:	232.229	S Tan:	6.668
Theta:	02° 28' 01.9743"	P:	0.072
X:	19.996	K:	9.999
Y:	0.287	A:	68.151
Chord:	19.998	Course:	N 09° 36' 18.7435" W

Spiral Point Data

Description	Station	Northing	Easting
SS:	261+00.794	22625.064	735082.668
SPI:		22631.668	735081.745
ST:	261+20.794	22644.941	735080.468

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:	20	L Tan:	13.335
Radius:	232.229	S Tan:	6.668
Theta:	02° 28' 01.9743"	P:	0.072
X:	19.996	K:	9.999
Y:	0.287	A:	68.151
Chord:	19.998	Course:	N 06° 18' 56.0182" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	261+20.794	22644.941	735080.468
End:	261+59.243	22683.214	735076.788

Tangent Data

Parameter	Value	Parameter	Value
Length:	38.449	Course:	N 05° 29' 35.4066" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	261+59.243	22683.214	735076.788
SPI:		22696.53	735075.507
SC:	261+79.243	22702.839	735073.234

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:	20	L Tan:	13.377

Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	N 10° 15' 55.0321" W

Curve Point Data

Description	Station	Northing	Easting
SC:	261+79.243	22702.839	735073.234
RP:		22689.278	735035.602
CS:	262+21.698	22728.745	735042.115

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	60° 48' 43.9172"	Type:	LEFT
Radius:			40
Length:		42.455 Tangent:	23.474
Mid-Ord:		5.502 External:	6.379
Chord:		40.49 Course:	N 50° 13' 23.5668" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	262+21.698	22728.745	735042.115
SPI:		22729.837	735035.498
ST:	262+41.698	22728.681	735022.171

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	S 89° 49' 07.8986" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	262+41.698	22728.681	735022.171
End:	262+90.954	22724.429	734973.098

Tangent Data

Parameter	Value	Parameter	Value
Length:		49.256 Course:	S 85° 02' 48.2731" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	262+90.954	22724.429	734973.098
SPI:		22723.276	734959.801
SC:	263+10.954	22723.653	734953.132

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.348
Radius:		70 S Tan:	6.68
Theta:	08° 11' 06.4009"	P:	0.238

X: 19.959 K: 9.993  
 Y: 0.951 A: 37.417  
 Chord: 19.982 Course: S 87° 46' 28.7089" W

Curve Point Data

Description	Station	Northing	Easting
SC:	263+10.954	22723.653	734953.132
RP:		22793.541	734957.078
CS:	263+65.366	22746.493	734905.247

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	44° 32' 13.5507"	Type:	RIGHT
Radius:			70
Length:		54.412 Tangent:	28.664
Mid-Ord:		5.221 External:	5.642
Chord:		53.053 Course:	N 64° 29' 58.5507" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	263+65.366	22746.493	734905.247
SPI:		22751.439	734900.758
ST:	263+85.366	22762.498	734893.285

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.348
Radius:		70 S Tan:	6.68
Theta:	08° 11' 06.4009"	P:	0.238
X:		19.959 K:	9.993
Y:		0.951 A:	37.417
Chord:		19.982 Course:	N 36° 46' 25.8103" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	263+85.366	22762.498	734893.285
End:	264+03.529	22777.548	734883.117

Tangent Data

Parameter	Value	Parameter	Value
Length:		18.162 Course:	N 34° 02' 45.3745" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	264+03.529	22777.548	734883.117
SPI:		22788.602	734875.647
SC:	264+23.529	22794.494	734872.513

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.341
Radius:		95 S Tan:	6.674
Theta:	06° 01' 52.0849"	P:	0.175
X:		19.978 K:	9.996
Y:		0.701 A:	43.589

Chord:

19.99 Course: N 32° 02' 08.6919" W

Curve Point Data

Description	Station	Northing	Easting
SC:	264+23.529	22794.494	734872.513
RP:		22839.115	734956.381
CS:	265+02.359	22870.872	734866.846

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	47° 32' 37.0794"	Type:	RIGHT
Radius:			95
Length:		78.83 Tangent:	41.844
Mid-Ord:		8.06 External:	8.807
Chord:		76.588 Course:	N 04° 14' 34.7499" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	265+02.359	22870.872	734866.846
SPI:		22877.161	734869.077
ST:	265+22.359	22889.197	734874.833

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.341
Radius:		95 S Tan:	6.674
Theta:	06° 01' 52.0849"	P:	0.175
X:		19.978 K:	9.996
Y:		0.701 A:	43.589
Chord:		19.99 Course:	N 23° 32' 59.1921" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	265+22.359	22889.197	734874.833
End:	265+24.954	22891.538	734875.953

Tangent Data

Parameter	Value	Parameter	Value
Length:		2.595 Course:	N 25° 33' 35.8746" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	265+24.954	22891.538	734875.953
SPI:		22903.606	734881.725
SC:	265+44.954	22910.184	734883.031

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	N 20° 47' 16.2491" E

Curve Point Data

Description	Station	Northing	Easting
SC:	265+44.954	22910.184	734883.031
RP:		22917.978	734843.798
CS:	265+69.122	22933.853	734880.513

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	34° 37' 06.1918"	Type:	LEFT
Radius:			40
Length:		24.168 Tangent:	12.466
Mid-Ord:		1.811 External:	1.897
Chord:		23.802 Course:	N 06° 04' 23.4229" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	265+69.122	22933.853	734880.513
SPI:		22940.008	734877.851
ST:	265+89.122	22950.592	734869.67

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	N 32° 56' 03.0949" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	265+89.122	22950.592	734869.67
End:	266+26.009	22979.775	734847.109

Tangent Data

Parameter	Value	Parameter	Value
Length:		36.887 Course:	N 37° 42' 22.7203" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	266+26.009	22979.775	734847.109
SPI:		22990.346	734838.937
SC:	266+46.009	22994.722	734833.874

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.361
Radius:		50 S Tan:	6.692
Theta:	11° 27' 32.9612"	P:	0.333
X:		19.92 K:	9.987
Y:		1.33 A:	31.623
Chord:		19.964 Course:	N 41° 31' 29.0465" W

Curve Point Data

Description	Station	Northing	Easting
SC:	266+46.009	22994.722	734833.874
RP:		22956.892	734801.18
CS:	266+62.472	23003.261	734819.885

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	18° 51' 54.4411"	Type:	LEFT
Radius:		50	
Length:		16.463 Tangent:	8.307
Mid-Ord:		0.676 External:	0.685
Chord:		16.389 Course:	N 58° 35' 52.9021" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	266+62.472	23003.261	734819.885
SPI:		23005.765	734813.679
ST:	266+82.472	23008.202	734800.542

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.361
Radius:		50 S Tan:	6.692
Theta:	11° 27' 32.9612"	P:	0.333
X:		19.92 K:	9.987
Y:		1.33 A:	31.623
Chord:		19.964 Course:	N 75° 40' 16.7578" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	266+82.472	23008.202	734800.542
End:	267+39.641	23018.63	734744.333

Tangent Data

Parameter	Value	Parameter	Value
Length:		57.168 Course:	N 79° 29' 23.0839" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	267+39.641	23018.63	734744.333
SPI:		23020.468	734734.427
SC:	267+54.641	23023.153	734730.129

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		15 L Tan:	10.075
Radius:		20 S Tan:	5.068
Theta:	21° 29' 09.3023"	P:	0.466
X:		14.79 K:	7.465
Y:		1.856 A:	17.321
Chord:		14.906 Course:	N 72° 20' 10.7823" W

Curve Point Data

Description	Station	Northing	Easting
SC:	267+54.641	23023.153	734730.129

RP:		23040.115	734740.726
CS:	267+76.848	23042.072	734720.822

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	63° 37' 12.3110"	Type:	RIGHT
Radius:			20
Length:		22.208 Tangent:	12.405
Mid-Ord:		3.004 External:	3.535
Chord:		21.084 Course:	N 26° 11' 37.6261" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	267+76.848	23042.072	734720.822
SPI:		23047.116	734721.318
ST:	267+91.848	23056.084	734725.908

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		15 L Tan:	10.075
Radius:		20 S Tan:	5.068
Theta:	21° 29' 09.3023"	P:	0.466
X:		14.79 K:	7.465
Y:		1.856 A:	17.321
Chord:		14.906 Course:	N 19° 56' 55.5301" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	267+91.848	23056.084	734725.908
End:	267+91.890	23056.122	734725.927

Tangent Data

Parameter	Value	Parameter	Value
Length:		0.042 Course:	N 27° 06' 07.8318" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	267+91.890	23056.122	734725.927
SPI:		23068.042	734732.028
SC:	268+11.890	23074.643	734733.279

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.391
Radius:		35 S Tan:	6.719
Theta:	16° 22' 12.8018"	P:	0.475
X:		19.837 K:	9.973
Y:		1.894 A:	26.458
Chord:		19.928 Course:	N 21° 38' 57.1670" E

Curve Point Data

Description	Station	Northing	Easting
SC:	268+11.890	23074.643	734733.279
RP:		23081.161	734698.891
CS:	268+29.976	23092.484	734732.009

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	29° 36' 29.7715"	Type:	LEFT
Radius:			35
Length:		18.087 Tangent:	9.25
Mid-Ord:		1.162 External:	1.202
Chord:		17.886 Course:	N 04° 04' 19.8558" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	268+29.976	23092.484	734732.009
SPI:		23098.842	734729.835
ST:	268+49.976	23109.778	734722.107

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.391
Radius:		35 S Tan:	6.719
Theta:	16° 22' 12.8018"	P:	0.475
X:		19.837 K:	9.973
Y:		1.894 A:	26.458
Chord:		19.928 Course:	N 29° 47' 36.8785" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	268+49.976	23109.778	734722.107
End:	268+72.723	23128.354	734708.98

Tangent Data

Parameter	Value	Parameter	Value
Length:		22.746 Course:	N 35° 14' 47.5433" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	268+72.723	23128.354	734708.98
SPI:		23136.521	734703.209
SC:	268+87.723	23140.55	734700.248

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		15 L Tan:	10
Radius:		400 S Tan:	5
Theta:	01° 04' 27.4651"	P:	0.023
X:		14.999 K:	7.5
Y:		0.094 A:	77.46
Chord:		15 Course:	N 35° 36' 16.6945" W

Curve Point Data

Description	Station	Northing	Easting
SC:	268+87.723	23140.55	734700.248
RP:		22903.627	734377.963
CS:	269+06.488	23155.403	734688.782

Circular Curve Data

Parameter	Value	Parameter	Value
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Delta: 02° 41' 16.6084" Type: LEFT  
 Radius: 400  
 Length: 18.765 Tangent: 9.384  
 Mid-Ord: 0.11 External: 0.11  
 Chord: 18.764 Course: N 37° 39' 53.3126" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	269+06.488	23155.403	734688.782
SPI:		23159.289	734685.635
ST:	269+21.488	23166.94	734679.196

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		15 L Tan:	10
Radius:		400 S Tan:	5
Theta:	01° 04' 27.4651"	P:	0.023
X:		14.999 K:	7.5
Y:		0.094 A:	77.46
Chord:		15 Course:	N 39° 43' 29.9307" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	269+21.488	23166.94	734679.196
End:	269+34.838	23177.154	734670.6

Tangent Data

Parameter	Value	Parameter	Value
Length:		13.35 Course:	N 40° 04' 59.0820" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	269+34.838	23177.154	734670.6
SPI:		23187.361	734662.01
SC:	269+54.838	23192.87	734658.244

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.34
Radius:		100 S Tan:	6.673
Theta:	05° 43' 46.4806"	P:	0.167
X:		19.98 K:	9.997
Y:		0.666 A:	44.721
Chord:		19.991 Course:	N 38° 10' 24.1706" W

Curve Point Data

Description	Station	Northing	Easting
SC:	269+54.838	23192.87	734658.244
RP:		23249.3	734740.802
CS:	269+97.562	23232.15	734642.283

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	24° 28' 43.6972"	Type:	RIGHT
Radius:			100

Length: 42.724 Tangent: 21.693  
 Mid-Ord: 2.273 External: 2.326  
 Chord: 42.399 Course: N 22° 06' 50.7527" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	269+97.562	23232.15	734642.283
SPI:		23238.724	734641.139
ST:	270+17.562	23252.03	734640.174

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.34
Radius:		100 S Tan:	6.673
Theta:	05° 43' 46.4806"	P:	0.167
X:		19.98 K:	9.997
Y:		0.666 A:	44.721
Chord:		19.991 Course:	N 06° 03' 17.3348" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	270+17.562	23252.03	734640.174
End:	270+23.519	23257.971	734639.744

Tangent Data

Parameter	Value	Parameter	Value
Length:		5.957 Course:	N 04° 08' 42.4235" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	270+23.519	23257.971	734639.744
SPI:		23271.277	734638.78
SC:	270+43.519	23277.947	734638.964

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.34
Radius:		100 S Tan:	6.673
Theta:	05° 43' 46.4806"	P:	0.167
X:		19.98 K:	9.997
Y:		0.666 A:	44.721
Chord:		19.991 Course:	N 02° 14' 07.5121" W

Curve Point Data

Description	Station	Northing	Easting
SC:	270+43.519	23277.947	734638.964
RP:		23275.182	734738.926
CS:	270+57.419	23291.771	734640.311

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	07° 57' 52.0324"	Type:	RIGHT
Radius:		100	
Length:		13.901 Tangent:	6.962
Mid-Ord:		0.241 External:	0.242

Chord:

13.889 Course: N 05° 34' 00.0733" E

Spiral Point Data

Description	Station	Northing	Easting
CS:	270+57.419	23291.771	734640.311
SPI:		23298.352	734641.418
ST:	270+77.419	23311.22	734644.934

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.34
Radius:		100 S Tan:	6.673
Theta:	05° 43' 46.4806"	P:	0.167
X:		19.98 K:	9.997
Y:		0.666 A:	44.721
Chord:		19.991 Course:	N 13° 22' 07.6588" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	270+77.419	23311.22	734644.934
End:	271+17.036	23349.437	734655.373

Tangent Data

Parameter	Value	Parameter	Value
Length:		39.617 Course:	N 15° 16' 42.5701" E

Spiral Point Data

Description	Station	Northing	Easting
TS:	271+17.036	23349.437	734655.373
SPI:		23362.341	734658.898
SC:	271+37.036	23369.047	734659.01

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	N 10° 30' 22.9446" E

Curve Point Data

Description	Station	Northing	Easting
SC:	271+37.036	23369.047	734659.01
RP:		23369.714	734619.016
CS:	271+73.154	23400.702	734644.308

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	51° 44' 03.6513"	Type:	LEFT
Radius:		40	
Length:		36.117 Tangent:	19.395
Mid-Ord:		4.008 External:	4.454
Chord:		34.903 Course:	N 24° 54' 45.4571" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	271+73.154	23400.702	734644.308
SPI:		23404.943	734639.112
ST:	271+93.154	23410.574	734626.978

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	N 60° 19' 53.8588" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	271+93.154	23410.574	734626.978
End:	272+36.489	23428.818	734587.669

Tangent Data

Parameter	Value	Parameter	Value
Length:	43.336	Course:	N 65° 06' 13.4843" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	272+36.489	23428.818	734587.669
SPI:		23434.443	734575.549
SC:	272+56.489	23435.998	734569.04

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.361
Radius:		50 S Tan:	6.692
Theta:	11° 27' 32.9612"	P:	0.333
X:		19.92 K:	9.987
Y:		1.33 A:	31.623
Chord:		19.964 Course:	N 68° 55' 19.8104" W

Curve Point Data

Description	Station	Northing	Easting
SC:	272+56.489	23435.998	734569.04
RP:		23387.367	734557.422
CS:	272+76.012	23436.76	734549.656

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	22° 22' 17.0907"	Type:	LEFT
Radius:		50	
Length:		19.523 Tangent:	9.887
Mid-Ord:		0.95 External:	0.968
Chord:		19.399 Course:	N 87° 44' 54.9909" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	272+76.012	23436.76	734549.656
SPI:		23435.721	734543.045
ST:	272+96.012	23431.065	734530.522

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.361
Radius:		50 S Tan:	6.692
Theta:	11° 27' 32.9612"	P:	0.333
X:		19.92 K:	9.987
Y:		1.33 A:	31.623
Chord:		19.964 Course:	S 73° 25' 29.8287" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	272+96.012	23431.065	734530.522
End:	273+18.285	23423.303	734509.644

Tangent Data

Parameter	Value	Parameter	Value
Length:		22.273 Course:	S 69° 36' 23.5025" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	273+18.285	23423.303	734509.644
SPI:		23418.652	734497.133
SC:	273+38.285	23417.239	734490.605

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.348
Radius:		70 S Tan:	6.68
Theta:	08° 11' 06.4009"	P:	0.238
X:		19.959 K:	9.993
Y:		0.951 A:	37.417
Chord:		19.982 Course:	S 72° 20' 03.9384" W

Curve Point Data

Description	Station	Northing	Easting
SC:	273+38.285	23417.239	734490.605
RP:		23485.656	734475.802
CS:	273+39.966	23416.904	734488.958

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	01° 22' 31.1411"	Type:	RIGHT
Radius:		70	
Length:		1.68 Tangent:	0.84
Mid-Ord:		0.005 External:	0.005
Chord:		1.68 Course:	S 78° 28' 45.4740" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	273+39.966	23416.904	734488.958

SPI:		23415.648	734482.398
ST:	273+59.966	23415.032	734469.064

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.348
Radius:		70 S Tan:	6.68
Theta:	08° 11' 06.4009"	P:	0.238
X:		19.959 K:	9.993
Y:		0.951 A:	37.417
Chord:		19.982 Course:	S 84° 37' 27.0096" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	273+59.966	23415.032	734469.064
End:	273+69.323	23414.599	734459.717

Tangent Data

Parameter	Value	Parameter	Value
Length:		9.358 Course:	S 87° 21' 07.4455" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	273+69.323	23414.599	734459.717
SPI:		23413.983	734446.387
SC:	273+89.323	23412.845	734439.808

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.344
Radius:		80 S Tan:	6.677
Theta:	07° 09' 43.1008"	P:	0.208
X:		19.969 K:	9.995
Y:		0.832 A:	40
Chord:		19.986 Course:	S 84° 57' 54.2158" W

Curve Point Data

Description	Station	Northing	Easting
SC:	273+89.323	23412.845	734439.808
RP:		23334.015	734453.438
CS:	274+28.990	23396.867	734403.944

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	28° 24' 34.1735"	Type:	LEFT
Radius:		80	
Length:		39.667 Tangent:	20.25
Mid-Ord:		2.446 External:	2.523
Chord:		39.262 Course:	S 65° 59' 07.2579" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	274+28.990	23396.867	734403.944
SPI:		23392.736	734398.699
ST:	274+48.990	23383.238	734389.326

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.344
Radius:		80 S Tan:	6.677
Theta:	07° 09' 43.1008"	P:	0.208
X:		19.969 K:	9.995
Y:		0.832 A:	40
Chord:		19.986 Course:	S 47° 00' 20.3001" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	274+48.990	23383.238	734389.326
End:	275+02.246	23345.33	734351.92

Tangent Data

Parameter	Value	Parameter	Value
Length:	53.256	Course:	S 44° 37' 07.0704" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	275+02.246	23345.33	734351.92
SPI:		23335.585	734342.304
SS:	275+22.246	23334.932	734335.341

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.691
Radius:		14.318 S Tan:	6.993
Theta:	40° 01' 02.5389"	P:	1.144
X:		19.046 K:	9.84
Y:		4.497 A:	16.922
Chord:		19.57 Course:	S 57° 54' 07.2378" W

Spiral Point Data

Description	Station	Northing	Easting
SS:	275+22.246	23334.932	734335.341
SPI:		23334.278	734328.379
ST:	275+42.246	23342.063	734317.117

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.691
Radius:		14.318 S Tan:	6.993
Theta:	40° 01' 02.5389"	P:	1.144
X:		19.046 K:	9.84
Y:		4.497 A:	16.922
Chord:		19.57 Course:	N 68° 37' 48.0192" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	275+42.246	23342.063	734317.117
End:	275+42.665	23342.301	734316.773

Tangent Data

Parameter	Value	Parameter	Value
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Length:

0.419 Course: N 55° 20' 47.8518" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	275+42.665	23342.301	734316.773
SPI:		23349.99	734305.649
SS:	275+62.665	23350.614	734298.839

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.522
Radius:		19.476 S Tan:	6.839
Theta:	29° 25' 06.3246"	P:	0.848
X:		19.479 K:	9.913
Y:		3.359 A:	19.736
Chord:		19.767 Course:	N 65° 07' 50.6669" W

Spiral Point Data

Description	Station	Northing	Easting
SS:	275+62.665	23350.614	734298.839
SPI:		23351.238	734292.029
ST:	275+82.665	23345.698	734279.693

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.522
Radius:		19.476 S Tan:	6.839
Theta:	29° 25' 06.3246"	P:	0.848
X:		19.479 K:	9.913
Y:		3.359 A:	19.736
Chord:		19.767 Course:	S 75° 36' 02.3141" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	275+82.665	23345.698	734279.693
End:	275+83.635	23345.301	734278.808

Tangent Data

Parameter	Value	Parameter	Value
Length:		0.97 Course:	S 65° 48' 59.4991" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	275+83.635	23345.301	734278.808
SPI:		23339.826	734266.616
SS:	276+03.635	23338.428	734260.069

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.365
Radius:		47.231 S Tan:	6.695
Theta:	12° 07' 51.0475"	P:	0.352
X:		19.911 K:	9.985
Y:		1.407 A:	30.735
Chord:		19.96 Course:	S 69° 51' 30.9847" W

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Spiral Point Data

Description	Station	Northing	Easting
SS:	276+03.635	23338.428	734260.069
SPI:		23337.03	734253.521
ST:	276+23.635	23337.048	734240.156

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.365
Radius:		47.231 S Tan:	6.695
Theta:	12° 07' 51.0475"	P:	0.352
X:		19.911 K:	9.985
Y:		1.407 A:	30.735
Chord:		19.96 Course:	S 86° 02' 10.1084" W

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Tangent Data

Description	PT Station	Northing	Easting
Start:	276+23.635	23337.048	734240.156
End:	276+28.642	23337.055	734235.15

Tangent Data

Parameter	Value	Parameter	Value
Length:		5.006 Course:	N 89° 55' 18.4059" W

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Spiral Point Data

Description	Station	Northing	Easting
TS:	276+28.642	23337.055	734235.15
SPI:		23337.073	734221.793
SC:	276+48.642	23335.873	734215.214

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.356
Radius:		55 S Tan:	6.688
Theta:	10° 25' 02.6920"	P:	0.303
X:		19.934 K:	9.989
Y:		1.209 A:	33.166
Chord:		19.971 Course:	S 86° 36' 24.1980" W

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Curve Point Data

Description	Station	Northing	Easting
SC:	276+48.642	23335.873	734215.214
RP:		23281.766	734225.085
CS:	276+64.782	23330.704	734199.985

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	16° 48' 51.8454"	Type:	LEFT
Radius:		55	
Length:		16.141 Tangent:	8.129
Mid-Ord:		0.591 External:	0.597
Chord:		16.083 Course:	S 71° 15' 12.9793" W

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Spiral Point Data

Description	Station	Northing	Easting
CS:	276+64.782	23330.704	734199.985
SPI:		23327.652	734194.034
ST:	276+84.782	23319.508	734183.448

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.356
Radius:		55 S Tan:	6.688
Theta:	10° 25' 02.6920"	P:	0.303
X:		19.934 K:	9.989
Y:		1.209 A:	33.166
Chord:		19.971 Course:	S 55° 54' 01.7607" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	276+84.782	23319.508	734183.448
End:	276+88.869	23317.016	734180.209

Tangent Data

Parameter	Value	Parameter	Value
Length:		4.087 Course:	S 52° 25' 44.3646" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	276+88.869	23317.016	734180.209
SPI:		23308.874	734169.625
SC:	277+08.869	23305.734	734163.724

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641
Chord:		19.975 Course:	S 55° 36' 40.8240" W

Curve Point Data

Description	Station	Northing	Easting
SC:	277+08.869	23305.734	734163.724
RP:		23358.7	734135.536
CS:	277+26.575	23299.825	734147.102

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	16° 54' 27.2430"	Type:	RIGHT
Radius:		60	
Length:		17.706 Tangent:	8.918
Mid-Ord:		0.652 External:	0.659
Chord:		17.641 Course:	S 70° 25' 55.4538" W

Spiral Point Data

Description	Station	Northing	Easting
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CS:	277+26.575	23299.825	734147.102
SPI:		23298.537	734140.543
ST:	277+46.575	23298.172	734127.195

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.353
Radius:		60 S Tan:	6.684
Theta:	09° 32' 57.4677"	P:	0.278
X:		19.945 K:	9.991
Y:		1.109 A:	34.641
Chord:		19.975 Course:	S 85° 15' 10.0836" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	277+46.575	23298.172	734127.195
End:	277+48.268	23298.126	734125.503

Tangent Data

Parameter	Value	Parameter	Value
Length:		1.693 Course:	S 88° 26' 06.5430" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	277+48.268	23298.126	734125.503
SPI:		23297.756	734111.98
SS:	277+68.268	23300.995	734105.952

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.527
Radius:		19.22 S Tan:	6.843
Theta:	29° 48' 39.0477"	P:	0.859
X:		19.465 K:	9.91
Y:		3.402 A:	19.606
Chord:		19.76 Course:	N 81° 39' 02.9641" W

Spiral Point Data

Description	Station	Northing	Easting
SS:	277+68.268	23300.995	734105.952
SPI:		23304.234	734099.923
ST:	277+88.268	23315.713	734092.766

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.527
Radius:		19.22 S Tan:	6.843
Theta:	29° 48' 39.0477"	P:	0.859
X:		19.465 K:	9.91
Y:		3.402 A:	19.606
Chord:		19.76 Course:	N 41° 51' 25.8545" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	277+88.268	23315.713	734092.766

End: 277+95.439 23321.798 734088.972

Tangent Data

Parameter	Value	Parameter	Value
Length:	7.171	Course:	N 31° 56' 35.3616" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	277+95.439	23321.798	734088.972
SPI:		23333.398	734081.74
SS:	278+15.439	23335.688	734075.153

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:	20	L Tan:	13.67
Radius:	14.735	S Tan:	6.974
Theta:	38° 53' 00.3446"	P:	1.113
X:	19.099	K:	9.848
Y:	4.378	A:	17.167
Chord:	19.594	Course:	N 44° 51' 11.5010" W

Spiral Point Data

Description	Station	Northing	Easting
SS:	278+15.439	23335.688	734075.153
SPI:		23337.979	734068.566
ST:	278+35.439	23333.368	734055.697

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:	20	L Tan:	13.67
Radius:	14.735	S Tan:	6.974
Theta:	38° 53' 00.3446"	P:	1.113
X:	19.099	K:	9.848
Y:	4.378	A:	17.167
Chord:	19.594	Course:	S 83° 12' 00.0887" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	278+35.439	23333.368	734055.697
End:	279+20.452	23304.697	733975.665

Tangent Data

Parameter	Value	Parameter	Value
Length:	85.013	Course:	S 70° 17' 23.9493" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	279+20.452	23304.697	733975.665
SPI:		23300.174	733963.039
SC:	279+40.452	23295.951	733957.788

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:	20	L Tan:	13.412
Radius:	30	S Tan:	6.738
Theta:	19° 05' 54.9354"	P:	0.553

X: 19.779 K: 9.963  
 Y: 2.205 A: 24.495  
 Chord: 19.901 Course: S 63° 55' 47.2532" W

Curve Point Data

Description	Station	Northing	Easting
SC:	279+40.452	23295.951	733957.788
RP:		23272.573	733976.59
CS:	279+49.759	23289.094	733951.549

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	17° 46' 35.9239"	Type:	LEFT
Radius:			30
Length:		9.308 Tangent:	4.692
Mid-Ord:		0.36 External:	0.365
Chord:		9.271 Course:	S 42° 18' 11.0519" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	279+49.759	23289.094	733951.549
SPI:		23283.47	733947.838
ST:	279+69.759	23270.475	733944.522

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.412
Radius:		30 S Tan:	6.738
Theta:	19° 05' 54.9354"	P:	0.553
X:		19.779 K:	9.963
Y:		2.205 A:	24.495
Chord:		19.901 Course:	S 20° 40' 34.8507" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	279+69.759	23270.475	733944.522
End:	279+72.513	23267.806	733943.841

Tangent Data

Parameter	Value	Parameter	Value
Length:		2.754 Course:	S 14° 18' 58.1546" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	279+72.513	23267.806	733943.841
SPI:		23254.86	733940.537
SC:	279+92.513	23248.833	733937.627

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.361
Radius:		50 S Tan:	6.692
Theta:	11° 27' 32.9612"	P:	0.333
X:		19.92 K:	9.987
Y:		1.33 A:	31.623

Chord:

19.964 Course: S 18° 08' 04.4807" W

Curve Point Data

Description	Station	Northing	Easting
SC:	279+92.513	23248.833	733937.627
RP:		23270.576	733892.602
CS:	280+06.291	23237.403	733930.013

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	15° 47' 16.5760"	Type:	RIGHT
Radius:			50
Length:		13.778 Tangent:	6.933
Mid-Ord:		0.474 External:	0.478
Chord:		13.734 Course:	S 33° 40' 09.4039" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	280+06.291	23237.403	733930.013
SPI:		23232.396	733925.573
ST:	280+26.291	23224.359	733914.899

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.361
Radius:		50 S Tan:	6.692
Theta:	11° 27' 32.9612"	P:	0.333
X:		19.92 K:	9.987
Y:		1.33 A:	31.623
Chord:		19.964 Course:	S 49° 12' 14.3270" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	280+26.291	23224.359	733914.899
End:	280+73.057	23196.23	733877.539

Tangent Data

Parameter	Value	Parameter	Value
Length:		46.766 Course:	S 53° 01' 20.6531" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	280+73.057	23196.23	733877.539
SPI:		23188.183	733866.852
SC:	280+93.057	23185.6	733860.663

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	S 57° 47' 40.2786" W

Curve Point Data

Description	Station	Northing	Easting
SC:	280+93.057	23185.6	733860.663
RP:		23222.514	733845.257
CS:	281+12.920	23182.719	733841.215

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	28° 27' 09.6893"	Type:	RIGHT
Radius:			40
Length:		19.864 Tangent:	10.141
Mid-Ord:		1.227 External:	1.266
Chord:		19.66 Course:	S 81° 34' 21.6993" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	281+12.920	23182.719	733841.215
SPI:		23183.396	733834.543
ST:	281+32.920	23187.999	733821.982

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.377
Radius:		40 S Tan:	6.707
Theta:	14° 19' 26.2016"	P:	0.416
X:		19.875 K:	9.979
Y:		1.659 A:	28.284
Chord:		19.944 Course:	N 74° 38' 56.8799" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	281+32.920	23187.999	733821.982
End:	281+67.242	23199.806	733789.756

Tangent Data

Parameter	Value	Parameter	Value
Length:		34.322 Course:	N 69° 52' 37.2545" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	281+67.242	23199.806	733789.756
SPI:		23204.394	733777.235
SC:	281+87.242	23206.373	733770.867

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.335
Radius:		200 S Tan:	6.668
Theta:	02° 51' 53.2403"	P:	0.083
X:		19.995 K:	9.999
Y:		0.333 A:	63.246
Chord:		19.998 Course:	N 70° 49' 54.9285" W

Curve Point Data

Description	Station	Northing	Easting
SC:	281+87.242	23206.373	733770.867
RP:		23015.377	733711.531
CS:	282+04.725	23210.824	733753.965

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	05° 00' 30.9047"	Type:	LEFT
Radius:		200	
Length:		17.483 Tangent:	8.747
Mid-Ord:		0.191 External:	0.191
Chord:		17.478 Course:	N 75° 14' 45.9471" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	282+04.725	23210.824	733753.965
SPI:		23212.238	733747.449
ST:	282+24.725	23214.413	733734.292

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.335
Radius:		200 S Tan:	6.668
Theta:	02° 51' 53.2403"	P:	0.083
X:		19.995 K:	9.999
Y:		0.333 A:	63.246
Chord:		19.998 Course:	N 79° 39' 36.9658" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	282+24.725	23214.413	733734.292
End:	282+30.158	23215.299	733728.933

Tangent Data

Parameter	Value	Parameter	Value
Length:		5.432 Course:	N 80° 36' 54.6398" W

Spiral Point Data

Description	Station	Northing	Easting
TS:	282+30.158	23215.299	733728.933
SPI:		23217.473	733715.776
SC:	282+50.158	23218.888	733709.26

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.335
Radius:		200 S Tan:	6.668
Theta:	02° 51' 53.2403"	P:	0.083
X:		19.995 K:	9.999
Y:		0.333 A:	63.246
Chord:		19.998 Course:	N 79° 39' 36.9658" W

Curve Point Data

Description	Station	Northing	Easting
SC:	282+50.158	23218.888	733709.26

RP:		23414.334	733751.694
CS:	282+76.510	23226.157	733683.949

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	07° 32' 57.8639"	Type:	RIGHT
Radius:			200
Length:		26.352 Tangent:	13.195
Mid-Ord:		0.434 External:	0.435
Chord:		26.333 Course:	N 73° 58' 32.4675" W

Spiral Point Data

Description	Station	Northing	Easting
CS:	282+76.510	23226.157	733683.949
SPI:		23228.416	733677.675
ST:	282+96.510	23233.554	733665.37

Spiral Curve Data: clothoid

Parameter	Value	Parameter	Value
Length:		20 L Tan:	13.335
Radius:		200 S Tan:	6.668
Theta:	02° 51' 53.2403"	P:	0.083
X:		19.995 K:	9.999
Y:		0.333 A:	63.246
Chord:		19.998 Course:	N 68° 17' 27.9692" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	282+96.510	23233.554	733665.37
End:	283+41.066	23250.723	733624.254

Tangent Data

Parameter	Value	Parameter	Value
Length:		44.556 Course:	N 67° 20' 10.2952" W