

Given the sketch as shown on page 2, and the additional information included here, please answer the questions listed below.

FOR FULL CREDIT...

You must submit a complete documentation of all calculations.

Please show... All formulae used
Any necessary algebraic rearrangement of formulae
Substitution of known values into formulae, and finally...
The ANSWERS.

GIVENS:

- CURVE #1 - RADIUS = 358.42'
- LONG CHORD = 97.02'
- CURVE #2 - DEGREE OF CURVATURE
BY THE ARC DEFINITION = 29.307° (DD°)
- CURVE #3 - TANGENT = 147.37'
- LONG CHORD = 231.92'
- CURVE #4 - DEGREE OF CURVATURE
BY THE CHORD DEFINITION = 28°51'44"
- LONG CHORD BEARING = S 22°55'46" E

FINDS:

- CURVE #1 - MIDDLE ORDINATE = 3.30'
- LONG CHORD BEARING = N31-00-19W
- PT STATION = 2+56.01
- CURVE #2 - EXTERNAL SECANT = 31.82'
- LONG CHORD BEARING = N07-27-20E
- DEGREE OF CURVATURE
BY THE CHORD DEFINITION = 29-38-11
- CURVE #3 - BEARING OF FORWARD TANGENT = S65-38-55E
- LONG CHORD BEARING = N76-14-41E
- PC STATION = 7+89.69
- CURVE #4 - MIDDLE ORDINATE = 53.23'
- LONG CHORD LENGTH = 272.22'
- END OF ROAD STATION = 16+39.75

Key

					0+00.00
			N38-47-02W		207.65' (158.69')
11	Δ	=	15-33-25		PC = 1+58.69
12	R	=	358.42'		
13	L	=	97.32'		
14	T	=	48.96'		
15	C	=	97.02'	N31-00-19W	
16	M	=	3.30'		
17	E	=	3.33'		
18	D _A	=	15-59-08		
19	D _C	=	16-02-17		PT = 2+56.01
			N23-13-37W		342.96' (178.00')
21	Δ	=	61-21-54		PC = 4+34.01
22	R	=	195.50'		
23	L	=	209.39'		
24	T	=	116.00'		
25	C	=	199.52'	N07-27-20E	
26	M	=	27.37'		
27	E	=	31.82'		
28	D _A	=	29-18-25	(29.307°)	
29	D _C	=	29-38-11		PT = 6+43.40
			N38-08-17E		409.66' (146.29')
31	Δ	=	76-12-48		PC = 7+89.69
32	R	=	187.90'		
33	L	=	249.94'		
34	T	=	147.37'		
35	C	=	231.92'	N76-14-41E	
36	M	=	40.05'		
37	E	=	50.90'		
38	D _A	=	30-29-32		
39	D _C	=	30-51-51		PT = 10+39.63
			S65-38-55E		396.66' (64.03')
41	Δ	=	85-26-18		PC = 11+03.66
42	R	=	200.63'		
43	L	=	299.17'		
44	T	=	185.26'		
45	C	=	272.22'	S22-55-46E	
46	M	=	53.23'		
47	E	=	72.45'		
48	D _A	=	28-33-29		
49	D _C	=	28-51-44		PT = 14+02.83
			S19-47-23W		422.18' (236.92')
					END = 16+39.75