Montana Department of Transportation
PO Box 201001
Helena, MT 59620-1001

Consultant Design				
Action	Info	Date 11/30/06 Routing	Attach	Info
	✓	Bureau Chief		
		Consultant plans Eng		
		Design Supervisor		
		CTEP Engineer		
	✓	ALL ENGINEERING STAFF		
	✓	ALL DESIGN CONSULTANTS		
	✓	File		

Memorandum

To: Distribution

From: Paul Ferry, P.E.
Highways Engineer

Date: November 29, 2006

Subject: Horizontal Curve Data

Due to the almost exclusive use of coordinates for construction staking, we have decided that the method for determining curve data on the plan & profile sheets should be revised. The rounding process in section 9.6.4 of the Road Design Manual should still be used with the exception of item 5. d. Instead of computing the values of T, L and E by hand using the rounded values for D and R, use the rounded values provided by Geopak.

We realize that in some situations this will result in a mathematical inconsistency in the data shown on the plan and profile sheets. However, the current method of rounding results in an inconsistency between the data on the plan and profile sheets and the values in the centerline coordinate table. The inconsistency for both the current and proposed rounding methods is typically 0.01 foot (or meter). In addition, since the construction personnel use the values in the centerline coordinate table for staking, the inconsistency will not result in errors in the construction of a project.

The use of the values provided by Geopak should also eliminate the perceived discrepancy between the curve data in the road plans and the curve data in the right-of-way plans.

The use of the Geopak values for T, L and E should be included in all projects that have not been submitted to the checker by January 1, 2007

If you have questions concerning this, please contact me at 444-6244.

Pf.

Distribution:

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Damian Krings,	Road Design Engineer
Tom Martin,	Consultant Design Engineer
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