

From: Dan Miller

Sent: Dec 31, 2003

Subject: Calculation and Portrayal of Spiral Curve Existing R/W Line Intersections

The following is the R/W Plans Section's policy concerning the calculation and portrayal of situations in which the existing right of way line is a spiral curve, and where they intersect sectional lines and parcel lines.

Historically, some of the acquisitions of new right of way were described or implied in the vesting document as a spiral that was a parallel offset to the centerline spiral curve. Although technically impossible, a close approximation of a parallel spiral can be calculated by most COGO software, and must be done if the right of way was acquired as such.

On the Results of Survey drawings, it is part of our standard content to calculate and portray an intersection location and point number where the existing R/W line intersects surveyed/established section and mid-section lines. However, in this situation, where the existing right of way line is a spiral curve, that intersection point will not be portrayed on the Results of Survey.

What must be portrayed, though, on the Results of Survey sheets is the point numbers for the beginning and ending of the existing right of way line spiral curve (TS and SC), as well as the point of intersection of the spiral tangents (SPI). These three points must also be listed in their proper order in the existing R/W line table and in the calculated points table.

For R/W plan sheet purposes, ownership record sheet area purposes, and calculation sheet purposes, the calculation of the intersection of the spiralled existing right of way line and a sectional line or parcel line needs to be performed as well (or as best as possible - it may depend on the capabilities of your COGO software)

Attached is a pdf exhibit that portrays an example situation on R/W plans.

[Attachment](#)